D H E C

PROMOTE PROTECT PROSPER

C. Earl Hunter, Commissioner

Promoting and protecting the health of the public and the environment.

JUN 27 2007

JOE GHIOLD
CONSULTECH ENVIRONMENTAL LLC
PO BOX 5306
CARY NC 27512-5306

Re: Tier II Assessments
Contract IFB-30950-11/7/06-EMW, Purchase Order # 663641
Notice to Proceed

Dear Mr. Ghiold:

In accordance with the referenced contract, the Underground Storage Tank (UST) Program of the South Carolina Department of Health and Environmental Control requests a Tier II Assessment Plan as well as an associated Cost Agreement for the following three facilities:

Site name	ID #	County	Priority	Project Manager
Warren Green	04887	Jasper	2B	Minda Johnson
Village Hardware	14367	Horry	3B	Cathleen Ridgley
Santee Cooper Grainger Station	15023	Horry	3B	Cathleen Ridgley

As outlined in the referenced contract, please submit the Tier II Assessment Plan and Assessment Component Cost Agreement as necessary to my attention within thirty (30) days from the date of this correspondence. Plan implementation shall not commence prior to receipt of written technical and financial approval from the Department. The reports must be submitted to my attention within 90 days subsequent to the date of the approval letter. The Department does not request alternative on site screening for these three facilities.

Tier II Assessment Plan, Implementation and Report submittal shall be performed in accordance with the referenced contract. Per Section 13, Special Conditions, a late fee of $100.00/day may be levied for each report submitted after the deadline established in the Notice to Proceed. On all correspondence, please reference the pertinent UST Permit number.

Sincerely,

Arthur Shrader, Hydrogeologist
Assessment Section
Assessment and Corrective Action Division
Underground Storage Tank Program
Bureau of Land and Waste Management

enc: Three Notice to Proceed Packages (UST Permits 04877, 14367, and 15023)

cc: Minda Johnson (without enc.)
Cathleen Ridgley (without enc.)
Technical Files (04877, 14367, and 15023) (without enc.)

UST PROGRAM
DOCKETING
JUN 27 2007

RECEIVED
JAN 08 2009
Minda
UNDERGROUND STORAGE TANK PROGRAM

PERMISSION FORM

UNDERGROUND STORAGE TANK AND PROPERTY OWNER

UST Permit # 04887, Warren Green Grocery, Point South, South Carolina, Jasper County

If you are the owner of the former underground storage tanks and the property owner, please complete this form.

I, Helen Smith, certify that I am the legal owner of the underground storage tanks and property located at the facility identified below or serve as the authorized representative for the owner. I grant permission to the South Carolina Department of Health and Environmental Control (SCDHEC) to secure on my behalf contractor services to conduct abatement and/or assessment activities, and authorize SCDHEC, or a contractor selected by SCDHEC, to enter this property at reasonable times only to conduct abatement and/or assessment activities, as required. I understand that SCDHEC will be responsible for notifying me of all activities that are necessary prior to their initiation, and will provide to me a copy of the assessment report.

Name of Facility Warren Green Grocery Phone # none

Street Address of Facility I-95 & US 17

Town, City, District, Suburb Point South, SC, Jasper County

Name of nearest intersecting street, road, highway, alley ______

Is this facility within the city limits? (yes or no) no

Does a public water or sewer utility service this facility? (yes or no) yes, if no, please provide the name and phone number of a person that we can contact that can assist in the location of private water and septic tank lines ______,
phone number ______

Were underground storage tanks previously removed from the ground at this facility? (yes or no) no.
If yes, please provide the name of a person we can contact that can assist in the location of the former underground storage tank excavation ______
Phone number ______

Is the property currently leased or rented to someone? (yes or no) no. If yes, please provide their name ______ and phone number ______ and let them know about the pending assessment activities. If vehicles or other mobile structures are parked over the former or existing underground storage tanks, they should be moved before SCDHEC's contractor gets to the site.

NAME of UST/property owner (Please Print): Helen R Smith

Phone Number (home) 843-726-8267 (work) None

Signature of UST/property Owner: Helen R. Smith

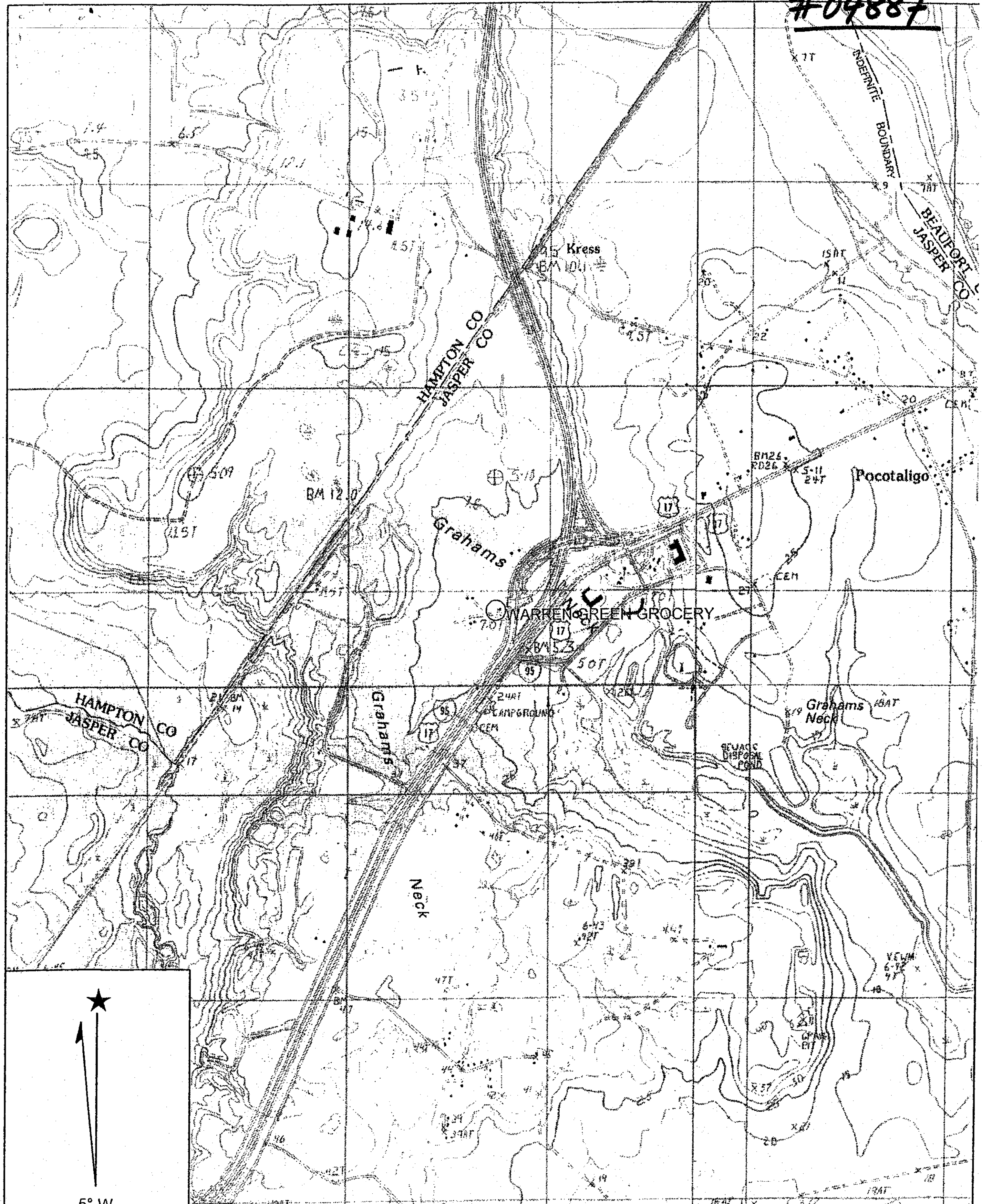
Witness: [illegible]

Date: 07 Month 06 Day 2002 Year

UST DOCKET
10 [illegible]

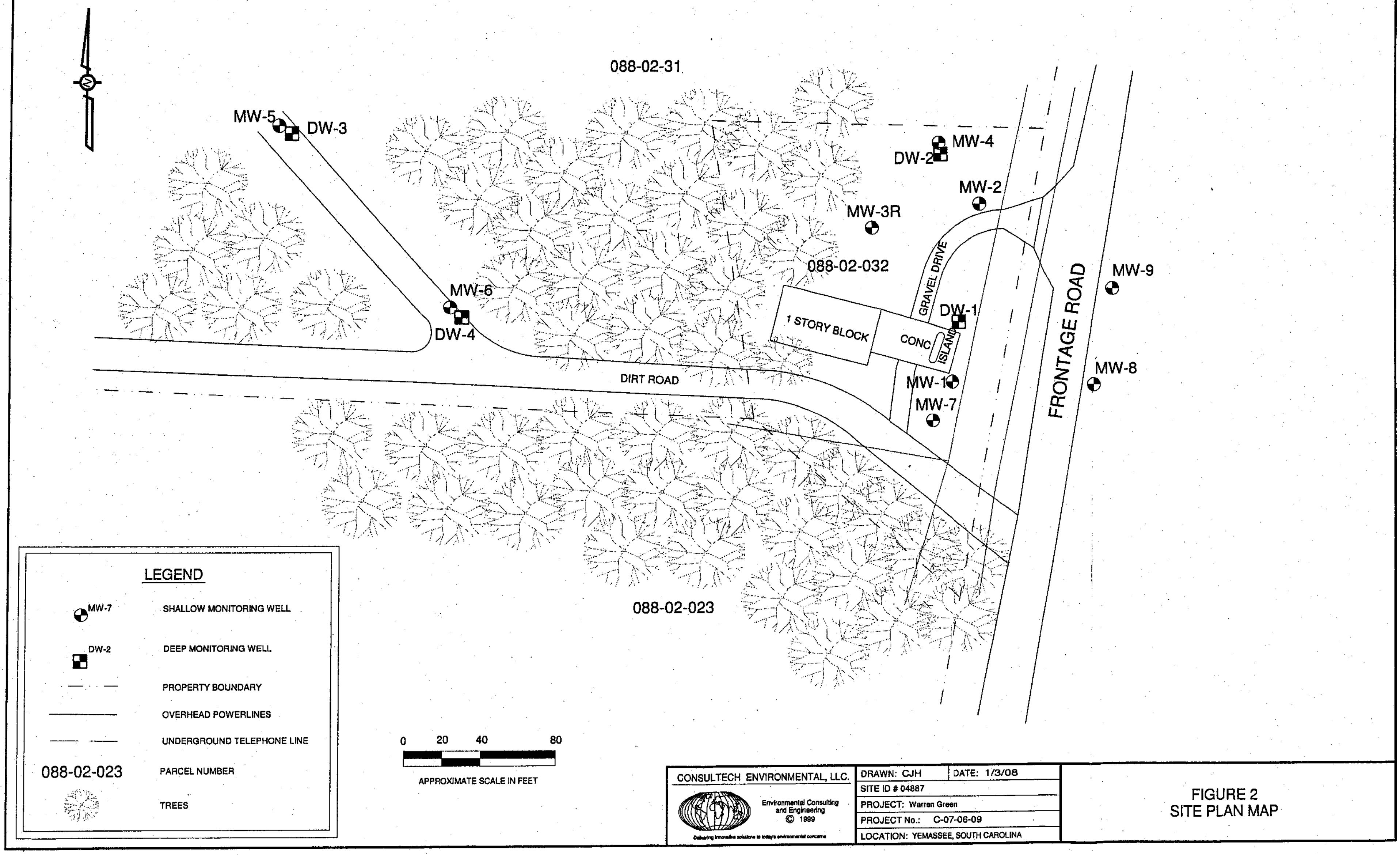
SCANNED

#04887



Name: MC PHERSONVILLE
Date: 3/17/103
Scale: 1 inch equals 2000 feet

Location: 032° 37' 42.2" N 080° 53' 08.5" W
Caption: SITE LOCATION MAP
Warren Green Grocery
Figure 1 UST Permit #04887



CONSULTECH ENVIRONMENTAL, LLC. Environmental Consulting and Engineering © 1999	DRAWN: CJH	DATE: 1/3/08
	SITE ID # 04887	
	PROJECT: Warren Green	
	PROJECT No.: C-07-06-09	
	LOCATION: YEMASSEE, SOUTH CAROLINA	

FIGURE 2
SITE PLAN MAP

F. Chemicals of Concern - Ground Water

Well Installation Information

Well No.	Installation Date	Development Date	Sampling Date
MW-1	02/25/03	02/25/03	02/25/03
MW-2	02/25/03	02/25/03	02/25/03
MW-3	02/25/03	02/25/03	02/25/03

Soil Analytical Data - Monitoring Wells

Soil samples were collected from SB-5 and SB-8 during the installation of MW-1 and MW-3, respectively. Please refer to the table containing soil analytical data for the results of analyses.

Summary of Monitoring Well and Ground Water Data (feet)

Well No.	TOC Elevation	Depth to Water	Water Table Elevation	Screened Interval
MW-1	100.00	6.71	93.29	3-13'
MW-2	100.94	8.06	92.88	4-14'
MW-3	100.97	8.20	92.77	3-13'

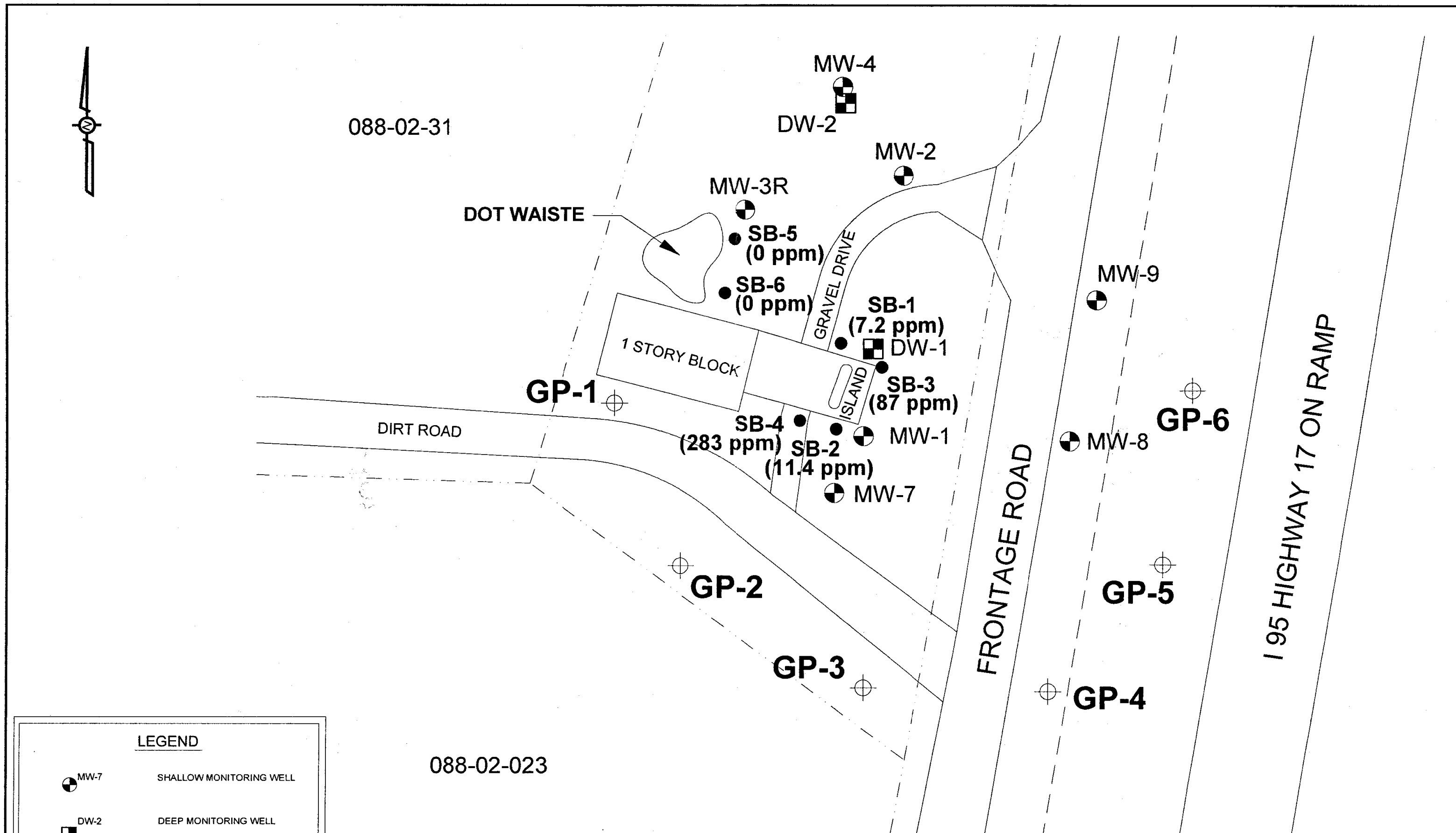
Dissolved Oxygen Measurements (mg/L)

	MW-1	MW-2	MW-3
Dissolved Oxygen	1.9	4.2	4.6

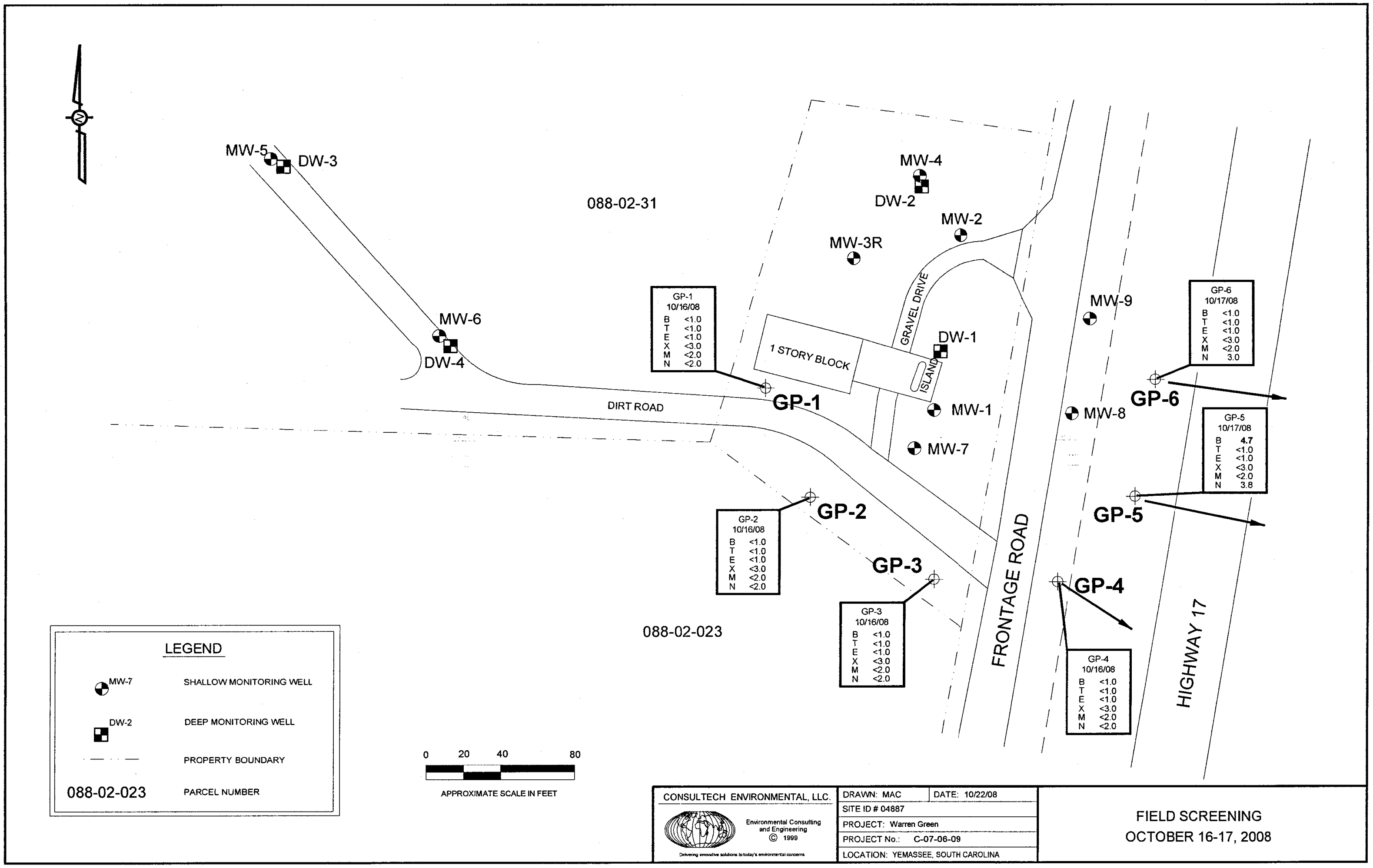
Ground Water Analytical Data[1]

COC	RBSL	MW-1	MW-2	MW-3	WSW-1	WSW-2
Free Product Thickness	---	---	---	---	---	---
Benzene	5	**178**[2]	<1.0[3]	<1.0	NS[4]	<1.0
Toluene	1,000	240	<1.0	1.6	NS	<1.0
Ethylbenzene	700	58.6	<1.0	<1.0	NS	<1.0
Xylenes	10,000	253	<1.0	1.7	NS	<1.0
Total BTEX	---	729.6	<4.0	3.3	NS	<4.0
MTBE	40	**71.0**	2.6	1.5	NS	<1.0
Naphthalene	25	<5.00	<5.00	<5.00	NS	<5.00
EDB	0.05	<0.02	<0.02	<0.02	NS	<0.02
Benzo(a)anthracene	10	<2.3	<2.2	<2.0	NS	NR[5]
Benzo(b)fluoranthene	10	<2.3	<2.2	<2.0	NS	NR
Benzo(k)fluoranthene	10	<2.3	<2.2	<2.0	NS	NR
Chrysene	10	<2.3	<2.2	<2.0	NS	NR
Dibenzo(a,h)anthrace	10	<2.3	<2.2	<2.0	NS	NR
Total Lead	15	**124**	**57.0**	**86.0**	NS	<3.0
Methane	---	<26	<26	<26	NS	NR
Nitrate	---	<0.100	0.150	<0.100	NS	NR
Sulfate	---	1.51	6.57	7.37	NS	NR
Ferrous Iron	---	9.700	4.410	6.750	NS	NR

Notes:
1. COC concentrations reported in μg/l; natural attenuation parameter concentrations reported in mg/l.
2. Concentrations in bold face type exceeded the RBSLs.
3. Less than the report limit specified in the analytical report.
4. Not sampled; well was not operating.
5. Analysis not requested.



CONSULTECH ENVIRONMENTAL, LLC. Environmental Consulting and Engineering © 1999	DRAWN: MAC	DATE: 10/22/08	FIELD SCREENING OCTOBER 16-17, 2008
	SITE ID # 04887		
	PROJECT: Warren Green		
	PROJECT No.: C-07-06-09		
	LOCATION: YEMASSEE, SOUTH CAROLINA		



MW-5
DW-3
088-02-31
MW-6
DW-4
DIRT ROAD
GP-1
10/16/08
B <1.0
T <1.0
E <1.0
X <3.0
M <2.0
N <2.0
GP-1
1 STORY BLOCK
ISLAND
GRAVEL DRIVE
MW-4
DW-2
MW-2
MW-3R
DW-1
MW-1
MW-7
GP-2
10/16/08
B <1.0
T <1.0
E <1.0
X <3.0
M <2.0
N <2.0
GP-2
GP-3
GP-3
10/16/08
B <1.0
T <1.0
E <1.0
X <3.0
M <2.0
N <2.0
088-02-023
FRONTAGE ROAD
MW-9
MW-8
GP-6
10/17/08
B <1.0
T <1.0
E <1.0
X <3.0
M <2.0
N 3.0
GP-6
GP-5
10/17/08
B 4.7
T <1.0
E <1.0
X <3.0
M <2.0
N 3.8
GP-5
GP-4
GP-4
10/16/08
B <1.0
T <1.0
E <1.0
X <3.0
M <2.0
N <2.0
HIGHWAY 17
LEGEND
MW-7 SHALLOW MONITORING WELL
DW-2 DEEP MONITORING WELL
PROPERTY BOUNDARY
088-02-023 PARCEL NUMBER
0 20 40 80
APPROXIMATE SCALE IN FEET
CONSULTECH ENVIRONMENTAL, LLC.
Environmental Consulting and Engineering © 1999
DRAWN: MAC
DATE: 10/22/08
SITE ID # 04887
PROJECT: Warren Green
PROJECT No.: C-07-06-09
LOCATION: YEMASSEE, SOUTH CAROLINA
FIELD SCREENING
OCTOBER 16-17, 2008

SUPERB RECOVERABLE COST AGREEMENT CHECKLIST

!!! Update payment code, task screen, punch list, status, etc. in tracking system !!!

UST Permit Name:	WARREN GREEN	ID#	04887
Date Release Reported	2002-05-16	Release # 1	Project Manager: Kathryn H. Butler
Priority Class (Circle)	Emergency / 1 2A 2B 3A 3B 4A 4B 5		
Category	Assessment ☐	ACA ☐	MNA (901) ■
Description of Work	GWS		
Cost Agreement#	57680	Amount Approved:	$958.50

Cost Proposal Type

Recoverable by SUPERB (RS) ■

SUPERB Paid to Date $ 58,703.94

SUPERB Paying Deductible (R25) ☐

Prior toward $25K:

To complete $25K: $25,000.00

Over $25K:

Payment above $25K: RS DS WS

(circle one)

Cost Proposal Duration

■ 4 Months (120 Days) ☐ 2 Months (60 Days)

☐ Other

Payee & Address:

Midlands Environmental Consultants, Inc
PO Box 854
Lexington, SC 29071

UST SUPERB DOCKETING

Contractor Certification #: UCC-0009

Rate Schedule:

State Lead

☐ IGWA
☐ Tier I
☐ Tier II
☐ Analytical
■ Sampling PO #~~4600040404~~ 4600406022-7
☐ GAC
☐ Other

Project Manager:	Kathryn H Butler	Date	9/17/18
Accountant:	M. Dennison	Date:	9-19-18
Financial Supervisor:	BD	Date:	9-19-18
Technical Supervisor:	Stephanie Burney	Date:	9/19/18

S.C. Department of Health and Environmental Control

ASSESSMENT COMPONENT COST AGREEMENT
SOUTH CAROLINA

Department of Health and Environmental Control
Underground Storage Tank Management Division
State Underground Petroleum Environmental Response Bank Account
CONTRACT PO #~~4600040194~~/ 4600660752

Facility Name: WARREN GREEN

UST Permit #: 04887 **Cost Agreement #:** 57680

ITEM	QUANTITY	UNIT	UNIT PRICE	TOTAL
1. Plan*				
A1. Site Specific Work Plan	1	each	$1.00	$1.00
B1. Tax Map		each	$1.00	$0.00
C1. QAPP Appendix B		each	$1.00	$0.00
2. A1. Receptor Survey		each	$1.00	$0.00
4. Mob/Demob				
B1. Personnel	2	each	$1.00	$2.00
10. Groundwater Sample Collection / Gauge Depth to Water or Product (Each)				
A1. Groundwater Purge	6	per well	$36.50	$219.00
B1. Air or Vapors		samples	$1.00	$0.00
C1. Water Supply	4	samples	$18.00	$72.00
D1. Groundwater No Purge	15	per well	$27.50	$412.50
E1. Gauge Well only		per well	$1.00	$0.00
F1. Sample Below Product		per well	$1.00	$0.00
G1. Pasive Diffusion Bag		each	$20.00	$0.00
H1. Field Blank	1	each	$1.00	$1.00
17. Disposal* (gallons or tons)				
AA. Disposal/Water	200	gallons	$1.00	$200.00
BB. Free Product		gallons	$0.05	$0.00
Note: Rate includes costs or rental of suitable container(s)				
23. D. Site Reconnaissance	1	each	$1.00	$1.00
18. Miscellaneous (attach receipts)				
GW Contour Map		each	$25.00	$0.00
Isopleth Map		each	$25.00	$0.00
High-Strength Well Pad Replacement		each	$75.00	$0.00
Data Table		each	$50.00	$0.00
Low Flow Sampling		per well	$55.00	$0.00
25. Well Repair				
B1. Repair 2x2 MW Pad	1	each	$50.00	$50.00
C1. Repair 4x4 MW Pad		each	$50.00	$0.00
D1. Replace Well Vault		each	$50.00	$0.00
E. Replace well cover		each	$25.00	$0.00
F1. Replace well cover bolts		each	$2.60	$0.00
G. Replace locking well cap & lock		each	$15.00	$0.00
K1. Replace Missing Well ID Plate		each	$10.00	$0.00
TOTAL				$958.50

SUPERB RECOVERABLE COST AGREEMENT CHECKLIST

!!! Update payment code, task screen, punch list, status, etc. in tracking system !!!

UST Permit Name: WARREN GREEN ID# 04887

Date Release Reported: 2002-05-16 Release # 1 Project Manager: Kathryn H. Butler

Priority Class (Circle): Emergency / 1 2A 2B 3A 3B 4A 4B 5

Category: Assessment ☐ ACA ☐ MNA (901) ■

Description of Work: GWS Analysis

Cost Proposal #: 57679 Amount Approved: $1,408.00

Cost Proposal Type

Recoverable by SUPERB (RS) ☐

SUPERB Paid to Date $ 58,703.94

SUPERB Paying Deductible (R25) ■

Prior toward $25K:

To complete $25K: $25,000.00

Over $25K:

Payment above $25K: RS DS WS

(circle one)

Cost Proposal Duration

■ 4 Months (120 Days) ☐ 2 Months (60 Days)

☐ Other

Payee & Address:

PACE Analytical Services
9800 Kincey Ave Ste 100
Huntersville NC 28078

UST 12F DOCKETING

Contractor Certification #:

Rate Schedule:

State Lead

☐ IGWA

☐ Tier I

☐ Tier II

■ Analytical PO #4600656212 -24

☐ Sampling

☐ GAC

☐ Other

Project Manager: Kathryn H Butler Date 9/17/18

Accountant: M. Dinnion Date: 9-19-18

Financial Supervisor: RD Date: 9-19-18

Technical Supervisor: Stephanie Burney Date: 9/19/18

dhec
S.C. Department of Health and Environmental Control

ASSESSMENT COMPONENT COST AGREEMENT
SOUTH CAROLINA
Department of Health and Environmental Control
Underground Storage Tank Management Division
State Underground Petroleum Environmental Response Bank Account

PO #4600656212

Facility Name: WARREN GREEN

UST Permit #: 4887 **Cost Agreement #:** 57679

ITEM	QUANTITY	UNIT	UNIT PRICE	TOTAL
11. Laboratory Analyses-Groundwater				
A. BTEX+NAPTH+MTBE		each	$14.00	$0.00
A2. BTEXNM+Oxyg's+1,2 DCA+Eth(8260B)	25	each	$21.00	$525.00
C2. Trimethal, Butyl, and Isopropyl Benzenes		each	$11.00	$0.00
D1. PAH's		each	$34.00	$0.00
E1. Lead		each	$11.00	$0.00
F1. EDB by EPA 8011	24	each	$18.00	$432.00
G1. 8 RCRA Metals		each	$35.00	$0.00
H1. TPH (9070A)		each	$20.00	$0.00
II. pH		each	$5.00	$0.00
K. Nitrate		each	$5.00	$0.00
L1. Sulfate		each	$5.00	$0.00
M1. Ferrous Iron		each	$4.00	$0.00
N1. Methane		each	$18.00	$0.00
P. Oxygenates		each	$13.00	$0.00
18. BTEX+NAPTH+MTBE+1,2 DCA		each	$14.00	$0.00
18. Full List 8260		each	$35.00	$0.00
18. Full List 8270		each	$80.00	$0.00
18. Total Organic Carbon		each	$15.00	$0.00
18. Hydrocarbon Fuel Identification		each	$250.00	$0.00
11. Analyses-Drinking Water				
L. BTEXNM+1,2 DCA (524.2)	7	per sample	$36.00	$252.00
M. 7-OXYGENATES & ETHANOL (8260B)	7	per sample	$13.00	$91.00
N. EDB (504.1)	6	per sample	$18.00	$108.00
O. RCRA METALS (200.8)		per sample	$38.00	$0.00
11. **Analyses-Soil**				
Q1. BTEX + Naphth.		each	$16.00	$0.00
R1. PAH's		each	$35.00	$0.00
S1. 8 RCRA Metals		each	$35.00	$0.00
T. TPH (9071B)		each	$20.00	$0.00
U1. TPH-DRO (3550C/8015C)		each	$20.00	$0.00
V1. TPH- GRO (5035B/8015C)		each	$20.00	$0.00
X1. Total Organic Carbon		each	$17.00	$0.00
18. Lead Soil		each	$10.00	$0.00
18. TCLP Soil		each	$20.00	$0.00
11. **Analyses-Air**				
18. BTEX+EDB+1,2-DCA		each	$60.00	$0.00
18. PAH's Air		each	$75.00	$0.00
18. **Miscellaneous (attach receipts)**				
Multiplier for 24-Hour Turnaround		3 x total	$0.00	$0.00
		each	$0.00	$0.00
		each	$0.00	$0.00
		each	$0.00	$0.00
		each	$0.00	$0.00
TOTAL				$1,408.00

*The appropriate mobilization cost can be added to complete these tasks, as necessary

Midlands Environmental Consultants, Inc.

January 12, 2010

UST
JAN 1 3 2010
PROGRAM

Ms. Debra Thoma, Hydrogeologist
Northeastern SC Corrective Action Section
Assessment and Corrective Action Division
Underground Storage Tank Program
Bureau of Land and Waste Management
South Carolina Department of Health and Environmental Control
2600 Bull Street
Columbia, South Carolina 29201

Subject: Report of Groundwater Sampling
Warren Green
Jasper, South Carolina
SCDHEC Site ID Number 04887, CA # 37307
MECI Project Number 09-2506
Certified Site Rehabilitation Contractor UCC-0009

Dear Ms. Thoma,

Midlands Environmental Consultants Inc. (MECI) is pleased to submit the attached Report of Sampling for the referenced site.

On January 6, 2010 eighteen monitoring wells MW-2, MW-4 through MW-11, MW-13 through MW-15, and DW-1 through DW-6) were sampled. Six monitoring wells (DW-1 through DW-6) were purged prior to sampling. Three monitoring wells (MW-1, MW-3R and MW-12 were not located at the time of sampling. Groundwater samples obtained were transported to Pace Analytical Services, Inc. of Huntersville, NC for analysis. Please note, samples from DW-5 and DW-6 were taken, but not able to be analyzed by the lab due to excessive silt in the sample vials.

Purge water produced by the purging process was treated on-site utilizing a granular activated carbon unit. A total of 46.0 gallons of purge water was disposed of in this manner. A disposal manifest for the referenced purge water is attached at the end of this report.

If you have any question or comments please feel free to contact us at 803-808-2043.

Sincerely,
Midlands Environmental Consultants, Inc.

Kyle Pudney
Staff Geologist

Brendon P. Kelly
Project Scientist

UST DOCKET #13

Post Office Box 854, Lexington SC 29071 • 235-B Dooley Road, Lexington, SC 29073
Telephone: (803) 808-2043 • fax: (803) 808-2048

Site Activity Summary

UST Permit #: 04887
Facility Name: Warren Green
County: Jasper
Field Personnel: Courtney Sanders, Kyle Pudney

Midlands Environmental Consultants, Inc.
235-B Dooley Road, Lexington, SC 29073
(803) 808-2043 fax: 808-2048

Sample ID	Sampled?	Date	Time	Screened Interval	Depth to Product (ft)	Depth to Water (ft)	Product Thickness (ft)	# Gals. Purged	Comments
MW-1	N	***	***	2-12	***	***	***	***	Not Located; With Help from Owner
MW-2	Y	1/6/10	13:10	5-15	***	8.75	***	***	No Odor
MW-3R	N	***	***	5-20	***	***	***	***	Not Located; Possibly destroyed due to concrete dumping
MW-4	Y	1/6/10	14:43	5-20	***	6.55	***	***	Slight Odor; Mislabeled on the map
MW-5	Y	1/6/10	12:51	5-20	***	5.11	***	***	No Odor
MW-6	Y	1/6/10	13:05	5-20	***	5.14	***	***	No Odor
MW-7	Y	1/6/10	11:30	5-20	***	5.81	***	***	Odor
MW-8	Y	1/6/10	10:45	5-20	***	7.64	***	***	Odor
MW-9	Y	1/6/10	10:30	5-20	***	7.54	***	***	No Odor
MW-10	Y	1/6/10	10:15	5-20	***	9.45	***	***	No Odor
MW-11	Y	1/6/10	10:00	5-20	***	9.09	***	***	No Odor
MW-12	N	***	***	5-20	***	***	***	***	Not Located: Possibly destroyed due to road expansion
MW-13	Y	1/6/10	13:48	5-20	***	5.56	***	***	No Odor
MW-14	Y	1/6/10	13:40	5-20	***	5.62	***	***	No Odor
MW-15	Y	1/6/10	13:32	5-20	***	5.47	***	***	No Odor
								0.0	**TOTAL GALLONS PURGED**

Site Activity Summary

UST Permit #: 04887
Facility Name: Warren Green
County: Jasper
Field Personnel: Courtney Sanders, Kyle Pudney

Midlands Environmental Consultants, Inc.
235-B Dooley Road, Lexington, SC 29073
(803) 808-2043 fax: 808-2048

Sample ID	Sampled?	Date	Time	Screened Interval	Depth to Product (ft)	Depth to Water (ft)	Product Thickness (ft)	# Gals. Purged	Comments
DW-1	Y	1/6/10	14:01	45-50	***	10.15	***	5.0	Slight Odor
DW-2	Y	1/6/10	15:10	45-50	***	7.62	***	7.0	Slight Odor; Sheen after purging; Mislabeled on Map
DW-3	Y	1/6/10	12:54	45-50	***	10.99	***	8.0	No Odor; Sediment Present
DW-4	Y	1/6/10	13:05	45-50	***	8.75	***	6.0	No Odor
DW-5	Y	1/6/10	14:48	80-85	***	22.10	***	10.0	Slight Odor; Wells not functioning property. One well volume purged, but additional purging was obstructed by excessive silt in the well. The well was allowed to sit in an attempt to let the silt settle, but this never occurred. Samples were taken, but could not be analyzed by the lab due to excessive silt.
DW-6	Y	1/6/10	11:15	80-85	***	20.65	***	10.0	
								46.0	**TOTAL GALLONS PURGED**

South Carolina Department of Health and Environmental Control
Bureau of Land and Waste Management Underground Storage Tank Program

Field Data Information Sheet for Groundwater Sampling

Date (mm/dd/yy): 1/6/2010
Field Personnel: Courtney Sanders, Kyle Pudney
General Weather Conditions: Sunny

Ambient Air Temperature: 28.0 °C

Quality Assurance

pH Meter YSI Model 550A
serial no. 02A0831
pH=4.0
pH=7.0 X
pH=10.0

Conductivity Meter
serial no. 02A0831
standard X
standard
standard

Chain of Custody

Relinquished by Date/Time Received by Date/Time

Facility Name: Warren Green
Site ID#: 04887 **Monitoring Well #** DW-1
Water Supply Well **Public** ____ **Private** ____

Monitoring Well Diameter (D): 2 inches

Conversion Factor (C): $3.14 \times (D/2)^2$ for a 2 inch well C=0.163
for a 4 inch well C=0.652

* Free Product Thickness: ____ feet
Depth to Free Product (DFP) ____ feet
Depth to Ground Water (DGW) 10.15 feet
Total Well Depth (TWD) 50 feet
Length of the water column (LWC=TWD-DGW) 39.85 feet
1 casing volume (CV=LWC X C)= 0.163 6.50 gallons
3 casing volume (3 X CV)= 3 19.49 gallons

Total Volume of Water Purged Before Sampling 5 gals.
*If free product is present over 1/8 inch, sampling will not be required.

Cumulative Volume Purged (gallons)	Inital	1st Vol	2nd Vol	3rd Vol	4th Vol	5th Vol	Post Sampling	
Time (military)	14:02	14:06						
pH (s.u.)	7.69	7.43						
Specific Conductivity (μmhos/cm)	166.9	134.7						
Water Temperature (°C)	15.7	16.1						
Dissolved Oxygen	4.23	4.02						
PID readings, if required								

Remarks: Sample Time: 14:01 Dry @ 5.0 gallons

South Carolina Department of Health and Environmental Control
Bureau of Land and Waste Management Underground Storage Tank Program

Field Data Information Sheet for Groundwater Sampling

Date (mm/dd/yy): 1/6/2010
Field Personnel: Courtney Sanders, Kyle Pudney
General Weather Conditions: Sunny

Ambient Air Temperature: 28.0 °C

<u>Quality Assurance</u>

pH Meter YSI Model 550A
serial no. 02A0831
pH=4.0
pH=7.0 X
pH=10.0

Conductivity Meter
serial no. 02A0831
standard X
standard
standard

<u>Chain of Custody</u>

Relinquished by Date/Time Received by Date/Time

Facility Name: Warren Green
Site ID#: 04887 **Monitoring Well #** DW-2
Water Supply Well **Public** ____ **Private** ____

Monitoring Well Diameter (D): 2 inches

Conversion Factor (C): 3.14 x $(D/2)^2$ for a 2 inch well C=0.163
for a 4 inch well C=0.652

* Free Product Thickness: ____ feet
Depth to Free Product (DFP) ____ feet
Depth to Ground Water (DGW) 7.62 feet
Total Well Depth (TWD) 50 feet
Length of the water column (LWC=TWD-DGW) 42.38 feet
1 casing volume (CV=LWC X C)= 0.163 6.91 gallons
3 casing volume (3 X CV)= 3 20.72 gallons

Total Volume of Water Purged Before Sampling 7 gals.
*If free product is present over 1/8 inch, sampling will not be required.

Cumulative Volume Purged (gallons)	Inital	1st Vol	2nd Vol	3rd Vol	4th Vol	5th Vol	Post Sampling	
Time (military)	15:10	15:20						
pH (s.u.)	11.54	Sheen						
Specific Conductivity (μmhos/cm)	3119.0	Sheen						
Water Temperature (°C)	15.0	Sheen						
Dissolved Oxygen	4.97	Sheen						
PID readings, if required								

Remarks: Sample Time: 15:10 Dry @ 7.0 gallons
Field Data not taken at first well volume due to petroleum sheen on sample c

South Carolina Department of Health and Environmental Control
Bureau of Land and Waste Management Underground Storage Tank Program

Field Data Information Sheet for Groundwater Sampling

Date (mm/dd/yy): 1/6/2010
Field Personnel: Courtney Sanders, Kyle Pudney
General Weather Conditions: Sunny

Ambient Air Temperature: 28.0 °C

Quality Assurance

pH Meter	YSI Model 550A	Conductivity Meter	
serial no.	02A0831	serial no.	02A0831
pH=4.0		standard	X
pH=7.0	X	standard	
pH=10.0		standard	

Chain of Custody

Relinquished by ______ Date/Time ______ Received by ______ Date/Time ______

Facility Name: Warren Green
Site ID#: 04887 **Monitoring Well #** DW-3
Water Supply Well **Public** ______ **Private** ______

Monitoring Well Diameter (D): 2 inches

Conversion Factor (C): 3.14 x $(D/2)^2$ for a 2 inch well C=0.163
for a 4 inch well C=0.652

* Free Product Thickness: ______ feet
Depth to Free Product (DFP) ______ feet
Depth to Ground Water (DGW) 10.99 feet
Total Well Depth (TWD) 50 feet
Length of the water column (LWC=TWD-DGW) 39.01 feet
1 casing volume (CV=LWC X C)= 0.163 6.36 gallons
3 casing volume (3 X CV)= 3 19.08 gallons

Total Volume of Water Purged Before Sampling 8 gals.
*If free product is present over 1/8 inch, sampling will not be required.

Cumulative Volume Purged (gallons)	Inital	1st Vol	2nd Vol	3rd Vol	4th Vol	5th Vol	Post Sampling	
Time (military)	13:54	13:59						
pH (s.u.)	7.94	7.89						
Specific Conductivity (µmhos/cm)	205.6	243.3						
Water Temperature (°C)	16.7	17.5						
Dissolved Oxygen	3.12	1.86						
PID readings, if required								

Remarks: Sample Time: 12:54 Dry @ 8.0 gallons

South Carolina Department of Health and Environmental Control
Bureau of Land and Waste Management Underground Storage Tank Program

Field Data Information Sheet for Groundwater Sampling

Date (mm/dd/yy): 1/6/2010
Field Personnel: Courtney Sanders, Kyle Pudney
General Weather Conditions: Sunny

Ambient Air Temperature: 28.0 °C

Quality Assurance

pH Meter YSI Model 550A
serial no. 02A0831
pH=4.0
pH=7.0 X
pH=10.0

Conductivity Meter
serial no. 02A0831
standard X
standard
standard

Chain of Custody

Relinquished by   Date/Time   Received by   Date/Time

Facility Name: Warren Green
Site ID#: 04887   **Monitoring Well #** DW-4
Water Supply Well   **Public** ____   **Private** ____

Monitoring Well Diameter (D): 2 inches

Conversion Factor (C): 3.14 x (D/2)^2 for a 2 inch well C=0.163
for a 4 inch well C=0.652

* Free Product Thickness: ____ feet
Depth to Free Product (DFP) ____ feet
Depth to Ground Water (DGW) 8.75 feet
Total Well Depth (TWD) 50 feet
Length of the water column (LWC=TWD-DGW) 41.25 feet
1 casing volume (CV=LWC X C)= 0.163 | 6.72 | gallons
3 casing volume (3 X CV)= 3 | 20.17 | gallons

Total Volume of Water Purged Before Sampling 6 gals.
*If free product is present over 1/8 inch, sampling will not be required.

Cumulative Volume Purged (gallons)	Inital	1st Vol	2nd Vol	3rd Vol	4th Vol	5th Vol	Post Sampling	
Time (military)	13:14	13:19						
pH (s.u.)	7.60	7.47						
Specific Conductivity (μmhos/cm)	281.5	239.8						
Water Temperature (°C)	15.9	17.2						
Dissolved Oxygen	3.21	3.34						
PID readings, if required								

Remarks: Sample Time: 13:05   Dry @ 6.0 gallons

South Carolina Department of Health and Environmental Control
Bureau of Land and Waste Management Underground Storage Tank Program

Field Data Information Sheet for Groundwater Sampling

Date (mm/dd/yy): 1/6/2010

Field Personnel: Courtney Sanders, Kyle Pudney

General Weather Conditions: Sunny

Ambient Air Temperature: 28.0 °C

Quality Assurance

pH Meter YSI Model 550A
serial no. 02A0831
pH=4.0
pH=7.0 X
pH=10.0

Conductivity Meter
serial no. 02A0831
standard X
standard
standard

Chain of Custody

Relinquished by Date/Time Received by Date/Time

Facility Name: Warren Green

Site ID#: 04887 **Monitoring Well #** DW-5

Water Supply Well **Public** ______ **Private** ______

Monitoring Well Diameter (D): 2 inches

Conversion Factor (C): 3.14 x $(D/2)^2$ for a 2 inch well C=0.163
for a 4 inch well C=0.652

* Free Product Thickness: ______ feet
Depth to Free Product (DFP) ______ feet
Depth to Ground Water (DGW) 22.10 feet
Total Well Depth (TWD) 85 feet
Length of the water column (LWC=TWD-DGW) 62.9 feet
1 casing volume (CV=LWC X C)= 0.163 | 10.25 | gallons
3 casing volume (3 X CV)= 3 | 30.76 | gallons

Total Volume of Water Purged Before Sampling 10 gals.
*If free product is present over 1/8 inch, sampling will not be required.

Cumulative Volume Purged (gallons)	Inital	1st Vol	2nd Vol	3rd Vol	4th Vol	5th Vol	Post Sampling	
Time (military)	14:48	14:56						
pH (s.u.)	8.20	8.19						
Specific Conductivity (µmhos/cm)	285.7	352.6						
Water Temperature (°C)	18.6	18.6						
Dissolved Oxygen	1.36	1.09						
PID readings, if required								

Remarks: Sample Time: 14:48 Purging stopped at first well volume due to excessive silt in well.

South Carolina Department of Health and Environmental Control
Bureau of Land and Waste Management Underground Storage Tank Program

Field Data Information Sheet for Groundwater Sampling

Date (mm/dd/yy): 1/6/2010
Field Personnel: Courtney Sanders, Kyle Pudney
General Weather Conditions: Sunny

Ambient Air Temperature: 28.0 °C

Quality Assurance

pH Meter YSI Model 550A
serial no. 02A0831
pH=4.0
pH=7.0 X
pH=10.0

Conductivity Meter
serial no. 02A0831
standard X
standard
standard

Chain of Custody

Relinquished by Date/Time Received by Date/Time

Facility Name: Warren Green
Site ID#: 04887 **Monitoring Well #** DW-6
Water Supply Well **Public** ____ **Private** ____

Monitoring Well Diameter (D): 2 inches

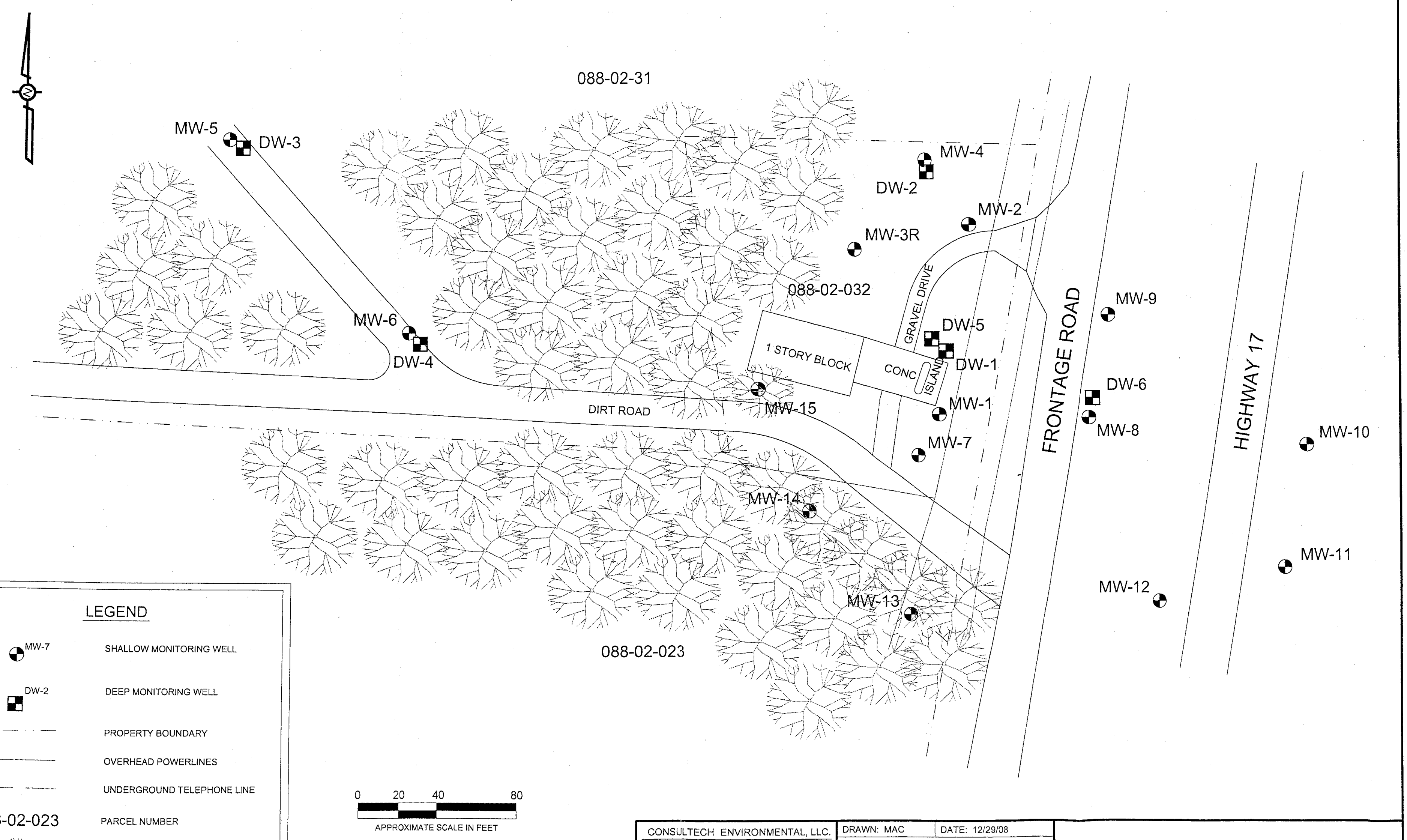
Conversion Factor (C): 3.14 x $(D/2)^2$ for a 2 inch well C=0.163
for a 4 inch well C=0.652

* Free Product Thickness: ____ feet
Depth to Free Product (DFP) ____ feet
Depth to Ground Water (DGW) 20.65 feet
Total Well Depth (TWD) 85 feet
Length of the water column (LWC=TWD-DGW) 64.35 feet
1 casing volume (CV=LWC X C)= 0.163 | 10.49 | gallons
3 casing volume (3 X CV)= 3 | 31.47 | gallons

Total Volume of Water Purged Before Sampling 10 gals.
*If free product is present over 1/8 inch, sampling will not be required.

Cumulative Volume Purged (gallons)	Inital	1st Vol	2nd Vol	3rd Vol	4th Vol	5th Vol	Post Sampling	
Time (military)	10:53	11:10						
pH (s.u.)	5.48	7.41						
Specific Conductivity (µmhos/cm)	434.9	415.2						
Water Temperature (°C)	17.1	18.8						
Dissolved Oxygen	2.25	0.06						
PID readings, if required								

Remarks: Sample Time: 11:15 Purging stopped at first well volume due to excessive silt in well.



LEGEND

MW-7	SHALLOW MONITORING WELL
DW-2	DEEP MONITORING WELL
	PROPERTY BOUNDARY
	OVERHEAD POWERLINES
	UNDERGROUND TELEPHONE LINE
088-02-023	PARCEL NUMBER
	TREES

CONSULTECH ENVIRONMENTAL, LLC.
Environmental Consulting and Engineering © 1999
Delivering innovative solutions to today's environmental concerns

DRAWN: MAC	DATE: 12/29/08
SITE ID # 04887	
PROJECT: WARREN GREEN	
PROJECT NO.: C-07-06-09	
LOCATION: YEMASSEE, SOUTH CAROLINA	

FIGURE 2
SITE PLAN MAP

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CHAIN-OF-CUSTODY / Analytical Request Document

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

Page: 1 of 2

1331310

Section A **Required** Client Information:	Section B **Required** Project Information:	Section C Invoice Information:
Company: SCDHEC - UST	Report To: D. Thoma	Attention: Finance
Address: 2600 Bull Street	Copy To:	Company Name: SCDHEC - UST
Columbia, SC 29201		Address:
Email To:	Purchase Order No.: 719459	Pace Quote Reference:
Phone: 803-893-6240 Fax: 803-869-6243	Project Name: Wallen Green	Pace Project Manager: R. Spencer
Requested Due Date/TAT:	Project Number: 04887 / 37306	Pace Profile #:

REGULATORY AGENCY

- [ ] NPDES
- [ ] GROUND WATER
- [ ] DRINKING WATER
- [x] UST
- [ ] RCRA
- [ ] OTHER ______

Site Location STATE: SC

Section D **Required** Client Information

SAMPLE ID (A-Z, 0-9 / ,-) Sample IDs MUST BE UNIQUE

Matrix Codes MATRIX / CODE: Drinking Water DW, Water WT, Waste Water WW, Product P, Soil/Solid SL, Oil OL, Wipe WP, Air AR, Tissue TS, Other OT

Requested Analysis Filtered (Y/N)

ITEM #	SAMPLE ID	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED: COMPOSITE START DATE	COMPOSITE START TIME	COMPOSITE END/GRAB DATE	COMPOSITE END/GRAB TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Unpreserved	H_2SO_4	HNO_3	HCl	NaOH	$Na_2S_2O_3$	Methanol	Other	Analysis Test Y/N	BTEX, Naph, MTBE	1,2 DCA, 8260	EDB (8011)										Residual Chlorine (Y/N)	Pace Project No./ Lab I.D.
1	~~MW-1~~	~~WT~~	~~G~~																													Not located
2	MW-2	WT	G			1/6	13:10		6				6						Y	Y	Y											No Odor
3	~~MW-3R~~																															Not located
4	MW-4						11:43		6										Y	Y	Y											Light odor
5	MW-5						12:51		6										Y	X	Y											No Odor
6	MW-6						13:00		6										X	X	X											No Odor
7	MW-7						11:30		6										Y	X	X											Odor
8	MW-8						10:45		6										X	X	X											Odor
9	MW-9						10:30		6										X	X	X											No Odor
10	MW-10						10:15		6										Y	X	Y											No Odor
11	MW-11	WT	G			1/6	12:10		6				6						X	X	X											No Odor
12	~~MW-12~~	~~WT~~	~~G~~			~~1/6~~																										Not located

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS			
Report J values	[illegible]	1-6	[illegible]							

2

SAMPLER NAME AND SAMPLER SIGNATURE

PRINT Name of SAMPLER: Charles M. Smith

SIGNATURE of SAMPLER: [illegible]

DATE Signed (MM/DD/YY): 01/06/10

Temp in °C	Received on Ice (Y/N)	Custody Sealed Cooler (Y/N)	Samples Intact (Y/N)

*Important Note: By signing this form you are accepting Pace's NET 30 day payment terms and agreeing to late charges of 1.5% per month for any invoices not paid within 30 days.

F-ALL-Q-020rev.07, 15-May-2007

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CHAIN-OF-CUSTODY / Analytical Request Document

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

Section A
Required Client Information:

Company:	SCDHEC - UST
Address:	2600 Bull Street
	Columbia, SC 29201
Email To:	
Phone: 803-898-6240	Fax: 803-896-6243
Requested Due Date/TAT:	

Section B
Required Project Information:

Report To:	D. Thomas
Copy To:	
Purchase Order No.:	719459
Project Name:	Warren Green
Project Number:	04887 / 37306

Section C
Invoice Information:

Attention:	Finance
Company Name:	SCDHEC - UST
Address:	
Pace Quote Reference:	
Pace Project Manager:	R. Spencer
Pace Profile #:	

Page: 2 of 2

1331309

REGULATORY AGENCY

☐ NPDES ☐ GROUND WATER ☐ DRINKING WATER
☒ UST ☐ RCRA ☐ OTHER ______

Site Location STATE: SC

Section D
Required Client Information

SAMPLE ID
(A-Z, 0-9 / ,-)
Sample IDs MUST BE UNIQUE

Matrix Codes

MATRIX	CODE
Drinking Water	DW
Water	WT
Waste Water	WW
Product	P
Soil/Solid	SL
Oil	OL
Wipe	WP
Air	AR
Tissue	TS
Other	OT

Requested Analysis Filtered (Y/N)

ITEM #	SAMPLE ID	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED: COMPOSITE START DATE	COMPOSITE START TIME	COMPOSITE END/GRAB DATE	COMPOSITE END/GRAB TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Unpreserved	H_2SO_4	HNO_3	HCl	NaOH	$Na_2S_2O_3$	Methanol	Other	Analysis Test	BTEX, NAPH, MTBE	1,2 DCA, (xo)	EDB 8011	Residual Chlorine (Y/N)	Pace Project No./ Lab I.D.
1	MW - 13	WT	G	1/6		1/6	13:48		6				6						Y	Y	X		No Odor
2	MW - 14						13:40																No Odor
3	MW - 15						13:30																No Odor
4	DW - 1						11:01																Slight odor
5	DW - 2						16:10																Slight odor
6	DW - 3						[illegible]																No odor
7	DW - 4						[illegible]																~~[illegible]~~
8	DW - 5						[illegible]																Slight odor
9	DW - 6	WT	G			1/6	11:15		6				6						Y	X	Y		Slight odor
10																							
11																							
12																							

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS
Report J values	[illegible]	1-6	6:24				

2

SAMPLER NAME AND SIGNATURE

PRINT Name of SAMPLER: Courtney M. Sanders

SIGNATURE of SAMPLER: [illegible]

DATE Signed (MM/DD/YY): 01/06/10

Temp in °C	Received on Ice (Y/N)	Custody Sealed Cooler (Y/N)	Samples Intact (Y/N)

*Important Note: By signing this form you are accepting Pace's NET 30 day payment terms and agreeing to late charges of 1.5% per month for any invoices not paid within 30 days.

Midlands
Environmental
Consultants, Inc.

January 6, 2010

Re: Treatment of Purge Water
Warren Green
Jasper, South Carolina
SCDHEC Site ID Number 04887
MECI Project Number 09-2506

To Whom It May Concern;

Midlands Environmental Consultants, Inc. is providing the following letter as certification that treatment of the referenced purge water complied with the conditions of "Proposed Conditions for Use of Portable Activated Carbon Units for the Treatment of Small Volumes of Petroleum Hydrocarbon Contaminated Groundwater", as described in the following:

Applicability:

Groundwater treated was obtained as a result development of wells and sampling.

Conditions:

1. The purge/bail water from all wells is mixed before usage of the Activated Carbon Unit.

2. No free-product was detected in any of the purge water drums.

3. Analytical results of from well sampling show average concentrations of petroleum hydrocarbon constituents less than 5000 parts per billion (ppb) Benzene and less than 20,000 ppb total BTEX.

4. The existing carbon pack will be replaced/reactivated every 5,000 gallons.

5. Record of usage is maintained by Contractor.

6. Any and all recommendations and conditions issued by the Manufacturer have been adhered to.

7. Any and all recommendations and conditions (even on a site by site basis) issued by the SCDHEC must be adhered to.

All purge waters were treated on-site using an up-flow treatment drum loaded with 30 pounds of activated carbon. Carbon will be loaded to a maximum of 3 pounds of total organic compounds or 5,000 gallons of development/purge water, whichever occurs first.

Post Office Box 854, Lexington SC 29071 • 235-B Dooley Road, Lexington, SC 29073
Telephone: (803) 808-2043 • fax: (803) 808-2048

A total of 46.0 gallons were treated on January 6, 2010 at the referenced site.

Midlands Environmental also tracks cumulative organic compounds adsorbed on the activated carbon to ensure the capacity of carbon mass is not over-charged. This data is available upon request.

Should you have any questions or comments, please contact the undersigned.

Sincerely,
Midlands Environmental Consultants, Inc.

Kyle Pudney
Staff Geologist

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Pace Analytical Services, Inc.
2225 Riverside Dr.
Asheville, NC 28804
(828)254-7176

Pace Analytical Services, Inc.
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

January 14, 2010

Ms. Debra Thoma
SCDHEC
UST Program
2600 Bull Street
Columbia, SC 29201

UST
JAN 19 2010
PROGRAM

RE: Project: WARREN GREEN 04887
Pace Project No.: 9260868

Dear Ms. Thoma:

Enclosed are the analytical results for sample(s) received by the laboratory on January 07, 2010. The results relate only to the samples included in this report. Results reported herein conform to the most current NELAC standards, where applicable, unless otherwise narrated in the body of the report.

Inorganic Wet Chemistry and Metals analyses were performed at our Pace Asheville laboratory and Organic testing was performed at our Pace Huntersville laboratory unless otherwise footnoted. All Microbiological analyses were performed at the laboratory where the samples were received.

If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Renee Spencer

Renee Spencer

renee.spencer@pacelabs.com
Project Manager

Enclosures

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Huntersville, NC 28078
(704)875-9092

CERTIFICATIONS

Project: WARREN GREEN 04887
Pace Project No.: 9260868

Charlotte Certification IDs

9800 Kincey Ave. - Ste 100 Huntersville, NC 28078
Connecticut Certification #: PH-0104
Virginia Certification #: 00213
Tennessee Certification #: 04010
South Carolina Drinking Water Cert. #: 990060003
South Carolina Certification #: 990060001
Pennsylvania Certification #: 68-00784
North Carolina Wastewater Certification #: 12
North Carolina Field Services Certification #: 5342
North Carolina Drinking Water Certification #: 37706
New Jersey Certification #: NC012
Louisiana/LELAP Certification #: 04034
Kentucky UST Certification #: 84
Florida/NELAP Certification #: E87627
West Virginia Certification #: 357

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Huntersville, NC 28078
(704)875-9092

SAMPLE SUMMARY

Project: WARREN GREEN 04887
Pace Project No.: 9260868

Lab ID	Sample ID	Matrix	Date Collected	Date Received
9260868001	MW-2	Water	01/06/10 13:10	01/07/10 15:10
9260868002	MW-4	Water	01/06/10 14:43	01/07/10 15:10
9260868003	MW-5	Water	01/06/10 12:51	01/07/10 15:10
9260868004	MW-6	Water	01/06/10 13:05	01/07/10 15:10
9260868005	MW-7	Water	01/06/10 11:30	01/07/10 15:10
9260868006	MW-8	Water	01/06/10 10:45	01/07/10 15:10
9260868007	MW-9	Water	01/06/10 10:30	01/07/10 15:10
9260868008	MW-10	Water	01/06/10 10:15	01/07/10 15:10
9260868009	MW-11	Water	01/06/10 10:00	01/07/10 15:10
9260868010	MW-13	Water	01/06/10 13:48	01/07/10 15:10
9260868011	MW-14	Water	01/06/10 13:40	01/07/10 15:10
9260868012	MW-15	Water	01/06/10 13:32	01/07/10 15:10
9260868013	DW-1	Water	01/06/10 14:01	01/07/10 15:10
9260868014	DW-2	Water	01/06/10 15:10	01/07/10 15:10
9260868015	DW-3	Water	01/06/10 12:54	01/07/10 15:10
9260868016	DW-4	Water	01/06/10 13:05	01/07/10 15:10

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(828)254-7176

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Huntersville, NC 28078
(704)875-9092

SAMPLE ANALYTE COUNT

Project: WARREN GREEN 04887
Pace Project No.: 9260868

Lab ID	Sample ID	Method	Analysts	Analytes Reported
9260868001	MW-2	EPA 8011	RES	2
		EPA 8260	MCK	21
9260868002	MW-4	EPA 8011	RES	2
		EPA 8260	MCK	21
9260868003	MW-5	EPA 8011	RES	2
		EPA 8260	MCK	21
9260868004	MW-6	EPA 8011	RES	2
		EPA 8260	MCK	21
9260868005	MW-7	EPA 8011	RES	2
		EPA 8260	MCK	21
9260868006	MW-8	EPA 8011	RES	2
		EPA 8260	MCK	21
9260868007	MW-9	EPA 8011	RES	2
		EPA 8260	MCK	21
9260868008	MW-10	EPA 8011	RES	2
		EPA 8260	MCK	21
9260868009	MW-11	EPA 8011	RES	2
		EPA 8260	MCK	21
9260868010	MW-13	EPA 8011	RES	2
		EPA 8260	MCK	21
9260868011	MW-14	EPA 8011	RES	2
		EPA 8260	MCK	21
9260868012	MW-15	EPA 8011	RES	2
		EPA 8260	MCK	21
9260868013	DW-1	EPA 8011	RES	2
		EPA 8260	MCK	21
9260868014	DW-2	EPA 8011	RES	2
		EPA 8260	MCK	21
9260868015	DW-3	EPA 8011	RES	2
		EPA 8260	MCK	21
9260868016	DW-4	EPA 8011	RES	2
		EPA 8260	MCK	21

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ANALYTICAL RESULTS

Project: WARREN GREEN 04887
Pace Project No.: 9260868

Sample: MW-2 **Lab ID: 9260868001** Collected: 01/06/10 13:10 Received: 01/07/10 15:10 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8011 GCS EDB and DBCP	Analytical Method: EPA 8011 Preparation Method: EPA 8011								
1,2-Dibromoethane (EDB)	ND	ug/L	0.021	0.021	1	01/08/10 15:36	01/08/10 18:27	106-93-4	
1-Chloro-2-bromopropane (S)	102	%	60-140		1	01/08/10 15:36	01/08/10 18:27	301-79-56	
8260 MSV Oxygenates	Analytical Method: EPA 8260								
tert-Amyl Alcohol	ND	ug/L	100	62.0	1		01/13/10 07:31	75-85-4	
tert-Amylmethyl ether	ND	ug/L	10.0	4.5	1		01/13/10 07:31	994-05-8	
Benzene	ND	ug/L	5.0	1.2	1		01/13/10 07:31	71-43-2	
3,3-Dimethyl-1-Butanol	ND	ug/L	100	48.0	1		01/13/10 07:31	624-95-3	
tert-Butyl Alcohol	ND	ug/L	100	27.0	1		01/13/10 07:31	75-65-0	
tert-Butyl Formate	ND	ug/L	50.0	9.0	1		01/13/10 07:31	762-75-4	
1,2-Dichloroethane	ND	ug/L	5.0	1.3	1		01/13/10 07:31	107-06-2	
Diisopropyl ether	ND	ug/L	5.0	2.7	1		01/13/10 07:31	108-20-3	
Ethanol	ND	ug/L	200	170	1		01/13/10 07:31	64-17-5	
Ethylbenzene	ND	ug/L	5.0	1.1	1		01/13/10 07:31	100-41-4	
Ethyl-tert-butyl ether	ND	ug/L	10.0	4.6	1		01/13/10 07:31	637-92-3	
Methyl-tert-butyl ether	**2.8J**	ug/L	5.0	2.0	1		01/13/10 07:31	1634-04-4	
Naphthalene	ND	ug/L	5.0	2.9	1		01/13/10 07:31	91-20-3	
Toluene	ND	ug/L	5.0	1.8	1		01/13/10 07:31	108-88-3	
Xylene (Total)	ND	ug/L	10.0	2.7	1		01/13/10 07:31	1330-20-7	
m&p-Xylene	ND	ug/L	10.0	2.7	1		01/13/10 07:31	1330-20-7	
o-Xylene	ND	ug/L	5.0	1.7	1		01/13/10 07:31	95-47-6	
Dibromofluoromethane (S)	104	%	85-115		1		01/13/10 07:31	1868-53-7	
Toluene-d8 (S)	100	%	70-120		1		01/13/10 07:31	2037-26-5	
4-Bromofluorobenzene (S)	99	%	87-109		1		01/13/10 07:31	460-00-4	
1,2-Dichloroethane-d4 (S)	103	%	79-120		1		01/13/10 07:31	17060-07-0	

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ANALYTICAL RESULTS

Project: WARREN GREEN 04887
Pace Project No.: 9260868

Sample: MW-4 **Lab ID: 9260868002** Collected: 01/06/10 14:43 Received: 01/07/10 15:10 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8011 GCS EDB and DBCP	Analytical Method: EPA 8011 Preparation Method: EPA 8011								
1,2-Dibromoethane (EDB)	ND	ug/L	0.020	0.020	1	01/08/10 15:36	01/08/10 19:26	106-93-4	
1-Chloro-2-bromopropane (S)	112	%	60-140		1	01/08/10 15:36	01/08/10 19:26	301-79-56	
8260 MSV Oxygenates	Analytical Method: EPA 8260								
tert-Amyl Alcohol	ND	ug/L	100	62.0	1		01/12/10 15:47	75-85-4	
tert-Amylmethyl ether	ND	ug/L	10.0	4.5	1		01/12/10 15:47	994-05-8	
Benzene	ND	ug/L	5.0	1.2	1		01/12/10 15:47	71-43-2	
3,3-Dimethyl-1-Butanol	ND	ug/L	100	48.0	1		01/12/10 15:47	624-95-3	
tert-Butyl Alcohol	ND	ug/L	100	27.0	1		01/12/10 15:47	75-65-0	
tert-Butyl Formate	ND	ug/L	50.0	9.0	1		01/12/10 15:47	762-75-4	
1,2-Dichloroethane	ND	ug/L	5.0	1.3	1		01/12/10 15:47	107-06-2	
Diisopropyl ether	ND	ug/L	5.0	2.7	1		01/12/10 15:47	108-20-3	
Ethanol	ND	ug/L	200	170	1		01/12/10 15:47	64-17-5	
Ethylbenzene	ND	ug/L	5.0	1.1	1		01/12/10 15:47	100-41-4	
Ethyl-tert-butyl ether	ND	ug/L	10.0	4.6	1		01/12/10 15:47	637-92-3	
Methyl-tert-butyl ether	ND	ug/L	5.0	2.0	1		01/12/10 15:47	1634-04-4	
Naphthalene	ND	ug/L	5.0	2.9	1		01/12/10 15:47	91-20-3	
Toluene	ND	ug/L	5.0	1.8	1		01/12/10 15:47	108-88-3	
Xylene (Total)	ND	ug/L	10.0	2.7	1		01/12/10 15:47	1330-20-7	
m&p-Xylene	ND	ug/L	10.0	2.7	1		01/12/10 15:47	1330-20-7	
o-Xylene	ND	ug/L	5.0	1.7	1		01/12/10 15:47	95-47-6	
Dibromofluoromethane (S)	99	%	85-115		1		01/12/10 15:47	1868-53-7	
Toluene-d8 (S)	96	%	70-120		1		01/12/10 15:47	2037-26-5	
4-Bromofluorobenzene (S)	93	%	87-109		1		01/12/10 15:47	460-00-4	
1,2-Dichloroethane-d4 (S)	102	%	79-120		1		01/12/10 15:47	17060-07-0	

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ANALYTICAL RESULTS

Project: WARREN GREEN 04887
Pace Project No.: 9260868

Sample: MW-5 | **Lab ID: 9260868003** | Collected: 01/06/10 12:51 | Received: 01/07/10 15:10 | Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8011 GCS EDB and DBCP	Analytical Method: EPA 8011 Preparation Method: EPA 8011								
1,2-Dibromoethane (EDB)	ND	ug/L	0.020	0.020	1	01/08/10 15:36	01/08/10 19:46	106-93-4	
1-Chloro-2-bromopropane (S)	98	%	60-140		1	01/08/10 15:36	01/08/10 19:46	301-79-56	
8260 MSV Oxygenates	Analytical Method: EPA 8260								
tert-Amyl Alcohol	ND	ug/L	100	62.0	1		01/12/10 16:06	75-85-4	
tert-Amylmethyl ether	ND	ug/L	10.0	4.5	1		01/12/10 16:06	994-05-8	
Benzene	ND	ug/L	5.0	1.2	1		01/12/10 16:06	71-43-2	
3,3-Dimethyl-1-Butanol	ND	ug/L	100	48.0	1		01/12/10 16:06	624-95-3	
tert-Butyl Alcohol	ND	ug/L	100	27.0	1		01/12/10 16:06	75-65-0	
tert-Butyl Formate	ND	ug/L	50.0	9.0	1		01/12/10 16:06	762-75-4	
1,2-Dichloroethane	ND	ug/L	5.0	1.3	1		01/12/10 16:06	107-06-2	
Diisopropyl ether	ND	ug/L	5.0	2.7	1		01/12/10 16:06	108-20-3	
Ethanol	ND	ug/L	200	170	1		01/12/10 16:06	64-17-5	
Ethylbenzene	ND	ug/L	5.0	1.1	1		01/12/10 16:06	100-41-4	
Ethyl-tert-butyl ether	ND	ug/L	10.0	4.6	1		01/12/10 16:06	637-92-3	
Methyl-tert-butyl ether	ND	ug/L	5.0	2.0	1		01/12/10 16:06	1634-04-4	
Naphthalene	ND	ug/L	5.0	2.9	1		01/12/10 16:06	91-20-3	
Toluene	ND	ug/L	5.0	1.8	1		01/12/10 16:06	108-88-3	
Xylene (Total)	ND	ug/L	10.0	2.7	1		01/12/10 16:06	1330-20-7	
m&p-Xylene	ND	ug/L	10.0	2.7	1		01/12/10 16:06	1330-20-7	
o-Xylene	ND	ug/L	5.0	1.7	1		01/12/10 16:06	95-47-6	
Dibromofluoromethane (S)	99	%	85-115		1		01/12/10 16:06	1868-53-7	
Toluene-d8 (S)	96	%	70-120		1		01/12/10 16:06	2037-26-5	
4-Bromofluorobenzene (S)	94	%	87-109		1		01/12/10 16:06	460-00-4	
1,2-Dichloroethane-d4 (S)	105	%	79-120		1		01/12/10 16:06	17060-07-0	

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ANALYTICAL RESULTS

Project: WARREN GREEN 04887
Pace Project No.: 9260868

Sample: MW-6 **Lab ID: 9260868004** Collected: 01/06/10 13:05 Received: 01/07/10 15:10 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8011 GCS EDB and DBCP	Analytical Method: EPA 8011 Preparation Method: EPA 8011								
1,2-Dibromoethane (EDB)	ND	ug/L	0.020	0.020	1	01/08/10 15:36	01/08/10 20:25	106-93-4	
1-Chloro-2-bromopropane (S)	95	%	60-140		1	01/08/10 15:36	01/08/10 20:25	301-79-56	
8260 MSV Oxygenates	Analytical Method: EPA 8260								
tert-Amyl Alcohol	ND	ug/L	100	62.0	1		01/12/10 16:24	75-85-4	
tert-Amylmethyl ether	ND	ug/L	10.0	4.5	1		01/12/10 16:24	994-05-8	
Benzene	ND	ug/L	5.0	1.2	1		01/12/10 16:24	71-43-2	
3,3-Dimethyl-1-Butanol	ND	ug/L	100	48.0	1		01/12/10 16:24	624-95-3	
tert-Butyl Alcohol	ND	ug/L	100	27.0	1		01/12/10 16:24	75-65-0	
tert-Butyl Formate	ND	ug/L	50.0	9.0	1		01/12/10 16:24	762-75-4	
1,2-Dichloroethane	ND	ug/L	5.0	1.3	1		01/12/10 16:24	107-06-2	
Diisopropyl ether	ND	ug/L	5.0	2.7	1		01/12/10 16:24	108-20-3	
Ethanol	ND	ug/L	200	170	1		01/12/10 16:24	64-17-5	
Ethylbenzene	ND	ug/L	5.0	1.1	1		01/12/10 16:24	100-41-4	
Ethyl-tert-butyl ether	ND	ug/L	10.0	4.6	1		01/12/10 16:24	637-92-3	
Methyl-tert-butyl ether	ND	ug/L	5.0	2.0	1		01/12/10 16:24	1634-04-4	
Naphthalene	ND	ug/L	5.0	2.9	1		01/12/10 16:24	91-20-3	
Toluene	ND	ug/L	5.0	1.8	1		01/12/10 16:24	108-88-3	
Xylene (Total)	ND	ug/L	10.0	2.7	1		01/12/10 16:24	1330-20-7	
m&p-Xylene	ND	ug/L	10.0	2.7	1		01/12/10 16:24	1330-20-7	
o-Xylene	ND	ug/L	5.0	1.7	1		01/12/10 16:24	95-47-6	
Dibromofluoromethane (S)	98	%	85-115		1		01/12/10 16:24	1868-53-7	
Toluene-d8 (S)	98	%	70-120		1		01/12/10 16:24	2037-26-5	
4-Bromofluorobenzene (S)	93	%	87-109		1		01/12/10 16:24	460-00-4	
1,2-Dichloroethane-d4 (S)	101	%	79-120		1		01/12/10 16:24	17060-07-0	

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ANALYTICAL RESULTS

Project: WARREN GREEN 04887
Pace Project No.: 9260868

Sample: MW-7 **Lab ID: 9260868005** Collected: 01/06/10 11:30 Received: 01/07/10 15:10 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8011 GCS EDB and DBCP	Analytical Method: EPA 8011 Preparation Method: EPA 8011								
1,2-Dibromoethane (EDB)	**7.3**	ug/L	0.20	0.20	10	01/08/10 15:36	01/12/10 20:16	106-93-4	
1-Chloro-2-bromopropane (S)	0	%	60-140		10	01/08/10 15:36	01/12/10 20:16	301-79-56	S4
8260 MSV Oxygenates	Analytical Method: EPA 8260								
tert-Amyl Alcohol	**1140**	ug/L	1000	620	10		01/12/10 14:49	75-85-4	
tert-Amylmethyl ether	ND	ug/L	100	45.0	10		01/12/10 14:49	994-05-8	
Benzene	**3910**	ug/L	500	120	100		01/13/10 16:36	71-43-2	
3,3-Dimethyl-1-Butanol	ND	ug/L	1000	480	10		01/12/10 14:49	624-95-3	
tert-Butyl Alcohol	ND	ug/L	1000	270	10		01/12/10 14:49	75-65-0	
tert-Butyl Formate	ND	ug/L	500	90.0	10		01/12/10 14:49	762-75-4	
1,2-Dichloroethane	**69.3**	ug/L	50.0	13.0	10		01/12/10 14:49	107-06-2	
Diisopropyl ether	ND	ug/L	50.0	27.0	10		01/12/10 14:49	108-20-3	
Ethanol	ND	ug/L	2000	1700	10		01/12/10 14:49	64-17-5	
Ethylbenzene	**3700**	ug/L	500	110	100		01/13/10 16:36	100-41-4	
Ethyl-tert-butyl ether	ND	ug/L	100	46.0	10		01/12/10 14:49	637-92-3	
Methyl-tert-butyl ether	**31.4J**	ug/L	50.0	20.0	10		01/12/10 14:49	1634-04-4	
Naphthalene	**675**	ug/L	50.0	29.0	10		01/12/10 14:49	91-20-3	
Toluene	**19000**	ug/L	500	180	100		01/13/10 16:36	108-88-3	
Xylene (Total)	**19600**	ug/L	1000	270	100		01/13/10 16:36	1330-20-7	
m&p-Xylene	**13600**	ug/L	1000	270	100		01/13/10 16:36	1330-20-7	
o-Xylene	**6100**	ug/L	500	170	100		01/13/10 16:36	95-47-6	
Dibromofluoromethane (S)	98	%	85-115		10		01/12/10 14:49	1868-53-7	
Toluene-d8 (S)	98	%	70-120		10		01/12/10 14:49	2037-26-5	
4-Bromofluorobenzene (S)	98	%	87-109		10		01/12/10 14:49	460-00-4	
1,2-Dichloroethane-d4 (S)	99	%	79-120		10		01/12/10 14:49	17060-07-0	

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ANALYTICAL RESULTS

Project: WARREN GREEN 04887
Pace Project No.: 9260868

Sample: MW-8 **Lab ID: 9260868006** Collected: 01/06/10 10:45 Received: 01/07/10 15:10 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8011 GCS EDB and DBCP	Analytical Method: EPA 8011 Preparation Method: EPA 8011								
1,2-Dibromoethane (EDB)	**0.68**	ug/L	0.020	0.020	1	01/08/10 15:36	01/08/10 21:04	106-93-4	
1-Chloro-2-bromopropane (S)	94	%	60-140		1	01/08/10 15:36	01/08/10 21:04	301-79-56	
8260 MSV Oxygenates	Analytical Method: EPA 8260								
tert-Amyl Alcohol	**669**	ug/L	100	62.0	1		01/12/10 16:43	75-85-4	
tert-Amylmethyl ether	ND	ug/L	10.0	4.5	1		01/12/10 16:43	994-05-8	
Benzene	**721**	ug/L	25.0	6.0	5		01/13/10 14:36	71-43-2	
3,3-Dimethyl-1-Butanol	ND	ug/L	100	48.0	1		01/12/10 16:43	624-95-3	
tert-Butyl Alcohol	ND	ug/L	100	27.0	1		01/12/10 16:43	75-65-0	
tert-Butyl Formate	ND	ug/L	50.0	9.0	1		01/12/10 16:43	762-75-4	
1,2-Dichloroethane	**8.6**	ug/L	5.0	1.3	1		01/12/10 16:43	107-06-2	
Diisopropyl ether	ND	ug/L	5.0	2.7	1		01/12/10 16:43	108-20-3	
Ethanol	ND	ug/L	200	170	1		01/12/10 16:43	64-17-5	
Ethylbenzene	**77.4**	ug/L	5.0	1.1	1		01/12/10 16:43	100-41-4	
Ethyl-tert-butyl ether	ND	ug/L	10.0	4.6	1		01/12/10 16:43	637-92-3	
Methyl-tert-butyl ether	ND	ug/L	5.0	2.0	1		01/12/10 16:43	1634-04-4	
Naphthalene	**20.2**	ug/L	5.0	2.9	1		01/12/10 16:43	91-20-3	
Toluene	**5.3**	ug/L	5.0	1.8	1		01/12/10 16:43	108-88-3	
Xylene (Total)	**320**	ug/L	10.0	2.7	1		01/12/10 16:43	1330-20-7	
m&p-Xylene	**195**	ug/L	10.0	2.7	1		01/12/10 16:43	1330-20-7	
o-Xylene	**125**	ug/L	5.0	1.7	1		01/12/10 16:43	95-47-6	
Dibromofluoromethane (S)	102	%	85-115		1		01/12/10 16:43	1868-53-7	
Toluene-d8 (S)	99	%	70-120		1		01/12/10 16:43	2037-26-5	
4-Bromofluorobenzene (S)	98	%	87-109		1		01/12/10 16:43	460-00-4	
1,2-Dichloroethane-d4 (S)	104	%	79-120		1		01/12/10 16:43	17060-07-0	

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ANALYTICAL RESULTS

Project: WARREN GREEN 04887
Pace Project No.: 9260868

Sample: MW-9 **Lab ID: 9260868007** Collected: 01/06/10 10:30 Received: 01/07/10 15:10 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8011 GCS EDB and DBCP	Analytical Method: EPA 8011 Preparation Method: EPA 8011								
1,2-Dibromoethane (EDB)	ND	ug/L	0.020	0.020	1	01/08/10 15:36	01/08/10 21:24	106-93-4	
1-Chloro-2-bromopropane (S)	90	%	60-140		1	01/08/10 15:36	01/08/10 21:24	301-79-56	
8260 MSV Oxygenates	Analytical Method: EPA 8260								
tert-Amyl Alcohol	**77.0J**	ug/L	100	62.0	1		01/12/10 17:01	75-85-4	
tert-Amylmethyl ether	ND	ug/L	10.0	4.5	1		01/12/10 17:01	994-05-8	
Benzene	ND	ug/L	5.0	1.2	1		01/12/10 17:01	71-43-2	
3,3-Dimethyl-1-Butanol	ND	ug/L	100	48.0	1		01/12/10 17:01	624-95-3	
tert-Butyl Alcohol	ND	ug/L	100	27.0	1		01/12/10 17:01	75-65-0	
tert-Butyl Formate	ND	ug/L	50.0	9.0	1		01/12/10 17:01	762-75-4	
1,2-Dichloroethane	ND	ug/L	5.0	1.3	1		01/12/10 17:01	107-06-2	
Diisopropyl ether	ND	ug/L	5.0	2.7	1		01/12/10 17:01	108-20-3	
Ethanol	ND	ug/L	200	170	1		01/12/10 17:01	64-17-5	
Ethylbenzene	ND	ug/L	5.0	1.1	1		01/12/10 17:01	100-41-4	
Ethyl-tert-butyl ether	ND	ug/L	10.0	4.6	1		01/12/10 17:01	637-92-3	
Methyl-tert-butyl ether	ND	ug/L	5.0	2.0	1		01/12/10 17:01	1634-04-4	
Naphthalene	**5.5**	ug/L	5.0	2.9	1		01/12/10 17:01	91-20-3	
Toluene	ND	ug/L	5.0	1.8	1		01/12/10 17:01	108-88-3	
Xylene (Total)	ND	ug/L	10.0	2.7	1		01/12/10 17:01	1330-20-7	
m&p-Xylene	ND	ug/L	10.0	2.7	1		01/12/10 17:01	1330-20-7	
o-Xylene	ND	ug/L	5.0	1.7	1		01/12/10 17:01	95-47-6	
Dibromofluoromethane (S)	99	%	85-115		1		01/12/10 17:01	1868-53-7	
Toluene-d8 (S)	97	%	70-120		1		01/12/10 17:01	2037-26-5	
4-Bromofluorobenzene (S)	93	%	87-109		1		01/12/10 17:01	460-00-4	
1,2-Dichloroethane-d4 (S)	103	%	79-120		1		01/12/10 17:01	17060-07-0	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: WARREN GREEN 04887
Pace Project No.: 9260868

Sample: MW-10 **Lab ID: 9260868008** Collected: 01/06/10 10:15 Received: 01/07/10 15:10 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8011 GCS EDB and DBCP	Analytical Method: EPA 8011 Preparation Method: EPA 8011								
1,2-Dibromoethane (EDB)	ND	ug/L	0.020	0.020	1	01/08/10 15:36	01/08/10 21:44	106-93-4	
1-Chloro-2-bromopropane (S)	95	%	60-140		1	01/08/10 15:36	01/08/10 21:44	301-79-56	
8260 MSV Oxygenates	Analytical Method: EPA 8260								
tert-Amyl Alcohol	ND	ug/L	100	62.0	1		01/12/10 17:20	75-85-4	
tert-Amylmethyl ether	ND	ug/L	10.0	4.5	1		01/12/10 17:20	994-05-8	
Benzene	ND	ug/L	5.0	1.2	1		01/12/10 17:20	71-43-2	
3,3-Dimethyl-1-Butanol	ND	ug/L	100	48.0	1		01/12/10 17:20	624-95-3	
tert-Butyl Alcohol	ND	ug/L	100	27.0	1		01/12/10 17:20	75-65-0	
tert-Butyl Formate	ND	ug/L	50.0	9.0	1		01/12/10 17:20	762-75-4	
1,2-Dichloroethane	ND	ug/L	5.0	1.3	1		01/12/10 17:20	107-06-2	
Diisopropyl ether	ND	ug/L	5.0	2.7	1		01/12/10 17:20	108-20-3	
Ethanol	ND	ug/L	200	170	1		01/12/10 17:20	64-17-5	
Ethylbenzene	ND	ug/L	5.0	1.1	1		01/12/10 17:20	100-41-4	
Ethyl-tert-butyl ether	ND	ug/L	10.0	4.6	1		01/12/10 17:20	637-92-3	
Methyl-tert-butyl ether	ND	ug/L	5.0	2.0	1		01/12/10 17:20	1634-04-4	
Naphthalene	ND	ug/L	5.0	2.9	1		01/12/10 17:20	91-20-3	
Toluene	ND	ug/L	5.0	1.8	1		01/12/10 17:20	108-88-3	
Xylene (Total)	ND	ug/L	10.0	2.7	1		01/12/10 17:20	1330-20-7	
m&p-Xylene	ND	ug/L	10.0	2.7	1		01/12/10 17:20	1330-20-7	
o-Xylene	ND	ug/L	5.0	1.7	1		01/12/10 17:20	95-47-6	
Dibromofluoromethane (S)	98	%	85-115		1		01/12/10 17:20	1868-53-7	
Toluene-d8 (S)	96	%	70-120		1		01/12/10 17:20	2037-26-5	
4-Bromofluorobenzene (S)	95	%	87-109		1		01/12/10 17:20	460-00-4	
1,2-Dichloroethane-d4 (S)	102	%	79-120		1		01/12/10 17:20	17060-07-0	

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ANALYTICAL RESULTS

Project: WARREN GREEN 04887
Pace Project No.: 9260868

Sample: MW-11 **Lab ID: 9260868009** Collected: 01/06/10 10:00 Received: 01/07/10 15:10 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8011 GCS EDB and DBCP	Analytical Method: EPA 8011 Preparation Method: EPA 8011								
1,2-Dibromoethane (EDB)	ND	ug/L	0.020	0.020	1	01/08/10 15:36	01/08/10 22:03	106-93-4	
1-Chloro-2-bromopropane (S)	95	%	60-140		1	01/08/10 15:36	01/08/10 22:03	301-79-56	
8260 MSV Oxygenates	Analytical Method: EPA 8260								
tert-Amyl Alcohol	ND	ug/L	100	62.0	1		01/12/10 17:39	75-85-4	
tert-Amylmethyl ether	ND	ug/L	10.0	4.5	1		01/12/10 17:39	994-05-8	
Benzene	ND	ug/L	5.0	1.2	1		01/12/10 17:39	71-43-2	
3,3-Dimethyl-1-Butanol	ND	ug/L	100	48.0	1		01/12/10 17:39	624-95-3	
tert-Butyl Alcohol	ND	ug/L	100	27.0	1		01/12/10 17:39	75-65-0	
tert-Butyl Formate	ND	ug/L	50.0	9.0	1		01/12/10 17:39	762-75-4	
1,2-Dichloroethane	ND	ug/L	5.0	1.3	1		01/12/10 17:39	107-06-2	
Diisopropyl ether	ND	ug/L	5.0	2.7	1		01/12/10 17:39	108-20-3	
Ethanol	ND	ug/L	200	170	1		01/12/10 17:39	64-17-5	
Ethylbenzene	ND	ug/L	5.0	1.1	1		01/12/10 17:39	100-41-4	
Ethyl-tert-butyl ether	ND	ug/L	10.0	4.6	1		01/12/10 17:39	637-92-3	
Methyl-tert-butyl ether	ND	ug/L	5.0	2.0	1		01/12/10 17:39	1634-04-4	
Naphthalene	ND	ug/L	5.0	2.9	1		01/12/10 17:39	91-20-3	
Toluene	ND	ug/L	5.0	1.8	1		01/12/10 17:39	108-88-3	
Xylene (Total)	ND	ug/L	10.0	2.7	1		01/12/10 17:39	1330-20-7	
m&p-Xylene	ND	ug/L	10.0	2.7	1		01/12/10 17:39	1330-20-7	
o-Xylene	ND	ug/L	5.0	1.7	1		01/12/10 17:39	95-47-6	
Dibromofluoromethane (S)	100	%	85-115		1		01/12/10 17:39	1868-53-7	
Toluene-d8 (S)	97	%	70-120		1		01/12/10 17:39	2037-26-5	
4-Bromofluorobenzene (S)	93	%	87-109		1		01/12/10 17:39	460-00-4	
1,2-Dichloroethane-d4 (S)	102	%	79-120		1		01/12/10 17:39	17060-07-0	

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ANALYTICAL RESULTS

Project: WARREN GREEN 04887
Pace Project No.: 9260868

Sample: MW-13 **Lab ID: 9260868010** Collected: 01/06/10 13:48 Received: 01/07/10 15:10 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8011 GCS EDB and DBCP	Analytical Method: EPA 8011 Preparation Method: EPA 8011								
1,2-Dibromoethane (EDB)	ND	ug/L	0.020	0.020	1	01/08/10 15:36	01/08/10 22:23	106-93-4	
1-Chloro-2-bromopropane (S)	91	%	60-140		1	01/08/10 15:36	01/08/10 22:23	301-79-56	
8260 MSV Oxygenates	Analytical Method: EPA 8260								
tert-Amyl Alcohol	ND	ug/L	100	62.0	1		01/12/10 17:57	75-85-4	
tert-Amylmethyl ether	ND	ug/L	10.0	4.5	1		01/12/10 17:57	994-05-8	
Benzene	ND	ug/L	5.0	1.2	1		01/12/10 17:57	71-43-2	
3,3-Dimethyl-1-Butanol	ND	ug/L	100	48.0	1		01/12/10 17:57	624-95-3	
tert-Butyl Alcohol	ND	ug/L	100	27.0	1		01/12/10 17:57	75-65-0	
tert-Butyl Formate	ND	ug/L	50.0	9.0	1		01/12/10 17:57	762-75-4	
1,2-Dichloroethane	ND	ug/L	5.0	1.3	1		01/12/10 17:57	107-06-2	
Diisopropyl ether	ND	ug/L	5.0	2.7	1		01/12/10 17:57	108-20-3	
Ethanol	ND	ug/L	200	170	1		01/12/10 17:57	64-17-5	
Ethylbenzene	ND	ug/L	5.0	1.1	1		01/12/10 17:57	100-41-4	
Ethyl-tert-butyl ether	ND	ug/L	10.0	4.6	1		01/12/10 17:57	637-92-3	
Methyl-tert-butyl ether	ND	ug/L	5.0	2.0	1		01/12/10 17:57	1634-04-4	
Naphthalene	ND	ug/L	5.0	2.9	1		01/12/10 17:57	91-20-3	
Toluene	ND	ug/L	5.0	1.8	1		01/12/10 17:57	108-88-3	
Xylene (Total)	ND	ug/L	10.0	2.7	1		01/12/10 17:57	1330-20-7	
m&p-Xylene	ND	ug/L	10.0	2.7	1		01/12/10 17:57	1330-20-7	
o-Xylene	ND	ug/L	5.0	1.7	1		01/12/10 17:57	95-47-6	
Dibromofluoromethane (S)	100	%	85-115		1		01/12/10 17:57	1868-53-7	
Toluene-d8 (S)	95	%	70-120		1		01/12/10 17:57	2037-26-5	
4-Bromofluorobenzene (S)	92	%	87-109		1		01/12/10 17:57	460-00-4	
1,2-Dichloroethane-d4 (S)	103	%	79-120		1		01/12/10 17:57	17060-07-0	

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ANALYTICAL RESULTS

Project: WARREN GREEN 04887
Pace Project No.: 9260868

Sample: MW-14 **Lab ID: 9260868011** Collected: 01/06/10 13:40 Received: 01/07/10 15:10 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8011 GCS EDB and DBCP	Analytical Method: EPA 8011 Preparation Method: EPA 8011								
1,2-Dibromoethane (EDB)	ND	ug/L	0.019	0.019	1	01/08/10 15:36	01/08/10 22:43	106-93-4	
1-Chloro-2-bromopropane (S)	87	%	60-140		1	01/08/10 15:36	01/08/10 22:43	301-79-56	
8260 MSV Oxygenates	Analytical Method: EPA 8260								
tert-Amyl Alcohol	ND	ug/L	100	62.0	1		01/12/10 18:16	75-85-4	
tert-Amylmethyl ether	ND	ug/L	10.0	4.5	1		01/12/10 18:16	994-05-8	
Benzene	ND	ug/L	5.0	1.2	1		01/12/10 18:16	71-43-2	
3,3-Dimethyl-1-Butanol	ND	ug/L	100	48.0	1		01/12/10 18:16	624-95-3	
tert-Butyl Alcohol	ND	ug/L	100	27.0	1		01/12/10 18:16	75-65-0	
tert-Butyl Formate	ND	ug/L	50.0	9.0	1		01/12/10 18:16	762-75-4	
1,2-Dichloroethane	ND	ug/L	5.0	1.3	1		01/12/10 18:16	107-06-2	
Diisopropyl ether	ND	ug/L	5.0	2.7	1		01/12/10 18:16	108-20-3	
Ethanol	ND	ug/L	200	170	1		01/12/10 18:16	64-17-5	
Ethylbenzene	ND	ug/L	5.0	1.1	1		01/12/10 18:16	100-41-4	
Ethyl-tert-butyl ether	ND	ug/L	10.0	4.6	1		01/12/10 18:16	637-92-3	
Methyl-tert-butyl ether	ND	ug/L	5.0	2.0	1		01/12/10 18:16	1634-04-4	
Naphthalene	ND	ug/L	5.0	2.9	1		01/12/10 18:16	91-20-3	
Toluene	ND	ug/L	5.0	1.8	1		01/12/10 18:16	108-88-3	
Xylene (Total)	ND	ug/L	10.0	2.7	1		01/12/10 18:16	1330-20-7	
m&p-Xylene	ND	ug/L	10.0	2.7	1		01/12/10 18:16	1330-20-7	
o-Xylene	ND	ug/L	5.0	1.7	1		01/12/10 18:16	95-47-6	
Dibromofluoromethane (S)	100	%	85-115		1		01/12/10 18:16	1868-53-7	
Toluene-d8 (S)	98	%	70-120		1		01/12/10 18:16	2037-26-5	
4-Bromofluorobenzene (S)	95	%	87-109		1		01/12/10 18:16	460-00-4	
1,2-Dichloroethane-d4 (S)	104	%	79-120		1		01/12/10 18:16	17060-07-0	

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ANALYTICAL RESULTS

Project: WARREN GREEN 04887
Pace Project No.: 9260868

Sample: MW-15 **Lab ID: 9260868012** Collected: 01/06/10 13:32 Received: 01/07/10 15:10 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8011 GCS EDB and DBCP	Analytical Method: EPA 8011 Preparation Method: EPA 8011								
1,2-Dibromoethane (EDB)	ND	ug/L	0.020	0.020	1	01/08/10 15:36	01/08/10 23:02	106-93-4	
1-Chloro-2-bromopropane (S)	93	%	60-140		1	01/08/10 15:36	01/08/10 23:02	301-79-56	
8260 MSV Oxygenates	Analytical Method: EPA 8260								
tert-Amyl Alcohol	ND	ug/L	100	62.0	1		01/12/10 18:34	75-85-4	
tert-Amylmethyl ether	ND	ug/L	10.0	4.5	1		01/12/10 18:34	994-05-8	
Benzene	ND	ug/L	5.0	1.2	1		01/12/10 18:34	71-43-2	
3,3-Dimethyl-1-Butanol	ND	ug/L	100	48.0	1		01/12/10 18:34	624-95-3	
tert-Butyl Alcohol	ND	ug/L	100	27.0	1		01/12/10 18:34	75-65-0	
tert-Butyl Formate	ND	ug/L	50.0	9.0	1		01/12/10 18:34	762-75-4	
1,2-Dichloroethane	ND	ug/L	5.0	1.3	1		01/12/10 18:34	107-06-2	
Diisopropyl ether	ND	ug/L	5.0	2.7	1		01/12/10 18:34	108-20-3	
Ethanol	ND	ug/L	200	170	1		01/12/10 18:34	64-17-5	
Ethylbenzene	ND	ug/L	5.0	1.1	1		01/12/10 18:34	100-41-4	
Ethyl-tert-butyl ether	ND	ug/L	10.0	4.6	1		01/12/10 18:34	637-92-3	
Methyl-tert-butyl ether	ND	ug/L	5.0	2.0	1		01/12/10 18:34	1634-04-4	
Naphthalene	ND	ug/L	5.0	2.9	1		01/12/10 18:34	91-20-3	
Toluene	ND	ug/L	5.0	1.8	1		01/12/10 18:34	108-88-3	
Xylene (Total)	ND	ug/L	10.0	2.7	1		01/12/10 18:34	1330-20-7	
m&p-Xylene	ND	ug/L	10.0	2.7	1		01/12/10 18:34	1330-20-7	
o-Xylene	ND	ug/L	5.0	1.7	1		01/12/10 18:34	95-47-6	
Dibromofluoromethane (S)	101	%	85-115		1		01/12/10 18:34	1868-53-7	
Toluene-d8 (S)	98	%	70-120		1		01/12/10 18:34	2037-26-5	
4-Bromofluorobenzene (S)	95	%	87-109		1		01/12/10 18:34	460-00-4	
1,2-Dichloroethane-d4 (S)	105	%	79-120		1		01/12/10 18:34	17060-07-0	

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ANALYTICAL RESULTS

Project: WARREN GREEN 04887
Pace Project No.: 9260868

Sample: DW-1 **Lab ID: 9260868013** Collected: 01/06/10 14:01 Received: 01/07/10 15:10 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8011 GCS EDB and DBCP	Analytical Method: EPA 8011 Preparation Method: EPA 8011								
1,2-Dibromoethane (EDB)	ND	ug/L	0.020	0.020	1	01/08/10 15:37	01/08/10 23:22	106-93-4	
1-Chloro-2-bromopropane (S)	107	%	60-140		1	01/08/10 15:37	01/08/10 23:22	301-79-56	
8260 MSV Oxygenates	Analytical Method: EPA 8260								
tert-Amyl Alcohol	ND	ug/L	100	62.0	1		01/12/10 18:53	75-85-4	
tert-Amylmethyl ether	ND	ug/L	10.0	4.5	1		01/12/10 18:53	994-05-8	
Benzene	ND	ug/L	5.0	1.2	1		01/12/10 18:53	71-43-2	
3,3-Dimethyl-1-Butanol	ND	ug/L	100	48.0	1		01/12/10 18:53	624-95-3	
tert-Butyl Alcohol	ND	ug/L	100	27.0	1		01/12/10 18:53	75-65-0	
tert-Butyl Formate	ND	ug/L	50.0	9.0	1		01/12/10 18:53	762-75-4	
1,2-Dichloroethane	ND	ug/L	5.0	1.3	1		01/12/10 18:53	107-06-2	
Diisopropyl ether	ND	ug/L	5.0	2.7	1		01/12/10 18:53	108-20-3	
Ethanol	ND	ug/L	200	170	1		01/12/10 18:53	64-17-5	
Ethylbenzene	**9.3**	ug/L	5.0	1.1	1		01/12/10 18:53	100-41-4	
Ethyl-tert-butyl ether	ND	ug/L	10.0	4.6	1		01/12/10 18:53	637-92-3	
Methyl-tert-butyl ether	ND	ug/L	5.0	2.0	1		01/12/10 18:53	1634-04-4	
Naphthalene	ND	ug/L	5.0	2.9	1		01/12/10 18:53	91-20-3	
Toluene	ND	ug/L	5.0	1.8	1		01/12/10 18:53	108-88-3	
Xylene (Total)	ND	ug/L	10.0	2.7	1		01/12/10 18:53	1330-20-7	
m&p-Xylene	ND	ug/L	10.0	2.7	1		01/12/10 18:53	1330-20-7	
o-Xylene	ND	ug/L	5.0	1.7	1		01/12/10 18:53	95-47-6	
Dibromofluoromethane (S)	100	%	85-115		1		01/12/10 18:53	1868-53-7	
Toluene-d8 (S)	95	%	70-120		1		01/12/10 18:53	2037-26-5	
4-Bromofluorobenzene (S)	94	%	87-109		1		01/12/10 18:53	460-00-4	
1,2-Dichloroethane-d4 (S)	102	%	79-120		1		01/12/10 18:53	17060-07-0	

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ANALYTICAL RESULTS

Project: WARREN GREEN 04887
Pace Project No.: 9260868

Sample: DW-2 **Lab ID: 9260868014** Collected: 01/06/10 15:10 Received: 01/07/10 15:10 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8011 GCS EDB and DBCP	Analytical Method: EPA 8011 Preparation Method: EPA 8011								
1,2-Dibromoethane (EDB)	ND	ug/L	0.025	0.025	1	01/08/10 15:37	01/08/10 23:42	106-93-4	
1-Chloro-2-bromopropane (S)	87	%	60-140		1	01/08/10 15:37	01/08/10 23:42	301-79-56	
8260 MSV Oxygenates	Analytical Method: EPA 8260								
tert-Amyl Alcohol	ND	ug/L	100	62.0	1		01/12/10 19:11	75-85-4	
tert-Amylmethyl ether	ND	ug/L	10.0	4.5	1		01/12/10 19:11	994-05-8	
Benzene	ND	ug/L	5.0	1.2	1		01/12/10 19:11	71-43-2	
3,3-Dimethyl-1-Butanol	ND	ug/L	100	48.0	1		01/12/10 19:11	624-95-3	
tert-Butyl Alcohol	ND	ug/L	100	27.0	1		01/12/10 19:11	75-65-0	
tert-Butyl Formate	ND	ug/L	50.0	9.0	1		01/12/10 19:11	762-75-4	
1,2-Dichloroethane	ND	ug/L	5.0	1.3	1		01/12/10 19:11	107-06-2	
Diisopropyl ether	ND	ug/L	5.0	2.7	1		01/12/10 19:11	108-20-3	
Ethanol	ND	ug/L	200	170	1		01/12/10 19:11	64-17-5	
Ethylbenzene	ND	ug/L	5.0	1.1	1		01/12/10 19:11	100-41-4	
Ethyl-tert-butyl ether	ND	ug/L	10.0	4.6	1		01/12/10 19:11	637-92-3	
Methyl-tert-butyl ether	ND	ug/L	5.0	2.0	1		01/12/10 19:11	1634-04-4	
Naphthalene	ND	ug/L	5.0	2.9	1		01/12/10 19:11	91-20-3	
Toluene	ND	ug/L	5.0	1.8	1		01/12/10 19:11	108-88-3	
Xylene (Total)	ND	ug/L	10.0	2.7	1		01/12/10 19:11	1330-20-7	
m&p-Xylene	ND	ug/L	10.0	2.7	1		01/12/10 19:11	1330-20-7	
o-Xylene	ND	ug/L	5.0	1.7	1		01/12/10 19:11	95-47-6	
Dibromofluoromethane (S)	98	%	85-115		1		01/12/10 19:11	1868-53-7	
Toluene-d8 (S)	99	%	70-120		1		01/12/10 19:11	2037-26-5	
4-Bromofluorobenzene (S)	95	%	87-109		1		01/12/10 19:11	460-00-4	
1,2-Dichloroethane-d4 (S)	102	%	79-120		1		01/12/10 19:11	17060-07-0	

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ANALYTICAL RESULTS

Project: WARREN GREEN 04887
Pace Project No.: 9260868

Sample: DW-3 **Lab ID: 9260868015** Collected: 01/06/10 12:54 Received: 01/07/10 15:10 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8011 GCS EDB and DBCP	Analytical Method: EPA 8011 Preparation Method: EPA 8011								
1,2-Dibromoethane (EDB)	ND	ug/L	0.020	0.020	1	01/08/10 15:37	01/09/10 00:01	106-93-4	
1-Chloro-2-bromopropane (S)	99	%	60-140		1	01/08/10 15:37	01/09/10 00:01	301-79-56	
8260 MSV Oxygenates	Analytical Method: EPA 8260								
tert-Amyl Alcohol	ND	ug/L	100	62.0	1		01/12/10 19:30	75-85-4	
tert-Amylmethyl ether	ND	ug/L	10.0	4.5	1		01/12/10 19:30	994-05-8	
Benzene	ND	ug/L	5.0	1.2	1		01/12/10 19:30	71-43-2	
3,3-Dimethyl-1-Butanol	ND	ug/L	100	48.0	1		01/12/10 19:30	624-95-3	
tert-Butyl Alcohol	ND	ug/L	100	27.0	1		01/12/10 19:30	75-65-0	
tert-Butyl Formate	ND	ug/L	50.0	9.0	1		01/12/10 19:30	762-75-4	
1,2-Dichloroethane	ND	ug/L	5.0	1.3	1		01/12/10 19:30	107-06-2	
Diisopropyl ether	ND	ug/L	5.0	2.7	1		01/12/10 19:30	108-20-3	
Ethanol	ND	ug/L	200	170	1		01/12/10 19:30	64-17-5	
Ethylbenzene	ND	ug/L	5.0	1.1	1		01/12/10 19:30	100-41-4	
Ethyl-tert-butyl ether	ND	ug/L	10.0	4.6	1		01/12/10 19:30	637-92-3	
Methyl-tert-butyl ether	ND	ug/L	5.0	2.0	1		01/12/10 19:30	1634-04-4	
Naphthalene	ND	ug/L	5.0	2.9	1		01/12/10 19:30	91-20-3	
Toluene	ND	ug/L	5.0	1.8	1		01/12/10 19:30	108-88-3	
Xylene (Total)	ND	ug/L	10.0	2.7	1		01/12/10 19:30	1330-20-7	
m&p-Xylene	ND	ug/L	10.0	2.7	1		01/12/10 19:30	1330-20-7	
o-Xylene	ND	ug/L	5.0	1.7	1		01/12/10 19:30	95-47-6	
Dibromofluoromethane (S)	102	%	85-115		1		01/12/10 19:30	1868-53-7	
Toluene-d8 (S)	93	%	70-120		1		01/12/10 19:30	2037-26-5	
4-Bromofluorobenzene (S)	92	%	87-109		1		01/12/10 19:30	460-00-4	
1,2-Dichloroethane-d4 (S)	104	%	79-120		1		01/12/10 19:30	17060-07-0	

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ANALYTICAL RESULTS

Project: WARREN GREEN 04887
Pace Project No.: 9260868

Sample: DW-4 **Lab ID: 9260868016** Collected: 01/06/10 13:05 Received: 01/07/10 15:10 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8011 GCS EDB and DBCP	Analytical Method: EPA 8011 Preparation Method: EPA 8011								
1,2-Dibromoethane (EDB)	ND	ug/L	0.021	0.021	1	01/08/10 15:37	01/09/10 00:21	106-93-4	
1-Chloro-2-bromopropane (S)	113	%	60-140		1	01/08/10 15:37	01/09/10 00:21	301-79-56	
8260 MSV Oxygenates	Analytical Method: EPA 8260								
tert-Amyl Alcohol	ND	ug/L	100	62.0	1		01/12/10 19:48	75-85-4	
tert-Amylmethyl ether	ND	ug/L	10.0	4.5	1		01/12/10 19:48	994-05-8	
Benzene	ND	ug/L	5.0	1.2	1		01/12/10 19:48	71-43-2	
3,3-Dimethyl-1-Butanol	ND	ug/L	100	48.0	1		01/12/10 19:48	624-95-3	
tert-Butyl Alcohol	ND	ug/L	100	27.0	1		01/12/10 19:48	75-65-0	
tert-Butyl Formate	ND	ug/L	50.0	9.0	1		01/12/10 19:48	762-75-4	
1,2-Dichloroethane	ND	ug/L	5.0	1.3	1		01/12/10 19:48	107-06-2	
Diisopropyl ether	ND	ug/L	5.0	2.7	1		01/12/10 19:48	108-20-3	
Ethanol	ND	ug/L	200	170	1		01/12/10 19:48	64-17-5	
Ethylbenzene	ND	ug/L	5.0	1.1	1		01/12/10 19:48	100-41-4	
Ethyl-tert-butyl ether	ND	ug/L	10.0	4.6	1		01/12/10 19:48	637-92-3	
Methyl-tert-butyl ether	ND	ug/L	5.0	2.0	1		01/12/10 19:48	1634-04-4	
Naphthalene	ND	ug/L	5.0	2.9	1		01/12/10 19:48	91-20-3	
Toluene	ND	ug/L	5.0	1.8	1		01/12/10 19:48	108-88-3	
Xylene (Total)	ND	ug/L	10.0	2.7	1		01/12/10 19:48	1330-20-7	
m&p-Xylene	ND	ug/L	10.0	2.7	1		01/12/10 19:48	1330-20-7	
o-Xylene	ND	ug/L	5.0	1.7	1		01/12/10 19:48	95-47-6	
Dibromofluoromethane (S)	100	%	85-115		1		01/12/10 19:48	1868-53-7	
Toluene-d8 (S)	91	%	70-120		1		01/12/10 19:48	2037-26-5	
4-Bromofluorobenzene (S)	92	%	87-109		1		01/12/10 19:48	460-00-4	
1,2-Dichloroethane-d4 (S)	104	%	79-120		1		01/12/10 19:48	17060-07-0	

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QUALITY CONTROL DATA

Project: WARREN GREEN 04887
Pace Project No.: 9260868

QC Batch: OEXT/9004 Analysis Method: EPA 8011
QC Batch Method: EPA 8011 Analysis Description: GCS 8011 EDB DBCP
Associated Lab Samples: 9260868001, 9260868002, 9260868003, 9260868004, 9260868005, 9260868006, 9260868007, 9260868008, 9260868009, 9260868010, 9260868011, 9260868012, 9260868013, 9260868014, 9260868015, 9260868016

METHOD BLANK: 388305 Matrix: Water
Associated Lab Samples: 9260868001, 9260868002, 9260868003, 9260868004, 9260868005, 9260868006, 9260868007, 9260868008, 9260868009, 9260868010, 9260868011, 9260868012, 9260868013, 9260868014, 9260868015, 9260868016

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
1,2-Dibromoethane (EDB)	ug/L	ND	0.020	01/08/10 17:28	
1-Chloro-2-bromopropane (S)	%	93	60-140	01/08/10 17:28	

LABORATORY CONTROL SAMPLE & LCSD: 388306 388307

Parameter	Units	Spike Conc.	LCS Result	LCSD Result	LCS % Rec	LCSD % Rec	% Rec Limits	RPD	Max RPD	Qualifiers
1,2-Dibromoethane (EDB)	ug/L	.28	0.30	0.29	108	102	60-140	5	20	
1-Chloro-2-bromopropane (S)	%				85	99	60-140			

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 388308 388309

Parameter	Units	9260868001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
1,2-Dibromoethane (EDB)	ug/L	ND	.28	.28	0.31	0.31	110	110	60-140	0	20	
1-Chloro-2-bromopropane (S)	%						104	103	60-140			

SAMPLE DUPLICATE: 388310

Parameter	Units	9260868003 Result	Dup Result	RPD	Max RPD	Qualifiers
1,2-Dibromoethane (EDB)	ug/L	ND	ND		20	
1-Chloro-2-bromopropane (S)	%	98	101	0		

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QUALITY CONTROL DATA

Project: WARREN GREEN 04887
Pace Project No.: 9260868

QC Batch: MSV/9622 — Analysis Method: EPA 8260
QC Batch Method: EPA 8260 — Analysis Description: 8260 MSV Oxygenates
Associated Lab Samples: 9260868002, 9260868005

METHOD BLANK: 389146 — Matrix: Water
Associated Lab Samples: 9260868002, 9260868005

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
1,2-Dichloroethane	ug/L	ND	5.0	01/12/10 12:52	
3,3-Dimethyl-1-Butanol	ug/L	ND	100	01/12/10 12:52	
Benzene	ug/L	ND	5.0	01/12/10 12:52	
Diisopropyl ether	ug/L	ND	5.0	01/12/10 12:52	
Ethanol	ug/L	ND	200	01/12/10 12:52	
Ethyl-tert-butyl ether	ug/L	ND	10.0	01/12/10 12:52	
Ethylbenzene	ug/L	ND	5.0	01/12/10 12:52	
m&p-Xylene	ug/L	ND	10.0	01/12/10 12:52	
Methyl-tert-butyl ether	ug/L	ND	5.0	01/12/10 12:52	
Naphthalene	ug/L	ND	5.0	01/12/10 12:52	
o-Xylene	ug/L	ND	5.0	01/12/10 12:52	
tert-Amyl Alcohol	ug/L	ND	100	01/12/10 12:52	
tert-Amylmethyl ether	ug/L	ND	10.0	01/12/10 12:52	
tert-Butyl Alcohol	ug/L	ND	100	01/12/10 12:52	
tert-Butyl Formate	ug/L	ND	50.0	01/12/10 12:52	
Toluene	ug/L	ND	5.0	01/12/10 12:52	
Xylene (Total)	ug/L	ND	10.0	01/12/10 12:52	
1,2-Dichloroethane-d4 (S)	%	103	79-120	01/12/10 12:52	
4-Bromofluorobenzene (S)	%	97	87-109	01/12/10 12:52	
Dibromofluoromethane (S)	%	98	85-115	01/12/10 12:52	
Toluene-d8 (S)	%	99	70-120	01/12/10 12:52	

LABORATORY CONTROL SAMPLE: 389147

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,2-Dichloroethane	ug/L	50	52.9	106	72-126	
3,3-Dimethyl-1-Butanol	ug/L	1000	972	97	55-148	
Benzene	ug/L	50	52.7	105	78-128	
Diisopropyl ether	ug/L	50	53.0	106	74-131	
Ethanol	ug/L	2000	2540	127	53-150	
Ethyl-tert-butyl ether	ug/L	100	106	106	77-136	
Ethylbenzene	ug/L	50	52.8	106	80-127	
m&p-Xylene	ug/L	100	107	107	82-127	
Methyl-tert-butyl ether	ug/L	50	53.4	107	71-130	
Naphthalene	ug/L	50	59.6	119	52-136	
o-Xylene	ug/L	50	51.9	104	83-124	
tert-Amyl Alcohol	ug/L	1000	993	99	50-150	
tert-Amylmethyl ether	ug/L	100	107	107	50-150	
tert-Butyl Alcohol	ug/L	500	507	101	50-150	
tert-Butyl Formate	ug/L	400	379	95	50-150	
Toluene	ug/L	50	52.9	106	76-126	

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QUALITY CONTROL DATA

Project: WARREN GREEN 04887
Pace Project No.: 9260868

LABORATORY CONTROL SAMPLE: 389147

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Xylene (Total)	ug/L	150	159	106	83-125	
1,2-Dichloroethane-d4 (S)	%			102	79-120	
4-Bromofluorobenzene (S)	%			102	87-109	
Dibromofluoromethane (S)	%			100	85-115	
Toluene-d8 (S)	%			101	70-120	

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QUALITY CONTROL DATA

Project: WARREN GREEN 04887
Pace Project No.: 9260868

QC Batch: MSV/9623 | Analysis Method: EPA 8260
QC Batch Method: EPA 8260 | Analysis Description: 8260 MSV Oxygenates

Associated Lab Samples: 9260868003, 9260868004, 9260868006, 9260868007, 9260868008, 9260868009, 9260868010, 9260868011, 9260868012, 9260868013, 9260868014, 9260868015, 9260868016

METHOD BLANK: 389153 | Matrix: Water

Associated Lab Samples: 9260868003, 9260868004, 9260868006, 9260868007, 9260868008, 9260868009, 9260868010, 9260868011, 9260868012, 9260868013, 9260868014, 9260868015, 9260868016

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
1,2-Dichloroethane	ug/L	ND	5.0	01/12/10 12:33	
3,3-Dimethyl-1-Butanol	ug/L	ND	100	01/12/10 12:33	
Benzene	ug/L	ND	5.0	01/12/10 12:33	
Diisopropyl ether	ug/L	ND	5.0	01/12/10 12:33	
Ethanol	ug/L	ND	200	01/12/10 12:33	
Ethyl-tert-butyl ether	ug/L	ND	10.0	01/12/10 12:33	
Ethylbenzene	ug/L	ND	5.0	01/12/10 12:33	
m&p-Xylene	ug/L	ND	10.0	01/12/10 12:33	
Methyl-tert-butyl ether	ug/L	ND	5.0	01/12/10 12:33	
Naphthalene	ug/L	ND	5.0	01/12/10 12:33	
o-Xylene	ug/L	ND	5.0	01/12/10 12:33	
tert-Amyl Alcohol	ug/L	ND	100	01/12/10 12:33	
tert-Amylmethyl ether	ug/L	ND	10.0	01/12/10 12:33	
tert-Butyl Alcohol	ug/L	ND	100	01/12/10 12:33	
tert-Butyl Formate	ug/L	ND	50.0	01/12/10 12:33	
Toluene	ug/L	ND	5.0	01/12/10 12:33	
Xylene (Total)	ug/L	ND	10.0	01/12/10 12:33	
1,2-Dichloroethane-d4 (S)	%	104	79-120	01/12/10 12:33	
4-Bromofluorobenzene (S)	%	97	87-109	01/12/10 12:33	
Dibromofluoromethane (S)	%	99	85-115	01/12/10 12:33	
Toluene-d8 (S)	%	99	70-120	01/12/10 12:33	

LABORATORY CONTROL SAMPLE: 389154

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,2-Dichloroethane	ug/L	50	52.9	106	72-126	
3,3-Dimethyl-1-Butanol	ug/L	1000	1070	107	55-148	
Benzene	ug/L	50	52.0	104	78-128	
Diisopropyl ether	ug/L	50	52.9	106	74-131	
Ethanol	ug/L	2000	2740	137	53-150	
Ethyl-tert-butyl ether	ug/L	100	106	106	77-136	
Ethylbenzene	ug/L	50	51.3	103	80-127	
m&p-Xylene	ug/L	100	105	105	82-127	
Methyl-tert-butyl ether	ug/L	50	53.5	107	71-130	
Naphthalene	ug/L	50	60.8	122	52-136	
o-Xylene	ug/L	50	51.4	103	83-124	
tert-Amyl Alcohol	ug/L	1000	1110	111	50-150	
tert-Amylmethyl ether	ug/L	100	109	109	50-150	
tert-Butyl Alcohol	ug/L	500	556	111	50-150	
tert-Butyl Formate	ug/L	400	382	96	50-150	

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QUALITY CONTROL DATA

Project: WARREN GREEN 04887
Pace Project No.: 9260868

LABORATORY CONTROL SAMPLE: 389154

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Toluene	ug/L	50	52.4	105	76-126	
Xylene (Total)	ug/L	150	156	104	83-125	
1,2-Dichloroethane-d4 (S)	%			104	79-120	
4-Bromofluorobenzene (S)	%			101	87-109	
Dibromofluoromethane (S)	%			101	85-115	
Toluene-d8 (S)	%			101	70-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 389155 389156

Parameter	Units	9260790014 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Benzene	ug/L	ND	50	50	53.2	56.3	106	113	74-136	6	30	
Toluene	ug/L	ND	50	50	50.9	54.3	101	108	73-131	6	30	
1,2-Dichloroethane-d4 (S)	%						102	105	79-120			
4-Bromofluorobenzene (S)	%						94	95	87-109			
Dibromofluoromethane (S)	%						99	101	85-115			
Toluene-d8 (S)	%						97	99	70-120			

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QUALITY CONTROL DATA

Project: WARREN GREEN 04887
Pace Project No.: 9260868

QC Batch: MSV/9634
Analysis Method: EPA 8260
QC Batch Method: EPA 8260
Analysis Description: 8260 MSV Oxygenates
Associated Lab Samples: 9260868001

METHOD BLANK: 389521
Matrix: Water
Associated Lab Samples: 9260868001

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
1,2-Dichloroethane	ug/L	ND	5.0	01/13/10 02:39	
3,3-Dimethyl-1-Butanol	ug/L	ND	100	01/13/10 02:39	
Benzene	ug/L	ND	5.0	01/13/10 02:39	
Diisopropyl ether	ug/L	ND	5.0	01/13/10 02:39	
Ethanol	ug/L	ND	200	01/13/10 02:39	
Ethyl-tert-butyl ether	ug/L	ND	10.0	01/13/10 02:39	
Ethylbenzene	ug/L	ND	5.0	01/13/10 02:39	
m&p-Xylene	ug/L	ND	10.0	01/13/10 02:39	
Methyl-tert-butyl ether	ug/L	ND	5.0	01/13/10 02:39	
Naphthalene	ug/L	ND	5.0	01/13/10 02:39	
o-Xylene	ug/L	ND	5.0	01/13/10 02:39	
tert-Amyl Alcohol	ug/L	ND	100	01/13/10 02:39	
tert-Amylmethyl ether	ug/L	ND	10.0	01/13/10 02:39	
tert-Butyl Alcohol	ug/L	ND	100	01/13/10 02:39	
tert-Butyl Formate	ug/L	ND	50.0	01/13/10 02:39	
Toluene	ug/L	ND	5.0	01/13/10 02:39	
Xylene (Total)	ug/L	ND	10.0	01/13/10 02:39	
1,2-Dichloroethane-d4 (S)	%	96	79-120	01/13/10 02:39	
4-Bromofluorobenzene (S)	%	97	87-109	01/13/10 02:39	
Dibromofluoromethane (S)	%	100	85-115	01/13/10 02:39	
Toluene-d8 (S)	%	102	70-120	01/13/10 02:39	

LABORATORY CONTROL SAMPLE: 389522

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,2-Dichloroethane	ug/L	50	51.0	102	72-126	
3,3-Dimethyl-1-Butanol	ug/L	1000	991	99	55-148	
Benzene	ug/L	50	52.3	105	78-128	
Diisopropyl ether	ug/L	50	50.6	101	74-131	
Ethanol	ug/L	2000	1800	90	53-150	
Ethyl-tert-butyl ether	ug/L	100	105	105	77-136	
Ethylbenzene	ug/L	50	52.7	105	80-127	
m&p-Xylene	ug/L	100	108	108	82-127	
Methyl-tert-butyl ether	ug/L	50	56.0	112	71-130	
Naphthalene	ug/L	50	60.8	122	52-136	
o-Xylene	ug/L	50	52.4	105	83-124	
tert-Amyl Alcohol	ug/L	1000	1060	106	50-150	
tert-Amylmethyl ether	ug/L	100	107	107	50-150	
tert-Butyl Alcohol	ug/L	500	511	102	50-150	
tert-Butyl Formate	ug/L	400	410	103	50-150	
Toluene	ug/L	50	51.8	104	76-126	

Pace Analytical®
www.pacelabs.com

Pace Analytical Services, Inc.
2225 Riverside Dr.
Asheville, NC 28804
(828)254-7176

Pace Analytical Services, Inc.
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

QUALITY CONTROL DATA

Project: WARREN GREEN 04887
Pace Project No.: 9260868

LABORATORY CONTROL SAMPLE: 389522

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Xylene (Total)	ug/L	150	160	107	83-125	
1,2-Dichloroethane-d4 (S)	%			96	79-120	
4-Bromofluorobenzene (S)	%			99	87-109	
Dibromofluoromethane (S)	%			99	85-115	
Toluene-d8 (S)	%			99	70-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 389523 389524

Parameter	Units	9260790023 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Benzene	ug/L	ND	50	50	57.3	54.7	115	109	74-136	5	30	
Toluene	ug/L	ND	50	50	56.1	53.4	112	106	73-131	5	30	
1,2-Dichloroethane-d4 (S)	%						103	101	79-120			
4-Bromofluorobenzene (S)	%						98	97	87-109			
Dibromofluoromethane (S)	%						104	103	85-115			
Toluene-d8 (S)	%						100	100	70-120			

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(828)254-7176

Pace Analytical Services, Inc.
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

QUALIFIERS

Project:	WARREN GREEN 04887
Pace Project No.:	9260868

DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to changes in sample preparation, dilution of the sample aliquot, or moisture content.

ND - Not Detected at or above adjusted reporting limit.

J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.

MDL - Adjusted Method Detection Limit.

S - Surrogate

1,2-Diphenylhydrazine (8270 listed analyte) decomposes to Azobenzene.

Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

Pace Analytical is NELAP accredited. Contact your Pace PM for the current list of accredited analytes.

U - Indicates the compound was analyzed for, but not detected.

ANALYTE QUALIFIERS

S4 Surrogate recovery not evaluated against control limits due to sample dilution.

From: Renee Spencer
To: bpk@meci.net; wcm@meci.net
CC: jlc@meci.net
Date: 1/8/2010 2:56 PM
Subject: Warren Green DHEC project 9260868
Attachments: 9260868_coc.pdf

Hello-

Sorry, but for this project we will not be able to run samples DW-5 and DW-6 due to heavy sediment in the vials. Both samples will need to be canceled from the project for 8260 oxy and 8011.

Thanks,
Renee

Pace Analytical®
www.pacelabs.com

CHAIN-OF-CUSTODY / Analytical Request Document

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

Page: 1 of 2

1331310

Section A
Required Client Information:

Company: SCDHEC - UST
Address: 2600 Bull Street
Columbia, SC 29201
Email To:
Phone: 803-893-6240 Fax: 803-869-6243
Requested Due Date/TAT:

Section B
Required Project Information:

Report To: D. Thoma
Copy To:
Purchase Order No.: 719459
Project Name: Warren Green
Project Number: 04887/37306

Section C
Invoice Information:

Attention: Finance
Company Name: SCDHEC - UST
Address:
Pace Quote Reference:
Pace Project Manager: R. Spencer
Pace Profile #: 8119-1.5

REGULATORY AGENCY

☐ NPDES ☐ GROUND WATER ☐ DRINKING WATER
☒ UST ☐ RCRA ☐ OTHER ______

Site Location STATE: SC

Section D
Required Client Information

SAMPLE ID
(A-Z, 0-9 / ,-)
Sample IDs MUST BE UNIQUE

Matrix Codes	MATRIX / CODE
Drinking Water	DW
Water	WT
Waste Water	WW
Product	P
Soil/Solid	SL
Oil	OL
Wipe	WP
Air	AR
Tissue	TS
Other	OT

Requested Analysis Filtered (Y/N)

Analysis Test: BTEX, Naph, MTBE; 1,2 DCA, 8Oxy; EDB 8011

Pace Project No./ Lab I.D.: 9260868

ITEM #	SAMPLE ID	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED COMPOSITE START DATE	TIME	COMPOSITE END/GRAB DATE	TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Unpreserved	H_2SO_4	HNO_3	HCl	NaOH	$Na_2S_2O_3$	Methanol	Other	BTEX, Naph, MTBE	1,2 DCA, 8Oxy	EDB 8011	Residual Chlorine (Y/N)	Pace Project No./ Lab I.D.	
1	~~MW-1~~	~~WT~~	~~G~~																				
2	MW-2	WT	G			1/6	13:10		6				6					Y	Y	Y		~~Not Located~~	
3	~~MW-3R~~																					No Odor	001
4	MW-4						14:43		6													~~Not Located~~	
5	MW-5						12:51		6									Y	Y	Y		Slight odor	002
6	MW-6						13:06		6									X	X	Y		No Odor	003
7	MW-7						11:30		6									X	X	X		No Odor	004
8	MW-8						10:45		6									X	X	X		Odor	005
9	MW-9						10:30		6									X	X	X		Odor	006
10	MW-10						10:15		6									X	X	X		No odor	007
11	MW-11	WT	G			1/6	10:00		6				6					X	X	X		No odor	008
12	~~MW-12~~	~~WT~~	~~G~~			~~1/6~~												X	X	X		No Odor	009
																						~~Not Located~~	

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS			
Report J values	[signature]	1-6	5:30	S. Moody - Pace	1-7-10	11:30				
	S. Moody	1-7-10	15:10	[signature] Pace	1-7-10	1510	3.0	Y	N	Y
							Temp in °C	Received on Ice (Y/N)	Custody Sealed Cooler (Y/N)	Samples Intact (Y/N)

ORIGINAL

SAMPLER NAME AND SIGNATURE
PRINT Name of SAMPLER: Courtney M. Earls
SIGNATURE of SAMPLER: [signature]
DATE Signed (MM/DD/YY): 01/06/10

*Important Note: By signing this form you are accepting Pace's NET 30 day payment terms and agreeing to late charges of 1.5% per month for any invoices not paid within 30 days.

F-ALL-Q-020rev.07, 15-May-2007

Pace Analytical®
www.pacelabs.com

CHAIN-OF-CUSTODY / Analytical Request Document

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

Page: 2 of 2

1331309

Section A
Required Client Information:
Company: SCDHEC-UST
Address: 2600 Bull Street
Columbia, SC 29201
Email To:
Phone: 803-893-6240 Fax: 803-896-6243
Requested Due Date/TAT:

Section B
Required Project Information:
Report To: D. Thoma
Copy To:
Purchase Order No.: 719459
Project Name: Warren Green
Project Number: 04887/37306

Section C
Invoice Information:
Attention: Finance
Company Name: SCDHEC-UST
Address:
Pace Quote Reference:
Pace Project Manager: R. Spencer
Pace Profile #:

REGULATORY AGENCY
NPDES | GROUND WATER | DRINKING WATER
X UST | RCRA | OTHER
Site Location STATE: SC

Section D
Required Client Information

SAMPLE ID
(A-Z, 0-9 / ,-)
Sample IDs MUST BE UNIQUE

Matrix Codes
MATRIX / CODE
Drinking Water DW
Water WT
Waste Water WW
Product P
Soil/Solid SL
Oil OL
Wipe WP
Air AR
Tissue TS
Other OT

Requested Analysis Filtered (Y/N)

Pace Project No./ Lab I.D.: 9260868

ITEM #	SAMPLE ID	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED COMPOSITE START DATE	COMPOSITE START TIME	COMPOSITE END/GRAB DATE	COMPOSITE END/GRAB TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Unpreserved	H_2SO_4	HNO_3	HCl	NaOH	$Na_2S_2O_3$	Methanol	Other	Analysis Test Y/N	BTEX, NAPT, MTBE	1,2 DCA, 80[illegible]	EDB 8011		Residual Chlorine (Y/N)	Pace Project No./ Lab I.D.
1	MW-13	WT	G	1/6		1/6	13:48		6				6						Y	Y	Y	010		No Odor
2	MW-14						13:40															011		No Odor
3	MW-15						13:30															012		No Odor
4	DW-1						14:01															013		Slight odor
5	DW-2						6:10															014		Slight odor
6	DW-3						12:54															015		No odor
7	DW-4						13:05															016		~~Slight odor/Thick~~ odor
8	DW-5						14:48															017		Slight odor/Thick
9	DW-6	WT	G			1/6	11:15		6				6						Y	X	X	018		Slight odor/Thick
10																								
11																								
12																								

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS			
Report J values	[signature]	1/6	5:34	D Moody - Pace	1-7-10	11:30				
	D Moody	1-7-10	15:10	J More	1-7-10	1510	30	Y	N	Y
							Temp in °C	Received on Ice (Y/N)	Custody Sealed Cooler (Y/N)	Samples Intact (Y/N)

ORIGINAL

SAMPLER NAME AND SIGNATURE
PRINT Name of SAMPLER: Courtney M. Sanders
SIGNATURE of SAMPLER: [signature] DATE Signed (MM/DD/YY): 01/06/10

*Important Note: By signing this form you are accepting Pace's NET 30 day payment terms and agreeing to late charges of 1.5% per month for any invoices not paid within 30 days.

D H E C
PROMOTE PROTECT PROSPER
C. Earl Hunter, Commissioner
Promoting and protecting the health of the public and the environment.

OCT 13 2010

BRYAN SHANE
MIDLANDS ENVIRONMENTAL CONSULTANTS
PO BOX 854
LEXINGTON SC 29071

UST DOCKET
14 tech

Re: **Notice to Proceed-Groundwater Sampling**
Bid # IFB-33335-3/11/08-EMW; PO# 4500011285

Dear Mr. Shane:

Based on the award of the referenced bid package, enclosed are the information packets to conduct twelve (12) groundwater-sampling events. The packets contain all necessary information for work to begin. The facility has been assigned an individual Cost Agreement (CA) number as listed below. Please reference the CA number and Purchase Order # 4500011285 on the appropriate invoice submitted for payment against the facility.

UST Permit #	Facility	County	# wells	UST Project Manager	Sampling Due Date	Parameters-Groundwater	PACE CA#	MECI CA#
16093	Frye Enterprises	Jasper	15	J. Koon	11/15/10	BTEXMN, DCA, EDB, & Oxygenates	39932	39931
15913	Harvey's Lucky Dollar	Berkeley	9	R. Miner	11/15/10	BTEXMN, DCA, EDB, & Oxygenates	39609	39610
14457	Captain Dicks Marina	Georgetown	12	D. Thoma	11/15/10	BTEXMN & DCA	39714	39715
15591	Newberry Law Center	Newberry	66	J. Skowronek	11/15/10	BTEXMN, DCA, & Oxygenates	40048	40047
19260	Goldrush Restaurant	Darlington	67	A. Smith	11/15/10	BTEXMN, DCA, & EDB	39669	39670
00973	Point South BP	Jasper	13	J. Koon	11/15/10	BTEXMN, DCA, EDB, & Oxygenates	39936	39935
05265	Okeetee Club	Jasper	24	J. Koon	11/15/10	BTEXMN, DCA, EDB, & Oxygenates	39940	39939
10686	Tiger Mart 18	Marlboro	19	J. Martin	11/15/10	BTEXMN & DCA	37805	40058
15385	Squire Village Store	York	22	A. Smith	11/15/10	BTEXMN, DCA & 20-Oxygenates	39582	39583
03462	Hyman Oil Co	Florence	12	M. Rivers	11/15/10	BTEXMN, DCA, & Oxygenates, & 1-EDB	39778	39777
05769	Former A&J Grocery	Sumter	25	D. Thoma	11/15/10	BTEXMN & DCA	39892	39893
04887	Warren Green	Jasper	21	J. Koon	11/15/10	BTEXMN, DCA, EDB, & Oxygenates	39938	39937

MECI will perform services at the sites on behalf of the site's responsible party (RP); however, payment will be made from the SUPERB Account. The site's RP has no obligation for payment for this scope of work. Please coordinate access to the facility with the property owner. Contact information has been provided in the information packet. The Department grants pre-approval for transportation of virgin petroleum impacted soil and groundwater from the referenced site to a permitted treatment facility. There can be no spillage or leakage in transport. All investigation-derived waste (IDW) must be properly contained and labeled prior to disposal. A copy of the disposal manifest and/or acceptance letter from the receiving facility that clearly designates the quantity received must be included with the final report. The SUPERB Account will not reimburse for transportation or treatment of soil and/or groundwater with concentrations below RBSLs. **Please note, the final report is due within 3 weeks from the date the site is sampled. If the site is not sampled by the specified due date or the report is not received in the specified time period, a late fee may be imposed.**

Please contact me with the sampling schedule before commencing work at these facilities. If you have any questions or need further assistance, please contact me at (803) 896-6397 or thomadl@dhec.sc.gov.

Sincerely,

Debra L Thoma

Debra L. Thoma, Hydrogeologist
Corrective Action Section
UST Management Division
Bureau of Land & Waste Management

enc: Information Packets
Approved Cost Agreements

cc: Renee Spencer, PACE Analytical, 9800 Kincey Ave. Ste. 100, Huntersville, NC, 28078 (w/ Approved CAs)
Technical Files (w/o. enc.)

Approved Cost Agreement 39938

Facility: 04887 WARREN GREEN

KOONJT

PO Number:

Task / Description	Categories	Item	Description	Qty / Pct	Unit Price	Amount
11 ANALYSES						
	GW GROUNDWATER	A	BTEX+NAPTH+MTBE	21.0000	23.00	483.00
		F	EDB	21.0000	25.00	525.00
		P	8 OXYGENATES	21.0000	30.00	630.00
				Total Amount		1,638.00

Approved Cost Agreement 39937

Facility: 04887 WARREN GREEN
KOONJT
PO Number:

Task / Description	Categories	Item	Description	Qty / Pct	Unit Price	Amount
04 MOB/DEMOB						
		B	PERSONNEL	2.0000	150.00	300.00
10 SAMPLE COLLECTION						
		A	GROUND WATER	5.0000	12.00	60.00
		D	GROUNDWATER NO-PURGE	16.0000	10.00	160.00
17 DISPOSAL						
		A1	WASTEWATER - PURGING/SAMPLING	50.0000	0.30	15.00
				Total Amount		535.00

Midlands Environmental Consultants, Inc.

November 16, 2010

RECEIVED

NOV 19 2010

UNDERGROUND STORAGE TANK PROGRAM

Ms. Debra Thoma, Hydrogeologist
Corrective Action Section
Assessment and Corrective Action Division
Underground Storage Tank Program
Bureau of Land and Waste Management
South Carolina Department of Health
and Environmental Control
2600 Bull Street
Columbia, South Carolina 29201

Subject: Report of Groundwater Sampling
Warren Green
Yemassee, South Carolina
SCDHEC Site ID Number 04887, CA # 39937
MECI Project Number 10-3059
Certified Site Rehabilitation Contractor UCC-0009

Dear Ms. Thoma,

Midlands Environmental Consultants Inc. (MECI) is pleased to submit the attached Report of Sampling for the referenced site.

On November 15, 2010, eighteen monitoring wells (MW-2, MW-4 through MW-11, MW-13 through MW-15, and DW-1 through DW-6) were sampled. Six monitoring wells (DW-1 through DW-6) were purged prior to sampling. Two monitoring wells (MW-1 and MW-12) were not located at time of sampling. One monitoring well (MW-3R) was determined to be destroyed. Groundwater samples obtained were transported to Pace Analytical Services, Inc. of Huntersville, NC for analysis.

Purge water produced by the purging process was treated on-site utilizing a granular activated carbon unit. A total of 41.0 gallons of purge water was disposed of in this manner. A disposal manifest for the referenced purge water is attached at the end of this report.

If you have any question or comments please feel free to contact us at 803-808-2043.

Sincerely,
Midlands Environmental Consultants, Inc.

John W. Womack
Staff Biologist

Brandon P. Kelly
Project Scientist

#15 UST DOCKET

Post Office Box 854, Lexington SC 29071 • 235-B Dooley Road, Lexington, SC 29073
Telephone: (803) 808-2043 • fax: (803) 808-2048

SCANNED

JTK

Site Activity Summary

UST Permit #: 04887
Facility Name: Warren Green
County: Jasper
Field Personnel: John Womack, Kyle Pudney

Midlands Environmental Consultants, Inc.
235-B Dooley Road, Lexington, SC 29073
(803) 808-2043 fax: 808-2048

Sample ID	Sampled?	Date	Time	Screened Interval	Depth to Product (ft)	Depth to Water (ft)	Product Thickness (ft)	# Gals. Purged	Comments
MW-1	N	***	***	2-12	***	***	***	***	Not Located; Used metal detector
MW-2	Y	11/15/10	12:30	5-15	***	12.02	***	***	No Odor
MW-3R	N	***	***	5-20	***	***	***	***	Destroyed
MW-4	Y	11/15/10	12:05	5-20	***	10.98	***	***	Slight Odor
MW-5	Y	11/15/10	10:00	5-20	***	9.33	***	***	No Odor
MW-6	Y	11/15/10	10:25	5-20	***	9.38	***	***	No Odor
MW-7	Y	11/15/10	12:40	5-20	***	10.10	***	***	Strong Odor
MW-8	Y	11/15/10	11:30	5-20	***	11.90	***	***	Odor
MW-9	Y	11/15/10	11:50	5-20	***	11.80	***	***	No Odor
MW-10	Y	11/15/10	11:10	5-20	***	13.83	***	***	No Odor
MW-11	Y	11/15/10	11:15	5-20	***	13.65	***	***	No Odor
MW-12	N	***	***	5-20	***	***	***	***	Not Located; Used metal detector
MW-13	Y	11/15/10	11:00	5-20	***	9.78	***	***	No Odor
MW-14	Y	11/15/10	10:50	5-20	***	9.73	***	***	Slight Odor
MW-15	Y	11/15/10	10:45	5-20	***	9.72	***	***	No Odor
								0.0	**TOTAL GALLONS PURGED**

Site Activity Summary

Midlands Environmental Consultants, Inc.
235-B Dooley Road, Lexington, SC 29073
(803) 808-2043 fax: 808-2048

UST Permit #: 04887
Facility Name: Warren Green
County: Jasper
Field Personnel: John Womack, Kyle Pudney

Sample ID	Sampled?	Date	Time	Screened Interval	Depth to Product (ft)	Depth to Water (ft)	Product Thickness (ft)	# Gals. Purged	Comments
DW-1	Y	11/15/10	12:55	45-50	***	10.18	***	6.0	No Odor
DW-2	Y	11/15/10	12:20	45-50	***	9.27	***	3.0	No Odor; After 3 gallons bailer was full of silt
DW-3	Y	11/15/10	10:20	45-50	***	13.27	***	7.0	No Odor
DW-4	Y	11/15/10	10:40	45-50	***	10.33	***	6.0	No Odor
DW-5	Y	11/15/10	13:15	80-85	***	14.44	***	11.0	Slight Odor; After 11 gallons bailer was full of silt
DW-6	Y	11/15/10	11:45	80-85	***	18.91	***	8.0	No Odor; After 8 gallons bailer was full of silt
								41.0	**TOTAL GALLONS PURGED**

South Carolina Department of Health and Environmental Control
Bureau of Land and Waste Management Underground Storage Tank Program

Field Data Information Sheet for Groundwater Sampling

Date (mm/dd/yy): 11/15/2010

Field Personnel: John Womack, Kyle Pudney

General Weather Conditions: Sunny

Ambient Air Temperature: 28.0 **°C**

Quality Assurance

pH Meter YSI Model 550A
serial no. 02A0831
pH=4.0
pH=7.0 X
pH=10.0

Conductivity Meter
serial no. 02A0831
standard X
standard
standard

Chain of Custody

Relinquished by Date/Time Received by Date/Time

Facility Name: Warren Green

Site ID#: 04887 **Monitoring Well #** DW-1

Water Supply Well **Public** ____ **Private** ____

Monitoring Well Diameter (D): 2 inches

Conversion Factor (C): 3.14 x $(D/2)^2$ for a 2 inch well C=0.163; for a 4 inch well C=0.652

* Free Product Thickness: ____ feet
Depth to Free Product (DFP) ____ feet
Depth to Ground Water (DGW) 10.18 feet
Total Well Depth (TWD) 50 feet
Length of the water column (LWC=TWD-DGW) 39.82 feet
1 casing volume (CV=LWC X C)= ____ X 0.163 6.49 gallons
3 casing volume (3 X CV)= 3 19.47 gallons

Total Volume of Water Purged Before Sampling 6 gals.
*If free product is present over 1/8 inch, sampling will not be required.

Cumulative Volume Purged (gallons)	Inital	1st Vol	2nd Vol	3rd Vol	4th Vol	5th Vol	Post Sampling	
Time (military)	12:45	12:55						
pH (s.u.)	7.68	7.62						
Specific Conductivity (μmhos/cm)	301.9	298.8						
Water Temperature (°C)	20.7	19.7						
Dissolved Oxygen	2.56	2.55						
PID readings, if required								

Remarks: Sample Time: 12:55 DRY @ 6

South Carolina Department of Health and Environmental Control
Bureau of Land and Waste Management Underground Storage Tank Program

Field Data Information Sheet for Groundwater Sampling

Date (mm/dd/yy): 11/15/2010
Field Personnel: John Womack, Kyle Pudney
General Weather Conditions: Sunny

Ambient Air Temperature: 28.0 °C

Quality Assurance

pH Meter	YSI Model 550A	Conductivity Meter	
serial no.	02A0831	serial no.	02A0831
pH=4.0		standard	X
pH=7.0	X	standard	
pH=10.0		standard	

Chain of Custody

Relinquished by ______ Date/Time ______ Received by ______ Date/Time ______

Facility Name: Warren Green
Site ID#: 04887 **Monitoring Well #** DW-2
Water Supply Well **Public** ______ **Private** ______

Monitoring Well Diameter (D): 2 inches

Conversion Factor (C): 3.14 x $(D/2)^2$ for a 2 inch well C=0.163
for a 4 inch well C=0.652

* Free Product Thickness: ______ feet
Depth to Free Product (DFP) ______ feet
Depth to Ground Water (DGW) 9.27 feet
Total Well Depth (TWD) 50 feet
Length of the water column (LWC=TWD-DGW) 40.73 feet
1 casing volume (CV=LWC X C)= ______ X 0.163 $\boxed{6.64}$ gallons
3 casing volume (3 X CV)= 3 $\boxed{19.92}$ gallons

Total Volume of Water Purged Before Sampling 3 gals.
*If free product is present over 1/8 inch, sampling will not be required.

Cumulative Volume Purged (gallons)	Inital	1st Vol	2nd Vol	3rd Vol	4th Vol	5th Vol	Post Sampling	
Time (military)	12:15	12:20						
pH (s.u.)	11.86	11.72						
Specific Conductivity (µmhos/cm)	1,165	655.0						
Water Temperature (°C)	20.9	20.8						
Dissolved Oxygen	6.15	4.04						
PID readings, if required								

Remarks: Sample Time: 12:20 After 3 gallons bailer contained mostly silt and would not lower into well any further.

South Carolina Department of Health and Environmental Control
Bureau of Land and Waste Management Underground Storage Tank Program

Field Data Information Sheet for Groundwater Sampling

Date (mm/dd/yy): 11/15/2010
Field Personnel: John Womack, Kyle Pudney
General Weather Conditions: Sunny

Ambient Air Temperature: 28.0 **°C**

Quality Assurance

pH Meter YSI Model 550A
serial no. 02A0831
pH=4.0
pH=7.0 X
pH=10.0

Conductivity Meter
serial no. 02A0831
standard X
standard
standard

Chain of Custody

Relinquished by Date/Time Received by Date/Time

Facility Name: Warren Green
Site ID#: 04887 **Monitoring Well #** DW-3
Water Supply Well **Public** ______ **Private** ______

Monitoring Well Diameter (D): 2 inches

Conversion Factor (C): 3.14 x $(D/2)^2$ for a 2 inch well C=0.163
for a 4 inch well C=0.652

* Free Product Thickness: ______ feet
Depth to Free Product (DFP) ______ feet
Depth to Ground Water (DGW) 13.27 feet
Total Well Depth (TWD) 50 feet
Length of the water column (LWC=TWD-DGW) 36.73 feet
1 casing volume (CV=LWC X C)= ______ X 0.163 $\boxed{5.99}$ gallons
3 casing volume (3 X CV)= 3 $\boxed{17.96}$ gallons

Total Volume of Water Purged Before Sampling 7 gals.
*If free product is present over 1/8 inch, sampling will not be required.

Cumulative Volume Purged (gallons)	Inital	1st Vol	2nd Vol	3rd Vol	4th Vol	5th Vol	Post Sampling	
Time (military)	10:10	10:15						
pH (s.u.)	7.40	7.51						
Specific Conductivity (µmhos/cm)	193.4	195.2						
Water Temperature (°C)	18.2	18.3						
Dissolved Oxygen	7.77	8.19						
PID readings, if required								

Remarks: Sample Time: 10:20 DRY @ 7

South Carolina Department of Health and Environmental Control
Bureau of Land and Waste Management Underground Storage Tank Program

Field Data Information Sheet for Groundwater Sampling

Date (mm/dd/yy): 11/15/2010
Field Personnel: John Womack, Kyle Pudney
General Weather Conditions: Sunny

Ambient Air Temperature: 28.0 °C

Quality Assurance

pH Meter	YSI Model 550A	Conductivity Meter	
serial no.	02A0831	serial no.	02A0831
pH=4.0		standard	X
pH=7.0	X	standard	
pH=10.0		standard	

Chain of Custody

Relinquished by ______ Date/Time ______ Received by ______ Date/Time ______

Facility Name: Warren Green
Site ID#: 04887 **Monitoring Well #** DW-4
Water Supply Well **Public** ______ **Private** ______

Monitoring Well Diameter (D): 2 inches

Conversion Factor (C): $3.14 \times (D/2)^2$ for a 2 inch well C=0.163
for a 4 inch well C=0.652

* Free Product Thickness: ______ feet
Depth to Free Product (DFP) ______ feet
Depth to Ground Water (DGW) 10.33 feet
Total Well Depth (TWD) 50 feet
Length of the water column (LWC=TWD-DGW) 39.67 feet
1 casing volume (CV=LWC X C)= ______ X 0.163 6.47 gallons
3 casing volume (3 X CV)= 3 19.40 gallons

Total Volume of Water Purged Before Sampling 6 gals.
*If free product is present over 1/8 inch, sampling will not be required.

Cumulative Volume Purged (gallons)	Inital	1st Vol	2nd Vol	3rd Vol	4th Vol	5th Vol	Post Sampling	
Time (military)	10:30	10:40						
pH (s.u.)	7.07	7.06						
Specific Conductivity (µmhos/cm)	185.5	183.2						
Water Temperature (°C)	18.5	18.5						
Dissolved Oxygen	6.13	6.36						
PID readings, if required								

Remarks: Sample Time: 10:40 DRY @ 6

South Carolina Department of Health and Environmental Control
Bureau of Land and Waste Management Underground Storage Tank Program

Field Data Information Sheet for Groundwater Sampling

Date (mm/dd/yy): 11/15/2010
Field Personnel: John Womack, Kyle Pudney
General Weather Conditions: Sunny

Ambient Air Temperature: 28.0 °C

Quality Assurance

pH Meter YSI Model 550A
serial no. 02A0831
pH=4.0
pH=7.0 X
pH=10.0

Conductivity Meter
serial no. 02A0831
standard X
standard
standard

Chain of Custody

Relinquished by Date/Time
Received by Date/Time

Facility Name: Warren Green
Site ID#: 04887 **Monitoring Well #** DW-5
Water Supply Well **Public** ____ **Private** ____

Monitoring Well Diameter (D): 2 inches

Conversion Factor (C): 3.14 x $(D/2)^2$ for a 2 inch well C=0.163
for a 4 inch well C=0.652

* Free Product Thickness: ____ feet
Depth to Free Product (DFP) ____ feet
Depth to Ground Water (DGW) 14.44 feet
Total Well Depth (TWD) 85 feet
Length of the water column (LWC=TWD-DGW) 70.56 feet
1 casing volume (CV=LWC X C)= ____ X 0.163 $\boxed{11.50}$ gallons
3 casing volume (3 X CV)= 3 $\boxed{34.50}$ gallons

Total Volume of Water Purged Before Sampling 11 gals.
*If free product is present over 1/8 inch, sampling will not be required.

Cumulative Volume Purged (gallons)	Inital	1st Vol	2nd Vol	3rd Vol	4th Vol	5th Vol	Post Sampling	
Time (military)	13:00	13:15						
pH (s.u.)	7.39	7.61						
Specific Conductivity (μmhos/cm)	315.7	317.4						
Water Temperature (°C)	20.8	19.6						
Dissolved Oxygen	2.46	1.79						
PID readings, if required								

Remarks: Sample Time: 13:15 After 11 gallons bailer contained mostly silt and would not lower into well any further.

South Carolina Department of Health and Environmental Control
Bureau of Land and Waste Management Underground Storage Tank Program

Field Data Information Sheet for Groundwater Sampling

Date (mm/dd/yy): 11/15/2010

Field Personnel: John Womack, Kyle Pudney

General Weather Conditions: Sunny

Ambient Air Temperature: 28.0 °C

Quality Assurance

pH Meter	YSI Model 550A	Conductivity Meter	
serial no.	02A0831	serial no.	02A0831
pH=4.0		standard	X
pH=7.0	X	standard	
pH=10.0		standard	

Chain of Custody

Relinquished by	Date/Time	Received by	Date/Time

Facility Name: Warren Green

Site ID#: 04887 **Monitoring Well #** DW-6

Water Supply Well **Public** ______ **Private** ______

Monitoring Well Diameter (D): 2 inches

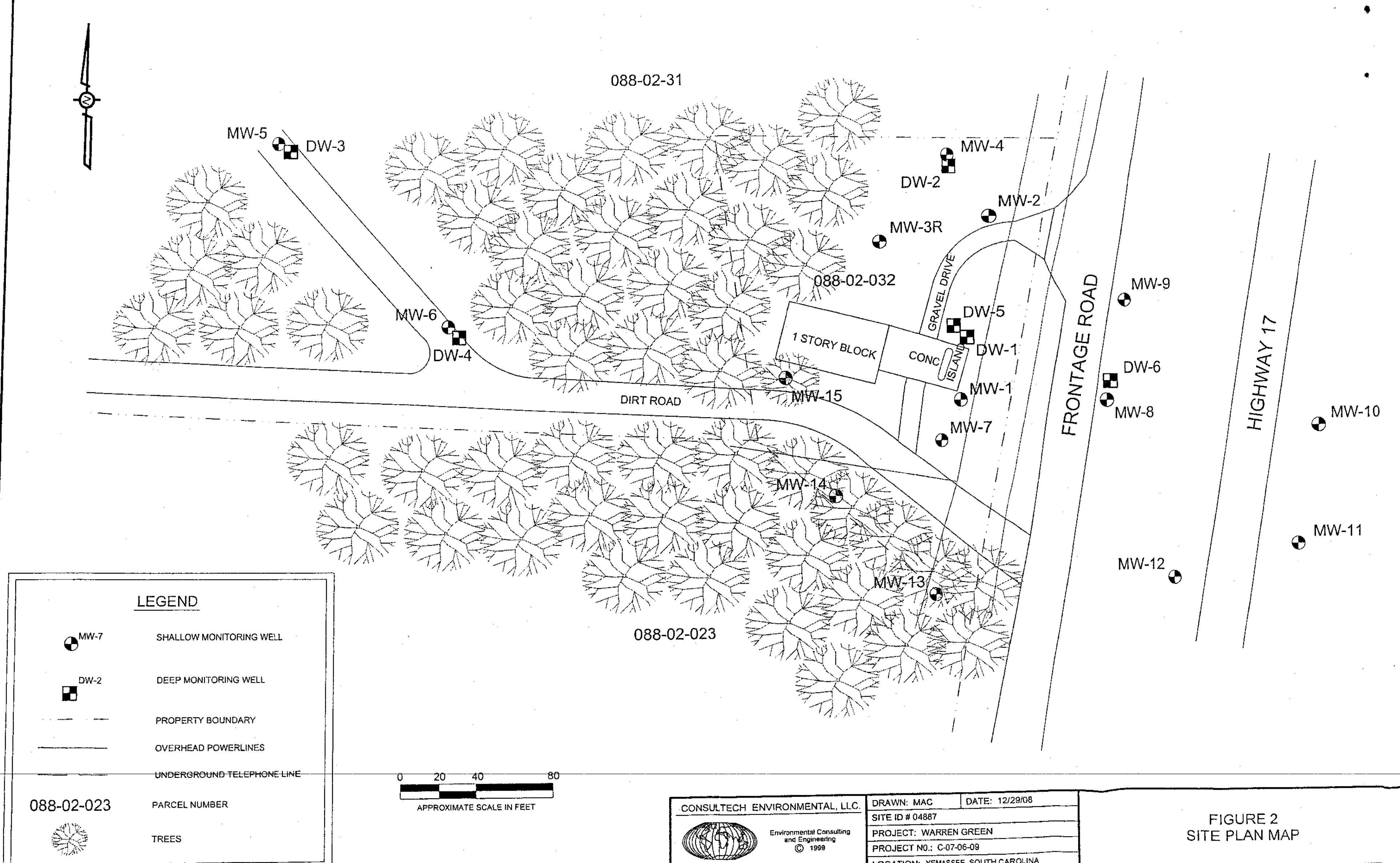
Conversion Factor (C): $3.14 \times (D/2)^2$ for a 2 inch well C=0.163; for a 4 inch well C=0.652

* Free Product Thickness: ______ feet
Depth to Free Product (DFP) ______ feet
Depth to Ground Water (DGW) 18.91 feet
Total Well Depth (TWD) 85 feet
Length of the water column (LWC=TWD-DGW) 66.09 feet
1 casing volume (CV=LWC X C)= ______ X 0.163 $\boxed{10.77}$ gallons
3 casing volume (3 X CV)= 3 $\boxed{32.32}$ gallons

Total Volume of Water Purged Before Sampling 8 gals.
*If free product is present over 1/8 inch, sampling will not be required.

Cumulative Volume Purged (gallons)	Inital	1st Vol	2nd Vol	3rd Vol	4th Vol	5th Vol	Post Sampling	
Time (military)	11:35	11:45						
pH (s.u.)	7.70	7.82						
Specific Conductivity (μmhos/cm)	380.9	394.6						
Water Temperature (°C)	20.3	20.6						
Dissolved Oxygen	4.22	4.07						
PID readings, if required								

Remarks: Sample Time: 11:45 After 8 gallons bailer contained mostly silt and would not lower into well any further.



CONSULTECH ENVIRONMENTAL, LLC. Environmental Consulting and Engineering © 1999 Delivering innovative solutions to today's environmental concerns	DRAWN: MAC	DATE: 12/29/08
	SITE ID # 04887	
	PROJECT: WARREN GREEN	
	PROJECT NO.: C-07-06-09	
	LOCATION: YEMASSEE, SOUTH CAROLINA	

FIGURE 2
SITE PLAN MAP

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CHAIN-OF-CUSTODY / Analytical Request Document

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

1407828

Section A
Required Client Information:

Company:	
Address:	
Email To:	
Phone:	Fax:
Requested Due Date/TAT:	

Section B
Required Project Information:

Report To:	
Copy To:	
Purchase Order No.:	
Project Name:	
Project Number:	

Section C
Invoice Information:

Attention:	
Company Name:	
Address:	
Pace Quote Reference:	
Pace Project Manager:	
Pace Profile #:	

REGULATORY AGENCY

- NPDES
- GROUND WATER
- DRINKING WATER
- UST
- RCRA
- OTHER ______

Site Location
STATE: ______

Section D
Required Client Information

SAMPLE ID
(A-Z, 0-9 / ,-)
Sample IDs MUST BE UNIQUE

Matrix Codes

MATRIX	CODE
Drinking Water	DW
Water	WT
Waste Water	WW
Product	P
Soil/Solid	SL
Oil	OL
Wipe	WP
Air	AR
Tissue	TS
Other	OT

Requested Analysis Filtered (Y/N)

ITEM #	SAMPLE ID	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED: COMPOSITE START DATE	COMPOSITE START TIME	COMPOSITE END/GRAB DATE	COMPOSITE END/GRAB TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives: Unpreserved	H_2SO_4	HNO_3	HCl	NaOH	$Na_2S_2O_3$	Methanol	Other	Y/N ↓Analysis Test↓													Residual Chlorine (Y/N)	Pace Project No./ Lab I.D.
1																																
2																																
3																																
4																																
5																																
6																																
7																																
8																																
9																																
10																																
11																																
12																																

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS			
							Temp in °C	Received on Ice (Y/N)	Custody Sealed Cooler (Y/N)	Samples Intact (Y/N)

2

SAMPLER NAME AND SIGNATURE

PRINT Name of SAMPLER:

SIGNATURE of SAMPLER:

DATE Signed (MM/DD/YY):

*Important Note: By signing this form you are accepting Pace's NET 30 day payment terms and agreeing to late charges of 1.5% per month for any invoices not paid within 30 days.

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CHAIN-OF-CUSTODY / Analytical Request Document

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

Page: 2 of 2

1407829

Section A
Required Client Information:

Company:	
Address:	
Email To:	
Phone:	Fax:
Requested Due Date/TAT:	

Section B
Required Project Information:

Report To:	
Copy To:	
Purchase Order No.:	
Project Name:	
Project Number:	

Section C
Invoice Information:

Attention:	
Company Name:	
Address:	
Pace Quote Reference:	
Pace Project Manager:	
Pace Profile #:	

REGULATORY AGENCY

- NPDES
- GROUND WATER
- DRINKING WATER
- UST
- RCRA
- OTHER ______

Site Location
STATE: ______

Section D
Required Client Information

SAMPLE ID
(A-Z, 0-9 / ,-)
Sample IDs MUST BE UNIQUE

Matrix Codes
MATRIX / CODE

Drinking Water	DW
Water	WT
Waste Water	WW
Product	P
Soil/Solid	SL
Oil	OL
Wipe	WP
Air	AR
Tissue	TS
Other	OT

ITEM #	SAMPLE ID	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED COMPOSITE START DATE	COLLECTED COMPOSITE START TIME	COLLECTED COMPOSITE END/GRAB DATE	COLLECTED COMPOSITE END/GRAB TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives: Unpreserved	H_2SO_4	HNO_3	HCl	NaOH	$Na_2S_2O_3$	Methanol	Other	Analysis Test Y/N	Requested Analysis Filtered (Y/N)	Residual Chlorine (Y/N)	Pace Project No./ Lab I.D.
1																					
2																					
3																					
4																					
5																					
6																					
7																					
8																					
9																					
10																					
11																					
12																					

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS			
							Temp in °C	Received on Ice (Y/N)	Custody Sealed Cooler (Y/N)	Samples Intact (Y/N)

2

SAMPLER NAME AND SIGNATURE

PRINT Name of SAMPLER:

SIGNATURE of SAMPLER:

DATE Signed (MM/DD/YY):

*Important Note: By signing this form you are accepting Pace's NET 30 day payment terms and agreeing to late charges of 1.5% per month for any invoices not paid within 30 days.

Midlands
Environmental
Consultants, Inc.

November 16, 2010

Re: Treatment of Purge Water
Warren Green
Yemassee, South Carolina
SCDHEC Site ID Number 04887
MECI Project Number 10-3059

To Whom It May Concern;

Midlands Environmental Consultants, Inc. is providing the following letter as certification that treatment of the referenced purge water complied with the conditions of "Proposed Conditions for Use of Portable Activated Carbon Units for the Treatment of Small Volumes of Petroleum Hydrocarbon Contaminated Groundwater", as described in the following:

Applicability:

Groundwater treated was obtained as a result development of wells and sampling.

Conditions:

1. The purge/bail water from all wells is mixed before usage of the Activated Carbon Unit.

2. No free-product was detected in any of the purge water drums.

3. Analytical results of from well sampling show average concentrations of petroleum hydrocarbon constituents less than 5000 parts per billion (ppb) Benzene and less than 20,000 ppb total BTEX.

4. The existing carbon pack will be replaced/reactivated every 5,000 gallons.

5. Record of usage is maintained by Contractor.

6. Any and all recommendations and conditions issued by the Manufacturer have been adhered to.

7. Any and all recommendations and conditions (even on a site by site basis) issued by the SCDHEC must be adhered to.

All purge waters were treated on-site using an up-flow treatment drum loaded with 30 pounds of activated carbon. Carbon will be loaded to a maximum of 3 pounds of total organic compounds or 5,000 gallons of development/purge water, whichever occurs first.

Post Office Box 854, Lexington SC 29071 • 235-B Dooley Road, Lexington, SC 29073
Telephone: (803) 808-2043 • fax: (803) 808-2048

A total of 41.0 gallons were treated on November 15, 2010 at the referenced site.

Midlands Environmental also tracks cumulative organic compounds adsorbed on the activated carbon to ensure the capacity of carbon mass is not over-charged. This data is available upon request.

Should you have any questions or comments, please contact the undersigned.

Sincerely,
Midlands Environmental Consultants, Inc.

John W. Womack
Staff Biologist

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Huntersville, NC 28078
(704)875-9092

November 21, 2010

Ms. Debra Thoma
SCDHEC
UST Program
2600 Bull Street
Columbia, SC 29201

RE: Project: WARREN GREEN 04887
Pace Project No.: 9282235

Dear Ms. Thoma:

Enclosed are the analytical results for sample(s) received by the laboratory on November 16, 2010. The results relate only to the samples included in this report. Results reported herein conform to the most current NELAC standards, where applicable, unless otherwise narrated in the body of the report.

Analyses were performed at the Pace Analytical Services location indicated on the sample analyte page for analysis unless otherwise footnoted.

If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Erin H Waters for

Renee Spencer

renee.spencer@pacelabs.com
Project Manager

UST
NOV 24 2010
PROGRAM

Enclosures

Pace Analytical Services, Inc.
2225 Riverside Dr.
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(828)254-7176

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(704)875-9092

CERTIFICATIONS

Project: WARREN GREEN 04887

Pace Project No.: 9282235

Charlotte Certification IDs

9800 Kincey Ave. Ste 100, Huntersville, NC 28078
Louisiana/LELAP Certification #: 04034
New Jersey Certification #: NC012
North Carolina Drinking Water Certification #: 37706
North Carolina Field Services Certification #: 5342
North Carolina Wastewater Certification #: 12
Pennsylvania Certification #: 68-00784
South Carolina Certification #: 99006001
South Carolina Drinking Water Cert. #: 99006003
Virginia Certification #: 00213
Connecticut Certification #: PH-0104
Florida/NELAP Certification #: E87627
Kentucky UST Certification #: 84
Louisiana DHH Drinking Water # LA 100031
West Virginia Certification #: 357

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Huntersville, NC 28078
(704)875-9092

SAMPLE SUMMARY

Project: WARREN GREEN 04887
Pace Project No.: 9282235

Lab ID	Sample ID	Matrix	Date Collected	Date Received
9282235001	**MW-2**	Water	11/15/10 12:30	11/16/10 15:50
9282235002	**MW-4**	Water	11/15/10 12:05	11/16/10 15:50
9282235003	**MW-5**	Water	11/15/10 10:20	11/16/10 15:50
9282235004	**MW-6**	Water	11/15/10 10:25	11/16/10 15:50
9282235005	**MW-7**	Water	11/15/10 12:40	11/16/10 15:50
9282235006	**MW-8**	Water	11/15/10 11:30	11/16/10 15:50
9282235007	**MW-9**	Water	11/15/10 11:50	11/16/10 15:50
9282235008	**MW-10**	Water	11/15/10 11:10	11/16/10 15:50
9282235009	**MW-11**	Water	11/15/10 11:15	11/16/10 15:50
9282235010	**MW-13**	Water	11/15/10 11:00	11/16/10 15:50
9282235011	**MW-14**	Water	11/15/10 10:50	11/16/10 15:50
9282235012	**MW-15**	Water	11/15/10 10:45	11/16/10 15:50
9282235013	**DW-1**	Water	11/15/10 12:55	11/16/10 15:50
9282235014	**DW-2**	Water	11/15/10 12:20	11/16/10 15:50
9282235015	**DW-3**	Water	11/15/10 10:20	11/16/10 15:50
9282235016	**DW-4**	Water	11/15/10 10:40	11/16/10 15:50
9282235017	**DW-5**	Water	11/15/10 13:15	11/16/10 15:50
9282235018	**DW-6**	Water	11/15/10 11:45	11/16/10 15:50

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SAMPLE ANALYTE COUNT

Project: WARREN GREEN 04887
Pace Project No.: 9282235

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
9282235001	**MW-2**	EPA 8011	RES	2	PASI-C
		EPA 8260	MCK	21	PASI-C
9282235002	**MW-4**	EPA 8011	RES	2	PASI-C
		EPA 8260	MCK	21	PASI-C
9282235003	**MW-5**	EPA 8011	RES	2	PASI-C
		EPA 8260	MCK	21	PASI-C
9282235004	**MW-6**	EPA 8011	CAH	2	PASI-C
		EPA 8260	BLC	21	PASI-C
9282235005	**MW-7**	EPA 8011	CAH	2	PASI-C
		EPA 8260	MCK	21	PASI-C
9282235006	**MW-8**	EPA 8011	CAH	2	PASI-C
		EPA 8260	MCK	21	PASI-C
9282235007	**MW-9**	EPA 8011	CAH	2	PASI-C
		EPA 8260	MCK	21	PASI-C
9282235008	**MW-10**	EPA 8011	CAH	2	PASI-C
		EPA 8260	MCK	21	PASI-C
9282235009	**MW-11**	EPA 8011	CAH	2	PASI-C
		EPA 8260	MCK	21	PASI-C
9282235010	**MW-13**	EPA 8011	CAH	2	PASI-C
		EPA 8260	MCK	21	PASI-C
9282235011	**MW-14**	EPA 8011	CAH	2	PASI-C
		EPA 8260	MCK	21	PASI-C
9282235012	**MW-15**	EPA 8011	CAH	2	PASI-C
		EPA 8260	MCK	21	PASI-C
9282235013	**DW-1**	EPA 8011	CAH	2	PASI-C
		EPA 8260	MCK	21	PASI-C
9282235014	**DW-2**	EPA 8011	CAH	2	PASI-C
		EPA 8260	MCK	21	PASI-C
9282235015	**DW-3**	EPA 8011	CAH	2	PASI-C
		EPA 8260	MCK	21	PASI-C
9282235016	**DW-4**	EPA 8011	CAH	2	PASI-C
		EPA 8260	MCK	21	PASI-C
9282235017	**DW-5**	EPA 8011	CAH	2	PASI-C
		EPA 8260	MCK	21	PASI-C
9282235018	**DW-6**	EPA 8011	CAH	2	PASI-C
		EPA 8260	MCK	21	PASI-C

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(704)875-9092

HITS ONLY

Project: WARREN GREEN 04887
Pace Project No.: 9282235

Lab Sample ID / Method	Client Sample ID / Parameters	Result	Units	Report Limit	Analyzed	Qualifiers
9282235001	**MW-2**					
EPA 8260	Methyl-tert-butyl ether	11.1	ug/L	5.0	11/18/10 23:55	
9282235005	**MW-7**					
EPA 8011	1,2-Dibromoethane (EDB)	4.0	ug/L	0.097	11/19/10 10:05	
EPA 8260	Benzene	3930	ug/L	500	11/19/10 07:06	
EPA 8260	Ethylbenzene	2300	ug/L	500	11/19/10 07:06	
EPA 8260	Naphthalene	476J	ug/L	500	11/19/10 07:06	
EPA 8260	Toluene	7510	ug/L	500	11/19/10 07:06	
EPA 8260	Xylene (Total)	16600	ug/L	1000	11/19/10 07:06	
EPA 8260	m&p-Xylene	11100	ug/L	1000	11/19/10 07:06	
EPA 8260	o-Xylene	5470	ug/L	500	11/19/10 07:06	
9282235006	**MW-8**					
EPA 8011	1,2-Dibromoethane (EDB)	0.80	ug/L	0.019	11/18/10 21:00	
EPA 8260	tert-Amyl Alcohol	2010	ug/L	500	11/19/10 07:31	
EPA 8260	Benzene	2440	ug/L	100	11/19/10 09:18	
EPA 8260	1,2-Dichloroethane	32.4	ug/L	25.0	11/19/10 07:31	
EPA 8260	Ethylbenzene	367	ug/L	25.0	11/19/10 07:31	
EPA 8260	Naphthalene	123	ug/L	25.0	11/19/10 07:31	
EPA 8260	Toluene	32.7	ug/L	25.0	11/19/10 07:31	
EPA 8260	Xylene (Total)	943	ug/L	50.0	11/19/10 07:31	
EPA 8260	m&p-Xylene	723	ug/L	50.0	11/19/10 07:31	
EPA 8260	o-Xylene	220	ug/L	25.0	11/19/10 07:31	
9282235007	**MW-9**					
EPA 8011	1,2-Dibromoethane (EDB)	0.028	ug/L	0.020	11/18/10 21:19	

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(828)254-7176

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Huntersville, NC 28078
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ANALYTICAL RESULTS

Project: WARREN GREEN 04887
Pace Project No.: 9282235

Sample: MW-2 **Lab ID: 9282235001** Collected: 11/15/10 12:30 Received: 11/16/10 15:50 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8011 GCS EDB and DBCP	Analytical Method: EPA 8011 Preparation Method: EPA 8011								
1,2-Dibromoethane (EDB)	ND	ug/L	0.020	0.020	1	11/17/10 16:30	11/18/10 18:37	106-93-4	
1-Chloro-2-bromopropane (S)	106	%	60-140		1	11/17/10 16:30	11/18/10 18:37	301-79-56	
8260 MSV Oxygenates	Analytical Method: EPA 8260								
tert-Amyl Alcohol	ND	ug/L	100	62.0	1		11/18/10 23:55	75-85-4	
tert-Amylmethyl ether	ND	ug/L	10.0	4.5	1		11/18/10 23:55	994-05-8	
Benzene	ND	ug/L	5.0	1.2	1		11/18/10 23:55	71-43-2	
3,3-Dimethyl-1-Butanol	ND	ug/L	100	48.0	1		11/18/10 23:55	624-95-3	
tert-Butyl Alcohol	ND	ug/L	100	27.0	1		11/18/10 23:55	75-65-0	
tert-Butyl Formate	ND	ug/L	50.0	9.0	1		11/18/10 23:55	762-75-4	
1,2-Dichloroethane	ND	ug/L	5.0	1.3	1		11/18/10 23:55	107-06-2	
Diisopropyl ether	ND	ug/L	5.0	2.7	1		11/18/10 23:55	108-20-3	
Ethanol	ND	ug/L	200	170	1		11/18/10 23:55	64-17-5	
Ethylbenzene	ND	ug/L	5.0	1.1	1		11/18/10 23:55	100-41-4	
Ethyl-tert-butyl ether	ND	ug/L	10.0	4.6	1		11/18/10 23:55	637-92-3	
Methyl-tert-butyl ether	**11.1**	ug/L	5.0	2.0	1		11/18/10 23:55	1634-04-4	
Naphthalene	ND	ug/L	5.0	2.9	1		11/18/10 23:55	91-20-3	
Toluene	ND	ug/L	5.0	1.8	1		11/18/10 23:55	108-88-3	
Xylene (Total)	ND	ug/L	10.0	2.7	1		11/18/10 23:55	1330-20-7	
m&p-Xylene	ND	ug/L	10.0	2.7	1		11/18/10 23:55	179601-23-1	
o-Xylene	ND	ug/L	5.0	1.7	1		11/18/10 23:55	95-47-6	
Dibromofluoromethane (S)	113	%	70-130		1		11/18/10 23:55	1868-53-7	
Toluene-d8 (S)	98	%	70-130		1		11/18/10 23:55	2037-26-5	
4-Bromofluorobenzene (S)	95	%	70-130		1		11/18/10 23:55	460-00-4	
1,2-Dichloroethane-d4 (S)	113	%	70-130		1		11/18/10 23:55	17060-07-0	

ANALYTICAL RESULTS

Project: WARREN GREEN 04887
Pace Project No.: 9282235

Sample: MW-4 **Lab ID: 9282235002** Collected: 11/15/10 12:05 Received: 11/16/10 15:50 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8011 GCS EDB and DBCP	Analytical Method: EPA 8011 Preparation Method: EPA 8011								
1,2-Dibromoethane (EDB)	ND	ug/L	0.020	0.020	1	11/17/10 16:30	11/18/10 18:57	106-93-4	
1-Chloro-2-bromopropane (S)	106	%	60-140		1	11/17/10 16:30	11/18/10 18:57	301-79-56	
8260 MSV Oxygenates	Analytical Method: EPA 8260								
tert-Amyl Alcohol	ND	ug/L	100	62.0	1		11/19/10 00:20	75-85-4	
tert-Amylmethyl ether	ND	ug/L	10.0	4.5	1		11/19/10 00:20	994-05-8	
Benzene	ND	ug/L	5.0	1.2	1		11/19/10 00:20	71-43-2	
3,3-Dimethyl-1-Butanol	ND	ug/L	100	48.0	1		11/19/10 00:20	624-95-3	
tert-Butyl Alcohol	ND	ug/L	100	27.0	1		11/19/10 00:20	75-65-0	
tert-Butyl Formate	ND	ug/L	50.0	9.0	1		11/19/10 00:20	762-75-4	
1,2-Dichloroethane	ND	ug/L	5.0	1.3	1		11/19/10 00:20	107-06-2	
Diisopropyl ether	ND	ug/L	5.0	2.7	1		11/19/10 00:20	108-20-3	
Ethanol	ND	ug/L	200	170	1		11/19/10 00:20	64-17-5	
Ethylbenzene	ND	ug/L	5.0	1.1	1		11/19/10 00:20	100-41-4	
Ethyl-tert-butyl ether	ND	ug/L	10.0	4.6	1		11/19/10 00:20	637-92-3	
Methyl-tert-butyl ether	ND	ug/L	5.0	2.0	1		11/19/10 00:20	1634-04-4	
Naphthalene	ND	ug/L	5.0	2.9	1		11/19/10 00:20	91-20-3	
Toluene	ND	ug/L	5.0	1.8	1		11/19/10 00:20	108-88-3	
Xylene (Total)	ND	ug/L	10.0	2.7	1		11/19/10 00:20	1330-20-7	
m&p-Xylene	ND	ug/L	10.0	2.7	1		11/19/10 00:20	179601-23-1	
o-Xylene	ND	ug/L	5.0	1.7	1		11/19/10 00:20	95-47-6	
Dibromofluoromethane (S)	112	%	70-130		1		11/19/10 00:20	1868-53-7	
Toluene-d8 (S)	99	%	70-130		1		11/19/10 00:20	2037-26-5	
4-Bromofluorobenzene (S)	94	%	70-130		1		11/19/10 00:20	460-00-4	
1,2-Dichloroethane-d4 (S)	113	%	70-130		1		11/19/10 00:20	17060-07-0	

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ANALYTICAL RESULTS

Project: WARREN GREEN 04887
Pace Project No.: 9282235

Sample: MW-5 **Lab ID: 9282235003** Collected: 11/15/10 10:20 Received: 11/16/10 15:50 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8011 GCS EDB and DBCP	Analytical Method: EPA 8011 Preparation Method: EPA 8011								
1,2-Dibromoethane (EDB)	ND	ug/L	0.020	0.020	1	11/17/10 16:30	11/18/10 19:17	106-93-4	
1-Chloro-2-bromopropane (S)	102	%	60-140		1	11/17/10 16:30	11/18/10 19:17	301-79-56	
8260 MSV Oxygenates	Analytical Method: EPA 8260								
tert-Amyl Alcohol	ND	ug/L	100	62.0	1		11/19/10 00:45	75-85-4	
tert-Amylmethyl ether	ND	ug/L	10.0	4.5	1		11/19/10 00:45	994-05-8	
Benzene	ND	ug/L	5.0	1.2	1		11/19/10 00:45	71-43-2	
3,3-Dimethyl-1-Butanol	ND	ug/L	100	48.0	1		11/19/10 00:45	624-95-3	
tert-Butyl Alcohol	ND	ug/L	100	27.0	1		11/19/10 00:45	75-65-0	
tert-Butyl Formate	ND	ug/L	50.0	9.0	1		11/19/10 00:45	762-75-4	
1,2-Dichloroethane	ND	ug/L	5.0	1.3	1		11/19/10 00:45	107-06-2	
Diisopropyl ether	ND	ug/L	5.0	2.7	1		11/19/10 00:45	108-20-3	
Ethanol	ND	ug/L	200	170	1		11/19/10 00:45	64-17-5	
Ethylbenzene	ND	ug/L	5.0	1.1	1		11/19/10 00:45	100-41-4	
Ethyl-tert-butyl ether	ND	ug/L	10.0	4.6	1		11/19/10 00:45	637-92-3	
Methyl-tert-butyl ether	ND	ug/L	5.0	2.0	1		11/19/10 00:45	1634-04-4	
Naphthalene	ND	ug/L	5.0	2.9	1		11/19/10 00:45	91-20-3	
Toluene	ND	ug/L	5.0	1.8	1		11/19/10 00:45	108-88-3	
Xylene (Total)	ND	ug/L	10.0	2.7	1		11/19/10 00:45	1330-20-7	
m&p-Xylene	ND	ug/L	10.0	2.7	1		11/19/10 00:45	179601-23-1	
o-Xylene	ND	ug/L	5.0	1.7	1		11/19/10 00:45	95-47-6	
Dibromofluoromethane (S)	113	%	70-130		1		11/19/10 00:45	1868-53-7	
Toluene-d8 (S)	98	%	70-130		1		11/19/10 00:45	2037-26-5	
4-Bromofluorobenzene (S)	95	%	70-130		1		11/19/10 00:45	460-00-4	
1,2-Dichloroethane-d4 (S)	110	%	70-130		1		11/19/10 00:45	17060-07-0	

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ANALYTICAL RESULTS

Project: WARREN GREEN 04887
Pace Project No.: 9282235

Sample: MW-6 **Lab ID: 9282235004** Collected: 11/15/10 10:25 Received: 11/16/10 15:50 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8011 GCS EDB and DBCP	Analytical Method: EPA 8011 Preparation Method: EPA 8011								
1,2-Dibromoethane (EDB)	ND	ug/L	0.020	0.020	1	11/18/10 11:34	11/18/10 19:29	106-93-4	
1-Chloro-2-bromopropane (S)	107	%	60-140		1	11/18/10 11:34	11/18/10 19:29	301-79-56	
8260 MSV Oxygenates	Analytical Method: EPA 8260								
tert-Amyl Alcohol	ND	ug/L	100	62.0	1		11/19/10 09:41	75-85-4	
tert-Amylmethyl ether	ND	ug/L	10.0	4.5	1		11/19/10 09:41	994-05-8	
Benzene	ND	ug/L	5.0	1.2	1		11/19/10 09:41	71-43-2	
3,3-Dimethyl-1-Butanol	ND	ug/L	100	48.0	1		11/19/10 09:41	624-95-3	
tert-Butyl Alcohol	ND	ug/L	100	27.0	1		11/19/10 09:41	75-65-0	
tert-Butyl Formate	ND	ug/L	50.0	9.0	1		11/19/10 09:41	762-75-4	
1,2-Dichloroethane	ND	ug/L	5.0	1.3	1		11/19/10 09:41	107-06-2	
Diisopropyl ether	ND	ug/L	5.0	2.7	1		11/19/10 09:41	108-20-3	
Ethanol	ND	ug/L	200	170	1		11/19/10 09:41	64-17-5	
Ethylbenzene	ND	ug/L	5.0	1.1	1		11/19/10 09:41	100-41-4	
Ethyl-tert-butyl ether	ND	ug/L	10.0	4.6	1		11/19/10 09:41	637-92-3	
Methyl-tert-butyl ether	ND	ug/L	5.0	2.0	1		11/19/10 09:41	1634-04-4	
Naphthalene	ND	ug/L	5.0	2.9	1		11/19/10 09:41	91-20-3	
Toluene	ND	ug/L	5.0	1.8	1		11/19/10 09:41	108-88-3	
Xylene (Total)	ND	ug/L	10.0	2.7	1		11/19/10 09:41	1330-20-7	
m&p-Xylene	ND	ug/L	10.0	2.7	1		11/19/10 09:41	179601-23-1	
o-Xylene	ND	ug/L	5.0	1.7	1		11/19/10 09:41	95-47-6	
Dibromofluoromethane (S)	103	%	70-130		1		11/19/10 09:41	1868-53-7	
Toluene-d8 (S)	97	%	70-130		1		11/19/10 09:41	2037-26-5	
4-Bromofluorobenzene (S)	92	%	70-130		1		11/19/10 09:41	460-00-4	
1,2-Dichloroethane-d4 (S)	106	%	70-130		1		11/19/10 09:41	17060-07-0	

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ANALYTICAL RESULTS

Project: WARREN GREEN 04887
Pace Project No.: 9282235

Sample: MW-7 **Lab ID: 9282235005** Collected: 11/15/10 12:40 Received: 11/16/10 15:50 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8011 GCS EDB and DBCP	Analytical Method: EPA 8011 Preparation Method: EPA 8011								
1,2-Dibromoethane (EDB)	**4.0**	ug/L	0.097	0.097	5	11/18/10 11:35	11/19/10 10:05	106-93-4	
1-Chloro-2-bromopropane (S)	0	%	60-140		5	11/18/10 11:35	11/19/10 10:05	301-79-56	S4
8260 MSV Oxygenates	Analytical Method: EPA 8260								
tert-Amyl Alcohol	ND	ug/L	10000	6200	100		11/19/10 07:06	75-85-4	
tert-Amylmethyl ether	ND	ug/L	1000	450	100		11/19/10 07:06	994-05-8	
Benzene	**3930**	ug/L	500	120	100		11/19/10 07:06	71-43-2	
3,3-Dimethyl-1-Butanol	ND	ug/L	10000	4800	100		11/19/10 07:06	624-95-3	
tert-Butyl Alcohol	ND	ug/L	10000	2700	100		11/19/10 07:06	75-65-0	
tert-Butyl Formate	ND	ug/L	5000	900	100		11/19/10 07:06	762-75-4	
1,2-Dichloroethane	ND	ug/L	500	130	100		11/19/10 07:06	107-06-2	
Diisopropyl ether	ND	ug/L	500	270	100		11/19/10 07:06	108-20-3	
Ethanol	ND	ug/L	20000	17000	100		11/19/10 07:06	64-17-5	
Ethylbenzene	**2300**	ug/L	500	110	100		11/19/10 07:06	100-41-4	
Ethyl-tert-butyl ether	ND	ug/L	1000	460	100		11/19/10 07:06	637-92-3	
Methyl-tert-butyl ether	ND	ug/L	500	200	100		11/19/10 07:06	1634-04-4	
Naphthalene	**476J**	ug/L	500	290	100		11/19/10 07:06	91-20-3	
Toluene	**7510**	ug/L	500	180	100		11/19/10 07:06	108-88-3	
Xylene (Total)	**16600**	ug/L	1000	270	100		11/19/10 07:06	1330-20-7	
m&p-Xylene	**11100**	ug/L	1000	270	100		11/19/10 07:06	179601-23-1	
o-Xylene	**5470**	ug/L	500	170	100		11/19/10 07:06	95-47-6	
Dibromofluoromethane (S)	112	%	70-130		100		11/19/10 07:06	1868-53-7	
Toluene-d8 (S)	99	%	70-130		100		11/19/10 07:06	2037-26-5	
4-Bromofluorobenzene (S)	98	%	70-130		100		11/19/10 07:06	460-00-4	
1,2-Dichloroethane-d4 (S)	112	%	70-130		100		11/19/10 07:06	17060-07-0	

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ANALYTICAL RESULTS

Project: WARREN GREEN 04887
Pace Project No.: 9282235

Sample: MW-8 **Lab ID: 9282235006** Collected: 11/15/10 11:30 Received: 11/16/10 15:50 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8011 GCS EDB and DBCP	Analytical Method: EPA 8011 Preparation Method: EPA 8011								
1,2-Dibromoethane (EDB)	**0.80**	ug/L	0.019	0.019	1	11/18/10 11:35	11/18/10 21:00	106-93-4	
1-Chloro-2-bromopropane (S)	100	%	60-140		1	11/18/10 11:35	11/18/10 21:00	301-79-56	
8260 MSV Oxygenates	Analytical Method: EPA 8260								
tert-Amyl Alcohol	**2010**	ug/L	500	310	5		11/19/10 07:31	75-85-4	
tert-Amylmethyl ether	ND	ug/L	50.0	22.5	5		11/19/10 07:31	994-05-8	
Benzene	**2440**	ug/L	100	24.0	20		11/19/10 09:18	71-43-2	
3,3-Dimethyl-1-Butanol	ND	ug/L	500	240	5		11/19/10 07:31	624-95-3	
tert-Butyl Alcohol	ND	ug/L	500	135	5		11/19/10 07:31	75-65-0	
tert-Butyl Formate	ND	ug/L	250	45.0	5		11/19/10 07:31	762-75-4	
1,2-Dichloroethane	**32.4**	ug/L	25.0	6.5	5		11/19/10 07:31	107-06-2	
Diisopropyl ether	ND	ug/L	25.0	13.5	5		11/19/10 07:31	108-20-3	
Ethanol	ND	ug/L	1000	850	5		11/19/10 07:31	64-17-5	
Ethylbenzene	**367**	ug/L	25.0	5.5	5		11/19/10 07:31	100-41-4	
Ethyl-tert-butyl ether	ND	ug/L	50.0	23.0	5		11/19/10 07:31	637-92-3	
Methyl-tert-butyl ether	ND	ug/L	25.0	10.0	5		11/19/10 07:31	1634-04-4	
Naphthalene	**123**	ug/L	25.0	14.5	5		11/19/10 07:31	91-20-3	
Toluene	**32.7**	ug/L	25.0	9.0	5		11/19/10 07:31	108-88-3	
Xylene (Total)	**943**	ug/L	50.0	13.5	5		11/19/10 07:31	1330-20-7	
m&p-Xylene	**723**	ug/L	50.0	13.5	5		11/19/10 07:31	179601-23-1	
o-Xylene	**220**	ug/L	25.0	8.5	5		11/19/10 07:31	95-47-6	
Dibromofluoromethane (S)	110	%	70-130		5		11/19/10 07:31	1868-53-7	
Toluene-d8 (S)	102	%	70-130		5		11/19/10 07:31	2037-26-5	
4-Bromofluorobenzene (S)	96	%	70-130		5		11/19/10 07:31	460-00-4	
1,2-Dichloroethane-d4 (S)	111	%	70-130		5		11/19/10 07:31	17060-07-0	

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ANALYTICAL RESULTS

Project: WARREN GREEN 04887
Pace Project No.: 9282235

Sample: MW-9 **Lab ID: 9282235007** Collected: 11/15/10 11:50 Received: 11/16/10 15:50 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8011 GCS EDB and DBCP	Analytical Method: EPA 8011 Preparation Method: EPA 8011								
1,2-Dibromoethane (EDB)	**0.028**	ug/L	0.020	0.020	1	11/18/10 11:35	11/18/10 21:19	106-93-4	
1-Chloro-2-bromopropane (S)	106	%	60-140		1	11/18/10 11:35	11/18/10 21:19	301-79-56	
8260 MSV Oxygenates	Analytical Method: EPA 8260								
tert-Amyl Alcohol	ND	ug/L	100	62.0	1		11/19/10 01:11	75-85-4	
tert-Amylmethyl ether	ND	ug/L	10.0	4.5	1		11/19/10 01:11	994-05-8	
Benzene	ND	ug/L	5.0	1.2	1		11/19/10 01:11	71-43-2	
3,3-Dimethyl-1-Butanol	ND	ug/L	100	48.0	1		11/19/10 01:11	624-95-3	
tert-Butyl Alcohol	ND	ug/L	100	27.0	1		11/19/10 01:11	75-65-0	
tert-Butyl Formate	ND	ug/L	50.0	9.0	1		11/19/10 01:11	762-75-4	
1,2-Dichloroethane	ND	ug/L	5.0	1.3	1		11/19/10 01:11	107-06-2	
Diisopropyl ether	ND	ug/L	5.0	2.7	1		11/19/10 01:11	108-20-3	
Ethanol	ND	ug/L	200	170	1		11/19/10 01:11	64-17-5	
Ethylbenzene	ND	ug/L	5.0	1.1	1		11/19/10 01:11	100-41-4	
Ethyl-tert-butyl ether	ND	ug/L	10.0	4.6	1		11/19/10 01:11	637-92-3	
Methyl-tert-butyl ether	ND	ug/L	5.0	2.0	1		11/19/10 01:11	1634-04-4	
Naphthalene	ND	ug/L	5.0	2.9	1		11/19/10 01:11	91-20-3	
Toluene	ND	ug/L	5.0	1.8	1		11/19/10 01:11	108-88-3	
Xylene (Total)	ND	ug/L	10.0	2.7	1		11/19/10 01:11	1330-20-7	
m&p-Xylene	ND	ug/L	10.0	2.7	1		11/19/10 01:11	179601-23-1	
o-Xylene	ND	ug/L	5.0	1.7	1		11/19/10 01:11	95-47-6	
Dibromofluoromethane (S)	115	%	70-130		1		11/19/10 01:11	1868-53-7	
Toluene-d8 (S)	97	%	70-130		1		11/19/10 01:11	2037-26-5	
4-Bromofluorobenzene (S)	96	%	70-130		1		11/19/10 01:11	460-00-4	
1,2-Dichloroethane-d4 (S)	115	%	70-130		1		11/19/10 01:11	17060-07-0	

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ANALYTICAL RESULTS

Project: WARREN GREEN 04887
Pace Project No.: 9282235

Sample: MW-10 | **Lab ID: 9282235008** | Collected: 11/15/10 11:10 | Received: 11/16/10 15:50 | Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8011 GCS EDB and DBCP	Analytical Method: EPA 8011 Preparation Method: EPA 8011								
1,2-Dibromoethane (EDB)	ND	ug/L	0.020	0.020	1	11/18/10 11:36	11/18/10 21:37	106-93-4	
1-Chloro-2-bromopropane (S)	102	%	60-140		1	11/18/10 11:36	11/18/10 21:37	301-79-56	
8260 MSV Oxygenates	Analytical Method: EPA 8260								
tert-Amyl Alcohol	ND	ug/L	100	62.0	1		11/19/10 01:36	75-85-4	
tert-Amylmethyl ether	ND	ug/L	10.0	4.5	1		11/19/10 01:36	994-05-8	
Benzene	ND	ug/L	5.0	1.2	1		11/19/10 01:36	71-43-2	
3,3-Dimethyl-1-Butanol	ND	ug/L	100	48.0	1		11/19/10 01:36	624-95-3	
tert-Butyl Alcohol	ND	ug/L	100	27.0	1		11/19/10 01:36	75-65-0	
tert-Butyl Formate	ND	ug/L	50.0	9.0	1		11/19/10 01:36	762-75-4	
1,2-Dichloroethane	ND	ug/L	5.0	1.3	1		11/19/10 01:36	107-06-2	
Diisopropyl ether	ND	ug/L	5.0	2.7	1		11/19/10 01:36	108-20-3	
Ethanol	ND	ug/L	200	170	1		11/19/10 01:36	64-17-5	
Ethylbenzene	ND	ug/L	5.0	1.1	1		11/19/10 01:36	100-41-4	
Ethyl-tert-butyl ether	ND	ug/L	10.0	4.6	1		11/19/10 01:36	637-92-3	
Methyl-tert-butyl ether	ND	ug/L	5.0	2.0	1		11/19/10 01:36	1634-04-4	
Naphthalene	ND	ug/L	5.0	2.9	1		11/19/10 01:36	91-20-3	
Toluene	ND	ug/L	5.0	1.8	1		11/19/10 01:36	108-88-3	
Xylene (Total)	ND	ug/L	10.0	2.7	1		11/19/10 01:36	1330-20-7	
m&p-Xylene	ND	ug/L	10.0	2.7	1		11/19/10 01:36	179601-23-1	
o-Xylene	ND	ug/L	5.0	1.7	1		11/19/10 01:36	95-47-6	
Dibromofluoromethane (S)	112	%	70-130		1		11/19/10 01:36	1868-53-7	
Toluene-d8 (S)	100	%	70-130		1		11/19/10 01:36	2037-26-5	
4-Bromofluorobenzene (S)	95	%	70-130		1		11/19/10 01:36	460-00-4	
1,2-Dichloroethane-d4 (S)	113	%	70-130		1		11/19/10 01:36	17060-07-0	

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ANALYTICAL RESULTS

Project: WARREN GREEN 04887
Pace Project No.: 9282235

Sample: MW-11 **Lab ID: 9282235009** Collected: 11/15/10 11:15 Received: 11/16/10 15:50 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8011 GCS EDB and DBCP	Analytical Method: EPA 8011 Preparation Method: EPA 8011								
1,2-Dibromoethane (EDB)	ND	ug/L	0.020	0.020	1	11/18/10 11:36	11/18/10 21:55	106-93-4	
1-Chloro-2-bromopropane (S)	98	%	60-140		1	11/18/10 11:36	11/18/10 21:55	301-79-56	
8260 MSV Oxygenates	Analytical Method: EPA 8260								
tert-Amyl Alcohol	ND	ug/L	100	62.0	1		11/19/10 02:02	75-85-4	
tert-Amylmethyl ether	ND	ug/L	10.0	4.5	1		11/19/10 02:02	994-05-8	
Benzene	ND	ug/L	5.0	1.2	1		11/19/10 02:02	71-43-2	
3,3-Dimethyl-1-Butanol	ND	ug/L	100	48.0	1		11/19/10 02:02	624-95-3	
tert-Butyl Alcohol	ND	ug/L	100	27.0	1		11/19/10 02:02	75-65-0	
tert-Butyl Formate	ND	ug/L	50.0	9.0	1		11/19/10 02:02	762-75-4	
1,2-Dichloroethane	ND	ug/L	5.0	1.3	1		11/19/10 02:02	107-06-2	
Diisopropyl ether	ND	ug/L	5.0	2.7	1		11/19/10 02:02	108-20-3	
Ethanol	ND	ug/L	200	170	1		11/19/10 02:02	64-17-5	
Ethylbenzene	ND	ug/L	5.0	1.1	1		11/19/10 02:02	100-41-4	
Ethyl-tert-butyl ether	ND	ug/L	10.0	4.6	1		11/19/10 02:02	637-92-3	
Methyl-tert-butyl ether	ND	ug/L	5.0	2.0	1		11/19/10 02:02	1634-04-4	
Naphthalene	ND	ug/L	5.0	2.9	1		11/19/10 02:02	91-20-3	
Toluene	ND	ug/L	5.0	1.8	1		11/19/10 02:02	108-88-3	
Xylene (Total)	ND	ug/L	10.0	2.7	1		11/19/10 02:02	1330-20-7	
m&p-Xylene	ND	ug/L	10.0	2.7	1		11/19/10 02:02	179601-23-1	
o-Xylene	ND	ug/L	5.0	1.7	1		11/19/10 02:02	95-47-6	
Dibromofluoromethane (S)	116	%	70-130		1		11/19/10 02:02	1868-53-7	
Toluene-d8 (S)	100	%	70-130		1		11/19/10 02:02	2037-26-5	
4-Bromofluorobenzene (S)	95	%	70-130		1		11/19/10 02:02	460-00-4	
1,2-Dichloroethane-d4 (S)	116	%	70-130		1		11/19/10 02:02	17060-07-0	

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ANALYTICAL RESULTS

Project: WARREN GREEN 04887
Pace Project No.: 9282235

Sample: MW-13 **Lab ID: 9282235010** Collected: 11/15/10 11:00 Received: 11/16/10 15:50 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8011 GCS EDB and DBCP	Analytical Method: EPA 8011 Preparation Method: EPA 8011								
1,2-Dibromoethane (EDB)	ND	ug/L	0.020	0.020	1	11/18/10 11:36	11/18/10 22:13	106-93-4	
1-Chloro-2-bromopropane (S)	103	%	60-140		1	11/18/10 11:36	11/18/10 22:13	301-79-56	
8260 MSV Oxygenates	Analytical Method: EPA 8260								
tert-Amyl Alcohol	ND	ug/L	100	62.0	1		11/19/10 02:27	75-85-4	
tert-Amylmethyl ether	ND	ug/L	10.0	4.5	1		11/19/10 02:27	994-05-8	
Benzene	ND	ug/L	5.0	1.2	1		11/19/10 02:27	71-43-2	
3,3-Dimethyl-1-Butanol	ND	ug/L	100	48.0	1		11/19/10 02:27	624-95-3	
tert-Butyl Alcohol	ND	ug/L	100	27.0	1		11/19/10 02:27	75-65-0	
tert-Butyl Formate	ND	ug/L	50.0	9.0	1		11/19/10 02:27	762-75-4	
1,2-Dichloroethane	ND	ug/L	5.0	1.3	1		11/19/10 02:27	107-06-2	
Diisopropyl ether	ND	ug/L	5.0	2.7	1		11/19/10 02:27	108-20-3	
Ethanol	ND	ug/L	200	170	1		11/19/10 02:27	64-17-5	
Ethylbenzene	ND	ug/L	5.0	1.1	1		11/19/10 02:27	100-41-4	
Ethyl-tert-butyl ether	ND	ug/L	10.0	4.6	1		11/19/10 02:27	637-92-3	
Methyl-tert-butyl ether	ND	ug/L	5.0	2.0	1		11/19/10 02:27	1634-04-4	
Naphthalene	ND	ug/L	5.0	2.9	1		11/19/10 02:27	91-20-3	
Toluene	ND	ug/L	5.0	1.8	1		11/19/10 02:27	108-88-3	
Xylene (Total)	ND	ug/L	10.0	2.7	1		11/19/10 02:27	1330-20-7	
m&p-Xylene	ND	ug/L	10.0	2.7	1		11/19/10 02:27	179601-23-1	
o-Xylene	ND	ug/L	5.0	1.7	1		11/19/10 02:27	95-47-6	
Dibromofluoromethane (S)	115	%	70-130		1		11/19/10 02:27	1868-53-7	
Toluene-d8 (S)	97	%	70-130		1		11/19/10 02:27	2037-26-5	
4-Bromofluorobenzene (S)	94	%	70-130		1		11/19/10 02:27	460-00-4	
1,2-Dichloroethane-d4 (S)	116	%	70-130		1		11/19/10 02:27	17060-07-0	

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ANALYTICAL RESULTS

Project: WARREN GREEN 04887
Pace Project No.: 9282235

Sample: MW-14 **Lab ID: 9282235011** Collected: 11/15/10 10:50 Received: 11/16/10 15:50 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8011 GCS EDB and DBCP	Analytical Method: EPA 8011 Preparation Method: EPA 8011								
1,2-Dibromoethane (EDB)	ND	ug/L	0.020	0.020	1	11/18/10 11:36	11/18/10 22:32	106-93-4	
1-Chloro-2-bromopropane (S)	101	%	60-140		1	11/18/10 11:36	11/18/10 22:32	301-79-56	
8260 MSV Oxygenates	Analytical Method: EPA 8260								
tert-Amyl Alcohol	ND	ug/L	100	62.0	1		11/19/10 02:52	75-85-4	
tert-Amylmethyl ether	ND	ug/L	10.0	4.5	1		11/19/10 02:52	994-05-8	
Benzene	ND	ug/L	5.0	1.2	1		11/19/10 02:52	71-43-2	
3,3-Dimethyl-1-Butanol	ND	ug/L	100	48.0	1		11/19/10 02:52	624-95-3	
tert-Butyl Alcohol	ND	ug/L	100	27.0	1		11/19/10 02:52	75-65-0	
tert-Butyl Formate	ND	ug/L	50.0	9.0	1		11/19/10 02:52	762-75-4	
1,2-Dichloroethane	ND	ug/L	5.0	1.3	1		11/19/10 02:52	107-06-2	
Diisopropyl ether	ND	ug/L	5.0	2.7	1		11/19/10 02:52	108-20-3	
Ethanol	ND	ug/L	200	170	1		11/19/10 02:52	64-17-5	
Ethylbenzene	ND	ug/L	5.0	1.1	1		11/19/10 02:52	100-41-4	
Ethyl-tert-butyl ether	ND	ug/L	10.0	4.6	1		11/19/10 02:52	637-92-3	
Methyl-tert-butyl ether	ND	ug/L	5.0	2.0	1		11/19/10 02:52	1634-04-4	
Naphthalene	ND	ug/L	5.0	2.9	1		11/19/10 02:52	91-20-3	
Toluene	ND	ug/L	5.0	1.8	1		11/19/10 02:52	108-88-3	
Xylene (Total)	ND	ug/L	10.0	2.7	1		11/19/10 02:52	1330-20-7	
m&p-Xylene	ND	ug/L	10.0	2.7	1		11/19/10 02:52	179601-23-1	
o-Xylene	ND	ug/L	5.0	1.7	1		11/19/10 02:52	95-47-6	
Dibromofluoromethane (S)	115	%	70-130		1		11/19/10 02:52	1868-53-7	
Toluene-d8 (S)	98	%	70-130		1		11/19/10 02:52	2037-26-5	
4-Bromofluorobenzene (S)	95	%	70-130		1		11/19/10 02:52	460-00-4	
1,2-Dichloroethane-d4 (S)	114	%	70-130		1		11/19/10 02:52	17060-07-0	

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ANALYTICAL RESULTS

Project: WARREN GREEN 04887
Pace Project No.: 9282235

Sample: MW-15 **Lab ID: 9282235012** Collected: 11/15/10 10:45 Received: 11/16/10 15:50 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8011 GCS EDB and DBCP	Analytical Method: EPA 8011 Preparation Method: EPA 8011								
1,2-Dibromoethane (EDB)	ND	ug/L	0.020	0.020	1	11/18/10 11:36	11/18/10 22:50	106-93-4	
1-Chloro-2-bromopropane (S)	99	%	60-140		1	11/18/10 11:36	11/18/10 22:50	301-79-56	
8260 MSV Oxygenates	Analytical Method: EPA 8260								
tert-Amyl Alcohol	ND	ug/L	100	62.0	1		11/19/10 03:18	75-85-4	
tert-Amylmethyl ether	ND	ug/L	10.0	4.5	1		11/19/10 03:18	994-05-8	
Benzene	ND	ug/L	5.0	1.2	1		11/19/10 03:18	71-43-2	
3,3-Dimethyl-1-Butanol	ND	ug/L	100	48.0	1		11/19/10 03:18	624-95-3	
tert-Butyl Alcohol	ND	ug/L	100	27.0	1		11/19/10 03:18	75-65-0	
tert-Butyl Formate	ND	ug/L	50.0	9.0	1		11/19/10 03:18	762-75-4	
1,2-Dichloroethane	ND	ug/L	5.0	1.3	1		11/19/10 03:18	107-06-2	
Diisopropyl ether	ND	ug/L	5.0	2.7	1		11/19/10 03:18	108-20-3	
Ethanol	ND	ug/L	200	170	1		11/19/10 03:18	64-17-5	
Ethylbenzene	ND	ug/L	5.0	1.1	1		11/19/10 03:18	100-41-4	
Ethyl-tert-butyl ether	ND	ug/L	10.0	4.6	1		11/19/10 03:18	637-92-3	
Methyl-tert-butyl ether	ND	ug/L	5.0	2.0	1		11/19/10 03:18	1634-04-4	
Naphthalene	ND	ug/L	5.0	2.9	1		11/19/10 03:18	91-20-3	
Toluene	ND	ug/L	5.0	1.8	1		11/19/10 03:18	108-88-3	
Xylene (Total)	ND	ug/L	10.0	2.7	1		11/19/10 03:18	1330-20-7	
m&p-Xylene	ND	ug/L	10.0	2.7	1		11/19/10 03:18	179601-23-1	
o-Xylene	ND	ug/L	5.0	1.7	1		11/19/10 03:18	95-47-6	
Dibromofluoromethane (S)	119	%	70-130		1		11/19/10 03:18	1868-53-7	
Toluene-d8 (S)	100	%	70-130		1		11/19/10 03:18	2037-26-5	
4-Bromofluorobenzene (S)	96	%	70-130		1		11/19/10 03:18	460-00-4	
1,2-Dichloroethane-d4 (S)	118	%	70-130		1		11/19/10 03:18	17060-07-0	

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ANALYTICAL RESULTS

Project: WARREN GREEN 04887
Pace Project No.: 9282235

Sample: DW-1 Lab ID: **9282235013** Collected: 11/15/10 12:55 Received: 11/16/10 15:50 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8011 GCS EDB and DBCP	Analytical Method: EPA 8011 Preparation Method: EPA 8011								
1,2-Dibromoethane (EDB)	ND	ug/L	0.021	0.021	1	11/18/10 11:36	11/18/10 23:08	106-93-4	
1-Chloro-2-bromopropane (S)	104	%	60-140		1	11/18/10 11:36	11/18/10 23:08	301-79-56	
8260 MSV Oxygenates	Analytical Method: EPA 8260								
tert-Amyl Alcohol	ND	ug/L	100	62.0	1		11/19/10 03:43	75-85-4	
tert-Amylmethyl ether	ND	ug/L	10.0	4.5	1		11/19/10 03:43	994-05-8	
Benzene	ND	ug/L	5.0	1.2	1		11/19/10 03:43	71-43-2	
3,3-Dimethyl-1-Butanol	ND	ug/L	100	48.0	1		11/19/10 03:43	624-95-3	
tert-Butyl Alcohol	ND	ug/L	100	27.0	1		11/19/10 03:43	75-65-0	
tert-Butyl Formate	ND	ug/L	50.0	9.0	1		11/19/10 03:43	762-75-4	
1,2-Dichloroethane	ND	ug/L	5.0	1.3	1		11/19/10 03:43	107-06-2	
Diisopropyl ether	ND	ug/L	5.0	2.7	1		11/19/10 03:43	108-20-3	
Ethanol	ND	ug/L	200	170	1		11/19/10 03:43	64-17-5	
Ethylbenzene	ND	ug/L	5.0	1.1	1		11/19/10 03:43	100-41-4	
Ethyl-tert-butyl ether	ND	ug/L	10.0	4.6	1		11/19/10 03:43	637-92-3	
Methyl-tert-butyl ether	ND	ug/L	5.0	2.0	1		11/19/10 03:43	1634-04-4	
Naphthalene	ND	ug/L	5.0	2.9	1		11/19/10 03:43	91-20-3	
Toluene	ND	ug/L	5.0	1.8	1		11/19/10 03:43	108-88-3	
Xylene (Total)	ND	ug/L	10.0	2.7	1		11/19/10 03:43	1330-20-7	
m&p-Xylene	ND	ug/L	10.0	2.7	1		11/19/10 03:43	179601-23-1	
o-Xylene	ND	ug/L	5.0	1.7	1		11/19/10 03:43	95-47-6	
Dibromofluoromethane (S)	117	%	70-130		1		11/19/10 03:43	1868-53-7	
Toluene-d8 (S)	101	%	70-130		1		11/19/10 03:43	2037-26-5	
4-Bromofluorobenzene (S)	93	%	70-130		1		11/19/10 03:43	460-00-4	
1,2-Dichloroethane-d4 (S)	114	%	70-130		1		11/19/10 03:43	17060-07-0	

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ANALYTICAL RESULTS

Project: WARREN GREEN 04887
Pace Project No.: 9282235

Sample: DW-2 **Lab ID: 9282235014** Collected: 11/15/10 12:20 Received: 11/16/10 15:50 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8011 GCS EDB and DBCP	Analytical Method: EPA 8011 Preparation Method: EPA 8011								
1,2-Dibromoethane (EDB)	ND	ug/L	0.027	0.027	1	11/18/10 11:37	11/18/10 23:26	106-93-4	
1-Chloro-2-bromopropane (S)	96	%	60-140		1	11/18/10 11:37	11/18/10 23:26	301-79-56	
8260 MSV Oxygenates	Analytical Method: EPA 8260								
tert-Amyl Alcohol	ND	ug/L	100	62.0	1		11/19/10 04:08	75-85-4	
tert-Amylmethyl ether	ND	ug/L	10.0	4.5	1		11/19/10 04:08	994-05-8	
Benzene	ND	ug/L	5.0	1.2	1		11/19/10 04:08	71-43-2	
3,3-Dimethyl-1-Butanol	ND	ug/L	100	48.0	1		11/19/10 04:08	624-95-3	
tert-Butyl Alcohol	ND	ug/L	100	27.0	1		11/19/10 04:08	75-65-0	
tert-Butyl Formate	ND	ug/L	50.0	9.0	1		11/19/10 04:08	762-75-4	
1,2-Dichloroethane	ND	ug/L	5.0	1.3	1		11/19/10 04:08	107-06-2	
Diisopropyl ether	ND	ug/L	5.0	2.7	1		11/19/10 04:08	108-20-3	
Ethanol	ND	ug/L	200	170	1		11/19/10 04:08	64-17-5	
Ethylbenzene	ND	ug/L	5.0	1.1	1		11/19/10 04:08	100-41-4	
Ethyl-tert-butyl ether	ND	ug/L	10.0	4.6	1		11/19/10 04:08	637-92-3	
Methyl-tert-butyl ether	ND	ug/L	5.0	2.0	1		11/19/10 04:08	1634-04-4	
Naphthalene	ND	ug/L	5.0	2.9	1		11/19/10 04:08	91-20-3	
Toluene	ND	ug/L	5.0	1.8	1		11/19/10 04:08	108-88-3	
Xylene (Total)	ND	ug/L	10.0	2.7	1		11/19/10 04:08	1330-20-7	
m&p-Xylene	ND	ug/L	10.0	2.7	1		11/19/10 04:08	179601-23-1	
o-Xylene	ND	ug/L	5.0	1.7	1		11/19/10 04:08	95-47-6	
Dibromofluoromethane (S)	118	%	70-130		1		11/19/10 04:08	1868-53-7	
Toluene-d8 (S)	98	%	70-130		1		11/19/10 04:08	2037-26-5	
4-Bromofluorobenzene (S)	94	%	70-130		1		11/19/10 04:08	460-00-4	
1,2-Dichloroethane-d4 (S)	117	%	70-130		1		11/19/10 04:08	17060-07-0	

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ANALYTICAL RESULTS

Project: WARREN GREEN 04887
Pace Project No.: 9282235

Sample: DW-3 **Lab ID: 9282235015** Collected: 11/15/10 10:20 Received: 11/16/10 15:50 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8011 GCS EDB and DBCP	Analytical Method: EPA 8011 Preparation Method: EPA 8011								
1,2-Dibromoethane (EDB)	ND	ug/L	0.020	0.020	1	11/18/10 11:37	11/18/10 23:45	106-93-4	
1-Chloro-2-bromopropane (S)	93	%	60-140		1	11/18/10 11:37	11/18/10 23:45	301-79-56	
8260 MSV Oxygenates	Analytical Method: EPA 8260								
tert-Amyl Alcohol	ND	ug/L	100	62.0	1		11/19/10 04:33	75-85-4	
tert-Amylmethyl ether	ND	ug/L	10.0	4.5	1		11/19/10 04:33	994-05-8	
Benzene	ND	ug/L	5.0	1.2	1		11/19/10 04:33	71-43-2	
3,3-Dimethyl-1-Butanol	ND	ug/L	100	48.0	1		11/19/10 04:33	624-95-3	
tert-Butyl Alcohol	ND	ug/L	100	27.0	1		11/19/10 04:33	75-65-0	
tert-Butyl Formate	ND	ug/L	50.0	9.0	1		11/19/10 04:33	762-75-4	
1,2-Dichloroethane	ND	ug/L	5.0	1.3	1		11/19/10 04:33	107-06-2	
Diisopropyl ether	ND	ug/L	5.0	2.7	1		11/19/10 04:33	108-20-3	
Ethanol	ND	ug/L	200	170	1		11/19/10 04:33	64-17-5	
Ethylbenzene	ND	ug/L	5.0	1.1	1		11/19/10 04:33	100-41-4	
Ethyl-tert-butyl ether	ND	ug/L	10.0	4.6	1		11/19/10 04:33	637-92-3	
Methyl-tert-butyl ether	ND	ug/L	5.0	2.0	1		11/19/10 04:33	1634-04-4	
Naphthalene	ND	ug/L	5.0	2.9	1		11/19/10 04:33	91-20-3	
Toluene	ND	ug/L	5.0	1.8	1		11/19/10 04:33	108-88-3	
Xylene (Total)	ND	ug/L	10.0	2.7	1		11/19/10 04:33	1330-20-7	
m&p-Xylene	ND	ug/L	10.0	2.7	1		11/19/10 04:33	179601-23-1	
o-Xylene	ND	ug/L	5.0	1.7	1		11/19/10 04:33	95-47-6	
Dibromofluoromethane (S)	114	%	70-130		1		11/19/10 04:33	1868-53-7	
Toluene-d8 (S)	99	%	70-130		1		11/19/10 04:33	2037-26-5	
4-Bromofluorobenzene (S)	95	%	70-130		1		11/19/10 04:33	460-00-4	
1,2-Dichloroethane-d4 (S)	113	%	70-130		1		11/19/10 04:33	17060-07-0	

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ANALYTICAL RESULTS

Project: WARREN GREEN 04887
Pace Project No.: 9282235

Sample: DW-4 **Lab ID: 9282235016** Collected: 11/15/10 10:40 Received: 11/16/10 15:50 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8011 GCS EDB and DBCP	Analytical Method: EPA 8011 Preparation Method: EPA 8011								
1,2-Dibromoethane (EDB)	ND	ug/L	0.020	0.020	1	11/18/10 11:37	11/19/10 00:03	106-93-4	
1-Chloro-2-bromopropane (S)	91	%	60-140		1	11/18/10 11:37	11/19/10 00:03	301-79-56	
8260 MSV Oxygenates	Analytical Method: EPA 8260								
tert-Amyl Alcohol	ND	ug/L	100	62.0	1		11/19/10 04:59	75-85-4	
tert-Amylmethyl ether	ND	ug/L	10.0	4.5	1		11/19/10 04:59	994-05-8	
Benzene	ND	ug/L	5.0	1.2	1		11/19/10 04:59	71-43-2	
3,3-Dimethyl-1-Butanol	ND	ug/L	100	48.0	1		11/19/10 04:59	624-95-3	
tert-Butyl Alcohol	ND	ug/L	100	27.0	1		11/19/10 04:59	75-65-0	
tert-Butyl Formate	ND	ug/L	50.0	9.0	1		11/19/10 04:59	762-75-4	
1,2-Dichloroethane	ND	ug/L	5.0	1.3	1		11/19/10 04:59	107-06-2	
Diisopropyl ether	ND	ug/L	5.0	2.7	1		11/19/10 04:59	108-20-3	
Ethanol	ND	ug/L	200	170	1		11/19/10 04:59	64-17-5	
Ethylbenzene	ND	ug/L	5.0	1.1	1		11/19/10 04:59	100-41-4	
Ethyl-tert-butyl ether	ND	ug/L	10.0	4.6	1		11/19/10 04:59	637-92-3	
Methyl-tert-butyl ether	ND	ug/L	5.0	2.0	1		11/19/10 04:59	1634-04-4	
Naphthalene	ND	ug/L	5.0	2.9	1		11/19/10 04:59	91-20-3	
Toluene	ND	ug/L	5.0	1.8	1		11/19/10 04:59	108-88-3	
Xylene (Total)	ND	ug/L	10.0	2.7	1		11/19/10 04:59	1330-20-7	
m&p-Xylene	ND	ug/L	10.0	2.7	1		11/19/10 04:59	179601-23-1	
o-Xylene	ND	ug/L	5.0	1.7	1		11/19/10 04:59	95-47-6	
Dibromofluoromethane (S)	114	%	70-130		1		11/19/10 04:59	1868-53-7	
Toluene-d8 (S)	99	%	70-130		1		11/19/10 04:59	2037-26-5	
4-Bromofluorobenzene (S)	94	%	70-130		1		11/19/10 04:59	460-00-4	
1,2-Dichloroethane-d4 (S)	114	%	70-130		1		11/19/10 04:59	17060-07-0	

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ANALYTICAL RESULTS

Project: WARREN GREEN 04887
Pace Project No.: 9282235

Sample: DW-5 **Lab ID: 9282235017** Collected: 11/15/10 13:15 Received: 11/16/10 15:50 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8011 GCS EDB and DBCP	Analytical Method: EPA 8011 Preparation Method: EPA 8011								
1,2-Dibromoethane (EDB)	ND	ug/L	0.024	0.024	1	11/18/10 11:37	11/19/10 00:21	106-93-4	
1-Chloro-2-bromopropane (S)	66	%	60-140		1	11/18/10 11:37	11/19/10 00:21	301-79-56	
8260 MSV Oxygenates	Analytical Method: EPA 8260								
tert-Amyl Alcohol	ND	ug/L	100	62.0	1		11/19/10 05:24	75-85-4	
tert-Amylmethyl ether	ND	ug/L	10.0	4.5	1		11/19/10 05:24	994-05-8	
Benzene	ND	ug/L	5.0	1.2	1		11/19/10 05:24	71-43-2	
3,3-Dimethyl-1-Butanol	ND	ug/L	100	48.0	1		11/19/10 05:24	624-95-3	
tert-Butyl Alcohol	ND	ug/L	100	27.0	1		11/19/10 05:24	75-65-0	
tert-Butyl Formate	ND	ug/L	50.0	9.0	1		11/19/10 05:24	762-75-4	
1,2-Dichloroethane	ND	ug/L	5.0	1.3	1		11/19/10 05:24	107-06-2	
Diisopropyl ether	ND	ug/L	5.0	2.7	1		11/19/10 05:24	108-20-3	
Ethanol	ND	ug/L	200	170	1		11/19/10 05:24	64-17-5	
Ethylbenzene	ND	ug/L	5.0	1.1	1		11/19/10 05:24	100-41-4	
Ethyl-tert-butyl ether	ND	ug/L	10.0	4.6	1		11/19/10 05:24	637-92-3	
Methyl-tert-butyl ether	ND	ug/L	5.0	2.0	1		11/19/10 05:24	1634-04-4	
Naphthalene	ND	ug/L	5.0	2.9	1		11/19/10 05:24	91-20-3	
Toluene	ND	ug/L	5.0	1.8	1		11/19/10 05:24	108-88-3	
Xylene (Total)	ND	ug/L	10.0	2.7	1		11/19/10 05:24	1330-20-7	
m&p-Xylene	ND	ug/L	10.0	2.7	1		11/19/10 05:24	179601-23-1	
o-Xylene	ND	ug/L	5.0	1.7	1		11/19/10 05:24	95-47-6	
Dibromofluoromethane (S)	118	%	70-130		1		11/19/10 05:24	1868-53-7	
Toluene-d8 (S)	99	%	70-130		1		11/19/10 05:24	2037-26-5	
4-Bromofluorobenzene (S)	94	%	70-130		1		11/19/10 05:24	460-00-4	
1,2-Dichloroethane-d4 (S)	117	%	70-130		1		11/19/10 05:24	17060-07-0	

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ANALYTICAL RESULTS

Project: WARREN GREEN 04887
Pace Project No.: 9282235

Sample: DW-6 **Lab ID: 9282235018** Collected: 11/15/10 11:45 Received: 11/16/10 15:50 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8011 GCS EDB and DBCP	Analytical Method: EPA 8011 Preparation Method: EPA 8011								
1,2-Dibromoethane (EDB)	ND	ug/L	0.020	0.020	1	11/18/10 11:37	11/19/10 00:39	106-93-4	
1-Chloro-2-bromopropane (S)	95	%	60-140		1	11/18/10 11:37	11/19/10 00:39	301-79-56	
8260 MSV Oxygenates	Analytical Method: EPA 8260								
tert-Amyl Alcohol	ND	ug/L	100	62.0	1		11/19/10 05:50	75-85-4	
tert-Amylmethyl ether	ND	ug/L	10.0	4.5	1		11/19/10 05:50	994-05-8	
Benzene	ND	ug/L	5.0	1.2	1		11/19/10 05:50	71-43-2	
3,3-Dimethyl-1-Butanol	ND	ug/L	100	48.0	1		11/19/10 05:50	624-95-3	
tert-Butyl Alcohol	ND	ug/L	100	27.0	1		11/19/10 05:50	75-65-0	
tert-Butyl Formate	ND	ug/L	50.0	9.0	1		11/19/10 05:50	762-75-4	
1,2-Dichloroethane	ND	ug/L	5.0	1.3	1		11/19/10 05:50	107-06-2	
Diisopropyl ether	ND	ug/L	5.0	2.7	1		11/19/10 05:50	108-20-3	
Ethanol	ND	ug/L	200	170	1		11/19/10 05:50	64-17-5	
Ethylbenzene	ND	ug/L	5.0	1.1	1		11/19/10 05:50	100-41-4	
Ethyl-tert-butyl ether	ND	ug/L	10.0	4.6	1		11/19/10 05:50	637-92-3	
Methyl-tert-butyl ether	ND	ug/L	5.0	2.0	1		11/19/10 05:50	1634-04-4	
Naphthalene	ND	ug/L	5.0	2.9	1		11/19/10 05:50	91-20-3	
Toluene	ND	ug/L	5.0	1.8	1		11/19/10 05:50	108-88-3	
Xylene (Total)	ND	ug/L	10.0	2.7	1		11/19/10 05:50	1330-20-7	
m&p-Xylene	ND	ug/L	10.0	2.7	1		11/19/10 05:50	179601-23-1	
o-Xylene	ND	ug/L	5.0	1.7	1		11/19/10 05:50	95-47-6	
Dibromofluoromethane (S)	115	%	70-130		1		11/19/10 05:50	1868-53-7	
Toluene-d8 (S)	100	%	70-130		1		11/19/10 05:50	2037-26-5	
4-Bromofluorobenzene (S)	93	%	70-130		1		11/19/10 05:50	460-00-4	
1,2-Dichloroethane-d4 (S)	115	%	70-130		1		11/19/10 05:50	17060-07-0	

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QUALITY CONTROL DATA

Project: WARREN GREEN 04887
Pace Project No.: 9282235

QC Batch: OEXT/11908 Analysis Method: EPA 8011
QC Batch Method: EPA 8011 Analysis Description: GCS 8011 EDB DBCP
Associated Lab Samples: 9282235001, 9282235002, 9282235003

METHOD BLANK: 529336 Matrix: Water
Associated Lab Samples: 9282235001, 9282235002, 9282235003

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
1,2-Dibromoethane (EDB)	ug/L	ND	0.020	11/18/10 06:36	
1-Chloro-2-bromopropane (S)	%	110	60-140	11/18/10 06:36	

LABORATORY CONTROL SAMPLE & LCSD: 529337 529338

Parameter	Units	Spike Conc.	LCS Result	LCSD Result	LCS % Rec	LCSD % Rec	% Rec Limits	RPD	Max RPD	Qualifiers
1,2-Dibromoethane (EDB)	ug/L	.29	0.32	0.35	110	124	60-140	9	20	
1-Chloro-2-bromopropane (S)	%				104	120	60-140			

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 529339 529340

Parameter	Units	9281794002 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
1,2-Dibromoethane (EDB)	ug/L	ND	.28	.28	0.32	0.31	112	110	60-140	2	20	
1-Chloro-2-bromopropane (S)	%						106	105	60-140			

SAMPLE DUPLICATE: 529341

Parameter	Units	9281794003 Result	Dup Result	RPD	Max RPD	Qualifiers
1,2-Dibromoethane (EDB)	ug/L	ND	ND		20	
1-Chloro-2-bromopropane (S)	%	100	104	5		

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QUALITY CONTROL DATA

Project: WARREN GREEN 04887
Pace Project No.: 9282235

QC Batch: OEXT/11918 — Analysis Method: EPA 8011
QC Batch Method: EPA 8011 — Analysis Description: GCS 8011 EDB DBCP
Associated Lab Samples: 9282235004, 9282235005, 9282235006, 9282235007, 9282235008, 9282235009, 9282235010, 9282235011, 9282235012, 9282235013, 9282235014, 9282235015, 9282235016, 9282235017, 9282235018

METHOD BLANK: 529832 — Matrix: Water
Associated Lab Samples: 9282235004, 9282235005, 9282235006, 9282235007, 9282235008, 9282235009, 9282235010, 9282235011, 9282235012, 9282235013, 9282235014, 9282235015, 9282235016, 9282235017, 9282235018

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
1,2-Dibromoethane (EDB)	ug/L	ND	0.020	11/18/10 10:42	
1-Chloro-2-bromopropane (S)	%	109	60-140	11/18/10 10:42	

LABORATORY CONTROL SAMPLE & LCSD: 529833 — 529834

Parameter	Units	Spike Conc.	LCS Result	LCSD Result	LCS % Rec	LCSD % Rec	% Rec Limits	RPD	Max RPD	Qualifiers
1,2-Dibromoethane (EDB)	ug/L	.28	0.31	0.31	112	110	60-140	0	20	
1-Chloro-2-bromopropane (S)	%				107	105	60-140			

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 529835 — 529836

Parameter	Units	9282235004 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
1,2-Dibromoethane (EDB)	ug/L	ND	.28	.28	0.32	0.32	114	116	60-140	2	20	
1-Chloro-2-bromopropane (S)	%						106	106	60-140			

SAMPLE DUPLICATE: 529837

Parameter	Units	9282235005 Result	Dup Result	RPD	Max RPD	Qualifiers
1,2-Dibromoethane (EDB)	ug/L	4.0	4.1	3	20	
1-Chloro-2-bromopropane (S)	%	0	0			S4

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QUALITY CONTROL DATA

Project: WARREN GREEN 04887
Pace Project No.: 9282235

QC Batch: MSV/13089 Analysis Method: EPA 8260
QC Batch Method: EPA 8260 Analysis Description: 8260 MSV Oxygenates SC
Associated Lab Samples: 9282235001, 9282235002, 9282235003, 9282235005, 9282235006, 9282235007, 9282235008, 9282235009, 9282235010, 9282235011, 9282235012, 9282235013, 9282235014, 9282235015, 9282235016, 9282235017, 9282235018

METHOD BLANK: 529989 Matrix: Water
Associated Lab Samples: 9282235001, 9282235002, 9282235003, 9282235005, 9282235006, 9282235007, 9282235008, 9282235009, 9282235010, 9282235011, 9282235012, 9282235013, 9282235014, 9282235015, 9282235016, 9282235017, 9282235018

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
1,2-Dichloroethane	ug/L	ND	5.0	11/18/10 23:04	
3,3-Dimethyl-1-Butanol	ug/L	ND	100	11/18/10 23:04	
Benzene	ug/L	ND	5.0	11/18/10 23:04	
Diisopropyl ether	ug/L	ND	5.0	11/18/10 23:04	
Ethanol	ug/L	ND	200	11/18/10 23:04	
Ethyl-tert-butyl ether	ug/L	ND	10.0	11/18/10 23:04	
Ethylbenzene	ug/L	ND	5.0	11/18/10 23:04	
m&p-Xylene	ug/L	ND	10.0	11/18/10 23:04	
Methyl-tert-butyl ether	ug/L	ND	5.0	11/18/10 23:04	
Naphthalene	ug/L	ND	5.0	11/18/10 23:04	
o-Xylene	ug/L	ND	5.0	11/18/10 23:04	
tert-Amyl Alcohol	ug/L	ND	100	11/18/10 23:04	
tert-Amylmethyl ether	ug/L	ND	10.0	11/18/10 23:04	
tert-Butyl Alcohol	ug/L	ND	100	11/18/10 23:04	
tert-Butyl Formate	ug/L	ND	50.0	11/18/10 23:04	
Toluene	ug/L	ND	5.0	11/18/10 23:04	
Xylene (Total)	ug/L	ND	10.0	11/18/10 23:04	
1,2-Dichloroethane-d4 (S)	%	109	70-130	11/18/10 23:04	
4-Bromofluorobenzene (S)	%	91	70-130	11/18/10 23:04	
Dibromofluoromethane (S)	%	112	70-130	11/18/10 23:04	
Toluene-d8 (S)	%	97	70-130	11/18/10 23:04	

LABORATORY CONTROL SAMPLE: 529990

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,2-Dichloroethane	ug/L	50	55.4	111	70-130	
3,3-Dimethyl-1-Butanol	ug/L	1000	1210	121	70-130	
Benzene	ug/L	50	51.3	103	70-130	
Diisopropyl ether	ug/L	50	52.6	105	70-130	
Ethanol	ug/L	2000	3140	157	70-130	L3
Ethyl-tert-butyl ether	ug/L	100	99.8	100	70-130	
Ethylbenzene	ug/L	50	51.6	103	70-130	
m&p-Xylene	ug/L	100	106	106	70-130	
Methyl-tert-butyl ether	ug/L	50	54.6	109	70-130	
Naphthalene	ug/L	50	54.2	108	70-130	
o-Xylene	ug/L	50	54.9	110	70-130	
tert-Amyl Alcohol	ug/L	1000	988	99	70-130	
tert-Amylmethyl ether	ug/L	100	95.2	95	70-130	

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QUALITY CONTROL DATA

Project: WARREN GREEN 04887
Pace Project No.: 9282235

LABORATORY CONTROL SAMPLE: 529990

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
tert-Butyl Alcohol	ug/L	500	666	133	70-130	L3
tert-Butyl Formate	ug/L	400	377	94	70-130	
Toluene	ug/L	50	53.5	107	70-130	
Xylene (Total)	ug/L	150	161	108	70-130	
1,2-Dichloroethane-d4 (S)	%			104	70-130	
4-Bromofluorobenzene (S)	%			97	70-130	
Dibromofluoromethane (S)	%			106	70-130	
Toluene-d8 (S)	%			103	70-130	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 529991 529992

Parameter	Units	9282235001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
1,2-Dichloroethane	ug/L	ND	50	50	59.8	59.6	120	119	70-130	0	30	
3,3-Dimethyl-1-Butanol	ug/L	ND	1000	1000	1130	1200	113	120	70-130	6	30	
Benzene	ug/L	ND	50	50	56.6	55.6	113	111	70-130	2	30	
Diisopropyl ether	ug/L	ND	50	50	58.4	58.2	117	116	70-130	0	30	
Ethanol	ug/L	ND	2000	2000	4050	4240	203	212	70-130	4	30	M0
Ethyl-tert-butyl ether	ug/L	ND	100	100	106	106	106	106	70-130	0	30	
Ethylbenzene	ug/L	ND	50	50	55.2	55.7	110	111	70-130	1	30	
m&p-Xylene	ug/L	ND	100	100	111	112	111	112	70-130	1	30	
Methyl-tert-butyl ether	ug/L	11.1	50	50	68.0	70.5	114	119	70-130	4	30	
Naphthalene	ug/L	ND	50	50	52.5	54.5	105	109	70-130	4	30	
o-Xylene	ug/L	ND	50	50	57.4	57.4	115	115	70-130	0	30	
tert-Amyl Alcohol	ug/L	ND	1000	1000	977	1020	98	102	70-130	4	30	
tert-Amylmethyl ether	ug/L	ND	100	100	95.7	96.6	96	97	70-130	1	30	
tert-Butyl Alcohol	ug/L	ND	500	500	874	920	175	184	70-130	5	30	M0
tert-Butyl Formate	ug/L	ND	400	400	ND	ND	0	0	70-130		30	P5
Toluene	ug/L	ND	50	50	59.3	58.9	119	118	70-130	1	30	
1,2-Dichloroethane-d4 (S)	%						105	103	70-130			
4-Bromofluorobenzene (S)	%						93	97	70-130			
Dibromofluoromethane (S)	%						107	105	70-130			
Toluene-d8 (S)	%						102	103	70-130			

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Huntersville, NC 28078
(704)875-9092

QUALITY CONTROL DATA

Project: WARREN GREEN 04887
Pace Project No.: 9282235

QC Batch: MSV/13094 — Analysis Method: EPA 8260
QC Batch Method: EPA 8260 — Analysis Description: 8260 MSV Oxygenates SC
Associated Lab Samples: 9282235004

METHOD BLANK: 530073 — Matrix: Water
Associated Lab Samples: 9282235004

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
1,2-Dichloroethane	ug/L	ND	5.0	11/19/10 09:16	
3,3-Dimethyl-1-Butanol	ug/L	ND	100	11/19/10 09:16	
Benzene	ug/L	ND	5.0	11/19/10 09:16	
Diisopropyl ether	ug/L	ND	5.0	11/19/10 09:16	
Ethanol	ug/L	ND	200	11/19/10 09:16	
Ethyl-tert-butyl ether	ug/L	ND	10.0	11/19/10 09:16	
Ethylbenzene	ug/L	ND	5.0	11/19/10 09:16	
m&p-Xylene	ug/L	ND	10.0	11/19/10 09:16	
Methyl-tert-butyl ether	ug/L	ND	5.0	11/19/10 09:16	
Naphthalene	ug/L	ND	5.0	11/19/10 09:16	
o-Xylene	ug/L	ND	5.0	11/19/10 09:16	
tert-Amyl Alcohol	ug/L	ND	100	11/19/10 09:16	
tert-Amylmethyl ether	ug/L	ND	10.0	11/19/10 09:16	
tert-Butyl Alcohol	ug/L	ND	100	11/19/10 09:16	
tert-Butyl Formate	ug/L	ND	50.0	11/19/10 09:16	
Toluene	ug/L	ND	5.0	11/19/10 09:16	
Xylene (Total)	ug/L	ND	10.0	11/19/10 09:16	
1,2-Dichloroethane-d4 (S)	%	101	70-130	11/19/10 09:16	
4-Bromofluorobenzene (S)	%	95	70-130	11/19/10 09:16	
Dibromofluoromethane (S)	%	103	70-130	11/19/10 09:16	
Toluene-d8 (S)	%	99	70-130	11/19/10 09:16	

LABORATORY CONTROL SAMPLE: 530074

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,2-Dichloroethane	ug/L	50	60.0	120	70-130	
3,3-Dimethyl-1-Butanol	ug/L	1000	1080	108	70-130	
Benzene	ug/L	50	55.2	110	70-130	
Diisopropyl ether	ug/L	50	57.4	115	70-130	
Ethanol	ug/L	2000	2040	102	70-130	
Ethyl-tert-butyl ether	ug/L	100	113	113	70-130	
Ethylbenzene	ug/L	50	58.3	117	70-130	
m&p-Xylene	ug/L	100	103	103	70-130	
Methyl-tert-butyl ether	ug/L	50	62.0	124	70-130	
Naphthalene	ug/L	50	61.1	122	70-130	
o-Xylene	ug/L	50	61.3	123	70-130	
tert-Amyl Alcohol	ug/L	1000	1280	128	70-130	
tert-Amylmethyl ether	ug/L	100	115	115	70-130	
tert-Butyl Alcohol	ug/L	500	698	140	70-130	L0
tert-Butyl Formate	ug/L	400	558	139	70-130	L0
Toluene	ug/L	50	56.4	113	70-130	

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QUALITY CONTROL DATA

Project: WARREN GREEN 04887
Pace Project No.: 9282235

LABORATORY CONTROL SAMPLE: 530074

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Xylene (Total)	ug/L	150	164	110	70-130	
1,2-Dichloroethane-d4 (S)	%			104	70-130	
4-Bromofluorobenzene (S)	%			100	70-130	
Dibromofluoromethane (S)	%			101	70-130	
Toluene-d8 (S)	%			98	70-130	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 530075 530076

Parameter	Units	9282235004 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
1,2-Dichloroethane	ug/L	ND	50	50	40.4	48.4	81	97	70-130	18	30	
3,3-Dimethyl-1-Butanol	ug/L	ND	1000	1000	629	708	63	71	70-130	12	30	M0
Benzene	ug/L	ND	50	50	38.1	45.5	76	91	70-130	18	30	
Diisopropyl ether	ug/L	ND	50	50	36.3	45.3	73	91	70-130	22	30	
Ethanol	ug/L	ND	2000	2000	1280	1440	64	72	70-130	12	30	M0
Ethyl-tert-butyl ether	ug/L	ND	100	100	72.6	89.9	73	90	70-130	21	30	
Ethylbenzene	ug/L	ND	50	50	38.0	46.2	76	92	70-130	20	30	
m&p-Xylene	ug/L	ND	100	100	67.8	81.8	68	82	70-130	19	30	M0
Methyl-tert-butyl ether	ug/L	ND	50	50	38.5	47.7	77	95	70-130	21	30	
Naphthalene	ug/L	ND	50	50	35.8	44.9	72	90	70-130	23	30	
o-Xylene	ug/L	ND	50	50	38.3	47.5	77	95	70-130	21	30	
tert-Amyl Alcohol	ug/L	ND	1000	1000	771	844	77	84	70-130	9	30	
tert-Amylmethyl ether	ug/L	ND	100	100	74.0	90.6	74	91	70-130	20	30	
tert-Butyl Alcohol	ug/L	ND	500	500	559	618	112	124	70-130	10	30	
tert-Butyl Formate	ug/L	ND	400	400	ND	ND	0	0	70-130		30	P5
Toluene	ug/L	ND	50	50	37.2	45.6	74	91	70-130	20	30	
1,2-Dichloroethane-d4 (S)	%						104	104	70-130			
4-Bromofluorobenzene (S)	%						96	97	70-130			
Dibromofluoromethane (S)	%						101	101	70-130			
Toluene-d8 (S)	%						99	100	70-130			

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QUALIFIERS

Project: WARREN GREEN 04887
Pace Project No.: 9282235

DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to changes in sample preparation, dilution of the sample aliquot, or moisture content.

ND - Not Detected at or above adjusted reporting limit.

J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.

MDL - Adjusted Method Detection Limit.

S - Surrogate

1,2-Diphenylhydrazine (8270 listed analyte) decomposes to Azobenzene.

Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

U - Indicates the compound was analyzed for, but not detected.

N-Nitrosodiphenylamine decomposes and cannot be separated from Diphenylamine using Method 8270. The result reported for each analyte is a combined concentration.

Pace Analytical is NELAP accredited. Contact your Pace PM for the current list of accredited analytes.

LABORATORIES

PASI-C	Pace Analytical Services - Charlotte

ANALYTE QUALIFIERS

L0	Analyte recovery in the laboratory control sample (LCS) was outside QC limits.
L3	Analyte recovery in the laboratory control sample (LCS) exceeded QC limits. Analyte presence below reporting limits in associated samples. Results unaffected by high bias.
M0	Matrix spike recovery and/or matrix spike duplicate recovery was outside laboratory control limits.
P5	The EPA or method required sample preservation degrades this compound, therefore acceptable recoveries may not be achieved in sample matrix spikes.
S4	Surrogate recovery not evaluated against control limits due to sample dilution.

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QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: WARREN GREEN 04887
Pace Project No.: 9282235

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
9282235001	MW-2	EPA 8011	OEXT/11908	EPA 8011	GCSV/8763
9282235002	MW-4	EPA 8011	OEXT/11908	EPA 8011	GCSV/8763
9282235003	MW-5	EPA 8011	OEXT/11908	EPA 8011	GCSV/8763
9282235004	MW-6	EPA 8011	OEXT/11918	EPA 8011	GCSV/8765
9282235005	MW-7	EPA 8011	OEXT/11918	EPA 8011	GCSV/8765
9282235006	MW-8	EPA 8011	OEXT/11918	EPA 8011	GCSV/8765
9282235007	MW-9	EPA 8011	OEXT/11918	EPA 8011	GCSV/8765
9282235008	MW-10	EPA 8011	OEXT/11918	EPA 8011	GCSV/8765
9282235009	MW-11	EPA 8011	OEXT/11918	EPA 8011	GCSV/8765
9282235010	MW-13	EPA 8011	OEXT/11918	EPA 8011	GCSV/8765
9282235011	MW-14	EPA 8011	OEXT/11918	EPA 8011	GCSV/8765
9282235012	MW-15	EPA 8011	OEXT/11918	EPA 8011	GCSV/8765
9282235013	DW-1	EPA 8011	OEXT/11918	EPA 8011	GCSV/8765
9282235014	DW-2	EPA 8011	OEXT/11918	EPA 8011	GCSV/8765
9282235015	DW-3	EPA 8011	OEXT/11918	EPA 8011	GCSV/8765
9282235016	DW-4	EPA 8011	OEXT/11918	EPA 8011	GCSV/8765
9282235017	DW-5	EPA 8011	OEXT/11918	EPA 8011	GCSV/8765
9282235018	DW-6	EPA 8011	OEXT/11918	EPA 8011	GCSV/8765
9282235001	MW-2	EPA 8260	MSV/13089		
9282235002	MW-4	EPA 8260	MSV/13089		
9282235003	MW-5	EPA 8260	MSV/13089		
9282235004	MW-6	EPA 8260	MSV/13094		
9282235005	MW-7	EPA 8260	MSV/13089		
9282235006	MW-8	EPA 8260	MSV/13089		
9282235007	MW-9	EPA 8260	MSV/13089		
9282235008	MW-10	EPA 8260	MSV/13089		
9282235009	MW-11	EPA 8260	MSV/13089		
9282235010	MW-13	EPA 8260	MSV/13089		
9282235011	MW-14	EPA 8260	MSV/13089		
9282235012	MW-15	EPA 8260	MSV/13089		
9282235013	DW-1	EPA 8260	MSV/13089		
9282235014	DW-2	EPA 8260	MSV/13089		
9282235015	DW-3	EPA 8260	MSV/13089		
9282235016	DW-4	EPA 8260	MSV/13089		
9282235017	DW-5	EPA 8260	MSV/13089		
9282235018	DW-6	EPA 8260	MSV/13089		

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CHAIN-OF-CUSTODY / Analytical Request Document

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

Page: 1 of 2

1407828

Section A
Required Client Information:

Company:	SCDHEC-UST
Address:	2600 Bull Street
	Columbia SC 29201
Email To:	
Phone:	Fax:
Requested Due Date/TAT:	

Section B
Required Project Information:

Report To:	D. Thomas
Copy To:	
Purchase Order No.:	4500011285
Project Name:	Warren Clean
Project Number:	04897/37138

Section C
Invoice Information:

Attention:	Finance (D. Thomas)
Company Name:	SCDHEC-UST
Address:	
Pace Quote Reference:	
Pace Project Manager:	K. Sproul
Pace Profile #:	949-5

REGULATORY AGENCY

☐ NPDES ☐ GROUND WATER ☐ DRINKING WATER
☒ UST ☐ RCRA ☐ OTHER ______

Site Location STATE: SC

Section D
Required Client Information

SAMPLE ID
(A-Z, 0-9 / ,-)
Sample IDs MUST BE UNIQUE

Matrix Codes
MATRIX / CODE

Drinking Water	DW
Water	WT
Waste Water	WW
Product	P
Soil/Solid	SL
Oil	OL
Wipe	WP
Air	AR
Tissue	TS
Other	OT

Requested Analysis Filtered (Y/N)

Pace Project No./ Lab I.D.: 9282235

ITEM #	SAMPLE ID	MATRIX CODE	SAMPLE TYPE (G=GRAB C=COMP)	COMPOSITE START DATE	COMPOSITE START TIME	COMPOSITE END/GRAB DATE	COMPOSITE END/GRAB TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Unpreserved	H_2SO_4	HNO_3	HCl	NaOH	$Na_2S_2O_3$	Methanol	Other	Analysis Test	Residual Chlorine (Y/N)	Pace Project No./ Lab I.D.
1	~~MW-1~~																			Not located
2	MW-2	WT	G			11/15	[illegible]		6				6					X X X		001 No odor
3	~~MW-3R~~																			Destroyed
4	MW-4						[illegible]													002 Slight odor
5	MW-5						[illegible]													003 No odor
6	MW-6						[illegible]													004 No odor
7	MW-7						[illegible]													005 Strong odor
8	MW-8						[illegible]													006 odor
9	MW-9						[illegible]													007 No odor
10	MW-10						[illegible]													008 No odor
11	MW-11	WT	G			11/15	[illegible]		6				6					X X X		009 No odor
12	~~MW-12~~																			Not located

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS			
Report J values	K. Pudney	11/15		Beaver						
	Beaver	11/16	1510	[illegible] / Pace	11/16	1510				
	[illegible] / Pace	11/16	1550	[illegible] / Pace	11/16/10	15:50	2.6	Y	Y	Y
							Temp in °C	Received on Ice (Y/N)	Custody Sealed Cooler (Y/N)	Samples Intact (Y/N)

3

SAMPLER NAME AND SIGNATURE

PRINT Name of SAMPLER: Kyle Pudney

SIGNATURE of SAMPLER: [signature]   DATE Signed (MM/DD/YY): 11/15/2010

*Important Note: By signing this form you are accepting Pace's NET 30 day payment terms and agreeing to late charges of 1.5% per month for any invoices not paid within 30 days.

F-ALL-Q-020rev.07, 15-May-2007

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CHAIN-OF-CUSTODY / Analytical Request Document

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

Page: 2 of 2

1407829

Section A Required Client Information:	Section B Required Project Information:	Section C Invoice Information:
Company:	Report To:	Attention:
Address:	Copy To:	Company Name:
		Address:
Email To:	Purchase Order No.:	Pace Quote Reference:
Phone: Fax:	Project Name:	Pace Project Manager:
Requested Due Date/TAT:	Project Number:	Pace Profile #:

REGULATORY AGENCY

☐ NPDES ☐ GROUND WATER ☐ DRINKING WATER
☐ UST ☐ RCRA ☐ OTHER ______

Site Location STATE: SC

Section D Required Client Information

SAMPLE ID (A-Z, 0-9 / ,-) Sample IDs MUST BE UNIQUE

Matrix Codes (MATRIX / CODE): Drinking Water DW, Water WT, Waste Water WW, Product P, Soil/Solid SL, Oil OL, Wipe WP, Air AR, Tissue TS, Other OT

Requested Analysis Filtered (Y/N)

ITEM #	SAMPLE ID	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED: COMPOSITE START DATE	TIME	COMPOSITE END/GRAB DATE	TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Unpreserved	H_2SO_4	HNO_3	HCl	NaOH	$Na_2S_2O_3$	Methanol	Other	Analysis Test Y/N												Residual Chlorine (Y/N)	Pace Project No./ Lab I.D. 1252235
1																														010
2																														011
3																														012
4																														013
5																														014
6																														015
7																														016
8																														017
9																														
10																														
11																														
12																														

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	Temp in °C	Received on Ice (Y/N)	Custody Sealed Cooler (Y/N)	Samples Intact (Y/N)
			1550			1550	2.6	Y		Y

4

SAMPLER NAME AND SIGNATURE

PRINT Name of SAMPLER:

SIGNATURE of SAMPLER:

DATE Signed (MM/DD/YY):

*Important Note: By signing this form you are accepting Pace's NET 30 day payment terms and agreeing to late charges of 1.5% per month for any invoices not paid within 30 days.

D H E C

PROMOTE PROTECT PROSPER

Catherine B. Templeton, Director

Promoting and protecting the health of the public and the environment

APR 1 9 2012

UST 16tech DOCKETING

BRYAN SHANE
MIDLANDS ENVIRONMENTAL CONSULTANTS INC
PO BOX 854
LEXINGTON SC 29071

Re: QAPP Contractor Addendum Directive for Small Scope Contract
Solicitation # 5400003229; PO# 4600117789

Dear Mr. Shane:

Based on the award of the referenced bid package, enclosed are the information packets to conduct assessments at several facilities. Please submit the Site-specific Quality Assurance Project Plan for an IGWA, Tier I or Assessment Plan, and Assessment Component Cost Agreement as necessary, to my attention **within fifteen (15) days from the date of this correspondence**. Plan implementation shall not commence prior to receipt of written technical and financial approval from the Department. The facilities will be assigned a Cost Agreement (CA) numbers once the QAPP Contractor Addendum has been approved by the project manager. Please reference the CA numbers and Purchase Order # 4600117789 on the appropriate invoices submitted for payment. As specified in the referenced bid, **the completed invoice forms and associated reports (include contract certification number) are expected on or before the designated due date (see below) after the technical and cost approval from the project manager.**

~~UST Permit~~ #	Facility	ARRA	County	Project Manager	Work Scope	Due Date*
04887	Warren Green	No	Jasper	David Ebinger	Monitoring Well Installation	30 Days
00428	Rogers Auto Parts	Yes	Anderson	Read Miner	Monitoring Well Installation	60 Days
09310	Tega Cay Recreation	Yes	York	Read Miner	Monitoring Well Installation	60 Days
14094	Little Howies	No	Bamberg	David Ebinger	Monitoring Well Installation and Repair	120 Days
19426	Former Royal Petroleum	Yes	Richland	Stephanie Briney	Monitoring Well Installation	60 Days
00892	Baxley Lawn and Saw Shop	Yes	Barnwell	Stephanie Briney	Monitoring Well Installation	60 Days

*From receipt of Notice to Proceed letter

Midland's Environmental Consultants, Inc. will perform services at the sites on behalf of the site's UST owners; however, payments will be made from the State Underground Petroleum Environmental Response Bank (SUPERB) Account. The site's UST owners have no obligation for payment for this scope of work. **Please note, if there are any changes in the established cost agreement amounts (e.g., additional water supply wells sampled, additional well footage, etc.) contact the site's project manager for technical and/or financial approval. Failure to do so prior to submittal of invoice may result in delay of payment.**

IGWA, Tier I or Assessment Plan, Implementation and Report submittal shall be performed in accordance with the referenced contract. Per Section 3.4.2., a late fee of $50.00/day (not to exceed 20% of the cost agreement total) may be levied for each report submitted after the deadline established in the Notice to Proceed.

Under the terms of the American Recovery and Reinvestment Act (ARRA), the Department is required to pay funds for rehabilitation activities on or before September 31, 2012.

Please provide this office with a schedule of drilling dates and coordinate all work with me before commencing work at the facility. In accordance with the bid specification, a bi-monthly status report of the project should be provided by the 5th and 20th of each month via e-mail to my attention. If any quality assurance problems arise, you must contact me within 24 hours via phone or e-mail. If you have any questions or need further assistance, please contact me at (803) 896-6395.

Sincerely,

Minda Hornosky

Minda Hornosky, Hydrogeologist
Assessment Section
Underground Storage Tank Management Division
Bureau of Land and Waste Management

enc: Information Packets (04887, 00428, 09310, 14094, 19426, and 00892)

cc: Minda Hornosky, UST Management Division (without enc)
Technical Files (04887, 00428, 09310, 14094, 19426, and 00892) with cover sheet & site maps.

DHEC
PROMOTE PROTECT PROSPER
South Carolina Department of Health and Environmental Control

UNDERGROUND STORAGE TANK PROGRAM
BUREAU OF LAND AND WASTE MANAGEMENT
2600 Bull Street, Columbia, South Carolina 29201
Telephone: 803-896-6240

MEMORANDUM

TO: Bryan Shane, Midlands Environmental Consultants

FROM: David J Ebinger

RE: **Prepare QAPP Contractor Addendum**

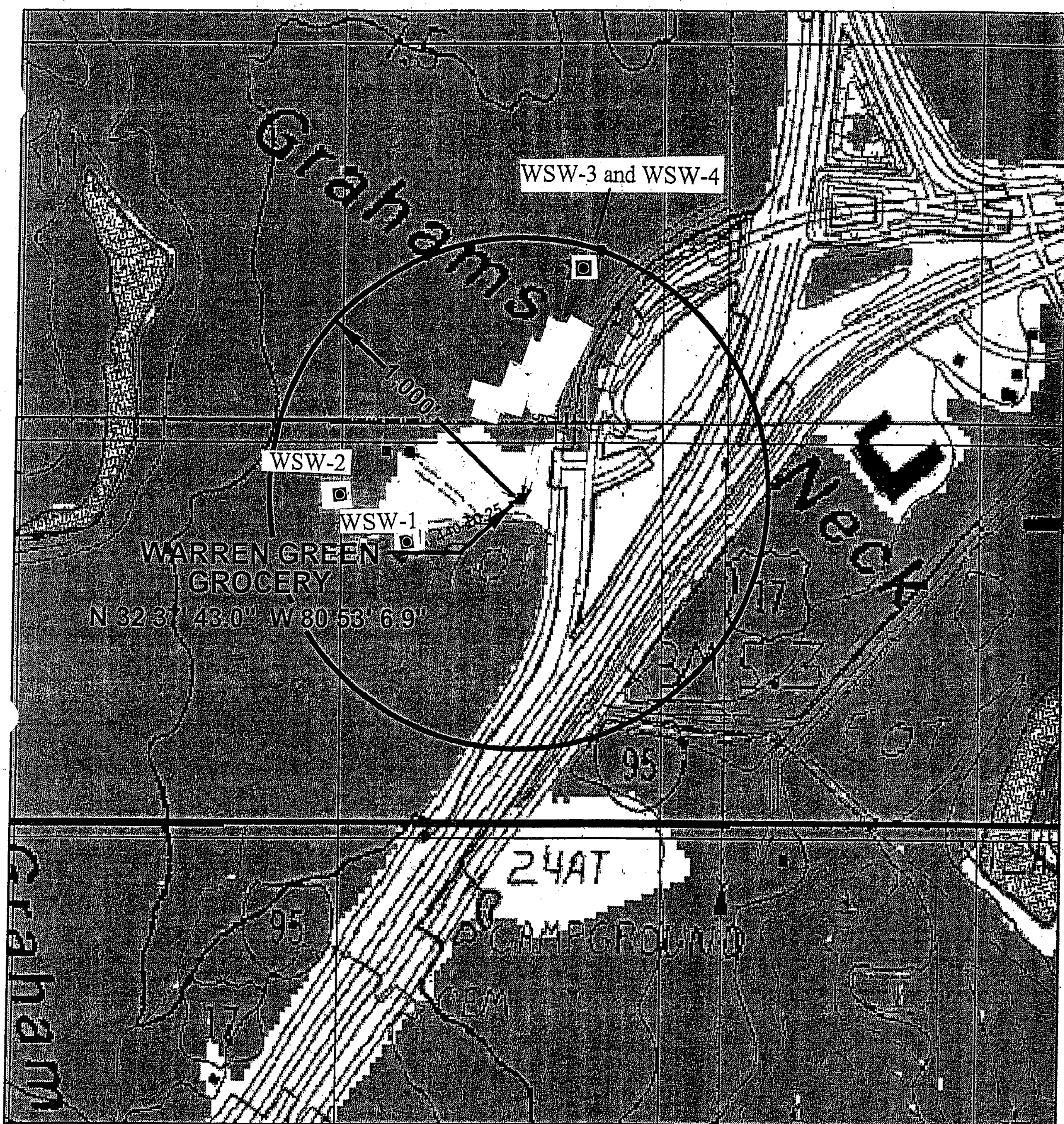
Facility Name: WARREN GREEN

Permit Number: 04887

County: JASPER

Work to be completed: Prepare QAPPA for:
Replace missing monitoring wells - MW-1 and MW-12

CA#: 40692



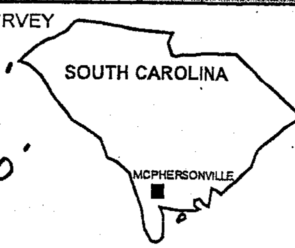
REFERENCE: MCPHERSONVILLE, SOUTH CAROLINA QUADRANGLE MAP. 7.5 MINUTE SERIES, U.S. GEOLOGIC SURVEY

1 13/16" = 1000'

13/16" = 450'

0 1,000 2,000

SCALE IN FEET



SITE LOCATION

DRAWN: MAC	DATE: 07/24/07	
SCDHEC FACILITY ID # 04887		
PROJECT: WARREN GREEN GROCERY		
PROJECT No.: C-07-06-09		
LOCATION: YEMASSE, SOUTH CAROLINA		

APPENDIX 1
RECEPTOR MAP
ACTIVE WATER SUPPLY WELLS

CONSULTECH ENVIRONMENTAL, INC.

Environmental Consulting and Engineering © 1998

Delivering innovative solutions to today's environmental concerns

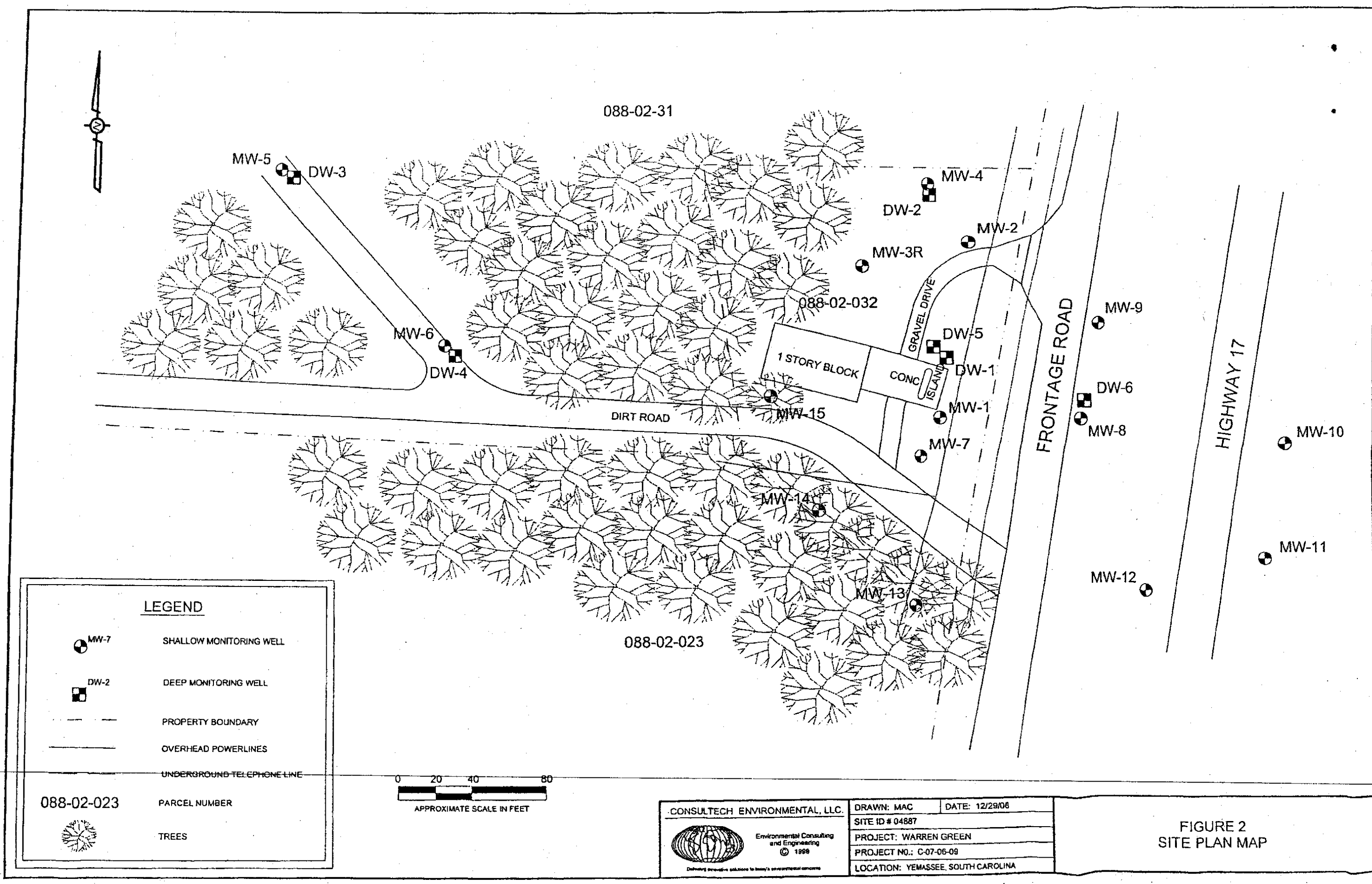


FIGURE 2
SITE PLAN MAP

D H E C
PROMOTE PROTECT PROSPER
Catherine B. Templeton, Director
Promoting and protecting the health of the public and the environment

BRYAN SHANE
MIDLANDS ENVIRONMENTAL CONSULTANTS
PO BOX 854
LEXINGTON SC 29071

APR 25 2012

UST
in tech
DOCKETING

Re: **QAPP Contractor Addendum Request**
Groundwater Sampling Contract
Solicitation # IFB-5400002759, PO#4600088529

Dear Mr. Shane:

In accordance with bid solicitation # IFB-5400002759 and the UST Management Division Quality Assurance Program Plan (QAPP), it is requested that you submit a Contractor Addendum for each site listed below. The Addendums must be submitted within 15 business days in my attention. The project manager for each site will issue a notice to proceed once the Addendum has been reviewed and approved. Please note, site reconnaissance should be conducted during the Addendum review so that any issues that arise may be addressed prior to commencing work at the site.

UST Permit #	Site Name	County	# samples and requested analysis*	Project Manager
10047	Triangle Exxon Station	Florence	89-BTEXMN, DCA, Oxygenates, & EDB	S. Briney
18447	Former Gulf Station	Orangeburg	21-BTEXMN, DCA, Oxygenates, & EDB	S. Briney
09141	Abe's Garage	Williamsburg	28-BTEXMN, DCA, Oxygenates, & EDB	S. Briney
02015	Pop's Corner	Cherokee	46-BTEXMN, DCA, Oxygenates, & EDB	S. Fulmer
05388	Former Pantry 588	Kershaw	71-BTEXMN, DCA, Oxygenates, & EDB	D. Thoma
09425	B Quick	York	22-BTEXMN, DCA, & Oxygenates	D. Thoma
03688	Simpson Lumber Co	Georgetown	12-BTEXMN, DCA, Oxygenates, & PAH	D. Thoma
14162	Getsingers Grocery	Anderson	14-BTEXMN, DCA, Oxygenates, & EDB	R. Miner
00467	Stop A Minute	Anderson	16-BTEXMN, DCA, Oxygenates, & EDB	R. Miner
04887	Warren Green	Jasper	7-BTEXMN, DCA, Oxygenates, & EDB	D. Ebinger
14094	Little Howies	Bamberg	13-BTEXMN, DCA, & Oxygenates	D. Ebinger
12030	Shop N Fill 50	Aiken	8-BTEXMN	D. Ebinger
11671	Randy's Auto Parts	Bamberg	11-BTEXMN	D. Ebinger

* The number of samples does not include trip blanks, field blanks, or field duplicates.

Please contact me with the sampling schedule before commencing work at these facilities. In addition, a weekly update for each site is required to be submitted via e-mail to the site's project manager and myself. If you have any questions or need further assistance, please contact me at (803) 896-6397 or thomadl@dhec.sc.gov.

Sincerely,

Debra L. Thoma

Debra L. Thoma, Hydrogeologist
Corrective Action Section
UST Management Division
Bureau of Land & Waste Management

Enc: Site Information Packets

cc: Technical Files

Midlands Environmental Consultants, Inc.

UST
MAY 08 2012
PROGRAM

May 3, 2012

UST
DOCKETING
18 tech

Mr. David J. Ebinger, Hydrogeologist
Corrective Action Section
Assessment and Corrective Action Division
Underground Storage Tank Program
Bureau of Land and Waste Management
South Carolina Department of Health
and Environmental Control
2600 Bull Street
Columbia, South Carolina 29201

Subject: Small Scope Contract Site Visit
Warren Green
Yemasse, South Carolina
SCDHEC Site ID Number 04887, CA # 40692
MECI Project Number 12-3955
Certified Site Rehabilitation Contractor UCC-0009

Dear Mr. Ebinger,

On May 01, 2012, MECI personnel performed a site visit to the subject site to evaluate site conditions, locate monitoring wells and identify potential problems for future assessment activities. SCDHEC requested MECI replace monitoring wells MW-1 and MW-12. During this site visit monitoring wells MW-1 and MW-12 were located. MECI will conduct a comprehensive sampling event at the subject site under the sampling contract pending QAPPA approval.

If you have any question or comments please feel free to contact us at 803-808-2043.

Sincerely,
Midlands Environmental Consultants, Inc.

Courtney M. Sanders
Staff Biologist

Jeff E. Coleman
Project Scientist

Post Office Box 854, Lexington SC 29071 • 235-B Dooley Road, Lexington, SC 29073
Telephone: (803) 808-2043 • fax: (803) 808-2048

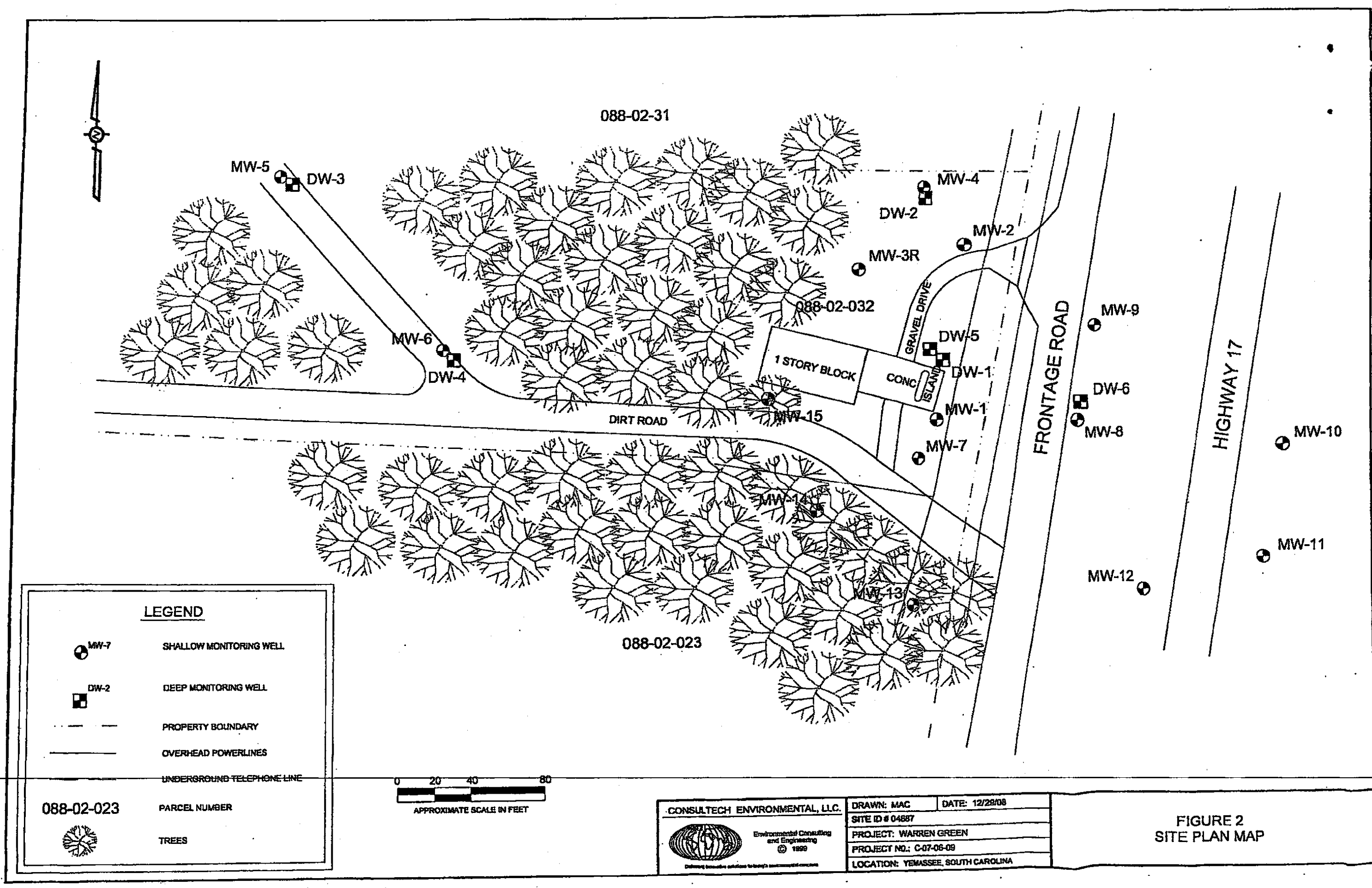


FIGURE 2
SITE PLAN MAP

Midlands Environmental Consultants, Inc.

UST
David
MAY 0 8 2012
PROGRAM

May 4, 2012

Ms. Debra Thoma, Hydrogeologist
Corrective Action Section
Assessment and Corrective Action Division
Underground Storage Tank Program
Bureau of Land and Waste Management
South Carolina Department of Health
and Environmental Control
2600 Bull Street
Columbia, South Carolina 29201

UST
19
DOCKETING

Subject: QAPP Contractor Addendum – Revision 0
Warren Green
Yemassee, South Carolina
SCDHEC Site ID Number 04887
MECI Project Number 12-3970
Certified Site Rehabilitation Contractor UCC-0009

Dear Ms. Thoma,

Midlands Environmental Consultants Inc. (MECI) is pleased to submit the attached QAPP Contractor Addendum for the referenced site.

On May 1, 2012, MECI personnel performed a site visit to the subject site to evaluate site conditions, locate monitoring wells and identify potential problems for future sampling activities.

If you have any question or comments please feel free to contact us at 803-808-2043.

Sincerely,
Midlands Environmental Consultants, Inc.

Courtney M. Sanders
Staff Biologist

Brendon P. Kelly
Project Scientist

Post Office Box 854, Lexington SC 29071 • 235-B Dooley Road, Lexington, SC 29073
Telephone: (803) 808-2043 • fax: (803) 808-2048

Section A: Project Management

A1 Title and Approval Page

Quality Assurance Project Plan
Addendum to the SC DHEC UST Programmatic QAPP
For
Warren Green, SCDHEC Site ID# 04887

10773 W. Frontage Road, Yemassee, South Carolina

Prepared by:
Courtney M. Sanders
Staff Biologist
Midlands Environmental Consultants, Inc.
(Certified Site Rehabilitation Contractor UCC-0009)
235-B Dooley Road
Lexington, SC 29073
(803)808-2043

Date: May 4, 2012

Approvals

David J. Ebinger SC DHEC Project Manager	Signature	Date
Brendon P. Kelly Contractor QA Manager	Signature	Date 5/8/12
Jeff L. Coleman Site Rehabilitation Contractor	Signature	Date 5/8/12
Michael Woodrum Laboratory Director	Signature	Date 5-4-12

A2 Table of Contents

A3 Distribution List

Name	Title	Organization/Address	Telephone Number	Fax Number	Email Address
David J. Ebinger	SC DHEC Technical Project Manager	SCDHEC, UST Management Division, 2600 Bull St., Columbia, SC, 29201	803-896-6649	803-896-6245	ebingedj@dhec.sc.gov
Jeff L. Coleman	Site Rehabilitation Contractor	Midlands Environmental Consultants, Inc. 235-B Dooley Road Lexington, SC 29073	803-808-2043	803-808-2048	jlc@meci.net
Courtney M. Sanders	Quality Assurance Officer	Midlands Environmental Consultants, Inc. 235-B Dooley Road Lexington, SC 29073	803-808-2043	803-808-2048	cms@meci.net
Brendon P. Kelly	Field Manager	Midlands Environmental Consultants, Inc. 235-B Dooley Road Lexington, SC 29073	803-808-2043	803-808-2048	bpk@meci.net
Michael Woodrum	Laboratory Director	Shealy Environmental Services,Inc. 106 Vantage Point Dr. West Columbia, SC 29172	803-791-9700	803-791-9111	mwoodrum@shealylab.com
	Well Services/Driller				

Table 1A Addendum Distribution List

A4 Project Organization

Role from the UST Master QAPP	Person in this Role for Project	Organization/Address	Telephone Number	Fax Number	Email Address
Project Manager	David J. Ebinger	SCDHEC, UST Management Division, 2600 Bull St., Columbia, SC, 29201	803-896-6649	803-896-6245	ebingedj@dhec.sc.gov
Site Rehabilitation Contractor	Jeff L. Coleman	Midlands Environmental Consultants, Inc. 235-B Dooley Road Lexington, SC 29073	803-808-2043	803-808-2048	jlc@meci.net
Quality Assurance Officer	Courtney M. Sanders	Midlands Environmental Consultants, Inc. 235-B Dooley Road Lexington, SC 29073	803-808-2043	803-808-2048	cms@meci.net
Field Manager	Brendon P. Kelly	Midlands Environmental Consultants, Inc. 235-B Dooley Road	803-808-2043	803-808-2048	bpk@meci.net

Role from the UST Master QAPP	Person in this Role for Project	Organization/Address	Telephone Number	Fax Number	Email Address
		Lexington, SC 29073			
Analytical Laboratory Director	Michael Woodrum	Shealy Environmental Services,Inc. 106 Vantage Point Dr. West Columbia, SC 29172	803-791-9700	803-791-9111	mwoodrum@shealylab.com
Project Verifier	Courtney M. Sanders or Brendon P. Kelly	Midlands Environmental Consultants, Inc. 235-B Dooley Road Lexington, SC 29073	803-808-2043	803-808-2048	cms@meci.net

Table 2A Addendum Role Identification and Contact Information

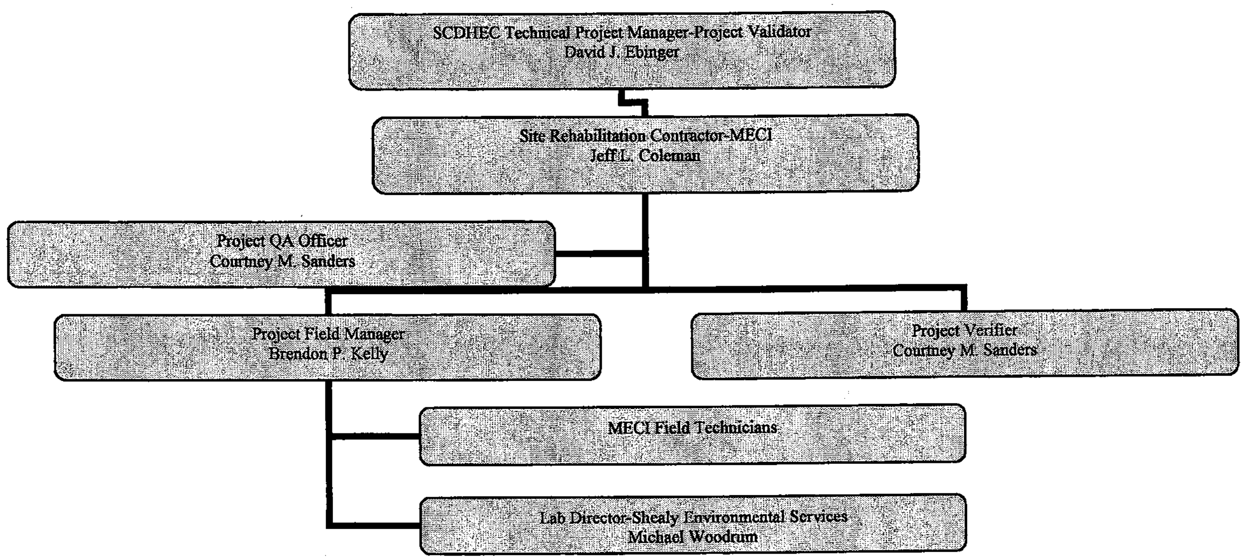


Figure 1A Organizational Chart

Project Manager (David J. Ebinger) – The project manager is responsible for direct oversight of contractors conducting assessment and site rehabilitation of releases at UST sites.

Site Rehabilitation Contractor (Jeff L. Coleman) – The Site Rehabilitation Contractor is an independent contractor responsible for managing and coordinating field and office activities needed for assessments or cleanup.

-Final Review of all work produced for a scope of work.

-Final say on technical interpretation of data.

Quality Assurance Officer (Courtney M. Sanders) – The Quality Assurance Officer is responsible for the oversight of all quality assurance activities associated with projects performed by the Site Rehabilitation Contractor.

-In charge of producing and maintaining the QAPPA for MECI.
-Reviews (and Audits, if necessary) all work produced in conjunction with a scope of work.
-Quality control of data entry and report preparation.

Field Manager (Brendon P. Kelly) –The field manager will oversee all work done on any given project.

-Assign, direct and oversee all field personnel working on each project.
-Responsible for coordinating with the SCDHEC project manager, should any problems or clarifications arise.
-Responsible for all reporting done in conjunction with field work.

Analytical Laboratory Director (Michael Woodrum)– The Laboratory Director is directly responsible for the Analytical Laboratory used during a scope of work. The Analytical Laboratory receives the soil and water samples from the site rehabilitation contractor, performs the requested analyses, and provides analytical reports.

Project Verifier (Courtney M. Sanders) – The project verifier is responsible for verifying the quality of data produced during a scope of work. This includes review of field work and laboratory reports for potential quality issues.

Field Technicians (various employees) – Responsible for all field activities for a given scope of work.

-Conduct all initial site visit, and record findings
-Conduct all field activities associated with a scope of work. All work will be conducted according to the MECI SOP. Will be responsible for reporting any potential problems are inconsistencies found during assessment activities.
-Completes the chain of custody upon completion of sampling event and delivers samples to lab or office for later lab pick-up.

A5 Problem Definition/Background

Discuss the background (as much as is known) of the site and appropriate historical information, and why this site is being assessed.

The subject site (Warren Green) is located at 10773 W. Frontage Road, Yemassee, Jasper County, South Carolina. The subject site previously maintained two 3,000 gallon gasoline underground storage tanks (UST's) and one 2,000 gallon gasoline UST. These UST's have a current status of rendered un-usable. SCDHEC reported and confirmed a release of petroleum product from the subject UST's in May of 2002. The subject site is currently rated a Class 2BB.

The site is being sampled in conjunction with the SCDHEC Groundwater Sampling Contract (Solicitation # IFB-5400002759, PO# 4600088529).

Please answer the following: Does this project fall under UST or Brownfields area?

Underground Storage Tank Division

A6 Project/Task Description

1. ***Summarize what is known about the work to be done. This can be a short sentence indicating what the Scope of this project is (see Master QAPP Section A6).***

The subject site (Warren Green) will be sampled in conjunction with the SCDHEC Groundwater Sampling Contract (Solicitation # IFB-5400002759, PO# 4600088529). During assessment activities monitoring wells will be sampled for petroleum constituents.

2. ***The work will begin within*** fourteen (14) days of receipt of approved QAPP contractors addendum ***after cost approval and sampling should be complete by*** twenty-one (21) days of receipt of approved QAPP contractors addendum.

3. ***Are there are time or resource constraints? Include those factors that may interfere with the tentative schedule.***

Factors that may prevent schedule work will be, but not limited to, inclement weather, equipment malfunction, and machine failure.

A7 Data Quality Objectives (DQOs) and Data Quality Indicators (DQIs)

The subject site is located at 10773 W. Frontage Road, Yemassee, Jasper County, South Carolina. The site is currently a vacant lot.

A8 Training and Certificates

Required training and licenses:

Title/Job	Name	Training Required	Date training received	Type of License	License Number
Principal Geologist	Bryan T. Shane, P.G.	Professional Geologist	10/30/1993	State of South Carolina	1102
Senior Scientist	Jeff Coleman	OSHA 40 hr HAZWOPER	7/27/2007	N/A	N/A
		OSHA 8 hr HAZWOPER refresher	7/27/2011	N/A	N/A
Project Scientist	Brendon Kelly	OSHA 40 hr HAZWOPER	8/21/2009	N/A	N/A
		OSHA 8 hr HAZWOPER refresher	12/15/11	N/A	N/A
Staff Geologist	John Bryant	OSHA 40 hr HAZWOPER	4/17/2009	N/A	N/A
		OSHA 8 hr HAZWOPER refresher	3/5/2012	N/A	N/A
Field	Brian Owen	OSHA 40 hr	8/21/2009	N/A	N/A

Title/Job	Name	Training Required	Date training received	Type of License	License Number
Technician		HAZWOPER			
		OSHA 8 hr HAZWOPER refresher	12/15/11	N/A	N/A
Staff Biologist	Courtney Sanders	OSHA 40 hr HAZWOPER	12/10/2010	N/A	N/A
		OSHA 8 hr HAZWOPER refresher	12/15/11	N/A	N/A
Staff Biologist	Kyle Pudney	OSHA 40 hr HAZWOPER	12/10/2010	N/A	N/A
		OSHA 8 hr HAZWOPER refresher	12/15/11	N/A	N/A
Staff Biologist	Chris Lashley	OSHA 40 hr HAZWOPER	12/10/2010	N/A	N/A
		OSHA 8 hr HAZWOPER refresher	12/15/11	N/A	N/A
Staff Biologist	Gavin Globensky	OSHA 40 hr HAZWOPER	7/29/2011	N/A	N/A
Staff Biologist	Ryan Ariail	OSHA 40 hr HAZWOPER	9/23/2011	N/A	N/A
Lab Manager	Michael Woodrum	***	***	Lab Certification	SC 32010

Table 3A Required Training and Licenses

Brendon P. Kelly of Midlands Environmental Consultants, Inc. is responsible to ensuring that personnel participating in this project receive the proper training. All training records will be stored in the following location:235-B Dooley Road, Lexington, SC 29073.

It is understood that training records will be produced if requested by SC DHEC.

The Following Laboratory(ies) will be used for this Project:

Commercial Lab(s)

Full Name of the Laboratory___Shealy Environmental Services, Inc.____
Name of Lab Director_________Michael Woodrum__________________
SC DHEC Certification Number________32010_____________________________
Parameters this Lab will analyze for this project:

All samples will be analyzed for BTEX, Napth, MTBE, 1,2-DCA, 8-Oxygenates (EPA Method 8260-B), and EDB (EPA Method 8011).

Please note: SC DHEC may require that the contractor submit some or all of the Laboratory's SOPs as part of this QAPP.

A9 Documents and Records

Personnel will receive the most current version of the QAPP Addendum via:
(Check all that apply)

____US Mail ____Courier _X_ Hand delivered

Other (please specify):_____E-mailed electronic copies___

Record	Produced By	Hardcopy/ Electronic	Storage Location For how long?	Archival
Instrument Raw Data	Target, Thermospec, or Iteva software	Hardcopy and Electronic	Hardcopy: Offsite storage for 7 yrs Electronic: Two external storage device backups – one offsite, one onsite storage for 10 yrs	Yes
Final Reports	LIMS	Electronic	Electronic: Two external storage device backups – one offsite, one onsite storage for 10 years	Yes
Field Work	Field Staff	Hardcopy	MECI office: 235B Dooley Road / Min. 5 years	Yes
Chain of Custody	Field Staff	Hardcopy	MECI office: 235B Dooley Road / Min. 5 years	Yes
QAPP Addendum	Brendon Kelly	Hardcopy & Electronic	MECI office: 235B Dooley Road / Min. 5 years	Yes
Internal QC record	Brendon Kelly	Hardcopy	MECI office: 235B Dooley Road / Min. 5 years	Yes
Sampling Report	Brendon Kelly	Hardcopy & Electronic	MECI office: 235B Dooley Road / Min. 5 years	Yes

Table 4A Record Identification, Storage, and Disposal

Section B Measurement/Data Acquisition

B1 Sampling Process/Experimental Design

Item	Start Date	End Date	Comments
Site Reconnaissance	5/1/12	5/1/12	Already Completed
QAPP preparation	5/4/12	5/4/12	In progress
QAPP approval	5/7/12	5/28/12	Assuming three week turnaround
Monitoring well	5/29/12	6/12/12	Sampled within 2 weeks of QAPP approval

Item	Start Date	End Date	Comments
Sampling			
Report Preparation	6/13/12	7/4/12	Three weeks to prepare/submit report

Table 5A Sampling Activities

B2 Sampling Methods

Please note: The contractor must follow sampling protocols as given in the UST QAPP.

Estimate ***the number of samples of each matrix that are expected to be collected:***

Soil	________
Ground Water from monitoring wells	_____7____
From Drinking/Irrigation water wells	________
Field Duplicate Collection	______1____
Field Blank Collection	______1____
Trip Blank	______1____
From surface water features	________
Total number of Water samples	_____10____

Notes:
During the May 1, 2012 site visit, seven (7) monitoring wells were located.

Monitoring well DW-1 is in need of **1 Bolt** to be properly secured

All monitoring wells and water supply well samples will be analyzed by Shealy Environmental Services, Inc. for BTEX, Naphthalene, MTBE, 1,2-DCA, 8-Oxygenates (8260B), and EDB (8011).

For the sample matrices indicated above, please describe how samples will be collected and the equipment needed.

Please see MECI Monitoring Well Sampling SOP for sampling procedures and type of materials used for sampling

Will Sampling Equipment have to be cleaned and decontaminated or is everything disposable?

All equipment, excluding electronic water level indicators, field probes and turbidity tubes, is disposable.

If sampling equipment must be cleaned please give a detailed description of how this is done and the disposal of by-products from the cleaning and decontamination.

Please see MECI Monitoring Well Sampling SOP for decontamination procedures.

Identify any equipment and support facilities needed. This may include such things as Fed-ex to ship the samples, a Geoprobe, field analysis done by another contractor (who must be certified), and electricity to run sampling equipment.

All samples will be shipped to the lab via courier or overnight shipping company. Please see MECI Monitoring Well Sampling SOP for sample shipping procedures.

Address the actions to be taken when problems occur in the field, and the person responsible for taking corrective action and how the corrective action will be documented.

Failure	Response	Documentation	Individual Responsible
Water level indicator not working properly	Attempt to clean probe, change battery, use back-up indicator if need be.	Record on field sheets, notify office staff. Take indicator out of rotation until problem identified and corrected.	Field Staff, Field Manager
Field meters not working	Attempt to clean probes, recalibrate in the field.	Record on field sheets, notify office staff. Take meters out of rotation until problem identified and corrected.	Field Staff, Field Manager
Wells not located	Use metal detector, measure from known points, contact project manager for additional information.	Record method used to attempt to locate the well on field sheets, and possibly reasoning for the well to be missing	Field Staff

Table 6A Field Corrective Action

B3 Sample Handling and Custody

1. ***How will the samples get from the Site to the Lab to ensure holding requirements are met?***

Following sample collection, the samples are immediately place in a laboratory provided cooler, pre-filled with wet ice obtained from the MECI office. Samples are transported to the MECI office once a sampling event is complete. A Chain of Custody (CoC) is filled out following the sampling event by the field staff. See attached CoC. If a lab provided courier is scheduled to visit the MECI offices the day following a sampling event, sampling coolers are repacked with wet ice, and left at the office for pick-up the following morning. If no courier is schedule to visit the MECI office the day following a sampling event, all sampling coolers are repacked with ice and are dropped off at a lab approved shipping company for overnight delivery to the lab.

2. ***How will the contactors cool the samples and keep the samples cool?***

All samples are kept on wet ice, obtained from MECI office.

3. ***How will the lab determine the temperature of the samples upon receipt? Will they be using a temperature blank?***

A calibrated thermometer and temperature blank will be used to document sample temperature. The temperature blank is immediately checked by the sample receiving technician upon arrival at the laboratory.

4. ***Where will the samples be stored in the Lab once they are received?***

All samples are stored in clean refrigeration units monitored and maintained at 4 degrees C + or – 2 degrees. Volatile organic samples are stored separately form all other samples.

5. ***Describe the chain of custody procedure and attach a copy of each chain of custody that will be used. If a Chain of Custody SOP exists from the Lab and the Contractor is willing to adhere to it, then this may be attached.***

A chain of custody (COC) will be filled out for each sampling event at each project site. COC to be signed by MECI and Shealy Environmental technician at time physical transfer of samples occurs to courier. Shealy uses the following COC procedures to protect sample integrity following pickup by their courier: A full time Sample Receiving Technician receives all samples and completes a Sample Receipt Checklist (SRC), which will identify any anomalies, if any exist the Sample Receiving Technician or Project Manager must resolve the deviation internally and/or notify the client to resolve the anomaly

B4 Analytical Methods

1. ***Identify the SOPs which will be used to analyze the samples, the method which the SOP references and the equipment or instrumentation that is needed:***

Parameter	SOP ID*	Method Referenced	Equipment	Comments
BTEX+Naph+MTBE+Oxygentaes	S-VO-002	8260B	GC/MS	
PAH's	S-SV-021	8270D	GC/MS	
EDB	S-SV-012	8011	GC	
Lead,T.	S-IM-022	6010C	ICP	
Ferrous Iron	S-IN-009	SM 3500-FED	Spectrophotometer	
Nitrate	S-IN-042	353.2	Auto-analyzer/Lachate	
Sulfate	S-IN-010	300.0	Ion Chromatograph	
Methane	S-VO-004	RSK-175	GC	
TOC	S-IN-030	Walkley-Black	N/A	
DRO - TPH	S-SV-001	8015C	GC	
pH	MECI SOP 4.3.6	*	YSI 63	
Conductivity	MECI SOP 4.3.6l	*	YSI 63	

Dissolved Oxygen	MECI SOP 4.3.6	*	YSI 550A	
Temperature	MECI SOP 4.3.6	*	YSI 550A	
Turbidity	MECI SOP 4.3.6	*	60 cm Turbidity Tube	

Table 7A Analytical SOPs and Referenced Methods

- **This can be a full name of a SOP, an abbreviation, or a number. In the latter two cases, the abbreviation or number must be associated with the full name of the SOP. See also Table 8A SOP Abbreviation Key.**

Abbreviation	Lab Identification of this SOP	Full Name of the SOP
S-VO-002	S-VO-002	GC/MS VOLATILES ANALYSIS BASED ON EPA METHODS 8260B AND 624 PREPARED BY EPA METHODS 5030B, 5035 AND 3585
S-SV-021	S-SV-021	GC/MS ANALYSIS BASED ON EPA METHOD 8270D PREPARED BY EPA METHODS 3520C, 3550C AND 3580A
S-SV-012	S-SV-012	GC/ECD ANALYSIS OF EDB AND DBCP BASED ON METHOD 8011 & 504.1
S-IM-022	S-IM-022	INDUCTIVELY COUPLED PLASMA ATOMIC EMISSION SPECTROSCOPY-PECTROMETRIC METHOD for TRACE ELEMENT ANALYSES METHOD 6010C
S-IN-009	S-IN-009	FERROUS IRON (PHENANTHROLINE METHOD) STANDARD METHOD 3500-Fe D
S-IN-042	S-IN-042	NITRATE+NITRITE NITROGEN BY EPA METHOD 353.2, NITRATE NITROGEN BY 353.2 SUBTRACTION, AND NITRITE NITROGEN BY EPA METHOD 353.2
S-IN-010	S-IN-010	INORGANIC ANIONS BY ION CHROMATOGRAPHY EPA METHOD 300.0 and SW-846 9056 and 9056A
S-VO-004	S-VO-004	STANDARD OPERATING PROCEDURE GC ANALYSIS BASED ON METHOD RSKSOP-175
S-IN-030	S-IN-030	TOTAL ORGANIC CARBON (TOC) WALKLEY-BLACK PROCEDURE
S-SV-001	S-SV-001	GC/FID DIESEL RANGE ORGANICS ANALYSIS BASED ON METHOD 8015B and/or 8015C PREPARED BY EPA METHODS 3520C, 3550C and 3580A
MECI SOP 4.3.6	MECI SOP 4.3.6	Sampling Standard operating procedures

Table 8A SOP Abbreviation Key

2. Identify procedures to follow when failures occur, identify the individual responsible for corrective action and appropriate documentation:

Failure	Response	Documented Where?	Individual Responsible
Field meters not working	Attempt to clean probes, recalibrate in the field.	Record on field sheets, notify office staff. Take meters out of rotation until problem identified and corrected.	Field Staff, Field Manager

COC or Sample Receiving issues	Call Client	Sample Receiving Checklist (SRC)	PM – Kelly Maberry kmaberry@shealylab.com
Analytical errors	Corrective Action Form (CAF)	CAF filled out by PM	Lab Director –Michael Woodrum mwoodrum@shealylab.com
QA/QC Failure	Corrective Action Form (CAF)	CAF filled out by PM	Lab Director –Michael Woodrum mwoodrum@shealylab.com QA/QC Officer – Jami Savje Jsavje@shealylab.com
On time delivery	Corrective Action Form (CAF)	CAF filled out by PM	Lab Director –Michael Woodrum mwoodrum@shealylab.com QA/QC Officer – Jami Savje Jsavje@shealylab.com

Table 9A Corrective Action Procedures

3. Identify sample disposal procedures.

Analysis	Matrix	Schedule for disposal	Method for disposal	Comments
BTEX+Naph+MTBE+Oxygenates	Waters/Soils	Six Weeks	Tested for Hazardous Constituents and disposed as Hazardous or non-Hazardous waste.	
PAH's	Waters/Soils	Six Weeks	Tested for Hazardous Constituents and disposed as Hazardous or non-Hazardous waste.	
EDB	Waters/Soils	Six Weeks	Tested for Hazardous Constituents and disposed as Hazardous or non-Hazardous waste.	
Lead	Waters/Soils	Six Weeks	Tested for Hazardous Constituents	

			and disposed as Hazardous or non-Hazardous waste.	
Ferrous Iron	Waters/Soils	Six Weeks	Tested for Hazardous Constituents and disposed as Hazardous or non-Hazardous waste.	
Nitrate,Sulfate	Waters/Soils	Six Weeks	Tested for Hazardous Constituents and disposed as Hazardous or non-Hazardous waste.	
Methane	Waters/Soils	Six Weeks	Tested for Hazardous Constituents and disposed as Hazardous or non-Hazardous waste.	
All	Water	On-Site	Portable Granulated Activated Carbon (GAC) Unit	All waste water produced from sampling and decontamination activities will be run through a GAC unit

Table 10A Sample Disposal Procedures

4. Provide SOPs for the Kerr Method or the Ferrous Iron Method if these are parameters for this study. This can be attached or written here. If attached please note that it is an attachment and where it is located (if applicable).

B5 Quality Control Requirements:

All QC will follow the requirements laid out in Section B5 of the UST Programmatic QAPP.

B6 Field Instrument and Equipment Testing, Inspection and Maintenance

1. Identify all field and laboratory equipment needing periodic maintenance, the schedule for this, and the person responsible. Note the availability and location of spare parts.

Instrument	Serial Number	Type of Maintenance	Frequency	Parts needed/Location	Person responsible
Volatiles Mass Spec	Shealy SOP S-SV-021 Page 7	Change traps, clean ion source, replace filaments	Periodic	Laboratory	MSV Analyst
Semivolatile Mass Specc	Shealy SOP S-SV-021 Page 7	Injection port maintenance, ion source maintenance, column replacement	Periodic	Laboratory	MSSV Analyst
ECD GC	Shealy SOP S-SV-012 Page 5	Injection port maintenance, column replacement	Periodic	Laboratory	GC Analyst
Dionex IC	Shealy SOP S-IN-010 Page 6	Replace auto sampler filter, tubing, line filter, sample Line and Waste Line, as needed. Check Reagent levels, flow rate, waste line.	Periodic	Laboratory	IC Analyst
ICP	Shealy SOP S-IM-005 Page 6 & 7	Clean Sample introduction system , auto sampler, torch, Change spray chamber, torch tubing, tubing	Periodic	Laboratory	ICP Analyst
Leeman Mercury Analyzer	Shealy SOP S-IM-006 Page 5	Clean GLS, Change Pump tubing, Nafion Dryer, Lamp	Periodic	Laboratory	Mercury Analyst
Flow Injection Analysis – Lachat 8000	Shealy SOP S-IN-042 Page 5	Replace sample and reagent lines, replace light source, re-wrap heating coil, replace column	Periodic/As Needed	Laboratory	Nitrate Analyst
YSI 63	09C 101302, 10K 101895, 07M 100905	Replace probe tip	Yearly	Order from YSI	B. Kelly
YSI 63	09C 101302, 10K 101895, 07M 100905	Replace batteries	As Needed	In stock at office	Field Staff
YSI 63	09C 101302, 10K 101895, 07M 100905	General inspection for wear and tear on equipment	Daily	Major fixes will be done out of office	Field Staff
YSI 63	09C 101302, 10K 101895, 07M 100905	Check buffer solutions for expiration	Weekly	In stock at office	B. Kelly
YSI 550A	04L 2026AK, 08B 101407, 04A 0912AI	Replace membrane	4 to 8 weeks	In stock at office	Field Staff
YSI 550A	04L 2026AK, 08B 101407,	Replace batteries	As Needed	In stock at office	Field Staff

	04A 0912AI				
YSI 550A	04L 2026AK, 08B 101407, 04A 0912AI	General inspection for wear and tear on equipment	Daily	Major fixes will be done out of office	Field Staff
Turbidity Tube	#1, #2, #3	General inspection for wear and tear on equipment, clarity of Secchi Disk	Daily	Tubes will be cleaned/fixed in office	Field Staff

Table 11A Instrument and Equipment Maintenance

2. Identify the testing criteria for each lab or field instrument that is used to ensure the equipment is performing properly. Indicate how deficiencies, if found, will be resolved, re-inspections performed, and effectiveness of corrective action determined and documented. Give the person responsible for this

Instrument/Equipment & Serial Number	Type of Inspection	Requirement	Individual Responsible	Resolution of Deficiencies
Volatiles Mass Spec Shealy SOP S-SV-021 Page 7	Daily calibration check	Method Requirements	MSV Analyst	Recalibration or instrument maintenance
Semi-volatiles Mass Spec Shealy SOP S-SV-021 Page 7	Daily calibration check	Method Requirements	MSSV Analyst	Recalibration or instrument maintenance
ECD GC Shealy SOP S-SV-012 Page 5	Daily calibration check	Method Requirements	GC Analyst	Recalibration or instrument maintenance
Dionex IC Shealy SOP S-IN-010 Page 6	Daily calibration check	Method Requirements	IC Analyst	Recalibration or instrument maintenance
ICP Shealy SOP S-IM-005 Page 6 & 7	Daily calibration check	Method Requirements	ICP Analyst	Recalibration or instrument maintenance
Leeman Mercury Analyzer Shealy SOP S-IM-006 Page 5	Daily calibration check	Method Requirements	Mercury Analyst	Recalibration or instrument maintenance
Flow Injection Analysis – Lachat 8000 Shealy SOP S-IN-042 Page 5	Daily and continuing calibration check	See calibration criteria	Nitrate Analyst	Recalibration or instrument maintenance
YSI 63 - 09C 101302, 10K 101895, 07M 100905	Daily calibration check	See calibration criteria	Field Staff	Recalibrate, general maintenance then recalibrate. Ship off for service by manufacturer
YSI 550A - 04L 2026AK, 08B 101407, 04A 0912AI	Daily calibration check	See calibration criteria	Field Staff	Recalibrate, general maintenance then recalibrate. Ship off for service by

				manufacturer

Table 12A Instrument and Equipment Inspection

B7 Instrument Calibration and Frequency

1. Identify equipment, tools, and instruments for field or lab work that should be calibrated and the frequency.
2. Describe how the calibrations should be performed and documented, indicating test criteria and standards or certified equipment.
3. Identify how deficiencies should be resolved and documented. Identify the person responsible for corrective action.

Instrument	Calibration Procedure	Frequency of Calibration	Acceptance Criteria	Corrective Action (CA)	Person Responsible for CA	SOP Reference*
Volatiles Mass Spec	Minimum of 5 calibration standards for all compounds	When indicated by continuous calibration verification standard	Method Criteria	Detailed in SOP	MSV Analyst	S-VO-002
Semi-volatile Mass Spec	Minimum of 5 calibration standards for all compounds	When indicated by calibration verification standard	Method Criteria	Detailed in SOP	MSSV Analyst	S-SV-021
GC ECD	Minimum of 5 calibration standards for all compounds	When indicated by calibration verification standard	Method Criteria	Detailed in SOP	GC Analyst	S-SV-012
Dionex IC	Minimum of 5 calibration standards for all compounds	When indicated by calibration verification standard	Method Criteria	Detailed in SOP	IC Analyst	S-IN-010
ICP	Minimum of 3 calibration standards for all compounds	When indicated by calibration verification standard	Method Criteria	Detailed in SOP	ICP Analyst	S-IM-022
Cetac Mercury Analyzer	Minimum of 5 calibration standards for all compounds	When indicated by calibration verification standard	Method Criteria	Detailed in SOP	Mercury Analyst	S-IM-006
Lacaht QuickChem 8000	Minimum of 5 calibration standards	Daily or when indicated by calibration verification standard	Method Criteria	Detailed in SOP	Nitrate Analyst	S-IN-042
YSI 63	pH Calibration	Daily	+/- 0.2 pH units	clean/replace probe tip,	Field Staff	4.3.6

Instrument	Calibration Procedure	Frequency of Calibration	Acceptance Criteria	Corrective Action (CA)	Person Responsible for CA	SOP Reference*
				recalibrate		
YSI 63	Conductivity Calibration	As directed by manufacturer	+/- 10 uS	clean/replace probe tip, recalibrate	Field Staff	4.3.6
YSI 550A	DO calibration	Daily	+/- 0.25 mg/l	clean/replace probe tip, recalibrate	Field Staff	4.3.6
YSI 550A	Temperature Calibration	Daily	+/- 1 °C	clean/replace probe tip, recalibrate	Field Staff	4.3.6
Electronic Water Level Indicator	Checked vs. Standard	Monthly	+/- 0.01 foot per 10 foot length	Replace probe tape	Field Staff	***
Oil/Water Interface probe	Checked vs. Standard	Monthly	+/- 0.01 foot per 10 foot length	Replace probe tape	Field Staff	***

Table 13A Instrument Calibration Criteria and Corrective Action

*** This can be a full name of a SOP, an abbreviation, or a number. In the latter two cases, the abbreviation or number must be associated with the full name of the SOP. See also Table 8A SOP Abbreviation Key.**

B8 Inspection/Acceptance Requirements for Supplies and Consumables

1. Identify critical supplies and consumables for field and laboratory, noting supply source, acceptance criteria, and procedures for tracking, storing and retrieving these materials.
2. Identify the individual(s) responsible for this.

Item	Vendor	Acceptance criteria	Handling/Storage Conditions	Person responsible for inspection and tracking.
Laboratory Chemicals	Fisher,VWR	Certificates of analysis and laboratory testing	Laboratory storage	Receiving and laboratory personnel
Laboratory standards	O2Si, Restek, High Purity, VHG, Supelco	Certificates of analysis and laboratory verifications	Vendor specific storage conditions	Laboratory Analysts
Sample Containers	Daniels Scientific, QEC	Certificates of analysis and laboratory testing	Bottle storage area	Sample receiving personnel
Clear, Disposable polyethylene Bailers	Preferred Pump	Individual sleeves intact, ball valve operational	Stored in Vehicle Bay, Off of the ground	B. Kelly, Field Staff
Nylon Rope	Preferred Pump	Covered with plastic	Stored in Vehicle Bay, Off of the ground	B. Kelly, Field Staff
Nitrile Gloves	Preferred Pump	Unopened box, no holes	Stored in Vehicle Bay, Off of the ground	B. Kelly, Field Staff
40 mL HCL preserved amber vials	Shealy Environmental Services	Custody seal intact	Stored in Vehicle Bay, Off of the ground	B. Kelly, Field Staff
250 mL HNO3	Shealy	Custody seal intact	Stored in Vehicle	B. Kelly, Field Staff

preserved metals vials	Environmental Services		Bay, Off of the ground	
Coolers	Shealy Environmental Services	Intact	Stored in Vehicle Bay, Off of the ground	B. Kelly, Field Staff
pH Buffer	TRS Environmental, Enviroequipment	Within expiration date	Stored in calibration room	B. Kelly, Field Staff
Conductivity Standard	TRS Environmental, Enviroequipment	Within expiration date	Stored in calibration room	B. Kelly, Field Staff
DO Membranes	YSI, Enviroequipment	Clean, in box	Stored in calibration room	B. Kelly, Field Staff
Batteries	Any Store	Not previously used	Stored in calibration room	B. Kelly, Field Staff

Table 14A List of Consumables and Acceptance Criteria

B9 Data Acquisition Requirements (Non-Direct Measurements)

1. Identify data sources, for example, computer databases or literature files, or models that should be accessed or used.
2. Describe the intended use of this information and the rationale for their selection, i.e., its relevance to project.
3. Indicate the acceptance criteria for these data sources and/or models.

Data Source	Used for	Justification for use in this project	Comments
Historical Data	Site Maps and Well Construction Information	Well Location and Detail	

Table 15A Non-Direct Measurements

4. Identify key resources/support facilities needed.

There are no non-direct measurements in this project

B10 Data Management

1. Describe the data management scheme from field to final use and storage.

Following sample collection and chain of custody production, samples are shipped to the lab. Field work from the field staff is reviewed by the MECI project manager, and converted into digital form. All data entry is subsequently checked to validate the data entry. The original copies of the field work are stored in MECI files for a minimum of 5 years. Digital copies of the work are stored on the MECI server, which is backed up weekly, and stored for a minimum of 5 years. The digital copy of the field work is presented to SCDHEC with the final report.

2. How does the lab and field staff ensure that no unauthorized changes are made to the chain of custody, sampling notebooks, laboratory notebooks and computer records?

The laboratory maintains comprehensive Quality Control and Training Programs. All sample receipt data, sample log-in, and analytical data is peer reviewed, including review for inappropriate changes. Data management, review procedures and the Quality Systems Program are documented in the laboratory's Quality Manual and Standard Operating Procedures. The Quality Assurance Department oversees adherence to and review of these programs.

All MECI field work is produced using ink-pens. Any attempt to alter field data, after sampling is complete, can be readily identified. MECI keeps a carbon copy of the chain of custody after it is shipped to the lab. This copy is kept with the field work. If any change to the CoC are suspected, this original carbon copy can be use to identify potential changes.

3. How does the lab ensure that there are no errors in samples records including times when sample information is compiled, data calculated and/or transmitted?

Sample data acquisition software is reviewed periodically. The LIMS database is backed up daily and is able to be restored in the event of a system failure. These procedures are documented in laboratory SOP S-AD-003, LIMS. The IT Manager is responsible for these systems and procedures."

4. How will the data be archived once the report is produced? How can it be retrieved? (This applies to both electronic and hard copies).

Laboratory Hardcopy data stored off site is logged, maintained and archived by the Quality Assurance Department. Laboratory Electronic Data Reports are maintained through IT back up under the responsibility of the IT Systems Manager.

MECI keeps all field work and paper copies of reports in its in-house filing system. All paper copies are stored for a minimum of 5 years. Any file can be retrieved easily by going to the correct filing cabinet/box.

All electronic copies of reports generated are kept on the MECI server. This server is backed-up on a weekly basis. Any file stored on the MECI server can be retrieved instantly, by accessing the server. All electronic files are stored for a minimum of 5 years on the server.

Section C Assessment and Oversight

C1 Assessment and Response Actions

1. *The Contractor is supposed to observe field personnel daily during sampling activities to ensure samples are collected and handled properly and report problems to DHEC within 24 hours..*

Please state who is responsible for doing this and what observations will be made. Will this person have the authority to stop work if severe problems are seen?

Field audits can be conducted on any field personnel at any time. MECI field audits can be conducted by the Field Manger, who will be responsible for ensuring that field personnel adhere to the QAPP. If during a random field audit, severe problems are found, work will be stopped by the field manager and the QA officer contacted to determine corrective action. All problems must be corrected prior to any additional work being performed. Should it be requested, an On-site Field Audit can be scheduled with the SCDHEC project manager. If severe problems are identified by the SCDHEC project manager, the project manager can stop the work until the problems are corrected.

2. *The SCDHEC UST QAPP states that the Lab will receive an Offsite Technical System Audit. For this project, what assessments will be done on the Commercial Lab(s) that are being used—other than their certification audit? When or how often are these done? Who will the results be given to and who has the ability to stop work if problems are severe?*

The laboratory participates in annual Proficiency Testing through an approved vendor, Wibby Environmental. If during a random audit, severe problems are found, work will be stopped by the according Wibby Environmental representative and the QA officer contacted to determine corrective action. Proficiency Testing results are provided to the Office of Environmental Laboratory Certification.

C2 Reports to Management

See the SC DHEC UST Programmatic QAPP (UST Master QAPP).

Section D Data Validation and Usability

See the SC DHEC UST Programmatic QAPP (UST Master QAPP).

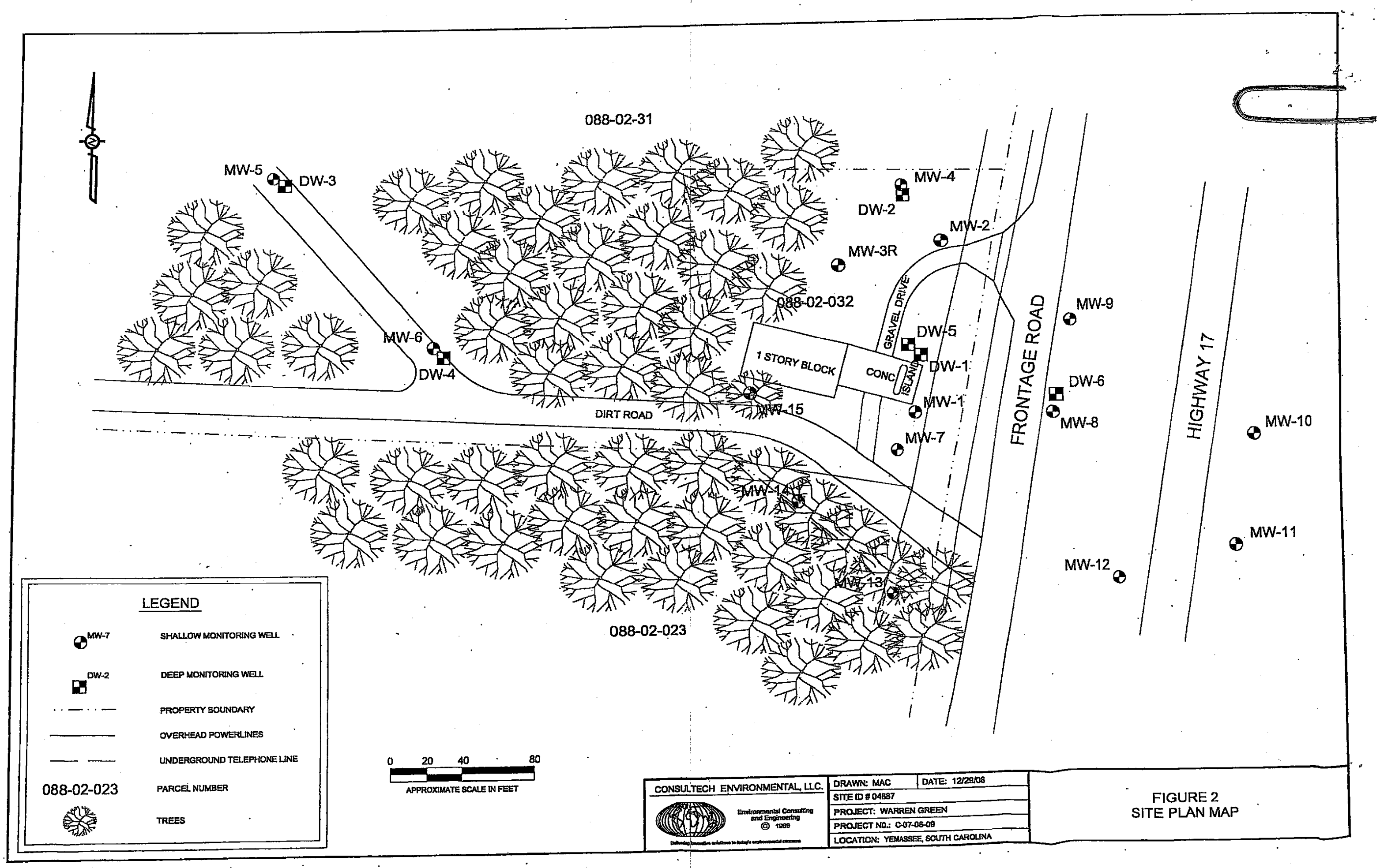


FIGURE 2
SITE PLAN MAP

Chain of Custody Record

Sheally Environmental Services, Inc.
106 Vantage Point Drive
West Columbia, South Carolina 29172
Telephone No. (803) 791-9700 Fax No. (803) 791-9111
www.shealylab.com

Number 11725

Client	Report to Contact	Sampler (Printed Name)	Quote No.
Address	Telephone No. / Fax No. / Email	Waybill No.	Page ___ of ___
City / State / Zip Code	Preservative: 1. Unpres. 4. HNO3 7. NaOH; 2. NaOH/ZnA 5. HCL; 3. H2SO4 6. Na Thio.		Number of Containers; Bottle (See Instructions on back); Preservative; Lot No.
Project Name			
Project Number	P.O Number		

Sample ID / Description (Containers for each sample may be combined on one line)	Date	Time	G=Grab C=Composite	GW	DW	WW	S	Other	Analysis												Remarks / Cooler ID

Matrix: GW, DW, WW, S, Other

Turn Around Time Required (Prior lab approval required for expedited TAT) ☐ Standard ☐ Rush (Please Specify)	Sample Disposal ☐ Return to Client ☐ Disposal by Lab	QC Requirements (Specify)	Possible Hazard Identification ☐Non-Hazard ☐Flammable ☐Skin Irritant ☐Poison ☐Unknown

1. Relinquished by / Sampler	Date	Time	1. Received by	Date	Time
2. Relinquished by	Date	Time	2. Received by	Date	Time
3. Relinquished by	Date	Time	3. Received by	Date	Time
4. Relinquished by	Date	Time	4. Laboratory Received by	Date	Time

Note: All samples are retained for six weeks from receipt unless other arrangements are made.

LAB USE ONLY
Received on Ice (Check) ☐ Yes ☐ No ☐ Ice Pack | Receipt Temp. ______ °C | Temp. Blank ☐ Y / ☐ N

D H E C
PROMOTE PROTECT PROSPER
Catherine B. Templeton, Director
Promoting and protecting the health of the public and the environment

UST
DOCKETING
19 Jech

MAY 2 1 2012

BRYAN SHANE
MIDLANDS ENVIRONMENTAL CONSULTANTS
PO BOX 854
LEXINGTON SC 29071

Re: **Notice to Proceed-Groundwater Sampling/QAPP Contractor Addendum Approval**
Groundwater Sampling Contract
Solicitation # IFB-5400002759, PO#4600088529
WARREN GREEN: 10773 W Frontage Rd, Yemassee, SC 29945
UST Permit #04887
MECI CA#: 43612 Shealy CA#: 43613
JASPER

Dear Mr. Shane:

In accordance with bid solicitation # IFB-5400002759 and the UST Management Division Quality Assurance Program Plan (QAPP), the Site-Specific Contractor Addendum has been reviewed and approved. In accordance with the QAPP, a weekly status report of the project should be provided via e-mail. If any quality assurance problems arise, you must contact me within 24 hours via phone or e-mail. In addition, a discussion of the problem(s) encountered, including quality assurance problems, the actions taken, and the results must be included in the final report submitted to the UST Management Division.

MECI will perform services at the site on behalf of the site's responsible party (RP); however, payment will be made from the SUPERB Account. The site's RP has no obligation for payment for this scope of work. Please coordinate access to the facility with the property owner. Pre-approval for transportation of virgin petroleum impacted soil and groundwater from the referenced site to a permitted treatment facility is, hereby, granted. There can be no spillage or leakage in transport. All investigation-derived waste (IDW) must be properly contained and labeled prior to disposal. A copy of the disposal manifest and/or acceptance letter from the receiving facility that clearly designates the quantity received must be included with the final report. The SUPERB Account will not reimburse for transportation or treatment of soil and/or groundwater with concentrations below RBSLs. **Please note, the final report is due within 3 weeks from the date the site is sampled. If the site is not sampled by the specified due date or the report is not received in the specified time period, a late fee may be imposed.**

The final report should contain the requirements of Section III.2.15 of the bid solicitation. The final report should be submitted to Debra Thoma, the contract manager.

If you have any site-specific questions, please contact me at (803) 896-6649 or via e-mail at ebingedj@dhec.sc.gov. If you have any contract specific questions, please contact Debra Thoma at (803) 896-6397 or via e-mail at thomadl@dhec.sc.gov.

Sincerely,

David J Ebinger, Project Manager
Corrective Action Section
UST Management Division
Bureau of Land & Waste Management

enc: Approved QAPP Contractor Addendum Signature Page
Approved Cost Agreement

cc: Debra Thoma, Corrective Action Section, UST Management Division
Kelly Maberry, Shealy Environmental, 106 Vantage Point Dr., West Columbia, SC, 29172 (w/ approved CA)
Technical Files (w/ Finalized & Approved QAPP Signature Page)

Section A: Project Management

A1 Title and Approval Page

Quality Assurance Project Plan
Addendum to the SC DHEC UST Programmatic QAPP
For
Warren Green, SCDHEC Site ID# 04887

10773 W. Frontage Road, Yemassee, South Carolina

Prepared by:
Courtney M. Sanders
Staff Biologist
Midlands Environmental Consultants, Inc.
(Certified Site Rehabilitation Contractor UCC-0009)
235-B Dooley Road
Lexington, SC 29073
(803)808-2043

Date: May 4, 2012

Approvals

David J. Ebinger SC DHEC Project Manager	Signature	Date 5/15/12
Brendon P. Kelly Contractor QA Manager	Signature	Date 5/8/12
Jeff L. Coleman Site Rehabilitation Contractor	Signature	Date 5/8/12
Michael Woodrum Laboratory Director	Signature	Date 5-4-12

Approved Cost Agreement 43613

Facility: 04887 WARREN GREEN

EBINGEDJ

PO Number:

Task / Description	Categories	Item	Description	Qty / Pct	Unit Price	Amount
11 ANALYSES						
	GW GROUNDWATER	A	BTEX+NAPTH+MTBE	10.0000	20.00	200.00
		F	EDB	8.0000	20.00	160.00
				Total Amount		360.00

Approved Cost Agreement 43612

Facility: 04887 WARREN GREEN

EBINGEDJ

PO Number:

Task / Description	Categories	Item Description	Qty / Pct	Unit Price	Amount
04 MOB/DEMOB					
		B PERSONNEL	2.0000	100.00	200.00
10 SAMPLE COLLECTION					
		A GROUND WATER	7.0000	4.50	31.50
		H FIELD BLANK	1.0000	2.00	2.00
17 DISPOSAL					
		A WASTEWATER	120.0000	0.10	12.00
18 MISCELLANEOUS					
		QAPP PREP	1.0000	0.00	0.00
25 WELL REPAIR					
		F REPLACE WELL COVER BOLTS	1.0000	10.00	10.00
			Total Amount		255.50

July 25, 2007

RECEIVED

JUL 27 2007

UNDERGROUND STORAGE
TANK PROGRAM

Mr. Arthur Shrader
Assessment and Corrective Action Branch
South Carolina Department of Health and Environmental Control
Division of Underground Storage Tank Management
2600 Bull Street
Columbia, South Carolina 29201-1708

Re: Tier II Assessment Plan
Contract IFB-30950-11/07/06-EMW, Purchase Order # 663641
SCDHEC UST Permit # 04887

Attention Mr. Shrader:

Consultech Environmental, Inc. (Consultech) is pleased to present this Tier II Plan for the above referenced facility. This includes the Tier II Plan, Tier II Cost Proposal, Site Location Map, and Site Plan Map for the site. Should you have any questions regarding this information or the project in general, please do not hesitate to contact me at (919) 861-4319.

Sincerely,

CONSULTECH ENVIRONMENTAL, INC.

Joseph A. Ghiold, Ph.D, P.G.
Senior Project Manager

cc: File C-07-06-09

PO Box 5306, Cary, North Carolina 27512
919 861-4319 Fax 919 861-4317

UST PROGRAM
DOCKETING # 2

Consultech Environmental, Inc.
Tier II Plan

UST Permit # : 04887 County: Jasper Facility Name: Warren Green

Facility Address: 10773 W. Frontage Road, Yemassee, SC, 29945
Responsible Party: Lasonya Eady Reginald Bascom Address: 194 Oak Hill Road, Rigeland, SC, 29936

No. USTs: 3 unknown (date) Abandoned unknown date

Current use of facility/property: Unknown

Current property owner name: Helen Smith

Field Screening Methodology

Specify the field screening methodology to be used. The use of field screening methods to optimize the number and location of permanent wells is required.

Soil samples collected every 5 feet to 5 feet below groundwater or auger refusal. 50 grams of soil will be placed in sealed ziplock bags, set for 15 minutes, and scanned with a calibrated PID. A groundwater sample will be scanned in the same manner. A boring log will be filled out for each soil boring.

Permanent Monitoring Wells (estimate number and total completed depth)

# of shallow wells: 11-15 ft Total depth: 165 feet

# of deep wells: 4-30 ft Total depth: 120 feet (if necessary)

Comments, if warranted: two existing wells, four private water supply wells

Analyses

List the analytical parameters (e.g., BTEX, MTBE) and estimated number.
Groundwater - BTEX + NAPTH + MTBE 21, 1,2 DCA 21 PAH 0, Lead 15, EDB 21, 8-Oxygenates 15, Nitrate 15, Sulfate 15, Ferrous Iron 15, & Methane 15

Soil - BTEX + NAPTH 0, PAH 0, TPH (DRO) 0, TPH (GRO) 0, Grain size/hydrometer 2, TOC 0

Implementation Schedule

Start up date: 09/10/07 Completion date: 11/20/07

Report submittal date: 11/21/07
UST Permit # : 04887 Facility Name: Warren Green.

Site Maps

1. Attach a copy of the relevant portion of the USGS topographic map showing the site location.

2. Prepare a site base map. This map must be accurately scaled, but does not need to be surveyed. The map must include the following:

North arrow	Legend with facility name and address, UST Permit number, date, and a bar scale
Location of Property	Streets or highways (indicate names and numbers)
Location of buildings	Identification of located buildings
Paved areas on or adjacent to site	Location of all present and former ASTs and USTs
Previous soil sampling locations	Underground and above ground utilities on or adjacent to site
Previous monitoring well locations	Location of any other potential receptor

Aquifer Characterization (check on and provide explanation for choice)

Pump test: ________________ Slug tests: ____0________________

Small Volume Disposal Type and Method

Soil: _13_ Drums of soil cuttings generated during the installation of bo rings and monitoring wells to be disposed of at an authorized treatment facility. -

Purge water: __10__ Drums of monitoring well development and purge water to be treated with a granular activated carbon unit and disposed of on-site.

Additional comments: ~~Slug tests are not necessary as results of the tests appear in the Tier I report,~~ but grain size/hydrometer tests will be necessary as they do not appear in the Tier I report. One replacement well, MW-3R, is necessary to replace MW-3, which appears to be destroyed or is covered. ~~No TierII Risk Evaluation will be necessary as it appears in Tier I report.; two comprehensive surveys~~ will be required to cover the area which is well over 250,000 square feet.

ASSESSMENT COMPONENT COST AGREEMENT

Consultech Environmental IFB-30950-11/7/06-EMW

Facility: **Warren Green**

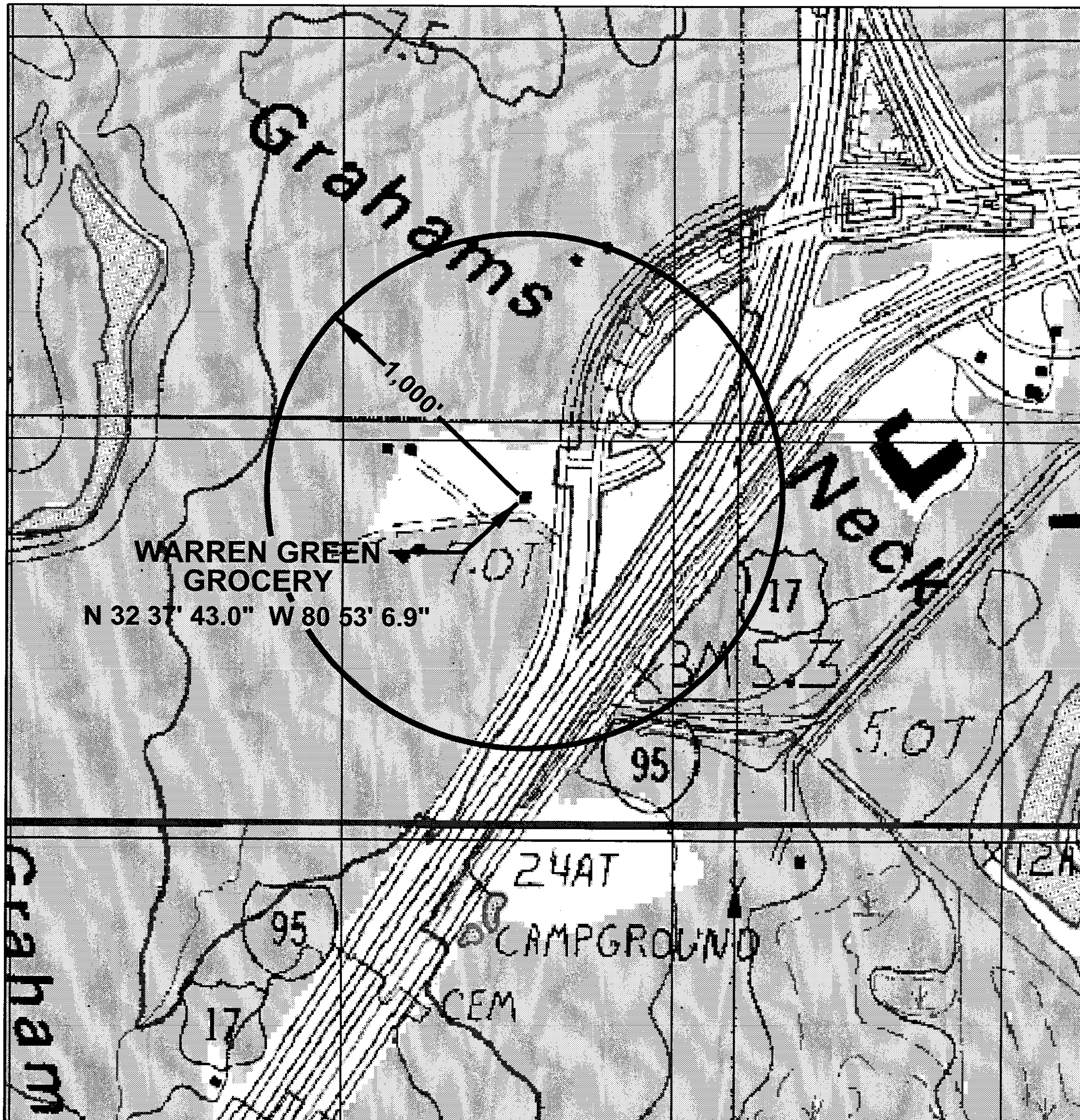
Permit #: **4887** Cost Agreement # Pending

ITEM	QUANTITY	UNIT	UNIT PRICE	TOTAL
1. Plan*				
1. A. Plan Preparation	1	x	$100.00	$100.00
B. Tax Map	1	x	$100.00	$100.00
2. Receptor Survey *	1	x	$100.00	$100.00
3. Comprehensive Survey	2	x	$725.00	$1,450.00
4. Mob/Demob				
A. Equipment	2	x	$150.00	$300.00
B. Personnel	4	each x	$50.00	$200.00
C. Adverse Train Vehicle		x	$200.00	$0.00
5. Soil Borings (hand auger)*		feet x	$0.00	$0.00
6. Field Screening-standard	1100	feet x	$10.00	$11,000.00
alternative, not mobile lab		feet x	$1.00	$0.00
alternative, mobile lab		feet x	$0.00	$0.00
fractured rock		feet x	$0.00	$0.00
7. Soil Leachability Model		each x	$0.00	$0.00
8. Abandonment- 2"*		feet x	$0.00	$0.00
Abandonment 6" or smaller		feet x	$6.00	$0.00
Dug Well Up to 6' diameter		feet x	$7.00	$0.00
9. Well Installation*				
A. Water Table (hand auger)		feet x	$0.00	$0.00
B. Water Table (drilled)	165	feet x	$25.00	$4,125.00
C. Telescoping	120	feet x	$35.00	$4,200.00
D. Rock Drilling		feet x	$35.00	$0.00
E. 2" Core Drilling		feet x	$9.00	$0.00
F. 4" Core Drilling		feet x	$9.00	$0.00
G. Multi sampling ports/screen intervals		feet x	$0.00	$0.00
10. Groundwater Sample Collection				
A.Groundwater	15	samples x	$50.00	$750.00
B. Air Vapor		samples x	$8.00	$0.00
C. Water Supply	4	samples x	$20.00	$80.00
D. Groundwater No Purge		samples x	$15.00	$0.00
E. Gauge Well Only	2	samples x	$15.00	$30.00
F. Sample below product		samples x	$15.00	$0.00
E. Passive Diffusion Bag		per well x	$0.00	$0.00
11. Analyses-Groundwater (See Analytical Methodology for analyses)				
A. BTEX+Napth.+MTBE	21	samples x	$35.00	$735.00

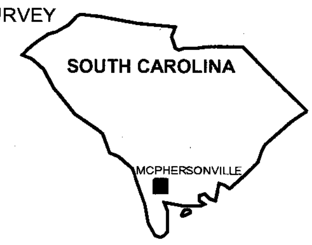
B. Rush BTEX analysis	7	samples x	$70.00	$490.00
D. PAH's	0	samples x	$55.00	$0.00
E. Lead	15	samples x	$7.00	$105.00
F. EDB	21	samples x	$35.00	$735.00
FF. EDB Rush Analysis	7	samples x	$60.00	$420.00
G. 8 RCRA Metals		samples x	$20.00	$0.00
H.TPH (9070)		samples x	$21.00	$0.00
I. pH		samples x	$8.50	$0.00
J. BOD		samples x	$25.50	$0.00
K. Nitrate	15	samples x	$20.00	$300.00
L. Sulfate	15	samples x	$15.00	$225.00
M. Ferrous Iron	15	samples x	$10.00	$150.00
N. Methane	15	samples x	$37.00	$555.00
O. Filtered Lead		samples x	$11.00	$0.00
P. 8 Oxygenates	15	samples x	$65.00	$975.00
BB. 1,2-DCA	21	samples x	$0.00	$0.00
11. Analyses-Soil				
Q. BTEX + Napth.		samples x	$31.50	$0.00
R. PAH's		samples x	$30.00	$0.00
S. 8 RCRA Metals		samples x	$10.00	$0.00
U. TPH (3550B/8015B)		samples x	$34.00	$0.00
V. TPH (5030B/8015B)		samples x	$38.00	$0.00
W. Grain size/hydrometer	2	samples x	$65.00	$130.00
X. Total Organic Carbon		samples x	$19.00	$0.00
11. Analyses-Air				
Y. BTEX + Napth.		samples x	$0.00	$0.00
11. Z. Hydrocarbon Fuel Identification		samples x	$0.00	$0.00
12. A. Pumping Test*		hours x	$8.00	$0.00
B. Slug Test*	0	tests x	$50.00	$0.00
C. Fractured Rock*		tests x	$0.00	$0.00
13. Free Product Recovery Rate Test*		tests x	$30.00	$0.00
14. A. Mathematical Model		each x	$0.00	$0.00
B. Computer Model		each x	$0.00	$0.00
15. A. Tier 1 Risk Evaluation		x	$0.00	$0.00
B. Tier II Risk Evaluation		x	$150.00	$0.00
16. Subsequent Survey*		x	$50.00	$0.00
17. Disposal*				
A. Wastewater				
1. Purging/Sampling	10	drums x	$150.00	$1,500.00
2. Pumping Test/EFR		gallons x	$0.10	$0.00
B. Free Product		drums x	$50.00	$0.00
C. Soil (Treatment/Disposal)	13	drum x	$175.00	$2,275.00

		tons x	$0.00	$0.00
18. Miscellaneous				
Geophysical Survey < 10 meters		each x	$0.00	$0.00
Geophysical Survey > 10 meters		each x	$0.00	$0.00
Geophysical UST Survey		each x	$300.00	$0.00
Site Recon.	1	each x	$100.00	$100.00
Additional Copies of Report		each x	$10.00	$0.00
25. Well Repair				
Repair 2x2 monitoring well pad		each x	$20.00	$0.00
Repair 4x4 monitoring well pad		each x	$23.00	$0.00
Replace well vault & up to 4x4 pad		each x	$28.00	$0.00
Replace well cover and gasket		each x	$0.00	$0.00
Replace well cover bolts		each x	$0.00	$0.00
Replace locking well cap & lock		each x	$7.00	$0.00
Replace/Repair Stick-up well		each x	$75.00	$0.00
Convert flush mounted well to Stickup		each x	$75.00	$0.00
Convert stickup well to flush mounted well		each x	$0.00	$0.00
19. Report/Project Management and Coordination	4%	x	$31,130.00	$1,245.20
25. **TOTAL**				$32,375.20

*The appropriate mobilization cost can be added to complete these tasks, as necessary



REFERENCE: MCPHERSONVILLE, SOUTH CAROLINA QUADRANGLE MAP. 7.5 MINUTE SERIES, U.S. GEOLOGIC SURVEY

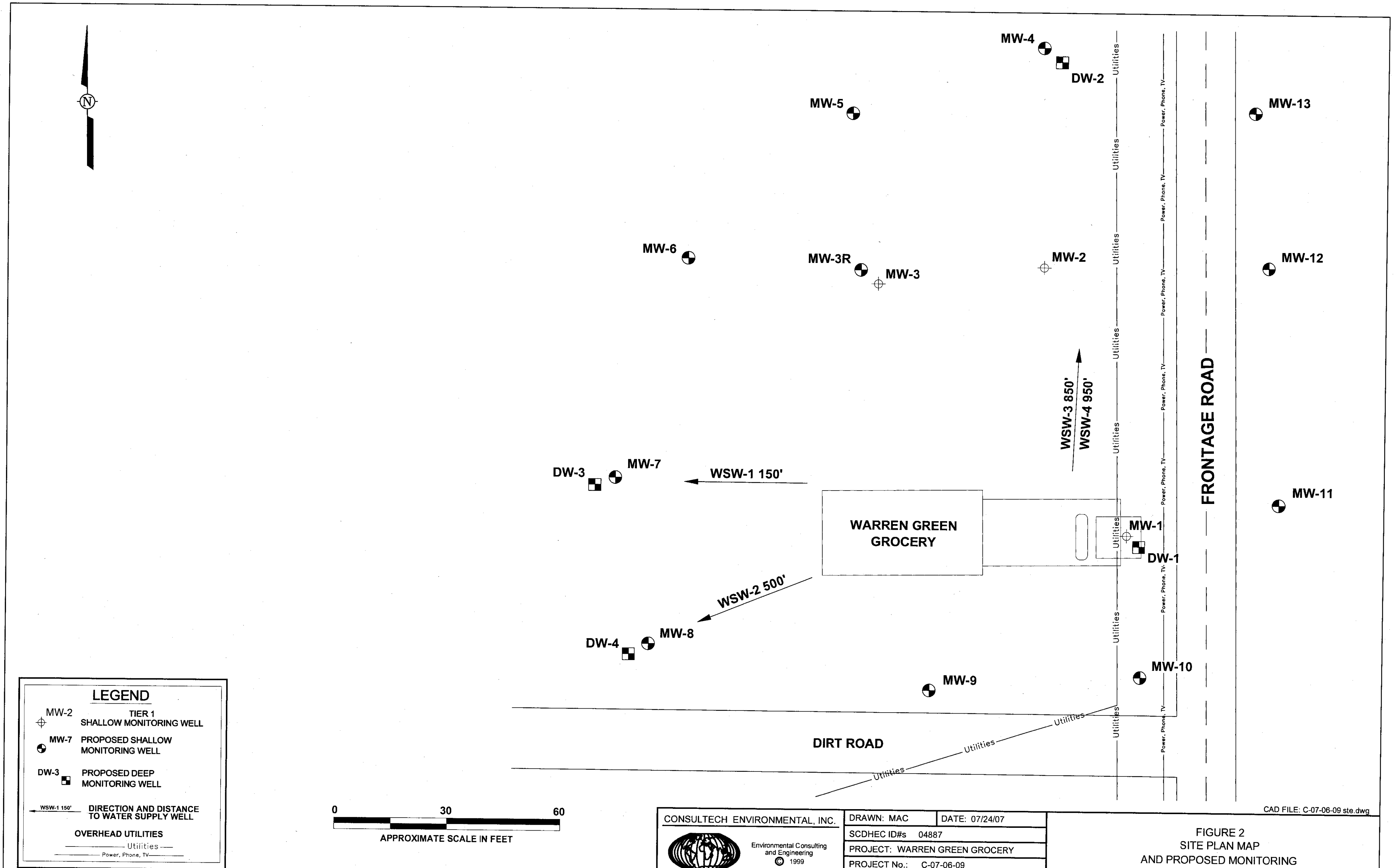


SITE LOCATION

0 1,000 2,000

SCALE IN FEET

DRAWN: MAC / DATE: 07/24/07	FIGURE 1 SITE LOCATION AND TOPOGRAPHIC MAP	CONSULTECH ENVIRONMENTAL, INC.
SCDHEC FACILITY ID # 04887		Environmental Consulting and Engineering © 1998
PROJECT: WARREN GREEN GROCERY		Delivering innovative solutions to today's environmental concerns
PROJECT No.: C-07-06-09		
LOCATION: YEMASSE, SOUTH CAROLINA		



CAD FILE: C-07-06-09 ste.dwg

CONSULTECH ENVIRONMENTAL, INC.	DRAWN: MAC	DATE: 07/24/07
Environmental Consulting and Engineering © 1999	SCDHEC ID#s 04887	
Delivering innovative solutions to today's environmental concerns	PROJECT: WARREN GREEN GROCERY	
	PROJECT No.: C-07-06-09	
	LOCATION: YEMASSEE, SOUTH CAROLINA	

FIGURE 2
SITE PLAN MAP
AND PROPOSED MONITORING
WELL LOCATIONS

Midlands
Environmental
Consultants, Inc.

August 18, 2012

UST
David E
AUG 21 2012
PROGRAM

Ms. Debra Thoma, Hydrogeologist
Corrective Action Section
Underground Storage Tank Program
Bureau of Land and Waste Management
South Carolina Department of Health
and Environmental Control
2600 Bull Street
Columbia, South Carolina 29201

Subject: Report of Groundwater Sampling
Warren Green
10773 West Frontage Road
Yemassee, South Carolina
SCDHEC Site ID Number 04887; CA # 43612
MECI Project Number 12-3970
Certified Site Rehabilitation Contractor UCC-0009

UST
#20
DOCKETING

Dear Ms. Thoma,

Midlands Environmental Consultants Inc. (MECI) is pleased to submit the attached Report of Groundwater Sampling for the referenced site. This report describes site activities conducted at the site in general accordance with South Carolina Department of Health and Environmental Control's (SCDHEC) Quality Assurance Program Plan for the Underground Storage Tank Management Division (QAPP).

PROJECT INFORMATION

The subject site (Warren Green) is located at 10773 W. Frontage Road, Yemassee, Jasper County, South Carolina. The subject site previously maintained two 3,000 gallon gasoline underground storage tanks (UST's) and one 2,000 gallon gasoline UST. These UST's have a current status of rendered un-usable. SCDHEC reported and confirmed a release of petroleum product from the subject UST's in May of 2002. The subject site is currently rated a Class 2BB.

The above information is based on reports and correspondence obtained from MECI field notes and SCDHEC files.

MONITORING WELL SAMPLING AND CHEMICAL ANALYSIS

On July 30, 2012, MECI personnel collected groundwater samples from seven (7) monitoring wells at the subject site. MECI personnel utilized an electronic water level indicator for water level measurements and an oil/water interface probe for free phase petroleum product level measurements. Based on a request by SCDHEC personnel, all of the wells were to be purged prior to sampling. Five (5) monitoring wells were purged prior to sampling. Two (2) monitoring wells were gauged and determined to contain insufficient water to purge. Purging was completed by bailing at least three well volumes of water from the well, until pH, conductivity, dissolved oxygen stabilized to within 10%, or all water was evacuated from the well, whichever occurred first. Sampling/purging was completed utilizing a prepackaged, clear, disposable polyethylene bailer and nylon rope. A new set of nitrile gloves were worn at each monitoring well, and at all time samples were handled. Field measurements of pH, conductivity, dissolved oxygen, water temperature, and turbidity were obtained before well sampling process. MECI utilized YSI550A meter for DO (mg/L) and temperature readings (°C), YSI63 meters for pH and conductivity (uS) readings and a 60 cm turbidity tube for turbidity readings. The attached Field Data Information Sheets presents the results of the field measurements obtained. The wells were sampled in accordance with SCDHEC's Quality Assurance Program Plan for the Underground Storage Tank Management Division (QAPP, Dated June 2011) and MECI's Standard Operating Procedures (MECI SOP, Dated August, 2011).

Groundwater samples obtained were sent to Shealy Environmental Services, Inc. of West Columbia, SC (SCDHEC Laboratory Certification #32010) for analysis.

The following sampling matrix contains well development and requested analyses for each well:

Monitoring Well	Purge	No Purge	Gauge Only	Not Located	BTEX, Naphthalene, MTBE (EPA Method 8260-B)	EDB (EPA Method 8011)	1,2 DCA (EPA Method 8260-B)	8 Oxygenates (EPA Method 8260-B)	Total Lead (EPA Method 6010)	Sulfate (EPA Method 375.2)	Nitrate (EPA Method 335.2)	Methane (RSK Method)	PAH's (EPA Method 8270)	Ferrous Iron (Field Test)
					Analyte Sampled									
MW-1		X			X	X	X	X						
MW-7	X				X	X	X	X						
MW-8	X				X	X	X	X						
MW-12		X			X	X	X	X						
MW-13	X				X	X	X	X						
DW-1	X				X	X	X	X						
DW-6	X				X	X	X	X						
MW-1 Duplicate					X	X	X	X						
Field Blank					X	X	X	X						
Trip Blank					X		X	X						

Notes: BTEX = benzene, toluene, ethylbenzene, & total xylenes MTBE=methyl tertiary butyl ether 1,2 DCA = 1,2 dicloroethane
PAH = polycyclic aromatic hydrocarbons
Trip Blank provided by Shealy Environmental, temperature obtained upon receipt at Laboratory

Purge water produced by the purging process was treated on-site utilizing a granular activated carbon unit. A total of 40.0 gallons of purge water was disposed of in this manner. A disposal manifest for the referenced purge water is attached at the end of this report.

Please feel free to contact us at 803-808-2043 if you have any immediate questions or comments.

Sincerely,
Midlands Environmental Consultants, Inc.

Kyle V. Pudney
Staff Biologist

Courtney M. Sanders
Staff Biologist

Attachments:

Contractor Checklist

Item#	Item	Yes	No	N/A
1	Is Facility Name, Permit #, and address provided?	X		
2	Is UST Owner/Operator name, address, & phone number provided?			X
3	Is name, address, & phone number of current property owner provided?			X
4	Is the DHEC Certified UST Site Rehabilitation Contractor's Name, Address, telephone number, and certification number provided?	X		
5	Is the name, address, telephone number, and certification number of the well driller that installed borings/monitoring wells provided?			X
6	Is the name, address, telephone number, and certification number of the certified laboratory(ies) performing analytical analyses provided?	X		
7	Has the facility history been summarized?	X		
8	Has the regional geology and hydrogeology been described?			X
9	Are the receptor survey results provided as required?			X
10	Has current use of the site and adjacent land been described?			X
11	Has the site-specific geology and hydrogeology been described?			X
12	Has the primary soil type been described?			X
13	Have field screening results been described?			X
14	Has a description of the soil sample collection and preservation been detailed?			X
15	Has the field screening methodology and procedure been detailed?			X
16	Has the monitoring well installation and development dates been provided?			X
17	Has the method of well development been detailed?			X
18	Has justification been provided for the locations of the monitoring wells?			X
19	Have the monitoring wells been labeled in accordance with the UST QAPP guidelines?			X
20	Has the groundwater sampling methodology been detailed? See MECI SOP	X		
21	Have the groundwater sampling dates and groundwater measurements been provided? See attached Site Activity Summary Sheet	X		
22	Has the purging methodology been detailed? See MECI SOP	X		
23	Has the volume of water purged from each well been provided along with measurements to verify that purging is complete? See attached Field Data Information Sheets	X		
24	If free-product is present, has the thickness been provided? See attached Site Activity Summary Sheets	X		
25	Does the report include a brief discussion of the assessment done and the results?			X
26	Does the report include a brief discussion of the aquifer evaluation and results?			X
27	Does the report include a brief discussion of the fate & transport models used?			X

Item#	Item	Yes	No	N/A
28	Are the site-conceptual model tables included? (Tier 1 Risk Evaluation)			X
29	Have the exposure pathways been analyzed? (Tier 2 Risk Evaluation)			X
30	Have the SSTLs for each compound and pathway been calculated? (Tier 2 Risk Evaluation)			X
31	Have recommendations for further action been provided and explained?			X
32	Has the soil analytical data for the site been provided in tabular format? (Table 1)			X
33	Has the potentiometric data for the site been provided in tabular format? (Table 2)			X
34	Has the current and historical laboratory data been provided in tabular format?			X
35	Have the aquifer characteristics been provided and summarized on the appropriate form?			X
36	Have the Site conceptual model tables been included? (Tier 1 Risk Evaluation)			X
37	Has the topographic map been provided with all required elements? (Figure 1)	X		
38	Has the site base map been provided with all required elements? (Figure 2)	X		
39	Have the CoC site maps been provided? (Figure 3 & Figure 4)			X
40	Has the site potentiometric map been provided? (Figure 5)			X
41	Have the geologic cross-sections been provided? (Figure 6)			X
42	Have maps showing the predicted migration of the CoCs through time been provided? (Tier 2 Risk Evaluation)			X
43	Has the site survey been provided and include all necessary elements? (Appendix A)			X
44	Have the sampling logs, chain of custody forms, and the analytical data package been included with all required elements? (Appendix B)	X		
45	Is the laboratory performing the analyses properly certified?	X		
46	Has the tax map been included with all necessary elements? (Appendix C)			X
47	Have the soil boring/field screening logs been provided? (Appendix D)			X
48	Have the well completion logs and SCDHEC Form 1903 been provided? (Appendix E)			X
49	Have the aquifer evaluation forms, data, graphs, equations, etc. been provided? (Appendix F)			X
50	Have the disposal manifests been provided? See attached	X		
51	Has a copy of the local zoning regulations been provided? (Appendix H)			X
52	Has all fate and transport modeling been provided? (Appendix I)			X
53	Have copies of all access agreements obtained by the contractor been provided? (Appendix J)			X
54	Has a copy of this form been attached to the final report and are explanations for any missing or incomplete data been provided?	X		

Site Activity Summary

UST Permit #:	04887
Facility Name:	Warren Green
County:	Jasper
Field Personnel:	B. Owen & D. Odom

Midlands Environmental Consultants, Inc.
235-B Dooley Road, Lexington, SC 29073
(803) 808-2043 Fax: 808-2048

Sample ID	Sampled?	Date	Time	Screened Interval	Depth to Product (ft)	Depth to Water (ft)	Product Thickness (ft)	Initial Dissolved Oxygen (mg/l)	# Gals. Purged	Comments
MW-1	Y	7/30/12	11:45	2-12	***	9.45	***	0.63	***	Odor
MW-7	Y	7/30/12	11:57	5-20	***	11.95	***	Sheen	1.0	Odor; Sheen
MW-8	Y	7/30/12	11:12	5-20	***	13.42	***	1.56	0.5	No Odor
MW-12	Y	7/30/12	12:22	5-20	***	12.07	***	1.92	***	No Odor
MW-13	Y	7/30/12	10:58	5-20	***	11.39	***	2.03	4.5	No Odor
DW-1	Y	7/30/12	12:08	45-50	***	11.10	***	Sheen	4.0	Odor; Sheen; One Bolt Added
DW-6	Y	7/30/12	11:33	80-85	***	9.07	***	1.92	30.0	No Odor
MW-1 Dup.	Y	7/30/12	11:45	***	***	***	***	***	***	Duplicate Sample
Field Blank	Y	7/30/12	10:51	***	***	***	***	***	***	Field Blank
Trip Blank	Y	7/30/12	10:52	***	***	***	***	***	***	Trip Blank
									40.0	**TOTAL GALLONS PURGED**

South Carolina Department of Health and Environmental Control
Bureau of Land and Waste Management Underground Storage Tank Program

Field Data Information Sheet for Groundwater Sampling

Date (mm/dd/yy): 7/30/2012

Field Personnel: Brian Owen & Darcie Odom

General Weather Conditions: Overcast and Rainy

Ambient Air Temperature: 31.0 °C

Quality Assurance

pH/Conductivity Meter		**DO Meter**	
YSI 63		**YSI 550A**	
09C 101302	X	04L 2026AK	X
10K 101895		08B 101895	
07M 100905		04A 0912AI	
Calibration Buffer:	4, 7, & 10		

Chain of Custody

Relinquished by	Date/Time	Received by	Date/Time

Facility Name: Warren Green

Site ID#: 04887 **Monitoring Well #** MW-1

Water Supply Well **Public** ____ **Private** ____

Monitoring Well Diameter (D): 2 inches

Conversion Factor (C): $3.14 \times (D/2)^2$ for a 2 inch well C=0.163; for a 4 inch well C=0.652

* Free Product Thickness:		feet
Depth to Free Product (DFP)		feet
Depth to Ground Water (DGW)	9.45	feet
Total Well Depth (TWD)	12	feet
Length of the water column (LWC=TWD-DGW)	2.55	feet
1 casing volume (CV=LWC X C)= ____ X 0.163	0.42	gallons
3 casing volume (3 X CV)= 3	1.25	gallons

Total Volume of Water Purged Before Sampling 0 gals.

*If free product is present over 1/8 inch, sampling will not be required.

Cumulative Volume Purged (gallons)	Inital	1st Vol	2nd Vol	3rd Vol	4th Vol	5th Vol	Post Sampling	
Time (military)	11:45							
pH (s.u.)	5.39							
Specific Conductivity (µmhos/cm)	91.1							
Water Temperature (°C)	21.6							
Dissolved Oxygen	0.63							
Turbidity (NTU)	150							
PID readings, if required								

Remarks: Sample Time: 11:45 **Insufficient Water to Purge**

South Carolina Department of Health and Environmental Control
Bureau of Land and Waste Management Underground Storage Tank Program

Field Data Information Sheet for Groundwater Sampling

Date (mm/dd/yy): 7/30/2012
Field Personnel: Brian Owen & Darcie Odom
General Weather Conditions: Overcast and Rainy

Ambient Air Temperature: 31.0 °C

Quality Assurance

pH/Conductivity Meter		**DO Meter**	
YSI 63		**YSI 550A**	
09C 101302	X	04L 2026AK	X
10K 101895		08B 101895	
07M 100905		04A 0912AI	
Calibration Buffer:	4, 7, & 10		

Chain of Custody

Relinquished by	Date/Time	Received by	Date/Time

Facility Name: Warren Green
Site ID#: 04887 **Monitoring Well #** MW-7
Water Supply Well **Public** ______ **Private** ______

Monitoring Well Diameter (D): 2 inches

Conversion Factor (C): $3.14 \times (D/2)^2$ for a 2 inch well C=0.163; for a 4 inch well C=0.652

* Free Product Thickness:		feet
Depth to Free Product (DFP)		feet
Depth to Ground Water (DGW)	11.95	feet
Total Well Depth (TWD)	20	feet
Length of the water column (LWC=TWD-DGW)	8.05	feet
1 casing volume (CV=LWC X C)= _____ X 0.163	1.31	gallons
3 casing volume (3 X CV)= 3	3.94	gallons

Total Volume of Water Purged Before Sampling 1 gals.

*If free product is present over 1/8 inch, sampling will not be required.

Cumulative Volume Purged (gallons)	Inital	1st Vol	2nd Vol	3rd Vol	4th Vol	5th Vol	Post Sampling	
Time (military)	11:57							
pH (s.u.)	Sheen							
Specific Conductivity (µmhos/cm)	Sheen							
Water Temperature (°C)	Sheen							
Dissolved Oxygen	Sheen							
Turbidity (NTU)	Sheen							
PID readings, if required								

Remarks: Sample Time: 11:57 **Dry at 1.0 Gallons**
Noticable Petroleum Sheen

South Carolina Department of Health and Environmental Control
Bureau of Land and Waste Management Underground Storage Tank Program

Field Data Information Sheet for Groundwater Sampling

Date (mm/dd/yy): 7/30/2012
Field Personnel: Brian Owen & Darcie Odom
General Weather Conditions: Overcast and Rainy

Ambient Air Temperature: 31.0 °C

Quality Assurance

pH/Conductivity Meter		**DO Meter**	
YSI 63		**YSI 550A**	
09C 101302	X	04L 2026AK	X
10K 101895		08B 101895	
07M 100905		04A 0912AI	
Calibration Buffer:	4, 7, & 10		

Chain of Custody

Relinquished by	Date/Time	Received by	Date/Time

Facility Name: Warren Green
Site ID#: 04887 **Monitoring Well #** MW-8
Water Supply Well **Public** ______ **Private** ______

Monitoring Well Diameter (D): 2 inches

Conversion Factor (C): $3.14 \times (D/2)^2$ for a 2 inch well C=0.163
for a 4 inch well C=0.652

* Free Product Thickness: ______ feet
Depth to Free Product (DFP) ______ feet
Depth to Ground Water (DGW) 13.45 feet
Total Well Depth (TWD) 20 feet
Length of the water column (LWC=TWD-DGW) 6.55 feet
1 casing volume (CV=LWC X C)= ____ X 0.163 | 1.07 | gallons
3 casing volume (3 X CV)= 3 | 3.20 | gallons

Total Volume of Water Purged Before Sampling 0.5 gals.
*If free product is present over 1/8 inch, sampling will not be required.

Cumulative Volume Purged (gallons)	Inital	1st Vol	2nd Vol	3rd Vol	4th Vol	5th Vol	Post Sampling	
Time (military)	11:10	11:12						
pH (s.u.)	4.75	4.77						
Specific Conductivity (μmhos/cm)	105.5	94.9						
Water Temperature (°C)	22.1	22.1						
Dissolved Oxygen	1.56	1.96						
Turbidity (NTU)	25	240+						
PID readings, if required								

Remarks: Sample Time: 11:12 **Dry at 0.5 Gallons**

South Carolina Department of Health and Environmental Control
Bureau of Land and Waste Management Underground Storage Tank Program

Field Data Information Sheet for Groundwater Sampling

Date (mm/dd/yy): 7/30/2012
Field Personnel: Brian Owen & Darcie Odom
General Weather Conditions: Overcast and Rainy

Ambient Air Temperature: 31.0 °C

Quality Assurance

pH/Conductivity Meter		**DO Meter**	
YSI 63		**YSI 550A**	
09C 101302	X	04L 2026AK	X
10K 101895		08B 101895	
07M 100905		04A 0912AI	
Calibration Buffer:	4, 7, & 10		

Chain of Custody

Relinquished by	Date/Time	Received by	Date/Time

Facility Name: Warren Green
Site ID#: 04887 **Monitoring Well #** MW-13
Water Supply Well **Public** ______ **Private** ______

Monitoring Well Diameter (D): 2 inches

Conversion Factor (C): 3.14 x $(D/2)^2$ for a 2 inch well C=0.163
for a 4 inch well C=0.652

* Free Product Thickness: ______ feet
Depth to Free Product (DFP) ______ feet
Depth to Ground Water (DGW) 11.39 feet
Total Well Depth (TWD) 20 feet
Length of the water column (LWC=TWD-DGW) 8.61 feet
1 casing volume (CV=LWC X C)= _____ X 0.163 | 1.40 | gallons
3 casing volume (3 X CV)= 3 | 4.21 | gallons

Total Volume of Water Purged Before Sampling 4.5 gals.
*If free product is present over 1/8 inch, sampling will not be required.

Cumulative Volume Purged (gallons)	Inital	1st Vol	2nd Vol	3rd Vol	4th Vol	5th Vol	Post Sampling	
Time (military)	10:52	10:54	10:56	10:58				
pH (s.u.)	5.38	5.29	5.32	5.31				
Specific Conductivity (µmhos/cm)	29.5	87.3	58.9	97.2				
Water Temperature (°C)	20.9	20.4	20.3	20.2				
Dissolved Oxygen	2.03	0.82	1.58	2.09				
Turbidity (NTU)	240+	240+	240+	240+				
PID readings, if required								

Remarks: Sample Time: 10:58

South Carolina Department of Health and Environmental Control
Bureau of Land and Waste Management Underground Storage Tank Program

Field Data Information Sheet for Groundwater Sampling

Date (mm/dd/yy): 7/30/2012
Field Personnel: Brian Owen & Darcie Odom
General Weather Conditions: Overcast and Rainy

Ambient Air Temperature: 31.0 °C

Quality Assurance

pH/Conductivity Meter		**DO Meter**	
YSI 63		**YSI 550A**	
09C 101302	X	04L 2026AK	X
10K 101895		08B 101895	
07M 100905		04A 0912AI	
Calibration Buffer:	4, 7, & 10		

Chain of Custody

Relinquished by	Date/Time	Received by	Date/Time

Facility Name: Warren Green
Site ID#: 04887 **Monitoring Well #** DW-1
Water Supply Well **Public** ______ **Private** ______

Monitoring Well Diameter (D): 2 inches

Conversion Factor (C): 3.14 x $(D/2)^2$ for a 2 inch well C=0.163
for a 4 inch well C=0.652

* Free Product Thickness: ______ feet
Depth to Free Product (DFP) ______ feet
Depth to Ground Water (DGW) 11.10 feet
Total Well Depth (TWD) 50 feet
Length of the water column (LWC=TWD-DGW) 38.9 feet
1 casing volume (CV=LWC X C)= ____ X 0.163 6.34 gallons
3 casing volume (3 X CV)= 3 19.02 gallons

Total Volume of Water Purged Before Sampling 4 gals.
*If free product is present over 1/8 inch, sampling will not be required.

Cumulative Volume Purged (gallons)	Inital	1st Vol	2nd Vol	3rd Vol	4th Vol	5th Vol	Post Sampling	
Time (military)	12:08							
pH (s.u.)	Sheen							
Specific Conductivity (μmhos/cm)	Sheen							
Water Temperature (°C)	Sheen							
Dissolved Oxygen	Sheen							
Turbidity (NTU)	Sheen							
PID readings, if required								

Remarks: Sample Time: 12:08 **Dry at 4.0 Gallons**
Noticable Petroleum Sheen

South Carolina Department of Health and Environmental Control
Bureau of Land and Waste Management Underground Storage Tank Program

Field Data Information Sheet for Groundwater Sampling

Date (mm/dd/yy): 7/30/2012
Field Personnel: Brian Owen & Darcie Odom
General Weather Conditions: Overcast and Rainy

Ambient Air Temperature: 31.0 °C

Quality Assurance

pH/Conductivity Meter		DO Meter	
YSI 63		**YSI 550A**	
09C 101302	X	04L 2026AK	X
10K 101895		08B 101895	
07M 100905		04A 0912AI	
Calibration Buffer:	4, 7, & 10		

Chain of Custody

Relinquished by	Date/Time	Received by	Date/Time

Facility Name: Warren Green
Site ID#: 04887 **Monitoring Well #** DW-6
Water Supply Well **Public** ______ **Private** ______

Monitoring Well Diameter (D): 2 inches

Conversion Factor (C): $3.14 \times (D/2)^2$ for a 2 inch well C=0.163
for a 4 inch well C=0.652

* Free Product Thickness: ______ feet
Depth to Free Product (DFP) ______ feet
Depth to Ground Water (DGW) 9.07 feet
Total Well Depth (TWD) 85 feet
Length of the water column (LWC=TWD-DGW) 75.93 feet
1 casing volume (CV=LWC X C)= ______ X 0.163 | 12.38 | gallons
3 casing volume (3 X CV)= 3 | 37.13 | gallons

Total Volume of Water Purged Before Sampling 30 gals.
*If free product is present over 1/8 inch, sampling will not be required.

Cumulative Volume Purged (gallons)	Inital	1st Vol	2nd Vol	3rd Vol	4th Vol	5th Vol	Post Sampling	
Time (military)	11:29	11:31	11:33					
pH (s.u.)	6.85	6.63	6.56					
Specific Conductivity (µmhos/cm)	174.8	186.2	188.3					
Water Temperature (°C)	23.2	21.6	21.3					
Dissolved Oxygen	1.92	1.66	2.33					
Turbidity (NTU)	100	240+	240+					
PID readings, if required								

Remarks: Sample Time: 11:33 **Dry at 30.0 Gallons**

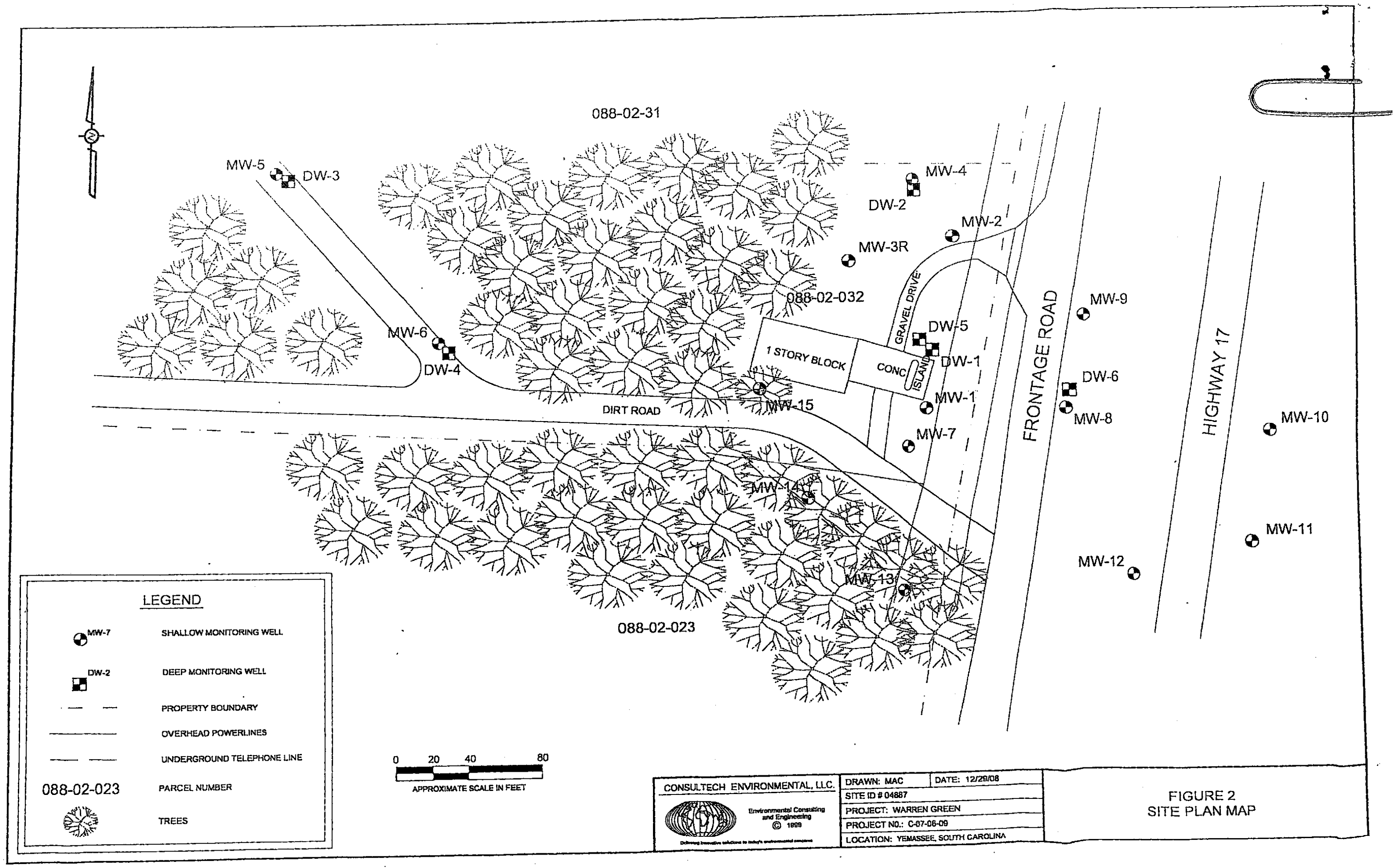


FIGURE 2
SITE PLAN MAP

SHEALY

Chain of Custody Record

Shealy Environmental Services, Inc.
106 Vantage Point Drive
West Columbia, South Carolina 29172
Telephone No. (803) 791-9700 Fax No. (803) 791-9111
www.shealylab.com

Number 21830

Client: SCDHEC-UST	Report to Contact: D. Thomas	Sampler (Printed Name): Darcie Adam	Quote No.
Address: 2600 Bull St	Telephone No. / Fax No. / Email: (803) 896-6241/896-6243	Waybill No.	Page 1 of 1
City: Columbia State: SC Zip Code: 29201	Preservative: 1. Unpres. 2. NaOH/ZnA 3. H2SO4 4. HNO3 5. HCL 6. Na Thio. 7. NaOH		
Project Name: Warren Green			
Project Number: 02147?/43613	P.O Number: 4600098879		

											Analysis	BTEX, Naph, MTBE (8260B)	1,2-DCA	COD	8-Oxy	Remarks / Cooler ID
Number of Containers												3	→	3		
Bottle (See Instructions on back)												A	→	A		
Preservative												5	→	5		
Lot No.																
Sample ID / Description (Containers for each sample may be combined on one line)	**Date**	**Time**	**G=Grab C=Composite**	**GW**	**DW**	**WW**	**S**	**Other**								
MW-1	7/30	1145	G	X								X	X	X	X	odor
MW-7	↓	1157	↓	↓								↓	↓	↓	↓	odor + sheen
MW-8		1112														
MW-12		1222														
MW-13		1058														
DW-1		1214														sheen
DW-6		1153														
MW-1 Dup		1145														
Field Blank		1251										↓	X	X	X	
Trip Blank	7/30	1055	G	X								X				

Turn Around Time Required (Prior lab approval required for expedited TAT) ☐ Standard ☐ Rush (Please Specify)

Sample Disposal ☐ Return to Client ☐ Disposal by Lab

QC Requirements (Specify)

Possible Hazard Identification ☐Non-Hazard ☐Flammable ☐Skin Irritant ☐Poison ☐Unknown

	Date	Time		Date	Time
1. Relinquished by / Sampler	7-30-12	1500	1. Received by	7-30-12	1500
2. Relinquished by	7-31-12	1120	2. Received by	7-31-12	1120
3. Relinquished by			3. Received by		
4. Relinquished by			4. Laboratory Received by		

Note: All samples are retained for six weeks from receipt unless other arrangements are made.

LAB USE ONLY
Received on Ice (Check) ☐ Yes ☐ No ☐ Ice Pack Receipt Temp. _______ °C Temp. Blank ☐ Y / ☐ N

Midlands
Environmental
Consultants, Inc.

August 18, 2012

Re: Treatment of Purge Water
Warren Green
Yemassee, South Carolina
SCDHEC Site ID Number 04887
MECI Project Number 12-3970

To Whom It May Concern;

Midlands Environmental Consultants, Inc. is providing the following letter as certification that treatment of the referenced purge water complied with the conditions of "Proposed Conditions for Use of Portable Activated Carbon Units for the Treatment of Small Volumes of Petroleum Hydrocarbon Contaminated Groundwater", as described in the following:

Applicability:

Groundwater treated was obtained as a result development of wells and sampling.

Conditions:

1. The purge/bail water from all wells is mixed before usage of the Activated Carbon Unit.

2. No free-product was detected in any of the purge water drums.

3. Analytical results of from well sampling show average concentrations of petroleum hydrocarbon constituents less than 5000 parts per billion (ppb) Benzene and less than 20,000 ppb total BTEX.

4. The existing carbon pack will be replaced/reactivated every 5,000 gallons.

5. Record of usage is maintained by Contractor.

6. Any and all recommendations and conditions issued by the Manufacturer have been adhered to.

7. Any and all recommendations and conditions (even on a site by site basis) issued by the SCDHEC must be adhered to.

All purge waters were treated on-site using an up-flow treatment drum loaded with 30 pounds of activated carbon. Carbon will be loaded to a maximum of 3 pounds of total organic compounds or 5,000 gallons of development/purge water, whichever occurs first.

Post Office Box 854, Lexington SC 29071 • 235-B Dooley Road, Lexington, SC 29073
Telephone: (803) 808-2043 • fax: (803) 808-2048

A total of 40.0 gallons were treated on July 30, 2012 at the referenced site.

Midlands Environmental also tracks cumulative organic compounds adsorbed on the activated carbon to ensure the capacity of carbon mass is not over-charged. This data is available upon request.

Should you have any questions or comments, please contact the undersigned.

Sincerely,
Midlands Environmental Consultants, Inc.

Courtney M. Sanders
Staff Biologist

Report of Analysis

SC DHEC - UST Management
2600 Bull Street
Columbia, SC 29201
Attention: Debra Thoma

UST
AUG 13 2012
PROGRAM

Project Name: **Warren Green**

Project Number: **UST Permit #04887/CA #43613**

Lot Number: **NG31025**

Date Completed: **08/09/2012**

Kelly M. Maberry
Project Manager

ACCREDITED IN ACCORDANCE WITH nelac

The following non-paginated documents are considered part of this report: Chain of Custody Record and Sample Receipt Checklist.

Case Narrative
SC DHEC - UST Management
Lot Number: NG31025

This Report of Analysis contains the analytical result(s) for the sample(s) listed on the Sample Summary following this Case Narrative. The sample receiving date is documented in the header information associated with each sample.

All results listed in this report relate only to the samples that are contained within this report.

Sample receipt, sample analysis, and data review have been performed in accordance with the most current approved NELAC standards, the Shealy Environmental Services, Inc. ("Shealy") Quality Assurance Management Plan (QAMP), standard operating procedures (SOPs), and Shealy policies. Any exceptions to the NELAC standards, the QAMP, SOPs or policies are qualified on the results page or discussed below.

If you have any questions regarding this report please contact the Shealy Project Manager listed on the cover page.

Sample Receiving
Samples -008 and -010 for volatiles analysis contained vials with air bubbles greater than ¼" or 6mm in diameter. The laboratory uses these vials for screening and the vials without bubbles for analysis whenever possible. Condition of samples is documented on the Sample Receipt Checklist (SRC).

The MS associated with samples -002 and -008 had compounds recovered outside of the acceptance limits. This demonstrates a matrix effect and data quality is not impacted.

EDB/DBCP
Due to high detections for target compounds, sample -002 was diluted 5X. As a result, the associated surrogate was recovered outside of the acceptance limits. No corrective action was required, as dilutions of 5X and greater may impact surrogate recoveries.

Samples -001, -002, -003, -004, -005, -006, -007 and -008 had a layer of sediment in the sample vials.

Sample Summary

SC DHEC - UST Management

Lot Number: NG31025

Sample Number	Sample ID	Matrix	Date Sampled	Date Received
001	MW-1	Aqueous	07/30/2012 1145	07/31/2012
002	MW-7	Aqueous	07/30/2012 1157	07/31/2012
003	MW-8	Aqueous	07/30/2012 1112	07/31/2012
004	MW-12	Aqueous	07/30/2012 1222	07/31/2012
005	MW-13	Aqueous	07/30/2012 1058	07/31/2012
006	DW-1	Aqueous	07/30/2012 1208	07/31/2012
007	DW-6	Aqueous	07/30/2012 1133	07/31/2012
008	MW-1 Dup	Aqueous	07/30/2012 1145	07/31/2012
009	Field Blank	Aqueous	07/30/2012 1051	07/31/2012
010	Trip Blank	Aqueous	07/30/2012 1052	07/31/2012

(10 samples)

Executive Summary
SC DHEC - UST Management
Lot Number: NG31025

Sample	Sample ID	Matrix	Parameter	Method	Result	Q	Units	Page
001	MW-1	Aqueous	Benzene	8260B	1500		ug/L	5
001	MW-1	Aqueous	Ethylbenzene	8260B	1900		ug/L	5
001	MW-1	Aqueous	Naphthalene	8260B	250	J	ug/L	5
001	MW-1	Aqueous	Toluene	8260B	11000		ug/L	5
001	MW-1	Aqueous	Xylenes (total)	8260B	11000		ug/L	5
001	MW-1	Aqueous	tert-Amyl alcohol (TAA)	8260B	1300	J	ug/L	5
001	MW-1	Aqueous	1,2-Dibromoethane (EDB)	8011	0.098		ug/L	6
002	MW-7	Aqueous	Benzene	8260B	3800		ug/L	7
002	MW-7	Aqueous	Ethylbenzene	8260B	2800		ug/L	7
002	MW-7	Aqueous	Naphthalene	8260B	610		ug/L	7
002	MW-7	Aqueous	Toluene	8260B	7200		ug/L	7
002	MW-7	Aqueous	Xylenes (total)	8260B	17000		ug/L	7
002	MW-7	Aqueous	1,2-Dibromoethane (EDB)	8011	3.3		ug/L	8
003	MW-8	Aqueous	Benzene	8260B	25		ug/L	9
003	MW-8	Aqueous	1,2-Dichloroethane	8260B	11		ug/L	9
003	MW-8	Aqueous	Naphthalene	8260B	4.0	J	ug/L	9
003	MW-8	Aqueous	tert-Amyl alcohol (TAA)	8260B	870		ug/L	9
003	MW-8	Aqueous	tert-butyl alcohol (TBA)	8260B	46	J	ug/L	9
004	MW-12	Aqueous	tert-Amyl alcohol (TAA)	8260B	27	J	ug/L	11
006	DW-1	Aqueous	tert-Amyl alcohol (TAA)	8260B	860		ug/L	15
006	DW-1	Aqueous	tert-butyl alcohol (TBA)	8260B	4200		ug/L	15
007	DW-6	Aqueous	Benzene	8260B	0.63	J	ug/L	17
007	DW-6	Aqueous	Naphthalene	8260B	1.7	J	ug/L	17
007	DW-6	Aqueous	tert-Amyl alcohol (TAA)	8260B	21	J	ug/L	17
007	DW-6	Aqueous	tert-butyl alcohol (TBA)	8260B	130		ug/L	17
008	MW-1 Dup	Aqueous	Benzene	8260B	930		ug/L	19
008	MW-1 Dup	Aqueous	Ethylbenzene	8260B	940		ug/L	19
008	MW-1 Dup	Aqueous	Methyl tertiary butyl ether (MTBE)	8260B	140	J	ug/L	19
008	MW-1 Dup	Aqueous	Naphthalene	8260B	220	J	ug/L	19
008	MW-1 Dup	Aqueous	Toluene	8260B	6200		ug/L	19
008	MW-1 Dup	Aqueous	Xylenes (total)	8260B	6000		ug/L	19
008	MW-1 Dup	Aqueous	tert-Amyl alcohol (TAA)	8260B	790	J	ug/L	19
009	Field Blank	Aqueous	Ethyl-tert-butyl ether (ETBE)	8260B	0.25	J	ug/L	21

(33 detections)

Client: **SC DHEC - UST Management**
Description: **MW-1**
Date Sampled: **07/30/2012 1145**
Date Received: **07/31/2012**

Laboratory ID: **NG31025-001**
Matrix: **Aqueous**

Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	100	08/07/2012 1448	BDC		90871

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
Benzene	**71-43-2**	**8260B**	**1500**		**500**	**20**	**ug/L**	**1**
1,2-Dichloroethane	107-06-2	8260B	ND		500	30	ug/L	1
Ethylbenzene	**100-41-4**	**8260B**	**1900**		**500**	**170**	**ug/L**	**1**
Methyl tertiary butyl ether (MTBE)	1634-04-4	8260B	ND		500	40	ug/L	1
Naphthalene	**91-20-3**	**8260B**	**250**	**J**	**500**	**170**	**ug/L**	**1**
Toluene	**108-88-3**	**8260B**	**11000**		**500**	**170**	**ug/L**	**1**
Xylenes (total)	**1330-20-7**	**8260B**	**11000**		**500**	**170**	**ug/L**	**1**

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		101	70-130
Bromofluorobenzene		103	70-130
Toluene-d8		98	70-130

Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	100	08/07/2012 1448	BDC		90871

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
Diisopropyl ether (IPE)	108-20-3	8260B	ND		1000	40	ug/L	1
Ethanol	64-17-5	8260B	ND		100000	3300	ug/L	1
3,3-Dimethyl-1-butanol	624-95-3	8260B	ND		10000	100	ug/L	1
Ethyl-tert-butyl ether (ETBE)	637-92-3	8260B	ND		10000	20	ug/L	1
tert-Amyl alcohol (TAA)	**75-85-4**	**8260B**	**1300**	**J**	**10000**	**670**	**ug/L**	**1**
tert-Amyl methyl ether (TAME)	994-05-8	8260B	ND		1000	20	ug/L	1
tert-butyl alcohol (TBA)	75-65-0	8260B	ND		10000	670	ug/L	1
tert-Butyl formate (TBF)	762-75-4	8260B	ND		10000	100	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
Bromofluorobenzene		103	70-130
1,2-Dichloroethane-d4		101	70-130
Toluene-d8		98	70-130

EDB & DBCP by Microextraction

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	8011	8011	1	08/04/2012 1312	AMB	08/01/2012 0905	90416

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run

PQL = Practical quantitation limit
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
H = Out of holding time
ND = Not detected at or above the MDL
J = Estimated result < PQL and ≥ MDL
P = The RPD between two GC columns exceeds 40%
N = Recovery is out of criteria
Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"
* = Reportable result (only when report all runs)

Client: **SC DHEC - UST Management**
Description: **MW-1**
Date Sampled: **07/30/2012 1145**
Date Received: **07/31/2012**

Laboratory ID: **NG31025-001**
Matrix: **Aqueous**

EDB & DBCP by Microextraction

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	8011	8011	1	08/04/2012 1312	AMB	08/01/2012 0905	90416

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
1,2-Dibromoethane (EDB)	**106-93-4**	**8011**	**0.098**		**0.021**	**0.021**	**ug/L**	**1**

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,1,1,2-Tetrachloroethane		108	57-137

PQL = Practical quantitation limit
ND = Not detected at or above the MDL
B = Detected in the method blank
J = Estimated result < PQL and ≥ MDL
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%
H = Out of holding time
N = Recovery is out of criteria
Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"
* = Reportable result (only when report all runs)

Client: **SC DHEC - UST Management**
Description: **MW-7**
Date Sampled: **07/30/2012 1157**
Date Received: **07/31/2012**

Laboratory ID: **NG31025-002**
Matrix: **Aqueous**

Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	50	08/07/2012 1512	BDC		90871

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
Benzene	**71-43-2**	**8260B**	**3800**		**250**	**10**	**ug/L**	**1**
1,2-Dichloroethane	107-06-2	8260B	ND		250	15	ug/L	1
Ethylbenzene	**100-41-4**	**8260B**	**2800**		**250**	**85**	**ug/L**	**1**
Methyl tertiary butyl ether (MTBE)	1634-04-4	8260B	ND		250	20	ug/L	1
Naphthalene	**91-20-3**	**8260B**	**610**		**250**	**85**	**ug/L**	**1**
Toluene	**108-88-3**	**8260B**	**7200**		**250**	**85**	**ug/L**	**1**
Xylenes (total)	**1330-20-7**	**8260B**	**17000**		**250**	**85**	**ug/L**	**1**

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		100	70-130
Bromofluorobenzene		101	70-130
Toluene-d8		97	70-130

Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	50	08/07/2012 1512	BDC		90871

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
Diisopropyl ether (IPE)	108-20-3	8260B	ND		500	20	ug/L	1
Ethanol	64-17-5	8260B	ND		50000	1700	ug/L	1
3,3-Dimethyl-1-butanol	624-95-3	8260B	ND		5000	50	ug/L	1
Ethyl-tert-butyl ether (ETBE)	637-92-3	8260B	ND		5000	10	ug/L	1
tert-Amyl alcohol (TAA)	75-85-4	8260B	ND		5000	340	ug/L	1
tert-Amyl methyl ether (TAME)	994-05-8	8260B	ND		500	10	ug/L	1
tert-butyl alcohol (TBA)	75-65-0	8260B	ND		5000	340	ug/L	1
tert-Butyl formate (TBF)	762-75-4	8260B	ND		5000	50	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
Bromofluorobenzene		101	70-130
1,2-Dichloroethane-d4		100	70-130
Toluene-d8		97	70-130

PQL = Practical quantitation limit
ND = Not detected at or above the MDL
B = Detected in the method blank
J = Estimated result < PQL and ≥ MDL
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%
H = Out of holding time
N = Recovery is out of criteria
Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"
* = Reportable result (only when report all runs)

Client: **SC DHEC - UST Management**
Description: **MW-7**
Date Sampled: **07/30/2012 1157**
Date Received: **07/31/2012**

Laboratory ID: **NG31025-002**
Matrix: **Aqueous**

EDB & DBCP by Microextraction

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	8011	8011	1	08/04/2012 1333	AMB	08/01/2012 0905	90416
2	8011	8011	5	08/05/2012 1614	AMB	08/01/2012 0905	90416

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
1,2-Dibromoethane (EDB)	**106-93-4**	**8011**	**3.3**		**0.10**	**0.10**	**ug/L**	**2**

Surrogate	Q	Run 1 % Recovery	Acceptance Limits	Q	Run 2 % Recovery	Acceptance Limits
1,1,1,2-Tetrachloroethane		104	57-137	N	141	57-137

PQL = Practical quantitation limit
ND = Not detected at or above the MDL
B = Detected in the method blank
J = Estimated result < PQL and ≥ MDL
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%
H = Out of holding time
N = Recovery is out of criteria
Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"
* = Reportable result (only when report all runs)

Client: **SC DHEC - UST Management**
Description: **MW-8**
Date Sampled: **07/30/2012 1112**
Date Received: **07/31/2012**

Laboratory ID: **NG31025-003**
Matrix: **Aqueous**

Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	08/07/2012 1336	BDC		90871

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
Benzene	**71-43-2**	**8260B**	**25**		**5.0**	**0.20**	**ug/L**	**1**
1,2-Dichloroethane	**107-06-2**	**8260B**	**11**		**5.0**	**0.30**	**ug/L**	**1**
Ethylbenzene	100-41-4	8260B	ND		5.0	1.7	ug/L	1
Methyl tertiary butyl ether (MTBE)	1634-04-4	8260B	ND		5.0	0.40	ug/L	1
Naphthalene	**91-20-3**	**8260B**	**4.0**	**J**	**5.0**	**1.7**	**ug/L**	**1**
Toluene	108-88-3	8260B	ND		5.0	1.7	ug/L	1
Xylenes (total)	1330-20-7	8260B	ND		5.0	1.7	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		100	70-130
Bromofluorobenzene		106	70-130
Toluene-d8		96	70-130

Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	08/07/2012 1336	BDC		90871

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
Diisopropyl ether (IPE)	108-20-3	8260B	ND		10	0.40	ug/L	1
Ethanol	64-17-5	8260B	ND		1000	33	ug/L	1
3,3-Dimethyl-1-butanol	624-95-3	8260B	ND		100	1.0	ug/L	1
Ethyl-tert-butyl ether (ETBE)	637-92-3	8260B	ND		100	0.20	ug/L	1
tert-Amyl alcohol (TAA)	**75-85-4**	**8260B**	**870**		**100**	**6.7**	**ug/L**	**1**
tert-Amyl methyl ether (TAME)	994-05-8	8260B	ND		10	0.20	ug/L	1
tert-butyl alcohol (TBA)	**75-65-0**	**8260B**	**46**	**J**	**100**	**6.7**	**ug/L**	**1**
tert-Butyl formate (TBF)	762-75-4	8260B	ND		100	1.0	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
Bromofluorobenzene		106	70-130
1,2-Dichloroethane-d4		100	70-130
Toluene-d8		96	70-130

EDB & DBCP by Microextraction

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	8011	8011	1	08/04/2012 1355	AMB	08/01/2012 0905	90416

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run

PQL = Practical quantitation limit
ND = Not detected at or above the MDL
Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"
B = Detected in the method blank
J = Estimated result < PQL and ≥ MDL
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%
* = Reportable result (only when report all runs)
H = Out of holding time
N = Recovery is out of criteria

Client: **SC DHEC - UST Management**
Description: **MW-8**
Date Sampled: **07/30/2012 1112**
Date Received: **07/31/2012**

Laboratory ID: **NG31025-003**
Matrix: **Aqueous**

EDB & DBCP by Microextraction

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	8011	8011	1	08/04/2012 1355	AMB	08/01/2012 0905	90416

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
1,2-Dibromoethane (EDB)	106-93-4	8011	ND		0.021	0.021	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,1,1,2-Tetrachloroethane		88	57-137

PQL = Practical quantitation limit
ND = Not detected at or above the MDL
B = Detected in the method blank
J = Estimated result < PQL and ≥ MDL
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%
H = Out of holding time
N = Recovery is out of criteria
Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"
* = Reportable result (only when report all runs)

Client: **SC DHEC - UST Management**
Description: **MW-12**
Date Sampled: **07/30/2012 1222**
Date Received: **07/31/2012**

Laboratory ID: **NG31025-004**
Matrix: **Aqueous**

Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	08/07/2012 1400	BDC		90871

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
Benzene	71-43-2	8260B	ND		5.0	0.20	ug/L	1
1,2-Dichloroethane	107-06-2	8260B	ND		5.0	0.30	ug/L	1
Ethylbenzene	100-41-4	8260B	ND		5.0	1.7	ug/L	1
Methyl tertiary butyl ether (MTBE)	1634-04-4	8260B	ND		5.0	0.40	ug/L	1
Naphthalene	91-20-3	8260B	ND		5.0	1.7	ug/L	1
Toluene	108-88-3	8260B	ND		5.0	1.7	ug/L	1
Xylenes (total)	1330-20-7	8260B	ND		5.0	1.7	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		100	70-130
Bromofluorobenzene		104	70-130
Toluene-d8		96	70-130

Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	08/07/2012 1400	BDC		90871

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
Diisopropyl ether (IPE)	108-20-3	8260B	ND		10	0.40	ug/L	1
Ethanol	64-17-5	8260B	ND		1000	33	ug/L	1
3,3-Dimethyl-1-butanol	624-95-3	8260B	ND		100	1.0	ug/L	1
Ethyl-tert-butyl ether (ETBE)	637-92-3	8260B	ND		100	0.20	ug/L	1
tert-Amyl alcohol (TAA)	**75-85-4**	**8260B**	**27**	**J**	**100**	**6.7**	**ug/L**	**1**
tert-Amyl methyl ether (TAME)	994-05-8	8260B	ND		10	0.20	ug/L	1
tert-butyl alcohol (TBA)	75-65-0	8260B	ND		100	6.7	ug/L	1
tert-Butyl formate (TBF)	762-75-4	8260B	ND		100	1.0	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
Bromofluorobenzene		104	70-130
1,2-Dichloroethane-d4		100	70-130
Toluene-d8		96	70-130

EDB & DBCP by Microextraction

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	8011	8011	1	08/04/2012 1416	AMB	08/01/2012 0905	90416

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run

PQL = Practical quantitation limit
ND = Not detected at or above the MDL
B = Detected in the method blank
J = Estimated result < PQL and ≥ MDL
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%
H = Out of holding time
N = Recovery is out of criteria
Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"
* = Reportable result (only when report all runs)

Client: **SC DHEC - UST Management**
Description: **MW-12**
Date Sampled: **07/30/2012 1222**
Date Received: **07/31/2012**

Laboratory ID: **NG31025-004**
Matrix: **Aqueous**

EDB & DBCP by Microextraction

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	8011	8011	1	08/04/2012 1416	AMB	08/01/2012 0905	90416

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
1,2-Dibromoethane (EDB)	106-93-4	8011	ND		0.024	0.024	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,1,1,2-Tetrachloroethane		94	57-137

PQL = Practical quantitation limit
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
H = Out of holding time
ND = Not detected at or above the MDL
J = Estimated result < PQL and ≥ MDL
P = The RPD between two GC columns exceeds 40%
N = Recovery is out of criteria
Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"
* = Reportable result (only when report all runs)

Client: **SC DHEC - UST Management**

Description: **MW-13**

Date Sampled: **07/30/2012 1058**

Date Received: **07/31/2012**

Laboratory ID: **NG31025-005**

Matrix: **Aqueous**

Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	08/07/2012 1424	BDC		90871

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
Benzene	71-43-2	8260B	ND		5.0	0.20	ug/L	1
1,2-Dichloroethane	107-06-2	8260B	ND		5.0	0.30	ug/L	1
Ethylbenzene	100-41-4	8260B	ND		5.0	1.7	ug/L	1
Methyl tertiary butyl ether (MTBE)	1634-04-4	8260B	ND		5.0	0.40	ug/L	1
Naphthalene	91-20-3	8260B	ND		5.0	1.7	ug/L	1
Toluene	108-88-3	8260B	ND		5.0	1.7	ug/L	1
Xylenes (total)	1330-20-7	8260B	ND		5.0	1.7	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		100	70-130
Bromofluorobenzene		104	70-130
Toluene-d8		95	70-130

Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	08/07/2012 1424	BDC		90871

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
Diisopropyl ether (IPE)	108-20-3	8260B	ND		10	0.40	ug/L	1
Ethanol	64-17-5	8260B	ND		1000	33	ug/L	1
3,3-Dimethyl-1-butanol	624-95-3	8260B	ND		100	1.0	ug/L	1
Ethyl-tert-butyl ether (ETBE)	637-92-3	8260B	ND		100	0.20	ug/L	1
tert-Amyl alcohol (TAA)	75-85-4	8260B	ND		100	6.7	ug/L	1
tert-Amyl methyl ether (TAME)	994-05-8	8260B	ND		10	0.20	ug/L	1
tert-butyl alcohol (TBA)	75-65-0	8260B	ND		100	6.7	ug/L	1
tert-Butyl formate (TBF)	762-75-4	8260B	ND		100	1.0	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
Bromofluorobenzene		104	70-130
1,2-Dichloroethane-d4		100	70-130
Toluene-d8		95	70-130

EDB & DBCP by Microextraction

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	8011	8011	1	08/04/2012 1437	AMB	08/01/2012 0905	90416

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run

PQL = Practical quantitation limit
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
H = Out of holding time
ND = Not detected at or above the MDL
J = Estimated result < PQL and ≥ MDL
P = The RPD between two GC columns exceeds 40%
N = Recovery is out of criteria
Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"
* = Reportable result (only when report all runs)

Client: **SC DHEC - UST Management**
Description: **MW-13**
Date Sampled: **07/30/2012 1058**
Date Received: **07/31/2012**

Laboratory ID: **NG31025-005**
Matrix: **Aqueous**

EDB & DBCP by Microextraction

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	8011	8011	1	08/04/2012 1437	AMB	08/01/2012 0905	90416

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
1,2-Dibromoethane (EDB)	106-93-4	8011	ND		0.020	0.020	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,1,1,2-Tetrachloroethane		87	57-137

PQL = Practical quantitation limit
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
H = Out of holding time
ND = Not detected at or above the MDL
J = Estimated result < PQL and ≥ MDL
P = The RPD between two GC columns exceeds 40%
N = Recovery is out of criteria
Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"
* = Reportable result (only when report all runs)

Client: **SC DHEC - UST Management**
Description: **DW-1**
Date Sampled: **07/30/2012 1208**
Date Received: **07/31/2012**

Laboratory ID: **NG31025-006**
Matrix: **Aqueous**

Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
2	5030B	8260B	1	08/09/2012 1601	AAC		91046

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
Benzene	71-43-2	8260B	ND		5.0	0.20	ug/L	2
1,2-Dichloroethane	107-06-2	8260B	ND		5.0	0.30	ug/L	2
Ethylbenzene	100-41-4	8260B	ND		5.0	1.7	ug/L	2
Methyl tertiary butyl ether (MTBE)	1634-04-4	8260B	ND		5.0	0.40	ug/L	2
Naphthalene	91-20-3	8260B	ND		5.0	1.7	ug/L	2
Toluene	108-88-3	8260B	ND		5.0	1.7	ug/L	2
Xylenes (total)	1330-20-7	8260B	ND		5.0	1.7	ug/L	2

Surrogate	Q	Run 2 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		96	70-130
Bromofluorobenzene		101	70-130
Toluene-d8		98	70-130

Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	08/08/2012 0446	DD		90894

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
Diisopropyl ether (IPE)	108-20-3	8260B	ND		10	0.40	ug/L	1
Ethanol	64-17-5	8260B	ND		1000	33	ug/L	1
3,3-Dimethyl-1-butanol	624-95-3	8260B	ND		100	1.0	ug/L	1
Ethyl-tert-butyl ether (ETBE)	637-92-3	8260B	ND		100	0.20	ug/L	1
tert-Amyl alcohol (TAA)	**75-85-4**	**8260B**	**860**		**100**	**6.7**	**ug/L**	**1**
tert-Amyl methyl ether (TAME)	994-05-8	8260B	ND		10	0.20	ug/L	1
tert-butyl alcohol (TBA)	**75-65-0**	**8260B**	**4200**		**100**	**6.7**	**ug/L**	**1**
tert-Butyl formate (TBF)	762-75-4	8260B	ND		100	1.0	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
Bromofluorobenzene		104	70-130
1,2-Dichloroethane-d4		95	70-130
Toluene-d8		102	70-130

EDB & DBCP by Microextraction

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	8011	8011	1	08/04/2012 1458	AMB	08/01/2012 0905	90416

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run

PQL = Practical quantitation limit
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
H = Out of holding time
ND = Not detected at or above the MDL
J = Estimated result < PQL and ≥ MDL
P = The RPD between two GC columns exceeds 40%
N = Recovery is out of criteria
Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"
* = Reportable result (only when report all runs)

Client: SC DHEC - UST Management
Description: DW-1
Date Sampled: 07/30/2012 1208
Date Received: 07/31/2012

Laboratory ID: NG31025-006
Matrix: Aqueous

EDB & DBCP by Microextraction

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	8011	8011	1	08/04/2012 1458	AMB	08/01/2012 0905	90416

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
1,2-Dibromoethane (EDB)	106-93-4	8011	ND		0.020	0.020	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,1,1,2-Tetrachloroethane		100	57-137

PQL = Practical quantitation limit
ND = Not detected at or above the MDL
B = Detected in the method blank
J = Estimated result < PQL and ≥ MDL
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%
H = Out of holding time
N = Recovery is out of criteria
Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"
* = Reportable result (only when report all runs)

Client: **SC DHEC - UST Management**
Description: **DW-6**
Date Sampled: **07/30/2012 1133**
Date Received: **07/31/2012**

Laboratory ID: **NG31025-007**
Matrix: **Aqueous**

Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	08/08/2012 0509	DD		90894

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
Benzene	**71-43-2**	**8260B**	**0.63**	**J**	**5.0**	**0.20**	**ug/L**	**1**
1,2-Dichloroethane	107-06-2	8260B	ND		5.0	0.30	ug/L	1
Ethylbenzene	100-41-4	8260B	ND		5.0	1.7	ug/L	1
Methyl tertiary butyl ether (MTBE)	1634-04-4	8260B	ND		5.0	0.40	ug/L	1
Naphthalene	**91-20-3**	**8260B**	**1.7**	**J**	**5.0**	**1.7**	**ug/L**	**1**
Toluene	108-88-3	8260B	ND		5.0	1.7	ug/L	1
Xylenes (total)	1330-20-7	8260B	ND		5.0	1.7	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		96	70-130
Bromofluorobenzene		106	70-130
Toluene-d8		103	70-130

Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	08/08/2012 0509	DD		90894

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
Diisopropyl ether (IPE)	108-20-3	8260B	ND		10	0.40	ug/L	1
Ethanol	64-17-5	8260B	ND		1000	33	ug/L	1
3,3-Dimethyl-1-butanol	624-95-3	8260B	ND		100	1.0	ug/L	1
Ethyl-tert-butyl ether (ETBE)	637-92-3	8260B	ND		100	0.20	ug/L	1
tert-Amyl alcohol (TAA)	**75-85-4**	**8260B**	**21**	**J**	**100**	**6.7**	**ug/L**	**1**
tert-Amyl methyl ether (TAME)	994-05-8	8260B	ND		10	0.20	ug/L	1
tert-butyl alcohol (TBA)	**75-65-0**	**8260B**	**130**		**100**	**6.7**	**ug/L**	**1**
tert-Butyl formate (TBF)	762-75-4	8260B	ND		100	1.0	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
Bromofluorobenzene		106	70-130
1,2-Dichloroethane-d4		96	70-130
Toluene-d8		103	70-130

EDB & DBCP by Microextraction

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	8011	8011	1	08/04/2012 1520	AMB	08/01/2012 0905	90416

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run

PQL = Practical quantitation limit
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
H = Out of holding time
ND = Not detected at or above the MDL
J = Estimated result < PQL and ≥ MDL
P = The RPD between two GC columns exceeds 40%
N = Recovery is out of criteria
Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"
* = Reportable result (only when report all runs)

Client: **SC DHEC - UST Management**

Description: **DW-6**

Date Sampled: **07/30/2012 1133**

Date Received: **07/31/2012**

Laboratory ID: **NG31025-007**

Matrix: **Aqueous**

EDB & DBCP by Microextraction

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	8011	8011	1	08/04/2012 1520	AMB	08/01/2012 0905	90416

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
1,2-Dibromoethane (EDB)	106-93-4	8011	ND		0.020	0.020	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,1,1,2-Tetrachloroethane		94	57-137

PQL = Practical quantitation limit
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
H = Out of holding time
ND = Not detected at or above the MDL
J = Estimated result < PQL and ≥ MDL
P = The RPD between two GC columns exceeds 40%
N = Recovery is out of criteria
Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"
* = Reportable result (only when report all runs)

Client: **SC DHEC - UST Management**
Description: **MW-1 Dup**
Date Sampled: **07/30/2012 1145**
Date Received: **07/31/2012**

Laboratory ID: **NG31025-008**
Matrix: **Aqueous**

Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	100	08/08/2012 0532	DD		90894

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
Benzene	**71-43-2**	**8260B**	**930**		**500**	**20**	**ug/L**	**1**
1,2-Dichloroethane	107-06-2	8260B	ND		500	30	ug/L	1
Ethylbenzene	**100-41-4**	**8260B**	**940**		**500**	**170**	**ug/L**	**1**
Methyl tertiary butyl ether (MTBE)	**1634-04-4**	**8260B**	**140**	**J**	**500**	**40**	**ug/L**	**1**
Naphthalene	**91-20-3**	**8260B**	**220**	**J**	**500**	**170**	**ug/L**	**1**
Toluene	**108-88-3**	**8260B**	**6200**		**500**	**170**	**ug/L**	**1**
Xylenes (total)	**1330-20-7**	**8260B**	**6000**		**500**	**170**	**ug/L**	**1**

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		96	70-130
Bromofluorobenzene		105	70-130
Toluene-d8		101	70-130

Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	100	08/08/2012 0532	DD		90894

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
Diisopropyl ether (IPE)	108-20-3	8260B	ND		1000	40	ug/L	1
Ethanol	64-17-5	8260B	ND		100000	3300	ug/L	1
3,3-Dimethyl-1-butanol	624-95-3	8260B	ND		10000	100	ug/L	1
Ethyl-tert-butyl ether (ETBE)	637-92-3	8260B	ND		10000	20	ug/L	1
tert-Amyl alcohol (TAA)	**75-85-4**	**8260B**	**790**	**J**	**10000**	**670**	**ug/L**	**1**
tert-Amyl methyl ether (TAME)	994-05-8	8260B	ND		1000	20	ug/L	1
tert-butyl alcohol (TBA)	75-65-0	8260B	ND		10000	670	ug/L	1
tert-Butyl formate (TBF)	762-75-4	8260B	ND		10000	100	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
Bromofluorobenzene		105	70-130
1,2-Dichloroethane-d4		96	70-130
Toluene-d8		101	70-130

EDB & DBCP by Microextraction

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	8011	8011	1	08/04/2012 1541	AMB	08/01/2012 0905	90416

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run

PQL = Practical quantitation limit
ND = Not detected at or above the MDL
B = Detected in the method blank
J = Estimated result < PQL and ≥ MDL
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%
H = Out of holding time
N = Recovery is out of criteria
Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"
* = Reportable result (only when report all runs)

Client: **SC DHEC - UST Management**
Description: **MW-1 Dup**
Date Sampled: **07/30/2012 1145**
Date Received: **07/31/2012**

Laboratory ID: **NG31025-008**
Matrix: **Aqueous**

EDB & DBCP by Microextraction

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	8011	8011	1	08/04/2012 1541	AMB	08/01/2012 0905	90416

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
1,2-Dibromoethane (EDB)	106-93-4	8011	ND		0.019	0.019	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,1,1,2-Tetrachloroethane		119	57-137

PQL = Practical quantitation limit
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
H = Out of holding time
ND = Not detected at or above the MDL
J = Estimated result < PQL and ≥ MDL
P = The RPD between two GC columns exceeds 40%
N = Recovery is out of criteria
Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"
* = Reportable result (only when report all runs)

Client: **SC DHEC - UST Management**
Description: **Field Blank**
Date Sampled: **07/30/2012 1051**
Date Received: **07/31/2012**

Laboratory ID: **NG31025-009**
Matrix: **Aqueous**

Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	08/07/2012 2252	DD		90894

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
Benzene	71-43-2	8260B	ND		5.0	0.20	ug/L	1
1,2-Dichloroethane	107-06-2	8260B	ND		5.0	0.30	ug/L	1
Ethylbenzene	100-41-4	8260B	ND		5.0	1.7	ug/L	1
Methyl tertiary butyl ether (MTBE)	1634-04-4	8260B	ND		5.0	0.40	ug/L	1
Naphthalene	91-20-3	8260B	ND		5.0	1.7	ug/L	1
Toluene	108-88-3	8260B	ND		5.0	1.7	ug/L	1
Xylenes (total)	1330-20-7	8260B	ND		5.0	1.7	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		102	70-130
Bromofluorobenzene		105	70-130
Toluene-d8		99	70-130

Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	08/07/2012 2252	DD		90894

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
Diisopropyl ether (IPE)	108-20-3	8260B	ND		10	0.40	ug/L	1
Ethanol	64-17-5	8260B	ND		1000	33	ug/L	1
3,3-Dimethyl-1-butanol	624-95-3	8260B	ND		100	1.0	ug/L	1
Ethyl-tert-butyl ether (ETBE)	**637-92-3**	**8260B**	**0.25**	**J**	**100**	**0.20**	**ug/L**	**1**
tert-Amyl alcohol (TAA)	75-85-4	8260B	ND		100	6.7	ug/L	1
tert-Amyl methyl ether (TAME)	994-05-8	8260B	ND		10	0.20	ug/L	1
tert-butyl alcohol (TBA)	75-65-0	8260B	ND		100	6.7	ug/L	1
tert-Butyl formate (TBF)	762-75-4	8260B	ND		100	1.0	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
Bromofluorobenzene		105	70-130
1,2-Dichloroethane-d4		102	70-130
Toluene-d8		99	70-130

EDB & DBCP by Microextraction

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	8011	8011	1	08/04/2012 1602	AMB	08/01/2012 0905	90416

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run

PQL = Practical quantitation limit
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
H = Out of holding time
ND = Not detected at or above the MDL
J = Estimated result < PQL and ≥ MDL
P = The RPD between two GC columns exceeds 40%
N = Recovery is out of criteria
Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"
* = Reportable result (only when report all runs)

EDB & DBCP by Microextraction

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	8011	8011	1	08/04/2012 1602	AMB	08/01/2012 0905	90416

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
1,2-Dibromoethane (EDB)	106-93-4	8011	ND		0.019	0.019	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,1,1,2-Tetrachloroethane		101	57-137

PQL = Practical quantitation limit
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
H = Out of holding time
ND = Not detected at or above the MDL
J = Estimated result < PQL and ≥ MDL
P = The RPD between two GC columns exceeds 40%
N = Recovery is out of criteria
Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"
* = Reportable result (only when report all runs)

Client: **SC DHEC - UST Management**

Description: **Trip Blank**

Date Sampled: **07/30/2012 1052**

Date Received: **07/31/2012**

Laboratory ID: **NG31025-010**

Matrix: **Aqueous**

Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	08/07/2012 2315	DD		90894

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
Benzene	71-43-2	8260B	ND		5.0	0.20	ug/L	1
1,2-Dichloroethane	107-06-2	8260B	ND		5.0	0.30	ug/L	1
Ethylbenzene	100-41-4	8260B	ND		5.0	1.7	ug/L	1
Methyl tertiary butyl ether (MTBE)	1634-04-4	8260B	ND		5.0	0.40	ug/L	1
Naphthalene	91-20-3	8260B	ND		5.0	1.7	ug/L	1
Toluene	108-88-3	8260B	ND		5.0	1.7	ug/L	1
Xylenes (total)	1330-20-7	8260B	ND		5.0	1.7	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		101	70-130
Bromofluorobenzene		103	70-130
Toluene-d8		99	70-130

Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	08/07/2012 2315	DD		90894

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
Diisopropyl ether (IPE)	108-20-3	8260B	ND		10	0.40	ug/L	1
Ethanol	64-17-5	8260B	ND		1000	33	ug/L	1
3,3-Dimethyl-1-butanol	624-95-3	8260B	ND		100	1.0	ug/L	1
Ethyl-tert-butyl ether (ETBE)	637-92-3	8260B	ND		100	0.20	ug/L	1
tert-Amyl alcohol (TAA)	75-85-4	8260B	ND		100	6.7	ug/L	1
tert-Amyl methyl ether (TAME)	994-05-8	8260B	ND		10	0.20	ug/L	1
tert-butyl alcohol (TBA)	75-65-0	8260B	ND		100	6.7	ug/L	1
tert-Butyl formate (TBF)	762-75-4	8260B	ND		100	1.0	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
Bromofluorobenzene		103	70-130
1,2-Dichloroethane-d4		101	70-130
Toluene-d8		99	70-130

PQL = Practical quantitation limit
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
H = Out of holding time
ND = Not detected at or above the MDL
J = Estimated result < PQL and ≥ MDL
P = The RPD between two GC columns exceeds 40%
N = Recovery is out of criteria
Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"
* = Reportable result (only when report all runs)

QC Summary

Volatile Organic Compounds by GC/MS - MB

Sample ID: NQ90871-001
Batch: 90871
Analytical Method: 8260B
Matrix: Aqueous
Prep Method: 5030B

Parameter	Result	Q	Dil	PQL	MDL	Units	Analysis Date
tert-Amyl alcohol (TAA)	ND		1	100	6.7	ug/L	08/07/2012 0925
tert-Amyl methyl ether (TAME)	ND		1	10	0.20	ug/L	08/07/2012 0925
tert-Butyl formate (TBF)	ND		1	100	1.0	ug/L	08/07/2012 0925
Diisopropyl ether (IPE)	ND		1	10	0.40	ug/L	08/07/2012 0925
3,3-Dimethyl-1-butanol	ND		1	100	1.0	ug/L	08/07/2012 0925
Ethanol	ND		1	1000	33	ug/L	08/07/2012 0925
Ethyl-tert-butyl ether (ETBE)	ND		1	100	0.20	ug/L	08/07/2012 0925
tert-butyl alcohol (TBA)	ND		1	100	6.7	ug/L	08/07/2012 0925

Surrogate	Q	% Rec	Acceptance Limit
Bromofluorobenzene		103	70-130
1,2-Dichloroethane-d4		99	70-130
Toluene-d8		99	70-130

Volatile Organic Compounds by GC/MS - LCS

Sample ID: NQ90871-002
Batch: 90871
Analytical Method: 8260B
Matrix: Aqueous
Prep Method: 5030B

Parameter	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
tert-Amyl alcohol (TAA)	1000	900		1	90	70-130	08/07/2012 0751
tert-Amyl methyl ether (TAME)	50	53		1	106	70-130	08/07/2012 0751
tert-Butyl formate (TBF)	250	270		1	108	70-130	08/07/2012 0751
Diisopropyl ether (IPE)	50	53		1	106	70-130	08/07/2012 0751
3,3-Dimethyl-1-butanol	1000	960		1	96	70-130	08/07/2012 0751
Ethanol	5000	4800		1	95	70-130	08/07/2012 0751
Ethyl-tert-butyl ether (ETBE)	50	50		1	101	70-130	08/07/2012 0751
tert-butyl alcohol (TBA)	1000	860		1	86	70-130	08/07/2012 0751

Surrogate	Q	% Rec	Acceptance Limit
Bromofluorobenzene		98	70-130
1,2-Dichloroethane-d4		97	70-130
Toluene-d8		101	70-130

PQL = Practical quantitation limit
ND = Not detected at or above the MDL
P = The RPD between two GC columns exceeds 40%
J = Estimated result < PQL and ≥ MDL
N - Recovery is out of criteria
\+ - RPD is out of criteria
Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - LCSD

Sample ID: NQ90871-003
Batch: 90871
Analytical Method: 8260B
Matrix: Aqueous
Prep Method: 5030B

Parameter	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% RPD	% Rec Limit	% RPD Limit	Analysis Date
tert-Amyl alcohol (TAA)	1000	960		1	96	7.2	70-130	20	08/07/2012 0815
tert-Amyl methyl ether (TAME)	50	55		1	109	3.2	70-130	20	08/07/2012 0815
tert-Butyl formate (TBF)	250	280		1	112	3.7	70-130	20	08/07/2012 0815
Diisopropyl ether (IPE)	50	54		1	109	2.5	70-130	20	08/07/2012 0815
3,3-Dimethyl-1-butanol	1000	1000		1	103	7.4	70-130	20	08/07/2012 0815
Ethanol	5000	5200		1	103	8.1	70-130	20	08/07/2012 0815
Ethyl-tert-butyl ether (ETBE)	50	52		1	104	3.3	70-130	20	08/07/2012 0815
tert-butyl alcohol (TBA)	1000	930		1	93	7.4	70-130	20	08/07/2012 0815

Surrogate	Q	% Rec	Acceptance Limit
Bromofluorobenzene		100	70-130
1,2-Dichloroethane-d4		98	70-130
Toluene-d8		100	70-130

Volatile Organic Compounds by GC/MS - Duplicate

Sample ID: NG31025-001DU
Batch: 90871
Analytical Method: 8260B
Matrix: Aqueous
Prep Method: 5030B

Parameter	Sample Amount (ug/L)	Result (ug/L)	Q	Dil	% RPD	% RPD Limit	Analysis Date
Diisopropyl ether (IPE)	ND	ND		100	0.00	20	08/07/2012 1758
Ethanol	ND	ND		100	0.00	20	08/07/2012 1758
3,3-Dimethyl-1-butanol	ND	ND		100	0.00	20	08/07/2012 1758
Ethyl-tert-butyl ether (ETBE)	ND	ND		100	0.00	20	08/07/2012 1758
tert-Amyl alcohol (TAA)	1300	ND		100	0.00	20	08/07/2012 1758
tert-Amyl methyl ether (TAME)	ND	ND		100	0.00	20	08/07/2012 1758
tert-butyl alcohol (TBA)	ND	ND		100	0.00	20	08/07/2012 1758
tert-Butyl formate (TBF)	ND	ND		100	0.00	20	08/07/2012 1758

Surrogate	Q	% Rec	Acceptance Limit
Bromofluorobenzene		105	70-130
1,2-Dichloroethane-d4		104	70-130
Toluene-d8		99	70-130

PQL = Practical quantitation limit
P = The RPD between two GC columns exceeds 40%
N - Recovery is out of criteria
ND = Not detected at or above the MDL
J = Estimated result < PQL and ≥ MDL
+ - RPD is out of criteria
Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - MS

Sample ID: NG31025-002MS
Batch: 90871
Analytical Method: 8260B
Matrix: Aqueous
Prep Method: 5030B

Parameter	Sample Amount (ug/L)	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Diisopropyl ether (IPE)	ND	2500	2600		50	103	70-130	08/07/2012 1822
Ethanol	ND	250000	140000	N	50	54	70-130	08/07/2012 1822
3,3-Dimethyl-1-butanol	ND	50000	43000		50	87	70-130	08/07/2012 1822
Ethyl-tert-butyl ether (ETBE)	ND	2500	2500		50	98	70-130	08/07/2012 1822
tert-Amyl alcohol (TAA)	ND	50000	42000		50	83	70-130	08/07/2012 1822
tert-Amyl methyl ether (TAME)	ND	2500	2600		50	104	70-130	08/07/2012 1822
tert-butyl alcohol (TBA)	ND	50000	40000		50	80	70-130	08/07/2012 1822
tert-Butyl formate (TBF)	ND	13000	11000		50	84	70-130	08/07/2012 1822

Surrogate	Q	% Rec	Acceptance Limit
Bromofluorobenzene		100	70-130
1,2-Dichloroethane-d4		102	70-130
Toluene-d8		100	70-130

Volatile Organic Compounds by GC/MS - MB

Sample ID: NQ90871-001
Batch: 90871
Analytical Method: 8260B
Matrix: Aqueous
Prep Method: 5030B

Parameter	Result	Q	Dil	PQL	MDL	Units	Analysis Date
Benzene	ND		1	5.0	0.20	ug/L	08/07/2012 0925
1,2-Dichloroethane	ND		1	5.0	0.30	ug/L	08/07/2012 0925
Ethylbenzene	ND		1	5.0	1.7	ug/L	08/07/2012 0925
Methyl tertiary butyl ether (MTBE)	ND		1	5.0	0.40	ug/L	08/07/2012 0925
Naphthalene	ND		1	5.0	1.7	ug/L	08/07/2012 0925
Toluene	ND		1	5.0	1.7	ug/L	08/07/2012 0925
Xylenes (total)	ND		1	5.0	1.7	ug/L	08/07/2012 0925

Surrogate	Q	% Rec	Acceptance Limit
Bromofluorobenzene		103	70-130
1,2-Dichloroethane-d4		99	70-130
Toluene-d8		99	70-130

PQL = Practical quantitation limit
P = The RPD between two GC columns exceeds 40%
N - Recovery is out of criteria
ND = Not detected at or above the MDL
J = Estimated result < PQL and ≥ MDL
+ - RPD is out of criteria
Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - LCS

Sample ID: NQ90871-002
Batch: 90871
Analytical Method: 8260B

Matrix: Aqueous
Prep Method: 5030B

Parameter	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Benzene	50	50		1	101	70-130	08/07/2012 0751
1,2-Dichloroethane	50	49		1	97	70-130	08/07/2012 0751
Ethylbenzene	50	51		1	102	70-130	08/07/2012 0751
Methyl tertiary butyl ether (MTBE)	50	52		1	105	70-130	08/07/2012 0751
Naphthalene	50	52		1	104	70-130	08/07/2012 0751
Toluene	50	49		1	99	70-130	08/07/2012 0751
Xylenes (total)	100	100		1	101	70-130	08/07/2012 0751

Surrogate	Q	% Rec	Acceptance Limit
Bromofluorobenzene		98	70-130
1,2-Dichloroethane-d4		97	70-130
Toluene-d8		101	70-130

Volatile Organic Compounds by GC/MS - LCSD

Sample ID: NQ90871-003
Batch: 90871
Analytical Method: 8260B

Matrix: Aqueous
Prep Method: 5030B

Parameter	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% RPD	% Rec Limit	% RPD Limit	Analysis Date
Benzene	50	51		1	102	1.2	70-130	20	08/07/2012 0815
1,2-Dichloroethane	50	50		1	100	3.1	70-130	20	08/07/2012 0815
Ethylbenzene	50	51		1	102	0.16	70-130	20	08/07/2012 0815
Methyl tertiary butyl ether (MTBE)	50	55		1	109	4.2	70-130	20	08/07/2012 0815
Naphthalene	50	53		1	107	2.2	70-130	20	08/07/2012 0815
Toluene	50	49		1	98	0.94	70-130	20	08/07/2012 0815
Xylenes (total)	100	100		1	101	0.42	70-130	20	08/07/2012 0815

Surrogate	Q	% Rec	Acceptance Limit
Bromofluorobenzene		100	70-130
1,2-Dichloroethane-d4		98	70-130
Toluene-d8		100	70-130

PQL = Practical quantitation limit | P = The RPD between two GC columns exceeds 40% | N - Recovery is out of criteria

ND = Not detected at or above the MDL | J = Estimated result < PQL and ≥ MDL | + - RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - Duplicate

Sample ID: NG31025-001DU
Batch: 90871
Analytical Method: 8260B

Matrix: Aqueous
Prep Method: 5030B

Parameter	Sample Amount (ug/L)	Result (ug/L)	Q	Dil	% RPD	% RPD Limit	Analysis Date
Benzene	1500	1500		100	1.3	20	08/07/2012 1758
1,2-Dichloroethane	ND	ND		100	0.00	20	08/07/2012 1758
Ethylbenzene	1900	2000		100	1.8	20	08/07/2012 1758
Methyl tertiary butyl ether (MTBE)	ND	ND		100	0.00	20	08/07/2012 1758
Naphthalene	250	240	J	100	5.5	20	08/07/2012 1758
Toluene	11000	11000		100	1.1	20	08/07/2012 1758
Xylenes (total)	11000	11000		100	1.8	20	08/07/2012 1758

Surrogate	Q	% Rec	Acceptance Limit
1,2-Dichloroethane-d4		104	70-130
Bromofluorobenzene		105	70-130
Toluene-d8		99	70-130

Volatile Organic Compounds by GC/MS - MS

Sample ID: NG31025-002MS
Batch: 90871
Analytical Method: 8260B

Matrix: Aqueous
Prep Method: 5030B

Parameter	Sample Amount (ug/L)	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Benzene	3800	2500	6000		50	89	70-130	08/07/2012 1822
1,2-Dichloroethane	ND	2500	2700		50	109	70-130	08/07/2012 1822
Ethylbenzene	2800	2500	5200		50	97	70-130	08/07/2012 1822
Methyl tertiary butyl ether (MTBE)	ND	2500	2600		50	103	70-130	08/07/2012 1822
Naphthalene	610	2500	2900		50	93	70-130	08/07/2012 1822
Toluene	7200	2500	9400		50	89	70-130	08/07/2012 1822
Xylenes (total)	17000	5000	21000		50	84	70-130	08/07/2012 1822

Surrogate	Q	% Rec	Acceptance Limit
1,2-Dichloroethane-d4		102	70-130
Bromofluorobenzene		100	70-130
Toluene-d8		100	70-130

PQL = Practical quantitation limit
P = The RPD between two GC columns exceeds 40%
N - Recovery is out of criteria
ND = Not detected at or above the MDL
J = Estimated result < PQL and ≥ MDL
+ - RPD is out of criteria
Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - MB

Sample ID: NQ90894-001
Batch: 90894
Analytical Method: 8260B
Matrix: Aqueous
Prep Method: 5030B

Parameter	Result	Q	Dil	PQL	MDL	Units	Analysis Date
tert-Amyl alcohol (TAA)	ND		1	100	6.7	ug/L	08/07/2012 2215
tert-Amyl methyl ether (TAME)	ND		1	10	0.20	ug/L	08/07/2012 2215
tert-Butyl formate (TBF)	ND		1	100	1.0	ug/L	08/07/2012 2215
Diisopropyl ether (IPE)	ND		1	10	0.40	ug/L	08/07/2012 2215
3,3-Dimethyl-1-butanol	ND		1	100	1.0	ug/L	08/07/2012 2215
Ethanol	ND		1	1000	33	ug/L	08/07/2012 2215
Ethyl-tert-butyl ether (ETBE)	ND		1	100	0.20	ug/L	08/07/2012 2215
tert-butyl alcohol (TBA)	ND		1	100	6.7	ug/L	08/07/2012 2215

Surrogate	Q	% Rec	Acceptance Limit
Bromofluorobenzene		102	70-130
1,2-Dichloroethane-d4		99	70-130
Toluene-d8		99	70-130

Volatile Organic Compounds by GC/MS - LCS

Sample ID: NQ90894-002
Batch: 90894
Analytical Method: 8260B
Matrix: Aqueous
Prep Method: 5030B

Parameter	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
tert-Amyl alcohol (TAA)	1000	860		1	86	70-130	08/07/2012 2042
tert-Amyl methyl ether (TAME)	50	53		1	107	70-130	08/07/2012 2042
tert-Butyl formate (TBF)	250	260		1	104	70-130	08/07/2012 2042
Diisopropyl ether (IPE)	50	53		1	106	70-130	08/07/2012 2042
3,3-Dimethyl-1-butanol	1000	930		1	93	70-130	08/07/2012 2042
Ethanol	5000	4500		1	90	70-130	08/07/2012 2042
Ethyl-tert-butyl ether (ETBE)	50	50		1	100	70-130	08/07/2012 2042
tert-butyl alcohol (TBA)	1000	840		1	84	70-130	08/07/2012 2042

Surrogate	Q	% Rec	Acceptance Limit
Bromofluorobenzene		101	70-130
1,2-Dichloroethane-d4		99	70-130
Toluene-d8		99	70-130

PQL = Practical quantitation limit
ND = Not detected at or above the MDL
P = The RPD between two GC columns exceeds 40%
J = Estimated result < PQL and ≥ MDL
N - Recovery is out of criteria
+ - RPD is out of criteria
Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - LCSD

Sample ID: NQ90894-003
Batch: 90894
Analytical Method: 8260B
Matrix: Aqueous
Prep Method: 5030B

Parameter	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% RPD	% Rec Limit	% RPD Limit	Analysis Date
tert-Amyl alcohol (TAA)	1000	870		1	87	1.0	70-130	20	08/07/2012 2105
tert-Amyl methyl ether (TAME)	50	52		1	104	2.5	70-130	20	08/07/2012 2105
tert-Butyl formate (TBF)	250	260		1	104	0.55	70-130	20	08/07/2012 2105
Diisopropyl ether (IPE)	50	52		1	103	2.5	70-130	20	08/07/2012 2105
3,3-Dimethyl-1-butanol	1000	940		1	94	1.1	70-130	20	08/07/2012 2105
Ethanol	5000	4700		1	94	4.2	70-130	20	08/07/2012 2105
Ethyl-tert-butyl ether (ETBE)	50	49		1	98	2.2	70-130	20	08/07/2012 2105
tert-butyl alcohol (TBA)	1000	850		1	85	0.71	70-130	20	08/07/2012 2105

Surrogate	Q	% Rec	Acceptance Limit
Bromofluorobenzene		100	70-130
1,2-Dichloroethane-d4		97	70-130
Toluene-d8		99	70-130

Volatile Organic Compounds by GC/MS - Duplicate

Sample ID: NG31025-008DU
Batch: 90894
Analytical Method: 8260B
Matrix: Aqueous
Prep Method: 5030B

Parameter	Sample Amount (ug/L)	Result (ug/L)	Q	Dil	% RPD	% RPD Limit	Analysis Date
Diisopropyl ether (IPE)	ND	ND		100	0.00	20	08/08/2012 0619
Ethanol	ND	ND		100	0.00	20	08/08/2012 0619
3,3-Dimethyl-1-butanol	ND	ND		100	0.00	20	08/08/2012 0619
Ethyl-tert-butyl ether (ETBE)	ND	ND		100	0.00	20	08/08/2012 0619
tert-Amyl alcohol (TAA)	790	760	J	100	3.6	20	08/08/2012 0619
tert-Amyl methyl ether (TAME)	ND	ND		100	0.00	20	08/08/2012 0619
tert-butyl alcohol (TBA)	ND	ND		100	0.00	20	08/08/2012 0619
tert-Butyl formate (TBF)	ND	ND		100	0.00	20	08/08/2012 0619

Surrogate	Q	% Rec	Acceptance Limit
Bromofluorobenzene		104	70-130
1,2-Dichloroethane-d4		97	70-130
Toluene-d8		101	70-130

PQL = Practical quantitation limit
P = The RPD between two GC columns exceeds 40%
N - Recovery is out of criteria
ND = Not detected at or above the MDL
J = Estimated result < PQL and ≥ MDL
+ - RPD is out of criteria
Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - MS

Sample ID: NG31025-008MS
Batch: 90894
Analytical Method: 8260B

Matrix: Aqueous
Prep Method: 5030B

Parameter	Sample Amount (ug/L)	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Diisopropyl ether (IPE)	ND	5000	6100		100	123	70-130	08/08/2012 0643
Ethanol	ND	500000	140000	N	100	29	70-130	08/08/2012 0643
3,3-Dimethyl-1-butanol	ND	100000	64000	N	100	64	70-130	08/08/2012 0643
Ethyl-tert-butyl ether (ETBE)	ND	5000	5700		100	115	70-130	08/08/2012 0643
tert-Amyl alcohol (TAA)	790	100000	60000	N	100	59	70-130	08/08/2012 0643
tert-Amyl methyl ether (TAME)	ND	5000	6000		100	121	70-130	08/08/2012 0643
tert-butyl alcohol (TBA)	ND	100000	58000	N	100	58	70-130	08/08/2012 0643
tert-Butyl formate (TBF)	ND	25000	26000		100	104	70-130	08/08/2012 0643

Surrogate	Q	% Rec	Acceptance Limit
Bromofluorobenzene		101	70-130
1,2-Dichloroethane-d4		97	70-130
Toluene-d8		101	70-130

Volatile Organic Compounds by GC/MS - MB

Sample ID: NQ90894-001
Batch: 90894
Analytical Method: 8260B

Matrix: Aqueous
Prep Method: 5030B

Parameter	Result	Q	Dil	PQL	MDL	Units	Analysis Date
Benzene	ND		1	5.0	0.20	ug/L	08/07/2012 2215
1,2-Dichloroethane	ND		1	5.0	0.30	ug/L	08/07/2012 2215
Ethylbenzene	ND		1	5.0	1.7	ug/L	08/07/2012 2215
Methyl tertiary butyl ether (MTBE)	ND		1	5.0	0.40	ug/L	08/07/2012 2215
Naphthalene	ND		1	5.0	1.7	ug/L	08/07/2012 2215
Toluene	ND		1	5.0	1.7	ug/L	08/07/2012 2215
Xylenes (total)	ND		1	5.0	1.7	ug/L	08/07/2012 2215

Surrogate	Q	% Rec	Acceptance Limit
Bromofluorobenzene		102	70-130
1,2-Dichloroethane-d4		99	70-130
Toluene-d8		99	70-130

PQL = Practical quantitation limit　P = The RPD between two GC columns exceeds 40%　N - Recovery is out of criteria

ND = Not detected at or above the MDL　J = Estimated result < PQL and ≥ MDL　+ - RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - LCS

•Sample ID: NQ90894-002
Batch: 90894
Analytical Method: 8260B
Matrix: Aqueous
Prep Method: 5030B

Parameter	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Benzene	50	50		1	100	70-130	08/07/2012 2042
1,2-Dichloroethane	50	50		1	100	70-130	08/07/2012 2042
Ethylbenzene	50	51		1	102	70-130	08/07/2012 2042
Methyl tertiary butyl ether (MTBE)	50	53		1	106	70-130	08/07/2012 2042
Naphthalene	50	50		1	100	70-130	08/07/2012 2042
Toluene	50	49		1	97	70-130	08/07/2012 2042
Xylenes (total)	100	100		1	102	70-130	08/07/2012 2042

Surrogate	Q	% Rec	Acceptance Limit
Bromofluorobenzene		101	70-130
1,2-Dichloroethane-d4		99	70-130
Toluene-d8		99	70-130

Volatile Organic Compounds by GC/MS - LCSD

Sample ID: NQ90894-003
Batch: 90894
Analytical Method: 8260B
Matrix: Aqueous
Prep Method: 5030B

Parameter	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% RPD	% Rec Limit	% RPD Limit	Analysis Date
Benzene	50	49		1	98	2.1	70-130	20	08/07/2012 2105
1,2-Dichloroethane	50	49		1	98	1.5	70-130	20	08/07/2012 2105
Ethylbenzene	50	50		1	100	1.6	70-130	20	08/07/2012 2105
Methyl tertiary butyl ether (MTBE)	50	52		1	104	1.7	70-130	20	08/07/2012 2105
Naphthalene	50	51		1	101	0.64	70-130	20	08/07/2012 2105
Toluene	50	48		1	95	2.1	70-130	20	08/07/2012 2105
Xylenes (total)	100	100		1	100	1.8	70-130	20	08/07/2012 2105

Surrogate	Q	% Rec	Acceptance Limit
Bromofluorobenzene		100	70-130
1,2-Dichloroethane-d4		97	70-130
Toluene-d8		99	70-130

PQL = Practical quantitation limit
P = The RPD between two GC columns exceeds 40%
N - Recovery is out of criteria
ND = Not detected at or above the MDL
J = Estimated result < PQL and ≥ MDL
+ - RPD is out of criteria
Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - Duplicate

Sample ID: NG31025-008DU
Batch: 90894
Analytical Method: 8260B
Matrix: Aqueous
Prep Method: 5030B

Parameter	Sample Amount (ug/L)	Result (ug/L)	Q	Dil	% RPD	% RPD Limit	Analysis Date
Benzene	930	1000		100	9.9	20	08/08/2012 0619
1,2-Dichloroethane	ND	ND		100	0.00	20	08/08/2012 0619
Ethylbenzene	940	1100		100	12	20	08/08/2012 0619
Methyl tertiary butyl ether (MTBE)	140	150	J	100	5.3	20	08/08/2012 0619
Naphthalene	220	190	J	100	13	20	08/08/2012 0619
Toluene	6200	7000		100	12	20	08/08/2012 0619
Xylenes (total)	6000	6700		100	12	20	08/08/2012 0619

Surrogate	Q	% Rec	Acceptance Limit
1,2-Dichloroethane-d4		97	70-130
Bromofluorobenzene		104	70-130
Toluene-d8		101	70-130

Volatile Organic Compounds by GC/MS - MS

Sample ID: NG31025-008MS
Batch: 90894
Analytical Method: 8260B
Matrix: Aqueous
Prep Method: 5030B

Parameter	Sample Amount (ug/L)	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Benzene	930	5000	6800		100	118	70-130	08/08/2012 0643
1,2-Dichloroethane	ND	5000	5400		100	108	70-130	08/08/2012 0643
Ethylbenzene	940	5000	6800		100	117	70-130	08/08/2012 0643
Methyl tertiary butyl ether (MTBE)	140	5000	6000		100	118	70-130	08/08/2012 0643
Naphthalene	220	5000	4500		100	86	70-130	08/08/2012 0643
Toluene	6200	5000	12000		100	125	70-130	08/08/2012 0643
Xylenes (total)	6000	10000	18000		100	120	70-130	08/08/2012 0643

Surrogate	Q	% Rec	Acceptance Limit
1,2-Dichloroethane-d4		97	70-130
Bromofluorobenzene		101	70-130
Toluene-d8		101	70-130

PQL = Practical quantitation limit
ND = Not detected at or above the MDL
P = The RPD between two GC columns exceeds 40%
J = Estimated result < PQL and ≥ MDL
N - Recovery is out of criteria
+ - RPD is out of criteria
Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - MB

Sample ID: NQ91046-001
Batch: 91046
Analytical Method: 8260B
Matrix: Aqueous
Prep Method: 5030B

Parameter	Result	Q	Dil	PQL	MDL	Units	Analysis Date
Benzene	ND		1	5.0	0.20	ug/L	08/09/2012 1320
1,2-Dichloroethane	ND		1	5.0	0.30	ug/L	08/09/2012 1320
Ethylbenzene	ND		1	5.0	1.7	ug/L	08/09/2012 1320
Methyl tertiary butyl ether (MTBE)	ND		1	5.0	0.40	ug/L	08/09/2012 1320
Naphthalene	ND		1	5.0	1.7	ug/L	08/09/2012 1320
Toluene	ND		1	5.0	1.7	ug/L	08/09/2012 1320
Xylenes (total)	ND		1	5.0	1.7	ug/L	08/09/2012 1320

Surrogate	Q	% Rec	Acceptance Limit
Bromofluorobenzene		106	70-130
1,2-Dichloroethane-d4		95	70-130
Toluene-d8		96	70-130

Volatile Organic Compounds by GC/MS - LCS

Sample ID: NQ91046-002
Batch: 91046
Analytical Method: 8260B
Matrix: Aqueous
Prep Method: 5030B

Parameter	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Benzene	50	47		1	95	70-130	08/09/2012 1039
1,2-Dichloroethane	50	44		1	89	70-130	08/09/2012 1039
Ethylbenzene	50	49		1	97	70-130	08/09/2012 1039
Methyl tertiary butyl ether (MTBE)	50	47		1	94	70-130	08/09/2012 1039
Naphthalene	50	44		1	87	70-130	08/09/2012 1039
Toluene	50	46		1	91	70-130	08/09/2012 1039
Xylenes (total)	100	97		1	97	70-130	08/09/2012 1039

Surrogate	Q	% Rec	Acceptance Limit
Bromofluorobenzene		101	70-130
1,2-Dichloroethane-d4		93	70-130
Toluene-d8		98	70-130

PQL = Practical quantitation limit
ND = Not detected at or above the MDL
P = The RPD between two GC columns exceeds 40%
J = Estimated result < PQL and ≥ MDL
N - Recovery is out of criteria
\+ - RPD is out of criteria
Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - LCSD

Sample ID: NQ91046-003
Batch: 91046
Analytical Method: 8260B

Matrix: Aqueous
Prep Method: 5030B

Parameter	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% RPD	% Rec Limit	% RPD Limit	Analysis Date
Benzene	50	47		1	94	1.1	70-130	20	08/09/2012 1102
1,2-Dichloroethane	50	44		1	87	1.4	70-130	20	08/09/2012 1102
Ethylbenzene	50	47		1	95	2.3	70-130	20	08/09/2012 1102
Methyl tertiary butyl ether (MTBE)	50	47		1	94	0.39	70-130	20	08/09/2012 1102
Naphthalene	50	44		1	88	1.2	70-130	20	08/09/2012 1102
Toluene	50	45		1	90	0.90	70-130	20	08/09/2012 1102
Xylenes (total)	100	95		1	95	1.9	70-130	20	08/09/2012 1102

Surrogate	Q	% Rec	Acceptance Limit
Bromofluorobenzene		100	70-130
1,2-Dichloroethane-d4		93	70-130
Toluene-d8		98	70-130

PQL = Practical quantitation limit
ND = Not detected at or above the MDL
P = The RPD between two GC columns exceeds 40%
J = Estimated result < PQL and ≥ MDL
N - Recovery is out of criteria
+ - RPD is out of criteria
Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

EDB & DBCP by Microextraction - MB

Sample ID: NQ90416-001
Batch: 90416
Analytical Method: 8011

Matrix: Aqueous
Prep Method: 8011
Prep Date: 08/01/2012 905

Parameter	Result	Q	Dil	PQL	MDL	Units	Analysis Date
1,2-Dibromoethane (EDB)	ND		1	0.020	0.020	ug/L	08/04/2012 1146

Surrogate	Q	% Rec	Acceptance Limit
1,1,1,2-Tetrachloroethane		94	57-137

EDB & DBCP by Microextraction - LCS

Sample ID: NQ90416-002
Batch: 90416
Analytical Method: 8011

Matrix: Aqueous
Prep Method: 8011
Prep Date: 08/01/2012 905

Parameter	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
1,2-Dibromoethane (EDB)	0.25	0.22		1	89	60-140	08/04/2012 1208

Surrogate	Q	% Rec	Acceptance Limit
1,1,1,2-Tetrachloroethane		99	57-137

EDB & DBCP by Microextraction - MS

Sample ID: NG31025-009MS
Batch: 90416
Analytical Method: 8011

Matrix: Aqueous
Prep Method: 8011
Prep Date: 08/01/2012 905

Parameter	Sample Amount (ug/L)	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
1,2-Dibromoethane (EDB)	ND	0.24	0.23		1	96	60-140	08/04/2012 1624

Surrogate	Q	% Rec	Acceptance Limit
1,1,1,2-Tetrachloroethane		103	57-137

PQL = Practical quantitation limit
P = The RPD between two GC columns exceeds 40%
N - Recovery is out of criteria
ND = Not detected at or above the MDL
J = Estimated result < PQL and ≥ MDL
+ - RPD is out of criteria
Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

EDB & DBCP by Microextraction - MSD

Sample ID: NG31025-009MD
Batch: 90416
Analytical Method: 8011

Matrix: Aqueous
Prep Method: 8011
Prep Date: 08/01/2012 905

Parameter	Sample Amount (ug/L)	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% RPD	% Rec Limit	% RPD Limit	Analysis Date
1,2-Dibromoethane (EDB)	ND	0.24	0.23		1	96	1.7	60-140	20	08/04/2012 1645

Surrogate	Q	% Rec	Acceptance Limit
1,1,1,2-Tetrachloroethane		105	57-137

PQL = Practical quantitation limit
ND = Not detected at or above the MDL
P = The RPD between two GC columns exceeds 40%
J = Estimated result < PQL and ≥ MDL
N - Recovery is out of criteria
+ - RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

SHEALY

Chain of Custody Record

Shealy Environmental Services, Inc.
106 Vantage Point Drive
West Columbia, South Carolina 29172
Telephone No. (803) 791-9700 Fax No. (803) 791-9111
www.shealylab.com

Number 21830

Client: SCDHEC-UST	Report to Contact: D. Thoma	Sampler (Printed Name): Darcie Odom	Quote No.
Address: 2600 Bull St	Telephone No. / Fax No. / Email: (803) 896-6241 / 896-6243	Waybill No.	Page 1 of 1
City: Columbia State: SC Zip Code: 29201	Preservative: 1. Unpres. 4. HNO3 7. NaOH 2. NaOH/ZnA 5. HCL 3. H2SO4 6. Na Thio.		
Project Name: Warren Green			
Project Number: 04887/43613	P.O Number: 4600088529		Lot No.: NG31025

Number of Containers	3	→	3
Bottle (See Instructions on back)	A	→	A
Preservative	5	→	5

Sample ID / Description (Containers for each sample may be combined on one line)	Date	Time	G=Grab C=Composite	GW	DW	WW	S	Other	BTEX, Napth, MtBE (8260B)	1,2 DCA	EDB	8-oxy	Remarks / Cooler ID
MW-1	7/30	1145	G	X					X	X	X	X	odor
MW-7		1157											odor + sheen
MW-8		1112											
MW-12		1222											
MW-13		1058											
DW-1		1208											sheen
DW-6		1133											
MW-1 Dup		1145								↓	↓	↓	
Field Blank	↓	1051	↓	↓					↓	X	X	X	
Trip Blank	7/30	1052	G	X					X				

Turn Around Time Required (Prior lab approval required for expedited TAT): ☐ Standard ☐ Rush (Please Specify)

Sample Disposal: ☐ Return to Client ☐ Disposal by Lab

QC Requirements (Specify)

Possible Hazard Identification: ☐Non-Hazard ☐Flammable ☐Skin Irritant ☐Poison ☐Unknown

	Date	Time		Date	Time
1. Relinquished by / Sampler	7-30-12	1500	1. Received by	7-30-12	1500
2. Relinquished by	7-31-12	1120	2. Received by	7-31-12	1120
3. Relinquished by			3. Received by		
4. Relinquished by	7-31-12	1220	4. Laboratory Received by	7/31/12	1220

Note: All samples are retained for six weeks from receipt unless other arrangements are made.

LAB USE ONLY
Received on Ice (Check) ☑ Yes ☐ No ☐ Ice Pack Receipt Temp. 1.3 °C Temp. Blank ☑ Y ☐ N

Shealy Environmental Services, Inc.
Document Number: F-AD-016
Revision Number: 9

Replaces Date: 05/06/11
Effective Date: 10/11/11

Sample Receipt Checklist (SRC)

Client: SCDHEC Cooler Inspected by/date: ECC 7/31/12 Lot #: NG31025

Means of receipt: ☑ SESI ☐ Client ☐ UPS ☐ FedEx ☐ Airborne Exp ☐ Other

Yes ☐	No ☑		1. Were custody seals present on the cooler?
Yes ☐	No ☐		2. If custody seals were present, were they intact and unbroken?

Cooler ID/temperature upon receipt 1-3 °C ___/___ °C ___/___ °C ___/___ °C
Method: ☑ Temperature Blank ☐ Against Bottles
Method of coolant: ☑ Wet Ice ☐ Blue Ice ☐ Dry Ice ☐ None

If response is No (or Yes for 14, 15, 16), an explanation/resolution must be provided.

Yes ☐	No ☐	NA ☑	3. If temperature of any cooler exceeded 6.0°C, was Project Manager notified? PM notified by SRC, phone, note (circle one), other:______. (For coolers received via commercial courier, PMs are to be notified immediately.
Yes ☐	No ☐	NA ☑	4. Is the commercial courier's packing slip attached to this form?
Yes ☑	No ☐		5. Were proper custody procedures (relinquished/received) followed?
Yes ☐	No ☐	NA ☑	5a Were samples relinquished by client to commercial courier?
Yes ☑	No ☐		6. Were sample IDs listed?
Yes ☑	No ☐		7. Was collection date & time listed?
Yes ☑	No ☐		8. Were tests to be performed listed on the COC?
Yes ☑	No ☐		9. Did all samples arrive in the proper containers for each test?
Yes ☑	No ☐		10. Did all container label information (ID, date, time) agree with COC?
Yes ☑	No ☐		11. Did all containers arrive in good condition (unbroken, lids on, etc.)?
Yes ☑	No ☐		12. Was adequate sample volume available?
Yes ☑	No ☐		13. Were all samples received within ½ the holding time or 48 hours, whichever comes first?
Yes ☐	No ☑		14. Were any samples containers missing?
Yes ☐	No ☑		15. Were there any excess samples not listed on COC?
Yes ☑	~~No ☒~~ ECW 7/31/12	NA ☐	16. Were bubbles present >"pea-size" (¼" or 6mm in diameter) in any VOA vials?
Yes ☐	No ☐	NA ☑	17. Were all metals/O&G/HEM/nutrient samples received at a pH of <2?
Yes ☐	No ☐	NA ☑	18. Were all cyanide and/or sulfide samples received at a pH >12?
Yes ☐	No ☐	NA ☑	19. Were all applicable NH3/TKN/cyanide/phenol/BNA/pest/PCB/herb (<0.2mg/L) samples free of residual chlorine?
Yes ☐	No ☐	NA ☑	20. Were collection temperatures documented on the COC for NC samples?
Yes ☐	No ☐	NA ☑	21. Were client remarks/requests (i.e. requested dilutions, MS/MSD designations, etc…) correctly transcribed from the COC into the comment section in LIMS?

Sample Preservation (Must be completed for any sample(s) incorrectly preserved or with headspace.)

Sample(s)______________ were received incorrectly preserved and were adjusted accordingly in sample receiving with ______________ (H_2SO_4, HNO_3, HCl, NaOH) with the SR # (number)

Sample(s) -008 (1), -010 (2) were received with bubbles >6 mm in diameter.

Sample(s)______________ were received with TRC >0.2 mg/L for NH3/TKN/cyanide/BNA/pest/PCB/herb.

Corrective Action taken, if necessary:

Was client notified: Yes ☐ No ☐ Did client respond: Yes ☐ No ☐

SESI employee: ______________ Date of response: ______________

Comments: ______________

Verification, Validation and Usability Report (VVUR)

UST Permit #: 04887

Docket 20 Technical

Date August 31, 2012

Facility Name: WARREN GREEN

Report Received: August 21, 2012

Signature: D Eb

Cost Agreement: 43612 Shealy

UST Project Manager: David Ebinger

Project Objective: Evaluate current site conditions for CNFA/NFA determination

Scope of Work: CA#43612/43613> Groundwater Sampling: MW-1, 7, 8 , 12, 13, DW-1, 6
Parameters: BTEX + Naphthalene + MtBE + 1,2-DCA + EDB
Replace Bolt (1) on DW-1

	Item	Comments	Impact on Usability	Corrective Action
Completeness	**Data Deliverables and QAPP** Ensure that all required information on sampling and analysis was provided (including planning documents). Note both Present / Missing items SRC = Sample Receipt Checklist COC = Chain of Custody LCN = Lab Case Narrative (or similar report containing qualifications)	Present: Report; Contractor Checklist; Field Data; Purge Notes; Site Map; COC (incomplete copy); Disposal Manifest (40 gal) Laboratory Report: LCN, Sample Summary, Executive Summary, Analytical Data, QC Summary, COC, SRC Missing: none	–	
	Meteorological Data and Site Conditions Evaluate the possible effects of meteorological (e.g., wind, rain, temperature) and site conditions on sample results. Review field reports to identify whether any unusual conditions were present and how the sampling plan was executed.	Ambient temperature: 31 deg C / Overcast and rainy No other conditions noted	–	
	Verification Report (Contractor Checklist) Summarize deviations from methods, procedures, or contracts. Include qualified data and explanation of all data qualifiers.	Complete	–	
	Analytes Ensure that required lists of analytes were reported as specified.	Complete	–	
	Sampling Plan Ensure that required sample locations were reported as specified. Determine if alterations to sample locations continue to satisfy the project objectives.	Complete	–	
	Chain-of-Custody Examine the traceability of the data from time of sample collection until reporting of data. Examine chain-of-custody records against contract, method, or procedural requirements. Establish that any problems with documentation or custody procedures do not prevent the data from being used for the intended purpose.	Complete	–	
	Work Scope Examine deviations from contract / work plan - repairs, waste disposal etc (no impact on data quality)			
Conformance	**Sample Receipt Checklist (or equivalent)** Ensure consistency with COC, LCN. Examine checklist against contract, method or procedural requirements.	SRC, LCN and COC are consistent	–	
	Holding Times Identify holding time criteria, and either confirm that they were met or document any deviations. Ensure that samples were analyzed within holding times specified in method, procedure, or contract requirements. If holding times were not met, confirm that deviations were documented, that appropriate notifications were made (consistent with procedural requirements), and that approval to proceed was received prior to analysis.	Specified hold time for VOCs: 14 days sampled 7/30/12 all analysis completed by: 8/9/12	–	
	Sample Handling Ensure that required sample handling, receipt, and storage procedures were followed, and that any deviations were documented.	As specified	–	
	Sampling Methods and Procedures Establish that required sampling methods were used and that any deviations were noted. Ensure that the sampling procedures and field measurements met performance criteria and that any deviations were documented (e.g., techniques, equipment, decontamination, volume, temperature, preservatives, etc.)	LCN indicates sediment in MW-1, 7, 8, 12, 13, DW-1, 6, MW-1Dup Bubble: MW-1 Dup (1 voa); Trip blank (2 voa)	--Unlikely	
	Analytical Methods and Procedures Establish that required analytical methods were used and that any deviations were noted. Ensure that the QC samples met performance criteria and that any deviations were documented.	Field Blank: 0.25J ETBE (ETBE not detected in any other sample) Trip Blank: ND MW-7: 5x sample dilution led to surrogate recovery out of acceptance range MW-7, MW-1 Dup: MS outside acceptance limits - no impact	--Minimal	
	Lab Data Qualifiers Determine that the laboratory data qualifiers were defined and applied as specified in methods, procedures, or contracts.	As specified	–	

	Confirmatory Analyses Evaluate agreement of laboratory results. Evaluate the implications of unacceptable QC sample results on the data usability for the associated samples: blank contamination, matrix effects . .	Trip blank: ND Field blank: ND	--	
	Co-located Field Duplicates Compare results of collocated field duplicates with criteria established in the QAPP. RPD (%) = [((CS – CD)/(CS + CD)/2)] x 100	#04887 07-30-2012 MW-1/MW-1 Dup Benzene RPD: 47 Toluene RPD: 56 Ethylbenzene RPD: 68 Tot Xylenes RPD: 59 Naphthalene RPD: 13J TAA RPD: 49J ______ 01-00-1900 / ______ 01-00-1900 /	--Likely	

Reconciliation with User Requirements		Comments
	Completeness Evaluate the impact of missing information. Ensure that enough information was obtained for the data to be usable (completeness as defined in DQOs documented in the QAPP) **Critical Samples** Establish that critical samples and critical target analytes/COCs, as defined in the QAPP, were collected and analyzed. Determine if the results meet criteria specified in the QAPP.	
	Conformance Criteria Evaluate QC data against project-specific performance criteria in the QAPP (i.e., evaluate quality parameters beyond those outlined in the methods). Describe the exact process for handling data that do not meet DQOs (i.e., when measurement performance criteria are not met). Depending on how those data will be used, specify the restrictions on use of those data for environmental decision-making.	Duplicate RPD's: MW-1 had insufficient water for purging , however, data is consistent with historical data (and below SSTLs) TAA, TBA appearance in deep wells precludes CNFA decision
	Comparability Ensure that results from different data collection activities achieve an acceptable level of agreement.	Data was collected and analyzed according to historically utilized SOPs; DW-1, 6 have TAA, TBA making initial appearance

D H E C

PROMOTE PROTECT PROSPER

Catherine B. Templeton, Director

Promoting and protecting the health of the public and the environment

UST 21 Tech DOCKETING

BRYAN SHANE
MIDLANDS ENVIRONMENTAL CONSULTANTS
PO BOX 854
LEXINGTON SC 29071

MAY 16 2013

Re: **QAPP Contractor Addendum Request**
Groundwater Sampling Contract
Solicitation # IFB-5400002759, PO#4600088529

Dear Mr. Shane:

In accordance with bid solicitation # IFB-5400002759 and the UST Management Division Quality Assurance Program Plan (QAPP), it is requested that you submit a Contractor Addendum for each site listed below. The Addendums must be submitted within 15 business days in my attention. The project manager for each site will issue a notice to proceed once the Addendum has been reviewed and approved. Please note, site reconnaissance should be conducted during the Addendum review so that any issues that arise may be addressed prior to commencing work at the site.

UST Permit #	Site Name	County	# samples and requested analysis*	Project Manager
12199	51 Express	Georgetown	14-BTEXMN, DCA, & Oxygenates	D. Thoma
14902	Doziers Grocery	Georgetown	13-BTEXMN, DCA, Oxygenates, & EDB	D. Thoma
09312	Baileys 66	York	17-BTEXMN, DCA, Oxygenates, EDB, & RCRA metals	D. Thoma
12264	Sunset Park Grocery	York	25-BTEXMN, DCA, Oxygenates, & EDB	D. Thoma
15670	Colleton Maintenance	Colleton	10-BTEXMN	S. Burson
05402	Pantry 3418	Horry	45-BTEXMN, DCA, & Oxygenates	J. Martin
02607	Darlington Bus Shop	Darlington	11-BTEXMN, DCA, Oxygenates, & EDB	C. Ridgley
19346	Frm Fuels Bulk Plant	Charleston	67-BTEXMN, DCA, & Oxygenates	J. Padgett
04887	Warren Green	Jasper	31-BTEXMN, DCA, Oxygenates, & EDB	S. Burson
05443	General Store	Kershaw	19-BTEXMN, DCA, Oxygenates & 1-EDB	M. Hornosky
11635	Mr. G's 126	Lancaster	9-BTEXMN, DCA, Oxygenates, EDB, & total lead	D. Orgain
18678	UST Unknown	Barnwell	14-BTEXMN, DCA, Oxygenates, & EDB	S. Burson
15816	MJ Tadlock Grocery	Chester	31-BTEXMN, DCA, Oxygenated & EDB	C. Ridgley

* The number of samples may not include trip blanks, field blanks, or field duplicates.

Please contact me with the sampling schedule before commencing work at these facilities. In addition, a weekly update for each site is required to be submitted via e-mail to the site's project manager and myself. If you have any questions or need further assistance, please contact me at (803) 896-6397 or thomadl@dhec.sc.gov.

Sincerely,

Debra L. Thoma

Debra L. Thoma, Hydrogeologist
Corrective Action Section
UST Management Division
Bureau of Land & Waste Management

Enc: Site Information Sheet

cc: Technical Files

Midlands Environmental Consultants, Inc.

June 10, 2013

UST
Scott
JUN 11 2013
PROGRAM

Ms. Debra Thoma, Hydrogeologist
Corrective Action Section
Assessment and Corrective Action Division
Underground Storage Tank Program
Bureau of Land and Waste Management
South Carolina Department of Health
and Environmental Control
2600 Bull Street
Columbia, South Carolina 29201

UST
22
DOCKETING

Subject: QAPP Contractor Addendum – Revision 0
Warren Green
Yemassee, South Carolina
SCDHEC Site ID Number 04887
MECI Project Number 13-4481
Certified Site Rehabilitation Contractor UCC-0009

Dear Ms. Thoma,

Midlands Environmental Consultants Inc. (MECI) is pleased to submit the attached QAPP Contractor Addendum for the referenced site.

On June 03, 2013, MECI personnel performed a site visit to the subject site to evaluate site conditions, locate monitoring wells and identify potential problems for future sampling activities.

If you have any question or comments please feel free to contact us at 803-808-2043.

Sincerely,
Midlands Environmental Consultants, Inc.

Courtney M. Sanders
Project Biologist

Jeff L. Coleman
Senior Scientist

Post Office Box 854, Lexington SC 29071 • 235-B Dooley Road, Lexington, SC 29073
Telephone: (803) 808-2043 • fax: (803) 808-2048

Section A: Project Management

A1 Title and Approval Page

Quality Assurance Project Plan
Addendum to the SC DHEC UST Programmatic QAPP
For
Warren Green, SCDHEC Site ID# 04887

10773 West Frontage Road, Yemassee, South Carolina

Prepared by:
Courtney M. Sanders
Project Biologist
Midlands Environmental Consultants, Inc.
(Certified Site Rehabilitation Contractor UCC-0009)
235-B Dooley Road
Lexington, SC 29073
(803)808-2043

Date: June 10, 2013

Approvals

Scott J. Burson SC DHEC Project Manager	Signature	Date
Courtney M. Sanders Contractor QA Manager	Signature	Date 6-11-13
Jeff L. Coleman Site Rehabilitation Contractor	Signature	Date 6/11/13
Daniel J. Wright Laboratory Director	Signature	Date 06/10/2013

A2 Table of Contents

A3 Distribution List

Name	Title	Organization/Address	Telephone Number	Fax Number	Email Address
Scott J. Burson	SC DHEC Technical Project Manager	SCDHEC, UST Management Division, 2600 Bull St., Columbia, SC, 29201	803-898-0606	803-898-0673	bursonsj@dhec.sc.gov
Jeff L. Coleman	Site Rehabilitation Contractor	Midlands Environmental Consultants, Inc. 235-B Dooley Road Lexington, SC 29073	803-808-2043	803-808-2048	jlc@meci.net
Courtney M. Sanders	Quality Assurance Officer	Midlands Environmental Consultants, Inc. 235-B Dooley Road Lexington, SC 29073	803-808-2043	803-808-2048	cms@meci.net
Kyle V. Pudney	Field Manager	Midlands Environmental Consultants, Inc. 235-B Dooley Road Lexington, SC 29073	803-808-2043	803-808-2048	kvp@meci.net
Daniel J. Wright	Laboratory Director	Shealy Environmental Services,Inc. 106 Vantage Point Dr. West Columbia, SC 29172	803-791-9700	803-791-9111	dwright@shealylab.com
	Well Services/Driller				

Table 1A Addendum Distribution List

A4 Project Organization

Role from the UST Master QAPP	Person in this Role for Project	Organization/Address	Telephone Number	Fax Number	Email Address
Project Manager	Scott J. Burson	SCDHEC, UST Management Division, 2600 Bull St., Columbia, SC, 29201	803-898-0606	803-898-0673	bursonsj@dhec.sc.gov
Site Rehabilitation Contractor	Jeff L. Coleman	Midlands Environmental Consultants, Inc. 235-B Dooley Road Lexington, SC 29073	803-808-2043	803-808-2048	jlc@meci.net
Quality Assurance Officer	Courtney M. Sanders	Midlands Environmental Consultants, Inc. 235-B Dooley Road Lexington, SC 29073	803-808-2043	803-808-2048	cms@meci.net
Field Manager	Kyle V. Pudney	Midlands Environmental Consultants, Inc. 235-B Dooley Road	803-808-2043	803-808-2048	kvp@meci.net

Role from the UST Master QAPP	Person in this Role for Project	Organization/Address	Telephone Number	Fax Number	Email Address
		Lexington, SC 29073			
Analytical Laboratory Director	Daniel J. Wright	Shealy Environmental Services,Inc. 106 Vantage Point Dr. West Columbia, SC 29172	803-791-9700	803-791-9111	dwright@shealylab.com
Project Verifier	Courtney M. Sanders or Kyle V. Pudney	Midlands Environmental Consultants, Inc. 235-B Dooley Road Lexington, SC 29073	803-808-2043	803-808-2048	cms@meci.net

Table 2A Addendum Role Identification and Contact Information

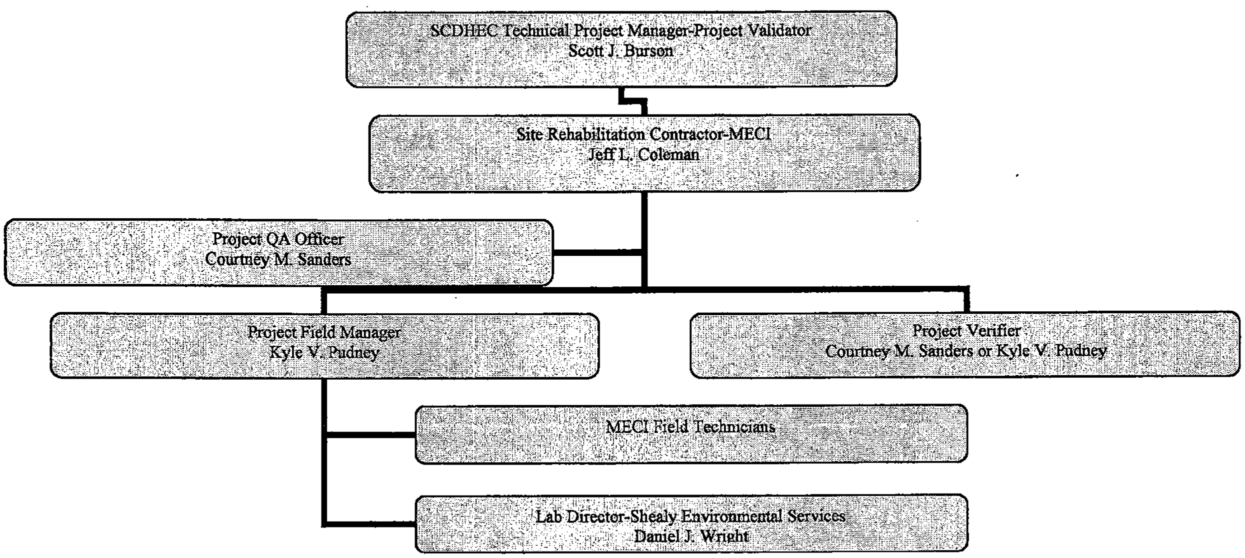


Figure 1A Organizational Chart

Project Manager (Scott J. Burson) – The project manager is responsible for direct oversight of contractors conducting assessment and site rehabilitation of releases at UST sites.

Site Rehabilitation Contractor (Jeff L. Coleman) – The Site Rehabilitation Contractor is an independent contractor responsible for managing and coordinating field and office activities needed for assessments or cleanup.

-Final Review of all work produced for a scope of work.
-Final say on technical interpretation of data.

Quality Assurance Officer (Courtney M. Sanders) – The Quality Assurance Officer is responsible for the oversight of all quality assurance activities associated with projects performed by the Site Rehabilitation Contractor.

-In charge of producing and maintaining the QAPPA for MECI.
-Reviews (and Audits, if necessary) all work produced in conjunction with a scope of work.
-Quality control of data entry and report preparation.

Field Manager (Kyle Pudney) –The field manager will oversee all work done on any given project.

-Assign, direct and oversee all field personnel working on each project.
-Responsible for coordinating with the SCDHEC project manager, should any problems or clarifications arise.
-Responsible for all reporting done in conjunction with field work.

Analytical Laboratory Director (Daniel J. Wright) – The Laboratory Director is directly responsible for the Analytical Laboratory used during a scope of work. The Analytical Laboratory receives the soil and water samples from the site rehabilitation contractor, performs the requested analyses, and provides analytical reports.

Project Verifier (Courtney M. Sanders) – The project verifier is responsible for verifying the quality of data produced during a scope of work. This includes review of field work and laboratory reports for potential quality issues.

Field Technicians (various employees) – Responsible for all field activities for a given scope of work.

-Conduct all initial site visit, and record findings
-Conduct all field activities associated with a scope of work. All work will be conducted according to the MECI SOP. Will be responsible for reporting any potential problems are inconsistencies found during assessment activities.
-Completes the chain of custody upon completion of sampling event and delivers samples to lab or office for later lab pick-up.

A5 Problem Definition/Background

Discuss the background (as much as is known) of the site and appropriate historical information, and why this site is being assessed.

The subject site (Warren Green) is located at 10773 West Frontage Yemassee, Jasper County, South Carolina. The site formerly maintained one 2,000 gallon gasoline underground storage tank (UST) and two 3,000 gallon gasoline UST's. The subject tanks are registered Rendered Not Usable (RNU). The South Carolina Department of Health and Environmental Control (SCDHEC) reported and confirmed a release of petroleum product from the subject tanks in May of 2002. The subject site is currently rated a Class 2BB.

The site is being sampled in conjunction with the SCDHEC Groundwater Sampling Contract (Solicitation # IFB-5400002759, PO# 4600088529).

Please answer the following: Does this project fall under UST or Brownfields area?

Underground Storage Tank Division

A6 Project/Task Description

1. ***Summarize what is known about the work to be done. This can be a short sentence indicating what the Scope of this project is (see Master QAPP Section A6).***

The subject site (Warren Green) will be sampled in conjunction with the SCDHEC Groundwater Sampling Contract (Solicitation # IFB-5400002759, PO# 4600088529). During assessment activities monitoring wells will be sampled for petroleum constituents.

2. ***The work will begin within*** fourteen (14) days of receipt of approved QAPP contractors addendum ***after cost approval and sampling should be complete by*** twenty-one (21) days of receipt of approved QAPP contractors addendum.

3. ***Are there are time or resource constraints? Include those factors that may interfere with the tentative schedule.***

Factors that may prevent schedule work will be, but not limited to, inclement weather, equipment malfunction, and machine failure.

A7 Data Quality Objectives (DQOs) and Data Quality Indicators (DQIs)

The subject site is located at 10773 West Frontage Road, Yemassee, Jasper County, South Carolina. The site is currently an abandoned building.

A8 Training and Certificates

Required training and licenses:

Title/Job	Name	Training Required	Date training received	Type of License	License Number
Principal Geologist	Bryan T. Shane, P.G.	Professional Geologist	10/30/1993	State of South Carolina	1102
Senior Scientist	Jeff Coleman	OSHA 40 hr HAZWOPER	7/27/2007	N/A	N/A
		OSHA 8 hr HAZWOPER refresher	12/10/2012	N/A	N/A
Staff Geologist	John Bryant	OSHA 40 hr HAZWOPER	4/17/2009	N/A	N/A
		OSHA 8 hr HAZWOPER refresher	12/102012	N/A	N/A
Staff Biologist	Courtney Sanders	OSHA 40 hr HAZWOPER	12/10/2010	N/A	N/A
		OSHA 8 hr	12/10/2012	N/A	N/A

Title/Job	Name	Training Required	Date training received	Type of License	License Number
		HAZWOPER refresher			
Staff Biologist	Kyle Pudney	OSHA 40 hr HAZWOPER	12/10/2010	N/A	N/A
		OSHA 8 hr HAZWOPER refresher	12/10/2012	N/A	N/A
Staff Biologist	Chris Lashley	OSHA 40 hr HAZWOPER	12/10/2010	N/A	N/A
		OSHA 8 hr HAZWOPER refresher	12/10/2012	N/A	N/A
Staff Biologist	Gavin Globensky	OSHA 40 hr HAZWOPER	7/29/2011	N/A	N/A
		OSHA 8 hr HAZWOPER refresher	12/10/2012	N/A	N/A
Staff Biologist	Ryan Ariail	OSHA 40 hr HAZWOPER	9/23/2011	N/A	N/A
		OSHA 8 hr HAZWOPER refresher	12/10/2012	N/A	N/A
Staff Geologist	Patrick Boylan	OSHA 40 hr HAZWOPER	07/20/2012	N/A	N/A
Lab Manager	Daniel J. Wright	***	***	Lab Certification	SC 32010

Table 3A Required Training and Licenses

Courtney M. Sanders of Midlands Environmental Consultants, Inc. is responsible to ensuring that personnel participating in this project receive the proper training. All training records will be stored in the following location:235-B Dooley Road, Lexington, SC 29073.

It is understood that training records will be produced if requested by SC DHEC.

The Following Laboratory(ies) will be used for this Project:

Commercial Lab(s)

Full Name of the Laboratory___Shealy Environmental Services, Inc.____
Name of Lab Director_________Daniel J. Wright__________________
SC DHEC Certification Number________32010______________________________
Parameters this Lab will analyze for this project:

All samples will be analyzed for BTEX, Naphthalene, MTBE, 1,2 DCA, 8-Oxygenates (EPA Method 8260-B), and EDB (EPA Method 8011).

Please note: SC DHEC may require that the contractor submit some or all of the Laboratory's SOPs as part of this QAPP.

A9 Documents and Records

Personnel will receive the most current version of the QAPP Addendum via:
(Check all that apply)

____US Mail ____Courier _X_ Hand delivered

Other (please specify): E-mailed electronic copies

Record	Produced By	Hardcopy/ Electronic	Storage Location For how long?	Archival
Instrument Raw Data	Target, Thermospec, or Iteva software	Hardcopy and Electronic	Hardcopy: Offsite storage for 7 yrs Electronic: Two external storage device backups – one offsite, one onsite storage for 10 yrs	Yes
Final Reports	LIMS	Electronic	Electronic: Two external storage device backups – one offsite, one onsite storage for 10 years	Yes
Field Work	Field Staff	Hardcopy	MECI office: 235/B Dooley Road / Min. 5 years	Yes
Chain of Custody	Field Staff	Hardcopy	MECI office: 235B Dooley Road / Min. 5 years	Yes
QAPP Addendum	Courtney Sanders	Hardcopy & Electronic	MECI office: 235B Dooley Road / Min. 5 years	Yes
Internal QC record	Courtney Sanders	Hardcopy	MECI office: 235B Dooley Road / Min. 5 years	Yes
Sampling Report	Courtney Sanders	Hardcopy & Electronic	MECI office: 235B Dooley Road / Min. 5 years	Yes

Table 4A Record Identification, Storage, and Disposal

Section B Measurement/Data Acquisition

B1 Sampling Process/Experimental Design

Item	Start Date	End Date	Comments
Site Reconnaissance	6/3/13	6/3/13	Already Completed
QAPP preparation	6/10/13	6/10/13	In progress
QAPP approval	6/11/13	7/2/13	Assuming three week turnaround
Monitoring well Sampling	7/3/13	7/17/13	Sampled within 2 weeks of QAPP approval
Report Preparation	7/18/13	8/8/13	Three weeks to prepare/submit report

Item	Start Date	End Date	Comments

Table 5A Sampling Activities

B2 Sampling Methods

Please note: The contractor must follow sampling protocols as given in the UST QAPP.

***Estimate** the number of samples of each matrix that are expected to be collected:*

Soil ________

Ground Water from monitoring wells _____21____

From Drinking/Irrigation water wells ______2____

Field Duplicate Collection ______2____

Field Blank Collection ______1____

Trip Blank ______1____

From surface water features ________

Total number of Water samples _____27____

Notes:
During the June 03, 2013 site visit, twenty one (21) monitoring wells and two (2) water supply wells were located.

Please note no water supply wells were locations were provided on the map provided by SCDHEC. Two (2) water supply wells were located; 235 Bowers Lane and 299 Bowers Lane. MECI personnel do not know their corresponding well numbers.

During the site visit it was noted two (2) monitoring wells were in need of bolts. A combined total of two (2) bolts are needed to properly secure the wells. Additionally, monitoring well MW-5 is need of a new well vault and pad. **Total Bolts Needed: 2 Bolts**

All samples will be analyzed for BTEX, Naphthalene, MTBE, 1,2 DCA, 8-Oxygenates (EPA Method 8260-B), and EDB (EPA Method 8011).

For the sample matrices indicated above, please describe how samples will be collected and the equipment needed.

Please see MECI Monitoring Well Sampling SOP for sampling procedures and type of materials used for sampling.

Will Sampling Equipment have to be cleaned and decontaminated or is everything disposable?

All equipment, excluding electronic water level indicators, field probes and turbidity tubes, is disposable.

If sampling equipment must be cleaned please give a detailed description of how this is done and the disposal of by-products from the cleaning and decontamination.

Please see MECI Monitoring Well Sampling SOP for decontamination procedures.

Identify any equipment and support facilities needed. This may include such things as Fed-ex to ship the samples, a Geoprobe, field analysis done by another contractor (who must be certified), and electricity to run sampling equipment.

All samples will be shipped to the lab via courier or overnight shipping company. Please see MECI Monitoring Well Sampling SOP for sample shipping procedures.

Address the actions to be taken when problems occur in the field, and the person responsible for taking corrective action and how the corrective action will be documented.

Failure	Response	Documentation	Individual Responsible
Water level indicator not working properly	Attempt to clean probe, change battery, use back-up indicator if need be.	Record on field sheets, notify office staff. Take indicator out of rotation until problem identified and corrected.	Field Staff, Field Manager
Field meters not working	Attempt to clean probes, recalibrate in the field.	Record on field sheets, notify office staff. Take meters out of rotation until problem identified and corrected.	Field Staff, Field Manager
Wells not located	Use metal detector, measure from known points, contact project manager for additional information.	Record method used to attempt to locate the well on field sheets, and possibly reasoning for the well to be missing	Field Staff

Table 6A Field Corrective Action

B3 Sample Handling and Custody

1. ***How will the samples get from the Site to the Lab to ensure holding requirements are met?***

Following sample collection, the samples are immediately place in a laboratory provided cooler, pre-filled with wet ice obtained from the MECI office. Samples are transported to the MECI office once a sampling event is complete. A Chain of Custody (CoC) is filled out following the sampling event by the field staff.

See attached CoC. If a lab provided courier is scheduled to visit the MECI offices the day following a sampling event, sampling coolers are repacked with wet ice, and left at the office for pick-up the following morning. If no courier is schedule to visit the MECI office the day following a sampling event, all sampling coolers are repacked with ice and are dropped off at a lab approved shipping company for overnight delivery to the lab.

2. ***How will the contactors cool the samples and keep the samples cool?***

All samples are kept on wet ice, obtained from MECI office.

3. ***How will the lab determine the temperature of the samples upon receipt? Will they be using a temperature blank?***

A calibrated thermometer and temperature blank will be used to document sample temperature. The temperature blank is immediately checked by the sample receiving technician upon arrival at the laboratory.

4. ***Where will the samples be stored in the Lab once they are received?***

All samples are stored in clean refrigeration units monitored and maintained at 4 degrees C + or – 2 degrees. Volatile organic samples are stored separately form all other samples.

5. ***Describe the chain of custody procedure and attach a copy of each chain of custody that will be used. If a Chain of Custody SOP exists from the Lab and the Contractor is willing to adhere to it, then this may be attached.***

A chain of custody (COC) will be filled out for each sampling event at each project site. COC to be signed by MECI and Shealy Environmental technician at time physical transfer of samples occurs to courier. Shealy uses the following COC procedures to protect sample integrity following pickup by their courier: A full time Sample Receiving Technician receives all samples and completes a Sample Receipt Checklist (SRC), which will identify any anomalies, if any exist the Sample Receiving Technician or Project Manager must resolve the deviation internally and/or notify the client to resolve the anomaly

B4 Analytical Methods

1. ***Identify the SOPs which will be used to analyze the samples, the method which the SOP references and the equipment or instrumentation that is needed:***

Parameter	SOP ID*	Method Referenced	Equipment	Comments
BTEX+Naph+MTBE+Oxygentaes	S-VO-002	8260B	GC/MS	
PAH's	S-SV-021	8270D	GC/MS	
EDB	S-SV-012	8011	GC	
Lead,T.	S-IM-022	6010C	ICP	
Ferrous Iron	S-IN-009	SM 3500-FED	Spectrophotometer	
Nitrate	S-IN-042	353.2	Auto-analyzer/Lachate	

Sulfate	S-IN-010	300.0	Ion Chromatograph	
Methane	S-VO-004	RSK-175	GC	
TOC	S-IN-030	Walkley-Black	N/A	
DRO - TPH	S-SV-001	8015C	GC	
pH	MECI SOP 4.3.6	*	YSI 63	
Conductivity	MECI SOP 4.3.6	*	YSI 63	
Dissolved Oxygen	MECI SOP 4.3.6	*	YSI 550A	
Temperature	MECI SOP 4.3.6	*	YSI 550A	
Turbidity	MECI SOP 4.3.6	*	60 cm Turbidity Tube	

Table 7A Analytical SOPs and Referenced Methods

- **This can be a full name of a SOP, an abbreviation, or a number. In the latter two cases, the abbreviation or number must be associated with the full name of the SOP. See also Table 8A SOP Abbreviation Key.**

Abbreviation	Lab Identification of this SOP	Full Name of the SOP
S-VO-002	S-VO-002	GC/MS VOLATILES ANALYSIS BASED ON EPA METHODS 8260B AND 624 PREPARED BY EPA METHODS 5030B, 5035 AND 3585
S-SV-021	S-SV-021	GC/MS ANALYSIS BASED ON EPA METHOD 8270D PREPARED BY EPA METHODS 3520C, 3550C AND 3580A
S-SV-012	S-SV-012	GC/ECD ANALYSIS OF EDB AND DBCP BASED ON METHOD 8011 & 504.1
S-IM-022	S-IM-022	INDUCTIVELY COUPLED PLASMA ATOMIC EMISSION SPECTROSCOPY-PECTROMETRIC METHOD for TRACE ELEMENT ANALYSES METHOD 6010C
S-IN-009	S-IN-009	FERROUS IRON (PHENANTHROLINE METHOD) STANDARD METHOD 3500-Fe D
S-IN-042	S-IN-042	NITRATE+NITRITE NITROGEN BY EPA METHOD 353.2, NITRATE NITROGEN BY 353.2 SUBTRACTION, AND NITRITE NITROGEN BY EPA METHOD 353.2
S-IN-010	S-IN-010	INORGANIC ANIONS BY ION CHROMATOGRAPHY EPA METHOD 300.0 and SW-846 9056 and 9056A
S-VO-004	S-VO-004	STANDARD OPERATING PROCEDURE GC ANALYSIS BASED ON METHOD RSKSOP-175
S-IN-030	S-IN-030	TOTAL ORGANIC CARBON (TOC) WALKLEY-BLACK PROCEDURE
S-SV-001	S-SV-001	GC/FID DIESEL RANGE ORGANICS ANALYSIS BASED ON METHOD 8015B and/or 8015C PREPARED BY EPA METHODS 3520C, 3550C and 3580A
MECI SOP 4.3.6	MECI SOP 4.3.6	Sampling Standard operating procedures

Table 8A SOP Abbreviation Key

2. Identify procedures to follow when failures occur, identify the individual responsible for corrective action and appropriate documentation:

Failure	Response	Documented Where?	Individual Responsible
Field meters not working	Attempt to clean probes, recalibrate in the field.	Record on field sheets, notify office staff. Take meters out of rotation until problem identified and corrected.	Field Staff, Field Manager
COC or Sample Receiving issues	Call Client	Sample Receiving Checklist (SRC)	PM – Kelly Maberry kmaberry@shealylab.com
Analytical errors	Corrective Action Form (CAF)	CAF filled out by PM	Lab Director – Daniel J. Wright dwright@shealylab.com
QA/QC Failure	Corrective Action Form (CAF)	CAF filled out by PM	Lab Director –Daniel J. Wright dwright@shealylab.com QA/QC Officer – Jami Savje Jsavje@shealylab.com
On time delivery	Corrective Action Form (CAF)	CAF filled out by PM	Lab Director –Daniel J. Wright dwright@shealylab.com QA/QC Officer – Jami Savje Jsavje@shealylab.com

Table 9A Corrective Action Procedures

3. Identify sample disposal procedures.

Analysis	Matrix	Schedule for disposal	Method for disposal	Comments
BTEX+Naph+MTBE+Oxygenates	Waters/Soils	Six Weeks	Tested for Hazardous Constituents and disposed as Hazardous or non-Hazardous waste.	
PAH's	Waters/Soils	Six Weeks	Tested for Hazardous Constituents and disposed as Hazardous or non-Hazardous waste.	
EDB	Waters/Soils	Six Weeks	Tested for Hazardous Constituents and disposed as Hazardous or non-Hazardous	

			waste.	
Lead	Waters/Soils	Six Weeks	Tested for Hazardous Constituents and disposed as Hazardous or non-Hazardous waste.	
Ferrous Iron	Waters/Soils	Six Weeks	Tested for Hazardous Constituents and disposed as Hazardous or non-Hazardous waste.	
Nitrate,Sulfate	Waters/Soils	Six Weeks	Tested for Hazardous Constituents and disposed as Hazardous or non-Hazardous waste.	
Methane	Waters/Soils	Six Weeks	Tested for Hazardous Constituents and disposed as Hazardous or non-Hazardous waste.	
All	Water	On-Site	Portable Granulated Activated Carbon (GAC) Unit	All waste water produced from sampling and decontamination activities will be run through a GAC unit

Table 10A Sample Disposal Procedures

4. Provide SOPs for the Kerr Method or the Ferrous Iron Method if these are parameters for this study. This can be attached or written here. If attached please note that it is an attachment and where it is located (if applicable).

B5 Quality Control Requirements:

All QC will follow the requirements laid out in Section B5 of the UST Programmatic QAPP.

B6 Field Instrument and Equipment Testing, Inspection and Maintenance

1. Identify all field and laboratory equipment needing periodic maintenance, the schedule for this, and the person responsible. Note the availability and location of spare parts.

Instrument	Serial Number	Type of Maintenance	Frequency	Parts needed/Location	Person responsible
Volatiles Mass Spec	Shealy SOP S-SV-021 Page 7	Change traps, clean ion source, replace filaments	Periodic	Laboratory	MSV Analyst
Semivolatile Mass Specc	Shealy SOP S-SV-021 Page 7	Injection port maintenance, ion source maintenance, column replacement	Periodic	Laboratory	MSSV Analyst
ECD GC	Shealy SOP S-SV-012 Page 5	Injection port maintenance, column replacement	Periodic	Laboratory	GC Analyst
Dionex IC	Shealy SOP S-IN-010 Page 6	Replace auto sampler filter, tubing, line filter, sample Line and Waste Line, as needed. Check Reagent levels, flow rate, waste line.	Periodic	Laboratory	IC Analyst
ICP	Shealy SOP S-IM-005 Page 6 & 7	Clean Sample introduction system , auto sampler, torch, Change spray chamber, torch tubing, tubing	Periodic	Laboratory	ICP Analyst
Leeman Mercury Analyzer	Shealy SOP S-IM-006 Page 5	Clean GLS, Change Pump tubing, Nafion Dryer, Lamp	Periodic	Laboratory	Mercury Analyst
Flow Injection Analysis – Lachat 8000	Shealy SOP S-IN-042 Page 5	Replace sample and reagent lines, replace light source, re-wrap heating coil, replace column	Periodic/As Needed	Laboratory	Nitrate Analyst
YSI 63	09C 101302, 10K 101895, 07M 100905	Replace probe tip	Yearly	Order from YSI	C. Sanders
YSI 63	09C 101302, 10K 101895, 07M 100905	Replace batteries	As Needed	In stock at office	Field Staff
YSI 63	09C 101302, 10K 101895, 07M 100905	General inspection for wear and tear on equipment	Daily	Major fixes will be done out of office	Field Staff
YSI 63	09C 101302, 10K 101895, 07M 100905	Check buffer solutions for expiration	Weekly	In stock at office	C. Sanders
YSI 550A	04L 2026AK, 08B 101407,	Replace membrane	4 to 8 weeks	In stock at office	Field Staff

	04A 0912AI				
YSI 550A	04L 2026AK, 08B 101407, 04A 0912AI	Replace batteries	As Needed	In stock at office	Field Staff
YSI 550A	04L 2026AK, 08B 101407, 04A 0912AI	General inspection for wear and tear on equipment	Daily	Major fixes will be done out of office	Field Staff
Turbidity Tube	#1, #2, #3	General inspection for wear and tear on equipment, clarity of Secchi Disk	Daily	Tubes will be cleaned/fixed in office	Field Staff

Table 11A Instrument and Equipment Maintenance

2. Identify the testing criteria for each lab or field instrument that is used to ensure the equipment is performing properly. Indicate how deficiencies, if found, will be resolved, re-inspections performed, and effectiveness of corrective action determined and documented. Give the person responsible for this

Instrument/Equipment & Serial Number	Type of Inspection	Requirement	Individual Responsible	Resolution of Deficiencies
Volatiles Mass Spec Shealy SOP S-SV-021 Page 7	Daily calibration check	Method Requirements	MSV Analyst	Recalibration or instrument maintenance
Semi-volatiles Mass Spec Shealy SOP S-SV-021 Page 7	Daily calibration check	Method Requirements	MSSV Analyst	Recalibration or instrument maintenance
ECD GC Shealy SOP S-SV-012 Page 5	Daily calibration check	Method Requirements	GC Analyst	Recalibration or instrument maintenance
Dionex IC Shealy SOP S-IN-010 Page 6	Daily calibration check	Method Requirements	IC Analyst	Recalibration or instrument maintenance
ICP Shealy SOP S-IM-005 Page 6 & 7	Daily calibration check	Method Requirements	ICP Analyst	Recalibration or instrument maintenance
Leeman Mercury Analyzer Shealy SOP S-IM-006 Page 5	Daily calibration check	Method Requirements	Mercury Analyst	Recalibration or instrument maintenance
Flow Injection Analysis – Lachat 8000 Shealy SOP S-IN-042 Page 5	Daily and continuing calibration check	See calibration criteria	Nitrate Analyst	Recalibration or instrument maintenance
YSI 63 - 09C 101302, 10K 101895, 07M 100905	Daily calibration check	See calibration criteria	Field Staff	Recalibrate, general maintenance then recalibrate. Ship off for service by manufacturer
YSI 550A - 04L 2026AK, 08B 101407, 04A 0912AI	Daily calibration check	See calibration criteria	Field Staff	Recalibrate, general maintenance then

				recalibrate. Ship off for service by manufacturer

Table 12A Instrument and Equipment Inspection

B7 Instrument Calibration and Frequency

1. Identify equipment, tools, and instruments for field or lab work that should be calibrated and the frequency.
2. Describe how the calibrations should be performed and documented, indicating test criteria and standards or certified equipment.
3. Identify how deficiencies should be resolved and documented. Identify the person responsible for corrective action.

Instrument	Calibration Procedure	Frequency of Calibration	Acceptance Criteria	Corrective Action (CA)	Person Responsible for CA	SOP Reference*
Volatiles Mass Spec	Minimum of 5 calibration standards for all compounds	When indicated by continuous calibration verification standard	Method Criteria	Detailed in SOP	MSV Analyst	S-VO-002
Semi-volatile Mass Spec	Minimum of 5 calibration standards for all compounds	When indicated by calibration verification standard	Method Criteria	Detailed in SOP	MSSV Analyst	S-SV-021
GC ECD	Minimum of 5 calibration standards for all compounds	When indicated by calibration verification standard	Method Criteria	Detailed in SOP	GC Analyst	S-SV-012
Dionex IC	Minimum of 5 calibration standards for all compounds	When indicated by calibration verification standard	Method Criteria	Detailed in SOP	IC Analyst	S-IN-010
ICP	Minimum of 3 calibration standards for all compounds	When indicated by calibration verification standard	Method Criteria	Detailed in SOP	ICP Analyst	S-IM-022
Cetac Mercury Analyzer	Minimum of 5 calibration standards for all compounds	When indicated by calibration verification standard	Method Criteria	Detailed in SOP	Mercury Analyst	S-IM-006
Lacaht QuickChem 8000	Minimum of 5 calibration standards	Daily or when indicated by calibration verification standard	Method Criteria	Detailed in SOP	Nitrate Analyst	S-IN-042

Instrument	Calibration Procedure	Frequency of Calibration	Acceptance Criteria	Corrective Action (CA)	Person Responsible for CA	SOP Reference*
YSI 63	pH Calibration	Daily	+/- 0.2 pH units	clean/replace probe tip, recalibrate	Field Staff	4.3.6
YSI 63	Conductivity Calibration	As directed by manufacturer	+/- 10 uS	clean/replace probe tip, recalibrate	Field Staff	4.3.6
YSI 550A	DO calibration	Daily	+/- 0.25 mg/l	clean/replace probe tip, recalibrate	Field Staff	4.3.6
YSI 550A	Temperature Calibration	Daily	+/- 1 °C	clean/replace probe tip, recalibrate	Field Staff	4.3.6
Electronic Water Level Indicator	Checked vs. Standard	Monthly	+/- 0.01 foot per 10 foot length	Replace probe tape	Field Staff	***
Oil/Water Interface probe	Checked vs. Standard	Monthly	+/- 0.01 foot per 10 foot length	Replace probe tape	Field Staff	***

Table 13A Instrument Calibration Criteria and Corrective Action

*** This can be a full name of a SOP, an abbreviation, or a number. In the latter two cases, the abbreviation or number must be associated with the full name of the SOP. See also Table 8A SOP Abbreviation Key.**

B8 Inspection/Acceptance Requirements for Supplies and Consumables

1. Identify critical supplies and consumables for field and laboratory, noting supply source, acceptance criteria, and procedures for tracking, storing and retrieving these materials.
2. Identify the individual(s) responsible for this.

Item	Vendor	Acceptance criteria	Handling/Storage Conditions	Person responsible for inspection and tracking.
Laboratory Chemicals	Fisher,VWR	Certificates of analysis and laboratory testing	Laboratory storage	Receiving and laboratory personnel
Laboratory standards	O2Si, Restek, High Purity, VHG, Supelco	Certificates of analysis and laboratory verifications	Vendor specific storage conditions	Laboratory Analysts
Sample Containers	Daniels Scientific, QEC	Certificates of analysis and laboratory testing	Bottle storage area	Sample receiving personnel
Clear, Disposable polyethylene Bailers	Preferred Pump	Individual sleeves intact, ball valve operational	Stored in Vehicle Bay, Off of the ground	C. Sanders, Field Staff
Nylon Rope	Preferred Pump	Covered with plastic	Stored in Vehicle Bay, Off of the ground	C. Sanders, Field Staff
Nitrile Gloves	Preferred Pump	Unopened box, no holes	Stored in Vehicle Bay, Off of the ground	C. Sanders, Field Staff
40 mL HCL preserved amber	Shealy Environmental	Custody seal intact	Stored in Vehicle Bay, Off of the	C. Sanders, Field Staff

vials	Services		ground	
250 mL HNO3 preserved metals vials	Shealy Environmental Services	Custody seal intact	Stored in Vehicle Bay, Off of the ground	C. Sanders, Field Staff
Coolers	Shealy Environmental Services	Intact	Stored in Vehicle Bay, Off of the ground	C. Sanders, Field Staff
pH Buffer	TRS Environmental, Enviroequipment	Within expiration date	Stored in calibration room	C. Sanders, Field Staff
Conductivity Standard	TRS Environmental, Enviroequipment	Within expiration date	Stored in calibration room	C. Sanders, Field Staff
DO Membranes	YSI, Enviroequipment	Clean, in box	Stored in calibration room	C. Sanders, Field Staff
Batteries	Any Store	Not previously used	Stored in calibration room	C. Sanders, Field Staff

Table 14A List of Consumables and Acceptance Criteria

B9 Data Acquisition Requirements (Non-Direct Measurements)

1. Identify data sources, for example, computer databases or literature files, or models that should be accessed or used.
2. Describe the intended use of this information and the rationale for their selection, i.e., its relevance to project.
3. Indicate the acceptance criteria for these data sources and/or models.

Data Source	Used for	Justification for use in this project	Comments
Historical Data	Site Maps and Well Construction Information	Well Location and Detail	

Table 15A Non-Direct Measurements

4. Identify key resources/support facilities needed.

There are no non-direct measurements in this project

B10 Data Management

1. Describe the data management scheme from field to final use and storage.

Following sample collection and chain of custody production, samples are shipped to the lab. Field work from the field staff is reviewed by the MECI project manager, and converted into digital form. All data entry is subsequently checked to validate the data entry. The original copies of the field work are stored in MECI files for a minimum of 5 years. Digital copies of the work are stored on the MECI server, which is backed up weekly, and stored for a minimum of 5 years. The digital copy of the field work is presented to SCDHEC with the final report.

2. How does the lab and field staff ensure that no unauthorized changes are made to the chain of custody, sampling notebooks, laboratory notebooks and computer records?

The laboratory maintains comprehensive Quality Control and Training Programs. All sample receipt data, sample log-in, and analytical data is peer reviewed, including review for inappropriate changes. Data management, review procedures and the Quality Systems Program are documented in the laboratory's Quality Manual and Standard Operating Procedures. The Quality Assurance Department oversees adherence to and review of these programs.

All MECI field work is produced using ink-pens. Any attempt to alter field data, after sampling is complete, can be readily identified. MECI keeps a carbon copy of the chain of custody after it is shipped to the lab. This copy is kept with the field work. If any change to the CoC are suspected, this original carbon copy can be use to identify potential changes.

3. How does the lab ensure that there are no errors in samples records including times when sample information is compiled, data calculated and/or transmitted?

Sample data acquisition software is reviewed periodically. The LIMS database is backed up daily and is able to be restored in the event of a system failure. These procedures are documented in laboratory SOP S-AD-003, LIMS. The IT Manager is responsible for these systems and procedures."

4. How will the data be archived once the report is produced? How can it be retrieved? (This applies to both electronic and hard copies).

Laboratory Hardcopy data stored off site is logged, maintained and archived by the Quality Assurance Department. Laboratory Electronic Data Reports are maintained through IT back up under the responsibility of the IT Systems Manager.

MECI keeps all field work and paper copies of reports in its in-house filing system. All paper copies are stored for a minimum of 5 years. Any file can be retrieved easily by going to the correct filing cabinet/box.

All electronic copies of reports generated are kept on the MECI server. This server is backed-up on a weekly basis. Any file stored on the MECI server can be retrieved instantly, by accessing the server. All electronic files are stored for a minimum of 5 years on the server.

Section C Assessment and Oversight

C1 Assessment and Response Actions

1. *The Contractor is supposed to observe field personnel daily during sampling activities to ensure samples are collected and handled properly and report problems to DHEC within 24 hours. . Please state who is responsible for doing this and what observations will be made. Will this person have the authority to stop work if severe problems are seen?*

Field audits can be conducted on any field personnel at any time. MECI field audits can be conducted by the Field Manger, who will be responsible for ensuring that field personnel adhere to the QAPP. If during a random field audit, severe problems are found, work will be stopped by the field manager and the QA officer contacted to determine corrective action. All problems must be corrected prior to any additional work being performed. Should it be requested, an On-site Field Audit can be scheduled with the SCDHEC project manager. If severe problems are identified by the SCDHEC project manager, the project manager can stop the work until the problems are corrected.

2. *The SCDHEC UST QAPP states that the Lab will receive an Offsite Technical System Audit. For this project, what assessments will be done on the Commercial Lab(s) that are being used—other than their certification audit? When or how often are these done? Who will the results be given to and who has the ability to stop work if problems are severe?*

The laboratory participates in annual Proficiency Testing through an approved vendor, Wibby Environmental. If during a random audit, severe problems are found, work will be stopped by the according Wibby Environmental representative and the QA officer contacted to determine corrective action. Proficiency Testing results are provided to the Office of Environmental Laboratory Certification.

C2 Reports to Management

See the SC DHEC UST Programmatic QAPP (UST Master QAPP).

Section D Data Validation and Usability

See the SC DHEC UST Programmatic QAPP (UST Master QAPP).

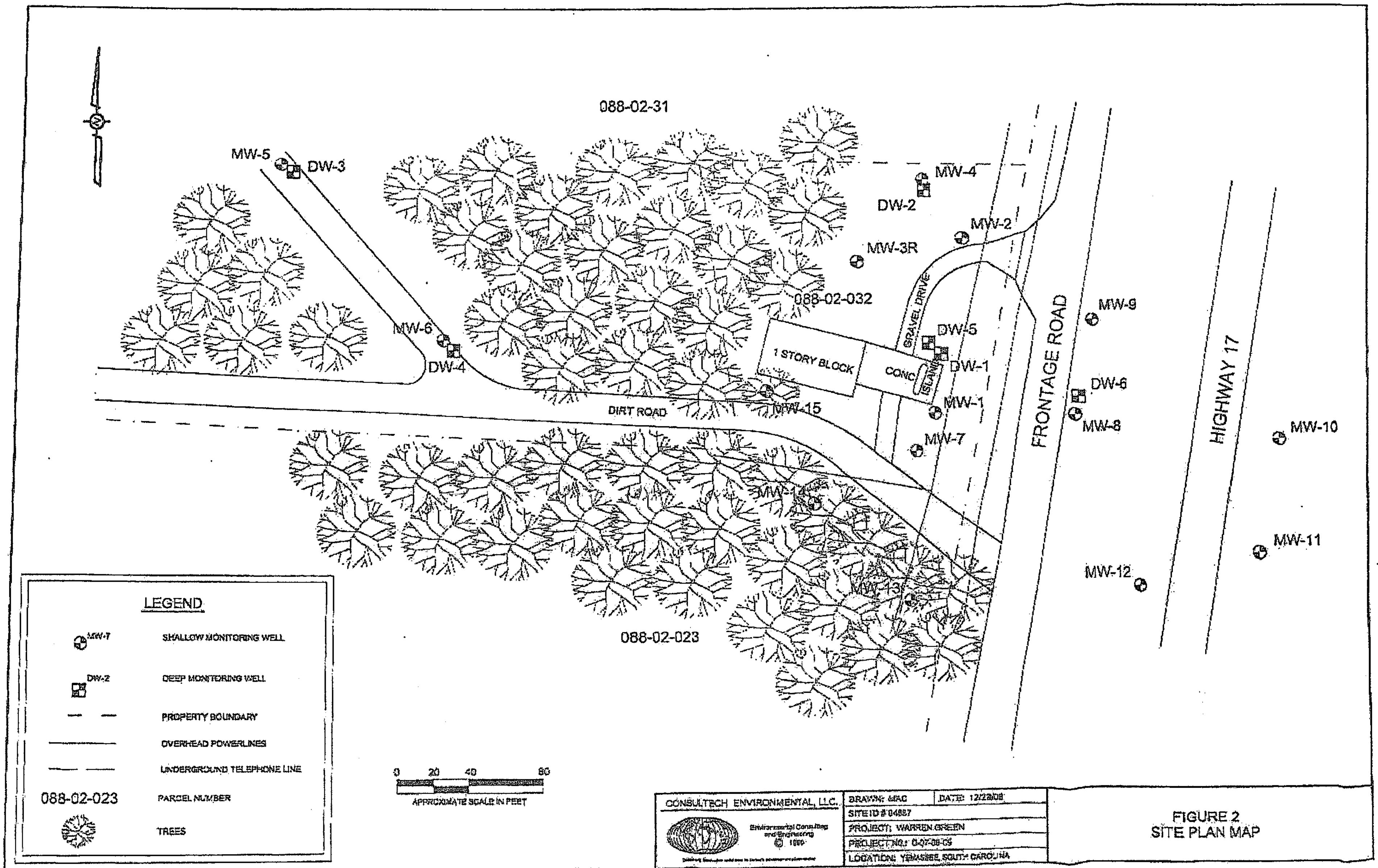


FIGURE 2
SITE PLAN MAP

Shealy Environmental Services, Inc.
106 Vantage Point Drive
West Columbia, South Carolina 29172
Telephone No. (803) 791-9700 Fax No. (803) 791-9111
www.shealylab.com

Chain of Custody Record

Number

Client	Report to Contact	Sampler (Printed Name)	Quote No.
Address	Telephone No. / Fax No. / Email	Waybill No.	Page ___ of ___

City	State	Zip Code
Project Name		
Project Number	P.O Number	

Preservative
1. Unpres. 4. HNO3 7. NaOH
2. NaOH/ZnA 5. HCL
3. H2SO4 6. Na Thio.

Number of Containers
Bottle (See instructions on back)
Preservative
Lot No.

Sample ID / Description (Containers for each sample may be combined on one line)	Date	Time	G=Grab C=Composite	Matrix GW	DW	WW	S	Other	Analysis														Remarks / Cooler ID

Turn Around Time Required (Prior lab approval required for expedited TA
☐ Standard ☐ Rush (Please Specify)

Sample Disposal
☐ Return to Client ☐ Disposal by Lab

QC Requirements (Specify)

Possible Hazard Identification
☐Non-Hazard ☐Flammable ☐Skin Irritant ☐Poison ☐Unknown

1. Relinquished by / Sampler	Date	Time	1. Received by	Date	Time
2. Relinquished by	Date	Time	2. Received by	Date	Time
3. Relinquished by	Date	Time	3. Received by	Date	Time
4. Relinquished by	Date	Time	4. Laboratory Received by	Date	Time

Note: All samples are retained for six weeks from receipt unless other arrangements are made.

LAB USE ONLY
Received on Ice (Check) ☐ Yes ☐ No ☐ Ice Pack
Receipt Temp. ________ °C
Temp. Blank ☐ Y / ☐ N

D H E C
PROMOTE PROTECT PROSPER
Catherine B. Templeton, Director
Promoting and protecting the health of the public and the environment

UST DOCKETING

JUL 1 9 2013

BRYAN SHANE
MIDLANDS ENVIRONMENTAL CONSULTANTS
PO BOX 854
LEXINGTON SC 29071

Re: **Notice to Proceed-Groundwater Sampling/QAPP Contractor Addendum Approval**
Groundwater Sampling Contract
Solicitation # IFB-5400002759, PO#4600088529
Warren Green: 10773 West Frontage Road, Yemassee, SC
UST Permit # 04887 ; MECI CA# 45966 ; Shealy CA# 45967
Colleton County

Dear Mr. Shane:

In accordance with bid solicitation # IFB-5400002759 and the UST Management Division Quality Assurance Program Plan (QAPP), the Site-Specific Contractor Addendum has been reviewed and approved. In accordance with the QAPP, a weekly status report of the project should be provided on a weekly basis via e-mail. If any quality assurance problems arise, you must contact me within 24 hours via phone or e-mail. In addition, a discussion of the problem(s) encountered, including quality assurance problems, the actions taken, and the results must be included in the final report submitted to the UST Management Division.

MECI will perform services at the site on behalf of the site's responsible party (RP); however, payment will be made from the SUPERB Account. The site's RP has no obligation for payment for this scope of work. Please coordinate access to the facility with the property owner. The Department grants pre-approval for transportation of virgin petroleum impacted soil and groundwater from the referenced site to a permitted treatment facility. There can be no spillage or leakage in transport. All investigation-derived waste (IDW) must be properly contained and labeled prior to disposal. A copy of the disposal manifest and/or acceptance letter from the receiving facility that clearly designates the quantity received must be included with the final report. The SUPERB Account will not reimburse for transportation or treatment of soil and/or groundwater with concentrations below RBSLs. **Please note, the final report is due within 3 weeks from the date the site is sampled. If the site is not sampled by the specified due date or the report is not received in the specified time period, a late fee may be imposed.**

The final report should contain the requirements of Section III.2.15 of the bid solicitation. The final report should be submitted to Debra Thoma, the contract manager.

If you have any site-specific questions, please contact me at (803) 898-0606 or via e-mail at bursonsj@dhec.sc.gov. If you have any contract specific questions, please contact Debra Thoma at (803) 898-0631 or via e-mail at thomadl@dhec.sc.gov.

Sincerely,

Scott J Burson

Scott J. Burson, Project Manager
Corrective Action Section
UST Management Division
Bureau of Land & Waste Management

enc: Approved QAPP Contractor Addendum Signature Page
Approved Cost Agreement (both CAs)

cc: Debra Thoma, Corrective Action Section, UST Management Division
Kelly Maberry, Shealy Environmental, 106 Vantage Point Dr., West Columbia, SC, 29172 (w/ approved CA)
Technical Files (w/ encs.)

Section A: Project Management

A1 Title and Approval Page

Quality Assurance Project Plan
Addendum to the SC DHEC UST Programmatic QAPP
For
Warren Green, SCDHEC Site ID# 04887

10773 West Frontage Road, Yemassee, South Carolina

Prepared by:
Courtney M. Sanders
Project Biologist
Midlands Environmental Consultants, Inc.
(Certified Site Rehabilitation Contractor UCC-0009)
235-B Dooley Road
Lexington, SC 29073
(803)808-2043

Date: June 10, 2013

Approvals

Scott J. Burson SC DHEC Project Manager	Scott J. Burson Signature	Date 6/11/13
Courtney M. Sanders Contractor QA Manager	Signature	Date 6-11-13
Jeff L. Coleman Site Rehabilitation Contractor	Signature	Date 6/11/13
Daniel J. Wright Laboratory Director	Daniel J. Wright Signature	Date 06/10/2013

Approved Cost Agreement 45967

Facility: 04887 WARREN GREEN
BURSONSJ
PO Number:

Task / Description	Categories	Item	Description	Qty / Pct	Unit Price	Amount
11 ANALYSES						
	GW GROUNDWATER	A1	BTEXNM+OXYGS+1,2-DCA+ETH-8260B	27.0000	35.00	945.00
		F	EDB	27.0000	20.00	540.00
				Total Amount		1,485.00

Approved Cost Agreement 45966

Facility: 04887 WARREN GREEN
BURSONSJ
PO Number:

Task / Description	Categories	Item	Description	Qty / Pct	Unit Price	Amount
04 MOB/DEMOB						
		B	PERSONNEL	2.0000	100.00	200.00
10 SAMPLE COLLECTION						
		A	GROUND WATER	21.0000	4.50	94.50
		C	WATER SUPPLY	2.0000	2.00	4.00
		D	GROUNDWATER NO-PURGE	2.0000	4.50	9.00
		H	FIELD BLANK	1.0000	2.00	2.00
18 MISCELLANEOUS						
			QAPP PREP	1.0000	0.00	0.00
25 WELL REPAIR						
		F	REPLACE WELL COVER BOLTS	2.0000	10.00	20.00
				Total Amount		329.50

Midlands
Environmental
Consultants, Inc.

October 7, 2013

Ms. Debra Thoma, Hydrogeologist
Corrective Action Section
Underground Storage Tank Program
Bureau of Land and Waste Management
South Carolina Department of Health
and Environmental Control
2600 Bull Street
Columbia, South Carolina 29201

UST
Vacant
OCT 08 2013
PROGRAM

Subject: Report of Groundwater Sampling
Warren Green
10773 West Frontage Road
Yemassee, South Carolina
SCDHEC Site ID Number 04887; CA # 45966
MECI Project Number 13-4481
Certified Site Rehabilitation Contractor UCC-0009

UST
24
DOCKETING

Dear Ms. Thoma,

Midlands Environmental Consultants Inc. (MECI) is pleased to submit the attached Report of Groundwater Sampling for the referenced site. This report describes site activities conducted at the site in general accordance with South Carolina Department of Health and Environmental Control's (SCDHEC) Quality Assurance Program Plan for the Underground Storage Tank Management Division (QAPP).

PROJECT INFORMATION

The subject site (Warren Green) is located at 10773 West Frontage Yemassee, Jasper County, South Carolina. The site formerly maintained one 2,000 gallon gasoline underground storage tank (UST) and two 3,000 gallon gasoline UST's. The subject tanks are registered Rendered Not Usable (RNU). The South Carolina Department of Health and Environmental Control (SCDHEC) reported and confirmed a release of petroleum product from the subject tanks in May of 2002. The subject site is currently rated a Class 2BB.

The above information is based on reports and correspondence obtained from MECI field notes and SCDHEC files.

MONITORING WELL SAMPLING AND CHEMICAL ANALYSIS

On October 3, 2013, MECI personnel collected twenty-one (21) monitoring well samples and four (4) water supply well samples at the subject site. MECI personnel utilized an electronic water level indicator for water level measurements and an oil/water interface probe for free phase petroleum product level measurements. Based on a request by SCDHEC personnel, not all of the wells were to

Post Office Box 854, Lexington SC 29071 • 235-B Dooley Road, Lexington, SC 29073
Telephone: (803) 808-2043 • fax: (803) 808-2048

be purged prior to sampling. Twenty-one (21) monitoring wells were purged prior to sample collection. Purging was completed by bailing at least five well volumes of water from the well, until pH, conductivity, dissolved oxygen stabilized to within 10%, or all water was evacuated from the well, whichever occurred first. Sampling/purging was completed utilizing a prepackaged, clear, disposable polyethylene bailer and nylon rope. A new set of nitrile gloves were worn at each monitoring well, and at all time samples were handled. Field measurements of pH, conductivity, dissolved oxygen, water temperature, and turbidity were obtained before well sampling process. MECI utilized YSI550A meter for DO (mg/L) and temperature readings (°C), YSI63 meters for pH and conductivity (uS) readings and a MicroTPI/TPW turbidimeter for turbidity readings (NTU). The attached Field Data Information Sheets presents the results of the field measurements obtained. The wells were sampled in accordance with SCDHEC's Quality Assurance Program Plan for the Underground Storage Tank Management Division (QAPP, Dated April 2013) and MECI's Standard Operating Procedures (MECI SOP, Dated August, 2011).

Groundwater samples obtained were sent to Shealy Environmental Services, Inc. of West Columbia, SC (SCDHEC Laboratory Certification #32010) for analysis.

The following sampling matrix contains well development and requested analyses for each well:

Monitoring Well	**Purge**	**No Purge**	**Gauge Only**	**Not Located**	**Not Sampled**	**BTEX, Naphthalene, MTBE** (EPA Method 8260-B)	**EDB** (EPA Method 8011)	**1,2 DCA** (EPA Method 8260-B)	**8 Oxygenates** (EPA Method 8260-B)	**Total Lead** (EPA Method 6010)	**Sulfate** (EPA Method 375.2)	**Nitrate** (EPA Method 335.2)	**Methane** (RSK Method)	**PAH's** (EPA Method 8270)	**Ferrous Iron** (Field Test)
						Analyte Sampled									
MW-1	X					X	X	X	X						
MW-2	X					X	X	X	X						
MW-3R	X					X	X	X	X						
MW-4	X					X	X	X	X						
MW-5	X					X	X	X	X						
MW-6	X					X	X	X	X						
MW-7	X					X	X	X	X						
MW-8	X					X	X	X	X						
MW-9	X					X	X	X	X						
MW-10	X					X	X	X	X						
MW-11	X					X	X	X	X						
MW-12	X					X	X	X	X						
MW-13	X					X	X	X	X						
MW-14	X					X	X	X	X						
MW-15	X					X	X	X	X						
DW-1	X					X	X	X	X						
DW-2	X					X	X	X	X						
DW-3	X					X	X	X	X						
DW-4	X					X	X	X	X						
DW-5	X					X	X	X	X						
DW-6	X					X	X	X	X						
WSW-1						X	X	X	X						

Notes: BTEX = benzene, toluene, ethylbenzene, & total xylenes MTBE=methyl tertiary butyl ether 1,2 DCA = 1,2 dicloroethane
PAH = polycyclic aromatic hydrocarbons
Trip Blank provided by Shealy Environmental, temperature obtained upon receipt at Laboratory

Monitoring Well	Purge	No Purge	Gauge Only	Not Located	Not in Service	BTEX, Naphthalene, MTBE (EPA Method 8260-B)	EDB (EPA Method 8011)	1,2 DCA (EPA Method 8260-B)	8 Oxygenates (EPA Method 8260-B)	Total Lead (EPA Method 6010)	Sulfate (EPA Method 375.2)	Nitrate (EPA Method 335.2)	Methane (RSK Method)	PAH's (EPA Method 8270)	Ferrous Iron (Field Test)
						Analyte Sampled									
WSW-2						X	X	X	X						
WSW-3						X	X	X	X						
WSW-4						X	X	X	X						
MW-1 Dup.						X	X	X	X						
MW-7 Dup.						X	X	X	X						
Field Blank						X	X	X	X						
Trip Blank						X		X	X						

Notes: BTEX = benzene, toluene, ethylbenzene, & total xylenes MTBE=methyl tertiary butyl ether 1,2 DCA = 1,2 dicloroethane
PAH = polycyclic aromatic hydrocarbons
Trip Blank provided by Shealy Environmental, temperature obtained upon receipt at Laboratory

Purge water produced by the purging process was treated on-site utilizing a granular activated carbon unit. A total of 135.5 gallons of purge water was disposed of in this manner. A disposal manifest for the referenced purge water is attached at the end of this report.

Please feel free to contact us at 803-808-2043 if you have any immediate questions or comments.

Sincerely,
Midlands Environmental Consultants, Inc.

Patrick G. Boylan
Staff Geologist

Jeff L. Coleman
Senior Scientist

Attachments:

Contractor Checklist

Item#	Item	Yes	No	N/A
1	Is Facility Name, Permit #, and address provided?	X		
2	Is UST Owner/Operator name, address, & phone number provided?			X
3	Is name, address, & phone number of current property owner provided?			X
4	Is the DHEC Certified UST Site Rehabilitation Contractor's Name, Address, telephone number, and certification number provided?	X		
5	Is the name, address, telephone number, and certification number of the well driller that installed borings/monitoring wells provided?			X
6	Is the name, address, telephone number, and certification number of the certified laboratory(ies) performing analytical analyses provided?	X		
7	Has the facility history been summarized?	X		
8	Has the regional geology and hydrogeology been described?			X
9	Are the receptor survey results provided as required?			X
10	Has current use of the site and adjacent land been described?			X
11	Has the site-specific geology and hydrogeology been described?			X
12	Has the primary soil type been described?			X
13	Have field screening results been described?			X
14	Has a description of the soil sample collection and preservation been detailed?			X
15	Has the field screening methodology and procedure been detailed?			X
16	Has the monitoring well installation and development dates been provided?			X
17	Has the method of well development been detailed?			X
18	Has justification been provided for the locations of the monitoring wells?			X
19	Have the monitoring wells been labeled in accordance with the UST QAPP guidelines?			X
20	Has the groundwater sampling methodology been detailed? See MECI SOP	X		
21	Have the groundwater sampling dates and groundwater measurements been provided? See attached Site Activity Summary Sheet	X		
22	Has the purging methodology been detailed? See MECI SOP	X		
23	Has the volume of water purged from each well been provided along with measurements to verify that purging is complete? See attached Field Data Information Sheets	X		
24	If free-product is present, has the thickness been provided? See attached Site Activity Summary Sheets	X		
25	Does the report include a brief discussion of the assessment done and the results?			X
26	Does the report include a brief discussion of the aquifer evaluation and results?			X
27	Does the report include a brief discussion of the fate & transport models used?			X

Item#	Item	Yes	No	N/A
28	Are the site-conceptual model tables included? (Tier 1 Risk Evaluation)			X
29	Have the exposure pathways been analyzed? (Tier 2 Risk Evaluation)			X
30	Have the SSTLs for each compound and pathway been calculated? (Tier 2 Risk Evaluation)			X
31	Have recommendations for further action been provided and explained?			X
32	Has the soil analytical data for the site been provided in tabular format? (Table 1)			X
33	Has the potentiometric data for the site been provided in tabular format? (Table 2)			X
34	Has the current and historical laboratory data been provided in tabular format?			X
35	Have the aquifer characteristics been provided and summarized on the appropriate form?			X
36	Have the Site conceptual model tables been included? (Tier 1 Risk Evaluation)			X
37	Has the topographic map been provided with all required elements? (Figure 1)	X		
38	Has the site base map been provided with all required elements? (Figure 2)	X		
39	Have the CoC site maps been provided? (Figure 3 & Figure 4)			X
40	Has the site potentiometric map been provided? (Figure 5)			X
41	Have the geologic cross-sections been provided? (Figure 6)			X
42	Have maps showing the predicted migration of the CoCs through time been provided? (Tier 2 Risk Evaluation)			X
43	Has the site survey been provided and include all necessary elements? (Appendix A)			X
44	Have the sampling logs, chain of custody forms, and the analytical data package been included with all required elements? (Appendix B)	X		
45	Is the laboratory performing the analyses properly certified?	X		
46	Has the tax map been included with all necessary elements? (Appendix C)			X
47	Have the soil boring/field screening logs been provided? (Appendix D)			X
48	Have the well completion logs and SCDHEC Form 1903 been provided? (Appendix E)			X
49	Have the aquifer evaluation forms, data, graphs, equations, etc. been provided? (Appendix F)			X
50	Have the disposal manifests been provided? See attached	X		
51	Has a copy of the local zoning regulations been provided? (Appendix H)			X
52	Has all fate and transport modeling been provided? (Appendix I)			X
53	Have copies of all access agreements obtained by the contractor been provided? (Appendix J)			X
54	Has a copy of this form been attached to the final report and are explanations for any missing or incomplete data been provided?	X		

Site Activity Summary

UST Permit #:	04887
Facility Name:	Warren Green
County:	Colleton
Field Personnel:	Patrick Boylan & Ryan Ariail

Midlands Environmental Consultants, Inc.
235-B Dooley Road, Lexington, SC 29073
(803) 808-2043 fax: 808-2048

Sample ID	Sampled?	Date	Time	Screened Interval	Depth to Product (ft)	Depth to Water (ft)	Product Thickness (ft)	DO (mg/l)	# Gals. Purged	Comments
MW-1	Y	10/3/13	15:13	2-12	***	7.50	***	1.37	0.5	Slight Odor
MW-2	Y	10/3/13	14:11	5-15	***	7.08	***	1.68	1.0	No Odor
MW-3R	Y	10/3/13	14:27	5-20	***	7.21	***	0.54	10.5	No Odor
MW-4	Y	10/3/13	13:59	5-20	***	7.09	***	0.74	10.5	No Odor
MW-5	Y	10/3/13	13:30	5-20	***	5.73	***	0.77	11.5	No Odor, Vault is Damaged exposing casing
MW-6	Y	10/3/13	13:05	5-20	***	5.81	***	0.59	11.5	No Odor, Casing Damaged
MW-7	Y	10/3/13	15:30	5-20	***	7.59	***	0.72	10.0	Odor, Sheen
MW-8	Y	10/3/13	11:10	5-20	***	9.30	***	0.77	1.5	No Odor, Heavy Silt in Well
MW-9	Y	10/3/13	15:25	5-20	***	9.22	***	0.87	2.0	No Odor, Heavy Silt in Well
MW-10	Y	10/3/13	10:41	5-20	***	10.12	***	1.08	1.5	No Odor
MW-11	Y	10/3/13	10:33	5-20	***	9.91	***	3.03	1.5	No Odor
MW-12	Y	10/3/13	10:56	5-20	***	8.09	***	1.08	1.5	No Odor
MW-13	Y	10/3/13	11:46	5-20	***	7.18	***	1.13	10.5	No Odor, Well Cap Added
MW-14	Y	10/3/13	12:01	5-20	***	7.24	***	0.69	10.5	No Odor
MW-15	Y	10/3/13	12:17	5-20	***	6.21	***	1.05	13.0	No Odor
									97.5	**TOTAL GALLONS PURGED**

Site Activity Summary

UST Permit #:	04887
Facility Name:	Warren Green
County:	Colleton
Field Personnel:	Patrick Boylan & Ryan Ariail

Midlands Environmental Consultants, Inc.
235-B Dooley Road, Lexington, SC 29073
(803) 808-2043 fax: 808-2048

Sample ID	Sampled?	Date	Time	Screened Interval	Depth to Product (ft)	Depth to Water (ft)	Product Thickness (ft)	DO (mg/l)	# Gals. Purged	Comments
DW-1	Y	10/3/13	15:00	45-50	***	7.21	***	3.87	2.0	No Odor, Well Potentially Callapsed, Heavy Silt
DW-2	Y	10/3/13	14:07	45-50	***	8.13	***	2.86	5.5	No Odor, Well Potentially Callapsed, Heavy Silt
DW-3	Y	10/3/13	13:40	45-50	***	9.41	***	1.84	6.5	No Odor
DW-4	Y	10/3/13	13:15	45-50	***	8.67	***	1.62	6.0	No Odor
DW-5	Y	10/3/13	15:41	80-85	***	0.52	***	3.21	13.0	No Odor, Well Potentially Callapsed, Heavy Silt
DW-6	Y	10/3/13	15:17	80-85	***	15.43	***	3.95	5.0	No Odor, Well Potentially Callapsed, Heavy Silt
WSW-1	Y	10/3/13	15:52	***	***	***	***	***	***	235 Bowers Lane, Spigot on House
WSW-2	Y	10/3/13	15:48	***	***	***	***	***	***	299 Bowers Lane, Spigot on WSW
WSW-3	Y	10/3/13	16:10	***	***	***	***	***	***	10951 Frontage Road, Spigot on WSW
WSW-4	Y	10/3/13	16:10	***	***	***	***	***	***	10943 Fontage Road, Spigot on WSW
MW-1 Dup.	Y	10/3/13	15:13	***	***	***	***	***	***	Duplicate Sample
MW-7 Dup.	Y	10/3/13	15:30	***	***	***	***	***	***	Duplicate Sample
Field Blank	Y	10/3/13	14:45	***	***	***	***	***	***	Field Blank
Trip Blank	Y	10/3/13	14:45	***	***	***	***	***	***	Trip Blank
									38.0	**TOTAL GALLONS PURGED**

South Carolina Department of Health and Environmental Control
Bureau of Land and Waste Management Underground Storage Tank Program

Field Data Information Sheet for Groundwater Sampling

Date (mm/dd/yy): 10/3/2013
Field Personnel: Patrick Boylan & Ryan Ariail
General Weather Conditions: Sunny

Ambient Air Temperature: 26.0 °C

Quality Assurance

pH/Conductivity Meter		**DO Meter**	
YSI 63		**YSI 550A**	
09C 101302		04L 2026AK	
10K 101895		08B 101895	
07M 100905	X	04A 0912AI	X
Calibration Buffer:	4, 7, & 10		

Chain of Custody

Relinquished by Date/Time Received by Date/Time

Facility Name: Warren Green
Site ID#: 04887 **Monitoring Well #** MW-1
Water Supply Well **Public** **Private**

Monitoring Well Diameter (D): 2 inches

Conversion Factor (C): 3.14 x $(D/2)^2$ for a 2 inch well C=0.163
for a 4 inch well C=0.652

* Free Product Thickness: feet
Depth to Free Product (DFP) feet
Depth to Ground Water (DGW) 7.50 feet
Total Well Depth (TWD) 12 feet
Length of the water column (LWC=TWD-DGW) 4.5 feet
1 casing volume (CV=LWC X C)= _____ X 0.163 0.73 gallons
5 casing volume (5 X CV)= 5 3.67 gallons

Total Volume of Water Purged Before Sampling 0.5 gals.
*If free product is present over 1/8 inch, sampling will not be required.

Cumulative Volume Purged (gallons)	Inital	1st Vol	2nd Vol	3rd Vol	4th Vol	5th Vol	Post Sampling	
Time (military)	15:12	15:13						
pH (s.u.)	6.45	6.37						
Specific Conductivity (μmhos/cm)	132.9	87.6						
Water Temperature (°C)	23.5	23.8						
Dissolved Oxygen	1.37	1.78						
Turbidity (NTU)	24.53	381.6						
PID readings, if required								

Remarks: Sample Time: 15:13 **Dry @ 0.5 Gallons**

South Carolina Department of Health and Environmental Control
Bureau of Land and Waste Management Underground Storage Tank Program

Field Data Information Sheet for Groundwater Sampling

Date (mm/dd/yy): 10/3/2013
Field Personnel: Patrick Boylan & Ryan Ariail
General Weather Conditions: Sunny

Ambient Air Temperature: 26.0 °C

Quality Assurance

pH/Conductivity Meter		**DO Meter**	
YSI 63		**YSI 550A**	
09C 101302		04L 2026AK	
10K 101895		08B 101895	
07M 100905	X	04A 0912AI	X
Calibration Buffer:	4, 7, & 10		

Chain of Custody

Relinquished by	Date/Time	Received by	Date/Time

Facility Name: Warren Green
Site ID#: 04887 **Monitoring Well #** MW-2
Water Supply Well **Public** ______ **Private** ______

Monitoring Well Diameter (D): 2 inches

Conversion Factor (C): $3.14 \times (D/2)^2$ for a 2 inch well C=0.163; for a 4 inch well C=0.652

* Free Product Thickness: ______ feet
Depth to Free Product (DFP) ______ feet
Depth to Ground Water (DGW) 7.08 feet
Total Well Depth (TWD) 15 feet
Length of the water column (LWC=TWD-DGW) 7.92 feet
1 casing volume (CV=LWC X C)= ______ X 0.163 | 1.29 | gallons
5 casing volume (5 X CV)= 5 | 6.45 | gallons

Total Volume of Water Purged Before Sampling 1 gals.
*If free product is present over 1/8 inch, sampling will not be required.

Cumulative Volume Purged (gallons)	Inital	1st Vol	2nd Vol	3rd Vol	4th Vol	5th Vol	Post Sampling	
Time (military)	14:10	14:11						
pH (s.u.)	4.89	5.01						
Specific Conductivity (µmhos/cm)	157.6	163.3						
Water Temperature (°C)	23.7	21.9						
Dissolved Oxygen	1.68	1.72						
Turbidity (NTU)	19.24	824.1						
PID readings, if required								

Remarks: Sample Time: 14:11 **Dry @ 0.5 Gallons**

South Carolina Department of Health and Environmental Control
Bureau of Land and Waste Management Underground Storage Tank Program

Field Data Information Sheet for Groundwater Sampling

Date (mm/dd/yy): 10/3/2013
Field Personnel: Patrick Boylan & Ryan Ariail
General Weather Conditions: Sunny

Ambient Air Temperature: 26.0 °C

Quality Assurance

pH/Conductivity Meter		**DO Meter**	
YSI 63		**YSI 550A**	
09C 101302		04L 2026AK	
10K 101895		08B 101895	
07M 100905	X	04A 0912AI	X
Calibration Buffer:	4, 7, & 10		

Chain of Custody

Relinquished by	Date/Time	Received by	Date/Time

Facility Name: Warren Green
Site ID#: 04887 **Monitoring Well #** MW-3R
Water Supply Well **Public** ______ **Private** ______

Monitoring Well Diameter (D): 2 inches

Conversion Factor (C): 3.14 x $(D/2)^2$ for a 2 inch well C=0.163; for a 4 inch well C=0.652

* Free Product Thickness:		feet
Depth to Free Product (DFP)		feet
Depth to Ground Water (DGW)	7.21	feet
Total Well Depth (TWD)	20	feet
Length of the water column (LWC=TWD-DGW)	12.79	feet
1 casing volume (CV=LWC X C)= _____ X 0.163	2.08	gallons
5 casing volume (5 X CV)= 5	10.42	gallons

Total Volume of Water Purged Before Sampling 10.5 gals.
*If free product is present over 1/8 inch, sampling will not be required.

Cumulative Volume Purged (gallons)	Inital	1st Vol	2nd Vol	3rd Vol	4th Vol	5th Vol	Post Sampling	
Time (military)	14:17	14:19	14:21	14:23	14:25	14:27		
pH (s.u.)	6.00	5.61	5.11	5.83	5.85	5.86		
Specific Conductivity (μmhos/cm)	189.7	183.5	181.2	179.3	143.6	122.3		
Water Temperature (°C)	22.1	20.1	20.0	19.8	19.6	19.5		
Dissolved Oxygen	0.54	1.03	1.04	1.06	1.35	1.37		
Turbidity (NTU)	31.41	1,100+	1,100+	1,100+	1,100+	1,100+		
PID readings, if required								

Remarks: Sample Time: 14:27

South Carolina Department of Health and Environmental Control
Bureau of Land and Waste Management Underground Storage Tank Program

Field Data Information Sheet for Groundwater Sampling

Date (mm/dd/yy): 10/3/2013
Field Personnel: Patrick Boylan & Ryan Ariail
General Weather Conditions: Sunny

Ambient Air Temperature: 26.0 °C

Quality Assurance

pH/Conductivity Meter		**DO Meter**	
YSI 63		**YSI 550A**	
09C 101302		04L 2026AK	
10K 101895		08B 101895	
07M 100905	X	04A 0912AI	X
Calibration Buffer:	4, 7, & 10		

Chain of Custody

Relinquished by	Date/Time	Received by	Date/Time

Facility Name: Warren Green
Site ID#: 04887 **Monitoring Well #** MW-4
Water Supply Well **Public** ______ **Private** ______

Monitoring Well Diameter (D): 2 inches

Conversion Factor (C): $3.14 \times (D/2)^2$ for a 2 inch well C=0.163; for a 4 inch well C=0.652

* Free Product Thickness: ______ feet
Depth to Free Product (DFP) ______ feet
Depth to Ground Water (DGW) 7.09 feet
Total Well Depth (TWD) 20 feet
Length of the water column (LWC=TWD-DGW) 12.91 feet
1 casing volume (CV=LWC X C)= ______ X 0.163 2.10 gallons
5 casing volume (5 X CV)= 5 10.52 gallons

Total Volume of Water Purged Before Sampling 10.5 gals.
*If free product is present over 1/8 inch, sampling will not be required.

Cumulative Volume Purged (gallons)	Inital	1st Vol	2nd Vol	3rd Vol	4th Vol	5th Vol	Post Sampling	
Time (military)	13:49	13:51	13:53	13:55	13:57	13:59		
pH (s.u.)	5.75	5.46	5.35	5.27	5.25	5.22		
Specific Conductivity (μmhos/cm)	147.2	185.9	193.1	196.2	198.1	199.3		
Water Temperature (°C)	22.8	21.5	21.2	21.1	20.9	20.8		
Dissolved Oxygen	0.74	0.76	1.80	1.96	1.63	1.41		
Turbidity (NTU)	19.87	863.9	973.2	1,100+	1,100+	1,100+		
PID readings, if required								

Remarks: Sample Time: 13:59

South Carolina Department of Health and Environmental Control
Bureau of Land and Waste Management Underground Storage Tank Program

Field Data Information Sheet for Groundwater Sampling

Date (mm/dd/yy): 10/3/2013
Field Personnel: Patrick Boylan & Ryan Ariail
General Weather Conditions: Sunny

Ambient Air Temperature: 26.0 °C

Quality Assurance

pH/Conductivity Meter		**DO Meter**	
YSI 63		**YSI 550A**	
09C 101302		04L 2026AK	
10K 101895		08B 101895	
07M 100905	X	04A 0912AI	X
Calibration Buffer:	4, 7, & 10		

Chain of Custody

Relinquished by	Date/Time	Received by	Date/Time

Facility Name: Warren Green
Site ID#: 04887 **Monitoring Well #** MW-5
Water Supply Well **Public** ______ **Private** ______

Monitoring Well Diameter (D): 2 inches

Conversion Factor (C): $3.14 \times (D/2)^2$ for a 2 inch well C=0.163; for a 4 inch well C=0.652

* Free Product Thickness:		feet
Depth to Free Product (DFP)		feet
Depth to Ground Water (DGW)	5.73	feet
Total Well Depth (TWD)	20	feet
Length of the water column (LWC=TWD-DGW)	14.27	feet
1 casing volume (CV=LWC X C)= _____ X 0.163	2.33	gallons
5 casing volume (5 X CV)= 5	11.63	gallons

Total Volume of Water Purged Before Sampling 11.5 gals.
*If free product is present over 1/8 inch, sampling will not be required.

Cumulative Volume Purged (gallons)	Inital	1st Vol	2nd Vol	3rd Vol	4th Vol	5th Vol	Post Sampling	
Time (military)	13:20	13:22	13:24	13:26	13:28	13:30		
pH (s.u.)	6.83	6.70	6.81	6.96	6.92	6.97		
Specific Conductivity (μmhos/cm)	69.6	58.8	66.0	54.0	52.8	52.9		
Water Temperature (°C)	23.2	21.5	21.0	20.8	20.8	20.7		
Dissolved Oxygen	0.77	1.10	0.59	0.89	0.82	0.76		
Turbidity (NTU)	21.44	849.3	1,100+	1,100+	1,100+	1,100+		
PID readings, if required								

Remarks: Sample Time: 13:30

South Carolina Department of Health and Environmental Control
Bureau of Land and Waste Management Underground Storage Tank Program

Field Data Information Sheet for Groundwater Sampling

Date (mm/dd/yy): 10/3/2013
Field Personnel: Patrick Boylan & Ryan Ariail
General Weather Conditions: Sunny

Ambient Air Temperature: 26.0 °C

Quality Assurance

pH/Conductivity Meter		**DO Meter**	
YSI 63		**YSI 550A**	
09C 101302		04L 2026AK	
10K 101895		08B 101895	
07M 100905	X	04A 0912AI	X
Calibration Buffer:	4, 7, & 10		

Chain of Custody

Relinquished by	Date/Time	Received by	Date/Time

Facility Name: Warren Green
Site ID#: 04887 **Monitoring Well #** MW-6
Water Supply Well **Public** ______ **Private** ______

Monitoring Well Diameter (D): 2 inches

Conversion Factor (C): 3.14 x $(D/2)^2$ for a 2 inch well C=0.163; for a 4 inch well C=0.652

* Free Product Thickness: ______ feet
Depth to Free Product (DFP) ______ feet
Depth to Ground Water (DGW) 5.81 feet
Total Well Depth (TWD) 20 feet
Length of the water column (LWC=TWD-DGW) 14.19 feet
1 casing volume (CV=LWC X C)= ______ X 0.163 2.31 gallons
5 casing volume (5 X CV)= 5 11.56 gallons

Total Volume of Water Purged Before Sampling 11.5 gals.
*If free product is present over 1/8 inch, sampling will not be required.

Cumulative Volume Purged (gallons)	Inital	1st Vol	2nd Vol	3rd Vol	4th Vol	5th Vol	Post Sampling	
Time (military)	12:54	12:57	12:59	13:01	13:03	13:05		
pH (s.u.)	6.12	6.32	6.44	6.55	6.56	6.53		
Specific Conductivity (µmhos/cm)	109.3	106.3	94.1	67.2	77.1	74.8		
Water Temperature (°C)	22.1	21.2	20.8	20.7	20.6	20.6		
Dissolved Oxygen	0.59	1.06	1.69	1.07	1.13	1.36		
Turbidity (NTU)	29.36	834.6	807.4	924.3	1,100+	1,100+		
PID readings, if required								

Remarks: Sample Time: 13:05

South Carolina Department of Health and Environmental Control
Bureau of Land and Waste Management Underground Storage Tank Program

Field Data Information Sheet for Groundwater Sampling

Date (mm/dd/yy): 10/3/2013
Field Personnel: Patrick Boylan & Ryan Ariail
General Weather Conditions: Sunny

Ambient Air Temperature: 26.0 °C

Quality Assurance

pH/Conductivity Meter		**DO Meter**	
YSI 63		**YSI 550A**	
09C 101302		04L 2026AK	
10K 101895		08B 101895	
07M 100905	X	04A 0912AI	X
Calibration Buffer:	4, 7, & 10		

Chain of Custody

Relinquished by	Date/Time	Received by	Date/Time

Facility Name: Warren Green
Site ID#: 04887 **Monitoring Well #** MW-7
Water Supply Well **Public** ______ **Private** ______

Monitoring Well Diameter (D): 2 inches

Conversion Factor (C): $3.14 \times (D/2)^2$ for a 2 inch well C=0.163
for a 4 inch well C=0.652

* Free Product Thickness: ______ feet
Depth to Free Product (DFP) ______ feet
Depth to Ground Water (DGW) 7.59 feet
Total Well Depth (TWD) 20 feet
Length of the water column (LWC=TWD-DGW) 12.41 feet
1 casing volume (CV=LWC X C)= _____ X 0.163 | 2.02 | gallons
5 casing volume (5 X CV)= 5 | 10.11 | gallons

Total Volume of Water Purged Before Sampling 10 gals.
*If free product is present over 1/8 inch, sampling will not be required.

Cumulative Volume Purged (gallons)	Inital	1st Vol	2nd Vol	3rd Vol	4th Vol	5th Vol	Post Sampling	
Time (military)	15:20	15:22	15:24	15:26	15:28	15:30		
pH (s.u.)	5.57	5.50	Sheen	Sheen	Sheen	Sheen		
Specific Conductivity (μmhos/cm)	91.8	23.5	Sheen	Sheen	Sheen	Sheen		
Water Temperature (°C)	23.5	22.3	Sheen	Sheen	Sheen	Sheen		
Dissolved Oxygen	0.72	0.81	Sheen	Sheen	Sheen	Sheen		
Turbidity (NTU)	75.63	409.7	Sheen	Sheen	Sheen	Sheen		
PID readings, if required								

Remarks: Sample Time: 15:30

South Carolina Department of Health and Environmental Control
Bureau of Land and Waste Management Underground Storage Tank Program

Field Data Information Sheet for Groundwater Sampling

Date (mm/dd/yy): 10/3/2013
Field Personnel: Patrick Boylan & Ryan Ariail
General Weather Conditions: Sunny

Ambient Air Temperature: 26.0 °C

Quality Assurance

pH/Conductivity Meter		**DO Meter**	
YSI 63		**YSI 550A**	
09C 101302		04L 2026AK	
10K 101895		08B 101895	
07M 100905	X	04A 0912AI	X
Calibration Buffer:	4, 7, & 10		

Chain of Custody

Relinquished by | Date/Time | Received by | Date/Time

Facility Name: Warren Green
Site ID#: 04887 **Monitoring Well #** MW-8
Water Supply Well **Public** ____ **Private** ____

Monitoring Well Diameter (D): 2 inches

Conversion Factor (C): $3.14 \times (D/2)^2$ for a 2 inch well C=0.163; for a 4 inch well C=0.652

* Free Product Thickness: ____ feet
Depth to Free Product (DFP) ____ feet
Depth to Ground Water (DGW) 9.30 feet
Total Well Depth (TWD) 20 feet
Length of the water column (LWC=TWD-DGW) 10.7 feet
1 casing volume (CV=LWC X C)= ____ X 0.163 | 1.74 | gallons
5 casing volume (5 X CV)= 5 | 8.72 | gallons

Total Volume of Water Purged Before Sampling 1.5 gals.
*If free product is present over 1/8 inch, sampling will not be required.

Cumulative Volume Purged (gallons)	Inital	1st Vol	2nd Vol	3rd Vol	4th Vol	5th Vol	Post Sampling	
Time (military)	11:08	11:10						
pH (s.u.)	4.98	5.20						
Specific Conductivity (μmhos/cm)	86.6	75.5						
Water Temperature (°C)	24.4	23.3						
Dissolved Oxygen	0.77	0.95						
Turbidity (NTU)	19.34	1,100+						
PID readings, if required								

Remarks: Sample Time: 11:10 **Dry @ 1.5 Gallons**

South Carolina Department of Health and Environmental Control
Bureau of Land and Waste Management Underground Storage Tank Program

Field Data Information Sheet for Groundwater Sampling

Date (mm/dd/yy): 10/3/2013
Field Personnel: Patrick Boylan & Ryan Ariail
General Weather Conditions: Sunny

Ambient Air Temperature: 26.0 °C

Quality Assurance

pH/Conductivity Meter		**DO Meter**	
YSI 63		**YSI 550A**	
09C 101302		04L 2026AK	
10K 101895		08B 101895	
07M 100905	X	04A 0912AI	X
Calibration Buffer:	4, 7, & 10		

Chain of Custody

Relinquished by	Date/Time	Received by	Date/Time

Facility Name: Warren Green
Site ID#: 04887 **Monitoring Well #** MW-9
Water Supply Well **Public** ____ **Private** ____

Monitoring Well Diameter (D): 2 inches

Conversion Factor (C): 3.14 x $(D/2)^2$ for a 2 inch well C=0.163; for a 4 inch well C=0.652

* Free Product Thickness: ____ feet
Depth to Free Product (DFP) ____ feet
Depth to Ground Water (DGW) 9.22 feet
Total Well Depth (TWD) 20 feet
Length of the water column (LWC=TWD-DGW) 10.78 feet
1 casing volume (CV=LWC X C)= ____ X 0.163 1.76 gallons
5 casing volume (5 X CV)= 5 8.79 gallons

Total Volume of Water Purged Before Sampling 2 gals.
*If free product is present over 1/8 inch, sampling will not be required.

Cumulative Volume Purged (gallons)	Inital	1st Vol	2nd Vol	3rd Vol	4th Vol	5th Vol	Post Sampling	
Time (military)	11:25	11:27						
pH (s.u.)	5.58	5.33						
Specific Conductivity (μmhos/cm)	128.8	118.0						
Water Temperature (°C)	25.0	23.9						
Dissolved Oxygen	0.87	0.61						
Turbidity (NTU)	29.31	1,100+						
PID readings, if required								

Remarks: Sample Time: 15:25 **Dry @ 2.0 Gallons**

South Carolina Department of Health and Environmental Control
Bureau of Land and Waste Management Underground Storage Tank Program

Field Data Information Sheet for Groundwater Sampling

Date (mm/dd/yy): 10/3/2013
Field Personnel: Patrick Boylan & Ryan Ariail
General Weather Conditions: Sunny

Ambient Air Temperature: 26.0 °C

Quality Assurance

pH/Conductivity Meter		**DO Meter**	
YSI 63		**YSI 550A**	
09C 101302		04L 2026AK	
10K 101895		08B 101895	
07M 100905	X	04A 0912AI	X
Calibration Buffer:	4, 7, & 10		

Chain of Custody

Relinquished by	Date/Time	Received by	Date/Time

Facility Name: Warren Green
Site ID#: 04887 **Monitoring Well #** MW-10
Water Supply Well **Public** ______ **Private** ______

Monitoring Well Diameter (D): 2 inches

Conversion Factor (C): 3.14 x $(D/2)^2$ for a 2 inch well C=0.163; for a 4 inch well C=0.652

* Free Product Thickness:		feet
Depth to Free Product (DFP)		feet
Depth to Ground Water (DGW)	10.12	feet
Total Well Depth (TWD)	20	feet
Length of the water column (LWC=TWD-DGW)	9.88	feet
1 casing volume (CV=LWC X C)= _____ X 0.163	1.61	gallons
5 casing volume (5 X CV)= 5	8.05	gallons
Total Volume of Water Purged Before Sampling	1.5	gals.

*If free product is present over 1/8 inch, sampling will not be required.

Cumulative Volume Purged (gallons)	Inital	1st Vol	2nd Vol	3rd Vol	4th Vol	5th Vol	Post Sampling	
Time (military)	10:39	10:41						
pH (s.u.)	5.54	5.58						
Specific Conductivity (µmhos/cm)	130.4	142.4						
Water Temperature (°C)	24.2	23.0						
Dissolved Oxygen	1.08	1.25						
Turbidity (NTU)	136.40	897.3						
PID readings, if required								

Remarks: Sample Time: 10:41 **Dry @ 1.5 Gallons**

South Carolina Department of Health and Environmental Control
Bureau of Land and Waste Management Underground Storage Tank Program

Field Data Information Sheet for Groundwater Sampling

Date (mm/dd/yy): 10/3/2013
Field Personnel: Patrick Boylan & Ryan Ariail
General Weather Conditions: Sunny

Ambient Air Temperature: 26.0 °C

Quality Assurance

pH/Conductivity Meter		**DO Meter**	
YSI 63		**YSI 550A**	
09C 101302		04L 2026AK	
10K 101895		08B 101895	
07M 100905	X	04A 0912AI	X
Calibration Buffer:	4, 7, & 10		

Chain of Custody

Relinquished by	Date/Time	Received by	Date/Time

Facility Name: Warren Green
Site ID#: 04887 **Monitoring Well #** MW-11
Water Supply Well **Public** ______ **Private** ______

Monitoring Well Diameter (D): 2 inches

Conversion Factor (C): $3.14 \times (D/2)^2$ for a 2 inch well C=0.163; for a 4 inch well C=0.652

* Free Product Thickness:		feet
Depth to Free Product (DFP)		feet
Depth to Ground Water (DGW)	9.91	feet
Total Well Depth (TWD)	20	feet
Length of the water column (LWC=TWD-DGW)	10.09	feet
1 casing volume (CV=LWC X C)= _____ X 0.163	1.64	gallons
5 casing volume (5 X CV)= 5	8.22	gallons
Total Volume of Water Purged Before Sampling	1.5	gals.

*If free product is present over 1/8 inch, sampling will not be required.

Cumulative Volume Purged (gallons)	Inital	1st Vol	2nd Vol	3rd Vol	4th Vol	5th Vol	Post Sampling	
Time (military)	10:31	10:33						
pH (s.u.)	6.28	5.88						
Specific Conductivity (μmhos/cm)	93.7	103.7						
Water Temperature (°C)	24.4	23.1						
Dissolved Oxygen	3.03	2.87						
Turbidity (NTU)	57.48	934.2						
PID readings, if required								

Remarks: Sample Time: 10:33 **Dry @ 1.5 Gallons**

South Carolina Department of Health and Environmental Control
Bureau of Land and Waste Management Underground Storage Tank Program

Field Data Information Sheet for Groundwater Sampling

Date (mm/dd/yy): 10/3/2013
Field Personnel: Patrick Boylan & Ryan Ariail
General Weather Conditions: Sunny

Ambient Air Temperature: 26.0 °C

Quality Assurance

pH/Conductivity Meter		**DO Meter**	
YSI 63		**YSI 550A**	
09C 101302		04L 2026AK	
10K 101895		08B 101895	
07M 100905	X	04A 0912AI	X
Calibration Buffer:	4, 7, & 10		

Chain of Custody

Relinquished by	Date/Time	Received by	Date/Time

Facility Name: Warren Green
Site ID#: 04887 **Monitoring Well #** MW-12
Water Supply Well **Public** ______ **Private** ______

Monitoring Well Diameter (D): 2 inches

Conversion Factor (C): $3.14 \times (D/2)^2$ for a 2 inch well C=0.163; for a 4 inch well C=0.652

* Free Product Thickness:		feet
Depth to Free Product (DFP)		feet
Depth to Ground Water (DGW)	8.09	feet
Total Well Depth (TWD)	20	feet
Length of the water column (LWC=TWD-DGW)	11.91	feet
1 casing volume (CV=LWC X C)= ______ X 0.163	1.94	gallons
5 casing volume (5 X CV)= 5	9.71	gallons
Total Volume of Water Purged Before Sampling	1.5	gals.

*If free product is present over 1/8 inch, sampling will not be required.

Cumulative Volume Purged (gallons)	Inital	1st Vol	2nd Vol	3rd Vol	4th Vol	5th Vol	Post Sampling	
Time (military)	10:54	10:56						
pH (s.u.)	5.98	5.39						
Specific Conductivity (μmhos/cm)	154.4	156.9						
Water Temperature (°C)	23.9	22.7						
Dissolved Oxygen	1.08	2.17						
Turbidity (NTU)	24.89	1,100+						
PID readings, if required								

Remarks: Sample Time: 10:56 **Dry @ 1.5 Gallons**

South Carolina Department of Health and Environmental Control
Bureau of Land and Waste Management Underground Storage Tank Program

Field Data Information Sheet for Groundwater Sampling

Date (mm/dd/yy): 10/3/2013

Field Personnel: Patrick Boylan & Ryan Ariail

General Weather Conditions: Sunny

Ambient Air Temperature: 26.0 °C

Quality Assurance

pH/Conductivity Meter		**DO Meter**	
YSI 63		**YSI 550A**	
09C 101302		04L 2026AK	
10K 101895		08B 101895	
07M 100905	X	04A 0912AI	X
Calibration Buffer:	4, 7, & 10		

Chain of Custody

Relinquished by	Date/Time	Received by	Date/Time

Facility Name: Warren Green

Site ID#: 04887 **Monitoring Well #** MW-13

Water Supply Well **Public** ______ **Private** ______

Monitoring Well Diameter (D): 2 inches

Conversion Factor (C): 3.14 x $(D/2)^2$ for a 2 inch well C=0.163; for a 4 inch well C=0.652

* Free Product Thickness: ______ feet

Depth to Free Product (DFP) ______ feet

Depth to Ground Water (DGW) 7.18 feet

Total Well Depth (TWD) 20 feet

Length of the water column (LWC=TWD-DGW) 12.82 feet

1 casing volume (CV=LWC X C)= ______ X 0.163 | 2.09 | gallons

5 casing volume (5 X CV)= 5 | 10.45 | gallons

Total Volume of Water Purged Before Sampling 10.5 gals.

*If free product is present over 1/8 inch, sampling will not be required.

Cumulative Volume Purged (gallons)	Inital	1st Vol	2nd Vol	3rd Vol	4th Vol	5th Vol	Post Sampling	
Time (military)	11:36	11:38	11:40	11:42	11:44	11:46		
pH (s.u.)	6.40	5.68	5.78	5.79	5.71	5.58		
Specific Conductivity (μmhos/cm)	98.9	130.6	134.0	136.6	137.2	137.1		
Water Temperature (°C)	22.5	20.9	20.6	20.5	20.4	20.4		
Dissolved Oxygen	1.13	1.34	1.37	1.61	1.59	1.52		
Turbidity (NTU)	31.39	693.7	824.1	846.3	803.9	872.1		
PID readings, if required								

Remarks: Sample Time: 11:46

South Carolina Department of Health and Environmental Control
Bureau of Land and Waste Management Underground Storage Tank Program

Field Data Information Sheet for Groundwater Sampling

Date (mm/dd/yy): 10/3/2013

Field Personnel: Patrick Boylan & Ryan Ariail

General Weather Conditions: Sunny

Ambient Air Temperature: 26.0 °C

Quality Assurance

pH/Conductivity Meter		**DO Meter**	
YSI 63		**YSI 550A**	
09C 101302		04L 2026AK	
10K 101895		08B 101895	
07M 100905	X	04A 0912AI	X
Calibration Buffer:	4, 7, & 10		

Chain of Custody

Relinquished by	Date/Time	Received by	Date/Time

Facility Name: Warren Green

Site ID#: 04887 **Monitoring Well #** MW-14

Water Supply Well **Public** ______ **Private** ______

Monitoring Well Diameter (D): 2 inches

Conversion Factor (C): $3.14 \times (D/2)^2$ for a 2 inch well C=0.163; for a 4 inch well C=0.652

* Free Product Thickness:		feet
Depth to Free Product (DFP)		feet
Depth to Ground Water (DGW)	7.24	feet
Total Well Depth (TWD)	20	feet
Length of the water column (LWC=TWD-DGW)	12.76	feet
1 casing volume (CV=LWC X C)= _____ X 0.163	2.08	gallons
5 casing volume (5 X CV)= 5	10.40	gallons

Total Volume of Water Purged Before Sampling 10.5 gals.

*If free product is present over 1/8 inch, sampling will not be required.

Cumulative Volume Purged (gallons)	Inital	1st Vol	2nd Vol	3rd Vol	4th Vol	5th Vol	Post Sampling	
Time (military)	11:51	11:53	11:55	11:57	11:59	12:01		
pH (s.u.)	4.69	5.04	5.40	5.47	5.46	5.38		
Specific Conductivity (μmhos/cm)	186.6	116.0	77.9	67.5	65.5	63.8		
Water Temperature (°C)	21.3	20.0	19.6	19.5	19.5	19.5		
Dissolved Oxygen	0.69	0.80	1.00	1.24	1.10	1.19		
Turbidity (NTU)	31.59	1,100+	1,100+	936.4	1034.0	1,100+		
PID readings, if required								

Remarks: Sample Time: 12:01

South Carolina Department of Health and Environmental Control
Bureau of Land and Waste Management Underground Storage Tank Program

Field Data Information Sheet for Groundwater Sampling

Date (mm/dd/yy): 10/3/2013
Field Personnel: Patrick Boylan & Ryan Ariail
General Weather Conditions: Sunny

Ambient Air Temperature: 26.0 °C

Quality Assurance

pH/Conductivity Meter		DO Meter	
YSI 63		**YSI 550A**	
09C 101302		04L 2026AK	
10K 101895		08B 101895	
07M 100905	X	04A 0912AI	X
Calibration Buffer:	4, 7, & 10		

Chain of Custody

Relinquished by	Date/Time	Received by	Date/Time

Facility Name: Warren Green
Site ID#: 04887 **Monitoring Well #** MW-15
Water Supply Well **Public** ______ **Private** ______

Monitoring Well Diameter (D): 2 inches

Conversion Factor (C): 3.14 x $(D/2)^2$ for a 2 inch well C=0.163; for a 4 inch well C=0.652

* Free Product Thickness: ______ feet
Depth to Free Product (DFP) ______ feet
Depth to Ground Water (DGW) 6.21 feet
Total Well Depth (TWD) 20 feet
Length of the water column (LWC=TWD-DGW) 13.79 feet
1 casing volume (CV=LWC X C)= _____ X 0.163 | 2.25 | gallons
5 casing volume (5 X CV)= 5 | 11.24 | gallons

Total Volume of Water Purged Before Sampling 11.5 gals.
*If free product is present over 1/8 inch, sampling will not be required.

Cumulative Volume Purged (gallons)	Inital	1st Vol	2nd Vol	3rd Vol	4th Vol	5th Vol	Post Sampling	
Time (military)	12:07	12:09	12:11	12:13	12:15	12:17		
pH (s.u.)	5.00	5.33	5.71	5.85	5.89	5.88		
Specific Conductivity (μmhos/cm)	152.3	128.5	94.9	84.5	78.6	75.0		
Water Temperature (°C)	21.2	20.1	19.6	19.5	19.5	19.4		
Dissolved Oxygen	1.05	0.40	1.10	1.16	1.17	1.10		
Turbidity (NTU)	37.92	999.1	1,100+	1,100+	1,100+	824.2		
PID readings, if required								

Remarks: Sample Time: 12:01

South Carolina Department of Health and Environmental Control
Bureau of Land and Waste Management Underground Storage Tank Program

Field Data Information Sheet for Groundwater Sampling

Date (mm/dd/yy): 10/3/2013
Field Personnel: Patrick Boylan & Ryan Ariail
General Weather Conditions: Sunny

Ambient Air Temperature: 26.0 °C

Quality Assurance

pH/Conductivity Meter		DO Meter	
YSI 63		**YSI 550A**	
09C 101302		04L 2026AK	
10K 101895		08B 101895	
07M 100905	X	04A 0912AI	X
Calibration Buffer:	4, 7, & 10		

Chain of Custody

Relinquished by	Date/Time	Received by	Date/Time

Facility Name: Warren Green
Site ID#: 04887 **Monitoring Well #** DW-1
Water Supply Well **Public** ______ **Private** ______

Monitoring Well Diameter (D): 2 inches

Conversion Factor (C): $3.14 \times (D/2)^2$ for a 2 inch well C=0.163; for a 4 inch well C=0.652

* Free Product Thickness:		feet
Depth to Free Product (DFP)		feet
Depth to Ground Water (DGW)	7.21	feet
Total Well Depth (TWD)	50	feet
Length of the water column (LWC=TWD-DGW)	42.79	feet
1 casing volume (CV=LWC X C)= ______ X 0.163	6.97	gallons
5 casing volume (5 X CV)= 5	34.87	gallons

Total Volume of Water Purged Before Sampling 2 gals.
*If free product is present over 1/8 inch, sampling will not be required.

Cumulative Volume Purged (gallons)	Inital	1st Vol	2nd Vol	3rd Vol	4th Vol	5th Vol	Post Sampling	
Time (military)	14:56	15:00						
pH (s.u.)	7.15	7.23						
Specific Conductivity (μmhos/cm)	178.0	116.8						
Water Temperature (°C)	23.2	22.6						
Dissolved Oxygen	3.87	2.39						
Turbidity (NTU)	134.20	1,100+						
PID readings, if required								

Remarks: Sample Time: 15:00 **Dry @ 2.0 Gallons**
TD: 39.35

South Carolina Department of Health and Environmental Control
Bureau of Land and Waste Management Underground Storage Tank Program

Field Data Information Sheet for Groundwater Sampling

Date (mm/dd/yy): 10/3/2013
Field Personnel: Patrick Boylan & Ryan Ariail
General Weather Conditions: Sunny

Ambient Air Temperature: 26.0 °C

Quality Assurance

pH/Conductivity Meter		**DO Meter**	
YSI 63		**YSI 550A**	
09C 101302		04L 2026AK	
10K 101895		08B 101895	
07M 100905	X	04A 0912AI	X
Calibration Buffer:	4, 7, & 10		

Chain of Custody

Relinquished by	Date/Time	Received by	Date/Time

Facility Name: Warren Green
Site ID#: 04887 **Monitoring Well #** DW-2
Water Supply Well **Public** ______ **Private** ______

Monitoring Well Diameter (D): 2 inches

Conversion Factor (C): $3.14 \times (D/2)^2$ for a 2 inch well C=0.163; for a 4 inch well C=0.652

* Free Product Thickness: ______ feet
Depth to Free Product (DFP) ______ feet
Depth to Ground Water (DGW) 8.13 feet
Total Well Depth (TWD) 50 feet
Length of the water column (LWC=TWD-DGW) 41.87 feet
1 casing volume (CV=LWC X C)= ____ X 0.163 | 6.82 | gallons
5 casing volume (5 X CV)= 5 | 34.12 | gallons

Total Volume of Water Purged Before Sampling 5.5 gals.
*If free product is present over 1/8 inch, sampling will not be required.

Cumulative Volume Purged (gallons)	Inital	1st Vol	2nd Vol	3rd Vol	4th Vol	5th Vol	Post Sampling	
Time (military)	14:00	14:07						
pH (s.u.)	5.98	6.42						
Specific Conductivity (µmhos/cm)	133.9	118.9						
Water Temperature (℃)	22.9	20.4						
Dissolved Oxygen	2.86	3.12						
Turbidity (NTU)	23.81	418.3						
PID readings, if required								

Remarks: Sample Time: 15:33 **Dry @ 5.5 Gallons**

South Carolina Department of Health and Environmental Control
Bureau of Land and Waste Management Underground Storage Tank Program

Field Data Information Sheet for Groundwater Sampling

Date (mm/dd/yy): 10/3/2013
Field Personnel: Patrick Boylan & Ryan Ariail
General Weather Conditions: Sunny

Ambient Air Temperature: 26.0 °C

Quality Assurance

pH/Conductivity Meter		**DO Meter**	
YSI 63		**YSI 550A**	
09C 101302		04L 2026AK	
10K 101895		08B 101895	
07M 100905	X	04A 0912AI	X
Calibration Buffer:	4, 7, & 10		

Chain of Custody

Relinquished by	Date/Time	Received by	Date/Time

Facility Name: Warren Green
Site ID#: 04887 **Monitoring Well #** DW-3
Water Supply Well **Public** ____ **Private** ____

Monitoring Well Diameter (D): 2 inches

Conversion Factor (C): $3.14 \times (D/2)^2$ for a 2 inch well C=0.163
for a 4 inch well C=0.652

* Free Product Thickness: ____ feet
Depth to Free Product (DFP) ____ feet
Depth to Ground Water (DGW) 9.41 feet
Total Well Depth (TWD) 50 feet
Length of the water column (LWC=TWD-DGW) 40.59 feet
1 casing volume (CV=LWC X C)= ____ X 0.163 | 6.62 | gallons
5 casing volume (5 X CV)= 5 | 33.08 | gallons

Total Volume of Water Purged Before Sampling 6.5 gals.
*If free product is present over 1/8 inch, sampling will not be required.

Cumulative Volume Purged (gallons)	Inital	1st Vol	2nd Vol	3rd Vol	4th Vol	5th Vol	Post Sampling	
Time (military)	13:33	13:40						
pH (s.u.)	6.48	6.63						
Specific Conductivity (μmhos/cm)	87.1	66.6						
Water Temperature (°C)	21.1	19.4						
Dissolved Oxygen	1.84	2.22						
Turbidity (NTU)	31.69	41.5						
PID readings, if required								

Remarks: Sample Time: 13:40 **Dry @ 6.5 Gallons**

South Carolina Department of Health and Environmental Control
Bureau of Land and Waste Management Underground Storage Tank Program

Field Data Information Sheet for Groundwater Sampling

Date (mm/dd/yy): 10/3/2013
Field Personnel: Patrick Boylan & Ryan Ariail
General Weather Conditions: Sunny

Ambient Air Temperature: 26.0 °C

Quality Assurance

pH/Conductivity Meter		**DO Meter**	
YSI 63		**YSI 550A**	
09C 101302		04L 2026AK	
10K 101895		08B 101895	
07M 100905	X	04A 0912AI	X
Calibration Buffer:	4, 7, & 10		

Chain of Custody

Relinquished by	Date/Time	Received by	Date/Time

Facility Name: Warren Green
Site ID#: 04887 **Monitoring Well #** DW-4
Water Supply Well **Public** ______ **Private** ______

Monitoring Well Diameter (D): 2 inches

Conversion Factor (C): 3.14 x $(D/2)^2$ for a 2 inch well C=0.163; for a 4 inch well C=0.652

* Free Product Thickness: ______ feet
Depth to Free Product (DFP) ______ feet
Depth to Ground Water (DGW) 8.67 feet
Total Well Depth (TWD) 50 feet
Length of the water column (LWC=TWD-DGW) 41.33 feet
1 casing volume (CV=LWC X C)= ____ X 0.163 $\boxed{6.74}$ gallons
5 casing volume (5 X CV)= 5 $\boxed{33.68}$ gallons

Total Volume of Water Purged Before Sampling 6 gals.
*If free product is present over 1/8 inch, sampling will not be required.

Cumulative Volume Purged (gallons)	Inital	1st Vol	2nd Vol	3rd Vol	4th Vol	5th Vol	Post Sampling	
Time (military)	13:08	13:15						
pH (s.u.)	6.35	6.84						
Specific Conductivity (μmhos/cm)	136.1	138.8						
Water Temperature (°C)	21.1	19.3						
Dissolved Oxygen	1.62	1.48						
Turbidity (NTU)	13.19	29.32						
PID readings, if required								

Remarks: Sample Time: 13:15 **Dry @ 6.0 Gallons**

South Carolina Department of Health and Environmental Control
Bureau of Land and Waste Management Underground Storage Tank Program

Field Data Information Sheet for Groundwater Sampling

Date (mm/dd/yy): 10/3/2013
Field Personnel: Patrick Boylan & Ryan Ariail
General Weather Conditions: Sunny

Ambient Air Temperature: 26.0 °C

Quality Assurance

pH/Conductivity Meter		**DO Meter**	
YSI 63		**YSI 550A**	
09C 101302		04L 2026AK	
10K 101895		08B 101895	
07M 100905	X	04A 0912AI	X
Calibration Buffer:	4, 7, & 10		

Chain of Custody

Relinquished by	Date/Time	Received by	Date/Time

Facility Name: Warren Green
Site ID#: 04887 **Monitoring Well #** DW-5
Water Supply Well **Public** ______ **Private** ______

Monitoring Well Diameter (D): 2 inches

Conversion Factor (C): 3.14 x $(D/2)^2$ for a 2 inch well C=0.163
for a 4 inch well C=0.652

* Free Product Thickness: ______ feet
Depth to Free Product (DFP) ______ feet
Depth to Ground Water (DGW) 0.52 feet
Total Well Depth (TWD) 85 feet
Length of the water column (LWC=TWD-DGW) 84.48 feet
1 casing volume (CV=LWC X C)= ______ X 0.163 13.77 gallons
5 casing volume (5 X CV)= 5 68.85 gallons

Total Volume of Water Purged Before Sampling 13 gals.
*If free product is present over 1/8 inch, sampling will not be required.

Cumulative Volume Purged (gallons)	Inital	1st Vol	2nd Vol	3rd Vol	4th Vol	5th Vol	Post Sampling	
Time (military)	14:34	14:48						
pH (s.u.)	6.32	6.78						
Specific Conductivity (μmhos/cm)	83.5	167.7						
Water Temperature (°C)	23.5	20.3						
Dissolved Oxygen	3.27	1.47						
Turbidity (NTU)	81.24	127.30						
PID readings, if required								

Remarks: Sample Time: 15:41 **Dry @ 13.0 Gallons**

South Carolina Department of Health and Environmental Control
Bureau of Land and Waste Management Underground Storage Tank Program

Field Data Information Sheet for Groundwater Sampling

Date (mm/dd/yy): 10/3/2013
Field Personnel: Patrick Boylan & Ryan Ariail
General Weather Conditions: Sunny

Ambient Air Temperature: 26.0 °C

Quality Assurance

pH/Conductivity Meter		**DO Meter**	
YSI 63		**YSI 550A**	
09C 101302		04L 2026AK	
10K 101895		08B 101895	
07M 100905	X	04A 0912AI	X
Calibration Buffer:	4, 7, & 10		

Chain of Custody

Relinquished by Date/Time Received by Date/Time

Facility Name: Warren Green
Site ID#: 04887 **Monitoring Well #** DW-6
Water Supply Well **Public** ____ **Private** ____

Monitoring Well Diameter (D): 2 inches

Conversion Factor (C): 3.14 x $(D/2)^2$ for a 2 inch well C=0.163; for a 4 inch well C=0.652

* Free Product Thickness:		feet
Depth to Free Product (DFP)		feet
Depth to Ground Water (DGW)	15.43	feet
Total Well Depth (TWD)	85	feet
Length of the water column (LWC=TWD-DGW)	69.57	feet
1 casing volume (CV=LWC X C)= _____ X 0.163	11.34	gallons
5 casing volume (5 X CV)= 5	56.70	gallons

Total Volume of Water Purged Before Sampling 13 gals.
*If free product is present over 1/8 inch, sampling will not be required.

Cumulative Volume Purged (gallons)	Inital	1st Vol	2nd Vol	3rd Vol	4th Vol	5th Vol	Post Sampling	
Time (military)	11:16	16:25						
pH (s.u.)	6.13	INS.						
Specific Conductivity (μmhos/cm)	113.8	INS.						
Water Temperature (°C)	22.9	INS.						
Dissolved Oxygen	3.95	INS.						
Turbidity (NTU)	13.56	INS.						
PID readings, if required								

Remarks: Sample Time: 16:25 **Dry @ 5.0 Gallons**
TD:26.97

October 7, 2013

Midlands Environmental Consultants, Inc.

Re: Treatment of Purge Water
Warren Green
Yemassee, South Carolina
SCDHEC Site ID Number 04887
MECI Project Number 13-4481

To Whom It May Concern;

Midlands Environmental Consultants, Inc. is providing the following letter as certification that treatment of the referenced purge water complied with the conditions of "Proposed Conditions for Use of Portable Activated Carbon Units for the Treatment of Small Volumes of Petroleum Hydrocarbon Contaminated Groundwater", as described in the following:

Applicability:

Groundwater treated was obtained as a result development of wells and sampling.

Conditions:

1. The purge/bail water from all wells is mixed before usage of the Activated Carbon Unit.

2. No free-product was detected in any of the purge water drums.

3. Analytical results of from well sampling show average concentrations of petroleum hydrocarbon constituents less than 5000 parts per billion (ppb) Benzene and less than 20,000 ppb total BTEX.

4. The existing carbon pack will be replaced/reactivated every 5,000 gallons.

5. Record of usage is maintained by Contractor.

6. Any and all recommendations and conditions issued by the Manufacturer have been adhered to.

7. Any and all recommendations and conditions (even on a site by site basis) issued by the SCDHEC must be adhered to.

All purge waters were treated on-site using an up-flow treatment drum loaded with 30 pounds of activated carbon. Carbon will be loaded to a maximum of 3 pounds of total organic compounds or 5,000 gallons of development/purge water, whichever occurs first.

Post Office Box 854, Lexington SC 29071 • 235-B Dooley Road, Lexington, SC 29073
Telephone: (803) 808-2043 • fax: (803) 808-2048

A total of 135.5 gallons were treated on October 3, 2013 at the referenced site.

Midlands Environmental also tracks cumulative organic compounds adsorbed on the activated carbon to ensure the capacity of carbon mass is not over-charged. This data is available upon request.

Should you have any questions or comments, please contact the undersigned.

Sincerely,
Midlands Environmental Consultants, Inc.

Jeff L. Coleman
Senior Scientst

SHEALY

Chain of Custody Record

Shealy Environmental Services, Inc.
106 Vantage Point Drive
West Columbia, South Carolina 29172
Telephone No. (803) 791-9700 Fax No. (803) 791-9111
www.shealylab.com

Number 24574

Client: SCDHEC-UST	Report to Contact: D. [illegible]	Sampler (Printed Name): [illegible]	Quote No.
Address: 2600 Bull St	Telephone No. / Fax No. / Email: [illegible]@dhec.sc.gov	Waybill No.	Page 1 of 4
City: Cola / State: SC / Zip Code: 29201	Preservative: 1. Unpres. 4. HNO3 7. NaOH 2. NaOH/ZnA 5. HCL 3. H2SO4 6. Na Thio.		Number of Containers / Bottle (See Instructions on back) / Preservative / Lot No.
Project Name: Warren Green			
Project Number: [illegible]/CA# 45967 / P.O Number: [illegible]			

Sample ID / Description (Containers for each sample may be combined on one line)	Date	Time	G=Grab C=Composite	GW	DW	WW	S	Other	Analysis: [illegible] (8260B)	[illegible]	[illegible]	EDB	Remarks / Cooler ID
MW-1	10/3	1513	G	X					X	X	X	X	Slight odor
MW-2		1411											No odor
MW-3R		1427											No odor
MW-4		1359											No odor
MW-5		1330											No odor
MW-6		1305											No odor
MW-7		1530											[illegible]
MW-8		1110											No odor
MW-9		1525											[illegible]
MW-10	10/3	1041	G	X					X	X	X	X	No odor

Turn Around Time Required (Prior lab approval required for expedited TAT) ☐ Standard ☐ Rush (Please Specify)

Sample Disposal ☐ Return to Client ☐ Disposal by Lab

QC Requirements (Specify)

Possible Hazard Identification ☐Non-Hazard ☐Flammable ☐Skin Irritant ☐Poison ☐Unknown

	Date	Time		Date	Time
1. Relinquished by / Sampler [illegible]	10/3/13	1700	1. Received by [illegible]	10-3-13	1700
2. Relinquished by [illegible]	10/4/13	1130	2. Received by [illegible]	10/4/13	1130
3. Relinquished by			3. Received by		
4. Relinquished by			4. Laboratory Received by		

Note: All samples are retained for six weeks from receipt unless other arrangements are made.

LAB USE ONLY
Received on Ice (Check) ☐ Yes ☐ No ☐ Ice Pack | Receipt Temp. ______ °C | Temp. Blank ☐ Y / ☐ N

Chain of Custody Record

Shealy Environmental Services, Inc.
106 Vantage Point Drive
West Columbia, South Carolina 29172
Telephone No. (803) 791-9700 Fax No. (803) 791-9111
www.shealylab.com

Number 24576

Field	Entry
Client	[illegible]
Report to Contact	[illegible]
Sampler (Printed Name)	[illegible]
Quote No.	
Address	[illegible]
Telephone No. / Fax No. / Email	[illegible]
Waybill No.	
Page	2 of 4
City	[illegible]
State	SC
Zip Code	29201
Project Name	[illegible]
Project Number	[illegible] 45967
P.O Number	[illegible]

Preservative: 1. Unpres. 2. NaOH/ZnA 3. H2SO4 4. HNO3 5. HCL 6. Na Thio. 7. NaOH

Number of Containers / Bottle (See Instructions on back) / Preservative / Lot No.

Analysis: [illegible] (8260B) | [illegible] | [illegible] | [illegible]

Sample ID / Description (Containers for each sample may be combined on one line)	Date	Time	G=Grab C=Composite	GW	DW	WW	S	Other	Analysis 1	Analysis 2	Analysis 3	Analysis 4	Remarks / Cooler ID
Dup-[illegible]	10/3	1517	G	X					✓	✓	✓	✓	[illegible]
RSW-1		1552											[illegible]
RSW-2		1318											
RSW-3		1610											
RSW-4		1613											[illegible]
~~RSW-5~~													[illegible]
~~RSW-6~~													[illegible]
MW-1 Duplicate		1513											[illegible]
MW-7 Duplicate		1530											[illegible]
Field Blank	10/3	1415	G	X					✓	✓	✓	✓	

Turn Around Time Required (Prior lab approval required for expedited TAT) ☐ Standard ☐ Rush (Please Specify)

Sample Disposal ☐ Return to Client ☐ Disposal by Lab

QC Requirements (Specify)

Possible Hazard Identification ☐Non-Hazard ☐Flammable ☐Skin Irritant ☐Poison ☐Unknown

	Date	Time		Date	Time
1. Relinquished by / Sampler [illegible]	10/3/13	700	1. Received by [illegible]	10-3-13	700
2. Relinquished by [illegible]	10/4/13	730	2. Received by [illegible]	10-4-13	730
3. Relinquished by			3. Received by		
4. Relinquished by			4. Laboratory Received by		

Note: All samples are retained for six weeks from receipt unless other arrangements are made.

LAB USE ONLY
Received on Ice (Check) ☐ Yes ☐ No ☐ Ice Pack
Receipt Temp. _______ °C
Temp. Blank ☐ Y / ☐ N

Chain of Custody Record

Shealy Environmental Services, Inc.
106 Vantage Point Drive
West Columbia, South Carolina 29172
Telephone No. (803) 791-9700 Fax No. (803) 791-9111
www.shealylab.com

Number 24577

Client [illegible]	Report to Contact [illegible]	Sampler (Printed Name) [illegible]
Address [illegible]	Telephone No. / Fax No. / Email [illegible]	Waybill No.
City [illegible] / State SC / Zip Code [illegible]	Preservative: 1. Unpres. 2. NaOH/ZnA 3. H2SO4 4. HNO3 5. HCL 6. Na Thio. 7. NaOH	Quote No.
Project Name [illegible]		Page 1 of 4
Project Number [illegible] / P.O Number [illegible]		

Sample ID / Description (Containers for each sample may be combined on one line)	Date	Time	G=Grab C=Composite	GW	DW	WW	S	Other	Analysis	[illegible]	[illegible]	[illegible]	EDS	Remarks / Cooler ID
Trip Blank	[illegible]	1446	G					X		Y	Y	Y		

Number of Containers / Bottle (See Instructions on back) / Preservative / Lot No.

Turn Around Time Required (Prior lab approval required for expedited TAT) ☐ Standard ☐ Rush (Please Specify)

Sample Disposal ☐ Return to Client ☐ Disposal by Lab

QC Requirements (Specify)

Possible Hazard Identification ☐Non-Hazard ☐Flammable ☐Skin Irritant ☐Poison ☐Unknown

	Date	Time		Date	Time
1. Relinquished by / Sampler [illegible]	10/3/13	1700	1. Received by [illegible]	10/3/13	1700
2. Relinquished by [illegible]	[illegible]	0930	2. Received by [illegible]	10/4/13	0930
3. Relinquished by			3. Received by		
4. Relinquished by			4. Laboratory Received by		

Note: All samples are retained for six weeks from receipt unless other arrangements are made.

LAB USE ONLY
Received on Ice (Check) ☐ Yes ☐ No ☐ Ice Pack
Receipt Temp. _______ °C
Temp. Blank ☐ Y / ☐ N

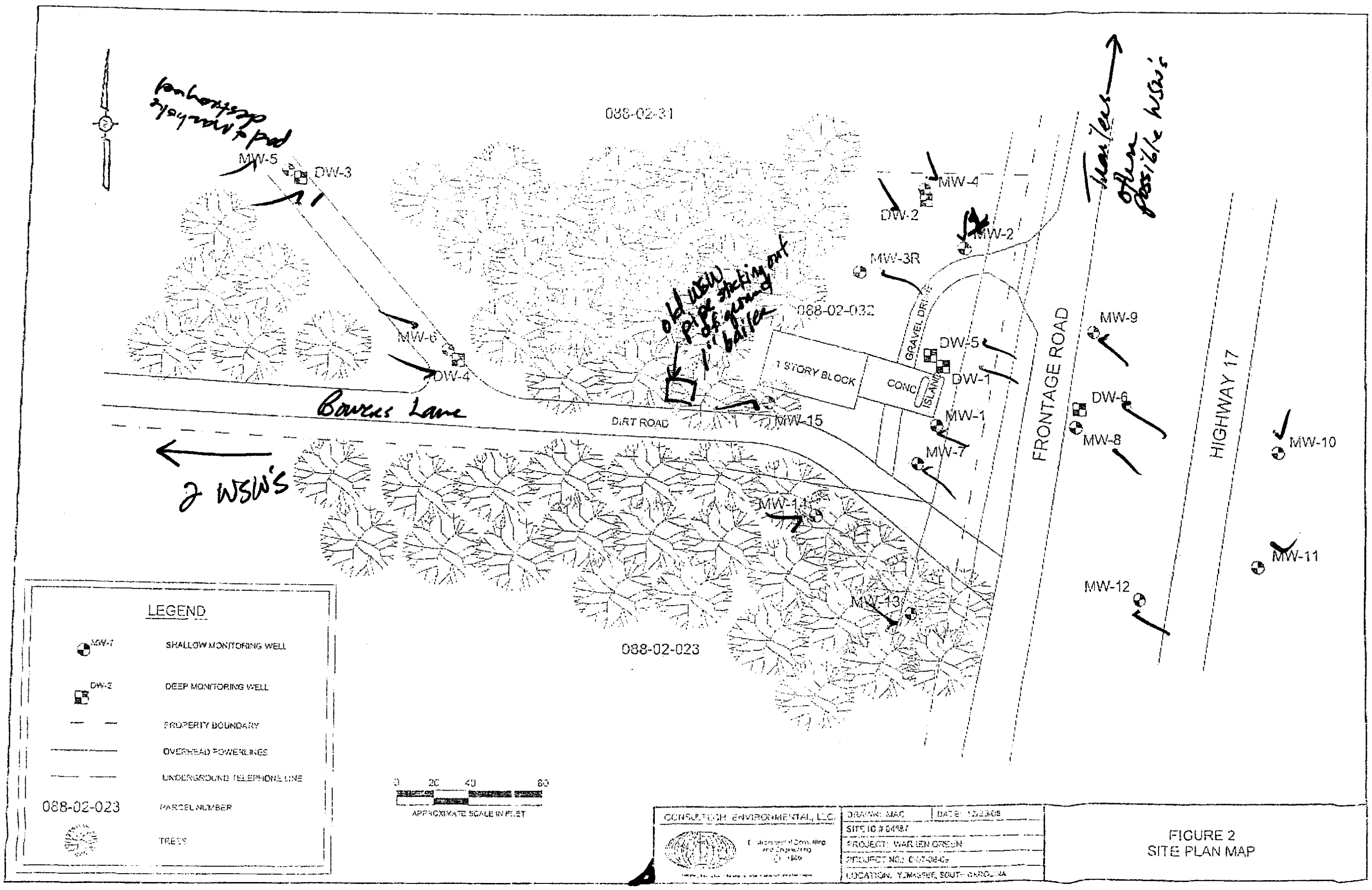


FIGURE 2
SITE PLAN MAP

RECEIVED
OCT 08 2013
SC Department of
Health and Environmental
Control

SHEALY ENVIRONMENTAL SERVICES, INC.

Report of Analysis

SC DHEC - UST Management
2600 Bull Street
Columbia, SC 29201
Attention: Debra Thoma

UST
OCT 16 2013
PROGRAM

Project Name: **Warren Green, Colleton County**

Project Number: **UST Permit #04887/CA #45967**

Lot Number: **OJ04035**

Date Completed: **10/10/2013**

Kelly M. Maberry
Project Manager

This report shall not be reproduced, except in its entirety, without the written approval of Shealy Environmental Services, Inc.

The following non-paginated documents are considered part of this report: Chain of Custody Record and Sample Receipt Checklist.

Case Narrative
SC DHEC - UST Management
Lot Number: OJ04035

This Report of Analysis contains the analytical result(s) for the sample(s) listed on the Sample Summary following this Case Narrative. The sample receiving date is documented in the header information associated with each sample.

All results listed in this report relate only to the samples that are contained within this report.

Sample receipt, sample analysis, and data review have been performed in accordance with the most current approved NELAC standards, the Shealy Environmental Services, Inc. ("Shealy") Quality Assurance Management Plan (QAMP), standard operating procedures (SOPs), and Shealy policies. Any exceptions to the NELAC standards, the QAMP, SOPs or policies are qualified on the results page or discussed below.

If you have any questions regarding this report please contact the Shealy Project Manager listed on the cover page.

Sample Receiving

Sample -031 for volatiles analysis contained vials with air bubbles greater than ¼" or 6mm in diameter. The laboratory uses these vials for screening and the vials without bubbles for analysis whenever possible. Condition of samples is documented on the Sample Receipt Checklist (SRC).

GC/MS Volatiles

The method blank associated with samples -026 and -027 had naphthalene detected at a concentration that was above the MDL but below the PQL. All samples associated with this method blank that have detections for naphthalene have been flagged with a "B".

The MS associated with sample -007 had naphthalene recovered outside of the acceptance limits. The LCS/LCSD were recovered within the required acceptance limits; therefore, this demonstrates a matrix effect and data quality is not impacted.

Samples -017, -020 and -021 were diluted 20x, 5x and 10x, respectively, due to excessive sediment in the vials. The reporting limits have been raised accordingly.

EDB

The MS/MSD RPD associated with sample -022 exceeded method control limits. The LCS/LCSD were recovered within the required acceptance limits; therefore, this demonstrates a matrix effect and data quality is not impacted.

The sample results for -001 and -026 have a P qualifier because the relative percent difference (RPD) between the two dissimilar phase GC columns exceeds 40%. Section 7.10.4 of SW-846 method 8000B states the higher of the two results is reported; however the lower results are reported for these samples. The higher result for sample -001 was 0.25 ug/L. The higher result for sample -026 was 0.22 ug/L.

SHEALY ENVIRONMENTAL SERVICES, INC.

Sample Summary
SC DHEC - UST Management
Lot Number: OJ04035

Sample Number	Sample ID	Matrix	Date Sampled	Date Received
001	MW-1	Aqueous	10/03/2013 1513	10/04/2013
002	MW-2	Aqueous	10/03/2013 1411	10/04/2013
003	MW-3R	Aqueous	10/03/2013 1427	10/04/2013
004	MW-4	Aqueous	10/03/2013 1359	10/04/2013
005	MW-5	Aqueous	10/03/2013 1330	10/04/2013
006	MW-6	Aqueous	10/03/2013 1305	10/04/2013
007	MW-7	Aqueous	10/03/2013 1530	10/04/2013
008	MW-8	Aqueous	10/03/2013 1110	10/04/2013
009	MW-9	Aqueous	10/03/2013 1525	10/04/2013
010	MW-10	Aqueous	10/03/2013 1041	10/04/2013
011	MW-11	Aqueous	10/03/2013 1033	10/04/2013
012	MW-12	Aqueous	10/03/2013 1056	10/04/2013
013	MW-13	Aqueous	10/03/2013 1146	10/04/2013
014	MW-14	Aqueous	10/03/2013 1201	10/04/2013
015	MW-15	Aqueous	10/03/2013 1217	10/04/2013
016	DW-1	Aqueous	10/03/2013 1500	10/04/2013
017	DW-2	Aqueous	10/03/2013 1533	10/04/2013
018	DW-3	Aqueous	10/03/2013 1340	10/04/2013
019	DW-4	Aqueous	10/03/2013 1315	10/04/2013
020	DW-5	Aqueous	10/03/2013 1541	10/04/2013
021	DW-6	Aqueous	10/03/2013 1517	10/04/2013
022	WSW-1	Aqueous	10/03/2013 1552	10/04/2013
023	WSW-2	Aqueous	10/03/2013 1548	10/04/2013
024	WSW-3	Aqueous	10/03/2013 1610	10/04/2013
025	WSW-4	Aqueous	10/03/2013 1612	10/04/2013
026	MW-1 Duplicate	Aqueous	10/03/2013 1513	10/04/2013
027	MW-7 Duplicate	Aqueous	10/03/2013 1530	10/04/2013
028	Field Blank	Aqueous	10/03/2013 1445	10/04/2013
029	Trip Blank	Aqueous	10/03/2013 1446	10/04/2013

(29 samples)

Executive Summary
SC DHEC - UST Management
Lot Number: OJ04035

Sample	Sample ID	Matrix	Parameter	Method	Result	Q	Units	Page
001	MW-1	Aqueous	tert-Amyl alcohol (TAA)	8260B	1100	J	ug/L	6
001	MW-1	Aqueous	Benzene	8260B	3600		ug/L	6
001	MW-1	Aqueous	Ethylbenzene	8260B	3200		ug/L	6
001	MW-1	Aqueous	Methyl tertiary butyl ether (MTBE)	8260B	200	J	ug/L	6
001	MW-1	Aqueous	Naphthalene	8260B	290	J	ug/L	6
001	MW-1	Aqueous	tert-butyl alcohol (TBA)	8260B	770	J	ug/L	6
001	MW-1	Aqueous	Toluene	8260B	19000		ug/L	6
001	MW-1	Aqueous	Xylenes (total)	8260B	16000		ug/L	6
001	MW-1	Aqueous	1,2-Dibromoethane (EDB)	8011	0.022	P	ug/L	6
002	MW-2	Aqueous	Methyl tertiary butyl ether (MTBE)	8260B	6.6		ug/L	7
007	MW-7	Aqueous	tert-Amyl alcohol (TAA)	8260B	1000	J	ug/L	12
007	MW-7	Aqueous	Benzene	8260B	3100		ug/L	12
007	MW-7	Aqueous	1,2-Dichloroethane	8260B	110	J	ug/L	12
007	MW-7	Aqueous	Ethylbenzene	8260B	3200		ug/L	12
007	MW-7	Aqueous	Methyl tertiary butyl ether (MTBE)	8260B	23	J	ug/L	12
007	MW-7	Aqueous	Naphthalene	8260B	390		ug/L	12
007	MW-7	Aqueous	Toluene	8260B	8300		ug/L	12
007	MW-7	Aqueous	Xylenes (total)	8260B	17000		ug/L	12
007	MW-7	Aqueous	1,2-Dibromoethane (EDB)	8011	3.0		ug/L	12
008	MW-8	Aqueous	tert-Amyl alcohol (TAA)	8260B	250		ug/L	13
008	MW-8	Aqueous	Benzene	8260B	140		ug/L	13
008	MW-8	Aqueous	1,2-Dichloroethane	8260B	7.3		ug/L	13
008	MW-8	Aqueous	Ethylbenzene	8260B	2.8	J	ug/L	13
008	MW-8	Aqueous	Methyl tertiary butyl ether (MTBE)	8260B	1.2	J	ug/L	13
008	MW-8	Aqueous	Naphthalene	8260B	7.8		ug/L	13
008	MW-8	Aqueous	Xylenes (total)	8260B	4.3	J	ug/L	13
008	MW-8	Aqueous	1,2-Dibromoethane (EDB)	8011	0.030		ug/L	13
009	MW-9	Aqueous	tert-Amyl alcohol (TAA)	8260B	960		ug/L	14
009	MW-9	Aqueous	Benzene	8260B	62		ug/L	14
009	MW-9	Aqueous	1,2-Dichloroethane	8260B	15		ug/L	14
009	MW-9	Aqueous	Ethylbenzene	8260B	6.9		ug/L	14
009	MW-9	Aqueous	Methyl tertiary butyl ether (MTBE)	8260B	1.5	J	ug/L	14
009	MW-9	Aqueous	Naphthalene	8260B	3.0	J	ug/L	14
009	MW-9	Aqueous	tert-butyl alcohol (TBA)	8260B	63	J	ug/L	14
009	MW-9	Aqueous	Toluene	8260B	2.6	J	ug/L	14
009	MW-9	Aqueous	Xylenes (total)	8260B	14		ug/L	14
026	MW-1 Duplicate	Aqueous	Benzene	8260B	4500		ug/L	31
026	MW-1 Duplicate	Aqueous	Ethylbenzene	8260B	3900		ug/L	31
026	MW-1 Duplicate	Aqueous	Methyl tertiary butyl ether (MTBE)	8260B	190	J	ug/L	31
026	MW-1 Duplicate	Aqueous	Naphthalene	8260B	630	BJ	ug/L	31
026	MW-1 Duplicate	Aqueous	Toluene	8260B	24000		ug/L	31
026	MW-1 Duplicate	Aqueous	Xylenes (total)	8260B	19000		ug/L	31
026	MW-1 Duplicate	Aqueous	1,2-Dibromoethane (EDB)	8011	0.032	P	ug/L	31
027	MW-7 Duplicate	Aqueous	tert-Amyl alcohol (TAA)	8260B	1100	J	ug/L	32
027	MW-7 Duplicate	Aqueous	Benzene	8260B	3300		ug/L	32

Executive Summary (Continued)

Lot Number: OJ04035

Sample	Sample ID	Matrix	Parameter	Method	Result	Q	Units	Page
027	MW-7 Duplicate	Aqueous	Ethylbenzene	8260B	3300		ug/L	32
027	MW-7 Duplicate	Aqueous	Methyl tertiary butyl ether (MTBE)	8260B	25	J	ug/L	32
027	MW-7 Duplicate	Aqueous	Naphthalene	8260B	410	B	ug/L	32
027	MW-7 Duplicate	Aqueous	Toluene	8260B	8600		ug/L	32
027	MW-7 Duplicate	Aqueous	Xylenes (total)	8260B	17000		ug/L	32
027	MW-7 Duplicate	Aqueous	1,2-Dibromoethane (EDB)	8011	2.2		ug/L	32

(51 detections)

Client: **SC DHEC - UST Management**	Laboratory ID: **OJ04035-001**
Description: **MW-1**	Matrix: **Aqueous**
Date Sampled: **10/03/2013 1513**	
Date Received: **10/04/2013**	

Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	100	10/07/2013 1640	ALL		31178

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
tert-Amyl alcohol (TAA)	**75-85-4**	**8260B**	**1100**	**J**	**10000**	**670**	**ug/L**	**1**
tert-Amyl methyl ether (TAME)	994-05-8	8260B	ND		1000	20	ug/L	1
Benzene	**71-43-2**	**8260B**	**3600**		**500**	**20**	**ug/L**	**1**
tert-Butyl formate (TBF)	762-75-4	8260B	ND		10000	100	ug/L	1
1,2-Dichloroethane	107-06-2	8260B	ND		500	30	ug/L	1
Diisopropyl ether (IPE)	108-20-3	8260B	ND		1000	40	ug/L	1
3,3-Dimethyl-1-butanol	624-95-3	8260B	ND		10000	100	ug/L	1
Ethanol	64-17-5	8260B	ND		100000	3300	ug/L	1
Ethylbenzene	**100-41-4**	**8260B**	**3200**		**500**	**170**	**ug/L**	**1**
Ethyl-tert-butyl ether (ETBE)	637-92-3	8260B	ND		10000	20	ug/L	1
Methyl tertiary butyl ether (MTBE)	**1634-04-4**	**8260B**	**200**	**J**	**500**	**40**	**ug/L**	**1**
Naphthalene	**91-20-3**	**8260B**	**290**	**J**	**500**	**170**	**ug/L**	**1**
tert-butyl alcohol (TBA)	**75-65-0**	**8260B**	**770**	**J**	**10000**	**670**	**ug/L**	**1**
Toluene	**108-88-3**	**8260B**	**19000**		**500**	**170**	**ug/L**	**1**
Xylenes (total)	**1330-20-7**	**8260B**	**16000**		**500**	**170**	**ug/L**	**1**

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		110	70-130
Bromofluorobenzene		108	70-130
Toluene-d8		114	70-130

EDB & DBCP by Microextraction

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	8011	8011	1	10/08/2013 1947	AMY	10/08/2013 1123	31311

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
1,2-Dibromoethane (EDB)	**106-93-4**	**8011**	**0.022**	**P**	**0.020**	**0.020**	**ug/L**	**1**

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,1,1,2-Tetrachloroethane		66	57-137

PQL = Practical quantitation limit B = Detected in the method blank E = Quantitation of compound exceeded the calibration range H = Out of holding time
ND = Not detected at or above the MDL J = Estimated result < PQL and ≥ MDL P = The RPD between two GC columns exceeds 40% N = Recovery is out of criteria
Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Client: **SC DHEC - UST Management**	Laboratory ID: **OJ04035-002**
Description: **MW-2**	Matrix: **Aqueous**
Date Sampled: **10/03/2013 1411**	
Date Received: **10/04/2013**	

Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	10/07/2013 1052	ALL		31178

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
tert-Amyl alcohol (TAA)	75-85-4	8260B	ND		100	6.7	ug/L	1
tert-Amyl methyl ether (TAME)	994-05-8	8260B	ND		10	0.20	ug/L	1
Benzene	71-43-2	8260B	ND		5.0	0.20	ug/L	1
tert-Butyl formate (TBF)	762-75-4	8260B	ND		100	1.0	ug/L	1
1,2-Dichloroethane	107-06-2	8260B	ND		5.0	0.30	ug/L	1
Diisopropyl ether (IPE)	108-20-3	8260B	ND		10	0.40	ug/L	1
3,3-Dimethyl-1-butanol	624-95-3	8260B	ND		100	1.0	ug/L	1
Ethanol	64-17-5	8260B	ND		1000	33	ug/L	1
Ethylbenzene	100-41-4	8260B	ND		5.0	1.7	ug/L	1
Ethyl-tert-butyl ether (ETBE)	637-92-3	8260B	ND		100	0.20	ug/L	1
Methyl tertiary butyl ether (MTBE)	**1634-04-4**	**8260B**	**6.6**		**5.0**	**0.40**	**ug/L**	**1**
Naphthalene	91-20-3	8260B	ND		5.0	1.7	ug/L	1
tert-butyl alcohol (TBA)	75-65-0	8260B	ND		100	6.7	ug/L	1
Toluene	108-88-3	8260B	ND		5.0	1.7	ug/L	1
Xylenes (total)	1330-20-7	8260B	ND		5.0	1.7	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		110	70-130
Bromofluorobenzene		109	70-130
Toluene-d8		114	70-130

EDB & DBCP by Microextraction

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	8011	8011	1	10/08/2013 1957	AMY	10/08/2013 1123	31311

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
1,2-Dibromoethane (EDB)	106-93-4	8011	ND		0.020	0.020	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,1,1,2-Tetrachloroethane		103	57-137

PQL = Practical quantitation limit; B = Detected in the method blank; E = Quantitation of compound exceeded the calibration range; H = Out of holding time
ND = Not detected at or above the MDL; J = Estimated result < PQL and ≥ MDL; P = The RPD between two GC columns exceeds 40%; N = Recovery is out of criteria
Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Client: **SC DHEC - UST Management**
Description: **MW-3R**
Date Sampled: **10/03/2013 1427**
Date Received: **10/04/2013**

Laboratory ID: **OJ04035-003**
Matrix: **Aqueous**

Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	10/07/2013 1113	ALL		31178

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
tert-Amyl alcohol (TAA)	75-85-4	8260B	ND		100	6.7	ug/L	1
tert-Amyl methyl ether (TAME)	994-05-8	8260B	ND		10	0.20	ug/L	1
Benzene	71-43-2	8260B	ND		5.0	0.20	ug/L	1
tert-Butyl formate (TBF)	762-75-4	8260B	ND		100	1.0	ug/L	1
1,2-Dichloroethane	107-06-2	8260B	ND		5.0	0.30	ug/L	1
Diisopropyl ether (IPE)	108-20-3	8260B	ND		10	0.40	ug/L	1
3,3-Dimethyl-1-butanol	624-95-3	8260B	ND		100	1.0	ug/L	1
Ethanol	64-17-5	8260B	ND		1000	33	ug/L	1
Ethylbenzene	100-41-4	8260B	ND		5.0	1.7	ug/L	1
Ethyl-tert-butyl ether (ETBE)	637-92-3	8260B	ND		100	0.20	ug/L	1
Methyl tertiary butyl ether (MTBE)	1634-04-4	8260B	ND		5.0	0.40	ug/L	1
Naphthalene	91-20-3	8260B	ND		5.0	1.7	ug/L	1
tert-butyl alcohol (TBA)	75-65-0	8260B	ND		100	6.7	ug/L	1
Toluene	108-88-3	8260B	ND		5.0	1.7	ug/L	1
Xylenes (total)	1330-20-7	8260B	ND		5.0	1.7	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		110	70-130
Bromofluorobenzene		108	70-130
Toluene-d8		109	70-130

EDB & DBCP by Microextraction

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	8011	8011	1	10/08/2013 2007	AMY	10/08/2013 1123	31311

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
1,2-Dibromoethane (EDB)	106-93-4	8011	ND		0.023	0.023	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,1,1,2-Tetrachloroethane		91	57-137

PQL = Practical quantitation limit　B = Detected in the method blank　E = Quantitation of compound exceeded the calibration range　H = Out of holding time
ND = Not detected at or above the MDL　J = Estimated result < PQL and ≥ MDL　P = The RPD between two GC columns exceeds 40%　N = Recovery is out of criteria
Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Client: **SC DHEC - UST Management** Laboratory ID: **OJ04035-004**

Description: **MW-4** Matrix: **Aqueous**

Date Sampled: **10/03/2013 1359**

Date Received: **10/04/2013**

Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	10/07/2013 1134	ALL		31178

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
tert-Amyl alcohol (TAA)	75-85-4	8260B	ND		100	6.7	ug/L	1
tert-Amyl methyl ether (TAME)	994-05-8	8260B	ND		10	0.20	ug/L	1
Benzene	71-43-2	8260B	ND		5.0	0.20	ug/L	1
tert-Butyl formate (TBF)	762-75-4	8260B	ND		100	1.0	ug/L	1
1,2-Dichloroethane	107-06-2	8260B	ND		5.0	0.30	ug/L	1
Diisopropyl ether (IPE)	108-20-3	8260B	ND		10	0.40	ug/L	1
3,3-Dimethyl-1-butanol	624-95-3	8260B	ND		100	1.0	ug/L	1
Ethanol	64-17-5	8260B	ND		1000	33	ug/L	1
Ethylbenzene	100-41-4	8260B	ND		5.0	1.7	ug/L	1
Ethyl-tert-butyl ether (ETBE)	637-92-3	8260B	ND		100	0.20	ug/L	1
Methyl tertiary butyl ether (MTBE)	1634-04-4	8260B	ND		5.0	0.40	ug/L	1
Naphthalene	91-20-3	8260B	ND		5.0	1.7	ug/L	1
tert-butyl alcohol (TBA)	75-65-0	8260B	ND		100	6.7	ug/L	1
Toluene	108-88-3	8260B	ND		5.0	1.7	ug/L	1
Xylenes (total)	1330-20-7	8260B	ND		5.0	1.7	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		111	70-130
Bromofluorobenzene		109	70-130
Toluene-d8		111	70-130

EDB & DBCP by Microextraction

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	8011	8011	1	10/08/2013 2018	AMY	10/08/2013 1123	31311

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
1,2-Dibromoethane (EDB)	106-93-4	8011	ND		0.020	0.020	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,1,1,2-Tetrachloroethane		89	57-137

PQL = Practical quantitation limit B = Detected in the method blank E = Quantitation of compound exceeded the calibration range H = Out of holding time

ND = Not detected at or above the MDL J = Estimated result < PQL and ≥ MDL P = The RPD between two GC columns exceeds 40% N = Recovery is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Client: **SC DHEC - UST Management**

Description: **MW-5**

Date Sampled: **10/03/2013 1330**

Date Received: **10/04/2013**

Laboratory ID: **OJ04035-005**

Matrix: **Aqueous**

Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	10/07/2013 1200	ALL		31178

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
tert-Amyl alcohol (TAA)	75-85-4	8260B	ND		100	6.7	ug/L	1
tert-Amyl methyl ether (TAME)	994-05-8	8260B	ND		10	0.20	ug/L	1
Benzene	71-43-2	8260B	ND		5.0	0.20	ug/L	1
tert-Butyl formate (TBF)	762-75-4	8260B	ND		100	1.0	ug/L	1
1,2-Dichloroethane	107-06-2	8260B	ND		5.0	0.30	ug/L	1
Diisopropyl ether (IPE)	108-20-3	8260B	ND		10	0.40	ug/L	1
3,3-Dimethyl-1-butanol	624-95-3	8260B	ND		100	1.0	ug/L	1
Ethanol	64-17-5	8260B	ND		1000	33	ug/L	1
Ethylbenzene	100-41-4	8260B	ND		5.0	1.7	ug/L	1
Ethyl-tert-butyl ether (ETBE)	637-92-3	8260B	ND		100	0.20	ug/L	1
Methyl tertiary butyl ether (MTBE)	1634-04-4	8260B	ND		5.0	0.40	ug/L	1
Naphthalene	91-20-3	8260B	ND		5.0	1.7	ug/L	1
tert-butyl alcohol (TBA)	75-65-0	8260B	ND		100	6.7	ug/L	1
Toluene	108-88-3	8260B	ND		5.0	1.7	ug/L	1
Xylenes (total)	1330-20-7	8260B	ND		5.0	1.7	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		111	70-130
Bromofluorobenzene		108	70-130
Toluene-d8		109	70-130

EDB & DBCP by Microextraction

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	8011	8011	1	10/08/2013 2028	AMY	10/08/2013 1123	31311

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
1,2-Dibromoethane (EDB)	106-93-4	8011	ND		0.022	0.022	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,1,1,2-Tetrachloroethane		91	57-137

PQL = Practical quantitation limit   B = Detected in the method blank   E = Quantitation of compound exceeded the calibration range   H = Out of holding time

ND = Not detected at or above the MDL   J = Estimated result < PQL and ≥ MDL   P = The RPD between two GC columns exceeds 40%   N = Recovery is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Client: **SC DHEC - UST Management**
Description: **MW-6**
Date Sampled: **10/03/2013 1305**
Date Received: **10/04/2013**

Laboratory ID: **OJ04035-006**
Matrix: **Aqueous**

Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	10/07/2013 1222	ALL		31178

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
tert-Amyl alcohol (TAA)	75-85-4	8260B	ND		100	6.7	ug/L	1
tert-Amyl methyl ether (TAME)	994-05-8	8260B	ND		10	0.20	ug/L	1
Benzene	71-43-2	8260B	ND		5.0	0.20	ug/L	1
tert-Butyl formate (TBF)	762-75-4	8260B	ND		100	1.0	ug/L	1
1,2-Dichloroethane	107-06-2	8260B	ND		5.0	0.30	ug/L	1
Diisopropyl ether (IPE)	108-20-3	8260B	ND		10	0.40	ug/L	1
3,3-Dimethyl-1-butanol	624-95-3	8260B	ND		100	1.0	ug/L	1
Ethanol	64-17-5	8260B	ND		1000	33	ug/L	1
Ethylbenzene	100-41-4	8260B	ND		5.0	1.7	ug/L	1
Ethyl-tert-butyl ether (ETBE)	637-92-3	8260B	ND		100	0.20	ug/L	1
Methyl tertiary butyl ether (MTBE)	1634-04-4	8260B	ND		5.0	0.40	ug/L	1
Naphthalene	91-20-3	8260B	ND		5.0	1.7	ug/L	1
tert-butyl alcohol (TBA)	75-65-0	8260B	ND		100	6.7	ug/L	1
Toluene	108-88-3	8260B	ND		5.0	1.7	ug/L	1
Xylenes (total)	1330-20-7	8260B	ND		5.0	1.7	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		110	70-130
Bromofluorobenzene		107	70-130
Toluene-d8		110	70-130

EDB & DBCP by Microextraction

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	8011	8011	1	10/08/2013 2039	AMY	10/08/2013 1123	31311

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
1,2-Dibromoethane (EDB)	106-93-4	8011	ND		0.021	0.021	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,1,1,2-Tetrachloroethane		90	57-137

PQL = Practical quantitation limit
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
H = Out of holding time
ND = Not detected at or above the MDL
J = Estimated result < PQL and ≥ MDL
P = The RPD between two GC columns exceeds 40%
N = Recovery is out of criteria
Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Client: **SC DHEC - UST Management**
Description: **MW-7**
Date Sampled: **10/03/2013 1530**
Date Received: **10/04/2013**

Laboratory ID: **OJ04035-007**
Matrix: **Aqueous**

Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	50	10/07/2013 1701	ALL		31178
2	5030B	8260B	100	10/08/2013 1327	ALL		31309

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
tert-Amyl alcohol (TAA)	**75-85-4**	**8260B**	**1000**	**J**	**5000**	**340**	**ug/L**	**1**
tert-Amyl methyl ether (TAME)	994-05-8	8260B	ND		500	10	ug/L	1
Benzene	**71-43-2**	**8260B**	**3100**		**250**	**10**	**ug/L**	**1**
tert-Butyl formate (TBF)	762-75-4	8260B	ND		5000	50	ug/L	1
1,2-Dichloroethane	**107-06-2**	**8260B**	**110**	**J**	**250**	**15**	**ug/L**	**1**
Diisopropyl ether (IPE)	108-20-3	8260B	ND		500	20	ug/L	1
3,3-Dimethyl-1-butanol	624-95-3	8260B	ND		5000	50	ug/L	1
Ethanol	64-17-5	8260B	ND		50000	1700	ug/L	1
Ethylbenzene	**100-41-4**	**8260B**	**3200**		**250**	**85**	**ug/L**	**1**
Ethyl-tert-butyl ether (ETBE)	637-92-3	8260B	ND		5000	10	ug/L	1
Methyl tertiary butyl ether (MTBE)	**1634-04-4**	**8260B**	**23**	**J**	**250**	**20**	**ug/L**	**1**
Naphthalene	**91-20-3**	**8260B**	**390**		**250**	**85**	**ug/L**	**1**
tert-butyl alcohol (TBA)	75-65-0	8260B	ND		5000	340	ug/L	1
Toluene	**108-88-3**	**8260B**	**8300**		**250**	**85**	**ug/L**	**1**
Xylenes (total)	**1330-20-7**	**8260B**	**17000**		**500**	**170**	**ug/L**	**2**

Surrogate	Q	Run 1 % Recovery	Acceptance Limits	Q	Run 2 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		110	70-130		112	70-130
Bromofluorobenzene		107	70-130		108	70-130
Toluene-d8		114	70-130		114	70-130

EDB & DBCP by Microextraction

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	8011	8011	1	10/08/2013 2049	AMY	10/08/2013 1123	31311
2	8011	8011	5	10/09/2013 1404	AMY	10/08/2013 1123	31311

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
1,2-Dibromoethane (EDB)	**106-93-4**	**8011**	**3.0**		**0.10**	**0.10**	**ug/L**	**2**

Surrogate	Q	Run 1 % Recovery	Acceptance Limits	Q	Run 2 % Recovery	Acceptance Limits
1,1,1,2-Tetrachloroethane		98	57-137		117	57-137

PQL = Practical quantitation limit B = Detected in the method blank E = Quantitation of compound exceeded the calibration range H = Out of holding time
ND = Not detected at or above the MDL J = Estimated result < PQL and ≥ MDL P = The RPD between two GC columns exceeds 40% N = Recovery is out of criteria
Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Client: **SC DHEC - UST Management**
Description: **MW-8**
Date Sampled: **10/03/2013 1110**
Date Received: **10/04/2013**

Laboratory ID: **OJ04035-008**
Matrix: **Aqueous**

Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	10/07/2013 1249	ALL		31178

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
tert-Amyl alcohol (TAA)	**75-85-4**	**8260B**	**250**		**100**	**6.7**	**ug/L**	**1**
tert-Amyl methyl ether (TAME)	994-05-8	8260B	ND		10	0.20	ug/L	1
Benzene	**71-43-2**	**8260B**	**140**		**5.0**	**0.20**	**ug/L**	**1**
tert-Butyl formate (TBF)	762-75-4	8260B	ND		100	1.0	ug/L	1
1,2-Dichloroethane	**107-06-2**	**8260B**	**7.3**		**5.0**	**0.30**	**ug/L**	**1**
Diisopropyl ether (IPE)	108-20-3	8260B	ND		10	0.40	ug/L	1
3,3-Dimethyl-1-butanol	624-95-3	8260B	ND		100	1.0	ug/L	1
Ethanol	64-17-5	8260B	ND		1000	33	ug/L	1
Ethylbenzene	**100-41-4**	**8260B**	**2.8**	**J**	**5.0**	**1.7**	**ug/L**	**1**
Ethyl-tert-butyl ether (ETBE)	637-92-3	8260B	ND		100	0.20	ug/L	1
Methyl tertiary butyl ether (MTBE)	**1634-04-4**	**8260B**	**1.2**	**J**	**5.0**	**0.40**	**ug/L**	**1**
Naphthalene	**91-20-3**	**8260B**	**7.8**		**5.0**	**1.7**	**ug/L**	**1**
tert-butyl alcohol (TBA)	75-65-0	8260B	ND		100	6.7	ug/L	1
Toluene	108-88-3	8260B	ND		5.0	1.7	ug/L	1
Xylenes (total)	**1330-20-7**	**8260B**	**4.3**	**J**	**5.0**	**1.7**	**ug/L**	**1**

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		112	70-130
Bromofluorobenzene		111	70-130
Toluene-d8		114	70-130

EDB & DBCP by Microextraction

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	8011	8011	1	10/08/2013 2059	AMY	10/08/2013 1123	31311

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
1,2-Dibromoethane (EDB)	**106-93-4**	**8011**	**0.030**		**0.022**	**0.022**	**ug/L**	**1**

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,1,1,2-Tetrachloroethane		95	57-137

PQL = Practical quantitation limit
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
H = Out of holding time
ND = Not detected at or above the MDL
J = Estimated result < PQL and ≥ MDL
P = The RPD between two GC columns exceeds 40%
N = Recovery is out of criteria
Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Client: **SC DHEC - UST Management**
Description: **MW-9**
Date Sampled: **10/03/2013 1525**
Date Received: **10/04/2013**

Laboratory ID: **OJ04035-009**
Matrix: **Aqueous**

Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	10/07/2013 1310	ALL		31178

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
tert-Amyl alcohol (TAA)	**75-85-4**	**8260B**	**960**		**100**	**6.7**	**ug/L**	**1**
tert-Amyl methyl ether (TAME)	994-05-8	8260B	ND		10	0.20	ug/L	1
Benzene	**71-43-2**	**8260B**	**62**		**5.0**	**0.20**	**ug/L**	**1**
tert-Butyl formate (TBF)	762-75-4	8260B	ND		100	1.0	ug/L	1
1,2-Dichloroethane	**107-06-2**	**8260B**	**15**		**5.0**	**0.30**	**ug/L**	**1**
Diisopropyl ether (IPE)	108-20-3	8260B	ND		10	0.40	ug/L	1
3,3-Dimethyl-1-butanol	624-95-3	8260B	ND		100	1.0	ug/L	1
Ethanol	64-17-5	8260B	ND		1000	33	ug/L	1
Ethylbenzene	**100-41-4**	**8260B**	**6.9**		**5.0**	**1.7**	**ug/L**	**1**
Ethyl-tert-butyl ether (ETBE)	637-92-3	8260B	ND		100	0.20	ug/L	1
Methyl tertiary butyl ether (MTBE)	**1634-04-4**	**8260B**	**1.5**	**J**	**5.0**	**0.40**	**ug/L**	**1**
Naphthalene	**91-20-3**	**8260B**	**3.0**	**J**	**5.0**	**1.7**	**ug/L**	**1**
tert-butyl alcohol (TBA)	**75-65-0**	**8260B**	**63**	**J**	**100**	**6.7**	**ug/L**	**1**
Toluene	**108-88-3**	**8260B**	**2.6**	**J**	**5.0**	**1.7**	**ug/L**	**1**
Xylenes (total)	**1330-20-7**	**8260B**	**14**		**5.0**	**1.7**	**ug/L**	**1**

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		114	70-130
Bromofluorobenzene		110	70-130
Toluene-d8		114	70-130

EDB & DBCP by Microextraction

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	8011	8011	1	10/08/2013 2110	AMY	10/08/2013 1123	31311

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
1,2-Dibromoethane (EDB)	106-93-4	8011	ND		0.021	0.021	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,1,1,2-Tetrachloroethane		100	57-137

PQL = Practical quantitation limit B = Detected in the method blank E = Quantitation of compound exceeded the calibration range H = Out of holding time
ND = Not detected at or above the MDL J = Estimated result < PQL and ≥ MDL P = The RPD between two GC columns exceeds 40% N = Recovery is out of criteria
Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Client: **SC DHEC - UST Management**
Description: **MW-10**
Date Sampled: **10/03/2013 1041**
Date Received: **10/04/2013**

Laboratory ID: **OJ04035-010**
Matrix: **Aqueous**

Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	10/07/2013 1331	ALL		31178

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
tert-Amyl alcohol (TAA)	75-85-4	8260B	ND		100	6.7	ug/L	1
tert-Amyl methyl ether (TAME)	994-05-8	8260B	ND		10	0.20	ug/L	1
Benzene	71-43-2	8260B	ND		5.0	0.20	ug/L	1
tert-Butyl formate (TBF)	762-75-4	8260B	ND		100	1.0	ug/L	1
1,2-Dichloroethane	107-06-2	8260B	ND		5.0	0.30	ug/L	1
Diisopropyl ether (IPE)	108-20-3	8260B	ND		10	0.40	ug/L	1
3,3-Dimethyl-1-butanol	624-95-3	8260B	ND		100	1.0	ug/L	1
Ethanol	64-17-5	8260B	ND		1000	33	ug/L	1
Ethylbenzene	100-41-4	8260B	ND		5.0	1.7	ug/L	1
Ethyl-tert-butyl ether (ETBE)	637-92-3	8260B	ND		100	0.20	ug/L	1
Methyl tertiary butyl ether (MTBE)	1634-04-4	8260B	ND		5.0	0.40	ug/L	1
Naphthalene	91-20-3	8260B	ND		5.0	1.7	ug/L	1
tert-butyl alcohol (TBA)	75-65-0	8260B	ND		100	6.7	ug/L	1
Toluene	108-88-3	8260B	ND		5.0	1.7	ug/L	1
Xylenes (total)	1330-20-7	8260B	ND		5.0	1.7	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		111	70-130
Bromofluorobenzene		108	70-130
Toluene-d8		112	70-130

EDB & DBCP by Microextraction

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	8011	8011	1	10/08/2013 2120	AMY	10/08/2013 1123	31311

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
1,2-Dibromoethane (EDB)	106-93-4	8011	ND		0.020	0.020	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,1,1,2-Tetrachloroethane		94	57-137

PQL = Practical quantitation limit   B = Detected in the method blank   E = Quantitation of compound exceeded the calibration range   H = Out of holding time
ND = Not detected at or above the MDL   J = Estimated result < PQL and ≥ MDL   P = The RPD between two GC columns exceeds 40%   N = Recovery is out of criteria
Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Client: **SC DHEC - UST Management**	Laboratory ID: **OJ04035-011**
Description: **MW-11**	Matrix: **Aqueous**
Date Sampled: **10/03/2013 1033**	
Date Received: **10/04/2013**	

Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	10/07/2013 1352	ALL		31178

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
tert-Amyl alcohol (TAA)	75-85-4	8260B	ND		100	6.7	ug/L	1
tert-Amyl methyl ether (TAME)	994-05-8	8260B	ND		10	0.20	ug/L	1
Benzene	71-43-2	8260B	ND		5.0	0.20	ug/L	1
tert-Butyl formate (TBF)	762-75-4	8260B	ND		100	1.0	ug/L	1
1,2-Dichloroethane	107-06-2	8260B	ND		5.0	0.30	ug/L	1
Diisopropyl ether (IPE)	108-20-3	8260B	ND		10	0.40	ug/L	1
3,3-Dimethyl-1-butanol	624-95-3	8260B	ND		100	1.0	ug/L	1
Ethanol	64-17-5	8260B	ND		1000	33	ug/L	1
Ethylbenzene	100-41-4	8260B	ND		5.0	1.7	ug/L	1
Ethyl-tert-butyl ether (ETBE)	637-92-3	8260B	ND		100	0.20	ug/L	1
Methyl tertiary butyl ether (MTBE)	1634-04-4	8260B	ND		5.0	0.40	ug/L	1
Naphthalene	91-20-3	8260B	ND		5.0	1.7	ug/L	1
tert-butyl alcohol (TBA)	75-65-0	8260B	ND		100	6.7	ug/L	1
Toluene	108-88-3	8260B	ND		5.0	1.7	ug/L	1
Xylenes (total)	1330-20-7	8260B	ND		5.0	1.7	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		110	70-130
Bromofluorobenzene		106	70-130
Toluene-d8		111	70-130

EDB & DBCP by Microextraction

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	8011	8011	1	10/08/2013 2130	AMY	10/08/2013 1123	31311

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
1,2-Dibromoethane (EDB)	106-93-4	8011	ND		0.020	0.020	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,1,1,2-Tetrachloroethane		107	57-137

PQL = Practical quantitation limit　B = Detected in the method blank　E = Quantitation of compound exceeded the calibration range　H = Out of holding time
ND = Not detected at or above the MDL　J = Estimated result < PQL and ≥ MDL　P = The RPD between two GC columns exceeds 40%　N = Recovery is out of criteria
Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Client: **SC DHEC - UST Management**
Description: **MW-12**
Date Sampled: **10/03/2013 1056**
Date Received: **10/04/2013**

Laboratory ID: **OJ04035-012**
Matrix: **Aqueous**

Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	10/07/2013 1413	ALL		31178

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
tert-Amyl alcohol (TAA)	75-85-4	8260B	ND		100	6.7	ug/L	1
tert-Amyl methyl ether (TAME)	994-05-8	8260B	ND		10	0.20	ug/L	1
Benzene	71-43-2	8260B	ND		5.0	0.20	ug/L	1
tert-Butyl formate (TBF)	762-75-4	8260B	ND		100	1.0	ug/L	1
1,2-Dichloroethane	107-06-2	8260B	ND		5.0	0.30	ug/L	1
Diisopropyl ether (IPE)	108-20-3	8260B	ND		10	0.40	ug/L	1
3,3-Dimethyl-1-butanol	624-95-3	8260B	ND		100	1.0	ug/L	1
Ethanol	64-17-5	8260B	ND		1000	33	ug/L	1
Ethylbenzene	100-41-4	8260B	ND		5.0	1.7	ug/L	1
Ethyl-tert-butyl ether (ETBE)	637-92-3	8260B	ND		100	0.20	ug/L	1
Methyl tertiary butyl ether (MTBE)	1634-04-4	8260B	ND		5.0	0.40	ug/L	1
Naphthalene	91-20-3	8260B	ND		5.0	1.7	ug/L	1
tert-butyl alcohol (TBA)	75-65-0	8260B	ND		100	6.7	ug/L	1
Toluene	108-88-3	8260B	ND		5.0	1.7	ug/L	1
Xylenes (total)	1330-20-7	8260B	ND		5.0	1.7	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		110	70-130
Bromofluorobenzene		108	70-130
Toluene-d8		113	70-130

EDB & DBCP by Microextraction

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	8011	8011	1	10/08/2013 2140	AMY	10/08/2013 1123	31311

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
1,2-Dibromoethane (EDB)	106-93-4	8011	ND		0.020	0.020	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,1,1,2-Tetrachloroethane		88	57-137

PQL = Practical quantitation limit | B = Detected in the method blank | E = Quantitation of compound exceeded the calibration range | H = Out of holding time
ND = Not detected at or above the MDL | J = Estimated result < PQL and ≥ MDL | P = The RPD between two GC columns exceeds 40% | N = Recovery is out of criteria
Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Client: **SC DHEC - UST Management**

Description: **MW-13**

Date Sampled: **10/03/2013 1146**

Date Received: **10/04/2013**

Laboratory ID: **OJ04035-013**

Matrix: **Aqueous**

Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	10/07/2013 1434	ALL		31178

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
tert-Amyl alcohol (TAA)	75-85-4	8260B	ND		100	6.7	ug/L	1
tert-Amyl methyl ether (TAME)	994-05-8	8260B	ND		10	0.20	ug/L	1
Benzene	71-43-2	8260B	ND		5.0	0.20	ug/L	1
tert-Butyl formate (TBF)	762-75-4	8260B	ND		100	1.0	ug/L	1
1,2-Dichloroethane	107-06-2	8260B	ND		5.0	0.30	ug/L	1
Diisopropyl ether (IPE)	108-20-3	8260B	ND		10	0.40	ug/L	1
3,3-Dimethyl-1-butanol	624-95-3	8260B	ND		100	1.0	ug/L	1
Ethanol	64-17-5	8260B	ND		1000	33	ug/L	1
Ethylbenzene	100-41-4	8260B	ND		5.0	1.7	ug/L	1
Ethyl-tert-butyl ether (ETBE)	637-92-3	8260B	ND		100	0.20	ug/L	1
Methyl tertiary butyl ether (MTBE)	1634-04-4	8260B	ND		5.0	0.40	ug/L	1
Naphthalene	91-20-3	8260B	ND		5.0	1.7	ug/L	1
tert-butyl alcohol (TBA)	75-65-0	8260B	ND		100	6.7	ug/L	1
Toluene	108-88-3	8260B	ND		5.0	1.7	ug/L	1
Xylenes (total)	1330-20-7	8260B	ND		5.0	1.7	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		110	70-130
Bromofluorobenzene		108	70-130
Toluene-d8		110	70-130

EDB & DBCP by Microextraction

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	8011	8011	1	10/08/2013 2151	AMY	10/08/2013 1123	31311

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
1,2-Dibromoethane (EDB)	106-93-4	8011	ND		0.020	0.020	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,1,1,2-Tetrachloroethane		90	57-137

PQL = Practical quantitation limit B = Detected in the method blank E = Quantitation of compound exceeded the calibration range H = Out of holding time
ND = Not detected at or above the MDL J = Estimated result < PQL and ≥ MDL P = The RPD between two GC columns exceeds 40% N = Recovery is out of criteria
Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Client: **SC DHEC - UST Management**

Description: **MW-14**

Date Sampled: **10/03/2013 1201**

Date Received: **10/04/2013**

Laboratory ID: **OJ04035-014**

Matrix: **Aqueous**

Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	10/07/2013 1455	ALL		31178

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
tert-Amyl alcohol (TAA)	75-85-4	8260B	ND		100	6.7	ug/L	1
tert-Amyl methyl ether (TAME)	994-05-8	8260B	ND		10	0.20	ug/L	1
Benzene	71-43-2	8260B	ND		5.0	0.20	ug/L	1
tert-Butyl formate (TBF)	762-75-4	8260B	ND		100	1.0	ug/L	1
1,2-Dichloroethane	107-06-2	8260B	ND		5.0	0.30	ug/L	1
Diisopropyl ether (IPE)	108-20-3	8260B	ND		10	0.40	ug/L	1
3,3-Dimethyl-1-butanol	624-95-3	8260B	ND		100	1.0	ug/L	1
Ethanol	64-17-5	8260B	ND		1000	33	ug/L	1
Ethylbenzene	100-41-4	8260B	ND		5.0	1.7	ug/L	1
Ethyl-tert-butyl ether (ETBE)	637-92-3	8260B	ND		100	0.20	ug/L	1
Methyl tertiary butyl ether (MTBE)	1634-04-4	8260B	ND		5.0	0.40	ug/L	1
Naphthalene	91-20-3	8260B	ND		5.0	1.7	ug/L	1
tert-butyl alcohol (TBA)	75-65-0	8260B	ND		100	6.7	ug/L	1
Toluene	108-88-3	8260B	ND		5.0	1.7	ug/L	1
Xylenes (total)	1330-20-7	8260B	ND		5.0	1.7	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		111	70-130
Bromofluorobenzene		107	70-130
Toluene-d8		110	70-130

EDB & DBCP by Microextraction

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	8011	8011	1	10/08/2013 2201	AMY	10/08/2013 1123	31311

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
1,2-Dibromoethane (EDB)	106-93-4	8011	ND		0.020	0.020	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,1,1,2-Tetrachloroethane		90	57-137

PQL = Practical quantitation limit
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
H = Out of holding time
ND = Not detected at or above the MDL
J = Estimated result < PQL and ≥ MDL
P = The RPD between two GC columns exceeds 40%
N = Recovery is out of criteria
Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Client: **SC DHEC - UST Management**	Laboratory ID: **OJ04035-015**
Description: **MW-15**	Matrix: **Aqueous**
Date Sampled: **10/03/2013 1217**	
Date Received: **10/04/2013**	

Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	10/07/2013 1516	ALL		31178

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
tert-Amyl alcohol (TAA)	75-85-4	8260B	ND		100	6.7	ug/L	1
tert-Amyl methyl ether (TAME)	994-05-8	8260B	ND		10	0.20	ug/L	1
Benzene	71-43-2	8260B	ND		5.0	0.20	ug/L	1
tert-Butyl formate (TBF)	762-75-4	8260B	ND		100	1.0	ug/L	1
1,2-Dichloroethane	107-06-2	8260B	ND		5.0	0.30	ug/L	1
Diisopropyl ether (IPE)	108-20-3	8260B	ND		10	0.40	ug/L	1
3,3-Dimethyl-1-butanol	624-95-3	8260B	ND		100	1.0	ug/L	1
Ethanol	64-17-5	8260B	ND		1000	33	ug/L	1
Ethylbenzene	100-41-4	8260B	ND		5.0	1.7	ug/L	1
Ethyl-tert-butyl ether (ETBE)	637-92-3	8260B	ND		100	0.20	ug/L	1
Methyl tertiary butyl ether (MTBE)	1634-04-4	8260B	ND		5.0	0.40	ug/L	1
Naphthalene	91-20-3	8260B	ND		5.0	1.7	ug/L	1
tert-butyl alcohol (TBA)	75-65-0	8260B	ND		100	6.7	ug/L	1
Toluene	108-88-3	8260B	ND		5.0	1.7	ug/L	1
Xylenes (total)	1330-20-7	8260B	ND		5.0	1.7	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		110	70-130
Bromofluorobenzene		106	70-130
Toluene-d8		110	70-130

EDB & DBCP by Microextraction

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	8011	8011	1	10/08/2013 2211	AMY	10/08/2013 1123	31311

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
1,2-Dibromoethane (EDB)	106-93-4	8011	ND		0.020	0.020	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,1,1,2-Tetrachloroethane		88	57-137

PQL = Practical quantitation limit B = Detected in the method blank E = Quantitation of compound exceeded the calibration range H = Out of holding time
ND = Not detected at or above the MDL J = Estimated result < PQL and ≥ MDL P = The RPD between two GC columns exceeds 40% N = Recovery is out of criteria
Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Client: **SC DHEC - UST Management** | Laboratory ID: **OJ04035-016**
Description: **DW-1** | Matrix: **Aqueous**
Date Sampled: **10/03/2013 1500**
Date Received: **10/04/2013**

Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	10/07/2013 1537	ALL		31178

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
tert-Amyl alcohol (TAA)	75-85-4	8260B	ND		100	6.7	ug/L	1
tert-Amyl methyl ether (TAME)	994-05-8	8260B	ND		10	0.20	ug/L	1
Benzene	71-43-2	8260B	ND		5.0	0.20	ug/L	1
tert-Butyl formate (TBF)	762-75-4	8260B	ND		100	1.0	ug/L	1
1,2-Dichloroethane	107-06-2	8260B	ND		5.0	0.30	ug/L	1
Diisopropyl ether (IPE)	108-20-3	8260B	ND		10	0.40	ug/L	1
3,3-Dimethyl-1-butanol	624-95-3	8260B	ND		100	1.0	ug/L	1
Ethanol	64-17-5	8260B	ND		1000	33	ug/L	1
Ethylbenzene	100-41-4	8260B	ND		5.0	1.7	ug/L	1
Ethyl-tert-butyl ether (ETBE)	637-92-3	8260B	ND		100	0.20	ug/L	1
Methyl tertiary butyl ether (MTBE)	1634-04-4	8260B	ND		5.0	0.40	ug/L	1
Naphthalene	91-20-3	8260B	ND		5.0	1.7	ug/L	1
tert-butyl alcohol (TBA)	75-65-0	8260B	ND		100	6.7	ug/L	1
Toluene	108-88-3	8260B	ND		5.0	1.7	ug/L	1
Xylenes (total)	1330-20-7	8260B	ND		5.0	1.7	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		111	70-130
Bromofluorobenzene		107	70-130
Toluene-d8		108	70-130

EDB & DBCP by Microextraction

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	8011	8011	1	10/08/2013 2221	AMY	10/08/2013 1123	31311

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
1,2-Dibromoethane (EDB)	106-93-4	8011	ND		0.021	0.021	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,1,1,2-Tetrachloroethane		102	57-137

PQL = Practical quantitation limit | B = Detected in the method blank | E = Quantitation of compound exceeded the calibration range | H = Out of holding time
ND = Not detected at or above the MDL | J = Estimated result < PQL and ≥ MDL | P = The RPD between two GC columns exceeds 40% | N = Recovery is out of criteria
Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Client: **SC DHEC - UST Management**
Description: **DW-2**
Date Sampled: **10/03/2013 1533**
Date Received: **10/04/2013**

Laboratory ID: **OJ04035-017**
Matrix: **Aqueous**

Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	20	10/07/2013 1336	ALL		31210

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
tert-Amyl alcohol (TAA)	75-85-4	8260B	ND		2000	130	ug/L	1
tert-Amyl methyl ether (TAME)	994-05-8	8260B	ND		200	4.0	ug/L	1
Benzene	71-43-2	8260B	ND		100	4.0	ug/L	1
tert-Butyl formate (TBF)	762-75-4	8260B	ND		2000	20	ug/L	1
1,2-Dichloroethane	107-06-2	8260B	ND		100	6.0	ug/L	1
Diisopropyl ether (IPE)	108-20-3	8260B	ND		200	8.0	ug/L	1
3,3-Dimethyl-1-butanol	624-95-3	8260B	ND		2000	20	ug/L	1
Ethanol	64-17-5	8260B	ND		20000	660	ug/L	1
Ethylbenzene	100-41-4	8260B	ND		100	34	ug/L	1
Ethyl-tert-butyl ether (ETBE)	637-92-3	8260B	ND		2000	4.0	ug/L	1
Methyl tertiary butyl ether (MTBE)	1634-04-4	8260B	ND		100	8.0	ug/L	1
Naphthalene	91-20-3	8260B	ND		100	34	ug/L	1
tert-butyl alcohol (TBA)	75-65-0	8260B	ND		2000	130	ug/L	1
Toluene	108-88-3	8260B	ND		100	34	ug/L	1
Xylenes (total)	1330-20-7	8260B	ND		100	34	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		92	70-130
Bromofluorobenzene		108	70-130
Toluene-d8		104	70-130

EDB & DBCP by Microextraction

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	8011	8011	1	10/08/2013 2232	AMY	10/08/2013 1123	31311

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
1,2-Dibromoethane (EDB)	106-93-4	8011	ND		0.057	0.057	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,1,1,2-Tetrachloroethane		103	57-137

PQL = Practical quantitation limit
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
H = Out of holding time
ND = Not detected at or above the MDL
J = Estimated result < PQL and ≥ MDL
P = The RPD between two GC columns exceeds 40%
N = Recovery is out of criteria
Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Client: **SC DHEC - UST Management**
Description: **DW-3**
Date Sampled: **10/03/2013 1340**
Date Received: **10/04/2013**

Laboratory ID: **OJ04035-018**
Matrix: **Aqueous**

Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	10/07/2013 1558	ALL		31178

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
tert-Amyl alcohol (TAA)	75-85-4	8260B	ND		100	6.7	ug/L	1
tert-Amyl methyl ether (TAME)	994-05-8	8260B	ND		10	0.20	ug/L	1
Benzene	71-43-2	8260B	ND		5.0	0.20	ug/L	1
tert-Butyl formate (TBF)	762-75-4	8260B	ND		100	1.0	ug/L	1
1,2-Dichloroethane	107-06-2	8260B	ND		5.0	0.30	ug/L	1
Diisopropyl ether (IPE)	108-20-3	8260B	ND		10	0.40	ug/L	1
3,3-Dimethyl-1-butanol	624-95-3	8260B	ND		100	1.0	ug/L	1
Ethanol	64-17-5	8260B	ND		1000	33	ug/L	1
Ethylbenzene	100-41-4	8260B	ND		5.0	1.7	ug/L	1
Ethyl-tert-butyl ether (ETBE)	637-92-3	8260B	ND		100	0.20	ug/L	1
Methyl tertiary butyl ether (MTBE)	1634-04-4	8260B	ND		5.0	0.40	ug/L	1
Naphthalene	91-20-3	8260B	ND		5.0	1.7	ug/L	1
tert-butyl alcohol (TBA)	75-65-0	8260B	ND		100	6.7	ug/L	1
Toluene	108-88-3	8260B	ND		5.0	1.7	ug/L	1
Xylenes (total)	1330-20-7	8260B	ND		5.0	1.7	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		110	70-130
Bromofluorobenzene		107	70-130
Toluene-d8		109	70-130

EDB & DBCP by Microextraction

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	8011	8011	1	10/09/2013 1522	AMY	10/08/2013 1611	31344

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
1,2-Dibromoethane (EDB)	106-93-4	8011	ND		0.021	0.021	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,1,1,2-Tetrachloroethane		92	57-137

PQL = Practical quantitation limit
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
H = Out of holding time
ND = Not detected at or above the MDL
J = Estimated result < PQL and ≥ MDL
P = The RPD between two GC columns exceeds 40%
N = Recovery is out of criteria
Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Client: **SC DHEC - UST Management**
Description: **DW-4**
Date Sampled: **10/03/2013 1315**
Date Received: **10/04/2013**

Laboratory ID: **OJ04035-019**
Matrix: **Aqueous**

Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	10/07/2013 1619	ALL		31178

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
tert-Amyl alcohol (TAA)	75-85-4	8260B	ND		100	6.7	ug/L	1
tert-Amyl methyl ether (TAME)	994-05-8	8260B	ND		10	0.20	ug/L	1
Benzene	71-43-2	8260B	ND		5.0	0.20	ug/L	1
tert-Butyl formate (TBF)	762-75-4	8260B	ND		100	1.0	ug/L	1
1,2-Dichloroethane	107-06-2	8260B	ND		5.0	0.30	ug/L	1
Diisopropyl ether (IPE)	108-20-3	8260B	ND		10	0.40	ug/L	1
3,3-Dimethyl-1-butanol	624-95-3	8260B	ND		100	1.0	ug/L	1
Ethanol	64-17-5	8260B	ND		1000	33	ug/L	1
Ethylbenzene	100-41-4	8260B	ND		5.0	1.7	ug/L	1
Ethyl-tert-butyl ether (ETBE)	637-92-3	8260B	ND		100	0.20	ug/L	1
Methyl tertiary butyl ether (MTBE)	1634-04-4	8260B	ND		5.0	0.40	ug/L	1
Naphthalene	91-20-3	8260B	ND		5.0	1.7	ug/L	1
tert-butyl alcohol (TBA)	75-65-0	8260B	ND		100	6.7	ug/L	1
Toluene	108-88-3	8260B	ND		5.0	1.7	ug/L	1
Xylenes (total)	1330-20-7	8260B	ND		5.0	1.7	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		110	70-130
Bromofluorobenzene		107	70-130
Toluene-d8		109	70-130

EDB & DBCP by Microextraction

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	8011	8011	1	10/09/2013 1532	AMY	10/08/2013 1611	31344

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
1,2-Dibromoethane (EDB)	106-93-4	8011	ND		0.023	0.023	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,1,1,2-Tetrachloroethane		78	57-137

PQL = Practical quantitation limit
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
H = Out of holding time
ND = Not detected at or above the MDL
J = Estimated result < PQL and ≥ MDL
P = The RPD between two GC columns exceeds 40%
N = Recovery is out of criteria
Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Client: **SC DHEC - UST Management**
Description: **DW-5**
Date Sampled: **10/03/2013 1541**
Date Received: **10/04/2013**

Laboratory ID: **OJ04035-020**
Matrix: **Aqueous**

Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	5	10/07/2013 1359	ALL		31210

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
tert-Amyl alcohol (TAA)	75-85-4	8260B	ND		500	34	ug/L	1
tert-Amyl methyl ether (TAME)	994-05-8	8260B	ND		50	1.0	ug/L	1
Benzene	71-43-2	8260B	ND		25	1.0	ug/L	1
tert-Butyl formate (TBF)	762-75-4	8260B	ND		500	5.0	ug/L	1
1,2-Dichloroethane	107-06-2	8260B	ND		25	1.5	ug/L	1
Diisopropyl ether (IPE)	108-20-3	8260B	ND		50	2.0	ug/L	1
3,3-Dimethyl-1-butanol	624-95-3	8260B	ND		500	5.0	ug/L	1
Ethanol	64-17-5	8260B	ND		5000	170	ug/L	1
Ethylbenzene	100-41-4	8260B	ND		25	8.5	ug/L	1
Ethyl-tert-butyl ether (ETBE)	637-92-3	8260B	ND		500	1.0	ug/L	1
Methyl tertiary butyl ether (MTBE)	1634-04-4	8260B	ND		25	2.0	ug/L	1
Naphthalene	91-20-3	8260B	ND		25	8.5	ug/L	1
tert-butyl alcohol (TBA)	75-65-0	8260B	ND		500	34	ug/L	1
Toluene	108-88-3	8260B	ND		25	8.5	ug/L	1
Xylenes (total)	1330-20-7	8260B	ND		25	8.5	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		93	70-130
Bromofluorobenzene		110	70-130
Toluene-d8		105	70-130

EDB & DBCP by Microextraction

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	8011	8011	1	10/09/2013 1542	AMY	10/08/2013 1611	31344

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
1,2-Dibromoethane (EDB)	106-93-4	8011	ND		0.031	0.031	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,1,1,2-Tetrachloroethane		84	57-137

PQL = Practical quantitation limit
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
H = Out of holding time
ND = Not detected at or above the MDL
J = Estimated result < PQL and ≥ MDL
P = The RPD between two GC columns exceeds 40%
N = Recovery is out of criteria
Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Client: **SC DHEC - UST Management**
Description: **DW-6**
Date Sampled: **10/03/2013 1517**
Date Received: **10/04/2013**

Laboratory ID: **OJ04035-021**
Matrix: **Aqueous**

Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	10	10/07/2013 1421	ALL		31210

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
tert-Amyl alcohol (TAA)	75-85-4	8260B	ND		1000	67	ug/L	1
tert-Amyl methyl ether (TAME)	994-05-8	8260B	ND		100	2.0	ug/L	1
Benzene	71-43-2	8260B	ND		50	2.0	ug/L	1
tert-Butyl formate (TBF)	762-75-4	8260B	ND		1000	10	ug/L	1
1,2-Dichloroethane	107-06-2	8260B	ND		50	3.0	ug/L	1
Diisopropyl ether (IPE)	108-20-3	8260B	ND		100	4.0	ug/L	1
3,3-Dimethyl-1-butanol	624-95-3	8260B	ND		1000	10	ug/L	1
Ethanol	64-17-5	8260B	ND		10000	330	ug/L	1
Ethylbenzene	100-41-4	8260B	ND		50	17	ug/L	1
Ethyl-tert-butyl ether (ETBE)	637-92-3	8260B	ND		1000	2.0	ug/L	1
Methyl tertiary butyl ether (MTBE)	1634-04-4	8260B	ND		50	4.0	ug/L	1
Naphthalene	91-20-3	8260B	ND		50	17	ug/L	1
tert-butyl alcohol (TBA)	75-65-0	8260B	ND		1000	67	ug/L	1
Toluene	108-88-3	8260B	ND		50	17	ug/L	1
Xylenes (total)	1330-20-7	8260B	ND		50	17	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		93	70-130
Bromofluorobenzene		109	70-130
Toluene-d8		104	70-130

EDB & DBCP by Microextraction

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	8011	8011	1	10/09/2013 1553	AMY	10/08/2013 1611	31344

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
1,2-Dibromoethane (EDB)	106-93-4	8011	ND		0.051	0.051	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,1,1,2-Tetrachloroethane		89	57-137

PQL = Practical quantitation limit B = Detected in the method blank E = Quantitation of compound exceeded the calibration range H = Out of holding time
ND = Not detected at or above the MDL J = Estimated result < PQL and ≥ MDL P = The RPD between two GC columns exceeds 40% N = Recovery is out of criteria
Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Client: **SC DHEC - UST Management**	Laboratory ID: **OJ04035-022**
Description: **WSW-1**	Matrix: **Aqueous**
Date Sampled: **10/03/2013 1552**	
Date Received: **10/04/2013**	

Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	10/07/2013 2100	PMM2		31259

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
tert-Amyl alcohol (TAA)	75-85-4	8260B	ND		100	6.7	ug/L	1
tert-Amyl methyl ether (TAME)	994-05-8	8260B	ND		10	0.20	ug/L	1
Benzene	71-43-2	8260B	ND		1.0	0.13	ug/L	1
tert-Butyl formate (TBF)	762-75-4	8260B	ND		100	1.0	ug/L	1
1,2-Dichloroethane	107-06-2	8260B	ND		1.0	0.15	ug/L	1
Diisopropyl ether (IPE)	108-20-3	8260B	ND		10	0.40	ug/L	1
3,3-Dimethyl-1-butanol	624-95-3	8260B	ND		100	1.0	ug/L	1
Ethanol	64-17-5	8260B	ND		1000	33	ug/L	1
Ethylbenzene	100-41-4	8260B	ND		1.0	0.33	ug/L	1
Ethyl-tert-butyl ether (ETBE)	637-92-3	8260B	ND		100	0.20	ug/L	1
Methyl tertiary butyl ether (MTBE)	1634-04-4	8260B	ND		1.0	0.40	ug/L	1
Naphthalene	91-20-3	8260B	ND		1.0	0.40	ug/L	1
tert-butyl alcohol (TBA)	75-65-0	8260B	ND		100	6.7	ug/L	1
Toluene	108-88-3	8260B	ND		1.0	0.33	ug/L	1
Xylenes (total)	1330-20-7	8260B	ND		1.0	0.33	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		111	70-130
Bromofluorobenzene		108	70-130
Toluene-d8		112	70-130

EDB & DBCP by Microextraction

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	8011	8011	1	10/09/2013 1603	AMY	10/08/2013 1611	31344

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
1,2-Dibromoethane (EDB)	106-93-4	8011	ND		0.020	0.020	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,1,1,2-Tetrachloroethane		137	57-137

PQL = Practical quantitation limit B = Detected in the method blank E = Quantitation of compound exceeded the calibration range H = Out of holding time
ND = Not detected at or above the MDL J = Estimated result < PQL and ≥ MDL P = The RPD between two GC columns exceeds 40% N = Recovery is out of criteria
Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Client: **SC DHEC - UST Management** | Laboratory ID: **OJ04035-023**
Description: **WSW-2** | Matrix: **Aqueous**
Date Sampled: **10/03/2013 1548**
Date Received: **10/04/2013**

Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	10/07/2013 2121	PMM2		31259

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
tert-Amyl alcohol (TAA)	75-85-4	8260B	ND		100	6.7	ug/L	1
tert-Amyl methyl ether (TAME)	994-05-8	8260B	ND		10	0.20	ug/L	1
Benzene	71-43-2	8260B	ND		1.0	0.13	ug/L	1
tert-Butyl formate (TBF)	762-75-4	8260B	ND		100	1.0	ug/L	1
1,2-Dichloroethane	107-06-2	8260B	ND		1.0	0.15	ug/L	1
Diisopropyl ether (IPE)	108-20-3	8260B	ND		10	0.40	ug/L	1
3,3-Dimethyl-1-butanol	624-95-3	8260B	ND		100	1.0	ug/L	1
Ethanol	64-17-5	8260B	ND		1000	33	ug/L	1
Ethylbenzene	100-41-4	8260B	ND		1.0	0.33	ug/L	1
Ethyl-tert-butyl ether (ETBE)	637-92-3	8260B	ND		100	0.20	ug/L	1
Methyl tertiary butyl ether (MTBE)	1634-04-4	8260B	ND		1.0	0.40	ug/L	1
Naphthalene	91-20-3	8260B	ND		1.0	0.40	ug/L	1
tert-butyl alcohol (TBA)	75-65-0	8260B	ND		100	6.7	ug/L	1
Toluene	108-88-3	8260B	ND		1.0	0.33	ug/L	1
Xylenes (total)	1330-20-7	8260B	ND		1.0	0.33	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		111	70-130
Bromofluorobenzene		107	70-130
Toluene-d8		114	70-130

EDB & DBCP by Microextraction

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	8011	8011	1	10/09/2013 1634	AMY	10/08/2013 1611	31344

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
1,2-Dibromoethane (EDB)	106-93-4	8011	ND		0.020	0.020	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,1,1,2-Tetrachloroethane		94	57-137

PQL = Practical quantitation limit   B = Detected in the method blank   E = Quantitation of compound exceeded the calibration range   H = Out of holding time
ND = Not detected at or above the MDL   J = Estimated result < PQL and ≥ MDL   P = The RPD between two GC columns exceeds 40%   N = Recovery is out of criteria
Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Client: **SC DHEC - UST Management**
Description: **WSW-3**
Date Sampled: **10/03/2013 1610**
Date Received: **10/04/2013**

Laboratory ID: **OJ04035-024**
Matrix: **Aqueous**

Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	10/07/2013 2142	PMM2		31259

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
tert-Amyl alcohol (TAA)	75-85-4	8260B	ND		100	6.7	ug/L	1
tert-Amyl methyl ether (TAME)	994-05-8	8260B	ND		10	0.20	ug/L	1
Benzene	71-43-2	8260B	ND		1.0	0.13	ug/L	1
tert-Butyl formate (TBF)	762-75-4	8260B	ND		100	1.0	ug/L	1
1,2-Dichloroethane	107-06-2	8260B	ND		1.0	0.15	ug/L	1
Diisopropyl ether (IPE)	108-20-3	8260B	ND		10	0.40	ug/L	1
3,3-Dimethyl-1-butanol	624-95-3	8260B	ND		100	1.0	ug/L	1
Ethanol	64-17-5	8260B	ND		1000	33	ug/L	1
Ethylbenzene	100-41-4	8260B	ND		1.0	0.33	ug/L	1
Ethyl-tert-butyl ether (ETBE)	637-92-3	8260B	ND		100	0.20	ug/L	1
Methyl tertiary butyl ether (MTBE)	1634-04-4	8260B	ND		1.0	0.40	ug/L	1
Naphthalene	91-20-3	8260B	ND		1.0	0.40	ug/L	1
tert-butyl alcohol (TBA)	75-65-0	8260B	ND		100	6.7	ug/L	1
Toluene	108-88-3	8260B	ND		1.0	0.33	ug/L	1
Xylenes (total)	1330-20-7	8260B	ND		1.0	0.33	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		109	70-130
Bromofluorobenzene		109	70-130
Toluene-d8		111	70-130

EDB & DBCP by Microextraction

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	8011	8011	1	10/09/2013 1645	AMY	10/08/2013 1611	31344

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
1,2-Dibromoethane (EDB)	106-93-4	8011	ND		0.020	0.020	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,1,1,2-Tetrachloroethane		93	57-137

PQL = Practical quantitation limit
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
H = Out of holding time
ND = Not detected at or above the MDL
J = Estimated result < PQL and ≥ MDL
P = The RPD between two GC columns exceeds 40%
N = Recovery is out of criteria
Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Client: **SC DHEC - UST Management**
Description: **WSW-4**
Date Sampled: **10/03/2013 1612**
Date Received: **10/04/2013**

Laboratory ID: **OJ04035-025**
Matrix: **Aqueous**

Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	10/07/2013 2203	PMM2		31259

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
tert-Amyl alcohol (TAA)	75-85-4	8260B	ND		100	6.7	ug/L	1
tert-Amyl methyl ether (TAME)	994-05-8	8260B	ND		10	0.20	ug/L	1
Benzene	71-43-2	8260B	ND		1.0	0.13	ug/L	1
tert-Butyl formate (TBF)	762-75-4	8260B	ND		100	1.0	ug/L	1
1,2-Dichloroethane	107-06-2	8260B	ND		1.0	0.15	ug/L	1
Diisopropyl ether (IPE)	108-20-3	8260B	ND		10	0.40	ug/L	1
3,3-Dimethyl-1-butanol	624-95-3	8260B	ND		100	1.0	ug/L	1
Ethanol	64-17-5	8260B	ND		1000	33	ug/L	1
Ethylbenzene	100-41-4	8260B	ND		1.0	0.33	ug/L	1
Ethyl-tert-butyl ether (ETBE)	637-92-3	8260B	ND		100	0.20	ug/L	1
Methyl tertiary butyl ether (MTBE)	1634-04-4	8260B	ND		1.0	0.40	ug/L	1
Naphthalene	91-20-3	8260B	ND		1.0	0.40	ug/L	1
tert-butyl alcohol (TBA)	75-65-0	8260B	ND		100	6.7	ug/L	1
Toluene	108-88-3	8260B	ND		1.0	0.33	ug/L	1
Xylenes (total)	1330-20-7	8260B	ND		1.0	0.33	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		112	70-130
Bromofluorobenzene		108	70-130
Toluene-d8		114	70-130

EDB & DBCP by Microextraction

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	8011	8011	1	10/09/2013 1655	AMY	10/08/2013 1611	31344

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
1,2-Dibromoethane (EDB)	106-93-4	8011	ND		0.020	0.020	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,1,1,2-Tetrachloroethane		85	57-137

PQL = Practical quantitation limit   B = Detected in the method blank   E = Quantitation of compound exceeded the calibration range   H = Out of holding time
ND = Not detected at or above the MDL   J = Estimated result < PQL and ≥ MDL   P = The RPD between two GC columns exceeds 40%   N = Recovery is out of criteria
Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Client: **SC DHEC - UST Management** Laboratory ID: **OJ04035-026**
Description: **MW-1 Duplicate** Matrix: **Aqueous**
Date Sampled: **10/03/2013 1513**
Date Received: **10/04/2013**

Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	200	10/08/2013 0305	PMM2		31259

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
tert-Amyl alcohol (TAA)	75-85-4	8260B	ND		20000	1300	ug/L	1
tert-Amyl methyl ether (TAME)	994-05-8	8260B	ND		2000	40	ug/L	1
Benzene	**71-43-2**	**8260B**	**4500**		**1000**	**40**	**ug/L**	**1**
tert-Butyl formate (TBF)	762-75-4	8260B	ND		20000	200	ug/L	1
1,2-Dichloroethane	107-06-2	8260B	ND		1000	60	ug/L	1
Diisopropyl ether (IPE)	108-20-3	8260B	ND		2000	80	ug/L	1
3,3-Dimethyl-1-butanol	624-95-3	8260B	ND		20000	200	ug/L	1
Ethanol	64-17-5	8260B	ND		200000	6600	ug/L	1
Ethylbenzene	**100-41-4**	**8260B**	**3900**		**1000**	**340**	**ug/L**	**1**
Ethyl-tert-butyl ether (ETBE)	637-92-3	8260B	ND		20000	40	ug/L	1
Methyl tertiary butyl ether (MTBE)	**1634-04-4**	**8260B**	**190**	**J**	**1000**	**80**	**ug/L**	**1**
Naphthalene	**91-20-3**	**8260B**	**630**	**BJ**	**1000**	**340**	**ug/L**	**1**
tert-butyl alcohol (TBA)	75-65-0	8260B	ND		20000	1300	ug/L	1
Toluene	**108-88-3**	**8260B**	**24000**		**1000**	**340**	**ug/L**	**1**
Xylenes (total)	**1330-20-7**	**8260B**	**19000**		**1000**	**340**	**ug/L**	**1**

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		112	70-130
Bromofluorobenzene		108	70-130
Toluene-d8		114	70-130

EDB & DBCP by Microextraction

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	8011	8011	1	10/09/2013 1705	AMY	10/08/2013 1611	31344

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
1,2-Dibromoethane (EDB)	**106-93-4**	**8011**	**0.032**	**P**	**0.020**	**0.020**	**ug/L**	**1**

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,1,1,2-Tetrachloroethane		81	57-137

PQL = Practical quantitation limit B = Detected in the method blank E = Quantitation of compound exceeded the calibration range H = Out of holding time
ND = Not detected at or above the MDL J = Estimated result < PQL and ≥ MDL P = The RPD between two GC columns exceeds 40% N = Recovery is out of criteria
Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Client: **SC DHEC - UST Management**
Description: **MW-7 Duplicate**
Date Sampled: **10/03/2013 1530**
Date Received: **10/04/2013**

Laboratory ID: **OJ04035-027**
Matrix: **Aqueous**

Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	50	10/08/2013 0120	PMM2		31259
2	5030B	8260B	100	10/09/2013 0035	PMM2		31373

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
tert-Amyl alcohol (TAA)	**75-85-4**	**8260B**	**1100**	**J**	**5000**	**340**	**ug/L**	**1**
tert-Amyl methyl ether (TAME)	994-05-8	8260B	ND		500	10	ug/L	1
Benzene	**71-43-2**	**8260B**	**3300**		**250**	**10**	**ug/L**	**1**
tert-Butyl formate (TBF)	762-75-4	8260B	ND		5000	50	ug/L	1
1,2-Dichloroethane	107-06-2	8260B	ND		250	15	ug/L	1
Diisopropyl ether (IPE)	108-20-3	8260B	ND		500	20	ug/L	1
3,3-Dimethyl-1-butanol	624-95-3	8260B	ND		5000	50	ug/L	1
Ethanol	64-17-5	8260B	ND		50000	1700	ug/L	1
Ethylbenzene	**100-41-4**	**8260B**	**3300**		**250**	**85**	**ug/L**	**1**
Ethyl-tert-butyl ether (ETBE)	637-92-3	8260B	ND		5000	10	ug/L	1
Methyl tertiary butyl ether (MTBE)	**1634-04-4**	**8260B**	**25**	**J**	**250**	**20**	**ug/L**	**1**
Naphthalene	**91-20-3**	**8260B**	**410**	**B**	**250**	**85**	**ug/L**	**1**
tert-butyl alcohol (TBA)	75-65-0	8260B	ND		5000	340	ug/L	1
Toluene	**108-88-3**	**8260B**	**8600**		**250**	**85**	**ug/L**	**1**
Xylenes (total)	**1330-20-7**	**8260B**	**17000**		**500**	**170**	**ug/L**	**2**

Surrogate	Q	Run 1 % Recovery	Acceptance Limits	Q	Run 2 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		113	70-130		76	70-130
Bromofluorobenzene		107	70-130		107	70-130
Toluene-d8		113	70-130		121	70-130

EDB & DBCP by Microextraction

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
2	8011	8011	5	10/10/2013 0813	AMY	10/08/2013 1611	31344

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
1,2-Dibromoethane (EDB)	**106-93-4**	**8011**	**2.2**		**0.10**	**0.10**	**ug/L**	**2**

Surrogate	Q	Run 2 % Recovery	Acceptance Limits
1,1,1,2-Tetrachloroethane		135	57-137

PQL = Practical quantitation limit
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
H = Out of holding time
ND = Not detected at or above the MDL
J = Estimated result < PQL and ≥ MDL
P = The RPD between two GC columns exceeds 40%
N = Recovery is out of criteria
Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Client: **SC DHEC - UST Management**
Description: **Field Blank**
Date Sampled: **10/03/2013 1445**
Date Received: **10/04/2013**

Laboratory ID: **OJ04035-028**
Matrix: **Aqueous**

Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	10/07/2013 1009	ALL		31178

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
tert-Amyl alcohol (TAA)	75-85-4	8260B	ND		100	6.7	ug/L	1
tert-Amyl methyl ether (TAME)	994-05-8	8260B	ND		10	0.20	ug/L	1
Benzene	71-43-2	8260B	ND		5.0	0.20	ug/L	1
tert-Butyl formate (TBF)	762-75-4	8260B	ND		100	1.0	ug/L	1
1,2-Dichloroethane	107-06-2	8260B	ND		5.0	0.30	ug/L	1
Diisopropyl ether (IPE)	108-20-3	8260B	ND		10	0.40	ug/L	1
3,3-Dimethyl-1-butanol	624-95-3	8260B	ND		100	1.0	ug/L	1
Ethanol	64-17-5	8260B	ND		1000	33	ug/L	1
Ethylbenzene	100-41-4	8260B	ND		5.0	1.7	ug/L	1
Ethyl-tert-butyl ether (ETBE)	637-92-3	8260B	ND		100	0.20	ug/L	1
Methyl tertiary butyl ether (MTBE)	1634-04-4	8260B	ND		5.0	0.40	ug/L	1
Naphthalene	91-20-3	8260B	ND		5.0	1.7	ug/L	1
tert-butyl alcohol (TBA)	75-65-0	8260B	ND		100	6.7	ug/L	1
Toluene	108-88-3	8260B	ND		5.0	1.7	ug/L	1
Xylenes (total)	1330-20-7	8260B	ND		5.0	1.7	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		111	70-130
Bromofluorobenzene		109	70-130
Toluene-d8		111	70-130

EDB & DBCP by Microextraction

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	8011	8011	1	10/09/2013 1726	AMY	10/08/2013 1611	31344

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
1,2-Dibromoethane (EDB)	106-93-4	8011	ND		0.019	0.019	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,1,1,2-Tetrachloroethane		99	57-137

PQL = Practical quantitation limit | B = Detected in the method blank | E = Quantitation of compound exceeded the calibration range | H = Out of holding time
ND = Not detected at or above the MDL | J = Estimated result < PQL and ≥ MDL | P = The RPD between two GC columns exceeds 40% | N = Recovery is out of criteria
Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Client: **SC DHEC - UST Management**
Description: **Trip Blank**
Date Sampled: **10/03/2013 1446**
Date Received: **10/04/2013**

Laboratory ID: **OJ04035-029**
Matrix: **Aqueous**

Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	10/07/2013 1031	ALL		31178

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
tert-Amyl alcohol (TAA)	75-85-4	8260B	ND		100	6.7	ug/L	1
tert-Amyl methyl ether (TAME)	994-05-8	8260B	ND		10	0.20	ug/L	1
Benzene	71-43-2	8260B	ND		5.0	0.20	ug/L	1
tert-Butyl formate (TBF)	762-75-4	8260B	ND		100	1.0	ug/L	1
1,2-Dichloroethane	107-06-2	8260B	ND		5.0	0.30	ug/L	1
Diisopropyl ether (IPE)	108-20-3	8260B	ND		10	0.40	ug/L	1
3,3-Dimethyl-1-butanol	624-95-3	8260B	ND		100	1.0	ug/L	1
Ethanol	64-17-5	8260B	ND		1000	33	ug/L	1
Ethylbenzene	100-41-4	8260B	ND		5.0	1.7	ug/L	1
Ethyl-tert-butyl ether (ETBE)	637-92-3	8260B	ND		100	0.20	ug/L	1
Methyl tertiary butyl ether (MTBE)	1634-04-4	8260B	ND		5.0	0.40	ug/L	1
Naphthalene	91-20-3	8260B	ND		5.0	1.7	ug/L	1
tert-butyl alcohol (TBA)	75-65-0	8260B	ND		100	6.7	ug/L	1
Toluene	108-88-3	8260B	ND		5.0	1.7	ug/L	1
Xylenes (total)	1330-20-7	8260B	ND		5.0	1.7	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		111	70-130
Bromofluorobenzene		109	70-130
Toluene-d8		112	70-130

PQL = Practical quantitation limit   B = Detected in the method blank   E = Quantitation of compound exceeded the calibration range   H = Out of holding time
ND = Not detected at or above the MDL   J = Estimated result < PQL and ≥ MDL   P = The RPD between two GC columns exceeds 40%   N = Recovery is out of criteria
Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

QC Summary

Volatile Organic Compounds by GC/MS - MB

Sample ID: OQ31178-001
Batch: 31178
Analytical Method: 8260B

Matrix: Aqueous
Prep Method: 5030B

Parameter	Result	Q	Dil	PQL	MDL	Units	Analysis Date
tert-Amyl alcohol (TAA)	ND		1	100	6.7	ug/L	10/07/2013 0948
tert-Amyl methyl ether (TAME)	ND		1	10	0.20	ug/L	10/07/2013 0948
Benzene	ND		1	5.0	0.20	ug/L	10/07/2013 0948
tert-Butyl formate (TBF)	ND		1	100	1.0	ug/L	10/07/2013 0948
1,2-Dichloroethane	ND		1	5.0	0.30	ug/L	10/07/2013 0948
Diisopropyl ether (IPE)	ND		1	10	0.40	ug/L	10/07/2013 0948
3,3-Dimethyl-1-butanol	ND		1	100	1.0	ug/L	10/07/2013 0948
Ethanol	ND		1	1000	33	ug/L	10/07/2013 0948
Ethylbenzene	ND		1	5.0	1.7	ug/L	10/07/2013 0948
Ethyl-tert-butyl ether (ETBE)	ND		1	100	0.20	ug/L	10/07/2013 0948
Methyl tertiary butyl ether (MTBE)	ND		1	5.0	0.40	ug/L	10/07/2013 0948
Naphthalene	ND		1	5.0	1.7	ug/L	10/07/2013 0948
tert-butyl alcohol (TBA)	ND		1	100	6.7	ug/L	10/07/2013 0948
Toluene	ND		1	5.0	1.7	ug/L	10/07/2013 0948
Xylenes (total)	ND		1	5.0	1.7	ug/L	10/07/2013 0948

Surrogate	Q	% Rec	Acceptance Limit
Bromofluorobenzene		108	70-130
1,2-Dichloroethane-d4		111	70-130
Toluene-d8		113	70-130

Volatile Organic Compounds by GC/MS - LCS

Sample ID: OQ31178-002
Batch: 31178
Analytical Method: 8260B

Matrix: Aqueous
Prep Method: 5030B

Parameter	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
tert-Amyl alcohol (TAA)	1000	1100		1	110	70-130	10/07/2013 0845
tert-Amyl methyl ether (TAME)	50	55		1	110	70-130	10/07/2013 0845
Benzene	50	54		1	109	70-130	10/07/2013 0845
tert-Butyl formate (TBF)	250	300		1	122	70-130	10/07/2013 0845
1,2-Dichloroethane	50	55		1	110	70-130	10/07/2013 0845
Diisopropyl ether (IPE)	50	54		1	109	70-130	10/07/2013 0845
3,3-Dimethyl-1-butanol	1000	1100		1	112	70-130	10/07/2013 0845
Ethanol	5000	5100		1	102	70-130	10/07/2013 0845
Ethylbenzene	50	54		1	107	70-130	10/07/2013 0845
Ethyl-tert-butyl ether (ETBE)	50	61		1	122	70-130	10/07/2013 0845
Methyl tertiary butyl ether (MTBE)	50	56		1	113	70-130	10/07/2013 0845

PQL = Practical quantitation limit
ND = Not detected at or above the MDL
P = The RPD between two GC columns exceeds 40%
J = Estimated result < PQL and ≥ MDL
N = Recovery is out of criteria
+ = RPD is out of criteria
Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - LCS

Sample ID: OQ31178-002
Batch: 31178
Analytical Method: 8260B
Matrix: Aqueous
Prep Method: 5030B

Parameter	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Naphthalene	50	48		1	96	70-130	10/07/2013 0845
tert-butyl alcohol (TBA)	1000	1100		1	106	70-130	10/07/2013 0845
Toluene	50	54		1	107	70-130	10/07/2013 0845
Xylenes (total)	100	110		1	106	70-130	10/07/2013 0845

Surrogate	Q	% Rec	Acceptance Limit
Bromofluorobenzene		109	70-130
1,2-Dichloroethane-d4		108	70-130
Toluene-d8		113	70-130

Volatile Organic Compounds by GC/MS - LCSD

Sample ID: OQ31178-003
Batch: 31178
Analytical Method: 8260B
Matrix: Aqueous
Prep Method: 5030B

Parameter	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% RPD	% Rec Limit	% RPD Limit	Analysis Date
tert-Amyl alcohol (TAA)	1000	1100		1	106	3.6	70-130	20	10/07/2013 0906
tert-Amyl methyl ether (TAME)	50	56		1	112	1.9	70-130	20	10/07/2013 0906
Benzene	50	56		1	111	2.4	70-130	20	10/07/2013 0906
tert-Butyl formate (TBF)	250	300		1	122	0.010	70-130	20	10/07/2013 0906
1,2-Dichloroethane	50	56		1	112	1.8	70-130	20	10/07/2013 0906
Diisopropyl ether (IPE)	50	55		1	111	2.1	70-130	20	10/07/2013 0906
3,3-Dimethyl-1-butanol	1000	1100		1	109	2.6	70-130	20	10/07/2013 0906
Ethanol	5000	4500		1	91	12	70-130	20	10/07/2013 0906
Ethylbenzene	50	55		1	110	2.8	70-130	20	10/07/2013 0906
Ethyl-tert-butyl ether (ETBE)	50	62		1	124	2.1	70-130	20	10/07/2013 0906
Methyl tertiary butyl ether (MTBE)	50	58		1	117	3.3	70-130	20	10/07/2013 0906
Naphthalene	50	50		1	100	4.1	70-130	20	10/07/2013 0906
tert-butyl alcohol (TBA)	1000	1100		1	108	1.7	70-130	20	10/07/2013 0906
Toluene	50	55		1	110	2.5	70-130	20	10/07/2013 0906
Xylenes (total)	100	110		1	110	3.2	70-130	20	10/07/2013 0906

Surrogate	Q	% Rec	Acceptance Limit
Bromofluorobenzene		110	70-130
1,2-Dichloroethane-d4		108	70-130
Toluene-d8		115	70-130

PQL = Practical quantitation limit　　P = The RPD between two GC columns exceeds 40%　　N = Recovery is out of criteria

ND = Not detected at or above the MDL　　J = Estimated result < PQL and ≥ MDL　　+ = RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - MS

Sample ID: OJ04035-007MS
Batch: 31178
Analytical Method: 8260B

Matrix: Aqueous
Prep Method: 5030B

Parameter	Sample Amount (ug/L)	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
tert-Amyl alcohol (TAA)	1000	50000	43000		50	85	70-130	10/07/2013 1723
tert-Amyl methyl ether (TAME)	ND	2500	2400		50	98	70-130	10/07/2013 1723
Benzene	3100	2500	5700		50	104	70-130	10/07/2013 1723
tert-Butyl formate (TBF)	ND	13000	10000		50	81	70-130	10/07/2013 1723
1,2-Dichloroethane	110	2500	2600		50	101	70-130	10/07/2013 1723
Diisopropyl ether (IPE)	ND	2500	2500		50	100	70-130	10/07/2013 1723
3,3-Dimethyl-1-butanol	ND	50000	42000		50	85	70-130	10/07/2013 1723
Ethanol	ND	250000	210000		50	83	70-130	10/07/2013 1723
Ethylbenzene	3200	2500	5800		50	105	70-130	10/07/2013 1723
Ethyl-tert-butyl ether (ETBE)	ND	2500	2600		50	106	70-130	10/07/2013 1723
Methyl tertiary butyl ether (MTBE)	23	2500	2500		50	99	70-130	10/07/2013 1723
Naphthalene	390	2500	1900	N	50	60	70-130	10/07/2013 1723
tert-butyl alcohol (TBA)	ND	50000	44000		50	88	70-130	10/07/2013 1723
Toluene	8300	2500	11000	E	50	105	70-130	10/07/2013 1723
Xylenes (total)	17000	5000	21000	E	50	104	70-130	10/07/2013 1723

Surrogate	Q	% Rec	Acceptance Limit
1,2-Dichloroethane-d4		106	70-130
Bromofluorobenzene		106	70-130
Toluene-d8		113	70-130

Volatile Organic Compounds by GC/MS - MSD

Sample ID: OJ04035-007MD
Batch: 31178
Analytical Method: 8260B

Matrix: Aqueous
Prep Method: 5030B

Parameter	Sample Amount (ug/L)	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% RPD	% Rec Limit	% RPD Limit	Analysis Date
tert-Amyl alcohol (TAA)	1000	50000	48000		50	94	10	70-130	20	10/07/2013 1744
tert-Amyl methyl ether (TAME)	ND	2500	2700		50	107	9.0	70-130	20	10/07/2013 1744
Benzene	3100	2500	6000		50	114	4.1	70-130	20	10/07/2013 1744
tert-Butyl formate (TBF)	ND	13000	11000		50	87	7.8	70-130	20	10/07/2013 1744
1,2-Dichloroethane	110	2500	2800		50	109	7.6	70-130	20	10/07/2013 1744
Diisopropyl ether (IPE)	ND	2500	2800		50	110	9.4	70-130	20	10/07/2013 1744
3,3-Dimethyl-1-butanol	ND	50000	48000		50	96	12	70-130	20	10/07/2013 1744
Ethanol	ND	250000	230000		50	92	10	70-130	20	10/07/2013 1744
Ethylbenzene	3200	2500	6000		50	115	3.9	70-130	20	10/07/2013 1744
Ethyl-tert-butyl ether (ETBE)	ND	2500	2900		50	116	9.6	70-130	20	10/07/2013 1744
Methyl tertiary butyl ether (MTBE)	23	2500	2800		50	109	10	70-130	20	10/07/2013 1744

PQL = Practical quantitation limit
ND = Not detected at or above the MDL
P = The RPD between two GC columns exceeds 40%
J = Estimated result < PQL and ≥ MDL
N = Recovery is out of criteria
+ = RPD is out of criteria
Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - MSD

Sample ID: OJ04035-007MD
Batch: 31178
Analytical Method: 8260B
Matrix: Aqueous
Prep Method: 5030B

Parameter	Sample Amount (ug/L)	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% RPD	% Rec Limit	% RPD Limit	Analysis Date
Naphthalene	390	2500	2300		50	75	19	70-130	20	10/07/2013 1744
tert-butyl alcohol (TBA)	ND	50000	48000		50	96	8.3	70-130	20	10/07/2013 1744
Toluene	8300	2500	11000	E	50	113	1.8	70-130	20	10/07/2013 1744
Xylenes (total)	17000	5000	22000	E	50	108	1.0	70-130	20	10/07/2013 1744

Surrogate	Q	% Rec	Acceptance Limit
1,2-Dichloroethane-d4		104	70-130
Bromofluorobenzene		105	70-130
Toluene-d8		114	70-130

Volatile Organic Compounds by GC/MS - MB

Sample ID: OQ31210-001
Batch: 31210
Analytical Method: 8260B
Matrix: Aqueous
Prep Method: 5030B

Parameter	Result	Q	Dil	PQL	MDL	Units	Analysis Date
tert-Amyl alcohol (TAA)	ND		1	100	6.7	ug/L	10/07/2013 0958
tert-Amyl methyl ether (TAME)	ND		1	10	0.20	ug/L	10/07/2013 0958
Benzene	ND		1	5.0	0.20	ug/L	10/07/2013 0958
tert-Butyl formate (TBF)	ND		1	100	1.0	ug/L	10/07/2013 0958
1,2-Dichloroethane	ND		1	5.0	0.30	ug/L	10/07/2013 0958
Diisopropyl ether (IPE)	ND		1	10	0.40	ug/L	10/07/2013 0958
3,3-Dimethyl-1-butanol	ND		1	100	1.0	ug/L	10/07/2013 0958
Ethanol	ND		1	1000	33	ug/L	10/07/2013 0958
Ethylbenzene	ND		1	5.0	1.7	ug/L	10/07/2013 0958
Ethyl-tert-butyl ether (ETBE)	ND		1	100	0.20	ug/L	10/07/2013 0958
Methyl tertiary butyl ether (MTBE)	ND		1	5.0	0.40	ug/L	10/07/2013 0958
Naphthalene	ND		1	5.0	1.7	ug/L	10/07/2013 0958
tert-butyl alcohol (TBA)	ND		1	100	6.7	ug/L	10/07/2013 0958
Toluene	ND		1	5.0	1.7	ug/L	10/07/2013 0958
Xylenes (total)	ND		1	5.0	1.7	ug/L	10/07/2013 0958

Surrogate	Q	% Rec	Acceptance Limit
Bromofluorobenzene		115	70-130
1,2-Dichloroethane-d4		95	70-130
Toluene-d8		102	70-130

PQL = Practical quantitation limit
P = The RPD between two GC columns exceeds 40%
N = Recovery is out of criteria
ND = Not detected at or above the MDL
J = Estimated result < PQL and $\geq$ MDL
+ = RPD is out of criteria
Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - LCS

Sample ID: OQ31210-002
Batch: 31210
Analytical Method: 8260B
Matrix: Aqueous
Prep Method: 5030B

Parameter	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
tert-Amyl alcohol (TAA)	1000	900		1	90	70-130	10/07/2013 0850
tert-Amyl methyl ether (TAME)	50	50		1	100	70-130	10/07/2013 0850
Benzene	50	48		1	95	70-130	10/07/2013 0850
tert-Butyl formate (TBF)	250	270		1	109	70-130	10/07/2013 0850
1,2-Dichloroethane	50	51		1	101	70-130	10/07/2013 0850
Diisopropyl ether (IPE)	50	48		1	97	70-130	10/07/2013 0850
3,3-Dimethyl-1-butanol	1000	920		1	92	70-130	10/07/2013 0850
Ethanol	5000	4900		1	97	70-130	10/07/2013 0850
Ethylbenzene	50	51		1	101	70-130	10/07/2013 0850
Ethyl-tert-butyl ether (ETBE)	50	55		1	111	70-130	10/07/2013 0850
Methyl tertiary butyl ether (MTBE)	50	52		1	104	70-130	10/07/2013 0850
Naphthalene	50	53		1	106	70-130	10/07/2013 0850
tert-butyl alcohol (TBA)	1000	980		1	98	70-130	10/07/2013 0850
Toluene	50	52		1	104	70-130	10/07/2013 0850
Xylenes (total)	100	100		1	103	70-130	10/07/2013 0850

Surrogate	Q	% Rec	Acceptance Limit
Bromofluorobenzene		110	70-130
1,2-Dichloroethane-d4		98	70-130
Toluene-d8		103	70-130

Volatile Organic Compounds by GC/MS - LCSD

Sample ID: OQ31210-003
Batch: 31210
Analytical Method: 8260B
Matrix: Aqueous
Prep Method: 5030B

Parameter	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% RPD	% Rec Limit	% RPD Limit	Analysis Date
tert-Amyl alcohol (TAA)	1000	930		1	93	4.1	70-130	20	10/07/2013 0912
tert-Amyl methyl ether (TAME)	50	49		1	98	2.9	70-130	20	10/07/2013 0912
Benzene	50	48		1	95	0.048	70-130	20	10/07/2013 0912
tert-Butyl formate (TBF)	250	270		1	108	0.82	70-130	20	10/07/2013 0912
1,2-Dichloroethane	50	50		1	100	0.86	70-130	20	10/07/2013 0912
Diisopropyl ether (IPE)	50	49		1	98	0.70	70-130	20	10/07/2013 0912
3,3-Dimethyl-1-butanol	1000	950		1	95	3.2	70-130	20	10/07/2013 0912
Ethanol	5000	4900		1	97	0.088	70-130	20	10/07/2013 0912
Ethylbenzene	50	51		1	102	1.0	70-130	20	10/07/2013 0912
Ethyl-tert-butyl ether (ETBE)	50	55		1	109	1.5	70-130	20	10/07/2013 0912
Methyl tertiary butyl ether (MTBE)	50	51		1	102	1.8	70-130	20	10/07/2013 0912

PQL = Practical quantitation limit
P = The RPD between two GC columns exceeds 40%
N = Recovery is out of criteria
ND = Not detected at or above the MDL
J = Estimated result < PQL and ≥ MDL
+ = RPD is out of criteria
Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - LCSD

Sample ID: OQ31210-003
Batch: 31210
Analytical Method: 8260B

Matrix: Aqueous
Prep Method: 5030B

Parameter	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% RPD	% Rec Limit	% RPD Limit	Analysis Date
Naphthalene	50	53		1	105	0.60	70-130	20	10/07/2013 0912
tert-butyl alcohol (TBA)	1000	1000		1	101	2.5	70-130	20	10/07/2013 0912
Toluene	50	52		1	103	0.95	70-130	20	10/07/2013 0912
Xylenes (total)	100	100		1	103	0.33	70-130	20	10/07/2013 0912

Surrogate	Q	% Rec	Acceptance Limit
Bromofluorobenzene		108	70-130
1,2-Dichloroethane-d4		96	70-130
Toluene-d8		103	70-130

Volatile Organic Compounds by GC/MS - MB

Sample ID: OQ31259-001
Batch: 31259
Analytical Method: 8260B

Matrix: Aqueous
Prep Method: 5030B

Parameter	Result	Q	Dil	PQL	MDL	Units	Analysis Date
tert-Amyl alcohol (TAA)	ND		1	100	6.7	ug/L	10/07/2013 1957
tert-Amyl methyl ether (TAME)	ND		1	10	0.20	ug/L	10/07/2013 1957
Benzene	ND		1	5.0	0.20	ug/L	10/07/2013 1957
tert-Butyl formate (TBF)	ND		1	100	1.0	ug/L	10/07/2013 1957
1,2-Dichloroethane	ND		1	5.0	0.30	ug/L	10/07/2013 1957
Diisopropyl ether (IPE)	ND		1	10	0.40	ug/L	10/07/2013 1957
3,3-Dimethyl-1-butanol	ND		1	100	1.0	ug/L	10/07/2013 1957
Ethanol	ND		1	1000	33	ug/L	10/07/2013 1957
Ethylbenzene	ND		1	5.0	1.7	ug/L	10/07/2013 1957
Ethyl-tert-butyl ether (ETBE)	ND		1	100	0.20	ug/L	10/07/2013 1957
Methyl tertiary butyl ether (MTBE)	ND		1	5.0	0.40	ug/L	10/07/2013 1957
Naphthalene	ND		1	5.0	1.7	ug/L	10/07/2013 1957
tert-butyl alcohol (TBA)	ND		1	100	6.7	ug/L	10/07/2013 1957
Toluene	ND		1	5.0	1.7	ug/L	10/07/2013 1957
Xylenes (total)	ND		1	5.0	1.7	ug/L	10/07/2013 1957

Surrogate	Q	% Rec	Acceptance Limit
Bromofluorobenzene		106	70-130
1,2-Dichloroethane-d4		109	70-130
Toluene-d8		114	70-130

PQL = Practical quantitation limit
P = The RPD between two GC columns exceeds 40%
N = Recovery is out of criteria
ND = Not detected at or above the MDL
J = Estimated result < PQL and ≥ MDL
+ = RPD is out of criteria
Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - LCS

Sample ID: OQ31259-002
Batch: 31259
Analytical Method: 8260B
Matrix: Aqueous
Prep Method: 5030B

Parameter	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
tert-Amyl alcohol (TAA)	1000	950		1	95	70-130	10/07/2013 1851
tert-Amyl methyl ether (TAME)	50	52		1	104	70-130	10/07/2013 1851
Benzene	50	53		1	106	70-130	10/07/2013 1851
tert-Butyl formate (TBF)	250	270		1	109	70-130	10/07/2013 1851
1,2-Dichloroethane	50	52		1	105	70-130	10/07/2013 1851
Diisopropyl ether (IPE)	50	52		1	105	70-130	10/07/2013 1851
3,3-Dimethyl-1-butanol	1000	980		1	98	70-130	10/07/2013 1851
Ethanol	5000	4600		1	92	70-130	10/07/2013 1851
Ethylbenzene	50	53		1	105	70-130	10/07/2013 1851
Ethyl-tert-butyl ether (ETBE)	50	57		1	114	70-130	10/07/2013 1851
Methyl tertiary butyl ether (MTBE)	50	53		1	106	70-130	10/07/2013 1851
Naphthalene	50	47		1	95	70-130	10/07/2013 1851
tert-butyl alcohol (TBA)	1000	960		1	96	70-130	10/07/2013 1851
Toluene	50	53		1	105	70-130	10/07/2013 1851
Xylenes (total)	100	100		1	104	70-130	10/07/2013 1851

Surrogate	Q	% Rec	Acceptance Limit
Bromofluorobenzene		108	70-130
1,2-Dichloroethane-d4		107	70-130
Toluene-d8		115	70-130

Volatile Organic Compounds by GC/MS - LCSD

Sample ID: OQ31259-003
Batch: 31259
Analytical Method: 8260B
Matrix: Aqueous
Prep Method: 5030B

Parameter	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% RPD	% Rec Limit	% RPD Limit	Analysis Date
tert-Amyl alcohol (TAA)	1000	940		1	94	0.99	70-130	20	10/07/2013 1913
tert-Amyl methyl ether (TAME)	50	52		1	104	0.13	70-130	20	10/07/2013 1913
Benzene	50	53		1	105	0.83	70-130	20	10/07/2013 1913
tert-Butyl formate (TBF)	250	270		1	108	0.84	70-130	20	10/07/2013 1913
1,2-Dichloroethane	50	52		1	104	0.81	70-130	20	10/07/2013 1913
Diisopropyl ether (IPE)	50	52		1	104	1.3	70-130	20	10/07/2013 1913
3,3-Dimethyl-1-butanol	1000	970		1	97	0.79	70-130	20	10/07/2013 1913
Ethanol	5000	4500		1	90	2.0	70-130	20	10/07/2013 1913
Ethylbenzene	50	53		1	106	0.33	70-130	20	10/07/2013 1913
Ethyl-tert-butyl ether (ETBE)	50	55		1	110	3.3	70-130	20	10/07/2013 1913
Methyl tertiary butyl ether (MTBE)	50	53		1	106	0.58	70-130	20	10/07/2013 1913

PQL = Practical quantitation limit
P = The RPD between two GC columns exceeds 40%
N = Recovery is out of criteria
ND = Not detected at or above the MDL
J = Estimated result < PQL and ≥ MDL
+ = RPD is out of criteria
Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - LCSD

Sample ID: OQ31259-003
Batch: 31259
Analytical Method: 8260B

Matrix: Aqueous
Prep Method: 5030B

Parameter	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% RPD	% Rec Limit	% RPD Limit	Analysis Date
Naphthalene	50	48		1	96	1.2	70-130	20	10/07/2013 1913
tert-butyl alcohol (TBA)	1000	940		1	94	2.2	70-130	20	10/07/2013 1913
Toluene	50	53		1	105	0.11	70-130	20	10/07/2013 1913
Xylenes (total)	100	100		1	105	0.91	70-130	20	10/07/2013 1913

Surrogate	Q	% Rec	Acceptance Limit
Bromofluorobenzene		109	70-130
1,2-Dichloroethane-d4		106	70-130
Toluene-d8		114	70-130

Volatile Organic Compounds by GC/MS - MS

Sample ID: OJ04035-026MS
Batch: 31259
Analytical Method: 8260B

Matrix: Aqueous
Prep Method: 5030B

Parameter	Sample Amount (ug/L)	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
tert-Amyl alcohol (TAA)	ND	200000	180000		200	90	70-130	10/08/2013 0326
tert-Amyl methyl ether (TAME)	ND	10000	10000		200	103	70-130	10/08/2013 0326
Benzene	4500	10000	15000		200	109	70-130	10/08/2013 0326
tert-Butyl formate (TBF)	ND	50000	48000		200	97	70-130	10/08/2013 0326
1,2-Dichloroethane	ND	10000	11000		200	106	70-130	10/08/2013 0326
Diisopropyl ether (IPE)	ND	10000	10000		200	104	70-130	10/08/2013 0326
3,3-Dimethyl-1-butanol	ND	200000	190000		200	95	70-130	10/08/2013 0326
Ethanol	ND	1000000	790000		200	79	70-130	10/08/2013 0326
Ethylbenzene	3900	10000	15000		200	109	70-130	10/08/2013 0326
Ethyl-tert-butyl ether (ETBE)	ND	10000	11000		200	112	70-130	10/08/2013 0326
Methyl tertiary butyl ether (MTBE)	190	10000	11000		200	106	70-130	10/08/2013 0326
Naphthalene	630	10000	7800		200	71	70-130	10/08/2013 0326
tert-butyl alcohol (TBA)	ND	200000	180000		200	91	70-130	10/08/2013 0326
Toluene	24000	10000	35000		200	110	70-130	10/08/2013 0326
Xylenes (total)	19000	20000	41000		200	109	70-130	10/08/2013 0326

Surrogate	Q	% Rec	Acceptance Limit
1,2-Dichloroethane-d4		108	70-130
Bromofluorobenzene		108	70-130
Toluene-d8		115	70-130

PQL = Practical quantitation limit
ND = Not detected at or above the MDL
P = The RPD between two GC columns exceeds 40%
J = Estimated result < PQL and ≥ MDL
N = Recovery is out of criteria
+ = RPD is out of criteria
Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - MSD

Sample ID: OJ04035-026MD
Batch: 31259
Analytical Method: 8260B

Matrix: Aqueous
Prep Method: 5030B

Parameter	Sample Amount (ug/L)	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% RPD	% Rec Limit	% RPD Limit	Analysis Date
tert-Amyl alcohol (TAA)	ND	200000	190000		200	97	7.2	70-130	20	10/08/2013 0347
tert-Amyl methyl ether (TAME)	ND	10000	11000		200	110	6.8	70-130	20	10/08/2013 0347
Benzene	4500	10000	16000		200	116	4.2	70-130	20	10/08/2013 0347
tert-Butyl formate (TBF)	ND	50000	53000		200	105	8.5	70-130	20	10/08/2013 0347
1,2-Dichloroethane	ND	10000	11000		200	114	6.8	70-130	20	10/08/2013 0347
Diisopropyl ether (IPE)	ND	10000	11000		200	112	8.1	70-130	20	10/08/2013 0347
3,3-Dimethyl-1-butanol	ND	200000	200000		200	102	7.2	70-130	20	10/08/2013 0347
Ethanol	ND	1000000	870000		200	87	9.7	70-130	20	10/08/2013 0347
Ethylbenzene	3900	10000	16000		200	117	5.6	70-130	20	10/08/2013 0347
Ethyl-tert-butyl ether (ETBE)	ND	10000	12000		200	122	8.2	70-130	20	10/08/2013 0347
Methyl tertiary butyl ether (MTBE)	190	10000	11000		200	113	6.1	70-130	20	10/08/2013 0347
Naphthalene	630	10000	9500		200	89	20	70-130	20	10/08/2013 0347
tert-butyl alcohol (TBA)	ND	200000	200000		200	98	7.8	70-130	20	10/08/2013 0347
Toluene	24000	10000	36000		200	117	1.8	70-130	20	10/08/2013 0347
Xylenes (total)	19000	20000	43000		200	116	3.4	70-130	20	10/08/2013 0347

Surrogate	Q	% Rec	Acceptance Limit
1,2-Dichloroethane-d4		109	70-130
Bromofluorobenzene		107	70-130
Toluene-d8		114	70-130

Volatile Organic Compounds by GC/MS - MB

Sample ID: OQ31259-001
Batch: 31259
Analytical Method: 8260B

Matrix: Aqueous
Prep Method: 5030B

Parameter	Result	Q	Dil	PQL	MDL	Units	Analysis Date
tert-Amyl alcohol (TAA)	ND		1	100	6.7	ug/L	10/07/2013 1957
tert-Amyl methyl ether (TAME)	ND		1	10	0.20	ug/L	10/07/2013 1957
Benzene	ND		1	1.0	0.13	ug/L	10/07/2013 1957
tert-Butyl formate (TBF)	ND		1	100	1.0	ug/L	10/07/2013 1957
1,2-Dichloroethane	ND		1	1.0	0.15	ug/L	10/07/2013 1957
Diisopropyl ether (IPE)	ND		1	10	0.40	ug/L	10/07/2013 1957
3,3-Dimethyl-1-butanol	ND		1	100	1.0	ug/L	10/07/2013 1957
Ethanol	ND		1	1000	33	ug/L	10/07/2013 1957
Ethylbenzene	ND		1	1.0	0.33	ug/L	10/07/2013 1957
Ethyl-tert-butyl ether (ETBE)	ND		1	100	0.20	ug/L	10/07/2013 1957
Methyl tertiary butyl ether (MTBE)	ND		1	1.0	0.40	ug/L	10/07/2013 1957

PQL = Practical quantitation limit
ND = Not detected at or above the MDL
P = The RPD between two GC columns exceeds 40%
J = Estimated result < PQL and ≥ MDL
N = Recovery is out of criteria
+ = RPD is out of criteria
Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - MB

Sample ID: OQ31259-001
Batch: 31259
Analytical Method: 8260B

Matrix: Aqueous
Prep Method: 5030B

Parameter	Result	Q	Dil	PQL	MDL	Units	Analysis Date
Naphthalene	**0.51**	**J**	**1**	**1.0**	**0.40**	**ug/L**	**10/07/2013 1957**
tert-butyl alcohol (TBA)	ND		1	100	6.7	ug/L	10/07/2013 1957
Toluene	ND		1	1.0	0.33	ug/L	10/07/2013 1957
Xylenes (total)	ND		1	1.0	0.33	ug/L	10/07/2013 1957

Surrogate	Q	% Rec	Acceptance Limit
Bromofluorobenzene		106	70-130
1,2-Dichloroethane-d4		109	70-130
Toluene-d8		114	70-130

Volatile Organic Compounds by GC/MS - LCS

Sample ID: OQ31259-002
Batch: 31259
Analytical Method: 8260B

Matrix: Aqueous
Prep Method: 5030B

Parameter	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
tert-Amyl alcohol (TAA)	1000	950		1	95	70-130	10/07/2013 1851
tert-Amyl methyl ether (TAME)	50	52		1	104	70-130	10/07/2013 1851
Benzene	50	53		1	106	70-130	10/07/2013 1851
tert-Butyl formate (TBF)	250	270		1	109	70-130	10/07/2013 1851
1,2-Dichloroethane	50	52		1	105	70-130	10/07/2013 1851
Diisopropyl ether (IPE)	50	52		1	105	70-130	10/07/2013 1851
3,3-Dimethyl-1-butanol	1000	980		1	98	70-130	10/07/2013 1851
Ethanol	5000	4600		1	92	70-130	10/07/2013 1851
Ethylbenzene	50	53		1	105	70-130	10/07/2013 1851
Ethyl-tert-butyl ether (ETBE)	50	57		1	114	70-130	10/07/2013 1851
Methyl tertiary butyl ether (MTBE)	50	53		1	106	70-130	10/07/2013 1851
Naphthalene	50	47		1	95	70-130	10/07/2013 1851
tert-butyl alcohol (TBA)	1000	960		1	96	70-130	10/07/2013 1851
Toluene	50	53		1	105	70-130	10/07/2013 1851
Xylenes (total)	100	100		1	104	70-130	10/07/2013 1851

Surrogate	Q	% Rec	Acceptance Limit
Bromofluorobenzene		108	70-130
1,2-Dichloroethane-d4		107	70-130
Toluene-d8		115	70-130

PQL = Practical quantitation limit
P = The RPD between two GC columns exceeds 40%
N = Recovery is out of criteria
ND = Not detected at or above the MDL
J = Estimated result < PQL and $\geq$ MDL
+ = RPD is out of criteria
Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - LCSD

Sample ID: OQ31259-003
Batch: 31259
Analytical Method: 8260B

Matrix: Aqueous
Prep Method: 5030B

Parameter	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% RPD	% Rec Limit	% RPD Limit	Analysis Date
tert-Amyl alcohol (TAA)	1000	940		1	94	0.99	70-130	20	10/07/2013 1913
tert-Amyl methyl ether (TAME)	50	52		1	104	0.13	70-130	20	10/07/2013 1913
Benzene	50	53		1	105	0.83	70-130	20	10/07/2013 1913
tert-Butyl formate (TBF)	250	270		1	108	0.84	70-130	20	10/07/2013 1913
1,2-Dichloroethane	50	52		1	104	0.81	70-130	20	10/07/2013 1913
Diisopropyl ether (IPE)	50	52		1	104	1.3	70-130	20	10/07/2013 1913
3,3-Dimethyl-1-butanol	1000	970		1	97	0.79	70-130	20	10/07/2013 1913
Ethanol	5000	4500		1	90	2.0	70-130	20	10/07/2013 1913
Ethylbenzene	50	53		1	106	0.33	70-130	20	10/07/2013 1913
Ethyl-tert-butyl ether (ETBE)	50	55		1	110	3.3	70-130	20	10/07/2013 1913
Methyl tertiary butyl ether (MTBE)	50	53		1	106	0.58	70-130	20	10/07/2013 1913
Naphthalene	50	48		1	96	1.2	70-130	20	10/07/2013 1913
tert-butyl alcohol (TBA)	1000	940		1	94	2.2	70-130	20	10/07/2013 1913
Toluene	50	53		1	105	0.11	70-130	20	10/07/2013 1913
Xylenes (total)	100	100		1	105	0.91	70-130	20	10/07/2013 1913

Surrogate	Q	% Rec	Acceptance Limit
Bromofluorobenzene		109	70-130
1,2-Dichloroethane-d4		106	70-130
Toluene-d8		114	70-130

Volatile Organic Compounds by GC/MS - MB

Sample ID: OQ31309-001
Batch: 31309
Analytical Method: 8260B

Matrix: Aqueous
Prep Method: 5030B

Parameter	Result	Q	Dil	PQL	MDL	Units	Analysis Date
Xylenes (total)	ND		1	5.0	1.7	ug/L	10/08/2013 0957

Surrogate	Q	% Rec	Acceptance Limit
Bromofluorobenzene		108	70-130
1,2-Dichloroethane-d4		111	70-130
Toluene-d8		112	70-130

PQL = Practical quantitation limit
ND = Not detected at or above the MDL
P = The RPD between two GC columns exceeds 40%
J = Estimated result < PQL and ≥ MDL
N = Recovery is out of criteria
+ = RPD is out of criteria
Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - LCS

Sample ID: OQ31309-002
Batch: 31309
Analytical Method: 8260B
Matrix: Aqueous
Prep Method: 5030B

Parameter	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Xylenes (total)	100	110		1	107	70-130	10/08/2013 0854

Surrogate	Q	% Rec	Acceptance Limit
Bromofluorobenzene		109	70-130
1,2-Dichloroethane-d4		109	70-130
Toluene-d8		114	70-130

Volatile Organic Compounds by GC/MS - LCSD

Sample ID: OQ31309-003
Batch: 31309
Analytical Method: 8260B
Matrix: Aqueous
Prep Method: 5030B

Parameter	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% RPD	% Rec Limit	% RPD Limit	Analysis Date
Xylenes (total)	100	110		1	106	0.84	70-130	20	10/08/2013 0915

Surrogate	Q	% Rec	Acceptance Limit
Bromofluorobenzene		107	70-130
1,2-Dichloroethane-d4		116	70-130
Toluene-d8		113	70-130

Volatile Organic Compounds by GC/MS - MB

Sample ID: OQ31373-001
Batch: 31373
Analytical Method: 8260B
Matrix: Aqueous
Prep Method: 5030B

Parameter	Result	Q	Dil	PQL	MDL	Units	Analysis Date
Xylenes (total)	ND		1	5.0	1.7	ug/L	10/08/2013 1959

Surrogate	Q	% Rec	Acceptance Limit
Bromofluorobenzene		93	70-130
1,2-Dichloroethane-d4		111	70-130
Toluene-d8		113	70-130

PQL = Practical quantitation limit
P = The RPD between two GC columns exceeds 40%
N = Recovery is out of criteria
ND = Not detected at or above the MDL
J = Estimated result < PQL and ≥ MDL
+ = RPD is out of criteria
Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - LCS

Sample ID: OQ31373-002
Batch: 31373
Analytical Method: 8260B

Matrix: Aqueous
Prep Method: 5030B

Parameter	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Xylenes (total)	100	110		1	107	70-130	10/08/2013 1856

Surrogate	Q	% Rec	Acceptance Limit
Bromofluorobenzene		110	70-130
1,2-Dichloroethane-d4		108	70-130
Toluene-d8		100	70-130

Volatile Organic Compounds by GC/MS - LCSD

Sample ID: OQ31373-003
Batch: 31373
Analytical Method: 8260B

Matrix: Aqueous
Prep Method: 5030B

Parameter	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% RPD	% Rec Limit	% RPD Limit	Analysis Date
Xylenes (total)	100	110		1	106	0.91	70-130	20	10/08/2013 1917

Surrogate	Q	% Rec	Acceptance Limit
Bromofluorobenzene		107	70-130
1,2-Dichloroethane-d4		108	70-130
Toluene-d8		95	70-130

PQL = Practical quantitation limit
ND = Not detected at or above the MDL
P = The RPD between two GC columns exceeds 40%
J = Estimated result < PQL and ≥ MDL
N = Recovery is out of criteria
+ = RPD is out of criteria
Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

EDB & DBCP by Microextraction - MB

Sample ID: OQ31311-001
Batch: 31311
Analytical Method: 8011
Matrix: Aqueous
Prep Method: 8011
Prep Date: 10/08/2013 1123

Parameter	Result	Q	Dil	PQL	MDL	Units	Analysis Date
1,2-Dibromoethane (EDB)	ND		1	0.020	0.020	ug/L	10/08/2013 1835

Surrogate	Q	% Rec	Acceptance Limit
1,1,1,2-Tetrachloroethane		100	57-137

EDB & DBCP by Microextraction - LCS

Sample ID: OQ31311-002
Batch: 31311
Analytical Method: 8011
Matrix: Aqueous
Prep Method: 8011
Prep Date: 10/08/2013 1123

Parameter	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
1,2-Dibromoethane (EDB)	0.25	0.24		1	97	60-140	10/08/2013 1845

Surrogate	Q	% Rec	Acceptance Limit
1,1,1,2-Tetrachloroethane		99	57-137

EDB & DBCP by Microextraction - MB

Sample ID: OQ31344-001
Batch: 31344
Analytical Method: 8011
Matrix: Aqueous
Prep Method: 8011
Prep Date: 10/08/2013 1611

Parameter	Result	Q	Dil	PQL	MDL	Units	Analysis Date
1,2-Dibromoethane (EDB)	ND		1	0.020	0.020	ug/L	10/09/2013 1501

Surrogate	Q	% Rec	Acceptance Limit
1,1,1,2-Tetrachloroethane		94	57-137

PQL = Practical quantitation limit
P = The RPD between two GC columns exceeds 40%
N = Recovery is out of criteria
ND = Not detected at or above the MDL
J = Estimated result < PQL and ≥ MDL
+ = RPD is out of criteria
Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

EDB & DBCP by Microextraction - LCS

Sample ID: OQ31344-002
Batch: 31344
Analytical Method: 8011

Matrix: Aqueous
Prep Method: 8011
Prep Date: 10/08/2013 1611

Parameter	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
1,2-Dibromoethane (EDB)	0.25	0.26		1	105	60-140	10/09/2013 1512

Surrogate	Q	% Rec	Acceptance Limit
1,1,1,2-Tetrachloroethane		93	57-137

EDB & DBCP by Microextraction - MS

Sample ID: OJ04035-022MS
Batch: 31344
Analytical Method: 8011

Matrix: Aqueous
Prep Method: 8011
Prep Date: 10/08/2013 1611

Parameter	Sample Amount (ug/L)	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
1,2-Dibromoethane (EDB)	ND	0.24	0.31		1	125	60-140	10/09/2013 1614

Surrogate	Q	% Rec	Acceptance Limit
1,1,1,2-Tetrachloroethane		129	57-137

EDB & DBCP by Microextraction - MSD

Sample ID: OJ04035-022MD
Batch: 31344
Analytical Method: 8011

Matrix: Aqueous
Prep Method: 8011
Prep Date: 10/08/2013 1611

Parameter	Sample Amount (ug/L)	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% RPD	% Rec Limit	% RPD Limit	Analysis Date
1,2-Dibromoethane (EDB)	ND	0.25	0.25	+	1	101	21	60-140	20	10/09/2013 1624

Surrogate	Q	% Rec	Acceptance Limit
1,1,1,2-Tetrachloroethane		99	57-137

PQL = Practical quantitation limit
P = The RPD between two GC columns exceeds 40%
N = Recovery is out of criteria
ND = Not detected at or above the MDL
J = Estimated result < PQL and ≥ MDL
+ = RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Chain of Custody Record

Shealy Environmental Services, Inc.
106 Vantage Point Drive
West Columbia, South Carolina 29172
Telephone No. (803) 791-9700 Fax No. (803) 791-9111
www.shealylab.com

Number 24574

Client	Report to Contact	Sampler (Printed Name)	Quote No.
SCDHEC UST	D. Thoma	Ryan Ariail	

Address	Telephone No. / Fax No. / Email	Waybill No.	Page
2600 Bull St.	thomadl@dhec.sc.gov		1 of 4

City: Cola State: SC Zip Code: 29201

Preservative: 1. Unpres. 2. NaOH/ZnA 3. H2SO4 4. HNO3 5. HCL 6. Na Thio. 7. NaOH

Project Name: Warren Green

Project Number: 04887/CA# 45967 P.O Number: 4600088529

Lot No.: OJ04035

Sample ID / Description (Containers for each sample may be combined on one line)	Date	Time	G=Grab C=Composite	GW	DW	WW	S	Other	Btex, Naph, MtBE (8260B)	1,2-DCA	8-Oxy	EDB	Remarks / Cooler ID
MW-1	10/3	1513	G	X					X	X	X	X	Slight Odor
MW-2	↓	1411	↓	↓					↓	↓	↓	↓	No odor
MW-3R	↓	1427	↓	↓					↓	↓	↓	↓	No odor
MW-4	↓	1359	↓	↓					↓	↓	↓	↓	No odor
MW-5	↓	1330	↓	↓					↓	↓	↓	↓	No odor
MW-6	↓	1305	↓	↓					↓	↓	↓	↓	No odor
MW-7	↓	1530	↓	↓					↓	↓	↓	↓	ODOR
MW-8	↓	1110	↓	↓					↓	↓	↓	↓	No odor
MW-9	↓	1525	↓	↓					↓	↓	↓	↓	No odor/Heavy silt
MW-10	10/3	1041	G	X					X	X	X	X	No odor

Turn Around Time Required (Prior lab approval required for expedited TAT): ☐ Standard ☐ Rush (Please Specify)

Sample Disposal: ☐ Return to Client ☐ Disposal by Lab

QC Requirements (Specify)

Possible Hazard Identification: ☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison ☐ Unknown

	Date	Time		Date	Time
1. Relinquished by Sampler: [signature]	10/3/13	1700	1. Received by: [signature]	10.3.13	1700
2. Relinquished by: [signature]	10.4.13	930	2. Received by: [signature]	10.4.13	930
3. Relinquished by			3. Received by		
4. Relinquished by: [signature]	10/4/13	1220	4. Laboratory Received by: [signature]	10/4/13	1220

Note: All samples are retained for six weeks from receipt unless other arrangements are made.

LAB USE ONLY
Received on Ice (Check) ☑ Yes ☐ No ☐ Ice Pack Receipt Temp. -.8 °C Temp. Blank ☑ Y / ☐ N

SHEALY **Chain of Custody Record**

Shealy Environmental Services, Inc.
106 Vantage Point Drive
West Columbia, South Carolina 29172
Telephone No. (803) 791-9700 Fax No. (803) 791-9111
www.shealylab.com

Number 24575

Client	Report to Contact	Sampler (Printed Name)	Quote No.
SCDHEC -UST	D. Thoma	Ryan Ariail	
Address: 2600 Bull St	Telephone No. / Fax No. / Email: dthomas@dhec.sc.gov	Waybill No.	Page 2 of 4
City: Cola / State: SC / Zip Code: 29201	Preservative: 1. Unpres. 4. HNO3 7. NaOH 2. NaOH/ZnA 5. HCL 3. H2SO4 6. Na Thio.		Number of Containers / Bottle (See Instructions on back) / Preservative / Lot No.
Project Name: Warren Green			
Project Number: 04887 / CA# 45967	P.O Number: 4600088529		0J04035

Sample ID / Description (Containers for each sample may be combined on one line)	Date	Time	G=Grab C=Composite	GW	DW	WW	S	Other	Analysis	BTEX, Naph, MTBE (8260B)	1,2-DCA	8-Oxy	EDB	Remarks / Cooler ID
MW-11	10/3	1033	G	X						X	X	X	X	No odor
MW-12	↓	1056	↓	↓						↓	↓	↓	↓	No odor
MW-13		1146												No odor
MW-14		1201												No odor
MW-15		1217												No odor
DW-1		1500												No odor / Heavy Silt
DW-2		1533												No odor / Heavy Silt
DW-3		1340												No odor
DW-4	↓	1315	↓	↓						↓	↓	↓	↓	No odor
DW-5	10/3	1541	G	X						X	X	X	X	No odor / Heavy Silt

Turn Around Time Required (Prior lab approval required for expedited TAT): ☐ Standard ☐ Rush (Please Specify)

Sample Disposal: ☐ Return to Client ☐ Disposal by Lab

QC Requirements (Specify)

Possible Hazard Identification: ☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison ☐ Unknown

Relinquished	Date	Time	Received	Date	Time
1. Relinquished by / Sampler: Ryan Ariail	10/3/13	1700	1. Received by	10.3.13	1700
2. Relinquished by	10.4.13	930	2. Received by	10.4.13	930
3. Relinquished by	Date	Time	3. Received by	Date	Time
4. Relinquished by	10/4/13	1220	4. Laboratory Received by	10/4/13	1220

Note: All samples are retained for six weeks from receipt unless other arrangements are made.

LAB USE ONLY
Received on Ice (Check) ☑ Yes ☐ No ☐ Ice Pack | Receipt Temp. 3.8 °C | Temp. Blank ☑ Y / ☐ N

SHEALY **Chain of Custody Record**

Shealy Environmental Services, Inc.
106 Vantage Point Drive
West Columbia, South Carolina 29172
Telephone No. (803) 791-9700 Fax No. (803) 791-9111
www.shealylab.com

Number 24576

Client: SCDHEC-UST	Report to Contact: D. Thoma	Sampler (Printed Name): Ryan Ariail	Quote No.
Address: 2600 Bull St.	Telephone No. / Fax No. / Email: thomadl@dhec.sc.gov	Waybill No.	Page 3 of 4
City: Cola. State: SC Zip Code: 29201	Preservative: 1. Unpres. 4. HNO3 7. NaOH 2. NaOH/ZnA 5. HCL 3. H2SO4 6. Na Thio.		Number of Containers / Bottle (See Instructions on back) / Preservative / Lot No.
Project Name: Warren Green			
Project Number: 04887/CA# 45967	P.O Number: 4600068529		Lot No. 0J04035

Sample ID / Description (Containers for each sample may be combined on one line)	Date	Time	G=Grab C=Composite	GW	DW	WW	S	Other	Analysis	BTEX, Napth, MTBE (8260B)	1,2-DCA	8-oxy	EDB	Remarks / Cooler ID
DW-6	10/3	1517	G	X						X	X	X	X	No odor/Heavy Silt
WSW-1	↓	1552	↓	↓						↓	↓	↓	↓	Lowest detection limits
WSW-2		1548												↓
WSW-3		1610												↓
WSW-4		1612												Lowest detection limits
~~WSW-5~~														Not Located
~~WSW-6~~														Not Located
MW-1 Duplicate		1513												Slight odor
MW-7 Duplicate	↓	1530	↓	↓						↓	↓	↓	↓	Odor
Field Blank	10/3	1445	G	X						X	X	X	X	

Turn Around Time Required (Prior lab approval required for expedited TAT): ☐ Standard ☐ Rush (Please Specify)

Sample Disposal: ☐ Return to Client ☐ Disposal by Lab

QC Requirements (Specify)

Possible Hazard Identification: ☐Non-Hazard ☐Flammable ☐Skin Irritant ☐Poison ☐Unknown

Relinquished by	Date	Time	Received by	Date	Time
1. Relinquished by / Sampler: [signature]	10/3/13	1700	1. Received by: [signature]	10.3.13	1700
2. Relinquished by: [signature]	10.4.13	930	2. Received by: [signature]	10.4.13	930
3. Relinquished by	Date	Time	3. Received by	Date	Time
4. Relinquished by: [signature]	10/4/13	1220	4. Laboratory Received by: [signature]	10/4/13	1220

Note: All samples are retained for six weeks from receipt unless other arrangements are made.

LAB USE ONLY
Received on Ice (Check) ☑Yes ☐No ☐Ice Pack | Receipt Temp. -.8 °C | Temp. Blank ☑Y / ☐N

SHEALY **Chain of Custody Record**

Shealy Environmental Services, Inc.
106 Vantage Point Drive
West Columbia, South Carolina 29172
Telephone No. (803) 791-9700 Fax No. (803) 791-9111
www.shealylab.com

Number 24577

Client	Report to Contact	Sampler (Printed Name)	Quote No.
SCDHEC-UST	D. Thoma	Ryan Ariail	
Address: 2600 Bull St.	Telephone No. / Fax No. / Email: thomadl@dhec.sc.gov	Waybill No.	Page 4 of 4
City: Cola; State: SC; Zip Code: 29201	Preservative: 1. Unpres. 4. HNO3 7. NaOH; 2. NaOH/ZnA 5. HCL; 3. H2SO4 6. Na Thio.		Number of Containers; Bottle (See Instructions on back); Preservative; Lot No.
Project Name: Warner Green			
Project Number: 04867 / CA# 45947	P.O Number: 4600088529		OJO4035

Sample ID / Description (Containers for each sample may be combined on one line)	Date	Time	G=Grab C=Composite	GW	DW	WW	S	Other	Analysis	BTEX, Napth, MTBE (8260B)	1,2-DCA	8-Oxy	EDB								Remarks / Cooler ID
Trip Blank	10/3	1446	G					X		X	X	X									

Turn Around Time Required (Prior lab approval required for expedited TAT): ☐ Standard ☐ Rush (Please Specify)

Sample Disposal: ☐ Return to Client ☐ Disposal by Lab

QC Requirements (Specify)

Possible Hazard Identification: ☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison ☐ Unknown

	Date	Time		Date	Time
1. Relinquished by / Sampler: Ryan Ariail	10/3/13	1700	1. Received by	10.3.13	1700
2. Relinquished by	10.4.13	930	2. Received by	10.4.13	930
3. Relinquished by			3. Received by		
4. Relinquished by	10/4/13	1220	4. Laboratory Received by	10/4/13	1220

Note: All samples are retained for six weeks from receipt unless other arrangements are made.

LAB USE ONLY
Received on Ice (Check) ☑ Yes ☐ No ☐ Ice Pack | Receipt Temp. -.8 °C | Temp. Blank ☑ Y ☐ N

Sample Receipt Checklist (SRC)

Client: SCDHEC Cooler Inspected by/date: CMT / 10/4/13 Lot #: OJ04035

Means of receipt: [x] SESI [ ] Client [ ] UPS [ ] FedEx [ ] Airborne Exp [ ] Other

Yes [ ]	No [x]		1. Were custody seals present on the cooler?
Yes [ ]	No [ ]		2. If custody seals were present, were they intact and unbroken?

Cooler ID/Original temperature upon receipt/Derived (corrected) temperature upon receipt:
1197 / .1 / -.8 °C ___/___/___°C ___/___/___°C ___/___/___°C
Method: [x] Temperature Blank [ ] Against Bottles IR Gun ID: 3 IR Gun Correction Factor: -.3 °C
Method of coolant: [x] Wet Ice [ ] Blue Ice [ ] Dry Ice [ ] None

If response is No (or Yes for 14, 15, 16), an explanation/resolution must be provided.

Yes [ ]	No [ ]	NA [x]	3. If temperature of any cooler exceeded 6.0°C, was Project Manager notified? PM notified by SRC, phone, note (circle one), other:__________. (For coolers received via commercial courier, PMs are to be notified immediately.
Yes [ ]	No [ ]	NA [x]	4. Is the commercial courier's packing slip attached to this form?
Yes [x]	No [ ]		5. Were proper custody procedures (relinquished/received) followed?
Yes [ ]	No [ ]	NA [x]	5a Were samples relinquished by client to commercial courier?
Yes [x]	No [ ]		6. Were sample IDs listed?
Yes [x]	No [ ]		7. Was collection date & time listed?
Yes [x]	No [ ]		8. Were tests to be performed listed on the COC?
Yes [x]	No [ ]		9. Did all samples arrive in the proper containers for each test?
Yes [x]	No [ ]		10. Did all container label information (ID, date, time) agree with COC?
Yes [x]	No [ ]		11. Did all containers arrive in good condition (unbroken, lids on, etc.)?
Yes [x]	No [ ]		12. Was adequate sample volume available?
Yes [x]	No [ ]		13. Were all samples received within ½ the holding time or 48 hours, whichever comes first?
Yes [ ]	No [x]		14. Were any samples containers missing?
Yes [ ]	No [x]		15. Were there any excess samples not listed on COC?
Yes [x]	No [ ]	NA [ ]	16. Were bubbles present >"pea-size" (¼"or 6mm in diameter) in any VOA vials?
Yes [ ]	No [ ]	NA [x]	17. Were all metals/O&G/HEM/nutrient samples received at a pH of <2?
Yes [ ]	No [ ]	NA [x]	18. Were all cyanide and/or sulfide samples received at a pH >12?
Yes [ ]	No [ ]	NA [x]	19. Were all applicable NH3/TKN/cyanide/phenol (<0.2mg/L) samples free of residual chlorine?
Yes [ ]	No [ ]	NA [x]	20. Were collection temperatures documented on the COC for NC samples?
Yes [ ]	No [ ]	NA [x]	21. Were client remarks/requests (i.e. requested dilutions, MS/MSD designations, etc…) correctly transcribed from the COC into the comment section in LIMS?

Sample Preservation (Must be completed for any sample(s) incorrectly preserved or with headspace.)

Sample(s)____________________were received incorrectly preserved and were adjusted accordingly in sample receiving with ______________(H_2SO_4,HNO_3,HCl,NaOH) with the SR # (number) ________

Sample(s) -031(2) were received with bubbles >6 mm in diameter.

Sample(s)____________________were received with TRC >0.2 mg/L for NH3/TKN/cyanide/phenol

Sample labels verified by:____________________ Date:________

Corrective Action taken, if necessary:

Was client notified: Yes [ ] No [ ] Did client respond: Yes [ ] No [ ]
SESI employee: ______________ Date of response: ______________
Comments:____

Domenico Model

UST # 04887
Site Name: Warren Green
Modeler: John Bryant
Date: 11/20/2013

Transport Parameters

x_{max}	200	ft
y_{max}	0	ft
z	0	ft
Source Width	30	ft
Source Thickness	15	ft
Plume Length	200	ft
α_x	11.02804	ft
α_y	1.102804	ft
α_z	1.00E-99	ft

Simulation Time

t_{sim} 32 yrs

Groundwater Flow Parameters

K	70	ft/yr
dh/dx	0.1	
θ	0.25	dec. %
v_x	43.82	ft/yr

Aquifer Characteristics

ρ_d	1.7	kg/L
f_{oc}	0.0002	

Source Area CoC Data / Retarded Velocity (ft/yr)

CoC	C_{source} (mg/L)	K_{oc} (L/kg)	CoC	R	v_R
Benzene	3.6	81	Benzene	1.110	39.47
Toluene	19	133	Toluene	1.181	37.11
Ethylbenzene	3.2	176	Ethylbenzene	1.239	35.36
Xylenes	16	639	Xylenes	1.869	23.45
Naphthalene	0.29	1543	Naphthalene	3.098	14.14
MtBE	0.2	11	MtBE	1.015	43.17
EDB		28	EDB	1.038	42.21
1,2-DCA	0.5	17.5	1,2-DCA	1.024	42.80

Simulation Points for Breakthrough Curves

x	0	ft	x	0	ft
y	0	ft	y	0	ft
z	0	ft	z	0	ft

$$C(x,y,z,t)=\left(\frac{C_0}{8}\right)\exp\left[\left(\frac{x}{2\alpha_x}\right)\left(1-\sqrt{1+\frac{4\lambda\alpha_x}{v}}\right)\right]erfc\left[\frac{x-vt\sqrt{1+\frac{4\lambda\alpha_x}{v}}}{2\sqrt{\alpha_x vt}}\right]\left\{erf\left[\frac{y+\frac{Y}{2}}{2\sqrt{\alpha_y x}}\right]-erf\left[\frac{y-\frac{Y}{2}}{2\sqrt{\alpha_y x}}\right]\right\}\left\{erf\left[\frac{z+Z}{2\sqrt{\alpha_z x}}\right]-erf\left[\frac{z-Z}{2\sqrt{\alpha_z x}}\right]\right\}$$

Benzene Calibration

Spatial Calibration Data (centerline)			Temporal Calibration Data	0		0	
x	C_{obs} (mg/L)	C_{sim} (mg/L)	t (yrs)	C_{obs} (mg/L)	C_{sim} (mg/L)	C_{obs} (mg/L)	C_{sim} (mg/L)
0	3.6	3.6	0		3.6		3.6
20		1.791	3.2		3.600		3.600
40		0.832	6.4		3.600		3.600
60		0.385	9.6		3.600		3.600
80	0.14	0.180	12.8		3.600		3.600
100		0.085	16		3.600		3.600
120		0.041	19.2		3.600		3.600
140		0.020	22.4		3.600		3.600
160		0.009	25.6		3.600		3.600
180		0.005	28.8		3.600		3.600
200	0.005	0.002	32		3.600		3.600

Site ID 04887

Site Name Warren Green

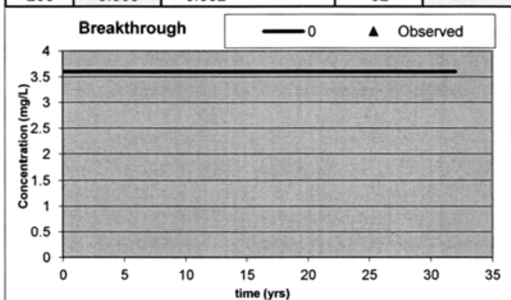
Model Calibration Parameters

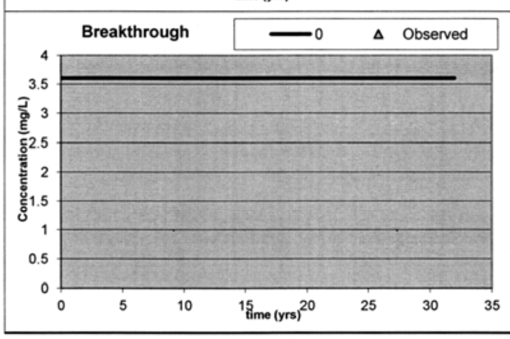
$t_{1/2}$	0.38	yrs
v_x	43.82	ft/yr
R	1.110	
v_R	39.472	ft/yr
L_p	200	ft
α_x	11.02804	ft
α_y	1.102804	ft
α_z	1E-99	ft

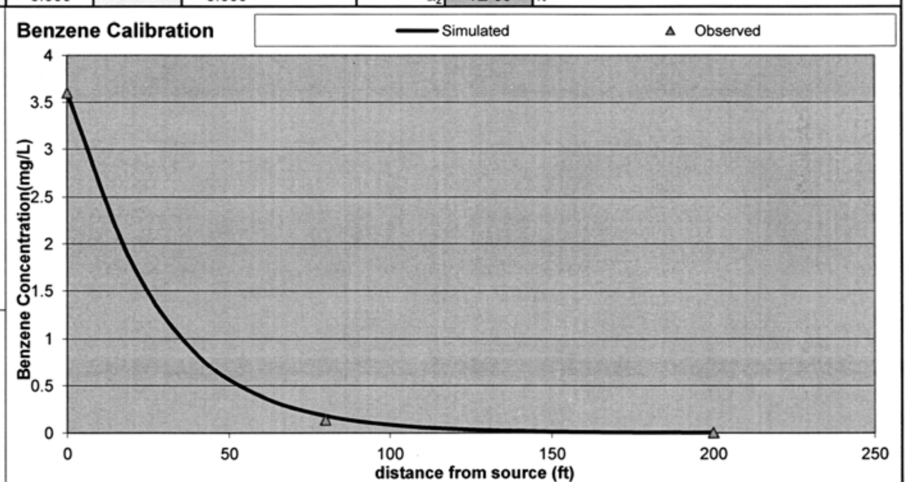
λ 1.82368 yr^{-1}

C_{source} 3.6 mg/L

t_{sim} 32 yrs







Source	20	40	60	80	100	120	140	160	180	200
0	1.7913705	0.83243842	0.38526761	0.18022788	0.08522423	0.0406643	0.019545	0.00945	0.004592	0.00224
0	1.7913705	0.83243842	0.38526761	0.18022788	0.08522423	0.0406643	0.019545	0.00945	0.004592	0.00224
0	1.7913705	0.83243842	0.38526761	0.18022788	0.08522423	0.0406643	0.019545	0.00945	0.004592	0.00224
0	1.7913705	0.83243842	0.38526761	0.18022788	0.08522423	0.0406643	0.019545	0.00945	0.004592	0.00224
0	1.7913705	0.83243842	0.38526761	0.18022788	0.08522423	0.0406643	0.019545	0.00945	0.004592	0.00224

Toluene Calibration

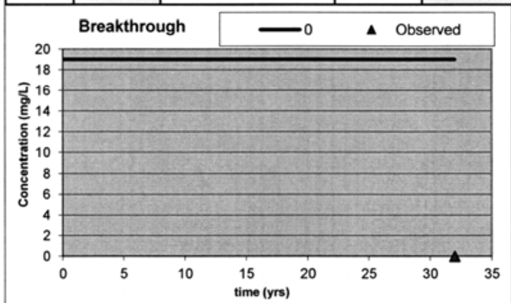
Spatial Calibration Data				Temporal Calibration Data				
(centerline)					0		0	
x	C_{obs} (mg/L)	C_{sim} (mg/L)		t (yrs)	C_{obs} (mg/L)	C_{sim} (mg/L)	C_{obs} (mg/L)	C_{sim} (mg/L)
0	19	19		0		19		19
20		8.727		3.2		19.000		19.000
40		3.743		6.4		19.000		19.000
60		1.599		9.6		19.000		19.000
80		0.690		12.8		19.000		19.000
100		0.301		16		19.000		19.000
120		0.133		19.2		19.000		19.000
140		0.059		22.4		19.000		19.000
160		0.026		25.6		19.000		19.000
180		0.012		28.8		19.000		19.000
200	0.005	0.005		32	0.005	19.000		19.000

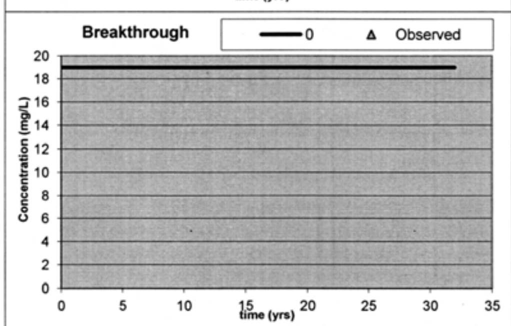
Site ID 04887

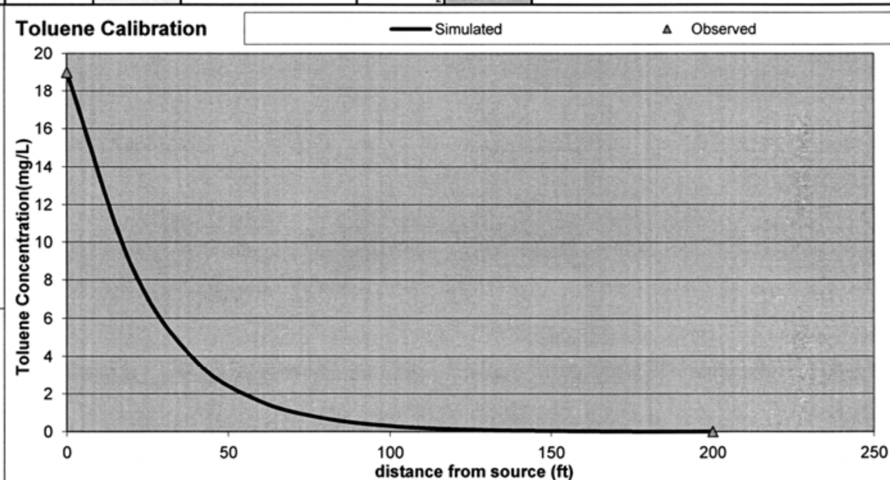
Site Name Warren Green

Model Calibration Parameters

$t_{1/2}$	0.35	yrs	λ	1.98	yr^{-1}
v_x	43.82	ft/yr			
R	1.181				
v_R	37.108	ft/yr	C_{source}	19	mg/L
L_p	200	ft			
α_x	11.02804	ft	t_{sim}	32	yrs
α_y	1.102804	ft			
α_z	1E-99	ft			







Source	20	40	60	80	100	120	140	160	180	200
0	8.72687811	3.7432428	1.59911898	0.69049835	0.30138814	0.132739	0.058891	0.026283	0.011788	0.005309
0	8.72687811	3.7432428	1.59911898	0.69049835	0.30138814	0.132739	0.058891	0.026283	0.011788	0.005309
0	8.72687811	3.7432428	1.59911898	0.69049835	0.30138814	0.132739	0.058891	0.026283	0.011788	0.005309
0	8.72687811	3.7432428	1.59911898	0.69049835	0.30138814	0.132739	0.058891	0.026283	0.011788	0.005309
0	8.72687811	3.7432428	1.59911898	0.69049835	0.30138814	0.132739	0.058891	0.026283	0.011788	0.005309

Ethylbenzene Calibration

Spatial Calibration Data (centerline)

x	C_{obs} (mg/L)	C_{sim} (mg/L)
0	3.2	3.2
20		1.729
40		0.873
60		0.439
80		0.223
100		0.114
120		0.059
140		0.031
160		0.016
180		0.009
200	0.005	0.005

Temporal Calibration Data

	0		0	
t (yrs)	C_{obs} (mg/L)	C_{sim} (mg/L)	C_{obs} (mg/L)	C_{sim} (mg/L)
0		3.2		3.2
3.2		3.200		3.200
6.4		3.200		3.200
9.6		3.200		3.200
12.8		3.200		3.200
16		3.200		3.200
19.2		3.200		3.200
22.4		3.200		3.200
25.6		3.200		3.200
28.8		3.200		3.200
32	0.0011	3.200		3.200

Site ID 04887
Site Name Warren Green

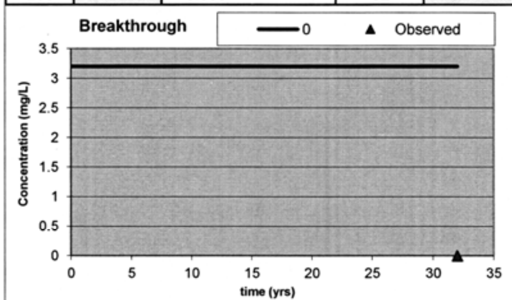
Model Calibration Parameters

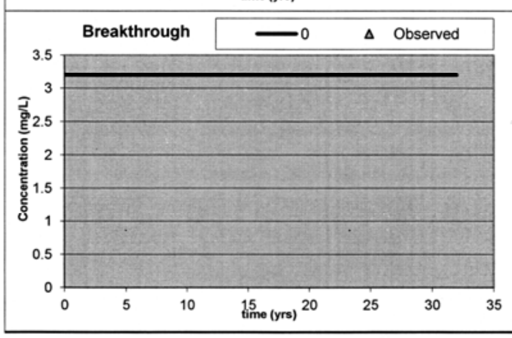
Parameter	Value	Units
$t_{1/2}$	0.5	yrs
v_x	43.82	ft/yr
R	1.239	
v_R	35.357	ft/yr
L_p	200	ft
α_x	11.02804	ft
α_y	1.102804	ft
α_z	1E-99	ft

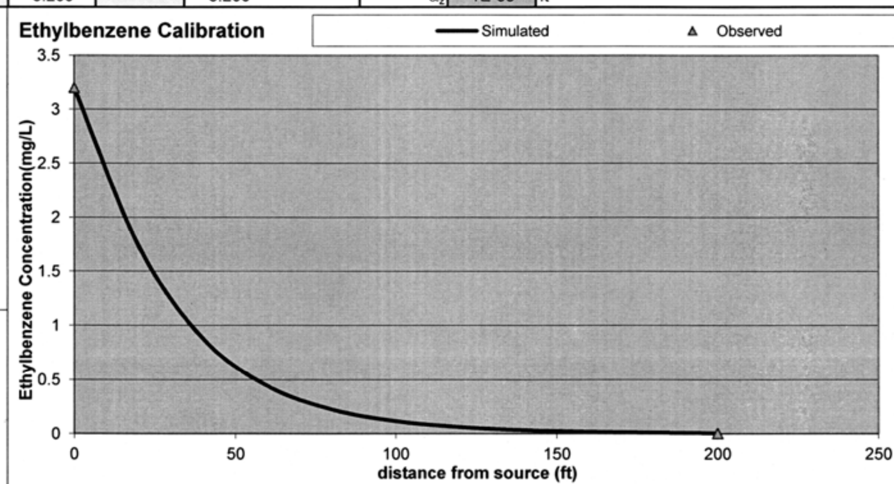
λ 1.386 yr^{-1}

C_{source} 3.2 mg/L

t_{sim} 32 yrs







Source	20	40	60	80	100	120	140	160	180	200
0	1.72926237	0.87268113	0.43862559	0.22283399	0.11443281	0.0592964	0.030951	0.016253	0.008576	0.004544
0	1.72926237	0.87268113	0.43862559	0.22283399	0.11443281	0.0592964	0.030951	0.016253	0.008576	0.004544
0	1.72926237	0.87268113	0.43862559	0.22283399	0.11443281	0.0592964	0.030951	0.016253	0.008576	0.004544
0	1.72926237	0.87268113	0.43862559	0.22283399	0.11443281	0.0592964	0.030951	0.016253	0.008576	0.004544
0	1.72926237	0.87268113	0.43862559	0.22283399	0.11443281	0.0592964	0.030951	0.016253	0.008576	0.004544

Xylenes Calibration

Spatial Calibration Data

(centerline)

x	C_{obs} (mg/L)	C_{sim} (mg/L)
0	16	16
20		7.471
40		3.258
60		1.415
80		0.621
100		0.276
120		0.123
140		0.056
160		0.025
180		0.012
200	0.005	0.005

Temporal Calibration Data

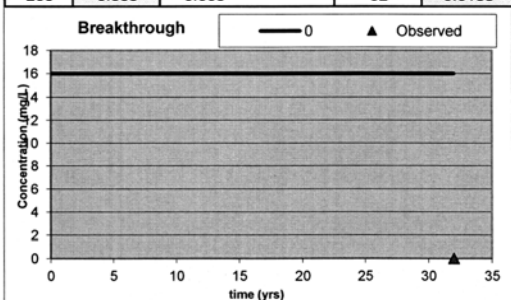
	0		0	
t (yrs)	C_{obs} (mg/L)	C_{sim} (mg/L)	C_{obs} (mg/L)	C_{sim} (mg/L)
0		16		16
3.2		16.000		16.000
6.4		16.000		16.000
9.6		16.000		16.000
12.8		16.000		16.000
16		16.000		16.000
19.2		16.000		16.000
22.4		16.000		16.000
25.6		16.000		16.000
28.8		16.000		16.000
32	0.0188	16.000		16.000

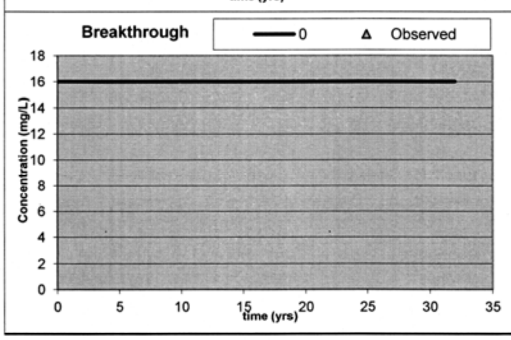
Site ID 04887

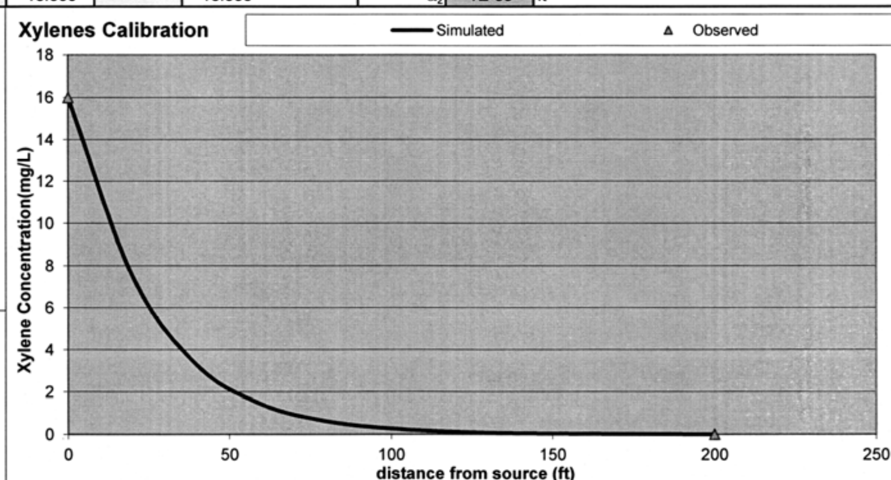
Site Name Warren Green

Model Calibration Parameters

$t_{1/2}$	0.57	yrs	λ	1.21579	yr^{-1}
v_x	43.82	ft/yr			
R	1.869				
v_R	23.445	ft/yr	C_{source}	16	mg/L
L_p	200	ft			
α_x	11.02804	ft	t_{sim}	32	yrs
α_y	1.102804	ft			
α_z	1E-99	ft			







Source	20	40	60	80	100	120	140	160	180	200
0	7.47103905	3.25781042	1.41486271	0.62108621	0.27559486	0.1233955	0.055655	0.025252	0.011514	0.005271
0	7.47103905	3.25781042	1.41486271	0.62108621	0.27559486	0.1233955	0.055655	0.025252	0.011514	0.005271
0	7.47103905	3.25781042	1.41486271	0.62108621	0.27559486	0.1233955	0.055655	0.025252	0.011514	0.005271
0	7.47103905	3.25781042	1.41486271	0.62108621	0.27559486	0.1233955	0.055655	0.025252	0.011514	0.005271
0	7.47103905	3.25781042	1.41486271	0.62108621	0.27559486	0.1233955	0.055655	0.025252	0.011514	0.005271

MtBE Calibration

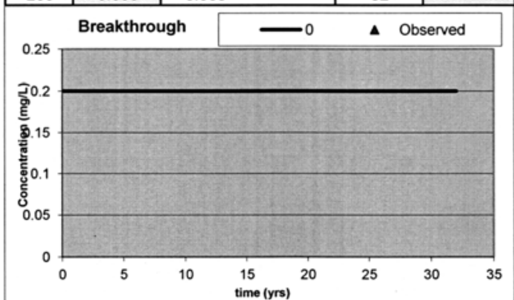
Spatial Calibration Data (centerline)		
x	C_{obs} (mg/L)	C_{sim} (mg/L)
0	0.2	0.2
20		0.143
40		0.095
60		0.063
80		0.043
100		0.029
120		0.020
140		0.014
160		0.010
180		0.007
200	0.005	0.005

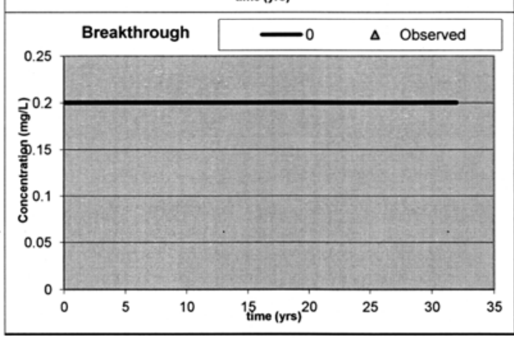
Temporal Calibration Data	0		0	
t (yrs)	C_{obs} (mg/L)	C_{sim} (mg/L)	C_{obs} (mg/L)	C_{sim} (mg/L)
0		0.2		0.2
3.2		0.200		0.200
6.4		0.200		0.200
9.6		0.200		0.200
12.8		0.200		0.200
16		0.200		0.200
19.2		0.200		0.200
22.4		0.200		0.200
25.6		0.200		0.200
28.8		0.200		0.200
32		0.200		0.200

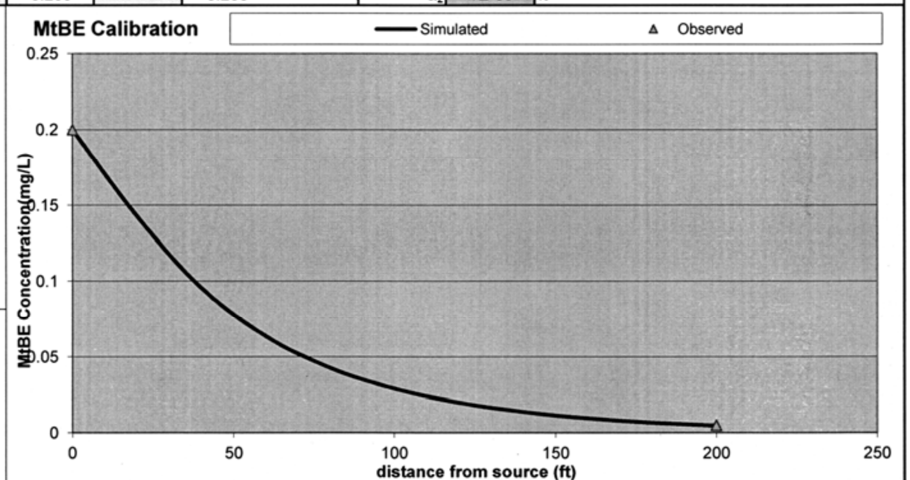
Site ID 04887
Site Name Warren Green

Model Calibration Parameters

$t_{1/2}$	0.88	yrs	λ	0.7875	yr^{-1}
v_x	43.82	ft/yr			
R	1.015				
v_R	43.174	ft/yr	C_{source}	0.2	mg/L
L_p	200	ft			
α_x	11.02804	ft	t_{sim}	32	yrs
α_y	1.102804	ft			
α_z	1E-99	ft			







Source	20	40	60	80	100	120	140	160	180	200
0	0.14298788	0.09546677	0.06348176	0.04266726	0.02898826	0.0198728	0.013724	0.009534	0.006656	0.004666
0	0.14298788	0.09546677	0.06348176	0.04266726	0.02898826	0.0198728	0.013724	0.009534	0.006656	0.004666
0	0.14298788	0.09546677	0.06348176	0.04266726	0.02898826	0.0198728	0.013724	0.009534	0.006656	0.004666
0	0.14298788	0.09546677	0.06348176	0.04266726	0.02898826	0.0198728	0.013724	0.009534	0.006656	0.004666
0	0.14298788	0.09546677	0.06348176	0.04266726	0.02898826	0.0198728	0.013724	0.009534	0.006656	0.004666

Naphthalene Calibration

Spatial Calibration Data (centerline)		
x	C_{obs} (mg/L)	C_{sim} (mg/L)
0	0.29	0.29
20		0.201
40		0.130
60		0.084
80		0.054
100		0.036
120		0.024
140		0.016
160		0.011
180		0.007
200	0.005	0.005

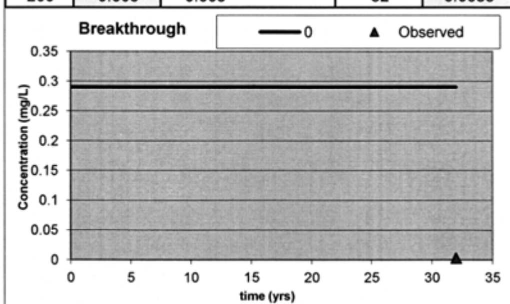
Temporal Calibration Data				
	0		0	
t (yrs)	C_{obs} (mg/L)	C_{sim} (mg/L)	C_{obs} (mg/L)	C_{sim} (mg/L)
0		0.29		0.29
3.2		0.290		0.290
6.4		0.290		0.290
9.6		0.290		0.290
12.8		0.290		0.290
16		0.290		0.290
19.2		0.290		0.290
22.4		0.290		0.290
25.6		0.290		0.290
28.8		0.290		0.290
32	0.0033	0.290		0.290

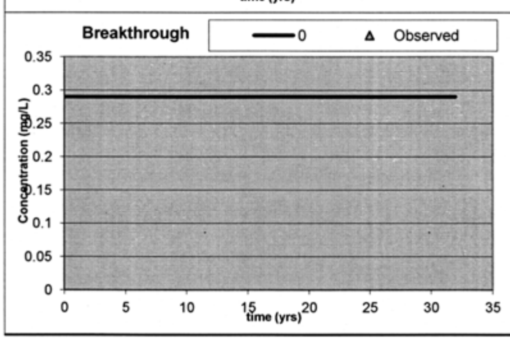
Site ID 04887

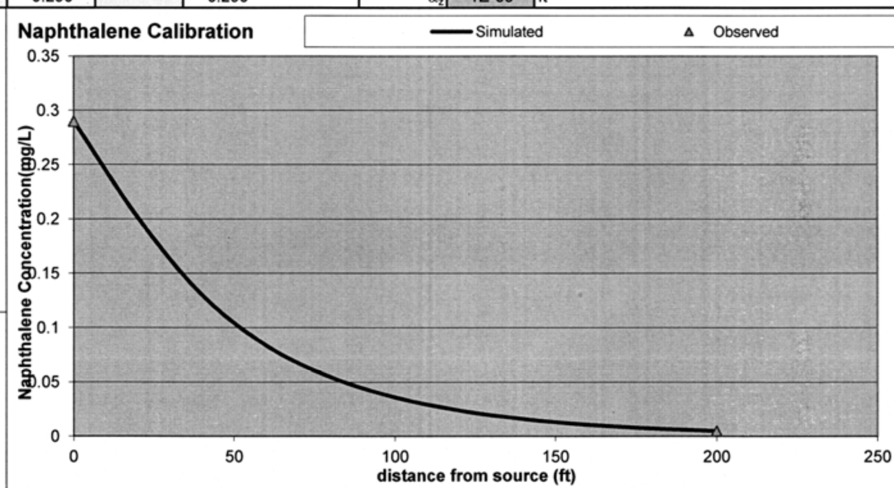
Site Name Warren Green

Model Calibration Parameters

$t_{1/2}$	2.4	yrs	λ	0.28875	yr^{-1}
v_x	43.82	ft/yr			
R	3.098				
v_R	14.142	ft/yr	C_{source}	0.29	mg/L
L_p	200	ft			
α_x	11.02804	ft	t_{sim}	32	yrs
α_y	1.102804	ft			
α_z	1E-99	ft			







Source	20	40	60	80	100	120	140	160	180	200
0	0.20080398	0.12984655	0.08362425	0.05443561	0.03581918	0.0237825	0.015906	0.010702	0.007236	0.004913
0	0.20080398	0.12984655	0.08362425	0.05443561	0.03581918	0.0237825	0.015906	0.010702	0.007236	0.004913
0	0.20080398	0.12984655	0.08362425	0.05443561	0.03581918	0.0237825	0.015906	0.010702	0.007236	0.004913
0	0.20080398	0.12984655	0.08362425	0.05443561	0.03581918	0.0237825	0.015906	0.010702	0.007236	0.004913
0	0.20080398	0.12984655	0.08362425	0.05443561	0.03581918	0.0237825	0.015906	0.010702	0.007236	0.004913

1,2-DCA Calibration

Spatial Calibration Data
(centerline)

x	C_{obs} (mg/L)	C_{sim} (mg/L)
0	0.5	0.5
20		0.330
40		0.203
60		0.125
80		0.077
100		0.049
120		0.031
140		0.020
160		0.013
180		0.008
200	0.005	0.005

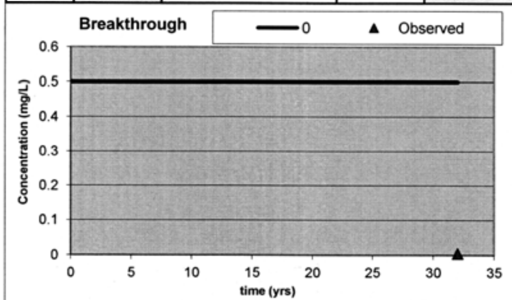
Temporal Calibration Data

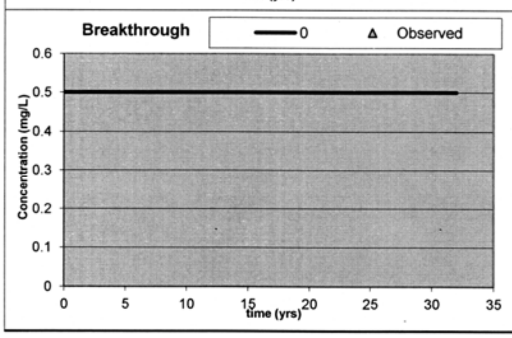
	0		0	
t (yrs)	C_{obs} (mg/L)	C_{sim} (mg/L)	C_{obs} (mg/L)	C_{sim} (mg/L)
0		0.5		0.5
3.2		0.500		0.500
6.4		0.500		0.500
9.6		0.500		0.500
12.8		0.500		0.500
16		0.500		0.500
19.2		0.500		0.500
22.4		0.500		0.500
25.6		0.500		0.500
28.8		0.500		0.500
32	0.005	0.500		0.500

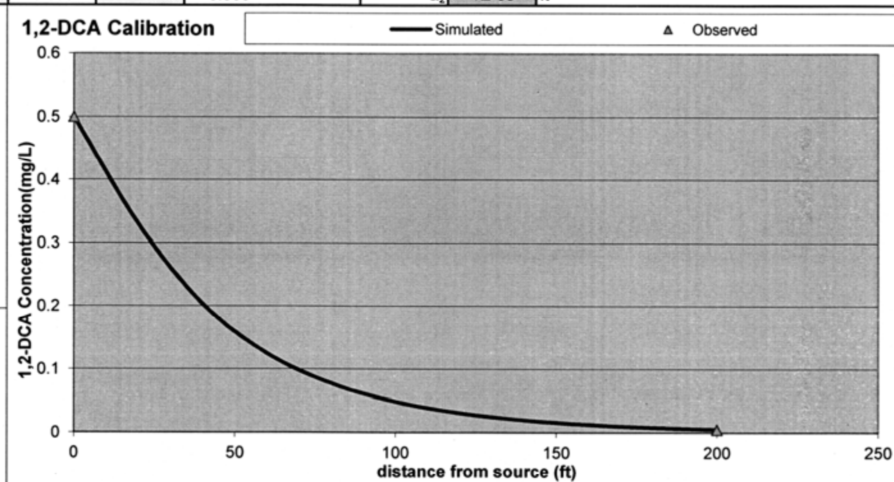
Site ID 04887
Site Name Warren Green

Model Calibration Parameters

$t_{1/2}$	0.68	yrs	λ	1.01912	yr^{-1}
v_x	43.82	ft/yr			
R	1.024				
v_R	42.801	ft/yr	C_{source}	0.5	mg/L
L_p	200	ft			
α_x	11.02804	ft	t_{sim}	32	yrs
α_y	1.102804	ft			
α_z	1E-99	ft			







Source	20	40	60	80	100	120	140	160	180	200
0	0.32989189	0.2032624	0.12473438	0.07736853	0.04850921	0.0306897	0.019559	0.012539	0.008079	0.005226
0	0.32989189	0.2032624	0.12473438	0.07736853	0.04850921	0.0306897	0.019559	0.012539	0.008079	0.005226
0	0.32989189	0.2032624	0.12473438	0.07736853	0.04850921	0.0306897	0.019559	0.012539	0.008079	0.005226
0	0.32989189	0.2032624	0.12473438	0.07736853	0.04850921	0.0306897	0.019559	0.012539	0.008079	0.005226
0	0.32989189	0.2032624	0.12473438	0.07736853	0.04850921	0.0306897	0.019559	0.012539	0.008079	0.005226

UST Permit # 04887
Site Name: Warren Green

SSTLs t 1000 yrs

SSTLs in mg/L			RBSLs (mg/L):	0.005	1.000	0.700	10.000	0.040	0.025		0.005
MW #	x (ft)	y (ft)	z (ft)	Benzene SSTL	Toluene SSTL	Ethylbenzene SSTL	Xylenes SSTL	MtBE SSTL	Naphthalene SSTL		1,2-DCA SSTL
MW-1	120	0	0	0.443	143.138	37.776	1296.644	0.403	0.305		0.081
MW-7	100	0		0.211	63.042	19.575	580.562	0.276	0.202		0.052
MW-8	200	0	0	8.034	3578.877	492.934	30352.165	1.715	1.476		0.478
MW-9	221	0	0	17.005	8239.333	956.749	68678.598	2.481	2.208		0.753
			λ (yr^{-1}):	1.824	1.980	1.386	1.216	0.788	0.289		1.019
			R:	1.110	1.181	1.239	1.869	1.015	3.098		1.024
			Pure Substance Solubility:	1750	526	169	175	5110	31		8520
			Effective Solubility:	44.39	26.54	3.7	21.68	173	6.7		3.7

Domenico Model

UST # 04887
Site Name: Warren Green
Modeler: John Bryant
Date: 11/20/2013

Transport Parameters

x_{max}	210	ft
y_{max}	0	ft
z	0	ft
Source Width	30	ft
Source Thickness	15	ft
Plume Length	200	ft
α_x	11.02804	ft
α_y	1.102804	ft
α_z	1.00E-99	ft

Simulation Time

t_{sim}	32	yrs

Groundwater Flow Parameters

K	70	ft/yr
dh/dx	0.1	
θ	0.25	dec. %
v_x	43.82	ft/yr

Aquifer Characteristics

ρ_d	1.7	kg/L
f_{oc}	0.0002	

Source Area CoC Data / Retarded Velocity (ft/yr)

CoC	C_{source} (mg/L)	K_{oc} (L/kg)	CoC	R	v_R
Benzene		81	Benzene	1.110	39.47
Toluene		133	Toluene	1.181	37.11
Ethylbenzene		176	Ethylbenzene	1.239	35.36
Xylenes		639	Xylenes	1.869	23.45
Naphthalene		1543	Naphthalene	3.098	14.14
MtBE		11	MtBE	1.015	43.17
EDB	0.003	28	EDB	1.038	42.21
1,2-DCA		17.5	1,2-DCA	1.024	42.80

Simulation Points for Breakthrough Curves

x	0	ft	x	0	ft
y	0	ft	y	0	ft
z	0	ft	z	0	ft

$$C(x,y,z,t)=\left(\frac{C_0}{8}\right)\exp\left[\left(\frac{x}{2\alpha_x}\right)\left(1-\sqrt{1+\frac{4\lambda\alpha_x}{v}}\right)\right]erfc\left[\frac{x-vt\sqrt{1+\frac{4\lambda\alpha_x}{v}}}{2\sqrt{\alpha_x vt}}\right]\left\{erf\left[\frac{y+\frac{Y}{2}}{2\sqrt{\alpha_y x}}\right]-erf\left[\frac{y-\frac{Y}{2}}{2\sqrt{\alpha_y x}}\right]\right\}\left\{erf\left[\frac{z+Z}{2\sqrt{\alpha_z x}}\right]-erf\left[\frac{z-Z}{2\sqrt{\alpha_z x}}\right]\right\}$$

EDB Calibration

Spatial Calibration Data (centerline)		
x	C_{obs} (mg/L)	C_{sim} (mg/L)
0	0.003	0.00300
21		0.00189
42		0.00111
63		0.00065
84		0.00039
105		0.00023
126		0.00014
147		0.00009
168		0.00005
189		0.00003
210	0.00002	0.00002

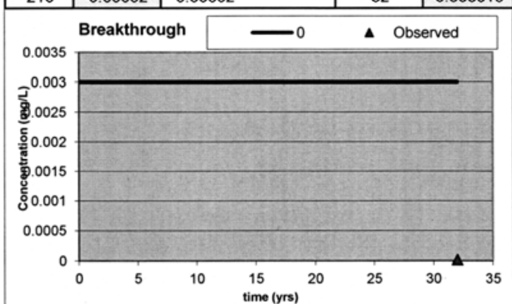
Temporal Calibration Data	0		0	
t (yrs)	C_{obs} (mg/L)	C_{sim} (mg/L)	C_{obs} (mg/L)	C_{sim} (mg/L)
0		0.00300		0.00300
3.2		0.00300		0.00300
6.4		0.00300		0.00300
9.6		0.00300		0.00300
12.8		0.00300		0.00300
16		0.00300		0.00300
19.2		0.00300		0.00300
22.4		0.00300		0.00300
25.6		0.00300		0.00300
28.8		0.00300		0.00300
32	0.000019	0.00300		0.00300

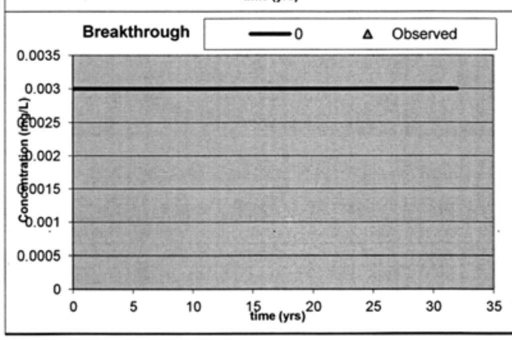
Site ID 04887

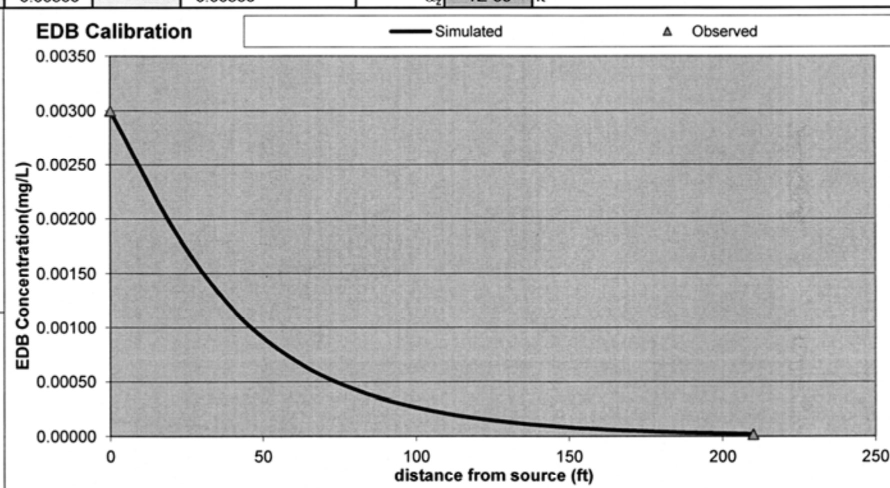
Site Name Warren Green

Model Calibration Parameters

$t_{1/2}$	0.65	yrs	λ	1.06615	yr^{-1}
v_x	43.82	ft/yr			
R	1.038				
v_R	42.213	ft/yr	C_{source}	0.003	mg/L
L_p	200	ft			
α_x	11.02804	ft	t_{sim}	32	yrs
α_y	1.102804	ft			
α_z	1E-99	ft			







Source	21	42	63	84	105	126	147	168	189	210
0	0.00189352	0.00111321	0.00065355	0.00038837	0.00023347	0.0001417	8.66E-05	5.33E-05	3.3E-05	2.05E-05
0	0.00189352	0.00111321	0.00065355	0.00038837	0.00023347	0.0001417	8.66E-05	5.33E-05	3.3E-05	2.05E-05
0	0.00189352	0.00111321	0.00065355	0.00038837	0.00023347	0.0001417	8.66E-05	5.33E-05	3.3E-05	2.05E-05
0	0.00189352	0.00111321	0.00065355	0.00038837	0.00023347	0.0001417	8.66E-05	5.33E-05	3.3E-05	2.05E-05
0	0.00189352	0.00111321	0.00065355	0.00038837	0.00023347	0.0001417	8.66E-05	5.33E-05	3.3E-05	2.05E-05

SSTLs t 1000 yrs

UST Permit # 04887
Site Name: Warren Green

SSTLs in mg/L		RBSLs (mg/L):								0.00005	
MW #	x (ft)	y (ft)	z (ft)							EDB SSTL	
MW-7	100	0	0							0.00057	
MW-1	120	0	0							0.00092	
MW-8	200	0	0							0.00585	
MW-9	221	0	0							0.00940	
			λ (yr^{-1}):							1.066	
			R:							1.038	
			Pure Substance Solubility:							4321	
			Effective Solubility:							1.9	

Domenico Model (Oxygenates)

UST # 04887
Site Name: Warren Green
Modeler: John Bryant
Date: 11/27/2013

Transport Parameters

x_{max}	200	ft
y_{max}	0	ft
z	0	ft
Source Width	30	ft
Source Thickness	15	ft
Plume Length	200	ft
α_x	11.02804	ft
α_y	1.102804	ft
α_z	1.00E-99	ft

Simulation Time

t_{sim}	32	yrs

Groundwater Flow Parameters

K	70	ft/yr
dh/dx	0.1	
θ	0.25	dec. %
v_x	43.82	ft/yr

Aquifer Characteristics

ρ_d	1.7	kg/L
f_{oc}	0.0002	

Source Area CoC Data

CoC	C_{source} (mg/L)	K_{oc} (L/kg)
tBA		1
tAA	1.1	1
DIPE		1.5
tAME		1.5
EtBE		1.5
Ethanol		0.5

Retarded Velocity (ft/yr)

CoC	R	v_R
tBA	1.001	43.76
tAA	1.001	43.76
DIPE	1.002	43.73
tAME	1.002	43.73
EtBE	1.002	43.73
Ethanol	1.001	43.79

Simulation Points for Breakthrough Curves

x	0	ft	x	0	ft
y	0	ft	y	0	ft
z	0	ft	z	0	ft

$$C(x,y,z,t)=\left(\frac{C_0}{8}\right)\exp\left[\left(\frac{x}{2\alpha_x}\right)\left(1-\sqrt{1+\frac{4\lambda\alpha_x}{v}}\right)\right]erfc\left[\frac{x-vt\sqrt{1+\frac{4\lambda\alpha_x}{v}}}{2\sqrt{\alpha_x vt}}\right]\left\{erf\left[\frac{y+\frac{Y}{2}}{2\sqrt{\alpha_y x}}\right]-erf\left[\frac{y-\frac{Y}{2}}{2\sqrt{\alpha_y x}}\right]\right\}\left\{erf\left[\frac{z+Z}{2\sqrt{\alpha_z x}}\right]-erf\left[\frac{z-Z}{2\sqrt{\alpha_z x}}\right]\right\}$$

tAA Calibration

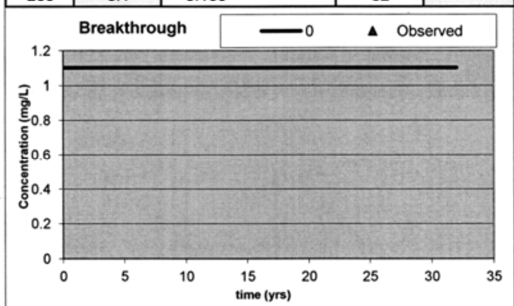
Spatial Calibration Data (centerline)			Temporal Calibration Data	0		0	
x	C_{obs} (mg/L)	C_{sim} (mg/L)	t (yrs)	C_{obs} (mg/L)	C_{sim} (mg/L)	C_{obs} (mg/L)	C_{sim} (mg/L)
0	1.1	1.1	0		1.1		1.1
20		0.901	3.2		1.100		1.100
40		0.690	6.4		1.100		1.100
60		0.526	9.6		1.100		1.100
80		0.405	12.8		1.100		1.100
100		0.315	16		1.100		1.100
120		0.248	19.2		1.100		1.100
140		0.196	22.4		1.100		1.100
160		0.156	25.6		1.100		1.100
180		0.125	28.8		1.100		1.100
200	0.1	0.100	32		1.100		1.100

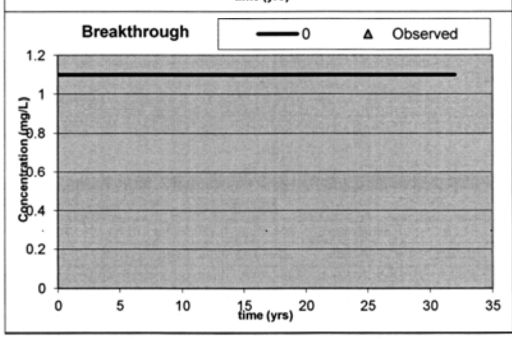
Site ID 04887

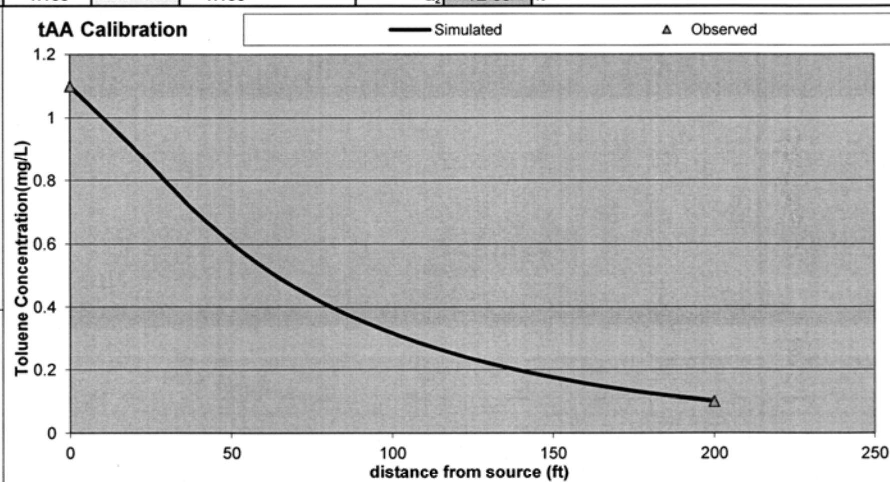
Site Name Warren Green

Model Calibration Parameters

$t_{1/2}$	**1.65**	yrs	λ	0.42	yr^{-1}
v_x	43.82	ft/yr			
R	1.001				
v_R	43.760	ft/yr	C_{source}	1.1	mg/L
L_p	200	ft			
α_x	11.02804	ft	t_{sim}	32	yrs
α_y	1.102804	ft			
α_z	1E-99	ft			





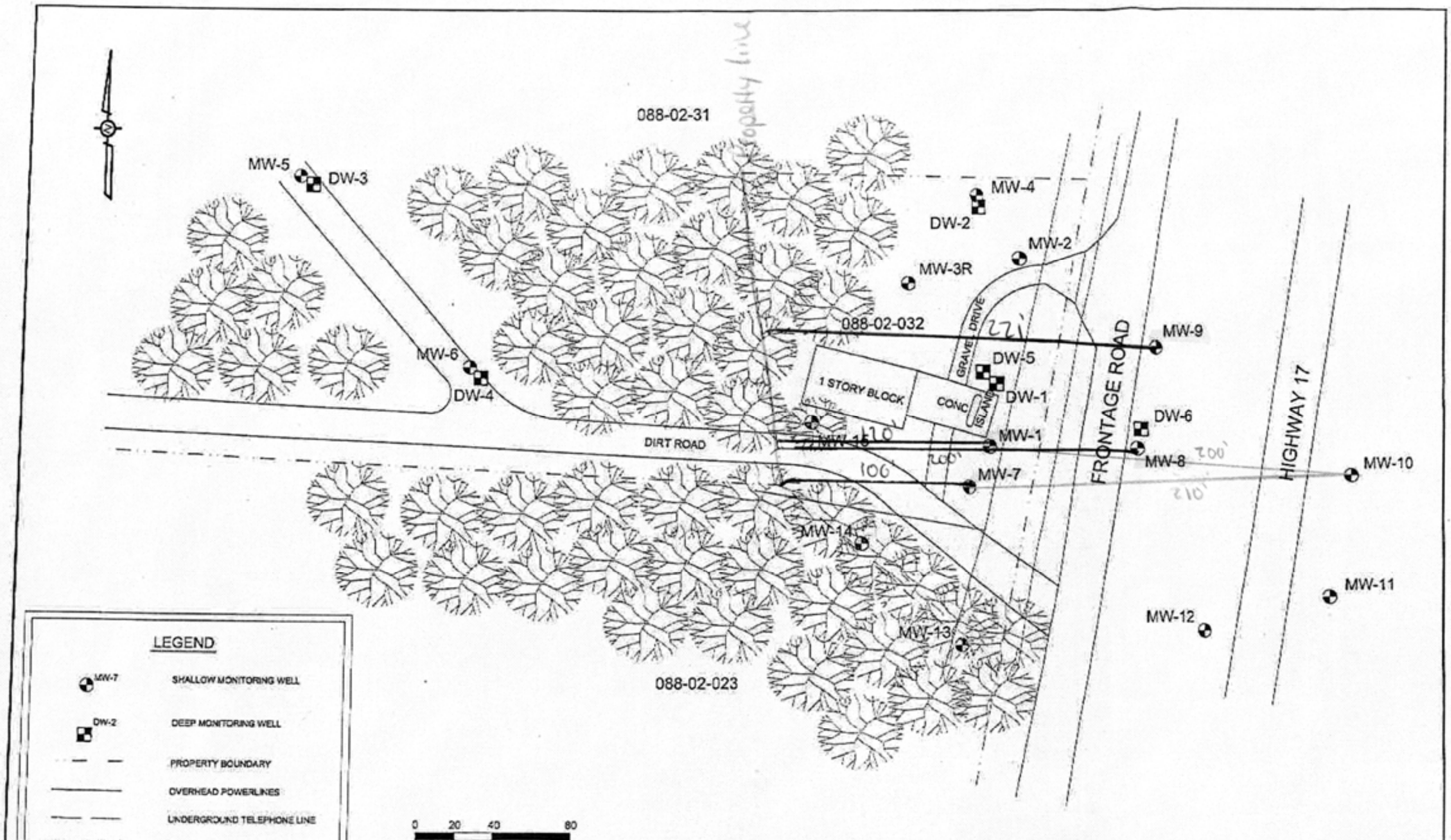


Source	20	40	60	80	100	120	140	160	180	200
0	0.90126676	0.68960088	0.525516	0.40478385	0.31516795	0.247611	0.195962	0.156014	0.124821	0.100277
0	0.90126676	0.68960088	0.525516	0.40478385	0.31516795	0.247611	0.195962	0.156014	0.124821	0.100277
0	0.90126676	0.68960088	0.525516	0.40478385	0.31516795	0.247611	0.195962	0.156014	0.124821	0.100277
0	0.90126676	0.68960088	0.525516	0.40478385	0.31516795	0.247611	0.195962	0.156014	0.124821	0.100277
0	0.90126676	0.68960088	0.525516	0.40478385	0.31516795	0.247611	0.195962	0.156014	0.124821	0.100277

UST Permit # 04887
Site Name: Warren Greer

SSTLs t 1000 yrs

SSTLs in mg/L		RBSLs (mg/L):			0.240				
MW #	x (ft)	y (ft)	z (ft)		tAA SSTL				
MW-1	120	0	0		1.066				
MW-7	100	0	0		0.838				
MW-8	200	0	0		2.633				
MW-9	221	0	0		3.301				
			λ (yr^{-1}):		0.420				
			R:		1.001				



CONSULTECH ENVIRONMENTAL, LLC.	DRAWN: MAC	DATE: 12/23/08
Environmental Consulting and Engineering © 1999	SITE ID # 04587	
	PROJECT: WARREN GREEN	
	PROJECT NO.: C-07-36-05	
	LOCATION: YEMASSEE, SOUTH CAROLINA	

FIGURE 2
SITE PLAN MAP

D H E C
PROMOTE PROTECT PROSPER
Catherine B. Templeton, Director
Promoting and protecting the health of the public and the environment

UST DOCKETING 26 tech

MR RONNY LOWDER
EMERALD INC
P O BOX 3050
SUMTER SC 29151-3050

JUL 16 2014

Re: AFVR
Contract #IFB-5400005023-11/8/12-EMW; PO #4600220167
Notice to proceed

Dear Mr. Lowder:

Under the terms and conditions of the referenced contract, and per the schedule submitted to the Underground Storage Tank (UST) Management Division on July 9, 2014, free-phase product (FPP) recovery using aggressive fluid vapor recovery (AFVR) has been approved for the UST facilities listed below. Emerald, Inc. may proceed upon receipt of this letter. Enclosed are packets containing necessary information to perform FPP recovery at each facility. Each facility has been assigned an individual cost agreement (CA) number, work scope, work scope start date, and report due date. As specified in the contract, a report and invoice must be submitted on or before the due date. The appropriate CA number and Purchase Order (PO) #4600346277 should be referenced on each invoice submitted.

Permit	Facility	County	Work Scope	CA	Start Date	Due Date
00467	Stop A Minute	Anderson	1 96-hour event	47438	9/8/14	9/46/14
02129	Ammons Freight Agency	Chester	1 8-hour event	47425	9/2/14	9/19/14
02906	Strickland's Exxon	Dillon	1 96-hour event	47337	9/8/14	9/16/14
03144	Ridgeway Section Shed	Fairfield	1 96-hour event	47612	8/18/14	8/26/14
04887	Warren Green	Jasper	1 96-hour event	47169	9/15/14	9/23/14
06738	Former Carroll's	Oconee	3 96-hour events	47493	9/22/14	10/17/14
07034	B&B Service	Orangeburg	1 96-hour event	47316	9/15/14	9/23/14
07704	Pit Stop 40	Richland	2 48-hour events	47276	8/18/14	10/10/14
07908	Doko Express	Richland	2 48-hour events	47224	9/15/14	10/10/14
07965	W&R Exxon	Saluda	2 96-hour events	47404	9/8/14	10/17/14
08932	HQ Health Self Serve 2	Sumter	3 48-hour events	47080	9/15/14	10/17/14
08936	Frank's Service Center	Sumter	1 96-hour event	47579	8/18/14	8/24/14
08937	HQ Health Self Serve 1	Sumter	2 24-hour events	47244	9/3/14	10/17/14
11213	Newberry Public Works	Newberry	1 96-hour event	47216	8/18/14	8/26/14

Permit	Facility	County	Work Scope	CA	Start Date	Due Date
11774	A&B Coastal Mart	Sumter	2 48-hour events	47344	9/2/14	10/3/14
11776	Munn E Saver	Sumter	3 8-hour events	47268	9/4/14	10/17/14
12243	Murray's Auto	Richland	1 96-hour event	47500	9/29/14	10/6/14
12663	Jingle Jungle	Richland	1 96-hour event	47377	8/25/14	9/2/14
14162	Getsinger's Grocery	Anderson	1 96-hour event	47135	8/25/14	9/3/14
15670	Colleton Maintenance	Colleton	1 48-hour event	47492	9/22/14	9/30/14
15581	Stonewall Jackson	Dillon	3 48-hour events	47267	9/8/14	10/17/14
15857	Grant's Grocery	Chester	2 48-hour events	47094	8/18/14	10/17/14
16023	Cooper's Store	Berkeley	2 48-hour events	47490	9/2/14	10/3/14
17630	Marilyn's Gas Station	Richland	1 96-hour event	47157	8/25/14	9/4/14
18955	Donnie's Muffler Shop	Sumter	1 48-hour event	47217	10/6/14	10/15/14
19260	Goldrush Restaurant	Darlington	1 96-hour event	48383	8/18/14	8/30/14

The FPP recovery at each facility will be performed on behalf of the UST Owner/Operator (O/O) and payment will be made from the State Underground Petroleum Environmental Response Bank (SUPERB) Account. The O/O has no obligation to pay for the specified work scope. Please note that Sections 44-2-110(4) and 44-2-130(B) of the SUPERB Statute state that no costs will be allowed (considered for payment) unless prior approval from the South Carolina Department of Health and Environmental Control (Agency) is obtained.

Any changes to the work scope must be pre-approved by UST Management Division in order for Emerald to seek payment. Please contact the UST Project Manager for technical and/or financial approval. Any item that is not clearly or completely addressed in the report will not be compensated by SUPERB.

The Division grants pre-approval for transportation of FPP and petroleum-contaminated groundwater from the referenced UST facility to a permitted treatment facility. The FPP and contaminated groundwater must be accepted by the approved treatment facility. There can be no spillage or leakage in transport. A copy of the disposal manifest from the receiving facility that clearly designates the quantity received must be included as an appendix to the report.

If you have any questions concerning this correspondence or need further assistance, please contact me by phone at (803) 898-0655, by fax at (803) 898-0673, or by e-mail at padgetjp@dhec.sc.gov.

Sincerely,

Joel P. Padgett, Geologist/Hydrologist
Corrective Action Section
UST Management Division
Bureau of Land and Waste Management

enc: Information packets
AFVR Schedule 11
cc: Technical file (w/o enc)

Emerald, Inc.

CONSULTING AND ENGINEERING
SERVICES IN ENVIRONMENTAL AFFAIRS

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October 22, 2014

John Bryant, Hydrogeologist
Corrective Action Section
Underground Storage Tank Management Division
Bureau of Underground Storage Tank Management
South Carolina Department of Health and
Environmental Control
2600 Bull Street
Columbia, SC 29201

Aggressive Fluid Vapor Recovery Report
Warren Green
Yemassee, South Carolina
Jasper County
UST Permit #04887; CA #47169
Emerald Job 14-054

Mr. Bryant,

Please find the attached Aggressive Fluid Vapor Recovery (AFVR) Report for the Warren Green site. A site reconnaissance was conducted on August 5, 2014 to locate each monitoring well, gauge extraction wells, and assess site conditions. Prior to conducting this AFVR event information gathered during the site reconnaissance was presented to the SCDHEC project manager for review.

AGGRESSIVE FLUID VAPOR RECOVERY EVENTS

On October 13 through 17, 2014, Emerald, Inc. personnel performed a 96-hour AFVR event using MW-1 and MW-7 as extraction locations. This 96-hour AFVR event was conducted to aid reducing dissolved levels of chemicals of concern previously detected at the subject site. Free phase petroleum product was not detected prior to initiation or at the conclusion of this event. Monitoring well locations are presented on the attached site map provided by SCDHEC.

Table 1 presents the off-gas concentrations (using a Photoionization Detector), post treatment off-gas concentrations, off-gas velocity, and knockout tank vacuum. Table 2 presents the stinger depths, wellhead vacuum measurements, water levels measurements and magnehelic readings obtained during the event. Emerald, Inc. field personnel normally record data at thirty minute intervals for the first eight hours of the event, then at one hour intervals from hours nine through twenty four and at two hour intervals from hour twenty four until the conclusion of the event. During the hours of midnight to 8 AM event monitoring was suspended. Due to the location of the site being vacant, off-gas treatment was not utilized during this event.

According to the calculations as presented on Table 1, a total of 5.52 pounds of hydrocarbons (as vapor) and 0.88 equivalent gallons of hydrocarbons were removed during this event. Free phase product was not detected in the knockout tank during this event. A total of 18,170 gallons of petroleum contaminated groundwater was transported to the City of Manning Wastewater Treatment Facility in Manning, SC for proper disposal. A copy of the disposal manifest for this event is included as an attachment.

If you have any questions or concerns please feel free to contact Emerald, Inc. at 803-469-5454.

Sincerely,
Emerald, Inc.

William C. McClary/RB

William C. McClary, P.G.
Project Manager

Ronny L. Lowder
President

Attachments

TABLE 1
AFVR MONITORING DATA
WARREN GREEN
YEMASSEE, SOUTH CAROLINA
SCDHEC SITE ID #04887
EMERALD JOB #14-054

Extraction Wells	Date	Time (hh:mm)	Differential Time (hr)	Knockout Tank Vacuum (in. Hg)	Off-Gas Concentration (PPM)	Post-Treatment Concentration (PPM)	Offgas Velocity (ft/min)	Flow Rate (SCFM)	CG:M (mg/dsm3)	Cg (Lb/Dscf)	Removal Rate (Lbs/Hr)	Interval Removal (Lbs)
MW-1	10/13/14	9:00	Start	8	28.8	N/A	N/A	230	153	9.56E-06	0.13	-
MW-7		9:30 ↓	0.5	9	31.3	N/A	N/A	220	166	1.04E-05	0.14	0.07
		10:00 ↓	0.5	10	32.6	N/A	N/A	210	173	1.08E-05	0.14	0.07
		10:30 ↓	0.5	12	37.4	N/A	N/A	190	199	1.24E-05	0.14	0.07
		11:00 ↓	0.5	13	29.1	N/A	N/A	180	155	9.66E-06	0.10	0.06
		11:30 ↓	0.5	13	30.3	N/A	N/A	160	161	1.01E-05	0.10	0.05
		12:00 ↓	0.5	14	27.2	N/A	N/A	160	145	9.03E-06	0.09	0.05
		12:30 ↓	0.5	15	25.3	N/A	N/A	150	135	8.40E-06	0.08	0.04
		13:00 ↓	0.5	15	21.9	N/A	N/A	150	116	7.27E-06	0.07	0.04
		13:30 ↓	0.5	14	19.4	N/A	N/A	150	103	6.44E-06	0.06	0.03
		14:00 ↓	0.5	13	20.1	N/A	N/A	150	107	6.67E-06	0.06	0.03
		14:30 ↑	0.5	10	19.3	N/A	N/A	200	103	6.41E-06	0.08	0.03
		15:00 ↑	0.5	10	18.4	N/A	N/A	210	98	6.11E-06	0.08	0.04
		15:30 ↑	0.5	10	17.1	N/A	N/A	210	91	5.68E-06	0.07	0.04
		16:00 ↑	0.5	10	16.6	N/A	N/A	210	88	5.51E-06	0.07	0.04
		16:30	0.5	10	15.1	N/A	N/A	200	80	5.01E-06	0.06	0.03
		17:00	0.5	10	16.2	N/A	N/A	200	86	5.38E-06	0.06	0.03
		18:00	1.0	10	17.9	N/A	N/A	200	95	5.94E-06	0.07	0.07
		19:00	1.0	10	20.3	N/A	N/A	200	108	6.74E-06	0.08	0.08
		20:00	1.0	10	19.7	N/A	N/A	200	105	6.54E-06	0.08	0.08
		21:00	1.0	10	18.3	N/A	N/A	200	97	6.08E-06	0.07	0.08
		22:00	1.0	10	17.6	N/A	N/A	200	94	5.84E-06	0.07	0.07
		23:00	1.0	10	16.4	N/A	N/A	200	87	5.44E-06	0.07	0.07
	10/14/14	0:00	1.0	10	17.9	N/A	N/A	200	95	5.94E-06	0.07	0.07
		8:00 ↑	8.0	9	14.3	N/A	N/A	200	76	4.75E-06	0.06	0.51
		9:00	1.0	14	19.9	N/A	N/A	160	106	6.61E-06	0.06	0.06
		11:00	2.0	16	21.4	N/A	N/A	100	114	7.10E-06	0.04	0.11
		13:00	2.0	15	27.7	N/A	N/A	100	147	9.20E-06	0.06	0.10
		15:00	2.0	15	24.3	N/A	N/A	90	129	8.07E-06	0.04	0.10
		17:00	2.0	10	15.2	N/A	N/A	210	81	5.05E-06	0.06	0.11
		19:00	2.0	10	15.9	N/A	N/A	210	85	5.28E-06	0.07	0.13
		21:00	2.0	10	14.3	N/A	N/A	210	76	4.75E-06	0.06	0.13
		23:00	2.0	10	16.8	N/A	N/A	210	89	5.58E-06	0.07	0.13

TABLE 1 Cont'd.
AFVR MONITORING DATA
WARREN GREEN
YEMASSEE, SOUTH CAROLINA
SCDHEC SITE ID #04887
EMERALD JOB #14-054

Extraction Wells	Date	Time (hh:mm)	Differential Time (hr)	Knockout Tank Vacuum (in. Hg)	Off-Gas Concentration (PPM)	Post-Treatment Concentration (PPM)	Offgas Velocity (ft/min)	Flow Rate (SCFM)	CG:M (mg/dsm^3)	Cg (Lb/Dscf)	Removal Rate (Lbs/Hr)	Interval Removal (Lbs)
MW-1	10/15/14	0:00	1.0	10	15.3	N/A	N/A	210	81	5.08E-06	0 06	0.07
MW-7		8:00	8.0	9	14.1	N/A	N/A	220	75	4.68E-06	0.06	0.50
		10:00	2.0	10	14.9	N/A	N/A	200	79	4.95E-06	0.06	0.12
		12:00	2.0	12	17.2	N/A	N/A	170	91	5.71E-06	0 06	0.12
		14:00	2.0	12	18.0	N/A	N/A	170	96	5.98E-06	0.06	0.12
		16:00	2.0	10	13.2	N/A	N/A	170	70	4.38E-06	0.04	0.11
		18:00	2.0	10	14.3	N/A	N/A	170	76	4.75E-06	0.05	0.09
		20:00	2.0	10	14.9	N/A	N/A	170	79	4.95E-06	0.05	0.10
		22:00	2.0	10	15.6	N/A	N/A	170	83	5.18E-06	0.05	0.10
	10/16/14	0:00	2.0	10	13.3	N/A	N/A	170	71	4.42E-06	0.05	0.10
		8:00	8.0	10	10.1	N/A	N/A	170	54	3.35E-06	0.03	0.32
		10:00	2.0	10	13.6	N/A	N/A	170	72	4.51E-06	0.05	0.08
		12:00	2.0	10	12.9	N/A	N/A	170	69	4 28E-06	0.04	0.09
		14·00	2.0	11	15.0	N/A	N/A	150	80	4.98E-06	0.04	0 09
		16:00	2.0	12	17.2	N/A	N/A	130	91	5.71E-06	0.04	0.09
		18:00	2.0	13	18.6	N/A	N/A	120	99	6.17E-06	0.04	0.09
		20:00	2.0	10	15.4	N/A	N/A	170	82	5.11E-06	0.05	0.10
		22:00	2.0	10	13.9	N/A	N/A	170	74	4.61E-06	0.05	0.10
	10/17/14	0:00	2.0	10	14.4	N/A	N/A	170	77	4.78E-06	0.05	0.10
		8:00	8.0	10	15.8	N/A	N/A	170	84	5.25E-06	0.05	0.41
		9:00	1.0	10	16.4	N/A	N/A	170	87	5.44E-06	0.06	0.05

Well Gauging Data			Before AFVR Event			After AFVR Event		
Well No.	Diameter (in)	Screened Interval (ft)	Depth to Product (ft)	Depth to Water (ft)	Product Thickness (ft)	Depth to Product (ft)	Depth to Water (ft)	Product Thickness (ft)
MW-1	2	2-12	–	8.28	–	–	9.61	–
MW-7	2	5-20	–	10.39	–	–	11.76	–

Equations

Cg;m = PPMg*(Mg/K3)
Removal Rate = Cg * Flow Rate * 60Min/Hr
Interval Removal = $(T_1 + T_2)/2$
PPM = Part per Million (by PID)
Cg:m = mg/dsm3(mass concentration of gasoline emission)
Mg = 128 mg/mg-mole, molecular weight of gasoline
K3 = 24.07 dsm^3/1E6 mg-mole, mass to volume conversion
Cg = lb/dcsf, mass concentration of gasoline by emission
Removal Rate = lb/hr,pollutant mass removal rate of emission

Product Thickness	
Product observed in Sight Tube?	No
Product detected in Tanker?	No

Recovery / Disposal Information		
Hydrocarbons Removed (vapor):	5.52	Pounds
Hydrocarbons Removed (liquid):	0.00	Gallons
Total Hydrocarbons Removed:	0.88	Equivalent Gallons
Molecular Weight Utilized:	128	mg/mg-mole
Disposal Facility:	City of Manning Wastewater Treatment Facility	
Total Liquids Removed:	18,170	Gallons

Weather Conditions		Emerald, Inc. Personnel
10/13/14	Sunny, 61-79°F	S. Hutcheson
10/14/14	Sunny, 57-69°F	R. Ray
10/15/14	Sunny, 53-72°F	
10/16/14	Sunny, 61-75°F	
10/17/14	Sunny, 64-71°F	

Notes

↑ = Stinger raised ↓ = Stinger lowered

TABLE 2
EVENT MONITORING DATA
WARREN GREEN
YEMASSEE, SOUTH CAROLINA
SCDHEC SITE ID #04887
EMERALD JOB #14-054

Date	Time (hh:mm)	Extraction Wells				Event Monitoring					
		MW-1		MW-7		DW-1 [1]		DW-5 [1]		MW-15 [2]	
		Stinger Depth (ft.)	Wellhead Vacuum (in. Hg)	Stinger Depth (ft.)	Wellhead Vacuum (in. Hg)	Magnehelic Reading (inches of water)	Depth to Water	Magnehelic Reading (inches of water)	Depth to Water	Magnehelic Reading (inches of water)	Depth to Water
10/13/14	9:00	8.5	5	10.5	6	Pre	–	Pre	–	Pre	–
	9:30	9.0	6	11.0	7	–	–	–	–	–	–
	10:00	9.5	9	11.5	8	–	–	–	–	–	–
	10:30	10.0	11	12.0	12	–	–	–	–	–	–
	11:00	10.5	13	12.5	13	–	–	–	–	–	–
	11:30	11.0	14	13.0	13	<1	10.38	<1	19.09	–	–
	12:00	11.0	13	13.5	12	<1	10.38	<1	19.09	–	–
	12:30	11.0	12	14.0	13	<1	10.38	<1	19.09	–	–
	13:00	11.0	11	14.5	13	<1	10.38	<1	19.09	–	–
	13:30	11.0	10	15.0	11	<1	10.39	<1	19.09	–	–
	14:00	11.0	9	15.5	9	<1	10.39	<1	19.09	–	–
	14:30	10.0	7	14.5	8	<1	10.39	<1	19.09	–	–
	15:00	10.0	7	13.0	8	<1	10.39	<1	19.09	–	–
	15:30	10.0	7	12.0	8	<1	10.39	<1	19.09	–	–
	16:00	11.0	8	11.0	7	<1	10.39	<1	19.09	–	–
	16:30	11.0	9	11.0	7	<1	10.39	<1	19.09	–	–
	17:00	11.0	9	11.0	8	<1	10.39	<1	19.09	–	–
	18:00	11.0	9	11.0	7	<1	10.40	<1	19.09	–	–
	19:00	11.0	9	11.0	7	<1	10.40	<1	19.09	–	–
	20:00	11.0	9	11.0	7	<1	10.40	<1	19.09	–	–
	21:00	11.0	9	11.0	7	<1	10.40	<1	19.10	–	–
	22:00	11.0	9	11.0	7	<1	10.40	<1	19.10	–	–
	23:00	11.0	9	11.0	7	<1	10.41	<1	19.10	–	–
10/14/14	0:00	11.0	9	11.0	7	<1	10.41	<1	19.10	–	–
	8:00	10.0	9	11.0	7	<1	10.43	<1	19.11	–	–
	9:00	10.0	12	11.0	13	<1	10.43	<1	19.11	<1	9.92
	11:00	10.0	13	11.0	13	<1	10.44	<1	19.11	<1	9.92
	13:00	10.0	13	11.0	13	<1	10.45	<1	19.11	<1	9.92
	15:00	10.0	13	11.0	13	<1	10.45	<1	19.12	<1	9.93
	17:00	10.0	7	11.0	8	<1	10.46	<1	19.13	<1	9.93
	19:00	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
	21:00	10.0	7	11.0	8	<1	10.47	<1	19.14	<1	9.93
	23:00	10.0	7	11.0	8	<1	10.47	<1	19.14	<1	9.93

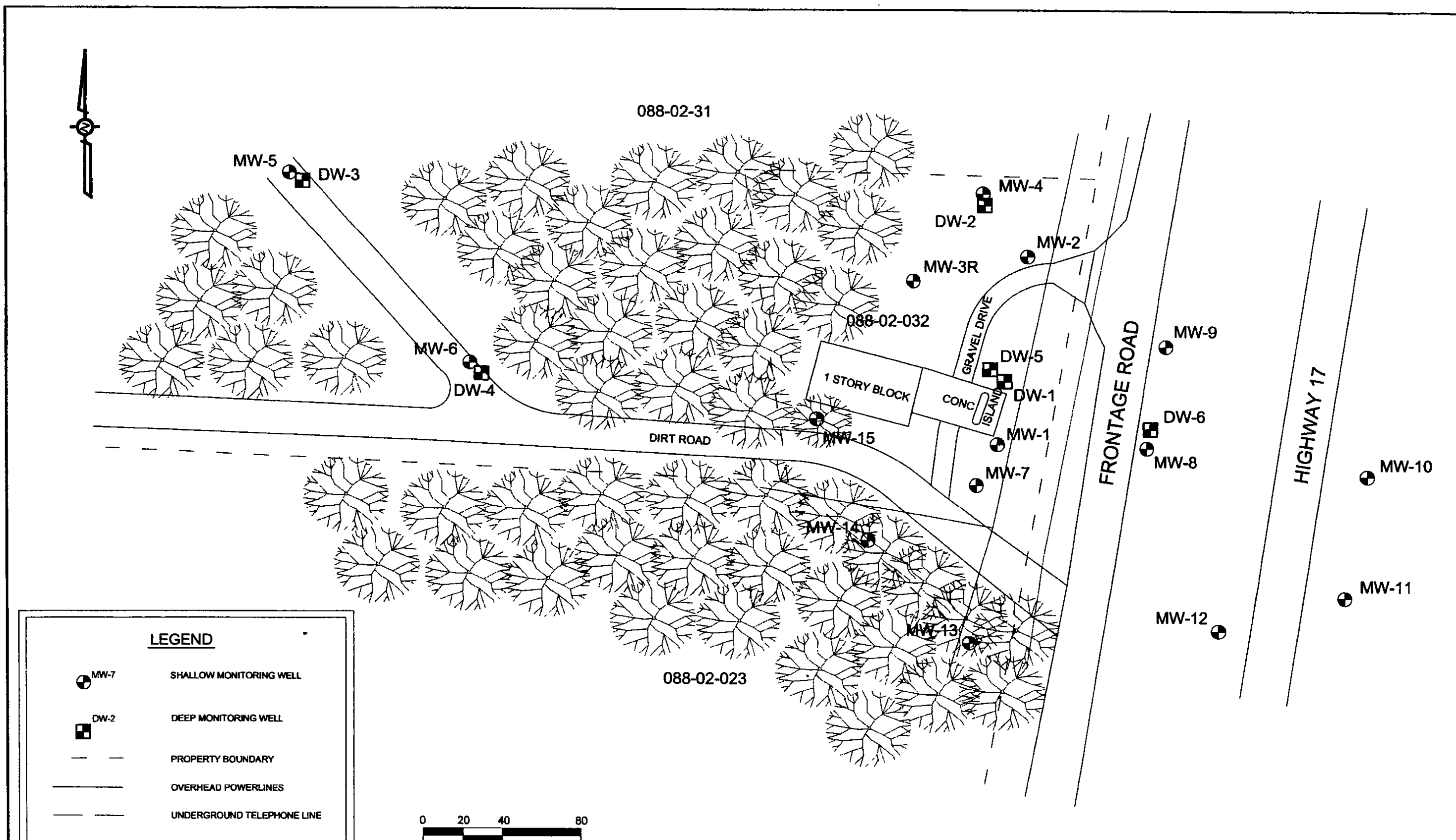
Notes: NR = Readings not collected due to heavy rain
[1] Monitoring wells DW-1 and DW-5 were not located until 11:30 on 10/13/14
[2] Monitoring well MW-15 was not located until 9:00 on 10/14/14

TABLE 2 Cont'd.
EVENT MONITORING DATA
WARREN GREEN
YEMASSEE, SOUTH CAROLINA
SCDHEC SITE ID #04887
EMERALD JOB #14-054

Date	Time (hh:mm)	Extraction Wells				Event Monitoring					
		MW-1		MW-7		DW-1 [1]		DW-5 [1]		MW-15 [2]	
		Stinger Depth (ft.)	Wellhead Vacuum (in. Hg)	Stinger Depth (ft.)	Wellhead Vacuum (in. Hg)	Magnehelic Reading (inches of water)	Depth to Water	Magnehelic Reading (inches of water)	Depth to Water	Magnehelic Reading (inches of water)	Depth to Water
10/15/14	0:00	10.0	7	11.0	8	<1	10.47	<1	19.14	<1	9.93
	8:00	10.0	8	11.0	7	<1	10.49	<1	19.15	<1	9.93
	10:00	10.0	9	11.0	8	<1	10.49	<1	19.15	<1	9.93
	12:00	10.0	10	11.0	10	<1	10.50	<1	19.16	<1	9.93
	14:00	10.0	10	11.0	10	<1	10.50	<1	19.16	<1	9.93
	16:00	10.0	7	11.0	8	<1	10.45	<1	19.16	<1	9.93
	18:00	10.0	7	11.0	8	<1	10.44	<1	19.16	<1	9.93
	20:00	10.0	7	11.0	8	<1	10.43	<1	19.17	<1	9.92
	22:00	10.0	7	11.0	8	<1	10.43	<1	19.17	<1	9.92
10/16/14	0:00	10.0	7	11.0	8	<1	10.42	<1	19.17	<1	9.92
	8:00	10.0	7	11.0	8	<1	10.32	<1	19.19	<1	9.91
	10:00	10.0	7	11.0	8	<1	10.30	<1	19.20	<1	9.91
	12:00	10.0	7	11.0	9	<1	10.30	<1	19.20	<1	9.91
	14:00	10.0	9	11.0	10	<1	10.29	<1	19.20	<1	9.91
	16:00	10.0	10	11.0	10	<1	10.29	<1	19.21	<1	9.91
	18:00	10.0	7	11.0	8	<1	10.29	<1	19.21	<1	9.90
	20:00	10.0	7	11.0	8	<1	10.28	<1	19.22	<1	9.90
	22:00	10.0	7	11.0	8	<1	10.28	<1	19.22	<1	9.90
10/17/14	0:00	10.0	7	11.0	8	<1	10.27	<1	19.22	<1	9.90
	8:00	10.0	7	11.0	8	<1	10.24	<1	19.24	<1	9.86
	9:00	10.0	7	11.0	8	<1	10.24	<1	19.25	<1	9.86

Notes: [1] Monitoring wells DW-1 and DW-5 were not located until 11:30 on 10/13/14

[2] Monitoring well MW-15 was not located until 9:00 on 10/14/14



CONSULTECH ENVIRONMENTAL, LLC.	DRAWN: MAC	DATE: 12/29/08	FIGURE 2 SITE PLAN MAP
Environmental Consulting and Engineering © 1998	SITE ID # 04887		
	PROJECT WARREN GREEN		
	PROJECT NO. C-07-06-09		
	LOCATION YEMASSEE, SOUTH CAROLINA		

NON-HAZARDOUS WASTE MANIFEST

1. Generator's US EPA ID No.

Manifest Document No. 637

2. Page 1 of

3. Generator's Name and Mailing Address
Warren Green
10773 W. Frontage Road
Yemassee, SC UST #04887

4. Generator's Phone ( )

5. Transporter 1 Company Name

6. US EPA ID Number

A. State Transporter's ID

B. Transporter 1 Phone

7. Transporter 2 Company Name

8. US EPA ID Number

C. State Transporter's ID

D. Transporter 2 Phone

9. Designated Facility Name and Site Address
City of Manning
Wastewater Treatment Facility
PO Box 546
Manning, SC 29102

10. US EPA ID Number

E. State Facility's ID

F. Facility's Phone

11. WASTE DESCRIPTION	12. Containers No.	Type	13. Total Quantity	14. Unit Wt/Vol
a. NON-HAZARDOUS PETROLEUM CONTAMINATED WATER-PROFILE #			4461	GAL
b.				
c.				
d.				

G. Additional Descriptions for Materials Listed Above

H. Handling Codes for Wastes Listed Above

15. Special Handling Instructions and Additional Information

16. GENERATOR'S CERTIFICATION: I hereby certify that the contents of this shipment are fully and accurately described and are in all respects in proper condition for transport. The materials described on this manifest are not subject to federal hazardous waste regulations.

Printed/Typed Name	Signature	Date Month	Day	Year
Seth Hutcheson	Seth Hutcheson	10	14	14

17. Transporter 1 Acknowledgement of Receipt of Materials

Printed/Typed Name	Signature	Date Month	Day	Year
Lee Stogner	Lee Stogner	10	14	14

18. Transporter 2 Acknowledgement of Receipt of Materials

Printed/Typed Name	Signature	Date Month	Day	Year

19. Discrepancy Indication Space

20. Facility Owner or Operator; Certification of receipt of the waste materials covered by this manifest, except as noted in item 19.

Printed/Typed Name	Signature	Date Month	Day	Year
James Bethea	James Bethea	10	17	14

521 Liftstation

NON-HAZARDOUS WASTE MANIFEST

1. Generator's US EPA ID No.

Manifest Document No. 638

2. Page 1 of

3. Generator's Name and Mailing Address
Warren Green
10773 W. Frontage Road
Yemassee, SC UST #04887

4. Generator's Phone ( )

5. Transporter 1 Company Name | 6. US EPA ID Number | A. State Transporter's ID | B. Transporter 1 Phone

7. Transporter 2 Company Name | 8. US EPA ID Number | C. State Transporter's ID | D. Transporter 2 Phone

9. Designated Facility Name and Site Address
City of Manning
Wastewater Treatment Facility
PO Box 546
Manning, SC 29102

10. US EPA ID Number

E. State Facility's ID

F. Facility's Phone

11. WASTE DESCRIPTION	12. Containers No.	Type	13. Total Quantity	14. Unit Wt./Vol.
a. NON-HAZARDOUS PETROLEUM CONTAMINATED WATER-PROFILE #			5675	GAL
b.				
c.				
d.				

GENERATOR

G. Additional Descriptions for Materials Listed Above

H. Handling Codes for Wastes Listed Above

15. Special Handling Instructions and Additional Information

16. GENERATOR'S CERTIFICATION: I hereby certify that the contents of this shipment are fully and accurately described and are in all respects in proper condition for transport. The materials described on this manifest are not subject to federal hazardous waste regulations.

Printed/Typed Name: Seth Hutcheson | Signature: [signature] | Date: Month 10 Day 15 Year 14

TRANSPORTER

17. Transporter 1 Acknowledgement of Receipt of Materials

Printed/Typed Name: Lee Stagner | Signature: [signature] | Date: Month 10 Day 15 Year 14

18. Transporter 2 Acknowledgement of Receipt of Materials

Printed/Typed Name | Signature | Date: Month Day Year

FACILITY

19. Discrepancy Indication Space

20. Facility Owner or Operator; Certification of receipt of the waste materials covered by this manifest, except as noted in Item 19.

Printed/Typed Name: James Bethea | Signature: James Bethea | Date: Month 10 Day 17 Year 14

521 Liftstation

NON-HAZARDOUS WASTE MANIFEST

1. Generator's US EPA ID No.

Manifest Document No. 640

2. Page 1 of

3. Generator's Name and Mailing Address
Warren Green
10773 W. Frontage Road
Yemassee, SC UST #04887

4. Generator's Phone ( )

5. Transporter 1 Company Name | 6. US EPA ID Number

A. State Transporter's ID

B. Transporter 1 Phone

7. Transporter 2 Company Name | 8. US EPA ID Number

C. State Transporter's ID

D. Transporter 2 Phone

9. Designated Facility Name and Site Address
City of Manning
Wastewater Treatment Facility
PO Box 546
Manning, SC 29102

10. US EPA ID Number

E. State Facility's ID

F. Facility's Phone

11. WASTE DESCRIPTION	12. Containers No.	Type	13. Total Quantity	14. Unit Wt./Vol.
a. NON-HAZARDOUS PETROLEUM CONTAMINATED WATER-PROFILE #			4282	GAL
b.				
c.				
d.				

GENERATOR

G. Additional Descriptions for Materials Listed Above

H. Handling Codes for Wastes Listed Above

15. Special Handling Instructions and Additional Information

16. GENERATOR'S CERTIFICATION: I hereby certify that the contents of this shipment are fully and accurately described and are in all respects in proper condition for transport. The materials described on this manifest are not subject to federal hazardous waste regulations.

Printed/Typed Name	Signature	Date Month	Day	Year
Seth Hutcheson	[signature]	10	16	14

TRANSPORTER

17. Transporter 1 Acknowledgement of Receipt of Materials

Printed/Typed Name	Signature	Date Month	Day	Year
Lee Stogner	[signature]	10	16	14

18. Transporter 2 Acknowledgement of Receipt of Materials

Printed/Typed Name	Signature	Date Month	Day	Year

FACILITY

19. Discrepancy Indication Space

20. Facility Owner or Operator: Certification of receipt of the waste materials covered by this manifest, except as noted in Item 19.

Printed/Typed Name	Signature	Date Month	Day	Year
James Bethea	James Bethea	10	17	14

521 Lift station

NON-HAZARDOUS WASTE MANIFEST

1. Generator's US EPA ID No.	
Manifest Document No.	641
2. Page 1 of	
3. Generator's Name and Mailing Address	Warren Green 10773 W. Frontage Road Yemassee, SC UST #04887
4. Generator's Phone ( )	
5. Transporter 1 Company Name	
6. US EPA ID Number	
7. Transporter 2 Company Name	
8. US EPA ID Number	
9. Designated Facility Name and Site Address	City of Manning Wastewater Treatment Facility PO Box 546 Manning, SC 29102
10. US EPA ID Number	
A. State Transporter's ID	
B. Transporter 1 Phone	
C. State Transporter's ID	
D. Transporter 2 Phone	
E. State Facility's ID	
F. Facility's Phone	

11. WASTE DESCRIPTION	12. Containers No.	Type	13. Total Quantity	14. Unit Wt./Vol.
a. NON-HAZARDOUS PETROLEUM CONTAMINATED WATER-PROFILE #			3752	GAL
b.				
c.				
d.				

G. Additional Descriptions for Materials Listed Above

H. Handling Codes for Wastes Listed Above

15. Special Handling Instructions and Additional Information

GENERATOR

16. GENERATOR'S CERTIFICATION: I hereby certify that the contents of this shipment are fully and accurately described and are in all respects in proper condition for transport. The materials described on this manifest are not subject to federal hazardous waste regulations.

Printed/Typed Name	Signature	Date Month	Day	Year
Robert Roy		10	17	14

TRANSPORTER

17. Transporter 1 Acknowledgement of Receipt of Materials

Printed/Typed Name	Signature	Date Month	Day	Year
Lee Stogner		10	18	14

18. Transporter 2 Acknowledgement of Receipt of Materials

Printed/Typed Name	Signature	Date Month	Day	Year

FACILITY

19. Discrepancy Indication Space

20. Facility Owner or Operator; Certification of receipt of the waste materials covered by this manifest, except as noted in Item 19.

Printed/Typed Name	Signature	Date Month	Day	Year
James Bethea	James Bethea	10	19	14

521 LA Station

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Catherine B. Templeton, Director
Promoting and protecting the health of the public and the environment

UST DOCKETING 28tech

BRYAN SHANE
MIDLANDS ENVIRONMENTAL CONSULTANTS
PO BOX 854
LEXINGTON SC 29071

NOV 17 2014

Re: **Site Specific Work Plan Request**
Groundwater Sampling Contract
Solicitation # IFB-5400007403, PO#4600368640

Dear Mr. Shane:

In accordance with bid solicitation # IFB-5400007403 and the UST Management Division Quality Assurance Program Plan (QAPP), Revision 2.0 it is requested that you submit a Site Specific Work Plan for each site listed below. The plans must be submitted **within 15 business days** to my attention. The project manager for each site will issue a notice to proceed once the plan has been reviewed and approved.

UST Permit #	Site Name	County	# samples and requested analysis*	Project Manager
02801	Frm Hess Station	Darlington	17-BTEXMN, DCA, Oxygenates, & EDB	S. Briney
12789	Jamiva	Charleston	4-BTEXMN, DCA, & Oxygenates	M. Hornosky
02046	Frm Chester Maint	Chester	23-BTEXMN, DCA, Oxygenates, EDB, & Lead	M. Hornosky
15128	Bryan's Corner	Chester	19-BTEXMN, DCA, Oxygenates, 10-EDB, & 5-lead	M. Hornosky
15576	Frm Clawson Bakery	Charleston	6-BTEXMN, DCA, & Oxygenates	R. Dunn
04887	Warren Green	Jasper	29-BTEXMN, DCA, Oxygenates, & EDB	J. Bryant
07783	Brazzels Grocery	Richland	6-BTEXMN, DCA, Oxygenates, & EDB	R. Miner
14597	Hoopers Auto Serv	Anderson	6-BTEXMN, DCA, Oxygenates, & EDB	R. Miner
00467	Stop A Minute	Anderson	8-BTEXMN, DCA, Oxygenates, & EDB	R. Miner
07034	B&B Service	Orangeburg	13-BTEXMN, DCA, Oxygenates, & EDB	R. Miner
15765	River City Land Co	Anderson	11-BTEXMN, DCA, Oxygenates, & EDB	R. Miner
08937	HQ Heath Self Serve	Sumter	49-BTEXMN, DCA, Oxygenates, & EDB	C. Ridgley
01642	Royster Transport	Charleston	9-BTEXMN, DCA, & Oxygenates	J. Padgett
14324	Frm Red Diamond	Oconee	16-BTEXMN, DCA, Oxygenates, & EDB	J. Padgett
18955	Frm Donnies	Sumter	15- BTEXMN, DCA, Oxygenates, & EDB	C. Ridgley

*The number of samples may not include trip blanks, field blanks, or field duplicates.

Please contact me with the sampling schedule before commencing work at these facilities. In addition, a weekly update for each site is required to be submitted via e-mail to the site's project manager and myself. If you have any questions or need further assistance, please contact me at (803) 898-0631 or thomadl@dhec.sc.gov.

Sincerely,

Debra L. Thoma

Debra L. Thoma, Hydrogeologist
Corrective Action Section
UST Management Division
Bureau of Land & Waste Management

Enc: Site Information Packages

cc: Technical Files

Midlands Environmental Consultants, Inc.

December 16, 2014

Mr. John Bryant, Hydrogeologist
Corrective Action Section
Assessment and Corrective Action Division
Underground Storage Tank Program
Bureau of Land and Waste Management
South Carolina Department of Health
and Environmental Control
2600 Bull Street
Columbia, South Carolina 29201

UST DEC 17 2014 DIVISION

UST DOCKETING

Subject: Site-Specific Work Plan
Warren Green
Yemassee, South Carolina
SCDHEC Site ID Number 04887
MECI Project Number 14-5039
Certified Site Rehabilitation Contractor UCC-0009

Dear Mr. Bryant,

Midlands Environmental Consultants Inc. (MECI) is pleased to submit the attached Site-Specific Work Plan for the referenced site.

On December 9, 2014, MECI personnel performed a site visit to the subject site to evaluate site conditions, locate monitoring wells and identify potential problems for future sampling activities.

If you have any question or comments please feel free to contact us at 803-808-2043.

Sincerely,
Midlands Environmental Consultants, Inc.

Kyle V. Pudney
Project Biologist

Jeff L. Coleman
Senior Scientist

Midlands Environmental Consultants, Inc.

DHEC
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Site-Specific Work Plan for Approved ACQAP
Underground Storage Tank Management Division

To: Mr. John Bryant (SCDHEC Project Manager)
From: Mr. Jeff Coleman (Contractor Project Manager)
Contractor: Midlands Environmental Consultants, Inc. UST Contractor Certification Number: 009

Facility Name: Warren Green UST Permit #: 04887
Facility Address: 10773 West Frontage Road, Yemassee, SC 29945
Responsible Party: Lasonya Eady Reginald Bascom Phone: 843-726-9038
RP Address: 194 Oak Hill Road, Ridgeland, SC 29936
Property Owner (if different): SAA
Property Owner Address: SAA
Current Use of Property: Vacant Land

Scope of Work (Please check all that apply)

- ☐ IGWA
- ☐ Tier II
- ☑ Groundwater Sampling
- ☐ GAC
- ☐ Tier I
- ☐ Monitoring Well Installation
- ☐ Other ______

Analyses (Please check all that apply)

Groundwater/Surface Water:

- ☑ BTEXNMDCA (8260B)
- ☐ Lead
- ☐ BOD
- ☐ Methane
- ☑ Oxygenates (8260B)
- ☐ 8 RCRA Metals
- ☐ Nitrate
- ☐ Ethanol
- ☑ EDB (8011)
- ☐ TPH
- ☐ Sulfate
- ☐ Dissolved Iron
- ☐ PAH (8270D)
- ☐ pH
- ☐ Other ______

Soil:

- ☐ BTEXN
- ☐ 8 RCRA Metals
- ☐ TPH-DRO (3550B/8015B)
- ☐ Grain Size
- ☐ PAH
- ☐ Oil & Grease (9071)
- ☐ TPH-GRO (5030B/8015B)
- ☐ TOC

Air:

- ☐ BTEXN

Sample Collection (Estimate the number of samples of each matrix that are expected to be collected.)

____ Soil 4 Water Supply Wells ____ Air 1 Field Blank
21 Monitoring Wells ____ Surface Water 2 Duplicate 1 Trip Blank

Field Screening Methodology

Estimate number and total completed depth for each point, and include their proposed locations on the attached map.
# of shallow points proposed: ______ Estimated Footage: ______ feet per point
# of deep points proposed: ______ Estimated Footage: ______ feet per point
Field Screening Methodology: ______

Permanent Monitoring Wells

Estimate number and total completed depth for each well, and include their proposed locations on the attached map.
# of shallow wells: ______ Estimated Footage: ______ feet per point
# of deep wells: ______ Estimated Footage: ______ feet per point
# of recovery wells: ______ Estimated Footage: ______ feet per point
Monitoring Well development method (consistent with SOP): ______
Comments, if warranted:

UST Permit #: 04887 Facility Name: Warren Green

Implementation Schedule (Number of calendar days from approval)
Field Work Start-Up: 12/28/2014 Field Work Completion: 1/28/2015
Report Submittal: 2/28/2015 # of Copies Provided to Property Owners: ______

Aquifer Characterization
Pump Test: ☐ Slug Test: ☐ (Check one and provide explanation below for choice)

Investigation Derived Waste Disposal
Soil: ______ Tons Purge Water: 250.0 Gallons
Drilling Fluids: ______ Gallons Free-Phase Product: ______ Gallons

Additional Details For This Scope of Work
For example, list wells to be sampled, wells to be abandoned/repaired, well pads/bolts/caps to replace, details of AFVR event, etc.
-Monitoring well MW-2 was not located during the initial site visit. If it is located during the sampling event, it will be sampled accordingly.
-A total of six (6) bolts are needed to properly secure monitoring wells at the subject site.

Compliance With Annual Contractor Quality Assurance Plan (ACQAP)
No Laboratory as indicated in ACQAP? (Yes/No) If no, indicate laboratory information below.
Name of Laboratory: PACE Analytical Services, Inc.
SCDHEC Certification Number: 99006001
Name of Laboratory Director: Jeff Graham

N/A Well Driller as indicated in ACQAO? (Yes/No) If no, indicate driller information below.
Name of Well Driller: ______
SCLLR Certification Number: ______

Yes Other variations from ACQAP. Please describe below.
MECI has submitted ammended ACQAP for review. The ammeded ACQAP documents MECI's intention to utilize PACE Analytical Services, Inc. as our primary lab. This ammended ACQAP is still under review, however MECI is requesting approval to send samples collected from the above referenced site to PACE Analytical Services, Inc.

Attachments
1. Attach a copy of the relevant portion of the USGS topographic map showing the site location.
2. Prepare a site base map. This map must be accurately scaled, but does not need to be surveyed. The map must include the following:
   - North Arrow
   - Location of property lines
   - Location of buildings
   - Previous soil sampling locations
   - Previous monitoring well locations
   - Proposed soil boring locations
   - Proposed monitoring well locations
   - Legend with facility name and address, UST permit number, and bar scale
   - Streets or highways (indicate names and numbers)
   - Location of all present and former ASTs and USTs
   - Location of all potential receptors
3. Assessment Component Cost Agreement, SCDHEC Form D-3664

DHEC

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South Carolina Department of Health and Environmental Control

ASSESSMENT COMPONENT COST AGREEMENT
SOUTH CAROLINA

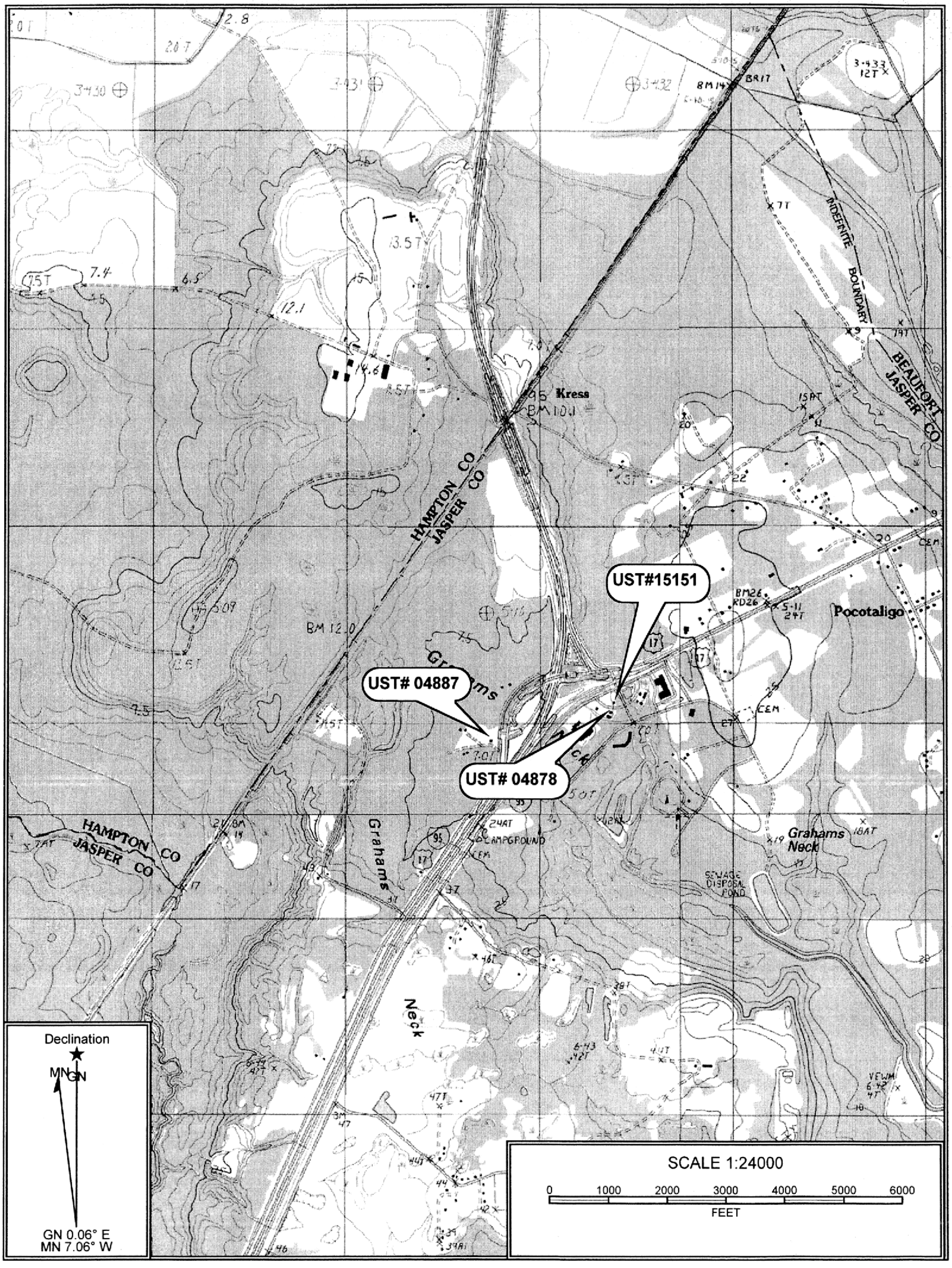
Department of Health and Environmental Control
Underground Storage Tank Management Division
State Underground Petroleum Environmental Response Bank Account
CONTRACT PO NUMBER 4600328425

Facility Name: Warren Green

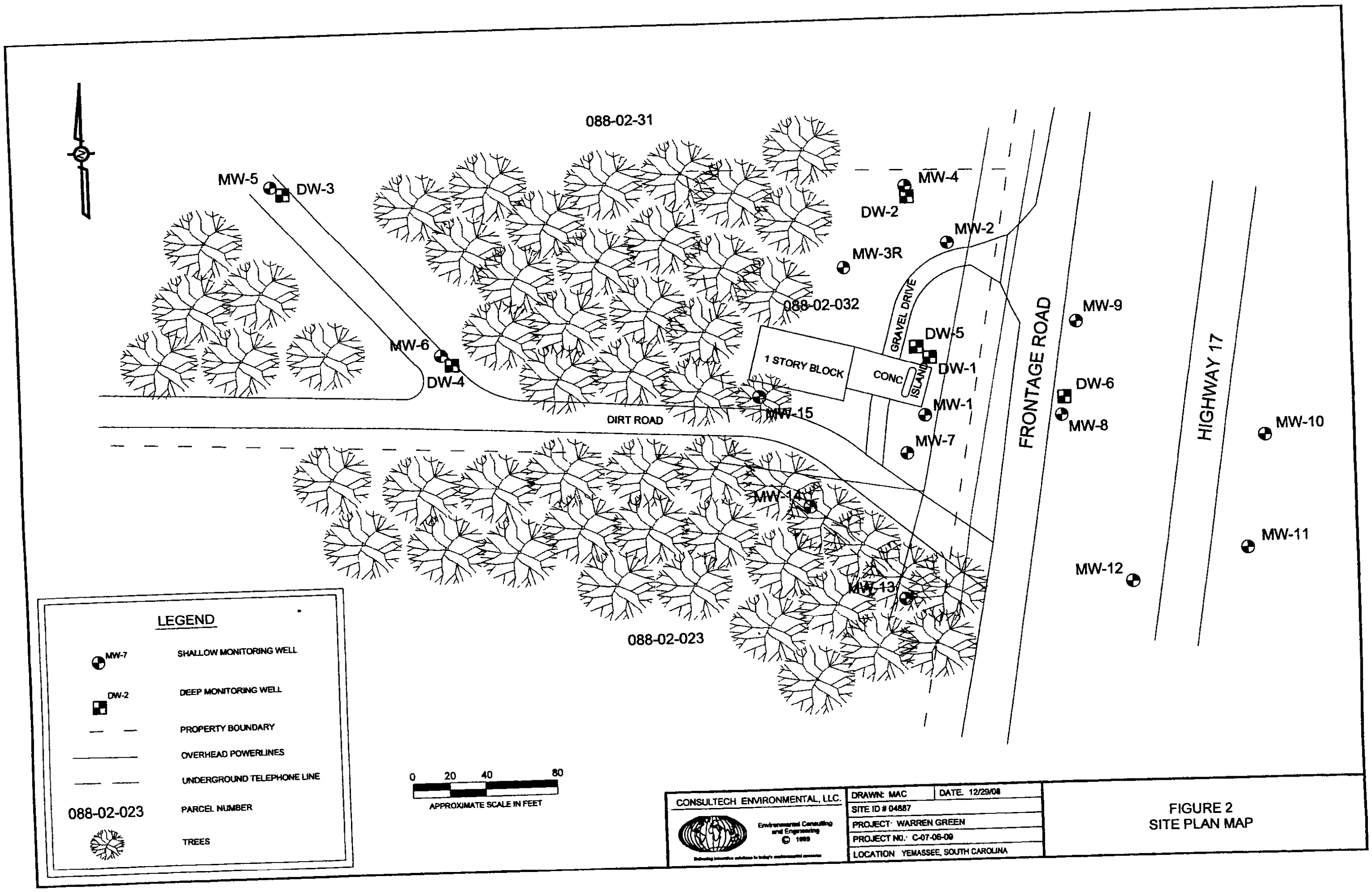
UST Permit #: 04887 **Cost Agreement #:** Proposal

ITEM	QUANTITY	UNIT	UNIT PRICE		TOTAL
1. **Plan***					
A1. Site Specific Work Plan	1	each	$0.00		$0.00
C1. QAPP Appendix B		each	$0.00		$0.00
2. A1. Receptor Survey		each	$0.00		$0.00
4. **Mob/Demob**					
B1. Personnel	2	each	$350.00		$700.00
10. **Groundwater Sample Collection / Gauge Depth to Water or Product (Each)**					
A1. Groundwater Purge	21	per well	$16.00		$336.00
B1. Air or Vapors		samples	$0.00		$0.00
C1. Water Supply	4	samples	$5.00		$20.00
D1. Groundwater No Purge or Duplicate		per well	$8.00		$0.00
E1. Gauge Well only		per well	$0.00		$0.00
F1. Sample Below Product		per well	$0.00		$0.00
G1. Pasive Diffusion Bag		each	$20.00		$0.00
H1. Field Blank	1	each	$10.00		$10.00
17. **Disposal* (gallons or tons)**					
AA. Disposal/Water	250	gallons	$1.00		$250.00
BB. Free Product		gallons	$0.00		$0.00
Note: Rate includes costs or rental of suitable container(s)					
23. D. Site Reconnaissance	1	each	$0.00		$0.00
18. **Miscellaneous (attach receipts)**					
GW Contour Map		each	$25.00		$0.00
Isopleth Map		each	$25.00		$0.00
High-Strength Well Pad Replacement		each	$75.00		$0.00
Data Table		each	$25.00		$0.00
25. **Well Repair**					
B1. Repair 2x2 MW Pad		each	$75.00		$0.00
C1. Repair 4x4 MW Pad		each	$75.00		$0.00
D1. Replace Well Vault		each	$75.00		$0.00
E. Replace well cover		each	$25.00		$0.00
F1. Replace well cover bolts	6	each	$2.60		$15.60
G. Replace locking well cap & lock		each	$15.00		$0.00
K1. Replace Missing Well ID Plate		each	$10.00		$0.00
TOTAL					$1,331.60

*The appropriate mobilization cost can be added to complete these tasks, as necessary



UST#15151
UST# 04887
UST# 04878
Kress
Pocotaligo
HAMPTON CO
JASPER CO
BEAUFORT
JASPER CO
INDEFINITE BOUNDARY
Grahams
Grahams Neck
Neck
SEWAGE DISPOSAL POND
CAMPGROUND
Declination
MN
GN
GN 0.06° E
MN 7.06° W
SCALE 1:24000
0
1000
2000
3000
4000
5000
6000
FEET



088-02-31
MW-5
DW-3
MW-4
DW-2
MW-2
MW-3R
088-02-032
GRAVEL DRIVE
MW-9
MW-6
DW-5
DW-4
1 STORY BLOCK
CONC
ISLAND
DW-1
FRONTAGE ROAD
DW-6
HIGHWAY 17
MW-15
MW-1
MW-8
MW-10
DIRT ROAD
MW-7
MW-14
MW-11
MW-12
MW-13
088-02-023
LEGEND
MW-7
SHALLOW MONITORING WELL
DW-2
DEEP MONITORING WELL
PROPERTY BOUNDARY
OVERHEAD POWERLINES
UNDERGROUND TELEPHONE LINE
088-02-023
PARCEL NUMBER
TREES
0 20 40 80
APPROXIMATE SCALE IN FEET
CONSULTECH ENVIRONMENTAL, LLC.
Environmental Consulting and Engineering
DRAWN: MAC
DATE: 12/29/08
SITE ID # 04887
PROJECT: WARREN GREEN
PROJECT NO.: C-07-06-09
LOCATION: YEMASSEE, SOUTH CAROLINA
FIGURE 2
SITE PLAN MAP

DHEC

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C. Earl Hunter, Commissioner

Promoting and protecting the health of the public and the environment.

SEP 07 2007

JOE GHIOLD
CONSULTECH ENVIRONMENTAL
PO BOX 5306
CAREY NC 27512-5306

Re: Tier II Directive
Warren Green, 10773 W. Frontage Rd., Yemassee, SC
UST Permit #04887; CA# 29932; MWA# UMW-21039
Bid Specification IFB-30950-11/7/06-EMW; PO #663641
Tier II Plan received July 27, 2007
Jasper County

Dear Mr. Ghiold:

The Underground Storage Tank (UST) Program has reviewed the Tier II Assessment Plan and associated Cost Agreement for the referenced site. Assessment activities should begin immediately upon receipt of this letter.

Cost agreement number 29932 has been approved in the amount shown on the enclosed cost agreement spreadsheet and will be kept on file so that compensation can begin. **The SCDHEC reserves the authority to pay only for work properly performed and/or technically justified and will only pay rates in accordance with bid number IFB-30950-11/7/06-EMW.** Further, SCDHEC reserves the right to question and/or reject costs if deemed unreasonable. The SCDHEC reserves the right to audit project records at any time during the project or after completion of the work. **The Tier II Assessment Report (2 hardcopies and 1 electronic copy) and invoice should be submitted within 90 days from the date of this correspondence.** Please note the following adjustments to the submitted plan and cost agreement:

- Soil samples are to be collected from borings where data for vertical delineation is being collected. These soil samples are to be collected every 5 feet until groundwater is encountered or auger refusal. Groundwater samples should submitted for laboratory analysis and are not to be field screened.
- The number of shallow wells has been decreased from 11 to 6 with 90 feet of approvable footage. Proposed locations for monitoring wells MW-7, DW-3, MW-8, DW-4, MW-10, MW-11, and MW-12 are approved. MW-4 and DW-2 should be moved approximately 30 feet west and DW-1 should be moved approximately15 feet north and 10 feet west.
- Groundwater analyses are approved as follows: 6 temporary wells are to have rush analysis for BTEX only, the 13 monitoring wells are to be sampled for BTEX, Napth., MTBE, 1,2-DCA, EDB, lead, nitrate, sulfate, ferrous iron, methane, and 8-oxygenates. The 4 water supply wells are to be sampled for BTEX, Napth., MTBE, and EDB.
- A slug test has been approved for a well that is screened in the deep interval.
- Sieve analysis for one soil sample from the screen interval of a newly installed deep monitoring well has been approved. Grain size analysis for the shallow unit was provided in the Tier I.
- Monitoring well MW-3 has been located and does not need to be replaced.
- Personnel mobilizations were reduced from five to four.

UST PROGRAM
DOCKETING # 3

A copy of the approved assessment cost agreement is enclosed for your information. Consultech Environmental, Incorporated can submit an invoice for direct billing from the State Underground Petroleum Environmental Response Bank (SUPERB) Account. Future invoices and/or other criteria included therein must comply with current SUPERB criteria per Section 44-2-20(2). Please reference cost agreement number29932 on all pertinent invoices and correspondence. Please note that Sections 44-2-110(4) and 44-2-130(B) of the SUPERB Statute state that no costs will be allowed (considered for payment) unless prior approval from the Department is obtained. If for any reason there is a change in this cost agreement, any associated changes must be pre-approved by this Department in order for Consultech Environmental, Inc. to seek future cost compensation.

Any item(s) not clearly or completely addressed in the report (SC certified driller's number, disposal manifest for soil cuttings, disposal manifests for generated ground water, etc.) WILL NOT be compensated by the SUPERB Account. As agreed to in the referenced contract, the owner/operator of the referenced facility will not be responsible for any costs associated with this assessment.

Monitoring well approval for 6 shallow and 4 telescoping monitoring wells is enclosed for your records. Please note that all applicable South Carolina certification requirements regarding laboratory analyses, well installation, and report preparation must be met.

The Department grants pre-approval for transportation of virgin petroleum impacted soil and groundwater from the referenced site to a permitted treatment facility. <u>As required by the referenced bid, roll off container will be used for disposal vs. drums of soil cuttings if more than fifteen (15) drums of cuttings are generated.</u> There can be no spillage or leakage in transport. All investigation-derived waste (IDW) must be properly contained and labeled prior to disposal. IDW should not be stored on-site longer than ninety (90) days. A copy of the disposal manifest and/or acceptance letter from the receiving facility that clearly designates the quantity received must be included as an appendix to the report. If the COC concentrations, based on laboratory analysis, are below Risk Based Screening Levels (RBSLs), please contact the project manager for approval to dispose of soil and/or groundwater on site. The SUPERB Account will not reimburse for transportation or treatment of soil and/or groundwater with concentrations below RBSLs.

On all correspondence regarding this site, please reference the UST Permit # 04887 and Cost Agreement # 29932. If you have questions concerning this correspondence, or would like to submit additional information, please contact me at (803) 896-6395, fax me at (803) 896-6245, or e-mail me at johnsoms@.dhec.sc.gov.

Sincerely,

Minda Johnson

Minda Johnson, Hydrogeologist
Assessment Section
Assessment & Corrective Action Division
Bureau of Land & Waste Management

enc: Approved Cost Agreement
Monitoring Well Approval

cc: Helen Smith, Rt 2 PO Box 814, Coosawhatchie, SC 29912-9702 (w/o enc.)
LaSonya Eady, Reginald Bascom and Everette Bascom, 194 Oak Hill Rd., Ridgeland, SC 29936 (w/o enc.)
Technical File (w/ enc.)

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C. Earl Hunter, Commissioner
Promoting and protecting the health of the public and the environment.

Monitoring Well Installation Approval Form

Approval is hereby granted to: Consultech Environmental, Incorporated
Facility: Warren Green, 10773 W. Frontage Rd., Yemassee, SC
UST Permit Number: 04887
County: Jasper

This approval is for the installation of 16 (6 temporary, 6 shallow, 4 deep) monitoring wells. The monitoring wells are to be installed in the approved locations. Monitoring wells are to be installed following the South Carolina Well Standards, R.61-71, and the applicable guidance documents.

Please note that R.61-71 requires the following:

1. All wells shall be drilled, constructed, and abandoned by a South Carolina certified well driller per R.61-71.D.1.
2. All monitoring wells shall be labeled as required by R.61-71.H.2.c.
3. A Water Well Record Form or other form provided or approved by the Department shall be completed and submitted to the Department within 30 days after well completion or abandonment unless another schedule has been approved by the Department. The form should contain the "as-built" construction details and all other information required by R.61-71.H.1.f
4. All analytical data and water levels obtained from each monitoring well shall be submitted to the Department within 30 days of receipt of laboratory results unless another schedule has been approved by the Department as required by R.61-71.H.1.d.
5. If any of the information provided to the Department changes, notification to Minda Johnson (tel: (803) 896-6395or e-mail: johnsoms@dhec.sc.gov) shall be provided a minimum of twenty-four (24) hours prior to well construction as required by R.61-71.H.1.a.
6. All temporary monitoring wells shall be abandoned within 5 days of borehole completion using appropriate methods as required by R.61-71.H.4.c. All other wells shall be properly developed per R.61-71.H.2.d.
7. Monitoring wells shall have Department approval prior to abandonment as required by R.61-71.H.1.a. A copy of this approval should be on the site during well installation.

Date of Issuance: August 30, 2007 **Approval #: UMW-21039**

Minda Johnson

Minda Johnson, Hydrogeologist
Assessment Section
Division of Assessment and Corrective Action
Bureau of Land and Waste Management

Approved Cost Agreement 29932

Facility: 04887 WARREN GREEN

JOHNSOMS

PO Number:

Task / Description	Categories	Item Description	Qty / Pct	Unit Price	Amount
01 PLAN					
		A PLAN PREPARATION	1.0000	100.00	100.00
		B TAX MAPS	1.0000	100.00	100.00
02 RECEPTOR SURVEY					
		RECEPTOR SURVEY	1.0000	100.00	100.00
04 MOB/DEMOB					
		A EQUIPMENT	2.0000	150.00	300.00
		B PERSONNEL	4.0000	50.00	200.00
06 SOIL BORINGS (DRILLED)					
		A SOIL BORINGS & FLD SCREENING	195.0000	10.00	1,950.00
08 ABANDONMENT					
		ABANDONMENT	90.0000	6.00	540.00
09 WELL INSTALLATION					
		B WATER TABLE (DRILLED)	90.0000	25.00	2,250.00
10 SAMPLE COLLECTION					
		A GROUND WATER	6.0000	50.00	300.00
		C WATER SUPPLY	4.0000	20.00	80.00
		D GROUNDWATER NO-PURGE	3.0000	15.00	45.00
		E GAUGE WELL ONLY	3.0000	15.00	45.00
11 ANALYSES					
	GW GROUNDWATER	A BTEX+NAPTH+MTBE	17.0000	35.00	595.00
		B RUSH BTEX+NAPTH+MTBE	6.0000	70.00	420.00
		E LEAD	13.0000	7.00	91.00
		F EDB	17.0000	35.00	595.00
		K NITRATE	13.0000	20.00	260.00
		L SULFATE	13.0000	15.00	195.00
		M FERROUS IRON	13.0000	10.00	130.00
		N METHANE	13.0000	37.00	481.00
		P 8 OXYGENATES	13.0000	65.00	845.00
	SOIL SOIL	W GRAIN SIZE/HYDROMETER	1.0000	65.00	65.00
12 AQUIFER CHARACTERIZATION					
		B SLUG TEST	1.0000	50.00	50.00
17 DISPOSAL					
		A1 WASTEWATER - PURGING/SAMPLING	10.0000	150.00	1,500.00
		C SOIL (TREATMENT/DISPOSAL)	13.0000	175.00	2,275.00
19 RPT/PROJECT MNGT & COORDINATIO					
		PCT PERCENT	0.0400	13,612.00	544.48
23 EFR					
		D SITE RECONNAISSANCE	1.0000	100.00	100.00
			Total Amount		14,156.48

D H E C

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Catherine B. Templeton, Director

Promoting and protecting the health of the public and the environment

UST DOCKETING 30tch

BRYAN SHANE
MIDLANDS ENVIRONMENTAL CONSULTANTS
PO BOX 854
LEXINGTON SC 29071

JAN 07 2015

Re: **Notice to Proceed-Site Specific Work Plan Approval**
Groundwater Sampling Contract
Solicitation # IFB-5400007403, PO#4600368640
Warren Green, 10773 W Frontage Road, Yemassee SC 29945
UST Permit # 04887; CA #49238; Pace CA #49239
Jasper County

Dear Mr. Shane:

In accordance with bid solicitation #IFB-5400007403 and the UST Management Division Quality Assurance Program Plan (QAPP), the Site-Specific Work Plan has been reviewed and approved. In accordance with the approved ACQAP, a status report of the project should be provided on a weekly basis via e-mail. If any quality assurance problems arise, you must contact me within 24 hours via phone or e-mail. In addition, a discussion of the problem(s) encountered, including quality assurance problems, the actions taken, and the results must be included in the final report submitted to the UST Management Division.

MECI will perform services at the site on behalf of the site's responsible party (RP); however, payment will be made from the SUPERB Account. The site's RP has no obligation for payment for this scope of work. Please coordinate access to the facility with the property owner. The Agency grants pre-approval for transportation of virgin petroleum impacted soil and groundwater from the referenced site to a permitted treatment facility. There can be no spillage or leakage in transport. All investigation-derived waste (IDW) must be properly contained and labeled prior to disposal. A copy of the disposal manifest and/or acceptance letter from the receiving facility that clearly designates the quantity received must be included with the final report. The SUPERB Account will not reimburse for transportation or treatment of soil and/or groundwater with concentrations below RBSLs.

Please note, sampling should be conducted within 15 calendar days from the date of this letter. The final report is due within 3 weeks from the date the site is sampled. If the site is not sampled by the specified due date or the report is not received in the specified time period, a late fee may be imposed. The final report should contain the requirements of Section III.2.15 of the bid solicitation. The final report should be submitted to Debra Thoma, the contract manager.

If you have any site-specific questions or contract questions, please contact me at (803) 898-0606 or via e-mail at bryantjc@dhec.sc.gov.

Sincerely,

John Bryant, Hydrogeologist
Assessment/Corrective Action Section
UST Management Division
Bureau of Land & Waste Management

enc: Approved Cost Agreement (both CAs)

cc: John Bryant, Corrective Action Section, UST Management Division (w/o encs.)
Angela Baioni, Pace Analytical Services, 9800 Kincey Ave, Ste 100, Huntersville, NC, 28078 (w/ approved CA)
Technical Files (w/ encs.)

Approved Cost Agreement 49239

Facility: 04887 WARREN GREEN

BRYANTJC

PO Number:

Task / Description	Categories	Item Description	Qty / Pct	Unit Price	Amount
11 ANALYSES					
	GW GROUNDWATER	A2 BTEXNM+OXYGS+1,2-DCA+ETH-8260B	29.0000	19.00	551.00
		F1 EDB BY 8011	28.0000	18.00	504.00
			Total Amount		1,055.00

Approved Cost Agreement 49238

Facility: 04887 WARREN GREEN
BRYANTJC
PO Number:

Task / Description	Categories	Item	Description	Qty / Pct	Unit Price	Amount
04 MOB/DEMOB						
		B1	PERSONNEL	2.0000	350.00	700.00
10 SAMPLE COLLECTION						
		A1	GROUNDWATER (PURGE)	21.0000	16.00	336.00
		C1	WATER SUPPLY	4.0000	5.00	20.00
		H1	FIELD BLANK	1.0000	10.00	10.00
17 DISPOSAL						
		AA	WASTEWATER	300.0000	1.00	300.00
18 MISCELLANEOUS						
			SITE RECONNAISSANCE	1.0000	0.00	0.00
			SITE SPECIFIC WORK PLAN	1.0000	0.00	0.00
25 WELL REPAIR						
		F1	REPLACE WELL COVER BOLTS	6.0000	2.60	15.60
				Total Amount		1,381.60

Midlands
Environmental
Consultants, Inc.

February 18, 2015

Mr. John Bryant, Hydrogeologist
Corrective Action Section
Underground Storage Tank Program
Bureau of Land and Waste Management
South Carolina Department of Health
and Environmental Control
2600 Bull Street
Columbia, South Carolina 29201

Subject: Report of Groundwater Sampling
Warren Green
10773 W. Frontage Road
Yemassee, South Carolina
SCDHEC Site ID Number 04887; CA # 49238
MECI Project Number 14-5039
Certified Site Rehabilitation Contractor UCC-0009

Dear Mr. Bryant,

Midlands Environmental Consultants Inc. (MECI) is pleased to submit the attached Report of Groundwater Sampling for the referenced site. This report describes site activities conducted at the site in general accordance with South Carolina Department of Health and Environmental Control's (SCDHEC) Quality Assurance Program Plan for the Underground Storage Tank Management Division (QAPP).

PROJECT INFORMATION

The subject site (Warren Green) is located at 10773 W. Frontage Road, Yemassee, Jasper County, South Carolina. The subject site maintains two 3,000 gallon gasoline underground storage tanks (UST's) and one 2,000 gallon gasoline UST. The subject tanks have been rendered non-usable and are out of compliance. The last known compliance date for the subject tanks was September 10, 2001. SCDHEC reported and confirmed a release of petroleum product in May of 2002. The subject site is currently rated a class 2BB.

The above information is based on reports and correspondence obtained from MECI field notes and SCDHEC files.

MONITORING WELL SAMPLING AND CHEMICAL ANALYSIS

On February 12, 2015, MECI personnel collected twenty-one (21) monitoring well samples and four (4) water supply well samples at the subject site. MECI personnel utilized an electronic water level indicator for water level measurements and an oil/water interface probe for free phase petroleum product level measurements. Based on a request by SCDHEC personnel, all of the wells were to be

Post Office Box 854, Lexington SC 29071 • 231 Dooley Road, Lexington, SC 29073
Telephone: (803) 808-2043 • fax: (803) 808-2048

purged prior to sampling. Twenty-one (21) monitoring wells were purged prior to sample collection. Purging was completed by bailing at least five well volumes of water from the well, until pH, conductivity, dissolved oxygen, and turbidity stabilized, or all water was evacuated from the well, whichever occurred first. Sampling/purging was completed utilizing a prepackaged, clear, disposable polyethylene bailer and nylon rope. A new set of nitrile gloves were worn at each monitoring well, and at all time samples were handled. Field measurements of pH, conductivity, dissolved oxygen, water temperature, and turbidity were obtained before well sampling process. MECI utilized YSI550A meter for DO (mg/L) and temperature readings (°C), YSI63 meters for pH and conductivity (uS) readings and a MicroTPI/TPW turbidimeter for turbidity readings (NTU). The wells were sampled in accordance with SCDHEC's Quality Assurance Program Plan for the Underground Storage Tank Management Division (QAPP Revision 2.0) and MECI's Standard Operating Procedures (MECI SOP, Dates January 2014).

Groundwater samples obtained were sent to Pace Analytical Services, Inc. of Huntersville, NC (SCDHEC Laboratory Certification #99006001) for analysis.

The following sampling matrix contains well development and requested analyses for each well:

Monitoring Well	Purge	No Purge	Abandoned	Not Located	BTEX, Naphthalene, MTBE (EPA Method 8260-B)	EDB (EPA Method 8011)	1,2 DCA (EPA Method 8260-B)	8 Oxygenates (EPA Method 8260-B)	Total Lead (EPA Method 6010)	Sulfate (EPA Method 375.2)	Nitrate (EPA Method 335.2)	Methane (RSK Method)	PAH's (EPA Method 8270)	Ferrous Iron (Field Test)
					Analyte Sampled									
MW-1	X				X	X	X	X						
MW-2	X				X	X	X	X						
MW-3R	X				X	X	X	X						
MW-4	X				X	X	X	X						
MW-5	X				X	X	X	X						
MW-6	X				X	X	X	X						
MW-7	X				X	X	X	X						
MW-8	X				X	X	X	X						
MW-9	X				X	X	X	X						
MW-10	X				X	X	X	X						
MW-11	X				X	X	X	X						
MW-12	X				X	X	X	X						
MW-13	X				X	X	X	X						
MW-14	X				X	X	X	X						
MW-15	X				X	X	X	X						
DW-1	X				X	X	X	X						
DW-2	X				X	X	X	X						
DW-3	X				X	X	X	X						
DW-4	X				X	X	X	X						
DW-5	X				X	X	X	X						
DW-6	X				X	X	X	X						
WSW-1					X	X	X	X						

Notes: BTEX = benzene, toluene, ethylbenzene, & total xylenes MTBE=methyl tertiary butyl ether 1,2 DCA = 1,2 dicloroethane
PAH = polycyclic aromatic hydrocarbons
Trip Blank provided by Pace Analytical Services, temperature obtained upon receipt at Laboratory

Monitoring Well	Purge	No Purge	Abandoned	Not Located	BTEX, Naphthalene, MTBE (EPA Method 8260-B)	EDB (EPA Method 8011)	1,2 DCA (EPA Method 8260-B)	8 Oxygenates (EPA Method 8260-B)	Total Lead (EPA Method 6010)	Sulfate (EPA Method 375.2)	Nitrate (EPA Method 335.2)	Methane (RSK Method)	PAH's (EPA Method 8270)	Ferrous Iron (Field Test)
					Analyte Sampled									
WSW-2					X	X	X	X						
WSW-3					X	X	X	X						
WSW-4					X	X	X	X						
MW-3R Dup.					X	X	X	X						
MW-5 Dup.					X	X	X	X						
Field Blank					X	X	X	X						
Trip Blank					X		X	X						

Notes: BTEX = benzene, toluene, ethylbenzene, & total xylenes MTBE=methyl tertiary butyl ether 1,2 DCA = 1,2 dicloroethane
PAH = polycyclic aromatic hydrocarbons
Trip Blank provided by Pace Analytical Services, temperature obtained upon receipt at Laboratory

Purge water produced by the purging process was treated on-site utilizing a granular activated carbon unit. A total of 104.0 gallons of purge water was disposed of in this manner. A disposal manifest for the referenced purge water is attached at the end of this report.

Please feel free to contact us at 803-808-2043 if you have any immediate questions or comments.

Sincerely,
Midlands Environmental Consultants, Inc.

Wesley H. Huss
Staff Scientist

Jeff L. Coleman
Senior Scientist

Attachments:

Contractor Checklist

Item#	Item	Yes	No	N/A
1	Is Facility Name, Permit #, and address provided?	X		
2	Is UST Owner/Operator name, address, & phone number provided?			X
3	Is name, address, & phone number of current property owner provided?			X
4	Is the DHEC Certified UST Site Rehabilitation Contractor's Name, Address, telephone number, and certification number provided?	X		
5	Is the name, address, telephone number, and certification number of the well driller that installed borings/monitoring wells provided?			X
6	Is the name, address, telephone number, and certification number of the certified laboratory(ies) performing analytical analyses provided?	X		
7	Has the facility history been summarized?	X		
8	Has the regional geology and hydrogeology been described?			X
9	Are the receptor survey results provided as required?			X
10	Has current use of the site and adjacent land been described?			X
11	Has the site-specific geology and hydrogeology been described?			X
12	Has the primary soil type been described?			X
13	Have field screening results been described?			X
14	Has a description of the soil sample collection and preservation been detailed?			X
15	Has the field screening methodology and procedure been detailed?			X
16	Has the monitoring well installation and development dates been provided?			X
17	Has the method of well development been detailed?			X
18	Has justification been provided for the locations of the monitoring wells?			X
19	Have the monitoring wells been labeled in accordance with the UST QAPP guidelines?			X
20	Has the groundwater sampling methodology been detailed? See MECI SOP	X		
21	Have the groundwater sampling dates and groundwater measurements been provided? See attached Site Activity Summary Sheet	X		
22	Has the purging methodology been detailed? See MECI SOP	X		
23	Has the volume of water purged from each well been provided along with measurements to verify that purging is complete? See attached Field Data Information Sheets	X		
24	If free-product is present, has the thickness been provided? See attached Site Activity Summary Sheets	X		
25	Does the report include a brief discussion of the assessment done and the results?			X
26	Does the report include a brief discussion of the aquifer evaluation and results?			X
27	Does the report include a brief discussion of the fate & transport models used?			X

Item#	Item	Yes	No	N/A
28	Are the site-conceptual model tables included? (Tier 1 Risk Evaluation)			X
29	Have the exposure pathways been analyzed? (Tier 2 Risk Evaluation)			X
30	Have the SSTLs for each compound and pathway been calculated? (Tier 2 Risk Evaluation)			X
31	Have recommendations for further action been provided and explained?			X
32	Has the soil analytical data for the site been provided in tabular format? (Table 1)			X
33	Has the potentiometric data for the site been provided in tabular format? (Table 2)			X
34	Has the current and historical laboratory data been provided in tabular format?			X
35	Have the aquifer characteristics been provided and summarized on the appropriate form?			X
36	Have the Site conceptual model tables been included? (Tier 1 Risk Evaluation)			X
37	Has the topographic map been provided with all required elements? (Figure 1)	X		
38	Has the site base map been provided with all required elements? (Figure 2)	X		
39	Have the CoC site maps been provided? (Figure 3 & Figure 4)			X
40	Has the site potentiometric map been provided? (Figure 5)			X
41	Have the geologic cross-sections been provided? (Figure 6)			X
42	Have maps showing the predicted migration of the CoCs through time been provided? (Tier 2 Risk Evaluation)			X
43	Has the site survey been provided and include all necessary elements? (Appendix A)			X
44	Have the sampling logs, chain of custody forms, and the analytical data package been included with all required elements? (Appendix B)	X		
45	Is the laboratory performing the analyses properly certified?	X		
46	Has the tax map been included with all necessary elements? (Appendix C)			X
47	Have the soil boring/field screening logs been provided? (Appendix D)			X
48	Have the well completion logs and SCDHEC Form 1903 been provided? (Appendix E)			X
49	Have the aquifer evaluation forms, data, graphs, equations, etc. been provided? (Appendix F)			X
50	Have the disposal manifests been provided? See attached	X		
51	Has a copy of the local zoning regulations been provided? (Appendix H)			X
52	Has all fate and transport modeling been provided? (Appendix I)			X
53	Have copies of all access agreements obtained by the contractor been provided? (Appendix J)			X
54	Has a copy of this form been attached to the final report and are explanations for any missing or incomplete data been provided?	X		

Site Activity Summary

Midlands Environmental Consultants, Inc.

UST Permit #: 04887
Facility Name: Warren Green
County: Jasper
Field Personnel: A. Best, P. Wylie

Sample ID	Sampled?	Date	Time	Screened Interval	Depth to Product (ft)	Depth to Water (ft)	Product Thickness (ft)	DO (mg/l)	# Gals. Purged	Comments
MW-1	Y	2/12/15	12:16	2-12	***	1.23	***	2.60	1.50	Odor
MW-2	Y	2/12/15	11:50	5-15	***	4.89	***	4.67	2.00	No Odor
MW-3R	Y	2/12/15	11:54	5-20	***	5.38	***	2.84	5.00	No Odor
MW-4	Y	2/12/15	11:39	5-20	***	4.94	***	4.76	6.00	No Odor
MW-5	Y	2/12/15	10:37	5-20	***	4.52	***	5.02	6.00	No Odor
MW-6	Y	2/12/15	10:49	5-20	***	3.02	***	5.29	5.50	No Odor
MW-7	Y	2/12/15	12:12	5-20	***	6.25	***	2.96	5.00	Odor
MW-8	Y	2/12/15	11:31	5-20	***	6.34	***	3.56	5.00	No Odor
MW-9	Y	2/12/15	11:20	5-20	***	9.73	***	2.01	1.50	No Odor
MW-10	Y	2/12/15	11:08	5-20	***	10.41	***	1.82	2.00	No Odor
MW-11	Y	2/12/15	11:12	5-20	***	10.10	***	2.42	1.50	No Odor
MW-12	Y	2/12/15	11:16	5-20	***	8.26	***	5.46	2.00	No Odor
MW-13	Y	2/12/15	11:04	5-20	***	7.35	***	2.02	4.00	No Odor
MW-14	Y	2/12/15	11:00	5-20	***	6.21	***	3.10	5.00	No Odor
MW-15	Y	2/12/15	11:35	5-20	***	5.89	***	2.59	5.50	No Odor
									57.50	**TOTAL GALLONS PURGED**

Site Activity Summary

UST Permit #: 04887
Facility Name: Warren Green
County: Jasper
Field Personnel: A. Best, P. Wylie

Midlands Environmental Consultants, Inc.

Sample ID	Sampled?	Date	Time	Screened Interval	Depth to Product (ft)	Depth to Water (ft)	Product Thickness (ft)	DO (mg/l)	# Gals. Purged	Comments
DW-1	Y	2/12/15	12:08	45-50	***	1.25	***	3.52	3.50	No Odor / Well Potentially Collapsed, Heavy Silt
DW-2	Y	2/12/15	11:46	45-50	***	4.59	***	3.29	8.00	No Odor / Well Potentially Collapsed, Heavy Silt
DW-3	Y	2/12/15	10:45	45-50	***	6.26	***	3.38	7.50	No Odor
DW-4	Y	2/12/15	10:56	45-50	***	6.6	***	4.47	8.00	No Odor
DW-5	Y	2/12/15	12:01	80-85	***	7.71	***	4.99	13.50	No Odor / Well Potentially Collapsed, Heavy Silt
DW-6	Y	2/12/15	11:27	80-85	***	8.22	***	5.18	6.00	No Odor / Well Potentially Collapsed, Heavy Silt
WSW-1	Y	2/12/15	12:19	***	***	***	***	***	***	235 Bowers Lane / Spigot on House
WSW-2	Y	2/12/15	12:24	***	***	***	***	***	***	299 Bowers Lane / Spigot on WSW
WSW-3	Y	2/12/15	12:35	***	***	***	***	***	***	10951 Frontage Road / Spigot on WSW
WSW-4	Y	2/12/15	12:39	***	***	***	***	***	***	10943 Frontage Road / Spigot on WSW
MW-3R Dup.	Y	2/12/15	11:54	***	***	***	***	***	***	Duplicate Sample
MW-5 Dup.	Y	2/12/15	10:37	***	***	***	***	***	***	Duplicate Sample
Field Blank	Y	2/12/15	16:18	***	***	***	***	***	***	Field Blank
Trip Blank	Y	2/12/15	12:19	***	***	***	***	***	***	Laboratory Prepared Trip Blank
									46.50	**TOTAL GALLONS PURGED**

South Carolina Department of Health and Environmental Control
Bureau of Land and Waste Management Underground Storage Tank Program

Field Data Information Sheet for Groundwater Sampling

Date (mm/dd/yy): 2/12/2015

Field Personnel: Adrian Best, Peter Wylie

General Weather Conditions: Partly Cloudy

Ambient Air Temperature: 19.4 °C

Quality Assurance

pH/Conductivity Meter		**DO Meter**	
YSI 63		**YSI 550A**	
09C 101302		04L 2026AK	
10K 101895	X	08B 101895	X
07M 100905		04A 0912AI	
Calibration Buffer:	4, 7, & 10		

Chain of Custody

Relinquished by	Date/Time	Received by	Date/Time

Facility Name: Warren Green

Site ID#: 04887 **Monitoring Well #** MW-1

Water Supply Well **Public** ____ **Private** ____

Monitoring Well Diameter (D): 2 inches

Conversion Factor (C): $3.14 \times (D/2)^2$ for a 2 inch well C=0.163; for a 4 inch well C=0.652

* Free Product Thickness: ____ feet

Depth to Free Product (DFP) ____ feet

Depth to Ground Water (DGW) 1.23 feet

Total Well Depth (TWD) 12 feet

Length of the water column (LWC=TWD-DGW) 10.77 feet

1 casing volume (CV=LWC X C)= ____ X 0.163 1.76 gallons

5 casing volume (5 X CV)= 5 8.78 gallons

Total Volume of Water Purged Before Sampling 1.5 gals.

*If free product is present over 1/8 inch, sampling will not be required.

Cumulative Volume Purged (gallons)	Inital	1st Vol	2nd Vol	3rd Vol	4th Vol	5th Vol	Post Sampling	
Time (military)	12:15	12:16						
pH (s.u.)	5.70	5.68						
Specific Conductivity (μmhos/cm)	41.7	37.8						
Water Temperature (°C)	14.9	15.0						
Dissolved Oxygen	2.45	2.31						
Turbidity (NTU)	55.47	68.82						
PID readings, if required								

Remarks: Sample Time: 12:16 **Dry @ 1.5 Gallons**

South Carolina Department of Health and Environmental Control
Bureau of Land and Waste Management Underground Storage Tank Program

Field Data Information Sheet for Groundwater Sampling

Date (mm/dd/yy): 2/12/2015
Field Personnel: Adrian Best, Peter Wylie
General Weather Conditions: Partly Cloudy

Ambient Air Temperature: 19.4 °C

Quality Assurance

pH/Conductivity Meter		**DO Meter**	
YSI 63		**YSI 550A**	
09C 101302		04L 2026AK	
10K 101895	X	08B 101895	X
07M 100905		04A 0912AI	
Calibration Buffer:	4, 7, & 10		

Chain of Custody

Relinquished by	Date/Time	Received by	Date/Time

Facility Name: Warren Green
Site ID#: 04887 **Monitoring Well #** MW-2
Water Supply Well **Public** ______ **Private** ______

Monitoring Well Diameter (D): 2 inches

Conversion Factor (C): 3.14 x $(D/2)^2$ for a 2 inch well C=0.163
for a 4 inch well C=0.652

* Free Product Thickness: ______ feet
Depth to Free Product (DFP) ______ feet
Depth to Ground Water (DGW) 4.89 feet
Total Well Depth (TWD) 15 feet
Length of the water column (LWC=TWD-DGW) 10.11 feet
1 casing volume (CV=LWC X C)= ______ X 0.163 1.65 gallons
5 casing volume (5 X CV)= 5 8.24 gallons

Total Volume of Water Purged Before Sampling 2 gals.
*If free product is present over 1/8 inch, sampling will not be required.

Cumulative Volume Purged (gallons)	Inital	1st Vol	2nd Vol	3rd Vol	4th Vol	5th Vol	Post Sampling	
Time (military)	11:49	11:50						
pH (s.u.)	6.41	6.55						
Specific Conductivity (μmhos/cm)	168.2	139.1						
Water Temperature (℃)	16.8	16.8						
Dissolved Oxygen	4.80	4.53						
Turbidity (NTU)	51.69	60.78						
PID readings, if required								

Remarks: Sample Time: 11:50 **Dry @ 2.0 Gallons**

South Carolina Department of Health and Environmental Control
Bureau of Land and Waste Management Underground Storage Tank Program

Field Data Information Sheet for Groundwater Sampling

Date (mm/dd/yy): 2/12/2015
Field Personnel: Adrian Best, Peter Wylie
General Weather Conditions: Partly Cloudy

Ambient Air Temperature: 19.4 °C

Quality Assurance

pH/Conductivity Meter		**DO Meter**	
YSI 63		**YSI 550A**	
09C 101302		04L 2026AK	
10K 101895	X	08B 101895	X
07M 100905		04A 0912AI	
Calibration Buffer:	4, 7, & 10		

Chain of Custody

Relinquished by	Date/Time	Received by	Date/Time

Facility Name: Warren Green
Site ID#: 04887 **Monitoring Well #** MW-3R
Water Supply Well **Public** ______ **Private** ______

Monitoring Well Diameter (D): 2 inches

Conversion Factor (C): $3.14 \times (D/2)^2$ for a 2 inch well C=0.163; for a 4 inch well C=0.652

* Free Product Thickness: ______ feet
Depth to Free Product (DFP) ______ feet
Depth to Ground Water (DGW) 5.38 feet
Total Well Depth (TWD) 20 feet
Length of the water column (LWC=TWD-DGW) 14.62 feet
1 casing volume (CV=LWC X C)= ______ X 0.163 = 2.38 gallons
5 casing volume (5 X CV)= 5 | 11.92 gallons

Total Volume of Water Purged Before Sampling 5 gals.
*If free product is present over 1/8 inch, sampling will not be required.

Cumulative Volume Purged (gallons)	Inital	1st Vol	2nd Vol	3rd Vol	4th Vol	5th Vol	Post Sampling	
Time (military)	11:52	11:53	11:54					
pH (s.u.)	6.48	6.39	6.26					
Specific Conductivity (μmhos/cm)	82.3	71.6	85.0					
Water Temperature (°C)	17.6	17.7	17.7					
Dissolved Oxygen	2.84	2.99	3.08					
Turbidity (NTU)	63.61	78.56	81.45					
PID readings, if required								

Remarks: Sample Time: 11:50 **Dry @ 5.0 Gallons**

South Carolina Department of Health and Environmental Control
Bureau of Land and Waste Management Underground Storage Tank Program

Field Data Information Sheet for Groundwater Sampling

Date (mm/dd/yy): 2/12/2015
Field Personnel: Adrian Best, Peter Wylie
General Weather Conditions: Partly Cloudy

Ambient Air Temperature: 19.4 °C

Quality Assurance

pH/Conductivity Meter		**DO Meter**	
YSI 63		**YSI 550A**	
09C 101302		04L 2026AK	
10K 101895	X	08B 101895	X
07M 100905		04A 0912AI	
Calibration Buffer:	4, 7, & 10		

Chain of Custody

Relinquished by | Date/Time | Received by | Date/Time

Facility Name: Warren Green
Site ID#: 04887 **Monitoring Well #** MW-4
Water Supply Well **Public** ______ **Private** ______

Monitoring Well Diameter (D): 2 inches

Conversion Factor (C): 3.14 x $(D/2)^2$ for a 2 inch well C=0.163
for a 4 inch well C=0.652

* Free Product Thickness: ______ feet
Depth to Free Product (DFP) ______ feet
Depth to Ground Water (DGW) 4.94 feet
Total Well Depth (TWD) 20 feet
Length of the water column (LWC=TWD-DGW) 15.06 feet
1 casing volume (CV=LWC X C)= _____ X 0.163 2.45 gallons
5 casing volume (5 X CV)= 5 12.27 gallons

Total Volume of Water Purged Before Sampling 6 gals.
*If free product is present over 1/8 inch, sampling will not be required.

Cumulative Volume Purged (gallons)	Inital	1st Vol	2nd Vol	3rd Vol	4th Vol	5th Vol	Post Sampling	
Time (military)	11:37	11:38	11:39					
pH (s.u.)	6.89	6.67	6.80					
Specific Conductivity (μmhos/cm)	146.7	168.1	179.6					
Water Temperature (℃)	16.6	16.6	16.6					
Dissolved Oxygen	4.76	4.83	4.99					
Turbidity (NTU)	38.01	45.89	65.6					
PID readings, if required								

Remarks: Sample Time: 11:39 **Dry @ 6.0 Gallons**

South Carolina Department of Health and Environmental Control
Bureau of Land and Waste Management Underground Storage Tank Program

Field Data Information Sheet for Groundwater Sampling

Date (mm/dd/yy): 2/12/2015
Field Personnel: Adrian Best, Peter Wylie
General Weather Conditions: Partly Cloudy

Ambient Air Temperature: 19.4 °C

Quality Assurance

pH/Conductivity Meter		**DO Meter**	
YSI 63		**YSI 550A**	
09C 101302		04L 2026AK	
10K 101895	X	08B 101895	X
07M 100905		04A 0912AI	
Calibration Buffer:	4, 7, & 10		

Chain of Custody

Relinquished by	Date/Time	Received by	Date/Time

Facility Name: Warren Green
Site ID#: 04887 **Monitoring Well #** MW-5
Water Supply Well **Public** ______ **Private** ______

Monitoring Well Diameter (D): 2 inches

Conversion Factor (C): 3.14 x $(D/2)^2$ for a 2 inch well C=0.163; for a 4 inch well C=0.652

* Free Product Thickness:		feet
Depth to Free Product (DFP)		feet
Depth to Ground Water (DGW)	4.52	feet
Total Well Depth (TWD)	20	feet
Length of the water column (LWC=TWD-DGW)	15.48	feet
1 casing volume (CV=LWC X C)= ____ X 0.163	2.52	gallons
5 casing volume (5 X CV)= 5	12.62	gallons

Total Volume of Water Purged Before Sampling 6 gals.

*If free product is present over 1/8 inch, sampling will not be required.

Cumulative Volume Purged (gallons)	Inital	1st Vol	2nd Vol	3rd Vol	4th Vol	5th Vol	Post Sampling	
Time (military)	10:35	10:36	10:37					
pH (s.u.)	7.31	7.27	7.50					
Specific Conductivity (μmhos/cm)	7.6	12.6	21.8					
Water Temperature (°C)	16.9	16.9	16.9					
Dissolved Oxygen	5.02	5.39	5.44					
Turbidity (NTU)	24.64	31.59	48.2					
PID readings, if required								

Remarks: Sample Time: 10:37 **Dry @ 6.0 Gallons**

South Carolina Department of Health and Environmental Control
Bureau of Land and Waste Management Underground Storage Tank Program

Field Data Information Sheet for Groundwater Sampling

Date (mm/dd/yy): 2/12/2015
Field Personnel: Adrian Best, Peter Wylie
General Weather Conditions: Partly Cloudy

Ambient Air Temperature: 19.4 °C

Quality Assurance

pH/Conductivity Meter		**DO Meter**	
YSI 63		**YSI 550A**	
09C 101302		04L 2026AK	
10K 101895	X	08B 101895	X
07M 100905		04A 0912AI	
Calibration Buffer:	4, 7, & 10		

Chain of Custody

Relinquished by	Date/Time	Received by	Date/Time

Facility Name: Warren Green
Site ID#: 04887 **Monitoring Well #** MW-6
Water Supply Well **Public** ______ **Private** ______

Monitoring Well Diameter (D): 2 inches

Conversion Factor (C): 3.14 x $(D/2)^2$ for a 2 inch well C=0.163
for a 4 inch well C=0.652

* Free Product Thickness: ______ feet
Depth to Free Product (DFP) ______ feet
Depth to Ground Water (DGW) 3.02 feet
Total Well Depth (TWD) 20 feet
Length of the water column (LWC=TWD-DGW) 16.98 feet
1 casing volume (CV=LWC X C)= ____ X 0.163 2.77 gallons
5 casing volume (5 X CV)= 5 13.84 gallons

Total Volume of Water Purged Before Sampling 5.5 gals.
*If free product is present over 1/8 inch, sampling will not be required.

Cumulative Volume Purged (gallons)	Inital	1st Vol	2nd Vol	3rd Vol	4th Vol	5th Vol	Post Sampling	
Time (military)	10:47	10:48	10:49					
pH (s.u.)	6.76	6.70	6.57					
Specific Conductivity (μmhos/cm)	59.6	65.1	77.3					
Water Temperature (°C)	16.4	16.5	16.6					
Dissolved Oxygen	5.29	5.35	5.42					
Turbidity (NTU)	49.31	54.68	70.45					
PID readings, if required								

Remarks: Sample Time: 10:49 **Dry @ 5.5 Gallons**

South Carolina Department of Health and Environmental Control
Bureau of Land and Waste Management Underground Storage Tank Program

Field Data Information Sheet for Groundwater Sampling

Date (mm/dd/yy): 2/12/2015
Field Personnel: Adrian Best, Peter Wylie
General Weather Conditions: Partly Cloudy

Ambient Air Temperature: 19.4 **°C**

Quality Assurance

pH/Conductivity Meter		**DO Meter**	
YSI 63		**YSI 550A**	
09C 101302		04L 2026AK	
10K 101895	X	08B 101895	X
07M 100905		04A 0912AI	
Calibration Buffer:	4, 7, & 10		

Chain of Custody

Relinquished by	Date/Time	Received by	Date/Time

Facility Name: Warren Green
Site ID#: 04887 **Monitoring Well #** MW-7
Water Supply Well **Public** ______ **Private** ______

Monitoring Well Diameter (D): 2 inches

Conversion Factor (C): $3.14 \times (D/2)^2$ for a 2 inch well C=0.163; for a 4 inch well C=0.652

* Free Product Thickness:		feet
Depth to Free Product (DFP)		feet
Depth to Ground Water (DGW)	6.25	feet
Total Well Depth (TWD)	20	feet
Length of the water column (LWC=TWD-DGW)	13.75	feet
1 casing volume (CV=LWC X C)= _____ X 0.163	2.24	gallons
5 casing volume (5 X CV)= 5	11.21	gallons

Total Volume of Water Purged Before Sampling 5 gals.

*If free product is present over 1/8 inch, sampling will not be required.

Cumulative Volume Purged (gallons)	Inital	1st Vol	2nd Vol	3rd Vol	4th Vol	5th Vol	Post Sampling	
Time (military)	12:10	12:11	12:12					
pH (s.u.)	6.19	6.25	6.33					
Specific Conductivity (μmhos/cm)	28.3	36.8	45.1					
Water Temperature (°C)	14.0	14.1	14.1					
Dissolved Oxygen	2.96	2.91	2.83					
Turbidity (NTU)	31.30	50.61	75.56					
PID readings, if required								

Remarks: Sample Time: 12:12 **Dry @ 5.0 Gallons**

South Carolina Department of Health and Environmental Control
Bureau of Land and Waste Management Underground Storage Tank Program

Field Data Information Sheet for Groundwater Sampling

Date (mm/dd/yy): 2/12/2015
Field Personnel: Adrian Best, Peter Wylie
General Weather Conditions: Partly Cloudy

Ambient Air Temperature: 19.4 °C

Quality Assurance

pH/Conductivity Meter		**DO Meter**	
YSI 63		**YSI 550A**	
09C 101302		04L 2026AK	
10K 101895	X	08B 101895	X
07M 100905		04A 0912AI	
Calibration Buffer:	4, 7, & 10		

Chain of Custody

Relinquished by	Date/Time	Received by	Date/Time

Facility Name: Warren Green
Site ID#: 04887 **Monitoring Well #** MW-8
Water Supply Well **Public** ______ **Private** ______

Monitoring Well Diameter (D): 2 inches

Conversion Factor (C): $3.14 \times (D/2)^2$ for a 2 inch well C=0.163
for a 4 inch well C=0.652

* Free Product Thickness:		feet
Depth to Free Product (DFP)		feet
Depth to Ground Water (DGW)	6.34	feet
Total Well Depth (TWD)	20	feet
Length of the water column (LWC=TWD-DGW)	13.66	feet
1 casing volume (CV=LWC X C)= _____ X 0.163	2.23	gallons
5 casing volume (5 X CV)= 5	11.13	gallons

Total Volume of Water Purged Before Sampling 2 gals.

*If free product is present over 1/8 inch, sampling will not be required.

Cumulative Volume Purged (gallons)	Inital	1st Vol	2nd Vol	3rd Vol	4th Vol	5th Vol	Post Sampling	
Time (military)	11:30	11:31						
pH (s.u.)	6.18	6.25						
Specific Conductivity (μmhos/cm)	21.6	27.9						
Water Temperature (°C)	17.7	17.7						
Dissolved Oxygen	3.62	3.70						
Turbidity (NTU)	69.10	76.32						
PID readings, if required								

Remarks: Sample Time: 11:31 **Dry @ 2.0 Gallons**

South Carolina Department of Health and Environmental Control
Bureau of Land and Waste Management Underground Storage Tank Program

Field Data Information Sheet for Groundwater Sampling

Date (mm/dd/yy): 2/12/2015
Field Personnel: Adrian Best, Peter Wylie
General Weather Conditions: Partly Cloudy

Ambient Air Temperature: 19.4 **°C**

Quality Assurance

pH/Conductivity Meter		**DO Meter**	
YSI 63		**YSI 550A**	
09C 101302		04L 2026AK	
10K 101895	X	08B 101895	X
07M 100905		04A 0912AI	
Calibration Buffer:	4, 7, & 10		

Chain of Custody

Relinquished by	Date/Time	Received by	Date/Time

Facility Name: Warren Green
Site ID#: 04887 **Monitoring Well #** MW-9
Water Supply Well **Public** ______ **Private** ______

Monitoring Well Diameter (D): 2 inches

Conversion Factor (C): 3.14 x $(D/2)^2$ for a 2 inch well C=0.163; for a 4 inch well C=0.652

* Free Product Thickness:		feet
Depth to Free Product (DFP)		feet
Depth to Ground Water (DGW)	9.73	feet
Total Well Depth (TWD)	20	feet
Length of the water column (LWC=TWD-DGW)	10.27	feet
1 casing volume (CV=LWC X C)= _____ X 0.163	1.67	gallons
5 casing volume (5 X CV)= 5	8.37	gallons

Total Volume of Water Purged Before Sampling 1.5 gals.
*If free product is present over 1/8 inch, sampling will not be required.

Cumulative Volume Purged (gallons)	Inital	1st Vol	2nd Vol	3rd Vol	4th Vol	5th Vol	Post Sampling	
Time (military)	11:19	11:20						
pH (s.u.)	5.87	5.91						
Specific Conductivity (μmhos/cm)	81.4	93.5						
Water Temperature (°C)	20.3	20.3						
Dissolved Oxygen	2.11	2.18						
Turbidity (NTU)	88.46	103.7						
PID readings, if required								

Remarks: Sample Time: 11:20 **Dry @ 1.5 Gallons**

South Carolina Department of Health and Environmental Control
Bureau of Land and Waste Management Underground Storage Tank Program

Field Data Information Sheet for Groundwater Sampling

Date (mm/dd/yy): 2/12/2015
Field Personnel: Adrian Best, Peter Wylie
General Weather Conditions: Partly Cloudy

Ambient Air Temperature: 19.4 °C

Quality Assurance

pH/Conductivity Meter		**DO Meter**	
YSI 63		**YSI 550A**	
09C 101302		04L 2026AK	
10K 101895	X	08B 101895	X
07M 100905		04A 0912AI	
Calibration Buffer:	4, 7, & 10		

Chain of Custody

Relinquished by	Date/Time	Received by	Date/Time

Facility Name: Warren Green
Site ID#: 04887 **Monitoring Well #** MW-10
Water Supply Well **Public** ______ **Private** ______

Monitoring Well Diameter (D): 2 inches

Conversion Factor (C): $3.14 \times (D/2)^2$ for a 2 inch well C=0.163; for a 4 inch well C=0.652

* Free Product Thickness: ______ feet
Depth to Free Product (DFP) ______ feet
Depth to Ground Water (DGW) 10.41 feet
Total Well Depth (TWD) 20 feet
Length of the water column (LWC=TWD-DGW) 9.59 feet
1 casing volume (CV=LWC X C)= ____ X 0.163 | 1.56 | gallons
5 casing volume (5 X CV)= 5 | 7.82 | gallons

Total Volume of Water Purged Before Sampling 2 gals.
*If free product is present over 1/8 inch, sampling will not be required.

Cumulative Volume Purged (gallons)	Inital	1st Vol	2nd Vol	3rd Vol	4th Vol	5th Vol	Post Sampling	
Time (military)	11:07	11:08						
pH (s.u.)	6.31	6.40						
Specific Conductivity (μmhos/cm)	83.8	90.6						
Water Temperature (℃)	20.1	20.1						
Dissolved Oxygen	1.89	1.96						
Turbidity (NTU)	61.60	103.7						
PID readings, if required								

Remarks: Sample Time: 11:08 **Dry @ 2.0 Gallons**

South Carolina Department of Health and Environmental Control
Bureau of Land and Waste Management Underground Storage Tank Program

Field Data Information Sheet for Groundwater Sampling

Date (mm/dd/yy): 2/12/2015

Field Personnel: Adrian Best, Peter Wylie

General Weather Conditions: Partly Cloudy

Ambient Air Temperature: 19.4 °C

Quality Assurance

pH/Conductivity Meter		**DO Meter**	
YSI 63		**YSI 550A**	
09C 101302		04L 2026AK	
10K 101895	X	08B 101895	X
07M 100905		04A 0912AI	
Calibration Buffer:	4, 7, & 10		

Chain of Custody

Relinquished by	Date/Time	Received by	Date/Time

Facility Name: Warren Green

Site ID#: 04887 **Monitoring Well #** MW-11

Water Supply Well **Public** ______ **Private** ______

Monitoring Well Diameter (D): 2 inches

Conversion Factor (C): $3.14 \times (D/2)^2$ for a 2 inch well C=0.163; for a 4 inch well C=0.652

* Free Product Thickness: ______ feet
Depth to Free Product (DFP) ______ feet
Depth to Ground Water (DGW) 10.10 feet
Total Well Depth (TWD) 20 feet
Length of the water column (LWC=TWD-DGW) 9.9 feet
1 casing volume (CV=LWC X C)= ______ X 0.163 | 1.61 | gallons
5 casing volume (5 X CV)= 5 | 8.07 | gallons

Total Volume of Water Purged Before Sampling 1.5 gals.

*If free product is present over 1/8 inch, sampling will not be required.

Cumulative Volume Purged (gallons)	Inital	1st Vol	2nd Vol	3rd Vol	4th Vol	5th Vol	Post Sampling	
Time (military)	11:11	11:12						
pH (s.u.)	6.20	6.32						
Specific Conductivity (μmhos/cm)	76.1	88.9						
Water Temperature (°C)	20.2	20.3						
Dissolved Oxygen	2.48	2.57						
Turbidity (NTU)	128.9	134.6						
PID readings, if required								

Remarks: Sample Time: 11:12 **Dry @ 1.5 Gallons**

South Carolina Department of Health and Environmental Control
Bureau of Land and Waste Management Underground Storage Tank Program

Field Data Information Sheet for Groundwater Sampling

Date (mm/dd/yy): 2/12/2015
Field Personnel: Adrian Best, Peter Wylie
General Weather Conditions: Partly Cloudy

Ambient Air Temperature: 19.4 °C

Quality Assurance

pH/Conductivity Meter		**DO Meter**	
YSI 63		**YSI 550A**	
09C 101302		04L 2026AK	
10K 101895	X	08B 101895	X
07M 100905		04A 0912AI	
Calibration Buffer:	4, 7, & 10		

Chain of Custody

Relinquished by	Date/Time	Received by	Date/Time

Facility Name: Warren Green
Site ID#: 04887 **Monitoring Well #** MW-12
Water Supply Well **Public** ______ **Private** ______

Monitoring Well Diameter (D): 2 inches

Conversion Factor (C): 3.14 x $(D/2)^2$ for a 2 inch well C=0.163
for a 4 inch well C=0.652

* Free Product Thickness: ______ feet
Depth to Free Product (DFP) ______ feet
Depth to Ground Water (DGW) 10.10 feet
Total Well Depth (TWD) 20 feet
Length of the water column (LWC=TWD-DGW) 9.9 feet
1 casing volume (CV=LWC X C)= _____ X 0.163 1.61 gallons
5 casing volume (5 X CV)= 5 8.07 gallons

Total Volume of Water Purged Before Sampling 2 gals.
*If free product is present over 1/8 inch, sampling will not be required.

Cumulative Volume Purged (gallons)	Inital	1st Vol	2nd Vol	3rd Vol	4th Vol	5th Vol	Post Sampling	
Time (military)	11:15	11:16						
pH (s.u.)	6.08	6.19						
Specific Conductivity (μmhos/cm)	94.1	120.8						
Water Temperature (°C)	19.6	19.5						
Dissolved Oxygen	5.50	5.71						
Turbidity (NTU)	27.71	34.62						
PID readings, if required								

Remarks: Sample Time: 11:16 **Dry @ 2.0 Gallons**

South Carolina Department of Health and Environmental Control
Bureau of Land and Waste Management Underground Storage Tank Program

Field Data Information Sheet for Groundwater Sampling

Date (mm/dd/yy): 2/12/2015
Field Personnel: Adrian Best, Peter Wylie
General Weather Conditions: Partly Cloudy

Ambient Air Temperature: 19.4 °C

Quality Assurance

pH/Conductivity Meter		**DO Meter**	
YSI 63		**YSI 550A**	
09C 101302		04L 2026AK	
10K 101895	X	08B 101895	X
07M 100905		04A 0912AI	
Calibration Buffer:	4, 7, & 10		

Chain of Custody

Relinquished by	Date/Time	Received by	Date/Time

Facility Name: Warren Green
Site ID#: 04887 **Monitoring Well #** MW-13
Water Supply Well **Public** ______ **Private** ______

Monitoring Well Diameter (D): 2 inches

Conversion Factor (C): $3.14 \times (D/2)^2$ for a 2 inch well C=0.163
for a 4 inch well C=0.652

* Free Product Thickness: ______ feet
Depth to Free Product (DFP) ______ feet
Depth to Ground Water (DGW) 7.35 feet
Total Well Depth (TWD) 20 feet
Length of the water column (LWC=TWD-DGW) 12.65 feet
1 casing volume (CV=LWC X C)= ______ X 0.163 2.06 gallons
5 casing volume (5 X CV)= 5 10.31 gallons

Total Volume of Water Purged Before Sampling 4 gals.
*If free product is present over 1/8 inch, sampling will not be required.

Cumulative Volume Purged (gallons)	Inital	1st Vol	2nd Vol	3rd Vol	4th Vol	5th Vol	Post Sampling	
Time (military)	11:02	11:03	11:04					
pH (s.u.)	5.95	6.13	6.19					
Specific Conductivity (μmhos/cm)	60.6	85.1	97.5					
Water Temperature (°C)	18.0	18.0	18.0					
Dissolved Oxygen	2.02	2.31	2.24					
Turbidity (NTU)	98.70	110.3	131.5					
PID readings, if required								

Remarks: Sample Time: 11:04 **Dry @ 2.0 Gallons**

South Carolina Department of Health and Environmental Control
Bureau of Land and Waste Management Underground Storage Tank Program

Field Data Information Sheet for Groundwater Sampling

Date (mm/dd/yy): 2/12/2015
Field Personnel: Adrian Best, Peter Wylie
General Weather Conditions: Partly Cloudy

Ambient Air Temperature: 19.4 °C

Quality Assurance

pH/Conductivity Meter		**DO Meter**	
YSI 63		**YSI 550A**	
09C 101302		04L 2026AK	
10K 101895	X	08B 101895	X
07M 100905		04A 0912AI	
Calibration Buffer:	4, 7, & 10		

Chain of Custody

Relinquished by	Date/Time	Received by	Date/Time

Facility Name: Warren Green
Site ID#: 04887 **Monitoring Well #** MW-14
Water Supply Well **Public** ______ **Private** ______

Monitoring Well Diameter (D): 2 inches

Conversion Factor (C): 3.14 x $(D/2)^2$ for a 2 inch well C=0.163; for a 4 inch well C=0.652

* Free Product Thickness:		feet
Depth to Free Product (DFP)		feet
Depth to Ground Water (DGW)	6.21	feet
Total Well Depth (TWD)	20	feet
Length of the water column (LWC=TWD-DGW)	13.79	feet
1 casing volume (CV=LWC X C)= ____ X 0.163	2.25	gallons
5 casing volume (5 X CV)= 5	11.24	gallons

Total Volume of Water Purged Before Sampling 5 gals.
*If free product is present over 1/8 inch, sampling will not be required.

Cumulative Volume Purged (gallons)	Inital	1st Vol	2nd Vol	3rd Vol	4th Vol	5th Vol	Post Sampling	
Time (military)	10:58	10:59	11:00					
pH (s.u.)	6.27	6.31	6.45					
Specific Conductivity (μmhos/cm)	65.0	79.2	86.1					
Water Temperature (°C)	16.9	16.9	17.0					
Dissolved Oxygen	3.10	3.14	3.23					
Turbidity (NTU)	31.56	48.87	66.15					
PID readings, if required								

Remarks: Sample Time: 11:00 **Dry @ 5.0 Gallons**

South Carolina Department of Health and Environmental Control
Bureau of Land and Waste Management Underground Storage Tank Program

Field Data Information Sheet for Groundwater Sampling

Date (mm/dd/yy): 2/12/2015
Field Personnel: Adrian Best, Peter Wylie
General Weather Conditions: Partly Cloudy

Ambient Air Temperature: 19.4 **°C**

Quality Assurance

pH/Conductivity Meter		**DO Meter**	
YSI 63		**YSI 550A**	
09C 101302		04L 2026AK	
10K 101895	X	08B 101895	X
07M 100905		04A 0912AI	
Calibration Buffer:	4, 7, & 10		

Chain of Custody

Relinquished by	Date/Time	Received by	Date/Time

Facility Name: Warren Green
Site ID#: 04887 **Monitoring Well #** MW-15
Water Supply Well **Public** ______ **Private** ______

Monitoring Well Diameter (D): 2 inches

Conversion Factor (C): $3.14 \times (D/2)^2$ for a 2 inch well C=0.163
for a 4 inch well C=0.652

* Free Product Thickness:		feet
Depth to Free Product (DFP)		feet
Depth to Ground Water (DGW)	5.89	feet
Total Well Depth (TWD)	20	feet
Length of the water column (LWC=TWD-DGW)	14.11	feet
1 casing volume (CV=LWC X C)= _____ X 0.163	2.30	gallons
5 casing volume (5 X CV)= 5	11.50	gallons

Total Volume of Water Purged Before Sampling 5.5 gals.

*If free product is present over 1/8 inch, sampling will not be required.

Cumulative Volume Purged (gallons)	Inital	1st Vol	2nd Vol	3rd Vol	4th Vol	5th Vol	Post Sampling	
Time (military)	11:33	11:34	11:35					
pH (s.u.)	6.84	6.99	7.03					
Specific Conductivity (μmhos/cm)	73.4	88.1	90.5					
Water Temperature (°C)	16.3	16.4	16.4					
Dissolved Oxygen	2.59	2.66	2.71					
Turbidity (NTU)	71.46	85.94	91.75					
PID readings, if required								

Remarks: Sample Time: 11:35 **Dry @ 5.5 Gallons**

South Carolina Department of Health and Environmental Control
Bureau of Land and Waste Management Underground Storage Tank Program

Field Data Information Sheet for Groundwater Sampling

Date (mm/dd/yy): 2/12/2015
Field Personnel: Adrian Best, Peter Wylie
General Weather Conditions: Partly Cloudy

Ambient Air Temperature: 19.4 °C

Quality Assurance

pH/Conductivity Meter		**DO Meter**	
YSI 63		**YSI 550A**	
09C 101302		04L 2026AK	
10K 101895	X	08B 101895	X
07M 100905		04A 0912AI	
Calibration Buffer:	4, 7, & 10		

Chain of Custody

Relinquished by Date/Time Received by Date/Time

Facility Name: Warren Green
Site ID#: 04887 **Monitoring Well #** DW-1
Water Supply Well **Public** ____ **Private** ____

Monitoring Well Diameter (D): 2 inches

Conversion Factor (C): 3.14 x $(D/2)^2$ for a 2 inch well C=0.163
for a 4 inch well C=0.652

* Free Product Thickness: ____ feet
Depth to Free Product (DFP) ____ feet
Depth to Ground Water (DGW) 1.25 feet
Total Well Depth (TWD) 50 feet
Length of the water column (LWC=TWD-DGW) 48.75 feet
1 casing volume (CV=LWC X C)= ____ X 0.163 7.95 gallons
5 casing volume (5 X CV)= 5 39.73 gallons

Total Volume of Water Purged Before Sampling 3.5 gals.
*If free product is present over 1/8 inch, sampling will not be required.

Cumulative Volume Purged (gallons)	Inital	1st Vol	2nd Vol	3rd Vol	4th Vol	5th Vol	Post Sampling	
Time (military)	12:03	12:08						
pH (s.u.)	6.17	6.21						
Specific Conductivity (μmhos/cm)	51.5	63.8						
Water Temperature (°C)	16.1	16.1						
Dissolved Oxygen	3.52	3.80						
Turbidity (NTU)	25.40	29.60						
PID readings, if required								

Remarks: Sample Time: 11:35 **Dry @ 3.5 Gallons**

South Carolina Department of Health and Environmental Control
Bureau of Land and Waste Management Underground Storage Tank Program

Field Data Information Sheet for Groundwater Sampling

Date (mm/dd/yy): 2/12/2015
Field Personnel: Adrian Best, Peter Wylie
General Weather Conditions: Partly Cloudy

Ambient Air Temperature: 19.4 °C

Quality Assurance

pH/Conductivity Meter		**DO Meter**	
YSI 63		**YSI 550A**	
09C 101302		04L 2026AK	
10K 101895	X	08B 101895	X
07M 100905		04A 0912AI	
Calibration Buffer:	4, 7, & 10		

Chain of Custody

Relinquished by   Date/Time   Received by   Date/Time

Facility Name: Warren Green
Site ID#: 04887   **Monitoring Well #** DW-2
Water Supply Well   **Public** ____   **Private** ____

Monitoring Well Diameter (D): 2 inches

Conversion Factor (C): $3.14 \times (D/2)^2$ for a 2 inch well C=0.163
for a 4 inch well C=0.652

* Free Product Thickness:		feet
Depth to Free Product (DFP)		feet
Depth to Ground Water (DGW)	4.59	feet
Total Well Depth (TWD)	50	feet
Length of the water column (LWC=TWD-DGW)	45.41	feet
1 casing volume (CV=LWC X C)= ____ X 0.163	7.40	gallons
5 casing volume (5 X CV)= 5	37.01	gallons

Total Volume of Water Purged Before Sampling 8 gals.

*If free product is present over 1/8 inch, sampling will not be required.

Cumulative Volume Purged (gallons)	Inital	1st Vol	2nd Vol	3rd Vol	4th Vol	5th Vol	Post Sampling	
Time (military)	11:41	11:46						
pH (s.u.)	5.66	5.71						
Specific Conductivity (μmhos/cm)	26.7	40.1						
Water Temperature (°C)	17.0	17.0						
Dissolved Oxygen	3.29	3.40						
Turbidity (NTU)	71.10	73.30						
PID readings, if required								

Remarks: Sample Time: 11:46 **Dry @ 3.5 Gallons**

South Carolina Department of Health and Environmental Control
Bureau of Land and Waste Management Underground Storage Tank Program

Field Data Information Sheet for Groundwater Sampling

Date (mm/dd/yy): 2/12/2015
Field Personnel: Adrian Best, Peter Wylie
General Weather Conditions: Partly Cloudy

Ambient Air Temperature: 19.4 °C

Quality Assurance

pH/Conductivity Meter		**DO Meter**	
YSI 63		**YSI 550A**	
09C 101302		04L 2026AK	
10K 101895	X	08B 101895	X
07M 100905		04A 0912AI	
Calibration Buffer:	4, 7, & 10		

Chain of Custody

Relinquished by	Date/Time	Received by	Date/Time

Facility Name: Warren Green
Site ID#: 04887 **Monitoring Well #** DW-3
Water Supply Well **Public** ____ **Private** ____

Monitoring Well Diameter (D): 2 inches

Conversion Factor (C): 3.14 x $(D/2)^2$ for a 2 inch well C=0.163; for a 4 inch well C=0.652

* Free Product Thickness: ____ feet
Depth to Free Product (DFP) ____ feet
Depth to Ground Water (DGW) 6.26 feet
Total Well Depth (TWD) 50 feet
Length of the water column (LWC=TWD-DGW) 43.74 feet
1 casing volume (CV=LWC X C)= ____ X 0.163 | 7.13 | gallons
5 casing volume (5 X CV)= 5 | 35.65 | gallons

Total Volume of Water Purged Before Sampling 7.5 gals.
*If free product is present over 1/8 inch, sampling will not be required.

Cumulative Volume Purged (gallons)	Inital	1st Vol	2nd Vol	3rd Vol	4th Vol	5th Vol	Post Sampling	
Time (military)	10:40	10:45						
pH (s.u.)	7.19	7.23						
Specific Conductivity (μmhos/cm)	21.8	29.1						
Water Temperature (℃)	17.0	17.0						
Dissolved Oxygen	3.38	3.46						
Turbidity (NTU)	43.00	57.50						
PID readings, if required								

Remarks: Sample Time: 10:45 **Dry @ 7.5 Gallons**

South Carolina Department of Health and Environmental Control
Bureau of Land and Waste Management Underground Storage Tank Program

Field Data Information Sheet for Groundwater Sampling

Date (mm/dd/yy): 2/12/2015
Field Personnel: Adrian Best, Peter Wylie
General Weather Conditions: Partly Cloudy

Ambient Air Temperature: 19.4 °C

Quality Assurance

pH/Conductivity Meter		**DO Meter**	
YSI 63		**YSI 550A**	
09C 101302		04L 2026AK	
10K 101895	X	08B 101895	X
07M 100905		04A 0912AI	
Calibration Buffer:	4, 7, & 10		

Chain of Custody

Relinquished by Date/Time Received by Date/Time

Facility Name: Warren Green
Site ID#: 04887 **Monitoring Well #** DW-4
Water Supply Well **Public** ____ **Private** ____

Monitoring Well Diameter (D): 2 inches

Conversion Factor (C): $3.14 \times (D/2)^2$ for a 2 inch well C=0.163; for a 4 inch well C=0.652

* Free Product Thickness: ____ feet
Depth to Free Product (DFP) ____ feet
Depth to Ground Water (DGW) 6.60 feet
Total Well Depth (TWD) 50 feet
Length of the water column (LWC=TWD-DGW) 43.4 feet
1 casing volume (CV=LWC X C)= ____ X 0.163 | 7.07 gallons
5 casing volume (5 X CV)= 5 | 35.37 gallons

Total Volume of Water Purged Before Sampling 8 gals.
*If free product is present over 1/8 inch, sampling will not be required.

Cumulative Volume Purged (gallons)	Inital	1st Vol	2nd Vol	3rd Vol	4th Vol	5th Vol	Post Sampling	
Time (military)	10:51	10:56						
pH (s.u.)	6.88	6.90						
Specific Conductivity (μmhos/cm)	57.3	69.0						
Water Temperature (°C)	17.1	17.1						
Dissolved Oxygen	4.47	4.51						
Turbidity (NTU)	120.4	134.9						
PID readings, if required								

Remarks: Sample Time: 10:56 **Dry @ 3.5 Gallons**

South Carolina Department of Health and Environmental Control
Bureau of Land and Waste Management Underground Storage Tank Program

Field Data Information Sheet for Groundwater Sampling

Date (mm/dd/yy): 2/12/2015
Field Personnel: Adrian Best, Peter Wylie
General Weather Conditions: Partly Cloudy

Ambient Air Temperature: 19.4 °C

Quality Assurance

pH/Conductivity Meter		**DO Meter**	
YSI 63		**YSI 550A**	
09C 101302		04L 2026AK	
10K 101895	X	08B 101895	X
07M 100905		04A 0912AI	
Calibration Buffer:	4, 7, & 10		

Chain of Custody

Relinquished by	Date/Time	Received by	Date/Time

Facility Name: Warren Green
Site ID#: 04887 **Monitoring Well #** DW-5
Water Supply Well **Public** ______ **Private** ______

Monitoring Well Diameter (D): 2 inches

Conversion Factor (C): 3.14 x $(D/2)^2$ for a 2 inch well C=0.163
for a 4 inch well C=0.652

* Free Product Thickness: ______ feet
Depth to Free Product (DFP) ______ feet
Depth to Ground Water (DGW) 7.71 feet
Total Well Depth (TWD) 85 feet
Length of the water column (LWC=TWD-DGW) 77.29 feet
1 casing volume (CV=LWC X C)= _____ X 0.163 12.60 gallons
5 casing volume (5 X CV)= 5 62.99 gallons

Total Volume of Water Purged Before Sampling 13.5 gals.
*If free product is present over 1/8 inch, sampling will not be required.

Cumulative Volume Purged (gallons)	Inital	1st Vol	2nd Vol	3rd Vol	4th Vol	5th Vol	Post Sampling	
Time (military)	11:56	12:01						
pH (s.u.)	6.61	6.73						
Specific Conductivity (μmhos/cm)	48.7	59.1						
Water Temperature (℃)	18.2	18.2						
Dissolved Oxygen	4.99	5.03						
Turbidity (NTU)	50.89	56.13						
PID readings, if required								

Remarks: Sample Time: 12:01 **Dry @ 13.5 Gallons**

South Carolina Department of Health and Environmental Control
Bureau of Land and Waste Management Underground Storage Tank Program

Field Data Information Sheet for Groundwater Sampling

Date (mm/dd/yy): 2/12/2015
Field Personnel: Adrian Best, Peter Wylie
General Weather Conditions: Partly Cloudy

Ambient Air Temperature: 19.4 °C

Quality Assurance

pH/Conductivity Meter		**DO Meter**	
YSI 63		**YSI 550A**	
09C 101302		04L 2026AK	
10K 101895	X	08B 101895	X
07M 100905		04A 0912AI	
Calibration Buffer:	4, 7, & 10		

Chain of Custody

Relinquished by Date/Time Received by Date/Time

Facility Name: Warren Green
Site ID#: 04887 **Monitoring Well #** DW-6
Water Supply Well **Public** ____ **Private** ____

Monitoring Well Diameter (D): 2 inches

Conversion Factor (C): 3.14 x $(D/2)^2$ for a 2 inch well C=0.163
for a 4 inch well C=0.652

* Free Product Thickness: ____ feet
Depth to Free Product (DFP) ____ feet
Depth to Ground Water (DGW) 8.22 feet
Total Well Depth (TWD) 85 feet
Length of the water column (LWC=TWD-DGW) 76.78 feet
1 casing volume (CV=LWC X C)= ____ X 0.163 12.52 gallons
5 casing volume (5 X CV)= 5 62.58 gallons

Total Volume of Water Purged Before Sampling 6 gals.
*If free product is present over 1/8 inch, sampling will not be required.

Cumulative Volume Purged (gallons)	Inital	1st Vol	2nd Vol	3rd Vol	4th Vol	5th Vol	Post Sampling	
Time (military)	11:22	11:27						
pH (s.u.)	6.34	6.41						
Specific Conductivity (μmhos/cm)	27.5	31.8						
Water Temperature (℃)	19.9	19.9						
Dissolved Oxygen	5.18	5.23						
Turbidity (NTU)	47.35	58.96						
PID readings, if required								

Remarks: Sample Time: 11:27 **Dry @ 6.0 Gallons**

Midlands
Environmental
Consultants, Inc.

February 18, 2015

Re: Treatment of Purge Water
Warren Green
Yemassee, South Carolina
SCDHEC Site ID Number 04887
MECI Project Number 14-5039

To Whom It May Concern;

Midlands Environmental Consultants, Inc. is providing the following letter as certification that treatment of the referenced purge water complied with the conditions of "Proposed Conditions for Use of Portable Activated Carbon Units for the Treatment of Small Volumes of Petroleum Hydrocarbon Contaminated Groundwater", as described in the following:

<u>Applicability:</u>

Groundwater treated was obtained as a result development of wells and sampling.

<u>Conditions:</u>

1. The purge/bail water from all wells is mixed before usage of the Activated Carbon Unit.

2. No free-product was detected in any of the purge water drums.

3. Analytical results of from well sampling show average concentrations of petroleum hydrocarbon constituents less than 5000 parts per billion (ppb) Benzene and less than 20,000 ppb total BTEX.

4. The existing carbon pack will be replaced/reactivated every 5,000 gallons.

5. Record of usage is maintained by Contractor.

6. Any and all recommendations and conditions issued by the Manufacturer have been adhered to.

7. Any and all recommendations and conditions (even on a site by site basis) issued by the SCDHEC must be adhered to.

All purge waters were treated on-site using an up-flow treatment drum loaded with 30 pounds of activated carbon. Carbon will be loaded to a maximum of 3 pounds of total organic compounds or 5,000 gallons of development/purge water, whichever occurs first.

Post Office Box 854, Lexington SC 29071 • 231 Dooley Road, Lexington, SC 29073
Telephone: (803) 808-2043 • fax: (803) 808-2048

A total of 104.0 gallons were treated on February 12, 2015, at the referenced site.

Midlands Environmental also tracks cumulative organic compounds adsorbed on the activated carbon to ensure the capacity of carbon mass is not over-charged. This data is available upon request.

Should you have any questions or comments, please contact the undersigned.

Sincerely,
Midlands Environmental Consultants, Inc.

Wesley H. Huss
Staff Scientist

Pace Analytical®
www.pacelabs.com

CHAIN-OF-CUSTODY / Analytical Request Document

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

Page: 1 of 3

1776130

Section A Required Client Information:		Section B Required Project Information:		Section C Invoice Information:	
Company:	SCDHEC-UST	Report To:	John Bryant-UST	Attention:	
Address:	2600 Bull Street	Copy To:		Company Name:	
	Columbia SC 29201			Address:	
Email To:	BryantJC@dhec.sc.gov	Purchase Order No.:	460038425	Pace Quote Reference:	
Phone: 803-898-2544	Fax: 803-898-0673	Project Name:	Warren Green	Pace Project Manager:	A. Baion.
Requested Due Date/TAT:		Project Number:	04887/49239	Pace Profile #:	

REGULATORY AGENCY

☐ NPDES ☐ GROUND WATER ☐ DRINKING WATER
☑ UST ☐ RCRA ☐ OTHER

Site Location STATE: SC — Jasper

Requested Analysis Filtered (Y/N)

Section D Required Client Information

Matrix Codes MATRIX / CODE: Drinking Water DW, Water WT, Waste Water WW, Product P, Soil/Solid SL, Oil OL, Wipe WP, Air AR, Tissue TS, Other OT

SAMPLE ID (A-Z, 0-9 / ,-) Sample IDs MUST BE UNIQUE

Analysis Test: BTEX, Naph, MTBE; 1,2-DCA; Oxy; EDB

ITEM #	SAMPLE ID	MATRIX CODE	SAMPLE TYPE (G=GRAB C=COMP)	COMPOSITE START DATE	COMPOSITE START TIME	COMPOSITE END/GRAB DATE	COMPOSITE END/GRAB TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Unpreserved	H_2SO_4	HNO_3	HCl	NaOH	$Na_2S_2O_3$	Methanol	Other	BTEX, Naph, MTBE	1,2-DCA	Oxy	EDB	Residual Chlorine (Y/N)	Pace Project No./ Lab I.D.
1	MW-1	WT	G			2/12/15	12:16		6				6					X	X	X	X		Odor
2	MW-2						11:50																No odor
3	MW-3R						11:54																No odor
4	MW-4						11:39																No odor
5	MW-5						10:37																No odor
6	MW-6						10:49																No odor
7	MW-7						12:12																Odor
8	MW-8						11:31																No odor
9	MW-9						11:20																No odor
10	MW-10						11:08																No odor
11	MW-11						11:12																No odor
12	MW-12	WT	G			2/12/15	11:16		6				6					X	X	X	X		No odor

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS
	[signature]	2/13	9:50	D Moody - Pace	02-13-15	09:50	

2

SAMPLER NAME AND SIGNATURE

PRINT Name of SAMPLER: Adrian Best

SIGNATURE of SAMPLER: [signature]

DATE Signed (MM/DD/YY): 2/12/15

Temp in °C	Received on Ice (Y/N)	Custody Sealed Cooler (Y/N)	Samples Intact (Y/N)

*Important Note: By signing this form you are accepting Pace's NET 30 day payment terms and agreeing to late charges of 1.5% per month for any invoices not paid within 30 days.

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CHAIN-OF-CUSTODY / Analytical Request Document

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

1776131

Section A Required Client Information:
Company: SCDHEC - UST
Address: 2600 Bull Street Columbia SC, 29201
Email To: Bryantj@dhec.sc.gov
Phone: 803-898-2544 Fax: 803898-0673
Requested Due Date/TAT:

Section B Required Project Information:
Report To: J. Bryant - UST
Copy To:
Purchase Order No.: 4600328425
Project Name: Warren Green
Project Number: 04887 / 49239

Section C Invoice Information:
Attention:
Company Name:
Address:
Pace Quote Reference:
Pace Project Manager: A. Baloni
Pace Profile #:

REGULATORY AGENCY
- [ ] NPDES
- [ ] GROUND WATER
- [ ] DRINKING WATER
- [x] UST
- [ ] RCRA
- [ ] OTHER

Site Location STATE: SC — Jasper

Section D Required Client Information

Matrix Codes MATRIX / CODE: Drinking Water DW, Water WT, Waste Water WW, Product P, Soil/Solid SL, Oil OL, Wipe WP, Air AR, Tissue TS, Other OT

SAMPLE ID (A-Z, 0-9 / ,-) Sample IDs MUST BE UNIQUE

Requested Analysis Filtered (Y/N)

Analysis Test: BTEX Naph MTBE; 1,2 DCA; 8 Oxy; EDB

ITEM #	SAMPLE ID	MATRIX CODE	SAMPLE TYPE (G=GRAB C=COMP)	COMPOSITE START DATE	COMPOSITE START TIME	COMPOSITE END/GRAB DATE	COMPOSITE END/GRAB TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Unpreserved	H_2SO_4	HNO_3	HCl	NaOH	$Na_2S_2O_3$	Methanol	Other	BTEX Naph MTBE	1,2 DCA	8 Oxy	EDB	Residual Chlorine (Y/N)	Pace Project No./ Lab I.D.
1	MW-13	WT	G			2/12/15	11:04		6				6					X	X	X	X		No odor
2	MW-14	WT					11:00																No odor
3	MW-15	WT					11:35																No odor
4	DW-1	WT					12:08																No odor
5	DW-2						11:46																No odor
6	DW-3						10:45																No odor
7	DW-4						10:56																No odor
8	DW-5						12:01																No odor
9	DW-6	WT					11:27																No odor
10	WSW-1	DW					12:19																LDL
11	WSW-2	DW					12:24																LDL
12	WSW-3	DW	G			2/12/15	12:35		6				6					X	X	X	X		LDL

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS
	[signature]	2/13/15	9:50	[signature] - Pace	02-13-15	09:50	

2

SAMPLER NAME AND SIGNATURE
PRINT Name of SAMPLER: Adrian Best
SIGNATURE of SAMPLER: [signature]
DATE Signed (MM/DD/YY): 2/12/15

Temp in °C | Received on Ice (Y/N) | Custody Sealed Cooler (Y/N) | Samples Intact (Y/N)

*Important Note: By signing this form you are accepting Pace's NET 30 day payment terms and agreeing to late charges of 1.5% per month for any invoices not paid within 30 days.

F-ALL-Q-020rev.07, 15-May-2007

CHAIN-OF-CUSTODY / Analytical Request Document

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

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1885144

Section A Required Client Information:

Company:	SCDHEC-UST
Address:	2600 Bull Street, Columbia SC, 29201
Email To:	BryantJC@dhec.sc.gov
Phone:	803-898-2544
Fax:	803-8980673
Requested Due Date/TAT:	

Section B Required Project Information:

Report To:	J Bryant - UST
Copy To:	
Purchase Order No.:	4600328425
Project Name:	Warren Green
Project Number:	04287/49239

Section C Invoice Information:

Attention:	
Company Name:	
Address:	
Pace Quote Reference:	
Pace Project Manager:	A. Baioni
Pace Profile #:	

REGULATORY AGENCY

☐ NPDES ☐ GROUND WATER ☐ DRINKING WATER
☑ UST ☐ RCRA ☐ OTHER

Site Location STATE: SC — Jasper

Section D Required Client Information

Matrix Codes MATRIX / CODE: Drinking Water DW, Water WT, Waste Water WW, Product P, Soil/Solid SL, Oil OL, Wipe WP, Air AR, Tissue TS, Other OT

SAMPLE ID (A-Z, 0-9 / ,-) Sample IDs MUST BE UNIQUE

Requested Analysis Filtered (Y/N)

ITEM #	SAMPLE ID	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	COMPOSITE START DATE	COMPOSITE START TIME	COMPOSITE END/GRAB DATE	COMPOSITE END/GRAB TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Unpreserved	H_2SO_4	HNO_3	HCl	NaOH	$Na_2S_2O_3$	Methanol	Other	BTEX, Napth, MTBE	1,2 DCA	8 Oxy	EDB	Residual Chlorine (Y/N)	Pace Project No./ Lab I.D.
1	WBW-4					2/12/15	12:39		6				6					X	X	X	X		LDL's
2	MW-3R Dup						11:54		6				6										No odor
3	MW-5 Dup						10:37		6				6										No odr
4	Field Blank						12:18		6				6										
5	Trip Blank					2/12/15	12:19		2				2					X	X	X	X		
6																							
7																							
8																							
9																							
10																							
11																							
12																							

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS
	[signature]	2/13/15	9:50	[signature] - Pace	02-13-15	09:50	

2

SAMPLER NAME AND SIGNATURE

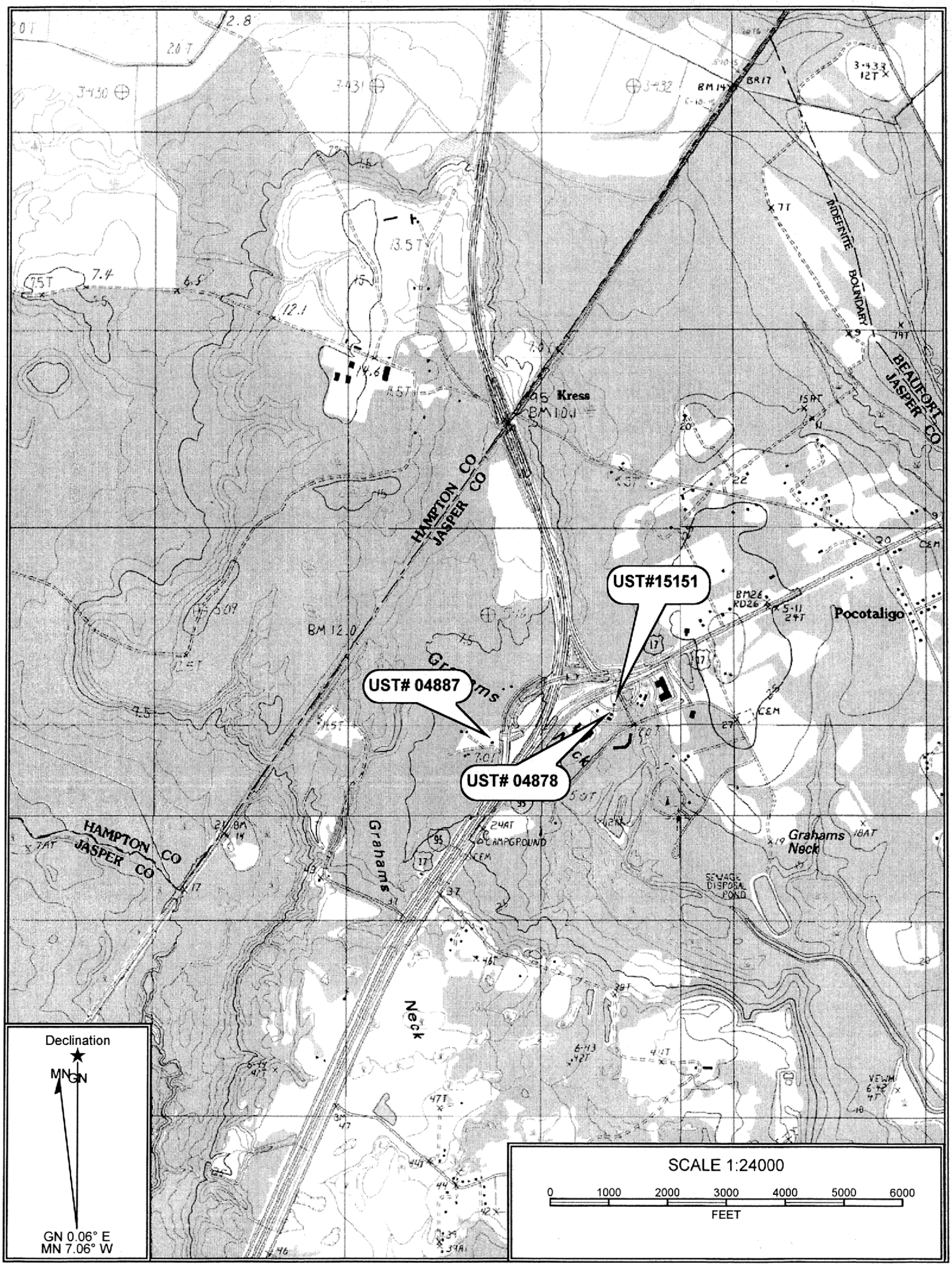
PRINT Name of SAMPLER: Adrian Best

SIGNATURE of SAMPLER: [signature]

DATE Signed (MM/DD/YY): 2/12/15

Temp in °C | Received on Ice (Y/N) | Custody Sealed Cooler (Y/N) | Samples Intact (Y/N)

*Important Note: By signing this form you are accepting Pace's NET 30 day payment terms and agreeing to late charges of 1.5% per month for any invoices not paid within 30 days.



UST#15151
UST# 04887
UST# 04878
Kress
Pocotaligo
HAMPTON CO
JASPER CO
BEAUFORT
JASPER
CO
INDEFINITE BOUNDARY
Grahams
Neck
Grahams Neck
SEWAGE DISPOSAL POND
CAMPGROUND
CEM
Declination
MN
GN
GN 0.06° E
MN 7.06° W
SCALE 1:24000
0
1000
2000
3000
4000
5000
6000
FEET

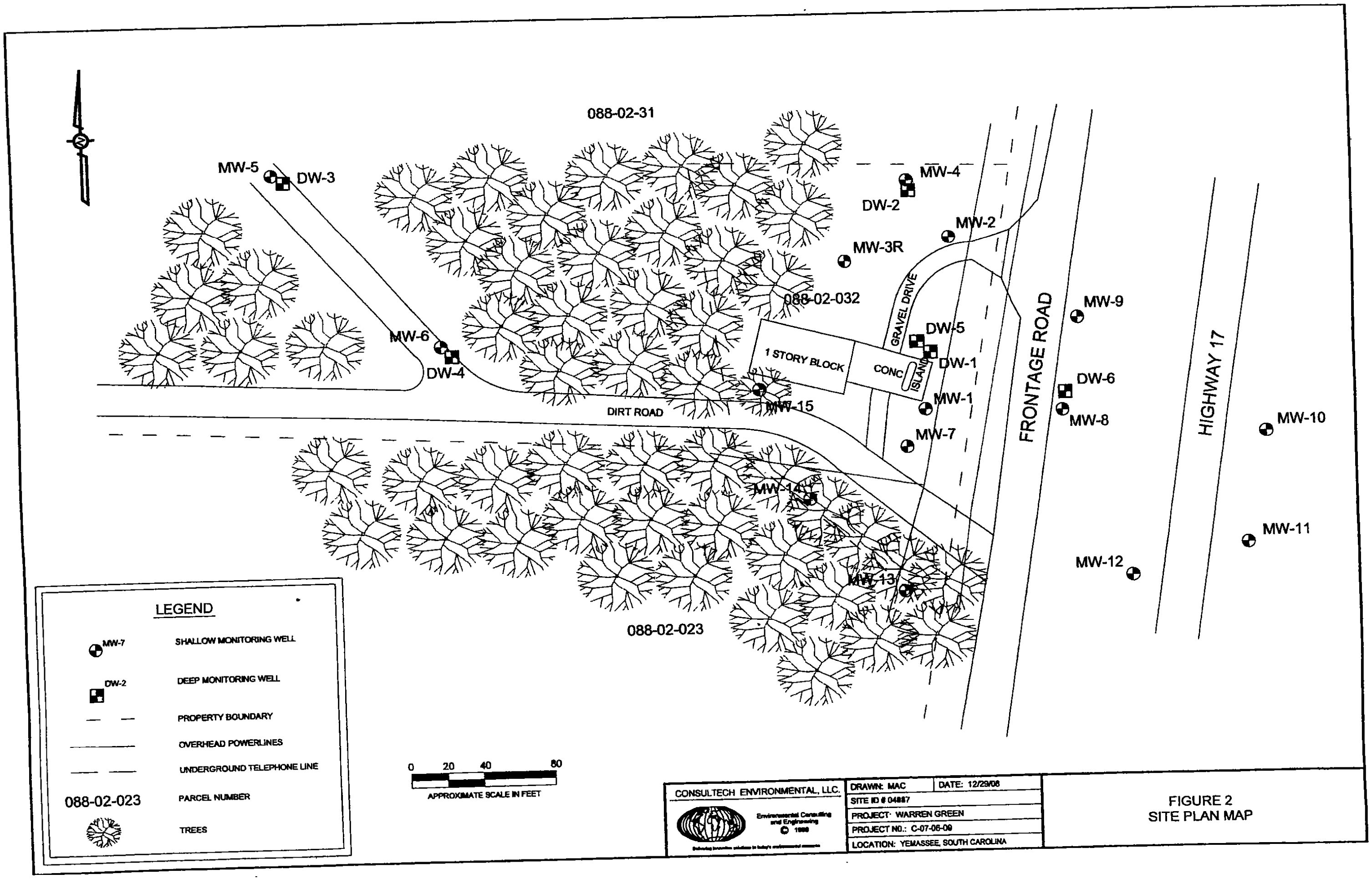


FIGURE 2
SITE PLAN MAP

Pace Analytical
www.pacelabs.com

Pace Analytical Services, Inc.
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

February 23, 2015

Mr. John Bryant
SCDHEC
UST Program
2600 Bull Street
Columbia, SC 29201

UST
MAR 0 3 2015
DIVISION

RE: Project: Warren Green 04887/44239
Pace Project No.: 92237781

Dear Mr. Bryant:
Enclosed are the analytical results for sample(s) received by the laboratory on February 13, 2015. The results relate only to the samples included in this report. Results reported herein conform to the most current TNI standards and the laboratory's Quality Assurance Manual, where applicable, unless otherwise noted in the body of the report.

Analyses were performed at the Pace Analytical Services location indicated on the sample analyte page for analysis unless otherwise footnoted.

If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Angela Baioni

Angela Baioni
angela.baioni@pacelabs.com
Project Manager

Enclosures

Pace Analytical
www.pacelabs.com

Pace Analytical Services, Inc.
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

CERTIFICATIONS

Project:	Warren Green 04887/44239
Pace Project No.:	92237781

Charlotte Certification IDs

9800 Kincey Ave. Ste 100, Huntersville, NC 28078
North Carolina Drinking Water Certification #: 37706
North Carolina Field Services Certification #: 5342
North Carolina Wastewater Certification #: 12
South Carolina Certification #: 99006001
Florida/NELAP Certification #: E87627
Kentucky UST Certification #: 84
West Virginia Certification #: 357
Virginia/VELAP Certification #: 460221

Pace Analytical Services, Inc.
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

SAMPLE SUMMARY

Project: Warren Green 04887/44239
Pace Project No.: 92237781

Lab ID	Sample ID	Matrix	Date Collected	Date Received
92237781001	MW-1	Water	02/12/15 12:16	02/13/15 15:50
92237781002	MW-2	Water	02/12/15 11:50	02/13/15 15:50
92237781003	MW-3R	Water	02/12/15 11:54	02/13/15 15:50
92237781004	MW-4	Water	02/12/15 11:39	02/13/15 15:50
92237781005	MW-5	Water	02/12/15 10:37	02/13/15 15:50
92237781006	MW-6	Water	02/12/15 10:49	02/13/15 15:50
92237781007	MW-7	Water	02/12/15 12:12	02/13/15 15:50
92237781008	MW-8	Water	02/12/15 11:31	02/13/15 15:50
92237781009	MW-9	Water	02/12/15 11:20	02/13/15 15:50
92237781010	MW-10	Water	02/12/15 11:08	02/13/15 15:50
92237781011	MW-11	Water	02/12/15 11:12	02/13/15 15:50
92237781012	MW-12	Water	02/12/15 11:16	02/13/15 15:50
92237781013	MW-13	Water	02/12/15 11:04	02/13/15 15:50
92237781014	MW-14	Water	02/12/15 11:00	02/13/15 15:50
92237781015	MW-15	Water	02/12/15 11:35	02/13/15 15:50
92237781016	DW-1	Water	02/12/15 12:08	02/13/15 15:50
92237781017	DW-2	Water	02/12/15 11:46	02/13/15 15:50
92237781018	DW-3	Water	02/12/15 10:45	02/13/15 15:50
92237781019	DW-4	Water	02/12/15 10:56	02/13/15 15:50
92237781020	DW-5	Water	02/12/15 12:01	02/13/15 15:50
92237781021	DW-6	Water	02/12/15 11:27	02/13/15 15:50
92237781022	MW-3R DUP	Water	02/12/15 11:54	02/13/15 15:50
92237781023	MW-5 DUP	Water	02/12/15 10:37	02/13/15 15:50
92237781024	FIELD BLANK	Water	02/12/15 12:18	02/13/15 15:50
92237781025	TRIP BLANK	Water	02/12/15 12:19	02/13/15 15:50
92237781026	WSW-1	Water	02/12/15 12:19	02/13/15 15:50
92237781027	WSW-2	Water	02/12/15 12:24	02/13/15 15:50
92237781028	WSW-3	Water	02/12/15 12:35	02/13/15 15:50
92237781029	WSW-4	Water	02/12/15 12:39	02/13/15 15:50

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SAMPLE ANALYTE COUNT

Project: Warren Green 04887/44239
Pace Project No.: 92237781

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
92237781001	MW-1	EPA 8011	JMC	2	PASI-C
		EPA 8260	CCL	20	PASI-C
92237781002	MW-2	EPA 8011	JMC	2	PASI-C
		EPA 8260	CCL	20	PASI-C
92237781003	MW-3R	EPA 8011	JMC	2	PASI-C
		EPA 8260	CCL	20	PASI-C
92237781004	MW-4	EPA 8011	JMC	2	PASI-C
		EPA 8260	CCL	20	PASI-C
92237781005	MW-5	EPA 8011	JMC	2	PASI-C
		EPA 8260	CCL	20	PASI-C
92237781006	MW-6	EPA 8011	JMC	2	PASI-C
		EPA 8260	CCL	20	PASI-C
92237781007	MW-7	EPA 8011	JMC	2	PASI-C
		EPA 8260	CCL	20	PASI-C
92237781008	MW-8	EPA 8011	JMC	2	PASI-C
		EPA 8260	CCL	20	PASI-C
92237781009	MW-9	EPA 8011	JMC	2	PASI-C
		EPA 8260	CCL	20	PASI-C
92237781010	MW-10	EPA 8011	JMC	2	PASI-C
		EPA 8260	CCL	20	PASI-C
92237781011	MW-11	EPA 8011	JMC	2	PASI-C
		EPA 8260	CCL	20	PASI-C
92237781012	MW-12	EPA 8011	JMC	2	PASI-C
		EPA 8260	CCL	20	PASI-C
92237781013	MW-13	EPA 8011	JMC	2	PASI-C
		EPA 8260	CCL	20	PASI-C
92237781014	MW-14	EPA 8011	JMC	2	PASI-C
		EPA 8260	CCL	20	PASI-C
92237781015	MW-15	EPA 8011	JMC	2	PASI-C
		EPA 8260	CCL	20	PASI-C
92237781016	DW-1	EPA 8011	JMC	2	PASI-C
		EPA 8260	CCL	20	PASI-C
92237781017	DW-2	EPA 8011	JMC	2	PASI-C
		EPA 8260	CCL	20	PASI-C
92237781018	DW-3	EPA 8011	JMC	2	PASI-C
		EPA 8260	CCL	20	PASI-C
92237781019	DW-4	EPA 8011	JMC	2	PASI-C

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SAMPLE ANALYTE COUNT

Project: Warren Green 04887/44239
Pace Project No.: 92237781

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
		EPA 8260	CCL	20	PASI-C
92237781020	**DW-5**	EPA 8011	JMC	2	PASI-C
		EPA 8260	CCL	20	PASI-C
92237781021	**DW-6**	EPA 8011	JMC	2	PASI-C
		EPA 8260	CCL	20	PASI-C
92237781022	**MW-3R DUP**	EPA 8011	JMC	2	PASI-C
		EPA 8260	CCL	20	PASI-C
92237781023	**MW-5 DUP**	EPA 8011	JMC	2	PASI-C
		EPA 8260	CCL	20	PASI-C
92237781024	**FIELD BLANK**	EPA 8011	JMC	2	PASI-C
		EPA 8260	CCL	20	PASI-C
92237781025	**TRIP BLANK**	EPA 8260	CCL	20	PASI-C
92237781026	**WSW-1**	EPA 8011	JMC	2	PASI-C
		EPA 8260	GAW	20	PASI-C
92237781027	**WSW-2**	EPA 8011	JMC	2	PASI-C
		EPA 8260	GAW	20	PASI-C
92237781028	**WSW-3**	EPA 8011	JMC	2	PASI-C
		EPA 8260	GAW	20	PASI-C
92237781029	**WSW-4**	EPA 8011	JMC	2	PASI-C
		EPA 8260	GAW	20	PASI-C

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SUMMARY OF DETECTION

Project: Warren Green 04887/44239
Pace Project No.: 92237781

Lab Sample ID / Method	Client Sample ID / Parameters	Result	Units	Report Limit	Analyzed	Qualifiers
92237781001	**MW-1**					
EPA 8260	tert-Amyl Alcohol	246	ug/L	100	02/21/15 23:36	
EPA 8260	Benzene	1040	ug/L	625	02/23/15 14:21	
EPA 8260	tert-Butyl Alcohol	123	ug/L	100	02/21/15 23:36	
EPA 8260	1,2-Dichloroethane	2.4J	ug/L	5.0	02/21/15 23:36	
EPA 8260	Ethylbenzene	977	ug/L	625	02/23/15 14:21	
EPA 8260	Methyl-tert-butyl ether	31.6	ug/L	5.0	02/21/15 23:36	
EPA 8260	Naphthalene	96.8	ug/L	5.0	02/21/15 23:36	
EPA 8260	Toluene	5380	ug/L	625	02/23/15 14:21	
EPA 8260	Xylene (Total)	4920	ug/L	1250	02/23/15 14:21	
EPA 8260	m&p-Xylene	3530	ug/L	1250	02/23/15 14:21	
EPA 8260	o-Xylene	1390	ug/L	625	02/23/15 14:21	
92237781007	**MW-7**					
EPA 8011	1,2-Dibromoethane (EDB)	2.1	ug/L	0.096	02/17/15 14:42	
EPA 8260	tert-Amyl Alcohol	908J	ug/L	1000	02/21/15 19:05	
EPA 8260	Benzene	2280	ug/L	1000	02/23/15 13:13	
EPA 8260	1,2-Dichloroethane	23.1J	ug/L	50.0	02/21/15 19:05	
EPA 8260	Ethylbenzene	3590	ug/L	1000	02/23/15 13:13	
EPA 8260	Methyl-tert-butyl ether	31.4J	ug/L	50.0	02/21/15 19:05	
EPA 8260	Naphthalene	629	ug/L	50.0	02/21/15 19:05	
EPA 8260	Toluene	14200	ug/L	1000	02/23/15 13:13	
EPA 8260	Xylene (Total)	20700	ug/L	2000	02/23/15 13:13	
EPA 8260	m&p-Xylene	14200	ug/L	2000	02/23/15 13:13	
EPA 8260	o-Xylene	6470	ug/L	1000	02/23/15 13:13	
92237781008	**MW-8**					
EPA 8011	1,2-Dibromoethane (EDB)	0.028	ug/L	0.019	02/17/15 04:31	C2
EPA 8260	Benzene	125	ug/L	10.0	02/21/15 19:21	
EPA 8260	Ethylbenzene	15.7	ug/L	10.0	02/21/15 19:21	
EPA 8260	Naphthalene	11.2	ug/L	10.0	02/21/15 19:21	
EPA 8260	Toluene	6.0J	ug/L	10.0	02/21/15 19:21	
EPA 8260	Xylene (Total)	49.7	ug/L	20.0	02/21/15 19:21	
EPA 8260	m&p-Xylene	34.8	ug/L	20.0	02/21/15 19:21	
EPA 8260	o-Xylene	14.9	ug/L	10.0	02/21/15 19:21	

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ANALYTICAL RESULTS

Project: Warren Green 04887/44239
Pace Project No.: 92237781

Sample: MW-1 **Lab ID: 92237781001** Collected: 02/12/15 12:16 Received: 02/13/15 15:50 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8011 GCS EDB and DBCP	Analytical Method: EPA 8011 Preparation Method: EPA 8011								
1,2-Dibromoethane (EDB)	ND	ug/L	0.020	0.020	1	02/16/15 16:17	02/17/15 01:20	106-93-4	
Surrogates									
1-Chloro-2-bromopropane (S)	124	%	60-140		1	02/16/15 16:17	02/17/15 01:20	301-79-56	
8260 MSV	Analytical Method: EPA 8260								
tert-Amyl Alcohol	**246**	ug/L	100	76.8	1		02/21/15 23:36	75-85-4	
tert-Amylmethyl ether	ND	ug/L	10.0	3.4	1		02/21/15 23:36	994-05-8	
Benzene	**1040**	ug/L	625	212	125		02/23/15 14:21	71-43-2	
3,3-Dimethyl-1-Butanol	ND	ug/L	100	32.1	1		02/21/15 23:36	624-95-3	
tert-Butyl Alcohol	**123**	ug/L	100	57.7	1		02/21/15 23:36	75-65-0	
tert-Butyl Formate	ND	ug/L	50.0	7.3	1		02/21/15 23:36	762-75-4	
1,2-Dichloroethane	**2.4J**	ug/L	5.0	1.8	1		02/21/15 23:36	107-06-2	
Diisopropyl ether	ND	ug/L	5.0	1.7	1		02/21/15 23:36	108-20-3	
Ethanol	ND	ug/L	200	138	1		02/21/15 23:36	64-17-5	
Ethylbenzene	**977**	ug/L	625	200	125		02/23/15 14:21	100-41-4	
Ethyl-tert-butyl ether	ND	ug/L	10.0	3.6	1		02/21/15 23:36	637-92-3	
Methyl-tert-butyl ether	**31.6**	ug/L	5.0	1.7	1		02/21/15 23:36	1634-04-4	
Naphthalene	**96.8**	ug/L	5.0	2.0	1		02/21/15 23:36	91-20-3	
Toluene	**5380**	ug/L	625	200	125		02/23/15 14:21	108-88-3	
Xylene (Total)	**4920**	ug/L	1250	338	125		02/23/15 14:21	1330-20-7	
m&p-Xylene	**3530**	ug/L	1250	388	125		02/23/15 14:21	179601-23-1	
o-Xylene	**1390**	ug/L	625	200	125		02/23/15 14:21	95-47-6	
Surrogates									
4-Bromofluorobenzene (S)	102	%	70-130		1		02/21/15 23:36	460-00-4	
1,2-Dichloroethane-d4 (S)	101	%	70-130		1		02/21/15 23:36	17060-07-0	
Toluene-d8 (S)	99	%	70-130		1		02/21/15 23:36	2037-26-5	

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ANALYTICAL RESULTS

Project: Warren Green 04887/44239
Pace Project No.: 92237781

Sample: MW-2 **Lab ID: 92237781002** Collected: 02/12/15 11:50 Received: 02/13/15 15:50 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8011 GCS EDB and DBCP	Analytical Method: EPA 8011 Preparation Method: EPA 8011								
1,2-Dibromoethane (EDB)	ND	ug/L	0.020	0.020	1	02/16/15 16:17	02/17/15 02:18	106-93-4	
Surrogates									
1-Chloro-2-bromopropane (S)	102	%	60-140		1	02/16/15 16:17	02/17/15 02:18	301-79-56	
8260 MSV	Analytical Method: EPA 8260								
tert-Amyl Alcohol	ND	ug/L	100	76.8	1		02/21/15 15:21	75-85-4	
tert-Amylmethyl ether	ND	ug/L	10.0	3.4	1		02/21/15 15:21	994-05-8	
Benzene	ND	ug/L	5.0	1.7	1		02/21/15 15:21	71-43-2	
3,3-Dimethyl-1-Butanol	ND	ug/L	100	32.1	1		02/21/15 15:21	624-95-3	
tert-Butyl Alcohol	ND	ug/L	100	57.7	1		02/21/15 15:21	75-65-0	
tert-Butyl Formate	ND	ug/L	50.0	7.3	1		02/21/15 15:21	762-75-4	
1,2-Dichloroethane	ND	ug/L	5.0	1.8	1		02/21/15 15:21	107-06-2	
Diisopropyl ether	ND	ug/L	5.0	1.7	1		02/21/15 15:21	108-20-3	
Ethanol	ND	ug/L	200	138	1		02/21/15 15:21	64-17-5	
Ethylbenzene	ND	ug/L	5.0	1.6	1		02/21/15 15:21	100-41-4	
Ethyl-tert-butyl ether	ND	ug/L	10.0	3.6	1		02/21/15 15:21	637-92-3	
Methyl-tert-butyl ether	ND	ug/L	5.0	1.7	1		02/21/15 15:21	1634-04-4	
Naphthalene	ND	ug/L	5.0	2.0	1		02/21/15 15:21	91-20-3	
Toluene	ND	ug/L	5.0	1.6	1		02/21/15 15:21	108-88-3	
Xylene (Total)	ND	ug/L	10.0	2.7	1		02/21/15 15:21	1330-20-7	
m&p-Xylene	ND	ug/L	10.0	3.1	1		02/21/15 15:21	179601-23-1	
o-Xylene	ND	ug/L	5.0	1.6	1		02/21/15 15:21	95-47-6	
Surrogates									
4-Bromofluorobenzene (S)	106	%	70-130		1		02/21/15 15:21	460-00-4	
1,2-Dichloroethane-d4 (S)	113	%	70-130		1		02/21/15 15:21	17060-07-0	
Toluene-d8 (S)	96	%	70-130		1		02/21/15 15:21	2037-26-5	

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ANALYTICAL RESULTS

Project: Warren Green 04887/44239
Pace Project No.: 92237781

Sample: MW-3R **Lab ID: 92237781003** Collected: 02/12/15 11:54 Received: 02/13/15 15:50 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8011 GCS EDB and DBCP	Analytical Method: EPA 8011 Preparation Method: EPA 8011								
1,2-Dibromoethane (EDB)	ND	ug/L	0.020	0.020	1	02/16/15 16:17	02/17/15 02:56	106-93-4	
Surrogates									
1-Chloro-2-bromopropane (S)	101	%	60-140		1	02/16/15 16:17	02/17/15 02:56	301-79-56	
8260 MSV	Analytical Method: EPA 8260								
tert-Amyl Alcohol	ND	ug/L	100	76.8	1		02/21/15 15:37	75-85-4	
tert-Amylmethyl ether	ND	ug/L	10.0	3.4	1		02/21/15 15:37	994-05-8	
Benzene	ND	ug/L	5.0	1.7	1		02/21/15 15:37	71-43-2	
3,3-Dimethyl-1-Butanol	ND	ug/L	100	32.1	1		02/21/15 15:37	624-95-3	
tert-Butyl Alcohol	ND	ug/L	100	57.7	1		02/21/15 15:37	75-65-0	
tert-Butyl Formate	ND	ug/L	50.0	7.3	1		02/21/15 15:37	762-75-4	
1,2-Dichloroethane	ND	ug/L	5.0	1.8	1		02/21/15 15:37	107-06-2	
Diisopropyl ether	ND	ug/L	5.0	1.7	1		02/21/15 15:37	108-20-3	
Ethanol	ND	ug/L	200	138	1		02/21/15 15:37	64-17-5	
Ethylbenzene	ND	ug/L	5.0	1.6	1		02/21/15 15:37	100-41-4	
Ethyl-tert-butyl ether	ND	ug/L	10.0	3.6	1		02/21/15 15:37	637-92-3	
Methyl-tert-butyl ether	ND	ug/L	5.0	1.7	1		02/21/15 15:37	1634-04-4	
Naphthalene	ND	ug/L	5.0	2.0	1		02/21/15 15:37	91-20-3	
Toluene	ND	ug/L	5.0	1.6	1		02/21/15 15:37	108-88-3	
Xylene (Total)	ND	ug/L	10.0	2.7	1		02/21/15 15:37	1330-20-7	
m&p-Xylene	ND	ug/L	10.0	3.1	1		02/21/15 15:37	179601-23-1	
o-Xylene	ND	ug/L	5.0	1.6	1		02/21/15 15:37	95-47-6	
Surrogates									
4-Bromofluorobenzene (S)	110	%	70-130		1		02/21/15 15:37	460-00-4	
1,2-Dichloroethane-d4 (S)	111	%	70-130		1		02/21/15 15:37	17060-07-0	
Toluene-d8 (S)	96	%	70-130		1		02/21/15 15:37	2037-26-5	

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ANALYTICAL RESULTS

Project: Warren Green 04887/44239
Pace Project No.: 92237781

Sample: MW-4 **Lab ID: 92237781004** Collected: 02/12/15 11:39 Received: 02/13/15 15:50 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8011 GCS EDB and DBCP	Analytical Method: EPA 8011 Preparation Method: EPA 8011								
1,2-Dibromoethane (EDB)	ND	ug/L	0.019	0.019	1	02/16/15 16:17	02/17/15 03:15	106-93-4	
Surrogates									
1-Chloro-2-bromopropane (S)	104	%	60-140		1	02/16/15 16:17	02/17/15 03:15	301-79-56	
8260 MSV	Analytical Method: EPA 8260								
tert-Amyl Alcohol	ND	ug/L	100	76.8	1		02/21/15 15:53	75-85-4	
tert-Amylmethyl ether	ND	ug/L	10.0	3.4	1		02/21/15 15:53	994-05-8	
Benzene	ND	ug/L	5.0	1.7	1		02/21/15 15:53	71-43-2	
3,3-Dimethyl-1-Butanol	ND	ug/L	100	32.1	1		02/21/15 15:53	624-95-3	
tert-Butyl Alcohol	ND	ug/L	100	57.7	1		02/21/15 15:53	75-65-0	
tert-Butyl Formate	ND	ug/L	50.0	7.3	1		02/21/15 15:53	762-75-4	
1,2-Dichloroethane	ND	ug/L	5.0	1.8	1		02/21/15 15:53	107-06-2	
Diisopropyl ether	ND	ug/L	5.0	1.7	1		02/21/15 15:53	108-20-3	
Ethanol	ND	ug/L	200	138	1		02/21/15 15:53	64-17-5	
Ethylbenzene	ND	ug/L	5.0	1.6	1		02/21/15 15:53	100-41-4	
Ethyl-tert-butyl ether	ND	ug/L	10.0	3.6	1		02/21/15 15:53	637-92-3	
Methyl-tert-butyl ether	ND	ug/L	5.0	1.7	1		02/21/15 15:53	1634-04-4	
Naphthalene	ND	ug/L	5.0	2.0	1		02/21/15 15:53	91-20-3	
Toluene	ND	ug/L	5.0	1.6	1		02/21/15 15:53	108-88-3	
Xylene (Total)	ND	ug/L	10.0	2.7	1		02/21/15 15:53	1330-20-7	
m&p-Xylene	ND	ug/L	10.0	3.1	1		02/21/15 15:53	179601-23-1	
o-Xylene	ND	ug/L	5.0	1.6	1		02/21/15 15:53	95-47-6	
Surrogates									
4-Bromofluorobenzene (S)	106	%	70-130		1		02/21/15 15:53	460-00-4	
1,2-Dichloroethane-d4 (S)	113	%	70-130		1		02/21/15 15:53	17060-07-0	
Toluene-d8 (S)	96	%	70-130		1		02/21/15 15:53	2037-26-5	

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ANALYTICAL RESULTS

Project: Warren Green 04887/44239
Pace Project No.: 92237781

Sample: MW-5 | **Lab ID: 92237781005** | Collected: 02/12/15 10:37 | Received: 02/13/15 15:50 | Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8011 GCS EDB and DBCP	Analytical Method: EPA 8011 Preparation Method: EPA 8011								
1,2-Dibromoethane (EDB)	ND	ug/L	0.020	0.020	1	02/16/15 16:17	02/17/15 03:34	106-93-4	
Surrogates									
1-Chloro-2-bromopropane (S)	105	%	60-140		1	02/16/15 16:17	02/17/15 03:34	301-79-56	
8260 MSV	Analytical Method: EPA 8260								
tert-Amyl Alcohol	ND	ug/L	100	76.8	1		02/21/15 16:09	75-85-4	
tert-Amylmethyl ether	ND	ug/L	10.0	3.4	1		02/21/15 16:09	994-05-8	
Benzene	ND	ug/L	5.0	1.7	1		02/21/15 16:09	71-43-2	
3,3-Dimethyl-1-Butanol	ND	ug/L	100	32.1	1		02/21/15 16:09	624-95-3	
tert-Butyl Alcohol	ND	ug/L	100	57.7	1		02/21/15 16:09	75-65-0	
tert-Butyl Formate	ND	ug/L	50.0	7.3	1		02/21/15 16:09	762-75-4	
1,2-Dichloroethane	ND	ug/L	5.0	1.8	1		02/21/15 16:09	107-06-2	
Diisopropyl ether	ND	ug/L	5.0	1.7	1		02/21/15 16:09	108-20-3	
Ethanol	ND	ug/L	200	138	1		02/21/15 16:09	64-17-5	
Ethylbenzene	ND	ug/L	5.0	1.6	1		02/21/15 16:09	100-41-4	
Ethyl-tert-butyl ether	ND	ug/L	10.0	3.6	1		02/21/15 16:09	637-92-3	
Methyl-tert-butyl ether	ND	ug/L	5.0	1.7	1		02/21/15 16:09	1634-04-4	
Naphthalene	ND	ug/L	5.0	2.0	1		02/21/15 16:09	91-20-3	
Toluene	ND	ug/L	5.0	1.6	1		02/21/15 16:09	108-88-3	
Xylene (Total)	ND	ug/L	10.0	2.7	1		02/21/15 16:09	1330-20-7	
m&p-Xylene	ND	ug/L	10.0	3.1	1		02/21/15 16:09	179601-23-1	
o-Xylene	ND	ug/L	5.0	1.6	1		02/21/15 16:09	95-47-6	
Surrogates									
4-Bromofluorobenzene (S)	110	%	70-130		1		02/21/15 16:09	460-00-4	
1,2-Dichloroethane-d4 (S)	115	%	70-130		1		02/21/15 16:09	17060-07-0	
Toluene-d8 (S)	95	%	70-130		1		02/21/15 16:09	2037-26-5	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: Warren Green 04887/44239
Pace Project No.: 92237781

Sample: MW-6 **Lab ID: 92237781006** Collected: 02/12/15 10:49 Received: 02/13/15 15:50 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8011 GCS EDB and DBCP	Analytical Method: EPA 8011 Preparation Method: EPA 8011								
1,2-Dibromoethane (EDB)	ND	ug/L	0.020	0.020	1	02/16/15 16:18	02/17/15 03:53	106-93-4	
Surrogates									
1-Chloro-2-bromopropane (S)	100	%	60-140		1	02/16/15 16:18	02/17/15 03:53	301-79-56	
8260 MSV	Analytical Method: EPA 8260								
tert-Amyl Alcohol	ND	ug/L	100	76.8	1		02/21/15 16:25	75-85-4	
tert-Amylmethyl ether	ND	ug/L	10.0	3.4	1		02/21/15 16:25	994-05-8	
Benzene	ND	ug/L	5.0	1.7	1		02/21/15 16:25	71-43-2	
3,3-Dimethyl-1-Butanol	ND	ug/L	100	32.1	1		02/21/15 16:25	624-95-3	
tert-Butyl Alcohol	ND	ug/L	100	57.7	1		02/21/15 16:25	75-65-0	
tert-Butyl Formate	ND	ug/L	50.0	7.3	1		02/21/15 16:25	762-75-4	
1,2-Dichloroethane	ND	ug/L	5.0	1.8	1		02/21/15 16:25	107-06-2	
Diisopropyl ether	ND	ug/L	5.0	1.7	1		02/21/15 16:25	108-20-3	
Ethanol	ND	ug/L	200	138	1		02/21/15 16:25	64-17-5	
Ethylbenzene	ND	ug/L	5.0	1.6	1		02/21/15 16:25	100-41-4	
Ethyl-tert-butyl ether	ND	ug/L	10.0	3.6	1		02/21/15 16:25	637-92-3	
Methyl-tert-butyl ether	ND	ug/L	5.0	1.7	1		02/21/15 16:25	1634-04-4	
Naphthalene	ND	ug/L	5.0	2.0	1		02/21/15 16:25	91-20-3	
Toluene	ND	ug/L	5.0	1.6	1		02/21/15 16:25	108-88-3	
Xylene (Total)	ND	ug/L	10.0	2.7	1		02/21/15 16:25	1330-20-7	
m&p-Xylene	ND	ug/L	10.0	3.1	1		02/21/15 16:25	179601-23-1	
o-Xylene	ND	ug/L	5.0	1.6	1		02/21/15 16:25	95-47-6	
Surrogates									
4-Bromofluorobenzene (S)	110	%	70-130		1		02/21/15 16:25	460-00-4	
1,2-Dichloroethane-d4 (S)	117	%	70-130		1		02/21/15 16:25	17060-07-0	
Toluene-d8 (S)	95	%	70-130		1		02/21/15 16:25	2037-26-5	

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ANALYTICAL RESULTS

Project: Warren Green 04887/44239
Pace Project No.: 92237781

Sample: MW-7 **Lab ID: 92237781007** Collected: 02/12/15 12:12 Received: 02/13/15 15:50 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8011 GCS EDB and DBCP	Analytical Method: EPA 8011 Preparation Method: EPA 8011								
1,2-Dibromoethane (EDB)	**2.1**	ug/L	0.096	0.096	5	02/16/15 16:18	02/17/15 14:42	106-93-4	
Surrogates									
1-Chloro-2-bromopropane (S)	0	%	60-140		5	02/16/15 16:18	02/17/15 14:42	301-79-56	S4
8260 MSV	Analytical Method: EPA 8260								
tert-Amyl Alcohol	**908J**	ug/L	1000	768	10		02/21/15 19:05	75-85-4	
tert-Amylmethyl ether	ND	ug/L	100	34.0	10		02/21/15 19:05	994-05-8	
Benzene	**2280**	ug/L	1000	340	200		02/23/15 13:13	71-43-2	
3,3-Dimethyl-1-Butanol	ND	ug/L	1000	321	10		02/21/15 19:05	624-95-3	
tert-Butyl Alcohol	ND	ug/L	1000	577	10		02/21/15 19:05	75-65-0	
tert-Butyl Formate	ND	ug/L	500	73.0	10		02/21/15 19:05	762-75-4	
1,2-Dichloroethane	**23.1J**	ug/L	50.0	18.0	10		02/21/15 19:05	107-06-2	
Diisopropyl ether	ND	ug/L	50.0	17.0	10		02/21/15 19:05	108-20-3	
Ethanol	ND	ug/L	2000	1380	10		02/21/15 19:05	64-17-5	
Ethylbenzene	**3590**	ug/L	1000	320	200		02/23/15 13:13	100-41-4	
Ethyl-tert-butyl ether	ND	ug/L	100	36.0	10		02/21/15 19:05	637-92-3	
Methyl-tert-butyl ether	**31.4J**	ug/L	50.0	17.0	10		02/21/15 19:05	1634-04-4	
Naphthalene	**629**	ug/L	50.0	20.0	10		02/21/15 19:05	91-20-3	
Toluene	**14200**	ug/L	1000	320	200		02/23/15 13:13	108-88-3	
Xylene (Total)	**20700**	ug/L	2000	540	200		02/23/15 13:13	1330-20-7	
m&p-Xylene	**14200**	ug/L	2000	620	200		02/23/15 13:13	179601-23-1	
o-Xylene	**6470**	ug/L	1000	320	200		02/23/15 13:13	95-47-6	
Surrogates									
4-Bromofluorobenzene (S)	97	%	70-130		10		02/21/15 19:05	460-00-4	
1,2-Dichloroethane-d4 (S)	101	%	70-130		10		02/21/15 19:05	17060-07-0	
Toluene-d8 (S)	100	%	70-130		10		02/21/15 19:05	2037-26-5	

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ANALYTICAL RESULTS

Project: Warren Green 04887/44239
Pace Project No.: 92237781

Sample: MW-8 **Lab ID: 92237781008** Collected: 02/12/15 11:31 Received: 02/13/15 15:50 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8011 GCS EDB and DBCP	Analytical Method: EPA 8011 Preparation Method: EPA 8011								
1,2-Dibromoethane (EDB)	**0.028**	ug/L	0.019	0.019	1	02/16/15 16:18	02/17/15 04:31	106-93-4	C2
Surrogates									
1-Chloro-2-bromopropane (S)	105	%	60-140		1	02/16/15 16:18	02/17/15 04:31	301-79-56	
8260 MSV	Analytical Method: EPA 8260								
tert-Amyl Alcohol	ND	ug/L	200	154	2		02/21/15 19:21	75-85-4	
tert-Amylmethyl ether	ND	ug/L	20.0	6.8	2		02/21/15 19:21	994-05-8	
Benzene	**125**	ug/L	10.0	3.4	2		02/21/15 19:21	71-43-2	
3,3-Dimethyl-1-Butanol	ND	ug/L	200	64.2	2		02/21/15 19:21	624-95-3	
tert-Butyl Alcohol	ND	ug/L	200	115	2		02/21/15 19:21	75-65-0	
tert-Butyl Formate	ND	ug/L	100	14.6	2		02/21/15 19:21	762-75-4	
1,2-Dichloroethane	ND	ug/L	10.0	3.6	2		02/21/15 19:21	107-06-2	
Diisopropyl ether	ND	ug/L	10.0	3.4	2		02/21/15 19:21	108-20-3	
Ethanol	ND	ug/L	400	276	2		02/21/15 19:21	64-17-5	
Ethylbenzene	**15.7**	ug/L	10.0	3.2	2		02/21/15 19:21	100-41-4	
Ethyl-tert-butyl ether	ND	ug/L	20.0	7.2	2		02/21/15 19:21	637-92-3	
Methyl-tert-butyl ether	ND	ug/L	10.0	3.4	2		02/21/15 19:21	1634-04-4	
Naphthalene	**11.2**	ug/L	10.0	4.0	2		02/21/15 19:21	91-20-3	
Toluene	**6.0J**	ug/L	10.0	3.2	2		02/21/15 19:21	108-88-3	
Xylene (Total)	**49.7**	ug/L	20.0	5.4	2		02/21/15 19:21	1330-20-7	
m&p-Xylene	**34.8**	ug/L	20.0	6.2	2		02/21/15 19:21	179601-23-1	
o-Xylene	**14.9**	ug/L	10.0	3.2	2		02/21/15 19:21	95-47-6	
Surrogates									
4-Bromofluorobenzene (S)	104	%	70-130		2		02/21/15 19:21	460-00-4	
1,2-Dichloroethane-d4 (S)	108	%	70-130		2		02/21/15 19:21	17060-07-0	
Toluene-d8 (S)	94	%	70-130		2		02/21/15 19:21	2037-26-5	

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ANALYTICAL RESULTS

Project: Warren Green 04887/44239
Pace Project No.: 92237781

Sample: MW-9 **Lab ID: 92237781009** Collected: 02/12/15 11:20 Received: 02/13/15 15:50 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8011 GCS EDB and DBCP	Analytical Method: EPA 8011 Preparation Method: EPA 8011								
1,2-Dibromoethane (EDB)	ND	ug/L	0.022	0.022	1	02/16/15 16:18	02/17/15 04:50	106-93-4	
Surrogates									
1-Chloro-2-bromopropane (S)	139	%	60-140		1	02/16/15 16:18	02/17/15 04:50	301-79-56	
8260 MSV	Analytical Method: EPA 8260								
tert-Amyl Alcohol	ND	ug/L	100	76.8	1		02/21/15 18:01	75-85-4	
tert-Amylmethyl ether	ND	ug/L	10.0	3.4	1		02/21/15 18:01	994-05-8	
Benzene	ND	ug/L	5.0	1.7	1		02/21/15 18:01	71-43-2	
3,3-Dimethyl-1-Butanol	ND	ug/L	100	32.1	1		02/21/15 18:01	624-95-3	
tert-Butyl Alcohol	ND	ug/L	100	57.7	1		02/21/15 18:01	75-65-0	
tert-Butyl Formate	ND	ug/L	50.0	7.3	1		02/21/15 18:01	762-75-4	
1,2-Dichloroethane	ND	ug/L	5.0	1.8	1		02/21/15 18:01	107-06-2	
Diisopropyl ether	ND	ug/L	5.0	1.7	1		02/21/15 18:01	108-20-3	
Ethanol	ND	ug/L	200	138	1		02/21/15 18:01	64-17-5	
Ethylbenzene	ND	ug/L	5.0	1.6	1		02/21/15 18:01	100-41-4	
Ethyl-tert-butyl ether	ND	ug/L	10.0	3.6	1		02/21/15 18:01	637-92-3	
Methyl-tert-butyl ether	ND	ug/L	5.0	1.7	1		02/21/15 18:01	1634-04-4	
Naphthalene	ND	ug/L	5.0	2.0	1		02/21/15 18:01	91-20-3	
Toluene	ND	ug/L	5.0	1.6	1		02/21/15 18:01	108-88-3	
Xylene (Total)	ND	ug/L	10.0	2.7	1		02/21/15 18:01	1330-20-7	
m&p-Xylene	ND	ug/L	10.0	3.1	1		02/21/15 18:01	179601-23-1	
o-Xylene	ND	ug/L	5.0	1.6	1		02/21/15 18:01	95-47-6	
Surrogates									
4-Bromofluorobenzene (S)	111	%	70-130		1		02/21/15 18:01	460-00-4	
1,2-Dichloroethane-d4 (S)	117	%	70-130		1		02/21/15 18:01	17060-07-0	
Toluene-d8 (S)	93	%	70-130		1		02/21/15 18:01	2037-26-5	

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ANALYTICAL RESULTS

Project: Warren Green 04887/44239
Pace Project No.: 92237781

Sample: MW-10 | **Lab ID: 92237781010** | Collected: 02/12/15 11:08 | Received: 02/13/15 15:50 | Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8011 GCS EDB and DBCP	Analytical Method: EPA 8011 Preparation Method: EPA 8011								
1,2-Dibromoethane (EDB)	ND	ug/L	0.020	0.020	1	02/16/15 16:18	02/17/15 05:09	106-93-4	
Surrogates									
1-Chloro-2-bromopropane (S)	107	%	60-140		1	02/16/15 16:18	02/17/15 05:09	301-79-56	
8260 MSV	Analytical Method: EPA 8260								
tert-Amyl Alcohol	ND	ug/L	100	76.8	1		02/21/15 16:57	75-85-4	
tert-Amylmethyl ether	ND	ug/L	10.0	3.4	1		02/21/15 16:57	994-05-8	
Benzene	ND	ug/L	5.0	1.7	1		02/21/15 16:57	71-43-2	
3,3-Dimethyl-1-Butanol	ND	ug/L	100	32.1	1		02/21/15 16:57	624-95-3	
tert-Butyl Alcohol	ND	ug/L	100	57.7	1		02/21/15 16:57	75-65-0	
tert-Butyl Formate	ND	ug/L	50.0	7.3	1		02/21/15 16:57	762-75-4	
1,2-Dichloroethane	ND	ug/L	5.0	1.8	1		02/21/15 16:57	107-06-2	
Diisopropyl ether	ND	ug/L	5.0	1.7	1		02/21/15 16:57	108-20-3	
Ethanol	ND	ug/L	200	138	1		02/21/15 16:57	64-17-5	
Ethylbenzene	ND	ug/L	5.0	1.6	1		02/21/15 16:57	100-41-4	
Ethyl-tert-butyl ether	ND	ug/L	10.0	3.6	1		02/21/15 16:57	637-92-3	
Methyl-tert-butyl ether	ND	ug/L	5.0	1.7	1		02/21/15 16:57	1634-04-4	
Naphthalene	ND	ug/L	5.0	2.0	1		02/21/15 16:57	91-20-3	
Toluene	ND	ug/L	5.0	1.6	1		02/21/15 16:57	108-88-3	
Xylene (Total)	ND	ug/L	10.0	2.7	1		02/21/15 16:57	1330-20-7	
m&p-Xylene	ND	ug/L	10.0	3.1	1		02/21/15 16:57	179601-23-1	
o-Xylene	ND	ug/L	5.0	1.6	1		02/21/15 16:57	95-47-6	
Surrogates									
4-Bromofluorobenzene (S)	107	%	70-130		1		02/21/15 16:57	460-00-4	
1,2-Dichloroethane-d4 (S)	116	%	70-130		1		02/21/15 16:57	17060-07-0	
Toluene-d8 (S)	96	%	70-130		1		02/21/15 16:57	2037-26-5	

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ANALYTICAL RESULTS

Project: Warren Green 04887/44239
Pace Project No.: 92237781

Sample: MW-11 **Lab ID: 92237781011** Collected: 02/12/15 11:12 Received: 02/13/15 15:50 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8011 GCS EDB and DBCP	Analytical Method: EPA 8011 Preparation Method: EPA 8011								
1,2-Dibromoethane (EDB)	ND	ug/L	0.020	0.020	1	02/16/15 16:18	02/17/15 05:28	106-93-4	
Surrogates									
1-Chloro-2-bromopropane (S)	106	%	60-140		1	02/16/15 16:18	02/17/15 05:28	301-79-56	
8260 MSV	Analytical Method: EPA 8260								
tert-Amyl Alcohol	ND	ug/L	100	76.8	1		02/21/15 17:13	75-85-4	
tert-Amylmethyl ether	ND	ug/L	10.0	3.4	1		02/21/15 17:13	994-05-8	
Benzene	ND	ug/L	5.0	1.7	1		02/21/15 17:13	71-43-2	
3,3-Dimethyl-1-Butanol	ND	ug/L	100	32.1	1		02/21/15 17:13	624-95-3	
tert-Butyl Alcohol	ND	ug/L	100	57.7	1		02/21/15 17:13	75-65-0	
tert-Butyl Formate	ND	ug/L	50.0	7.3	1		02/21/15 17:13	762-75-4	
1,2-Dichloroethane	ND	ug/L	5.0	1.8	1		02/21/15 17:13	107-06-2	
Diisopropyl ether	ND	ug/L	5.0	1.7	1		02/21/15 17:13	108-20-3	
Ethanol	ND	ug/L	200	138	1		02/21/15 17:13	64-17-5	
Ethylbenzene	ND	ug/L	5.0	1.6	1		02/21/15 17:13	100-41-4	
Ethyl-tert-butyl ether	ND	ug/L	10.0	3.6	1		02/21/15 17:13	637-92-3	
Methyl-tert-butyl ether	ND	ug/L	5.0	1.7	1		02/21/15 17:13	1634-04-4	
Naphthalene	ND	ug/L	5.0	2.0	1		02/21/15 17:13	91-20-3	
Toluene	ND	ug/L	5.0	1.6	1		02/21/15 17:13	108-88-3	
Xylene (Total)	ND	ug/L	10.0	2.7	1		02/21/15 17:13	1330-20-7	
m&p-Xylene	ND	ug/L	10.0	3.1	1		02/21/15 17:13	179601-23-1	
o-Xylene	ND	ug/L	5.0	1.6	1		02/21/15 17:13	95-47-6	
Surrogates									
4-Bromofluorobenzene (S)	110	%	70-130		1		02/21/15 17:13	460-00-4	
1,2-Dichloroethane-d4 (S)	118	%	70-130		1		02/21/15 17:13	17060-07-0	
Toluene-d8 (S)	94	%	70-130		1		02/21/15 17:13	2037-26-5	

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ANALYTICAL RESULTS

Project: Warren Green 04887/44239
Pace Project No.: 92237781

Sample: MW-12 **Lab ID: 92237781012** Collected: 02/12/15 11:16 Received: 02/13/15 15:50 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8011 GCS EDB and DBCP	Analytical Method: EPA 8011 Preparation Method: EPA 8011								
1,2-Dibromoethane (EDB)	ND	ug/L	0.020	0.020	1	02/16/15 16:18	02/17/15 05:47	106-93-4	
Surrogates									
1-Chloro-2-bromopropane (S)	102	%	60-140		1	02/16/15 16:18	02/17/15 05:47	301-79-56	
8260 MSV	Analytical Method: EPA 8260								
tert-Amyl Alcohol	ND	ug/L	100	76.8	1		02/21/15 17:29	75-85-4	
tert-Amylmethyl ether	ND	ug/L	10.0	3.4	1		02/21/15 17:29	994-05-8	
Benzene	ND	ug/L	5.0	1.7	1		02/21/15 17:29	71-43-2	
3,3-Dimethyl-1-Butanol	ND	ug/L	100	32.1	1		02/21/15 17:29	624-95-3	
tert-Butyl Alcohol	ND	ug/L	100	57.7	1		02/21/15 17:29	75-65-0	
tert-Butyl Formate	ND	ug/L	50.0	7.3	1		02/21/15 17:29	762-75-4	
1,2-Dichloroethane	ND	ug/L	5.0	1.8	1		02/21/15 17:29	107-06-2	
Diisopropyl ether	ND	ug/L	5.0	1.7	1		02/21/15 17:29	108-20-3	
Ethanol	ND	ug/L	200	138	1		02/21/15 17:29	64-17-5	
Ethylbenzene	ND	ug/L	5.0	1.6	1		02/21/15 17:29	100-41-4	
Ethyl-tert-butyl ether	ND	ug/L	10.0	3.6	1		02/21/15 17:29	637-92-3	
Methyl-tert-butyl ether	ND	ug/L	5.0	1.7	1		02/21/15 17:29	1634-04-4	
Naphthalene	ND	ug/L	5.0	2.0	1		02/21/15 17:29	91-20-3	
Toluene	ND	ug/L	5.0	1.6	1		02/21/15 17:29	108-88-3	
Xylene (Total)	ND	ug/L	10.0	2.7	1		02/21/15 17:29	1330-20-7	
m&p-Xylene	ND	ug/L	10.0	3.1	1		02/21/15 17:29	179601-23-1	
o-Xylene	ND	ug/L	5.0	1.6	1		02/21/15 17:29	95-47-6	
Surrogates									
4-Bromofluorobenzene (S)	110	%	70-130		1		02/21/15 17:29	460-00-4	
1,2-Dichloroethane-d4 (S)	116	%	70-130		1		02/21/15 17:29	17060-07-0	
Toluene-d8 (S)	95	%	70-130		1		02/21/15 17:29	2037-26-5	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: Warren Green 04887/44239
Pace Project No.: 92237781

Sample: MW-13 **Lab ID: 92237781013** Collected: 02/12/15 11:04 Received: 02/13/15 15:50 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8011 GCS EDB and DBCP	Analytical Method: EPA 8011 Preparation Method: EPA 8011								
1,2-Dibromoethane (EDB)	ND	ug/L	0.020	0.020	1	02/16/15 16:18	02/17/15 06:06	106-93-4	
Surrogates									
1-Chloro-2-bromopropane (S)	110	%	60-140		1	02/16/15 16:18	02/17/15 06:06	301-79-56	
8260 MSV	Analytical Method: EPA 8260								
tert-Amyl Alcohol	ND	ug/L	100	76.8	1		02/21/15 17:45	75-85-4	
tert-Amylmethyl ether	ND	ug/L	10.0	3.4	1		02/21/15 17:45	994-05-8	
Benzene	ND	ug/L	5.0	1.7	1		02/21/15 17:45	71-43-2	
3,3-Dimethyl-1-Butanol	ND	ug/L	100	32.1	1		02/21/15 17:45	624-95-3	
tert-Butyl Alcohol	ND	ug/L	100	57.7	1		02/21/15 17:45	75-65-0	
tert-Butyl Formate	ND	ug/L	50.0	7.3	1		02/21/15 17:45	762-75-4	
1,2-Dichloroethane	ND	ug/L	5.0	1.8	1		02/21/15 17:45	107-06-2	
Diisopropyl ether	ND	ug/L	5.0	1.7	1		02/21/15 17:45	108-20-3	
Ethanol	ND	ug/L	200	138	1		02/21/15 17:45	64-17-5	
Ethylbenzene	ND	ug/L	5.0	1.6	1		02/21/15 17:45	100-41-4	
Ethyl-tert-butyl ether	ND	ug/L	10.0	3.6	1		02/21/15 17:45	637-92-3	
Methyl-tert-butyl ether	ND	ug/L	5.0	1.7	1		02/21/15 17:45	1634-04-4	
Naphthalene	ND	ug/L	5.0	2.0	1		02/21/15 17:45	91-20-3	
Toluene	ND	ug/L	5.0	1.6	1		02/21/15 17:45	108-88-3	
Xylene (Total)	ND	ug/L	10.0	2.7	1		02/21/15 17:45	1330-20-7	
m&p-Xylene	ND	ug/L	10.0	3.1	1		02/21/15 17:45	179601-23-1	
o-Xylene	ND	ug/L	5.0	1.6	1		02/21/15 17:45	95-47-6	
Surrogates									
4-Bromofluorobenzene (S)	110	%	70-130		1		02/21/15 17:45	460-00-4	
1,2-Dichloroethane-d4 (S)	117	%	70-130		1		02/21/15 17:45	17060-07-0	
Toluene-d8 (S)	94	%	70-130		1		02/21/15 17:45	2037-26-5	

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ANALYTICAL RESULTS

Project: Warren Green 04887/44239
Pace Project No.: 92237781

Sample: MW-14 **Lab ID: 92237781014** Collected: 02/12/15 11:00 Received: 02/13/15 15:50 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8011 GCS EDB and DBCP	Analytical Method: EPA 8011 Preparation Method: EPA 8011								
1,2-Dibromoethane (EDB)	ND	ug/L	0.020	0.020	1	02/16/15 16:18	02/17/15 06:25	106-93-4	
Surrogates									
1-Chloro-2-bromopropane (S)	107	%	60-140		1	02/16/15 16:18	02/17/15 06:25	301-79-56	
8260 MSV	Analytical Method: EPA 8260								
tert-Amyl Alcohol	ND	ug/L	100	76.8	1		02/21/15 18:17	75-85-4	
tert-Amylmethyl ether	ND	ug/L	10.0	3.4	1		02/21/15 18:17	994-05-8	
Benzene	ND	ug/L	5.0	1.7	1		02/21/15 18:17	71-43-2	
3,3-Dimethyl-1-Butanol	ND	ug/L	100	32.1	1		02/21/15 18:17	624-95-3	
tert-Butyl Alcohol	ND	ug/L	100	57.7	1		02/21/15 18:17	75-65-0	
tert-Butyl Formate	ND	ug/L	50.0	7.3	1		02/21/15 18:17	762-75-4	
1,2-Dichloroethane	ND	ug/L	5.0	1.8	1		02/21/15 18:17	107-06-2	
Diisopropyl ether	ND	ug/L	5.0	1.7	1		02/21/15 18:17	108-20-3	
Ethanol	ND	ug/L	200	138	1		02/21/15 18:17	64-17-5	
Ethylbenzene	ND	ug/L	5.0	1.6	1		02/21/15 18:17	100-41-4	
Ethyl-tert-butyl ether	ND	ug/L	10.0	3.6	1		02/21/15 18:17	637-92-3	
Methyl-tert-butyl ether	ND	ug/L	5.0	1.7	1		02/21/15 18:17	1634-04-4	
Naphthalene	ND	ug/L	5.0	2.0	1		02/21/15 18:17	91-20-3	
Toluene	ND	ug/L	5.0	1.6	1		02/21/15 18:17	108-88-3	
Xylene (Total)	ND	ug/L	10.0	2.7	1		02/21/15 18:17	1330-20-7	
m&p-Xylene	ND	ug/L	10.0	3.1	1		02/21/15 18:17	179601-23-1	
o-Xylene	ND	ug/L	5.0	1.6	1		02/21/15 18:17	95-47-6	
Surrogates									
4-Bromofluorobenzene (S)	115	%	70-130		1		02/21/15 18:17	460-00-4	
1,2-Dichloroethane-d4 (S)	119	%	70-130		1		02/21/15 18:17	17060-07-0	
Toluene-d8 (S)	97	%	70-130		1		02/21/15 18:17	2037-26-5	

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ANALYTICAL RESULTS

Project: Warren Green 04887/44239
Pace Project No.: 92237781

Sample: MW-15 **Lab ID: 92237781015** Collected: 02/12/15 11:35 Received: 02/13/15 15:50 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8011 GCS EDB and DBCP	Analytical Method: EPA 8011 Preparation Method: EPA 8011								
1,2-Dibromoethane (EDB)	ND	ug/L	0.019	0.019	1	02/16/15 16:18	02/17/15 06:44	106-93-4	
Surrogates									
1-Chloro-2-bromopropane (S)	106	%	60-140		1	02/16/15 16:18	02/17/15 06:44	301-79-56	
8260 MSV	Analytical Method: EPA 8260								
tert-Amyl Alcohol	ND	ug/L	100	76.8	1		02/21/15 18:33	75-85-4	
tert-Amylmethyl ether	ND	ug/L	10.0	3.4	1		02/21/15 18:33	994-05-8	
Benzene	ND	ug/L	5.0	1.7	1		02/21/15 18:33	71-43-2	
3,3-Dimethyl-1-Butanol	ND	ug/L	100	32.1	1		02/21/15 18:33	624-95-3	
tert-Butyl Alcohol	ND	ug/L	100	57.7	1		02/21/15 18:33	75-65-0	
tert-Butyl Formate	ND	ug/L	50.0	7.3	1		02/21/15 18:33	762-75-4	
1,2-Dichloroethane	ND	ug/L	5.0	1.8	1		02/21/15 18:33	107-06-2	
Diisopropyl ether	ND	ug/L	5.0	1.7	1		02/21/15 18:33	108-20-3	
Ethanol	ND	ug/L	200	138	1		02/21/15 18:33	64-17-5	
Ethylbenzene	ND	ug/L	5.0	1.6	1		02/21/15 18:33	100-41-4	
Ethyl-tert-butyl ether	ND	ug/L	10.0	3.6	1		02/21/15 18:33	637-92-3	
Methyl-tert-butyl ether	ND	ug/L	5.0	1.7	1		02/21/15 18:33	1634-04-4	
Naphthalene	ND	ug/L	5.0	2.0	1		02/21/15 18:33	91-20-3	
Toluene	ND	ug/L	5.0	1.6	1		02/21/15 18:33	108-88-3	
Xylene (Total)	ND	ug/L	10.0	2.7	1		02/21/15 18:33	1330-20-7	
m&p-Xylene	ND	ug/L	10.0	3.1	1		02/21/15 18:33	179601-23-1	
o-Xylene	ND	ug/L	5.0	1.6	1		02/21/15 18:33	95-47-6	
Surrogates									
4-Bromofluorobenzene (S)	108	%	70-130		1		02/21/15 18:33	460-00-4	
1,2-Dichloroethane-d4 (S)	117	%	70-130		1		02/21/15 18:33	17060-07-0	
Toluene-d8 (S)	95	%	70-130		1		02/21/15 18:33	2037-26-5	

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ANALYTICAL RESULTS

Project: Warren Green 04887/44239
Pace Project No.: 92237781

Sample: DW-1 **Lab ID: 92237781016** Collected: 02/12/15 12:08 Received: 02/13/15 15:50 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8011 GCS EDB and DBCP	Analytical Method: EPA 8011 Preparation Method: EPA 8011								
1,2-Dibromoethane (EDB)	ND	ug/L	0.020	0.020	1	02/16/15 16:19	02/17/15 07:03	106-93-4	
Surrogates									
1-Chloro-2-bromopropane (S)	97	%	60-140		1	02/16/15 16:19	02/17/15 07:03	301-79-56	
8260 MSV	Analytical Method: EPA 8260								
tert-Amyl Alcohol	ND	ug/L	100	76.8	1		02/21/15 18:49	75-85-4	
tert-Amylmethyl ether	ND	ug/L	10.0	3.4	1		02/21/15 18:49	994-05-8	
Benzene	ND	ug/L	5.0	1.7	1		02/21/15 18:49	71-43-2	
3,3-Dimethyl-1-Butanol	ND	ug/L	100	32.1	1		02/21/15 18:49	624-95-3	
tert-Butyl Alcohol	ND	ug/L	100	57.7	1		02/21/15 18:49	75-65-0	
tert-Butyl Formate	ND	ug/L	50.0	7.3	1		02/21/15 18:49	762-75-4	
1,2-Dichloroethane	ND	ug/L	5.0	1.8	1		02/21/15 18:49	107-06-2	
Diisopropyl ether	ND	ug/L	5.0	1.7	1		02/21/15 18:49	108-20-3	
Ethanol	ND	ug/L	200	138	1		02/21/15 18:49	64-17-5	
Ethylbenzene	ND	ug/L	5.0	1.6	1		02/21/15 18:49	100-41-4	
Ethyl-tert-butyl ether	ND	ug/L	10.0	3.6	1		02/21/15 18:49	637-92-3	
Methyl-tert-butyl ether	ND	ug/L	5.0	1.7	1		02/21/15 18:49	1634-04-4	
Naphthalene	ND	ug/L	5.0	2.0	1		02/21/15 18:49	91-20-3	
Toluene	ND	ug/L	5.0	1.6	1		02/21/15 18:49	108-88-3	
Xylene (Total)	ND	ug/L	10.0	2.7	1		02/21/15 18:49	1330-20-7	
m&p-Xylene	ND	ug/L	10.0	3.1	1		02/21/15 18:49	179601-23-1	
o-Xylene	ND	ug/L	5.0	1.6	1		02/21/15 18:49	95-47-6	
Surrogates									
4-Bromofluorobenzene (S)	108	%	70-130		1		02/21/15 18:49	460-00-4	
1,2-Dichloroethane-d4 (S)	117	%	70-130		1		02/21/15 18:49	17060-07-0	
Toluene-d8 (S)	97	%	70-130		1		02/21/15 18:49	2037-26-5	

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ANALYTICAL RESULTS

Project: Warren Green 04887/44239
Pace Project No.: 92237781

Sample: DW-2 **Lab ID: 92237781017** Collected: 02/12/15 11:46 Received: 02/13/15 15:50 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8011 GCS EDB and DBCP	Analytical Method: EPA 8011 Preparation Method: EPA 8011								
1,2-Dibromoethane (EDB)	ND	ug/L	0.020	0.020	1	02/16/15 16:19	02/17/15 07:22	106-93-4	
Surrogates									
1-Chloro-2-bromopropane (S)	143	%	60-140		1	02/16/15 16:19	02/17/15 07:22	301-79-56	S3
8260 MSV	Analytical Method: EPA 8260								
tert-Amyl Alcohol	ND	ug/L	100	76.8	1		02/21/15 20:09	75-85-4	
tert-Amylmethyl ether	ND	ug/L	10.0	3.4	1		02/21/15 20:09	994-05-8	
Benzene	ND	ug/L	5.0	1.7	1		02/21/15 20:09	71-43-2	
3,3-Dimethyl-1-Butanol	ND	ug/L	100	32.1	1		02/21/15 20:09	624-95-3	
tert-Butyl Alcohol	ND	ug/L	100	57.7	1		02/21/15 20:09	75-65-0	
tert-Butyl Formate	ND	ug/L	50.0	7.3	1		02/21/15 20:09	762-75-4	
1,2-Dichloroethane	ND	ug/L	5.0	1.8	1		02/21/15 20:09	107-06-2	
Diisopropyl ether	ND	ug/L	5.0	1.7	1		02/21/15 20:09	108-20-3	
Ethanol	ND	ug/L	200	138	1		02/21/15 20:09	64-17-5	
Ethylbenzene	ND	ug/L	5.0	1.6	1		02/21/15 20:09	100-41-4	
Ethyl-tert-butyl ether	ND	ug/L	10.0	3.6	1		02/21/15 20:09	637-92-3	
Methyl-tert-butyl ether	ND	ug/L	5.0	1.7	1		02/21/15 20:09	1634-04-4	
Naphthalene	ND	ug/L	5.0	2.0	1		02/21/15 20:09	91-20-3	
Toluene	ND	ug/L	5.0	1.6	1		02/21/15 20:09	108-88-3	
Xylene (Total)	ND	ug/L	10.0	2.7	1		02/21/15 20:09	1330-20-7	
m&p-Xylene	ND	ug/L	10.0	3.1	1		02/21/15 20:09	179601-23-1	
o-Xylene	ND	ug/L	5.0	1.6	1		02/21/15 20:09	95-47-6	
Surrogates									
4-Bromofluorobenzene (S)	108	%	70-130		1		02/21/15 20:09	460-00-4	
1,2-Dichloroethane-d4 (S)	109	%	70-130		1		02/21/15 20:09	17060-07-0	
Toluene-d8 (S)	95	%	70-130		1		02/21/15 20:09	2037-26-5	

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ANALYTICAL RESULTS

Project: Warren Green 04887/44239
Pace Project No.: 92237781

Sample: DW-3 **Lab ID: 92237781018** Collected: 02/12/15 10:45 Received: 02/13/15 15:50 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8011 GCS EDB and DBCP	Analytical Method: EPA 8011 Preparation Method: EPA 8011								
1,2-Dibromoethane (EDB)	ND	ug/L	0.020	0.020	1	02/16/15 16:19	02/17/15 07:40	106-93-4	
Surrogates									
1-Chloro-2-bromopropane (S)	106	%	60-140		1	02/16/15 16:19	02/17/15 07:40	301-79-56	
8260 MSV	Analytical Method: EPA 8260								
tert-Amyl Alcohol	ND	ug/L	100	76.8	1		02/21/15 20:25	75-85-4	
tert-Amylmethyl ether	ND	ug/L	10.0	3.4	1		02/21/15 20:25	994-05-8	
Benzene	ND	ug/L	5.0	1.7	1		02/21/15 20:25	71-43-2	
3,3-Dimethyl-1-Butanol	ND	ug/L	100	32.1	1		02/21/15 20:25	624-95-3	
tert-Butyl Alcohol	ND	ug/L	100	57.7	1		02/21/15 20:25	75-65-0	
tert-Butyl Formate	ND	ug/L	50.0	7.3	1		02/21/15 20:25	762-75-4	
1,2-Dichloroethane	ND	ug/L	5.0	1.8	1		02/21/15 20:25	107-06-2	
Diisopropyl ether	ND	ug/L	5.0	1.7	1		02/21/15 20:25	108-20-3	
Ethanol	ND	ug/L	200	138	1		02/21/15 20:25	64-17-5	
Ethylbenzene	ND	ug/L	5.0	1.6	1		02/21/15 20:25	100-41-4	
Ethyl-tert-butyl ether	ND	ug/L	10.0	3.6	1		02/21/15 20:25	637-92-3	
Methyl-tert-butyl ether	ND	ug/L	5.0	1.7	1		02/21/15 20:25	1634-04-4	
Naphthalene	ND	ug/L	5.0	2.0	1		02/21/15 20:25	91-20-3	
Toluene	ND	ug/L	5.0	1.6	1		02/21/15 20:25	108-88-3	
Xylene (Total)	ND	ug/L	10.0	2.7	1		02/21/15 20:25	1330-20-7	
m&p-Xylene	ND	ug/L	10.0	3.1	1		02/21/15 20:25	179601-23-1	
o-Xylene	ND	ug/L	5.0	1.6	1		02/21/15 20:25	95-47-6	
Surrogates									
4-Bromofluorobenzene (S)	110	%	70-130		1		02/21/15 20:25	460-00-4	
1,2-Dichloroethane-d4 (S)	115	%	70-130		1		02/21/15 20:25	17060-07-0	
Toluene-d8 (S)	99	%	70-130		1		02/21/15 20:25	2037-26-5	

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ANALYTICAL RESULTS

Project: Warren Green 04887/44239
Pace Project No.: 92237781

Sample: DW-4 **Lab ID: 92237781019** Collected: 02/12/15 10:56 Received: 02/13/15 15:50 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8011 GCS EDB and DBCP	Analytical Method: EPA 8011 Preparation Method: EPA 8011								
1,2-Dibromoethane (EDB)	ND	ug/L	0.020	0.020	1	02/16/15 16:21	02/16/15 19:48	106-93-4	
Surrogates									
1-Chloro-2-bromopropane (S)	108	%	60-140		1	02/16/15 16:21	02/16/15 19:48	301-79-56	
8260 MSV	Analytical Method: EPA 8260								
tert-Amyl Alcohol	ND	ug/L	100	76.8	1		02/21/15 20:41	75-85-4	
tert-Amylmethyl ether	ND	ug/L	10.0	3.4	1		02/21/15 20:41	994-05-8	
Benzene	ND	ug/L	5.0	1.7	1		02/21/15 20:41	71-43-2	
3,3-Dimethyl-1-Butanol	ND	ug/L	100	32.1	1		02/21/15 20:41	624-95-3	
tert-Butyl Alcohol	ND	ug/L	100	57.7	1		02/21/15 20:41	75-65-0	
tert-Butyl Formate	ND	ug/L	50.0	7.3	1		02/21/15 20:41	762-75-4	
1,2-Dichloroethane	ND	ug/L	5.0	1.8	1		02/21/15 20:41	107-06-2	
Diisopropyl ether	ND	ug/L	5.0	1.7	1		02/21/15 20:41	108-20-3	
Ethanol	ND	ug/L	200	138	1		02/21/15 20:41	64-17-5	
Ethylbenzene	ND	ug/L	5.0	1.6	1		02/21/15 20:41	100-41-4	
Ethyl-tert-butyl ether	ND	ug/L	10.0	3.6	1		02/21/15 20:41	637-92-3	
Methyl-tert-butyl ether	ND	ug/L	5.0	1.7	1		02/21/15 20:41	1634-04-4	
Naphthalene	ND	ug/L	5.0	2.0	1		02/21/15 20:41	91-20-3	
Toluene	ND	ug/L	5.0	1.6	1		02/21/15 20:41	108-88-3	
Xylene (Total)	ND	ug/L	10.0	2.7	1		02/21/15 20:41	1330-20-7	
m&p-Xylene	ND	ug/L	10.0	3.1	1		02/21/15 20:41	179601-23-1	
o-Xylene	ND	ug/L	5.0	1.6	1		02/21/15 20:41	95-47-6	
Surrogates									
4-Bromofluorobenzene (S)	113	%	70-130		1		02/21/15 20:41	460-00-4	
1,2-Dichloroethane-d4 (S)	115	%	70-130		1		02/21/15 20:41	17060-07-0	
Toluene-d8 (S)	94	%	70-130		1		02/21/15 20:41	2037-26-5	

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ANALYTICAL RESULTS

Project: Warren Green 04887/44239
Pace Project No.: 92237781

Sample: DW-5 **Lab ID: 92237781020** Collected: 02/12/15 12:01 Received: 02/13/15 15:50 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8011 GCS EDB and DBCP	Analytical Method: EPA 8011 Preparation Method: EPA 8011								
1,2-Dibromoethane (EDB)	ND	ug/L	0.020	0.020	1	02/16/15 16:21	02/16/15 20:47	106-93-4	
Surrogates									
1-Chloro-2-bromopropane (S)	118	%	60-140		1	02/16/15 16:21	02/16/15 20:47	301-79-56	
8260 MSV	Analytical Method: EPA 8260								
tert-Amyl Alcohol	ND	ug/L	100	76.8	1		02/21/15 20:57	75-85-4	
tert-Amylmethyl ether	ND	ug/L	10.0	3.4	1		02/21/15 20:57	994-05-8	
Benzene	ND	ug/L	5.0	1.7	1		02/21/15 20:57	71-43-2	
3,3-Dimethyl-1-Butanol	ND	ug/L	100	32.1	1		02/21/15 20:57	624-95-3	
tert-Butyl Alcohol	ND	ug/L	100	57.7	1		02/21/15 20:57	75-65-0	
tert-Butyl Formate	ND	ug/L	50.0	7.3	1		02/21/15 20:57	762-75-4	
1,2-Dichloroethane	ND	ug/L	5.0	1.8	1		02/21/15 20:57	107-06-2	
Diisopropyl ether	ND	ug/L	5.0	1.7	1		02/21/15 20:57	108-20-3	
Ethanol	ND	ug/L	200	138	1		02/21/15 20:57	64-17-5	
Ethylbenzene	ND	ug/L	5.0	1.6	1		02/21/15 20:57	100-41-4	
Ethyl-tert-butyl ether	ND	ug/L	10.0	3.6	1		02/21/15 20:57	637-92-3	
Methyl-tert-butyl ether	ND	ug/L	5.0	1.7	1		02/21/15 20:57	1634-04-4	
Naphthalene	ND	ug/L	5.0	2.0	1		02/21/15 20:57	91-20-3	
Toluene	ND	ug/L	5.0	1.6	1		02/21/15 20:57	108-88-3	
Xylene (Total)	ND	ug/L	10.0	2.7	1		02/21/15 20:57	1330-20-7	
m&p-Xylene	ND	ug/L	10.0	3.1	1		02/21/15 20:57	179601-23-1	
o-Xylene	ND	ug/L	5.0	1.6	1		02/21/15 20:57	95-47-6	
Surrogates									
4-Bromofluorobenzene (S)	109	%	70-130		1		02/21/15 20:57	460-00-4	
1,2-Dichloroethane-d4 (S)	119	%	70-130		1		02/21/15 20:57	17060-07-0	
Toluene-d8 (S)	94	%	70-130		1		02/21/15 20:57	2037-26-5	

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ANALYTICAL RESULTS

Project: Warren Green 04887/44239
Pace Project No.: 92237781

Sample: DW-6 **Lab ID: 92237781021** Collected: 02/12/15 11:27 Received: 02/13/15 15:50 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8011 GCS EDB and DBCP	Analytical Method: EPA 8011 Preparation Method: EPA 8011								
1,2-Dibromoethane (EDB)	ND	ug/L	0.019	0.019	1	02/16/15 16:22	02/16/15 21:27	106-93-4	
Surrogates									
1-Chloro-2-bromopropane (S)	101	%	60-140		1	02/16/15 16:22	02/16/15 21:27	301-79-56	
8260 MSV	Analytical Method: EPA 8260								
tert-Amyl Alcohol	ND	ug/L	100	76.8	1		02/21/15 21:13	75-85-4	
tert-Amylmethyl ether	ND	ug/L	10.0	3.4	1		02/21/15 21:13	994-05-8	
Benzene	ND	ug/L	5.0	1.7	1		02/21/15 21:13	71-43-2	
3,3-Dimethyl-1-Butanol	ND	ug/L	100	32.1	1		02/21/15 21:13	624-95-3	
tert-Butyl Alcohol	ND	ug/L	100	57.7	1		02/21/15 21:13	75-65-0	
tert-Butyl Formate	ND	ug/L	50.0	7.3	1		02/21/15 21:13	762-75-4	
1,2-Dichloroethane	ND	ug/L	5.0	1.8	1		02/21/15 21:13	107-06-2	
Diisopropyl ether	ND	ug/L	5.0	1.7	1		02/21/15 21:13	108-20-3	
Ethanol	ND	ug/L	200	138	1		02/21/15 21:13	64-17-5	
Ethylbenzene	ND	ug/L	5.0	1.6	1		02/21/15 21:13	100-41-4	
Ethyl-tert-butyl ether	ND	ug/L	10.0	3.6	1		02/21/15 21:13	637-92-3	
Methyl-tert-butyl ether	ND	ug/L	5.0	1.7	1		02/21/15 21:13	1634-04-4	
Naphthalene	ND	ug/L	5.0	2.0	1		02/21/15 21:13	91-20-3	
Toluene	ND	ug/L	5.0	1.6	1		02/21/15 21:13	108-88-3	
Xylene (Total)	ND	ug/L	10.0	2.7	1		02/21/15 21:13	1330-20-7	
m&p-Xylene	ND	ug/L	10.0	3.1	1		02/21/15 21:13	179601-23-1	
o-Xylene	ND	ug/L	5.0	1.6	1		02/21/15 21:13	95-47-6	
Surrogates									
4-Bromofluorobenzene (S)	106	%	70-130		1		02/21/15 21:13	460-00-4	
1,2-Dichloroethane-d4 (S)	114	%	70-130		1		02/21/15 21:13	17060-07-0	
Toluene-d8 (S)	94	%	70-130		1		02/21/15 21:13	2037-26-5	

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ANALYTICAL RESULTS

Project: Warren Green 04887/44239
Pace Project No.: 92237781

Sample: MW-3R DUP **Lab ID: 92237781022** Collected: 02/12/15 11:54 Received: 02/13/15 15:50 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8011 GCS EDB and DBCP	Analytical Method: EPA 8011 Preparation Method: EPA 8011								
1,2-Dibromoethane (EDB)	ND	ug/L	0.019	0.019	1	02/16/15 16:22	02/16/15 21:47	106-93-4	
Surrogates									
1-Chloro-2-bromopropane (S)	106	%	60-140		1	02/16/15 16:22	02/16/15 21:47	301-79-56	
8260 MSV	Analytical Method: EPA 8260								
tert-Amyl Alcohol	ND	ug/L	100	76.8	1		02/21/15 21:45	75-85-4	
tert-Amylmethyl ether	ND	ug/L	10.0	3.4	1		02/21/15 21:45	994-05-8	
Benzene	ND	ug/L	5.0	1.7	1		02/21/15 21:45	71-43-2	
3,3-Dimethyl-1-Butanol	ND	ug/L	100	32.1	1		02/21/15 21:45	624-95-3	
tert-Butyl Alcohol	ND	ug/L	100	57.7	1		02/21/15 21:45	75-65-0	
tert-Butyl Formate	ND	ug/L	50.0	7.3	1		02/21/15 21:45	762-75-4	
1,2-Dichloroethane	ND	ug/L	5.0	1.8	1		02/21/15 21:45	107-06-2	
Diisopropyl ether	ND	ug/L	5.0	1.7	1		02/21/15 21:45	108-20-3	
Ethanol	ND	ug/L	200	138	1		02/21/15 21:45	64-17-5	
Ethylbenzene	ND	ug/L	5.0	1.6	1		02/21/15 21:45	100-41-4	
Ethyl-tert-butyl ether	ND	ug/L	10.0	3.6	1		02/21/15 21:45	637-92-3	
Methyl-tert-butyl ether	ND	ug/L	5.0	1.7	1		02/21/15 21:45	1634-04-4	
Naphthalene	ND	ug/L	5.0	2.0	1		02/21/15 21:45	91-20-3	
Toluene	ND	ug/L	5.0	1.6	1		02/21/15 21:45	108-88-3	
Xylene (Total)	ND	ug/L	10.0	2.7	1		02/21/15 21:45	1330-20-7	
m&p-Xylene	ND	ug/L	10.0	3.1	1		02/21/15 21:45	179601-23-1	
o-Xylene	ND	ug/L	5.0	1.6	1		02/21/15 21:45	95-47-6	
Surrogates									
4-Bromofluorobenzene (S)	110	%	70-130		1		02/21/15 21:45	460-00-4	
1,2-Dichloroethane-d4 (S)	122	%	70-130		1		02/21/15 21:45	17060-07-0	
Toluene-d8 (S)	94	%	70-130		1		02/21/15 21:45	2037-26-5	

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ANALYTICAL RESULTS

Project: Warren Green 04887/44239
Pace Project No.: 92237781

Sample: MW-5 DUP **Lab ID: 92237781023** Collected: 02/12/15 10:37 Received: 02/13/15 15:50 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8011 GCS EDB and DBCP	Analytical Method: EPA 8011 Preparation Method: EPA 8011								
1,2-Dibromoethane (EDB)	ND	ug/L	0.020	0.020	1	02/16/15 16:22	02/16/15 22:06	106-93-4	
Surrogates									
1-Chloro-2-bromopropane (S)	108	%	60-140		1	02/16/15 16:22	02/16/15 22:06	301-79-56	
8260 MSV	Analytical Method: EPA 8260								
tert-Amyl Alcohol	ND	ug/L	100	76.8	1		02/21/15 22:01	75-85-4	
tert-Amylmethyl ether	ND	ug/L	10.0	3.4	1		02/21/15 22:01	994-05-8	
Benzene	ND	ug/L	5.0	1.7	1		02/21/15 22:01	71-43-2	
3,3-Dimethyl-1-Butanol	ND	ug/L	100	32.1	1		02/21/15 22:01	624-95-3	
tert-Butyl Alcohol	ND	ug/L	100	57.7	1		02/21/15 22:01	75-65-0	
tert-Butyl Formate	ND	ug/L	50.0	7.3	1		02/21/15 22:01	762-75-4	
1,2-Dichloroethane	ND	ug/L	5.0	1.8	1		02/21/15 22:01	107-06-2	
Diisopropyl ether	ND	ug/L	5.0	1.7	1		02/21/15 22:01	108-20-3	
Ethanol	ND	ug/L	200	138	1		02/21/15 22:01	64-17-5	
Ethylbenzene	ND	ug/L	5.0	1.6	1		02/21/15 22:01	100-41-4	
Ethyl-tert-butyl ether	ND	ug/L	10.0	3.6	1		02/21/15 22:01	637-92-3	
Methyl-tert-butyl ether	ND	ug/L	5.0	1.7	1		02/21/15 22:01	1634-04-4	
Naphthalene	ND	ug/L	5.0	2.0	1		02/21/15 22:01	91-20-3	
Toluene	ND	ug/L	5.0	1.6	1		02/21/15 22:01	108-88-3	
Xylene (Total)	ND	ug/L	10.0	2.7	1		02/21/15 22:01	1330-20-7	
m&p-Xylene	ND	ug/L	10.0	3.1	1		02/21/15 22:01	179601-23-1	
o-Xylene	ND	ug/L	5.0	1.6	1		02/21/15 22:01	95-47-6	
Surrogates									
4-Bromofluorobenzene (S)	109	%	70-130		1		02/21/15 22:01	460-00-4	
1,2-Dichloroethane-d4 (S)	119	%	70-130		1		02/21/15 22:01	17060-07-0	
Toluene-d8 (S)	103	%	70-130		1		02/21/15 22:01	2037-26-5	

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ANALYTICAL RESULTS

Project: Warren Green 04887/44239
Pace Project No.: 92237781

Sample: FIELD BLANK **Lab ID: 92237781024** Collected: 02/12/15 12:18 Received: 02/13/15 15:50 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8011 GCS EDB and DBCP	Analytical Method: EPA 8011 Preparation Method: EPA 8011								
1,2-Dibromoethane (EDB)	ND	ug/L	0.019	0.019	1	02/16/15 16:22	02/16/15 22:26	106-93-4	
Surrogates									
1-Chloro-2-bromopropane (S)	106	%	60-140		1	02/16/15 16:22	02/16/15 22:26	301-79-56	
8260 MSV	Analytical Method: EPA 8260								
tert-Amyl Alcohol	ND	ug/L	100	76.8	1		02/22/15 02:48	75-85-4	
tert-Amylmethyl ether	ND	ug/L	10.0	3.4	1		02/22/15 02:48	994-05-8	
Benzene	ND	ug/L	5.0	1.7	1		02/22/15 02:48	71-43-2	
3,3-Dimethyl-1-Butanol	ND	ug/L	100	32.1	1		02/22/15 02:48	624-95-3	
tert-Butyl Alcohol	ND	ug/L	100	57.7	1		02/22/15 02:48	75-65-0	
tert-Butyl Formate	ND	ug/L	50.0	7.3	1		02/22/15 02:48	762-75-4	
1,2-Dichloroethane	ND	ug/L	5.0	1.8	1		02/22/15 02:48	107-06-2	
Diisopropyl ether	ND	ug/L	5.0	1.7	1		02/22/15 02:48	108-20-3	
Ethanol	ND	ug/L	200	138	1		02/22/15 02:48	64-17-5	
Ethylbenzene	ND	ug/L	5.0	1.6	1		02/22/15 02:48	100-41-4	
Ethyl-tert-butyl ether	ND	ug/L	10.0	3.6	1		02/22/15 02:48	637-92-3	
Methyl-tert-butyl ether	ND	ug/L	5.0	1.7	1		02/22/15 02:48	1634-04-4	
Naphthalene	ND	ug/L	5.0	2.0	1		02/22/15 02:48	91-20-3	
Toluene	ND	ug/L	5.0	1.6	1		02/22/15 02:48	108-88-3	
Xylene (Total)	ND	ug/L	10.0	2.7	1		02/22/15 02:48	1330-20-7	
m&p-Xylene	ND	ug/L	10.0	3.1	1		02/22/15 02:48	179601-23-1	
o-Xylene	ND	ug/L	5.0	1.6	1		02/22/15 02:48	95-47-6	
Surrogates									
4-Bromofluorobenzene (S)	110	%	70-130		1		02/22/15 02:48	460-00-4	
1,2-Dichloroethane-d4 (S)	112	%	70-130		1		02/22/15 02:48	17060-07-0	
Toluene-d8 (S)	97	%	70-130		1		02/22/15 02:48	2037-26-5	

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ANALYTICAL RESULTS

Project: Warren Green 04887/44239
Pace Project No.: 92237781

Sample: TRIP BLANK **Lab ID: 92237781025** Collected: 02/12/15 12:19 Received: 02/13/15 15:50 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV	Analytical Method: EPA 8260								
tert-Amyl Alcohol	ND	ug/L	100	76.8	1		02/22/15 03:04	75-85-4	
tert-Amylmethyl ether	ND	ug/L	10.0	3.4	1		02/22/15 03:04	994-05-8	
Benzene	ND	ug/L	5.0	1.7	1		02/22/15 03:04	71-43-2	
3,3-Dimethyl-1-Butanol	ND	ug/L	100	32.1	1		02/22/15 03:04	624-95-3	
tert-Butyl Alcohol	ND	ug/L	100	57.7	1		02/22/15 03:04	75-65-0	
tert-Butyl Formate	ND	ug/L	50.0	7.3	1		02/22/15 03:04	762-75-4	
1,2-Dichloroethane	ND	ug/L	5.0	1.8	1		02/22/15 03:04	107-06-2	
Diisopropyl ether	ND	ug/L	5.0	1.7	1		02/22/15 03:04	108-20-3	
Ethanol	ND	ug/L	200	138	1		02/22/15 03:04	64-17-5	
Ethylbenzene	ND	ug/L	5.0	1.6	1		02/22/15 03:04	100-41-4	
Ethyl-tert-butyl ether	ND	ug/L	10.0	3.6	1		02/22/15 03:04	637-92-3	
Methyl-tert-butyl ether	ND	ug/L	5.0	1.7	1		02/22/15 03:04	1634-04-4	
Naphthalene	ND	ug/L	5.0	2.0	1		02/22/15 03:04	91-20-3	
Toluene	ND	ug/L	5.0	1.6	1		02/22/15 03:04	108-88-3	
Xylene (Total)	ND	ug/L	10.0	2.7	1		02/22/15 03:04	1330-20-7	
m&p-Xylene	ND	ug/L	10.0	3.1	1		02/22/15 03:04	179601-23-1	
o-Xylene	ND	ug/L	5.0	1.6	1		02/22/15 03:04	95-47-6	
Surrogates									
4-Bromofluorobenzene (S)	108	%	70-130		1		02/22/15 03:04	460-00-4	
1,2-Dichloroethane-d4 (S)	115	%	70-130		1		02/22/15 03:04	17060-07-0	
Toluene-d8 (S)	97	%	70-130		1		02/22/15 03:04	2037-26-5	

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ANALYTICAL RESULTS

Project: Warren Green 04887/44239
Pace Project No.: 92237781

Sample: WSW-1 **Lab ID: 92237781026** Collected: 02/12/15 12:19 Received: 02/13/15 15:50 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8011 GCS EDB and DBCP	Analytical Method: EPA 8011 Preparation Method: EPA 8011								
1,2-Dibromoethane (EDB)	ND	ug/L	0.020	0.020	1	02/16/15 16:22	02/16/15 22:46	106-93-4	
Surrogates									
1-Chloro-2-bromopropane (S)	104	%	60-140		1	02/16/15 16:22	02/16/15 22:46	301-79-56	
8260 MSV Low Level SC	Analytical Method: EPA 8260								
tert-Amyl Alcohol	ND	ug/L	100	50.0	1		02/19/15 17:22	75-85-4	
tert-Amylmethyl ether	ND	ug/L	10.0	0.10	1		02/19/15 17:22	994-05-8	
Benzene	ND	ug/L	1.0	0.25	1		02/19/15 17:22	71-43-2	
3,3-Dimethyl-1-Butanol	ND	ug/L	100	50.0	1		02/19/15 17:22	624-95-3	
tert-Butyl Alcohol	ND	ug/L	100	3.6	1		02/19/15 17:22	75-65-0	
tert-Butyl Formate	ND	ug/L	50.0	1.9	1		02/19/15 17:22	762-75-4	
1,2-Dichloroethane	ND	ug/L	1.0	0.12	1		02/19/15 17:22	107-06-2	
Diisopropyl ether	ND	ug/L	1.0	0.12	1		02/19/15 17:22	108-20-3	
Ethanol	ND	ug/L	200	33.0	1		02/19/15 17:22	64-17-5	
Ethylbenzene	ND	ug/L	1.0	0.30	1		02/19/15 17:22	100-41-4	
Ethyl-tert-butyl ether	ND	ug/L	10.0	0.070	1		02/19/15 17:22	637-92-3	
Methyl-tert-butyl ether	ND	ug/L	1.0	0.21	1		02/19/15 17:22	1634-04-4	
Naphthalene	ND	ug/L	1.0	0.24	1		02/19/15 17:22	91-20-3	
Toluene	ND	ug/L	1.0	0.26	1		02/19/15 17:22	108-88-3	
Xylene (Total)	ND	ug/L	2.0	0.66	1		02/19/15 17:22	1330-20-7	
m&p-Xylene	ND	ug/L	2.0	0.66	1		02/19/15 17:22	179601-23-1	
o-Xylene	ND	ug/L	1.0	0.23	1		02/19/15 17:22	95-47-6	
Surrogates									
4-Bromofluorobenzene (S)	91	%	70-130		1		02/19/15 17:22	460-00-4	
1,2-Dichloroethane-d4 (S)	106	%	70-130		1		02/19/15 17:22	17060-07-0	
Toluene-d8 (S)	97	%	70-130		1		02/19/15 17:22	2037-26-5	

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ANALYTICAL RESULTS

Project: Warren Green 04887/44239
Pace Project No.: 92237781

Sample: WSW-2 **Lab ID: 92237781027** Collected: 02/12/15 12:24 Received: 02/13/15 15:50 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8011 GCS EDB and DBCP	Analytical Method: EPA 8011 Preparation Method: EPA 8011								
1,2-Dibromoethane (EDB)	ND	ug/L	0.020	0.020	1	02/16/15 16:22	02/16/15 23:06	106-93-4	
Surrogates									
1-Chloro-2-bromopropane (S)	117	%	60-140		1	02/16/15 16:22	02/16/15 23:06	301-79-56	
8260 MSV Low Level SC	Analytical Method: EPA 8260								
tert-Amyl Alcohol	ND	ug/L	100	50.0	1		02/19/15 17:39	75-85-4	
tert-Amylmethyl ether	ND	ug/L	10.0	0.10	1		02/19/15 17:39	994-05-8	
Benzene	ND	ug/L	1.0	0.25	1		02/19/15 17:39	71-43-2	
3,3-Dimethyl-1-Butanol	ND	ug/L	100	50.0	1		02/19/15 17:39	624-95-3	
tert-Butyl Alcohol	ND	ug/L	100	3.6	1		02/19/15 17:39	75-65-0	
tert-Butyl Formate	ND	ug/L	50.0	1.9	1		02/19/15 17:39	762-75-4	
1,2-Dichloroethane	ND	ug/L	1.0	0.12	1		02/19/15 17:39	107-06-2	
Diisopropyl ether	ND	ug/L	1.0	0.12	1		02/19/15 17:39	108-20-3	
Ethanol	ND	ug/L	200	33.0	1		02/19/15 17:39	64-17-5	
Ethylbenzene	ND	ug/L	1.0	0.30	1		02/19/15 17:39	100-41-4	
Ethyl-tert-butyl ether	ND	ug/L	10.0	0.070	1		02/19/15 17:39	637-92-3	
Methyl-tert-butyl ether	ND	ug/L	1.0	0.21	1		02/19/15 17:39	1634-04-4	
Naphthalene	ND	ug/L	1.0	0.24	1		02/19/15 17:39	91-20-3	
Toluene	ND	ug/L	1.0	0.26	1		02/19/15 17:39	108-88-3	
Xylene (Total)	ND	ug/L	2.0	0.66	1		02/19/15 17:39	1330-20-7	
m&p-Xylene	ND	ug/L	2.0	0.66	1		02/19/15 17:39	179601-23-1	
o-Xylene	ND	ug/L	1.0	0.23	1		02/19/15 17:39	95-47-6	
Surrogates									
4-Bromofluorobenzene (S)	88	%	70-130		1		02/19/15 17:39	460-00-4	
1,2-Dichloroethane-d4 (S)	99	%	70-130		1		02/19/15 17:39	17060-07-0	
Toluene-d8 (S)	99	%	70-130		1		02/19/15 17:39	2037-26-5	

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ANALYTICAL RESULTS

Project: Warren Green 04887/44239
Pace Project No.: 92237781

Sample: WSW-3 **Lab ID: 92237781028** Collected: 02/12/15 12:35 Received: 02/13/15 15:50 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8011 GCS EDB and DBCP	Analytical Method: EPA 8011 Preparation Method: EPA 8011								
1,2-Dibromoethane (EDB)	ND	ug/L	0.020	0.020	1	02/16/15 09:48	02/16/15 23:25	106-93-4	
Surrogates									
1-Chloro-2-bromopropane (S)	106	%	60-140		1	02/16/15 09:48	02/16/15 23:25	301-79-56	
8260 MSV Low Level SC	Analytical Method: EPA 8260								
tert-Amyl Alcohol	ND	ug/L	100	50.0	1		02/19/15 17:56	75-85-4	
tert-Amylmethyl ether	ND	ug/L	10.0	0.10	1		02/19/15 17:56	994-05-8	
Benzene	ND	ug/L	1.0	0.25	1		02/19/15 17:56	71-43-2	
3,3-Dimethyl-1-Butanol	ND	ug/L	100	50.0	1		02/19/15 17:56	624-95-3	
tert-Butyl Alcohol	ND	ug/L	100	3.6	1		02/19/15 17:56	75-65-0	
tert-Butyl Formate	ND	ug/L	50.0	1.9	1		02/19/15 17:56	762-75-4	
1,2-Dichloroethane	ND	ug/L	1.0	0.12	1		02/19/15 17:56	107-06-2	
Diisopropyl ether	ND	ug/L	1.0	0.12	1		02/19/15 17:56	108-20-3	
Ethanol	ND	ug/L	200	33.0	1		02/19/15 17:56	64-17-5	
Ethylbenzene	ND	ug/L	1.0	0.30	1		02/19/15 17:56	100-41-4	
Ethyl-tert-butyl ether	ND	ug/L	10.0	0.070	1		02/19/15 17:56	637-92-3	
Methyl-tert-butyl ether	ND	ug/L	1.0	0.21	1		02/19/15 17:56	1634-04-4	
Naphthalene	ND	ug/L	1.0	0.24	1		02/19/15 17:56	91-20-3	
Toluene	ND	ug/L	1.0	0.26	1		02/19/15 17:56	108-88-3	
Xylene (Total)	ND	ug/L	2.0	0.66	1		02/19/15 17:56	1330-20-7	
m&p-Xylene	ND	ug/L	2.0	0.66	1		02/19/15 17:56	179601-23-1	
o-Xylene	ND	ug/L	1.0	0.23	1		02/19/15 17:56	95-47-6	
Surrogates									
4-Bromofluorobenzene (S)	93	%	70-130		1		02/19/15 17:56	460-00-4	
1,2-Dichloroethane-d4 (S)	101	%	70-130		1		02/19/15 17:56	17060-07-0	
Toluene-d8 (S)	96	%	70-130		1		02/19/15 17:56	2037-26-5	

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ANALYTICAL RESULTS

Project: Warren Green 04887/44239
Pace Project No.: 92237781

Sample: WSW-4 **Lab ID: 92237781029** Collected: 02/12/15 12:39 Received: 02/13/15 15:50 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8011 GCS EDB and DBCP	Analytical Method: EPA 8011 Preparation Method: EPA 8011								
1,2-Dibromoethane (EDB)	ND	ug/L	0.020	0.020	1	02/16/15 16:22	02/16/15 23:45	106-93-4	
Surrogates									
1-Chloro-2-bromopropane (S)	108	%	60-140		1	02/16/15 16:22	02/16/15 23:45	301-79-56	
8260 MSV Low Level SC	Analytical Method: EPA 8260								
tert-Amyl Alcohol	ND	ug/L	100	50.0	1		02/19/15 18:13	75-85-4	
tert-Amylmethyl ether	ND	ug/L	10.0	0.10	1		02/19/15 18:13	994-05-8	
Benzene	ND	ug/L	1.0	0.25	1		02/19/15 18:13	71-43-2	
3,3-Dimethyl-1-Butanol	ND	ug/L	100	50.0	1		02/19/15 18:13	624-95-3	
tert-Butyl Alcohol	ND	ug/L	100	3.6	1		02/19/15 18:13	75-65-0	
tert-Butyl Formate	ND	ug/L	50.0	1.9	1		02/19/15 18:13	762-75-4	
1,2-Dichloroethane	ND	ug/L	1.0	0.12	1		02/19/15 18:13	107-06-2	
Diisopropyl ether	ND	ug/L	1.0	0.12	1		02/19/15 18:13	108-20-3	
Ethanol	ND	ug/L	200	33.0	1		02/19/15 18:13	64-17-5	
Ethylbenzene	ND	ug/L	1.0	0.30	1		02/19/15 18:13	100-41-4	
Ethyl-tert-butyl ether	ND	ug/L	10.0	0.070	1		02/19/15 18:13	637-92-3	
Methyl-tert-butyl ether	ND	ug/L	1.0	0.21	1		02/19/15 18:13	1634-04-4	
Naphthalene	ND	ug/L	1.0	0.24	1		02/19/15 18:13	91-20-3	
Toluene	ND	ug/L	1.0	0.26	1		02/19/15 18:13	108-88-3	
Xylene (Total)	ND	ug/L	2.0	0.66	1		02/19/15 18:13	1330-20-7	
m&p-Xylene	ND	ug/L	2.0	0.66	1		02/19/15 18:13	179601-23-1	
o-Xylene	ND	ug/L	1.0	0.23	1		02/19/15 18:13	95-47-6	
Surrogates									
4-Bromofluorobenzene (S)	93	%	70-130		1		02/19/15 18:13	460-00-4	
1,2-Dichloroethane-d4 (S)	101	%	70-130		1		02/19/15 18:13	17060-07-0	
Toluene-d8 (S)	97	%	70-130		1		02/19/15 18:13	2037-26-5	

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QUALITY CONTROL DATA

Project: Warren Green 04887/44239
Pace Project No.: 92237781

QC Batch: MSV/30414 Analysis Method: EPA 8260
QC Batch Method: EPA 8260 Analysis Description: 8260 MSV Low Level SC
Associated Lab Samples: 92237781026, 92237781027, 92237781028, 92237781029

METHOD BLANK: 1394926 Matrix: Water
Associated Lab Samples: 92237781026, 92237781027, 92237781028, 92237781029

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
1,2-Dichloroethane	ug/L	ND	1.0	02/19/15 15:58	
3,3-Dimethyl-1-Butanol	ug/L	ND	100	02/19/15 15:58	
Benzene	ug/L	ND	1.0	02/19/15 15:58	
Diisopropyl ether	ug/L	ND	1.0	02/19/15 15:58	
Ethanol	ug/L	ND	200	02/19/15 15:58	
Ethyl-tert-butyl ether	ug/L	ND	10.0	02/19/15 15:58	
Ethylbenzene	ug/L	ND	1.0	02/19/15 15:58	
m&p-Xylene	ug/L	ND	2.0	02/19/15 15:58	
Methyl-tert-butyl ether	ug/L	ND	1.0	02/19/15 15:58	
Naphthalene	ug/L	ND	1.0	02/19/15 15:58	
o-Xylene	ug/L	ND	1.0	02/19/15 15:58	
tert-Amyl Alcohol	ug/L	ND	100	02/19/15 15:58	
tert-Amylmethyl ether	ug/L	ND	10.0	02/19/15 15:58	
tert-Butyl Alcohol	ug/L	ND	100	02/19/15 15:58	
tert-Butyl Formate	ug/L	ND	50.0	02/19/15 15:58	
Toluene	ug/L	ND	1.0	02/19/15 15:58	
Xylene (Total)	ug/L	ND	2.0	02/19/15 15:58	
1,2-Dichloroethane-d4 (S)	%	101	70-130	02/19/15 15:58	
4-Bromofluorobenzene (S)	%	101	70-130	02/19/15 15:58	
Toluene-d8 (S)	%	99	70-130	02/19/15 15:58	

LABORATORY CONTROL SAMPLE: 1394927

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,2-Dichloroethane	ug/L	50	45.2	90	70-130	
3,3-Dimethyl-1-Butanol	ug/L	1000	979	98	70-130	
Benzene	ug/L	50	54.1	108	70-130	
Diisopropyl ether	ug/L	50	49.1	98	70-130	
Ethanol	ug/L	2000	1510	76	70-130	
Ethyl-tert-butyl ether	ug/L	100	106	106	70-130	
Ethylbenzene	ug/L	50	51.5	103	70-130	
m&p-Xylene	ug/L	100	102	102	70-130	
Methyl-tert-butyl ether	ug/L	50	46.2	92	70-130	
Naphthalene	ug/L	50	55.6	111	70-130	
o-Xylene	ug/L	50	51.3	103	70-130	
tert-Amyl Alcohol	ug/L	1000	956	96	70-130	
tert-Amylmethyl ether	ug/L	100	99.3	99	70-130	
tert-Butyl Alcohol	ug/L	500	516	103	70-130	
tert-Butyl Formate	ug/L	400	412	103	70-130	
Toluene	ug/L	50	52.2	104	70-130	

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QUALITY CONTROL DATA

Project: Warren Green 04887/44239
Pace Project No.: 92237781

LABORATORY CONTROL SAMPLE: 1394927

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Xylene (Total)	ug/L	150	153	102	70-130	
1,2-Dichloroethane-d4 (S)	%			98	70-130	
4-Bromofluorobenzene (S)	%			98	70-130	
Toluene-d8 (S)	%			100	70-130	

MATRIX SPIKE SAMPLE: 1394929

Parameter	Units	92237679004 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
1,2-Dichloroethane	ug/L	0.18J	20	26.6	132	70-130	M0
3,3-Dimethyl-1-Butanol	ug/L	ND	400	348	87	70-130	
Benzene	ug/L	ND	20	21.6	108	70-130	
Diisopropyl ether	ug/L	ND	20	18.9	94	70-130	
Ethanol	ug/L	ND	800	727	91	70-130	
Ethyl-tert-butyl ether	ug/L	ND	40	46.0	115	70-130	
Ethylbenzene	ug/L	ND	20	24.9	125	70-130	
m&p-Xylene	ug/L	ND	40	50.2	126	70-130	
Methyl-tert-butyl ether	ug/L	ND	20	19.5	98	70-130	
Naphthalene	ug/L	ND	20	20.9	105	70-130	
o-Xylene	ug/L	ND	20	23.6	118	70-130	
tert-Amyl Alcohol	ug/L	ND	400	390	93	70-130	
tert-Amylmethyl ether	ug/L	ND	40	44.0	110	70-130	
tert-Butyl Alcohol	ug/L	7.2J	200	334	164	70-130	M0
tert-Butyl Formate	ug/L	ND	160	ND	0	70-130	P5
Toluene	ug/L	ND	20	22.0	110	70-130	
1,2-Dichloroethane-d4 (S)	%				91	70-130	
4-Bromofluorobenzene (S)	%				96	70-130	
Toluene-d8 (S)	%				99	70-130	

SAMPLE DUPLICATE: 1394928

Parameter	Units	92237679003 Result	Dup Result	RPD	Max RPD	Qualifiers
1,2-Dichloroethane	ug/L	8.4	8.1	4	30	
3,3-Dimethyl-1-Butanol	ug/L	ND	ND		30	
Benzene	ug/L	24.5	18.1	30	30	
Diisopropyl ether	ug/L	ND	0.12J		30	
Ethanol	ug/L	ND	ND		30	
Ethyl-tert-butyl ether	ug/L	ND	ND		30	
Ethylbenzene	ug/L	ND	ND		30	
m&p-Xylene	ug/L	2.5	1.2J		30	
Methyl-tert-butyl ether	ug/L	ND	ND		30	
Naphthalene	ug/L	ND	ND		30	
o-Xylene	ug/L	0.49J	0.27J		30	
tert-Amyl Alcohol	ug/L	119	122	3	30	
tert-Amylmethyl ether	ug/L	ND	ND		30	

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QUALITY CONTROL DATA

Project: Warren Green 04887/44239
Pace Project No.: 92237781

SAMPLE DUPLICATE: 1394928

Parameter	Units	92237679003 Result	Dup Result	RPD	Max RPD	Qualifiers
tert-Butyl Alcohol	ug/L	19.6J	21.6J		30	
tert-Butyl Formate	ug/L	ND	ND		30	
Toluene	ug/L	ND	ND		30	
Xylene (Total)	ug/L	2.5	ND		30	
1,2-Dichloroethane-d4 (S)	%	99	97	3		
4-Bromofluorobenzene (S)	%	92	90	2		
Toluene-d8 (S)	%	100	97	3		

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QUALITY CONTROL DATA

Project: Warren Green 04887/44239
Pace Project No.: 92237781

QC Batch: MSV/30424 | Analysis Method: EPA 8260
QC Batch Method: EPA 8260 | Analysis Description: 8260 MSV SC
Associated Lab Samples: 92237781024, 92237781025

METHOD BLANK: 1395513 | Matrix: Water
Associated Lab Samples: 92237781024, 92237781025

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
1,2-Dichloroethane	ug/L	ND	5.0	02/22/15 02:16	
3,3-Dimethyl-1-Butanol	ug/L	ND	100	02/22/15 02:16	
Benzene	ug/L	ND	5.0	02/22/15 02:16	
Diisopropyl ether	ug/L	ND	5.0	02/22/15 02:16	
Ethanol	ug/L	ND	200	02/22/15 02:16	
Ethyl-tert-butyl ether	ug/L	ND	10.0	02/22/15 02:16	
Ethylbenzene	ug/L	ND	5.0	02/22/15 02:16	
m&p-Xylene	ug/L	ND	10.0	02/22/15 02:16	
Methyl-tert-butyl ether	ug/L	ND	5.0	02/22/15 02:16	
Naphthalene	ug/L	ND	5.0	02/22/15 02:16	
o-Xylene	ug/L	ND	5.0	02/22/15 02:16	
tert-Amyl Alcohol	ug/L	ND	100	02/22/15 02:16	
tert-Amylmethyl ether	ug/L	ND	10.0	02/22/15 02:16	
tert-Butyl Alcohol	ug/L	ND	100	02/22/15 02:16	
tert-Butyl Formate	ug/L	ND	50.0	02/22/15 02:16	
Toluene	ug/L	ND	5.0	02/22/15 02:16	
Xylene (Total)	ug/L	ND	10.0	02/22/15 02:16	
1,2-Dichloroethane-d4 (S)	%	109	70-130	02/22/15 02:16	
4-Bromofluorobenzene (S)	%	97	70-130	02/22/15 02:16	
Toluene-d8 (S)	%	95	70-130	02/22/15 02:16	

LABORATORY CONTROL SAMPLE: 1395514

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,2-Dichloroethane	ug/L	50	49.3	99	70-130	
3,3-Dimethyl-1-Butanol	ug/L	1000	1030	103	70-130	
Benzene	ug/L	50	48.8	98	70-130	
Diisopropyl ether	ug/L	50	46.5	93	70-130	
Ethanol	ug/L	2000	1850	92	70-130	
Ethyl-tert-butyl ether	ug/L	100	108	108	70-130	
Ethylbenzene	ug/L	50	49.2	98	70-130	
m&p-Xylene	ug/L	100	98.7	99	70-130	
Methyl-tert-butyl ether	ug/L	50	44.4	89	70-130	
Naphthalene	ug/L	50	52.8	106	70-130	
o-Xylene	ug/L	50	48.9	98	70-130	
tert-Amyl Alcohol	ug/L	1000	1060	106	70-130	
tert-Amylmethyl ether	ug/L	100	92.0	92	70-130	
tert-Butyl Alcohol	ug/L	500	534	107	70-130	
tert-Butyl Formate	ug/L	400	438	110	70-130	
Toluene	ug/L	50	48.7	97	70-130	

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QUALITY CONTROL DATA

Project: Warren Green 04887/44239
Pace Project No.: 92237781

LABORATORY CONTROL SAMPLE: 1395514

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Xylene (Total)	ug/L	150	148	98	70-130	
1,2-Dichloroethane-d4 (S)	%			99	70-130	
4-Bromofluorobenzene (S)	%			100	70-130	
Toluene-d8 (S)	%			98	70-130	

MATRIX SPIKE SAMPLE: 1395515

Parameter	Units	92238212001 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
1,2-Dichloroethane	ug/L	ND	20	17.8	89	70-130	
3,3-Dimethyl-1-Butanol	ug/L	ND	400	368	92	70-130	
Benzene	ug/L	ND	20	22.7	96	70-130	
Diisopropyl ether	ug/L	ND	20	17.3	87	70-130	
Ethanol	ug/L	ND	800	920	115	70-130	
Ethyl-tert-butyl ether	ug/L	ND	40	39.0	96	70-130	
Ethylbenzene	ug/L	ND	20	21.7	95	70-130	
m&p-Xylene	ug/L	24.6	40	60.9	91	70-130	
Methyl-tert-butyl ether	ug/L	ND	20	15.6	78	70-130	
Naphthalene	ug/L	6.1	20	26.4	102	70-130	
o-Xylene	ug/L	6.8	20	25.5	94	70-130	
tert-Amyl Alcohol	ug/L	ND	400	367	92	70-130	
tert-Amylmethyl ether	ug/L	ND	40	34.9	87	70-130	
tert-Butyl Alcohol	ug/L	ND	200	290	144	70-130	M0
tert-Butyl Formate	ug/L	ND	160	ND	0	70-130	P5
Toluene	ug/L	ND	20	22.3	92	70-130	
1,2-Dichloroethane-d4 (S)	%				97	70-130	
4-Bromofluorobenzene (S)	%				97	70-130	
Toluene-d8 (S)	%				96	70-130	

SAMPLE DUPLICATE: 1395516

Parameter	Units	92238212002 Result	Dup Result	RPD	Max RPD	Qualifiers
1,2-Dichloroethane	ug/L	ND	ND		30	
3,3-Dimethyl-1-Butanol	ug/L	ND	ND		30	
Benzene	ug/L	ND	ND		30	
Diisopropyl ether	ug/L	ND	ND		30	
Ethanol	ug/L	ND	ND		30	
Ethyl-tert-butyl ether	ug/L	ND	ND		30	
Ethylbenzene	ug/L	ND	ND		30	
m&p-Xylene	ug/L	ND	ND		30	
Methyl-tert-butyl ether	ug/L	ND	ND		30	
Naphthalene	ug/L	ND	ND		30	
o-Xylene	ug/L	ND	ND		30	
tert-Amyl Alcohol	ug/L	ND	ND		30	
tert-Amylmethyl ether	ug/L	ND	ND		30	

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QUALITY CONTROL DATA

Project: Warren Green 04887/44239
Pace Project No.: 92237781

SAMPLE DUPLICATE: 1395516

Parameter	Units	92238212002 Result	Dup Result	RPD	Max RPD	Qualifiers
tert-Butyl Alcohol	ug/L	ND	ND		30	
tert-Butyl Formate	ug/L	ND	ND		30	
Toluene	ug/L	ND	ND		30	
Xylene (Total)	ug/L	ND	ND		30	
1,2-Dichloroethane-d4 (S)	%	111	113	2		
4-Bromofluorobenzene (S)	%	108	104	4		
Toluene-d8 (S)	%	96	95	1		

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QUALITY CONTROL DATA

Project: Warren Green 04887/44239
Pace Project No.: 92237781

QC Batch: MSV/30426 Analysis Method: EPA 8260
QC Batch Method: EPA 8260 Analysis Description: 8260 MSV SC
Associated Lab Samples: 92237781002, 92237781003, 92237781004, 92237781005, 92237781006, 92237781007, 92237781008, 92237781009, 92237781010, 92237781011, 92237781012, 92237781013, 92237781014, 92237781015, 92237781016

METHOD BLANK: 1395553 Matrix: Water
Associated Lab Samples: 92237781002, 92237781003, 92237781004, 92237781005, 92237781006, 92237781007, 92237781008, 92237781009, 92237781010, 92237781011, 92237781012, 92237781013, 92237781014, 92237781015, 92237781016

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
1,2-Dichloroethane	ug/L	ND	5.0	02/21/15 14:01	
3,3-Dimethyl-1-Butanol	ug/L	ND	100	02/21/15 14:01	
Benzene	ug/L	ND	5.0	02/21/15 14:01	
Diisopropyl ether	ug/L	ND	5.0	02/21/15 14:01	
Ethanol	ug/L	ND	200	02/21/15 14:01	
Ethyl-tert-butyl ether	ug/L	ND	10.0	02/21/15 14:01	
Ethylbenzene	ug/L	ND	5.0	02/21/15 14:01	
m&p-Xylene	ug/L	ND	10.0	02/21/15 14:01	
Methyl-tert-butyl ether	ug/L	ND	5.0	02/21/15 14:01	
Naphthalene	ug/L	ND	5.0	02/21/15 14:01	
o-Xylene	ug/L	ND	5.0	02/21/15 14:01	
tert-Amyl Alcohol	ug/L	ND	100	02/21/15 14:01	
tert-Amylmethyl ether	ug/L	ND	10.0	02/21/15 14:01	
tert-Butyl Alcohol	ug/L	ND	100	02/21/15 14:01	
tert-Butyl Formate	ug/L	ND	50.0	02/21/15 14:01	
Toluene	ug/L	ND	5.0	02/21/15 14:01	
Xylene (Total)	ug/L	ND	10.0	02/21/15 14:01	
1,2-Dichloroethane-d4 (S)	%	113	70-130	02/21/15 14:01	
4-Bromofluorobenzene (S)	%	101	70-130	02/21/15 14:01	
Toluene-d8 (S)	%	96	70-130	02/21/15 14:01	

LABORATORY CONTROL SAMPLE: 1395554

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,2-Dichloroethane	ug/L	50	50.3	101	70-130	
3,3-Dimethyl-1-Butanol	ug/L	1000	1010	101	70-130	
Benzene	ug/L	50	49.5	99	70-130	
Diisopropyl ether	ug/L	50	49.2	98	70-130	
Ethanol	ug/L	2000	2040	102	70-130	
Ethyl-tert-butyl ether	ug/L	100	109	109	70-130	
Ethylbenzene	ug/L	50	49.1	98	70-130	
m&p-Xylene	ug/L	100	99.8	100	70-130	
Methyl-tert-butyl ether	ug/L	50	45.1	90	70-130	
Naphthalene	ug/L	50	50.7	101	70-130	
o-Xylene	ug/L	50	50.2	100	70-130	
tert-Amyl Alcohol	ug/L	1000	1040	104	70-130	

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QUALITY CONTROL DATA

Project: Warren Green 04887/44239
Pace Project No.: 92237781

LABORATORY CONTROL SAMPLE: 1395554

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
tert-Amylmethyl ether	ug/L	100	94.2	94	70-130	
tert-Butyl Alcohol	ug/L	500	522	104	70-130	
tert-Butyl Formate	ug/L	400	449	112	70-130	
Toluene	ug/L	50	48.3	97	70-130	
Xylene (Total)	ug/L	150	150	100	70-130	
1,2-Dichloroethane-d4 (S)	%			102	70-130	
4-Bromofluorobenzene (S)	%			102	70-130	
Toluene-d8 (S)	%			98	70-130	

MATRIX SPIKE SAMPLE: 1395555

Parameter	Units	92237781005 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
1,2-Dichloroethane	ug/L	ND	20	18.7	94	70-130	
3,3-Dimethyl-1-Butanol	ug/L	ND	400	389	97	70-130	
Benzene	ug/L	ND	20	20.0	100	70-130	
Diisopropyl ether	ug/L	ND	20	17.0	85	70-130	
Ethanol	ug/L	ND	800	1150	143	70-130	M0
Ethyl-tert-butyl ether	ug/L	ND	40	39.7	99	70-130	
Ethylbenzene	ug/L	ND	20	19.8	99	70-130	
m&p-Xylene	ug/L	ND	40	39.4	98	70-130	
Methyl-tert-butyl ether	ug/L	ND	20	16.5	83	70-130	
Naphthalene	ug/L	ND	20	19.9	100	70-130	
o-Xylene	ug/L	ND	20	18.9	94	70-130	
tert-Amyl Alcohol	ug/L	ND	400	391	98	70-130	
tert-Amylmethyl ether	ug/L	ND	40	36.0	90	70-130	
tert-Butyl Alcohol	ug/L	ND	200	284	142	70-130	M0
tert-Butyl Formate	ug/L	ND	160	35.2J	22	70-130	P5
Toluene	ug/L	ND	20	19.2	96	70-130	
1,2-Dichloroethane-d4 (S)	%				105	70-130	
4-Bromofluorobenzene (S)	%				99	70-130	
Toluene-d8 (S)	%				97	70-130	

SAMPLE DUPLICATE: 1395556

Parameter	Units	92237781006 Result	Dup Result	RPD	Max RPD	Qualifiers
1,2-Dichloroethane	ug/L	ND	ND		30	
3,3-Dimethyl-1-Butanol	ug/L	ND	ND		30	
Benzene	ug/L	ND	ND		30	
Diisopropyl ether	ug/L	ND	ND		30	
Ethanol	ug/L	ND	ND		30	
Ethyl-tert-butyl ether	ug/L	ND	ND		30	
Ethylbenzene	ug/L	ND	ND		30	
m&p-Xylene	ug/L	ND	ND		30	
Methyl-tert-butyl ether	ug/L	ND	ND		30	

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QUALITY CONTROL DATA

Project: Warren Green 04887/44239
Pace Project No.: 92237781

SAMPLE DUPLICATE: 1395556

Parameter	Units	92237781006 Result	Dup Result	RPD	Max RPD	Qualifiers
Naphthalene	ug/L	ND	ND		30	
o-Xylene	ug/L	ND	ND		30	
tert-Amyl Alcohol	ug/L	ND	ND		30	
tert-Amylmethyl ether	ug/L	ND	ND		30	
tert-Butyl Alcohol	ug/L	ND	ND		30	
tert-Butyl Formate	ug/L	ND	ND		30	
Toluene	ug/L	ND	ND		30	
Xylene (Total)	ug/L	ND	ND		30	
1,2-Dichloroethane-d4 (S)	%	117	112	5		
4-Bromofluorobenzene (S)	%	110	106	3		
Toluene-d8 (S)	%	95	95	0		

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QUALITY CONTROL DATA

Project: Warren Green 04887/44239
Pace Project No.: 92237781

QC Batch: MSV/30427 Analysis Method: EPA 8260
QC Batch Method: EPA 8260 Analysis Description: 8260 MSV SC
Associated Lab Samples: 92237781001, 92237781017, 92237781018, 92237781019, 92237781020, 92237781021, 92237781022, 92237781023

METHOD BLANK: 1395592 Matrix: Water
Associated Lab Samples: 92237781001, 92237781017, 92237781018, 92237781019, 92237781020, 92237781021, 92237781022, 92237781023

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
1,2-Dichloroethane	ug/L	ND	5.0	02/21/15 14:17	
3,3-Dimethyl-1-Butanol	ug/L	ND	100	02/21/15 14:17	
Benzene	ug/L	ND	5.0	02/21/15 14:17	
Diisopropyl ether	ug/L	ND	5.0	02/21/15 14:17	
Ethanol	ug/L	ND	200	02/21/15 14:17	
Ethyl-tert-butyl ether	ug/L	ND	10.0	02/21/15 14:17	
Ethylbenzene	ug/L	ND	5.0	02/21/15 14:17	
m&p-Xylene	ug/L	ND	10.0	02/21/15 14:17	
Methyl-tert-butyl ether	ug/L	ND	5.0	02/21/15 14:17	
Naphthalene	ug/L	ND	5.0	02/21/15 14:17	
o-Xylene	ug/L	ND	5.0	02/21/15 14:17	
tert-Amyl Alcohol	ug/L	ND	100	02/21/15 14:17	
tert-Amylmethyl ether	ug/L	ND	10.0	02/21/15 14:17	
tert-Butyl Alcohol	ug/L	ND	100	02/21/15 14:17	
tert-Butyl Formate	ug/L	ND	50.0	02/21/15 14:17	
Toluene	ug/L	ND	5.0	02/21/15 14:17	
Xylene (Total)	ug/L	ND	10.0	02/21/15 14:17	
1,2-Dichloroethane-d4 (S)	%	112	70-130	02/21/15 14:17	
4-Bromofluorobenzene (S)	%	100	70-130	02/21/15 14:17	
Toluene-d8 (S)	%	96	70-130	02/21/15 14:17	

LABORATORY CONTROL SAMPLE: 1395593

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,2-Dichloroethane	ug/L	50	51.9	104	70-130	
3,3-Dimethyl-1-Butanol	ug/L	1000	987	99	70-130	
Benzene	ug/L	50	49.1	98	70-130	
Diisopropyl ether	ug/L	50	51.3	103	70-130	
Ethanol	ug/L	2000	2170	108	70-130	
Ethyl-tert-butyl ether	ug/L	100	114	114	70-130	
Ethylbenzene	ug/L	50	50.2	100	70-130	
m&p-Xylene	ug/L	100	102	102	70-130	
Methyl-tert-butyl ether	ug/L	50	47.5	95	70-130	
Naphthalene	ug/L	50	50.6	101	70-130	
o-Xylene	ug/L	50	51.9	104	70-130	
tert-Amyl Alcohol	ug/L	1000	1000	100	70-130	
tert-Amylmethyl ether	ug/L	100	91.9	92	70-130	
tert-Butyl Alcohol	ug/L	500	556	111	70-130	

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QUALITY CONTROL DATA

Project: Warren Green 04887/44239
Pace Project No.: 92237781

LABORATORY CONTROL SAMPLE: 1395593

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
tert-Butyl Formate	ug/L	400	473	118	70-130	
Toluene	ug/L	50	47.2	94	70-130	
Xylene (Total)	ug/L	150	154	103	70-130	
1,2-Dichloroethane-d4 (S)	%			105	70-130	
4-Bromofluorobenzene (S)	%			105	70-130	
Toluene-d8 (S)	%			95	70-130	

MATRIX SPIKE SAMPLE: 1395594

Parameter	Units	92237781020 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
1,2-Dichloroethane	ug/L	ND	20	18.9	95	70-130	
3,3-Dimethyl-1-Butanol	ug/L	ND	400	399	100	70-130	
Benzene	ug/L	ND	20	20.2	101	70-130	
Diisopropyl ether	ug/L	ND	20	18.7	93	70-130	
Ethanol	ug/L	ND	800	817	102	70-130	
Ethyl-tert-butyl ether	ug/L	ND	40	41.5	104	70-130	
Ethylbenzene	ug/L	ND	20	20.4	102	70-130	
m&p-Xylene	ug/L	ND	40	40.8	102	70-130	
Methyl-tert-butyl ether	ug/L	ND	20	17.1	86	70-130	
Naphthalene	ug/L	ND	20	19.5	98	70-130	
o-Xylene	ug/L	ND	20	19.4	97	70-130	
tert-Amyl Alcohol	ug/L	ND	400	395	99	70-130	
tert-Amylmethyl ether	ug/L	ND	40	37.1	93	70-130	
tert-Butyl Alcohol	ug/L	ND	200	294	147	70-130	M0
tert-Butyl Formate	ug/L	ND	160	28.3J	18	70-130	P5
Toluene	ug/L	ND	20	19.3	97	70-130	
1,2-Dichloroethane-d4 (S)	%				106	70-130	
4-Bromofluorobenzene (S)	%				102	70-130	
Toluene-d8 (S)	%				95	70-130	

SAMPLE DUPLICATE: 1395595

Parameter	Units	92237781021 Result	Dup Result	RPD	Max RPD	Qualifiers
1,2-Dichloroethane	ug/L	ND	ND		30	
3,3-Dimethyl-1-Butanol	ug/L	ND	ND		30	
Benzene	ug/L	ND	ND		30	
Diisopropyl ether	ug/L	ND	ND		30	
Ethanol	ug/L	ND	ND		30	
Ethyl-tert-butyl ether	ug/L	ND	ND		30	
Ethylbenzene	ug/L	ND	ND		30	
m&p-Xylene	ug/L	ND	ND		30	
Methyl-tert-butyl ether	ug/L	ND	ND		30	
Naphthalene	ug/L	ND	ND		30	
o-Xylene	ug/L	ND	ND		30	

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QUALITY CONTROL DATA

Project: Warren Green 04887/44239
Pace Project No.: 92237781

SAMPLE DUPLICATE: 1395595

Parameter	Units	92237781021 Result	Dup Result	RPD	Max RPD	Qualifiers
tert-Amyl Alcohol	ug/L	ND	ND		30	
tert-Amylmethyl ether	ug/L	ND	ND		30	
tert-Butyl Alcohol	ug/L	ND	ND		30	
tert-Butyl Formate	ug/L	ND	ND		30	
Toluene	ug/L	ND	ND		30	
Xylene (Total)	ug/L	ND	ND		30	
1,2-Dichloroethane-d4 (S)	%	114	115	1		
4-Bromofluorobenzene (S)	%	106	112	5		
Toluene-d8 (S)	%	94	96	2		

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QUALITY CONTROL DATA

Project: Warren Green 04887/44239
Pace Project No.: 92237781

QC Batch: OEXT/32993 — Analysis Method: EPA 8011
QC Batch Method: EPA 8011 — Analysis Description: GCS 8011 EDB DBCP

Associated Lab Samples: 92237781001, 92237781002, 92237781003, 92237781004, 92237781005, 92237781006, 92237781007, 92237781008, 92237781009, 92237781010, 92237781011, 92237781012, 92237781013, 92237781014, 92237781015, 92237781016, 92237781017, 92237781018

METHOD BLANK: 1392451 — Matrix: Water

Associated Lab Samples: 92237781001, 92237781002, 92237781003, 92237781004, 92237781005, 92237781006, 92237781007, 92237781008, 92237781009, 92237781010, 92237781011, 92237781012, 92237781013, 92237781014, 92237781015, 92237781016, 92237781017, 92237781018

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
1,2-Dibromoethane (EDB)	ug/L	ND	0.020	02/16/15 23:45	
1-Chloro-2-bromopropane (S)	%	99	60-140	02/16/15 23:45	

LABORATORY CONTROL SAMPLE & LCSD: 1392452 — 1392453

Parameter	Units	Spike Conc.	LCS Result	LCSD Result	LCS % Rec	LCSD % Rec	% Rec Limits	RPD	Max RPD	Qualifiers
1,2-Dibromoethane (EDB)	ug/L	.29	0.27	0.28	92	100	60-140	5	20	
1-Chloro-2-bromopropane (S)	%				101	117	60-140			

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1392454 — 1392455

Parameter	Units	92237781001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
1,2-Dibromoethane (EDB)	ug/L	ND	.28	.28	0.26	0.25	94	92	60-140	2	20	
1-Chloro-2-bromopropane (S)	%						115	112	60-140			

SAMPLE DUPLICATE: 1392456

Parameter	Units	92237781002 Result	Dup Result	RPD	Max RPD	Qualifiers
1,2-Dibromoethane (EDB)	ug/L	ND	ND		20	
1-Chloro-2-bromopropane (S)	%	102	104	2		

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QUALITY CONTROL DATA

Project: Warren Green 04887/44239
Pace Project No.: 92237781

QC Batch: OEXT/32998 — Analysis Method: EPA 8011
QC Batch Method: EPA 8011 — Analysis Description: GCS 8011 EDB DBCP
Associated Lab Samples: 92237781019, 92237781020, 92237781021, 92237781022, 92237781023, 92237781024, 92237781026, 92237781027, 92237781028, 92237781029

METHOD BLANK: 1392486 — Matrix: Water
Associated Lab Samples: 92237781019, 92237781020, 92237781021, 92237781022, 92237781023, 92237781024, 92237781026, 92237781027, 92237781028, 92237781029

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
1,2-Dibromoethane (EDB)	ug/L	ND	0.021	02/16/15 18:49	
1-Chloro-2-bromopropane (S)	%	110	60-140	02/16/15 18:49	

LABORATORY CONTROL SAMPLE & LCSD: 1392487 — 1392488

Parameter	Units	Spike Conc.	LCS Result	LCSD Result	LCS % Rec	LCSD % Rec	% Rec Limits	RPD	Max RPD	Qualifiers
1,2-Dibromoethane (EDB)	ug/L	.28	0.28	0.29	98	96	60-140	3	20	
1-Chloro-2-bromopropane (S)	%				109	108	60-140			

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1392489 — 1392490

Parameter	Units	92237781019 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
1,2-Dibromoethane (EDB)	ug/L	ND	.29	.29	0.27	0.28	94	96	60-140	2	20	
1-Chloro-2-bromopropane (S)	%						105	107	60-140			

SAMPLE DUPLICATE: 1392491

Parameter	Units	92237781020 Result	Dup Result	RPD	Max RPD	Qualifiers
1,2-Dibromoethane (EDB)	ug/L	ND	ND		20	
1-Chloro-2-bromopropane (S)	%	118	109	9		

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QUALIFIERS

Project: Warren Green 04887/44239
Pace Project No.: 92237781

DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to changes in sample preparation, dilution of the sample aliquot, or moisture content.

ND - Not Detected at or above adjusted reporting limit.

J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.

MDL - Adjusted Method Detection Limit.

PQL - Practical Quantitation Limit.

RL - Reporting Limit.

S - Surrogate

1,2-Diphenylhydrazine (8270 listed analyte) decomposes to Azobenzene.

Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

U - Indicates the compound was analyzed for, but not detected.

N-Nitrosodiphenylamine decomposes and cannot be separated from Diphenylamine using Method 8270. The result reported for each analyte is a combined concentration.

A separate vial preserved to a pH of 4-5 is recommended in SW846 Chapter 4 for the analysis of Acrolein and Acrylonitrile by EPA Method 8260.

Acid preservation may not be appropriate for 2-Chloroethylvinyl ether, Styrene, and Vinyl chloride.

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TNI - The NELAC Institute.

LABORATORIES

PASI-C	Pace Analytical Services - Charlotte

ANALYTE QUALIFIERS

C2	Relative percent difference between results from each column was greater than 40%. The lower of the two results was reported.
M0	Matrix spike recovery and/or matrix spike duplicate recovery was outside laboratory control limits.
P5	The EPA or method required sample preservation degrades this compound, therefore acceptable recoveries may not be achieved in sample matrix spikes.
S3	Surrogate recovery exceeded laboratory control limits. Analyte presence below reporting limits in associated samples. Results unaffected by high bias.
S4	Surrogate recovery not evaluated against control limits due to sample dilution.

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QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: Warren Green 04887/44239
Pace Project No.: 92237781

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
92237781001	MW-1	EPA 8011	OEXT/32993	EPA 8011	GCSV/20362
92237781002	MW-2	EPA 8011	OEXT/32993	EPA 8011	GCSV/20362
92237781003	MW-3R	EPA 8011	OEXT/32993	EPA 8011	GCSV/20362
92237781004	MW-4	EPA 8011	OEXT/32993	EPA 8011	GCSV/20362
92237781005	MW-5	EPA 8011	OEXT/32993	EPA 8011	GCSV/20362
92237781006	MW-6	EPA 8011	OEXT/32993	EPA 8011	GCSV/20362
92237781007	MW-7	EPA 8011	OEXT/32993	EPA 8011	GCSV/20362
92237781008	MW-8	EPA 8011	OEXT/32993	EPA 8011	GCSV/20362
92237781009	MW-9	EPA 8011	OEXT/32993	EPA 8011	GCSV/20362
92237781010	MW-10	EPA 8011	OEXT/32993	EPA 8011	GCSV/20362
92237781011	MW-11	EPA 8011	OEXT/32993	EPA 8011	GCSV/20362
92237781012	MW-12	EPA 8011	OEXT/32993	EPA 8011	GCSV/20362
92237781013	MW-13	EPA 8011	OEXT/32993	EPA 8011	GCSV/20362
92237781014	MW-14	EPA 8011	OEXT/32993	EPA 8011	GCSV/20362
92237781015	MW-15	EPA 8011	OEXT/32993	EPA 8011	GCSV/20362
92237781016	DW-1	EPA 8011	OEXT/32993	EPA 8011	GCSV/20362
92237781017	DW-2	EPA 8011	OEXT/32993	EPA 8011	GCSV/20362
92237781018	DW-3	EPA 8011	OEXT/32993	EPA 8011	GCSV/20362
92237781019	DW-4	EPA 8011	OEXT/32998	EPA 8011	GCSV/20364
92237781020	DW-5	EPA 8011	OEXT/32998	EPA 8011	GCSV/20364
92237781021	DW-6	EPA 8011	OEXT/32998	EPA 8011	GCSV/20364
92237781022	MW-3R DUP	EPA 8011	OEXT/32998	EPA 8011	GCSV/20364
92237781023	MW-5 DUP	EPA 8011	OEXT/32998	EPA 8011	GCSV/20364
92237781024	FIELD BLANK	EPA 8011	OEXT/32998	EPA 8011	GCSV/20364
92237781026	WSW-1	EPA 8011	OEXT/32998	EPA 8011	GCSV/20364
92237781027	WSW-2	EPA 8011	OEXT/32998	EPA 8011	GCSV/20364
92237781028	WSW-3	EPA 8011	OEXT/32998	EPA 8011	GCSV/20364
92237781029	WSW-4	EPA 8011	OEXT/32998	EPA 8011	GCSV/20364
92237781026	WSW-1	EPA 8260	MSV/30414		
92237781027	WSW-2	EPA 8260	MSV/30414		
92237781028	WSW-3	EPA 8260	MSV/30414		
92237781029	WSW-4	EPA 8260	MSV/30414		
92237781001	MW-1	EPA 8260	MSV/30427		
92237781002	MW-2	EPA 8260	MSV/30426		
92237781003	MW-3R	EPA 8260	MSV/30426		
92237781004	MW-4	EPA 8260	MSV/30426		
92237781005	MW-5	EPA 8260	MSV/30426		
92237781006	MW-6	EPA 8260	MSV/30426		
92237781007	MW-7	EPA 8260	MSV/30426		
92237781008	MW-8	EPA 8260	MSV/30426		
92237781009	MW-9	EPA 8260	MSV/30426		
92237781010	MW-10	EPA 8260	MSV/30426		
92237781011	MW-11	EPA 8260	MSV/30426		
92237781012	MW-12	EPA 8260	MSV/30426		
92237781013	MW-13	EPA 8260	MSV/30426		
92237781014	MW-14	EPA 8260	MSV/30426		
92237781015	MW-15	EPA 8260	MSV/30426		

Pace Analytical
www.pacelabs.com

Pace Analytical Services, Inc.
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: Warren Green 04887/44239
Pace Project No.: 92237781

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
92237781016	DW-1	EPA 8260	MSV/30426		
92237781017	DW-2	EPA 8260	MSV/30427		
92237781018	DW-3	EPA 8260	MSV/30427		
92237781019	DW-4	EPA 8260	MSV/30427		
92237781020	DW-5	EPA 8260	MSV/30427		
92237781021	DW-6	EPA 8260	MSV/30427		
92237781022	MW-3R DUP	EPA 8260	MSV/30427		
92237781023	MW-5 DUP	EPA 8260	MSV/30427		
92237781024	FIELD BLANK	EPA 8260	MSV/30424		
92237781025	TRIP BLANK	EPA 8260	MSV/30424		

Pace Analytical	Document Name: **Sample Condition Upon Receipt (SCUR)**	Document Revised: September 22. 2014 Page 1 of 2
	Document Number: **F-CHR-CS-003-rev.15**	Issuing Authority: Pace Huntersville Quality Office

Client Name: SCDHEC

Courier: ☐ Fed Ex ☐ UPS ☐ USPS ☐ Client ☐ Commercial ☐ Pace Other________

Optional
Proj. Due Date:
Proj. Name:

Custody Seal on Cooler/Box Present: ☐ yes ☐ no **Seals intact:** ☐ yes ☐ no

Packing Material: ☐ Bubble Wrap ☐ Bubble Bags ☐ None ☐ Other________

Thermometer Used: IR Gun T1401 **Type of Ice:** Wet Blue None ☐ Samples on ice, cooling process has begun

Temp Correction Factor T1401 No Correction

Corrected Cooler Temp.: 4.5 °C **Biological Tissue is Frozen:** Yes No N/A

Temp should be above freezing to 6°C

Date and Initials of person examining contents: AP 2-13-15

		Comments:
Chain of Custody Present:	☐Yes ☐No ☐N/A	1.
Chain of Custody Filled Out:	☐Yes ☐No ☐N/A	2.
Chain of Custody Relinquished:	☐Yes ☐No ☐N/A	3.
Sampler Name & Signature on COC:	☐Yes ☐No ☐N/A	4.
Samples Arrived within Hold Time:	☐Yes ☐No ☐N/A	5.
Short Hold Time Analysis (<72hr):	☐Yes ☐No ☐N/A	6.
Rush Turn Around Time Requested:	☐Yes ☐No ☐N/A	7.
Sufficient Volume:	☐Yes ☐No ☐N/A	8.
Correct Containers Used:	☐Yes ☐No ☐N/A	9.
-Pace Containers Used:	☐Yes ☐No ☐N/A	
Containers Intact:	☐Yes ☐No ☐N/A	10.
Filtered volume received for Dissolved tests	☐Yes ☐No ☐N/A	11.
Sample Labels match COC: -Includes date/time/ID/Analysis Matrix:________	☐Yes ☐No ☐N/A	12. No dates or times on bottle
All containers needing preservation have been checked.	☐Yes ☐No ☐N/A	13.
All containers needing preservation are found to be in compliance with EPA recommendation.	☐Yes ☐No ☐N/A	
exceptions: VOA, coliform, TOC, O&G, WI-DRO (water)	☐Yes ☐No	
Samples checked for dechlorination:	☐Yes ☐No ☐N/A	14.
Headspace in VOA Vials (>6mm):	☐Yes ☐No ☐N/A	15.
Trip Blank Present:	☐Yes ☐No ☐N/A	16.
Trip Blank Custody Seals Present	☐Yes ☐No ☐N/A	
Pace Trip Blank Lot # (if purchased):________		

Client Notification/ Resolution: Field Data Required? Y / N

Person Contacted: ____________________ Date/Time: ____________

Comments/ Resolution: ____

SCURF Review:	TMO	**Date:**	2/13/15
SRF Review:	NMG	**Date:**	2-16-15

Note: Whenever there is a discrepancy affecting North Carolina compliance samples, a copy of this form will be sent to the North Carolina DEHNR Certification Office (i.e out of hold, incorrect preservative, out of temp, incorrect containers)

Place label here
WO#: 92237781
92237781

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CHAIN-OF-CUSTODY / Analytical Request Document

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

1776130

Section A Required Client Information:	Section B Required Project Information:	Section C Invoice Information:
Company: SCDHEC-UST	Report To: John Bryant-UST	Attention:
Address: 2600 Bull Street Columbia SC 29201	Copy To:	Company Name:
		Address:
Email To: Bryant J@dhec.sc.gov	Purchase Order No.: 4600322425	Pace Quote Reference:
Phone: 803-898-2544 Fax: 803-898-0673	Project Name: Warren Green	Pace Project Manager: A. Baion
Requested Due Date/TAT:	Project Number: 04887/ 44239	Pace Profile #: 849-1

REGULATORY AGENCY

- [ ] NPDES
- [ ] GROUND WATER
- [ ] DRINKING WATER
- [x] UST
- [ ] RCRA
- [ ] OTHER

Site Location STATE: SC Jasper

Section D Required Client Information

Matrix Codes MATRIX / CODE: Drinking Water DW, Water WT, Waste Water WW, Product P, Soil/Solid SL, Oil OL, Wipe WP, Air AR, Tissue TS, Other OT

SAMPLE ID (A-Z, 0-9 / ,-) Sample IDs MUST BE UNIQUE

Requested Analysis Filtered (Y/N)

Analysis Test: BTEX/Napth/MTBE, 1,2 DCA, Oxygenates, EDB

Pace Project No./ Lab I.D.: 92237781

ITEM #	SAMPLE ID	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	COMPOSITE START DATE	COMPOSITE START TIME	COMPOSITE END/GRAB DATE	COMPOSITE END/GRAB TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Unpreserved	H_2SO_4	HNO_3	HCl	NaOH	$Na_2S_2O_3$	Methanol	Other	BTEX/Napth/MTBE	1,2 DCA	Oxygenates	EDB	Residual Chlorine (Y/N)	Pace Project No./ Lab I.D.
1	MW-1	WT	G			2/12/15	12:16		6				6					X	X	X	X		Odor 01
2	MW-2						11:50																No odor 02
3	MW-3R						11:54																No Odor 03
4	MW-4						11:39																No Odor 04
5	MW-5						10:37																No odor 05
6	MW-6						10:49																No odor 06
7	MW-7						12:12																No odor 06
8	MW-8						11:31																Odor 07
9	MW-9						11:20																No odor 08
10	MW-10						11:08																No odor 09
11	MW-11						11:12																No odor 10
12	MW-12	WT	G			2/12/15	11:16		6				6					X	X	X	X		No odor 11
																							No odor 12

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS			
	[signature]	2/13	9:50	R Moody - Pace	02-13-15	09:50				
	R Moody	02-13-15	15:50	[signature] Pace	2-13-15	1550	4.5	Y	N	Y

SAMPLER NAME AND SIGNATURE

PRINT Name of SAMPLER: Adrian Best

SIGNATURE of SAMPLER: [signature]

DATE Signed (MM/DD/YY): 2/12/15

Temp in °C | Received on Ice (Y/N) | Custody Sealed Cooler (Y/N) | Samples Intact (Y/N)

ORIGINAL

*Important Note: By signing this form you are accepting Pace's NET 30 day payment terms and agreeing to late charges of 1.5% per month for any invoices not paid within 30 days.

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CHAIN-OF-CUSTODY / Analytical Request Document

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

Page: 2 of 3

1776131

Section A Required Client Information:
- Company: SCDHEC -UST
- Address: 2600 Bull Street
- Columbia SC, 29201
- Email To: BryantJ[illegible]@dhec.sc.gov
- Phone: 803-898-[illegible] Fax: 803-898-[illegible]
- Requested Due Date/TAT:

Section B Required Project Information:
- Report To: J Bryant -UST
- Copy To:
- Purchase Order No.: 4600328425
- Project Name: Warren Green
- Project Number: 04827 / 44239

Section C Invoice Information:
- Attention:
- Company Name:
- Address:
- Pace Quote Reference:
- Pace Project Manager: A. Baloni
- Pace Profile #:

REGULATORY AGENCY
- ☐ NPDES ☐ GROUND WATER ☐ DRINKING WATER
- ☑ UST ☐ RCRA ☐ OTHER

Site Location STATE: SC — Jasper

Section D Required Client Information

Matrix Codes MATRIX / CODE: Drinking Water DW, Water WT, Waste Water WW, Product P, Soil/Solid SL, Oil OL, Wipe WP, Air AR, Tissue TS, Other OT

SAMPLE ID (A-Z, 0-9 / ,-) Sample IDs MUST BE UNIQUE

Requested Analysis Filtered (Y/N)

Pace Project No./Lab I.D.: 9233781

ITEM #	SAMPLE ID	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	COMPOSITE START DATE	COMPOSITE START TIME	COMPOSITE END/GRAB DATE	COMPOSITE END/GRAB TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Unpreserved	H_2SO_4	HNO_3	HCl	NaOH	$Na_2S_2O_3$	Methanol	Other	Analysis Test	BTEX [illegible]	1,2 DCA	8 Oxy	EDB	Residual Chlorine (Y/N)	Pace Project No./Lab I.D.
1	MW-13	WT	G			2/12/15	11:04		6				6						X	X	X	X		WS 020 013
2	MW-14	WT					11:00																	No 020 014
3	MW-15	WT					11:35																	No 020 015
4	DW-1	WT					12:08																	No 020 016
5	DW-2						11:46																	No 020 017
6	DW-3						10:45																	No 020 018
7	DW-4						10:56																	No 020 019
8	DW-5						12:01																	No 020 020
9	DW-6	WT					11:27																	No 020 021
10	WSW-1	DW					12:19																	[illegible] 030
11	WSW-2	DW					12:24																	LDL 027
12	WSW-3	DW	G			2/12/15	12:35		6				6						X	X	X	X		LDL 028

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS			
	[signature]	2/13/15	9:50	[signature] -Pace	02-13-15	09:50				
	[signature]	02-13-15	15:50	[signature]	2-13-15	15:50	4.5	Y	N	Y

ORIGINAL

SAMPLER NAME AND SIGNATURE
- PRINT Name of SAMPLER: Adrian [illegible]
- SIGNATURE of SAMPLER: [signature]
- DATE Signed (MM/DD/YY): 2/12/15

Temp in °C | Received on Ice (Y/N) | Custody Sealed Cooler (Y/N) | Samples Intact (Y/N)

*Important Note: By signing this form you are accepting Pace's NET 30 day payment terms and agreeing to late charges of 1.5% per month for any invoices not paid within 30 days.

F-ALL-Q-020rev.07, 15-May-2007

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CHAIN-OF-CUSTODY / Analytical Request Document

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

1885144

Section A Required Client Information:

Company:	SCDHEC-UST
Address:	2600 Bull Street, Columbia SC, 29201
Email To:	BryantJC@dhec.sc.gov
Phone:	803-898-2544
Fax:	803-898-0673
Requested Due Date/TAT:	

Section B Required Project Information:

Report To:	J Bryant - UST
Copy To:	
Purchase Order No.:	4600328425
Project Name:	Warden Green
Project Number:	04887/49238

Section C Invoice Information:

Attention:	
Company Name:	
Address:	
Pace Quote Reference:	
Pace Project Manager:	A. Baioni
Pace Profile #:	

REGULATORY AGENCY

- [ ] NPDES
- [ ] GROUND WATER
- [ ] DRINKING WATER
- [x] UST
- [ ] RCRA
- [ ] OTHER

Site Location STATE: SC — Jasper

Requested Analysis Filtered (Y/N)

Section D Required Client Information

Matrix Codes MATRIX / CODE: Drinking Water DW, Water WT, Waste Water WW, Product P, Soil/Solid SL, Oil OL, Wipe WP, Air AR, Tissue TS, Other OT

SAMPLE ID (A-Z, 0-9 / ,-) Sample IDs MUST BE UNIQUE

Pace Project No./ Lab I.D.: 92237781

ITEM #	SAMPLE ID	MATRIX CODE	SAMPLE TYPE (G=GRAB C=COMP)	COMPOSITE START DATE	COMPOSITE START TIME	COMPOSITE END/GRAB DATE	COMPOSITE END/GRAB TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Unpreserved	H_2SO_4	HNO_3	HCl	NaOH	$Na_2S_2O_3$	Methanol	Other	Analysis Test: BTEX, [illegible]	1,2 DCA	8260 [illegible]	EDB	Residual Chlorine (Y/N)	Pace Project No./ Lab I.D.
1	WSW-4					2/12/15	12:39		6				6					X	Y	X	X		LDLS 079
2	MW-3R Dup						11:54		6				6										[illegible] 022
3	MW-5 Dup						10:37		6				6										[illegible] 023
4	Field Blank						12:18		6				6										024
5	Trip Blank					2/12/15	12:19		2				2								X		025
6																		X	X	X			
7																							
8																							
9																							
10																							
11																							
12																							

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	Temp in °C	Received on Ice (Y/N)	Custody Sealed Cooler (Y/N)	Samples Intact (Y/N)
	SCDHEC [illegible]	2/13/15	9:50	B moody - Pace	02-13-15	09:50				
	B moody	02-13-15	15:50	[illegible] / Pace	2-13-15	15:50	4.5	Y	N	Y

ORIGINAL

SAMPLER NAME AND SIGNATURE

PRINT Name of SAMPLER: Adrian Best

SIGNATURE of SAMPLER: [signature]

DATE Signed (MM/DD/YY): 2/12/15

*Important Note: By signing this form you are accepting Pace's NET 30 day payment terms and agreeing to late charges of 1.5% per month for any invoices not paid within 30 days.

F-ALL-Q-020rev.07, 15-May-2007

D H E C
PROMOTE PROTECT PROSPER
Catherine E. Heigel, Director
Promoting and protecting the health of the public and the environment

64887

UST DOCKETING 32-kel

MAR 3 2016

BRYAN SHANE
MIDLANDS ENVIRONMENTAL CONSULTANTS
PO BOX 854
LEXINGTON SC 29071

Re: **Site Specific Work Plan Request**
Groundwater Sampling Contract
Solicitation # IFB-5400007403, PO#4600462997

Dear Mr. Shane:

In accordance with bid solicitation # IFB-5400007403 and the UST Management Division Quality Assurance Program Plan (QAPP), Revision 3.0 it is requested that you submit a Site Specific Work Plan for each site listed below. The plans must be submitted **within 15 business days** to my attention. The project manager for each site will issue a notice to proceed once the plan has been reviewed and approved.

UST Permit	Site Name	County	# samples and requested analysis*	Project Manager
14887	Hardees	Spartanburg	25-BTEXMN, DCA, Oxygenates and EDB	M. Milenkova
01446	Derst Baking Company	Charleston	25-BTEXMN, 1-EDB (Only in DW-2)	M. Hornosky
18662	Bay Creek Villas	Colleton	26-BTEXMN, DCA, Oxygenates and EDB	J. Bryant
09983	Country Store	Beaufort	8-BTEXMN, DCA, Oxygenates and EDB	J. Bryant
16428	Dr Tire	Beaufort	22-BTEXMN, DCA, Oxygenates and EDB	J. Bryant
15170	Silken Webb Flower and Gift	Beaufort	17-BTEXMN, DCA, Oxygenates and EDB	J. Bryant
18234	Busseys Grocery	McCormick	25-BTEXMN, DCA, Oxygenates and EDB	J. Bryant
04887	Warren Green	Jasper	25-BTEXMN, DCA, Oxygenates and EDB	J. Bryant
10658	Joker Joes Truck Stop	Jasper	30-BTEXMN, DCA, Oxygenates and EDB	J. Bryant
05289	Burnettes Service Station	Jasper	33-BTEXMN, DCA, Oxygenates and EDB	J. Bryant
04735	Pavan Food Store	Greenwood	20-BTEXMN, DCA, Oxygenates and EDB	J. Bryant
03538	Coastal 76 Truck Stop	Florence	30-BTEXMN, DCA, Oxygenates and EDB	M. Milenkova
08344	Duncan Station	Spartanburg	18-BTEXMN, DCA, Oxygenates and EDB	M. Rivers
19646	Former Dabneys Amoco	Kershaw	7-BTEXMN, DCA, Oxygenates and EDB	K. Barnes

*The number of samples do not include trip blanks, field blanks, or field duplicate

Please contact me with the sampling schedule before commencing work at these facilities. In addition, a weekly update for each site is required to be submitted via e-mail to the site's project manager and myself. If you have any questions or need further assistance, please contact me at (803) 898-0606 or bryantjc@dhec.sc.gov.

Sincerely,

John C. Bryant, Hydrogeologist
Corrective Action Section
UST Management Division
Bureau of Land & Waste Management

enc: Site Information Packages
cc: Technical Files

Midlands
Environmental
Consultants, Inc.

UST
John
APR 14 2016
PROGRAM

UST
33 tech
DOCKETING

April 14, 2016

Mr. John Bryant, Hydrogeologist
Corrective Action Section
Assessment and Corrective Action Division
Underground Storage Tank Program
Bureau of Land and Waste Management
South Carolina Department of Health
and Environmental Control
2600 Bull Street
Columbia, South Carolina 29201

Subject: Site-Specific Work Plan
Warren Green
Yemassee, South Carolina
SCDHEC Site ID Number 04887
MECI Project Number 16-5527
Certified Site Rehabilitation Contractor UCC-0009

Dear Mr. Bryant,

Midlands Environmental Consultants Inc. (MECI) is pleased to submit the attached Site-Specific Work Plan for the referenced site.

On April 12, 2016, MECI personnel performed a site visit to the subject site to evaluate site conditions, locate monitoring wells and identify potential problems for future sampling activities.

If you have any question or comments please feel free to contact us at 803-808-2043.

Sincerely,
Midlands Environmental Consultants, Inc.

for Kyle V. Pudney
Project Biologist

Jeff L. Coleman
Senior Scientist

Post Office Box 854, Lexington SC 29071 • 231 Dooley Road, Lexington, SC 29073
Telephone: (803) 808-2043 • fax: (803) 808-2048

Midlands Environmental Consultants, Inc.

D H E C

PROMOTE PROTECT PROSPER

Site-Specific Work Plan for Approved ACQAP
Underground Storage Tank Management Division

To: Mr. John Bryant (SCDHEC Project Manager)
From: Mr. Jeff Coleman (Contractor Project Manager)
Contractor: Midlands Environmental Consultants, Inc. UST Contractor Certification Number: 009

Facility Name: Warren Green UST Permit #: 04887
Facility Address: 10773 West Frontage Road, Yemassee, SC 29945
Responsible Party: Lasonya Eady, Reginald Bascom & Everette Bascom Phone: 843-726-9038
RP Address: 194 Oak Hill Road, Ridgeland, SC 29936
Property Owner (if different): SAA
Property Owner Address: SAA
Current Use of Property: Abandoned Store

Scope of Work (Please check all that apply)

☐ IGWA ☐ Tier II ☑ Groundwater Sampling ☐ GAC
☐ Tier I ☐ Monitoring Well Installation ☐ Other ____

Analyses (Please check all that apply)

Groundwater/Surface Water:

☑ BTEXNMDCA (8260B) ☐ Lead ☐ BOD ☐ Methane
☑ Oxygenates (8260B) ☐ 8 RCRA Metals ☐ Nitrate ☐ Ethanol
☑ EDB (8011) ☐ TPH ☐ Sulfate ☐ Dissolved Iron
☐ PAH (8270D) ☐ pH ☐ Other ____

Soil:

☐ BTEXN ☐ 8 RCRA Metals ☐ TPH-DRO (3550B/8015B) ☐ Grain Size
☐ PAH ☐ Oil & Grease (9071) ☐ TPH-GRO (5030B/8015B) ☐ TOC

Air:

☐ BTEXN

Sample Collection (Estimate the number of samples of each matrix that are expected to be collected.)

____ Soil; 4 Water Supply Wells; ____ Air; 1 Field Blank
21 Monitoring Wells; ____ Surface Water; 2 Duplicate; 1 Trip Blank

Field Screening Methodology

Estimate number and total completed depth for each point, and include their proposed locations on the attached map.
# of shallow points proposed: ____ Estimated Footage: ____ feet per point
# of deep points proposed: ____ Estimated Footage: ____ feet per point
Field Screening Methodology: ____

Permanent Monitoring Wells

Estimate number and total completed depth for each well, and include their proposed locations on the attached map.
# of shallow wells: ____ Estimated Footage: ____ feet per point
# of deep wells: ____ Estimated Footage: ____ feet per point
# of recovery wells: ____ Estimated Footage: ____ feet per point
Monitoring Well development method (consistent with SOP): ____
Comments, if warranted:

UST Permit #: 04887 Facility Name: Warren Green

Implementation Schedule (Number of calendar days from approval)
Field Work Start-Up: 4/15/16 Field Work Completion: 5/15/16
Report Submittal: 6/15/16 # of Copies Provided to Property Owners: ______

Aquifer Characterization
Pump Test: ☐ Slug Test: ☐ (Check one and provide explanation below for choice)

Investigation Derived Waste Disposal
Soil: ______ Tons Purge Water: 150.0 Gallons
Drilling Fluids: ______ Gallons Free-Phase Product: ______ Gallons

Additional Details For This Scope of Work
For example, list wells to be sampled, wells to be abandoned/repaired, well pads/bolts/caps to replace, details of AFVR event, etc.
-During the initial site visit, all monitoring wells and four nearby water supply wells were located.
-All monitoring wells will be purged prior to sample collection.
-All monitoring wells will be analyzed for BTEXNM, DCA, Oxy's and EDB.

Compliance With Annual Contractor Quality Assurance Plan (ACQAP)
YES Laboratory as indicated in ACQAP? (Yes/No) If no, indicate laboratory information below.
Name of Laboratory: ______
SCDHEC Certification Number: ______
Name of Laboratory Director: ______

N/A Well Driller as indicated in ACQAO? (Yes/No) If no, indicate driller information below.
Name of Well Driller: ______
SCLLR Certification Number: ______

N/A Other variations from ACQAP. Please describe below.

Attachments
1. Attach a copy of the relevant portion of the USGS topographic map showing the site location.
2. Prepare a site base map. This map must be accurately scaled, but does not need to be surveyed. The map must include the following:
   - North Arrow
   - Location of property lines
   - Location of buildings
   - Previous soil sampling locations
   - Previous monitoring well locations
   - Proposed soil boring locations
   - Proposed monitoring well locations
   - Legend with facility name and address, UST permit number, and bar scale
   - Streets or highways (indicate names and numbers)
   - Location of all present and former ASTs and USTs
   - Location of all potential receptors
3. Assessment Component Cost Agreement, SCDHEC Form D-3664

D H E C

PROMOTE PROTECT PROSPER

South Carolina Department of Health and Environmental Control

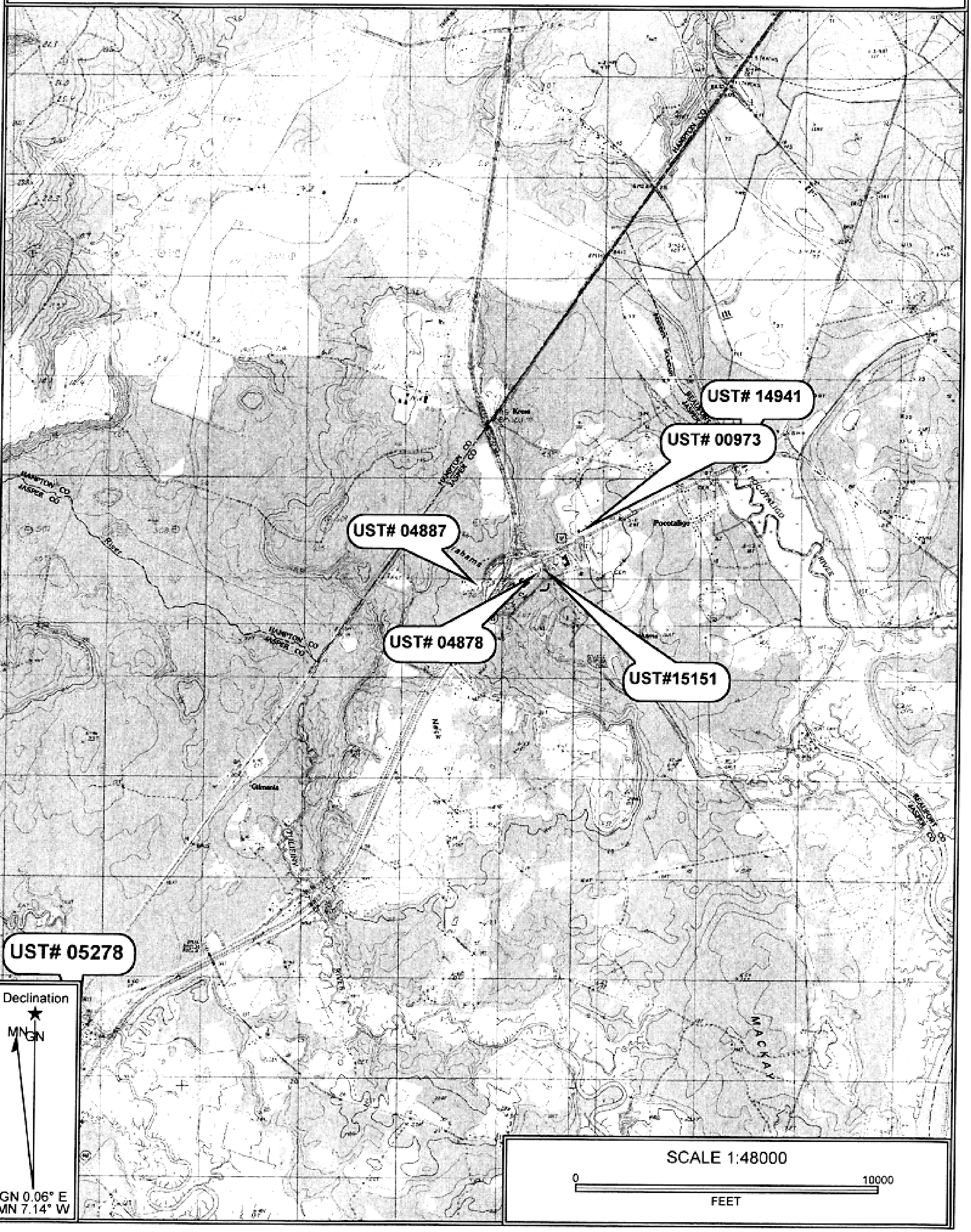
ASSESSMENT COMPONENT INVOICE
SOUTH CAROLINA
Department of Health and Environmental Control
Underground Storage Tank Management Division
State Underground Petroleum Environmental Response Bank Account
CONTRACT PO NUMBER 4600328425

Facility Name: Warren Green

UST Permit #: 04887 **Cost Agreement #:** Proposal

ITEM	QUANTITY	UNIT	UNIT PRICE		TOTAL
1. **Plan***					
A1. Site Specific Work Plan	1	each	$0.00		$0.00
C1. QAPP Appendix B		each	$0.00		$0.00
2. A1. Receptor Survey		each	$0.00		$0.00
4. **Mob/Demob**					
B1. Personnel	2	each	$350.00		$700.00
10. **Groundwater Sample Collection / Gauge Depth to Water or Product (Each)**					
A1. Groundwater Purge	21	per well	$16.00		$336.00
B1. Air or Vapors		samples	$0.00		$0.00
C1. Water Supply	4	samples	$5.00		$20.00
D1. Groundwater No Purge		per well	$8.00		$0.00
E1. Gauge Well only		per well	$0.00		$0.00
F1. Sample Below Product		per well	$0.00		$0.00
G1. Pasive Diffusion Bag		each	$20.00		$0.00
H1. Field Blank	1	each	$10.00		$10.00
17. **Disposal* (gallons or tons)**					
AA. Disposal/Water	150	gallons	$1.00		$150.00
BB. Free Product		gallons	$0.00		$0.00
Note: Rate includes costs or rental of suitable container(s)					
23. D. Site Reconnaissance		each	$0.00		$0.00
18. **Miscellaneous (attach receipts)**					
GW Contour Map		each	$25.00		$0.00
Isopleth Map		each	$25.00		$0.00
High-Strength Well Pad Replacement		each	$75.00		$0.00
Trip Blank	1	each	$10.00		$10.00
Data Table		each	$25.00		$0.00
25. **Well Repair**					
B1. Repair 2x2 MW Pad		each	$75.00		$0.00
C1. Repair 4x4 MW Pad		each	$75.00		$0.00
D1. Replace Well Vault		each	$75.00		$0.00
E. Replace well cover		each	$25.00		$0.00
F1. Replace well cover bolts		each	$2.60		$0.00
G. Replace locking well cap & lock		each	$15.00		$0.00
K1. Replace Missing Well ID Plate		each	$10.00		$0.00
TOTAL					$1,226.00

Map Name: MC PHERSONVILLE
Print Date: 04/14/16
Scale: 1 inch = 4,000 ft.
Map Center: 032° 37' 41.97" N, 080° 53' (
Horizontal Datum: NAD27



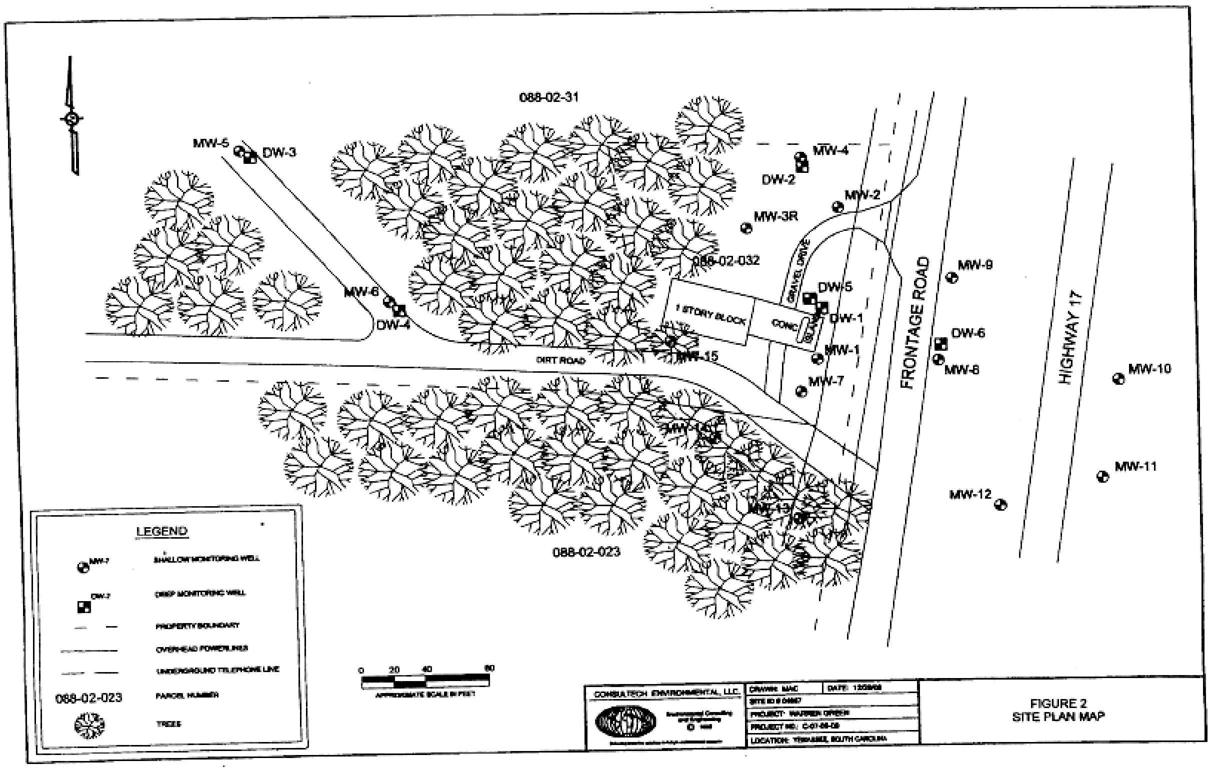


FIGURE 2
SITE PLAN MAP

UST 34 tich DOCKETING

BRYAN SHANE
MIDLANDS ENVIRONMENTAL CONSULTANTS
PO BOX 854
LEXINGTON SC 29071

APR 2 2 2016

Re: **Notice to Proceed-Site Specific Work Plan Approval**
Groundwater Sampling Contract
Solicitation # IFB-5400007403, PO#4600484321
Warren Green, 10773 West Frontage Road, Yemassee, SC 29945
UST Permit #04887; CA #52240 (Pace CA #52241)
Jasper County

Dear Mr. Shane:

In accordance with bid solicitation #IFB-5400007403 and the UST Management Division Quality Assurance Program Plan (QAPP), the Site-Specific Work Plan has been reviewed and approved. In accordance with the approved ACQAP, a status report of the project should be provided on a weekly basis via e-mail. If any quality assurance problems arise, you must contact me within 24 hours via phone or e-mail. In addition, a discussion of the problem(s) encountered, including quality assurance problems, the actions taken, and the results must be included in the final report submitted to the UST Management Division.

MECI will perform services at the site on behalf of the site's responsible party (RP); however, payment will be made from the SUPERB Account. The site's RP has no obligation for payment for this scope of work. Please coordinate access to the facility with the property owner. The Agency grants pre-approval for transportation of virgin petroleum impacted soil and groundwater from the referenced site to a permitted treatment facility. There can be no spillage or leakage in transport. All investigation-derived waste (IDW) must be properly contained and labeled prior to disposal. A copy of the disposal manifest and/or acceptance letter from the receiving facility that clearly designates the quantity received must be included with the final report. The SUPERB Account will not reimburse for transportation or treatment of soil and/or groundwater with concentrations below RBSLs.

Please note, sampling should be conducted within 15 calendar days from the date of this letter. The final report is due within 3 weeks from the date the site is sampled. If the site is not sampled by the specified due date or the report is not received in the specified time period, a late fee may be imposed. The final report should contain the requirements of Section III.2.15 of the bid solicitation. The final report should be submitted to John Bryant, the contract manager.

If you have any site-specific or contract questions, please contact me at (803) 898-0606 or via e-mail at bryantjc@dhec.sc.gov.

Sincerely,

John Bryant, Hydrogeologist
Corrective Action Section
UST Management Division
Bureau of Land & Waste Management

enc: Approved Cost Agreement (both CAs)

cc: John Bryant, Corrective Action Section, UST Management Division (w/o encs.)
Trey Carter, Pace Analytical Services, 9800 Kincey Ave, Ste 100, Huntersville, NC, 28078 (w/ approved CA)
Technical Files (w/ encs.)

Approved Cost Agreement 52241

Facility. 04887 WARREN GREEN
BRYANTJC
PO Number

Task / Description	Categories	Item Description	Qty / Pct	Unit Price	Amount
11 ANALYSES					
	GW GROUNDWATER	A2 BTEXNM+OXYGS+1,2-DCA+ETH-8260B	28.0000	$19 000	532.00
		F1 EDB BY 8011	27.0000	$18 000	486.00
			Total Amount		1,018 00

Approved Cost Agreement 52240

Facility: 04887 WARREN GREEN
BRYANTJC
PO Number

Task / Description	Categories	Item	Description	Qty / Pct	Unit Price	Amount
04 MOB/DEMOB						
		B1	PERSONNEL	2 0000	$350 000	700.00
10 SAMPLE COLLECTION						
		A1	GROUNDWATER (PURGE)	21 0000	$16 000	336 00
		C1	WATER SUPPLY	4 0000	$5 000	20.00
		H1	FIELD BLANK	1 0000	$10.000	10.00
17 DISPOSAL						
		AA	WASTEWATER	200.0000	$1 000	200 00
18 MISCELLANEOUS						
			SITE SPECIFIC WORK PLAN	1.0000	$0 000	0.00
			TRIP BLANK	1 0000	$10 000	10.00
				Total Amount		1,276.00

Midlands
Environmental
Consultants, Inc.

May 3, 2016

Mr. John C. Bryant, Hydrogeologist
Corrective Action Section
Underground Storage Tank Program
Bureau of Land and Waste Management
South Carolina Department of Health
and Environmental Control
2600 Bull Street
Columbia, South Carolina 29201

Subject: Report of Groundwater Sampling
Warren Green
10773 W Frontage Road
Yemassee, South Carolina
SCDHEC Site ID Number 04887; CA #52240
MECI Project Number 16-5527
Certified Site Rehabilitation Contractor UCC-0009

Dear Mr. Bryant,

Midlands Environmental Consultants Inc. (MECI) is pleased to submit the attached Report of Groundwater Sampling for the referenced site. This report describes site activities conducted at the site in general accordance with South Carolina Department of Health and Environmental Control's (SCDHEC) Quality Assurance Program Plan for the Underground Storage Tank Management Division (QAPP).

PROJECT INFORMATION

The subject site (Yemassee) is located at 10773 W Frontage Road, Yemassee, Jasper County, South Carolina. The subject site currently maintains two 3,000 gallon gasoline underground storage tanks (UST's) and one 2,000 gallon gasoline UST. The tanks have been rendered non-usable and are currently out of compliance. The last known compliance date for these UST's is September 10, 2001. The South Carolina Department of Health and Environmental Control (SCDHEC) reported and confirmed a release of petroleum product in May of 2002. The site is currently rated a Class 2BB.

The above information is based on reports and correspondence obtained from MECI field notes and SCDHEC files.

MONITORING WELL SAMPLING AND CHEMICAL ANALYSIS

On April 25, 2016, MECI personnel collected groundwater samples from twenty-one (21) monitoring wells, and four (4) water supply wells at the referenced site. Based on the request by SCDHEC personnel, all monitoring well were to be purged prior to sample collection. Twenty-one (21) monitoring wells were purged prior to sampling.

Post Office Box 854, Lexington SC 29071 • 231 Dooley Road, Lexington, SC 29073
Telephone: (803) 808-2043 • fax: (803) 808-2048

Prior to sampling, MECI personnel utilized an electronic water level indicator for water level measurements and an oil/water interface probe for free phase petroleum product level measurements. Purging was completed by bailing at least five well volumes of water from the well, or until all water was evacuated from the well, whichever occurred first. Sampling/purging was completed utilizing a prepackaged, clear, disposable polyethylene bailer and nylon rope. A new set of nitrile gloves were worn at each monitoring well, and at all time samples were handled. Field measurements of pH, conductivity, dissolved oxygen, water temperature, and turbidity were obtained before well sampling process. MECI utilized a YSI Pro20 meter for DO (mg/L) and temperature readings (°C), a YSI Pro1030 meter for pH and conductivity (uS) readings and a MicroTPI/TPW turbidimeter for turbidity readings (NTU). The attached Field Data Information Sheets presents the results of the field measurements obtained. The wells were sampled in accordance with most recent revision of the SCDHEC's Quality Assurance Program Plan for the Underground Storage Tank Management Division and MECI's most recent revision of Standard Operating Procedures.

Groundwater samples obtained were sent to Pace Analytical Services, Inc. of Huntersville, NC (SCDHEC Laboratory Certification #99006001) for analysis.

The following sampling matrix contains well development and requested analyses for each well:

Monitoring Well	Purge	No Purge	Gauge Only	Not Located	BTEX, Naphthalene, MTBE (EPA Method 8260-B)	EDB (EPA Method 8011)	1,2 DCA (EPA Method 8260-B)	8 Oxygenates (EPA Method 8260-B)	Total Lead (EPA Method 6010)	Sulfate (EPA Method 375.2)	Nitrate (EPA Method 335.2)	Methane (RSK Method)	PAH's (EPA Method 8270)	Ferrous Iron (Field Test)
					Analyte Sampled									
MW-1	X				X	X	X	X						
MW-2	X				X	X	X	X						
MW-3	X				X	X	X	X						
MW-4	X				X	X	X	X						
MW-5	X				X	X	X	X						
MW-6	X				X	X	X	X						
MW-7	X				X	X	X	X						
MW-8	X				X	X	X	X						
MW-9	X				X	X	X	X						
MW-10	X				X	X	X	X						
MW-11	X				X	X	X	X						
MW-12	X				X	X	X	X						
MW-13	X				X	X	X	X						
MW-14	X				X	X	X	X						
MW-15	X				X	X	X	X						
DW-1	X				X	X	X	X						
DW-2	X				X	X	X	X						
DW-3	X				X	X	X	X						
DW-4	X				X	X	X	X						

Notes: BTEX = benzene, toluene, ethylbenzene, & total xylenes MTBE=methyl tertiary butyl ether 1,2 DCA = 1,2 dicloroethane
PAH = polycyclic aromatic hydrocarbons

Monitoring Well	Purge	No Purge	Gauge Only	Not Sampled	BTEX, Naphthalene, MTBE (EPA Method 8260-B)	EDB (EPA Method 8011)	1,2 DCA (EPA Method 8260-B)	8 Oxygenates (EPA Method 8260-B)	Total Lead (EPA Method 6010)	Sulfate (EPA Method 375.2)	Nitrate (EPA Method 335.2)	Methane (RSK Method)	PAH's (EPA Method 8270)	Ferrous Iron (Field Test)
					Analyte Sampled									
WSW-1					X	X	X	X						
WSW-2					X	X	X	X						
WSW-3					X	X	X	X						
WSW-4					X	X	X	X						
Dup 1 (MW-7)					X	X	X	X						
Dup 2 (MW-1)					X	X	X	X						
Field Blank					X	X	X	X						
Trip Blank					X		X	X						

Notes: BTEX = benzene, toluene, ethylbenzene, & total xylenes MTBE=methyl tertiary butyl ether 1,2 DCA = 1,2 dicloroethane
PAH = polycyclic aromatic hydrocarbons

Purge water produced by the purging process was treated on-site utilizing a granular activated carbon unit. A total of 224.0 gallons of purge water was disposed of in this manner. A disposal manifest for the referenced purge water is attached at the end of this report.

Please feel free to contact us at 803-808-2043 if you have any immediate questions or comments.

Sincerely,
Midlands Environmental Consultants, Inc.

Todd D. Elder
Staff Hydrogeologist

Jeff L. Coleman
Senior Scientist

Attachments:

Contractor Checklist

Item#	Item	Yes	No	N/A
1	Is Facility Name, Permit #, and address provided?	X		
2	Is UST Owner/Operator name, address, & phone number provided?			X
3	Is name, address, & phone number of current property owner provided?			X
4	Is the DHEC Certified UST Site Rehabilitation Contractor's Name, Address, telephone number, and certification number provided?	X		
5	Is the name, address, telephone number, and certification number of the well driller that installed borings/monitoring wells provided?			X
6	Is the name, address, telephone number, and certification number of the certified laboratory(ies) performing analytical analyses provided?	X		
7	Has the facility history been summarized?	X		
8	Has the regional geology and hydrogeology been described?			X
9	Are the receptor survey results provided as required?			X
10	Has current use of the site and adjacent land been described?			X
11	Has the site-specific geology and hydrogeology been described?			X
12	Has the primary soil type been described?			X
13	Have field screening results been described?			X
14	Has a description of the soil sample collection and preservation been detailed?			X
15	Has the field screening methodology and procedure been detailed?			X
16	Has the monitoring well installation and development dates been provided?			X
17	Has the method of well development been detailed?			X
18	Has justification been provided for the locations of the monitoring wells?			X
19	Have the monitoring wells been labeled in accordance with the UST QAPP guidelines?			X
20	Has the groundwater sampling methodology been detailed? See MECI SOP	X		
21	Have the groundwater sampling dates and groundwater measurements been provided? See attached Site Activity Summary Sheet	X		
22	Has the purging methodology been detailed? See MECI SOP	X		
23	Has the volume of water purged from each well been provided along with measurements to verify that purging is complete? See attached Field Data Information Sheets	X		
24	If free-product is present, has the thickness been provided? See attached Site Activity Summary Sheets	X		
25	Does the report include a brief discussion of the assessment done and the results?			X
26	Does the report include a brief discussion of the aquifer evaluation and results?			X
27	Does the report include a brief discussion of the fate & transport models used?			X

Item#	Item	Yes	No	N/A
28	Are the site-conceptual model tables included? (Tier 1 Risk Evaluation)			X
29	Have the exposure pathways been analyzed? (Tier 2 Risk Evaluation)			X
30	Have the SSTLs for each compound and pathway been calculated? (Tier 2 Risk Evaluation)			X
31	Have recommendations for further action been provided and explained?			X
32	Has the soil analytical data for the site been provided in tabular format? (Table 1)			X
33	Has the potentiometric data for the site been provided in tabular format? (Table 2)			X
34	Has the current and historical laboratory data been provided in tabular format?			X
35	Have the aquifer characteristics been provided and summarized on the appropriate form?			X
36	Have the Site conceptual model tables been included? (Tier 1 Risk Evaluation)			X
37	Has the topographic map been provided with all required elements? (Figure 1)	X		
38	Has the site base map been provided with all required elements? (Figure 2)	X		
39	Have the CoC site maps been provided? (Figure 3 & Figure 4)			X
40	Has the site potentiometric map been provided? (Figure 5)			X
41	Have the geologic cross-sections been provided? (Figure 6)			X
42	Have maps showing the predicted migration of the CoCs through time been provided? (Tier 2 Risk Evaluation)			X
43	Has the site survey been provided and include all necessary elements? (Appendix A)			X
44	Have the sampling logs, chain of custody forms, and the analytical data package been included with all required elements? (Appendix B)	X		
45	Is the laboratory performing the analyses properly certified?	X		
46	Has the tax map been included with all necessary elements? (Appendix C)			X
47	Have the soil boring/field screening logs been provided? (Appendix D)			X
48	Have the well completion logs and SCDHEC Form 1903 been provided? (Appendix E)			X
49	Have the aquifer evaluation forms, data, graphs, equations, etc. been provided? (Appendix F)			X
50	Have the disposal manifests been provided? See attached	X		
51	Has a copy of the local zoning regulations been provided? (Appendix H)			X
52	Has all fate and transport modeling been provided? (Appendix I)			X
53	Have copies of all access agreements obtained by the contractor been provided? (Appendix J)			X
54	Has a copy of this form been attached to the final report and are explanations for any missing or incomplete data been provided?	X		

Site Activity Summary

UST Permit #:	04887
Facility Name:	Warren Green
County:	Jasper
Field Personnel:	P. Wylie, J. Phillips

Midlands Environmental Consultants, Inc.

Sample ID	Sampled?	Date	Time	Screened Interval	Depth to Product (ft)	Depth to Water (ft)	Product Thickness (ft)	Initial Dissolved Oxygen (mg/l)	# Gals. Purged	Comments
MW-1	Y	4/25/16	13:35	2-12	***	4.63	***	0.75	6.00	Odor; Duplicated as DUP-2
MW-2	Y	4/25/16	15:30	5-15	***	4.89	***	0.82	8.50	No Odor
MW-3	Y	4/25/16	14:40	5-20	***	5.00	***	0.73	12.50	No Odor
MW-4	Y	4/25/16	15:00	5-20	***	4.51	***	2.46	13.00	No Odor
MW-5	Y	4/25/16	10:35	5-20	***	3.51	***	2.86	13.50	No Odor
MW-6	Y	4/25/16	11:35	5-20	***	3.62	***	1.55	13.50	Organic Odor
MW-7	Y	4/25/16	13.15	5-20	***	5.56	***	SHEEN	12.00	Strong Odor; SHEEN=petroleum sheen on purged water; Duplciated as DUP-1
MW-8	Y	4/25/16	17 11	5-20	***	6.99	***	1.93	7.50	No Odor; Dry @ 7.50 gallons
MW-9	Y	4/25/16	16:53	5-20	***	6.57	***	1.49	10.00	No Odor; Dry @ 10.0 gallons
MW-10	Y	4/25/16	15:44	5-20	***	6.82	***	0.79	3.00	No Odor; Dry @ 3.0 gallons
MW-11	Y	4/25/16	15:54	5-20	***	7.60	***	0.81	2.50	No Odor; dry @ 2.50 gallons
MW-12	Y	4/25/16	16:08	5-20	***	6.41	***	1.37	5.00	No Odor; Dry @ 5.0 gallons
MW-13	Y	4/25/16	12:25	5-20	***	5.33	***	0.72	12.00	No Odor
MW-14	Y	4/25/16	12:00	5-20	***	5.40	***	0.79	12.00	No Odor
MW-15	Y	4/25/16	12:50	5-20	***	4.07	***	1.77	13.00	No Odor
									144 00	**TOTAL GALLONS PURGED**

Site Activity Summary

UST Permit #: 04887
Facility Name: Warren Green
County: Jasper
Field Personnel: P. Wylie, J. Phillips

Midlands Environmental Consultants, Inc.

Sample ID	Sampled?	Date	Time	Screened Interval	Depth to Product (ft)	Depth to Water (ft)	Product Thickness (ft)	Initial Dissolved Oxygen (mg/l)	# Gals. Purged	Comments
DW-1	Y	4/25/16	13:55	45-50	***	2.40	***	3.04	11.00	No Odor; Dry @ 11.0 gallons
DW-2	Y	4/25/16	15:16	45-50	***	4.12	***	4.00	11.00	No Odor; Dry @ 11.0 gallons
DW-3	Y	4/25/16	10:51	45-50	***	7.30	***	5.00	10.00	No Odor; Dry @ 10 gallons
DW-4	Y	4/25/16	11:15	45-50	***	5.96	***	4.11	12.00	No Odor; Dry @ 12.0 gallons
DW-5	Y	4/25/16	14:20	80-85	***	0.20	***	5.10	16.00	No Odor; Dry 16.0 gallons
DW-6	Y	4/25/16	16:15	80-85	***	4.61	***	2.83	20.00	No Odor; Dry @ 20 0 gallons
WSW-1	Y	4/25/16	17:15	***	***	***	***	***	***	235 Bowers Lane; Taken from spigot on house
WSW-2	Y	4/25/16	17:25	***	***	***	***	***	***	299 Bowers Lane; Taken from spigot on well
WSW-3	Y	4/25/16	17:35	***	***	***	***	***	***	10951 Frontage Road; Taken from spigot on well
WSW-4	Y	4/25/16	17:40	***	***	***	***	***	***	10943 Frontage Road; Taken from spigot on well
DUP-1	Y	4/25/16	13:15	***	***	***	***	***	***	Duplicate Sample; Taken from MW-7
DUP-2	Y	4/25/16	13:35	***	***	***	***	***	***	Duplicate Sample; Taken from MW-1
Field Blank	Y	4/25/16	17:41	***	***	***	***	***	***	Field Blank
Trip Blank	Y	4/25/16	17:42	***	***	***	***	***	***	Trip Blank
				***	***	***	***	***	***	
									80.00	**TOTAL GALLONS PURGED**

Underground Storage Tank Management Division Field Data Information Sheet – Sampling

Date:	4/25/2016	Site ID #:	04887	Site Name:	Warren Green	Field Personnel:	P. Wylie, J. Phillips
County:	Jasper	Project Manager:	J. Byrant	General Weather Conditions:	Clear	Ambient Air Temp (°F):	82

Quality Assurance

Meter Name	Serial #:	Calibration:							
YSI Pro1030 (pH, Specific Conductivity, Temp.)	15H101448	pH 4.0: Y or N	Y	pH 7.0: Y or N	Y	pH 10.0: Y or N	Y	S.C.: Y or N	Y
YSI Pro20 (Dissolved Oxygen)	12G102878	Y or N	Y						
MicroTPI/TPW (Turbidity)	201301183	0.0 NTU: Y or N	Y	1.0 NTU: Y or N	Y	10.0 NTU: Y or N	Y		

Well Information

Well ID:	MW-1	Well Diameter (ft.): Conversion Factor (C): 1" well = 0.047, 2" well = 0.16, 4" well = 0.652	0.163	Method of Purging/Sample Collection	Bailer
Sample Type: (i.e. MW, IW, RW, WSW)	MW	Screened Interval (ft.):	2-12	Total Well Depth (TWD) (ft.):	12
Depth to Free Product (DFP) (ft.):	ND	Depth to Groundwater (DGW) (ft.):	4.63	Free Product Thickness (ft.):	Not Detected
Length of water column (LWC = TWD – DGW) (ft.):	7.37	1 casing volume (CV = LWC x C) (gals.):	1.20	5 casing volumes (5 x CV) (gals.):	6.01

Purging Data

	Initial	1st Vol.	2nd Vol.	3rd Vol.	4th Vol.	5th Vol.	Post	Sampling
Volume Purged (gallons)	0.00	1.20	2.40	3.60	4.81	6.01		
Time (military)	13:25	13:27	13:29	13:31	13:33	13:35		
PH (s.u.)	5.78	5.65	5.59	5.56	5.53	5.51		
Specific Conductivity (µS/cm)	186.7	193.8	198	200.1	201.5	202.7		
Water Temperature (°C)	19.2	18	17.5	0.79	16.9	16.8		
Dissolved Oxygen (mg/L)	0.75	0.71	0.77	0.79	0.82	0.84		
Turbidity (NTU)	16.49	23.81	37.65	49.14	62.03	74.72		

Sampling Data

Sampled By:	P. Wylie, J. Phillips	Sampling Time:	13:35	Duplicate: Y or N	Y	If yes, Duplicate Time:	13:35	Total Gallons Purged:	6.00

Notes: Odor; Dupliciated as DUP-2

Underground Storage Tank Management Division Field Data Information Sheet – Sampling

Date:	4/25/2016	Site ID #:	04867	Site Name:	Warren Green	Field Personnel:	P. Wylie, J. Phillips
County:	Jasper	Project Manager:	J. Byrant	General Weather Conditions:	Clear	Ambient Air Temp (°F):	82

Quality Assurance

Meter Name	Serial #:	Calibration:							
YSI Pro1030 (pH, Specific Conductivity, Temp.)	15H101448	pH 4.0: Y or N	Y	pH 7.0: Y or N	Y	pH 10.0: Y or N	Y	S.C.: Y or N	Y
YSI Pro20 (Dissolved Oxygen)	12G102878	Y or N	Y						
MicroTPI/TPW (Turbidity)	201301183	0.0 NTU: Y or N	Y	1.0 NTU: Y or N	Y	10.0 NTU: Y or N	Y		

Well Information

Well ID:	MW-2	Well Diameter (ft.): Conversion Factor (C): 1" well = 0.047, 2" well = 0.16, 4" well = 0.652	0.163	Method of Purging/Sample Collection	Bailer
Sample Type: (i.e. MW, IW, RW, WSW)	MW	Screened Interval (ft.):	5-15	Total Well Depth (TWD) (ft.):	15
Depth to Free Product (DFP) (ft.):	ND	Depth to Groundwater (DGW) (ft.):	4.89	Free Product Thickness (ft.):	Not Detected
Length of water column (LWC = TWD – DGW) (ft.):	10.11	1 casing volume (CV = LWC x C) (gals.):	1.65	5 casing volumes (5 x CV) (gals.):	8.24

Purging Data

	Initial	1st Vol.	2nd Vol.	3rd Vol.	4th Vol.	5th Vol.	Post	Sampling
Volume Purged (gallons)	0.00	1.65	3.30	4.94	6.59	8.24		
Time (military)	15:20	15:22	15:24	15:26	15:28	15:30		
PH (s.u.)	5.13	5.01	4.81	4.74	4.7	4.68		
Specific Conductivity (µS/cm)	183.7	220.6	251.3	278.4	305.1	328.9		
Water Temperature (°C)	18.8	18.5	19	19.3	19.4	19.5		
Dissolved Oxygen (mg/L)	0.82	0.85	0.86	0.8	0.76	0.74		
Turbidity (NTU)	5.11	27.3	39.81	51.29	63.74	70.26		

Sampling Data

Sampled By:	P. Wylie, J. Phillips	Sampling Time:	15:30	Duplicate: Y or N	N	If yes, Duplicate Time:	N/A	Total Gallons Purged:	8.50

Notes:

No Odor

Underground Storage Tank Management Division Field Data Information Sheet – Sampling

Date:	4/25/2016	Site ID #:	04887	Site Name:	Warren Green	Field Personnel:	P. Wylie, J. Phillips
County:	Jasper	Project Manager:	J. Byrant	General Weather Conditions:	Clear	Ambient Air Temp (°F):	82

Quality Assurance

Meter Name	Serial #:	Calibration:							
YSI Pro1030 (pH, Specific Conductivity, Temp.)	15H101448	pH 4.0: Y or N	Y	pH 7.0: Y or N	Y	pH 10.0: Y or N	Y	S.C.: Y or N	Y
YSI Pro20 (Dissolved Oxygen)	12G102878	Y or N	Y						
MicroTPI/TPW (Turbidity)	201301183	0.0 NTU: Y or N	Y	1.0 NTU: Y or N	Y	10.0 NTU: Y or N	Y		

Well Information

Well ID:	MW-3R	Well Diameter (ft.): Conversion Factor (C): 1" well = 0.047, 2" well = 0.16, 4" well = 0.652	0.163	Method of Purging/Sample Collection	Bailer
Sample Type: (i.e. MW, IW, RW, WSW)	MW	Screened Interval (ft.):	5-20	Total Well Depth (TWD) (ft.):	20
Depth to Free Product (DFP) (ft.):	ND	Depth to Groundwater (DGW) (ft.):	5.00	Free Product Thickness (ft.):	Not Detected
Length of water column (LWC = TWD – DGW) (ft.):	15.00	1 casing volume (CV = LWC x C) (gals.):	2.45	5 casing volumes (5 x CV) (gals.):	12.23

Purging Data

	Initial	1st Vol.	2nd Vol.	3rd Vol.	4th Vol.	5th Vol.	Post	Sampling
Volume Purged (gallons)	0.00	2.45	4.89	7.34	9.78	12.23		
Time (military)	14:25	14:28	14:31	14:34	14:37	14:40		
PH (s.u.)	6.70	6.65	6.6	6.53	6.45	6.42		
Specific Conductivity (µS/cm)	156.8	16.4	167.3	171.5	177.2	179		
Water Temperature (°C)	18.0	17.5	17.3	17.2	17.1	17		
Dissolved Oxygen (mg/L)	0.73	0.80	0.86	0.90	0.93	0.95		
Turbidity (NTU)	7.91	30.69	53.07	76.42	90.5	98.37		

Sampling Data

Sampled By:	P. Wylie, J. Phillips	Sampling Time:	14:40	Duplicate: Y or N	N	If yes, Duplicate Time:	N/A	Total Gallons Purged:	12.50

Notes: No Odor

Underground Storage Tank Management Division Field Data Information Sheet – Sampling

Date:	4/25/2016	*Site ID #:*	04887	*Site Name:*	Warren Green	*Field Personnel:*	P. Wylie, J. Phillips
County:	Jasper	*Project Manager:*	J. Byrant	*General Weather Conditions:*	Clear	*Ambient Air Temp (°F):*	82

Quality Assurance

Meter Name	*Serial #:*	*Calibration:*							
YSI Pro1030 (pH, Specific Conductivity, Temp.)	15H101448	*pH 4.0: Y or N*	Y	*pH 7.0: Y or N*	Y	*pH 10.0: Y or N*	Y	*S.C.: Y or N*	Y
YSI Pro20 (Dissolved Oxygen)	12G102878	*Y or N*	Y						
MicroTPI/TPW (Turbidity)	201301183	*0.0 NTU: Y or N*	Y	*1.0 NTU: Y or N*	Y	*10.0 NTU: Y or N*	Y		

Well Information

Well ID:	MW-4	*Well Diameter (ft.): Conversion Factor (C): 1" well = 0.047, 2" well = 0.16, 4" well = 0.652*	0.163	*Method of Purging/Sample Collection*	Bailer
Sample Type: (i.e. MW, IW, RW, WSW)	MW	*Screened Interval (ft.):*	5-20	*Total Well Depth (TWD) (ft.):*	20
Depth to Free Product (DFP) (ft.):	ND	*Depth to Groundwater (DGW) (ft.):*	5.00	*Free Product Thickness (ft.):*	Not Detected
Length of water column (LWC = TWD – DGW) (ft.):	15.00	*1 casing volume (CV = LWC x C) (gals.):*	2.45	*5 casing volumes (5 x CV) (gals.):*	12.23

Purging Data

	Initial	*1st Vol.*	*2nd Vol.*	*3rd Vol.*	*4th Vol.*	*5th Vol.*	*Post*	*Sampling*
Volume Purged (gallons)	0.00	2.45	4.89	7.34	9.78	12.23		
Time (military)	14:45	14:48	14:51	14:54	14:57	15:00		
PH (s.u.)	5.69	5.56	5.49	5.37	5.29	5.26		
Specific Conductivity (μS/cm)	249.2	268.1	290.5	320.4	339.7	361.3		
Water Temperature (°C)	18.5	18.3	18.8	19.2	19.4	19.5		
Dissolved Oxygen (mg/L)	2.46	2.19	1.82	1.53	1.31	1.10		
Turbidity (NTU)	29.09	36.14	41.37	47.69	54.03	63.82		

Sampling Data

Sampled By:	P. Wylie, J. Phillips	*Sampling Time:*	15:00	*Duplicate: Y or N*	N	*If yes, Duplicate Time:*	N/A	*Total Gallons Purged:*	13.00

Notes: No Odor

Underground Storage Tank Management Division Field Data Information Sheet – Sampling

Date:	4/25/2016	*Site ID #:*	04887	*Site Name:*	Warren Green	*Field Personnel:*	P. Wylie, J. Phillips
County:	Jasper	*Project Manager:*	J. Byrant	*General Weather Conditions:*	Clear	*Ambient Air Temp (°F):*	62

Quality Assurance

Meter Name	*Serial #:*	*Calibration:*							
YSI Pro1030 (pH, Specific Conductivity, Temp.)	15H101448	*pH 4.0: Y or N*	Y	*pH 7.0: Y or N*	Y	*pH 10.0: Y or N*	Y	*S.C.: Y or N*	Y
YSI Pro20 (Dissolved Oxygen)	12G102878	*Y or N*	Y						
MicroTPI/TPW (Turbidity)	201301183	*0.0 NTU: Y or N*	Y	*1.0 NTU: Y or N*	Y	*10.0 NTU: Y or N*	Y		

Well Information

Well ID:	MW-5	*Well Diameter (ft.): Conversion Factor (C): 1" well = 0.047, 2" well = 0.16, 4" well = 0.652*	0.163	*Method of Purging/Sample Collection*	Bailer
Sample Type: (i.e. MW, IW, RW, WSW)	MW	*Screened Interval (ft.):*	5-20	*Total Well Depth (TWD) (ft.):*	20
Depth to Free Product (DFP) (ft.):	ND	*Depth to Groundwater (DGW) (ft.):*	3.51	*Free Product Thickness (ft.):*	Not Detected
Length of water column (LWC = TWD – DGW) (ft.):	16.49	*1 casing volume (CV = LWC x C) (gals.):*	2.69	*5 casing volumes (5 x CV) (gals.):*	13.44

Purging Data

	Initial	*1st Vol.*	*2nd Vol.*	*3rd Vol.*	*4th Vol.*	*5th Vol.*	*Post*	*Sampling*
Volume Purged (gallons)	0.00	2.69	5.38	8.06	10.75	13.44		
Time (military)	10:20	10:23	10:26	10:29	10:32	10:35		
PH (s.u.)	7.50	7.23	7.06	6.87	6.5	6.45		
Specific Conductivity (μS/cm)	10.6	129.5	135.2	143.8	148.1	152.2		
Water Temperature (°C)	19.9	19.4	19.1	18.8	18.6	18.5		
Dissolved Oxygen (mg/L)	2.86	2.34	2.00	1.20	1.20	0.99		
Turbidity (NTU)	31.84	79.2	113.4	176.9	176.9	215.3		

Sampling Data

Sampled By:	P. Wylie, J. Phillips	*Sampling Time:*	10:35	*Duplicate: Y or N*	N	*If yes, Duplicate Time:*	N/A	*Total Gallons Purged:*	13.50

Notes: No Odor

Underground Storage Tank Management Division Field Data Information Sheet – Sampling

Date:	4/25/2016	Site ID #:	04687	Site Name:	Warren Green	Field Personnel:	P. Wylie, J. Phillips
County:	Jasper	Project Manager:	J. Byrant	General Weather Conditions:	Clear	Ambient Air Temp (°F):	82

Quality Assurance

Meter Name	Serial #:	Calibration:							
YSI Pro1030 (pH, Specific Conductivity, Temp.)	15H101448	pH 4.0: Y or N	Y	pH 7.0: Y or N	Y	pH 10.0: Y or N	Y	S.C.: Y or N	Y
YSI Pro20 (Dissolved Oxygen)	12G102878	Y or N	Y						
MicroTPI/TPW (Turbidity)	201301183	0.0 NTU: Y or N	Y	1.0 NTU: Y or N	Y	10.0 NTU: Y or N	Y		

Well Information

Well ID:	MW-6	Well Diameter (ft.): Conversion Factor (C): 1" well = 0.047, 2" well = 0.16, 4" well = 0.652	0.163	Method of Purging/Sample Collection	Bailer
Sample Type: (i.e. MW, IW, RW, WSW)	MW	Screened Interval (ft.):	5-20	Total Well Depth (TWD) (ft.):	20
Depth to Free Product (DFP) (ft.):	ND	Depth to Groundwater (DGW) (ft.):	3.62	Free Product Thickness (ft.):	Not Detected
Length of water column (LWC = TWD – DGW) (ft.):	16.38	1 casing volume (CV = LWC x C) (gals.):	2.67	5 casing volumes (5 x CV) (gals.):	13.35

Purging Data

	Initial	1st Vol.	2nd Vol.	3rd Vol.	4th Vol.	5th Vol.	Post	Sampling
Volume Purged (gallons)	0.00	2.67	5.34	8.01	10.68	13.35		
Time (military)	11:20	11:23	11:26	11:29	11:32	11:35		
PH (s.u.)	6.85	6.7	6.66	6.63	6.61	6.59		
Specific Conductivity (μS/cm)	94.5	118.2	134.7	150.1	163	169.4		
Water Temperature (°C)	18.3	17.5	17.1	16.8	17	16.9		
Dissolved Oxygen (mg/L)	1.55	1.28	1.04	0.82	0.74	0.61		
Turbidity (NTU)	27.51	48.28	81.03	117.4	139.2	168.9		

Sampling Data

Sampled By:	P. Wylie, J. Phillips	Sampling Time:	11:35	Duplicate: Y or N	N	If yes, Duplicate Time:	N/A	Total Gallons Purged:	13.50

Notes:

Organic Odor

Underground Storage Tank Management Division Field Data Information Sheet – Sampling

Date:	4/25/2016	*Site ID #:*	04887	*Site Name:*	Warren Green	*Field Personnel:*	P. Wylie, J. Phillips
County:	Jasper	*Project Manager:*	J. Byrant	*General Weather Conditions:*	Clear	*Ambient Air Temp (°F):*	82

Quality Assurance

Meter Name	*Serial #:*	*Calibration:*							
YSI Pro1030 (pH, Specific Conductivity, Temp.)	15H101448	*pH 4.0: Y or N*	Y	*pH 7.0: Y or N*	Y	*pH 10.0: Y or N*	Y	*S.C.: Y or N*	Y
YSI Pro20 (Dissolved Oxygen)	12G102878	*Y or N*	Y						
MicroTPI/TPW (Turbidity)	201301183	*0.0 NTU: Y or N*	Y	*1.0 NTU: Y or N*	Y	*10.0 NTU: Y or N*	Y		

Well Information

Well ID:	MW-7	*Well Diameter (ft.): Conversion Factor (C): 1" well = 0.047, 2" well = 0.16, 4" well = 0.652*	0.163	*Method of Purging/Sample Collection*	Bailer
Sample Type: (i.e. MW, IW, RW, WSW)	MW	*Screened Interval (ft.):*	5-20	*Total Well Depth (TWD) (ft.):*	20
Depth to Free Product (DFP) (ft.):	ND	*Depth to Groundwater (DGW) (ft.):*	5.56	*Free Product Thickness (ft.):*	Not Detected
Length of water column (LWC = TWD – DGW) (ft.):	14.44	*1 casing volume (CV = LWC x C) (gals.):*	2.35	*5 casing volumes (5 x CV) (gals.):*	11.77

Purging Data

	Initial	*1st Vol.*	*2nd Vol.*	*3rd Vol.*	*4th Vol.*	*5th Vol.*	*Post*	*Sampling*
Volume Purged (gallons)	0.00	2.35	4.71	7.06	9.41	11.77		
Time (military)	13:00	13:03	13:06	13:09	13:12	13:15		
PH (s.u.)	SHEEN	SHEEN	SHEEN	SHEEN	SHEEN	SHEEN		
Specific Conductivity (µS/cm)	SHEEN	SHEEN	SHEEN	SHEEN	SHEEN	SHEEN		
Water Temperature (°C)	SHEEN	SHEEN	SHEEN	SHEEN	SHEEN	SHEEN		
Dissolved Oxygen (mg/L)	SHEEN	SHEEN	SHEEN	SHEEN	SHEEN	SHEEN		
Turbidity (NTU)	SHEEN	SHEEN	SHEEN	SHEEN	SHEEN	SHEEN		

Sampling Data

Sampled By:	P. Wylie, J. Phillips	*Sampling Time:*	13:15	*Duplicate: Y or N*	Y	*If yes, Duplicate Time:*	13:15	*Total Gallons Purged:*	12.00

Notes:

Strong Odor; SHEEN=petroleum sheen on purged water, field readings not taken

Duplicated as DUP-1

Underground Storage Tank Management Division Field Data Information Sheet – Sampling

Date:	4/25/2016	Site ID #:	04887	Site Name:	Warren Green	Field Personnel:	P. Wylie, J. Phillips
County:	Jasper	Project Manager:	J. Byrant	General Weather Conditions:	Clear	Ambient Air Temp (°F):	82

Quality Assurance

Meter Name	Serial #:	Calibration:							
YSI Pro1030 (pH, Specific Conductivity, Temp.)	15H101448	pH 4.0: Y or N	Y	pH 7.0: Y or N	Y	pH 10.0: Y or N	Y	S.C.: Y or N	Y
YSI Pro20 (Dissolved Oxygen)	12G102878	Y or N	Y						
MicroTPI/TPW (Turbidity)	201301183	0.0 NTU: Y or N	Y	1.0 NTU: Y or N	Y	10.0 NTU: Y or N	Y		

Well Information

Well ID:	MW-8	Well Diameter (ft.): Conversion Factor (C): 1" well = 0.047, 2" well = 0.16, 4" well = 0.652	0.163	Method of Purging/Sample Collection	Bailer
Sample Type: (i.e. MW, IW, RW, WSW)	MW	Screened Interval (ft.):	5-20	Total Well Depth (TWD) (ft.):	20
Depth to Free Product (DFP) (ft.):	ND	Depth to Groundwater (DGW) (ft.):	6.99	Free Product Thickness (ft.):	Not Detected
Length of water column (LWC = TWD – DGW) (ft.):	13.01	1 casing volume (CV = LWC x C) (gals.):	2.12	5 casing volumes (5 x CV) (gals.):	10.60

Purging Data

	Initial	1st Vol.	2nd Vol.	3rd Vol.	4th Vol.	5th Vol.	Post	Sampling
Volume Purged (gallons)	0.00	2.12	4.24	6.36	8.48	10.60		
Time (military)	17:00	17:03	17:06	17:09				17:11
PH (s.u.)	5.99	5.82	5.74	5.69				5.67
Specific Conductivity (µS/cm)	126.30	141.00	158.20	173.90				187.1
Water Temperature (°C)	21.50	21.00	20.60	20.40				20.3
Dissolved Oxygen (mg/L)	1.93	1.70	1.56	1.40				1.32
Turbidity (NTU)	17.42	31.68	64.70	90.23				117.10

Sampling Data

Sampled By:	P. Wylie, J. Phillips	Sampling Time:	17:11	Duplicate: Y or N	N	If yes, Duplicate Time:	N/A	Total Gallons Purged:	7.50

Notes: No Odor; Dry @ 7.50 gallons

Underground Storage Tank Management Division Field Data Information Sheet – Sampling

Date:	4/25/2016	Site ID #:	04887	Site Name:	Warren Green	Field Personnel:	P. Wylie, J. Phillips
County:	Jasper	Project Manager:	J. Byrant	General Weather Conditions:	Clear	Ambient Air Temp (°F):	82

Quality Assurance

Meter Name	Serial #:	Calibration:							
YSI Pro1030 (pH, Specific Conductivity, Temp.)	15H101448	pH 4.0: Y or N	Y	pH 7.0: Y or N	Y	pH 10.0: Y or N	Y	S.C.: Y or N	Y
YSI Pro20 (Dissolved Oxygen)	12G102878	Y or N	Y						
MicroTPI/TPW (Turbidity)	201301183	0.0 NTU: Y or N	Y	1.0 NTU: Y or N	Y	10.0 NTU: Y or N	Y		

Well Information

Well ID:	MW-9	Well Diameter (ft.): Conversion Factor (C): 1" well = 0.047, 2" well = 0.16, 4" well = 0.652	0.163	Method of Purging/Sample Collection	Bailer
Sample Type: (i.e. MW, IW, RW, WSW)	MW	Screened Interval (ft.):	5-20	Total Well Depth (TWD) (ft.):	20
Depth to Free Product (DFP) (ft.):	ND	Depth to Groundwater (DGW) (ft.):	6.57	Free Product Thickness (ft.):	Not Detected
Length of water column (LWC = TWD – DGW) (ft.):	13.43	1 casing volume (CV = LWC x C) (gals.):	2.19	5 casing volumes (5 x CV) (gals.):	10.95

Purging Data

	Initial	1st Vol.	2nd Vol.	3rd Vol.	4th Vol.	5th Vol.	Post	Sampling
Volume Purged (gallons)	0.00	2.19	4.38	6.57	8.76	10.95		10.00
Time (military)	16:40	16:43	16:46	16:49	16:52			16:53
PH (s.u.)	6.08	5.89	5.75	5.68	5.63			5.61
Specific Conductivity (µS/cm)	163.8	189.2	213.6	234.7	261.0			282.4
Water Temperature (°C)	21.8	21.2	20.7	20.3	20.0			19.8
Dissolved Oxygen (mg/L)	1.49	1.24	1.12	1.07	0.93			0.88
Turbidity (NTU)	7.46	29.30	46.21	70.95	86.77			104.80

Sampling Data

Sampled By:	P. Wylie, J. Phillips	Sampling Time:	16:53	Duplicate: Y or N	N	If yes, Duplicate Time:	N/A	Total Gallons Purged:	10.00

Notes: No Odor; Dry @ 10.0 gallons

Underground Storage Tank Management Division Field Data Information Sheet – Sampling

Date:	4/25/2016	Site ID #:	04887	Site Name:	Warren Green	Field Personnel:	P. Wylie, J. Phillips
County:	Jasper	Project Manager:	J. Byrant	General Weather Conditions:	Clear	Ambient Air Temp (°F):	82

Quality Assurance

Meter Name	Serial #:	Calibration:							
YSI Pro1030 (pH, Specific Conductivity, Temp.)	15H101448	pH 4.0: Y or N	Y	pH 7.0: Y or N	Y	pH 10.0: Y or N	Y	S.C.: Y or N	Y
YSI Pro20 (Dissolved Oxygen)	12G102878	Y or N	Y						
MicroTPI/TPW (Turbidity)	201301163	0.0 NTU: Y or N	Y	1.0 NTU: Y or N	Y	10.0 NTU: Y or N	Y		

Well Information

Well ID:	MW-10	Well Diameter (ft.): Conversion Factor (C): 1" well = 0.047, 2" well = 0.16, 4" well = 0.652	0.163	Method of Purging/Sample Collection	Bailer
Sample Type: (i.e. MW, IW, RW, WSW)	MW	Screened Interval (ft.):	5-20	Total Well Depth (TWD) (ft.):	20
Depth to Free Product (DFP) (ft.):	ND	Depth to Groundwater (DGW) (ft.):	6.57	Free Product Thickness (ft.):	Not Detected
Length of water column (LWC = TWD – DGW) (ft.):	13.43	1 casing volume (CV = LWC x C) (gals.):	2.19	5 casing volumes (5 x CV) (gals.):	10.95

Purging Data

	Initial	1st Vol.	2nd Vol.	3rd Vol.	4th Vol.	5th Vol.	Post	Sampling
Volume Purged (gallons)	0.00	2.19	4.38	6.57	8.76	10.95		10.00
Time (military)	16:40	16:43	16:46	16:49	16:52			16:53
PH (s.u.)	6.08	5.89	5.75	5.68	5.63			5.61
Specific Conductivity (μS/cm)	163.8	189.2	213.6	234.7	261.0			282.4
Water Temperature (°C)	21.8	21.2	20.7	20.3	20.0			19.8
Dissolved Oxygen (mg/L)	1.49	1.24	1.12	1.07	0.93			0.88
Turbidity (NTU)	7.46	29.30	46.21	70.95	86.77			104.80

Sampling Data

Sampled By:	P. Wylie, J. Phillips	Sampling Time:	16:53	Duplicate: Y or N	N	If yes, Duplicate Time:	N/A	Total Gallons Purged:	10.00

Notes:
No Odor; Dry @ 10.0 gallons

Underground Storage Tank Management Division Field Data Information Sheet – Sampling

Date:	4/25/2016	*Site ID #:*	04887	*Site Name:*	Warren Green	*Field Personnel:*	P. Wylie, J. Phillips
County:	Jasper	*Project Manager:*	J. Byrant	*General Weather Conditions:*	Clear	*Ambient Air Temp (°F):*	82

Quality Assurance

Meter Name	*Serial #:*	*Calibration:*							
YSI Pro1030 (pH, Specific Conductivity, Temp.)	15H101448	*pH 4.0: Y or N*	Y	*pH 7.0: Y or N*	Y	*pH 10.0: Y or N*	Y	*S.C.: Y or N*	Y
YSI Pro20 (Dissolved Oxygen)	12G102878	*Y or N*	Y						
MicroTPI/TPW (Turbidity)	201301183	*0.0 NTU: Y or N*	Y	*1.0 NTU: Y or N*	Y	*10.0 NTU: Y or N*	Y		

Well Information

Well ID:	MW-11	*Well Diameter (ft.): Conversion Factor (C): 1" well = 0.047, 2" well = 0.16, 4" well = 0.652*	0.163	*Method of Purging/Sample Collection*	Bailer
Sample Type: (i.e. MW, IW, RW, WSW)	MW	*Screened Interval (ft.):*	5-20	*Total Well Depth (TWD) (ft.):*	20
Depth to Free Product (DFP) (ft.):	ND	*Depth to Groundwater (DGW) (ft.):*	6.57	*Free Product Thickness (ft.):*	Not Detected
Length of water column (LWC = TWD – DGW) (ft.):	13.43	*1 casing volume (CV = LWC x C) (gals.):*	2.19	*5 casing volumes (5 x CV) (gals.):*	10.95

Purging Data

	Initial	*1st Vol.*	*2nd Vol.*	*3rd Vol.*	*4th Vol.*	*5th Vol.*	*Post*	*Sampling*
Volume Purged (gallons)	0.00	2.19	4.38	6.57	8.76	10.95		10.00
Time (military)	15:50	15:53						15:54
PH (s.u.)	6.28	6.22						6.19
Specific Conductivity (µS/cm)	203.9	251.3						284
Water Temperature (°C)	20.8	20.3						19.9
Dissolved Oxygen (mg/L)	0.81	0.77						0.82
Turbidity (NTU)	68.41	74.23						83.90

Sampling Data

Sampled By:	P. Wylie, J. Phillips	*Sampling Time:*	15:54	*Duplicate: Y or N*	N	*If yes, Duplicate Time:*	N/A	*Total Gallons Purged:*	2.50

Notes: No Odor; Dry @ 2.50 gallons

Underground Storage Tank Management Division Field Data Information Sheet – Sampling

Date:	4/25/2016	Site ID #:	04867	Site Name:	Warren Green	Field Personnel:	P. Wylie, J. Phillips
County:	Jasper	Project Manager:	J. Byrant	General Weather Conditions:	Clear	Ambient Air Temp (°F):	82

Quality Assurance

Meter Name	Serial #:	Calibration:							
YSI Pro1030 (pH, Specific Conductivity, Temp.)	15H101448	pH 4.0: Y or N	Y	pH 7.0: Y or N	Y	pH 10.0: Y or N	Y	S.C.: Y or N	Y
YSI Pro20 (Dissolved Oxygen)	12G102878	Y or N	Y						
MicroTPI/TPW (Turbidity)	201301183	0.0 NTU: Y or N	Y	1.0 NTU: Y or N	Y	10.0 NTU: Y or N	Y		

Well Information

Well ID:	MW-12	Well Diameter (ft.): Conversion Factor (C): 1" well = 0.047, 2" well = 0.16, 4" well = 0.652	0.163	Method of Purging/Sample Collection	Bailer
Sample Type: (i.e. MW, IW, RW, WSW)	MW	Screened Interval (ft.):	5-20	Total Well Depth (TWD) (ft.):	20
Depth to Free Product (DFP) (ft.):	ND	Depth to Groundwater (DGW) (ft.):	6.41	Free Product Thickness (ft.):	Not Detected
Length of water column (LWC = TWD – DGW) (ft.):	13.59	1 casing volume (CV = LWC x C) (gals.):	2.22	5 casing volumes (5 x CV) (gals.):	11.08

Purging Data

	Initial	1st Vol.	2nd Vol.	3rd Vol.	4th Vol.	5th Vol.	Post	Sampling
Volume Purged (gallons)	0.00	2.22	4.43	6.65	8.86	11.08		10.00
Time (military)	16:00	16:03	16:06					16:08
PH (s.u.)	6.35	6.20	6.14					6.11
Specific Conductivity (µS/cm)	143.2	167.0	189.3					194.8
Water Temperature (°C)	21.8	21.1	20.7					20.5
Dissolved Oxygen (mg/L)	1.37	1.10	1.03					0.98
Turbidity (NTU)	8.17	16.40	28.61					45.92

Sampling Data

Sampled By:	P. Wylie, J. Phillips	Sampling Time:	16:08	Duplicate: Y or N	N	If yes, Duplicate Time:	N/A	Total Gallons Purged:	5.00

Notes: No Odor; Dry @ 5.0 gallons

Underground Storage Tank Management Division Field Data Information Sheet – Sampling

Date:	4/25/2016	**Site ID #:**	04887	**Site Name:**	Warren Green	**Field Personnel:**	P. Wylie, J. Phillips
County:	Jasper	**Project Manager:**	J. Byrant	**General Weather Conditions:**	Clear	**Ambient Air Temp (°F):**	82

Quality Assurance

Meter Name	Serial #:	Calibration:							
YSI Pro1030 (pH, Specific Conductivity, Temp.)	15H101448	pH 4.0: Y or N	Y	pH 7.0: Y or N	Y	pH 10.0: Y or N	Y	S.C.: Y or N	Y
YSI Pro20 (Dissolved Oxygen)	12G102878	Y or N	Y						
MicroTPI/TPW (Turbidity)	201301183	0.0 NTU: Y or N	Y	1.0 NTU: Y or N	Y	10.0 NTU: Y or N	Y		

Well Information

Well ID:	MW-13	Well Diameter (ft.): Conversion Factor (C): 1" well = 0.047, 2" well = 0.16, 4" well = 0.652	0.163	Method of Purging/Sample Collection	Bailer
Sample Type: (i.e. MW, IW, RW, WSW)	MW	Screened Interval (ft.):	5-20	Total Well Depth (TWD) (ft.):	20
Depth to Free Product (DFP) (ft.):	ND	Depth to Groundwater (DGW) (ft.):	5.33	Free Product Thickness (ft.):	Not Detected
Length of water column (LWC = TWD – DGW) (ft.):	14.67	1 casing volume (CV = LWC x C) (gals.):	2.39	5 casing volumes (5 x CV) (gals.):	11.96

Purging Data

	Initial	1st Vol.	2nd Vol.	3rd Vol.	4th Vol.	5th Vol.	Post	Sampling
Volume Purged (gallons)	0.00	2.39	4.78	7.17	9.56	11.96		
Time (military)	12:10	12:13	12:16	12:19	12:22	12:25		
PH (s.u.)	5.74	5.65	5.58	5.54	5.53	5.52		
Specific Conductivity (µS/cm)	98.1	105.7	121.4	149.6	165.3	188.1		
Water Temperature (°C)	18.8	18.6	19.3	19.6	19.8	19.9		
Dissolved Oxygen (mg/L)	0.72	0.69	0.78	0.84	0.90	0.97		
Turbidity (NTU)	5.29	31.60	62.55	94.13	118.7	140.6		

Sampling Data

Sampled By:	P. Wylie, J. Philips	Sampling Time:	12:25	Duplicate: Y or N	N	If yes, Duplicate Time:	N/A	Total Gallons Purged:	12.00

Notes: No Odor

Underground Storage Tank Management Division Field Data Information Sheet – Sampling

Date:	4/25/2016	Site ID #:	04887		Site Name:	Warren Green		Field Personnel:	P. Wylie, J. Phillips	
County:	Jasper	Project Manager:	J. Byrant		General Weather Conditions:	Clear		Ambient Air Temp (°F):	82	

Quality Assurance

Meter Name	Serial #:	Calibration:							
YSI Pro1030 (pH, Specific Conductivity, Temp.)	15H101448	pH 4.0: Y or N	Y	pH 7.0: Y or N	Y	pH 10.0: Y or N	Y	S.C.: Y or N	Y
YSI Pro20 (Dissolved Oxygen)	12G102878	Y or N	Y						
MicroTPI/TPW (Turbidity)	201301183	0.0 NTU: Y or N	Y	1.0 NTU: Y or N	Y	10.0 NTU: Y or N	Y		

Well Information

Well ID:	MW-14	Well Diameter (ft.): Conversion Factor (C): 1" well = 0.047, 2" well = 0.16, 4" well = 0.652	0.163	Method of Purging/Sample Collection	Bailer
Sample Type: (i.e. MW, IW, RW, WSW)	MW	Screened Interval (ft.):	5-20	Total Well Depth (TWD) (ft.):	20
Depth to Free Product (DFP) (ft.):	ND	Depth to Groundwater (DGW) (ft.):	5.40	Free Product Thickness (ft.):	Not Detected
Length of water column (LWC = TWD – DGW) (ft.):	14.60	1 casing volume (CV = LWC x C) (gals.):	2.38	5 casing volumes (5 x CV) (gals.):	11.90

Purging Data

	Initial	1st Vol.	2nd Vol.	3rd Vol.	4th Vol.	5th Vol.	Post	Sampling
Volume Purged (gallons)	0.00	2.38	4.76	7.14	9.52	11.90		
Time (military)	11:45	11:48	11:51	11:54	11:57	12:00		
PH (s.u.)	6.02	6.05	5.91	5.94	5.86	5.84		
Specific Conductivity (µS/cm)	93.3	108.4	116.2	127.0	130.6	132.5		
Water Temperature (°C)	18.6	18.3	18.7	19.0	19.5	19.8		
Dissolved Oxygen (mg/L)	0.79	0.73	0.88	0.95	1.00	1.04		
Turbidity (NTU)	31.25	56.08	72.39	101.4	122.3	128.9		

Sampling Data

Sampled By:	P. Wylie, J. Phillips	Sampling Time:	12:00	Duplicate: Y or N	N	If yes, Duplicate Time:	N/A	Total Gallons Purged:	12.00

Notes: No Odor

Underground Storage Tank Management Division Field Data Information Sheet – Sampling

Date:	4/25/2016	*Site ID #:*	04887	*Site Name:*	Warren Green	*Field Personnel:*	P. Wylie, J. Phillips
County:	Jasper	*Project Manager:*	J. Byrant	*General Weather Conditions:*	Clear	*Ambient Air Temp (°F):*	82

Quality Assurance

Meter Name	*Serial #:*	*Calibration:*							
YSI Pro1030 (pH, Specific Conductivity, Temp.)	15H101448	*pH 4.0: Y or N*	Y	*pH 7.0: Y or N*	Y	*pH 10.0: Y or N*	Y	*S.C.: Y or N*	Y
YSI Pro20 (Dissolved Oxygen)	12G102878	*Y or N*	Y						
MicroTPI/TPW (Turbidity)	201301183	*0.0 NTU: Y or N*	Y	*1.0 NTU: Y or N*	Y	*10.0 NTU: Y or N*	Y		

Well Information

Well ID:	MW-15	*Well Diameter (ft.): Conversion Factor (C): 1" well = 0.047, 2" well = 0.16, 4" well = 0.652*	0.163	*Method of Purging/Sample Collection*	Bailer
Sample Type: (i.e. MW, IW, RW, WSW)	MW	*Screened Interval (ft.):*	5-20	*Total Well Depth (TWD) (ft.):*	20
Depth to Free Product (DFP) (ft.):	ND	*Depth to Groundwater (DGW) (ft.):*	4.07	*Free Product Thickness (ft.):*	Not Detected
Length of water column (LWC = TWD – DGW) (ft.):	15.93	*1 casing volume (CV = LWC x C) (gals.):*	2.60	*5 casing volumes (5 x CV) (gals.):*	12.98

Purging Data

	Initial	*1st Vol.*	*2nd Vol.*	*3rd Vol.*	*4th Vol.*	*5th Vol.*	*Post*	*Sampling*
Volume Purged (gallons)	0.00	2.60	5.19	7.79	10.39	12.98		
Time (military)	12:35	12:38	12:41	12:44	12:47	12:50		
PH (s.u.)	5.75	5.59	5.52	5.45	5.41	5.39		
Specific Conductivity (μS/cm)	126.0	152.6	178.9	205.2	230.1	254.3		
Water Temperature (°C)	17.8	18.0	17.7	17.3	17.0	16.9		
Dissolved Oxygen (mg/L)	1.77	1.52	1.40	1.33	1.20	1.06		
Turbidity (NTU)	6.82	25.91	39.04	55.62	70.57	85.1		

Sampling Data

Sampled By:	P. Wylie, J. Phillips	*Sampling Time:*	12:50	*Duplicate: Y or N*	N	*If yes, Duplicate Time:*	N/A	*Total Gallons Purged:* 13.00

Notes: No Odor

Underground Storage Tank Management Division Field Data Information Sheet – Sampling

Date:	4/25/2016	Site ID #:	04887	Site Name:	Warren Green	Field Personnel:	P. Wylie, J. Phillips
County:	Jasper	Project Manager:	J. Byrant	General Weather Conditions:	Clear	Ambient Air Temp (°F):	82

Quality Assurance

Meter Name	Serial #:	Calibration:							
YSI Pro1030 (pH, Specific Conductivity, Temp.)	15H101448	pH 4.0: Y or N	Y	pH 7.0: Y or N	Y	pH 10.0: Y or N	Y	S.C.: Y or N	Y
YSI Pro20 (Dissolved Oxygen)	12G102878	Y or N	Y						
MicroTPI/TPW (Turbidity)	201301183	0.0 NTU: Y or N	Y	1.0 NTU: Y or N	Y	10.0 NTU: Y or N	Y		

Well Information

Well ID:	DW-1	Well Diameter (ft.): Conversion Factor (C): 1" well = 0.047, 2" well = 0.16, 4" well = 0.652	0.163	Method of Purging/Sample Collection	Bailer
Sample Type: (i.e. MW, IW, RW, WSW)	MW	Screened Interval (ft.):	45-50	Total Well Depth (TWD) (ft.):	50
Depth to Free Product (DFP) (ft.):	ND	Depth to Groundwater (DGW) (ft.):	2.40	Free Product Thickness (ft.):	Not Detected
Length of water column (LWC = TWD – DGW) (ft.):	47.60	1 casing volume (CV = LWC x C) (gals.):	7.76	5 casing volumes (5 x CV) (gals.):	38.79

Purging Data

	Initial	1st Vol.	2nd Vol.	3rd Vol.	4th Vol.	5th Vol.	Post	Sampling
Volume Purged (gallons)	0.00	7.76	15.52	23.28	31.04	38.79		11.00
Time (military)	13:45	13:53						13:55
PH (s.u.)	6.20	6.27						6.31
Specific Conductivity (µS/cm)	110.8	194.6						232.6
Water Temperature (°C)	21.1	20.5						20.1
Dissolved Oxygen (mg/L)	3.40	2.29						1.16
Turbidity (NTU)	25.17	92.30						139.8

Sampling Data

Sampled By:	P. Wylie, J. Phillips	Sampling Time:	13:55	Duplicate: Y or N	N	If yes, Duplicate Time:	N/A	Total Gallons Purged:	11.00

Notes: No Odor; Dry @ 11.0 gallons

Underground Storage Tank Management Division Field Data Information Sheet – Sampling

Date:	4/25/2016	*Site ID #:*	04887	*Site Name:*	Warren Green	*Field Personnel:*	P. Wylie, J. Phillips
County:	Jasper	*Project Manager:*	J. Byrant	*General Weather Conditions:*	Clear	*Ambient Air Temp (°F):*	82

Quality Assurance

Meter Name	*Serial #:*	*Calibration:*							
YSI Pro1030 (pH, Specific Conductivity, Temp.)	15H101448	*pH 4.0: Y or N*	Y	*pH 7.0: Y or N*	Y	*pH 10.0: Y or N*	Y	*S.C.: Y or N*	Y
YSI Pro20 (Dissolved Oxygen)	12G102878	*Y or N*	Y						
MicroTPI/TPW (Turbidity)	201301183	*0.0 NTU: Y or N*	Y	*1.0 NTU: Y or N*	Y	*10.0 NTU: Y or N*	Y		

Well Information

Well ID:	DW-2	*Well Diameter (ft.): Conversion Factor (C): 1" well = 0.047, 2" well = 0.16, 4" well = 0.652*	0.163	*Method of Purging/Sample Collection*	Bailer
Sample Type: (i.e. MW, IW, RW, WSW)	MW	*Screened Interval (ft.):*	45-50	*Total Well Depth (TWD) (ft.):*	50
Depth to Free Product (DFP) (ft.):	ND	*Depth to Groundwater (DGW) (ft.):*	4.12	*Free Product Thickness (ft.):*	Not Detected
Length of water column (LWC = TWD – DGW) (ft.):	45.88	*1 casing volume (CV = LWC x C) (gals.):*	7.48	*5 casing volumes (5 x CV) (gals.):*	37.39

Purging Data

	Initial	*1st Vol.*	*2nd Vol.*	*3rd Vol.*	*4th Vol.*	*5th Vol.*	*Post*	*Sampling*
Volume Purged (gallons)	0.00	7.48	14.96	22.44	29.91	37.39		11.00
Time (military)	15:05	15:13						15:16
PH (s.u.)	6.08	6.22						6.31
Specific Conductivity (µS/cm)	248.8	403.1						533
Water Temperature (°C)	19.0	19.8						20.2
Dissolved Oxygen (mg/L)	4.00	2.61						1.50
Turbidity (NTU)	9.21	27.06						47.82

Sampling Data

Sampled By:	P. Wylie, J. Phillips	*Sampling Time:*	15:16	*Duplicate: Y or N*	N	*If yes, Duplicate Time:*	N/A	*Total Gallons Purged:*	11.00

Notes:

No Odor; Dry @ 11.0 gallons

Underground Storage Tank Management Division Field Data Information Sheet – Sampling

Date:	4/25/2016	Site ID #:	04887	Site Name:	Warren Green	Field Personnel:	P. Wylie, J. Phillips
County:	Jasper	Project Manager:	J. Byrant	General Weather Conditions:	Clear	Ambient Air Temp (°F):	62

Quality Assurance

Meter Name	Serial #:	Calibration:							
YSI Pro1030 (pH, Specific Conductivity, Temp.)	15H101448	pH 4.0: Y or N	Y	pH 7.0: Y or N	Y	pH 10.0: Y or N	Y	S.C.: Y or N	Y
YSI Pro20 (Dissolved Oxygen)	12G102878	Y or N	Y						
MicroTPI/TPW (Turbidity)	201301183	0.0 NTU: Y or N	Y	1.0 NTU: Y or N	Y	10.0 NTU: Y or N	Y		

Well Information

Well ID:	DW-3	Well Diameter (ft.): Conversion Factor (C): 1" well = 0.047, 2" well = 0.16, 4" well = 0.652	0.163	Method of Purging/Sample Collection	Bailer
Sample Type: (i.e. MW, IW, RW, WSW)	MW	Screened Interval (ft.):	45-50	Total Well Depth (TWD) (ft.):	50
Depth to Free Product (DFP) (ft.):	ND	Depth to Groundwater (DGW) (ft.):	7.30	Free Product Thickness (ft.):	Not Detected
Length of water column (LWC = TWD – DGW) (ft.):	42.70	1 casing volume (CV = LWC x C) (gals.):	6.96	5 casing volumes (5 x CV) (gals.):	34.80

Purging Data

	Initial	1st Vol.	2nd Vol.	3rd Vol.	4th Vol.	5th Vol.	Post	Sampling
Volume Purged (gallons)	0.00	6.96	13.92	20.88	27.84	34.80		10.00
Time (military)	10:40	10:48						10:51
PH (s.u.)	6.26	6.33						6.39
Specific Conductivity (µS/cm)	91.6	143.9						177.8
Water Temperature (°C)	20.7	20.3						20.0
Dissolved Oxygen (mg/L)	5.00	3.20						1.65
Turbidity (NTU)	23.66	31.94						40.21

Sampling Data

Sampled By:	P. Wylie, J. Phillips	Sampling Time:	10:51	Duplicate: Y or N	N	If yes, Duplicate Time:	N/A	Total Gallons Purged:	10.00

Notes: No Odor; Dry @ 11.0 gallons

Underground Storage Tank Management Division Field Data Information Sheet – Sampling

Date:	4/25/2016	Site ID #:	04887	Site Name:	Warren Green	Field Personnel:	P. Wylie, J. Phillips
County:	Jasper	Project Manager:	J. Byrant	General Weather Conditions:	Clear	Ambient Air Temp (°F):	82

Quality Assurance

Meter Name	Serial #:	Calibration:							
YSI Pro1030 (pH, Specific Conductivity, Temp.)	15H101448	pH 4.0: Y or N	Y	pH 7.0: Y or N	Y	pH 10.0: Y or N	Y	S.C.: Y or N	Y
YSI Pro20 (Dissolved Oxygen)	12G102878	Y or N	Y						
MicroTPI/TPW (Turbidity)	201301183	0.0 NTU: Y or N	Y	1.0 NTU: Y or N	Y	10.0 NTU: Y or N	Y		

Well Information

Well ID:	DW-4	Well Diameter (ft.): Conversion Factor (C): 1" well = 0.047, 2" well = 0.16, 4" well = 0.652	0.163	Method of Purging/Sample Collection	Bailer
Sample Type: (i.e. MW, IW, RW, WSW)	MW	Screened Interval (ft.):	45-50	Total Well Depth (TWD) (ft.):	50
Depth to Free Product (DFP) (ft.):	ND	Depth to Groundwater (DGW) (ft.):	5.96	Free Product Thickness (ft.):	Not Detected
Length of water column (LWC = TWD – DGW) (ft.):	44.04	1 casing volume (CV = LWC x C) (gals.):	7.18	5 casing volumes (5 x CV) (gals.):	35.89

Purging Data

	Initial	1st Vol.	2nd Vol.	3rd Vol.	4th Vol.	5th Vol.	Post	Sampling
Volume Purged (gallons)	0.00	7.18	14.36	21.54	28.71	35.89		12.00
Time (military)	11:00	11:08						11:15
PH (s.u.)	6.78	6.67						6.62
Specific Conductivity (µS/cm)	94.9	131.2						173.1
Water Temperature (°C)	18.6	19.2						19.3
Dissolved Oxygen (mg/L)	4.11	2.46						1.54
Turbidity (NTU)	8.38	24.90						36.25

Sampling Data

Sampled By:	P. Wylie, J. Phillips	Sampling Time:	11:15	Duplicate: Y or N	N	If yes, Duplicate Time:	N/A	Total Gallons Purged:	12.00

Notes:
No Odor; Dry @ 11.0 gallons

Underground Storage Tank Management Division Field Data Information Sheet – Sampling

Date:	4/25/2016	Site ID #:	04887	Site Name:	Warren Green	Field Personnel:	P. Wylie, J. Phillips
County:	Jasper	Project Manager:	J. Byrant	General Weather Conditions:	Clear	Ambient Air Temp (°F):	82

Quality Assurance

Meter Name	Serial #:	Calibration:							
YSI Pro1030 (pH, Specific Conductivity, Temp.)	15H101448	pH 4.0: Y or N	Y	pH 7.0: Y or N	Y	pH 10.0: Y or N	Y	S.C.: Y or N	Y
YSI Pro20 (Dissolved Oxygen)	12G102878	Y or N	Y						
MicroTPI/TPW (Turbidity)	201301183	0.0 NTU: Y or N	Y	1.0 NTU: Y or N	Y	10.0 NTU: Y or N	Y		

Well Information

Well ID:	DW-5	Well Diameter (ft.): Conversion Factor (C): 1" well = 0.047, 2" well = 0.16, 4" well = 0.652	0.163	Method of Purging/Sample Collection	Bailer
Sample Type: (i.e. MW, IW, RW, WSW)	MW	Screened Interval (ft.):	80-85	Total Well Depth (TWD) (ft.):	85
Depth to Free Product (DFP) (ft.):	ND	Depth to Groundwater (DGW) (ft.):	0.20	Free Product Thickness (ft.):	Not Detected
Length of water column (LWC = TWD – DGW) (ft.):	84.80	1 casing volume (CV = LWC x C) (gals.):	13.82	5 casing volumes (5 x CV) (gals.):	69.11

Purging Data

	Initial	1st Vol.	2nd Vol.	3rd Vol.	4th Vol.	5th Vol.	Post	Sampling
Volume Purged (gallons)	0.00	13.82	27.64	41.47	55.29	69.11		16.00
Time (military)	14:00	14:15						14:20
PH (s.u.)	6.93	6.99						7.03
Specific Conductivity (µS/cm)	112.7	183.2						264
Water Temperature (°C)	21.7	20.6						20.2
Dissolved Oxygen (mg/L)	5.10	2.64						1.20
Turbidity (NTU)	18.65	40.27						86.31

Sampling Data

Sampled By:	P. Wylie, J. Phillips	Sampling Time:	14:20	Duplicate: Y or N	N	If yes, Duplicate Time:	N/A	Total Gallons Purged:	16.00

Notes:

No Odor; Dry @ 16.0 gallons

Underground Storage Tank Management Division Field Data Information Sheet – Sampling

Date:	4/25/2016	*Site ID #:*	04887	*Site Name:*	Warren Green	*Field Personnel:*	P. Wylie, J. Phillips
County:	Jasper	*Project Manager:*	J. Byrant	*General Weather Conditions:*	Clear	*Ambient Air Temp (°F):*	82

Quality Assurance

Meter Name	*Serial #:*	*Calibration:*							
YSI Pro1030 (pH, Specific Conductivity, Temp.)	15H101448	*pH 4.0: Y or N*	Y	*pH 7.0: Y or N*	Y	*pH 10.0: Y or N*	Y	*S.C.: Y or N*	Y
YSI Pro20 (Dissolved Oxygen)	12G102878	*Y or N*	Y						
MicroTPI/TPW (Turbidity)	201301183	*0.0 NTU: Y or N*	Y	*1.0 NTU: Y or N*	Y	*10.0 NTU: Y or N*	Y		

Well Information

Well ID:	DW-6	*Well Diameter (ft.): Conversion Factor (C): 1" well = 0.047, 2" well = 0.16, 4" well = 0.652*	0.163	*Method of Purging/Sample Collection*	Bailer
Sample Type: (i.e. MW, IW, RW, WSW)	MW	*Screened Interval (ft.):*	80-85	*Total Well Depth (TWD) (ft.):*	85
Depth to Free Product (DFP) (ft.):	ND	*Depth to Groundwater (DGW) (ft.):*	0.20	*Free Product Thickness (ft.):*	Not Detected
Length of water column (LWC = TWD – DGW) (ft.):	84.80	*1 casing volume (CV = LWC x C) (gals.):*	13.82	*5 casing volumes (5 x CV) (gals.):*	69.11

Purging Data

	Initial	*1st Vol.*	*2nd Vol.*	*3rd Vol.*	*4th Vol.*	*5th Vol.*	*Post*	*Sampling*
Volume Purged (gallons)	0.00	13.82	27.64	41.47	55.29	69.11		20.00
Time (military)	16:15	16:28						16:35
PH (s.u.)	6.46	6.34						6.31
Specific Conductivity (µS/cm)	146.1	170.8						208.4
Water Temperature (°C)	20.9	20.1						19.4
Dissolved Oxygen (mg/L)	2.83	1.24						0.91
Turbidity (NTU)	3.92	12.40						31.65

Sampling Data

Sampled By:	P. Wylie, J. Phillips	*Sampling Time:*	16:35	*Duplicate: Y or N*	N	*If yes, Duplicate Time:*	N/A	*Total Gallons Purged:*	20.00

Notes: No Odor; Dry @ 16.0 gallons

Midlands
Environmental
Consultants, Inc.

May 3, 2016

Re: Treatment of Purge Water
Warren Green
Yemassee, South Carolina
SCDHEC Site ID Number 04887
MECI Project Number 16-5527

To Whom It May Concern;

Midlands Environmental Consultants, Inc. is providing the following letter as certification that treatment of the referenced purge water complied with the conditions of "Proposed Conditions for Use of Portable Activated Carbon Units for the Treatment of Small Volumes of Petroleum Hydrocarbon Contaminated Groundwater", as described in the following:

Applicability:

Groundwater treated was obtained as a result development of wells and sampling.

Conditions:

1. The purge/bail water from all wells is mixed before usage of the Activated Carbon Unit.

2. No free-product was detected in any of the purge water drums.

3. Analytical results of from well sampling show average concentrations of petroleum hydrocarbon constituents less than 5000 parts per billion (ppb) Benzene and less than 20,000 ppb total BTEX.

4. The existing carbon pack will be replaced/reactivated every 5,000 gallons.

5. Record of usage is maintained by Contractor.

6. Any and all recommendations and conditions issued by the Manufacturer have been adhered to.

7. Any and all recommendations and conditions (even on a site by site basis) issued by the SCDHEC must be adhered to.

All purge waters were treated on-site using an up-flow treatment drum loaded with 80 pounds of activated carbon. Carbon will be loaded to a maximum of 3 pounds of total organic compounds or 5,000 gallons of development/purge water, whichever occurs first.

Post Office Box 854, Lexington SC 29071 • 231 Dooley Road, Lexington, SC 29073
Telephone: (803) 808-2043 • fax: (803) 808-2048

A total of 224.0 gallons were treated on April 25, 2016 at the referenced site.

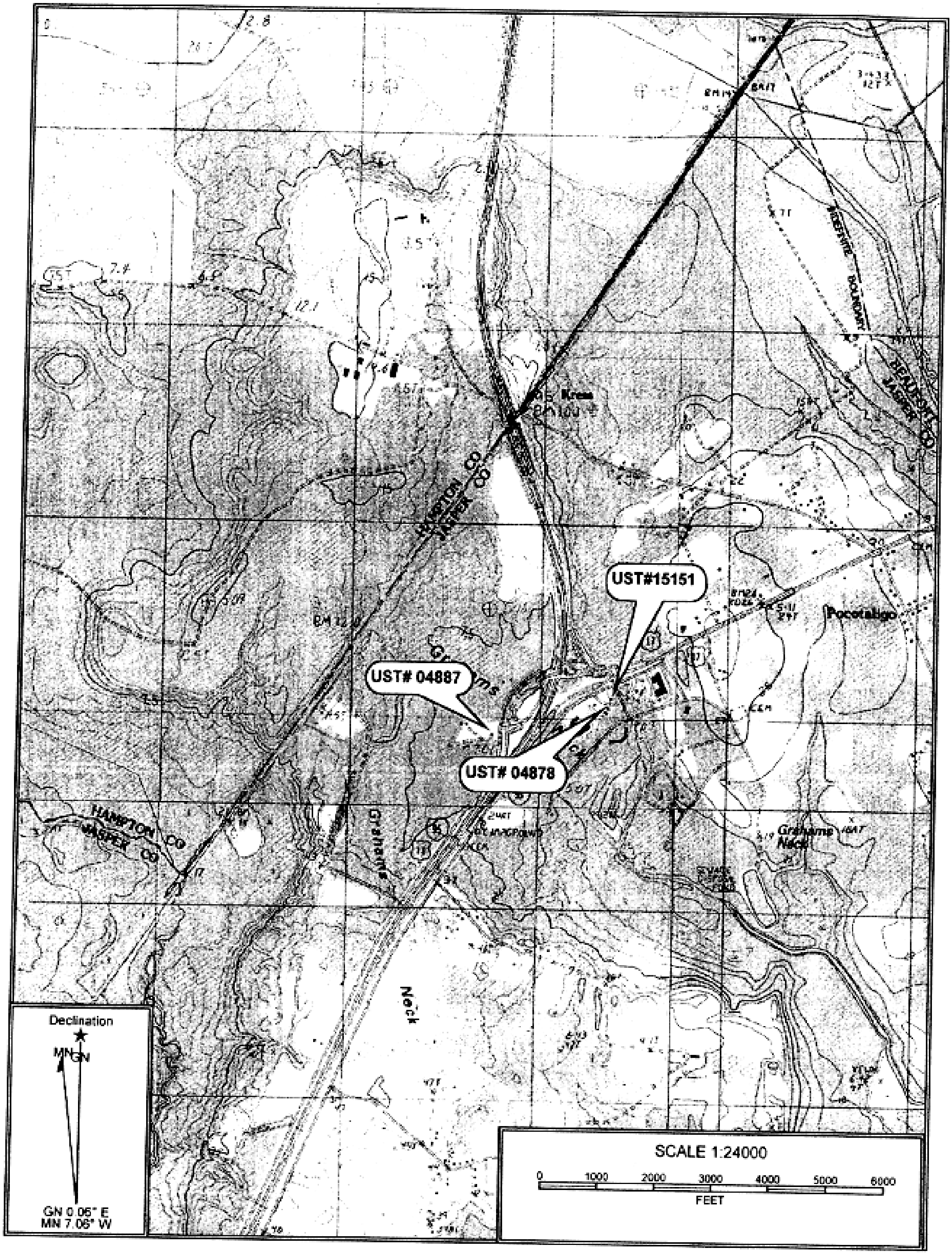
Midlands Environmental also tracks cumulative organic compounds adsorbed on the activated carbon to ensure the capacity of carbon mass is not over-charged. This data is available upon request.

Should you have any questions or comments, please contact the undersigned.

Sincerely,
Midlands Environmental Consultants, Inc.

Todd Elder

Todd D. Elder
Staff Hydrogeologist



UST#15151
UST# 04887
UST# 04878
HAMPTON CO
JASPER CO
BEAUFORT CO
JASPER CO
Pocotaligo
Grahams Neck
Neck
Declination
MN
GN
GN 0.06° E
MN 7.06° W
SCALE 1:24000
0
1000
2000
3000
4000
5000
6000
FEET

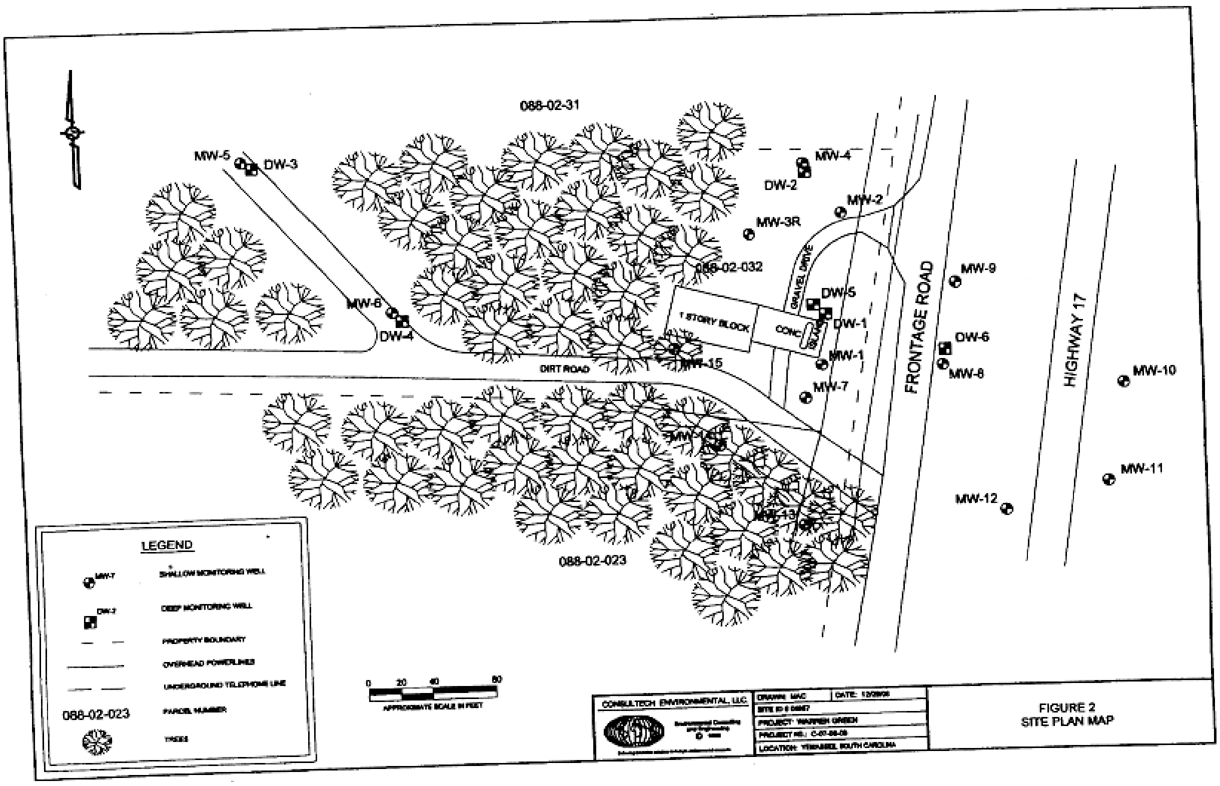


FIGURE 2
SITE PLAN MAP

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CHAIN-OF-CUSTODY / Analytical Request Document

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

1996425

Section A Required Client Information:

Company:	SCDHEC-UST
Address:	2600 Bull Street
	Columbia, SC 29201
Email To:	bryantjc@dhec.sc.gov
Phone:	803-898-0606
Fax:	803-898-0673
Requested Due Date/TAT:	

Section B Required Project Information:

Report To:	J. Bryant - UST
Copy To:	
Purchase Order No.:	4600422513
Project Name:	Warren Green
Project Number:	UST 04887 / PACE

Section C Invoice Information:

Attention:	
Company Name:	
Address:	
Pace Quote Reference:	
Pace Project Manager:	T. Carter
Pace Profile #:	

REGULATORY AGENCY

☐ NPDES ☐ GROUND WATER ☐ DRINKING WATER
☑ UST ☐ RCRA ☐ OTHER

Site Location STATE: SC Jasper

Section D Required Client Information

Matrix Codes MATRIX / CODE: Drinking Water DW; Water WT; Waste Water WW; Product P; Soil/Solid SL; Oil OL; Wipe WP; Air AR; Tissue TS; Other OT

SAMPLE ID (A-Z, 0-9 / ,-) Sample IDs MUST BE UNIQUE

Requested Analysis Filtered (Y/N)

ITEM #	SAMPLE ID	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED COMPOSITE START DATE	COMPOSITE START TIME	COMPOSITE END/GRAB DATE	COMPOSITE END/GRAB TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Unpreserved	H_2SO_4	HNO_3	HCl	NaOH	$Na_2S_2O_3$	Methanol	Other	Analysis Test	~~BTEX NM 8620B~~	~~1,2-DCA 8620B~~	~~8 Oxys 8620B~~	EDB 8011	BTEX NM 8260B	1,2-DCA 8260B	8 Oxys 8260B						Residual Chlorine (Y/N)	Pace Project No./ Lab I.D.
1	MW-1	WT	G			4/25/16	13:35		6				6									X	X	X	X							Odor
2	MW-2						15:30																									No odor
3	MW-3R						14:40																									
4	MW-4						15:00																									
5	MW-5						10:35																									
6	MW-6						11:35																									No odor
7	MW-7						13:15																									Organic odor
8	MW-8						17:11																									Strong odor; sheen
9	MW-9						16:53																									No odor
10	MW-10						15:44																									
11	MW-11						15:54																									
12	MW-12	WT	G			4/25/16	16:08		6				6									X	X	X	X							No odor

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS		
	Peter J. Wylie / MECI	4/27/16	8:27	[signature]	4/27/16	8:27			

2

SAMPLER NAME AND SIGNATURE

PRINT Name of SAMPLER: Peter J. Wylie

SIGNATURE of SAMPLER: [signature] DATE Signed (MM/DD/YY): 4/25/16

Temp in °C	Received on Ice (Y/N)	Custody Sealed Cooler (Y/N)	Samples Intact (Y/N)

*Important Note: By signing this form you are accepting Pace's NET 30 day payment terms and agreeing to late charges of 1.5% per month for any invoices not paid within 30 days.

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CHAIN-OF-CUSTODY / Analytical Request Document

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Page: 2 of 3

1996423

Section A Required Client Information:

Company:	SCDHEC - UST
Address:	2600 Bull Street, Columbia, SC 29201
Email To:	bryantjc@dhec.sc.gov
Phone:	803-898-0606
Fax:	803-898-0673
Requested Due Date/TAT:	

Section B Required Project Information:

Report To:	J. Bryant
Copy To:	
Purchase Order No.:	4600422513
Project Name:	Varsen Green
Project Number:	UST 04887/

Section C Invoice Information:

Attention:	
Company Name:	
Address:	
Pace Quote Reference:	
Pace Project Manager:	T. Carter
Pace Profile #:	

REGULATORY AGENCY

☐ NPDES ☐ GROUND WATER ☐ DRINKING WATER
☑ UST ☐ RCRA ☐ OTHER

Site Location STATE: SC Jasper

Section D Required Client Information

Matrix Codes MATRIX / CODE: Drinking Water DW; Water WT; Waste Water WW; Product P; Soil/Solid SL; Oil OL; Wipe WP; Air AR; Tissue TS; Other OT

SAMPLE ID (A-Z, 0-9 / ,-) Sample IDs MUST BE UNIQUE

Requested Analysis Filtered (Y/N)

ITEM #	SAMPLE ID	MATRIX CODE	SAMPLE TYPE (G=GRAB C=COMP)	COMPOSITE START DATE	COMPOSITE START TIME	COMPOSITE END/GRAB DATE	COMPOSITE END/GRAB TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Unpreserved	H_2SO_4	HNO_3	HCl	NaOH	$Na_2S_2O_3$	Methanol	Other	Analysis Test	~~BTEX N M 8260B~~	BTEX N M 8260B	1,2-DCA 8260B	8 Oxys 8260B	EDB 8011	Residual Chlorine (Y/N)	Pace Project No./ Lab I.D.
1	MW-13	WT	G			4/25/16	12:25		6				6							X	X	X	X		No odor
2	MW-14						12:00																		
3	MW-15						12:50																		
4	DW-1						13:55																		
5	DW-2						15:16																		
6	DW-3						10:51																		
7	DW-4						11:15																		
8	DW-5						14:20																		
9	DW-6	W					16:35																		No odor
10	WSW-1	DW					17:15																		No odor; LDLs
11	WSW-2	DW					17:25																		No odor; LDLs
12	WSW-3	DW	G			4/25/16	17:35		6				6							X	X	X	X		No odor; LDLs

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS
	Peter Wylie / MECI	4/27/16	827	[signature]	4-27-16	827	

2

SAMPLER NAME AND SIGNATURE

PRINT Name of SAMPLER: Peter J. Wylie

SIGNATURE of SAMPLER: [signature] DATE Signed (MM/DD/YY): 4/25/16

Temp in °C | Received on Ice (Y/N) | Custody Sealed Cooler (Y/N) | Samples Intact (Y/N)

*Important Note: By signing this form you are accepting Pace's NET 30 day payment terms and agreeing to late charges of 1.5% per month for any invoices not paid within 30 days.

F-ALL-Q-020rev.07, 15-May-2007

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CHAIN-OF-CUSTODY / Analytical Request Document

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Page: 3 of 3

1996424

Section A Required Client Information:

Company: SCDHEC-UST
Address: 2600 Bull Street
Columbia, SC 29201
Email To: bryant-jc@dhec.sc.gov
Phone: 803-898-0606 Fax: 803-898-0673
Requested Due Date/TAT:

Section B Required Project Information:

Report To: J. Bryant - UST
Copy To:
Purchase Order No.: 4600422513
Project Name: Warren Green
Project Number: UST 04887

Section C Invoice Information:

Attention:
Company Name:
Address:
Pace Quote Reference:
Pace Project Manager: T. Carter
Pace Profile #:

REGULATORY AGENCY

☐ NPDES ☐ GROUND WATER ☐ DRINKING WATER
☑ UST ☐ RCRA ☐ OTHER

Site Location STATE: SC Jasper

Section D Required Client Information

Matrix Codes MATRIX / CODE: Drinking Water DW, Water WT, Waste Water WW, Product P, Soil/Solid SL, Oil OL, Wipe WP, Air AR, Tissue TS, Other OT

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Requested Analysis Filtered (Y/N)

ITEM #	SAMPLE ID	MATRIX CODE	SAMPLE TYPE (G=GRAB C=COMP)	COMPOSITE START DATE	COMPOSITE START TIME	COMPOSITE END/GRAB DATE	COMPOSITE END/GRAB TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Unpreserved	H_2SO_4	HNO_3	HCl	NaOH	$Na_2S_2O_3$	Methanol	Other	BTEX NM 8260B	1,2-DCA 8260B	6 Oxys 8260B	EDB 8011	Residual Chlorine (Y/N)	Pace Project No./ Lab I.D.
1	WSW-4	DW	G				17:46		6				6					X	X	X	X		No odor. LDLs
2	Dup 1	WT	↓				13:15		↓				↓					↓	↓	↓	↓		Strong odor; sheen
3	Dup 2						13:35																Odor
4	Field blank	↓	↓				17:41		6				6								X		Field blank
5	Trip blank	WT	G				17:42		2				2					X	X	X			Trip blank
6																							
7																							
8																							
9																							
10																							
11																							
12																							

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS
	Peter J. Wylie	4/27/16	827	[signature]	4-27-16	827	

2

SAMPLER NAME AND SIGNATURE

PRINT Name of SAMPLER: Peter J. Wylie

SIGNATURE of SAMPLER: [signature]

DATE Signed (MM/DD/YY): 4/25/16

Temp in °C | Received on Ice (Y/N) | Custody Sealed Cooler (Y/N) | Samples Intact (Y/N)

*Important Note: By signing this form you are accepting Pace's NET 30 day payment terms and agreeing to late charges of 1.5% per month for any invoices not paid within 30 days.

F-ALL-Q-020rev.07, 15-May-2007

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9800 Kincey Ave Suite 100
Huntersville, NC 28078
(704)875-9092

May 04, 2016

Mr. John Bryant
SCDHEC
UST Program
2600 Bull Street
Columbia, SC 29201

RE: Project: 04887/ 52240 WARREN GREEN
Pace Project No.: 92295419

Dear Mr. Bryant:

Enclosed are the analytical results for sample(s) received by the laboratory on April 27, 2016. The results relate only to the samples included in this report. Results reported herein conform to the most current TNI standards and the laboratory's Quality Assurance Manual, where applicable, unless otherwise noted in the body of the report.

Analyses were performed at the Pace Analytical Services location indicated on the sample analyte page for analysis unless otherwise footnoted.

If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Trey Carter

Trey Carter
trey.carter@pacelabs.com
Project Manager

Enclosures

cc: Ashleigh Thrash, SCHDEC

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9800 Kincey Ave Suite 100
Huntersville, NC 28078
(704)875-9092

CERTIFICATIONS

Project.	04887/ 52240 WARREN GREEN
Pace Project No	92295419

Charlotte Certification IDs

9800 Kincey Ave. Ste 100, Huntersville, NC 28078
North Carolina Drinking Water Certification # 37706
North Carolina Field Services Certification #: 5342
North Carolina Wastewater Certification # 12
South Carolina Certification #. 99006001
Florida/NELAP Certification # E87627
Kentucky UST Certification # 84
Virginia/VELAP Certification #: 460221

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Huntersville, NC 28078
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SAMPLE SUMMARY

Project: 04887/ 52240 WARREN GREEN
Pace Project No 92295419

Lab ID	Sample ID	Matrix	Date Collected	Date Received
92295419001	**MW-1**	Water	04/25/16 13:35	04/27/16 08 27
92295419002	**MW-2**	Water	04/25/16 15 30	04/27/16 08.27
92295419003	**MW-3R**	Water	04/25/16 14 40	04/27/16 08:27
92295419004	**MW-4**	Water	04/25/16 15:00	04/27/16 08.27
92295419005	**MW-5**	Water	04/25/16 10:35	04/27/16 08 27
92295419006	**MW-6**	Water	04/25/16 11 35	04/27/16 08.27
92295419007	**MW-7**	Water	04/25/16 13:15	04/27/16 08.27
92295419008	**MW-8**	Water	04/25/16 17:11	04/27/16 08 27
92295419009	**MW-9**	Water	04/25/16 16 53	04/27/16 08:27
92295419010	**MW-10**	Water	04/25/16 15 44	04/27/16 08:27
92295419011	**MW-11**	Water	04/25/16 15 54	04/27/16 08:27
92295419012	**MW-12**	Water	04/25/16 16:08	04/27/16 08:27
92295419013	**MW-13**	Water	04/25/16 12:25	04/27/16 08.27
92295419014	**MW-14**	Water	04/25/16 12:00	04/27/16 08 27
92295419015	**MW-15**	Water	04/25/16 12:50	04/27/16 08 27
92295419016	**DW-1**	Water	04/25/16 13 55	04/27/16 08 27
92295419017	**DW-2**	Water	04/25/16 15 16	04/27/16 08.27
92295419018	**DW-3**	Water	04/25/16 10.57	04/27/16 08.27
92295419019	**DW-4**	Water	04/25/16 11:15	04/27/16 08:27
92295419020	**DW-5**	Water	04/25/16 14:20	04/27/16 08:27
92295419021	**DW-6**	Water	04/25/16 16.35	04/27/16 08 27
92295419022	**WSW-1**	Water	04/25/16 17 15	04/27/16 08 27
92295419023	**WSW-2**	Water	04/25/16 17 25	04/27/16 08:27
92295419024	**WSW-3**	Water	04/25/16 17 35	04/27/16 08:27
92295419025	**WSW-4**	Water	04/25/16 17.40	04/27/16 08:27
92295419026	**DUP 1**	Water	04/25/16 13 15	04/27/16 08:27
92295419027	**DUP 2**	Water	04/25/16 13.35	04/27/16 08:27
92295419028	**FIELD BLANK**	Water	04/25/16 17:41	04/27/16 08:27
92295419029	**TRIP BLANK**	Water	04/25/16 17:42	04/27/16 08 27

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Huntersville, NC 28078
(704)875-9092

SAMPLE ANALYTE COUNT

Project 04887/ 52240 WARREN GREEN
Pace Project No · 92295419

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
92295419001	**MW-1**	EPA 8011	HSK	2	PASI-C
		EPA 8260	CCL	20	PASI-C
92295419002	**MW-2**	EPA 8011	HSK	2	PASI-C
		EPA 8260	GAW	20	PASI-C
92295419003	**MW-3R**	EPA 8011	HSK	2	PASI-C
		EPA 8260	GAW	20	PASI-C
92295419004	**MW-4**	EPA 8011	HSK	2	PASI-C
		EPA 8260	GAW	20	PASI-C
92295419005	**MW-5**	EPA 8011	HSK	2	PASI-C
		EPA 8260	GAW	20	PASI-C
92295419006	**MW-6**	EPA 8011	HSK	2	PASI-C
		EPA 8260	GAW	20	PASI-C
92295419007	**MW-7**	EPA 8011	HSK	2	PASI-C
		EPA 8260	CCL	20	PASI-C
92295419008	**MW-8**	EPA 8011	HSK	2	PASI-C
		EPA 8260	CCL	20	PASI-C
92295419009	**MW-9**	EPA 8011	HSK	2	PASI-C
		EPA 8260	GAW	20	PASI-C
92295419010	**MW-10**	EPA 8011	HSK	2	PASI-C
		EPA 8260	GAW	20	PASI-C
92295419011	**MW-11**	EPA 8011	HSK	2	PASI-C
		EPA 8260	GAW	20	PASI-C
92295419012	**MW-12**	EPA 8011	HSK	2	PASI-C
		EPA 8260	GAW	20	PASI-C
92295419013	**MW-13**	EPA 8011	HSK	2	PASI-C
		EPA 8260	GAW	20	PASI-C
92295419014	**MW-14**	EPA 8011	HSK	2	PASI-C
		EPA 8260	GAW	20	PASI-C
92295419015	**MW-15**	EPA 8011	HSK	2	PASI-C
		EPA 8260	GAW	20	PASI-C
92295419016	**DW-1**	EPA 8011	HSK	2	PASI-C
		EPA 8260	GAW	20	PASI-C
92295419017	**DW-2**	EPA 8011	HSK	2	PASI-C
		EPA 8260	GAW	20	PASI-C
92295419018	**DW-3**	EPA 8011	HSK	2	PASI-C
		EPA 8260	GAW	20	PASI-C
92295419019	**DW-4**	EPA 8011	HSK	2	PASI-C

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Pace Analytical Services, Inc.
9800 Kincey Ave Suite 100
Huntersville, NC 28078
(704)875-9092

SAMPLE ANALYTE COUNT

Project: 04887/ 52240 WARREN GREEN
Pace Project No 92295419

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
		EPA 8260	GAW	20	PASI-C
92295419020	**DW-5**	EPA 8011	HSK	2	PASI-C
		EPA 8260	GAW	20	PASI-C
92295419021	**DW-6**	EPA 8011	HSK	2	PASI-C
		EPA 8260	GAW	20	PASI-C
92295419022	**WSW-1**	EPA 8011	HSK	2	PASI-C
		EPA 8260	GAW	20	PASI-C
92295419023	**WSW-2**	EPA 8011	HSK	2	PASI-C
		EPA 8260	GAW	20	PASI-C
92295419024	**WSW-3**	EPA 8011	HSK	2	PASI-C
		EPA 8260	GAW	20	PASI-C
92295419025	**WSW-4**	EPA 8011	HSK	2	PASI-C
		EPA 8260	GAW	20	PASI-C
92295419026	**DUP 1**	EPA 8011	HSK	2	PASI-C
		EPA 8260	CCL	20	PASI-C
92295419027	**DUP 2**	EPA 8011	HSK	2	PASI-C
		EPA 8260	CCL	20	PASI-C
92295419028	**FIELD BLANK**	EPA 8011	HSK	2	PASI-C
		EPA 8260	GAW	20	PASI-C
92295419029	**TRIP BLANK**	EPA 8260	GAW	20	PASI-C

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Pace Analytical Services, Inc.
9800 Kincey Ave Suite 100
Huntersville, NC 28078
(704)875-9092

SUMMARY OF DETECTION

Project: 04887/ 52240 WARREN GREEN
Pace Project No.: 92295419

Lab Sample ID / Method	Client Sample ID / Parameters	Result	Units	Report Limit	Analyzed	Qualifiers
92295419001	**MW-1**					
EPA 8260	Benzene	2320	ug/L	500	05/03/16 15 25	
EPA 8260	Ethanol	58600	ug/L	20000	05/03/16 15.25	
EPA 8260	Ethylbenzene	2540	ug/L	500	05/03/16 15 25	
EPA 8260	Naphthalene	266J	ug/L	500	05/03/16 15:25	
EPA 8260	Toluene	14400	ug/L	500	05/03/16 15:25	
EPA 8260	Xylene (Total)	13300	ug/L	1000	05/03/16 15:25	
EPA 8260	m&p-Xylene	9710	ug/L	1000	05/03/16 15:25	
EPA 8260	o-Xylene	3580	ug/L	500	05/03/16 15.25	
92295419002	**MW-2**					
EPA 8260	Methyl-tert-butyl ether	6 2	ug/L	5.0	04/30/16 13:53	
92295419007	**MW-7**					
EPA 8011	1,2-Dibromoethane (EDB)	1.9	ug/L	0 042	05/03/16 14 25	
EPA 8260	Benzene	2180	ug/L	500	05/03/16 11:48	
EPA 8260	Ethylbenzene	3680	ug/L	500	05/03/16 11 48	
EPA 8260	Naphthalene	607	ug/L	500	05/03/16 11:48	
EPA 8260	Toluene	14700	ug/L	500	05/03/16 11:48	
EPA 8260	Xylene (Total)	20000	ug/L	1000	05/03/16 11:48	
EPA 8260	m&p-Xylene	13800	ug/L	1000	05/03/16 11.48	
EPA 8260	o-Xylene	6200	ug/L	500	05/03/16 11 48	
92295419026	**DUP 1**					
EPA 8011	1,2-Dibromoethane (EDB)	1.1	ug/L	0.085	05/03/16 16:20	
EPA 8260	Benzene	2310	ug/L	500	05/03/16 06:46	
EPA 8260	Ethylbenzene	3890	ug/L	500	05/03/16 06 46	
EPA 8260	Naphthalene	651	ug/L	500	05/03/16 06 46	
EPA 8260	Toluene	15400	ug/L	500	05/03/16 06 46	
EPA 8260	Xylene (Total)	21000	ug/L	1000	05/03/16 06:46	
EPA 8260	m&p-Xylene	14500	ug/L	1000	05/03/16 06:46	
EPA 8260	o-Xylene	6520	ug/L	500	05/03/16 06:46	
92295419027	**DUP 2**					
EPA 8260	Benzene	2330	ug/L	500	05/03/16 07:03	
EPA 8260	Ethylbenzene	2500	ug/L	500	05/03/16 07:03	
EPA 8260	Naphthalene	266J	ug/L	500	05/03/16 07 03	
EPA 8260	Toluene	14500	ug/L	500	05/03/16 07 03	
EPA 8260	Xylene (Total)	12700	ug/L	1000	05/03/16 07:03	
EPA 8260	m&p-Xylene	9270	ug/L	1000	05/03/16 07:03	
EPA 8260	o-Xylene	3470	ug/L	500	05/03/16 07 03	

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PROJECT NARRATIVE

Project. 04887/ 52240 WARREN GREEN
Pace Project No 92295419

Method: **EPA 8011**
Description: 8011 GCS EDB and DBCP
Client: SCDHEC
Date: May 04, 2016

General Information:
28 samples were analyzed for EPA 8011 All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Sample Preparation:
The samples were prepared in accordance with EPA 8011 with any exceptions noted below.

Initial Calibrations (including MS Tune as applicable):
All criteria were within method requirements with any exceptions noted below.

Continuing Calibration:
All criteria were within method requirements with any exceptions noted below

Surrogates:
All surrogates were within QC limits with any exceptions noted below

QC Batch: OEXT/42249

S2 Surrogate recovery outside laboratory control limits due to matrix interferences (confirmed by similar results from sample re-analysis).

- MS (Lab ID: 1721412)
  - 1-Chloro-2-bromopropane (S)

QC Batch: OEXT/42250

S3: Surrogate recovery exceeded laboratory control limits. Analyte presence below reporting limits in associated samples Results unaffected by high bias.

- DUP (Lab ID. 1721420)
  - 1-Chloro-2-bromopropane (S)

QC Batch: OEXT/42335

S5 Surrogate recovery outside control limits due to matrix interferences (not confirmed by re-analysis)

- MW-7 (Lab ID: 92295419007)
  - 1-Chloro-2-bromopropane (S)

Method Blank:
All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

QC Batch: OEXT/42249

R1 RPD value was outside control limits.

- LCSD (Lab ID: 1721411)

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PROJECT NARRATIVE

Project: 04887/ 52240 WARREN GREEN
Pace Project No 92295419

Method: **EPA 8011**
Description: 8011 GCS EDB and DBCP
Client: SCDHEC
Date: May 04, 2016

QC Batch: OEXT/42249

R1 RPD value was outside control limits
- 1,2-Dibromoethane (EDB)

QC Batch OEXT/42335

R1 RPD value was outside control limits.
- LCSD (Lab ID: 1724237)
  - 1,2-Dibromoethane (EDB)

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

Duplicate Sample:
All duplicate sample results were within method acceptance criteria with any exceptions noted below

Additional Comments:

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PROJECT NARRATIVE

Project: 04887/ 52240 WARREN GREEN
Pace Project No : 92295419

Method: **EPA 8260**
Description: 8260 MSV Low Level SC
Client: SCDHEC
Date: May 04, 2016

General Information:
4 samples were analyzed for EPA 8260 All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below

Initial Calibrations (including MS Tune as applicable):
All criteria were within method requirements with any exceptions noted below

Continuing Calibration:
All criteria were within method requirements with any exceptions noted below

Internal Standards:
All internal standards were within QC limits with any exceptions noted below

Surrogates:
All surrogates were within QC limits with any exceptions noted below.

Method Blank:
All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below

QC Batch: MSV/36596

L0: Analyte recovery in the laboratory control sample (LCS) was outside QC limits
- LCS (Lab ID: 1721659)
  - Ethanol

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below

QC Batch MSV/36596

A matrix spike and/or matrix spike duplicate (MS/MSD) were performed on the following sample(s) 92295441016

M1: Matrix spike recovery exceeded QC limits. Batch accepted based on laboratory control sample (LCS) recovery.
- MS (Lab ID: 1721661)
  - tert-Butyl Alcohol

P5 The EPA or method required sample preservation degrades this compound, therefore acceptable recoveries may not be achieved in sample matrix spikes.
- MS (Lab ID: 1721661)
  - tert-Butyl Formate

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PROJECT NARRATIVE

Project: 04887/ 52240 WARREN GREEN
Pace Project No.: 92295419

Method: **EPA 8260**
Description: 8260 MSV Low Level SC
Client: SCDHEC
Date: May 04, 2016

Duplicate Sample:
All duplicate sample results were within method acceptance criteria with any exceptions noted below.

Additional Comments:

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PROJECT NARRATIVE

Project: 04887/ 52240 WARREN GREEN
Pace Project No.. 92295419

Method: **EPA 8260**
Description: 8260 MSV
Client: SCDHEC
Date: May 04, 2016

General Information:
25 samples were analyzed for EPA 8260 All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below

Initial Calibrations (including MS Tune as applicable):
All criteria were within method requirements with any exceptions noted below

Continuing Calibration:
All criteria were within method requirements with any exceptions noted below.

Internal Standards:
All internal standards were within QC limits with any exceptions noted below

Surrogates:
All surrogates were within QC limits with any exceptions noted below

Method Blank:
All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

QC Batch: MSV/36640

L0: Analyte recovery in the laboratory control sample (LCS) was outside QC limits.

- LCS (Lab ID: 1724127)
  - Ethanol

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below

QC Batch MSV/36627

A matrix spike and/or matrix spike duplicate (MS/MSD) were performed on the following sample(s) 92295419021

M1 Matrix spike recovery exceeded QC limits. Batch accepted based on laboratory control sample (LCS) recovery

- MS (Lab ID: 1723444)
  - 1,2-Dichloroethane
  - Benzene
  - Diisopropyl ether
  - Ethanol
  - Ethylbenzene
  - m&p-Xylene
  - o-Xylene

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PROJECT NARRATIVE

Project 04887/ 52240 WARREN GREEN
Pace Project No 92295419

Method: **EPA 8260**
Description: 8260 MSV
Client: SCDHEC
Date: May 04, 2016

QC Batch MSV/36627

A matrix spike and/or matrix spike duplicate (MS/MSD) were performed on the following sample(s): 92295419021

M1: Matrix spike recovery exceeded QC limits. Batch accepted based on laboratory control sample (LCS) recovery

- tert-Amyl Alcohol
- tert-Butyl Alcohol

P5: The EPA or method required sample preservation degrades this compound, therefore acceptable recoveries may not be achieved in sample matrix spikes

- MS (Lab ID 1723444)
  - tert-Butyl Formate

QC Batch MSV/36640

A matrix spike and/or matrix spike duplicate (MS/MSD) were performed on the following sample(s): 92295441002

M0 Matrix spike recovery and/or matrix spike duplicate recovery was outside laboratory control limits

- MS (Lab ID: 1724128)
  - Ethanol

M1 Matrix spike recovery exceeded QC limits. Batch accepted based on laboratory control sample (LCS) recovery

- MS (Lab ID 1724128)
  - tert-Butyl Alcohol

P5 The EPA or method required sample preservation degrades this compound, therefore acceptable recoveries may not be achieved in sample matrix spikes

- MS (Lab ID 1724128)
  - tert-Butyl Formate

QC Batch MSV/36641

A matrix spike and/or matrix spike duplicate (MS/MSD) were performed on the following sample(s) 92295550003

M1 Matrix spike recovery exceeded QC limits Batch accepted based on laboratory control sample (LCS) recovery.

- MS (Lab ID 1724137)
  - Ethanol
  - tert-Butyl Alcohol

P5 The EPA or method required sample preservation degrades this compound, therefore acceptable recoveries may not be achieved in sample matrix spikes

- MS (Lab ID: 1724137)
  - tert-Butyl Formate

QC Batch. MSV/36655

A matrix spike and/or matrix spike duplicate (MS/MSD) were performed on the following sample(s): 92295550011

M1 Matrix spike recovery exceeded QC limits. Batch accepted based on laboratory control sample (LCS) recovery

- MS (Lab ID 1724573)
  - tert-Butyl Alcohol

P5. The EPA or method required sample preservation degrades this compound, therefore acceptable recoveries may not be achieved in sample matrix spikes

- MS (Lab ID 1724573)
  - tert-Butyl Formate

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PROJECT NARRATIVE

Project:	04887/ 52240 WARREN GREEN
Pace Project No	92295419

Method: **EPA 8260**
Description: 8260 MSV
Client: SCDHEC
Date: May 04, 2016

Duplicate Sample:
All duplicate sample results were within method acceptance criteria with any exceptions noted below.

Additional Comments:

This data package has been reviewed for quality and completeness and is approved for release

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ANALYTICAL RESULTS

Project. 04887/ 52240 WARREN GREEN
Pace Project No · 92295419

Sample: MW-1 **Lab ID: 92295419001** Collected: 04/25/16 13:35 Received: 04/27/16 08 27 Matrix. Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No	Qual
8011 GCS EDB and DBCP	Analytical Method: EPA 8011 Preparation Method· EPA 8011								
1,2-Dibromoethane (EDB)	ND	ug/L	0.020	0 020	1	04/28/16 13.00	04/28/16 23 27	106-93-4	
Surrogates									
1-Chloro-2-bromopropane (S)	130	%	60-140		1	04/28/16 13·00	04/28/16 23·27	301-79-56	
8260 MSV	Analytical Method. EPA 8260								
tert-Amyl Alcohol	ND	ug/L	10000	7680	100		05/03/16 15:25	75-85-4	
tert-Amylmethyl ether	ND	ug/L	1000	340	100		05/03/16 15 25	994-05-8	
Benzene	**2320**	ug/L	500	170	100		05/03/16 15 25	71-43-2	
3,3-Dimethyl-1-Butanol	ND	ug/L	10000	3210	100		05/03/16 15 25	624-95-3	
tert-Butyl Alcohol	ND	ug/L	10000	5770	100		05/03/16 15.25	75-65-0	
tert-Butyl Formate	ND	ug/L	5000	730	100		05/03/16 15:25	762-75-4	
1,2-Dichloroethane	ND	ug/L	500	180	100		05/03/16 15.25	107-06-2	
Diisopropyl ether	ND	ug/L	500	170	100		05/03/16 15 25	108-20-3	
Ethanol	**58600**	ug/L	20000	13100	100		05/03/16 15:25	64-17-5	
Ethylbenzene	**2540**	ug/L	500	160	100		05/03/16 15:25	100-41-4	
Ethyl-tert-butyl ether	ND	ug/L	1000	360	100		05/03/16 15:25	637-92-3	
Methyl-tert-butyl ether	ND	ug/L	500	170	100		05/03/16 15·25	1634-04-4	
Naphthalene	**266J**	ug/L	500	200	100		05/03/16 15:25	91-20-3	
Toluene	**14400**	ug/L	500	160	100		05/03/16 15.25	108-88-3	
Xylene (Total)	**13300**	ug/L	1000	270	100		05/03/16 15:25	1330-20-7	
m&p-Xylene	**9710**	ug/L	1000	310	100		05/03/16 15·25	179601-23-1	
o-Xylene	**3580**	ug/L	500	160	100		05/03/16 15·25	95-47-6	
Surrogates									
4-Bromofluorobenzene (S)	102	%	70-130		100		05/03/16 15:25	460-00-4	
1,2-Dichloroethane-d4 (S)	91	%	70-130		100		05/03/16 15:25	17060-07-0	
Toluene-d8 (S)	105	%	70-130		100		05/03/16 15:25	2037-26-5	

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ANALYTICAL RESULTS

Project: 04887/ 52240 WARREN GREEN
Pace Project No · 92295419

Sample: MW-2 **Lab ID: 92295419002** Collected 04/25/16 15:30 Received 04/27/16 08 27 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8011 GCS EDB and DBCP	Analytical Method: EPA 8011 Preparation Method: EPA 8011								
1,2-Dibromoethane (EDB)	ND	ug/L	0.020	0 020	1	04/28/16 13 00	04/28/16 23:47	106-93-4	
Surrogates									
1-Chloro-2-bromopropane (S)	110	%	60-140		1	04/28/16 13:00	04/28/16 23:47	301-79-56	
8260 MSV	Analytical Method· EPA 8260								
tert-Amyl Alcohol	ND	ug/L	100	76.8	1		04/30/16 13:53	75-85-4	
tert-Amylmethyl ether	ND	ug/L	10.0	3 4	1		04/30/16 13:53	994-05-8	
Benzene	ND	ug/L	5 0	1 7	1		04/30/16 13:53	71-43-2	
3,3-Dimethyl-1-Butanol	ND	ug/L	100	32.1	1		04/30/16 13:53	624-95-3	
tert-Butyl Alcohol	ND	ug/L	100	57.7	1		04/30/16 13:53	75-65-0	
tert-Butyl Formate	ND	ug/L	50.0	7 3	1		04/30/16 13:53	762-75-4	
1,2-Dichloroethane	ND	ug/L	5 0	1 8	1		04/30/16 13:53	107-06-2	
Diisopropyl ether	ND	ug/L	5.0	1.7	1		04/30/16 13:53	108-20-3	
Ethanol	ND	ug/L	200	131	1		04/30/16 13:53	64-17-5	
Ethylbenzene	ND	ug/L	5 0	1 6	1		04/30/16 13·53	100-41-4	
Ethyl-tert-butyl ether	ND	ug/L	10 0	3 6	1		04/30/16 13 53	637-92-3	
Methyl-tert-butyl ether	**6.2**	ug/L	5.0	1 7	1		04/30/16 13·53	1634-04-4	
Naphthalene	ND	ug/L	5.0	2.0	1		04/30/16 13·53	91-20-3	
Toluene	ND	ug/L	5.0	1 6	1		04/30/16 13 53	108-88-3	
Xylene (Total)	ND	ug/L	10 0	2 7	1		04/30/16 13 53	1330-20-7	
m&p-Xylene	ND	ug/L	10 0	3 1	1		04/30/16 13 53	179601-23-1	
o-Xylene	ND	ug/L	5.0	1.6	1		04/30/16 13 53	95-47-6	
Surrogates									
4-Bromofluorobenzene (S)	115	%	70-130		1		04/30/16 13.53	460-00-4	
1,2-Dichloroethane-d4 (S)	99	%	70-130		1		04/30/16 13 53	17060-07-0	
Toluene-d8 (S)	109	%	70-130		1		04/30/16 13 53	2037-26-5	

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ANALYTICAL RESULTS

Project. 04887/ 52240 WARREN GREEN
Pace Project No.. 92295419

Sample: MW-3R **Lab ID: 92295419003** Collected 04/25/16 14 40 Received: 04/27/16 08:27 Matrix Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No	Qual
8011 GCS EDB and DBCP	Analytical Method. EPA 8011 Preparation Method EPA 8011								
1,2-Dibromoethane (EDB)	ND	ug/L	0 022	0.022	1	05/03/16 10·46	05/03/16 13 46	106-93-4	
Surrogates									
1-Chloro-2-bromopropane (S)	121	%	60-140		1	05/03/16 10.46	05/03/16 13·46	301-79-56	
8260 MSV	Analytical Method EPA 8260								
tert-Amyl Alcohol	ND	ug/L	100	76.8	1		04/30/16 14:09	75-85-4	
tert-Amylmethyl ether	ND	ug/L	10 0	3.4	1		04/30/16 14:09	994-05-8	
Benzene	ND	ug/L	5 0	1.7	1		04/30/16 14 09	71-43-2	
3,3-Dimethyl-1-Butanol	ND	ug/L	100	32.1	1		04/30/16 14 09	624-95-3	
tert-Butyl Alcohol	ND	ug/L	100	57.7	1		04/30/16 14.09	75-65-0	
tert-Butyl Formate	ND	ug/L	50 0	7 3	1		04/30/16 14:09	762-75-4	
1,2-Dichloroethane	ND	ug/L	5.0	1.8	1		04/30/16 14:09	107-06-2	
Diisopropyl ether	ND	ug/L	5 0	1 7	1		04/30/16 14 09	108-20-3	
Ethanol	ND	ug/L	200	131	1		04/30/16 14 09	64-17-5	
Ethylbenzene	ND	ug/L	5.0	1 6	1		04/30/16 14.09	100-41-4	
Ethyl-tert-butyl ether	ND	ug/L	10 0	3.6	1		04/30/16 14:09	637-92-3	
Methyl-tert-butyl ether	ND	ug/L	5 0	1.7	1		04/30/16 14:09	1634-04-4	
Naphthalene	ND	ug/L	5 0	2 0	1		04/30/16 14·09	91-20-3	
Toluene	ND	ug/L	5 0	1 6	1		04/30/16 14·09	108-88-3	
Xylene (Total)	ND	ug/L	10 0	2 7	1		04/30/16 14.09	1330-20-7	
m&p-Xylene	ND	ug/L	10 0	3.1	1		04/30/16 14:09	179601-23-1	
o-Xylene	ND	ug/L	5 0	1.6	1		04/30/16 14 09	95-47-6	
Surrogates									
4-Bromofluorobenzene (S)	106	%	70-130		1		04/30/16 14:09	460-00-4	
1,2-Dichloroethane-d4 (S)	92	%	70-130		1		04/30/16 14:09	17060-07-0	
Toluene-d8 (S)	109	%	70-130		1		04/30/16 14.09	2037-26-5	

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ANALYTICAL RESULTS

Project: 04887/ 52240 WARREN GREEN
Pace Project No.: 92295419

Sample: MW-4 **Lab ID: 92295419004** Collected 04/25/16 15:00 Received 04/27/16 08:27 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8011 GCS EDB and DBCP	Analytical Method: EPA 8011 Preparation Method: EPA 8011								
1,2-Dibromoethane (EDB)	ND	ug/L	0 020	0.020	1	04/28/16 13:00	04/29/16 00 28	106-93-4	
Surrogates									
1-Chloro-2-bromopropane (S)	75	%	60-140		1	04/28/16 13:00	04/29/16 00:28	301-79-56	
8260 MSV	Analytical Method: EPA 8260								
tert-Amyl Alcohol	ND	ug/L	100	76 8	1		04/30/16 14 26	75-85-4	
tert-Amylmethyl ether	ND	ug/L	10 0	3.4	1		04/30/16 14.26	994-05-8	
Benzene	ND	ug/L	5.0	1.7	1		04/30/16 14 26	71-43-2	
3,3-Dimethyl-1-Butanol	ND	ug/L	100	32 1	1		04/30/16 14 26	624-95-3	
tert-Butyl Alcohol	ND	ug/L	100	57.7	1		04/30/16 14:26	75-65-0	
tert-Butyl Formate	ND	ug/L	50 0	7 3	1		04/30/16 14:26	762-75-4	
1,2-Dichloroethane	ND	ug/L	5 0	1 8	1		04/30/16 14:26	107-06-2	
Diisopropyl ether	ND	ug/L	5 0	1 7	1		04/30/16 14 26	108-20-3	
Ethanol	ND	ug/L	200	131	1		04/30/16 14:26	64-17-5	
Ethylbenzene	ND	ug/L	5 0	1.6	1		04/30/16 14.26	100-41-4	
Ethyl-tert-butyl ether	ND	ug/L	10 0	3.6	1		04/30/16 14 26	637-92-3	
Methyl-tert-butyl ether	ND	ug/L	5.0	1.7	1		04/30/16 14 26	1634-04-4	
Naphthalene	ND	ug/L	5.0	2 0	1		04/30/16 14 26	91-20-3	
Toluene	ND	ug/L	5.0	1 6	1		04/30/16 14 26	108-88-3	
Xylene (Total)	ND	ug/L	10 0	2 7	1		04/30/16 14:26	1330-20-7	
m&p-Xylene	ND	ug/L	10 0	3 1	1		04/30/16 14:26	179601-23-1	
o-Xylene	ND	ug/L	5 0	1 6	1		04/30/16 14:26	95-47-6	
Surrogates									
4-Bromofluorobenzene (S)	109	%	70-130		1		04/30/16 14 26	460-00-4	
1,2-Dichloroethane-d4 (S)	93	%	70-130		1		04/30/16 14 26	17060-07-0	
Toluene-d8 (S)	112	%	70-130		1		04/30/16 14:26	2037-26-5	

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ANALYTICAL RESULTS

Project. 04887/ 52240 WARREN GREEN
Pace Project No · 92295419

Sample: MW-5 **Lab ID: 92295419005** Collected: 04/25/16 10:35 Received 04/27/16 08 27 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8011 GCS EDB and DBCP	Analytical Method· EPA 8011 Preparation Method. EPA 8011								
1,2-Dibromoethane (EDB)	ND	ug/L	0.021	0.021	1	04/28/16 13.00	04/29/16 00·48	106-93-4	
Surrogates									
1-Chloro-2-bromopropane (S)	79	%	60-140		1	04/28/16 13:00	04/29/16 00 48	301-79-56	
8260 MSV	Analytical Method EPA 8260								
tert-Amyl Alcohol	ND	ug/L	100	76.8	1		04/30/16 14.43	75-85-4	
tert-Amylmethyl ether	ND	ug/L	10 0	3 4	1		04/30/16 14:43	994-05-8	
Benzene	ND	ug/L	5.0	1 7	1		04/30/16 14:43	71-43-2	
3,3-Dimethyl-1-Butanol	ND	ug/L	100	32 1	1		04/30/16 14 43	624-95-3	
tert-Butyl Alcohol	ND	ug/L	100	57 7	1		04/30/16 14 43	75-65-0	
tert-Butyl Formate	ND	ug/L	50.0	7 3	1		04/30/16 14 43	762-75-4	
1,2-Dichloroethane	ND	ug/L	5 0	1 8	1		04/30/16 14:43	107-06-2	
Diisopropyl ether	ND	ug/L	5.0	1 7	1		04/30/16 14:43	108-20-3	
Ethanol	ND	ug/L	200	131	1		04/30/16 14:43	64-17-5	
Ethylbenzene	ND	ug/L	5.0	1.6	1		04/30/16 14 43	100-41-4	
Ethyl-tert-butyl ether	ND	ug/L	10 0	3.6	1		04/30/16 14 43	637-92-3	
Methyl-tert-butyl ether	ND	ug/L	5 0	1 7	1		04/30/16 14:43	1634-04-4	
Naphthalene	ND	ug/L	5 0	2 0	1		04/30/16 14.43	91-20-3	
Toluene	ND	ug/L	5.0	1 6	1		04/30/16 14:43	108-88-3	
Xylene (Total)	ND	ug/L	10 0	2 7	1		04/30/16 14:43	1330-20-7	
m&p-Xylene	ND	ug/L	10 0	3 1	1		04/30/16 14 43	179601-23-1	
o-Xylene	ND	ug/L	5 0	1.6	1		04/30/16 14 43	95-47-6	
Surrogates									
4-Bromofluorobenzene (S)	107	%	70-130		1		04/30/16 14 43	460-00-4	
1,2-Dichloroethane-d4 (S)	90	%	70-130		1		04/30/16 14:43	17060-07-0	
Toluene-d8 (S)	109	%	70-130		1		04/30/16 14:43	2037-26-5	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project. 04887/ 52240 WARREN GREEN
Pace Project No 92295419

Sample: MW-6 **Lab ID: 92295419006** Collected: 04/25/16 11 35 Received· 04/27/16 08 27 Matrix Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No	Qual
8011 GCS EDB and DBCP	Analytical Method· EPA 8011 Preparation Method: EPA 8011								
1,2-Dibromoethane (EDB)	ND	ug/L	0 021	0 021	1	05/03/16 10:46	05/03/16 14·06	106-93-4	
Surrogates									
1-Chloro-2-bromopropane (S)	134	%	60-140		1	05/03/16 10·46	05/03/16 14:06	301-79-56	
8260 MSV	Analytical Method. EPA 8260								
tert-Amyl Alcohol	ND	ug/L	100	76.8	1		04/30/16 14·59	75-85-4	
tert-Amylmethyl ether	ND	ug/L	10.0	3.4	1		04/30/16 14 59	994-05-8	
Benzene	ND	ug/L	5 0	1 7	1		04/30/16 14 59	71-43-2	
3,3-Dimethyl-1-Butanol	ND	ug/L	100	32 1	1		04/30/16 14 59	624-95-3	
tert-Butyl Alcohol	ND	ug/L	100	57.7	1		04/30/16 14 59	75-65-0	
tert-Butyl Formate	ND	ug/L	50 0	7.3	1		04/30/16 14 59	762-75-4	
1,2-Dichloroethane	ND	ug/L	5.0	1.8	1		04/30/16 14·59	107-06-2	
Diisopropyl ether	ND	ug/L	5.0	1.7	1		04/30/16 14 59	108-20-3	
Ethanol	ND	ug/L	200	131	1		04/30/16 14 59	64-17-5	
Ethylbenzene	ND	ug/L	5 0	1.6	1		04/30/16 14 59	100-41-4	
Ethyl-tert-butyl ether	ND	ug/L	10 0	3.6	1		04/30/16 14 59	637-92-3	
Methyl-tert-butyl ether	ND	ug/L	5 0	1 7	1		04/30/16 14.59	1634-04-4	
Naphthalene	ND	ug/L	5 0	2.0	1		04/30/16 14.59	91-20-3	
Toluene	ND	ug/L	5 0	1 6	1		04/30/16 14·59	108-88-3	
Xylene (Total)	ND	ug/L	10.0	2 7	1		04/30/16 14:59	1330-20-7	
m&p-Xylene	ND	ug/L	10.0	3 1	1		04/30/16 14:59	179601-23-1	
o-Xylene	ND	ug/L	5 0	1 6	1		04/30/16 14:59	95-47-6	
Surrogates									
4-Bromofluorobenzene (S)	109	%	70-130		1		04/30/16 14 59	460-00-4	
1,2-Dichloroethane-d4 (S)	92	%	70-130		1		04/30/16 14:59	17060-07-0	
Toluene-d8 (S)	110	%	70-130		1		04/30/16 14.59	2037-26-5	

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ANALYTICAL RESULTS

Project 04887/ 52240 WARREN GREEN
Pace Project No . 92295419

Sample: MW-7 **Lab ID: 92295419007** Collected 04/25/16 13:15 Received 04/27/16 08 27 Matrix Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No	Qual
8011 GCS EDB and DBCP	Analytical Method EPA 8011 Preparation Method. EPA 8011								
1,2-Dibromoethane (EDB)	**1.9**	ug/L	0.042	0.042	2	05/03/16 10:46	05/03/16 14 25	106-93-4	
Surrogates									
1-Chloro-2-bromopropane (S)	163	%	60-140		2	05/03/16 10:46	05/03/16 14 25	301-79-56	S5
8260 MSV	Analytical Method. EPA 8260								
tert-Amyl Alcohol	ND	ug/L	10000	7680	100		05/03/16 11:48	75-85-4	
tert-Amylmethyl ether	ND	ug/L	1000	340	100		05/03/16 11:48	994-05-8	
Benzene	**2180**	ug/L	500	170	100		05/03/16 11.48	71-43-2	
3,3-Dimethyl-1-Butanol	ND	ug/L	10000	3210	100		05/03/16 11 48	624-95-3	
tert-Butyl Alcohol	ND	ug/L	10000	5770	100		05/03/16 11.48	75-65-0	
tert-Butyl Formate	ND	ug/L	5000	730	100		05/03/16 11.48	762-75-4	
1,2-Dichloroethane	ND	ug/L	500	180	100		05/03/16 11:48	107-06-2	
Diisopropyl ether	ND	ug/L	500	170	100		05/03/16 11:48	108-20-3	
Ethanol	ND	ug/L	20000	13100	100		05/03/16 11 48	64-17-5	
Ethylbenzene	**3680**	ug/L	500	160	100		05/03/16 11 48	100-41-4	
Ethyl-tert-butyl ether	ND	ug/L	1000	360	100		05/03/16 11:48	637-92-3	
Methyl-tert-butyl ether	ND	ug/L	500	170	100		05/03/16 11:48	1634-04-4	
Naphthalene	**607**	ug/L	500	200	100		05/03/16 11 48	91-20-3	
Toluene	**14700**	ug/L	500	160	100		05/03/16 11.48	108-88-3	
Xylene (Total)	**20000**	ug/L	1000	270	100		05/03/16 11.48	1330-20-7	
m&p-Xylene	**13800**	ug/L	1000	310	100		05/03/16 11:48	179601-23-1	
o-Xylene	**6200**	ug/L	500	160	100		05/03/16 11:48	95-47-6	
Surrogates									
4-Bromofluorobenzene (S)	100	%	70-130		100		05/03/16 11 48	460-00-4	
1,2-Dichloroethane-d4 (S)	92	%	70-130		100		05/03/16 11 48	17060-07-0	
Toluene-d8 (S)	104	%	70-130		100		05/03/16 11:48	2037-26-5	

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ANALYTICAL RESULTS

Project: 04887/ 52240 WARREN GREEN
Pace Project No.: 92295419

Sample: MW-8 **Lab ID: 92295419008** Collected 04/25/16 17:11 Received. 04/27/16 08:27 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No	Qual
8011 GCS EDB and DBCP	Analytical Method EPA 8011 Preparation Method EPA 8011								
1,2-Dibromoethane (EDB)	ND	ug/L	0 020	0.020	1	04/28/16 13 01	04/29/16 03:30	106-93-4	
Surrogates									
1-Chloro-2-bromopropane (S)	100	%	60-140		1	04/28/16 13.01	04/29/16 03:30	301-79-56	
8260 MSV	Analytical Method: EPA 8260								
tert-Amyl Alcohol	ND	ug/L	100	76.8	1		05/03/16 14 02	75-85-4	
tert-Amylmethyl ether	ND	ug/L	10.0	3 4	1		05/03/16 14.02	994-05-8	
Benzene	ND	ug/L	5 0	1.7	1		05/03/16 14 02	71-43-2	
3,3-Dimethyl-1-Butanol	ND	ug/L	100	32.1	1		05/03/16 14 02	624-95-3	
tert-Butyl Alcohol	ND	ug/L	100	57 7	1		05/03/16 14:02	75-65-0	
tert-Butyl Formate	ND	ug/L	50 0	7 3	1		05/03/16 14:02	762-75-4	
1,2-Dichloroethane	ND	ug/L	5.0	1.8	1		05/03/16 14:02	107-06-2	
Diisopropyl ether	ND	ug/L	5.0	1.7	1		05/03/16 14:02	108-20-3	
Ethanol	ND	ug/L	200	131	1		05/03/16 14:02	64-17-5	
Ethylbenzene	ND	ug/L	5.0	1.6	1		05/03/16 14:02	100-41-4	
Ethyl-tert-butyl ether	ND	ug/L	10.0	3 6	1		05/03/16 14:02	637-92-3	
Methyl-tert-butyl ether	ND	ug/L	5 0	1.7	1		05/03/16 14:02	1634-04-4	
Naphthalene	ND	ug/L	5 0	2 0	1		05/03/16 14 02	91-20-3	
Toluene	ND	ug/L	5 0	1.6	1		05/03/16 14 02	108-88-3	
Xylene (Total)	ND	ug/L	10.0	2.7	1		05/03/16 14 02	1330-20-7	
m&p-Xylene	ND	ug/L	10.0	3 1	1		05/03/16 14 02	179601-23-1	
o-Xylene	ND	ug/L	5 0	1 6	1		05/03/16 14 02	95-47-6	
Surrogates									
4-Bromofluorobenzene (S)	104	%	70-130		1		05/03/16 14 02	460-00-4	
1,2-Dichloroethane-d4 (S)	91	%	70-130		1		05/03/16 14.02	17060-07-0	
Toluene-d8 (S)	109	%	70-130		1		05/03/16 14:02	2037-26-5	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project 04887/ 52240 WARREN GREEN
Pace Project No.: 92295419

Sample: MW-9 **Lab ID: 92295419009** Collected 04/25/16 16 53 Received 04/27/16 08:27 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8011 GCS EDB and DBCP	Analytical Method EPA 8011 Preparation Method. EPA 8011								
1,2-Dibromoethane (EDB)	ND	ug/L	0 020	0 020	1	04/28/16 13 01	04/29/16 03 50	106-93-4	
Surrogates									
1-Chloro-2-bromopropane (S)	104	%	60-140		1	04/28/16 13.01	04/29/16 03.50	301-79-56	
8260 MSV	Analytical Method: EPA 8260								
tert-Amyl Alcohol	ND	ug/L	100	76.8	1		04/30/16 15:16	75-85-4	
tert-Amylmethyl ether	ND	ug/L	10.0	3 4	1		04/30/16 15 16	994-05-8	
Benzene	ND	ug/L	5 0	1 7	1		04/30/16 15 16	71-43-2	
3,3-Dimethyl-1-Butanol	ND	ug/L	100	32 1	1		04/30/16 15.16	624-95-3	
tert-Butyl Alcohol	ND	ug/L	100	57 7	1		04/30/16 15:16	75-65-0	
tert-Butyl Formate	ND	ug/L	50 0	7.3	1		04/30/16 15:16	762-75-4	
1,2-Dichloroethane	ND	ug/L	5 0	1 8	1		04/30/16 15 16	107-06-2	
Diisopropyl ether	ND	ug/L	5 0	1 7	1		04/30/16 15:16	108-20-3	
Ethanol	ND	ug/L	200	131	1		04/30/16 15 16	64-17-5	
Ethylbenzene	ND	ug/L	5.0	1.6	1		04/30/16 15 16	100-41-4	
Ethyl-tert-butyl ether	ND	ug/L	10 0	3.6	1		04/30/16 15:16	637-92-3	
Methyl-tert-butyl ether	ND	ug/L	5 0	1 7	1		04/30/16 15:16	1634-04-4	
Naphthalene	ND	ug/L	5 0	2 0	1		04/30/16 15:16	91-20-3	
Toluene	ND	ug/L	5 0	1 6	1		04/30/16 15 16	108-88-3	
Xylene (Total)	ND	ug/L	10 0	2 7	1		04/30/16 15 16	1330-20-7	
m&p-Xylene	ND	ug/L	10.0	3 1	1		04/30/16 15 16	179601-23-1	
o-Xylene	ND	ug/L	5 0	1.6	1		04/30/16 15:16	95-47-6	
Surrogates									
4-Bromofluorobenzene (S)	106	%	70-130		1		04/30/16 15 16	460-00-4	
1,2-Dichloroethane-d4 (S)	92	%	70-130		1		04/30/16 15 16	17060-07-0	
Toluene-d8 (S)	109	%	70-130		1		04/30/16 15.16	2037-26-5	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project 04887/ 52240 WARREN GREEN
Pace Project No 92295419

Sample: MW-10 **Lab ID: 92295419010** Collected: 04/25/16 15.44 Received: 04/27/16 08 27 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8011 GCS EDB and DBCP	Analytical Method EPA 8011 Preparation Method: EPA 8011								
1,2-Dibromoethane (EDB)	ND	ug/L	0 023	0.023	1	05/03/16 10 46	05/03/16 14 44	106-93-4	
Surrogates									
1-Chloro-2-bromopropane (S)	117	%	60-140		1	05/03/16 10:46	05/03/16 14:44	301-79-56	
8260 MSV	Analytical Method. EPA 8260								
tert-Amyl Alcohol	ND	ug/L	100	76.8	1		04/30/16 15:33	75-85-4	
tert-Amylmethyl ether	ND	ug/L	10.0	3 4	1		04/30/16 15.33	994-05-8	
Benzene	ND	ug/L	5 0	1 7	1		04/30/16 15 33	71-43-2	
3,3-Dimethyl-1-Butanol	ND	ug/L	100	32 1	1		04/30/16 15 33	624-95-3	
tert-Butyl Alcohol	ND	ug/L	100	57 7	1		04/30/16 15:33	75-65-0	
tert-Butyl Formate	ND	ug/L	50 0	7.3	1		04/30/16 15:33	762-75-4	
1,2-Dichloroethane	ND	ug/L	5 0	1.8	1		04/30/16 15 33	107-06-2	
Diisopropyl ether	ND	ug/L	5.0	1.7	1		04/30/16 15 33	108-20-3	
Ethanol	ND	ug/L	200	131	1		04/30/16 15 33	64-17-5	
Ethylbenzene	ND	ug/L	5.0	1 6	1		04/30/16 15 33	100-41-4	
Ethyl-tert-butyl ether	ND	ug/L	10 0	3 6	1		04/30/16 15.33	637-92-3	
Methyl-tert-butyl ether	ND	ug/L	5.0	1 7	1		04/30/16 15.33	1634-04-4	
Naphthalene	ND	ug/L	5 0	2 0	1		04/30/16 15.33	91-20-3	
Toluene	ND	ug/L	5 0	1 6	1		04/30/16 15 33	108-88-3	
Xylene (Total)	ND	ug/L	10.0	2 7	1		04/30/16 15:33	1330-20-7	
m&p-Xylene	ND	ug/L	10.0	3 1	1		04/30/16 15:33	179601-23-1	
o-Xylene	ND	ug/L	5.0	1 6	1		04/30/16 15:33	95-47-6	
Surrogates									
4-Bromofluorobenzene (S)	108	%	70-130		1		04/30/16 15 33	460-00-4	
1,2-Dichloroethane-d4 (S)	95	%	70-130		1		04/30/16 15 33	17060-07-0	
Toluene-d8 (S)	113	%	70-130		1		04/30/16 15.33	2037-26-5	

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ANALYTICAL RESULTS

Project: 04887/ 52240 WARREN GREEN
Pace Project No.: 92295419

Sample: MW-11 **Lab ID: 92295419011** Collected: 04/25/16 15:54 Received 04/27/16 08 27 Matrix Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No	Qual
8011 GCS EDB and DBCP	Analytical Method: EPA 8011 Preparation Method: EPA 8011								
1,2-Dibromoethane (EDB)	ND	ug/L	0 022	0 022	1	05/03/16 10 46	05/03/16 15:04	106-93-4	
Surrogates									
1-Chloro-2-bromopropane (S)	115	%	60-140		1	05/03/16 10:46	05/03/16 15 04	301-79-56	
8260 MSV	Analytical Method: EPA 8260								
tert-Amyl Alcohol	ND	ug/L	100	76.8	1		04/30/16 15:49	75-85-4	
tert-Amylmethyl ether	ND	ug/L	10 0	3 4	1		04/30/16 15:49	994-05-8	
Benzene	ND	ug/L	5.0	1 7	1		04/30/16 15.49	71-43-2	
3,3-Dimethyl-1-Butanol	ND	ug/L	100	32.1	1		04/30/16 15.49	624-95-3	
tert-Butyl Alcohol	ND	ug/L	100	57 7	1		04/30/16 15:49	75-65-0	
tert-Butyl Formate	ND	ug/L	50.0	7.3	1		04/30/16 15:49	762-75-4	
1,2-Dichloroethane	ND	ug/L	5.0	1 8	1		04/30/16 15 49	107-06-2	
Diisopropyl ether	ND	ug/L	5.0	1 7	1		04/30/16 15 49	108-20-3	
Ethanol	ND	ug/L	200	131	1		04/30/16 15:49	64-17-5	
Ethylbenzene	ND	ug/L	5 0	1.6	1		04/30/16 15:49	100-41-4	
Ethyl-tert-butyl ether	ND	ug/L	10.0	3.6	1		04/30/16 15:49	637-92-3	
Methyl-tert-butyl ether	ND	ug/L	5.0	1 7	1		04/30/16 15:49	1634-04-4	
Naphthalene	ND	ug/L	5 0	2 0	1		04/30/16 15 49	91-20-3	
Toluene	ND	ug/L	5 0	1 6	1		04/30/16 15:49	108-88-3	
Xylene (Total)	ND	ug/L	10.0	2.7	1		04/30/16 15:49	1330-20-7	
m&p-Xylene	ND	ug/L	10.0	3.1	1		04/30/16 15:49	179601-23-1	
o-Xylene	ND	ug/L	5.0	1 6	1		04/30/16 15 49	95-47-6	
Surrogates									
4-Bromofluorobenzene (S)	112	%	70-130		1		04/30/16 15.49	460-00-4	
1,2-Dichloroethane-d4 (S)	94	%	70-130		1		04/30/16 15:49	17060-07-0	
Toluene-d8 (S)	109	%	70-130		1		04/30/16 15:49	2037-26-5	

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ANALYTICAL RESULTS

Project: 04887/ 52240 WARREN GREEN
Pace Project No 92295419

Sample: MW-12 **Lab ID: 92295419012** Collected: 04/25/16 16 08 Received: 04/27/16 08 27 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8011 GCS EDB and DBCP	Analytical Method: EPA 8011 Preparation Method· EPA 8011								
1,2-Dibromoethane (EDB)	ND	ug/L	0.021	0.021	1	04/28/16 13:02	04/29/16 04 50	106-93-4	
Surrogates									
1-Chloro-2-bromopropane (S)	86	%	60-140		1	04/28/16 13·02	04/29/16 04 50	301-79-56	
8260 MSV	Analytical Method: EPA 8260								
tert-Amyl Alcohol	ND	ug/L	100	76 8	1		04/30/16 16.06	75-85-4	
tert-Amylmethyl ether	ND	ug/L	10.0	3 4	1		04/30/16 16.06	994-05-8	
Benzene	ND	ug/L	5 0	1 7	1		04/30/16 16:06	71-43-2	
3,3-Dimethyl-1-Butanol	ND	ug/L	100	32.1	1		04/30/16 16:06	624-95-3	
tert-Butyl Alcohol	ND	ug/L	100	57.7	1		04/30/16 16:06	75-65-0	
tert-Butyl Formate	ND	ug/L	50 0	7 3	1		04/30/16 16:06	762-75-4	
1,2-Dichloroethane	ND	ug/L	5.0	1.8	1		04/30/16 16.06	107-06-2	
Diisopropyl ether	ND	ug/L	5 0	1.7	1		04/30/16 16 06	108-20-3	
Ethanol	ND	ug/L	200	131	1		04/30/16 16 06	64-17-5	
Ethylbenzene	ND	ug/L	5 0	1.6	1		04/30/16 16 06	100-41-4	
Ethyl-tert-butyl ether	ND	ug/L	10.0	3 6	1		04/30/16 16 06	637-92-3	
Methyl-tert-butyl ether	ND	ug/L	5 0	1.7	1		04/30/16 16:06	1634-04-4	
Naphthalene	ND	ug/L	5 0	2.0	1		04/30/16 16:06	91-20-3	
Toluene	ND	ug/L	5.0	1 6	1		04/30/16 16:06	108-88-3	
Xylene (Total)	ND	ug/L	10.0	2 7	1		04/30/16 16:06	1330-20-7	
m&p-Xylene	ND	ug/L	10.0	3 1	1		04/30/16 16:06	179601-23-1	
o-Xylene	ND	ug/L	5.0	1 6	1		04/30/16 16 06	95-47-6	
Surrogates									
4-Bromofluorobenzene (S)	108	%	70-130		1		04/30/16 16 06	460-00-4	
1,2-Dichloroethane-d4 (S)	92	%	70-130		1		04/30/16 16:06	17060-07-0	
Toluene-d8 (S)	109	%	70-130		1		04/30/16 16.06	2037-26-5	

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ANALYTICAL RESULTS

Project. 04887/ 52240 WARREN GREEN
Pace Project No · 92295419

Sample: MW-13 **Lab ID: 92295419013** Collected: 04/25/16 12 25 Received· 04/27/16 08:27 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8011 GCS EDB and DBCP	Analytical Method EPA 8011 Preparation Method. EPA 8011								
1,2-Dibromoethane (EDB)	ND	ug/L	0.020	0 020	1	04/28/16 13.02	04/29/16 05 51	106-93-4	
Surrogates									
1-Chloro-2-bromopropane (S)	61	%	60-140		1	04/28/16 13:02	04/29/16 05:51	301-79-56	
8260 MSV	Analytical Method EPA 8260								
tert-Amyl Alcohol	ND	ug/L	100	76.8	1		04/30/16 16.23	75-85-4	
tert-Amylmethyl ether	ND	ug/L	10.0	3 4	1		04/30/16 16:23	994-05-8	
Benzene	ND	ug/L	5.0	1.7	1		04/30/16 16 23	71-43-2	
3,3-Dimethyl-1-Butanol	ND	ug/L	100	32 1	1		04/30/16 16:23	624-95-3	
tert-Butyl Alcohol	ND	ug/L	100	57 7	1		04/30/16 16:23	75-65-0	
tert-Butyl Formate	ND	ug/L	50.0	7.3	1		04/30/16 16 23	762-75-4	
1,2-Dichloroethane	ND	ug/L	5 0	1 8	1		04/30/16 16 23	107-06-2	
Diisopropyl ether	ND	ug/L	5 0	1.7	1		04/30/16 16 23	108-20-3	
Ethanol	ND	ug/L	200	131	1		04/30/16 16.23	64-17-5	
Ethylbenzene	ND	ug/L	5.0	1 6	1		04/30/16 16:23	100-41-4	
Ethyl-tert-butyl ether	ND	ug/L	10 0	3.6	1		04/30/16 16:23	637-92-3	
Methyl-tert-butyl ether	ND	ug/L	5.0	1 7	1		04/30/16 16.23	1634-04-4	
Naphthalene	ND	ug/L	5 0	2.0	1		04/30/16 16 23	91-20-3	
Toluene	ND	ug/L	5 0	1.6	1		04/30/16 16 23	108-88-3	
Xylene (Total)	ND	ug/L	10 0	2.7	1		04/30/16 16:23	1330-20-7	
m&p-Xylene	ND	ug/L	10 0	3 1	1		04/30/16 16:23	179601-23-1	
o-Xylene	ND	ug/L	5.0	1 6	1		04/30/16 16:23	95-47-6	
Surrogates									
4-Bromofluorobenzene (S)	114	%	70-130		1		04/30/16 16 23	460-00-4	
1,2-Dichloroethane-d4 (S)	93	%	70-130		1		04/30/16 16 23	17060-07-0	
Toluene-d8 (S)	108	%	70-130		1		04/30/16 16:23	2037-26-5	

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ANALYTICAL RESULTS

Project: 04887/ 52240 WARREN GREEN
Pace Project No · 92295419

Sample: MW-14 **Lab ID: 92295419014** Collected. 04/25/16 12:00 Received: 04/27/16 08 27 Matrix· Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No	Qual
8011 GCS EDB and DBCP	Analytical Method EPA 8011 Preparation Method: EPA 8011								
1,2-Dibromoethane (EDB)	ND	ug/L	0 022	0 022	1	05/03/16 10:46	05/03/16 15·23	106-93-4	
Surrogates									
1-Chloro-2-bromopropane (S)	110	%	60-140		1	05/03/16 10·46	05/03/16 15 23	301-79-56	
8260 MSV	Analytical Method: EPA 8260								
tert-Amyl Alcohol	ND	ug/L	100	76.8	1		04/30/16 16·40	75-85-4	
tert-Amylmethyl ether	ND	ug/L	10.0	3 4	1		04/30/16 16 40	994-05-8	
Benzene	ND	ug/L	5 0	1.7	1		04/30/16 16·40	71-43-2	
3,3-Dimethyl-1-Butanol	ND	ug/L	100	32 1	1		04/30/16 16:40	624-95-3	
tert-Butyl Alcohol	ND	ug/L	100	57 7	1		04/30/16 16:40	75-65-0	
tert-Butyl Formate	ND	ug/L	50 0	7.3	1		04/30/16 16:40	762-75-4	
1,2-Dichloroethane	ND	ug/L	5.0	1 8	1		04/30/16 16·40	107-06-2	
Diisopropyl ether	ND	ug/L	5.0	1 7	1		04/30/16 16 40	108-20-3	
Ethanol	ND	ug/L	200	131	1		04/30/16 16:40	64-17-5	
Ethylbenzene	ND	ug/L	5 0	1 6	1		04/30/16 16 40	100-41-4	
Ethyl-tert-butyl ether	ND	ug/L	10 0	3.6	1		04/30/16 16 40	637-92-3	
Methyl-tert-butyl ether	ND	ug/L	5 0	1 7	1		04/30/16 16 40	1634-04-4	
Naphthalene	ND	ug/L	5 0	2.0	1		04/30/16 16:40	91-20-3	
Toluene	ND	ug/L	5 0	1.6	1		04/30/16 16:40	108-88-3	
Xylene (Total)	ND	ug/L	10.0	2.7	1		04/30/16 16:40	1330-20-7	
m&p-Xylene	ND	ug/L	10 0	3.1	1		04/30/16 16 40	179601-23-1	
o-Xylene	ND	ug/L	5.0	1.6	1		04/30/16 16·40	95-47-6	
Surrogates									
4-Bromofluorobenzene (S)	107	%	70-130		1		04/30/16 16 40	460-00-4	
1,2-Dichloroethane-d4 (S)	92	%	70-130		1		04/30/16 16 40	17060-07-0	
Toluene-d8 (S)	111	%	70-130		1		04/30/16 16·40	2037-26-5	

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ANALYTICAL RESULTS

Project 04887/ 52240 WARREN GREEN
Pace Project No . 92295419

Sample: MW-15 **Lab ID: 92295419015** Collected· 04/25/16 12:50 Received: 04/27/16 08:27 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No	Qual
8011 GCS EDB and DBCP	Analytical Method EPA 8011 Preparation Method: EPA 8011								
1,2-Dibromoethane (EDB)	ND	ug/L	0.021	0 021	1	05/03/16 10:46	05/03/16 16.01	106-93-4	
Surrogates									
1-Chloro-2-bromopropane (S)	113	%	60-140		1	05/03/16 10:46	05/03/16 16:01	301-79-56	
8260 MSV	Analytical Method EPA 8260								
tert-Amyl Alcohol	ND	ug/L	100	76.8	1		04/30/16 16 56	75-85-4	
tert-Amylmethyl ether	ND	ug/L	10.0	3 4	1		04/30/16 16 56	994-05-8	
Benzene	ND	ug/L	5.0	1.7	1		04/30/16 16.56	71-43-2	
3,3-Dimethyl-1-Butanol	ND	ug/L	100	32.1	1		04/30/16 16:56	624-95-3	
tert-Butyl Alcohol	ND	ug/L	100	57 7	1		04/30/16 16:56	75-65-0	
tert-Butyl Formate	ND	ug/L	50.0	7 3	1		04/30/16 16:56	762-75-4	
1,2-Dichloroethane	ND	ug/L	5 0	1.8	1		04/30/16 16 56	107-06-2	
Diisopropyl ether	ND	ug/L	5 0	1.7	1		04/30/16 16 56	108-20-3	
Ethanol	ND	ug/L	200	131	1		04/30/16 16.56	64-17-5	
Ethylbenzene	ND	ug/L	5.0	1 6	1		04/30/16 16.56	100-41-4	
Ethyl-tert-butyl ether	ND	ug/L	10 0	3 6	1		04/30/16 16.56	637-92-3	
Methyl-tert-butyl ether	ND	ug/L	5.0	1 7	1		04/30/16 16:56	1634-04-4	
Naphthalene	ND	ug/L	5 0	2.0	1		04/30/16 16:56	91-20-3	
Toluene	ND	ug/L	5 0	1 6	1		04/30/16 16 56	108-88-3	
Xylene (Total)	ND	ug/L	10.0	2 7	1		04/30/16 16 56	1330-20-7	
m&p-Xylene	ND	ug/L	10 0	3 1	1		04/30/16 16 56	179601-23-1	
o-Xylene	ND	ug/L	5.0	1 6	1		04/30/16 16:56	95-47-6	
Surrogates									
4-Bromofluorobenzene (S)	111	%	70-130		1		04/30/16 16·56	460-00-4	
1,2-Dichloroethane-d4 (S)	94	%	70-130		1		04/30/16 16 56	17060-07-0	
Toluene-d8 (S)	109	%	70-130		1		04/30/16 16·56	2037-26-5	

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ANALYTICAL RESULTS

Project: 04887/ 52240 WARREN GREEN
Pace Project No.: 92295419

Sample: DW-1 **Lab ID: 92295419016** Collected: 04/25/16 13 55 Received. 04/27/16 08:27 Matrix. Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8011 GCS EDB and DBCP	Analytical Method: EPA 8011 Preparation Method: EPA 8011								
1,2-Dibromoethane (EDB)	ND	ug/L	0.020	0.020	1	04/28/16 13 02	04/29/16 06 52	106-93-4	
Surrogates									
1-Chloro-2-bromopropane (S)	83	%	60-140		1	04/28/16 13:02	04/29/16 06 52	301-79-56	
8260 MSV	Analytical Method: EPA 8260								
tert-Amyl Alcohol	ND	ug/L	100	76.8	1		04/30/16 17:13	75-85-4	
tert-Amylmethyl ether	ND	ug/L	10.0	3 4	1		04/30/16 17:13	994-05-8	
Benzene	ND	ug/L	5 0	1.7	1		04/30/16 17 13	71-43-2	
3,3-Dimethyl-1-Butanol	ND	ug/L	100	32 1	1		04/30/16 17 13	624-95-3	
tert-Butyl Alcohol	ND	ug/L	100	57.7	1		04/30/16 17 13	75-65-0	
tert-Butyl Formate	ND	ug/L	50 0	7 3	1		04/30/16 17 13	762-75-4	
1,2-Dichloroethane	ND	ug/L	5 0	1 8	1		04/30/16 17 13	107-06-2	
Diisopropyl ether	ND	ug/L	5 0	1 7	1		04/30/16 17:13	108-20-3	
Ethanol	ND	ug/L	200	131	1		04/30/16 17:13	64-17-5	
Ethylbenzene	ND	ug/L	5 0	1.6	1		04/30/16 17:13	100-41-4	
Ethyl-tert-butyl ether	ND	ug/L	10.0	3.6	1		04/30/16 17 13	637-92-3	
Methyl-tert-butyl ether	ND	ug/L	5.0	1.7	1		04/30/16 17 13	1634-04-4	
Naphthalene	ND	ug/L	5.0	2.0	1		04/30/16 17 13	91-20-3	
Toluene	ND	ug/L	5 0	1.6	1		04/30/16 17 13	108-88-3	
Xylene (Total)	ND	ug/L	10.0	2 7	1		04/30/16 17:13	1330-20-7	
m&p-Xylene	ND	ug/L	10.0	3 1	1		04/30/16 17:13	179601-23-1	
o-Xylene	ND	ug/L	5 0	1 6	1		04/30/16 17:13	95-47-6	
Surrogates									
4-Bromofluorobenzene (S)	109	%	70-130		1		04/30/16 17 13	460-00-4	
1,2-Dichloroethane-d4 (S)	95	%	70-130		1		04/30/16 17:13	17060-07-0	
Toluene-d8 (S)	111	%	70-130		1		04/30/16 17 13	2037-26-5	

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ANALYTICAL RESULTS

Project: 04887/ 52240 WARREN GREEN
Pace Project No 92295419

Sample: DW-2 **Lab ID: 92295419017** Collected: 04/25/16 15 16 Received· 04/27/16 08 27 Matrix Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8011 GCS EDB and DBCP	Analytical Method EPA 8011 Preparation Method: EPA 8011								
1,2-Dibromoethane (EDB)	ND	ug/L	0 019	0.019	1	04/28/16 13:02	04/29/16 07 12	106-93-4	
Surrogates									
1-Chloro-2-bromopropane (S)	140	%	60-140		1	04/28/16 13.02	04/29/16 07.12	301-79-56	
8260 MSV	Analytical Method· EPA 8260								
tert-Amyl Alcohol	ND	ug/L	100	76.8	1		04/30/16 17:30	75-85-4	
tert-Amylmethyl ether	ND	ug/L	10.0	3 4	1		04/30/16 17 30	994-05-8	
Benzene	ND	ug/L	5 0	1 7	1		04/30/16 17 30	71-43-2	
3,3-Dimethyl-1-Butanol	ND	ug/L	100	32 1	1		04/30/16 17.30	624-95-3	
tert-Butyl Alcohol	ND	ug/L	100	57 7	1		04/30/16 17 30	75-65-0	
tert-Butyl Formate	ND	ug/L	50 0	7 3	1		04/30/16 17 30	762-75-4	
1,2-Dichloroethane	ND	ug/L	5 0	1 8	1		04/30/16 17:30	107-06-2	
Diisopropyl ether	ND	ug/L	5 0	1 7	1		04/30/16 17:30	108-20-3	
Ethanol	ND	ug/L	200	131	1		04/30/16 17:30	64-17-5	
Ethylbenzene	ND	ug/L	5 0	1 6	1		04/30/16 17.30	100-41-4	
Ethyl-tert-butyl ether	ND	ug/L	10 0	3.6	1		04/30/16 17·30	637-92-3	
Methyl-tert-butyl ether	ND	ug/L	5.0	1.7	1		04/30/16 17 30	1634-04-4	
Naphthalene	ND	ug/L	5.0	2 0	1		04/30/16 17.30	91-20-3	
Toluene	ND	ug/L	5.0	1 6	1		04/30/16 17:30	108-88-3	
Xylene (Total)	ND	ug/L	10 0	2 7	1		04/30/16 17:30	1330-20-7	
m&p-Xylene	ND	ug/L	10.0	3 1	1		04/30/16 17·30	179601-23-1	
o-Xylene	ND	ug/L	5.0	1 6	1		04/30/16 17 30	95-47-6	
Surrogates									
4-Bromofluorobenzene (S)	110	%	70-130		1		04/30/16 17 30	460-00-4	
1,2-Dichloroethane-d4 (S)	94	%	70-130		1		04/30/16 17.30	17060-07-0	
Toluene-d8 (S)	108	%	70-130		1		04/30/16 17:30	2037-26-5	

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ANALYTICAL RESULTS

Project: 04887/ 52240 WARREN GREEN
Pace Project No.: 92295419

Sample: DW-3 **Lab ID: 92295419018** Collected: 04/25/16 10:57 Received 04/27/16 08:27 Matrix Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8011 GCS EDB and DBCP	Analytical Method: EPA 8011 Preparation Method: EPA 8011								
1,2-Dibromoethane (EDB)	ND	ug/L	0 020	0.020	1	04/28/16 13 02	04/29/16 07:52	106-93-4	
Surrogates									
1-Chloro-2-bromopropane (S)	100	%	60-140		1	04/28/16 13.02	04/29/16 07 52	301-79-56	
8260 MSV	Analytical Method· EPA 8260								
tert-Amyl Alcohol	ND	ug/L	100	76.8	1		04/30/16 17 46	75-85-4	
tert-Amylmethyl ether	ND	ug/L	10 0	3 4	1		04/30/16 17:46	994-05-8	
Benzene	ND	ug/L	5.0	1.7	1		04/30/16 17:46	71-43-2	
3,3-Dimethyl-1-Butanol	ND	ug/L	100	32 1	1		04/30/16 17:46	624-95-3	
tert-Butyl Alcohol	ND	ug/L	100	57 7	1		04/30/16 17 46	75-65-0	
tert-Butyl Formate	ND	ug/L	50.0	7.3	1		04/30/16 17 46	762-75-4	
1,2-Dichloroethane	ND	ug/L	5 0	1 8	1		04/30/16 17.46	107-06-2	
Diisopropyl ether	ND	ug/L	5 0	1.7	1		04/30/16 17.46	108-20-3	
Ethanol	ND	ug/L	200	131	1		04/30/16 17:46	64-17-5	
Ethylbenzene	ND	ug/L	5.0	1.6	1		04/30/16 17:46	100-41-4	
Ethyl-tert-butyl ether	ND	ug/L	10 0	3.6	1		04/30/16 17:46	637-92-3	
Methyl-tert-butyl ether	ND	ug/L	5.0	1 7	1		04/30/16 17 46	1634-04-4	
Naphthalene	ND	ug/L	5.0	2 0	1		04/30/16 17 46	91-20-3	
Toluene	ND	ug/L	5 0	1 6	1		04/30/16 17.46	108-88-3	
Xylene (Total)	ND	ug/L	10 0	2 7	1		04/30/16 17:46	1330-20-7	
m&p-Xylene	ND	ug/L	10.0	3.1	1		04/30/16 17:46	179601-23-1	
o-Xylene	ND	ug/L	5.0	1.6	1		04/30/16 17:46	95-47-6	
Surrogates									
4-Bromofluorobenzene (S)	113	%	70-130		1		04/30/16 17 46	460-00-4	
1,2-Dichloroethane-d4 (S)	96	%	70-130		1		04/30/16 17 46	17060-07-0	
Toluene-d8 (S)	107	%	70-130		1		04/30/16 17 46	2037-26-5	

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ANALYTICAL RESULTS

Project 04887/ 52240 WARREN GREEN
Pace Project No · 92295419

Sample: DW-4 **Lab ID: 92295419019** Collected 04/25/16 11.15 Received. 04/27/16 08 27 Matrix· Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8011 GCS EDB and DBCP	Analytical Method: EPA 8011 Preparation Method EPA 8011								
1,2-Dibromoethane (EDB)	ND	ug/L	0 020	0.020	1	04/28/16 13.02	04/29/16 08:12	106-93-4	
Surrogates									
1-Chloro-2-bromopropane (S)	84	%	60-140		1	04/28/16 13 02	04/29/16 08:12	301-79-56	
8260 MSV	Analytical Method· EPA 8260								
tert-Amyl Alcohol	ND	ug/L	100	76.8	1		04/30/16 18 03	75-85-4	
tert-Amylmethyl ether	ND	ug/L	10.0	3 4	1		04/30/16 18 03	994-05-8	
Benzene	ND	ug/L	5.0	1 7	1		04/30/16 18·03	71-43-2	
3,3-Dimethyl-1-Butanol	ND	ug/L	100	32 1	1		04/30/16 18:03	624-95-3	
tert-Butyl Alcohol	ND	ug/L	100	57.7	1		04/30/16 18:03	75-65-0	
tert-Butyl Formate	ND	ug/L	50 0	7.3	1		04/30/16 18:03	762-75-4	
1,2-Dichloroethane	ND	ug/L	5 0	1 8	1		04/30/16 18 03	107-06-2	
Diisopropyl ether	ND	ug/L	5 0	1 7	1		04/30/16 18 03	108-20-3	
Ethanol	ND	ug/L	200	131	1		04/30/16 18:03	64-17-5	
Ethylbenzene	ND	ug/L	5 0	1 6	1		04/30/16 18:03	100-41-4	
Ethyl-tert-butyl ether	ND	ug/L	10 0	3.6	1		04/30/16 18:03	637-92-3	
Methyl-tert-butyl ether	ND	ug/L	5.0	1.7	1		04/30/16 18:03	1634-04-4	
Naphthalene	ND	ug/L	5 0	2.0	1		04/30/16 18:03	91-20-3	
Toluene	ND	ug/L	5.0	1 6	1		04/30/16 18 03	108-88-3	
Xylene (Total)	ND	ug/L	10.0	2 7	1		04/30/16 18 03	1330-20-7	
m&p-Xylene	ND	ug/L	10.0	3 1	1		04/30/16 18 03	179601-23-1	
o-Xylene	ND	ug/L	5 0	1 6	1		04/30/16 18 03	95-47-6	
Surrogates									
4-Bromofluorobenzene (S)	110	%	70-130		1		04/30/16 18:03	460-00-4	
1,2-Dichloroethane-d4 (S)	99	%	70-130		1		04/30/16 18:03	17060-07-0	
Toluene-d8 (S)	113	%	70-130		1		04/30/16 18·03	2037-26-5	

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ANALYTICAL RESULTS

Project 04887/ 52240 WARREN GREEN
Pace Project No 92295419

Sample: DW-5 **Lab ID: 92295419020** Collected: 04/25/16 14 20 Received: 04/27/16 08 27 Matrix. Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No	Qual
8011 GCS EDB and DBCP	Analytical Method EPA 8011 Preparation Method: EPA 8011								
1,2-Dibromoethane (EDB)	ND	ug/L	0.020	0.020	1	04/28/16 13:02	04/29/16 08:32	106-93-4	
Surrogates									
1-Chloro-2-bromopropane (S)	110	%	60-140		1	04/28/16 13:02	04/29/16 08 32	301-79-56	
8260 MSV	Analytical Method EPA 8260								
tert-Amyl Alcohol	ND	ug/L	100	76 8	1		04/30/16 18.20	75-85-4	
tert-Amylmethyl ether	ND	ug/L	10 0	3 4	1		04/30/16 18.20	994-05-8	
Benzene	ND	ug/L	5.0	1 7	1		04/30/16 18.20	71-43-2	
3,3-Dimethyl-1-Butanol	ND	ug/L	100	32.1	1		04/30/16 18:20	624-95-3	
tert-Butyl Alcohol	ND	ug/L	100	57.7	1		04/30/16 18:20	75-65-0	
tert-Butyl Formate	ND	ug/L	50 0	7.3	1		04/30/16 18 20	762-75-4	
1,2-Dichloroethane	ND	ug/L	5 0	1.8	1		04/30/16 18.20	107-06-2	
Diisopropyl ether	ND	ug/L	5 0	1.7	1		04/30/16 18.20	108-20-3	
Ethanol	ND	ug/L	200	131	1		04/30/16 18 20	64-17-5	
Ethylbenzene	ND	ug/L	5 0	1 6	1		04/30/16 18 20	100-41-4	
Ethyl-tert-butyl ether	ND	ug/L	10.0	3 6	1		04/30/16 18:20	637-92-3	
Methyl-tert-butyl ether	ND	ug/L	5.0	1 7	1		04/30/16 18:20	1634-04-4	
Naphthalene	ND	ug/L	5.0	2 0	1		04/30/16 18:20	91-20-3	
Toluene	ND	ug/L	5.0	1.6	1		04/30/16 18 20	108-88-3	
Xylene (Total)	ND	ug/L	10.0	2.7	1		04/30/16 18 20	1330-20-7	
m&p-Xylene	ND	ug/L	10.0	3.1	1		04/30/16 18.20	179601-23-1	
o-Xylene	ND	ug/L	5 0	1.6	1		04/30/16 18 20	95-47-6	
Surrogates									
4-Bromofluorobenzene (S)	113	%	70-130		1		04/30/16 18:20	460-00-4	
1,2-Dichloroethane-d4 (S)	94	%	70-130		1		04/30/16 18:20	17060-07-0	
Toluene-d8 (S)	108	%	70-130		1		04/30/16 18:20	2037-26-5	

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ANALYTICAL RESULTS

Project: 04887/ 52240 WARREN GREEN
Pace Project No 92295419

Sample: DW-6 **Lab ID: 92295419021** Collected 04/25/16 16:35 Received. 04/27/16 08 27 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8011 GCS EDB and DBCP	Analytical Method: EPA 8011 Preparation Method: EPA 8011								
1,2-Dibromoethane (EDB)	ND	ug/L	0 020	0.020	1	04/28/16 13 02	04/29/16 08 52	106-93-4	
Surrogates									
1-Chloro-2-bromopropane (S)	77	%	60-140		1	04/28/16 13 02	04/29/16 08 52	301-79-56	
8260 MSV	Analytical Method. EPA 8260								
tert-Amyl Alcohol	ND	ug/L	100	76 8	1		04/30/16 18:53	75-85-4	M1
tert-Amylmethyl ether	ND	ug/L	10.0	3 4	1		04/30/16 18:53	994-05-8	
Benzene	ND	ug/L	5.0	1.7	1		04/30/16 18:53	71-43-2	M1
3,3-Dimethyl-1-Butanol	ND	ug/L	100	32.1	1		04/30/16 18 53	624-95-3	
tert-Butyl Alcohol	ND	ug/L	100	57 7	1		04/30/16 18 53	75-65-0	M1
tert-Butyl Formate	ND	ug/L	50 0	7.3	1		04/30/16 18 53	762-75-4	P5
1,2-Dichloroethane	ND	ug/L	5 0	1.8	1		04/30/16 18 53	107-06-2	M1
Diisopropyl ether	ND	ug/L	5 0	1 7	1		04/30/16 18:53	108-20-3	M1
Ethanol	ND	ug/L	200	131	1		04/30/16 18:53	64-17-5	M1
Ethylbenzene	ND	ug/L	5 0	1 6	1		04/30/16 18:53	100-41-4	M1
Ethyl-tert-butyl ether	ND	ug/L	10 0	3.6	1		04/30/16 18 53	637-92-3	
Methyl-tert-butyl ether	ND	ug/L	5.0	1 7	1		04/30/16 18 53	1634-04-4	
Naphthalene	ND	ug/L	5 0	2.0	1		04/30/16 18 53	91-20-3	
Toluene	ND	ug/L	5.0	1 6	1		04/30/16 18 53	108-88-3	
Xylene (Total)	ND	ug/L	10.0	2 7	1		04/30/16 18:53	1330-20-7	MS
m&p-Xylene	ND	ug/L	10.0	3 1	1		04/30/16 18:53	179601-23-1	M1
o-Xylene	ND	ug/L	5.0	1 6	1		04/30/16 18.53	95-47-6	M1
Surrogates									
4-Bromofluorobenzene (S)	75	%	70-130		1		04/30/16 18 53	460-00-4	
1,2-Dichloroethane-d4 (S)	82	%	70-130		1		04/30/16 18 53	17060-07-0	
Toluene-d8 (S)	103	%	70-130		1		04/30/16 18:53	2037-26-5	

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ANALYTICAL RESULTS

Project. 04887/ 52240 WARREN GREEN
Pace Project No.: 92295419

Sample: WSW-1 **Lab ID: 92295419022** Collected 04/25/16 17 15 Received. 04/27/16 08 27 Matrix. Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8011 GCS EDB and DBCP	Analytical Method: EPA 8011 Preparation Method: EPA 8011								
1,2-Dibromoethane (EDB)	ND	ug/L	0.020	0.020	1	04/28/16 13 03	04/29/16 09 13	106-93-4	
Surrogates									
1-Chloro-2-bromopropane (S)	118	%	60-140		1	04/28/16 13:03	04/29/16 09 13	301-79-56	
8260 MSV Low Level SC	Analytical Method EPA 8260								
tert-Amyl Alcohol	ND	ug/L	100	50 0	1		04/28/16 15:05	75-85-4	
tert-Amylmethyl ether	ND	ug/L	10 0	0.10	1		04/28/16 15:05	994-05-8	
Benzene	ND	ug/L	1.0	0.25	1		04/28/16 15:05	71-43-2	
3,3-Dimethyl-1-Butanol	ND	ug/L	100	50.0	1		04/28/16 15:05	624-95-3	
tert-Butyl Alcohol	ND	ug/L	100	3 6	1		04/28/16 15:05	75-65-0	
tert-Butyl Formate	ND	ug/L	50.0	1 9	1		04/28/16 15:05	762-75-4	
1,2-Dichloroethane	ND	ug/L	1 0	0 24	1		04/28/16 15 05	107-06-2	
Diisopropyl ether	ND	ug/L	1 0	0.12	1		04/28/16 15 05	108-20-3	
Ethanol	ND	ug/L	200	131	1		04/28/16 15.05	64-17-5	L3
Ethylbenzene	ND	ug/L	1.0	0.30	1		04/28/16 15:05	100-41-4	
Ethyl-tert-butyl ether	ND	ug/L	10 0	0.070	1		04/28/16 15:05	637-92-3	
Methyl-tert-butyl ether	ND	ug/L	1.0	0 21	1		04/28/16 15:05	1634-04-4	
Naphthalene	ND	ug/L	1.0	0 24	1		04/28/16 15:05	91-20-3	
Toluene	ND	ug/L	1 0	0.26	1		04/28/16 15 05	108-88-3	
Xylene (Total)	ND	ug/L	2 0	0.66	1		04/28/16 15 05	1330-20-7	
m&p-Xylene	ND	ug/L	2 0	0.66	1		04/28/16 15 05	179601-23-1	
o-Xylene	ND	ug/L	1 0	0.23	1		04/28/16 15.05	95-47-6	
Surrogates									
4-Bromofluorobenzene (S)	101	%	70-130		1		04/28/16 15:05	460-00-4	
1,2-Dichloroethane-d4 (S)	98	%	70-130		1		04/28/16 15:05	17060-07-0	
Toluene-d8 (S)	98	%	70-130		1		04/28/16 15:05	2037-26-5	

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ANALYTICAL RESULTS

Project: 04887/ 52240 WARREN GREEN
Pace Project No.: 92295419

Sample: WSW-2 **Lab ID: 92295419023** Collected. 04/25/16 17.25 Received: 04/27/16 08:27 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No	Qual
8011 GCS EDB and DBCP	Analytical Method. EPA 8011 Preparation Method EPA 8011								
1,2-Dibromoethane (EDB)	ND	ug/L	0.020	0 020	1	04/28/16 13.03	04/29/16 09.33	106-93-4	
Surrogates									
1-Chloro-2-bromopropane (S)	120	%	60-140		1	04/28/16 13 03	04/29/16 09 33	301-79-56	
8260 MSV Low Level SC	Analytical Method: EPA 8260								
tert-Amyl Alcohol	ND	ug/L	100	50 0	1		04/28/16 15:22	75-85-4	
tert-Amylmethyl ether	ND	ug/L	10.0	0.10	1		04/28/16 15:22	994-05-8	
Benzene	ND	ug/L	1 0	0.25	1		04/28/16 15 22	71-43-2	
3,3-Dimethyl-1-Butanol	ND	ug/L	100	50.0	1		04/28/16 15.22	624-95-3	
tert-Butyl Alcohol	ND	ug/L	100	3 6	1		04/28/16 15 22	75-65-0	
tert-Butyl Formate	ND	ug/L	50 0	1 9	1		04/28/16 15.22	762-75-4	
1,2-Dichloroethane	ND	ug/L	1.0	0 24	1		04/28/16 15:22	107-06-2	
Diisopropyl ether	ND	ug/L	1.0	0.12	1		04/28/16 15:22	108-20-3	
Ethanol	ND	ug/L	200	131	1		04/28/16 15 22	64-17-5	L3
Ethylbenzene	ND	ug/L	1 0	0 30	1		04/28/16 15 22	100-41-4	
Ethyl-tert-butyl ether	ND	ug/L	10 0	0 070	1		04/28/16 15 22	637-92-3	
Methyl-tert-butyl ether	ND	ug/L	1.0	0 21	1		04/28/16 15:22	1634-04-4	
Naphthalene	ND	ug/L	1.0	0 24	1		04/28/16 15:22	91-20-3	
Toluene	ND	ug/L	1.0	0.26	1		04/28/16 15:22	108-88-3	
Xylene (Total)	ND	ug/L	2 0	0.66	1		04/28/16 15:22	1330-20-7	
m&p-Xylene	ND	ug/L	2 0	0.66	1		04/28/16 15 22	179601-23-1	
o-Xylene	ND	ug/L	1.0	0 23	1		04/28/16 15 22	95-47-6	
Surrogates									
4-Bromofluorobenzene (S)	99	%	70-130		1		04/28/16 15:22	460-00-4	
1,2-Dichloroethane-d4 (S)	99	%	70-130		1		04/28/16 15:22	17060-07-0	
Toluene-d8 (S)	100	%	70-130		1		04/28/16 15:22	2037-26-5	

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ANALYTICAL RESULTS

Project. 04887/ 52240 WARREN GREEN
Pace Project No.: 92295419

Sample: WSW-3 **Lab ID: 92295419024** Collected 04/25/16 17 35 Received: 04/27/16 08:27 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No	Qual
8011 GCS EDB and DBCP	Analytical Method EPA 8011 Preparation Method: EPA 8011								
1,2-Dibromoethane (EDB)	ND	ug/L	0 020	0 020	1	04/28/16 13·03	04/29/16 09 53	106-93-4	
Surrogates									
1-Chloro-2-bromopropane (S)	106	%	60-140		1	04/28/16 13.03	04/29/16 09:53	301-79-56	
8260 MSV Low Level SC	Analytical Method EPA 8260								
tert-Amyl Alcohol	ND	ug/L	100	50.0	1		04/28/16 15:39	75-85-4	
tert-Amylmethyl ether	ND	ug/L	10.0	0 10	1		04/28/16 15:39	994-05-8	
Benzene	ND	ug/L	1 0	0 25	1		04/28/16 15·39	71-43-2	
3,3-Dimethyl-1-Butanol	ND	ug/L	100	50.0	1		04/28/16 15 39	624-95-3	
tert-Butyl Alcohol	ND	ug/L	100	3 6	1		04/28/16 15·39	75-65-0	
tert-Butyl Formate	ND	ug/L	50.0	1 9	1		04/28/16 15·39	762-75-4	
1,2-Dichloroethane	ND	ug/L	1.0	0.24	1		04/28/16 15·39	107-06-2	
Diisopropyl ether	ND	ug/L	1.0	0 12	1		04/28/16 15.39	108-20-3	
Ethanol	ND	ug/L	200	131	1		04/28/16 15 39	64-17-5	L3
Ethylbenzene	ND	ug/L	1.0	0.30	1		04/28/16 15·39	100-41-4	
Ethyl-tert-butyl ether	ND	ug/L	10 0	0 070	1		04/28/16 15 39	637-92-3	
Methyl-tert-butyl ether	ND	ug/L	1.0	0.21	1		04/28/16 15.39	1634-04-4	
Naphthalene	ND	ug/L	1.0	0.24	1		04/28/16 15.39	91-20-3	
Toluene	ND	ug/L	1.0	0.26	1		04/28/16 15:39	108-88-3	
Xylene (Total)	ND	ug/L	2.0	0 66	1		04/28/16 15:39	1330-20-7	
m&p-Xylene	ND	ug/L	2.0	0 66	1		04/28/16 15:39	179601-23-1	
o-Xylene	ND	ug/L	1 0	0 23	1		04/28/16 15:39	95-47-6	
Surrogates									
4-Bromofluorobenzene (S)	99	%	70-130		1		04/28/16 15.39	460-00-4	
1,2-Dichloroethane-d4 (S)	96	%	70-130		1		04/28/16 15·39	17060-07-0	
Toluene-d8 (S)	99	%	70-130		1		04/28/16 15 39	2037-26-5	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: 04887/ 52240 WARREN GREEN
Pace Project No.. 92295419

Sample: WSW-4 **Lab ID: 92295419025** Collected· 04/25/16 17 40 Received 04/27/16 08:27 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8011 GCS EDB and DBCP	Analytical Method EPA 8011 Preparation Method. EPA 8011								
1,2-Dibromoethane (EDB)	ND	ug/L	0 020	0 020	1	04/28/16 13 03	04/29/16 10 17	106-93-4	
Surrogates									
1-Chloro-2-bromopropane (S)	103	%	60-140		1	04/28/16 13:03	04/29/16 10·17	301-79-56	
8260 MSV Low Level SC	Analytical Method EPA 8260								
tert-Amyl Alcohol	ND	ug/L	100	50 0	1		04/28/16 15·56	75-85-4	
tert-Amylmethyl ether	ND	ug/L	10 0	0.10	1		04/28/16 15 56	994-05-8	
Benzene	ND	ug/L	1.0	0 25	1		04/28/16 15 56	71-43-2	
3,3-Dimethyl-1-Butanol	ND	ug/L	100	50 0	1		04/28/16 15.56	624-95-3	
tert-Butyl Alcohol	ND	ug/L	100	3.6	1		04/28/16 15:56	75-65-0	
tert-Butyl Formate	ND	ug/L	50.0	1.9	1		04/28/16 15:56	762-75-4	
1,2-Dichloroethane	ND	ug/L	1.0	0.24	1		04/28/16 15 56	107-06-2	
Diisopropyl ether	ND	ug/L	1.0	0 12	1		04/28/16 15·56	108-20-3	
Ethanol	ND	ug/L	200	131	1		04/28/16 15 56	64-17-5	L3
Ethylbenzene	ND	ug/L	1.0	0 30	1		04/28/16 15:56	100-41-4	
Ethyl-tert-butyl ether	ND	ug/L	10.0	0.070	1		04/28/16 15:56	637-92-3	
Methyl-tert-butyl ether	ND	ug/L	1 0	0.21	1		04/28/16 15:56	1634-04-4	
Naphthalene	ND	ug/L	1.0	0.24	1		04/28/16 15.56	91-20-3	
Toluene	ND	ug/L	1.0	0 26	1		04/28/16 15 56	108-88-3	
Xylene (Total)	ND	ug/L	2 0	0 66	1		04/28/16 15:56	1330-20-7	
m&p-Xylene	ND	ug/L	2 0	0.66	1		04/28/16 15:56	179601-23-1	
o-Xylene	ND	ug/L	1 0	0.23	1		04/28/16 15·56	95-47-6	
Surrogates									
4-Bromofluorobenzene (S)	99	%	70-130		1		04/28/16 15 56	460-00-4	
1,2-Dichloroethane-d4 (S)	97	%	70-130		1		04/28/16 15:56	17060-07-0	
Toluene-d8 (S)	98	%	70-130		1		04/28/16 15:56	2037-26-5	

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ANALYTICAL RESULTS

Project. 04887/ 52240 WARREN GREEN
Pace Project No 92295419

Sample: DUP 1 **Lab ID: 92295419026** Collected: 04/25/16 13:15 Received: 04/27/16 08:27 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8011 GCS EDB and DBCP	Analytical Method: EPA 8011 Preparation Method. EPA 8011								
1,2-Dibromoethane (EDB)	**1.1**	ug/L	0.085	0.085	4	05/03/16 10:46	05/03/16 16:20	106-93-4	
Surrogates									
1-Chloro-2-bromopropane (S)	77	%	60-140		4	05/03/16 10:46	05/03/16 16 20	301-79-56	
8260 MSV	Analytical Method EPA 8260								
tert-Amyl Alcohol	ND	ug/L	10000	7680	100		05/03/16 06 46	75-85-4	
tert-Amylmethyl ether	ND	ug/L	1000	340	100		05/03/16 06 46	994-05-8	
Benzene	**2310**	ug/L	500	170	100		05/03/16 06:46	71-43-2	
3,3-Dimethyl-1-Butanol	ND	ug/L	10000	3210	100		05/03/16 06.46	624-95-3	
tert-Butyl Alcohol	ND	ug/L	10000	5770	100		05/03/16 06 46	75-65-0	
tert-Butyl Formate	ND	ug/L	5000	730	100		05/03/16 06 46	762-75-4	
1,2-Dichloroethane	ND	ug/L	500	180	100		05/03/16 06:46	107-06-2	
Diisopropyl ether	ND	ug/L	500	170	100		05/03/16 06:46	108-20-3	
Ethanol	ND	ug/L	20000	13100	100		05/03/16 06:46	64-17-5	L3
Ethylbenzene	**3890**	ug/L	500	160	100		05/03/16 06:46	100-41-4	
Ethyl-tert-butyl ether	ND	ug/L	1000	360	100		05/03/16 06:46	637-92-3	
Methyl-tert-butyl ether	ND	ug/L	500	170	100		05/03/16 06:46	1634-04-4	
Naphthalene	**651**	ug/L	500	200	100		05/03/16 06:46	91-20-3	
Toluene	**15400**	ug/L	500	160	100		05/03/16 06:46	108-88-3	
Xylene (Total)	**21000**	ug/L	1000	270	100		05/03/16 06:46	1330-20-7	
m&p-Xylene	**14500**	ug/L	1000	310	100		05/03/16 06:46	179601-23-1	
o-Xylene	**6520**	ug/L	500	160	100		05/03/16 06:46	95-47-6	
Surrogates									
4-Bromofluorobenzene (S)	101	%	70-130		100		05/03/16 06:46	460-00-4	
1,2-Dichloroethane-d4 (S)	90	%	70-130		100		05/03/16 06 46	17060-07-0	
Toluene-d8 (S)	105	%	70-130		100		05/03/16 06 46	2037-26-5	

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ANALYTICAL RESULTS

Project: 04887/ 52240 WARREN GREEN
Pace Project No.. 92295419

Sample: DUP 2 **Lab ID: 92295419027** Collected: 04/25/16 13 35 Received· 04/27/16 08:27 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8011 GCS EDB and DBCP	Analytical Method· EPA 8011 Preparation Method· EPA 8011								
1,2-Dibromoethane (EDB)	ND	ug/L	0 020	0.020	1	04/28/16 13 03	04/29/16 10:58	106-93-4	
Surrogates									
1-Chloro-2-bromopropane (S)	138	%	60-140		1	04/28/16 13 03	04/29/16 10:58	301-79-56	
8260 MSV	Analytical Method EPA 8260								
tert-Amyl Alcohol	ND	ug/L	10000	7680	100		05/03/16 07 03	75-85-4	
tert-Amylmethyl ether	ND	ug/L	1000	340	100		05/03/16 07:03	994-05-8	
Benzene	**2330**	ug/L	500	170	100		05/03/16 07:03	71-43-2	
3,3-Dimethyl-1-Butanol	ND	ug/L	10000	3210	100		05/03/16 07:03	624-95-3	
tert-Butyl Alcohol	ND	ug/L	10000	5770	100		05/03/16 07 03	75-65-0	
tert-Butyl Formate	ND	ug/L	5000	730	100		05/03/16 07 03	762-75-4	
1,2-Dichloroethane	ND	ug/L	500	180	100		05/03/16 07.03	107-06-2	
Diisopropyl ether	ND	ug/L	500	170	100		05/03/16 07:03	108-20-3	
Ethanol	ND	ug/L	20000	13100	100		05/03/16 07:03	64-17-5	L3
Ethylbenzene	**2500**	ug/L	500	160	100		05/03/16 07:03	100-41-4	
Ethyl-tert-butyl ether	ND	ug/L	1000	360	100		05/03/16 07 03	637-92-3	
Methyl-tert-butyl ether	ND	ug/L	500	170	100		05/03/16 07:03	1634-04-4	
Naphthalene	**266J**	ug/L	500	200	100		05/03/16 07:03	91-20-3	
Toluene	**14500**	ug/L	500	160	100		05/03/16 07:03	108-88-3	
Xylene (Total)	**12700**	ug/L	1000	270	100		05/03/16 07 03	1330-20-7	
m&p-Xylene	**9270**	ug/L	1000	310	100		05/03/16 07 03	179601-23-1	
o-Xylene	**3470**	ug/L	500	160	100		05/03/16 07.03	95-47-6	
Surrogates									
4-Bromofluorobenzene (S)	100	%	70-130		100		05/03/16 07·03	460-00-4	
1,2-Dichloroethane-d4 (S)	90	%	70-130		100		05/03/16 07 03	17060-07-0	
Toluene-d8 (S)	105	%	70-130		100		05/03/16 07:03	2037-26-5	

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ANALYTICAL RESULTS

Project: 04887/ 52240 WARREN GREEN
Pace Project No 92295419

Sample: FIELD BLANK **Lab ID: 92295419028** Collected 04/25/16 17.41 Received: 04/27/16 08:27 Matrix. Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No	Qual
8011 GCS EDB and DBCP	Analytical Method: EPA 8011 Preparation Method: EPA 8011								
1,2-Dibromoethane (EDB)	ND	ug/L	0 020	0.020	1	04/28/16 13 05	04/28/16 22 32	106-93-4	
Surrogates									
1-Chloro-2-bromopropane (S)	108	%	60-140		1	04/28/16 13.05	04/28/16 22:32	301-79-56	
8260 MSV	Analytical Method: EPA 8260								
tert-Amyl Alcohol	ND	ug/L	100	76 8	1		04/30/16 13 19	75-85-4	
tert-Amylmethyl ether	ND	ug/L	10.0	3.4	1		04/30/16 13 19	994-05-8	
Benzene	ND	ug/L	5.0	1.7	1		04/30/16 13.19	71-43-2	
3,3-Dimethyl-1-Butanol	ND	ug/L	100	32.1	1		04/30/16 13.19	624-95-3	
tert-Butyl Alcohol	ND	ug/L	100	57.7	1		04/30/16 13 19	75-65-0	
tert-Butyl Formate	ND	ug/L	50.0	7 3	1		04/30/16 13:19	762-75-4	
1,2-Dichloroethane	ND	ug/L	5 0	1 8	1		04/30/16 13 19	107-06-2	
Diisopropyl ether	ND	ug/L	5 0	1 7	1		04/30/16 13 19	108-20-3	
Ethanol	ND	ug/L	200	131	1		04/30/16 13 19	64-17-5	
Ethylbenzene	ND	ug/L	5.0	1.6	1		04/30/16 13 19	100-41-4	
Ethyl-tert-butyl ether	ND	ug/L	10 0	3 6	1		04/30/16 13 19	637-92-3	
Methyl-tert-butyl ether	ND	ug/L	5 0	1 7	1		04/30/16 13.19	1634-04-4	
Naphthalene	ND	ug/L	5 0	2 0	1		04/30/16 13:19	91-20-3	
Toluene	ND	ug/L	5 0	1 6	1		04/30/16 13:19	108-88-3	
Xylene (Total)	ND	ug/L	10.0	2 7	1		04/30/16 13 19	1330-20-7	
m&p-Xylene	ND	ug/L	10 0	3 1	1		04/30/16 13 19	179601-23-1	
o-Xylene	ND	ug/L	5.0	1.6	1		04/30/16 13 19	95-47-6	
Surrogates									
4-Bromofluorobenzene (S)	109	%	70-130		1		04/30/16 13.19	460-00-4	
1,2-Dichloroethane-d4 (S)	88	%	70-130		1		04/30/16 13:19	17060-07-0	
Toluene-d8 (S)	111	%	70-130		1		04/30/16 13:19	2037-26-5	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project 04887/ 52240 WARREN GREEN
Pace Project No : 92295419

Sample: TRIP BLANK **Lab ID: 92295419029** Collected 04/25/16 17 42 Received 04/27/16 08 27 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No	Qual
8260 MSV	Analytical Method: EPA 8260								
tert-Amyl Alcohol	ND	ug/L	100	76 8	1		04/30/16 13 36	75-85-4	
tert-Amylmethyl ether	ND	ug/L	10.0	3.4	1		04/30/16 13 36	994-05-8	
Benzene	ND	ug/L	5 0	1.7	1		04/30/16 13 36	71-43-2	
3,3-Dimethyl-1-Butanol	ND	ug/L	100	32 1	1		04/30/16 13 36	624-95-3	
tert-Butyl Alcohol	ND	ug/L	100	57 7	1		04/30/16 13:36	75-65-0	
tert-Butyl Formate	ND	ug/L	50 0	7 3	1		04/30/16 13:36	762-75-4	
1,2-Dichloroethane	ND	ug/L	5.0	1 8	1		04/30/16 13:36	107-06-2	
Diisopropyl ether	ND	ug/L	5.0	1.7	1		04/30/16 13:36	108-20-3	
Ethanol	ND	ug/L	200	131	1		04/30/16 13:36	64-17-5	
Ethylbenzene	ND	ug/L	5 0	1 6	1		04/30/16 13:36	100-41-4	
Ethyl-tert-butyl ether	ND	ug/L	10.0	3.6	1		04/30/16 13:36	637-92-3	
Methyl-tert-butyl ether	ND	ug/L	5 0	1.7	1		04/30/16 13 36	1634-04-4	
Naphthalene	ND	ug/L	5 0	2.0	1		04/30/16 13 36	91-20-3	
Toluene	ND	ug/L	5 0	1.6	1		04/30/16 13:36	108-88-3	
Xylene (Total)	ND	ug/L	10 0	2 7	1		04/30/16 13 36	1330-20-7	
m&p-Xylene	ND	ug/L	10 0	3 1	1		04/30/16 13:36	179601-23-1	
o-Xylene	ND	ug/L	5.0	1 6	1		04/30/16 13:36	95-47-6	
Surrogates									
4-Bromofluorobenzene (S)	113	%	70-130		1		04/30/16 13:36	460-00-4	
1,2-Dichloroethane-d4 (S)	93	%	70-130		1		04/30/16 13.36	17060-07-0	
Toluene-d8 (S)	108	%	70-130		1		04/30/16 13 36	2037-26-5	

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QUALITY CONTROL DATA

Project: 04887/ 52240 WARREN GREEN
Pace Project No.: 92295419

QC Batch: MSV/36596 Analysis Method: EPA 8260
QC Batch Method EPA 8260 Analysis Description: 8260 MSV Low Level SC
Associated Lab Samples 92295419022, 92295419023, 92295419024, 92295419025

METHOD BLANK. 1721658 Matrix: Water
Associated Lab Samples: 92295419022, 92295419023, 92295419024, 92295419025

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
1,2-Dichloroethane	ug/L	ND	1 0	0.24	04/28/16 11.06	
3,3-Dimethyl-1-Butanol	ug/L	ND	100	50 0	04/28/16 11 06	
Benzene	ug/L	ND	1.0	0.25	04/28/16 11 06	
Diisopropyl ether	ug/L	ND	1 0	0.12	04/28/16 11 06	
Ethanol	ug/L	ND	200	131	04/28/16 11·06	
Ethyl-tert-butyl ether	ug/L	ND	10 0	0 070	04/28/16 11.06	
Ethylbenzene	ug/L	ND	1 0	0 30	04/28/16 11:06	
m&p-Xylene	ug/L	ND	2 0	0 66	04/28/16 11:06	
Methyl-tert-butyl ether	ug/L	ND	1.0	0 21	04/28/16 11:06	
Naphthalene	ug/L	ND	1.0	0.24	04/28/16 11.06	
o-Xylene	ug/L	ND	1.0	0.23	04/28/16 11 06	
tert-Amyl Alcohol	ug/L	ND	100	50 0	04/28/16 11 06	
tert-Amylmethyl ether	ug/L	ND	10.0	0.10	04/28/16 11 06	
tert-Butyl Alcohol	ug/L	ND	100	3.6	04/28/16 11 06	
tert-Butyl Formate	ug/L	ND	50.0	1.9	04/28/16 11 06	
Toluene	ug/L	ND	1 0	0 26	04/28/16 11:06	
Xylene (Total)	ug/L	ND	2 0	0 66	04/28/16 11:06	
1,2-Dichloroethane-d4 (S)	%	95	70-130		04/28/16 11.06	
4-Bromofluorobenzene (S)	%	99	70-130		04/28/16 11 06	
Toluene-d8 (S)	%	99	70-130		04/28/16 11 06	

LABORATORY CONTROL SAMPLE. 1721659

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,2-Dichloroethane	ug/L	50	37.5	75	70-130	
3,3-Dimethyl-1-Butanol	ug/L	1000	1070	107	70-130	
Benzene	ug/L	50	45 5	91	70-130	
Diisopropyl ether	ug/L	50	44 2	88	70-130	
Ethanol	ug/L	2000	2610	131	70-130	L0
Ethyl-tert-butyl ether	ug/L	100	86.5	86	70-130	
Ethylbenzene	ug/L	50	46.7	93	70-130	
m&p-Xylene	ug/L	100	91.8	92	70-130	
Methyl-tert-butyl ether	ug/L	50	42.3	85	70-130	
Naphthalene	ug/L	50	46.5	93	70-130	
o-Xylene	ug/L	50	45 0	90	70-130	
tert-Amyl Alcohol	ug/L	1000	1140	114	70-130	
tert-Amylmethyl ether	ug/L	100	88 0	88	70-130	
tert-Butyl Alcohol	ug/L	500	544	109	70-130	
tert-Butyl Formate	ug/L	400	346	87	70-130	
Toluene	ug/L	50	44.7	89	70-130	

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QUALITY CONTROL DATA

Project 04887/ 52240 WARREN GREEN
Pace Project No 92295419

LABORATORY CONTROL SAMPLE: 1721659

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Xylene (Total)	ug/L	150	137	91	70-130	
1,2-Dichloroethane-d4 (S)	%			89	70-130	
4-Bromofluorobenzene (S)	%			101	70-130	
Toluene-d8 (S)	%			99	70-130	

MATRIX SPIKE SAMPLE 1721661

Parameter	Units	92295441016 Result	Spike Conc	MS Result	MS % Rec	% Rec Limits	Qualifiers
1,2-Dichloroethane	ug/L	ND	20	17.1	85	70-130	
3,3-Dimethyl-1-Butanol	ug/L	ND	400	359	90	70-130	
Benzene	ug/L	ND	20	20 9	105	70-130	
Diisopropyl ether	ug/L	ND	20	19 4	97	70-130	
Ethanol	ug/L	ND	800	587	73	70-130	
Ethyl-tert-butyl ether	ug/L	ND	40	37 9	95	70-130	
Ethylbenzene	ug/L	ND	20	21.0	105	70-130	
m&p-Xylene	ug/L	ND	40	40.9	102	70-130	
Methyl-tert-butyl ether	ug/L	ND	20	18 5	92	70-130	
Naphthalene	ug/L	ND	20	19 2	96	70-130	
o-Xylene	ug/L	ND	20	20.0	100	70-130	
tert-Amyl Alcohol	ug/L	ND	400	393	98	70-130	
tert-Amylmethyl ether	ug/L	ND	40	36 9	92	70-130	
tert-Butyl Alcohol	ug/L	ND	200	280	140	70-130	M1
tert-Butyl Formate	ug/L	ND	160	ND	0	70-130	P5
Toluene	ug/L	ND	20	20.1	100	70-130	
1,2-Dichloroethane-d4 (S)	%				94	70-130	
4-Bromofluorobenzene (S)	%				101	70-130	
Toluene-d8 (S)	%				97	70-130	

SAMPLE DUPLICATE 1721660

Parameter	Units	92295441015 Result	Dup Result	RPD	Max RPD	Qualifiers
1,2-Dichloroethane	ug/L	ND	ND		30	
3,3-Dimethyl-1-Butanol	ug/L	ND	ND		30	
Benzene	ug/L	ND	ND		30	
Diisopropyl ether	ug/L	ND	ND		30	
Ethanol	ug/L	ND	ND		30	
Ethyl-tert-butyl ether	ug/L	ND	ND		30	
Ethylbenzene	ug/L	ND	ND		30	
m&p-Xylene	ug/L	ND	ND		30	
Methyl-tert-butyl ether	ug/L	ND	ND		30	
Naphthalene	ug/L	ND	ND		30	
o-Xylene	ug/L	ND	ND		30	
tert-Amyl Alcohol	ug/L	ND	ND		30	
tert-Amylmethyl ether	ug/L	ND	ND		30	

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QUALITY CONTROL DATA

Project 04887/ 52240 WARREN GREEN
Pace Project No 92295419

SAMPLE DUPLICATE: 1721660

Parameter	Units	92295441015 Result	Dup Result	RPD	Max RPD	Qualifiers
tert-Butyl Alcohol	ug/L	ND	ND		30	
tert-Butyl Formate	ug/L	ND	ND		30	
Toluene	ug/L	0 31J	ND		30	
Xylene (Total)	ug/L	ND	ND		30	
1,2-Dichloroethane-d4 (S)	%	98	98	1		
4-Bromofluorobenzene (S)	%	100	98	2		
Toluene-d8 (S)	%	99	99	0		

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QUALITY CONTROL DATA

Project. 04887/ 52240 WARREN GREEN
Pace Project No . 92295419

QC Batch	MSV/36627	Analysis Method·	EPA 8260
QC Batch Method.	EPA 8260	Analysis Description:	8260 MSV SC

Associated Lab Samples 92295419002, 92295419003, 92295419004, 92295419005, 92295419006, 92295419009, 92295419010, 92295419011, 92295419012, 92295419013, 92295419014, 92295419015, 92295419016, 92295419017, 92295419018, 92295419019, 92295419020, 92295419021, 92295419028, 92295419029

METHOD BLANK 1723441 Matrix. Water

Associated Lab Samples: 92295419002, 92295419003, 92295419004, 92295419005, 92295419006, 92295419009, 92295419010, 92295419011, 92295419012, 92295419013, 92295419014, 92295419015, 92295419016, 92295419017, 92295419018, 92295419019, 92295419020, 92295419021, 92295419028, 92295419029

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
1,2-Dichloroethane	ug/L	ND	5 0	1 8	04/30/16 13:03	
3,3-Dimethyl-1-Butanol	ug/L	ND	100	32.1	04/30/16 13 03	
Benzene	ug/L	ND	5.0	1 7	04/30/16 13.03	
Diisopropyl ether	ug/L	ND	5.0	1 7	04/30/16 13:03	
Ethanol	ug/L	ND	200	131	04/30/16 13 03	
Ethyl-tert-butyl ether	ug/L	ND	10.0	3 6	04/30/16 13 03	
Ethylbenzene	ug/L	ND	5.0	1 6	04/30/16 13:03	
m&p-Xylene	ug/L	ND	10 0	3.1	04/30/16 13:03	
Methyl-tert-butyl ether	ug/L	ND	5 0	1 7	04/30/16 13 03	
Naphthalene	ug/L	ND	5.0	2 0	04/30/16 13:03	
o-Xylene	ug/L	ND	5 0	1.6	04/30/16 13 03	
tert-Amyl Alcohol	ug/L	ND	100	76.8	04/30/16 13 03	
tert-Amylmethyl ether	ug/L	ND	10.0	3 4	04/30/16 13.03	
tert-Butyl Alcohol	ug/L	ND	100	57.7	04/30/16 13:03	
tert-Butyl Formate	ug/L	ND	50 0	7 3	04/30/16 13 03	
Toluene	ug/L	ND	5.0	1 6	04/30/16 13 03	
Xylene (Total)	ug/L	ND	10 0	2.7	04/30/16 13:03	
1,2-Dichloroethane-d4 (S)	%	93	70-130		04/30/16 13 03	
4-Bromofluorobenzene (S)	%	109	70-130		04/30/16 13 03	
Toluene-d8 (S)	%	107	70-130		04/30/16 13:03	

LABORATORY CONTROL SAMPLE 1723442

Parameter	Units	Spike Conc	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,2-Dichloroethane	ug/L	50	48 8	98	70-130	
3,3-Dimethyl-1-Butanol	ug/L	1000	880	88	70-130	
Benzene	ug/L	50	52.0	104	70-130	
Diisopropyl ether	ug/L	50	55 9	112	70-130	
Ethanol	ug/L	2000	2210	111	70-130	
Ethyl-tert-butyl ether	ug/L	100	101	101	70-130	
Ethylbenzene	ug/L	50	48.5	97	70-130	
m&p-Xylene	ug/L	100	94.5	94	70-130	
Methyl-tert-butyl ether	ug/L	50	51 5	103	70-130	
Naphthalene	ug/L	50	51 3	103	70-130	
o-Xylene	ug/L	50	47.7	95	70-130	
tert-Amyl Alcohol	ug/L	1000	1090	109	70-130	

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QUALITY CONTROL DATA

Project: 04887/ 52240 WARREN GREEN
Pace Project No 92295419

LABORATORY CONTROL SAMPLE: 1723442

Parameter	Units	Spike Conc	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
tert-Amylmethyl ether	ug/L	100	102	102	70-130	
tert-Butyl Alcohol	ug/L	500	550	110	70-130	
tert-Butyl Formate	ug/L	400	381	95	70-130	
Toluene	ug/L	50	49 2	98	70-130	
Xylene (Total)	ug/L	150	142	95	70-130	
1,2-Dichloroethane-d4 (S)	%			103	70-130	
4-Bromofluorobenzene (S)	%			102	70-130	
Toluene-d8 (S)	%			97	70-130	

MATRIX SPIKE SAMPLE 1723444

Parameter	Units	92295419021 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
1,2-Dichloroethane	ug/L	ND	20	26 3	131	70-130	M1
3,3-Dimethyl-1-Butanol	ug/L	ND	400	470	118	70-130	
Benzene	ug/L	ND	20	27.5	137	70-130	M1
Diisopropyl ether	ug/L	ND	20	26.5	132	70-130	M1
Ethanol	ug/L	ND	800	1280	160	70-130	M1
Ethyl-tert-butyl ether	ug/L	ND	40	49 9	125	70-130	
Ethylbenzene	ug/L	ND	20	26 6	133	70-130	M1
m&p-Xylene	ug/L	ND	40	53 4	134	70-130	M1
Methyl-tert-butyl ether	ug/L	ND	20	25.9	129	70-130	
Naphthalene	ug/L	ND	20	23.4	117	70-130	
o-Xylene	ug/L	ND	20	26 7	134	70-130	M1
tert-Amyl Alcohol	ug/L	ND	400	535	134	70-130	M1
tert-Amylmethyl ether	ug/L	ND	40	48.4	121	70-130	
tert-Butyl Alcohol	ug/L	ND	200	425	212	70-130	M1
tert-Butyl Formate	ug/L	ND	160	ND	0	70-130	P5
Toluene	ug/L	ND	20	25 8	129	70-130	
1,2-Dichloroethane-d4 (S)	%				106	70-130	
4-Bromofluorobenzene (S)	%				113	70-130	
Toluene-d8 (S)	%				95	70-130	

SAMPLE DUPLICATE. 1723443

Parameter	Units	92295419020 Result	Dup Result	RPD	Max RPD	Qualifiers
1,2-Dichloroethane	ug/L	ND	ND		30	
3,3-Dimethyl-1-Butanol	ug/L	ND	ND		30	
Benzene	ug/L	ND	ND		30	
Diisopropyl ether	ug/L	ND	ND		30	
Ethanol	ug/L	ND	ND		30	
Ethyl-tert-butyl ether	ug/L	ND	ND		30	
Ethylbenzene	ug/L	ND	ND		30	
m&p-Xylene	ug/L	ND	ND		30	
Methyl-tert-butyl ether	ug/L	ND	ND		30	

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REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: 04887/ 52240 WARREN GREEN
Pace Project No. 92295419

SAMPLE DUPLICATE: 1723443

Parameter	Units	92295419020 Result	Dup Result	RPD	Max RPD	Qualifiers
Naphthalene	ug/L	ND	ND		30	
o-Xylene	ug/L	ND	ND		30	
tert-Amyl Alcohol	ug/L	ND	ND		30	
tert-Amylmethyl ether	ug/L	ND	ND		30	
tert-Butyl Alcohol	ug/L	ND	ND		30	
tert-Butyl Formate	ug/L	ND	ND		30	
Toluene	ug/L	ND	ND		30	
Xylene (Total)	ug/L	ND	ND		30	
1,2-Dichloroethane-d4 (S)	%	94	99	4		
4-Bromofluorobenzene (S)	%	113	110	3		
Toluene-d8 (S)	%	108	107	1		

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QUALITY CONTROL DATA

Project 04887/ 52240 WARREN GREEN
Pace Project No 92295419

QC Batch: MSV/36640 Analysis Method EPA 8260
QC Batch Method: EPA 8260 Analysis Description 8260 MSV SC
Associated Lab Samples: 92295419026, 92295419027

METHOD BLANK 1724126 Matrix Water
Associated Lab Samples 92295419026, 92295419027

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
1,2-Dichloroethane	ug/L	ND	5.0	1 8	05/03/16 01:27	
3,3-Dimethyl-1-Butanol	ug/L	ND	100	32.1	05/03/16 01:27	
Benzene	ug/L	ND	5.0	1.7	05/03/16 01 27	
Diisopropyl ether	ug/L	ND	5 0	1.7	05/03/16 01 27	
Ethanol	ug/L	ND	200	131	05/03/16 01 27	
Ethyl-tert-butyl ether	ug/L	ND	10 0	3.6	05/03/16 01 27	
Ethylbenzene	ug/L	ND	5 0	1 6	05/03/16 01 27	
m&p-Xylene	ug/L	ND	10 0	3 1	05/03/16 01 27	
Methyl-tert-butyl ether	ug/L	ND	5.0	1 7	05/03/16 01 27	
Naphthalene	ug/L	ND	5.0	2 0	05/03/16 01 27	
o-Xylene	ug/L	ND	5.0	1 6	05/03/16 01:27	
tert-Amyl Alcohol	ug/L	ND	100	76 8	05/03/16 01:27	
tert-Amylmethyl ether	ug/L	ND	10.0	3 4	05/03/16 01:27	
tert-Butyl Alcohol	ug/L	ND	100	57.7	05/03/16 01 27	
tert-Butyl Formate	ug/L	ND	50 0	7.3	05/03/16 01 27	
Toluene	ug/L	ND	5.0	1 6	05/03/16 01 27	
Xylene (Total)	ug/L	ND	10 0	2.7	05/03/16 01 27	
1,2-Dichloroethane-d4 (S)	%	90	70-130		05/03/16 01:27	
4-Bromofluorobenzene (S)	%	103	70-130		05/03/16 01:27	
Toluene-d8 (S)	%	109	70-130		05/03/16 01:27	

LABORATORY CONTROL SAMPLE: 1724127

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,2-Dichloroethane	ug/L	50	48.4	97	70-130	
3,3-Dimethyl-1-Butanol	ug/L	1000	1110	111	70-130	
Benzene	ug/L	50	53 0	106	70-130	
Diisopropyl ether	ug/L	50	53 9	108	70-130	
Ethanol	ug/L	2000	2640	132	70-130	L0
Ethyl-tert-butyl ether	ug/L	100	112	112	70-130	
Ethylbenzene	ug/L	50	50.8	102	70-130	
m&p-Xylene	ug/L	100	98.7	99	70-130	
Methyl-tert-butyl ether	ug/L	50	55.6	111	70-130	
Naphthalene	ug/L	50	56.3	113	70-130	
o-Xylene	ug/L	50	48.4	97	70-130	
tert-Amyl Alcohol	ug/L	1000	1130	113	70-130	
tert-Amylmethyl ether	ug/L	100	105	105	70-130	
tert-Butyl Alcohol	ug/L	500	574	115	70-130	
tert-Butyl Formate	ug/L	400	411	103	70-130	
Toluene	ug/L	50	49.8	100	70-130	

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REPORT OF LABORATORY ANALYSIS

QUALITY CONTROL DATA

Project: 04887/ 52240 WARREN GREEN
Pace Project No.. 92295419

LABORATORY CONTROL SAMPLE 1724127

Parameter	Units	Spike Conc	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Xylene (Total)	ug/L	150	147	98	70-130	
1,2-Dichloroethane-d4 (S)	%			101	70-130	
4-Bromofluorobenzene (S)	%			97	70-130	
Toluene-d8 (S)	%			95	70-130	

MATRIX SPIKE SAMPLE. 1724128

Parameter	Units	92295441002 Result	Spike Conc	MS Result	MS % Rec	% Rec Limits	Qualifiers
1,2-Dichloroethane	ug/L	ND	20	19.1	95	70-130	
3,3-Dimethyl-1-Butanol	ug/L	ND	400	507	127	70-130	
Benzene	ug/L	ND	20	20.6	103	70-130	
Diisopropyl ether	ug/L	ND	20	18.3	91	70-130	
Ethanol	ug/L	ND	800	1350	168	70-130	M0
Ethyl-tert-butyl ether	ug/L	ND	40	37.3	93	70-130	
Ethylbenzene	ug/L	ND	20	20.8	104	70-130	
m&p-Xylene	ug/L	ND	40	41.0	103	70-130	
Methyl-tert-butyl ether	ug/L	ND	20	18.1	90	70-130	
Naphthalene	ug/L	ND	20	20.5	103	70-130	
o-Xylene	ug/L	ND	20	20.1	100	70-130	
tert-Amyl Alcohol	ug/L	ND	400	477	119	70-130	
tert-Amylmethyl ether	ug/L	ND	40	36.6	92	70-130	
tert-Butyl Alcohol	ug/L	ND	200	326	163	70-130	M1
tert-Butyl Formate	ug/L	ND	160	ND	0	70-130	P5
Toluene	ug/L	ND	20	20.1	101	70-130	
1,2-Dichloroethane-d4 (S)	%				100	70-130	
4-Bromofluorobenzene (S)	%				100	70-130	
Toluene-d8 (S)	%				100	70-130	

SAMPLE DUPLICATE 1724129

Parameter	Units	92295441003 Result	Dup Result	RPD	Max RPD	Qualifiers
1,2-Dichloroethane	ug/L	ND	ND		30	
3,3-Dimethyl-1-Butanol	ug/L	ND	ND		30	
Benzene	ug/L	ND	ND		30	
Diisopropyl ether	ug/L	ND	ND		30	
Ethanol	ug/L	ND	ND		30	
Ethyl-tert-butyl ether	ug/L	ND	ND		30	
Ethylbenzene	ug/L	ND	ND		30	
m&p-Xylene	ug/L	ND	ND		30	
Methyl-tert-butyl ether	ug/L	ND	ND		30	
Naphthalene	ug/L	ND	ND		30	
o-Xylene	ug/L	ND	ND		30	
tert-Amyl Alcohol	ug/L	ND	ND		30	
tert-Amylmethyl ether	ug/L	ND	ND		30	

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QUALITY CONTROL DATA

Project 04887/ 52240 WARREN GREEN
Pace Project No 92295419

SAMPLE DUPLICATE: 1724129

Parameter	Units	92295441003 Result	Dup Result	RPD	Max RPD	Qualifiers
tert-Butyl Alcohol	ug/L	ND	ND		30	
tert-Butyl Formate	ug/L	ND	ND		30	
Toluene	ug/L	ND	ND		30	
Xylene (Total)	ug/L	ND	ND		30	
1,2-Dichloroethane-d4 (S)	%	90	91	1		
4-Bromofluorobenzene (S)	%	105	100	4		
Toluene-d8 (S)	%	108	108	0		

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QUALITY CONTROL DATA

Project 04887/ 52240 WARREN GREEN
Pace Project No . 92295419

QC Batch MSV/36641 Analysis Method. EPA 8260
QC Batch Method EPA 8260 Analysis Description 8260 MSV SC
Associated Lab Samples: 92295419007

METHOD BLANK 1724135 Matrix: Water
Associated Lab Samples 92295419007

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
1,2-Dichloroethane	ug/L	ND	5 0	1.8	05/03/16 01:44	
3,3-Dimethyl-1-Butanol	ug/L	ND	100	32.1	05/03/16 01:44	
Benzene	ug/L	ND	5.0	1 7	05/03/16 01:44	
Diisopropyl ether	ug/L	ND	5.0	1 7	05/03/16 01:44	
Ethanol	ug/L	ND	200	131	05/03/16 01:44	
Ethyl-tert-butyl ether	ug/L	ND	10.0	3 6	05/03/16 01 44	
Ethylbenzene	ug/L	ND	5 0	1.6	05/03/16 01 44	
m&p-Xylene	ug/L	ND	10 0	3.1	05/03/16 01·44	
Methyl-tert-butyl ether	ug/L	ND	5 0	1.7	05/03/16 01:44	
Naphthalene	ug/L	ND	5 0	2.0	05/03/16 01:44	
o-Xylene	ug/L	ND	5.0	1 6	05/03/16 01:44	
tert-Amyl Alcohol	ug/L	ND	100	76 8	05/03/16 01 44	
tert-Amylmethyl ether	ug/L	ND	10.0	3 4	05/03/16 01 44	
tert-Butyl Alcohol	ug/L	ND	100	57 7	05/03/16 01 44	
tert-Butyl Formate	ug/L	ND	50 0	7 3	05/03/16 01 44	
Toluene	ug/L	ND	5.0	1.6	05/03/16 01:44	
Xylene (Total)	ug/L	ND	10.0	2.7	05/03/16 01:44	
1,2-Dichloroethane-d4 (S)	%	89	70-130		05/03/16 01:44	
4-Bromofluorobenzene (S)	%	102	70-130		05/03/16 01 44	
Toluene-d8 (S)	%	109	70-130		05/03/16 01 44	

LABORATORY CONTROL SAMPLE: 1724136

Parameter	Units	Spike Conc	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,2-Dichloroethane	ug/L	50	43 3	87	70-130	
3,3-Dimethyl-1-Butanol	ug/L	1000	969	97	70-130	
Benzene	ug/L	50	47.2	94	70-130	
Diisopropyl ether	ug/L	50	47.6	95	70-130	
Ethanol	ug/L	2000	2510	125	70-130	
Ethyl-tert-butyl ether	ug/L	100	99 9	100	70-130	
Ethylbenzene	ug/L	50	44 1	88	70-130	
m&p-Xylene	ug/L	100	87.2	87	70-130	
Methyl-tert-butyl ether	ug/L	50	49 6	99	70-130	
Naphthalene	ug/L	50	49.1	98	70-130	
o-Xylene	ug/L	50	43 6	87	70-130	
tert-Amyl Alcohol	ug/L	1000	980	98	70-130	
tert-Amylmethyl ether	ug/L	100	91 8	92	70-130	
tert-Butyl Alcohol	ug/L	500	490	98	70-130	
tert-Butyl Formate	ug/L	400	365	91	70-130	
Toluene	ug/L	50	44.6	89	70-130	

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QUALITY CONTROL DATA

Project 04887/ 52240 WARREN GREEN
Pace Project No 92295419

LABORATORY CONTROL SAMPLE: 1724136

Parameter	Units	Spike Conc	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Xylene (Total)	ug/L	150	131	87	70-130	
1,2-Dichloroethane-d4 (S)	%			99	70-130	
4-Bromofluorobenzene (S)	%			98	70-130	
Toluene-d8 (S)	%			98	70-130	

MATRIX SPIKE SAMPLE: 1724137

Parameter	Units	92295550003 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
1,2-Dichloroethane	ug/L	ND	20	19.0	95	70-130	
3,3-Dimethyl-1-Butanol	ug/L	ND	400	457	114	70-130	
Benzene	ug/L	ND	20	20 4	102	70-130	
Diisopropyl ether	ug/L	ND	20	17 8	89	70-130	
Ethanol	ug/L	ND	800	1150	143	70-130	M1
Ethyl-tert-butyl ether	ug/L	ND	40	36 6	92	70-130	
Ethylbenzene	ug/L	ND	20	20.1	101	70-130	
m&p-Xylene	ug/L	ND	40	39.0	98	70-130	
Methyl-tert-butyl ether	ug/L	ND	20	18.1	91	70-130	
Naphthalene	ug/L	ND	20	19 2	96	70-130	
o-Xylene	ug/L	ND	20	19 3	96	70-130	
tert-Amyl Alcohol	ug/L	ND	400	453	113	70-130	
tert-Amylmethyl ether	ug/L	ND	40	37 8	94	70-130	
tert-Butyl Alcohol	ug/L	ND	200	322	161	70-130	M1
tert-Butyl Formate	ug/L	ND	160	ND	0	70-130	P5
Toluene	ug/L	ND	20	20.2	101	70-130	
1,2-Dichloroethane-d4 (S)	%				97	70-130	
4-Bromofluorobenzene (S)	%				100	70-130	
Toluene-d8 (S)	%				100	70-130	

SAMPLE DUPLICATE 1724138

Parameter	Units	92295550004 Result	Dup Result	RPD	Max RPD	Qualifiers
1,2-Dichloroethane	ug/L	ND	ND		30	
3,3-Dimethyl-1-Butanol	ug/L	ND	ND		30	
Benzene	ug/L	108	108	0	30	
Diisopropyl ether	ug/L	ND	ND		30	
Ethanol	ug/L	ND	ND		30	
Ethyl-tert-butyl ether	ug/L	ND	ND		30	
Ethylbenzene	ug/L	1 6J	1 7J		30	
m&p-Xylene	ug/L	ND	ND		30	
Methyl-tert-butyl ether	ug/L	2.7J	2.9J		30	
Naphthalene	ug/L	ND	ND		30	
o-Xylene	ug/L	ND	ND		30	
tert-Amyl Alcohol	ug/L	ND	ND		30	
tert-Amylmethyl ether	ug/L	ND	ND		30	

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QUALITY CONTROL DATA

Project. 04887/ 52240 WARREN GREEN
Pace Project No 92295419

SAMPLE DUPLICATE: 1724138

Parameter	Units	92295550004 Result	Dup Result	RPD	Max RPD	Qualifiers
tert-Butyl Alcohol	ug/L	ND	ND		30	
tert-Butyl Formate	ug/L	ND	ND		30	
Toluene	ug/L	ND	ND		30	
Xylene (Total)	ug/L	ND	ND		30	
1,2-Dichloroethane-d4 (S)	%	97	95	2		
4-Bromofluorobenzene (S)	%	108	112	4		
Toluene-d8 (S)	%	107	104	3		

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QUALITY CONTROL DATA

Project. 04887/ 52240 WARREN GREEN
Pace Project No.: 92295419

QC Batch: MSV/36655 | Analysis Method: EPA 8260
QC Batch Method EPA 8260 | Analysis Description: 8260 MSV SC
Associated Lab Samples 92295419001, 92295419008

METHOD BLANK 1724571 | Matrix Water
Associated Lab Samples 92295419001, 92295419008

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
1,2-Dichloroethane	ug/L	ND	5.0	1 8	05/03/16 13 28	
3,3-Dimethyl-1-Butanol	ug/L	ND	100	32.1	05/03/16 13 28	
Benzene	ug/L	ND	5.0	1.7	05/03/16 13:28	
Diisopropyl ether	ug/L	ND	5.0	1.7	05/03/16 13 28	
Ethanol	ug/L	ND	200	131	05/03/16 13:28	
Ethyl-tert-butyl ether	ug/L	ND	10.0	3.6	05/03/16 13:28	
Ethylbenzene	ug/L	ND	5 0	1 6	05/03/16 13:28	
m&p-Xylene	ug/L	ND	10.0	3 1	05/03/16 13:28	
Methyl-tert-butyl ether	ug/L	ND	5.0	1 7	05/03/16 13:28	
Naphthalene	ug/L	ND	5 0	2.0	05/03/16 13.28	
o-Xylene	ug/L	ND	5 0	1 6	05/03/16 13:28	
tert-Amyl Alcohol	ug/L	ND	100	76 8	05/03/16 13 28	
tert-Amylmethyl ether	ug/L	ND	10.0	3.4	05/03/16 13 28	
tert-Butyl Alcohol	ug/L	ND	100	57.7	05/03/16 13:28	
tert-Butyl Formate	ug/L	ND	50.0	7.3	05/03/16 13:28	
Toluene	ug/L	ND	5.0	1.6	05/03/16 13:28	
Xylene (Total)	ug/L	ND	10.0	2.7	05/03/16 13:28	
1,2-Dichloroethane-d4 (S)	%	93	70-130		05/03/16 13·28	
4-Bromofluorobenzene (S)	%	113	70-130		05/03/16 13·28	
Toluene-d8 (S)	%	105	70-130		05/03/16 13 28	

LABORATORY CONTROL SAMPLE: 1724572

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,2-Dichloroethane	ug/L	50	45 1	90	70-130	
3,3-Dimethyl-1-Butanol	ug/L	1000	1090	109	70-130	
Benzene	ug/L	50	48 5	97	70-130	
Diisopropyl ether	ug/L	50	51 1	102	70-130	
Ethanol	ug/L	2000	2290	114	70-130	
Ethyl-tert-butyl ether	ug/L	100	106	106	70-130	
Ethylbenzene	ug/L	50	48.3	97	70-130	
m&p-Xylene	ug/L	100	94.8	95	70-130	
Methyl-tert-butyl ether	ug/L	50	53.1	106	70-130	
Naphthalene	ug/L	50	51.7	103	70-130	
o-Xylene	ug/L	50	47 3	95	70-130	
tert-Amyl Alcohol	ug/L	1000	1010	101	70-130	
tert-Amylmethyl ether	ug/L	100	97 1	97	70-130	
tert-Butyl Alcohol	ug/L	500	509	102	70-130	
tert-Butyl Formate	ug/L	400	389	97	70-130	
Toluene	ug/L	50	46 3	93	70-130	

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QUALITY CONTROL DATA

Project: 04887/ 52240 WARREN GREEN
Pace Project No 92295419

LABORATORY CONTROL SAMPLE 1724572

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Xylene (Total)	ug/L	150	142	95	70-130	
1,2-Dichloroethane-d4 (S)	%			99	70-130	
4-Bromofluorobenzene (S)	%			99	70-130	
Toluene-d8 (S)	%			96	70-130	

MATRIX SPIKE SAMPLE 1724573

Parameter	Units	92295550011 Result	Spike Conc	MS Result	MS % Rec	% Rec Limits	Qualifiers
1,2-Dichloroethane	ug/L	ND	20	20.0	100	70-130	
3,3-Dimethyl-1-Butanol	ug/L	ND	400	520	130	70-130	
Benzene	ug/L	ND	20	21.5	108	70-130	
Diisopropyl ether	ug/L	ND	20	19 2	96	70-130	
Ethanol	ug/L	ND	800	812	102	70-130	
Ethyl-tert-butyl ether	ug/L	ND	40	40 0	100	70-130	
Ethylbenzene	ug/L	ND	20	21.9	109	70-130	
m&p-Xylene	ug/L	ND	40	44.7	112	70-130	
Methyl-tert-butyl ether	ug/L	ND	20	20 5	103	70-130	
Naphthalene	ug/L	ND	20	21 1	106	70-130	
o-Xylene	ug/L	ND	20	22 2	111	70-130	
tert-Amyl Alcohol	ug/L	ND	400	453	113	70-130	
tert-Amylmethyl ether	ug/L	ND	40	38.7	97	70-130	
tert-Butyl Alcohol	ug/L	ND	200	334	167	70-130	M1
tert-Butyl Formate	ug/L	ND	160	ND	0	70-130	P5
Toluene	ug/L	ND	20	21 1	105	70-130	
1,2-Dichloroethane-d4 (S)	%				101	70-130	
4-Bromofluorobenzene (S)	%				107	70-130	
Toluene-d8 (S)	%				97	70-130	

SAMPLE DUPLICATE: 1724574

Parameter	Units	92295550012 Result	Dup Result	RPD	Max RPD	Qualifiers
1,2-Dichloroethane	ug/L	ND	ND		30	
3,3-Dimethyl-1-Butanol	ug/L	ND	ND		30	
Benzene	ug/L	ND	ND		30	
Diisopropyl ether	ug/L	ND	ND		30	
Ethanol	ug/L	ND	ND		30	
Ethyl-tert-butyl ether	ug/L	ND	ND		30	
Ethylbenzene	ug/L	ND	ND		30	
m&p-Xylene	ug/L	ND	ND		30	
Methyl-tert-butyl ether	ug/L	ND	ND		30	
Naphthalene	ug/L	4 1J	4.2J		30	
o-Xylene	ug/L	ND	ND		30	
tert-Amyl Alcohol	ug/L	ND	ND		30	
tert-Amylmethyl ether	ug/L	ND	ND		30	

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REPORT OF LABORATORY ANALYSIS

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(704)875-9092

QUALITY CONTROL DATA

Project 04887/ 52240 WARREN GREEN
Pace Project No · 92295419

SAMPLE DUPLICATE: 1724574

Parameter	Units	92295550012 Result	Dup Result	RPD	Max RPD	Qualifiers
tert-Butyl Alcohol	ug/L	ND	ND		30	
tert-Butyl Formate	ug/L	ND	ND		30	
Toluene	ug/L	ND	ND		30	
Xylene (Total)	ug/L	ND	ND		30	
1,2-Dichloroethane-d4 (S)	%	95	93	1		
4-Bromofluorobenzene (S)	%	107	110	2		
Toluene-d8 (S)	%	106	107	2		

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QUALITY CONTROL DATA

Project. 04887/ 52240 WARREN GREEN
Pace Project No.: 92295419

QC Batch OEXT/42248 Analysis Method· EPA 8011
QC Batch Method EPA 8011 Analysis Description: GCS 8011 EDB DBCP
Associated Lab Samples: 92295419001, 92295419002, 92295419004, 92295419005

METHOD BLANK: 1721403 Matrix: Water
Associated Lab Samples 92295419001, 92295419002, 92295419004, 92295419005

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
1,2-Dibromoethane (EDB)	ug/L	ND	0.020	0.020	04/28/16 17 18	
1-Chloro-2-bromopropane (S)	%	124	60-140		04/28/16 17.18	

LABORATORY CONTROL SAMPLE & LCSD: 1721404 1721405

Parameter	Units	Spike Conc.	LCS Result	LCSD Result	LCS % Rec	LCSD % Rec	% Rec Limits	RPD	Max RPD	Qualifiers
1,2-Dibromoethane (EDB)	ug/L	29	0.32	0.34	112	118	60-140	4	20	
1-Chloro-2-bromopropane (S)	%				97	99	60-140			

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1721406 1721407

Parameter	Units	92295218009 Result	MS Spike Conc	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
1,2-Dibromoethane (EDB)	ug/L	ND	29	29	0 33	0.33	112	112	60-140	0	20	
1-Chloro-2-bromopropane (S)	%						98	97	60-140			

SAMPLE DUPLICATE: 1721408

Parameter	Units	92295218010 Result	Dup Result	RPD	Max RPD	Qualifiers
1,2-Dibromoethane (EDB)	ug/L	ND	ND		20	
1-Chloro-2-bromopropane (S)	%	109	114	3		

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REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project 04887/ 52240 WARREN GREEN
Pace Project No 92295419

QC Batch OEXT/42249 Analysis Method EPA 8011
QC Batch Method: EPA 8011 Analysis Description: GCS 8011 EDB DBCP
Associated Lab Samples: 92295419008, 92295419009, 92295419012, 92295419013, 92295419016, 92295419017, 92295419018, 92295419019, 92295419020, 92295419021, 92295419022, 92295419023, 92295419024, 92295419025, 92295419027

METHOD BLANK 1721409 Matrix: Water
Associated Lab Samples 92295419008, 92295419009, 92295419012, 92295419013, 92295419016, 92295419017, 92295419018, 92295419019, 92295419020, 92295419021, 92295419022, 92295419023, 92295419024, 92295419025, 92295419027

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
1,2-Dibromoethane (EDB)	ug/L	ND	0.020	0.020	04/29/16 02 29	
1-Chloro-2-bromopropane (S)	%	98	60-140		04/29/16 02:29	

LABORATORY CONTROL SAMPLE & LCSD: 1721410 1721411

Parameter	Units	Spike Conc.	LCS Result	LCSD Result	LCS % Rec	LCSD % Rec	% Rec Limits	RPD	Max RPD	Qualifiers
1,2-Dibromoethane (EDB)	ug/L	.29	0.39	0.31	132	108	60-140	21	20	R1
1-Chloro-2-bromopropane (S)	%				113	96	60-140			

MATRIX SPIKE & MATRIX SPIKE DUPLICATE 1721412 1721413

Parameter	Units	92295419012 Result	MS Spike Conc	MSD Spike Conc	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
1,2-Dibromoethane (EDB)	ug/L	ND	29	29	0.19	0 22	66	78	60-140	17	20	
1-Chloro-2-bromopropane (S)	%						52	60	60-140			S2

SAMPLE DUPLICATE: 1721414

Parameter	Units	92295419017 Result	Dup Result	RPD	Max RPD	Qualifiers
1,2-Dibromoethane (EDB)	ug/L	ND	ND		20	
1-Chloro-2-bromopropane (S)	%	140	83	49		

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QUALITY CONTROL DATA

Project 04887/ 52240 WARREN GREEN
Pace Project No.: 92295419

QC Batch: OEXT/42250 Analysis Method: EPA 8011
QC Batch Method: EPA 8011 Analysis Description: GCS 8011 EDB DBCP
Associated Lab Samples 92295419028

METHOD BLANK: 1721415 Matrix: Water
Associated Lab Samples: 92295419028

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
1,2-Dibromoethane (EDB)	ug/L	ND	0 020	0.020	04/28/16 16 42	
1-Chloro-2-bromopropane (S)	%	103	60-140		04/28/16 16 42	

LABORATORY CONTROL SAMPLE & LCSD: 1721416 1721417

Parameter	Units	Spike Conc.	LCS Result	LCSD Result	LCS % Rec	LCSD % Rec	% Rec Limits	RPD	Max RPD	Qualifiers
1,2-Dibromoethane (EDB)	ug/L	.29	0.31	0.38	108	130	60-140	20	20	
1-Chloro-2-bromopropane (S)	%				97	117	60-140			

MATRIX SPIKE & MATRIX SPIKE DUPLICATE 1721418 1721419

Parameter	Units	92295420007 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
1,2-Dibromoethane (EDB)	ug/L	ND	28	.28	0 38	0.38	134	134	60-140	0	20	
1-Chloro-2-bromopropane (S)	%						115	115	60-140			

SAMPLE DUPLICATE: 1721420

Parameter	Units	92295420008 Result	Dup Result	RPD	Max RPD	Qualifiers
1,2-Dibromoethane (EDB)	ug/L	ND	ND		20	
1-Chloro-2-bromopropane (S)	%	156	186	17		S3

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QUALITY CONTROL DATA

Project: 04887/ 52240 WARREN GREEN
Pace Project No 92295419

QC Batch. OEXT/42335 — Analysis Method EPA 8011
QC Batch Method: EPA 8011 — Analysis Description: GCS 8011 EDB DBCP
Associated Lab Samples: 92295419003, 92295419006, 92295419007, 92295419010, 92295419011, 92295419014, 92295419015, 92295419026

METHOD BLANK. 1724235 — Matrix: Water
Associated Lab Samples: 92295419003, 92295419006, 92295419007, 92295419010, 92295419011, 92295419014, 92295419015, 92295419026

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
1,2-Dibromoethane (EDB)	ug/L	ND	0.020	0.020	05/03/16 11 50	
1-Chloro-2-bromopropane (S)	%	122	60-140		05/03/16 11 50	

LABORATORY CONTROL SAMPLE & LCSD 1724236 1724237

Parameter	Units	Spike Conc	LCS Result	LCSD Result	LCS % Rec	LCSD % Rec	% Rec Limits	RPD	Max RPD	Qualifiers
1,2-Dibromoethane (EDB)	ug/L	29	0.22	0 33	74	118	60-140	42	20	R1
1-Chloro-2-bromopropane (S)	%				117	115	60-140			

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1724238 1724239

Parameter	Units	92295826001 Result	MS Spike Conc	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
1,2-Dibromoethane (EDB)	ug/L	ND	29	.29	0 38	0.39	134	136	60-140	1	20	
1-Chloro-2-bromopropane (S)	%						136	137	60-140			

SAMPLE DUPLICATE: 1724240

Parameter	Units	92295826002 Result	Dup Result	RPD	Max RPD	Qualifiers
1,2-Dibromoethane (EDB)	ug/L	ND	ND		20	
1-Chloro-2-bromopropane (S)	%	114	68	53		

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

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QUALIFIERS

Project 04887/ 52240 WARREN GREEN
Pace Project No : 92295419

DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to dilution of the sample aliquot

ND - Not Detected at or above adjusted reporting limit.

J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.

MDL - Adjusted Method Detection Limit.

PQL - Practical Quantitation Limit.

RL - Reporting Limit

S - Surrogate

1,2-Diphenylhydrazine decomposes to and cannot be separated from Azobenzene using Method 8270. The result for each analyte is a combined concentration.

Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable

SG - Silica Gel - Clean-Up

U - Indicates the compound was analyzed for, but not detected.

Acid preservation may not be appropriate for 2 Chloroethylvinyl ether, Styrene, and Vinyl chloride.

A separate vial preserved to a pH of 4-5 is recommended in SW846 Chapter 4 for the analysis of Acrolein and Acrylonitrile by EPA Method 8260.

N-Nitrosodiphenylamine decomposes and cannot be separated from Diphenylamine using Method 8270 The result reported for each analyte is a combined concentration.

Pace Analytical is TNI accredited Contact your Pace PM for the current list of accredited analytes

TNI - The NELAC Institute.

LABORATORIES

PASI-C Pace Analytical Services - Charlotte

ANALYTE QUALIFIERS

L0	Analyte recovery in the laboratory control sample (LCS) was outside QC limits.
L3	Analyte recovery in the laboratory control sample (LCS) exceeded QC limits Analyte presence below reporting limits in associated samples. Results unaffected by high bias.
M0	Matrix spike recovery and/or matrix spike duplicate recovery was outside laboratory control limits.
M1	Matrix spike recovery exceeded QC limits Batch accepted based on laboratory control sample (LCS) recovery.
MS	Analyte recovery in the matrix spike was outside QC limits for one or more of the constituent analytes used in the calculated result.
P5	The EPA or method required sample preservation degrades this compound, therefore acceptable recoveries may not be achieved in sample matrix spikes.
R1	RPD value was outside control limits.
S2	Surrogate recovery outside laboratory control limits due to matrix interferences (confirmed by similar results from sample re-analysis)
S3	Surrogate recovery exceeded laboratory control limits. Analyte presence below reporting limits in associated samples Results unaffected by high bias
S5	Surrogate recovery outside control limits due to matrix interferences (not confirmed by re-analysis)

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QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project 04887/ 52240 WARREN GREEN
Pace Project No 92295419

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
92295419001	MW-1	EPA 8011	OEXT/42248	EPA 8011	GCSV/24827
92295419002	MW-2	EPA 8011	OEXT/42248	EPA 8011	GCSV/24827
92295419003	MW-3R	EPA 8011	OEXT/42335	EPA 8011	GCSV/24870
92295419004	MW-4	EPA 8011	OEXT/42248	EPA 8011	GCSV/24827
92295419005	MW-5	EPA 8011	OEXT/42248	EPA 8011	GCSV/24827
92295419006	MW-6	EPA 8011	OEXT/42335	EPA 8011	GCSV/24870
92295419007	MW-7	EPA 8011	OEXT/42335	EPA 8011	GCSV/24870
92295419008	MW-8	EPA 8011	OEXT/42249	EPA 8011	GCSV/24828
92295419009	MW-9	EPA 8011	OEXT/42249	EPA 8011	GCSV/24828
92295419010	MW-10	EPA 8011	OEXT/42335	EPA 8011	GCSV/24870
92295419011	MW-11	EPA 8011	OEXT/42335	EPA 8011	GCSV/24870
92295419012	MW-12	EPA 8011	OEXT/42249	EPA 8011	GCSV/24828
92295419013	MW-13	EPA 8011	OEXT/42249	EPA 8011	GCSV/24828
92295419014	MW-14	EPA 8011	OEXT/42335	EPA 8011	GCSV/24870
92295419015	MW-15	EPA 8011	OEXT/42335	EPA 8011	GCSV/24870
92295419016	DW-1	EPA 8011	OEXT/42249	EPA 8011	GCSV/24828
92295419017	DW-2	EPA 8011	OEXT/42249	EPA 8011	GCSV/24828
92295419018	DW-3	EPA 8011	OEXT/42249	EPA 8011	GCSV/24828
92295419019	DW-4	EPA 8011	OEXT/42249	EPA 8011	GCSV/24828
92295419020	DW-5	EPA 8011	OEXT/42249	EPA 8011	GCSV/24828
92295419021	DW-6	EPA 8011	OEXT/42249	EPA 8011	GCSV/24828
92295419022	WSW-1	EPA 8011	OEXT/42249	EPA 8011	GCSV/24828
92295419023	WSW-2	EPA 8011	OEXT/42249	EPA 8011	GCSV/24828
92295419024	WSW-3	EPA 8011	OEXT/42249	EPA 8011	GCSV/24828
92295419025	WSW-4	EPA 8011	OEXT/42249	EPA 8011	GCSV/24828
92295419026	DUP 1	EPA 8011	OEXT/42335	EPA 8011	GCSV/24870
92295419027	DUP 2	EPA 8011	OEXT/42249	EPA 8011	GCSV/24828
92295419028	FIELD BLANK	EPA 8011	OEXT/42250	EPA 8011	GCSV/24829
92295419022	WSW-1	EPA 8260	MSV/36596		
92295419023	WSW-2	EPA 8260	MSV/36596		
92295419024	WSW-3	EPA 8260	MSV/36596		
92295419025	WSW-4	EPA 8260	MSV/36596		
92295419001	MW-1	EPA 8260	MSV/36655		
92295419002	MW-2	EPA 8260	MSV/36627		
92295419003	MW-3R	EPA 8260	MSV/36627		
92295419004	MW-4	EPA 8260	MSV/36627		
92295419005	MW-5	EPA 8260	MSV/36627		
92295419006	MW-6	EPA 8260	MSV/36627		
92295419007	MW-7	EPA 8260	MSV/36641		
92295419008	MW-8	EPA 8260	MSV/36655		

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QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project. 04887/ 52240 WARREN GREEN
Pace Project No. 92295419

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
92295419009	**MW-9**	EPA 8260	MSV/36627		
92295419010	**MW-10**	EPA 8260	MSV/36627		
92295419011	**MW-11**	EPA 8260	MSV/36627		
92295419012	**MW-12**	EPA 8260	MSV/36627		
92295419013	**MW-13**	EPA 8260	MSV/36627		
92295419014	**MW-14**	EPA 8260	MSV/36627		
92295419015	**MW-15**	EPA 8260	MSV/36627		
92295419016	**DW-1**	EPA 8260	MSV/36627		
92295419017	**DW-2**	EPA 8260	MSV/36627		
92295419018	**DW-3**	EPA 8260	MSV/36627		
92295419019	**DW-4**	EPA 8260	MSV/36627		
92295419020	**DW-5**	EPA 8260	MSV/36627		
92295419021	**DW-6**	EPA 8260	MSV/36627		
92295419026	**DUP 1**	EPA 8260	MSV/36640		
92295419027	**DUP 2**	EPA 8260	MSV/36640		
92295419028	**FIELD BLANK**	EPA 8260	MSV/36627		
92295419029	**TRIP BLANK**	EPA 8260	MSV/36627		

Pace Analytical	Document Name: Sample Condition Upon Receipt(SCUR)	Document Revised: 18FEB2016 Page 1 of 2
	Document No.: F-CHR-CS-003-rev.18	Issuing Authority: Pace Huntersville Quality Office

Page 2 of 2 for Internal Use ONLY

Sample Condition Upon Receipt

Client Name: SCDHEC-UST

Project #: **WO# : 92295419**

92295419

Courier: ☐ Fed-Ex ☐ UPS ☐ USPS ☐ Client ☐ Commercial ☑ Pace ☐ Other:_____

Custody Seal Present? ☐ Yes ☑ No **Seals Intact?** ☐ Yes ☑ No

Date/Initials Person Examining Contents: BV 4/27

Packing Material: ☐ Bubble Wrap ☑ Bubble Bags ☐ None ☐ Other:_____

Thermometer: ☑ T1505 ☐ _____ **Type of Ice:** ☑ Wet ☐ Blue ☐ None ☑ Samples on ice, cooling process has begun

Correction Factor: 0.0°C **Cooler Temp Corrected (°C):** 4.1 **Biological Tissue Frozen?** ☐ Yes ☑ No ☐ N/A

Temp should be above freezing to 6°C

USDA Regulated Soil (☑ N/A, water sample)

Did samples originate in a quarantine zone within the United States: CA, NY, or SC (check maps)? ☑ Yes ☐ No

Did samples originate from a foreign source (internationally, including Hawaii and Puerto Rico)? ☐ Yes ☑ No

				COMMENTS:
Chain of Custody Present?	☑ Yes	☐ No	☐ N/A	1.
Chain of Custody Filled Out?	☑ Yes	☐ No	☐ N/A	2.
Chain of Custody Relinquished?	☑ Yes	☐ No	☐ N/A	3.
Sampler Name and/or Signature on COC?	☑ Yes	☐ No	☐ N/A	4.
Samples Arrived within Hold Time?	☑ Yes	☐ No	☐ N/A	5.
Short Hold Time Analysis (<72 hr.)?	☐ Yes	☑ No	☐ N/A	6.
Rush Turn Around Time Requested?	☐ Yes	☑ No	☐ N/A	7.
Sufficient Volume?	☑ Yes	☐ No	☐ N/A	8.
Correct Containers Used?	☑ Yes	☐ No	☐ N/A	9.
-Pace Containers Used?	☑ Yes	☐ No	☐ N/A	
Containers Intact?	☑ Yes	☐ No	☐ N/A	10.
Filtered Volume Received for Dissolved Tests?	☐ Yes	☑ No	☐ N/A	11. Note if sediment is visible in the dissolved container
Sample Labels Match COC? -Includes Date/Time/ID/Analysis Matrix: WT	☑ Yes	☐ No	☐ N/A	12.
All containers needing acid/base preservation have been checked?	☐ Yes	☑ No	☐ N/A	13.
All containers needing preservation are found to be in compliance with EPA recommendation? (HNO_3, H_2SO_4, HCl<2; NaOH >9 Sulfide, NaOH>12 Cyanide)	☐ Yes	☑ No	☐ N/A	
Exceptions: VOA, Coliform, TOC, Oil and Grease, DRO/8015 (water) DOC,LLHg	☑ Yes	☐ No	☑ N/A	
Samples checked for dechlorination	☐ Yes	☑ No	☐ N/A	14.
Headspace in VOA Vials (>5-6mm)?	☑ Yes	☐ No	☐ N/A	15. MW-3R(1) MW-6(4) MW-8(1) MW-9(4)
Trip Blank Present?	☑ Yes	☐ No	☐ N/A	16. MW-10(1) MW-13(3) MW-14(2) DW-4(1) DW-6(1) WSW-1(3) WSW-3(2) DUP2(1) Trip blank (1)
Trip Blank Custody Seals Present?	☑ Yes	☐ No	☐ N/A	
Pace Trip Blank Lot # (if purchased):_____				

CLIENT NOTIFICATION/RESOLUTION **Field Data Required?** ☐ Yes ☐ No

Person Contacted: _____ Date/Time: _____

Comments/Resolution: _____

Project Manager SCURF Review: TC **Date:** 4/27/16

Project Manager SRF Review: TC **Date:** 4/28/16

Note: Whenever there is a discrepancy affecting North Carolina compliance samples, a copy of this form will be sent to the North Carolina DEHNR Certification Office (i.e. Out of hold, incorrect preservative, out of temp, incorrect containers)

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CHAIN-OF-CUSTODY / Analytical Request Document

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

Page: 1 of 3

1996425

Section A
Required Client Information:

Company:	SCDHEC-UST
Address:	2600 Bull Street, Columbia, SC 29201
Email To:	bryantjc@dhec.sc.gov
Phone:	803-898-0606
Fax:	803-898-0673
Requested Due Date/TAT:	

Section B
Required Project Information:

Report To:	J. Bryant - UST
Copy To:	
Purchase Order No.:	4600422513
Project Name:	Warren Green
Project Number:	UST 04887/PACE ~~24~~

Section C
Invoice Information:

Attention:	
Company Name:	
Address:	
Pace Quote Reference:	
Pace Project Manager:	T. Carter
Pace Profile #:	849-1

REGULATORY AGENCY

☐ NPDES ☐ GROUND WATER ☐ DRINKING WATER
☑ UST ☐ RCRA ☐ OTHER ______

Site Location STATE: SC — Jasper

Section D Required Client Information

Matrix Codes MATRIX / CODE: Drinking Water DW, Water WT, Waste Water WW, Product P, Soil/Solid SL, Oil OL, Wipe WP, Air AR, Tissue TS, Other OT

SAMPLE ID (A-Z, 0-9 / ,-) Sample IDs MUST BE UNIQUE

Requested Analysis Filtered (Y/N)

Analysis Test: ~~BTEX NM 8620B~~, ~~1,2-DCA 8620B~~, ~~8 Oxys 8620B~~, EDB 8011, BTEX NM 8260B, 1,2-DCA 8260B, 8 Oxys 8260B

Pace Project No./ Lab I.D.: 92295419

ITEM #	SAMPLE ID	MATRIX CODE	SAMPLE TYPE (G=GRAB C=COMP)	Composite Start Date	Composite Start Time	Composite End/Grab Date	Composite End/Grab Time	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Unpreserved	H_2SO_4	HNO_3	HCl	NaOH	$Na_2S_2O_3$	Methanol	Other	Analysis Test Y/N	~~BTEX NM 8620B~~	~~1,2-DCA 8620B~~	~~8 Oxys 8620B~~	EDB 8011	BTEX NM 8260B	1,2-DCA 8260B	8 Oxys 8260B	Residual Chlorine (Y/N)	Comments	Lab I.D.
1	MW-1	WT	G			4/25/16	13:35		6				6									X	X	X	X		Odor	001
2	MW-2						15:30																				No odor	002
3	MW-3R						14:40																					003
4	MW-4						15:00																					004
5	MW-5						10:35																				No odor	005
6	MW-6						11:35																				Organic odor	006
7	MW-7						13:15																				Strong odor; sheen	007
8	MW-8						17:11																				No odor	008
9	MW-9						16:53																					009
10	MW-10						15:44																					010
11	MW-11						15:54																					011
12	MW-12	WT	G			4/25/16	16:08		6				6									X	X	X	X		No odor	012

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	Temp in °C	Received on Ice (Y/N)	Custody Sealed Cooler (Y/N)	Samples Intact (Y/N)
	Peter J. Wylie / MECI	4/27/16	4 27	[signature]	4-27-16	827				
	[signature]	4-27-16	1322	[signature] / Pace hu	4/27	13:22	4.1	Y	N	Y

ORIGINAL

SAMPLER NAME AND SIGNATURE

PRINT Name of SAMPLER: Peter J. Wylie

SIGNATURE of SAMPLER: [signature] DATE Signed (MM/DD/YY): 4/25/16

*Important Note: By signing this form you are accepting Pace's NET 30 day payment terms and agreeing to late charges of 1.5% per month for any invoices not paid within 30 days.

Pace Analytical® www.pacelabs.com

CHAIN-OF-CUSTODY / Analytical Request Document

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

Page: 2 of 3

1996423

Section A Required Client Information:
Company: SCDHEC-UST
Address: 2600 Bull Street
Columbia, SC 29201
Email To: bryantjc@dhec.sc.gov
Phone: 803-898-0606 Fax: 803-898-0673
Requested Due Date/TAT:

Section B Required Project Information:
Report To: J. Bryant
Copy To:
Purchase Order No.: 4600422513
Project Name: Warren Green
Project Number: UST 04887/

Section C Invoice Information:
Attention:
Company Name:
Address:
Pace Quote Reference:
Pace Project Manager: T. Carter
Pace Profile #:

REGULATORY AGENCY
NPDES / GROUND WATER / DRINKING WATER / ✓ UST / RCRA / OTHER

Site Location STATE: SC — Jasper

Requested Analysis Filtered (Y/N)

Section D Required Client Information — Matrix Codes (MATRIX / CODE): Drinking Water DW, Water WT, Waste Water WW, Product P, Soil/Solid SL, Oil OL, Wipe WP, Air AR, Tissue TS, Other OT

SAMPLE ID (A-Z, 0-9 / ,-) Sample IDs MUST BE UNIQUE

Pace Project No./ Lab I.D.: 92295419

ITEM #	SAMPLE ID	MATRIX CODE	SAMPLE TYPE (G=GRAB C=COMP)	COMPOSITE START DATE	COMPOSITE START TIME	COMPOSITE END/GRAB DATE	COMPOSITE END/GRAB TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Unpreserved	H_2SO_4	HNO_3	HCl	NaOH	$Na_2S_2O_3$	Methanol	Other	Analysis Test Y/N	~~BTEX N M 8270B~~	BTEX N M 8260B	1,2-DCA 8260B	8 Oxy 8260B	EDB 8011	Residual Chlorine (Y/N)	Pace Project No./ Lab I.D.
1	MW-13	WT	G			4/25/16	12:25		6				6							X	X	X	X		No odor 013
2	MW-14						12:00																		014
3	MW-15						12:50																		015
4	DW-1						13:55																		016
5	DW-2						15:16																		017
6	DW-3						10:57																		018
7	DW-4						11:15																		019
8	DW-5						14:20																		020
9	DW-6	WT					16:35																		No odor 021
10	WSW-1	DW					17:15																		No odor; LDLs 022
11	WSW-2	DW					17:25																		No odor; LDLs 023
12	WSW-3	DW	G			4/25/16	17:35		6				6							X	X	X	X		No odor; LDLs 024

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS			
	Peter Wylie / MECI	4/27/16	827	[signature]	4-27-16	827				
	[signature]	4-27-16	1322	[signature] / Pace NV	4-27	13:22	4.1	Y	N	Y

ORIGINAL

SAMPLER NAME AND SIGNATURE
PRINT Name of SAMPLER: Peter J. Wylie
SIGNATURE of SAMPLER: [signature] DATE Signed (MM/DD/YY): 4/25/16

Temp in °C | Received on Ice (Y/N) | Custody Sealed Cooler (Y/N) | Samples Intact (Y/N)

*Important Note: By signing this form you are accepting Pace's NET 30 day payment terms and agreeing to late charges of 1.5% per month for any invoices not paid within 30 days.

F-ALL-Q-020rev.07, 15-May-2007

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www.pacelabs.com

CHAIN-OF-CUSTODY / Analytical Request Document

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

Page: 3 of 3

1996424

Section A Required Client Information:

Company:	SCDHEC-UST
Address:	2600 Bull Street
	Columbia, SC 29201
Email To:	bryantjc@dhec.sc.gov
Phone:	803-898-0606
Fax:	803-898-0673
Requested Due Date/TAT:	

Section B Required Project Information:

Report To:	J. Bryant-UST
Copy To:	
Purchase Order No.:	4600422513
Project Name:	Warren Green
Project Number:	UST 04887

Section C Invoice Information:

Attention:	
Company Name:	
Address:	
Pace Quote Reference:	
Pace Project Manager:	T. Carter
Pace Profile #:	

REGULATORY AGENCY

☐ NPDES ☐ GROUND WATER ☐ DRINKING WATER

☑ UST ☐ RCRA ☐ OTHER

Site Location STATE: SC — Jasper

Section D Required Client Information

Matrix Codes MATRIX / CODE: Drinking Water DW, Water WT, Waste Water WW, Product P, Soil/Solid SL, Oil OL, Wipe WP, Air AR, Tissue TS, Other OT

SAMPLE ID (A-Z, 0-9 / ,-) Sample IDs MUST BE UNIQUE

Requested Analysis Filtered (Y/N)

Pace Project No./ Lab I.D.: 92295419

ITEM #	SAMPLE ID	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	COMPOSITE START DATE	COMPOSITE START TIME	COMPOSITE END/GRAB DATE	COMPOSITE END/GRAB TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Unpreserved	H_2SO_4	HNO_3	HCl	NaOH	$Na_2S_2O_3$	Methanol	Other	Analysis Test Y/N	BTEX N M 8260B	1,2-DCA 8260B	8 Oxys 8260B	EDB 8011	Residual Chlorine (Y/N)	Pace Project No./ Lab I.D.
1	WSW-4	DW	G				17:40		6				6						X	X	X	X		No odor; LDLs 025
2	Dup 1	WT	↓				13:15		↓				↓						↓	↓	↓	↓		Strong odor; sheen 026
3	Dup 2						13:35																	Odor 027
4	Field blank	↓	↓				17:41		6				6						↓	↓	↓	X		Field blank 028
5	Trip blank	WT	G				17:42		2				2						X	X	X			Trip blank 029
6																								
7																								
8																								
9																								
10																								
11																								
12																								

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	Temp in °C	Received on Ice (Y/N)	Custody Sealed Cooler (Y/N)	Samples Intact (Y/N)
	Peter J. Wylie	4/27/16	8:27	[signature]	4-27-16	8:27				
	[signature]	4-27-16	1322	[signature] / Pace	4/27	13:22	4.1	Y	N	Y

ORIGINAL

SAMPLER NAME AND SIGNATURE

PRINT Name of SAMPLER: Peter J. Wylie

SIGNATURE of SAMPLER: [signature] DATE Signed (MM/DD/YY): 4/25/16

*Important Note: By signing this form you are accepting Pace's NET 30 day payment terms and agreeing to late charges of 1.5% per month for any invoices not paid within 30 days.

F-ALL-Q-020rev.07, 15-May-2007

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UST
03161
DOCKETING

MAY 1 5 2018

LASONYA EADY REGINALD BASCOM & EVERETTE BASCOM
194 OAK HILL RD
RIDGELAND SC 29936

Re: **Request for Property Access**
Warren Green, 10773 West Frontage Road, Yemassee, SC 29945
UST Permit # 04887
Release Reported May 16, 2002
Jasper County

Dear Ms. and Mr. Bascom :

The Underground Storage Tank (UST) Management Division of the South Carolina Department of Health and Environmental Control (DHEC) documented a release from the UST system at the referenced site on May 16, 2002.

To determine what risk the above reported release may pose to the environment and public health, and in accordance with Section 280.65 of the South Carolina Underground Storage Tank Control Regulations, implementation of monitoring well installation and groundwater sampling are necessary to define the petroleum plume. For this site, the required action will be funded by the State Underground Petroleum Environmental Response Bank (SUPERB) Account. The UST Management Division is requesting your permission for the contractor to enter your property to perform the necessary work and all future work. The UST Division will keep you apprised of all pending activities and provide you a copy of all reports upon request. **Please complete the attached Permission form and return it to my attention within 15 days from your date of receipt.**

If you have any questions, please contact me by phone at (803) 898-0606 or by e-mail at butlerkh@dhec.sc.gov.

Sincerely,

Kathryn H Butler

Kathryn H. Butler, Hydrogeologist
Corrective Action and Field Support Section
Underground Storage Tank Management Division
Bureau of Land and Waste Management

enc: Permission Form
cc: Technical file (w/enc)

PERMISSION FORM

UNDERGROUND STORAGE TANK AND PROPERTY OWNER

UST Permit #04887

If you are both the owner of the former or existing underground storage tanks for the release reported on May 16, 2002 and the current property owner, please complete this form.

I, ____________________________, certify that I am the identified legal owner of the abandoned underground storage tanks for the release reported on May 16, 2002 and property located at the facility identified below or serve as the authorized representative for the owner. I grant permission to the South Carolina Department of Health and Environmental Control (DHEC) to secure on my behalf contractor services to conduct assessment and corrective action activities as required, and authorize DHEC, or a contractor selected by DHEC, to enter this property at reasonable times only to accomplish these site rehabilitation tasks. The contractor(s) will be designated as my contractor for only the required site rehabilitation activities. Compensation to the contractor(s) will be from the SUPERB Account and I will have no obligation to pay the contractor(s). I understand that DHEC or its contractor will be responsible for notifying me of all activities that are necessary prior to their initiation and will promptly provide to me a copy of each environmental report. I understand that I may choose to select my own contractor at the completion of any phase of work by notifying the Division of Underground Storage Tank Management in writing.

Name of Facility WARREN GREEN Phone # ____________________

Street Address of Facility 10773 W FRONTAGE RD

Town, City, District, Suburb YEMASSEE, SC

Name of nearest intersecting street, road, highway, alley ____________________

Is this facility within the city limits? (yes or no) ________

Does a public water or sewer utility service this facility? (yes or no) ______________, if no, please provide the name and phone number of a person that we can contact that can assist in the location of private water and septic tank lines ____________________, phone number ______________

Is the property currently leased or rented to someone? (yes or no) __________. If yes, please provide their name ____________________and phone number ______________and let them know about the pending site rehabilitation activities. If vehicles or other mobile structures are parked over the monitoring wells, they should be moved before DHEC's contractor arrives at the site.

NAME of UST/property owner (Please Print):____________________

Phone Number (home)________________(work)________________

Signature of UST/property Owner:____________________

Witness:____________________

Date:________________Month ________________Day________________Year

Please return to Kathryn H. Butler, UST Management Division, 2600 Bull Street, SC 29201
Disclaimer: Personal Information provided on this document is subject to public scrutiny or release.

04887

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UST 37 DOCKETING

MR BRYAN SHANE PG
MIDLANDS ENVIRONMENTAL CONSULTANTS
PO BOX 854
LEXINGTON SC 29071

JUN 0 4 2018

Re: Site Specific Work Plan Requests
Groundwater Sampling Contract
Solicitation #IFB-5400012906; PO #4600624358

Dear Mr. Shane:

In accordance with bid solicitation # IFB-5400012906 and the UST Management Division Quality Assurance Program Plan (QAPP) Revision 3.1, it is requested that you submit a Site Specific Work Plan (SSWP) based on the site information packages provided and listed below.

UST PERMIT #	CONTACT-PM	COUNTY	UST PERMIT #	CONTACT-PM	COUNTY
01446	PATTERKC	Charleston	05001	WYKELJM	Horry
01502	PATTERKC	Charleston	11462	PATTERKC	Darlington
01203	MARTINSR	Berkeley	15749	PATTERKC	Florence
01250	BUTLERKH	Berkeley	03483	PATTERKC	Florence
14548	BUTLERKH	Colleton			
04887	BUTLERKH	Jasper			
12699	WYKELJM	Horry			

The SSWPs must be submitted within 15 business days to my attention. The project manager for each site will issue a notice to proceed once the plan has been reviewed and approved. Please contact me with the sampling schedule before commencing work at these facilities. In addition, a weekly update for each site is required to be submitted via e-mail to the site's project manager and myself. If you have any questions or need further assistance, please contact me by phone (803) 898-0671 or email dunnra@dhec.sc.gov.

Sincerely,

Robert A. Dunn, Hydrogeologist
Corrective Action Section
UST Management Division
Bureau of Land & Waste Management

Enc: Site Information Packages

Cc: Technical File (w/o Site Information Packages)

04

S.C. Department of Health and Environmental Control

UNDERGROUND STORAGE TANK PROGRAM
BUREAU OF LAND AND WASTE MANAGEMENT
2600 Bull Street, Columbia, South Carolina 29201
Telephone: 803-898-2544

MEMORANDUM

TO: Midlands Environmental Consultants, Inc

FROM: Kathryn H. Butler

RE: **Site Specific Work Plan Request**

Facility Name: WARREN GREEN

Permit Number: 04887

County: Jasper

Work To Be Completed: Please submit a SSWP for GWS of all MW's, water supply wells, and surface water associated with the above referenced site. Only wells with screens not bracketing the water table should be purged prior to sample collection. ROE request pending.

Total Number of Monitoring Well Samples: 21

Analysis Being Requested: BTEXNM, 1,2 DCA, 8-Oxys and EDB - 8260b, 8011

Total Number of Water Supply Well Samples: 4

Analysis Being Requested: BTEXNM, 1,2 DCA, 8-Oxys and EDB - 524.2, 8260b

Midlands Environmental Consultants, Inc.

July 9, 2018

Mr. Robert Dunn, Hydrogeologist
Corrective Action & Field Support Section
Underground Storage Tank Management Division
Bureau of Land and Waste Management
South Carolina Department of Health
and Environmental Control
2600 Bull Street
Columbia, South Carolina 29201

Subject: Site-Specific Work Plan
Warren Green
Yemassee, South Carolina
SCDHEC Site ID Number 04887
MECI Project Number 18-6473
Certified Site Rehabilitation Contractor UCC-0009

Dear Mr. Dunn,

Midlands Environmental Consultants Inc. (MECI) is pleased to submit the attached Site-Specific Work Plan for the referenced site.

On June 29, 2018, MECI personnel performed a site visit to the subject sites to evaluate site conditions, locate monitoring wells and identify potential problems for future sampling activities.

If you have any question or comments please feel free to contact us at 803-808-2043.

Sincerely,
Midlands Environmental Consultants, Inc.

for Kyle V. Pudney
Project Biologist

Jeff L. Coleman
Senior Scientist

Post Office Box 854, Lexington SC 29071 • 231 Dooley Road, Lexington, SC 29073
Telephone: (803) 808-2043 • fax: (803) 808-2048

Site-Specific Work Plan for Approved ACQAP
Underground Storage Tank Management Division

To: Ms. Kathryn Butler (SCDHEC Project Manager)
From: Jeff L. Coleman (Contractor Project Manager)
Contractor: Midlands Environmental Consultants, Inc. UST Contractor Certification Number: 009

Facility Name: Warren Green UST Permit #: 04887
Facility Address: 10773 Frontage Road, Yemasee, SC 29945
Responsible Party: Lasonya Eady, Reginald Bascom Phone: 843-726-9038
RP Address: 194 Oak Hill Road, Ridgeland, SC 29936
Property Owner (if different): SAA
Property Owner Address: SAA
Current Use of Property: Vacant Lot

Scope of Work (Please check all that apply)

- ☐ IGWA
- ☐ Tier I
- ☐ Tier II
- ☐ Monitoring Well Installation
- ☑ Groundwater Sampling
- ☐ Other ____
- ☐ GAC

Analyses (Please check all that apply)

Groundwater/Surface Water:

- ☑ BTEXNMDCA (8260B)
- ☑ Oxygenates (8260B)
- ☑ EDB (8011)
- ☐ PAH (8270D)
- ☐ Lead
- ☐ 8 RCRA Metals
- ☐ TPH
- ☐ pH
- ☐ BOD
- ☐ Nitrate
- ☐ Sulfate
- ☐ Other ____
- ☐ Methane
- ☐ Ethanol
- ☐ Dissolved Iron

Drinking Water Supply Wells:

- ☑ BTEXNMDCA (524.2)
- ☑ Oxygenates & Ethanol (8260B)
- ☐ Mecury (200.8 245.1 or 245.2)
- ☐ RCRA Metals (200.8)
- ☑ EDB (504.1)

Soil:

- ☐ BTEXNM
- ☐ PAH
- ☐ Lead
- ☐ RCRA Metals
- ☐ Oil & Grease (9071)
- ☐ TPH-DRO (3550B/8015B)
- ☐ TPH-GRO (5030B/8015B)
- ☐ Grain Size
- ☐ TOC

Air:

- ☐ BTEXN

Sample Collection (Estimate the number of samples of each matrix that are expected to be collected.)

____ Soil   4 Water Supply Wells   ____ Air   2 Field Blank
21 Monitoring Wells   ____ Surface Water   3 Duplicate   2 Trip Blank

Field Screening Methodology

Estimate number and total completed depth for each point, and include their proposed locations on the attached map.
# of shallow points proposed: ____ Estimated Footage: ____ feet per point
# of deep points proposed: ____ Estimated Footage: ____ feet per point
Field Screening Methodology: ____

Permanent Monitoring Wells

Estimate number and total completed depth for each well, and include their proposed locations on the attached map.
# of shallow wells: ____ Estimated Footage: ____ feet per point
# of deep wells: ____ Estimated Footage: ____ feet per point
# of recovery wells: ____ Estimated Footage: ____ feet per point
Comments, if warranted:

UST Permit #: 04887 Facility Name: Warren Green

Implementation Schedule (Number of calendar days from approval)
Field Work Start-Up: 7/9/2018 Field Work Completion: 8/9/2018
Report Submittal: 9/9/2018 # of Copies Provided to Property Owners: 0

Aquifer Characterization
Pump Test: ☐ Slug Test: ☐ (Check one and provide explanation below for choice)

Investigation Derived Waste Disposal
Soil: ______ Tons Purge Water: 200.0 Gallons
Drilling Fluids: ______ Gallons Free-Phase Product: ______ Gallons

Additional Details For This Scope of Work
For example, list wells to be sampled, wells to be abandoned/repaired, well pads/bolts/caps to replace, details of AFVR event, etc.

-During the initial site visit, monitoring well MW-3R was unable to be located and is possibly underneath a large asphalt pile. If it is located during the sampling event, it will be sampled accordingly. All other monitoring wells were located and found to be in good condition.
-Only wells with screens not bracketing the water table will be purged prior to sample collection.
-Monitoring well samples will be analyzed for BTEXNM, 8-OXY, 1,2-DCA (8260B), EDB, (8011).
-Water supply wells samples will be analyzed for BTEXNM, 1,2-DCA (524.2), 8-OXY's (8260B), and EDB (504.1).

Compliance With Annual Contractor Quality Assurance Plan (ACQAP)
Yes Laboratory as indicated in ACQAP? (Yes/No) If no, indicate laboratory information below.
Name of Laboratory: ______
SCDHEC Certification Number: ______
Name of Laboratory Director: ______

N/A Well Driller as indicated in ACQAP? (Yes/No) If no, indicate driller information below.
Name of Well Driller: ______
SCLLR Certification Number: ______

None Other variations from ACQAP. Please describe below.

Attachments
1. Attach a copy of the relevant portion of the USGS topographic map showing the site location.
2. Prepare a site base map. This map must be accurately scaled, but does not need to be surveyed. The map must include the following:
   - North Arrow
   - Location of property lines
   - Location of buildings
   - Previous soil sampling locations
   - Previous monitoring well locations
   - Proposed soil boring locations
   - Proposed monitoring well locations
   - Legend with facility name and address, UST permit number, and bar scale
   - Streets or highways (indicate names and numbers)
   - Location of all present and former ASTs and USTs
   - Location of all potential receptors
3. Assessment Component Cost Agreement, SCDHEC Form D-3664

dhec

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ASSESSMENT COMPONENT COST AGREEMENT
SOUTH CAROLINA

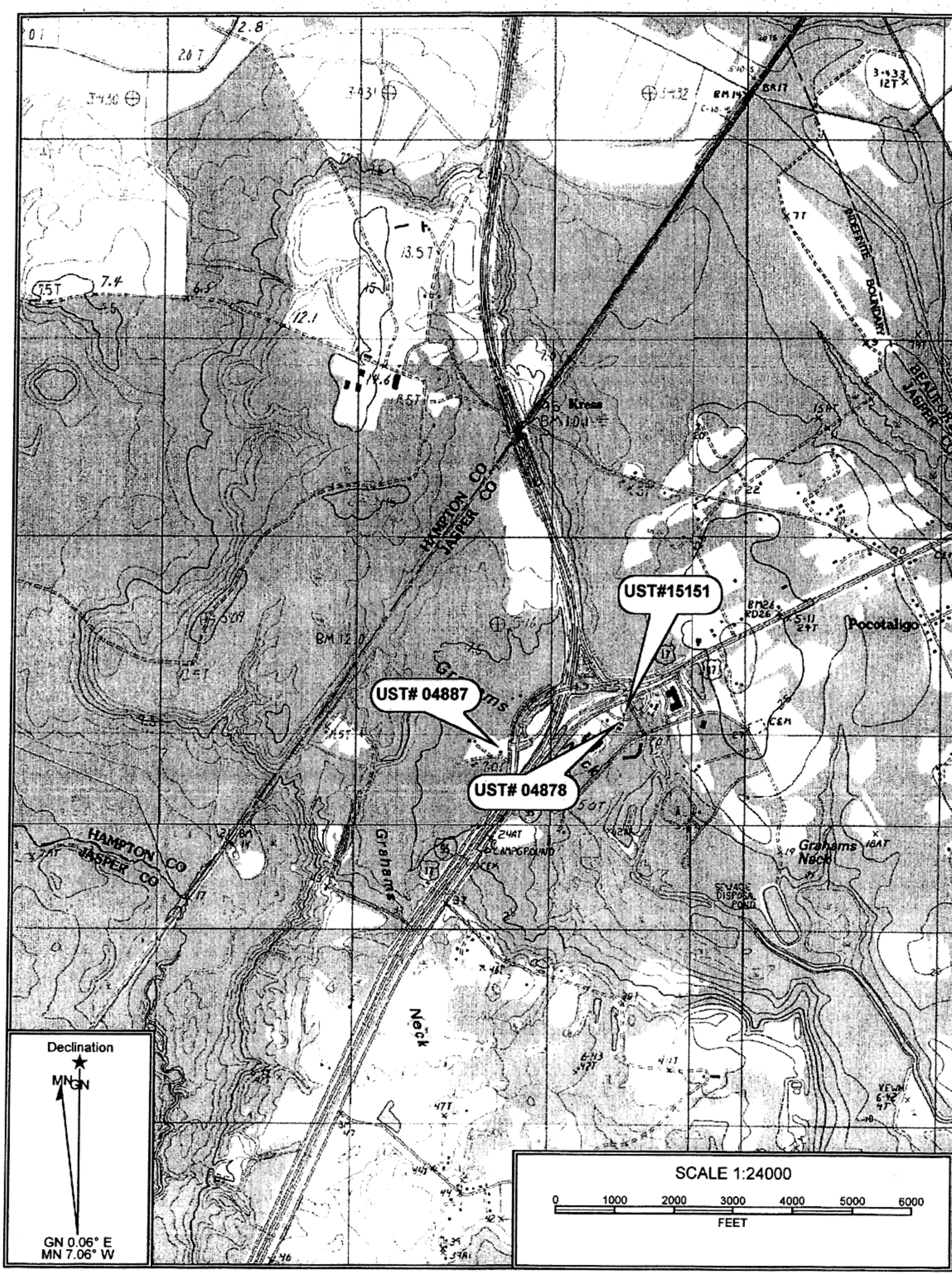
Department of Health and Environmental Control
Underground Storage Tank Management Division
State Underground Petroleum Environmental Response Bank Account
CONTRACT PO NUMBER 4600559329

Facility Name: Warren Green

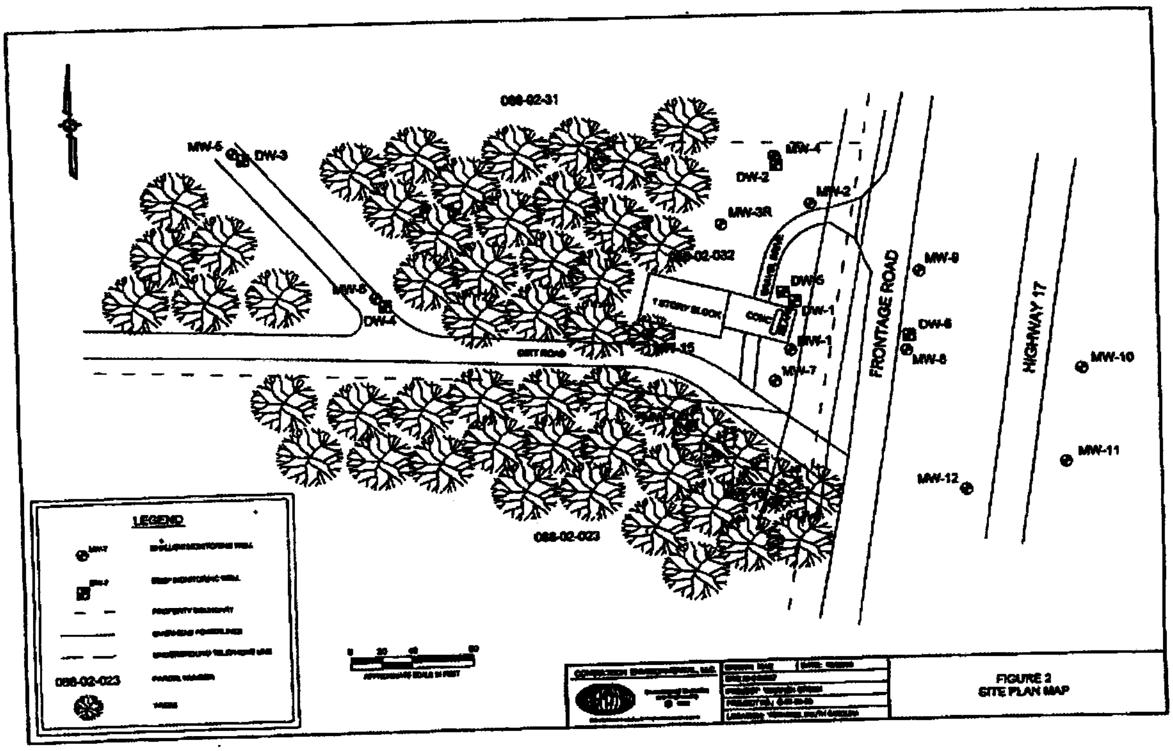
UST Permit #: 04887 **Cost Agreement #:** Proposal

ITEM	QUANTITY	UNIT	UNIT PRICE		TOTAL
1. **Plan***					
A1. Site Specific Work Plan	1	each	$1.00		$1.00
B1. Tax Map		each	$1.00		$0.00
C1. QAPP Appendix B		each	$1.00		$0.00
2. A1. Receptor Survey		each	$1.00		$0.00
4. **Mob/Demob**					
B1. Personnel	2	each	$1.00		$2.00
10. **Groundwater Sample Collection / Gauge Depth to Water or Product (Each)**					
A1. Groundwater Purge	6	per well	$36.50		$219.00
B1. Air or Vapors		samples	$1.00		$0.00
C1. Water Supply	4	samples	$18.00		$72.00
D1. Groundwater No Purge or Duplicate	15	per well	$27.50		$412.50
E1. Gauge Well only		per well	$1.00		$0.00
F1. Sample Below Product		per well	$1.00		$0.00
G1. Pasive Diffusion Bag		each	$20.00		$0.00
H1. Field Blank	1	each	$1.00		$1.00
17. **Disposal* (gallons or tons)**					
AA. Disposal/Water	200	gallons	$1.00		$200.00
BB. Free Product		gallons	$0.05		$0.00
Note: Rate includes costs or rental of suitable container(s)					
23. D. Site Reconnaissance	1	each	$1.00		$1.00
18. **Miscellaneous**					
GW Contour Map		each	$25.00		$0.00
Isopleth Map		each	$25.00		$0.00
High-Strength Well Pad Replacement		each	$75.00		$0.00
Data Table		each	$50.00		$0.00
Low Flow Sampling		per well	$55.00		$0.00
25. **Well Repair**					
B1. Repair 2x2 MW Pad		each	$50.00		$0.00
C1. Repair 4x4 MW Pad		each	$50.00		$0.00
D1. Replace Well Vault		each	$50.00		$0.00
E. Replace well cover		each	$25.00		$0.00
F1. Replace well cover bolts		each	$2.60		$0.00
G. Replace locking well cap & lock		each	$15.00		$0.00
K1. Replace Missing Well ID Plate		each	$10.00		$0.00
TOTAL					$907.50

*The appropriate mobilization cost can be added to complete these tasks, as necessary



UST#15151
UST# 04887
UST# 04878
Pocotaligo
HAMPTON CO
JASPER CO
BEAUFORT CO
JASPER CO
Grahams
Neck
Grahams Neck
Kress
SEWAGE DISPOSAL POND
CAMPGROUND
Declination
MN
GN
GN 0.06° E
MN 7.06° W
SCALE 1:24000
0
1000
2000
3000
4000
5000
6000
FEET



086-02-31
MW-5
DW-3
MW-4
DW-2
MW-2
MW-3R
086-02-032
MW-6
DW-4
1 STORY BLOCK
CONC
DW-5
DW-1
SW-1
MW-7
MW-15
DIRT ROAD
FRONTAGE ROAD
MW-9
DW-6
MW-8
HIGHWAY 17
MW-10
MW-11
MW-12
086-02-023
LEGEND
086-02-023
0 20 40 80
FIGURE 2
SITE PLAN MAP

dhec
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UST DOCKETING 39 [handwritten initials]

MR BRYAN SHANE PG
MIDLANDS ENVIRONMENTAL CONSULTANTS
PO BOX 854
LEXINGTON SC29071

SEP 1 9 2018

Re: Notice to Proceed-Site Specific Work Plan Approval
Groundwater Sampling Contract
Solicitation #IFB-5400012906, PO #4600660752
Warren Green, 10773 West Frontage Road, Yemassee, SC
UST Permit #04887; MECI CA #57680; Pace CA #57679
Jasper County

Dear Mr. Shane:

In accordance with bid solicitation #IFB-5400012906 and the Underground Storage Tank (UST) Management Division Quality Assurance Program Plan (QAPP), the Site-Specific Work Plan has been reviewed and approved. In accordance with the approved QAPP, a status report of the project should be provided on a weekly basis via e-mail. If any quality assurance problems arise, you must contact me within 24 hours via phone or e-mail. In addition, a discussion of the problem(s) encountered, including quality assurance problems, the actions taken, and the results must be included in the final report submitted to the UST Management Division.

Services at the site are to be performed on behalf of the site's responsible party (RP); however, payment will be made from the SUPERB Account. Please coordinate access to the facility with the property owner. DHEC grants pre-approval for transportation of virgin petroleum impacted soil and groundwater from the referenced site to a permitted treatment facility. There can be no spillage or leakage in transport. All Investigation-Derived Waste (IDW) must be properly contained and labeled prior to disposal.A copy of the disposal manifest and/or acceptance letter from the receiving facility that clearly designates the quantity received must be included with the final report.The SUPERB Account will not reimburse for transportation or treatment of soil and/or groundwater with concentrations below RBSLs.

Please note, sampling should be conducted within 15 calendar days from the date of this letter. The final report is due within three weeks from the date the site is sampled.If the site is not sampled by the specified due date or the report is not received in the specified time period, a late fee may be imposed. The final report should contain therequirements of Section III.2.15 of the bid solicitation. The final report should be submitted to Robert Dunn, the contract manager.

If you have any site-specific questions, please contact me at (803) 898-0606 or via e-mail at butlerkh@dhec.sc.gov. If you have any contract specific questions, please contact Robert Dunn by phone (803) 898-0671 or email dunnra@dhec.sc.gov.

Sincerely,

Kathryn H. Butler

Kathryn H. Butler, Hydrogeologist
Corrective Action & Field Support Section
UST Management Division
Bureau of Land & Waste Management

Enc: Approved Cost Agreement (both CAs)
Cc: Trey Carter, Pace Analytical Services, 9800 Kincey Ave, Ste 100, Huntersville, NC, 28078 (w/CA)
Technical File (w/ Enc)

Approved Cost Agreement 57680

Facility: 04887 WARREN GREEN

BUTLERKH

PO Number:

Task / Description	Categories	Item	Description	Qty / Pct	Unit Price	Amount
01 PLAN						
		A1	SITE SPECIFIC WORK PLAN	1.0000	$1.000	1.00
04 MOB/DEMOB						
		B1	PERSONNEL	2.0000	$1.000	2.00
10 SAMPLE COLLECTION						
		A1	GROUNDWATER (PURGE)	6.0000	$36.500	219.00
		C1	WATER SUPPLY	4.0000	$18.000	72.00
		D1	GROUNDWATER NO PURGE/DUPLICATE	15.0000	$27.500	412.50
		H1	FIELD BLANK	1.0000	$1.000	1.00
17 DISPOSAL						
		AA	WASTEWATER	200.0000	$1.000	200.00
23 EFR						
		D	SITE RECONNAISSANCE	1.0000	$1.000	1.00
25 WELL REPAIR						
		B1	REPAIR 2X2 MONITORING WELL PAD	1.0000	$50.000	50.00
				Total Amount		958.50

Approved Cost Agreement 57679

Facility: 04887 WARREN GREEN

BUTLERKH

PO Number:

Task / Description	Categories	Item Description	Qty / Pct	Unit Price	Amount
11 ANALYSES					
	GW GROUNDWATER	A2 BTEXNM+OXYGS+1,2-DCA+ETH-8260B	25.0000	$21.000	525.00
		F1 EDB BY 8011	24.0000	$18.000	432.00
	WATER DRINKING WATER	L BTEXNM+1,2 DCA (524.2)	7.0000	$36.000	252.00
		M 7-OXYGENATES & ETHANOL (8260B)	7.0000	$13.000	91.00
		N EDB (504.1)	6.0000	$18.000	108.00
			Total Amount		1,408.00

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November 13, 2007

Ms. Debra Thoma
SCDHEC
UST Program
2600 Bull Street
Columbia, SC 29201

RE: Project: WARREN GREEN 04887
Pace Project No.: 927563

Dear Ms. Thoma:

Enclosed are the analytical results for sample(s) received by the laboratory on November 09, 2007. The results relate only to the samples included in this report. Results reported herein conform to the most current NELAC standards, where applicable, unless otherwise narrated in the body of the report.

Inorganic Wet Chemistry and Metals analyses were performed at our Pace Asheville laboratory and Organic testing was performed at our Pace Huntersville laboratory unless otherwise footnoted. All Microbiological analyses were performed at the laboratory where the samples were received.

If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Kevin Herring

kevin.herring@pacelabs.com
Project Manager

Enclosures

UST PROGRAM
DOCKETING # 4

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CERTIFICATIONS

Project: WARREN GREEN 04887
Pace Project No.: 927563

Charlotte Certification IDs
Florida/NELAP Certification Number: E87627
Kansas Certification Number: E-10364
Louisiana/LELAP Certification Number: 04034
North Carolina Drinking Water Certification Number: 37706
North Carolina Wastewater Certification Number: 12
North Carolina Field Services Certification Number: 5342
South Carolina Certification Number: 990060001
South Carolina Bioassay Certification Number: 990060003
Tennessee Certification Number: 04010
Virginia Certification Number: 00213

Asheville Certification IDs
Florida/NELAP Certification Number: E87648
Louisiana/LELAP Certification Number: 03095
New Jersey Certification Number: NC011
North Carolina Drinking Water Certification Number: 37712
North Carolina Wastewater Certification Number: 40
North Carolina Bioassay Certification Number: 9
Pennsylvania Certification Number: 68-03578
South Carolina Certification Number: 99030001
South Carolina Bioassay Certification Number: 99030002
Tennessee Certification Number: 2980
Virginia Certification Number: 00072

Eden Certification IDs
North Carolina Drinking Water Certification Number: 37738
Virginia Drinking Water Certification Number: 00424
North Carolina Wastewater Certification Number: 633

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SAMPLE SUMMARY

Project: WARREN GREEN 04887
Pace Project No.: 927563

Lab ID	Sample ID	Matrix	Date Collected	Date Received
927563001	**WSW-2**	Water	11/08/07 13:00	11/09/07 17:05

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SAMPLE ANALYTE COUNT

Project: WARREN GREEN 04887
Pace Project No.: 927563

Lab ID	Sample ID	Method	Analytes Reported
927563001	**WSW-2**	EPA 8011	2
		EPA 8260	12

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ANALYTICAL RESULTS

Project: WARREN GREEN 04887
Pace Project No.: 927563

Sample: WSW-2 **Lab ID: 927563001** Collected: 11/08/07 13:00 Received: 11/09/07 17:05 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8011 GCS EDB and DBCP	Analytical Method: EPA 8011 Preparation Method: EPA 8011								
1,2-Dibromoethane (EDB)	ND	ug/L	0.020	0.020	1	11/11/07 10:10	11/12/07 17:30	106-93-4	
1-Chloro-2-bromopropane (S)	81	%	60-140		1	11/11/07 10:10	11/12/07 17:30	301-79-56	
8260 MSV Low Level	Analytical Method: EPA 8260								
Benzene	ND	ug/L	1.0	0.25	1		11/12/07 08:32	71-43-2	
1,2-Dichloroethane	ND	ug/L	1.0	0.12	1		11/12/07 08:32	107-06-2	
Ethylbenzene	ND	ug/L	1.0	0.30	1		11/12/07 08:32	100-41-4	
Methyl-tert-butyl ether	ND	ug/L	1.0	0.21	1		11/12/07 08:32	1634-04-4	
Naphthalene	ND	ug/L	1.0	0.24	1		11/12/07 08:32	91-20-3	
Toluene	ND	ug/L	1.0	0.26	1		11/12/07 08:32	108-88-3	
m&p-Xylene	ND	ug/L	2.0	0.66	1		11/12/07 08:32	1330-20-7	
o-Xylene	ND	ug/L	1.0	0.23	1		11/12/07 08:32	95-47-6	
4-Bromofluorobenzene (S)	99	%	87-109		1		11/12/07 08:32	460-00-4	
Dibromofluoromethane (S)	99	%	85-115		1		11/12/07 08:32	1868-53-7	
1,2-Dichloroethane-d4 (S)	91	%	79-120		1		11/12/07 08:32	17060-07-0	
Toluene-d8 (S)	99	%	70-120		1		11/12/07 08:32	2037-26-5	

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QUALITY CONTROL DATA

Project: WARREN GREEN 04887
Pace Project No.: 927563

QC Batch: MSV/1759
QC Batch Method: EPA 8260
Associated Lab Samples: 927563001

Analysis Method: EPA 8260
Analysis Description: 8260 MSV Low Level

METHOD BLANK: 39704

Associated Lab Samples: 927563001

Parameter	Units	Blank Result	Reporting Limit	Qualifiers
1,2-Dichloroethane	ug/L	ND	1.0	
Benzene	ug/L	ND	1.0	
Ethylbenzene	ug/L	ND	1.0	
m&p-Xylene	ug/L	ND	2.0	
Methyl-tert-butyl ether	ug/L	ND	1.0	
Naphthalene	ug/L	ND	1.0	
o-Xylene	ug/L	ND	1.0	
Toluene	ug/L	ND	1.0	
1,2-Dichloroethane-d4 (S)	%	92	79-120	
4-Bromofluorobenzene (S)	%	99	87-109	
Dibromofluoromethane (S)	%	97	85-115	
Toluene-d8 (S)	%	100	70-120	

LABORATORY CONTROL SAMPLE: 39705

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,2-Dichloroethane	ug/L	50	52.1	104	72-126	
Benzene	ug/L	50	58.5	117	78-128	
Ethylbenzene	ug/L	50	57.9	116	80-127	
m&p-Xylene	ug/L	100	111	111	82-127	
Methyl-tert-butyl ether	ug/L	50	57.8	116	71-130	
Naphthalene	ug/L	50	59.1	118	52-136	
o-Xylene	ug/L	50	55.1	110	83-124	
Toluene	ug/L	50	57.9	116	76-126	
1,2-Dichloroethane-d4 (S)	%			91	79-120	
4-Bromofluorobenzene (S)	%			103	87-109	
Dibromofluoromethane (S)	%			101	85-115	
Toluene-d8 (S)	%			100	70-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 39706 39707

Parameter	Units	927207013 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Benzene	ug/L	ND	50	50	60.6	56.7	121	113	74-136	7	30	
Toluene	ug/L	ND	50	50	58.5	54.4	117	109	73-131	7	30	
1,2-Dichloroethane-d4 (S)	%						88	89	79-120			
4-Bromofluorobenzene (S)	%						99	99	87-109			
Dibromofluoromethane (S)	%						96	98	85-115			
Toluene-d8 (S)	%						98	99	70-120			

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QUALITY CONTROL DATA

Project: WARREN GREEN 04887
Pace Project No.: 927563

QC Batch: OEXT/1702
QC Batch Method: EPA 8011
Associated Lab Samples: 927563001

Analysis Method: EPA 8011
Analysis Description: GCS 8011 EDB DBCP

METHOD BLANK: 39750
Associated Lab Samples: 927563001

Parameter	Units	Blank Result	Reporting Limit	Qualifiers
1,2-Dibromoethane (EDB)	ug/L	ND	0.020	
1-Chloro-2-bromopropane (S)	%	80	60-140	

LABORATORY CONTROL SAMPLE & LCSD: 39751 39752

Parameter	Units	Spike Conc.	LCS Result	LCSD Result	LCS % Rec	LCSD % Rec	% Rec Limits	RPD	Max RPD	Qualifiers
1,2-Dibromoethane (EDB)	ug/L	.29	0.26	0.27	90	94	60-140	4	20	
1-Chloro-2-bromopropane (S)	%				84	87	60-140			

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QUALIFIERS

Project: WARREN GREEN 04887
Pace Project No.: 927563

DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to changes in sample preparation, dilution of the sample aliquot, or moisture content.

ND - Not Detected at or above adjusted reporting limit.

J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.

MDL - Adjusted Method Detection Limit.

S - Surrogate

1,2-Diphenylhydrazine (8270 listed analyte) decomposes to Azobenzene.

Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

Pace Analytical is NELAP accredited. Contact your Pace PM for the current list of accredited analytes.

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CHAIN-OF-CUSTODY / Analytical Request Document

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

Page: of

894010

Section A
Required Client Information:

Company	SCDHEC/UST PROGRAM
Address	2600 Bull St.
	Cola., SC 29201
Email To:	
Phone 803-896-6840	Fax
Requested Due Date/TAT:	24 HR TAT

Section B
Required Project Information:

Report To:	D. Thoma
Copy To:	Finance
	M. Johnson
Purchase Order No.:	587465
Project Name:	Warren Green
Project Number:	04887

Section C
Invoice Information:

Attention:	
Company Name:	
Address:	
Pace Quote Reference:	
Pace Project Manager:	
Pace Profile #:	849-3

REGULATORY AGENCY

☐ NPDES ☐ GROUND WATER ☐ DRINKING WATER
☒ UST ☐ RCRA ☐ Other

SITE LOCATION

☐ GA ☐ IL ☐ IN ☐ MI ☐ MN ☐ NC
☐ OH ☒ SC ☐ WI ☐ OTHER

Section D Required Client Information

SAMPLE ID

One Character per box.
(A-Z, 0-9 / .-)
Samples IDs MUST BE UNIQUE

Valid Matrix Codes

MATRIX	CODE
DRINKING WATER	DW
WATER	WT
WASTE WATER	WW
PRODUCT	P
SOIL/SOLID	SL
OIL	OL
WIPE	WP
AIR	AR
OTHER	OT
TISSUE	TS

Filtered (Y/N)
Requested Analysis: BTEX, Nap, Mtbe, 1,2-DCA, EDB; LTC
Residual Chlorine (Y/N)

ITEM #	SAMPLE ID	MATRIX CODE	SAMPLE TYPE G=GRAB C=COMP	COLLECTED COMPOSITE START DATE	COMPOSITE START TIME	COMPOSITE END/GRAB DATE	COMPOSITE END/GRAB TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Unpreserved	H_2SO_4	HNO_3	HCl	NaOH	$Na_2S_2O_3$	Methanol	Other	BTEX, Nap, Mtbe, 1,2-DCA, EDB	LTC	Pace Project Number Lab I.D
1	WSW-2	DW	G	11/8/07	13:00				6				X					X	X	24 HR TAT 92756300
2																				
3																				
4																				
5																				
6																				
7																				
8																				
9																				
10																				
11																				
12																				

Additional Comments:

Reporting limit should be 1.0ppb
Report J values.

RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME
Mindi Johnson/UST	11/9/7	9:20	[illegible] / PACE	11/9/7	9:20
[illegible] / PACE	11/9/7	17:20	[illegible]	[illegible]	[illegible]

SAMPLE CONDITION

Temp in °C	Received on Ice	Custody Sealed Cooler	Samples Intact
	Y/N	Y/N	Y/N
	Y/N	Y/N	Y/N
	Y/N	Y/N	Y/N
	Y/N	Y/N	Y/N

SAMPLER NAME AND SIGNATURE

PRINT Name of SAMPLER: [illegible]

SIGNATURE of SAMPLER:

DATE Signed (MM / DD / YY)

SEE REVERSE SIDE FOR INSTRUCTIONS

ALLQ020rev.3,31Mar05

Midlands
Environmental
Consultants, Inc.

UST
Kathryn
OCT 1 2 2018
DIVISION

October 9, 2018

Mr. Robert A. Dunn, Hydrogeologist
Corrective Action Section
Underground Storage Tank Management Division
Bureau of Land and Waste Management
South Carolina Department of Health
and Environmental Control
2600 Bull Street
Columbia, South Carolina 29201

UST
40
Tech
DOCKETING

Subject: Report of Groundwater Sampling
Warren Green
10773 W Frontage Road
Yemassee, South Carolina
SCDHEC Site ID Number 04887; CA# 57680
MECI Project Number 18-6473
Certified Site Rehabilitation Contractor UCC-0009

Dear Mr. Dunn,

Midlands Environmental Consultants Inc. (MECI) is pleased to submit the attached Report of Groundwater Sampling for the referenced site. This report describes site activities conducted at the site in general accordance with South Carolina Department of Health and Environmental Control's (SCDHEC) Quality Assurance Program Plan for the Underground Storage Tank Management Division (QAPP).

PROJECT INFORMATION

The subject site (Warren Green) is located at 10773 Frontage Road, Yemassee, Jasper County, South Carolina. The site is currently occupied by an empty lot. The following table presents Underground Storage Tanks (UST's) which are associated with the referenced site:

Tank #	Capacity/Product	In Use/Abandoned	Tank Status
1	3,000 Gal. Gasoline	Not in use	Not in compliance (09/10/2001)
2	3,000 Gal. Gasoline	Not in use	Not in compliance (09/10/2001)
3	2,000 Gal. Gasoline	Not in use	Not in compliance (09/10/2001)

A release of petroleum product was been reported and confirmed to the South Carolina Department of Health and Environmental Control (SCDHEC) in May of 2002. The subject site has been ranked a Class 2BB due to a water supply well being less than 1,000 feet down gradient.

The above information is based on reports and correspondence obtained from MECI field notes and SCDHEC files.

MONITORING WELL SAMPLING AND CHEMICAL ANALYSIS

On October 8, 2018, MECI personnel collected groundwater samples from seventeen (17) monitoring wells and four (4) water supply wells at the subject site. During the sampling event, monitoring wells MW-8, MW-9, and DW-6 were not located due to recent road construction; they are believed to be destroyed. Additionally, monitoring well MW-12 was unable to be located because of tall grass and brush in the area. Based on a request from SCDHEC, only monitoring wells which did not bracket the water table were to be purged prior to sample collection. Five (5) monitoring wells were purged prior to sample collection.

Prior to sampling, MECI personnel utilized an electronic water level indicator for water level measurements and an oil/water interface probe for free phase petroleum product level measurements. Where applicable, purging was completed by bailing at least five well volumes of water from the well, or all water was evacuated from the well, whichever occurred first. Sampling/purging was completed utilizing a prepackaged, clear, disposable polyethylene bailer and nylon rope. A new set of nitrile gloves were worn at each monitoring well, and at all time samples were handled. Field measurements of pH, conductivity, dissolved oxygen, and water temperature were obtained before well sampling process. MECI utilized YSI Pro20 meter for DO (mg/L) and temperature readings (°C) and YSI Pro1030 meters for pH and conductivity (uS) readings and a MicroTPI turbidimeter for turbidity reading (NTU). The attached Field Data Information Sheets presents the results of the field measurements obtained. The wells were sampled in accordance with SCDHEC's most recent revision of the Quality Assurance Program Plan for the Underground Storage Tank Management Division and MECI's most recent revision of Standard Operating Procedures.

Groundwater samples obtained were sent to Pace Analytical Services, Inc. of Huntersville, NC (SCDHEC Laboratory Certification #99006001) for analysis.

The following sampling matrix contains well development and requested analyses for each well:

Sample ID	Purge	No Purge	Gauge Only	Abandoned	Not Sampled	Not Located	BTEX, Naphthalene, MTBE (EPA Method 8260-B)	EDB (EPA Method 8011)	1,2 DCA (EPA Method 8260-B)	8 Oxygenates (EPA Method 8260-B)	Total Lead (EPA Method 6010)	BTEX, Naphthalene, MTBE, 1,2 DCA (EPA Method 524.2)	EDB (EPA Method 504.1)
							Analyte Sampled						
MW-1		X					X	X	X	X			
MW-2		X					X	X	X	X			
MW-3		X					X	X	X	X			
MW-4		X					X	X	X	X			
MW-5		X					X	X	X	X			
MW-6		X					X	X	X	X			
MW-7		X					X	X	X	X			
MW-8						X							
MW-9						X							
MW-10		X					X	X	X	X			
MW-11		X					X	X	X	X			
MW-12						X							

Notes: BTEX = Benzene, Toluene, Ethylbenzene, & Total Xylenes
MTBE=Methyl tertiary butyl ether
1,2 DCA = 1,2 Dicloroethane
EDB = Ethylene Dibromide

Sample ID	Purge	No Purge	Gauge Only	Abandoned	Not Sampled	Not Located	BTEX, Naphthalene, MTBE (EPA Method 8260-B)	EDB (EPA Method 8011)	1,2 DCA (EPA Method 8260-B)	8 Oxygenates (EPA Method 8260-B)	Total Lead (EPA Method 6010)	BTEX, Naphthalene, MTBE, 1,2 DCA (EPA Method 524.2)	EDB (EPA Method 504.1)
							Analyte Sampled						
MW-13		X					X	X	X	X			
MW-14		X					X	X	X	X			
MW-15		X					X	X	X	X			
DW-1	X						X	X	X	X			
DW-2	X						X	X	X	X			
DW-3	X						X	X	X	X			
DW-4	X						X	X	X	X			
DW-5	X						X	X	X	X			
DW-6						X							
Dup (MW-1)							X	X	X	X			
Field Blank							X	X	X	X			
Trip Blank							X		X	X			
WSW-1										X	X	X	X
WSW-2										X	X	X	X
WSW-3										X	X	X	X
WSW-4										X	X	X	X
WSW Dup										X	X	X	X
Field Blank										X	X	X	X
Trip Blank										X	X	X	

Notes: BTEX = Benzene, Toluene, Ethylbenzene, & Total Xylenes
MTBE=Methyl tertiary butyl ether
1,2 DCA = 1,2 Dicloroethane
EDB = Ethylene Dibromide

Purge water produced by the purging process was treated on-site utilizing a granular activated carbon unit. A total of 63.00 gallons of purge water was disposed of in this manner. A disposal manifest for the referenced purge water is attached at the end of this report.

Please feel free to contact us at 803-808-2043 if you have any immediate questions or comments.

Sincerely,
Midlands Environmental Consultants, Inc.

Jordan W. Floyd
Staff Hydrogeologist

Jeff L. Coleman
Senior Scientist

Attachments:

Contractor Checklist

Item#	Item	Yes	No	N/A
1	Is Facility Name, Permit #, and address provided?	X		
2	Is UST Owner/Operator name, address, & phone number provided?			X
3	Is name, address, & phone number of current property owner provided?			X
4	Is the DHEC Certified UST Site Rehabilitation Contractor's Name, Address, telephone number, and certification number provided?	X		
5	Is the name, address, telephone number, and certification number of the well driller that installed borings/monitoring wells provided?			X
6	Is the name, address, telephone number, and certification number of the certified laboratory(ies) performing analytical analyses provided?	X		
7	Has the facility history been summarized?	X		
8	Has the regional geology and hydrogeology been described?			X
9	Are the receptor survey results provided as required?			X
10	Has current use of the site and adjacent land been described?			X
11	Has the site-specific geology and hydrogeology been described?			X
12	Has the primary soil type been described?			X
13	Have field screening results been described?			X
14	Has a description of the soil sample collection and preservation been detailed?			X
15	Has the field screening methodology and procedure been detailed?			X
16	Has the monitoring well installation and development dates been provided?			X
17	Has the method of well development been detailed?			X
18	Has justification been provided for the locations of the monitoring wells?			X
19	Have the monitoring wells been labeled in accordance with the UST QAPP guidelines?			X
20	Has the groundwater sampling methodology been detailed? See MECI SOP	X		
21	Have the groundwater sampling dates and groundwater measurements been provided? See attached Site Activity Summary Sheet	X		
22	Has the purging methodology been detailed? See MECI SOP	X		
23	Has the volume of water purged from each well been provided along with measurements to verify that purging is complete? See attached Field Data Information Sheets	X		
24	If free-product is present, has the thickness been provided? See attached Site Activity Summary Sheets	X		
25	Does the report include a brief discussion of the assessment done and the results?			X
26	Does the report include a brief discussion of the aquifer evaluation and results?			X
27	Does the report include a brief discussion of the fate & transport models used?			X

Item#	Item	Yes	No	N/A
28	Are the site-conceptual model tables included? (Tier 1 Risk Evaluation)			X
29	Have the exposure pathways been analyzed? (Tier 2 Risk Evaluation)			X
30	Have the SSTLs for each compound and pathway been calculated? (Tier 2 Risk Evaluation)			X
31	Have recommendations for further action been provided and explained?			X
32	Has the soil analytical data for the site been provided in tabular format? (Table 1)			X
33	Has the potentiometric data for the site been provided in tabular format? (Table 2)			X
34	Has the current and historical laboratory data been provided in tabular format?			X
35	Have the aquifer characteristics been provided and summarized on the appropriate form?			X
36	Have the Site conceptual model tables been included? (Tier 1 Risk Evaluation)			X
37	Has the topographic map been provided with all required elements? (Figure 1)	X		
38	Has the site base map been provided with all required elements? (Figure 2)	X		
39	Have the CoC site maps been provided? (Figure 3 & Figure 4)			X
40	Has the site potentiometric map been provided? (Figure 5)			X
41	Have the geologic cross-sections been provided? (Figure 6)			X
42	Have maps showing the predicted migration of the CoCs through time been provided? (Tier 2 Risk Evaluation)			X
43	Has the site survey been provided and include all necessary elements? (Appendix A)			X
44	Have the sampling logs, chain of custody forms, and the analytical data package been included with all required elements? (Appendix B)	X		
45	Is the laboratory performing the analyses properly certified?	X		
46	Has the tax map been included with all necessary elements? (Appendix C)			X
47	Have the soil boring/field screening logs been provided? (Appendix D)			X
48	Have the well completion logs and SCDHEC Form 1903 been provided? (Appendix E)			X
49	Have the aquifer evaluation forms, data, graphs, equations, etc. been provided? (Appendix F)			X
50	Have the disposal manifests been provided? See attached	X		
51	Has a copy of the local zoning regulations been provided? (Appendix H)			X
52	Has all fate and transport modeling been provided? (Appendix I)			X
53	Have copies of all access agreements obtained by the contractor been provided? (Appendix J)			X
54	Has a copy of this form been attached to the final report and are explanations for any missing or incomplete data been provided?	X		

Site Activity Summary

UST Permit #:	04887
Facility Name:	Warren Green
County:	Jasper
Field Personnel:	C. Phillips; K. Jacobs

Midlands Environmental Consultants, Inc.

Sample ID	Sampled?	Date	Time	Screened Interval	Depth to Product (ft)	Depth to Water (ft)	Product Thickness (ft)	Initial Dissolved Oxygen (mg/l)	# Gals. Purged	Comments
MW-1	Y	10/8/18	13:55	2-12	***	4.95	***	0.57	***	Odor; Duplicate 1
MW-2	Y	10/8/18	12:40	5-15	***	8.15	***	1.02	***	No Odor
MW-3R	Y	10/8/18	12:10	5-20	***	8.68	***	0.85	***	No Odor
MW-4	Y	10/8/18	12:35	5-20	***	11.85	***	0.93	***	No Odor
MW-5	Y	10/8/18	10:45	5-20	***	2.57	***	2.57	***	No Odor
MW-6	Y	10/8/18	10:50	5-20	***	6.48	***	2.05	***	No Odor
MW-7	Y	10/8/18	14:00	5-20	***	7.71	***	1.96	***	Odor
MW-8	N	10/8/18	***	5-20	***	***	***	***	***	Not Located; Buried when road was repaved
MW-9	N	10/8/18	***	5-20	***	***	***	***	***	Not Located; Buried when road was repaved
MW-10	Y	10/8/18	11:25	5-20	***	11.18	***	***	***	No Odor
MW-11	Y	10/8/18	11:20	5-20	***	11.12	***	***	***	No Odor
MW-12	N	10/8/18	***	5-20	***	***	***	***	***	Not Located; Tall Grass & Brush; Used Metal Detector
MW-13	Y	10/8/18	14:20	5-20	***	7.51	***	1.07	***	No Odor
MW-14	Y	10/8/18	14:15	5-20	***	7.59	***	1.77	***	No Odor
MW-15	Y	10/8/18	13:00	5-20	***	6.84	***	1.6	***	No Odor
									0.00	**TOTAL GALLONS PURGED**

Site Activity Summary

UST Permit #:	04887
Facility Name:	Warren Green
County:	Jasper
Field Personnel:	C. Phillips; K. Jacobs

Midlands Environmental Consultants, Inc.

Sample ID	Sampled?	Date	Time	Screened Interval	Depth to Product (ft)	Depth to Water (ft)	Product Thickness (ft)	Initial Dissolved Oxygen (mg/l)	# Gals. Purged	Comments
DW-1	Y	10/8/18	13:50	45-50	***	0.15	***	1.02	13.00	No Odor
DW-2	Y	10/8/18	12:30	45-50	***	2.35	***	3.57	12.00	No Odor
DW-3	Y	10/8/18	10:40	45-50	***	10.30	***	4.38	11.00	No Odor
DW-4	Y	10/8/18	11:10	45-50	***	9.10	***	4.19	11.00	No Odor
DW-5	Y	10/8/18	13:30	80-85	***	2.36	***	3.59	16.00	No Odor
DW-6	N	10/8/18	***	80-85	***	***	***	***	***	Not located; buried when road was repaved
Duplicate	***	10/8/18	13:55	***	***	***	***	***	***	Duplicate of MW-1
Field Blank	***	10/8/18	15:05	***	***	***	***	***	***	Field Blank
Trip Blank	***	10/8/18	15:05	***	***	***	***	***	***	Trip Blank
WSW-1	Y	10/8/18	15:10	***	***	***	***	***	***	235 Bowers Lane / Collected from Spigot on House
WSW-2	Y	10/8/18	15:00	***	***	***	***	***	***	299 Bowers Lane / Collected from Spigot on Well
WSW-3	Y	10/8/18	15:20	***	***	***	***	***	***	10951 Frontage Road / Collected from Spigot on Well
WSW-4	Y	10/8/18	15:25	***	***	***	***	***	***	10943 Frontage Road / Collected from Spigot on Front of Trailer
WSW DUP	Y	10/8/18	15:05	***	***	***	***	***	***	Duplicated Sample Collected from WSW-2
WSW Field Blank	Y	10/8/18	15:05	***	***	***	***	***	***	WSW Field Blank
WSW Trip Blank	Y	10/8/18	15:05	***	***	***	***	***	***	WSW Trip Blank
									63.00	**TOTAL GALLONS PURGED**

Midlands Environmental Consultants, Inc.

Monitoring Well Purge And Sampling Data

Field Personnel: CP, KJ

Sampling Date(s): 10/8/18

Sampling Case#: 2

Job Name: Warren Green

Job Number: 18-6473

Calibration Data for:

Calibration Successful: Yes or No (Please Circle)

pH: Yes No

Conductivity: Yes No

Dissolved Oxygen: Yes No

Turbidity: **Conductivity Calibrated Every 3 Months by QA Manager**

Well No.	Purge Volume	Sample Time	pH(i)	cond(i)	Temp. (°C)	DO (mg/l)	Turbidity (NTU)	Depth to (feet): product	Depth to (feet): initial H_2O	Depth to (feet): final H_2O	Well Depth (feet)	Water Height *(feet)	Gallons Purged **calc.	Gallons Purged actual	Notes
Mw-1	Initial	13:55	6.34	135.1	24.5	0.57	21.35		4.95		2-12	—	— / —	—	No Purge Odor Dup 1
	1st														
	2nd														
	3rd														
	4th														
	5th														
	Sampling														
Mw-2	Initial	12:40	6.14	166.8	23.8	1.02	25.07		8.15		5-15	—	— / —	—	No Purge No Odor
	1st														
	2nd														
	3rd														
	4th														
	5th														
	Sampling														
Mw-3R	Initial	12:10	6.81	145.4	22.3	0.85	26.14		8.68		5-20	—	— / —	—	No Purge No Odor
	1st														
	2nd														
	3rd														
	4th														
	5th														
	Sampling														
Mw-4	Initial	11:55	6.88	118.1	22.6	0.93	19.57		11.85		5-20	—	— / —	—	No Purge No Odor
	1st														
	2nd														
	3rd														
	4th														
	5th														
	Sampling														

*= (Depth of Well) - (Depth to Water = **Water Height**

One Well Volume =x.047 for 1" wells * x .163 for 2" wells, or * x .66 for 4" wells, 1.469 for 6" wells

= One Well Volume x 5 = **Gallons Purged (calculated)

Casing	Gallons
1"	0.047
2"	0.163
4"	0.653
6"	1.469

Sampling Case#	Ph/Conductance SN	DO SN	Turbidity
Case #1	15H101448	17E101302	201301183
Case #2	15E101481	14H103098	201301174
Case #3	17E100512	17E103488	201510251

Midlands Environmental Consultants, Inc.

Monitoring Well Purge And Sampling Data

Field Personnel: CP, KJ

Sampling Date(s): 10/8/18

Sampling Case#: 2

Job Name: Warren Green

Job Number: 18-6473

Calibration Data for:

Calibration Successful: Yes or No (Please Circle)

pH:	Yes	No
Conductivity:	Yes	No
Dissolved Oxygen:	Yes	No

Turbidity: Conductivity Calibrated Every 3 Months by QA Manager

Well No.	Purge Volume	Sample Time	pH(I)	cond(I)	Temp. (°C)	DO (mg/l)	Turbidity (NTU)	Depth to (feet): product	Depth to (feet): initial H_2O	Depth to (feet): final H_2O	Well Depth (feet)	Water Height *(feet)	Gallons Purged **calc.	Gallons Purged actual	Notes
Mw-5	Initial	10:45	7.41	95.5	22.9	2.57	23.09		6.36		5-20	—	— / —	—	No Purge No Odor
	1st														
	2nd														
	3rd														
	4th														
	5th														
	Sampling														
Mw-8	Initial										5-20				
	1st														
	2nd		Buried when road was repaved			bits of asphalt along roadside									
	3rd														
	4th														
	5th														
	Sampling														
Mw-7	Initial	14:00	6.59	139.5	24.9	1.96	29.57		7.71		5-20	—	— / —	—	No Purge Odor Dup 2
	1st														
	2nd														
	3rd														
	4th														
	5th														
	Sampling														
Mw-6	Initial	10:50	7.05	118.7	21.2	2.05	27.35		6.48		5-20	—	— / —	—	No Purge No Odor
	1st														
	2nd														
	3rd														
	4th														
	5th														
	Sampling														

*= (Depth of Well) - (Depth to Water = Water Height

One Well Volume =x.047 for 1" wells * x .163 for 2" wells, or * x .66 for 4" wells, 1.469 for 6" wells

**= One Well Volume x 5 = Gallons Purged (calculated)

Casing	Gallons
1"	0.047
2"	0.163
4"	0.653
6"	1.469

Sampling Case#	Ph/Conductance SN	DO SN	Turbidity
Case #1	15H101448	17E101302	201301183
Case #2	15E101481	14H103098	201301174
Case #3	17E100512	17E103488	201510251

Midlands Environmental Consultants, Inc.

Monitoring Well Purge And Sampling Data

Field Personnel: CP, KJ

Sampling Date(s): 10/8/18

Sampling Case#: 2

Job Name: Warren Green

Job Number: 18-6473

Calibration Data for:
Calibration Successful? Yes or No (Please Circle)
pH: Yes No
Conductivity: Yes No
Dissolved Oxygen: Yes No
Turbidity: **Conductivity Calibrated Every 3 Months by QA Manager**

Well No.	Purge Volume	Sample Time	pH(l)	cond(l)	Temp. (°C)	DO (mg/l)	Turbidity (NTU)	Depth to (feet): product	Depth to (feet): initial H_2O	Depth to (feet): final H_2O	Well Depth (feet)	Water Height *(feet)	Gallons Purged **calc.	Gallons Purged actual	Notes
Mw-9	Initial										5-20				
	1st		Buried when road was repaved bits of asphalt along roadside												
	2nd														
	3rd														
	4th														
	5th														
	Sampling														
Mw-10	Initial	11:25	7.04	119.7	24.4	0.73	42.15		11.18		5-20	—	—	—	No Purge No Odor
	1st												—		
	2nd														
	3rd														
	4th														
	5th														
	Sampling														
Mw-11	Initial	11:20	6.99	235.9	24.9	0.67	29.07		11.12		5-20	—	—	—	No Purge No Odor
	1st												—		
	2nd														
	3rd														
	4th														
	5th														
	Sampling														
Mw-12	Initial										5-20				
	1st		Not located tall grass and brush												
	2nd														
	3rd														
	4th														
	5th														
	Sampling														

*= (Depth of Well) - (Depth to Water = Water Height
One Well Volume =x.047 for 1" wells * x .163 for 2" wells, or * x .66 for 4" wells, 1.469 for 6" wells

**= One Well Volume x 5 = Gallons Purged (calculated)

Casing	Gallons
1"	0.047
2"	0.163
4"	0.653
6"	1.469

Sampling Case#	Ph/Conductance SN	DO SN	Turbidity
Case #1	15H101448	17E101302	201301183
Case #2	15E101481	14H103098	201301174
Case #3	17E100512	17E103488	201510251

Midlands Environmental Consultants, Inc.

Monitoring Well Purge And Sampling Data

Field Personnel: CP, KJ

Sampling Date(s): 10/8/18

Sampling Case#: 2

Job Name: Warren Green

Job Number: 18-6473

Calibration Data for:

Calibration Successful: Yes or No (Please Circle)

pH:	Yes	No
Conductivity:	Yes	No
Dissolved Oxygen:	Yes	No
Turbidity:	Conductivity Calibrated Every 3 Months by QA Manager	

Well No.	Purge Volume	Sample Time	pH(I)	cond(I)	Temp. (°C)	DO (mg/l)	Turbidity (NTU)	Depth to (feet): product	Depth to (feet): initial H_2O	Depth to (feet): final H_2O	Well Depth (feet)	Water Height *(feet)	Gallons Purged **calc.	Gallons Purged actual	Notes
MW-13	Initial	14:20	6.57	102.1	24.3	1.07	34.02		7.51		5-20	—	— / —	—	No Purge No Odor
	1st														
	2nd														
	3rd														
	4th														
	5th														
	Sampling														
MW-14	Initial	14:15	6.43	121.8	23.1	1.77	25.96		7.59		5-20	—	— / —	—	No Purge No Odor
	1st														
	2nd														
	3rd														
	4th														
	5th														
	Sampling														
MW-15	Initial	15:00	6.71	109.3	23.6	1.60	23.57		6.84		5-20	—	— / —	—	No Purge No Odor
	1st														
	2nd														
	3rd														
	4th														
	5th														
	Sampling														
DW-1	Initial	13:35	6.34	185.3	25.3	1.02	21.03		0.15		45-50	49.85	8.13 / 40.63	Dry @ 13	No Odor
	1st	13:43	6.29	179.1	25.1	0.92	30.79								
	2nd														
	3rd														
	4th														
	5th														
	Sampling	13:50	6.22	172.4	24.9	0.87	24.06								

*= (Depth of Well) - (Depth to Water = Water Height

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**= One Well Volume x 5 = Gallons Purged (calculated)

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1"	0.047
2"	0.163
4"	0.653
6"	1.469

Sampling Case#	Ph/Conductance SN	DO SN	Turbidity
Case #1	15H101448	17E101302	201301183
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Midlands Environmental Consultants, Inc.

Monitoring Well Purge And Sampling Data

Field Personnel: CP, KJ

Sampling Date(s): 10/8/18

Sampling Case#: 2

Job Name: Warren Green

Job Number: 18-6473

Calibration Data for:

Calibration Successful? Yes or No (Please Circle)

pH:	Yes	No
Conductivity:	Yes	No
Dissolved Oxygen:	Yes	No

Turbidity: Conductivity Calibrated Every 3 Months by QA Manager

Well No.	Purge Volume	Sample Time	pH(l)	cond(l)	Temp. (°C)	DO (mg/l)	Turbidity (NTU)	Depth to (feet): product	initial H_2O	final H_2O	Well Depth (feet)	Water Height *(feet)	Gallons Purged **calc.	actual	Notes
Dw-2	Initial	12:15	6.79	129.3	24.6	3.57	19.57								
	1st	12:22	6.72	114.5	24.2	3.42	32.14								
	2nd												7.77	Dry	No
	3rd								2.35						Odor
	4th										45-50	47.65		@	
	5th												38.83	12	
	Sampling	12:30	6.64	110.2	23.9	3.35	25.43								
Dw-3	Initial	10:25	6.72	89.1	21.5	4.38	15.02								
	1st	10:31	6.57	81.3	20.3	4.19	19.35								
	2nd												6.47	Dry	No
	3rd								10.30		45-50	37.70		@	Odor
	4th														
	5th												32.36	11	
	Sampling	10:40	6.51	78.2	20.9	4.03	23.04								
Dw-4	Initial	9:55	7.27	100.9	21.0	4.19	16.26								
	1st	10:01	7.22	81.2	19.7	4.07	32.11								
	2nd								9.10				6.67	Dry	No
	3rd										45-50	40.90		@	Odor
	4th														
	5th												33.33	11.	
	Sampling	11:10	7.15	78.4	19.5	3.91	21.38								
Dw-5	Initial	13:05	6.72	169.3	20.9	3.59	14.02								
	1st	13:18	6.61	147.0	20.5	3.51	34.29								
	2nd												13.47	Dry	No
	3rd								2.36		80-85	82.64		@	Odor
	4th														
	5th												67.35	16	
	Sampling	13:30	6.54	109.2	20.4	3.46	23.65								

*= (Depth of Well) - (Depth to Water = Water Height

One Well Volume =x.047 for 1" wells * x .163 for 2" wells, or * x .66 for 4" wells, 1.469 for 6" wells

**= One Well Volume x 5 = Gallons Purged (calculated)

Casing	Gallons
1"	0.047
2"	0.163
4"	0.653
6"	1.469

Sampling Case#	Ph/Conductance SN	DO SN	Turbidity
Case #1	15H101448	17E101302	201301183
Case #2	15E101481	14H103098	201301174
Case #3	17E100512	17E103488	201510251

Midlands Environmental Consultants, Inc.

Monitoring Well Purge And Sampling Data

Field Personnel: CP, KJ

Sampling Date(s): 10/8/18

Sampling Case#: 2

Job Name: Warren Green

Job Number: 18-6473

Calibration Data for:

Calibration Successful? Yes or No (Please Circle)

pH: Yes No

Conductivity: Yes No

Dissolved Oxygen: Yes No

Turbidity: **Conductivity Calibrated Every 3 Months by QA Manager**

Well No.	Purge Volume	Sample Time	pH(l)	cond(l)	Temp. (°C)	DO (mg/l)	Turbidity (NTU)	Depth to (feet): product	Depth to (feet): initial H_2O	Depth to (feet): final H_2O	Well Depth (feet)	Water Height *(feet)	Gallons Purged **calc.	Gallons Purged actual	Notes
Dw-6	Initial														
	1st		Buried when Road was												
	2nd														
	3rd														
	4th				Repaired						80-85				
	5th														
	Sampling														
Dup-1	Initial	MW-1@13:55													
	1st														
Dup-2	2nd														
	3rd	N/A													
FB	4th														
	5th	15:05													
	Sampling														
TB	Initial	15:05													
	1st														
	2nd														
	3rd														
	4th														
	5th														
	Sampling														
	Initial														
	1st														
	2nd														
	3rd														
	4th														
	5th														
	Sampling														

*= (Depth of Well) - (Depth to Water = Water Height

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Midlands Environmental Consultants, Inc.

Monitoring Well Purge And Sampling Data

Field Personnel: CP, KJ

Sampling Date(s): 10/8/18

Sampling Case#:

Job Name: Warren Green

Job Number: 18-6473

Calibration Data for :

Calibration Successful? Yes or No (Please Circle)

pH:	Yes	No
Conductivity:	Yes	No
Dissolved Oxygen:	Yes	No
Turbidity:	**Conductivity Calibrated Every 3 Months by QA Manager**	

Well No.	Purge Volume	Sample Time	pH(I)	cond(I)	Temp. (°C)	DO (mg/l)	Turbidity (NTU)	Depth to (feet): product	initial H_2O	final H_2O	Well Depth (feet)	Water Height *(feet)	Gallons Purged **calc.	actual	Notes
	Initial														
WSW-1	1st	235 Bowers Lane Spigot on house @ 15:18													
	2nd														
WSW-2	3rd	299 Bowers Lane Spigot on well @ 15:00													
	4th														
WSW-3	5th	10951 Frontage Rd Spigot on well @ 15:20													
	Sampling														
WSW-4	Initial	10943 Frontage Rd Spigot on front of trailer 15:25													
	1st														
Dup	2nd	WSW-2 @ 15:05													
	3rd														
FB	4th	15:05													
	5th														
	Sampling														
TB	Initial	15:05													
	1st														
	2nd														
	3rd														
	4th														
	5th														
	Sampling														
	Initial														
	1st														
	2nd														
	3rd														
	4th														
	5th														
	Sampling														

*= (Depth of Well) - (Depth to Water = **Water Height**

One Well Volume =x.047 for 1" wells * x .163 for 2" wells, or * x .66 for 4" wells, 1.469 for 6" wells

**= One Well Volume x 5 = Gallons Purged (calculated)

Casing	Gallons
1"	0.047
2"	0.163
4"	0.653
6"	1.469

Sampling Case#	Ph/Conductance SN	DO SN	Turbidity
Case #1	15H101448	17E101302	201301183
Case #2	15E101481	14H103098	201301174
Case #3	17E100512	17E103488	201510251

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CHAIN-OF-CUSTODY / Analytical Request Document

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

Section A Required Client Information:	Section B Required Project Information:	Section C Invoice Information:	Page: 1 of 2
Company: SCDHEC	Report To: R. Dunn	Attention:	2192918
Address: 2600 Bull Street Columbia SC 29201	Copy To:	Company Name:	REGULATORY AGENCY
		Address:	☐ NPDES ☐ GROUND WATER ☐ DRINKING WATER
Email To: dunnrm@dhec.sc.gov	Purchase Order No.: 4600472513	Pace Quote Reference:	☑ UST ☐ RCRA ☐ OTHER
Phone: 803-898-0671 Fax: 803-898-0673	Project Name: Warren Green	Pace Project Manager: T. Carter	Site Location STATE: SC Jasper
Requested Due Date/TAT:	Project Number: UST04887/PAC 57679	Pace Profile #:	

Section D Required Client Information

Matrix Codes (MATRIX / CODE): Drinking Water DW, Water WT, Waste Water WW, Product P, Soil/Solid SL, Oil OL, Wipe WP, Air AR, Tissue TS, Other OT

SAMPLE ID (A-Z, 0-9 / ,-) Sample IDs MUST BE UNIQUE

Requested Analysis Filtered (Y/N)

ITEM #	SAMPLE ID	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	COMPOSITE START DATE	COMPOSITE START TIME	COMPOSITE END/GRAB DATE	COMPOSITE END/GRAB TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Unpreserved	H_2SO_4	HNO_3	HCl	NaOH	$Na_2S_2O_3$	Methanol	Other	BTEXNM 8260B	1,2 DCA 8260B	Oxygenates 8260B	EDB 8011	Residual Chlorine (Y/N)	Pace Project No./ Lab I.D.
1	MW-1	WT	G			10/8/18	13:55		6				6					X	X	X	X		No Odor
2	MW-2						2:40																No Odor
3	MW-3R						2:10																No Odor
4	MW-4						2:35																No Odor
5	MW-5						10:45																No Odor
6	MW-6						10:50																~~Odor~~ No Odor
7	MW-7	WT	G			10/8/18	14:00		6				6					X	X	X	X		Odor
8	MW-8																						No Sample
9	MW-9	~~WT~~	~~G~~			~~10/8/18~~																	No Sample
10	MW-10	WT	G			10/8/18	11:25		6				6					X	X	X	X		No Odor
11	MW-11	WT	G			10/8/18	11:20		6				6					X	X	X	X		No Odor
12	MW-12																						No Sample

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS
	~~Colin Phillips~~	~~10/8/18~~	~~17:00~~	[signature]	10/10	0825	
	[signature]	10/10/18	8:05				

2

SAMPLER NAME AND SIGNATURE

PRINT Name of SAMPLER: Colin Phillips

SIGNATURE of SAMPLER: Colin Phillips

DATE Signed (MM/DD/YY): 10/8/18

Temp in °C	Received on Ice (Y/N)	Custody Sealed Cooler (Y/N)	Samples Intact (Y/N)

*Important Note: By signing this form you are accepting Pace's NET 30 day payment terms and agreeing to late charges of 1.5% per month for any invoices not paid within 30 days.

F-ALL-Q-020rev.07, 15-May-2007

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CHAIN-OF-CUSTODY / Analytical Request Document

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Page: 2 of 2

2192916

Section A Required Client Information:

Company: SCDHEC UST
Address: 2600 Bull Street
Columbia SC 29201
Email To: dunnra@dhec.sc.gov
Phone: 803-898-0673 Fax: 803-898-0673
Requested Due Date/TAT:

Section B Required Project Information:

Report To: R Dunn
Copy To:
Purchase Order No.: 4600422513
Project Name: Warren Green
Project Number: UST 04887 / PACES 7679

Section C Invoice Information:

Attention:
Company Name:
Address:
Pace Quote Reference:
Pace Project Manager: T. Carter
Pace Profile #:

REGULATORY AGENCY

NPDES / GROUND WATER / DRINKING WATER
✓ UST / RCRA / OTHER

Site Location STATE: SC Jasper

Section D Required Client Information

Matrix Codes MATRIX / CODE: Drinking Water DW, Water WT, Waste Water WW, Product P, Soil/Solid SL, Oil OL, Wipe WP, Air AR, Tissue TS, Other OT

SAMPLE ID (A-Z, 0-9 / ,-) Sample IDs MUST BE UNIQUE

Requested Analysis Filtered (Y/N)

Analysis Test: BTEXNM 8260B; 1,2 DCA 8260B; Oxys 8260B; EDB 8011

ITEM #	SAMPLE ID	MATRIX CODE	SAMPLE TYPE (G=GRAB C=COMP)	COMPOSITE START DATE	COMPOSITE START TIME	COMPOSITE END/GRAB DATE	COMPOSITE END/GRAB TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Unpreserved	H_2SO_4	HNO_3	HCl	NaOH	$Na_2S_2O_3$	Methanol	Other	BTEXNM 8260B	1,2 DCA 8260B	Oxys 8260B	EDB 8011	Residual Chlorine (Y/N)	Pace Project No./ Lab I.D.
1	MW-13	WT	G			10/8/18	4:10		6				6					X	X	X	X		No Odor
2	MW-14						4:15																No Odor
3	MW-15						3:00																No Odor
4	DW-1						3:50																No Odor
5	DW-2						2:30																No Odor
6	DW-3						10:40																No Odor
7	DW-4						1:10																No Odor
8	DW-5	WT	G			10/8/18	2:50		6				6					X	X	X	X		No Odor
9	DW-6																						No Odor
10	Dup 1	WT	G			10/8/18	3:55																No Sample
11	Field Blank	WT	G			10/8/18	5:05		6				6					X	X	X	X		Odor FB
12	Trip Blank	WT	G			10/8/18	5:05		2				2					X	X	X	X		TB

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS
	[signature]	10/8/18	17:00	[signature]	10/10	0805	
	[signature]	10/10/18	8:05				

2

SAMPLER NAME AND SIGNATURE

PRINT Name of SAMPLER: Colin Phillips
SIGNATURE of SAMPLER: [signature]
DATE Signed (MM/DD/YY): 10/8/18

Temp in °C | Received on Ice (Y/N) | Custody Sealed Cooler (Y/N) | Samples Intact (Y/N)

*Important Note: By signing this form you are accepting Pace's NET 30 day payment terms and agreeing to late charges of 1.5% per month for any invoices not paid within 30 days.

F-ALL-Q-020rev.07, 15-May-2007

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CHAIN-OF-CUSTODY / Analytical Request Document

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

Section A Required Client Information:

Company:	SCDHEC
Address:	2600 Bull Street Columbia SC 29201
Email To:	dunnra@dhec.sc.gov
Phone:	803-898-0671
Fax:	803-898-0673
Requested Due Date/TAT:	

Section B Required Project Information:

Report To:	R. Dunn
Copy To:	
Purchase Order No.:	4600422513
Project Name:	Warren Green
Project Number:	UST 04887 / PACS 7679

Section C Invoice Information:

Attention:	
Company Name:	
Address:	
Pace Quote Reference:	
Pace Project Manager:	T. Carter
Pace Profile #:	

Page: 1 of 1

2192919

REGULATORY AGENCY

- [ ] NPDES
- [ ] GROUND WATER
- [ ] DRINKING WATER
- [x] UST
- [ ] RCRA
- [ ] OTHER

Site Location STATE: SC Jasper

Section D Required Client Information

Matrix Codes MATRIX / CODE: Drinking Water DW, Water WT, Waste Water WW, Product P, Soil/Solid SL, Oil OL, Wipe WP, Air AR, Tissue TS, Other OT

SAMPLE ID (A-Z, 0-9 / ,-) Sample IDs MUST BE UNIQUE

Requested Analysis Filtered (Y/N)

ITEM #	SAMPLE ID	MATRIX CODE	SAMPLE TYPE (G=GRAB C=COMP)	COMPOSITE START DATE	COMPOSITE START TIME	COMPOSITE END/GRAB DATE	COMPOSITE END/GRAB TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Unpreserved	H_2SO_4	HNO_3	HCl	NaOH	$Na_2S_2O_3$	Methanol	Other	BTEXNM 8260B	1,2 DCA 8260B	Oxys 8260B	EDB 8011	Residual Chlorine (Y/N)	Pace Project No./ Lab I.D.
1	WSW-1	WT	G			10/8/18	15:10		9				X					X	X	X	X		LDL's
2	WSW-2	|	|			|	15:00		9				|					|	|	|	|		LDL's
3	WSW-3	|	|			|	15:20		9				|					|	|	|	|		LDL's
4	WSW-4	|	|			|	15:25		9				|					|	|	|	|		LDL's
5	WSW Dup	WT	G			|	15:05		9				|					|	|	|	|		LDL's
6	WSW Field Blank	WT	G			|	15:05		9				|					|	|	|	X		FB
7	WSW Trip Blank	WT	G			10/8/18	15:05		6				X					X	X	X			TB
8																							
9																							
10																							
11																							
12																							

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS
	Colin Phillips	~~10/8/18~~	~~7:00~~	[signature]	10/10	0905	
	[signature]	10/10/18	8:05				

2

SAMPLER NAME AND SIGNATURE

PRINT Name of SAMPLER: Colin Phillips

SIGNATURE of SAMPLER: Colin Phillips

DATE Signed (MM/DD/YY): 10/9/18

Temp in °C | Received on Ice (Y/N) | Custody Sealed Cooler (Y/N) | Samples Intact (Y/N)

*Important Note: By signing this form you are accepting Pace's NET 30 day payment terms and agreeing to late charges of 1.5% per month for any invoices not paid within 30 days.

F-ALL-Q-020rev.07, 15-May-2007

Midlands
Environmental
Consultants, Inc.

October 9, 2018

Re: Treatment of Purge Water
Warren Green
Yemassee, South Carolina
SCDHEC Site ID Number 04887
MECI Project Number 18-6473

To Whom It May Concern;

Midlands Environmental Consultants, Inc. is providing the following letter as certification that treatment of the referenced purge water complied with the conditions of "Proposed Conditions for Use of Portable Activated Carbon Units for the Treatment of Small Volumes of Petroleum Hydrocarbon Contaminated Groundwater", as described in the following:

Applicability:

Groundwater treated was obtained as a result development of wells and sampling.

Conditions:

1. The purge/bail water from all wells is mixed before usage of the Activated Carbon Unit.

2. No free-product was detected in any of the purge water drums.

3. Analytical results of from well sampling show average concentrations of petroleum hydrocarbon constituents less than 5000 parts per billion (ppb) Benzene and less than 20,000 ppb total BTEX.

4. The existing carbon pack will be replaced/reactivated every 5,000 gallons.

5. Record of usage is maintained by Contractor.

6. Any and all recommendations and conditions issued by the Manufacturer have been adhered to.

7. Any and all recommendations and conditions (even on a site by site basis) issued by the SCDHEC must be adhered to.

All purge waters were treated on-site using an up-flow treatment drum loaded with 80 pounds of activated carbon. Carbon will be loaded to a maximum of 3 pounds of total organic compounds or 5,000 gallons of development/purge water, whichever occurs first.

Post Office Box 854, Lexington SC 29071 • 231 Dooley Road, Lexington, SC 29073
Telephone: (803) 808-2043 • fax: (803) 808-2048

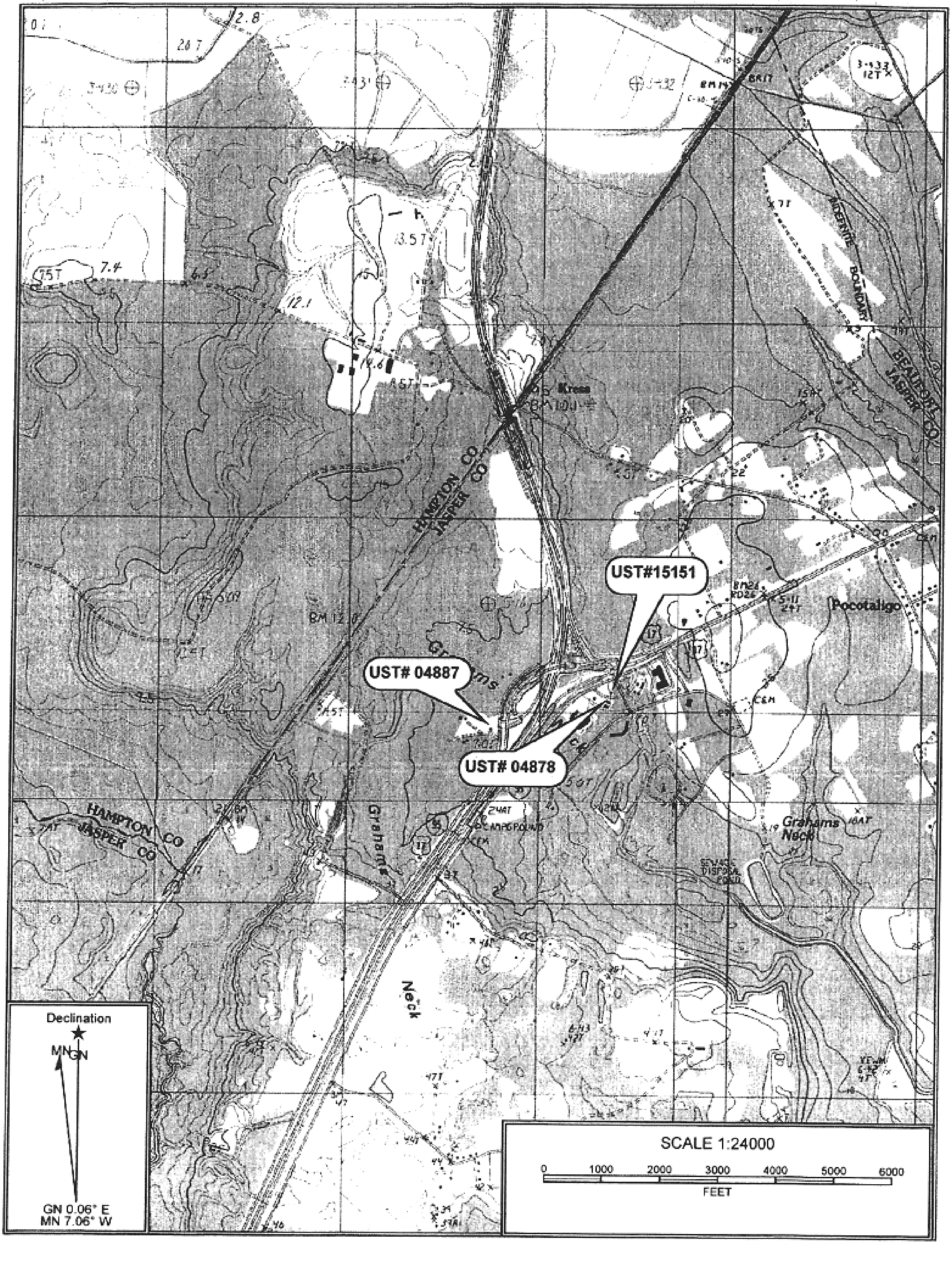
A total of 63.00 gallons were treated on October 8, 2018 at the referenced site.

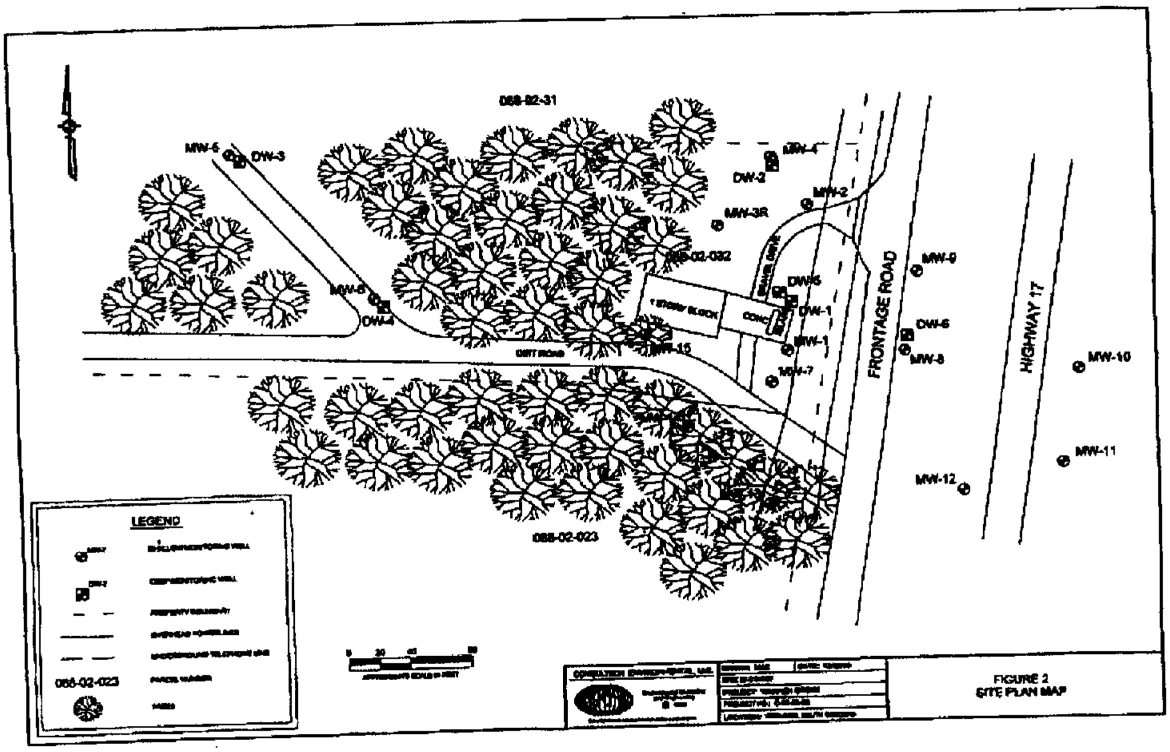
Midlands Environmental also tracks cumulative organic compounds adsorbed on the activated carbon to ensure the capacity of carbon mass is not over-charged. This data is available upon request.

Should you have any questions or comments, please contact the undersigned.

Sincerely,
Midlands Environmental Consultants, Inc.

Jordan W. Floyd
Staff Hydrogeologist


UST#15151
UST# 04887
UST# 04878
HAMPTON CO
JASPER CO
BEAUFORT CO
JASPER CO
Pocotaligo
Grahams Neck
Grahams
Neck
Declination
MN
GN
GN 0.06° E
MN 7.06° W
SCALE 1:24000
0
1000
2000
3000
4000
5000
6000
FEET



MW-5
DW-3
MW-6
DW-4
DIRT ROAD
DW-2
MW-4
MW-2
MW-3R
1 STORY BLOCK
CONC
DW-5
DW-1
MW-1
MW-7
MW-15
MW-9
DW-6
MW-8
FRONTAGE ROAD
HIGHWAY 17
MW-10
MW-11
MW-12
068-02-023
LEGEND
068-02-023
FIGURE 2
SITE PLAN MAP

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Pace Analytical Services, LLC
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

October 17, 2018

Robert Dunn
SCHDEC
2600 Bull St
Columbia, SC 29201

RE: Project: WARREN GREEN 04887/57679
Pace Project No.: 92402861

Dear Robert Dunn:

Enclosed are the analytical results for sample(s) received by the laboratory on October 10, 2018. The results relate only to the samples included in this report. Results reported herein conform to the most current, applicable TNI/NELAC standards and the laboratory's Quality Assurance Manual, where applicable, unless otherwise noted in the body of the report.

If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Trey Carter

Trey Carter
trey.carter@pacelabs.com
(704)875-9092
Project Manager

Enclosures

Pace Analytical Services, LLC
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

CERTIFICATIONS

Project: WARREN GREEN 04887/57679
Pace Project No.: 92402861

Charlotte Certification IDs

9800 Kincey Ave. Ste 100, Huntersville, NC 28078
Louisiana/NELAP Certification # LA170028
North Carolina Drinking Water Certification #: 37706
North Carolina Field Services Certification #: 5342
North Carolina Wastewater Certification #: 12
South Carolina Certification #: 99006001
Florida/NELAP Certification #: E87627
Kentucky UST Certification #: 84
Virginia/VELAP Certification #: 460221

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Huntersville, NC 28078
(704)875-9092

SAMPLE SUMMARY

Project: WARREN GREEN 04887/57679
Pace Project No.: 92402861

Lab ID	Sample ID	Matrix	Date Collected	Date Received
92402861001	**MW-1**	Water	10/08/18 13:55	10/10/18 08:05
92402861002	**MW-2**	Water	10/08/18 12:40	10/10/18 08:05
92402861003	**MW-3R**	Water	10/08/18 12:10	10/10/18 08:05
92402861004	**MW-4**	Water	10/08/18 12:35	10/10/18 08:05
92402861005	**MW-5**	Water	10/08/18 10:45	10/10/18 08:05
92402861006	**MW-6**	Water	10/08/18 10:50	10/10/18 08:05
92402861007	**MW-7**	Water	10/08/18 14:00	10/10/18 08:05
92402861008	**MW-10**	Water	10/08/18 11:25	10/10/18 08:05
92402861009	**MW-11**	Water	10/08/18 11:20	10/10/18 08:05
92402861010	**MW-13**	Water	10/08/18 14:20	10/10/18 08:05
92402861011	**MW-14**	Water	10/08/18 14:15	10/10/18 08:05
92402861012	**MW-15**	Water	10/08/18 13:00	10/10/18 08:05
92402861013	**DW-1**	Water	10/08/18 13:50	10/10/18 08:05
92402861014	**DW-2**	Water	10/08/18 12:30	10/10/18 08:05
92402861015	**DW-3**	Water	10/08/18 10:40	10/10/18 08:05
92402861016	**DW-4**	Water	10/08/18 11:10	10/10/18 08:05
92402861017	**DW-5**	Water	10/08/18 13:30	10/10/18 08:05
92402861018	**DUP 1**	Water	10/08/18 13:55	10/10/18 08:05
92402861019	**FIELD BLANK**	Water	10/08/18 15:05	10/10/18 08:05
92402861020	**TRIP BLANK**	Water	10/08/18 15:05	10/10/18 08:05

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9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

SAMPLE ANALYTE COUNT

Project: WARREN GREEN 04887/57679
Pace Project No.: 92402861

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
92402861001	**MW-1**	EPA 8011	BAJ	2	PASI-C
		EPA 8260B	GAW	20	PASI-C
92402861002	**MW-2**	EPA 8011	BAJ	2	PASI-C
		EPA 8260B	SAS	20	PASI-C
92402861003	**MW-3R**	EPA 8011	BAJ	2	PASI-C
		EPA 8260B	GAW	20	PASI-C
92402861004	**MW-4**	EPA 8011	BAJ	2	PASI-C
		EPA 8260B	GAW	20	PASI-C
92402861005	**MW-5**	EPA 8011	BAJ	2	PASI-C
		EPA 8260B	GAW	20	PASI-C
92402861006	**MW-6**	EPA 8011	BAJ	2	PASI-C
		EPA 8260B	GAW	20	PASI-C
92402861007	**MW-7**	EPA 8011	BAJ	2	PASI-C
		EPA 8260B	GAW	20	PASI-C
92402861008	**MW-10**	EPA 8011	BAJ	2	PASI-C
		EPA 8260B	GAW	20	PASI-C
92402861009	**MW-11**	EPA 8011	BAJ	2	PASI-C
		EPA 8260B	GAW	20	PASI-C
92402861010	**MW-13**	EPA 8011	BAJ	2	PASI-C
		EPA 8260B	GAW	20	PASI-C
92402861011	**MW-14**	EPA 8011	BAJ	2	PASI-C
		EPA 8260B	GAW	20	PASI-C
92402861012	**MW-15**	EPA 8011	BAJ	2	PASI-C
		EPA 8260B	GAW	20	PASI-C
92402861013	**DW-1**	EPA 8011	BAJ	2	PASI-C
		EPA 8260B	GAW	20	PASI-C
92402861014	**DW-2**	EPA 8011	BAJ	2	PASI-C
		EPA 8260B	GAW	20	PASI-C
92402861015	**DW-3**	EPA 8011	BAJ	2	PASI-C
		EPA 8260B	GAW	20	PASI-C
92402861016	**DW-4**	EPA 8011	BAJ	2	PASI-C
		EPA 8260B	GAW	20	PASI-C
92402861017	**DW-5**	EPA 8011	BAJ	2	PASI-C
		EPA 8260B	GAW	20	PASI-C
92402861018	**DUP 1**	EPA 8011	BAJ	2	PASI-C
		EPA 8260B	GAW	20	PASI-C
92402861019	**FIELD BLANK**	EPA 8011	BAJ	2	PASI-C

Pace Analytical Services, LLC
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

SAMPLE ANALYTE COUNT

Project: WARREN GREEN 04887/57679
Pace Project No.: 92402861

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
		EPA 8260B	SAS	20	PASI-C
92402861020	**TRIP BLANK**	EPA 8260B	SAS	20	PASI-C

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Pace Analytical Services, LLC
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

SUMMARY OF DETECTION

Project: WARREN GREEN 04887/57679
Pace Project No.: 92402861

Lab Sample ID / Method	Client Sample ID / Parameters	Result	Units	Report Limit	Analyzed	Qualifiers
92402861001	**MW-1**					
EPA 8260B	Benzene	2980	ug/L	1000	10/15/18 20:12	M1
EPA 8260B	Ethylbenzene	4600	ug/L	1000	10/15/18 20:12	M1
EPA 8260B	Naphthalene	795J	ug/L	1000	10/15/18 20:12	
EPA 8260B	Toluene	29600	ug/L	1000	10/15/18 20:12	M1
EPA 8260B	Xylene (Total)	23000	ug/L	1000	10/15/18 20:12	MS
EPA 8260B	m&p-Xylene	16600	ug/L	2000	10/15/18 20:12	M1
EPA 8260B	o-Xylene	6400	ug/L	1000	10/15/18 20:12	M1
92402861002	**MW-2**					
EPA 8260B	Benzene	2.9J	ug/L	5.0	10/12/18 20:44	
EPA 8260B	Methyl-tert-butyl ether	6.2	ug/L	5.0	10/12/18 20:44	
92402861007	**MW-7**					
EPA 8011	1,2-Dibromoethane (EDB)	1.2	ug/L	0.039	10/15/18 17:19	
EPA 8260B	Benzene	1270	ug/L	250	10/15/18 19:55	
EPA 8260B	Ethylbenzene	2210	ug/L	250	10/15/18 19:55	
EPA 8260B	Naphthalene	487	ug/L	250	10/15/18 19:55	
EPA 8260B	Toluene	4440	ug/L	250	10/15/18 19:55	
EPA 8260B	Xylene (Total)	13200	ug/L	250	10/15/18 19:55	
EPA 8260B	m&p-Xylene	8960	ug/L	500	10/15/18 19:55	
EPA 8260B	o-Xylene	4270	ug/L	250	10/15/18 19:55	
92402861018	**DUP 1**					
EPA 8260B	Benzene	3660	ug/L	1250	10/15/18 20:29	
EPA 8260B	Ethylbenzene	5760	ug/L	1250	10/15/18 20:29	
EPA 8260B	Naphthalene	910J	ug/L	1250	10/15/18 20:29	
EPA 8260B	Toluene	36300	ug/L	1250	10/15/18 20:29	
EPA 8260B	Xylene (Total)	29400	ug/L	1250	10/15/18 20:29	
EPA 8260B	m&p-Xylene	21300	ug/L	2500	10/15/18 20:29	
EPA 8260B	o-Xylene	8150	ug/L	1250	10/15/18 20:29	

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9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

PROJECT NARRATIVE

Project: WARREN GREEN 04887/57679
Pace Project No.: 92402861

Method: **EPA 8011**
Description: 8011 GCS EDB and DBCP
Client: SCDHEC
Date: October 17, 2018

General Information:
19 samples were analyzed for EPA 8011. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Sample Preparation:
The samples were prepared in accordance with EPA 8011 with any exceptions noted below.

Initial Calibrations (including MS Tune as applicable):
All criteria were within method requirements with any exceptions noted below.

Continuing Calibration:
All criteria were within method requirements with any exceptions noted below.

Surrogates:
All surrogates were within QC limits with any exceptions noted below.

QC Batch: 435926

S3: Surrogate recovery exceeded laboratory control limits. Analyte presence below reporting limits in associated sample.
- DUP (Lab ID: 2398958)
  - 1-Chloro-2-bromopropane (S)

S5: Surrogate recovery outside control limits due to matrix interferences (not confirmed by re-analysis).
- MW-7 (Lab ID: 92402861007)
  - 1-Chloro-2-bromopropane (S)

QC Batch: 436167

S3: Surrogate recovery exceeded laboratory control limits. Analyte presence below reporting limits in associated sample.
- DUP 1 (Lab ID: 92402861018)
  - 1-Chloro-2-bromopropane (S)

Method Blank:
All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

QC Batch: 436403

R1: RPD value was outside control limits.
- LCSD (Lab ID: 2401119)
  - 1,2-Dibromoethane (EDB)

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PROJECT NARRATIVE

Project: WARREN GREEN 04887/57679
Pace Project No.: 92402861

Method: **EPA 8011**
Description: 8011 GCS EDB and DBCP
Client: SCDHEC
Date: October 17, 2018

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

QC Batch: 436403

A matrix spike and/or matrix spike duplicate (MS/MSD) were performed on the following sample(s): 92403359007

M1: Matrix spike recovery exceeded QC limits. Batch accepted based on laboratory control sample (LCS) recovery.

- MS (Lab ID: 2401121)
  - 1,2-Dibromoethane (EDB)

Duplicate Sample:
All duplicate sample results were within method acceptance criteria with any exceptions noted below.

Additional Comments:

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PROJECT NARRATIVE

Project: WARREN GREEN 04887/57679
Pace Project No.: 92402861

Method: **EPA 8260B**
Description: 8260 MSV
Client: SCDHEC
Date: October 17, 2018

General Information:
20 samples were analyzed for EPA 8260B. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Initial Calibrations (including MS Tune as applicable):
All criteria were within method requirements with any exceptions noted below.

Continuing Calibration:
All criteria were within method requirements with any exceptions noted below.

Internal Standards:
All internal standards were within QC limits with any exceptions noted below.

Surrogates:
All surrogates were within QC limits with any exceptions noted below.

Method Blank:
All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

QC Batch: 435986

A matrix spike and/or matrix spike duplicate (MS/MSD) were performed on the following sample(s): 92402873006

P5: The EPA or method required sample preservation degrades this compound, therefore acceptable recoveries may not be achieved in sample matrix spikes.

- MS (Lab ID: 2400156)
  - tert-Butyl Formate

QC Batch: 436001

A matrix spike and/or matrix spike duplicate (MS/MSD) were performed on the following sample(s): 92402849022

M1: Matrix spike recovery exceeded QC limits. Batch accepted based on laboratory control sample (LCS) recovery.

- MS (Lab ID: 2399330)
  - Benzene
  - Ethanol
  - Ethylbenzene
  - m&p-Xylene
  - o-Xylene
- MSD (Lab ID: 2399331)

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PROJECT NARRATIVE

Project: WARREN GREEN 04887/57679
Pace Project No.: 92402861

Method: **EPA 8260B**
Description: 8260 MSV
Client: SCDHEC
Date: October 17, 2018

QC Batch: 436001

A matrix spike and/or matrix spike duplicate (MS/MSD) were performed on the following sample(s): 92402849022

M1: Matrix spike recovery exceeded QC limits. Batch accepted based on laboratory control sample (LCS) recovery.

- Benzene
- Ethanol
- Ethylbenzene
- m&p-Xylene
- o-Xylene

QC Batch: 436215

A matrix spike and/or matrix spike duplicate (MS/MSD) were performed on the following sample(s): 92402861001

M1: Matrix spike recovery exceeded QC limits. Batch accepted based on laboratory control sample (LCS) recovery.

- MS (Lab ID: 2400308)
  - Ethylbenzene
  - m&p-Xylene
  - o-Xylene
- MSD (Lab ID: 2400309)
  - Benzene
  - Ethylbenzene
  - Toluene
  - m&p-Xylene
  - o-Xylene

Duplicate Sample:
All duplicate sample results were within method acceptance criteria with any exceptions noted below.

Additional Comments:

Analyte Comments:

QC Batch: 436001

1g: Initial calibration evaluation met acceptance criteria. Compound did not meet additional accuracy assessment for percent error for the following compounds

- LCS (Lab ID: 2399329)
  - tert-Amyl Alcohol
  - tert-Butyl Alcohol

This data package has been reviewed for quality and completeness and is approved for release.

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ANALYTICAL RESULTS

Project: WARREN GREEN 04887/57679
Pace Project No.: 92402861

Sample: MW-1 **Lab ID: 92402861001** Collected: 10/08/18 13:55 Received: 10/10/18 08:05 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8011 GCS EDB and DBCP	Analytical Method: EPA 8011 Preparation Method: EPA 8011								
1,2-Dibromoethane (EDB)	ND	ug/L	0.020	0.020	1	10/12/18 10:30	10/13/18 15:33	106-93-4	
Surrogates									
1-Chloro-2-bromopropane (S)	122	%	60-140		1	10/12/18 10:30	10/13/18 15:33	301-79-56	
8260 MSV	Analytical Method: EPA 8260B								
tert-Amyl Alcohol	ND	ug/L	20000	15400	200		10/15/18 20:12	75-85-4	
tert-Amylmethyl ether	ND	ug/L	2000	680	200		10/15/18 20:12	994-05-8	
Benzene	**2980**	ug/L	1000	340	200		10/15/18 20:12	71-43-2	M1
3,3-Dimethyl-1-Butanol	ND	ug/L	20000	6420	200		10/15/18 20:12	624-95-3	
tert-Butyl Alcohol	ND	ug/L	20000	11500	200		10/15/18 20:12	75-65-0	
tert-Butyl Formate	ND	ug/L	10000	1460	200		10/15/18 20:12	762-75-4	
1,2-Dichloroethane	ND	ug/L	1000	360	200		10/15/18 20:12	107-06-2	
Diisopropyl ether	ND	ug/L	1000	340	200		10/15/18 20:12	108-20-3	
Ethanol	ND	ug/L	40000	26200	200		10/15/18 20:12	64-17-5	
Ethylbenzene	**4600**	ug/L	1000	320	200		10/15/18 20:12	100-41-4	M1
Ethyl-tert-butyl ether	ND	ug/L	2000	720	200		10/15/18 20:12	637-92-3	
Methyl-tert-butyl ether	ND	ug/L	1000	340	200		10/15/18 20:12	1634-04-4	
Naphthalene	**795J**	ug/L	1000	400	200		10/15/18 20:12	91-20-3	
Toluene	**29600**	ug/L	1000	320	200		10/15/18 20:12	108-88-3	M1
Xylene (Total)	**23000**	ug/L	1000	1000	200		10/15/18 20:12	1330-20-7	MS
m&p-Xylene	**16600**	ug/L	2000	620	200		10/15/18 20:12	179601-23-1	M1
o-Xylene	**6400**	ug/L	1000	320	200		10/15/18 20:12	95-47-6	M1
Surrogates									
4-Bromofluorobenzene (S)	97	%	70-130		200		10/15/18 20:12	460-00-4	
1,2-Dichloroethane-d4 (S)	94	%	70-130		200		10/15/18 20:12	17060-07-0	
Toluene-d8 (S)	103	%	70-130		200		10/15/18 20:12	2037-26-5	

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ANALYTICAL RESULTS

Project: WARREN GREEN 04887/57679
Pace Project No.: 92402861

Sample: MW-2 **Lab ID: 92402861002** Collected: 10/08/18 12:40 Received: 10/10/18 08:05 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8011 GCS EDB and DBCP	Analytical Method: EPA 8011 Preparation Method: EPA 8011								
1,2-Dibromoethane (EDB)	ND	ug/L	0.020	0.020	1	10/12/18 10:30	10/13/18 16:12	106-93-4	
Surrogates									
1-Chloro-2-bromopropane (S)	105	%	60-140		1	10/12/18 10:30	10/13/18 16:12	301-79-56	
8260 MSV	Analytical Method: EPA 8260B								
tert-Amyl Alcohol	ND	ug/L	100	76.8	1		10/12/18 20:44	75-85-4	
tert-Amylmethyl ether	ND	ug/L	10.0	3.4	1		10/12/18 20:44	994-05-8	
Benzene	**2.9J**	ug/L	5.0	1.7	1		10/12/18 20:44	71-43-2	
3,3-Dimethyl-1-Butanol	ND	ug/L	100	32.1	1		10/12/18 20:44	624-95-3	
tert-Butyl Alcohol	ND	ug/L	100	57.7	1		10/12/18 20:44	75-65-0	
tert-Butyl Formate	ND	ug/L	50.0	7.3	1		10/12/18 20:44	762-75-4	
1,2-Dichloroethane	ND	ug/L	5.0	1.8	1		10/12/18 20:44	107-06-2	
Diisopropyl ether	ND	ug/L	5.0	1.7	1		10/12/18 20:44	108-20-3	
Ethanol	ND	ug/L	200	131	1		10/12/18 20:44	64-17-5	
Ethylbenzene	ND	ug/L	5.0	1.6	1		10/12/18 20:44	100-41-4	
Ethyl-tert-butyl ether	ND	ug/L	10.0	3.6	1		10/12/18 20:44	637-92-3	
Methyl-tert-butyl ether	**6.2**	ug/L	5.0	1.7	1		10/12/18 20:44	1634-04-4	
Naphthalene	ND	ug/L	5.0	2.0	1		10/12/18 20:44	91-20-3	
Toluene	ND	ug/L	5.0	1.6	1		10/12/18 20:44	108-88-3	
Xylene (Total)	ND	ug/L	5.0	5.0	1		10/12/18 20:44	1330-20-7	
m&p-Xylene	ND	ug/L	10.0	3.1	1		10/12/18 20:44	179601-23-1	
o-Xylene	ND	ug/L	5.0	1.6	1		10/12/18 20:44	95-47-6	
Surrogates									
4-Bromofluorobenzene (S)	94	%	70-130		1		10/12/18 20:44	460-00-4	
1,2-Dichloroethane-d4 (S)	103	%	70-130		1		10/12/18 20:44	17060-07-0	
Toluene-d8 (S)	106	%	70-130		1		10/12/18 20:44	2037-26-5	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: WARREN GREEN 04887/57679
Pace Project No.: 92402861

Sample: MW-3R **Lab ID: 92402861003** Collected: 10/08/18 12:10 Received: 10/10/18 08:05 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8011 GCS EDB and DBCP	Analytical Method: EPA 8011 Preparation Method: EPA 8011								
1,2-Dibromoethane (EDB)	ND	ug/L	0.020	0.020	1	10/12/18 10:30	10/13/18 16:32	106-93-4	
Surrogates									
1-Chloro-2-bromopropane (S)	109	%	60-140		1	10/12/18 10:30	10/13/18 16:32	301-79-56	
8260 MSV	Analytical Method: EPA 8260B								
tert-Amyl Alcohol	ND	ug/L	100	76.8	1		10/12/18 15:09	75-85-4	
tert-Amylmethyl ether	ND	ug/L	10.0	3.4	1		10/12/18 15:09	994-05-8	
Benzene	ND	ug/L	5.0	1.7	1		10/12/18 15:09	71-43-2	
3,3-Dimethyl-1-Butanol	ND	ug/L	100	32.1	1		10/12/18 15:09	624-95-3	
tert-Butyl Alcohol	ND	ug/L	100	57.7	1		10/12/18 15:09	75-65-0	
tert-Butyl Formate	ND	ug/L	50.0	7.3	1		10/12/18 15:09	762-75-4	
1,2-Dichloroethane	ND	ug/L	5.0	1.8	1		10/12/18 15:09	107-06-2	
Diisopropyl ether	ND	ug/L	5.0	1.7	1		10/12/18 15:09	108-20-3	
Ethanol	ND	ug/L	200	131	1		10/12/18 15:09	64-17-5	
Ethylbenzene	ND	ug/L	5.0	1.6	1		10/12/18 15:09	100-41-4	
Ethyl-tert-butyl ether	ND	ug/L	10.0	3.6	1		10/12/18 15:09	637-92-3	
Methyl-tert-butyl ether	ND	ug/L	5.0	1.7	1		10/12/18 15:09	1634-04-4	
Naphthalene	ND	ug/L	5.0	2.0	1		10/12/18 15:09	91-20-3	
Toluene	ND	ug/L	5.0	1.6	1		10/12/18 15:09	108-88-3	
Xylene (Total)	ND	ug/L	5.0	5.0	1		10/12/18 15:09	1330-20-7	
m&p-Xylene	ND	ug/L	10.0	3.1	1		10/12/18 15:09	179601-23-1	
o-Xylene	ND	ug/L	5.0	1.6	1		10/12/18 15:09	95-47-6	
Surrogates									
4-Bromofluorobenzene (S)	103	%	70-130		1		10/12/18 15:09	460-00-4	
1,2-Dichloroethane-d4 (S)	101	%	70-130		1		10/12/18 15:09	17060-07-0	
Toluene-d8 (S)	104	%	70-130		1		10/12/18 15:09	2037-26-5	

ANALYTICAL RESULTS

Project: WARREN GREEN 04887/57679
Pace Project No.: 92402861

Sample: MW-4 **Lab ID: 92402861004** Collected: 10/08/18 12:35 Received: 10/10/18 08:05 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8011 GCS EDB and DBCP	Analytical Method: EPA 8011 Preparation Method: EPA 8011								
1,2-Dibromoethane (EDB)	ND	ug/L	0.020	0.020	1	10/12/18 10:30	10/13/18 16:52	106-93-4	
Surrogates									
1-Chloro-2-bromopropane (S)	120	%	60-140		1	10/12/18 10:30	10/13/18 16:52	301-79-56	
8260 MSV	Analytical Method: EPA 8260B								
tert-Amyl Alcohol	ND	ug/L	100	76.8	1		10/12/18 15:26	75-85-4	
tert-Amylmethyl ether	ND	ug/L	10.0	3.4	1		10/12/18 15:26	994-05-8	
Benzene	ND	ug/L	5.0	1.7	1		10/12/18 15:26	71-43-2	
3,3-Dimethyl-1-Butanol	ND	ug/L	100	32.1	1		10/12/18 15:26	624-95-3	
tert-Butyl Alcohol	ND	ug/L	100	57.7	1		10/12/18 15:26	75-65-0	
tert-Butyl Formate	ND	ug/L	50.0	7.3	1		10/12/18 15:26	762-75-4	
1,2-Dichloroethane	ND	ug/L	5.0	1.8	1		10/12/18 15:26	107-06-2	
Diisopropyl ether	ND	ug/L	5.0	1.7	1		10/12/18 15:26	108-20-3	
Ethanol	ND	ug/L	200	131	1		10/12/18 15:26	64-17-5	
Ethylbenzene	ND	ug/L	5.0	1.6	1		10/12/18 15:26	100-41-4	
Ethyl-tert-butyl ether	ND	ug/L	10.0	3.6	1		10/12/18 15:26	637-92-3	
Methyl-tert-butyl ether	ND	ug/L	5.0	1.7	1		10/12/18 15:26	1634-04-4	
Naphthalene	ND	ug/L	5.0	2.0	1		10/12/18 15:26	91-20-3	
Toluene	ND	ug/L	5.0	1.6	1		10/12/18 15:26	108-88-3	
Xylene (Total)	ND	ug/L	5.0	5.0	1		10/12/18 15:26	1330-20-7	
m&p-Xylene	ND	ug/L	10.0	3.1	1		10/12/18 15:26	179601-23-1	
o-Xylene	ND	ug/L	5.0	1.6	1		10/12/18 15:26	95-47-6	
Surrogates									
4-Bromofluorobenzene (S)	100	%	70-130		1		10/12/18 15:26	460-00-4	
1,2-Dichloroethane-d4 (S)	98	%	70-130		1		10/12/18 15:26	17060-07-0	
Toluene-d8 (S)	106	%	70-130		1		10/12/18 15:26	2037-26-5	

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ANALYTICAL RESULTS

Project: WARREN GREEN 04887/57679
Pace Project No.: 92402861

Sample: MW-5 **Lab ID: 92402861005** Collected: 10/08/18 10:45 Received: 10/10/18 08:05 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8011 GCS EDB and DBCP	Analytical Method: EPA 8011 Preparation Method: EPA 8011								
1,2-Dibromoethane (EDB)	ND	ug/L	0.020	0.020	1	10/12/18 10:30	10/13/18 17:12	106-93-4	
Surrogates									
1-Chloro-2-bromopropane (S)	119	%	60-140		1	10/12/18 10:30	10/13/18 17:12	301-79-56	
8260 MSV	Analytical Method: EPA 8260B								
tert-Amyl Alcohol	ND	ug/L	100	76.8	1		10/12/18 15:43	75-85-4	
tert-Amylmethyl ether	ND	ug/L	10.0	3.4	1		10/12/18 15:43	994-05-8	
Benzene	ND	ug/L	5.0	1.7	1		10/12/18 15:43	71-43-2	
3,3-Dimethyl-1-Butanol	ND	ug/L	100	32.1	1		10/12/18 15:43	624-95-3	
tert-Butyl Alcohol	ND	ug/L	100	57.7	1		10/12/18 15:43	75-65-0	
tert-Butyl Formate	ND	ug/L	50.0	7.3	1		10/12/18 15:43	762-75-4	
1,2-Dichloroethane	ND	ug/L	5.0	1.8	1		10/12/18 15:43	107-06-2	
Diisopropyl ether	ND	ug/L	5.0	1.7	1		10/12/18 15:43	108-20-3	
Ethanol	ND	ug/L	200	131	1		10/12/18 15:43	64-17-5	
Ethylbenzene	ND	ug/L	5.0	1.6	1		10/12/18 15:43	100-41-4	
Ethyl-tert-butyl ether	ND	ug/L	10.0	3.6	1		10/12/18 15:43	637-92-3	
Methyl-tert-butyl ether	ND	ug/L	5.0	1.7	1		10/12/18 15:43	1634-04-4	
Naphthalene	ND	ug/L	5.0	2.0	1		10/12/18 15:43	91-20-3	
Toluene	ND	ug/L	5.0	1.6	1		10/12/18 15:43	108-88-3	
Xylene (Total)	ND	ug/L	5.0	5.0	1		10/12/18 15:43	1330-20-7	
m&p-Xylene	ND	ug/L	10.0	3.1	1		10/12/18 15:43	179601-23-1	
o-Xylene	ND	ug/L	5.0	1.6	1		10/12/18 15:43	95-47-6	
Surrogates									
4-Bromofluorobenzene (S)	100	%	70-130		1		10/12/18 15:43	460-00-4	
1,2-Dichloroethane-d4 (S)	97	%	70-130		1		10/12/18 15:43	17060-07-0	
Toluene-d8 (S)	106	%	70-130		1		10/12/18 15:43	2037-26-5	

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ANALYTICAL RESULTS

Project: WARREN GREEN 04887/57679
Pace Project No.: 92402861

Sample: MW-6 **Lab ID: 92402861006** Collected: 10/08/18 10:50 Received: 10/10/18 08:05 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8011 GCS EDB and DBCP	Analytical Method: EPA 8011 Preparation Method: EPA 8011								
1,2-Dibromoethane (EDB)	ND	ug/L	0.020	0.020	1	10/12/18 10:30	10/13/18 17:31	106-93-4	
Surrogates									
1-Chloro-2-bromopropane (S)	112	%	60-140		1	10/12/18 10:30	10/13/18 17:31	301-79-56	
8260 MSV	Analytical Method: EPA 8260B								
tert-Amyl Alcohol	ND	ug/L	100	76.8	1		10/12/18 16:00	75-85-4	
tert-Amylmethyl ether	ND	ug/L	10.0	3.4	1		10/12/18 16:00	994-05-8	
Benzene	ND	ug/L	5.0	1.7	1		10/12/18 16:00	71-43-2	
3,3-Dimethyl-1-Butanol	ND	ug/L	100	32.1	1		10/12/18 16:00	624-95-3	
tert-Butyl Alcohol	ND	ug/L	100	57.7	1		10/12/18 16:00	75-65-0	
tert-Butyl Formate	ND	ug/L	50.0	7.3	1		10/12/18 16:00	762-75-4	
1,2-Dichloroethane	ND	ug/L	5.0	1.8	1		10/12/18 16:00	107-06-2	
Diisopropyl ether	ND	ug/L	5.0	1.7	1		10/12/18 16:00	108-20-3	
Ethanol	ND	ug/L	200	131	1		10/12/18 16:00	64-17-5	
Ethylbenzene	ND	ug/L	5.0	1.6	1		10/12/18 16:00	100-41-4	
Ethyl-tert-butyl ether	ND	ug/L	10.0	3.6	1		10/12/18 16:00	637-92-3	
Methyl-tert-butyl ether	ND	ug/L	5.0	1.7	1		10/12/18 16:00	1634-04-4	
Naphthalene	ND	ug/L	5.0	2.0	1		10/12/18 16:00	91-20-3	
Toluene	ND	ug/L	5.0	1.6	1		10/12/18 16:00	108-88-3	
Xylene (Total)	ND	ug/L	5.0	5.0	1		10/12/18 16:00	1330-20-7	
m&p-Xylene	ND	ug/L	10.0	3.1	1		10/12/18 16:00	179601-23-1	
o-Xylene	ND	ug/L	5.0	1.6	1		10/12/18 16:00	95-47-6	
Surrogates									
4-Bromofluorobenzene (S)	100	%	70-130		1		10/12/18 16:00	460-00-4	
1,2-Dichloroethane-d4 (S)	96	%	70-130		1		10/12/18 16:00	17060-07-0	
Toluene-d8 (S)	104	%	70-130		1		10/12/18 16:00	2037-26-5	

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ANALYTICAL RESULTS

Project: WARREN GREEN 04887/57679
Pace Project No.: 92402861

Sample: MW-7 **Lab ID: 92402861007** Collected: 10/08/18 14:00 Received: 10/10/18 08:05 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8011 GCS EDB and DBCP	Analytical Method: EPA 8011 Preparation Method: EPA 8011								
1,2-Dibromoethane (EDB)	**1.2**	ug/L	0.039	0.039	2	10/12/18 10:30	10/15/18 17:19	106-93-4	
Surrogates									
1-Chloro-2-bromopropane (S)	146	%	60-140		2	10/12/18 10:30	10/15/18 17:19	301-79-56	S5
8260 MSV	Analytical Method: EPA 8260B								
tert-Amyl Alcohol	ND	ug/L	5000	3840	50		10/15/18 19:55	75-85-4	
tert-Amylmethyl ether	ND	ug/L	500	170	50		10/15/18 19:55	994-05-8	
Benzene	**1270**	ug/L	250	85.0	50		10/15/18 19:55	71-43-2	
3,3-Dimethyl-1-Butanol	ND	ug/L	5000	1600	50		10/15/18 19:55	624-95-3	
tert-Butyl Alcohol	ND	ug/L	5000	2880	50		10/15/18 19:55	75-65-0	
tert-Butyl Formate	ND	ug/L	2500	365	50		10/15/18 19:55	762-75-4	
1,2-Dichloroethane	ND	ug/L	250	90.0	50		10/15/18 19:55	107-06-2	
Diisopropyl ether	ND	ug/L	250	85.0	50		10/15/18 19:55	108-20-3	
Ethanol	ND	ug/L	10000	6550	50		10/15/18 19:55	64-17-5	
Ethylbenzene	**2210**	ug/L	250	80.0	50		10/15/18 19:55	100-41-4	
Ethyl-tert-butyl ether	ND	ug/L	500	180	50		10/15/18 19:55	637-92-3	
Methyl-tert-butyl ether	ND	ug/L	250	85.0	50		10/15/18 19:55	1634-04-4	
Naphthalene	**487**	ug/L	250	100	50		10/15/18 19:55	91-20-3	
Toluene	**4440**	ug/L	250	80.0	50		10/15/18 19:55	108-88-3	
Xylene (Total)	**13200**	ug/L	250	250	50		10/15/18 19:55	1330-20-7	
m&p-Xylene	**8960**	ug/L	500	155	50		10/15/18 19:55	179601-23-1	
o-Xylene	**4270**	ug/L	250	80.0	50		10/15/18 19:55	95-47-6	
Surrogates									
4-Bromofluorobenzene (S)	95	%	70-130		50		10/15/18 19:55	460-00-4	
1,2-Dichloroethane-d4 (S)	95	%	70-130		50		10/15/18 19:55	17060-07-0	
Toluene-d8 (S)	108	%	70-130		50		10/15/18 19:55	2037-26-5	

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ANALYTICAL RESULTS

Project: WARREN GREEN 04887/57679
Pace Project No.: 92402861

Sample: MW-10 **Lab ID: 92402861008** Collected: 10/08/18 11:25 Received: 10/10/18 08:05 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8011 GCS EDB and DBCP	Analytical Method: EPA 8011 Preparation Method: EPA 8011								
1,2-Dibromoethane (EDB)	ND	ug/L	0.020	0.020	1	10/12/18 10:30	10/13/18 18:11	106-93-4	
Surrogates									
1-Chloro-2-bromopropane (S)	109	%	60-140		1	10/12/18 10:30	10/13/18 18:11	301-79-56	
8260 MSV	Analytical Method: EPA 8260B								
tert-Amyl Alcohol	ND	ug/L	100	76.8	1		10/12/18 16:17	75-85-4	
tert-Amylmethyl ether	ND	ug/L	10.0	3.4	1		10/12/18 16:17	994-05-8	
Benzene	ND	ug/L	5.0	1.7	1		10/12/18 16:17	71-43-2	
3,3-Dimethyl-1-Butanol	ND	ug/L	100	32.1	1		10/12/18 16:17	624-95-3	
tert-Butyl Alcohol	ND	ug/L	100	57.7	1		10/12/18 16:17	75-65-0	
tert-Butyl Formate	ND	ug/L	50.0	7.3	1		10/12/18 16:17	762-75-4	
1,2-Dichloroethane	ND	ug/L	5.0	1.8	1		10/12/18 16:17	107-06-2	
Diisopropyl ether	ND	ug/L	5.0	1.7	1		10/12/18 16:17	108-20-3	
Ethanol	ND	ug/L	200	131	1		10/12/18 16:17	64-17-5	
Ethylbenzene	ND	ug/L	5.0	1.6	1		10/12/18 16:17	100-41-4	
Ethyl-tert-butyl ether	ND	ug/L	10.0	3.6	1		10/12/18 16:17	637-92-3	
Methyl-tert-butyl ether	ND	ug/L	5.0	1.7	1		10/12/18 16:17	1634-04-4	
Naphthalene	ND	ug/L	5.0	2.0	1		10/12/18 16:17	91-20-3	
Toluene	ND	ug/L	5.0	1.6	1		10/12/18 16:17	108-88-3	
Xylene (Total)	ND	ug/L	5.0	5.0	1		10/12/18 16:17	1330-20-7	
m&p-Xylene	ND	ug/L	10.0	3.1	1		10/12/18 16:17	179601-23-1	
o-Xylene	ND	ug/L	5.0	1.6	1		10/12/18 16:17	95-47-6	
Surrogates									
4-Bromofluorobenzene (S)	101	%	70-130		1		10/12/18 16:17	460-00-4	
1,2-Dichloroethane-d4 (S)	103	%	70-130		1		10/12/18 16:17	17060-07-0	
Toluene-d8 (S)	105	%	70-130		1		10/12/18 16:17	2037-26-5	

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ANALYTICAL RESULTS

Project: WARREN GREEN 04887/57679
Pace Project No.: 92402861

Sample: MW-11 **Lab ID: 92402861009** Collected: 10/08/18 11:20 Received: 10/10/18 08:05 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8011 GCS EDB and DBCP	Analytical Method: EPA 8011 Preparation Method: EPA 8011								
1,2-Dibromoethane (EDB)	ND	ug/L	0.020	0.020	1	10/12/18 10:30	10/13/18 18:31	106-93-4	
Surrogates									
1-Chloro-2-bromopropane (S)	114	%	60-140		1	10/12/18 10:30	10/13/18 18:31	301-79-56	
8260 MSV	Analytical Method: EPA 8260B								
tert-Amyl Alcohol	ND	ug/L	100	76.8	1		10/12/18 16:34	75-85-4	
tert-Amylmethyl ether	ND	ug/L	10.0	3.4	1		10/12/18 16:34	994-05-8	
Benzene	ND	ug/L	5.0	1.7	1		10/12/18 16:34	71-43-2	
3,3-Dimethyl-1-Butanol	ND	ug/L	100	32.1	1		10/12/18 16:34	624-95-3	
tert-Butyl Alcohol	ND	ug/L	100	57.7	1		10/12/18 16:34	75-65-0	
tert-Butyl Formate	ND	ug/L	50.0	7.3	1		10/12/18 16:34	762-75-4	
1,2-Dichloroethane	ND	ug/L	5.0	1.8	1		10/12/18 16:34	107-06-2	
Diisopropyl ether	ND	ug/L	5.0	1.7	1		10/12/18 16:34	108-20-3	
Ethanol	ND	ug/L	200	131	1		10/12/18 16:34	64-17-5	
Ethylbenzene	ND	ug/L	5.0	1.6	1		10/12/18 16:34	100-41-4	
Ethyl-tert-butyl ether	ND	ug/L	10.0	3.6	1		10/12/18 16:34	637-92-3	
Methyl-tert-butyl ether	ND	ug/L	5.0	1.7	1		10/12/18 16:34	1634-04-4	
Naphthalene	ND	ug/L	5.0	2.0	1		10/12/18 16:34	91-20-3	
Toluene	ND	ug/L	5.0	1.6	1		10/12/18 16:34	108-88-3	
Xylene (Total)	ND	ug/L	5.0	5.0	1		10/12/18 16:34	1330-20-7	
m&p-Xylene	ND	ug/L	10.0	3.1	1		10/12/18 16:34	179601-23-1	
o-Xylene	ND	ug/L	5.0	1.6	1		10/12/18 16:34	95-47-6	
Surrogates									
4-Bromofluorobenzene (S)	102	%	70-130		1		10/12/18 16:34	460-00-4	
1,2-Dichloroethane-d4 (S)	96	%	70-130		1		10/12/18 16:34	17060-07-0	
Toluene-d8 (S)	109	%	70-130		1		10/12/18 16:34	2037-26-5	

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ANALYTICAL RESULTS

Project: WARREN GREEN 04887/57679
Pace Project No.: 92402861

Sample: MW-13 **Lab ID: 92402861010** Collected: 10/08/18 14:20 Received: 10/10/18 08:05 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8011 GCS EDB and DBCP	Analytical Method: EPA 8011 Preparation Method: EPA 8011								
1,2-Dibromoethane (EDB)	ND	ug/L	0.019	0.019	1	10/12/18 10:30	10/13/18 18:51	106-93-4	
Surrogates									
1-Chloro-2-bromopropane (S)	129	%	60-140		1	10/12/18 10:30	10/13/18 18:51	301-79-56	
8260 MSV	Analytical Method: EPA 8260B								
tert-Amyl Alcohol	ND	ug/L	100	76.8	1		10/12/18 16:52	75-85-4	
tert-Amylmethyl ether	ND	ug/L	10.0	3.4	1		10/12/18 16:52	994-05-8	
Benzene	ND	ug/L	5.0	1.7	1		10/12/18 16:52	71-43-2	
3,3-Dimethyl-1-Butanol	ND	ug/L	100	32.1	1		10/12/18 16:52	624-95-3	
tert-Butyl Alcohol	ND	ug/L	100	57.7	1		10/12/18 16:52	75-65-0	
tert-Butyl Formate	ND	ug/L	50.0	7.3	1		10/12/18 16:52	762-75-4	
1,2-Dichloroethane	ND	ug/L	5.0	1.8	1		10/12/18 16:52	107-06-2	
Diisopropyl ether	ND	ug/L	5.0	1.7	1		10/12/18 16:52	108-20-3	
Ethanol	ND	ug/L	200	131	1		10/12/18 16:52	64-17-5	
Ethylbenzene	ND	ug/L	5.0	1.6	1		10/12/18 16:52	100-41-4	
Ethyl-tert-butyl ether	ND	ug/L	10.0	3.6	1		10/12/18 16:52	637-92-3	
Methyl-tert-butyl ether	ND	ug/L	5.0	1.7	1		10/12/18 16:52	1634-04-4	
Naphthalene	ND	ug/L	5.0	2.0	1		10/12/18 16:52	91-20-3	
Toluene	ND	ug/L	5.0	1.6	1		10/12/18 16:52	108-88-3	
Xylene (Total)	ND	ug/L	5.0	5.0	1		10/12/18 16:52	1330-20-7	
m&p-Xylene	ND	ug/L	10.0	3.1	1		10/12/18 16:52	179601-23-1	
o-Xylene	ND	ug/L	5.0	1.6	1		10/12/18 16:52	95-47-6	
Surrogates									
4-Bromofluorobenzene (S)	100	%	70-130		1		10/12/18 16:52	460-00-4	
1,2-Dichloroethane-d4 (S)	100	%	70-130		1		10/12/18 16:52	17060-07-0	
Toluene-d8 (S)	104	%	70-130		1		10/12/18 16:52	2037-26-5	

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ANALYTICAL RESULTS

Project: WARREN GREEN 04887/57679
Pace Project No.: 92402861

Sample: MW-14 **Lab ID: 92402861011** Collected: 10/08/18 14:15 Received: 10/10/18 08:05 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8011 GCS EDB and DBCP	Analytical Method: EPA 8011 Preparation Method: EPA 8011								
1,2-Dibromoethane (EDB)	ND	ug/L	0.019	0.019	1	10/12/18 10:30	10/13/18 19:51	106-93-4	
Surrogates									
1-Chloro-2-bromopropane (S)	117	%	60-140		1	10/12/18 10:30	10/13/18 19:51	301-79-56	
8260 MSV	Analytical Method: EPA 8260B								
tert-Amyl Alcohol	ND	ug/L	100	76.8	1		10/12/18 17:09	75-85-4	
tert-Amylmethyl ether	ND	ug/L	10.0	3.4	1		10/12/18 17:09	994-05-8	
Benzene	ND	ug/L	5.0	1.7	1		10/12/18 17:09	71-43-2	
3,3-Dimethyl-1-Butanol	ND	ug/L	100	32.1	1		10/12/18 17:09	624-95-3	
tert-Butyl Alcohol	ND	ug/L	100	57.7	1		10/12/18 17:09	75-65-0	
tert-Butyl Formate	ND	ug/L	50.0	7.3	1		10/12/18 17:09	762-75-4	
1,2-Dichloroethane	ND	ug/L	5.0	1.8	1		10/12/18 17:09	107-06-2	
Diisopropyl ether	ND	ug/L	5.0	1.7	1		10/12/18 17:09	108-20-3	
Ethanol	ND	ug/L	200	131	1		10/12/18 17:09	64-17-5	
Ethylbenzene	ND	ug/L	5.0	1.6	1		10/12/18 17:09	100-41-4	
Ethyl-tert-butyl ether	ND	ug/L	10.0	3.6	1		10/12/18 17:09	637-92-3	
Methyl-tert-butyl ether	ND	ug/L	5.0	1.7	1		10/12/18 17:09	1634-04-4	
Naphthalene	ND	ug/L	5.0	2.0	1		10/12/18 17:09	91-20-3	
Toluene	ND	ug/L	5.0	1.6	1		10/12/18 17:09	108-88-3	
Xylene (Total)	ND	ug/L	5.0	5.0	1		10/12/18 17:09	1330-20-7	
m&p-Xylene	ND	ug/L	10.0	3.1	1		10/12/18 17:09	179601-23-1	
o-Xylene	ND	ug/L	5.0	1.6	1		10/12/18 17:09	95-47-6	
Surrogates									
4-Bromofluorobenzene (S)	97	%	70-130		1		10/12/18 17:09	460-00-4	
1,2-Dichloroethane-d4 (S)	96	%	70-130		1		10/12/18 17:09	17060-07-0	
Toluene-d8 (S)	106	%	70-130		1		10/12/18 17:09	2037-26-5	

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ANALYTICAL RESULTS

Project: WARREN GREEN 04887/57679
Pace Project No.: 92402861

Sample: MW-15 **Lab ID: 92402861012** Collected: 10/08/18 13:00 Received: 10/10/18 08:05 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8011 GCS EDB and DBCP	Analytical Method: EPA 8011 Preparation Method: EPA 8011								
1,2-Dibromoethane (EDB)	ND	ug/L	0.019	0.019	1	10/12/18 10:30	10/13/18 20:10	106-93-4	
Surrogates									
1-Chloro-2-bromopropane (S)	116	%	60-140		1	10/12/18 10:30	10/13/18 20:10	301-79-56	
8260 MSV	Analytical Method: EPA 8260B								
tert-Amyl Alcohol	ND	ug/L	100	76.8	1		10/12/18 17:26	75-85-4	
tert-Amylmethyl ether	ND	ug/L	10.0	3.4	1		10/12/18 17:26	994-05-8	
Benzene	ND	ug/L	5.0	1.7	1		10/12/18 17:26	71-43-2	
3,3-Dimethyl-1-Butanol	ND	ug/L	100	32.1	1		10/12/18 17:26	624-95-3	
tert-Butyl Alcohol	ND	ug/L	100	57.7	1		10/12/18 17:26	75-65-0	
tert-Butyl Formate	ND	ug/L	50.0	7.3	1		10/12/18 17:26	762-75-4	
1,2-Dichloroethane	ND	ug/L	5.0	1.8	1		10/12/18 17:26	107-06-2	
Diisopropyl ether	ND	ug/L	5.0	1.7	1		10/12/18 17:26	108-20-3	
Ethanol	ND	ug/L	200	131	1		10/12/18 17:26	64-17-5	
Ethylbenzene	ND	ug/L	5.0	1.6	1		10/12/18 17:26	100-41-4	
Ethyl-tert-butyl ether	ND	ug/L	10.0	3.6	1		10/12/18 17:26	637-92-3	
Methyl-tert-butyl ether	ND	ug/L	5.0	1.7	1		10/12/18 17:26	1634-04-4	
Naphthalene	ND	ug/L	5.0	2.0	1		10/12/18 17:26	91-20-3	
Toluene	ND	ug/L	5.0	1.6	1		10/12/18 17:26	108-88-3	
Xylene (Total)	ND	ug/L	5.0	5.0	1		10/12/18 17:26	1330-20-7	
m&p-Xylene	ND	ug/L	10.0	3.1	1		10/12/18 17:26	179601-23-1	
o-Xylene	ND	ug/L	5.0	1.6	1		10/12/18 17:26	95-47-6	
Surrogates									
4-Bromofluorobenzene (S)	104	%	70-130		1		10/12/18 17:26	460-00-4	
1,2-Dichloroethane-d4 (S)	104	%	70-130		1		10/12/18 17:26	17060-07-0	
Toluene-d8 (S)	106	%	70-130		1		10/12/18 17:26	2037-26-5	

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ANALYTICAL RESULTS

Project: WARREN GREEN 04887/57679
Pace Project No.: 92402861

Sample: DW-1 **Lab ID: 92402861013** Collected: 10/08/18 13:50 Received: 10/10/18 08:05 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8011 GCS EDB and DBCP	Analytical Method: EPA 8011 Preparation Method: EPA 8011								
1,2-Dibromoethane (EDB)	ND	ug/L	0.019	0.019	1	10/15/18 08:23	10/15/18 19:58	106-93-4	
Surrogates									
1-Chloro-2-bromopropane (S)	112	%	60-140		1	10/15/18 08:23	10/15/18 19:58	301-79-56	
8260 MSV	Analytical Method: EPA 8260B								
tert-Amyl Alcohol	ND	ug/L	100	76.8	1		10/12/18 17:43	75-85-4	
tert-Amylmethyl ether	ND	ug/L	10.0	3.4	1		10/12/18 17:43	994-05-8	
Benzene	ND	ug/L	5.0	1.7	1		10/12/18 17:43	71-43-2	
3,3-Dimethyl-1-Butanol	ND	ug/L	100	32.1	1		10/12/18 17:43	624-95-3	
tert-Butyl Alcohol	ND	ug/L	100	57.7	1		10/12/18 17:43	75-65-0	
tert-Butyl Formate	ND	ug/L	50.0	7.3	1		10/12/18 17:43	762-75-4	
1,2-Dichloroethane	ND	ug/L	5.0	1.8	1		10/12/18 17:43	107-06-2	
Diisopropyl ether	ND	ug/L	5.0	1.7	1		10/12/18 17:43	108-20-3	
Ethanol	ND	ug/L	200	131	1		10/12/18 17:43	64-17-5	
Ethylbenzene	ND	ug/L	5.0	1.6	1		10/12/18 17:43	100-41-4	
Ethyl-tert-butyl ether	ND	ug/L	10.0	3.6	1		10/12/18 17:43	637-92-3	
Methyl-tert-butyl ether	ND	ug/L	5.0	1.7	1		10/12/18 17:43	1634-04-4	
Naphthalene	ND	ug/L	5.0	2.0	1		10/12/18 17:43	91-20-3	
Toluene	ND	ug/L	5.0	1.6	1		10/12/18 17:43	108-88-3	
Xylene (Total)	ND	ug/L	5.0	5.0	1		10/12/18 17:43	1330-20-7	
m&p-Xylene	ND	ug/L	10.0	3.1	1		10/12/18 17:43	179601-23-1	
o-Xylene	ND	ug/L	5.0	1.6	1		10/12/18 17:43	95-47-6	
Surrogates									
4-Bromofluorobenzene (S)	100	%	70-130		1		10/12/18 17:43	460-00-4	
1,2-Dichloroethane-d4 (S)	99	%	70-130		1		10/12/18 17:43	17060-07-0	
Toluene-d8 (S)	109	%	70-130		1		10/12/18 17:43	2037-26-5	

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ANALYTICAL RESULTS

Project: WARREN GREEN 04887/57679

Pace Project No.: 92402861

Sample: DW-2 **Lab ID: 92402861014** Collected: 10/08/18 12:30 Received: 10/10/18 08:05 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8011 GCS EDB and DBCP	Analytical Method: EPA 8011 Preparation Method: EPA 8011								
1,2-Dibromoethane (EDB)	ND	ug/L	0.020	0.020	1	10/15/18 08:23	10/15/18 20:17	106-93-4	
Surrogates									
1-Chloro-2-bromopropane (S)	109	%	60-140		1	10/15/18 08:23	10/15/18 20:17	301-79-56	
8260 MSV	Analytical Method: EPA 8260B								
tert-Amyl Alcohol	ND	ug/L	100	76.8	1		10/12/18 18:00	75-85-4	
tert-Amylmethyl ether	ND	ug/L	10.0	3.4	1		10/12/18 18:00	994-05-8	
Benzene	ND	ug/L	5.0	1.7	1		10/12/18 18:00	71-43-2	
3,3-Dimethyl-1-Butanol	ND	ug/L	100	32.1	1		10/12/18 18:00	624-95-3	
tert-Butyl Alcohol	ND	ug/L	100	57.7	1		10/12/18 18:00	75-65-0	
tert-Butyl Formate	ND	ug/L	50.0	7.3	1		10/12/18 18:00	762-75-4	
1,2-Dichloroethane	ND	ug/L	5.0	1.8	1		10/12/18 18:00	107-06-2	
Diisopropyl ether	ND	ug/L	5.0	1.7	1		10/12/18 18:00	108-20-3	
Ethanol	ND	ug/L	200	131	1		10/12/18 18:00	64-17-5	
Ethylbenzene	ND	ug/L	5.0	1.6	1		10/12/18 18:00	100-41-4	
Ethyl-tert-butyl ether	ND	ug/L	10.0	3.6	1		10/12/18 18:00	637-92-3	
Methyl-tert-butyl ether	ND	ug/L	5.0	1.7	1		10/12/18 18:00	1634-04-4	
Naphthalene	ND	ug/L	5.0	2.0	1		10/12/18 18:00	91-20-3	
Toluene	ND	ug/L	5.0	1.6	1		10/12/18 18:00	108-88-3	
Xylene (Total)	ND	ug/L	5.0	5.0	1		10/12/18 18:00	1330-20-7	
m&p-Xylene	ND	ug/L	10.0	3.1	1		10/12/18 18:00	179601-23-1	
o-Xylene	ND	ug/L	5.0	1.6	1		10/12/18 18:00	95-47-6	
Surrogates									
4-Bromofluorobenzene (S)	100	%	70-130		1		10/12/18 18:00	460-00-4	
1,2-Dichloroethane-d4 (S)	100	%	70-130		1		10/12/18 18:00	17060-07-0	
Toluene-d8 (S)	107	%	70-130		1		10/12/18 18:00	2037-26-5	

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ANALYTICAL RESULTS

Project: WARREN GREEN 04887/57679
Pace Project No.: 92402861

Sample: DW-3 **Lab ID: 92402861015** Collected: 10/08/18 10:40 Received: 10/10/18 08:05 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8011 GCS EDB and DBCP	Analytical Method: EPA 8011 Preparation Method: EPA 8011								
1,2-Dibromoethane (EDB)	ND	ug/L	0.019	0.019	1	10/15/18 08:23	10/15/18 20:57	106-93-4	
Surrogates									
1-Chloro-2-bromopropane (S)	108	%	60-140		1	10/15/18 08:23	10/15/18 20:57	301-79-56	
8260 MSV	Analytical Method: EPA 8260B								
tert-Amyl Alcohol	ND	ug/L	100	76.8	1		10/12/18 18:17	75-85-4	
tert-Amylmethyl ether	ND	ug/L	10.0	3.4	1		10/12/18 18:17	994-05-8	
Benzene	ND	ug/L	5.0	1.7	1		10/12/18 18:17	71-43-2	
3,3-Dimethyl-1-Butanol	ND	ug/L	100	32.1	1		10/12/18 18:17	624-95-3	
tert-Butyl Alcohol	ND	ug/L	100	57.7	1		10/12/18 18:17	75-65-0	
tert-Butyl Formate	ND	ug/L	50.0	7.3	1		10/12/18 18:17	762-75-4	
1,2-Dichloroethane	ND	ug/L	5.0	1.8	1		10/12/18 18:17	107-06-2	
Diisopropyl ether	ND	ug/L	5.0	1.7	1		10/12/18 18:17	108-20-3	
Ethanol	ND	ug/L	200	131	1		10/12/18 18:17	64-17-5	
Ethylbenzene	ND	ug/L	5.0	1.6	1		10/12/18 18:17	100-41-4	
Ethyl-tert-butyl ether	ND	ug/L	10.0	3.6	1		10/12/18 18:17	637-92-3	
Methyl-tert-butyl ether	ND	ug/L	5.0	1.7	1		10/12/18 18:17	1634-04-4	
Naphthalene	ND	ug/L	5.0	2.0	1		10/12/18 18:17	91-20-3	
Toluene	ND	ug/L	5.0	1.6	1		10/12/18 18:17	108-88-3	
Xylene (Total)	ND	ug/L	5.0	5.0	1		10/12/18 18:17	1330-20-7	
m&p-Xylene	ND	ug/L	10.0	3.1	1		10/12/18 18:17	179601-23-1	
o-Xylene	ND	ug/L	5.0	1.6	1		10/12/18 18:17	95-47-6	
Surrogates									
4-Bromofluorobenzene (S)	101	%	70-130		1		10/12/18 18:17	460-00-4	
1,2-Dichloroethane-d4 (S)	101	%	70-130		1		10/12/18 18:17	17060-07-0	
Toluene-d8 (S)	108	%	70-130		1		10/12/18 18:17	2037-26-5	

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ANALYTICAL RESULTS

Project: WARREN GREEN 04887/57679
Pace Project No.: 92402861

Sample: DW-4 **Lab ID: 92402861016** Collected: 10/08/18 11:10 Received: 10/10/18 08:05 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8011 GCS EDB and DBCP	Analytical Method: EPA 8011 Preparation Method: EPA 8011								
1,2-Dibromoethane (EDB)	ND	ug/L	0.020	0.020	1	10/15/18 08:23	10/15/18 21:17	106-93-4	
Surrogates									
1-Chloro-2-bromopropane (S)	109	%	60-140		1	10/15/18 08:23	10/15/18 21:17	301-79-56	
8260 MSV	Analytical Method: EPA 8260B								
tert-Amyl Alcohol	ND	ug/L	100	76.8	1		10/12/18 18:34	75-85-4	
tert-Amylmethyl ether	ND	ug/L	10.0	3.4	1		10/12/18 18:34	994-05-8	
Benzene	ND	ug/L	5.0	1.7	1		10/12/18 18:34	71-43-2	
3,3-Dimethyl-1-Butanol	ND	ug/L	100	32.1	1		10/12/18 18:34	624-95-3	
tert-Butyl Alcohol	ND	ug/L	100	57.7	1		10/12/18 18:34	75-65-0	
tert-Butyl Formate	ND	ug/L	50.0	7.3	1		10/12/18 18:34	762-75-4	
1,2-Dichloroethane	ND	ug/L	5.0	1.8	1		10/12/18 18:34	107-06-2	
Diisopropyl ether	ND	ug/L	5.0	1.7	1		10/12/18 18:34	108-20-3	
Ethanol	ND	ug/L	200	131	1		10/12/18 18:34	64-17-5	
Ethylbenzene	ND	ug/L	5.0	1.6	1		10/12/18 18:34	100-41-4	
Ethyl-tert-butyl ether	ND	ug/L	10.0	3.6	1		10/12/18 18:34	637-92-3	
Methyl-tert-butyl ether	ND	ug/L	5.0	1.7	1		10/12/18 18:34	1634-04-4	
Naphthalene	ND	ug/L	5.0	2.0	1		10/12/18 18:34	91-20-3	
Toluene	ND	ug/L	5.0	1.6	1		10/12/18 18:34	108-88-3	
Xylene (Total)	ND	ug/L	5.0	5.0	1		10/12/18 18:34	1330-20-7	
m&p-Xylene	ND	ug/L	10.0	3.1	1		10/12/18 18:34	179601-23-1	
o-Xylene	ND	ug/L	5.0	1.6	1		10/12/18 18:34	95-47-6	
Surrogates									
4-Bromofluorobenzene (S)	100	%	70-130		1		10/12/18 18:34	460-00-4	
1,2-Dichloroethane-d4 (S)	102	%	70-130		1		10/12/18 18:34	17060-07-0	
Toluene-d8 (S)	107	%	70-130		1		10/12/18 18:34	2037-26-5	

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ANALYTICAL RESULTS

Project: WARREN GREEN 04887/57679
Pace Project No.: 92402861

Sample: DW-5 **Lab ID: 92402861017** Collected: 10/08/18 13:30 Received: 10/10/18 08:05 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8011 GCS EDB and DBCP	Analytical Method: EPA 8011 Preparation Method: EPA 8011								
1,2-Dibromoethane (EDB)	ND	ug/L	0.020	0.020	1	10/15/18 08:23	10/15/18 21:37	106-93-4	
Surrogates									
1-Chloro-2-bromopropane (S)	110	%	60-140		1	10/15/18 08:23	10/15/18 21:37	301-79-56	
8260 MSV	Analytical Method: EPA 8260B								
tert-Amyl Alcohol	ND	ug/L	100	76.8	1		10/12/18 18:51	75-85-4	
tert-Amylmethyl ether	ND	ug/L	10.0	3.4	1		10/12/18 18:51	994-05-8	
Benzene	ND	ug/L	5.0	1.7	1		10/12/18 18:51	71-43-2	
3,3-Dimethyl-1-Butanol	ND	ug/L	100	32.1	1		10/12/18 18:51	624-95-3	
tert-Butyl Alcohol	ND	ug/L	100	57.7	1		10/12/18 18:51	75-65-0	
tert-Butyl Formate	ND	ug/L	50.0	7.3	1		10/12/18 18:51	762-75-4	
1,2-Dichloroethane	ND	ug/L	5.0	1.8	1		10/12/18 18:51	107-06-2	
Diisopropyl ether	ND	ug/L	5.0	1.7	1		10/12/18 18:51	108-20-3	
Ethanol	ND	ug/L	200	131	1		10/12/18 18:51	64-17-5	
Ethylbenzene	ND	ug/L	5.0	1.6	1		10/12/18 18:51	100-41-4	
Ethyl-tert-butyl ether	ND	ug/L	10.0	3.6	1		10/12/18 18:51	637-92-3	
Methyl-tert-butyl ether	ND	ug/L	5.0	1.7	1		10/12/18 18:51	1634-04-4	
Naphthalene	ND	ug/L	5.0	2.0	1		10/12/18 18:51	91-20-3	
Toluene	ND	ug/L	5.0	1.6	1		10/12/18 18:51	108-88-3	
Xylene (Total)	ND	ug/L	5.0	5.0	1		10/12/18 18:51	1330-20-7	
m&p-Xylene	ND	ug/L	10.0	3.1	1		10/12/18 18:51	179601-23-1	
o-Xylene	ND	ug/L	5.0	1.6	1		10/12/18 18:51	95-47-6	
Surrogates									
4-Bromofluorobenzene (S)	98	%	70-130		1		10/12/18 18:51	460-00-4	
1,2-Dichloroethane-d4 (S)	97	%	70-130		1		10/12/18 18:51	17060-07-0	
Toluene-d8 (S)	104	%	70-130		1		10/12/18 18:51	2037-26-5	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: WARREN GREEN 04887/57679
Pace Project No.: 92402861

Sample: DUP 1 **Lab ID: 92402861018** Collected: 10/08/18 13:55 Received: 10/10/18 08:05 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8011 GCS EDB and DBCP	Analytical Method: EPA 8011 Preparation Method: EPA 8011								
1,2-Dibromoethane (EDB)	ND	ug/L	0.020	0.020	1	10/15/18 08:23	10/15/18 21:56	106-93-4	
Surrogates									
1-Chloro-2-bromopropane (S)	143	%	60-140		1	10/15/18 08:23	10/15/18 21:56	301-79-56	S3
8260 MSV	Analytical Method: EPA 8260B								
tert-Amyl Alcohol	ND	ug/L	25000	19200	250		10/15/18 20:29	75-85-4	
tert-Amylmethyl ether	ND	ug/L	2500	850	250		10/15/18 20:29	994-05-8	
Benzene	**3660**	ug/L	1250	425	250		10/15/18 20:29	71-43-2	
3,3-Dimethyl-1-Butanol	ND	ug/L	25000	8020	250		10/15/18 20:29	624-95-3	
tert-Butyl Alcohol	ND	ug/L	25000	14400	250		10/15/18 20:29	75-65-0	
tert-Butyl Formate	ND	ug/L	12500	1820	250		10/15/18 20:29	762-75-4	
1,2-Dichloroethane	ND	ug/L	1250	450	250		10/15/18 20:29	107-06-2	
Diisopropyl ether	ND	ug/L	1250	425	250		10/15/18 20:29	108-20-3	
Ethanol	ND	ug/L	50000	32800	250		10/15/18 20:29	64-17-5	
Ethylbenzene	**5760**	ug/L	1250	400	250		10/15/18 20:29	100-41-4	
Ethyl-tert-butyl ether	ND	ug/L	2500	900	250		10/15/18 20:29	637-92-3	
Methyl-tert-butyl ether	ND	ug/L	1250	425	250		10/15/18 20:29	1634-04-4	
Naphthalene	**910J**	ug/L	1250	500	250		10/15/18 20:29	91-20-3	
Toluene	**36300**	ug/L	1250	400	250		10/15/18 20:29	108-88-3	
Xylene (Total)	**29400**	ug/L	1250	1250	250		10/15/18 20:29	1330-20-7	
m&p-Xylene	**21300**	ug/L	2500	775	250		10/15/18 20:29	179601-23-1	
o-Xylene	**8150**	ug/L	1250	400	250		10/15/18 20:29	95-47-6	
Surrogates									
4-Bromofluorobenzene (S)	98	%	70-130		250		10/15/18 20:29	460-00-4	
1,2-Dichloroethane-d4 (S)	93	%	70-130		250		10/15/18 20:29	17060-07-0	
Toluene-d8 (S)	102	%	70-130		250		10/15/18 20:29	2037-26-5	

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ANALYTICAL RESULTS

Project: WARREN GREEN 04887/57679
Pace Project No.: 92402861

Sample: FIELD BLANK **Lab ID: 92402861019** Collected: 10/08/18 15:05 Received: 10/10/18 08:05 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8011 GCS EDB and DBCP	Analytical Method: EPA 8011 Preparation Method: EPA 8011								
1,2-Dibromoethane (EDB)	ND	ug/L	0.026	0.026	1	10/16/18 09:28	10/16/18 20:19	106-93-4	
Surrogates									
1-Chloro-2-bromopropane (S)	101	%	60-140		1	10/16/18 09:28	10/16/18 20:19	301-79-56	
8260 MSV	Analytical Method: EPA 8260B								
tert-Amyl Alcohol	ND	ug/L	100	76.8	1		10/12/18 18:57	75-85-4	
tert-Amylmethyl ether	ND	ug/L	10.0	3.4	1		10/12/18 18:57	994-05-8	
Benzene	ND	ug/L	5.0	1.7	1		10/12/18 18:57	71-43-2	
3,3-Dimethyl-1-Butanol	ND	ug/L	100	32.1	1		10/12/18 18:57	624-95-3	
tert-Butyl Alcohol	ND	ug/L	100	57.7	1		10/12/18 18:57	75-65-0	
tert-Butyl Formate	ND	ug/L	50.0	7.3	1		10/12/18 18:57	762-75-4	
1,2-Dichloroethane	ND	ug/L	5.0	1.8	1		10/12/18 18:57	107-06-2	
Diisopropyl ether	ND	ug/L	5.0	1.7	1		10/12/18 18:57	108-20-3	
Ethanol	ND	ug/L	200	131	1		10/12/18 18:57	64-17-5	
Ethylbenzene	ND	ug/L	5.0	1.6	1		10/12/18 18:57	100-41-4	
Ethyl-tert-butyl ether	ND	ug/L	10.0	3.6	1		10/12/18 18:57	637-92-3	
Methyl-tert-butyl ether	ND	ug/L	5.0	1.7	1		10/12/18 18:57	1634-04-4	
Naphthalene	ND	ug/L	5.0	2.0	1		10/12/18 18:57	91-20-3	
Toluene	ND	ug/L	5.0	1.6	1		10/12/18 18:57	108-88-3	
Xylene (Total)	ND	ug/L	5.0	5.0	1		10/12/18 18:57	1330-20-7	
m&p-Xylene	ND	ug/L	10.0	3.1	1		10/12/18 18:57	179601-23-1	
o-Xylene	ND	ug/L	5.0	1.6	1		10/12/18 18:57	95-47-6	
Surrogates									
4-Bromofluorobenzene (S)	95	%	70-130		1		10/12/18 18:57	460-00-4	
1,2-Dichloroethane-d4 (S)	106	%	70-130		1		10/12/18 18:57	17060-07-0	
Toluene-d8 (S)	106	%	70-130		1		10/12/18 18:57	2037-26-5	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: WARREN GREEN 04887/57679
Pace Project No.: 92402861

Sample: TRIP BLANK **Lab ID: 92402861020** Collected: 10/08/18 15:05 Received: 10/10/18 08:05 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV	Analytical Method: EPA 8260B								
tert-Amyl Alcohol	ND	ug/L	100	76.8	1		10/12/18 19:15	75-85-4	
tert-Amylmethyl ether	ND	ug/L	10.0	3.4	1		10/12/18 19:15	994-05-8	
Benzene	ND	ug/L	5.0	1.7	1		10/12/18 19:15	71-43-2	
3,3-Dimethyl-1-Butanol	ND	ug/L	100	32.1	1		10/12/18 19:15	624-95-3	
tert-Butyl Alcohol	ND	ug/L	100	57.7	1		10/12/18 19:15	75-65-0	
tert-Butyl Formate	ND	ug/L	50.0	7.3	1		10/12/18 19:15	762-75-4	
1,2-Dichloroethane	ND	ug/L	5.0	1.8	1		10/12/18 19:15	107-06-2	
Diisopropyl ether	ND	ug/L	5.0	1.7	1		10/12/18 19:15	108-20-3	
Ethanol	ND	ug/L	200	131	1		10/12/18 19:15	64-17-5	
Ethylbenzene	ND	ug/L	5.0	1.6	1		10/12/18 19:15	100-41-4	
Ethyl-tert-butyl ether	ND	ug/L	10.0	3.6	1		10/12/18 19:15	637-92-3	
Methyl-tert-butyl ether	ND	ug/L	5.0	1.7	1		10/12/18 19:15	1634-04-4	
Naphthalene	ND	ug/L	5.0	2.0	1		10/12/18 19:15	91-20-3	
Toluene	ND	ug/L	5.0	1.6	1		10/12/18 19:15	108-88-3	
Xylene (Total)	ND	ug/L	5.0	5.0	1		10/12/18 19:15	1330-20-7	
m&p-Xylene	ND	ug/L	10.0	3.1	1		10/12/18 19:15	179601-23-1	
o-Xylene	ND	ug/L	5.0	1.6	1		10/12/18 19:15	95-47-6	
Surrogates									
4-Bromofluorobenzene (S)	92	%	70-130		1		10/12/18 19:15	460-00-4	
1,2-Dichloroethane-d4 (S)	107	%	70-130		1		10/12/18 19:15	17060-07-0	
Toluene-d8 (S)	105	%	70-130		1		10/12/18 19:15	2037-26-5	

REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: WARREN GREEN 04887/57679
Pace Project No.: 92402861

QC Batch: 435986 Analysis Method: EPA 8260B
QC Batch Method: EPA 8260B Analysis Description: 8260 MSV SC
Associated Lab Samples: 92402861003, 92402861004, 92402861005, 92402861006, 92402861008, 92402861009, 92402861010, 92402861011, 92402861012, 92402861013, 92402861014, 92402861015, 92402861016, 92402861017

METHOD BLANK: 2399268 Matrix: Water
Associated Lab Samples: 92402861003, 92402861004, 92402861005, 92402861006, 92402861008, 92402861009, 92402861010, 92402861011, 92402861012, 92402861013, 92402861014, 92402861015, 92402861016, 92402861017

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
1,2-Dichloroethane	ug/L	ND	5.0	1.8	10/12/18 14:18	
3,3-Dimethyl-1-Butanol	ug/L	ND	100	32.1	10/12/18 14:18	
Benzene	ug/L	ND	5.0	1.7	10/12/18 14:18	
Diisopropyl ether	ug/L	ND	5.0	1.7	10/12/18 14:18	
Ethanol	ug/L	ND	200	131	10/12/18 14:18	
Ethyl-tert-butyl ether	ug/L	ND	10.0	3.6	10/12/18 14:18	
Ethylbenzene	ug/L	ND	5.0	1.6	10/12/18 14:18	
m&p-Xylene	ug/L	ND	10.0	3.1	10/12/18 14:18	
Methyl-tert-butyl ether	ug/L	ND	5.0	1.7	10/12/18 14:18	
Naphthalene	ug/L	ND	5.0	2.0	10/12/18 14:18	
o-Xylene	ug/L	ND	5.0	1.6	10/12/18 14:18	
tert-Amyl Alcohol	ug/L	ND	100	76.8	10/12/18 14:18	
tert-Amylmethyl ether	ug/L	ND	10.0	3.4	10/12/18 14:18	
tert-Butyl Alcohol	ug/L	ND	100	57.7	10/12/18 14:18	
tert-Butyl Formate	ug/L	ND	50.0	7.3	10/12/18 14:18	
Toluene	ug/L	ND	5.0	1.6	10/12/18 14:18	
Xylene (Total)	ug/L	ND	5.0	5.0	10/12/18 14:18	
1,2-Dichloroethane-d4 (S)	%	99	70-130		10/12/18 14:18	
4-Bromofluorobenzene (S)	%	100	70-130		10/12/18 14:18	
Toluene-d8 (S)	%	107	70-130		10/12/18 14:18	

LABORATORY CONTROL SAMPLE: 2399269

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,2-Dichloroethane	ug/L	50	49.9	100	70-130	
3,3-Dimethyl-1-Butanol	ug/L	1000	989	99	70-130	
Benzene	ug/L	50	57.4	115	70-130	
Diisopropyl ether	ug/L	50	47.4	95	70-130	
Ethanol	ug/L	2000	1980	99	70-130	
Ethyl-tert-butyl ether	ug/L	100	91.4	91	70-130	
Ethylbenzene	ug/L	50	59.3	119	70-130	
m&p-Xylene	ug/L	100	118	118	70-130	
Methyl-tert-butyl ether	ug/L	50	48.0	96	70-130	
Naphthalene	ug/L	50	54.9	110	70-130	
o-Xylene	ug/L	50	60.4	121	70-130	
tert-Amyl Alcohol	ug/L	1000	968	97	70-130	
tert-Amylmethyl ether	ug/L	100	97.6	98	70-130	
tert-Butyl Alcohol	ug/L	500	470	94	70-130	

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QUALITY CONTROL DATA

Project: WARREN GREEN 04887/57679
Pace Project No.: 92402861

LABORATORY CONTROL SAMPLE: 2399269

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
tert-Butyl Formate	ug/L	400	396	99	70-130	
Toluene	ug/L	50	50.1	100	70-130	
Xylene (Total)	ug/L	150	179	119	70-130	
1,2-Dichloroethane-d4 (S)	%			100	70-130	
4-Bromofluorobenzene (S)	%			97	70-130	
Toluene-d8 (S)	%			92	70-130	

MATRIX SPIKE SAMPLE: 2400156

Parameter	Units	92402873006 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
1,2-Dichloroethane	ug/L	ND	20	19.3	97	70-130	
3,3-Dimethyl-1-Butanol	ug/L	ND	400	410	102	70-130	
Benzene	ug/L	ND	20	22.2	111	70-130	
Diisopropyl ether	ug/L	ND	20	17.1	85	70-130	
Ethanol	ug/L	ND	800	808	101	70-130	
Ethyl-tert-butyl ether	ug/L	ND	40	33.4	83	70-130	
Ethylbenzene	ug/L	ND	20	23.6	118	70-130	
m&p-Xylene	ug/L	ND	40	47.5	119	70-130	
Methyl-tert-butyl ether	ug/L	ND	20	18.3	91	70-130	
Naphthalene	ug/L	ND	20	21.3	107	70-130	
o-Xylene	ug/L	ND	20	24.5	122	70-130	
tert-Amyl Alcohol	ug/L	ND	400	383	96	70-130	
tert-Amylmethyl ether	ug/L	ND	40	38.0	95	70-130	
tert-Butyl Alcohol	ug/L	ND	200	199	99	70-130	
tert-Butyl Formate	ug/L	ND	160	104	65	70-130	P5
Toluene	ug/L	ND	20	20.6	103	70-130	
Xylene (Total)	ug/L	ND	60	71.9	120	70-130	
1,2-Dichloroethane-d4 (S)	%				97	70-130	
4-Bromofluorobenzene (S)	%				98	70-130	
Toluene-d8 (S)	%				96	70-130	

SAMPLE DUPLICATE: 2400155

Parameter	Units	92402873005 Result	Dup Result	RPD	Max RPD	Qualifiers
1,2-Dichloroethane	ug/L	ND	ND		30	
3,3-Dimethyl-1-Butanol	ug/L	ND	ND		30	
Benzene	ug/L	ND	ND		30	
Diisopropyl ether	ug/L	ND	ND		30	
Ethanol	ug/L	ND	ND		30	
Ethyl-tert-butyl ether	ug/L	ND	ND		30	
Ethylbenzene	ug/L	ND	ND		30	
m&p-Xylene	ug/L	ND	ND		30	
Methyl-tert-butyl ether	ug/L	ND	ND		30	
Naphthalene	ug/L	ND	ND		30	

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QUALITY CONTROL DATA

Project: WARREN GREEN 04887/57679
Pace Project No.: 92402861

SAMPLE DUPLICATE: 2400155

Parameter	Units	92402873005 Result	Dup Result	RPD	Max RPD	Qualifiers
o-Xylene	ug/L	ND	ND		30	
tert-Amyl Alcohol	ug/L	ND	ND		30	
tert-Amylmethyl ether	ug/L	ND	ND		30	
tert-Butyl Alcohol	ug/L	ND	ND		30	
tert-Butyl Formate	ug/L	ND	ND		30	
Toluene	ug/L	ND	ND		30	
Xylene (Total)	ug/L	ND	ND		30	
1,2-Dichloroethane-d4 (S)	%	97	101	4		
4-Bromofluorobenzene (S)	%	101	101	0		
Toluene-d8 (S)	%	112	109	3		

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QUALITY CONTROL DATA

Project: WARREN GREEN 04887/57679
Pace Project No.: 92402861

QC Batch: 436001 Analysis Method: EPA 8260B
QC Batch Method: EPA 8260B Analysis Description: 8260 MSV SC
Associated Lab Samples: 92402861002, 92402861019, 92402861020

METHOD BLANK: 2399328 Matrix: Water
Associated Lab Samples: 92402861002, 92402861019, 92402861020

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
1,2-Dichloroethane	ug/L	ND	5.0	1.8	10/12/18 12:43	
3,3-Dimethyl-1-Butanol	ug/L	ND	100	32.1	10/12/18 12:43	
Benzene	ug/L	ND	5.0	1.7	10/12/18 12:43	
Diisopropyl ether	ug/L	ND	5.0	1.7	10/12/18 12:43	
Ethanol	ug/L	ND	200	131	10/12/18 12:43	
Ethyl-tert-butyl ether	ug/L	ND	10.0	3.6	10/12/18 12:43	
Ethylbenzene	ug/L	ND	5.0	1.6	10/12/18 12:43	
m&p-Xylene	ug/L	ND	10.0	3.1	10/12/18 12:43	
Methyl-tert-butyl ether	ug/L	ND	5.0	1.7	10/12/18 12:43	
Naphthalene	ug/L	ND	5.0	2.0	10/12/18 12:43	
o-Xylene	ug/L	ND	5.0	1.6	10/12/18 12:43	
tert-Amyl Alcohol	ug/L	ND	100	76.8	10/12/18 12:43	
tert-Amylmethyl ether	ug/L	ND	10.0	3.4	10/12/18 12:43	
tert-Butyl Alcohol	ug/L	ND	100	57.7	10/12/18 12:43	
tert-Butyl Formate	ug/L	ND	50.0	7.3	10/12/18 12:43	
Toluene	ug/L	ND	5.0	1.6	10/12/18 12:43	
Xylene (Total)	ug/L	ND	5.0	5.0	10/12/18 12:43	
1,2-Dichloroethane-d4 (S)	%	108	70-130		10/12/18 12:43	
4-Bromofluorobenzene (S)	%	95	70-130		10/12/18 12:43	
Toluene-d8 (S)	%	105	70-130		10/12/18 12:43	

LABORATORY CONTROL SAMPLE: 2399329

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,2-Dichloroethane	ug/L	50	52.3	105	70-130	
3,3-Dimethyl-1-Butanol	ug/L	1000	1070	107	70-130	
Benzene	ug/L	50	55.6	111	70-130	
Diisopropyl ether	ug/L	50	48.9	98	70-130	
Ethanol	ug/L	2000	2450	123	70-130	
Ethyl-tert-butyl ether	ug/L	100	94.7	95	70-130	
Ethylbenzene	ug/L	50	54.0	108	70-130	
m&p-Xylene	ug/L	100	113	113	70-130	
Methyl-tert-butyl ether	ug/L	50	53.1	106	70-130	
Naphthalene	ug/L	50	49.7	99	70-130	
o-Xylene	ug/L	50	57.8	116	70-130	
tert-Amyl Alcohol	ug/L	1000	1030	103	70-130	1g
tert-Amylmethyl ether	ug/L	100	109	109	70-130	
tert-Butyl Alcohol	ug/L	500	500	100	70-130	1g
tert-Butyl Formate	ug/L	400	422	106	70-130	
Toluene	ug/L	50	49.5	99	70-130	

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QUALITY CONTROL DATA

Project: WARREN GREEN 04887/57679
Pace Project No.: 92402861

LABORATORY CONTROL SAMPLE: 2399329

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Xylene (Total)	ug/L	150	171	114	70-130	
1,2-Dichloroethane-d4 (S)	%			105	70-130	
4-Bromofluorobenzene (S)	%			102	70-130	
Toluene-d8 (S)	%			95	70-130	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 2399330 2399331

Parameter	Units	92402849022 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
1,2-Dichloroethane	ug/L	ND	800	800	933	900	117	112	70-130	4	30	
3,3-Dimethyl-1-Butanol	ug/L	ND	16000	16000	20600	20400	129	127	70-130	1	30	
Benzene	ug/L	2050	800	800	3250	3140	150	136	70-130	3	30	M1
Diisopropyl ether	ug/L	ND	800	800	903	843	113	105	70-130	7	30	
Ethanol	ug/L	ND	32000	32000	51000	48600	159	152	70-130	5	30	M1
Ethyl-tert-butyl ether	ug/L	ND	1600	1600	1680	1560	105	98	70-130	7	30	
Ethylbenzene	ug/L	1340	800	800	2530	2480	148	142	70-130	2	30	M1
m&p-Xylene	ug/L	11500	1600	1600	15000	14700	216	199	70-130	2	30	M1
Methyl-tert-butyl ether	ug/L	ND	800	800	913	842	114	105	70-130	8	30	
Naphthalene	ug/L	932	800	800	1840	1850	113	114	70-130	0	30	
o-Xylene	ug/L	4130	800	800	5590	5490	183	171	70-130	2	30	M1
tert-Amyl Alcohol	ug/L	ND	16000	16000	19800	19400	124	121	70-130	2	30	
tert-Amylmethyl ether	ug/L	ND	1600	1600	1910	1780	119	112	70-130	7	30	
tert-Butyl Alcohol	ug/L	ND	8000	8000	10400	9990	129	125	70-130	4	30	
tert-Butyl Formate	ug/L	ND	6400	6400	6120	5860	96	92	70-130	4	30	
Toluene	ug/L	1470	800	800	2410	2330	117	108	70-130	3	30	
Xylene (Total)	ug/L	15700	2400	2400	20600	20200	205	190	70-130	2	30	MS
1,2-Dichloroethane-d4 (S)	%						97	95	70-130			
4-Bromofluorobenzene (S)	%						102	102	70-130			
Toluene-d8 (S)	%						96	97	70-130			

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QUALITY CONTROL DATA

Project: WARREN GREEN 04887/57679
Pace Project No.: 92402861

QC Batch: 436215 — Analysis Method: EPA 8260B
QC Batch Method: EPA 8260B — Analysis Description: 8260 MSV SC
Associated Lab Samples: 92402861001, 92402861007, 92402861018

METHOD BLANK: 2400306 — Matrix: Water
Associated Lab Samples: 92402861001, 92402861007, 92402861018

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
1,2-Dichloroethane	ug/L	ND	5.0	1.8	10/15/18 12:14	
3,3-Dimethyl-1-Butanol	ug/L	ND	100	32.1	10/15/18 12:14	
Benzene	ug/L	ND	5.0	1.7	10/15/18 12:14	
Diisopropyl ether	ug/L	ND	5.0	1.7	10/15/18 12:14	
Ethanol	ug/L	ND	200	131	10/15/18 12:14	
Ethyl-tert-butyl ether	ug/L	ND	10.0	3.6	10/15/18 12:14	
Ethylbenzene	ug/L	ND	5.0	1.6	10/15/18 12:14	
m&p-Xylene	ug/L	ND	10.0	3.1	10/15/18 12:14	
Methyl-tert-butyl ether	ug/L	ND	5.0	1.7	10/15/18 12:14	
Naphthalene	ug/L	ND	5.0	2.0	10/15/18 12:14	
o-Xylene	ug/L	ND	5.0	1.6	10/15/18 12:14	
tert-Amyl Alcohol	ug/L	ND	100	76.8	10/15/18 12:14	
tert-Amylmethyl ether	ug/L	ND	10.0	3.4	10/15/18 12:14	
tert-Butyl Alcohol	ug/L	ND	100	57.7	10/15/18 12:14	
tert-Butyl Formate	ug/L	ND	50.0	7.3	10/15/18 12:14	
Toluene	ug/L	ND	5.0	1.6	10/15/18 12:14	
Xylene (Total)	ug/L	ND	5.0	5.0	10/15/18 12:14	
1,2-Dichloroethane-d4 (S)	%	98	70-130		10/15/18 12:14	
4-Bromofluorobenzene (S)	%	104	70-130		10/15/18 12:14	
Toluene-d8 (S)	%	110	70-130		10/15/18 12:14	

LABORATORY CONTROL SAMPLE: 2400307

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,2-Dichloroethane	ug/L	50	47.2	94	70-130	
3,3-Dimethyl-1-Butanol	ug/L	1000	967	97	70-130	
Benzene	ug/L	50	52.3	105	70-130	
Diisopropyl ether	ug/L	50	44.2	88	70-130	
Ethanol	ug/L	2000	1890	94	70-130	
Ethyl-tert-butyl ether	ug/L	100	86.2	86	70-130	
Ethylbenzene	ug/L	50	57.6	115	70-130	
m&p-Xylene	ug/L	100	112	112	70-130	
Methyl-tert-butyl ether	ug/L	50	46.1	92	70-130	
Naphthalene	ug/L	50	54.3	109	70-130	
o-Xylene	ug/L	50	57.4	115	70-130	
tert-Amyl Alcohol	ug/L	1000	954	95	70-130	
tert-Amylmethyl ether	ug/L	100	92.8	93	70-130	
tert-Butyl Alcohol	ug/L	500	462	92	70-130	
tert-Butyl Formate	ug/L	400	384	96	70-130	
Toluene	ug/L	50	47.4	95	70-130	

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QUALITY CONTROL DATA

Project: WARREN GREEN 04887/57679
Pace Project No.: 92402861

LABORATORY CONTROL SAMPLE: 2400307

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Xylene (Total)	ug/L	150	170	113	70-130	
1,2-Dichloroethane-d4 (S)	%			97	70-130	
4-Bromofluorobenzene (S)	%			94	70-130	
Toluene-d8 (S)	%			92	70-130	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 2400308 2400309

Parameter	Units	92402861001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
1,2-Dichloroethane	ug/L	ND	4000	4000	4250	4070	106	102	70-130	4	30	
3,3-Dimethyl-1-Butanol	ug/L	ND	80000	80000	73000	82500	91	103	70-130	12	30	
Benzene	ug/L	2980	4000	4000	8130	8840	129	147	70-130	8	30	M1
Diisopropyl ether	ug/L	ND	4000	4000	3700	3690	92	92	70-130	0	30	
Ethanol	ug/L	ND	160000	160000	170000	150000	106	94	70-130	12	30	
Ethyl-tert-butyl ether	ug/L	ND	8000	8000	6950	6850	87	86	70-130	2	30	
Ethylbenzene	ug/L	4600	4000	4000	10000	10400	135	144	70-130	4	30	M1
m&p-Xylene	ug/L	16600	8000	8000	27800	28900	140	154	70-130	4	30	M1
Methyl-tert-butyl ether	ug/L	ND	4000	4000	3610	3510	90	88	70-130	3	30	
Naphthalene	ug/L	795J	4000	4000	4950	4980	104	105	70-130	1	30	
o-Xylene	ug/L	6400	4000	4000	12000	12400	141	151	70-130	3	30	M1
tert-Amyl Alcohol	ug/L	ND	80000	80000	76600	79400	96	99	70-130	4	30	
tert-Amylmethyl ether	ug/L	ND	8000	8000	7870	8040	98	100	70-130	2	30	
tert-Butyl Alcohol	ug/L	ND	40000	40000	35600	36600	89	91	70-130	3	30	
tert-Butyl Formate	ug/L	ND	32000	32000	29000	29400	91	92	70-130	1	30	
Toluene	ug/L	29600	4000	4000	32600	36700	75	177	70-130	12	30	M1
Xylene (Total)	ug/L	23000	12000	12000	39900	41400	140	153	70-130	4	30	MS
1,2-Dichloroethane-d4 (S)	%						101	98	70-130			
4-Bromofluorobenzene (S)	%						96	95	70-130			
Toluene-d8 (S)	%						94	98	70-130			

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QUALITY CONTROL DATA

Project: WARREN GREEN 04887/57679
Pace Project No.: 92402861

QC Batch: 435926 Analysis Method: EPA 8011
QC Batch Method: EPA 8011 Analysis Description: GCS 8011 EDB DBCP
Associated Lab Samples: 92402861001, 92402861002, 92402861003, 92402861004, 92402861005, 92402861006, 92402861007, 92402861008, 92402861009, 92402861010, 92402861011, 92402861012

METHOD BLANK: 2398955 Matrix: Water
Associated Lab Samples: 92402861001, 92402861002, 92402861003, 92402861004, 92402861005, 92402861006, 92402861007, 92402861008, 92402861009, 92402861010, 92402861011, 92402861012

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
1,2-Dibromoethane (EDB)	ug/L	ND	0.020	0.020	10/13/18 11:55	
1-Chloro-2-bromopropane (S)	%	109	60-140		10/13/18 11:55	

LABORATORY CONTROL SAMPLE & LCSD: 2398956 2398957

Parameter	Units	Spike Conc.	LCS Result	LCSD Result	LCS % Rec	LCSD % Rec	% Rec Limits	RPD	Max RPD	Qualifiers
1,2-Dibromoethane (EDB)	ug/L	.25	0.29	0.29	115	115	60-140	0	20	
1-Chloro-2-bromopropane (S)	%				109	110	60-140			

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 2398959 2398960

Parameter	Units	92402861010 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
1,2-Dibromoethane (EDB)	ug/L	ND	.24	.24	0.28	0.28	114	117	60-140	3	20	
1-Chloro-2-bromopropane (S)	%						110	112	60-140			

SAMPLE DUPLICATE: 2398958

Parameter	Units	92402861001 Result	Dup Result	RPD	Max RPD	Qualifiers
1,2-Dibromoethane (EDB)	ug/L	ND	ND		20	
1-Chloro-2-bromopropane (S)	%	122	143	15		S3

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QUALITY CONTROL DATA

Project: WARREN GREEN 04887/57679
Pace Project No.: 92402861

QC Batch: 436167 — Analysis Method: EPA 8011
QC Batch Method: EPA 8011 — Analysis Description: GCS 8011 EDB DBCP
Associated Lab Samples: 92402861013, 92402861014, 92402861015, 92402861016, 92402861017, 92402861018

METHOD BLANK: 2399949 — Matrix: Water
Associated Lab Samples: 92402861013, 92402861014, 92402861015, 92402861016, 92402861017, 92402861018

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
1,2-Dibromoethane (EDB)	ug/L	ND	0.020	0.020	10/15/18 17:59	
1-Chloro-2-bromopropane (S)	%	138	60-140		10/15/18 17:59	

LABORATORY CONTROL SAMPLE & LCSD: 2399950 2399951

Parameter	Units	Spike Conc.	LCS Result	LCSD Result	LCS % Rec	LCSD % Rec	% Rec Limits	RPD	Max RPD	Qualifiers
1,2-Dibromoethane (EDB)	ug/L	.25	0.31	0.29	123	118	60-140	4	20	
1-Chloro-2-bromopropane (S)	%				117	111	60-140			

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 2399953 2399954

Parameter	Units	92402873003 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
1,2-Dibromoethane (EDB)	ug/L	ND	.25	.25	0.28	0.29	114	116	60-140	2	20	
1-Chloro-2-bromopropane (S)	%						107	109	60-140			

SAMPLE DUPLICATE: 2399952

Parameter	Units	92402861014 Result	Dup Result	RPD	Max RPD	Qualifiers
1,2-Dibromoethane (EDB)	ug/L	ND	ND		20	
1-Chloro-2-bromopropane (S)	%	109	114	4		

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

Pace Analytical®
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Pace Analytical Services, LLC
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

QUALITY CONTROL DATA

Project: WARREN GREEN 04887/57679
Pace Project No.: 92402861

QC Batch: 436403 | Analysis Method: EPA 8011
QC Batch Method: EPA 8011 | Analysis Description: GCS 8011 EDB DBCP
Associated Lab Samples: 92402861019

METHOD BLANK: 2401117 | Matrix: Water
Associated Lab Samples: 92402861019

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
1,2-Dibromoethane (EDB)	ug/L	ND	0.022	0.022	10/16/18 19:25	
1-Chloro-2-bromopropane (S)	%	99	60-140		10/16/18 19:25	

LABORATORY CONTROL SAMPLE & LCSD: 2401118 | 2401119

Parameter	Units	Spike Conc.	LCS Result	LCSD Result	LCS % Rec	LCSD % Rec	% Rec Limits	RPD	Max RPD	Qualifiers
1,2-Dibromoethane (EDB)	ug/L	.25	0.27	0.37	110	118	60-140	30	20	R1
1-Chloro-2-bromopropane (S)	%				107	106	60-140			

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 2401121 | 2401122

Parameter	Units	92403359007 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
1,2-Dibromoethane (EDB)	ug/L	ND	.26	.26	0.39	0.35	147	135	60-140	9	20	M1
1-Chloro-2-bromopropane (S)	%						119	118	60-140			

SAMPLE DUPLICATE: 2401120

Parameter	Units	92403359002 Result	Dup Result	RPD	Max RPD	Qualifiers
1,2-Dibromoethane (EDB)	ug/L	ND	ND		20	
1-Chloro-2-bromopropane (S)	%	121	118	1		

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

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(704)875-9092

QUALIFIERS

Project: WARREN GREEN 04887/57679
Pace Project No.: 92402861

DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to dilution of the sample aliquot.

ND - Not Detected at or above adjusted reporting limit.

TNTC - Too Numerous To Count

J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.

MDL - Adjusted Method Detection Limit.

PQL - Practical Quantitation Limit.

RL - Reporting Limit - The lowest concentration value that meets project requirements for quantitative data with known precision and bias for a specific analyte in a specific matrix.

S - Surrogate

1,2-Diphenylhydrazine decomposes to and cannot be separated from Azobenzene using Method 8270. The result for each analyte is a combined concentration.

Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

U - Indicates the compound was analyzed for, but not detected.

Acid preservation may not be appropriate for 2 Chloroethylvinyl ether.

A separate vial preserved to a pH of 4-5 is recommended in SW846 Chapter 4 for the analysis of Acrolein and Acrylonitrile by EPA Method 8260.

N-Nitrosodiphenylamine decomposes and cannot be separated from Diphenylamine using Method 8270. The result reported for each analyte is a combined concentration.

Pace Analytical is TNI accredited. Contact your Pace PM for the current list of accredited analytes.

TNI - The NELAC Institute.

LABORATORIES

PASI-C Pace Analytical Services - Charlotte

ANALYTE QUALIFIERS

1g	Initial calibration evaluation met acceptance criteria. Compound did not meet additional accuracy assessment for percent error for the following compounds
M1	Matrix spike recovery exceeded QC limits. Batch accepted based on laboratory control sample (LCS) recovery.
MS	Analyte recovery in the matrix spike was outside QC limits for one or more of the constituent analytes used in the calculated result.
P5	The EPA or method required sample preservation degrades this compound, therefore acceptable recoveries may not be achieved in sample matrix spikes.
R1	RPD value was outside control limits.
S3	Surrogate recovery exceeded laboratory control limits. Analyte presence below reporting limits in associated sample.
S5	Surrogate recovery outside control limits due to matrix interferences (not confirmed by re-analysis).

Pace Analytical Services, LLC
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QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: WARREN GREEN 04887/57679
Pace Project No.: 92402861

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
92402861001	MW-1	EPA 8011	435926	EPA 8011	436036
92402861002	MW-2	EPA 8011	435926	EPA 8011	436036
92402861003	MW-3R	EPA 8011	435926	EPA 8011	436036
92402861004	MW-4	EPA 8011	435926	EPA 8011	436036
92402861005	MW-5	EPA 8011	435926	EPA 8011	436036
92402861006	MW-6	EPA 8011	435926	EPA 8011	436036
92402861007	MW-7	EPA 8011	435926	EPA 8011	436036
92402861008	MW-10	EPA 8011	435926	EPA 8011	436036
92402861009	MW-11	EPA 8011	435926	EPA 8011	436036
92402861010	MW-13	EPA 8011	435926	EPA 8011	436036
92402861011	MW-14	EPA 8011	435926	EPA 8011	436036
92402861012	MW-15	EPA 8011	435926	EPA 8011	436036
92402861013	DW-1	EPA 8011	436167	EPA 8011	436252
92402861014	DW-2	EPA 8011	436167	EPA 8011	436252
92402861015	DW-3	EPA 8011	436167	EPA 8011	436252
92402861016	DW-4	EPA 8011	436167	EPA 8011	436252
92402861017	DW-5	EPA 8011	436167	EPA 8011	436252
92402861018	DUP 1	EPA 8011	436167	EPA 8011	436252
92402861019	FIELD BLANK	EPA 8011	436403	EPA 8011	436520
92402861001	MW-1	EPA 8260B	436215		
92402861002	MW-2	EPA 8260B	436001		
92402861003	MW-3R	EPA 8260B	435986		
92402861004	MW-4	EPA 8260B	435986		
92402861005	MW-5	EPA 8260B	435986		
92402861006	MW-6	EPA 8260B	435986		
92402861007	MW-7	EPA 8260B	436215		
92402861008	MW-10	EPA 8260B	435986		
92402861009	MW-11	EPA 8260B	435986		
92402861010	MW-13	EPA 8260B	435986		
92402861011	MW-14	EPA 8260B	435986		
92402861012	MW-15	EPA 8260B	435986		
92402861013	DW-1	EPA 8260B	435986		
92402861014	DW-2	EPA 8260B	435986		
92402861015	DW-3	EPA 8260B	435986		
92402861016	DW-4	EPA 8260B	435986		
92402861017	DW-5	EPA 8260B	435986		
92402861018	DUP 1	EPA 8260B	436215		
92402861019	FIELD BLANK	EPA 8260B	436001		
92402861020	TRIP BLANK	EPA 8260B	436001		

Pace Analytical	Document Name: Sample Condition Upon Receipt(SCUR)	Document Revised: February 7, 2018 Page 1 of 2
	Document No.: F-CAR-CS-033-Rev.06	Issuing Authority: Pace Carolinas Quality Office

Laboratory receiving samples:
Asheville ☐ Eden ☐ Greenwood ☐ Huntersville ☐ Raleigh ☐ Mechanicsville ☐

WO# : 92402861
92402861

Sample Condition Upon Receipt

Client Name: SCDHEC

Project #:

Courier: ☐ Commercial ☐ Fed Ex ☑ Pace ☐ UPS ☐ USPS ☐ Other:____ ☐ Client

Custody Seal Present? ☐ Yes ☑ No Seals Intact? ☐ Yes ☑ No

Date/Initials Person Examining Contents: CDR 10/10/18

Packing Material: ☐ Bubble Wrap ☑ Bubble Bags ☐ None ☐ Other

Biological Tissue Frozen? ☐ Yes ☑ No ☐ N/A

Thermometer: ☑ IR Gun ID: 92T045

Type of Ice: ☑ Wet ☐ Blue ☐ None

Cooler Temp (°C): 2.1 Correction Factor: Add/Subtract (°C) -0.1

Cooler Temp Corrected (°C): 2.0

Temp should be above freezing to 6°C
☐ Samples out of temp criteria. Samples on ice, cooling process has begun

USDA Regulated Soil (☑ N/A, water sample)
Did samples originate in a quarantine zone within the United States: CA, NY, or SC (check maps)? ☐ Yes ☐ No

Did samples originate from a foreign source (internationally, including Hawaii and Puerto Rico)? ☐ Yes ☐ No

	Yes	No	N/A	Comments/Discrepancy:
Chain of Custody Present?	☑ Yes	☐ No	☐ N/A	1.
Samples Arrived within Hold Time?	☑ Yes	☐ No	☐ N/A	2.
Short Hold Time Analysis (<72 hr.)?	☐ Yes	☑ No	☐ N/A	3.
Rush Turn Around Time Requested?	☐ Yes	☑ No	☐ N/A	4.
Sufficient Volume?	☑ Yes	☐ No	☐ N/A	5.
Correct Containers Used?	☑ Yes	☐ No	☐ N/A	6.
-Pace Containers Used?	☑ Yes	☐ No	☐ N/A	
Containers Intact?	☑ Yes	☐ No	☐ N/A	7.
Dissolved analysis: Samples Field Filtered?	☐ Yes	☐ No	☑ N/A	8.
Sample Labels Match COC?	☑ Yes	☐ No	☐ N/A	9.
-Includes Date/Time/ID/Analysis Matrix: WT				
Headspace in VOA Vials (>5-6mm)?	☐ Yes	☑ No	☐ N/A	10.
Trip Blank Present?	☑ Yes	☐ No	☐ N/A	11.
Trip Blank Custody Seals Present?	☐ Yes	☑ No	☐ N/A	

COMMENTS/SAMPLE DISCREPANCY

Field Data Required? ☐ Yes ☐ No

Lot ID of split containers:

CLIENT NOTIFICATION/RESOLUTION

Person contacted: Date/Time:

Project Manager SCURF Review: TC Date: 10/10/18

Project Manager SRF Review: TC Date: 10/10/18

![Pace Analytical] Pace Analytical	Document Name: Sample Condition Upon Receipt(SCUR)	Document Revised: February 7, 2018 Page 1 of 2
	Document No.: F-CAR-CS-033-Rev.06	Issuing Authority: Pace Carolinas Quality Office

***Check mark top half of box if pH and/or dechlorination is verified and within the acceptance range for preservation samples.**

Exceptions: VOA, Coliform, TOC, Oil and Grease, DRO/8015 (water) DOC, LLHg

****Bottom half of box is to list number of bottle**

Project # **WO# : 92402861**

PM: RNC Due Date: 10/17/18

CLIENT: 92-SCDHEC

Page 1

Item#	BP4U-125 mL Plastic Unpreserved (N/A) (Cl-)	BP3U-250 mL Plastic Unpreserved (N/A)	BP2U-500 mL Plastic Unpreserved (N/A)	BP1U-1 liter Plastic Unpreserved (N/A)	BP4S-125 mL Plastic H2SO4 (pH < 2) (Cl-)	BP3N-250 mL plastic HNO3 (pH < 2)	BP4Z-125 mL Plastic ZN Acetate & NaOH (>9)	BP4C-125 mL Plastic NaOH (pH > 12) (Cl-)	WGFU-Wide-mouthed Glass jar Unpreserved	AG1U-1 liter Amber Unpreserved (N/A) (Cl-)	AG1H-1 liter Amber HCl (pH < 2)	AG3U-250 mL Amber Unpreserved (N/A) (Cl-)	AG1S-1 liter Amber H2SO4 (pH < 2)	AG3S-250 mL Amber H2SO4 (pH < 2)	AG3A(DG3A)-250 mL Amber NH4Cl (N/A)(Cl-)	DG9H-40 mL VOA HCl (N/A)	VG9T-40 mL VOA Na2S2O3 (N/A)	VG9U-40 mL VOA Unp (N/A)	DG9P-40 mL VOA H3PO4 (N/A)	VOAK (6 vials per kit)-5035 kit (N/A)	V/GK (3 vials per kit)-VPH/Gas kit (N/A)	SP5T-125 mL Sterile Plastic (N/A – lab)	SP2T-250 mL Sterile Plastic (N/A – lab)		BP3A-250 mL Plastic (NH2)2SO4 (9.3-9.7)	AG0U-100 mL Amber Unpreserved vials (N/A)	VSGU-20 mL Scintillation vials (N/A)	DG9U-40 mL Amber Unpreserved vials (N/A)
1																6												
2																6												
3																6												
4																6												
5																6												
6																6												
7																6												
8																												
9																X												
10																6												
11																6												
12																												

pH Adjustment Log for Preserved Samples

Sample ID	Type of Preservative	pH upon receipt	Date preservation adjusted	Time preservation adjusted	Amount of Preservative added	Lot #

Note: Whenever there is a discrepancy affecting North Carolina compliance samples, a copy of this form will be sent to the North Carolina DEHNR Certification Office (i.e. Out of hold, incorrect preservative, out of temp, incorrect containers.

Pace Analytical	Document Name: Sample Condition Upon Receipt(SCUR)	Document Revised: February 7, 2018 Page 1 of 2
	Document No.: F-CAR-CS-033-Rev.06	Issuing Authority: Pace Carolinas Quality Office

***Check mark top half of box if pH and/or dechlorination is verified and within the acceptance range for preservation samples.**

Exceptions: VOA, Coliform, TOC, Oil and Grease, DRO/8015 (water) DOC, LLHg

****Bottom half of box is to list number of bottle**

Project # WO# : 92402861
PM: RWC Due Date: 10/17/18
CLIENT: 92-SCDHEC

Page 2

Item#	BP4U-125 mL Plastic Unpreserved (N/A) (Cl-)	BP3U-250 mL Plastic Unpreserved (N/A)	BP2U-500 mL Plastic Unpreserved (N/A)	BP1U-1 liter Plastic Unpreserved (N/A)	BP4S-125 mL Plastic H2SO4 (pH < 2) (Cl-)	BP3N-250 mL plastic HNO3 (pH < 2)	BP4Z-125 mL Plastic ZN Acetate & NaOH (>9)	BP4C-125 mL Plastic NaOH (pH > 12) (Cl-)	WGFU-Wide-mouthed Glass jar Unpreserved	AG1U-1 liter Amber Unpreserved (N/A) (Cl-)	AG1H-1 liter Amber HCl (pH < 2)	AG3U-250 mL Amber Unpreserved (N/A) (Cl-)	AG1S-1 liter Amber H2SO4 (pH < 2)	AG3S-250 mL Amber H2SO4 (pH < 2)	AG3A(DG3A)-250 mL Amber NH4Cl (N/A)(Cl-)	DG9H-40 mL VOA HCl (N/A)	VG9T-40 mL VOA Na2S2O3 (N/A)	VG9U-40 mL VOA Unp (N/A)	DG9P-40 mL VOA H3PO4 (N/A)	VOAK (6 vials per kit)-5035 kit (N/A)	V/GK (3 vials per kit)-VPH/Gas kit (N/A)	SP5T-125 mL Sterile Plastic (N/A – lab)	SP2T-250 mL Sterile Plastic (N/A – lab)		BP3A-250 mL Plastic (NH2)2SO4 (9.3-9.7)	AG0U-100 mL Amber Unpreserved vials (N/A)	VS9U-20 mL Scintillation vials (N/A)	DG9U-40 mL Amber Unpreserved vials (N/A)
1																6												
2																6												
3																6												
4																6												
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6																6												
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9																												
10																6												
11																6												
12																6												

pH Adjustment Log for Preserved Samples

Sample ID	Type of Preservative	pH upon receipt	Date preservation adjusted	Time preservation adjusted	Amount of Preservative added	Lot #

Note: Whenever there is a discrepancy affecting North Carolina compliance samples, a copy of this form will be sent to the North Carolina DEHNR Certification Office (i.e. Out of hold, incorrect preservative, out of temp, incorrect containers.

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CHAIN-OF-CUSTODY / Analytical Request Document

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

Page: 1 of 2

2192918

Section A Required Client Information:
- Company: SCDHEC
- Address: 2600 Bull Street, Columbia SC 29201
- Email To: [illegible]@dhec.sc.gov
- Phone: [illegible]-898-0671 803-898-0613
- Requested Due Date/TAT:

Section B Required Project Information:
- Report To: R. Dunn
- Copy To:
- Purchase Order No.: 4600472513
- Project Name: Warren Green
- Project Number: UST 04857/PACES 7679

Section C Invoice Information:
- Attention:
- Company Name:
- Address:
- Pace Quote Reference:
- Pace Project Manager: T. Carter
- Pace Profile #:

REGULATORY AGENCY
- ☐ NPDES ☐ GROUND WATER ☐ DRINKING WATER
- ☑ UST ☐ RCRA ☐ OTHER

Site Location STATE: SC Jasper

Section D Required Client Information

Matrix Codes (MATRIX / CODE): Drinking Water DW, Water WT, Waste Water WW, Product P, Soil/Solid SL, Oil OL, Wipe WP, Air AR, Tissue TS, Other OT

SAMPLE ID (A-Z, 0-9 / ,-) Sample IDs MUST BE UNIQUE

Requested Analysis Filtered (Y/N)

Pace Project No./ Lab I.D.: 62402861

ITEM #	SAMPLE ID	MATRIX CODE	SAMPLE TYPE (G=GRAB C=COMP)	COMPOSITE START DATE	COMPOSITE START TIME	COMPOSITE END/GRAB DATE	COMPOSITE END/GRAB TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Unpreserved	H_2SO_4	HNO_3	HCl	NaOH	$Na_2S_2O_3$	Methanol	Other	BTEXNM 8260B	1,2 DCA 8260B	8 Oxys 8260B	EDB 8011	Residual Chlorine (Y/N)	Pace Project No./ Lab I.D.
1	MW-1	WT	G			10/8/18	13:55		6				6					X	X	X	X		No Odor 001
2	MW-2						7:40																No Odor 002
3	MW-3R						12:10																No Odor 003
4	MW-4						12:55																No Odor 004
5	MW-5						10:45																No Odor 005
6	MW-6						10:50																~~Odor~~ No Odor 006
7	MW-7	WT	G			[illegible]	14:00		6				6					X	X	X	X		Odor 007
8	MW-8																						No Sample
9	MW-9	WT	G			10/8/18																	No Sample
10	MW-10	WT	G			10/8/18	11:25		6				6					X	X	X	X		No Odor 008
11	MW-11	WT	G			10/8/18	11:20		6				6					X	X	X	X		No Odor 009
12	MW-12																						No Sample

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS			
	[signature]	~~10/8/18~~	~~1900~~	[signature]	10/10	0725				
	[signature]	10/10/18	8:05							
	[signature]	10/10	1220	[signature]	10/10/18	1220	2.0	Y	N	Y

ORIGINAL

SAMPLER NAME AND SIGNATURE
- PRINT Name of SAMPLER: Colin Phillips
- SIGNATURE of SAMPLER: [signature]
- DATE Signed (MM/DD/YY): 10/8/18

Temp in °C | Received on Ice (Y/N) | Custody Sealed Cooler (Y/N) | Samples Intact (Y/N)

*Important Note: By signing this form you are accepting Pace's NET 30 day payment terms and agreeing to late charges of 1.5% per month for any invoices not paid within 30 days.

F-ALL-Q-020rev.07, 15-May-2007

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CHAIN-OF-CUSTODY / Analytical Request Document

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

Page: 2 of 8

2192916

Section A Required Client Information:		Section B Required Project Information:		Section C Invoice Information:	
Company:	SCDHEC UST	Report To:	R Dunn	Attention:	
Address:	2600 Bull Street Columbia SC 29201	Copy To:		Company Name:	
				Address:	
Email To:	dunnrd@dhec.sc.gov	Purchase Order No.:	4600422513	Pace Quote Reference:	
Phone: 803-898-0673	Fax: 803-898-0673	Project Name:	Warren Green	Pace Project Manager:	T. Carter
Requested Due Date/TAT:		Project Number:	UST 04887 / PACES 7679	Pace Profile #:	

REGULATORY AGENCY

☐ NPDES ☐ GROUND WATER ☐ DRINKING WATER
☑ UST ☐ RCRA ☐ OTHER

Site Location STATE: SC Jasper

Section D Required Client Information

Matrix Codes MATRIX / CODE: Drinking Water DW, Water WT, Waste Water WW, Product P, Soil/Solid SL, Oil OL, Wipe WP, Air AR, Tissue TS, Other OT

SAMPLE ID (A-Z, 0-9 / ,-) Sample IDs MUST BE UNIQUE

Requested Analysis Filtered (Y/N)

ITEM #	SAMPLE ID	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED COMPOSITE START DATE	TIME	COMPOSITE END/GRAB DATE	TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Unpreserved	H_2SO_4	HNO_3	HCl	NaOH	$Na_2S_2O_3$	Methanol	Other	Analysis Test	BTEXNM 8260B	1,2-DCA 8260B	8 Oxys 8260B	EDB 8011	Residual Chlorine (Y/N)	Pace Project No./ Lab I.D.
1	MW-13	WT	G			10/8/18	14:10		6				6						X	X	X	X		No Odor 010
2	MW-14						14:15																	No Odor 011
3	MW-15						13:30																	No Odor 012
4	DW-1						13:50																	No Odor 013
5	DW-2						12:30																	No Odor 014
6	DW-3						10:40																	No Odor 015
7	DW-4						11:10																	No Odor 016
8	DW-5	WT	G			10/8/18	13:50		6				6						X	X	X	X		No Odor 017
9	DW-6																							No Sample
10	Dup 1	WT	G			10/8/18	15:55																	Odor 018
11	Field Blank	WT	G			10/8/18	15:05		6				6						X	X	X	X		FB 019
12	Trip Blank	WT	G			10/8/18	15:05		2				2						X	X	X	X		TB 020

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	Temp in °C	Received on Ice (Y/N)	Custody Sealed Cooler (Y/N)	Samples Intact (Y/N)
	~~[signature]~~	~~10/8/18~~	~~1700~~	[signature]	c/o	0905				
	[signature]	10/10/18	8:05							
	[signature]	c/o	1220	[signature]	10/10/18	1220	2.0	Y	N	Y

ORIGINAL

SAMPLER NAME AND SIGNATURE

PRINT Name of SAMPLER: Colin Phillips

SIGNATURE of SAMPLER: [signature] DATE Signed (MM/DD/YY): 10/8/18

*Important Note: By signing this form you are accepting Pace's NET 30 day payment terms and agreeing to late charges of 1.5% per month for any invoices not paid within 30 days.

F-ALL-Q-020rev.07, 15-May-2007

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Pace Analytical Services, LLC
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

October 18, 2018

Robert Dunn
SCHDEC
2600 Bull St
Columbia, SC 29201

UST
OCT 26 2018
DIVISION

RE: Project: Warren Green WSW 04887/57679
Pace Project No.: 92402862

Dear Robert Dunn:

Enclosed are the analytical results for sample(s) received by the laboratory on October 10, 2018. The results relate only to the samples included in this report. Results reported herein conform to the most current, applicable TNI/NELAC standards and the laboratory's Quality Assurance Manual, where applicable, unless otherwise noted in the body of the report.

If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Trey Carter

Trey Carter
trey.carter@pacelabs.com
(704)875-9092
Project Manager

Enclosures

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CERTIFICATIONS

Project: Warren Green WSW 04887/57679
Pace Project No.: 92402862

Ormond Beach Certification IDs

8 East Tower Circle, Ormond Beach, FL 32174
Alabama Certification #: 41320
Colorado Certification: FL NELAC Reciprocity
Connecticut Certification #: PH-0216
Florida Certification #: E83079
Georgia Certification #: 955
Guam Certification: FL NELAC Reciprocity
Hawaii Certification: FL NELAC Reciprocity
Illinois Certification #: 200068
Indiana Certification: FL NELAC Reciprocity
Kansas Certification #: E-10383
Kentucky Certification #: 90050
Louisiana Certification #: FL NELAC Reciprocity
Louisiana Environmental Certificate #: 05007
Maryland Certification: #346
Michigan Certification #: 9911
Mississippi Certification: FL NELAC Reciprocity
Missouri Certification #: 236
Montana Certification #: Cert 0074
Nebraska Certification: NE-OS-28-14
New Hampshire Certification #: 2958
New Jersey Certification #: FL022
New York Certification #: 11608
North Carolina Environmental Certificate #: 667
North Carolina Certification #: 12710
North Dakota Certification #: R-216
Oklahoma Certification #: D9947
Pennsylvania Certification #: 68-00547
Puerto Rico Certification #: FL01264
South Carolina Certification: #96042001
Tennessee Certification #: TN02974
Texas Certification: FL NELAC Reciprocity
US Virgin Islands Certification: FL NELAC Reciprocity
Virginia Environmental Certification #: 460165
Wyoming Certification: FL NELAC Reciprocity
West Virginia Certification #: 9962C
Wisconsin Certification #: 399079670
Wyoming (EPA Region 8): FL NELAC Reciprocity

Charlotte Certification IDs

9800 Kincey Ave. Ste 100, Huntersville, NC 28078
Louisiana/NELAP Certification # LA170028
North Carolina Drinking Water Certification #: 37706
North Carolina Field Services Certification #: 5342
North Carolina Wastewater Certification #: 12
South Carolina Certification #: 99006001
Florida/NELAP Certification #: E87627
Kentucky UST Certification #: 84
Virginia/VELAP Certification #: 460221

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SAMPLE SUMMARY

Project: Warren Green WSW 04887/57679
Pace Project No.: 92402862

Lab ID	Sample ID	Matrix	Date Collected	Date Received
92402862001	**WSW-1**	Water	10/08/18 15:10	10/10/18 08:05
92402862002	**WSW-2**	Water	10/08/18 15:00	10/10/18 08:05
92402862003	**WSW-3**	Water	10/08/18 15:20	10/10/18 08:05
92402862004	**WSW-4**	Water	10/08/18 15:25	10/10/18 08:05
92402862005	**WSW DUP**	Water	10/08/18 15:05	10/10/18 08:05
92402862006	**WSW FIELD BLANK**	Water	10/08/18 15:05	10/10/18 08:05
92402862007	**WSW TRIP BLANK**	Water	10/08/18 15:05	10/10/18 08:05

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SAMPLE ANALYTE COUNT

Project: Warren Green WSW 04887/57679
Pace Project No.: 92402862

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
92402862001	**WSW-1**	EPA 504.1	BAJ	2	PASI-C
		EPA 524.2	JLR	10	PASI-O
		EPA 8260B	CL	11	PASI-C
92402862002	**WSW-2**	EPA 504.1	BAJ	2	PASI-C
		EPA 524.2	JLR	10	PASI-O
		EPA 8260B	CL	11	PASI-C
92402862003	**WSW-3**	EPA 504.1	BAJ	2	PASI-C
		EPA 524.2	JLR	10	PASI-O
		EPA 8260B	CL	11	PASI-C
92402862004	**WSW-4**	EPA 504.1	BAJ	2	PASI-C
		EPA 524.2	JLR	10	PASI-O
		EPA 8260B	CL	11	PASI-C
92402862005	**WSW DUP**	EPA 504.1	BAJ	2	PASI-C
		EPA 524.2	JLR	10	PASI-O
		EPA 8260B	CL	11	PASI-C
92402862006	**WSW FIELD BLANK**	EPA 504.1	BAJ	2	PASI-C
		EPA 524.2	JLR	10	PASI-O
		EPA 8260B	CL	11	PASI-C
92402862007	**WSW TRIP BLANK**	EPA 524.2	JLR	10	PASI-O
		EPA 8260B	CL	11	PASI-C

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ANALYTICAL RESULTS

Project: Warren Green WSW 04887/57679
Pace Project No.: 92402862

Sample: WSW-1 **Lab ID: 92402862001** Collected: 10/08/18 15:10 Received: 10/10/18 08:05 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
504 GCS EDB and DBCP	Analytical Method: EPA 504.1 Preparation Method: EPA 504.1								
1,2-Dibromoethane (EDB)	ND	ug/L	0.019	0.019	1	10/12/18 10:30	10/12/18 22:46	106-93-4	
Surrogates									
1-Chloro-2-bromopropane (S)	109	%	70-130		1	10/12/18 10:30	10/12/18 22:46	301-79-56	
524.2 MSV	Analytical Method: EPA 524.2								
Benzene	ND	ug/L	0.50	0.25	1		10/16/18 06:04	71-43-2	
1,2-Dichloroethane	ND	ug/L	0.50	0.25	1		10/16/18 06:04	107-06-2	
Ethylbenzene	ND	ug/L	0.50	0.25	1		10/16/18 06:04	100-41-4	
Methyl-tert-butyl ether	ND	ug/L	0.50	0.25	1		10/16/18 06:04	1634-04-4	
Naphthalene	ND	ug/L	0.50	0.25	1		10/16/18 06:04	91-20-3	
Toluene	ND	ug/L	0.50	0.25	1		10/16/18 06:04	108-88-3	
Xylene (Total)	ND	ug/L	0.50	0.25	1		10/16/18 06:04	1330-20-7	
Surrogates									
4-Bromofluorobenzene (S)	102	%	70-130		1		10/16/18 06:04	460-00-4	
Toluene-d8 (S)	99	%	70-130		1		10/16/18 06:04	2037-26-5	
1,2-Dichloroethane-d4 (S)	105	%	70-130		1		10/16/18 06:04	17060-07-0	
8260 MSV Low Level SC	Analytical Method: EPA 8260B								
tert-Amyl Alcohol	ND	ug/L	100	50.0	1		10/15/18 18:50	75-85-4	
tert-Amylmethyl ether	ND	ug/L	10.0	0.10	1		10/15/18 18:50	994-05-8	
3,3-Dimethyl-1-Butanol	ND	ug/L	100	50.0	1		10/15/18 18:50	624-95-3	
tert-Butyl Alcohol	ND	ug/L	100	3.6	1		10/15/18 18:50	75-65-0	
tert-Butyl Formate	ND	ug/L	50.0	1.9	1		10/15/18 18:50	762-75-4	
Diisopropyl ether	ND	ug/L	1.0	0.12	1		10/15/18 18:50	108-20-3	
Ethanol	ND	ug/L	200	131	1		10/15/18 18:50	64-17-5	
Ethyl-tert-butyl ether	ND	ug/L	10.0	0.070	1		10/15/18 18:50	637-92-3	
Surrogates									
4-Bromofluorobenzene (S)	100	%	70-130		1		10/15/18 18:50	460-00-4	
1,2-Dichloroethane-d4 (S)	103	%	70-130		1		10/15/18 18:50	17060-07-0	
Toluene-d8 (S)	99	%	70-130		1		10/15/18 18:50	2037-26-5	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: Warren Green WSW 04887/57679
Pace Project No.: 92402862

Sample: WSW-2 **Lab ID: 92402862002** Collected: 10/08/18 15:00 Received: 10/10/18 08:05 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
504 GCS EDB and DBCP	Analytical Method: EPA 504.1 Preparation Method: EPA 504.1								
1,2-Dibromoethane (EDB)	ND	ug/L	0.020	0.020	1	10/12/18 10:30	10/12/18 23:06	106-93-4	
Surrogates									
1-Chloro-2-bromopropane (S)	117	%	70-130		1	10/12/18 10:30	10/12/18 23:06	301-79-56	
524.2 MSV	Analytical Method: EPA 524.2								
Benzene	ND	ug/L	0.50	0.25	1		10/16/18 06:27	71-43-2	
1,2-Dichloroethane	ND	ug/L	0.50	0.25	1		10/16/18 06:27	107-06-2	
Ethylbenzene	ND	ug/L	0.50	0.25	1		10/16/18 06:27	100-41-4	
Methyl-tert-butyl ether	ND	ug/L	0.50	0.25	1		10/16/18 06:27	1634-04-4	
Naphthalene	ND	ug/L	0.50	0.25	1		10/16/18 06:27	91-20-3	
Toluene	ND	ug/L	0.50	0.25	1		10/16/18 06:27	108-88-3	
Xylene (Total)	ND	ug/L	0.50	0.25	1		10/16/18 06:27	1330-20-7	
Surrogates									
4-Bromofluorobenzene (S)	103	%	70-130		1		10/16/18 06:27	460-00-4	
Toluene-d8 (S)	101	%	70-130		1		10/16/18 06:27	2037-26-5	
1,2-Dichloroethane-d4 (S)	105	%	70-130		1		10/16/18 06:27	17060-07-0	
8260 MSV Low Level SC	Analytical Method: EPA 8260B								
tert-Amyl Alcohol	ND	ug/L	100	50.0	1		10/15/18 19:07	75-85-4	
tert-Amylmethyl ether	ND	ug/L	10.0	0.10	1		10/15/18 19:07	994-05-8	
3,3-Dimethyl-1-Butanol	ND	ug/L	100	50.0	1		10/15/18 19:07	624-95-3	
tert-Butyl Alcohol	ND	ug/L	100	3.6	1		10/15/18 19:07	75-65-0	
tert-Butyl Formate	ND	ug/L	50.0	1.9	1		10/15/18 19:07	762-75-4	
Diisopropyl ether	ND	ug/L	1.0	0.12	1		10/15/18 19:07	108-20-3	
Ethanol	ND	ug/L	200	131	1		10/15/18 19:07	64-17-5	
Ethyl-tert-butyl ether	ND	ug/L	10.0	0.070	1		10/15/18 19:07	637-92-3	
Surrogates									
4-Bromofluorobenzene (S)	100	%	70-130		1		10/15/18 19:07	460-00-4	
1,2-Dichloroethane-d4 (S)	105	%	70-130		1		10/15/18 19:07	17060-07-0	
Toluene-d8 (S)	97	%	70-130		1		10/15/18 19:07	2037-26-5	

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ANALYTICAL RESULTS

Project: Warren Green WSW 04887/57679

Pace Project No.: 92402862

Sample: WSW-3 **Lab ID: 92402862003** Collected: 10/08/18 15:20 Received: 10/10/18 08:05 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
504 GCS EDB and DBCP	Analytical Method: EPA 504.1 Preparation Method: EPA 504.1								
1,2-Dibromoethane (EDB)	ND	ug/L	0.019	0.019	1	10/12/18 10:30	10/12/18 23:27	106-93-4	
Surrogates									
1-Chloro-2-bromopropane (S)	109	%	70-130		1	10/12/18 10:30	10/12/18 23:27	301-79-56	
524.2 MSV	Analytical Method: EPA 524.2								
Benzene	ND	ug/L	0.50	0.25	1		10/16/18 08:35	71-43-2	
1,2-Dichloroethane	ND	ug/L	0.50	0.25	1		10/16/18 08:35	107-06-2	
Ethylbenzene	ND	ug/L	0.50	0.25	1		10/16/18 08:35	100-41-4	
Methyl-tert-butyl ether	ND	ug/L	0.50	0.25	1		10/16/18 08:35	1634-04-4	
Naphthalene	ND	ug/L	0.50	0.25	1		10/16/18 08:35	91-20-3	
Toluene	ND	ug/L	0.50	0.25	1		10/16/18 08:35	108-88-3	
Xylene (Total)	ND	ug/L	0.50	0.25	1		10/16/18 08:35	1330-20-7	
Surrogates									
4-Bromofluorobenzene (S)	103	%	70-130		1		10/16/18 08:35	460-00-4	
Toluene-d8 (S)	100	%	70-130		1		10/16/18 08:35	2037-26-5	
1,2-Dichloroethane-d4 (S)	104	%	70-130		1		10/16/18 08:35	17060-07-0	
8260 MSV Low Level SC	Analytical Method: EPA 8260B								
tert-Amyl Alcohol	ND	ug/L	100	50.0	1		10/15/18 19:24	75-85-4	
tert-Amylmethyl ether	ND	ug/L	10.0	0.10	1		10/15/18 19:24	994-05-8	
3,3-Dimethyl-1-Butanol	ND	ug/L	100	50.0	1		10/15/18 19:24	624-95-3	
tert-Butyl Alcohol	ND	ug/L	100	3.6	1		10/15/18 19:24	75-65-0	
tert-Butyl Formate	ND	ug/L	50.0	1.9	1		10/15/18 19:24	762-75-4	
Diisopropyl ether	ND	ug/L	1.0	0.12	1		10/15/18 19:24	108-20-3	
Ethanol	ND	ug/L	200	131	1		10/15/18 19:24	64-17-5	
Ethyl-tert-butyl ether	ND	ug/L	10.0	0.070	1		10/15/18 19:24	637-92-3	
Surrogates									
4-Bromofluorobenzene (S)	102	%	70-130		1		10/15/18 19:24	460-00-4	
1,2-Dichloroethane-d4 (S)	101	%	70-130		1		10/15/18 19:24	17060-07-0	
Toluene-d8 (S)	98	%	70-130		1		10/15/18 19:24	2037-26-5	

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ANALYTICAL RESULTS

Project: Warren Green WSW 04887/57679
Pace Project No.: 92402862

Sample: WSW-4 **Lab ID: 92402862004** Collected: 10/08/18 15:25 Received: 10/10/18 08:05 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
504 GCS EDB and DBCP	Analytical Method: EPA 504.1 Preparation Method: EPA 504.1								
1,2-Dibromoethane (EDB)	ND	ug/L	0.020	0.020	1	10/12/18 10:30	10/12/18 23:47	106-93-4	
Surrogates									
1-Chloro-2-bromopropane (S)	111	%	70-130		1	10/12/18 10:30	10/12/18 23:47	301-79-56	
524.2 MSV	Analytical Method: EPA 524.2								
Benzene	ND	ug/L	0.50	0.25	1		10/17/18 20:22	71-43-2	
1,2-Dichloroethane	ND	ug/L	0.50	0.25	1		10/17/18 20:22	107-06-2	
Ethylbenzene	ND	ug/L	0.50	0.25	1		10/17/18 20:22	100-41-4	
Methyl-tert-butyl ether	ND	ug/L	0.50	0.25	1		10/17/18 20:22	1634-04-4	
Naphthalene	ND	ug/L	0.50	0.25	1		10/17/18 20:22	91-20-3	
Toluene	ND	ug/L	0.50	0.25	1		10/17/18 20:22	108-88-3	
Xylene (Total)	ND	ug/L	0.50	0.25	1		10/17/18 20:22	1330-20-7	
Surrogates									
4-Bromofluorobenzene (S)	97	%	70-130		1		10/17/18 20:22	460-00-4	
Toluene-d8 (S)	99	%	70-130		1		10/17/18 20:22	2037-26-5	
1,2-Dichloroethane-d4 (S)	115	%	70-130		1		10/17/18 20:22	17060-07-0	
8260 MSV Low Level SC	Analytical Method: EPA 8260B								
tert-Amyl Alcohol	ND	ug/L	100	50.0	1		10/15/18 19:41	75-85-4	
tert-Amylmethyl ether	ND	ug/L	10.0	0.10	1		10/15/18 19:41	994-05-8	
3,3-Dimethyl-1-Butanol	ND	ug/L	100	50.0	1		10/15/18 19:41	624-95-3	
tert-Butyl Alcohol	ND	ug/L	100	3.6	1		10/15/18 19:41	75-65-0	
tert-Butyl Formate	ND	ug/L	50.0	1.9	1		10/15/18 19:41	762-75-4	
Diisopropyl ether	ND	ug/L	1.0	0.12	1		10/15/18 19:41	108-20-3	
Ethanol	ND	ug/L	200	131	1		10/15/18 19:41	64-17-5	
Ethyl-tert-butyl ether	ND	ug/L	10.0	0.070	1		10/15/18 19:41	637-92-3	
Surrogates									
4-Bromofluorobenzene (S)	100	%	70-130		1		10/15/18 19:41	460-00-4	
1,2-Dichloroethane-d4 (S)	102	%	70-130		1		10/15/18 19:41	17060-07-0	
Toluene-d8 (S)	97	%	70-130		1		10/15/18 19:41	2037-26-5	

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ANALYTICAL RESULTS

Project: Warren Green WSW 04887/57679
Pace Project No.: 92402862

Sample: WSW DUP **Lab ID: 92402862005** Collected: 10/08/18 15:05 Received: 10/10/18 08:05 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
504 GCS EDB and DBCP	Analytical Method: EPA 504.1 Preparation Method: EPA 504.1								
1,2-Dibromoethane (EDB)	ND	ug/L	0.020	0.020	1	10/12/18 10:30	10/13/18 00:07	106-93-4	
Surrogates									
1-Chloro-2-bromopropane (S)	112	%	70-130		1	10/12/18 10:30	10/13/18 00:07	301-79-56	
524.2 MSV	Analytical Method: EPA 524.2								
Benzene	ND	ug/L	0.50	0.25	1		10/17/18 20:46	71-43-2	
1,2-Dichloroethane	ND	ug/L	0.50	0.25	1		10/17/18 20:46	107-06-2	
Ethylbenzene	ND	ug/L	0.50	0.25	1		10/17/18 20:46	100-41-4	
Methyl-tert-butyl ether	ND	ug/L	0.50	0.25	1		10/17/18 20:46	1634-04-4	
Naphthalene	ND	ug/L	0.50	0.25	1		10/17/18 20:46	91-20-3	
Toluene	ND	ug/L	0.50	0.25	1		10/17/18 20:46	108-88-3	
Xylene (Total)	ND	ug/L	0.50	0.25	1		10/17/18 20:46	1330-20-7	
Surrogates									
4-Bromofluorobenzene (S)	93	%	70-130		1		10/17/18 20:46	460-00-4	
Toluene-d8 (S)	99	%	70-130		1		10/17/18 20:46	2037-26-5	
1,2-Dichloroethane-d4 (S)	113	%	70-130		1		10/17/18 20:46	17060-07-0	
8260 MSV Low Level SC	Analytical Method: EPA 8260B								
tert-Amyl Alcohol	ND	ug/L	100	50.0	1		10/15/18 19:58	75-85-4	
tert-Amylmethyl ether	ND	ug/L	10.0	0.10	1		10/15/18 19:58	994-05-8	
3,3-Dimethyl-1-Butanol	ND	ug/L	100	50.0	1		10/15/18 19:58	624-95-3	
tert-Butyl Alcohol	ND	ug/L	100	3.6	1		10/15/18 19:58	75-65-0	
tert-Butyl Formate	ND	ug/L	50.0	1.9	1		10/15/18 19:58	762-75-4	
Diisopropyl ether	ND	ug/L	1.0	0.12	1		10/15/18 19:58	108-20-3	
Ethanol	ND	ug/L	200	131	1		10/15/18 19:58	64-17-5	
Ethyl-tert-butyl ether	ND	ug/L	10.0	0.070	1		10/15/18 19:58	637-92-3	
Surrogates									
4-Bromofluorobenzene (S)	104	%	70-130		1		10/15/18 19:58	460-00-4	
1,2-Dichloroethane-d4 (S)	101	%	70-130		1		10/15/18 19:58	17060-07-0	
Toluene-d8 (S)	96	%	70-130		1		10/15/18 19:58	2037-26-5	

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ANALYTICAL RESULTS

Project: Warren Green WSW 04887/57679
Pace Project No.: 92402862

Sample: WSW FIELD BLANK **Lab ID: 92402862006** Collected: 10/08/18 15:05 Received: 10/10/18 08:05 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
504 GCS EDB and DBCP	Analytical Method: EPA 504.1 Preparation Method: EPA 504.1								
1,2-Dibromoethane (EDB)	ND	ug/L	0.020	0.020	1	10/12/18 10:30	10/13/18 00:28	106-93-4	
Surrogates									
1-Chloro-2-bromopropane (S)	109	%	70-130		1	10/12/18 10:30	10/13/18 00:28	301-79-56	
524.2 MSV	Analytical Method: EPA 524.2								
Benzene	ND	ug/L	0.50	0.25	1		10/17/18 21:10	71-43-2	
1,2-Dichloroethane	ND	ug/L	0.50	0.25	1		10/17/18 21:10	107-06-2	
Ethylbenzene	ND	ug/L	0.50	0.25	1		10/17/18 21:10	100-41-4	
Methyl-tert-butyl ether	ND	ug/L	0.50	0.25	1		10/17/18 21:10	1634-04-4	
Naphthalene	ND	ug/L	0.50	0.25	1		10/17/18 21:10	91-20-3	
Toluene	ND	ug/L	0.50	0.25	1		10/17/18 21:10	108-88-3	
Xylene (Total)	ND	ug/L	0.50	0.25	1		10/17/18 21:10	1330-20-7	
Surrogates									
4-Bromofluorobenzene (S)	95	%	70-130		1		10/17/18 21:10	460-00-4	
Toluene-d8 (S)	98	%	70-130		1		10/17/18 21:10	2037-26-5	
1,2-Dichloroethane-d4 (S)	114	%	70-130		1		10/17/18 21:10	17060-07-0	
8260 MSV Low Level SC	Analytical Method: EPA 8260B								
tert-Amyl Alcohol	ND	ug/L	100	50.0	1		10/15/18 16:34	75-85-4	
tert-Amylmethyl ether	ND	ug/L	10.0	0.10	1		10/15/18 16:34	994-05-8	
3,3-Dimethyl-1-Butanol	ND	ug/L	100	50.0	1		10/15/18 16:34	624-95-3	
tert-Butyl Alcohol	ND	ug/L	100	3.6	1		10/15/18 16:34	75-65-0	
tert-Butyl Formate	ND	ug/L	50.0	1.9	1		10/15/18 16:34	762-75-4	
Diisopropyl ether	ND	ug/L	1.0	0.12	1		10/15/18 16:34	108-20-3	
Ethanol	ND	ug/L	200	131	1		10/15/18 16:34	64-17-5	
Ethyl-tert-butyl ether	ND	ug/L	10.0	0.070	1		10/15/18 16:34	637-92-3	
Surrogates									
4-Bromofluorobenzene (S)	101	%	70-130		1		10/15/18 16:34	460-00-4	
1,2-Dichloroethane-d4 (S)	101	%	70-130		1		10/15/18 16:34	17060-07-0	
Toluene-d8 (S)	98	%	70-130		1		10/15/18 16:34	2037-26-5	

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ANALYTICAL RESULTS

Project: Warren Green WSW 04887/57679
Pace Project No.: 92402862

Sample: WSW TRIP BLANK **Lab ID: 92402862007** Collected: 10/08/18 15:05 Received: 10/10/18 08:05 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
524.2 MSV	Analytical Method: EPA 524.2								
Benzene	ND	ug/L	0.50	0.25	1		10/18/18 00:19	71-43-2	
1,2-Dichloroethane	ND	ug/L	0.50	0.25	1		10/18/18 00:19	107-06-2	
Ethylbenzene	ND	ug/L	0.50	0.25	1		10/18/18 00:19	100-41-4	
Methyl-tert-butyl ether	ND	ug/L	0.50	0.25	1		10/18/18 00:19	1634-04-4	
Naphthalene	ND	ug/L	0.50	0.25	1		10/18/18 00:19	91-20-3	
Toluene	ND	ug/L	0.50	0.25	1		10/18/18 00:19	108-88-3	
Xylene (Total)	ND	ug/L	0.50	0.25	1		10/18/18 00:19	1330-20-7	
Surrogates									
4-Bromofluorobenzene (S)	97	%	70-130		1		10/18/18 00:19	460-00-4	
Toluene-d8 (S)	98	%	70-130		1		10/18/18 00:19	2037-26-5	
1,2-Dichloroethane-d4 (S)	113	%	70-130		1		10/18/18 00:19	17060-07-0	
8260 MSV Low Level SC	Analytical Method: EPA 8260B								
tert-Amyl Alcohol	ND	ug/L	100	50.0	1		10/15/18 16:17	75-85-4	
tert-Amylmethyl ether	ND	ug/L	10.0	0.10	1		10/15/18 16:17	994-05-8	
3,3-Dimethyl-1-Butanol	ND	ug/L	100	50.0	1		10/15/18 16:17	624-95-3	
tert-Butyl Alcohol	ND	ug/L	100	3.6	1		10/15/18 16:17	75-65-0	
tert-Butyl Formate	ND	ug/L	50.0	1.9	1		10/15/18 16:17	762-75-4	
Diisopropyl ether	ND	ug/L	1.0	0.12	1		10/15/18 16:17	108-20-3	
Ethanol	ND	ug/L	200	131	1		10/15/18 16:17	64-17-5	
Ethyl-tert-butyl ether	ND	ug/L	10.0	0.070	1		10/15/18 16:17	637-92-3	
Surrogates									
4-Bromofluorobenzene (S)	101	%	70-130		1		10/15/18 16:17	460-00-4	
1,2-Dichloroethane-d4 (S)	103	%	70-130		1		10/15/18 16:17	17060-07-0	
Toluene-d8 (S)	98	%	70-130		1		10/15/18 16:17	2037-26-5	

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QUALITY CONTROL DATA

Project: Warren Green WSW 04887/57679
Pace Project No.: 92402862

QC Batch: 485611 | Analysis Method: EPA 524.2
QC Batch Method: EPA 524.2 | Analysis Description: 524.2 MSV
Associated Lab Samples: 92402862001, 92402862002, 92402862003

METHOD BLANK: 2627343 | Matrix: Water
Associated Lab Samples: 92402862001, 92402862002, 92402862003

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
1,2-Dichloroethane	ug/L	ND	0.50	0.25	10/15/18 22:58	
Benzene	ug/L	ND	0.50	0.25	10/15/18 22:58	
Ethylbenzene	ug/L	ND	0.50	0.25	10/15/18 22:58	
Methyl-tert-butyl ether	ug/L	ND	0.50	0.25	10/15/18 22:58	
Naphthalene	ug/L	ND	0.50	0.25	10/15/18 22:58	
Toluene	ug/L	ND	0.50	0.25	10/15/18 22:58	
Xylene (Total)	ug/L	ND	0.50	0.25	10/15/18 22:58	
1,2-Dichloroethane-d4 (S)	%	107	70-130		10/15/18 22:58	
4-Bromofluorobenzene (S)	%	96	70-130		10/15/18 22:58	
Toluene-d8 (S)	%	99	70-130		10/15/18 22:58	

LABORATORY CONTROL SAMPLE & LCSD: 2627344 | 2627345

Parameter	Units	Spike Conc.	LCS Result	LCSD Result	LCS % Rec	LCSD % Rec	% Rec Limits	RPD	Max RPD	Qualifiers
1,2-Dichloroethane	ug/L	40	40.0	38.2	100	96	70-130	5	40	
Benzene	ug/L	40	45.7	45.4	114	114	70-130	1	40	
Ethylbenzene	ug/L	40	44.1	43.7	110	109	70-130	1	40	
Methyl-tert-butyl ether	ug/L	40	45.4	46.0	114	115	70-130	1	40	
Naphthalene	ug/L	40	36.9	36.5	92	91	70-130	1	40	
Toluene	ug/L	40	43.1	43.2	108	108	70-130	0	40	
Xylene (Total)	ug/L	120	141	137	117	114	70-130	2	40	
1,2-Dichloroethane-d4 (S)	%				102	98	70-130			
4-Bromofluorobenzene (S)	%				106	106	70-130			
Toluene-d8 (S)	%				103	102	70-130			

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QUALITY CONTROL DATA

Project: Warren Green WSW 04887/57679
Pace Project No.: 92402862

QC Batch: 486177 Analysis Method: EPA 524.2
QC Batch Method: EPA 524.2 Analysis Description: 524.2 MSV
Associated Lab Samples: 92402862004, 92402862005, 92402862006

METHOD BLANK: 2630423 Matrix: Water
Associated Lab Samples: 92402862004, 92402862005, 92402862006

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
1,2-Dichloroethane	ug/L	ND	0.50	0.25	10/17/18 12:13	
Benzene	ug/L	ND	0.50	0.25	10/17/18 12:13	
Ethylbenzene	ug/L	ND	0.50	0.25	10/17/18 12:13	
Methyl-tert-butyl ether	ug/L	ND	0.50	0.25	10/17/18 12:13	
Naphthalene	ug/L	ND	0.50	0.25	10/17/18 12:13	
Toluene	ug/L	ND	0.50	0.25	10/17/18 12:13	
Xylene (Total)	ug/L	ND	0.50	0.25	10/17/18 12:13	
1,2-Dichloroethane-d4 (S)	%	111	70-130		10/17/18 12:13	
4-Bromofluorobenzene (S)	%	98	70-130		10/17/18 12:13	
Toluene-d8 (S)	%	103	70-130		10/17/18 12:13	

LABORATORY CONTROL SAMPLE & LCSD: 2630424 2630425

Parameter	Units	Spike Conc.	LCS Result	LCSD Result	LCS % Rec	LCSD % Rec	% Rec Limits	RPD	Max RPD	Qualifiers
1,2-Dichloroethane	ug/L	40	38.1	38.2	95	95	70-130	0	40	
Benzene	ug/L	40	41.1	40.5	103	101	70-130	1	40	
Ethylbenzene	ug/L	40	39.1	39.0	98	97	70-130	0	40	
Methyl-tert-butyl ether	ug/L	40	32.0	33.2	80	83	70-130	4	40	
Naphthalene	ug/L	40	37.1	39.4	93	99	70-130	6	40	
Toluene	ug/L	40	37.5	37.5	94	94	70-130	0	40	
Xylene (Total)	ug/L	120	124	125	103	104	70-130	0	40	
1,2-Dichloroethane-d4 (S)	%				106	111	70-130			
4-Bromofluorobenzene (S)	%				101	102	70-130			
Toluene-d8 (S)	%				101	102	70-130			

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QUALITY CONTROL DATA

Project: Warren Green WSW 04887/57679
Pace Project No.: 92402862

QC Batch: 486280 | Analysis Method: EPA 524.2
QC Batch Method: EPA 524.2 | Analysis Description: 524.2 MSV
Associated Lab Samples: 92402862007

METHOD BLANK: 2631042 | Matrix: Water
Associated Lab Samples: 92402862007

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
1,2-Dichloroethane	ug/L	ND	0.50	0.25	10/17/18 23:56	
Benzene	ug/L	ND	0.50	0.25	10/17/18 23:56	
Ethylbenzene	ug/L	ND	0.50	0.25	10/17/18 23:56	
Methyl-tert-butyl ether	ug/L	ND	0.50	0.25	10/17/18 23:56	
Naphthalene	ug/L	ND	0.50	0.25	10/17/18 23:56	
Toluene	ug/L	ND	0.50	0.25	10/17/18 23:56	
Xylene (Total)	ug/L	ND	0.50	0.25	10/17/18 23:56	
1,2-Dichloroethane-d4 (S)	%	113	70-130		10/17/18 23:56	
4-Bromofluorobenzene (S)	%	95	70-130		10/17/18 23:56	
Toluene-d8 (S)	%	98	70-130		10/17/18 23:56	

LABORATORY CONTROL SAMPLE & LCSD: 2631043 | 2631044

Parameter	Units	Spike Conc.	LCS Result	LCSD Result	LCS % Rec	LCSD % Rec	% Rec Limits	RPD	Max RPD	Qualifiers
1,2-Dichloroethane	ug/L	40	35.7	35.9	89	90	70-130	1	40	
Benzene	ug/L	40	37.4	37.8	93	94	70-130	1	40	
Ethylbenzene	ug/L	40	39.1	38.9	98	97	70-130	1	40	
Methyl-tert-butyl ether	ug/L	40	29.0	30.7	72	77	70-130	6	40	
Naphthalene	ug/L	40	38.7	40.5	97	101	70-130	5	40	
Toluene	ug/L	40	36.9	37.3	92	93	70-130	1	40	
Xylene (Total)	ug/L	120	125	125	104	104	70-130	0	40	
1,2-Dichloroethane-d4 (S)	%				113	108	70-130			
4-Bromofluorobenzene (S)	%				98	98	70-130			
Toluene-d8 (S)	%				96	97	70-130			

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QUALITY CONTROL DATA

Project: Warren Green WSW 04887/57679
Pace Project No.: 92402862

QC Batch: 436240 Analysis Method: EPA 8260B
QC Batch Method: EPA 8260B Analysis Description: 8260 MSV Low Level SC
Associated Lab Samples: 92402862001, 92402862002, 92402862003, 92402862004, 92402862005, 92402862006, 92402862007

METHOD BLANK: 2400404 Matrix: Water
Associated Lab Samples: 92402862001, 92402862002, 92402862003, 92402862004, 92402862005, 92402862006, 92402862007

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
3,3-Dimethyl-1-Butanol	ug/L	ND	100	50.0	10/15/18 13:26	
Diisopropyl ether	ug/L	ND	1.0	0.12	10/15/18 13:26	
Ethanol	ug/L	ND	200	131	10/15/18 13:26	
Ethyl-tert-butyl ether	ug/L	ND	10.0	0.070	10/15/18 13:26	
tert-Amyl Alcohol	ug/L	ND	100	50.0	10/15/18 13:26	
tert-Amylmethyl ether	ug/L	ND	10.0	0.10	10/15/18 13:26	
tert-Butyl Alcohol	ug/L	ND	100	3.6	10/15/18 13:26	
tert-Butyl Formate	ug/L	ND	50.0	1.9	10/15/18 13:26	
1,2-Dichloroethane-d4 (S)	%	102	70-130		10/15/18 13:26	
4-Bromofluorobenzene (S)	%	104	70-130		10/15/18 13:26	
Toluene-d8 (S)	%	97	70-130		10/15/18 13:26	

LABORATORY CONTROL SAMPLE: 2400405

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
3,3-Dimethyl-1-Butanol	ug/L	1000	900	90	70-130	
Diisopropyl ether	ug/L	50	42.2	84	70-130	
Ethanol	ug/L	2000	1710	85	70-130	
Ethyl-tert-butyl ether	ug/L	100	86.0	86	70-130	
tert-Amyl Alcohol	ug/L	1000	910	91	70-130	
tert-Amylmethyl ether	ug/L	100	96.6	97	70-130	
tert-Butyl Alcohol	ug/L	500	438	88	70-130	
tert-Butyl Formate	ug/L	400	378	94	70-130	
1,2-Dichloroethane-d4 (S)	%			101	70-130	
4-Bromofluorobenzene (S)	%			105	70-130	
Toluene-d8 (S)	%			100	70-130	

MATRIX SPIKE SAMPLE: 2400407

Parameter	Units	92403066012 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
3,3-Dimethyl-1-Butanol	ug/L	ND	400	426	107	70-130	
Diisopropyl ether	ug/L	ND	20	19.8	99	70-130	
Ethanol	ug/L	ND	800	821	103	70-130	
Ethyl-tert-butyl ether	ug/L	ND	40	41.4	104	70-130	
tert-Amyl Alcohol	ug/L	ND	400	452	113	70-130	
tert-Amylmethyl ether	ug/L	ND	40	45.1	113	70-130	
tert-Butyl Alcohol	ug/L	ND	200	333	167	70-130	M1
tert-Butyl Formate	ug/L	ND	160	ND	0	70-130	M1

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QUALITY CONTROL DATA

Project: Warren Green WSW 04887/57679
Pace Project No.: 92402862

MATRIX SPIKE SAMPLE: 2400407

Parameter	Units	92403066012 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
1,2-Dichloroethane-d4 (S)	%				96	70-130	
4-Bromofluorobenzene (S)	%				102	70-130	
Toluene-d8 (S)	%				100	70-130	

SAMPLE DUPLICATE: 2400406

Parameter	Units	92403066011 Result	Dup Result	RPD	Max RPD	Qualifiers
3,3-Dimethyl-1-Butanol	ug/L	ND	ND		30	
Diisopropyl ether	ug/L	ND	ND		30	
Ethanol	ug/L	ND	ND		30	
Ethyl-tert-butyl ether	ug/L	ND	ND		30	
tert-Amyl Alcohol	ug/L	ND	ND		30	
tert-Amylmethyl ether	ug/L	ND	ND		30	
tert-Butyl Alcohol	ug/L	ND	ND		30	
tert-Butyl Formate	ug/L	ND	ND		30	
1,2-Dichloroethane-d4 (S)	%	103	100	3		
4-Bromofluorobenzene (S)	%	106	102	4		
Toluene-d8 (S)	%	97	96	1		

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QUALITY CONTROL DATA

Project: Warren Green WSW 04887/57679
Pace Project No.: 92402862

QC Batch: 435919 | Analysis Method: EPA 504.1
QC Batch Method: EPA 504.1 | Analysis Description: GCS 504 EDB DBCP
Associated Lab Samples: 92402862001, 92402862002, 92402862003, 92402862004, 92402862005, 92402862006

METHOD BLANK: 2398929 Matrix: Water
Associated Lab Samples: 92402862001, 92402862002, 92402862003, 92402862004, 92402862005, 92402862006

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
1,2-Dibromoethane (EDB)	ug/L	ND	0.020	0.020	10/12/18 17:38	
1-Chloro-2-bromopropane (S)	%	110	70-130		10/12/18 17:38	

LABORATORY CONTROL SAMPLE & LCSD: 2398930 2398931

Parameter	Units	Spike Conc.	LCS Result	LCSD Result	LCS % Rec	LCSD % Rec	% Rec Limits	RPD	Max RPD	Qualifiers
1,2-Dibromoethane (EDB)	ug/L	.25	0.29	0.29	118	119	70-130	0	20	
1-Chloro-2-bromopropane (S)	%				112	116	70-130			

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 2398933 2398934

Parameter	Units	92402848001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
1,2-Dibromoethane (EDB)	ug/L	ND	.25	.25	0.28	0.29	113	116	65-135	3	20	
1-Chloro-2-bromopropane (S)	%						108	109	70-130			

SAMPLE DUPLICATE: 2398932

Parameter	Units	92402469001 Result	Dup Result	RPD	Max RPD	Qualifiers
1,2-Dibromoethane (EDB)	ug/L	ND	ND		20	
1-Chloro-2-bromopropane (S)	%	110	108	3		

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QUALIFIERS

Project: Warren Green WSW 04887/57679
Pace Project No.: 92402862

DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to dilution of the sample aliquot.

ND - Not Detected at or above adjusted reporting limit.

TNTC - Too Numerous To Count

J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.

MDL - Adjusted Method Detection Limit.

PQL - Practical Quantitation Limit.

RL - Reporting Limit - The lowest concentration value that meets project requirements for quantitative data with known precision and bias for a specific analyte in a specific matrix.

S - Surrogate

1,2-Diphenylhydrazine decomposes to and cannot be separated from Azobenzene using Method 8270. The result for each analyte is a combined concentration.

Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

U - Indicates the compound was analyzed for, but not detected.

Acid preservation may not be appropriate for 2 Chloroethylvinyl ether.

A separate vial preserved to a pH of 4-5 is recommended in SW846 Chapter 4 for the analysis of Acrolein and Acrylonitrile by EPA Method 8260.

N-Nitrosodiphenylamine decomposes and cannot be separated from Diphenylamine using Method 8270. The result reported for each analyte is a combined concentration.

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TNI - The NELAC Institute.

LABORATORIES

PASI-C	Pace Analytical Services - Charlotte
PASI-O	Pace Analytical Services - Ormond Beach

ANALYTE QUALIFIERS

M1	Matrix spike recovery exceeded QC limits. Batch accepted based on laboratory control sample (LCS) recovery.

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QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: Warren Green WSW 04887/57679
Pace Project No.: 92402862

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
92402862001	**WSW-1**	EPA 504.1	435919	EPA 504.1	436033
92402862002	**WSW-2**	EPA 504.1	435919	EPA 504.1	436033
92402862003	**WSW-3**	EPA 504.1	435919	EPA 504.1	436033
92402862004	**WSW-4**	EPA 504.1	435919	EPA 504.1	436033
92402862005	**WSW DUP**	EPA 504.1	435919	EPA 504.1	436033
92402862006	**WSW FIELD BLANK**	EPA 504.1	435919	EPA 504.1	436033
92402862001	**WSW-1**	EPA 524.2	485611		
92402862002	**WSW-2**	EPA 524.2	485611		
92402862003	**WSW-3**	EPA 524.2	485611		
92402862004	**WSW-4**	EPA 524.2	486177		
92402862005	**WSW DUP**	EPA 524.2	486177		
92402862006	**WSW FIELD BLANK**	EPA 524.2	486177		
92402862007	**WSW TRIP BLANK**	EPA 524.2	486280		
92402862001	**WSW-1**	EPA 8260B	436240		
92402862002	**WSW-2**	EPA 8260B	436240		
92402862003	**WSW-3**	EPA 8260B	436240		
92402862004	**WSW-4**	EPA 8260B	436240		
92402862005	**WSW DUP**	EPA 8260B	436240		
92402862006	**WSW FIELD BLANK**	EPA 8260B	436240		
92402862007	**WSW TRIP BLANK**	EPA 8260B	436240		

Laboratory receiving samples:

Asheville ☐ Eden ☐ Greenwood ☐ Huntersville ☑ Raleigh ☐ Mechanicsville ☐

Sample Condition Upon Receipt

Client Name: SCDHEC

Project #:

WO# : 92402862

92402862

Courier: ☐ Fed Ex ☐ UPS ☐ USPS ☐ Client ☐ Commercial ☑ Pace ☐ Other:____

Custody Seal Present? ☐ Yes ☑ No **Seals Intact?** ☐ Yes ☑ No

Date/Initials Person Examining Contents: MD 10-10-18

Packing Material: ☐ Bubble Wrap ☑ Bubble Bags ☐ None ☐ Other

Biological Tissue Frozen? ☐ Yes ☐ No ☐ N/A

Thermometer: ☑ IR Gun ID: 92T045

Type of Ice: ☑ Wet ☐ Blue ☐ None

Cooler Temp (°C): 2.1 **Correction Factor: Add/Subtract (°C)** -0.1

Cooler Temp Corrected (°C): 2.0

Temp should be above freezing to 6°C

☐ Samples out of temp criteria. Samples on ice, cooling process has begun

USDA Regulated Soil (☑ N/A, water sample)

Did samples originate in a quarantine zone within the United States: CA, NY, or SC (check maps)? ☐ Yes ☐ No

Did samples originate from a foreign source (internationally, including Hawaii and Puerto Rico)? ☐ Yes ☐ No

				Comments/Discrepancy:
Chain of Custody Present?	☑ Yes	☐ No	☐ N/A	1.
Samples Arrived within Hold Time?	☑ Yes	☐ No	☐ N/A	2.
Short Hold Time Analysis (<72 hr.)?	☐ Yes	☑ No	☐ N/A	3.
Rush Turn Around Time Requested?	☐ Yes	☑ No	☐ N/A	4.
Sufficient Volume?	☑ Yes	☐ No	☐ N/A	5.
Correct Containers Used?	☑ Yes	☐ No	☐ N/A	6.
-Pace Containers Used?	☑ Yes	☐ No	☐ N/A	
Containers Intact?	☑ Yes	☐ No	☐ N/A	7.
Dissolved analysis: Samples Field Filtered?	☐ Yes	☐ No	☑ N/A	8.
Sample Labels Match COC? -Includes Date/Time/ID/Analysis Matrix: WT	☑ Yes	☐ No	☐ N/A	9.
Headspace in VOA Vials (>5-6mm)?	☑ Yes	☐ No	☐ N/A	10.
Trip Blank Present?	☑ Yes	☐ No	☐ N/A	11.
Trip Blank Custody Seals Present?	☐ Yes	☑ No	☐ N/A	

COMMENTS/SAMPLE DISCREPANCY

Field Data Required? ☐ Yes ☐ No

Lot ID of split containers:

CLIENT NOTIFICATION/RESOLUTION

Person contacted: Date/Time:

Project Manager SCURF Review: TC **Date:** 10/10/18

Project Manager SRF Review: TC **Date:** 10/10/18

Pace Analytical®	Document Name: **Sample Condition Upon Receipt(SCUR)**	Document Revised: February 7, 2018 Page 1 of 2
	Document No.: **F-CAR-CS-033-Rev.06**	Issuing Authority: Pace Carolinas Quality Office

***Check mark top half of box if pH and/or dechlorination is verified and within the acceptance range for preservation samples.**

Exceptions: VOA, Coliform, TOC, Oil and Grease, DRO/8015 (water) DOC, LLHg

****Bottom half of box is to list number of bottle**

Project # WO#:92402862

PM: RMC Due Date: 10/19/18

CLIENT: 92-SCDHEC

Item#	BP4U-125 mL Plastic Unpreserved (N/A) (Cl-)	BP3U-250 mL Plastic Unpreserved (N/A)	BP2U-500 mL Plastic Unpreserved (N/A)	BP1U-1 liter Plastic Unpreserved (N/A)	BP4S-125 mL Plastic H2SO4 (pH < 2) (Cl-)	BP3N-250 mL plastic HNO3 (pH < 2)	BP4Z-125 mL Plastic ZN Acetate & NaOH (>9)	BP4C-125 mL Plastic NaOH (pH > 12) (Cl-)	WGFU-Wide-mouthed Glass jar Unpreserved	AG1U-1 liter Amber Unpreserved (N/A) (Cl-)	AG1H-1 liter Amber HCl (pH < 2)	AG3U-250 mL Amber Unpreserved (N/A) (Cl-)	AG1S-1 liter Amber H2SO4 (pH < 2)	AG3S-250 mL Amber H2SO4 (pH < 2)	AG3A(DG3A)-250 mL Amber NH4Cl (N/A)(Cl-)	DG9H-40 mL VOA HCl (N/A)	VG9T-40 mL VOA Na2S2O3 (N/A)	VG9U-40 mL VOA Unp (N/A)	DG9P-40 mL VOA H3PO4 (N/A)	VOAK (6 vials per kit)-5035 kit (N/A)	V/GK (3 vials per kit)-VPH/Gas kit (N/A)	SP5T-125 mL Sterile Plastic (N/A – lab)	SP2T-250 mL Sterile Plastic (N/A – lab)		BP3A-250 mL Plastic (NH2)2SO4 (9.3-9.7)	AG0U-100 mL Amber Unpreserved vials (N/A)	VSGU-20 mL Scintillation vials (N/A)	DG9U-40 mL Amber Unpreserved vials (N/A)
1																6	3											
2																6	3											
3																6	3											
4																6	3											
5																6	3											
6																6	3											
7																6-T	3											
8																												
9																												
10																												
11																												
12																												

pH Adjustment Log for Preserved Samples

Sample ID	Type of Preservative	pH upon receipt	Date preservation adjusted	Time preservation adjusted	Amount of Preservative added	Lot #

Note: Whenever there is a discrepancy affecting North Carolina compliance samples, a copy of this form will be sent to the North Carolina DEHNR Certification Office (i.e. Out of hold, incorrect preservative, out of temp, incorrect containers.

Pace Analytical®
www.pacelabs.com

CHAIN-OF-CUSTODY / Analytical Request Document

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

Page: 1 of 1

2192919

Section A Required Client Information:		Section B Required Project Information:		Section C Invoice Information:	
Company:	SCDHEC	Report To:	R. Dunn	Attention:	
Address:	2600 Bull Street Columbia SC 29201	Copy To:		Company Name:	
				Address:	
Email To:	dunnra@dhec.sc.gov	Purchase Order No.:	4600422513	Pace Quote Reference:	
Phone:	803-898-0671	Project Name:	Warren Green	Pace Project Manager:	T. Carter
Fax:	803-898-0673				
Requested Due Date/TAT:		Project Number:	UST 04887/PACES 7679	Pace Profile #:	

REGULATORY AGENCY

☐ NPDES ☐ GROUND WATER ☐ DRINKING WATER
☑ UST ☐ RCRA ☐ OTHER

Site Location STATE: SC Jasper

Section D Required Client Information

Matrix Codes MATRIX / CODE: Drinking Water DW; Water WT; Waste Water WW; Product P; Soil/Solid SL; Oil OL; Wipe WP; Air AR; Tissue TS; Other OT

SAMPLE ID (A-Z, 0-9 / ,-) Sample IDs MUST BE UNIQUE

Requested Analysis Filtered (Y/N)

Pace Project No./Lab I.D.: 92402862

ITEM #	SAMPLE ID	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED Composite Start DATE	COLLECTED Composite Start TIME	COLLECTED Composite End/Grab DATE	COLLECTED Composite End/Grab TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Unpreserved	H_2SO_4	HNO_3	HCl	NaOH	$Na_2S_2O_3$	Methanol	Other	Analysis Test	BTEXNMN 8260B	[illegible]	[illegible]	EDB 8011									Residual Chlorine (Y/N)	Pace Project No./Lab I.D.
1	WSW-1	DW	G			10/8/18	15:10		9				X						X	X	X	X										LDL's 001
2	WSW-2						15:20		9																							LDL's 002
3	WSW-3						15:40		9																							LDL's 003
4	WSW-4						15:55		9																							LDL's 004
5	WSW Dup	DW	G				16:05		9																							LDL's 005
6	WSW Field Blank	WT	G				15:05		9													X										FB 006
7	WSW Trip Blank	WT	G			10/8/18	15:05		6				X						X	X	X											TB 007
8																																
9																																
10																																
11																																
12																																

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS: Temp in °C	Received on Ice (Y/N)	Custody Sealed Cooler (Y/N)	Samples Intact (Y/N)
	~~[signature]~~	~~10/8/18~~	~~7:00~~	[signature]	10/10	0805				
	[signature]	10/10/18	8:05	[signature]	10-10-18	1220	2.0	Y	N	Y
	[signature]	10/10	1220							

ORIGINAL

SAMPLER NAME AND SIGNATURE

PRINT Name of SAMPLER: Colin Phillips

SIGNATURE of SAMPLER: [signature] DATE Signed (MM/DD/YY): 10/8/18

*Important Note: By signing this form you are accepting Pace's NET 30 day payment terms and agreeing to late charges of 1.5% per month for any invoices not paid within 30 days.

F-ALL-Q-020rev.07, 15-May-2007

dhec

Healthy People. Healthy Communities.

MAR 0 7 2019

MS LASONYA EADY, MR REGINALD BASCOM, AND MR EVERETTE BASCOM
194 OAK HILL RD
RIDGELAND SC 29936

UST 41 DOCKETING

Re: **Request for Property Access**
Warren Green, 10773 West Frontage Road, Yemassee, SC 29945
UST Permit # 04887
Release Reported May 16, 2002
Jasper County

Dear Ms. Eady, Mr. Bascom, and Mr. Bascom:

The Underground Storage Tank (UST) Management Division of the South Carolina Department of Health and Environmental Control (DHEC) documented a release from the UST system at the referenced site on May 16, 2002. **DHEC UST would like to discuss the path toward cleanup of your site, please contact me at your earliest convenience.**

To determine what risk the above reported release may pose to the environment and public health, and in accordance with Section 280.65 of the South Carolina Underground Storage Tank Control Regulations, implementation of monitoring well installation and groundwater sampling are necessary to define the petroleum plume. For this site, the required action will be funded by the State Underground Petroleum Environmental Response Bank (SUPERB) Account. The UST Management Division is requesting your permission for the contractor to enter your property to perform the necessary work and all future work. The UST Division will keep you apprised of all pending activities and provide you a copy of all reports upon request.

Please complete the attached Permission form and return it to my attention within 15 days from your date of receipt.

If you have any questions, please contact me by phone at (803) 898-0606 or by e-mail at butlerkh@dhec.sc.gov.

Sincerely,

Kathryn H. Butler, Hydrogeologist
Corrective Action and Field Support Section
Underground Storage Tank Management Division
Bureau of Land and Waste Management

enc: Permission Form
cc: Technical file (w/enc)

State Lead Option
Property Access Agreement for Site Rehabilitation

Only complete this form if: You are the legal owner of the property **OR** are the designated authorized representative for the legal owner of the property.

I certify that I am the legal owner of the property identified below or serve as the authorized representative for the legal owner of the property. I authorize the South Carolina Department of Health and Environmental Control (DHEC), or a contractor selected by DHEC, to enter this property at reasonable times only to conduct assessment and corrective action activities, as required. The contractor will be designated as the contractor for the UST owner or operator for only the required environmental site rehabilitation activities. I understand that the Agency will notify me of all activities that are necessary prior to their initiation and will promptly provide to me a summary of the data upon request.

UST Permit # 04887		
Facility Name: WARREN GREEN		
Facility Address: 10773 W FRONTAGE RD, YEMASSEE, SC		
Facility Phone Number:		
Is facility within city limits? (check yes/no)	☐ **Yes**	☐ **No**
Name of nearest intersecting street/road/highway:		
Does public water/sewer utility service this facility?	☐ **Yes**	☐ **No**
*If no, please provide a contact name/number that can assist in the location of private water and septic tank lines:		
Name:	**Phone Number:**	
Were USTs previously removed from the ground at this facility?	☐ **Yes**	☐ **No**
*If yes, please provide the name/contact number of a person that can assist in the location of the former UST(s):		
Name:	**Phone Number:**	
Is the facility currently leased to someone?	☐ **Yes**	☐ **No**
*If yes, notify them of the pending work scope, and please provide their name/contact number:		
Name:	**Phone Number:**	

***Please note that if vehicles or other mobile structures are parked over the location of the existing or former USTs, they should be moved prior to DHEC's contractor mobilizes to the facility.**

Name of Property Owner (Print):	
Signature of Property Owner or authorized representative:	**Date**
Affiliation (if applicable)	
Signature of Witness	**Date**

Contact Info

Phone Numbers:	**Home:**	**Cell:**
Email Address:		

State Lead Option
Property Access Agreement for Site Rehabilitation

Only complete this form if: You are the legal owner of the property **OR** are the designated authorized representative for the legal owner of the property.

I certify that I am the legal owner of the property identified below or serve as the authorized representative for the legal owner of the property. I authorize the South Carolina Department of Health and Environmental Control (DHEC), or a contractor selected by DHEC, to enter this property at reasonable times only to conduct assessment and corrective action activities, as required. The contractor will be designated as the contractor for the UST owner or operator for only the required environmental site rehabilitation activities. I understand that the Agency will notify me of all activities that are necessary prior to their initiation and will promptly provide to me a summary of the data upon request.

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Facility Name: WARREN GREEN		
Facility Address: 10773 W FRONTAGE RD, YEMASSEE, SC		
Facility Phone Number:		
Is facility within city limits? (check yes/no)	☐ **Yes**	☑ **No**
Name of nearest intersecting street/road/highway:		
Does public water/sewer utility service this facility?	☐ **Yes**	☑ **No**
*If no, please provide a contact name/number that can assist in the location of private water and septic tank lines:		
Name: LaSonya Eady	**Phone Number:** 843 683 2131	
Were USTs previously removed from the ground at this facility?	☐ **Yes**	☑ **No**
*If yes, please provide the name/contact number of a person that can assist in the location of the former UST(s):		
Name:	**Phone Number:**	
Is the facility currently leased to someone?	☐ **Yes**	☑ **No**
*If yes, notify them of the pending work scope, and please provide their name/contact number:		
Name:	**Phone Number:**	

***Please note that if vehicles or other mobile structures are parked over the location of the existing or former USTs, they should be moved prior to DHEC's contractor mobilizes to the facility.**

Name of Property Owner (Print): LaSonya Eady, Everette Bascom	
Signature of Property Owner or authorized representative: LaSonya Eady	**Date** 3-18-19
Affiliation (if applicable)	
Signature of Witness	**Date**

Contact Info

Phone Numbers:	**Home:**	**Cell:** 843 683 2131
Email Address:	lseady2@yahoo.com	

Jasper Co. Tax Assessors Office. (04887)

(843) 726-7725 - Sara

(Tax map: 088-00-02-032)

UST DOCKETING 43T

TO GET TO SITE: "WARREN GREEN" – E-27-NO-<u>04887</u>

FROM COLUMBIA —

→ Take I-26 East (to Charleston)

→ Take Exit 169 to I-95 South

→ From I-95, take Exit 33

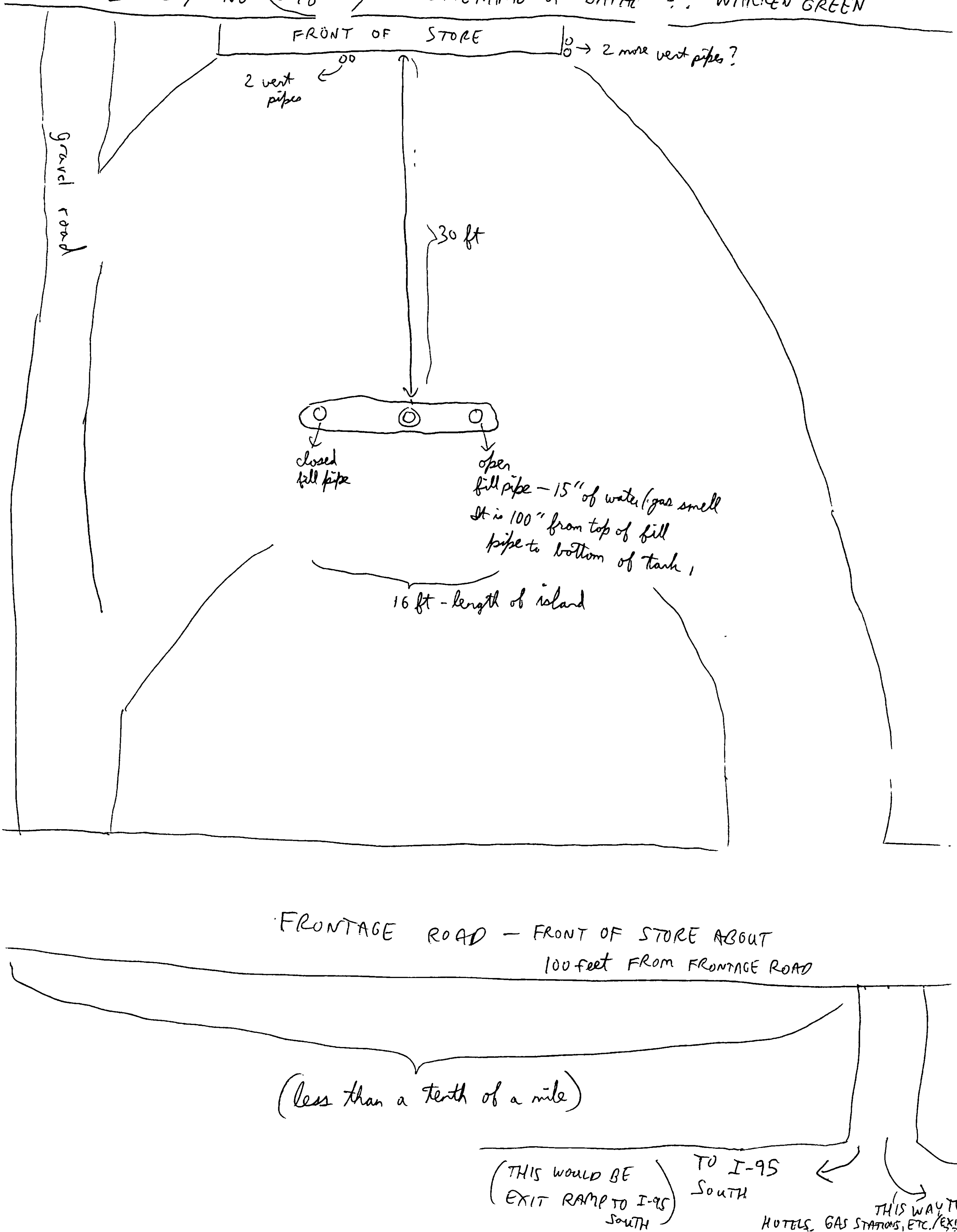
→ As one gets off I-95, the exit ramp will turn sharply to the right — after this sharp bend, one will see a "fork" in the road ... one can go straight ahead on one road, or one can continue to follow the curve of the off-ramp to the right —

TO GET TO THE SITE ... GO STRAIGHT AHEAD.

→ At the <u>STOP sign</u> immediately ahead, <u>go straight across</u> the road to get to Frontage Road (the road being crossed is the beginning of the ramp to get onto I-95 South again, if one were to turn left at that STOP sign).

→ Frontage Road has an immediately sharp left turn, take it, and the site will be next to that on the right side, almost immediately. One can easily see I-95 South from the site.

E-27-NO-(048"7) – SITENAME ON DATA[illegible]E: "WARREN GREEN"



FROM JASPER COUNTY COURTHOUSE (CLERK OF COURTS) - RIDGELAND - COPIED FROM RECORDS - 10/27/00

VKM

SITE PERMIT NUMBER: E-27-NO-04887

COMPLETE IN TRIPLICATE AND FILE WITH THE PROBATE COURT.
Where Realty Is Located In Another County, File Separate Form In Triplicate For Each Such County.
(So. Car. Code References: Sections 15-451 and 60-155)

91-1968

STATE OF SOUTH CAROLINA, COUNTY OF JASPER — IN THE PROBATE COURT

DEVISE/DESCENT OF REAL ESTATE AND DESCRIPTION

Estate Classification: ______

BY: WARREN GREEN ______ DECEASED OWNER—AS GRANTOR

TO:

DEVISEE/HEIR-AT-LAW —AS GRANTEE—

HELEN SMITH
Route 2, Box 814
Coosawhatchie, S. C. 29912

04887

DESCRIPTION

Briefly include sufficient information to designate and locate real estate, such as number of acres or lot, lot numbers, name of subdivision, street address, city or parish, county, etc.

ALL that certain piece, parcel, or tract of land, situate, lying and being in Jasper County in the State of South Carolina, containing nine (9) acres, more or less and being bound and described as follows:

On the North by the lands of Queen Green On the East by lands now or formerly of John Frampton; On the South by lands of the Estate of Edgar Wade and On the West by lands of James Cain, Jr.

Deed found in the Clerk of Courts, Jasper South Carolina in Book 65, page 452.

Also, all that certain piece, parcel or tract of land, situate, lying and being in the County of Jasper and the State of South Carolina containing one (1) acre and bounded and described as follows:

On the North by lands of Abner Grant; On the East by State Highway No. 17; On the South by lands of S. P. Hamilton, and on the West by lands of S. P. Hamilton.

The within instrument has been transferred this [illegible] day of [illegible] 19[illegible] at [illegible] o'clock [illegible] M., and recorded in Transfer Book [illegible] Page [illegible] in Assessor's Office. Tax Map No. [illegible] Transfer No. [illegible]

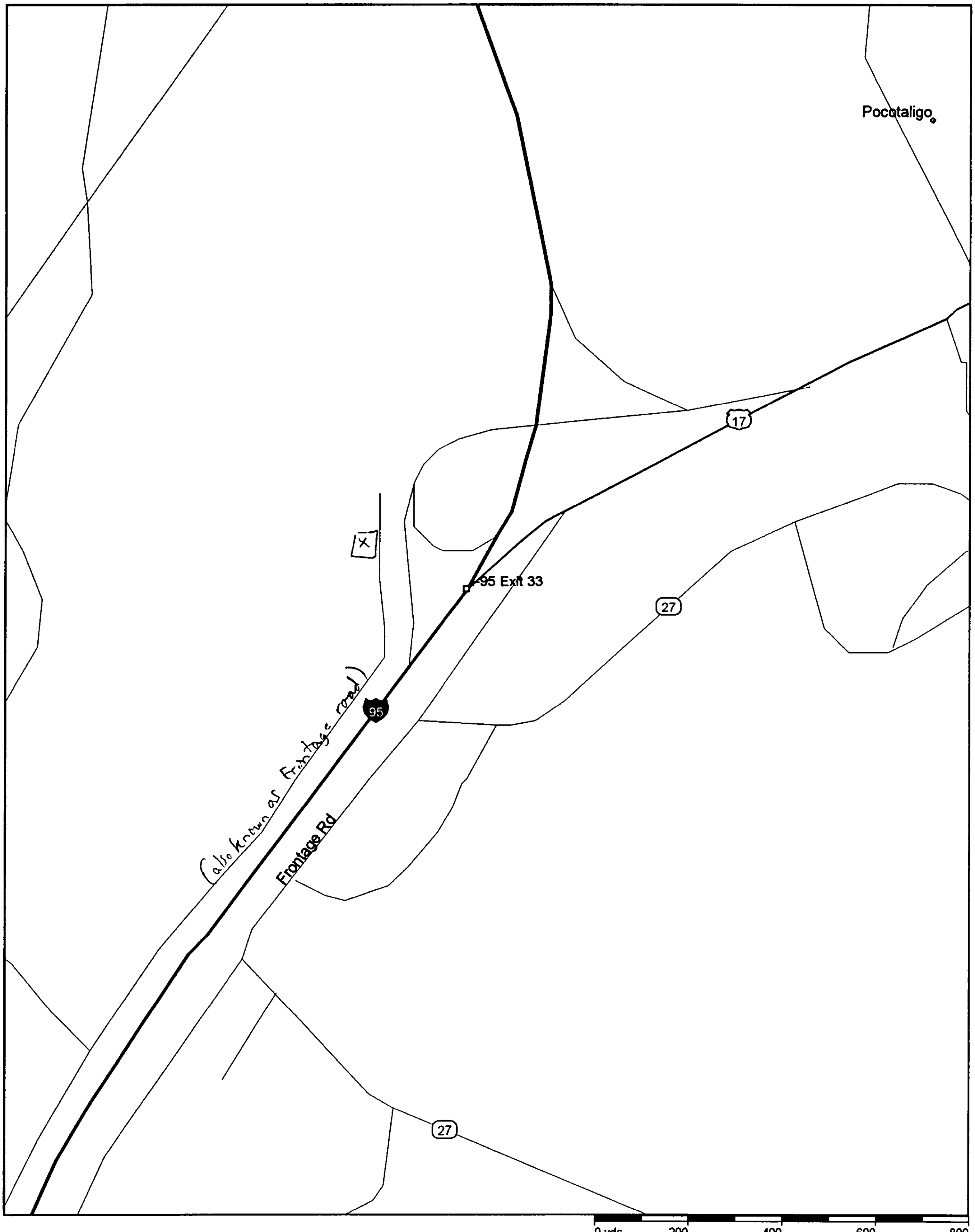
[illegible]
JASPER COUNTY, S. C.

FILED BY: Helen Smith ______ OF THE SUBJECT ESTATE.

AS EXECUTRIX

Date: July 20, ______ 19 84.

0488



Microsoft Expedia
Streets98


10 27 '00


10 27 '00


10 27 '00


10 27 '00


10 27 00


10 27 '00


10 27 '00


10 27 '00


10 27 '00


10 27 00


STOP
10 27 00

04887

dhec
Healthy People. Healthy Communities.

AUG 18 2021

UST 43 DOCKETING

MR BRYAN SHANE PG
MIDLANDS ENVIRONMENTAL CONSULTANTS
PO BOX 854
LEXINGTON SC 29071

Re: Site Specific Work Plan Request
Groundwater Sampling Contract
Solicitation #IFB-5400021335

Dear Mr. Shane:

In accordance with bid solicitation # IFB-5400021335, submission of a Site-Specific Work Plan (SSWP) based on each site information package provided is requested.

The SSWP must be submitted within 20 calendar days of the date of this correspondence. The project manager for each site will issue a notice to proceed once the plan has been reviewed and approved. A weekly update for each site should be emailed to the site's project manager and myself. If you have any questions or need further assistance, please contact me by phone (803) 898-7705 or email wykeljm@dhec.sc.gov.

Sincerely,

Matt Wykel

Matt Wykel, Hydrogeologist
Corrective Action & Field Support Section
UST Management Division
Bureau of Land & Waste Management

Enc: Site Information Package Summary (SIPS)
Site Information Packages

Cc: Lindsey Wooten, Pace Analytical Services, 9800 Kincey Ave. STE 100, Huntersville, NC 28078 (w/ SIPS)
Technical File (w/o Enc)

Healthy People. Healthy Communities.

UNDERGROUND STORAGE TANK PROGRAM
BUREAU OF LAND AND WASTE MANAGEMENT
2600 Bull Street, Columbia, South Carolina 29201
Telephone: 803-898-2544

MEMORANDUM

TO: Midlands Environmental Consultants, Inc

FROM: Zachary Griffith

RE: Site Specific Work Plan Request

Facility Name: Warren Green

Permit Number: 04887 MECI CA#: 63999 PACE CA #: 64000

County: Jasper RBCA CLASS: 2BB

Work To Be Completed: Groundwater samples should be collected from all monitoring wells associated with this release along with all water supply wells and surface waters within a 1,000 foot radius of the site. Samples should be analyzed for BTEX, Naphthalene, MTBE, 1,2-DCA, the 8 oxygenates, and EDB. All wells should be purged prior to sampling.

Total Groundwater Sample Points: 22

Analysis Being Requested: K1. BTEXNM+Oxyg's+1,2 DCA+Eth(8260B); K7. EDB by EPA 8011

Total Water Supply Well Points: 4

Analysis Being Requested: K14. BTEXNM+1,2 DCA (524.2);15. 7-OXYGENATES & ETHANOL (8260B); 16.EDB (504.1)

7/1/2021

Can't pay

DHEC
PROMOTE PROTECT PROSPER
2600 Bull Street
Columbia, SC 29201-1708

RECEIVED
FEB
Under

UST DOCKETING
044T

February 11, 2002

To: Rosemary O'Quinn
Assessor

From: Donna M. Owens
Underground Storage Tank Program
SC Department of Health and Environmental Control

Re: Warren Green Site, I-95 & US 17, Point South, SC

The program is currently reviewing it's records for this site. We are in need of the current landowner's name, address, and phone #. Our records state that a Helen Smith inherited the property in July of 1984.

If you could assist us by checking your records to see if maybe the property has changed-hands, we would greatly appreciate it. **I apologize for not having a better address.**

Donna M. Owens

REC
FEB 11 2002

FEB.11.2002 14:43 18038984330 DIV UST MGMT #5071 P.001/001

D H E C
PROMOTE PROTECT PROSPER
2600 Bull Street
Columbia, SC 29201-1708

February 11, 2002

To: Rosemary O'Quinn
Assessor

From: Donna M. Owens
Underground Storage Tank Program
SC Department of Health and Environmental Control

Re: Warren Green Site, I-95 & US 17, Point South, SC

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If you could assist us by checking your records to see if maybe the property has changed-hands, we would greatly appreciate it. **I apologize for not having a better address.**

Donna M. Owens

Dan - Country Club · 843 681 · 2582 ~~Ext~~ 112

~~Fax Tony CR - 15047~~
~~864 - 292 - 9114~~

~~Susan~~ M - fax - 704 - 864 - 4072
~~CP~~

~~Bill Patel · 10123 · 843 676 · 9420~~

Woodrow Harter Assessor 803-943-7507
(803) 943-7546 (FAX)

~~8~~ - Notified
Smith Oil - owner
Last used in 82
Claim widow forged ~~Will~~ Smith Jr's
signature July 1976
TOO Smith Oil to Helen Smith

- Atleast 1 tank has product
Per Andy

9-14-2000
- ~~[illegible]~~ - Mrs. Smith says she
never owned.

- Jasper Cty says she inherited.

- ROD - '99 - No Money

- No RLS report

- Owner info - tax assessor
- Possible UST field - MARK.
- Get on pumpout project
- " Getwa " -
- ~~Get copy of Reba~~ SV (file)
(~~Look~~ w/ Bette, MARK)

(Next to interstate near housing)

- Check to see if maybe someone has her power of attorney.

5-7-02 Mark B to sample

erine
Attorney Kathy Badgett Justin
843 - 726 - ~~8136~~
9553

- Call attorney

- ask for Mrs. Smith's power of attorney.
  Who is it?

- Intro. the possibility that we could come out and sample.

Map # 088-00-02-032 .32 AC

Helen Smith
Rt. 2 Box 814
Ridgeland, SC 29936

Map # 088-00-04-045 4.0 AC

Helen Smith
Rt 2 Box 814
Coosawhatchie, SC 29912

She sold 4.0+/- AC to these people out of this parcel:

Map # 088-00-04-059 2.0 AC

to: Larry Frazier - now in the name of Hedy Rhett Frazier
Rt. 2 Box 849
Ridgeland, SC 29936

Map# 088-00-04-060 .77 AC

Bessie Nadine Coley
Rt. 2 Box 458
Ridgeland, SC 29936

Map# 088-00-04-061 1.0 AC

Jerry C Rhett & Doris
Rt 3 Box 80
Yemassee, SC 29945

D H E C

PROMOTE PROTECT PROSPER

South Carolina Department of Health
and Environmental Control

UNDERGROUND STORAG ɩNK PROGRAM
BUREAU OF LAND AND WASTE MANAGEMENT
2600 Bull Street, Columbia, South Carolina 29201
Telephone (803) 896-6240 Fax (803) 896-6245

JUN 1 2 2002

UST
3457
DOCKETING

Ms. Helen Smith
Rt. 2 Box 814
Coosawhatchie, SC 29912-9702

Re: Warren Green Grocery
Point South, SC, Jasper County
Underground Storage Tank Permit #04887
Site Visit May 15, 2002

Dear Ms. Smith:

Personnel from the Underground Storage Tank (UST) Program collected samples from the referenced site on May 15, 2002, in accordance with standard protocol. During the site visit, Program personnel collected one soil sample from the vicinity of the former UST system. Analytical data from the sample indicates a release of petroleum hydrocarbons has occurred, and the concentration of chemicals of concern are above risk based screening levels. Therefore, the project is being forwarded to the Assessment and Corrective Action Division and you will be contacted concerning any additional requirements. For your convenience, a copy of the analytical data with sampling locations and depths, site map, and sampling protocol is enclosed.

Based on previous conversations, you consider yourself financially unable to undertake certain federal and state regulatory requirements for your underground storage tank (UST) system. This office requests needed information to verify this financial situation. This request is in addition to the information you supplied in 1998. In order for the UST Program to evaluate your financial ability, you must provide the following information:

1. Complete the enclosed form entitled, "Financial Verification". Please read the accompanying instructions carefully. All information must be current. The UST Program may verify any of the information provided. Please note the signature page includes a perjury clause.

2. Complete the enclosed form entitled "Underground Storage Tank Owner/Operator".

3. Complete Section 1 and sign Section 7 of the enclosed IRS form 8821. Form 8821 authorizes the South Carolina Department of Health and Environmental Control to receive confidential information from the IRS regarding your tax return for the periods listed.

4. Submit copies of the bank statements for your personal savings and checking accounts for the last 6 months. Also, if you have separate accounts for your business, submit copies of the bank statements for your business checking and savings accounts for the last 6 months.

5. If you feel there is any additional information to support your claim, please include it as an attachment.

Your response is due on or before July 12, 2002. If you do not provide the necessary documentation to support your claim of financial inability, the UST Program will have no choice but to find you financially able to conduct the necessary environmental activities as required by regulation. If the UST Program determines you are financially unable to conduct the required activities, the decision will not relieve you of any liabilities associated with the UST system. Regardless of the outcome of this investigation, the UST Program is required under state guidelines to pursue recovery of any expenditure of funds. Recovery procedures have been established and each case is reviewed on its merits.

At least one USTat the site contains liquids that are required to be removed. Information provided to the Department indicates two USTs have a capacity of 3,000 gallons and a third has a capacity of 2,000 gallons. Based upon the measured liquid levels, approximately 600 gallons of liquids are required to be removed. Because of the failure of anyone to empty the UST system, this office will empty it on your behalf. The estimated cost for emptying the UST system is $655. An additional charge of $0.55 will be assessed for each gallon of liquid in excess of 600 gallons. You will be provided a copy of the report upon completion of the work.

To permit the Department's contractor access to the site, please complete and return the enclosed Right of Entry form to my attention on or before June 28, 2002. Please note the Department is required to seek recovery of all costs expended. At a future date, you will be billed for cost incurred.

On all correspondence concerning this site, please reference the permit ID number. If you have any questions or comments, please contact me at (803) 896-6240 or (800) 826-5435.

Sincerely,

Mark Berenbrok

Mark Berenbrok, USTfield Coordinator
Regulatory Compliance Division
Underground Storage Tank Program
Bureau of Land and Waste Management

04887-08:DOC
MKB/mkb

Enclosure: Financial Verification Package
IRS Form 8821
Report of Assessment Activities
Right of Entry form

cc: Financial File
Technical File

PERMISSION FORM

UNDERGROUND STORAGE TANK AND PROPERTY OWNER

UST Permit # 04887, Warren Green Grocery, Point South, South Carolina, Jasper County

If you are the owner of the former underground storage tanks and the property owner, please complete this form.

I, ________________________________, certify that I am the legal owner of the underground storage tanks and property located at the facility identified below or serve as the authorized representative for the owner. I grant permission to the South Carolina Department of Health and Environmental Control (SCDHEC) to secure on my behalf contractor services to conduct abatement and/or assessment activities, and authorize SCDHEC, or a contractor selected by SCDHEC, to enter this property at reasonable times only to conduct abatement and/or assessment activities, as required. I understand that SCDHEC will be responsible for notifying me of all activities that are necessary prior to their initiation, and will provide to me a copy of the assessment report.

Name of Facility ________________________________ Phone # ____________________

Street Address of Facility ____

Town, City, District, Suburb ____

Name of nearest intersecting street, road, highway, alley

____

Is this facility within the city limits? (yes or no) ____________

Does a public water or sewer utility service this facility? (yes or no) ________, if no, please provide the name and phone number of a person that we can contact that can assist in the location of private water and septic tank lines ________________________,
phone number ____________________

Were underground storage tanks previously removed from the ground at this facility? (yes or no) ______.
If yes, please provide the name of a person we can contact that can assist in the location of the former underground storage tank excavation ____________________________
Phone number ______________________

Is the property currently leased or rented to someone? (yes or no) ________. If yes, please provide their name __________________ and phone number __________________ and let them know about the pending assessment activities. If vehicles or other mobile structures are parked over the former or existing underground storage tanks, they should be moved before SCDHEC's contractor gets to the site.

NAME of UST/property owner (Please Print):______________________________________

Phone Number (home)________________________ (work)____________________________

Signature of UST/property Owner:____

Witness:____

Date:__________Month __________Day_________Year

Tier I Assessment Request

Facility Name: Warren Green Grocery

UST Permit #: 04887

County: Jasper

Special Instructions: collect samples from WSW 1 and 2 analyze for BTEX, Naph, MTBE

PERMISSION FORM

UNDERGROUND STORAGE TANK AND PROPERTY OWNER

UST Permit # 04887, Warren Green Grocery, Point South, South Carolina, Jasper County

If you are the owner of the former underground storage tanks and the property owner, please complete this form.

I, Helen Smith, certify that I am the legal owner of the underground storage tanks and property located at the facility identified below or serve as the authorized representative for the owner. I grant permission to the South Carolina Department of Health and Environmental Control (SCDHEC) to secure on my behalf contractor services to conduct abatement and/or assessment activities, and authorize SCDHEC, or a contractor selected by SCDHEC, to enter this property at reasonable times only to conduct abatement and/or assessment activities, as required. I understand that SCDHEC will be responsible for notifying me of all activities that are necessary prior to their initiation, and will provide to me a copy of the assessment report.

Name of Facility Warren Green Grocery Phone # None

Street Address of Facility I-95 & US 17

Town, City, District, Suburb Point South, SC, Jasper County

Name of nearest intersecting street, road, highway, alley ____________

Is this facility within the city limits? (yes or no) no

Does a public water or sewer utility service this facility? (yes or no) yes, if no, please provide the name and phone number of a person that we can contact that can assist in the location of private water and septic tank lines ____________,
phone number ____________

Were underground storage tanks previously removed from the ground at this facility? (yes or no) no.
If yes, please provide the name of a person we can contact that can assist in the location of the former underground storage tank excavation ____________
Phone number ____________

Is the property currently leased or rented to someone? (yes or no) no. If yes, please provide their name ____________ and phone number ____________ and let them know about the pending assessment activities. If vehicles or other mobile structures are parked over the former or existing underground storage tanks, they should be moved before SCDHEC's contractor gets to the site.

NAME of UST/property owner (Please Print): Helen R Smith

Phone Number (home) 843-726-8267 (work) None

Signature of UST/property Owner: Helen R. Smith

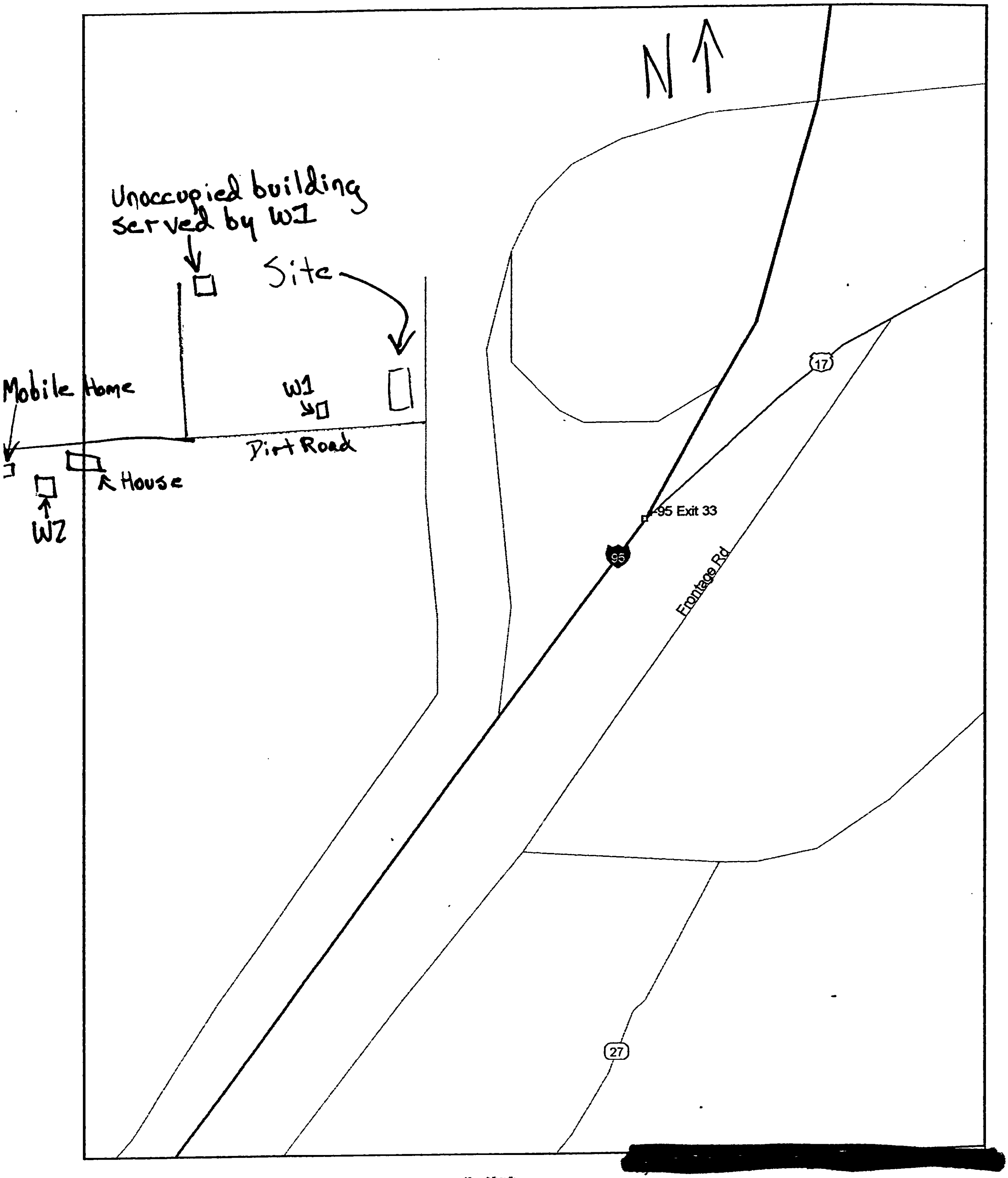
Witness: [signature]

Date: 07 Month 06 Day 2002 Year

Appendix One

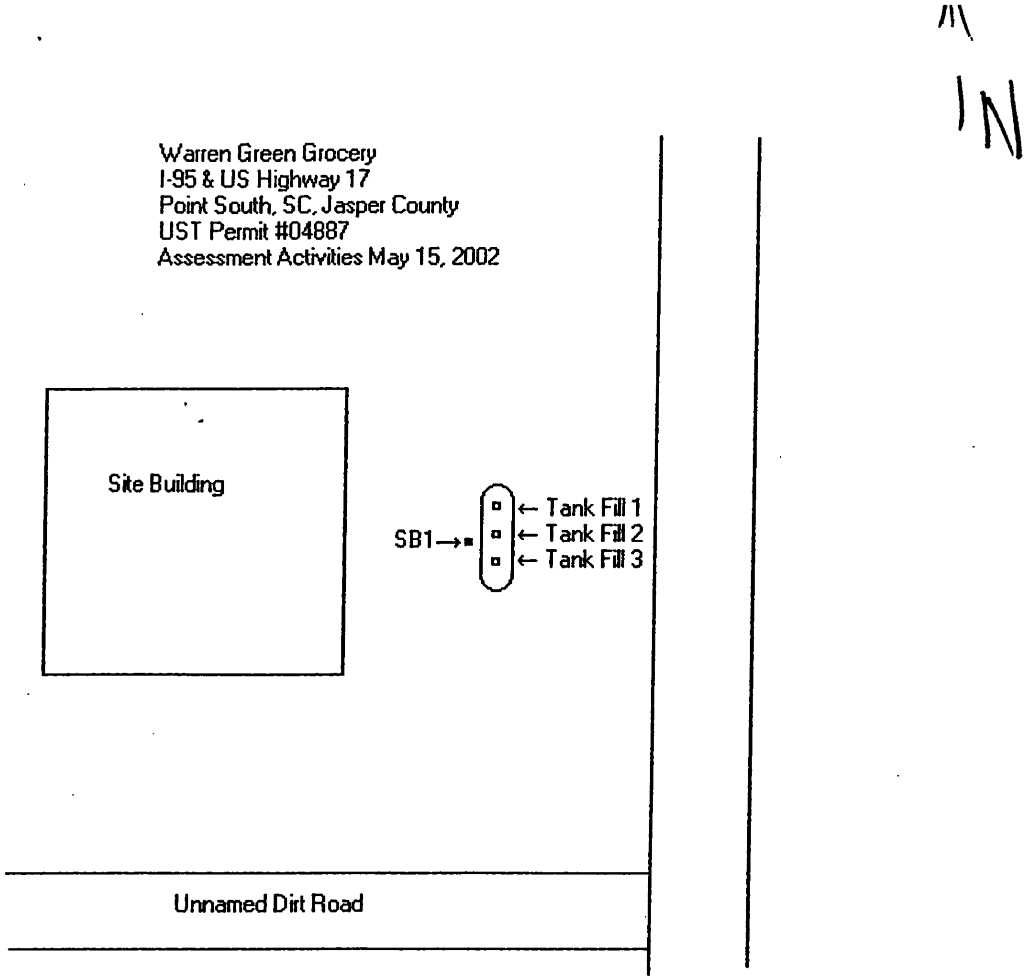
Analytical Results For Soil Samples						
Analyte	SCDHEC RBSLs* (mg/kg)	Sample WG04887-01 (mg/kg)				
Benzene	0.007	**3.72**				
Toluene	1.450	<0.0962				
Ethylbenzene	1.150	**47.2**				
Xylenes	14.500	**234**				
Naphthalene	0.036	**9.33**				
TPH	-----	-----				
Benzo(a) anthracene	0.066	<0.066				
Benzo(b) Fluoranthene	0.066	<0.066				
Benzo(k) Fluoranthene	0.066	<0.066				
Chrysene	0.066	<0.066				
Dibenz(ah) Anthracene	0.066	<0.066				

*SCDHEC RBSL levels for sandy soil. Values in bold text exceed SCDHEC RBSLs.



[redacted]

Microsoft Expedia
Streets98


N
Warren Green Grocery
I-95 & US Highway 17
Point South, SC, Jasper County
UST Permit #04887
Assessment Activities May 15, 2002
Site Building
SB1
Tank Fill 1
Tank Fill 2
Tank Fill 3
Unnamed Dirt Road

Appendix Five

Sample Collection Information					
Sample #	WG04887-01				
Location UST/Dispenser	dispenser				
Matrix Soil/Water	soil				
Soil Type Clay/Sand	sand				
Depth (Feet Below Grade)	5 feet				
Date/Time of Collection	05/15/02 1045				
Collected By	Berenbrok				

TestAmerica
INCORPORATED

ANALYTICAL REPORT

SCDHEC 2200
UNDERGRD STOR TANK-DEBRA THOMA
2600 BULL STREET
COLUMBIA, SC 29201

Project:
Project Name: VARIOUS
Sampler: BERENBROK, MARK

Lab Number: 02-A80984
Sample ID: WG04887-01
Sample Type: Soil
Site ID:

Date Collected: 5/15/02
Time Collected: 10:45
Date Received: 5/17/02
Time Received: 9:00
Page: 1

Analyte	Result	Units	Report Limit	Dil Factor	Analysis Date	Analysis Time	Analyst	Method	Batch
GENERAL CHEMISTRY PARAMETERS									
% Dry Weight	81.9	%		1	5/21/02		D. Harris	CLP	8901
ORGANIC PARAMETERS									
Naphthalene	1.39	mg/kg	0.066	1	5/21/02	13:49	Jeanmarie	8270C	7
Acenaphthene	ND	mg/kg	0.066	1	5/21/02	13:49	Jeanmarie	8270C	7
Anthracene	ND	mg/kg	0.066	1	5/21/02	13:49	Jeanmarie	8270C	7
Fluoranthene	ND	mg/kg	0.066	1	5/21/02	13:49	Jeanmarie	8270C	7
Fluorene	ND	mg/kg	0.066	1	5/21/02	13:49	Jeanmarie	8270C	7
Pyrene	ND	mg/kg	0.066	1	5/21/02	13:49	Jeanmarie	8270C	7
Benzo(a)anthracene	ND	mg/kg	0.066	1	5/21/02	13:49	Jeanmarie	8270C	7
Benzo(a)pyrene	ND	mg/kg	0.066	1	5/21/02	13:49	Jeanmarie	8270C	7
Benzo(b)fluoranthene	ND	mg/kg	0.066	1	5/21/02	13:49	Jeanmarie	8270C	7
Benzo(k)fluoranthene	ND	mg/kg	0.066	1	5/21/02	13:49	Jeanmarie	8270C	7
Chrysene	ND	mg/kg	0.066	1	5/21/02	13:49	Jeanmarie	8270C	7
Dibenzo(a,h)anthracene	ND	mg/kg	0.066	1	5/21/02	13:49	Jeanmarie	8270C	7
Indeno(1,2,3-cd)pyrene	ND	mg/kg	0.066	1	5/21/02	13:49	Jeanmarie	8270C	7
Acenaphthylene	ND	mg/kg	0.066	1	5/21/02	13:49	Jeanmarie	8270C	7
Benzo(g,h,i)perylene	ND	mg/kg	0.066	1	5/21/02	13:49	Jeanmarie	8270C	7
Phenanthrene	ND	mg/kg	0.066	1	5/21/02	13:49	Jeanmarie	8270C	7
VOLATILE ORGANICS									
Benzene	3.72	mg/kg	0.0962	50	5/19/02	6:27	J.Gott	8260B	8587
Ethylbenzene	47.2	mg/kg	0.962	500	5/20/02	11:14	J.Gott	8260B	50
Naphthalene	9.33	mg/kg	0.240	50	5/19/02	6:27	J.Gott	8260B	8587
Toluene	ND	mg/kg	0.0962	50	5/19/02	6:27	J.Gott	8260B	8587

Sample report continued . . .

SUPERB COST PROPOSAL CHECKLIST

!!! Update payment code, task screen, punch list, status, etc. in tracking system !!!

UST Permit Name: **WARREN GREEN** ID# **04887**

Date Release Reported **5/16/02** Release # **1** Project Manager **UMAR K. KHATTAK**

Priority Class (Circle) **2B**

Category: Assessment [X] ACA (8___) [ ] MNA (901) [ ]

Description of Work **Tier I Assmnt**

Cost Proposal # **17475** Amount Approved: **$2,861.90**

Cost Proposal Type

Commited/Currently Funded (DS) [ ]

Non-commited Contracts (WC) [ ]

Cost Proposal Duration

[ ] 4 Months (120 Days) [X] 2 Months (60 Days)

[ ] Other ______

To SUPERB $25,000 Deductible (W25)

Committed (CP>$25K) [ ]

Prior total toward $25K: ______

To complete $25K: ______

Over $25K: ______

Non-committed (CP<$25K): [ ]

Payee & Address:

Geological Resources Inc
4913 Albemarle Rd, Suite 101
Charlotte, NC 28205

Contractor Certification #: 74

To Insurance Deductible (WID) [ ]

Insurance Company: ______

Deductible: $ ______

Maximum Payable: $ ______

Prior total toward Insurance $25K: ______

To complete Insurance $ 25K: ______

Rate Schedule:

State Lead		**O/O Lead**
[ ] IGWA		[ ] SUPERB A
[X] Tier I	PO# 408994	[ ] Analytical
[ ] Tier II		[ ] GAC
[ ] Analytical		[ ] Other ______
[ ] Sampling		
[ ] GAC		[ ] MWI
[ ] Other ______		[ ]
[ ] SUPERB Allowable		[ ]

Project Manager: *U.M.K. Khattak* Date 1/22/03

Accountant: ______ Date: ______

Financial Supervisor: ______ Date: ______

Technical Supervisor: ______ Date: ______

Southeast	ASSESSMENT COMPONENT COST AGREEMENT	Southeast

Geological Resources Inc SB-19189-4/30/02-EMW
South Carolina Department of Health and Environmental Control
Bureau of Land and Waste Management UST Program
State Underground Petroleum Environmental Response Bank

Site Name WARREN GREEN

Site ID # 04887 **CP#** 17475

ITEM	QUANTITY	UNIT	UNIT PRICE	TOTAL
1. Plan Preparation*	________	x		
2. Receptor Survey*	________	x		
3. Comprehensive Survey	________	x		
4. Mob/Demob	________	x	$150.00	**$0.00**
5. Soil Borings (hand augered)*	________	feet x	$6.00	**$0.00**
6. Soil Borings (drilled) and Field Screening*	(includes collection and quantification) ________	feet x	$6.00	**$0.00**
7. Soil Leachability Model	________	x		
8. Abandonment* (separate from #5 and #6)	________	feet x		
9. Well Installation*	(includes drilling costs)			
A. Water Table (hand auger)	________	feet x	$11.00	**$0.00**
B. Water Table	________	feet x	$11.00	**$0.00**
C. Telescoping	________	feet x		
D. Rock Drilling	________	feet x		
10. Ground-water sample collection	2	samples x	$19.95	**$39.90**
11. Analyses-Groundwater	(See RA Guidance for site specific analyses)			
A. BTEX+Napth.+MTBE	2	samples x	$36.00	**$72.00**
C. PAH's	________	samples x	$63.75	**$0.00**
D. Lead	________	samples x	$10.00	**$0.00**
E. EDB	________	samples x	$37.50	**$0.00**
F. 8 RCRA Metals	________	samples x	$65.00	**$0.00**
G. TPH (9071)	________	samples x	$28.00	**$0.00**
J. Nitrate	________	samples x	$18.75	**$0.00**
K. Sulfate	________	samples x	$17.00	**$0.00**
L. Ferrous Iron	________	samples x	$18.75	**$0.00**
M. Methane	________	samples x	$40.00	**$0.00**
Analyses-Soil				
O. BTEX + Napth.	________	samples x	$36.00	**$0.00**
P. PAH's	________	samples x	$63.75	**$0.00**
Q. 8 RCRA Metals	________	samples x	$65.00	**$0.00**
R. TPH (9071)	________	samples x	$28.00	**$0.00**
S. TPH (DRO)	________	samples x	$40.00	**$0.00**
T. TPH(GRO)	________	samples x	$36.00	**$0.00**
U. Grain size / hydrometer	________	samples x	$65.00	**$0.00**
V. Total Organic Carbon	________	samples x	$18.75	**$0.00**
12. Aquifer Characterization*				
A. Pumping Test	________	hours x		
B. Slug test	________	tests x		
13. Free Product Recovery Rate Test*	________	tests x		
14. Fate & Transport Modeling				
A. Mathematical Model	________	models x		
B. Computer Model	________	models x		
15. Risk Evaluation				
A. Tier I	________	x		
B. Tier II	________	x		
16. Subsequent Survey*		x		
17. Disposal				
A. Wastewater				
1. Purging/Sampling	________	drums x		
2. Pumping test	________	gallons x		
B. Free Product	________	drums x		
C. Soil (Treatment/Disposal)*	________	tons x		
	________	drums x		
SLA Tier I Assessment	1	x	$2,750.00	**$2,750.00**
19. Report/Project Management and Coordination	________	x	(SUBTOTAL) $2,861.90	$0.00
20. **Total**				**$2,861.90**

rm/revcpadd

* The appropriate Mobilization cost can be added to this cost

FIELD ACTIVITY WORKSHEET ORDER

Date of Request: January 22, 2003

Type of Request:

(Please indicate your request with a check mark)

Emergency	(<2 Working Days)	[ ]
Specific	(1-5 Working Days)	[ ]
Routine	(10 Working Days)	[X]

Please specify the type of work to be completed:

Tier I + 2 Water Supply Wells

Facility Name: **WARREN GREEN**

Permit Number: **04887**

Project Manager: **UMAR K. KHATTAK**

County: **Jasper**

(Field Staff Only)

Date Field Activity Completed: ____________________

Completed by Field Staff: ____________________

Date Field Notes Entered into EFIS: ____________________

Field Staff Comments:

____

____

____

REMEMBER TO ESTABLISH COST PROPOSALS

PACE CA#: ____________________ GRI CA#: ____________________

PALMETTO ENV GROUP CA#: ____________________

Fill out back of this form. Photocopy, attach a completed CP cover for each CP. Thank you very much!

D H E C

PROMOTE PROTECT PROSPER

2600 Bull Street
Columbia, SC 29201-1708

Monitoring Well Installation Approval Form

Date of Issue: January 22, 2003 Approval No.: UMW-16931

Approval is hereby granted to: Smith, Helen
On behalf of: Warren Green, 10773 W Frontage Road, Yemassee, SC
UST Permit #: 04887
County: Jasper

This approval is for the construction of three (3) permanent and 200 feet of temporary monitoring wells in accordance with the South Carolina Well Standards and Regulations. The well(s) are to be constructed within the surficial aquifer for the intended purpose of monitoring ground-water quality and/or water level(s) at the referenced facility. Approval is provided with the following conditions:

1. The latitude and longitude, surveyed elevations, boring and/or geologist logs and actual (as built) construction details for each well will be submitted with the technical report.

2. Each well will be labeled with an identification plate constructed of a durable material affixed to the casing or surface pad where it is readily visible. The plate will provide monitoring well I.D.#, date of construction, static water level, and driller name and state certification #.

3. Well construction and sampling derived waste including, but not necessarily limited to, drill cuttings, drilling fluids, development and purge water should be managed properly and in compliance with applicable requirements. If containerized, each vessel should be clearly labeled with regard to contents, source, and date of activity.

4. A minimum of forty-eight (48) hours prior to initiation of drilling activities, please provide notice to Umar K. Khattak at (803) 896-6629 or Khattauk@dhec.sc.gov.

5. Please provide ground-water quality analytical data (chemical analysis and/or water level(s)) and associated measurements (i.e., in-situ field measurements) to me with the technical report.

6. Monitoring wells and temporary monitoring wells will be installed by or under the direct supervision of a licensed well driller certified by the State of South Carolina.

7. Monitoring wells and temporary monitoring wells will be abandoned by or under the direct supervision of a licensed well driller certified by the State of South Carolina. Temporary monitoring wells shall not remain in place for longer than 30 days from the date of installation. Monitoring wells may be abandoned only upon concurrence by this Division.

This approval is pursuant to the provisions of Section 44-55-40 of the 1976 South Carolina Code of Laws and the Department of Health and Environmental Control Regulations R.61-71. Please remember to have a copy of this approval on the site during well installation.

Approved by: Um. U. K. Khattak

Umar K. Khattak, Ph.D., Hydrogeologist
State Lead and Field Services Section
Assessment and Corrective Action Division
Underground Storage Tank Program
Bureau of Land and Waste Management

cc: Central Midlands District EQC

F:\USERS\Khattauk\4000\4887_tier1_ltr.doc; 1/22/2003

PERMISSION FORM

UNDERGROUND STORAGE TANK AND PROPERTY OWNER

UST Permit # 04887, Warren Green Grocery, Point South, South Carolina, Jasper County

If you are the owner of the former underground storage tanks and the property owner, please complete this form.

I, Helen Smith, certify that I am the legal owner of the underground storage tanks and property located at the facility identified below or serve as the authorized representative for the owner. I grant permission to the South Carolina Department of Health and Environmental Control (SCDHEC) to secure on my behalf contractor services to conduct abatement and/or assessment activities, and authorize SCDHEC, or a contractor selected by SCDHEC, to enter this property at reasonable times only to conduct abatement and/or assessment activities, as required. I understand that SCDHEC will be responsible for notifying me of all activities that are necessary prior to their initiation, and will provide to me a copy of the assessment report.

Name of Facility Warren Green Grocery Phone # None

Street Address of Facility I-95 & US 17

Town, City, District, Suburb Point South, SC, Jasper County

Name of nearest intersecting street, road, highway, alley

Is this facility within the city limits? (yes or no) no

Does a public water or sewer utility service this facility? (yes or no) yes, if no, please provide the name and phone number of a person that we can contact that can assist in the location of private water and septic tank lines ______________
phone number ______________

Were underground storage tanks previously removed from the ground at this facility? (yes or no) no.
If yes, please provide the name of a person we can contact that can assist in the location of the former underground storage tank excavation ______________
Phone number ______________

Is the property currently leased or rented to someone? (yes or no) no. If yes, please provide their name ______________ and phone number ______________ and let them know about the pending assessment activities. If vehicles or other mobile structures are parked over the former or existing underground storage tanks, they should be moved before SCDHEC's contractor gets to the site.

NAME of UST/property owner (Please Print): Helen R Smith

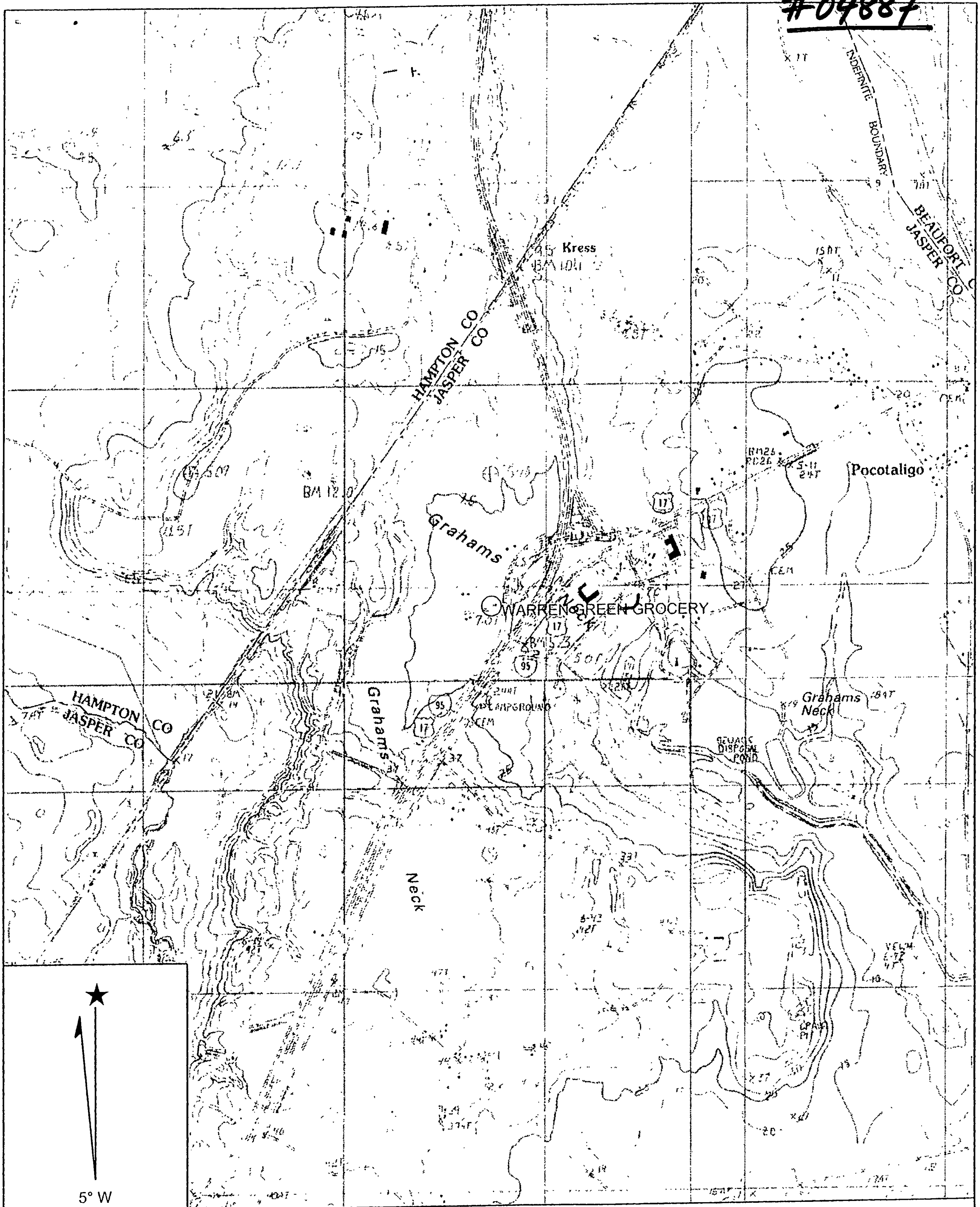
Phone Number (home) 843-726-8267 (work) None

Signature of UST/property Owner: Helen R. Smith

Witness: [signature]

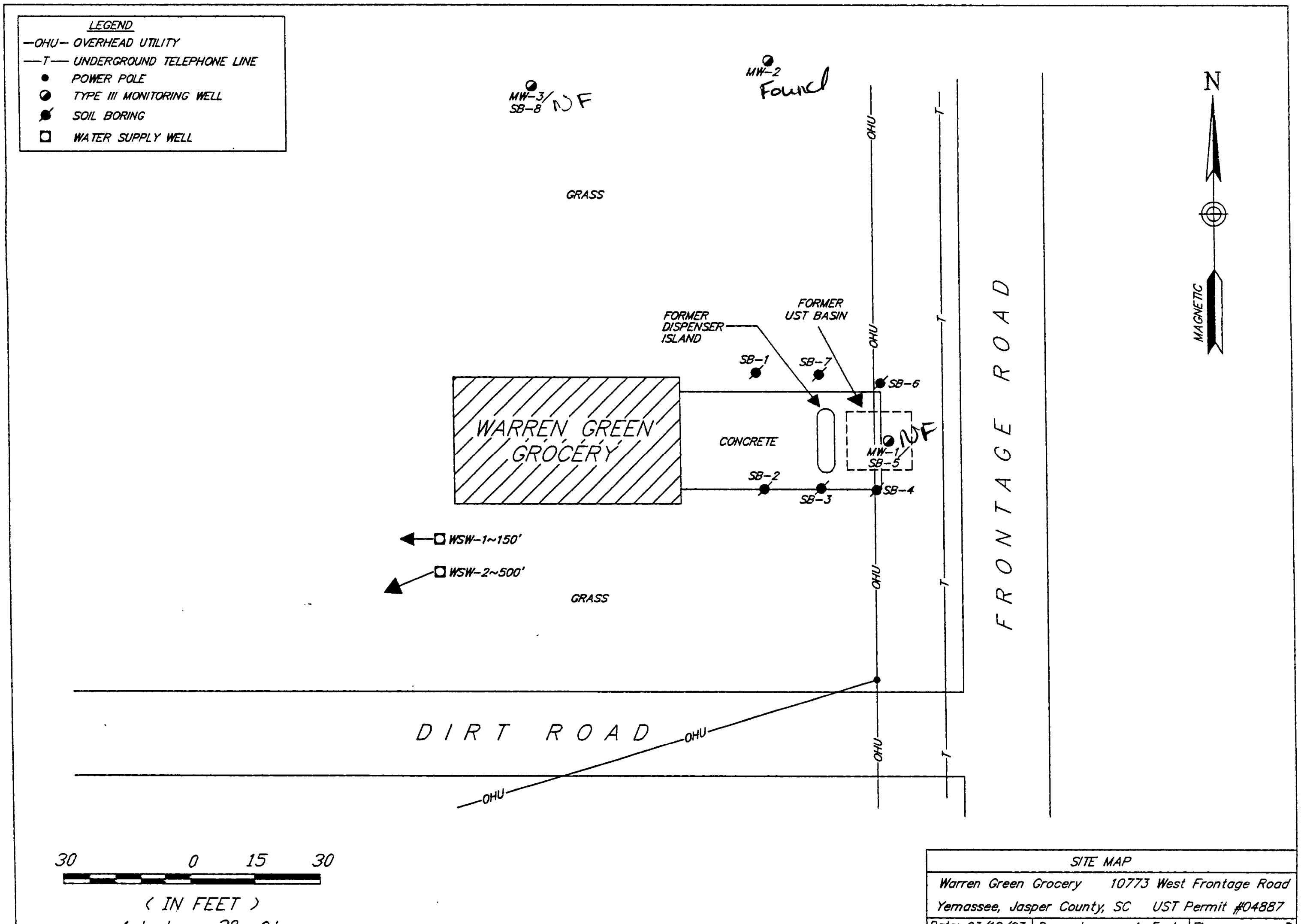
Date: 07 Month 06 Day 2002 Year

#04887



Name: MC PHERSONVILLE
Date: 3/17/103
Scale: 1 inch equals 2000 feet

Location: 032° 37' 42.2" N 080° 53' 08.5" W
Caption: SITE LOCATION MAP
Warren Green Grocery
Figure 1 UST Permit #04887



SITE MAP			
Warren Green Grocery 10773 West Frontage Road			
Yemassee, Jasper County, SC UST Permit #04887			
Date: 03/18/03	Drawn by: A. Engle	Figure: 3	
GEOLOGICAL RESOURCES, INC.			

F. Chemicals of Concern - Ground Water

Well Installation Information

Well No.	Installation Date	Development Date	Sampling Date
MW-1	02/25/03	02/25/03	02/25/03
MW-2	02/25/03	02/25/03	02/25/03
MW-3	02/25/03	02/25/03	02/25/03

Soil Analytical Data - Monitoring Wells

Soil samples were collected from SB-5 and SB-8 during the installation of MW-1 and MW-3, respectively. Please refer to the table containing soil analytical data for the results of analyses.

Summary of Monitoring Well and Ground Water Data (feet)

Well No.	TOC Elevation	Depth to Water	Water Table Elevation	Screened Interval
MW-1	100.00	6.71	93.29	3-13'
MW-2	100.94	8.06	92.88	4-14'
MW-3	100.97	8.20	92.77	3-13'

Dissolved Oxygen Measurements (mg/L)

	MW-1	MW-2	MW-3
Dissolved Oxygen	1.9	4.2	4.6

Ground Water Analytical Data[1]

COC	RBSL	MW-1	MW-2	MW-3	WSW-1	WSW-2
Free Product Thickness	---	---	---	---	---	---
Benzene	5	**178**[2]	<1.0[3]	<1.0	NS[4]	<1.0
Toluene	1,000	240	<1.0	1.6	NS	<1.0
Ethylbenzene	700	58.6	<1.0	<1.0	NS	<1.0
Xylenes	10,000	253	<1.0	1.7	NS	<1.0
Total BTEX	---	729.6	<4.0	3.3	NS	<4.0
MTBE	40	**71.0**	2.6	1.5	NS	<1.0
Naphthalene	25	<5.00	<5.00	<5.00	NS	<5.00
EDB	0.05	<0.02	<0.02	<0.02	NS	<0.02
Benzo(a)anthracene	10	<2.3	<2.2	<2.0	NS	NR[5]
Benzo(b)fluoranthene	10	<2.3	<2.2	<2.0	NS	NR
Benzo(k)fluoranthene	10	<2.3	<2.2	<2.0	NS	NR
Chrysene	10	<2.3	<2.2	<2.0	NS	NR
Dibenzo(a,h)anthrace	10	<2.3	<2.2	<2.0	NS	NR
Total Lead	15	**124**	**57.0**	**86.0**	NS	<3.0
Methane	---	<26	<26	<26	NS	NR
Nitrate	---	<0.100	0.150	<0.100	NS	NR
Sulfate	---	1.51	6.57	7.37	NS	NR
Ferrous Iron	---	9.700	4.410	6.750	NS	NR

Notes:
1. COC concentrations reported in μg/l; natural attenuation parameter concentrations reported in mg/l.
2. Concentrations in bold face type exceeded the RBSLs.
3. Less than the report limit specified in the analytical report.
4. Not sampled; well was not operating.
5. Analysis not requested.

CATHERINE D. BADGETT
ATTORNEY AT LAW
600 THIRD AVENUE ON COURTHOUSE SQUARE
POST OFFICE BOX 2020
RIDGELAND, SOUTH CAROLINA 29936

TELEPHONE (843) 726-9553 FACSIMILE (843) 726-9556

August 12, 2002

UST DOCKETING 3477

DHEC
Mark Berenbrok
2600 Bull Street
Columbia, S.C. 29201

**RE: Warren Green Grocery
Point South, S.C., Jasper County**

Dear Mr. Berenbrok:

Enclosed please find, in the above referenced matter the Permission Form filled out as you requested. Thank you for your time in this matter.

Sincerely,

Cathy

Catherine D. Badgett

CDB\db

Enclosures

cc: Client

RECEIVED
AUG 14 2002
Underground Storage
Tank Program

PERMISSION FORM

UNDERGROUND STORAGE TANK AND PROPERTY OWNER

UST Permit # 04887, Warren Green Grocery, Point South, South Carolina, Jasper County

If you are the owner of the former underground storage tanks and the property owner, please complete this form.

I, Helen Smith, certify that I am the legal owner of the underground storage tanks and property located at the facility identified below or serve as the authorized representative for the owner. I grant permission to the South Carolina Department of Health and Environmental Control (SCDHEC) to secure on my behalf contractor services to conduct abatement and/or assessment activities, and authorize SCDHEC, or a contractor selected by SCDHEC, to enter this property at reasonable times only to conduct abatement and/or assessment activities, as required. I understand that SCDHEC will be responsible for notifying me of all activities that are necessary prior to their initiation, and will provide to me a copy of the assessment report.

Name of Facility Warren Green Grocery Phone # none

Street Address of Facility I-95 & US 17

Town, City, District, Suburb Point South, SC, Jasper County

Name of nearest intersecting street, road, highway, alley

Is this facility within the city limits? (yes or no) no

Does a public water or sewer utility service this facility? (yes or no) yes, if no, please provide the name and phone number of a person that we can contact that can assist in the location of private water and septic tank lines ______.
phone number ______

Were underground storage tanks previously removed from the ground at this facility? (yes or no) no.
If yes, please provide the name of a person we can contact that can assist in the location of the former underground storage tank excavation ______
Phone number ______

Is the property currently leased or rented to someone? (yes or no) no. If yes, please provide their name ______ and phone number ______ and let them know about the pending assessment activities. If vehicles or other mobile structures are parked over the former or existing underground storage tanks, they should be moved before SCDHEC's contractor gets to the site.

NAME of UST/property owner (Please Print): Helen R Smith

Phone Number (home) 843-726-8267 (work) None

Signature of UST/property Owner: Helen R. Smith

Witness: [signature]

Date: 07 Month 06 Day 2002 Year

D H E C
PROMOTE PROTECT PROSPER
2600 Bull Street
Columbia, SC 29201-1708

UNDERGROUND STORA__ TANK PROGRAM
BUREAU OF LAND AND WASTE MANAGEMENT

Phone (800) 826-5435 Fax (803) 896-6245

UST 487 DOCKETING

MR TERRY TEATE
ENVIRO-TEST SERVICES
7435 BROAD RIVER RD STE. 103
IRMO SC 29063

AUG 20 2002

Re: Tier I Assessment Bid # SB-13410-10/10/00-HW
Purchase Order #292849
Tier I Assessment Directive
Notice to Proceed Southeast Region:

Dear Mr. Teate:

Based on the award of the referenced bid package, enclosed is the information packet to conduct two (2) Tier I Assessments. The packets contain all necessary approvals for work to begin. The facilities have been assigned individual Cost Proposal (CP) numbers as listed below. Please reference the CP number and Purchase Order #292849 on the appropriate invoice submitted for payment against the facility. Invoice forms are enclosed for your convenience. As specified in the referenced bid, **the completed invoice form and associated Tier I Assessment report (include contract certification number) is expected on or before the designated due date associated with the site (see below)**. A late fee of $100.00 per day (not to exceed 20% of the total cost) may be levied for each day the report is submitted after the deadline established below, per Special Condition #12.

UST Permit #	Facility	County	Release #	Report Due Date	CP#	CP Approval Amt.
16356	Carson's Grocery	Berkeley	1	October 9, 2002	16936:P	$4,123.00
04887	Warren Green Grocery	Jasper	1	October 9, 2002	17102:P	$4,053.00

Please note, the current contract expires on October 10, 2002. All Tier I Assessment reports must be submitted by October 9, 2002.

Enviro-Test Services will perform services at the facilities on behalf of the facility's owner/operator (O/O); however, payment will be made from the SUPERB Account. The facility's O/O has no obligation for payment for this scope of work. **Please note, if there is any change in the established cost proposal amount (e.g., additional water supply wells sampled, additional well footage, etc.) contact the site's project manager for technical and/or financial approval. Failure to do so prior to submittal of invoice may result in delay of payment.**

The Division grants pre-approval for transportation of drums of virgin petroleum contaminated soil and drums of groundwater from the referenced sites to a permitted treatment facility. The contaminated soil and/or groundwater must be properly stored in labeled 55-gallon drums or equivalent containers. The contaminated soil and/or groundwater must be accepted by the approved treatment facility. There can be no spillage or leakage in transport. A copy of the disposal manifest from the receiving facility that clearly designates the quantity received **must** be included as an appendix to the final report.

If you have any questions or need further assistance, please contact me at (800) 826-5435 (within SC only) or (803) 896-6397.

Sincerely,

Debra L. Thoma

Debra L. Thoma, Hydrogeologist
State Lead & Field Services Section
Assessment & Corrective Action Division

Enc.: Information Packets
Monitoring Well Approval Forms
Approved Cost Proposal 16936, 17102

cc: Lillie Carson, 2201 Cainhoy Rd., Huger, SC, 29450 **(UST Permit #16356)**
Helen Smith, Rt 2 Box 814, Coosawhatchie, SC, 29912 **(UST Permit #04887)**
Technical File (2)
Read File

DHEC/UST/DLT/8.16.02/TIER I-ESG

DHEC
PROMOTE PROTECT PROSPER
2600 Bull Street
Columbia, SC 29201-1708

Monitoring Well Ins\ .ion Approval Form

Date of Issue: August 16, 2002

Approval No: UMW-16520

Approval is hereby granted to: Enviro-Test Services, Inc.
on behalf of: Helen Smith
UST Permit #04887
County: Jasper

This approval is for the construction of three (3) permanent monitoring wells constructed in accordance with the South Carolina Well Standards and Regulations (R.61-71). The wells are to be completed within the uppermost aquifer for the intended purpose of monitoring ground-water quality and/or water level(s) at the referenced facility. Approval is provided with the following conditions:

1. The latitude and longitude, surveyed elevations, boring and/or geologist logs and actual (as built) construction details for each wells be submitted to Debra L. Thoma of the UST Program, Bureau of Land & Waste Management within thirty (30) days of completion (of last well(s) installed).

2. Each well shall be labeled with an identification plate constructed of a durable material affixed to the casing or surface pad where it is readily visible. The plate shall provide monitoring well I.D.#, date of construction, static water level, and driller name and state certification #.

3. Well construction and sampling derived waste including, but not necessarily limited to, drill cuttings, drilling fluids, development, and purge water should be managed properly and in compliance with applicable requirements. If containerized, each vessel should be clearly labeled with regard to contents, source, and date of activity.

4. A minimum of forty-eight (48) hours prior to initiation of drilling activities, please provide notice to Debra L. Thoma at (803) 896-6397 or thomadl@state.sc.us

5. Please provide ground-water quality analytical data (chemical analysis and/or water level(s)) and associated measurements (i.e., in-situ field measurements) to Debra L. Thoma of the UST Program, Bureau of Land & Waste Management within thirty (30) days of receipt from the laboratory.

6. Monitoring wells shall be installed by a permanently licensed well driller certified by the State of South Carolina.

This approval is pursuant to the provisions of Section 44-55-40 of the 1976 South Carolina Code of Laws and the Department of Health and Environmental Control Regulations R.61-71. **Please remember to have a copy of this approval on the site during well installation.**

Approved by: Debra L. Thoma

Debra L. Thoma, Hydrogeologist
State Lead & Field Services Section
Assessment & Corrective Action Division
Underground Storage Tank Program
Bureau of Land & Waste Management

cc: Low Country District EQC
Technical File

DHEC/UST/DLT/8.16.02/MWA_ETS

D H E C
PROMOTE PROTECT PROSPER
2600 Bull Street
Columbia, SC 29201-1708

UNDERGROUND STORA TANK PROGRAM
BUREAU OF LAND AND WASTE MANAGEMENT

Phone (800) 826-5435 Fax (803) 896-6245

JAN 28 2003

UST
DOCKETING
0497

MR TERRY KENEDY
GEOLOGICAL RESOURCES INC
4913 ALBERMARLE RD STE 101
CHARLOTTE NC 28205

Re: Initial Groundwater Assessment / Tier I Assessment Directive
Bid #SB-19189-4/30/02-EMW; PO #408994
Notice to Proceed

Dear Mr. Kennedy:

Based on the award of the referenced bid package, enclosed are the information packets to conduct two Initial Groundwater Assessments and two Tier I Assessments. The packets for each site contain all necessary approvals for work to begin. The facilities have been assigned individual Cost Agreement (CA) numbers as listed below. Please reference the CA numbers and Purchase Order #408994 on the appropriate invoices submitted for payment against the facilities. As specified in the referenced bid, **the completed invoice form and associated assessment report (include contract certification number) is expected on or before sixty days of the date of this letter.**

UST Permit #	Facility Name	County	Release #	Work Scope	CA#	Due Date	Amount Approved
08928	Hastie Service Station	Sumter	1	IGWA	17943	60 days from date of letter	$500.00
15803	W G Turbeville Grocery	Horry	1	IGWA	17944	60 days from date of letter	$300.00
04887	Warren Green Grocery	Jasper	1	Tier I	17475	60 days from date of letter	$2,861.90
17630	Marilyn's Gas Station	Richland	1	Tier I	18063	60 days from date of letter	$5,848.00

Geological Resources, Inc. will perform services at the facilities on behalf of the facility's owners/operators (O/O); however, payment will be made from the SUPERB Account. The facilities' O/Os have no obligation for payment for these scopes of work. **Please note, if there is any change in the established cost agreement amount (e.g., additional water supply wells sampled, additional well footage, etc.) contact the site's project manager for technical and/or financial approval. Failure to do so prior to submittal of invoice may result in delay of payment.**

The UST Program grants pre-approval for transportation of drums of virgin petroleum contaminated soil and drums of groundwater from the referenced sites to a permitted treatment facility. The contaminated soil and/or groundwater must be properly stored in labeled 55-gallon drums or equivalent containers. The contaminated soil and/or groundwater must be accepted by the approved treatment facility. There can be no spillage or leakage in transport. A copy of the disposal manifest from the receiving facility that clearly designates the quantity received **must** be included as an appendix to the final report.

If you have any questions or need further assistance, please contact me at (803) 896-6676 or (800) 826-5435 (within South Carolina only).

Sincerely,

Kimberly A. Wilson

Kimberly A. Wilson, P.G., Hydrogeologist
State Lead & Field Services Section
Assessment & Corrective Action Division

Enc.: Information Packets (4)
Monitoring Well Approval Forms (4)
Approved Cost Agreements (4)

cc: Willie Mae Hastie, 1033 W. Sherwood, Sumter, SC 29150 (w/out enc)
Jim Causey, 6010 Hwy 707, Myrtle Beach, SC 29575 (w/out enc)
Sean Murphy, 908 Jackson St, Myrtle Beach, SC 29577 (w/out enc)
Marilyn L. Mixon, PO Box 1491, Summerville, SC 29484-1491 (w/out enc)
Technical Files (w/MWA and ACA)
Read File (w/out enc)

DHEC/UST/01222003/KAW

D H E C

PROMOTE PROTECT PROSPER

2600 Bull Street
Columbia, SC 29201-1708

Monitoring Well Installation Approval Form

Date of Issue: January 22, 2003 Approval No.: UMW-16250

Approval is hereby granted to Geological Resources, Inc.
UST Permit #04887
Jasper County

This approval is for the construction of three permanent monitoring wells constructed in accordance with the South Carolina Well Standards and Regulations (R.61-71). The wells are to be completed within the uppermost aquifer for the intended purpose of monitoring ground-water quality and/or water level(s) at the referenced facility. Approval is provided with the following conditions:

3. The latitude and longitude, surveyed elevations, boring and/or geologist logs and actual (as built) construction details for each well be submitted to Kimberly A. Wilson of the UST Program, Bureau Land & Waste Management within thirty (30) days of completion (of last well(s) installed).

2. Each well shall be labeled with an identification plate constructed of a durable material affixed to the casing or surface pad where it is readily visible. The plate shall provide monitoring well I.D.#, date of construction, static water level, and driller name and state certification #.

3. Well construction and sampling derived waste including, but not necessarily limited to, drill cuttings, drilling fluids, development, and purge water should be managed properly and in compliance with applicable requirements. If containerized, each vessel should be clearly labeled with regard to contents, source, and date of activity.

4. **A minimum of forty-eight (48) hours prior to initiation of drilling activities, please provide notice to Kimberly A. Wilson at (803) 896-6676 or wilsonka@dhec.sc.gov.**

5. Please provide ground-water quality analytical data (chemical analysis and/or water level(s)) and associated measurements (i.e., in-situ field measurements) to Kimberly A. Wilson of the UST Program, Bureau Land & Waste Management within thirty (30) days of receipt from the laboratory.

10. Monitoring wells will be installed by or under the direct supervision of a licensed well driller certified by the State of South Carolina.

11. Monitoring wells will be abandoned by or under the direct supervision of a licensed well driller certified by the State of South Carolina. Monitoring wells may be abandoned only upon concurrence by this Department.

This approval is pursuant to the provisions of Section 44-55-40 of the 1976 South Carolina Code of Laws and the Department of Health and Environmental Control Regulations R.61-71. **Please remember to have a copy of this approval on the site during well installation.**

Approved by: Kimberly A. Wilson

Kimberly A. Wilson, P.G., Hydrogeologist
State Lead & Field Services Section
Assessment & Corrective Action Division
Underground Storage Tank Program
Bureau of Land & Waste Management

cc: Low Country District EQC
Technical File

SCDHEC/UST/01222003/KAW

Approved Cost Agreement 175

Facility: 04887 WARREN GREEN

KHATTAUK

PO Number: 408994

Task / Description	Categories	Item Description	Qty / Pct	Unit Price	Amount
10 SAMPLE COLLECTION					
		A GROUND WATER	2.0000	19.95	39.90
11 ANALYSES					
	GW GROUNDWATER	A BTEX+NAPTH+MTBE	2.0000	36.00	72.00
20 TIER I					
		TIER I	1.0000	2,750.00	2,750.00
			Total Amount		2,861.90

04887

D H E C

PROMOTE PROTECT PROSPER

C. Earl Hunter, Commissioner

Promoting and protecting the health of the public and the environment.

MS REBECCA MITCHUM
C/O TONY MITCHUM
449 GILMORE RD
YEMASSEE SC 29945

NOV 19 2007

Re: Analytical Report received November 13, 2007
Warren Green Grocery, 10773 W. Frontage Road, Yemassee, SC
Release Reported May 16, 2002
Jasper County

Dear Ms. Mitchum:

On November 8, 2007, personnel from the Underground Storage Tank (UST) Program of the South Carolina Department of Health and Environmental Control sampled your water supply well. I am happy to inform you that no petroleum chemicals of concern were detected. Periodic sampling will be conducted in the future.

If you have any questions, please contact me by phone at (803) 896-6395, by fax at (803) 896-6245, or by e-mail at johnsoms@dhec.sc.gov.

Sincerely,

Minda Johnson

Minda Johnson, Hydrogeologist
Assessment Section
Assessment and Corrective Action Division
Underground Storage Tank Program
Bureau of Land and Waste Management

Enc: Analytical Report

cc: Technical file (w/out enc.)

UST PROGRAM
DOCKETING # 5

Technical File

Geological Resources, Inc.

UST
50T
DOCKETING

March 28, 2003

Ms. Kimberly Wilson
Environmental Health Manager
Bureau of Underground Storage Tank Management
South Carolina Department of Health and Environmental Control
2600 Bull Street
Columbia, SC 29201-1708

Re: Warren Green Grocery
Site ID# 04887
CP # 17475; PO # 408994

Dear Ms. Wilson:

Please find enclosed two copies of the **original report** for the above referenced site.

The original invoice has been submitted to Ms. Pat Holland of the Finance Section as specified in the contract.

Sincerely,

Allison A. Engle

Allison A. Engle
Staff Scientist

RECEIVED
MAR 3 1 2003
UND... STORAGE
TANK PROGRAM

4913 Albemarle Road Suite 101 Charlotte, NC 28205
Phone: (704) 563-1663 / (888) 870-4133 Fax: (704) 563-1662
www.geologicalresourcesinc.com

RECEIVED

MAR 3 1 2003

UNDERGROUND STORAGE
TANK PROGRAM

TIER I ASSESSMENT REPORT
WARREN GREEN GROCERY
10773 WEST FRONTAGE ROAD
YEMASSEE, SOUTH CAROLINA
JASPER COUNTY
UST PERMIT #: 04887

Prepared For:

South Carolina Department of Health and Environmental Control
2600 Bull Street
Columbia, South Carolina 29201

Prepared By:

Geological Resources, Inc.
4913 Albemarle Road
Suite 101
Charlotte, North Carolina 28205

March 28, 2003

Allison A. Engle
Staff Scientist

Terry D. Kennedy, P.G.
License No. 2011

NORTH CAROLINA LICENSED GEOLOGIST SEAL 1435 TERRY D. KENNEDY

TIER I ASSESSMENT REPORT OF FINDINGS

I. INTRODUCTION

A. Owner/Operator Information

Name: Helen R. Smith

Address: Route 2, Box 814, Coosawhatche, South Carolina 29912

Telephone Number: (843) 726-8267

B. Property Owner Information

Name: Helen R. Smith

Address: Route 2, Box 814, Coosawhatche, South Carolina 29912

Telephone Number: (843) 726-8267

C. Contractor Information

Name: Geological Resources, Inc.

Address: 4913 Albemarle Road, Suite 101, Charlotte, North Carolina 28205

Telephone Number: (704) 563-1663

D. Site Information

Name: Warren Green Grocery

Address: 10773 West Frontage Road, Yemassee, South Carolina

Description of Adjacent Land Use: Residential

Predicted Future Land Use: Residential

E. Site History

Date Release Reported to SCDHEC: May 16, 2002

Estimated Quantity of Release: Unknown

Cause of Release: Unknown

UST No.	Product	Date Installed	Currently In Use?	Date Closed
1	Gasoline	Unknown	No	Inactive
2	Gasoline	Unknown	No	Inactive
3	Gasoline	Unknown	No	Inactive

Other releases at this site? Yes **No**

If yes, date reported to SCDHEC:

Status of release: NA

No further action date: NA

II SITE CHARACTERISTICS

A. Site Geography: The site is located at latitude 32^0 37' 42.2" North and longitude 80^0 53' 8.5" West. The structures on-site consists of an abandoned gas station and convenience store. Residential properties border the site on all sides except to the east were I-95 is located. The ground surface at the facility is covered by concrete in the UST area and dirt and gravel elsewhere.

Mean Elevation of Site: Approximately 16 feet above mean sea level.

Additional Comments: NA

B. Exposure Analysis

Describe all potential receptors and preferred pathways within a 1,000-foot radius of the site.

Description of Receptor	Distance/Direction from Source Area
Water Supply Well (WSW-1)	~150' west of the site
Water Supply Well (WSW-2)	~500' southwest of the site

Additional Comments: According to Ms. Lisa Lamb of the Jasper County Zoning Office, the area is zoned general commercial and there are no restrictions on the installation of water supply wells.

C. Utilities Survey

List the utilities on-site, and adjacent to the site within a 250-foot radius, that could serve as exposure points or ingestion pathways.

Utility	On-site or Distance/Direction from Site	Depth to Utility
Telephone	Adjacent to site along Frontage Road	3-4 feet

Additional Comments: No utilities are located in or near known areas of soil or ground water contamination and do not appear to have the potential to act as exposure points or ingestion pathways.

D. Site Geology

Provide a brief description of the regional geology and hydrogeology.

The Coastal Plain of the site is located in the coastal plain physiographic province of South Carolina is part of an extensive geologic province that roughly parallels the Atlantic Ocean and continues northward and southward through the neighboring states. In South Carolina, the Coastal Plain is expressed physiographically in three regional belts: The Upper Coastal Plain, The Middle Coastal Plain and the Lower Coastal Plain. The surface deposits in the Coastal Plain are generally characterized by a recurrent sequence of clean fine to medium sand, muddy fine sand, and clean to muddy, medium to coarse sand or gravelly sand. These textures represent changes in depositional environments from beach, to backbarrier, to river, respectively. The major aquifer systems in the Middle and Lower Coastal Plain are the Middendorf Aquifer System, the Black Creek Aquifer System, the Tertiary Aquifer System and the Surficial Aquifer System. The surficial aquifer system consists mostly of beds of unconsolidated sand, shelly sand and shell. In places, clay beds are sufficiently thick and continuous to divide the system into two or three aquifers. However, the system is mostly undivided. Complex interbedding of fine-and coarse-grained textured rocks is typical of the system. The thickness of the surficial aquifer system is typically less than 50 feet and thickens coastward. The rocks that comprise the surficial aquifer system range from late Miocene to Holocene in age.

Provide a brief description of the site specific geology and stratigraphy:

The site is underlain to a depth of approximately 2 to 3 feet by fine to medium sand. This horizon overlies a fine sandy clay layer ranging in thickness from 5 to 6 feet. A fine sandy silt layer underlies the horizons. The maximum depth of penetration during Tier I assessment activities was 15 feet. The percentages of sand, silt and clay in a soil sample collected from SB-5 at a depth of 3 feet were 66.2%, 28.0% and 5.6%, respectively. The depths to ground water in monitoring wells at the site ranged from 6.71 to 8.20 feet. Based on data obtained on February 25, 2003, the triangulated direction of ground water flow was toward the northwest.

E. Soil Boring Data

Drilling Date(s): 02/24/03

Provide a brief justification for the location of the soil borings.

SB-1 - Former UST Basin/Dispenser Island

SB-2 - Former UST Basin/Dispenser Island

SB-3 - Former UST Basin/Dispenser Island

SB-4 - Former UST Basin/Dispenser Island

SB-5 - Former UST Basin/Dispenser Island

SB-6 - Former UST Basin/Dispenser Island

SB-7 - Former UST Basin/Dispenser Island

SB-8 - Background boring

Background Boring:

Borehole: SB-8/ MW-3 Sampling Date: 02/24/03 Sample Depth: 3'

Sampling Interval	Field Screening Results (ppm)	Lithology	Soil Conditions
0-2'	NA	Brown moist silty fine sand.	Dry; no odor.
2-8'	NA	Reddish brown/grey fine sandy silt.	Moist; no odor.
8-12'	NA	Light brown silt.	Wet; no odor.
12-15'	NA	White fine to very fine sand.	Wet; no odor.

UST Area/Dispenser Island Borings:

Borehole: SB-1 Sampling Date: 02/24/03 Sample Depth: 3'

Sampling Interval	Field Screening Results (ppm)	Lithology	Soil Conditions
0-0.5'	NA	Light brown medium sand.	Dry; no odor.
0.5-5'	0.0 @ 3'	Brown/grey fine silty sand.	Moist; slight petroleum odor.

Borehole: SB- 2 Sampling Date: 02/24/03 Sample Depth: 3'

Sampling Interval	Field Screening Results (ppm)	Lithology	Soil Conditions
0-3'	4.8 @ 3'	Brown fine silty sand.	Dry; no odor.

Borehole: SB-3 Sampling Date:02/24/03 Sample Depth: 3'

Sampling Interval	Field Screening Results (ppm)	Lithology	Soil Conditions
0-1'	NA	Brown fine to coarse sand.	Wet; no odor.
1-3'	0.0 @ 3'	Reddish brown fine sandy silt.	Wet; no odor.

Borehole: SB-4 Sampling Date: 02/24/03 Sample Depth: 3'

Sampling Interval	Field Screening Results (ppm)	Lithology	Soil Conditions
0-1'	NA	Grey/black fine sand.	Moist; no odor.
1-3'	+2,000 @ 3'	Red brown fine sandy silt.	Moist; petroleum odor.

Borehole: SB-5/ MW-1 Sampling Date: 02/24/03 Sample Depth: 3'

Sampling Interval	Field Screening Results (ppm)	Lithology	Soil Conditions
0-2'	NA	Grey/black fine sand.	Dry; no odor.
2-7'	+2,000 @ 3'	Mottled red/brown/ grey fine sandy silt.	Wet; petroleum odor.
7-11'	NA	Light brown fine sandy silt.	Wet; petroleum odor.
11-13'	NA	Grey/white fine to very fine sand.	Wet; Petroleum odor.

Borehole: SB-6 Sampling Date: 02/24/03 Sample Depth: 3'

Sampling Interval	Field Screening Results (ppm)	Lithology	Soil Conditions
0-3'	+2,000 @ 3'	Brown green fine sandy silt.	Moist; petroleum odor.

Borehole: SB-7	Sampling Date: 02/24/03		Sample Depth: 3'
Sampling Interval	**Field Screening Results (ppm)**	**Lithology**	**Soil Conditions**
0-1'	NA	Brown fine sand.	Dry; petroleum odor.
1-3'	506 @ 3'	Dark brown fine sandy silt.	Moist; petroleum odor.

Soil Analytical Data (mg/kg):

COC	RBSL[1]	SB-1	SB-2	SB-3	SB-4	SB-5/ MW-1	SB-6	SB-7	SB-8/ MW-3
Benzene	0.007	0.0066	**0.0395**[2]	**0.009**	**5.96**	**22.6**	**1.7**	**0.0194**	NR[3]
Toluene	1.450	0.025	0.0377	0.0101	**142**	**405**	**33.2**	**2.55**	NR
Ethylbenzene	1.150	0.0047	0.0312	0.0028	**45.4**	**158**	**10.8**	0.0897	NR
Xylenes	14.500	0.0145	0.0211	0.0167	**278**	**877**	**65.5**	**19.9**	NR
Total BTEX	--	0.0508	0.1295	0.0386	471.36	1462.6	111.2	22.5591	NR
Naphthalene	0.036	<0.00424[4]	<0.00424	0.0313	**11.4**	**24.8**	**2.57**	**0.101**	NR
Benzo(a) anthracene	0.066	<0.066	<0.066	<0.066	<0.066	<0.079	<0.066	<0.066	NR
Benzo(b) fluoranthene	0.066	<0.066	<0.066	<0.066	<0.066	<0.079	<0.066	<0.066	NR
Benzo(k) fluoranthene	0.066	<0.066	<0.066	<0.066	<0.066	<0.079	<0.066	<0.066	NR
Chrysene	0.066	<0.066	<0.066	<0.066	<0.066	<0.079	<0.066	<0.066	NR
Dibenzo(a,h) anthracene	0.066	<0.066	<0.066	<0.066	<0.066	<0.079	<0.066	<0.066	NR
TPH 3550	--	NR	NR	NR	NR	121	NR	NR	NR
TOC (background boring)	--	NR	NR	NR	NR	NR	NR	NR	5,280

Notes:
1. May 2001 RBSLs for sandy soil for all separation distances.
2. Concentrations in bold face type exceeded the RBSL.
3. Analysis not requested.
4. Less than the report limit specified in the analytical report.

Discuss the horizontal and vertical extent of COC in soil.

Concentrations of benzene, that exceeded the RBSL were reported in soil samples collected from soil borings SB-2 through SB-7. In addition, concentrations that exceeded the RBSLs of toluene, ethylbenzene, xylenes and naphthalene were also reported in soil samples.

Additional Comments: NA

F. Chemicals of Concern - Ground Water

Well Installation Information

Well No.	Installation Date	Development Date	Sampling Date
MW-1	02/25/03	02/25/03	02/25/03
MW-2	02/25/03	02/25/03	02/25/03
MW-3	02/25/03	02/25/03	02/25/03

Soil Analytical Data - Monitoring Wells

Soil samples were collected from SB-5 and SB-8 during the installation of MW-1 and MW-3, respectively. Please refer to the table containing soil analytical data for the results of analyses.

Summary of Monitoring Well and Ground Water Data (feet)

Well No.	TOC Elevation	Depth to Water	Water Table Elevation	Screened Interval
MW-1	100.00	6.71	93.29	3-13'
MW-2	100.94	8.06	92.88	4-14'
MW-3	100.97	8.20	92.77	3-13'

Dissolved Oxygen Measurements (mg/L)

	MW-1	MW-2	MW-3
Dissolved Oxygen	1.9	4.2	4.6

Ground Water Analytical Data[1]

COC	RBSL	MW-1	MW-2	MW-3	WSW-1	WSW-2
Free Product Thickness	---	---	---	---	---	---
Benzene	5	**178**[2]	<1.0[3]	<1.0	NS[4]	<1.0
Toluene	1,000	240	<1.0	1.6	NS	<1.0
Ethylbenzene	700	58.6	<1.0	<1.0	NS	<1.0
Xylenes	10,000	253	<1.0	1.7	NS	<1.0
Total BTEX	---	729.6	<4.0	3.3	NS	<4.0
MTBE	40	**71.0**	2.6	1.5	NS	<1.0
Naphthalene	25	<5.00	<5.00	<5.00	NS	<5.00
EDB	0.05	<0.02	<0.02	<0.02	NS	<0.02
Benzo(a)anthracene	10	<2.3	<2.2	<2.0	NS	NR[5]
Benzo(b)fluoranthene	10	<2.3	<2.2	<2.0	NS	NR
Benzo(k)fluoranthene	10	<2.3	<2.2	<2.0	NS	NR
Chrysene	10	<2.3	<2.2	<2.0	NS	NR
Dibenzo(a,h)anthrace	10	<2.3	<2.2	<2.0	NS	NR
Total Lead	15	**124**	**57.0**	**86.0**	NS	<3.0
Methane	---	<26	<26	<26	NS	NR
Nitrate	---	<0.100	0.150	<0.100	NS	NR
Sulfate	---	1.51	6.57	7.37	NS	NR
Ferrous Iron	---	9.700	4.410	6.750	NS	NR

Notes:
1. COC concentrations reported in μg/l; natural attenuation parameter concentrations reported in mg/l.
2. Concentrations in bold face type exceeded the RBSLs.
3. Less than the report limit specified in the analytical report.
4. Not sampled; well was not operating.
5. Analysis not requested.

Additional Comments: NA

G. **Aquifer Characteristics**

Hydraulic Conductivity: 5.294×10^{-6} to 1.856×10^{-5} feet/minute (0.008 to 0.027 feet/day)
Hydraulic Gradient: 0.0048 feet/foot
Effective Porosity: 0.20%
Estimated Seepage Velocity: 6.3×10^{-4} to 1.84×10^{-4} feet/day (0.067 to 0.23 feet/year)

II. <u>TIER I EVALUATION</u>

A. Current Land Use

Identify any potential receptors or human exposure pathways (e.g. basements, contaminated soils from UST closures, etc.) within a 1,000-foot radius for current land use.

Media (For Exposure)	Exposure Route	Pathway Selected for Evaluation (Yes/No)	Exposure Point or Reason for Non-Selection	Data Requirements (IF Pathway Selected)
Air	Inhalation Explosion Hazard	Yes **<u>No</u>** Yes **<u>No</u>**	Utilities do not intersect known areas of soil or ground water contamination.	None
Ground Water	Ingestion Dermal Contact Volatile Inhalation	**<u>Yes</u>** No **<u>Yes</u>** No **<u>Yes</u>** No	Water supply wells were identified within a 1,000-foot radius of the source area.	Tier II Assessment
Surface Water	Ingestion Dermal Contact Volatile Inhalation	Yes **<u>No</u>** Yes **<u>No</u>** Yes **<u>No</u>**	No surface water bodies were identified within a 1,000-foot radius of the source area.	None
Surficial Soil	Ingestion Dermal Contact Volatile Inhalation Leaching to Ground Water	**<u>Yes</u>** No **<u>Yes</u>** No **<u>Yes</u>** No **<u>Yes</u>** No	COC concentrations of benzene exceed RBSLs for ingestion, dermal contact and inhalation; ground water has been affected by the release.	Additional soil assessment; soil leachability model.
Subsurface Soil	Ingestion Dermal Contact Volatile Inhalation Leaching to Ground Water	**<u>Yes</u>** No **<u>Yes</u>** No **<u>Yes</u>** No **<u>Yes</u>** No	COC concentrations of benzene exceed RBSLs for ingestion, dermal contact and inhalation; ground water has been affected by the release.	Additional soil assessment; soil leachability model.

B. Future Land Use

Identify any potential receptors or human exposure pathways (e.g. basements, contaminated soils from UST closures, etc.) within a 1,000-foot radius for future land use.

Media (For Exposure)	Exposure Route	Pathway Selected for Evaluation (Yes/No)	Exposure Point or Reason for Non-Selection	Data Requirements (IF Pathway Selected)
Air	Inhalation Explosion Hazard	Yes **No** Yes **No**	Utilities do not intersect known areas of soil or ground water contamination.	
Ground Water	Ingestion Dermal Contact Volatile Inhalation	**Yes** No **Yes** No **Yes** No	Water supply wells were identified within a 1,000-foot radius of the source area.	Tier II Assessment
Surface Water	Ingestion Dermal Contact Volatile Inhalation	Yes **No** Yes **No** Yes **No**	No surface water bodies were identified within a 1,000-foot radius of the source area.	None
Surficial Soil	Ingestion Dermal Contact Volatile Inhalation Leaching to Ground Water	Yes **No** Yes **No** Yes **No** Yes **No**	COC concentrations of benzene exceed RBSLs for ingestion, dermal contact and inhalation; ground water has been affected by the release.	Additional soil assessment; soil leachability model.
Surficial Soil	Ingestion Dermal Contact Volatile Inhalation Leaching to Ground Water	Yes **No** Yes **No** Yes **No** Yes **No**	COC concentrations of benzene exceed RBSLs for ingestion, dermal contact and inhalation; ground water has been affected by the release.	Additional soil assessment; soil leachability model.

Recommendations for Further Action:

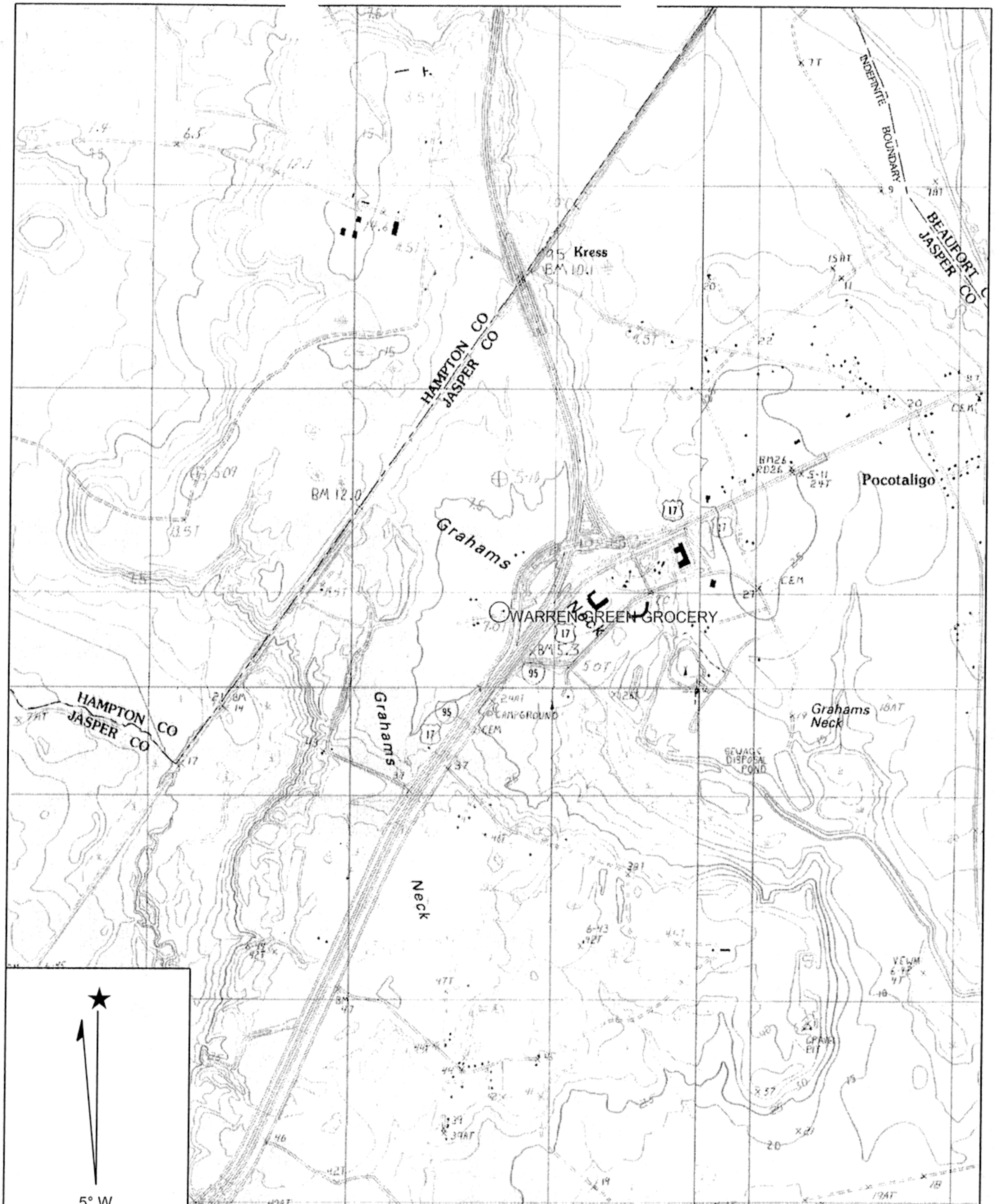
Concentrations of benzene, toluene, ethylbenzene, xylenes and naphthalene that exceeded the RBSLs were reported in soil samples collected at the site. Detectable concentrations of benzene and MTBE were reported in ground water samples collected from monitoring well, MW-1, installed during the Tier I assessment activities. In addition, concentrations of lead in ground water samples collected from all three monitoring wells exceeded the RBSL. However, no chemicals of concern were reported in the ground water sample collected from WSW-2. Please note that WSW-1 could not be sampled and there are no restrictions in place to prevent the installation of other water supply wells in the area. Therefore, additional assessment is recommended.

Attachments:

Figures:
Figure 1: USGS Topographic Map
Figure 2: Water Supply Well Location Map
Figure 3: Site Map
Figure 4: Soil Quality Map
Figure 5: Ground Water Quality Map

Appendices:
Appendix A: Soil Boring Logs
Appendix B: Well Construction Records
Appendix C: Laboratory Reports
Appendix D: Slug Test Data
Appendix E: Certificate of Disposal
Appendix F: Berkeley County Zoning Officials
Appendix G: Adjacent Property Owner Information and Tax Map

FIGURES



Name: MC PHERSONVILLE
Date: 3/17/103
Scale: 1 inch equals 2000 feet

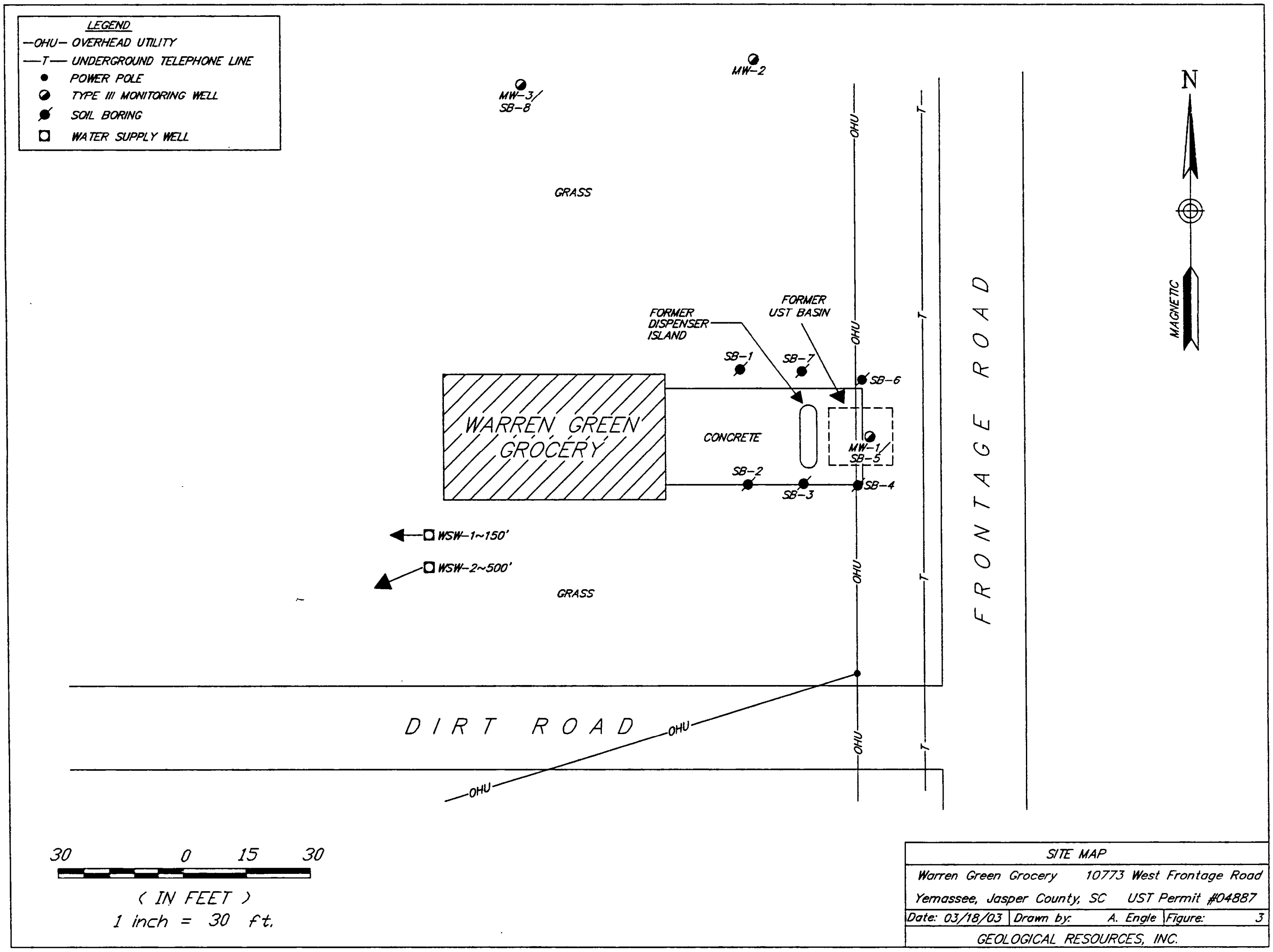
Location: 032° 37' 42.2" N 080° 53' 08.5" W
Caption: SITE LOCATION MAP
Warren Green Grocery
Figure 1 UST Permit #04887

WATER SUPPLY WELL LOCATION MAP

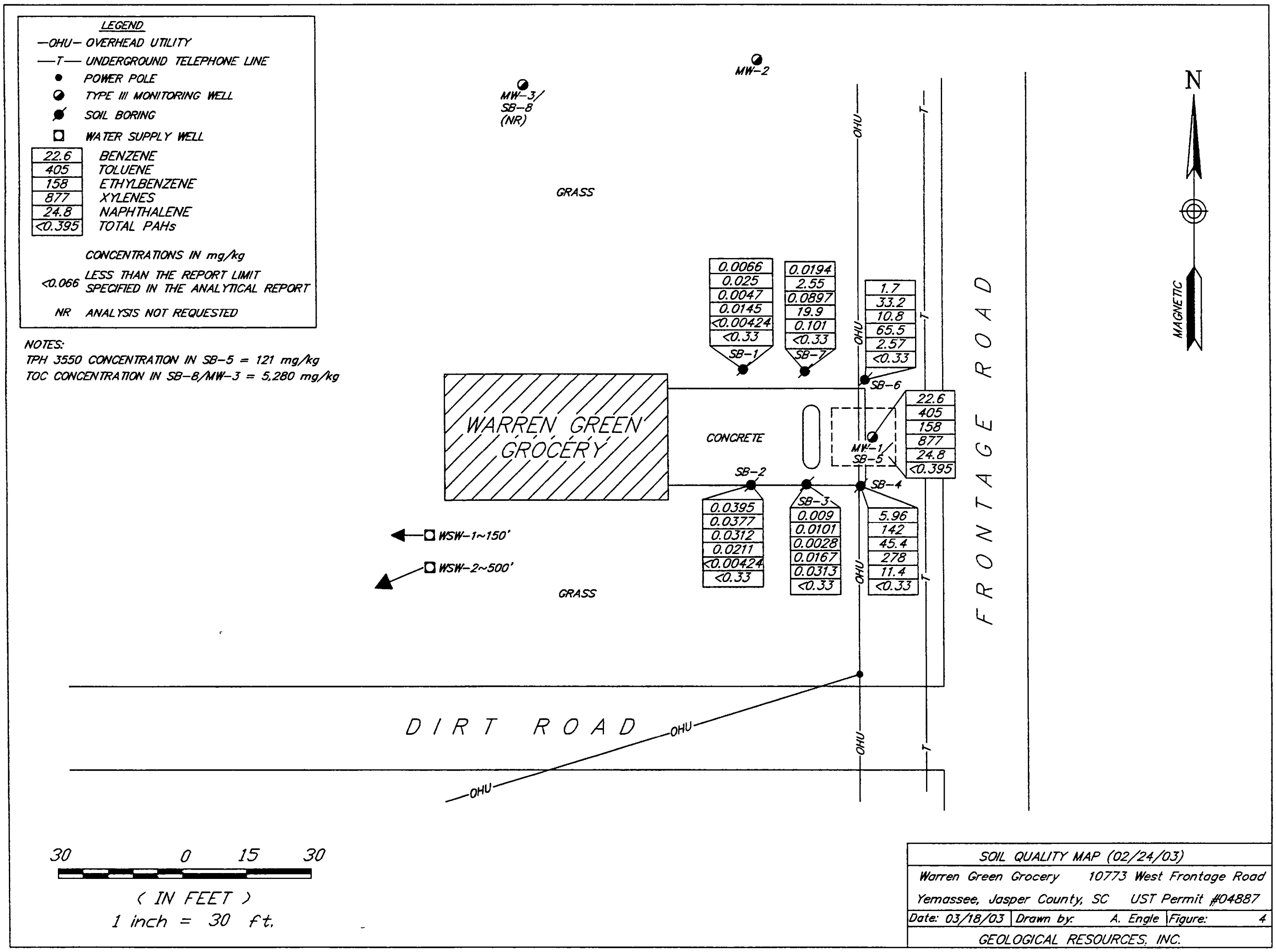
Warren Green Grocery 10773 West Frontage Road

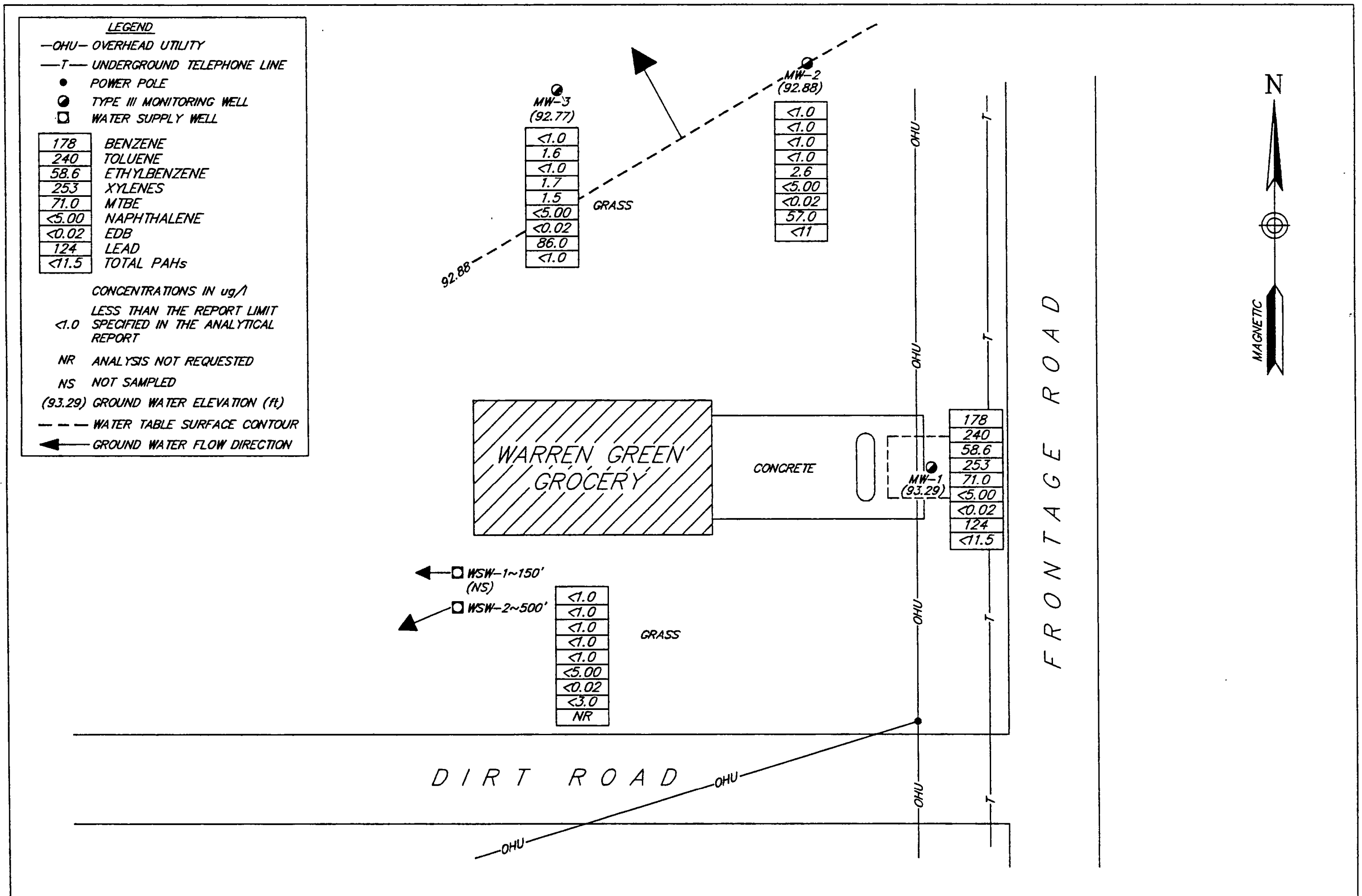
Yemassee, Jasper County, SC UST Permit #04887

Date: 03/18/03 Drawn by: A. Engle Figure: 2



SITE MAP			
Warren Green Grocery 10773 West Frontage Road			
Yemassee, Jasper County, SC UST Permit #04887			
Date: 03/18/03	Drawn by: A. Engle	Figure: 3	
GEOLOGICAL RESOURCES, INC.			


LEGEND
—OHU— OVERHEAD UTILITY
—T— UNDERGROUND TELEPHONE LINE
POWER POLE
TYPE III MONITORING WELL
SOIL BORING
WATER SUPPLY WELL
22.6 BENZENE
405 TOLUENE
158 ETHYLBENZENE
877 XYLENES
24.8 NAPHTHALENE
<0.395 TOTAL PAHs
CONCENTRATIONS IN mg/kg
<0.066 LESS THAN THE REPORT LIMIT SPECIFIED IN THE ANALYTICAL REPORT
NR ANALYSIS NOT REQUESTED
NOTES:
TPH 3550 CONCENTRATION IN SB-5 = 121 mg/kg
TOC CONCENTRATION IN SB-8/MW-3 = 5,280 mg/kg
MW-3/ SB-8 (NR)
MW-2
GRASS
SB-1: 0.0066 / 0.025 / 0.0047 / 0.0145 / <0.00424 / <0.33
SB-7: 0.0194 / 2.55 / 0.0897 / 19.9 / 0.101 / <0.33
SB-6: 1.7 / 33.2 / 10.8 / 65.5 / 2.57 / <0.33
MW-1/ SB-5: 22.6 / 405 / 158 / 877 / 24.8 / <0.395
SB-2: 0.0395 / 0.0377 / 0.0312 / 0.0211 / <0.00424 / <0.33
SB-3: 0.009 / 0.0101 / 0.0028 / 0.0167 / 0.0313 / <0.33
SB-4: 5.96 / 142 / 45.4 / 278 / 11.4 / <0.33
WARREN GREEN GROCERY
CONCRETE
WSW-1~150'
WSW-2~500'
GRASS
OHU
T
FRONTAGE ROAD
DIRT ROAD
N
MAGNETIC
30 0 15 30
(IN FEET)
1 inch = 30 ft.
SOIL QUALITY MAP (02/24/03)
Warren Green Grocery 10773 West Frontage Road
Yemassee, Jasper County, SC UST Permit #04887
Date: 03/18/03 Drawn by: A. Engle Figure: 4
GEOLOGICAL RESOURCES, INC.



GROUND WATER QUALITY MAP (02/25/03)		
Warren Green Grocery 10773 West Frontage Road		
Yemassee, Jasper County, SC UST Permit #04887		
Date: 03/18/03	Drawn by: A. Engle	Figure: 5
GEOLOGICAL RESOURCES, INC.		

APPENDICES

APPENDIX A
SOIL BORING LOGS

Geological Resources, Inc.
4913 Albemarle Road, Suite 101
Charlotte, NC 28205
Phone (704) 563-1663
Fax (704) 563-1662

SUBSURFACE LOG

Project: Warren Green Grocery
Location: 10773 West Frontage Road, Yemassee, SC
Boring No.: SB-1
Date Drilled: 02/24/03
Sample Method: Grab sample
Drilling Method: 5.5" SSA
Completion Details: Abandoned
Driller: Hollis Keech
Log By: Joel Lenk

Depth	Well Construction	Sample Interval (feet)	OVA Reading (ppm)	LITHOLOGY
0		0-0.5		Light brown medium sand; dry; no petroleum odor.
2			0.0	Brown grey fine silty sand; moist; slight petroleum odor.
4		0.5-5		
6				
8				
10				
12				
14				
16				
18				
20				
22				
24				
26				
28				
30				
32				
34				
36				
38				
40				

LEGEND: Sand Bentonite Grout

Geological Resources, Inc.
4913 Albemarle Road, Suite 101
Charlotte, NC 28205
Phone (704) 563-1663
Fax (704) 563-1662

SUBSURFACE LOG

Project Warren Green Grocery
Location 10773 West Frontage Road, Yemassee, SC
Boring No. SB-2 Date Drilled 02/24/03
Sample Method Grab sample Drilling Method 5.5" SSA
Completion Details Abandoned
Driller Hollis Keech Log By Joel Lenk

Depth	Well Construction	Sample Interval (feet)	OVA Reading (ppm)	LITHOLOGY
0				Brown fine silty sand; dry; no odor.
2		0-3	4.8	
4				
6				
8				
10				
12				
14				
16				
18				
20				
22				
24				
26				
28				
30				
32				
34				
36				
38				
40				

LEGEND: Sand Bentonite Grout

Geological Resources, Inc.
4913 Albemarle Road, Suite 101
Charlotte, NC 28205
Phone (704) 563-1663
Fax (704) 563-1662

SUBSURFACE LOG

Project Warren Green Grocery

Location 10773 West Frontage Road, Yemassee, SC

Boring No. SB-3 Date Drilled 02/24/03

Sample Method Grab sample Drilling Method 5.5" SSA

Completion Details Abandoned

Driller Hollis Keech Log By Joel Lenk

Depth	Well Construction	Sample Interval (feet)	OVA Reading (ppm)	LITHOLOGY
0		0-1		Brown fine to coarse sand; wet; no odor.
2		1-3	0.0	Reddish brown fine sandy silt; wet; no odor.
4				
6				
8				
10				
12				
14				
16				
18				
20				
22				
24				
26				
28				
30				
32				
34				
36				
38				
40				

LEGEND: Sand Bentonite Grout

Geological Resources, Inc.
4913 Albemarle Road, Suite 101
Charlotte, NC 28205
Phone (704) 563-1663
Fax (704) 563-1662

SUBSURFACE LOG

Project Warren Green Grocery
Location 10773 West Frontage Road, Yemassee, SC
Boring No. SB-4 Date Drilled 02/24/03
Sample Method Grab sample Drilling Method 5.5" SSA
Completion Details Abandoned
Driller Hollis Keech Log By Joel Lenk

Depth	Well Construction	Sample Interval (feet)	OVA Reading (ppm)	LITHOLOGY
0		0-1		Grey black fine sand; moist; no odor.
2		1-3	+2,000	Red brown fine sandy silt; moist; petroleum odor.
4				
6				
8				
10				
12				
14				
16				
18				
20				
22				
24				
26				
28				
30				
32				
34				
36				
38				
40				

LEGEND: Sand Bentonite Grout

Geological Resources, Inc.
4913 Albemarle Road, Suite 101
Charlotte, NC 28205
Phone (704) 563-1663
Fax (704) 563-1662

SUBSURFACE LOG

Project: Warren Green Grocery
Location: 10773 West Frontage Road, Yemassee, SC
Boring No.: SB-5
Date Drilled: 02/24/03
Sample Method: Grab sample
Drilling Method: 5.5" SSA
Completion Details: Completed as MW-1
Driller: Hollis Keech
Log By: Joel Lenk

Depth	Well Construction	Sample Interval (feet)	OVA Reading (ppm)	LITHOLOGY
0				Grey black fine sand; dry; no odor.
2		0-2	+2,000	
4				Mottled red/brown/grey fine sandy silt; wet; petroleum odor.
6		2-7		
8				Light brown fine sandy silt; wet; petroleum odor.
10		7-11		
12		11-13		Grey white fine to very fine sand; wet; petroleum odor.
14				
16				
18				
20				
22				
24				
26				
28				
30				
32				
34				
36				
38				
40				

LEGEND: Sand Bentonite Grout

Geological Resources, Inc.
4913 Albemarle Road, Suite 101
Charlotte, NC 28205

Phone (704) 563-1663
Fax (704) 563-1662

SUBSURFACE LOG

Project: Warren Green Grocery
Location: 10773 West Frontage Road, Yemassee, SC
Boring No.: SB-6
Date Drilled: 02/24/03
Sample Method: Grab sample
Drilling Method: 5.5" SSA
Completion Details: Abandoned
Driller: Hollis Keech
Log By: Joel Lenk

Depth	Well Construction	Sample Interval (feet)	OVA Reading (ppm)	LITHOLOGY
0				Brown green fine sandy silt; moist; petroleum odor.
2		0-3	+2,000	
4				
6				
8				
10				
12				
14				
16				
18				
20				
22				
24				
26				
28				
30				
32				
34				
36				
38				
40				

LEGEND: Sand, Bentonite, Grout

Geological Resources, Inc.
4913 Albemarle Road, Suite 101
Charlotte, NC 28205
Phone (704) 563-1663
Fax (704) 563-1662

SUBSURFACE LOG

Project Warren Green Grocery
Location 10773 West Frontage Road, Yemassee, SC
Boring No. SB-7 Date Drilled 02/24/03
Sample Method Grab Drilling Method 5.5" SSA
Completion Details Abandoned
Driller Hollis Keech Log By Joel Lenk

Depth	Well Construction	Sample Interval (feet)	OVA Reading (ppm)	LITHOLOGY
0		0-1'		Brown fine sand; dry; petroleum odor.
2		1-3'	506	Dark brown fine sandy silt; moist; petroleum odor.
4				
6				
8				
10				
12				
14				
16				
18				
20				
22				
24				
26				
28				
30				
32				
34				
36				
38				
40				

LEGEND: Sand Bentonite Grout

Geological Resources, Inc.
4913 Albemarle Road, Suite 101
Charlotte, NC 28205

Phone (704) 563-1663
Fax (704) 563-1662

SUBSURFACE LOG

Project: Warren Green Grocery
Location: 10773 West Frontage Road, Yemassee, SC
Boring No.: SB-8
Date Drilled: 02/24/03
Sample Method: Grab
Drilling Method: 5.5" SSA
Completion Details: Completed as MW-8
Driller: Hollis Keech
Log By: Joel Lenk

Depth	Well Construction	Sample Interval (feet)	OVA Reading (ppm)	LITHOLOGY
0				Brown silty fine sand; dry; no odor.
2		0-2		
4				Reddish brown grey fine sandy silt; moist; no odor.
6				
8		2-8		
10				Light brown silt; wet; no odor.
12		8-12		
14		12-15		White fine to very fine sand; wet; no odor.
16				
18				
20				
22				
24				
26				
28				
30				
32				
34				
36				
38				
40				

LEGEND: Sand Bentonite Grout

APPENDIX B
WELL CONSTRUCTION RECORDS

Water Well Record
Bureau of Water
2600 Bull Street, Columbia, SC 29201-1708; (803) 898-4300

1. WELL OWNER INFORMATION:
Name: Smith (last) Helen (first)
Address: Route 2, Box 814
City: Coosawhatchie State: SC Zip: 29912
Telephone: Work: Home: 843-726-8267

LOCATION OF WELL:
Name: Warren Green Grocery
Street Address: 10773 West Frontage Road
City: Yemassee, SC Zip:
COUNTY: Jasper
Latitude: 032°37'42.2" N Longitude: 080°53'08.5" W

3. SYSTEM NAME: Warren Green Grocery **SYSTEM NUMBER:** MW-1

4. CUTTING SAMPLES: ☐ Yes ☒ No
Geophysical Logs: ☐ Yes (please enclose) ☒ No

Formation Description:	Thickness of Stratum	Depth to Bottom of Stratum
Grey /black fine sand.	2'	2'
Mottled red/brown/grey fine sandy clay.	5'	7'
Light brown fine sandy silt.	4'	11'
Grey white fine to very fine sand.	2'	13'
*Indicate Water Bearing Zones (Use a 2nd sheet if needed)		

5. REMARKS: Bentonite from 0.5 to 1 ft.

6. PERMIT NUMBER: UMW-16931

7. USE:
☐ Residential ☐ Public Supply ☐ Process
☐ Irrigation ☐ Air Conditioning ☐ Emergency
☐ Test Well ☒ Monitor Well ☐ Replacement

8. WELL DEPTH (completed) 13 ft. Date Started: 02/25/03 Date Completed: 02/25/03

9. ☐ Mud Rotary ☐ Jetted ☒ Bored
☐ Dug ☐ Air Rotary ☐ Driven
☐ Cable tool ☐ Other

10. CASING: ☒ Threaded ☐ Welded
Diam.: 2"
Type: ☒ PVC ☐ Galvanized ☐ Steel ☐ Other
0 in. to 3 ft. depth
in. to ft. depth
Height: Above/Below Surface 0 ft.
Weight Sch. 40 lb./ft.
Drive Shoe? ☐ Yes ☒ No

11. SCREEN
Type: PVC Diam.: 2"
Slot/Gauge: 0.01 Length: 10 ft.
Set Between: 3 ft. and 13 ft.
ft. and ft.
Sieve Analysis Yes (please enclose) No

12. STATIC WATER LEVEL
6.71 ft. below land surface after 24 hours

13. PUMPING LEVEL Below Land Surface.
ft. after hrs. Pumping G.P.M.
Pumping Test: ☐ Yes (please enclose) ☒ No
Yield:

14. WATER QUALITY
Chemical Analysis ☒ Yes ☐ No Bacterial Analysis ☐ Yes ☒ No
Please enclose lab results.

15. ARTIFICIAL FILTER (filter pack) ☒ Yes ☐ No
Installed from 1 ft. to 12 ft.
Effective size 2 Uniformity Coefficient

16. WELL GROUTED? ☒ Yes ☐ No
☒ Neat Cement ☐ Sand Cement ☐ Concrete ☐ Other
Depth: From 0 ft. to 0.5 ft.

17. NEAREST SOURCE OF POSSIBLE CONTAMINATION:
150 ft. west direction
Type well disinfected ☐ Yes Type:
upon completion ☐ No Amount:

18. PUMP: Date installed: Not installed
Mfr. Name: Model No.:
H.P. Volts Length of drop pipe ft. Capacity gpm
TYPE: ☐ Submersible ☐ Jet (shallow) ☐ Turbine
☐ Jet (deep) ☐ Reciprocating ☐ Centrifugal

19. WELL DRILLER: CERT. NO.: 836
Address: 4913 Albemarle Road, Suite 101, Charlotte, NC 28205
Telephone No.: 704-563-1663

WATER WELL CONTRACTORS CERTIFICATION:
This well was drilled under my direction and this report is true to the best of my knowledge and belief.
Signed: [signature] Date: 2/25/03
Authorized Representative

COPY 1 MAIL TO: S.C. DEPARTMENT OF HEALTH AND ENVIRONMENTAL CONTROL (ADDRESS ABOVE)

Water Well Record
Bureau of Water
2600 Bull Street, Columbia, SC 29201-1708; (803) 898-4300

1. WELL OWNER INFORMATION:
Name: Smith (last) Helen (first)
Address: Route 2, Box 814
City: Coosawhatchie State: SC Zip: 29912
Telephone: Work: Home: 843-726-8267

LOCATION OF WELL:
Name: Warren Green Grocery
Street Address: 10773 West Frontage Road
City: Yemassee, SC Zip:
COUNTY: Jasper
Latitude: 032° 37'42.2" N Longitude: 080° 53'08.5" W

3. SYSTEM NAME: Warren Green Grocery **SYSTEM NUMBER:** MW-2

4. CUTTING SAMPLES: ☐ Yes ☒ No
Geophysical Logs: ☐ Yes (please enclose) ☒ No

Formation Description:	Thickness of Stratum	Depth to Bottom of Stratum
Grey/black fine sand.	2'	2'
Red/grey/brown fine sandy silt.	6'	8'
Light brown fine sandy silt.	6'	14'
*Indicate Water Bearing Zones (Use a 2nd sheet if needed)		

5. REMARKS: Bentonite from 0.5 to 2 ft.

6. PERMIT NUMBER: UMW-16931

7. USE:
☐ Residential ☐ Public Supply ☐ Process
☐ Irrigation ☐ Air Conditioning ☐ Emergency
☐ Test Well ☒ Monitor Well ☐ Replacement

8. WELL DEPTH (completed) 14 ft.
Date Started: 02/25/03
Date Completed: 02/25/03

9. ☐ Mud Rotary ☐ Jetted ☒ Bored
☐ Dug ☐ Air Rotary ☐ Driven
☐ Cable tool ☐ Other

10. CASING: ☒ Threaded ☐ Welded
Diam.: 2"
Type: ☒ PVC ☐ Galvanized ☐ Steel ☐ Other
0 in. to 4 ft. depth
in. to ft. depth
Height: Above/Below Surface 0 ft.
Weight Sch. 40 lb./ft.
Drive Shoe? ☐ Yes ☒ No

11. SCREEN
Type: PVC Diam.: 2"
Slot/Gauge: 0.01 Length: 10 ft.
Set Between: 4 ft. and 14 ft.
ft. and ft.
Sieve Analysis Yes (please enclose) No

12. STATIC WATER LEVEL
8.06 ft. below land surface after 24 hours

13. PUMPING LEVEL Below Land Surface.
ft. after hrs. Pumping G.P.M.
Pumping Test: ☐ Yes (please enclose) ☒ No
Yield:

14. WATER QUALITY
Chemical Analysis ☒ Yes ☐ No Bacterial Analysis ☐ Yes ☒ No
Please enclose lab results.

15. ARTIFICIAL FILTER (filter pack) ☒ Yes ☐ No
Installed from 2 ft. to 14 ft.
Effective size 2 Uniformity Coefficient

16. WELL GROUTED? ☒ Yes ☐ No
☒ Neat Cement ☐ Sand Cement ☐ Concrete ☐ Other
Depth: From 0 ft. to 0.5 ft.

17. NEAREST SOURCE OF POSSIBLE CONTAMINATION:
150 ft. west direction
Type well disinfected ☐ Yes Type:
upon completion ☐ No Amount:

18. PUMP: Date installed: Not installed
Mfr. Name: Model No.:
H.P. Volts Length of drop pipe ft. Capacity gpm
TYPE: ☐ Submersible ☐ Jet (shallow) ☐ Turbine
☐ Jet (deep) ☐ Reciprocating ☐ Centrifugal

19. WELL DRILLER: CERT. NO.: 836
Address: 4913 Albemarle Road, Suite 101, Charlotte, NC 28205
Telephone No.: 704-563-1663

WATER WELL CONTRACTORS CERTIFICATION:
This well was drilled under my direction and this report is true to the best of my knowledge and belief.

Signed: [signature] Date: 3/25/03
Authorized Representative

COPY 1 MAIL TO: S.C. DEPARTMENT OF HEALTH AND ENVIRONMENTAL CONTROL (ADDRESS ABOVE)

Water Well Record
Bureau of Water
2600 Bull Street, Columbia, SC 29201-1708; (803) 898-4300

1. WELL OWNER INFORMATION:
Name: Smith (last) Helen (first)
Address: Route 2, Box 814
City: Coosawhatchie State: SC Zip: 29912
Telephone: Work: Home: 843-726-8267

LOCATION OF WELL:
Name: Warren Green Grocery
Street Address: 10773 West Frontage Road
City: Yemassee, SC Zip:
COUNTY: Jasper
Latitude: 032°37'42.2" N Longitude: 080°53'08.5" W

3. SYSTEM NAME: Warren Green Grocery **SYSTEM NUMBER:** MW-3

4. CUTTING SAMPLES: ☐ Yes ☒ No
Geophysical Logs: ☐ Yes (please enclose) ☒ No

Formation Description:	Thickness of Stratum	Depth to Bottom of Stratum
Brown silty fine sand.	2'	2'
Reddish brown and grey fine sandy silt	6'	8'
Light brown silt.	4'	12'
White fine to very fine sand.	3'	13'
*Indicate Water Bearing Zones (Use a 2nd sheet if needed)		

5. REMARKS: Bentonite from 0.5 to 1 ft.

6. PERMIT NUMBER: UMW-16931

7. USE:
☐ Residential ☐ Public Supply ☐ Process
☐ Irrigation ☐ Air Conditioning ☐ Emergency
☐ Test Well ☒ Monitor Well ☐ Replacement

8. WELL DEPTH (completed) 13 ft. Date Started: 02/25/03 Date Completed: 02/25/03

9. ☐ Mud Rotary ☐ Jetted ☒ Bored ☐ Dug ☐ Air Rotary ☐ Driven ☐ Cable tool ☐ Other

10. CASING: ☒ Threaded ☐ Welded
Diam.: 2"
Type: ☒ PVC ☐ Galvanized ☐ Steel ☐ Other
0 in. to 3 ft. depth
____ in. to ____ ft. depth
Height: Above/Below Surface 0 ft.
Weight Sch. 40 lb./ft.
Drive Shoe? ☐ Yes ☒ No

11. SCREEN
Type: PVC Diam.: 2"
Slot/Gauge: 0.01 Length: 10 ft.
Set Between: 3 ft. and 13 ft.
____ ft. and ____ ft.
Sieve Analysis Yes (please enclose) No

12. STATIC WATER LEVEL
8.20 ft. below land surface after 24 hours

13. PUMPING LEVEL Below Land Surface.
____ ft. after ____ hrs. Pumping ____ G.P.M.
Pumping Test: ☐ Yes (please enclose) ☒ No
Yield: ____

14. WATER QUALITY
Chemical Analysis ☒ Yes ☐ No Bacterial Analysis ☐ Yes ☒ No
Please enclose lab results.

15. ARTIFICIAL FILTER (filter pack) ☒ Yes ☐ No
Installed from 1 ft. to 12 ft.
Effective size 2 Uniformity Coefficient ____

16. WELL GROUTED? ☒ Yes ☐ No
☒ Neat Cement ☐ Sand Cement ☐ Concrete ☐ Other ____
Depth: From 0 ft. to 0.5 ft.

17. NEAREST SOURCE OF POSSIBLE CONTAMINATION:
150 ft. west direction
____ Type well disinfected ☐ Yes Type: ____
____ upon completion ☐ No Amount: ____

18. PUMP: Date installed: ____ Not installed
Mfr. Name: ____ Model No.: ____
H.P. ___ Volts ____ Length of drop pipe ____ ft. Capacity ____ gpm
TYPE: ☐ Submersible ☐ Jet (shallow) ☐ Turbine ☐ Jet (deep) ☐ Reciprocating ☐ Centrifugal

19. WELL DRILLER: CERT. NO.: 836
Address: 4913 Albemarle Road, Suite 101, Charlotte, NC 28205
Telephone No.: 704-563-1663

WATER WELL CONTRACTORS CERTIFICATION:
This well was drilled under my direction and this report is true to the best of my knowledge and belief.

Signed: [signature] Date: 2/25/03
Authorized Representative

COPY 1 MAIL TO: S.C. DEPARTMENT OF HEALTH AND ENVIRONMENTAL CONTROL (ADDRESS ABOVE)

APPENDIX C
LABORATORY REPORTS

TESTAMERICA,INC.-NASHVILLE

COOLER RECEIPT FORM

Client: Geological Resources BC# 321799

Cooler Received On: 2/27/03 And Opened On: 2/27/03 By: MARVIN BLUMHOEFER

Marvin Blumhoefer
(Signature)

1. Temperature of Cooler when opened 4.0 Degrees Celsius
2. Were custody seals on outside of cooler?......YES NO N/A
   a. If yes, how many, what kind and where: 1 front
   b. Were the seals intact, signed, and dated correctly?......YES NO N/A
3. Were custody seals on containers and intact?......NO YES N/A
4. Were custody papers inside cooler?......YES NO N/A
5. Were custody papers properly filled out (ink,signed,etc)?......YES NO N/A
6. Did you sign the custody papers in the appropriate place?......YES NO N/A
7. What kind of packing material used? Bubblewrap Peanuts Vermiculite Other None
8. Was sufficient ice used (if appropriate)?......YES NO N/A
9. Did all bottles arrive in good condition(unbroken)?......YES NO N/A
10. Were all bottle labels complete (#,date,signed,pres,etc)?......YES NO N/A
11. Did all bottle labels and tags agree with custody papers?......YES NO N/A
12. Were correct bottles used for the analysis requested?......YES NO N/A
13. a. Were VOA vials received?......YES NO N/A
    b. Was there any observable head space present in any VOA vial?......NO YES N/A
14. Was sufficient amount of sample sent in each bottle?......YES NO N/A
15. Were correct preservatives used?......YES NO N/A
    If not, record standard ID of preservative used here______
16. Was residual chlorine present?......NO YES N/A
17. Corrective action taken, if necessary:

See attached for resolution

TestAmerica
INCORPORATED

3/11/03

GEOLOGICAL RESOURCES 2110
JOHN BROWN
4913 ALBEMARLE RD
CHARLOTTE, NC 28205

This report includes the analytical certificates of analysis for all samples listed below. These samples relate to your project identified below:

Project Name: WARREN GREEN GROCERY
Project Number: 04887.
Laboratory Project Number: 321799.

An executed copy of the chain of custody, the project quality control data, and the sample receipt form are also included as an addendum to this report. If you have any questions relating to this analytical report, please contact your Laboratory Project Manager at 1-800-765-0980.

Page 1

Sample Identification	Lab Number	Collection Date
SB-1@ (3')	03-A29314	2/24/03
SB-2@ (3')	03-A29315	2/24/03
SB-3@ (3')	03-A29316	2/24/03
SB-4@ (3')	03-A29317	2/24/03
SB-5@ (3')	03-A29318	2/24/03
SB-6@ (3')	03-A29319	2/24/03
SB-7@ (3')	03-A29320	2/24/03
SB-8@ (3')	03-A29321	2/25/03

2960 Foster Creighton Drive / Nashville, TN 37204 / 615-726-0177 / Fax: 615-726-0954 / 800-765-0980

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Sample Identification	Lab Number	Collection Date

These results relate only to the items tested.
This report shall not be reproduced except in full and with permission of the laboratory.

Report Approved By: Roxanne L Connor   Report Date: 3/11/03

Paul E. Lane, Jr., Lab Director
Michael H. Dunn, M.S., Technical Director
Johnny A. Mitchell, Dir. Technical Serv.
Eric S. Smith, Assistant Technical Director
Roxanne L. Connor, Technical Services

Gail A. Lage, Technical Serv.
Glenn L. Norton, Technical Serv.
Kelly S. Comstock, Technical Serv.
Pamela A. Langford, Technical Serv.

Laboratory Certification Number: 84009

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ANALYTICAL REPORT

GEOLOGICAL RESOURCES 2110
JOHN BROWN
4913 ALBEMARLE RD
CHARLOTTE, NC 28205

Project: 04887
Project Name: WARREN GREEN GROCERY
Sampler: JOEL LENK

Lab Number: 03-A29314
Sample ID: SB-1@ (3')
Sample Type: Soil
Site ID:

Date Collected: 2/24/03
Time Collected:
Date Received: 2/27/03
Time Received: 9:00
Page: 1

Analyte	Result	Units	Report Limit	Dil Factor	Analysis Date	Analysis Time	Analyst	Method	Batch
GENERAL CHEMISTRY PARAMETERS									
% Dry Weight	75.9	%		1	3/ 3/03	20:00	M. Ricke	CLP	5813
ORGANIC PARAMETERS									
Naphthalene	ND	mg/kg	0.066	1	3/ 8/03	18:40	D. Harris	8270C	9601
Acenaphthene	ND	mg/kg	0.066	1	3/ 8/03	18:40	D. Harris	8270C	9601
Anthracene	ND	mg/kg	0.066	1	3/ 8/03	18:40	D. Harris	8270C	9601
Fluoranthene	ND	mg/kg	0.066	1	3/ 8/03	18:40	D. Harris	8270C	9601
Fluorene	ND	mg/kg	0.066	1	3/ 8/03	18:40	D. Harris	8270C	9601
Pyrene	ND	mg/kg	0.066	1	3/ 8/03	18:40	D. Harris	8270C	9601
Benzo(a)anthracene	ND	mg/kg	0.066	1	3/ 8/03	18:40	D. Harris	8270C	9601
Benzo(a)pyrene	ND	mg/kg	0.066	1	3/ 8/03	18:40	D. Harris	8270C	9601
Benzo(b)fluoranthene	ND	mg/kg	0.066	1	3/ 8/03	18:40	D. Harris	8270C	9601
Benzo(k)fluoranthene	ND	mg/kg	0.066	1	3/ 8/03	18:40	D. Harris	8270C	9601
Chrysene	ND	mg/kg	0.066	1	3/ 8/03	18:40	D. Harris	8270C	9601
Dibenzo(a,h)anthracene	ND	mg/kg	0.066	1	3/ 8/03	18:40	D. Harris	8270C	9601
Indeno(1,2,3-cd)pyrene	ND	mg/kg	0.066	1	3/ 8/03	18:40	D. Harris	8270C	9601
Acenaphthylene	ND	mg/kg	0.066	1	3/ 8/03	18:40	D. Harris	8270C	9601
Benzo(g,h,i)perylene	ND	mg/kg	0.066	1	3/ 8/03	18:40	D. Harris	8270C	9601
Phenanthrene	ND	mg/kg	0.066	1	3/ 8/03	18:40	D. Harris	8270C	9601
VOLATILE ORGANICS									
Benzene	0.0066	mg/kg	0.0017	1	3/ 4/03	18:06	J. Yun	8260B	376
Ethylbenzene	0.0047	mg/kg	0.0017	1	3/ 4/03	18:06	J. Yun	8260B	376
Naphthalene	ND	mg/kg	0.00424	1	3/ 4/03	18:06	J. Yun	8260B	376
Toluene	0.025	mg/kg	0.0017	1	3/ 4/03	18:06	J. Yun	8260B	376

Sample report continued . . .

TestAmerica
INCORPORATED

ANALYTICAL REPORT

Laboratory Number: 03-A29314
Sample ID: SB-1@ (3')
Project: 04887
Page 2

Analyte	Result	Units	Report Limit	Dil Factor	Analysis Date	Analysis Time	Analyst	Method	Batch
Xylenes (Total)	0.0145	mg/kg	0.0017	1	3/ 4/03	18:06	J. Yun	8260B	376

Sample Extraction Data

Parameter	Wt/Vol Extracted	Extract Vol	Date	Time	Analyst	Method
BNA's	29.5 gm	1.0 ml	3/ 7/03		M. Ricke	3550
Volatile Organics	5.9 g	5.0 ml	2/24/03	17:15	K. Turner	5035

Surrogate	% Recovery	Target Range
VOA Surr 1,2-DCA-d4	99.	56. - 155.
VOA Surr Toluene-d8	104.	79. - 130.
VOA Surr, 4-BFB	102.	62. - 155.
VOA Surr, DBFM	105.	74. - 127.
BNA Surr-Nitrobenzene-d5	63.	34. - 105.
BNA Surr-2-Fluorobiphenyl	73.	36. - 100.
BNA Surr-Terphenyl-d14	82.	45. - 108.

LABORATORY COMMENTS:

ND = Not detected at the report limit.
B = Analyte was detected in the method blank.
J = Estimated Value below Report Limit.
E = Estimated Value above the calibration limit of the instrument.
# = Recovery outside Laboratory historical or method prescribed limits.
All results reported on a wet weight basis.

End of Sample Report.

TestAmerica
INCORPORATED

ANALYTICAL REPORT

GEOLOGICAL RESOURCES 2110
JOHN BROWN
4913 ALBEMARLE RD
CHARLOTTE, NC 28205

Project: 04887
Project Name: WARREN GREEN GROCERY
Sampler: JOEL LENK

Lab Number: 03-A29315
Sample ID: SB-2@ (3')
Sample Type: Soil
Site ID:

Date Collected: 2/24/03
Time Collected:
Date Received: 2/27/03
Time Received: 9:00
Page: 1

Analyte	Result	Units	Report Limit	Dil Factor	Analysis Date	Analysis Time	Analyst	Method	Batch
GENERAL CHEMISTRY PARAMETERS									
% Dry Weight	88.0	%		1	3/ 3/03	20:00	M. Ricke	CLP	5813
ORGANIC PARAMETERS									
Naphthalene	ND	mg/kg	0.066	1	3/ 4/03	15:07	R. Beard	8270C	8733
Acenaphthene	ND	mg/kg	0.066	1	3/ 4/03	15:07	R. Beard	8270C	8733
Anthracene	ND	mg/kg	0.066	1	3/ 4/03	15:07	R. Beard	8270C	8733
Fluoranthene	ND	mg/kg	0.066	1	3/ 4/03	15:07	R. Beard	8270C	8733
Fluorene	ND	mg/kg	0.066	1	3/ 4/03	15:07	R. Beard	8270C	8733
Pyrene	ND	mg/kg	0.066	1	3/ 4/03	15:07	R. Beard	8270C	8733
Benzo(a)anthracene	ND	mg/kg	0.066	1	3/ 4/03	15:07	R. Beard	8270C	8733
Benzo(a)pyrene	ND	mg/kg	0.066	1	3/ 4/03	15:07	R. Beard	8270C	8733
Benzo(b)fluoranthene	ND	mg/kg	0.066	1	3/ 4/03	15:07	R. Beard	8270C	8733
Benzo(k)fluoranthene	ND	mg/kg	0.066	1	3/ 4/03	15:07	R. Beard	8270C	8733
Chrysene	ND	mg/kg	0.066	1	3/ 4/03	15:07	R. Beard	8270C	8733
Dibenzo(a,h)anthracene	ND	mg/kg	0.066	1	3/ 4/03	15:07	R. Beard	8270C	8733
Indeno(1,2,3-cd)pyrene	ND	mg/kg	0.066	1	3/ 4/03	15:07	R. Beard	8270C	8733
Acenaphthylene	ND	mg/kg	0.066	1	3/ 4/03	15:07	R. Beard	8270C	8733
Benzo(g,h,i)perylene	ND	mg/kg	0.066	1	3/ 4/03	15:07	R. Beard	8270C	8733
Phenanthrene	ND	mg/kg	0.066	1	3/ 4/03	15:07	R. Beard	8270C	8733
VOLATILE ORGANICS									
Benzene	0.0395	mg/kg	0.0017	1	3/ 4/03	18:38	J. Yun	8260B	376
Ethylbenzene	0.0312	mg/kg	0.0017	1	3/ 4/03	18:38	J. Yun	8260B	376
Naphthalene	ND	mg/kg	0.00424	1	3/ 4/03	18:38	J. Yun	8260B	376
Toluene	0.0377	mg/kg	0.0017	1	3/ 4/03	18:38	J. Yun	8260B	376

Sample report continued . . .

TestAmerica
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ANALYTICAL REPORT

Laboratory Number: 03-A29315
Sample ID: SB-2@ (3')
Project: 04887
Page 2

Analyte	Result	Units	Report Limit	Dil Factor	Analysis Date	Analysis Time	Analyst	Method	Batch
Xylenes (Total)	0.0211	mg/kg	0.0017	1	3/ 4/03	18:38	J. Yun	8260B	376

Sample Extraction Data

Parameter	Wt/Vol Extracted	Extract Vol	Date	Time	Analyst	Method
BNA's	29.8 gm	1.0 ml	3/ 3/03		M. Ricke	3550
Volatile Organics	5.9 g	5.0 ml	2/24/03	17:15	K. Turner	5035

Surrogate	% Recovery	Target Range
VOA Surr 1,2-DCA-d4	101.	56. - 155.
VOA Surr Toluene-d8	105.	79. - 130.
VOA Surr, 4-BFB	102.	62. - 155.
VOA Surr, DBFM	106.	74. - 127.
BNA Surr-Nitrobenzene-d5	90.	34. - 105.
BNA Surr-2-Fluorobiphenyl	89.	36. - 100.
BNA Surr-Terphenyl-d14	107.	45. - 108.

LABORATORY COMMENTS:

ND = Not detected at the report limit.
B = Analyte was detected in the method blank.
J = Estimated Value below Report Limit.
E = Estimated Value above the calibration limit of the instrument.
# = Recovery outside Laboratory historical or method prescribed limits.
All results reported on a wet weight basis.

End of Sample Report.

TestAmerica
INCORPORATED

ANALYTICAL REPORT

GEOLOGICAL RESOURCES 2110
JOHN BROWN
4913 ALBEMARLE RD
CHARLOTTE, NC 28205

Project: 04887
Project Name: WARREN GREEN GROCERY
Sampler: JOEL LENK

Lab Number: 03-A29316
Sample ID: SB-3@ (3')
Sample Type: Soil
Site ID:

Date Collected: 2/24/03
Time Collected:
Date Received: 2/27/03
Time Received: 9:00
Page: 1

Analyte	Result	Units	Report Limit	Dil Factor	Analysis Date	Analysis Time	Analyst	Method	Batch
GENERAL CHEMISTRY PARAMETERS									
% Dry Weight	78.7	%		1	3/ 3/03	20:00	M. Ricke	CLP	5813
ORGANIC PARAMETERS									
Naphthalene	ND	mg/kg	0.066	1	3/ 4/03	15:42	R. Beard	8270C	8733
Acenaphthene	ND	mg/kg	0.066	1	3/ 4/03	15:42	R. Beard	8270C	8733
Anthracene	ND	mg/kg	0.066	1	3/ 4/03	15:42	R. Beard	8270C	8733
Fluoranthene	ND	mg/kg	0.066	1	3/ 4/03	15:42	R. Beard	8270C	8733
Fluorene	ND	mg/kg	0.066	1	3/ 4/03	15:42	R. Beard	8270C	8733
Pyrene	ND	mg/kg	0.066	1	3/ 4/03	15:42	R. Beard	8270C	8733
Benzo(a)anthracene	ND	mg/kg	0.066	1	3/ 4/03	15:42	R. Beard	8270C	8733
Benzo(a)pyrene	ND	mg/kg	0.066	1	3/ 4/03	15:42	R. Beard	8270C	8733
Benzo(b)fluoranthene	ND	mg/kg	0.066	1	3/ 4/03	15:42	R. Beard	8270C	8733
Benzo(k)fluoranthene	ND	mg/kg	0.066	1	3/ 4/03	15:42	R. Beard	8270C	8733
Chrysene	ND	mg/kg	0.066	1	3/ 4/03	15:42	R. Beard	8270C	8733
Dibenzo(a,h)anthracene	ND	mg/kg	0.066	1	3/ 4/03	15:42	R. Beard	8270C	8733
Indeno(1,2,3-cd)pyrene	ND	mg/kg	0.066	1	3/ 4/03	15:42	R. Beard	8270C	8733
Acenaphthylene	ND	mg/kg	0.066	1	3/ 4/03	15:42	R. Beard	8270C	8733
Benzo(g,h,i)perylene	ND	mg/kg	0.066	1	3/ 4/03	15:42	R. Beard	8270C	8733
Phenanthrene	ND	mg/kg	0.066	1	3/ 4/03	15:42	R. Beard	8270C	8733
VOLATILE ORGANICS									
Benzene	0.009	mg/kg	0.0018	1	3/ 4/03	19:11	J. Yun	8260B	376
Ethylbenzene	0.0028	mg/kg	0.0018	1	3/ 4/03	19:11	J. Yun	8260B	376
Naphthalene	0.0313	mg/kg	0.00455	1	3/ 4/03	19:11	J. Yun	8260B	376
Toluene	0.0101	mg/kg	0.0018	1	3/ 4/03	19:11	J. Yun	8260B	376

Sample report continued . . .

TestAmerica
INCORPORATED

ANALYTICAL REPORT

Laboratory Number: 03-A29316
Sample ID: SB-3@ (3')
Project: 04887

Analyte	Result	Units	Report Limit	Dil Factor	Analysis Date	Analysis Time	Analyst	Method	Batch
Xylenes (Total)	0.0167	mg/kg	0.0018	1	3/ 4/03	19:11	J. Yun	8260B	376

Sample Extraction Data

Parameter	Wt/Vol Extracted	Extract Vol	Date	Time	Analyst	Method
BNA's	30.2 gm	1.0 ml	3/ 3/03		M. Ricke	3550
Volatile Organics	5.5 g	5.0 ml	2/24/03	17:15	K. Turner	5035

Surrogate	% Recovery	Target Range
VOA Surr 1,2-DCA-d4	96.	56. - 155.
VOA Surr Toluene-d8	111.	79. - 130.
VOA Surr, 4-BFB	115.	62. - 155.
VOA Surr, DBFM	104.	74. - 127.
BNA Surr-Nitrobenzene-d5	86.	34. - 105.
BNA Surr-2-Fluorobiphenyl	86.	36. - 100.
BNA Surr-Terphenyl-d14	104.	45. - 108.

LABORATORY COMMENTS:

ND = Not detected at the report limit.
B = Analyte was detected in the method blank.
J = Estimated Value below Report Limit.
E = Estimated Value above the calibration limit of the instrument.
# = Recovery outside Laboratory historical or method prescribed limits.
All results reported on a wet weight basis.

End of Sample Report.

TestAmerica
INCORPORATED

ANALYTICAL REPORT

GEOLOGICAL RESOURCES 2110
JOHN BROWN
4913 ALBEMARLE RD
CHARLOTTE, NC 28205

Lab Number: 03-A29317
Sample ID: SB-4@ (3')
Sample Type: Soil
Site ID:

Project: 04887
Project Name: WARREN GREEN GROCERY
Sampler: JOEL LENK

Date Collected: 2/24/03
Time Collected:
Date Received: 2/27/03
Time Received: 9:00
Page: 1

Analyte	Result	Units	Report Limit	Dil Factor	Analysis Date	Analysis Time	Analyst	Method	Batch
GENERAL CHEMISTRY PARAMETERS									
% Dry Weight	85.8	%		1	3/ 3/03	20:00	M. Ricke	CLP	5813
ORGANIC PARAMETERS									
Naphthalene	2.44	mg/kg	0.066	1	3/ 4/03	16:17	R. Beard	8270C	8733
Acenaphthene	ND	mg/kg	0.066	1	3/ 4/03	16:17	R. Beard	8270C	8733
Anthracene	ND	mg/kg	0.066	1	3/ 4/03	16:17	R. Beard	8270C	8733
Fluoranthene	ND	mg/kg	0.066	1	3/ 4/03	16:17	R. Beard	8270C	8733
Fluorene	ND	mg/kg	0.066	1	3/ 4/03	16:17	R. Beard	8270C	8733
Pyrene	ND	mg/kg	0.066	1	3/ 4/03	16:17	R. Beard	8270C	8733
Benzo(a)anthracene	ND	mg/kg	0.066	1	3/ 4/03	16:17	R. Beard	8270C	8733
Benzo(a)pyrene	ND	mg/kg	0.066	1	3/ 4/03	16:17	R. Beard	8270C	8733
Benzo(b)fluoranthene	ND	mg/kg	0.066	1	3/ 4/03	16:17	R. Beard	8270C	8733
Benzo(k)fluoranthene	ND	mg/kg	0.066	1	3/ 4/03	16:17	R. Beard	8270C	8733
Chrysene	ND	mg/kg	0.066	1	3/ 4/03	16:17	R. Beard	8270C	8733
Dibenzo(a,h)anthracene	ND	mg/kg	0.066	1	3/ 4/03	16:17	R. Beard	8270C	8733
Indeno(1,2,3-cd)pyrene	ND	mg/kg	0.066	1	3/ 4/03	16:17	R. Beard	8270C	8733
Acenaphthylene	ND	mg/kg	0.066	1	3/ 4/03	16:17	R. Beard	8270C	8733
Benzo(g,h,i)perylene	ND	mg/kg	0.066	1	3/ 4/03	16:17	R. Beard	8270C	8733
Phenanthrene	ND	mg/kg	0.066	1	3/ 4/03	16:17	R. Beard	8270C	8733
VOLATILE ORGANICS									
Benzene	5.96	mg/kg	0.169	100	3/ 5/03	8:14	J. Yun	8260B	379
Ethylbenzene	45.4	mg/kg	1.69	1000	3/ 5/03	13:43	J. Yun	8260B	383
Naphthalene	11.4	mg/kg	0.424	100	3/ 5/03	8:14	J. Yun	8260B	379
Toluene	142	mg/kg	1.69	1000	3/ 5/03	13:43	J. Yun	8260B	383

Sample report continued . . .

TestAmerica
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ANALYTICAL REPORT

Laboratory Number: 03-A29317
Sample ID: SB-4@ (3')
Project: 04887

Analyte	Result	Units	Report Limit	Dil Factor	Analysis Date	Analysis Time	Analyst	Method	Batch
Xylenes (Total)	278	mg/kg	1.69	1000	3/ 5/03	13:43	J. Yun	8260B	383

Sample Extraction Data

Parameter	Wt/Vol Extracted	Extract Vol	Date	Time	Analyst	Method
BNA's	29.8 gm	1.0 ml	3/ 3/03		M. Ricke	3550
Volatile Organics	5.9 g	5.0 ml	2/24/03	17:15	K. Turner	5035

Surrogate	% Recovery	Target Range
VOA Surr 1,2-DCA-d4	89.	56. - 155.
VOA Surr Toluene-d8	106.	79. - 130.
VOA Surr, 4-BFB	104.	62. - 155.
VOA Surr, DBFM	101.	74. - 127.
BNA Surr-Nitrobenzene-d5	82.	34. - 105.
BNA Surr-2-Fluorobiphenyl	83.	36. - 100.
BNA Surr-Terphenyl-d14	100.	45. - 108.

LABORATORY COMMENTS:

ND = Not detected at the report limit.
B = Analyte was detected in the method blank.
J = Estimated Value below Report Limit.
E = Estimated Value above the calibration limit of the instrument.
# = Recovery outside Laboratory historical or method prescribed limits.
All results reported on a wet weight basis.

End of Sample Report.

TestAmerica
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ANALYTICAL REPORT

GEOLOGICAL RESOURCES 2110
JOHN BROWN
4913 ALBEMARLE RD
CHARLOTTE, NC 28205

Lab Number: 03-A29318
Sample ID: SB-5@ (3')
Sample Type: Soil
Site ID:

Project: 04887
Project Name: WARREN GREEN GROCERY
Sampler: JOEL LENK

Date Collected: 2/24/03
Time Collected:
Date Received: 2/27/03
Time Received: 9:00
Page: 1

Analyte	Result	Units	Report Limit	Dil Factor	Analysis Date	Analysis Time	Analyst	Method	Batch
GENERAL CHEMISTRY PARAMETERS									
% Dry Weight	99.3	%		1	3/ 3/03	20:00	M. Ricke	CLP	5813
ORGANIC PARAMETERS									
TPH (Diesel Range)	121	mg/kg	5	1	3/ 5/03	8:27	M.Jarrett	8015B	9540
Naphthalene	7.94	mg/kg	0.159	2	3/ 9/03	14:43	R. Beard	8270C	3150
Acenaphthene	ND	mg/kg	0.079	1	3/ 8/03	21:47	R. Beard	8270C	3150
Anthracene	ND	mg/kg	0.079	1	3/ 8/03	21:47	R. Beard	8270C	3150
Fluoranthene	ND	mg/kg	0.079	1	3/ 8/03	21:47	R. Beard	8270C	3150
Fluorene	0.111	mg/kg	0.079	1	3/ 8/03	21:47	R. Beard	8270C	3150
Pyrene	ND	mg/kg	0.079	1	3/ 8/03	21:47	R. Beard	8270C	3150
Benzo(a)anthracene	ND	mg/kg	0.079	1	3/ 8/03	21:47	R. Beard	8270C	3150
Benzo(a)pyrene	ND	mg/kg	0.079	1	3/ 8/03	21:47	R. Beard	8270C	3150
Benzo(b)fluoranthene	ND	mg/kg	0.079	1	3/ 8/03	21:47	R. Beard	8270C	3150
Benzo(k)fluoranthene	ND	mg/kg	0.079	1	3/ 8/03	21:47	R. Beard	8270C	3150
Chrysene	ND	mg/kg	0.079	1	3/ 8/03	21:47	R. Beard	8270C	3150
Dibenzo(a,h)anthracene	ND	mg/kg	0.079	1	3/ 8/03	21:47	R. Beard	8270C	3150
Indeno(1,2,3-cd)pyrene	ND	mg/kg	0.079	1	3/ 8/03	21:47	R. Beard	8270C	3150
Acenaphthylene	ND	mg/kg	0.079	1	3/ 8/03	21:47	R. Beard	8270C	3150
Benzo(g,h,i)perylene	ND	mg/kg	0.079	1	3/ 8/03	21:47	R. Beard	8270C	3150
Phenanthrene	0.143	mg/kg	0.079	1	3/ 8/03	21:47	R. Beard	8270C	3150
VOLATILE ORGANICS									
Benzene	22.6	mg/kg	0.893	500	3/ 5/03	14:16	J. Yun	8260B	383
Ethylbenzene	158	mg/kg	4.46	2500	3/ 5/03	15:25	J. Yun	8260B	385
Naphthalene	24.8	mg/kg	2.23	500	3/ 5/03	14:16	J. Yun	8260B	383

Sample report continued . . .

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ANALYTICAL REPORT

Laboratory Number: 03-A29318
Sample ID: SB-5@ (3')
Project: 04887
Page 2

Analyte	Result	Units	Report Limit	Dil Factor	Analysis Date	Analysis Time	Analyst	Method	Batch
Toluene	405	mg/kg	8.93	5000	3/ 5/03	18:10	J. Yun	8260B	387
Xylenes (Total)	877	mg/kg	4.46	2500	3/ 5/03	15:25	J. Yun	8260B	385

Sample Extraction Data

Parameter	Wt/Vol Extracted	Extract Vol	Date	Time	Analyst	Method
BNA's	25.2 gm	1.0 ml	3/ 6/03		M. Ricke	3550
EPH/DRO	24.8 gm	1.0 ml	3/ 3/03		M. Ricke	3550
Volatile Organics	5.6 g	5.0 ml	2/24/03	17:15	K. Turner	5035

Surrogate	% Recovery	Target Range
TPH Hi Surr., o-Terphenyl	56.	35. - 135.
VOA Surr 1,2-DCA-d4	86.	56. - 155.
VOA Surr Toluene-d8	106.	79. - 130.
VOA Surr, 4-BFB	104.	62. - 155.
VOA Surr, DBFM	101.	74. - 127.
BNA Surr-Nitrobenzene-d5	97.	34. - 105.
BNA Surr-2-Fluorobiphenyl	90.	36. - 100.
BNA Surr-Terphenyl-d14	116. #	45. - 108.

Sample report continued . . .

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ANALYTICAL REPORT

Laboratory Number: 03-A29318
Sample ID: SB-5@ (3')
Project: 04887

LABORATORY COMMENTS:

ND = Not detected at the report limit.

B = Analyte was detected in the method blank.

J = Estimated Value below Report Limit.

E = Estimated Value above the calibration limit of the instrument.

= Recovery outside Laboratory historical or method prescribed limits.

All results reported on a wet weight basis.

Trph spikes out of range due to sample matrix.

End of Sample Report.

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ANALYTICAL REPORT

GEOLOGICAL RESOURCES 2110
JOHN BROWN
4913 ALBEMARLE RD
CHARLOTTE, NC 28205

Project: 04887
Project Name: WARREN GREEN GROCERY
Sampler: JOEL LENK

Lab Number: 03-A29319
Sample ID: SB-6@ (3')
Sample Type: Soil
Site ID:

Date Collected: 2/24/03
Time Collected:
Date Received: 2/27/03
Time Received: 9:00
Page: 1

Analyte	Result	Units	Report Limit	Dil Factor	Analysis Date	Analysis Time	Analyst	Method	Batch
GENERAL CHEMISTRY PARAMETERS									
% Dry Weight	82.7	%		1	3/ 3/03	20:00	M. Ricke	CLP	5813
ORGANIC PARAMETERS									
Naphthalene	0.241	mg/kg	0.066	1	3/ 4/03	17:26	R. Beard	8270C	8733
Acenaphthene	ND	mg/kg	0.066	1	3/ 4/03	17:26	R. Beard	8270C	8733
Anthracene	ND	mg/kg	0.066	1	3/ 4/03	17:26	R. Beard	8270C	8733
Fluoranthene	ND	mg/kg	0.066	1	3/ 4/03	17:26	R. Beard	8270C	8733
Fluorene	ND	mg/kg	0.066	1	3/ 4/03	17:26	R. Beard	8270C	8733
Pyrene	ND	mg/kg	0.066	1	3/ 4/03	17:26	R. Beard	8270C	8733
Benzo(a)anthracene	ND	mg/kg	0.066	1	3/ 4/03	17:26	R. Beard	8270C	8733
Benzo(a)pyrene	ND	mg/kg	0.066	1	3/ 4/03	17:26	R. Beard	8270C	8733
Benzo(b)fluoranthene	ND	mg/kg	0.066	1	3/ 4/03	17:26	R. Beard	8270C	8733
Benzo(k)fluoranthene	ND	mg/kg	0.066	1	3/ 4/03	17:26	R. Beard	8270C	8733
Chrysene	ND	mg/kg	0.066	1	3/ 4/03	17:26	R. Beard	8270C	8733
Dibenzo(a,h)anthracene	ND	mg/kg	0.066	1	3/ 4/03	17:26	R. Beard	8270C	8733
Indeno(1,2,3-cd)pyrene	ND	mg/kg	0.066	1	3/ 4/03	17:26	R. Beard	8270C	8733
Acenaphthylene	ND	mg/kg	0.066	1	3/ 4/03	17:26	R. Beard	8270C	8733
Benzo(g,h,i)perylene	ND	mg/kg	0.066	1	3/ 4/03	17:26	R. Beard	8270C	8733
Phenanthrene	ND	mg/kg	0.066	1	3/ 4/03	17:26	R. Beard	8270C	8733
VOLATILE ORGANICS									
Benzene	1.7	mg/kg	0.0543	50	3/ 5/03	9:20	J. Yun	8260B	379
Ethylbenzene	10.8	mg/kg	0.272	250	3/ 5/03	14:48	J. Yun	8260B	383
Naphthalene	2.57	mg/kg	0.136	50	3/ 5/03	9:20	J. Yun	8260B	379
Toluene	33.2	mg/kg	0.543	500	3/ 5/03	15:58	J. Yun	8260B	385

Sample report continued . . .

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ANALYTICAL REPORT

Laboratory Number: 03-A29319
Sample ID: SB-6@ (3')
Project: 04887
Page 2

Analyte	Result	Units	Report Limit	Dil Factor	Analysis Date	Analysis Time	Analyst	Method	Batch
Xylenes (Total)	65.5	mg/kg	0.272	250	3/ 5/03	14:48	J. Yun	8260B	383

Sample Extraction Data

Parameter	Wt/Vol Extracted	Extract Vol	Date	Time	Analyst	Method
BNA's	30.1 gm	1.0 ml	3/ 3/03		M. Ricke	3550
Volatile Organics	9.2 g	5.0 ml	2/24/03	17:15	K. Turner	5035

Surrogate	% Recovery	Target Range
VOA Surr 1,2-DCA-d4	90.	56. - 155.
VOA Surr Toluene-d8	106.	79. - 130.
VOA Surr, 4-BFB	107.	62. - 155.
VOA Surr, DBFM	103.	74. - 127.
BNA Surr-Nitrobenzene-d5	67.	34. - 105.
BNA Surr-2-Fluorobiphenyl	65.	36. - 100.
BNA Surr-Terphenyl-d14	80.	45. - 108.

LABORATORY COMMENTS:

ND = Not detected at the report limit.
B = Analyte was detected in the method blank.
J = Estimated Value below Report Limit.
E = Estimated Value above the calibration limit of the instrument.
# = Recovery outside Laboratory historical or method prescribed limits.
All results reported on a wet weight basis.

End of Sample Report.

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ANALYTICAL REPORT

GEOLOGICAL RESOURCES 2110
JOHN BROWN
4913 ALBEMARLE RD
CHARLOTTE, NC 28205

Project: 04887
Project Name: WARREN GREEN GROCERY
Sampler: JOEL LENK

Lab Number: 03-A29320
Sample ID: SB-7@ (3')
Sample Type: Soil
Site ID:

Date Collected: 2/24/03
Time Collected:
Date Received: 2/27/03
Time Received: 9:00
Page: 1

Analyte	Result	Units	Report Limit	Dil Factor	Analysis Date	Analysis Time	Analyst	Method	Batch
GENERAL CHEMISTRY PARAMETERS									
% Dry Weight	83.8	%		1	3/ 3/03	20:00	M. Ricke	CLP	5813
ORGANIC PARAMETERS									
Naphthalene	0.99	mg/kg	0.066	1	3/ 4/03	18:01	R. Beard	8270C	8733
Acenaphthene	ND	mg/kg	0.066	1	3/ 4/03	18:01	R. Beard	8270C	8733
Anthracene	ND	mg/kg	0.066	1	3/ 4/03	18:01	R. Beard	8270C	8733
Fluoranthene	ND	mg/kg	0.066	1	3/ 4/03	18:01	R. Beard	8270C	8733
Fluorene	ND	mg/kg	0.066	1	3/ 4/03	18:01	R. Beard	8270C	8733
Pyrene	ND	mg/kg	0.066	1	3/ 4/03	18:01	R. Beard	8270C	8733
Benzo(a)anthracene	ND	mg/kg	0.066	1	3/ 4/03	18:01	R. Beard	8270C	8733
Benzo(a)pyrene	ND	mg/kg	0.066	1	3/ 4/03	18:01	R. Beard	8270C	8733
Benzo(b)fluoranthene	ND	mg/kg	0.066	1	3/ 4/03	18:01	R. Beard	8270C	8733
Benzo(k)fluoranthene	ND	mg/kg	0.066	1	3/ 4/03	18:01	R. Beard	8270C	8733
Chrysene	ND	mg/kg	0.066	1	3/ 4/03	18:01	R. Beard	8270C	8733
Dibenzo(a,h)anthracene	ND	mg/kg	0.066	1	3/ 4/03	18:01	R. Beard	8270C	8733
Indeno(1,2,3-cd)pyrene	ND	mg/kg	0.066	1	3/ 4/03	18:01	R. Beard	8270C	8733
Acenaphthylene	ND	mg/kg	0.066	1	3/ 4/03	18:01	R. Beard	8270C	8733
Benzo(g,h,i)perylene	ND	mg/kg	0.066	1	3/ 4/03	18:01	R. Beard	8270C	8733
Phenanthrene	ND	mg/kg	0.066	1	3/ 4/03	18:01	R. Beard	8270C	8733
VOLATILE ORGANICS									
Benzene	0.0194	mg/kg	0.0014	1	3/ 5/03	16:30	J. Yun	8260B	383
Ethylbenzene	0.0897	mg/kg	0.0014	1	3/ 5/03	16:30	J. Yun	8260B	383
Naphthalene	0.101	mg/kg	0.00342	1	3/ 5/03	16:30	J. Yun	8260B	383
Toluene	2.55	mg/kg	0.0685	50	3/ 5/03	17:05	J. Yun	8260B	385

Sample report continued . . .

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ANALYTICAL REPORT

Laboratory Number: 03-A29320
Sample ID: SB-7@ (3')
Project: 04887
Page 2

Analyte	Result	Units	Report Limit	Dil Factor	Analysis Date	Analysis Time	Analyst	Method	Batch
Xylenes (Total)	19.9	mg/kg	0.137	100	3/ 5/03	18:43	J. Yun	8260B	387

Sample Extraction Data

Parameter	Wt/Vol Extracted	Extract Vol	Date	Time	Analyst	Method
BNA's	30.1 gm	1.0 ml	3/ 3/03		M. Ricke	3550
Volatile Organics	7.3 g	5.0 ml	2/24/03	17:15	K. Turner	5035

Surrogate	% Recovery	Target Range
VOA Surr 1,2-DCA-d4	86.	56. - 155.
VOA Surr Toluene-d8	109.	79. - 130.
VOA Surr, 4-BFB	106.	62. - 155.
VOA Surr, DBFM	99.	74. - 127.
BNA Surr-Nitrobenzene-d5	81.	34. - 105.
BNA Surr-2-Fluorobiphenyl	81.	36. - 100.
BNA Surr-Terphenyl-d14	95.	45. - 108.

LABORATORY COMMENTS:

ND = Not detected at the report limit.
B = Analyte was detected in the method blank.
J = Estimated Value below Report Limit.
E = Estimated Value above the calibration limit of the instrument.
# = Recovery outside Laboratory historical or method prescribed limits.
All results reported on a wet weight basis.

End of Sample Report.

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ANALYTICAL REPORT

GEOLOGICAL RESOURCES 2110
JOHN BROWN
4913 ALBEMARLE RD
CHARLOTTE, NC 28205

Project: 04887
Project Name: WARREN GREEN GROCERY
Sampler: JOEL LENK

Lab Number: 03-A29321
Sample ID: SB-8@ (3')
Sample Type: Soil
Site ID:

Date Collected: 2/25/03
Time Collected:
Date Received: 2/27/03
Time Received: 9:00
Page: 1

Analyte	Result	Units	Report Limit	Dil Factor	Analysis Date	Analysis Time	Analyst	Method	Batch
GENERAL CHEMISTRY PARAMETERS									
TOC	5280	mg/kg	1000	1	3/ 1/03	10:46	M.Checolle	9060M	7196

LABORATORY COMMENTS:

ND = Not detected at the report limit.
B = Analyte was detected in the method blank.
J = Estimated Value below Report Limit.
E = Estimated Value above the calibration limit of the instrument.
# = Recovery outside Laboratory historical or method prescribed limits.
Extracted TOC result corrected for dry weight.

End of Sample Report.

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PROJECT QUALITY CONTROL DATA
Project Number: 04887
Project Name: WARREN GREEN GROCERY
Page: 1
Laboratory Receipt Date: 2/27/03

Matrix Spike Recovery

Note: If Blank is referenced as the sample spiked, insufficient volume was received for the defined analytical batch for MS/MSD analysis on an true sample matrix. Laboratory reagent water was used for QC purposes.

Analyte	units	Orig. Val.	MS Val	Spike Conc	Recovery	Target Range	Q.C. Batch	Spike Sample
UST ANALYSIS								
Naphthalene	mg/kg	< 0.066	1.39	1.67	83	34. - 111.	8733	03-A29315
Naphthalene	mg/kg	< 0.066	1.19	1.67	71	34. - 111.	9601	03a29314
Acenaphthene	mg/kg	< 0.066	1.42	1.67	85	39. - 116.	8733	03-A29315
Acenaphthene	mg/kg	< 0.066	1.39	1.67	83	39. - 116.	9601	03a29314
Anthracene	mg/kg	< 0.066	1.42	1.67	85	41. - 118.	8733	03-A29315
Anthracene	mg/kg	< 0.066	1.39	1.67	83	41. - 118.	9601	03a29314
Fluoranthene	mg/kg	< 0.066	1.48	1.67	89	42. - 123.	8733	03-A29315
Fluoranthene	mg/kg	< 0.066	1.48	1.67	89	42. - 123.	9601	03a29314
Fluorene	mg/kg	< 0.066	1.48	1.67	89	40. - 120.	8733	03-A29315
Fluorene	mg/kg	< 0.066	1.25	1.67	75	40. - 120.	9601	03a29314
Pyrene	mg/kg	< 0.066	1.52	1.67	91	40. - 125.	8733	03-A29315
Pyrene	mg/kg	< 0.066	1.42	1.67	85	40. - 125.	9601	03a29314
Benzo(a)anthracene	mg/kg	< 0.066	1.52	1.67	91	42. - 123.	8733	03-A29315
Benzo(a)anthracene	mg/kg	< 0.066	1.45	1.67	87	42. - 123.	9601	03a29314
Benzo(a)pyrene	mg/kg	< 0.066	1.55	1.67	93	41. - 123.	8733	03-A29315
Benzo(a)pyrene	mg/kg	< 0.066	1.32	1.67	79	41. - 123.	9601	03a29314
Benzo(b)fluoranthene	mg/kg	< 0.066	1.45	1.67	87	40. - 123.	8733	03-A29315
Benzo(b)fluoranthene	mg/kg	< 0.066	1.29	1.67	77	40. - 123.	9601	03a29314
Benzo(k)fluoranthene	mg/kg	< 0.066	1.62	1.67	97	42. - 130.	8733	03-A29315
Benzo(k)fluoranthene	mg/kg	< 0.066	1.32	1.67	79	42. - 130.	9601	03a29314
Chrysene	mg/kg	< 0.066	1.55	1.67	93	40. - 123.	8733	03-A29315
Chrysene	mg/kg	< 0.066	1.39	1.67	83	40. - 123.	9601	03a29314
Dibenzo(a,h)anthracene	mg/kg	< 0.066	1.35	1.67	81	16. - 139.	8733	03-A29315
Dibenzo(a,h)anthracene	mg/kg	< 0.066	1.22	1.67	73	16. - 139.	9601	03a29314
Indeno(1,2,3-cd)pyrene	mg/kg	< 0.066	1.35	1.67	81	12. - 138.	8733	03-A29315
Indeno(1,2,3-cd)pyrene	mg/kg	< 0.066	1.22	1.67	73	12. - 138.	9601	03a29314
Acenaphthylene	mg/kg	< 0.066	1.45	1.67	87	39. - 116.	8733	03-A29315
Acenaphthylene	mg/kg	< 0.066	1.39	1.67	83	39. - 116.	9601	03a29314

Project QC continued . . .

PROJECT QUALITY CONTROL DATA
Project Number: 04887
Project Name: WARREN GREEN GROCERY
Page: 2
Laboratory Receipt Date: 2/27/03

Benzo(g,h,i)perylene	mg/kg	< 0.066	1.32	1.67	79	9. - 144.	8733	03-A29315
Benzo(g,h,i)perylene	mg/kg	< 0.066	1.12	1.67	67	9. - 144.	9601	03a29314
Phenanthrene	mg/kg	< 0.066	1.42	1.67	85	39. - 119.	8733	03-A29315
Phenanthrene	mg/kg	< 0.066	1.39	1.67	83	39. - 119.	9601	03a29314

Matrix Spike Recovery

Note: If Blank is referenced as the sample spiked, insufficient volume was received for the defined analytical batch for MS/MSD analysis on an true sample matrix. Laboratory reagent water was used for QC purposes.

Analyte	units	Orig. Val.	MS Val	Spike Conc	Recovery	Target Range	Q.C. Batch	Spike Sample
VOA PARAMETERS								
Benzene	mg/kg	< 0.0003	0.0505	0.0500	101	63. - 133.	376	blank
Benzene	mg/kg	< 0.0003	0.0522	0.0500	104	63. - 133.	379	blank
Benzene	mg/kg	< 0.0003	0.0522	0.0500	104	63. - 133.	383	blank
Toluene	mg/kg	< 0.0008	0.0490	0.0500	98	61. - 131.	376	blank
Toluene	mg/kg	< 0.0008	0.0522	0.0500	104	61. - 131.	383	blank

Matrix Spike Duplicate

Analyte	units	Orig. Val.	Duplicate	RPD	Limit	Q.C. Batch
UST PARAMETERS						
Naphthalene	mg/kg	1.39	1.32	5.17	38.	8733
Naphthalene	mg/kg	1.19	1.25	4.92	38.	9601
Acenaphthene	mg/kg	1.42	1.35	5.05	40.	8733
Acenaphthene	mg/kg	1.39	1.42	2.14	40.	9601
Anthracene	mg/kg	1.42	1.39	2.14	34.	8733
Anthracene	mg/kg	1.39	1.45	4.23	34.	9601
Fluoranthene	mg/kg	1.48	1.45	2.05	42.	8733
Fluoranthene	mg/kg	1.48	1.55	4.62	42.	9601
Fluorene	mg/kg	1.48	1.42	4.14	40.	8733
Fluorene	mg/kg	1.25	1.32	5.45	40.	9601
Pyrene	mg/kg	1.52	1.45	4.71	37.	8733

Project QC continued . . .

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PROJECT QUALITY CONTROL DATA
Project Number: 04887
Project Name: WARREN GREEN GROCERY
Page: 3
Laboratory Receipt Date: 2/27/03

Matrix Spike Duplicate

Analyte	units	Orig. Val.	Duplicate	RPD	Limit	Q.C. Batch
Pyrene	mg/kg	1.42	1.48	4.14	37.	9601
Benzo(a)anthracene	mg/kg	1.52	1.48	2.67	35.	8733
Benzo(a)anthracene	mg/kg	1.45	1.55	6.67	35.	9601
Benzo(a)pyrene	mg/kg	1.55	1.48	4.62	36.	8733
Benzo(a)pyrene	mg/kg	1.32	1.39	5.17	36.	9601
Benzo(b)fluoranthene	mg/kg	1.45	1.42	2.09	40.	8733
Benzo(b)fluoranthene	mg/kg	1.29	1.42	9.59	40.	9601
Benzo(k)fluoranthene	mg/kg	1.62	1.52	6.37	36.	8733
Benzo(k)fluoranthene	mg/kg	1.32	1.35	2.25	36.	9601
Chrysene	mg/kg	1.55	1.48	4.62	34.	8733
Chrysene	mg/kg	1.39	1.45	4.23	34.	9601
Dibenzo(a,h)anthracene	mg/kg	1.35	1.29	4.55	37.	8733
Dibenzo(a,h)anthracene	mg/kg	1.22	1.29	5.58	37.	9601
Indeno(1,2,3-cd)pyrene	mg/kg	1.35	1.29	4.55	40.	8733
Indeno(1,2,3-cd)pyrene	mg/kg	1.22	1.25	2.43	40.	9601
Acenaphthylene	mg/kg	1.45	1.39	4.23	42.	8733
Acenaphthylene	mg/kg	1.39	1.42	2.14	42.	9601
Benzo(g,h,i)perylene	mg/kg	1.32	1.25	5.45	37.	8733
Benzo(g,h,i)perylene	mg/kg	1.12	1.16	3.51	37.	9601
Phenanthrene	mg/kg	1.42	1.39	2.14	34.	8733
Phenanthrene	mg/kg	1.39	1.45	4.23	34.	9601

Matrix Spike Duplicate

Analyte	units	Orig. Val.	Duplicate	RPD	Limit	Q.C. Batch
VOA PARAMETERS						
Benzene	mg/kg	0.0505	0.0504	0.20	19.	376
Benzene	mg/kg	0.0522	0.0522	0.00	19.	379

Project QC continued . . .

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PROJECT QUALITY CONTROL DATA
Project Number: 04887
Project Name: WARREN GREEN GROCERY
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Matrix Spike Duplicate

Analyte	units	Orig. Val.	Duplicate	RPD	Limit	Q.C. Batch
Benzene	mg/kg	0.0522	0.0522	0.00	19.	383
Toluene	mg/kg	0.0490	0.0510	4.00	28.	376
Toluene	mg/kg	0.0522	0.0511	2.13	28.	383
VOA Surr 1,2-DCA-d4	% Rec		86.			376
VOA Surr 1,2-DCA-d4	% Rec		86.			383
VOA Surr Toluene-d8	% Rec		113.			376
VOA Surr Toluene-d8	% Rec		107.			383
VOA Surr, 4-BFB	% Rec		107.			376
VOA Surr, 4-BFB	% Rec		104.			383
VOA Surr, DBFM	% Rec		100.			376
VOA Surr, DBFM	% Rec		98.			383

Laboratory Control Data

Analyte	units	Known Val.	Analyzed Val	% Recovery	Target Range	Q.C. Batch
UST PARAMETERS						
TPH (Diesel Range)	mg/kg	40.0	37.2	93	56 - 123	9540

Laboratory Control Data

Analyte	units	Known Val.	Analyzed Val	% Recovery	Target Range	Q.C. Batch
UST PARAMETERS						
Naphthalene	mg/kg	1.67	1.39	83	34 - 111	8733
Naphthalene	mg/kg	1.67	1.42	85	34 - 111	3150
Naphthalene	mg/kg	1.67	1.19	71	34 - 111	9601
Acenaphthene	mg/kg	1.67	1.45	87	39 - 116	8733
Acenaphthene	mg/kg	1.67	1.42	85	39 - 116	3150

Project QC continued . . .

2960 Foster Creighton Drive / Nashville, TN 37204 / 615-726-0177 / Fax: 615-726-0954 / 800-765-0980

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PROJECT QUALITY CONTROL DATA
Project Number: 04887
Project Name: WARREN GREEN GROCERY
Page: 5
Laboratory Receipt Date: 2/27/03

Laboratory Control Data

Analyte	units	Known Val.	Analyzed Val	% Recovery	Target Range	Q.C. Batch
Acenaphthene	mg/kg	1.67	1.35	81	39 - 116	9601
Anthracene	mg/kg	1.67	1.45	87	41 - 118	8733
Anthracene	mg/kg	1.67	1.52	91	41 - 118	3150
Anthracene	mg/kg	1.67	1.32	79	41 - 118	9601
Fluoranthene	mg/kg	1.67	1.52	91	42 - 123	8733
Fluoranthene	mg/kg	1.67	1.52	91	42 - 123	3150
Fluoranthene	mg/kg	1.67	1.45	87	42 - 123	9601
Fluorene	mg/kg	1.67	1.48	89	40 - 120	8733
Fluorene	mg/kg	1.67	1.48	89	40 - 120	3150
Fluorene	mg/kg	1.67	1.25	75	40 - 120	9601
Pyrene	mg/kg	1.67	1.55	93	40 - 125	8733
Pyrene	mg/kg	1.67	1.42	85	40 - 125	3150
Pyrene	mg/kg	1.67	1.35	81	40 - 125	9601
Benzo(a)anthracene	mg/kg	1.67	1.55	93	42 - 123	8733
Benzo(a)anthracene	mg/kg	1.67	1.55	93	42 - 123	3150
Benzo(a)anthracene	mg/kg	1.67	1.39	83	42 - 123	9601
Benzo(a)pyrene	mg/kg	1.67	1.58	95	41 - 123	8733
Benzo(a)pyrene	mg/kg	1.67	1.48	89	41 - 123	3150
Benzo(a)pyrene	mg/kg	1.67	1.29	77	41 - 123	9601
Benzo(b)fluoranthene	mg/kg	1.67	1.48	89	40 - 123	8733
Benzo(b)fluoranthene	mg/kg	1.67	1.55	93	40 - 123	3150
Benzo(b)fluoranthene	mg/kg	1.67	1.29	77	40 - 123	9601
Benzo(k)fluoranthene	mg/kg	1.67	1.68	101	42 - 130	8733
Benzo(k)fluoranthene	mg/kg	1.67	1.62	97	42 - 130	3150
Benzo(k)fluoranthene	mg/kg	1.67	1.29	77	42 - 130	9601
Chrysene	mg/kg	1.67	1.58	95	40 - 123	8733
Chrysene	mg/kg	1.67	1.55	93	40 - 123	3150
Chrysene	mg/kg	1.67	1.35	81	40 - 123	9601
Dibenzo(a,h)anthracene	mg/kg	1.67	1.35	81	16 - 139	8733
Dibenzo(a,h)anthracene	mg/kg	1.67	1.22	73	16 - 139	3150
Dibenzo(a,h)anthracene	mg/kg	1.67	1.19	71	16 - 139	9601

Project QC continued . . .

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PROJECT QUALITY CONTROL DATA
Project Number: 04887
Project Name: WARREN GREEN GROCERY
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Laboratory Control Data

Analyte	units	Known Val.	Analyzed Val	% Recovery	Target Range	Q.C. Batch
Indeno(1,2,3-cd)pyrene	mg/kg	1.67	1.35	81	12 - 138	8733
Indeno(1,2,3-cd)pyrene	mg/kg	1.67	1.22	73	12 - 138	3150
Indeno(1,2,3-cd)pyrene	mg/kg	1.67	1.19	71	12 - 138	9601
Acenaphthylene	mg/kg	1.67	1.48	89	39 - 116	8733
Acenaphthylene	mg/kg	1.67	1.42	85	39 - 116	3150
Acenaphthylene	mg/kg	1.67	1.32	79	39 - 116	9601
Benzo(g,h,i)perylene	mg/kg	1.67	1.32	79	9 - 144	8733
Benzo(g,h,i)perylene	mg/kg	1.67	1.12	67	9 - 144	3150
Benzo(g,h,i)perylene	mg/kg	1.67	1.09	65	9 - 144	9601
Phenanthrene	mg/kg	1.67	1.45	87	39 - 119	8733
Phenanthrene	mg/kg	1.67	1.52	91	39 - 119	3150
Phenanthrene	mg/kg	1.67	1.32	79	39 - 119	9601

Laboratory Control Data

Analyte	units	Known Val.	Analyzed Val	% Recovery	Target Range	Q.C. Batch
VOA PARAMETERS						
Benzene	mg/kg	0.0500	0.0511	102	77 - 123	376
Benzene	mg/kg	0.0500	0.0493	99	77 - 123	379
Benzene	mg/kg	0.0500	0.0526	105	77 - 123	383
Ethylbenzene	mg/kg	0.0500	0.0486	97	73 - 134	376
Ethylbenzene	mg/kg	0.0500	0.0508	102	73 - 134	383
Naphthalene	mg/kg	0.0500	0.0642	128	54 - 135	376
Naphthalene	mg/kg	0.0500	0.0650	130	54 - 135	379
Naphthalene	mg/kg	0.0500	0.0619	124	54 - 135	383
Toluene	mg/kg	0.0500	0.0483	97	76 - 120	376
Toluene	mg/kg	0.0500	0.0508	102	76 - 120	383
Xylenes (Total)	mg/kg	0.150	0.144	96	75 - 123	376
Xylenes (Total)	mg/kg	0.150	0.154	103	75 - 123	383

Project QC continued . . .

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PROJECT QUALITY CONTROL DATA
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Project Name: WARREN GREEN GROCERY
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VOA Surr 1,2-DCA-d4	% Rec	90	56 - 155	376
VOA Surr 1,2-DCA-d4	% Rec	87	56 - 155	383
VOA Surr Toluene-d8	% Rec	109	79 - 130	376
VOA Surr Toluene-d8	% Rec	108	79 - 130	383
VOA Surr, 4-BFB	% Rec	103	62 - 155	376
VOA Surr, 4-BFB	% Rec	99	62 - 155	383
VOA Surr, DBFM	% Rec	101	74 - 127	376
VOA Surr, DBFM	% Rec	101	74 - 127	383

Laboratory Control Data

Analyte	units	Known Val.	Analyzed Val	% Recovery	Target Range	Q.C. Batch
MISC PARAMETERS						
TOC	mg/kg	6430	6410	100	65 - 135	7196

Duplicates

Analyte	units	Orig. Val.	Duplicate	RPD	Limit	Q.C. Batch	Sample Dup'd
TOC	mg/kg	5160	5730	10.47	25.	7196	03-A28918

Blank Data

Analyte	Blank Value	Units	Q.C. Batch	Date Analyzed	Time Analyzed
UST PARAMETERS					
TPH (Diesel Range)	< 10.0	mg/kg	9540	3/ 5/03	1:51
Naphthalene	< 0.066	mg/kg	8733	3/ 4/03	12:47
Naphthalene	< 0.066	mg/kg	3150	3/ 8/03	19:48
Naphthalene	< 0.066	mg/kg	9601	3/ 8/03	16:42
Acenaphthene	< 0.066	mg/kg	8733	3/ 4/03	12:47
Acenaphthene	< 0.066	mg/kg	3150	3/ 8/03	19:48
Acenaphthene	< 0.066	mg/kg	9601	3/ 8/03	16:42
Anthracene	< 0.066	mg/kg	8733	3/ 4/03	12:47

Project QC continued . . .

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PROJECT QUALITY CONTROL DATA
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Blank Data

Analyte	Blank Value	Units	Q.C. Batch	Analysis Date	Analysis Time
Anthracene	< 0.066	mg/kg	3150	3/ 8/03	19:48
Anthracene	< 0.066	mg/kg	9601	3/ 8/03	16:42
Fluoranthene	< 0.066	mg/kg	8733	3/ 4/03	12:47
Fluoranthene	< 0.066	mg/kg	3150	3/ 8/03	19:48
Fluoranthene	< 0.066	mg/kg	9601	3/ 8/03	16:42
Fluorene	< 0.066	mg/kg	8733	3/ 4/03	12:47
Fluorene	< 0.066	mg/kg	3150	3/ 8/03	19:48
Fluorene	< 0.066	mg/kg	9601	3/ 8/03	16:42
Pyrene	< 0.066	mg/kg	8733	3/ 4/03	12:47
Pyrene	< 0.066	mg/kg	3150	3/ 8/03	19:48
Pyrene	< 0.066	mg/kg	9601	3/ 8/03	16:42
Benzo(a)anthracene	< 0.066	mg/kg	8733	3/ 4/03	12:47
Benzo(a)anthracene	< 0.066	mg/kg	3150	3/ 8/03	19:48
Benzo(a)anthracene	< 0.066	mg/kg	9601	3/ 8/03	16:42
Benzo(a)pyrene	< 0.066	mg/kg	8733	3/ 4/03	12:47
Benzo(a)pyrene	< 0.066	mg/kg	3150	3/ 8/03	19:48
Benzo(a)pyrene	< 0.066	mg/kg	9601	3/ 8/03	16:42
Benzo(b)fluoranthene	< 0.066	mg/kg	8733	3/ 4/03	12:47
Benzo(b)fluoranthene	< 0.066	mg/kg	3150	3/ 8/03	19:48
Benzo(b)fluoranthene	< 0.066	mg/kg	9601	3/ 8/03	16:42
Benzo(k)fluoranthene	< 0.066	mg/kg	8733	3/ 4/03	12:47
Benzo(k)fluoranthene	< 0.066	mg/kg	3150	3/ 8/03	19:48
Benzo(k)fluoranthene	< 0.066	mg/kg	9601	3/ 8/03	16:42
Chrysene	< 0.066	mg/kg	8733	3/ 4/03	12:47
Chrysene	< 0.066	mg/kg	3150	3/ 8/03	19:48
Chrysene	< 0.066	mg/kg	9601	3/ 8/03	16:42
Dibenzo(a,h)anthracene	< 0.066	mg/kg	8733	3/ 4/03	12:47
Dibenzo(a,h)anthracene	< 0.066	mg/kg	3150	3/ 8/03	19:48
Dibenzo(a,h)anthracene	< 0.066	mg/kg	9601	3/ 8/03	16:42
Indeno(1,2,3-cd)pyrene	< 0.066	mg/kg	8733	3/ 4/03	12:47
Indeno(1,2,3-cd)pyrene	< 0.066	mg/kg	3150	3/ 8/03	19:48

Project QC continued . . .

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PROJECT QUALITY CONTROL DATA
Project Number: 04887
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Blank Data

Analyte	Blank Value	Units	Q.C. Batch	Analysis Date	Analysis Time
Indeno(1,2,3-cd)pyrene	< 0.066	mg/kg	9601	3/ 8/03	16:42
Acenaphthylene	< 0.066	mg/kg	8733	3/ 4/03	12:47
Acenaphthylene	< 0.066	mg/kg	3150	3/ 8/03	19:48
Acenaphthylene	< 0.066	mg/kg	9601	3/ 8/03	16:42
Benzo(g,h,i)perylene	< 0.066	mg/kg	8733	3/ 4/03	12:47
Benzo(g,h,i)perylene	< 0.066	mg/kg	3150	3/ 8/03	19:48
Benzo(g,h,i)perylene	< 0.066	mg/kg	9601	3/ 8/03	16:42
Phenanthrene	< 0.066	mg/kg	8733	3/ 4/03	12:47
Phenanthrene	< 0.066	mg/kg	3150	3/ 8/03	19:48
Phenanthrene	< 0.066	mg/kg	9601	3/ 8/03	16:42

Blank Data

Analyte	Blank Value	Units	Q.C. Batch	Date Analyzed	Time Analyzed
VOA PARAMETERS					
Benzene	< 0.0003	mg/kg	376	3/ 4/03	11:18
Benzene	< 0.0003	mg/kg	379	3/ 5/03	0:37
Benzene	< 0.0003	mg/kg	383	3/ 5/03	13:10
Ethylbenzene	< 0.0005	mg/kg	376	3/ 4/03	11:18
Ethylbenzene	< 0.0005	mg/kg	383	3/ 5/03	13:10
Naphthalene	0.00170	mg/kg	376	3/ 4/03	11:18
Naphthalene	0.00100	mg/kg	379	3/ 5/03	0:37
Naphthalene	< 0.00100	mg/kg	383	3/ 5/03	13:10
Toluene	< 0.0008	mg/kg	376	3/ 4/03	11:18
Toluene	< 0.0008	mg/kg	383	3/ 5/03	13:10
Xylenes (Total)	< 0.0013	mg/kg	376	3/ 4/03	11:18
Xylenes (Total)	< 0.0013	mg/kg	383	3/ 5/03	13:10

Project QC continued . . .

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PROJECT QUALITY CONTROL DATA
Project Number: 04887
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VOA Surr 1,2-DCA-d4	108.	% Rec	376	3/ 4/03	11:18
VOA Surr 1,2-DCA-d4	104.	% Rec	383	3/ 5/03	13:10
VOA Surr Toluene-d8	107.	% Rec	376	3/ 4/03	11:18
VOA Surr Toluene-d8	105.	% Rec	383	3/ 5/03	13:10
VOA Surr, 4-BFB	102.	% Rec	376	3/ 4/03	11:18
VOA Surr, 4-BFB	98.	% Rec	383	3/ 5/03	13:10
VOA Surr, DBFM	109.	% Rec	376	3/ 4/03	11:18
VOA Surr, DBFM	106.	% Rec	383	3/ 5/03	13:10

Blank Data

Analyte	Blank Value	Units	Q.C. Batch	Date Analyzed	Time Analyzed
MISC PARAMETERS					
TOC	< 1000	mg/kg	7196	3/ 1/03	10:46

= Value outside Laboratory historical or method prescribed QC limits.

End of Report for Project 321799

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To assist us in using the proper analytical methods, is this work being conducted for regulatory purposes?
Compliance Monitoring ____________

Client Name: GEOLOGICAL RESOURCES INC Client #: 6110 994

Address: 4913 ALBEMARLE RD

City/State/Zip Code: CHARLOTTE NC 28205

Project Manager: SHAWN JUDD

Telephone Number: 704-563-1663 Fax: 704-563-1162

Sampler Name: (Print Name) JOEL LENK

Sampler Signature: [signature]

Project Name: WARREN GREEN GROCERY

Project #: 04887

Site/Location ID: YEMASSEE State: SC

Report To: SHAWN

Invoice To: CARRIE KENNEDY

Quote #: 420421799 PO#:

TAT
___ Standard 321799
___ Rush (surcharges may apply)
Date Needed: ____________
Fax Results: Y N

QC Deliverables
___ None
___ Level 2 (Batch QC)
___ Level 3
___ Level 4
Other: ______

SAMPLE ID	Date Sampled	Time Sampled	G = Grab, C = Composite	Field Filtered	Matrix: SL - Sludge DW - Drinking Water GW - Groundwater S - Soil/Solid WW - Wastewater Specify Other	Preservation & # of Containers: HNO_3	HCl	NaOH	H_2SO_4	Methanol	None	Other (Specify)	Analyze For: BTEX + NAPH 5035/8260	PAH 5035/8260	TPH 3550/8015	TOC 9060							REMARKS
SB-1 @ 3'	2-24-03		G		S								X	X									29314
SB-2 @ 3'													X	X									15
SB-3 @ 3'													X	X									16
SB-4 @ 3'													X	X									17
SB-5 @ 3'													X	X	X								18
SB-6 @ 3'																							19
SB-7 @ 3'													X	X									20
SB-8 @ 3'	2-25-03															X							29321

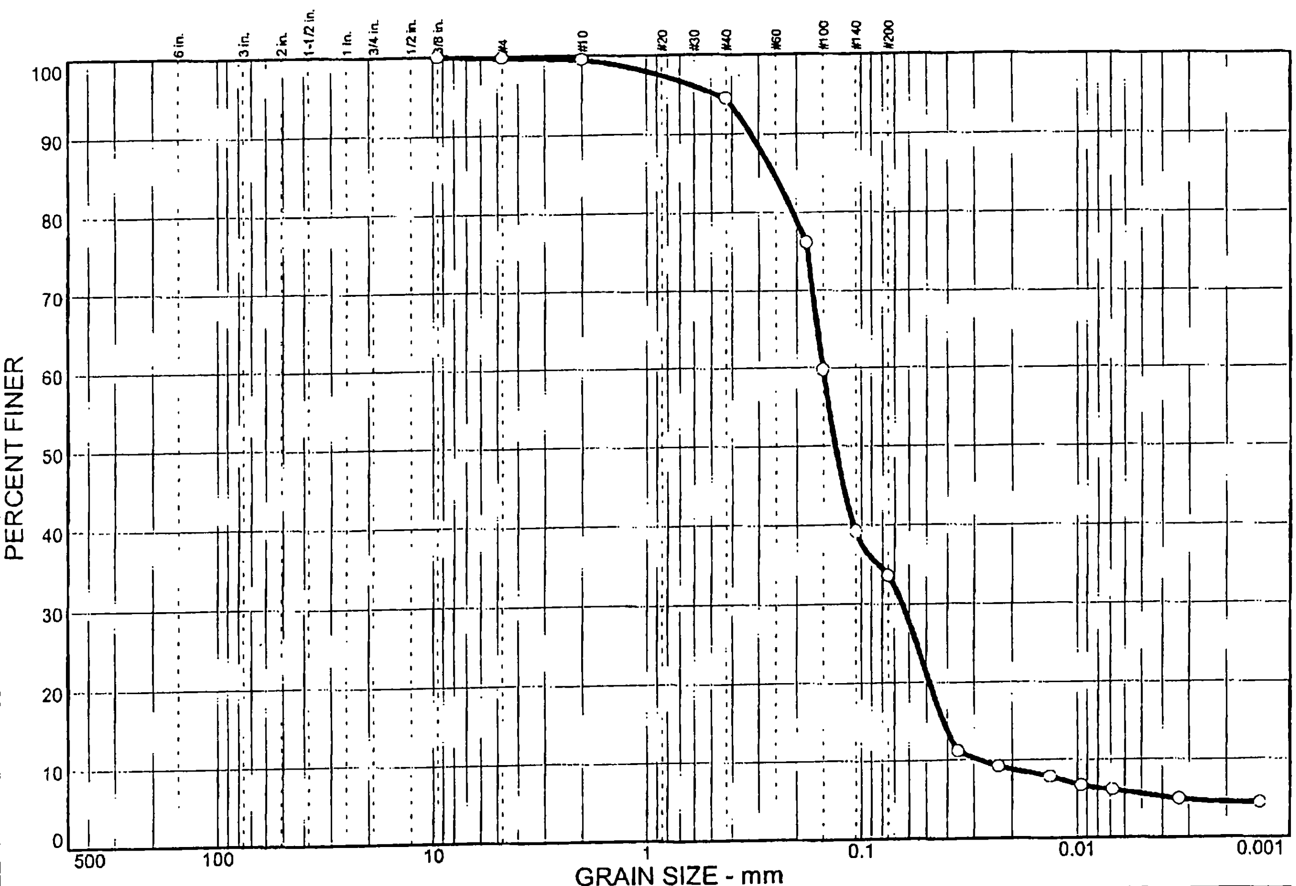
Special Instructions:

LABORATORY COMMENTS:
Init Lab Temp: 4.0
Rec Lab Temp:

Relinquished By: [signature]	Date: 2-26-03	Time: 1700	Received By: Marvin [signature]	Date: 2-27-3	Time: 9:00
Relinquished By:	Date:	Time:	Received By:	Date:	Time:
Relinquished By:	Date:	Time:	Received By:	Date:	Time:

Custody Seals: Y N N/A
Bottles Supplied by Test America: Y N
Method of Shipment:

Particle Size Distribution Report



% COBBLES	% GRAVEL	% SAND	% SILT	% CLAY
0.0	0.2	66.2	28.0	5.6

SIEVE SIZE	PERCENT FINER	SPEC.* PERCENT	PASS? (X=NO)
.375 in.	100.0		
#4	99.8		
#10	99.5		
#40	94.5		
#80	76.2		
#100	59.8		
#140	39.2		
#200	33.6		

* (no specification provided)

Soil Description

Warren Green Grocery; SB-5
Tan-Brown Silty fine SAND (SM)

Atterberg Limits

PL= NT LL= NT PI= NT

Coefficients

D_{85}= 0.256 D_{60}= 0.150 D_{50}= 0.132
D_{30}= 0.0645 D_{15}= 0.0416 D_{10}= 0.0281
C_u= 5.36 C_c= 0.99

Classification

USCS= SM AASHTO= A-2-4(0)

Remarks

Sample SB-5; Warren Green Grocery
F.M.=0.40

Sample No.: SB-5 **Source of Sample:** **Date:** 3/17/03
Location: Warren Green Grocery **Elev./Depth:** 3-Feet

GET SOLUTIONS, INC.

Client: Geological Resources, Inc.
Project: Soils Laboratory Services; Various Sites
Project No: OB03-119t **Figure**

Field Data Information Sheet for Ground-Water Sampling
South Carolina Department of Health and Environmental Control
Bureau of Underground Storage Tank Management

Date (mm/dd/yy): 2.25.03
Field Personnel: JL
General Weather Conditions: Sun
Ambient Air Temperature: 20° C

Quality Assurance

pH Meter serial no. 809061
Conductivity Meter serial no.
pH=4.0 ✓ Standard
pH=7.0 Standard
pH=10.0 Standard

Chain of Custody

Relinquished by	Date/Time	Received by	Date/Time

Facility Name: Warren Green Grocery
Site ID # 04887
Monitoring Well # MW-1
Well Diameter (D): 167 feet
Conversion factor (C): 3.14 X (D/2)2 for a 2 inch well C = 0.163
for a 4 inch well C = 0.652

* Free Product Thickness: feet
Depth to Ground Water (DGW) 6.71 feet
Total Well Depth (TWD) 12.76 feet
Length of the water column (LWC = TWD-DGW) 6.05 feet
1 casing volume (CV = LWC X C) = .99
3 casing volume 3 X CV = gals (standard purge volume)

Total volume of Water Purged Before Sampling gals
Total volume of Water Purged for Post Sampling gals
Total Purged
*If free product is present over 1/8 inch, sampling will not be required.

	Initial	1st Vol.	2nd Vol.	3rd Vol.	4th Vol.	5th Vol.	Post Sampling	Sample
Cumulative Volume Purged (gallons)	.25	1.25	2.25					
Time (military)	11:11	11:13	11:15					11:17
pH (s.u.)	5.4	5.3	5.2					
Specific Cond. (umhos/cm)	.11	.09	.09					
Water Temperature (degrees C)	17	17	17					
Turbidity (subjective: clear, slightly cloudy, cloudy)	CLDY	CLDY	CLDY					
Dissolved Oxygen (mg/l)	5.9	5.9	1.9					
PID readings, if required								

Remarks:

Field Data Information Sheet for Ground-Water Sampling
South Carolina Department of Health and Environmental Control
Bureau of Underground Storage Tank Management

Date (mm/dd/yy): 2-25-03
Field Personnel: JL
General Weather Conditions: SUN
Ambient Air Temperature: 20° C

Quality Assurance

pH Meter serial no.	809061	Conductivity Meter serial no.	
pH=4.0	✓	Standard	
pH=7.0		Standard	
pH=10.0		Standard	

Chain of Custody

Relinquished by	Date/Time	Received by	Date/Time

Facility Name: Warren Green Grocery
Site ID # 04887 Monitoring Well # MW-2
Well Diameter (D): .167 feet
Conversion factor (C): 3.14 X (D/2)2 for a 2 inch well C = 0.163
for a 4 inch well C = 0.652

* Free Product Thickness: feet
Depth to Ground Water (DGW) 8.06 feet
Total Well Depth (TWD) 13.76 feet
Length of the water column (LWC = TWD-DGW) 5.70 feet
1 casing volume (CV = LWC X C) = .93
3 casing volume 3 X CV = gals (standard purge volume)

Total volume of Water Purged Before Sampling gals
Total volume of Water Purged for Post Sampling gals
Total Purged
*If free product is present over 1/8 inch, sampling will not be required.

	Initial	1st Vol.	2nd Vol.	3rd Vol.	4th Vol.	5th Vol.	Post Sampling	Sample
Cumulative Volume Purged (gallons)	.25	1.25	2.25					
Time (military)	1122	1125	1128					1129
pH (s.u.)	4.9	5.5	5.5					
Specific Cond. (umhos/cm)	.41	.22	.22					
Water Temperature (degrees C)	19	19	19					
Turbidity (subjective: clear, slightly cloudy, cloudy) CLDY	~~1.6~~ ~~1.5~~	CLDY 4.3	CLDY 4.2					
Dissolved Oxygen (mg/l)								
PID readings, if required								

Remarks:

Field Data Information Sheet for Ground-Water Sampling
South Carolina Department of Health and Environmental Control
Bureau of Underground Storage Tank Management

Date (mm/dd/yy): 2-25-03
Field Personnel: [illegible]
General Weather Conditions: SUN
Ambient Air Temperature: 20° C

Quality Assurance

pH Meter serial no.	80906	Conductivity Meter serial no.	
pH=4.0	✓	Standard	
pH=7.0		Standard	
pH=10.0		Standard	

Chain of Custody

Relinquished by	Date/Time	Received by	Date/Time

Facility Name: Warren Green Grocery
Site ID # 04887
Monitoring Well # MW-3
Well Diameter (D): .167 feet
Conversion factor (C): 3.14 X (D/2)2 for a 2 inch well C = 0.163
for a 4 inch well C = 0.652

* Free Product Thickness: feet
Depth to Ground Water (DGW) 8.20 feet
Total Well Depth (TWD) 13.36 feet
Length of the water column (LWC = TWD-DGW) 5.16 feet

1 casing volume (CV = LWC X C) = .84
3 casing volume 3 X CV = gals (standard purge volume)

Total volume of Water Purged Before Sampling gals
Total volume of Water Purged for Post Sampling gals
Total Purged

*If free product is present over 1/8 inch, sampling will not be required.

	Initial	1st Vol.	2nd Vol.	3rd Vol.	4th Vol.	5th Vol.	Post Sampling	Sample
Cumulative Volume Purged (gallons)	.25	1.25	2.25					
Time (military)	11:37	11:39	11:41					11:43
pH (s.u.)	5.4	5.4	5.3					
Specific Cond. (umhos/cm)	.13	.12	.14					
Water Temperature (degrees C)	19	18	18					
Turbidity (subjective: clear, slightly cloudy, cloudy)	CLDY	CLDY	CLDY					
Dissolved Oxygen (mg/l)	2.6	4.8	4.6					
PID readings, if required								

Remarks:

Field Data Information Sheet for Ground-Water Sampling
South Carolina Department of Health and Environmental Control
Bureau of Underground Storage Tank Management

Date (mm/dd/yy): 2-25-03
Field Personnel: JC
General Weather Conditions: Sun
Ambient Air Temperature: 20° C

Quality Assurance

pH Meter serial no.	80906	Conductivity Meter serial no.	
pH=4.0	✓	Standard	
pH=7.0		Standard	
pH=10.0		Standard	

Chain of Custody

Relinquished by	Date/Time	Received by	Date/Time

Facility Name: Warren Green Grocery
Site ID # 04887
Monitoring Well # ~~MW-4~~ WSW-1
Well Diameter (D): .167 feet
Conversion factor (C): 3.14 X (D/2)2 for a 2 inch well C = 0.163
for a 4 inch well C = 0.652

* Free Product Thickness: ______ feet
Depth to Ground Water (DGW) ______ feet
Total Well Depth (TWD) ______ feet
Length of the water column (LWC = TWD-DGW) ______ feet

1 casing volume (CV = LWC X C) = ______
3 casing volume 3 X CV = ______ gals (standard purge volume)

Total volume of Water Purged Before Sampling ______ gals
Total volume of Water Purged for Post Sampling ______ gals
______ Total Purged
*If free product is present over 1/8 inch, sampling will not be required.

	Initial	1st Vol.	2nd Vol.	3rd Vol.	4th Vol.	5th Vol.	Post Sampling	Sample
Cumulative Volume Purged (gallons)								
Time (military)								
pH (s.u.)								
Specific Cond. (umhos/cm)								
Water Temperature (degrees C)								
Turbidity (subjective: clear, slightly cloudy, cloudy)								
Dissolved Oxygen (mg/l)								
PID readings, if required								

Remarks:

Field Data Information Sheet for Ground-Water Sampling
South Carolina Department of Health and Environmental Control
Bureau of Underground Storage Tank Management

Date (mm/dd/yy):	2-25-03
Field Personnel:	JL
General Weather Conditions:	S/N
Ambient Air Temperature:	70° C

Quality Assurance

pH Meter		Conductivity Meter	
serial no.	809061	serial no.	
pH=4.0	✓	Standard	
pH=7.0		Standard	
pH=10.0		Standard	

Chain of Custody

Relinquished by	Date/Time	Received by	Date/Time

Facility Name:	Warren Green Grocery		
Site ID #	04887	Monitoring Well #	WSW-2
Well Diameter (D):	.167 feet		

Conversion factor (C): 3.14 X (D/2)2 for a 2 inch well C = 0.163
for a 4 inch well C = 0.652

* Free Product Thickness:	feet
Depth to Ground Water (DGW)	feet
Total Well Depth (TWD)	feet
Length of the water column (LWC = TWD-DGW)	feet
1 casing volume (CV = LWC X C) =	
3 casing volume 3 X CV =	gals (standard purge volume)
Total volume of Water Purged Before Sampling	gals
Total volume of Water Purged for Post Sampling	gals
	Total Purged

*If free product is present over 1/8 inch, sampling will not be required.

	Initial	1st Vol.	2nd Vol.	3rd Vol.	4th Vol.	5th Vol.	Post Sampling	Sample
Cumulative Volume Purged (gallons)								
Time (military)								11:07
pH (s.u.)								
Specific Cond. (umhos/cm)								
Water Temperature (degrees C)								
Turbidity (subjective: clear, slightly cloudy, cloudy)								
Dissolved Oxygen (mg/l)								
PID readings, if required								

Remarks:

TESTAMERICA,INC.-NASHVILLE

COOLER RECEIPT FORM

Client: Geological Resources BC# 321582

Cooler Received On: 2/26/03 And Opened On: 2/26/03 By: Shawn Gracey

(Signature)

1. Temperature of Cooler when opened 2.5 Degrees Celsius
2. Were custody seals on outside of cooler?..YES NO N/A
   a. If yes, how many, what kind and where: 1 (FRONT/BACK/SIDE)
   b. Were the seals intact, signed, and dated correctly?......................YES NO N/A
3. Were custody seals on containers and intact?.....................................NO YES N/A
4. Were custody papers inside cooler?...YES NO N/A
5. Were custody papers properly filled out (ink,signed,etc)?.......................YES NO N/A
6. Did you sign the custody papers in the appropriate place?......................YES NO N/A
7. What kind of packing material used? Bubblewrap Peanuts Vermiculite Other None
8. Was sufficient ice used (if appropriate)?..YES NO N/A
9. Did all bottles arrive in good condition(unbroken)?..............................YES NO N/A
10. Were all bottle labels complete (#,date,signed,pres,etc)?.......................YES NO N/A
11. Did all bottle labels and tags agree with custody papers?.......................YES NO N/A
12. Were correct bottles used for the analysis requested?...........................YES NO N/A
13. a. Were VOA vials received?...YES NO N/A
    b. Was there any observable head space present in any VOA vial?..........NO YES N/A
14. Was sufficient amount of sample sent in each bottle?..............................YES NO N/A
15. Were correct preservatives used?..YES NO N/A
    If not, record standard ID of preservative used here____________
16. Was residual chlorine present?...NO YES N/A
17. Corrective action taken, if necessary:

See attached for resolution

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3/ 4/03

GEOLOGICAL RESOURCES 2110
JOHN BROWN
4913 ALBEMARLE RD
CHARLOTTE, NC 28205

This report includes the analytical certificates of analysis for all samples listed below. These samples relate to your project identified below:

Project Name: WARREN GREEN GROCERY
Project Number: 04887.
Laboratory Project Number: 321582.

An executed copy of the chain of custody, the project quality control data, and the sample receipt form are also included as an addendum to this report. If you have any questions relating to this analytical report, please contact your Laboratory Project Manager at 1-800-765-0980.

Page 1

Sample Identification	Lab Number	Collection Date
WSW-2	03-A28298	2/25/03
MW-1	03-A28299	2/25/03
MW-2	03-A28300	2/25/03
MW-3	03-A28301	2/25/03

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Sample Identification	Lab Number	Collection Date

These results relate only to the items tested.
This report shall not be reproduced except in full and with permission of the laboratory.

Report Approved By: ______________ Report Date: 3/ 4/03

Paul E. Lane, Jr., Lab Director
Michael H. Dunn, M.S., Technical Director
Johnny A. Mitchell, Dir. Technical Serv.
Eric S. Smith, Assistant Technical Director
Roxanne L. Connor, Technical Services

Gail A. Lage, Technical Serv.
Glenn L. Norton, Technical Serv.
Kelly S. Comstock, Technical Serv.
Pamela A. Langford, Technical Serv.

Laboratory Certification Number: 84009

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ANALYTICAL REPORT

Laboratory Number: 03-A28299
Sample ID: MW-1
Project: 04887

Analyte	Result	Units	Report Limit	Dil Factor	Analysis Date	Analysis Time	Analyst	Method	Batch
Nitrate-N as N	ND	mg/L	0.100	1.0	2/26/03	20:49	S. Duncan	353.2	4732
Sulfate	1.51	mg/L	1.00	1.0	2/26/03	23:39	S. Overton	9056	4735

Sample Extraction Data

Parameter	Wt/Vol Extracted	Extract Vol	Date	Time	Analyst	Method
BNA's	870. ml	1.0 ml	2/27/03		M. Cauthen	3510/625

Surrogate	% Recovery	Target Range
VOA Surr 1,2-DCA-d4	118.	73. - 133.
VOA Surr Toluene-d8	103.	80. - 121.
VOA Surr, 4-BFB	100.	80. - 128.
VOA Surr, DBFM	110.	81. - 121.
BNA Surr-Nitrobenzene-d5	83.	40. - 127.
BNA Surr-2-Fluorobiphenyl	82.	42. - 113.
BNA Surr-Terphenyl-d14	50.	41. - 129.

LABORATORY COMMENTS:

ND = Not detected at the report limit.
B = Analyte was detected in the method blank.
J = Estimated Value below Report Limit.
E = Estimated Value above the calibration limit of the instrument.
# = Recovery outside Laboratory historical or method prescribed limits.
M = Method RSK175 modified for use with Headspace analyzer.
Sample for Ferrous Iron analysis received outside method
prescribed holding time.

End of Sample Report.

TestAmerica
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ANALYTICAL REPORT

GEOLOGICAL RESOURCES 2110
JOHN BROWN
4913 ALBEMARLE RD
CHARLOTTE, NC 28205

Project: 04887
Project Name: WARREN GREEN GROCERY
Sampler: JOEL LENK

Lab Number: 03-A28299
Sample ID: MW-1
Sample Type: Water
Site ID: YEMASSEE

Date Collected: 2/25/03
Time Collected: 11:17
Date Received: 2/26/03
Time Received: 9:00
Page: 1

Analyte	Result	Units	Report Limit	Dil Factor	Analysis Date	Analysis Time	Analyst	Method	Batch
ORGANIC PARAMETERS									
Benzo(a)anthracene	ND	ug/L	2.3	1.0	3/ 1/03	0:10	M.Schott	8270C	6743
Benzo(b)fluoranthene	ND	ug/L	2.3	1.0	3/ 1/03	0:10	M.Schott	8270C	6743
Benzo(k)fluoranthene	ND	ug/L	2.3	1.0	3/ 1/03	0:10	M.Schott	8270C	6743
Chrysene	ND	ug/L	2.3	1.0	3/ 1/03	0:10	M.Schott	8270C	6743
Dibenzo(a,h)anthracene	ND	ug/L	2.3	1.0	3/ 1/03	0:10	M.Schott	8270C	6743
VOLATILE ORGANICS									
Benzene	178.	ug/L	1.0	1.0	2/26/03	21:34	CHollingsw	8260B	5800
Toluene	240.	ug/L	5.0	5.0	2/27/03	12:32	CHollingsw	8260B	5811
Ethylbenzene	58.6	ug/L	1.0	1.0	2/26/03	21:34	CHollingsw	8260B	5800
Xylenes (Total)	253.	ug/L	1.0	1.0	2/26/03	21:34	CHollingsw	8260B	5800
Methyl-t-butyl ether	71.0	ug/L	1.0	1.0	2/26/03	21:34	CHollingsw	8260B	5800
Naphthalene	ND	ug/L	5.00	1.0	2/26/03	21:34	CHollingsw	8260B	5800
VOLATILE ORGANICS by GC									
Ethylene Dibromide	ND	ug/L	0.02	1.0	2/27/03	22:58	D. Desouza	8011	5509
MISCELLANEOUS GC PARAMETERS									
Methane	ND	ug/L	26.	1.0	2/28/03	12:32	K. Burritt	RSK175M	6724
METALS									
Ferrous Iron	9700	ug/L	500.	5.0	2/26/03	19:11	R.Kaminski	3500D	4738
Lead	124.	ug/L	3.0	1.0	2/27/03	14:39	G.McCord	6010B	5290

MISCELLANEOUS CHEMISTRY

Sample report continued . . .

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ANALYTICAL REPORT

GEOLOGICAL RESOURCES 2110
JOHN BROWN
4913 ALBEMARLE RD
CHARLOTTE, NC 28205

Project: 04887
Project Name: WARREN GREEN GROCERY
Sampler: JOEL LENK

Lab Number: 03-A28300
Sample ID: MW-2
Sample Type: Water
Site ID: YEMASSEE

Date Collected: 2/25/03
Time Collected: 11:29
Date Received: 2/26/03
Time Received: 9:00
Page: 1

Analyte	Result	Units	Report Limit	Dil Factor	Analysis Date	Analysis Time	Analyst	Method	Batch
ORGANIC PARAMETERS									
Benzo(a)anthracene	ND	ug/L	2.2	1.0	3/ 1/03	0:48	M.Schott	8270C	6743
Benzo(b)fluoranthene	ND	ug/L	2.2	1.0	3/ 1/03	0:48	M.Schott	8270C	6743
Benzo(k)fluoranthene	ND	ug/L	2.2	1.0	3/ 1/03	0:48	M.Schott	8270C	6743
Chrysene	ND	ug/L	2.2	1.0	3/ 1/03	0:48	M.Schott	8270C	6743
Dibenzo(a,h)anthracene	ND	ug/L	2.2	1.0	3/ 1/03	0:48	M.Schott	8270C	6743
VOLATILE ORGANICS									
Benzene	ND	ug/L	1.0	1.0	2/26/03	22:08	CHollingsw	8260B	5800
Toluene	ND	ug/L	1.0	1.0	2/26/03	22:08	CHollingsw	8260B	5800
Ethylbenzene	ND	ug/L	1.0	1.0	2/26/03	22:08	CHollingsw	8260B	5800
Xylenes (Total)	ND	ug/L	1.0	1.0	2/26/03	22:08	CHollingsw	8260B	5800
Methyl-t-butyl ether	2.6	ug/L	1.0	1.0	2/26/03	22:08	CHollingsw	8260B	5800
Naphthalene	ND	ug/L	5.00	1.0	2/26/03	22:08	CHollingsw	8260B	5800
VOLATILE ORGANICS by GC									
Ethylene Dibromide	ND	ug/L	0.02	1.0	2/27/03	23:25	D. Desouza	8011	5509
MISCELLANEOUS GC PARAMETERS									
Methane	ND	ug/L	26.	1.0	2/28/03	12:36	K. Burritt	RSK175M	6724
METALS									
Ferrous Iron	4410	ug/L	200.	2.0	2/26/03	19:11	R.Kaminski	3500D	4738
Lead	57.0	ug/L	3.0	1.0	2/27/03	14:39	G.McCord	6010B	5290

MISCELLANEOUS CHEMISTRY

Sample report continued . . .

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ANALYTICAL REPORT

Laboratory Number: 03-A28300
Sample ID: MW-2
Project: 04887

Analyte	Result	Units	Report Limit	Dil Factor	Analysis Date	Analysis Time	Analyst	Method	Batch
Nitrate-N as N	0.150	mg/L	0.100	1.0	2/26/03	20:50	S. Duncan	353.2	4732
Sulfate	6.57	mg/L	1.00	1.0	2/26/03	23:39	S. Overton	9056	4735

Sample Extraction Data

Parameter	Wt/Vol Extracted	Extract Vol	Date	Time	Analyst	Method
BNA's	900. ml	1.0 ml	2/27/03		M. Cauthen	3510/625

Surrogate	% Recovery	Target Range
VOA Surr 1,2-DCA-d4	118.	73. - 133.
VOA Surr Toluene-d8	104.	80. - 121.
VOA Surr, 4-BFB	99.	80. - 128.
VOA Surr, DBFM	108.	81. - 121.
BNA Surr-Nitrobenzene-d5	69.	40. - 127.
BNA Surr-2-Fluorobiphenyl	56.	42. - 113.
BNA Surr-Terphenyl-d14	13. #	41. - 129.

LABORATORY COMMENTS:

ND = Not detected at the report limit.
B = Analyte was detected in the method blank.
J = Estimated Value below Report Limit.
E = Estimated Value above the calibration limit of the instrument.
# = Recovery outside Laboratory historical or method prescribed limits.
M = Method RSK175 modified for use with Headspace analyzer.
Sample for Ferrous Iron analysis received outside method
prescribed holding time.

End of Sample Report.

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ANALYTICAL REPORT

GEOLOGICAL RESOURCES 2110
JOHN BROWN
4913 ALBEMARLE RD
CHARLOTTE, NC 28205

Lab Number: 03-A28301
Sample ID: MW-3
Sample Type: Water
Site ID: YEMASSEE

Project: 04887
Project Name: WARREN GREEN GROCERY
Sampler: JOEL LENK

Date Collected: 2/25/03
Time Collected: 11:43
Date Received: 2/26/03
Time Received: 9:00
Page: 1

Analyte	Result	Units	Report Limit	Dil Factor	Analysis Date	Analysis Time	Analyst	Method	Batch
ORGANIC PARAMETERS									
Benzo(a)anthracene	ND	ug/L	2.0	1.0	3/ 1/03	1:27	M.Schott	8270C	6743
Benzo(b)fluoranthene	ND	ug/L	2.0	1.0	3/ 1/03	1:27	M.Schott	8270C	6743
Benzo(k)fluoranthene	ND	ug/L	2.0	1.0	3/ 1/03	1:27	M.Schott	8270C	6743
Chrysene	ND	ug/L	2.0	1.0	3/ 1/03	1:27	M.Schott	8270C	6743
Dibenzo(a,h)anthracene	ND	ug/L	2.0	1.0	3/ 1/03	1:27	M.Schott	8270C	6743
VOLATILE ORGANICS									
Benzene	ND	ug/L	1.0	1.0	2/26/03	22:43	CHollingsw	8260B	5800
Toluene	1.6	ug/L	1.0	1.0	2/26/03	22:43	CHollingsw	8260B	5800
Ethylbenzene	ND	ug/L	1.0	1.0	2/26/03	22:43	CHollingsw	8260B	5800
Xylenes (Total)	1.7	ug/L	1.0	1.0	2/26/03	22:43	CHollingsw	8260B	5800
Methyl-t-butyl ether	1.5	ug/L	1.0	1.0	2/26/03	22:43	CHollingsw	8260B	5800
Naphthalene	ND	ug/L	5.00	1.0	2/26/03	22:43	CHollingsw	8260B	5800
VOLATILE ORGANICS by GC									
Ethylene Dibromide	ND	ug/L	0.02	1.0	2/27/03	23:53	D. Desouza	8011	5509
MISCELLANEOUS GC PARAMETERS									
Methane	ND	ug/L	26.	1.0	2/28/03	12:42	K. Burritt	RSK175M	6724
METALS									
Ferrous Iron	6750	ug/L	200.	2.0	2/26/03	19:11	R.Kaminski	3500D	4738
Lead	86.0	ug/L	3.0	1.0	2/27/03	14:39	G.McCord	6010B	5290

MISCELLANEOUS CHEMISTRY

Sample report continued . . .

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ANALYTICAL REPORT

Laboratory Number: 03-A28301
Sample ID: MW-3
Project: 04887

Analyte	Result	Units	Report Limit	Dil Factor	Analysis Date	Analysis Time	Analyst	Method	Batch
Nitrate-N as N	ND	mg/L	0.100	1.0	2/26/03	20:52	S. Prayter	353.2	4734
Sulfate	7.37	mg/L	1.00	1.0	2/26/03	23:39	S. Overton	9056	4735

Sample Extraction Data

Parameter	Wt/Vol Extracted	Extract Vol	Date	Time	Analyst	Method
BNA's	960. ml	1.0 ml	2/27/03		M. Cauthen	3510/625

Surrogate	% Recovery	Target Range
VOA Surr 1,2-DCA-d4	118.	73. - 133.
VOA Surr Toluene-d8	102.	80. - 121.
VOA Surr, 4-BFB	99.	80. - 128.
VOA Surr, DBFM	108.	81. - 121.
BNA Surr-Nitrobenzene-d5	57.	40. - 127.
BNA Surr-2-Fluorobiphenyl	46.	42. - 113.
BNA Surr-Terphenyl-d14	6. #	41. - 129.

LABORATORY COMMENTS:

ND = Not detected at the report limit.
B = Analyte was detected in the method blank.
J = Estimated Value below Report Limit.
E = Estimated Value above the calibration limit of the instrument.
# = Recovery outside Laboratory historical or method prescribed limits.
M = Method RSK175 modified for use with Headspace analyzer.
Sample for Ferrous Iron analysis received outside method
prescribed holding time.

End of Sample Report.

2960 Foster Creighton Drive / Nashville, TN 37204 / 615-726-0177 / Fax: 615-726-0954 / 800-765-0980

TestAmerica
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ANALYTICAL REPORT

GEOLOGICAL RESOURCES 2110
JOHN BROWN
4913 ALBEMARLE RD
CHARLOTTE, NC 28205

Project: 04887
Project Name: WARREN GREEN GROCERY
Sampler: JOEL LENK

Lab Number: 03-A28298
Sample ID: WSW-2
Sample Type: Ground water
Site ID: YEMASSEE

Date Collected: 2/25/03
Time Collected: 11:04
Date Received: 2/26/03
Time Received: 9:00
Page: 1

Analyte	Result	Units	Report Limit	Dil Factor	Analysis Date	Analysis Time	Analyst	Method	Batch
VOLATILE ORGANICS									
Benzene	ND	ug/L	1.0	1	3/ 1/03	4:15	CHollingsw	8260B	8708
Ethylbenzene	ND	ug/L	1.0	1	3/ 1/03	4:15	CHollingsw	8260B	8708
Naphthalene	ND	ug/L	5.00	1	3/ 1/03	4:15	CHollingsw	8260B	8708
Toluene	ND	ug/L	1.0	1	3/ 1/03	4:15	CHollingsw	8260B	8708
Xylenes (Total)	ND	ug/L	1.0	1	3/ 1/03	4:15	CHollingsw	8260B	8708
Methyl-t-butyl ether	ND	ug/L	1.0	1	3/ 1/03	4:15	CHollingsw	8260B	8708
VOLATILE ORGANICS by GC									
Ethylene Dibromide	ND	ug/L	0.02	1	2/28/03	0:21	D. Desouza	8011	5509
METALS									
Lead	ND	ug/L	3.0	1	2/27/03	15:34	C.Johnson	6010B	5292

Surrogate	% Recovery	Target Range
VOA Surr 1,2-DCA-d4	117.	73. - 133.
VOA Surr Toluene-d8	101.	80. - 121.
VOA Surr, 4-BFB	100.	80. - 128.
VOA Surr, DBFM	108.	81. - 121.

Sample report continued . . .

ANALYTICAL REPORT

Laboratory Number: 03-A28298
Sample ID: WSW-2
Project: 04887
Page 2

LABORATORY COMMENTS:

ND = Not detected at the report limit.

B = Analyte was detected in the method blank.

J = Estimated Value below Report Limit.

E = Estimated Value above the calibration limit of the instrument.

= Recovery outside Laboratory historical or method prescribed limits.

End of Sample Report.

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PROJECT QUALITY CONTROL DATA
Project Number: 04887
Project Name: WARREN GREEN GROCERY
Page: 1
Laboratory Receipt Date: 2/26/03

Matrix Spike Recovery

Note: If Blank is referenced as the sample spiked, insufficient volume was received for the defined analytical batch for MS/MSD analysis on an true sample matrix. Laboratory reagent water was used for QC purposes.

Analyte	units	Orig. Val.	MS Val	Spike Conc	Recovery	Target Range	Q.C. Batch	Spike Sample
UST ANALYSIS								
Benzo(a)anthracene	mg/l	< 0.0010	0.0430	0.0500	86	49. - 126.	6743	BLANK
Benzo(b)fluoranthene	mg/l	< 0.0010	0.0400	0.0500	80	45. - 127.	6743	BLANK
Benzo(k)fluoranthene	mg/l	< 0.0010	0.0420	0.0500	84	46. - 134.	6743	BLANK
Chrysene	mg/l	< 0.0010	0.0430	0.0500	86	48. - 126.	6743	BLANK
Dibenzo(a,h)anthracene	mg/l	< 0.0010	0.0420	0.0500	84	31. - 149.	6743	BLANK

Matrix Spike Recovery

Note: If Blank is referenced as the sample spiked, insufficient volume was received for the defined analytical batch for MS/MSD analysis on an true sample matrix. Laboratory reagent water was used for QC purposes.

Analyte	units	Orig. Val.	MS Val	Spike Conc	Recovery	Target Range	Q.C. Batch	Spike Sample
VOA PARAMETERS								
Benzene	mg/l	0.0197	0.0672	0.0500	95	78. - 132.	5800	03-A28271
Benzene	mg/l	< 0.0005	0.0486	0.0500	97	78. - 132.	8708	03-A28415
Toluene	mg/l	0.0621	0.109	0.0500	94	77. - 134.	5800	03-A28271
Toluene	mg/l	0.0013	0.0477	0.0500	93	77. - 134.	8708	03-A28415
VOA Surr 1,2-DCA-d4	% Rec				119	73. - 133.	5800	
VOA Surr 1,2-DCA-d4	% Rec				118	73. - 133.	8708	
VOA Surr Toluene-d8	% Rec				104	80. - 121.	5800	
VOA Surr Toluene-d8	% Rec				104	80. - 121.	8708	
VOA Surr, 4-BFB	% Rec				95	80. - 128.	5800	
VOA Surr, 4-BFB	% Rec				96	80. - 128.	8708	
VOA Surr, DBFM	% Rec				111	81. - 121.	5800	
VOA Surr, DBFM	% Rec				110	81. - 121.	8708	

Project QC continued . . .

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PROJECT QUALITY CONTROL DATA
Project Number: 04887
Project Name: WARREN GREEN GROCERY
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BNA Surr-Nitrobenzene-d5	% Rec	72	40. - 127.	6743
BNA Surr-2-Fluorobiphenyl	% Rec	72	42. - 113.	6743
BNA Surr-Terphenyl-d14	% Rec	79	41. - 129.	6743

Matrix Spike Recovery

Note: If Blank is referenced as the sample spiked, insufficient volume was received for the defined analytical batch for MS/MSD analysis on an true sample matrix. Laboratory reagent water was used for QC purposes.

Analyte	units	Orig. Val.	MS Val	Spike Conc	Recovery	Target Range	Q.C. Batch	Spike Sample
METALS								
Lead	mg/l	< 0.0030	0.0510	0.0500	102	80 - 120	5290	Duplicate
Lead	mg/l	0.0400	0.0920	0.0500	104	80 - 120	5292	Duplicate

Matrix Spike Recovery

Note: If Blank is referenced as the sample spiked, insufficient volume was received for the defined analytical batch for MS/MSD analysis on an true sample matrix. Laboratory reagent water was used for QC purposes.

Analyte	units	Orig. Val.	MS Val	Spike Conc	Recovery	Target Range	Q.C. Batch	Spike Sample
MISC PARAMETERS								
Nitrate-N as N	mg/l	< 0.100	5.73	5.00	115	80 - 120	4734	03-A28860
Nitrate-N as N	mg/l	< 0.100	5.80	5.00	116	80 - 120	4734	03-A28860
Sulfate	mg/l	1.51	18.1	15.0	111	80 - 120	4735	03-A28299

Matrix Spike Recovery

Note: If Blank is referenced as the sample spiked, insufficient volume was received for the defined analytical batch for MS/MSD analysis on an true sample matrix. Laboratory reagent water was used for QC purposes.

Analyte	units	Orig. Val.	MS Val	Spike Conc	Recovery	Target Range	Q.C. Batch	Spike Sample
MISC PARAMETERS								
Ethylene Dibromide	mg/l	< 0.00002	0.00036	0.00029	124	40 - 140	5509	03-A26068
Methane	mg/L	< 0.026	1.28	1.33	96	40 - 140	6724	03-A27563

Project QC continued . . .

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PROJECT QUALITY CONTROL DATA
Project Number: 04887
Project Name: WARREN GREEN GROCERY
Page: 3
Laboratory Receipt Date: 2/26/03

Matrix Spike Duplicate

Analyte	units	Orig. Val.	Duplicate	RPD	Limit	Q.C. Batch
UST PARAMETERS						
Benzo(a)anthracene	mg/l	0.0430	0.0420	2.35	37.	6743
Benzo(b)fluoranthene	mg/l	0.0400	0.0400	0.00	38.	6743
Benzo(k)fluoranthene	mg/l	0.0420	0.0420	0.00	36.	6743
Chrysene	mg/l	0.0430	0.0420	2.35	38.	6743
Dibenzo(a,h)anthracene	mg/l	0.0420	0.0420	0.00	45.	6743

Matrix Spike Duplicate

Analyte	units	Orig. Val.	Duplicate	RPD	Limit	Q.C. Batch
VOA PARAMETERS						
Benzene	mg/l	0.0672	0.0684	1.77	15.	5800
Benzene	mg/l	0.0486	0.0490	0.82	15.	8708
Toluene	mg/l	0.109	0.111	1.82	16.	5800
Toluene	mg/l	0.0477	0.0489	2.48	16.	8708
VOA Surr 1,2-DCA-d4	% Rec		117.			5800
VOA Surr 1,2-DCA-d4	% Rec		117.			8708
VOA Surr Toluene-d8	% Rec		103.			5800
VOA Surr Toluene-d8	% Rec		105.			8708
VOA Surr, 4-BFB	% Rec		94.			5800
VOA Surr, 4-BFB	% Rec		97.			8708
VOA Surr, DBFM	% Rec		111.			5800
VOA Surr, DBFM	% Rec		111.			8708

Project QC continued . . .

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PROJECT QUALITY CONTROL DATA
Project Number: 04887
Project Name: WARREN GREEN GROCERY
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BNA Surr-Nitrobenzene-d5	% Rec	78.				6743
BNA Surr-2-Fluorobiphenyl	% Rec	75.				6743
BNA Surr-Terphenyl-d14	% Rec	76.				6743

Matrix Spike Duplicate

Analyte	units	Orig. Val.	Duplicate	RPD	Limit	Q.C. Batch
METALS						
Lead	mg/l	0.0510	0.0510	0.00	20	5290
Lead	mg/l	0.0920	0.0920	0.00	20	5292

Matrix Spike Duplicate

Analyte	units	Orig. Val.	Duplicate	RPD	Limit	Q.C. Batch
MISC PARAMETERS						
Ethylene Dibromide	mg/l	0.00036	0.00034	5.71	50	5509
Methane	mg/L	1.28	1.11	14.23	50	6724

Matrix Spike Duplicate

Analyte	units	Orig. Val.	Duplicate	RPD	Limit	Q.C. Batch
MISC PARAMETERS						
Nitrate-N as N	mg/l	7.06	7.10	0.56	20	4732
Nitrate-N as N	mg/l	5.73	5.80	1.21	20	4734
Sulfate	mg/l	18.1	18.2	0.55	20	4735

Project QC continued . . .

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PROJECT QUALITY CONTROL DATA
Project Number: 04887
Project Name: WARREN GREEN GROCERY
Page: 5
Laboratory Receipt Date: 2/26/03

Laboratory Control Data

Analyte	units	Known Val.	Analyzed Val	% Recovery	Target Range	Q.C. Batch
UST PARAMETERS						
Benzo(a)anthracene	mg/l	0.0500	0.0280	56	49 - 126	6743
Benzo(b)fluoranthene	mg/l	0.0500	0.0260	52	45 - 127	6743
Benzo(k)fluoranthene	mg/l	0.0500	0.0290	58	46 - 134	6743
Chrysene	mg/l	0.0500	0.0280	56	48 - 126	6743
Dibenzo(a,h)anthracene	mg/l	0.0500	0.0280	56	31 - 149	6743

Laboratory Control Data

Analyte	units	Known Val.	Analyzed Val	% Recovery	Target Range	Q.C. Batch
VOA PARAMETERS						
Benzene	mg/l	0.0500	0.0465	93	78 - 127	5800
Benzene	mg/l	0.0500	0.0470	94	78 - 127	5800
Benzene	mg/l	0.0500	0.0493	99	78 - 127	8708
Ethylbenzene	mg/l	0.0500	0.0491	98	78 - 125	5800
Ethylbenzene	mg/l	0.0500	0.0486	97	78 - 125	5800
Ethylbenzene	mg/l	0.0500	0.0509	102	78 - 125	8708
Naphthalene	mg/l	0.0500	0.0527	105	52 - 140	5800
Naphthalene	mg/l	0.0500	0.0514	103	52 - 140	5800
Naphthalene	mg/l	0.0500	0.0513	103	52 - 140	8708
Toluene	mg/l	0.0500	0.0468	94	78 - 127	5800
Toluene	mg/l	0.0500	0.0468	94	78 - 127	5800
Toluene	mg/l	0.0500	0.0468	94	78 - 127	5811
Toluene	mg/l	0.0500	0.0502	100	78 - 127	8708
Xylenes (Total)	mg/l	0.150	0.147	98	77 - 126	5800
Xylenes (Total)	mg/l	0.150	0.145	97	77 - 126	5800
Xylenes (Total)	mg/l	0.150	0.153	102	77 - 126	8708
Methyl-t-butyl ether	mg/l	0.0500	0.0508	102	66 - 137	5800

Project QC continued . . .

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PROJECT QUALITY CONTROL DATA
Project Number: 04887
Project Name: WARREN GREEN GROCERY
Page: 6
Laboratory Receipt Date: 2/26/03

Laboratory Control Data

Analyte	units	Known Val.	Analyzed Val	% Recovery	Target Range	Q.C. Batch
Methyl-t-butyl ether	mg/l	0.0500	0.0511	102	66 - 137	5800
Methyl-t-butyl ether	mg/l	0.0500	0.0527	105	66 - 137	8708
Ethylene Dibromide	mg/l	0.00029	0.00033	114	73 - 141	5509
Methane	mg/L	1.33	1.44	108	78 - 120	6724
VOA Surr 1,2-DCA-d4	% Rec			118	73 - 133	5800
VOA Surr 1,2-DCA-d4	% Rec			117	73 - 133	5800
VOA Surr 1,2-DCA-d4	% Rec			117	73 - 133	5811
VOA Surr 1,2-DCA-d4	% Rec			116	73 - 133	8708
VOA Surr Toluene-d8	% Rec			104	80 - 121	5800
VOA Surr Toluene-d8	% Rec			103	80 - 121	5800
VOA Surr Toluene-d8	% Rec			103	80 - 121	5811
VOA Surr Toluene-d8	% Rec			105	80 - 121	8708
VOA Surr, 4-BFB	% Rec			95	80 - 128	5800
VOA Surr, 4-BFB	% Rec			96	80 - 128	5800
VOA Surr, 4-BFB	% Rec			96	80 - 128	5811
VOA Surr, 4-BFB	% Rec			97	80 - 128	8708
VOA Surr, DBFM	% Rec			110	81 - 121	5800
VOA Surr, DBFM	% Rec			109	81 - 121	5800
VOA Surr, DBFM	% Rec			109	81 - 121	5811
VOA Surr, DBFM	% Rec			110	81 - 121	8708
BNA Surr-Nitrobenzene-d5	% Rec			45	40 - 127	6743
BNA Surr-2-Fluorobiphenyl	% Rec			47	42 - 113	6743
BNA Surr-Terphenyl-d14	% Rec			42	41 - 129	6743

Laboratory Control Data

Analyte	units	Known Val.	Analyzed Val	% Recovery	Target Range	Q.C. Batch
METALS						
Lead	mg/l	0.0500	0.0510	102	80 - 120	5290

Project QC continued . . .

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PROJECT QUALITY CONTROL DATA
Project Number: 04887
Project Name: WARREN GREEN GROCERY
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Laboratory Control Data

Analyte	units	Known Val.	Analyzed Val	% Recovery	Target Range	Q.C. Batch
Lead	mg/l	0.0500	0.0480	96	80 - 120	5292

Continuing Calibration Verification

Analyte	units	Known Val.	Analyzed Val	% Recovery	Target Range	Q.C. Batch

METALS

Laboratory Control Data

Analyte	units	Known Val.	Analyzed Val	% Recovery	Target Range	Q.C. Batch
MISC PARAMETERS						
Ethylene Dibromide	mg/l	0.00029	0.00033	114	73 - 141	5509
Methane	mg/L	1.33	1.44	108	78 - 120	6724

Laboratory Control Data

Analyte	units	Known Val.	Analyzed Val	% Recovery	Target Range	Q.C. Batch
MISC PARAMETERS						
Nitrate-N as N	mg/l	5.50	5.80	105	90 - 110	4732
Nitrate-N as N	mg/l	5.50	5.80	105	90 - 110	4734
Sulfate	mg/l	15.0	16.0	107	90 - 110	4735

Project QC continued . . .

PROJECT QUALITY CONTROL DATA
Project Number: 04887
Project Name: WARREN GREEN GROCERY
Page: 8
Laboratory Receipt Date: 2/26/03

Duplicates

Analyte	units	Orig. Val.	Duplicate	RPD	Limit	Q.C. Batch	Sample Dup'd
Nitrate-N as N	mg/l	< 0.100	< 0.100	N/A	15.	4734	03-A28301

Blank Data

Analyte	Blank Value	Units	Q.C. Batch	Date Analyzed	Time Analyzed
UST PARAMETERS					
Benzo(a)anthracene	< 0.0010	mg/l	6743	2/28/03	16:53
Benzo(b)fluoranthene	< 0.0010	mg/l	6743	2/28/03	16:53
Benzo(k)fluoranthene	< 0.0010	mg/l	6743	2/28/03	16:53
Chrysene	< 0.0010	mg/l	6743	2/28/03	16:53
Dibenzo(a,h)anthracene	< 0.0010	mg/l	6743	2/28/03	16:53

Blank Data

Analyte	Blank Value	Units	Q.C. Batch	Date Analyzed	Time Analyzed
VOA PARAMETERS					
Benzene	< 0.0005	mg/l	5800	2/26/03	17:31
Benzene	< 0.0005	mg/l	5800	2/27/03	5:37
Benzene	< 0.0005	mg/l	8708	3/ 1/03	1:56
Ethylbenzene	< 0.0003	mg/l	5800	2/26/03	17:31
Ethylbenzene	< 0.0003	mg/l	5800	2/27/03	5:37
Ethylbenzene	< 0.0003	mg/l	8708	3/ 1/03	1:56
Naphthalene	< 0.00120	mg/l	5800	2/26/03	17:31
Naphthalene	< 0.00120	mg/l	5800	2/27/03	5:37
Naphthalene	< 0.00120	mg/l	8708	3/ 1/03	1:56
Toluene	< 0.0006	mg/l	5800	2/26/03	17:31
Toluene	< 0.0006	mg/l	5800	2/27/03	5:37
Toluene	< 0.0006	mg/l	5811	2/27/03	5:37

Project QC continued . . .

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PROJECT QUALITY CONTROL DATA
Project Number: 04887
Project Name: WARREN GREEN GROCERY
Page: 9
Laboratory Receipt Date: 2/26/03

Blank Data

Analyte	Blank Value	Units	Q.C. Batch	Analysis Date	Analysis Time
Toluene	0.0013	mg/l	8708	3/ 1/03	1:56
Xylenes (Total)	< 0.0009	mg/l	5800	2/26/03	17:31
Xylenes (Total)	< 0.0009	mg/l	5800	2/27/03	5:37
Xylenes (Total)	< 0.0009	mg/l	8708	3/ 1/03	1:56
Methyl-t-butyl ether	< 0.0005	mg/l	5800	2/26/03	17:31
Methyl-t-butyl ether	< 0.0005	mg/l	5800	2/27/03	5:37
Methyl-t-butyl ether	< 0.0005	mg/l	8708	3/ 1/03	1:56
VOA Surr 1,2-DCA-d4	117.	% Rec	5800	2/26/03	17:31
VOA Surr 1,2-DCA-d4	117.	% Rec	5800	2/27/03	5:37
VOA Surr 1,2-DCA-d4	117.	% Rec	5811	2/27/03	5:37
VOA Surr 1,2-DCA-d4	118.	% Rec	8708	3/ 1/03	1:56
VOA Surr Toluene-d8	104.	% Rec	5800	2/26/03	17:31
VOA Surr Toluene-d8	103.	% Rec	5800	2/27/03	5:37
VOA Surr Toluene-d8	103.	% Rec	5811	2/27/03	5:37
VOA Surr Toluene-d8	104.	% Rec	8708	3/ 1/03	1:56
VOA Surr, 4-BFB	97.	% Rec	5800	2/26/03	17:31
VOA Surr, 4-BFB	96.	% Rec	5800	2/27/03	5:37
VOA Surr, 4-BFB	96.	% Rec	5811	2/27/03	5:37
VOA Surr, 4-BFB	96.	% Rec	8708	3/ 1/03	1:56
VOA Surr, DBFM	108.	% Rec	5800	2/26/03	17:31
VOA Surr, DBFM	110.	% Rec	5800	2/27/03	5:37
VOA Surr, DBFM	110.	% Rec	5811	2/27/03	5:37
VOA Surr, DBFM	107.	% Rec	8708	3/ 1/03	1:56
BNA Surr-Nitrobenzene-d5	73.	% Rec	6743	2/28/03	16:53
BNA Surr-2-Fluorobiphenyl	72.	% Rec	6743	2/28/03	16:53
BNA Surr-Terphenyl-d14	84.	% Rec	6743	2/28/03	16:53

Project QC continued . . .

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PROJECT QUALITY CONTROL DATA
Project Number: 04887
Project Name: WARREN GREEN GROCERY
Page: 10
Laboratory Receipt Date: 2/26/03

Blank Data

Analyte	Blank Value	Units	Q.C. Batch	Date Analyzed	Time Analyzed
METALS					
Lead	< 0.0022	mg/l	5290	2/27/03	14:39
Lead	< 0.0022	mg/l	5292	2/27/03	15:34

Blank Data

Analyte	Blank Value	Units	Q.C. Batch	Date Analyzed	Time Analyzed
MISC PARAMETERS					
Nitrate-N as N	< 0.100	mg/l	4732	2/26/03	20:39
Nitrate-N as N	< 0.100	mg/l	4734	2/26/03	20:51
Sulfate	< 1.00	mg/l	4735	2/26/03	23:39

Blank Data

Analyte	Blank Value	Units	Q.C. Batch	Date Analyzed	Time Analyzed
MISC PARAMETERS					
Ethylene Dibromide	< 0.00002	mg/l	5509	2/27/03	15:07
Methane	< 0.026	mg/L	6724	2/28/03	10:52

= Value outside Laboratory historical or method prescribed QC limits.

End of Report for Project 321582

321582

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To assist us in using the proper analytical methods, is this work being conducted for regulatory purposes?
Compliance Monitoring ______

Client Name: GEOLOGICAL RESOURCES INC Client #: 2110
Address: 4913 ALBEMARLE RD
City/State/Zip Code: CHARLOTTE NC 28205
Project Manager: SHAWN ODD
Telephone Number: 704-563-1663 Fax: 704-563-1663
Sampler Name: (Print Name) JOEL LANE
Sampler Signature: [signature]

Project Name: WARREN GREEN GROCERY
Project #: 04887
Site/Location ID: YEMASSEE State: SC
Report To: SHAWN
Invoice To: CARRIE KENNEDY
Quote #: 420417199 PO#:

TAT
___ Standard
___ Rush (surcharges may apply)
Date Needed: ______
Fax Results: Y N

QC Deliverables
___ None
___ Level 2 (Batch QC)
___ Level 3
___ Level 4
Other: ______

SAMPLE ID		Date Sampled	Time Sampled	G = Grab, C = Composite	Field Filtered	Matrix (SL - Sludge, DW - Drinking Water, GW - Groundwater, S - Soil/Solid, WW - Wastewater, Specify Other)	HNO_3	HCl	NaOH	H_2SO_4	Methanol	None	Other (Specify)	BTEX + NAPH + MTBE (8260)	EDB (8011)	METHANE	PAH	Fe 2+	NO_3	SO_4	Pb			REMARKS
MW-1	28299	2-25-03	1117	G		GW	1	10				2		X	X	X	X	X	X	X	X			
MW-2	300	↓	1129	↓		↓	↓	↓				↓		X	X	X	X	X	X	X	X			
MW-3	28301	↓	1143	↓		↓	↓	↓				↓		X	X	X	X	X	X	X	X			
WSW-1		↓	—	↓		↓	↓	↓				↓												DESTROYED
WSW-2	28298	↓	1104	↓		↓	↓	↓				↓		X	X						X			

Special Instructions:

LABORATORY COMMENTS:
Init Lab Temp:
Rec Lab Temp: 2.5
Custody Seals: Y N N/A
Bottles Supplied by Test America: Y N
Method of Shipment:

Relinquished By: [signature]	Date: 2-25-03	Time: 1924	Received By:	Date:	Time:
Relinquished By:	Date:	Time:	Received By:	Date:	Time:
Relinquished By:	Date:	Time:	Received By: [signature]	Date: 2/26/03	Time: 9:10

APPENDIX D
SLUG TEST DATA

DHEC
PROMOTE PROTECT PROSPER

Summary of Slug Test
Division of Underground Storage Tank Management

Site Data

UST Permit #: 04887 County: Jasper

Facility Name: Warm Green Grocery

Slug Data

See Appendix D Table ______ Figure ______ for a list of all data measurements. [water level logs, etc. (complete as appropriate)].

Water Level Recovery Data was measured by Hermit Data Logger
[Hermit Data Logger, Manually with Water Level Indicator, etc. (list method)].

Complete the following table for each well tested.

COMPLETE A SECOND SHEET IF MORE THAN FOUR WELLS ARE TESTED

Slug Test Conducted in Well(s) Number	MW-1	MW-3		
Initial Rise/Drawdown in Well (feet)	1.556	5.208		
Radius of Well Casing (feet)	0.083	0.083		
Effective Radius of Well (feet)	0.208	0.208		
Static Saturated Aquifer Thickness (feet)	6.05	5.16		
Length of Well Screen (feet)	10	10		
Static Height of Water Column in Well (ft)	6.05	5.16		

Calculations

See Appendix D Table ______ Figure ______ for calculations (complete as appropriate).

The method for aquifer calculations was Bouwer - Rice (i.e. Bouwer-Rice, Cooper, etc.).

Calculated values by well were as follows:

Slug Test Conducted in Well(s) Number	MW-1	MW-3	
Hydraulic Conductivity	1.856×10^{-5}	5.294×10^{-6}	

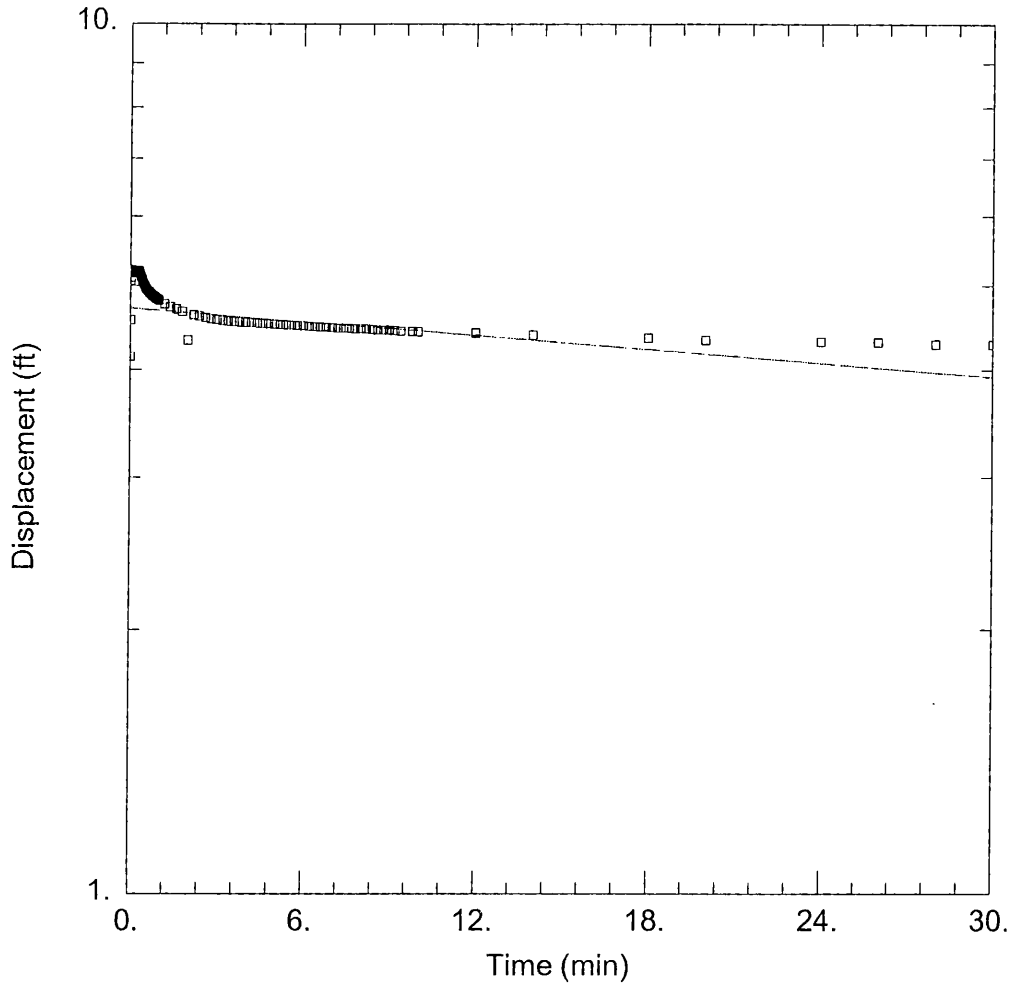
Thickness of the aquifer used to calculate hydraulic conductivity was 6.05 + 5.16 feet.

The aquifer is ______ confined ______ semi-confined ✓ water table (check as appropriate).

The estimated seepage velocity is 0.23 + 0.067 feet per year based on

a hydraulic conductivity of 1.856×10^{-5} + 5.294×10^{-6}, a hydraulic gradient of 0.0048, and

a porosity of .20 percent for silty sand soil (list type i.e., silty sand ,clay, etc).



WELL TEST ANALYSIS

Data Set:
Date: 03/18/03 Time: 15:51:50

PROJECT INFORMATION

Company: Geological Resources, Inc.
Client: Warren Green Grocery
Project: 04887
Test Location: Jasper County, SC
Test Well: MW-3
Test Date: 02/25/03

AQUIFER DATA

Saturated Thickness: 5.16 ft
Anisotropy Ratio (Kz/Kr): 1.

WELL DATA (MW-3)

Initial Displacement: 5.208 ft
Casing Radius: 0.083 ft
Wellbore Radius: 0.208 ft
Well Skin Radius: 0.208 ft
Screen Length: 10. ft
Total Well Penetration Depth: 5.16 ft
Gravel Pack Porosity: 0.45

SOLUTION

Aquifer Model: Unconfined
Solution Method: Bouwer-Rice
K = 5.294E-06 ft/min
y0 = 4.713 ft

SE1000C
Environmental Logger
03/01 11:12

Unit# 00404 Test 19

Setups:	INPUT 1
Type	Level (F)
Mode	TOC
I.D.	00004
TD=	13.36
Reference	8.200
Linearity	0.060
Scale factor	15.160
Offset	-0.120
Delay mSEC	50.000

WCI=ST = 13.36 - 8.20 = 5.16
TD= 13.408 - 8.2 = 5.208

Step 0 02/25 12:25:52

Elapsed Time	INPUT 1
0.0000	12.344
0.0033	12.340
0.0066	12.340
0.0100	12.340
0.0133	12.340
0.0166	12.340
0.0200	12.340
0.0233	12.340
0.0266	12.766
0.0300	13.264
0.0333	13.307
0.0366	13.365
0.0400	13.408
0.0433	13.403
0.0466	13.398
0.0500	13.393
0.0533	13.393
0.0566	13.393
0.0600	13.398
0.0633	13.393

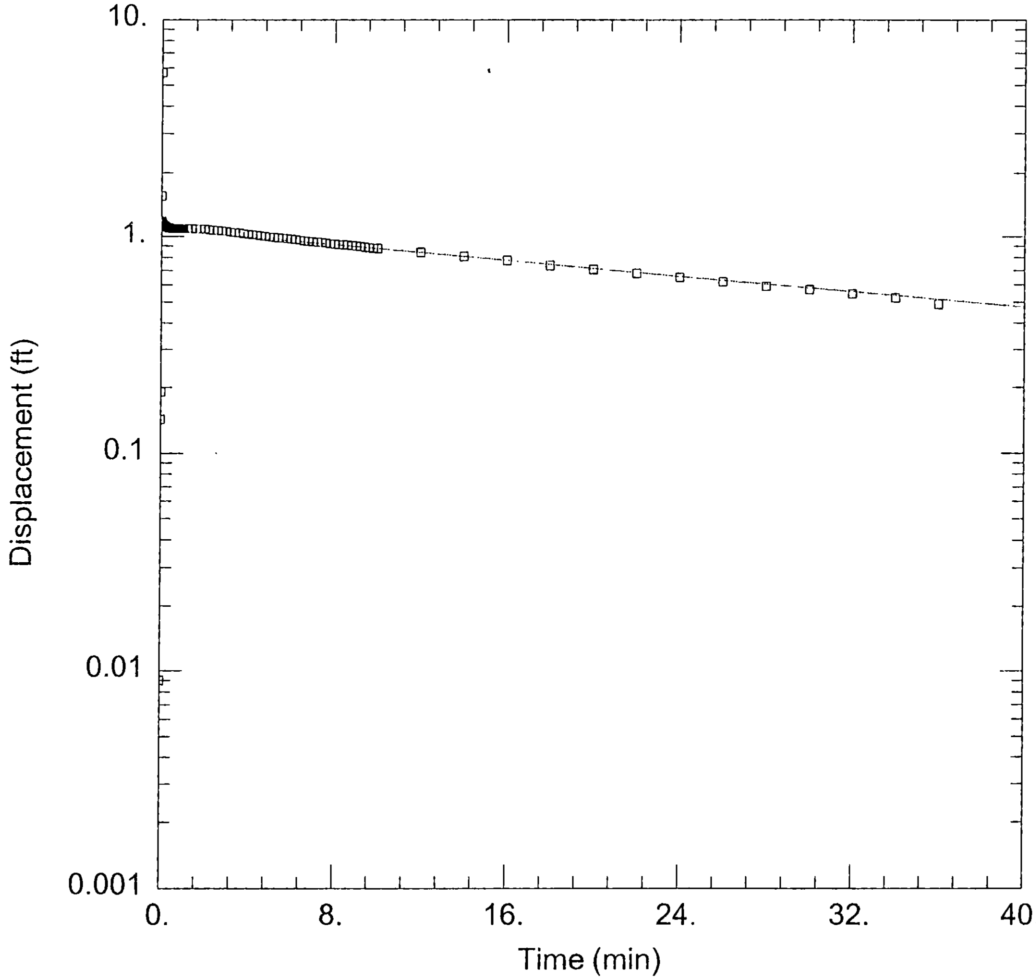
0.0666	13.398
0.0700	13.398
0.0733	13.398
0.0766	13.398
0.0800	13.398
0.0833	13.398
0.0866	13.398
0.0900	13.398
0.0933	13.398
0.0966	13.398
0.1000	13.398
0.1033	13.398
0.1066	13.398
0.1100	13.398
0.1133	13.398
0.1166	13.398
0.1200	13.398
0.1233	13.398
0.1266	13.398
0.1300	13.398
0.1333	13.398
0.1366	13.398
0.1400	13.398
0.1433	13.398
0.1466	13.398
0.1500	13.398
0.1533	13.398
0.1566	13.398
0.1600	13.398
0.1633	13.403
0.1666	13.398
0.1700	13.398
0.1733	13.403
0.1766	13.403
0.1800	13.398
0.1833	13.398
0.1866	13.403
0.1900	13.398
0.1933	13.403
0.1966	13.403
0.2000	13.403
0.2033	13.403
0.2066	13.403

0.2100	13.403
0.2133	13.403
0.2166	13.403
0.2200	13.398
0.2233	13.398
0.2266	13.398
0.2300	13.398
0.2333	13.403
0.2366	13.403
0.2400	13.398
0.2433	13.403
0.2466	13.398
0.2500	13.403
0.2533	13.398
0.2566	13.398
0.2600	13.398
0.2633	13.398
0.2666	13.398
0.2700	13.398
0.2733	13.393
0.2766	13.393
0.2800	13.393
0.2833	13.393
0.2866	13.393
0.2900	13.388
0.2933	13.393
0.2966	13.388
0.3000	13.388
0.3033	13.384
0.3066	13.384
0.3100	13.384
0.3133	13.379
0.3166	13.374
0.3200	13.374
0.3233	13.374
0.3266	13.369
0.3300	13.365
0.3333	13.365
0.3500	13.350
0.3666	13.331
0.3833	13.312
0.4000	13.288
0.4166	13.274

0.4333	13.254
0.4500	13.240
0.4666	13.226
0.4833	13.211
0.5000	13.197
0.5166	13.187
0.5333	13.173
0.5500	13.163
0.5666	13.154
0.5833	13.144
0.6000	13.139
0.6166	13.130
0.6333	13.125
0.6500	13.116
0.6666	13.106
0.6833	13.101
0.7000	13.096
0.7166	13.092
0.7333	13.082
0.7500	13.077
0.7666	13.072
0.7833	13.068
0.8000	13.063
0.8166	13.058
0.8333	13.053
0.8500	13.048
0.8666	13.044
0.8833	13.039
0.9000	13.034
0.9166	13.029
0.9333	13.025
0.9500	13.020
0.9666	13.020
0.9833	13.015
1.0000	13.010
1.2000	12.962
1.4000	12.929
1.6000	12.900
1.8000	12.871
2.0000	12.847
2.2000	12.828
2.4000	12.814
2.6000	12.795

2.8000	12.780
3.0000	12.771
3.2000	12.761
3.4000	12.752
3.6000	12.747
3.8000	12.742
4.0000	12.737
4.2000	12.732
4.4000	12.728
4.6000	12.723
4.8000	12.718
5.0000	12.713
5.2000	12.708
5.4000	12.704
5.6000	12.704
5.8000	12.694
6.0000	12.694
6.2000	12.689
6.4000	12.685
6.6000	12.680
6.8000	12.680
7.0000	12.675
7.2000	12.670
7.4000	12.670
7.6000	12.665
7.8000	12.661
8.0000	12.661
8.2000	12.656
8.4000	12.651
8.6000	12.646
8.8000	12.646
9.0000	12.641
9.2000	12.637
9.4000	12.632
9.6000	.627
9.8000	12.627
1000	12.622
12.0000	12.608
14.0000	12.584
6.0000	2.570
18.0000	12.555
20.0000	12.531
2.0000	12.522

```
  24.0000        12.512
  26.0000        12.503
  28.0000        12.483
  30.0000        12.479
END
```



WELL TEST ANALYSIS

Data Set:
Date: 03/18/03 Time: 15:30:28

PROJECT INFORMATION

Company: Geological Resources, Inc.
Client: Warren Green Grocery
Project: 04887
Test Location: Jasper County, Sc
Test Well: MW-1
Test Date: 02/25/03

AQUIFER DATA

Saturated Thickness: 6.05 ft Anisotropy Ratio (Kz/Kr): 1.

WELL DATA (MW-1)

Initial Displacement: 1.556 ft Casing Radius: 0.083 ft
Wellbore Radius: 0.208 ft Well Skin Radius: 0.208 ft
Screen Length: 10. ft Total Well Penetration Depth: 6.05 ft
Gravel Pack Porosity: 0.45

SOLUTION

Aquifer Model: Unconfined Solution Method: Bouwer-Rice

K = 1.856E-05 ft/min y0 = 1.075 ft

SE1000C
Environmental Logger
03/01 11:08

MW-1
Unit# 00404 Test 18

Setups:	INPUT 1
Type	Level (F)
Mode	TOC
I.D.	00004
TD =	12.76
Reference	6.710
Linearity	0.060
Scale factor	15.160
Offset	-0.120
Delay mSEC	50.000

WCT = ST = 12.76 - 6.71 = 6.05
TD = 8.266 - 6.710 = 1.556

Step 0 02/25 11:44:04

Elapsed Time	INPUT 1
0.0000	6.686
0.0033	6.853
0.0066	6.719
0.0100	6.628
0.0133	6.681
0.0166	6.666
0.0200	6.901
0.0233	12.421
0.0266	6.451
0.0300	8.266
0.0333	7.888
0.0366	7.897
0.0400	7.893
0.0433	7.888
0.0466	7.883
0.0500	7.883
0.0533	7.878
0.0566	7.873
0.0600	7.869
0.0633	7.869

0.0666	7.864
0.0700	7.864
0.0733	7.859
0.0766	7.859
0.0800	7.859
0.0833	7.854
0.0866	7.854
0.0900	7.849
0.0933	7.849
0.0966	7.849
0.1000	7.849
0.1033	7.849
0.1066	7.845
0.1100	7.845
0.1133	7.845
0.1166	7.845
0.1200	7.840
0.1233	7.840
0.1266	7.840
0.1300	7.840
0.1333	7.840
0.1366	7.840
0.1400	7.835
0.1433	7.835
0.1466	7.835
0.1500	7.835
0.1533	7.835
0.1566	7.835
0.1600	7.835
0.1633	7.830
0.1666	7.830
0.1700	7.830
0.1733	7.830
0.1766	7.830
0.1800	7.830
0.1833	7.830
0.1866	7.830
0.1900	7.825
0.1933	7.825
0.1966	7.825
0.2000	7.825
0.2033	7.825
0.2066	7.825

0.2100	7.825
0.2133	7.825
0.2166	7.825
0.2200	7.821
0.2233	7.821
0.2266	7.821
0.2300	7.821
0.2333	7.821
0.2366	7.821
0.2400	7.821
0.2433	7.821
0.2466	7.821
0.2500	7.821
0.2533	7.816
0.2566	7.816
0.2600	7.816
0.2633	7.816
0.2666	7.816
0.2700	7.816
0.2733	7.816
0.2766	7.816
0.2800	7.816
0.2833	7.816
0.2866	7.811
0.2900	7.811
0.2933	7.811
0.2966	7.811
0.3000	7.811
0.3033	7.811
0.3066	7.811
0.3100	7.811
0.3133	7.811
0.3166	7.811
0.3200	7.811
0.3233	7.811
0.3266	7.811
0.3300	7.811
0.3333	7.811
0.3500	7.811
0.3666	7.811
0.3833	7.806
0.4000	7.806
0.4166	7.806

0.4333	7.806
0.4500	7.806
0.4666	7.802
0.4	7.802
0.5000	7.802
0.5166	7.802
0.5333	7.802
0.5500	7.802
0.5666	7.802
0.5833	7.802
0.6000	7.802
0.6166	7.802
0.6333	7.802
0.6500	7.802
0.6666	7.802
0.6833	7.802
0.7000	7.797
0.7166	7.797
0.7333	7.802
0.7500	7.797
0.7666	7.802
0.7833	7.802
0.8000	7.797
0.8166	7.802
0.8333	7.797
0.8500	7.802
0.8666	7.797
0.8833	7.802
0.9000	7.802
0.9166	7.797
0.9333	7.802
0.9500	7.802
0.9666	7.802
0.9833	7.802
1.0000	7.797
1.2000	7.802
1.4000	7.802
1.6000	7.797
1.8000	7.797
2.0000	7.792
2.2000	7.787
2.4000	7.782
2.6000	7.778

2.8000	7.773
3.0000	7.768
3.2000	7.758
3.4000	7.754
3.6000	7.749
3.8000	7.739
4.0000	7.735
4.2000	7.730
4.4000	7.725
4.6000	7.715
4.8000	7.711
5.0000	7.706
5.2000	7.701
5.4000	7.696
5.6000	7.691
5.8000	7.687
6.0000	7.682
6.2000	7.677
6.4000	7.667
6.6000	7.663
6.8000	7.658
7.0000	7.653
7.2000	7.648
7.4000	7.648
7.6000	7.644
7.8000	7.634
8.0000	7.629
8.2000	7.624
8.4000	7.624
8.6000	7.620
8.8000	7.615
9.0000	7.610
9.2000	7.605
9.4000	7.600
9.6000	7.596
9.8000	7.591
10.0000	7.586
12.0000	7.553
14.0000	7.519
16.0000	7.485
18.0000	7.447
20.0000	7.418
22.0000	7.390

24.0000	7.361
26.0000	7.332
28.0000	7.303
30.0000	7.280
32.0000	7.256
34.0000	7.232
36.0000	7.198

END

APPENDIX E
CERTIFICATE OF DISPOSAL

HAZ~MAT

TRANSPORTATION AND DISPOSAL
P. O. BOX 37392 • CHARLOTTE, N.C. 28237
(704) 332-5600
FAX (704) 375-7183

NON-HAZARDOUS SPECIAL WASTE

Manifest No. ____________

P.O. No. ____________

Job No. ____________

Section I. GENERATOR (Generator completes all of Section I)

GENERATOR LOCATION

NAME ____________

ORIGINATING ADDRESS ____________

MAILING ADDRESS ____________

CITY ____________ ST ATE ____________ ZIP ____________

PHONE NO. ____________

CONTACT NAME ____________

WORK CONTRACTED BY
Bill To (If different from information at left)

NAME ____________

ADDRESS ____________

CITY ____________ ST ATE ____________ ZIP ____________

PHONE NO. ____________

CONTACT NAME ____________

DES. OF WASTE: ____________

No.	Type	Units	Quantity

Section II. INVOICE INFORMATION

	DESCRIPTION	QUANTITY GALLONS	QUANTITY DRUMS	LINE TOTAL	
1.	WATER, OIL & COOLANT PUMPED FROM TANKS OR DRUMS				
2.	OFF SPEC LIGHT OIL, WATER & GAS PUMPED FROM TANKS OR DRUMS				
3.	55 GALLON DRUMS REMOVED - SOLID				
4.	55 GALLON DRUMS REMOVED - LIQUID				
5.					
6.					
7.					
8.					
9.	ARRIVAL TIME:				
10.	DEPARTURE TIME:				

GENERATOR'S CERTIFICATION: I hereby certify that the above named material is not a hazardous waste as defined by 40 CFR Part 261 or any applicable state law, has been properly described, classified and packaged, and is in proper condition for transportation according to applicable regulations; AND, if the waste is a treatment residue of a previously restricted hazardous waste subject to the Land Disposal Restrictions, I certify and warrant that the waste has been treated in accordance with the requirements of 40 CFR Part 268 and is no longer a hazardous waste as defined by 40 CFR Part 261.

Generator Authorized Agent Name ____________ Signature ____________ Shipment Date ____________

Section III. TRANSPORTER

TRANSPORTER (Generator complete a-d; Transporter I complete e-g; Transporter II complete h-n)

HAZ~MAT

TRANSPORTATION AND DISPOSAL
P. O. BOX 37392 • CHARLOTTE, N.C. 28237

a. Driver Name / Title ____________

b. Phone No. ____________ c. Truck No. ____________

Hazardous Waste Transporter Permits
EPA NCR 000003186
EPA NCD048461370

d. ____________ Driver Signature ____________ Shipment Date

TRANSPORTER II

e. Name ____________

f. Address ____________

g. Driver Name / Title ____________

h. Phone No. ____________ i. Truck No. ____________

j. Transporter II Permit Nos. ____________

Driver Signature ____________ Shipment Date ____________

Section IV. FACILITY INFORMATION AND CERTIFICATE OF DISPOSAL

Site Name: Haz-Mat Transportation & Disposal, Inc.
Physical Address: 210 Dalton Avenue
Charlotte, N.C. 28237

a. Phone No. 704-332-5600
b. Maiing Address: P.O. Box 37392
Charlotte, N.C. 28237

e. Discrepancy Indication Space ____________

This is to certify that all non-hazardous material removed from above location has been received and will be disposed of in accordance with applicable local, state and federal regulations in the following manner: (1) Petroleum products are blended into a beneficial reusable fuel for use in large industrial burners. (2) Waste waters are to be treated with polymers, pH adjusters, and a flocculant, then flows through a dissolved air flotation system for pretreatment separation, then into the CMUD sanitation sewer system under permit IUP#5012. (3) Sludges from treatment systems are hauled to E.P.A. approved facilities for proper disposal. Manifest and certificate of disposal are on file. (4) Our treatment system operates on a first in, first out basis and product should be processed within seven days.

SIGNATURE OF FACILITY AGENT	DATE	MONTH	DAY	YEAR

HAZ~MAT

TRANSPORTATION AND DISPOSAL

P. O. BOX 37392 • CHARLOTTE, N.C. 28237

(704) 332-5600

FAX (704) 375-7183

Manifest No. ____________

P.O. No. ____________

Job No. ____________

NON-HAZARDOUS SPECIAL WASTE

Section I. GENERATOR (Generator completes all of Section I)

GENERATOR LOCATION

NAME ____________

ORIGINATING ADDRESS ____________

MAILING ADDRESS ____________

CITY ____________ STATE ____________ ZIP ____________

PHONE NO. ____________

CONTACT NAME ____________

WORK CONTRACTED BY

Bill To (If different from information at left)

NAME ____________

ADDRESS ____________

CITY ____________ STATE ____________ ZIP ____________

PHONE NO. ____________

CONTACT NAME ____________

DES. OF WASTE: ____________

No. Type Units Quantity

Section II. INVOICE INFORMATION GALLONS DRUMS

	DESCRIPTION	QUANTITY		LINE TOTAL	
1.	WATER, OIL & COOLANT PUMPED FROM TANKS OR DRUMS				
2.	OFF SPEC LIGHT OIL, WATER & GAS PUMPED FROM TANKS OR DRUMS				
3.	55 GALLON DRUMS REMOVED - SOLID				
4.	55 GALLON DRUMS REMOVED - LIQUID				
5.					
6.					
7.					
8.					
9.	ARRIVAL TIME:				
10.	DEPARTURE TIME:				

GENERATOR'S CERTIFICATION: I hereby certify that the above named material is not a hazardous waste as defined by 40 CFR Part 261 or any applicable state law, has been properly described, classified and packaged, and is in proper condition for transportation according to applicable regulations; AND, if the waste is a treatment residue of a previously restricted hazardous waste subject to the Land Disposal Restrictions, I certify and warrant that the waste has been treated in accordance with the requirements of 40 CFR Part 268 and is no longer a hazardous waste as defined by 40 CFR Part 261.

Generator Authorized Agent Name ____________ Signature ____________ Shipment Date ____________

Section III. TRANSPORTER

TRANSPORTER (Generator complete a-d; Transporter I complete e-g; Transporter II complete h-n)

HAZ~MAT

TRANSPORTATION AND DISPOSAL

P. O. BOX 37392 • CHARLOTTE, N.C. 28237

a. Driver Name / Title ____________

b. Phone No. ____________ c. Truck No. ____________

Hazardous Waste Transporter Permits

EPA NCR 000003186

EPA NCD048461370

d. ____________ Driver Signature

Shipment Date

TRANSPORTER II

e. Name ____________

f. Address ____________

g. Driver Name / Title ____________

h. Phone No. ____________ i. Truck No. ____________

j. Transporter II Permit Nos.

Driver Signature ____________ Shipment Date

Section IV. FACILITY INFORMATION AND CERTIFICATE OF DISPOSAL

Site Name: Haz-Mat Transportation & Disposal, Inc.

Physical Address: 210 Dalton Avenue
Charlotte, N.C. 28237

a. Phone No. 704-332-5600

b. Maiing Address: P.O. Box 37392
Charlotte, N.C. 28237

e. Discrepancy Indication Space ____________

This is to certify that all non-hazardous material removed from above location has been received and will be disposed of in accordance with applicable local, state and federal regulations in the following manner: (1) Petroleum products are blended into a beneficial reusable fuel for use in large industrial burners. (2) Waste waters are to be treated with polymers, pH adjusters, and a flocculant, then flows through a dissolved air flotation system for pretreatment separation, then into the CMUD sanitation sewer system under permit IUP#5012. (3) Sludges from treatment systems are hauled to E.P.A. approved facilities for proper disposal. Manifest and certificate of disposal are on file. (4) Our treatment system operates on a first in, first out basis and product should be processed within seven days.

SIGNATURE OF FACILITY AGENT	DATE	MONTH	DAY	YEAR

APPENDIX G
ADJACENT PROPERTY OWNER INFORMATION AND TAX MAP


SCALE: 1" = 660'
PHOTO DATE:
8.8 AC
SITE
6.8 AC
SEE MAP
10 AC
29 AC

APPENDIX F
JASPER COUNTY ZONING OFFICIALS

JASPER COUNTY ZONING OFFICIALS

Lisa Lamb
Jasper County Zoning
914 Grays Highway
Ridgeland, South Carolina 29936
Office: (843) 726-7619

SUMMARY OF ADJACENT PROPERTY OWNER INFORMATION
WARREN GREEN GROCERY

Tax Map/Block/Parcel No.	Name	Address
088-02-31	Reginold D. Bascom	4 Crabapple Lane Ridgeland, South Carolina 29936
088-02-023	Wyman Boozer Reality Inc.	1572 Broadriver Road Ste. A Columbia, South Carolina 29210

SCDHEC :: Domenico Model version 1.0c

Site ID: 04887 04/10/2003 CoC : Benzene

UST 51T DOCKETING

Input Parameters:

RBSL for the CoC :	0.005	mg/L
Width across flow dir.:	10.0000	m
Estimated Source Depth:	3.000	m
Distance along x-axis:	100.000	m
Distance along y-axis:	0.000	m
Distance along z-axis:	0.000	m
Seepage Velocity:	0.0000000500	m/s
Time of transport:	100.0	years
First Order Decay Rate	0.0000000000	/s

Calculations:

EXP(0.0000)	=	1.0000
ERFC(-0.7263)	=	1.6994
ERF(0.1369)	=	0.1536
ERF(0.2121)	=	0.2360

Decay is NOT considered

Ax:	10.0000
Ay:	3.3333
Az:	0.5000

Results:

Csstl :	162.3576	ug/L
Csstl :	0.1623576	mg/L

SCDHEC :: Domenico Model   version 1.0c

Site ID: 04887   04/10/2003   CoC : Toluene

Input Parameters:

RBSL for the CoC :	1.000	mg/L
Width across flow dir.:	10.0000	m
Estimated Source Depth:	3.000	m
Distance along x-axis:	100.000	m
Distance along y-axis:	0.000	m
Distance along z-axis:	0.000	m
Seepage Velocity:	0.0000000500	m/s
Time of transport:	100.0	years
First Order Decay Rate	0.0000000000	/s

Calculations:

EXP(0.0000)	=	1.0000
ERFC(-0.7263)	=	1.6994
ERF(0.1369)	=	0.1536
ERF(0.2121)	=	0.2360

Decay is NOT considered

Ax:	10.0000
Ay:	3.3333
Az:	0.5000

Results:

Csstl :	32471.5257	ug/L
Csstl :	32.4715257	mg/L

```
            SCDHEC :: Domenico Model    version 1.0c
            ---------------------------------------
Site ID: 04887            04/10/2003       CoC : Ethylbenzene
         -----            ----------             -----------------


          Input Parameters:
       --------------------------------------------------
       RBSL for the CoC :             0.700        mg/L
       Width across flow dir.:       10.0000       m
       Estimated Source Depth:          3.000      m
       Distance along x-axis:       100.000        m
       Distance along y-axis:           0.000      m
       Distance along z-axis:           0.000      m
       Seepage Velocity:              0.0000000500 m/s
       Time of transport:           100.0          years
       First Order Decay Rate         0.0000000000  /s
       --------------------------------------------------

          Calculations:
          -------------------------------
          EXP(   0.0000)  =     1.0000
         ERFC(  -0.7263)  =     1.6994
          ERF(   0.1369)  =     0.1536
          ERF(   0.2121)  =     0.2360

          Decay is NOT considered

          Ax:           10.0000
          Ay:            3.3333
          Az:            0.5000
          -------------------------------


     Results:
     ---------------------------------------------
          Csstl :      22730.0680           ug/L
          Csstl :         22.7300680        mg/L
     ---------------------------------------------
```

SCDHEC :: Domenico Model version 1.0c

Site ID: 04887 04/10/2003 CoC : Xylene

Input Parameters:

RBSL for the CoC :	10.000	mg/L
Width across flow dir.:	10.0000	m
Estimated Source Depth:	3.000	m
Distance along x-axis:	100.000	m
Distance along y-axis:	0.000	m
Distance along z-axis:	0.000	m
Seepage Velocity:	0.0000000500	m/s
Time of transport:	100.0	years
First Order Decay Rate	0.0000000000	/s

Calculations:

EXP(	0.0000)	=	1.0000
ERFC(	-0.7263)	=	1.6994
ERF(	0.1369)	=	0.1536
ERF(	0.2121)	=	0.2360

Decay is NOT considered

Ax:	10.0000
Ay:	3.3333
Az:	0.5000

Results:

Csstl :	**********	ug/L
Csstl :	324.7152567	mg/L

SCDHEC :: Domenico Model version 1.0c

Site ID: 04887 04/10/2003 CoC : Naphthalene

Input Parameters:

RBSL for the CoC :	0.025	mg/L
Width across flow dir.:	10.0000	m
Estimated Source Depth:	3.000	m
Distance along x-axis:	100.000	m
Distance along y-axis:	0.000	m
Distance along z-axis:	0.000	m
Seepage Velocity:	0.0000000500	m/s
Time of transport:	100.0	years
First Order Decay Rate	0.0000000000	/s

Calculations:

EXP(0.0000)	=	1.0000
ERFC(-0.7263)	=	1.6994
ERF(0.1369)	=	0.1536
ERF(0.2121)	=	0.2360

Decay is NOT considered

Ax:	10.0000
Ay:	3.3333
Az:	0.5000

Results:

Csstl :	811.7881	ug/L
Csstl :	0.8117881	mg/L

SCDHEC :: Domenico Model version 1.0c

Site ID: 04887 04/10/2003 CoC : MTBE

Input Parameters:

RBSL for the CoC :	0.040	mg/L
Width across flow dir.:	10.0000	m
Estimated Source Depth:	3.000	m
Distance along x-axis:	100.000	m
Distance along y-axis:	0.000	m
Distance along z-axis:	0.000	m
Seepage Velocity:	0.0000000500	m/s
Time of transport:	100.0	years
First Order Decay Rate	0.0000000000	/s

Calculations:

EXP(0.0000)	=	1.0000
ERFC(-0.7263)	=	1.6994
ERF(0.1369)	=	0.1536
ERF(0.2121)	=	0.2360

Decay is NOT considered

Ax:	10.0000
Ay:	3.3333
Az:	0.5000

Results:

Csstl :	1298.8610	ug/L
Csstl :	1.2988610	mg/L

04887

DHEC

PROMOTE PROTECT PROSPER

2600 Bull Street
Columbia, SC 29201-1708

UNDERGROUND STORAGE TANK PROGRAM
BUREAU OF LAND AND WASTE MANAGEMENT

Phone (800) 826-5435 Fax (803) 896-6245

APR 14 2003

UST DOCKETING 52T

HELEN SMITH
RT 2 BOX 814
PO DRAWER 449
COOSAWHATCHIE SC 29912

Re: Warren Green Grocery, 10773 West Frontage Road, Yemassee, SC
UST Permit #04887; CA #17475
SB-19189-04/30/02-EMW; P.O. # 408994
Tier I Assessment Report received March 31, 2003
Jasper County

Dear Ms. Smith:

As you may be aware, a Tier I Assessment plan was implemented recently, in response to a petroleum release from former USTs at the referenced facility. Please find enclosed a copy of the assessment report, which is sent to you in an effort to keep you informed of the assessment and remediation activities taking place. The results indicate that concentrations of petroleum constituents are above the Risk-Based Screening Levels. The next scope of work deemed necessary by this Department is Monitored Natural Attenuation. Because of your failure to maintain the required financial responsibility of $25,000.00, which resulted in insufficient monies to pay for the required work, this office will conduct further work on your behalf using state funds.

The cost incurred to date is approximately $3,755.00. The Department is required to seek payment from you for all cost paid on your behalf to meet the $25,000.00 statutory deductible, plus any applicable administrative cost. At a future date, you will be billed for cost incurred.

On all correspondence regarding this site, please reference the **UST Permit # 04887**. Please feel free to contact me at (803) 896-6629 or (800) 826-5435 (within SC only) if you have questions or need additional information.

Sincerely,

Umar K. Khattak

Umar K. Khattak, Ph.D., Hydrogeologist
State Lead and Field Services Section
Assessment and Corrective Action Division

Enc.: Tier I Assessment Report

cc: Technical File (w/ original Tier I report)

DHEC/UST/UKK; 4/14/03

51.B

D H E C

PROMOTE PROTECT PROSPER

C. Earl Hunter, Commissioner

Promoting and protecting the health of the public and the environment.

AUG 10 2004

UST 53T DOCKETING

MR JED HEAMES
DICK CORP
PMB#30
915 FOLLY RD STE O
CHARLESTON SC 29412

Re: **Notice to Proceed**
Bid # SB-21868-3/18/03; PO# 463276

Dear Mr. Heames:

Based on the award of the referenced bid package, enclosed are the information packets to conduct twenty-one (21) groundwater-sampling events. The packets contain all necessary information for work to begin. The facility has been assigned an individual Cost Agreement (CA) number as listed below. Please reference the CA number and Purchase Order #463276 on the appropriate invoice submitted for payment against the facility.

UST Permit #	Priority Rank	Facility	County	# wells	UST Project Manager	Parameters-Groundwater	PACE CA#	DICK CA#
09413*	1D	Gaulden's Groc .	York	19	D. Thoma	BTEX, Naph, MTBE, 1,2-DCA, & EDB	22520	22521
14564*	2A	Cromer's Groc .	Union	24	S. Block	BTEX, Naph, MTBE, 1,2-DCA, & EDB	22547	22548
10866	4A	Hot Spot 2606	Spartanburg	4	K. Doran	BTEX, Naph, MTBE, EDB, & Lead	22526	22525
14631	4B	Littlejohn Gulf	Spartanburg	28	K. Doran	BTEX, Naph, MTBE, & EDB	22034	22033
00461	3B	Main St Gulf	Anderson	6	R. Miner	BTEX, Naph, MTBE, 1,2-DCA, Nitrate, Sulfate, Fe2+	22491	22492
07775	2B	Havird Oil	Richland	10	S. Block	BTEX, Naph, MTBE	22118	22119
14975	3B	Bluff Rd Site	Richland	13	S. Block	BTEX, Naph, MTBE, & EDB	22152	22153
02382*	2A	Blacks 66	Sumter	11	D. Thoma	BTEX, Naph, MTBE, 1,2-DCA, & EDB	22528	22529
08915*	3A	Pib Super Saver	Sumter	17	D. Thoma	BTEX, Naph, MTBE, 1,2-DCA, & EDB	22444	22445
08936*	2B	Franks Service	Sumter	24	D. Thoma	BTEX, Naph, MTBE, 1,2-DCA, & EDB	22460	22461
14118*	1D	Shoe's Gr ocery	Sumter	8	D. Thoma	BTEX, Naph, MTBE, 1,2-DCA, & EDB	22530	22531

14300*	1D	Mozingo's Gulf	Sumter	30	D.Thoma	BTEX, Naph, MTBE, 1,2-DCA, & EDB	22532	22533
11385	3B	CNC Service	Orangeburg	6	R. Miner	BTEX, Naph, MTBE, Nitrate, Sulfate, & Fe2+	22465	22466
11638	2B	Bamberg County	Bamberg	6	R. Miner	6-BTEX, Naph, MTBE, 1,2-DCA, & EDB 5-Nitrate, Sulfate, Fe2+	22516	22517
11008*	2B	Flying J Travel	Dillon	18	K. Doran	BTEX, Naph, MTBE, 1,2-DCA, EDB, & Lead	22448	22447
06256	2B	JB Johnson	Marion	12	A. Butler	BTEX, Naph, MTBE	22463	22464
04966	2A	Wades Superette	Horry	6	W. Clymer	BTEX, Naph, MTBE	22510	22512
11180	2A	Fleet Operations	Horry	8	W. Clymer	BTEX, Naph, MTBE	22535	22534
12286*	3B	Bon Aire	Charleston	5	S. Briney	BTEX, Naph, MTBE, & Lead	22537	22538
02523	2A	Coburg Dairy	Colleton	9	R. Miner	BTEX, Naph, MTBE, & EDB	22353	22354
04887	2B	Warren Green	Jasper	5	S. Briney	BTEX, Naph, MTBE, & Lead	22551	22552

*** These facilities should be sampled on or before September 1, 2004. If sampling is not completed by this date, a late fee of $25 per day may be levied in accordance with Special Condition 15.**

DICK Environmental Corp. will perform services at the sites on behalf of the site's responsible party (RP); however, payment will be made from the SUPERB Account. The site's RP has no obligation for payment for this scope of work. Please coordinate access to the facility with the property owner. Contact information has been provided in the information packet. The Bureau grants pre-approval for transportation of drums of groundwater from the referenced sites to a permitted treatment facility. The contaminated groundwater must be properly stored in labeled 55-gallon drums or equivalent containers. The contaminated groundwater must be accepted by the approved treatment facility. There can be no spillage or leakage in transport. A copy of the disposal manifest from the receiving facility that clearly designates the quantity received must be included with the final report.

Please contact me with the sampling schedule before commencing work at these facilities. If you have any questions or need further assistance, please contact me at (803) 896-6397 or thomadl@dhec.sc.gov.

Sincerely,

Debra L. Thoma

Debra L. Thoma, Hydrogeologist
Northeastern SC Corrective Action Section
Assessment & Corrective Action Division
Underground Storage Tank Program
Bureau of Land & Waste Management

enc: Information Packets
Approved Cost Agreements

cc: Sherri Stabel, PACE Analytical Services, 9800 Kincey Ave. Ste. 100, Huntersville, NC, 28078
(w/ Approved Cost Agreements)
Technical/Read File

Approved Cost Agreement 2551

Facility: 04887 WARREN GREEN

BRINEYSM

PO Number:

Task / Description	Categories	Item	Description	Qty / Pct	Unit Price	Amount
11 ANALYSES						
	GW GROUNDWATER	A	BTEX+NAPTH+MTBE	5.0000	30.00	150.00
		E	LEAD	5.0000	7.50	37.50
				Total Amount		187.50

Approved Cost Agreement 2552

Facility: 04887 WARREN GREEN

BRINEYSM

PO Number:

Task / Description	Categories	Item	Description	Qty / Pct	Unit Price	Amount
04 MOB/DEMOB						
		B	PERSONNEL	1.0000	59.95	59.95
10 SAMPLE COLLECTION						
		A	GROUND WATER	3.0000	19.95	59.85
		C	WATER SUPPLY	2.0000	9.85	19.70
17 DISPOSAL						
		A2	WASTEWATER - PUMPING TEST	100.0000	0.50	50.00
				Total Amount		189.50

Pace Analytical®
www.pacelabs.com

Pace Analytical Services, Inc.
9800 Kincey Avenue, Suite 100
Huntersville, NC 28078
Phone: 704.875.9092
Fax: 704.875.9091

UST
547
DOCKETING

September 23, 2004

RECEIVED
SEP 27 2004
UNDERGROUND STORAGE
TANK PROGRAM

Ms. Debra Thoma
SCDHEC
UST Program
2600 Bull Street
Columbia, SC 29201

RE: Lab Project Number: 9276732
Client Project ID: Warren Green 04887 22552

Dear Ms. Thoma:

Enclosed are the analytical results for sample(s) received by the laboratory on September 17, 2004. Results reported herein conform to the most current NELAC standards, where applicable, unless otherwise narrated in the body of the report.

If you have any questions concerning this report please feel free to contact me.

Sincerely,

Sherri Stabel
Sherri.Stabel@pacelabs.com
Project Manager

Enclosures

ACCREDITED IN ACCORDANCE WITH nelac

Asheville Certification IDs	
NC Wastewater	40
NC Drinking Water	37712
SC Environmental	99030
FL NELAP	E87648

Charlotte Certification IDs	
NC Wastewater	12
NC Drinking Water	37706
SC	99006
FL NELAP	E87627

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www.pacelabs.com

Pace Analytical Services, Inc.
9800 Kincey Avenue, Suite 100
Huntersville, NC 28078
Phone: 704.875.9092
Fax: 704.875.9091

Lab Project Number: 9276732
Client Project ID: Warren Green 04887 22552

Lab Sample No: 924725062 Project Sample Number: 9276732-001 Date Collected: 09/16/04 15:00
Client Sample ID: WSW2 Matrix: Water Date Received: 09/17/04 09:40

Parameters	Results	Units	Report Limit	DF	Analyzed	By	CAS No.	Qual	RegLmt
Metals									
Metals by Trace ICP	Prep/Method: EPA 3010 / EPA 6010								
Lead	0.00093 J	mg/l	0.0050	1.0	09/17/04 12:43	ALV	7439-92-1		
Date Digested	09/20/04 00:15				09/20/04 00:15				
GC/MS Volatiles									
GC/MS VOCs by 8260	Method: EPA 8260								
Benzene	ND	ug/l	5.0	1.0	09/22/04 15:35	BCK	71-43-2		
Ethylbenzene	ND	ug/l	5.0	1.0	09/22/04 15:35	BCK	100-41-4		
Methyl-tert-butyl ether	ND	ug/l	5.0	1.0	09/22/04 15:35	BCK	1634-04-4		
Naphthalene	ND	ug/l	5.0	1.0	09/22/04 15:35	BCK	91-20-3		
Toluene	ND	ug/l	5.0	1.0	09/22/04 15:35	BCK	108-88-3		
m&p-Xylene	ND	ug/l	10.	1.0	09/22/04 15:35	BCK			
o-Xylene	ND	ug/l	5.0	1.0	09/22/04 15:35	BCK	95-47-6		
Toluene-d8 (S)	100	%		1.0	09/22/04 15:35	BCK	2037-26-5		
4-Bromofluorobenzene (S)	96	%		1.0	09/22/04 15:35	BCK	460-00-4		
Dibromofluoromethane (S)	105	%		1.0	09/22/04 15:35	BCK	1868-53-7		
1,2-Dichloroethane-d4 (S)	102	%		1.0	09/22/04 15:35	BCK	17060-07-0		

REPORT OF LABORATORY ANALYSIS

Asheville Certification IDs
NC Wastewater 40
NC Drinking Water 37712
SC Environmental 99030
FL NELAP E87648

Charlotte Certification IDs
NC Wastewater 12
NC Drinking Water 37706
SC 99006
FL NELAP E87627

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Huntersville, NC 28078
Phone: 704.875.9092
Fax: 704.875.9091

Lab Project Number: 9276732
Client Project ID: Warren Green 04887 22552

PARAMETER FOOTNOTES

Dilution factor shown represents the factor applied to the reported result and reporting limit due to changes in sample preparation, dilution of the extract, or moisture content

Inorganic Wet Chemistry and Metals Analyses were performed at our Pace Asheville laboratory and Organic testing was performed at our Pace Charlotte laboratory unless otherwise footnoted.

Method 9071B modified to use ASE.

All pH, Free Chlorine, Total Chlorine and Ferrous Iron analyses conducted outside of EPA recommended immediate hold time.

ND	Not detected at or above adjusted reporting limit
NC	Not Calculable
J	Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit
MDL	Adjusted Method Detection Limit
(S)	Surrogate

Asheville Certification IDs

NC Wastewater	40
NC Drinking Water	37712
SC Environmental	99030
FL NELAP	E87648

Charlotte Certification IDs

NC Wastewater	12
NC Drinking Water	37706
SC	99006
FL NELAP	E87627

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QUALITY CONTROL DATA

Pace Analytical Services, Inc.
9800 Kincey Avenue, Suite 100
Huntersville, NC 28078
Phone: 704.875.9092
Fax: 704.875.9091

Lab Project Number: 9276732
Client Project ID: Warren Green 04887 22552

QC Batch: 110125
QC Batch Method: EPA 8260
Associated Lab Samples: 924725062

Analysis Method: EPA 8260
Analysis Description: GC/MS VOCs by 8260

METHOD BLANK: 924734171
Associated Lab Samples: 924725062

Parameter	Units	Blank Result	Reporting Limit	Footnotes
Benzene	ug/l	ND	5.0	
Ethylbenzene	ug/l	ND	5.0	
Methyl-tert-butyl ether	ug/l	ND	5.0	
Naphthalene	ug/l	ND	5.0	
Toluene	ug/l	ND	5.0	
m&p-Xylene	ug/l	ND	10.	
o-Xylene	ug/l	ND	5.0	
Toluene-d8 (S)	%	101		
4-Bromofluorobenzene (S)	%	97		
Dibromofluoromethane (S)	%	97		
1,2-Dichloroethane-d4 (S)	%	98		

LABORATORY CONTROL SAMPLE: 924734189

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	Footnotes
Benzene	ug/l	50.00	54.11	108	
Ethylbenzene	ug/l	50.00	55.72	111	
Methyl-tert-butyl ether	ug/l	50.00	40.87	82	
Naphthalene	ug/l	50.00	42.48	85	
Toluene	ug/l	50.00	50.75	101	
m&p-Xylene	ug/l	100.00	113.0	113	
o-Xylene	ug/l	50.00	53.73	107	
Toluene-d8 (S)				99	
4-Bromofluorobenzene (S)				99	
Dibromofluoromethane (S)				93	
1,2-Dichloroethane-d4 (S)				87	

Asheville Certification IDs
NC Wastewater 40
NC Drinking Water 37712
SC Environmental 99030
FL NELAP E87648

ACCREDITED IN ACCORDANCE WITH nelac

Charlotte Certification IDs
NC Wastewater 12
NC Drinking Water 37706
SC 99006
FL NELAP E87627

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QUALITY CONTROL DATA

Pace Analytical Services, Inc.
9800 Kincey Avenue, Suite 100
Huntersville, NC 28078
Phone: 704.875.9092
Fax: 704.875.9091

Lab Project Number: 9276732
Client Project ID: Warren Green 04887 22552

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 924737331 924737349

Parameter	Units	924711682 Result	Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	RPD	Footnotes
Benzene	ug/l	0	50.00	54.71	53.67	109	107	2	
Toluene	ug/l	0	50.00	50.75	49.29	102	99	3	
Toluene-d8 (S)						100	98		
4-Bromofluorobenzene (S)						103	102		
Dibromofluoromethane (S)						99	97		
1,2-Dichloroethane-d4 (S)						105	103		

Date: 09/23/04

Asheville Certification IDs
NC Wastewater 40
NC Drinking Water 37712
SC Environmental 99030
FL NELAP E87648

ACCREDITED IN ACCORDANCE WITH nelac

Charlotte Certification IDs
NC Wastewater 12
NC Drinking Water 37706
SC 99006
FL NELAP E87627

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QUALITY CONTROL DATA

Pace Analytical Services, Inc.
9800 Kincey Avenue, Suite 100
Huntersville, NC 28078
Phone: 704.875.9092
Fax: 704.875.9091

Lab Project Number: 9276732
Client Project ID: Warren Green 04887 22552

QC Batch: 109934
QC Batch Method: EPA 3010
Associated Lab Samples: 924725062

Analysis Method: EPA 6010
Analysis Description: Metals by Trace ICP

METHOD BLANK: 924728728
Associated Lab Samples: 924725062

Parameter	Units	Blank Result	Reporting Limit	Footnotes
Lead	mg/l	0.0011	0.0050	

LABORATORY CONTROL SAMPLE: 924728736

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	Footnotes
Lead	mg/l	0.5000	0.4200	84	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 924728744 924728751

Parameter	Units	924725831 Result	Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	RPD	Footnotes
Lead	mg/l	0.00086	0.5000	0.4630	0.4650	92	93	0	

Asheville Certification IDs

NC Wastewater	40
NC Drinking Water	37712
SC Environmental	99030
FL NELAP	E87648

Charlotte Certification IDs

NC Wastewater	12
NC Drinking Water	37706
SC	99006
FL NELAP	E87627

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9800 Kincey Avenue, Suite 100
Huntersville, NC 28078
Phone: 704.875.9092
Fax: 704.875.9091

Lab Project Number: 9276732
Client Project ID: Warren Green 04887 22552

QUALITY CONTROL DATA PARAMETER FOOTNOTES

Consistent with EPA guidelines, unrounded concentrations are displayed and have been used to calculate % Rec and RPD values.

LCS(D)	Laboratory Control Sample (Duplicate)
MS(D)	Matrix Spike (Duplicate)
DUP	Sample Duplicate
ND	Not detected at or above adjusted reporting limit
NC	Not Calculable
J	Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit
MDL	Adjusted Method Detection Limit
RPD	Relative Percent Difference
(S)	Surrogate

REPORT OF LABORATORY ANALYSIS

Asheville Certification IDs

NC Wastewater	40
NC Drinking Water	37712
SC Environmental	99030
FL NELAP	E87648

Charlotte Certification IDs

NC Wastewater	12
NC Drinking Water	37706
SC	99006
FL NELAP	E87627

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CHAIN-OF-CUSTODY / Analytical Request Document

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

857302

Page: 1 **of** 1

Required Client Information: **Section A**

Company	SCDHEC
Address	[illegible] Bull Street
	Columbia SC
Phone	Fax

Required Client Information: **Section B**

Report To:	Stephanie [illegible]
Copy To:	
Invoice To:	[illegible]
P.O.	463276
Project Name:	Warren Green
Project Number:	[illegible]

Client Information (Check quote/contract):

Requested Due Date: | *TAT:

*Turn around time less than 14 days subject to laboratory and contractual obligations and may result in a Rush Turnaround Surcharge.
Turn Around Time (TAT) in calendar days.

To Be Completed by Pace Analytical and Client **Section C**

Quote Reference:	
Project Manager:	
Project #:	9276732
Profile #:	1700 1
Requested Analysis:	

Section D **Required** Client Information:

SAMPLE ID

One character per box.
(A–Z, 0-9 / .-)
Sample IDs MUST BE UNIQUE

Valid Matrix Codes

MATRIX	CODE
DRINKING WATER	DW
GROUNDWATER	GW
SURFACE WATER	SW
WASTE WATER	WW
PRODUCT	P
SOIL	SL
OIL	OL
WIPE	WP
AIR	AR
OTHER	OT

ITEM #	SAMPLE ID	MATRIX CODE	SAMPLE TYPE G=GRAB C=COMP.	COLLECTED START DATE	START TIME	END DATE	END TIME	SAMPLE TEMP AT COLLECTION	Unpreserved	H_2SO_4	HNO_3	HCl	NaOH	$Na_2S_2O_3$	Methanol	Other	Requested Analysis	Remarks / Lab ID
1	WSW2	DW		7/16/11	1500												Y Y Y Y	92472504L
2																		
3																		
4																		
5																		
6																		
7																		
8																		
9																		
10																		
11																		
12																		

SITE LOCATION

☐ NC ☐ SC ☐ GA
☐ Other____

REGULATORY AGENCY

☐ NPDES ☐ GROUND WATER ☐ DRINKING WATER
☑ UST ☐ RCRA ☐ Other____

RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME
[illegible]	7/16/11	1540			
[illegible]			J. Elliott	9/17	9:40
[illegible]					

SAMPLE CONDITION

Temp in °C	1.3
Received on Ice	Y/N
Sealed Cooler	Y/N
Samples Intact	Y/N

SAMPLE NOTES

Monitoring wells MW-1, MW-2, & MW-3 could not be located. Water supply well # 1 (WSW-1) was not in operation at the time of this sampling event.

Additional Comments:
3

SAMPLER NAME AND SIGNATURE

PRINT Name of SAMPLER: [illegible]

SIGNATURE of SAMPLER: [illegible]

DATE Signed: (MM / DD / YY) 7/16/11

SEE REVERSE SIDE FOR INSTRUCTIONS

Form COC01 Rev. 0304

UST
55T
DOCKETING

DHEC
PROMOTE PROTECT PROSPER
South Carolina Department of Health and Environmental Control

UNDERGROUND STORAGE TANK PROGRAM
BUREAU OF LAND AND WASTE MANAGEMENT
2600 Bull Street, Columbia, South Carolina 29201
Telephone: 803-896-6240

RECEIVED
NOV 0 1 2004
UNDERGROUND STORAGE TANK PROGRAM

MEMORANDUM

TO: Dick Environmental Services

FROM: Stephanie Briney

RE: **NOTICE TO PROCEED**

Facility Name: Warren Green

Permit Number: 04887

County: Jasper

Work To Be Completed: Please sample monitoring wells MW-1 through MW-3 and the two water supply wells for BTEX+Napth+MtBE and Lead.

PACE CA# 22551

Dick CA# 22552

South Carolina Department of Health and Environmental Control
Bureau of Land and Waste Management Underground Storage Tank Program

Field Data Information Sheet for Groundwater Sampling

Date (mm/dd/yy): 09/16/04
Field Personnel: TAC
General Weather Conditions: Sunny

Ambient Air Temperature: 88.0 ° **F**

Quality Assurance

pH Meter		Conductivity Meter	
serial no.		serial no.	
pH=4.0	X	standard	X
pH=7.0		standard	
pH=10.0		standard	

Chain of Custody

Relinquished by Date/Time Received by Date/Time

Facility Name: Warren Green Jasper
Site ID#: 04887 **Monitoring Well#** MW-1
Water Supply Well **Public** ______ **Private** ______

Monitoring Well Diameter (D): 2 inch

Conversion Factor (C): $3.14 \times (D/2)^2$ for a 2 inch well C=0.163; for a 4 inch well C=0.652

* Free Product Thickness: ______ feet
Depth to Free Product (DFP) ______ feet
Depth to Ground Water (DGW) ______ feet
Total Well Depth (TWD) ______ feet
Length of the water column (LWC=TWD-DGW) 0 feet
1 casing volume (CV=LWC X C)= ______ 0.163 | 0 gallons
3 casing volume (3 X CV)= 3 | 0 gallons

Total Volume of Water Purged Before Sampling ______ gals.
*If free product is present over 1/8 inch, sampling will not be required.

Cumulative Volume Purged (gallons)	Inital	1st Vol	2nd Vol	3rd Vol	4th Vol	5th Vol	Post Sampling	
Time (military)								
pH (s.u.)								
Specific Conductivity (μmhos/cm)								
Water Temperature (°C)								
Dissolved Oxygen								
PID readings, if required								

Remarks: Could not locate Sample Time:

South Carolina Department of Health and Environmental Control
Bureau of Land and Waste Management Underground Storage Tank Program

Field Data Information Sheet for Groundwater Sampling

Date (mm/dd/yy): 09/16/04
Field Personnel: TAC
General Weather Conditions: Sunny

Ambient Air Temperature: 88.0 ° F

Quality Assurance

pH Meter		Conductivity Meter	
serial no.		serial no.	
pH=4.0	X	standard	X
pH=7.0		standard	
pH=10.0		standard	

Chain of Custody

Relinquished by	Date/Time	Received by	Date/Time

Facility Name: Warren Green Jasper
Site ID#: 04887 **Monitoring Well#** MW-2
Water Supply Well **Public** ____ **Private** ____

Monitoring Well Diameter (D): 2 inch

Conversion Factor (C): 3.14 x $(D/2)^2$ for a 2 inch well C=0.163; for a 4 inch well C=0.652

* Free Product Thickness:		feet
Depth to Free Product (DFP)		feet
Depth to Ground Water (DGW)		feet
Total Well Depth (TWD)		feet
Length of the water column (LWC=TWD-DGW)	0	feet
1 casing volume (CV=LWC X C)= 0.163	0	gallons
3 casing volume (3 X CV)= 3	0	gallons

Total Volume of Water Purged Before Sampling ____ gals.
*If free product is present over 1/8 inch, sampling will not be required.

Cumulative Volume Purged (gallons)	Inital	1st Vol	2nd Vol	3rd Vol	4th Vol	5th Vol	Post Sampling	
Time (military)								
pH (s.u.)								
Specific Conductivity (μmhos/cm)								
Water Temperature (°C)								
Dissolved Oxygen								
PID readings, if required								

Remarks: Could not locate Sample Time:

South Carolina Department of Health and Environmental Control
Bureau of Land and Waste Management Underground Storage Tank Program

Field Data Information Sheet for Groundwater Sampling

Date (mm/dd/yy): 09/16/04
Field Personnel: TAC
General Weather Conditions: Sunny

Ambient Air Temperature: 88.0 ° **F**

Quality Assurance

pH Meter		Conductivity Meter	
serial no.		serial no.	
pH=4.0	X	standard	X
pH=7.0		standard	
pH=10.0		standard	

Chain of Custody

Relinquished by	Date/Time	Received by	Date/Time

Facility Name: Warren Green   Jasper
Site ID#: 04887   **Monitoring Well#** MW-3
Water Supply Well   **Public** ______ **Private** ______

Monitoring Well Diameter (D): 2 inch

Conversion Factor (C): $3.14 \times (D/2)^2$ for a 2 inch well C=0.163
for a 4 inch well C=0.652

* Free Product Thickness: ______ feet
Depth to Free Product (DFP) ______ feet
Depth to Ground Water (DGW) ______ feet
Total Well Depth (TWD) ______ feet
Length of the water column (LWC=TWD-DGW) 0 feet
1 casing volume (CV=LWC X C)= ______ 0.163 | 0 | gallons
3 casing volume (3 X CV)= 3 | 0 | gallons

Total Volume of Water Purged Before Sampling ______ gals.
*If free product is present over 1/8 inch, sampling will not be required.

Cumulative Volume Purged (gallons)	Inital	1st Vol	2nd Vol	3rd Vol	4th Vol	5th Vol	Post Sampling	
Time (military)								
pH (s.u.)								
Specific Conductivity (µmhos/cm)								
Water Temperature (°C)								
Dissolved Oxygen								
PID readings, if required								

Remarks: Could not locate   Sample Time:

South Carolina Department of Health and Environmental Control
Bureau of Land and Waste Management Underground Storage Tank Program

Field Data Information Sheet for Groundwater Sampling

Date (mm/dd/yy): 09/16/04
Field Personnel: TAC
General Weather Conditions: Sunny

Ambient Air Temperature: 88.0 ° F

Quality Assurance

pH Meter		Conductivity Meter	
serial no.		serial no.	
pH=4.0	X	standard	X
pH=7.0		standard	
pH=10.0		standard	

Chain of Custody

Relinquished by	Date/Time	Received by	Date/Time

Facility Name: Warren Green Jasper
Site ID#: 04887 **Monitoring Well#** WSW-1
Water Supply Well **Public** ______ **Private** ______

Monitoring Well Diameter (D): 2 inch

Conversion Factor (C): 3.14 x $(D/2)^2$ for a 2 inch well C=0.163
for a 4 inch well C=0.652

* Free Product Thickness: ______ feet
Depth to Free Product (DFP) ______ feet
Depth to Ground Water (DGW) ______ feet
Total Well Depth (TWD) ______ feet
Length of the water column (LWC=TWD-DGW) 0 feet
1 casing volume (CV=LWC X C)= ______ 0.163 | 0 | gallons
3 casing volume (3 X CV)= 3 | 0 | gallons

Total Volume of Water Purged Before Sampling ______ gals.
*If free product is present over 1/8 inch, sampling will not be required.

Cumulative Volume Purged (gallons)	Inital	1st Vol	2nd Vol	3rd Vol	4th Vol	5th Vol	Post Sampling	
Time (military)								
pH (s.u.)								
Specific Conductivity (μmhos/cm)								
Water Temperature (°C)								
Dissolved Oxygen								
PID readings, if required								

Remarks: Could not locate Sample Time:

South Carolina Department of Health and Environmental Control
Bureau of Land and Waste Management Underground Storage Tank Program

Field Data Information Sheet for Groundwater Sampling

Date (mm/dd/yy): 09/16/04

Field Personnel: TAC

General Weather Conditions: Sunny

Ambient Air Temperature: 88.0 ° **F**

Quality Assurance

pH Meter		Conductivity Meter	
serial no.		serial no.	
pH=4.0	X	standard	X
pH=7.0		standard	
pH=10.0		standard	

Chain of Custody

Relinquished by	Date/Time	Received by	Date/Time
T.A. Cov.	9-16-04/1540		

Facility Name: Warren Green Jasper

Site ID#: 04887 **Monitoring Well#** WSW-2

Water Supply Well **Public** ______ **Private** ______

Monitoring Well Diameter (D): 2 inch

Conversion Factor (C): $3.14 \times (D/2)^2$ for a 2 inch well C=0.163
for a 4 inch well C=0.652

* Free Product Thickness:		feet
Depth to Free Product (DFP)		feet
Depth to Ground Water (DGW)		feet
Total Well Depth (TWD)		feet
Length of the water column (LWC=TWD-DGW)	0	feet
1 casing volume (CV=LWC X C)= ______ 0.163	0	gallons
3 casing volume (3 X CV)= 3	0	gallons

Total Volume of Water Purged Before Sampling ______ gals.

*If free product is present over 1/8 inch, sampling will not be required.

Cumulative Volume Purged (gallons)	Inital	1st Vol	2nd Vol	3rd Vol	4th Vol	5th Vol	Post Sampling	
Time (military)								
pH (s.u.)								
Specific Conductivity (µmhos/cm)								
Water Temperature (°C)								
Dissolved Oxygen								
PID readings, if required								

Remarks: Water supply well Sample Time: 1500

PaceAnalytical®

www.pacelabs.com

CHAIN-OF-CUSTODY / Analytical Request Document

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

857302

Page: 1 **of** 1

Section A — Required Client Information:

Company: SCDHEC

Address: [illegible] Bull Street

Columbia SC

Phone:

Fax:

Section B — Required Client Information:

Report To: Stephanie [illegible]

Copy To:

Invoice To: [illegible] UST

P.O. 463276

Project Name: Warren Green

Project Number: 04867 22552

Client Information (Check quote/contract):

Requested Due Date / TAT:

*Turn around time less than 14 days subject to laboratory and contractual obligations and may result in a Rush Turnaround Surcharge.

Turn Around Time (TAT) in calendar days.

Section C — To Be Completed by Pace Analytical and Client

Quote Reference:

Project Manager:

Project #:

Profile #:

Requested Analysis:

Section D — Required Client Information:

SAMPLE ID

One character per box. (A-Z, 0-9 / -)

Sample IDs MUST BE UNIQUE

Valid Matrix Codes: MATRIX / CODE — DRINKING WATER DW; GROUNDWATER GW; SURFACE WATER SW; WASTE WATER WW; PRODUCT P; SOIL SL; OIL OL; WIPE WP; AIR AR; OTHER OT

ITEM #	SAMPLE ID	MATRIX CODE	SAMPLE TYPE G=GRAB C=COMP	COLLECTED START DATE	START TIME	END DATE	END TIME	SAMPLE TEMP AT COLLECTION	Unpreserved	H_2SO_4	HNO_3	HCl	NaOH	$Na_2S_2O_3$	Methanol	Other	Requested Analysis	Remarks / Lab ID
1	WSW2	DW		7/16/[illegible]	1540												Y Y Y Y	
2																		
3																		
4																		
5																		
6																		
7																		
8																		
9																		
10																		
11																		
12																		

SITE LOCATION: ☐ NC ☑ SC ☐ GA ☐ Other

REGULATORY AGENCY: ☐ NPDES ☑ UST ☐ GROUND WATER ☐ RCRA ☐ DRINKING WATER ☐ Other

RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME
[illegible]	7/16/[illegible]	1540			
[illegible]					
[illegible]					

SAMPLE CONDITION

Temp in °C	
Received on Ice	Y/N
Sealed Cooler	Y/N
Samples Intact	Y/N

SAMPLE NOTES

Additional Comments:

2

SAMPLER NAME AND SIGNATURE

PRINT Name of SAMPLER: [illegible]

SIGNATURE of SAMPLER: [illegible]

DATE Signed (MM / DD / YY): 9/11/[illegible]

SEE REVERSE SIDE FOR INSTRUCTIONS

Form COC01 Rev. 0304

DHEC

PROMOTE PROTECT PROSPER

C. Earl Hunter, Commissioner

Promoting and protecting the health of the public and the environment.

JAN 10 2005

UST DOCKETING 56T

TERRY KENNEDY
GEOLOGICAL RESOURCES INC
2301 CROWN POINT EXECUTIVE DR STE F
CHARLOTTE NC 28227-6725

Re: Bid # SB-19189-04/30/02-EMW; PO#408994
Notice to Proceed

Dear Mr. Kennedy:

Based on the award of the referenced bid package, enclosed are the information packets to conduct monitoring well installation at two facilities. The packets contain the necessary approval for work to begin. The facilities have been assigned a Cost Agreement (CA) numbers as listed below. Please reference the CA number and Purchase Order #408994 on the appropriate invoice submitted for payment against the facilities. As specified in the referenced bid, **the completed invoice forms and associated reports (include contract certification number) are expected on or before the designated due date (see below).**

UST Permit#	Facility	County	Release #	Work Scope	Due Date*	CA #	Approved Amt
15222	Sweatman's Grocery	Dorchester	1	MWI	60 days	23616	$1,357.00
04887	Warren Green Grocery	Dorchester	1	MWI	60 days	23597	$1,222.0

*From receipt of letter

Geological Resources, Inc. will perform services at the sites on behalf of the site's UST owner; however, payments will be made from the SUPERB Account. The site's UST owners have no obligation for payment for this scope of work. **Please note, if there are any changes in the established cost agreement amounts (e.g., additional water supply wells sampled, additional well footage, etc.) contact the site's project manager for technical and/or financial approval. Failure to do so prior to submittal of invoice may result in delay of payment.**

The Bureau grants preapproval for transportation of drums of virgin petroleum contaminated soil and drums of groundwater from the referenced site to a permitted treatment facility. The contaminated soil and/or groundwater must be properly stored in labeled 55-gallon drums or equivalent containers. The contaminated soil and/or groundwater must be accepted by the approved treatment facility. There can be no spillage or leakage in transport. A copy of the disposal manifest from the receiving facility that clearly designates the quantity received must be included as an appendix to the final report. Please note, transportation of waste oil contaminated soil must receive preapproval from the Division of Waste Assessment & Emergency Response.

Please provide this office with a schedule of drilling dates and coordinate all work with me before commencing work at the facility. If you have any questions or need further assistance, please contact me at (800) 826-5435 (within SC only) or (803) 896-6647.

Sincerely,

K. Akhvlediani

Konstantine T. Akhvlediani, Hydrogeologist
Assessment Section
Assessment & Corrective Action Division
Underground Storage Tank Program
Bureau of Land and Waste Management

enc: Information Packets
Monitoring Well Approvals
Approved Cost Agreements

cc: Technical File (w/ copy of MWA)

SCDHEC/UST/KTA/1.7.05

D H E C

PROMOTE PROTECT PROSPER

C. Earl Hunter, Commissioner

Promoting and protecting the health of the public and the environment.

Monitoring Well Installation Approval Form

Date of Issue: December 20, 2004 Approval No.: UMW-18898

Approval is hereby granted to:	Geological Resources, Inc.
(On behalf of):	F L Sweatman.
UST Permit #:	15222
Address:	113 Sandy Branch Rd., Saint George, SC
County:	Dorchester

This approval is for the construction of two permanent monitoring wells in accordance with the construction plans and technical specifications outlined in the South Carolina Well Standards and Regulations (R.61-71). The well(s) are to be constructed within the surficial aquifer for the intended purpose of monitoring ground-water quality and/or water level(s) at the referenced facility. Approval is provided with the following conditions:

1. The latitude and longitude, surveyed elevations, boring and/or geologist logs and actual (as built) construction details for each well will be submitted with the technical report.

2. Each well will be labeled with an identification plate constructed of a durable material affixed to the casing or surface pad where it is readily visible. The plate will provide monitoring well I.D.#, date of construction, static water level, and driller name and state certification #.

3. Well construction and sampling derived waste including, but not necessarily limited to, drill cuttings, drilling fluids, development and purge water should be managed properly and in compliance with applicable requirements. If containerized, each vessel should be clearly labeled with regard to contents, source, and date of activity.

4. **A minimum of forty-eight (48) hours prior to initiation of drilling activities, please provide notice to Stephanie Briney at (803) 896-6323 or brineysm@dhec.sc.gov and Christine Sanford-Coker (District Contact) at (843) 740-1590 or sanforcc@dhec.sc.gov.**

5. Please provide ground-water quality analytical data (chemical analysis and/or water level(s)) and associated measurements (i.e., in-situ field measurements) to me with the technical report.

6. Monitoring wells and temporary monitoring wells will be installed by or under the direct supervision of a licensed well driller certified by the State of South Carolina.

7. Monitoring wells and temporary monitoring wells will be abandoned by or under the direct supervision of a licensed well driller certified by the State of South Carolina. Temporary monitoring wells shall not remain in place for longer than 30 days from the date of installation. Monitoring wells may be abandoned only upon concurrence by this Division.

This approval is pursuant to the provisions of Section 44-55-40 of the 1976 South Carolina Code of Laws and the Department of Health and Environmental Control Regulations R.61-71. Please remember to have a copy of this approval on the site during well installation.

Approved by: Stephanie Briney

Stephanie Briney, Hydrogeologist
Assessment Section
Assessment and Corrective Action Division
Underground Storage Tank Program
Bureau of Land and Waste Management

Approved Cost Agreement :3616

Facility: 15222 SWEATMANS GROCERY

BRINEYSM

PO Number:

Task / Description	Categories	Item	Description	Qty / Pct	Unit Price	Amount
04 MOB/DEMOB						
		B	PERSONNEL	1.0000	250.00	250.00
09 WELL INSTALLATION						
		B	WATER TABLE (DRILLED)	40.0000	18.50	740.00
16 SUBSEQUENT SURVEY						
			SUBSEQUENT SURVEY	1.0000	75.00	75.00
17 DISPOSAL						
		A1	WASTEWATER - PURGING/SAMPLING	2.0000	21.00	42.00
		C	SOIL (TREATMENT/DISPOSAL)	5.0000	50.00	250.00
				Total Amount		1,357.00

Approved Cost Agreemen. ?3597

Facility: 04887 WARREN GREEN

BRINEYSM

PO Number:

Task / Description	Categories	Item	Description	Qty / Pct	Unit Price	Amount
04 MOB/DEMOB						
		B	PERSONNEL	1.0000	250.00	250.00
09 WELL INSTALLATION						
		B	WATER TABLE (DRILLED)	30.0000	18.50	555.00
16 SUBSEQUENT SURVEY						
			SUBSEQUENT SURVEY	1.0000	75.00	75.00
17 DISPOSAL						
		A1	WASTEWATER - PURGING/SAMPLING	2.0000	21.00	42.00
		C	SOIL (TREATMENT/DISPOSAL)	6.0000	50.00	300.00
				Total Amount		1,222.00

Geological Resources, Inc.

UST
DOCKETING
57T

February 8, 2005

Ms. Stephanie Briney
South Carolina Department of Health
and Environmental Control
2600 Bull Street
Columbia, South Carolina 29201-1708

Re: Monitoring Well Installation
Warren Green Grocery
Point South, Jasper County
UST Permit #: 04887
CA #: 23597

Dear Ms. Briney:

The purpose of this correspondence is to inform you that Geological Resources, Inc. mobilized to the above referenced site on January 31, 2005 to replace MW-1 and MW-3. However both monitoring wells were found intact and were not replaced. Please note that MW-1 was mapped incorrectly. The enclosed Site Map shows the correct locations.

The original invoice for a equipment mobilization has been submitted to Ms. Pat Holland of the Finance Section. Please do not hesitate to contact me at (704) 845-4010 if you have any questions or require additional information.

Sincerely,
Geological Resources, Inc.

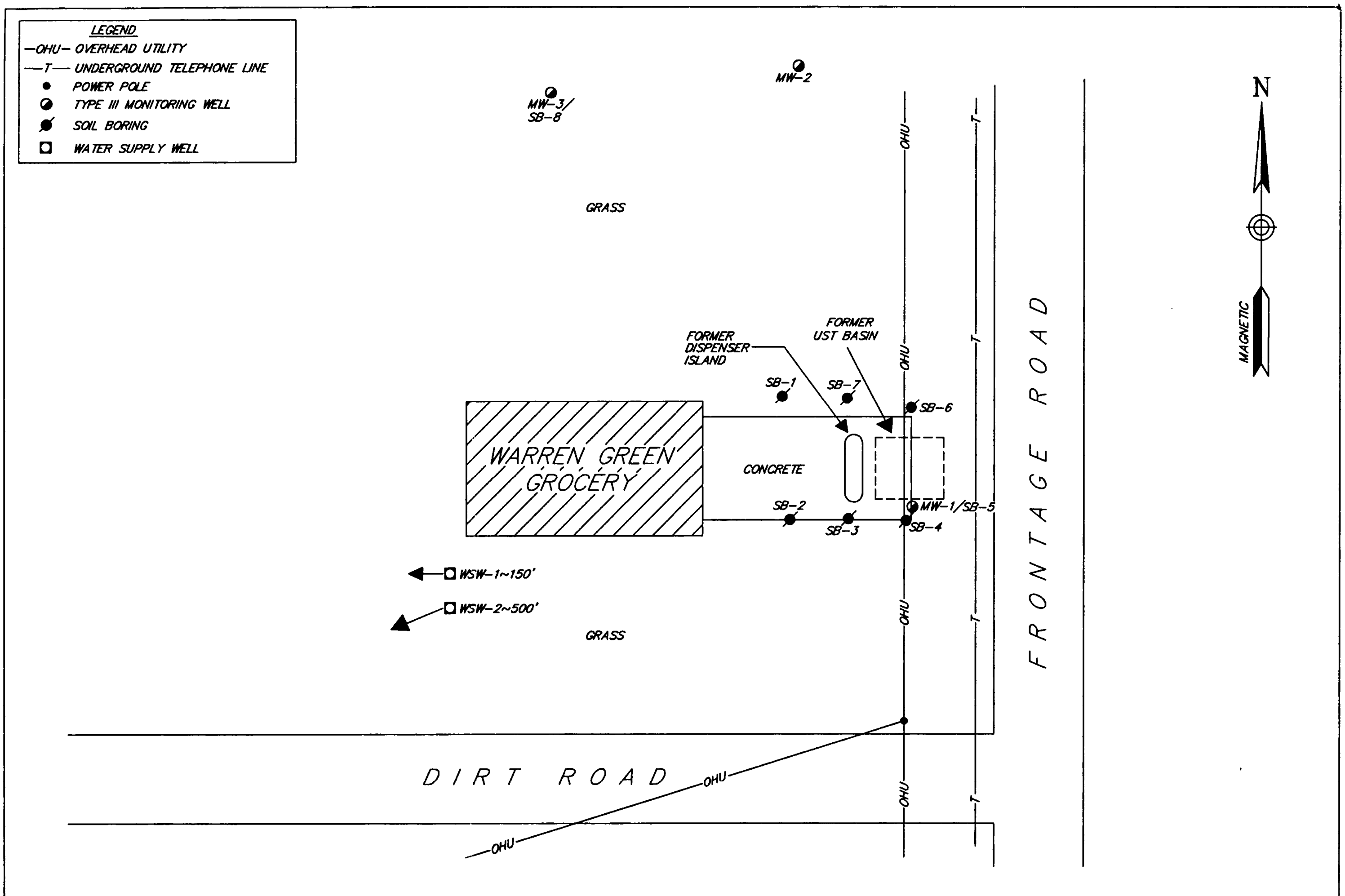
Shawn Judd

Shawn L. Judd
Project Coordinator

cc: file

RECEIVED
FEB 09 2005
UNDERGROUND STORAGE TANK PROGRAM

2301 Crown Point Executive Drive Suite F Charlotte, NC 28227
Phone: (704) 845-4010 / (888) 870-4133 Fax: (704) 845-4012



SITE MAP			
Warren Green Grocery 10773 West Frontage Road			
Yemassee, Jasper County, SC UST Permit #04887			
Date: 02/08/05	Drawn by: LJM	Figure: 3	
GEOLOGICAL RESOURCES, INC.			


D-4

↑Dispenser Island

Frontg Rd

DW-1

Frontage Road

↑ MW-2

STORE

↑ WSW-1

Abandoned Water Well on site

MW-6 DW-4 Road run by DW-3

Glove in the tree by MW-5 DW-3

Surface Dranage Ditch by DW-3/MW-5

From: John D. Surber
To: Briney, Stephanie M.
Date: 3/25/2005 3:00:27 PM
Subject: Jasper County Tax Assessor

Rosemary O'Quinn is the contact.
Phone # is 843-726-7721.

Enjoy!

UST 58T DOCKETING

2002

Eady, Lasonya et al
care of
Reginald & Evert
Bascom
4A Crabapple
lane
Ridgeland, SC
29936

C4887

088-00-02-032

200200030512
Filed for Record in
JASPER COUNTY
MARGARET BOSTICK
05-13-2002 At 01:19 PM.
DEED 10.00
Volume 255 Page 298 - 300

STATE OF SOUTH CAROLINA)
) TITLE TO REAL ESTATE
COUNTY OF JASPER)

Instrument Volume Page
200200030512 255 298

Know all men by these Presents that I, **HELEN SMITH**, in the State aforesaid County of Jasper, for and in consideration of the sum of one dollar and 00/100 ($1.00) to me in hand paid by **LaSONYA EADY, REGINALD BASCOM, AND EVERETTE BASCOM, 4A CARBAPPLE LANE, RIDGELAND, S.C. 29936** in the state aforesaid, the receipt and sufficiency of which is hereby acknowledged, have granted, bargained, sold and released, and by these presents do grant, bargain, sell and release, unto the said **LaSONYA EADY, REGINALD BASCOM AND EVERETTE BASCOM** , there heirs and assigns, forever, the following described property, to-wit:

ALL that certain piece, parcel, or tract of land, situate, lying and being in the County of Jasper and the State of South Carolina containing one (1) acre and bounded as follows: On the North by Rosa Locke; On the East by U.S. Highway 17; On the West by Rosa Locke and on the South by Wyman Bozer Realty.

This being the same property acquired by Devise/Descent from the Estate of Warren Green to Helen Smith and recorded in the Jasper County Clerk of Courts Office in Deed Book 91 at Deed Page 1968.

Jasper County Tax Map # : 088-00-02-032.

TOGETHER with all and singular, the rights, members, hereditaments and appurtenances to the said premises belonging or in anywise incident or appertaining.

TO HAVE AND TO HOLD all and singular the premises b[illegible]nto the said **LaSONYA EADY, REGINALD BASCOM, AND EV**[illegible] There Heirs and Assigns forever.

And we do hereby bind ourselves and our heirs, exec[illegible] and forever defend all and singular the said premises unto [illegible]

REGINALD BASCOM AND EVERETTE BASCOM, there heirs and assigns, against us and our heirs and against every person whomever lawfully claiming, or to claim the same or any part thereof.

WITNESS MY HAND AND SEAL this 9th day of May 2002.

SIGNED, SEALED AND DELIVERED
IN THE PRESENCE OF:

[redacted] #5H Steven L. Hamlett — Witness signature | Helen Smith — **HELEN SMITH**

Patricia Brown — Witness signature

STATE OF SOUTH CAROLINA	)	
	)	**ACKNOWLEDGMENT**
COUNTY OF JASPER	)	

PERSONALLY APPEARED before me, the undersigned witness, and made oath that s/he saw the within name **HELEN SMITH** sign, and, as its act and deed deliver the within-written Deed for the uses and purpose therein mentioned and he with the other witness whose name appears above, witnessed the execution thereof.

SWORN to before me this 9th)
Day of May ,2002)

Rosemary H. Stevenson)
Notary Public for South Carolina
My Commission Expires: My Commission Expires March 23, 2010

Steven L. Hamlett
Witness Signature

(Deed Prepared by Law office of Harry C. Brown, Sr., 603 N. Jacob Smart Blvd., P.O. Box 824, Ridgeland, South Carolina, 29936 without the Benefit of a Title [redacted]

Instrument 200200030512 Volume 255 Page 300

Tax Map# 088-00-02-032

STATE OF SOUTH CAROLINA
COUNTY OF JASPER

AFFIDAVIT OF CONSIDERATION

PERSONALLY appeared before me the undersigned, who being duly sworn, deposes and says

The Property located at Ridgeland, S.C., bearing Jasper County Tax Map Number was transferred by Helen Smith to Reginald Bascom, Lasindra Eady and Everett Bascom 5/9/2002

The transaction was (check one)

X an arm's length real property transaction and the sales price paid or to be paid in money or money's worth was $ 100.

____ not an arms's length real property transaction and the fair market value of the property is $________.

The above transaction is exempt, or partially exempt, from the recording fee as set forth in SC Code Ann Section 12-24-10 et seq. Because the deed is (See back of Affidavit)

As required by Section 12-24-70. I state that I am a responsible person who was connected with the transactions as________

I further understand that a person required to furnish this affidavit who wilfully furnishes a false or fraudulent affidavit is guilty of a misdemeanor and, upon conviction, must be fined not more that one thousand dollars or imprisoned not more than one year, or both

Purchaser, Legal Representative of the Purchaser Or other Responsible Person Connected with the Transaction

SWORN to before me this 13th
day of May 2002
Nellie B. Beaston
Notary Public for SC
MY Commission Expires 7/31/10

DEED BOOK 255 PAGE 294
DATE 5-15-02
[illegible]
AUDITOR JASPER COUNTY SC

*The fee is based on the real property's value. Value means the re... fair market value. In arms length real property transactions, thi... is the sales price to be paid in money or money's worth (e.g. stoc... personal property, other realty, forgiveness of debt, mortgages, a... or placed on the realty as a result of the transaction) However, ... lien or deduction is allowed from this value for the amount of any ... trans... land, tenement, or realty before the

D H E C
PROMOTE PROTECT PROSPER
C. Earl Hunter, Commissioner
Promoting and protecting the health of the public and the environment.

MAY 0 2 2005

LASONYA EADY, REGINALD BASCOM, AND EVERETTE BASCOM
4A CARBAPPLE LANE
RIDGELAND SC 29936-5609

UST
59T
DOCKETING

Re: Warren Green, 10773 W. Frontage Rd., Yemassee, SC
UST Permit # 04887
Release reported on May 16, 2002
Assessment Report received February 9, 2005
Jasper County

Dear Sir or Madam:

The Underground Storage Tank (UST) Program of the South Carolina Department of Health and Environmental Control confirmed a release from the UST system at the referenced site on May 16, 2002.

The referenced report indicates concentrations of chemicals of concern above risk based screening levels in the soil and groundwater in the vicinity of the UST system on May 16, 2002. To determine what risk the release may pose to the environment and public health, and in accordance with Section 280.65 of the South Carolina Underground Storage Tank Control Regulations, implementation of further assessment activities are necessary. The UST Program intends to conduct necessary assessment and remediation work using state funds from the State Underground Petroleum Environmental Response Bank (SUPERB) Account. As you were not the owner or operator of the UST system, there will be no cost to you. As the current property owner, the UST Program is requesting your permission for the contractor to enter the property to perform the necessary work. The UST Program will keep you apprised of all pending activities and provide you a copy of all reports. **Please complete the attached right of entry form and return it to my attention within 15 days from your date of receipt.**

On all correspondence regarding this site, please reference UST Permit # 04887. Please contact me at brineysm@dhec.sc.gov or by telephone at (803) 896-6323 or (800) 826-5435 (within South Carolina only) if you have questions or need additional information.

Sincerely,

Stephanie Briney

Stephanie Briney, Hydrogeologist
Assessment Section
Assessment and Corrective Action Division
Underground Storage Tank Program
Bureau of Land and Waste Management

enc.: Right of Entry Form

cc: Technical File (w/o enc)

CONSULTECH ENVIRONMENTAL, INC.

January 17, 2008

RECEIVED

JAN 2 1 2008

Copy

UNDERGROUND STORAGE TANK PROGRAM

Ms. Minda Johnson, Hydrogeologist
Assessment Section
Assessment & Corrective Action Division
Underground Storage Tank Program
Bureau of Land & Waste Management
South Carolina DHEC
2600 Bull Street
Columbia, South Carolina 29201

RE: Tier II Assessment Report
Warren Green Grocery
10773 West Frontage Road
Yemassee, South Carolina
UST Permit # 04887; CA # 29932; MWA # UMW-663641

Dear Ms. Johnson,

Consultech is pleased to submit this copy of the Tier II Assessment Report, prepared for the above referenced facility in accordance with the Tier II Assessment Plan (Tier II) document dated July 25, 2007, and contract IFB-30950-11/7/06-EMW dated May 24, 2007, as authorized by the South Carolina Department of Health and Environmental Control (SCDHEC).

If you should have any questions about this report, please do not hesitate to contact me at (919) 861-4319 ext. 212.

Sincerely,

CONSULTECH ENVIRONMENTAL, LLC.

Joseph A. Ghiold, P.G.
Senior Project Manager

cc: File C-07-06-09

P.O. Box 5306 Cary, NC 27512
(919) 858-5350 FAX (919) 858-5351

TIER II ASSESSMENT CERTIFICATION

Tier II Assessment Report (Tier II) Certification

I hereby certify that the information contained in this plan and the associated attachments are true, accurate, and complete, and the plan satisfies all the criteria and requirements of the Tier II assessment guidelines dated December 6, 2005.

I hereby certify that I have directed the fieldwork and preparation of this plan in accordance with State Rules and Regulations. As a professional geologist, I certify that I am a qualified groundwater professional, as defined by the South Carolina Board of Registration for Geologists. All of the information and laboratory data in this plan and in all of the attachments are true, accurate, complete, and in accordance with applicable State Rules and Regulations.

1-17-08

Joseph A. Ghiold, P.G. (Consultech Environmental, LLC.) — Date
Senior Project Manager

JOSEPH A. GHIOLD
REGISTERED
No. 2441
SOUTH CAROLINA
PROFESSIONAL GEOLOGIST

TIER II ASSESSMENT REPORT

Warren Green
10773 West Frontage Road
Yemassee, South Carolina
UST Permit # 4887, CA # 29932

Prepared for:

South Carolina Department of Health
And Environmental Control
2600 Bull Street
Columbia, South Carolina 29201

Prepared by:

Consultech Environmental, LLC.
P.O. Box 5306
Cary, North Carolina 27512

Consultech Project No. C-07-06-09

January 2008

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1.0 PROJECT BACKGROUND INFORMATION

This section presents the purpose of the Tier II Assessment Report (Tier II), a description of the site, and the site assessment history.

1.1 Purpose

The purpose of this Tier II assessment is to provide the South Carolina Department of Health and Environmental Control (SCDHEC) with sufficient information to determine if the petroleum release reported in the Tier I Assessment performed by Geological Resources, Inc. at the Warren Green site poses a potential risk to human health or to the environment. This Tier II specifically provides information outlined in the scope of work as defined in the SCDHEC Tier II Assessment Plan (Tier II) guidance document, dated December 6, 2005. Please reference Consultech's Standard Operating Procedures document, dated March 2007. This report presents the extent of petroleum hydrocarbons released to the environment and an evaluation of the risk of exposure to potential receptors.

1.2 Site Description

The Warren Green site consists of an abandoned gas station and convenience store. Residential properties and Interstate 95 border the site (Figures 1 and 2). The ground surface at the facility is covered by concrete in the UST area and dirt and gravel elsewhere. The facility reportedly has three inactive underground storage tanks (USTs) consisting of two 3,000 gallon gasoline USTs and one 2,000 gallon gasoline UST.

1.3 Site Assessment History

A Tier I Assessment Report was completed by Geological Resources, Inc. on March 28, 2003.

2.0 POTENTIAL RECEPTOR SURVEY

The receptor survey included a private and public groundwater supply well search, a surface water body search in the area of the site, an underground utility survey, and a discussion of current and future uses of the site and down gradient properties.

2.1 Location of Drinking Water Supplies

Four active private drinking water supply wells were identified within the vicinity of the site. WSW-1 is located approximately 400 feet west and south of the site and WSW-2 is located approximately 600 feet west of the site. WSW-3 and WSW-4 are located approximately 600 feet and 800 feet north of the site, respectively (Appendix 1).

2.2 Location of Surface Water Bodies

No surface water bodies were identified within 1,000 feet of the site (Figure 1).

2.3 Underground Utility Survey

Underground telephone, power, and television lines run along Frontage Road adjacent to the site (Figure 2).

2.4 Current and Future Uses of the Site and Downgradient Properties

The subject site is currently an abandoned gas station and convenience store. Residential properties and Interstate 95 border the site. Future uses of the site and surrounding area are likely to remain the same.

3.0 HYDROGEOLOGY AND GEOLOGY

3.1 Regional Geology and Hydrogeology

The subject site is located within the Coastal Plain Physiographic Province. This province consists of Lower Cretaceous to recent age sediments overlying older igneous and metamorphic crystalline rocks. These sediments form a seaward dipping wedge that begins at the fall line that marks the boundary of the Piedmont Physiographic Providence, and thickens towards the east. The subsurface is underlain by a transgressive-regressive sequence. The Coastal Plain Region is characterized by rolling sandy hills to plateaus, plains, river valleys, swamps, Carolina bays, estuaries, tidal creeks, marshes, and barrier islands.

Private groundwater supplies are obtained predominately from the Pleistocene and Holocene formations in the immediate area at depths of 100 to 200 feet below the ground surface (ft-bgs).

3.2 Site Hydrogeology

For this site, a benchmark was established with an assumed elevation of 100.00 feet above the National Geodetic Vertical Datum (NGVD) at the site. The most recent groundwater elevations were measured on December 3, 2007, in monitoring wells MW-1, MW-2, MW-3R, MW-4 through MW-9, and DW-1 through DW-4, in order to determine static water levels, to establish the groundwater gradient, and to check for liquid phase hydrocarbons (LPH). The groundwater elevations in the on-site shallow monitoring wells ranged from 87.57 feet (MW-3R) to 85.65 feet (MW-5), with respect to a relative datum elevation of 100.00 feet. LPH were not detected in any of the monitoring wells at the site. A summary of the measurement data collected from the monitoring wells is presented in Table 1.

3.3 Site Geology

Soils from borings and the monitoring wells at the site consist predominantly of black, brown, and gray sand, clayey sand, and sandy clay. The percentages of sand, silt, and clay in a soil sample collected in monitoring well DW-1 were 93.9%, 4.6%, and 1.5 %, respectively (Table 7). Stratagraphic Cross Sections A-A' and B-B' (locations shown on Figure 3) are presented on Figures 4 and 5 respectively.

3.4 Site Topography

The elevation at the subject property, as evidenced by the U.S.G.S. 7.5-minute quadrangle topographic map for the area (Mcphersonville, South Carolina, Figure 1) appears to be approximately 16 feet above mean sea level. The general direction of surface water drainage in the site vicinity appears to be to the north, south, and east (Figure 1).

4.0 INVESTIGATIVE METHODS AND SAMPLING

4.1 Field Screening

The soil was collected at five-foot intervals bgs from 4 soil borings (SB-1, SB-2, SB-3, and SB-4) and then scanned with a calibrated Photo Ionization Detector (PID). Field screening results are presented in Table 2, on boring logs in Appendix 2, and on a PID field-screening map provided as Figure 6. Four groundwater samples (GW-1 through GW-4) were collected from borings during the field screening and were analyzed for the presence of benzene, toluene, ethyl benzene, and total xylenes (BTEX), and naphthalene. Analytical results are presented in Table 4 One groundwater screening sample was collected during the construction of monitoring well DW-4 (GW-4) at a depth of 60 feet to determine if groundwater had been impacted below a clay layer at the site. The sample was analyzed for BTEX and methyl tert-butyl ether (MTBE) and laboratory results are presented in Table 4.

4.2 Monitoring Well Installation

Eleven monitoring wells were installed for this investigation. The shallow monitoring wells MW-3R and MW-4 through MW-9 are two-inch diameter PVC wells drilled to 20 feet bgs with 15 feet of screen (Table 1 and Appendix 2). Four deep wells were also installed at the site. DW-1 through DW-4 were installed with a six-inch isolation casing cemented at 40 feet bgs. The wells were drilled to a total depth of 50 feet bgs and completed with two inch PVC casing screened from 45 to 50 feet bgs. Well construction diagrams are included with the soil boring logs in Appendix 2. Existing monitoring wells (MW-1 and MW-2) installed by a previous contractor (Geological Resources, Inc. (GRI)) were also utilized for this investigation. MW-3 previously installed by GRI could not be located and was replaced by monitoring well MW-3R that was installed next to it.

4.3 Soil Sampling

GRI previously conducted soil sampling on February 24, 2003 when soil borings SB-1 through SB-8, and monitoring wells MW-1 and MW-3 were sampled and analyzed as part of the Tier I Assessment Report. Consultech collected a soil sample from deep monitoring well DW-4 for grain size analysis. The results of the grain size analysis are presented in Table 7 and Appendix 3. The soil cuttings generated during all of Consultech's drilling activities were scanned with a calibrated PID and placed in 55-gallon drums. The soil cuttings were then disposed of in accordance with local, state and federal regulations (Appendix 4).

4.4 Groundwater Sampling

Prior to groundwater sampling, groundwater field parameters including pH, temperature, and conductivity were collected from 13 groundwater-monitoring wells at the site. The results are presented in Table 3.

On October 25, 2007 groundwater samples were obtained from borings GW-1 and GW-4. The groundwater samples were analyzed for BTEX and Naphthalene. All analytes were below reporting limits in all of the borings. On November 20, 2007, the groundwater screening sample collected during the construction of monitoring well DW-4 (GW-4) was submitted for analyses of BTEX and MTBE. All analytes were below reporting limits. Analytical results for these samples are presented in Table 4.

Groundwater samples were collected on December 3, 2007 from shallow monitoring wells MW-1, MW-2, MW-3R, MW-4 through MW-9, deep monitoring wells DW-1 through DW-4, and water supply wells WSW-1 through WSW-4 and sent to the lab for analysis. The monitoring wells were analyzed for BTEX, ethylene dibromide (EDB), MTBE, 1,2-Dichloroethane (1,2-DCA), naphthalene, lead, nitrate, dissolved iron, methane, sulfate, and eight oxygenates. The laboratory reports are included in Appendix 3 and summarized in Tables 4, 5 and 6. The water supply wells were analyzed for BTEX, EDB, MTBE, 1,2-DCA, naphthalene, and methane.

5.0 PHYSICAL AQUIFER CHARACTERISTICS

5.1 Hydraulic Conductivity Tests

Consultech conducted an in-situ hydraulic conductivity test in monitoring well DW-3 (Appendix 7). The hydraulic conductivity tests were conducted by using a bailer to bail out as much water as possible. Using an oil/water interface probe, the water levels were then recorded over time as the water levels in the wells returned to their static levels. The recovery data and completion details of the wells were used to determine the in-situ hydraulic conductivity using the Bouwer and Rice method for the case of a semi-confined aquifer, partially penetrated by a well. The hydraulic conductivities calculated by this method are considered estimated values based on several assumptions, most notably homogenous, isotropic aquifer flow with minimal sand pack recharge.

5.2 Direction and Rate of Groundwater Flow

On December 3, 2007, groundwater depths for monitoring wells MW-1, MW-2, MW-3R, MW-4 through MW-9, and DW-1 through DW-4 were measured and their corresponding elevations are presented in Table 1. All wells were gauged for the presence of LPH using an oil/water interface probe. LPH was not detected in any of the monitoring wells.

The groundwater elevations are illustrated in the groundwater potentiometric map on Figure 7. The groundwater elevations indicate that the shallow groundwater flow direction is towards the north, east, and south at the site and towards the west in the vicinity of monitoring wells MW-5 and MW-6. Based on the groundwater elevations in monitoring wells MW-1 and MW-5, and the distances between these wells, the average hydraulic gradient (referenced as "i") is estimated to be 0.006 feet per foot (ft/ft).

The shallow groundwater flow velocity (V) was estimated for the site using the Darcy equation, V=(K x i)/neff, with the average K (.138 feet per day), the gradient i (0.006 ft/ft), and the estimated effective porosity (neff) of 0.10. This equation assumes a homogeneous, isotropic aquifer that is infinite in a real extent (i.e., no boundary conditions). Based on this calculation, the average groundwater velocity is estimated to be 2.92 ft/yr (Appendix 7).

6.0 HORIZONTAL AND VERTICAL EXTENT OF PETROLEUM HYDROCARBONS

6.1 Extent of Petroleum Contamination in Soil

The soil was sampled in the Tier I Assessment Report and can be referenced in that report. Consultech collected one soil sample (DW-4) for laboratory analysis that was used to characterize the soil cuttings generated during the drilling activities that were placed in the 55-gallon drums. The soil sample was analyzed for BTEX and naphthalenes. The laboratory results are included in Appendix 3.

6.2 Extent of Petroleum Contamination in Groundwater

Groundwater samples were collected on December 3, 2007 from shallow monitoring wells MW-1, MW-2, MW-3R, MW-4 through MW-9 and deep monitoring wells DW-1 through DW-4. Table 4 presents the analytical results for BTEX, MTBE, 1,2-DCA, and naphthalenes in groundwater at the site.

Figure 8 demonstrates that benzene was detected in groundwater above the risk based screening level (RBSL) of 5.0 µg/l in shallow monitoring wells MW-1 (9,000 ug/l), MW-7 (280 ug/l), MW-8 (590 ug/l), and deep monitoring well DW-1 (100 ug/l). Toluene (Figure 9) was detected in the groundwater above the RBSL of 1,000 ug/l in MW-1 (24,000 ug/l), MW-8 (2,200 ug/l), and DW-1 (1,800 ug/l). Ethylbenzene (Figure 10) was detected in groundwater above the RBSL of 700 µg/l in monitoring well MW-1 (4,900 ug/l) and MW-8 (750 ug/l). Figure 11 indicates that total xylenes were detected in groundwater above the RBSL of 10,000 ug/l in MW-1 (29,000 ug/l).

Naphthalene (Figure 12) was detected in groundwater above the RBSL of 25.0 µg/l in shallow monitoring wells MW-1 (620 ug/l), MW-7 (32 ug/l) and MW-8 (110 ug/l) and deep monitoring well DW-1 (84 ug/l). MTBE (Figure 13) was detected in groundwater above the RBSL of 40 ug/l in MW-1 (620 ug/l).

Table 5 presents natural attenuation parameters, the totals of the eight oxygenates, EDB, and lead concentrations, that were measured during the December 3, 2007 sampling event in shallow monitoring wells MW-1, MW-2, MW-3R, MW-4 through MW-9 and deep monitoring wells DW-1 through DW-4. EDB (Figure 14) was detected in monitoring well MW-1 at 0.97 ug/l which exceeded the RBSL of 0.05 ug/l. Lead was present above the RBSL of 0.015 milligrams per liter (mg/l) in shallow monitoring wells MW-2 (0.0213 mg/l), MW-3R (0.277 mg/l), MW-4 (0.0851 mg/l), MW-5 (0.0653 mg/l), MW-6 (0.0727 mg/l), MW-7 (0.115 mg/l), MW-8 (0.136 mg/l), and MW-9 (0.223 mg/l), and deep well DW-1 (0.243 mg/l). Nitrate, sulfate, dissolved iron, and methane were present in most of the monitoring wells at the site.

Table 6 presents the concentrations in groundwater of the eight oxygenates. Monitoring well MW-1 contained 2,600 ug/l of tert amyl alcohol, MW-7 contained 170 ug/l of ethyl-tert-butyl alcohol and 260 ug/l of tert amyl alcohol, and MW-8 contained 750 ug/l of ethyl-tert-butyl alcohol and 940 ug/l of tert amyl alcohol.

Groundwater contaminants were not detected in the four water supply wells (WS-1 through WS-4) sampled for this investigation (Table 4).

The Warren Green site is believed to contain one hydrocarbon plume, originating from on site USTs, which has shown some horizontal and vertical migration. The plume appears to be confined to the onsite property except towards the east towards Jasper Highway and Interstate 95 and towards the south. Further delineation may be necessary to the south.

Natural attenuation will be discussed in section 8.2.

6.3 Extent of LPH Plume

LPH was not detected in any of the monitoring wells during this investigation.

7.0 GROUNDWATER MODELING

7.1 Domenico's Model

The Domenico's Model will be utilized by South Caroline DHEC to determine site-specific target levels (SSTLs) for the source area.

7.2 Fate and Transport Modeling

South Carolina DHEC will conduct fate and Transport modeling.

8.0 TIER II SITE EVALUATION

8.1 Site Conceptual Model and Exposure Points

A site conceptual exposure model was presented in the Tier I Assessment Report submitted by Geological Resources, Inc.

8.2 Site Specific Point of Compliance

Establishing site-specific points of compliance was not included in the scope of Consultech's current Tier II investigation.

8.3 Natural Attenuation Parameters Evaluation

Tables 4 and 5 were compared to determine if a correlation could be demonstrated between the concentrations of natural attenuation parameters within and outside of the contaminant plume. The nitrate and iron values in the monitoring wells with petroleum contamination are similar to the nitrate and iron values found in non impacted monitoring wells. Petroleum hydrocarbons beneath the site are likely not being biodegraded through denitrification or iron reduction.

The sulfate values in the monitoring wells with petroleum contamination are similar to the sulfate values found in monitoring wells without petroleum contamination. Therefore, aerobic biodegradation of petroleum hydrocarbons is likely not occurring by sulfate reduction.

8.4 Calculation of Site Specific Target Levels

South Carolina DHEC will calculate SSTL's.

8.5 RBCA Site Classification

South Carolina DHEC will determine the RBCA Site Classification.

9.0 RECOMMENDATIONS

The Warren Green site is believed to contain one hydrocarbon plume, originating from on site USTs, which has shown some horizontal and vertical migration. The plume appears to be confined to the onsite property except towards the east towards Jasper Highway and Interstate 95 and towards the south. Further delineation and corrective action may be necessary at the subject site. The Domenico's Model should be conducted on current concentrations to determine site-specific target levels (SSTLs) for the affected monitoring wells.

10.0 REFERENCES

Clark, William Z. and Arnold C. Zisa, Physiographic Map of South Carolina, South Carolina Department of Natural Resources, Geologic Survey, 1976.

Cushman, D.J. and S.D. Ball, Ground Water Modeling for Risk Assessment Purposes: Use of a Gaussian-Distributed Transport Model and a Batch Flush Model, Groundwater Monitoring and Remediation, Fall 1993 Edition, pp.

Consultech Environmental, LLC, Field Sampling and Sampling QA/QC Protocols and Standard Operating Procedures for South Carolina DHEC Tier II Investigation of Petroleum Releases from Regulated Underground Storage Tank Facilities, March 2007

Davis, Kenneth R., et.al., Most Significant Recharge Areas of South Carolina, Hydrologic Atlas No. 18, South Carolina Geologic Survey, 1989.

Fetter, C.W., 1988, Applied Hydrogeology, 2nd Edition, Macmillan Publishing Company, New York, 592 p.

Geological Resources, Inc., March 28, 2003, Tier 1 Assessment Report, Warren Green Grocery.

Freeze, R.A., and Cherry, J.A., 1979, Groundwater: New Jersey, Prentice Hall, Inc.

Horton, J. Wright, and Zullo, Victor A., editors, The Geology of the Carolinas, 1st Edition, The University of Tennessee Press, 1991.

Nielson, David M., September, 1989, "Occurrence and Movement of Ground Water" presentation at the Association of Ground Water Scientists and Engineers Short Course, Corrective Action for Containing and Controlling Ground Water Contamination.

TABLES

Table 1
Well Construction Details and Groundwater Elevation Data
Warren Green, Yemassee, SC - Facility # 04887
Consultech Project 07-06-09

Monitoring Well	Date	Well Depth	Depth of Screen Below Ground Surface	TOC Elevation	Depth to Product from TOC	Depth to Water from TOC	Groundwater Elevation
MW-1	01/11/01	12	2'-12'	98.02		10.5	87.52
MW-2	07/18/07	15	5'-15'	98.90		12.69	86.21
MW-3R	11/21/07	20	5'-20'	98.72		11.15	87.57
MW-4	11/21/07	20	5'-20'	98.61		11.44	87.17
MW-5	11/21/07	20	5'-20'	97.30		11.65	85.65
MW-6	11/21/07	20	5'-20'	97.14		9.65	87.49
MW-7	11/21/07	20	5'-20'	97.90		10.98	86.92
MW-8	11/21/07	20	5'-20'	99.77		12.62	87.15
MW-9	11/21/07	20	5'-20'	99.74		12.50	87.24
DW-1	11/21/07	50	45'-50'	98.12		12.90	85.22
DW-2	11/21/07	50	45'-50'	98.66		11.89	86.77
DW-3	11/20/07	50	45'-50'	97.23		15.12	82.11
DW-4	11/20/07	50	45'-50'	97.3		23.00	74.30

All measurements reported in feet

Table 2
PID Field Readings
Warren Green, Yemassee, SC - Facility # 04887
Consultech Project 07-06-09

Sample	Date	5'	10'	15'	20'	25'
SB-1	10/25/07	0.0	0.0	0.0		
SB-2	10/25/07	0.0	0.0	0.0		
SB-3	10/25/07	0.0	0.0	0.0		
SB-4	10/25/07	0.0	0.0	0.0	0.0	

PID reading in parts per million

Table 3
Groundwater Field Parameter Results
Warren Green, Yemassee, SC - Facility # 04887
Consultech Project 07-06-09

Well Number	Date	pH	Temperature (°C)	Conductivity (us/cm*)	DO
MW-1	12/03/07	5.1	19	652	5.0
MW-2	12/03/07	5.1	19	300	2.0
MW-3R	12/03/07	5.5	19	259.0	3.1
MW-4	12/03/07	5.6	19	269	3.2
MW-5	12/03/07	5.8	19	200	4.0
MW-6	12/03/07	5.8	20	157	3.5
MW-7	12/03/07	5.5	20	170	3.5
MW-8	12/03/07	6.1	20	169	2.1
MW-9	12/03/07	5.9	20	200	2.2
DW-1	12/03/07	5.8	19	201	2.5
DW-2	12/03/07	6.1	19	189	2.5
DW-3	12/03/07	5.7	19	147	3.0
DW-4	12/03/07	5.0	19	167	3.0

*us/cm - microsiemens per centimeter
DO - Dissolved Oxygen in parts per million

Table 4
BTEX and PNA Groundwater Analytical Results (ug/l)
Warren Green, Yemassee, SC - Facility # 04887
Consultech Project # 07-06-09

Sample	Date	Benzene	Toluene	Ethylbenzene	Xylenes	MTBE	Napthalenes	1,2 DCA
RBSL		*5.00*	*1,000.00*	*700.00*	*10,000.00*	*40.00*	*25.00*	*NA*
MW-1	2/25/03	**178.00**	240.00	58.60	253.00	**71.00**	<5.0	NS
	12/3/07	**9,000.00**	**24,000.00**	**4,900.00**	**29,000.00**	**620.00**	**620.00**	<5.0
MW-2	2/25/03	<1.0	<1.0	<1.0	<1.0	<5.0	<1.0	NS
	12/3/07	<1.0	3.60	1.40	7.40	15.00	<5.0	<5.0
MW-3	2/25/03	<1.0	1.60	<1.0	1.70	<1.5	<5.0	NA
MW-3R	12/3/07	<1.0	<1.0	<1.0	<1.0	<1.0	<5.0	<5.0
MW-4	12/3/07	<1.0	<1.0	<1.0	<1.0	<1.0	<5.0	<5.0
MW-5	12/3/07	<1.0	<1.0	<1.0	<1.0	<1.0	<5.0	<5.0
MW-6	12/3/07	<1.0	<1.0	<1.0	<1.0	<1.0	<5.0	<5.0
MW-7	12/3/07	**280.00**	150.00	92.00	770.00	7.10	**32.00**	**7.20**
MW-8	12/3/07	**590.00**	**2,200.00**	**750.00**	4,200.00	<1.0	**110.00**	<5.0
MW-9	12/3/07	<1.0	5.90	1.90	11.00	<1.0	<5.0	<5.0
DW-1	12/3/07	**100.00**	**1,800.00**	620.00	3,300.00	<10	**84.00**	<50.0
DW-2	12/3/07	<1.0	<1.0	<1.0	<1.0	<1.0	<5.0	<5.0
DW-3	12/3/07	<1.0	1.20	<1.0	1.80	<1.0	<5.0	<5.0
DW-4	12/3/07	<1.0	<1.0	<1.0	<1.0	<1.0	<5.0	<5.0
WSW-1	12/3/07	<1.0	<1.0	<1.0	<1.0	<1.0	<5.0	<1.0
WSW-2	12/3/07	<1.0	<1.0	<1.0	<1.0	<1.0	<5.0	<1.0
WSW-3	12/3/07	<1.0	<1.0	<1.0	<1.0	<1.0	<5.0	<1.0
WSW-4	12/3/07	<1.0	<1.0	<1.0	<1.0	<1.0	<5.0	<1.0

*Previously constructed monitoring wells that lie adjacent to replacement monitoring wells constructed for this investigation. Only replacement well locations are shown on report maps.

Analytical Groundwater Screening Results (ug/L)

Sample	Date	Benzene	Toluene	Ethylbenzene	Xylenes	Napthalene	MTBE
RBSL		*5.00*	*1,000.00*	*700.00*	*10,000.00*	*25.00*	*40.00*
GW-1	10/25/07	<1.0	<1.0	<1.0	<1.0	<5.0	NS
GW-2	10/25/07	<1.0	<1.0	<1.0	<1.0	<5.0	NS
GW-3	10/25/07	<1.0	<1.0	<1.0	<1.0	<5.0	NS
GW-4	10/25/07	<1.0	<1.0	<1.0	<1.0	<5.0	NS
GW-4	11/20/07	<1.0	<1.0	<1.0	<1.0	<5.0	<1.0

All concentrations in parts per billion
Concentrations in bold exceed Risk Based Screening Levels (RBSL)
NS - Not Sampled

Table 5
Groundwater Natural Attenuation, EDB, and Lead Analytical Results
Warren Green Grocery, Yemassee, SC - Facility # 04887
Consultech Project # 07-06-09

Well Number	Date	EDB (ug/l)	Total 8-Oxygenates	Total Lead (mg/l)	Nitrate (mg/l)	Sulfate (mg/l)	Dissolved Iron (mg/l)	Methane (mg/l)
RBSL		*0.05*	*NA*	*0.0150*	*NA*	*NA*	*NA*	*NA*
MW-1	02/25/03	*<0.02*	NA	***0.1240***	NA	NA	*9.700*	NA
	12/03/07	0.97	2,600	0.0128	0.39	4.8	14.100	0.010
MW-2	02/25/03	<0.02	NA	**0.0570**	NA	NA	4.410	NA
	12/03/07	<0.02	<215.0	**0.0213**	0.77	6.2	0.326	<0.003
MW-3	02/25/03	<0.02	NA	**0.0860**	NA	NA	6.750	NA
MW-3R	12/03/07	<0.02	<215.0	**0.2770**	0.61	12.0	1.890	0.010
MW-4	12/03/07	<0.02	<215.0	**0.0851**	0.24	2.0	8.720	0.004
MW-5	12/03/07	<0.02	<215.0	**0.0653**	0.24	2.0	2.770	<0.003
MW-6	12/03/07	<0.02	<215.0	**0.0727**	0.28	2.0	0.669	0.003
MW-7	12/03/07	<0.02	430	**0.1150**	<0.10	<1.0	0.660	0.006
MW-8	12/03/07	<0.02	1,690	**0.1360**	0.42	6.0	1.040	0.026
MW-9	12/03/07	<0.02	<215.0	**0.2230**	0.52	9.6	2.130	0.006
DW-1	12/03/07	<0.02	<215.0	**0.2430**	0.25	7.5	0.186	0.015
DW-2	12/03/07	<0.02	<215.0	<0.0100	0.96	240.0	<0.100	<0.003
DW-3	12/03/07	<0.02	<215.0	<0.0100	0.38	4.6	<0.100	0.003
DW-4	12/03/07	<0.02	<215.0	<0.0100	0.26	4.9	<0.100	<0.003
WSW-1	12/03/07	<0.02	NA	NA	NA	NA	NA	0.101
WSW-2	12/03/07	<0.02	NA	NA	NA	NA	NA	0.260
WSW-3	12/03/07	<0.02	NA	NA	NA	NA	NA	0.200
WSW-4	12/03/07	<0.02	NA	NA	NA	NA	NA	0.075

ug/l - micrograms per liter
mg/l - milligrams per liter
NA - Not Applicable
Concentration in bold exceeds Risk Based Screening Level (RBSL)

Table 6

Groundwater 8-Oxygenates Analytical Results

Warren Green Grocery, Yemassee, SC - Facility # 04887

Consultech Project # 07-06-09

Well Number	Date	Diisopropyl ether (ug/l)	Ethanol (ug/l)	Ethyl-t-butyl alcohol (ug/l)	Ethyl-t-butylether (ug/l)	T-amyl alcohol (ug/l)	Tert-amyl methyl ether (ug/l)	Tertiary butyl alcohol (ug/l)	T-butyl Formate (ug/l)
RBSL		NA	NA	NA	NA	NA	NA	NA	NA
MW-1	12/03/07	<5.0	<100	<25	<5.0	2,600	<5.0	<25	<25
MW-2	12/03/07	<5.0	<100	<25	<5.0	<25	<5.0	<25	<25
MW-3R	12/03/07	<5.0	<100	<25	<5.0	<25	<5.0	<25	<25
MW-4	12/03/07	<5.0	<100	<25	<5.0	<25	<5.0	<25	<25
MW-5	12/03/07	<5.0	<100	<25	<5.0	<25	<5.0	<25	<25
MW-6	12/03/07	<5.0	<100	<25	<5.0	<25	<5.0	<25	<25
MW-7	12/03/07	<5.0	<100	170	<5.0	260	<5.0	<25	<25
MW-8	12/03/07	<5.0	<100	750	<5.0	940	<5.0	<25	<25
MW-9	12/03/07	<5.0	<100	<25	<5.0	<25	<5.0	<25	<25
DW-1	12/03/07	<5.0	<100	<25	<5.0	<25	<5.0	<25	<25
DW-2	12/03/07	<5.0	<100	<25	<5.0	<25	<5.0	<25	<25
DW-3	12/03/07	<5.0	<100	<25	<5.0	<25	<5.0	<25	<25
DW-4	12/03/07	<5.0	<100	<25	<5.0	<25	<5.0	<25	<25
WSW-1	12/03/07	NA	NA	NA	NA	NA	NA	NA	NA
WSW-2	12/03/07	NA	NA	NA	NA	NA	NA	NA	NA
WSW-3	12/03/07	NA	NA	NA	NA	NA	NA	NA	NA
WSW-4	12/03/07	NA	NA	NA	NA	NA	NA	NA	NA

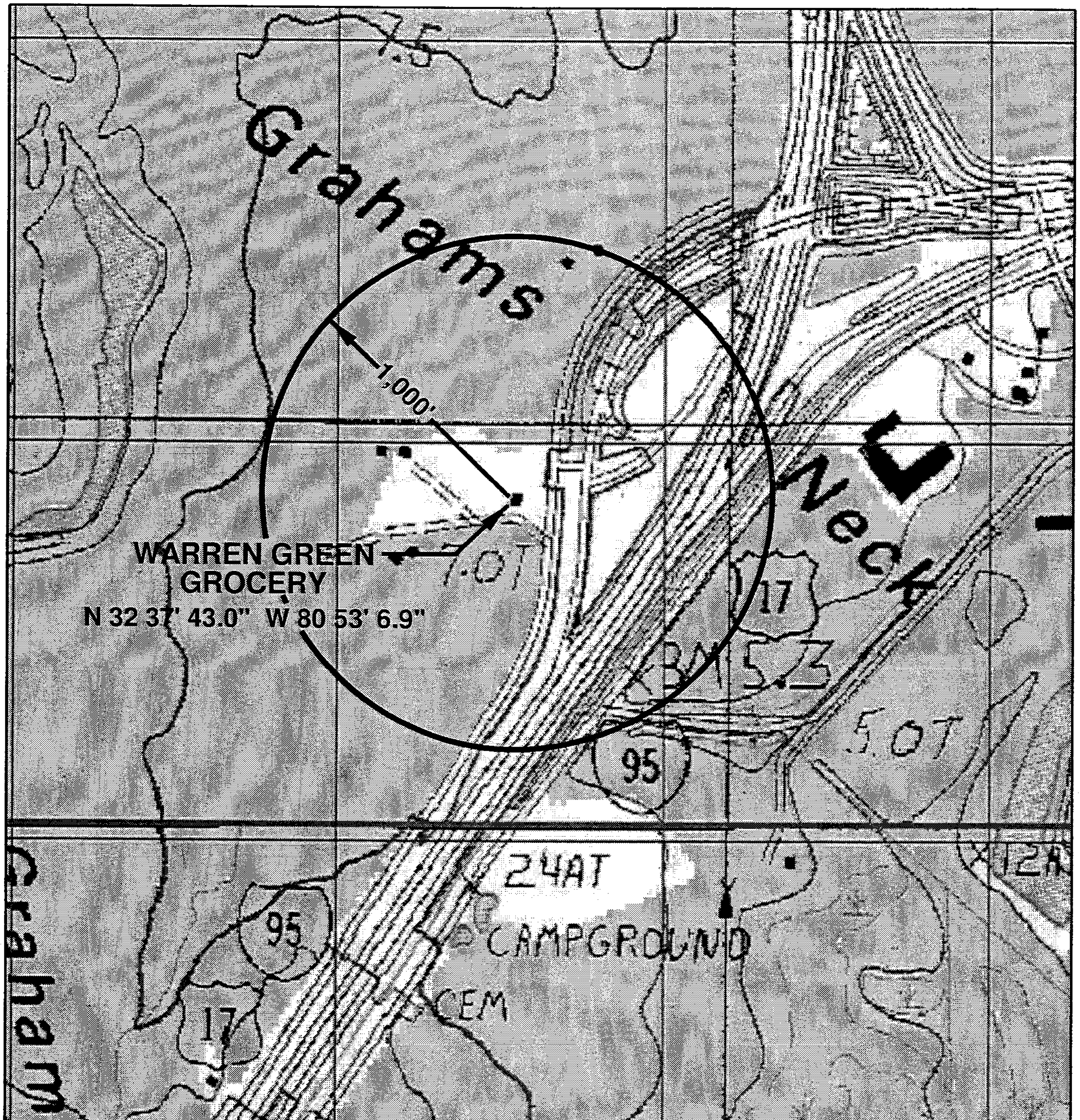
NA - Not Applicable

Table 7
Grain Size Analysis
Warren Green , Yemassee, SC - Facility # 04887
Consultech Project 07-06-09

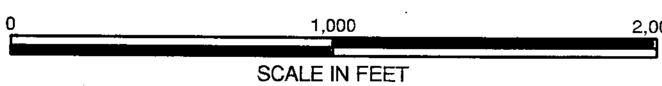
Sample Number	Date	*Sample Location	Sample Depth	% Sand	% Silt	% Clay	Total
DW-1	12/5/2007	DW-1	45'	93.9	4.6	1.5	100.0%

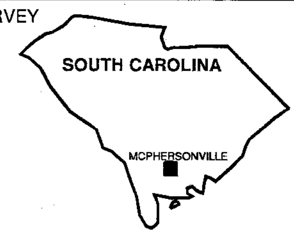
* Please Refer to Figure 2 (Site Plan Map) for Sample Locations

FIGURES



REFERENCE: MCPHERSONVILLE, SOUTH CAROLINA QUADRANGLE MAP. 7.5 MINUTE SERIES, U.S. GEOLOGIC SURVEY





SITE LOCATION

DRAWN: MAC	DATE: 01/16/08
SCDHEC FACILITY ID # 04887	
PROJECT: WARREN GREEN GROCERY	
PROJECT No.: C-07-06-09	
LOCATION: YEMASSE, SOUTH CAROLINA	

FIGURE 1
SITE LOCATION AND
TOPOGRAPHIC MAP

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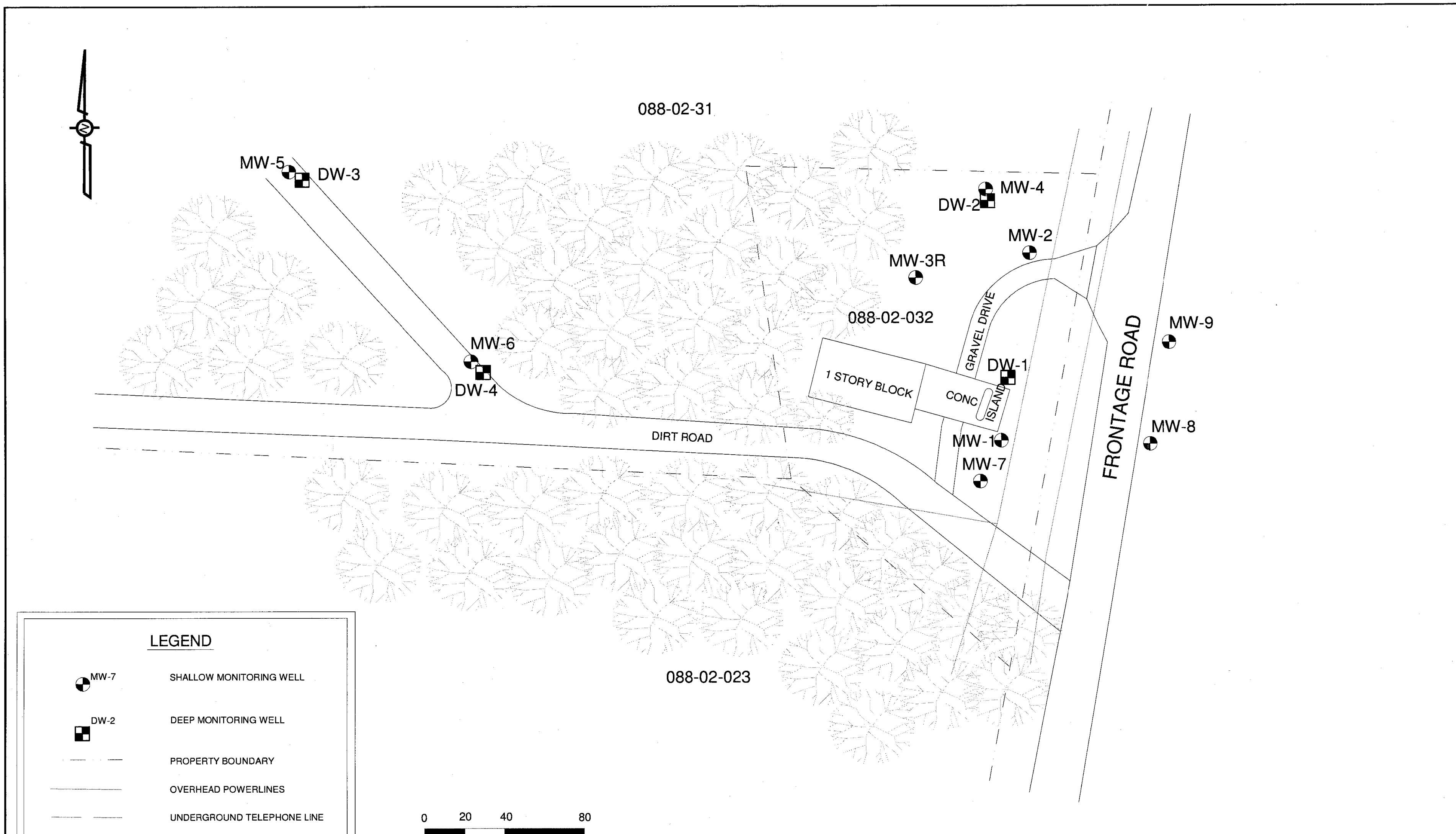

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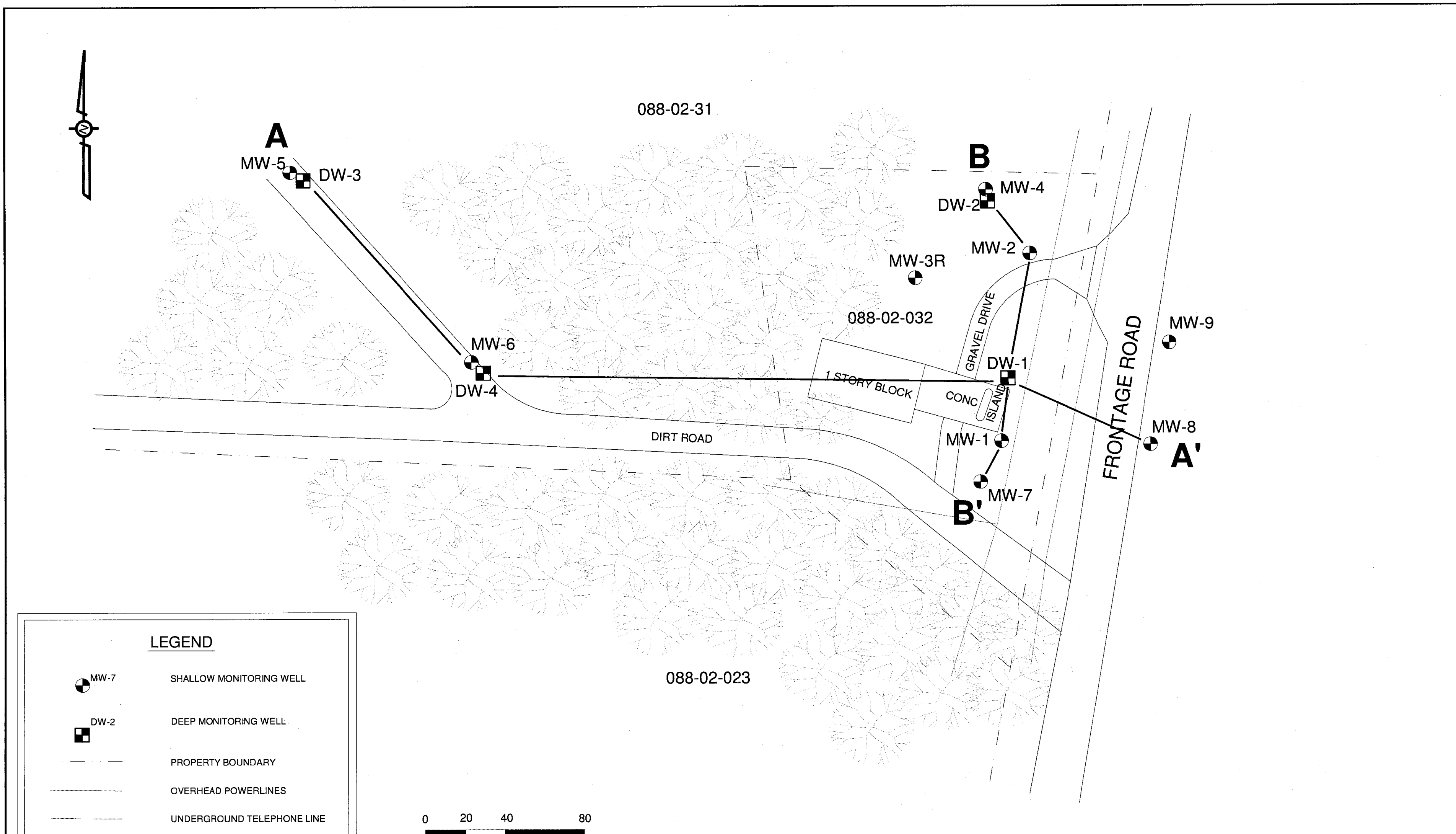
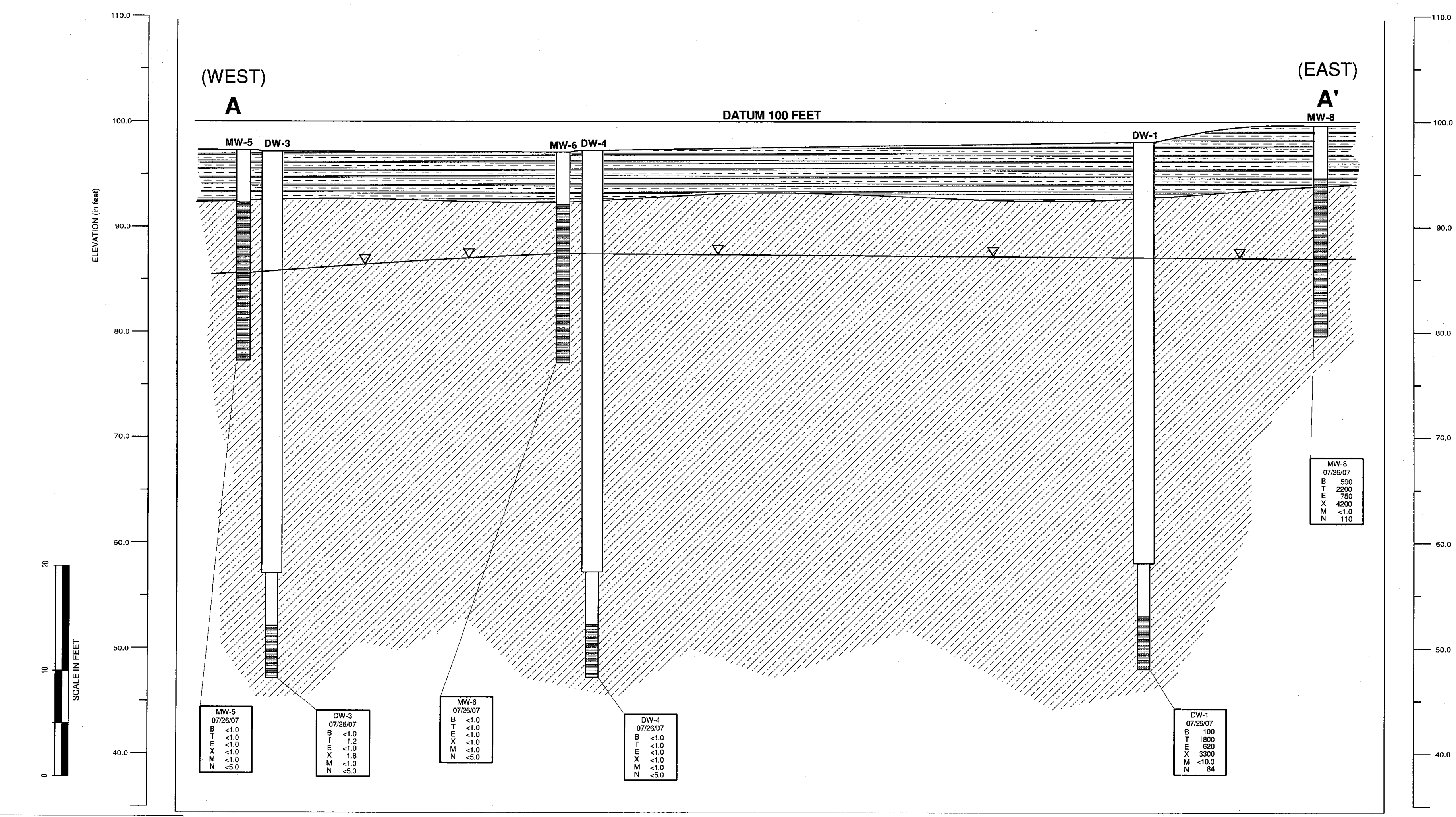
DRAWN: CJH	DATE: 1/3/08
SITE ID # 04887	
PROJECT: Warren Green	
PROJECT No.: C-07-06-09	
LOCATION: YEMASSEE, SOUTH CAROLINA	

FIGURE 2
SITE PLAN MAP



CONSULTECH ENVIRONMENTAL, LLC.	DRAWN: CJH	DATE: 1/3/08	FIGURE 3 STRATAGRAPHIC CROSS-SECTION LOCATION MAP
Environmental Consulting and Engineering © 1999	SITE ID # 04887		
Delivering innovative solutions to today's environmental concerns	PROJECT: Warren Green		
	PROJECT No.: C-07-06-09		
	LOCATION: YEMASSEE, SOUTH CAROLINA		



LEGEND

SANDY CLAY

CLAY/SAND

STATIC WATER LEVEL

WATER SAMPLE LOCATION
DATE COLLECTED

- B BENZENE CONCENTRATION in ug/l
- T TOLUENE CONCENTRATION in ug/l
- E ETHYLBENZENE CONCENTRATION in ug/l
- X XYLENES CONCENTRATION in ug/l
- M MTBE ug/l
- N NAPHTHALENES CONCENTRATION in ug/l

0 25 50 100
SCALE IN FEET

CAD FILE = C-07-06-09.dwg.

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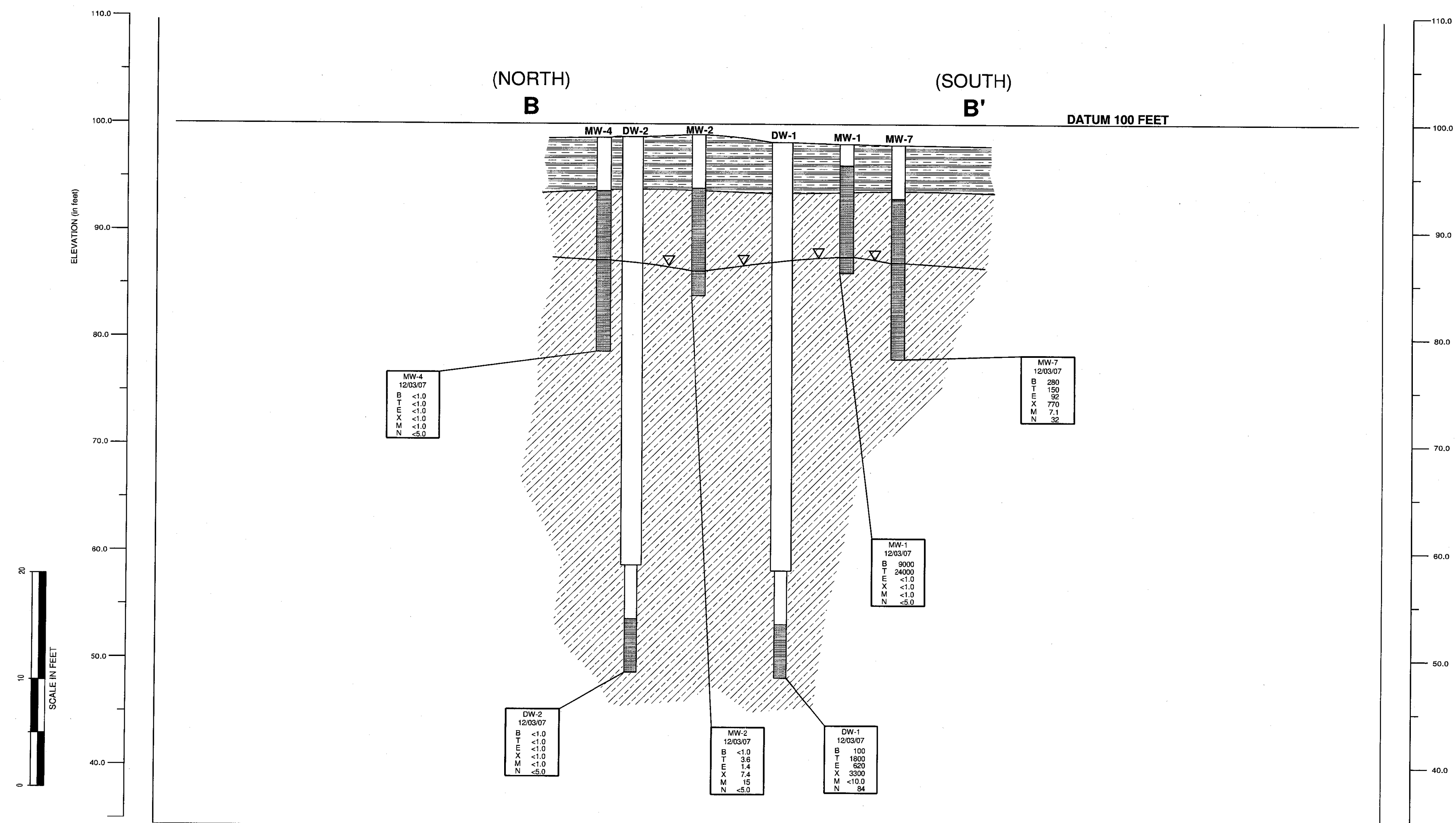
DRAWN: MAC	DATE: 01/10/08
SITE ID: 04887	
PROJECT:WARREN GREEN	
PROJECT No.: C-07-06-09	
LOCATION: YEMASEE, SOUTH CAROLINA	

FIGURE 4
VERTICAL EXTENT OF BTEX/PNA COMPOUNDS IN GROUNDWATER (SECTION A-A')



LEGEND

SANDY CLAY

CLAY/SAND

STATIC WATER LEVEL

WATER SAMPLE LOCATION
DATE COLLECTED
B BENZENE CONCENTRATION in ug/l
T TOLUENE CONCENTRATION in ug/l
E ETHYLBENZENE CONCENTRATION in ug/l
X XYLENES CONCENTRATION in ug/l
M MTBE ug/l
N NAPHTHALENES CONCENTRATION in ug/l

0 50 100 200
SCALE IN FEET

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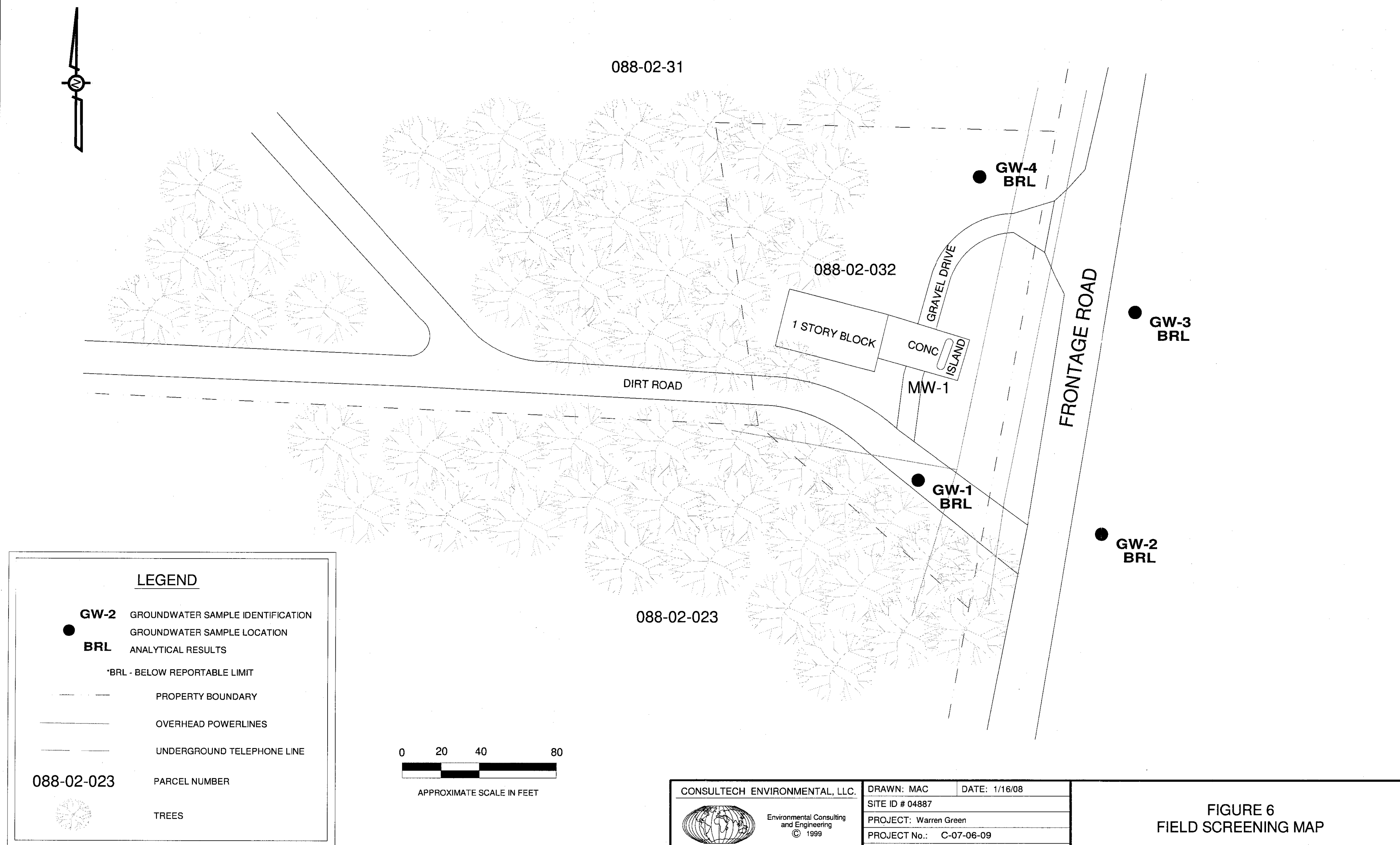
DRAWN: MAC	DATE: 01/10/08
SITE ID: 04887	
PROJECT:WARREN GREEN	
PROJECT No.: C-07-06-09	
LOCATION: YEMASEE, SOUTH CAROLINA	

CAD FILE = C-07-06-09.dwg.

FIGURE 5
VERTICAL EXTENT OF BTEX/PNA COMPOUNDS IN GROUNDWATER (SECTION B-B')



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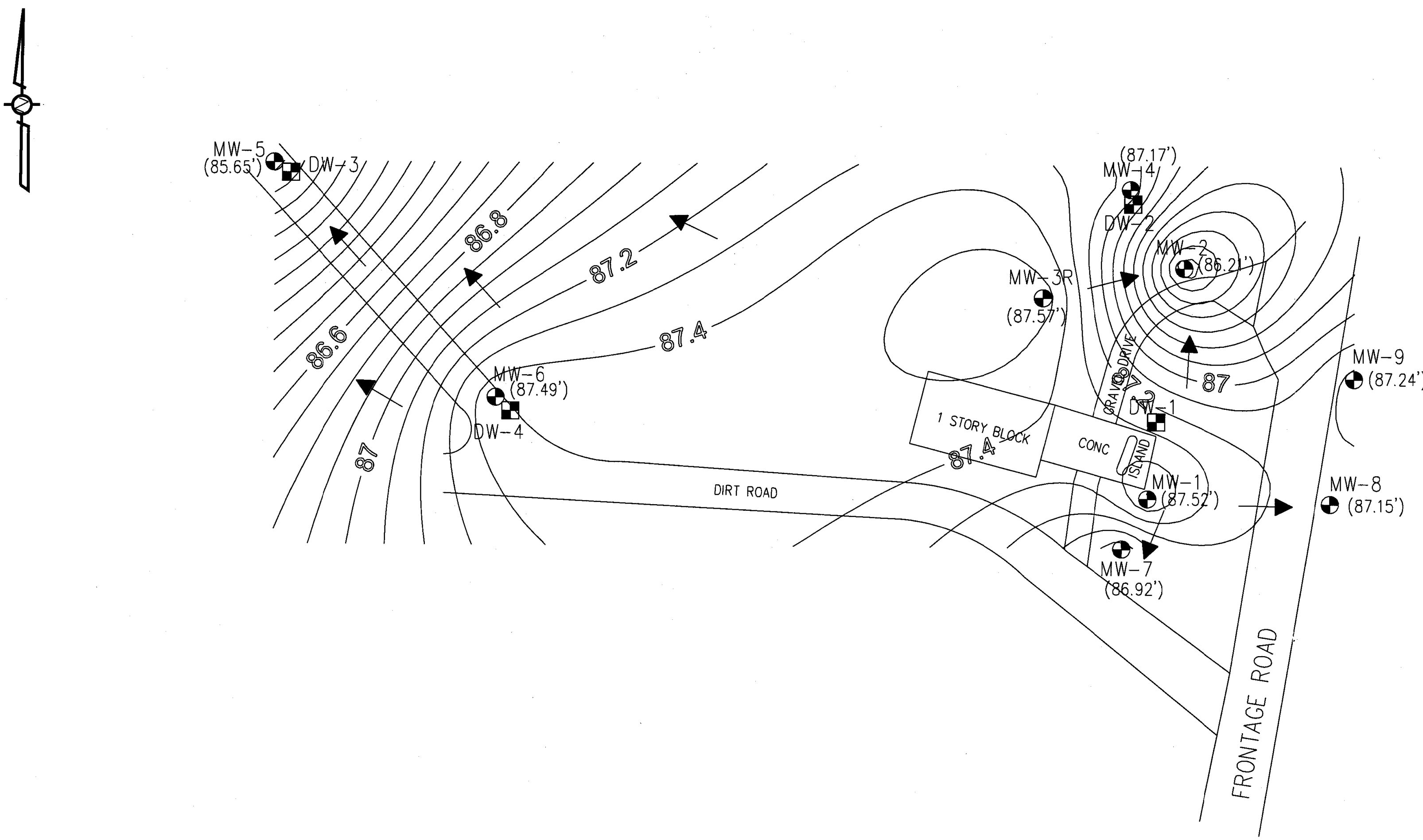
	SITE ID # 04887
	PROJECT: Warren Green
	PROJECT No.: C-07-06-09
	LOCATION: YEMASSEE, SOUTH CAROLINA

FIGURE 6
FIELD SCREENING MAP



LEGEND

MW-7 SHALLOW MONITORING WELL

DW-2 DEEP MONITORING WELL

0 20 40 80

APPROXIMATE SCALE IN FEET

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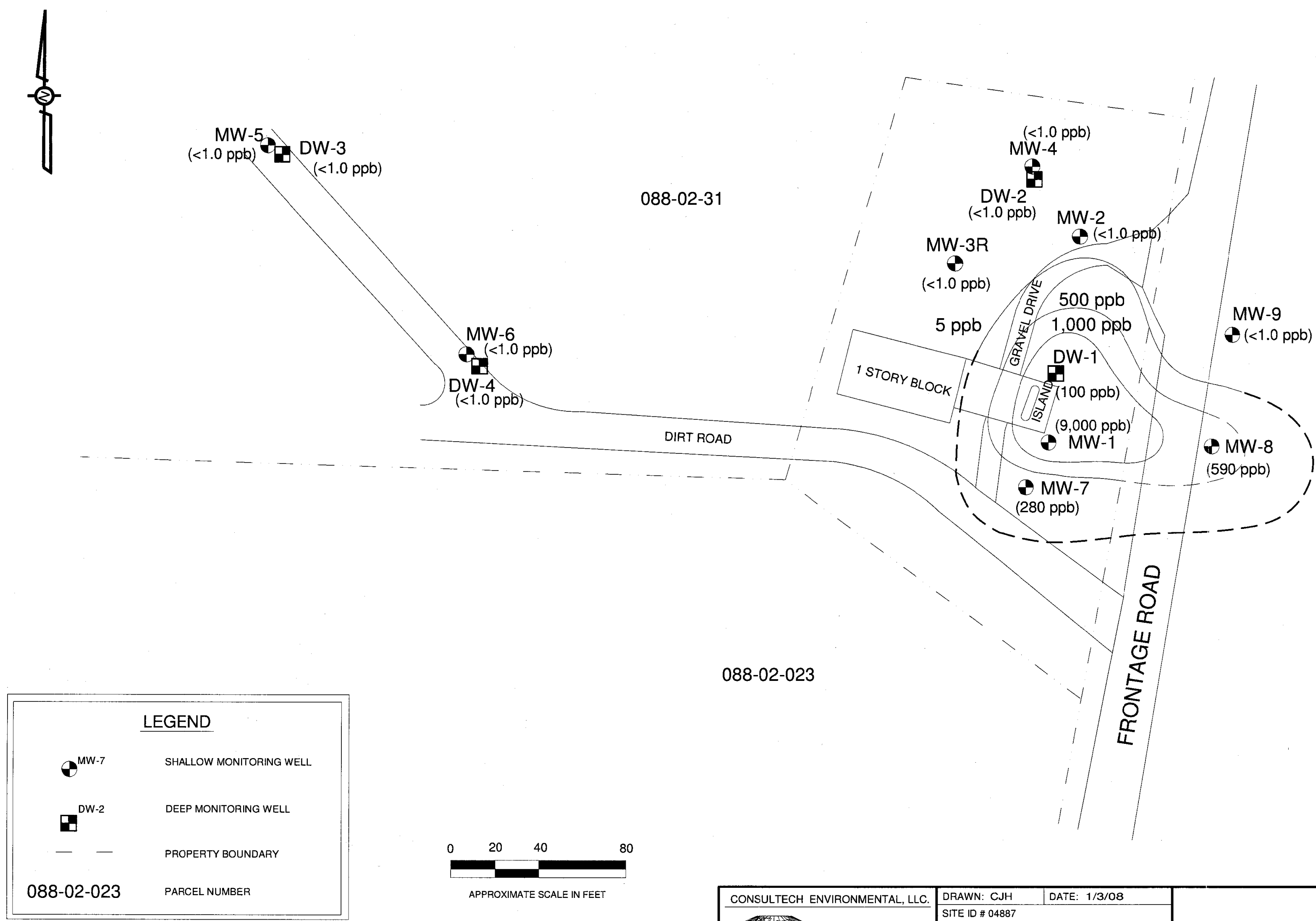
	SITE ID # 04887	
	PROJECT: Warren Green	
	PROJECT No.: C-07-06-09	
	LOCATION: YEMASSEE, SOUTH CAROLINA	

FIGURE 7
GROUNDWATER POTENTIOMETRIC MAP



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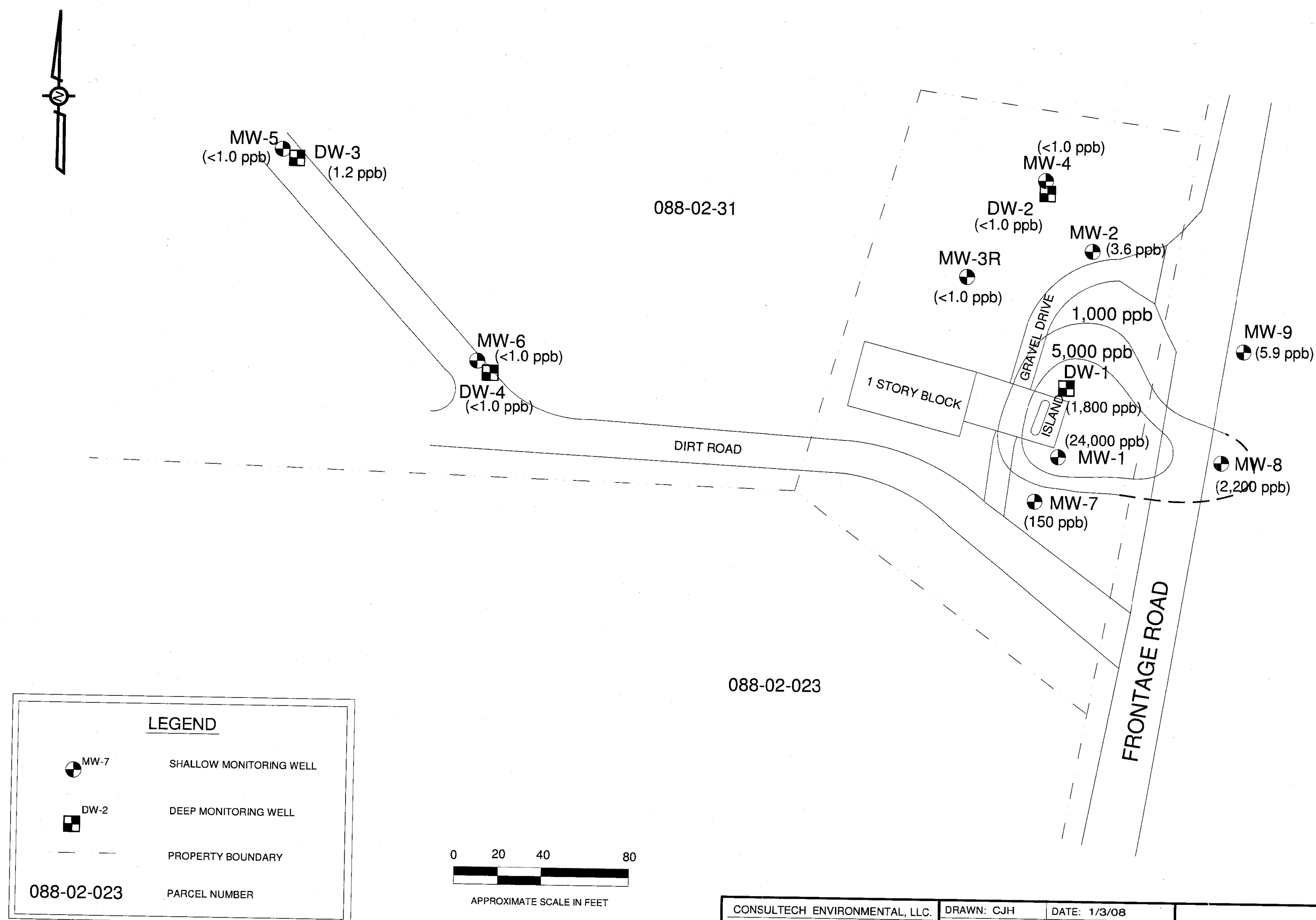
	SITE ID # 04887	
	PROJECT: Warren Green	
	PROJECT No.: C-07-06-09	
	LOCATION: YEMASSEE, SOUTH CAROLINA	

FIGURE 8
BENZENE CONTAMINATION PLUME MAP
12/03/07



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DRAWN: CJH | DATE: 1/3/08

SITE ID # 04887

PROJECT: Warren Green

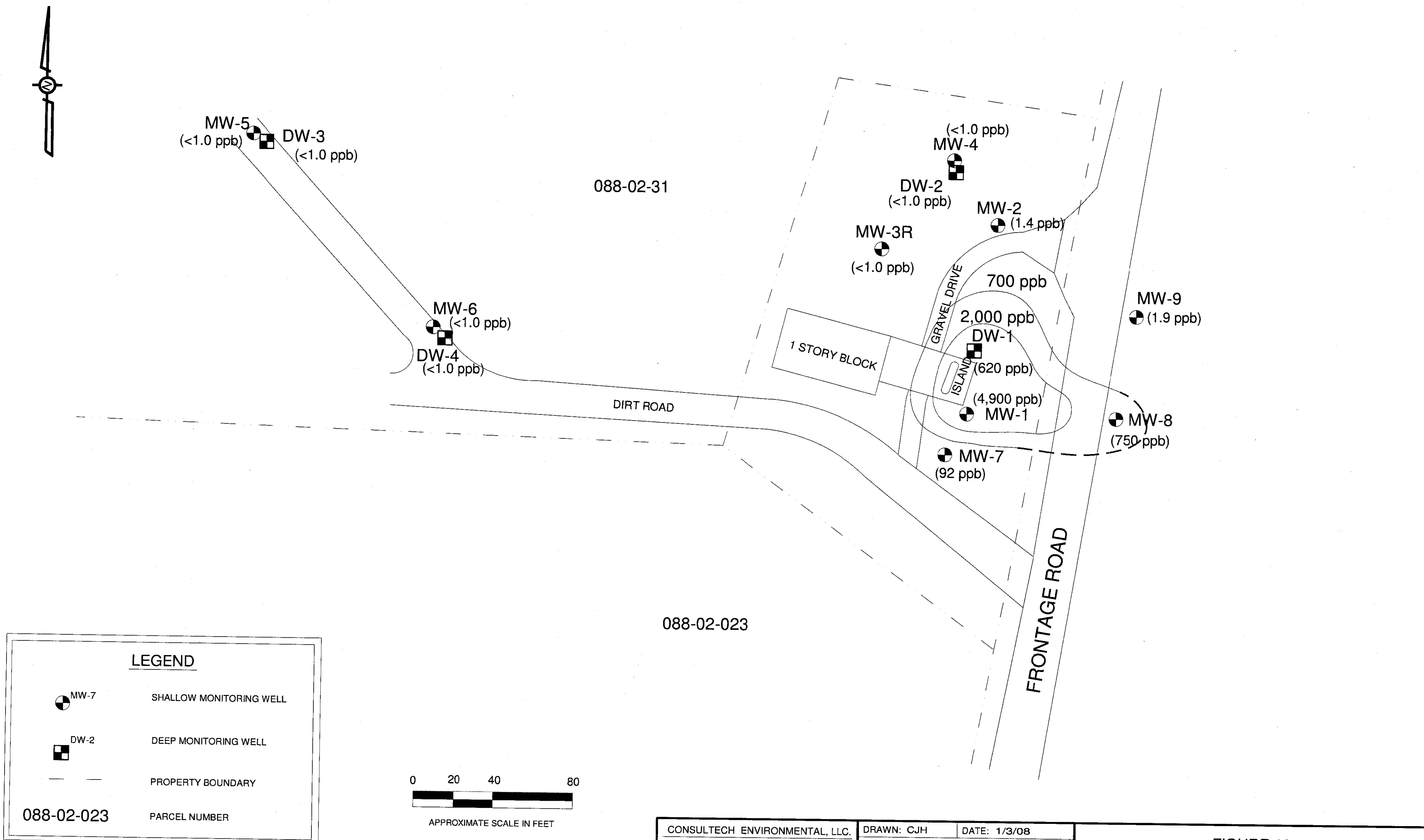
PROJECT No.: C-07-06-09

LOCATION: YEMASSEE, SOUTH CAROLINA

FIGURE 9

TOLUENE CONTAMINATION PLUME MAP

12/03/07



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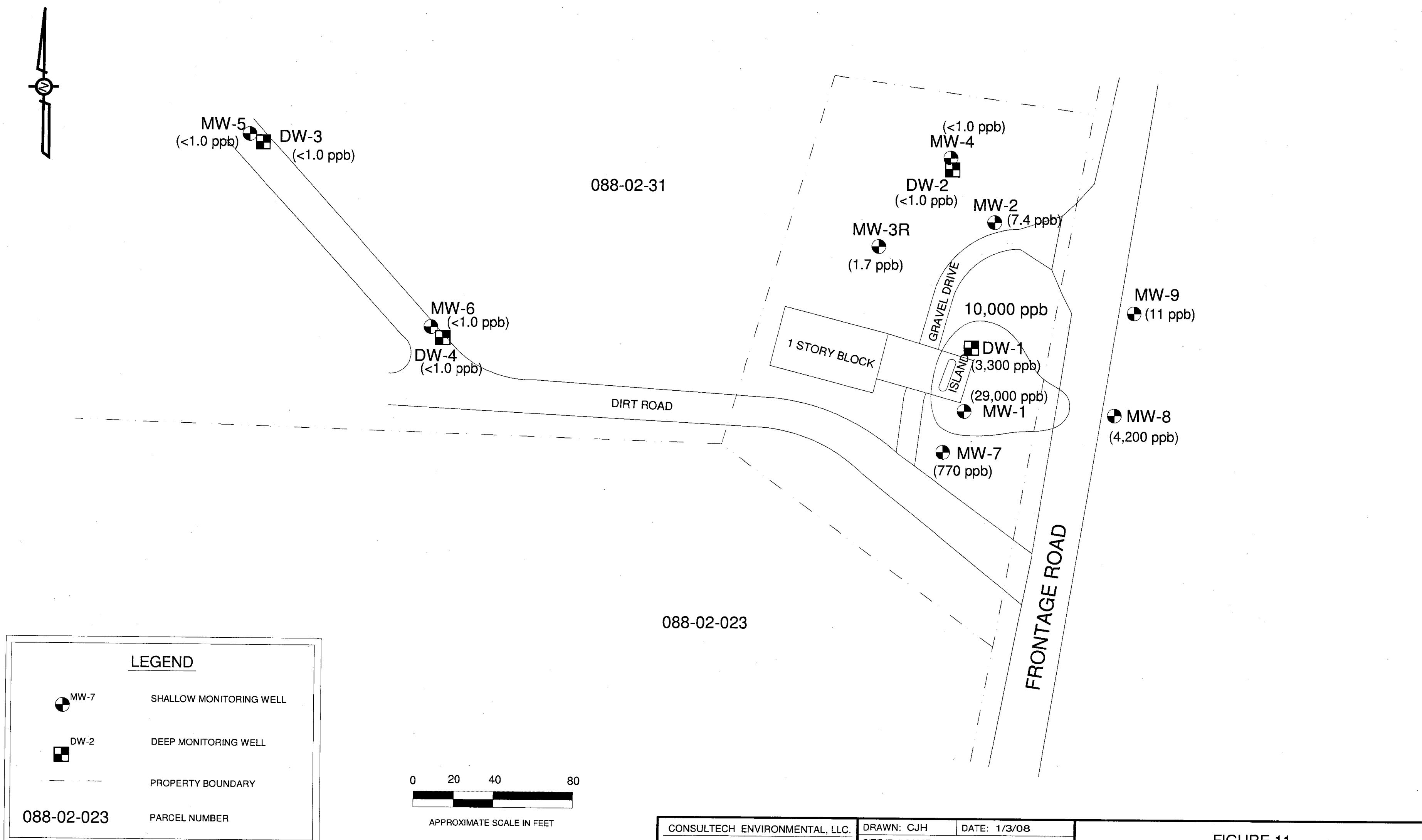
DRAWN: CJH	DATE: 1/3/08
SITE ID # 04887	
PROJECT: Warren Green	
PROJECT No.: C-07-06-09	
LOCATION: YEMASSEE, SOUTH CAROLINA	

FIGURE 10
ETHYLBENZENE CONTAMINATION PLUME MAP
12/03/07



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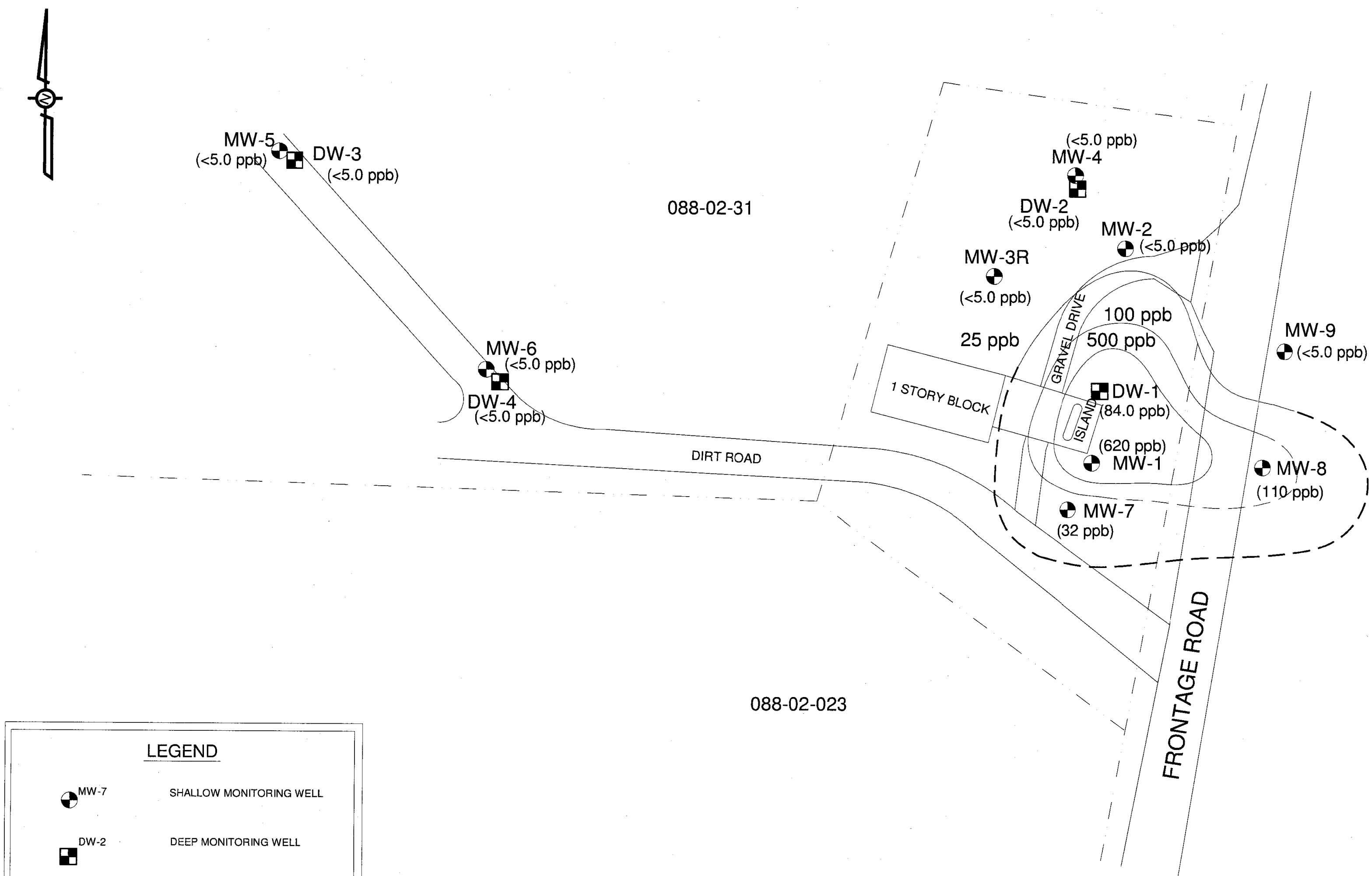
DRAWN: CJH	DATE: 1/3/08
SITE ID # 04887	
PROJECT: Warren Green	
PROJECT No.: C-07-06-09	
LOCATION: YEMASSEE, SOUTH CAROLINA	

FIGURE 11

XYLENES CONTAMINATION PLUME MAP

12/03/07



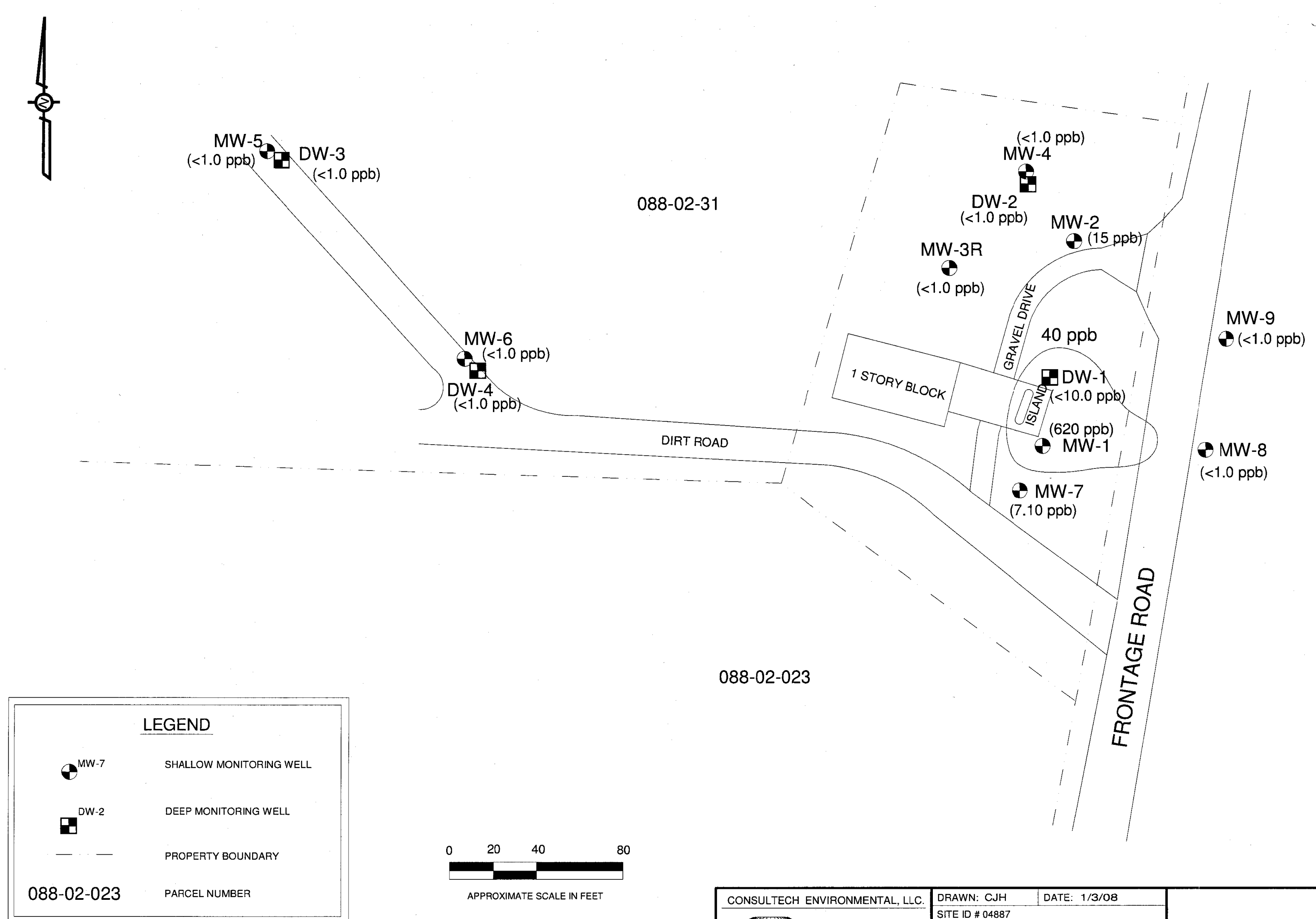
LEGEND

MW-7	SHALLOW MONITORING WELL
DW-2	DEEP MONITORING WELL
	PROPERTY BOUNDARY
088-02-023	PARCEL NUMBER

0 20 40 80

APPROXIMATE SCALE IN FEET

CONSULTECH ENVIRONMENTAL, LLC. Environmental Consulting and Engineering © 1999 Delivering innovative solutions to today's environmental concerns	DRAWN: CJH — DATE: 1/3/08 SITE ID # 04887 PROJECT: Warren Green PROJECT No.: C-07-06-09 LOCATION: YEMASSEE, SOUTH CAROLINA	FIGURE 12 NAPHTHALENE CONTAMINATION PLUME MAP 12/03/07



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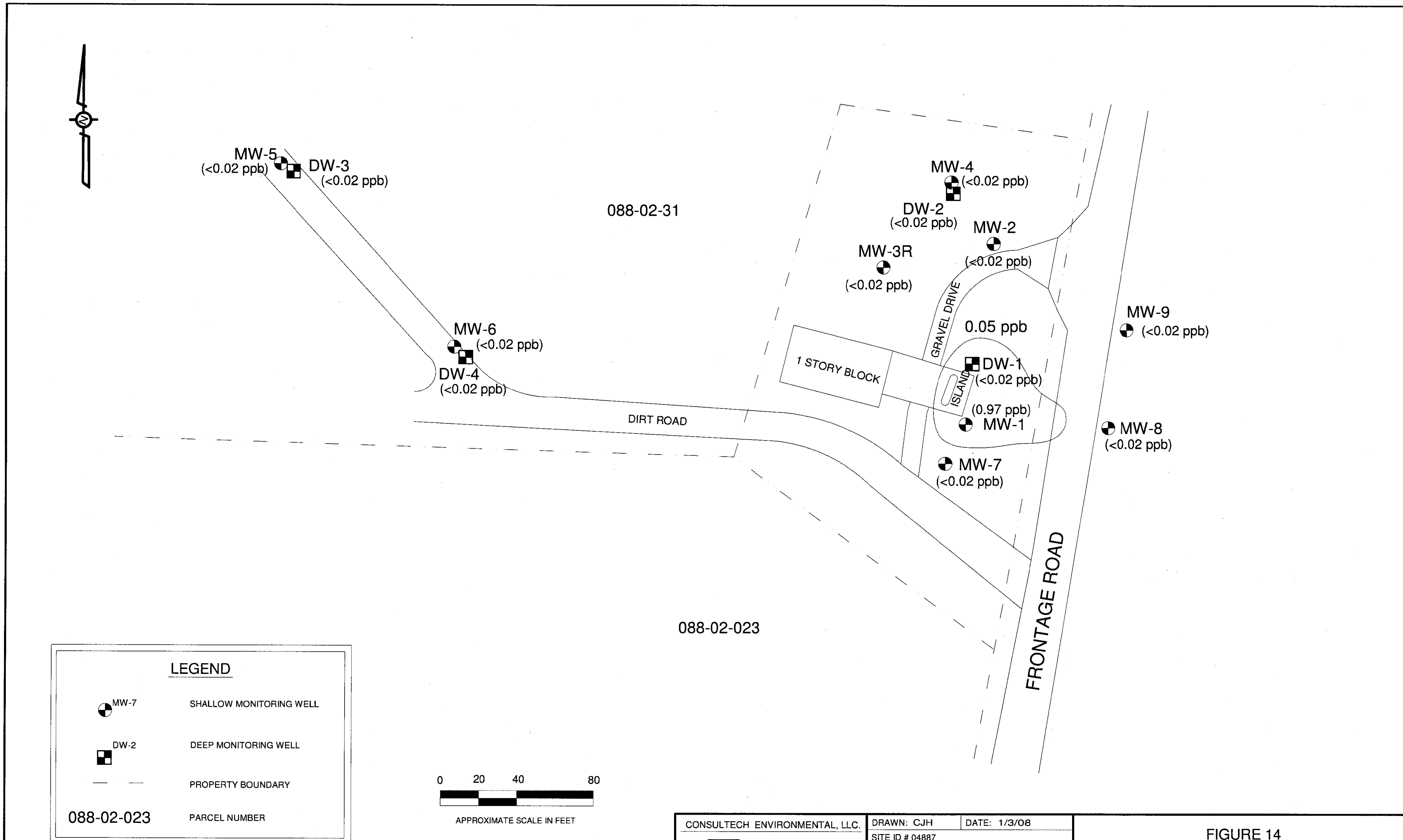
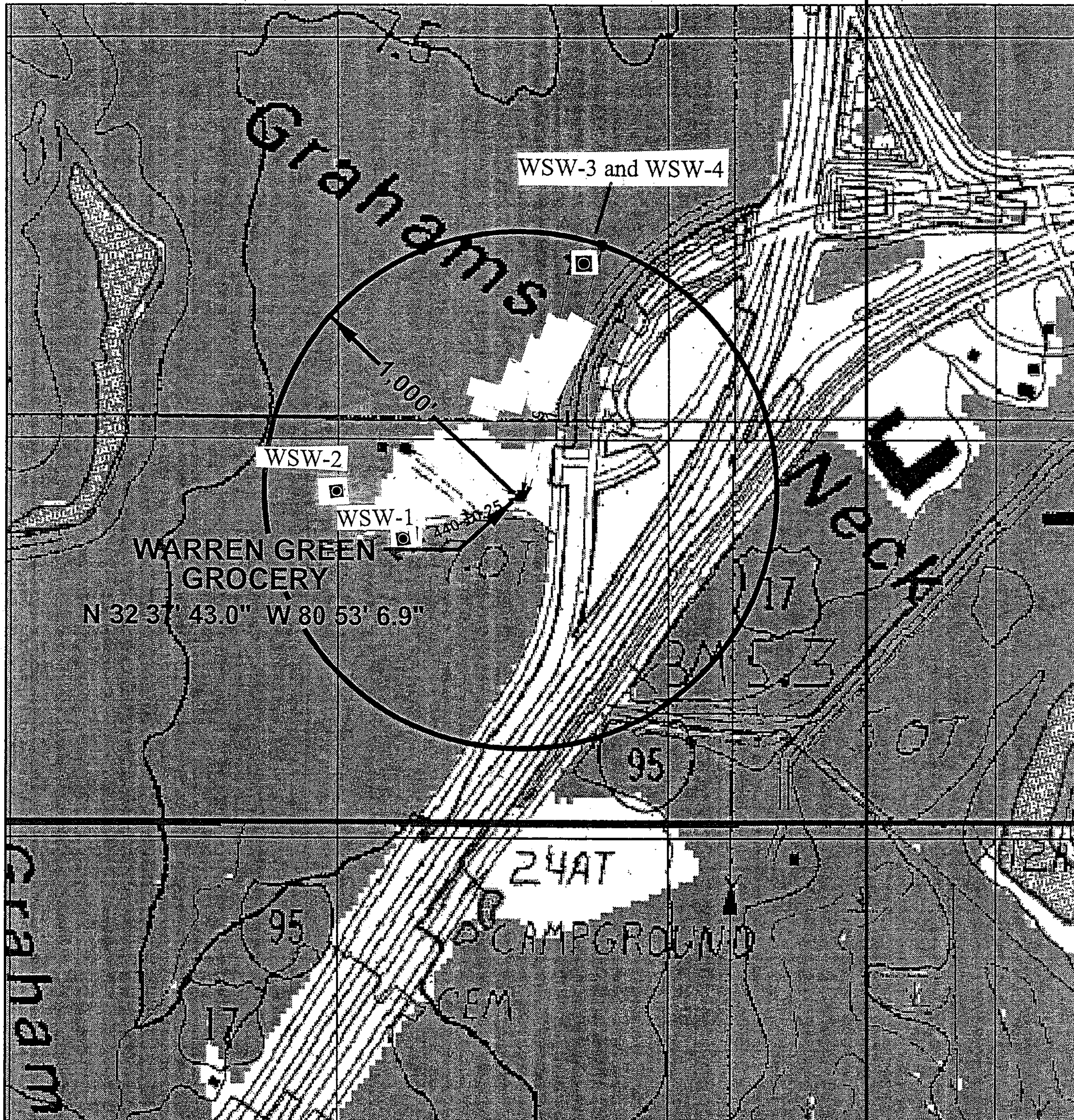
DRAWN: CJH	DATE: 1/3/08
SITE ID # 04887	
PROJECT: Warren Green	
PROJECT No.: C-07-06-09	
LOCATION: YEMASSEE, SOUTH CAROLINA	

FIGURE 13
MTBE CONTAMINATION PLUME MAP
12/03/07

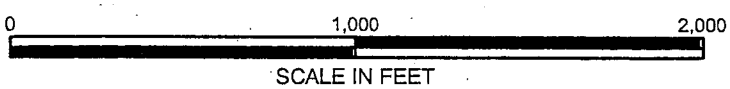


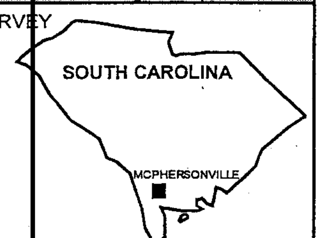
CONSULTECH ENVIRONMENTAL, LLC.	DRAWN: CJH	DATE: 1/3/08	FIGURE 14
Environmental Consulting and Engineering © 1999	SITE ID # 04887		EDB CONTAMINATION PLUME MAP
Delivering innovative solutions to today's environmental concerns	PROJECT: Warren Green		12/03/07
	PROJECT No.: C-07-06-09		
	LOCATION: YEMASSEE, SOUTH CAROLINA		

APPENDIX 1
RECEPTOR MAP



REFERENCE: MCPHERSONVILLE, SOUTH CAROLINA QUADRANGLE MAP. 7.5 MINUTE SERIES, U.S. GEOLOGIC SURVEY





SITE LOCATION

DRAWN: MAC	DATE: 07/24/07
SCDHEC FACILITY ID # 04887	
PROJECT: WARREN GREEN GROCERY	
PROJECT No.: C-07-06-09	
LOCATION: YEMASSE, SOUTH CAROLINA	

APPENDIX 1
RECEPTOR MAP
ACTIVE WATER SUPPLY WELLS

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APPENDIX 2
SOIL BORING LOGS AND MONITORING WELL CONSTRUCTION DETAILS

Consultech Environmental, Inc. Post Office Box 5306 Cary, NC 27512	MONITORING WELL No. Date	PAGE OF

PROJECT: C-07-06-09	LOCATION: SB-1
DATE INSTALLED: 10/25/2007	ELEVATION: TOC:
DRILLING METHOD: Geoprobe	TOTAL DEPTH OF BORING:
DRILLING COMPANY: American	BORING:
DRILLER: Guy	DEPTH TO WATER FROM TOC:
SAMPLER TYPE:	LOGGED BY: Van Chrisholme

DEPTH (ft)	SAMPLE	NUMBER	BLOWS /6"	PID / FID (ppm)	USCS (sym)	GEOLOGIC DESCRIPTION / COMMENTS
5				0		Gray Silt, Clay, No Odor, Dry
10				0		Gray Silt, Clay, No Odor, Moist
15				0		Gray, Fine Silt, No Odor, Wet

Consultech Environmental, Inc. Post Office Box 5306 Cary, NC 27512	MONITORING WELL No. Date	PAGE OF

PROJECT: C-07-06-09	LOCATION: SB-2
DATE INSTALLED: 10/25/2007	ELEVATION: TOC:
DRILLING METHOD: Geoprobe	TOTAL DEPTH OF BORING:
DRILLING COMPANY: American	BORING:
DRILLER: Guy	DEPTH TO WATER FROM TOC:
SAMPLER TYPE:	LOGGED BY: Van Chrisholme

DEPTH (ft)	SAMPLE	NUMBER	BLOWS /6"	PID / FID (ppm)	USCS (sym)	GEOLOGIC DESCRIPTION / COMMENTS
5				0		Tan Sand, Clay, No Odor, Moist
10				0		Grey, Fine Silt, No Odor, Moist
15				0		Grey, Fine Silt, No Odor, Moist

Consultech Environmental, Inc. Post Office Box 5306 Cary, NC 27512	MONITORING WELL No. Date		PAGE OF

PROJECT: C-07-06-09		LOCATION: SB-3	
DATE INSTALLED: 10/25/2007		ELEVATION:	TOC:
DRILLING METHOD: Geoprobe		TOTAL DEPTH OF BORING:	
DRILLING COMPANY: American		BORING:	
DRILLER: Guy		DEPTH TO WATER FROM TOC:	
SAMPLER TYPE:		LOGGED BY: Van Chrisholme	

DEPTH (ft)	SAMPLE NUMBER	BLOWS /6"	PID / FID (ppm)	USCS (sym)	GEOLOGIC DESCRIPTION / COMMENTS
5			0		Grey Sand, Clay, No Odor, Moist
10			0		Tan, Fine Silt, No Odor, Wet
15			0		Tan, Fine Silt, No Odor, Wet

Consultech Environmental, Inc. Post Office Box 5306 Cary, NC 27512	MONITORING WELL No. Date	PAGE OF

PROJECT: C-07-06-09	LOCATION: SB-4
DATE INSTALLED: 10/25/2007	ELEVATION: TOC:
DRILLING METHOD: Geoprobe	TOTAL DEPTH OF BORING:
DRILLING COMPANY: American	BORING:
DRILLER: Guy	DEPTH TO WATER FROM TOC:
SAMPLER TYPE:	LOGGED BY: Van Chrisholme

DEPTH (ft)	SAMPLE	NUMBER	BLOWS /6"	PID / FID (ppm)	USCS (sym)	GEOLOGIC DESCRIPTION / COMMENTS
5				0		Grey Clay, Sand, No Odor, Dry
10				0		Tan, Sand Clay, No Odor, Moist
15				0		Grey, Fine Silt, No Odor, Wet
20				0		Grey, Fine Silt, No Odor, Wet

Consultech Environmental, Inc. Post Office Box 5306 Cary, NC 27512	MONITORING WELL No. Date		PAGE OF

PROJECT: C-07-06-09	LOCATION: GW-1
DATE INSTALLED: 10/25/2007	ELEVATION: TOC:
DRILLING METHOD: Geoprobe	TOTAL DEPTH OF BORING:
DRILLING COMPANY: American	BORING:
DRILLER: Guy	DEPTH TO WATER FROM TOC:
SAMPLER TYPE:	LOGGED BY: Van Chrisholme

DEPTH (ft)	SAMPLE	NUMBER	BLOWS /6"	PID / FID (ppm)	USCS (sym)	GEOLOGIC DESCRIPTION / COMMENTS
25						Sample Collected

Consultech Environmental, Inc. Post Office Box 5306 Cary, NC 27512	MONITORING WELL No. Date	PAGE OF

PROJECT: C-07-06-09	LOCATION: GW-2
DATE INSTALLED: 10/25/2007	ELEVATION: TOC:
DRILLING METHOD: Geoprobe	TOTAL DEPTH OF BORING:
DRILLING COMPANY: American	BORING:
DRILLER: Guy	DEPTH TO WATER FROM TOC:
SAMPLER TYPE:	LOGGED BY: Van Chrisholme

DEPTH (ft)	SAMPLE	NUMBER	BLOWS /6"	PID / FID (ppm)	USCS (sym)	GEOLOGIC DESCRIPTION / COMMENTS
25						Sample Collected

Consultech Environmental, Inc. Post Office Box 5306 Cary, NC 27512	MONITORING WELL No. Date		PAGE OF

PROJECT:	C-07-06-09	LOCATION:	GW-3
DATE INSTALLED:	10/25/2007	ELEVATION:	TOC:
DRILLING METHOD:	Geoprobe	TOTAL DEPTH OF BORING:	
DRILLING COMPANY:	American	BORING:	
DRILLER:	Guy	DEPTH TO WATER FROM TOC:	
SAMPLER TYPE:		LOGGED BY:	Van Chrisholme

DEPTH (ft)	SAMPLE	NUMBER	BLOWS /6"	PID / FID (ppm)	USCS (sym)	GEOLOGIC DESCRIPTION / COMMENTS
25						Sample Collected

Consultech Environmental, Inc. Post Office Box 5306 Cary, NC 27512	MONITORING WELL No. Date	PAGE OF

PROJECT: C-07-06-09		LOCATION: GW-4	
DATE INSTALLED: 10/25/2007		ELEVATION:	TOC:
DRILLING METHOD: Geoprobe		TOTAL DEPTH OF BORING:	
DRILLING COMPANY: American		BORING:	
DRILLER: Guy		DEPTH TO WATER FROM TOC:	
SAMPLER TYPE:		LOGGED BY: Van Chrisholme	

DEPTH (ft)	SAMPLE	NUMBER	BLOWS /6"	PID / FID (ppm)	USCS (sym)	GEOLOGIC DESCRIPTION / COMMENTS
20						Sample Collected

WATER WELL RECORDS

Water Well Record
Bureau of Water
2600 Bull Street, Columbia, SC 29201-1708; (803) 898-4300

DHEC — PROMOTE PROTECT PROSPER

1. WELL OWNER INFORMATION:
Name: SCDHEC (last) (first
Address: 2600 BULL STREET
City: COLUMBIA State: SC Zip: 29201
Telephone: Work: 803-898-4300 Home:

2. LOCATION OF WELL: COUNTY: Jasper
Name: Wareen Green Grocery
Street Address: 10773 West Frontage Rd
City: Yemassess Zip: 29945
Latitude: 32* 37.721 Longitude: 80* 53.107

3. PUBLIC SYSTEM NAME **PUBLIC SYSTEM NUMBER**

4. ABANDONMENT: ☐ Yes ☒ No
Grouted Depth: from: ft. to ft.

Formation Description	*Thickness of Stratum	Depth to Bottom of Stratum
Brown sand	2	2
Brown sandy clay	1	3
Brown clay	1	4
Black Clayey sand	2	6
Brown clay	5	11
Brown wet sand	5	16
Gray wet sand	4	20

*Indicate Water Bearing Zones
(Use a 2nd sheet if needed)

5. REMARKS:
MW-3R

6. TYPE: ☐ Mud Rotary ☐ Jetted ☒ Bored ☐ Dug ☐ Air Rotary ☐ Driven ☐ Cable tool ☐ Other

7. PERMIT NUMBER: 04887

8. USE:
☐ Residential ☐ Public Supply ☐ Process
☐ Irrigation ☐ Air conditioning ☐ Emergency
☐ Test Well ☒ Monitor Well ☐ Replacement

9. Well Depth (completed) 20 ft.
Date Started (MM/DD/YYYY): 11/21/07
Date Completed (MM/DD/YYYY): 11/21/07

10. CASING: ☒ Threaded ☐ Welded
Diam: 2 inches
Type: ☒ PVC ☐ Galvanized ☐ Steel ☐ Other
0 in. to 5 ft. depth
in. to ft. depth
Height Above/Below Surface ft.
Weight lb./ft.
Drive Shoe? ☐ Yes ☐ No

11. SCREEN:
Type: PVC Diam.: 2 in.
Slot/Gauge: .010 Length: 15 ft.
Set Between: 5 ft. and 20 ft.
ft. and ft.
NOTE: MULTIPLE SCREENS USE SECOND SHEET
Sieve Analysis ☐ Yes (please enclose) ☐ No

12. STATIC WATER LEVEL: ft. below land surface after 24 hours

13. PUMPING LEVEL: Below surface.
ft. after hrs. Pumping G.P.M.
Pumping Test: ☐ Yes (please enclose) ☐ No
Yield:

14. WATER QUALITY:
Chemical Analysis: ☐ Yes ☐ No Bacterial Analysis: ☐ Yes ☐ No
Please enclose lab results

15. ARTIFICIAL FILTER (filter pack) ☒ Yes ☐ No
Installed from 3 ft. to 20 ft.
Effective size #3 Uniformity Coefficient

16. WELL GROUTED? ☒ Yes ☐ No
☒ Neat Cement ☒ Bentonite ☐ Bentonite/Cement ☐ Other
Depth: From 0 ft. to 3 ft.

17. NEAREST SOURCE OF POSSIBLE CONTAMINATION: ft. direction
Type:
Well Disinfected: ☐ Yes ☐ No Type: Amount

18. PUMP: Date installed (mm/dd/yyyy): Not installed ☐
Mfr. Name: Model No.
H.P. Volts Length of drop pipe ft. Capacity gpm
Type: ☐ Submersible ☐ Jet (shallow) ☐ Turbine ☐ Jet (deep) ☐ Reciprocating ☐ Centrifugal

19. WELL DRILLER: CERT. NO.: 01568
Name: Kelly Grant
Level: A ☐ B ☒ C ☐ D ☐ (check one)
Address: 324 Fields Drive, Suite C City: Aberdeen
State: North Carolina Zip: 28315
Telephone No.: 910-944-3140 Fax: 910-944-3150

20. WATER DRILLER'S CERTIFICATION: This well was drilled under my direction and this report is true to the best of my knowledge and belief.
Signed: Kelly [signature] Date: 11/21/07
Well Driller (MM/DD/YYYY)

DHEC 1903 (07/2003) COPY 1 MAIL TO: S.C. DEPARMENT OF HEALTH AND ENVIRONMENTAL CONTROL (ADDRESS ABOVE)

DHEC
PROMOTE PROTECT PROSPER

Water Well Record
Bureau of Water
2600 Bull Street, Columbia, SC 29201-1708; (803) 898-4300

1. WELL OWNER INFORMATION:
Name: SCDHEC (last) (first
Address: 2600 BULL STREET
City: COLUMBIA State: SC Zip: 29201
Telephone: Work: 803-898-4300 Home:

2. LOCATION OF WELL: COUNTY: Jasper
Name: Wareen Green Grocery
Street Address: 10773 West Frontage Rd
City: Yemassess Zip: 29945
Latitude: 32* 37.734 Longitude: 80* 53.102

3. PUBLIC SYSTEM NAME **PUBLIC SYSTEM NUMBER**

4. ABANDONMENT: ☐ Yes ☒ No
Grouted Depth: from: ft. to ft.

Formation Description	*Thickness of Stratum	Depth to Bottom of Stratum
Black sand	1	1
Brown sand	2	3
Brown clay	1	4
Gray clay	9	13
Gray sand	7	20

*Indicate Water Bearing Zones
(Use a 2nd sheet if needed)

5. REMARKS:
MW-4

6. TYPE: ☐ Mud Rotary ☐ Jetted ☒ Bored ☐ Dug ☐ Air Rotary ☐ Driven ☐ Cable tool ☐ Other

7. PERMIT NUMBER: 04887

8. USE:
☐ Residential ☐ Public Supply ☐ Process
☐ Irrigation ☐ Air conditioning ☐ Emergency
☐ Test Well ☒ Monitor Well ☐ Replacement

9. Well Depth (completed) 20 ft.
Date Started (MM/DD/YYYY): 11/21/07
Date Completed (MM/DD/YYYY): 11/21/07

10. CASING: ☒ Threaded ☐ Welded
Diam: 2 inches
Type: ☒ PVC ☐ Galvanized ☐ Steel ☐ Other
0 in. to 5 ft. depth
in. to ft. depth
Height Above/Below Surface ft.
Weight lb./ft.
Drive Shoe? ☐ Yes ☐ No

11. SCREEN:
Type: PVC Diam.: 2 in.
Slot/Gauge: .010 Length: 15 ft.
Set Between: 5 ft. and 20 ft. **NOTE: MULTIPLE SCREENS**
ft. and ft. **USE SECOND SHEET**
Sieve Analysis ☐ Yes (please enclose) ☐ No

12. STATIC WATER LEVEL: ft. below land surface after 24 hours

13. PUMPING LEVEL: Below surface.
ft. after hrs. Pumping G.P.M.
Pumping Test: ☐ Yes (please enclose) ☐ No
Yield:

14. WATER QUALITY:
Chemical Analysis: ☐ Yes ☐ No Bacterial Analysis: ☐ Yes ☐ No
Please enclose lab results

15. ARTIFICIAL FILTER (filter pack) ☒ Yes ☐ No
Installed from 3 ft. to 20 ft.
Effective size #3 Uniformity Coefficient

16. WELL GROUTED? ☒ Yes ☐ No
☒ Neat Cement ☒ Bentonite ☐ Bentonite/Cement ☐ Other
Depth: From 0 ft. to 3 ft.

17. NEAREST SOURCE OF POSSIBLE CONTAMINATION: ft. direction
Type:
Well Disinfected: ☐ Yes ☐ No Type: Amount

18. PUMP: Date installed (mm/dd/yyyy): Not installed ☐
Mfr. Name: Model No.
H.P. Volts Length of drop pipe ft. Capacity gpm
Type: ☐ Submersible ☐ Jet (shallow) ☐ Turbine ☐ Jet (deep) ☐ Reciprocating ☐ Centrifugal

19. WELL DRILLER: CERT. NO.: 01568
Name: Kelly Grant
Level: A ☐ B ☒ C ☐ D ☐ (check one)
Address: 324 Fields Drive, Suite C City: Aberdeen
State: North Carolina Zip: 28315
Telephone No.: 910-944-3140 Fax: 910-944-3150

20. WATER DRILLER'S CERTIFICATION: This well was drilled under my direction and this report is true to the ~~best of~~ my knowledge and belief.
Signed: Kelly Grant Date: 11/21/07
Well Driller (MM/DD/YYYY)

Water Well Record
Bureau of Water
2600 Bull Street, Columbia, SC 29201-1708; (803) 898-4300

DHEC — PROMOTE PROTECT PROSPER

1. WELL OWNER INFORMATION:
Name: SCDHEC (last) (first
Address: 2600 BULL STREET
City: COLUMBIA State: SC Zip: 29201
Telephone: Work: 803-898-4300 Home:

2. LOCATION OF WELL: **COUNTY:** Jasper
Name: Wareen Green Grocery
Street Address: 10773 West Frontage Rd
City: Yemassess Zip: 29945
Latitude: 32* 37.716 Longitude: 80* 53.170

3. PUBLIC SYSTEM NAME **PUBLIC SYSTEM NUMBER**

4. ABANDONMENT: ☐ Yes ☒ No
Grouted Depth: from: ft. to ft.

Formation Description	*Thickness of Stratum	Depth to Bottom of Stratum
Brown sand	1	1
Black clayey sand	1	2
Brown clay	1	3
Gray clay	3	6
Tan clayey sand	5	11
Tan wet sand	9	20

*Indicate Water Bearing Zones
(Use a 2nd sheet if needed)

5. REMARKS:
MW-5

6. TYPE: ☐ Mud Rotary ☐ Jetted ☒ Bored ☐ Dug ☐ Air Rotary ☐ Driven ☐ Cable tool ☐ Other

7. PERMIT NUMBER: 04887

8 .USE:
☐ Residential ☐ Public Supply ☐ Process
☐ Irrigation ☐ Air conditioning ☐ Emergency
☐ Test Well ☒ Monitor Well ☐ Replacement

9. Well Depth (completed) 20 ft.
Date Started (MM/DD/YYYY): 11/20/07
Date Completed (MM/DD/YYYY): 11/20/07

10. CASING: ☒ Threaded ☐ Welded
Diam: 2 inches
Type: ☒ PVC ☐ Galvanized ☐ Steel ☐ Other
0 in. to 5 ft. depth
in. to ft. depth
Height Above/Below Surface ft.
Weight lb./ft.
Drive Shoe? ☐ Yes ☐ No

11. SCREEN:
Type: PVC Diam.: 2 in.
Slot/Gauge: .010 Length: 15 ft.
Set Between: 5 ft. and 20 ft.
ft. and ft.
NOTE: MULTIPLE SCREENS USE SECOND SHEET
Sieve Analysis ☐ Yes (please enclose) ☐ No

12. STATIC WATER LEVEL: ft. below land surface after 24 hours

13. PUMPING LEVEL: Below surface.
ft. after hrs. Pumping G.P.M.
Pumping Test: ☐ Yes (please enclose) ☐ No
Yield:

14. WATER QUALITY:
Chemical Analysis: ☐ Yes ☐ No Bacterial Analysis: ☐ Yes ☐ No
Please enclose lab results

15. ARTIFICIAL FILTER (filter pack) ☒ Yes ☐ No
Installed from 3 ft. to 20 ft.
Effective size #3 Uniformity Coefficient

16. WELL GROUTED? ☒ Yes ☐ No
☒ Neat Cement ☒ Bentonite ☐ Bentonite/Cement ☐ Other
Depth: From 0 ft. to 3 ft.

17. NEAREST SOURCE OF POSSIBLE CONTAMINATION: ft. direction
Type:
Well Disinfected: ☐ Yes ☐ No Type: Amount

18. PUMP: Date installed (mm/dd/yyyy): Not installed ☐
Mfr. Name: Model No.
H.P. Volts Length of drop pipe ft. Capacity gpm
Type: ☐ Submersible ☐ Jet (shallow) ☐ Turbine ☐ Jet (deep) ☐ Reciprocating ☐ Centrifugal

19. WELL DRILLER: CERT. NO.: 01568
Name: Kelly Grant
Level: A ☐ B ☒ C ☐ D ☐ (check one)
Address: 324 Fields Drive, Suite C City: Aberdeen
State: North Carolina Zip: 28315
Telephone No.: 910-944-3140 Fax: 910-944-3150

20. WATER DRILLER'S CERTIFICATION: This well was drilled under my direction and this report is true to the best of my knowledge and belief.
Signed: Kelly Grant (signature) Date: 11/21/07
Well Driller (MM/DD/YYYY)

DHEC 1903 (07/2003) **COPY 1 MAIL TO: S.C. DEPARMENT OF HEALTH AND ENVIRONMENTAL CONTROL (ADDRESS ABOVE)**

DHEC
PROMOTE PROTECT PROSPER

Water Well Record
Bureau of Water
2600 Bull Street, Columbia, SC 29201-1708; (803) 898-4300

1. WELL OWNER INFORMATION:
Name: SCDHEC (last) (first
Address: 2600 BULL STREET
City: COLUMBIA State: SC Zip: 29201
Telephone: Work: 803-898-4300 Home:

2. LOCATION OF WELL: **COUNTY:** Jasper
Name: Wareen Green Grocery
Street Address: 10773 West Frontage Rd
City: Yemassess Zip: 29945
Latitude: 32* 37.709 Longitude: 80* 53.146

3. PUBLIC SYSTEM NAME **PUBLIC SYSTEM NUMBER**

4. ABANDONMENT: ☐ Yes ☒ No
Grouted Depth: from: ft. to ft.

Formation Description	*Thickness of Stratum	Depth to Bottom of Stratum
Brown sand	2	2
Brown clay	3	5
Gray brown sandy clay	1	6
Tan sandy clay	2	8
Gray sandy clay	4	12
Gray clayey sand	2	14
Gray wet sand	6	20

*Indicate Water Bearing Zones
(Use a 2nd sheet if needed)

5. REMARKS:
MW-6

6. TYPE: ☐ Mud Rotary ☐ Jetted ☒ Bored ☐ Dug ☐ Air Rotary ☐ Driven ☐ Cable tool ☐ Other

7. PERMIT NUMBER: 04887

8 .USE:
☐ Residential ☐ Public Supply ☐ Process
☐ Irrigation ☐ Air conditioning ☐ Emergency
☐ Test Well ☒ Monitor Well ☐ Replacement

9. Well Depth (completed) 20 ft.
Date Started (MM/DD/YYYY): 11/20/07
Date Completed (MM/DD/YYYY): 11/20/07

10. CASING: ☒ Threaded ☐ Welded
Diam: 2 inches
Type: ☒ PVC ☐ Galvanized ☐ Steel ☐ Other
0 in. to 5 ft. depth
in. to ft. depth
Height Above/Below Surface ft.
Weight lb./ft.
Drive Shoe? ☐ Yes ☐ No

11. SCREEN:
Type: PVC Diam.: 2 in.
Slot/Gauge: .010 Length: 15 ft.
Set Between: 5 ft. and 20 ft. **NOTE: MULTIPLE SCREENS**
ft. and ft. **USE SECOND SHEET**
Sieve Analysis ☐ Yes (please enclose) ☐ No

12. STATIC WATER LEVEL: ft. below land surface after 24 hours

13. PUMPING LEVEL: Below surface.
ft. after hrs. Pumping G.P.M.
Pumping Test: ☐ Yes (please enclose) ☐ No
Yield:

14. WATER QUALITY:
Chemical Analysis: ☐ Yes ☐ No Bacterial Analysis: ☐ Yes ☐ No
Please enclose lab results

15. ARTIFICIAL FILTER (filter pack) ☒ Yes ☐ No
Installed from 3 ft. to 20 ft.
Effective size #3 Uniformity Coefficient

16. WELL GROUTED? ☒ Yes ☐ No
☒ Neat Cement ☒ Bentonite ☐ Bentonite/Cement ☐ Other
Depth: From 0 ft. to 3 ft.

17. NEAREST SOURCE OF POSSIBLE CONTAMINATION: ft. direction
Type:
Well Disinfected: ☐ Yes ☐ No Type: Amount

18. PUMP: Date installed (mm/dd/yyyy): Not installed ☐
Mfr. Name: Model No.
H.P. Volts Length of drop pipe ft. Capacity gpm
Type: ☐ Submersible ☐ Jet (shallow) ☐ Turbine ☐ Jet (deep) ☐ Reciprocating ☐ Centrifugal

19. WELL DRILLER: CERT. NO.: 01568
Name: Kelly Grant
Level: A ☐ B ☒ C ☐ D ☐ (check one)
Address: 324 Fields Drive, Suite C City: Aberdeen
State: North Carolina Zip: 28315
Telephone No.: 910-944-3140 Fax: 910-944-3150

20. WATER DRILLER'S CERTIFICATION: This well was drilled under my direction and this report is true to the ~~best of~~ my knowledge and belief.
Signed: Kelly Grant
Well Driller
Date: 11/21/07 (MM/DD/YYYY)

DHEC 1903 (07/2003) **COPY 1 MAIL TO: S.C. DEPARMENT OF HEALTH AND ENVIRONMENTAL CONTROL (ADDRESS ABOVE)**

DHEC PROMOTE PROTECT PROSPER

Water Well Record
Bureau of Water
2600 Bull Street, Columbia, SC 29201-1708; (803) 898-4300

1. WELL OWNER INFORMATION:
Name: SCDHEC (last) (first)
Address: 2600 BULL STREET
City: COLUMBIA State: SC Zip: 29201
Telephone: Work: 803-898-4300 Home:

2. LOCATION OF WELL: COUNTY: Jasper
Name: Wareen Green Grocery
Street Address: 10773 West Frontage Rd
City: Yemassess Zip: 29945
Latitude: 32* 37.702 Longitude: 80* 53.101

3. PUBLIC SYSTEM NAME **PUBLIC SYSTEM NUMBER**

4. ABANDONMENT: ☐ Yes ☒ No
Grouted Depth: from: ft. to ft.

Formation Description	*Thickness of Stratum	Depth to Bottom of Stratum
Black sand	2	2
Brown sandy clay	4	6
Brown clay	8	14
Gray wet sand	3	17
White sand	3	20

*Indicate Water Bearing Zones
(Use a 2nd sheet if needed)

5. REMARKS:
MW-7

6. TYPE: ☐ Mud Rotary ☐ Jetted ☒ Bored ☐ Dug ☐ Air Rotary ☐ Driven ☐ Cable tool ☐ Other

7. PERMIT NUMBER: 04887

8. USE:
☐ Residential ☐ Public Supply ☐ Process
☐ Irrigation ☐ Air conditioning ☐ Emergency
☐ Test Well ☒ Monitor Well ☐ Replacement

9. Well Depth (completed) 20 ft.
Date Started (MM/DD/YYYY): 11/26/07
Date Completed (MM/DD/YYYY): 11/26/07

10. CASING: ☒ Threaded ☐ Welded
Diam: 2 inches
Type: ☒ PVC ☐ Galvanized ☐ Steel ☐ Other
0 in. to 5 ft. depth
in. to ft. depth
Height Above/Below Surface ft.
Weight lb./ft.
Drive Shoe? ☐ Yes ☐ No

11. SCREEN:
Type: PVC Diam.: 2 in.
Slot/Gauge: .010 Length: 15 ft.
Set Between: 5 ft. and 20 ft. **NOTE: MULTIPLE SCREENS**
ft. and ft. **USE SECOND SHEET**
Sieve Analysis ☐ Yes (please enclose) ☐ No

12. STATIC WATER LEVEL: ft. below land surface after 24 hours

13. PUMPING LEVEL: Below surface.
ft. after hrs. Pumping G.P.M.
Pumping Test: ☐ Yes (please enclose) ☐ No
Yield:

14. WATER QUALITY:
Chemical Analysis: ☐ Yes ☐ No Bacterial Analysis: ☐ Yes ☐ No
Please enclose lab results

15. ARTIFICIAL FILTER (filter pack) ☒ Yes ☐ No
Installed from 3 ft. to 20 ft.
Effective size #3 Uniformity Coefficient

16. WELL GROUTED? ☒ Yes ☐ No
☒ Neat Cement ☒ Bentonite ☐ Bentonite/Cement ☐ Other
Depth: From 0 ft. to 3 ft.

17. NEAREST SOURCE OF POSSIBLE CONTAMINATION: ft. direction
Type:
Well Disinfected: ☐ Yes ☐ No Type: Amount

18. PUMP: Date installed (mm/dd/yyyy): Not installed ☐
Mfr. Name: Model No.
H.P. Volts Length of drop pipe ft. Capacity gpm
Type: ☐ Submersible ☐ Jet (shallow) ☐ Turbine ☐ Jet (deep) ☐ Reciprocating ☐ Centrifugal

19. WELL DRILLER: CERT. NO.: 01568
Name: Kelly Grant Level A B C D ☐ ☒ ☐ ☐ (check one)
Address: 324 Fields Drive, Suite C City: Aberdeen
State: North Carolina Zip: 28315
Telephone No.: 910-944-3140 Fax: 910-944-3150

20. WATER DRILLER'S CERTIFICATION: This well was drilled under my direction and this report is true to the best of my knowledge and belief.
Signed: Kelly [signature] Date: 11/26/07
Well Driller (MM/DD/YYYY)

DHEC 1903 (07/2003) **COPY 1 MAIL TO: S.C. DEPARMENT OF HEALTH AND ENVIRONMENTAL CONTROL (ADDRESS ABOVE)**

DHEC
PROMOTE PROTECT PROSPER

Water Well Record
Bureau of Water
2600 Bull Street, Columbia, SC 29201-1708; (803) 898-4300

1. WELL OWNER INFORMATION:
Name: SCDHEC (last) (first)
Address: 2600 BULL STREET
City: COLUMBIA State: SC Zip: 29201
Telephone: Work: 803-898-4300 Home:

2. LOCATION OF WELL: **COUNTY:** Jasper
Name: Wareen Green Grocery
Street Address: 10773 West Frontage Rd
City: Yemassess Zip: 29945
Latitude: 32* 37.709 Longitude: 80* 53.084

3. PUBLIC SYSTEM NAME **PUBLIC SYSTEM NUMBER**

4. ABANDONMENT: ☐ Yes ☒ No
Grouted Depth: from: ft. to ft.

Formation Description	*Thickness of Stratum	Depth to Bottom of Stratum
Brown sand	1	1
Brown sandy clay	3	4
Brown clay	5	9
Gray clay	4	13
Brown wet sand	3	16
White sand	4	20

*Indicate Water Bearing Zones
(Use a 2nd sheet if needed)

5. REMARKS:
MW-8

6. TYPE: ☐ Mud Rotary ☐ Jetted ☒ Bored ☐ Dug ☐ Air Rotary ☐ Driven ☐ Cable tool ☐ Other

7. PERMIT NUMBER: 04887

8 .USE:
☐ Residential ☐ Public Supply ☐ Process
☐ Irrigation ☐ Air conditioning ☐ Emergency
☐ Test Well ☒ Monitor Well ☐ Replacement

9. Well Depth (completed) 20 ft.
Date Started (MM/DD/YYYY): 11/23/07
Date Completed (MM/DD/YYYY): 11/23/07

10. CASING: ☒ Threaded ☐ Welded
Diam: 2 inches
Type: ☒ PVC ☐ Galvanized ☐ Steel ☐ Other
0 in. to 5 ft. depth
in. to ft. depth
Height Above/Below Surface ft.
Weight lb./ft.
Drive Shoe? ☐ Yes ☐ No

11. SCREEN:
Type: PVC Diam.: 2 in.
Slot/Gauge: .010 Length: 15 ft.
Set Between: 5 ft. and 20 ft. **NOTE: MULTIPLE SCREENS**
ft. and ft. **USE SECOND SHEET**
Sieve Analysis ☐ Yes (please enclose) ☐ No

12. STATIC WATER LEVEL: ft. below land surface after 24 hours

13. PUMPING LEVEL: Below surface.
ft. after hrs. Pumping G.P.M.
Pumping Test: ☐ Yes (please enclose) ☐ No
Yield:

14. WATER QUALITY:
Chemical Analysis: ☐ Yes ☐ No Bacterial Analysis: ☐ Yes ☐ No
Please enclose lab results

15. ARTIFICIAL FILTER (filter pack) ☒ Yes ☐ No
Installed from 3 ft. to 20 ft.
Effective size #3 Uniformity Coefficient

16. WELL GROUTED? ☒ Yes ☐ No
☒ Neat Cement ☒ Bentonite ☐ Bentonite/Cement ☐ Other
Depth: From 0 ft. to 3 ft.

17. NEAREST SOURCE OF POSSIBLE CONTAMINATION: ft. direction
Type:
Well Disinfected: ☐ Yes ☐ No Type: Amount

18. PUMP: Date installed (mm/dd/yyyy): Not installed ☐
Mfr. Name: Model No.
H.P. Volts Length of drop pipe ft. Capacity gpm
Type: ☐ Submersible ☐ Jet (shallow) ☐ Turbine ☐ Jet (deep) ☐ Reciprocating ☐ Centrifugal

19. WELL DRILLER: CERT. NO.: 01568
Name: Kelly Grant
Level: A ☐ B ☒ C ☐ D ☐ (check one)
Address: 324 Fields Drive, Suite C City: Aberdeen
State: North Carolina Zip: 28315
Telephone No.: 910-944-3140 Fax: 910-944-3150

20. WATER DRILLER'S CERTIFICATION: This well was drilled under my direction and this report is true to the best of my knowledge and belief.
Signed: Kelly Grant Date: 11/23/07
Well Driller (MM/DD/YYYY)

DHEC 1903 (07/2003) **COPY 1 MAIL TO: S.C. DEPARMENT OF HEALTH AND ENVIRONMENTAL CONTROL (ADDRESS ABOVE)**

DHEC
PROMOTE PROTECT PROSPER

Water Well Record
Bureau of Water
2600 Bull Street, Columbia, SC 29201-1708; (803) 898-4300

1. WELL OWNER INFORMATION:
Name: SCDHEC (last) (first
Address: 2600 BULL STREET
City: COLUMBIA State: SC Zip: 29201
Telephone: Work: 803-898-4300 Home:

2. LOCATION OF WELL: COUNTY: Jasper
Name: Wareen Green Grocery
Street Address: 10773 West Frontage Rd
City: Yemassess Zip: 29945
Latitude: 32* 37.721 Longitude: 80* 53.084

3. PUBLIC SYSTEM NAME PUBLIC SYSTEM NUMBER

4. ABANDONMENT: ☐ Yes ☒ No
Grouted Depth: from: ft. to ft.

Formation Description	*Thickness of Stratum	Depth to Bottom of Stratum
Brown sand	1	1
Brown sandy clay	2	3
Brown clay	6	9
Gray clay	3	12
Brown wet sand	4	16
White sand	4	20

*Indicate Water Bearing Zones
(Use a 2nd sheet if needed)

5. REMARKS:
MW-9

6. TYPE: ☐ Mud Rotary ☐ Jetted ☒ Bored ☐ Dug ☐ Air Rotary ☐ Driven ☐ Cable tool ☐ Other

7. PERMIT NUMBER: 04887

8. USE:
☐ Residential ☐ Public Supply ☐ Process
☐ Irrigation ☐ Air conditioning ☐ Emergency
☐ Test Well ☒ Monitor Well ☐ Replacement

9. Well Depth (completed) 20 ft.
Date Started (MM/DD/YYYY): 11/23/07
Date Completed (MM/DD/YYYY): 11/23/07

10. CASING: ☒ Threaded ☐ Welded
Diam: 2 inches
Type: ☒ PVC ☐ Galvanized ☐ Steel ☐ Other
0 in. to 5 ft. depth
in. to ft. depth
Height Above/Below Surface ft.
Weight lb./ft.
Drive Shoe? ☐ Yes ☐ No

11. SCREEN:
Type: PVC Diam.: 2 in.
Slot/Gauge: .010 Length: 15 ft.
Set Between: 5 ft. and 20 ft. NOTE: MULTIPLE SCREENS
ft. and ft. USE SECOND SHEET
Sieve Analysis ☐ Yes (please enclose) ☐ No

12. STATIC WATER LEVEL: ft. below land surface after 24 hours

13. PUMPING LEVEL: Below surface.
ft. after hrs. Pumping G.P.M.
Pumping Test: ☐ Yes (please enclose) ☐ No
Yield:

14. WATER QUALITY:
Chemical Analysis: ☐ Yes ☐ No Bacterial Analysis: ☐ Yes ☐ No
Please enclose lab results

15. ARTIFICIAL FILTER (filter pack) ☒ Yes ☐ No
Installed from 3 ft. to 20 ft.
Effective size #3 Uniformity Coefficient

16. WELL GROUTED? ☒ Yes ☐ No
☒ Neat Cement ☒ Bentonite ☐ Bentonite/Cement ☐ Other
Depth: From 0 ft. to ft.

17. NEAREST SOURCE OF POSSIBLE CONTAMINATION: ft. direction
Type:
Well Disinfected: ☐ Yes ☐ No Type: Amount

18. PUMP: Date installed (mm/dd/yyyy): Not installed ☐
Mfr. Name: Model No.
H.P. Volts Length of drop pipe ft. Capacity gpm
Type: ☐ Submersible ☐ Jet (shallow) ☐ Turbine ☐ Jet (deep) ☐ Reciprocating ☐ Centrifugal

19. WELL DRILLER:
Name: Kelly Grant CERT. NO.: 01568
Level: A B C D ☐ ☒ ☐ ☐ (check one)
Address: 324 Fields Drive, Suite C City: Aberdeen
State: North Carolina Zip: 28315
Telephone No.: 910-944-3140 Fax: 910-944-3150

20. WATER DRILLER'S CERTIFICATION: This well was drilled under my direction and this report is true to the ~~best of~~ my knowledge and belief.
Signed: [signature] Date: 11/23/07
Well Driller (MM/DD/YYYY)

DHEC 1903 (07/2003)
COPY 1 MAIL TO: S.C. DEPARMENT OF HEALTH AND ENVIRONMENTAL CONTROL (ADDRESS ABOVE)

DHEC
PROMOTE PROTECT PROSPER

Water Well Record
Bureau of Water
2600 Bull Street, Columbia, SC 29201-1708; (803) 898-4300

1. WELL OWNER INFORMATION:
Name: SCDHEC (last) (first
Address: 2600 BULL STREET
City: COLUMBIA State: SC Zip: 29201
Telephone: Work: 803-898-4300 Home:

2. LOCATION OF WELL: COUNTY: Jasper
Name: Wareen Green Grocery
Street Address: 10773 West Frontage Rd
City: Yemassess Zip: 29945
Latitude: 32* 37.712 Longitude: 80* 53.097

3. PUBLIC SYSTEM NAME **PUBLIC SYSTEM NUMBER**

4. ABANDONMENT: ☐ Yes ☒ No
Grouted Depth: from: ____ ft. to ____ ft.

Formation Description	*Thickness of Stratum	Depth to Bottom of Stratum
Black sand	2	2
Brown sand	2	4
Brown clay	5	9
Gray clay	3	12
Gray sand	11	23
Tan sand	11	34
Dark gray sandy clay	9	43
Green sandy clay	7	50
Gray clayey sand	7	41
Green gray sandy clay	9	50

*Indicate Water Bearing Zones
(Use a 2nd sheet if needed)

5. REMARKS:
DW-1

6. TYPE: ☒ Mud Rotary ☐ Jetted ☐ Bored ☐ Dug ☐ Air Rotary ☐ Driven ☐ Cable tool ☐ Other

7. PERMIT NUMBER: 04887

8 .USE:
☐ Residential ☐ Public Supply ☐ Process
☐ Irrigation ☐ Air conditioning ☐ Emergency
☐ Test Well ☒ Monitor Well ☐ Replacement

9. Well Depth (completed) 50 ft.
Date Started (MM/DD/YYYY): 11/21/07
Date Completed (MM/DD/YYYY): 11/23/07

10. CASING: ☒ Threaded ☐ Welded
Diam: 2 & 6" inches
Type: ☒ PVC ☐ Galvanized ☐ Steel ☐ Other
2 in. to 45 ft. depth
6 in. to 40 ft. depth
Height Above/Below Surface ____ ft.
Weight ____ lb./ft.
Drive Shoe? ☐ Yes ☐ No

11. SCREEN:
Type: PVC Diam.: 2 in.
Slot/Gauge: .010 Length: 5 ft.
Set Between: 45 ft. and 50 ft. **NOTE: MULTIPLE SCREENS**
____ ft. and ____ ft. **USE SECOND SHEET**
Sieve Analysis ☐ Yes (please enclose) ☐ No

12. STATIC WATER LEVEL: ____ ft. below land surface after 24 hours

13. PUMPING LEVEL: Below surface.
____ ft. after ____ hrs. Pumping ____ G.P.M.
Pumping Test: ☐ Yes (please enclose) ☐ No
Yield:

14. WATER QUALITY:
Chemical Analysis: ☐ Yes ☐ No Bacterial Analysis: ☐ Yes ☐ No
Please enclose lab results

15. ARTIFICIAL FILTER (filter pack) ☒ Yes ☐ No
Installed from 43 ft. to 50 ft.
Effective size #3 Uniformity Coefficient

16. WELL GROUTED? ☒ Yes ☐ No
☒ Neat Cement ☒ Bentonite ☐ Bentonite/Cement ☐ Other
Depth: From 0 ft. to 43 ft.

17. NEAREST SOURCE OF POSSIBLE CONTAMINATION: ____ ft. ____ direction
Type:
Well Disinfected: ☐ Yes ☐ No Type: ____ Amount ____

18. PUMP: Date installed (mm/dd/yyyy): ____ Not installed ☐
Mfr. Name: ____ Model No. ____
H.P. ____ Volts ____ Length of drop pipe ____ ft. Capacity ____ gpm
Type: ☐ Submersible ☐ Jet (shallow) ☐ Turbine ☐ Jet (deep) ☐ Reciprocating ☐ Centrifugal

19. WELL DRILLER: CERT. NO.: 01568
Name: Kelly Grant
Level: A ☐ B ☒ C ☐ D ☐ (check one)
Address: 324 Fields Drive, Suite C City: Aberdeen
State: North Carolina Zip: 28315
Telephone No.: 910-944-3140 Fax: 910-944-3150

20. WATER DRILLER'S CERTIFICATION: This well was drilled under my direction and this report is true to the best of my knowledge and belief.
Signed: Kelly [signature] Date: 11/21/07
Well Driller (MM/DD/YYYY)

DHEC 1903 (07/2003)

COPY 1 MAIL TO: S.C. DEPARMENT OF HEALTH AND ENVIRONMENTAL CONTROL (ADDRESS ABOVE)

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Bureau of Water
2600 Bull Street, Columbia, SC 29201-1708; (803) 898-4300

1. WELL OWNER INFORMATION:
Name: SCDHEC (last) (first)
Address: 2600 BULL STREET
City: COLUMBIA State: SC Zip: 29201
Telephone: Work: 803-898-4300 Home:

2. LOCATION OF WELL: COUNTY: Jasper
Name: Wareen Green Grocery
Street Address: 10773 West Frontage Rd
City: Yemassess Zip: 29945
Latitude: 32* 37.727 Longitude: 80* 53.103

3. PUBLIC SYSTEM NAME PUBLIC SYSTEM NUMBER

4. ABANDONMENT: ☐ Yes ☒ No
Grouted Depth: from: ft. to ft.

Formation Description	*Thickness of Stratum	Depth to Bottom of Stratum
Black sand	1	1
Brown sand	2	3
Brown clay	1	4
Gray clay	9	13
Gray sand	13	26
Brown sand	5	31
Gray clay	19	50
Gray clayey sand	7	41
Green gray sandy clay	9	50

*Indicate Water Bearing Zones
(Use a 2nd sheet if needed)

5. REMARKS:
DW-2

6. TYPE: ☒ Mud Rotary ☐ Jetted ☐ Bored ☐ Dug ☐ Air Rotary ☐ Driven ☐ Cable tool ☐ Other

7. PERMIT NUMBER: 04887

8. USE:
☐ Residential ☐ Public Supply ☐ Process
☐ Irrigation ☐ Air conditioning ☐ Emergency
☐ Test Well ☒ Monitor Well ☐ Replacement

9. Well Depth (completed) 50 ft.
Date Started (MM/DD/YYYY): 11/21/07
Date Completed (MM/DD/YYYY): 11/23/07

10. CASING: ☒ Threaded ☐ Welded
Diam: 2 & 6" inches
Type: ☒ PVC ☐ Galvanized ☐ Steel ☐ Other
2 in. to 45 ft. depth
6 in. to 40 ft. depth
Height Above/Below Surface ft.
Weight lb./ft.
Drive Shoe? ☐ Yes ☐ No

11. SCREEN:
Type: PVC Diam.: 2 in.
Slot/Gauge: .010 Length: 5 ft.
Set Between: 45 ft. and 50 ft.
ft. and ft.
NOTE: MULTIPLE SCREENS USE SECOND SHEET
Sieve Analysis ☐ Yes (please enclose) ☐ No

12. STATIC WATER LEVEL: ft. below land surface after 24 hours

13. PUMPING LEVEL: Below surface.
ft. after hrs. Pumping G.P.M.
Pumping Test: ☐ Yes (please enclose) ☐ No
Yield:

14. WATER QUALITY:
Chemical Analysis: ☐ Yes ☐ No Bacterial Analysis: ☐ Yes ☐ No
Please enclose lab results

15. ARTIFICIAL FILTER (filter pack) ☒ Yes ☐ No
Installed from 43 ft. to 50 ft.
Effective size #3 Uniformity Coefficient

16. WELL GROUTED? ☒ Yes ☐ No
☒ Neat Cement ☒ Bentonite ☐ Bentonite/Cement ☐ Other
Depth: From 0 ft. to 43 ft.

17. NEAREST SOURCE OF POSSIBLE CONTAMINATION: ft. direction
Type:
Well Disinfected: ☐ Yes ☐ No Type: Amount

18. PUMP: Date installed (mm/dd/yyyy): Not installed ☐
Mfr. Name: Model No.
H.P. Volts Length of drop pipe ft. Capacity gpm
Type: ☐ Submersible ☐ Jet (shallow) ☐ Turbine ☐ Jet (deep) ☐ Reciprocating ☐ Centrifugal

19. WELL DRILLER: CERT. NO.: 01568
Name: Kelly Grant
Level: A B C D ☐ ☒ ☐ ☐ (check one)
Address: 324 Fields Drive, Suite C City: Aberdeen
State: North Carolina Zip: 28315
Telephone No.: 910-944-3140 Fax: 910-944-3150

20. WATER DRILLER'S CERTIFICATION: This well was drilled under my direction and this report is true to the best of my knowledge and belief.
Signed: Kelly [signature] Date: 11/21/07
Well Driller (MM/DD/YYYY)

DHEC 1903 (07/2003) **COPY 1 MAIL TO: S.C. DEPARMENT OF HEALTH AND ENVIRONMENTAL CONTROL (ADDRESS ABOVE)**

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Name: SCDHEC (last) (first
Address: 2600 BULL STREET
City: COLUMBIA State: SC Zip: 29201
Telephone: Work: 803-898-4300 Home:

2. LOCATION OF WELL: **COUNTY:** Jasper
Name: Wareen Green Grocery
Street Address: 10773 West Frontage Rd
City: Yemassess Zip: 29945
Latitude: 32* 37.718 Longitude: 80* 53.169

3. PUBLIC SYSTEM NAME **PUBLIC SYSTEM NUMBER**

4. ABANDONMENT: ☐ Yes ☒ No
Grouted Depth: from: ft. to ft.

Formation Description	*Thickness of Stratum	Depth to Bottom of Stratum
Brown sand	1	1
Black sand	1	2
Gray brown sand	1	3
Brown clay	4	7
Gray sandy clay	2	9
Tan Clayey sand	2	11
Gray sand	15	26
Tan sand	3	29
Gray sand	5	34
Gray clayey sand	7	41
Green gray sandy clay	9	50

*Indicate Water Bearing Zones
(Use a 2nd sheet if needed)

5. REMARKS:
DW-3

6. TYPE: ☒ Mud Rotary ☐ Jetted ☐ Bored ☐ Dug ☐ Air Rotary ☐ Driven ☐ Cable tool ☐ Other

7. PERMIT NUMBER: 04887

8 .USE:
☐ Residential ☐ Public Supply ☐ Process
☐ Irrigation ☐ Air conditioning ☐ Emergency
☐ Test Well ☒ Monitor Well ☐ Replacement

9. Well Depth (completed) 50 ft.
Date Started (MM/DD/YYYY): 11/20/07
Date Completed (MM/DD/YYYY): 11/21/07

10. CASING: ☒ Threaded ☐ Welded
Diam: 2 & 6" inches
Type: ☒ PVC ☐ Galvanized ☐ Steel ☐ Other
2 in. to 45 ft. depth
6 in. to 40 ft. depth
Height Above/Below Surface ft.
Weight lb./ft.
Drive Shoe? ☐ Yes ☐ No

11. SCREEN:
Type: PVC Diam.: 2 in.
Slot/Gauge: .010 Length: 5 ft.
Set Between: 45 ft. and 50 ft. ft. and ft.
NOTE: MULTIPLE SCREENS USE SECOND SHEET
Sieve Analysis ☐ Yes (please enclose) ☐ No

12. STATIC WATER LEVEL: ft. below land surface after 24 hours

13. PUMPING LEVEL: Below surface.
ft. after hrs. Pumping G.P.M.
Pumping Test: ☐ Yes (please enclose) ☐ No
Yield:

14. WATER QUALITY:
Chemical Analysis: ☐ Yes ☐ No Bacterial Analysis: ☐ Yes ☐ No
Please enclose lab results

15. ARTIFICIAL FILTER (filter pack) ☒ Yes ☐ No
Installed from 43 ft. to 50 ft.
Effective size #3 Uniformity Coefficient

16. WELL GROUTED? ☒ Yes ☐ No
☒ Neat Cement ☒ Bentonite ☐ Bentonite/Cement ☐ Other
Depth: From 0 ft. to 43 ft.

17. NEAREST SOURCE OF POSSIBLE CONTAMINATION: ft. direction
Type:
Well Disinfected: ☐ Yes ☐ No Type: Amount

18. PUMP: Date installed (mm/dd/yyyy): Not installed ☐
Mfr. Name: Model No.
H.P. Volts Length of drop pipe ft. Capacity gpm
Type: ☐ Submersible ☐ Jet (shallow) ☐ Turbine ☐ Jet (deep) ☐ Reciprocating ☐ Centrifugal

19. WELL DRILLER: CERT. NO.: 01568
Name: Kelly Grant
Level: A B C D ☐ ☒ ☐ ☐ (check one)
Address: 324 Fields Drive, Suite C City: Aberdeen
State: North Carolina Zip: 28315
Telephone No.: 910-944-3140 Fax: 910-944-3150

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Signed: Kelly [signature] Date: 11/21/07
Well Driller (MM/DD/YYYY)

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Telephone: Work: 803-898-4300 Home:

2. LOCATION OF WELL: COUNTY: Jasper
Name: Wareen Green Grocery
Street Address: 10773 West Frontage Rd
City: Yemassess Zip: 29945
Latitude: 32* 37.710 Longitude: 80* 53.143

3. PUBLIC SYSTEM NAME **PUBLIC SYSTEM NUMBER**

4. ABANDONMENT: ☐ Yes ☒ No
Grouted Depth: from: ft. to ft.

Formation Description	*Thickness of Stratum	Depth to Bottom of Stratum
Gray sand	1	1
Tan sand	1	2
Brown clay	4	6
Gray brown clay	1	7
Gray sandy clay	5	12
Gray wet sand	2	14
Tan wet sand	8	22
Gray wet sand	13	34
Green/gray wet sand	12	46
White sand	14	50
*Indicate Water Bearing Zones (Use a 2nd sheet if needed)		

5. REMARKS:
DW-4

6. TYPE: ☒ Mud Rotary ☐ Jetted ☐ Bored ☐ Dug ☐ Air Rotary ☐ Driven ☐ Cable tool ☐ Other

7. PERMIT NUMBER: 04887

8 .USE:
☐ Residential ☐ Public Supply ☐ Process
☐ Irrigation ☐ Air conditioning ☐ Emergency
☐ Test Well ☒ Monitor Well ☐ Replacement

9. Well Depth (completed) 50 ft.
Date Started (MM/DD/YYYY): 11/20/07
Date Completed (MM/DD/YYYY): 11/21/07

10. CASING: ☒ Threaded ☐ Welded
Diam: 2 & 6" inches
Type: ☒ PVC ☐ Galvanized ☐ Steel ☐ Other
2 in. to 45 ft. depth
6 in. to 40 ft. depth
Height Above/Below Surface ft.
Weight lb./ft.
Drive Shoe? ☐ Yes ☐ No

11. SCREEN:
Type: PVC Diam.: 2 in.
Slot/Gauge: .010 Length: 5 ft.
Set Between: 45 ft. and 50 ft. NOTE: MULTIPLE SCREENS
ft. and ft. USE SECOND SHEET
Sieve Analysis ☐ Yes (please enclose) ☐ No

12. STATIC WATER LEVEL: ft. below land surface after 24 hours

13. PUMPING LEVEL: Below surface.
ft. after hrs. Pumping G.P.M.
Pumping Test: ☐ Yes (please enclose) ☐ No
Yield:

14. WATER QUALITY:
Chemical Analysis: ☐ Yes ☐ No Bacterial Analysis: ☐ Yes ☐ No
Please enclose lab results

15. ARTIFICIAL FILTER (filter pack) ☒ Yes ☐ No
Installed from 43 ft. to 50 ft.
Effective size #3 Uniformity Coefficient

16. WELL GROUTED? ☒ Yes ☐ No
☒ Neat Cement ☒ Bentonite ☐ Bentonite/Cement ☐ Other
Depth: From 0 ft. to 43 ft.

17. NEAREST SOURCE OF POSSIBLE CONTAMINATION: ft. direction
Type:
Well Disinfected: ☐ Yes ☐ No Type: Amount

18. PUMP: Date installed (mm/dd/yyyy): Not installed ☐
Mfr. Name: Model No.
H.P. Volts Length of drop pipe ft. Capacity gpm
Type: ☐ Submersible ☐ Jet (shallow) ☐ Turbine ☐ Jet (deep) ☐ Reciprocating ☐ Centrifugal

19. WELL DRILLER: CERT. NO.: 01568
Name: Kelly Grant
Level A B C D ☐ ☒ ☐ ☐ (check one)
Address: 324 Fields Drive, Suite C City: Aberdeen
State: North Carolina Zip: 28315
Telephone No.: 910-944-3140 Fax: 910-944-3150

20. WATER DRILLER'S CERTIFICATION: This well was drilled under my direction and this report is true to the best of my knowledge and belief.
Signed: Kelly [signature] Well Driller
Date: 11/21/07 (MM/DD/YYYY)

APPENDIX 3
LABORATORY ANALYTICAL RESULTS

AAL

26-NOV-07

Consultech Environmental, Inc.
PO Box 5611
Cary, NC 27512
Client Contact: Joe Ghiold

Reference: Accura Analytical Laboratory, Inc. (AAL) Work Order No: 13122
Project Name : Warren Green Property
Project Number: C-07-06-09

Dear Joe Ghiold :

We are reporting to you the results of the analyses performed on the samples received under the project name referenced above and identified with the Chain of Custody(s) Numbered 217600 . All results being reported under this Chain of Custody apply to the samples analyzed and properly identified with an AAL Sample ID number.

All the results for the quality control samples were reviewed. Also, all parameters for data reduction and validation were reviewed. In view of this, we are able to release the analytical data for this report within acceptance criteria for accuracy, precision, completeness or properly flagged.

The validity and integrity of this report will remain intact as long as it is accompanied by this letter and reproduced in full, unless written approval is granted by AAL. This report will be filed for at least 7 years in our archives after which time it will be destroyed without further notice, unless otherwise arranged with you. The samples received, and described as recorded in COC No. 217600 will be filed for 90 days, and after that time they will be properly disposed without further notice, unless otherwise arranged with you. We reserve the right to return to you any unused samples, extracts or solutions related to them if we consider so necessary (e.g., samples identified as hazardous waste, sample sizes exceeding analytical standard practices, controlled substances under regulated protocols, etc).

We thank you for selecting Accura Analytical Laboratory Inc. to serve your analytical needs. If you have any questions concerning this report, please feel free to contact me at any time.

Sincerely,

David Fuller
Project Manager

6017 Financial Drive Norcross, GA 30071
Phone: 770-449-8800 Fax: 770-449-5477

AAL

02-NOV-07

Consultech Environmental, Inc.
PO Box 5611
Cary, NC 27512
Client Contact: Joe Ghiold

Reference: Accura Analytical Laboratory, Inc. (AAL) Work Order No: 12972
Project Name :Warren Green
Project Number: C-07-06-09

Dear Joe Ghiold :

We are reporting to you the results of the analyses performed on the samples received under the project name referenced above and identified with the Chain of Custody(s) Numbered 103007 . All results being reported under this Chain of Custody apply to the samples analyzed and properly identified with an AAL Sample ID number.

All the results for the quality control samples were reviewed. Also, all parameters for data reduction and validation were reviewed. In view of this, we are able to release the analytical data for this report within acceptance criteria for accuracy, precision, completeness or properly flagged.

The validity and integrity of this report will remain intact as long as it is accompanied by this letter and reproduced in full, unless written approval is granted by AAL. This report will be filed for at least 7 years in our archives after which time it will be destroyed without further notice, unless otherwise arranged with you. The samples received, and described as recorded in COC No. 103007 will be filed for 90 days, and after that time they will be properly disposed without further notice, unless otherwise arranged with you. We reserve the right to return to you any unused samples, extracts or solutions related to them if we consider so necessary (e.g., samples identified as hazardous waste, sample sizes exceeding analytical standard practices, controlled substances under regulated protocols, etc).

We thank you for selecting Accura Analytical Laboratory Inc. to serve your analytical needs. If you have any questions concerning this report, please feel free to contact me at any time.

Sincerely,

Sherri W. Hernandez
Project Manager

ACCURA ANALYTICAL LABORATORY, INC. (AAL)

6017 Financial Drive, Norcross, GA 30071, Phone: (770) 449-8800
FL Certification #E87429 ▪ NC Certification #483
SC Certification #98015 ▪ Utah Certification #AALI1
USACE Approved

Case Narrative

AAL Work Order # 12972

Client Project: Warren Green / C-07-06-09

Accura Analytical Laboratory Inc. certifies that the results meet all requirements of the NELAC Standards.

The data package includes a 1 page case narrative, 1 Chain of Custody page, 2 analytical results pages, and 2 QC surrogate recovery pages.

The following items were noted concerning this work order:

Select VOCs by SW8260B Notations:

1. The pH of the water samples was <2.0 prior to the VOC analysis.

2. The % recovery for Ethylbenzene was outside laboratory control limits (bias high) for the MS due to possible matrix interferences. The Laboratory Blank Spike recoveries were within the acceptable limits; therefore the data satisfies the method requirements. 12972-001 MS

3. The surrogate, Toluene-d8, was outside laboratory control limits (bias low) for the following samples due to possible matrix interferences. There were no reportable concentrations detected in any of the samples and the samples were reanalyzed confirming results.12972-002 (GW-2), 12972-003 (GW-3), 12972-004 (GW-4).

Dawn Sengsourichanh
VOC Analyst

November 01, 2007
Date

This Case Narrative & Notations have been generated, reviewed, and edited by:

Sherri W. Hernandez
Project Manager

November 02, 2007
Date

Certificate of Analytical Results 12972

Consultech Environmental, Inc., Cary, NC

Warren Green

Sample Id: **GW-1** | Matrix: **WATER** | % Moisture:
Lab Sample Id: **12972-001** | Date Collected: **Oct-25-07 14:20** | Date Received: **Oct-30-07 09:31**
Sample Depth:

Analytical Method: Select VOCs by SW8260B | Prep Method: SW5030B
Date Analyzed: Nov-01-07 09:30 | Analyst: MDS01 | Date Prep: Nov-01-07 06:29 | Tech: MDS01
Seq Number: 38056

Parameter	Cas Number	Result	Rep Limit	MDL	Units	Flag	Dil
Benzene	71-43-2	BRL	1.0	0.30	ug/L		1
Toluene	108-88-3	BRL	1.0	0.25	ug/L		1
Ethylbenzene	100-41-4	BRL	1.0	0.19	ug/L		1
Xylenes, Total	1330-20-7	BRL	1.0	0.74	ug/L		1
Naphthalene	91-20-3	BRL	5.0	0.45	ug/L		1

Sample Id: **GW-2** | Matrix: **WATER** | % Moisture:
Lab Sample Id: **12972-002** | Date Collected: **Oct-25-07 15:00** | Date Received: **Oct-30-07 09:31**
Sample Depth:

Analytical Method: Select VOCs by SW8260B | Prep Method: SW5030B
Date Analyzed: Nov-01-07 10:00 | Analyst: MDS01 | Date Prep: Nov-01-07 06:29 | Tech: MDS01
Seq Number: 38056

Parameter	Cas Number	Result	Rep Limit	MDL	Units	Flag	Dil
Benzene	71-43-2	BRL	1.0	0.30	ug/L		1
Toluene	108-88-3	BRL	1.0	0.25	ug/L		1
Ethylbenzene	100-41-4	BRL	1.0	0.19	ug/L		1
Xylenes, Total	1330-20-7	BRL	1.0	0.74	ug/L		1
Naphthalene	91-20-3	BRL	5.0	0.45	ug/L		1

Sample Id: **GW-3** | Matrix: **WATER** | % Moisture:
Lab Sample Id: **12972-003** | Date Collected: **Oct-25-07 15:40** | Date Received: **Oct-30-07 09:31**
Sample Depth:

Analytical Method: Select VOCs by SW8260B | Prep Method: SW5030B
Date Analyzed: Nov-01-07 14:03 | Analyst: MDS01 | Date Prep: Nov-01-07 06:29 | Tech: MDS01
Seq Number: 38056

Parameter	Cas Number	Result	Rep Limit	MDL	Units	Flag	Dil
Benzene	71-43-2	BRL	1.0	0.30	ug/L		1
Toluene	108-88-3	BRL	1.0	0.25	ug/L		1
Ethylbenzene	100-41-4	BRL	1.0	0.19	ug/L		1
Xylenes, Total	1330-20-7	BRL	1.0	0.74	ug/L		1
Naphthalene	91-20-3	BRL	5.0	0.45	ug/L		1

Certificate of Analytical Results 12972

Consultech Environmental, Inc., Cary, NC

Warren Green

Sample Id: **GW-4**	Matrix: **WATER**	% Moisture:
Lab Sample Id: **12972-004**	Date Collected: **Oct-25-07 16:20**	Date Received: **Oct-30-07 09:31**
Sample Depth:		

Analytical Method: Select VOCs by SW8260B Prep Method: SW5030B

Date Analyzed: Nov-01-07 11:00 Analyst: MDS01 Date Prep: Nov-01-07 06:29 Tech: MDS01

Seq Number: 38056

Parameter	Cas Number	Result	Rep Limit	MDL	Units	Flag	Dil
Benzene	71-43-2	BRL	1.0	0.30	ug/L		1
Toluene	108-88-3	BRL	1.0	0.25	ug/L		1
Ethylbenzene	100-41-4	BRL	1.0	0.19	ug/L		1
Xylenes, Total	1330-20-7	BRL	1.0	0.74	ug/L		1
Naphthalene	91-20-3	BRL	5.0	0.45	ug/L		1

Sample Id: **304188 BLK**	Matrix: **WATER**	% Moisture:
Lab Sample Id: **304188 BLK**	Date Collected:	Date Received:
Sample Depth:		

Analytical Method: Select VOCs by SW8260B Prep Method: SW5030B

Date Analyzed: Nov-01-07 08:26 Analyst: MDS01 Date Prep: Nov-01-07 06:29 Tech: MDS01

Seq Number: 38056

Parameter	Cas Number	Result	Rep Limit	MDL	Units	Flag	Dil
Benzene	71-43-2	BRL	1.0	0.30	ug/L		1
Toluene	108-88-3	BRL	1.0	0.25	ug/L		1
Ethylbenzene	100-41-4	BRL	1.0	0.19	ug/L		1
Xylenes, Total	1330-20-7	BRL	1.0	0.74	ug/L		1
Naphthalene	91-20-3	BRL	5.0	0.45	ug/L		1

*

Version: 1.001

Form 2 - Surrogate Recoveries

Project Name: Warren Green

Report Date: 11/02/07 09:56

Work Order #: 12972 **Project ID:** C-07-06-09

Lab Batch #: 38056 **Sample:** 12972-001 / SMP **Batch:** 1 **Matrix:** W

Units: ug/L

Select VOCs by SW8260B Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,2-Dichloroethane-d4	47.5	50.0	95	53-159	
Bromofluorobenzene	61.4	50.0	123	30-186	
Toluene-d8	64.8	50.0	130	53-152	

Lab Batch #: 38056 **Sample:** 12972-002 / SMP **Batch:** 1 **Matrix:** W

Units: ug/L

Select VOCs by SW8260B Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,2-Dichloroethane-d4	47.6	50.0	95	53-159	
Bromofluorobenzene	61.2	50.0	122	30-186	
Toluene-d8	15.9	50.0	32	53-152	Z

Lab Batch #: 38056 **Sample:** 12972-003 / SMP **Batch:** 1 **Matrix:** W

Units: ug/L

Select VOCs by SW8260B Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,2-Dichloroethane-d4	55.9	50.0	112	53-159	
Bromofluorobenzene	60.3	50.0	121	30-186	
Toluene-d8	15.0	50.0	30	53-152	Z

Lab Batch #: 38056 **Sample:** 12972-004 / SMP **Batch:** 1 **Matrix:** W

Units: ug/L

Select VOCs by SW8260B Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,2-Dichloroethane-d4	47.5	50.0	95	53-159	
Bromofluorobenzene	74.4	50.0	149	30-186	
Toluene-d8	15.9	50.0	32	53-152	Z

* Surrogate outside of Laboratory QC limits
** Surrogates outside limits; data and surrogates confirmed by reanalysis
*** Poor recoveries due to dilution
Surrogate Recovery [D] = 100 * A / B
All results are based on MDL and validated for QC purposes.

Z = Surrogate Recovery exceeded the Labortatory QC limits

Version: 1.%

Form 2 - Surrogate Recoveries

Project Name: Warren Green

Report Date: 11/02/07 09:5

Work Order #: 12972 **Project ID:** C-07-06-09

Lab Batch #: 38056 **Sample:** 304188 BLK / BLK **Batch:** 1 **Matrix:** W

Units: ug/L

Select VOCs by SW8260B Analytes	SURROGATE RECOVERY STUDY				
	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,2-Dichloroethane-d4	46.3	50.0	93	49-146	
Bromofluorobenzene	64.9	50.0	130	74-131	
Toluene-d8	61.2	50.0	122	71-133	

* Surrogate outside of Laboratory QC limits
** Surrogates outside limits; data and surrogates confirmed by reanalysis
*** Poor recoveries due to dilution
Surrogate Recovery [D] = 100 * A / B
All results are based on MDL and validated for QC purposes.
Z = Surrogate Recovery exceeded the Labortatory QC limits

Version: 1.%

ACCURA ANALYTICAL LABORATORY, INC. (AAL)
6017 Financial Drive, Norcross, GA 30071, Phone: (770) 449-8800
FL Certification #E87429 ▪ NC Certification #483
SC Certification #98015 ▪ Utah Certification #AALI1
USACE Approved

Case Narrative

AAL Work Order # 13122

Client Project: Warren Green Property / C-07-06-09

Accura Analytical Laboratory Inc. certifies that the results meet all requirements of the NELAC Standards.

The data package includes a 1 page case narrative, 1 Chain of Custody page, 2 analytical results pages, and 2 QC surrogate recovery pages.

The following items were noted concerning this work order:

Select VOCs by SW8260B Notations:

1. The pH of the water sample was <2.0 prior to the VOC analysis.

Mei Liang
Senior VOC Analyst

November 26, 2007
Date

Project Manager's Notations:

1. The soil sample results are reported on a wet weight basis. (No moisture correction)

This Case Narrative & Notations have been generated, reviewed, and edited by:

David C. Fuller
Project Manager

November 26, 2007
Date

XENCO Laboratories

☐ 11381 Meadowglen, Suite L, Houston, TX 77082 **281-589-0692**
☐ 5309 Wurzbach, Suite 104, San Antonio, TX 78238 **210-509-3334**
☐ 9700 Harry Hines Blvd., Dallas, TX 75220 **972-902-0300**
☐ 5757 N.W. 158th Street, Miami Lakes, Fl 33014 **305-823-8500**
☐ 3016 US Highway 301 N., Suite 900, Tampa, Fl 33619 **813-620-2000**

ANALYSIS REQUEST & CHAIN OF CUSTODY RECORD

LAB ONLY: 13122

Serial #: 217600 Page 1 of 1

Company-City Consultech LLC **Phone** 919.861.4314

TAT: 5h 12h 24h 48h 3d 5d 7d 10d 21d Standard TAT is project specific.
It is typically 5-7 Working Days for level II and 10+ Working days for level III and IV data.

Project Name ☒ Previously performed at XENCO Warren Green Property **Site** Pointe South S.C. **Project ID** C.07.06.09

Proj. Manager (PM) Chiowld

Fax Results to ☐ PM or **e-mail to:** **Fax No:** 4317

Invoice to ☐ Accounting ☐ Inc. Invoice with Final Report ☐ Invoice must have a P.O

Bill to:

Quote No: **P.O No:** ☐ Call for a P.O.

Reg Program: CLP AFCEE **TRRP** DW UST State Other:

Target DLs (DW CRDL TRRP QAPP MDLs See Lab PM Attached Call)

TRRP PCLs: Tier 1 Tier 2 Residential Industrial

LPST No.:(Required)

Sampler Name Van Chisholm Signature Van Chisholm

	Sample ID	Sampling Date	Time	Depth ft' in" m	Matrix	Composite	Grab	# Containers	Container Size	Container Type	Preservatives	BTEX by 8021 8260 602 624 Other	BTEX-MTBE by 8021 8260 624 Other	TPH by TX1005 FL-Pro 1664 8015GRO 8015DRO 418.1	PAHs by 8270 8310	Metals by 6020 200.8 8RCRA Tot Pb TCLP8 13PP 23TAL	VOCs by 8021 8260 624 VOA VOH PPs TCL	SVOCs by 8270 625 PAHs BN&A TCL PPs	FL Preburn - Revised: Virgin Non-Virgin	BTEX	EDB	BTEX + NAPH							TAT 5h 12h 24h 48h 3d 5d 7d 10d 21d	Addn: PAH above mg/L W, mg/Kg S Highest Hit	Hold Disposal Hold Analysis (Surcharges will apply)	Sample Clean-ups are pre-approved	Remarks	
1	GW.4	11.20.07	1400		GW		x	4												2	2				water							RUSH	1 001
2	DW.4	11.20.07	1200		S		x	4														4			soil								2 002
3																																	3
4																																	4
5																																	5
6																																	6
7																																	7
8																																	8
9																																	9
10																																	10

	Relinquished by (Initials and Sign)	Date & Time	Relinquished to (Initials and Sign)	Date & Time
1	Van Chisholm VC	11.20.07/1800	CK 11-21-07	09:40
2				
3			Lab:	

Rush Charges are Pre-Approved upon requesting them.

Instructions:

All XENCO Standard Terms and Conditions Apply.

Containers Received: 8 Cooler Temperature: 2°C

Preservatives: Various **(V)**, HCl pH<2 **(H)**, H2SO4 pH<2 **(S)**, HNO3 pH<2 **(N)**, Asbc Acid&NaOH **(A)**, ZnAc&NaOH **(Z)**, (Cool,<4C) **(C)**, None **(NA)**, See Label **(L)**, Other **(O)**
Cont. Size: 4oz **(4)**, 8oz **(8)**, 32oz **(32)**, 40ml VOA **(V)**, 1L **(1)**, 500ml **(5)**, Tedlar Bag **(B)**, Wipe **(W)**, Other **Cont. Type:** Glass Amb **(A)**, Glass Clear **(C)**, Plastic **(P)**, Other **(O)**

Matrix: Air (A), Product (P), Solid(S), Water (W)

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www.xenco.com

Certificate of Analytical Results 13122

Consultech Environmental, Inc., Cary, NC

Warren Green Property

Sample Id: **GW-4**	Matrix: **WATER**	% Moisture:
Lab Sample Id: **13122-001**	Date Collected: **Nov-20-07 14:00**	Date Received: **Nov-21-07 09:40**
Sample Depth:		

Analytical Method: EDB by SW8011 Prep Method: EXT_SW8011

Date Analyzed: Nov-21-07 18:34 Analyst: SK001 Date Prep: Nov-26-07 11:11 Tech: BPR01

Seq Number: 38354

Parameter	Cas Number	Result	Rep Limit	MDL	Units	Flag	Dil
1,2-Dibromoethane (Ethylene Dibromide)	106-93-4	BRL	0.019	0.0046	ug/L		1

Analytical Method: Select VOCs by SW8260B Prep Method: SW5030B

Date Analyzed: Nov-23-07 10:42 Analyst: MJL01 Date Prep: Nov-23-07 07:27 Tech: MJL01

Seq Number: 38349

Parameter	Cas Number	Result	Rep Limit	MDL	Units	Flag	Dil
Benzene	71-43-2	BRL	1.0	0.30	ug/L		1
Toluene	108-88-3	BRL	1.0	0.25	ug/L		1
Ethylbenzene	100-41-4	BRL	1.0	0.19	ug/L		1
Xylenes, Total	1330-20-7	BRL	1.0	0.74	ug/L		1
Methyl tert-butyl ether	1634-04-4	BRL	1.0	0.26	ug/L		1
Naphthalene	91-20-3	BRL	5.0	0.45	ug/L		1

Sample Id: **DW-4**	Matrix: **SOIL**	% Moisture:
Lab Sample Id: **13122-002**	Date Collected: **Nov-20-07 12:00**	Date Received: **Nov-21-07 09:40**
Sample Depth:		

Analytical Method: Select VOCs by SW8260B Prep Method: SW5035

Date Analyzed: Nov-24-07 13:20 Analyst: MJL01 Date Prep: Nov-24-07 10:02 Tech: MJL01

Seq Number: 38350

Parameter	Cas Number	Result	Rep Limit	MDL	Units	Flag	Dil
Benzene	71-43-2	BRL	0.75	0.53	ug/kg		1
Toluene	108-88-3	BRL	0.75	0.65	ug/kg		1
Ethylbenzene	100-41-4	BRL	0.75	0.65	ug/kg		1
Xylenes, Total	1330-20-7	BRL	1.5	1.4	ug/kg		1
Naphthalene	91-20-3	BRL	3.8	0.64	ug/kg		1

*

Version: 1.002

Certificate of Analytical Results 13122

Consultech Environmental, Inc., Cary, NC

Warren Green Property

Sample Id: **304382 BLK**	Matrix: **WATER**	% Moisture
Lab Sample Id: **304382 BLK**	Date Collected:	Date Received
Sample Depth:		

Analytical Method: Select VOCs by SW8260B — Prep Method: SW5030B

Date Analyzed: Nov-23-07 09:44 — Analyst: MJL01 — Date Prep: Nov-23-07 07:27 — Tech: MJL01

Seq Number: 38349

Parameter	Cas Number	Result	Rep Limit	MDL	Units	Flag	Dil
Benzene	71-43-2	BRL	1.0	0.30	ug/L		1
Toluene	108-88-3	BRL	1.0	0.25	ug/L		1
Ethylbenzene	100-41-4	BRL	1.0	0.19	ug/L		1
Xylenes, Total	1330-20-7	BRL	1.0	0.74	ug/L		1
Methyl tert-butyl ether	1634-04-4	BRL	1.0	0.26	ug/L		1
Naphthalene	91-20-3	BRL	5.0	0.45	ug/L		1

Sample Id: **304383 BLK**	Matrix: **SOIL**	% Moisture:
Lab Sample Id: **304383 BLK**	Date Collected:	Date Received:
Sample Depth:		

Analytical Method: Select VOCs by SW8260B — Prep Method: SW5035

Date Analyzed: Nov-24-07 12:49 — Analyst: MJL01 — Date Prep: Nov-24-07 10:02 — Tech: MJL01

Seq Number: 38350

Parameter	Cas Number	Result	Rep Limit	MDL	Units	Flag	Dil
Benzene	71-43-2	BRL	1.0	0.71	ug/kg		1
Toluene	108-88-3	BRL	1.0	0.87	ug/kg		1
Ethylbenzene	100-41-4	BRL	1.0	0.87	ug/kg		1
Xylenes, Total	1330-20-7	BRL	2.0	1.9	ug/kg		1
Naphthalene	91-20-3	BRL	5.0	0.85	ug/kg		1

Sample Id: **304387 BLK**	Matrix: **WATER**	% Moisture:
Lab Sample Id: **304387 BLK**	Date Collected:	Date Received:
Sample Depth:		

Analytical Method: EDB by SW8011 — Prep Method: EXT_SW8011

Date Analyzed: Nov-21-07 17:29 — Analyst: SK001 — Date Prep: Nov-26-07 11:11 — Tech: BPR01

Seq Number: 38354

Parameter	Cas Number	Result	Rep Limit	MDL	Units	Flag	Dil
1,2-Dibromoethane (Ethylene Dibromide)	106-93-4	BRL	0.020	0.0049	ug/L		1

*

Version: 1.002

Form 2 - Surrogate Recoveries

Project Name: Warren Green Property

Report Date: 11/26/07 13:52

Work Order #: 13122

Project ID: C-07-06-09

Lab Batch #: 38354 **Sample:** 13122-001 / SMP **Batch:** 1 **Matrix:** W

Units: ug/L

EDB / DBCP by SW8011 Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
4-Bromofluorobenzene	3.7	4.7	79	60-140	

Lab Batch #: 38354 **Sample:** 13122-001 / SMP **Batch:** 1 **Matrix:** W

Units: ug/L

EDB / DBCP by SW8011 Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
4-Bromofluorobenzene	3.7	4.7	79	60-140	

Lab Batch #: 38354 **Sample:** 304387 BLK / BLK **Batch:** 1 **Matrix:** W

Units: ug/L

EDB / DBCP by SW8011 Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
4-Bromofluorobenzene	4.4	5.0	88	60-140	

Lab Batch #: 38354 **Sample:** 304387 BLK / BLK **Batch:** 1 **Matrix:** W

Units: ug/L

EDB / DBCP by SW8011 Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
4-Bromofluorobenzene	4.3	5.0	86	60-140	

Lab Batch #: 38349 **Sample:** 13122-001 / SMP **Batch:** 1 **Matrix:** W

Units: ug/L

Select VOCs by SW8260B Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,2-Dichloroethane-d4	46.8	50.0	94	53-159	
Bromofluorobenzene	48.6	50.0	97	30-186	
Toluene-d8	48.2	50.0	96	53-152	

* Surrogate outside of Laboratory QC limits
** Surrogates outside limits; data and surrogates confirmed by reanalysis
*** Poor recoveries due to dilution
Surrogate Recovery [D] = 100 * A / B
All results are based on MDL and validated for QC purposes.

Z = Surrogate Recovery exceeded the Labortatory QC limits

Version: 1.%

Form 2 - Surrogate Recoveries

Project Name: Warren Green Property

Report Date: 11/26/07 13:52

Work Order #: 13122

Project ID: C-07-06-09

Lab Batch #: 38349 **Sample:** 304382 BLK / BLK **Batch:** 1 **Matrix:** W

Units: ug/L

Select VOCs by SW8260B Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,2-Dichloroethane-d4	48.0	50.0	96	49-146	
Bromofluorobenzene	49.0	50.0	98	74-131	
Toluene-d8	47.7	50.0	95	71-133	

Lab Batch #: 38350 **Sample:** 13122-002 / SMP **Batch:** 1 **Matrix:** S

Units: ug/kg

Select VOCs by SW8260B Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,2-Dichloroethane-d4	35.86	50.00	72	53-135	
4-Bromofluorobenzene	47.38	50.00	95	53-175	
Toluene-d8	41.75	50.00	84	56-126	

Lab Batch #: 38350 **Sample:** 304383 BLK / BLK **Batch:** 1 **Matrix:** S

Units: ug/kg

Select VOCs by SW8260B Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,2-Dichloroethane-d4	35.93	50.00	72	58-128	
4-Bromofluorobenzene	48.06	50.00	96	47-166	
Toluene-d8	43.27	50.00	87	68-120	

* Surrogate outside of Laboratory QC limits
** Surrogates outside limits; data and surrogates confirmed by reanalysis
*** Poor recoveries due to dilution
Surrogate Recovery [D] = 100 * A / B
All results are based on MDL and validated for QC purposes.
Z = Surrogate Recovery exceeded the Labortatory QC limits

Version: 1.%

XENCO Laboratories

19-DEC-07

Consultech Environmental, Inc.
PO Box 5611
Cary, NC 27512
Client Contact: Joe Ghiold

Reference: XENCO Laboratories. (XENCO) Work Order No: 13188
Warren Green Grocery
Project Number: C-07-06-09

Dear Joe Ghiold :

We are reporting to you the results of the analyses performed on the samples received under the project name referenced above and identified with the Chain of Custody(s) Numbered 217632, 217633 . All results being reported under this Chain of Custody apply to the samples analyzed and properly identified with a XENCO Sample ID number.

All the results for the quality control samples were reviewed. Also, all parameters for data reduction and validation were reviewed. In view of this, we are able to release the analytical data for this report within acceptance criteria for accuracy, precision, completeness or properly flagged.

The validity and integrity of this report will remain intact as long as it is accompanied by this letter and reproduced in full, unless written approval is granted by XENCO. This report will be filed for at least 7 years in our archives after which time it will be destroyed without further notice, unless otherwise arranged with you. The samples received, and described as recorded in COC No. 217632, 217633 will be filed for 90 days, and after that time they will be properly disposed without further notice, unless otherwise arranged with you. We reserve the right to return to you any unused samples, extracts or solutions related to them if we consider so necessary (e.g., samples identified as hazardous waste, sample sizes exceeding analytical standard practices, controlled substances under regulated protocols, etc).

We thank you for selecting XENCO Laboratories. to serve your analytical needs. If you have any questions concerning this report, please feel free to contact me at any time.

Sincerely,

David Fuller
Project Manager

6017 Financial Drive Norcross, GA 30071
Phone: 770-449-8800 Fax: 770-449-5477

XENCO LABORATORIES - ATLANTA

6017 Financial Drive, Norcross, GA 30071, Phone: (770) 449-8800
FL Certification #E87429 - NC Certification #483 - SC Certification #98015

Case Narrative

Xenco Work Order # 13188

Client Project: Warren Green Grocery / C-07-06-09

Xenco Laboratories - Atlanta certifies that the results meet all requirements of the NELAC Standards.

The data package includes a Cover letter, a 1 page case narrative, 2 Chain of Custody page, 32 analytical results pages, and 15 QC surrogate recovery pages.

The following items were noted concerning this work order:

VOCs by SW8260B Notations:

1. The pH of the water samples was <2.0 prior to the VOC analysis.
2. The RPD for Toluene was outside laboratory control limits for the MS and MSD due to possible matrix interferences.13188-015 MS/MSD.
3. The following samples required dilution due to high analyte concentration, resulting in elevated detection limits: 13188-001 (MW#1), 13188-007 (MW#7), 13188-008 (MW#8), 13188-010 (DW-1).

Dawn Sengsourichanh
VOC Analyst

December 11, 2007
Date

EDB / DBCP by SW8011 Notations:

1. The relative percent difference between blank spike and blank spike duplicate was outside the method specified limit, as indicated by the "F" qualifier for the EDB. The percent recovery of EDB in both the BKS/BSD was within the laboratory control limits.
2. The sample 13188-001 required dilutions due to high analyte concentration, resulting in elevated detection limits.
3. The relative percent difference between sample and its duplicate was outside the method specified limit, as indicated by the "F" qualifier for the EDB.

Shirin Karobi
GC Analyst

December 17, 2007
Date

Project Manager's Notations:

This Case Narrative & Notations have been generated, reviewed, and edited by:

David C. Fuller
Project Manager

December 19, 2007
Date

XENCO Laboratories

☐ 11381 Meadowglen, Suite L, Houston, TX 77082 281-589-0692
☐ 5309 Wurzbach, Suite 104, San Antonio, TX 78238 210-509-3334
☐ 9700 Harry Hines Blvd., Dallas, TX 75220 972-902-0300

ANALYSIS REQUEST & CHAIN OF CUSTODY RECORD

☐ 5757 N.W. 158th Street, Miami Lakes, Fl 33014 305-823-8500
☐ 3016 US Highway 301 N., Suite 900, Tampa, Fl 33619 813-620-2000

LAB ONLY: 13188

Serial #: 217632 Page 1 of 2

Company-City: Consultech LLC **Phone:** 919.864314

TAT: 5h 12h 24h 48h 3d 5d 7d 10d 21d Standard TAT is project specific. It is typically 5-7 Working Days for level II and 10+ Working days for level III and IV data.

Project Name ☒ Previously performed at XENCO: Warren Green Grocery **Site:** Pointe South, S.C. **Project ID:** C.07.06.09

Proj. Manager (PM): Ghould

Fax Results to ☐ PM or **e-mail to:** **Fax No:** 4317

Invoice to ☐ Accounting ☐ Inc. Invoice with Final Report ☐ Invoice must have a P.O
Bill to:

Quote No: **P.O No:** ☐ Call for a P.O.

Reg Program: CLP AFCEE **TRRP** DW UST State Other:

Target DLs (DW CRDL TRRP QAPP MDLs See Lab PM Attached Call)

TRRP PCLs: Tier 1 Tier 2 Residential Industrial

LPST No.:(Required)

Sampler Name: Van T. Chisholm Signature: Van T Chisholm

Analysis columns: BTEX by 8021 8260 602 624 Other; BTEX-MTBE by 8021 8260 624 Other; TPH by TX1005 FL-Pro 1664 8015GRO 8015DRO 418.1; PAHs by 8270 8310; Metals by 6020 200.8 8RCRA Tot Pb TCLP8 13PP 23TAL; VOCs by 8021 8260 624 VOA VOH PPs TCL; SVOCs by 8270 625 PAHs BN&A TCL PPs; FL Preburn - Revised: Virgin Non-Virgin; BTEX, NAPH, MTBE 8260 1,2 dce, 8 oxygenates; EDB; lead; Nitrate/sulfate Fe iron; Methane AQ 12/17/07; TAT 5h 12h 24h 48h 3d 5d 7d 10d 21d; Addn: PAH above mg/L W, mg/Kg S Highest Hit; Hold Disposal Hold Analysis (Surcharges will apply); Sample Clean-ups are pre-approved

13188

#	Sample ID	Sampling Date 07	Time	Depth ft' In" m	Matrix	Composite	Grab	# Containers	Container Size	Container Type	Preservatives	BTEX, NAPH, MTBE 8260 1,2 dce, 8 oxygenates	EDB	lead	Nitrate/sulfate Fe iron	Methane AQ 12/17/07	Remarks	#
1	MW# 1	12.3	0930		GW		X	6				2	2	1	1	✓	001	1
2	2	12.03	0945														002	2
3	3r		1000														003	3
4	4		1015														004	4
5	5		1040														005	5
6	6		1100														006	6
7	7		1120														007	7
8	8		1140														008	8
9	MW. 9		1200														009	9
10	~~MW#~~ DW. 1	12.3	1220		GW		X	6				2	2	1	1	✓	010	10

	Relinquished by (Initials and Sign)	Date & Time	Relinquished to (Initials and Sign)	Date & Time
1	Van T. Chisholm VTC	12.3.07/2000	T. Allen Baus	12/04/07 0944
2				
3			Lab:	

Rush Charges are Pre-Approved upon requesting them.
Instructions:
All XENCO Standard Terms and Conditions Apply.
Containers Received: Cooler Temperature: 2C

Preservatives: Various **(V)**, HCl pH<2 **(H)**, H2SO4 pH<2 **(S)**, HNO3 pH<2 **(N)**, Asbc Acid&NaOH **(A)**, ZnAc&NaOH **(Z)**, (Cool,<4C) **(C)**, None **(NA)**, See Label **(L)**, Other **(O)**
Cont. Size: 4oz **(4)**, 8oz **(8)**, 32oz **(32)**, 40ml VOA **(V)**, 1L (1), 500ml **(5)**, Tedlar Bag **(B)**, Wipe **(W)**, Other ______ **Cont. Type:** Glass Amb **(A)**, Glass Clear **(C)**, Plastic **(P)**, Other **(O)**

Matrix: Air (A), Product (P), Solid(S), Water (W)

XENCO Laboratories

☐ 11381 Meadowglen, Suite L, Houston, TX 77082 **281-589-0692**
☐ 5309 Wurzbach, Suite 104, San Antonio, TX 78238 **210-509-3334**
☐ 9700 Harry Hines Blvd., Dallas, TX 75220 **972-902-0300**

ANALYSIS REQUEST & CHAIN OF CUSTODY RECORD

☐ 5757 N.W. 158th Street, Miami Lakes, Fl 33014 **305-823-8500**
☐ 3016 US Highway 301 N., Suite 900, Tampa, Fl 33619 **813-620-2000**

LAB ONLY: 13188

Serial #: 217633 Page 2 of 2

Company-City: Consultech LLC **Phone:** 919.861.4314

TAT: 5h 12h 24h 48h 3d 5d 7d 10d 21d Standard TAT is project specific. It is typically 5-7 Working Days for level II and 10+ Working days for level III and IV data.

Project Name: Warren Green Grocery ☒ Previously performed at XENCO **Site:** Pointe South, S.C. **Project ID:** C.07.06.09

Proj. Manager (PM): Ghould

Fax Results to ☐ PM or **e-mail to:** **Fax No:** 4317

Invoice to ☐ Accounting ☐ Inc. Invoice with Final Report ☐ Invoice must have a P.O

Bill to:

Quote No: **P.O No:** ☐ Call for a P.O.

Reg Program: CLP AFCEE **TRRP** DW UST State Other:

Target DLs (DW CRDL TRRP QAPP MDLs See Lab PM Attached Call)

TRRP PCLs: Tier 1 Tier 2 Residential Industrial

LPST No.:(Required)

Sampler Name Van T. Chisholm **Signature** Van T. Chisholm

Analyses (column headings): BTEX by 8021 8260 602 624 Other; BTEX-MTBE by 8021 8260 624 Other; TPH by TX1005 FL-Pro 1664 8015GRO 8015DRO 418.1; PAHs by 8270 8310; Metals by 6020 200.8 8RCRA Tot Pb TCLP8 13PP 23TAL; VOCs by 8021 8260 624 VOA VOH PPs TCL; SVOCs by 8270 625 PAHs BN&A TCL PPs; FL Preburn - Revised: Virgin Non-Virgin; BTEX, NAPH, MTBE, 8260 & oxygenates, 1,2DCA; EDB; lead; nitrate/sulfate Fe iron; Methane DCJ 12/17/07; TAT 5h 12h 24h 48h 3d 5d 7d 10d 21d; Addn: PAH above mg/L W, mg/Kg S Highest Hit; Hold Disposal Hold Analysis (Surcharges will apply); Sample Clean-ups are pre-approved

13188

	Sample ID	Sampling Date ('07)	Time	Matrix	Grab	# Containers	BTEX, NAPH, MTBE, 8260 & oxygenates	EDB	lead	nitrate/sulfate Fe iron	Methane	Remarks	
1	DW 2	12.3	1240	GW	X	6	2	2	1	1	✓	011	1
2	DW 3		1300	GW	X	6	2	2	1	1		012	2
3	DW 4		1320	GW	X	6	2	2	1	1		013	3
4	WSW-1		1325	DW	X	6	2	2	NO 8-oxygenates			014	4
5	2		1330	DW	X	6	2	2				015	5
6	3		1335	DW	X	6	2	2				016	6
7	WSW 4	12.3	1340	DW	X	6	2	2				017	7
8													8
9													9
10													10

NO METHANE FOR -014 ⇒ -016 DCJ 12/19/07

	Relinquished by (Initials and Sign)	Date & Time	Relinquished to (Initials and Sign)	Date & Time
1	Van T. Chisholm	12.3.07/2000	T. Alba Barnes	12/4/07 0944
2				
3			Lab:	

Rush Charges are Pre-Approved upon requesting them.

Instructions:

All XENCO Standard Terms and Conditions Apply.

Containers Received: Cooler Temperature: 2°C

Preservatives: Various **(V)**, HCl pH<2 **(H)**, H2SO4 pH<2 **(S)**, HNO3 pH<2 **(N)**, Asbc Acid&NaOH **(A)**, ZnAc&NaOH **(Z)**, (Cool,<4C) **(C)**, None **(NA)**, See Label **(L)**, Other **(O)**

Cont. Size: 4oz **(4)**, 8oz **(8)**, 32oz **(32)**, 40ml VOA **(V)**, 1L **(1)**, 500ml **(5)**, Tedlar Bag **(B)**, Wipe **(W)**, Other ______ **Cont. Type:** Glass Amb **(A)**, Glass Clear **(C)**, Plastic **(P)**, Other **(O)**

Matrix: Air (A), Product (P), Solid(S), Water (W)

XENCO Laboratories

Certificate of Analytical Results 13188

Consultech Environmental, Inc., Cary, NC

Warren Green Grocery

Sample Id: **MW # 1**	Matrix: **WATER**	% Moisture:
Lab Sample Id: **13188-001**	Date Collected: **Dec-03-07 09:30**	Date Received: **Dec-04-07 09:44**
Sample Depth:		

Analytical Method: Dissolved Iron by SW6010B Prep Method: SW3005A

Date Analyzed: Dec-06-07 13:36 Analyst: MCJ01 Date Prep: Dec-06-07 12:30 Tech: MSN01
Seq Number: 38525

Parameter	Cas Number	Result	Rep Limit	MDL	Units	Flag	Dil
Iron (Dissolved)	7439-89-6	14.1	0.100	0.0167	mg/L		1

Analytical Method: EDB by SW8011 Prep Method: EXT_SW8011

Date Analyzed: Dec-10-07 22:47 Analyst: SK001 Date Prep: Dec-17-07 14:11 Tech: BPR01
Seq Number: 38735

Parameter	Cas Number	Result	Rep Limit	MDL	Units	Flag	Dil
1,2-Dibromoethane (Ethylene Dibromide)	106-93-4	0.97	0.089	0.022	ug/L		5

Analytical Method: Lead by SW6010B Prep Method: SW3010A

Date Analyzed: Dec-10-07 13:08 Analyst: MCJ01 Date Prep: Dec-06-07 11:00 Tech: MSN01
Seq Number: 38568

Parameter	Cas Number	Result	Rep Limit	MDL	Units	Flag	Dil
Lead	7439-92-1	0.0128	0.0100	0.00390	mg/L		1

Analytical Method: Methane by Mod. RSK 175 Prep Method: SW5030B

Date Analyzed: Dec-17-07 16:21 Analyst: SPK01 Date Prep: Dec-17-07 15:07 Tech: SPK01
Seq Number: 38760

Parameter	Cas Number	Result	Rep Limit	MDL	Units	Flag	Dil
Methane	74-82-8	0.010	0.003	0.002	mg/L		1

Analytical Method: Nitrate & Sulfate by SW9056 Prep Method:

Date Analyzed: Dec-05-07 03:21 Analyst: SVA01 Date Prep: Tech: SVA01
Seq Number: 38513

Parameter	Cas Number	Result	Rep Limit	MDL	Units	Flag	Dil
Nitrate	14797-55-8	0.39	0.10	0.027	mg/L		1
Sulfate	14808-79-8	4.8	1.0	0.062	mg/L		1

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Certificate of Analytical Results 13188

Consultech Environmental, Inc., Cary, NC

Warren Green Grocery

Sample Id: **MW # 1** Matrix: **WATER** % Moisture:
Lab Sample Id: **13188-001** Date Collected: **Dec-03-07 09:30** Date Received: **Dec-04-07 09:44**
Sample Depth:

Analytical Method: VOCs by SW8260B w/Naphthalene, MTBE, Oxygenates Prep Method: SW5030B

Date Analyzed: Dec-06-07 18:37 Analyst: MDS01 Date Prep: Dec-05-07 07:36 Tech: MJL01
Seq Number: 38532

Parameter	Cas Number	Result	Rep Limit	MDL	Units	Flag	Dil
Benzene	71-43-2	9000	100	67	ug/L		100
Toluene	108-88-3	24000	500	340	ug/L		500
Ethylbenzene	100-41-4	4900	100	66	ug/L		100
Xylenes, Total	1330-20-7	29000	100	180	ug/L		100
Methyl tert-butyl ether	1634-04-4	620	100	62	ug/L		100
Naphthalene	91-20-3	620	500	400	ug/L		100
1,2-Dichloroethane	107-06-2	BRL	5.0	0.82	ug/L		1
Diisopropyl ether	108-20-3	BRL	5.0	0.89	ug/L		1
Ethanol	64-17-5	BRL	100	55	ug/L		1
Ethyl tert-butyl alcohol	590-36-3	BRL	25	17	ug/L		1
Ethyl tert-butyl ether	637-92-3	BRL	5.0	1.1	ug/L		1
Tert-Amyl alcohol	75-85-4	2600	25	15	ug/L		1
tert-Amyl methyl ether	994-05-8	BRL	5.0	1.1	ug/L		1
tert-Butyl alcohol	75-65-0	BRL	25	1.1	ug/L		1
tert-Butyl formate	762-75-4	BRL	25	18	ug/L		1

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Certificate of Analytical Results 13188

Consultech Environmental, Inc., Cary, NC

Warren Green Grocery

Sample Id: **MW # 2**	Matrix: **WATER**	% Moisture:
Lab Sample Id: **13188-002**	Date Collected: **Dec-03-07 09:45**	Date Received: **Dec-04-07 09:44**
Sample Depth:		

Analytical Method: Dissolved Iron by SW6010B — Prep Method: SW3005A

Date Analyzed: Dec-06-07 13:45 — Analyst: MCJ01 — Seq Number: 38525 — Date Prep: Dec-06-07 12:30 — Tech: MSN01

Parameter	Cas Number	Result	Rep Limit	MDL	Units	Flag	Dil
Iron (Dissolved)	7439-89-6	0.326	0.100	0.0167	mg/L		1

Analytical Method: EDB by SW8011 — Prep Method: EXT_SW8011

Date Analyzed: Dec-07-07 17:42 — Analyst: SK001 — Seq Number: 38542 — Date Prep: Dec-07-07 15:00 — Tech: SK001

Parameter	Cas Number	Result	Rep Limit	MDL	Units	Flag	Dil
1,2-Dibromoethane (Ethylene Dibromide)	106-93-4	BRL	0.022	0.0054	ug/L		1

Analytical Method: Lead by SW6010B — Prep Method: SW3010A

Date Analyzed: Dec-10-07 13:23 — Analyst: MCJ01 — Seq Number: 38568 — Date Prep: Dec-06-07 11:00 — Tech: MSN01

Parameter	Cas Number	Result	Rep Limit	MDL	Units	Flag	Dil
Lead	7439-92-1	0.0213	0.0100	0.00390	mg/L		1

Analytical Method: Methane by Mod. RSK 175 — Prep Method: SW5030B

Date Analyzed: Dec-17-07 16:24 — Analyst: SPK01 — Seq Number: 38760 — Date Prep: Dec-17-07 15:07 — Tech: SPK01

Parameter	Cas Number	Result	Rep Limit	MDL	Units	Flag	Dil
Methane	74-82-8	BRL	0.003	0.002	mg/L		1

Analytical Method: Nitrate & Sulfate by SW9056 — Prep Method:

Date Analyzed: Dec-05-07 04:31 — Analyst: SVA01 — Seq Number: 38513 — Date Prep: — Tech: SVA01

Parameter	Cas Number	Result	Rep Limit	MDL	Units	Flag	Dil
Nitrate	14797-55-8	0.77	0.10	0.027	mg/L		1
Sulfate	14808-79-8	6.2	1.0	0.062	mg/L		1

Certificate of Analytical Results 13188

Consultech Environmental, Inc., Cary, NC

Warren Green Grocery

Sample Id: **MW # 2** | Matrix: **WATER** | % Moisture:

Lab Sample Id: **13188-002** | Date Collected: **Dec-03-07 09:45** | Date Received: **Dec-04-07 09:44**

Sample Depth:

Analytical Method: VOCs by SW8260B w/Naphthalene, MTBE, Oxygenates | Prep Method: SW5030B

Date Analyzed: Dec-06-07 18:07 | Analyst: MDS01 | Date Prep: Dec-05-07 07:36 | Tech: MJL01

Seq Number: 38532

Parameter	Cas Number	Result	Rep Limit	MDL	Units	Flag	Dil
Benzene	71-43-2	BRL	1.0	0.67	ug/L		1
Toluene	108-88-3	3.6	1.0	0.68	ug/L		1
Ethylbenzene	100-41-4	1.4	1.0	0.66	ug/L		1
Xylenes, Total	1330-20-7	7.4	1.0	1.8	ug/L		1
Methyl tert-butyl ether	1634-04-4	15	1.0	0.62	ug/L		1
Naphthalene	91-20-3	BRL	5.0	4.0	ug/L		1
1,2-Dichloroethane	107-06-2	BRL	5.0	0.82	ug/L		1
Diisopropyl ether	108-20-3	BRL	5.0	0.89	ug/L		1
Ethanol	64-17-5	BRL	100	55	ug/L		1
Ethyl tert-butyl alcohol	590-36-3	BRL	25	17	ug/L		1
Ethyl tert-butyl ether	637-92-3	BRL	5.0	1.1	ug/L		1
Tert-Amyl alcohol	75-85-4	BRL	25	15	ug/L		1
tert-Amyl methyl ether	994-05-8	BRL	5.0	1.1	ug/L		1
tert-Butyl alcohol	75-65-0	BRL	25	1.1	ug/L		1
tert-Butyl formate	762-75-4	BRL	25	18	ug/L		1

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Certificate of Analytical Results 13188

Consultech Environmental, Inc., Cary, NC

Warren Green Grocery

Sample Id: **MW # 3r**	Matrix: **WATER**	% Moisture:
Lab Sample Id: **13188-003**	Date Collected: **Dec-03-07 10:00**	Date Received: **Dec-04-07 09:44**
Sample Depth:		

Analytical Method: Dissolved Iron by SW6010B — Prep Method: SW3005A

Date Analyzed: Dec-06-07 13:48 — Analyst: MCJ01 — Date Prep: Dec-06-07 12:30 — Tech: MSN01
Seq Number: 38525

Parameter	Cas Number	Result	Rep Limit	MDL	Units	Flag	Dil
Iron (Dissolved)	7439-89-6	1.89	0.100	0.0167	mg/L		1

Analytical Method: EDB by SW8011 — Prep Method: EXT_SW8011

Date Analyzed: Dec-07-07 18:03 — Analyst: SK001 — Date Prep: Dec-07-07 15:00 — Tech: SK001
Seq Number: 38542

Parameter	Cas Number	Result	Rep Limit	MDL	Units	Flag	Dil
1,2-Dibromoethane (Ethylene Dibromide)	106-93-4	BRL	0.022	0.0053	ug/L		1

Analytical Method: Lead by SW6010B — Prep Method: SW3010A

Date Analyzed: Dec-10-07 13:25 — Analyst: MCJ01 — Date Prep: Dec-06-07 11:00 — Tech: MSN01
Seq Number: 38568

Parameter	Cas Number	Result	Rep Limit	MDL	Units	Flag	Dil
Lead	7439-92-1	0.277	0.0100	0.00390	mg/L		1

Analytical Method: Methane by Mod. RSK 175 — Prep Method: SW5030B

Date Analyzed: Dec-17-07 16:29 — Analyst: SPK01 — Date Prep: Dec-17-07 15:07 — Tech: SPK01
Seq Number: 38760

Parameter	Cas Number	Result	Rep Limit	MDL	Units	Flag	Dil
Methane	74-82-8	0.010	0.003	0.002	mg/L		1

Analytical Method: Nitrate & Sulfate by SW9056 — Prep Method:

Date Analyzed: Dec-05-07 04:48 — Analyst: SVA01 — Date Prep: — Tech: SVA01
Seq Number: 38513

Parameter	Cas Number	Result	Rep Limit	MDL	Units	Flag	Dil
Nitrate	14797-55-8	0.61	0.10	0.027	mg/L		1
Sulfate	14808-79-8	12	1.0	0.062	mg/L		1

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Consultech Environmental, Inc., Cary, NC

Warren Green Grocery

Sample Id: **MW # 3r**	Matrix: **WATER**	% Moisture:
Lab Sample Id: **13188-003**	Date Collected: **Dec-03-07 10:00**	Date Received: **Dec-04-07 09:44**
Sample Depth:		

Analytical Method: VOCs by SW8260B w/Naphthalene, MTBE, Oxygenates Prep Method: SW5030B

Date Analyzed: Dec-07-07 11:09 Analyst: MDS01 Date Prep: Dec-07-07 07:37 Tech: MDS01

Seq Number: 38564

Parameter	Cas Number	Result	Rep Limit	MDL	Units	Flag	Dil
Benzene	71-43-2	BRL	1.0	0.67	ug/L		1
Toluene	108-88-3	BRL	1.0	0.68	ug/L		1
Ethylbenzene	100-41-4	BRL	1.0	0.66	ug/L		1
Xylenes, Total	1330-20-7	BRL	1.0	1.8	ug/L		1
Methyl tert-butyl ether	1634-04-4	BRL	1.0	0.62	ug/L		1
Naphthalene	91-20-3	BRL	5.0	4.0	ug/L		1
1,2-Dichloroethane	107-06-2	BRL	5.0	0.82	ug/L		1
Diisopropyl ether	108-20-3	BRL	5.0	0.89	ug/L		1
Ethanol	64-17-5	BRL	100	55	ug/L		1
Ethyl tert-butyl alcohol	590-36-3	BRL	25	17	ug/L		1
Ethyl tert-butyl ether	637-92-3	BRL	5.0	1.1	ug/L		1
Tert-Amyl alcohol	75-85-4	BRL	25	15	ug/L		1
tert-Amyl methyl ether	994-05-8	BRL	5.0	1.1	ug/L		1
tert-Butyl alcohol	75-65-0	BRL	25	1.1	ug/L		1
tert-Butyl formate	762-75-4	BRL	25	18	ug/L		1

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Consultech Environmental, Inc., Cary, NC

Warren Green Grocery

Sample Id: **MW # 4**	Matrix: **WATER**	% Moisture:
Lab Sample Id: **13188-004**	Date Collected: **Dec-03-07 10:15**	Date Received: **Dec-04-07 09:44**
Sample Depth:		

Analytical Method: Dissolved Iron by SW6010B — Prep Method: SW3005A

Date Analyzed: Dec-06-07 13:50 Analyst: MCJ01 Date Prep: Dec-06-07 12:30 Tech: MSN01
Seq Number: 38525

Parameter	Cas Number	Result	Rep Limit	MDL	Units	Flag	Dil
Iron (Dissolved)	7439-89-6	8.72	0.100	0.0167	mg/L		1

Analytical Method: EDB by SW8011 — Prep Method: EXT_SW8011

Date Analyzed: Dec-07-07 18:25 Analyst: SK001 Date Prep: Dec-07-07 15:00 Tech: SK001
Seq Number: 38542

Parameter	Cas Number	Result	Rep Limit	MDL	Units	Flag	Dil
1,2-Dibromoethane (Ethylene Dibromide)	106-93-4	BRL	0.022	0.0054	ug/L		1

Analytical Method: Lead by SW6010B — Prep Method: SW3010A

Date Analyzed: Dec-10-07 13:28 Analyst: MCJ01 Date Prep: Dec-06-07 11:00 Tech: MSN01
Seq Number: 38568

Parameter	Cas Number	Result	Rep Limit	MDL	Units	Flag	Dil
Lead	7439-92-1	0.0851	0.0100	0.00390	mg/L		1

Analytical Method: Methane by Mod. RSK 175 — Prep Method: SW5030B

Date Analyzed: Dec-17-07 16:32 Analyst: SPK01 Date Prep: Dec-17-07 15:07 Tech: SPK01
Seq Number: 38760

Parameter	Cas Number	Result	Rep Limit	MDL	Units	Flag	Dil
Methane	74-82-8	0.004	0.003	0.002	mg/L		1

Analytical Method: Nitrate & Sulfate by SW9056 — Prep Method:

Date Analyzed: Dec-05-07 05:05 Analyst: SVA01 Date Prep: Tech: SVA01
Seq Number: 38513

Parameter	Cas Number	Result	Rep Limit	MDL	Units	Flag	Dil
Nitrate	14797-55-8	0.24	0.10	0.027	mg/L		1
Sulfate	14808-79-8	2.0	1.0	0.062	mg/L		1

Certificate of Analytical Results 13188

Consultech Environmental, Inc., Cary, NC

Warren Green Grocery

Sample Id: **MW # 4** Matrix: **WATER** % Moisture:
Lab Sample Id: **13188-004** Date Collected: **Dec-03-07 10:15** Date Received: **Dec-04-07 09:44**
Sample Depth:

Analytical Method: VOCs by SW8260B w/Naphthalene, MTBE, Oxygenates Prep Method: SW5030B

Date Analyzed: Dec-07-07 11:40 Analyst: MDS01 Date Prep: Dec-07-07 07:37 Tech: MDS01
Seq Number: 38564

Parameter	Cas Number	Result	Rep Limit	MDL	Units	Flag	Dil
Benzene	71-43-2	BRL	1.0	0.67	ug/L		1
Toluene	108-88-3	BRL	1.0	0.68	ug/L		1
Ethylbenzene	100-41-4	BRL	1.0	0.66	ug/L		1
Xylenes, Total	1330-20-7	BRL	1.0	1.8	ug/L		1
Methyl tert-butyl ether	1634-04-4	BRL	1.0	0.62	ug/L		1
Naphthalene	91-20-3	BRL	5.0	4.0	ug/L		1
1,2-Dichloroethane	107-06-2	BRL	5.0	0.82	ug/L		1
Diisopropyl ether	108-20-3	BRL	5.0	0.89	ug/L		1
Ethanol	64-17-5	BRL	100	55	ug/L		1
Ethyl tert-butyl alcohol	590-36-3	BRL	25	17	ug/L		1
Ethyl tert-butyl ether	637-92-3	BRL	5.0	1.1	ug/L		1
Tert-Amyl alcohol	75-85-4	BRL	25	15	ug/L		1
tert-Amyl methyl ether	994-05-8	BRL	5.0	1.1	ug/L		1
tert-Butyl alcohol	75-65-0	BRL	25	1.1	ug/L		1
tert-Butyl formate	762-75-4	BRL	25	18	ug/L		1

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Consultech Environmental, Inc., Cary, NC

Warren Green Grocery

Sample Id: **MW # 5**	Matrix: **WATER**	% Moisture:
Lab Sample Id: **13188-005**	Date Collected: **Dec-03-07 10:40**	Date Received: **Dec-04-07 09:44**
Sample Depth:		

Analytical Method: Dissolved Iron by SW6010B Prep Method: SW3005A

Date Analyzed: Dec-06-07 13:58 Analyst: MCJ01 Seq Number: 38525 Date Prep: Dec-06-07 12:30 Tech: MSN01

Parameter	Cas Number	Result	Rep Limit	MDL	Units	Flag	Dil
Iron (Dissolved)	7439-89-6	2.77	0.100	0.0167	mg/L		1

Analytical Method: EDB by SW8011 Prep Method: EXT_SW8011

Date Analyzed: Dec-08-07 04:45 Analyst: SK001 Seq Number: 38732 Date Prep: Dec-17-07 14:03 Tech: BPR01

Parameter	Cas Number	Result	Rep Limit	MDL	Units	Flag	Dil
1,2-Dibromoethane (Ethylene Dibromide)	106-93-4	BRL	0.020	0.0050	ug/L		1

Analytical Method: Lead by SW6010B Prep Method: SW3010A

Date Analyzed: Dec-10-07 13:30 Analyst: MCJ01 Seq Number: 38568 Date Prep: Dec-06-07 11:00 Tech: MSN01

Parameter	Cas Number	Result	Rep Limit	MDL	Units	Flag	Dil
Lead	7439-92-1	0.0653	0.0100	0.00390	mg/L		1

Analytical Method: Methane by Mod. RSK 175 Prep Method: SW5030B

Date Analyzed: Dec-17-07 16:34 Analyst: SPK01 Seq Number: 38760 Date Prep: Dec-17-07 15:07 Tech: SPK01

Parameter	Cas Number	Result	Rep Limit	MDL	Units	Flag	Dil
Methane	74-82-8	BRL	0.003	0.002	mg/L		1

Analytical Method: Nitrate & Sulfate by SW9056 Prep Method:

Date Analyzed: Dec-05-07 05:23 Analyst: SVA01 Seq Number: 38513 Date Prep: Tech: SVA01

Parameter	Cas Number	Result	Rep Limit	MDL	Units	Flag	Dil
Nitrate	14797-55-8	0.24	0.10	0.027	mg/L		1
Sulfate	14808-79-8	2.0	1.0	0.062	mg/L		1

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Certificate of Analytical Results 13188

Consultech Environmental, Inc., Cary, NC

Warren Green Grocery

Sample Id: **MW # 5**
Lab Sample Id: **13188-005**
Sample Depth:

Matrix: **WATER**
Date Collected: **Dec-03-07 10:40**

% Moisture:
Date Received: **Dec-04-07 09:44**

Analytical Method: **VOCs by SW8260B w/Naphthalene, MTBE, Oxygenates**

Prep Method: SW5030B

Date Analyzed: Dec-07-07 12:10

Analyst: MDS01
Seq Number: 38564

Date Prep: Dec-07-07 07:37

Tech: MDS01

Parameter	Cas Number	Result	Rep Limit	MDL	Units	Flag	Dil
Benzene	71-43-2	BRL	1.0	0.67	ug/L		1
Toluene	108-88-3	BRL	1.0	0.68	ug/L		1
Ethylbenzene	100-41-4	BRL	1.0	0.66	ug/L		1
Xylenes, Total	1330-20-7	BRL	1.0	1.8	ug/L		1
Methyl tert-butyl ether	1634-04-4	BRL	1.0	0.62	ug/L		1
Naphthalene	91-20-3	BRL	5.0	4.0	ug/L		1
1,2-Dichloroethane	107-06-2	BRL	5.0	0.82	ug/L		1
Diisopropyl ether	108-20-3	BRL	5.0	0.89	ug/L		1
Ethanol	64-17-5	BRL	100	55	ug/L		1
Ethyl tert-butyl alcohol	590-36-3	BRL	25	17	ug/L		1
Ethyl tert-butyl ether	637-92-3	BRL	5.0	1.1	ug/L		1
Tert-Amyl alcohol	75-85-4	BRL	25	15	ug/L		1
tert-Amyl methyl ether	994-05-8	BRL	5.0	1.1	ug/L		1
tert-Butyl alcohol	75-65-0	BRL	25	1.1	ug/L		1
tert-Butyl formate	762-75-4	BRL	25	18	ug/L		1

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Consultech Environmental, Inc., Cary, NC

Warren Green Grocery

Sample Id: **MW # 6**	Matrix: **WATER**	% Moisture:
Lab Sample Id: **13188-006**	Date Collected: **Dec-03-07 11:00**	Date Received: **Dec-04-07 09:44**
Sample Depth:		

Analytical Method: Dissolved Iron by SW6010B Prep Method: SW3005A

Date Analyzed: Dec-06-07 14:00 Analyst: MCJ01 Date Prep: Dec-06-07 12:30 Tech: MSN01

Seq Number: 38525

Parameter	Cas Number	Result	Rep Limit	MDL	Units	Flag	Dil
Iron (Dissolved)	7439-89-6	0.669	0.100	0.0167	mg/L		1

Analytical Method: EDB by SW8011 Prep Method: EXT_SW8011

Date Analyzed: Dec-08-07 05:07 Analyst: SK001 Date Prep: Dec-17-07 14:03 Tech: BPR01

Seq Number: 38732

Parameter	Cas Number	Result	Rep Limit	MDL	Units	Flag	Dil
1,2-Dibromoethane (Ethylene Dibromide)	106-93-4	BRL	0.021	0.0052	ug/L		1

Analytical Method: Lead by SW6010B Prep Method: SW3010A

Date Analyzed: Dec-10-07 13:33 Analyst: MCJ01 Date Prep: Dec-06-07 11:00 Tech: MSN01

Seq Number: 38568

Parameter	Cas Number	Result	Rep Limit	MDL	Units	Flag	Dil
Lead	7439-92-1	0.0727	0.0100	0.00390	mg/L		1

Analytical Method: Methane by Mod. RSK 175 Prep Method: SW5030B

Date Analyzed: Dec-17-07 16:36 Analyst: SPK01 Date Prep: Dec-17-07 15:07 Tech: SPK01

Seq Number: 38760

Parameter	Cas Number	Result	Rep Limit	MDL	Units	Flag	Dil
Methane	74-82-8	0.003	0.003	0.002	mg/L		1

Analytical Method: Nitrate & Sulfate by SW9056 Prep Method:

Date Analyzed: Dec-05-07 06:15 Analyst: SVA01 Date Prep: Tech: SVA01

Seq Number: 38513

Parameter	Cas Number	Result	Rep Limit	MDL	Units	Flag	Dil
Nitrate	14797-55-8	0.28	0.10	0.027	mg/L		1
Sulfate	14808-79-8	2.0	1.0	0.062	mg/L		1

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Consultech Environmental, Inc., Cary, NC

Warren Green Grocery

Sample Id: **MW # 6**	Matrix: **WATER**	% Moisture:
Lab Sample Id: **13188-006**	Date Collected: **Dec-03-07 11:00**	Date Received: **Dec-04-07 09:44**
Sample Depth:		

Analytical Method: VOCs by SW8260B w/Naphthalene, MTBE, Oxygenates Prep Method: SW5030B

Date Analyzed: Dec-07-07 12:41 Analyst: MDS01 Date Prep: Dec-07-07 07:37 Tech: MDS01

Seq Number: 38564

Parameter	Cas Number	Result	Rep Limit	MDL	Units	Flag	Dil
Benzene	71-43-2	BRL	1.0	0.67	ug/L		1
Toluene	108-88-3	BRL	1.0	0.68	ug/L		1
Ethylbenzene	100-41-4	BRL	1.0	0.66	ug/L		1
Xylenes, Total	1330-20-7	BRL	1.0	1.8	ug/L		1
Methyl tert-butyl ether	1634-04-4	BRL	1.0	0.62	ug/L		1
Naphthalene	91-20-3	BRL	5.0	4.0	ug/L		1
1,2-Dichloroethane	107-06-2	BRL	5.0	0.82	ug/L		1
Diisopropyl ether	108-20-3	BRL	5.0	0.89	ug/L		1
Ethanol	64-17-5	BRL	100	55	ug/L		1
Ethyl tert-butyl alcohol	590-36-3	BRL	25	17	ug/L		1
Ethyl tert-butyl ether	637-92-3	BRL	5.0	1.1	ug/L		1
Tert-Amyl alcohol	75-85-4	BRL	25	15	ug/L		1
tert-Amyl methyl ether	994-05-8	BRL	5.0	1.1	ug/L		1
tert-Butyl alcohol	75-65-0	BRL	25	1.1	ug/L		1
tert-Butyl formate	762-75-4	BRL	25	18	ug/L		1

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Consultech Environmental, Inc., Cary, NC

Warren Green Grocery

Sample Id: **MW # 7** | Matrix: **WATER** | % Moisture:
Lab Sample Id: **13188-007** | Date Collected: **Dec-03-07 11:20** | Date Received: **Dec-04-07 09:44**
Sample Depth:

Analytical Method: Dissolved Iron by SW6010B | Prep Method: SW3005A
Date Analyzed: Dec-06-07 14:03 | Analyst: MCJ01 | Date Prep: Dec-06-07 12:30 | Tech: MSN01
Seq Number: 38525

Parameter	Cas Number	Result	Rep Limit	MDL	Units	Flag	Dil
Iron (Dissolved)	7439-89-6	0.660	0.100	0.0167	mg/L		1

Analytical Method: EDB by SW8011 | Prep Method: EXT_SW8011
Date Analyzed: Dec-08-07 05:28 | Analyst: SK001 | Date Prep: Dec-17-07 14:03 | Tech: BPR01
Seq Number: 38732

Parameter	Cas Number	Result	Rep Limit	MDL	Units	Flag	Dil
1,2-Dibromoethane (Ethylene Dibromide)	106-93-4	BRL	0.022	0.0053	ug/L		1

Analytical Method: Lead by SW6010B | Prep Method: SW3010A
Date Analyzed: Dec-10-07 13:35 | Analyst: MCJ01 | Date Prep: Dec-06-07 11:00 | Tech: MSN01
Seq Number: 38568

Parameter	Cas Number	Result	Rep Limit	MDL	Units	Flag	Dil
Lead	7439-92-1	0.115	0.0100	0.00390	mg/L		1

Analytical Method: Methane by Mod. RSK 175 | Prep Method: SW5030B
Date Analyzed: Dec-17-07 16:37 | Analyst: SPK01 | Date Prep: Dec-17-07 15:07 | Tech: SPK01
Seq Number: 38760

Parameter	Cas Number	Result	Rep Limit	MDL	Units	Flag	Dil
Methane	74-82-8	0.006	0.003	0.002	mg/L		1

Analytical Method: Nitrate & Sulfate by SW9056 | Prep Method:
Date Analyzed: Dec-05-07 06:32 | Analyst: SVA01 | Date Prep: | Tech: SVA01
Seq Number: 38513

Parameter	Cas Number	Result	Rep Limit	MDL	Units	Flag	Dil
Nitrate	14797-55-8	BRL	0.10	0.027	mg/L		1
Sulfate	14808-79-8	BRL	1.0	0.062	mg/L		1

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Warren Green Grocery

Sample Id: **MW # 7**	Matrix: **WATER**	% Moisture:
Lab Sample Id: **13188-007**	Date Collected: **Dec-03-07 11:20**	Date Received: **Dec-04-07 09:44**
Sample Depth:		

Analytical Method: VOCs by SW8260B w/Naphthalene, MTBE, Oxygenates Prep Method: SW5030B

Date Analyzed: Dec-10-07 09:53 Analyst: MDS01 Date Prep: Dec-10-07 07:30 Tech: MDS01

Seq Number: 38581

Parameter	Cas Number	Result	Rep Limit	MDL	Units	Flag	Dil
Benzene	71-43-2	280	10	6.7	ug/L		10
Toluene	108-88-3	150	1.0	0.68	ug/L		1
Ethylbenzene	100-41-4	92	1.0	0.66	ug/L		1
Xylenes, Total	1330-20-7	770	10	18	ug/L		10
Methyl tert-butyl ether	1634-04-4	7.1	1.0	0.62	ug/L		1
Naphthalene	91-20-3	32	5.0	4.0	ug/L		1
1,2-Dichloroethane	107-06-2	7.2	5.0	0.82	ug/L		1
Ethanol	64-17-5	BRL	100	55	ug/L		1
Ethyl tert-butyl alcohol	590-36-3	170	25	17	ug/L		1
Ethyl tert-butyl ether	637-92-3	BRL	5.0	1.1	ug/L		1
Tert-Amyl alcohol	75-85-4	260	25	15	ug/L		1
tert-Amyl methyl ether	994-05-8	BRL	5.0	1.1	ug/L		1
tert-Butyl alcohol	75-65-0	BRL	25	1.1	ug/L		1
tert-Butyl formate	762-75-4	BRL	25	18	ug/L		1

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Warren Green Grocery

Sample Id: **MW # 8**	Matrix: **WATER**	% Moisture:
Lab Sample Id: **13188-008**	Date Collected: **Dec-03-07 11:40**	Date Received: **Dec-04-07 09:44**
Sample Depth:		

Analytical Method: Dissolved Iron by SW6010B — Prep Method: SW3005A

Date Analyzed: Dec-06-07 14:05 Analyst: MCJ01 Date Prep: Dec-06-07 12:30 Tech: MSN01

Seq Number: 38525

Parameter	Cas Number	Result	Rep Limit	MDL	Units	Flag	Dil
Iron (Dissolved)	7439-89-6	1.04	0.100	0.0167	mg/L		1

Analytical Method: EDB by SW8011 — Prep Method: EXT_SW8011

Date Analyzed: Dec-08-07 05:50 Analyst: SK001 Date Prep: Dec-17-07 14:03 Tech: BPR01

Seq Number: 38732

Parameter	Cas Number	Result	Rep Limit	MDL	Units	Flag	Dil
1,2-Dibromoethane (Ethylene Dibromide)	106-93-4	BRL	0.022	0.0053	ug/L		1

Analytical Method: Lead by SW6010B — Prep Method: SW3010A

Date Analyzed: Dec-10-07 13:37 Analyst: MCJ01 Date Prep: Dec-06-07 11:00 Tech: MSN01

Seq Number: 38568

Parameter	Cas Number	Result	Rep Limit	MDL	Units	Flag	Dil
Lead	7439-92-1	0.136	0.0100	0.00390	mg/L		1

Analytical Method: Methane by Mod. RSK 175 — Prep Method: SW5030B

Date Analyzed: Dec-17-07 16:39 Analyst: SPK01 Date Prep: Dec-17-07 15:07 Tech: SPK01

Seq Number: 38760

Parameter	Cas Number	Result	Rep Limit	MDL	Units	Flag	Dil
Methane	74-82-8	0.026	0.003	0.002	mg/L		1

Analytical Method: Nitrate & Sulfate by SW9056 — Prep Method:

Date Analyzed: Dec-05-07 06:50 Analyst: SVA01 Date Prep: Tech: SVA01

Seq Number: 38513

Parameter	Cas Number	Result	Rep Limit	MDL	Units	Flag	Dil
Nitrate	14797-55-8	0.42	0.10	0.027	mg/L		1
Sulfate	14808-79-8	6.0	1.0	0.062	mg/L		1

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Warren Green Grocery

Sample Id: **MW # 8** Matrix: **WATER** % Moisture:
Lab Sample Id: **13188-008** Date Collected: **Dec-03-07 11:40** Date Received: **Dec-04-07 09:44**
Sample Depth:

Analytical Method: VOCs by SW8260B w/Naphthalene, MTBE, Oxygenates Prep Method: SW5030B

Date Analyzed: Dec-10-07 10:24 Analyst: MDS01 Date Prep: Dec-10-07 07:30 Tech: MDS01
Seq Number: 38581

Parameter	Cas Number	Result	Rep Limit	MDL	Units	Flag	Dil
Benzene	71-43-2	590	20	13	ug/L		20
Toluene	108-88-3	2200	20	14	ug/L		20
Ethylbenzene	100-41-4	750	20	13	ug/L		20
Xylenes, Total	1330-20-7	4200	20	36	ug/L		20
Methyl tert-butyl ether	1634-04-4	BRL	1.0	0.62	ug/L		1
Naphthalene	91-20-3	110	5.0	4.0	ug/L		1
1,2-Dichloroethane	107-06-2	BRL	5.0	0.82	ug/L		1
Diisopropyl ether	108-20-3	BRL	5.0	0.89	ug/L		1
Ethanol	64-17-5	BRL	100	55	ug/L		1
Ethyl tert-butyl alcohol	590-36-3	750	25	17	ug/L		1
Ethyl tert-butyl ether	637-92-3	BRL	5.0	1.1	ug/L		1
Tert-Amyl alcohol	75-85-4	940	25	15	ug/L		1
tert-Amyl methyl ether	994-05-8	BRL	5.0	1.1	ug/L		1
tert-Butyl alcohol	75-65-0	BRL	25	1.1	ug/L		1
tert-Butyl formate	762-75-4	BRL	25	18	ug/L		1

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Consultech Environmental, Inc., Cary, NC

Warren Green Grocery

Sample Id: **MW # 9**	Matrix: **WATER**	% Moisture:
Lab Sample Id: **13188-009**	Date Collected: **Dec-03-07 12:00**	Date Received: **Dec-04-07 09:44**
Sample Depth:		

Analytical Method: Dissolved Iron by SW6010B Prep Method: SW3005A

Date Analyzed: Dec-06-07 14:08 Analyst: MCJ01 Date Prep: Dec-06-07 12:30 Tech: MSN01

Seq Number: 38525

Parameter	Cas Number	Result	Rep Limit	MDL	Units	Flag	Dil
Iron (Dissolved)	7439-89-6	2.13	0.100	0.0167	mg/L		1

Analytical Method: EDB by SW8011 Prep Method: EXT_SW8011

Date Analyzed: Dec-08-07 06:11 Analyst: SK001 Date Prep: Dec-17-07 14:03 Tech: BPR01

Seq Number: 38732

Parameter	Cas Number	Result	Rep Limit	MDL	Units	Flag	Dil
1,2-Dibromoethane (Ethylene Dibromide)	106-93-4	BRL	0.021	0.0051	ug/L		1

Analytical Method: Lead by SW6010B Prep Method: SW3010A

Date Analyzed: Dec-10-07 13:45 Analyst: MCJ01 Date Prep: Dec-06-07 11:00 Tech: MSN01

Seq Number: 38568

Parameter	Cas Number	Result	Rep Limit	MDL	Units	Flag	Dil
Lead	7439-92-1	0.223	0.0100	0.00390	mg/L		1

Analytical Method: Methane by Mod. RSK 175 Prep Method: SW5030B

Date Analyzed: Dec-17-07 16:42 Analyst: SPK01 Date Prep: Dec-17-07 15:07 Tech: SPK01

Seq Number: 38760

Parameter	Cas Number	Result	Rep Limit	MDL	Units	Flag	Dil
Methane	74-82-8	0.006	0.003	0.002	mg/L		1

Analytical Method: Nitrate & Sulfate by SW9056 Prep Method:

Date Analyzed: Dec-05-07 10:23 Analyst: SVA01 Date Prep: Tech: SVA01

Seq Number: 38513

Parameter	Cas Number	Result	Rep Limit	MDL	Units	Flag	Dil
Nitrate	14797-55-8	0.52	0.10	0.027	mg/L		1
Sulfate	14808-79-8	9.6	1.0	0.062	mg/L		1

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Consultech Environmental, Inc., Cary, NC

Warren Green Grocery

Sample Id: **MW # 9**	Matrix: **WATER**	% Moisture:
Lab Sample Id: **13188-009**	Date Collected: **Dec-03-07 12:00**	Date Received: **Dec-04-07 09:44**
Sample Depth:		

Analytical Method: VOCs by SW8260B w/Naphthalene, MTBE, Oxygenates Prep Method: SW5030B

Date Analyzed: Dec-10-07 13:27 Analyst: MDS01 Date Prep: Dec-10-07 07:30 Tech: MDS01

Seq Number: 38581

Parameter	Cas Number	Result	Rep Limit	MDL	Units	Flag	Dil
Benzene	71-43-2	BRL	1.0	0.67	ug/L		1
Toluene	108-88-3	5.9	1.0	0.68	ug/L		1
Ethylbenzene	100-41-4	1.9	1.0	0.66	ug/L		1
Xylenes, Total	1330-20-7	11	1.0	1.8	ug/L		1
Methyl tert-butyl ether	1634-04-4	BRL	1.0	0.62	ug/L		1
Naphthalene	91-20-3	BRL	5.0	4.0	ug/L		1
1,2-Dichloroethane	107-06-2	BRL	5.0	0.82	ug/L		1
Diisopropyl ether	108-20-3	BRL	5.0	0.89	ug/L		1
Ethanol	64-17-5	BRL	100	55	ug/L		1
Ethyl tert-butyl alcohol	590-36-3	BRL	25	17	ug/L		1
Ethyl tert-butyl ether	637-92-3	BRL	5.0	1.1	ug/L		1
Tert-Amyl alcohol	75-85-4	BRL	25	15	ug/L		1
tert-Amyl methyl ether	994-05-8	BRL	5.0	1.1	ug/L		1
tert-Butyl alcohol	75-65-0	BRL	25	1.1	ug/L		1
tert-Butyl formate	762-75-4	BRL	25	18	ug/L		1

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Warren Green Grocery

Sample Id: **DW - 1**	Matrix: **WATER**	% Moisture:
Lab Sample Id: **13188-010**	Date Collected: **Dec-03-07 12:20**	Date Received: **Dec-04-07 09:44**
Sample Depth:		

Analytical Method: Dissolved Iron by SW6010B — Prep Method: SW3005A

Date Analyzed: Dec-06-07 14:13 — Analyst: MCJ01 — Date Prep: Dec-06-07 12:30 — Tech: MSN01

Seq Number: 38525

Parameter	Cas Number	Result	Rep Limit	MDL	Units	Flag	Dil
Iron (Dissolved)	7439-89-6	0.186	0.100	0.0167	mg/L		1

Analytical Method: EDB by SW8011 — Prep Method: EXT_SW8011

Date Analyzed: Dec-08-07 06:32 — Analyst: SK001 — Date Prep: Dec-17-07 14:03 — Tech: BPR01

Seq Number: 38732

Parameter	Cas Number	Result	Rep Limit	MDL	Units	Flag	Dil
1,2-Dibromoethane (Ethylene Dibromide)	106-93-4	BRL	0.021	0.0053	ug/L		1

Analytical Method: Lead by SW6010B — Prep Method: SW3010A

Date Analyzed: Dec-10-07 13:47 — Analyst: MCJ01 — Date Prep: Dec-06-07 11:00 — Tech: MSN01

Seq Number: 38568

Parameter	Cas Number	Result	Rep Limit	MDL	Units	Flag	Dil
Lead	7439-92-1	0.243	0.0100	0.00390	mg/L		1

Analytical Method: Methane by Mod. RSK 175 — Prep Method: SW5030B

Date Analyzed: Dec-17-07 17:08 — Analyst: SPK01 — Date Prep: Dec-17-07 15:07 — Tech: SPK01

Seq Number: 38760

Parameter	Cas Number	Result	Rep Limit	MDL	Units	Flag	Dil
Methane	74-82-8	0.015	0.003	0.002	mg/L		1

Analytical Method: Nitrate & Sulfate by SW9056 — Prep Method:

Date Analyzed: Dec-05-07 10:40 — Analyst: SVA01 — Date Prep: — Tech: SVA01

Seq Number: 38513

Parameter	Cas Number	Result	Rep Limit	MDL	Units	Flag	Dil
Nitrate	14797-55-8	0.25	0.10	0.027	mg/L		1
Sulfate	14808-79-8	7.5	1.0	0.062	mg/L		1

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Warren Green Grocery

Sample Id: **DW - 1**	Matrix: **WATER**	% Moisture:
Lab Sample Id: **13188-010**	Date Collected: **Dec-03-07 12:20**	Date Received: **Dec-04-07 09:44**
Sample Depth:		

Analytical Method: VOCs by SW8260B w/Naphthalene, MTBE, Oxygenates Prep Method: SW5030B

Date Analyzed: Dec-08-07 19:24 Analyst: MDS01 Date Prep: Dec-08-07 09:50 Tech: MDS01

Seq Number: 38565

Parameter	Cas Number	Result	Rep Limit	MDL	Units	Flag	Dil
Benzene	71-43-2	100	10	6.7	ug/L		10
Toluene	108-88-3	1800	10	6.8	ug/L		10
Ethylbenzene	100-41-4	620	10	6.6	ug/L		10
Xylenes, Total	1330-20-7	3300	10	18	ug/L		10
Methyl tert-butyl ether	1634-04-4	BRL	10	6.2	ug/L		10
Naphthalene	91-20-3	84	50	40	ug/L		10
1,2-Dichloroethane	107-06-2	BRL	50	8.2	ug/L		10
Diisopropyl ether	108-20-3	BRL	50	8.9	ug/L		10
Ethanol	64-17-5	BRL	1000	550	ug/L		10
Ethyl tert-butyl alcohol	590-36-3	BRL	250	170	ug/L		10
Ethyl tert-butyl ether	637-92-3	BRL	50	11	ug/L		10
Tert-Amyl alcohol	75-85-4	BRL	250	150	ug/L		10
tert-Amyl methyl ether	994-05-8	BRL	50	11	ug/L		10
tert-Butyl alcohol	75-65-0	BRL	250	11	ug/L		10
tert-Butyl formate	762-75-4	BRL	250	180	ug/L		10

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Warren Green Grocery

Sample Id: **DW - 2**	Matrix: **WATER**	% Moisture:
Lab Sample Id: **13188-011**	Date Collected: **Dec-03-07 12:40**	Date Received: **Dec-04-07 09:44**
Sample Depth:		

Analytical Method: Dissolved Iron by SW6010B — Prep Method: SW3005A

Date Analyzed: Dec-06-07 14:13 | Analyst: MCJ01 | Date Prep: Dec-06-07 12:30 | Tech: MSN01
Seq Number: 38525

Parameter	Cas Number	Result	Rep Limit	MDL	Units	Flag	Dil
Iron (Dissolved)	7439-89-6	BRL	0.100	0.0167	mg/L		1

Analytical Method: EDB by SW8011 — Prep Method: EXT_SW8011

Date Analyzed: Dec-08-07 06:54 | Analyst: SK001 | Date Prep: Dec-17-07 14:03 | Tech: BPR01
Seq Number: 38732

Parameter	Cas Number	Result	Rep Limit	MDL	Units	Flag	Dil
1,2-Dibromoethane (Ethylene Dibromide)	106-93-4	BRL	0.021	0.0052	ug/L		1

Analytical Method: Lead by SW6010B — Prep Method: SW3010A

Date Analyzed: Dec-10-07 13:50 | Analyst: MCJ01 | Date Prep: Dec-06-07 11:00 | Tech: MSN01
Seq Number: 38568

Parameter	Cas Number	Result	Rep Limit	MDL	Units	Flag	Dil
Lead	7439-92-1	BRL	0.0100	0.00390	mg/L		1

Analytical Method: Methane by Mod. RSK 175 — Prep Method: SW5030B

Date Analyzed: Dec-17-07 17:10 | Analyst: SPK01 | Date Prep: Dec-17-07 15:07 | Tech: SPK01
Seq Number: 38760

Parameter	Cas Number	Result	Rep Limit	MDL	Units	Flag	Dil
Methane	74-82-8	BRL	0.003	0.002	mg/L		1

Analytical Method: Nitrate & Sulfate by SW9056 — Prep Method:

Date Analyzed: Dec-05-07 10:57 | Analyst: SVA01 | Date Prep: | Tech: SVA01
Seq Number: 38513

Parameter	Cas Number	Result	Rep Limit	MDL	Units	Flag	Dil
Nitrate	14797-55-8	0.96	0.10	0.027	mg/L		1
Sulfate	14808-79-8	240	10	0.62	mg/L		10

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Consultech Environmental, Inc., Cary, NC

Warren Green Grocery

Sample Id: **DW - 2**	Matrix: **WATER**	% Moisture:
Lab Sample Id: **13188-011**	Date Collected: **Dec-03-07 12:40**	Date Received: **Dec-04-07 09:44**
Sample Depth:		

Analytical Method: **VOCs by SW8260B w/Naphthalene, MTBE, Oxygenates** Prep Method: SW5030B

Date Analyzed: Dec-07-07 17:21 Analyst: MDS01 Date Prep: Dec-07-07 07:37 Tech: MDS01
Seq Number: 38564

Parameter	Cas Number	Result	Rep Limit	MDL	Units	Flag	Dil
Benzene	71-43-2	BRL	1.0	0.67	ug/L		1
Toluene	108-88-3	BRL	1.0	0.68	ug/L		1
Ethylbenzene	100-41-4	BRL	1.0	0.66	ug/L		1
Xylenes, Total	1330-20-7	BRL	1.0	1.8	ug/L		1
Methyl tert-butyl ether	1634-04-4	BRL	1.0	0.62	ug/L		1
Naphthalene	91-20-3	BRL	5.0	4.0	ug/L		1
1,2-Dichloroethane	107-06-2	BRL	5.0	0.82	ug/L		1
Diisopropyl ether	108-20-3	BRL	5.0	0.89	ug/L		1
Ethanol	64-17-5	BRL	100	55	ug/L		1
Ethyl tert-butyl alcohol	590-36-3	BRL	25	17	ug/L		1
Ethyl tert-butyl ether	637-92-3	BRL	5.0	1.1	ug/L		1
Tert-Amyl alcohol	75-85-4	BRL	25	15	ug/L		1
tert-Amyl methyl ether	994-05-8	BRL	5.0	1.1	ug/L		1
tert-Butyl alcohol	75-65-0	BRL	25	1.1	ug/L		1
tert-Butyl formate	762-75-4	BRL	25	18	ug/L		1

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Consultech Environmental, Inc., Cary, NC

Warren Green Grocery

Sample Id: **DW - 3**	Matrix: **WATER**	% Moisture:
Lab Sample Id: **13188-012**	Date Collected: **Dec-03-07 13:00**	Date Received: **Dec-04-07 09:44**
Sample Depth:		

Analytical Method: Dissolved Iron by SW6010B — Prep Method: SW3005A

Date Analyzed: Dec-06-07 14:15 — Analyst: MCJ01 — Seq Number: 38525 — Date Prep: Dec-06-07 12:30 — Tech: MSN01

Parameter	Cas Number	Result	Rep Limit	MDL	Units	Flag	Dil
Iron (Dissolved)	7439-89-6	BRL	0.100	0.0167	mg/L		1

Analytical Method: EDB by SW8011 — Prep Method: EXT_SW8011

Date Analyzed: Dec-08-07 07:15 — Analyst: SK001 — Seq Number: 38732 — Date Prep: Dec-17-07 14:03 — Tech: BPR01

Parameter	Cas Number	Result	Rep Limit	MDL	Units	Flag	Dil
1,2-Dibromoethane (Ethylene Dibromide)	106-93-4	BRL	0.022	0.0053	ug/L		1

Analytical Method: Lead by SW6010B — Prep Method: SW3010A

Date Analyzed: Dec-10-07 13:52 — Analyst: MCJ01 — Seq Number: 38568 — Date Prep: Dec-06-07 11:00 — Tech: MSN01

Parameter	Cas Number	Result	Rep Limit	MDL	Units	Flag	Dil
Lead	7439-92-1	BRL	0.0100	0.00390	mg/L		1

Analytical Method: Methane by Mod. RSK 175 — Prep Method: SW5030B

Date Analyzed: Dec-17-07 17:13 — Analyst: SPK01 — Seq Number: 38760 — Date Prep: Dec-17-07 15:07 — Tech: SPK01

Parameter	Cas Number	Result	Rep Limit	MDL	Units	Flag	Dil
Methane	74-82-8	0.003	0.003	0.002	mg/L		1

Analytical Method: Nitrate & Sulfate by SW9056 — Prep Method:

Date Analyzed: Dec-05-07 11:15 — Analyst: SVA01 — Seq Number: 38513 — Date Prep: — Tech: SVA01

Parameter	Cas Number	Result	Rep Limit	MDL	Units	Flag	Dil
Nitrate	14797-55-8	0.38	0.10	0.027	mg/L		1
Sulfate	14808-79-8	4.6	1.0	0.062	mg/L		1

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Certificate of Analytical Results 13188

Consultech Environmental, Inc., Cary, NC

Warren Green Grocery

Sample Id: **DW - 3**	Matrix: **WATER**	% Moisture:
Lab Sample Id: **13188-012**	Date Collected: **Dec-03-07 13:00**	Date Received: **Dec-04-07 09:44**
Sample Depth:		

Analytical Method: VOCs by SW8260B w/Naphthalene, MTBE, Oxygenates Prep Method: SW5030B

Date Analyzed: Dec-07-07 17:52 Analyst: MDS01 Date Prep: Dec-07-07 07:37 Tech: MDS01

Seq Number: 38564

Parameter	Cas Number	Result	Rep Limit	MDL	Units	Flag	Dil
Benzene	71-43-2	BRL	1.0	0.67	ug/L		1
Toluene	108-88-3	1.2	1.0	0.68	ug/L		1
Ethylbenzene	100-41-4	BRL	1.0	0.66	ug/L		1
Xylenes, Total	1330-20-7	1.8	1.0	1.8	ug/L		1
Methyl tert-butyl ether	1634-04-4	BRL	1.0	0.62	ug/L		1
Naphthalene	91-20-3	BRL	5.0	4.0	ug/L		1
1,2-Dichloroethane	107-06-2	BRL	5.0	0.82	ug/L		1
Diisopropyl ether	108-20-3	BRL	5.0	0.89	ug/L		1
Ethanol	64-17-5	BRL	100	55	ug/L		1
Ethyl tert-butyl alcohol	590-36-3	BRL	25	17	ug/L		1
Ethyl tert-butyl ether	637-92-3	BRL	5.0	1.1	ug/L		1
Tert-Amyl alcohol	75-85-4	BRL	25	15	ug/L		1
tert-Amyl methyl ether	994-05-8	BRL	5.0	1.1	ug/L		1
tert-Butyl alcohol	75-65-0	BRL	25	1.1	ug/L		1
tert-Butyl formate	762-75-4	BRL	25	18	ug/L		1

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Certificate of Analytical Results 13188

Consultech Environmental, Inc., Cary, NC

Warren Green Grocery

Sample Id: **DW - 4** | Matrix: **WATER** | % Moisture:
Lab Sample Id: **13188-013** | Date Collected: **Dec-03-07 13:20** | Date Received: **Dec-04-07 09:44**
Sample Depth:

Analytical Method: Dissolved Iron by SW6010B | Prep Method: SW3005A
Date Analyzed: Dec-06-07 14:17 | Analyst: MCJ01 | Date Prep: Dec-06-07 12:30 | Tech: MSN01
Seq Number: 38525

Parameter	Cas Number	Result	Rep Limit	MDL	Units	Flag	Dil
Iron (Dissolved)	7439-89-6	BRL	0.100	0.0167	mg/L		1

Analytical Method: EDB by SW8011 | Prep Method: EXT_SW8011
Date Analyzed: Dec-08-07 07:37 | Analyst: SK001 | Date Prep: Dec-17-07 14:03 | Tech: BPR01
Seq Number: 38732

Parameter	Cas Number	Result	Rep Limit	MDL	Units	Flag	Dil
1,2-Dibromoethane (Ethylene Dibromide)	106-93-4	BRL	0.022	0.0053	ug/L		1

Analytical Method: Lead by SW6010B | Prep Method: SW3010A
Date Analyzed: Dec-10-07 13:55 | Analyst: MCJ01 | Date Prep: Dec-06-07 11:00 | Tech: MSN01
Seq Number: 38568

Parameter	Cas Number	Result	Rep Limit	MDL	Units	Flag	Dil
Lead	7439-92-1	BRL	0.0100	0.00390	mg/L		1

Analytical Method: Methane by Mod. RSK 175 | Prep Method: SW5030B
Date Analyzed: Dec-17-07 17:32 | Analyst: SPK01 | Date Prep: Dec-17-07 15:07 | Tech: SPK01
Seq Number: 38760

Parameter	Cas Number	Result	Rep Limit	MDL	Units	Flag	Dil
Methane	74-82-8	BRL	0.003	0.002	mg/L		1

Analytical Method: Nitrate & Sulfate by SW9056 | Prep Method:
Date Analyzed: Dec-05-07 11:32 | Analyst: SVA01 | Date Prep: | Tech: SVA01
Seq Number: 38513

Parameter	Cas Number	Result	Rep Limit	MDL	Units	Flag	Dil
Nitrate	14797-55-8	0.26	0.10	0.027	mg/L		1
Sulfate	14808-79-8	4.9	1.0	0.062	mg/L		1

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Consultech Environmental, Inc., Cary, NC

Warren Green Grocery

Sample Id: **DW - 4**	Matrix: **WATER**	% Moisture:
Lab Sample Id: **13188-013**	Date Collected: **Dec-03-07 13:20**	Date Received: **Dec-04-07 09:44**
Sample Depth:		

Analytical Method: VOCs by SW8260B w/Naphthalene, MTBE, Oxygenates Prep Method: SW5030B

Date Analyzed: Dec-07-07 18:22 Analyst: MDS01 Date Prep: Dec-07-07 07:37 Tech: MDS01

Seq Number: 38564

Parameter	Cas Number	Result	Rep Limit	MDL	Units	Flag	Dil
Benzene	71-43-2	BRL	1.0	0.67	ug/L		1
Toluene	108-88-3	BRL	1.0	0.68	ug/L		1
Ethylbenzene	100-41-4	BRL	1.0	0.66	ug/L		1
Xylenes, Total	1330-20-7	BRL	1.0	1.8	ug/L		1
Methyl tert-butyl ether	1634-04-4	BRL	1.0	0.62	ug/L		1
Naphthalene	91-20-3	BRL	5.0	4.0	ug/L		1
1,2-Dichloroethane	107-06-2	BRL	5.0	0.82	ug/L		1
Diisopropyl ether	108-20-3	BRL	5.0	0.89	ug/L		1
Ethanol	64-17-5	BRL	100	55	ug/L		1
Ethyl tert-butyl alcohol	590-36-3	BRL	25	17	ug/L		1
Ethyl tert-butyl ether	637-92-3	BRL	5.0	1.1	ug/L		1
Tert-Amyl alcohol	75-85-4	BRL	25	15	ug/L		1
tert-Amyl methyl ether	994-05-8	BRL	5.0	1.1	ug/L		1
tert-Butyl alcohol	75-65-0	BRL	25	1.1	ug/L		1
tert-Butyl formate	762-75-4	BRL	25	18	ug/L		1

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Consultech Environmental, Inc., Cary, NC

Warren Green Grocery

Sample Id: **WSW - 1** Matrix: **WATER** % Moisture:
Lab Sample Id: **13188-014** Date Collected: **Dec-03-07 13:25** Date Received: **Dec-04-07 09:44**
Sample Depth:

Analytical Method: EDB by SW8011 Prep Method: EXT_SW8011
Date Analyzed: Dec-08-07 07:58 Analyst: SK001 Date Prep: Dec-17-07 14:03 Tech: BPR01
Seq Number: 38732

Parameter	Cas Number	Result	Rep Limit	MDL	Units	Flag	Dil
1,2-Dibromoethane (Ethylene Dibromide)	106-93-4	BRL	0.022	0.0053	ug/L		1

Analytical Method: Methane by Mod. RSK 175 Prep Method: SW5030B
Date Analyzed: Dec-17-07 17:18 Analyst: SPK01 Date Prep: Dec-17-07 15:07 Tech: SPK01
Seq Number: 38760

Parameter	Cas Number	Result	Rep Limit	MDL	Units	Flag	Dil
Methane	74-82-8	0.101	0.003	0.002	mg/L		1

Analytical Method: Select VOCs by SW8260B (w/ 1,2-DCA) Prep Method: SW5030B
Date Analyzed: Dec-07-07 18:53 Analyst: MDS01 Date Prep: Dec-07-07 07:37 Tech: MDS01
Seq Number: 38564

Parameter	Cas Number	Result	Rep Limit	MDL	Units	Flag	Dil
Benzene	71-43-2	BRL	1.0	0.67	ug/L		1
Toluene	108-88-3	BRL	1.0	0.68	ug/L		1
Xylenes, Total	1330-20-7	BRL	1.0	1.8	ug/L		1
Methyl tert-butyl ether	1634-04-4	BRL	1.0	0.62	ug/L		1
Naphthalene	91-20-3	BRL	5.0	4.0	ug/L		1
1,2-Dichloroethane	107-06-2	BRL	1.0	0.82	ug/L		1

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Consultech Environmental, Inc., Cary, NC

Warren Green Grocery

Sample Id: **WSW - 2**	Matrix: **WATER**	% Moisture:
Lab Sample Id: **13188-015**	Date Collected: **Dec-03-07 13:30**	Date Received: **Dec-04-07 09:44**
Sample Depth:		

Analytical Method: EDB by SW8011 — Prep Method: EXT_SW8011

Date Analyzed: Dec-08-07 08:41 — Analyst: SK001 — Date Prep: Dec-17-07 14:03 — Tech: BPR01

Seq Number: 38732

Parameter	Cas Number	Result	Rep Limit	MDL	Units	Flag	Dil
1,2-Dibromoethane (Ethylene Dibromide)	106-93-4	BRL	0.022	0.0055	ug/L		1

Analytical Method: Methane by Mod. RSK 175 — Prep Method: SW5030B

Date Analyzed: Dec-17-07 17:23 — Analyst: SPK01 — Date Prep: Dec-17-07 15:07 — Tech: SPK01

Seq Number: 38760

Parameter	Cas Number	Result	Rep Limit	MDL	Units	Flag	Dil
Methane	74-82-8	0.26	0.030	0.02	mg/L		10

Analytical Method: Select VOCs by SW8260B (w/ 1,2-DCA) — Prep Method: SW5030B

Date Analyzed: Dec-08-07 12:15 — Analyst: MDS01 — Date Prep: Dec-08-07 09:50 — Tech: MDS01

Seq Number: 38565

Parameter	Cas Number	Result	Rep Limit	MDL	Units	Flag	Dil
Benzene	71-43-2	BRL	1.0	0.67	ug/L		1
Toluene	108-88-3	BRL	1.0	0.68	ug/L		1
Ethylbenzene	100-41-4	BRL	1.0	0.66	ug/L		1
Xylenes, Total	1330-20-7	BRL	1.0	1.8	ug/L		1
Methyl tert-butyl ether	1634-04-4	BRL	1.0	0.62	ug/L		1
Naphthalene	91-20-3	BRL	5.0	4.0	ug/L		1
1,2-Dichloroethane	107-06-2	BRL	1.0	0.82	ug/L		1

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Consultech Environmental, Inc., Cary, NC

Warren Green Grocery

Sample Id: **WSW - 3**	Matrix: **WATER**	% Moisture:
Lab Sample Id: **13188-016**	Date Collected: **Dec-03-07 13:35**	Date Received: **Dec-04-07 09:44**
Sample Depth:		

Analytical Method: EDB by SW8011 — Prep Method: EXT_SW8011

Date Analyzed: Dec-08-07 09:02 — Analyst: SK001 — Seq Number: 38732 — Date Prep: Dec-17-07 14:03 — Tech: BPR01

Parameter	Cas Number	Result	Rep Limit	MDL	Units	Flag	Dil
1,2-Dibromoethane (Ethylene Dibromide)	106-93-4	BRL	0.021	0.0052	ug/L		1

Analytical Method: Methane by Mod. RSK 175 — Prep Method: SW5030B

Date Analyzed: Dec-17-07 17:26 — Analyst: SPK01 — Seq Number: 38760 — Date Prep: Dec-17-07 15:07 — Tech: SPK01

Parameter	Cas Number	Result	Rep Limit	MDL	Units	Flag	Dil
Methane	74-82-8	0.20	0.030	0.02	mg/L		10

Analytical Method: Select VOCs by SW8260B (w/ 1,2-DCA) — Prep Method: SW5030B

Date Analyzed: Dec-08-07 12:46 — Analyst: MDS01 — Seq Number: 38565 — Date Prep: Dec-08-07 09:50 — Tech: MDS01

Parameter	Cas Number	Result	Rep Limit	MDL	Units	Flag	Dil
Benzene	71-43-2	BRL	1.0	0.67	ug/L		1
Toluene	108-88-3	BRL	1.0	0.68	ug/L		1
Ethylbenzene	100-41-4	BRL	1.0	0.66	ug/L		1
Xylenes, Total	1330-20-7	BRL	1.0	1.8	ug/L		1
Methyl tert-butyl ether	1634-04-4	BRL	1.0	0.62	ug/L		1
Naphthalene	91-20-3	BRL	5.0	4.0	ug/L		1
1,2-Dichloroethane	107-06-2	BRL	1.0	0.82	ug/L		1

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Consultech Environmental, Inc., Cary, NC

Warren Green Grocery

Sample Id: **WSW - 4**	Matrix: **WATER**	% Moisture:
Lab Sample Id: **13188-017**	Date Collected: **Dec-03-07 13:40**	Date Received: **Dec-04-07 09:44**
Sample Depth:		

Analytical Method: EDB by SW8011 Prep Method: EXT_SW8011

Date Analyzed: Dec-08-07 09:24 Analyst: SK001 Date Prep: Dec-17-07 14:03 Tech: BPR01

Seq Number: 38732

Parameter	Cas Number	Result	Rep Limit	MDL	Units	Flag	Dil
1,2-Dibromoethane (Ethylene Dibromide)	106-93-4	BRL	0.022	0.0055	ug/L		1

Analytical Method: Methane by Mod. RSK 175 Prep Method: SW5030B

Date Analyzed: Dec-17-07 17:28 Analyst: SPK01 Date Prep: Dec-17-07 15:07 Tech: SPK01

Seq Number: 38760

Parameter	Cas Number	Result	Rep Limit	MDL	Units	Flag	Dil
Methane	74-82-8	0.075	0.003	0.002	mg/L		1

Analytical Method: Select VOCs by SW8260B (w/ 1,2-DCA) Prep Method: SW5030B

Date Analyzed: Dec-08-07 13:16 Analyst: MDS01 Date Prep: Dec-08-07 09:50 Tech: MDS01

Seq Number: 38565

Parameter	Cas Number	Result	Rep Limit	MDL	Units	Flag	Dil
Benzene	71-43-2	BRL	1.0	0.67	ug/L		1
Toluene	108-88-3	BRL	1.0	0.68	ug/L		1
Ethylbenzene	100-41-4	BRL	1.0	0.66	ug/L		1
Xylenes, Total	1330-20-7	BRL	1.0	1.8	ug/L		1
Methyl tert-butyl ether	1634-04-4	BRL	1.0	0.62	ug/L		1
Naphthalene	91-20-3	BRL	5.0	4.0	ug/L		1
1,2-Dichloroethane	107-06-2	BRL	1.0	0.82	ug/L		1

Sample Id: **304495 BLK**	Matrix: **WATER**	% Moisture:
Lab Sample Id: **304495 BLK**	Date Collected:	Date Received:
Sample Depth:		

Analytical Method: Dissolved Iron by SW6010B Prep Method: SW3005A

Date Analyzed: Dec-06-07 13:28 Analyst: MCJ01 Date Prep: Dec-06-07 12:30 Tech: MSN01

Seq Number: 38525

Parameter	Cas Number	Result	Rep Limit	MDL	Units	Flag	Dil
Iron (Dissolved)	7439-89-6	BRL	0.100	0.0167	mg/L		1

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Consultech Environmental, Inc., Cary, NC

Warren Green Grocery

Sample Id: **304507 BLK** Matrix: **WATER** % Moisture:
Lab Sample Id: **304507 BLK** Date Collected: Date Received:
Sample Depth:

Analytical Method: **VOCs by SW8260B w/Naphthalene, MTBE, Oxygenates** Prep Method: SW5030B
Date Analyzed: Dec-06-07 09:57 Analyst: MDS01 Date Prep: Dec-05-07 07:36 Tech: MJL01
Seq Number: 38532

Parameter	Cas Number	Result	Rep Limit	MDL	Units	Flag	Dil
Benzene	71-43-2	BRL	1.0	0.67	ug/L		1
Toluene	108-88-3	BRL	1.0	0.68	ug/L		1
Ethylbenzene	100-41-4	BRL	1.0	0.66	ug/L		1
Xylenes, Total	1330-20-7	BRL	1.0	1.8	ug/L		1
Methyl tert-butyl ether	1634-04-4	BRL	1.0	0.62	ug/L		1
Naphthalene	91-20-3	BRL	5.0	4.0	ug/L		1
1,2-Dichloroethane	107-06-2	BRL	5.0	0.82	ug/L		1
Diisopropyl ether	108-20-3	BRL	5.0	0.89	ug/L		1
Ethanol	64-17-5	BRL	100	55	ug/L		1
Ethyl tert-butyl alcohol	590-36-3	BRL	25	17	ug/L		1
Ethyl tert-butyl ether	637-92-3	BRL	5.0	1.1	ug/L		1
Tert-Amyl alcohol	75-85-4	BRL	25	15	ug/L		1
tert-Amyl methyl ether	994-05-8	BRL	5.0	1.1	ug/L		1
tert-Butyl alcohol	75-65-0	BRL	25	1.1	ug/L		1
tert-Butyl formate	762-75-4	BRL	25	18	ug/L		1

Sample Id: **304513 BLK** Matrix: **WATER** % Moisture:
Lab Sample Id: **304513 BLK** Date Collected: Date Received:
Sample Depth:

Analytical Method: **EDB by SW8011** Prep Method: EXT_SW8011
Date Analyzed: Dec-06-07 19:06 Analyst: SK001 Date Prep: Dec-07-07 15:00 Tech: SK001
Seq Number: 38542

Parameter	Cas Number	Result	Rep Limit	MDL	Units	Flag	Dil
1,2-Dibromoethane (Ethylene Dibromide)	106-93-4	BRL	0.020	0.0049	ug/L		1

Analytical Method: **EDB by SW8011** Prep Method: EXT_SW8011
Date Analyzed: Dec-06-07 19:06 Analyst: SK001 Date Prep: Dec-07-07 15:00 Tech: SK001
Seq Number: 38723

Parameter	Cas Number	Result	Rep Limit	MDL	Units	Flag	Dil
1,2-Dibromoethane (Ethylene Dibromide)	106-93-4	BRL	0.020	0.0049	ug/L		1

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Consultech Environmental, Inc., Cary, NC

Warren Green Grocery

Sample Id: **304534 BLK** Matrix: **WATER** % Moisture:
Lab Sample Id: **304534 BLK** Date Collected: Date Received:
Sample Depth:

Analytical Method: VOCs by SW8260B w/Naphthalene, MTBE, Oxygenates Prep Method: SW5030B

Date Analyzed: Dec-07-07 10:39 Analyst: MDS01 Date Prep: Dec-07-07 07:37 Tech: MDS01
Seq Number: 38564

Parameter	Cas Number	Result	Rep Limit	MDL	Units	Flag	Dil
Benzene	71-43-2	BRL	1.0	0.67	ug/L		1
Toluene	108-88-3	BRL	1.0	0.68	ug/L		1
Ethylbenzene	100-41-4	BRL	1.0	0.66	ug/L		1
Xylenes, Total	1330-20-7	BRL	1.0	1.8	ug/L		1
Methyl tert-butyl ether	1634-04-4	BRL	1.0	0.62	ug/L		1
Naphthalene	91-20-3	BRL	5.0	4.0	ug/L		1
1,2-Dichloroethane	107-06-2	BRL	5.0	0.82	ug/L		1
Diisopropyl ether	108-20-3	BRL	5.0	0.89	ug/L		1
Ethanol	64-17-5	BRL	100	55	ug/L		1
Ethyl tert-butyl alcohol	590-36-3	BRL	25	17	ug/L		1
Ethyl tert-butyl ether	637-92-3	BRL	5.0	1.1	ug/L		1
Tert-Amyl alcohol	75-85-4	BRL	25	15	ug/L		1
tert-Amyl methyl ether	994-05-8	BRL	5.0	1.1	ug/L		1
tert-Butyl alcohol	75-65-0	BRL	25	1.1	ug/L		1
tert-Butyl formate	762-75-4	BRL	25	18	ug/L		1

Sample Id: **304535 BLK** Matrix: **WATER** % Moisture:
Lab Sample Id: **304535 BLK** Date Collected: Date Received:
Sample Depth:

Analytical Method: VOCs by SW8260B w/Naphthalene, MTBE, Oxygenates Prep Method: SW5030B

Date Analyzed: Dec-08-07 11:44 Analyst: MDS01 Date Prep: Dec-08-07 09:50 Tech: MDS01
Seq Number: 38565

Parameter	Cas Number	Result	Rep Limit	MDL	Units	Flag	Dil
Benzene	71-43-2	BRL	1.0	0.67	ug/L		1
Toluene	108-88-3	BRL	1.0	0.68	ug/L		1
Ethylbenzene	100-41-4	BRL	1.0	0.66	ug/L		1
Xylenes, Total	1330-20-7	BRL	1.0	1.8	ug/L		1
Methyl tert-butyl ether	1634-04-4	BRL	1.0	0.62	ug/L		1
Naphthalene	91-20-3	BRL	5.0	4.0	ug/L		1
1,2-Dichloroethane	107-06-2	BRL	5.0	0.82	ug/L		1
Diisopropyl ether	108-20-3	BRL	5.0	0.89	ug/L		1
Ethanol	64-17-5	BRL	100	55	ug/L		1
Ethyl tert-butyl alcohol	590-36-3	BRL	25	17	ug/L		1
Ethyl tert-butyl ether	637-92-3	BRL	5.0	1.1	ug/L		1
Tert-Amyl alcohol	75-85-4	BRL	25	15	ug/L		1
tert-Amyl methyl ether	994-05-8	BRL	5.0	1.1	ug/L		1
tert-Butyl alcohol	75-65-0	BRL	25	1.1	ug/L		1
tert-Butyl formate	762-75-4	BRL	25	18	ug/L		1

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Consultech Environmental, Inc., Cary, NC

Warren Green Grocery

Sample Id: **304545 BLK** Matrix: **WATER** % Moisture:
Lab Sample Id: **304545 BLK** Date Collected: Date Received:
Sample Depth:

Analytical Method: **VOCs by SW8260B w/Naphthalene, MTBE, Oxygenates** Prep Method: SW5030B

Date Analyzed: Dec-10-07 09:22 Analyst: MDS01 Date Prep: Dec-10-07 07:30 Tech: MDS01
Seq Number: 38581

Parameter	Cas Number	Result	Rep Limit	MDL	Units	Flag	Dil
Benzene	71-43-2	BRL	1.0	0.67	ug/L		1
Toluene	108-88-3	BRL	1.0	0.68	ug/L		1
Ethylbenzene	100-41-4	BRL	1.0	0.66	ug/L		1
Xylenes, Total	1330-20-7	BRL	1.0	1.8	ug/L		1
Methyl tert-butyl ether	1634-04-4	BRL	1.0	0.62	ug/L		1
Naphthalene	91-20-3	BRL	5.0	4.0	ug/L		1
1,2-Dichloroethane	107-06-2	BRL	5.0	0.82	ug/L		1
Diisopropyl ether	108-20-3	BRL	5.0	0.89	ug/L		1
Ethanol	64-17-5	BRL	100	55	ug/L		1
Ethyl tert-butyl alcohol	590-36-3	BRL	25	17	ug/L		1
Ethyl tert-butyl ether	637-92-3	BRL	5.0	1.1	ug/L		1
Tert-Amyl alcohol	75-85-4	BRL	25	15	ug/L		1
tert-Amyl methyl ether	994-05-8	BRL	5.0	1.1	ug/L		1
tert-Butyl alcohol	75-65-0	BRL	25	1.1	ug/L		1
tert-Butyl formate	762-75-4	BRL	25	18	ug/L		1

Sample Id: **304620 BLK** Matrix: **WATER** % Moisture:
Lab Sample Id: **304620 BLK** Date Collected: Date Received:
Sample Depth:

Analytical Method: **EDB by SW8011** Prep Method: EXT_SW8011

Date Analyzed: Dec-08-07 03:41 Analyst: SK001 Date Prep: Dec-17-07 14:03 Tech: BPR01
Seq Number: 38732

Parameter	Cas Number	Result	Rep Limit	MDL	Units	Flag	Dil
1,2-Dibromoethane (Ethylene Dibromide)	106-93-4	BRL	0.020	0.0049	ug/L		1

Sample Id: **304622 BLK** Matrix: **WATER** % Moisture:
Lab Sample Id: **304622 BLK** Date Collected: Date Received:
Sample Depth:

Analytical Method: **EDB by SW8011** Prep Method: EXT_SW8011

Date Analyzed: Dec-10-07 21:43 Analyst: SK001 Date Prep: Dec-17-07 14:11 Tech: BPR01
Seq Number: 38735

Parameter	Cas Number	Result	Rep Limit	MDL	Units	Flag	Dil
1,2-Dibromoethane (Ethylene Dibromide)	106-93-4	BRL	0.020	0.0049	ug/L		1

*

Version: 1.016

Certificate of Analytical Results 13188

XENCO Laboratories

Consultech Environmental, Inc., Cary, NC

Warren Green Grocery

Sample Id: **304645 BLK** Matrix: **WATER** % Moisture:
Lab Sample Id: **304645 BLK** Date Collected: Date Received:
Sample Depth:

Analytical Method: Methane by Mod. RSK 175 Prep Method: SW5030B
Date Analyzed: Dec-17-07 16:04 Analyst: SPK01 Date Prep: Dec-17-07 15:07 Tech: SPK01
Seq Number: 38760

Parameter	Cas Number	Result	Rep Limit	MDL	Units	Flag	Dil
Methane	74-82-8	BRL	0.003	0.002	mg/L		1

Sample Id: **305501 BLK** Matrix: **WATER** % Moisture:
Lab Sample Id: **305501 BLK** Date Collected: Date Received:
Sample Depth:

Analytical Method: Lead by SW6010B Prep Method: SW3010A
Date Analyzed: Dec-10-07 13:00 Analyst: MCJ01 Date Prep: Dec-06-07 11:00 Tech: MSN01
Seq Number: 38568

Parameter	Cas Number	Result	Rep Limit	MDL	Units	Flag	Dil
Lead	7439-92-1	BRL	0.0100	0.00390	mg/L		1

Sample Id: **38513 BLK** Matrix: **WATER** % Moisture:
Lab Sample Id: **38513 BLK** Date Collected: Date Received:
Sample Depth:

Analytical Method: Nitrate & Sulfate by SW9056 Prep Method:
Date Analyzed: Dec-05-07 02:46 Analyst: SVA01 Date Prep: Tech: SVA01
Seq Number: 38513

Parameter	Cas Number	Result	Rep Limit	MDL	Units	Flag	Dil
Nitrate	14797-55-8	BRL	0.10	0.027	mg/L		1
Sulfate	14808-79-8	BRL	1.0	0.062	mg/L		1

XENCO Laboratories

Form 2 - Surrogate Recoveries

Project Name: Warren Green Grocery

Report Date: 12/19/07 10:44

Work Order #: 13188

Project ID: C-07-06-09

Lab Batch #: 38542 **Sample:** 13188-002 / SMP **Batch:** 1 **Matrix:** W

Units: ug/L

EDB / DBCP by SW8011 Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
4-Bromofluorobenzene	4.4	5.6	79	60-140	

Lab Batch #: 38542 **Sample:** 13188-002 / SMP **Batch:** 1 **Matrix:** W

Units: ug/L

EDB / DBCP by SW8011 Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
4-Bromofluorobenzene	3.6	5.6	64	60-140	

Lab Batch #: 38542 **Sample:** 13188-003 / SMP **Batch:** 1 **Matrix:** W

Units: ug/L

EDB / DBCP by SW8011 Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
4-Bromofluorobenzene	4.6	5.4	85	60-140	

Lab Batch #: 38542 **Sample:** 13188-003 / SMP **Batch:** 1 **Matrix:** W

Units: ug/L

EDB / DBCP by SW8011 Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
4-Bromofluorobenzene	5.2	5.4	96	60-140	

Lab Batch #: 38542 **Sample:** 13188-004 / SMP **Batch:** 1 **Matrix:** W

Units: ug/L

EDB / DBCP by SW8011 Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
4-Bromofluorobenzene	7.3	5.5	133	60-140	

* Surrogate outside of Laboratory QC limits
** Surrogates outside limits; data and surrogates confirmed by reanalysis
*** Poor recoveries due to dilution
Surrogate Recovery [D] = 100 * A / B
All results are based on MDL and validated for QC purposes.

Z = Surrogate Recovery exceeded the Labortatory QC limits

Version: 1.%

XENCO Laboratories

Form 2 - Surrogate Recoveries

Project Name: Warren Green Grocery

Report Date: 12/19/07 10:44

Work Order #: 13188

Project ID: C-07-06-09

Lab Batch #: 38542 **Sample:** 13188-004 / SMP **Batch:** 1 **Matrix:** W

Units: ug/L

EDB / DBCP by SW8011 Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
	SURROGATE RECOVERY STUDY				
4-Bromofluorobenzene	7.2	5.5	131	60-140	

Lab Batch #: 38542 **Sample:** 304513 BLK / BLK **Batch:** 1 **Matrix:** W

Units: ug/L

EDB / DBCP by SW8011 Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
	SURROGATE RECOVERY STUDY				
4-Bromofluorobenzene	5.4	5.0	108	60-140	

Lab Batch #: 38542 **Sample:** 304513 BLK / BLK **Batch:** 1 **Matrix:** W

Units: ug/L

EDB / DBCP by SW8011 Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
	SURROGATE RECOVERY STUDY				
4-Bromofluorobenzene	5.1	5.0	102	60-140	

Lab Batch #: 38723 **Sample:** 304513 BLK / BLK **Batch:** 1 **Matrix:** W

Units: ug/L

EDB / DBCP by SW8011 Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
	SURROGATE RECOVERY STUDY				
4-Bromofluorobenzene	5.4	5.0	108	60-140	

Lab Batch #: 38723 **Sample:** 304513 BLK / BLK **Batch:** 1 **Matrix:** W

Units: ug/L

EDB / DBCP by SW8011 Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
	SURROGATE RECOVERY STUDY				
4-Bromofluorobenzene	5.1	5.0	102	60-140	

* Surrogate outside of Laboratory QC limits
** Surrogates outside limits; data and surrogates confirmed by reanalysis
*** Poor recoveries due to dilution
Surrogate Recovery [D] = 100 * A / B
All results are based on MDL and validated for QC purposes.

Z = Surrogate Recovery exceeded the Labortatory QC limits

Version: 1.%

Form 2 - Surrogate Recoveries

Project Name: Warren Green Grocery

Report Date: 12/19/07 10:44

Work Order #: 13188

Project ID: C-07-06-09

Lab Batch #: 38732 **Sample:** 13188-005 / SMP **Batch:** 1 **Matrix:** W

Units: ug/L

EDB / DBCP by SW8011 Analytes	SURROGATE RECOVERY STUDY				
	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
4-Bromofluorobenzene	3.2	5.1	63	60-140	

Lab Batch #: 38732 **Sample:** 13188-005 / SMP **Batch:** 1 **Matrix:** W

Units: ug/L

EDB / DBCP by SW8011 Analytes	SURROGATE RECOVERY STUDY				
	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
4-Bromofluorobenzene	3.7	5.1	73	60-140	

Lab Batch #: 38732 **Sample:** 13188-006 / SMP **Batch:** 1 **Matrix:** W

Units: ug/L

EDB / DBCP by SW8011 Analytes	SURROGATE RECOVERY STUDY				
	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
4-Bromofluorobenzene	4.0	5.3	75	60-140	

Lab Batch #: 38732 **Sample:** 13188-006 / SMP **Batch:** 1 **Matrix:** W

Units: ug/L

EDB / DBCP by SW8011 Analytes	SURROGATE RECOVERY STUDY				
	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
4-Bromofluorobenzene	4.5	5.3	85	60-140	

Lab Batch #: 38732 **Sample:** 13188-007 / SMP **Batch:** 1 **Matrix:** W

Units: ug/L

EDB / DBCP by SW8011 Analytes	SURROGATE RECOVERY STUDY				
	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
4-Bromofluorobenzene	5.4	5.4	100	60-140	

* Surrogate outside of Laboratory QC limits
** Surrogates outside limits; data and surrogates confirmed by reanalysis
*** Poor recoveries due to dilution
Surrogate Recovery [D] = 100 * A / B
All results are based on MDL and validated for QC purposes.

Z = Surrogate Recovery exceeded the Labortatory QC limits

Version: 1.%

Form 2 - Surrogate Recoveries

Project Name: Warren Green Grocery

Report Date: 12/19/07 10:44

Work Order #: 13188

Project ID: C-07-06-09

Lab Batch #: 38732 **Sample:** 13188-007 / SMP **Batch:** 1 **Matrix:** W

Units: ug/L

EDB / DBCP by SW8011 Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
4-Bromofluorobenzene	5.1	5.4	94	60-140	

Lab Batch #: 38732 **Sample:** 13188-008 / SMP **Batch:** 1 **Matrix:** W

Units: ug/L

EDB / DBCP by SW8011 Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
4-Bromofluorobenzene	4.4	5.4	81	60-140	

Lab Batch #: 38732 **Sample:** 13188-008 / SMP **Batch:** 1 **Matrix:** W

Units: ug/L

EDB / DBCP by SW8011 Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
4-Bromofluorobenzene	3.9	5.4	72	60-140	

Lab Batch #: 38732 **Sample:** 13188-009 / SMP **Batch:** 1 **Matrix:** W

Units: ug/L

EDB / DBCP by SW8011 Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
4-Bromofluorobenzene	6.4	5.2	123	60-140	

Lab Batch #: 38732 **Sample:** 13188-009 / SMP **Batch:** 1 **Matrix:** W

Units: ug/L

EDB / DBCP by SW8011 Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
4-Bromofluorobenzene	6.6	5.2	127	60-140	

* Surrogate outside of Laboratory QC limits
** Surrogates outside limits; data and surrogates confirmed by reanalysis
*** Poor recoveries due to dilution
Surrogate Recovery [D] = 100 * A / B
All results are based on MDL and validated for QC purposes.

Z = Surrogate Recovery exceeded the Labortatory QC limits

Version: 1.%

XENCO Laboratories

Form 2 - Surrogate Recoveries

Project Name: Warren Green Grocery

Report Date: 12/19/07 1[illegible]:44

Project ID: C-07-06-0[illegible]

Work Order #: 13188

Lab Batch #: 38732 **Sample:** 13188-010 / SMP **Batch:** 1 **Matrix:** W

Units: ug/L

EDB / DBCP by SW8011	SURROGATE RECOVERY STUDY				
Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
4-Bromofluorobenzene	5.8	5.4	107	60-140	

Lab Batch #: 38732 **Sample:** 13188-010 / SMP **Batch:** 1 **Matrix:** W

Units: ug/L

EDB / DBCP by SW8011	SURROGATE RECOVERY STUDY				
Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
4-Bromofluorobenzene	5.8	5.4	107	60-140	

Lab Batch #: 38732 **Sample:** 13188-011 / SMP **Batch:** 1 **Matrix:** W

Units: ug/L

EDB / DBCP by SW8011	SURROGATE RECOVERY STUDY				
Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
4-Bromofluorobenzene	6.5	5.3	123	60-140	

Lab Batch #: 38732 **Sample:** 13188-011 / SMP **Batch:** 1 **Matrix:** W

Units: ug/L

EDB / DBCP by SW8011	SURROGATE RECOVERY STUDY				
Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
4-Bromofluorobenzene	6.3	5.3	119	60-140	

Lab Batch #: 38732 **Sample:** 13188-012 / SMP **Batch:** 1 **Matrix:** W

Units: ug/L

EDB / DBCP by SW8011	SURROGATE RECOVERY STUDY				
Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
4-Bromofluorobenzene	4.4	5.4	81	60-140	

* Surrogate outside of Laboratory QC limits
** Surrogates outside limits; data and surrogates confirmed by reanalysis
*** Poor recoveries due to dilution
Surrogate Recovery [D] = 100 * A / B
All results are based on MDL and validated for QC purposes.

Z = Surrogate Recovery exceeded the Labortatory QC limits

Version: 1.%

Form 2 - Surrogate Recoveries

Project Name: Warren Green Grocery

Report Date: 12/19/07 10:44

Work Order #: 13188

Project ID: C-07-06-09

Lab Batch #: 38732 **Sample:** 13188-012 / SMP **Batch:** 1 **Matrix:** W

Units: ug/L

EDB / DBCP by SW8011 Analytes	SURROGATE RECOVERY STUDY				
	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
4-Bromofluorobenzene	4.8	5.4	89	60-140	

Lab Batch #: 38732 **Sample:** 13188-013 / SMP **Batch:** 1 **Matrix:** W

Units: ug/L

EDB / DBCP by SW8011 Analytes	SURROGATE RECOVERY STUDY				
	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
4-Bromofluorobenzene	4.4	5.4	81	60-140	

Lab Batch #: 38732 **Sample:** 13188-013 / SMP **Batch:** 1 **Matrix:** W

Units: ug/L

EDB / DBCP by SW8011 Analytes	SURROGATE RECOVERY STUDY				
	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
4-Bromofluorobenzene	5.0	5.4	93	60-140	

Lab Batch #: 38732 **Sample:** 13188-014 / SMP **Batch:** 1 **Matrix:** W

Units: ug/L

EDB / DBCP by SW8011 Analytes	SURROGATE RECOVERY STUDY				
	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
4-Bromofluorobenzene	4.0	5.4	74	60-140	

Lab Batch #: 38732 **Sample:** 13188-014 / SMP **Batch:** 1 **Matrix:** W

Units: ug/L

EDB / DBCP by SW8011 Analytes	SURROGATE RECOVERY STUDY				
	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
4-Bromofluorobenzene	4.7	5.4	87	60-140	

* Surrogate outside of Laboratory QC limits
** Surrogates outside limits; data and surrogates confirmed by reanalysis
*** Poor recoveries due to dilution
Surrogate Recovery [D] = 100 * A / B
All results are based on MDL and validated for QC purposes.
Z = Surrogate Recovery exceeded the Labortatory QC limits

Version: 1.%

Form 2 - Surrogate Recoveries

Project Name: Warren Green Grocery

Report Date: 12/19/07 10:44

Project ID: C-07-06-09

Work Order #: 13188

Lab Batch #: 38732 **Sample:** 13188-015 / SMP **Batch:** 1 **Matrix:** W

Units: ug/L

EDB / DBCP by SW8011 Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
4-Bromofluorobenzene	5.5	5.6	98	60-140	

Lab Batch #: 38732 **Sample:** 13188-015 / SMP **Batch:** 1 **Matrix:** W

Units: ug/L

EDB / DBCP by SW8011 Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
4-Bromofluorobenzene	6.0	5.6	107	60-140	

Lab Batch #: 38732 **Sample:** 13188-016 / SMP **Batch:** 1 **Matrix:** W

Units: ug/L

EDB / DBCP by SW8011 Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
4-Bromofluorobenzene	5.8	5.3	109	60-140	

Lab Batch #: 38732 **Sample:** 13188-016 / SMP **Batch:** 1 **Matrix:** W

Units: ug/L

EDB / DBCP by SW8011 Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
4-Bromofluorobenzene	6.4	5.3	121	60-140	

Lab Batch #: 38732 **Sample:** 13188-017 / SMP **Batch:** 1 **Matrix:** W

Units: ug/L

EDB / DBCP by SW8011 Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
4-Bromofluorobenzene	4.7	5.6	84	60-140	

* Surrogate outside of Laboratory QC limits
** Surrogates outside limits; data and surrogates confirmed by reanalysis
*** Poor recoveries due to dilution
Surrogate Recovery [D] = 100 * A / B
All results are based on MDL and validated for QC purposes.

Z = Surrogate Recovery exceeded the Labortatory QC limits

Version: 1.%

XENCO Laboratories

Form 2 - Surrogate Recoveries

Project Name: Warren Green Grocery

Report Date: 12/19/07 10:44

Work Order #: 13188

Project ID: C-07-06-09

Lab Batch #: 38732 Sample: 13188-017 / SMP Batch: 1 Matrix: W

Units: ug/L

EDB / DBCP by SW8011 Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
	SURROGATE RECOVERY STUDY				
4-Bromofluorobenzene	5.1	5.6	91	60-140	

Lab Batch #: 38732 Sample: 304620 BLK / BLK Batch: 1 Matrix: W

Units: ug/L

EDB / DBCP by SW8011 Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
	SURROGATE RECOVERY STUDY				
4-Bromofluorobenzene	4.5	5.0	90	60-140	

Lab Batch #: 38732 Sample: 304620 BLK / BLK Batch: 1 Matrix: W

Units: ug/L

EDB / DBCP by SW8011 Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
	SURROGATE RECOVERY STUDY				
4-Bromofluorobenzene	5.2	5.0	104	60-140	

Lab Batch #: 38735 Sample: 13188-001 / DIL Batch: 1 Matrix: W

Units: ug/L

EDB / DBCP by SW8011 Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
	SURROGATE RECOVERY STUDY				
4-Bromofluorobenzene	<0	4.4	0	60-140	Z

Lab Batch #: 38735 Sample: 13188-001 / DIL Batch: 1 Matrix: W

Units: ug/L

EDB / DBCP by SW8011 Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
	SURROGATE RECOVERY STUDY				
4-Bromofluorobenzene	<0	4.4	0	60-140	Z

* Surrogate outside of Laboratory QC limits
** Surrogates outside limits; data and surrogates confirmed by reanalysis
*** Poor recoveries due to dilution
Surrogate Recovery [D] = 100 * A / B
All results are based on MDL and validated for QC purposes.

Z = Surrogate Recovery exceeded the Labortatory QC limits

Version: 1.%

XENCO Laboratories

Form 2 - Surrogate Recoveries

Project Name: Warren Green Grocery

Report Date: 12/19/07 1(:44

Work Order #: 13188

Project ID: C-07-06-09

Lab Batch #: 38735 **Sample:** 13188-001 / SMP **Batch:** 1 **Matrix:** W

Units: ug/L

EDB / DBCP by SW8011 Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
4-Bromofluorobenzene	5.9	4.4	134	60-140	

Lab Batch #: 38735 **Sample:** 13188-001 / SMP **Batch:** 1 **Matrix:** W

Units: ug/L

EDB / DBCP by SW8011 Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
4-Bromofluorobenzene	4.2	4.4	95	60-140	

Lab Batch #: 38735 **Sample:** 304622 BLK / BLK **Batch:** 1 **Matrix:** W

Units: ug/L

EDB / DBCP by SW8011 Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
4-Bromofluorobenzene	5.8	5.0	116	60-140	

Lab Batch #: 38735 **Sample:** 304622 BLK / BLK **Batch:** 1 **Matrix:** W

Units: ug/L

EDB / DBCP by SW8011 Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
4-Bromofluorobenzene	5.7	5.0	114	60-140	

Lab Batch #: 38532 **Sample:** 13188-001 / SMP **Batch:** 1 **Matrix:** W

Units: ug/L

Select VOCs by SW8260B Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,2-Dichloroethane-d4	51.40	50.00	103	53-159	
Bromofluorobenzene	49.92	50.00	100	30-186	
Toluene-d8	45.75	50.00	92	77-124	

* Surrogate outside of Laboratory QC limits
** Surrogates outside limits; data and surrogates confirmed by reanalysis
*** Poor recoveries due to dilution
Surrogate Recovery [D] = 100 * A / B
All results are based on MDL and validated for QC purposes.
Z = Surrogate Recovery exceeded the Labortatory QC limits

Version: 1.%

Form 2 - Surrogate Recoveries

Project Name: Warren Green Grocery

Report Date: 12/19/07 10:44

Work Order #: 13188

Project ID: C-07-06-09

Lab Batch #: 38532 **Sample:** 13188-002 / SMP **Batch:** 1 **Matrix:** W

Units: ug/L

Select VOCs by SW8260B Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,2-Dichloroethane-d4	50.49	50.00	101	53-159	
Bromofluorobenzene	48.83	50.00	98	30-186	
Toluene-d8	53.19	50.00	106	77-124	

Lab Batch #: 38532 **Sample:** 304507 BLK / BLK **Batch:** 1 **Matrix:** W

Units: ug/L

Select VOCs by SW8260B Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,2-Dichloroethane-d4	49.79	50.00	100	64-136	
Bromofluorobenzene	53.39	50.00	107	66-148	
Toluene-d8	53.29	50.00	107	83-126	

Lab Batch #: 38564 **Sample:** 13188-003 / SMP **Batch:** 1 **Matrix:** W

Units: ug/L

Select VOCs by SW8260B Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,2-Dichloroethane-d4	48.85	50.00	98	53-159	
Bromofluorobenzene	46.99	50.00	94	30-186	
Toluene-d8	40.67	50.00	81	77-124	

Lab Batch #: 38564 **Sample:** 13188-004 / SMP **Batch:** 1 **Matrix:** W

Units: ug/L

Select VOCs by SW8260B Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,2-Dichloroethane-d4	47.96	50.00	96	53-159	
Bromofluorobenzene	49.43	50.00	99	30-186	
Toluene-d8	38.81	50.00	78	77-124	

* Surrogate outside of Laboratory QC limits
** Surrogates outside limits; data and surrogates confirmed by reanalysis
*** Poor recoveries due to dilution
Surrogate Recovery [D] = 100 * A / B
All results are based on MDL and validated for QC purposes.
Z = Surrogate Recovery exceeded the Labortatory QC limits

Version: 1.%

Form 2 - Surrogate Recoveries

Project Name: Warren Green Grocery

Report Date: 12/19/07 10:44

Work Order #: 13188

Project ID: C-07-06-09

Lab Batch #: 38564 **Sample:** 13188-005 / SMP **Batch:** 1 **Matrix:** W

Units: ug/L

Select VOCs by SW8260B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,2-Dichloroethane-d4	49.11	50.00	98	53-159	
Bromofluorobenzene	50.61	50.00	101	30-186	
Toluene-d8	39.69	50.00	79	77-124	

Lab Batch #: 38564 **Sample:** 13188-006 / SMP **Batch:** 1 **Matrix:** W

Units: ug/L

Select VOCs by SW8260B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,2-Dichloroethane-d4	50.65	50.00	101	53-159	
Bromofluorobenzene	52.54	50.00	105	30-186	
Toluene-d8	52.95	50.00	106	77-124	

Lab Batch #: 38564 **Sample:** 13188-011 / SMP **Batch:** 1 **Matrix:** W

Units: ug/L

Select VOCs by SW8260B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,2-Dichloroethane-d4	47.74	50.00	95	53-159	
Bromofluorobenzene	50.51	50.00	101	30-186	
Toluene-d8	40.95	50.00	82	77-124	

Lab Batch #: 38564 **Sample:** 13188-012 / SMP **Batch:** 1 **Matrix:** W

Units: ug/L

Select VOCs by SW8260B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,2-Dichloroethane-d4	47.38	50.00	95	53-159	
Bromofluorobenzene	49.68	50.00	99	30-186	
Toluene-d8	51.07	50.00	102	77-124	

* Surrogate outside of Laboratory QC limits
** Surrogates outside limits; data and surrogates confirmed by reanalysis
*** Poor recoveries due to dilution
Surrogate Recovery [D] = 100 * A / B
All results are based on MDL and validated for QC purposes.
Z = Surrogate Recovery exceeded the Labortatory QC limits

Version: 1.%

Form 2 - Surrogate Recoveries

Project Name: Warren Green Grocery

Report Date: 12/19/07 10:44

Work Order #: 13188

Project ID: C-07-06-09

Lab Batch #: 38564 **Sample:** 13188-013 / SMP **Batch:** 1 **Matrix:** W

Units: ug/L

Select VOCs by SW8260B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
	SURROGATE RECOVERY STUDY				
1,2-Dichloroethane-d4	48.73	50.00	97	53-159	
Bromofluorobenzene	49.59	50.00	99	30-186	
Toluene-d8	42.45	50.00	85	77-124	

Lab Batch #: 38564 **Sample:** 304534 BLK / BLK **Batch:** 1 **Matrix:** W

Units: ug/L

Select VOCs by SW8260B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
	SURROGATE RECOVERY STUDY				
1,2-Dichloroethane-d4	47.81	50.00	96	64-136	
Bromofluorobenzene	50.01	50.00	100	66-148	
Toluene-d8	53.27	50.00	107	83-126	

Lab Batch #: 38565 **Sample:** 13188-001 DL / DIL **Batch:** 1 **Matrix:** W

Units: ug/L

Select VOCs by SW8260B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
	SURROGATE RECOVERY STUDY				
1,2-Dichloroethane-d4	45.95	50.00	92	53-159	
Bromofluorobenzene	47.50	50.00	95	30-186	
Toluene-d8	42.43	50.00	85	77-124	

Lab Batch #: 38565 **Sample:** 13188-010 / SMP **Batch:** 1 **Matrix:** W

Units: ug/L

Select VOCs by SW8260B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
	SURROGATE RECOVERY STUDY				
1,2-Dichloroethane-d4	47.12	50.00	94	53-159	
Bromofluorobenzene	45.77	50.00	92	30-186	
Toluene-d8	43.05	50.00	86	77-124	

* Surrogate outside of Laboratory QC limits
** Surrogates outside limits; data and surrogates confirmed by reanalysis
*** Poor recoveries due to dilution
Surrogate Recovery [D] = 100 * A / B
All results are based on MDL and validated for QC purposes.
Z = Surrogate Recovery exceeded the Labortatory QC limits

Version: 1.%

Form 2 - Surrogate Recoveries

Project Name: Warren Green Grocery

Report Date: 12/19/07 10:44

Project ID: C-07-06-09

Work Order #: 13188

Lab Batch #: 38565 **Sample:** 304535 BLK / BLK **Batch:** 1 **Matrix:** W

Units: ug/L

Select VOCs by SW8260B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,2-Dichloroethane-d4	44.66	50.00	89	64-136	
Bromofluorobenzene	50.14	50.00	100	66-148	
Toluene-d8	50.55	50.00	101	83-126	

Lab Batch #: 38581 **Sample:** 13188-001 DL2 / DIL **Batch:** 1 **Matrix:** W

Units: ug/L

Select VOCs by SW8260B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,2-Dichloroethane-d4	45.56	50.00	91	53-159	
Bromofluorobenzene	47.58	50.00	95	30-186	
Toluene-d8	43.52	50.00	87	77-124	

Lab Batch #: 38581 **Sample:** 13188-007 / SMP **Batch:** 1 **Matrix:** W

Units: ug/L

Select VOCs by SW8260B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,2-Dichloroethane-d4	46.77	50.00	94	53-159	
Bromofluorobenzene	47.03	50.00	94	30-186	
Toluene-d8	41.43	50.00	83	77-124	

Lab Batch #: 38581 **Sample:** 13188-007 DL / DIL **Batch:** 1 **Matrix:** W

Units: ug/L

Select VOCs by SW8260B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,2-Dichloroethane-d4	47.02	50.00	94	53-159	
Bromofluorobenzene	45.61	50.00	91	30-186	
Toluene-d8	42.17	50.00	84	77-124	

* Surrogate outside of Laboratory QC limits
** Surrogates outside limits; data and surrogates confirmed by reanalysis
*** Poor recoveries due to dilution
Surrogate Recovery [D] = 100 * A / B
All results are based on MDL and validated for QC purposes.

Z = Surrogate Recovery exceeded the Labortatory QC limits

Version: 1.%

XENCO Laboratories

Form 2 - Surrogate Recoveries

Project Name: Warren Green Grocery

Report Date: 12/19/07 10:44

Work Order #: 13188

Project ID: C-07-06-09

Lab Batch #: 38581 **Sample:** 13188-008 / SMP **Batch:** 1 **Matrix:** W

Units: ug/L

Select VOCs by SW8260B Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,2-Dichloroethane-d4	41.98	50.00	84	53-159	
Bromofluorobenzene	46.90	50.00	94	30-186	
Toluene-d8	41.20	50.00	82	77-124	

Lab Batch #: 38581 **Sample:** 13188-008 DL / DIL **Batch:** 1 **Matrix:** W

Units: ug/L

Select VOCs by SW8260B Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,2-Dichloroethane-d4	43.76	50.00	88	53-159	
Bromofluorobenzene	46.18	50.00	92	30-186	
Toluene-d8	42.96	50.00	86	77-124	

Lab Batch #: 38581 **Sample:** 13188-009 / SMP **Batch:** 1 **Matrix:** W

Units: ug/L

Select VOCs by SW8260B Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,2-Dichloroethane-d4	46.10	50.00	92	53-159	
Bromofluorobenzene	47.64	50.00	95	30-186	
Toluene-d8	44.90	50.00	90	77-124	

Lab Batch #: 38581 **Sample:** 304545 BLK / BLK **Batch:** 1 **Matrix:** W

Units: ug/L

Select VOCs by SW8260B Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,2-Dichloroethane-d4	45.51	50.00	91	64-136	
Bromofluorobenzene	48.75	50.00	98	66-148	
Toluene-d8	47.72	50.00	95	83-126	

* Surrogate outside of Laboratory QC limits
** Surrogates outside limits; data and surrogates confirmed by reanalysis
*** Poor recoveries due to dilution
Surrogate Recovery [D] = 100 * A / B
All results are based on MDL and validated for QC purposes.

Z = Surrogate Recovery exceeded the Labortatory QC limits

Version: 1.%

XENCO Laboratories

Form 2 - Surrogate Recoveries

Project Name: Warren Green Grocery

Report Date: 12/19/07 10:44

Work Order #: 13188

Project ID: C-07-06-09

Lab Batch #: 38564 **Sample:** 13188-014 / SMP **Batch:** 1 **Matrix:** W

Units: ug/L

VOCs by SW8260B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
	SURROGATE RECOVERY STUDY				
1,2-Dichloroethane-d4	48.57	50.00	97	53-159	
Bromofluorobenzene	51.11	50.00	102	30-186	
Toluene-d8	52.76	50.00	106	77-124	

Lab Batch #: 38565 **Sample:** 13188-015 / SMP **Batch:** 1 **Matrix:** W

Units: ug/L

VOCs by SW8260B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
	SURROGATE RECOVERY STUDY				
1,2-Dichloroethane-d4	46.83	50.00	94	53-159	
Bromofluorobenzene	50.67	50.00	101	30-186	
Toluene-d8	54.13	50.00	108	77-124	

Lab Batch #: 38565 **Sample:** 13188-016 / SMP **Batch:** 1 **Matrix:** W

Units: ug/L

VOCs by SW8260B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
	SURROGATE RECOVERY STUDY				
1,2-Dichloroethane-d4	47.23	50.00	94	53-159	
Bromofluorobenzene	50.25	50.00	101	30-186	
Toluene-d8	42.93	50.00	86	77-124	

Lab Batch #: 38565 **Sample:** 13188-017 / SMP **Batch:** 1 **Matrix:** W

Units: ug/L

VOCs by SW8260B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
	SURROGATE RECOVERY STUDY				
1,2-Dichloroethane-d4	48.78	50.00	98	53-159	
Bromofluorobenzene	49.83	50.00	100	30-186	
Toluene-d8	42.99	50.00	86	77-124	

* Surrogate outside of Laboratory QC limits
** Surrogates outside limits; data and surrogates confirmed by reanalysis
*** Poor recoveries due to dilution
Surrogate Recovery [D] = 100 * A / B
All results are based on MDL and validated for QC purposes.
Z = Surrogate Recovery exceeded the Labortatory QC limits

Version: 1.%

Analysis Summary
Sample: DW-1
Project C-07-06-09
Warren Green Grocery
Yemasee, South Carolina

ANALYTICAL PARAMETER	UNIT	RESULT
Initial Moisture Content	%	20.66
Particle Size Analysis		
Gravel	%	0
Sand	%	93.9
Fines:	%	6.1
Silt	%	4.6
Clay	%	1.5

Analysis By: ____

SIEVE AND HYDROMETER ANALYSIS
REPORT FORM
ASTM D422

Project: Warren Green Grocery
Project # C-07-06-09
Sample ID: DW-1

Location: Yemasee, South Carolina
Sampled By: Van Chisholme
Depth: 45'

Testing Date: 12/5/07

Tare Wt	40.6g
Wet Wt Soil + Tare	253.0g
Dry Wt Soil + Tare	209.1g
Water Wt	43.9g
Wt Wet Soil	212.4
Wt Dry Soil	168.5
Moisture Content	20.66%

Sieve	Wt	Wt-Tare	% Finer
1/2 in.			
3/8 in.			
#4		0g	100.0
#10	276.4g	34.2g	85.5
#20	275.8g	33.6g	64.7
#40	262.9g	20.7g	46.2
#60	261.3g	19.1g	30.0
#140	277.4g	35.2g	17.0
#200	267.9g	19.6g	3.6
*Tare Wt = 242.2g			Sample Wt = 168.5g

Hydrometer Analysis

Wt Dry Soil = 6.1g
Date Started: 12/5/07
Time Started: 11:00 AM

Soil Description:

Date	Time	Elapsed T (min)	Temp (F)	Temp ©	Reading (Actual)	Corr. Applied	Reading (Correct.)	%	D
12/05/07	11:00	2	79.0	26.1	33	4.6	28.4	20.6	0.0293
12/05/07	11:05	5	78.8	26.0	28	4.7	23.3	16.9	0.0192
12/05/07	11:15	15	78.4	25.8	23	4.8	18.2	13.2	0.0114
12/05/07	11:30	30	78.2	25.7	20	4.9	15.1	11.0	0.0082
12/05/07	12:00	60	77.4	25.2	17	5.2	11.8	8.6	0.0060
12/05/07	3:50	270	76.4	24.7	12	5.5	6.5	4.7	0.0030

2007
GRAIN SIZE ANALYSIS

APPENDIX 4
DISPOSAL MAINIFEST

Agra Environmental

December 3, 2007

Ms. Minda Johnson
Assessment Section
Assessment & Corrective Action Division
Underground Storage Tank Program
Bureau of Land & Waste Management
South Carolina DHEC
2600 Bull Street
Columbia, South Carolina 29201

RE: Tier II Assessment Report
Warren Green Grocery
10733 West Frontage Road
Yemassee, South Carolina
SCDHEC Site ID # 04887, CA# 29932

Dear Ms. Johnson,

This letter serves as certification that all water encountered during our Tier II work was handled in a manner that complies with all conditions established by DHEC for treatment of small amounts of petroleum hydrocarbon contaminated groundwater.

Source:

Groundwater obtained as a result of well development, well purging and groundwater sampling.

Conditions:

- No free product was disposed of separately from the drums of water.
- Analytical results show an average concentration of less than 67.0 ppb Benzene and less than 614.0 ppb total BTEX.
- The water obtained was containerized on site, for a period of less than 30 days, prior to treatment by the activated carbon canisters.
- Records of carbon canister usage are maintained by Agra.
- The carbon canisters have an expected life of 5,000 gallons before replacement is required.
- Recommendations and conditions issued by the canister manufacturer and SCDHEC have been followed.

P.O. Box 5306 Cary, NC 27512
(919) 858-5350 FAX (919) 858-5351

NON-HAZARDOUS WASTE MANIFEST	1. Generator ID Number	2. Page 1 of	3. Emergency Response Phone	4. Waste Tracking Number
	[illegible]	1	919-851-4319	12661

5. Generator's Name and Mailing Address

WARREN GREEN
10773 WEST FRONTAGE ROAD
YEMASSEE, SC ~~[illegible]~~ 29945

Generator's Phone: [illegible]

Generator's Site Address (if different than mailing address)

6. Transporter 1 Company Name: Clean Management Container

U.S. EPA ID Number

7. Transporter 2 Company Name

U.S. EPA ID Number

8. Designated Facility Name and Site Address

CMEB, INC.
917 INDUSTRIAL ROAD
WALTERBORO, SC 29488

Facility's Phone: [illegible]

U.S. EPA ID Number: SCR000003442

9a. HM	9b. U.S. DOT Description (including Proper Shipping Name, Hazard Class, ID Number, and Packing Group (if any))	10. Containers No.	10. Containers Type	11. Total Quantity	12. Unit Wt./Vol.
	1. PETROLEUM CONTAMINATED SOIL, #12332 NON HAZARDOUS/NON REGULATED	2	DM	1.600	P
	2.				
	3.				
	4.				

13. Special Handling Instructions and Additional Information

A: 12332
B:
C:
D:

14. GENERATOR'S CERTIFICATION: I certify the materials described above on this manifest are not subject to federal regulations for reporting proper disposal of Hazardous Waste.

Generator's/Offeror's Printed/Typed Name: Scott D Bridgeman

Signature: [signature]

Month Day Year

15. International Shipments ☐ Import to U.S. ☐ Export from U.S. Port of entry/exit:

Transporter Signature (for exports only): Date leaving U.S.:

16. Transporter Acknowledgment of Receipt of Materials

Transporter 1 Printed/Typed Name: DONALD FRYAR

Signature: Donald Fryar

Month Day Year: 12 26 07

Transporter 2 Printed/Typed Name

Signature

Month Day Year

17. Discrepancy

17a. Discrepancy Indication Space ☐ Quantity ☐ Type ☐ Residue ☐ Partial Rejection ☐ Full Rejection

Manifest Reference Number:

17b. Alternate Facility (or Generator)

U.S. EPA ID Number

Facility's Phone:

17c. Signature of Alternate Facility (or Generator)

Month Day Year

18. Designated Facility Owner or Operator: Certification of receipt of hazardous materials covered by the manifest except as noted in Item 17a

Printed/Typed Name: Mark Regelin

Signature: Mark Regelin

Month Day Year: 12 20 07

GENERATOR / INT'L / TRANSPORTER / DESIGNATED FACILITY

169-BLS-C6 10497

DESIGNATED FACILITY TO GENERATOR

- All water obtained was treated on site using an up-flow treatment drum consisting of 90 lbs. of activated carbon. Manufacturer's suggested treatment life is 5,000 gallons of water.

Specific site conditions of referenced site:

- A total of Four 55-gallon drums of water were treated on November 30, 2007 at the referenced site

Should you have any questions, please contact me at 919-858-5350.

Sincerely,
Agra Environmental, Inc.

John W Klein AS AGENT FOR

John Klien
Project Manager

APPENDIX 5
SURVEY PLAT

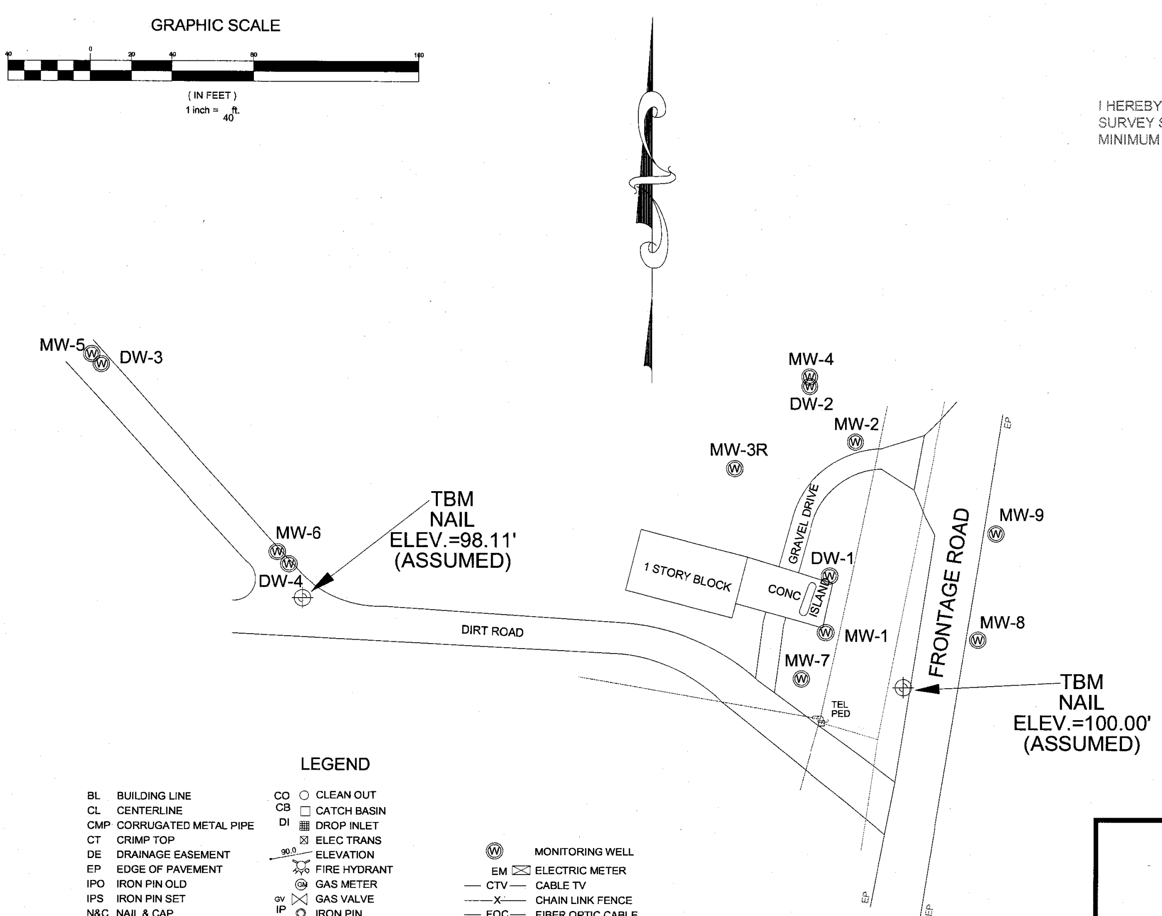
SURVEY WILL BE MAILED DIRECTLY
TO THE SCDHEC OFFICE

GRAPHIC SCALE

(IN FEET)
1 inch = 40 ft.

I HEREBY STATE TO THE BEST OF MY KNOWLEDGE, INFORMATION, AND BELIEF, THE SURVEY SHOWN HEREON WAS MADE IN ACCORDANCE WITH THE REQUIREMENTS OF THE MINIMUM STANDARDS MANUAL FOR THE PRACTICE OF LAND SURVEYING IN SOUTH CAROLINA.

JOE F. GOSNELL, P.L.S.
S.C. REG. NO. 16501



MW #	TOP OF LID
MW 1	98.02'
MW 2	98.90'
MW 3R	98.72'
MW 4	98.61'
MW 5	97.30'
MW 6	97.14'
MW 7	97.90'
MW 8	99.77'
MW 9	99.74'
DW 1	98.12'
DW 2	98.66'
DW 3	97.23'
DW 4	97.30'

LEGEND

BL BUILDING LINE
CL CENTERLINE
CMP CORRUGATED METAL PIPE
CT CRIMP TOP
DE DRAINAGE EASEMENT
EP EDGE OF PAVEMENT
IPO IRON PIN OLD
IPS IRON PIN SET
N&C NAIL & CAP
OT OPEN TOP
RB REBAR
RCP REINFORCED CONC PIPE
R/W RIGHT OF WAY
SD STORM DRAIN
SS SANITARY SEWER
SSE SS EASEMENT
VCP VITRIFIED CLAY PIPE

CO CLEAN OUT
CB CATCH BASIN
DI DROP INLET
ELEC TRANS
90.0 ELEVATION
FIRE HYDRANT
GAS METER
GV GAS VALVE
IP IRON PIN
LP LIGHT POLE
MHBS MANHOLE (BELL SOUTH)
MHSD MANHOLE (SD)
MHSS MANHOLE (SS)
PP POWER POLE
TEL TELEPHONE PEDESTAL
WM WATER METER
WV WATER VALVE

W MONITORING WELL
EM ELECTRIC METER
—CTV— CABLE TV
—X— CHAIN LINK FENCE
—FOC— FIBER OPTIC CABLE
—GAS— GAS LINE
—OHP— OVERHEAD POWER
—OHT— OVERHEAD TELEPHONE
—SD— STORM DRAIN
—SS— SANITARY SEWER
—UGP— UNDERGROUND POWER
—UGT— UNDERGROUND TEL
—W— WATER LINE

MONITORING WELL SURVEY FOR
CONSULTECH ENVIRONMENTAL, INC.
JASPER COUNTY, SOUTH CAROLINA

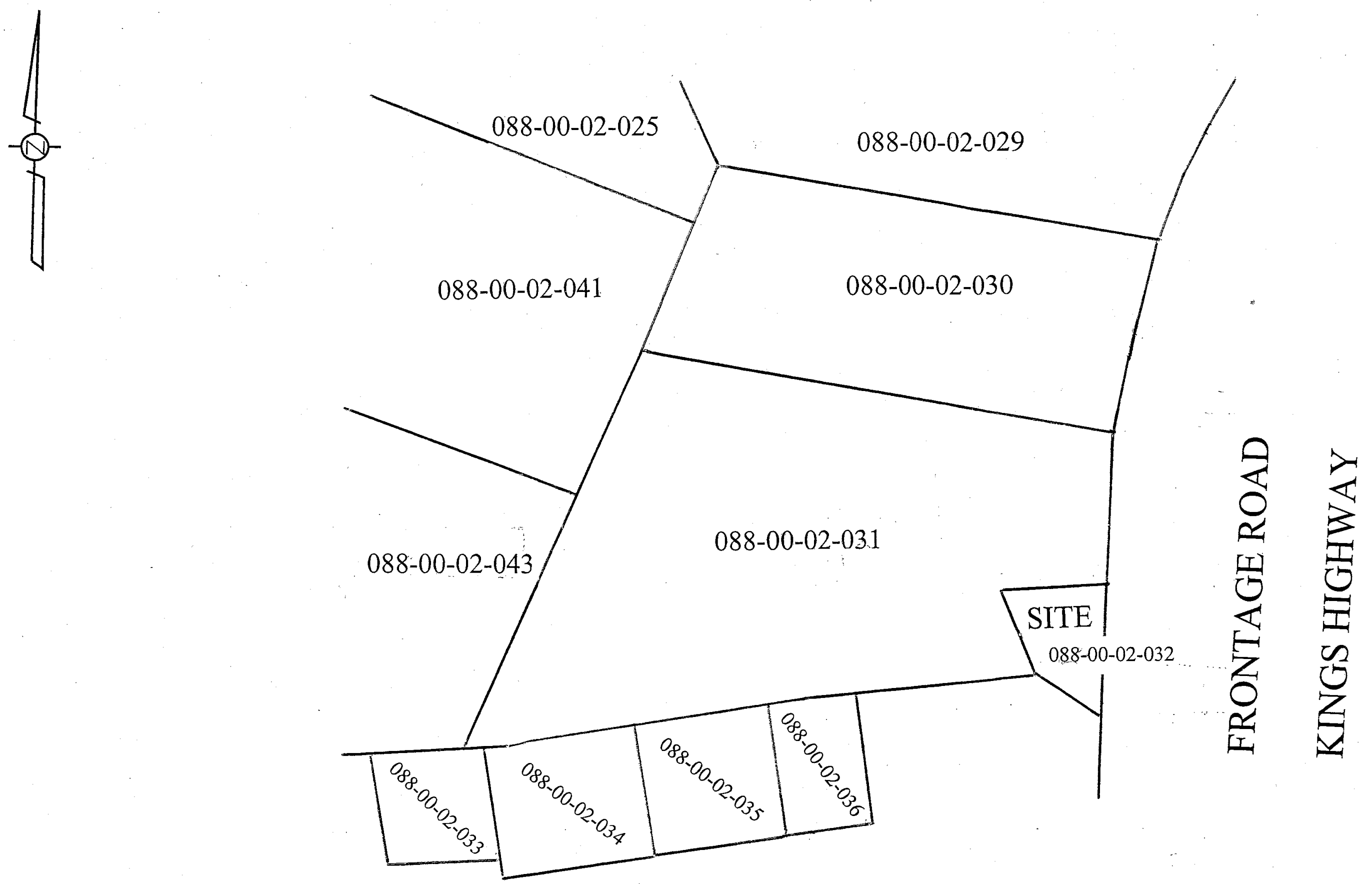
SCALE	PROPERTY ADDRESS	CHECKED BY	
1"=60'	FRONTAGE ROAD	ACJ	
DATE	40 0 40 80	FIELD BOOK	DRAWN BY
12-19-07		CH/DF	JFG

SDI
SITE DESIGN, INC.
CIVIL ENGINEERS AND SURVEYORS
420 EAST PARK AVENUE, SUITE 100
GREENVILLE, SOUTH CAROLINA, 29601 (864) 271-0496

S070742

APPENDIX 6
TAX MAP AND PROPERTY OWNERS

Parcel #	Name and Address
088-00-02-030	Charleston Southern University, PO Box 10087, Charleston, SC 29423
088-00-02-041	Leon Davis, 7 Glen Eden Court, Savannah, GA 31419
088-00-02-031	Reginold D. Bascom, 4 Crabapple Lane, Ridgeland, SC 29936
088-00-02-034	Mary Davis, 3429 Fisher Road, Newman GA 30265
088-00-02-035	Rebecca Bowers, Rt. 3, Box 55, Yemassee, SC 29945
088-00-02-036	Mamie Powell, 1503 New Castle St., Savannah, GA 31415
088-00-02-023	Wyman Boozer Reality, 1572 Broadriver Road Suite A, Columbia, SC 29210
088-00-02-032	Eady Lesonya, 189 Oakhill Road, Ridgeland, SC 29936
088-00-02-043	James Meachem, Rt. 3, Box 55-A, Yemassee, SC 29945



CONSULTECH ENVIRONMENTAL, LLC. Environmental Consulting and Engineering © 1999 Delivering innovative solutions to today's environmental concerns	DRAWN: TAD	DATE: 09/11/07
	SITE ID # 04887	
	PROJECT: Warren Green	
	PROJECT No.: C-07-06-09	
	LOCATION: YEMASSEE, SC	

TAX MAP

APPENDIX 7
SLUG TEST INFORMATION

DW-3

Site Name: WARREN GREENS
Location: YEMASEE, SOUTH CAROLINA
Test Date: 11/28/07
Client: SC DHEC
Project Number: C-07-06-09

Well Label: DW-3
Aquifer Thickness: 34.88 feet
Screen Length: 5. feet
Casing Radius: 2. Inches
Effective Radius: 6. Inches
Gravel Pack Porosity: 30. %
Corrected Casing Radius: 3.688 Inches
Static Water Level: 15.12 feet
Water Table to Screen Bottom: 34.88 feet
Anisotropy Ratio: 1.
Time Adjustment: 15. Seconds
Test starts with trial 0
There are 27 time and drawdown measurements
Maximum head is 30.38 feet
Minimum head is 0. feet

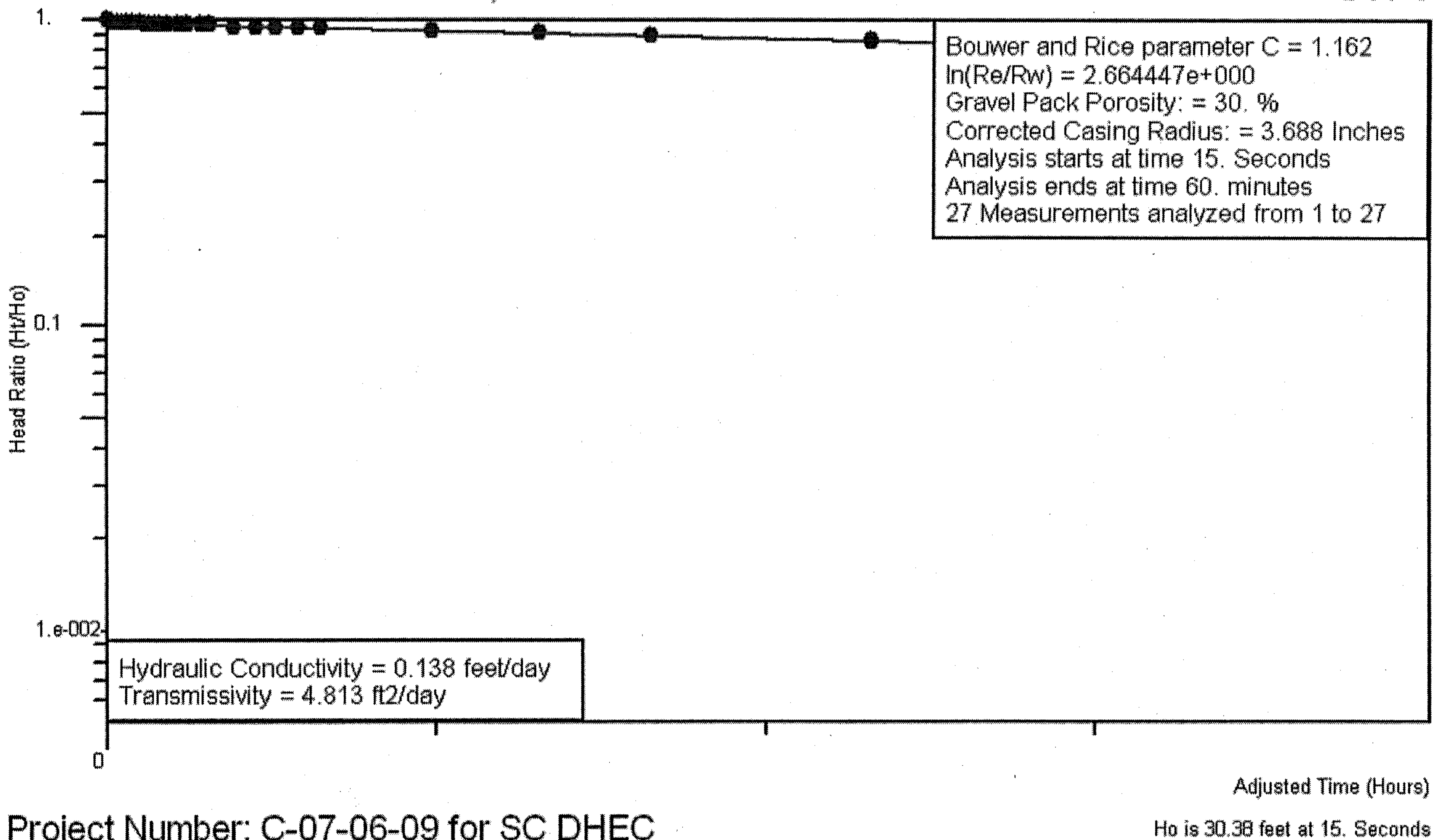
Trial	Time (minutes)	Adjusted Time (minutes)	Drawdown (feet)	Head (feet)	Head Ratio
1	0.25	0.	45.5	30.38	1.
2	0.5	0.25	45.32	30.2	0.9941
3	0.75	0.5	45.2	30.08	0.9901
4	1.	0.75	45.1	29.98	0.9868
5	1.25	1.	45.04	29.92	0.9849
6	1.5	1.25	44.99	29.87	0.9832
7	1.75	1.5	44.94	29.82	0.9816
8	2.	1.75	44.88	29.76	0.9796
9	2.25	2.	44.82	29.7	0.9776
10	2.5	2.25	44.79	29.67	0.9766
11	2.75	2.5	44.75	29.63	0.9753
12	3.	2.75	44.72	29.6	0.9743
13	3.5	3.25	44.65	29.53	0.972
14	4.	3.75	44.6	29.48	0.9704
15	4.5	4.25	44.52	29.4	0.9677
16	5.	4.75	44.46	29.34	0.9658
17	6.	5.75	44.35	29.23	0.9621
18	7.	6.75	44.19	29.07	0.9569
19	8.	7.75	44.1	28.98	0.9539
20	9.	8.75	43.99	28.87	0.9503
21	10.	9.75	43.9	28.78	0.9473
22	15.	14.75	43.36	28.24	0.9296
23	20.	19.75	42.95	27.83	0.9161
24	25.	24.75	42.4	27.28	0.898
25	35.	34.75	41.44	26.32	0.8664
26	45.	44.75	40.5	25.38	0.8354
27	60.	59.75	39.01	23.89	0.7864

DW-3 11/28/07

WARREN GREENS YEMASEE, SOUTH CAROLINA

Bouwer and Rice Graph

DW-3



Project Number: C-07-06-09 for SC DHEC

Analysis by Starpoint Software

D H E C
PROMOTE PROTECT PROSPER
South Carolina Department of Health and Environmental Control

SOUTH CAROLINA
Department of Health and Evnironmental Control
Summary of Slug Test Form

Site Data

UST Permit # # 04887 County: Colleton

Facility Name Warren Green

Slug Data

See Appendix 7 Table 1 Figure 7 for a list of all data measurements.
(water level logs, etc.) (Complete as appropriate).
Water Level Recovery Data was measured by Manual-Water Level Indicator.
(Hermit Data Logger, Manually with Water Level Indicator, etc.) (List Method).
Complete the following table for each well tested.

COMPLETE A SECOND SHEET IF MORE THAN FOUR WELLS ARE TESTED

Slug Test Conducted in well(s) number	DW-3			
Initial Rise/Drawdown in well (feet)	25.26			
Radius of Well Casing (feet)	0.167			
Effective Radius of Well (feet)	0.50			
Static Saturated Aquifer Thickness (feet)	34.88			
Length of Well Screen (feet)	5.00			
Static Height of Water Column in Well (ft)	15.12			

Calculations

See Appendix 7 Table 1 Figure 7 for calculations. (Complete as appropriate).
The method for aquifer calculations was Bouwer and Rice
Calculated values by well were as follows:

Slug Test Conducted in well(s) number	DW-3			
Hydraulic Conductivity	0.138 ft/d			

Thickness of the aquifer used to calculate hydraulic conductivity was 34.88 feet.
The aquifer is ______ confined _____ semi-confined X water table (Check as appropriate).

The estimated seepage velocity is 2.92 feet per year based on a hydraulic conductivity of 0.138 ft/day, a hydraulic gradient of 0.006 ft/ft, and a porosity of 10 per cent for Clay/sand soil (list type i.e., silty sand ,clay, etc).

D H E C
PROMOTE PROTECT PROSPER
C. Earl Hunter, Commissioner
Promoting and protecting the health of the public and the environment.

MAY 25 2005

LASONYA EADY, REGINALD BASCOM, AND EVERETTE BASCOM
189 OAKHILL RD
RIDGELAND SC 29936-5645

UST DOCKETING

Re: Warren Green, 10773 W. Frontage Rd., Yemassee, SC
UST Permit # 04887
Release reported on May 16, 2002
Assessment Report received February 9, 2005
Jasper County

Dear Sir or Madam:

The Underground Storage Tank (UST) Program of the South Carolina Department of Health and Environmental Control confirmed a release from the UST system at the referenced site on May 16, 2002.

The referenced report indicates concentrations of chemicals of concern above risk based screening levels in the soil and groundwater in the vicinity of the UST system on May 16, 2002. To determine what risk the release may pose to the environment and public health, and in accordance with Section 280.65 of the South Carolina Underground Storage Tank Control Regulations, implementation of further assessment activities are necessary. The UST Program intends to conduct necessary assessment and remediation work using state funds from the State Underground Petroleum Environmental Response Bank (SUPERB) Account. As you were not the owner or operator of the UST system, there will be no cost to you. As the current property owner, the UST Program is requesting your permission for the contractor to enter the property to perform the necessary work. The UST Program will keep you apprised of all pending activities and provide you a copy of all reports. **Please complete the attached right of entry form and return it to my attention within 15 days from your date of receipt.**

On all correspondence regarding this site, please reference UST Permit # 04887. Please contact me at brineysm@dhec.sc.gov or by telephone at (803) 896-6323 or (800) 826-5435 (within South Carolina only) if you have questions or need additional information.

Sincerely,

Stephanie Briney

Stephanie Briney, Hydrogeologist
Assessment Section
Assessment and Corrective Action Division
Underground Storage Tank Program
Bureau of Land and Waste Management

enc.: Right of Entry Form

cc: Technical File (w/o enc)

D H E C

PROMOTE PROTECT PROSPER

C. Earl Hunter, Commissioner

Promoting and protecting the health of the public and the environment.

RONNY LOWDER
EMERALD INC
PO BOX 3050
SUMTER SC 29151

SEP 19 2006

UST
61T
DOCKETING

Re: **Notice to Proceed-Groundwater Sampling**
Bid # SB-27496-03/08/05; PO# 574989

Dear Mr. Lowder:

Based on the award of the referenced bid package, enclosed are the information packets to conduct six (6) groundwater-sampling events. The packets contain all necessary information for work to begin. The facility has been assigned an individual Cost Agreement (CA) number as listed below. Please reference the CA number and Purchase Order #574989 on the appropriate invoice submitted for payment against the facility.

UST Permit #	Facility	County	# wells	UST Project Manager	Sampling Due Date	Parameters-Groundwater	PACE CA#	EMERALD CA#
05404	Lugoff Sunoco	Kershaw	4	M. Johnson	10/13/06	BTEXMN	27840	27841
14960	Town & Country	Kershaw	7	D. Thoma	10/13/06	BTEXMN & DCA	27551	27552
13204	Gene's Game Room	Lee	16	D. Thoma	10/13/06	BTEXMN & DCA	27878	27879
02447	Gable Quick Stop	Clarendon	5	J. Skowronek	10/13/06	5-BTEXMN & DCA, 2-Oxygenates	27753	27754
01236	Nathans Grocery	Berkeley	5	R. Miner	10/13/06	BTEXMN & DCA	27870	27871
04887	Warren Green Groc	Jasper	5	M. Johnson	10/13/06	BTEXMN, DCA, EDB, Total Pb	27869	27868

Emerald, Inc. will perform services at the sites on behalf of the site's responsible party (RP); however, payment will be made from the SUPERB Account. The site's RP has no obligation for payment for this scope of work. Please coordinate access to the facility with the property owner. Contact information has been provided in the information packet. The Bureau grants pre-approval for transportation of drums of groundwater from the referenced sites to a permitted treatment facility. The contaminated groundwater must be properly stored in labeled 55-gallon drums or equivalent containers. The contaminated groundwater must be accepted by the approved treatment facility. There can be no spillage or leakage in transport. A copy of the disposal manifest from the receiving facility that clearly designates the quantity received must be included with the final report. **Please note, the final report is due within 3 weeks from the date the site is sampled. If the site is not sampled by the specified due date or the report is not received in the specified time period, a late fee may be imposed.**

Please contact me with the sampling schedule before commencing work at these facilities. If you have any questions or need further assistance, please contact me at (803) 896-6397 or thomadl@dhec.sc.gov.

Sincerely,

Debra L Thoma

Debra L. Thoma, Hydrogeologist
Northeastern SC Corrective Action Section
Assessment & Corrective Action Division
Underground Storage Tank Program
Bureau of Land & Waste Management

enc: Information Packets
Approved Cost Agreements

cc: Teresa Adams, PACE Analytical, 9800 Kincey Ave. Ste. 100, Huntersville, NC, 28078 (w/ Approved CAs)
Technical Files

Approved Cost Agreement 7869

Facility: 04887 WARREN GREEN

JOHNSOMS

PO Number:

Task / Description	Categories	Item	Description	Qty / Pct	Unit Price	Amount
11 ANALYSES						
	GW GROUNDWATER	A	BTEX+NAPTH+MTBE	5.0000	23.00	115.00
		E	LEAD	5.0000	7.00	35.00
		F	EDB	5.0000	27.00	135.00
				Total Amount		285.00

Approved Cost Agreement ˜7868

Facility: 04887 WARREN GREEN

JOHNSOMS

PO Number:

Task / Description	Categories	Item	Description	Qty / Pct	Unit Price	Amount
04 MOB/DEMOB						
		B	PERSONNEL	1.0000	114.40	114.40
10 SAMPLE COLLECTION						
		A	GROUND WATER	3.0000	10.00	30.00
		C	WATER SUPPLY	2.0000	10.00	20.00
17 DISPOSAL						
		A2	WASTEWATER - PUMPING TEST	30.0000	0.50	15.00
				Total Amount		179.40

Pace Analytical®

CHAIN-OF-CUSTODY / Analytical Request Document

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

1006222

Section A Required Client Information:

- Company: SCDHEC-UST
- Address: 2600 Bull St Columbia SC 29201
- Email To:
- Phone: 803 896 6240 Fax: 803 896 6245
- Requested Due Date/TAT: 7 day

Section B Required Project Information:

- Report To: D. Thoma
- Copy To:
- Purchase Order No.: 574989
- Project Name: Warren Green Grocery
- Project Number: 04887/CA:27869

Section C Invoice Information:

- Attention: Finance
- Company Name:
- Address:
- Pace Quote Reference:
- Pace Project Manager:
- Pace Profile #:

REGULATORY AGENCY

☐ NPDES ☐ GROUND WATER ☐ DRINKING WATER
☒ UST ☐ RCRA ☐ Other________

SITE LOCATION: ☐GA ☐IL ☐IN ☐MI ☐MN ☐NC ☐OH ☒SC ☐WI ☐OTHER ______

Filtered (Y/N): N N N N

Requested Analysis: BTEXMN(8260B), 1,2-DCA(8260B), EDB(8011), Total Lead

Section D Required Client Information

SAMPLE ID

One Character per box. (A-Z, 0-9 / .-) Samples IDs MUST BE UNIQUE

Valid Matrix Codes MATRIX	CODE
DRINKING WATER	DW
WATER	WT
WASTE WATER	WW
PRODUCT	P
SOIL/SOLID	SL
OIL	OL
WIPE	WP
AIR	AR
OTHER	OT
TISSUE	TS

ITEM #	SAMPLE ID	MATRIX CODE	SAMPLE TYPE G=GRAB C=COMP	COMPOSITE START DATE	COMPOSITE START TIME	COMPOSITE END/GRAB DATE	COMPOSITE END/GRAB TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Unpreserved	H_2SO_4	HNO_3	HCl	NaOH	$Na_2S_2O_3$	Methanol	Other	BTEXMN(8260B)	1,2-DCA(8260B)	EDB(8011)	Total Lead	Residual Chlorine (Y/N)	Pace Project Number Lab I.D
1	MW-1	WT	G	9/27/06	1256	–	–	–	7			1	3					X	X	X	X		Strong Odor
2	~~MW-2~~	~~WT~~	~~G~~						~~7~~			~~1~~	~~3~~					~~X~~	~~X~~	~~X~~	~~X~~		
3	MW-3	WT	G	9/27/06	1216	–	–	–	7			1	3					X	X	X	X		———
4	~~WSW-1~~	~~WT~~	~~G~~						~~7~~			~~1~~	~~3~~					~~X~~	~~X~~	~~X~~	~~X~~		
5	WSW-2	WT	G	9/27/06	1045	–	–	–	7			1	3					X	X	X	X		1ppb N
6																							
7																							
8																							
9																							
10																							
11																							
12																							

UST DOCKETING 627

Additional Comments:

RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME
[signature]	9/27/06	1530			

SAMPLE CONDITION

Temp in °C	Received on Ice	Custody Sealed Cooler	Samples Intact
	Y/N	Y/N	Y/N
	Y/N	Y/N	Y/N
	Y/N	Y/N	Y/N
	Y/N	Y/N	Y/N

SAMPLER NAME AND SIGNATURE

PRINT Name of SAMPLER: Dalton Reames

SIGNATURE of SAMPLER: [signature]

DATE Signed (MM / DD / YY): 9/27/06

SEE REVERSE SIDE FOR INSTRUCTIONS

ALLQ020rev.3,31Mar05

SITE ACTIVITY SUMMARY

UST PERMIT # 04887
FACILITY NAME Warren Green Grocery
COUNTY Jasper
NAME OF SAMPLER DALTON REAMES

Sample ID	sampled?	Date	Time	Depth of Well	Depth to Water	Depth to Product	FP Thickness	# gal purged	comments
MW-1	Y	9/27/06	1208	13.00	8.73	—	—	—	Strong Odor
MW-2	N	—	—	14.00	—	—	—	—	Could Not Locate
MW-3	Y	9/27/06	1216	13.00	11.26	—	—	—	—
WSW-1	N	—	—	—	—	—	—	—	Trash in well casing; Could not insert Bailer
WSW-2	Y	9/27/06	1045	—	—	—	—	—	—

WSW-1: Located pump house; No longer functioning; could not sample from exposed pipe.

MW-2: Searched for MW-2 w/ detector, scale, & map but could not locate

WSW-2: Sampled from Spigot on right side of house as seen from dirt road.

Site Visit

~~Telephone~~ Log

Re: Scotchman #147 (SWPD# 04787) Date 3-31-95

~~Person~~ talked to: ______

☐ Incoming ☐ Outgoing

Visited the referenced site w/ Michelle Watson of the UPPER Suwannee Dist office. Check recovery well via bailer for the presence of free product. Bailer full of product when removed. Investigated open ditch which is located downgradient of site. Standing water smelled of petroleum product.

DOCKETING 63T UST

Signed H. Reed Corly

Department of Health and Environmental Control
UST Inspection Checklist

Corley HR

Facility - ID# 04787		Owner Information	
Name	Scotchman #147	Name	Seaboard Petroleum
Address	Hwy 25 and Northside Dr	Address	PO Box 1273
Greenwood, SC 29646			Conway, SC 29526
Phone		Phone	(803) 347-4651
System	New ___ Upgraded ___ Old X	Contact	

TANKS										PIPING				
NO.	PROD	SIZE	AGE	ST	CP	FRP	FC	O/F	SPL	YEAR	ST	FRP	P/S	LLD
1	GN	4000	1967	✓				N/A	N/A	1967	✓		P	X
2	GN	4000	1967	✓				"	"	1967	✓		P	X
3	GN	4000	1967	✓				"	"	1967	✓		P	X
4	GN	4000	1967	✓				"	"	1967	✓		P	X

NO DECAL

LEAK DETECTION - TANKS

Automatic Tank Gauge ____ Ground Water Monitoring ____
Vapor Monitoring ____ Interstitial Monitoring ____
Statistical Methods (SIR) ____________
Third Party Cert: ____________

Inv. Cont., Tightness Testing (circle one) Annual 5-Yr.
Drop Tubes Installed X Monthly Water check ____
Stick readable to 1/8" ____ Monthly reconciliation
Measure each operating day ____ (1% + 130 gallons) ____
Tightness Test Date: ____________

LEAK DETECTION - PIPING

-- Pressure --

Annual Line Test ____ Test Date: ____________
Line Leak Detector ____ Test Date: ____________
Float Switch (sump) ____ Specify Other: ____________

-- Suction --

3-Year Tightness Test ____ Test Date: ____________
Exempt ____ Other: ____________

CORROSION PROTECTION

Cathodic Protection: New ____ Impressed Current: ____ Interior Lining: ____ Combination CP/Lining: ____
Dates - Installed: ____________ 5 - year inspection: ____________ 10 - year inspection: ____________
Last test date: ____________ Results Acceptable: Y N

COMMENTS bailed RW1 (at least 3' free product); shares tanks w/ Northside Amoco

Inspector's Signature Michelle Watson Date: 3/31/95

Follow-up Required: Yes No

D H E C
PROMOTE PROTECT PROSPER

C. Earl Hunter, Commissioner
Promoting and protecting the health of the public and the environment.

UST
64T
DOCKETING

SEP 0 7 2007

JOE GHIOLD
CONSULTECH ENVIRONMENTAL
PO BOX 5306
CAREY NC 27512-5306

Re: Tier II Directive
Warren Green, 10773 W. Frontage Rd., Yemassee, SC
UST Permit #04887; CA# 29932; MWA# UMW-21039
Bid Specification IFB-30950-11/7/06-EMW; PO #663641
Tier II Plan received July 27, 2007
Jasper County

Dear Mr. Ghiold:

The Underground Storage Tank (UST) Program has reviewed the Tier II Assessment Plan and associated Cost Agreement for the referenced site. Assessment activities should begin immediately upon receipt of this letter.

Cost agreement number 29932 has been approved in the amount shown on the enclosed cost agreement spreadsheet and will be kept on file so that compensation can begin. **The SCDHEC reserves the authority to pay only for work properly performed and/or technically justified and will only pay rates in accordance with bid number IFB-30950-11/7/06-EMW.** Further, SCDHEC reserves the right to question and/or reject costs if deemed unreasonable. The SCDHEC reserves the right to audit project records at any time during the project or after completion of the work. **The Tier II Assessment Report (2 hardcopies and 1 electronic copy) and invoice should be submitted within 90 days from the date of this correspondence.** Please note the following adjustments to the submitted plan and cost agreement:

- Soil samples are to be collected from borings where data for vertical delineation is being collected. These soil samples are to be collected every 5 feet until groundwater is encountered or auger refusal. Groundwater samples should submitted for laboratory analysis and are not to be field screened.
- The number of shallow wells has been decreased from 11 to 6 with 90 feet of approvable footage. Proposed locations for monitoring wells MW-7, DW-3, MW-8, DW-4, MW-10, MW-11, and MW-12 are approved. MW-4 and DW-2 should be moved approximately 30 feet west and DW-1 should be moved approximately15 feet north and 10 feet west.
- Groundwater analyses are approved as follows: 6 temporary wells are to have rush analysis for BTEX only, the 13 monitoring wells are to be sampled for BTEX, Napth., MTBE, 1,2-DCA, EDB, lead, nitrate, sulfate, ferrous iron, methane, and 8-oxygenates. The 4 water supply wells are to be sampled for BTEX, Napth., MTBE, and EDB.
- A slug test has been approved for a well that is screened in the deep interval.
- Sieve analysis for one soil sample from the screen interval of a newly installed deep monitoring well has been approved. Grain size analysis for the shallow unit was provided in the Tier I.
- Monitoring well MW-3 has been located and does not need to be replaced.
- Personnel mobilizations were reduced from five to four.

A copy of the approved assessment cost agreement is enclosed for your information. Consultech Environmental, Incorporated can submit an invoice for direct billing from the State Underground Petroleum Environmental Response Bank (SUPERB) Account. Future invoices and/or other criteria included therein must comply with current SUPERB criteria per Section 44-2-20(2). Please reference cost agreement number29932 on all pertinent invoices and correspondence. Please note that Sections 44-2-110(4) and 44-2-130(B) of the SUPERB Statute state that no costs will be allowed (considered for payment) unless prior approval from the Department is obtained. If for any reason there is a change in this cost agreement, any associated changes must be pre-approved by this Department in order for Consultech Environmental, Inc. to seek future cost compensation.

Any item(s) not clearly or completely addressed in the report (SC certified driller's number, disposal manifest for soil cuttings, disposal manifests for generated ground water, etc.) WILL NOT be compensated by the SUPERB Account. As agreed to in the referenced contract, the owner/operator of the referenced facility will not be responsible for any costs associated with this assessment.

Monitoring well approval for 6 shallow and 4 telescoping monitoring wells is enclosed for your records. Please note that all applicable South Carolina certification requirements regarding laboratory analyses, well installation, and report preparation must be met.

The Department grants pre-approval for transportation of virgin petroleum impacted soil and groundwater from the referenced site to a permitted treatment facility. As required by the referenced bid, roll off container will be used for disposal vs. drums of soil cuttings if more than fifteen (15) drums of cuttings are generated. There can be no spillage or leakage in transport. All investigation-derived waste (IDW) must be properly contained and labeled prior to disposal. IDW should not be stored on-site longer than ninety (90) days. A copy of the disposal manifest and/or acceptance letter from the receiving facility that clearly designates the quantity received must be included as an appendix to the report. If the COC concentrations, based on laboratory analysis, are below Risk Based Screening Levels (RBSLs), please contact the project manager for approval to dispose of soil and/or groundwater on site. The SUPERB Account will not reimburse for transportation or treatment of soil and/or groundwater with concentrations below RBSLs.

On all correspondence regarding this site, please reference the UST Permit # 04887 and Cost Agreement # 29932. If you have questions concerning this correspondence, or would like to submit additional information, please contact me at (803) 896-6395, fax me at (803) 896-6245, or e-mail me at johnsoms@.dhec.sc.gov.

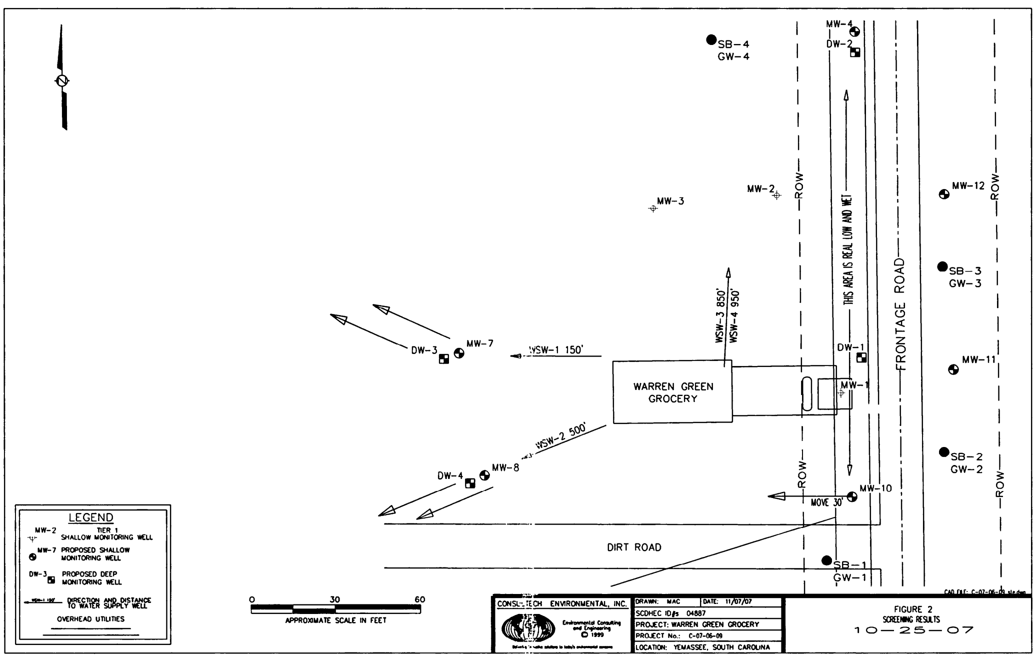
Sincerely,

Minda Johnson

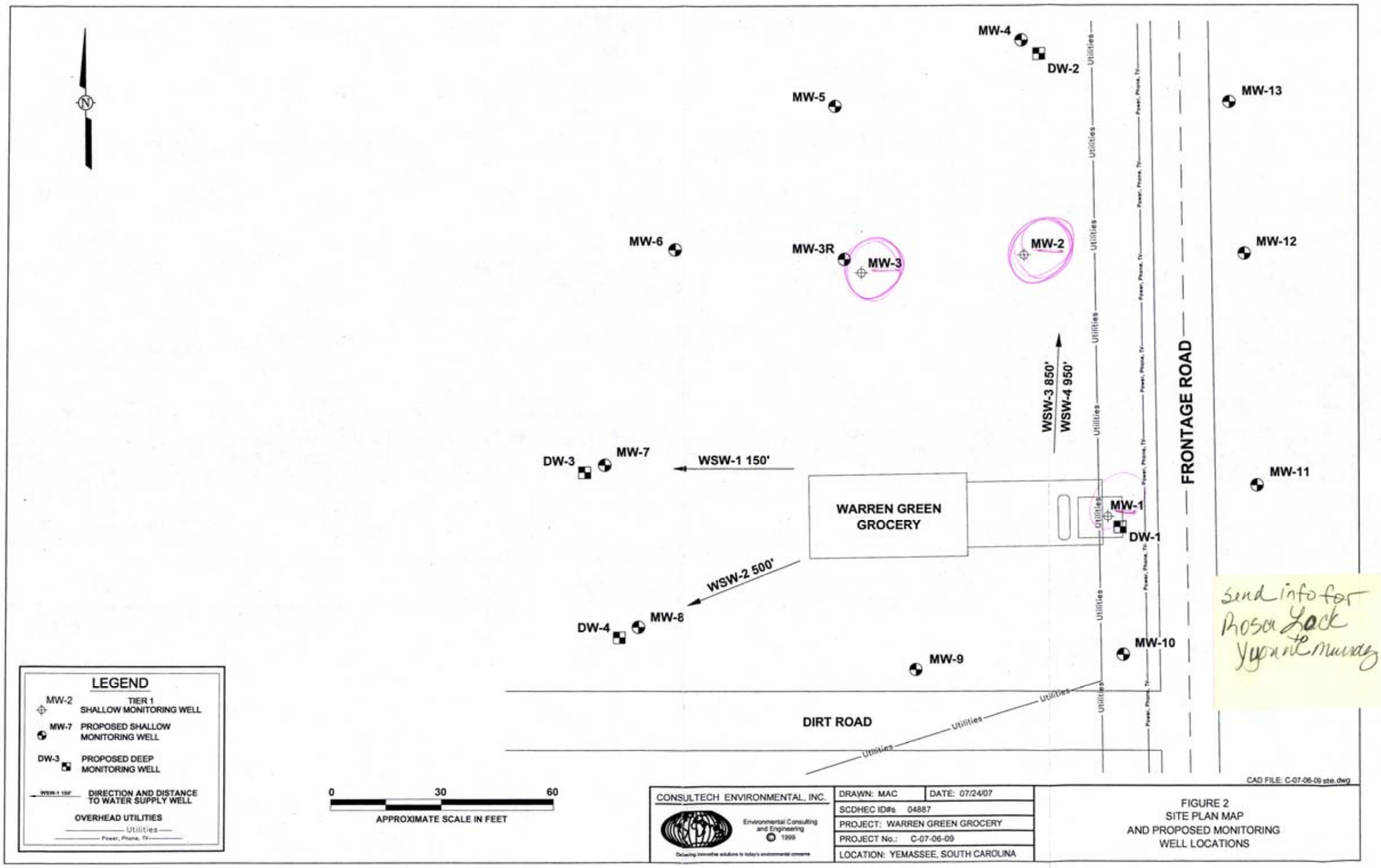
Minda Johnson, Hydrogeologist
Assessment Section
Assessment & Corrective Action Division
Bureau of Land & Waste Management

enc: Approved Cost Agreement
Monitoring Well Approval

cc: Helen Smith, Rt 2 PO Box 814, Coosawhatchie, SC 29912-9702 (w/o enc.)
LaSonya Eady, Reginald Bascom and Everette Bascom, 194 Oak Hill Rd., Ridgeland, SC 29936 (w/o enc.)
Technical File (w/ enc.)



SB-4
GW-4
MW-4
DW-2
MW-3
MW-2
ROW
THIS AREA IS REAL LOW AND WET
FRONTAGE ROAD
MW-12
SB-3
GW-3
WSW-3 850'
WSW-4 950'
DW-3
MW-7
WSW-1 150'
WARREN GREEN GROCERY
DW-1
MW-1
MW-11
WSW-2 500'
DW-4
MW-8
SB-2
GW-2
MW-10
MOVE 30'
DIRT ROAD
SB-1
GW-1
LEGEND
MW-2 TIER 1 SHALLOW MONITORING WELL
MW-7 PROPOSED SHALLOW MONITORING WELL
DW-3 PROPOSED DEEP MONITORING WELL
DIRECTION AND DISTANCE TO WATER SUPPLY WELL
OVERHEAD UTILITIES
0
30
60
APPROXIMATE SCALE IN FEET
CAD FILE: C-07-06-09 site.dwg
CONSULTECH ENVIRONMENTAL, INC.
Environmental Consulting and Engineering
© 1999
DRAWN: MAC
DATE: 11/07/07
SCDHEC ID#s 04887
PROJECT: WARREN GREEN GROCERY
PROJECT No.: C-07-06-09
LOCATION: YEMASSEE, SOUTH CAROLINA
FIGURE 2
SCREENING RESULTS
10-25-07



CAD FILE: C-07-06-09 site.dwg

CONSULTECH ENVIRONMENTAL, INC.	DRAWN: MAC	DATE: 07/24/07	FIGURE 2
Environmental Consulting and Engineering © 1999	SCDHEC ID#s 04887		SITE PLAN MAP
Delivering innovative solutions to today's environmental concerns	PROJECT: WARREN GREEN GROCERY		AND PROPOSED MONITORING
	PROJECT No.: C-07-06-09		WELL LOCATIONS
	LOCATION: YEMASSEE, SOUTH CAROLINA		

DHEC

PROMOTE PROTECT PROSPER

South Carolina Department of Health and Environmental Control

AS ✓
SB ✓

UNDERGROUND STORAGE TANK PROGRAM
BUREAU OF LAND AND WASTE MANAGEMENT
2600 Bull Street, Columbia, South Carolina 29201
Telephone: 803-896-6240

I Reprinted less CA # and changed status to "6" will go to Consultech today. Thks AR

MEMORANDUM

TO: Joe Ghiold, Consultech Environmental

FROM: Minda Johnson

RE: **NOTICE TO PROCEED**

Facility Name: Warren Green

Permit Number: 04887

County: Hampton

Work previously completed: Tier I Report and subsequent groundwater sampling.

Send all Warren Green corresponding to the Bawcom's

enc: Permission Form, EFIS Utility Report

CA#: 29932

I don't think you need to put a cost agreement number here when you are asking them for a plan.

DHEC
PROMOTE PROTECT PROSPER
South Carolina Department of Health
and Environmental Control

2600 Bull Street
Columbia, SC 29201-1708

FAX MESSAGE

UST
GST
DOCKETING

Date: Nov 15, 07
Number of Pages Including Cover Sheet: 2

Please Deliver This Fax Message

TO: Mark Cruel / Consultech
Name

Organization/Department

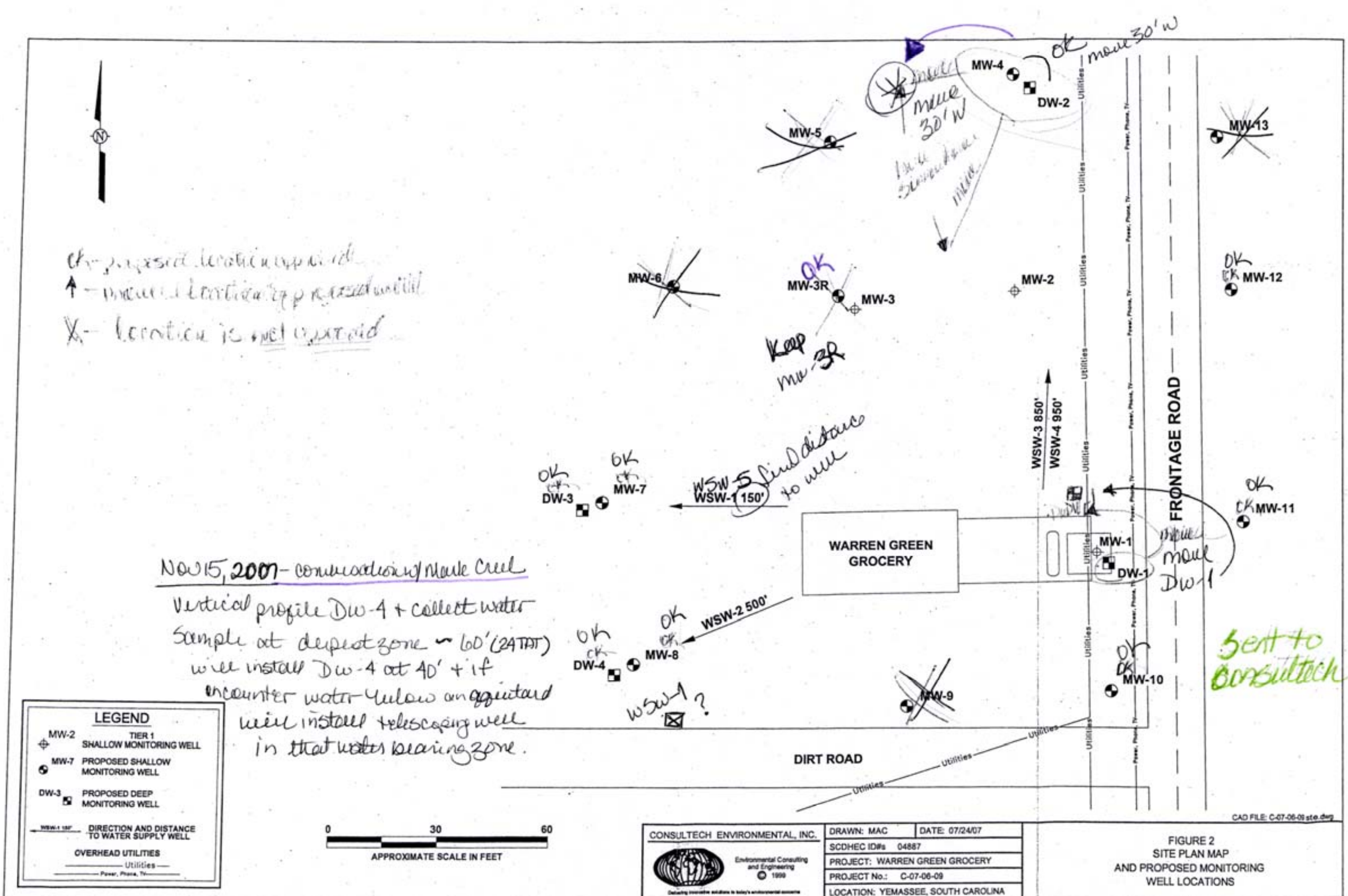
919-861-4317
Fax Number

919-861-4313 ext 213
Phone Number

FROM: Mira Johnson
Bureau of Land & Waste Management
Underground Storage Tank Program

Fax Number	Regulatory Phone	Technical Phone
(803) 896-6245	(803) 896-7957	(803) 896-6241

SUBJECT/COMMENT: Mark,
map for Warren Green site
(UST permit #04887) as
discussed this afternoon.
Thank you
Mira



N
ok - proposed location approved
↑ - moved location approved
X - location is not approved
MW-4
DW-2
OK
move 30' W
move 30' W
MW-5
MW-13
MW-6
OK
MW-3R
MW-3
MW-2
OK
MW-12
Keep MW-3R
WSW-3 850'
WSW-4 950'
FRONTAGE ROAD
OK
DW-3
OK
MW-7
WSW-5 find distance to well
WSW-1 150'
OK
MW-11
WARREN GREEN GROCERY
MW-1
DW-1
move DW-1
NOV 15, 2007 - conversation w/ Mark Cruel
Vertical profile DW-4 + collect water sample at deepest zone ~ 60' (24 TAT) will install DW-4 at 40' + if encounter water - below an aquitard will install telescoping well in that water bearing zone.
OK
DW-4
OK
MW-8
WSW-2 500'
OK
MW-10
Sent to Consultech
MW-9
WSW-1 ?
LEGEND
MW-2 TIER 1 SHALLOW MONITORING WELL
MW-7 PROPOSED SHALLOW MONITORING WELL
DW-3 PROPOSED DEEP MONITORING WELL
WSW-1 150' DIRECTION AND DISTANCE TO WATER SUPPLY WELL
OVERHEAD UTILITIES
Utilities
Power, Phone, TV
DIRT ROAD
0 30 60
APPROXIMATE SCALE IN FEET
CONSULTECH ENVIRONMENTAL, INC.
Environmental Consulting and Engineering © 1999
DRAWN: MAC
DATE: 07/24/07
SCDHEC ID#s 04887
PROJECT: WARREN GREEN GROCERY
PROJECT No.: C-07-06-09
LOCATION: YEMASSEE, SOUTH CAROLINA
CAD FILE: C-07-06-09 site.dwg
FIGURE 2
SITE PLAN MAP
AND PROPOSED MONITORING
WELL LOCATIONS

From: Mark Creel <mcreel@consultechenv.com>
To: Minda Johnson <JOHNSOMS@dhec.sc.gov>
Date: 11/13/2007 8:22 AM
Subject: Warren Green and Nickel Pumper
Attachments: WO 129721.pdf; WO 12970.pdf

Minda,

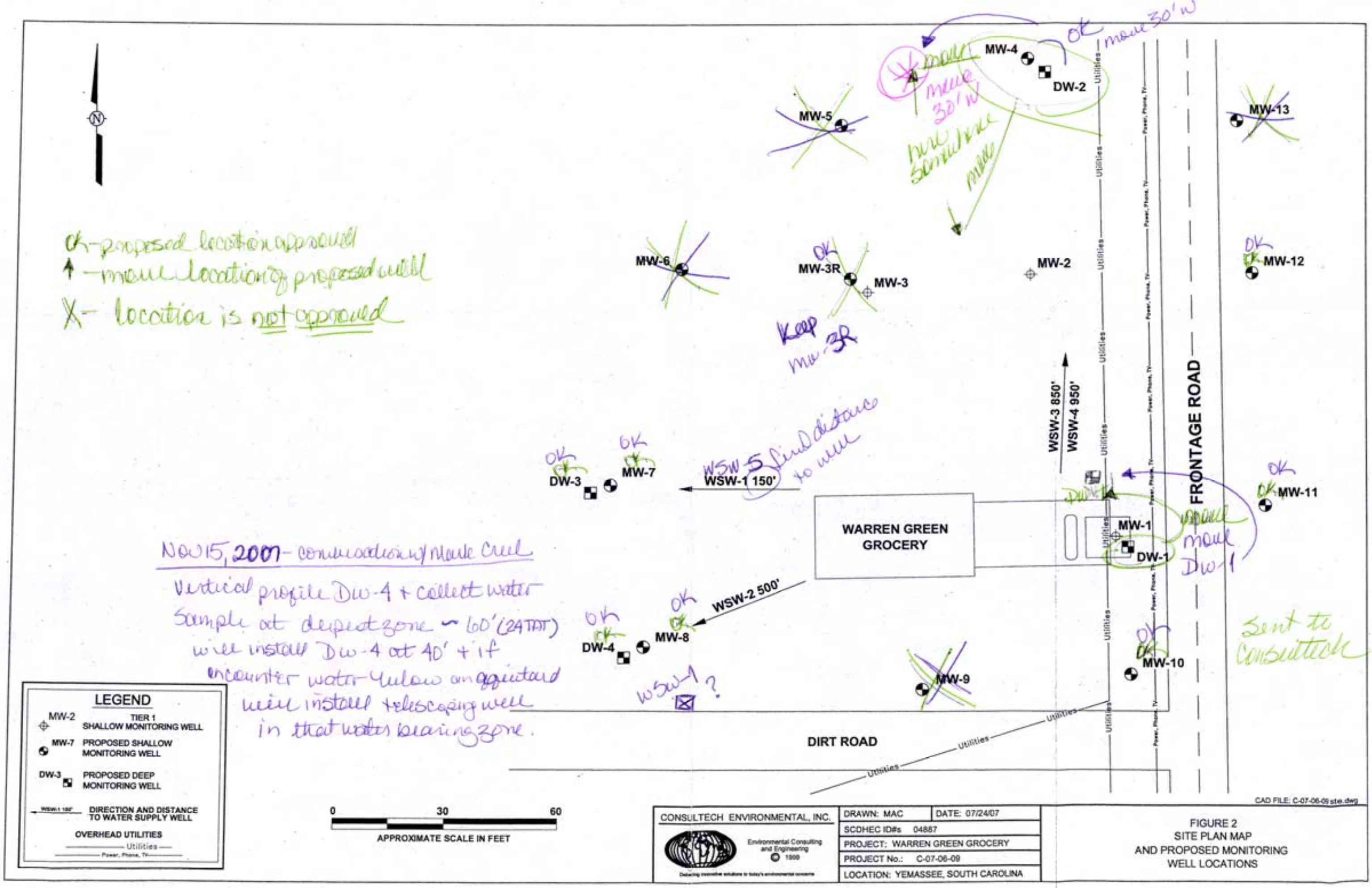
Please find attached the lab data (groundwater) for each site. Let me know what may be a good time to discuss well placement.

FAX# 919-861-4317

Thanks,

Mark

919-861-4313 ext. 213



OK - proposed location approved
↑ - move location of proposed well
X - location is not approved
MW-5
MW-4
DW-2
MW-13
MW-6
MW-3R
MW-3
MW-2
MW-12
Keep MW-3R
WSW-3 850'
WSW-4 950'
FRONTAGE ROAD
DW-3
MW-7
WSW-1 150'
WARREN GREEN GROCERY
MW-1
DW-1
MW-11
Nov 15, 2007 - communication w/ Mark Creel
Vertical profile DW-4 + collect water sample at deepest zone ~ 60' (24 TAT)
will install DW-4 at 40' + if encounter water below an aquitard will install telescoping well in that water bearing zone.
WSW-2 500'
DW-4
MW-8
MW-9
MW-10
Sent to Consultech
DIRT ROAD
Utilities
Power, Phone, TV
LEGEND
MW-2 TIER 1 SHALLOW MONITORING WELL
MW-7 PROPOSED SHALLOW MONITORING WELL
DW-3 PROPOSED DEEP MONITORING WELL
DIRECTION AND DISTANCE TO WATER SUPPLY WELL
OVERHEAD UTILITIES
0
30
60
APPROXIMATE SCALE IN FEET
CONSULTECH ENVIRONMENTAL, INC.
Environmental Consulting and Engineering
DRAWN: MAC
DATE: 07/24/07
SCDHEC ID#s 04887
PROJECT: WARREN GREEN GROCERY
PROJECT No.: C-07-06-09
LOCATION: YEMASSEE, SOUTH CAROLINA
CAD FILE: C-07-06-09 site.dwg
FIGURE 2
SITE PLAN MAP
AND PROPOSED MONITORING
WELL LOCATIONS

OK

mw-7 + Dw-3 = OK
mw-8 + Dw-4 = OK
mw-10 = OK
mw-11 = OK
mw-12 = OK

MOVE: mw-4 + DW2 = W
DW-1 = N

do not istall progra[illegible]
mw-9
mw-13 mw-3R
mw-6
mw-5

02-NOV-07

Consultech Environmental, Inc.
PO Box 5611
Cary, NC 27512
Client Contact: Joe Ghiold

Reference: Accura Analytical Laboratory, Inc. (AAL) Work Order No: 12972
Project Name :Warren Green
Project Number: C-07-06-09

Dear Joe Ghiold :

We are reporting to you the results of the analyses performed on the samples received under the project name referenced above and identified with the Chain of Custody(s) Numbered 103007 . All results being reported under this Chain of Custody apply to the samples analyzed and properly identified with an AAL Sample ID number.

All the results for the quality control samples were reviewed. Also, all parameters for data reduction and validation were reviewed. In view of this, we are able to release the analytical data for this report within acceptance criteria for accuracy, precision, completeness or properly flagged.

The validity and integrity of this report will remain intact as long as it is accompanied by this letter and reproduced in full, unless written approval is granted by AAL. This report will be filed for at least 7 years in our archives after which time it will be destroyed without further notice, unless otherwise arranged with you. The samples received, and described as recorded in COC No. 103007 will be filed for 90 days, and after that time they will be properly disposed without further notice, unless otherwise arranged with you. We reserve the right to return to you any unused samples, extracts or solutions related to them if we consider so necessary (e.g., samples identified as hazardous waste, sample sizes exceeding analytical standard practices, controlled substances under regulated protocols, etc).

We thank you for selecting Accura Analytical Laboratory Inc. to serve your analytical needs. If you have any questions concerning this report, please feel free to contact me at any time.

Sincerely,

Sherri W. Hernandez
Project Manager

ACCURA ANALYTICAL LABORATORY, INC. (AAL)
6017 Financial Drive, Norcross, GA 30071, Phone: (770) 449-8800
FL Certification #E87429 • NC Certification #483
SC Certification #98015 • Utah Certification #AALI1
USACE Approved

Case Narrative

AAL Work Order # 12972

Client Project: Warren Green / C-07-06-09

Accura Analytical Laboratory Inc. certifies that the results meet all requirements of the NELAC Standards.

The data package includes a 1 page case narrative, 1 Chain of Custody page, 2 analytical results pages, and 2 QC surrogate recovery pages.

The following items were noted concerning this work order:

Select VOCs by SW8260B Notations:

1. The pH of the water samples was <2.0 prior to the VOC analysis.

2. The % recovery for Ethylbenzene was outside laboratory control limits (bias high) for the MS due to possible matrix interferences. The Laboratory Blank Spike recoveries were within the acceptable limits; therefore the data satisfies the method requirements. 12972-001 MS

3. The surrogate, Toluene-d8, was outside laboratory control limits (bias low) for the following samples due to possible matrix interferences. There were no reportable concentrations detected in any of the samples and the samples were reanalyzed confirming results.12972-002 (GW-2), 12972-003 (GW-3), 12972-004 (GW-4).

Dawn Sengsourichanh — *November 01, 2007*
VOC Analyst — *Date*

This Case Narrative & Notations have been generated, reviewed, and edited by:

Sherri W. Hernandez — November 02, 2007
Project Manager — Date

WO# 12972

Xenco Labs
Norcross Ga

From -
Consultech Env. LLC
Cary NC
contact - Joe Ghould
919. 861. 4313

sampler. Van T. Chisholm / Van T Chisholm

#4 Groundwater sampled = tested = BTEX + NAPH

12972	ID#	Date & Time	grab	location	pers.	sample For
001	GW-1	10.25.07/1420	X	Point South SC	hcL	BTEX + NAPH
002	GW.2	1500	X		hcL	" "
003	GW.3	1540	X		hcL	" "
004	GW.4	1620	X		hcL	" "

release - Van T Chisholm / 10.25.07 / 1700
received - T. AllenBarnes / 10/30/07 / 0931 2°C

Job# - C.07.06.09
name - Warren Green
place - Point South SC

Certificate of Analytical Results 12972

Consultech Environmental, Inc., Cary, NC

Warren Green

Sample Id: **GW-1**	Matrix: **WATER**	% Moisture:
Lab Sample Id: **12972-001**	Date Collected: **Oct-25-07 14:20**	Date Received: **Oct-30-07 09:31**
Sample Depth:		

Analytical Method: Select VOCs by SW8260B Prep Method: SW5030B

Date Analyzed: Nov-01-07 09:30 Analyst: MDS01 Date Prep: Nov-01-07 06:29 Tech: MDS01

Seq Number: 38056

Parameter	Cas Number	Result	Rep Limit	MDL	Units	Flag	Dil
Benzene	71-43-2	BRL	1.0	0.30	ug/L		1
Toluene	108-88-3	BRL	1.0	0.25	ug/L		1
Ethylbenzene	100-41-4	BRL	1.0	0.19	ug/L		1
Xylenes, Total	1330-20-7	BRL	1.0	0.74	ug/L		1
Naphthalene	91-20-3	BRL	5.0	0.45	ug/L		1

Sample Id: **GW-2**	Matrix: **WATER**	% Moisture:
Lab Sample Id: **12972-002**	Date Collected: **Oct-25-07 15:00**	Date Received: **Oct-30-07 09:31**
Sample Depth:		

Analytical Method: Select VOCs by SW8260B Prep Method: SW5030B

Date Analyzed: Nov-01-07 10:00 Analyst: MDS01 Date Prep: Nov-01-07 06:29 Tech: MDS01

Seq Number: 38056

Parameter	Cas Number	Result	Rep Limit	MDL	Units	Flag	Dil
Benzene	71-43-2	BRL	1.0	0.30	ug/L		1
Toluene	108-88-3	BRL	1.0	0.25	ug/L		1
Ethylbenzene	100-41-4	BRL	1.0	0.19	ug/L		1
Xylenes, Total	1330-20-7	BRL	1.0	0.74	ug/L		1
Naphthalene	91-20-3	BRL	5.0	0.45	ug/L		1

Sample Id: **GW-3**	Matrix: **WATER**	% Moisture:
Lab Sample Id: **12972-003**	Date Collected: **Oct-25-07 15:40**	Date Received: **Oct-30-07 09:31**
Sample Depth:		

Analytical Method: Select VOCs by SW8260B Prep Method: SW5030B

Date Analyzed: Nov-01-07 14:03 Analyst: MDS01 Date Prep: Nov-01-07 06:29 Tech: MDS01

Seq Number: 38056

Parameter	Cas Number	Result	Rep Limit	MDL	Units	Flag	Dil
Benzene	71-43-2	BRL	1.0	0.30	ug/L		1
Toluene	108-88-3	BRL	1.0	0.25	ug/L		1
Ethylbenzene	100-41-4	BRL	1.0	0.19	ug/L		1
Xylenes, Total	1330-20-7	BRL	1.0	0.74	ug/L		1
Naphthalene	91-20-3	BRL	5.0	0.45	ug/L		1

Certificate of Analytical Results 12972

Consultech Environmental, Inc., Cary, NC

Warren Green

Sample Id: **GW-4**	Matrix: **WATER**	% Moisture:
Lab Sample Id: **12972-004**	Date Collected: **Oct-25-07 16:20**	Date Received: **Oct-30-07 09:31**
Sample Depth:		

Analytical Method: Select VOCs by SW8260B Prep Method: SW5030B

Date Analyzed: Nov-01-07 11:00 Analyst: MDS01 Date Prep: Nov-01-07 06:29 Tech: MDS01

Seq Number: 38056

Parameter	Cas Number	Result	Rep Limit	MDL	Units	Flag	Dil
Benzene	71-43-2	BRL	1.0	0.30	ug/L		1
Toluene	108-88-3	BRL	1.0	0.25	ug/L		1
Ethylbenzene	100-41-4	BRL	1.0	0.19	ug/L		1
Xylenes, Total	1330-20-7	BRL	1.0	0.74	ug/L		1
Naphthalene	91-20-3	BRL	5.0	0.45	ug/L		1

Sample Id: **304188 BLK**	Matrix: **WATER**	% Moisture:
Lab Sample Id: **304188 BLK**	Date Collected:	Date Received:
Sample Depth:		

Analytical Method: Select VOCs by SW8260B Prep Method: SW5030B

Date Analyzed: Nov-01-07 08:26 Analyst: MDS01 Date Prep: Nov-01-07 06:29 Tech: MDS01

Seq Number: 38056

Parameter	Cas Number	Result	Rep Limit	MDL	Units	Flag	Dil
Benzene	71-43-2	BRL	1.0	0.30	ug/L		1
Toluene	108-88-3	BRL	1.0	0.25	ug/L		1
Ethylbenzene	100-41-4	BRL	1.0	0.19	ug/L		1
Xylenes, Total	1330-20-7	BRL	1.0	0.74	ug/L		1
Naphthalene	91-20-3	BRL	5.0	0.45	ug/L		1

Form 2 - Surrogate Recoveries

Project Name: Warren Green

Report Date: 11/02/07 09:56

Work Order #: 12972

Project ID: C-07-06-09

Lab Batch #: 38056 **Sample:** 12972-001 / SMP **Batch:** 1 **Matrix:** W

Units: ug/L

Select VOCs by SW8260B Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,2-Dichloroethane-d4	47.5	50.0	95	53-159	
Bromofluorobenzene	61.4	50.0	123	30-186	
Toluene-d8	64.8	50.0	130	53-152	

Lab Batch #: 38056 **Sample:** 12972-002 / SMP **Batch:** 1 **Matrix:** W

Units: ug/L

Select VOCs by SW8260B Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,2-Dichloroethane-d4	47.6	50.0	95	53-159	
Bromofluorobenzene	61.2	50.0	122	30-186	
Toluene-d8	15.9	50.0	32	53-152	Z

Lab Batch #: 38056 **Sample:** 12972-003 / SMP **Batch:** 1 **Matrix:** W

Units: ug/L

Select VOCs by SW8260B Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,2-Dichloroethane-d4	55.9	50.0	112	53-159	
Bromofluorobenzene	60.3	50.0	121	30-186	
Toluene-d8	15.0	50.0	30	53-152	Z

Lab Batch #: 38056 **Sample:** 12972-004 / SMP **Batch:** 1 **Matrix:** W

Units: ug/L

Select VOCs by SW8260B Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,2-Dichloroethane-d4	47.5	50.0	95	53-159	
Bromofluorobenzene	74.4	50.0	149	30-186	
Toluene-d8	15.9	50.0	32	53-152	Z

* Surrogate outside of Laboratory QC limits
** Surrogates outside limits; data and surrogates confirmed by reanalysis
*** Poor recoveries due to dilution
Surrogate Recovery [D] = 100 * A / B
All results are based on MDL and validated for QC purposes.
Z = Surrogate Recovery exceeded the Labortatory QC limits

Version: 1.%

Form 2 - Surrogate Recoveries

Project Name: Warren Green

Report Date: 11/02/07 09:56

Work Order #: 12972

Project ID: C-07-06-09

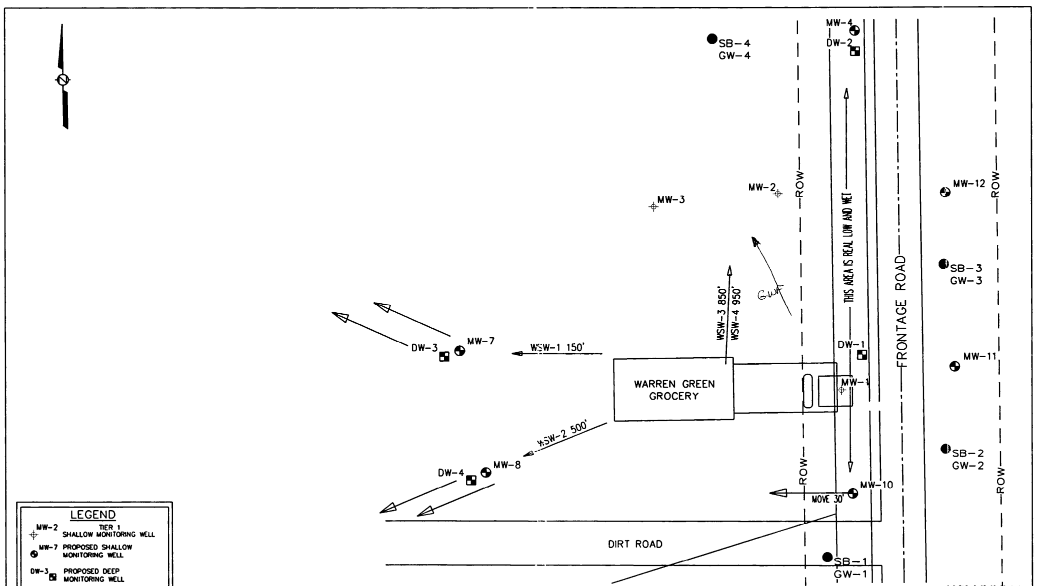
Lab Batch #: 38056 **Sample:** 304188 BLK / BLK **Batch:** 1 **Matrix:** W

Units: ug/L

Select VOCs by SW8260B Analytes	SURROGATE RECOVERY STUDY				
	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,2-Dichloroethane-d4	46.3	50.0	93	49-146	
Bromofluorobenzene	64.9	50.0	130	74-131	
Toluene-d8	61.2	50.0	122	71-133	

* Surrogate outside of Laboratory QC limits
** Surrogates outside limits; data and surrogates confirmed by reanalysis
*** Poor recoveries due to dilution
Surrogate Recovery [D] = 100 * A / B
All results are based on MDL and validated for QC purposes.
Z = Surrogate Recovery exceeded the Labortatory QC limits

Version: 1 %



CONSULTECH ENVIRONMENTAL, INC. Environmental Consulting and Engineering © 1999	DRAWN: MAC / DATE: 11/07/07	FIGURE 2
	SCDHEC ID#s 04887	SCREENING RESULTS
	PROJECT: WARREN GREEN GROCERY	10-25-07
	PROJECT No.: C-07-06-09	
	LOCATION: YEMASSEE, SOUTH CAROLINA	

wells

mw-1 screened 3-13'
mw-2 " 4-14'
mw-3 " 3-13'

water elevation

mw-1 .... 93.29'
mw-2 .... 92.88'
mw-3 .... 92.77'

ASSESSMENT COMPONENT COST AGREEMENT

Consultech Environmental IFB-30950-11/7/06-EMW

Facility **Warren Green**

Permit # **4887** Cost Agreement # Pending

ITEM	QUANTITY	UNIT	UNIT PRICE	TOTAL
1. Plan*				
1. A. Plan Preparation	1	x	$100.00	$100.00
B. Tax Map	1	x	$100.00	$100.00
2. Receptor Survey *	1	x	$100.00	$100.00
3. Comprehensive Survey	2	x	$725.00	$1,450.00
4. Mob/Demob				
A. Equipment	2	x	$150.00	$300.00
B. Personnel	4	each x	$50.00	$200.00
C. Adverse Train Vehicle		x	$200.00	$0.00
5. Soil Borings (hand auger)* ? 90		feet x	$0.00	$0.00
6. Field Screening-standard * 195 +90 285	~~1100~~	feet x	$10.00	$11,000.00
alternative, not mobile lab		feet x	$1.00	$0.00
alternative, mobile lab		feet x	$0.00	$0.00
fractured rock		feet x	$0.00	$0.00
7. Soil Leachability Model		each x	$0.00	$0.00
8. Abandonment- 2"*		feet x	$0.00	$0.00
Abandonment 6" or smaller 90'	90	feet x	$6.00	$0.00
Dug Well Up to 6' diameter		feet x	$7.00	$0.00
9. Well Installation*				
A. Water Table (hand auger)		feet x	$0.00	$0.00
B. Water Table (drilled) 90	~~165~~	feet x	$25.00	$4,125.00
C. Telescoping	120	feet x	$35.00	$4,200.00
D. Rock Drilling		feet x	$35.00	$0.00
E. 2" Core Drilling		feet x	$9.00	$0.00
F. 4" Core Drilling		feet x	$9.00	$0.00
G. Multi sampling ports/screen intervals		feet x	$0.00	$0.00
10. Groundwater Sample Collection				
A.Groundwater 6 MW+4 DW	6 ~~15~~	samples x	$50.00	$750.00
B. Air Vapor		samples x	$8.00	$0.00
C. Water Supply	4	samples x	$20.00	$80.00
D. Groundwater No Purge 3	3	samples x	$15.00	$0.00
E. Gauge Well Only 3	~~2~~	samples x	$15.00	$30.00
F. Sample below product		samples x	$15.00	$0.00
E. Passive Diffusion Bag		per well x	$0.00	$0.00
11. Analyses-Groundwater (See Analytical Methodology for analyses)				
A. BTEX+Napth.+MTBE 17	~~21~~	samples x	$35.00	$735.00

23/6/17

* 75' for DW-1 = 75

30' for 3 = 120'

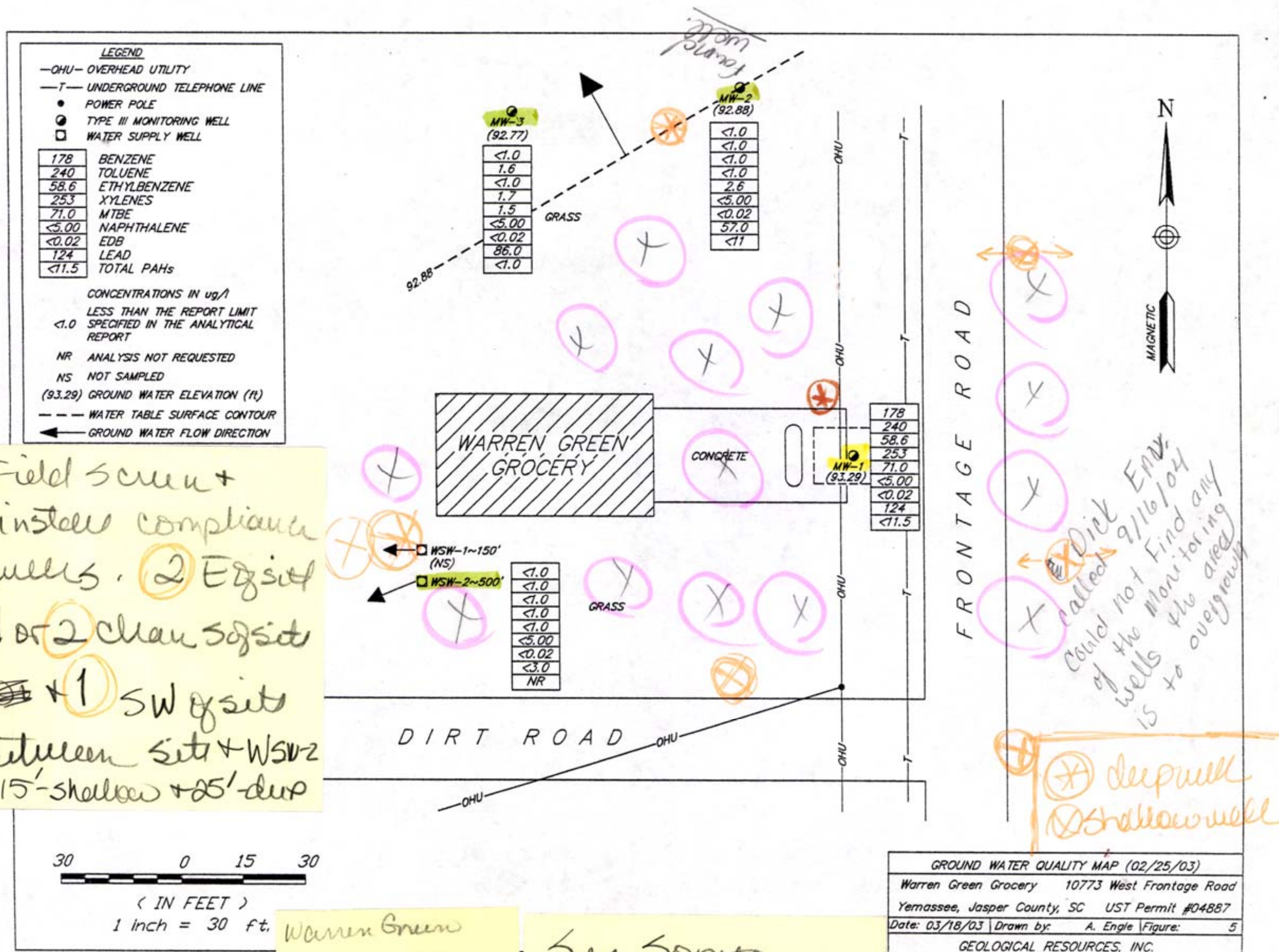
195'

B. Rush BTEX analysis		6 ~~7~~	samples x	$70.00	$490.00
D. PAH's		0	samples x	$55.00	$0.00
E. Lead	13	~~15~~	samples x	$7.00	$105.00
F. EDB	17	~~21~~	samples x	$35.00	$735.00
FF. EDB Rush Analysis		~~7~~	samples x	$60.00	$420.00
G. 8 RCRA Metals			samples x	$20.00	$0.00
H.TPH (9070)			samples x	$21.00	$0.00
I. pH			samples x	$8.50	$0.00
J. BOD			samples x	$25.50	$0.00
K. Nitrate		13 ~~15~~	samples x	$20.00	$300.00
L. Sulfate		13 ~~15~~	samples x	$15.00	$225.00
M. Ferrous Iron		13 ~~15~~	samples x	$10.00	$150.00
N. Methane		13 ~~15~~	samples x	$37.00	$555.00
O. Filtered Lead			samples x	$11.00	$0.00
P. 8 Oxygenates		13 ~~15~~	samples x	$65.00	$975.00
BB. 1,2-DCA		19 ~~21~~	samples x	$0.00	$0.00
11. Analyses-Soil					
Q. BTEX + Napth.			samples x	$31.50	$0.00
R. PAH's			samples x	$30.00	$0.00
S. 8 RCRA Metals			samples x	$10.00	$0.00
U. TPH (3550B/8015B)			samples x	$34.00	$0.00
V. TPH (5030B/8015B)			samples x	$38.00	$0.00
W. Grain size/hydrometer	1	~~2~~	samples x	$65.00	$130.00
X. Total Organic Carbon			samples x	$19.00	$0.00
11. Analyses-Air					
Y. BTEX + Napth.			samples x	$0.00	$0.00
11. Z. Hydrocarbon Fuel Identification			samples x	$0.00	$0.00
12. A. Pumping Test*			hours x	$8.00	$0.00
B. Slug Test*	*1	~~0~~	tests x	$50.00	$0.00
C. Fractured Rock*			tests x	$0.00	$0.00
13. Free Product Recovery Rate Test*			tests x	$30.00	$0.00
14. A. Mathematical Model			each x	$0.00	$0.00
B. Computer Model			each x	$0.00	$0.00
15. A. Tier 1 Risk Evaluation			x	$0.00	$0.00
B. Tier II Risk Evaluation			x	$150.00	$0.00
16. Subsequent Survey*			x	$50.00	$0.00
17. Disposal*					
A. Wastewater					
1. Purging/Sampling		✓10	drums x	$150.00	$1,500.00
2. Pumping Test/EFR			gallons x	$0.10	$0.00
B. Free Product			drums x	$50.00	$0.00
C. Soil (Treatment/Disposal)		✓13	drum x	$175.00	$2,275.00

* slug test dependent if needed.

		tons x	$0.00	$0.00
18. Miscellaneous				
Geophysical Survey < 10 meters		each x	$0.00	$0.00
Geophysical Survey > 10 meters		each x	$0.00	$0.00
Geophysical UST Survey		each x	$300.00	$0.00
Site Recon.	1	each x	$100.00	$100.00
Additional Copies of Report		each x	$10.00	$0.00
25. Well Repair				
Repair 2x2 monitoring well pad		each x	$20.00	$0.00
Repair 4x4 monitoring well pad		each x	$23.00	$0.00
Replace well vault & up to 4x4 pad		each x	$28.00	$0.00
Replace well cover and gasket		each x	$0.00	$0.00
Replace well cover bolts		each x	$0.00	$0.00
Replace locking well cap & lock		each x	$7.00	$0.00
Replace/Repair Stick-up well		each x	$75.00	$0.00
Convert flush mounted well to Stickup		each x	$75.00	$0.00
Convert stickup well to flush mounted well		each x	$0.00	$0.00
19. Report/Project Management and Coordination	4%	x	$31,130.00	$1,245.20
25. **TOTAL**				$32,375.20

*The appropriate mobilization cost can be added to complete these tasks, as necessary



Field screen + install compliance wells. 2 E of site 1 or 2 chan S of site ~~E~~ + 1 SW of site between site + WSW-2
15'-shallow + 25'-deep

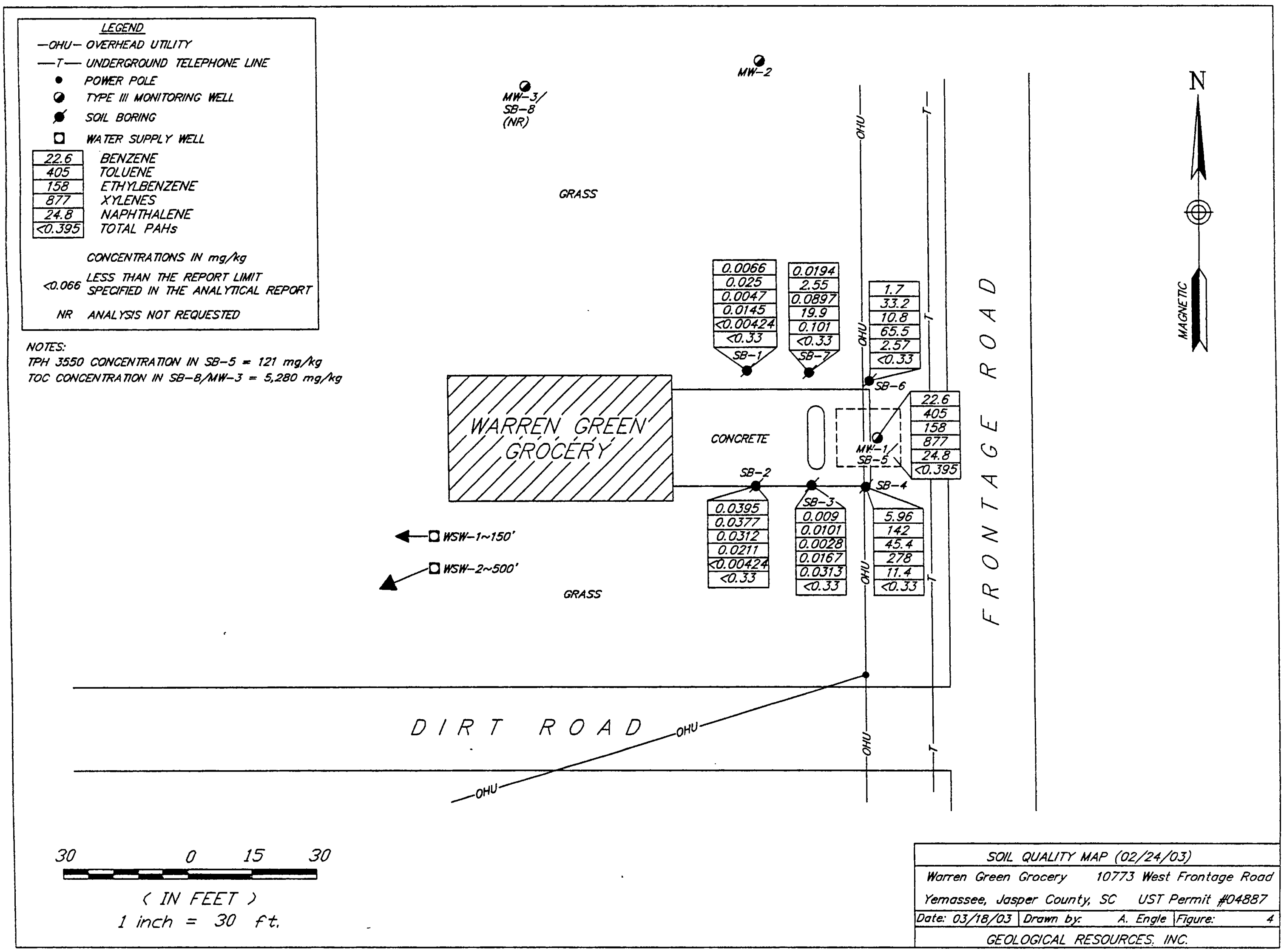
Warren Green
#04887
Tier II - Consultant
#29932
STD = $3705.99

300
+180
480'
borings + installment

See Sonya

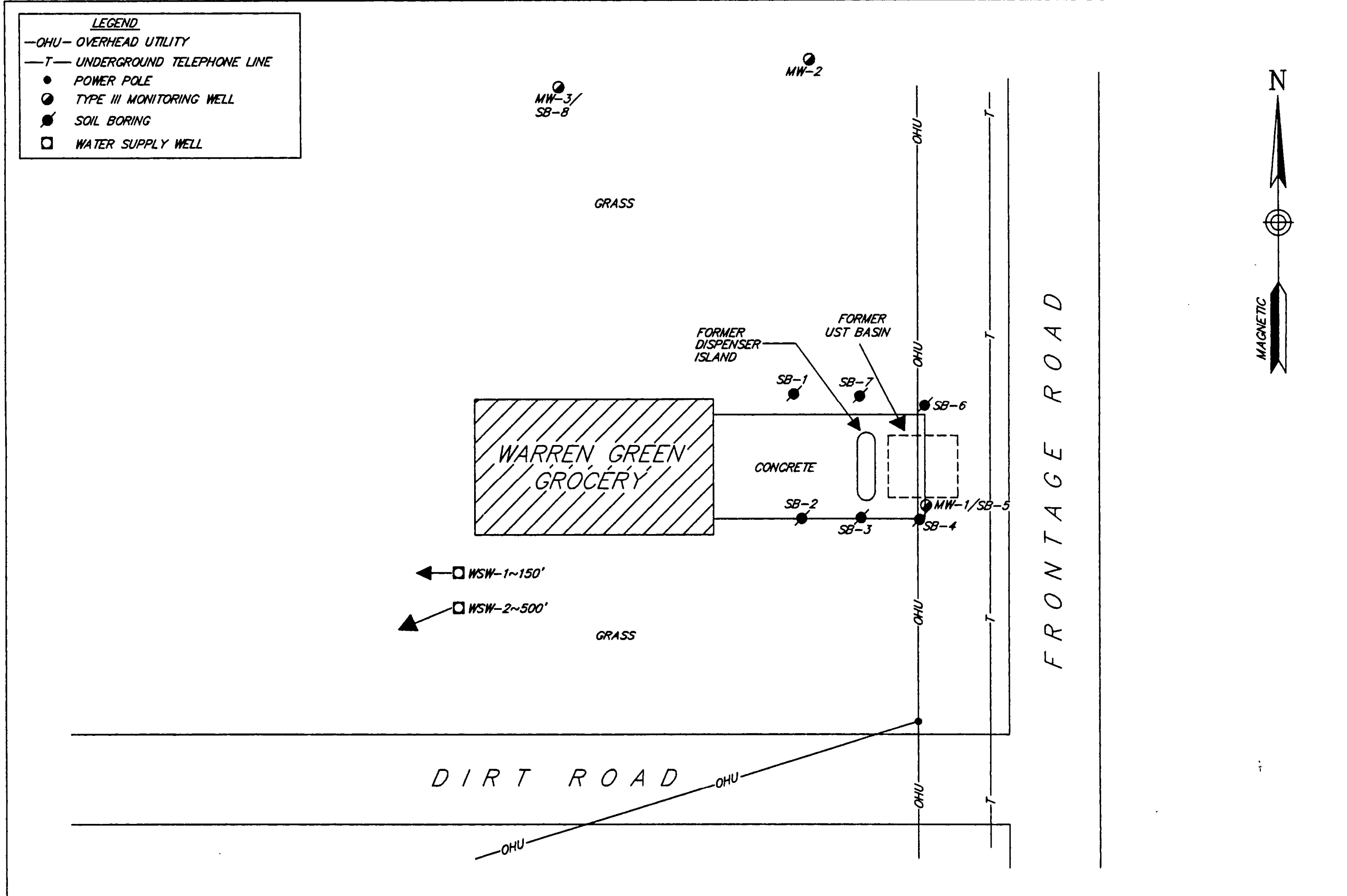
MW-1 only well w/ junk in it.

on map

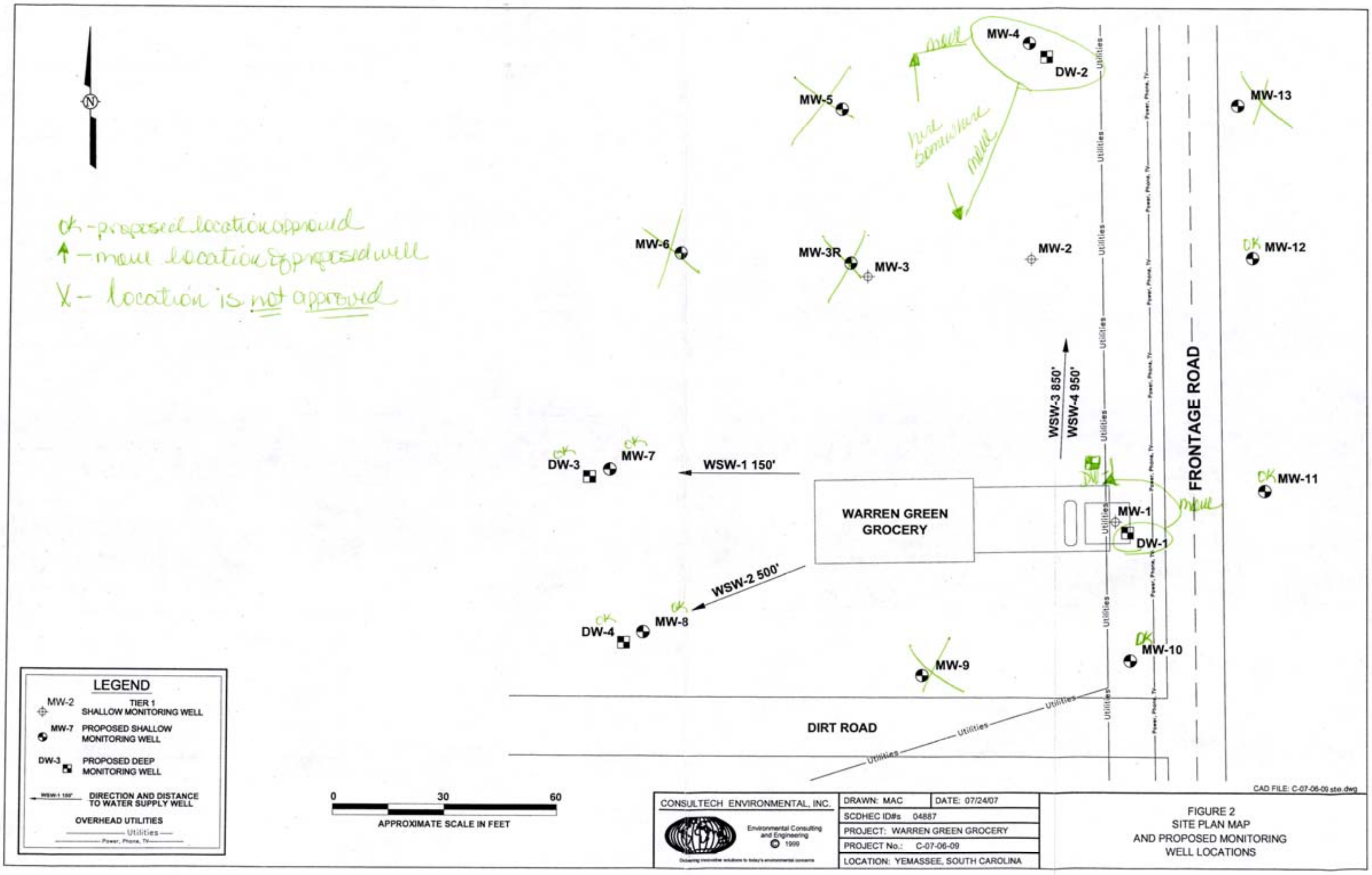

LEGEND
—OHU— OVERHEAD UTILITY
—T— UNDERGROUND TELEPHONE LINE
POWER POLE
TYPE III MONITORING WELL
SOIL BORING
WATER SUPPLY WELL
22.6 BENZENE
405 TOLUENE
158 ETHYLBENZENE
877 XYLENES
24.8 NAPHTHALENE
<0.395 TOTAL PAHs
CONCENTRATIONS IN mg/kg
<0.066 LESS THAN THE REPORT LIMIT SPECIFIED IN THE ANALYTICAL REPORT
NR ANALYSIS NOT REQUESTED
NOTES:
TPH 3550 CONCENTRATION IN SB-5 = 121 mg/kg
TOC CONCENTRATION IN SB-8/MW-3 = 5,280 mg/kg
MW-2
MW-3/ SB-8 (NR)
GRASS
N
MAGNETIC
SB-1: 0.0066, 0.025, 0.0047, 0.0145, <0.00424, <0.33
SB-7: 0.0194, 2.55, 0.0897, 19.9, 0.101, <0.33
SB-6: 1.7, 33.2, 10.8, 65.5, 2.57, <0.33
MW-1/ SB-5: 22.6, 405, 158, 877, 24.8, <0.395
SB-2: 0.0395, 0.0377, 0.0312, 0.0211, <0.00424, <0.33
SB-3: 0.009, 0.0101, 0.0028, 0.0167, 0.0313, <0.33
SB-4: 5.96, 142, 45.4, 278, 11.4, <0.33
WARREN GREEN GROCERY
CONCRETE
WSW-1~150'
WSW-2~500'
GRASS
OHU
T
FRONTAGE ROAD
DIRT ROAD
30 0 15 30
(IN FEET)
1 inch = 30 ft.
SOIL QUALITY MAP (02/24/03)
Warren Green Grocery 10773 West Frontage Road
Yemassee, Jasper County, SC UST Permit #04887
Date: 03/18/03 Drawn by: A. Engle Figure: 4
GEOLOGICAL RESOURCES, INC.

Tier I 3/31/03

AR-T 2/9/05



SITE MAP		
Warren Green Grocery 10773 West Frontage Road		
Yemassee, Jasper County, SC UST Permit #04887		
Date: 02/08/05	Drawn by: LJM	Figure: 3
GEOLOGICAL RESOURCES, INC.		



ok - proposed location approved
↑ - move location of proposed well
X - location is not approved
MW-4
DW-2
move
move somewhere
move
MW-5
MW-13
MW-6
MW-3R
MW-3
MW-2
OK MW-12
WSW-3 850'
WSW-4 950'
FRONTAGE ROAD
Utilities
Power, Phone, TV
OK DW-3
OK MW-7
WSW-1 150'
WARREN GREEN GROCERY
OK MW-11
move
MW-1
DW-1
DW
WSW-2 500'
OK DW-4
OK MW-8
OK MW-10
MW-9
DIRT ROAD
LEGEND
MW-2 TIER 1 SHALLOW MONITORING WELL
MW-7 PROPOSED SHALLOW MONITORING WELL
DW-3 PROPOSED DEEP MONITORING WELL
WSW-1 150' DIRECTION AND DISTANCE TO WATER SUPPLY WELL
OVERHEAD UTILITIES
Utilities
Power, Phone, TV
0 30 60
APPROXIMATE SCALE IN FEET
CONSULTECH ENVIRONMENTAL, INC.
Environmental Consulting and Engineering
1999
DRAWN: MAC
DATE: 07/24/07
SCDHEC ID#s 04887
PROJECT: WARREN GREEN GROCERY
PROJECT No.: C-07-06-09
LOCATION: YEMASSEE, SOUTH CAROLINA
CAD FILE: C-07-06-09 site.dwg
FIGURE 2
SITE PLAN MAP
AND PROPOSED MONITORING
WELL LOCATIONS

Consultech Environmental, Inc. Post Office Box 5306 Cary, NC 27512	MONITORING WELL No. Date	PAGE OF SB-1?

PROJECT: C-07-06-09	LOCATION: SB-3
DATE INSTALLED: 10/25/2007	ELEVATION: TOC:
DRILLING METHOD: Geoprobe	TOTAL DEPTH OF BORING:
DRILLING COMPANY: American	BORING:
DRILLER: Guy	DEPTH TO WATER FROM TOC:
SAMPLER TYPE:	LOGGED BY: Van Chrisholme

DEPTH (ft)	SAMPLE	NUMBER	BLOWS /6"	PID / FID (ppm)	USCS (sym)	GEOLOGIC DESCRIPTION / COMMENTS
5				0		Grey Sand, Clay, No Odor, Moist
10				0		Tan, Fine Silt, No Odor, Wet
15				0		Tan, Fine Silt, No Odor, Wet

Consultech Environmental, Inc. Post Office Box 5306 Cary, NC 27512	MONITORING WELL No. Date	PAGE OF

PROJECT: C-07-06-09	LOCATION: SB-2
DATE INSTALLED: 10/25/2007	ELEVATION: TOC:
DRILLING METHOD: Geoprobe	TOTAL DEPTH OF BORING:
DRILLING COMPANY: American	BORING:
DRILLER: Guy	DEPTH TO WATER FROM TOC:
SAMPLER TYPE:	LOGGED BY: Van Chrisholme

DEPTH (ft)	SAMPLE	NUMBER	BLOWS /6"	PID / FID (ppm)	USCS (sym)	GEOLOGIC DESCRIPTION / COMMENTS
5				0		Tan Sand, Clay, No Odor, Moist
10				0		Grey, Fine Silt, No Odor, Moist
15				0		Grey, Fine Silt, No Odor, Moist

Consultech Environmental, Inc. Post Office Box 5306 Cary, NC 27512	MONITORING WELL No. Date	PAGE OF

PROJECT: C-07-06-09	LOCATION: SB-3
DATE INSTALLED: 10/25/2007	ELEVATION: TOC:
DRILLING METHOD: Geoprobe	TOTAL DEPTH OF BORING:
DRILLING COMPANY: American	BORING:
DRILLER: Guy	DEPTH TO WATER FROM TOC:
SAMPLER TYPE:	LOGGED BY: Van Chrisholme

DEPTH (ft)	SAMPLE	NUMBER	BLOWS /6"	PID / FID (ppm)	USCS (sym)	GEOLOGIC DESCRIPTION / COMMENTS
5				0		Grey Sand, Clay, No Odor, Moist
10				0		Tan, Fine Silt, No Odor, Wet
15				0		Tan, Fine Silt, No Odor, Wet

Consultech Environmental, Inc. Post Office Box 5306 Cary, NC 27512	MONITORING WELL No. Date	PAGE OF

PROJECT: C-07-06-09	LOCATION: SB-4
DATE INSTALLED: 10/25/2007	ELEVATION: TOC:
DRILLING METHOD: Geoprobe	TOTAL DEPTH OF BORING:
DRILLING COMPANY: American	BORING:
DRILLER: Guy	DEPTH TO WATER FROM TOC:
SAMPLER TYPE:	LOGGED BY: Van Chrisholme

DEPTH (ft)	SAMPLE	NUMBER	BLOWS /6"	PID / FID (ppm)	USCS (sym)	GEOLOGIC DESCRIPTION / COMMENTS
5				0		Grey Clay, Sand, No Odor, Dry
10				0		Tan, Sand Clay, No Odor, Moist
15				0		Grey, Fine Silt, No Odor, Wet
20				0		Grey, Fine Silt, No Odor, Wet

Consultech Environmental, Inc. Post Office Box 5306 Cary, NC 27512	MONITORING WELL No. Date	PAGE OF

PROJECT: C-07-06-09	LOCATION: GW-1
DATE INSTALLED: 10/25/2007	ELEVATION: TOC:
DRILLING METHOD: Geoprobe	TOTAL DEPTH OF BORING:
DRILLING COMPANY: American	BORING:
DRILLER: Guy	DEPTH TO WATER FROM TOC:
SAMPLER TYPE:	LOGGED BY: Van Chrisholme

DEPTH (ft)	SAMPLE	NUMBER	BLOWS /6"	PID / FID (ppm)	USCS (sym)	GEOLOGIC DESCRIPTION / COMMENTS
25						Sample Collected

Consultech Environmental, Inc. Post Office Box 5306 Cary, NC 27512	MONITORING WELL No. Date	PAGE OF

PROJECT: C-07-06-09	LOCATION: GW-2
DATE INSTALLED: 10/25/2007	ELEVATION: TOC:
DRILLING METHOD: Geoprobe	TOTAL DEPTH OF BORING:
DRILLING COMPANY: American	BORING:
DRILLER: Guy	DEPTH TO WATER FROM TOC:
SAMPLER TYPE:	LOGGED BY: Van Chrisholme

DEPTH (ft)	SAMPLE	NUMBER	BLOWS /6"	PID / FID (ppm)	USCS (sym)	GEOLOGIC DESCRIPTION / COMMENTS
25						Sample Collected

Consultech Environmental, Inc. Post Office Box 5306 Cary, NC 27512	MONITORING WELL No. Date	PAGE OF

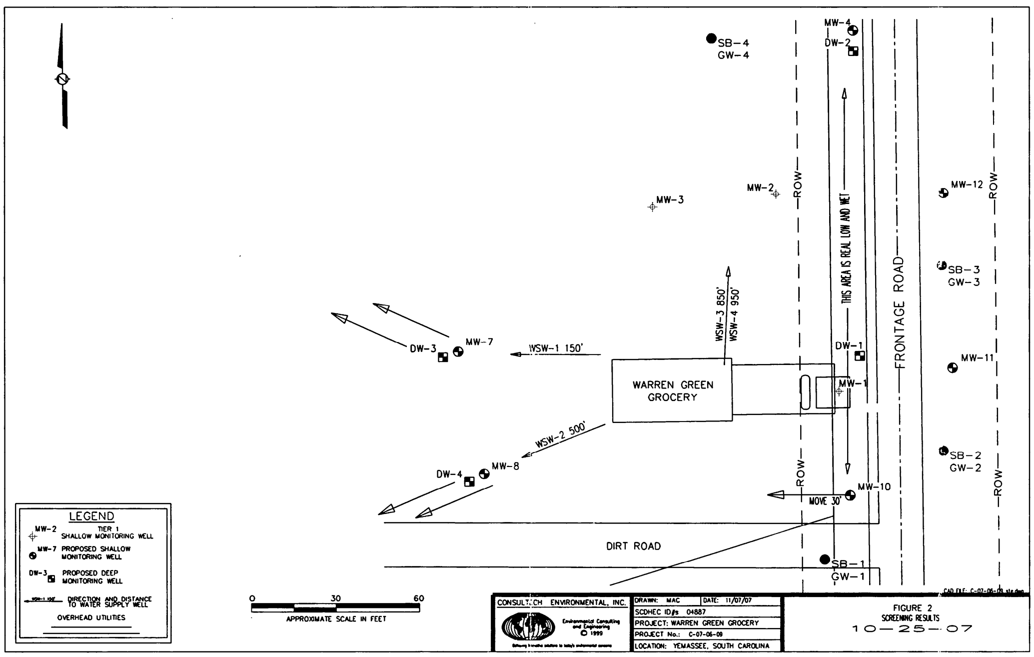
PROJECT: C-07-06-09	LOCATION: GW-3
DATE INSTALLED: 10/25/2007	ELEVATION: TOC:
DRILLING METHOD: Geoprobe	TOTAL DEPTH OF BORING:
DRILLING COMPANY: American	BORING:
DRILLER: Guy	DEPTH TO WATER FROM TOC:
SAMPLER TYPE:	LOGGED BY: Van Chrisholme

DEPTH (ft)	SAMPLE	NUMBER	BLOWS /6"	PID / FID (ppm)	USCS (sym)	GEOLOGIC DESCRIPTION / COMMENTS
25						Sample Collected

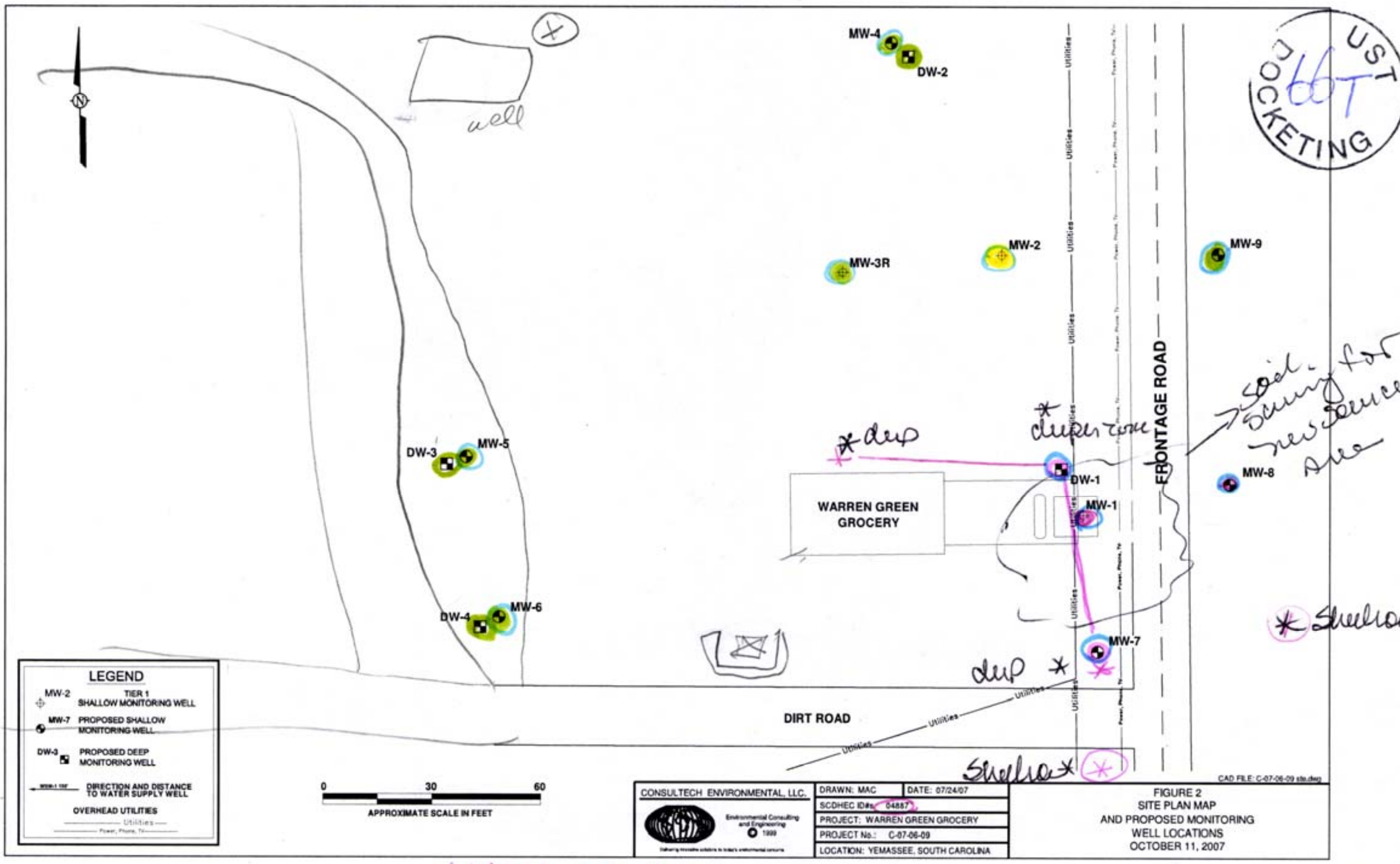
Consultech Environmental, Inc. Post Office Box 5306 Cary, NC 27512	MONITORING WELL No. Date	PAGE OF

PROJECT: C-07-06-09	LOCATION: GW-4
DATE INSTALLED: 10/25/2007	ELEVATION: TOC:
DRILLING METHOD: Geoprobe	TOTAL DEPTH OF BORING:
DRILLING COMPANY: American	BORING:
DRILLER: Guy	DEPTH TO WATER FROM TOC:
SAMPLER TYPE:	LOGGED BY: Van Chrisholme

DEPTH (ft)	SAMPLE	NUMBER	BLOWS /6"	PID / FID (ppm)	USCS (sym)	GEOLOGIC DESCRIPTION / COMMENTS
20						Sample Collected


SB-4
GW-4
MW-4
DW-2
MW-3
MW-2
ROW
THIS AREA IS REAL LOW AND WET
FRONTAGE ROAD
MW-12
SB-3
GW-3
WSW-3 850'
WSW-4 950'
DW-3
MW-7
WSW-1 150'
WARREN GREEN GROCERY
DW-1
MW-1
MW-11
WSW-2 500'
SB-2
GW-2
DW-4
MW-8
MW-10
MOVE 30'
DIRT ROAD
SB-1
GW-1
LEGEND
MW-2 TIER 1 SHALLOW MONITORING WELL
MW-7 PROPOSED SHALLOW MONITORING WELL
DW-3 PROPOSED DEEP MONITORING WELL
DIRECTION AND DISTANCE TO WATER SUPPLY WELL
OVERHEAD UTILITIES
0
30
60
APPROXIMATE SCALE IN FEET
CONSULTECH ENVIRONMENTAL, INC.
Environmental Consulting and Engineering
© 1999
DRAWN: MAC
DATE: 11/07/07
SCDHEC ID#s 04887
PROJECT: WARREN GREEN GROCERY
PROJECT No.: C-07-06-09
LOCATION: YEMASSEE, SOUTH CAROLINA
FIGURE 2
SCREENING RESULTS
10-25-07

mw-1
B =9000
MTBE=620



delineation to be done
* vertical to clean @ DW-1 + E+S
(*) horizontal S+E

Quick turnaround
on new wells
+ soil borings

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Consultech Environmental, Inc., Cary, NC

Warren Green Grocery

Sample Id: **MW # 1**	Matrix: **WATER**	% Moisture:
Lab Sample Id: **13188-001**	Date Collected: **Dec-03-07 09:30**	Date Received: **Dec-04-07 09:44**
Sample Depth:		

DRAFT

Analytical Method: Dissolved Iron by SW6010B — Prep Method: SW3005A

Date Analyzed: Dec-06-07 13:36 Analyst: MCJ01 Date Prep: Dec-06-07 12:30 Tech: MSN01

Seq Number: 38525

Parameter	Cas Number	Result	Rep Limit	MDL	Units	Flag	Dil
Iron (Dissolved)	7439-89-6	14.1	0.100	0.0167	mg/L		1

Analytical Method: Lead by SW6010B — Prep Method: SW3010A

Date Analyzed: Dec-10-07 13:08 Analyst: MCJ01 Date Prep: Dec-06-07 11:00 Tech: MSN01

Seq Number: 38568

Parameter	Cas Number	Result	Rep Limit	MDL	Units	Flag	Dil
Lead	7439-92-1	0.0128	0.0100	0.00390	mg/L		1

Analytical Method: Nitrate & Sulfate by SW9056 — Prep Method:

Date Analyzed: Dec-05-07 03:21 Analyst: SVA01 Date Prep: Tech: SVA01

Seq Number: 38513

Parameter	Cas Number	Result	Rep Limit	MDL	Units	Flag	Dil
Nitrate	14797-55-8	0.39	0.10	0.027	mg/L		1
Sulfate	14808-79-8	4.8	1.0	0.062	mg/L		1

Analytical Method: VOCs by SW8260B w/Naphthalene, MTBE, Oxygenates — Prep Method: SW5030B

Date Analyzed: Dec-06-07 18:37 Analyst: MDS01 Date Prep: Dec-05-07 07:36 Tech: MJL01

Seq Number: 38532

Parameter	Cas Number	Result	Rep Limit	MDL	Units	Flag	Dil
Benzene	71-43-2	9000	100	67	ug/L		100
Toluene	108-88-3	24000	500	340	ug/L		500
Ethylbenzene	100-41-4	4900	100	66	ug/L		100
Xylenes, Total	1330-20-7	29000	100	180	ug/L		100
Methyl tert-butyl ether	1634-04-4	620	100	62	ug/L		100
Naphthalene	91-20-3	620	500	400	ug/L		100
1,2-Dichloroethane	107-06-2	BRL	5.0	0.82	ug/L		1
Diisopropyl ether	108-20-3	BRL	5.0	0.89	ug/L		1
Ethanol	64-17-5	BRL	100	55	ug/L		1
Ethyl tert-butyl alcohol	590-36-3	BRL	25	17	ug/L		1
Ethyl tert-butyl ether	637-92-3	BRL	5.0	1.1	ug/L		1
Tert-Amyl alcohol	75-85-4	2600	25	15	ug/L		1
tert-Amyl methyl ether	994-05-8	BRL	5.0	1.1	ug/L		1
tert-Butyl alcohol	75-65-0	BRL	25	1.1	ug/L		1
tert-Butyl formate	762-75-4	BRL	25	18	ug/L		1

*

Version: 1.009

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Consultech Environmental, Inc., Cary, NC

Warren Green Grocery

Sample Id: **MW # 2** | Matrix: **WATER** | % Moisture:
Lab Sample Id: **13188-002** | Date Collected: **Dec-03-07 09:45** | Date Received: **Dec-04-07 09:44**
Sample Depth:

DRAFT

Analytical Method: Dissolved Iron by SW6010B | Prep Method: SW3005A
Date Analyzed: Dec-06-07 13:45 | Analyst: MCJ01 | Date Prep: Dec-06-07 12:30 | Tech: MSN01
Seq Number: 38525

Parameter	Cas Number	Result	Rep Limit	MDL	Units	Flag	Dil
Iron (Dissolved)	7439-89-6	0.326	0.100	0.0167	mg/L		1

Analytical Method: Lead by SW6010B | Prep Method: SW3010A
Date Analyzed: Dec-10-07 13:23 | Analyst: MCJ01 | Date Prep: Dec-06-07 11:00 | Tech: MSN01
Seq Number: 38568

Parameter	Cas Number	Result	Rep Limit	MDL	Units	Flag	Dil
Lead	7439-92-1	0.0213	0.0100	0.00390	mg/L		1

Analytical Method: Nitrate & Sulfate by SW9056 | Prep Method:
Date Analyzed: Dec-05-07 04:31 | Analyst: SVA01 | Date Prep: | Tech: SVA01
Seq Number: 38513

Parameter	Cas Number	Result	Rep Limit	MDL	Units	Flag	Dil
Nitrate	14797-55-8	0.77	0.10	0.027	mg/L		1
Sulfate	14808-79-8	6.2	1.0	0.062	mg/L		1

Analytical Method: VOCs by SW8260B w/Naphthalene, MTBE, Oxygenates | Prep Method: SW5030B
Date Analyzed: Dec-06-07 18:07 | Analyst: MDS01 | Date Prep: Dec-05-07 07:36 | Tech: MJL01
Seq Number: 38532

Parameter	Cas Number	Result	Rep Limit	MDL	Units	Flag	Dil
Benzene	71-43-2	BRL	1.0	0.67	ug/L		1
Toluene	108-88-3	3.6	1.0	0.68	ug/L		1
Ethylbenzene	100-41-4	1.4	1.0	0.66	ug/L		1
Xylenes, Total	1330-20-7	7.4	1.0	1.8	ug/L		1
Methyl tert-butyl ether	1634-04-4	15	1.0	0.62	ug/L		1
Naphthalene	91-20-3	BRL	5.0	4.0	ug/L		1
1,2-Dichloroethane	107-06-2	BRL	5.0	0.82	ug/L		1
Diisopropyl ether	108-20-3	BRL	5.0	0.89	ug/L		1
Ethanol	64-17-5	BRL	100	55	ug/L		1
Ethyl tert-butyl alcohol	590-36-3	BRL	25	17	ug/L		1
Ethyl tert-butyl ether	637-92-3	BRL	5.0	1.1	ug/L		1
Tert-Amyl alcohol	75-85-4	BRL	25	15	ug/L		1
tert-Amyl methyl ether	994-05-8	BRL	5.0	1.1	ug/L		1
tert-Butyl alcohol	75-65-0	BRL	25	1.1	ug/L		1
tert-Butyl formate	762-75-4	BRL	25	18	ug/L		1

*

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Consultech Environmental, Inc., Cary, NC

Warren Green Grocery

Sample Id: **MW # 3r**	Matrix: **WATER**	% Moisture:
Lab Sample Id: **13188-003**	Date Collected: **Dec-03-07 10:00**	Date Received: **Dec-04-07 09:44**
Sample Depth:		

Analytical Method: Dissolved Iron by SW6010B — Prep Method: SW3005A

Date Analyzed: Dec-06-07 13:48 — Analyst: MCJ01 — Date Prep: Dec-06-07 12:30 — Tech: MSN01

Seq Number: 38525

Parameter	Cas Number	Result	Rep Limit	MDL	Units	Flag	Dil
Iron (Dissolved)	7439-89-6	1.89	0.100	0.0167	mg/L		1

Analytical Method: Lead by SW6010B — Prep Method: SW3010A

Date Analyzed: Dec-10-07 13:25 — Analyst: MCJ01 — Date Prep: Dec-06-07 11:00 — Tech: MSN01

Seq Number: 38568

Parameter	Cas Number	Result	Rep Limit	MDL	Units	Flag	Dil
Lead	7439-92-1	0.277	0.0100	0.00390	mg/L		1

Analytical Method: Nitrate & Sulfate by SW9056 — Prep Method:

Date Analyzed: Dec-05-07 04:48 — Analyst: SVA01 — Date Prep: — Tech: SVA01

Seq Number: 38513

Parameter	Cas Number	Result	Rep Limit	MDL	Units	Flag	Dil
Nitrate	14797-55-8	0.61	0.10	0.027	mg/L		1
Sulfate	14808-79-8	12	1.0	0.062	mg/L		1

Analytical Method: VOCs by SW8260B w/Naphthalene, MTBE, Oxygenates — Prep Method: SW5030B

Date Analyzed: Dec-07-07 11:09 — Analyst: MDS01 — Date Prep: Dec-07-07 07:37 — Tech: MDS01

Seq Number: 38564

Parameter	Cas Number	Result	Rep Limit	MDL	Units	Flag	Dil
Benzene	71-43-2	BRL	1.0	0.67	ug/L		1
Toluene	108-88-3	BRL	1.0	0.68	ug/L		1
Ethylbenzene	100-41-4	BRL	1.0	0.66	ug/L		1
Xylenes, Total	1330-20-7	BRL	1.0	1.8	ug/L		1
Methyl tert-butyl ether	1634-04-4	BRL	1.0	0.62	ug/L		1
Naphthalene	91-20-3	BRL	5.0	4.0	ug/L		1
1,2-Dichloroethane	107-06-2	BRL	5.0	0.82	ug/L		1
Diisopropyl ether	108-20-3	BRL	5.0	0.89	ug/L		1
Ethanol	64-17-5	BRL	100	55	ug/L		1
Ethyl tert-butyl alcohol	590-36-3	BRL	25	17	ug/L		1
Ethyl tert-butyl ether	637-92-3	BRL	5.0	1.1	ug/L		1
Tert-Amyl alcohol	75-85-4	BRL	25	15	ug/L		1
tert-Amyl methyl ether	994-05-8	BRL	5.0	1.1	ug/L		1
tert-Butyl alcohol	75-65-0	BRL	25	1.1	ug/L		1
tert-Butyl formate	762-75-4	BRL	25	18	ug/L		1

*

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Consultech Environmental, Inc., Cary, NC

Warren Green Grocery

Sample Id: **MW # 4** Matrix: **WATER** % Moisture:

Lab Sample Id: **13188-004** Date Collected: **Dec-03-07 10:15** Date Received: **Dec-04-07 09:44**

Sample Depth:

DRAFT

Analytical Method: Dissolved Iron by SW6010B Prep Method: SW3005A

Date Analyzed: Dec-06-07 13:50 Analyst: MCJ01 Date Prep: Dec-06-07 12:30 Tech: MSN01

Seq Number: 38525

Parameter	Cas Number	Result	Rep Limit	MDL	Units	Flag	Dil
Iron (Dissolved)	7439-89-6	8.72	0.100	0.0167	mg/L		1

Analytical Method: Lead by SW6010B Prep Method: SW3010A

Date Analyzed: Dec-10-07 13:28 Analyst: MCJ01 Date Prep: Dec-06-07 11:00 Tech: MSN01

Seq Number: 38568

Parameter	Cas Number	Result	Rep Limit	MDL	Units	Flag	Dil
Lead	7439-92-1	0.0851	0.0100	0.00390	mg/L		1

Analytical Method: Nitrate & Sulfate by SW9056 Prep Method:

Date Analyzed: Dec-05-07 05:05 Analyst: SVA01 Date Prep: Tech: SVA01

Seq Number: 38513

Parameter	Cas Number	Result	Rep Limit	MDL	Units	Flag	Dil
Nitrate	14797-55-8	0.24	0.10	0.027	mg/L		1
Sulfate	14808-79-8	2.0	1.0	0.062	mg/L		1

Analytical Method: VOCs by SW8260B w/Naphthalene, MTBE, Oxygenates Prep Method: SW5030B

Date Analyzed: Dec-07-07 11:40 Analyst: MDS01 Date Prep: Dec-07-07 07:37 Tech: MDS01

Seq Number: 38564

Parameter	Cas Number	Result	Rep Limit	MDL	Units	Flag	Dil
Benzene	71-43-2	BRL	1.0	0.67	ug/L		1
Toluene	108-88-3	BRL	1.0	0.68	ug/L		1
Ethylbenzene	100-41-4	BRL	1.0	0.66	ug/L		1
Xylenes, Total	1330-20-7	BRL	1.0	1.8	ug/L		1
Methyl tert-butyl ether	1634-04-4	BRL	1.0	0.62	ug/L		1
Naphthalene	91-20-3	BRL	5.0	4.0	ug/L		1
1,2-Dichloroethane	107-06-2	BRL	5.0	0.82	ug/L		1
Diisopropyl ether	108-20-3	BRL	5.0	0.89	ug/L		1
Ethanol	64-17-5	BRL	100	55	ug/L		1
Ethyl tert-butyl alcohol	590-36-3	BRL	25	17	ug/L		1
Ethyl tert-butyl ether	637-92-3	BRL	5.0	1.1	ug/L		1
Tert-Amyl alcohol	75-85-4	BRL	25	15	ug/L		1
tert-Amyl methyl ether	994-05-8	BRL	5.0	1.1	ug/L		1
tert-Butyl alcohol	75-65-0	BRL	25	1.1	ug/L		1
tert-Butyl formate	762-75-4	BRL	25	18	ug/L		1

*

Version: 1.009

XENCO Laboratories

Certificate of Analytical Results 13188

Consultech Environmental, Inc., Cary, NC

Warren Green Grocery

Sample Id: **MW # 5** Matrix: **WATER** % Moisture:
Lab Sample Id: **13188-005** Date Collected: **Dec-03-07 10:40** Date Received: **Dec-04-07 09:44**
Sample Depth:

DRAFT

Analytical Method: Dissolved Iron by SW6010B Prep Method: SW3005A
Date Analyzed: Dec-06-07 13:58 Analyst: MCJ01 Date Prep: Dec-06-07 12:30 Tech: MSN01
Seq Number: 38525

Parameter	Cas Number	Result	Rep Limit	MDL	Units	Flag	Dil
Iron (Dissolved)	7439-89-6	2.77	0.100	0.0167	mg/L		1

Analytical Method: Lead by SW6010B Prep Method: SW3010A
Date Analyzed: Dec-10-07 13:30 Analyst: MCJ01 Date Prep: Dec-06-07 11:00 Tech: MSN01
Seq Number: 38568

Parameter	Cas Number	Result	Rep Limit	MDL	Units	Flag	Dil
Lead	7439-92-1	0.0653	0.0100	0.00390	mg/L		1

Analytical Method: Nitrate & Sulfate by SW9056 Prep Method:
Date Analyzed: Dec-05-07 05:23 Analyst: SVA01 Date Prep: Tech: SVA01
Seq Number: 38513

Parameter	Cas Number	Result	Rep Limit	MDL	Units	Flag	Dil
Nitrate	14797-55-8	0.24	0.10	0.027	mg/L		1
Sulfate	14808-79-8	2.0	1.0	0.062	mg/L		1

Analytical Method: VOCs by SW8260B w/Naphthalene, MTBE, Oxygenates Prep Method: SW5030B
Date Analyzed: Dec-07-07 12:10 Analyst: MDS01 Date Prep: Dec-07-07 07:37 Tech: MDS01
Seq Number: 38564

Parameter	Cas Number	Result	Rep Limit	MDL	Units	Flag	Dil
Benzene	71-43-2	BRL	1.0	0.67	ug/L		1
Toluene	108-88-3	BRL	1.0	0.68	ug/L		1
Ethylbenzene	100-41-4	BRL	1.0	0.66	ug/L		1
Xylenes, Total	1330-20-7	BRL	1.0	1.8	ug/L		1
Methyl tert-butyl ether	1634-04-4	BRL	1.0	0.62	ug/L		1
Naphthalene	91-20-3	BRL	5.0	4.0	ug/L		1
1,2-Dichloroethane	107-06-2	BRL	5.0	0.82	ug/L		1
Diisopropyl ether	108-20-3	BRL	5.0	0.89	ug/L		1
Ethanol	64-17-5	BRL	100	55	ug/L		1
Ethyl tert-butyl alcohol	590-36-3	BRL	25	17	ug/L		1
Ethyl tert-butyl ether	637-92-3	BRL	5.0	1.1	ug/L		1
Tert-Amyl alcohol	75-85-4	BRL	25	15	ug/L		1
tert-Amyl methyl ether	994-05-8	BRL	5.0	1.1	ug/L		1
tert-Butyl alcohol	75-65-0	BRL	25	1.1	ug/L		1
tert-Butyl formate	762-75-4	BRL	25	18	ug/L		1

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Consultech Environmental, Inc., Cary, NC

Warren Green Grocery

Sample Id: **MW # 6** | Matrix: **WATER** | % Moisture:

Lab Sample Id: **13188-006** | Date Collected: **Dec-03-07 11:00** | Date Received: **Dec-04-07 09:44**

Sample Depth:

DRAFT

Analytical Method: Dissolved Iron by SW6010B | Prep Method: SW3005A

Date Analyzed: Dec-06-07 14:00 | Analyst: MCJ01 | Date Prep: Dec-06-07 12:30 | Tech: MSN01

Seq Number: 38525

Parameter	Cas Number	Result	Rep Limit	MDL	Units	Flag	Dil
Iron (Dissolved)	7439-89-6	0.669	0.100	0.0167	mg/L		1

Analytical Method: Lead by SW6010B | Prep Method: SW3010A

Date Analyzed: Dec-10-07 13:33 | Analyst: MCJ01 | Date Prep: Dec-06-07 11:00 | Tech: MSN01

Seq Number: 38568

Parameter	Cas Number	Result	Rep Limit	MDL	Units	Flag	Dil
Lead	7439-92-1	0.0727	0.0100	0.00390	mg/L		1

Analytical Method: Nitrate & Sulfate by SW9056 | Prep Method:

Date Analyzed: Dec-05-07 06:15 | Analyst: SVA01 | Date Prep: | Tech: SVA01

Seq Number: 38513

Parameter	Cas Number	Result	Rep Limit	MDL	Units	Flag	Dil
Nitrate	14797-55-8	0.28	0.10	0.027	mg/L		1
Sulfate	14808-79-8	2.0	1.0	0.062	mg/L		1

Analytical Method: VOCs by SW8260B w/Naphthalene, MTBE, Oxygenates | Prep Method: SW5030B

Date Analyzed: Dec-07-07 12:41 | Analyst: MDS01 | Date Prep: Dec-07-07 07:37 | Tech: MDS01

Seq Number: 38564

Parameter	Cas Number	Result	Rep Limit	MDL	Units	Flag	Dil
Benzene	71-43-2	BRL	1.0	0.67	ug/L		1
Toluene	108-88-3	BRL	1.0	0.68	ug/L		1
Ethylbenzene	100-41-4	BRL	1.0	0.66	ug/L		1
Xylenes, Total	1330-20-7	BRL	1.0	1.8	ug/L		1
Methyl tert-butyl ether	1634-04-4	BRL	1.0	0.62	ug/L		1
Naphthalene	91-20-3	BRL	5.0	4.0	ug/L		1
1,2-Dichloroethane	107-06-2	BRL	5.0	0.82	ug/L		1
Diisopropyl ether	108-20-3	BRL	5.0	0.89	ug/L		1
Ethanol	64-17-5	BRL	100	55	ug/L		1
Ethyl tert-butyl alcohol	590-36-3	BRL	25	17	ug/L		1
Ethyl tert-butyl ether	637-92-3	BRL	5.0	1.1	ug/L		1
Tert-Amyl alcohol	75-85-4	BRL	25	15	ug/L		1
tert-Amyl methyl ether	994-05-8	BRL	5.0	1.1	ug/L		1
tert-Butyl alcohol	75-65-0	BRL	25	1.1	ug/L		1
tert-Butyl formate	762-75-4	BRL	25	18	ug/L		1

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Certificate of Analytical Results 13188

Consultech Environmental, Inc., Cary, NC

Warren Green Grocery

Sample Id: **MW # 7**	Matrix: **WATER**	% Moisture:
Lab Sample Id: **13188-007**	Date Collected: **Dec-03-07 11:20**	Date Received: **Dec-04-07 09:44**
Sample Depth:		

DRAFT

Analytical Method: Dissolved Iron by SW6010B — Prep Method: SW3005A

Date Analyzed: Dec-06-07 14:03 | Analyst: MCJ01 | Date Prep: Dec-06-07 12:30 | Tech: MSN01

Seq Number: 38525

Parameter	Cas Number	Result	Rep Limit	MDL	Units	Flag	Dil
Iron (Dissolved)	7439-89-6	0.660	0.100	0.0167	mg/L		1

Analytical Method: Lead by SW6010B — Prep Method: SW3010A

Date Analyzed: Dec-10-07 13:35 | Analyst: MCJ01 | Date Prep: Dec-06-07 11:00 | Tech: MSN01

Seq Number: 38568

Parameter	Cas Number	Result	Rep Limit	MDL	Units	Flag	Dil
Lead	7439-92-1	0.115	0.0100	0.00390	mg/L		1

Analytical Method: Nitrate & Sulfate by SW9056 — Prep Method:

Date Analyzed: Dec-05-07 06:32 | Analyst: SVA01 | Date Prep: | Tech: SVA01

Seq Number: 38513

Parameter	Cas Number	Result	Rep Limit	MDL	Units	Flag	Dil
Nitrate	14797-55-8	BRL	0.10	0.027	mg/L		1
Sulfate	14808-79-8	BRL	1.0	0.062	mg/L		1

Analytical Method: VOCs by SW8260B w/Naphthalene, MTBE, Oxygenates — Prep Method: SW5030B

Date Analyzed: Dec-10-07 09:53 | Analyst: MDS01 | Date Prep: Dec-10-07 07:30 | Tech: MDS01

Seq Number: 38581

Parameter	Cas Number	Result	Rep Limit	MDL	Units	Flag	Dil
Benzene	71-43-2	280	10	6.7	ug/L		10
Toluene	108-88-3	150	1.0	0.68	ug/L		1
Ethylbenzene	100-41-4	92	1.0	0.66	ug/L		1
Xylenes, Total	1330-20-7	770	10	18	ug/L		10
Methyl tert-butyl ether	1634-04-4	7.1	1.0	0.62	ug/L		1
Naphthalene	91-20-3	32	5.0	4.0	ug/L		1
1,2-Dichloroethane	107-06-2	7.2	5.0	0.82	ug/L		1
Ethanol	64-17-5	BRL	100	55	ug/L		1
Ethyl tert-butyl alcohol	590-36-3	170	25	17	ug/L		1
Ethyl tert-butyl ether	637-92-3	BRL	5.0	1.1	ug/L		1
Tert-Amyl alcohol	75-85-4	260	25	15	ug/L		1
tert-Amyl methyl ether	994-05-8	BRL	5.0	1.1	ug/L		1
tert-Butyl alcohol	75-65-0	BRL	25	1.1	ug/L		1
tert-Butyl formate	762-75-4	BRL	25	18	ug/L		1

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Consultech Environmental, Inc., Cary, NC

Warren Green Grocery

Sample Id: **MW # 8**	Matrix: **WATER**	% Moisture:
Lab Sample Id: **13188-008**	Date Collected: **Dec-03-07 11:40**	Date Received: **Dec-04-07 09:44**
Sample Depth:		

DRAFT

Analytical Method: Dissolved Iron by SW6010B Prep Method: SW3005A

Date Analyzed: Dec-06-07 14:05 Analyst: MCJ01 Date Prep: Dec-06-07 12:30 Tech: MSN01

Seq Number: 38525

Parameter	Cas Number	Result	Rep Limit	MDL	Units	Flag	Dil
Iron (Dissolved)	7439-89-6	1.04	0.100	0.0167	mg/L		1

Analytical Method: Lead by SW6010B Prep Method: SW3010A

Date Analyzed: Dec-10-07 13:37 Analyst: MCJ01 Date Prep: Dec-06-07 11:00 Tech: MSN01

Seq Number: 38568

Parameter	Cas Number	Result	Rep Limit	MDL	Units	Flag	Dil
Lead	7439-92-1	0.136	0.0100	0.00390	mg/L		1

Analytical Method: Nitrate & Sulfate by SW9056 Prep Method:

Date Analyzed: Dec-05-07 06:50 Analyst: SVA01 Date Prep: Tech: SVA01

Seq Number: 38513

Parameter	Cas Number	Result	Rep Limit	MDL	Units	Flag	Dil
Nitrate	14797-55-8	0.42	0.10	0.027	mg/L		1
Sulfate	14808-79-8	6.0	1.0	0.062	mg/L		1

Analytical Method: VOCs by SW8260B w/Naphthalene, MTBE, Oxygenates Prep Method: SW5030B

Date Analyzed: Dec-10-07 10:24 Analyst: MDS01 Date Prep: Dec-10-07 07:30 Tech: MDS01

Seq Number: 38581

Parameter	Cas Number	Result	Rep Limit	MDL	Units	Flag	Dil
Benzene	71-43-2	590	20	13	ug/L		20
Toluene	108-88-3	2200	20	14	ug/L		20
Ethylbenzene	100-41-4	750	20	13	ug/L		20
Xylenes, Total	1330-20-7	4200	20	36	ug/L		20
Methyl tert-butyl ether	1634-04-4	BRL	1.0	0.62	ug/L		1
Naphthalene	91-20-3	110	5.0	4.0	ug/L		1
1,2-Dichloroethane	107-06-2	BRL	5.0	0.82	ug/L		1
Diisopropyl ether	108-20-3	BRL	5.0	0.89	ug/L		1
Ethanol	64-17-5	BRL	100	55	ug/L		1
Ethyl tert-butyl alcohol	590-36-3	750	25	17	ug/L		1
Ethyl tert-butyl ether	637-92-3	BRL	5.0	1.1	ug/L		1
Tert-Amyl alcohol	75-85-4	940	25	15	ug/L		1
tert-Amyl methyl ether	994-05-8	BRL	5.0	1.1	ug/L		1
tert-Butyl alcohol	75-65-0	BRL	25	1.1	ug/L		1
tert-Butyl formate	762-75-4	BRL	25	18	ug/L		1

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Consultech Environmental, Inc., Cary, NC

Warren Green Grocery

Sample Id: **MW # 9** Matrix: **WATER** % Moisture:
Lab Sample Id: **13188-009** Date Collected: **Dec-03-07 12:00** Date Received: **Dec-04-07 09:44**
Sample Depth:

DRAFT

Analytical Method: Dissolved Iron by SW6010B Prep Method: SW3005A
Date Analyzed: Dec-06-07 14:08 Analyst: MCJ01 Date Prep: Dec-06-07 12:30 Tech: MSN01
Seq Number: 38525

Parameter	Cas Number	Result	Rep Limit	MDL	Units	Flag	Dil
Iron (Dissolved)	7439-89-6	2.13	0.100	0.0167	mg/L		1

Analytical Method: Lead by SW6010B Prep Method: SW3010A
Date Analyzed: Dec-10-07 13:45 Analyst: MCJ01 Date Prep: Dec-06-07 11:00 Tech: MSN01
Seq Number: 38568

Parameter	Cas Number	Result	Rep Limit	MDL	Units	Flag	Dil
Lead	7439-92-1	0.223	0.0100	0.00390	mg/L		1

Analytical Method: Nitrate & Sulfate by SW9056 Prep Method:
Date Analyzed: Dec-05-07 10:23 Analyst: SVA01 Date Prep: Tech: SVA01
Seq Number: 38513

Parameter	Cas Number	Result	Rep Limit	MDL	Units	Flag	Dil
Nitrate	14797-55-8	0.52	0.10	0.027	mg/L		1
Sulfate	14808-79-8	9.6	1.0	0.062	mg/L		1

Analytical Method: VOCs by SW8260B w/Naphthalene, MTBE, Oxygenates Prep Method: SW5030B
Date Analyzed: Dec-10-07 13:27 Analyst: MDS01 Date Prep: Dec-10-07 07:30 Tech: MDS01
Seq Number: 38581

Parameter	Cas Number	Result	Rep Limit	MDL	Units	Flag	Dil
Benzene	71-43-2	BRL	1.0	0.67	ug/L		1
Toluene	108-88-3	5.9	1.0	0.68	ug/L		1
Ethylbenzene	100-41-4	1.9	1.0	0.66	ug/L		1
Xylenes, Total	1330-20-7	11	1.0	1.8	ug/L		1
Methyl tert-butyl ether	1634-04-4	BRL	1.0	0.62	ug/L		1
Naphthalene	91-20-3	BRL	5.0	4.0	ug/L		1
1,2-Dichloroethane	107-06-2	BRL	5.0	0.82	ug/L		1
Diisopropyl ether	108-20-3	BRL	5.0	0.89	ug/L		1
Ethanol	64-17-5	BRL	100	55	ug/L		1
Ethyl tert-butyl alcohol	590-36-3	BRL	25	17	ug/L		1
Ethyl tert-butyl ether	637-92-3	BRL	5.0	1.1	ug/L		1
Tert-Amyl alcohol	75-85-4	BRL	25	15	ug/L		1
tert-Amyl methyl ether	994-05-8	BRL	5.0	1.1	ug/L		1
tert-Butyl alcohol	75-65-0	BRL	25	1.1	ug/L		1
tert-Butyl formate	762-75-4	BRL	25	18	ug/L		1

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Consultech Environmental, Inc., Cary, NC

Warren Green Grocery

Sample Id: **DW - 1**	Matrix: **WATER**	% Moisture:
Lab Sample Id: **13188-010**	Date Collected: **Dec-03-07 12:20**	Date Received: **Dec-04-07 09:44**
Sample Depth:		

DRAFT

Analytical Method: Dissolved Iron by SW6010B Prep Method: SW3005A

Date Analyzed: Dec-06-07 14:13 Analyst: MCJ01 Date Prep: Dec-06-07 12:30 Tech: MSN01

Seq Number: 38525

Parameter	Cas Number	Result	Rep Limit	MDL	Units	Flag	Dil
Iron (Dissolved)	7439-89-6	0.186	0.100	0.0167	mg/L		1

Analytical Method: Lead by SW6010B Prep Method: SW3010A

Date Analyzed: Dec-10-07 13:47 Analyst: MCJ01 Date Prep: Dec-06-07 11:00 Tech: MSN01

Seq Number: 38568

Parameter	Cas Number	Result	Rep Limit	MDL	Units	Flag	Dil
Lead	7439-92-1	0.243	0.0100	0.00390	mg/L		1

Analytical Method: Nitrate & Sulfate by SW9056 Prep Method:

Date Analyzed: Dec-05-07 10:40 Analyst: SVA01 Date Prep: Tech: SVA01

Seq Number: 38513

Parameter	Cas Number	Result	Rep Limit	MDL	Units	Flag	Dil
Nitrate	14797-55-8	0.25	0.10	0.027	mg/L		1
Sulfate	14808-79-8	7.5	1.0	0.062	mg/L		1

Analytical Method: VOCs by SW8260B w/Naphthalene, MTBE, Oxygenates Prep Method: SW5030B

Date Analyzed: Dec-08-07 19:24 Analyst: MDS01 Date Prep: Dec-08-07 09:50 Tech: MDS01

Seq Number: 38565

Parameter	Cas Number	Result	Rep Limit	MDL	Units	Flag	Dil
Benzene	71-43-2	100	10	6.7	ug/L		10
Toluene	108-88-3	1800	10	6.8	ug/L		10
Ethylbenzene	100-41-4	620	10	6.6	ug/L		10
Xylenes, Total	1330-20-7	3300	10	18	ug/L		10
Methyl tert-butyl ether	1634-04-4	BRL	10	6.2	ug/L		10
Naphthalene	91-20-3	84	50	40	ug/L		10
1,2-Dichloroethane	107-06-2	BRL	50	8.2	ug/L		10
Diisopropyl ether	108-20-3	BRL	50	8.9	ug/L		10
Ethanol	64-17-5	BRL	1000	550	ug/L		10
Ethyl tert-butyl alcohol	590-36-3	BRL	250	170	ug/L		10
Ethyl tert-butyl ether	637-92-3	BRL	50	11	ug/L		10
Tert-Amyl alcohol	75-85-4	BRL	250	150	ug/L		10
tert-Amyl methyl ether	994-05-8	BRL	50	11	ug/L		10
tert-Butyl alcohol	75-65-0	BRL	250	11	ug/L		10
tert-Butyl formate	762-75-4	BRL	250	180	ug/L		10

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Consultech Environmental, Inc., Cary, NC

Warren Green Grocery

Sample Id: **DW - 2**	Matrix: **WATER**	% Moisture:
Lab Sample Id: **13188-011**	Date Collected: **Dec-03-07 12:40**	Date Received: **Dec-04-07 09:44**
Sample Depth:		

DRAFT

Analytical Method: Dissolved Iron by SW6010B Prep Method: SW3005A

Date Analyzed: Dec-06-07 14:13 Analyst: MCJ01 Date Prep: Dec-06-07 12:30 Tech: MSN01

Seq Number: 38525

Parameter	Cas Number	Result	Rep Limit	MDL	Units	Flag	Dil
Iron (Dissolved)	7439-89-6	BRL	0.100	0.0167	mg/L		1

Analytical Method: Lead by SW6010B Prep Method: SW3010A

Date Analyzed: Dec-10-07 13:50 Analyst: MCJ01 Date Prep: Dec-06-07 11:00 Tech: MSN01

Seq Number: 38568

Parameter	Cas Number	Result	Rep Limit	MDL	Units	Flag	Dil
Lead	7439-92-1	BRL	0.0100	0.00390	mg/L		1

Analytical Method: Nitrate & Sulfate by SW9056 Prep Method:

Date Analyzed: Dec-05-07 10:57 Analyst: SVA01 Date Prep: Tech: SVA01

Seq Number: 38513

Parameter	Cas Number	Result	Rep Limit	MDL	Units	Flag	Dil
Nitrate	14797-55-8	0.96	0.10	0.027	mg/L		1
Sulfate	14808-79-8	240	10	0.62	mg/L		10

Analytical Method: VOCs by SW8260B w/Naphthalene, MTBE, Oxygenates Prep Method: SW5030B

Date Analyzed: Dec-07-07 17:21 Analyst: MDS01 Date Prep: Dec-07-07 07:37 Tech: MDS01

Seq Number: 38564

Parameter	Cas Number	Result	Rep Limit	MDL	Units	Flag	Dil
Benzene	71-43-2	BRL	1.0	0.67	ug/L		1
Toluene	108-88-3	BRL	1.0	0.68	ug/L		1
Ethylbenzene	100-41-4	BRL	1.0	0.66	ug/L		1
Xylenes, Total	1330-20-7	BRL	1.0	1.8	ug/L		1
Methyl tert-butyl ether	1634-04-4	BRL	1.0	0.62	ug/L		1
Naphthalene	91-20-3	BRL	5.0	4.0	ug/L		1
1,2-Dichloroethane	107-06-2	BRL	5.0	0.82	ug/L		1
Diisopropyl ether	108-20-3	BRL	5.0	0.89	ug/L		1
Ethanol	64-17-5	BRL	100	55	ug/L		1
Ethyl tert-butyl alcohol	590-36-3	BRL	25	17	ug/L		1
Ethyl tert-butyl ether	637-92-3	BRL	5.0	1.1	ug/L		1
Tert-Amyl alcohol	75-85-4	BRL	25	15	ug/L		1
tert-Amyl methyl ether	994-05-8	BRL	5.0	1.1	ug/L		1
tert-Butyl alcohol	75-65-0	BRL	25	1.1	ug/L		1
tert-Butyl formate	762-75-4	BRL	25	18	ug/L		1

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Consultech Environmental, Inc., Cary, NC

Warren Green Grocery

Sample Id: **DW - 3**	Matrix: **WATER**	% Moisture:
Lab Sample Id: **13188-012**	Date Collected: **Dec-03-07 13:00**	Date Received: **Dec-04-07 09:44**
Sample Depth:		

DRAFT

Analytical Method: Dissolved Iron by SW6010B Prep Method: SW3005A

Date Analyzed: Dec-06-07 14:15 Analyst: MCJ01 Date Prep: Dec-06-07 12:30 Tech: MSN01

Seq Number: 38525

Parameter	Cas Number	Result	Rep Limit	MDL	Units	Flag	Dil
Iron (Dissolved)	7439-89-6	BRL	0.100	0.0167	mg/L		1

Analytical Method: Lead by SW6010B Prep Method: SW3010A

Date Analyzed: Dec-10-07 13:52 Analyst: MCJ01 Date Prep: Dec-06-07 11:00 Tech: MSN01

Seq Number: 38568

Parameter	Cas Number	Result	Rep Limit	MDL	Units	Flag	Dil
Lead	7439-92-1	BRL	0.0100	0.00390	mg/L		1

Analytical Method: Nitrate & Sulfate by SW9056 Prep Method:

Date Analyzed: Dec-05-07 11:15 Analyst: SVA01 Date Prep: Tech: SVA01

Seq Number: 38513

Parameter	Cas Number	Result	Rep Limit	MDL	Units	Flag	Dil
Nitrate	14797-55-8	0.38	0.10	0.027	mg/L		1
Sulfate	14808-79-8	4.6	1.0	0.062	mg/L		1

Analytical Method: VOCs by SW8260B w/Naphthalene, MTBE, Oxygenates Prep Method: SW5030B

Date Analyzed: Dec-07-07 17:52 Analyst: MDS01 Date Prep: Dec-07-07 07:37 Tech: MDS01

Seq Number: 38564

Parameter	Cas Number	Result	Rep Limit	MDL	Units	Flag	Dil
Benzene	71-43-2	BRL	1.0	0.67	ug/L		1
Toluene	108-88-3	1.2	1.0	0.68	ug/L		1
Ethylbenzene	100-41-4	BRL	1.0	0.66	ug/L		1
Xylenes, Total	1330-20-7	1.8	1.0	1.8	ug/L		1
Methyl tert-butyl ether	1634-04-4	BRL	1.0	0.62	ug/L		1
Naphthalene	91-20-3	BRL	5.0	4.0	ug/L		1
1,2-Dichloroethane	107-06-2	BRL	5.0	0.82	ug/L		1
Diisopropyl ether	108-20-3	BRL	5.0	0.89	ug/L		1
Ethanol	64-17-5	BRL	100	55	ug/L		1
Ethyl tert-butyl alcohol	590-36-3	BRL	25	17	ug/L		1
Ethyl tert-butyl ether	637-92-3	BRL	5.0	1.1	ug/L		1
Tert-Amyl alcohol	75-85-4	BRL	25	15	ug/L		1
tert-Amyl methyl ether	994-05-8	BRL	5.0	1.1	ug/L		1
tert-Butyl alcohol	75-65-0	BRL	25	1.1	ug/L		1
tert-Butyl formate	762-75-4	BRL	25	18	ug/L		1

*

Version: 1.009

XENCO Laboratories

Certificate of Analytical Results 13188

Consultech Environmental, Inc., Cary, NC

Warren Green Grocery

Sample Id: **DW - 4**	Matrix: **WATER**	% Moisture:
Lab Sample Id: **13188-013**	Date Collected: **Dec-03-07 13:20**	Date Received: **Dec-04-07 09:44**
Sample Depth:		

DRAFT

Analytical Method: Dissolved Iron by SW6010B Prep Method: SW3005A

Date Analyzed: Dec-06-07 14:17 Analyst: MCJ01 Date Prep: Dec-06-07 12:30 Tech: MSN01

Seq Number: 38525

Parameter	Cas Number	Result	Rep Limit	MDL	Units	Flag	Dil
Iron (Dissolved)	7439-89-6	BRL	0.100	0.0167	mg/L		1

Analytical Method: Lead by SW6010B Prep Method: SW3010A

Date Analyzed: Dec-10-07 13:55 Analyst: MCJ01 Date Prep: Dec-06-07 11:00 Tech: MSN01

Seq Number: 38568

Parameter	Cas Number	Result	Rep Limit	MDL	Units	Flag	Dil
Lead	7439-92-1	BRL	0.0100	0.00390	mg/L		1

Analytical Method: Nitrate & Sulfate by SW9056 Prep Method:

Date Analyzed: Dec-05-07 11:32 Analyst: SVA01 Date Prep: Tech: SVA01

Seq Number: 38513

Parameter	Cas Number	Result	Rep Limit	MDL	Units	Flag	Dil
Nitrate	14797-55-8	0.26	0.10	0.027	mg/L		1
Sulfate	14808-79-8	4.9	1.0	0.062	mg/L		1

Analytical Method: VOCs by SW8260B w/Naphthalene, MTBE, Oxygenates Prep Method: SW5030B

Date Analyzed: Dec-07-07 18:22 Analyst: MDS01 Date Prep: Dec-07-07 07:37 Tech: MDS01

Seq Number: 38564

Parameter	Cas Number	Result	Rep Limit	MDL	Units	Flag	Dil
Benzene	71-43-2	BRL	1.0	0.67	ug/L		1
Toluene	108-88-3	BRL	1.0	0.68	ug/L		1
Ethylbenzene	100-41-4	BRL	1.0	0.66	ug/L		1
Xylenes, Total	1330-20-7	BRL	1.0	1.8	ug/L		1
Methyl tert-butyl ether	1634-04-4	BRL	1.0	0.62	ug/L		1
Naphthalene	91-20-3	BRL	5.0	4.0	ug/L		1
1,2-Dichloroethane	107-06-2	BRL	5.0	0.82	ug/L		1
Diisopropyl ether	108-20-3	BRL	5.0	0.89	ug/L		1
Ethanol	64-17-5	BRL	100	55	ug/L		1
Ethyl tert-butyl alcohol	590-36-3	BRL	25	17	ug/L		1
Ethyl tert-butyl ether	637-92-3	BRL	5.0	1.1	ug/L		1
Tert-Amyl alcohol	75-85-4	BRL	25	15	ug/L		1
tert-Amyl methyl ether	994-05-8	BRL	5.0	1.1	ug/L		1
tert-Butyl alcohol	75-65-0	BRL	25	1.1	ug/L		1
tert-Butyl formate	762-75-4	BRL	25	18	ug/L		1

*

Version: 1.009

XENCO Laboratories

Certificate of Analytical Results 13188

Consultech Environmental, Inc., Cary, NC

Warren Green Grocery

Sample Id: **WSW - 1**	Matrix: **WATER**	% Moisture:
Lab Sample Id: **13188-014**	Date Collected: **Dec-03-07 13:25**	Date Received: **Dec-04-07 09:44**
Sample Depth:		

Analytical Method: Select VOCs by SW8260B (w/ 1,2-DCA) Prep Method: SW5030B

Date Analyzed: Dec-07-07 18:53 Analyst: MDS01 Date Prep: Dec-07-07 07:37 Tech: MDS01
Seq Number: 38564

Parameter	Cas Number	Result	Rep Limit	MDL	Units	Flag	Dil
Benzene	71-43-2	BRL	1.0	0.67	ug/L		1
Toluene	108-88-3	BRL	1.0	0.68	ug/L		1
Xylenes, Total	1330-20-7	BRL	1.0	1.8	ug/L		1
Methyl tert-butyl ether	1634-04-4	BRL	1.0	0.62	ug/L		1
Naphthalene	91-20-3	BRL	5.0	4.0	ug/L		1
1,2-Dichloroethane	107-06-2	BRL	1.0	0.82	ug/L		1

Sample Id: **WSW - 2**	Matrix: **WATER**	% Moisture:
Lab Sample Id: **13188-015**	Date Collected: **Dec-03-07 13:30**	Date Received: **Dec-04-07 09:44**
Sample Depth:		

Analytical Method: Select VOCs by SW8260B (w/ 1,2-DCA) Prep Method: SW5030B

Date Analyzed: Dec-08-07 12:15 Analyst: MDS01 Date Prep: Dec-08-07 09:50 Tech: MDS01
Seq Number: 38565

Parameter	Cas Number	Result	Rep Limit	MDL	Units	Flag	Dil
Benzene	71-43-2	BRL	1.0	0.67	ug/L		1
Toluene	108-88-3	BRL	1.0	0.68	ug/L		1
Ethylbenzene	100-41-4	BRL	1.0	0.66	ug/L		1
Xylenes, Total	1330-20-7	BRL	1.0	1.8	ug/L		1
Methyl tert-butyl ether	1634-04-4	BRL	1.0	0.62	ug/L		1
Naphthalene	91-20-3	BRL	5.0	4.0	ug/L		1
1,2-Dichloroethane	107-06-2	BRL	1.0	0.82	ug/L		1

Sample Id: **WSW - 3**	Matrix: **WATER**	% Moisture:
Lab Sample Id: **13188-016**	Date Collected: **Dec-03-07 13:35**	Date Received: **Dec-04-07 09:44**
Sample Depth:		

Analytical Method: Select VOCs by SW8260B (w/ 1,2-DCA) Prep Method: SW5030B

Date Analyzed: Dec-08-07 12:46 Analyst: MDS01 Date Prep: Dec-08-07 09:50 Tech: MDS01
Seq Number: 38565

Parameter	Cas Number	Result	Rep Limit	MDL	Units	Flag	Dil
Benzene	71-43-2	BRL	1.0	0.67	ug/L		1
Toluene	108-88-3	BRL	1.0	0.68	ug/L		1
Ethylbenzene	100-41-4	BRL	1.0	0.66	ug/L		1
Xylenes, Total	1330-20-7	BRL	1.0	1.8	ug/L		1
Methyl tert-butyl ether	1634-04-4	BRL	1.0	0.62	ug/L		1
Naphthalene	91-20-3	BRL	5.0	4.0	ug/L		1
1,2-Dichloroethane	107-06-2	BRL	1.0	0.82	ug/L		1

*

Version: 1.009

Certificate of Analytical Results 13188

Consultech Environmental, Inc., Cary, NC

Warren Green Grocery

Sample Id: **WSW - 4**	Matrix: **WATER**	% Moisture:
Lab Sample Id: **13188-017**	Date Collected: **Dec-03-07 13:40**	Date Received: **Dec-04-07 09:44**
Sample Depth:		

Analytical Method: Select VOCs by SW8260B (w/ 1,2-DCA) Prep Method: SW5030B

Date Analyzed: Dec-08-07 13:16 Analyst: MDS01 Date Prep: Dec-08-07 09:50 Tech: MDS01

Seq Number: 38565

Parameter	Cas Number	Result	Rep Limit	MDL	Units	Flag	Dil
Benzene	71-43-2	BRL	1.0	0.67	ug/L		1
Toluene	108-88-3	BRL	1.0	0.68	ug/L		1
Ethylbenzene	100-41-4	BRL	1.0	0.66	ug/L		1
Xylenes, Total	1330-20-7	BRL	1.0	1.8	ug/L		1
Methyl tert-butyl ether	1634-04-4	BRL	1.0	0.62	ug/L		1
Naphthalene	91-20-3	BRL	5.0	4.0	ug/L		1
1,2-Dichloroethane	107-06-2	BRL	1.0	0.82	ug/L		1

Sample Id: **304495 BLK**	Matrix: **WATER**	% Moisture:
Lab Sample Id: **304495 BLK**	Date Collected:	Date Received:
Sample Depth:		

Analytical Method: Dissolved Iron by SW6010B Prep Method: SW3005A

Date Analyzed: Dec-06-07 13:28 Analyst: MCJ01 Date Prep: Dec-06-07 12:30 Tech: MSN01

Seq Number: 38525

Parameter	Cas Number	Result	Rep Limit	MDL	Units	Flag	Dil
Iron (Dissolved)	7439-89-6	BRL	0.100	0.0167	mg/L		1

Xenco Laboratories

Certificate of Analytical Results 13188

Consultech Environmental, Inc., Cary, NC

Warren Green Grocery

Sample Id: **304507 BLK**	Matrix: **WATER**	% Moisture:
Lab Sample Id: **304507 BLK**	Date Collected:	Date Received:
Sample Depth:		

Analytical Method: VOCs by SW8260B w/Naphthalene, MTBE, Oxygenates Prep Method: SW5030B

Date Analyzed: Dec-06-07 09:57 Analyst: MDS01 Date Prep: Dec-05-07 07:36 Tech: MJL01

Seq Number: 38532

Parameter	Cas Number	Result	Rep Limit	MDL	Units	Flag	Dil
Benzene	71-43-2	BRL	1.0	0.67	ug/L		1
Toluene	108-88-3	BRL	1.0	0.68	ug/L		1
Ethylbenzene	100-41-4	BRL	1.0	0.66	ug/L		1
Xylenes, Total	1330-20-7	BRL	1.0	1.8	ug/L		1
Methyl tert-butyl ether	1634-04-4	BRL	1.0	0.62	ug/L		1
Naphthalene	91-20-3	BRL	5.0	4.0	ug/L		1
1,2-Dichloroethane	107-06-2	BRL	5.0	0.82	ug/L		1
Diisopropyl ether	108-20-3	BRL	5.0	0.89	ug/L		1
Ethanol	64-17-5	BRL	100	55	ug/L		1
Ethyl tert-butyl alcohol	590-36-3	BRL	25	17	ug/L		1
Ethyl tert-butyl ether	637-92-3	BRL	5.0	1.1	ug/L		1
Tert-Amyl alcohol	75-85-4	BRL	25	15	ug/L		1
tert-Amyl methyl ether	994-05-8	BRL	5.0	1.1	ug/L		1
tert-Butyl alcohol	75-65-0	BRL	25	1.1	ug/L		1
tert-Butyl formate	762-75-4	BRL	25	18	ug/L		1

Sample Id: **304534 BLK**	Matrix: **WATER**	% Moisture:
Lab Sample Id: **304534 BLK**	Date Collected:	Date Received:
Sample Depth:		

Analytical Method: VOCs by SW8260B w/Naphthalene, MTBE, Oxygenates Prep Method: SW5030B

Date Analyzed: Dec-07-07 10:39 Analyst: MDS01 Date Prep: Dec-07-07 07:37 Tech: MDS01

Seq Number: 38564

Parameter	Cas Number	Result	Rep Limit	MDL	Units	Flag	Dil
Benzene	71-43-2	BRL	1.0	0.67	ug/L		1
Toluene	108-88-3	BRL	1.0	0.68	ug/L		1
Ethylbenzene	100-41-4	BRL	1.0	0.66	ug/L		1
Xylenes, Total	1330-20-7	BRL	1.0	1.8	ug/L		1
Methyl tert-butyl ether	1634-04-4	BRL	1.0	0.62	ug/L		1
Naphthalene	91-20-3	BRL	5.0	4.0	ug/L		1
1,2-Dichloroethane	107-06-2	BRL	5.0	0.82	ug/L		1
Diisopropyl ether	108-20-3	BRL	5.0	0.89	ug/L		1
Ethanol	64-17-5	BRL	100	55	ug/L		1
Ethyl tert-butyl alcohol	590-36-3	BRL	25	17	ug/L		1
Ethyl tert-butyl ether	637-92-3	BRL	5.0	1.1	ug/L		1
Tert-Amyl alcohol	75-85-4	BRL	25	15	ug/L		1
tert-Amyl methyl ether	994-05-8	BRL	5.0	1.1	ug/L		1
tert-Butyl alcohol	75-65-0	BRL	25	1.1	ug/L		1
tert-Butyl formate	762-75-4	BRL	25	18	ug/L		1

Certificate of Analytical Results 13188

Consultech Environmental, Inc., Cary, NC

Warren Green Grocery

Sample Id: **304535 BLK**	Matrix: **WATER**	% Moisture:
Lab Sample Id: **304535 BLK**	Date Collected:	Date Received:
Sample Depth:		

Analytical Method: VOCs by SW8260B w/Naphthalene, MTBE, Oxygenates Prep Method: SW5030B

Date Analyzed: Dec-08-07 11:44 Analyst: MDS01 Date Prep: Dec-08-07 09:50 Tech: MDS01

Seq Number: 38565

Parameter	Cas Number	Result	Rep Limit	MDL	Units	Flag	Dil
Benzene	71-43-2	BRL	1.0	0.67	ug/L		1
Toluene	108-88-3	BRL	1.0	0.68	ug/L		1
Ethylbenzene	100-41-4	BRL	1.0	0.66	ug/L		1
Xylenes, Total	1330-20-7	BRL	1.0	1.8	ug/L		1
Methyl tert-butyl ether	1634-04-4	BRL	1.0	0.62	ug/L		1
Naphthalene	91-20-3	BRL	5.0	4.0	ug/L		1
1,2-Dichloroethane	107-06-2	BRL	5.0	0.82	ug/L		1
Diisopropyl ether	108-20-3	BRL	5.0	0.89	ug/L		1
Ethanol	64-17-5	BRL	100	55	ug/L		1
Ethyl tert-butyl alcohol	590-36-3	BRL	25	17	ug/L		1
Ethyl tert-butyl ether	637-92-3	BRL	5.0	1.1	ug/L		1
Tert-Amyl alcohol	75-85-4	BRL	25	15	ug/L		1
tert-Amyl methyl ether	994-05-8	BRL	5.0	1.1	ug/L		1
tert-Butyl alcohol	75-65-0	BRL	25	1.1	ug/L		1
tert-Butyl formate	762-75-4	BRL	25	18	ug/L		1

Sample Id: **304545 BLK**	Matrix: **WATER**	% Moisture:
Lab Sample Id: **304545 BLK**	Date Collected:	Date Received:
Sample Depth:		

Analytical Method: VOCs by SW8260B w/Naphthalene, MTBE, Oxygenates Prep Method: SW5030B

Date Analyzed: Dec-10-07 09:22 Analyst: MDS01 Date Prep: Dec-10-07 07:30 Tech: MDS01

Seq Number: 38581

Parameter	Cas Number	Result	Rep Limit	MDL	Units	Flag	Dil
Benzene	71-43-2	BRL	1.0	0.67	ug/L		1
Toluene	108-88-3	BRL	1.0	0.68	ug/L		1
Ethylbenzene	100-41-4	BRL	1.0	0.66	ug/L		1
Xylenes, Total	1330-20-7	BRL	1.0	1.8	ug/L		1
Methyl tert-butyl ether	1634-04-4	BRL	1.0	0.62	ug/L		1
Naphthalene	91-20-3	BRL	5.0	4.0	ug/L		1
1,2-Dichloroethane	107-06-2	BRL	5.0	0.82	ug/L		1
Diisopropyl ether	108-20-3	BRL	5.0	0.89	ug/L		1
Ethanol	64-17-5	BRL	100	55	ug/L		1
Ethyl tert-butyl alcohol	590-36-3	BRL	25	17	ug/L		1
Ethyl tert-butyl ether	637-92-3	BRL	5.0	1.1	ug/L		1
Tert-Amyl alcohol	75-85-4	BRL	25	15	ug/L		1
tert-Amyl methyl ether	994-05-8	BRL	5.0	1.1	ug/L		1
tert-Butyl alcohol	75-65-0	BRL	25	1.1	ug/L		1
tert-Butyl formate	762-75-4	BRL	25	18	ug/L		1

Certificate of Analytical Results 13188

Consultech Environmental, Inc., Cary, NC

Warren Green Grocery

Sample Id: **305501 BLK**	Matrix: **WATER**	% Moisture:
Lab Sample Id: **305501 BLK**	Date Collected:	Date Received:
Sample Depth:	DRAFT	

Analytical Method: Lead by SW6010B — Prep Method: SW3010A

Date Analyzed: Dec-10-07 13:00 — Analyst: MCJ01 — Date Prep: Dec-06-07 11:00 — Tech: MSN01

Seq Number: 38568

Parameter	Cas Number	Result	Rep Limit	MDL	Units	Flag	Dil
Lead	7439-92-1	BRL	0.0100	0.00390	mg/L		1

Sample Id: **38513 BLK**	Matrix: **WATER**	% Moisture:
Lab Sample Id: **38513 BLK**	Date Collected:	Date Received:
Sample Depth:		

Analytical Method: Nitrate & Sulfate by SW9056 — Prep Method:

Date Analyzed: Dec-05-07 02:46 — Analyst: SVA01 — Date Prep: — Tech: SVA01

Seq Number: 38513

Parameter	Cas Number	Result	Rep Limit	MDL	Units	Flag	Dil
Nitrate	14797-55-8	BRL	0.10	0.027	mg/L		1
Sulfate	14808-79-8	BRL	1.0	0.062	mg/L		1

From: "Joe Ghiold" <jghiold@consultechenv.com>
To: "Minda Johnson" <JOHNSOMS@dhec.sc.gov>
Date: 12/19/2007 1:10 PM
Subject: RE: Warren Green, UST # 4887, Cost Agreement # 29932

UST DOCKETING 67T

Minda,
There is no attachment my request is in the e-mail. This is the way Art asked me to ask for cost agreement addendums.

Thank you,

Joe

-----Original Message-----
From: Minda Johnson [mailto:JOHNSOMS@dhec.sc.gov]
Sent: Wednesday, December 19, 2007 10:10 AM
To: Joe Ghiold
Subject: Re: Warren Green, UST # 4887, Cost Agreement # 29932

no attachment.

>>> "Joe Ghiold" <jghiold@consultechenv.com> 12/18/2007 10:20 AM >>>
Minda,

I have attached a Tier II Cost Agreement Addendum for the Warren Green Site as a reference guide for the following scope of work:

3. Compreshensive Survey (2 needed as the area of coverage is over 400,000 sq ft., under state contract additional comprehensive survey is allowed for sites over 250,000 sq ft., as of now no survey is budgeted for this site on the cost agreement)

B. Water Table (Drilled) : about 75 feet additional needed to cover the 7 shallow wells requested, drilled to 20 feet.

C. Telescoping Wells Drilling : about 100 feet additional (4 deep wells at about 50 feet)

11. Analyses- Soil

Q. BTEX + Napth - 1additional for disposal analysis

If you have any questions, please call.

Joe

Joseph A. Ghiold, Ph.D., P.G.
Consultech Environmental, LLC
Post Box 5306
Cary, North Carolina 27512
Phone (919) 861-4319 (Ext. 212)

Fax (919) 861-4317
e-mail: jghiold@consultechenv.com

From: "Joe Ghiold" <jghiold@consultechenv.com>
To: "Minda Johnson" <JOHNSOMS@dhec.sc.gov>
Date: 1/10/2008 4:13 PM
Subject: Warren Green, UST # 4887, Cost Agreement # 29932, addendum request

Minda,

I am requesting a Tier II Cost Agreement Addendum for the Warren Green Site. Now that we have finished our invoice I noticed some items that either we not requested before or because of the change in scope of work never made the first cost agreement. Specifically:

9. Well Installation

C. Telescoping Wells Drilling : about 100 feet additional (4 deep wells at about 50 feet) (I mistakenly added wrong the last time and forgot to ask for the additional 100 feet so that the total is 200 feet, and not 100 as it now stands)

10. Groundwater Sample Collection

A. Groundwater : additional 7 for final total of 13, (to cover all monitor wells sampled)

11. Analyses- Groundwater

Q. 1 additional Rush for EDB

We should still be under the most recent total of $21,287 even with these changes.

21,287.24

If you have any questions, please call.

Joe

Joseph A. Ghiold, Ph.D., P.G.
Consultech Environmental, LLC
Post Box 5306
Cary, North Carolina 27512
Phone (919) 861-4319 (Ext. 212)
Fax (919) 861-4317
e-mail: jghiold@consultechenv.com

From: "Joe Ghiold" <jghiold@consultechenv.com>
To: "Minda Johnson" <JOHNSOMS@dhec.sc.gov>
CC: "Mark Creel" <mcreel@consultechenv.com>, "Art A. Shrader" <shradeaa@dhec...
Date: 12/18/2007 10:21 AM
Subject: Warren Green, UST # 4887, Cost Agreement # 29932

Minda,

I have attached a Tier II Cost Agreement Addendum for the Warren Green Site as a reference guide for the following scope of work:

3. Compreshensive Survey (2 needed as the area of coverage is over 400,000 sq ft., under state contract additional comprehensive survey is allowed for sites over 250,000 sq ft., as of now no survey is budgeted for this site on the cost agreement)

B. Water Table (Drilled) : about 75 feet additional needed to cover the 7 shallow wells requested, drilled to 20 feet.

C. Telescoping Wells Drilling : about 100 feet additional (4 deep wells at about 50 feet)

11. Analyses- Soil

Q. BTEX + Napth - 1additional for disposal analysis

If you have any questions, please call.

Joe

Joseph A. Ghiold, Ph.D., P.G.
Consultech Environmental, LLC
Post Box 5306
Cary, North Carolina 27512
Phone (919) 861-4319 (Ext. 212)
Fax (919) 861-4317
e-mail: jghiold@consultechenv.com

Confirmation Report – Memory Send

Date & Time: 11-15-2007 05:15pm
Tel line : +8038966245
Machine ID : UST PROGRAM

Job number	:	350
Date & Time	:	11-15 04:11pm
To	:	919198614317
Number of pages	:	002
Start time	:	11-15 05:14pm
End time	:	11-15 05:15pm
Pages sent	:	002
Status	:	OK

Job number : 350 *** SEND SUCCESSFUL ***

DHEC
PROMOTE PROTECT PROSPER
South Carolina Department of Health and Environmental Control

2600 Bull Street
Columbia, SC 29201-1708

FAX MESSAGE

Date: Nov 15, 07
Number of Pages Including Cover Sheet: 2

Please Deliver This Fax Message

TO: Mark Creel / Consultech
Name

Organization/Department

919-861-4317
Fax Number

919-861-4313 ext 213
Phone Number

FROM: Brian Johnson
Bureau of Land & Waste Management
Underground Storage Tank Program

Fax Number
(803) 896-6245

Regulatory Phone
(803) 896-7957

Technical Phone
(803) 896-6241

SUBJECT/COMMENT: Mark,
map for Warren Brown site
(UST permit #04887) as
discussed this afternoon.
Thank you,
Brian

Watson Green

10/25/07 - collected   11/1/07 - analyzed

GW-1	BRL	BTEX+N
GW-2	BRL	BTEX+N
GW-3	BRL	BTEX+N
GW-4	BRL	BTEX+N
BLK	BRL	BTEX+N

Nickel Pumper

10/25/07 - collected   10/31/07 - analyzed

GW-1	5.8-B	
GW-2	BRL	BTEX+N
GW-3	22-B	84-N
GW-4		7.5-N
GW-5	BRL	BTEX+N
GW-6	BRL	BTEX+N
BLK	BRL	BTEX+N

water = dark w/ oily film

well is around back
3 spigot R of house

449 Gilmania Rd
Yemassee, SC
29945

Cell
843-592-0260
Mallori

Tom Hutchum
(H) 843-368-4923
10763 W. Frontage
10773 site

Ken Wilson
of
Scott Trust
843-846-1030

WSW-2 = Rebecca Mitchum

Vault Alexander Rd. 4 houses

Zach

Midlands Environmental Consultants, Inc.

August 26, 2021

RECEIVED
AUG 30 2021
UST DIVISION

UST DOCKETING
68

Mr. Matt Wykel, Hydrogeologist
Corrective Action & Field Support Section
Underground Storage Tank Management Division
Bureau of Land and Waste Management
South Carolina Department of Health
and Environmental Control
2600 Bull Street
Columbia, South Carolina 29201

Subject: Site-Specific Work Plan
Warren Green
Yemassee, South Carolina
SCDHEC Site ID Number 04887
MECI Project Number 21-7681
Certified Site Rehabilitation Contractor UCC-0009

Dear Mr. Wykel,

Midlands Environmental Consultants Inc. (MECI) is pleased to submit the attached Site-Specific Work Plan for the referenced site.

On August 25, 2021, MECI personnel performed a site visit to the subject sites to evaluate site conditions, locate monitoring wells and identify potential problems for future sampling activities.

If you have any question or comments, please feel free to contact us at 803-808-2043.

Sincerely,
Midlands Environmental Consultants, Inc.

Kyle V. Pudney
Project Biologist

Jeff L. Coleman
Senior Scientist

Post Office Box 854, Lexington, SC 29071 • 231 Dooley Road, Lexington, SC 29073
Telephone: (803) 808-2043 • Fax: (803) 808-2048

Site-Specific Work Plan for Approved ACQAP
Underground Storage Tank Management Division

To: Mr. Zachary Griffith (SCDHEC Project Manager)
From: Jeff L. Coleman (Contractor Project Manager)
Contractor: Midlands Environmental Consultants, Inc. UST Contractor Certification Number: 009

Facility Name: Warren Green UST Permit #: 04887
Facility Address: Bowers Lane & West Frontage Road, Yemassee, SC
Responsible Party: Lasonya Eady, Reginald Bascom, Everette Bascom Phone: 843-726-9038
RP Address: 194 Oak Hill Road, Ridgeland, SC 29936
Property Owner (if different): SAA
Property Owner Address: SAA
Current Use of Property: Vacant Lot

Scope of Work (Please check all that apply)

- ☐ IGWA
- ☐ Tier I
- ☐ Tier II
- ☐ Monitoring Well Installation
- ☑ Groundwater Sampling
- ☐ Other ______
- ☐ GAC

Analyses (Please check all that apply)

Groundwater/Surface Water:

- ☑ BTEXNMDCA (8260D)
- ☑ Oxygenates (8260D)
- ☑ EDB (8011)
- ☐ PAH (8270E)
- ☐ Lead
- ☐ 8 RCRA Metals
- ☐ TPH
- ☐ pH
- ☐ BOD
- ☐ Nitrate
- ☐ Sulfate
- ☐ Other ______
- ☐ Methane
- ☐ Ethanol
- ☐ Dissolved Iron

Drinking Water Supply Wells:

- ☑ BTEXNMDCA (524.2)
- ☑ Oxygenates & Ethanol (8260D)
- ☐ Mecury (200.8 245.1 or 245.2)
- ☐ RCRA Metals (200.8)
- ☑ EDB (504.1)

Soil:

- ☐ BTEXNM
- ☐ PAH
- ☐ Lead
- ☐ RCRA Metals
- ☐ Oil & Grease (9071)
- ☐ TPH-DRO (3550B/8015B)
- ☐ TPH-GRO (5030B/8015B)
- ☐ Grain Size
- ☐ TOC

Air:

- ☐ BTEXN

Sample Collection (Estimate the number of samples of each matrix that are expected to be collected.)

____ Soil	4 Water Supply Wells	____ Air	2 Field Blank
22 Monitoring Wells	____ Surface Water	3 Duplicate	2 Trip Blank

Field Screening Methodology

Estimate number and total completed depth for each point, and include their proposed locations on the attached map.

# of shallow points proposed: ______ Estimated Footage: ______ feet per point
# of deep points proposed: ______ Estimated Footage: ______ feet per point
Field Screening Methodology: ______

Permanent Monitoring Wells

Estimate number and total completed depth for each well, and include their proposed locations on the attached map.

# of shallow wells: ______ Estimated Footage: ______ feet per point
# of deep wells: ______ Estimated Footage: ______ feet per point
# of recovery wells: ______ Estimated Footage: ______ feet per point
Comments, if warranted:

SOUTH CAROLINA DEPARTMENT OF HEALTH AND ENVIRONMENTAL CONTROL

UST Permit #: 04887 Facility Name: Warren Green

Implementation Schedule (Number of calendar days from approval)

Field Work Start-Up: 8/26/2021 Field Work Completion: 9/26/2021

Report Submittal: 10/26/2021 # of Copies Provided to Property Owners: ______

Aquifer Characterization

Pump Test: ☐ Slug Test: ☐ (Check one and provide explanation below for choice)

Investigation Derived Waste Disposal

Soil: ______ Tons Purge Water: 300.00 Gallons

Drilling Fluids: ______ Gallons Free-Phase Product: ______ Gallons

Additional Details For This Scope of Work

For example, list wells to be sampled, wells to be abandoned/repaired, well pads/bolts/caps to replace, details of AFVR event, etc.

-Monitoring wells MW-1, MW-2, MW-3R, MW-4, MW-7, MW-8, MW-9, MW-12, DW-1, DW-2, DW-5 and DW-6 were unable to located. If any of these wells are located during sampling activities, they will be sampled accordingly. Currently the site is heavily overgrown and covered with gravel. MECI will make every effort possible to locate this wells during sampling activities.

-Samples will be analyzed for BTEXNM, DCA, Oxy's and EDB by appropriate methods.

-MECI will attempt to sample 4 water supply wells during sampling activities.

-All wells will be purged prior to sample collection.

MECI REQUEST AN BETTER QUALITY MAP IF AVAILABLE AS THE CURRENT MAP PROVIDED IS NOT CLEAR GPS COORDINATES FOR THE WELLS WOULD ALSO BE HELPFUL**

Compliance With Annual Contractor Quality Assurance Plan (ACQAP)

Yes Laboratory as indicated in ACQAP? (Yes/No) If no, indicate laboratory information below.

Name of Laboratory: ______

SCDHEC Certification Number: ______

Name of Laboratory Director: ______

N/A Well Driller as indicated in ACQAP? (Yes/No) If no, indicate driller information below.

Name of Well Driller: ______

SCLLR Certification Number: ______

None Other variations from ACQAP. Please describe below.

Attachments

1. Attach a copy of the relevant portion of the USGS topographic map showing the site location.
2. Prepare a site base map. This map must be accurately scaled, but does not need to be surveyed. The map must include the following:

North Arrow	Proposed monitoring well locations
Location of property lines	Legend with facility name and address, UST permit number, and bar scale
Location of buildings	Streets or highways (indicate names and numbers)
Previous soil sampling locations	Location of all present and former ASTs and USTs
Previous monitoring well locations	Location of all potential receptors
Proposed soil boring locations	

3. Assessment Component Cost Agreement, SCDHEC Form D-3664

Healthy People. Healthy Communities.

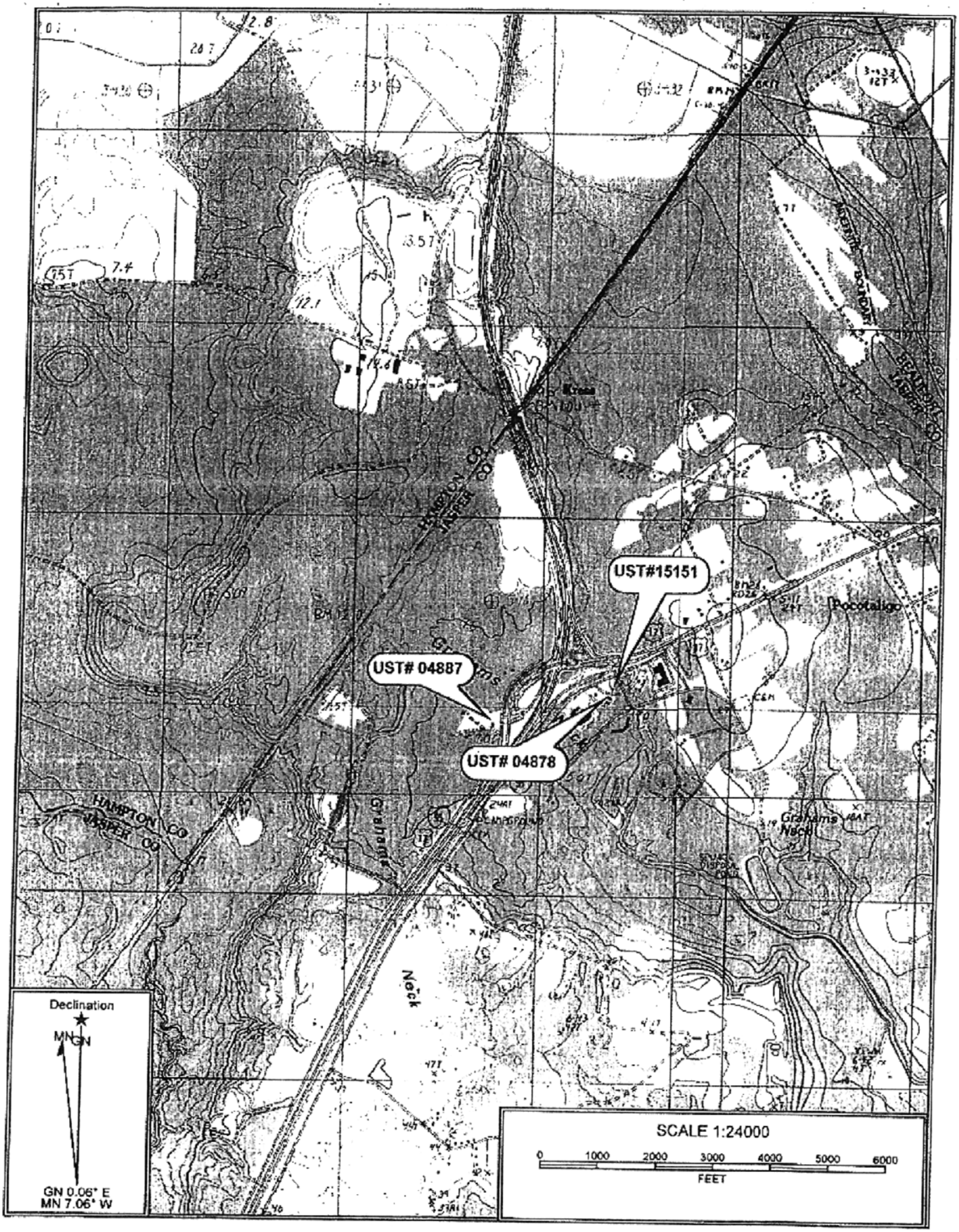
ASSESSMENT COMPONENT COST AGREEMENT
SOUTH CAROLINA

Department of Health and Environmental Control
Underground Storage Tank Management Division
State Underground Petroleum Environmental Response Bank Account
CONTRACT PO # 4600830568

Facility Name: Warren Green

UST Permit #: 4887 **Cost Agreement #:** 63999

ITEM	QUANTITY	UNIT	UNIT PRICE		TOTAL
A. **Plan Preparation**					
1. Site Specific Work Plan	1	each	$425.00		$425.00
2. Tax Map		each	$50.00		$0.00
B. Receptor Survey		each	$50.00		$0.00
D. Mob/Demob					
2. Personnel	2	each	$610.00		$1,220.00
J. **Groundwater Sample Collection / Gauge Depth to Water or Product (Each)**					
1. Groundwater Purge	22	per well	$10.00		$220.00
2. Air or Vapors		per sample	$1.00		$0.00
3. Water Supply Sample	4	per sample	$40.00		$160.00
4. Groundwater No Purge/Surface Water		per sample	$8.00		$0.00
R-1. HydraSleeve		per sample	$23.00		$0.00
5. Gauge Welll only		per data point	$1.00		$0.00
6. Sample Below Product		per well	$1.80		$0.00
7. Passive Diffusion Bag		per well	$25.00		$0.00
9. Groundwater (low flow purge)		per well	$25.00		$0.00
10. Equipment Blank		per day	$10.00		$0.00
Q. **Disposal (gallons or tons)**					
1. Wastewater	300	per gallon	$0.33		$99.00
2. Free Product		per gallon	$0.05		$0.00
R. **Miscellaneous**					
2. Additional Potentiometric Map		each above required two	$10.00		$0.00
3. Isopleth Map		each above required one	$50.00		$0.00
4. Data Table		per data set	$100.00		$0.00
5. Redraw/Digitize Site Map		each	$150.00		$0.00
6.Replace Well Lid		each	$10.00		$0.00
Y. **Well Repair**					
1. Additional Copies of Report Delivered		per copy	$10.00		$0.00
5. Replace well cover bolts		each	$6.00		$0.00
6. Replace locking well cap & lock		each	$10.00		$0.00
10. Replace missing/illegible well ID plate		each	$10.00		$0.00
Subtotal					**$2,124.00**
S. Report Preparation/Project Coordination		Percent of Subtotal	0%		
TOTAL					**$2,124.00**



UST#15151
UST# 04887
UST# 04878
Pocotaligo
HAMPTON CO
JASPER CO
Grahams Neck
Neck
Declination
MN
GN
GN 0.06° E
MN 7.06° W
SCALE 1:24000
0
1000
2000
3000
4000
5000
6000
FEET

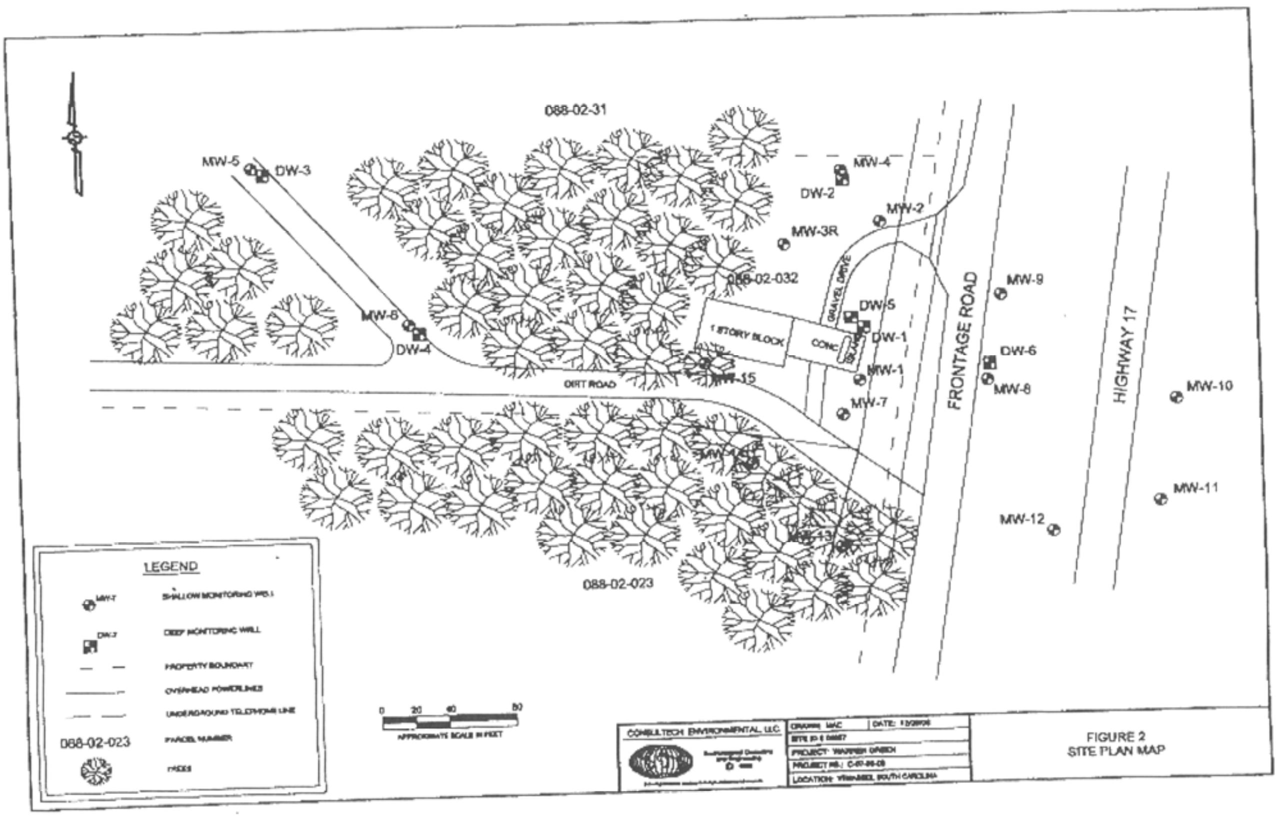


FIGURE 2
SITE PLAN MAP

Healthy People. Healthy Communities.

UST 69 DOCKETING

SEP 20 2021

MR BRYAN SHANE PG
MIDLANDS ENVIRONMENTAL CONSULTANTS
PO BOX 854
LEXINGTON SC 29071

Re: Notice to Proceed Site-Specific Work Plan (SSWP) Approval
Groundwater Sampling Contract
Solicitation #IFB-5400021335, PO #4600830568
Green Warren, 10773 West Frontage Road, Yemassee, SC
UST Permit #04887; MECI CA #63999; Pace CA #64000
Jasper County

Dear Mr. Shane:

In accordance with bid solicitation #IFB-5400021335, the SSWP has been reviewed and approved. A status report of the project should be provided on a weekly basis. If any quality assurance problems arise, you must contact me within 24 hours by phone or email.

Please coordinate access to the facility with the property owner. **Sampling should be conducted within 30 calendar days from the date of this letter. If the final report is not submitted within 60 days of the date of this correspondence, a late fee may be imposed.** The final report is to be submitted to the contract manager.

If you have any site-specific questions, please contact me by email brownaj@dhec.sc.gov or phone (803) 898-0500. If you have any contract specific questions, please contact Robert Dunn by email dunnra@dhec.sc.gov or phone (803) 898-0671.

Sincerely,

Arthur Brown, Hydrogeologist
Corrective Action & Field Support Section
UST Management Division
Bureau of Land & Waste Management

Enc: Approved Cost Agreement (both CAs)

Cc: Ms. Lindsey Wooten, Pace Analytical Services, 9800 Kincey Ave, STE 100, Huntersville, NC, 28078 (w/ CA)
Technical File (w/ Enc)

Approved Cost Agreement 64000

Facility: 04887 GREEN, WARREN

BROWNAJ

PO Number:

Task / Description	Categories	Item Description	Qty / Pct	Unit Price	Amount
K ANALYSES					
	DW DRINKING WATER	14 BTEXNM+1,2 DCA (524.2) WSW	7.0000	$42.000	294.00
		15 OXYGENATES & ETHANOL 8260B WSW	7.0000	$20.000	140.00
		16 EDB (504.1) WSW	6.0000	$22.000	132.00
	GW GROUNDWATER	1 BTEXNM+OXYGS+1,2-DCA+ETH-8260B	26.0000	$26.000	676.00
		7 EDB BY EPA 8011	25.0000	$22.000	550.00
			Total Amount		1,792.00

Approved Cost Agreement 63999

Facility: 04887 GREEN, WARREN

BROWNAJ

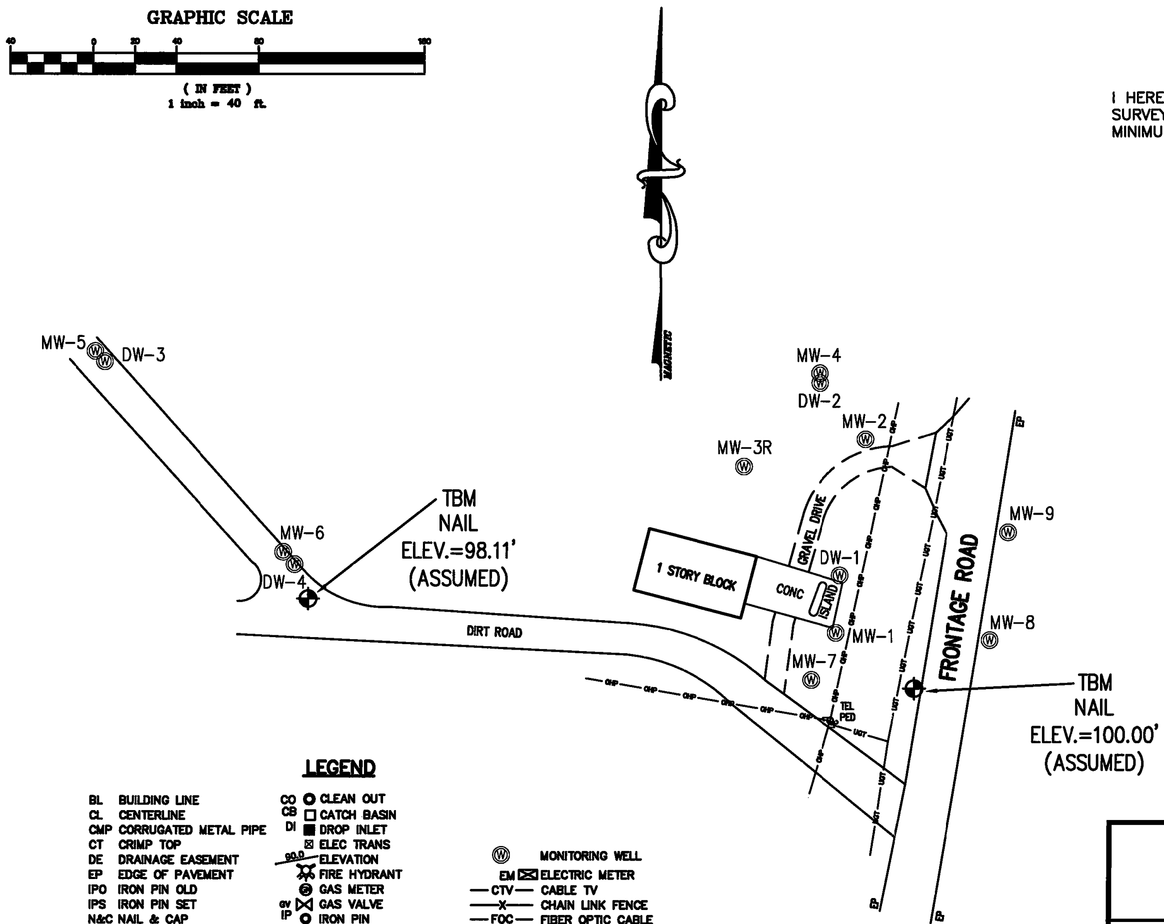
PO Number:

Task / Description	Categories	Item	Description	Qty / Pct	Unit Price	Amount
A	PLAN PREPARATION					
		1	SITE SPECIFIC WORK PLAN	1.0000	$425.000	425.00
D	MOB/DEMOB					
		2	PERSONNEL	2.0000	$610.000	1,220.00
J	SAMPLE COLLECTION					
		1	GROUND WATER PURGE	22.0000	$10.000	220.00
		3	WATER SUPPLY SAMPLE/ DUPLICATE	4.0000	$40.000	160.00
Q	DISPOSAL					
		1	WASTEWATER	300.0000	$0.330	99.00
				Total Amount		2,124.00

I HEREBY STATE TO THE BEST OF MY KNOWLEDGE, INFORMATION, AND BELIEF, THE SURVEY SHOWN HEREON WAS MADE IN ACCORDANCE WITH THE REQUIREMENTS OF THE MINIMUM STANDARDS MANUAL FOR THE PRACTICE OF LAND SURVEYING IN SOUTH CAROLINA.

Joe F. Gosnell

JOE F. GOSNELL, P.L.S.
S.C. REG. NO. 16501



MW #	TOP OF LID
MW 1	98.02'
MW 2	98.90'
MW 3R	98.72'
MW 4	98.61'
MW 5	97.30'
MW 6	97.14'
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DW 1	98.12'
DW 2	98.66'
DW 3	97.23'
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LEGEND

BL BUILDING LINE
CL CENTERLINE
CMP CORRUGATED METAL PIPE
CT CRIMP TOP
DE DRAINAGE EASEMENT
EP EDGE OF PAVEMENT
IPO IRON PIN OLD
IPS IRON PIN SET
N&C NAIL & CAP
OT OPEN TOP
RB REBAR
RCP REINFORCED CONC PIPE
R/W RIGHT OF WAY
SD STORM DRAIN
SS SANITARY SEWER
SSE SS EASEMENT
VCP VITRIFIED CLAY PIPE

CO CLEAN OUT
CB CATCH BASIN
DI DROP INLET
ELEC TRANS
90.0 ELEVATION
FIRE HYDRANT
GAS METER
GV GAS VALVE
IP IRON PIN
LP LIGHT POLE
MHBS MANHOLE (BELL SOUTH)
MHSD MANHOLE (SD)
MHSS MANHOLE (SS)
PP POWER POLE
TEL TELEPHONE PEDESTAL
WATER METER
WV WATER VALVE

MONITORING WELL
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S070742

MONITORING WELL SURVEY FOR

CONSULTECH ENVIRONMENTAL, INC.

JASPER COUNTY, SOUTH CAROLINA

SCALE	PROPERTY ADDRESS	CHECKED BY	
1"=60'	FRONTAGE ROAD	ACJ	
DATE	60 0 60 120	FIELD BOOK	DRAWN BY
12-19-07		CH/DF	JFG

SDI
SITE DESIGN, INC.
CIVIL ENGINEERS AND SURVEYORS
420 EAST PARK AVENUE, SUITE 100
GREENVILLE, SOUTH CAROLINA, 29601 (864) 271-0496

GRAPHIC SCALE

40 0 20 40 80 160

(IN FEET)
1 inch = 40 ft.

I HEREBY STATE TO THE BEST OF MY KNOWLEDGE, INFORMATION, AND BELIEF, THE SURVEY SHOWN HEREON WAS MADE IN ACCORDANCE WITH THE REQUIREMENTS OF THE MINIMUM STANDARDS MANUAL FOR THE PRACTICE OF LAND SURVEYING IN SOUTH CAROLINA.

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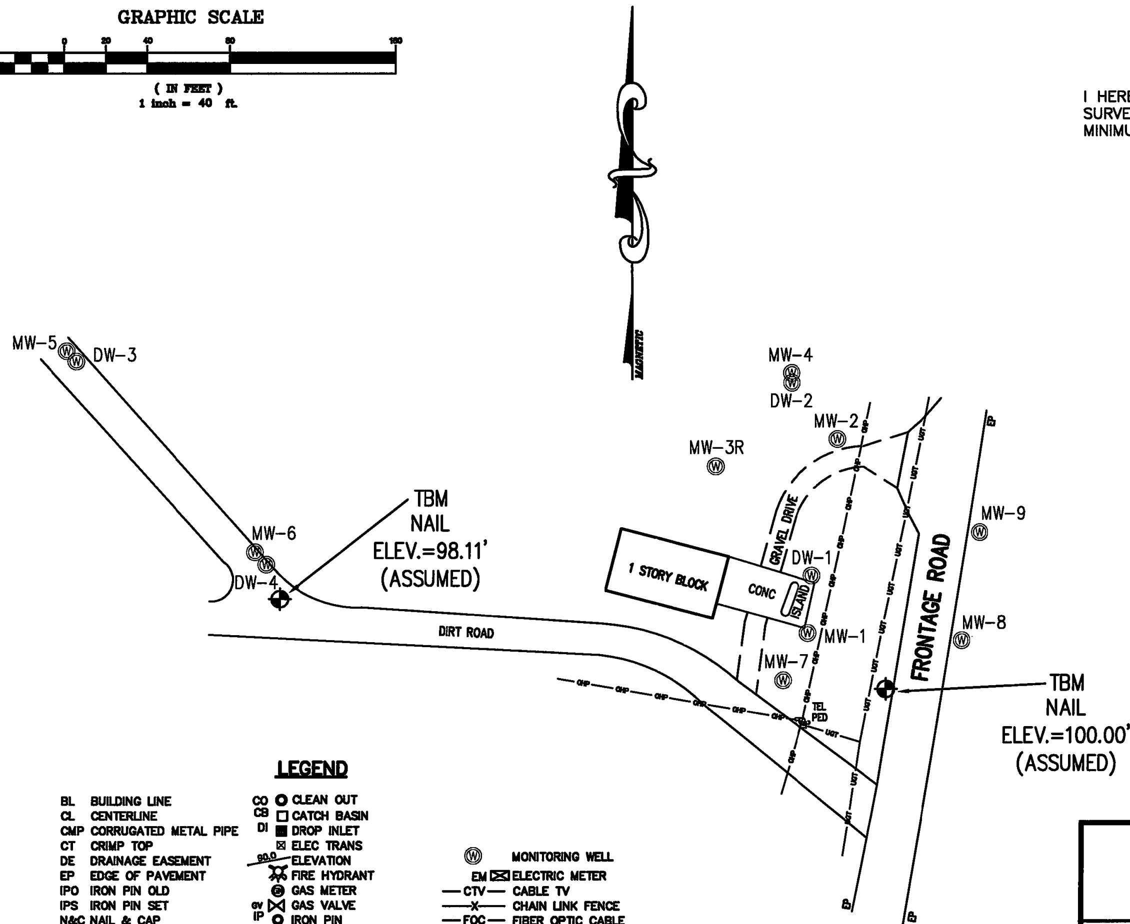

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ELEC TRANS
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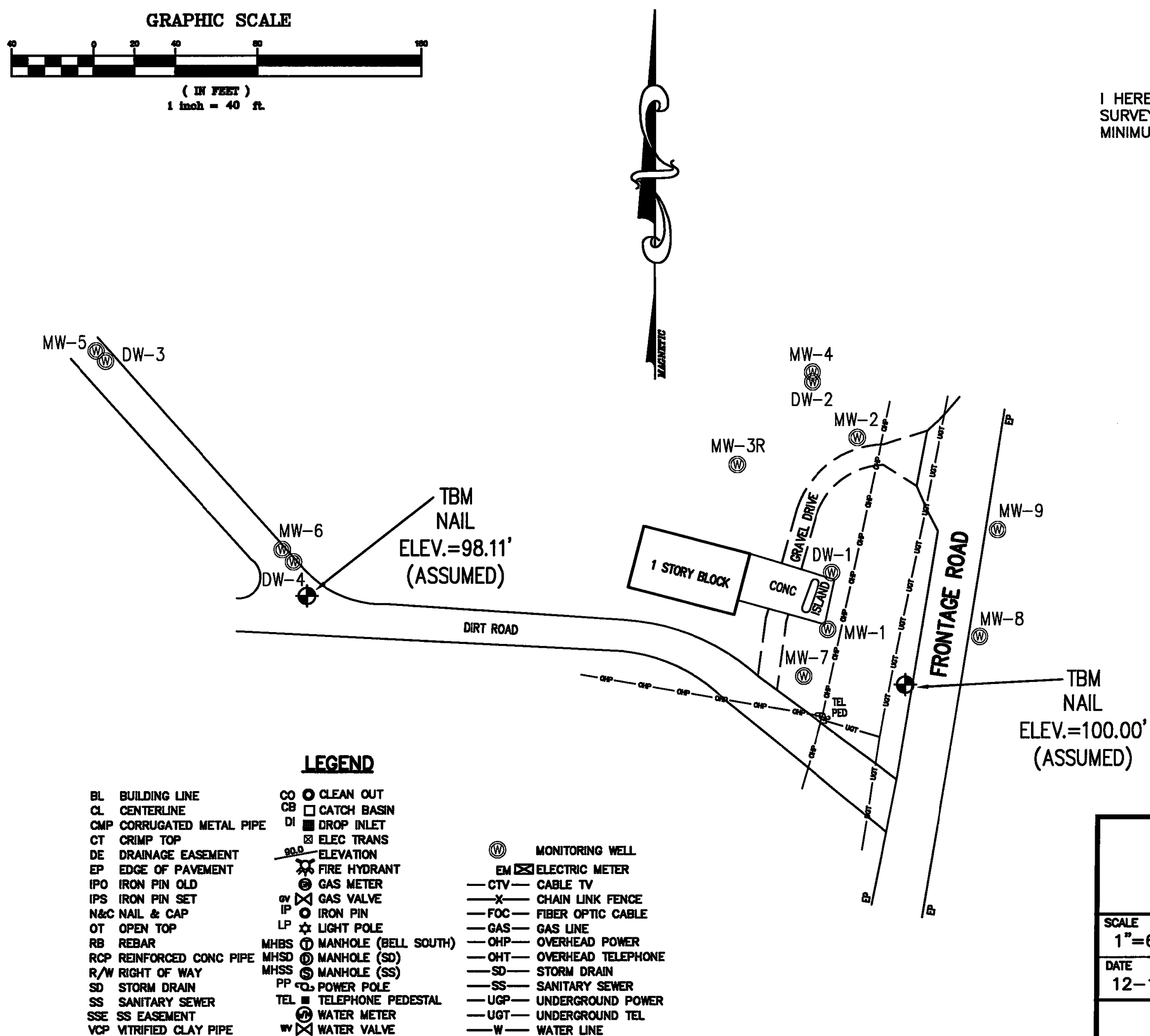
MONITORING WELL SURVEY FOR
CONSULTECH ENVIRONMENTAL, INC.
JASPER COUNTY, SOUTH CAROLINA

SCALE	PROPERTY ADDRESS	CHECKED BY	
1"=60'	FRONTAGE ROAD	ACJ	
DATE	60 0 60 120	FIELD BOOK	DRAWN BY
12-19-07		CH/DF	JFG

SDI
SITE DESIGN, INC.
CIVIL ENGINEERS AND SURVEYORS
420 EAST PARK AVENUE, SUITE 100
GREENVILLE, SOUTH CAROLINA, 29601 (864) 271-0496

S070742



I HEREBY STATE TO THE BEST OF MY KNOWLEDGE, INFORMATION, AND BELIEF, THE SURVEY SHOWN HEREON WAS MADE IN ACCORDANCE WITH THE REQUIREMENTS OF THE MINIMUM STANDARDS MANUAL FOR THE PRACTICE OF LAND SURVEYING IN SOUTH CAROLINA.

Joe F. Gosnell

JOE F. GOSNELL, P.L.S.
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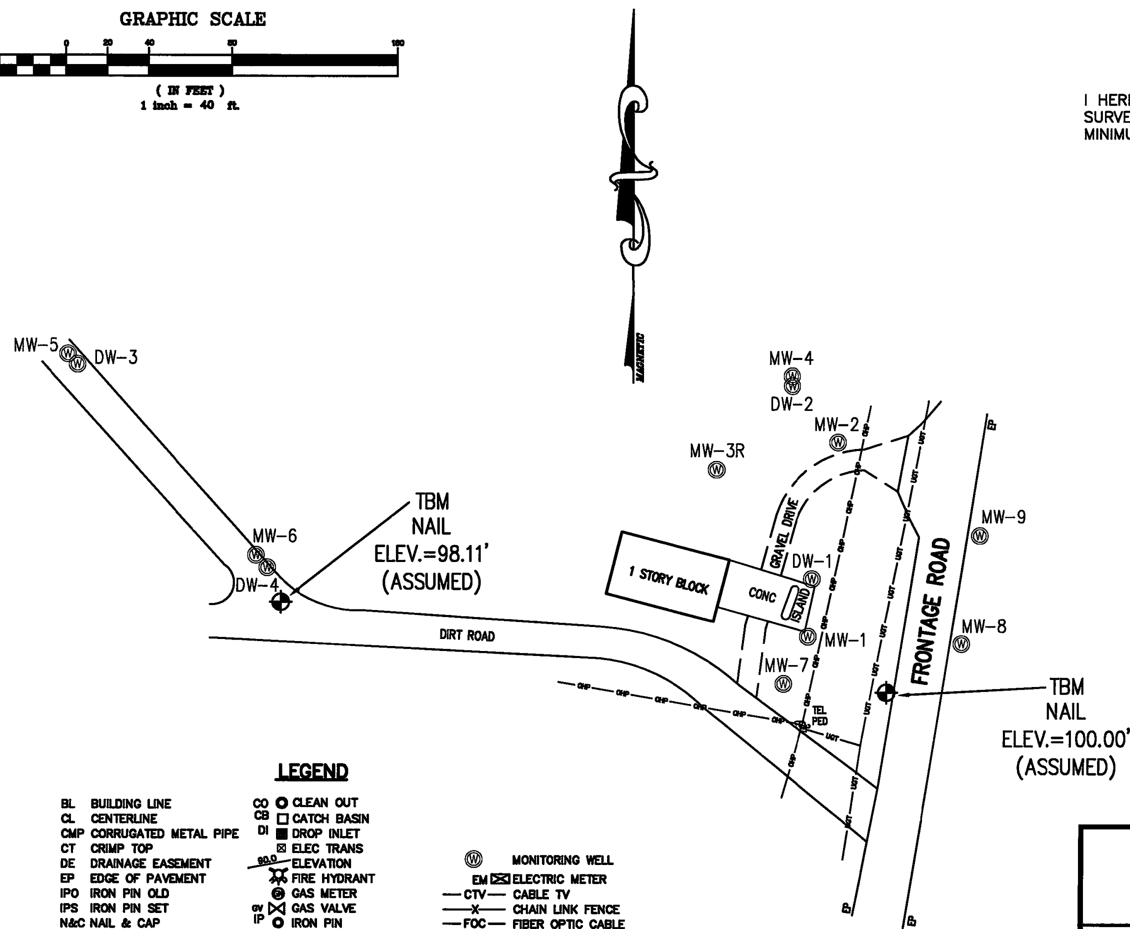

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MONITORING WELL SURVEY FOR

CONSULTECH ENVIRONMENTAL, INC.

JASPER COUNTY, SOUTH CAROLINA

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GREENVILLE, SOUTH CAROLINA, 29601 (864) 271-0496

S070742

MONITORING REPORT

Warren Green
10773 West Frontage Road
Yemassee, South Carolina
Jasper County
UST Permit# 04887; CA# 63999
Solicitation# IFB-5400021335; PO# 4600830568

Prepared By:

Midlands Environmental Consultants, Inc.
231 Dooley Road, Lexington, SC 29073
(803) 808-2043 fax: 808-2048

October 19, 2021

MECI Project No. 21-7681

Midlands Environmental Consultants, Inc.

October 19, 2021

Mr. Matt Wykel, Hydrogeologist
Corrective Action Section
Underground Storage Tank Program
Bureau of Land and Waste Management
South Carolina Department of Health
and Environmental Control
2600 Bull Street
Columbia, South Carolina 29201

Subject: Report of Groundwater Sampling
Warren Green
10773 West Frontage Road
Yemassee, South Carolina
Jasper County
UST Permit# 04887; CA# 63999
MECI Project Number 21-7681
Certified Site Rehabilitation Contractor UCC-0009

Dear Mr. Wykel,

Midlands Environmental Consultants Inc. (MECI) is pleased to submit the attached Report of Groundwater Sampling for the referenced site. This report describes site activities conducted at the site in general accordance with South Carolina Department of Health and Environmental Control's (SCDHEC) Quality Assurance Program Plan for the Underground Storage Tank Management Division (QAPP).

Midlands Environmental appreciates the opportunity to offer our professional environmental services to you on this project. Please feel free to contact us at 803-808-2043 if you have any immediate questions or comments.

Sincerely,
Midlands Environmental Consultants, Inc.

Jeff L. Coleman
Senior Scientist

SOUTH CAROLINA REGISTERED PROFESSIONAL GEOLOGIST No. 1102 BRYAN T. SHANE

Bryan T. Shane P.G.
Principal Geologist

TABLE OF CONTENTS

TABLE OF CONTENTS (cont.)

1.0 INTRODUCTION

i. Facility Information

Name:	Warren Green
Address:	10773 West Frontage Road, Yemassee, SC 29945
Telephone #:	N/A

ii. Owner/Operator Information

Name	Lasonya Eady, Reginald Bascom & Everette Bascom
Address	194 Oak Hill Road, Ridgeland, SC 29936
Telephone #	843-726-9038

iii. Property Owner Information

Name	Lasonya Eady, Etal.
Tax Map #:	Jasper County Tax Map#: 088-00-02-032
Address	189 Oakhill Road, Ridgeland, SC 29936
Telephone #	843-726-9038

iv. Contractor Information

Name:	Midlands Environmental Consultants, Inc.
Certification #:	9
Address:	P. O. Box 854, Lexington, SC 29071
Telephone #:	(803) 808-2043

v. Facility History

Release Date:		5/16/2002	
Estimated Quantity of Release:		Unknown	
Other Releases at Facility:		N/A	
Release Ranking:		2BB	
Current Site Usage:		Vacant Lot	
Tank #	**Capacity/Product**	**In Use/Abandoned**	**Tank Status**
1	3,000 Gal. Gasoline	Rendered Non-Usable	Out of Compliance (09/10/2001)
2	3,000 Gal. Gasoline	Rendered Non-Usable	Out of Compliance (09/10/2001)
3	2,000 Gal. Gasoline	Rendered Non-Usable	Out of Compliance (09/10/2001)

2.0 RECEPTOR SURVEY & SITE DATA

i. Known Potential Receptors

Receptor ID#	Notes
WSW-1	235 Bowers Lane / Collected from Spigot on House
WSW-2	425 Bowers Lane / Collected from Spigot on Well
WSW-3	10951 Frontage Road / Denied Access
WSW-4	10943 Frontage Road / Denied Access

ii. Receptor Survey Results

A receptor survey was not requested as part of the approved cost agreement.

iii. Site/Adjacent Land Usage (Residential, Commercial, Agricultural, Industrial, etc.)

Site	Residential
North	Residential/Vacant Land
South	Agricultural
East	Major Highway
West	Residential/Agricultural
Permit #'s of UST Sites within 1,000' feet of site	N/A

3.0 SAMPLING AND CHEMICAL ANALYSES

On October 4, 2021, MECI personnel collected groundwater samples from nineteen (19) monitoring wells and two (2) water supply wells at the subject site. Sample locations MW-2, MW-12R, WSW-3 and WSW-4 were unable to be sampled (See Table 2). Based on a request from SCDHEC, all monitoring wells were to be purged prior to sample collection. Nineteen (19) monitoring wells were purged prior to sample collection.

MECI personnel utilized an electronic water level indicator for water level measurements and an oil/water interface probe for free phase petroleum product level measurements. Where applicable, purging was completed by bailing at least five well volumes of water from the well, until pH, conductivity, dissolved oxygen and turbidity stabilized, or all water was evacuated from the well, whichever occurred first. Sampling/purging was completed utilizing a prepackaged, clear, disposable polyethylene bailer and nylon rope. A new set of nitrile gloves were worn at each monitoring well, and at all time samples were handled. Field measurements of pH, conductivity, dissolved oxygen, and water temperature were obtained before well sampling process. MECI utilized a YSI Pro20 meter for DO (mg/L) and temperature readings (°C), YSI Pro1030 meter for pH and conductivity (uS) readings and a MicroTPI turbidimeter for turbidity readings (NTU). The attached Field Data Information Sheets presents the results of the field measurements obtained. The wells were sampled in accordance with the most recent revision of SCDHEC's Quality Assurance Program Plan for the Underground Storage Tank Management Division and the most recent revision MECI's Standard Operating Procedures.

Groundwater samples obtained were sent to Pace Analytical Services, Inc. of Huntersville, NC (SCDHEC Laboratory Certification #99006001) for analysis.

The following sampling matrix contains well development and requested analyses for each well:

Sample ID	Purge	No Purge	Gauge Only	Low-Flow Sampling	Not Sampled	Not Located	BTEX, Naphthalene, MTBE, 1,2 DCA (EPA Method 8260D)	8 Oxygenates (EPA Method 8260D)	EDB (EPA Method 8011)	PAHs (EPA Method 8270E)	Total Lead (EPA Method 6010)	BTEX, Naphthalene, MTBE, 1,2 DCA (EPA Method 524.2)	EDB (EPA Method 504.1)
							Analyte Sampled						
MW-1	X						X	X	X				
MW-2					X								
MW-3R	X						X	X	X				
MW-4	X						X	X	X				
MW-5	X						X	X	X				
MW-6R	X						X	X	X				
MW-7R	X						X	X	X				
MW-8	X						X	X	X				
MW-9	X						X	X	X				
MW-10	X						X	X	X				

Notes: BTEX = Benzene, Toluene, Ethylbenzene, & Total Xylenes
MTBE=Methyl tertiary butyl ether
1,2 DCA = 1,2 Dichloroethane
EDB = Ethylene Dibromide

Sample ID	Purge	No Purge	Gauge Only	Low-Flow Sampling	Not Sampled	Not Located	BTEX, Naphthalene, MTBE, 1,2 DCA (EPA Method 8260D)	8 Oxygenates (EPA Method 8260D)	EDB (EPA Method 8011)	PAHs (EPA Method 8270E)	Total Lead (EPA Method 6010)	BTEX, Naphthalene, MTBE, 1,2 DCA (EPA Method 524.2)	EDB (EPA Method 504.1)
							Analyte Sampled						
MW-11R					X								
MW-12R	X						X	X	X				
MW-13R	X						X	X	X				
MW-14	X						X	X	X				
MW-15	X						X	X	X				
DW-1	X						X	X	X				
DW-2	X						X	X	X				
DW-3	X						X	X	X				
DW-4	X						X	X	X				
DW-5	X						X	X	X				
DW-6	X						X	X	X				
DUP-1							X	X	X				
DUP-2							X	X	X				
Field Blank							X	X	X				
Trip Blank							X	X					
WSW-1								X				X	X
WSW-2								X				X	
WSW-3					X								
WSW-4					X								
WSW DUP								X				X	X
Field Blank								X				X	X
Trip Blank								X				X	

Notes: BTEX = Benzene, Toluene, Ethylbenzene, & Total Xylenes
MTBE=Methyl tertiary butyl ether
1,2 DCA = 1,2 Dichloroethane
EDB = Ethylene Dibromide

Purge water produced by the purging process was treated on-site utilizing a granular activated carbon unit. A total of 331.25 gallons of purge water was disposed of in this manner. A disposal manifest for the referenced purge water is attached in Appendix C and the required Post-GAC laboratory results in presented in Appendix B.

4.0 RESULTS AND DISCUSSION

- Based on historical site assessments, the apparent groundwater flow from the release is to the northwest.

- Due to the poor quality of the provided site map, MECI cannot re-digitize the provided map nor complete contouring. MECI recommends a comprehensive survey be performed at the site.

- Free phase petroleum product was not detected in any of the monitoring wells during sampling activities. The analytical results indicate petroleum impact to the surficial aquifer with the highest dissolved concentrations being detected in MW-1. Of the twenty-one sampling locations analyzed, three monitoring wells (MW-1, MW-7 and MW-8) detected petroleum constituents above Risked Based Screening Levels (RBSL's).

- Petroleum constituents detected above the established RBSL include:

Compound	***RBSL/SCAL (ug/l)***	***Wells Above RBSL***
Product	0.01’	N/A
Benzene	5	MW-1, MW-7 & MW-8
Toluene	1,000	MW-1 & MW-7
Ethylbenzene	700	MW-1 & MW-7
Total Xylenes	10,000	MW-1 & MW-7
Naphthalene	25	MW-1, MW-7 & MW-8
MTBE	40	N/A
1,2 DCA	5	N/A
EDB	0.05	MW-7
TAA	240	MW-8
TAME	128	N/A
ETBA	NE	RBSL Not Established
TBA	1,400	N/A
TBF	NE	RBSL Not Established
DIPE	150	N/A
Ethanol	10,000	N/A
ETBE	47	N/A

- In order to assess precision, field duplicate samples were collected and analyzed along with the reviewed batch samples. The duplicated samples were analyzed for the same parameters as the associated parent samples. Precision is determined by calculating the Relative Percent Differences (RPD) between each pair of samples. The RPD control limit for the groundwater samples is 20%. Duplicate samples were collected from parent sample MW-1, MW-7 and WSW-1. The precision for the target analytes were met for these sample pairs and the analytical results detected the same compounds at similar concentrations. Furthermore, field blanks and trip blanks were collected and submitted during the groundwater sampling activities. No detectable concentrations of the requested method constituents were reported in either of the field or trip blanks.

5.0 QUALIFICATIONS OF REPORT

The activities and evaluative approaches used in this assessment are consistent with those normally employed in hydrogeological assessment and waste management projects of this type. Our evaluation of site conditions has been based on our understanding of the site, project information provided to us, and data obtained in our exploration. Contents of this report are intended for the sole use of MECI and SCDHEC under mutually agreed upon terms and conditions. If other parties wish to rely on this report, please contact MECI prior to their use of this information so that a mutual understanding and agreement of the terms and conditions of our services can be established.

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TABLES

Table #1
Summary of Analytical Results - Water Samples
04887/64000 WARREN GREEN
Facility ID# 04887

Analytical Method		EPA 8011 by METHOD	EPA 8260D																	
Sample ID	**Constituent of Concern**	1,2-Dibromoethane (EDB)	1,2-Dichloroethane	3,3-Dimethyl-1-Butanol	Benzene	Diisopropyl ether	Ethanol	Ethyl-tert-butyl ether	Ethylbenzene	Methyl-tert-butyl ether	Naphthalene	Toluene	Xylene (Total)	m&p-Xylene	o-Xylene	tert-Amyl Alcohol	tert-Amylmethyl ether	tert-Butyl Alcohol	tert-Butyl Formate
	Date Collected (mm/dd/yy)	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
DUP-1	10/04/2021	<0.00750	<206	<5390	**2900**	<349	<14400	<846	**3960**	<310	**331 J**	**19900**	**20200**	14800	5390	<6560	<304	<9100	<2410
DUP-2	10/04/2021	**0.525**	<103	<2700	**1160**	<174	<7200	<423	**3930**	<155	**706**	**6920**	**22900**	15900	7040	<3280	<152	<4550	<1200
DW-1	10/04/2021	<0.00750	<2.1	<53.9	<1.7	<3.5	<144	<8.5	<1.8	<3.1	<2.1	<2.0	<5.0	<4.1	<2.0	<65.6	<3.0	<91.0	<24.1
DW-2	10/04/2021	<0.00750	<2.1	<53.9	<1.7	<3.5	<144	<8.5	<1.8	<3.1	<2.1	<2.0	<5.0	<4.1	<2.0	<65.6	<3.0	<91.0	<24.1
DW-3	10/04/2021	<0.00750	<2.1	<53.9	<1.7	<3.5	<144	<8.5	<1.8	<3.1	<2.1	<2.0	<5.0	<4.1	<2.0	<65.6	<3.0	<91.0	<24.1
DW-4	10/04/2021	<0.00750	<2.1	<53.9	<1.7	<3.5	<144	<8.5	<1.8	<3.1	<2.1	<2.0	<5.0	<4.1	<2.0	<65.6	<3.0	<91.0	<24.1
DW-5	10/04/2021	<0.00750	<2.1	<53.9	<1.7	<3.5	<144	<8.5	<1.8	<3.1	<2.1	<2.0	<5.0	<4.1	<2.0	<65.6	<3.0	<91.0	<24.1
DW-6	10/04/2021	<0.00750	<2.1	<53.9	<1.7	<3.5	<144	<8.5	<1.8	<3.1	<2.1	<2.0	<5.0	<4.1	<2.0	<65.6	<3.0	<91.0	<24.1
FB	10/04/2021	<0.00750	<2.1	<53.9	<1.7	<3.5	<144	<8.5	<1.8	<3.1	<2.1	<2.0	<5.0	<4.1	<2.0	<65.6	<3.0	<91.0	<24.1
MW-1	10/04/2021	<0.00750	<412	<10800	**2830**	<698	<28800	<1690	**4530**	<620	**546 J**	**20300**	**22300**	16200	6100	<13100	<608	<18200	<4820
MW-10	10/04/2021	<0.00750	<2.1	<53.9	<1.7	<3.5	<144	<8.5	<1.8	<3.1	<2.1	<2.0	<5.0	<4.1	<2.0	<65.6	<3.0	<91.0	<24.1
MW-11	10/04/2021	<0.00750	<2.1	<53.9	<1.7	<3.5	<144	<8.5	<1.8	<3.1	<2.1	<2.0	<5.0	<4.1	<2.0	<65.6	<3.0	<91.0	<24.1
MW-13	10/04/2021	<0.00750	<2.1	<53.9	<1.7	<3.5	<144	<8.5	<1.8	<3.1	<2.1	<2.0	<5.0	<4.1	<2.0	<65.6	<3.0	<91.0	<24.1
MW-14	10/04/2021	<0.00750	<2.1	<53.9	<1.7	<3.5	<144	<8.5	<1.8	<3.1	<2.1	<2.0	<5.0	<4.1	<2.0	<65.6	<3.0	<91.0	<24.1
MW-15	10/04/2021	<0.00750	<2.1	<53.9	<1.7	<3.5	<144	<8.5	<1.8	<3.1	<2.1	<2.0	<5.0	<4.1	<2.0	<65.6	<3.0	<91.0	<24.1
MW-3R	10/04/2021	<0.00750	<2.1	<53.9	<1.7	<3.5	<144	<8.5	<1.8	<3.1	<2.1	<2.0	<5.0	<4.1	<2.0	<65.6	<3.0	<91.0	<24.1
MW-4	10/04/2021	<0.00750	<2.1	<53.9	<1.7	<3.5	<144	<8.5	<1.8	<3.1	<2.1	<2.0	<5.0	<4.1	<2.0	<65.6	<3.0	<91.0	<24.1
MW-5	10/04/2021	<0.00750	<2.1	<53.9	<1.7	<3.5	<144	<8.5	<1.8	<3.1	<2.1	<2.0	<5.0	<4.1	<2.0	<65.6	<3.0	<91.0	<24.1
MW-6	10/04/2021	<0.00750	<2.1	<53.9	<1.7	<3.5	<144	<8.5	<1.8	<3.1	<2.1	<2.0	<5.0	<4.1	<2.0	<65.6	<3.0	<91.0	<24.1
MW-7	10/04/2021	**0.538**	<103	<2700	**731**	<174	<7200	<423	**3080**	<155	**629**	**4900**	**18600**	12500	6060	<3280	<152	<4550	<1200
MW-8	10/04/2021	0.0330	<10.3	<270	**764**	<17.4	<720	<42.3	388	<15.5	**114**	360	1550	1030	520	**469 J**	<15.2	<455	<120
MW-9	10/04/2021	<0.00750	<2.1	<53.9	<1.7	<3.5	<144	<8.5	<1.8	<3.1	<2.1	<2.0	<5.0	<4.1	<2.0	<65.6	<3.0	<91.0	<24.1
TB	10/04/2021	N/A	<2.1	<53.9	<1.7	<3.5	<144	<8.5	<1.8	<3.1	<2.1	<2.0	<5.0	<4.1	<2.0	<65.6	<3.0	<91.0	<24.1
South Carolina RBSL for Groundwater		0.05	5	N/A	5	150	10000	47	700	40	25	1000	10000	N/A	N/A	240	128	1400	N/A
South Carolina Action Levels for Groundwater		N/A	N/A	N/A	N/A	150	10000	47	N/A	N/A	N/A	N/A	N/A	N/A	N/A	240	128	1400	N/A

NOTES:

ND = Not Detected

ft. BGS = feet below ground surface

mg/L = milligrams per liter

ug/L = micrograms per liter

Bold data above the RBSL (Risk Based Screening Level)

Table #1A
Summary of Analytical Results - Water Samples
04887/64000 WARREN GREEN
Facility ID# 04887

Analytical Method		EPA 524.2									EPA 8260D							
Sample ID	**Constituent of Concern**	1,2-Dichloroethane	Benzene	Ethylbenzene	Methyl-tert-butyl ether	Naphthalene	Toluene	Xylene (Total)	m&p-Xylene	o-Xylene	3,3-Dimethyl-1-Butanol	Diisopropyl ether	Ethanol	Ethyl-tert-butyl ether	tert-Amyl Alcohol	tert-Amylmethyl ether	tert-Butyl Alcohol	tert-Butyl Formate
	Date Collected (mm/dd/yy)	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
WSW-1	10/04/2021	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<0.50	<100	<1.0	<200	<10.0	<100	<10.0	<100	<50.0
WSW-2	10/04/2021	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<0.50	<100	<1.0	<200	<10.0	<100	<10.0	<100	<50.0
WSW-DUP	10/04/2021	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<0.50	<100	<1.0	<200	<10.0	<100	<10.0	<100	<50.0
WSW-FB	10/04/2021	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<0.50	<100	<1.0	<200	<10.0	<100	<10.0	<100	<50.0
WSW-TB	10/04/2021	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<0.50	<100	<1.0	<200	<10.0	<100	<10.0	<100	<50.0
South Carolina RBSL for Groundwater		5	5	700	40	25	1000	10000	N/A	N/A	N/A	150	10000	47	240	128	1400	N/A
South Carolina Action Levels for Groundwater		N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	150	10000	47	240	128	1400	N/A

NOTES:
ND = Not Detected
ft. BGS = feet below ground surface
mg/L = milligrams per liter
ug/L = micrograms per liter
Bold data above the RBSL (Risk Based Screening Level)

TABLE 2
Site Activity Summary

UST Permit #: 04887
Facility Name: Warren Green
County: Jasper
Field Personnel: M. Funderburk, C. Hansen, T. Adorno

Midlands Environmental Consultants, Inc.
231 Dooley Road, Lexington, SC 29073
(803) 808-2043 fax: 808-2048

Sample ID	Sampled?	Date	Time	Screened Interval	Depth to Product (ft)	Depth to Water (ft)	Product Thickness (ft)	TOC Elevation	Groundwater Elevation	Initial DO (mg/l)	# Gals. Purged	Comments
MW-1	Y	10/4/21	14:42	2-12	***	3.01	***	97.69	94.68	4.29	4.50	Odor
MW-2	N	10/4/21	NL	5-15	***	NL	***	98.61	NL	NL	0.00	Not Located, Possibly buried under gravel
MW-3R	Y	10/4/21	14:08	5-20	***	5.98	***	98.19	92.21	3.74	12.00	No Odor
MW-4	Y	10/4/21	13:43	5-20	***	4.92	***	98.32	93.40	3.74	12.25	No Odor
MW-5	Y	10/4/21	13:55	5-20	***	3.31	***	96.88	93.57	4.12	14.00	No Odor
MW-6R	Y	10/4/21	14:16	5-20	***	3.23	***	96.90	93.67	4.09	13.75	No Odor
MW-7R	Y	10/4/21	10:27	5-20	***	4.78	***	97.69	92.91	4.23	12.50	Odor
MW-8	Y	10/4/21	14:33	5-20	***	5.87	***	99.44	93.57	3.78	11.50	Slight Odor
MW-9	Y	10/4/21	11:45	5-20	***	5.72	***	99.32	93.60	3.14	11.50	No Odor
MW-10	Y	10/4/21	10:55	5-20	***	6.49	***	101.26	94.77	3.79	11.00	No Odor
MW-11R	Y	10/4/21	11:21	5-20	***	5.32	***	101.38	96.06	4.07	12.00	No Odor
MW-12R	N	10/4/21	NL	5-20	***	NL	***	98.12	NL	NL	0.00	Not Located, Possibly destroyed by road work
MW-13R	Y	10/4/21	11:59	5-20	***	4.64	***	97.33	92.69	4.27	13.00	No Odor
MW-14	Y	10/4/21	11:36	5-20	***	4.61	***	97.39	92.78	3.27	13.00	No Odor
MW-15	Y	10/4/21	12:10	5-20	***	3.86	***	97.22	93.36	5.98	13.25	No Odor
											154.25	**TOTAL GALLONS PURGED**

TABLE 2
Site Activity Summary

UST Permit #: 04887
Facility Name: Warren Green
County: Jasper
Field Personnel: M. Funderburk, C. Hansen, T. Adorno

Midlands Environmental Consultants, Inc.
231 Dooley Road, Lexington, SC 29073
(803) 808-2043 fax: 808-2048

Sample ID	Sampled?	Date	Time	Screened Interval	Depth to Product (ft)	Depth to Water (ft)	Product Thickness (ft)	TOC Elevation	Groundwater Elevation	Initial DO (mg/l)	# Gals. Purged	Comments
DW-1	Y	10/4/21	15:21	45-50	***	0.60	***	97.84	97.24	3.78	30.00	No Odor
DW-2	Y	10/4/21	15:39	45-50	***	4.76	***	98.31	93.55	4.67	22.00	No Odor
DW-3	Y	10/4/21	15:38	45-50	***	7.45	***	96.83	89.38	4.21	21.00	No Odor
DW-4	Y	10/4/21	15:31	45-50	***	7.36	***	96.75	89.39	4.58	22.00	No Odor
DW-5	Y	10/4/21	15:22	80-85	***	4.34	***	98.09	93.75	4.15	44.00	No Odor
DW-6	Y	10/4/21	15:41	80-85	***	7.35	***	99.26	91.91	3.68	38.00	No Odor
DUP-1	Y	10/4/21	14:42	***	***	***	***	***	***	***	***	Duplicate of MW-1
DUP-2	Y	10/4/21	10:27	***	***	***	***	***	***	***	***	Duplicate of MW-7
Field Blank	Y	10/4/21	15:15	***	***	***	***	***	***	***	***	Field Blank
Trip Blank	Y	10/4/21	8:00	***	***	***	***	***	***	***	***	Trip Blank
WSW-1	Y	10/4/21	14:54	***	***	***	***	***	***	***	***	235 Bowers Lane / Collected from Spigot on House
WSW-2	Y	10/4/21	15:05	***	***	***	***	***	***	***	***	425 Bowers Lane / Collected from Spigot on Well
WSW-3	N	10/4/21	NS	***	***	***	***	***	***	***	***	10951 Frontage Road / Denied Access
WSW-4	N	10/4/21	NS	***	***	***	***	***	***	***	***	10943 Frontage Road / Denied Access
WSW DUP	Y	10/4/21	14:55	***	***	***	***	***	***	***	***	Duplicate of WSW-1
											177.00	**TOTAL GALLONS PURGED**

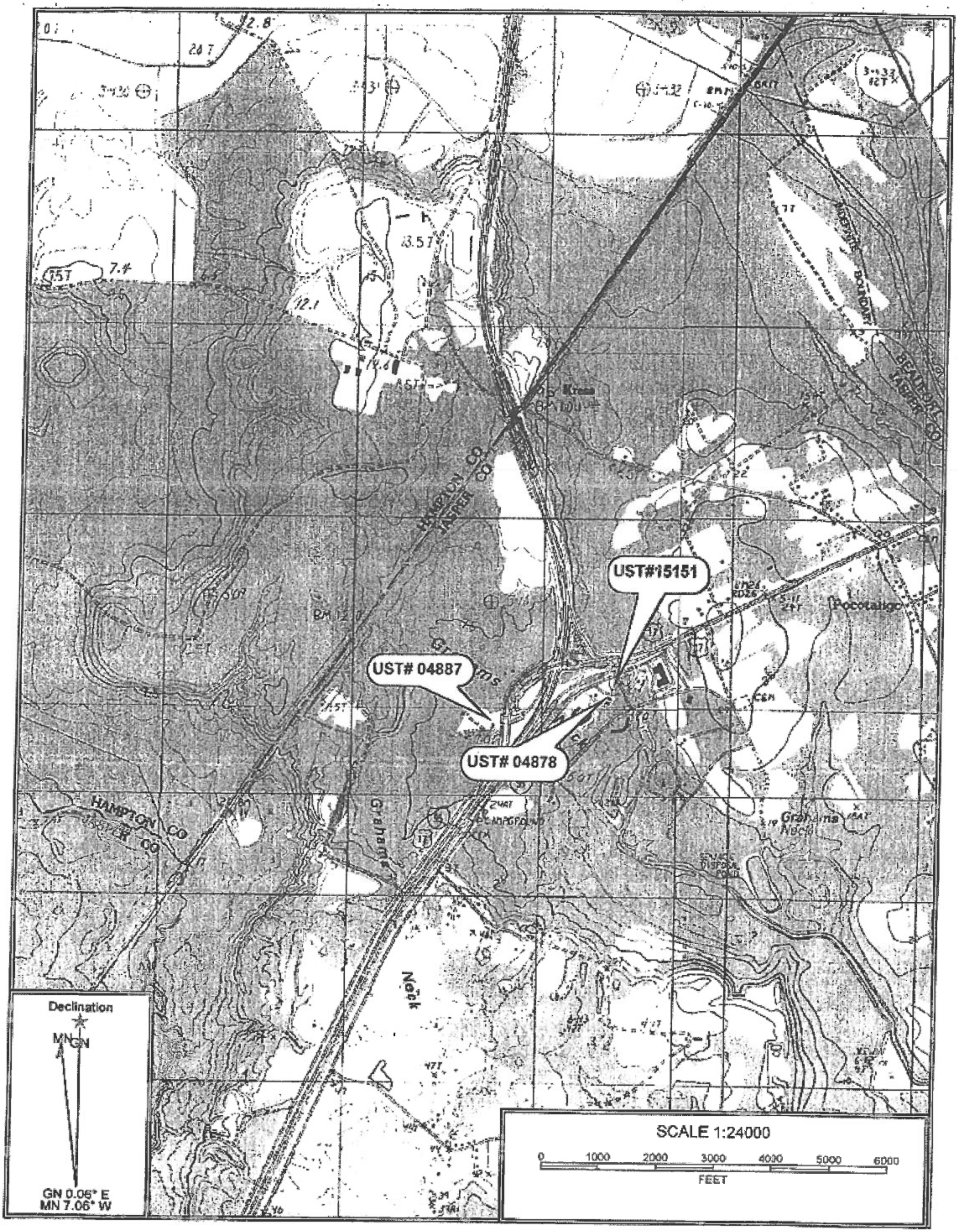
TABLE 2
Site Activity Summary

UST Permit #: 04887
Facility Name: Warren Green
County: Jasper
Field Personnel: M. Funderburk, C. Hansen, T. Adorno

Midlands Environmental Consultants, Inc.
231 Dooley Road, Lexington, SC 29073
(803) 808-2043 fax: 808-2048

Sample ID	Sampled?	Date	Time	Screened Interval	Depth to Product (ft)	Depth to Water (ft)	Product Thickness (ft)	TOC Elevation	Groundwater Elevation	Initial DO (mg/l)	# Gals. Purged	Comments
Field Blank	Y	10/4/21	15:17	***	***	***	***	***	***	***	***	Field Blank
Trip Blank	Y	10/4/21	8:00	***	***	***	***	***	***	***	***	Trip Blank
											0.00	**TOTAL GALLONS PURGED**

FIGURES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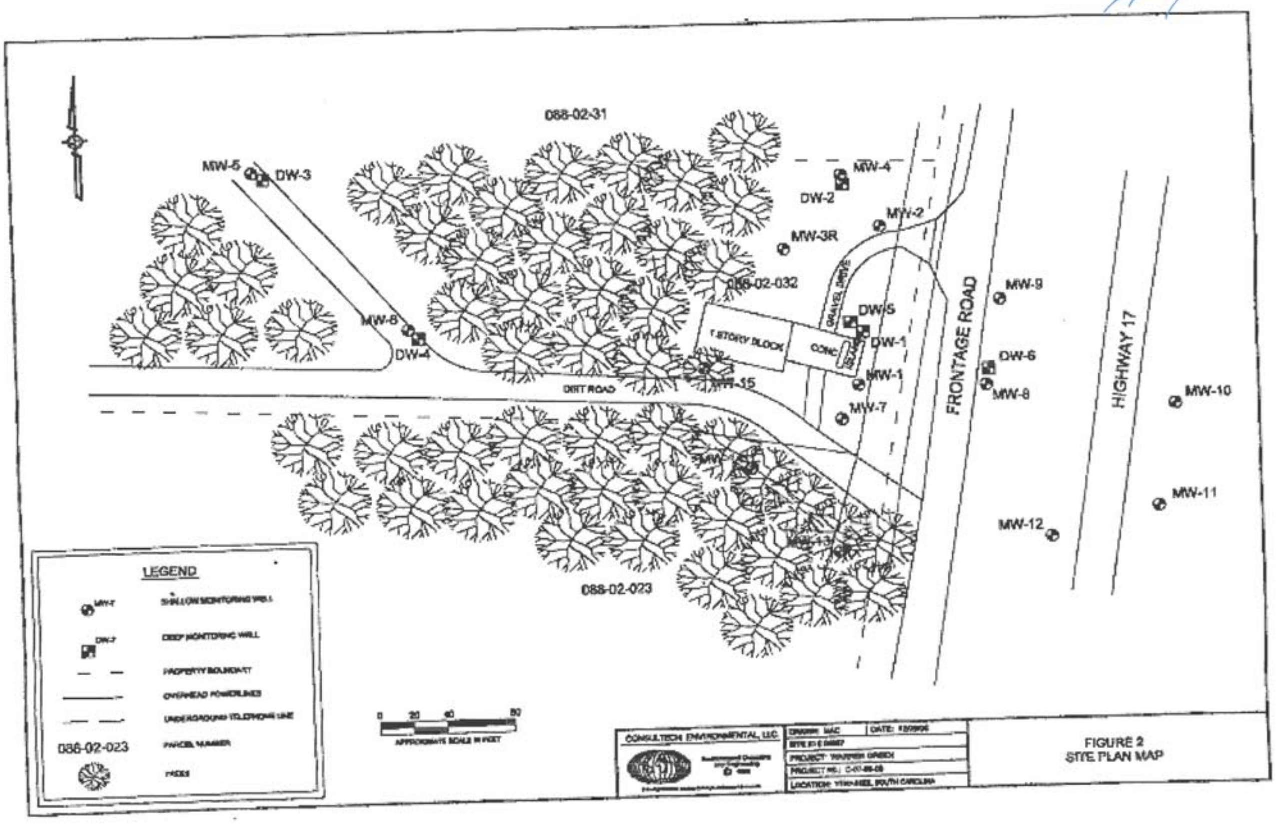
UST# 04887
UST# 04878
HAMPTON CO
JASPER CO
Pocotaligo
Grahams Neck
Declination
MN
GN
GN 0.06° E
MN 7.06° W
SCALE 1:24000
0
1000
2000
3000
4000
5000
6000
FEET

Provided Map is of poor quality and outdated. Due to the quality of this map, re-digitization was not requested or can be completed at this time. MECI recommends a Comprehensive Survey be performed.



APPENDIX A:

SAMPLING LOGS, LABORATORY DATA SHEETS, & CHAIN-OF-CUSTODY FORMS

Midlands
Environmental
Consultants, Inc.

Monitoring Well Purge
And Sampling Data

Field Personnel: MF, CH, TA

Sampling Date(s): 10/04/2021

Sampling Case#: #1

Job Name: Warren Green

Job Number: 21-7661

Calibration Data for :

Calibration Successful? Yes or No (Please Circle)

pH:	Yes	No
Conductivity:	Yes	No
Dissolved Oxygen:	Yes	No

Turbidity: **Conductivity Calibrated Every 3 Months by QA Manager**

Well No.	Purge Volume	Sample Time	pH(i)	cond(i)	Temp. (°C)	DO (mg/l)	Turbidity (NTU)	Depth to (feet): product	Depth to (feet): Initial H_2O	Depth to (feet): final H_2O	Well Depth (feet)	Water Height *(feet)	Gallons Purged **calc.	Gallons Purged actual	Notes
mw-1	Initial	9:54	5.45	228.8	24.5	4.29	17.32		3.01	3.67	2-12	8.99	1.46	Dry @ 4.5g	Dspl odor
	1st	9:58	5.39	239.2	24.3	4.32	32.14						7.32		
	2nd	10:02	5.37	236.7	23.4	4.34	79.30								
	3rd	10:04	5.31	241.3	22.7	4.42	128.4								
	4th														
	5th														
	Sampling	11:42	5.26	245.2	22.1	4.93	13.14								
mw-2	Initial										5-15				
	1st														
	2nd														
	3rd														
	4th														
	5th														
	Sampling														
mw-3R	Initial	13:50	4.74	255.6	26.1	3.74	19.33		5.98		5-20	14.02	2.28	12g	No odor
	1st	13:54	4.68	243.9	25.9	3.82	64.84						11.42		
	2nd	13:59	4.54	237.4	25.1	3.84	138.31								
	3rd	14:02	4.49	232.1	24.7	4.00	162.7								
	4th	14:05	4.31	210.9	23.9	4.09	84.03								
	5th	14:08	4.24	182.3	22.7	4.21	13.71								
	Sampling														
mw-4	Initial	13:24	5.21	269.4	26.5	3.74	12.81		4.92		5-20	15.08	2.45	12.25g	No odor
	1st	13:27	5.16	241.3	26.1	3.85	72.13						12.29		
	2nd	13:31	5.04	250.3	25.7	3.94	124.9								
	3rd	13:35	5.06	234.5	24.1	4.01	151.3								
	4th	13:39	4.98	204.7	22.9	4.07	74.25								
	5th	13:43	4.78	199.3	22.1	4.15	20.11								
	Sampling														

*= (Depth of Well) - (Depth to Water = **Water Height**

One Well Volume =x.047 for 1" wells * x **.163 for 2" wells**, or * x **.66 for 4" wells**, 1.469 for 6" wells

= One Well Volume x 5 = **Gallons Purged (calculated)

Casing	Gallons
1"	0.047
2"	0.163
4"	0.653
6"	1.469

Sampling Case#	Ph/Conductance SN	DO SN	Turbidity
Case #1	15H101448	17E101302	201301183
Case #2	15E101481	14H103098	201301174
Case #3	17E100512	17E103488	201510251

Midlands Environmental Consultants, Inc.

Monitoring Well Purge And Sampling Data

Field Personnel: MF, GH, TA

Sampling Date(s): 10/04/2021

Sampling Case#: #1

Job Name: Warren Green

Job Number: 21-7661

Calibration Data for :

Calibration Successful? Yes or No (Please Circle)

pH:	Yes	No
Conductivity:	Yes	No
Dissolved Oxygen:	Yes	No

Turbidity: **Conductivity Calibrated Every 3 Months by QA Manager**

Well No.	Purge Volume	Sample Time	pH(i)	cond(i)	Temp. (°C)	DO (mg/l)	Turbidity (NTU)	Depth to (feet): product	Depth to (feet): Initial H_2O	Depth to (feet): final H_2O	Well Depth (feet)	Water Height *(feet)	Gallons Purged **calc.	Gallons Purged actual	Notes
mw-5	Initial	13:38	4.97	165.4	26.4	4.12	27.81		3.31		5-20	16.69	2.72 13.6	14g	no odor
	1st	13:41	4.91	149.3	25.8	4.23	39.26								
	2nd	13:44	4.86	144.2	25.0	4.36	137.8								
	3rd	13:48	4.81	131.7	24.6	4.39	171.4								
	4th	13:51	4.72	101.3	23.7	4.44	93.24								
	5th	13:55	4.63	101.7	22.8	4.67	17.91								
	Sampling														
mw-6	Initial	13:59	4.72	168.2	26.3	4.09	24.59		3.23		5-20	16.77	2.73 13.67	13.75g	no odor
	1st	14:03	4.63	163.9	25.5	4.19	74.92								
	2nd	14:06	4.54	154.9	24.7	4.26	133.7								
	3rd	14:09	4.48	147.1	24.0	4.35	153.6								
	4th	14:12	4.49	131.9	23.6	4.43	91.62								
	5th	14:16	4.39	123.4	22.7	4.51	16.31								
	Sampling														
mw-7	Initial	10:10	5.36	164.7	26.5	4.23	28.37		4.78		5-20	15.22	2.45 12.45	12.5g	Supa Odar
	1st	10:15	5.31	146.3	25.7	4.41	69.18								
	2nd	10:18	5.23	133.6	24.2	4.47	142.5								
	3rd	10:21	5.17	117.3	23.7	4.59	154.6								
	4th	10:24	5.09	101.4	22.4	4.62	67.22								
	5th	10:27	5.08	97.1	22.1	4.73	17.82								
	Sampling														
mw-8	Initial	14:15	5.19	261.3	27.1	3.78	19.30		5.87		5-20	14.13	2.3 11.52	11.5g	Slight Odor
	1st	14:18	5.21	250.3	26.3	3.81	32.41								
	2nd	14:21	5.14	231.4	25.4	3.96	151.1								
	3rd	14:25	5.07	217.8	24.9	3.99	170.3								
	4th	14:29	5.01	204.0	24.0	4.00	96.93								
	5th	14:33	4.97	203.9	22.9	4.09	22.12								
	Sampling														

*= (Depth of Well) - (Depth to Water = **Water Height**

One Well Volume =x.047 for 1" wells * x **.163 for 2" wells,** or * x **.66 for 4" wells**, 1.469 for 6" wells

= One Well Volume x 5 = **Gallons Purged (calculated)

Casing	Gallons
1"	0.047
2"	0.163
4"	0.653
6"	1.469

Sampling Case#	Ph/Conductance SN	DO SN	Turbidity
Case #1	15H101448	17E101302	201301183
Case #2	15E101481	14H103098	201301174
Case #3	17E100512	17E103488	201510251

Midlands Environmental Consultants, Inc.

Monitoring Well Purge And Sampling Data

Field Personnel: MF, CH, TA

Sampling Date(s): 10/04/2021

Sampling Case#: ~~4~~1

Job Name: Warren Green

Job Number: 21-7661

Calibration Data for :

Calibration Successful? Yes or No (Please Circle)

pH:	Yes	No
Conductivity:	Yes	No
Dissolved Oxygen:	Yes	No

Turbidity: **Conductivity Calibrated Every 3 Months by QA Manager**

Well No.	Purge Volume	Sample Time	pH(i)	cond(i)	Temp. (°C)	DO (mg/l)	Turbidity (NTU)	Depth to (feet): product	Depth to (feet): Initial H_2O	Depth to (feet): final H_2O	Well Depth (feet)	Water Height *(feet)	Gallons Purged **calc.	Gallons Purged actual	Notes
mw-9	Initial	11:28	4.41	178.2	26.4	3.14	24.93		5.72		5-20	14.28	2.32 / 11.6	11.66 g	no odor
	1st	11:32	4.40	162.4	25.7	3.17	77.56								
	2nd	11:35	4.27	158.7	24.6	3.59	110.3								
	3rd	11:37	4.21	142.3	23.9	3.42	147.1								
	4th	11:41	4.17	117.2	23.1	4.03	64.17								
	5th	11:45	4.07	111.3	22.7	4.21	20.72								
	Sampling														
mw-10	Initial	10:38	5.59	346.1	27.1	3.79	43.04		6.49		5-20	13.51	2.2 / 11.0	11g	no odor
	1st	10:41	5.43	342.2	26.2	3.84	62.93								
	2nd	10:44	5.31	330.4	25.4	3.92	107.8								
	3rd	10:49	5.17	319.9	24.3	9.04	133.9								
	4th	10:52	5.01	310.1	23.7	4.09	76.00								
	5th	10:55	4.99	301.3	22.9	9.13	19.87								
	Sampling														
mw-11	Initial	11:04	5.53	149.0	26.7	4.07	29.20		5.32		5-20	14.68	2.39 / 11.92	12g	no odor
	1st	11:08	5.41	131.4	25.9	4.08	59.31								
	2nd	11:11	5.34	123.9	24.7	4.13	130.7								
	3rd	11:15	5.09	118.1	23.9	4.18	199.3								
	4th	11:17	5.01	102.7	22.9	4.28	33.6								
	5th	11:21	4.97	93.2	22.4	4.29	23.71								
	Sampling														
mw-12	Initial										5-20				
	1st														
	2nd														
	3rd														
	4th														
	5th														
	Sampling														

*= (Depth of Well) - (Depth to Water = **Water Height**

One Well Volume =x.047 for 1" wells * x **.163 for 2" wells**, or * x **.66 for 4" wells**, 1.469 for 6" wells

= One Well Volume x 5 = **Gallons Purged (calculated)

Sampling Case#	Ph/Conductance SN	DO SN	Turbidity
Case #1	15H101448	17E101302	201301183
Case #2	15E101481	14H103098	201301174
Case #3	17E100512	17E103488	201510251

Casing	Gallons
1"	0.047
2"	0.163
4"	0.653
6"	1.469

Midlands Environmental Consultants, Inc.

Monitoring Well Purge And Sampling Data

Field Personnel: MF, CH, JA

Sampling Date(s): 10/04/2021

Sampling Case#: #1

Job Name: Warren Green

Job Number: 21-7681

Calibration Data for:

Calibration Successful? Yes or No (Please Circle)

pH:	Yes	No
Conductivity:	Yes	No
Dissolved Oxygen:	Yes	No

Turbidity: **Conductivity Calibrated Every 3 Months by QA Manager**

Well No.	Purge Volume	Sample Time	pH(i)	cond(i)	Temp. (°C)	DO (mg/l)	Turbidity (NTU)	Depth to (feet): product	Initial H_2O	final H_2O	Well Depth (feet)	Water Height *(feet)	Gallons Purged **calc.	Gallons Purged actual	Notes
mw-13	Initial	[illegible]	5.32	126.2	26.3	4.27	41.18		4.64		5-20	15.81	2.57	13g	no odor
	1st	11:44	5.17	112.9	25.6	4.24	93.87						12.9		
	2nd	11:47	5.10	109.7	25.0	4.43	147.6								
	3rd	11:50	5.03	97.3	24.1	4.49	182.4								
	4th	11:54	4.97	82.9	23.7	4.161	90.02								
	5th	11:59	4.94	76.6	22.8	4.73	24.64								
	Sampling														
mw-14	Initial	11:18	5.44	124.8	26.2	3.17	87.35		4.61		5-20	15.84	2.58	13g	no odor
	1st	11:22	5.31	109.3	25.4	3.42	123.8						12.91		
	2nd	11:25	5.27	99.7	24.9	3.49	162.4								
	3rd	11:29	5.17	101.4	24.2	3.47	191.8								
	4th	11:32	5.09	96.1	23.1	3.56	110.2								
	5th	11:36	5.02	84.6	22.6	3.62	41.72								
	Sampling						[illegible]								
mw-15	Initial	11:54	5.08	145.1	25.9	5.98	29.44		3.86		5-20	16.14	2.63	13.25g	no odor
	1st	11:58	5.11	137.4	25.1	5.96	57.39						13.15		
	2nd	12:02	5.02	102.3	24.3	6.02	103.74								
	3rd	12:04	4.91	104.7	23.7	6.17	152.4								
	4th	12:07	4.71	94.8	22.9	6.25	93.29								
	5th	12:10	4.74	92.3	22.7	6.24	16.78								
	Sampling														
DU-1	Initial	10:36	5.93	341.4	26.2	3.78	19.09		.6	8.42	45-50	49.4	8.05	Dry @ 30g	no odor
	1st	10:45	6.07	307.7	25.7	3.57	70.66						40.25		
	2nd	10:57	6.03	300.1	24.1	3.61	114.7								
	3rd	11:09	6.14	281.4	24.0	3.50	137.1								
	4th														
	5th														
	Sampling	15:21	6.42	254.3	21.6	3.32	14.37								

*= (Depth of Well) - (Depth to Water = **Water Height**

One Well Volume =x.047 for 1" wells * x **.163 for 2" wells**, or * x **.66 for 4" wells**, 1.469 for 6" wells

= One Well Volume x 5 = **Gallons Purged (calculated)

Casing	Gallons
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Sampling Case#	Ph/Conductance SN	DO SN	Turbidity
Case #1	15H101448	17E101302	201301183
Case #2	15E101481	14H103098	201301174
Case #3	17E100512	17E103488	201510251

Midlands Environmental Consultants, Inc.

Monitoring Well Purge And Sampling Data

Field Personnel: MF, CH, TA

Sampling Date(s): 10/04/2021

Sampling Case#: #1

Job Name: Warren Green

Job Number: 21-7661

Calibration Data for :

Calibration Successful? Yes or No (Please Circle)

pH:	Yes	No
Conductivity:	Yes	No
Dissolved Oxygen:	Yes	No

Turbidity: **Conductivity Calibrated Every 3 Months by QA Manager**

Well No.	Purge Volume	Sample Time	pH(i)	cond(i)	Temp. (°C)	DO (mg/l)	Turbidity (NTU)	Depth to (feet): product	Depth to (feet): Initial H_2O	Depth to (feet): final H_2O	Well Depth (feet)	Water Height *(feet)	Gallons Purged **calc.	Gallons Purged actual	Notes
DW-2	Initial	12:43	3.91	439.2	26.1	4.67	33.92		4.76	9.79	45-50	45.24	7.37	Dry (9) 22g	No Odor
	1st	12:55	3.17	421.3	25.2	4.32	20.13						36.8		
	2nd	13:07	3.32	407.4	24.3	4.27	104.9								
	3rd	13:20	3.29	382.9	23.7	4.14	154.2								
	4th														
	5th														
	Sampling	15:29	4.29	337.4	22.1	3.74	17.09								
DW-3	Initial	12:59	3.32	374.8	26.2	4.21	31.81		7.45	12.96	45-50	42.55	6.94	Dry (9) 21g	No odor
	1st	13:09	3.54	351.2	25.6	4.74	57.98						34.67		
	2nd	13:21	3.61	342.4	24.7	4.61	102.4								
	3rd	13:31	3.64	344.7	24.0	4.43	161.7								
	4th														
	5th														
	Sampling	15:35	3.97	269.3	22.2	4.01	14.24								
DW-4	Initial	12:07	5.07	143.7	26.0	4.58	58.97		7.36	12.65	45-50	42.64	6.95	Dry (9) 22g	No Odor
	1st	12:18	5.18	129.9	25.4	4.31	61.87						34.75		
	2nd	12:26	5.36	114.1	24.6	4.33	143.04								
	3rd	12:35	5.49	105.2	23.9	4.27	155.13								
	4th														
	5th														
	Sampling	15:31	5.64	107.2	21.8	3.42	22.77								
PW-5	Initial	9:55	5.75	2001.0	25.6	4.15	15.92		4.34	17.42	80-85	80.66	13.15	Dry (9) 44g	No Odor
	1st	10:07	5.71	272.4	25.0	4.04	92.91						65.74		
	2nd	10:17	5.42	267.8	24.8	3.24	116.49								
	3rd	10:29	5.44	250.4	24.0	3.77	132.53								
	4th														
	5th														
	Sampling	15:22	6.29	223.4	21.7	3.31	13.97								

*= (Depth of Well) - (Depth to Water = **Water Height**

One Well Volume =x.047 for 1" wells * x **.163 for 2" wells, or * x .66 for 4" wells**, 1.469 for 6" wells

= One Well Volume x 5 = **Gallons Purged (calculated)

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Sampling Case#	*Ph/Conductance SN*	*DO SN*	*Turbidity*
Case #1	15H101448	17E101302	201301183
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Midlands Environmental Consultants, Inc.

Monitoring Well Purge And Sampling Data

Field Personnel: MF, CH, TA

Sampling Date(s): 10/04/2021

Sampling Case#: #1

Job Name: Warren Green

Job Number: 21-7681

Calibration Data for:
Calibration Successful? Yes or No (Please Circle)

pH:	Yes	No
Conductivity:	Yes	No
Dissolved Oxygen:	Yes	No

Turbidity: **Conductivity Calibrated Every 3 Months by QA Manager**

Well No.	Purge Volume	Sample Time	pH(i)	cond(i)	Temp. (°C)	DO (mg/l)	Turbidity (NTU)	Depth to (feet): product	Depth to (feet): Initial H_2O	Depth to (feet): final H_2O	Well Depth (feet)	Water Height *(feet)	Gallons Purged **calc.	Gallons Purged actual	Notes
Dw-6	Initial	12:17	5.59	328.6	27.2	3.68	32.49		7.35	16.57	80-85	77.65	12.65 / 63.28	38g	no odor
	1st	12:30	5.67	332.4	26.4	3.57	57.37								
	2nd	12:40	5.82	326.8	25.6	3.51	134.1								
	3rd	12:54	5.76	303.9	25.0	3.42	127.3								
	4th														
	5th														
	Sampling	15:41	6.07	254.3	21.9	3.27	19.59								
Duplicate-1 - MW-1 - 14:42	Initial					Duplicate-2: MW-7 - 10:27									
	1st														
Field Blank	2nd	15:15													
	3rd					GAC: 15:19									
	4th														
	5th														
Trip Blank	Sampling	9:00													
wsw-1	Initial														
	1st	14:54	WSW Dup-1			WSW FB - 15:17									
	2nd														
	3rd	Spigot on house													
wsw-2	4th														
	5th	15:05 - Spigot on well				WSW-Dup-wsw1 14:55									
	Sampling														
wsw-3	Initial														
	1st	~~[illegible]~~ Access denied				WSW TB: 9:00									
	2nd														
	3rd														
wsw-4	4th														
	5th	~~[illegible]~~ Access denied													
	Sampling														

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One Well Volume =x.047 for 1" wells * x **.163 for 2" wells, or * x .66 for 4" wells,** 1.469 for 6" wells

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Sampling Case#	Ph/Conductance SN	DO SN	Turbidity
Case #1	15H101448	17E101302	201301183
Case #2	15E101481	14H103098	201301174
Case #3	17E100512	17E103488	201510251

Pace Analytical Services, LLC
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

October 19, 2021

Robert Dunn
SCDHEC
2600 Bull St
Columbia, SC 29201

RE: Project: 04887/64000 WARREN GREEN
Pace Project No.: 92565357

Dear Robert Dunn:

Enclosed are the analytical results for sample(s) received by the laboratory on October 06, 2021. The results relate only to the samples included in this report. Results reported herein conform to the applicable TNI/NELAC Standards and the laboratory's Quality Manual, where applicable, unless otherwise noted in the body of the report.

The test results provided in this final report were generated by each of the following laboratories within the Pace Network:

- Pace Analytical Gulf Coast
- Pace Analytical Services - Charlotte

If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Lindsey N Wooten
lindsey.wooten@pacelabs.com
(704)875-9092
Project Manager

Enclosures

cc: Jeff Coleman, Midlands Environmental Consultants, Inc.
Kyle Pudney, Midlands Environmental Consultants, Inc.
Matt Wykel, SCDHEC

Pace Analytical®
www.pacelabs.com

Pace Analytical Services, LLC
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

CERTIFICATIONS

Project:	04887/64000 WARREN GREEN
Pace Project No.:	92565357

Pace Analytical Gulf Coast

7979 Innovation Park Drive, Baton Rouge, LA 70820
Arkansas Certification #: 88-0655
DoD ELAP Certification #: L18-597
Florida Certification #: E87854
Illinois Certification #: 004585
Kansas Certification #: E-10354
Louisiana/LELAP Certification #: 01955
North Carolina Certification #: 618
North Dakota Certification #: R-195
Oklahoma Certification #: 2019-101
South Carolina Certification #: 73006001
Texas Certification #: T104704178-19-11
USDA Soil Permit # P330-19-00209
Virginia Certification #: 460215
Washington Certification #: C929

Pace Analytical Services Charlotte

9800 Kincey Ave. Ste 100, Huntersville, NC 28078
Louisiana/NELAP Certification # LA170028
North Carolina Drinking Water Certification #: 37706
North Carolina Field Services Certification #: 5342
North Carolina Wastewater Certification #: 12
South Carolina Certification #: 99006001
Florida/NELAP Certification #: E87627
Kentucky UST Certification #: 84
Virginia/VELAP Certification #: 460221

Pace Analytical
www.pacelabs.com

Pace Analytical Services, LLC
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

SAMPLE SUMMARY

Project: 04887/64000 WARREN GREEN
Pace Project No.: 92565357

Lab ID	Sample ID	Matrix	Date Collected	Date Received
92565357001	**MW-1**	Water	10/04/21 14:42	10/06/21 09:30
92565357002	**MW-3R**	Water	10/04/21 14:08	10/06/21 09:30
92565357003	**MW-4**	Water	10/04/21 13:43	10/06/21 09:30
92565357004	**MW-5**	Water	10/04/21 13:50	10/06/21 09:30
92565357005	**MW-6**	Water	10/04/21 14:16	10/06/21 09:30
92565357006	**MW-7**	Water	10/04/21 10:27	10/06/21 09:30
92565357007	**MW-8**	Water	10/04/21 14:33	10/06/21 09:30
92565357008	**MW-9**	Water	10/04/21 11:45	10/06/21 09:30
92565357009	**MW-10**	Water	10/04/21 10:55	10/06/21 09:30
92565357010	**MW-11**	Water	10/04/21 11:22	10/06/21 09:30
92565357011	**MW-13**	Water	10/04/21 11:59	10/06/21 09:30
92565357012	**MW-14**	Water	10/04/21 11:36	10/06/21 09:30
92565357013	**MW-15**	Water	10/04/21 12:10	10/06/21 09:30
92565357014	**DW-1**	Water	10/04/21 15:21	10/06/21 09:30
92565357015	**DW-2**	Water	10/04/21 15:39	10/06/21 09:30
92565357016	**DW-3**	Water	10/04/21 15:38	10/06/21 09:30
92565357017	**DW-4**	Water	10/04/21 15:31	10/06/21 09:30
92565357018	**DW-5**	Water	10/04/21 15:22	10/06/21 09:30
92565357019	**DW-6**	Water	10/04/21 15:41	10/06/21 09:30
92565357020	**DUP-1**	Water	10/04/21 00:00	10/06/21 09:30
92565357021	**DUP-2**	Water	10/04/21 00:00	10/06/21 09:30
92565357022	**FB**	Water	10/04/21 15:15	10/06/21 09:30
92565357023	**TB**	Water	10/04/21 08:00	10/06/21 09:30

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SAMPLE ANALYTE COUNT

Project: 04887/64000 WARREN GREEN
Pace Project No.: 92565357

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
92565357001	**MW-1**	EPA 8011	MFS	1	GCLA
		EPA 8260D	SAS	20	PASI-C
92565357002	**MW-3R**	EPA 8011	MFS	1	GCLA
		EPA 8260D	NSCQ	20	PASI-C
92565357003	**MW-4**	EPA 8011	MFS	1	GCLA
		EPA 8260D	NSCQ	20	PASI-C
92565357004	**MW-5**	EPA 8011	MFS	1	GCLA
		EPA 8260D	NSCQ	20	PASI-C
92565357005	**MW-6**	EPA 8011	MFS	1	GCLA
		EPA 8260D	NSCQ	20	PASI-C
92565357006	**MW-7**	EPA 8011	MFS	1	GCLA
		EPA 8260D	SAS	20	PASI-C
92565357007	**MW-8**	EPA 8011	MFS	1	GCLA
		EPA 8260D	CL	20	PASI-C
92565357008	**MW-9**	EPA 8011	MFS	1	GCLA
		EPA 8260D	CL	20	PASI-C
92565357009	**MW-10**	EPA 8011	MFS	1	GCLA
		EPA 8260D	NSCQ	20	PASI-C
92565357010	**MW-11**	EPA 8011	MFS	1	GCLA
		EPA 8260D	NSCQ	20	PASI-C
92565357011	**MW-13**	EPA 8011	MFS	1	GCLA
		EPA 8260D	NSCQ	20	PASI-C
92565357012	**MW-14**	EPA 8011	MFS	1	GCLA
		EPA 8260D	NSCQ	20	PASI-C
92565357013	**MW-15**	EPA 8011	MFS	1	GCLA
		EPA 8260D	NSCQ	20	PASI-C
92565357014	**DW-1**	EPA 8011	MFS	1	GCLA
		EPA 8260D	NSCQ	20	PASI-C
92565357015	**DW-2**	EPA 8011	MFS	1	GCLA
		EPA 8260D	NSCQ	20	PASI-C
92565357016	**DW-3**	EPA 8011	MFS	1	GCLA
		EPA 8260D	NSCQ	20	PASI-C
92565357017	**DW-4**	EPA 8011	MFS	1	GCLA
		EPA 8260D	CL	20	PASI-C
92565357018	**DW-5**	EPA 8011	MFS	1	GCLA
		EPA 8260D	CL	20	PASI-C
92565357019	**DW-6**	EPA 8011	MFS	1	GCLA

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SAMPLE ANALYTE COUNT

Project: 04887/64000 WARREN GREEN
Pace Project No.: 92565357

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
		EPA 8260D	CL	20	PASI-C
92565357020	**DUP-1**	EPA 8011	MFS	1	GCLA
		EPA 8260D	CL	20	PASI-C
92565357021	**DUP-2**	EPA 8011	MFS	1	GCLA
		EPA 8260D	CL	20	PASI-C
92565357022	**FB**	EPA 8011	MFS	1	GCLA
		EPA 8260D	CL	20	PASI-C
92565357023	**TB**	EPA 8260D	CL	20	PASI-C

GCLA = Pace Analytical Gulf Coast
PASI-C = Pace Analytical Services - Charlotte

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SUMMARY OF DETECTION

Project: 04887/64000 WARREN GREEN
Pace Project No.: 92565357

Lab Sample ID / Method	Client Sample ID / Parameters	Result	Units	Report Limit	Analyzed	Qualifiers
92565357001	**MW-1**					
EPA 8260D	Benzene	2830	ug/L	1000	10/07/21 20:15	
EPA 8260D	Ethylbenzene	4530	ug/L	1000	10/07/21 20:15	
EPA 8260D	Naphthalene	546J	ug/L	1000	10/07/21 20:15	
EPA 8260D	Toluene	20300	ug/L	1000	10/07/21 20:15	
EPA 8260D	Xylene (Total)	22300	ug/L	1000	10/07/21 20:15	
EPA 8260D	m&p-Xylene	16200	ug/L	2000	10/07/21 20:15	
EPA 8260D	o-Xylene	6100	ug/L	1000	10/07/21 20:15	
92565357006	**MW-7**					
EPA 8011	1,2-Dibromoethane (EDB)	0.538	ug/L	0.020	10/13/21 19:37	
EPA 8260D	Benzene	731	ug/L	250	10/07/21 19:40	
EPA 8260D	Ethylbenzene	3080	ug/L	250	10/07/21 19:40	
EPA 8260D	Naphthalene	629	ug/L	250	10/07/21 19:40	
EPA 8260D	Toluene	4900	ug/L	250	10/07/21 19:40	
EPA 8260D	Xylene (Total)	18600	ug/L	250	10/07/21 19:40	
EPA 8260D	m&p-Xylene	12500	ug/L	500	10/07/21 19:40	
EPA 8260D	o-Xylene	6060	ug/L	250	10/07/21 19:40	
92565357007	**MW-8**					
EPA 8011	1,2-Dibromoethane (EDB)	0.033	ug/L	0.020	10/13/21 19:54	
EPA 8260D	tert-Amyl Alcohol	469J	ug/L	500	10/08/21 23:33	
EPA 8260D	Benzene	764	ug/L	25.0	10/08/21 23:33	
EPA 8260D	Ethylbenzene	388	ug/L	25.0	10/08/21 23:33	
EPA 8260D	Naphthalene	114	ug/L	25.0	10/08/21 23:33	
EPA 8260D	Toluene	360	ug/L	25.0	10/08/21 23:33	
EPA 8260D	Xylene (Total)	1550	ug/L	25.0	10/08/21 23:33	
EPA 8260D	m&p-Xylene	1030	ug/L	50.0	10/08/21 23:33	
EPA 8260D	o-Xylene	520	ug/L	25.0	10/08/21 23:33	
92565357020	**DUP-1**					
EPA 8260D	Benzene	2900	ug/L	500	10/08/21 10:00	
EPA 8260D	Ethylbenzene	3960	ug/L	500	10/08/21 10:00	
EPA 8260D	Naphthalene	331J	ug/L	500	10/08/21 10:00	
EPA 8260D	Toluene	19900	ug/L	500	10/08/21 10:00	
EPA 8260D	Xylene (Total)	20200	ug/L	500	10/08/21 10:00	
EPA 8260D	m&p-Xylene	14800	ug/L	1000	10/08/21 10:00	
EPA 8260D	o-Xylene	5390	ug/L	500	10/08/21 10:00	
92565357021	**DUP-2**					
EPA 8011	1,2-Dibromoethane (EDB)	0.525	ug/L	0.020	10/16/21 02:29	
EPA 8260D	Benzene	1160	ug/L	250	10/09/21 00:27	
EPA 8260D	Ethylbenzene	3930	ug/L	250	10/09/21 00:27	
EPA 8260D	Naphthalene	706	ug/L	250	10/09/21 00:27	
EPA 8260D	Toluene	6920	ug/L	250	10/09/21 00:27	
EPA 8260D	Xylene (Total)	22900	ug/L	250	10/09/21 00:27	
EPA 8260D	m&p-Xylene	15900	ug/L	500	10/09/21 00:27	
EPA 8260D	o-Xylene	7040	ug/L	250	10/09/21 00:27	

REPORT OF LABORATORY ANALYSIS

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PROJECT NARRATIVE

Project: 04887/64000 WARREN GREEN
Pace Project No.: 92565357

Method: **EPA 8011**
Description: EPA 8011
Client: SCDHEC
Date: October 19, 2021

General Information:
22 samples were analyzed for EPA 8011 by Pace Analytical Gulf Coast. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Initial Calibrations (including MS Tune as applicable):
All criteria were within method requirements with any exceptions noted below.

Continuing Calibration:
All criteria were within method requirements with any exceptions noted below.

Surrogates:
All surrogates were within QC limits with any exceptions noted below.

Method Blank:
All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

Additional Comments:

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PROJECT NARRATIVE

Project: 04887/64000 WARREN GREEN
Pace Project No.: 92565357

Method: **EPA 8260D**
Description: 8260 MSV
Client: SCDHEC
Date: October 19, 2021

General Information:
23 samples were analyzed for EPA 8260D by Pace Analytical Services Charlotte. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Initial Calibrations (including MS Tune as applicable):
All criteria were within method requirements with any exceptions noted below.

Continuing Calibration:
All criteria were within method requirements with any exceptions noted below.

QC Batch: 651434

v2: The continuing calibration verification was below the method acceptance limit. The analyte was not detected in the associated samples and the sensitivity of the instrument was verified with a reporting limit check standard.

- BLANK (Lab ID: 3416318)
  - 1,2-Dichloroethane
  - Ethanol
  - tert-Butyl Formate
- MW-1 (Lab ID: 92565357001)
  - 1,2-Dichloroethane
  - Ethanol
  - tert-Butyl Formate
- MW-7 (Lab ID: 92565357006)
  - 1,2-Dichloroethane
  - Ethanol
  - tert-Butyl Formate

v3: The continuing calibration verification was below the method acceptance limit. Any detection for the analyte in the associated samples may have low bias.

- LCS (Lab ID: 3416319)
  - 1,2-Dichloroethane
  - Ethanol
  - tert-Butyl Formate
- MS (Lab ID: 3416320)
  - 1,2-Dichloroethane
  - Ethanol
  - tert-Butyl Formate
- MSD (Lab ID: 3416321)
  - 1,2-Dichloroethane
  - Ethanol
  - tert-Butyl Formate

Internal Standards:
All internal standards were within QC limits with any exceptions noted below.

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PROJECT NARRATIVE

Project: 04887/64000 WARREN GREEN
Pace Project No.: 92565357

Method: **EPA 8260D**
Description: 8260 MSV
Client: SCDHEC
Date: October 19, 2021

Surrogates:
All surrogates were within QC limits with any exceptions noted below.

Method Blank:
All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

QC Batch: 651434

A matrix spike and/or matrix spike duplicate (MS/MSD) were performed on the following sample(s): 92564962017

M1: Matrix spike recovery exceeded QC limits. Batch accepted based on laboratory control sample (LCS) recovery.

- MSD (Lab ID: 3416321)
  - Toluene
  - o-Xylene

QC Batch: 651756

A matrix spike and/or matrix spike duplicate (MS/MSD) were performed on the following sample(s): 92565663024

P5: The EPA or method required sample preservation degrades this compound, therefore acceptable recoveries may not be achieved in sample matrix spikes.

- MS (Lab ID: 3419600)
  - tert-Butyl Formate

Duplicate Sample:
All duplicate sample results were within method acceptance criteria with any exceptions noted below.

Additional Comments:

This data package has been reviewed for quality and completeness and is approved for release.

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ANALYTICAL RESULTS

Project: 04887/64000 WARREN GREEN
Pace Project No.: 92565357

Sample: MW-1 **Lab ID: 92565357001** Collected: 10/04/21 14:42 Received: 10/06/21 09:30 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
EPA 8011	Analytical Method: EPA 8011 Preparation Method: METHOD Pace Analytical Gulf Coast								
1,2-Dibromoethane (EDB)	ND	ug/L	0.020	0.00750	1	10/12/21 09:35	10/13/21 18:18	106-93-4	
8260 MSV	Analytical Method: EPA 8260D Pace Analytical Services - Charlotte								
tert-Amyl Alcohol	ND	ug/L	20000	13100	200		10/07/21 20:15	75-85-4	
tert-Amylmethyl ether	ND	ug/L	2000	608	200		10/07/21 20:15	994-05-8	
Benzene	**2830**	ug/L	1000	348	200		10/07/21 20:15	71-43-2	
3,3-Dimethyl-1-Butanol	ND	ug/L	20000	10800	200		10/07/21 20:15	624-95-3	
tert-Butyl Alcohol	ND	ug/L	20000	18200	200		10/07/21 20:15	75-65-0	
tert-Butyl Formate	ND	ug/L	10000	4820	200		10/07/21 20:15	762-75-4	v2
1,2-Dichloroethane	ND	ug/L	1000	412	200		10/07/21 20:15	107-06-2	v2
Diisopropyl ether	ND	ug/L	1000	698	200		10/07/21 20:15	108-20-3	
Ethanol	ND	ug/L	40000	28800	200		10/07/21 20:15	64-17-5	v2
Ethylbenzene	**4530**	ug/L	1000	368	200		10/07/21 20:15	100-41-4	
Ethyl-tert-butyl ether	ND	ug/L	2000	1690	200		10/07/21 20:15	637-92-3	
Methyl-tert-butyl ether	ND	ug/L	1000	620	200		10/07/21 20:15	1634-04-4	
Naphthalene	**546J**	ug/L	1000	418	200		10/07/21 20:15	91-20-3	
Toluene	**20300**	ug/L	1000	402	200		10/07/21 20:15	108-88-3	
Xylene (Total)	**22300**	ug/L	1000	1000	200		10/07/21 20:15	1330-20-7	
m&p-Xylene	**16200**	ug/L	2000	822	200		10/07/21 20:15	179601-23-1	
o-Xylene	**6100**	ug/L	1000	408	200		10/07/21 20:15	95-47-6	
Surrogates									
4-Bromofluorobenzene (S)	93	%	70-130		200		10/07/21 20:15	460-00-4	
1,2-Dichloroethane-d4 (S)	83	%	70-130		200		10/07/21 20:15	17060-07-0	
Toluene-d8 (S)	94	%	70-130		200		10/07/21 20:15	2037-26-5	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: 04887/64000 WARREN GREEN
Pace Project No.: 92565357

Sample: MW-3R **Lab ID: 92565357002** Collected: 10/04/21 14:08 Received: 10/06/21 09:30 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
EPA 8011	Analytical Method: EPA 8011 Preparation Method: METHOD Pace Analytical Gulf Coast								
1,2-Dibromoethane (EDB)	ND	ug/L	0.020	0.00750	1	10/12/21 09:35	10/13/21 18:36	106-93-4	
8260 MSV	Analytical Method: EPA 8260D Pace Analytical Services - Charlotte								
tert-Amyl Alcohol	ND	ug/L	100	65.6	1		10/07/21 18:14	75-85-4	
tert-Amylmethyl ether	ND	ug/L	10.0	3.0	1		10/07/21 18:14	994-05-8	
Benzene	ND	ug/L	5.0	1.7	1		10/07/21 18:14	71-43-2	
3,3-Dimethyl-1-Butanol	ND	ug/L	100	53.9	1		10/07/21 18:14	624-95-3	
tert-Butyl Alcohol	ND	ug/L	100	91.0	1		10/07/21 18:14	75-65-0	
tert-Butyl Formate	ND	ug/L	50.0	24.1	1		10/07/21 18:14	762-75-4	
1,2-Dichloroethane	ND	ug/L	5.0	2.1	1		10/07/21 18:14	107-06-2	
Diisopropyl ether	ND	ug/L	5.0	3.5	1		10/07/21 18:14	108-20-3	
Ethanol	ND	ug/L	200	144	1		10/07/21 18:14	64-17-5	
Ethylbenzene	ND	ug/L	5.0	1.8	1		10/07/21 18:14	100-41-4	
Ethyl-tert-butyl ether	ND	ug/L	10.0	8.5	1		10/07/21 18:14	637-92-3	
Methyl-tert-butyl ether	ND	ug/L	5.0	3.1	1		10/07/21 18:14	1634-04-4	
Naphthalene	ND	ug/L	5.0	2.1	1		10/07/21 18:14	91-20-3	
Toluene	ND	ug/L	5.0	2.0	1		10/07/21 18:14	108-88-3	
Xylene (Total)	ND	ug/L	5.0	5.0	1		10/07/21 18:14	1330-20-7	
m&p-Xylene	ND	ug/L	10.0	4.1	1		10/07/21 18:14	179601-23-1	
o-Xylene	ND	ug/L	5.0	2.0	1		10/07/21 18:14	95-47-6	
Surrogates									
4-Bromofluorobenzene (S)	98	%	70-130		1		10/07/21 18:14	460-00-4	
1,2-Dichloroethane-d4 (S)	88	%	70-130		1		10/07/21 18:14	17060-07-0	
Toluene-d8 (S)	99	%	70-130		1		10/07/21 18:14	2037-26-5	

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ANALYTICAL RESULTS

Project: 04887/64000 WARREN GREEN
Pace Project No.: 92565357

Sample: MW-4 **Lab ID: 92565357003** Collected: 10/04/21 13:43 Received: 10/06/21 09:30 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
EPA 8011	Analytical Method: EPA 8011 Preparation Method: METHOD Pace Analytical Gulf Coast								
1,2-Dibromoethane (EDB)	ND	ug/L	0.020	0.00750	1	10/12/21 09:35	10/13/21 18:53	106-93-4	
8260 MSV	Analytical Method: EPA 8260D Pace Analytical Services - Charlotte								
tert-Amyl Alcohol	ND	ug/L	100	65.6	1		10/07/21 18:32	75-85-4	
tert-Amylmethyl ether	ND	ug/L	10.0	3.0	1		10/07/21 18:32	994-05-8	
Benzene	ND	ug/L	5.0	1.7	1		10/07/21 18:32	71-43-2	
3,3-Dimethyl-1-Butanol	ND	ug/L	100	53.9	1		10/07/21 18:32	624-95-3	
tert-Butyl Alcohol	ND	ug/L	100	91.0	1		10/07/21 18:32	75-65-0	
tert-Butyl Formate	ND	ug/L	50.0	24.1	1		10/07/21 18:32	762-75-4	
1,2-Dichloroethane	ND	ug/L	5.0	2.1	1		10/07/21 18:32	107-06-2	
Diisopropyl ether	ND	ug/L	5.0	3.5	1		10/07/21 18:32	108-20-3	
Ethanol	ND	ug/L	200	144	1		10/07/21 18:32	64-17-5	
Ethylbenzene	ND	ug/L	5.0	1.8	1		10/07/21 18:32	100-41-4	
Ethyl-tert-butyl ether	ND	ug/L	10.0	8.5	1		10/07/21 18:32	637-92-3	
Methyl-tert-butyl ether	ND	ug/L	5.0	3.1	1		10/07/21 18:32	1634-04-4	
Naphthalene	ND	ug/L	5.0	2.1	1		10/07/21 18:32	91-20-3	
Toluene	ND	ug/L	5.0	2.0	1		10/07/21 18:32	108-88-3	
Xylene (Total)	ND	ug/L	5.0	5.0	1		10/07/21 18:32	1330-20-7	
m&p-Xylene	ND	ug/L	10.0	4.1	1		10/07/21 18:32	179601-23-1	
o-Xylene	ND	ug/L	5.0	2.0	1		10/07/21 18:32	95-47-6	
Surrogates									
4-Bromofluorobenzene (S)	100	%	70-130		1		10/07/21 18:32	460-00-4	
1,2-Dichloroethane-d4 (S)	88	%	70-130		1		10/07/21 18:32	17060-07-0	
Toluene-d8 (S)	100	%	70-130		1		10/07/21 18:32	2037-26-5	

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ANALYTICAL RESULTS

Project: 04887/64000 WARREN GREEN
Pace Project No.: 92565357

Sample: MW-5 **Lab ID: 92565357004** Collected: 10/04/21 13:50 Received: 10/06/21 09:30 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
EPA 8011	Analytical Method: EPA 8011 Preparation Method: METHOD Pace Analytical Gulf Coast								
1,2-Dibromoethane (EDB)	ND	ug/L	0.020	0.00750	1	10/12/21 09:35	10/13/21 19:08	106-93-4	
8260 MSV	Analytical Method: EPA 8260D Pace Analytical Services - Charlotte								
tert-Amyl Alcohol	ND	ug/L	100	65.6	1		10/07/21 18:50	75-85-4	
tert-Amylmethyl ether	ND	ug/L	10.0	3.0	1		10/07/21 18:50	994-05-8	
Benzene	ND	ug/L	5.0	1.7	1		10/07/21 18:50	71-43-2	
3,3-Dimethyl-1-Butanol	ND	ug/L	100	53.9	1		10/07/21 18:50	624-95-3	
tert-Butyl Alcohol	ND	ug/L	100	91.0	1		10/07/21 18:50	75-65-0	
tert-Butyl Formate	ND	ug/L	50.0	24.1	1		10/07/21 18:50	762-75-4	
1,2-Dichloroethane	ND	ug/L	5.0	2.1	1		10/07/21 18:50	107-06-2	
Diisopropyl ether	ND	ug/L	5.0	3.5	1		10/07/21 18:50	108-20-3	
Ethanol	ND	ug/L	200	144	1		10/07/21 18:50	64-17-5	
Ethylbenzene	ND	ug/L	5.0	1.8	1		10/07/21 18:50	100-41-4	
Ethyl-tert-butyl ether	ND	ug/L	10.0	8.5	1		10/07/21 18:50	637-92-3	
Methyl-tert-butyl ether	ND	ug/L	5.0	3.1	1		10/07/21 18:50	1634-04-4	
Naphthalene	ND	ug/L	5.0	2.1	1		10/07/21 18:50	91-20-3	
Toluene	ND	ug/L	5.0	2.0	1		10/07/21 18:50	108-88-3	
Xylene (Total)	ND	ug/L	5.0	5.0	1		10/07/21 18:50	1330-20-7	
m&p-Xylene	ND	ug/L	10.0	4.1	1		10/07/21 18:50	179601-23-1	
o-Xylene	ND	ug/L	5.0	2.0	1		10/07/21 18:50	95-47-6	
Surrogates									
4-Bromofluorobenzene (S)	99	%	70-130		1		10/07/21 18:50	460-00-4	
1,2-Dichloroethane-d4 (S)	89	%	70-130		1		10/07/21 18:50	17060-07-0	
Toluene-d8 (S)	100	%	70-130		1		10/07/21 18:50	2037-26-5	

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ANALYTICAL RESULTS

Project: 04887/64000 WARREN GREEN
Pace Project No.: 92565357

Sample: MW-6 **Lab ID: 92565357005** Collected: 10/04/21 14:16 Received: 10/06/21 09:30 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
EPA 8011	Analytical Method: EPA 8011 Preparation Method: METHOD Pace Analytical Gulf Coast								
1,2-Dibromoethane (EDB)	ND	ug/L	0.020	0.00750	1	10/12/21 09:35	10/13/21 19:23	106-93-4	
8260 MSV	Analytical Method: EPA 8260D Pace Analytical Services - Charlotte								
tert-Amyl Alcohol	ND	ug/L	100	65.6	1		10/07/21 19:08	75-85-4	
tert-Amylmethyl ether	ND	ug/L	10.0	3.0	1		10/07/21 19:08	994-05-8	
Benzene	ND	ug/L	5.0	1.7	1		10/07/21 19:08	71-43-2	
3,3-Dimethyl-1-Butanol	ND	ug/L	100	53.9	1		10/07/21 19:08	624-95-3	
tert-Butyl Alcohol	ND	ug/L	100	91.0	1		10/07/21 19:08	75-65-0	
tert-Butyl Formate	ND	ug/L	50.0	24.1	1		10/07/21 19:08	762-75-4	
1,2-Dichloroethane	ND	ug/L	5.0	2.1	1		10/07/21 19:08	107-06-2	
Diisopropyl ether	ND	ug/L	5.0	3.5	1		10/07/21 19:08	108-20-3	
Ethanol	ND	ug/L	200	144	1		10/07/21 19:08	64-17-5	
Ethylbenzene	ND	ug/L	5.0	1.8	1		10/07/21 19:08	100-41-4	
Ethyl-tert-butyl ether	ND	ug/L	10.0	8.5	1		10/07/21 19:08	637-92-3	
Methyl-tert-butyl ether	ND	ug/L	5.0	3.1	1		10/07/21 19:08	1634-04-4	
Naphthalene	ND	ug/L	5.0	2.1	1		10/07/21 19:08	91-20-3	
Toluene	ND	ug/L	5.0	2.0	1		10/07/21 19:08	108-88-3	
Xylene (Total)	ND	ug/L	5.0	5.0	1		10/07/21 19:08	1330-20-7	
m&p-Xylene	ND	ug/L	10.0	4.1	1		10/07/21 19:08	179601-23-1	
o-Xylene	ND	ug/L	5.0	2.0	1		10/07/21 19:08	95-47-6	
Surrogates									
4-Bromofluorobenzene (S)	97	%	70-130		1		10/07/21 19:08	460-00-4	
1,2-Dichloroethane-d4 (S)	88	%	70-130		1		10/07/21 19:08	17060-07-0	
Toluene-d8 (S)	100	%	70-130		1		10/07/21 19:08	2037-26-5	

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ANALYTICAL RESULTS

Project: 04887/64000 WARREN GREEN
Pace Project No.: 92565357

Sample: MW-7 **Lab ID: 92565357006** Collected: 10/04/21 10:27 Received: 10/06/21 09:30 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
EPA 8011	Analytical Method: EPA 8011 Preparation Method: METHOD								
	Pace Analytical Gulf Coast								
1,2-Dibromoethane (EDB)	**0.538**	ug/L	0.020	0.00750	1	10/12/21 09:35	10/13/21 19:37	106-93-4	
8260 MSV	Analytical Method: EPA 8260D								
	Pace Analytical Services - Charlotte								
tert-Amyl Alcohol	ND	ug/L	5000	3280	50		10/07/21 19:40	75-85-4	
tert-Amylmethyl ether	ND	ug/L	500	152	50		10/07/21 19:40	994-05-8	
Benzene	**731**	ug/L	250	87.0	50		10/07/21 19:40	71-43-2	
3,3-Dimethyl-1-Butanol	ND	ug/L	5000	2700	50		10/07/21 19:40	624-95-3	
tert-Butyl Alcohol	ND	ug/L	5000	4550	50		10/07/21 19:40	75-65-0	
tert-Butyl Formate	ND	ug/L	2500	1200	50		10/07/21 19:40	762-75-4	v2
1,2-Dichloroethane	ND	ug/L	250	103	50		10/07/21 19:40	107-06-2	v2
Diisopropyl ether	ND	ug/L	250	174	50		10/07/21 19:40	108-20-3	
Ethanol	ND	ug/L	10000	7200	50		10/07/21 19:40	64-17-5	v2
Ethylbenzene	**3080**	ug/L	250	92.0	50		10/07/21 19:40	100-41-4	
Ethyl-tert-butyl ether	ND	ug/L	500	423	50		10/07/21 19:40	637-92-3	
Methyl-tert-butyl ether	ND	ug/L	250	155	50		10/07/21 19:40	1634-04-4	
Naphthalene	**629**	ug/L	250	104	50		10/07/21 19:40	91-20-3	
Toluene	**4900**	ug/L	250	100	50		10/07/21 19:40	108-88-3	
Xylene (Total)	**18600**	ug/L	250	250	50		10/07/21 19:40	1330-20-7	
m&p-Xylene	**12500**	ug/L	500	206	50		10/07/21 19:40	179601-23-1	
o-Xylene	**6060**	ug/L	250	102	50		10/07/21 19:40	95-47-6	
Surrogates									
4-Bromofluorobenzene (S)	91	%	70-130		50		10/07/21 19:40	460-00-4	
1,2-Dichloroethane-d4 (S)	83	%	70-130		50		10/07/21 19:40	17060-07-0	
Toluene-d8 (S)	94	%	70-130		50		10/07/21 19:40	2037-26-5	

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ANALYTICAL RESULTS

Project: 04887/64000 WARREN GREEN

Pace Project No.: 92565357

Sample: MW-8 **Lab ID: 92565357007** Collected: 10/04/21 14:33 Received: 10/06/21 09:30 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
EPA 8011	Analytical Method: EPA 8011 Preparation Method: METHOD Pace Analytical Gulf Coast								
1,2-Dibromoethane (EDB)	**0.033**	ug/L	0.020	0.00750	1	10/12/21 09:35	10/13/21 19:54	106-93-4	
8260 MSV	Analytical Method: EPA 8260D Pace Analytical Services - Charlotte								
tert-Amyl Alcohol	**469J**	ug/L	500	328	5		10/08/21 23:33	75-85-4	
tert-Amylmethyl ether	ND	ug/L	50.0	15.2	5		10/08/21 23:33	994-05-8	
Benzene	**764**	ug/L	25.0	8.7	5		10/08/21 23:33	71-43-2	
3,3-Dimethyl-1-Butanol	ND	ug/L	500	270	5		10/08/21 23:33	624-95-3	
tert-Butyl Alcohol	ND	ug/L	500	455	5		10/08/21 23:33	75-65-0	
tert-Butyl Formate	ND	ug/L	250	120	5		10/08/21 23:33	762-75-4	
1,2-Dichloroethane	ND	ug/L	25.0	10.3	5		10/08/21 23:33	107-06-2	
Diisopropyl ether	ND	ug/L	25.0	17.4	5		10/08/21 23:33	108-20-3	
Ethanol	ND	ug/L	1000	720	5		10/08/21 23:33	64-17-5	
Ethylbenzene	**388**	ug/L	25.0	9.2	5		10/08/21 23:33	100-41-4	
Ethyl-tert-butyl ether	ND	ug/L	50.0	42.3	5		10/08/21 23:33	637-92-3	
Methyl-tert-butyl ether	ND	ug/L	25.0	15.5	5		10/08/21 23:33	1634-04-4	
Naphthalene	**114**	ug/L	25.0	10.4	5		10/08/21 23:33	91-20-3	
Toluene	**360**	ug/L	25.0	10.0	5		10/08/21 23:33	108-88-3	
Xylene (Total)	**1550**	ug/L	25.0	25.0	5		10/08/21 23:33	1330-20-7	
m&p-Xylene	**1030**	ug/L	50.0	20.6	5		10/08/21 23:33	179601-23-1	
o-Xylene	**520**	ug/L	25.0	10.2	5		10/08/21 23:33	95-47-6	
Surrogates									
4-Bromofluorobenzene (S)	100	%	70-130		5		10/08/21 23:33	460-00-4	
1,2-Dichloroethane-d4 (S)	107	%	70-130		5		10/08/21 23:33	17060-07-0	
Toluene-d8 (S)	103	%	70-130		5		10/08/21 23:33	2037-26-5	

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ANALYTICAL RESULTS

Project: 04887/64000 WARREN GREEN
Pace Project No.: 92565357

Sample: MW-9 **Lab ID: 92565357008** Collected: 10/04/21 11:45 Received: 10/06/21 09:30 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
EPA 8011	Analytical Method: EPA 8011 Preparation Method: METHOD Pace Analytical Gulf Coast								
1,2-Dibromoethane (EDB)	ND	ug/L	0.020	0.00750	1	10/12/21 09:35	10/13/21 20:24	106-93-4	
8260 MSV	Analytical Method: EPA 8260D Pace Analytical Services - Charlotte								
tert-Amyl Alcohol	ND	ug/L	100	65.6	1		10/11/21 21:54	75-85-4	
tert-Amylmethyl ether	ND	ug/L	10.0	3.0	1		10/11/21 21:54	994-05-8	
Benzene	ND	ug/L	5.0	1.7	1		10/11/21 21:54	71-43-2	
3,3-Dimethyl-1-Butanol	ND	ug/L	100	53.9	1		10/11/21 21:54	624-95-3	
tert-Butyl Alcohol	ND	ug/L	100	91.0	1		10/11/21 21:54	75-65-0	
tert-Butyl Formate	ND	ug/L	50.0	24.1	1		10/11/21 21:54	762-75-4	
1,2-Dichloroethane	ND	ug/L	5.0	2.1	1		10/11/21 21:54	107-06-2	
Diisopropyl ether	ND	ug/L	5.0	3.5	1		10/11/21 21:54	108-20-3	
Ethanol	ND	ug/L	200	144	1		10/11/21 21:54	64-17-5	
Ethylbenzene	ND	ug/L	5.0	1.8	1		10/11/21 21:54	100-41-4	
Ethyl-tert-butyl ether	ND	ug/L	10.0	8.5	1		10/11/21 21:54	637-92-3	
Methyl-tert-butyl ether	ND	ug/L	5.0	3.1	1		10/11/21 21:54	1634-04-4	
Naphthalene	ND	ug/L	5.0	2.1	1		10/11/21 21:54	91-20-3	
Toluene	ND	ug/L	5.0	2.0	1		10/11/21 21:54	108-88-3	
Xylene (Total)	ND	ug/L	5.0	5.0	1		10/11/21 21:54	1330-20-7	
m&p-Xylene	ND	ug/L	10.0	4.1	1		10/11/21 21:54	179601-23-1	
o-Xylene	ND	ug/L	5.0	2.0	1		10/11/21 21:54	95-47-6	
Surrogates									
4-Bromofluorobenzene (S)	100	%	70-130		1		10/11/21 21:54	460-00-4	
1,2-Dichloroethane-d4 (S)	107	%	70-130		1		10/11/21 21:54	17060-07-0	
Toluene-d8 (S)	101	%	70-130		1		10/11/21 21:54	2037-26-5	

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ANALYTICAL RESULTS

Project: 04887/64000 WARREN GREEN
Pace Project No.: 92565357

Sample: MW-10 **Lab ID: 92565357009** Collected: 10/04/21 10:55 Received: 10/06/21 09:30 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
EPA 8011	Analytical Method: EPA 8011 Preparation Method: METHOD								
	Pace Analytical Gulf Coast								
1,2-Dibromoethane (EDB)	ND	ug/L	0.020	0.00750	1	10/12/21 09:35	10/13/21 20:37	106-93-4	
8260 MSV	Analytical Method: EPA 8260D								
	Pace Analytical Services - Charlotte								
tert-Amyl Alcohol	ND	ug/L	100	65.6	1		10/07/21 20:39	75-85-4	
tert-Amylmethyl ether	ND	ug/L	10.0	3.0	1		10/07/21 20:39	994-05-8	
Benzene	ND	ug/L	5.0	1.7	1		10/07/21 20:39	71-43-2	
3,3-Dimethyl-1-Butanol	ND	ug/L	100	53.9	1		10/07/21 20:39	624-95-3	
tert-Butyl Alcohol	ND	ug/L	100	91.0	1		10/07/21 20:39	75-65-0	
tert-Butyl Formate	ND	ug/L	50.0	24.1	1		10/07/21 20:39	762-75-4	
1,2-Dichloroethane	ND	ug/L	5.0	2.1	1		10/07/21 20:39	107-06-2	
Diisopropyl ether	ND	ug/L	5.0	3.5	1		10/07/21 20:39	108-20-3	
Ethanol	ND	ug/L	200	144	1		10/07/21 20:39	64-17-5	
Ethylbenzene	ND	ug/L	5.0	1.8	1		10/07/21 20:39	100-41-4	
Ethyl-tert-butyl ether	ND	ug/L	10.0	8.5	1		10/07/21 20:39	637-92-3	
Methyl-tert-butyl ether	ND	ug/L	5.0	3.1	1		10/07/21 20:39	1634-04-4	
Naphthalene	ND	ug/L	5.0	2.1	1		10/07/21 20:39	91-20-3	
Toluene	ND	ug/L	5.0	2.0	1		10/07/21 20:39	108-88-3	
Xylene (Total)	ND	ug/L	5.0	5.0	1		10/07/21 20:39	1330-20-7	
m&p-Xylene	ND	ug/L	10.0	4.1	1		10/07/21 20:39	179601-23-1	
o-Xylene	ND	ug/L	5.0	2.0	1		10/07/21 20:39	95-47-6	
Surrogates									
4-Bromofluorobenzene (S)	99	%	70-130		1		10/07/21 20:39	460-00-4	
1,2-Dichloroethane-d4 (S)	91	%	70-130		1		10/07/21 20:39	17060-07-0	
Toluene-d8 (S)	101	%	70-130		1		10/07/21 20:39	2037-26-5	

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ANALYTICAL RESULTS

Project: 04887/64000 WARREN GREEN
Pace Project No.: 92565357

Sample: MW-11 **Lab ID: 92565357010** Collected: 10/04/21 11:22 Received: 10/06/21 09:30 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
EPA 8011	Analytical Method: EPA 8011 Preparation Method: METHOD								
	Pace Analytical Gulf Coast								
1,2-Dibromoethane (EDB)	ND	ug/L	0.020	0.00750	1	10/12/21 09:35	10/13/21 20:54	106-93-4	
8260 MSV	Analytical Method: EPA 8260D								
	Pace Analytical Services - Charlotte								
tert-Amyl Alcohol	ND	ug/L	100	65.6	1		10/07/21 20:57	75-85-4	
tert-Amylmethyl ether	ND	ug/L	10.0	3.0	1		10/07/21 20:57	994-05-8	
Benzene	ND	ug/L	5.0	1.7	1		10/07/21 20:57	71-43-2	
3,3-Dimethyl-1-Butanol	ND	ug/L	100	53.9	1		10/07/21 20:57	624-95-3	
tert-Butyl Alcohol	ND	ug/L	100	91.0	1		10/07/21 20:57	75-65-0	
tert-Butyl Formate	ND	ug/L	50.0	24.1	1		10/07/21 20:57	762-75-4	
1,2-Dichloroethane	ND	ug/L	5.0	2.1	1		10/07/21 20:57	107-06-2	
Diisopropyl ether	ND	ug/L	5.0	3.5	1		10/07/21 20:57	108-20-3	
Ethanol	ND	ug/L	200	144	1		10/07/21 20:57	64-17-5	
Ethylbenzene	ND	ug/L	5.0	1.8	1		10/07/21 20:57	100-41-4	
Ethyl-tert-butyl ether	ND	ug/L	10.0	8.5	1		10/07/21 20:57	637-92-3	
Methyl-tert-butyl ether	ND	ug/L	5.0	3.1	1		10/07/21 20:57	1634-04-4	
Naphthalene	ND	ug/L	5.0	2.1	1		10/07/21 20:57	91-20-3	
Toluene	ND	ug/L	5.0	2.0	1		10/07/21 20:57	108-88-3	
Xylene (Total)	ND	ug/L	5.0	5.0	1		10/07/21 20:57	1330-20-7	
m&p-Xylene	ND	ug/L	10.0	4.1	1		10/07/21 20:57	179601-23-1	
o-Xylene	ND	ug/L	5.0	2.0	1		10/07/21 20:57	95-47-6	
Surrogates									
4-Bromofluorobenzene (S)	97	%	70-130		1		10/07/21 20:57	460-00-4	
1,2-Dichloroethane-d4 (S)	89	%	70-130		1		10/07/21 20:57	17060-07-0	
Toluene-d8 (S)	99	%	70-130		1		10/07/21 20:57	2037-26-5	

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ANALYTICAL RESULTS

Project: 04887/64000 WARREN GREEN
Pace Project No.: 92565357

Sample: MW-13 **Lab ID: 92565357011** Collected: 10/04/21 11:59 Received: 10/06/21 09:30 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
EPA 8011	Analytical Method: EPA 8011 Preparation Method: METHOD								
	Pace Analytical Gulf Coast								
1,2-Dibromoethane (EDB)	ND	ug/L	0.020	0.00750	1	10/12/21 09:35	10/13/21 21:09	106-93-4	
8260 MSV	Analytical Method: EPA 8260D								
	Pace Analytical Services - Charlotte								
tert-Amyl Alcohol	ND	ug/L	100	65.6	1		10/07/21 21:15	75-85-4	
tert-Amylmethyl ether	ND	ug/L	10.0	3.0	1		10/07/21 21:15	994-05-8	
Benzene	ND	ug/L	5.0	1.7	1		10/07/21 21:15	71-43-2	
3,3-Dimethyl-1-Butanol	ND	ug/L	100	53.9	1		10/07/21 21:15	624-95-3	
tert-Butyl Alcohol	ND	ug/L	100	91.0	1		10/07/21 21:15	75-65-0	
tert-Butyl Formate	ND	ug/L	50.0	24.1	1		10/07/21 21:15	762-75-4	
1,2-Dichloroethane	ND	ug/L	5.0	2.1	1		10/07/21 21:15	107-06-2	
Diisopropyl ether	ND	ug/L	5.0	3.5	1		10/07/21 21:15	108-20-3	
Ethanol	ND	ug/L	200	144	1		10/07/21 21:15	64-17-5	
Ethylbenzene	ND	ug/L	5.0	1.8	1		10/07/21 21:15	100-41-4	
Ethyl-tert-butyl ether	ND	ug/L	10.0	8.5	1		10/07/21 21:15	637-92-3	
Methyl-tert-butyl ether	ND	ug/L	5.0	3.1	1		10/07/21 21:15	1634-04-4	
Naphthalene	ND	ug/L	5.0	2.1	1		10/07/21 21:15	91-20-3	
Toluene	ND	ug/L	5.0	2.0	1		10/07/21 21:15	108-88-3	
Xylene (Total)	ND	ug/L	5.0	5.0	1		10/07/21 21:15	1330-20-7	
m&p-Xylene	ND	ug/L	10.0	4.1	1		10/07/21 21:15	179601-23-1	
o-Xylene	ND	ug/L	5.0	2.0	1		10/07/21 21:15	95-47-6	
Surrogates									
4-Bromofluorobenzene (S)	99	%	70-130		1		10/07/21 21:15	460-00-4	
1,2-Dichloroethane-d4 (S)	90	%	70-130		1		10/07/21 21:15	17060-07-0	
Toluene-d8 (S)	99	%	70-130		1		10/07/21 21:15	2037-26-5	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: 04887/64000 WARREN GREEN

Pace Project No.: 92565357

Sample: MW-14 **Lab ID: 92565357012** Collected: 10/04/21 11:36 Received: 10/06/21 09:30 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
EPA 8011	Analytical Method: EPA 8011 Preparation Method: METHOD								
	Pace Analytical Gulf Coast								
1,2-Dibromoethane (EDB)	ND	ug/L	0.020	0.00750	1	10/12/21 09:35	10/13/21 21:23	106-93-4	
8260 MSV	Analytical Method: EPA 8260D								
	Pace Analytical Services - Charlotte								
tert-Amyl Alcohol	ND	ug/L	100	65.6	1		10/07/21 23:04	75-85-4	
tert-Amylmethyl ether	ND	ug/L	10.0	3.0	1		10/07/21 23:04	994-05-8	
Benzene	ND	ug/L	5.0	1.7	1		10/07/21 23:04	71-43-2	
3,3-Dimethyl-1-Butanol	ND	ug/L	100	53.9	1		10/07/21 23:04	624-95-3	
tert-Butyl Alcohol	ND	ug/L	100	91.0	1		10/07/21 23:04	75-65-0	
tert-Butyl Formate	ND	ug/L	50.0	24.1	1		10/07/21 23:04	762-75-4	
1,2-Dichloroethane	ND	ug/L	5.0	2.1	1		10/07/21 23:04	107-06-2	
Diisopropyl ether	ND	ug/L	5.0	3.5	1		10/07/21 23:04	108-20-3	
Ethanol	ND	ug/L	200	144	1		10/07/21 23:04	64-17-5	
Ethylbenzene	ND	ug/L	5.0	1.8	1		10/07/21 23:04	100-41-4	
Ethyl-tert-butyl ether	ND	ug/L	10.0	8.5	1		10/07/21 23:04	637-92-3	
Methyl-tert-butyl ether	ND	ug/L	5.0	3.1	1		10/07/21 23:04	1634-04-4	
Naphthalene	ND	ug/L	5.0	2.1	1		10/07/21 23:04	91-20-3	
Toluene	ND	ug/L	5.0	2.0	1		10/07/21 23:04	108-88-3	
Xylene (Total)	ND	ug/L	5.0	5.0	1		10/07/21 23:04	1330-20-7	
m&p-Xylene	ND	ug/L	10.0	4.1	1		10/07/21 23:04	179601-23-1	
o-Xylene	ND	ug/L	5.0	2.0	1		10/07/21 23:04	95-47-6	
Surrogates									
4-Bromofluorobenzene (S)	99	%	70-130		1		10/07/21 23:04	460-00-4	
1,2-Dichloroethane-d4 (S)	90	%	70-130		1		10/07/21 23:04	17060-07-0	
Toluene-d8 (S)	100	%	70-130		1		10/07/21 23:04	2037-26-5	

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ANALYTICAL RESULTS

Project: 04887/64000 WARREN GREEN
Pace Project No.: 92565357

Sample: MW-15 **Lab ID: 92565357013** Collected: 10/04/21 12:10 Received: 10/06/21 09:30 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
EPA 8011	Analytical Method: EPA 8011 Preparation Method: METHOD Pace Analytical Gulf Coast								
1,2-Dibromoethane (EDB)	ND	ug/L	0.020	0.00750	1	10/12/21 09:35	10/13/21 21:37	106-93-4	
8260 MSV	Analytical Method: EPA 8260D Pace Analytical Services - Charlotte								
tert-Amyl Alcohol	ND	ug/L	100	65.6	1		10/07/21 20:03	75-85-4	
tert-Amylmethyl ether	ND	ug/L	10.0	3.0	1		10/07/21 20:03	994-05-8	
Benzene	ND	ug/L	5.0	1.7	1		10/07/21 20:03	71-43-2	
3,3-Dimethyl-1-Butanol	ND	ug/L	100	53.9	1		10/07/21 20:03	624-95-3	
tert-Butyl Alcohol	ND	ug/L	100	91.0	1		10/07/21 20:03	75-65-0	
tert-Butyl Formate	ND	ug/L	50.0	24.1	1		10/07/21 20:03	762-75-4	
1,2-Dichloroethane	ND	ug/L	5.0	2.1	1		10/07/21 20:03	107-06-2	
Diisopropyl ether	ND	ug/L	5.0	3.5	1		10/07/21 20:03	108-20-3	
Ethanol	ND	ug/L	200	144	1		10/07/21 20:03	64-17-5	
Ethylbenzene	ND	ug/L	5.0	1.8	1		10/07/21 20:03	100-41-4	
Ethyl-tert-butyl ether	ND	ug/L	10.0	8.5	1		10/07/21 20:03	637-92-3	
Methyl-tert-butyl ether	ND	ug/L	5.0	3.1	1		10/07/21 20:03	1634-04-4	
Naphthalene	ND	ug/L	5.0	2.1	1		10/07/21 20:03	91-20-3	
Toluene	ND	ug/L	5.0	2.0	1		10/07/21 20:03	108-88-3	
Xylene (Total)	ND	ug/L	5.0	5.0	1		10/07/21 20:03	1330-20-7	
m&p-Xylene	ND	ug/L	10.0	4.1	1		10/07/21 20:03	179601-23-1	
o-Xylene	ND	ug/L	5.0	2.0	1		10/07/21 20:03	95-47-6	
Surrogates									
4-Bromofluorobenzene (S)	97	%	70-130		1		10/07/21 20:03	460-00-4	
1,2-Dichloroethane-d4 (S)	90	%	70-130		1		10/07/21 20:03	17060-07-0	
Toluene-d8 (S)	100	%	70-130		1		10/07/21 20:03	2037-26-5	

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ANALYTICAL RESULTS

Project: 04887/64000 WARREN GREEN
Pace Project No.: 92565357

Sample: DW-1 **Lab ID: 92565357014** Collected: 10/04/21 15:21 Received: 10/06/21 09:30 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
EPA 8011	Analytical Method: EPA 8011 Preparation Method: METHOD Pace Analytical Gulf Coast								
1,2-Dibromoethane (EDB)	ND	ug/L	0.020	0.00750	1	10/12/21 09:35	10/13/21 21:53	106-93-4	
8260 MSV	Analytical Method: EPA 8260D Pace Analytical Services - Charlotte								
tert-Amyl Alcohol	ND	ug/L	100	65.6	1		10/07/21 20:21	75-85-4	
tert-Amylmethyl ether	ND	ug/L	10.0	3.0	1		10/07/21 20:21	994-05-8	
Benzene	ND	ug/L	5.0	1.7	1		10/07/21 20:21	71-43-2	
3,3-Dimethyl-1-Butanol	ND	ug/L	100	53.9	1		10/07/21 20:21	624-95-3	
tert-Butyl Alcohol	ND	ug/L	100	91.0	1		10/07/21 20:21	75-65-0	
tert-Butyl Formate	ND	ug/L	50.0	24.1	1		10/07/21 20:21	762-75-4	
1,2-Dichloroethane	ND	ug/L	5.0	2.1	1		10/07/21 20:21	107-06-2	
Diisopropyl ether	ND	ug/L	5.0	3.5	1		10/07/21 20:21	108-20-3	
Ethanol	ND	ug/L	200	144	1		10/07/21 20:21	64-17-5	
Ethylbenzene	ND	ug/L	5.0	1.8	1		10/07/21 20:21	100-41-4	
Ethyl-tert-butyl ether	ND	ug/L	10.0	8.5	1		10/07/21 20:21	637-92-3	
Methyl-tert-butyl ether	ND	ug/L	5.0	3.1	1		10/07/21 20:21	1634-04-4	
Naphthalene	ND	ug/L	5.0	2.1	1		10/07/21 20:21	91-20-3	
Toluene	ND	ug/L	5.0	2.0	1		10/07/21 20:21	108-88-3	
Xylene (Total)	ND	ug/L	5.0	5.0	1		10/07/21 20:21	1330-20-7	
m&p-Xylene	ND	ug/L	10.0	4.1	1		10/07/21 20:21	179601-23-1	
o-Xylene	ND	ug/L	5.0	2.0	1		10/07/21 20:21	95-47-6	
Surrogates									
4-Bromofluorobenzene (S)	97	%	70-130		1		10/07/21 20:21	460-00-4	
1,2-Dichloroethane-d4 (S)	90	%	70-130		1		10/07/21 20:21	17060-07-0	
Toluene-d8 (S)	101	%	70-130		1		10/07/21 20:21	2037-26-5	

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ANALYTICAL RESULTS

Project: 04887/64000 WARREN GREEN
Pace Project No.: 92565357

Sample: DW-2 **Lab ID: 92565357015** Collected: 10/04/21 15:39 Received: 10/06/21 09:30 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
EPA 8011	Analytical Method: EPA 8011 Preparation Method: METHOD Pace Analytical Gulf Coast								
1,2-Dibromoethane (EDB)	ND	ug/L	0.020	0.00750	1	10/12/21 09:35	10/13/21 22:08	106-93-4	
8260 MSV	Analytical Method: EPA 8260D Pace Analytical Services - Charlotte								
tert-Amyl Alcohol	ND	ug/L	100	65.6	1		10/07/21 19:26	75-85-4	
tert-Amylmethyl ether	ND	ug/L	10.0	3.0	1		10/07/21 19:26	994-05-8	
Benzene	ND	ug/L	5.0	1.7	1		10/07/21 19:26	71-43-2	
3,3-Dimethyl-1-Butanol	ND	ug/L	100	53.9	1		10/07/21 19:26	624-95-3	
tert-Butyl Alcohol	ND	ug/L	100	91.0	1		10/07/21 19:26	75-65-0	
tert-Butyl Formate	ND	ug/L	50.0	24.1	1		10/07/21 19:26	762-75-4	
1,2-Dichloroethane	ND	ug/L	5.0	2.1	1		10/07/21 19:26	107-06-2	
Diisopropyl ether	ND	ug/L	5.0	3.5	1		10/07/21 19:26	108-20-3	
Ethanol	ND	ug/L	200	144	1		10/07/21 19:26	64-17-5	
Ethylbenzene	ND	ug/L	5.0	1.8	1		10/07/21 19:26	100-41-4	
Ethyl-tert-butyl ether	ND	ug/L	10.0	8.5	1		10/07/21 19:26	637-92-3	
Methyl-tert-butyl ether	ND	ug/L	5.0	3.1	1		10/07/21 19:26	1634-04-4	
Naphthalene	ND	ug/L	5.0	2.1	1		10/07/21 19:26	91-20-3	
Toluene	ND	ug/L	5.0	2.0	1		10/07/21 19:26	108-88-3	
Xylene (Total)	ND	ug/L	5.0	5.0	1		10/07/21 19:26	1330-20-7	
m&p-Xylene	ND	ug/L	10.0	4.1	1		10/07/21 19:26	179601-23-1	
o-Xylene	ND	ug/L	5.0	2.0	1		10/07/21 19:26	95-47-6	
Surrogates									
4-Bromofluorobenzene (S)	99	%	70-130		1		10/07/21 19:26	460-00-4	
1,2-Dichloroethane-d4 (S)	87	%	70-130		1		10/07/21 19:26	17060-07-0	
Toluene-d8 (S)	100	%	70-130		1		10/07/21 19:26	2037-26-5	

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ANALYTICAL RESULTS

Project: 04887/64000 WARREN GREEN
Pace Project No.: 92565357

Sample: DW-3 **Lab ID: 92565357016** Collected: 10/04/21 15:38 Received: 10/06/21 09:30 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
EPA 8011	Analytical Method: EPA 8011 Preparation Method: METHOD								
	Pace Analytical Gulf Coast								
1,2-Dibromoethane (EDB)	ND	ug/L	0.020	0.00750	1	10/12/21 09:35	10/13/21 22:23	106-93-4	
8260 MSV	Analytical Method: EPA 8260D								
	Pace Analytical Services - Charlotte								
tert-Amyl Alcohol	ND	ug/L	100	65.6	1		10/07/21 19:45	75-85-4	
tert-Amylmethyl ether	ND	ug/L	10.0	3.0	1		10/07/21 19:45	994-05-8	
Benzene	ND	ug/L	5.0	1.7	1		10/07/21 19:45	71-43-2	
3,3-Dimethyl-1-Butanol	ND	ug/L	100	53.9	1		10/07/21 19:45	624-95-3	
tert-Butyl Alcohol	ND	ug/L	100	91.0	1		10/07/21 19:45	75-65-0	
tert-Butyl Formate	ND	ug/L	50.0	24.1	1		10/07/21 19:45	762-75-4	
1,2-Dichloroethane	ND	ug/L	5.0	2.1	1		10/07/21 19:45	107-06-2	
Diisopropyl ether	ND	ug/L	5.0	3.5	1		10/07/21 19:45	108-20-3	
Ethanol	ND	ug/L	200	144	1		10/07/21 19:45	64-17-5	
Ethylbenzene	ND	ug/L	5.0	1.8	1		10/07/21 19:45	100-41-4	
Ethyl-tert-butyl ether	ND	ug/L	10.0	8.5	1		10/07/21 19:45	637-92-3	
Methyl-tert-butyl ether	ND	ug/L	5.0	3.1	1		10/07/21 19:45	1634-04-4	
Naphthalene	ND	ug/L	5.0	2.1	1		10/07/21 19:45	91-20-3	
Toluene	ND	ug/L	5.0	2.0	1		10/07/21 19:45	108-88-3	
Xylene (Total)	ND	ug/L	5.0	5.0	1		10/07/21 19:45	1330-20-7	
m&p-Xylene	ND	ug/L	10.0	4.1	1		10/07/21 19:45	179601-23-1	
o-Xylene	ND	ug/L	5.0	2.0	1		10/07/21 19:45	95-47-6	
Surrogates									
4-Bromofluorobenzene (S)	97	%	70-130		1		10/07/21 19:45	460-00-4	
1,2-Dichloroethane-d4 (S)	87	%	70-130		1		10/07/21 19:45	17060-07-0	
Toluene-d8 (S)	99	%	70-130		1		10/07/21 19:45	2037-26-5	

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ANALYTICAL RESULTS

Project: 04887/64000 WARREN GREEN
Pace Project No.: 92565357

Sample: DW-4 **Lab ID: 92565357017** Collected: 10/04/21 15:31 Received: 10/06/21 09:30 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
EPA 8011	Analytical Method: EPA 8011 Preparation Method: METHOD								
	Pace Analytical Gulf Coast								
1,2-Dibromoethane (EDB)	ND	ug/L	0.020	0.00750	1	10/12/21 09:35	10/13/21 22:36	106-93-4	
8260 MSV	Analytical Method: EPA 8260D								
	Pace Analytical Services - Charlotte								
tert-Amyl Alcohol	ND	ug/L	100	65.6	1		10/08/21 08:29	75-85-4	
tert-Amylmethyl ether	ND	ug/L	10.0	3.0	1		10/08/21 08:29	994-05-8	
Benzene	ND	ug/L	5.0	1.7	1		10/08/21 08:29	71-43-2	
3,3-Dimethyl-1-Butanol	ND	ug/L	100	53.9	1		10/08/21 08:29	624-95-3	
tert-Butyl Alcohol	ND	ug/L	100	91.0	1		10/08/21 08:29	75-65-0	
tert-Butyl Formate	ND	ug/L	50.0	24.1	1		10/08/21 08:29	762-75-4	
1,2-Dichloroethane	ND	ug/L	5.0	2.1	1		10/08/21 08:29	107-06-2	
Diisopropyl ether	ND	ug/L	5.0	3.5	1		10/08/21 08:29	108-20-3	
Ethanol	ND	ug/L	200	144	1		10/08/21 08:29	64-17-5	
Ethylbenzene	ND	ug/L	5.0	1.8	1		10/08/21 08:29	100-41-4	
Ethyl-tert-butyl ether	ND	ug/L	10.0	8.5	1		10/08/21 08:29	637-92-3	
Methyl-tert-butyl ether	ND	ug/L	5.0	3.1	1		10/08/21 08:29	1634-04-4	
Naphthalene	ND	ug/L	5.0	2.1	1		10/08/21 08:29	91-20-3	
Toluene	ND	ug/L	5.0	2.0	1		10/08/21 08:29	108-88-3	
Xylene (Total)	ND	ug/L	5.0	5.0	1		10/08/21 08:29	1330-20-7	
m&p-Xylene	ND	ug/L	10.0	4.1	1		10/08/21 08:29	179601-23-1	
o-Xylene	ND	ug/L	5.0	2.0	1		10/08/21 08:29	95-47-6	
Surrogates									
4-Bromofluorobenzene (S)	92	%	70-130		1		10/08/21 08:29	460-00-4	
1,2-Dichloroethane-d4 (S)	84	%	70-130		1		10/08/21 08:29	17060-07-0	
Toluene-d8 (S)	95	%	70-130		1		10/08/21 08:29	2037-26-5	

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ANALYTICAL RESULTS

Project: 04887/64000 WARREN GREEN
Pace Project No.: 92565357

Sample: DW-5 **Lab ID: 92565357018** Collected: 10/04/21 15:22 Received: 10/06/21 09:30 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
EPA 8011	Analytical Method: EPA 8011 Preparation Method: METHOD Pace Analytical Gulf Coast								
1,2-Dibromoethane (EDB)	ND	ug/L	0.020	0.00750	1	10/12/21 09:35	10/13/21 23:07	106-93-4	
8260 MSV	Analytical Method: EPA 8260D Pace Analytical Services - Charlotte								
tert-Amyl Alcohol	ND	ug/L	100	65.6	1		10/08/21 08:47	75-85-4	
tert-Amylmethyl ether	ND	ug/L	10.0	3.0	1		10/08/21 08:47	994-05-8	
Benzene	ND	ug/L	5.0	1.7	1		10/08/21 08:47	71-43-2	
3,3-Dimethyl-1-Butanol	ND	ug/L	100	53.9	1		10/08/21 08:47	624-95-3	
tert-Butyl Alcohol	ND	ug/L	100	91.0	1		10/08/21 08:47	75-65-0	
tert-Butyl Formate	ND	ug/L	50.0	24.1	1		10/08/21 08:47	762-75-4	
1,2-Dichloroethane	ND	ug/L	5.0	2.1	1		10/08/21 08:47	107-06-2	
Diisopropyl ether	ND	ug/L	5.0	3.5	1		10/08/21 08:47	108-20-3	
Ethanol	ND	ug/L	200	144	1		10/08/21 08:47	64-17-5	
Ethylbenzene	ND	ug/L	5.0	1.8	1		10/08/21 08:47	100-41-4	
Ethyl-tert-butyl ether	ND	ug/L	10.0	8.5	1		10/08/21 08:47	637-92-3	
Methyl-tert-butyl ether	ND	ug/L	5.0	3.1	1		10/08/21 08:47	1634-04-4	
Naphthalene	ND	ug/L	5.0	2.1	1		10/08/21 08:47	91-20-3	
Toluene	ND	ug/L	5.0	2.0	1		10/08/21 08:47	108-88-3	
Xylene (Total)	ND	ug/L	5.0	5.0	1		10/08/21 08:47	1330-20-7	
m&p-Xylene	ND	ug/L	10.0	4.1	1		10/08/21 08:47	179601-23-1	
o-Xylene	ND	ug/L	5.0	2.0	1		10/08/21 08:47	95-47-6	
Surrogates									
4-Bromofluorobenzene (S)	93	%	70-130		1		10/08/21 08:47	460-00-4	
1,2-Dichloroethane-d4 (S)	83	%	70-130		1		10/08/21 08:47	17060-07-0	
Toluene-d8 (S)	95	%	70-130		1		10/08/21 08:47	2037-26-5	

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ANALYTICAL RESULTS

Project: 04887/64000 WARREN GREEN
Pace Project No.: 92565357

Sample: DW-6 **Lab ID: 92565357019** Collected: 10/04/21 15:41 Received: 10/06/21 09:30 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
EPA 8011	Analytical Method: EPA 8011 Preparation Method: METHOD Pace Analytical Gulf Coast								
1,2-Dibromoethane (EDB)	ND	ug/L	0.020	0.00750	1	10/12/21 09:35	10/13/21 23:18	106-93-4	
8260 MSV	Analytical Method: EPA 8260D Pace Analytical Services - Charlotte								
tert-Amyl Alcohol	ND	ug/L	100	65.6	1		10/08/21 09:05	75-85-4	
tert-Amylmethyl ether	ND	ug/L	10.0	3.0	1		10/08/21 09:05	994-05-8	
Benzene	ND	ug/L	5.0	1.7	1		10/08/21 09:05	71-43-2	
3,3-Dimethyl-1-Butanol	ND	ug/L	100	53.9	1		10/08/21 09:05	624-95-3	
tert-Butyl Alcohol	ND	ug/L	100	91.0	1		10/08/21 09:05	75-65-0	
tert-Butyl Formate	ND	ug/L	50.0	24.1	1		10/08/21 09:05	762-75-4	
1,2-Dichloroethane	ND	ug/L	5.0	2.1	1		10/08/21 09:05	107-06-2	
Diisopropyl ether	ND	ug/L	5.0	3.5	1		10/08/21 09:05	108-20-3	
Ethanol	ND	ug/L	200	144	1		10/08/21 09:05	64-17-5	
Ethylbenzene	ND	ug/L	5.0	1.8	1		10/08/21 09:05	100-41-4	
Ethyl-tert-butyl ether	ND	ug/L	10.0	8.5	1		10/08/21 09:05	637-92-3	
Methyl-tert-butyl ether	ND	ug/L	5.0	3.1	1		10/08/21 09:05	1634-04-4	
Naphthalene	ND	ug/L	5.0	2.1	1		10/08/21 09:05	91-20-3	
Toluene	ND	ug/L	5.0	2.0	1		10/08/21 09:05	108-88-3	
Xylene (Total)	ND	ug/L	5.0	5.0	1		10/08/21 09:05	1330-20-7	
m&p-Xylene	ND	ug/L	10.0	4.1	1		10/08/21 09:05	179601-23-1	
o-Xylene	ND	ug/L	5.0	2.0	1		10/08/21 09:05	95-47-6	
Surrogates									
4-Bromofluorobenzene (S)	94	%	70-130		1		10/08/21 09:05	460-00-4	
1,2-Dichloroethane-d4 (S)	86	%	70-130		1		10/08/21 09:05	17060-07-0	
Toluene-d8 (S)	95	%	70-130		1		10/08/21 09:05	2037-26-5	

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ANALYTICAL RESULTS

Project: 04887/64000 WARREN GREEN
Pace Project No.: 92565357

Sample: DUP-1 **Lab ID: 92565357020** Collected: 10/04/21 00:00 Received: 10/06/21 09:30 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
EPA 8011	Analytical Method: EPA 8011 Preparation Method: METHOD Pace Analytical Gulf Coast								
1,2-Dibromoethane (EDB)	ND	ug/L	0.020	0.00750	1	10/12/21 09:35	10/13/21 23:36	106-93-4	
8260 MSV	Analytical Method: EPA 8260D Pace Analytical Services - Charlotte								
tert-Amyl Alcohol	ND	ug/L	10000	6560	100		10/08/21 10:00	75-85-4	
tert-Amylmethyl ether	ND	ug/L	1000	304	100		10/08/21 10:00	994-05-8	
Benzene	**2900**	ug/L	500	174	100		10/08/21 10:00	71-43-2	
3,3-Dimethyl-1-Butanol	ND	ug/L	10000	5390	100		10/08/21 10:00	624-95-3	
tert-Butyl Alcohol	ND	ug/L	10000	9100	100		10/08/21 10:00	75-65-0	
tert-Butyl Formate	ND	ug/L	5000	2410	100		10/08/21 10:00	762-75-4	
1,2-Dichloroethane	ND	ug/L	500	206	100		10/08/21 10:00	107-06-2	
Diisopropyl ether	ND	ug/L	500	349	100		10/08/21 10:00	108-20-3	
Ethanol	ND	ug/L	20000	14400	100		10/08/21 10:00	64-17-5	
Ethylbenzene	**3960**	ug/L	500	184	100		10/08/21 10:00	100-41-4	
Ethyl-tert-butyl ether	ND	ug/L	1000	846	100		10/08/21 10:00	637-92-3	
Methyl-tert-butyl ether	ND	ug/L	500	310	100		10/08/21 10:00	1634-04-4	
Naphthalene	**331J**	ug/L	500	209	100		10/08/21 10:00	91-20-3	
Toluene	**19900**	ug/L	500	201	100		10/08/21 10:00	108-88-3	
Xylene (Total)	**20200**	ug/L	500	500	100		10/08/21 10:00	1330-20-7	
m&p-Xylene	**14800**	ug/L	1000	411	100		10/08/21 10:00	179601-23-1	
o-Xylene	**5390**	ug/L	500	204	100		10/08/21 10:00	95-47-6	
Surrogates									
4-Bromofluorobenzene (S)	94	%	70-130		100		10/08/21 10:00	460-00-4	
1,2-Dichloroethane-d4 (S)	84	%	70-130		100		10/08/21 10:00	17060-07-0	
Toluene-d8 (S)	94	%	70-130		100		10/08/21 10:00	2037-26-5	

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ANALYTICAL RESULTS

Project: 04887/64000 WARREN GREEN
Pace Project No.: 92565357

Sample: DUP-2 **Lab ID: 92565357021** Collected: 10/04/21 00:00 Received: 10/06/21 09:30 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
EPA 8011	Analytical Method: EPA 8011 Preparation Method: METHOD Pace Analytical Gulf Coast								
1,2-Dibromoethane (EDB)	**0.525**	ug/L	0.020	0.00750	1	10/13/21 15:49	10/16/21 02:29	106-93-4	
8260 MSV	Analytical Method: EPA 8260D Pace Analytical Services - Charlotte								
tert-Amyl Alcohol	ND	ug/L	5000	3280	50		10/09/21 00:27	75-85-4	
tert-Amylmethyl ether	ND	ug/L	500	152	50		10/09/21 00:27	994-05-8	
Benzene	**1160**	ug/L	250	87.0	50		10/09/21 00:27	71-43-2	
3,3-Dimethyl-1-Butanol	ND	ug/L	5000	2700	50		10/09/21 00:27	624-95-3	
tert-Butyl Alcohol	ND	ug/L	5000	4550	50		10/09/21 00:27	75-65-0	
tert-Butyl Formate	ND	ug/L	2500	1200	50		10/09/21 00:27	762-75-4	
1,2-Dichloroethane	ND	ug/L	250	103	50		10/09/21 00:27	107-06-2	
Diisopropyl ether	ND	ug/L	250	174	50		10/09/21 00:27	108-20-3	
Ethanol	ND	ug/L	10000	7200	50		10/09/21 00:27	64-17-5	
Ethylbenzene	**3930**	ug/L	250	92.0	50		10/09/21 00:27	100-41-4	
Ethyl-tert-butyl ether	ND	ug/L	500	423	50		10/09/21 00:27	637-92-3	
Methyl-tert-butyl ether	ND	ug/L	250	155	50		10/09/21 00:27	1634-04-4	
Naphthalene	**706**	ug/L	250	104	50		10/09/21 00:27	91-20-3	
Toluene	**6920**	ug/L	250	100	50		10/09/21 00:27	108-88-3	
Xylene (Total)	**22900**	ug/L	250	250	50		10/09/21 00:27	1330-20-7	
m&p-Xylene	**15900**	ug/L	500	206	50		10/09/21 00:27	179601-23-1	
o-Xylene	**7040**	ug/L	250	102	50		10/09/21 00:27	95-47-6	
Surrogates									
4-Bromofluorobenzene (S)	98	%	70-130		50		10/09/21 00:27	460-00-4	
1,2-Dichloroethane-d4 (S)	100	%	70-130		50		10/09/21 00:27	17060-07-0	
Toluene-d8 (S)	101	%	70-130		50		10/09/21 00:27	2037-26-5	

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ANALYTICAL RESULTS

Project: 04887/64000 WARREN GREEN
Pace Project No.: 92565357

Sample: FB **Lab ID: 92565357022** Collected: 10/04/21 15:15 Received: 10/06/21 09:30 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
EPA 8011	Analytical Method: EPA 8011 Preparation Method: METHOD Pace Analytical Gulf Coast								
1,2-Dibromoethane (EDB)	ND	ug/L	0.020	0.00750	1	10/13/21 15:49	10/16/21 02:29	106-93-4	
8260 MSV	Analytical Method: EPA 8260D Pace Analytical Services - Charlotte								
tert-Amyl Alcohol	ND	ug/L	100	65.6	1		10/08/21 07:53	75-85-4	
tert-Amylmethyl ether	ND	ug/L	10.0	3.0	1		10/08/21 07:53	994-05-8	
Benzene	ND	ug/L	5.0	1.7	1		10/08/21 07:53	71-43-2	
3,3-Dimethyl-1-Butanol	ND	ug/L	100	53.9	1		10/08/21 07:53	624-95-3	
tert-Butyl Alcohol	ND	ug/L	100	91.0	1		10/08/21 07:53	75-65-0	
tert-Butyl Formate	ND	ug/L	50.0	24.1	1		10/08/21 07:53	762-75-4	
1,2-Dichloroethane	ND	ug/L	5.0	2.1	1		10/08/21 07:53	107-06-2	
Diisopropyl ether	ND	ug/L	5.0	3.5	1		10/08/21 07:53	108-20-3	
Ethanol	ND	ug/L	200	144	1		10/08/21 07:53	64-17-5	
Ethylbenzene	ND	ug/L	5.0	1.8	1		10/08/21 07:53	100-41-4	
Ethyl-tert-butyl ether	ND	ug/L	10.0	8.5	1		10/08/21 07:53	637-92-3	
Methyl-tert-butyl ether	ND	ug/L	5.0	3.1	1		10/08/21 07:53	1634-04-4	
Naphthalene	ND	ug/L	5.0	2.1	1		10/08/21 07:53	91-20-3	
Toluene	ND	ug/L	5.0	2.0	1		10/08/21 07:53	108-88-3	
Xylene (Total)	ND	ug/L	5.0	5.0	1		10/08/21 07:53	1330-20-7	
m&p-Xylene	ND	ug/L	10.0	4.1	1		10/08/21 07:53	179601-23-1	
o-Xylene	ND	ug/L	5.0	2.0	1		10/08/21 07:53	95-47-6	
Surrogates									
4-Bromofluorobenzene (S)	94	%	70-130		1		10/08/21 07:53	460-00-4	
1,2-Dichloroethane-d4 (S)	81	%	70-130		1		10/08/21 07:53	17060-07-0	
Toluene-d8 (S)	97	%	70-130		1		10/08/21 07:53	2037-26-5	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: 04887/64000 WARREN GREEN
Pace Project No.: 92565357

Sample: TB **Lab ID: 92565357023** Collected: 10/04/21 08:00 Received: 10/06/21 09:30 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV	Analytical Method: EPA 8260D Pace Analytical Services - Charlotte								
tert-Amyl Alcohol	ND	ug/L	100	65.6	1		10/08/21 08:11	75-85-4	
tert-Amylmethyl ether	ND	ug/L	10.0	3.0	1		10/08/21 08:11	994-05-8	
Benzene	ND	ug/L	5.0	1.7	1		10/08/21 08:11	71-43-2	
3,3-Dimethyl-1-Butanol	ND	ug/L	100	53.9	1		10/08/21 08:11	624-95-3	
tert-Butyl Alcohol	ND	ug/L	100	91.0	1		10/08/21 08:11	75-65-0	
tert-Butyl Formate	ND	ug/L	50.0	24.1	1		10/08/21 08:11	762-75-4	
1,2-Dichloroethane	ND	ug/L	5.0	2.1	1		10/08/21 08:11	107-06-2	
Diisopropyl ether	ND	ug/L	5.0	3.5	1		10/08/21 08:11	108-20-3	
Ethanol	ND	ug/L	200	144	1		10/08/21 08:11	64-17-5	
Ethylbenzene	ND	ug/L	5.0	1.8	1		10/08/21 08:11	100-41-4	
Ethyl-tert-butyl ether	ND	ug/L	10.0	8.5	1		10/08/21 08:11	637-92-3	
Methyl-tert-butyl ether	ND	ug/L	5.0	3.1	1		10/08/21 08:11	1634-04-4	
Naphthalene	ND	ug/L	5.0	2.1	1		10/08/21 08:11	91-20-3	
Toluene	ND	ug/L	5.0	2.0	1		10/08/21 08:11	108-88-3	
Xylene (Total)	ND	ug/L	5.0	5.0	1		10/08/21 08:11	1330-20-7	
m&p-Xylene	ND	ug/L	10.0	4.1	1		10/08/21 08:11	179601-23-1	
o-Xylene	ND	ug/L	5.0	2.0	1		10/08/21 08:11	95-47-6	
Surrogates									
4-Bromofluorobenzene (S)	95	%	70-130		1		10/08/21 08:11	460-00-4	
1,2-Dichloroethane-d4 (S)	81	%	70-130		1		10/08/21 08:11	17060-07-0	
Toluene-d8 (S)	95	%	70-130		1		10/08/21 08:11	2037-26-5	

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QUALITY CONTROL DATA

Project: 04887/64000 WARREN GREEN
Pace Project No.: 92565357

QC Batch: 651430 | Analysis Method: EPA 8260D
QC Batch Method: EPA 8260D | Analysis Description: 8260 MSV SC
Laboratory: Pace Analytical Services - Charlotte

Associated Lab Samples: 92565357002, 92565357003, 92565357004, 92565357005, 92565357009, 92565357010, 92565357013, 92565357014, 92565357015, 92565357016

METHOD BLANK: 3416292 Matrix: Water

Associated Lab Samples: 92565357002, 92565357003, 92565357004, 92565357005, 92565357009, 92565357010, 92565357013, 92565357014, 92565357015, 92565357016

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
1,2-Dichloroethane	ug/L	ND	5.0	2.1	10/07/21 14:37	
3,3-Dimethyl-1-Butanol	ug/L	ND	100	53.9	10/07/21 14:37	
Benzene	ug/L	ND	5.0	1.7	10/07/21 14:37	
Diisopropyl ether	ug/L	ND	5.0	3.5	10/07/21 14:37	
Ethanol	ug/L	ND	200	144	10/07/21 14:37	
Ethyl-tert-butyl ether	ug/L	ND	10.0	8.5	10/07/21 14:37	
Ethylbenzene	ug/L	ND	5.0	1.8	10/07/21 14:37	
m&p-Xylene	ug/L	ND	10.0	4.1	10/07/21 14:37	
Methyl-tert-butyl ether	ug/L	ND	5.0	3.1	10/07/21 14:37	
Naphthalene	ug/L	ND	5.0	2.1	10/07/21 14:37	
o-Xylene	ug/L	ND	5.0	2.0	10/07/21 14:37	
tert-Amyl Alcohol	ug/L	ND	100	65.6	10/07/21 14:37	
tert-Amylmethyl ether	ug/L	ND	10.0	3.0	10/07/21 14:37	
tert-Butyl Alcohol	ug/L	ND	100	91.0	10/07/21 14:37	
tert-Butyl Formate	ug/L	ND	50.0	24.1	10/07/21 14:37	
Toluene	ug/L	ND	5.0	2.0	10/07/21 14:37	
Xylene (Total)	ug/L	ND	5.0	5.0	10/07/21 14:37	
1,2-Dichloroethane-d4 (S)	%	89	70-130		10/07/21 14:37	
4-Bromofluorobenzene (S)	%	100	70-130		10/07/21 14:37	
Toluene-d8 (S)	%	100	70-130		10/07/21 14:37	

LABORATORY CONTROL SAMPLE: 3416293

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,2-Dichloroethane	ug/L	50	50.4	101	70-130	
3,3-Dimethyl-1-Butanol	ug/L	1000	1080	108	70-130	
Benzene	ug/L	50	57.4	115	70-130	
Diisopropyl ether	ug/L	50	52.3	105	70-130	
Ethanol	ug/L	2000	1870	94	70-130	
Ethyl-tert-butyl ether	ug/L	100	108	108	70-130	
Ethylbenzene	ug/L	50	59.0	118	70-130	
m&p-Xylene	ug/L	100	117	117	70-130	
Methyl-tert-butyl ether	ug/L	50	52.8	106	70-130	
Naphthalene	ug/L	50	60.7	121	70-130	
o-Xylene	ug/L	50	58.2	116	70-130	
tert-Amyl Alcohol	ug/L	1000	1030	103	70-130	
tert-Amylmethyl ether	ug/L	100	109	109	70-130	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

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QUALITY CONTROL DATA

Project: 04887/64000 WARREN GREEN
Pace Project No.: 92565357

LABORATORY CONTROL SAMPLE: 3416293

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
tert-Butyl Alcohol	ug/L	500	483	97	70-130	
tert-Butyl Formate	ug/L	400	423	106	70-130	
Toluene	ug/L	50	56.9	114	70-130	
Xylene (Total)	ug/L	150	175	117	70-130	
1,2-Dichloroethane-d4 (S)	%			85	70-130	
4-Bromofluorobenzene (S)	%			97	70-130	
Toluene-d8 (S)	%			96	70-130	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3416294 3416295

Parameter	Units	92565357010 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
1,2-Dichloroethane	ug/L	ND	20	20	21.6	20.5	108	103	70-137	5	30	
3,3-Dimethyl-1-Butanol	ug/L	ND	400	400	464	425	116	106	39-157	9	30	
Benzene	ug/L	ND	20	20	26.8	25.0	134	125	70-151	7	30	
Diisopropyl ether	ug/L	ND	20	20	21.6	20.5	108	102	63-144	5	30	
Ethanol	ug/L	ND	800	800	858	793	107	99	39-176	8	30	
Ethyl-tert-butyl ether	ug/L	ND	40	40	45.3	43.1	113	108	66-137	5	30	
Ethylbenzene	ug/L	ND	20	20	26.7	25.8	134	129	66-153	3	30	
m&p-Xylene	ug/L	ND	40	40	53.8	51.5	134	129	69-152	4	30	
Methyl-tert-butyl ether	ug/L	ND	20	20	22.5	20.8	112	104	54-156	7	30	
Naphthalene	ug/L	ND	20	20	28.1	26.1	140	131	61-148	7	30	
o-Xylene	ug/L	ND	20	20	26.1	25.4	131	127	70-148	3	30	
tert-Amyl Alcohol	ug/L	ND	400	400	426	401	106	100	54-153	6	30	
tert-Amylmethyl ether	ug/L	ND	40	40	47.1	45.5	118	114	69-139	3	30	
tert-Butyl Alcohol	ug/L	ND	200	200	234	232	117	116	43-188	1	30	
tert-Butyl Formate	ug/L	ND	160	160	112	91.9	70	57	10-170	20	30	
Toluene	ug/L	ND	20	20	25.9	24.6	129	123	59-148	5	30	
Xylene (Total)	ug/L	ND	60	60	79.9	76.9	133	128	63-158	4	30	
1,2-Dichloroethane-d4 (S)	%						87	85	70-130			
4-Bromofluorobenzene (S)	%						99	99	70-130			
Toluene-d8 (S)	%						98	97	70-130			

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

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QUALITY CONTROL DATA

Project: 04887/64000 WARREN GREEN
Pace Project No.: 92565357

QC Batch: 651432
QC Batch Method: EPA 8260D
Analysis Method: EPA 8260D
Analysis Description: 8260 MSV SC
Laboratory: Pace Analytical Services - Charlotte
Associated Lab Samples: 92565357011, 92565357012

METHOD BLANK: 3416303 Matrix: Water
Associated Lab Samples: 92565357011, 92565357012

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
1,2-Dichloroethane	ug/L	ND	5.0	2.1	10/07/21 14:55	
3,3-Dimethyl-1-Butanol	ug/L	ND	100	53.9	10/07/21 14:55	
Benzene	ug/L	ND	5.0	1.7	10/07/21 14:55	
Diisopropyl ether	ug/L	ND	5.0	3.5	10/07/21 14:55	
Ethanol	ug/L	ND	200	144	10/07/21 14:55	
Ethyl-tert-butyl ether	ug/L	ND	10.0	8.5	10/07/21 14:55	
Ethylbenzene	ug/L	ND	5.0	1.8	10/07/21 14:55	
m&p-Xylene	ug/L	ND	10.0	4.1	10/07/21 14:55	
Methyl-tert-butyl ether	ug/L	ND	5.0	3.1	10/07/21 14:55	
Naphthalene	ug/L	ND	5.0	2.1	10/07/21 14:55	
o-Xylene	ug/L	ND	5.0	2.0	10/07/21 14:55	
tert-Amyl Alcohol	ug/L	ND	100	65.6	10/07/21 14:55	
tert-Amylmethyl ether	ug/L	ND	10.0	3.0	10/07/21 14:55	
tert-Butyl Alcohol	ug/L	ND	100	91.0	10/07/21 14:55	
tert-Butyl Formate	ug/L	ND	50.0	24.1	10/07/21 14:55	
Toluene	ug/L	ND	5.0	2.0	10/07/21 14:55	
Xylene (Total)	ug/L	ND	5.0	5.0	10/07/21 14:55	
1,2-Dichloroethane-d4 (S)	%	90	70-130		10/07/21 14:55	
4-Bromofluorobenzene (S)	%	97	70-130		10/07/21 14:55	
Toluene-d8 (S)	%	99	70-130		10/07/21 14:55	

LABORATORY CONTROL SAMPLE: 3416304

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,2-Dichloroethane	ug/L	50	49.4	99	70-130	
3,3-Dimethyl-1-Butanol	ug/L	1000	1060	106	70-130	
Benzene	ug/L	50	55.1	110	70-130	
Diisopropyl ether	ug/L	50	50.8	102	70-130	
Ethanol	ug/L	2000	1860	93	70-130	
Ethyl-tert-butyl ether	ug/L	100	106	106	70-130	
Ethylbenzene	ug/L	50	57.6	115	70-130	
m&p-Xylene	ug/L	100	113	113	70-130	
Methyl-tert-butyl ether	ug/L	50	51.9	104	70-130	
Naphthalene	ug/L	50	60.2	120	70-130	
o-Xylene	ug/L	50	57.2	114	70-130	
tert-Amyl Alcohol	ug/L	1000	1010	101	70-130	
tert-Amylmethyl ether	ug/L	100	109	109	70-130	
tert-Butyl Alcohol	ug/L	500	478	96	70-130	
tert-Butyl Formate	ug/L	400	412	103	70-130	

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QUALITY CONTROL DATA

Project: 04887/64000 WARREN GREEN
Pace Project No.: 92565357

LABORATORY CONTROL SAMPLE: 3416304

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Toluene	ug/L	50	55.7	111	70-130	
Xylene (Total)	ug/L	150	171	114	70-130	
1,2-Dichloroethane-d4 (S)	%			83	70-130	
4-Bromofluorobenzene (S)	%			98	70-130	
Toluene-d8 (S)	%			97	70-130	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3416305 3416306

Parameter	Units	92565357011 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
1,2-Dichloroethane	ug/L	ND	20	20	19.6	19.6	98	98	70-137	0	30	
3,3-Dimethyl-1-Butanol	ug/L	ND	400	400	471	474	118	118	39-157	1	30	
Benzene	ug/L	ND	20	20	24.4	24.1	122	120	70-151	1	30	
Diisopropyl ether	ug/L	ND	20	20	19.9	19.6	100	98	63-144	2	30	
Ethanol	ug/L	ND	800	800	902	902	113	113	39-176	0	30	
Ethyl-tert-butyl ether	ug/L	ND	40	40	41.5	42.1	104	105	66-137	1	30	
Ethylbenzene	ug/L	ND	20	20	25.0	24.5	125	123	66-153	2	30	
m&p-Xylene	ug/L	ND	40	40	49.6	49.7	124	124	69-152	0	30	
Methyl-tert-butyl ether	ug/L	ND	20	20	20.7	20.8	104	104	54-156	1	30	
Naphthalene	ug/L	ND	20	20	25.7	24.9	128	125	61-148	3	30	
o-Xylene	ug/L	ND	20	20	24.6	24.5	123	122	70-148	0	30	
tert-Amyl Alcohol	ug/L	ND	400	400	460	465	115	116	54-153	1	30	
tert-Amylmethyl ether	ug/L	ND	40	40	43.1	43.6	108	109	69-139	1	30	
tert-Butyl Alcohol	ug/L	ND	200	200	305	309	153	154	43-188	1	30	
tert-Butyl Formate	ug/L	ND	160	160	38.2J	34.7J	24	22	10-170		30	
Toluene	ug/L	ND	20	20	23.9	24.0	119	119	59-148	0	30	
Xylene (Total)	ug/L	ND	60	60	74.2	74.2	124	124	63-158	0	30	
1,2-Dichloroethane-d4 (S)	%						85	86	70-130			
4-Bromofluorobenzene (S)	%						99	99	70-130			
Toluene-d8 (S)	%						97	97	70-130			

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QUALITY CONTROL DATA

Project: 04887/64000 WARREN GREEN
Pace Project No.: 92565357

QC Batch: 651434
QC Batch Method: EPA 8260D
Analysis Method: EPA 8260D
Analysis Description: 8260 MSV SC
Laboratory: Pace Analytical Services - Charlotte
Associated Lab Samples: 92565357001, 92565357006

METHOD BLANK: 3416318 Matrix: Water
Associated Lab Samples: 92565357001, 92565357006

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
1,2-Dichloroethane	ug/L	ND	5.0	2.1	10/07/21 13:49	v2
3,3-Dimethyl-1-Butanol	ug/L	ND	100	53.9	10/07/21 13:49	
Benzene	ug/L	ND	5.0	1.7	10/07/21 13:49	
Diisopropyl ether	ug/L	ND	5.0	3.5	10/07/21 13:49	
Ethanol	ug/L	ND	200	144	10/07/21 13:49	v2
Ethyl-tert-butyl ether	ug/L	ND	10.0	8.5	10/07/21 13:49	
Ethylbenzene	ug/L	ND	5.0	1.8	10/07/21 13:49	
m&p-Xylene	ug/L	ND	10.0	4.1	10/07/21 13:49	
Methyl-tert-butyl ether	ug/L	ND	5.0	3.1	10/07/21 13:49	
Naphthalene	ug/L	ND	5.0	2.1	10/07/21 13:49	
o-Xylene	ug/L	ND	5.0	2.0	10/07/21 13:49	
tert-Amyl Alcohol	ug/L	ND	100	65.6	10/07/21 13:49	
tert-Amylmethyl ether	ug/L	ND	10.0	3.0	10/07/21 13:49	
tert-Butyl Alcohol	ug/L	ND	100	91.0	10/07/21 13:49	
tert-Butyl Formate	ug/L	ND	50.0	24.1	10/07/21 13:49	v2
Toluene	ug/L	ND	5.0	2.0	10/07/21 13:49	
Xylene (Total)	ug/L	ND	5.0	5.0	10/07/21 13:49	
1,2-Dichloroethane-d4 (S)	%	86	70-130		10/07/21 13:49	
4-Bromofluorobenzene (S)	%	91	70-130		10/07/21 13:49	
Toluene-d8 (S)	%	94	70-130		10/07/21 13:49	

LABORATORY CONTROL SAMPLE: 3416319

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,2-Dichloroethane	ug/L	50	38.7	77	70-130	v3
3,3-Dimethyl-1-Butanol	ug/L	1000	1220	122	70-130	
Benzene	ug/L	50	50.5	101	70-130	
Diisopropyl ether	ug/L	50	40.6	81	70-130	
Ethanol	ug/L	2000	1610	80	70-130	v3
Ethyl-tert-butyl ether	ug/L	100	87.0	87	70-130	
Ethylbenzene	ug/L	50	58.4	117	70-130	
m&p-Xylene	ug/L	100	113	113	70-130	
Methyl-tert-butyl ether	ug/L	50	43.0	86	70-130	
Naphthalene	ug/L	50	63.6	127	70-130	
o-Xylene	ug/L	50	58.1	116	70-130	
tert-Amyl Alcohol	ug/L	1000	1040	104	70-130	
tert-Amylmethyl ether	ug/L	100	106	106	70-130	
tert-Butyl Alcohol	ug/L	500	424	85	70-130	
tert-Butyl Formate	ug/L	400	337	84	70-130	v3

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QUALITY CONTROL DATA

Project: 04887/64000 WARREN GREEN
Pace Project No.: 92565357

LABORATORY CONTROL SAMPLE: 3416319

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Toluene	ug/L	50	51.3	103	70-130	
Xylene (Total)	ug/L	150	171	114	70-130	
1,2-Dichloroethane-d4 (S)	%			81	70-130	
4-Bromofluorobenzene (S)	%			92	70-130	
Toluene-d8 (S)	%			91	70-130	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3416320 3416321

Parameter	Units	92564962017 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
1,2-Dichloroethane	ug/L	ND	5000	5000	4130	4010	83	80	70-137	3	30	v3
3,3-Dimethyl-1-Butanol	ug/L	ND	100000	100000	102000	110000	102	110	39-157	8	30	
Benzene	ug/L	ND	5000	5000	5500	5480	108	108	70-151	0	30	
Diisopropyl ether	ug/L	ND	5000	5000	4430	4090	89	82	63-144	8	30	
Ethanol	ug/L	ND	200000	200000	161000	166000	81	83	39-176	3	30	v3
Ethyl-tert-butyl ether	ug/L	ND	10000	10000	9080	9250	91	92	66-137	2	30	
Ethylbenzene	ug/L	2650	5000	5000	8930	9510	126	137	66-153	6	30	
m&p-Xylene	ug/L	12300	10000	10000	23900	26600	117	143	69-152	11	30	
Methyl-tert-butyl ether	ug/L	ND	5000	5000	4430	4350	89	87	54-156	2	30	
Naphthalene	ug/L	1010J	5000	5000	7150	7790	123	136	61-148	9	30	
o-Xylene	ug/L	6730	5000	5000	12800	14300	122	151	70-148	10	30	M1
tert-Amyl Alcohol	ug/L	ND	100000	100000	95300	97200	95	97	54-153	2	30	
tert-Amylmethyl ether	ug/L	ND	10000	10000	10600	10900	106	109	69-139	2	30	
tert-Butyl Alcohol	ug/L	ND	50000	50000	40600	42300	81	85	43-188	4	30	
tert-Butyl Formate	ug/L	ND	40000	40000	33500	33300	84	83	10-170	1	30	v3
Toluene	ug/L	26300	5000	5000	31400	36400	103	203	59-148	15	30	M1
Xylene (Total)	ug/L	19000	15000	15000	36800	40800	118	146	63-158	11	30	MS
1,2-Dichloroethane-d4 (S)	%						84	83	70-130			
4-Bromofluorobenzene (S)	%						91	91	70-130			
Toluene-d8 (S)	%						92	96	70-130			

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QUALITY CONTROL DATA

Project: 04887/64000 WARREN GREEN
Pace Project No.: 92565357

QC Batch: 651537 Analysis Method: EPA 8260D
QC Batch Method: EPA 8260D Analysis Description: 8260 MSV SC
Laboratory: Pace Analytical Services - Charlotte
Associated Lab Samples: 92565357017, 92565357018, 92565357019, 92565357020, 92565357022, 92565357023

METHOD BLANK: 3417046 Matrix: Water
Associated Lab Samples: 92565357017, 92565357018, 92565357019, 92565357020, 92565357022, 92565357023

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
1,2-Dichloroethane	ug/L	ND	5.0	2.1	10/08/21 00:56	
3,3-Dimethyl-1-Butanol	ug/L	ND	100	53.9	10/08/21 00:56	
Benzene	ug/L	ND	5.0	1.7	10/08/21 00:56	
Diisopropyl ether	ug/L	ND	5.0	3.5	10/08/21 00:56	
Ethanol	ug/L	ND	200	144	10/08/21 00:56	
Ethyl-tert-butyl ether	ug/L	ND	10.0	8.5	10/08/21 00:56	
Ethylbenzene	ug/L	ND	5.0	1.8	10/08/21 00:56	
m&p-Xylene	ug/L	ND	10.0	4.1	10/08/21 00:56	
Methyl-tert-butyl ether	ug/L	ND	5.0	3.1	10/08/21 00:56	
Naphthalene	ug/L	ND	5.0	2.1	10/08/21 00:56	
o-Xylene	ug/L	ND	5.0	2.0	10/08/21 00:56	
tert-Amyl Alcohol	ug/L	ND	100	65.6	10/08/21 00:56	
tert-Amylmethyl ether	ug/L	ND	10.0	3.0	10/08/21 00:56	
tert-Butyl Alcohol	ug/L	ND	100	91.0	10/08/21 00:56	
tert-Butyl Formate	ug/L	ND	50.0	24.1	10/08/21 00:56	
Toluene	ug/L	ND	5.0	2.0	10/08/21 00:56	
Xylene (Total)	ug/L	ND	5.0	5.0	10/08/21 00:56	
1,2-Dichloroethane-d4 (S)	%	89	70-130		10/08/21 00:56	
4-Bromofluorobenzene (S)	%	95	70-130		10/08/21 00:56	
Toluene-d8 (S)	%	96	70-130		10/08/21 00:56	

LABORATORY CONTROL SAMPLE: 3417047

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,2-Dichloroethane	ug/L	50	44.1	88	70-130	
3,3-Dimethyl-1-Butanol	ug/L	1000	1090	109	70-130	
Benzene	ug/L	50	49.5	99	70-130	
Diisopropyl ether	ug/L	50	41.0	82	70-130	
Ethanol	ug/L	2000	1680	84	70-130	
Ethyl-tert-butyl ether	ug/L	100	89.0	89	70-130	
Ethylbenzene	ug/L	50	53.0	106	70-130	
m&p-Xylene	ug/L	100	107	107	70-130	
Methyl-tert-butyl ether	ug/L	50	43.5	87	70-130	
Naphthalene	ug/L	50	57.8	116	70-130	
o-Xylene	ug/L	50	54.1	108	70-130	
tert-Amyl Alcohol	ug/L	1000	959	96	70-130	
tert-Amylmethyl ether	ug/L	100	96.5	97	70-130	
tert-Butyl Alcohol	ug/L	500	441	88	70-130	
tert-Butyl Formate	ug/L	400	377	94	70-130	

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QUALITY CONTROL DATA

Project: 04887/64000 WARREN GREEN
Pace Project No.: 92565357

LABORATORY CONTROL SAMPLE: 3417047

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Toluene	ug/L	50	49.8	100	70-130	
Xylene (Total)	ug/L	150	161	107	70-130	
1,2-Dichloroethane-d4 (S)	%			84	70-130	
4-Bromofluorobenzene (S)	%			97	70-130	
Toluene-d8 (S)	%			95	70-130	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3417048 3417049

Parameter	Units	92565357017 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
1,2-Dichloroethane	ug/L	ND	20	20	19.6	21.5	98	108	70-137	10	30	
3,3-Dimethyl-1-Butanol	ug/L	ND	400	400	427	511	107	128	39-157	18	30	
Benzene	ug/L	ND	20	20	21.9	24.8	109	124	70-151	13	30	
Diisopropyl ether	ug/L	ND	20	20	17.1	19.3	86	96	63-144	12	30	
Ethanol	ug/L	ND	800	800	708	783	89	98	39-176	10	30	
Ethyl-tert-butyl ether	ug/L	ND	40	40	38.7	41.2	97	103	66-137	6	30	
Ethylbenzene	ug/L	ND	20	20	23.2	26.2	116	131	66-153	12	30	
m&p-Xylene	ug/L	ND	40	40	46.8	53.8	117	134	69-152	14	30	
Methyl-tert-butyl ether	ug/L	ND	20	20	18.3	20.3	91	102	54-156	11	30	
Naphthalene	ug/L	ND	20	20	21.6	25.9	108	129	61-148	18	30	
o-Xylene	ug/L	ND	20	20	23.1	26.3	115	131	70-148	13	30	
tert-Amyl Alcohol	ug/L	ND	400	400	428	496	107	124	54-153	15	30	
tert-Amylmethyl ether	ug/L	ND	40	40	42.4	47.1	106	118	69-139	11	30	
tert-Butyl Alcohol	ug/L	ND	200	200	228	274	114	137	43-188	18	30	
tert-Butyl Formate	ug/L	ND	160	160	93.5	79.7	58	50	10-170	16	30	
Toluene	ug/L	ND	20	20	22.4	25.3	112	126	59-148	12	30	
Xylene (Total)	ug/L	ND	60	60	69.8	80.0	116	133	63-158	14	30	
1,2-Dichloroethane-d4 (S)	%						85	81	70-130			
4-Bromofluorobenzene (S)	%						95	97	70-130			
Toluene-d8 (S)	%						94	95	70-130			

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QUALITY CONTROL DATA

Project: 04887/64000 WARREN GREEN
Pace Project No.: 92565357

QC Batch: 651753
QC Batch Method: EPA 8260D
Analysis Method: EPA 8260D
Analysis Description: 8260 MSV SC
Laboratory: Pace Analytical Services - Charlotte

Associated Lab Samples: 92565357008

METHOD BLANK: 3417997 Matrix: Water

Associated Lab Samples: 92565357008

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
1,2-Dichloroethane	ug/L	ND	5.0	2.1	10/11/21 13:25	
3,3-Dimethyl-1-Butanol	ug/L	ND	100	53.9	10/11/21 13:25	
Benzene	ug/L	ND	5.0	1.7	10/11/21 13:25	
Diisopropyl ether	ug/L	ND	5.0	3.5	10/11/21 13:25	
Ethanol	ug/L	ND	200	144	10/11/21 13:25	
Ethyl-tert-butyl ether	ug/L	ND	10.0	8.5	10/11/21 13:25	
Ethylbenzene	ug/L	ND	5.0	1.8	10/11/21 13:25	
m&p-Xylene	ug/L	ND	10.0	4.1	10/11/21 13:25	
Methyl-tert-butyl ether	ug/L	ND	5.0	3.1	10/11/21 13:25	
Naphthalene	ug/L	ND	5.0	2.1	10/11/21 13:25	
o-Xylene	ug/L	ND	5.0	2.0	10/11/21 13:25	
tert-Amyl Alcohol	ug/L	ND	100	65.6	10/11/21 13:25	
tert-Amylmethyl ether	ug/L	ND	10.0	3.0	10/11/21 13:25	
tert-Butyl Alcohol	ug/L	ND	100	91.0	10/11/21 13:25	
tert-Butyl Formate	ug/L	ND	50.0	24.1	10/11/21 13:25	
Toluene	ug/L	ND	5.0	2.0	10/11/21 13:25	
Xylene (Total)	ug/L	ND	5.0	5.0	10/11/21 13:25	
1,2-Dichloroethane-d4 (S)	%	104	70-130		10/11/21 13:25	
4-Bromofluorobenzene (S)	%	100	70-130		10/11/21 13:25	
Toluene-d8 (S)	%	105	70-130		10/11/21 13:25	

LABORATORY CONTROL SAMPLE: 3417998

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,2-Dichloroethane	ug/L	50	47.6	95	70-130	
3,3-Dimethyl-1-Butanol	ug/L	1000	1040	104	70-130	
Benzene	ug/L	50	47.4	95	70-130	
Diisopropyl ether	ug/L	50	46.4	93	70-130	
Ethanol	ug/L	2000	2120	106	70-130	
Ethyl-tert-butyl ether	ug/L	100	97.1	97	70-130	
Ethylbenzene	ug/L	50	48.3	97	70-130	
m&p-Xylene	ug/L	100	98.3	98	70-130	
Methyl-tert-butyl ether	ug/L	50	45.1	90	70-130	
Naphthalene	ug/L	50	52.1	104	70-130	
o-Xylene	ug/L	50	48.1	96	70-130	
tert-Amyl Alcohol	ug/L	1000	1060	106	70-130	
tert-Amylmethyl ether	ug/L	100	97.5	98	70-130	
tert-Butyl Alcohol	ug/L	500	512	102	70-130	
tert-Butyl Formate	ug/L	400	394	99	70-130	

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QUALITY CONTROL DATA

Project: 04887/64000 WARREN GREEN
Pace Project No.: 92565357

LABORATORY CONTROL SAMPLE: 3417998

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Toluene	ug/L	50	47.0	94	70-130	
Xylene (Total)	ug/L	150	146	98	70-130	
1,2-Dichloroethane-d4 (S)	%			98	70-130	
4-Bromofluorobenzene (S)	%			100	70-130	
Toluene-d8 (S)	%			97	70-130	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3417999 3418000

Parameter	Units	92565663020 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
1,2-Dichloroethane	ug/L	12.3	20	20	32.5	33.1	101	104	70-137	2	30	
3,3-Dimethyl-1-Butanol	ug/L	ND	400	400	434	414	108	103	39-157	5	30	
Benzene	ug/L	6.5	20	20	27.4	27.3	105	104	70-151	0	30	
Diisopropyl ether	ug/L	ND	20	20	22.2	22.3	97	97	63-144	0	30	
Ethanol	ug/L	ND	800	800	988	929	123	116	39-176	6	30	
Ethyl-tert-butyl ether	ug/L	ND	40	40	41.0	41.6	103	104	66-137	2	30	
Ethylbenzene	ug/L	ND	20	20	22.5	22.1	112	110	66-153	2	30	
m&p-Xylene	ug/L	ND	40	40	46.4	44.7	116	112	69-152	4	30	
Methyl-tert-butyl ether	ug/L	3.4J	20	20	22.8	23.7	97	102	54-156	4	30	
Naphthalene	ug/L	ND	20	20	21.1	21.0	105	105	61-148	0	30	
o-Xylene	ug/L	ND	20	20	22.4	21.8	110	107	70-148	3	30	
tert-Amyl Alcohol	ug/L	286	400	400	756	728	118	111	54-153	4	30	
tert-Amylmethyl ether	ug/L	ND	40	40	40.7	41.0	102	103	69-139	1	30	
tert-Butyl Alcohol	ug/L	106	200	200	384	373	139	133	43-188	3	30	
tert-Butyl Formate	ug/L	ND	160	160	99.9	80.9	62	51	10-170	21	30	
Toluene	ug/L	ND	20	20	21.7	21.0	106	103	59-148	3	30	
Xylene (Total)	ug/L	ND	60	60	68.8	66.5	115	111	63-158	3	30	
1,2-Dichloroethane-d4 (S)	%						101	102	70-130			
4-Bromofluorobenzene (S)	%						103	100	70-130			
Toluene-d8 (S)	%						99	97	70-130			

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

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QUALITY CONTROL DATA

Project: 04887/64000 WARREN GREEN
Pace Project No.: 92565357

QC Batch: 651756
QC Batch Method: EPA 8260D
Analysis Method: EPA 8260D
Analysis Description: 8260 MSV SC
Laboratory: Pace Analytical Services - Charlotte
Associated Lab Samples: 92565357007, 92565357021

METHOD BLANK: 3418009 Matrix: Water
Associated Lab Samples: 92565357007, 92565357021

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
1,2-Dichloroethane	ug/L	ND	5.0	2.1	10/08/21 14:27	
3,3-Dimethyl-1-Butanol	ug/L	ND	100	53.9	10/08/21 14:27	
Benzene	ug/L	ND	5.0	1.7	10/08/21 14:27	
Diisopropyl ether	ug/L	ND	5.0	3.5	10/08/21 14:27	
Ethanol	ug/L	ND	200	144	10/08/21 14:27	
Ethyl-tert-butyl ether	ug/L	ND	10.0	8.5	10/08/21 14:27	
Ethylbenzene	ug/L	ND	5.0	1.8	10/08/21 14:27	
m&p-Xylene	ug/L	ND	10.0	4.1	10/08/21 14:27	
Methyl-tert-butyl ether	ug/L	ND	5.0	3.1	10/08/21 14:27	
Naphthalene	ug/L	ND	5.0	2.1	10/08/21 14:27	
o-Xylene	ug/L	ND	5.0	2.0	10/08/21 14:27	
tert-Amyl Alcohol	ug/L	ND	100	65.6	10/08/21 14:27	
tert-Amylmethyl ether	ug/L	ND	10.0	3.0	10/08/21 14:27	
tert-Butyl Alcohol	ug/L	ND	100	91.0	10/08/21 14:27	
tert-Butyl Formate	ug/L	ND	50.0	24.1	10/08/21 14:27	
Toluene	ug/L	ND	5.0	2.0	10/08/21 14:27	
Xylene (Total)	ug/L	ND	5.0	5.0	10/08/21 14:27	
1,2-Dichloroethane-d4 (S)	%	108	70-130		10/08/21 14:27	
4-Bromofluorobenzene (S)	%	100	70-130		10/08/21 14:27	
Toluene-d8 (S)	%	106	70-130		10/08/21 14:27	

LABORATORY CONTROL SAMPLE: 3418010

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,2-Dichloroethane	ug/L	50	52.6	105	70-130	
3,3-Dimethyl-1-Butanol	ug/L	1000	1130	113	70-130	
Benzene	ug/L	50	52.5	105	70-130	
Diisopropyl ether	ug/L	50	53.5	107	70-130	
Ethanol	ug/L	2000	2290	115	70-130	
Ethyl-tert-butyl ether	ug/L	100	111	111	70-130	
Ethylbenzene	ug/L	50	53.4	107	70-130	
m&p-Xylene	ug/L	100	107	107	70-130	
Methyl-tert-butyl ether	ug/L	50	49.7	99	70-130	
Naphthalene	ug/L	50	55.4	111	70-130	
o-Xylene	ug/L	50	52.7	105	70-130	
tert-Amyl Alcohol	ug/L	1000	1130	113	70-130	
tert-Amylmethyl ether	ug/L	100	106	106	70-130	
tert-Butyl Alcohol	ug/L	500	577	115	70-130	
tert-Butyl Formate	ug/L	400	449	112	70-130	

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QUALITY CONTROL DATA

Project: 04887/64000 WARREN GREEN
Pace Project No.: 92565357

LABORATORY CONTROL SAMPLE: 3418010

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Toluene	ug/L	50	53.0	106	70-130	
Xylene (Total)	ug/L	150	160	107	70-130	
1,2-Dichloroethane-d4 (S)	%			102	70-130	
4-Bromofluorobenzene (S)	%			100	70-130	
Toluene-d8 (S)	%			99	70-130	

MATRIX SPIKE SAMPLE: 3419600

Parameter	Units	92565663024 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
1,2-Dichloroethane	ug/L	ND	20	21.0	105	70-137	
3,3-Dimethyl-1-Butanol	ug/L	ND	400	413	103	39-157	
Benzene	ug/L	ND	20	20.8	104	70-151	
Diisopropyl ether	ug/L	ND	20	21.0	102	63-144	
Ethanol	ug/L	ND	800	911	114	39-176	
Ethyl-tert-butyl ether	ug/L	ND	40	42.3	106	66-137	
Ethylbenzene	ug/L	ND	20	21.0	105	66-153	
m&p-Xylene	ug/L	ND	40	42.5	106	69-152	
Methyl-tert-butyl ether	ug/L	ND	20	22.4	99	54-156	
Naphthalene	ug/L	ND	20	20.2	101	61-148	
o-Xylene	ug/L	ND	20	20.9	105	70-148	
tert-Amyl Alcohol	ug/L	ND	400	415	104	54-153	
tert-Amylmethyl ether	ug/L	ND	40	40.4	101	69-139	
tert-Butyl Alcohol	ug/L	ND	200	314	157	43-188	
tert-Butyl Formate	ug/L	ND	160	ND	0	10-170	P5
Toluene	ug/L	ND	20	20.7	104	59-148	
Xylene (Total)	ug/L	ND	60	63.4	106	63-158	
1,2-Dichloroethane-d4 (S)	%				107	70-130	
4-Bromofluorobenzene (S)	%				102	70-130	
Toluene-d8 (S)	%				98	70-130	

SAMPLE DUPLICATE: 3419601

Parameter	Units	92565663026 Result	Dup Result	RPD	Max RPD	Qualifiers
1,2-Dichloroethane	ug/L	ND	ND		30	
3,3-Dimethyl-1-Butanol	ug/L	ND	ND		30	
Benzene	ug/L	ND	ND		30	
Diisopropyl ether	ug/L	ND	ND		30	
Ethanol	ug/L	ND	ND		30	
Ethyl-tert-butyl ether	ug/L	ND	ND		30	
Ethylbenzene	ug/L	ND	ND		30	
m&p-Xylene	ug/L	ND	ND		30	
Methyl-tert-butyl ether	ug/L	ND	ND		30	
Naphthalene	ug/L	ND	ND		30	
o-Xylene	ug/L	ND	ND		30	

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QUALITY CONTROL DATA

Project: 04887/64000 WARREN GREEN
Pace Project No.: 92565357

SAMPLE DUPLICATE: 3419601

Parameter	Units	92565663026 Result	Dup Result	RPD	Max RPD	Qualifiers
tert-Amyl Alcohol	ug/L	ND	ND		30	
tert-Amylmethyl ether	ug/L	ND	ND		30	
tert-Butyl Alcohol	ug/L	ND	ND		30	
tert-Butyl Formate	ug/L	ND	ND		30	
Toluene	ug/L	ND	ND		30	
Xylene (Total)	ug/L	ND	ND		30	
1,2-Dichloroethane-d4 (S)	%	109	102			
4-Bromofluorobenzene (S)	%	99	98			
Toluene-d8 (S)	%	105	103			

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QUALITY CONTROL DATA

Project: 04887/64000 WARREN GREEN
Pace Project No.: 92565357

QC Batch: 723238
QC Batch Method: METHOD
Analysis Method: EPA 8011
Analysis Description: EPA 8011 Water
Laboratory: Pace Analytical Gulf Coast

Associated Lab Samples: 92565357001, 92565357002, 92565357003, 92565357004, 92565357005, 92565357006, 92565357007, 92565357008, 92565357009, 92565357010, 92565357011, 92565357012, 92565357013, 92565357014, 92565357015, 92565357016, 92565357017, 92565357018, 92565357019, 92565357020

METHOD BLANK: 2252270
Matrix: Water

Associated Lab Samples: 92565357001, 92565357002, 92565357003, 92565357004, 92565357005, 92565357006, 92565357007, 92565357008, 92565357009, 92565357010, 92565357011, 92565357012, 92565357013, 92565357014, 92565357015, 92565357016, 92565357017, 92565357018, 92565357019, 92565357020

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
1,2-Dibromoethane (EDB)	ug/L	ND	0.020	0.00750	10/13/21 17:36	

LABORATORY CONTROL SAMPLE & LCSD: 2252271 2252272

Parameter	Units	Spike Conc.	LCS Result	LCSD Result	LCS % Rec	LCSD % Rec	% Rec Limits	RPD	Max RPD	Qualifiers
1,2-Dibromoethane (EDB)	ug/L	0.27	0.299	0.299	111	112	60-140	0	40	

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QUALITY CONTROL DATA

Project: 04887/64000 WARREN GREEN
Pace Project No.: 92565357

QC Batch: 723437
QC Batch Method: METHOD
Analysis Method: EPA 8011
Analysis Description: EPA 8011 Water
Laboratory: Pace Analytical Gulf Coast

Associated Lab Samples: 92565357021, 92565357022

METHOD BLANK: 2253065 Matrix: Water

Associated Lab Samples: 92565357021, 92565357022

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
1,2-Dibromoethane (EDB)	ug/L	ND	0.020	0.00750	10/15/21 18:47	

LABORATORY CONTROL SAMPLE & LCSD: 2253066 2253067

Parameter	Units	Spike Conc.	LCS Result	LCSD Result	LCS % Rec	LCSD % Rec	% Rec Limits	RPD	Max RPD	Qualifiers
1,2-Dibromoethane (EDB)	ug/L	0.254	0.257	0.270	101	101	60-140	5	40	

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QUALIFIERS

Project: 04887/64000 WARREN GREEN
Pace Project No.: 92565357

DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to dilution of the sample aliquot.

ND - Not Detected at or above adjusted reporting limit.

TNTC - Too Numerous To Count

J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.

MDL - Adjusted Method Detection Limit.

PQL - Practical Quantitation Limit.

RL - Reporting Limit - The lowest concentration value that meets project requirements for quantitative data with known precision and bias for a specific analyte in a specific matrix.

S - Surrogate

1,2-Diphenylhydrazine decomposes to and cannot be separated from Azobenzene using Method 8270. The result for each analyte is a combined concentration.

Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

U - Indicates the compound was analyzed for, but not detected.

Acid preservation may not be appropriate for 2 Chloroethylvinyl ether.

A separate vial preserved to a pH of 4-5 is recommended in SW846 Chapter 4 for the analysis of Acrolein and Acrylonitrile by EPA Method 8260.

N-Nitrosodiphenylamine decomposes and cannot be separated from Diphenylamine using Method 8270. The result reported for each analyte is a combined concentration.

Reported results are not rounded until the final step prior to reporting. Therefore, calculated parameters that are typically reported as "Total" may vary slightly from the sum of the reported component parameters.

Pace Analytical is TNI accredited. Contact your Pace PM for the current list of accredited analytes.

TNI - The NELAC Institute.

ANALYTE QUALIFIERS

M1	Matrix spike recovery exceeded QC limits. Batch accepted based on laboratory control sample (LCS) recovery.
MS	Analyte recovery in the matrix spike was outside QC limits for one or more of the constituent analytes used in the calculated result.
P5	The EPA or method required sample preservation degrades this compound, therefore acceptable recoveries may not be achieved in sample matrix spikes.
v2	The continuing calibration verification was below the method acceptance limit. The analyte was not detected in the associated samples and the sensitivity of the instrument was verified with a reporting limit check standard.
v3	The continuing calibration verification was below the method acceptance limit. Any detection for the analyte in the associated samples may have low bias.

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QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: 04887/64000 WARREN GREEN
Pace Project No.: 92565357

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
92565357001	**MW-1**	METHOD	723238	EPA 8011	723444
92565357002	**MW-3R**	METHOD	723238	EPA 8011	723444
92565357003	**MW-4**	METHOD	723238	EPA 8011	723444
92565357004	**MW-5**	METHOD	723238	EPA 8011	723444
92565357005	**MW-6**	METHOD	723238	EPA 8011	723444
92565357006	**MW-7**	METHOD	723238	EPA 8011	723444
92565357007	**MW-8**	METHOD	723238	EPA 8011	723444
92565357008	**MW-9**	METHOD	723238	EPA 8011	723444
92565357009	**MW-10**	METHOD	723238	EPA 8011	723444
92565357010	**MW-11**	METHOD	723238	EPA 8011	723444
92565357011	**MW-13**	METHOD	723238	EPA 8011	723444
92565357012	**MW-14**	METHOD	723238	EPA 8011	723444
92565357013	**MW-15**	METHOD	723238	EPA 8011	723444
92565357014	**DW-1**	METHOD	723238	EPA 8011	723444
92565357015	**DW-2**	METHOD	723238	EPA 8011	723444
92565357016	**DW-3**	METHOD	723238	EPA 8011	723444
92565357017	**DW-4**	METHOD	723238	EPA 8011	723444
92565357018	**DW-5**	METHOD	723238	EPA 8011	723444
92565357019	**DW-6**	METHOD	723238	EPA 8011	723444
92565357020	**DUP-1**	METHOD	723238	EPA 8011	723444
92565357021	**DUP-2**	METHOD	723437	EPA 8011	723842
92565357022	**FB**	METHOD	723437	EPA 8011	723759
92565357001	**MW-1**	EPA 8260D	651434		
92565357002	**MW-3R**	EPA 8260D	651430		
92565357003	**MW-4**	EPA 8260D	651430		
92565357004	**MW-5**	EPA 8260D	651430		
92565357005	**MW-6**	EPA 8260D	651430		
92565357006	**MW-7**	EPA 8260D	651434		
92565357007	**MW-8**	EPA 8260D	651756		
92565357008	**MW-9**	EPA 8260D	651753		
92565357009	**MW-10**	EPA 8260D	651430		
92565357010	**MW-11**	EPA 8260D	651430		
92565357011	**MW-13**	EPA 8260D	651432		
92565357012	**MW-14**	EPA 8260D	651432		
92565357013	**MW-15**	EPA 8260D	651430		
92565357014	**DW-1**	EPA 8260D	651430		
92565357015	**DW-2**	EPA 8260D	651430		
92565357016	**DW-3**	EPA 8260D	651430		
92565357017	**DW-4**	EPA 8260D	651537		
92565357018	**DW-5**	EPA 8260D	651537		
92565357019	**DW-6**	EPA 8260D	651537		
92565357020	**DUP-1**	EPA 8260D	651537		
92565357021	**DUP-2**	EPA 8260D	651756		

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QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: 04887/64000 WARREN GREEN
Pace Project No.: 92565357

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
92565357022	**FB**	EPA 8260D	651537		
92565357023	**TB**	EPA 8260D	651537		

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CHAIN-OF-CUSTODY Analytical Request Document

Chain-of-Custody is a LEGAL DOCUMENT - Complete all relevent fields

WO# : 92565357

92565357

LAB USE ONLY ... Number or

Company: SCDHEC

Billing Information:

Address: 2600 Bull Street

Report To: R. Dunn.

Email To: DunnRA@dhec.sc.gov

Copy To:

Site Collection Info/Address: Bowers Lane & W. Frontage Road

Customer Project Name/Number: Warren Green

State: SC / County/City: Jasper / Time Zone Collected: [ ] PT [ ] MT [ ] CT [X] ET

Phone:
Email:

Site/Facility ID #: UST # 04987 CA# 64000

Compliance Monitoring? [ ] Yes [ ] No

Collected By (print): Chris Hansen

Purchase Order #:
Quote #:

DW PWS ID #:
DW Location Code:

Collected By (signature):

Turnaround Date Required:

Immediately Packed on Ice: [X] Yes [ ] No

Sample Disposal:
[ ] Dispose as appropriate [ ] Return
[ ] Archive: ____
[ ] Hold: ____

Rush:
[ ] Same Day [ ] Next Day
[ ] 2 Day [ ] 3 Day [ ] 4 Day [ ] 5 Day
(Expedite Charges Apply)

Field Filtered (if applicable): [ ] Yes [ ] No

Analysis: ____

* Matrix Codes (Insert in Matrix box below): Drinking Water (DW), Ground Water (GW), Wastewater (WW), Product (P), Soil/Solid (SL), Oil (OL), Wipe (WP), Air (AR), Tissue (TS), Bioassay (B), Vapor (V), Other (OT)

Container Preservative Type **: 3 | 3

** Preservative Types: (1) nitric acid, (2) sulfuric acid, (3) hydrochloric acid, (4) sodium hydroxide, (5) zinc acetate, (6) methanol, (7) sodium bisulfate, (8) sodium thiosulfate, (9) hexane, (A) ascorbic acid, (B) ammonium sulfate, (C) ammonium hydroxide, (D) TSP, (U) Unpreserved, (O) Other ____

Lab Project Manager:

Analyses: BTEX Nm 1-2 DCA Oxys 8260D | EDB 8011

Customer Sample ID	Matrix *	Comp / Grab	Collected (or Composite Start) Date	Time	Composite End Date	Time	Res Cl	# of Ctns	BTEX Nm 1-2 DCA Oxys 8260D	EDB 8011	LAB USE ONLY: Lab Sample # / Comments: 92565357
MW-1	GW	G	10/4/21	14:42				6	X	X	odor 001
~~MW-2~~											
MW-2R	GW	G	10/4/21	14:08				6	X	X	no odor 002
MW-4				13:43							003
MW-5				13:50							004
MW-6				14:16							005
MW-7				10:27							odor 006
MW-8				14:33							Slight odor 007
MW-9				11:45							no odor 008
MW-10				10:55							009

Lab Profile/Line:

Lab Sample Receipt Checklist: MS 10/7/21

Custody Seals Present/Intact	Y N NA
Custody Signatures Present	Y N NA
Collector Signature Present	Y N NA
Bottles Intact	Y N NA
Correct Bottles	Y N NA
Sufficient Volume	Y N NA
Samples Received on Ice	Y N NA
VOA - Headspace Acceptable	Y N NA
USDA Regulated Soils	Y N NA
Samples in Holding Time	Y N NA
Residual Chlorine Present	Y N NA
Cl Strips:	
Sample pH Acceptable	Y N NA
pH Strips:	
Sulfide Present	Y N NA
Lead Acetate Strips:	

Customer Remarks / Special Conditions / Possible Hazards:

Type of Ice Used: Wet Blue Dry None

Packing Material Used: bubble bags

Radchem sample(s) screened (<500 cpm): Y N NA

SHORT HOLDS PRESENT (<72 hours): Y N N/A

Lab Tracking #: 2601954

Samples received via: FEDEX UPS Client Courier Pace Courier

Lab Sample Temperature Info:
Temp Blank Received: Y N NA
Therm ID#: 92T064
Cooler 1 Temp Upon Receipt: 0.7 oC
Cooler 1 Therm Corr. Factor: 0 oC
Cooler 1 Corrected Temp: 0.7 oC
Comments:

Relinquished by/Company: (Signature)	Date/Time:	Received by/Company: (Signature)	Date/Time:	MTJL LAB USE ONLY
[signature]	10/6/21 9:30	[signature]	10/6 0930	Table #:
[signature]	10/6 1520	[signature] PACE HU	10/6/21 15:00	Acctnum: / Template: / Prelogin:
				PM: / PB:

Trip Blank Received: Y N NA
HCL MeOH TSP Other

Non Conformance(s): YES / NO
Page: ____ of: ____

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CHAIN-OF-CUSTODY Analytical Request Document

Chain-of-Custody is a LEGAL DOCUMENT - Complete all relevent fields

WO#: 92565357
PM: LNW Due Date: 10/13/21
CLIENT: 92-SCDHEC

LAB ... er Number or ... LY

Company: SCDHEC	Billing Information:
Address: 2600 Bull Street	
Report To: R. Dunn	Email To: DunnRA@dhec.sc.gov
Copy To:	Site Collection Info/Address: Beavers Lane & W. Frontage Road
Customer Project Name/Number: Warren Green	State: SC / County/City: Jasper / Time Zone Collected: [ ] PT [ ] MT [ ] CT [X] ET
Phone: / Email:	Site/Facility ID #: UST # 04887 CA# 64006 / Compliance Monitoring? [ ] Yes [ ] No
Collected By (print): Chris Hansen	Purchase Order #: / Quote #: / DW PWS ID #: / DW Location Code:
Collected By (signature): [signature]	Turnaround Date Required: / Immediately Packed on Ice: [X] Yes [ ] No
Sample Disposal: [ ] Dispose as appropriate [ ] Return [ ] Archive: ____ [ ] Hold: ____	Rush: [ ] Same Day [ ] Next Day [ ] 2 Day [ ] 3 Day [ ] 4 Day [ ] 5 Day (Expedite Charges Apply) / Field Filtered (if applicable): [ ] Yes [ ] No / Analysis:

Container Preservative Type **: 3 3

** Preservative Types: (1) nitric acid, (2) sulfuric acid, (3) hydrochloric acid, (4) sodium hydroxide, (5) zinc acetate, (6) methanol, (7) sodium bisulfate, (8) sodium thiosulfate, (9) hexane, (A) ascorbic acid, (B) ammonium sulfate, (C) ammonium hydroxide, (D) TSP, (U) Unpreserved, (O) Other

Lab Project Manager:

Analyses: BTEX NM 1.2DCA OXYS 8260D; EDB 8011

Lab Profile/Line:

Lab Sample Receipt Checklist:
Custody Seals Present/Intact Y (N) NA
Custody Signatures Present (Y) N NA
Collector Signature Present (Y) N NA
Bottles Intact (Y) N NA
Correct Bottles (Y) N NA
Sufficient Volume (Y) N NA
Samples Received on Ice (Y) N NA
VOA - Headspace Acceptable Y (N) NA
USDA Regulated Soils Y N (NA)
Samples in Holding Time (Y) N NA
Residual Chlorine Present Y N (NA)
Cl Strips:
Sample pH Acceptable Y N (NA)
pH Strips:
Sulfide Present Y N (NA)
Lead Acetate Strips:

* Matrix Codes (Insert in Matrix box below): Drinking Water (DW), Ground Water (GW), Wastewater (WW), Product (P), Soil/Solid (SL), Oil (OL), Wipe (WP), Air (AR), Tissue (TS), Bioassay (B), Vapor (V), Other (OT)

Customer Sample ID	Matrix *	Comp / Grab	Collected Date	Collected Time	Composite End Date	Composite End Time	Res Cl	# of Ctns	BTEX NM 1.2DCA OXYS 8260D	EDB 8011	LAB USE ONLY: Lab Sample # / Comments: 92565357
MW-11	GW	G	10/4/21	11:24				6	X	X	No odor 010
~~MW-12~~											
MW-13	GW	G	10/4/21	11:59				6	X	X	No odor 011
MW-14	↓	↓	↓	11:36				↓	↓	↓	012
MW-15	↓	↓	↓	12:10				↓	↓	↓	013
DW-1	↓	↓	↓	15:21				↓	↓	↓	014
DW-2	↓	↓	↓	15:39				↓	↓	↓	015
DW-3	↓	↓	↓	15:38				↓	↓	↓	016
DW-4	↓	↓	↓	15:21				↓	↓	↓	017
DW-5	↓	↓	↓	15:22				↓	↓	↓	018

Customer Remarks / Special Conditions / Possible Hazards:

Type of Ice Used: (Wet) Blue Dry None

Packing Material Used: bubble bags

Radchem sample(s) screened (<500 cpm): Y N (NA)

SHORT HOLDS PRESENT (<72 hours): Y (N) N/A

Lab Tracking #: 2601953

Samples received via: FEDEX UPS Client Courier (Pace Courier)

Lab Sample Temperature Info:
Temp Blank Received: Y (N) NA
Therm ID#: 92T044
Cooler 1 Temp Upon Receipt: 0.7 oC
Cooler 1 Therm Corr. Factor: 0 oC
Cooler 1 Corrected Temp: 0.7 oC
Comments:

Relinquished by/Company: (Signature)	Date/Time:	Received by/Company: (Signature)	Date/Time:	MTJL LAB USE ONLY
[signature]	10/6/21 9:30	[signature]	10/6 0930	Table #:
[signature]	10/6 1500	[signature] PACE HUL	10/6 15:00	Acctnum: / Template: / Prelogin:
				PM: / PB:

Trip Blank Received: (Y) N NA
(HCL) MeOH TSP Other

Non Conformance(s): (YES) / NO
Page: ____ of: ____

Page 53 of 54

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CHAIN-OF-CUSTODY Analytical Request Document

Chain-of-Custody is a LEGAL DOCUMENT - Complete all relevent fields

WO#: 92565357
PM: LNW Due Date: 10/13/21
CLIENT: 92-SCDHEC

Company: SCDHEC
Address: 2600 Bull Street
Report To: R. Dunn
Copy To:
Customer Project Name/Number: Warren Green
Phone:
Email:
Collected By (print): Chris Hansen
Collected By (signature):
Sample Disposal: [ ] Dispose as appropriate [ ] Return [ ] Archive: [ ] Hold:

Billing Information:
Email To: Dunnea@dhec.sc.gov
Site Collection Info/Address: Bowers Lane & W. Frontage Road
State: SC County/City: Jasper Time Zone Collected: [ ] PT [ ] MT [ ] CT [X] ET
Site/Facility ID #: UST # 04887 CA # 64000
Compliance Monitoring? [ ] Yes [ ] No
Purchase Order #:
Quote #:
DW PWS ID #:
DW Location Code:
Turnaround Date Required:
Immediately Packed on Ice: [X] Yes [ ] No
Rush: [ ] Same Day [ ] Next Day [ ] 2 Day [ ] 3 Day [ ] 4 Day [ ] 5 Day (Expedite Charges Apply)
Field Filtered (if applicable): [ ] Yes [ ] No
Analysis:

Container Preservative Type **: 3 3
** Preservative Types: (1) nitric acid, (2) sulfuric acid, (3) hydrochloric acid, (4) sodium hydroxide, (5) zinc acetate, (6) methanol, (7) sodium bisulfate, (8) sodium thiosulfate, (9) hexane, (A) ascorbic acid, (B) ammonium sulfate, (C) ammonium hydroxide, (D) TSP, (U) Unpreserved, (O) Other

Lab Project Manager:

* Matrix Codes (Insert in Matrix box below): Drinking Water (DW), Ground Water (GW), Wastewater (WW), Product (P), Soil/Solid (SL), Oil (OL), Wipe (WP), Air (AR), Tissue (TS), Bioassay (B), Vapor (V), Other (OT)

Analyses: BTEX Nap 1,2 DCA Oxys 8260D; EDB 8011

Customer Sample ID	Matrix *	Comp / Grab	Collected Date	Collected Time	Composite End Date	Composite End Time	Res Cl	# of Ctns	BTEX Nap 1,2 DCA Oxys 8260D	EDB 8011	Lab Sample # / Comments
DW-6	GW	G	10/6/21	1514				6	X	X	92565357 No odor 019
Dup-1	↓	↓	↓	[illegible]				6			dup 020
Dup-2				—							dup 021
FB				1515							FB 022
GAC				1519				↓	↓	↓	GAC
TB	↓	↓	↓	0800				2	X		TB 023

Customer Remarks / Special Conditions / Possible Hazards:

Type of Ice Used: (Wet) Blue Dry None
Packing Material Used: bubble bags
Radchem sample(s) screened (<500 cpm): Y N (NA)

SHORT HOLDS PRESENT (<72 hours): Y (N) N/A
Lab Tracking #: 2601955
Samples received via: FEDEX UPS Client Courier (Pace Courier)

Lab Profile/Line:
Lab Sample Receipt Checklist:
Custody Seals Present/Intact Y (N) NA
Custody Signatures Present (Y) N NA
Collector Signature Present (Y) N NA
Bottles Intact (Y) N NA
Correct Bottles (Y) N NA
Sufficient Volume (Y) N NA
Samples Received on Ice (Y) N NA
VOA - Headspace Acceptable Y (N) NA
USDA Regulated Soils Y N (NA)
Samples in Holding Time (Y) N NA
Residual Chlorine Present Y N (NA)
Cl Strips:
Sample pH Acceptable Y N (NA)
pH Strips:
Sulfide Present Y N (NA)
Lead Acetate Strips:
LAB USE ONLY:
Lab Sample # / Comments:

Lab Sample Temperature Info:
Temp Blank Received: Y (N) NA
Therm ID#: 92T064
Cooler 1 Temp Upon Receipt: 0.7 oC
Cooler 1 Therm Corr. Factor: 0 oC
Cooler 1 Corrected Temp: 0.7 oC
Comments:

Relinquished by/Company: (Signature)	Date/Time:	Received by/Company: (Signature)	Date/Time:	MTJL LAB USE ONLY
[signature]	10/6/21 9:30	[signature]	10/6 0930	Table #:
[signature]	10/6 1500	[signature] PACE HU	10/6/21 15:00	Acctnum: / Template: / Prelogin:
				PM: / PB:

Trip Blank Received: (Y) N NA
(HCL) MeOH TSP Other

Non Conformance(s): YES / NO Page: of:

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Sample Receiving Non-Conformance Form (NCF)

Date: 10/11/21	Evaluated by: MS
Client: SCDHEC	

Pace ... ber

WO#: 92565357
PM: LNW Due Date: 10/13/21
CLIENT: 92-SCDHEC

1. If Chain-of-Custody (COC) is not received: contact client and if necessary, fill out a COC and indicate that it was filled out by lab personnel. Note issues on this NCF.

2. If COC is incomplete, check applicable issues below and add details where appropriate:

	Collection date/time missing or incorrect		Analyses or analytes: missing or clarification needed		Samples listed on COC do not match samples received (missing, additional, etc.)
	Sample IDs on COC do not match sample labels		Required trip blanks were not received		Required signatures are missing

Comments/Details/Other Issues not listed above:

3. Sample integrity issues: check applicable issues below and add details where appropriate:

	Samples: Past holding time		Samples: Condition needs to be brought to lab personnel's attention (details below)		Preservation: Improper
	Samples: Not field filtered		Containers: Broken or compromised		Temperature: not within acceptance criteria (typically 0-6C)
	Samples: Insufficient volume received		Containers: Incorrect		Temperature: Samples arrived frozen
	Samples: Cooler damaged or compromised		Custody Seals: Missing or compromised on samples, trip blanks or coolers	✓	Vials received with improper headspace
	Samples: contain chlorine or sulfides		Packing Material: Insufficient/Improper		Other:

Comments/Details: Headspace DG4H vials: 2 "MW-1", 1 "MW-5", 3 "MW-6," 6 "MW-13,"

4. If Samples not preserved properly and Sample Receiving adjusts pH, add details below:

Sample ID:	Date/Time:	Amount/type pres added:
Preserved by:	Initial and Final pH:	Lot # of pres added:
Sample ID:	Date/Time:	Amount/type pres added:
Preserved by:	Initial and Final pH:	Lot # of pres added:
Sample ID:	Date/Time:	Amount/type pres added:
Preserved by:	Initial and Final pH:	Lot # of pres added:

5. Client Contact: If client is contacted for any issue listed above, fill in details below:

Client:	Contacted per:	
PM Initials:	Date/Time:	

Client Comments/Instructions:

Pace Analytical Services, LLC
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

October 20, 2021

Robert Dunn
SCDHEC
2600 Bull St
Columbia, SC 29201

RE: Project: 04887/64000 WARREN GREEN
Pace Project No.: 92565295

Dear Robert Dunn:

Enclosed are the analytical results for sample(s) received by the laboratory on October 06, 2021. The results relate only to the samples included in this report. Results reported herein conform to the applicable TNI/NELAC Standards and the laboratory's Quality Manual, where applicable, unless otherwise noted in the body of the report.

The test results provided in this final report were generated by each of the following laboratories within the Pace Network:

- Pace Analytical Services - Charlotte

If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Lindsey Wooten

Lindsey N Wooten
lindsey.wooten@pacelabs.com
(704)875-9092
Project Manager

Enclosures

cc: Jeff Coleman, Midlands Environmental Consultants, Inc.
Kyle Pudney, Midlands Environmental Consultants, Inc.
Matt Wykel, SCDHEC

Pace Analytical Services, LLC
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CERTIFICATIONS

Project:	04887/64000 WARREN GREEN
Pace Project No.:	92565295

Pace Analytical Services Charlotte

9800 Kincey Ave. Ste 100, Huntersville, NC 28078
Louisiana/NELAP Certification # LA170028
North Carolina Drinking Water Certification #: 37706
North Carolina Field Services Certification #: 5342
North Carolina Wastewater Certification #: 12
South Carolina Certification #: 99006001
Florida/NELAP Certification #: E87627
Kentucky UST Certification #: 84
Virginia/VELAP Certification #: 460221

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SAMPLE ANALYTE COUNT

Project: 04887/64000 WARREN GREEN
Pace Project No.: 92565295

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
92565295001	**WSW-1**	EPA 524.2	LMB	11	PASI-C
		EPA 8260D	NSCQ	11	PASI-C
92565295002	**WSW-2**	EPA 524.2	LMB	11	PASI-C
		EPA 8260D	NSCQ	11	PASI-C
92565295003	**WSW-DUP**	EPA 524.2	LMB	11	PASI-C
		EPA 8260D	NSCQ	11	PASI-C
92565295004	**WSW-FB**	EPA 524.2	LMB	11	PASI-C
		EPA 8260D	NSCQ	11	PASI-C
92565295005	**WSW-TB**	EPA 524.2	LMB	11	PASI-C
		EPA 8260D	NSCQ	11	PASI-C

PASI-C = Pace Analytical Services - Charlotte

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ANALYTICAL RESULTS

Project: 04887/64000 WARREN GREEN
Pace Project No.: 92565295

Sample: WSW-1 **Lab ID: 92565295001** Collected: 10/04/21 14:54 Received: 10/06/21 09:30 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
524.2 MSV SC List	Analytical Method: EPA 524.2							
	Pace Analytical Services - Charlotte							
Benzene	ND	ug/L	0.50	1		10/06/21 20:05	71-43-2	
1,2-Dichloroethane	ND	ug/L	0.50	1		10/06/21 20:05	107-06-2	
Ethylbenzene	ND	ug/L	0.50	1		10/06/21 20:05	100-41-4	
Methyl-tert-butyl ether	ND	ug/L	0.50	1		10/06/21 20:05	1634-04-4	
Naphthalene	ND	ug/L	0.50	1		10/06/21 20:05	91-20-3	
Toluene	ND	ug/L	0.50	1		10/06/21 20:05	108-88-3	
Xylene (Total)	ND	ug/L	0.50	1		10/06/21 20:05	1330-20-7	
m&p-Xylene	ND	ug/L	1.0	1		10/06/21 20:05	179601-23-1	
o-Xylene	ND	ug/L	0.50	1		10/06/21 20:05	95-47-6	
Surrogates								
1,2-Dichlorobenzene-d4 (S)	92	%	70-130	1		10/06/21 20:05	2199-69-1	
4-Bromofluorobenzene (S)	89	%	70-130	1		10/06/21 20:05	460-00-4	
8260 MSV Low Level SC	Analytical Method: EPA 8260D							
	Pace Analytical Services - Charlotte							
tert-Amyl Alcohol	ND	ug/L	100	1		10/08/21 09:02	75-85-4	
tert-Amylmethyl ether	ND	ug/L	10.0	1		10/08/21 09:02	994-05-8	
3,3-Dimethyl-1-Butanol	ND	ug/L	100	1		10/08/21 09:02	624-95-3	
tert-Butyl Alcohol	ND	ug/L	100	1		10/08/21 09:02	75-65-0	
tert-Butyl Formate	ND	ug/L	50.0	1		10/08/21 09:02	762-75-4	
Diisopropyl ether	ND	ug/L	1.0	1		10/08/21 09:02	108-20-3	
Ethanol	ND	ug/L	200	1		10/08/21 09:02	64-17-5	
Ethyl-tert-butyl ether	ND	ug/L	10.0	1		10/08/21 09:02	637-92-3	
Surrogates								
4-Bromofluorobenzene (S)	100	%	70-130	1		10/08/21 09:02	460-00-4	
1,2-Dichloroethane-d4 (S)	91	%	70-130	1		10/08/21 09:02	17060-07-0	
Toluene-d8 (S)	98	%	70-130	1		10/08/21 09:02	2037-26-5	

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ANALYTICAL RESULTS

Project: 04887/64000 WARREN GREEN
Pace Project No.: 92565295

Sample: WSW-2 **Lab ID: 92565295002** Collected: 10/04/21 15:05 Received: 10/06/21 09:30 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
524.2 MSV SC List	Analytical Method: EPA 524.2							
	Pace Analytical Services - Charlotte							
Benzene	ND	ug/L	0.50	1		10/06/21 20:31	71-43-2	
1,2-Dichloroethane	ND	ug/L	0.50	1		10/06/21 20:31	107-06-2	
Ethylbenzene	ND	ug/L	0.50	1		10/06/21 20:31	100-41-4	
Methyl-tert-butyl ether	ND	ug/L	0.50	1		10/06/21 20:31	1634-04-4	
Naphthalene	ND	ug/L	0.50	1		10/06/21 20:31	91-20-3	
Toluene	ND	ug/L	0.50	1		10/06/21 20:31	108-88-3	
Xylene (Total)	ND	ug/L	0.50	1		10/06/21 20:31	1330-20-7	
m&p-Xylene	ND	ug/L	1.0	1		10/06/21 20:31	179601-23-1	
o-Xylene	ND	ug/L	0.50	1		10/06/21 20:31	95-47-6	
Surrogates								
1,2-Dichlorobenzene-d4 (S)	92	%	70-130	1		10/06/21 20:31	2199-69-1	
4-Bromofluorobenzene (S)	89	%	70-130	1		10/06/21 20:31	460-00-4	
8260 MSV Low Level SC	Analytical Method: EPA 8260D							
	Pace Analytical Services - Charlotte							
tert-Amyl Alcohol	ND	ug/L	100	1		10/08/21 09:20	75-85-4	
tert-Amylmethyl ether	ND	ug/L	10.0	1		10/08/21 09:20	994-05-8	
3,3-Dimethyl-1-Butanol	ND	ug/L	100	1		10/08/21 09:20	624-95-3	
tert-Butyl Alcohol	ND	ug/L	100	1		10/08/21 09:20	75-65-0	
tert-Butyl Formate	ND	ug/L	50.0	1		10/08/21 09:20	762-75-4	
Diisopropyl ether	ND	ug/L	1.0	1		10/08/21 09:20	108-20-3	
Ethanol	ND	ug/L	200	1		10/08/21 09:20	64-17-5	
Ethyl-tert-butyl ether	ND	ug/L	10.0	1		10/08/21 09:20	637-92-3	
Surrogates								
4-Bromofluorobenzene (S)	97	%	70-130	1		10/08/21 09:20	460-00-4	
1,2-Dichloroethane-d4 (S)	91	%	70-130	1		10/08/21 09:20	17060-07-0	
Toluene-d8 (S)	98	%	70-130	1		10/08/21 09:20	2037-26-5	

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ANALYTICAL RESULTS

Project: 04887/64000 WARREN GREEN
Pace Project No.: 92565295

Sample: WSW-DUP **Lab ID: 92565295003** Collected: 10/04/21 00:00 Received: 10/06/21 09:30 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
524.2 MSV SC List	Analytical Method: EPA 524.2 Pace Analytical Services - Charlotte							
Benzene	ND	ug/L	0.50	1		10/06/21 20:57	71-43-2	
1,2-Dichloroethane	ND	ug/L	0.50	1		10/06/21 20:57	107-06-2	
Ethylbenzene	ND	ug/L	0.50	1		10/06/21 20:57	100-41-4	
Methyl-tert-butyl ether	ND	ug/L	0.50	1		10/06/21 20:57	1634-04-4	
Naphthalene	ND	ug/L	0.50	1		10/06/21 20:57	91-20-3	
Toluene	ND	ug/L	0.50	1		10/06/21 20:57	108-88-3	
Xylene (Total)	ND	ug/L	0.50	1		10/06/21 20:57	1330-20-7	
m&p-Xylene	ND	ug/L	1.0	1		10/06/21 20:57	179601-23-1	
o-Xylene	ND	ug/L	0.50	1		10/06/21 20:57	95-47-6	
Surrogates								
1,2-Dichlorobenzene-d4 (S)	93	%	70-130	1		10/06/21 20:57	2199-69-1	
4-Bromofluorobenzene (S)	90	%	70-130	1		10/06/21 20:57	460-00-4	
8260 MSV Low Level SC	Analytical Method: EPA 8260D Pace Analytical Services - Charlotte							
tert-Amyl Alcohol	ND	ug/L	100	1		10/08/21 07:13	75-85-4	
tert-Amylmethyl ether	ND	ug/L	10.0	1		10/08/21 07:13	994-05-8	
3,3-Dimethyl-1-Butanol	ND	ug/L	100	1		10/08/21 07:13	624-95-3	
tert-Butyl Alcohol	ND	ug/L	100	1		10/08/21 07:13	75-65-0	
tert-Butyl Formate	ND	ug/L	50.0	1		10/08/21 07:13	762-75-4	
Diisopropyl ether	ND	ug/L	1.0	1		10/08/21 07:13	108-20-3	
Ethanol	ND	ug/L	200	1		10/08/21 07:13	64-17-5	
Ethyl-tert-butyl ether	ND	ug/L	10.0	1		10/08/21 07:13	637-92-3	
Surrogates								
4-Bromofluorobenzene (S)	98	%	70-130	1		10/08/21 07:13	460-00-4	
1,2-Dichloroethane-d4 (S)	90	%	70-130	1		10/08/21 07:13	17060-07-0	
Toluene-d8 (S)	97	%	70-130	1		10/08/21 07:13	2037-26-5	

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Huntersville, NC 28078
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ANALYTICAL RESULTS

Project: 04887/64000 WARREN GREEN
Pace Project No.: 92565295

Sample: WSW-FB **Lab ID: 92565295004** Collected: 10/04/21 15:17 Received: 10/06/21 09:30 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
524.2 MSV SC List	Analytical Method: EPA 524.2 Pace Analytical Services - Charlotte							
Benzene	ND	ug/L	0.50	1		10/06/21 19:13	71-43-2	
1,2-Dichloroethane	ND	ug/L	0.50	1		10/06/21 19:13	107-06-2	
Ethylbenzene	ND	ug/L	0.50	1		10/06/21 19:13	100-41-4	
Methyl-tert-butyl ether	ND	ug/L	0.50	1		10/06/21 19:13	1634-04-4	
Naphthalene	ND	ug/L	0.50	1		10/06/21 19:13	91-20-3	
Toluene	ND	ug/L	0.50	1		10/06/21 19:13	108-88-3	
Xylene (Total)	ND	ug/L	0.50	1		10/06/21 19:13	1330-20-7	
m&p-Xylene	ND	ug/L	1.0	1		10/06/21 19:13	179601-23-1	
o-Xylene	ND	ug/L	0.50	1		10/06/21 19:13	95-47-6	
Surrogates								
1,2-Dichlorobenzene-d4 (S)	94	%	70-130	1		10/06/21 19:13	2199-69-1	
4-Bromofluorobenzene (S)	90	%	70-130	1		10/06/21 19:13	460-00-4	
8260 MSV Low Level SC	Analytical Method: EPA 8260D Pace Analytical Services - Charlotte							
tert-Amyl Alcohol	ND	ug/L	100	1		10/08/21 03:35	75-85-4	
tert-Amylmethyl ether	ND	ug/L	10.0	1		10/08/21 03:35	994-05-8	
3,3-Dimethyl-1-Butanol	ND	ug/L	100	1		10/08/21 03:35	624-95-3	
tert-Butyl Alcohol	ND	ug/L	100	1		10/08/21 03:35	75-65-0	
tert-Butyl Formate	ND	ug/L	50.0	1		10/08/21 03:35	762-75-4	
Diisopropyl ether	ND	ug/L	1.0	1		10/08/21 03:35	108-20-3	
Ethanol	ND	ug/L	200	1		10/08/21 03:35	64-17-5	
Ethyl-tert-butyl ether	ND	ug/L	10.0	1		10/08/21 03:35	637-92-3	
Surrogates								
4-Bromofluorobenzene (S)	98	%	70-130	1		10/08/21 03:35	460-00-4	
1,2-Dichloroethane-d4 (S)	90	%	70-130	1		10/08/21 03:35	17060-07-0	
Toluene-d8 (S)	98	%	70-130	1		10/08/21 03:35	2037-26-5	

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ANALYTICAL RESULTS

Project: 04887/64000 WARREN GREEN
Pace Project No.: 92565295

Sample: WSW-TB **Lab ID: 92565295005** Collected: 10/04/21 08:00 Received: 10/06/21 09:30 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
524.2 MSV SC List	Analytical Method: EPA 524.2							
	Pace Analytical Services - Charlotte							
Benzene	ND	ug/L	0.50	1		10/06/21 19:39	71-43-2	
1,2-Dichloroethane	ND	ug/L	0.50	1		10/06/21 19:39	107-06-2	
Ethylbenzene	ND	ug/L	0.50	1		10/06/21 19:39	100-41-4	
Methyl-tert-butyl ether	ND	ug/L	0.50	1		10/06/21 19:39	1634-04-4	
Naphthalene	ND	ug/L	0.50	1		10/06/21 19:39	91-20-3	
Toluene	ND	ug/L	0.50	1		10/06/21 19:39	108-88-3	
Xylene (Total)	ND	ug/L	0.50	1		10/06/21 19:39	1330-20-7	
m&p-Xylene	ND	ug/L	1.0	1		10/06/21 19:39	179601-23-1	
o-Xylene	ND	ug/L	0.50	1		10/06/21 19:39	95-47-6	
Surrogates								
1,2-Dichlorobenzene-d4 (S)	93	%	70-130	1		10/06/21 19:39	2199-69-1	
4-Bromofluorobenzene (S)	89	%	70-130	1		10/06/21 19:39	460-00-4	
8260 MSV Low Level SC	Analytical Method: EPA 8260D							
	Pace Analytical Services - Charlotte							
tert-Amyl Alcohol	ND	ug/L	100	1		10/08/21 03:17	75-85-4	
tert-Amylmethyl ether	ND	ug/L	10.0	1		10/08/21 03:17	994-05-8	
3,3-Dimethyl-1-Butanol	ND	ug/L	100	1		10/08/21 03:17	624-95-3	
tert-Butyl Alcohol	ND	ug/L	100	1		10/08/21 03:17	75-65-0	
tert-Butyl Formate	ND	ug/L	50.0	1		10/08/21 03:17	762-75-4	
Diisopropyl ether	ND	ug/L	1.0	1		10/08/21 03:17	108-20-3	
Ethanol	ND	ug/L	200	1		10/08/21 03:17	64-17-5	
Ethyl-tert-butyl ether	ND	ug/L	10.0	1		10/08/21 03:17	637-92-3	
Surrogates								
4-Bromofluorobenzene (S)	98	%	70-130	1		10/08/21 03:17	460-00-4	
1,2-Dichloroethane-d4 (S)	88	%	70-130	1		10/08/21 03:17	17060-07-0	
Toluene-d8 (S)	99	%	70-130	1		10/08/21 03:17	2037-26-5	

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QUALITY CONTROL DATA

Project: 04887/64000 WARREN GREEN
Pace Project No.: 92565295

QC Batch:	651145	Analysis Method:	EPA 524.2
QC Batch Method:	EPA 524.2	Analysis Description:	524.2 MSV
		Laboratory:	Pace Analytical Services - Charlotte

Associated Lab Samples: 92565295001, 92565295002, 92565295003, 92565295004, 92565295005

METHOD BLANK: 3414865 Matrix: Water

Associated Lab Samples: 92565295001, 92565295002, 92565295003, 92565295004, 92565295005

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
1,2-Dichloroethane	ug/L	ND	0.50	10/06/21 14:03	
Benzene	ug/L	ND	0.50	10/06/21 14:03	
Ethylbenzene	ug/L	ND	0.50	10/06/21 14:03	
m&p-Xylene	ug/L	ND	1.0	10/06/21 14:03	
Methyl-tert-butyl ether	ug/L	ND	0.50	10/06/21 14:03	
Naphthalene	ug/L	ND	0.50	10/06/21 14:03	
o-Xylene	ug/L	ND	0.50	10/06/21 14:03	
Toluene	ug/L	ND	0.50	10/06/21 14:03	
Xylene (Total)	ug/L	ND	0.50	10/06/21 14:03	
1,2-Dichlorobenzene-d4 (S)	%	94	70-130	10/06/21 14:03	
4-Bromofluorobenzene (S)	%	90	70-130	10/06/21 14:03	

LABORATORY CONTROL SAMPLE: 3414866

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,2-Dichloroethane	ug/L	20	18.7	93	70-130	
Benzene	ug/L	20	18.8	94	70-130	
Ethylbenzene	ug/L	20	19.1	95	70-130	
m&p-Xylene	ug/L	40	38.2	96	70-130	
Methyl-tert-butyl ether	ug/L	20	16.3	81	70-130	
Naphthalene	ug/L	20	18.1	91	70-130	
o-Xylene	ug/L	20	19.2	96	70-130	
Toluene	ug/L	20	19.1	95	70-130	
Xylene (Total)	ug/L	60	57.4	96		
1,2-Dichlorobenzene-d4 (S)	%			102	70-130	
4-Bromofluorobenzene (S)	%			100	70-130	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

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QUALITY CONTROL DATA

Project: 04887/64000 WARREN GREEN
Pace Project No.: 92565295

QC Batch: 651484 | Analysis Method: EPA 8260D
QC Batch Method: EPA 8260D | Analysis Description: 8260 MSV Low Level SC
Laboratory: Pace Analytical Services - Charlotte
Associated Lab Samples: 92565295003, 92565295004, 92565295005

METHOD BLANK: 3416577 Matrix: Water
Associated Lab Samples: 92565295003, 92565295004, 92565295005

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
3,3-Dimethyl-1-Butanol	ug/L	ND	100	10/08/21 02:23	
Diisopropyl ether	ug/L	ND	1.0	10/08/21 02:23	
Ethanol	ug/L	ND	200	10/08/21 02:23	
Ethyl-tert-butyl ether	ug/L	ND	10.0	10/08/21 02:23	
tert-Amyl Alcohol	ug/L	ND	100	10/08/21 02:23	
tert-Amylmethyl ether	ug/L	ND	10.0	10/08/21 02:23	
tert-Butyl Alcohol	ug/L	ND	100	10/08/21 02:23	
tert-Butyl Formate	ug/L	ND	50.0	10/08/21 02:23	
1,2-Dichloroethane-d4 (S)	%	89	70-130	10/08/21 02:23	
4-Bromofluorobenzene (S)	%	97	70-130	10/08/21 02:23	
Toluene-d8 (S)	%	100	70-130	10/08/21 02:23	

LABORATORY CONTROL SAMPLE: 3416578

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
3,3-Dimethyl-1-Butanol	ug/L	1000	1040	104	70-130	
Diisopropyl ether	ug/L	50	48.8	98	70-130	
Ethanol	ug/L	2000	1750	87	70-130	
Ethyl-tert-butyl ether	ug/L	100	102	102	70-130	
tert-Amyl Alcohol	ug/L	1000	966	97	70-130	
tert-Amylmethyl ether	ug/L	100	104	104	70-130	
tert-Butyl Alcohol	ug/L	500	454	91	70-130	
tert-Butyl Formate	ug/L	400	398	99	70-130	
1,2-Dichloroethane-d4 (S)	%			83	70-130	
4-Bromofluorobenzene (S)	%			99	70-130	
Toluene-d8 (S)	%			97	70-130	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3416579 3416580

Parameter	Units	92565041001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Qual
3,3-Dimethyl-1-Butanol	ug/L	ND	400	400	421	422	105	105	39-157	0	
Diisopropyl ether	ug/L	0.70J	20	20	20.0	20.7	96	100	63-144	4	
Ethanol	ug/L	ND	800	800	754	714	94	89	39-176	5	
Ethyl-tert-butyl ether	ug/L	ND	40	40	41.3	41.4	103	104	66-137	0	
tert-Amyl Alcohol	ug/L	ND	400	400	382	400	96	100	54-153	5	
tert-Amylmethyl ether	ug/L	ND	40	40	42.9	43.6	107	109	69-139	1	

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REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
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QUALITY CONTROL DATA

Project: 04887/64000 WARREN GREEN
Pace Project No.: 92565295

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3416579 3416580

Parameter	Units	92565041001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Qual
tert-Butyl Alcohol	ug/L	ND	200	200	235	246	118	123	43-188	4	
tert-Butyl Formate	ug/L	ND	160	160	63.7	50.9	40	32	10-170	22	
1,2-Dichloroethane-d4 (S)	%						87	83	70-130		
4-Bromofluorobenzene (S)	%						97	98	70-130		
Toluene-d8 (S)	%						96	97	70-130		

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QUALITY CONTROL DATA

Project: 04887/64000 WARREN GREEN
Pace Project No.: 92565295

QC Batch:	651491	Analysis Method:	EPA 8260D
QC Batch Method:	EPA 8260D	Analysis Description:	8260 MSV Low Level SC
		Laboratory:	Pace Analytical Services - Charlotte

Associated Lab Samples: 92565295001, 92565295002

METHOD BLANK: 3416616 Matrix: Water

Associated Lab Samples: 92565295001, 92565295002

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
3,3-Dimethyl-1-Butanol	ug/L	ND	100	10/08/21 02:41	
Diisopropyl ether	ug/L	ND	1.0	10/08/21 02:41	
Ethanol	ug/L	ND	200	10/08/21 02:41	
Ethyl-tert-butyl ether	ug/L	ND	10.0	10/08/21 02:41	
tert-Amyl Alcohol	ug/L	ND	100	10/08/21 02:41	
tert-Amylmethyl ether	ug/L	ND	10.0	10/08/21 02:41	
tert-Butyl Alcohol	ug/L	ND	100	10/08/21 02:41	
tert-Butyl Formate	ug/L	ND	50.0	10/08/21 02:41	
1,2-Dichloroethane-d4 (S)	%	87	70-130	10/08/21 02:41	
4-Bromofluorobenzene (S)	%	98	70-130	10/08/21 02:41	
Toluene-d8 (S)	%	100	70-130	10/08/21 02:41	

LABORATORY CONTROL SAMPLE: 3416617

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
3,3-Dimethyl-1-Butanol	ug/L	1000	1080	108	70-130	
Diisopropyl ether	ug/L	50	49.0	98	70-130	
Ethanol	ug/L	2000	1870	94	70-130	
Ethyl-tert-butyl ether	ug/L	100	103	103	70-130	
tert-Amyl Alcohol	ug/L	1000	1030	103	70-130	
tert-Amylmethyl ether	ug/L	100	108	108	70-130	
tert-Butyl Alcohol	ug/L	500	471	94	70-130	
tert-Butyl Formate	ug/L	400	399	100	70-130	
1,2-Dichloroethane-d4 (S)	%			83	70-130	
4-Bromofluorobenzene (S)	%			98	70-130	
Toluene-d8 (S)	%			96	70-130	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3416618 3416619

Parameter	Units	92565295001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Qual
3,3-Dimethyl-1-Butanol	ug/L	ND	400	400	395	413	99	103	39-157	4	
Diisopropyl ether	ug/L	ND	20	20	19.4	19.1	97	95	63-144	2	
Ethanol	ug/L	ND	800	800	735	710	92	89	39-176	4	
Ethyl-tert-butyl ether	ug/L	ND	40	40	40.7	39.5	102	99	66-137	3	
tert-Amyl Alcohol	ug/L	ND	400	400	365	364	91	91	54-153	0	
tert-Amylmethyl ether	ug/L	ND	40	40	42.9	41.6	107	104	69-139	3	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

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QUALITY CONTROL DATA

Project: 04887/64000 WARREN GREEN

Pace Project No.: 92565295

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3416618 3416619

Parameter	Units	92565295001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Qual
tert-Butyl Alcohol	ug/L	ND	200	200	236	236	118	118	43-188	0	
tert-Butyl Formate	ug/L	ND	160	160	43.5J	41.7J	27	26	10-170		
1,2-Dichloroethane-d4 (S)	%						81	87	70-130		
4-Bromofluorobenzene (S)	%						97	98	70-130		
Toluene-d8 (S)	%						97	97	70-130		

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

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QUALIFIERS

Project: 04887/64000 WARREN GREEN
Pace Project No.: 92565295

DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to dilution of the sample aliquot.

ND - Not Detected at or above adjusted reporting limit.

TNTC - Too Numerous To Count

J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.

MDL - Adjusted Method Detection Limit.

PQL - Practical Quantitation Limit.

RL - Reporting Limit - The lowest concentration value that meets project requirements for quantitative data with known precision and bias for a specific analyte in a specific matrix.

S - Surrogate

1,2-Diphenylhydrazine decomposes to and cannot be separated from Azobenzene using Method 8270. The result for each analyte is a combined concentration.

Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

U - Indicates the compound was analyzed for, but not detected.

Acid preservation may not be appropriate for 2 Chloroethylvinyl ether.

A separate vial preserved to a pH of 4-5 is recommended in SW846 Chapter 4 for the analysis of Acrolein and Acrylonitrile by EPA Method 8260.

N-Nitrosodiphenylamine decomposes and cannot be separated from Diphenylamine using Method 8270. The result reported for each analyte is a combined concentration.

Reported results are not rounded until the final step prior to reporting. Therefore, calculated parameters that are typically reported as "Total" may vary slightly from the sum of the reported component parameters.

Pace Analytical is TNI accredited. Contact your Pace PM for the current list of accredited analytes.

TNI - The NELAC Institute.

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(704)875-9092

QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: 04887/64000 WARREN GREEN
Pace Project No.: 92565295

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
92565295001	**WSW-1**	EPA 524.2	651145		
92565295002	**WSW-2**	EPA 524.2	651145		
92565295003	**WSW-DUP**	EPA 524.2	651145		
92565295004	**WSW-FB**	EPA 524.2	651145		
92565295005	**WSW-TB**	EPA 524.2	651145		
92565295001	**WSW-1**	EPA 8260D	651491		
92565295002	**WSW-2**	EPA 8260D	651491		
92565295003	**WSW-DUP**	EPA 8260D	651484		
92565295004	**WSW-FB**	EPA 8260D	651484		
92565295005	**WSW-TB**	EPA 8260D	651484		

WO#: 92565295

92565295

Pace Analytical

CHAIN-OF-CUSTODY Analytical Request Document

Chain-of-Custody is a LEGAL DOCUMENT - Complete all relevent fields

LAB USE O... ...ber or

Company: SCDHEC	Billing Information:
Address: 2600 Bull Street	
Report To: R. Dunn	Email To: Dunnra@dhec.sc.gov
Copy To:	Site Collection Info/Address: Bowers Lane & W. Frontage Road
Customer Project Name/Number: Warren Green	State: SC County/City: Jasper Time Zone Collected: [ ] PT [ ] MT [ ] CT [X] ET
Phone: Email:	Site/Facility ID #: UST # 04847 CA # 64000
Collected By (print): Chris Hansen	Purchase Order #: Quote #:
Collected By (signature): [signature]	Turnaround Date Required:
Sample Disposal: [ ] Dispose as appropriate [ ] Return [ ] Archive: ____ [ ] Hold: ____	Rush: [ ] Same Day [ ] Next Day [ ] 2 Day [ ] 3 Day [ ] 4 Day [ ] 5 Day (Expedite Charges Apply)

Compliance Monitoring? [ ] Yes [ ] No

DW PWS ID #:
DW Location Code:

Immediately Packed on Ice: [X] Yes [ ] No

Field Filtered (if applicable): [ ] Yes [ ] No
Analysis: ____

* Matrix Codes (Insert in Matrix box below): Drinking Water (DW), Ground Water (GW), Wastewater (WW), Product (P), Soil/Solid (SL), Oil (OL), Wipe (WP), Air (AR), Tissue (TS), Bioassay (B), Vapor (V), Other (OT)

Container Preservative Type **: 3 | 3 | 8

** Preservative Types: (1) nitric acid, (2) sulfuric acid, (3) hydrochloric acid, (4) sodium hydroxide, (5) zinc acetate, (6) methanol, (7) sodium bisulfate, (8) sodium thiosulfate, (9) hexane, (A) ascorbic acid, (B) ammonium sulfate, (C) ammonium hydroxide, (D) TSP, (U) Unpreserved, (O) Other ____

Lab Project Manager:

Customer Sample ID	Matrix *	Comp / Grab	Collected Date	Collected Time	Composite End Date	Composite End Time	Res Cl	# of Ctns	524.2	0928 SVSX0	504.1	Lab Sample # / Comments
WSW-1	DW	G	10/4/21	14:54				9	X	X	X	LDL 001
WSW-2	↓	↓	↓	15:05				↓	↓	↓	↓	002
~~WSW-3~~												
~~WSW-4~~												
WSW DUP	DW	G	10/4/21	–				9	X	X	X	LDL 003
WSW FB	↓	↓	↓	15:17				↓	↓	↓	↓	004
WSW TB	↓	↓	↓	8:00				6	X	X		005

Lab Profile/Line: 92565295

Lab Sample Receipt Checklist:

Custody Seals Present/Intact	Y N NA (NA)
Custody Signatures Present	(Y) N NA
Collector Signature Present	(Y) N NA
Bottles Intact	(Y) N NA
Correct Bottles	(Y) N NA
Sufficient Volume	(Y) N NA
Samples Received on Ice	(Y) N NA
VOA - Headspace Acceptable	(Y) N NA
USDA Regulated Soils	Y N (NA)
Samples in Holding Time	(Y) N NA
Residual Chlorine Present	Y N (NA)
Cl Strips:	
Sample pH Acceptable	Y N (NA)
pH Strips:	
Sulfide Present	Y N (NA)
Lead Acetate Strips:	

LAB USE ONLY:
Lab Sample # / Comments:

Customer Remarks / Special Conditions / Possible Hazards:

Type of Ice Used: (Wet) Blue Dry None

Packing Material Used: BB

Radchem sample(s) screened (<500 cpm): Y N (NA)

SHORT HOLDS PRESENT (<72 hours): Y (N) N/A

Lab Tracking #: 2601952

Samples received via: FEDEX UPS Client Courier Pace Courier

Lab Sample Temperature Info:
Temp Blank Received: Y N (NA)
Therm ID#: 92T064
Cooler 1 Temp Upon Receipt: 1.8 oC
Cooler 1 Therm Corr. Factor: 0 oC
Cooler 1 Corrected Temp: 1.8 oC
Comments:

Relinquished by/Company: (Signature)	Date/Time:	Received by/Company: (Signature)	Date/Time:
[signature]	10/6/21 9:30	[signature]	10/6 0930
[signature]	10/6 1500	KS Pace HVL	10/6/21 1500

MTJL LAB USE ONLY
Table #:
Acctnum:
Template:
Prelogin:
PM:
PB:

Trip Blank Received: Y N (NA)
HCL MeOH TSP Other

Non Conformance(s): YES / (NO)

Page: ____ of: ____

Report of Analysis

Pace Analytical Services, LLC
9800 Kincey Avenue
Suite 100
Huntersville, NC 28078
Attention: Lindsey N Wooten

Project Name: 04887/64000 WARREN GREEN

Project Number: 92565295

Lot Number:**WJ09034**

Date Completed:10/19/2021

10/20/2021 12:13 PM
Approved and released by:
Project Manager I: **Blaire M. Gagne**

The electronic signature above is the equivalent of a handwritten signature.
This report shall not be reproduced, except in its entirety, without the written approval of Pace Analytical Services, LLC.

Case Narrative
Pace Analytical Services, LLC
Lot Number: WJ09034

This Report of Analysis contains the analytical result(s) for the sample(s) listed on the Sample Summary following this Case Narrative. The sample receiving date is documented in the header information associated with each sample.

All results listed in this report relate only to the samples that are contained within this report.

Sample receipt, sample analysis, and data review have been performed in accordance with the most current approved The NELAC Institute (TNI) standards, the Pace Analytical Services, LLC ("Pace") Laboratory Quality Manual, standard operating procedures (SOPs), and Pace policies. Any exceptions to the TNI standards, the Laboratory Quality Manual, SOPs or policies are qualified on the results page or discussed below.

Pace is a TNI accredited laboratory; however, the following analyses are currently not listed on our TNI scope of accreditation:

Biological Tissue: All, Non-Potable Water: SGT-HEM EPA 1664B, Silica EPA 200.7, Boron, Calcium, Silicon, Strontium EPA 200.8, Bicarbonate, Carbonate, and Hydroxide Alkalinity SM 2320 B-2011, Fecal Coliform SM 9221 C E-2006 & SM 9222D-2006, Strontium SW-846 6010D, VOC SM 6200 B-2011, Drinking Water: VOC (excluding BTEX, MTBE, Naphthalene, & 1,2-dichloroethane) EPA 524.2, Solid Chemical Material: TOC Walkley-Black.

If you have any questions regarding this report please contact the Pace Project Manager listed on the cover page.

Sample Summary
Pace Analytical Services, LLC
Lot Number: WJ09034

Sample Number	Sample ID	Matrix	Date Sampled	Date Received
001	WSW-1	Aqueous	10/04/2021 1454	10/08/2021
002	WSW-2	Aqueous	10/04/2021 1505	10/08/2021
003	WSW-DUP	Aqueous	10/04/2021	10/08/2021
004	WSW-FB	Aqueous	10/04/2021 1517	10/08/2021

(4 samples)

Detection Summary

Pace Analytical Services, LLC

Lot Number: WJ09034

Sample	Sample ID	Matrix	Parameter	Method	Result	Q	Units	Page

(0 detections)

EDB & DBCP by Microextraction

Client:	**Pace Analytical Services, LLC**	Laboratory ID:	**WJ09034-001**
Description:	**WSW-1**	Matrix:	**Aqueous**
Date Sampled:	**10/04/2021 1454**		
Date Received:	**10/08/2021**		

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	504.1	504.1	1	10/18/2021 1837	CMF	10/18/2021 1200	19167

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	Units	Run
1,2-Dibromoethane (EDB)	106-93-4	504.1	ND		0.0099	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,1,1,2-Tetrachloroethane		78	57-137

LOQ = Limit of Quantitation B = Detected in the method blank E = Quantitation of compound exceeded the calibration range Q = Surrogate failure
ND = Not detected at or above the LOQ N = Recovery is out of criteria P = The RPD between two GC columns exceeds 40% L = LCS/LCSD failure
H = Out of holding time W = Reported on wet weight basis S = MS/MSD failure

EDB & DBCP by Microextraction

Client:	**Pace Analytical Services, LLC**	Laboratory ID:	**WJ09034-002**
Description:	**WSW-2**	Matrix:	**Aqueous**
Date Sampled:	**10/04/2021 1505**		
Date Received:	**10/08/2021**		

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	504.1	504.1	1	10/18/2021 1902	CMF	10/18/2021 1200	19167

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	Units	Run
1,2-Dibromoethane (EDB)	106-93-4	504.1	ND		0.010	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,1,1,2-Tetrachloroethane		83	57-137

LOQ = Limit of Quantitation | B = Detected in the method blank | E = Quantitation of compound exceeded the calibration range | Q = Surrogate failure
ND = Not detected at or above the LOQ | N = Recovery is out of criteria | P = The RPD between two GC columns exceeds 40% | L = LCS/LCSD failure
H = Out of holding time | W = Reported on wet weight basis | S = MS/MSD failure

EDB & DBCP by Microextraction

Client:	**Pace Analytical Services, LLC**	Laboratory ID:	**WJ09034-003**
Description:	**WSW-DUP**	Matrix:	**Aqueous**
Date Sampled:	**10/04/2021**		
Date Received:	**10/08/2021**		

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	504.1	504.1	1	10/18/2021 1926	CMF	10/18/2021 1200	19167

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	Units	Run
1,2-Dibromoethane (EDB)	106-93-4	504.1	ND		0.010	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,1,1,2-Tetrachloroethane		77	57-137

LOQ = Limit of Quantitation	B = Detected in the method blank	E = Quantitation of compound exceeded the calibration range	Q = Surrogate failure
ND = Not detected at or above the LOQ	N = Recovery is out of criteria	P = The RPD between two GC columns exceeds 40%	L = LCS/LCSD failure
H = Out of holding time	W = Reported on wet weight basis		S = MS/MSD failure

EDB & DBCP by Microextraction

Client:	**Pace Analytical Services, LLC**	Laboratory ID:	**WJ09034-004**
Description:	**WSW-FB**	Matrix:	**Aqueous**
Date Sampled:	**10/04/2021 1517**		
Date Received:	**10/08/2021**		

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	504.1	504.1	1	10/18/2021 1938	CMF	10/18/2021 1200	19167

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	Units	Run
1,2-Dibromoethane (EDB)	106-93-4	504.1	ND		0.010	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,1,1,2-Tetrachloroethane		81	57-137

QC Summary

EDB & DBCP by Microextraction - MB

Sample ID:	WQ19167-001	**Matrix:**	Aqueous
Batch:	19167	**Prep Method:**	504.1
Analytical Method:	504.1	**Prep Date:**	10/18/2021 1200

Parameter	Result	Q	Dil	LOQ	Units	Analysis Date
1,2-Dibromoethane (EDB)	ND		1	0.010	ug/L	10/18/2021 1736

Surrogate	Q	% Rec	Acceptance Limit
1,1,1,2-Tetrachloroethane		66	57-137

LOQ = Limit of Quantitation   ND = Not detected at or above the LOQ   N = Recovery is out of criteria

P = The RPD between two GC columns exceeds 40%

* = RSD is out of criteria   + = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

EDB & DBCP by Microextraction - LCS

Sample ID: WQ19167-002
Batch: 19167
Analytical Method: 504.1

Matrix: Aqueous
Prep Method: 504.1
Prep Date: 10/18/2021 1200

Parameter	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	%Rec Limit	Analysis Date
1,2-Dibromoethane (EDB)	0.25	0.23		1	93	70-130	10/18/2021 1748

Surrogate	Q	% Rec	Acceptance Limit
1,1,1,2-Tetrachloroethane		72	57-137

LOQ = Limit of Quantitation
ND = Not detected at or above the LOQ
N = Recovery is out of criteria
P = The RPD between two GC columns exceeds 40%
* = RSD is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

EDB & DBCP by Microextraction - Duplicate

Sample ID: WJ09034-001DU
Batch: 19167
Analytical Method: 504.1

Matrix: Aqueous
Prep Method: 504.1
Prep Date: 10/18/2021 1200

Parameter	Sample Amount (ug/L)	Result (ug/L)	Q	Dil	% RPD	%RPD Limit	Analysis Date
1,2-Dibromoethane (EDB)	ND	ND		1	0.00	20	10/18/2021 1849

Surrogate	Q	% Rec	Acceptance Limit
1,1,1,2-Tetrachloroethane		83	57-137

LOQ = Limit of Quantitation
ND = Not detected at or above the LOQ
N = Recovery is out of criteria
P = The RPD between two GC columns exceeds 40%
* = RSD is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

EDB & DBCP by Microextraction - MS

Sample ID: WJ09034-002MS
Batch: 19167
Analytical Method: 504.1

Matrix: Aqueous
Prep Method: 504.1
Prep Date: 10/18/2021 1200

Parameter	Sample Amount (ug/L)	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	%Rec Limit	Analysis Date
1,2-Dibromoethane (EDB)	ND	0.25	0.22		1	89	70-130	10/18/2021 1914

Surrogate	Q	% Rec	Acceptance Limit
1,1,1,2-Tetrachloroethane		81	57-137

LOQ = Limit of Quantitation
ND = Not detected at or above the LOQ
N = Recovery is out of criteria
P = The RPD between two GC columns exceeds 40%
* = RSD is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Chain of Custody

and

Miscellaneous Documents

Internal Transfer Chain of Custody

Pace Analytical® www.pacelabs.com

☐ Samples Pre-Logged into eCOC.

State Of Origin: SC
Cert. Needed: ☒ Yes ☐ No
Owner Received Date: 10/6/2021 Results Requested By: 10/13/2021

Workorder: 92565295 **Workorder Name:** 04887/64000 WARREN GREEN

Report To	Subcontract To
Lindsey N Wooten Pace Analytical Charlotte 9800 Kincey Ave. Suite 100 Huntersville, NC 28078 Phone (704)875-9092	Pace Analytical West Columbia 106 Vantage Point Drive West Columbia, SC 29172 Phone (803)791-9700

WJ09034

BMG

Item	Sample ID	Sample Type	Collect Date/Time	Lab ID	Matrix	Preserved Containers: NA2S2O3						Requested Analysis: EDB by 504.1	LAB USE ONLY
1	WSW-1	PS	10/4/2021 14:54	92565296001	Water	1						X	
2	WGW-2	PS	10/4/2021 15:05	92565295002	Water	1						X	
3	WSW-DUP	PS	10/4/2021 00:00	92565295003	Water	1						X	
4	WSW-FB	PS	10/4/2021 15:17	92565255004	Water	1						X	
5													

Transfers	Released By	Date/Time	Received By	Date/Time	Comments
1	SKC Pace HUL	10-7-21 1112			
2					
3			[illegible]	10/8/21 1230	

Cooler Temperature on Receipt 3.1 °C | Custody Seal Y or N | Received on Ice Y or N | Samples Intact Y or N

***In order to maintain client confidentiality, location/name of the sampling site, sampler's name and signature may not be provided on this COC document.
This chain of custody is considered complete as is since this information is available in the owner laboratory.

Thursday, October 07, 2021 4:20:48 PM FMT-ALL-C-002rev.00 24March2009 Page 1 of 1

Pace Analytical

Samples Receipt Checklist (SRC) (ME0018C-15)
Issuing Authority: Pace ENV - WCOL

Revised:9/29/2020
Page 1 of 1

Sample Receipt Checklist (SRC)

Client: PACE   Cooler Inspected by/date: JSI / 10/09/2021   Lot #: WJ09034

Means of receipt: ☐ Pace ☑ Client ☐ UPS ☐ FedEx ☐ Other:

Yes	No	NA	Question
☐	☑		1. Were custody seals present on the cooler?
☐	☐	☑	2. If custody seals were present, were they intact and unbroken?

pH Strip ID: NA   Chlorine Strip ID: NA   Tested by: NA

Original temperature upon receipt / Derived (Corrected) temperature upon receipt   %Solid Snap-Cup ID: NA

3.1 / 3.1 °C   NA / NA °C   NA / NA °C   NA / NA °C

Method: ☐ Temperature Blank ☑ Against Bottles   IR Gun ID: 5   IR Gun Correction Factor: 0 °C

Method of coolant: ☑ Wet Ice ☐ Ice Packs ☐ Dry Ice ☐ None

Yes	No	NA	Question
☐	☐	☑	3. If temperature of any cooler exceeded 6.0°C, was Project Manager Notified? PM was Notified by: phone / email / face-to-face (circle one).
☐	☐	☑	4. Is the commercial courier's packing slip attached to this form?
☑	☐		5. Were proper custody procedures (relinquished/received) followed?
☑	☐		6. Were sample IDs listed on the COC?
☑	☐		7. Were sample IDs listed on all sample containers?
☑	☐		8. Was collection date & time listed on the COC?
☑	☐		9. Was collection date & time listed on all sample containers?
☑	☐		10. Did all container label information (ID, date, time) agree with the COC?
☑	☐		11. Were tests to be performed listed on the COC?
☑	☐		12. Did all samples arrive in the proper containers for each test and/or in good condition (unbroken, lids on, etc.)?
☑	☐		13. Was adequate sample volume available?
☐	☑		14. Were all samples received within ½ the holding time or 48 hours, whichever comes first?
☐	☑		15. Were any samples containers missing/excess (circle one) samples Not listed on COC?
☐	☑	☐	16. For VOA and RSK-175 samples, were bubbles present >"pea-size" (¼"or 6mm in diameter) in any of the VOA vials?
☐	☐	☑	17. Were all DRO/metals/nutrient samples received at a pH of < 2?
☐	☐	☑	18. Were all cyanide samples received at a pH > 12 and sulfide samples received at a pH > 9?
☐	☐	☑	19. Were all applicable NH_3/TKN/cyanide/phenol/625.1/608.3 (< 0.5mg/L) samples free of residual chlorine?
☐	☐	☑	20. Were client remarks/requests (i.e. requested dilutions, MS/MSD designations, etc…) correctly transcribed from the COC into the comment section in LIMS?
☐	☑		21. Was the quote number listed on the container label? If yes, Quote #

Sample Preservation (Must be completed for any sample(s) incorrectly preserved or with headspace.)

Sample(s) NA were received incorrectly preserved and were adjusted accordingly in sample receiving with NA mL of circle one: H2SO4, HNO3, HCl, NaOH using SR # NA.
Time of preservation NA. If more than one preservative is needed, please note in the comments below.

Sample(s) NA were received with bubbles >6 mm in diameter.

Samples(s) NA were received with TRC > 0.5 mg/L (If #19 is *no*) and were adjusted accordingly in sample receiving with sodium thiosulfate ($Na_2S_2O_3$) with Shealy ID: NA.

SR barcode labels applied by: JRG2   Date: 10/09/2021

Comments:

Pace Analytical Services, LLC
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

October 18, 2021

Mr. Bryan Shane
Midlands Environmental
PO Box 854
Lexington, SC 29071

RE: Project: WARREN GREEN GAC
Pace Project No.: 92565371

Dear Mr. Shane:

Enclosed are the analytical results for sample(s) received by the laboratory on October 06, 2021. The results relate only to the samples included in this report. Results reported herein conform to the applicable TNI/NELAC Standards and the laboratory's Quality Manual, where applicable, unless otherwise noted in the body of the report.

The test results provided in this final report were generated by each of the following laboratories within the Pace Network:

- Pace Analytical Gulf Coast
- Pace Analytical Services - Charlotte

If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Lindsey N Wooten
lindsey.wooten@pacelabs.com
(704)875-9092
Project Manager

Enclosures

cc: Mr. Jeff Coleman, Midlands Environmental
Mr. Kyle Pudney, Midlands Environmental

Pace Analytical Services, LLC
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

CERTIFICATIONS

Project:	WARREN GREEN GAC
Pace Project No.:	92565371

Pace Analytical Gulf Coast

7979 Innovation Park Drive, Baton Rouge, LA 70820
Arkansas Certification #: 88-0655
DoD ELAP Certification #: L18-597
Florida Certification #: E87854
Illinois Certification #: 004585
Kansas Certification #: E-10354
Louisiana/LELAP Certification #: 01955
North Carolina Certification #: 618
North Dakota Certification #: R-195
Oklahoma Certification #: 2019-101
South Carolina Certification #: 73006001
Texas Certification #: T104704178-19-11
USDA Soil Permit # P330-19-00209
Virginia Certification #: 460215
Washington Certification #: C929

Pace Analytical Services Charlotte

9800 Kincey Ave. Ste 100, Huntersville, NC 28078
Louisiana/NELAP Certification # LA170028
North Carolina Drinking Water Certification #: 37706
North Carolina Field Services Certification #: 5342
North Carolina Wastewater Certification #: 12
South Carolina Certification #: 99006001
Florida/NELAP Certification #: E87627
Kentucky UST Certification #: 84
Virginia/VELAP Certification #: 460221

Pace Analytical Services, LLC
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Huntersville, NC 28078
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SAMPLE SUMMARY

Project: WARREN GREEN GAC
Pace Project No.: 92565371

Lab ID	Sample ID	Matrix	Date Collected	Date Received
92565371001	**GAC**	Water	10/04/21 15:14	10/06/21 09:30

Pace Analytical Services, LLC
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Huntersville, NC 28078
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SAMPLE ANALYTE COUNT

Project: WARREN GREEN GAC
Pace Project No.: 92565371

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
92565371001	**GAC**	EPA 8011	MFS	1	GCLA
		EPA 8260D	CL	20	PASI-C

GCLA = Pace Analytical Gulf Coast
PASI-C = Pace Analytical Services - Charlotte

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Huntersville, NC 28078
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ANALYTICAL RESULTS

Project: WARREN GREEN GAC
Pace Project No.: 92565371

Sample: GAC **Lab ID: 92565371001** Collected: 10/04/21 15:14 Received: 10/06/21 09:30 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
EPA 8011	Analytical Method: EPA 8011 Preparation Method: METHOD Pace Analytical Gulf Coast								
1,2-Dibromoethane (EDB)	ND	ug/L	0.020	0.00750	1	10/14/21 11:00	10/14/21 15:53	106-93-4	
8260 MSV	Analytical Method: EPA 8260D Pace Analytical Services - Charlotte								
tert-Amyl Alcohol	ND	ug/L	100	65.6	1		10/08/21 09:24	75-85-4	
tert-Amylmethyl ether	ND	ug/L	10.0	3.0	1		10/08/21 09:24	994-05-8	
Benzene	ND	ug/L	5.0	1.7	1		10/08/21 09:24	71-43-2	
3,3-Dimethyl-1-Butanol	ND	ug/L	100	53.9	1		10/08/21 09:24	624-95-3	
tert-Butyl Alcohol	ND	ug/L	100	91.0	1		10/08/21 09:24	75-65-0	
tert-Butyl Formate	ND	ug/L	50.0	24.1	1		10/08/21 09:24	762-75-4	
1,2-Dichloroethane	ND	ug/L	5.0	2.1	1		10/08/21 09:24	107-06-2	
Diisopropyl ether	ND	ug/L	5.0	3.5	1		10/08/21 09:24	108-20-3	
Ethanol	ND	ug/L	200	144	1		10/08/21 09:24	64-17-5	
Ethylbenzene	ND	ug/L	5.0	1.8	1		10/08/21 09:24	100-41-4	
Ethyl-tert-butyl ether	ND	ug/L	10.0	8.5	1		10/08/21 09:24	637-92-3	
Methyl-tert-butyl ether	ND	ug/L	5.0	3.1	1		10/08/21 09:24	1634-04-4	
Naphthalene	ND	ug/L	5.0	2.1	1		10/08/21 09:24	91-20-3	
Toluene	ND	ug/L	5.0	2.0	1		10/08/21 09:24	108-88-3	
Xylene (Total)	ND	ug/L	5.0	5.0	1		10/08/21 09:24	1330-20-7	
m&p-Xylene	ND	ug/L	10.0	4.1	1		10/08/21 09:24	179601-23-1	
o-Xylene	ND	ug/L	5.0	2.0	1		10/08/21 09:24	95-47-6	
Surrogates									
4-Bromofluorobenzene (S)	93	%	70-130		1		10/08/21 09:24	460-00-4	
1,2-Dichloroethane-d4 (S)	85	%	70-130		1		10/08/21 09:24	17060-07-0	
Toluene-d8 (S)	97	%	70-130		1		10/08/21 09:24	2037-26-5	

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QUALITY CONTROL DATA

Project: WARREN GREEN GAC
Pace Project No.: 92565371

QC Batch: 651537 | Analysis Method: EPA 8260D
QC Batch Method: EPA 8260D | Analysis Description: 8260 MSV SC
Laboratory: Pace Analytical Services - Charlotte

Associated Lab Samples: 92565371001

METHOD BLANK: 3417046 Matrix: Water
Associated Lab Samples: 92565371001

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
1,2-Dichloroethane	ug/L	ND	5.0	2.1	10/08/21 00:56	
3,3-Dimethyl-1-Butanol	ug/L	ND	100	53.9	10/08/21 00:56	
Benzene	ug/L	ND	5.0	1.7	10/08/21 00:56	
Diisopropyl ether	ug/L	ND	5.0	3.5	10/08/21 00:56	
Ethanol	ug/L	ND	200	144	10/08/21 00:56	
Ethyl-tert-butyl ether	ug/L	ND	10.0	8.5	10/08/21 00:56	
Ethylbenzene	ug/L	ND	5.0	1.8	10/08/21 00:56	
m&p-Xylene	ug/L	ND	10.0	4.1	10/08/21 00:56	
Methyl-tert-butyl ether	ug/L	ND	5.0	3.1	10/08/21 00:56	
Naphthalene	ug/L	ND	5.0	2.1	10/08/21 00:56	
o-Xylene	ug/L	ND	5.0	2.0	10/08/21 00:56	
tert-Amyl Alcohol	ug/L	ND	100	65.6	10/08/21 00:56	
tert-Amylmethyl ether	ug/L	ND	10.0	3.0	10/08/21 00:56	
tert-Butyl Alcohol	ug/L	ND	100	91.0	10/08/21 00:56	
tert-Butyl Formate	ug/L	ND	50.0	24.1	10/08/21 00:56	
Toluene	ug/L	ND	5.0	2.0	10/08/21 00:56	
Xylene (Total)	ug/L	ND	5.0	5.0	10/08/21 00:56	
1,2-Dichloroethane-d4 (S)	%	89	70-130		10/08/21 00:56	
4-Bromofluorobenzene (S)	%	95	70-130		10/08/21 00:56	
Toluene-d8 (S)	%	96	70-130		10/08/21 00:56	

LABORATORY CONTROL SAMPLE: 3417047

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,2-Dichloroethane	ug/L	50	44.1	88	70-130	
3,3-Dimethyl-1-Butanol	ug/L	1000	1090	109	70-130	
Benzene	ug/L	50	49.5	99	70-130	
Diisopropyl ether	ug/L	50	41.0	82	70-130	
Ethanol	ug/L	2000	1680	84	70-130	
Ethyl-tert-butyl ether	ug/L	100	89.0	89	70-130	
Ethylbenzene	ug/L	50	53.0	106	70-130	
m&p-Xylene	ug/L	100	107	107	70-130	
Methyl-tert-butyl ether	ug/L	50	43.5	87	70-130	
Naphthalene	ug/L	50	57.8	116	70-130	
o-Xylene	ug/L	50	54.1	108	70-130	
tert-Amyl Alcohol	ug/L	1000	959	96	70-130	
tert-Amylmethyl ether	ug/L	100	96.5	97	70-130	
tert-Butyl Alcohol	ug/L	500	441	88	70-130	
tert-Butyl Formate	ug/L	400	377	94	70-130	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

Pace Analytical Services, LLC
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(704)875-9092

QUALITY CONTROL DATA

Project: WARREN GREEN GAC
Pace Project No.: 92565371

LABORATORY CONTROL SAMPLE: 3417047

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Toluene	ug/L	50	49.8	100	70-130	
Xylene (Total)	ug/L	150	161	107	70-130	
1,2-Dichloroethane-d4 (S)	%			84	70-130	
4-Bromofluorobenzene (S)	%			97	70-130	
Toluene-d8 (S)	%			95	70-130	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3417048 3417049

Parameter	Units	92565357017 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
1,2-Dichloroethane	ug/L	ND	20	20	19.6	21.5	98	108	70-137	10	30	
3,3-Dimethyl-1-Butanol	ug/L	ND	400	400	427	511	107	128	39-157	18	30	
Benzene	ug/L	ND	20	20	21.9	24.8	109	124	70-151	13	30	
Diisopropyl ether	ug/L	ND	20	20	17.1	19.3	86	96	63-144	12	30	
Ethanol	ug/L	ND	800	800	708	783	89	98	39-176	10	30	
Ethyl-tert-butyl ether	ug/L	ND	40	40	38.7	41.2	97	103	66-137	6	30	
Ethylbenzene	ug/L	ND	20	20	23.2	26.2	116	131	66-153	12	30	
m&p-Xylene	ug/L	ND	40	40	46.8	53.8	117	134	69-152	14	30	
Methyl-tert-butyl ether	ug/L	ND	20	20	18.3	20.3	91	102	54-156	11	30	
Naphthalene	ug/L	ND	20	20	21.6	25.9	108	129	61-148	18	30	
o-Xylene	ug/L	ND	20	20	23.1	26.3	115	131	70-148	13	30	
tert-Amyl Alcohol	ug/L	ND	400	400	428	496	107	124	54-153	15	30	
tert-Amylmethyl ether	ug/L	ND	40	40	42.4	47.1	106	118	69-139	11	30	
tert-Butyl Alcohol	ug/L	ND	200	200	228	274	114	137	43-188	18	30	
tert-Butyl Formate	ug/L	ND	160	160	93.5	79.7	58	50	10-170	16	30	
Toluene	ug/L	ND	20	20	22.4	25.3	112	126	59-148	12	30	
Xylene (Total)	ug/L	ND	60	60	69.8	80.0	116	133	63-158	14	30	
1,2-Dichloroethane-d4 (S)	%						85	81	70-130			
4-Bromofluorobenzene (S)	%						95	97	70-130			
Toluene-d8 (S)	%						94	95	70-130			

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

Pace Analytical®
www.pacelabs.com

Pace Analytical Services, LLC
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

QUALITY CONTROL DATA

Project: WARREN GREEN GAC
Pace Project No.: 92565371

QC Batch: 723443 | Analysis Method: EPA 8011
QC Batch Method: METHOD | Analysis Description: EPA 8011 Water
Laboratory: Pace Analytical Gulf Coast

Associated Lab Samples: 92565371001

METHOD BLANK: 2253086 Matrix: Water
Associated Lab Samples: 92565371001

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
1,2-Dibromoethane (EDB)	ug/L	ND	0.020	0.00750	10/14/21 13:36	

LABORATORY CONTROL SAMPLE & LCSD: 2253087 2253088

Parameter	Units	Spike Conc.	LCS Result	LCSD Result	LCS % Rec	LCSD % Rec	% Rec Limits	RPD	Max RPD	Qualifiers
1,2-Dibromoethane (EDB)	ug/L	0.276	0.316	0.331	114	119	60-140	5	40	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

Pace Analytical
www.pacelabs.com

Pace Analytical Services, LLC
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

QUALIFIERS

Project: WARREN GREEN GAC
Pace Project No.: 92565371

DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to dilution of the sample aliquot.

ND - Not Detected at or above adjusted reporting limit.

TNTC - Too Numerous To Count

J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.

MDL - Adjusted Method Detection Limit.

PQL - Practical Quantitation Limit.

RL - Reporting Limit - The lowest concentration value that meets project requirements for quantitative data with known precision and bias for a specific analyte in a specific matrix.

S - Surrogate

1,2-Diphenylhydrazine decomposes to and cannot be separated from Azobenzene using Method 8270. The result for each analyte is a combined concentration.

Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

U - Indicates the compound was analyzed for, but not detected.

Acid preservation may not be appropriate for 2 Chloroethylvinyl ether.

A separate vial preserved to a pH of 4-5 is recommended in SW846 Chapter 4 for the analysis of Acrolein and Acrylonitrile by EPA Method 8260.

N-Nitrosodiphenylamine decomposes and cannot be separated from Diphenylamine using Method 8270. The result reported for each analyte is a combined concentration.

Reported results are not rounded until the final step prior to reporting. Therefore, calculated parameters that are typically reported as "Total" may vary slightly from the sum of the reported component parameters.

Pace Analytical is TNI accredited. Contact your Pace PM for the current list of accredited analytes.

TNI - The NELAC Institute.

Pace Analytical Services, LLC
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: WARREN GREEN GAC
Pace Project No.: 92565371

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
92565371001	**GAC**	METHOD	723443	EPA 8011	723630
92565371001	**GAC**	EPA 8260D	651537		

Pace Analytical®

CHAIN-OF-CUSTODY Analytical Request Document

Chain-of-Custody is a LEGAL DOCUMENT - Complete all relevent fields

WO# : 92565371

92565371

LAB ... er Number or ... LY

Company: SCDHEC

Address: 2600 Bull. Street

Billing Information:

Report To: R. Dunn

Email To: dunnra@dhec.sc.gov

Copy To:

Site Collection Info/Address: Powers Lane & W Frontage Road

Customer Project Name/Number: Warren Green

State: SC / County/City: Jasper

Time Zone Collected: [ ] PT [ ] MT [ ] CT [X] ET

Phone:
Email:

Site/Facility ID #: US #04887 CF #64000

Compliance Monitoring? [ ] Yes [ ] No

Collected By (print): Chris Hansen

Purchase Order #:
Quote #:

DW PWS ID #:
DW Location Code:

Collected By (signature):

Turnaround Date Required:

Immediately Packed on Ice: [X] Yes [ ] No

Sample Disposal:
[ ] Dispose as appropriate [ ] Return
[ ] Archive: ______
[ ] Hold: ______

Rush:
[ ] Same Day [ ] Next Day
[ ] 2 Day [ ] 3 Day [ ] 4 Day [ ] 5 Day
(Expedite Charges Apply)

Field Filtered (if applicable): [ ] Yes [ ] No
Analysis: ______

* Matrix Codes (Insert in Matrix box below): Drinking Water (DW), Ground Water (GW), Wastewater (WW), Product (P), Soil/Solid (SL), Oil (OL), Wipe (WP), Air (AR), Tissue (TS), Bioassay (B), Vapor (V), Other (OT)

Container Preservative Type **: 3, 3

** Preservative Types: (1) nitric acid, (2) sulfuric acid, (3) hydrochloric acid, (4) sodium hydroxide, (5) zinc acetate, (6) methanol, (7) sodium bisulfate, (8) sodium thiosulfate, (9) hexane, (A) ascorbic acid, (B) ammonium sulfate, (C) ammonium hydroxide, (D) TSP, (U) Unpreserved, (O) Other ______

Analyses: BTEX, MN, 1-2 DCA, Oxys 8260D | EDB 8011

Customer Sample ID	Matrix *	Comp / Grab	Collected (or Composite Start) Date	Collected Time	Composite End Date	Composite End Time	Res Cl	# of Ctns	BTEX MN 1-2 DCA Oxys 8260D	EDB 8011	Lab Sample # / Comments
MW-6	GW	G	10/4/21	15:41				6	X	X	no odor
Dup-1	↓	↓	↓	[illegible]				↓	↓	↓	dup
Dup-2				—							dup
FB				15:15							FB
GAC				15:19							GAC 001
TB				8:00					X		TB

bubble bag?

Lab Project Manager:

Lab Profile/Line:

Lab Sample Receipt Checklist:

Custody Seals Present/Intact	Y N NA
Custody Signatures Present	Y N NA
Collector Signature Present	Y N NA
Bottles Intact	Y N NA
Correct Bottles	Y N NA
Sufficient Volume	Y N NA
Samples Received on Ice	Y N NA
VOA - Headspace Acceptable	Y N NA
USDA Regulated Soils	Y N NA
Samples in Holding Time	Y N NA
Residual Chlorine Present	Y N NA
Cl Strips:	
Sample pH Acceptable	Y N NA
pH Strips:	
Sulfide Present	Y N NA
Lead Acetate Strips:	

LAB USE ONLY:
Lab Sample # / Comments:
92565371

Customer Remarks / Special Conditions / Possible Hazards:

Type of Ice Used: Wet Blue Dry None

Packing Material Used: bubble bags

Radchem sample(s) screened (<500 cpm): Y N NA

SHORT HOLDS PRESENT (<72 hours): Y N N/A

Lab Tracking #: 2601955 2601964

Samples received via: FEDEX UPS Client Courier Pace Courier

Lab Sample Temperature Info:
Temp Blank Received: Y N NA
Therm ID#: 92T064
Cooler 1 Temp Upon Receipt: 0.7 oC
Cooler 1 Therm Corr. Factor: 0 oC
Cooler 1 Corrected Temp: 0.7 oC
Comments:

Relinquished by/Company: (Signature)	Date/Time:	Received by/Company: (Signature)	Date/Time:
[signature]	10/6/21 9:30	[signature]	10/6 0930
[signature]	10/6 1500	[signature] PACE HH	10/6/21 15:00

MTJL LAB USE ONLY
Table #:
Acctnum:
Template:
Prelogin:
PM:
PB:

Trip Blank Received: Y N NA
HCL MeOH TSP Other

Non Conformance(s): YES / NO

Page: ______ of: ______

APPENDIX B:

TAX MAP

Site name: Green Warren

Permit Number: 04887

Tax Map Info

Tax Map #	**Property Address**	**Mailing Address**	**Owner**	**Wells**
088-00-02-032	10773 W. Frontage Road, Yemassee, SC 29945	189 Oakhill Road, Ridgeland, SC 29936	Lasonya Eady ETAL	MW1-4, MW6-7, MW9-15, DW1-2, DW-5
088-00-02-031	W. Frontage Road, Yemassee, SC 29945	189 Oakhill Road, Ridgeland, SC 29936	Rosa G. Lock ETAL	MW-5, MW-8, DW-3, DW-4
088-00-02-023	W. Frontage Road, Yemassee, SC 29945	PO Box 211683 Martinez, GA 30907	Retreat Plantation, LLC	
088-00-02-035	235 Bowers Lane, Yemassee, SC 29945	81 Daniels Lane, Yemassee, SC 29945	Rebecca Bowers	WSW-1
CNL	299 Bowers Lane, Yemassee, SC 29945	CNL	CNL	WSW-2
088-00-02-028	10951 Frontage Road, Yemassee, SC 29945	PO Box 43, Yemassee, SC 29945	Ernest Porchers	WSW-3
088-00-02-028C	10943 Frontage Road, Yemassee, SC 29945	PO Box 1406, Yemassee, SC 29945	Neather Witter	WSW-4

qPublic.net™ Jasper County, SC

Parcel ID	088-00-02-032	**Alternate ID**	088-00-02-032	**Owner Address**	EADY LASONYA ETAL 189 OAKHILL RD RIDGELAND SC 29936	**Last 2 Sales**			
Sec/Twp/Rng	n/a					**Date**	**Price**	**Reason**	**Qual**
Property Address	10773 W FRONTAGE RD	**Class**	Rural single family residence (land vacant)			5/9/2002	$1	n/a	U
		Acreage	0.3			n/a	0	n/a	n/a

District 01

Brief Tax Description FRONTAGE RD EAST HWY 17

(Note: Not to be used on legal documents)

Date created: 6/30/2021

Last Data Uploaded: 6/30/2021 2:07:18 AM

Developed by Schneider GEOSPATIAL

qPublic.net™ Jasper County, SC

Overview

Legend

Parcels

Roads

Parcel ID	088-00-02-031	**Alternate ID**	088-00-02-031	**Owner Address**	LOCK ROSA G ETAL 189 OAKHILL RD RIDGELAND SC 29936	**Last 2 Sales**				
Sec/Twp/Rng	n/a	**Class**	Rural single family residence (land vacant)			**Date**	**Price**	**Reason**	**Qual**
Property Address	W FRONTAGE RD	**Acreage**	6.51			4/20/2007	0	n/a	U
District	01					n/a	0	n/a	n/a

Brief Tax Description FRONTAGE RD

(Note: Not to be used on legal documents)

Date created: 6/30/2021

Last Data Uploaded: 6/30/2021 2:07:18 AM

Developed by Schneider GEOSPATIAL

qPublic.net™ Jasper County, SC

Overview

Legend

Parcels

Roads

Parcel ID	088-00-02-023	**Alternate ID**	088-00-02-023	**Owner Address**	RETREAT PLANTATION LLC P O BOX 211683 MARTINEZ GA 30907
Sec/Twp/Rng	n/a	**Class**	Rural acres		
Property Address	W FRONTAGE RD	**Acreage**	31.1		
District	01				
Brief Tax Description	17 & I-95				

(Note: Not to be used on legal documents)

Last 2 Sales

Date	Price	Reason	Qual
12/12/2016	$100000	n/a	Q
n/a	0	n/a	n/a

Date created: 6/30/2021
Last Data Uploaded: 6/30/2021 2:07:18 AM

APPENDIX C:

DISPOSAL MANIFEST

Midlands Environmental Consultants, Inc.

October 19, 2021

Re: Treatment of Purge Water
Warren Green
Yemassee, South Carolina
SCDHEC Site ID Number 04887
MECI Project Number 21-7681

To Whom It May Concern;

Midlands Environmental Consultants, Inc. is providing the following letter as certification that treatment of the referenced purge water complied with the conditions of "Proposed Conditions for Use of Portable Activated Carbon Units for the Treatment of Small Volumes of Petroleum Hydrocarbon Contaminated Groundwater", as described in the following:

Applicability:

Groundwater treated was obtained as a result development of wells and sampling.

Conditions:

1. The purge/bail water from all wells is mixed before usage of the Activated Carbon Unit.

2. No free-product was detected in any of the purge water drums.

3. Analytical results of from well sampling show average concentrations of petroleum hydrocarbon constituents less than 5000 parts per billion (ppb) Benzene and less than 20,000 ppb total BTEX.

4. The existing carbon pack will be replaced/reactivated every 5,000 gallons.

5. Record of usage is maintained by Contractor.

6. Any and all recommendations and conditions issued by the Manufacturer have been adhered to.

7. Any and all recommendations and conditions (even on a site by site basis) issued by the SCDHEC must be adhered to.

All purge waters were treated on-site using an up-flow treatment drum loaded with 80 pounds of activated carbon. Carbon will be loaded to a maximum of 3 pounds of total organic compounds or 5,000 gallons of development/purge water, whichever occurs first.

Post Office Box 854, Lexington, SC 29071 • 231 Dooley Road, Lexington, SC 29073
Telephone: (803) 808-2043 • Fax: (803) 808-2048

A total of 331.25 gallons were treated on October 4, 2021 at the referenced site.

Midlands Environmental also tracks cumulative organic compounds adsorbed on the activated carbon to ensure the capacity of carbon mass is not over-charged. This data is available upon request.

Should you have any questions or comments, please contact the undersigned.

Sincerely,
Midlands Environmental Consultants, Inc.

Jeff L. Coleman
Senior Scientist

APPENDIX D:

ACCESS AGREEMENTS

State Lead Option
Property Access Agreement for Site Rehabilitation

dhec

Kathryn

Only complete this form if: You are the legal owner of the property **OR** are the designated authorized representative for the legal owner of the property.

I certify that I am the legal owner of the property identified below or serve as the authorized representative for the legal owner of the property. I authorize the South Carolina Department of Health and Environmental Control (DHEC), or a contractor selected by DHEC, to enter this property at reasonable times only to conduct assessment and corrective action activities, as required. The contractor will be designated as the contractor for the UST owner or operator for only the required environmental site rehabilitation activities. I understand that the Agency will notify me of all activities that are necessary prior to their initiation and will promptly provide to me a summary of the data upon request.

UST 042

UST Permit # 04887		
Facility Name: WARREN GREEN		
Facility Address: 10773 W FRONTAGE RD, YEMASSEE, SC		
Facility Phone Number:		
Is facility within city limits? (check yes/no)	☐ **Yes**	☑ **No**
Name of nearest intersecting street/road/highway:		
Does public water/sewer utility service this facility?	☐ **Yes**	☑ **No**
*If no, please provide a contact name/number that can assist in the location of private water and septic tank lines:		
Name: LaSonya Eady	**Phone Number:** 843 683 2131	
Were USTs previously removed from the ground at this facility?	☐ **Yes**	☑ **No**
*If yes, please provide the name/contact number of a person that can assist in the location of the former UST(s):		
Name:	**Phone Number:**	
Is the facility currently leased to someone?	☐ **Yes**	☑ **No**
*If yes, notify them of the pending work scope, and please provide their name/contact number:		
Name:	**Phone Number:**	

***Please note that if vehicles or other mobile structures are parked over the location of the existing or former USTs, they should be moved prior to DHEC's contractor mobilizes to the facility.**

Name of Property Owner (Print): LaSonya Eady, Everette Bascom	
Signature of Property Owner or authorized representative: LaSonya Eady	**Date** 3-18-19
Affiliation (if applicable)	
Signature of Witness	**Date**

Contact Info

Phone Numbers:	**Home:**	**Cell:** 843 683 2131
Email Address:	jseady2@yahoo.com	

APPENDIX E:

DATA VERIFICATION CHECKLIST

Contractor Checklist

Item#	Item	Yes	No	N/A
1	Are Facility Name, Permit #, and address provided?	X		
2	Is UST Owner/Operator name, address, & phone number provided?	X		
3	Is name, address, & phone number of current property owner provided?	X		
4	Is the DHEC Certified UST Site Rehabilitation Contractor's Name, Address, telephone number, and certification number provided?	X		
5	Is the name, address, telephone number, and certification number of the well driller that installed borings/monitoring wells provided?			X
6	Is the name, address, telephone number, and certification number of the certified laboratory(ies) performing analytical analyses provided?	X		
7	Has the facility history been summarized?			X
8	Has the regional geology and hydrogeology been described?			X
9	Are the receptor survey results provided as required?			X
10	Has current use of the site and adjacent land been described?	X		
11	Has the site-specific geology and hydrogeology been described?			X
12	Has the primary soil type been described?			X
13	Have field screening results been described?			X
14	Has a description of the soil sample collection and preservation been detailed?			X
15	Has the field screening methodology and procedure been detailed?			X
16	Has the monitoring well installation and development dates been provided?			X
17	Has the method of well development been detailed?			X
18	Has justification been provided for the locations of the monitoring wells?			X
19	Have the monitoring wells been labeled in accordance with the UST QAPP guidelines?			X
20	Has the groundwater sampling methodology been detailed?	X		
21	Have the groundwater sampling dates and groundwater measurements been provided? (Table 2 & Figure 3)	X		
22	Has the purging methodology been detailed?	X		
23	Has the volume of water purged from each well been provided along with measurements to verify that purging is complete? (Appendix A)	X		
24	If free-product is present, has the thickness been provided?			X
25	Does the report include a brief discussion of the assessment done and the results?	X		
26	Does the report include a brief discussion of the aquifer evaluation and results?			X
27	Does the report include a brief discussion of the fate & transport models used?			X

Item#	Item	Yes	No	N/A
28	Are the site-conceptual model tables included? (Tier 1 Risk Evaluation)			X
29	Have the exposure pathways been analyzed? (Tier 2 Risk Evaluation)			X
30	Have the SSTLs for each compound and pathway been calculated? (Tier 2 Risk Evaluation)			X
31	Have recommendations for further action been provided and explained?			X
32	Has the soil analytical data for the site been provided in tabular format?			X
33	Has the potentiometric data for the site been provided in tabular format? (Table 2)	X		
34	Has the current and historical laboratory data been provided in tabular format? (Table 1)			X
35	Have the aquifer characteristics been provided and summarized on the appropriate form?			X
36	Have the Site conceptual model tables been included? (Tier 1 Risk Evaluation)			X
37	Has the topographic map been provided with all required elements? (Figure 1)	X		
38	Has the site base map been provided with all required elements? (Figure 2)	X		
39	Have the CoC site maps been provided? (Figures 3)	X		
40	Has the site potentiometric map been provided? (Figure 4)	X		
41	Have the geologic cross-sections been provided?			X
42	Have maps showing the predicted migration of the CoCs through time been provided? (Tier 2 Risk Evaluation)			X
43	Has the site survey been provided and include all necessary elements?			X
44	Have the sampling logs, chain of custody forms, and the analytical data package been included with all required elements? (Appendix A)	X		
45	Is the laboratory performing the analyses properly certified?	X		
46	Has the tax map been included with all necessary elements? (Appendix B)			X
47	Have the soil boring/field screening logs been provided?			X
48	Have the well completion logs and SCDHEC Form 1903 been provided?			X
49	Have the aquifer evaluation forms, data, graphs, equations, etc. been provided?			X
50	Have the disposal manifests been provided? (Appendix C)			X
51	Has a copy of the local zoning regulations been provided?			X
52	Has all fate and transport modeling been provided?			X
53	Have copies of all access agreements obtained by the contractor been provided? (Appendix D)			X
54	Has a copy of this form been attached to the final report and are explanations for any missing or incomplete data been provided? (Appendix E)	X		

APPENDIX F:

RECEPTOR PHOTOS


WSW-1/Sample Location


WSW-2

dhec

Healthy People. Healthy Communities.

04887

UST
71 Dtech
DOCKETING

FEB 2 2 2022

MR BRYAN SHANE PG
MIDLANDS ENVIRONMENTAL CONSULTANTS
PO BOX 854
LEXINGTON SC 29071

Re: Site Specific Work Plan Request
Groundwater Sampling Contract
Solicitation #IFB-5400021335

Dear Mr. Shane:

In accordance with bid solicitation # IFB-5400021335, submission of a Site-Specific Work Plan (SSWP) based on each site information package provided is requested.

The SSWP must be submitted within 20 calendar days of the date of this correspondence. The project manager for each site will issue a notice to proceed once the plan has been reviewed and approved. A weekly update for each site should be emailed to the site's project manager and myself. If you have any questions or need further assistance, please contact me by phone (803) 898-0500 or email brownaj@dhec.sc.gov.

Sincerely,

Arthur Brown, Hydrogeologist
Corrective Action & Field Support Section
UST Management Division
Bureau of Land & Waste Management

Enc: Site Information Package Summary (SIPS)
Site Information Packages

Cc: Lindsey Wooten, Pace Analytical Services, 9800 Kincey Ave. STE 100, Huntersville, NC 28078 (w/ SIPS)
Technical File (w/o Enc)

Healthy People. Healthy Communities.

UNDERGROUND STORAGE TANK PROGRAM
BUREAU OF LAND AND WASTE MANAGEMENT
2600 Bull Street, Columbia, South Carolina 29201
Telephone: 803-898-2544

MEMORANDUM

TO: Statelead Groundwater Sampling Contractor

FROM: Arthur Brown

RE: Site Specific Work Plan Request

Facility Name: Green Warren — Contractor CA# 65101

Permit Number: 4887 — PACE CA #: 65102

County: Jasper — RBCA CLASS: 2BB

List Monitoring Wells to be Sampled — Purging Method Purge All

Shallow MW-1, MW-2, MW-3R, MW-4, MW-5, MW-6R, MW-7R, MW-8, MW-9, MW-10, MW-11R, MW-12R, MW-13R, MW-14, MW-15

Intermediate

Deep DW-1 - DW-6

Surface Water Points to be Sampled (MUST BE ON MAP PROVIDED)

N/A

WSW Points to be Sampled (MUST BE ON MAP PROVIDED CONTACT INFO w TAX MAP INFO)

WSW-1 - WSW-4

Sample Below Product

Additional Potentiometric Maps Requested - See Below (Note: Shallow & Deep Included)

Isopleth Maps requested instead of CoC Map (Only for CoCs >RBSL or SSTL)

Benz, Tol, EthylB, Xylenes, MTBE, Napht, EDB

Other:

The poor quality of the site map for UST 04887 necessitates a comprehensive survey and the generation of a new
A tax map is also requested as part of this scope of work.

Total Groundwater Sample Points: 22

Analysis Being Requested: K . BTEXNM+Oxyg's+1,2 DCA+Eth(8260B), K7. EDB by EPA 8011

Total Water Supply Well Points: 4

Analysis Being Requested: K14. BTEXNM+1,2 DCA (524.2), K15. 7-OXYGENATES & ETHANOL (8260B), K16. EDB (504.1)

2/18/2022

Midlands Environmental Consultants, Inc.

March 17, 2022

RECEIVED
MAR 17 2022
SC Department of
Health & Environmental Control

Mr. Arthur Brown, Hydrogeologist
Corrective Action & Field Support Section
Underground Storage Tank Management Division
Bureau of Land and Waste Management
South Carolina Department of Health
and Environmental Control
2600 Bull Street
Columbia, South Carolina 29201

Subject: Site-Specific Work Plan
Warren Green
Yemassee, South Carolina
SCDHEC Site ID Number 04887
MECI Project Number 22-7805
Certified Site Rehabilitation Contractor UCC-0009

UST
12
DOCKETING

Dear Mr. Brown,

Midlands Environmental Consultants Inc. (MECI) is pleased to submit the attached Site-Specific Work Plan for the referenced site.

On March 16, 2022, MECI personnel performed a site visit to the subject sites to evaluate site conditions, locate monitoring wells and identify potential problems for future sampling activities.

If you have any question or comments, please feel free to contact us at 803-808-2043.

Sincerely,
Midlands Environmental Consultants, Inc.

Kyle V. Pudney
Project Biologist

Jeff L. Coleman
Senior Scientist

Post Office Box 854, Lexington, SC 29071 • 231 Dooley Road, Lexington, SC 29073
Telephone: (803) 808-2043 • Fax: (803) 808-2048

Site-Specific Work Plan for Approved ACQAP
Underground Storage Tank Management Division

To: Mr. Arthur Brown (SCDHEC Project Manager)
From: Jeff L. Coleman (Contractor Project Manager)
Contractor: Midlands Environmental Consultants, Inc. UST Contractor Certification Number: 009

Facility Name: Warren Green UST Permit #: 04887
Facility Address: Bowers Lane & West Frontage Road, Yemassee, SC
Responsible Party: Lasonya Eady, Reginald Bascom, Everette Bascom Phone: 843-726-9038
RP Address: 194 Oak Hill Road, Ridgeland, SC 29936
Property Owner (if different): SAA
Property Owner Address: SAA
Current Use of Property: Vacant Lot

Scope of Work (Please check all that apply)

☐ IGWA ☐ Tier II ☑ Groundwater Sampling ☐ GAC
☐ Tier I ☐ Monitoring Well Installation ☐ Other ______

Analyses (Please check all that apply)

Groundwater/Surface Water:

☑ BTEXNMDCA (8260D) ☐ Lead ☐ BOD ☐ Methane
☑ Oxygenates (8260D) ☐ 8 RCRA Metals ☐ Nitrate ☐ Ethanol
☑ EDB (8011) ☐ TPH ☐ Sulfate ☐ Dissolved Iron
☐ PAH (8270E) ☐ pH ☐ Other ______

Drinking Water Supply Wells:

☑ BTEXNMDCA (524.2) ☐ Mecury (200.8 245.1 or 245.2) ☑ EDB (504.1)
☑ Oxygenates & Ethanol (8260D) ☐ RCRA Metals (200.8)

Soil:

☐ BTEXNM ☐ Lead ☐ RCRA Metals ☐ TPH-DRO (3550B/8015B) ☐ Grain Size
☐ PAH ☐ Oil & Grease (9071) ☐ TPH-GRO (5030B/8015B) ☐ TOC

Air:

☐ BTEXN

Sample Collection (Estimate the number of samples of each matrix that are expected to be collected.)

____ Soil; 4 Water Supply Wells; ____ Air; 2 Field Blank
22 Monitoring Wells; ____ Surface Water; 3 Duplicate; 2 Trip Blank

Field Screening Methodology

Estimate number and total completed depth for each point, and include their proposed locations on the attached map.

# of shallow points proposed: ______ Estimated Footage: ______ feet per point
# of deep points proposed: ______ Estimated Footage: ______ feet per point
Field Screening Methodology: ______

Permanent Monitoring Wells

Estimate number and total completed depth for each well, and include their proposed locations on the attached map.

# of shallow wells: ______ Estimated Footage: ______ feet per point
# of deep wells: ______ Estimated Footage: ______ feet per point
# of recovery wells: ______ Estimated Footage: ______ feet per point
Comments, if warranted:

UST Permit #: 04887 Facility Name: Warren Green

Implementation Schedule (Number of calendar days from approval)
Field Work Start-Up: 3/17/2022 Field Work Completion: 4/17/2022
Report Submittal: 5/17/2022 # of Copies Provided to Property Owners: ______

Aquifer Characterization
Pump Test: ☐ Slug Test: ☐ (Check one and provide explanation below for choice)

Investigation Derived Waste Disposal
Soil: ______ Tons Purge Water: 350.00 Gallons
Drilling Fluids: ______ Gallons Free-Phase Product: ______ Gallons

Additional Details For This Scope of Work
For example, list wells to be sampled, wells to be abandoned/repaired, well pads/bolts/caps to replace, details of AFVR event, etc.
-Monitoring wells MW-2 and MW-12R were unable to located during the initial site visit. I either of these wells are located during sampling activities, they will be sampled accordingly.
-Samples will be analyzed for BTEXNM, DCA, Oxy's and EDB by appropriate methods
-MECI will attempt to sample 4 water supply wells during sampling activities.
-All wells will be purged prior to sample collection.

Compliance With Annual Contractor Quality Assurance Plan (ACQAP)
Yes Laboratory as indicated in ACQAP? (Yes/No) If no, indicate laboratory information below.
Name of Laboratory: ______
SCDHEC Certification Number: ______
Name of Laboratory Director: ______

N/A Well Driller as indicated in ACQAP? (Yes/No) If no, indicate driller information below.
Name of Well Driller: ______
SCLLR Certification Number: ______

None Other variations from ACQAP. Please describe below.

Attachments
1. Attach a copy of the relevant portion of the USGS topographic map showing the site location.
2. Prepare a site base map. This map must be accurately scaled, but does not need to be surveyed. The map must include the following:
   - North Arrow
   - Location of property lines
   - Location of buildings
   - Previous soil sampling locations
   - Previous monitoring well locations
   - Proposed soil boring locations
   - Proposed monitoring well locations
   - Legend with facility name and address, UST permit number, and bar scale
   - Streets or highways (indicate names and numbers)
   - Location of all present and former ASTs and USTs
   - Location of all potential receptors
3. Assessment Component Cost Agreement, SCDHEC Form D-3664

Healthy People. Healthy Communities.

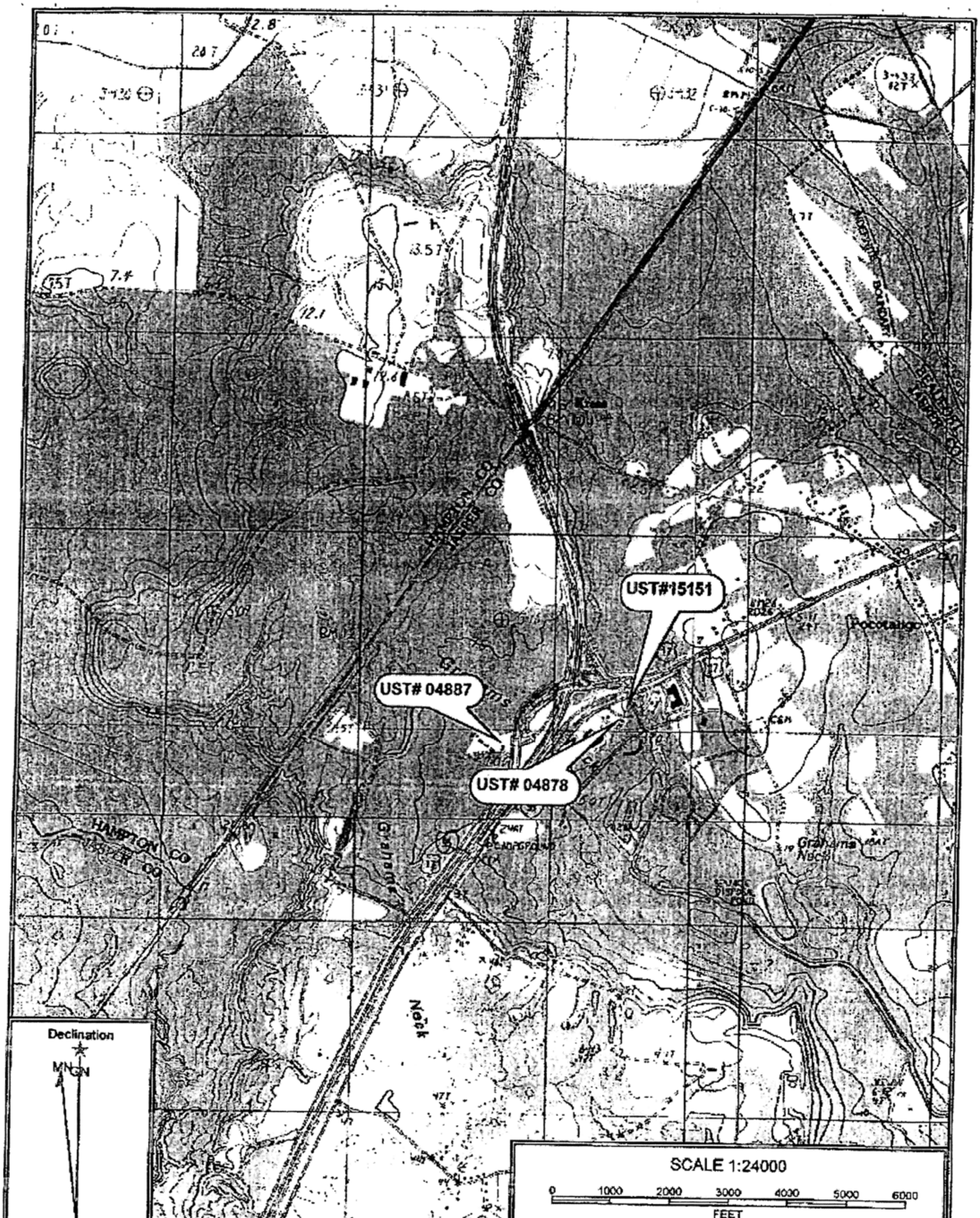
ASSESSMENT COMPONENT COST AGREEMENT
SOUTH CAROLINA

Department of Health and Environmental Control
Underground Storage Tank Management Division
State Underground Petroleum Environmental Response Bank Account
CONTRACT PO # 4600830568

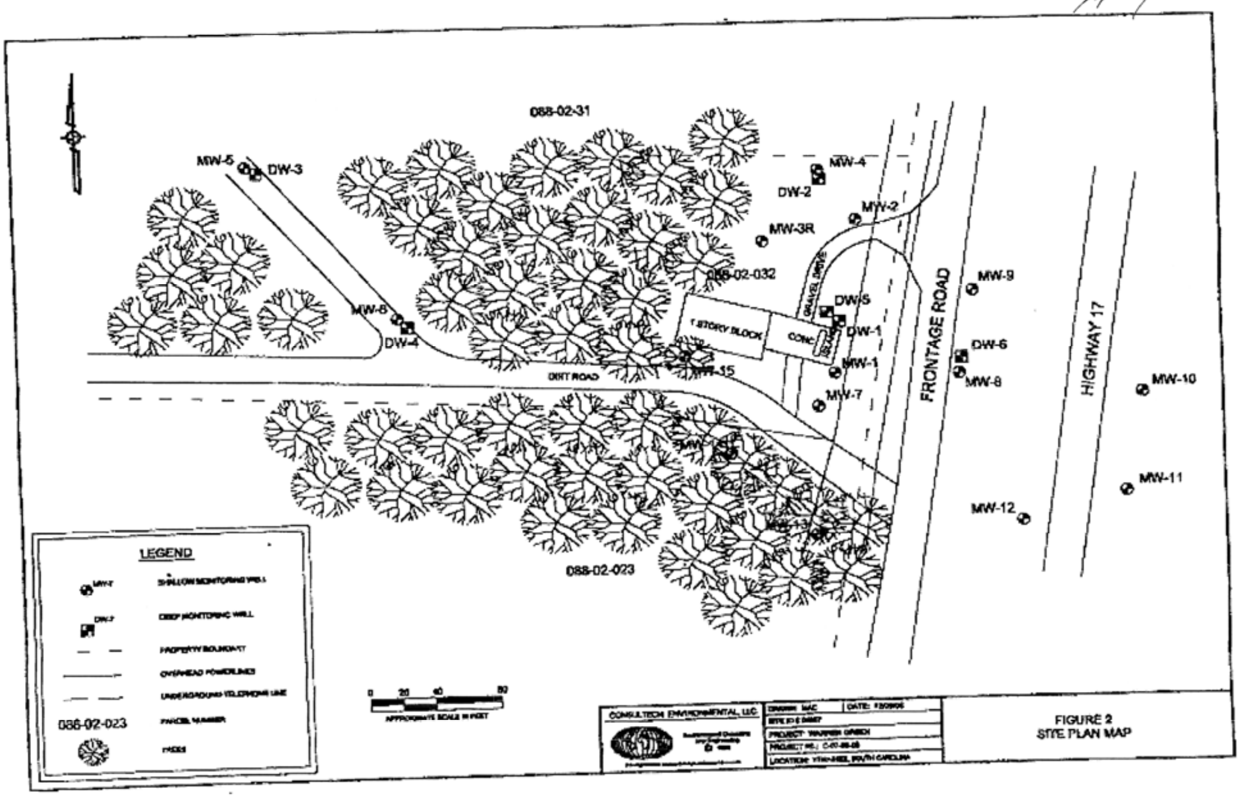
Facility Name: Warren Green

UST Permit #: 4887 **Cost Agreement #:** Proposal

ITEM	QUANTITY	UNIT	UNIT PRICE		TOTAL
A. **Plan Preparation**					
1. Site Specific Work Plan	1	each	$425.00		$425.00
2. Tax Map		each	$50.00		$0.00
B. **Receptor Survey**		each	$50.00		$0.00
D. **Mob/Demob**					
2. Personnel	2	each	$610.00		$1,220.00
J. **Groundwater Sample Collection / Gauge Depth to Water or Product (Each)**					
1. Groundwater Purge	22	per well	$10.00		$220.00
2. Air or Vapors		per sample	$1.00		$0.00
3. Water Supply Sample	4	per sample	$40.00		$160.00
4. Groundwater No Purge/Surface Water		per sample	$8.00		$0.00
R-1. HydraSleeve		per sample	$23.00		$0.00
5. Gauge Welll only		per data point	$1.00		$0.00
6. Sample Below Product		per well	$1.80		$0.00
7. Passive Diffusion Bag		per well	$25.00		$0.00
9. Groundwater (low flow purge)		per well	$25.00		$0.00
10. Equipment Blank		per day	$10.00		$0.00
Q. **Disposal (gallons or tons)**					
1. Wastewater	350	per gallon	$0.33		$115.50
2. Free Product		per gallon	$0.05		$0.00
R. **Miscellaneous**					
2. Additional Potentiometric Map		each above required two	$10.00		$0.00
3. Isopleth Map		each above required one	$50.00		$0.00
4. Data Table		per data set	$100.00		$0.00
5. Redraw/Digitize Site Map		each	$150.00		$0.00
6.Replace Well Lid		each	$10.00		$0.00
Y. **Well Repair**					
1. Additional Copies of Report Delivered		per copy	$10.00		$0.00
5. Replace well cover bolts		each	$6.00		$0.00
6. Replace locking well cap & lock		each	$10.00		$0.00
10. Replace missing/illegible well ID plate		each	$10.00		$0.00
Subtotal					**$2,140.50**
S. Report Preparation/Project Coordination		Percent of Subtotal	0%		
TOTAL					**$2,140.50**


UST#15151
UST# 04887
UST# 04878
Pocotaligo
HAMPTON CO
Declination
MN
GN
GN 0.06° E
MN 7.06° W
SCALE 1:24000
0
1000
2000
3000
4000
5000
6000
FEET

Provided Map is of poor quality and outdated. Due to the quality of this map, re-digitization was not requested or can be completed at this time. MECI recommends a Comprehensive Survey be performed.



dhec
Healthy People. Healthy Communities.

MAR 3 1 2022

UST
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DOCKETING

MR BRYAN SHANE PG
MIDLANDS ENVIRONMENTAL CONSULTANTS
PO BOX 854
LEXINGTON SC 29071

Re: Notice to Proceed Site-Specific Work Plan (SSWP) Approval
Groundwater Sampling Contract
Solicitation #IFB-5400021335, PO #4600862094
Green Warren, 10773 West Frontage Road, Yemassee, SC
UST Permit #04887; MECI CA #65101; Pace CA #65102
Jasper County

Dear Mr. Shane:

In accordance with bid solicitation #IFB-5400021335, the SSWP has been reviewed and approved. A status report of the project should be provided on a weekly basis. If any quality assurance problems arise, you must contact me within 24 hours by phone or email.

Please coordinate access to the facility with the property owner. **Sampling should be conducted within 30 calendar days from the date of this letter. If the final report is not submitted within 60 days of the date of this correspondence, a late fee may be imposed.** The final report is to be submitted to the contract manager.

If you have any site-specific questions, please contact me by email brownaj@dhec.sc.gov or phone (803) 898-0500. If you have any contract specific questions, please contact Arthur Brown by email brownaj@dhec.sc.gov or phone (803) 898-0500.

Sincerely,

Arthur Brown, Hydrogeologist
Corrective Action & Field Support Section
UST Management Division
Bureau of Land & Waste Management

Enc: Approved Cost Agreement (both CAs)

Cc: Ms. Angela Baioni, Pace Analytical Services, 9800 Kincey Ave, STE 100, Huntersville, NC, 28078 (w/ CA)
Technical File (w/ Enc)

Approved Cost Agreement 65101

Facility: 04887 GREEN, WARREN
BROWNAJ
PO Number: 862094-62

Task / Description Categories	Item Description	Qty / Pct	Unit Price	Amount
A PLAN PREPARATION				
	1 SITE SPECIFIC WORK PLAN	1.0000	$425.000	425.00
D MOB/DEMOB				
	2 PERSONNEL	2.0000	$610.000	1,220.00
J SAMPLE COLLECTION				
	1 GROUND WATER PURGE	22.0000	$10.000	220.00
	3 WATER SUPPLY SAMPLE/ DUPLICATE	4.0000	$40.000	160.00
Q DISPOSAL				
	1 WASTEWATER	350.0000	$0.330	115.50
		Total Amount		2,140.50

Approved Cost Agreement 65102

Facility: 04887 GREEN, WARREN

BROWNAJ

PO Number: 862169-76

Task / Description	Categories	Item	Description	Qty / Pct	Unit Price	Amount
K ANALYSES						
	DW DRINKING WATER	14	BTEXNM+1,2 DCA (524.2) WSW	7.0000	$42.000	294.00
		15	OXYGENATES & ETHANOL 8260B WSW	7.0000	$20.000	140.00
		16	EDB (504.1) WSW	6.0000	$22.000	132.00
	GW GROUNDWATER	1	BTEXNM+OXYGS+1,2-DCA+ETH-8260B	26.0000	$26.000	676.00
		7	EDB BY EPA 8011	25.0000	$22.000	550.00
				Total Amount		1,792.00

MONITORING REPORT

Warren Green
10773 West Frontage Road
Yemassee, South Carolina
Jasper County
UST# 04887; CA# 65101
Solicitation# IFB-5400021335; PO# 4600830568

Prepared By:

Midlands Environmental Consultants, Inc.
231 Dooley Road, Lexington, SC 29073
(803) 808-2043 fax: 808-2048

April 11, 2022

MECI Project No. 22-7805

Midlands Environmental Consultants, Inc.

April 11, 2022

Mr. Arthur Brown, Hydrogeologist
Corrective Action Section
Underground Storage Tank Management Division
Bureau of Land and Waste Management
South Carolina Department of Health
and Environmental Control
2600 Bull Street
Columbia, South Carolina 29201

Subject: Report of Groundwater Sampling
Warren Green
10773 West Frontage Road
Yemassee, South Carolina
Jasper County
UST# 04887; CA# 65101
MECI Project Number 22-7805
Certified Site Rehabilitation Contractor UCC-0009

Dear Mr. Brown,

Midlands Environmental Consultants Inc. (MECI) is pleased to submit the attached Report of Groundwater Sampling for the referenced site. This report describes site activities conducted at the site in general accordance with South Carolina Department of Health and Environmental Control's (SCDHEC) Quality Assurance Program Plan for the Underground Storage Tank Management Division (QAPP).

Midlands Environmental appreciates the opportunity to offer our professional environmental services to you on this project. Please feel free to contact us at 803-808-2043 if you have any immediate questions or comments.

Sincerely,
Midlands Environmental Consultants, Inc.

COLIN PHILLIPS REGISTERED No. 2811 SOUTH CAROLINA PROFESSIONAL GEOLOGIST

Jeff L. Coleman
Senior Scientist

Colin M. Phillips, P.G.
Senior Hydrogeologist

TABLE OF CONTENTS

TABLE OF CONTENTS (cont.)

1.0 INTRODUCTION

i. Facility Information

Name:	Warren Green
Address:	10773 West Frontage Road, Yemassee, SC 29945
Telephone #:	N/A

ii. Owner/Operator Information

Name	Lasonya Eady, Reginald Bascom & Everette Bascom
Address	194 Oak Hill Road, Ridgeland, SC 29936
Telephone #	843-726-9038

iii. Property Owner Information

Name	Lasonya Eady, Reginald Bascom & Everette Bascom
Tax Map #:	Jasper County Tax Map#: 088-00-02-032
Address	194 Oak Hill Road, Ridgeland, SC 29936
Telephone #	843-726-9038

iv. Contractor Information

Name:	Midlands Environmental Consultants, Inc.
Certification #:	9
Address:	P. O. Box 854, Lexington, SC 29071
Telephone #:	(803) 808-2043

v. Facility History

Release Date:		5/28/2002	
Estimated Quantity of Release:		Unknown	
Other Releases at Facility:		N/A	
Release Ranking:		2BB	
Current Site Usage:		Vacant Lot	
Tank #	**Capacity/Product**	**In Use/Abandoned**	**Tank Status**
1	3,000 Gal. Gasoline	Rendered Non-usable	Out of compliance (9/10/2001)
2	3,000 Gal. Gasoline	Rendered Non-usable	Out of compliance (9/10/2001)
3	2,000 Gal. Gasoline	Rendered Non-usable	Out of compliance (9/10/2001)

2.0 RECEPTOR SURVEY & SITE DATA

i. Known Potential Receptors

Receptor ID#	Notes
WSW-1	235 Bowers, spigot on side of house (32.627995, -80.886757)
WSW-2	425 Bowers, spigot on side of house (32.628673, -80.887550)
WSW-3	10951 Frontage Rd., denied access.
WSW-4	10943 Frontage Rd., spigot under front of house (32.631229, -80.884500)

ii. Receptor Survey Results

A receptor survey was not requested as part of the approved cost agreement.

iii. Site/Adjacent Land Usage (Residential, Commercial, Agricultural, Industrial, etc.)

Site	Abandoned lot
North	Wooded/Residential
South	Wooded/Residential
East	Major Highway
West	Wooded/Residential
Permit #'s of UST Sites within 1,000' feet of site	04878, 15151

3.0 SAMPLING AND CHEMICAL ANALYSES

On March 30, 2022, MECI personnel collected groundwater samples from nineteen (19) monitoring wells and three (3) water supply wells at the subject site. Two monitoring wells were not located (MW-2 & MW-12R). One water supply well (WSW-3) was not sampled due to access denial. Based on the request by SCDHEC, all monitoring wells were to be purged prior to sample collection. Nineteen (19) monitoring wells were purged prior to sample collection.

MECI personnel utilized an electronic water level indicator for water level measurements and an oil/water interface probe for free phase petroleum product level measurements. Where applicable, purging was completed by bailing at least five well volumes of water from the well, until pH, conductivity, dissolved oxygen and turbidity stabilized, or all water was evacuated from the well, whichever occurred first. Sampling/purging was completed utilizing a prepackaged, clear, disposable polyethylene bailer and nylon rope. A new set of nitrile gloves were worn at each monitoring well, and at all time samples were handled. Field measurements of pH, conductivity, dissolved oxygen, and water temperature were obtained before well sampling process. MECI utilized a YSI Pro20 meter for DO (mg/L) and temperature readings (°C), YSI Pro1030 meter for pH and conductivity (uS) readings and a MicroTPI turbidimeter for turbidity readings (NTU). The attached Field Data Information Sheets presents the results of the field measurements obtained. The wells were sampled in accordance with the most recent revision of SCDHEC's Quality Assurance Program Plan for the Underground Storage Tank Management Division and the most recent revision MECI's Standard Operating Procedures.

Groundwater samples obtained were sent to Pace Analytical Services, Inc. of Huntersville, NC (SCDHEC Laboratory Certification #99006001) for analysis.

The following sampling matrix contains well development and requested analyses for each well:

Sample ID	Purge	No Purge	Gauge Only	Low-Flow Sampling	Not Sampled	Not Located	BTEX, Naphthalene, MTBE, 1,2 DCA (EPA Method 8260D)	8 Oxygenates (EPA Method 8260D)	EDB (EPA Method 8011)	PAHs (EPA Method 8270E)	Total Lead (EPA Method 6010)	BTEX, Naphthalene, MTBE, 1,2 DCA (EPA Method 524.2)	EDB (EPA Method 504.1)
							Analyte Sampled						
MW-1	X						X	X	X				
MW-2						X							
MW-3R	X						X	X	X				
MW-4	X						X	X	X				
MW-5	X						X	X	X				
MW-6R	X						X	X	X				

Notes: BTEX = Benzene, Toluene, Ethylbenzene, & Total Xylenes
MTBE=Methyl tertiary butyl ether
1,2 DCA = 1,2 Dichloroethane
EDB = Ethylene Dibromide

Sample ID	Purge	No Purge	Gauge Only	Low-Flow Sampling	Not Sampled	Not Located	BTEX, Naphthalene, MTBE, 1,2 DCA (EPA Method 8260D)	8 Oxygenates (EPA Method 8260D)	EDB (EPA Method 8011)	PAHs (EPA Method 8270E)	Total Lead (EPA Method 6010)	BTEX, Naphthalene, MTBE, 1,2 DCA (EPA Method 524.2)	EDB (EPA Method 504.1)
							Analyte Sampled						
MW-7R	X						X	X	X				
MW-8	X						X	X	X				
MW-9	X						X	X	X				
MW-10	X						X	X	X				
MW-11R	X						X	X	X				
MW-12R						X							
MW-13R	X						X	X	X				
MW-14	X						X	X	X				
MW-15	X						X	X	X				
DW-1	X						X	X	X				
DW-2	X						X	X	X				
DW-3	X						X	X	X				
DW-4	X						X	X	X				
DW-5	X						X	X	X				
DW-6	X						X	X	X				
DUP-1		X					X	X	X				
Field Blank							X	X	X				
Trip Blank							X	X					
WSW-1								X				X	X
WSW-2								X				X	X
WSW-3					X								
WSW-4								X				X	X
WSW-DUP								X				X	X
WSW-FB								X				X	X
WSW-TB								X				X	

Notes: BTEX = Benzene, Toluene, Ethylbenzene, & Total Xylenes
MTBE=Methyl tertiary butyl ether
1,2 DCA = 1,2 Dichloroethane
EDB = Ethylene Dibromide

Purge water produced by the purging process was treated on-site utilizing a granular activated carbon unit. A total of 383.0 gallons of purge water was disposed of in this manner. A disposal manifest for the referenced purge water is attached in Appendix C and the required Post-GAC laboratory results is presented in Appendix B.

4.0 RESULTS AND DISCUSSION

- Review of groundwater elevation and topography indicates a groundwater flow direction to the southeast from the subject site.

- Due to the poor quality of the provided site map, MECI cannot re-digitize the provided map nor complete contouring. MECI recommends a comprehensive survey be performed at the site.

- Free phase petroleum product was not detected in any of the monitoring wells. Of the twenty-two sampling points analyzed, three monitoring wells (MW-1, MW-7R, MW-8) detected petroleum constituents above Risked Based Screening Levels (RBSL's).

- Petroleum constituents detected above the established RBSL include:

Compound	*RBSL/SCAL (ug/l)*	*Wells Above RBSL*
Product	>0.01'	N/A
Benzene	5	MW-1, MW-7R, MW-8
Toluene	1,000	MW-1, MW-7R
Ethylbenzene	700	MW-1, MW-7R
Total Xylenes	10,000	MW-1, MW-7R
Naphthalene	25	MW-1, MW-7R, MW-8
MTBE	40	N/A
1,2 DCA	5	N/A
EDB	0.05	MW-7R, MW-8
TAA	240	MW-8
TAME	128	N/A
ETBA	NE	N/A
TBA	1,400	N/A
TBF	NE	N/A
DIPE	150	N/A
Ethanol	10,000	N/A
ETBE	47	N/A
Lead	15	N/A

- In order to assess precision, field duplicate samples were collected and analyzed along with the reviewed batch samples. The duplicated samples were analyzed for the same parameters as the associated parent samples. Precision is determined by calculating the Relative Percent Differences (RPD) between each pair of samples. The RPD control limit for the groundwater samples is 20%. Duplicate samples were collected from parent samples MW-3R & WSW-1. The precision for the target analytes were met for these samples. Furthermore, field blanks and trip blanks were collected and submitted during the groundwater sampling activities. No detectable concentrations of the requested method constituents were reported in either of the field or trip blanks.

5.0 QUALIFICATIONS OF REPORT

The activities and evaluative approaches used in this assessment are consistent with those normally employed in hydrogeological assessment and waste management projects of this type. Our evaluation of site conditions has been based on our understanding of the site, project information provided to us, and data obtained in our exploration. Contents of this report are intended for the sole use of MECI and SCDHEC under mutually agreed upon terms and conditions. If other parties wish to rely on this report, please contact MECI prior to their use of this information so that a mutual understanding and agreement of the terms and conditions of our services can be established.

-oOo-

TABLES

Table 1
Summary of Analytical Results - Water Samples
WARREN GREEN
Facility ID# 04887

Analytical Method		EPA 8011	EPA 8260D																
Sample ID	**Constituent of Concern**	1,2-Dibromoethane (EDB)	1,2-Dichloroethane	3,3-Dimethyl-1-Butanol	Benzene	Diisopropyl ether	Ethanol	Ethyl-tert-butyl ether	Ethylbenzene	Methyl-tert-butyl ether	Naphthalene	Toluene	Xylene (Total)	m&p-Xylene	o-Xylene	tert-Amyl Alcohol	tert-Amylmethyl ether	tert-Butyl Alcohol	tert-Butyl Formate
	Date Collected (mm/dd/yy)	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
DUP	03/30/2022	<0.0077	<2.1	<53.9	<1.7	<3.5	<144	<8.5	<1.8	<3.1	<2.1	<2.0	<5.0	<4.1	<2.0	<65.6	<3.0	<91.0	<24.1
DW-1	03/30/2022	<0.0078	<2.1	<53.9	<1.7	<3.5	<144	<8.5	<1.8	<3.1	<2.1	<2.0	<5.0	<4.1	<2.0	<65.6	<3.0	<91.0	<24.1
DW-2	03/30/2022	<0.0076	<2.1	<53.9	<1.7	<3.5	<144	<8.5	<1.8	<3.1	<2.1	<2.0	<5.0	<4.1	<2.0	<65.6	<3.0	<91.0	<24.1
DW-3	03/30/2022	<0.0075	<2.1	<53.9	<1.7	<3.5	<144	<8.5	<1.8	<3.1	<2.1	<2.0	<5.0	<4.1	<2.0	<65.6	<3.0	<91.0	<24.1
DW-4	03/30/2022	<0.0078	<2.1	<53.9	<1.7	<3.5	<144	<8.5	<1.8	<3.1	<2.1	<2.0	<5.0	<4.1	<2.0	<65.6	<3.0	<91.0	<24.1
DW-5	03/30/2022	<0.0079	<2.1	<53.9	<1.7	<3.5	<144	<8.5	<1.8	<3.1	<2.1	<2.0	<5.0	<4.1	<2.0	<65.6	<3.0	<91.0	<24.1
DW-6	03/30/2022	<0.0077	<2.1	<53.9	<1.7	<3.5	<144	<8.5	<1.8	<3.1	<2.1	<2.0	<5.0	<4.1	<2.0	<65.6	<3.0	<91.0	<24.1
FB	03/30/2022	<0.0077	<2.1	<53.9	<1.7	<3.5	<144	<8.5	<1.8	<3.1	<2.1	<2.0	<5.0	<4.1	<2.0	<65.6	<3.0	<91.0	<24.1
MW-1	03/30/2022	<0.0079	<103	<2700	**1030**	<174	<7200	<423	**1610**	<155	**430**	**8240**	8540	6320	2230	<3280	<152	<4550	<1200
MW-10	03/30/2022	<0.0077	<2.1	<53.9	<1.7	<3.5	<144	<8.5	<1.8	<3.1	<2.1	<2.0	<5.0	<4.1	<2.0	<65.6	<3.0	<91.0	<24.1
MW-11	03/30/2022	<0.0075	<2.1	<53.9	<1.7	<3.5	<144	<8.5	<1.8	<3.1	<2.1	<2.0	<5.0	<4.1	<2.0	<65.6	<3.0	<91.0	<24.1
MW-13R	03/30/2022	<0.0078	<2.1	<53.9	<1.7	<3.5	<144	<8.5	<1.8	<3.1	<2.1	<2.0	<5.0	<4.1	<2.0	<65.6	<3.0	<91.0	<24.1
MW-14	03/30/2022	<0.0076	<2.1	<53.9	<1.7	<3.5	<144	<8.5	<1.8	<3.1	<2.1	<2.0	<5.0	<4.1	<2.0	<65.6	<3.0	<91.0	<24.1
MW-15	03/30/2022	<0.0077	<2.1	<53.9	<1.7	<3.5	<144	<8.5	<1.8	<3.1	<2.1	<2.0	<5.0	<4.1	<2.0	<65.6	<3.0	<91.0	<24.1
MW-3R	03/30/2022	<0.0077	<2.1	<53.9	<1.7	<3.5	<144	<8.5	<1.8	<3.1	<2.1	<2.0	<5.0	<4.1	<2.0	<65.6	<3.0	<91.0	<24.1
MW-4	03/30/2022	<0.0075	<2.1	<53.9	<1.7	<3.5	<144	<8.5	<1.8	<3.1	<2.1	<2.0	<5.0	<4.1	<2.0	<65.6	<3.0	<91.0	<24.1
MW-5	03/30/2022	<0.0077	<2.1	<53.9	<1.7	<3.5	<144	<8.5	<1.8	<3.1	<2.1	<2.0	<5.0	<4.1	<2.0	<65.6	<3.0	<91.0	<24.1
MW-6R	03/30/2022	<0.0076	<2.1	<53.9	<1.7	<3.5	<144	<8.5	<1.8	<3.1	<2.1	<2.0	<5.0	<4.1	<2.0	<65.6	<3.0	<91.0	<24.1
MW-7R	03/30/2022	**0.38**	<103	<2700	**1050**	<174	<7200	<423	**3920**	<155	**610**	**8990**	**22700**	15600	7040	<3280	<152	<4550	<1200
MW-8	03/30/2022	**0.12**	<10.3	<270	**617**	<17.4	<720	<42.3	256	<15.5	**80.1**	455	1140	768	369	**379 J**	<15.2	<455	<120
MW-9	03/30/2022	<0.0077	<2.1	<53.9	<1.7	<3.5	<144	<8.5	<1.8	<3.1	<2.1	<2.0	<5.0	<4.1	<2.0	<65.6	<3.0	<91.0	<24.1
TB	03/30/2022	N/A	<2.1	<53.9	<1.7	<3.5	<144	<8.5	<1.8	<3.1	<2.1	<2.0	<5.0	<4.1	<2.0	<65.6	<3.0	<91.0	<24.1
South Carolina RBSL for Groundwater		0.05	5	N/A	5	150	10000	47	700	40	25	1000	10000	N/A	N/A	240	128	1400	N/A
South Carolina Action Levels for Groundwater		N/A	N/A	N/A	N/A	150	10000	47	N/A	N/A	N/A	N/A	N/A	N/A	N/A	240	128	1400	N/A

NOTES:
ND = Not Detected
ft. BGS = feet below ground surface
mg/L = milligrams per liter
ug/L = micrograms per liter
Bold data above the RBSL (Risk Based Screening Level)

Table 1A
Summary of Analytical Results - Water Samples
WARREN GREEN
Facility ID#04887

Analytical Method		EPA 504.1	EPA 524.2									EPA 8260D							
Sample ID	**Constituent of Concern**	1,2-Dibromoethane (EDB)	1,2-Dichloroethane	Benzene	Ethylbenzene	Methyl-tert-butyl ether	Naphthalene	Toluene	Xylene (Total)	m&p-Xylene	o-Xylene	3,3-Dimethyl-1-Butanol	Diisopropyl ether	Ethanol	Ethyl-tert-butyl ether	tert-Amyl Alcohol	tert-Amylmethyl ether	tert-Butyl Alcohol	tert-Butyl Formate
	Date Collected (mm/dd/yy)	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
WSW-1	03/30/2022	<0.0036	<0.16	<0.21	<0.22	<0.14	<0.35	<0.20	<0.22	<0.39	<0.22	<51.9	<0.31	<72.2	<3.2	<36.4	<2.7	<26.8	<29.4
WSW-2	03/30/2022	<0.0036	<0.16	<0.21	<0.22	<0.14	<0.35	<0.20	<0.22	<0.39	<0.22	<51.9	<0.31	<72.2	<3.2	<36.4	<2.7	<26.8	<29.4
WSW-4	03/30/2022	<0.0036	<0.16	<0.21	<0.22	<0.14	<0.35	<0.20	<0.22	<0.39	<0.22	<51.9	<0.31	<72.2	<3.2	<36.4	<2.7	<26.8	<29.4
WSW-DUP	03/30/2022	<0.0036	<0.16	<0.21	<0.22	<0.14	<0.35	<0.20	<0.22	<0.39	<0.22	<51.9	<0.31	<72.2	<3.2	<36.4	<2.7	<26.8	<29.4
WSW-FB	03/30/2022	<0.0036	<0.16	<0.21	<0.22	<0.14	<0.35	0.58	<0.22	<0.39	<0.22	<51.9	<0.31	<72.2	<3.2	<36.4	<2.7	<26.8	<29.4
WSW-TB	03/30/2022	N/A	<0.16	<0.21	<0.22	<0.14	<0.35	<0.20	<0.22	<0.39	<0.22	<51.9	<0.31	<72.2	<3.2	<36.4	<2.7	<26.8	<29.4
South Carolina RBSL for Groundwater		0.05	5	5	700	40	25	1000	10000	N/A	N/A	N/A	150	10000	47	240	128	1400	N/A
South Carolina Action Levels for Groundwater		N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	150	10000	47	240	128	1400	N/A

NOTES:
ND = Not Detected
ft. BGS = feet below ground surface
mg/L = milligrams per liter
ug/L = micrograms per liter
Bold data above the RBSL (Risk Based Screening Level)

TABLE 2

Site Activity Summary

UST Permit #: 04887
Facility Name: Warren Green
County: Jasper
Field Personnel: M. Funderburk, S. Sprott, C. Hansen

Midlands Environmental Consultants, Inc.
231 Dooley Road, Lexington, SC 29073
(803) 808-2043 fax: 808-2048

Sample ID	Sampled?	Date	Time	Screened Interval	Depth to Product (ft)	Depth to Water (ft)	Product Thickness (ft)	TOC Elevation	Groundwater Elevation	Initial DO (mg/l)	# Gals. Purged	Comments
MW-1	Y	3/30/22	13:11	2-12	***	4.62	***	97.69	93.07	4.02	6.00	Odor
MW-2	N	3/30/22	NL	5-15	***	***	***	98.61	***	***	***	Not Located, Possibly buried under gravel
MW-3R	Y	3/30/22	12:40	5-20	***	6.54	***	98.19	91.65	3.73	11.00	Odor
MW-4	Y	3/30/22	12:25	5-20	***	5.11	***	98.32	93.21	1.78	12.50	No Odor
MW-5	Y	3/30/22	10:37	5-20	***	3.46	***	96.88	93.42	6.24	13.50	No Odor
MW-6R	Y	3/30/22	10:41	5-20	***	3.41	***	96.90	93.49	1.30	14.00	No Odor
MW-7R	Y	3/30/22	12:55	5-20	***	4.89	***	97.69	92.80	2.17	12.50	Strong odor
MW-8	Y	3/30/22	12:33	5-20	***	7.34	***	99.44	92.10	1.34	10.50	Odor
MW-9	Y	3/30/22	13:28	5-20	***	6.97	***	99.32	92.35	1.71	11.00	No Odor
MW-10	Y	3/30/22	11:31	5-20	***	8.92	***	101.26	92.34	4.19	9.00	No Odor
MW-11R	Y	3/30/22	11:36	5-20	***	6.85	***	101.38	94.53	1.90	11.00	No Odor
MW-12R	N	3/30/22	NL	5-20	***	***	***	98.12	***	***	***	Not Located, Possibly destroyed by road work
MW-13R	Y	3/30/22	10:58	5-20	***	6.47	***	97.33	90.86	1.38	11.00	No Odor
MW-14	Y	3/30/22	11:22	5-20	***	6.16	***	97.39	91.23	1.77	11.50	No Odor
MW-15	Y	3/30/22	11:02	5-20	***	3.91	***	97.22	93.31	1.28	13.50	No Odor
											147.00	**TOTAL GALLONS PURGED**

TABLE 2
Site Activity Summary

UST Permit #: 04887
Facility Name: Warren Green
County: Jasper
Field Personnel: M. Funderburk, S. Sprott, C. Hansen

Midlands Environmental Consultants, Inc.
231 Dooley Road, Lexington, SC 29073
(803) 808-2043 fax: 808-2048

Sample ID	Sampled?	Date	Time	Screened Interval	Depth to Product (ft)	Depth to Water (ft)	Product Thickness (ft)	TOC Elevation	Groundwater Elevation	Initial DO (mg/l)	# Gals. Purged	Comments
DW-1	Y	3/30/22	13:49	45-50	***	0.40	***	97.84	97.44	2.61	40.50	No Odor
DW-2	Y	3/30/22	12:10	45-50	***	5.63	***	98.31	92.68	6.05	36.50	No Odor
DW-3	Y	3/30/22	10:17	45-50	***	3.36	***	96.83	93.47	7.90	38.00	No Odor
DW-4	Y	3/30/22	10:17	45-50	***	7.61	***	96.75	89.14	5.16	35.00	No Odor
DW-5	Y	3/30/22	13:11	80-85	***	0.03	***	98.09	98.06	4.46	43.00	No Odor
DW-6	Y	3/30/22	12:20	80-85	***	0.30	***	99.26	98.96	3.31	43.00	No Odor
DUP-1	Y	3/30/22	12:40	***	***	***	***	***	***	***	***	Duplicate of MW-3R
Field Blank	Y	3/30/22	13:45	***	***	***	***	***	***	***	***	Field Blank
Trip Blank	Y	3/30/22	8:00	***	***	***	***	***	***	***	***	Trip Blank
WSW-1	Y	3/30/22	14:15	***	***	***	***	***	***	***	***	235 Bowers Lane / Collected from Spigot on House (32.627995, -80.886757)
WSW-2	Y	3/30/22	14:24	***	***	***	***	***	***	***	***	425 Bowers Lane / Collected from Spigot on Well (32.628673, -80.887550)
WSW-3	N	3/30/22	NS	***	***	***	***	***	***	***	***	10951 Frontage Road / Denied Access
WSW-4	Y	3/30/22	14:31	***	***	***	***	***	***	***	***	10943 Frontage Road / Spigot under front of house (32.631229, -80.884500)
WSW-DUP	Y	3/30/22	14:15	***	***	***	***	***	***	***	***	Duplicate of WSW-1
Field Blank	Y	3/30/22	14:32	***	***	***	***	***	***	***	***	Field Blank
											236.00	**TOTAL GALLONS PURGED**

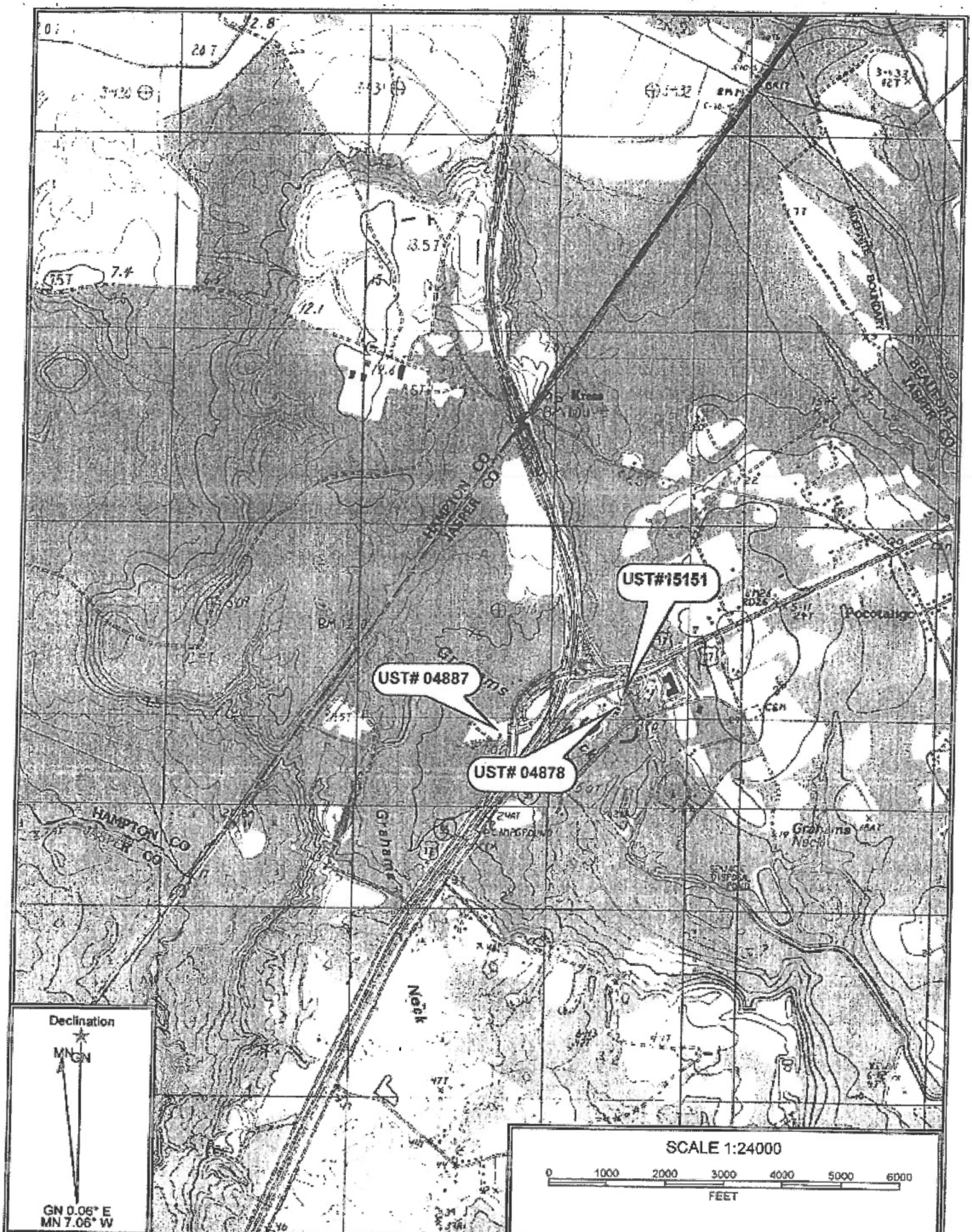
TABLE 2
Site Activity Summary

UST Permit #: 04887
Facility Name: Warren Green
County: Jasper
Field Personnel: M. Funderburk, S. Sprott, C. Hansen

Midlands Environmental Consultants, Inc.
231 Dooley Road, Lexington, SC 29073
(803) 808-2043 fax: 808-2048

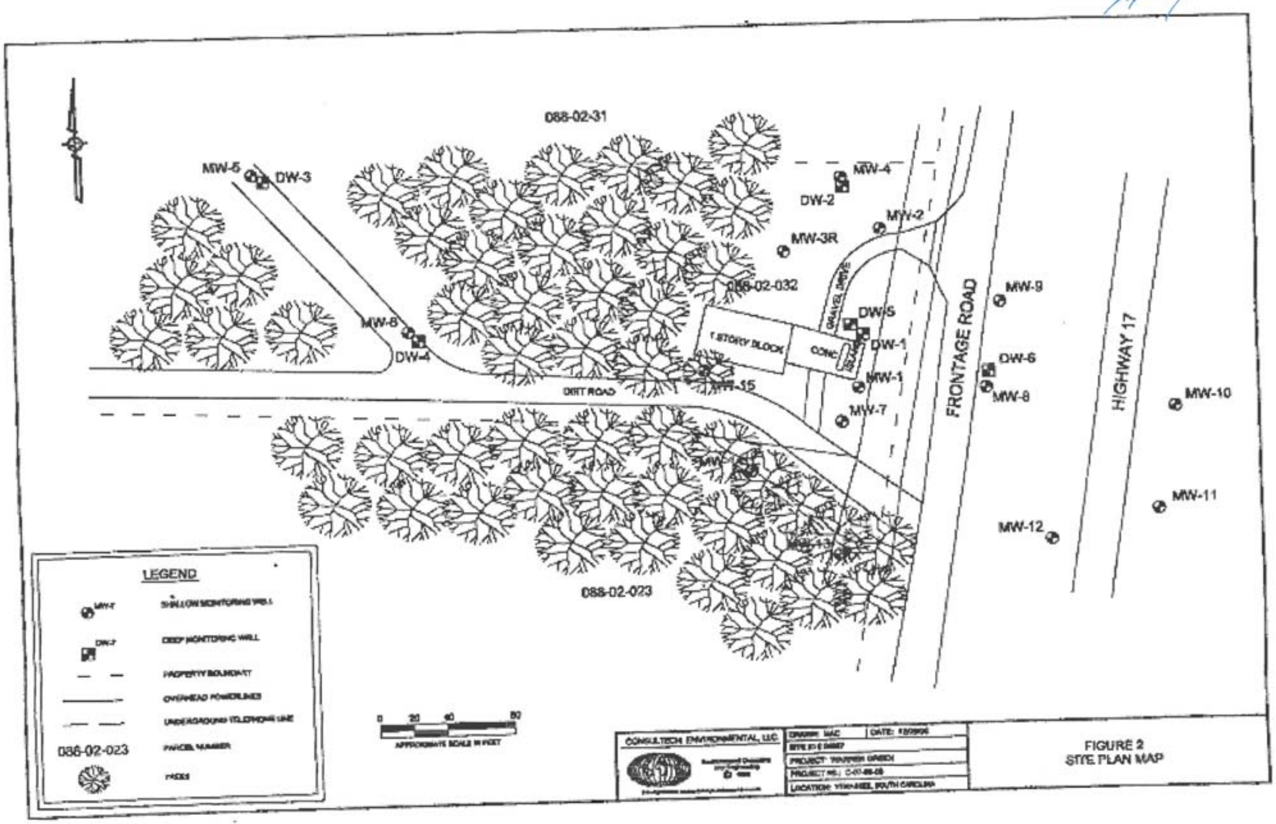
Sample ID	Sampled?	Date	Time	Screened Interval	Depth to Product (ft)	Depth to Water (ft)	Product Thickness (ft)	TOC Elevation	Groundwater Elevation	Initial DO (mg/l)	# Gals. Purged	Comments
Trip Blank	Y	3/30/22	8:00	***	***	***	***	***	***	***	***	Trip Blank
											0.00	**TOTAL GALLONS PURGED**

FIGURES



UST#15151
UST# 04887
UST# 04878
HAMPTON CO
JASPER CO
BEAUFORT CO
Pocotaligo
Grahams Neck
Neck
Declination
MN
GN
GN 0.06° E
MN 7.06° W
SCALE 1:24000
0
1000
2000
3000
4000
5000
6000
FEET

Provided Map is of poor quality and outdated. Due to the quality of this map, re-digitization was not requested or can be completed at this time. MECI recommends a Comprehensive Survey be performed.



APPENDIX A:

SAMPLING LOGS, LABORATORY DATA SHEETS, & CHAIN-OF-CUSTODY FORMS

Midlands Environmental Consultants, Inc.

Monitoring Well Purge And Sampling Data

Field Personnel: MF, SS, CH

Sampling Date(s): 3/30/2022

Sampling Case#: 1

Job Name: Warren Green

Job Number: 22-7805

Calibration Data for :

Calibration Successful? Yes or No (Please Circle)

pH: Yes No

Conductivity: Yes No

Dissolved Oxygen: Yes No

Turbidity: **Conductivity Calibrated Every 3 Months by QA Manager**

Well No.	Purge Volume	Sample Time	pH(i)	cond(i)	Temp. (°C)	DO (mg/l)	Turbidity (NTU)	Depth to (feet): product	initial H_2O	final H_2O	Well Depth (feet)	Water Height *(feet)	Gallons Purged **calc.	Gallons Purged actual	Notes
MW-1	Initial	1259	5.81	238.7	17.5	4.02	18.77		4.62		2 - 12	7.38	1.20	6	Odor
	1st	1302	5.76	236.0	17.8	4.19	41.65						6.01		
	2nd	1305	5.74	236.9	18.1	4.30	44.90								
	3rd	1307	5.71	235.8	18.1	4.32	38.27								
	4th	1309	5.72	234.7	18.2	4.37	30.19								
	5th	1311	5.69	234.2	18.1	4.31	24.08								
	Sampling														
MW-2	Initial										5 - 15				M Likely buried under Gravel Pile
	1st														
	2nd		Not Located												
	3rd														
	4th														
	5th														
	Sampling														
MW-3R	Initial	1229	5.81	225.9	21.4	3.73	20.52		6.54		5 - 20	13.46	2.19	11	Odor DUP
	1st	1231	5.70	221.6	21.0	3.99	44.92						10.96		
	2nd	1233	5.67	220.5	20.3	4.08	50.83								
	3rd	1235	5.68	220.1	20.1	4.27	45.16								
	4th	1237	5.64	218.3	19.8	4.51	39.67								
	5th	1240	5.63	218.5	19.7	4.56	30.50								
	Sampling														
MW-4	Initial	1213	6.23	230.2	18.8	1.78	14.89		5.11		5 - 20	14.89	2.43	12.5	No odor
	1st	1215	6.20	228.9	18.5	2.05	37.04						12.14		
	2nd	12.18	6.16	228.5	18.5	2.22	42.17								
	3rd	1220	6.15	228.0	18.6	2.27	38.26								
	4th	1222	6.11	227.9	18.5	2.31	32.70								
	5th	1225	6.10	227.8	18.5	2.34	25.71								
	Sampling														

*= (Depth of Well) - (Depth to Water = **Water Height**

One Well Volume =x.047 for 1" wells * x **.163 for 2" wells,** or * x **.66 for 4" wells**, 1.469 for 6" wells

= One Well Volume x 5 = **Gallons Purged (calculated)

Casing	Gallons
1"	0.047
2"	0.163
4"	0.653
6"	1.469

Sampling Case#	Ph/Conductance SN	DO SN	Turbidity
Case #1	15H101448	17E101302	201301183
Case #2	15E101481	14H103098	201301174
Case #3	17E100512	17E103488	201510251

Midlands Environmental Consultants, Inc.

Monitoring Well Purge And Sampling Data

Field Personnel: MF, SS, CH

Sampling Date(s): 3/30/2022

Sampling Case#: 1

Job Name: Warren Green

Job Number: 22-7805

Calibration Data for :

Calibration Successful? Yes or No (Please Circle)

pH: Yes | No

Conductivity: Yes | No

Dissolved Oxygen: Yes | No

Turbidity: **Conductivity Calibrated Every 3 Months by QA Manager**

Well No.	Purge Volume	Sample Time	pH(i)	cond(i)	Temp. (°C)	DO (mg/l)	Turbidity (NTU)	Depth to (feet): product	Initial H_2O	final H_2O	Well Depth (feet)	Water Height *(feet)	Gallons Purged **calc.	Gallons Purged actual	Notes
MW-5	Initial	1022	6.97	154.0	17.5	6.24	16.04		3.46		5 – 20	16.54	2.69 / 13.48	13.5 ~~14~~	No odor
	1st	1025	6.95	151.8	17.8	5.79	51.43								
	2nd	1028	6.99	147.2	17.9	5.44	54.08								
	3rd	1031	7.01	145.7	18.1	5.18	37.15								
	4th	1034	7.03	145.5	18.1	5.23	30.04								
	5th	1037	7.04	145.2	18.0	5.26	24.19								
	Sampling														
MW-8	Initial	1223	5.19	154.8	21.5	1.34	11.52		7.34		5 – 20	12.66	2.06 / 10.32	10.5	Odor
	1st	1225	5.12	152.1	20.9	1.81	27.59								
	2nd	1227	5.08	149.0	19.8	2.16	25.03								
	3rd	1229	5.05	147.6	19.6	2.35	22.90								
	4th	1231	5.04	147.2	19.2	2.39	19.55								
	5th	1233	5.04	147.2	19.1	2.44	18.13								
	Sampling														
MW-7R	Initial	1245	4.84	101.9	17.9	2.17	8.41		4.89		5 – 20	15.11	2.46 / 12.31	12.5	Strong Odor
	1st	1247	4.82	100.6	18.0	2.06	29.53								
	2nd	1249	4.79	100.2	18.2	2.54	25.05								
	3rd	1251	4.79	99.9	18.2	2.59	22.80								
	4th	1253	4.78	99.8	18.3	2.70	21.34								
	5th	1255	4.76	99.7	18.3	2.82	16.22								
	Sampling														
MW-6R	Initial	1024	6.52	151.9	16.1	1.30	11.56		3.41		5 – 20	16.59	2.70 / 13.52	14	No odor
	1st	1028	6.57	151.1	16.9	4.29	44.12								
	2nd	1031	6.59	150.6	17.2	3.67	41.39								
	3rd	1035	6.63	149.8	17.4	3.90	37.22								
	4th	1038	6.64	149.0	17.5	3.81	33.05								
	5th	1041	6.64	148.1	17.5	3.89	26.13								
	Sampling														

*= (Depth of Well) - (Depth to Water = **Water Height**

One Well Volume =x.047 for 1" wells * x **.163 for 2" wells,** or * x **.66 for 4" wells**, 1.469 for 6" wells

= One Well Volume x 5 = **Gallons Purged (calculated)

Casing	Gallons
1"	0.047
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Sampling Case#	Ph/Conductance SN	DO SN	Turbidity
Case #1	15H101448	17E101302	201301183
Case #2	15E101481	14H103098	201301174
Case #3	17E100512	17E103488	201510251

Midlands Environmental Consultants, Inc.

Monitoring Well Purge And Sampling Data

Field Personnel: MF, SS, CH

Sampling Date(s): 3/30/2022

Sampling Case#: 1

Job Name: Warren Green

Job Number: 22-7805

Calibration Data for :

Calibration Successful? Yes or No (Please Circle)

pH: Yes No

Conductivity: Yes No

Dissolved Oxygen: Yes No

Turbidity: **Conductivity Calibrated Every 3 Months by QA Manager**

Well No.	Purge Volume	Sample Time	pH(i)	cond(i)	Temp. (°C)	DO (mg/l)	Turbidity (NTU)	Depth to (feet): product	initial H_2O	final H_2O	Well Depth (feet)	Water Height *(feet)	Gallons Purged **calc.	actual	Notes
MW-9	Initial	1315	4.43	118.4	20.3	1.71	14.12		6.97		5 - 20	13.03	2.12 / 10.62	11	No odor
	1st	1317	4.40	118.1	20.1	1.96	29.28								
	2nd	1320	4.39	117.9	19.7	2.23	35.70								
	3rd	1322	4.34	116.6	19.5	2.29	31.63								
	4th	1325	4.35	116.0	19.4	2.35	25.39								
	5th	1328	4.33	114.7	19.4	2.38	22.00								
	Sampling														
MW-10	Initial	1122	5.68	208.7	20.5	4.19	42.66		8.92		5 - 20	11.08	1.81 / 9.03	9	No odor
	1st	1124	5.65	205.8	20.0	3.11	72.01								
	2nd	1126	5.64	204.2	19.5	3.56	75.20								
	3rd	1127	5.62	203.6	19.4	3.67	77.48								
	4th	1129	5.61	203.2	19.3	3.52	85.13								
	5th	1131	5.62	203.1	19.3	3.44	90.16								
	Sampling														
MW-11R	Initial	1125	5.80	268.7	20.6	1.90	30.15		6.85		5 - 20	13.15	2.14 / 10.72	11	No Odor
	1st	1127	5.72	269.0	20.1	1.99	39.22								
	2nd	1129	5.75	265.9	19.7	2.43	32.18								
	3rd	1131	5.71	262.3	19.6	2.82	27.96								
	4th	1134	5.70	260.1	19.4	2.89	24.38								
	5th	1136	5.68	260.0	19.4	2.93	22.10								
	Sampling														
MW-12R	Initial										5 - 20				NL Likely destroyed by road development
	1st														
	2nd														
	3rd		NOT	LOCATED											
	4th														
	5th														
	Sampling														

*= (Depth of Well) - (Depth to Water = **Water Height**

One Well Volume =x.047 for 1" wells * x **.163 for 2" wells**, or * x **.66 for 4" wells**, 1.469 for 6" wells

= One Well Volume x 5 = **Gallons Purged (calculated)

Casing	Gallons
1"	0.047
2"	0.163
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Sampling Case#	Ph/Conductance SN	DO SN	Turbidity
Case #1	15H101448	17E101302	201301183
Case #2	15E101481	14H103098	201301174
Case #3	17E100512	17E103488	201510251

Midlands Environmental Consultants, Inc.

Monitoring Well Purge And Sampling Data

Field Personnel: MF, SS CH

Sampling Date(s): 3/30/2022

Sampling Case#: 1

Job Name: Warren Green

Job Number: 22-7805

Calibration Data for :

Calibration Successful? Yes or No (Please Circle)

pH:	Yes	No
Conductivity:	Yes	No
Dissolved Oxygen:	Yes	No
Turbidity:		

Conductivity Calibrated Every 3 Months by QA Manager

Well No.	Purge Volume	Sample Time	pH(i)	cond(i)	Temp. (°C)	DO (mg/l)	Turbidity (NTU)	Depth to (feet): product	initial H_2O	final H_2O	Well Depth (feet)	Water Height *(feet)	Gallons Purged **calc.	actual	Notes
MW-13R	Initial	1046	5.36	125.2	18.1	1.38	17.20		6.47		5 - 20	13.53	2.21	11	No Odor
	1st	1047	5.37	121.9	18.3	1.61	38.21						11.03		
	2nd	1050	5.32	120.8	18.3	1.94	45.48								
	3rd	1052	5.29	120.4	18.5	2.08	39.16								
	4th	1055	5.28	118.7	18.4	2.23	32.54								
	5th	1058	5.26	116.5	18.4	2.29	25.03								
	Sampling														
MW-14	Initial	1109	5.15	144.9	18.2	1.77	17.99		6.16		5 - 20	13.84	2.26	11.5	No Odor
	1st	11:12	5.10	142.0	18.3	2.16	27.18						11.28		
	2nd	1115	5.08	138.6	18.4	2.19	35.10								
	3rd	1117	5.08	138.1	18.4	2.25	29.50								
	4th	1120	5.07	137.7	18.5	2.39	24.13								
	5th	1122	5.05	137.2	18.5	2.44	22.60								
	Sampling														
MW-15	Initial	1050	5.32	156.5	18.3	1.28	16.48		3.91		5 - 20	16.09	2.62	13.5	No Odor
	1st	1052	5.30	155.1	18.4	3.20	52.18						13.11		
	2nd	1054	5.29	155.0	18.4	3.15	46.23								
	3rd	1057	5.25	155.4	18.5	3.04	39.17								
	4th	1059	5.24	155.6	18.4	3.29	45.02								
	5th	1102	5.22	155.5	18.5	3.51	31.80								
	Sampling														
DW-1	Initial	1316	6.98	292.3	17.7	2.61	12.09		0.40		45 - 50	49.6	8.08	40.5	No Odor
	1st	1323	6.95	291.9	17.9	2.90	42.30						40.42		
	2nd	1330	6.99	288.4	18.2	3.12	58.66								
	3rd	1337	6.85	273.1	18.7	3.18	49.25								
	4th	1343	6.80	270.5	18.5	3.27	33.18								
	5th	1349	6.76	269.9	18.6	3.52	30.59								
	Sampling														

*= (Depth of Well) - (Depth to Water = **Water Height**

One Well Volume =x.047 for 1" wells * x **.163 for 2" wells,** or * x **.66 for 4" wells**, 1.469 for 6" wells

= One Well Volume x 5 = **Gallons Purged (calculated)

Casing	Gallons
1"	0.047
2"	0.163
4"	0.653
6"	1.469

Sampling Case#	Ph/Conductance SN	DO SN	Turbidity
Case #1	15H101448	17E101302	201301183
Case #2	15E101481	14H103098	201301174
Case #3	17E100512	17E103488	201510251

Midlands Environmental Consultants, Inc.

Monitoring Well Purge And Sampling Data

Field Personnel: MF, SS, CH

Sampling Date(s): 3/30/2022

Sampling Case#: 1

Job Name: Warren Green

Job Number: 22-7805

Calibration Data for :

Calibration Successful? Yes or No (Please Circle)

pH: Yes No

Conductivity: Yes No

Dissolved Oxygen: Yes No

Turbidity: **Conductivity Calibrated Every 3 Months by QA Manager**

Well No.	Purge Volume	Sample Time	pH(i)	cond(i)	Temp. (°C)	DO (mg/l)	Turbidity (NTU)	Depth to (feet): product	Depth to (feet): initial H_2O	Depth to (feet): final H_2O	Well Depth (feet)	Water Height *(feet)	Gallons Purged **calc.	Gallons Purged actual	Notes
DW-2	Initial	1136	6.62	273.7	18.9	6.05	16.56		5.63		45 - 50	44.37	7.23 / 36.16	36.5	No odor
	1st	1143	6.60	260.1	18.8	4.90	29.18								
	2nd	1149	6.59	269.5	18.5	4.21	25.02								
	3rd	1156	6.46	261.2	18.6	4.03	22.30								
	4th	1203	6.43	258.3	18.5	3.95	20.19								
	5th	1210	6.42	255.0	18.5	3.99	18.44								
	Sampling														
DW-3	Initial	9:43	6.08	97.4	18.4	7.90	11.96		3.36		45 - 50	46.64	7.60 / 38.0	38	No odor
	1st	950	6.21	96.2	18.5	6.11	27.90								
	2nd	956	6.19	96.0	18.5	5.92	39.14								
	3rd	1003	6.27	95.9	18.4	5.77	35.12								
	4th	1010	6.34	95.3	18.5	5.63	28.01								
	5th	1017	6.36	95.1	18.6	5.48	25.89								
	Sampling														
DW-4	Initial	9:41	6.49	143.8	17.6	5.16	10.48		7.61		45 - 50	42.39	6.91 / 34.55	35	No odor
	1st	948	6.56	142.0	17.9	4.85	46.19								
	2nd	954	6.73	141.8	18.0	4.67	51.30								
	3rd	1002	6.79	140.9	18.2	4.22	41.86								
	4th	1010	6.80	140.5	18.3	4.13	30.23								
	5th	1017	6.82	140.4	18.3	4.09	27.02								
	Sampling														
DW-5	Initial	1230	6.64	212.2	19.0	4.46	8.60		0.03		90 - 95	84.97	13.85 / 69.25	Stabilized @ 43	No Odor
	1st	1244	6.58	209.5	18.8	4.18	15.99								
	2nd	1258	6.52	207.4	18.7	4.15	13.72								
	3rd	1309	6.49	207.2	18.7	4.16	8.62								
	4th														
	5th														
	Sampling	1311	6.49	206.9	18.7	4.13	9.59								

*= (Depth of Well) - (Depth to Water = **Water Height**

One Well Volume =x.047 for 1" wells * x **.163 for 2" wells,** or * x **.66 for 4" wells**, 1.469 for 6" wells

= One Well Volume x 5 = **Gallons Purged (calculated)

Casing	Gallons
1"	0.047
2"	0.163
4"	0.653
6"	1.469

Sampling Case#	Ph/Conductance SN	DO SN	Turbidity
Case #1	15H101448	17E101302	201301183
Case #2	15E101481	14H103098	201301174
Case #3	17E100512	17E103488	201510251

Midlands Environmental Consultants, Inc.

Monitoring Well Purge And Sampling Data

Field Personnel: MF, SS, CH

Sampling Date(s): 3/30/2022

Sampling Case#: 1

Job Name: Warren Green

Job Number: 22-7805

Calibration Data for :

Calibration Successful? Yes or No (Please Circle)

pH: Yes No

Conductivity: Yes No

Dissolved Oxygen: Yes No

Turbidity: **Conductivity Calibrated Every 3 Months by QA Manager**

Well No.	Purge Volume	Sample Time	pH(i)	cond(i)	Temp. (°C)	DO (mg/l)	Turbidity (NTU)	Depth to (feet): product	Depth to (feet): initial H_2O	Depth to (feet): final H_2O	Well Depth (feet)	Water Height *(feet)	Gallons Purged **calc.	Gallons Purged actual	Notes
DW-6	Initial	1140	7.01	311.0	19.6	3.31	17.60		0.30		90 – 95	84.7	13.81 / 69.03	Stabilized @ 43	No Odor
	1st	1152	6.92	304.3	19.2	3.49	20.14								
	2nd	1205	6.90	301.2	19.1	3.55	18.06								
	3rd	1217	6.90	301.0	19.1	3.56	9.51								
	4th														
	5th														
	Sampling	1220	6.89	300.9	19.0	3.54	1.89								

DUP MW-3R 12:40 Odor

GAC 13:58

FB 13:45

TB 8:00

WSW-1 14:15 Spigot on side of house 235 Bowers 32.627495, -80.886757

WSW-2 14:24 Spigot on well 425 Bowers 32.628673, -80.887550

WSW-3 Denied Access 10451 Frontage Rd.

WSW-4 14:31 Spigot under front of house 10943 Frontage Rd 32.631229, -80.884500

WSW-DUP WSW-1 14:15

FB 14:32

TB 8:00

*= (Depth of Well) - (Depth to Water = Water Height

One Well Volume =x.047 for 1" wells * x .163 for 2" wells, or * x .66 for 4" wells, 1.469 for 6" wells

**= One Well Volume x 5 = Gallons Purged (calculated)

Casing	Gallons
1"	0.047
2"	0.163
4"	0.653
6"	1.469

Sampling Case#	Ph/Conductance SN	DO SN	Turbidity
Case #1	15H101448	17E101302	201301183
Case #2	15E101481	14H103098	201301174
Case #3	17E100512	17E103488	201510251

Pace Analytical Services, LLC
9800 Kincey Ave. Suite 100
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(704)875-9092

April 08, 2022

Arthur Brown
SCDHEC
2600 Bull Street
Columbia, SC 29201

RE: Project: 4887/6502 WARREN GREEN
Pace Project No.: 92596943

Dear Arthur Brown:

Enclosed are the analytical results for sample(s) received by the laboratory on April 01, 2022. The results relate only to the samples included in this report. Results reported herein conform to the applicable TNI/NELAC Standards and the laboratory's Quality Manual, where applicable, unless otherwise noted in the body of the report.

The test results provided in this final report were generated by each of the following laboratories within the Pace Network:
- Pace Analytical Services - Charlotte

If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Angela M. Baioni

Angela Baioni
angela.baioni@pacelabs.com
(704)875-9092
Project Manager

Enclosures

cc: Jeff Coleman, Midlands Environmental Consultants, Inc.
Robert Dunn, SCDHEC
Kyle Pudney, Midlands Environmental Consultants, Inc.

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CERTIFICATIONS

Project:	4887/6502 WARREN GREEN
Pace Project No.:	92596943

Pace Analytical Services Charlotte

South Carolina Laboratory ID: 99006	South Carolina Certification #: 99006001
9800 Kincey Ave. Ste 100, Huntersville, NC 28078	South Carolina Drinking Water Cert. #: 99006003
North Carolina Drinking Water Certification #: 37706	Florida/NELAP Certification #: E87627
North Carolina Field Services Certification #: 5342	Kentucky UST Certification #: 84
North Carolina Wastewater Certification #: 12	Louisiana DoH Drinking Water #: LA029
South Carolina Laboratory ID: 99006	Virginia/VELAP Certification #: 460221

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SAMPLE SUMMARY

Project: 4887/6502 WARREN GREEN
Pace Project No.: 92596943

Lab ID	Sample ID	Matrix	Date Collected	Date Received
92596943001	**MW-1**	Water	03/30/22 13:11	04/01/22 17:40
92596943002	**MW-3R**	Water	03/30/22 12:40	04/01/22 17:40
92596943003	**MW-4**	Water	03/30/22 12:25	04/01/22 17:40
92596943004	**MW-5**	Water	03/30/22 10:37	04/01/22 17:40
92596943005	**MW-8**	Water	03/30/22 12:33	04/01/22 17:40
92596943006	**MW-7R**	Water	03/30/22 12:55	04/01/22 17:40
92596943007	**MW-6R**	Water	03/30/22 10:41	04/01/22 17:40
92596943008	**MW-9**	Water	03/30/22 12:38	04/01/22 17:40
92596943009	**MW-10**	Water	03/30/22 11:31	04/01/22 17:40
92596943010	**MW-11**	Water	03/30/22 11:36	04/01/22 17:40
92596943011	**MW-13R**	Water	03/30/22 10:58	04/01/22 17:40
92596943012	**MW-14**	Water	03/30/22 11:22	04/01/22 17:40
92596943013	**MW-15**	Water	03/30/22 11:02	04/01/22 17:40
92596943014	**DW-1**	Water	03/30/22 13:49	04/01/22 17:40
92596943015	**DW-2**	Water	03/30/22 12:10	04/01/22 17:40
92596943016	**DW-3**	Water	03/30/22 10:17	04/01/22 17:40
92596943017	**DW-4**	Water	03/30/22 10:17	04/01/22 17:40
92596943018	**DW-5**	Water	03/30/22 13:11	04/01/22 17:40
92596943019	**DW-6**	Water	03/30/22 12:20	04/01/22 17:40
92596943020	**DUP**	Water	03/30/22 12:40	04/01/22 17:40
92596943021	**FB**	Water	03/30/22 13:45	04/01/22 17:40
92596943022	**TB**	Water	03/30/22 08:00	04/01/22 17:40

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SAMPLE ANALYTE COUNT

Project: 4887/6502 WARREN GREEN
Pace Project No.: 92596943

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
92596943001	**MW-1**	EPA 8011	AP2	2	PASI-C
		EPA 8260D	LMB	20	PASI-C
92596943002	**MW-3R**	EPA 8011	AP2	2	PASI-C
		EPA 8260D	LMB	20	PASI-C
92596943003	**MW-4**	EPA 8011	AP2	2	PASI-C
		EPA 8260D	LMB	20	PASI-C
92596943004	**MW-5**	EPA 8011	AP2	2	PASI-C
		EPA 8260D	LMB	20	PASI-C
92596943005	**MW-8**	EPA 8011	AP2	2	PASI-C
		EPA 8260D	CL	20	PASI-C
92596943006	**MW-7R**	EPA 8011	AP2	2	PASI-C
		EPA 8260D	SAS	20	PASI-C
92596943007	**MW-6R**	EPA 8011	AP2	2	PASI-C
		EPA 8260D	LMB	20	PASI-C
92596943008	**MW-9**	EPA 8011	AP2	2	PASI-C
		EPA 8260D	LMB	20	PASI-C
92596943009	**MW-10**	EPA 8011	AP2	2	PASI-C
		EPA 8260D	LMB	20	PASI-C
92596943010	**MW-11**	EPA 8011	AP2	2	PASI-C
		EPA 8260D	LMB	20	PASI-C
92596943011	**MW-13R**	EPA 8011	AP2	2	PASI-C
		EPA 8260D	SAS	20	PASI-C
92596943012	**MW-14**	EPA 8011	AP2	2	PASI-C
		EPA 8260D	LMB	20	PASI-C
92596943013	**MW-15**	EPA 8011	AP2	2	PASI-C
		EPA 8260D	LMB	20	PASI-C
92596943014	**DW-1**	EPA 8011	HH	2	PASI-C
		EPA 8260D	LMB	20	PASI-C
92596943015	**DW-2**	EPA 8011	HH	2	PASI-C
		EPA 8260D	LMB	20	PASI-C
92596943016	**DW-3**	EPA 8011	HH	2	PASI-C
		EPA 8260D	LMB	20	PASI-C
92596943017	**DW-4**	EPA 8011	HH	2	PASI-C
		EPA 8260D	LMB	20	PASI-C
92596943018	**DW-5**	EPA 8011	HH	2	PASI-C
		EPA 8260D	LMB	20	PASI-C
92596943019	**DW-6**	EPA 8011	HH	2	PASI-C

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SAMPLE ANALYTE COUNT

Project: 4887/6502 WARREN GREEN
Pace Project No.: 92596943

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
		EPA 8260D	LMB	20	PASI-C
92596943020	**DUP**	EPA 8011	HH	2	PASI-C
		EPA 8260D	LMB	20	PASI-C
92596943021	**FB**	EPA 8011	HH	2	PASI-C
		EPA 8260D	LMB	20	PASI-C
92596943022	**TB**	EPA 8260D	LMB	20	PASI-C

PASI-C = Pace Analytical Services - Charlotte

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SUMMARY OF DETECTION

Project: 4887/6502 WARREN GREEN
Pace Project No.: 92596943

Lab Sample ID / Method	Client Sample ID / Parameters	Result	Units	Report Limit	Analyzed	Qualifiers
92596943001	**MW-1**					
EPA 8260D	Benzene	1030	ug/L	250	04/06/22 17:07	
EPA 8260D	Ethylbenzene	1610	ug/L	250	04/06/22 17:07	
EPA 8260D	Naphthalene	430	ug/L	250	04/06/22 17:07	
EPA 8260D	Toluene	8240	ug/L	250	04/06/22 17:07	
EPA 8260D	Xylene (Total)	8540	ug/L	250	04/06/22 17:07	
EPA 8260D	m&p-Xylene	6320	ug/L	500	04/06/22 17:07	
EPA 8260D	o-Xylene	2230	ug/L	250	04/06/22 17:07	
92596943005	**MW-8**					
EPA 8011	1,2-Dibromoethane (EDB)	0.12	ug/L	0.020	04/06/22 19:47	
EPA 8260D	tert-Amyl Alcohol	379J	ug/L	500	04/07/22 21:54	
EPA 8260D	Benzene	617	ug/L	25.0	04/07/22 21:54	
EPA 8260D	Ethylbenzene	256	ug/L	25.0	04/07/22 21:54	
EPA 8260D	Naphthalene	80.1	ug/L	25.0	04/07/22 21:54	
EPA 8260D	Toluene	455	ug/L	25.0	04/07/22 21:54	
EPA 8260D	Xylene (Total)	1140	ug/L	25.0	04/07/22 21:54	
EPA 8260D	m&p-Xylene	768	ug/L	50.0	04/07/22 21:54	
EPA 8260D	o-Xylene	369	ug/L	25.0	04/07/22 21:54	
92596943006	**MW-7R**					
EPA 8011	1,2-Dibromoethane (EDB)	0.38	ug/L	0.020	04/06/22 19:58	
EPA 8260D	Benzene	1050	ug/L	250	04/06/22 07:38	
EPA 8260D	Ethylbenzene	3920	ug/L	250	04/06/22 07:38	
EPA 8260D	Naphthalene	610	ug/L	250	04/06/22 07:38	
EPA 8260D	Toluene	8990	ug/L	250	04/06/22 07:38	
EPA 8260D	Xylene (Total)	22700	ug/L	250	04/06/22 07:38	
EPA 8260D	m&p-Xylene	15600	ug/L	500	04/06/22 07:38	
EPA 8260D	o-Xylene	7040	ug/L	250	04/06/22 07:38	

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PROJECT NARRATIVE

Project: 4887/6502 WARREN GREEN
Pace Project No.: 92596943

Method: **EPA 8011**
Description: 8011 GCS EDB and DBCP
Client: SCDHEC
Date: April 08, 2022

General Information:
21 samples were analyzed for EPA 8011 by Pace Analytical Services Charlotte. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Sample Preparation:
The samples were prepared in accordance with EPA 8011 with any exceptions noted below.

Initial Calibrations (including MS Tune as applicable):
All criteria were within method requirements with any exceptions noted below.

Continuing Calibration:
All criteria were within method requirements with any exceptions noted below.

Surrogates:
All surrogates were within QC limits with any exceptions noted below.

Method Blank:
All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

Duplicate Sample:
All duplicate sample results were within method acceptance criteria with any exceptions noted below.

Additional Comments:

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PROJECT NARRATIVE

Project: 4887/6502 WARREN GREEN
Pace Project No.: 92596943

Method: **EPA 8260D**
Description: 8260 MSV
Client: SCDHEC
Date: April 08, 2022

General Information:
22 samples were analyzed for EPA 8260D by Pace Analytical Services Charlotte. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Initial Calibrations (including MS Tune as applicable):
All criteria were within method requirements with any exceptions noted below.

Continuing Calibration:
All criteria were within method requirements with any exceptions noted below.

QC Batch: 689296

v2: The continuing calibration verification was below the method acceptance limit. The analyte was not detected in the associated samples and the sensitivity of the instrument was verified with a reporting limit check standard.

- BLANK (Lab ID: 3602176)
  - Naphthalene
- DW-1 (Lab ID: 92596943014)
  - Naphthalene
- FB (Lab ID: 92596943021)
  - Naphthalene
- MW-10 (Lab ID: 92596943009)
  - Naphthalene
- MW-11 (Lab ID: 92596943010)
  - Naphthalene
- MW-14 (Lab ID: 92596943012)
  - Naphthalene
- MW-15 (Lab ID: 92596943013)
  - Naphthalene
- MW-3R (Lab ID: 92596943002)
  - Naphthalene
- MW-4 (Lab ID: 92596943003)
  - Naphthalene
- MW-5 (Lab ID: 92596943004)
  - Naphthalene
- TB (Lab ID: 92596943022)
  - Naphthalene

v3: The continuing calibration verification was below the method acceptance limit. Any detection for the analyte in the associated samples may have low bias.

- LCS (Lab ID: 3602177)
  - Naphthalene

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PROJECT NARRATIVE

Project: 4887/6502 WARREN GREEN
Pace Project No.: 92596943

Method: **EPA 8260D**
Description: 8260 MSV
Client: SCDHEC
Date: April 08, 2022

QC Batch: 689298

v2: The continuing calibration verification was below the method acceptance limit. The analyte was not detected in the associated samples and the sensitivity of the instrument was verified with a reporting limit check standard.

- BLANK (Lab ID: 3602184)
  - Naphthalene
- DUP (Lab ID: 92596943020)
  - Naphthalene
- DW-2 (Lab ID: 92596943015)
  - Naphthalene
- DW-3 (Lab ID: 92596943016)
  - Naphthalene
- DW-4 (Lab ID: 92596943017)
  - Naphthalene
- DW-5 (Lab ID: 92596943018)
  - Naphthalene
- DW-6 (Lab ID: 92596943019)
  - Naphthalene
- MW-9 (Lab ID: 92596943008)
  - Naphthalene

v3: The continuing calibration verification was below the method acceptance limit. Any detection for the analyte in the associated samples may have low bias.

- LCS (Lab ID: 3602185)
  - Naphthalene

Internal Standards:
All internal standards were within QC limits with any exceptions noted below.

Surrogates:
All surrogates were within QC limits with any exceptions noted below.

Method Blank:
All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

QC Batch: 689296

A matrix spike and/or matrix spike duplicate (MS/MSD) were performed on the following sample(s): 92596943010

M1: Matrix spike recovery exceeded QC limits. Batch accepted based on laboratory control sample (LCS) recovery.

- MS (Lab ID: 3602179)
  - Naphthalene

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(704)875-9092

PROJECT NARRATIVE

Project: 4887/6502 WARREN GREEN
Pace Project No.: 92596943

Method: **EPA 8260D**
Description: 8260 MSV
Client: SCDHEC
Date: April 08, 2022

QC Batch: 689754

A matrix spike and/or matrix spike duplicate (MS/MSD) were performed on the following sample(s): 92596943007

M1: Matrix spike recovery exceeded QC limits. Batch accepted based on laboratory control sample (LCS) recovery.

- MS (Lab ID: 3604207)
  - tert-Butyl Formate

R1: RPD value was outside control limits.

- MSD (Lab ID: 3604208)
  - Ethanol

Duplicate Sample:
All duplicate sample results were within method acceptance criteria with any exceptions noted below.

Additional Comments:

This data package has been reviewed for quality and completeness and is approved for release.

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ANALYTICAL RESULTS

Project: 4887/6502 WARREN GREEN
Pace Project No.: 92596943

Sample: MW-1 **Lab ID: 92596943001** Collected: 03/30/22 13:11 Received: 04/01/22 17:40 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8011 GCS EDB and DBCP	Analytical Method: EPA 8011 Preparation Method: EPA 8011								
	Pace Analytical Services - Charlotte								
1,2-Dibromoethane (EDB)	ND	ug/L	0.021	0.0079	1	04/06/22 11:09	04/06/22 19:04	106-93-4	
Surrogates									
1-Chloro-2-bromopropane (S)	90	%	60-140		1	04/06/22 11:09	04/06/22 19:04	301-79-56	
8260 MSV	Analytical Method: EPA 8260D								
	Pace Analytical Services - Charlotte								
tert-Amyl Alcohol	ND	ug/L	5000	3280	50		04/06/22 17:07	75-85-4	
tert-Amylmethyl ether	ND	ug/L	500	152	50		04/06/22 17:07	994-05-8	
Benzene	**1030**	ug/L	250	87.0	50		04/06/22 17:07	71-43-2	
3,3-Dimethyl-1-Butanol	ND	ug/L	5000	2700	50		04/06/22 17:07	624-95-3	
tert-Butyl Alcohol	ND	ug/L	5000	4550	50		04/06/22 17:07	75-65-0	
tert-Butyl Formate	ND	ug/L	2500	1200	50		04/06/22 17:07	762-75-4	
1,2-Dichloroethane	ND	ug/L	250	103	50		04/06/22 17:07	107-06-2	
Diisopropyl ether	ND	ug/L	250	174	50		04/06/22 17:07	108-20-3	
Ethanol	ND	ug/L	10000	7200	50		04/06/22 17:07	64-17-5	
Ethylbenzene	**1610**	ug/L	250	92.0	50		04/06/22 17:07	100-41-4	
Ethyl-tert-butyl ether	ND	ug/L	500	423	50		04/06/22 17:07	637-92-3	
Methyl-tert-butyl ether	ND	ug/L	250	155	50		04/06/22 17:07	1634-04-4	
Naphthalene	**430**	ug/L	250	104	50		04/06/22 17:07	91-20-3	
Toluene	**8240**	ug/L	250	100	50		04/06/22 17:07	108-88-3	
Xylene (Total)	**8540**	ug/L	250	250	50		04/06/22 17:07	1330-20-7	
m&p-Xylene	**6320**	ug/L	500	206	50		04/06/22 17:07	179601-23-1	
o-Xylene	**2230**	ug/L	250	102	50		04/06/22 17:07	95-47-6	
Surrogates									
4-Bromofluorobenzene (S)	99	%	70-130		50		04/06/22 17:07	460-00-4	HS
1,2-Dichloroethane-d4 (S)	85	%	70-130		50		04/06/22 17:07	17060-07-0	
Toluene-d8 (S)	98	%	70-130		50		04/06/22 17:07	2037-26-5	

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ANALYTICAL RESULTS

Project: 4887/6502 WARREN GREEN

Pace Project No.: 92596943

Sample: MW-3R **Lab ID: 92596943002** Collected: 03/30/22 12:40 Received: 04/01/22 17:40 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8011 GCS EDB and DBCP	Analytical Method: EPA 8011 Preparation Method: EPA 8011 Pace Analytical Services - Charlotte								
1,2-Dibromoethane (EDB)	ND	ug/L	0.020	0.0077	1	04/06/22 11:09	04/06/22 19:15	106-93-4	
Surrogates									
1-Chloro-2-bromopropane (S)	86	%	60-140		1	04/06/22 11:09	04/06/22 19:15	301-79-56	
8260 MSV	Analytical Method: EPA 8260D Pace Analytical Services - Charlotte								
tert-Amyl Alcohol	ND	ug/L	100	65.6	1		04/05/22 04:46	75-85-4	
tert-Amylmethyl ether	ND	ug/L	10.0	3.0	1		04/05/22 04:46	994-05-8	
Benzene	ND	ug/L	5.0	1.7	1		04/05/22 04:46	71-43-2	
3,3-Dimethyl-1-Butanol	ND	ug/L	100	53.9	1		04/05/22 04:46	624-95-3	
tert-Butyl Alcohol	ND	ug/L	100	91.0	1		04/05/22 04:46	75-65-0	
tert-Butyl Formate	ND	ug/L	50.0	24.1	1		04/05/22 04:46	762-75-4	
1,2-Dichloroethane	ND	ug/L	5.0	2.1	1		04/05/22 04:46	107-06-2	
Diisopropyl ether	ND	ug/L	5.0	3.5	1		04/05/22 04:46	108-20-3	
Ethanol	ND	ug/L	200	144	1		04/05/22 04:46	64-17-5	
Ethylbenzene	ND	ug/L	5.0	1.8	1		04/05/22 04:46	100-41-4	
Ethyl-tert-butyl ether	ND	ug/L	10.0	8.5	1		04/05/22 04:46	637-92-3	
Methyl-tert-butyl ether	ND	ug/L	5.0	3.1	1		04/05/22 04:46	1634-04-4	
Naphthalene	ND	ug/L	5.0	2.1	1		04/05/22 04:46	91-20-3	v2
Toluene	ND	ug/L	5.0	2.0	1		04/05/22 04:46	108-88-3	
Xylene (Total)	ND	ug/L	5.0	5.0	1		04/05/22 04:46	1330-20-7	
m&p-Xylene	ND	ug/L	10.0	4.1	1		04/05/22 04:46	179601-23-1	
o-Xylene	ND	ug/L	5.0	2.0	1		04/05/22 04:46	95-47-6	
Surrogates									
4-Bromofluorobenzene (S)	114	%	70-130		1		04/05/22 04:46	460-00-4	
1,2-Dichloroethane-d4 (S)	91	%	70-130		1		04/05/22 04:46	17060-07-0	
Toluene-d8 (S)	109	%	70-130		1		04/05/22 04:46	2037-26-5	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: 4887/6502 WARREN GREEN
Pace Project No.: 92596943

Sample: MW-4 **Lab ID: 92596943003** Collected: 03/30/22 12:25 Received: 04/01/22 17:40 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8011 GCS EDB and DBCP	Analytical Method: EPA 8011 Preparation Method: EPA 8011								
	Pace Analytical Services - Charlotte								
1,2-Dibromoethane (EDB)	ND	ug/L	0.020	0.0075	1	04/06/22 11:09	04/06/22 19:25	106-93-4	
Surrogates									
1-Chloro-2-bromopropane (S)	88	%	60-140		1	04/06/22 11:09	04/06/22 19:25	301-79-56	
8260 MSV	Analytical Method: EPA 8260D								
	Pace Analytical Services - Charlotte								
tert-Amyl Alcohol	ND	ug/L	100	65.6	1		04/05/22 05:04	75-85-4	
tert-Amylmethyl ether	ND	ug/L	10.0	3.0	1		04/05/22 05:04	994-05-8	
Benzene	ND	ug/L	5.0	1.7	1		04/05/22 05:04	71-43-2	
3,3-Dimethyl-1-Butanol	ND	ug/L	100	53.9	1		04/05/22 05:04	624-95-3	
tert-Butyl Alcohol	ND	ug/L	100	91.0	1		04/05/22 05:04	75-65-0	
tert-Butyl Formate	ND	ug/L	50.0	24.1	1		04/05/22 05:04	762-75-4	
1,2-Dichloroethane	ND	ug/L	5.0	2.1	1		04/05/22 05:04	107-06-2	
Diisopropyl ether	ND	ug/L	5.0	3.5	1		04/05/22 05:04	108-20-3	
Ethanol	ND	ug/L	200	144	1		04/05/22 05:04	64-17-5	
Ethylbenzene	ND	ug/L	5.0	1.8	1		04/05/22 05:04	100-41-4	
Ethyl-tert-butyl ether	ND	ug/L	10.0	8.5	1		04/05/22 05:04	637-92-3	
Methyl-tert-butyl ether	ND	ug/L	5.0	3.1	1		04/05/22 05:04	1634-04-4	
Naphthalene	ND	ug/L	5.0	2.1	1		04/05/22 05:04	91-20-3	v2
Toluene	ND	ug/L	5.0	2.0	1		04/05/22 05:04	108-88-3	
Xylene (Total)	ND	ug/L	5.0	5.0	1		04/05/22 05:04	1330-20-7	
m&p-Xylene	ND	ug/L	10.0	4.1	1		04/05/22 05:04	179601-23-1	
o-Xylene	ND	ug/L	5.0	2.0	1		04/05/22 05:04	95-47-6	
Surrogates									
4-Bromofluorobenzene (S)	103	%	70-130		1		04/05/22 05:04	460-00-4	
1,2-Dichloroethane-d4 (S)	93	%	70-130		1		04/05/22 05:04	17060-07-0	
Toluene-d8 (S)	103	%	70-130		1		04/05/22 05:04	2037-26-5	

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ANALYTICAL RESULTS

Project: 4887/6502 WARREN GREEN
Pace Project No.: 92596943

Sample: MW-5 **Lab ID: 92596943004** Collected: 03/30/22 10:37 Received: 04/01/22 17:40 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8011 GCS EDB and DBCP	Analytical Method: EPA 8011 Preparation Method: EPA 8011								
	Pace Analytical Services - Charlotte								
1,2-Dibromoethane (EDB)	ND	ug/L	0.020	0.0077	1	04/06/22 11:09	04/06/22 19:36	106-93-4	
Surrogates									
1-Chloro-2-bromopropane (S)	86	%	60-140		1	04/06/22 11:09	04/06/22 19:36	301-79-56	
8260 MSV	Analytical Method: EPA 8260D								
	Pace Analytical Services - Charlotte								
tert-Amyl Alcohol	ND	ug/L	100	65.6	1		04/05/22 05:22	75-85-4	
tert-Amylmethyl ether	ND	ug/L	10.0	3.0	1		04/05/22 05:22	994-05-8	
Benzene	ND	ug/L	5.0	1.7	1		04/05/22 05:22	71-43-2	
3,3-Dimethyl-1-Butanol	ND	ug/L	100	53.9	1		04/05/22 05:22	624-95-3	
tert-Butyl Alcohol	ND	ug/L	100	91.0	1		04/05/22 05:22	75-65-0	
tert-Butyl Formate	ND	ug/L	50.0	24.1	1		04/05/22 05:22	762-75-4	
1,2-Dichloroethane	ND	ug/L	5.0	2.1	1		04/05/22 05:22	107-06-2	
Diisopropyl ether	ND	ug/L	5.0	3.5	1		04/05/22 05:22	108-20-3	
Ethanol	ND	ug/L	200	144	1		04/05/22 05:22	64-17-5	
Ethylbenzene	ND	ug/L	5.0	1.8	1		04/05/22 05:22	100-41-4	
Ethyl-tert-butyl ether	ND	ug/L	10.0	8.5	1		04/05/22 05:22	637-92-3	
Methyl-tert-butyl ether	ND	ug/L	5.0	3.1	1		04/05/22 05:22	1634-04-4	
Naphthalene	ND	ug/L	5.0	2.1	1		04/05/22 05:22	91-20-3	v2
Toluene	ND	ug/L	5.0	2.0	1		04/05/22 05:22	108-88-3	
Xylene (Total)	ND	ug/L	5.0	5.0	1		04/05/22 05:22	1330-20-7	
m&p-Xylene	ND	ug/L	10.0	4.1	1		04/05/22 05:22	179601-23-1	
o-Xylene	ND	ug/L	5.0	2.0	1		04/05/22 05:22	95-47-6	
Surrogates									
4-Bromofluorobenzene (S)	106	%	70-130		1		04/05/22 05:22	460-00-4	
1,2-Dichloroethane-d4 (S)	92	%	70-130		1		04/05/22 05:22	17060-07-0	
Toluene-d8 (S)	103	%	70-130		1		04/05/22 05:22	2037-26-5	

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ANALYTICAL RESULTS

Project: 4887/6502 WARREN GREEN

Pace Project No.: 92596943

Sample: MW-8 **Lab ID: 92596943005** Collected: 03/30/22 12:33 Received: 04/01/22 17:40 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8011 GCS EDB and DBCP	Analytical Method: EPA 8011 Preparation Method: EPA 8011 Pace Analytical Services - Charlotte								
1,2-Dibromoethane (EDB)	**0.12**	ug/L	0.020	0.0077	1	04/06/22 11:09	04/06/22 19:47	106-93-4	
Surrogates									
1-Chloro-2-bromopropane (S)	87	%	60-140		1	04/06/22 11:09	04/06/22 19:47	301-79-56	
8260 MSV	Analytical Method: EPA 8260D Pace Analytical Services - Charlotte								
tert-Amyl Alcohol	**379J**	ug/L	500	328	5		04/07/22 21:54	75-85-4	
tert-Amylmethyl ether	ND	ug/L	50.0	15.2	5		04/07/22 21:54	994-05-8	
Benzene	**617**	ug/L	25.0	8.7	5		04/07/22 21:54	71-43-2	
3,3-Dimethyl-1-Butanol	ND	ug/L	500	270	5		04/07/22 21:54	624-95-3	
tert-Butyl Alcohol	ND	ug/L	500	455	5		04/07/22 21:54	75-65-0	
tert-Butyl Formate	ND	ug/L	250	120	5		04/07/22 21:54	762-75-4	
1,2-Dichloroethane	ND	ug/L	25.0	10.3	5		04/07/22 21:54	107-06-2	
Diisopropyl ether	ND	ug/L	25.0	17.4	5		04/07/22 21:54	108-20-3	
Ethanol	ND	ug/L	1000	720	5		04/07/22 21:54	64-17-5	
Ethylbenzene	**256**	ug/L	25.0	9.2	5		04/07/22 21:54	100-41-4	
Ethyl-tert-butyl ether	ND	ug/L	50.0	42.3	5		04/07/22 21:54	637-92-3	
Methyl-tert-butyl ether	ND	ug/L	25.0	15.5	5		04/07/22 21:54	1634-04-4	
Naphthalene	**80.1**	ug/L	25.0	10.4	5		04/07/22 21:54	91-20-3	
Toluene	**455**	ug/L	25.0	10.0	5		04/07/22 21:54	108-88-3	
Xylene (Total)	**1140**	ug/L	25.0	25.0	5		04/07/22 21:54	1330-20-7	
m&p-Xylene	**768**	ug/L	50.0	20.6	5		04/07/22 21:54	179601-23-1	
o-Xylene	**369**	ug/L	25.0	10.2	5		04/07/22 21:54	95-47-6	
Surrogates									
4-Bromofluorobenzene (S)	96	%	70-130		5		04/07/22 21:54	460-00-4	
1,2-Dichloroethane-d4 (S)	104	%	70-130		5		04/07/22 21:54	17060-07-0	
Toluene-d8 (S)	99	%	70-130		5		04/07/22 21:54	2037-26-5	

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ANALYTICAL RESULTS

Project: 4887/6502 WARREN GREEN
Pace Project No.: 92596943

Sample: MW-7R **Lab ID: 92596943006** Collected: 03/30/22 12:55 Received: 04/01/22 17:40 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8011 GCS EDB and DBCP	Analytical Method: EPA 8011 Preparation Method: EPA 8011								
	Pace Analytical Services - Charlotte								
1,2-Dibromoethane (EDB)	**0.38**	ug/L	0.020	0.0078	1	04/06/22 11:09	04/06/22 19:58	106-93-4	
Surrogates									
1-Chloro-2-bromopropane (S)	87	%	60-140		1	04/06/22 11:09	04/06/22 19:58	301-79-56	
8260 MSV	Analytical Method: EPA 8260D								
	Pace Analytical Services - Charlotte								
tert-Amyl Alcohol	ND	ug/L	5000	3280	50		04/06/22 07:38	75-85-4	
tert-Amylmethyl ether	ND	ug/L	500	152	50		04/06/22 07:38	994-05-8	
Benzene	**1050**	ug/L	250	87.0	50		04/06/22 07:38	71-43-2	
3,3-Dimethyl-1-Butanol	ND	ug/L	5000	2700	50		04/06/22 07:38	624-95-3	
tert-Butyl Alcohol	ND	ug/L	5000	4550	50		04/06/22 07:38	75-65-0	
tert-Butyl Formate	ND	ug/L	2500	1200	50		04/06/22 07:38	762-75-4	
1,2-Dichloroethane	ND	ug/L	250	103	50		04/06/22 07:38	107-06-2	
Diisopropyl ether	ND	ug/L	250	174	50		04/06/22 07:38	108-20-3	
Ethanol	ND	ug/L	10000	7200	50		04/06/22 07:38	64-17-5	
Ethylbenzene	**3920**	ug/L	250	92.0	50		04/06/22 07:38	100-41-4	
Ethyl-tert-butyl ether	ND	ug/L	500	423	50		04/06/22 07:38	637-92-3	
Methyl-tert-butyl ether	ND	ug/L	250	155	50		04/06/22 07:38	1634-04-4	
Naphthalene	**610**	ug/L	250	104	50		04/06/22 07:38	91-20-3	
Toluene	**8990**	ug/L	250	100	50		04/06/22 07:38	108-88-3	
Xylene (Total)	**22700**	ug/L	250	250	50		04/06/22 07:38	1330-20-7	
m&p-Xylene	**15600**	ug/L	500	206	50		04/06/22 07:38	179601-23-1	
o-Xylene	**7040**	ug/L	250	102	50		04/06/22 07:38	95-47-6	
Surrogates									
4-Bromofluorobenzene (S)	99	%	70-130		50		04/06/22 07:38	460-00-4	
1,2-Dichloroethane-d4 (S)	93	%	70-130		50		04/06/22 07:38	17060-07-0	
Toluene-d8 (S)	105	%	70-130		50		04/06/22 07:38	2037-26-5	

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ANALYTICAL RESULTS

Project: 4887/6502 WARREN GREEN
Pace Project No.: 92596943

Sample: MW-6R **Lab ID: 92596943007** Collected: 03/30/22 10:41 Received: 04/01/22 17:40 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8011 GCS EDB and DBCP	Analytical Method: EPA 8011 Preparation Method: EPA 8011								
	Pace Analytical Services - Charlotte								
1,2-Dibromoethane (EDB)	ND	ug/L	0.020	0.0076	1	04/06/22 11:09	04/06/22 20:09	106-93-4	
Surrogates									
1-Chloro-2-bromopropane (S)	84	%	60-140		1	04/06/22 11:09	04/06/22 20:09	301-79-56	
8260 MSV	Analytical Method: EPA 8260D								
	Pace Analytical Services - Charlotte								
tert-Amyl Alcohol	ND	ug/L	100	65.6	1		04/06/22 14:42	75-85-4	
tert-Amylmethyl ether	ND	ug/L	10.0	3.0	1		04/06/22 14:42	994-05-8	
Benzene	ND	ug/L	5.0	1.7	1		04/06/22 14:42	71-43-2	
3,3-Dimethyl-1-Butanol	ND	ug/L	100	53.9	1		04/06/22 14:42	624-95-3	
tert-Butyl Alcohol	ND	ug/L	100	91.0	1		04/06/22 14:42	75-65-0	
tert-Butyl Formate	ND	ug/L	50.0	24.1	1		04/06/22 14:42	762-75-4	M1
1,2-Dichloroethane	ND	ug/L	5.0	2.1	1		04/06/22 14:42	107-06-2	
Diisopropyl ether	ND	ug/L	5.0	3.5	1		04/06/22 14:42	108-20-3	
Ethanol	ND	ug/L	200	144	1		04/06/22 14:42	64-17-5	R1
Ethylbenzene	ND	ug/L	5.0	1.8	1		04/06/22 14:42	100-41-4	
Ethyl-tert-butyl ether	ND	ug/L	10.0	8.5	1		04/06/22 14:42	637-92-3	
Methyl-tert-butyl ether	ND	ug/L	5.0	3.1	1		04/06/22 14:42	1634-04-4	
Naphthalene	ND	ug/L	5.0	2.1	1		04/06/22 14:42	91-20-3	
Toluene	ND	ug/L	5.0	2.0	1		04/06/22 14:42	108-88-3	
Xylene (Total)	ND	ug/L	5.0	5.0	1		04/06/22 14:42	1330-20-7	
m&p-Xylene	ND	ug/L	10.0	4.1	1		04/06/22 14:42	179601-23-1	
o-Xylene	ND	ug/L	5.0	2.0	1		04/06/22 14:42	95-47-6	
Surrogates									
4-Bromofluorobenzene (S)	105	%	70-130		1		04/06/22 14:42	460-00-4	
1,2-Dichloroethane-d4 (S)	87	%	70-130		1		04/06/22 14:42	17060-07-0	
Toluene-d8 (S)	104	%	70-130		1		04/06/22 14:42	2037-26-5	

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ANALYTICAL RESULTS

Project: 4887/6502 WARREN GREEN
Pace Project No.: 92596943

Sample: MW-9 **Lab ID: 92596943008** Collected: 03/30/22 12:38 Received: 04/01/22 17:40 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8011 GCS EDB and DBCP	Analytical Method: EPA 8011 Preparation Method: EPA 8011								
	Pace Analytical Services - Charlotte								
1,2-Dibromoethane (EDB)	ND	ug/L	0.020	0.0077	1	04/06/22 11:09	04/06/22 20:19	106-93-4	
Surrogates									
1-Chloro-2-bromopropane (S)	83	%	60-140		1	04/06/22 11:09	04/06/22 20:19	301-79-56	
8260 MSV	Analytical Method: EPA 8260D								
	Pace Analytical Services - Charlotte								
tert-Amyl Alcohol	ND	ug/L	100	65.6	1		04/05/22 09:35	75-85-4	
tert-Amylmethyl ether	ND	ug/L	10.0	3.0	1		04/05/22 09:35	994-05-8	
Benzene	ND	ug/L	5.0	1.7	1		04/05/22 09:35	71-43-2	
3,3-Dimethyl-1-Butanol	ND	ug/L	100	53.9	1		04/05/22 09:35	624-95-3	
tert-Butyl Alcohol	ND	ug/L	100	91.0	1		04/05/22 09:35	75-65-0	
tert-Butyl Formate	ND	ug/L	50.0	24.1	1		04/05/22 09:35	762-75-4	
1,2-Dichloroethane	ND	ug/L	5.0	2.1	1		04/05/22 09:35	107-06-2	
Diisopropyl ether	ND	ug/L	5.0	3.5	1		04/05/22 09:35	108-20-3	
Ethanol	ND	ug/L	200	144	1		04/05/22 09:35	64-17-5	
Ethylbenzene	ND	ug/L	5.0	1.8	1		04/05/22 09:35	100-41-4	
Ethyl-tert-butyl ether	ND	ug/L	10.0	8.5	1		04/05/22 09:35	637-92-3	
Methyl-tert-butyl ether	ND	ug/L	5.0	3.1	1		04/05/22 09:35	1634-04-4	
Naphthalene	ND	ug/L	5.0	2.1	1		04/05/22 09:35	91-20-3	v2
Toluene	ND	ug/L	5.0	2.0	1		04/05/22 09:35	108-88-3	
Xylene (Total)	ND	ug/L	5.0	5.0	1		04/05/22 09:35	1330-20-7	
m&p-Xylene	ND	ug/L	10.0	4.1	1		04/05/22 09:35	179601-23-1	
o-Xylene	ND	ug/L	5.0	2.0	1		04/05/22 09:35	95-47-6	
Surrogates									
4-Bromofluorobenzene (S)	107	%	70-130		1		04/05/22 09:35	460-00-4	
1,2-Dichloroethane-d4 (S)	95	%	70-130		1		04/05/22 09:35	17060-07-0	
Toluene-d8 (S)	105	%	70-130		1		04/05/22 09:35	2037-26-5	

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ANALYTICAL RESULTS

Project: 4887/6502 WARREN GREEN
Pace Project No.: 92596943

Sample: MW-10 **Lab ID: 92596943009** Collected: 03/30/22 11:31 Received: 04/01/22 17:40 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8011 GCS EDB and DBCP	Analytical Method: EPA 8011 Preparation Method: EPA 8011								
	Pace Analytical Services - Charlotte								
1,2-Dibromoethane (EDB)	ND	ug/L	0.020	0.0077	1	04/06/22 11:09	04/06/22 20:30	106-93-4	
Surrogates									
1-Chloro-2-bromopropane (S)	84	%	60-140		1	04/06/22 11:09	04/06/22 20:30	301-79-56	
8260 MSV	Analytical Method: EPA 8260D								
	Pace Analytical Services - Charlotte								
tert-Amyl Alcohol	ND	ug/L	100	65.6	1		04/05/22 05:40	75-85-4	
tert-Amylmethyl ether	ND	ug/L	10.0	3.0	1		04/05/22 05:40	994-05-8	
Benzene	ND	ug/L	5.0	1.7	1		04/05/22 05:40	71-43-2	
3,3-Dimethyl-1-Butanol	ND	ug/L	100	53.9	1		04/05/22 05:40	624-95-3	
tert-Butyl Alcohol	ND	ug/L	100	91.0	1		04/05/22 05:40	75-65-0	
tert-Butyl Formate	ND	ug/L	50.0	24.1	1		04/05/22 05:40	762-75-4	
1,2-Dichloroethane	ND	ug/L	5.0	2.1	1		04/05/22 05:40	107-06-2	
Diisopropyl ether	ND	ug/L	5.0	3.5	1		04/05/22 05:40	108-20-3	
Ethanol	ND	ug/L	200	144	1		04/05/22 05:40	64-17-5	
Ethylbenzene	ND	ug/L	5.0	1.8	1		04/05/22 05:40	100-41-4	
Ethyl-tert-butyl ether	ND	ug/L	10.0	8.5	1		04/05/22 05:40	637-92-3	
Methyl-tert-butyl ether	ND	ug/L	5.0	3.1	1		04/05/22 05:40	1634-04-4	
Naphthalene	ND	ug/L	5.0	2.1	1		04/05/22 05:40	91-20-3	v2
Toluene	ND	ug/L	5.0	2.0	1		04/05/22 05:40	108-88-3	
Xylene (Total)	ND	ug/L	5.0	5.0	1		04/05/22 05:40	1330-20-7	
m&p-Xylene	ND	ug/L	10.0	4.1	1		04/05/22 05:40	179601-23-1	
o-Xylene	ND	ug/L	5.0	2.0	1		04/05/22 05:40	95-47-6	
Surrogates									
4-Bromofluorobenzene (S)	105	%	70-130		1		04/05/22 05:40	460-00-4	
1,2-Dichloroethane-d4 (S)	92	%	70-130		1		04/05/22 05:40	17060-07-0	
Toluene-d8 (S)	103	%	70-130		1		04/05/22 05:40	2037-26-5	

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ANALYTICAL RESULTS

Project: 4887/6502 WARREN GREEN
Pace Project No.: 92596943

Sample: MW-11 **Lab ID: 92596943010** Collected: 03/30/22 11:36 Received: 04/01/22 17:40 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8011 GCS EDB and DBCP	Analytical Method: EPA 8011 Preparation Method: EPA 8011								
	Pace Analytical Services - Charlotte								
1,2-Dibromoethane (EDB)	ND	ug/L	0.020	0.0075	1	04/06/22 11:09	04/06/22 20:41	106-93-4	
Surrogates									
1-Chloro-2-bromopropane (S)	84	%	60-140		1	04/06/22 11:09	04/06/22 20:41	301-79-56	
8260 MSV	Analytical Method: EPA 8260D								
	Pace Analytical Services - Charlotte								
tert-Amyl Alcohol	ND	ug/L	100	65.6	1		04/05/22 05:58	75-85-4	
tert-Amylmethyl ether	ND	ug/L	10.0	3.0	1		04/05/22 05:58	994-05-8	
Benzene	ND	ug/L	5.0	1.7	1		04/05/22 05:58	71-43-2	
3,3-Dimethyl-1-Butanol	ND	ug/L	100	53.9	1		04/05/22 05:58	624-95-3	
tert-Butyl Alcohol	ND	ug/L	100	91.0	1		04/05/22 05:58	75-65-0	
tert-Butyl Formate	ND	ug/L	50.0	24.1	1		04/05/22 05:58	762-75-4	
1,2-Dichloroethane	ND	ug/L	5.0	2.1	1		04/05/22 05:58	107-06-2	
Diisopropyl ether	ND	ug/L	5.0	3.5	1		04/05/22 05:58	108-20-3	
Ethanol	ND	ug/L	200	144	1		04/05/22 05:58	64-17-5	
Ethylbenzene	ND	ug/L	5.0	1.8	1		04/05/22 05:58	100-41-4	
Ethyl-tert-butyl ether	ND	ug/L	10.0	8.5	1		04/05/22 05:58	637-92-3	
Methyl-tert-butyl ether	ND	ug/L	5.0	3.1	1		04/05/22 05:58	1634-04-4	
Naphthalene	ND	ug/L	5.0	2.1	1		04/05/22 05:58	91-20-3	M1,v2
Toluene	ND	ug/L	5.0	2.0	1		04/05/22 05:58	108-88-3	
Xylene (Total)	ND	ug/L	5.0	5.0	1		04/05/22 05:58	1330-20-7	
m&p-Xylene	ND	ug/L	10.0	4.1	1		04/05/22 05:58	179601-23-1	
o-Xylene	ND	ug/L	5.0	2.0	1		04/05/22 05:58	95-47-6	
Surrogates									
4-Bromofluorobenzene (S)	119	%	70-130		1		04/05/22 05:58	460-00-4	
1,2-Dichloroethane-d4 (S)	95	%	70-130		1		04/05/22 05:58	17060-07-0	
Toluene-d8 (S)	105	%	70-130		1		04/05/22 05:58	2037-26-5	

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ANALYTICAL RESULTS

Project: 4887/6502 WARREN GREEN
Pace Project No.: 92596943

Sample: MW-13R **Lab ID: 92596943011** Collected: 03/30/22 10:58 Received: 04/01/22 17:40 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8011 GCS EDB and DBCP	Analytical Method: EPA 8011 Preparation Method: EPA 8011								
	Pace Analytical Services - Charlotte								
1,2-Dibromoethane (EDB)	ND	ug/L	0.021	0.0078	1	04/06/22 11:09	04/06/22 20:52	106-93-4	
Surrogates									
1-Chloro-2-bromopropane (S)	87	%	60-140		1	04/06/22 11:09	04/06/22 20:52	301-79-56	
8260 MSV	Analytical Method: EPA 8260D								
	Pace Analytical Services - Charlotte								
tert-Amyl Alcohol	ND	ug/L	100	65.6	1		04/06/22 06:44	75-85-4	
tert-Amylmethyl ether	ND	ug/L	10.0	3.0	1		04/06/22 06:44	994-05-8	
Benzene	ND	ug/L	5.0	1.7	1		04/06/22 06:44	71-43-2	
3,3-Dimethyl-1-Butanol	ND	ug/L	100	53.9	1		04/06/22 06:44	624-95-3	
tert-Butyl Alcohol	ND	ug/L	100	91.0	1		04/06/22 06:44	75-65-0	
tert-Butyl Formate	ND	ug/L	50.0	24.1	1		04/06/22 06:44	762-75-4	
1,2-Dichloroethane	ND	ug/L	5.0	2.1	1		04/06/22 06:44	107-06-2	
Diisopropyl ether	ND	ug/L	5.0	3.5	1		04/06/22 06:44	108-20-3	
Ethanol	ND	ug/L	200	144	1		04/06/22 06:44	64-17-5	
Ethylbenzene	ND	ug/L	5.0	1.8	1		04/06/22 06:44	100-41-4	
Ethyl-tert-butyl ether	ND	ug/L	10.0	8.5	1		04/06/22 06:44	637-92-3	
Methyl-tert-butyl ether	ND	ug/L	5.0	3.1	1		04/06/22 06:44	1634-04-4	
Naphthalene	ND	ug/L	5.0	2.1	1		04/06/22 06:44	91-20-3	
Toluene	ND	ug/L	5.0	2.0	1		04/06/22 06:44	108-88-3	
Xylene (Total)	ND	ug/L	5.0	5.0	1		04/06/22 06:44	1330-20-7	
m&p-Xylene	ND	ug/L	10.0	4.1	1		04/06/22 06:44	179601-23-1	
o-Xylene	ND	ug/L	5.0	2.0	1		04/06/22 06:44	95-47-6	
Surrogates									
4-Bromofluorobenzene (S)	101	%	70-130		1		04/06/22 06:44	460-00-4	
1,2-Dichloroethane-d4 (S)	102	%	70-130		1		04/06/22 06:44	17060-07-0	
Toluene-d8 (S)	103	%	70-130		1		04/06/22 06:44	2037-26-5	

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ANALYTICAL RESULTS

Project: 4887/6502 WARREN GREEN
Pace Project No.: 92596943

Sample: MW-14 **Lab ID: 92596943012** Collected: 03/30/22 11:22 Received: 04/01/22 17:40 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8011 GCS EDB and DBCP	Analytical Method: EPA 8011 Preparation Method: EPA 8011								
	Pace Analytical Services - Charlotte								
1,2-Dibromoethane (EDB)	ND	ug/L	0.020	0.0076	1	04/06/22 11:09	04/06/22 21:03	106-93-4	
Surrogates									
1-Chloro-2-bromopropane (S)	86	%	60-140		1	04/06/22 11:09	04/06/22 21:03	301-79-56	
8260 MSV	Analytical Method: EPA 8260D								
	Pace Analytical Services - Charlotte								
tert-Amyl Alcohol	ND	ug/L	100	65.6	1		04/05/22 06:16	75-85-4	
tert-Amylmethyl ether	ND	ug/L	10.0	3.0	1		04/05/22 06:16	994-05-8	
Benzene	ND	ug/L	5.0	1.7	1		04/05/22 06:16	71-43-2	
3,3-Dimethyl-1-Butanol	ND	ug/L	100	53.9	1		04/05/22 06:16	624-95-3	
tert-Butyl Alcohol	ND	ug/L	100	91.0	1		04/05/22 06:16	75-65-0	
tert-Butyl Formate	ND	ug/L	50.0	24.1	1		04/05/22 06:16	762-75-4	
1,2-Dichloroethane	ND	ug/L	5.0	2.1	1		04/05/22 06:16	107-06-2	
Diisopropyl ether	ND	ug/L	5.0	3.5	1		04/05/22 06:16	108-20-3	
Ethanol	ND	ug/L	200	144	1		04/05/22 06:16	64-17-5	
Ethylbenzene	ND	ug/L	5.0	1.8	1		04/05/22 06:16	100-41-4	
Ethyl-tert-butyl ether	ND	ug/L	10.0	8.5	1		04/05/22 06:16	637-92-3	
Methyl-tert-butyl ether	ND	ug/L	5.0	3.1	1		04/05/22 06:16	1634-04-4	
Naphthalene	ND	ug/L	5.0	2.1	1		04/05/22 06:16	91-20-3	v2
Toluene	ND	ug/L	5.0	2.0	1		04/05/22 06:16	108-88-3	
Xylene (Total)	ND	ug/L	5.0	5.0	1		04/05/22 06:16	1330-20-7	
m&p-Xylene	ND	ug/L	10.0	4.1	1		04/05/22 06:16	179601-23-1	
o-Xylene	ND	ug/L	5.0	2.0	1		04/05/22 06:16	95-47-6	
Surrogates									
4-Bromofluorobenzene (S)	106	%	70-130		1		04/05/22 06:16	460-00-4	
1,2-Dichloroethane-d4 (S)	93	%	70-130		1		04/05/22 06:16	17060-07-0	
Toluene-d8 (S)	101	%	70-130		1		04/05/22 06:16	2037-26-5	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: 4887/6502 WARREN GREEN
Pace Project No.: 92596943

Sample: MW-15 **Lab ID: 92596943013** Collected: 03/30/22 11:02 Received: 04/01/22 17:40 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8011 GCS EDB and DBCP	Analytical Method: EPA 8011 Preparation Method: EPA 8011								
	Pace Analytical Services - Charlotte								
1,2-Dibromoethane (EDB)	ND	ug/L	0.020	0.0077	1	04/06/22 11:09	04/06/22 21:13	106-93-4	
Surrogates									
1-Chloro-2-bromopropane (S)	88	%	60-140		1	04/06/22 11:09	04/06/22 21:13	301-79-56	
8260 MSV	Analytical Method: EPA 8260D								
	Pace Analytical Services - Charlotte								
tert-Amyl Alcohol	ND	ug/L	100	65.6	1		04/05/22 06:34	75-85-4	
tert-Amylmethyl ether	ND	ug/L	10.0	3.0	1		04/05/22 06:34	994-05-8	
Benzene	ND	ug/L	5.0	1.7	1		04/05/22 06:34	71-43-2	
3,3-Dimethyl-1-Butanol	ND	ug/L	100	53.9	1		04/05/22 06:34	624-95-3	
tert-Butyl Alcohol	ND	ug/L	100	91.0	1		04/05/22 06:34	75-65-0	
tert-Butyl Formate	ND	ug/L	50.0	24.1	1		04/05/22 06:34	762-75-4	
1,2-Dichloroethane	ND	ug/L	5.0	2.1	1		04/05/22 06:34	107-06-2	
Diisopropyl ether	ND	ug/L	5.0	3.5	1		04/05/22 06:34	108-20-3	
Ethanol	ND	ug/L	200	144	1		04/05/22 06:34	64-17-5	
Ethylbenzene	ND	ug/L	5.0	1.8	1		04/05/22 06:34	100-41-4	
Ethyl-tert-butyl ether	ND	ug/L	10.0	8.5	1		04/05/22 06:34	637-92-3	
Methyl-tert-butyl ether	ND	ug/L	5.0	3.1	1		04/05/22 06:34	1634-04-4	
Naphthalene	ND	ug/L	5.0	2.1	1		04/05/22 06:34	91-20-3	v2
Toluene	ND	ug/L	5.0	2.0	1		04/05/22 06:34	108-88-3	
Xylene (Total)	ND	ug/L	5.0	5.0	1		04/05/22 06:34	1330-20-7	
m&p-Xylene	ND	ug/L	10.0	4.1	1		04/05/22 06:34	179601-23-1	
o-Xylene	ND	ug/L	5.0	2.0	1		04/05/22 06:34	95-47-6	
Surrogates									
4-Bromofluorobenzene (S)	108	%	70-130		1		04/05/22 06:34	460-00-4	
1,2-Dichloroethane-d4 (S)	91	%	70-130		1		04/05/22 06:34	17060-07-0	
Toluene-d8 (S)	103	%	70-130		1		04/05/22 06:34	2037-26-5	

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ANALYTICAL RESULTS

Project: 4887/6502 WARREN GREEN
Pace Project No.: 92596943

Sample: DW-1 **Lab ID: 92596943014** Collected: 03/30/22 13:49 Received: 04/01/22 17:40 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8011 GCS EDB and DBCP	Analytical Method: EPA 8011 Preparation Method: EPA 8011								
	Pace Analytical Services - Charlotte								
1,2-Dibromoethane (EDB)	ND	ug/L	0.021	0.0078	1	04/07/22 11:00	04/07/22 22:13	106-93-4	
Surrogates									
1-Chloro-2-bromopropane (S)	82	%	60-140		1	04/07/22 11:00	04/07/22 22:13	301-79-56	
8260 MSV	Analytical Method: EPA 8260D								
	Pace Analytical Services - Charlotte								
tert-Amyl Alcohol	ND	ug/L	100	65.6	1		04/05/22 06:52	75-85-4	
tert-Amylmethyl ether	ND	ug/L	10.0	3.0	1		04/05/22 06:52	994-05-8	
Benzene	ND	ug/L	5.0	1.7	1		04/05/22 06:52	71-43-2	
3,3-Dimethyl-1-Butanol	ND	ug/L	100	53.9	1		04/05/22 06:52	624-95-3	
tert-Butyl Alcohol	ND	ug/L	100	91.0	1		04/05/22 06:52	75-65-0	
tert-Butyl Formate	ND	ug/L	50.0	24.1	1		04/05/22 06:52	762-75-4	
1,2-Dichloroethane	ND	ug/L	5.0	2.1	1		04/05/22 06:52	107-06-2	
Diisopropyl ether	ND	ug/L	5.0	3.5	1		04/05/22 06:52	108-20-3	
Ethanol	ND	ug/L	200	144	1		04/05/22 06:52	64-17-5	
Ethylbenzene	ND	ug/L	5.0	1.8	1		04/05/22 06:52	100-41-4	
Ethyl-tert-butyl ether	ND	ug/L	10.0	8.5	1		04/05/22 06:52	637-92-3	
Methyl-tert-butyl ether	ND	ug/L	5.0	3.1	1		04/05/22 06:52	1634-04-4	
Naphthalene	ND	ug/L	5.0	2.1	1		04/05/22 06:52	91-20-3	v2
Toluene	ND	ug/L	5.0	2.0	1		04/05/22 06:52	108-88-3	
Xylene (Total)	ND	ug/L	5.0	5.0	1		04/05/22 06:52	1330-20-7	
m&p-Xylene	ND	ug/L	10.0	4.1	1		04/05/22 06:52	179601-23-1	
o-Xylene	ND	ug/L	5.0	2.0	1		04/05/22 06:52	95-47-6	
Surrogates									
4-Bromofluorobenzene (S)	107	%	70-130		1		04/05/22 06:52	460-00-4	
1,2-Dichloroethane-d4 (S)	92	%	70-130		1		04/05/22 06:52	17060-07-0	
Toluene-d8 (S)	107	%	70-130		1		04/05/22 06:52	2037-26-5	

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ANALYTICAL RESULTS

Project: 4887/6502 WARREN GREEN
Pace Project No.: 92596943

Sample: DW-2 **Lab ID: 92596943015** Collected: 03/30/22 12:10 Received: 04/01/22 17:40 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8011 GCS EDB and DBCP	Analytical Method: EPA 8011 Preparation Method: EPA 8011								
	Pace Analytical Services - Charlotte								
1,2-Dibromoethane (EDB)	ND	ug/L	0.020	0.0076	1	04/07/22 11:00	04/07/22 22:35	106-93-4	
Surrogates									
1-Chloro-2-bromopropane (S)	89	%	60-140		1	04/07/22 11:00	04/07/22 22:35	301-79-56	
8260 MSV	Analytical Method: EPA 8260D								
	Pace Analytical Services - Charlotte								
tert-Amyl Alcohol	ND	ug/L	100	65.6	1		04/05/22 07:10	75-85-4	
tert-Amylmethyl ether	ND	ug/L	10.0	3.0	1		04/05/22 07:10	994-05-8	
Benzene	ND	ug/L	5.0	1.7	1		04/05/22 07:10	71-43-2	
3,3-Dimethyl-1-Butanol	ND	ug/L	100	53.9	1		04/05/22 07:10	624-95-3	
tert-Butyl Alcohol	ND	ug/L	100	91.0	1		04/05/22 07:10	75-65-0	
tert-Butyl Formate	ND	ug/L	50.0	24.1	1		04/05/22 07:10	762-75-4	
1,2-Dichloroethane	ND	ug/L	5.0	2.1	1		04/05/22 07:10	107-06-2	
Diisopropyl ether	ND	ug/L	5.0	3.5	1		04/05/22 07:10	108-20-3	
Ethanol	ND	ug/L	200	144	1		04/05/22 07:10	64-17-5	
Ethylbenzene	ND	ug/L	5.0	1.8	1		04/05/22 07:10	100-41-4	
Ethyl-tert-butyl ether	ND	ug/L	10.0	8.5	1		04/05/22 07:10	637-92-3	
Methyl-tert-butyl ether	ND	ug/L	5.0	3.1	1		04/05/22 07:10	1634-04-4	
Naphthalene	ND	ug/L	5.0	2.1	1		04/05/22 07:10	91-20-3	v2
Toluene	ND	ug/L	5.0	2.0	1		04/05/22 07:10	108-88-3	
Xylene (Total)	ND	ug/L	5.0	5.0	1		04/05/22 07:10	1330-20-7	
m&p-Xylene	ND	ug/L	10.0	4.1	1		04/05/22 07:10	179601-23-1	
o-Xylene	ND	ug/L	5.0	2.0	1		04/05/22 07:10	95-47-6	
Surrogates									
4-Bromofluorobenzene (S)	104	%	70-130		1		04/05/22 07:10	460-00-4	
1,2-Dichloroethane-d4 (S)	92	%	70-130		1		04/05/22 07:10	17060-07-0	
Toluene-d8 (S)	105	%	70-130		1		04/05/22 07:10	2037-26-5	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: 4887/6502 WARREN GREEN
Pace Project No.: 92596943

Sample: DW-3 **Lab ID: 92596943016** Collected: 03/30/22 10:17 Received: 04/01/22 17:40 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8011 GCS EDB and DBCP	Analytical Method: EPA 8011 Preparation Method: EPA 8011								
	Pace Analytical Services - Charlotte								
1,2-Dibromoethane (EDB)	ND	ug/L	0.020	0.0075	1	04/07/22 11:00	04/07/22 13:33	106-93-4	
Surrogates									
1-Chloro-2-bromopropane (S)	87	%	60-140		1	04/07/22 11:00	04/07/22 13:33	301-79-56	
8260 MSV	Analytical Method: EPA 8260D								
	Pace Analytical Services - Charlotte								
tert-Amyl Alcohol	ND	ug/L	100	65.6	1		04/05/22 07:29	75-85-4	
tert-Amylmethyl ether	ND	ug/L	10.0	3.0	1		04/05/22 07:29	994-05-8	
Benzene	ND	ug/L	5.0	1.7	1		04/05/22 07:29	71-43-2	
3,3-Dimethyl-1-Butanol	ND	ug/L	100	53.9	1		04/05/22 07:29	624-95-3	
tert-Butyl Alcohol	ND	ug/L	100	91.0	1		04/05/22 07:29	75-65-0	
tert-Butyl Formate	ND	ug/L	50.0	24.1	1		04/05/22 07:29	762-75-4	
1,2-Dichloroethane	ND	ug/L	5.0	2.1	1		04/05/22 07:29	107-06-2	
Diisopropyl ether	ND	ug/L	5.0	3.5	1		04/05/22 07:29	108-20-3	
Ethanol	ND	ug/L	200	144	1		04/05/22 07:29	64-17-5	
Ethylbenzene	ND	ug/L	5.0	1.8	1		04/05/22 07:29	100-41-4	
Ethyl-tert-butyl ether	ND	ug/L	10.0	8.5	1		04/05/22 07:29	637-92-3	
Methyl-tert-butyl ether	ND	ug/L	5.0	3.1	1		04/05/22 07:29	1634-04-4	
Naphthalene	ND	ug/L	5.0	2.1	1		04/05/22 07:29	91-20-3	v2
Toluene	ND	ug/L	5.0	2.0	1		04/05/22 07:29	108-88-3	
Xylene (Total)	ND	ug/L	5.0	5.0	1		04/05/22 07:29	1330-20-7	
m&p-Xylene	ND	ug/L	10.0	4.1	1		04/05/22 07:29	179601-23-1	
o-Xylene	ND	ug/L	5.0	2.0	1		04/05/22 07:29	95-47-6	
Surrogates									
4-Bromofluorobenzene (S)	80	%	70-130		1		04/05/22 07:29	460-00-4	
1,2-Dichloroethane-d4 (S)	92	%	70-130		1		04/05/22 07:29	17060-07-0	
Toluene-d8 (S)	105	%	70-130		1		04/05/22 07:29	2037-26-5	

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ANALYTICAL RESULTS

Project: 4887/6502 WARREN GREEN
Pace Project No.: 92596943

Sample: DW-4 **Lab ID: 92596943017** Collected: 03/30/22 10:17 Received: 04/01/22 17:40 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8011 GCS EDB and DBCP	Analytical Method: EPA 8011 Preparation Method: EPA 8011								
	Pace Analytical Services - Charlotte								
1,2-Dibromoethane (EDB)	ND	ug/L	0.020	0.0078	1	04/07/22 11:00	04/07/22 13:43	106-93-4	
Surrogates									
1-Chloro-2-bromopropane (S)	89	%	60-140		1	04/07/22 11:00	04/07/22 13:43	301-79-56	
8260 MSV	Analytical Method: EPA 8260D								
	Pace Analytical Services - Charlotte								
tert-Amyl Alcohol	ND	ug/L	100	65.6	1		04/05/22 07:47	75-85-4	
tert-Amylmethyl ether	ND	ug/L	10.0	3.0	1		04/05/22 07:47	994-05-8	
Benzene	ND	ug/L	5.0	1.7	1		04/05/22 07:47	71-43-2	
3,3-Dimethyl-1-Butanol	ND	ug/L	100	53.9	1		04/05/22 07:47	624-95-3	
tert-Butyl Alcohol	ND	ug/L	100	91.0	1		04/05/22 07:47	75-65-0	
tert-Butyl Formate	ND	ug/L	50.0	24.1	1		04/05/22 07:47	762-75-4	
1,2-Dichloroethane	ND	ug/L	5.0	2.1	1		04/05/22 07:47	107-06-2	
Diisopropyl ether	ND	ug/L	5.0	3.5	1		04/05/22 07:47	108-20-3	
Ethanol	ND	ug/L	200	144	1		04/05/22 07:47	64-17-5	
Ethylbenzene	ND	ug/L	5.0	1.8	1		04/05/22 07:47	100-41-4	
Ethyl-tert-butyl ether	ND	ug/L	10.0	8.5	1		04/05/22 07:47	637-92-3	
Methyl-tert-butyl ether	ND	ug/L	5.0	3.1	1		04/05/22 07:47	1634-04-4	
Naphthalene	ND	ug/L	5.0	2.1	1		04/05/22 07:47	91-20-3	v2
Toluene	ND	ug/L	5.0	2.0	1		04/05/22 07:47	108-88-3	
Xylene (Total)	ND	ug/L	5.0	5.0	1		04/05/22 07:47	1330-20-7	
m&p-Xylene	ND	ug/L	10.0	4.1	1		04/05/22 07:47	179601-23-1	
o-Xylene	ND	ug/L	5.0	2.0	1		04/05/22 07:47	95-47-6	
Surrogates									
4-Bromofluorobenzene (S)	108	%	70-130		1		04/05/22 07:47	460-00-4	
1,2-Dichloroethane-d4 (S)	91	%	70-130		1		04/05/22 07:47	17060-07-0	
Toluene-d8 (S)	106	%	70-130		1		04/05/22 07:47	2037-26-5	

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ANALYTICAL RESULTS

Project: 4887/6502 WARREN GREEN
Pace Project No.: 92596943

Sample: DW-5 **Lab ID: 92596943018** Collected: 03/30/22 13:11 Received: 04/01/22 17:40 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8011 GCS EDB and DBCP	Analytical Method: EPA 8011 Preparation Method: EPA 8011								
	Pace Analytical Services - Charlotte								
1,2-Dibromoethane (EDB)	ND	ug/L	0.021	0.0079	1	04/07/22 11:00	04/07/22 13:54	106-93-4	
Surrogates									
1-Chloro-2-bromopropane (S)	87	%	60-140		1	04/07/22 11:00	04/07/22 13:54	301-79-56	
8260 MSV	Analytical Method: EPA 8260D								
	Pace Analytical Services - Charlotte								
tert-Amyl Alcohol	ND	ug/L	100	65.6	1		04/05/22 08:05	75-85-4	
tert-Amylmethyl ether	ND	ug/L	10.0	3.0	1		04/05/22 08:05	994-05-8	
Benzene	ND	ug/L	5.0	1.7	1		04/05/22 08:05	71-43-2	
3,3-Dimethyl-1-Butanol	ND	ug/L	100	53.9	1		04/05/22 08:05	624-95-3	
tert-Butyl Alcohol	ND	ug/L	100	91.0	1		04/05/22 08:05	75-65-0	
tert-Butyl Formate	ND	ug/L	50.0	24.1	1		04/05/22 08:05	762-75-4	
1,2-Dichloroethane	ND	ug/L	5.0	2.1	1		04/05/22 08:05	107-06-2	
Diisopropyl ether	ND	ug/L	5.0	3.5	1		04/05/22 08:05	108-20-3	
Ethanol	ND	ug/L	200	144	1		04/05/22 08:05	64-17-5	
Ethylbenzene	ND	ug/L	5.0	1.8	1		04/05/22 08:05	100-41-4	
Ethyl-tert-butyl ether	ND	ug/L	10.0	8.5	1		04/05/22 08:05	637-92-3	
Methyl-tert-butyl ether	ND	ug/L	5.0	3.1	1		04/05/22 08:05	1634-04-4	
Naphthalene	ND	ug/L	5.0	2.1	1		04/05/22 08:05	91-20-3	v2
Toluene	ND	ug/L	5.0	2.0	1		04/05/22 08:05	108-88-3	
Xylene (Total)	ND	ug/L	5.0	5.0	1		04/05/22 08:05	1330-20-7	
m&p-Xylene	ND	ug/L	10.0	4.1	1		04/05/22 08:05	179601-23-1	
o-Xylene	ND	ug/L	5.0	2.0	1		04/05/22 08:05	95-47-6	
Surrogates									
4-Bromofluorobenzene (S)	104	%	70-130		1		04/05/22 08:05	460-00-4	
1,2-Dichloroethane-d4 (S)	93	%	70-130		1		04/05/22 08:05	17060-07-0	
Toluene-d8 (S)	104	%	70-130		1		04/05/22 08:05	2037-26-5	

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ANALYTICAL RESULTS

Project: 4887/6502 WARREN GREEN
Pace Project No.: 92596943

Sample: DW-6 **Lab ID: 92596943019** Collected: 03/30/22 12:20 Received: 04/01/22 17:40 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8011 GCS EDB and DBCP	Analytical Method: EPA 8011 Preparation Method: EPA 8011 Pace Analytical Services - Charlotte								
1,2-Dibromoethane (EDB)	ND	ug/L	0.020	0.0077	1	04/07/22 11:00	04/07/22 14:05	106-93-4	
Surrogates									
1-Chloro-2-bromopropane (S)	86	%	60-140		1	04/07/22 11:00	04/07/22 14:05	301-79-56	
8260 MSV	Analytical Method: EPA 8260D Pace Analytical Services - Charlotte								
tert-Amyl Alcohol	ND	ug/L	100	65.6	1		04/05/22 08:23	75-85-4	
tert-Amylmethyl ether	ND	ug/L	10.0	3.0	1		04/05/22 08:23	994-05-8	
Benzene	ND	ug/L	5.0	1.7	1		04/05/22 08:23	71-43-2	
3,3-Dimethyl-1-Butanol	ND	ug/L	100	53.9	1		04/05/22 08:23	624-95-3	
tert-Butyl Alcohol	ND	ug/L	100	91.0	1		04/05/22 08:23	75-65-0	
tert-Butyl Formate	ND	ug/L	50.0	24.1	1		04/05/22 08:23	762-75-4	
1,2-Dichloroethane	ND	ug/L	5.0	2.1	1		04/05/22 08:23	107-06-2	
Diisopropyl ether	ND	ug/L	5.0	3.5	1		04/05/22 08:23	108-20-3	
Ethanol	ND	ug/L	200	144	1		04/05/22 08:23	64-17-5	
Ethylbenzene	ND	ug/L	5.0	1.8	1		04/05/22 08:23	100-41-4	
Ethyl-tert-butyl ether	ND	ug/L	10.0	8.5	1		04/05/22 08:23	637-92-3	
Methyl-tert-butyl ether	ND	ug/L	5.0	3.1	1		04/05/22 08:23	1634-04-4	
Naphthalene	ND	ug/L	5.0	2.1	1		04/05/22 08:23	91-20-3	v2
Toluene	ND	ug/L	5.0	2.0	1		04/05/22 08:23	108-88-3	
Xylene (Total)	ND	ug/L	5.0	5.0	1		04/05/22 08:23	1330-20-7	
m&p-Xylene	ND	ug/L	10.0	4.1	1		04/05/22 08:23	179601-23-1	
o-Xylene	ND	ug/L	5.0	2.0	1		04/05/22 08:23	95-47-6	
Surrogates									
4-Bromofluorobenzene (S)	107	%	70-130		1		04/05/22 08:23	460-00-4	
1,2-Dichloroethane-d4 (S)	94	%	70-130		1		04/05/22 08:23	17060-07-0	
Toluene-d8 (S)	83	%	70-130		1		04/05/22 08:23	2037-26-5	

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ANALYTICAL RESULTS

Project: 4887/6502 WARREN GREEN
Pace Project No.: 92596943

Sample: DUP **Lab ID: 92596943020** Collected: 03/30/22 12:40 Received: 04/01/22 17:40 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8011 GCS EDB and DBCP	Analytical Method: EPA 8011 Preparation Method: EPA 8011								
	Pace Analytical Services - Charlotte								
1,2-Dibromoethane (EDB)	ND	ug/L	0.020	0.0077	1	04/07/22 11:00	04/07/22 14:16	106-93-4	
Surrogates									
1-Chloro-2-bromopropane (S)	91	%	60-140		1	04/07/22 11:00	04/07/22 14:16	301-79-56	
8260 MSV	Analytical Method: EPA 8260D								
	Pace Analytical Services - Charlotte								
tert-Amyl Alcohol	ND	ug/L	100	65.6	1		04/05/22 08:41	75-85-4	
tert-Amylmethyl ether	ND	ug/L	10.0	3.0	1		04/05/22 08:41	994-05-8	
Benzene	ND	ug/L	5.0	1.7	1		04/05/22 08:41	71-43-2	
3,3-Dimethyl-1-Butanol	ND	ug/L	100	53.9	1		04/05/22 08:41	624-95-3	
tert-Butyl Alcohol	ND	ug/L	100	91.0	1		04/05/22 08:41	75-65-0	
tert-Butyl Formate	ND	ug/L	50.0	24.1	1		04/05/22 08:41	762-75-4	
1,2-Dichloroethane	ND	ug/L	5.0	2.1	1		04/05/22 08:41	107-06-2	
Diisopropyl ether	ND	ug/L	5.0	3.5	1		04/05/22 08:41	108-20-3	
Ethanol	ND	ug/L	200	144	1		04/05/22 08:41	64-17-5	
Ethylbenzene	ND	ug/L	5.0	1.8	1		04/05/22 08:41	100-41-4	
Ethyl-tert-butyl ether	ND	ug/L	10.0	8.5	1		04/05/22 08:41	637-92-3	
Methyl-tert-butyl ether	ND	ug/L	5.0	3.1	1		04/05/22 08:41	1634-04-4	
Naphthalene	ND	ug/L	5.0	2.1	1		04/05/22 08:41	91-20-3	v2
Toluene	ND	ug/L	5.0	2.0	1		04/05/22 08:41	108-88-3	
Xylene (Total)	ND	ug/L	5.0	5.0	1		04/05/22 08:41	1330-20-7	
m&p-Xylene	ND	ug/L	10.0	4.1	1		04/05/22 08:41	179601-23-1	
o-Xylene	ND	ug/L	5.0	2.0	1		04/05/22 08:41	95-47-6	
Surrogates									
4-Bromofluorobenzene (S)	104	%	70-130		1		04/05/22 08:41	460-00-4	
1,2-Dichloroethane-d4 (S)	93	%	70-130		1		04/05/22 08:41	17060-07-0	
Toluene-d8 (S)	81	%	70-130		1		04/05/22 08:41	2037-26-5	

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ANALYTICAL RESULTS

Project: 4887/6502 WARREN GREEN
Pace Project No.: 92596943

Sample: FB **Lab ID: 92596943021** Collected: 03/30/22 13:45 Received: 04/01/22 17:40 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8011 GCS EDB and DBCP	Analytical Method: EPA 8011 Preparation Method: EPA 8011								
	Pace Analytical Services - Charlotte								
1,2-Dibromoethane (EDB)	ND	ug/L	0.020	0.0077	1	04/07/22 11:00	04/07/22 14:26	106-93-4	
Surrogates									
1-Chloro-2-bromopropane (S)	91	%	60-140		1	04/07/22 11:00	04/07/22 14:26	301-79-56	
8260 MSV	Analytical Method: EPA 8260D								
	Pace Analytical Services - Charlotte								
tert-Amyl Alcohol	ND	ug/L	100	65.6	1		04/05/22 01:27	75-85-4	
tert-Amylmethyl ether	ND	ug/L	10.0	3.0	1		04/05/22 01:27	994-05-8	
Benzene	ND	ug/L	5.0	1.7	1		04/05/22 01:27	71-43-2	
3,3-Dimethyl-1-Butanol	ND	ug/L	100	53.9	1		04/05/22 01:27	624-95-3	
tert-Butyl Alcohol	ND	ug/L	100	91.0	1		04/05/22 01:27	75-65-0	
tert-Butyl Formate	ND	ug/L	50.0	24.1	1		04/05/22 01:27	762-75-4	
1,2-Dichloroethane	ND	ug/L	5.0	2.1	1		04/05/22 01:27	107-06-2	
Diisopropyl ether	ND	ug/L	5.0	3.5	1		04/05/22 01:27	108-20-3	
Ethanol	ND	ug/L	200	144	1		04/05/22 01:27	64-17-5	
Ethylbenzene	ND	ug/L	5.0	1.8	1		04/05/22 01:27	100-41-4	
Ethyl-tert-butyl ether	ND	ug/L	10.0	8.5	1		04/05/22 01:27	637-92-3	
Methyl-tert-butyl ether	ND	ug/L	5.0	3.1	1		04/05/22 01:27	1634-04-4	
Naphthalene	ND	ug/L	5.0	2.1	1		04/05/22 01:27	91-20-3	v2
Toluene	ND	ug/L	5.0	2.0	1		04/05/22 01:27	108-88-3	
Xylene (Total)	ND	ug/L	5.0	5.0	1		04/05/22 01:27	1330-20-7	
m&p-Xylene	ND	ug/L	10.0	4.1	1		04/05/22 01:27	179601-23-1	
o-Xylene	ND	ug/L	5.0	2.0	1		04/05/22 01:27	95-47-6	
Surrogates									
4-Bromofluorobenzene (S)	112	%	70-130		1		04/05/22 01:27	460-00-4	
1,2-Dichloroethane-d4 (S)	89	%	70-130		1		04/05/22 01:27	17060-07-0	
Toluene-d8 (S)	117	%	70-130		1		04/05/22 01:27	2037-26-5	

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ANALYTICAL RESULTS

Project: 4887/6502 WARREN GREEN
Pace Project No.: 92596943

Sample: TB **Lab ID: 92596943022** Collected: 03/30/22 08:00 Received: 04/01/22 17:40 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV	Analytical Method: EPA 8260D Pace Analytical Services - Charlotte								
tert-Amyl Alcohol	ND	ug/L	100	65.6	1		04/05/22 01:45	75-85-4	
tert-Amylmethyl ether	ND	ug/L	10.0	3.0	1		04/05/22 01:45	994-05-8	
Benzene	ND	ug/L	5.0	1.7	1		04/05/22 01:45	71-43-2	
3,3-Dimethyl-1-Butanol	ND	ug/L	100	53.9	1		04/05/22 01:45	624-95-3	
tert-Butyl Alcohol	ND	ug/L	100	91.0	1		04/05/22 01:45	75-65-0	
tert-Butyl Formate	ND	ug/L	50.0	24.1	1		04/05/22 01:45	762-75-4	
1,2-Dichloroethane	ND	ug/L	5.0	2.1	1		04/05/22 01:45	107-06-2	
Diisopropyl ether	ND	ug/L	5.0	3.5	1		04/05/22 01:45	108-20-3	
Ethanol	ND	ug/L	200	144	1		04/05/22 01:45	64-17-5	
Ethylbenzene	ND	ug/L	5.0	1.8	1		04/05/22 01:45	100-41-4	
Ethyl-tert-butyl ether	ND	ug/L	10.0	8.5	1		04/05/22 01:45	637-92-3	
Methyl-tert-butyl ether	ND	ug/L	5.0	3.1	1		04/05/22 01:45	1634-04-4	
Naphthalene	ND	ug/L	5.0	2.1	1		04/05/22 01:45	91-20-3	v2
Toluene	ND	ug/L	5.0	2.0	1		04/05/22 01:45	108-88-3	
Xylene (Total)	ND	ug/L	5.0	5.0	1		04/05/22 01:45	1330-20-7	
m&p-Xylene	ND	ug/L	10.0	4.1	1		04/05/22 01:45	179601-23-1	
o-Xylene	ND	ug/L	5.0	2.0	1		04/05/22 01:45	95-47-6	
Surrogates									
4-Bromofluorobenzene (S)	112	%	70-130		1		04/05/22 01:45	460-00-4	
1,2-Dichloroethane-d4 (S)	92	%	70-130		1		04/05/22 01:45	17060-07-0	
Toluene-d8 (S)	108	%	70-130		1		04/05/22 01:45	2037-26-5	

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QUALITY CONTROL DATA

Project: 4887/6502 WARREN GREEN
Pace Project No.: 92596943

QC Batch: 689296 | Analysis Method: EPA 8260D
QC Batch Method: EPA 8260D | Analysis Description: 8260 MSV SC
Laboratory: Pace Analytical Services - Charlotte

Associated Lab Samples: 92596943002, 92596943003, 92596943004, 92596943009, 92596943010, 92596943012, 92596943013, 92596943014, 92596943021, 92596943022

METHOD BLANK: 3602176 Matrix: Water

Associated Lab Samples: 92596943002, 92596943003, 92596943004, 92596943009, 92596943010, 92596943012, 92596943013, 92596943014, 92596943021, 92596943022

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
1,2-Dichloroethane	ug/L	ND	5.0	2.1	04/05/22 00:33	
3,3-Dimethyl-1-Butanol	ug/L	ND	100	53.9	04/05/22 00:33	
Benzene	ug/L	ND	5.0	1.7	04/05/22 00:33	
Diisopropyl ether	ug/L	ND	5.0	3.5	04/05/22 00:33	
Ethanol	ug/L	ND	200	144	04/05/22 00:33	
Ethyl-tert-butyl ether	ug/L	ND	10.0	8.5	04/05/22 00:33	
Ethylbenzene	ug/L	ND	5.0	1.8	04/05/22 00:33	
m&p-Xylene	ug/L	ND	10.0	4.1	04/05/22 00:33	
Methyl-tert-butyl ether	ug/L	ND	5.0	3.1	04/05/22 00:33	
Naphthalene	ug/L	ND	5.0	2.1	04/05/22 00:33	v2
o-Xylene	ug/L	ND	5.0	2.0	04/05/22 00:33	
tert-Amyl Alcohol	ug/L	ND	100	65.6	04/05/22 00:33	
tert-Amylmethyl ether	ug/L	ND	10.0	3.0	04/05/22 00:33	
tert-Butyl Alcohol	ug/L	ND	100	91.0	04/05/22 00:33	
tert-Butyl Formate	ug/L	ND	50.0	24.1	04/05/22 00:33	
Toluene	ug/L	ND	5.0	2.0	04/05/22 00:33	
Xylene (Total)	ug/L	ND	5.0	5.0	04/05/22 00:33	
1,2-Dichloroethane-d4 (S)	%	90	70-130		04/05/22 00:33	
4-Bromofluorobenzene (S)	%	108	70-130		04/05/22 00:33	
Toluene-d8 (S)	%	82	70-130		04/05/22 00:33	

LABORATORY CONTROL SAMPLE: 3602177

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,2-Dichloroethane	ug/L	50	51.8	104	70-130	
3,3-Dimethyl-1-Butanol	ug/L	1000	964	96	70-130	
Benzene	ug/L	50	61.4	123	70-130	
Diisopropyl ether	ug/L	50	48.9	98	70-130	
Ethanol	ug/L	2000	2290	114	70-130	
Ethyl-tert-butyl ether	ug/L	100	93.1	93	70-130	
Ethylbenzene	ug/L	50	50.5	101	70-130	
m&p-Xylene	ug/L	100	105	105	70-130	
Methyl-tert-butyl ether	ug/L	50	54.0	108	70-130	
Naphthalene	ug/L	50	47.8	96	70-130	v3
o-Xylene	ug/L	50	52.6	105	70-130	
tert-Amyl Alcohol	ug/L	1000	859	86	70-130	
tert-Amylmethyl ether	ug/L	100	122	122	70-130	

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QUALITY CONTROL DATA

Project: 4887/6502 WARREN GREEN
Pace Project No.: 92596943

LABORATORY CONTROL SAMPLE: 3602177

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
tert-Butyl Alcohol	ug/L	500	536	107	70-130	
tert-Butyl Formate	ug/L	400	412	103	70-130	
Toluene	ug/L	50	61.6	123	70-130	
Xylene (Total)	ug/L	150	157	105	70-130	
1,2-Dichloroethane-d4 (S)	%			112	70-130	
4-Bromofluorobenzene (S)	%			109	70-130	
Toluene-d8 (S)	%			129	70-130	

MATRIX SPIKE SAMPLE: 3602179

Parameter	Units	92596943010 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
1,2-Dichloroethane	ug/L	ND	20	21.7	109	70-137	
3,3-Dimethyl-1-Butanol	ug/L	ND	400	414	103	39-157	
Benzene	ug/L	ND	20	20.3	101	70-151	
Diisopropyl ether	ug/L	ND	20	18.4	92	63-144	
Ethanol	ug/L	ND	800	926	116	39-176	
Ethyl-tert-butyl ether	ug/L	ND	40	36.2	90	66-137	
Ethylbenzene	ug/L	ND	20	21.6	108	66-153	
m&p-Xylene	ug/L	ND	40	43.4	109	69-152	
Methyl-tert-butyl ether	ug/L	ND	20	19.0	95	54-156	
Naphthalene	ug/L	ND	20	11.9	59	61-148	M1
o-Xylene	ug/L	ND	20	21.8	109	70-148	
tert-Amyl Alcohol	ug/L	ND	400	361	90	54-153	
tert-Amylmethyl ether	ug/L	ND	40	38.8	97	69-139	
tert-Butyl Alcohol	ug/L	ND	200	250	125	43-188	
tert-Butyl Formate	ug/L	ND	160	77.6	48	10-170	
Toluene	ug/L	ND	20	21.5	107	59-148	
Xylene (Total)	ug/L	ND	60	65.2	109	63-158	
1,2-Dichloroethane-d4 (S)	%				108	70-130	
4-Bromofluorobenzene (S)	%				104	70-130	
Toluene-d8 (S)	%				101	70-130	

SAMPLE DUPLICATE: 3602178

Parameter	Units	92596943003 Result	Dup Result	RPD	Max RPD	Qualifiers
1,2-Dichloroethane	ug/L	ND	ND		30	
3,3-Dimethyl-1-Butanol	ug/L	ND	ND		30	
Benzene	ug/L	ND	ND		30	
Diisopropyl ether	ug/L	ND	ND		30	
Ethanol	ug/L	ND	ND		30	
Ethyl-tert-butyl ether	ug/L	ND	ND		30	
Ethylbenzene	ug/L	ND	ND		30	
m&p-Xylene	ug/L	ND	ND		30	
Methyl-tert-butyl ether	ug/L	ND	ND		30	

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QUALITY CONTROL DATA

Project: 4887/6502 WARREN GREEN
Pace Project No.: 92596943

SAMPLE DUPLICATE: 3602178

Parameter	Units	92596943003 Result	Dup Result	RPD	Max RPD	Qualifiers
Naphthalene	ug/L	ND	ND		30	
o-Xylene	ug/L	ND	ND		30	
tert-Amyl Alcohol	ug/L	ND	ND		30	
tert-Amylmethyl ether	ug/L	ND	ND		30	
tert-Butyl Alcohol	ug/L	ND	ND		30	
tert-Butyl Formate	ug/L	ND	ND		30	
Toluene	ug/L	ND	ND		30	
Xylene (Total)	ug/L	ND	ND		30	
1,2-Dichloroethane-d4 (S)	%	93	93			
4-Bromofluorobenzene (S)	%	103	105			
Toluene-d8 (S)	%	103	101			

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QUALITY CONTROL DATA

Project: 4887/6502 WARREN GREEN
Pace Project No.: 92596943

QC Batch: 689298 — Analysis Method: EPA 8260D
QC Batch Method: EPA 8260D — Analysis Description: 8260 MSV SC
Laboratory: Pace Analytical Services - Charlotte
Associated Lab Samples: 92596943008, 92596943015, 92596943016, 92596943017, 92596943018, 92596943019, 92596943020

METHOD BLANK: 3602184 — Matrix: Water
Associated Lab Samples: 92596943008, 92596943015, 92596943016, 92596943017, 92596943018, 92596943019, 92596943020

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
1,2-Dichloroethane	ug/L	ND	5.0	2.1	04/05/22 00:51	
3,3-Dimethyl-1-Butanol	ug/L	ND	100	53.9	04/05/22 00:51	
Benzene	ug/L	ND	5.0	1.7	04/05/22 00:51	
Diisopropyl ether	ug/L	ND	5.0	3.5	04/05/22 00:51	
Ethanol	ug/L	ND	200	144	04/05/22 00:51	
Ethyl-tert-butyl ether	ug/L	ND	10.0	8.5	04/05/22 00:51	
Ethylbenzene	ug/L	ND	5.0	1.8	04/05/22 00:51	
m&p-Xylene	ug/L	ND	10.0	4.1	04/05/22 00:51	
Methyl-tert-butyl ether	ug/L	ND	5.0	3.1	04/05/22 00:51	
Naphthalene	ug/L	ND	5.0	2.1	04/05/22 00:51	v2
o-Xylene	ug/L	ND	5.0	2.0	04/05/22 00:51	
tert-Amyl Alcohol	ug/L	ND	100	65.6	04/05/22 00:51	
tert-Amylmethyl ether	ug/L	ND	10.0	3.0	04/05/22 00:51	
tert-Butyl Alcohol	ug/L	ND	100	91.0	04/05/22 00:51	
tert-Butyl Formate	ug/L	ND	50.0	24.1	04/05/22 00:51	
Toluene	ug/L	ND	5.0	2.0	04/05/22 00:51	
Xylene (Total)	ug/L	ND	5.0	5.0	04/05/22 00:51	
1,2-Dichloroethane-d4 (S)	%	94	70-130		04/05/22 00:51	
4-Bromofluorobenzene (S)	%	108	70-130		04/05/22 00:51	
Toluene-d8 (S)	%	87	70-130		04/05/22 00:51	

LABORATORY CONTROL SAMPLE: 3602185

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,2-Dichloroethane	ug/L	50	55.0	110	70-130	
3,3-Dimethyl-1-Butanol	ug/L	1000	1020	102	70-130	
Benzene	ug/L	50	48.8	98	70-130	
Diisopropyl ether	ug/L	50	49.5	99	70-130	
Ethanol	ug/L	2000	2080	104	70-130	
Ethyl-tert-butyl ether	ug/L	100	102	102	70-130	
Ethylbenzene	ug/L	50	50.3	101	70-130	
m&p-Xylene	ug/L	100	104	104	70-130	
Methyl-tert-butyl ether	ug/L	50	55.2	110	70-130	
Naphthalene	ug/L	50	47.8	96	70-130	v3
o-Xylene	ug/L	50	52.4	105	70-130	
tert-Amyl Alcohol	ug/L	1000	992	99	70-130	
tert-Amylmethyl ether	ug/L	100	98.8	99	70-130	
tert-Butyl Alcohol	ug/L	500	528	106	70-130	
tert-Butyl Formate	ug/L	400	350	87	70-130	

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QUALITY CONTROL DATA

Project: 4887/6502 WARREN GREEN
Pace Project No.: 92596943

LABORATORY CONTROL SAMPLE: 3602185

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Toluene	ug/L	50	49.8	100	70-130	
Xylene (Total)	ug/L	150	156	104	70-130	
1,2-Dichloroethane-d4 (S)	%			109	70-130	
4-Bromofluorobenzene (S)	%			104	70-130	
Toluene-d8 (S)	%			100	70-130	

MATRIX SPIKE SAMPLE: 3602187

Parameter	Units	92596943020 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
1,2-Dichloroethane	ug/L	ND	20	20.6	103	70-137	
3,3-Dimethyl-1-Butanol	ug/L	ND	400	436	109	39-157	
Benzene	ug/L	ND	20	20.5	103	70-151	
Diisopropyl ether	ug/L	ND	20	18.9	94	63-144	
Ethanol	ug/L	ND	800	846	106	39-176	
Ethyl-tert-butyl ether	ug/L	ND	40	38.4	96	66-137	
Ethylbenzene	ug/L	ND	20	22.0	110	66-153	
m&p-Xylene	ug/L	ND	40	44.0	110	69-152	
Methyl-tert-butyl ether	ug/L	ND	20	19.6	98	54-156	
Naphthalene	ug/L	ND	20	21.3	106	61-148	
o-Xylene	ug/L	ND	20	21.1	106	70-148	
tert-Amyl Alcohol	ug/L	ND	400	397	99	54-153	
tert-Amylmethyl ether	ug/L	ND	40	39.6	99	69-139	
tert-Butyl Alcohol	ug/L	ND	200	251	125	43-188	
tert-Butyl Formate	ug/L	ND	160	60.5	38	10-170	
Toluene	ug/L	ND	20	21.4	107	59-148	
Xylene (Total)	ug/L	ND	60	65.2	109	63-158	
1,2-Dichloroethane-d4 (S)	%				103	70-130	
4-Bromofluorobenzene (S)	%				102	70-130	HS
Toluene-d8 (S)	%				100	70-130	

SAMPLE DUPLICATE: 3602186

Parameter	Units	92596943017 Result	Dup Result	RPD	Max RPD	Qualifiers
1,2-Dichloroethane	ug/L	ND	ND		30	
3,3-Dimethyl-1-Butanol	ug/L	ND	ND		30	
Benzene	ug/L	ND	ND		30	
Diisopropyl ether	ug/L	ND	ND		30	
Ethanol	ug/L	ND	ND		30	
Ethyl-tert-butyl ether	ug/L	ND	ND		30	
Ethylbenzene	ug/L	ND	ND		30	
m&p-Xylene	ug/L	ND	ND		30	
Methyl-tert-butyl ether	ug/L	ND	ND		30	
Naphthalene	ug/L	ND	ND		30	
o-Xylene	ug/L	ND	ND		30	

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QUALITY CONTROL DATA

Project: 4887/6502 WARREN GREEN
Pace Project No.: 92596943

SAMPLE DUPLICATE: 3602186

Parameter	Units	92596943017 Result	Dup Result	RPD	Max RPD	Qualifiers
tert-Amyl Alcohol	ug/L	ND	ND		30	
tert-Amylmethyl ether	ug/L	ND	ND		30	
tert-Butyl Alcohol	ug/L	ND	ND		30	
tert-Butyl Formate	ug/L	ND	ND		30	
Toluene	ug/L	ND	ND		30	
Xylene (Total)	ug/L	ND	ND		30	
1,2-Dichloroethane-d4 (S)	%	91	91			
4-Bromofluorobenzene (S)	%	108	106			
Toluene-d8 (S)	%	106	106			

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QUALITY CONTROL DATA

Project: 4887/6502 WARREN GREEN
Pace Project No.: 92596943

QC Batch: 689299 | Analysis Method: EPA 8260D
QC Batch Method: EPA 8260D | Analysis Description: 8260 MSV SC
Laboratory: Pace Analytical Services - Charlotte
Associated Lab Samples: 92596943006, 92596943011

METHOD BLANK: 3602192 Matrix: Water
Associated Lab Samples: 92596943006, 92596943011

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
1,2-Dichloroethane	ug/L	ND	5.0	2.1	04/05/22 23:27	
3,3-Dimethyl-1-Butanol	ug/L	ND	100	53.9	04/05/22 23:27	
Benzene	ug/L	ND	5.0	1.7	04/05/22 23:27	
Diisopropyl ether	ug/L	ND	5.0	3.5	04/05/22 23:27	
Ethanol	ug/L	ND	200	144	04/05/22 23:27	
Ethyl-tert-butyl ether	ug/L	ND	10.0	8.5	04/05/22 23:27	
Ethylbenzene	ug/L	ND	5.0	1.8	04/05/22 23:27	
m&p-Xylene	ug/L	ND	10.0	4.1	04/05/22 23:27	
Methyl-tert-butyl ether	ug/L	ND	5.0	3.1	04/05/22 23:27	
Naphthalene	ug/L	ND	5.0	2.1	04/05/22 23:27	
o-Xylene	ug/L	ND	5.0	2.0	04/05/22 23:27	
tert-Amyl Alcohol	ug/L	ND	100	65.6	04/05/22 23:27	
tert-Amylmethyl ether	ug/L	ND	10.0	3.0	04/05/22 23:27	
tert-Butyl Alcohol	ug/L	ND	100	91.0	04/05/22 23:27	
tert-Butyl Formate	ug/L	ND	50.0	24.1	04/05/22 23:27	
Toluene	ug/L	ND	5.0	2.0	04/05/22 23:27	
Xylene (Total)	ug/L	ND	5.0	5.0	04/05/22 23:27	
1,2-Dichloroethane-d4 (S)	%	96	70-130		04/05/22 23:27	
4-Bromofluorobenzene (S)	%	103	70-130		04/05/22 23:27	
Toluene-d8 (S)	%	103	70-130		04/05/22 23:27	

LABORATORY CONTROL SAMPLE: 3602193

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,2-Dichloroethane	ug/L	50	51.3	103	70-130	
3,3-Dimethyl-1-Butanol	ug/L	1000	947	95	70-130	
Benzene	ug/L	50	49.1	98	70-130	
Diisopropyl ether	ug/L	50	53.6	107	70-130	
Ethanol	ug/L	2000	2050	102	70-130	
Ethyl-tert-butyl ether	ug/L	100	104	104	70-130	
Ethylbenzene	ug/L	50	50.5	101	70-130	
m&p-Xylene	ug/L	100	101	101	70-130	
Methyl-tert-butyl ether	ug/L	50	56.3	113	70-130	
Naphthalene	ug/L	50	55.1	110	70-130	
o-Xylene	ug/L	50	50.6	101	70-130	
tert-Amyl Alcohol	ug/L	1000	989	99	70-130	
tert-Amylmethyl ether	ug/L	100	102	102	70-130	
tert-Butyl Alcohol	ug/L	500	479	96	70-130	
tert-Butyl Formate	ug/L	400	440	110	70-130	

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QUALITY CONTROL DATA

Project: 4887/6502 WARREN GREEN
Pace Project No.: 92596943

LABORATORY CONTROL SAMPLE: 3602193

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Toluene	ug/L	50	48.4	97	70-130	
Xylene (Total)	ug/L	150	152	101	70-130	
1,2-Dichloroethane-d4 (S)	%			94	70-130	
4-Bromofluorobenzene (S)	%			97	70-130	
Toluene-d8 (S)	%			97	70-130	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3602194 3602195

Parameter	Units	92596943011 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
1,2-Dichloroethane	ug/L	ND	20	20	20.5	20.1	103	101	70-137	2	30	
3,3-Dimethyl-1-Butanol	ug/L	ND	400	400	439	425	110	106	39-157	3	30	
Benzene	ug/L	ND	20	20	18.9	19.0	95	95	70-151	0	30	
Diisopropyl ether	ug/L	ND	20	20	20.1	20.7	101	103	63-144	3	30	
Ethanol	ug/L	ND	800	800	1080	869	134	109	39-176	21	30	
Ethyl-tert-butyl ether	ug/L	ND	40	40	38.8	39.8	97	100	66-137	3	30	
Ethylbenzene	ug/L	ND	20	20	20.3	19.4	102	97	66-153	4	30	
m&p-Xylene	ug/L	ND	40	40	40.5	40.7	101	102	69-152	0	30	
Methyl-tert-butyl ether	ug/L	ND	20	20	20.3	20.6	101	103	54-156	2	30	
Naphthalene	ug/L	ND	20	20	18.5	17.9	92	89	61-148	3	30	
o-Xylene	ug/L	ND	20	20	19.7	19.5	99	97	70-148	1	30	
tert-Amyl Alcohol	ug/L	ND	400	400	456	445	114	111	54-153	2	30	
tert-Amylmethyl ether	ug/L	ND	40	40	41.6	42.0	104	105	69-139	1	30	
tert-Butyl Alcohol	ug/L	ND	200	200	247	271	124	136	43-188	9	30	
tert-Butyl Formate	ug/L	ND	160	160	132	112	82	70	10-170	17	30	
Toluene	ug/L	ND	20	20	18.5	19.2	93	96	59-148	3	30	
Xylene (Total)	ug/L	ND	60	60	60.2	60.2	100	100	63-158	0	30	
1,2-Dichloroethane-d4 (S)	%						108	112	70-130			
4-Bromofluorobenzene (S)	%						105	103	70-130			
Toluene-d8 (S)	%						100	101	70-130			

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QUALITY CONTROL DATA

Project: 4887/6502 WARREN GREEN
Pace Project No.: 92596943

QC Batch: 689754
QC Batch Method: EPA 8260D
Analysis Method: EPA 8260D
Analysis Description: 8260 MSV SC
Laboratory: Pace Analytical Services - Charlotte
Associated Lab Samples: 92596943001, 92596943007

METHOD BLANK: 3604205 Matrix: Water
Associated Lab Samples: 92596943001, 92596943007

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
1,2-Dichloroethane	ug/L	ND	5.0	2.1	04/06/22 12:54	
3,3-Dimethyl-1-Butanol	ug/L	ND	100	53.9	04/06/22 12:54	
Benzene	ug/L	ND	5.0	1.7	04/06/22 12:54	
Diisopropyl ether	ug/L	ND	5.0	3.5	04/06/22 12:54	
Ethanol	ug/L	ND	200	144	04/06/22 12:54	
Ethyl-tert-butyl ether	ug/L	ND	10.0	8.5	04/06/22 12:54	
Ethylbenzene	ug/L	ND	5.0	1.8	04/06/22 12:54	
m&p-Xylene	ug/L	ND	10.0	4.1	04/06/22 12:54	
Methyl-tert-butyl ether	ug/L	ND	5.0	3.1	04/06/22 12:54	
Naphthalene	ug/L	ND	5.0	2.1	04/06/22 12:54	
o-Xylene	ug/L	ND	5.0	2.0	04/06/22 12:54	
tert-Amyl Alcohol	ug/L	ND	100	65.6	04/06/22 12:54	
tert-Amylmethyl ether	ug/L	ND	10.0	3.0	04/06/22 12:54	
tert-Butyl Alcohol	ug/L	ND	100	91.0	04/06/22 12:54	
tert-Butyl Formate	ug/L	ND	50.0	24.1	04/06/22 12:54	
Toluene	ug/L	ND	5.0	2.0	04/06/22 12:54	
Xylene (Total)	ug/L	ND	5.0	5.0	04/06/22 12:54	
1,2-Dichloroethane-d4 (S)	%	88	70-130		04/06/22 12:54	
4-Bromofluorobenzene (S)	%	121	70-130		04/06/22 12:54	
Toluene-d8 (S)	%	104	70-130		04/06/22 12:54	

LABORATORY CONTROL SAMPLE: 3604206

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,2-Dichloroethane	ug/L	50	53.9	108	70-130	
3,3-Dimethyl-1-Butanol	ug/L	1000	1150	115	70-130	
Benzene	ug/L	50	51.3	103	70-130	
Diisopropyl ether	ug/L	50	51.7	103	70-130	
Ethanol	ug/L	2000	2030	101	70-130	
Ethyl-tert-butyl ether	ug/L	100	102	102	70-130	
Ethylbenzene	ug/L	50	53.7	107	70-130	
m&p-Xylene	ug/L	100	105	105	70-130	
Methyl-tert-butyl ether	ug/L	50	51.0	102	70-130	
Naphthalene	ug/L	50	52.4	105	70-130	
o-Xylene	ug/L	50	53.6	107	70-130	
tert-Amyl Alcohol	ug/L	1000	1040	104	70-130	
tert-Amylmethyl ether	ug/L	100	104	104	70-130	
tert-Butyl Alcohol	ug/L	500	505	101	70-130	
tert-Butyl Formate	ug/L	400	356	89	70-130	

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QUALITY CONTROL DATA

Project: 4887/6502 WARREN GREEN
Pace Project No.: 92596943

LABORATORY CONTROL SAMPLE: 3604206

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Toluene	ug/L	50	52.6	105	70-130	
Xylene (Total)	ug/L	150	159	106	70-130	
1,2-Dichloroethane-d4 (S)	%			106	70-130	
4-Bromofluorobenzene (S)	%			101	70-130	
Toluene-d8 (S)	%			99	70-130	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3604207 3604208

Parameter	Units	92596943007 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
1,2-Dichloroethane	ug/L	ND	20	20	21.6	23.2	108	116	70-137	7	30	
3,3-Dimethyl-1-Butanol	ug/L	ND	400	400	467	510	117	128	39-157	9	30	
Benzene	ug/L	ND	20	20	20.7	21.8	104	109	70-151	5	30	
Diisopropyl ether	ug/L	ND	20	20	19.2	19.4	96	97	63-144	1	30	
Ethanol	ug/L	ND	800	800	737	1040	92	130	39-176	34	30	R1
Ethyl-tert-butyl ether	ug/L	ND	40	40	40.1	39.8	100	100	66-137	1	30	
Ethylbenzene	ug/L	ND	20	20	22.2	22.9	111	115	66-153	3	30	
m&p-Xylene	ug/L	ND	40	40	45.8	47.1	114	118	69-152	3	30	
Methyl-tert-butyl ether	ug/L	ND	20	20	19.6	19.6	98	98	54-156	0	30	
Naphthalene	ug/L	ND	20	20	21.2	20.6	106	103	61-148	3	30	
o-Xylene	ug/L	ND	20	20	22.7	24.3	113	122	70-148	7	30	
tert-Amyl Alcohol	ug/L	ND	400	400	402	406	100	101	54-153	1	30	
tert-Amylmethyl ether	ug/L	ND	40	40	42.8	42.2	107	105	69-139	1	30	
tert-Butyl Alcohol	ug/L	ND	200	200	292	319	146	160	43-188	9	30	
tert-Butyl Formate	ug/L	ND	160	160	ND	ND	8	10	10-170		30	M1
Toluene	ug/L	ND	20	20	23.0	18.0	115	90	59-148	24	30	
Xylene (Total)	ug/L	ND	60	60	68.4	71.4	114	119	63-158	4	30	
1,2-Dichloroethane-d4 (S)	%						101	105	70-130			
4-Bromofluorobenzene (S)	%						104	102	70-130			
Toluene-d8 (S)	%						102	78	70-130			

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QUALITY CONTROL DATA

Project: 4887/6502 WARREN GREEN
Pace Project No.: 92596943

QC Batch: 690157 | Analysis Method: EPA 8260D
QC Batch Method: EPA 8260D | Analysis Description: 8260 MSV SC
Laboratory: Pace Analytical Services - Charlotte

Associated Lab Samples: 92596943005

METHOD BLANK: 3606603 Matrix: Water
Associated Lab Samples: 92596943005

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
1,2-Dichloroethane	ug/L	ND	5.0	2.1	04/07/22 15:15	
3,3-Dimethyl-1-Butanol	ug/L	ND	100	53.9	04/07/22 15:15	
Benzene	ug/L	ND	5.0	1.7	04/07/22 15:15	
Diisopropyl ether	ug/L	ND	5.0	3.5	04/07/22 15:15	
Ethanol	ug/L	ND	200	144	04/07/22 15:15	
Ethyl-tert-butyl ether	ug/L	ND	10.0	8.5	04/07/22 15:15	
Ethylbenzene	ug/L	ND	5.0	1.8	04/07/22 15:15	
m&p-Xylene	ug/L	ND	10.0	4.1	04/07/22 15:15	
Methyl-tert-butyl ether	ug/L	ND	5.0	3.1	04/07/22 15:15	
Naphthalene	ug/L	ND	5.0	2.1	04/07/22 15:15	
o-Xylene	ug/L	ND	5.0	2.0	04/07/22 15:15	
tert-Amyl Alcohol	ug/L	ND	100	65.6	04/07/22 15:15	
tert-Amylmethyl ether	ug/L	ND	10.0	3.0	04/07/22 15:15	
tert-Butyl Alcohol	ug/L	ND	100	91.0	04/07/22 15:15	
tert-Butyl Formate	ug/L	ND	50.0	24.1	04/07/22 15:15	
Toluene	ug/L	ND	5.0	2.0	04/07/22 15:15	
Xylene (Total)	ug/L	ND	5.0	5.0	04/07/22 15:15	
1,2-Dichloroethane-d4 (S)	%	111	70-130		04/07/22 15:15	
4-Bromofluorobenzene (S)	%	97	70-130		04/07/22 15:15	
Toluene-d8 (S)	%	100	70-130		04/07/22 15:15	

LABORATORY CONTROL SAMPLE: 3606604

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,2-Dichloroethane	ug/L	50	54.6	109	70-130	
3,3-Dimethyl-1-Butanol	ug/L	1000	1030	103	70-130	
Benzene	ug/L	50	47.2	94	70-130	
Diisopropyl ether	ug/L	50	54.9	110	70-130	
Ethanol	ug/L	2000	2290	115	70-130	
Ethyl-tert-butyl ether	ug/L	100	104	104	70-130	
Ethylbenzene	ug/L	50	48.8	98	70-130	
m&p-Xylene	ug/L	100	98.2	98	70-130	
Methyl-tert-butyl ether	ug/L	50	51.6	103	70-130	
Naphthalene	ug/L	50	52.7	105	70-130	
o-Xylene	ug/L	50	48.8	98	70-130	
tert-Amyl Alcohol	ug/L	1000	1070	107	70-130	
tert-Amylmethyl ether	ug/L	100	101	101	70-130	
tert-Butyl Alcohol	ug/L	500	539	108	70-130	
tert-Butyl Formate	ug/L	400	418	105	70-130	

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QUALITY CONTROL DATA

Project: 4887/6502 WARREN GREEN
Pace Project No.: 92596943

LABORATORY CONTROL SAMPLE: 3606604

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Toluene	ug/L	50	47.3	95	70-130	
Xylene (Total)	ug/L	150	147	98	70-130	
1,2-Dichloroethane-d4 (S)	%			109	70-130	
4-Bromofluorobenzene (S)	%			99	70-130	
Toluene-d8 (S)	%			100	70-130	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3606605 3606606

Parameter	Units	92596943005 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
1,2-Dichloroethane	ug/L	ND	100	100	125	121	121	117	70-137	3	30	
3,3-Dimethyl-1-Butanol	ug/L	ND	2000	2000	2280	2170	114	109	39-157	5	30	
Benzene	ug/L	617	100	100	718	714	101	97	70-151	1	30	
Diisopropyl ether	ug/L	ND	100	100	119	112	119	112	63-144	6	30	
Ethanol	ug/L	ND	4000	4000	5010	4620	125	116	39-176	8	30	
Ethyl-tert-butyl ether	ug/L	ND	200	200	228	222	114	111	66-137	3	30	
Ethylbenzene	ug/L	256	100	100	373	367	117	111	66-153	2	30	
m&p-Xylene	ug/L	768	200	200	1010	979	120	106	69-152	3	30	
Methyl-tert-butyl ether	ug/L	ND	100	100	118	112	118	112	54-156	5	30	
Naphthalene	ug/L	80.1	100	100	195	199	115	118	61-148	2	30	
o-Xylene	ug/L	369	100	100	484	474	115	105	70-148	2	30	
tert-Amyl Alcohol	ug/L	379J	2000	2000	2710	2650	116	114	54-153	2	30	
tert-Amylmethyl ether	ug/L	ND	200	200	227	227	113	113	69-139	0	30	
tert-Butyl Alcohol	ug/L	ND	1000	1000	1530	1480	153	148	43-188	3	30	
tert-Butyl Formate	ug/L	ND	800	800	280	256	35	32	10-170	9	30	
Toluene	ug/L	455	100	100	559	558	104	103	59-148	0	30	
Xylene (Total)	ug/L	1140	300	300	1490	1450	118	105	63-158	3	30	
1,2-Dichloroethane-d4 (S)	%						102	101	70-130			
4-Bromofluorobenzene (S)	%						99	97	70-130			
Toluene-d8 (S)	%						98	100	70-130			

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QUALITY CONTROL DATA

Project: 4887/6502 WARREN GREEN
Pace Project No.: 92596943

QC Batch: 689681 | Analysis Method: EPA 8011
QC Batch Method: EPA 8011 | Analysis Description: GCS 8011 EDB DBCP
Laboratory: Pace Analytical Services - Charlotte

Associated Lab Samples: 92596943001, 92596943002, 92596943003, 92596943004, 92596943005, 92596943006, 92596943007, 92596943008, 92596943009, 92596943010, 92596943011, 92596943012, 92596943013

METHOD BLANK: 3603821 Matrix: Water

Associated Lab Samples: 92596943001, 92596943002, 92596943003, 92596943004, 92596943005, 92596943006, 92596943007, 92596943008, 92596943009, 92596943010, 92596943011, 92596943012, 92596943013

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
1,2-Dibromoethane (EDB)	ug/L	ND	0.020	0.0075	04/06/22 16:44	
1-Chloro-2-bromopropane (S)	%	93	60-140		04/06/22 16:44	

LABORATORY CONTROL SAMPLE & LCSD: 3603822 3603823

Parameter	Units	Spike Conc.	LCS Result	LCSD Result	LCS % Rec	LCSD % Rec	% Rec Limits	RPD	Max RPD	Qualifiers
1,2-Dibromoethane (EDB)	ug/L	0.25	0.25	0.25	101	102	60-140	1	20	
1-Chloro-2-bromopropane (S)	%				97	99	60-140			

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3603825 3603826

Parameter	Units	92596937005 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
1,2-Dibromoethane (EDB)	ug/L	ND	0.25	0.25	0.24	0.24	97	97	60-140	0	20	
1-Chloro-2-bromopropane (S)	%						90	90	60-140			

SAMPLE DUPLICATE: 3603824

Parameter	Units	92596937004 Result	Dup Result	RPD	Max RPD	Qualifiers
1,2-Dibromoethane (EDB)	ug/L	ND	ND		20	
1-Chloro-2-bromopropane (S)	%	96	88			

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REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: 4887/6502 WARREN GREEN
Pace Project No.: 92596943

QC Batch: 690009 | Analysis Method: EPA 8011
QC Batch Method: EPA 8011 | Analysis Description: GCS 8011 EDB DBCP
Laboratory: Pace Analytical Services - Charlotte
Associated Lab Samples: 92596943014, 92596943015, 92596943016, 92596943017, 92596943018, 92596943019, 92596943020, 92596943021

METHOD BLANK: 3605430 Matrix: Water
Associated Lab Samples: 92596943014, 92596943015, 92596943016, 92596943017, 92596943018, 92596943019, 92596943020, 92596943021

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
1,2-Dibromoethane (EDB)	ug/L	ND	0.020	0.0075	04/07/22 21:41	
1-Chloro-2-bromopropane (S)	%	92	60-140		04/07/22 21:41	

LABORATORY CONTROL SAMPLE & LCSD: 3605431 3605432

Parameter	Units	Spike Conc.	LCS Result	LCSD Result	LCS % Rec	LCSD % Rec	% Rec Limits	RPD	Max RPD	Qualifiers
1,2-Dibromoethane (EDB)	ug/L	0.25	0.21	0.23	83	91	60-140	9	20	
1-Chloro-2-bromopropane (S)	%				85	96	60-140			

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3605434 3605435

Parameter	Units	92596943015 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
1,2-Dibromoethane (EDB)	ug/L	ND	0.25	0.25	0.19	0.19	73	74	60-140	1	20	
1-Chloro-2-bromopropane (S)	%						85	86	60-140			

SAMPLE DUPLICATE: 3605433

Parameter	Units	92596943014 Result	Dup Result	RPD	Max RPD	Qualifiers
1,2-Dibromoethane (EDB)	ug/L	ND	ND		20	
1-Chloro-2-bromopropane (S)	%	82	80			

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QUALIFIERS

Project: 4887/6502 WARREN GREEN
Pace Project No.: 92596943

DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to dilution of the sample aliquot.

ND - Not Detected at or above adjusted reporting limit.

TNTC - Too Numerous To Count

J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.

MDL - Adjusted Method Detection Limit.

PQL - Practical Quantitation Limit.

RL - Reporting Limit - The lowest concentration value that meets project requirements for quantitative data with known precision and bias for a specific analyte in a specific matrix.

S - Surrogate

1,2-Diphenylhydrazine decomposes to and cannot be separated from Azobenzene using Method 8270. The result for each analyte is a combined concentration.

Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

U - Indicates the compound was analyzed for, but not detected.

Acid preservation may not be appropriate for 2 Chloroethylvinyl ether.

A separate vial preserved to a pH of 4-5 is recommended in SW846 Chapter 4 for the analysis of Acrolein and Acrylonitrile by EPA Method 8260.

N-Nitrosodiphenylamine decomposes and cannot be separated from Diphenylamine using Method 8270. The result reported for each analyte is a combined concentration.

Reported results are not rounded until the final step prior to reporting. Therefore, calculated parameters that are typically reported as "Total" may vary slightly from the sum of the reported component parameters.

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TNI - The NELAC Institute.

ANALYTE QUALIFIERS

HS	Results are from sample aliquot taken from VOA vial with headspace (air bubble greater than 6 mm diameter).
M1	Matrix spike recovery exceeded QC limits. Batch accepted based on laboratory control sample (LCS) recovery.
R1	RPD value was outside control limits.
v2	The continuing calibration verification was below the method acceptance limit. The analyte was not detected in the associated samples and the sensitivity of the instrument was verified with a reporting limit check standard.
v3	The continuing calibration verification was below the method acceptance limit. Any detection for the analyte in the associated samples may have low bias.

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QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: 4887/6502 WARREN GREEN
Pace Project No.: 92596943

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
92596943001	MW-1	EPA 8011	689681	EPA 8011	689746
92596943002	MW-3R	EPA 8011	689681	EPA 8011	689746
92596943003	MW-4	EPA 8011	689681	EPA 8011	689746
92596943004	MW-5	EPA 8011	689681	EPA 8011	689746
92596943005	MW-8	EPA 8011	689681	EPA 8011	689746
92596943006	MW-7R	EPA 8011	689681	EPA 8011	689746
92596943007	MW-6R	EPA 8011	689681	EPA 8011	689746
92596943008	MW-9	EPA 8011	689681	EPA 8011	689746
92596943009	MW-10	EPA 8011	689681	EPA 8011	689746
92596943010	MW-11	EPA 8011	689681	EPA 8011	689746
92596943011	MW-13R	EPA 8011	689681	EPA 8011	689746
92596943012	MW-14	EPA 8011	689681	EPA 8011	689746
92596943013	MW-15	EPA 8011	689681	EPA 8011	689746
92596943014	DW-1	EPA 8011	690009	EPA 8011	690065
92596943015	DW-2	EPA 8011	690009	EPA 8011	690065
92596943016	DW-3	EPA 8011	690009	EPA 8011	690065
92596943017	DW-4	EPA 8011	690009	EPA 8011	690065
92596943018	DW-5	EPA 8011	690009	EPA 8011	690065
92596943019	DW-6	EPA 8011	690009	EPA 8011	690065
92596943020	DUP	EPA 8011	690009	EPA 8011	690065
92596943021	FB	EPA 8011	690009	EPA 8011	690065
92596943001	MW-1	EPA 8260D	689754		
92596943002	MW-3R	EPA 8260D	689296		
92596943003	MW-4	EPA 8260D	689296		
92596943004	MW-5	EPA 8260D	689296		
92596943005	MW-8	EPA 8260D	690157		
92596943006	MW-7R	EPA 8260D	689299		
92596943007	MW-6R	EPA 8260D	689754		
92596943008	MW-9	EPA 8260D	689298		
92596943009	MW-10	EPA 8260D	689296		
92596943010	MW-11	EPA 8260D	689296		
92596943011	MW-13R	EPA 8260D	689299		
92596943012	MW-14	EPA 8260D	689296		
92596943013	MW-15	EPA 8260D	689296		
92596943014	DW-1	EPA 8260D	689296		
92596943015	DW-2	EPA 8260D	689298		
92596943016	DW-3	EPA 8260D	689298		
92596943017	DW-4	EPA 8260D	689298		
92596943018	DW-5	EPA 8260D	689298		
92596943019	DW-6	EPA 8260D	689298		
92596943020	DUP	EPA 8260D	689298		
92596943021	FB	EPA 8260D	689296		
92596943022	TB	EPA 8260D	689296		

Pace Analytical Services, LLC
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: 4887/6502 WARREN GREEN
Pace Project No.: 92596943

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch

Pace Analytical®

CHAIN-OF-CUSTODY Analytical Request Document

Chain-of-Custody is a LEGAL DOCUMENT - Complete all relevent fields

WO#: 92596943

92596943

Company: SCDHEC	Billing Information:
Address: 2600 Bull St	
Report To: R. Dunn	Email To: Dunnra@dhec.sc.gov
Copy To:	Site Collection Info/Address: 10723 Flemtype Rd
Customer Project Name/Number: Warren Green	State: SC / County/City: Jasper / Time Zone Collected: [ ] PT [ ] MT [ ] CT [X] ET

Phone: Email:	Site/Facility ID #: 4837 RCA: 65101	Compliance Monitoring? [ ] Yes [ ] No
Collected By (print): Matthew Funderburk	Purchase Order #: Quote #:	DW PWS ID #: DW Location Code:
Collected By (signature): [signature]	Turnaround Date Required:	Immediately Packed on Ice: [X] Yes [ ] No
Sample Disposal: [ ] Dispose as appropriate [ ] Return [ ] Archive: ___ [ ] Hold: ___	Rush: [ ] Same Day [ ] Next Day [ ] 2 Day [ ] 3 Day [ ] 4 Day [ ] 5 Day (Expedite Charges Apply)	Field Filtered (if applicable): [ ] Yes [ ] No Analysis: ___

** Preservative Types: (1) nitric acid, (2) sulfuric acid, (3) hydrochloric acid, (4) sodium hydroxide, (5) zinc acetate, (6) methanol, (7) sodium bisulfate, (8) sodium thiosulfate, (9) hexane, (A) ascorbic acid, (B) ammonium sulfate, (C) ammonium hydroxide, (D) TSP, (U) Unpreserved, (O) Other ___

Preservative: 3, 3

* Matrix Codes (Insert in Matrix box below): Drinking Water (DW), Ground Water (GW), Wastewater (WW), Product (P), Soil/Solid (SL), Oil (OL), Wipe (WP), Air (AR), Tissue (TS), Bioassay (B), Vapor (V), Other (OT)

Customer Sample ID	Matrix *	Comp / Grab	Collected Date	Collected Time	Composite End Date	Composite End Time	Res Cl	# of Ctns	BTEXNM+Oxygenates, 1,2DCA, Eth 8260D	EDB 8011	Lab Sample # / Comments: 92596943
mw-1	GW	G	3/30/22	13:11				6	X	X	odor 001
~~mw-2~~											DNS
mw-3R	GW	G	3/30/22	12:40				6	X	X	odor 002
mw-4	↓	↓	↓	12:25				↓	↓	↓	no odor 003
mw-5				10:37							no odor 004
mw-8				12:33							odor 005
mw-7R				12:55							strong odor 006
mw-6R				10:41							no odor 007
mw-9				13:28							no odor 008
mw-10				11:31							no odor 009

Lab Profile/Line:

Lab Sample Receipt Checklist:

Custody Seals Present/Intact	Y N NA (N circled)
Custody Signatures Present	Y N NA (Y circled)
Collector Signature Present	Y N NA (Y circled)
Bottles Intact	Y N NA (Y circled)
Correct Bottles	Y N NA (Y circled)
Sufficient Volume	Y N NA (Y circled)
Samples Received on Ice	Y N NA (Y circled)
VOA - Headspace Acceptable	Y N NA (N circled)
USDA Regulated Soils	Y N NA (NA circled)
Samples in Holding Time	Y N NA (Y circled)
Residual Chlorine Present	Y N NA (NA circled)
Cl Strips:	
Sample pH Acceptable	Y N NA (Y circled)
pH Strips:	
Sulfide Present	Y N NA (NA circled)
Lead Acetate Strips:	

LAB USE ONLY:

Customer Remarks / Special Conditions / Possible Hazards:

Type of Ice Used: Wet (circled) Blue Dry None

Packing Material Used: BB

Radchem sample(s) screened (<500 cpm): Y N NA (NA circled)

SHORT HOLDS PRESENT (<72 hours): Y N N/A (N circled)

Lab Tracking #: 2683941

Samples received via: FEDEX UPS Client Courier Pace Courier (circled)

Lab Sample Temperature Info:
Temp Blank Received: Y N NA (N circled)
Therm ID#: 92T064
Cooler 1 Temp Upon Receipt: 2.6 oC
Cooler 1 Therm Corr. Factor: 0 oC
Cooler 1 Corrected Temp: 2.6 oC
Comments:

Relinquished by/Company: (Signature)	Date/Time:	Received by/Company: (Signature)	Date/Time:
[signature]	4/1/22 15:05	Josh Mallas/Pace	4/1/22 1740
Josh Mallas/Pace	4/1/22 2010	[signature] Pace HVL	4/4/22 0800

MTJL LAB USE ONLY
Table #:
Acctnum:
Template:
Prelogin:
PM:
PB:

Trip Blank Received: Y (circled) N NA
HCL (circled) MeOH TSP Other

Non Conformance(s): YES (circled) / NO

Page: 1 of: 3

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CHAIN-OF-CUSTODY Analytical Request Document

Chain-of-Custody is a LEGAL DOCUMENT - Complete all relevent fields

LAB USE ONLY- Affix Workorder/Login Label Here or List Pace Workorder Number or MTJL Log-in Number Here

ALL SHADED AREAS are for LAB USE ONLY

Company: SCDHEC

Billing Information:

Address: 2600 Bull st

Report To: R. Dunn

Email To: Dunnra@dhec.sc.gov

Copy To:

Site Collection Info/Address: 10773 Frontage Rd

Customer Project Name/Number: Warren Green

State: SC / County/City: Jasper

Time Zone Collected: [ ] PT [ ] MT [ ] CT [/] ET

Phone:
Email:

Site/Facility ID #: 4887 PCA16510

Compliance Monitoring? [ ] Yes [ ] No

Collected By (print): Matthew Fundeburk

Purchase Order #:
Quote #:

DW PWS ID #:
DW Location Code:

Collected By (signature): [signature]

Turnaround Date Required:

Immediately Packed on Ice: [/] Yes [ ] No

Sample Disposal:
[ ] Dispose as appropriate [ ] Return
[ ] Archive: ____
[ ] Hold: ____

Rush:
[ ] Same Day [ ] Next Day
[ ] 2 Day [ ] 3 Day [ ] 4 Day [ ] 5 Day
(Expedite Charges Apply)

Field Filtered (if applicable): [ ] Yes [ ] No
Analysis: ____

* Matrix Codes (Insert in Matrix box below): Drinking Water (DW), Ground Water (GW), Wastewater (WW), Product (P), Soil/Solid (SL), Oil (OL), Wipe (WP), Air (AR), Tissue (TS), Bioassay (B), Vapor (V), Other (OT)

Container Preservative Type **: 3 | 3

** Preservative Types: (1) nitric acid, (2) sulfuric acid, (3) hydrochloric acid, (4) sodium hydroxide, (5) zinc acetate, (6) methanol, (7) sodium bisulfate, (8) sodium thiosulfate, (9) hexane, (A) ascorbic acid, (B) ammonium sulfate, (C) ammonium hydroxide, (D) TSP, (U) Unpreserved, (O) Other ____

Lab Project Manager:

Customer Sample ID	Matrix *	Comp / Grab	Collected Date	Collected Time	Composite End Date	Composite End Time	Res Cl	# of Ctns	BTEXNMTOXY35 (1,2DCA/EtOH 8260	EDB 8011	Lab Sample # / Comments
MW-11R	GW	G	3/30/22	11:36				6	X	X	no odor 010
MW-12R											DNS
MW-13R	GW	G	3/30/22	10:58				6	X	X	no odor 011
MW-14	↓	↓	↓	11:22				↓	↓	↓	012
MW-15	↓	↓	↓	11:02				↓	↓	↓	013
DW-1	↓	↓	↓	13:49				↓	↓	↓	014
DW-2	↓	↓	↓	12:10				↓	↓	↓	015
DW-3	↓	↓	↓	10:17				↓	↓	↓	016
DW-4	↓	↓	↓	10:17				↓	↓	↓	017
DW-5	↓	↓	↓	13:11				↓	↓	↓	no odor 018

Lab Profile/Line:

Lab Sample Receipt Checklist:

Custody Seals Present/Intact	Y (N) NA
Custody Signatures Present	(Y) N NA
Collector Signature Present	(Y) N NA
Bottles Intact	(Y) N NA
Correct Bottles	(Y) N NA
Sufficient Volume	(Y) N NA
Samples Received on Ice	(Y) N NA
VOA - Headspace Acceptable	Y (N) NA
USDA Regulated Soils	Y N (NA)
Samples in Holding Time	(Y) N NA
Residual Chlorine Present	Y N (NA)
Cl Strips:	
Sample pH Acceptable	(Y) N NA
pH Strips:	
Sulfide Present	Y N (NA)
Lead Acetate Strips:	

LAB USE ONLY:
Lab Sample # / Comments: 92596943

Customer Remarks / Special Conditions / Possible Hazards:

Type of Ice Used: (Wet) Blue Dry None

Packing Material Used: BB

Radchem sample(s) screened (<500 cpm): Y N (NA)

SHORT HOLDS PRESENT (<72 hours): Y (N) N/A

Lab Tracking #: 2683659

Samples received via: FEDEX UPS Client Courier (Pace Courier)

Lab Sample Temperature Info:
Temp Blank Received: Y (N) NA
Therm ID#: 92T064
Cooler 1 Temp Upon Receipt: 2.6 oC
Cooler 1 Therm Corr. Factor: 0 oC
Cooler 1 Corrected Temp: 2.6 oC
Comments:

Relinquished by/Company: (Signature)	Date/Time:	Received by/Company: (Signature)	Date/Time:
[signature]	4/1/22 15:05	Josh Mallas/Pace	4/1/22 1740
Josh Mallas/Pace	4/1/22 2010	[signature] Pace HVL	4/4/22 0800

MTJL LAB USE ONLY
Table #:
Acctnum:
Template:
Prelogin:
PM:
PB:

Trip Blank Received: (Y) N NA
(HCL) MeOH TSP Other

Non Conformance(s): (YES) / NO

Page: 2 of: 3

Pace Analytical

CHAIN-OF-CUSTODY Analytical Request Document

Chain-of-Custody is a LEGAL DOCUMENT - Complete all relevent fields

LAB USE ONLY- Affix Workorder/Login Label Here or List Pace Workorder Number or MTJL Log-in Number Here

ALL SHADED AREAS are for LAB USE ONLY

Company: SCDHEC
Address: 2600 Bull St
Report To: R. Dunn
Copy To:
Customer Project Name/Number: Warren Green
Phone:
Email:
Collected By (print): Matthew Funderburk
Collected By (signature): [signature]
Sample Disposal: [ ] Dispose as appropriate [ ] Return [ ] Archive: ______ [ ] Hold: ______

Billing Information:
Email To: Dunnra@dhec.sc.gov
Site Collection Info/Address: 10723 Frontage Rd
State: SC / County/City: Jasper / Time Zone Collected: [ ] PT [ ] MT [ ] CT [✓] ET
Site/Facility ID #: 4727 PCA: 65101
Compliance Monitoring? [ ] Yes [ ] No
Purchase Order #:
Quote #:
DW PWS ID #:
DW Location Code:
Turnaround Date Required:
Immediately Packed on Ice: [✓] Yes [ ] No
Rush: [ ] Same Day [ ] Next Day [ ] 2 Day [ ] 3 Day [ ] 4 Day [ ] 5 Day (Expedite Charges Apply)
Field Filtered (if applicable): [ ] Yes [ ] No
Analysis: ______

Container Preservative Type **: 3 | 3

** Preservative Types: (1) nitric acid, (2) sulfuric acid, (3) hydrochloric acid, (4) sodium hydroxide, (5) zinc acetate, (6) methanol, (7) sodium bisulfate, (8) sodium thiosulfate, (9) hexane, (A) ascorbic acid, (B) ammonium sulfate, (C) ammonium hydroxide, (D) TSP, (U) Unpreserved, (O) Other ______

Lab Project Manager:

* Matrix Codes (Insert in Matrix box below): Drinking Water (DW), Ground Water (GW), Wastewater (WW), Product (P), Soil/Solid (SL), Oil (OL), Wipe (WP), Air (AR), Tissue (TS), Bioassay (B), Vapor (V), Other (OT)

Analyses: BTEX/MTBE/Oxygenates+1,2-DCA+Eth 8260D; EDB 8011

Customer Sample ID	Matrix *	Comp / Grab	Collected Date	Collected Time	Composite End Date	Composite End Time	Res Cl	# of Ctns	BTEX/MTBE/Oxy+1,2-DCA+Eth 8260D	EDB 8011	Lab Sample # / Comments
											92596943
Pw-6	GW	G	3/31/22	12:20				6	X	X	no dup 019
Dup	↓	↓	~~3/31/22~~ ↓	12:40				↓	X	X	Dup 020
GAC	↓	↓	↓	13:58				↓	X	X	GAC
FB	↓	↓	↓	13:45				6	X	X	FB 021
TB	↓	↓	↓	8:00				2	X		TB 022

Lab Profile/Line:
Lab Sample Receipt Checklist:

Custody Seals Present/Intact	N
Custody Signatures Present	Y
Collector Signature Present	Y
Bottles Intact	Y
Correct Bottles	Y
Sufficient Volume	Y
Samples Received on Ice	Y
VOA - Headspace Acceptable	N
USDA Regulated Soils	NA
Samples in Holding Time	Y
Residual Chlorine Present	NA
Cl Strips:	
Sample pH Acceptable	Y
pH Strips:	
Sulfide Present	NA
Lead Acetate Strips:	

LAB USE ONLY:
Lab Sample # / Comments:

Customer Remarks / Special Conditions / Possible Hazards:

Type of Ice Used: Wet (circled) Blue Dry None
Packing Material Used: BB
Radchem sample(s) screened (<500 cpm): Y N NA (circled)

SHORT HOLDS PRESENT (<72 hours): Y N (circled) N/A
Lab Tracking #: 2683939
Samples received via: FEDEX UPS Client Courier Pace Courier (circled)

Lab Sample Temperature Info:
Temp Blank Received: Y N (circled) NA
Therm ID#: 92T064
Cooler 1 Temp Upon Receipt: 2.6 oC
Cooler 1 Therm Corr. Factor: 0 oC
Cooler 1 Corrected Temp: 2.6 oC
Comments:

Relinquished by/Company: (Signature)	Date/Time:	Received by/Company: (Signature)	Date/Time:
[signature]	4/1/22 15:05	Josh Mallas/Pace	4/1/22 1740
Josh Mallas/Pace	4/1/22 2010	[signature] Pace HVL	4/4/22 0800

MTJL LAB USE ONLY
Table #:
Acctnum:
Template:
Prelogin:
PM:
PB:

Trip Blank Received: Y (circled) N NA
HCL (circled) MeOH TSP Other

Non Conformance(s): YES (circled) / NO
Page: 3 of: 3

Pace Analytical™
www.pacelabs.com

Sample Receiving Non-Conformance Form (NCF)

Date: 4/4/22	Evaluated by: TC
Client: SCDHEC	

Affix Workorder/Login Label Here or List Pace Workorder Number or MTJL Log-in Number Here

WO#: 92596943
PM: AMB Due Date: 04/08/22
CLIENT: 92-SCDHEC

1. **If Chain-of-Custody (COC) is not received**: contact client and if necessary, fill out a COC and indicate that it was filled out by lab personnel. Note issues on this NCF.

~~2. If COC is incomplete, check applicable issues below and add details where appropriate:~~

	Collection date/time missing or incorrect		Analyses or analytes: missing or clarification needed		Samples listed on COC do not match samples received (missing, additional, etc.)
	Sample IDs on COC do not match sample labels		Required trip blanks were not received		Required signatures are missing

Comments/Details/Other Issues not listed above:

3. Sample integrity issues: check applicable issues below and add details where appropriate:

	Samples: Past holding time		Samples: Condition needs to be brought to lab personnel's attention (details below)		Preservation: Improper
	Samples: Not field filtered		Containers: Broken or compromised		Temperature: not within acceptance criteria (typically 0-6C)
	Samples: Insufficient volume received		Containers: Incorrect		Temperature: Samples arrived frozen
	Samples: Cooler damaged or compromised		Custody Seals: Missing or compromised on samples, trip blanks or coolers	✓	Vials received with improper headspace
	Samples: contain chlorine or sulfides		Packing Material: Insufficient/Improper		Other:

Comments/Details: MW-1 (4 vials), MW-3R (2 vials), MW-7R (1 vial), MW-13R (2 vials), DW-1 (1 vial), DW-2 (1 vial), DW-3 (1 vial), DW-5 (3 vials), DW-6 (1 vial), Dup-1 (4 vials), FB (1 vial)

4. If Samples not preserved properly and Sample Receiving adjusts pH, add details below:

Sample ID:	Date/Time:	Amount/type pres added:
Preserved by:	Initial and Final pH:	Lot# of pres added:
Sample ID:	Date/Time:	Amount/type pres added:
Preserved by:	Initial and Final pH:	Lot# of pres added:
Sample ID:	Date/Time:	Amount/type pres added:
Preserved by:	Initial and Final pH:	Lot# of pres added:

5. Client Contact: If client is contacted for any issue listed above, fill in details below:

Client:	Contacted per:	
PM Initials:	Date/Time:	

Client Comments/Instructions:

F-ALL-C-011-rev.00, 05Jul2018

Pace Analytical®	Document Name: **Sample Condition Upon Receipt (SCUR)**	Document Revised: November 15, 2021 Page 2 of 2
	Document No.: **F-CAR-CS-033-Rev.08**	Issuing Authority: Pace Carolinas Quality Office

***Check mark top half of box if pH and/or dechlorination is verified and within the acceptance range for preservation samples.**

Exceptions: VOA, Coliform, TOC, Oil and Grease, DRO/8015 (water) DOC, LLHg

****Bottom half of box is to list number of bottles**

Project #

WO# : 92596943

PM: AMB Due Date: 04/08/22

CLIENT: 92-SCDHEC

Item#	BP4U-125 mL Plastic Unpreserved (N/A) (Cl-)	BP3U-250 mL Plastic Unpreserved (N/A)	BP2U-500 mL Plastic Unpreserved (N/A)	BP1U-1 liter Plastic Unpreserved (N/A)	BP4S-125 mL Plastic H2SO4 (pH < 2) (Cl-)	BP3N-250 mL plastic HNO3 (pH < 2)	BP4Z-125 mL Plastic ZN Acetate & NaOH (>9)	BP4B-125 mL Plastic NaOH (pH > 12) (Cl-)	WGFU-Wide-mouthed Glass jar Unpreserved	AG1U-1 liter Amber Unpreserved (N/A) (Cl-)	AG1H-1 liter Amber HCl (pH < 2)	AG3U-250 mL Amber Unpreserved (N/A) (Cl-)	AG1S-1 liter Amber H2SO4 (pH < 2)	AG3S-250 mL Amber H2SO4 (pH < 2)	AG3A(DG3A)-250 mL Amber NH4Cl (N/A)(Cl-)	DG9H-40 mL VOA HCl (N/A)	VG9T-40 mL VOA Na2S2O3 (N/A)	VG9U-40 mL VOA Unpreserved (N/A)	DG9P-40 mL VOA H3PO4 (N/A)	VOAK (3 vials per kit)-5035 kit (N/A)	V/GK (3 vials per kit)-VPH/Gas kit (N/A)	SP5T-125 mL Sterile Plastic (N/A – lab)	SP2T-250 mL Sterile Plastic (N/A – lab)		BP3A-250 mL Plastic (NH2)2SO4 (9.3-9.7)	AG0U-100 mL Amber Unpreserved vials (N/A)	VSGU-20 mL Scintillation vials (N/A)	DG9U-40 mL Amber Unpreserved vials (N/A)
1																6												
2																												
3																												
4																												
5																												
6																												
7																												
8																												
9																												
10																												
11																												
12																												

pH Adjustment Log for Preserved Samples

Sample ID	Type of Preservative	pH upon receipt	Date preservation adjusted	Time preservation adjusted	Amount of Preservative added	Lot #

Note: Whenever there is a discrepancy affecting North Carolina compliance samples, a copy of this form will be sent to the North Carolina DEHNR Certification Office (i.e. Out of hold, incorrect preservative, out of temp, incorrect containers.

***Check mark top half of box if pH and/or dechlorination is verified and within the acceptance range for preservation samples.**

Project #

Exceptions: VOA, Coliform, TOC, Oil and Grease, DRO/8015 (water) DOC, LLHg

****Bottom half of box is to list number of bottles**

Item#	BP4U-125 mL Plastic Unpreserved (N/A) (Cl-)	BP3U-250 mL Plastic Unpreserved (N/A)	BP2U-500 mL Plastic Unpreserved (N/A)	BP1U-1 liter Plastic Unpreserved (N/A)	BP4S-125 mL Plastic H_2SO_4 (pH < 2) (Cl-)	BP3N-250 mL plastic HNO_3 (pH < 2)	BP4Z-125 mL Plastic ZN Acetate & NaOH (>9)	BP4B-125 mL Plastic NaOH (pH > 12) (Cl-)	WGFU-Wide-mouthed Glass jar Unpreserved	AG1U-1 liter Amber Unpreserved (N/A) (Cl-)	AG1H-1 liter Amber HCl (pH < 2)	AG3U-250 mL Amber Unpreserved (N/A) (Cl-)	AG1S-1 liter Amber H_2SO_4 (pH < 2)	AG3S-250 mL Amber H_2SO_4 (pH < 2)	AG3A(DG3A)-250 mL Amber NH_4Cl (N/A)(Cl-)	DG9H-40 mL VOA HCl (N/A)	VG9T-40 mL VOA $Na_2S_2O_3$ (N/A)	VG9U-40 mL VOA Unpreserved (N/A)	DG9P-40 mL VOA H_3PO_4 (N/A)	VOAK (3 vials per kit)-5035 kit (N/A)	V/GK (3 vials per kit)-VPH/Gas kit (N/A)	SP5T-125 mL Sterile Plastic (N/A – lab)	SP2T-250 mL Sterile Plastic (N/A – lab)		BP3A-250 mL Plastic $(NH_2)_2SO_4$ (9.3-9.7)	AG0U-100 mL Amber Unpreserved vials (N/A)	VSGU-20 mL Scintillation vials (N/A)	DG9U-40 mL Amber Unpreserved vials (N/A)
1																6												
2																												
3																												
4																												
5																												
6																												
7																												
8																												
9																												
10																												
11																2												
12																												

pH Adjustment Log for Preserved Samples

Sample ID	Type of Preservative	pH upon receipt	Date preservation adjusted	Time preservation adjusted	Amount of Preservative added	Lot #

Note: Whenever there is a discrepancy affecting North Carolina compliance samples, a copy of this form will be sent to the North Carolina DEHNR Certification Office (i.e. Out of hold, incorrect preservative, out of temp, incorrect containers.

Pace Analytical Services, LLC
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

April 08, 2022

Arthur Brown
SCDHEC
2600 Bull Street
Columbia, SC 29201

RE: Project: 4887 PCA-65102 Warren Green
Pace Project No.: 92596927

Dear Arthur Brown:

Enclosed are the analytical results for sample(s) received by the laboratory on April 01, 2022. The results relate only to the samples included in this report. Results reported herein conform to the applicable TNI/NELAC Standards and the laboratory's Quality Manual, where applicable, unless otherwise noted in the body of the report.

The test results provided in this final report were generated by each of the following laboratories within the Pace Network:

- Pace Analytical Services - Charlotte

If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Angela M. Baioni

Angela Baioni
angela.baioni@pacelabs.com
(704)875-9092
Project Manager

Enclosures

cc: Jeff Coleman, Midlands Environmental Consultants, Inc.
Robert Dunn, SCDHEC
Kyle Pudney, Midlands Environmental Consultants, Inc.

Pace Analytical Services, LLC
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CERTIFICATIONS

Project:	4887 PCA-65102 Warren Green
Pace Project No.:	92596927

Pace Analytical Services Charlotte

South Carolina Laboratory ID: 99006	South Carolina Certification #: 99006001
9800 Kincey Ave. Ste 100, Huntersville, NC 28078	South Carolina Drinking Water Cert. #: 99006003
North Carolina Drinking Water Certification #: 37706	Florida/NELAP Certification #: E87627
North Carolina Field Services Certification #: 5342	Kentucky UST Certification #: 84
North Carolina Wastewater Certification #: 12	Louisiana DoH Drinking Water #: LA029
South Carolina Laboratory ID: 99006	Virginia/VELAP Certification #: 460221

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SAMPLE SUMMARY

Project: 4887 PCA-65102 Warren Green
Pace Project No.: 92596927

Lab ID	Sample ID	Matrix	Date Collected	Date Received
92596927001	**WSW-1**	Water	03/30/22 14:15	04/01/22 17:40
92596927002	**WSW-2**	Water	03/30/22 14:24	04/01/22 17:40
92596927003	**WSW-4**	Water	03/30/22 14:31	04/01/22 17:40
92596927004	**WSW-FB**	Water	03/30/22 14:37	04/01/22 17:40
92596927005	**WSW-DUP**	Water	03/30/22 00:00	04/01/22 17:40
92596927006	**WSW-TB**	Water	03/30/22 08:00	04/01/22 17:40

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SAMPLE ANALYTE COUNT

Project: 4887 PCA-65102 Warren Green
Pace Project No.: 92596927

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
92596927001	**WSW-1**	EPA 504.1	HH	2	PASI-C
		EPA 524.2	LMB	11	PASI-C
		EPA 8260D	SAS	11	PASI-C
92596927002	**WSW-2**	EPA 504.1	HH	2	PASI-C
		EPA 524.2	LMB	11	PASI-C
		EPA 8260D	LMB	11	PASI-C
92596927003	**WSW-4**	EPA 504.1	HH	2	PASI-C
		EPA 524.2	LMB	11	PASI-C
		EPA 8260D	LMB	11	PASI-C
92596927004	**WSW-FB**	EPA 504.1	HH	2	PASI-C
		EPA 524.2	LMB	11	PASI-C
		EPA 8260D	LMB	11	PASI-C
92596927005	**WSW-DUP**	EPA 504.1	HH	2	PASI-C
		EPA 524.2	LMB	11	PASI-C
		EPA 8260D	LMB	11	PASI-C
92596927006	**WSW-TB**	EPA 524.2	LMB	11	PASI-C
		EPA 8260D	LMB	11	PASI-C

PASI-C = Pace Analytical Services - Charlotte

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SUMMARY OF DETECTION

Project: 4887 PCA-65102 Warren Green

Pace Project No.: 92596927

Lab Sample ID Method	Client Sample ID Parameters	Result	Units	Report Limit	Analyzed	Qualifiers
92596927004	**WSW-FB**					
EPA 524.2	Toluene	0.58	ug/L	0.50	04/05/22 16:53	C0

REPORT OF LABORATORY ANALYSIS

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PROJECT NARRATIVE

Project: 4887 PCA-65102 Warren Green
Pace Project No.: 92596927

Method: **EPA 504.1**
Description: 504 GCS EDB and DBCP
Client: SCDHEC
Date: April 08, 2022

General Information:
5 samples were analyzed for EPA 504.1 by Pace Analytical Services Charlotte. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Sample Preparation:
The samples were prepared in accordance with EPA 504.1 with any exceptions noted below.

Initial Calibrations (including MS Tune as applicable):
All criteria were within method requirements with any exceptions noted below.

Continuing Calibration:
All criteria were within method requirements with any exceptions noted below.

Surrogates:
All surrogates were within QC limits with any exceptions noted below.

Method Blank:
All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

Duplicate Sample:
All duplicate sample results were within method acceptance criteria with any exceptions noted below.

Additional Comments:

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PROJECT NARRATIVE

Project: 4887 PCA-65102 Warren Green
Pace Project No.: 92596927

Method: **EPA 524.2**
Description: 524.2 MSV SC List
Client: SCDHEC
Date: April 08, 2022

General Information:
6 samples were analyzed for EPA 524.2 by Pace Analytical Services Charlotte. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Initial Calibrations (including MS Tune as applicable):
All criteria were within method requirements with any exceptions noted below.

Continuing Calibration:
All criteria were within method requirements with any exceptions noted below.

Internal Standards:
All internal standards were within QC limits with any exceptions noted below.

Surrogates:
All surrogates were within QC limits with any exceptions noted below.

Method Blank:
All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

Additional Comments:

Analyte Comments:

QC Batch: 689304

C0: Result confirmed by second analysis.
- WSW-FB (Lab ID: 92596927004)
  - Toluene

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PROJECT NARRATIVE

Project: 4887 PCA-65102 Warren Green
Pace Project No.: 92596927

Method: **EPA 8260D**
Description: 8260 MSV Low Level SC
Client: SCDHEC
Date: April 08, 2022

General Information:
6 samples were analyzed for EPA 8260D by Pace Analytical Services Charlotte. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Initial Calibrations (including MS Tune as applicable):
All criteria were within method requirements with any exceptions noted below.

Continuing Calibration:
All criteria were within method requirements with any exceptions noted below.

Internal Standards:
All internal standards were within QC limits with any exceptions noted below.

Surrogates:
All surrogates were within QC limits with any exceptions noted below.

Method Blank:
All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

QC Batch: 689452

A matrix spike and/or matrix spike duplicate (MS/MSD) were performed on the following sample(s): 92596989003

P5: The EPA or method required sample preservation degrades this compound, therefore acceptable recoveries may not be achieved in sample matrix spikes.

- MS (Lab ID: 3602779)
  - tert-Butyl Formate
- MSD (Lab ID: 3602780)
  - tert-Butyl Formate

Additional Comments:

This data package has been reviewed for quality and completeness and is approved for release.

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ANALYTICAL RESULTS

Project: 4887 PCA-65102 Warren Green
Pace Project No.: 92596927

Sample: WSW-1 **Lab ID: 92596927001** Collected: 03/30/22 14:15 Received: 04/01/22 17:40 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
504 GCS EDB and DBCP	Analytical Method: EPA 504.1 Preparation Method: EPA 504.1								
	Pace Analytical Services - Charlotte								
1,2-Dibromoethane (EDB)	ND	ug/L	0.020	0.0036	1	04/07/22 11:00	04/08/22 10:47	106-93-4	
Surrogates									
1-Chloro-2-bromopropane (S)	92	%	70-130		1	04/07/22 11:00	04/08/22 10:47	301-79-56	
524.2 MSV SC List	Analytical Method: EPA 524.2								
	Pace Analytical Services - Charlotte								
Benzene	ND	ug/L	0.50	0.21	1		04/05/22 19:03	71-43-2	
1,2-Dichloroethane	ND	ug/L	0.50	0.16	1		04/05/22 19:03	107-06-2	
Ethylbenzene	ND	ug/L	0.50	0.22	1		04/05/22 19:03	100-41-4	
Methyl-tert-butyl ether	ND	ug/L	0.50	0.14	1		04/05/22 19:03	1634-04-4	
Naphthalene	ND	ug/L	0.50	0.35	1		04/05/22 19:03	91-20-3	
Toluene	ND	ug/L	0.50	0.20	1		04/05/22 19:03	108-88-3	
Xylene (Total)	ND	ug/L	0.50	0.22	1		04/05/22 19:03	1330-20-7	
m&p-Xylene	ND	ug/L	1.0	0.39	1		04/05/22 19:03	179601-23-1	
o-Xylene	ND	ug/L	0.50	0.22	1		04/05/22 19:03	95-47-6	
Surrogates									
1,2-Dichlorobenzene-d4 (S)	93	%	70-130		1		04/05/22 19:03	2199-69-1	
4-Bromofluorobenzene (S)	86	%	70-130		1		04/05/22 19:03	460-00-4	
8260 MSV Low Level SC	Analytical Method: EPA 8260D								
	Pace Analytical Services - Charlotte								
tert-Amyl Alcohol	ND	ug/L	100	36.4	1		04/05/22 14:22	75-85-4	
tert-Amylmethyl ether	ND	ug/L	10.0	2.7	1		04/05/22 14:22	994-05-8	
3,3-Dimethyl-1-Butanol	ND	ug/L	100	51.9	1		04/05/22 14:22	624-95-3	
tert-Butyl Alcohol	ND	ug/L	100	26.8	1		04/05/22 14:22	75-65-0	
tert-Butyl Formate	ND	ug/L	50.0	29.4	1		04/05/22 14:22	762-75-4	
Diisopropyl ether	ND	ug/L	1.0	0.31	1		04/05/22 14:22	108-20-3	
Ethanol	ND	ug/L	200	72.2	1		04/05/22 14:22	64-17-5	
Ethyl-tert-butyl ether	ND	ug/L	10.0	3.2	1		04/05/22 14:22	637-92-3	
Surrogates									
4-Bromofluorobenzene (S)	99	%	70-130		1		04/05/22 14:22	460-00-4	
1,2-Dichloroethane-d4 (S)	98	%	70-130		1		04/05/22 14:22	17060-07-0	
Toluene-d8 (S)	109	%	70-130		1		04/05/22 14:22	2037-26-5	

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ANALYTICAL RESULTS

Project: 4887 PCA-65102 Warren Green
Pace Project No.: 92596927

Sample: WSW-2 **Lab ID: 92596927002** Collected: 03/30/22 14:24 Received: 04/01/22 17:40 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
504 GCS EDB and DBCP	Analytical Method: EPA 504.1 Preparation Method: EPA 504.1								
	Pace Analytical Services - Charlotte								
1,2-Dibromoethane (EDB)	ND	ug/L	0.020	0.0036	1	04/07/22 11:00	04/08/22 13:24	106-93-4	
Surrogates									
1-Chloro-2-bromopropane (S)	88	%	70-130		1	04/07/22 11:00	04/08/22 13:24	301-79-56	
524.2 MSV SC List	Analytical Method: EPA 524.2								
	Pace Analytical Services - Charlotte								
Benzene	ND	ug/L	0.50	0.21	1		04/05/22 19:29	71-43-2	
1,2-Dichloroethane	ND	ug/L	0.50	0.16	1		04/05/22 19:29	107-06-2	
Ethylbenzene	ND	ug/L	0.50	0.22	1		04/05/22 19:29	100-41-4	
Methyl-tert-butyl ether	ND	ug/L	0.50	0.14	1		04/05/22 19:29	1634-04-4	
Naphthalene	ND	ug/L	0.50	0.35	1		04/05/22 19:29	91-20-3	
Toluene	ND	ug/L	0.50	0.20	1		04/05/22 19:29	108-88-3	
Xylene (Total)	ND	ug/L	0.50	0.22	1		04/05/22 19:29	1330-20-7	
m&p-Xylene	ND	ug/L	1.0	0.39	1		04/05/22 19:29	179601-23-1	
o-Xylene	ND	ug/L	0.50	0.22	1		04/05/22 19:29	95-47-6	
Surrogates									
1,2-Dichlorobenzene-d4 (S)	92	%	70-130		1		04/05/22 19:29	2199-69-1	
4-Bromofluorobenzene (S)	87	%	70-130		1		04/05/22 19:29	460-00-4	
8260 MSV Low Level SC	Analytical Method: EPA 8260D								
	Pace Analytical Services - Charlotte								
tert-Amyl Alcohol	ND	ug/L	100	36.4	1		04/06/22 08:27	75-85-4	
tert-Amylmethyl ether	ND	ug/L	10.0	2.7	1		04/06/22 08:27	994-05-8	
3,3-Dimethyl-1-Butanol	ND	ug/L	100	51.9	1		04/06/22 08:27	624-95-3	
tert-Butyl Alcohol	ND	ug/L	100	26.8	1		04/06/22 08:27	75-65-0	
tert-Butyl Formate	ND	ug/L	50.0	29.4	1		04/06/22 08:27	762-75-4	
Diisopropyl ether	ND	ug/L	1.0	0.31	1		04/06/22 08:27	108-20-3	
Ethanol	ND	ug/L	200	72.2	1		04/06/22 08:27	64-17-5	
Ethyl-tert-butyl ether	ND	ug/L	10.0	3.2	1		04/06/22 08:27	637-92-3	
Surrogates									
4-Bromofluorobenzene (S)	99	%	70-130		1		04/06/22 08:27	460-00-4	
1,2-Dichloroethane-d4 (S)	95	%	70-130		1		04/06/22 08:27	17060-07-0	
Toluene-d8 (S)	102	%	70-130		1		04/06/22 08:27	2037-26-5	

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ANALYTICAL RESULTS

Project: 4887 PCA-65102 Warren Green
Pace Project No.: 92596927

Sample: WSW-4 **Lab ID: 92596927003** Collected: 03/30/22 14:31 Received: 04/01/22 17:40 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
504 GCS EDB and DBCP	Analytical Method: EPA 504.1 Preparation Method: EPA 504.1								
	Pace Analytical Services - Charlotte								
1,2-Dibromoethane (EDB)	ND	ug/L	0.020	0.0036	1	04/07/22 11:00	04/08/22 11:32	106-93-4	
Surrogates									
1-Chloro-2-bromopropane (S)	90	%	70-130		1	04/07/22 11:00	04/08/22 11:32	301-79-56	
524.2 MSV SC List	Analytical Method: EPA 524.2								
	Pace Analytical Services - Charlotte								
Benzene	ND	ug/L	0.50	0.21	1		04/05/22 21:39	71-43-2	
1,2-Dichloroethane	ND	ug/L	0.50	0.16	1		04/05/22 21:39	107-06-2	
Ethylbenzene	ND	ug/L	0.50	0.22	1		04/05/22 21:39	100-41-4	
Methyl-tert-butyl ether	ND	ug/L	0.50	0.14	1		04/05/22 21:39	1634-04-4	
Naphthalene	ND	ug/L	0.50	0.35	1		04/05/22 21:39	91-20-3	
Toluene	ND	ug/L	0.50	0.20	1		04/05/22 21:39	108-88-3	
Xylene (Total)	ND	ug/L	0.50	0.22	1		04/05/22 21:39	1330-20-7	
m&p-Xylene	ND	ug/L	1.0	0.39	1		04/05/22 21:39	179601-23-1	
o-Xylene	ND	ug/L	0.50	0.22	1		04/05/22 21:39	95-47-6	
Surrogates									
1,2-Dichlorobenzene-d4 (S)	90	%	70-130		1		04/05/22 21:39	2199-69-1	HS
4-Bromofluorobenzene (S)	86	%	70-130		1		04/05/22 21:39	460-00-4	
8260 MSV Low Level SC	Analytical Method: EPA 8260D								
	Pace Analytical Services - Charlotte								
tert-Amyl Alcohol	ND	ug/L	100	36.4	1		04/06/22 09:04	75-85-4	
tert-Amylmethyl ether	ND	ug/L	10.0	2.7	1		04/06/22 09:04	994-05-8	
3,3-Dimethyl-1-Butanol	ND	ug/L	100	51.9	1		04/06/22 09:04	624-95-3	
tert-Butyl Alcohol	ND	ug/L	100	26.8	1		04/06/22 09:04	75-65-0	
tert-Butyl Formate	ND	ug/L	50.0	29.4	1		04/06/22 09:04	762-75-4	
Diisopropyl ether	ND	ug/L	1.0	0.31	1		04/06/22 09:04	108-20-3	
Ethanol	ND	ug/L	200	72.2	1		04/06/22 09:04	64-17-5	
Ethyl-tert-butyl ether	ND	ug/L	10.0	3.2	1		04/06/22 09:04	637-92-3	
Surrogates									
4-Bromofluorobenzene (S)	99	%	70-130		1		04/06/22 09:04	460-00-4	HS
1,2-Dichloroethane-d4 (S)	93	%	70-130		1		04/06/22 09:04	17060-07-0	
Toluene-d8 (S)	102	%	70-130		1		04/06/22 09:04	2037-26-5	

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ANALYTICAL RESULTS

Project: 4887 PCA-65102 Warren Green
Pace Project No.: 92596927

Sample: WSW-FB **Lab ID: 92596927004** Collected: 03/30/22 14:37 Received: 04/01/22 17:40 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
504 GCS EDB and DBCP	Analytical Method: EPA 504.1 Preparation Method: EPA 504.1								
	Pace Analytical Services - Charlotte								
1,2-Dibromoethane (EDB)	ND	ug/L	0.020	0.0036	1	04/07/22 11:00	04/08/22 11:58	106-93-4	
Surrogates									
1-Chloro-2-bromopropane (S)	90	%	70-130		1	04/07/22 11:00	04/08/22 11:58	301-79-56	
524.2 MSV SC List	Analytical Method: EPA 524.2								
	Pace Analytical Services - Charlotte								
Benzene	ND	ug/L	0.50	0.21	1		04/05/22 16:53	71-43-2	
1,2-Dichloroethane	ND	ug/L	0.50	0.16	1		04/05/22 16:53	107-06-2	
Ethylbenzene	ND	ug/L	0.50	0.22	1		04/05/22 16:53	100-41-4	
Methyl-tert-butyl ether	ND	ug/L	0.50	0.14	1		04/05/22 16:53	1634-04-4	
Naphthalene	ND	ug/L	0.50	0.35	1		04/05/22 16:53	91-20-3	
Toluene	**0.58**	ug/L	0.50	0.20	1		04/05/22 16:53	108-88-3	C0
Xylene (Total)	ND	ug/L	0.50	0.22	1		04/05/22 16:53	1330-20-7	
m&p-Xylene	ND	ug/L	1.0	0.39	1		04/05/22 16:53	179601-23-1	
o-Xylene	ND	ug/L	0.50	0.22	1		04/05/22 16:53	95-47-6	
Surrogates									
1,2-Dichlorobenzene-d4 (S)	91	%	70-130		1		04/05/22 16:53	2199-69-1	
4-Bromofluorobenzene (S)	85	%	70-130		1		04/05/22 16:53	460-00-4	
8260 MSV Low Level SC	Analytical Method: EPA 8260D								
	Pace Analytical Services - Charlotte								
tert-Amyl Alcohol	ND	ug/L	100	36.4	1		04/06/22 06:38	75-85-4	
tert-Amylmethyl ether	ND	ug/L	10.0	2.7	1		04/06/22 06:38	994-05-8	
3,3-Dimethyl-1-Butanol	ND	ug/L	100	51.9	1		04/06/22 06:38	624-95-3	
tert-Butyl Alcohol	ND	ug/L	100	26.8	1		04/06/22 06:38	75-65-0	
tert-Butyl Formate	ND	ug/L	50.0	29.4	1		04/06/22 06:38	762-75-4	
Diisopropyl ether	ND	ug/L	1.0	0.31	1		04/06/22 06:38	108-20-3	
Ethanol	ND	ug/L	200	72.2	1		04/06/22 06:38	64-17-5	
Ethyl-tert-butyl ether	ND	ug/L	10.0	3.2	1		04/06/22 06:38	637-92-3	
Surrogates									
4-Bromofluorobenzene (S)	97	%	70-130		1		04/06/22 06:38	460-00-4	HS
1,2-Dichloroethane-d4 (S)	95	%	70-130		1		04/06/22 06:38	17060-07-0	
Toluene-d8 (S)	102	%	70-130		1		04/06/22 06:38	2037-26-5	

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ANALYTICAL RESULTS

Project: 4887 PCA-65102 Warren Green
Pace Project No.: 92596927

Sample: WSW-DUP **Lab ID: 92596927005** Collected: 03/30/22 00:00 Received: 04/01/22 17:40 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
504 GCS EDB and DBCP	Analytical Method: EPA 504.1 Preparation Method: EPA 504.1								
	Pace Analytical Services - Charlotte								
1,2-Dibromoethane (EDB)	ND	ug/L	0.020	0.0036	1	04/07/22 11:00	04/08/22 12:28	106-93-4	
Surrogates									
1-Chloro-2-bromopropane (S)	90	%	70-130		1	04/07/22 11:00	04/08/22 12:28	301-79-56	
524.2 MSV SC List	Analytical Method: EPA 524.2								
	Pace Analytical Services - Charlotte								
Benzene	ND	ug/L	0.50	0.21	1		04/05/22 19:55	71-43-2	
1,2-Dichloroethane	ND	ug/L	0.50	0.16	1		04/05/22 19:55	107-06-2	
Ethylbenzene	ND	ug/L	0.50	0.22	1		04/05/22 19:55	100-41-4	
Methyl-tert-butyl ether	ND	ug/L	0.50	0.14	1		04/05/22 19:55	1634-04-4	
Naphthalene	ND	ug/L	0.50	0.35	1		04/05/22 19:55	91-20-3	
Toluene	ND	ug/L	0.50	0.20	1		04/05/22 19:55	108-88-3	
Xylene (Total)	ND	ug/L	0.50	0.22	1		04/05/22 19:55	1330-20-7	
m&p-Xylene	ND	ug/L	1.0	0.39	1		04/05/22 19:55	179601-23-1	
o-Xylene	ND	ug/L	0.50	0.22	1		04/05/22 19:55	95-47-6	
Surrogates									
1,2-Dichlorobenzene-d4 (S)	91	%	70-130		1		04/05/22 19:55	2199-69-1	
4-Bromofluorobenzene (S)	86	%	70-130		1		04/05/22 19:55	460-00-4	
8260 MSV Low Level SC	Analytical Method: EPA 8260D								
	Pace Analytical Services - Charlotte								
tert-Amyl Alcohol	ND	ug/L	100	36.4	1		04/06/22 08:45	75-85-4	
tert-Amylmethyl ether	ND	ug/L	10.0	2.7	1		04/06/22 08:45	994-05-8	
3,3-Dimethyl-1-Butanol	ND	ug/L	100	51.9	1		04/06/22 08:45	624-95-3	
tert-Butyl Alcohol	ND	ug/L	100	26.8	1		04/06/22 08:45	75-65-0	
tert-Butyl Formate	ND	ug/L	50.0	29.4	1		04/06/22 08:45	762-75-4	
Diisopropyl ether	ND	ug/L	1.0	0.31	1		04/06/22 08:45	108-20-3	
Ethanol	ND	ug/L	200	72.2	1		04/06/22 08:45	64-17-5	
Ethyl-tert-butyl ether	ND	ug/L	10.0	3.2	1		04/06/22 08:45	637-92-3	
Surrogates									
4-Bromofluorobenzene (S)	97	%	70-130		1		04/06/22 08:45	460-00-4	
1,2-Dichloroethane-d4 (S)	95	%	70-130		1		04/06/22 08:45	17060-07-0	
Toluene-d8 (S)	103	%	70-130		1		04/06/22 08:45	2037-26-5	

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ANALYTICAL RESULTS

Project: 4887 PCA-65102 Warren Green
Pace Project No.: 92596927

Sample: WSW-TB **Lab ID: 92596927006** Collected: 03/30/22 08:00 Received: 04/01/22 17:40 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
524.2 MSV SC List	Analytical Method: EPA 524.2								
	Pace Analytical Services - Charlotte								
Benzene	ND	ug/L	0.50	0.21	1		04/05/22 17:19	71-43-2	
1,2-Dichloroethane	ND	ug/L	0.50	0.16	1		04/05/22 17:19	107-06-2	
Ethylbenzene	ND	ug/L	0.50	0.22	1		04/05/22 17:19	100-41-4	
Methyl-tert-butyl ether	ND	ug/L	0.50	0.14	1		04/05/22 17:19	1634-04-4	
Naphthalene	ND	ug/L	0.50	0.35	1		04/05/22 17:19	91-20-3	
Toluene	ND	ug/L	0.50	0.20	1		04/05/22 17:19	108-88-3	
Xylene (Total)	ND	ug/L	0.50	0.22	1		04/05/22 17:19	1330-20-7	
m&p-Xylene	ND	ug/L	1.0	0.39	1		04/05/22 17:19	179601-23-1	
o-Xylene	ND	ug/L	0.50	0.22	1		04/05/22 17:19	95-47-6	
Surrogates									
1,2-Dichlorobenzene-d4 (S)	84	%	70-130		1		04/05/22 17:19	2199-69-1	
4-Bromofluorobenzene (S)	87	%	70-130		1		04/05/22 17:19	460-00-4	
8260 MSV Low Level SC	Analytical Method: EPA 8260D								
	Pace Analytical Services - Charlotte								
tert-Amyl Alcohol	ND	ug/L	100	36.4	1		04/06/22 06:56	75-85-4	
tert-Amylmethyl ether	ND	ug/L	10.0	2.7	1		04/06/22 06:56	994-05-8	
3,3-Dimethyl-1-Butanol	ND	ug/L	100	51.9	1		04/06/22 06:56	624-95-3	
tert-Butyl Alcohol	ND	ug/L	100	26.8	1		04/06/22 06:56	75-65-0	
tert-Butyl Formate	ND	ug/L	50.0	29.4	1		04/06/22 06:56	762-75-4	
Diisopropyl ether	ND	ug/L	1.0	0.31	1		04/06/22 06:56	108-20-3	
Ethanol	ND	ug/L	200	72.2	1		04/06/22 06:56	64-17-5	
Ethyl-tert-butyl ether	ND	ug/L	10.0	3.2	1		04/06/22 06:56	637-92-3	
Surrogates									
4-Bromofluorobenzene (S)	98	%	70-130		1		04/06/22 06:56	460-00-4	
1,2-Dichloroethane-d4 (S)	98	%	70-130		1		04/06/22 06:56	17060-07-0	
Toluene-d8 (S)	102	%	70-130		1		04/06/22 06:56	2037-26-5	

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QUALITY CONTROL DATA

Project: 4887 PCA-65102 Warren Green
Pace Project No.: 92596927

QC Batch: 689304 Analysis Method: EPA 524.2
QC Batch Method: EPA 524.2 Analysis Description: 524.2 MSV
Laboratory: Pace Analytical Services - Charlotte
Associated Lab Samples: 92596927001, 92596927002, 92596927003, 92596927004, 92596927005, 92596927006

METHOD BLANK: 3602229 Matrix: Water
Associated Lab Samples: 92596927001, 92596927002, 92596927003, 92596927004, 92596927005, 92596927006

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
1,2-Dichloroethane	ug/L	ND	0.50	0.16	04/05/22 16:01	
Benzene	ug/L	ND	0.50	0.21	04/05/22 16:01	
Ethylbenzene	ug/L	ND	0.50	0.22	04/05/22 16:01	
m&p-Xylene	ug/L	ND	1.0	0.39	04/05/22 16:01	
Methyl-tert-butyl ether	ug/L	ND	0.50	0.14	04/05/22 16:01	
Naphthalene	ug/L	ND	0.50	0.35	04/05/22 16:01	
o-Xylene	ug/L	ND	0.50	0.22	04/05/22 16:01	
Toluene	ug/L	ND	0.50	0.20	04/05/22 16:01	
Xylene (Total)	ug/L	ND	0.50	0.22	04/05/22 16:01	
1,2-Dichlorobenzene-d4 (S)	%	91	70-130		04/05/22 16:01	
4-Bromofluorobenzene (S)	%	87	70-130		04/05/22 16:01	

LABORATORY CONTROL SAMPLE: 3602230

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,2-Dichloroethane	ug/L	20	20.8	104	70-130	
Benzene	ug/L	20	19.2	96	70-130	
Ethylbenzene	ug/L	20	20.5	102	70-130	
m&p-Xylene	ug/L	40	41.2	103	70-130	
Methyl-tert-butyl ether	ug/L	20	20.8	104	70-130	
Naphthalene	ug/L	20	19.0	95	70-130	
o-Xylene	ug/L	20	19.6	98	70-130	
Toluene	ug/L	20	19.4	97	70-130	
Xylene (Total)	ug/L	60	60.8	101		
1,2-Dichlorobenzene-d4 (S)	%			101	70-130	
4-Bromofluorobenzene (S)	%			95	70-130	

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QUALITY CONTROL DATA

Project: 4887 PCA-65102 Warren Green
Pace Project No.: 92596927

QC Batch: 689302 | Analysis Method: EPA 8260D
QC Batch Method: EPA 8260D | Analysis Description: 8260 MSV Low Level SC
Laboratory: Pace Analytical Services - Charlotte

Associated Lab Samples: 92596927001

METHOD BLANK: 3602219 Matrix: Water

Associated Lab Samples: 92596927001

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
3,3-Dimethyl-1-Butanol	ug/L	ND	100	51.9	04/05/22 12:33	
Diisopropyl ether	ug/L	ND	1.0	0.31	04/05/22 12:33	
Ethanol	ug/L	ND	200	72.2	04/05/22 12:33	
Ethyl-tert-butyl ether	ug/L	ND	10.0	3.2	04/05/22 12:33	
tert-Amyl Alcohol	ug/L	ND	100	36.4	04/05/22 12:33	
tert-Amylmethyl ether	ug/L	ND	10.0	2.7	04/05/22 12:33	
tert-Butyl Alcohol	ug/L	ND	100	26.8	04/05/22 12:33	
tert-Butyl Formate	ug/L	ND	50.0	29.4	04/05/22 12:33	
1,2-Dichloroethane-d4 (S)	%	99	70-130		04/05/22 12:33	
4-Bromofluorobenzene (S)	%	102	70-130		04/05/22 12:33	
Toluene-d8 (S)	%	109	70-130		04/05/22 12:33	

LABORATORY CONTROL SAMPLE: 3602220

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
3,3-Dimethyl-1-Butanol	ug/L	1000	880	88	70-130	
Diisopropyl ether	ug/L	50	53.6	107	70-130	
Ethanol	ug/L	2000	1860	93	70-130	
Ethyl-tert-butyl ether	ug/L	100	100	100	70-130	
tert-Amyl Alcohol	ug/L	1000	885	89	70-130	
tert-Amylmethyl ether	ug/L	100	99.5	99	70-130	
tert-Butyl Alcohol	ug/L	500	466	93	70-130	
tert-Butyl Formate	ug/L	400	366	91	70-130	
1,2-Dichloroethane-d4 (S)	%			97	70-130	
4-Bromofluorobenzene (S)	%			100	70-130	
Toluene-d8 (S)	%			95	70-130	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3602221 3602222

Parameter	Units	92596937010 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
3,3-Dimethyl-1-Butanol	ug/L	ND	400	400	314	312	78	78	39-157	1	30	
Diisopropyl ether	ug/L	ND	20	20	20.8	20.4	104	102	63-144	2	30	
Ethanol	ug/L	ND	800	800	891	836	111	105	39-176	6	30	
Ethyl-tert-butyl ether	ug/L	ND	40	40	39.8	39.3	99	98	66-137	1	30	
tert-Amyl Alcohol	ug/L	ND	400	400	328	326	82	81	54-153	1	30	
tert-Amylmethyl ether	ug/L	ND	40	40	38.9	39.4	97	99	69-139	1	30	

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QUALITY CONTROL DATA

Project: 4887 PCA-65102 Warren Green
Pace Project No.: 92596927

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3602221 3602222

Parameter	Units	92596937010 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
tert-Butyl Alcohol	ug/L	ND	200	200	172	180	86	90	43-188	5	30	
tert-Butyl Formate	ug/L	ND	160	160	139	115	87	72	10-170	19	30	
1,2-Dichloroethane-d4 (S)	%						107	103	70-130			
4-Bromofluorobenzene (S)	%						101	103	70-130			
Toluene-d8 (S)	%						101	97	70-130			

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QUALITY CONTROL DATA

Project: 4887 PCA-65102 Warren Green
Pace Project No.: 92596927

QC Batch: 689452 | Analysis Method: EPA 8260D
QC Batch Method: EPA 8260D | Analysis Description: 8260 MSV Low Level SC
Laboratory: Pace Analytical Services - Charlotte
Associated Lab Samples: 92596927002, 92596927003, 92596927004, 92596927005, 92596927006

METHOD BLANK: 3602630 Matrix: Water
Associated Lab Samples: 92596927002, 92596927003, 92596927004, 92596927005, 92596927006

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
3,3-Dimethyl-1-Butanol	ug/L	ND	100	51.9	04/06/22 06:19	
Diisopropyl ether	ug/L	ND	1.0	0.31	04/06/22 06:19	
Ethanol	ug/L	ND	200	72.2	04/06/22 06:19	
Ethyl-tert-butyl ether	ug/L	ND	10.0	3.2	04/06/22 06:19	
tert-Amyl Alcohol	ug/L	ND	100	36.4	04/06/22 06:19	
tert-Amylmethyl ether	ug/L	ND	10.0	2.7	04/06/22 06:19	
tert-Butyl Alcohol	ug/L	ND	100	26.8	04/06/22 06:19	
tert-Butyl Formate	ug/L	ND	50.0	29.4	04/06/22 06:19	
1,2-Dichloroethane-d4 (S)	%	96	70-130		04/06/22 06:19	
4-Bromofluorobenzene (S)	%	97	70-130		04/06/22 06:19	
Toluene-d8 (S)	%	102	70-130		04/06/22 06:19	

LABORATORY CONTROL SAMPLE: 3602631

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
3,3-Dimethyl-1-Butanol	ug/L	1000	1080	108	70-130	
Diisopropyl ether	ug/L	50	48.5	97	70-130	
Ethanol	ug/L	2000	1940	97	70-130	
Ethyl-tert-butyl ether	ug/L	100	96.9	97	70-130	
tert-Amyl Alcohol	ug/L	1000	1040	104	70-130	
tert-Amylmethyl ether	ug/L	100	102	102	70-130	
tert-Butyl Alcohol	ug/L	500	510	102	70-130	
tert-Butyl Formate	ug/L	400	405	101	70-130	
1,2-Dichloroethane-d4 (S)	%			93	70-130	
4-Bromofluorobenzene (S)	%			99	70-130	
Toluene-d8 (S)	%			96	70-130	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3602779 3602780

Parameter	Units	92596989003 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
3,3-Dimethyl-1-Butanol	ug/L	ND	400	400	460	479	115	120	39-157	4	30	
Diisopropyl ether	ug/L	ND	20	20	20.4	20.2	102	101	63-144	1	30	
Ethanol	ug/L	ND	800	800	876	875	109	109	39-176	0	30	
Ethyl-tert-butyl ether	ug/L	ND	40	40	40.5	40.3	101	101	66-137	1	30	
tert-Amyl Alcohol	ug/L	ND	400	400	467	496	117	124	54-153	6	30	
tert-Amylmethyl ether	ug/L	ND	40	40	42.5	43.6	106	109	69-139	2	30	

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QUALITY CONTROL DATA

Project: 4887 PCA-65102 Warren Green
Pace Project No.: 92596927

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3602779 3602780

Parameter	Units	92596989003 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
tert-Butyl Alcohol	ug/L	ND	200	200	330	339	165	170	43-188	3	30	
tert-Butyl Formate	ug/L	ND	160	160	ND	ND	0	0	10-170		30	P5
1,2-Dichloroethane-d4 (S)	%						96	87	70-130			
4-Bromofluorobenzene (S)	%						99	98	70-130			
Toluene-d8 (S)	%						98	97	70-130			

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QUALITY CONTROL DATA

Project: 4887 PCA-65102 Warren Green
Pace Project No.: 92596927

QC Batch: 690013 | Analysis Method: EPA 504.1
QC Batch Method: EPA 504.1 | Analysis Description: GCS 504 EDB DBCP
Laboratory: Pace Analytical Services - Charlotte
Associated Lab Samples: 92596927001, 92596927002, 92596927003, 92596927004, 92596927005

METHOD BLANK: 3605446 Matrix: Water
Associated Lab Samples: 92596927001, 92596927002, 92596927003, 92596927004, 92596927005

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
1,2-Dibromoethane (EDB)	ug/L	ND	0.020	0.0036	04/08/22 08:59	
1-Chloro-2-bromopropane (S)	%	122	70-130		04/08/22 08:59	

LABORATORY CONTROL SAMPLE & LCSD: 3605447 3605448

Parameter	Units	Spike Conc.	LCS Result	LCSD Result	LCS % Rec	LCSD % Rec	% Rec Limits	RPD	Max RPD	Qualifiers
1,2-Dibromoethane (EDB)	ug/L	0.25	0.22	0.22	90	88	70-130	2	20	
1-Chloro-2-bromopropane (S)	%				98	92	70-130			

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3605450 3605451

Parameter	Units	92596794002 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
1,2-Dibromoethane (EDB)	ug/L	ND	0.25	0.25	0.23	0.22	89	88	65-135	2	20	
1-Chloro-2-bromopropane (S)	%						101	101	70-130			

SAMPLE DUPLICATE: 3605449

Parameter	Units	92596794001 Result	Dup Result	RPD	Max RPD	Qualifiers
1,2-Dibromoethane (EDB)	ug/L	ND	ND		20	
1-Chloro-2-bromopropane (S)	%	91	90			

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QUALIFIERS

Project: 4887 PCA-65102 Warren Green
Pace Project No.: 92596927

DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to dilution of the sample aliquot.

ND - Not Detected at or above adjusted reporting limit.

TNTC - Too Numerous To Count

J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.

MDL - Adjusted Method Detection Limit.

PQL - Practical Quantitation Limit.

RL - Reporting Limit - The lowest concentration value that meets project requirements for quantitative data with known precision and bias for a specific analyte in a specific matrix.

S - Surrogate

1,2-Diphenylhydrazine decomposes to and cannot be separated from Azobenzene using Method 8270. The result for each analyte is a combined concentration.

Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

U - Indicates the compound was analyzed for, but not detected.

Acid preservation may not be appropriate for 2 Chloroethylvinyl ether.

A separate vial preserved to a pH of 4-5 is recommended in SW846 Chapter 4 for the analysis of Acrolein and Acrylonitrile by EPA Method 8260.

N-Nitrosodiphenylamine decomposes and cannot be separated from Diphenylamine using Method 8270. The result reported for each analyte is a combined concentration.

Reported results are not rounded until the final step prior to reporting. Therefore, calculated parameters that are typically reported as "Total" may vary slightly from the sum of the reported component parameters.

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TNI - The NELAC Institute.

ANALYTE QUALIFIERS

C0	Result confirmed by second analysis.
HS	Results are from sample aliquot taken from VOA vial with headspace (air bubble greater than 6 mm diameter).
P5	The EPA or method required sample preservation degrades this compound, therefore acceptable recoveries may not be achieved in sample matrix spikes.

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QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: 4887 PCA-65102 Warren Green
Pace Project No.: 92596927

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
92596927001	**WSW-1**	EPA 504.1	690013	EPA 504.1	690067
92596927002	**WSW-2**	EPA 504.1	690013	EPA 504.1	690067
92596927003	**WSW-4**	EPA 504.1	690013	EPA 504.1	690067
92596927004	**WSW-FB**	EPA 504.1	690013	EPA 504.1	690067
92596927005	**WSW-DUP**	EPA 504.1	690013	EPA 504.1	690067
92596927001	**WSW-1**	EPA 524.2	689304		
92596927002	**WSW-2**	EPA 524.2	689304		
92596927003	**WSW-4**	EPA 524.2	689304		
92596927004	**WSW-FB**	EPA 524.2	689304		
92596927005	**WSW-DUP**	EPA 524.2	689304		
92596927006	**WSW-TB**	EPA 524.2	689304		
92596927001	**WSW-1**	EPA 8260D	689302		
92596927002	**WSW-2**	EPA 8260D	689452		
92596927003	**WSW-4**	EPA 8260D	689452		
92596927004	**WSW-FB**	EPA 8260D	689452		
92596927005	**WSW-DUP**	EPA 8260D	689452		
92596927006	**WSW-TB**	EPA 8260D	689452		

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CHAIN-OF-CUSTODY Analytical Request Document

Chain-of-Custody is a LEGAL DOCUMENT - Complete all relevent fields

LAB USE O... ber or

WO# : 92596927

92596927

Company: SCDHEC
Address: 2600 Bull St
Report To: R. Dunn
Copy To:
Customer Project Name/Number: Warren Green

Billing Information:
Email To: Dunnra@dhec.sc.gov
Site Collection Info/Address: 10723 Frontage Rd
State: SC / County/City: Jasper / Time Zone Collected: [ ] PT [ ] MT [ ] CT [/] ET

Phone:
Email:
Site/Facility ID #: 4992 PCA: 6510?
Compliance Monitoring? [ ] Yes [ ] No
Collected By (print): Matthew Funderburk
Purchase Order #:
Quote #:
DW PWS ID #:
DW Location Code:
Collected By (signature): [signature]
Turnaround Date Required:
Immediately Packed on Ice: [/] Yes [ ] No
Sample Disposal: [ ] Dispose as appropriate [ ] Return [ ] Archive: [ ] Hold:
Rush: [ ] Same Day [ ] Next Day [ ] 2 Day [ ] 3 Day [ ] 4 Day [ ] 5 Day (Expedite Charges Apply)
Field Filtered (if applicable): [ ] Yes [ ] No
Analysis:

* Matrix Codes (Insert in Matrix box below): Drinking Water (DW), Ground Water (GW), Wastewater (WW), Product (P), Soil/Solid (SL), Oil (OL), Wipe (WP), Air (AR), Tissue (TS), Bioassay (B), Vapor (V), Other (OT)

Container: 3 | 3 | 3

** Preservative Types: (1) nitric acid, (2) sulfuric acid, (3) hydrochloric acid, (4) sodium hydroxide, (5) zinc acetate, (6) methanol, (7) sodium bisulfate, (8) sodium thiosulfate, (9) hexane, (A) ascorbic acid, (B) ammonium sulfate, (C) ammonium hydroxide, (D) TSP, (U) Unpreserved, (O) Other

Analyses

Customer Sample ID	Matrix *	Comp / Grab	Collected Date	Collected Time	Composite End Date	Composite End Time	Res Cl	# of Ctns	OXYS5+Eth 8260D	BTEXNM+1,2DCA 524.2	EDB 504.1	Lab Sample # / Comments: 92596927
WSW-1	DW	G	3/30/22	14:15				9	X	X	X	LDL 001
WSW-2	DW	G	3/30/22	14:24								LDL 002
~~WSW-3~~												DNS
WSW-4	DW	G	3/30/22	14:31								LDL 003
WSW-FB				14:31								FB 004
WSW-DUP				—				9				LDL 005
WSW-TB				8:00				6	X	X		TB 006

Lab Profile/Line:
Lab Sample Receipt Checklist:
- Custody Seals Present/Intact Y (N) NA
- Custody Signatures Present (Y) N NA
- Collector Signature Present (Y) N NA
- Bottles Intact (Y) N NA
- Correct Bottles (Y) N NA
- Sufficient Volume (Y) N NA
- Samples Received on Ice (Y) N NA
- VOA - Headspace Acceptable Y (N) NA
- USDA Regulated Soils Y N (NA)
- Samples in Holding Time (Y) N NA
- Residual Chlorine Present Y N (NA)
- Cl Strips:
- Sample pH Acceptable (Y) N NA
- pH Strips:
- Sulfide Present Y N (NA)
- Lead Acetate Strips:

LAB USE ONLY:

Customer Remarks / Special Conditions / Possible Hazards:

Type of Ice Used: (Wet) Blue Dry None
Packing Material Used: BB
Radchem sample(s) screened (<500 cpm): Y N (NA)

SHORT HOLDS PRESENT (<72 hours): Y (N) N/A
Lab Tracking #: 2683658
Samples received via: FEDEX UPS Client Courier (Pace Courier)

Lab Sample Temperature Info:
Temp Blank Received: Y (N) NA
Therm ID#: 92T064
Cooler 1 Temp Upon Receipt: 2.6 oC
Cooler 1 Therm Corr. Factor: 0 oC
Cooler 1 Corrected Temp: 2.6 oC
Comments:

Relinquished by/Company: (Signature)	Date/Time:	Received by/Company: (Signature)	Date/Time:
[signature]	4/1/22 15:05	Josh Mallas/Pace	4/1/22 1740
Josh Mallas/Pace	4/1/22 2010	[signature] Pace AVL	4/4/22 0800

MTJL LAB USE ONLY
Table #:
Acctnum:
Template:
Prelogin:
PM:
PB:

Trip Blank Received: (Y) N NA
(HCL) MeOH TSP Other

Non Conformance(s): (YES) / NO
Page: ____ of: ____

Pace Analytical®	Document Name: **Sample Condition Upon Receipt (SCUR)**	Document Revised: November 15, 2021 Page 2 of 2
	Document No.: **F-CAR-CS-033-Rev.08**	Issuing Authority: Pace Carolinas Quality Office

***Check mark top half of box if pH and/or dechlorination is verified and within the acceptance range for preservation samples.**

Exceptions: VOA, Coliform, TOC, Oil and Grease, DRO/8015 (water) DOC, LLHg

****Bottom half of box is to list number of bottles**

Project # WO# : 92596927

PM: AMB Due Date: 04/08/22

CLIENT: 92-SCDHEC

Item#	BP4U-125 mL Plastic Unpreserved (N/A) (Cl-)	BP3U-250 mL Plastic Unpreserved (N/A)	BP2U-500 mL Plastic Unpreserved (N/A)	BP1U-1 liter Plastic Unpreserved (N/A)	BP4S-125 mL Plastic H2SO4 (pH < 2) (Cl-)	BP3N-250 mL plastic HNO3 (pH < 2)	BP4Z-125 mL Plastic ZN Acetate & NaOH (>9)	BP4B-125 mL Plastic NaOH (pH > 12) (Cl-)	WGFU-Wide-mouthed Glass jar Unpreserved	AG1U-1 liter Amber Unpreserved (N/A) (Cl-)	AG1H-1 liter Amber HCl (pH < 2)	AG3U-250 mL Amber Unpreserved (N/A) (Cl-)	AG1S-1 liter Amber H2SO4 (pH < 2)	AG3S-250 mL Amber H2SO4 (pH < 2)	AG3A(DG3A)-250 mL Amber NH4Cl (N/A)(Cl-)	DG9H-40 mL VOA HCl (N/A)	VG9T-40 mL VOA Na2S2O3 (N/A)	VG9U-40 mL VOA Unpreserved (N/A)	DG9P-40 mL VOA H3PO4 (N/A)	VOAK (3 vials per kit)-5035 kit (N/A)	V/GK (3 vials per kit)-VPH/Gas kit (N/A)	SP5T-125 mL Sterile Plastic (N/A – lab)	SP2T-250 mL Sterile Plastic (N/A – lab)		BP3A-250 mL Plastic (NH2)2SO4 (9.3-9.7)	AG0U-100 mL Amber Unpreserved vials (N/A)	VSGU-20 mL Scintillation vials (N/A)	DG9U-40 mL Amber Unpreserved vials (N/A)
1																6	3											
2																												
3																												
4																												
5																												
6																												
7																												
8																												
9																												
10																												
11																												
12																												

pH Adjustment Log for Preserved Samples

Sample ID	Type of Preservative	pH upon receipt	Date preservation adjusted	Time preservation adjusted	Amount of Preservative added	Lot #

Note: Whenever there is a discrepancy affecting North Carolina compliance samples, a copy of this form will be sent to the North Carolina DEHNR Certification Office (i.e. Out of hold, incorrect preservative, out of temp, incorrect containers.

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Sample Receiving Non-Conformance Form (NCF)

Date:	Evaluated by:
Client:	

Affix Workorder/Login Label Here or List Pace Workorder Number or MTJL Log-in Number Here

1. If Chain-of-Custody (COC) is not received: contact client and if necessary, fill out a COC and indicate that it was filled out by lab personnel. Note issues on this NCF.

~~**2. If COC is incomplete, check applicable issues below and add details where appropriate:**~~

	Collection date/time missing or incorrect		Analyses or analytes: missing or clarification needed		Samples listed on COC do not match samples received (missing, additional, etc.)
	Sample IDs on COC do not match sample labels		Required trip blanks were not received		Required signatures are missing

Comments/Details/Other Issues not listed above:

3. Sample integrity issues: check applicable issues below and add details where appropriate:

	Samples: Past holding time		Samples: Condition needs to be brought to lab personnel's attention (details below)		Preservation: Improper
	Samples: Not field filtered		Containers: Broken or compromised		Temperature: not within acceptance criteria (typically 0-6C)
	Samples: Insufficient volume received		Containers: Incorrect		Temperature: Samples arrived frozen
	Samples: Cooler damaged or compromised		Custody Seals: Missing or compromised on samples, trip blanks or coolers	✓	Vials received with improper headspace
	Samples: contain chlorine or sulfides		Packing Material: Insufficient/Improper		Other:

Comments/Details: WSW-1 (1 vial), WSW-2 (2 vials), WSW-4 (6 vials), WSW-FB (5 vials).

4. If Samples not preserved properly and Sample Receiving adjusts pH, add details below:

Sample ID:	Date/Time:	Amount/type pres added:
Preserved by:	Initial and Final pH:	Lot# of pres added:
Sample ID:	Date/Time:	Amount/type pres added:
Preserved by:	Initial and Final pH:	Lot# of pres added:
Sample ID:	Date/Time:	Amount/type pres added:
Preserved by:	Initial and Final pH:	Lot# of pres added:

5. Client Contact: If client is contacted for any issue listed above, fill in details below:

Client:	Contacted per:	
PM Initials:	Date/Time:	

Client Comments/Instructions:

F-ALL-C-011-rev.00, 05Jul2018

Pace Analytical Services, LLC
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

April 08, 2022

Mr. Bryan Shane
Midlands Environmental
PO Box 854
Lexington, SC 29071

RE: Project: 4887/6502 WARREN GREEN GAC
Pace Project No.: 92596946

Dear Mr. Shane:

Enclosed are the analytical results for sample(s) received by the laboratory on April 01, 2022. The results relate only to the samples included in this report. Results reported herein conform to the applicable TNI/NELAC Standards and the laboratory's Quality Manual, where applicable, unless otherwise noted in the body of the report.

The test results provided in this final report were generated by each of the following laboratories within the Pace Network:

- Pace Analytical Services - Charlotte

If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Angela M. Baioni

Angela Baioni
angela.baioni@pacelabs.com
(704)875-9092
Project Manager

Enclosures

cc: Mr. Jeff Coleman, Midlands Environmental
Mr. Kyle Pudney, Midlands Environmental

REPORT OF LABORATORY ANALYSIS

CERTIFICATIONS

Project:	4887/6502 WARREN GREEN GAC
Pace Project No.:	92596946

Pace Analytical Services Charlotte

South Carolina Laboratory ID: 99006	South Carolina Certification #: 99006001
9800 Kincey Ave. Ste 100, Huntersville, NC 28078	South Carolina Drinking Water Cert. #: 99006003
North Carolina Drinking Water Certification #: 37706	Florida/NELAP Certification #: E87627
North Carolina Field Services Certification #: 5342	Kentucky UST Certification #: 84
North Carolina Wastewater Certification #: 12	Louisiana DoH Drinking Water #: LA029
South Carolina Laboratory ID: 99006	Virginia/VELAP Certification #: 460221

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SAMPLE SUMMARY

Project: 4887/6502 WARREN GREEN GAC
Pace Project No.: 92596946

Lab ID	Sample ID	Matrix	Date Collected	Date Received
92596946001	**GAC**	Water	03/30/22 13:58	04/01/22 17:40

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SAMPLE ANALYTE COUNT

Project: 4887/6502 WARREN GREEN GAC
Pace Project No.: 92596946

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
92596946001	**GAC**	EPA 8011	HH	2	PASI-C
		EPA 8260D	LMB	20	PASI-C

PASI-C = Pace Analytical Services - Charlotte

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ANALYTICAL RESULTS

Project: 4887/6502 WARREN GREEN GAC

Pace Project No.: 92596946

Sample: GAC **Lab ID: 92596946001** Collected: 03/30/22 13:58 Received: 04/01/22 17:40 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8011 GCS EDB and DBCP	Analytical Method: EPA 8011 Preparation Method: EPA 8011								
	Pace Analytical Services - Charlotte								
1,2-Dibromoethane (EDB)	ND	ug/L	0.020	0.0077	1	04/07/22 11:00	04/07/22 14:37	106-93-4	
Surrogates									
1-Chloro-2-bromopropane (S)	91	%	60-140		1	04/07/22 11:00	04/07/22 14:37	301-79-56	
8260 MSV	Analytical Method: EPA 8260D								
	Pace Analytical Services - Charlotte								
tert-Amyl Alcohol	ND	ug/L	100	65.6	1		04/05/22 08:59	75-85-4	
tert-Amylmethyl ether	ND	ug/L	10.0	3.0	1		04/05/22 08:59	994-05-8	
Benzene	ND	ug/L	5.0	1.7	1		04/05/22 08:59	71-43-2	
3,3-Dimethyl-1-Butanol	ND	ug/L	100	53.9	1		04/05/22 08:59	624-95-3	
tert-Butyl Alcohol	ND	ug/L	100	91.0	1		04/05/22 08:59	75-65-0	
tert-Butyl Formate	ND	ug/L	50.0	24.1	1		04/05/22 08:59	762-75-4	
1,2-Dichloroethane	ND	ug/L	5.0	2.1	1		04/05/22 08:59	107-06-2	
Diisopropyl ether	ND	ug/L	5.0	3.5	1		04/05/22 08:59	108-20-3	
Ethanol	ND	ug/L	200	144	1		04/05/22 08:59	64-17-5	
Ethylbenzene	ND	ug/L	5.0	1.8	1		04/05/22 08:59	100-41-4	
Ethyl-tert-butyl ether	ND	ug/L	10.0	8.5	1		04/05/22 08:59	637-92-3	
Methyl-tert-butyl ether	ND	ug/L	5.0	3.1	1		04/05/22 08:59	1634-04-4	
Naphthalene	ND	ug/L	5.0	2.1	1		04/05/22 08:59	91-20-3	v2
Toluene	ND	ug/L	5.0	2.0	1		04/05/22 08:59	108-88-3	
Xylene (Total)	ND	ug/L	5.0	5.0	1		04/05/22 08:59	1330-20-7	
m&p-Xylene	ND	ug/L	10.0	4.1	1		04/05/22 08:59	179601-23-1	
o-Xylene	ND	ug/L	5.0	2.0	1		04/05/22 08:59	95-47-6	
Surrogates									
4-Bromofluorobenzene (S)	110	%	70-130		1		04/05/22 08:59	460-00-4	
1,2-Dichloroethane-d4 (S)	94	%	70-130		1		04/05/22 08:59	17060-07-0	
Toluene-d8 (S)	107	%	70-130		1		04/05/22 08:59	2037-26-5	

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QUALITY CONTROL DATA

Project: 4887/6502 WARREN GREEN GAC
Pace Project No.: 92596946

QC Batch: 689298
QC Batch Method: EPA 8260D
Analysis Method: EPA 8260D
Analysis Description: 8260 MSV SC
Laboratory: Pace Analytical Services - Charlotte

Associated Lab Samples: 92596946001

METHOD BLANK: 3602184 Matrix: Water
Associated Lab Samples: 92596946001

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
1,2-Dichloroethane	ug/L	ND	5.0	2.1	04/05/22 00:51	
3,3-Dimethyl-1-Butanol	ug/L	ND	100	53.9	04/05/22 00:51	
Benzene	ug/L	ND	5.0	1.7	04/05/22 00:51	
Diisopropyl ether	ug/L	ND	5.0	3.5	04/05/22 00:51	
Ethanol	ug/L	ND	200	144	04/05/22 00:51	
Ethyl-tert-butyl ether	ug/L	ND	10.0	8.5	04/05/22 00:51	
Ethylbenzene	ug/L	ND	5.0	1.8	04/05/22 00:51	
m&p-Xylene	ug/L	ND	10.0	4.1	04/05/22 00:51	
Methyl-tert-butyl ether	ug/L	ND	5.0	3.1	04/05/22 00:51	
Naphthalene	ug/L	ND	5.0	2.1	04/05/22 00:51	v2
o-Xylene	ug/L	ND	5.0	2.0	04/05/22 00:51	
tert-Amyl Alcohol	ug/L	ND	100	65.6	04/05/22 00:51	
tert-Amylmethyl ether	ug/L	ND	10.0	3.0	04/05/22 00:51	
tert-Butyl Alcohol	ug/L	ND	100	91.0	04/05/22 00:51	
tert-Butyl Formate	ug/L	ND	50.0	24.1	04/05/22 00:51	
Toluene	ug/L	ND	5.0	2.0	04/05/22 00:51	
Xylene (Total)	ug/L	ND	5.0	5.0	04/05/22 00:51	
1,2-Dichloroethane-d4 (S)	%	94	70-130		04/05/22 00:51	
4-Bromofluorobenzene (S)	%	108	70-130		04/05/22 00:51	
Toluene-d8 (S)	%	87	70-130		04/05/22 00:51	

LABORATORY CONTROL SAMPLE: 3602185

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,2-Dichloroethane	ug/L	50	55.0	110	70-130	
3,3-Dimethyl-1-Butanol	ug/L	1000	1020	102	70-130	
Benzene	ug/L	50	48.8	98	70-130	
Diisopropyl ether	ug/L	50	49.5	99	70-130	
Ethanol	ug/L	2000	2080	104	70-130	
Ethyl-tert-butyl ether	ug/L	100	102	102	70-130	
Ethylbenzene	ug/L	50	50.3	101	70-130	
m&p-Xylene	ug/L	100	104	104	70-130	
Methyl-tert-butyl ether	ug/L	50	55.2	110	70-130	
Naphthalene	ug/L	50	47.8	96	70-130	v3
o-Xylene	ug/L	50	52.4	105	70-130	
tert-Amyl Alcohol	ug/L	1000	992	99	70-130	
tert-Amylmethyl ether	ug/L	100	98.8	99	70-130	
tert-Butyl Alcohol	ug/L	500	528	106	70-130	
tert-Butyl Formate	ug/L	400	350	87	70-130	

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REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
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QUALITY CONTROL DATA

Project: 4887/6502 WARREN GREEN GAC
Pace Project No.: 92596946

LABORATORY CONTROL SAMPLE: 3602185

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Toluene	ug/L	50	49.8	100	70-130	
Xylene (Total)	ug/L	150	156	104	70-130	
1,2-Dichloroethane-d4 (S)	%			109	70-130	
4-Bromofluorobenzene (S)	%			104	70-130	
Toluene-d8 (S)	%			100	70-130	

MATRIX SPIKE SAMPLE: 3602187

Parameter	Units	92596943020 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
1,2-Dichloroethane	ug/L	ND	20	20.6	103	70-137	
3,3-Dimethyl-1-Butanol	ug/L	ND	400	436	109	39-157	
Benzene	ug/L	ND	20	20.5	103	70-151	
Diisopropyl ether	ug/L	ND	20	18.9	94	63-144	
Ethanol	ug/L	ND	800	846	106	39-176	
Ethyl-tert-butyl ether	ug/L	ND	40	38.4	96	66-137	
Ethylbenzene	ug/L	ND	20	22.0	110	66-153	
m&p-Xylene	ug/L	ND	40	44.0	110	69-152	
Methyl-tert-butyl ether	ug/L	ND	20	19.6	98	54-156	
Naphthalene	ug/L	ND	20	21.3	106	61-148	
o-Xylene	ug/L	ND	20	21.1	106	70-148	
tert-Amyl Alcohol	ug/L	ND	400	397	99	54-153	
tert-Amylmethyl ether	ug/L	ND	40	39.6	99	69-139	
tert-Butyl Alcohol	ug/L	ND	200	251	125	43-188	
tert-Butyl Formate	ug/L	ND	160	60.5	38	10-170	
Toluene	ug/L	ND	20	21.4	107	59-148	
Xylene (Total)	ug/L	ND	60	65.2	109	63-158	
1,2-Dichloroethane-d4 (S)	%				103	70-130	
4-Bromofluorobenzene (S)	%				102	70-130	HS
Toluene-d8 (S)	%				100	70-130	

SAMPLE DUPLICATE: 3602186

Parameter	Units	92596943017 Result	Dup Result	RPD	Max RPD	Qualifiers
1,2-Dichloroethane	ug/L	ND	ND		30	
3,3-Dimethyl-1-Butanol	ug/L	ND	ND		30	
Benzene	ug/L	ND	ND		30	
Diisopropyl ether	ug/L	ND	ND		30	
Ethanol	ug/L	ND	ND		30	
Ethyl-tert-butyl ether	ug/L	ND	ND		30	
Ethylbenzene	ug/L	ND	ND		30	
m&p-Xylene	ug/L	ND	ND		30	
Methyl-tert-butyl ether	ug/L	ND	ND		30	
Naphthalene	ug/L	ND	ND		30	
o-Xylene	ug/L	ND	ND		30	

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QUALITY CONTROL DATA

Project: 4887/6502 WARREN GREEN GAC
Pace Project No.: 92596946

SAMPLE DUPLICATE: 3602186

Parameter	Units	92596943017 Result	Dup Result	RPD	Max RPD	Qualifiers
tert-Amyl Alcohol	ug/L	ND	ND		30	
tert-Amylmethyl ether	ug/L	ND	ND		30	
tert-Butyl Alcohol	ug/L	ND	ND		30	
tert-Butyl Formate	ug/L	ND	ND		30	
Toluene	ug/L	ND	ND		30	
Xylene (Total)	ug/L	ND	ND		30	
1,2-Dichloroethane-d4 (S)	%	91	91			
4-Bromofluorobenzene (S)	%	108	106			
Toluene-d8 (S)	%	106	106			

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QUALITY CONTROL DATA

Project: 4887/6502 WARREN GREEN GAC
Pace Project No.: 92596946

QC Batch: 690009
QC Batch Method: EPA 8011
Analysis Method: EPA 8011
Analysis Description: GCS 8011 EDB DBCP
Laboratory: Pace Analytical Services - Charlotte

Associated Lab Samples: 92596946001

METHOD BLANK: 3605430 Matrix: Water

Associated Lab Samples: 92596946001

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
1,2-Dibromoethane (EDB)	ug/L	ND	0.020	0.0075	04/07/22 21:41	
1-Chloro-2-bromopropane (S)	%	92	60-140		04/07/22 21:41	

LABORATORY CONTROL SAMPLE & LCSD: 3605431 3605432

Parameter	Units	Spike Conc.	LCS Result	LCSD Result	LCS % Rec	LCSD % Rec	% Rec Limits	RPD	Max RPD	Qualifiers
1,2-Dibromoethane (EDB)	ug/L	0.25	0.21	0.23	83	91	60-140	9	20	
1-Chloro-2-bromopropane (S)	%				85	96	60-140			

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3605434 3605435

Parameter	Units	92596943015 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
1,2-Dibromoethane (EDB)	ug/L	ND	0.25	0.25	0.19	0.19	73	74	60-140	1	20	
1-Chloro-2-bromopropane (S)	%						85	86	60-140			

SAMPLE DUPLICATE: 3605433

Parameter	Units	92596943014 Result	Dup Result	RPD	Max RPD	Qualifiers
1,2-Dibromoethane (EDB)	ug/L	ND	ND		20	
1-Chloro-2-bromopropane (S)	%	82	80			

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

Pace Analytical Services, LLC
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QUALIFIERS

Project: 4887/6502 WARREN GREEN GAC
Pace Project No.: 92596946

DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to dilution of the sample aliquot.

ND - Not Detected at or above adjusted reporting limit.

TNTC - Too Numerous To Count

J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.

MDL - Adjusted Method Detection Limit.

PQL - Practical Quantitation Limit.

RL - Reporting Limit - The lowest concentration value that meets project requirements for quantitative data with known precision and bias for a specific analyte in a specific matrix.

S - Surrogate

1,2-Diphenylhydrazine decomposes to and cannot be separated from Azobenzene using Method 8270. The result for each analyte is a combined concentration.

Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

U - Indicates the compound was analyzed for, but not detected.

Acid preservation may not be appropriate for 2 Chloroethylvinyl ether.

A separate vial preserved to a pH of 4-5 is recommended in SW846 Chapter 4 for the analysis of Acrolein and Acrylonitrile by EPA Method 8260.

N-Nitrosodiphenylamine decomposes and cannot be separated from Diphenylamine using Method 8270. The result reported for each analyte is a combined concentration.

Reported results are not rounded until the final step prior to reporting. Therefore, calculated parameters that are typically reported as "Total" may vary slightly from the sum of the reported component parameters.

Pace Analytical is TNI accredited. Contact your Pace PM for the current list of accredited analytes.

TNI - The NELAC Institute.

ANALYTE QUALIFIERS

HS	Results are from sample aliquot taken from VOA vial with headspace (air bubble greater than 6 mm diameter).
v2	The continuing calibration verification was below the method acceptance limit. The analyte was not detected in the associated samples and the sensitivity of the instrument was verified with a reporting limit check standard.
v3	The continuing calibration verification was below the method acceptance limit. Any detection for the analyte in the associated samples may have low bias.

Pace Analytical Services, LLC
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: 4887/6502 WARREN GREEN GAC
Pace Project No.: 92596946

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
92596946001	**GAC**	EPA 8011	690009	EPA 8011	690065
92596946001	**GAC**	EPA 8260D	689298		

Pace Analytical®

CHAIN-OF-CUSTODY Analytical Request Document

Chain-of-Custody is a LEGAL DOCUMENT - Complete all relevent fields

WO# : 92596946

92596946

LAB ... Number or ... ONLY

Company: SCDHEC	Billing Information:
Address: 2600 Bull St	
Report To: R. Dunn	Email To: Dunnra@dhec.sc.gov
Copy To:	Site Collection Info/Address: 10773 Frontage Rd
Customer Project Name/Number: Wallen Green	State: SC / County/City: Jasper / Time Zone Collected: [ ] PT [ ] MT [ ] CT [/] ET

Phone: Email:	Site/Facility ID #: 4987 PCA: 65101	Compliance Monitoring? [ ] Yes [ ] No
Collected By (print): Matthew Funderburk	Purchase Order #: Quote #:	DW PWS ID #: DW Location Code:
Collected By (signature): Matthew Funderburk	Turnaround Date Required:	Immediately Packed on Ice: [/] Yes [ ] No
Sample Disposal: [ ] Dispose as appropriate [ ] Return [ ] Archive: ______ [ ] Hold: ______	Rush: [ ] Same Day [ ] Next Day [ ] 2 Day [ ] 3 Day [ ] 4 Day [ ] 5 Day (Expedite Charges Apply)	Field Filtered (if applicable): [ ] Yes [ ] No Analysis: ______

* Matrix Codes (Insert in Matrix box below): Drinking Water (DW), Ground Water (GW), Wastewater (WW), Product (P), Soil/Solid (SL), Oil (OL), Wipe (WP), Air (AR), Tissue (TS), Bioassay (B), Vapor (V), Other (OT)

Container Preservative Type **: 3 3

** Preservative Types: (1) nitric acid, (2) sulfuric acid, (3) hydrochloric acid, (4) sodium hydroxide, (5) zinc acetate, (6) methanol, (7) sodium bisulfate, (8) sodium thiosulfate, (9) hexane, (A) ascorbic acid, (B) ammonium sulfate, (C) ammonium hydroxide, (D) TSP, (U) Unpreserved, (O) Other ______

Lab Project Manager:

Customer Sample ID	Matrix *	Comp / Grab	Collected (or Composite Start) Date	Time	Composite End Date	Time	Res Cl	# of Ctns	Analyses: BTEX/MTOX/96+12DCA+Eth 8260B	EDB 8011	Lab Profile/Line: Lab Sample # / Comments
											92596949
Dm-6	GW	G	3/30/22	12:20				6	X	X	no odr
Dup	↓	↓	~~3/30/22~~	12:40				↓	X	X	Dup
GAC	↓	↓	↓	13:58				↓	X	X	GAC 001
FB	↓	↓	↓	13:45				6	X	X	FB
TB	↓	↓	↓	8:00				2	X		TB

Lab Sample Receipt Checklist:

- Custody Seals Present/Intact Y (N) NA
- Custody Signatures Present (Y) N NA
- Collector Signature Present (Y) N NA
- Bottles Intact (Y) N NA
- Correct Bottles (Y) N NA
- Sufficient Volume (Y) N NA
- Samples Received on Ice (Y) N NA
- VOA - Headspace Acceptable Y (N) NA
- USDA Regulated Soils Y N (NA)
- Samples in Holding Time (Y) N NA
- Residual Chlorine Present Y N (NA)
- Cl Strips:
- Sample pH Acceptable (Y) N NA
- pH Strips:
- Sulfide Present Y N (NA)
- Lead Acetate Strips:

LAB USE ONLY:
Lab Sample # / Comments:

Customer Remarks / Special Conditions / Possible Hazards:

Type of Ice Used: (Wet) Blue Dry None

Packing Material Used: BB

Radchem sample(s) screened (<500 cpm): Y N (NA)

SHORT HOLDS PRESENT (<72 hours): Y (N) N/A

Lab Tracking #: 2683939

Samples received via: FEDEX UPS Client Courier (Pace Courier)

Lab Sample Temperature Info:
Temp Blank Received: Y (N) NA
Therm ID#: 92T064
Cooler 1 Temp Upon Receipt: 2.6 oC
Cooler 1 Therm Corr. Factor: 0 oC
Cooler 1 Corrected Temp: 2.6 oC
Comments:

Relinquished by/Company: (Signature)	Date/Time:	Received by/Company: (Signature)	Date/Time:	MTJL LAB ~~USE ONLY~~
[signature]	4/1/22 15:05	Josh Mallas/Pace	4/1/22 1740	Table #:
Josh Mallas/Pace	4/1/22 2010	[signature] Pace HVL	4/4/22 0800	Acctnum: Template: Prelogin:
				PM: PB:

Trip Blank Received: (Y) N NA
(HCL) MeOH TSP Other

Non Conformance(s): (YES) / NO

Page: 3 of: 3

APPENDIX B:

TAX MAP

Site name: Green Warren

Permit Number: 04887

Tax Map Info

Tax Map #	Property Address	Mailing Address	Owner	Wells
088-00-02-032	10773 W. Frontage Road, Yemassee, SC 29945	189 Oakhill Road, Ridgeland, SC 29936	Lasonya Eady ETAL	MW1-4, MW6-7, MW9-15, DW1-2, DW-5
088-00-02-031	W. Frontage Road, Yemassee, SC 29945	189 Oakhill Road, Ridgeland, SC 29936	Rosa G. Lock ETAL	MW-5, MW-8, DW-3, DW-4
088-00-02-023	W. Frontage Road, Yemassee, SC 29945	PO Box 211683 Martinez, GA 30907	Retreat Plantation, LLC	
088-00-02-035	235 Bowers Lane, Yemassee, SC 29945	81 Daniels Lane, Yemassee, SC 29945	Rebecca Bowers	WSW-1
CNL	299 Bowers Lane, Yemassee, SC 29945	CNL	CNL	WSW-2
088-00-02-028	10951 Frontage Road, Yemassee, SC 29945	PO Box 43, Yemassee, SC 29945	Ernest Porchers	WSW-3
088-00-02-028C	10943 Frontage Road, Yemassee, SC 29945	PO Box 1406, Yemassee, SC 29945	Neather Witter	WSW-4

qPublic.net™ Jasper County, SC

Overview

Legend

Parcels

Roads

Parcel ID	088-00-02-032	**Alternate ID**	088-00-02-032	**Owner Address**	EADY LASONYA ETAL 189 OAKHILL RD RIDGELAND SC 29936	**Last 2 Sales**					
Sec/Twp/Rng	n/a					**Date**	**Price**	**Reason**	**Qual**		
Property Address	10773 W FRONTAGE RD	**Class**	Rural single family residence (land vacant)			5/9/2002	$1	n/a	U		
		Acreage	0.3			n/a	0	n/a	n/a		

District 01

Brief Tax Description FRONTAGE RD EAST HWY 17
(Note: Not to be used on legal documents)

Date created: 6/30/2021
Last Data Uploaded: 6/30/2021 2:07:18 AM

Developed by Schneider GEOSPATIAL

qPublic.net™ Jasper County, SC

Legend

- Parcels
- Roads

Parcel ID	088-00-02-031	Alternate ID	088-00-02-031	Owner Address	LOCK ROSA G ETAL 189 OAKHILL RD RIDGELAND SC 29936	**Last 2 Sales**			
Sec/Twp/Rng	n/a	Class	Rural single family residence (land vacant)			Date	Price	Reason	Qual
Property Address	W FRONTAGE RD	Acreage	6.51			4/20/2007	0	n/a	U
District	01					n/a	0	n/a	n/a

Brief Tax Description FRONTAGE RD

(Note: Not to be used on legal documents)

Date created: 6/30/2021
Last Data Uploaded: 6/30/2021 2:07:18 AM

Developed by Schneider GEOSPATIAL

qPublic.net™ Jasper County, SC

Overview

Legend

Parcels

Roads

Parcel ID	088-00-02-023	**Alternate ID**	088-00-02-023	**Owner Address**	RETREAT PLANTATION LLC P O BOX 211683 MARTINEZ GA 30907	**Last 2 Sales**			
Sec/Twp/Rng	n/a	**Class**	Rural acres			**Date**	**Price**	**Reason**	**Qual**
Property Address	W FRONTAGE RD	**Acreage**	31.1			12/12/2016	$100000	n/a	Q
District	01					n/a	0	n/a	n/a
Brief Tax Description	17 & I-95								

(Note: Not to be used on legal documents)

Date created: 6/30/2021
Last Data Uploaded: 6/30/2021 2:07:18 AM

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APPENDIX C:

DISPOSAL MANIFEST

Midlands Environmental Consultants, Inc.

April 11, 2022

Re: Treatment of Purge Water
Warren Green
Yemassee, South Carolina
SCDHEC Site ID Number 04887
MECI Project Number 22-7805

To Whom It May Concern;

Midlands Environmental Consultants, Inc. is providing the following letter as certification that treatment of the referenced purge water complied with the conditions of "Proposed Conditions for Use of Portable Activated Carbon Units for the Treatment of Small Volumes of Petroleum Hydrocarbon Contaminated Groundwater", as described in the following:

Applicability:

Groundwater treated was obtained as a result development of wells and sampling.

Conditions:

1. The purge/bail water from all wells is mixed before usage of the Activated Carbon Unit.

2. No free-product was detected in any of the purge water drums.

3. Analytical results from well sampling show average concentrations of petroleum hydrocarbon constituents less than 5000 parts per billion (ppb) Benzene and less than 20,000 ppb total BTEX.

4. The existing carbon pack will be replaced/reactivated every 5,000 gallons.

5. Record of usage is maintained by Contractor.

6. Any and all recommendations and conditions issued by the Manufacturer have been adhered to.

7. Any and all recommendations and conditions (even on a site by site basis) issued by the SCDHEC must be adhered to.

All purge waters were treated on-site using an up-flow treatment drum loaded with 80 pounds of activated carbon. Carbon will be loaded to a maximum of 3 pounds of total organic compounds or 5,000 gallons of development/purge water, whichever occurs first.

Post Office Box 854, Lexington, SC 29071 • 231 Dooley Road, Lexington, SC 29073
Telephone: (803) 808-2043 • Fax: (803) 808-2048

A total of 383.00 gallons were treated on March 30, 2022 at the referenced site.

Midlands Environmental also tracks cumulative organic compounds adsorbed on the activated carbon to ensure the capacity of carbon mass is not over-charged. This data is available upon request.

Should you have any questions or comments, please contact the undersigned.

Sincerely,
Midlands Environmental Consultants, Inc.

Jeff L. Coleman
Senior Scientist

APPENDIX D:

ACCESS AGREEMENTS

dhec

State Lead Option
Property Access Agreement for Site Rehabilitation

Kathryn

Only complete this form if: You are the legal owner of the property **OR** are the designated authorized representative for the legal owner of the property.

I certify that I am the legal owner of the property identified below or serve as the authorized representative for the legal owner of the property. I authorize the South Carolina Department of Health and Environmental Control (DHEC), or a contractor selected by DHEC, to enter this property at reasonable times only to conduct assessment and corrective action activities, as required. The contractor will be designated as the contractor for the UST owner or operator for only the required environmental site rehabilitation activities. I understand that the Agency will notify me of all activities that are necessary prior to their initiation and will promptly provide to me a summary of the data upon request.

UST 042

UST Permit # 04887		
Facility Name: WARREN GREEN		
Facility Address: 10773 W FRONTAGE RD, YEMASSEE, SC		
Facility Phone Number:		
Is facility within city limits? (check yes/no)	☐ **Yes**	☑ **No**
Name of nearest intersecting street/road/highway:		
Does public water/sewer utility service this facility?	☐ **Yes**	☑ **No**
*If no, please provide a contact name/number that can assist in the location of private water and septic tank lines:		
Name: LaSonya Eady	**Phone Number:** 843 683 2131	
Were USTs previously removed from the ground at this facility?	☐ **Yes**	☑ **No**
*If yes, please provide the name/contact number of a person that can assist in the location of the former UST(s):		
Name:	**Phone Number:**	
Is the facility currently leased to someone?	☐ **Yes**	☑ **No**
*If yes, notify them of the pending work scope, and please provide their name/contact number:		
Name:	**Phone Number:**	

***Please note that if vehicles or other mobile structures are parked over the location of the existing or former USTs, they should be moved prior to DHEC's contractor mobilizes to the facility.**

Name of Property Owner (Print): LaSonya Eady, Everette Bascom	
Signature of Property Owner or authorized representative: LaSonya Eady	**Date** 3-18-19
Affiliation (if applicable)	
Signature of Witness	**Date**

Contact Info

Phone Numbers:	**Home:**	**Cell:** 843 683 2131
Email Address:	jseady2@yaho.com	

APPENDIX E:

DATA VERIFICATION CHECKLIST

<u>**Contractor Checklist**</u>

Item#	Item	Yes	No	N/A
1	Are Facility Name, Permit #, and address provided?	X		
2	Is UST Owner/Operator name, address, & phone number provided?	X		
3	Is name, address, & phone number of current property owner provided?	X		
4	Is the DHEC Certified UST Site Rehabilitation Contractor's Name, Address, telephone number, and certification number provided?	X		
5	Is the name, address, telephone number, and certification number of the well driller that installed borings/monitoring wells provided?			X
6	Is the name, address, telephone number, and certification number of the certified laboratory(ies) performing analytical analyses provided?	X		
7	Has the facility history been summarized?			X
8	Has the regional geology and hydrogeology been described?			X
9	Are the receptor survey results provided as required?			X
10	Has current use of the site and adjacent land been described?	X		
11	Has the site-specific geology and hydrogeology been described?			X
12	Has the primary soil type been described?			X
13	Have field screening results been described?			X
14	Has a description of the soil sample collection and preservation been detailed?			X
15	Has the field screening methodology and procedure been detailed?			X
16	Has the monitoring well installation and development dates been provided?			X
17	Has the method of well development been detailed?			X
18	Has justification been provided for the locations of the monitoring wells?			X
19	Have the monitoring wells been labeled in accordance with the UST QAPP guidelines?			X
20	Has the groundwater sampling methodology been detailed?	X		
21	Have the groundwater sampling dates and groundwater measurements been provided? (Table 2 & Figure 3)	X		
22	Has the purging methodology been detailed?	X		
23	Has the volume of water purged from each well been provided along with measurements to verify that purging is complete? (Appendix A)	X		
24	If free-product is present, has the thickness been provided?			X
25	Does the report include a brief discussion of the assessment done and the results?	X		
26	Does the report include a brief discussion of the aquifer evaluation and results?			X
27	Does the report include a brief discussion of the fate & transport models used?			X

Item#	Item	Yes	No	N/A
28	Are the site-conceptual model tables included? (Tier 1 Risk Evaluation)			X
29	Have the exposure pathways been analyzed? (Tier 2 Risk Evaluation)			X
30	Have the SSTLs for each compound and pathway been calculated? (Tier 2 Risk Evaluation)			X
31	Have recommendations for further action been provided and explained?			X
32	Has the soil analytical data for the site been provided in tabular format?			X
33	Has the potentiometric data for the site been provided in tabular format? (Table 2)	X		
34	Has the current and historical laboratory data been provided in tabular format? (Table 1)	X		
35	Have the aquifer characteristics been provided and summarized on the appropriate form?			X
36	Have the Site conceptual model tables been included? (Tier 1 Risk Evaluation)			X
37	Has the topographic map been provided with all required elements? (Figure 1)	X		
38	Has the site base map been provided with all required elements? (Figure 2)	X		
39	Have the CoC site maps been provided? (Figures 3)	X		
40	Has the site potentiometric map been provided? (Figure 4)	X		
41	Have the geologic cross-sections been provided?			X
42	Have maps showing the predicted migration of the CoCs through time been provided? (Tier 2 Risk Evaluation)			X
43	Has the site survey been provided and include all necessary elements?			X
44	Have the sampling logs, chain of custody forms, and the analytical data package been included with all required elements? (Appendix A)	X		
45	Is the laboratory performing the analyses properly certified?	X		
46	Has the tax map been included with all necessary elements? (Appendix B)			X
47	Have the soil boring/field screening logs been provided?			X
48	Have the well completion logs and SCDHEC Form 1903 been provided?			X
49	Have the aquifer evaluation forms, data, graphs, equations, etc. been provided?			X
50	Have the disposal manifests been provided? (Appendix C)			X
51	Has a copy of the local zoning regulations been provided?			X
52	Has all fate and transport modeling been provided?			X
53	Have copies of all access agreements obtained by the contractor been provided? (Appendix D)			X
54	Has a copy of this form been attached to the final report and are explanations for any missing or incomplete data been provided? (Appendix E)	X		

APPENDIX F:

PHOTOS


WSW-1/Sample Location


WSW-2

WSW – 4 sampling point

Healthy People. Healthy Communities.

04887

OCT 07 2022

UST
75
Cech
DOCKETING

MR BRYAN SHANE PG
MIDLANDS ENVIRONMENTAL CONSULTANTS
PO BOX 854
LEXINGTON SC 29071

Re: Site Specific Work Plan Request
Groundwater Sampling Contract
Solicitation #IFB-5400021335

Dear Mr. Shane:

In accordance with bid solicitation # IFB-5400021335, submission of a Site-Specific Work Plan (SSWP) based on each site information package provided is requested.

The SSWP must be submitted within 20 calendar days of the date of this correspondence. The project manager for each site will issue a notice to proceed once the plan has been reviewed and approved. A weekly update for each site should be emailed to the site's project manager and myself. If you have any questions or need further assistance, please contact me by phone (803) 898-0500 or email brownaj@dhec.sc.gov.

Sincerely,

Arthur Brown, Hydrogeologist
Corrective Action & Field Support Section
UST Management Division
Bureau of Land & Waste Management

Enc: Site Information Package Summary (SIPS)
Site Information Packages

Cc: Taylor Cannon, Pace Analytical Services, 9800 Kincey Ave. STE 100, Huntersville, NC 28078 (w/ SIPS)
Technical File (w/o Enc)

Healthy People. Healthy Communities.

UNDERGROUND STORAGE TANK PROGRAM
BUREAU OF LAND AND WASTE MANAGEMENT
2600 Bull Street, Columbia, South Carolina 29201
Telephone: 803-898-2544

MEMORANDUM

TO: Statelead Groundwater Sampling Contractor

FROM: Arthur Brown

RE: Site Specific Work Plan Request

Facility Name: Green Warren
Contractor CA# 66251

Permit Number: 4887
PACE CA #: 66252

County: Jasper
RBCA CLASS: 2BB

List Monitoring Wells to be Sampled   Purging Method Purge All

Shallow MW-1, MW-2, MW-3R, MW-4, MW-5, MW-6R, MW-7R, MW-8, MW-9, MW-10, MW-11R, MW-12R, MW-13R, MW-14, MW-15

Intermediate

Deep DW-1 - DW-6

Surface Water Points to be Sampled (MUST BE ON MAP PROVIDED)

N/A

WSW Points to be Sampled (MUST BE ON MAP PROVIDED CONTACT INFO w TAX MAP INFO)

WSW-1 - WSW-4

Sample Below Product

Additional Potentiometric Maps Requested - See Below (Note: Shallow & Deep Included)

Isopleth Maps requested instead of CoC Map (Only for CoCs >RBSL or SSTL)

Benz, Tol, EthylB, Xylenes, MTBE, Napht, EDB

Other:

The poor quality of the site map for UST 04887 necessitates a comprehensive survey and the generation of a new A tax map is also requested as part of this scope of work.

Total Groundwater Sample Points: 22

Analysis Being Requested: K . BTEXNM+Oxyg's+1,2 DCA+Eth(8260B), K7. EDB by EPA 8011

Total Water Supply Well Points: 4

Analysis Being Requested: K14. BTEXNM+1,2 DCA (524.2), K15. 7-OXYGENATES & ETHANOL (8260B), K16. EDB (504.1)

10/7/2022

Midlands
Environmental
Consultants, Inc.

November 1, 2022

UST
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DOCKETING
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RECEIVED
NOV 03 2022
UST DIVISION

Mr. Arthur Brown, Hydrogeologist
Corrective Action & Field Support Section
Underground Storage Tank Management Division
Bureau of Land and Waste Management
South Carolina Department of Health
and Environmental Control
2600 Bull Street
Columbia, South Carolina 29201

Subject: Site-Specific Work Plan
Warren Green
Yemassee, South Carolina
Jasper County
UST Permit# 04887
MECI Project Number 22-7995
Certified Site Rehabilitation Contractor UCC-0009

Dear Mr. Brown,

Midlands Environmental Consultants Inc. (MECI) is pleased to submit the attached Site-Specific Work Plan for the referenced site.

On October 18, 2022, MECI personnel performed a site visit to the subject sites to evaluate site conditions, locate monitoring wells and identify potential problems for future sampling activities.

If you have any question or comments, please feel free to contact us at 803-808-2043.

Sincerely,
Midlands Environmental Consultants, Inc.

Kyle V. Pudney
Senior Biologist

Jeff L. Coleman
Senior Scientist

Post Office Box 854, Lexington, SC 29071 • 231 Dooley Road, Lexington, SC 29073
Telephone: (803) 808-2043 • Fax: (803) 808-2048

Site-Specific Work Plan for Approved ACQAP
Underground Storage Tank Management Division

To: Mr. Arthur Brown (SCDHEC Project Manager)
From: Jeff L. Coleman (Contractor Project Manager)
Contractor: Midlands Environmental Consultants, Inc. UST Contractor Certification Number: 009

Facility Name: Warren Green UST Permit #: 04887
Facility Address: Bowers Lane & West Frontage Road, Yemassee, SC
Responsible Party: Lasonya Eady, Reginald Bascom, Everette Bascom Phone: 843-726-9038
RP Address: 194 Oak Hill Road, Ridgeland, SC 29936
Property Owner (if different): SAA
Property Owner Address: SAA
Current Use of Property: Vacant Lot

Scope of Work (Please check all that apply)
☐ IGWA ☐ Tier II ☑ Groundwater Sampling ☐ GAC
☐ Tier I ☐ Monitoring Well Installation ☐ Other ______

Analyses (Please check all that apply)
Groundwater/Surface Water:
☑ BTEXNMDCA (8260D) ☐ Lead ☐ BOD ☐ Methane
☑ Oxygenates (8260D) ☐ 8 RCRA Metals ☐ Nitrate ☐ Ethanol
☑ EDB (8011) ☐ TPH ☐ Sulfate ☐ Dissolved Iron
☐ PAH (8270E) ☐ pH ☐ Other ______
Drinking Water Supply Wells:
☑ BTEXNMDCA (524.2) ☐ Mecury (200.8 245.1 or 245.2) ☑ EDB (504.1)
☑ Oxygenates & Ethanol (8260D) ☐ RCRA Metals (200.8)
Soil:
☐ BTEXNM ☐ Lead ☐ RCRA Metals ☐ TPH-DRO (3550B/8015B) ☐ Grain Size
☐ PAH ☐ Oil & Grease (9071) ☐ TPH-GRO (5030B/8015B) ☐ TOC
Air:
☐ BTEXN

Sample Collection (Estimate the number of samples of each matrix that are expected to be collected.)
____ Soil 4 Water Supply Wells ____ Air 2 Field Blank
22 Monitoring Wells ____ Surface Water 3 Duplicate 2 Trip Blank

Field Screening Methodology
Estimate number and total completed depth for each point, and include their proposed locations on the attached map.
# of shallow points proposed: ______ Estimated Footage: ______ feet per point
# of deep points proposed: ______ Estimated Footage: ______ feet per point
Field Screening Methodology: ______

Permanent Monitoring Wells
Estimate number and total completed depth for each well, and include their proposed locations on the attached map.
# of shallow wells: ______ Estimated Footage: ______ feet per point
# of deep wells: ______ Estimated Footage: ______ feet per point
# of recovery wells: ______ Estimated Footage: ______ feet per point
Comments, if warranted:

UST Permit #: 04887 Facility Name: Warren Green

Implementation Schedule (Number of calendar days from approval)
Field Work Start-Up: 11/1/2022 Field Work Completion: 12/1/2022
Report Submittal: 1/1/2023 # of Copies Provided to Property Owners: ______

Aquifer Characterization
Pump Test: ☐ Slug Test: ☐ (Check one and provide explanation below for choice)

Investigation Derived Waste Disposal
Soil: ______ Tons Purge Water: 350.00 Gallons
Drilling Fluids: ______ Gallons Free-Phase Product: ______ Gallons

Additional Details For This Scope of Work
For example, list wells to be sampled, wells to be abandoned/repaired, well pads/bolts/caps to replace, details of AFVR event, etc.
-Monitoring wells MW-1, MW-2, MW-4, MW-12R, MW-14 and DW-2 were unable to located during the initial site visit. If any of these monitoring wells are located during sampling activities, they will be sampled accordingly.
-MECI proposes only purging which do not bracket the water table (Last sampling event 3/30/2022)
-MECI will attempt to sample 4 water supply wells during sampling activities.
-MECI is requesting pre-approval to replace 30 locking bolts, 1 well lid and 3 wells caps during the future sampling event.
-MECI will re-digitize the pre-existing map, created updated tax map and produce isopleths for BTEXMN and EDB.

Compliance With Annual Contractor Quality Assurance Plan (ACQAP)
Yes Laboratory as indicated in ACQAP? (Yes/No) If no, indicate laboratory information below.
Name of Laboratory: ______
SCDHEC Certification Number: ______
Name of Laboratory Director: ______

N/A Well Driller as indicated in ACQAP? (Yes/No) If no, indicate driller information below.
Name of Well Driller: ______
SCLLR Certification Number: ______

None Other variations from ACQAP. Please describe below.

Attachments
1. Attach a copy of the relevant portion of the USGS topographic map showing the site location.
2. Prepare a site base map. This map must be accurately scaled, but does not need to be surveyed. The map must include the following:
   North Arrow
   Location of property lines
   Location of buildings
   Previous soil sampling locations
   Previous monitoring well locations
   Proposed soil boring locations
   Proposed monitoring well locations
   Legend with facility name and address, UST permit number, and bar scale
   Streets or highways (indicate names and numbers)
   Location of all present and former ASTs and USTs
   Location of all potential receptors
3. Assessment Component Cost Agreement, SCDHEC Form D-3664

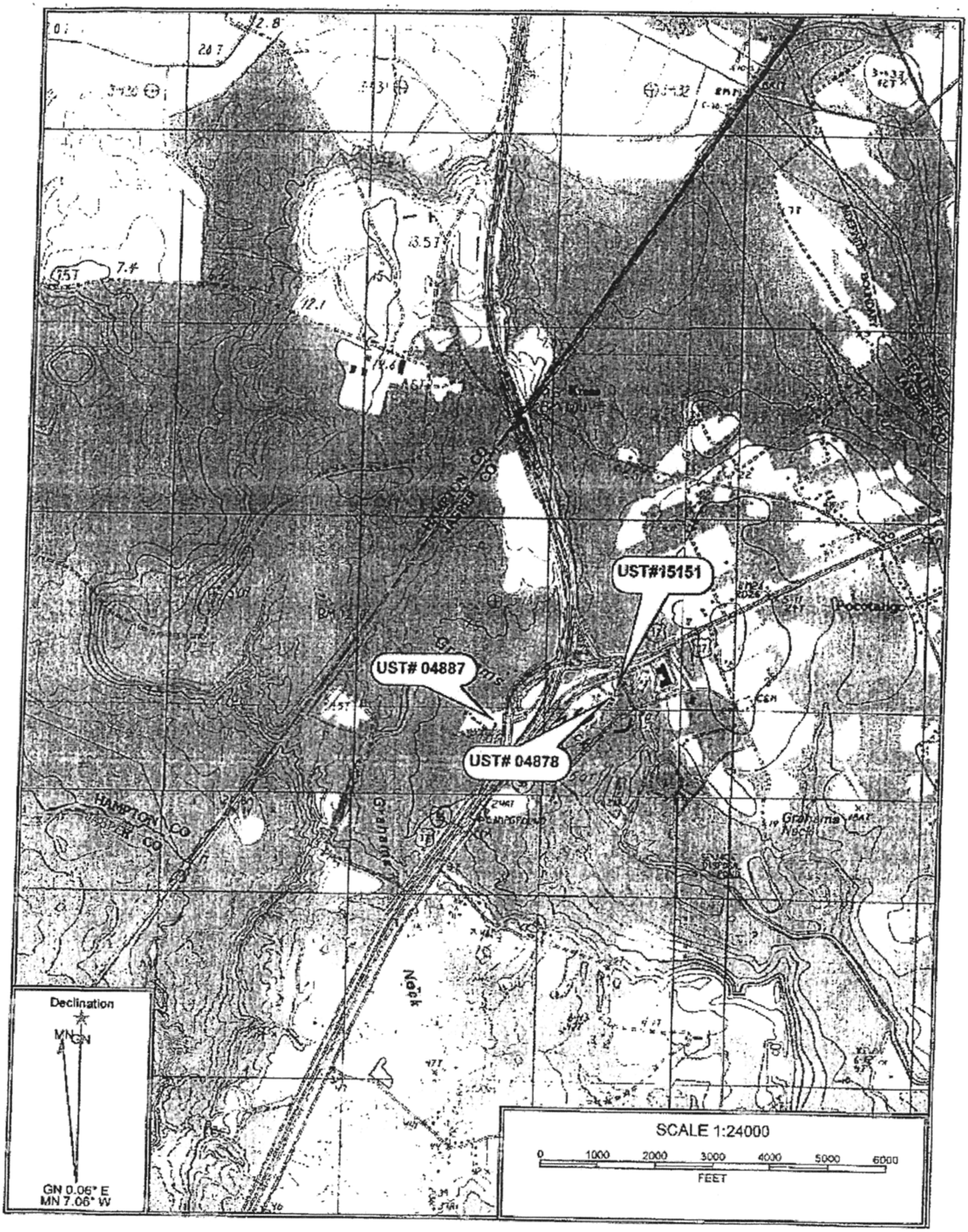
ASSESSMENT COMPONENT COST AGREEMENT
SOUTH CAROLINA

Department of Health and Environmental Control
Underground Storage Tank Management Division
State Underground Petroleum Environmental Response Bank Account
CONTRACT PO # 4600830568

dhec
Healthy People. Healthy Communities.

Facility Name: Warren Green
UST Permit #: 15688 **Cost Agreement #:** 66124

ITEM	QUANTITY	UNIT	UNIT PRICE		TOTAL
A. **Plan Preparation**					
1. Site Specific Work Plan	1	each	$450.50		$450.50
2. Tax Map	1	each	$53.00		$53.00
B. **Receptor Survey**		each	$53.00		$0.00
D. Mob/Demob					
2. Personnel	2	each	$646.60		$1,293.20
J. **Groundwater Sample Collection / Gauge Depth to Water or Product (Each)**					
1. Groundwater Purge	6	per well	$10.60		$63.60
2. Air or Vapors		per sample	$1.06		$0.00
3. Water Supply Sample	4	per sample	$42.40		$169.60
4. Groundwater No Purge/Surface Water	15	per sample	$8.48		$127.20
R-1. HydraSleeve		per sample	$24.38		$0.00
5. Gauge Well only		per data point	$1.06		$0.00
6. Sample Below Product		per well	$1.91		$0.00
7. Passive Diffusion Bag		per well	$26.50		$0.00
9. Groundwater (low flow purge)		per well	$26.50		$0.00
10. Equipment Blank		per day	$10.60		$0.00
Q. **Disposal (gallons or tons)**					
1. Wastewater	350	per gallon	$0.35		$122.50
2. Free Product		per gallon	$0.01		$0.00
R. **Miscellaneous**					
2. Additional Potentiometric Map		each above required two	$10.60		$0.00
3. Isopleth Map	7	each above required one	$53.00		$371.00
4. Data Table		per data set	$106.00		$0.00
5. Redraw/Digitize Site Map	1	each	$159.00		$159.00
6.Replace Well Lid	1	each	$10.60		$10.60
Y. **Well Repair**					
1. Additional Copies of Report Delivered		per copy	$10.60		$0.00
5. Replace well cover bolts	30	each	$6.36		$190.80
6. Replace locking well cap & lock	3	each	$10.60		$31.80
10. Replace missing/illegible well ID plate		each	$10.60		$0.00
Subtotal					**$3,042.80**
S. Report Preparation/Project Coordination		Percent of Subtotal	0%		
TOTAL					**$3,042.80**


UST#15151
UST# 04887
UST# 04878
HAMPTON CO
JASPER CO
Pocotaligo
Grahams Neck
Neck
Declination
MN GN
GN 0.06° E
MN 7.06° W
SCALE 1:24000
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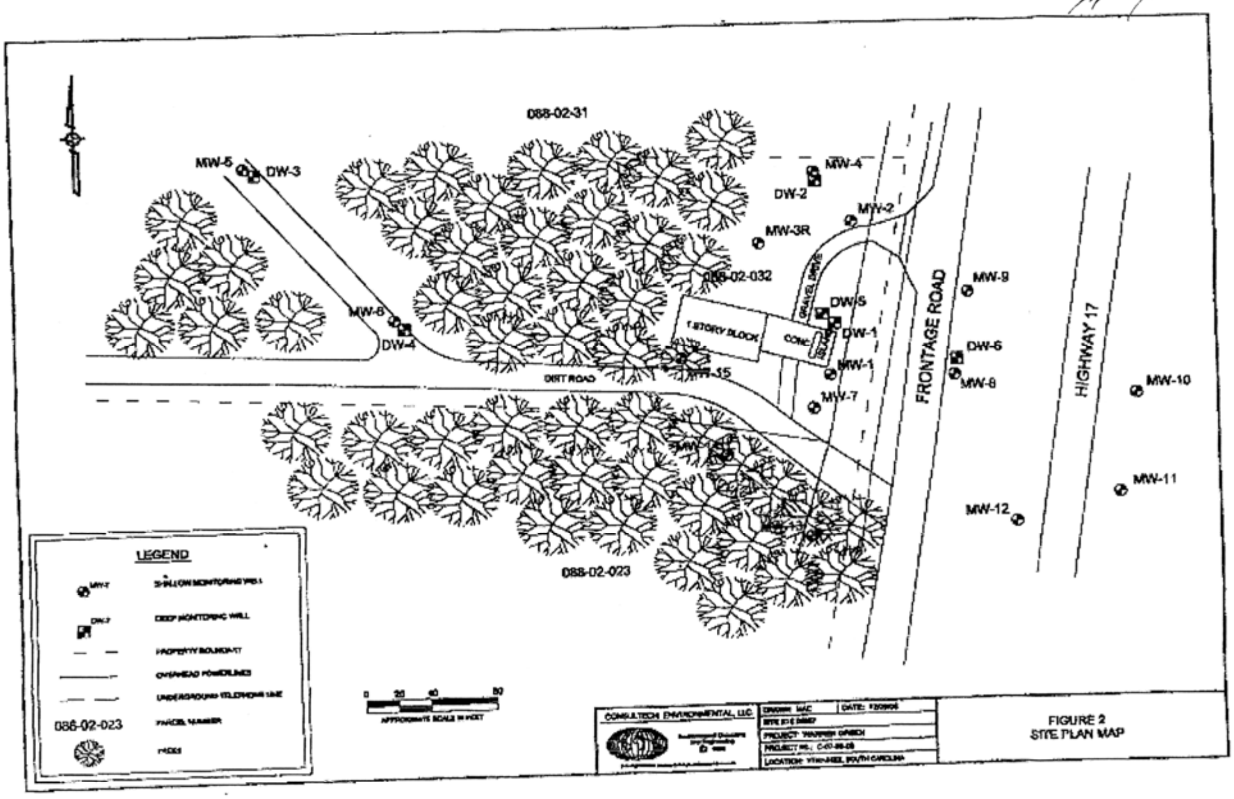
FEET

Provided Map is of poor quality and outdated. Due to the quality of this map, re-digitization was not requested or can be completed at this time. MECI recommends a Comprehensive Survey be performed.



dhec
Healthy People. Healthy Communities.

UST DOCKETING

NOV 17 2022

MR BRYAN SHANE PG
MIDLANDS ENVIRONMENTAL CONSULTANTS
PO BOX 854
LEXINGTON SC 29071

Re: Notice to Proceed Site-Specific Work Plan (SSWP) Approval
Groundwater Sampling Contract
Solicitation #IFB-5400021335, PO # 4600907252
Green Warren, 10773 West Frontage Road, Yemassee, SC
UST Permit #04887; MECI CA #66251; Pace CA #66252
Jasper County

Dear Mr. Shane:

In accordance with bid solicitation #IFB-5400021335, the SSWP has been reviewed and approved. A status report of the project should be provided on a weekly basis. If any quality assurance problems arise, you must contact me within 24 hours by phone or email.

Please coordinate access to the facility with the property owner. **Sampling should be conducted within 30 calendar days from the date of this letter. If the final report is not submitted within 60 days of the date of this correspondence, a late fee may be imposed.** The final report is to be submitted to the contract manager.

If you have any site-specific questions and/or contract specific questions, please contact Arthur Brown by email brownaj@dhec.sc.gov or phone (803) 898-0500.

Sincerely,

Arthur Brown, Hydrogeologist
Corrective Action & Field Support Section
UST Management Division
Bureau of Land & Waste Management

Enc: Approved Cost Agreement (both CAs)

Cc: Mr. Taylor Cannon, Pace Analytical Services, 9800 Kincey Ave, STE 100, Huntersville, NC, 28078 (w/ CA)
Technical File (w/ Enc)

Approved Cost Agreement 66251

Facility: 04887 GREEN, WARREN

BROWNAJ

PO Number: 907252-43

Task / Description Categories	Item Description	Qty / Pct	Unit Price	Amount
A PLAN PREPARATION				
	1 SITE SPECIFIC WORK PLAN	1.0000	$450.500	450.50
	2 TAX MAP	1.0000	$53.000	53.00
D MOB/DEMOB				
	2 PERSONNEL	2.0000	$646.600	1,293.20
J SAMPLE COLLECTION				
	1 GROUND WATER PURGE	6.0000	$10.600	63.60
	3 WATER SUPPLY SAMPLE/ DUPLICATE	4.0000	$42.400	169.60
	4 GROUNDWATER NO-PURGE/DUPL/GRAB	15.0000	$8.480	127.20
Q DISPOSAL				
	1 WASTEWATER	350.0000	$0.350	122.50
R MISCELLANEOUS				
	3. ISOPLETH MAP	7.0000	$53.000	371.00
	5. REDRAW/DIGITIZE SITE MAP	1.0000	$159.000	159.00
	6. REPLACE WELL LID	1.0000	$10.600	10.60
Y WELL REPAIR				
	5 REPLACE WELL COVER BOLTS	30.0000	$6.360	190.80
	6 REPLACE LOCKING WELL CAP & LOC	3.0000	$10.600	31.80
		Total Amount		3,042.80

Approved Cost Agreement 66252

Facility: 04887 GREEN, WARREN

BROWNAJ

PO Number: 907254-71

Task / Description	Categories	Item Description	Qty / Pct	Unit Price	Amount
K ANALYSES					
	DW DRINKING WATER	14 BTEXNM+1,2 DCA (524.2) WSW	7.0000	$44.350	310.45
		15 OXYGENATES & ETHANOL 8260B WSW	7.0000	$21.120	147.84
		16 EDB (504.1) WSW	6.0000	$23.230	139.38
	GW GROUNDWATER	1 BTEXNM+OXYGS+1,2-DCA+ETH-8260B	24.0000	$27.450	658.80
		7 EDB BY EPA 8011	23.0000	$23.230	534.29
			Total Amount		1,790.76

MONITORING REPORT

Warren Green
10773 West Frontage Road
Yemassee, South Carolina
Jasper County
UST Permit# 04887; CA# 66251
Solicitation# IFB-5400021335; PO# 4600907252

Prepared By:

Midlands Environmental Consultants, Inc.
231 Dooley Road, Lexington, SC 29073
(803) 808-2043 fax: 808-2048

January 31, 2023

MECI Project No. 22-7995

Midlands
Environmental
Consultants, Inc.

January 31, 2023

Mr. Arthur Brown, Hydrogeologist
Corrective Action Section
Underground Storage Tank Management Division
Bureau of Land and Waste Management
South Carolina Department of Health
and Environmental Control
2600 Bull Street
Columbia, South Carolina 29201

Subject: Report of Groundwater Sampling
Warren Green
10773 West Frontage Road
Yemassee, South Carolina
Jasper County
UST Permit# 04887; CA# 66251
MECI Project Number 22-7995
Certified Site Rehabilitation Contractor UCC-0009

Dear Mr. Brown,

Midlands Environmental Consultants Inc. (MECI) is pleased to submit the attached Report of Groundwater Sampling for the referenced site. This report describes site activities conducted at the site in general accordance with South Carolina Department of Health and Environmental Control's (SCDHEC) Quality Assurance Program Plan for the Underground Storage Tank Management Division (QAPP).

Midlands Environmental appreciates the opportunity to offer our professional environmental services to you on this project. Please feel free to contact us at 803-808-2043 if you have any immediate questions or comments.

Sincerely,
Midlands Environmental Consultants, Inc.

SOUTH CAROLINA REGISTERED PROFESSIONAL GEOLOGIST No. 1102 BRYAN T. SHANE

Jeff L. Coleman
Senior Scientist

Bryan T. Shane, P.G.
Principal Geologist

TABLE OF CONTENTS

TABLE OF CONTENTS (cont.)

**Not Applicable to Report

1.0 INTRODUCTION

i. Facility Information

Name:	Warren Green
Address:	10773 West Frontage Road, Yemassee, SC 29945
Telephone #:	N/A

ii. Owner/Operator Information

Name	Lasonya Eady, Reginald Bascom & Everette Bascom
Address	194 Oak Hill Road, Ridgeland, SC 29936
Telephone #	843-726-9038

iii. Property Owner Information

Name	Lasonya Eady, Etal.
Tax Map #:	Jasper County Tax Map#: 088-00-02-032
Address	189 Oak Hill Road, Ridgeland, SC 29936
Telephone #	843-726-9038

iv. Contractor Information

Name:	Midlands Environmental Consultants, Inc.
Certification #:	9
Address:	P. O. Box 854, Lexington, SC 29071
Telephone #:	(803) 808-2043

v. Facility History

Release Date:		5/28/2002	
Estimated Quantity of Release:		Unknown	
Other Releases at Facility:		N/A	
Release Ranking:		2BB	
Current Site Usage:		Vacant Lot	
Tank #	**Capacity/Product**	**In Use/Abandoned**	**Tank Status**
1	3,000 Gal. Gasoline	Rendered Non-usable	Out of compliance (9/10/2001)
2	3,000 Gal. Gasoline	Rendered Non-usable	Out of compliance (9/10/2001)
3	2,000 Gal. Gasoline	Rendered Non-usable	Out of compliance (9/10/2001)

2.0 RECEPTOR SURVEY & SITE DATA

i. Known Potential Receptors

Receptor ID#	Notes
WSW-1	235 Bowers Lane, Collected from Spigot on House (32.627995, -80.886757)
WSW-2	425 Bowers Lane, Collected from Spigot on Well (32.628673, -80.887550)
WSW-3	10951 Frontage Road, Inactive with no electrical supply (32.6311550, -80.8841174)
WSW-4	10943 Frontage Road, Collected from spigot on front of house (32.631229, -80.884500)
WSW-5	10939 West Frontage Road, Inactive with no electrical supply (32.6306801, -80.8847765)

ii. Receptor Survey Results

A receptor survey was not requested as part of the approved cost agreement.

iii. Site/Adjacent Land Usage (Residential, Commercial, Agricultural, Industrial, etc.)

Site	Residential
North	Residential/Agricultural
South	Agricultural
East	Major Highway
West	Residential/Agricultural
Permit #'s of UST Sites within 1,000' feet of site	N/A

3.0 SAMPLING AND CHEMICAL ANALYSES

On January 19, 2023, MECI personnel collected groundwater samples from nineteen (19) monitoring wells and three (3) water supply wells at the subject site. During sampling activities, monitoring wells MW-2 and MW-12R were unbale to be located. In addition, water supply wells WSW-3 and WSW-5 were both found to be inactive and currently not connected to an electrical supply. Based on the request by SCDHEC, only monitoring wells which did not bracket the watertable were to be purged prior to sample collection. Six (6) monitoring wells were purged prior to sample collection.

MECI personnel utilized an electronic water level indicator for water level measurements and an oil/water interface probe for free phase petroleum product level measurements. Where applicable, purging was completed by bailing at least five well volumes of water from the well, until pH, conductivity, dissolved oxygen and turbidity stabilized, or all water was evacuated from the well, whichever occurred first. Sampling/purging was completed utilizing a prepackaged, clear, disposable polyethylene bailer and nylon rope. A new set of nitrile gloves were worn at each monitoring well, and at all time samples were handled. Field measurements of pH, conductivity, dissolved oxygen, and water temperature were obtained before well sampling process. MECI utilized a YSI Pro20 meter for DO (mg/L) and temperature readings (°C), YSI Pro1030 meter for pH and conductivity (uS) readings and a MicroTPI turbidimeter for turbidity readings (NTU). The attached Field Data Information Sheets presents the results of the field measurements obtained. The wells were sampled in accordance with the most recent revision of SCDHEC's Quality Assurance Program Plan for the Underground Storage Tank Management Division and the most recent revision MECI's Standard Operating Procedures.

Groundwater samples obtained were sent to Pace Analytical Services, Inc. of Huntersville, NC (SCDHEC Laboratory Certification #99006001) for analysis.

The following sampling matrix contains well development and requested analyses for each well:

Sample ID	Purge	No Purge	Gauge Only	Low-Flow Sampling	Not Sampled	Not Located	BTEX, Naphthalene, MTBE, 1,2 DCA (EPA Method 8260D)	8 Oxygenates (EPA Method 8260D)	EDB (EPA Method 8011)	PAHs (EPA Method 8270E)	Total Lead (EPA Method 6010)	BTEX, Naphthalene, MTBE, 1,2 DCA (EPA Method 524.2)	EDB (EPA Method 504.1)
							Analyte Sampled						
MW-1		X					X	X	X				
MW-2						X							
MW-3R		X					X	X	X				
MW-4		X					X	X	X				

Notes: BTEX = Benzene, Toluene, Ethylbenzene, & Total Xylenes
MTBE=Methyl tertiary butyl ether
1,2 DCA = 1,2 Dichloroethane
EDB = Ethylene Dibromide

Sample ID	Purge	No Purge	Gauge Only	Low-Flow Sampling	Not Sampled	Not Located	BTEX, Naphthalene, MTBE, 1,2 DCA (EPA Method 8260D)	8 Oxygenates (EPA Method 8260D)	EDB (EPA Method 8011)	PAHs (EPA Method 8270E)	Total Lead (EPA Method 6010)	BTEX, Naphthalene, MTBE, 1,2 DCA (EPA Method 524.2)	EDB (EPA Method 504.1)
							Analyte Sampled						
MW-5		X					X	X	X				
MW-6R		X					X	X	X				
MW-7R		X					X	X	X				
MW-8		X					X	X	X				
MW-9		X					X	X	X				
MW-10		X					X	X	X				
MW-11R		X					X	X	X				
MW-12R						X							
MW-13R		X					X	X	X				
MW-14		X					X	X	X				
MW-15		X					X	X	X				
DW-1	X						X	X	X				
DW-2	X						X	X	X				
DW-3	X						X	X	X				
DW-4	X						X	X	X				
DW-5	X						X	X	X				
DW-6	X						X	X	X				
DUP.							X	X	X				
Field Blank							X	X	X				
Trip Blank							X	X					
WSW-1								X				X	X
WSW-2								X				X	X
WSW-3					X								
WSW-4								X				X	X
WSW-5					X								
WSW-DUP								X				X	X
WSW-FB								X				X	X
WSW-TB								X				X	

Notes: BTEX = Benzene, Toluene, Ethylbenzene, & Total Xylenes
MTBE=Methyl tertiary butyl ether
1,2 DCA = 1,2 Dichloroethane
EDB = Ethylene Dibromide

Purge water produced by the purging process was treated on-site utilizing a granular activated carbon unit. A total of 222.50 gallons of purge water was disposed of in this manner. A disposal manifest for the referenced purge water is attached in Appendix C and the required Post-GAC laboratory results is presented in Appendix B.

4.0 RESULTS AND DISCUSSION

- Review of groundwater elevation and topography indicates a groundwater flow direction to the southeast from the subject site.

- Free phase petroleum product was not detected in any of the monitoring wells. Of the twenty-two sampling points analyzed, three monitoring wells (MW-1, MW-7R, MW-8) detected petroleum constituents above Risked Based Screening Levels (RBSL's).

- Petroleum constituents detected above the established RBSL include:

Compound	***RBSL/SCAL (ug/l)***	***Wells Above RBSL***
Product	>0.01'	N/A
Benzene	5	MW-1, MW-7R, MW-8
Toluene	1,000	MW-1, MW-7R
Ethylbenzene	700	MW-1, MW-7R
Total Xylenes	10,000	MW-1, MW-7R
Naphthalene	25	MW-7R, MW-8
MTBE	40	N/A
1,2 DCA	5	N/A
EDB	0.05	MW-8
TAA	240	N/A
TAME	128	N/A
ETBA	NE	RBSL Not Established
TBA	1,400	N/A
TBF	NE	RBSL Not Established
DIPE	150	N/A
Ethanol	10,000	N/A
ETBE	47	N/A
Lead	15	N/A

- In order to assess precision, field duplicate samples were collected and analyzed along with the reviewed batch samples. The duplicated samples were analyzed for the same parameters as the associated parent samples. Precision is determined by calculating the Relative Percent Differences (RPD) between each pair of samples. The RPD control limit for the groundwater samples is 20%. Duplicate samples were collected from the parent samples of MW-7R & WSW-1. The precision for the target analytes were met for these samples. Furthermore, field blanks and trip blanks were collected and submitted during the groundwater sampling activities. No detectable concentrations of the requested method constituents were reported in either of the field or trip blanks.

5.0 QUALIFICATIONS OF REPORT

The activities and evaluative approaches used in this assessment are consistent with those normally employed in hydrogeological assessment and waste management projects of this type. Our evaluation of site conditions has been based on our understanding of the site, project information provided to us, and data obtained in our exploration. Contents of this report are intended for the sole use of MECI and SCDHEC under mutually agreed upon terms and conditions. If other parties wish to rely on this report, please contact MECI prior to their use of this information so that a mutual understanding and agreement of the terms and conditions of our services can be established.

-oOo-

TABLES

Table # 1
Summary of Analytical Results - Water Samples
WARREN GREEN
Facility ID# 04887

Analytical Method		EPA 8011	EPA 8260D																
Sample ID	Constituent of Concern	1,2-Dibromoethane (EDB)	1,2-Dichloroethane	3,3-Dimethyl-1-Butanol	Benzene	Diisopropyl ether	Ethanol	Ethyl-tert-butyl ether	Ethylbenzene	Methyl-tert-butyl ether	Naphthalene	Toluene	Xylene (Total)	m&p-Xylene	o-Xylene	tert-Amyl Alcohol	tert-Amylmethyl ether	tert-Butyl Alcohol	tert-Butyl Formate
	Date Collected (mm/dd/yy)	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
DUP-1	01/19/2023	**0.34**	<250	<5000	**1110**	<250	<10000	<500	**4150**	<250	**1010**	**8500**	**24400**	16900	7510	<5000	<500	<5000	<2500
DW-1	01/19/2023	<0.019	<5.0	<100	<5.0	<5.0	<200	<10.0	<5.0	<5.0	<5.0	<5.0	<5.0	<10.0	<5.0	<100	<10.0	<100	<50.0
DW-2	01/19/2023	<0.020	<5.0	<100	<5.0	<5.0	<200	<10.0	<5.0	<5.0	<5.0	<5.0	<5.0	<10.0	<5.0	<100	<10.0	<100	<50.0
DW-3	01/19/2023	<0.020	<5.0	<100	<5.0	<5.0	<200	<10.0	<5.0	<5.0	<5.0	<5.0	<5.0	<10.0	<5.0	<100	<10.0	<100	<50.0
DW-4	01/19/2023	<0.021	<5.0	<100	<5.0	<5.0	<200	<10.0	<5.0	<5.0	<5.0	<5.0	<5.0	<10.0	<5.0	<100	<10.0	<100	<50.0
DW-5	01/19/2023	<0.020	<5.0	<100	<5.0	<5.0	<200	<10.0	<5.0	<5.0	<5.0	<5.0	<5.0	<10.0	<5.0	<100	<10.0	<100	<50.0
DW-6	01/19/2023	<0.021	<5.0	<100	<5.0	<5.0	<200	<10.0	<5.0	<5.0	<5.0	<5.0	<5.0	<10.0	<5.0	<100	<10.0	<100	<50.0
FB	01/19/2023	<0.019	<5.0	<100	<5.0	<5.0	<200	<10.0	<5.0	<5.0	<5.0	<5.0	<5.0	<10.0	<5.0	<100	<10.0	<100	<50.0
MW-1	01/19/2023	<0.020	<1000	<20000	**2420**	<1000	<40000	<2000	**4800**	<1000	<1000	**27600**	**26400**	19900	6500	<20000	<2000	<20000	<10000
MW-10	01/19/2023	<0.020	<5.0	<100	<5.0	<5.0	<200	<10.0	<5.0	<5.0	<5.0	<5.0	<5.0	<10.0	<5.0	<100	<10.0	<100	<50.0
MW-11R	01/19/2023	<0.020	<5.0	<100	<5.0	<5.0	<200	<10.0	<5.0	<5.0	<5.0	<5.0	<5.0	<10.0	<5.0	<100	<10.0	<100	<50.0
MW-13R	01/19/2023	<0.020	<5.0	<100	<5.0	<5.0	<200	<10.0	<5.0	<5.0	<5.0	<5.0	<5.0	<10.0	<5.0	<100	<10.0	<100	<50.0
MW-14	01/19/2023	<0.020	<5.0	<100	<5.0	<5.0	<200	<10.0	<5.0	<5.0	<5.0	<5.0	<5.0	<10.0	<5.0	<100	<10.0	<100	<50.0
MW-15	01/19/2023	<0.019	<5.0	<100	<5.0	<5.0	<200	<10.0	<5.0	<5.0	<5.0	<5.0	<5.0	<10.0	<5.0	<100	<10.0	<100	<50.0
MW-3R	01/19/2023	<0.020	<5.0	<100	<5.0	<5.0	<200	<10.0	<5.0	<5.0	<5.0	<5.0	<5.0	<10.0	<5.0	<100	<10.0	<100	<50.0
MW-4	01/19/2023	<0.020	<5.0	<100	<5.0	<5.0	<200	<10.0	<5.0	<5.0	<5.0	<5.0	<5.0	<10.0	<5.0	<100	<10.0	<100	<50.0
MW-5	01/19/2023	<0.020	<5.0	<100	<5.0	<5.0	<200	<10.0	<5.0	<5.0	<5.0	<5.0	<5.0	<10.0	<5.0	<100	<10.0	<100	<50.0
MW-6R	01/19/2023	<0.020	<5.0	<100	<5.0	<5.0	<200	<10.0	<5.0	<5.0	<5.0	<5.0	<5.0	<10.0	<5.0	<100	<10.0	<100	<50.0
MW-7R	01/19/2023	**0.38**	<250	<5000	**1120**	<250	<10000	<500	**4350**	<250	**636**	**9020**	**25500**	18200	7290	<5000	<500	<5000	<2500
MW-8	01/19/2023	<0.020	<25.0	<500	**825**	<25.0	<1000	<50.0	262	<25.0	**145**	105	970	670	301	<500	<50.0	<500	<250
MW-9	01/19/2023	<0.020	<5.0	<100	<5.0	<5.0	<200	<10.0	<5.0	<5.0	<5.0	<5.0	<5.0	<10.0	<5.0	<100	<10.0	<100	<50.0
TB	01/19/2023	N/A	<5.0	<100	<5.0	<5.0	<200	<10.0	<5.0	<5.0	<5.0	<5.0	<5.0	<10.0	<5.0	<100	<10.0	<100	<50.0
South Carolina RBSL for Groundwater		0.05	5	N/A	5	150	10000	47	700	40	25	1000	10000	N/A	N/A	240	128	1400	N/A
South Carolina Action Levels for Groundwater		N/A	N/A	N/A	N/A	150	10000	47	N/A	N/A	N/A	N/A	N/A	N/A	N/A	240	128	1400	N/A

NOTES:

ND = Not Detected

ft. BGS = feet below ground surface

mg/L = milligrams per liter

ug/L = micrograms per liter

Bold data above the RBSL (Risk Based Screening Level)

Table # 1A
Summary of Analytical Results - Water Samples
WARREN GREEN
Facility ID# 04887

Analytical Method		EPA 504.1	EPA 524.2									EPA 8260D							
Sample ID	**Constituent of Concern**	1,2-Dibromoethane (EDB)	1,2-Dichloroethane	Benzene	Ethylbenzene	Methyl-tert-butyl ether	Naphthalene	Toluene	Xylene (Total)	m&p-Xylene	o-Xylene	3,3-Dimethyl-1-Butanol	Diisopropyl ether	Ethanol	Ethyl-tert-butyl ether	tert-Amyl Alcohol	tert-Amylmethyl ether	tert-Butyl Alcohol	tert-Butyl Formate
	Date Collected (mm/dd/yy)	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
WSW-1	01/19/2023	<0.020	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<0.50	<100	<1.0	<200	<10.0	<100	<10.0	<100	<50.0
WSW-2	01/19/2023	<0.020	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<0.50	<100	<1.0	<200	<10.0	<100	<10.0	<100	<50.0
WSW-4	01/19/2023	<0.020	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<0.50	<100	<1.0	<200	<10.0	<100	<10.0	<100	<50.0
WSW-DUP	01/19/2023	<0.020	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<0.50	<100	<1.0	<200	<10.0	<100	<10.0	<100	<50.0
WSW-FB	01/19/2023	<0.020	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<0.50	<100	<1.0	<200	<10.0	<100	<10.0	<100	<50.0
WSW-TB	01/19/2023	N/A	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<0.50	<100	<1.0	<200	<10.0	<100	<10.0	<100	<50.0
South Carolina RBSL for Groundwater		0.05	5	5	700	40	25	1000	10000	N/A	N/A	N/A	150	10000	47	240	128	1400	N/A
South Carolina Action Levels for Groundwater		N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	150	10000	47	240	128	1400	N/A

NOTES:

ND = Not Detected

ft. BGS = feet below ground surface

mg/L = milligrams per liter

ug/L = micrograms per liter

Bold data above the RBSL (Risk Based Screening Level)

<u>**Table 2**</u>
<u>**Site Activity Summary**</u>

UST Permit #: 04887
Facility Name: Warren Green
County: Jasper
Field Personnel: H.Sloan, S. Sprott, J. Canavan

Midlands Environmental Consultants, Inc.
231 Dooley Road, Lexington, SC 29073
(803) 808-2043 fax: 808-2048

Sample ID	Sampled?	Date	Time	Screened Interval	Depth to Product (ft)	Depth to Water (ft)	Product Thickness (ft)	TOC Elevation	Groundwater Elevation	Initial DO (mg/l)	# Gals. Purged	Comments
MW-1	Y	1/19/23	13:14	2-12	***	3.14	***	97.69	94.55	2.02	0.00	Odor, Added 2 Bolts
MW-2	N	1/19/23	NL	5-15	***	NL	***	98.61	NL	NL	0.00	NL = Not Located, Possibly under gravel/resurfacing debris
MW-3R	Y	1/19/23	11:47	5-20	***	9.94	***	98.19	88.25	2.31	0.00	No Odor, Reaplced Well Cap, Added 2 Bolts
MW-4	Y	1/19/23	12:12	5-20	***	7.86	***	98.32	90.46	2.44	0.00	No Odor, Added 1 Bolt
MW-5	Y	1/19/23	10:58	5-20	***	6.23	***	96.88	90.65	2.16	0.00	No Odor, Added Well Cap, Vault/Pad heavily damaged and has no lid and cannot currently be replaced in current state
MW-6R	Y	1/19/23	11:00	5-20	***	6.48	***	96.90	90.42	2.18	0.00	No Odor, Unable to add locking bolts
MW-7R	Y	1/19/23	13:07	5-20	***	7.52	***	97.69	90.17	1.80	0.00	Strong Odor, Vault/Pad damaged and in need of replacement
MW-8	Y	1/19/23	11:15	5-20	***	9.34	***	99.44	90.10	1.71	0.00	Slight Odor, Added 1 Bolt
MW-9	Y	1/19/23	11:17	5-20	***	9.08	***	99.32	90.24	1.55	0.00	No Odor, Added 2 Bolts
MW-10	Y	1/19/23	11:07	5-20	***	8.56	***	101.26	92.70	2.72	0.00	No Odor, Unable to add locking bolts
MW-11R	Y	1/19/23	11:09	5-20	***	7.84	***	101.38	93.54	1.79	0.00	No Odor, Unable to add locking bolts
MW-12R	N	1/19/23	NL	5-20	***	NL	***	98.12	NL	NL	0.00	NL = Not Located, Possibly destroyed
MW-13R	Y	1/19/23	11:24	5-20	***	7.68	***	97.33	89.65	3.28	0.00	No Odor
MW-14	Y	1/19/23	11:40	5-20	***	7.22	***	97.39	90.17	2.57	0.00	No Odor
MW-15	Y	1/19/23	11:31	5-20	***	7.02	***	97.22	90.20	3.54	0.00	No Odor, Unable to add locking bolts
											0.00	**TOTAL GALLONS PURGED**

Table 2
Site Activity Summary

UST Permit #:	04887
Facility Name:	Warren Green
County:	Jasper
Field Personnel:	H.Sloan, S. Sprott, J. Canavan

Midlands Environmental Consultants, Inc.
231 Dooley Road, Lexington, SC 29073
(803) 808-2043 fax: 808-2048

Sample ID	Sampled?	Date	Time	Screened Interval	Depth to Product (ft)	Depth to Water (ft)	Product Thickness (ft)	TOC Elevation	Groundwater Elevation	Initial DO (mg/l)	# Gals. Purged	Comments
DW-1	Y	1/19/23	13:27	45-50	***	0.28	***	97.84	97.56	3.25	41.00	No Odor, Replaced Well Cap, Added 2 Bolts
DW-2	Y	1/19/23	12:35	45-50	***	6.11	***	98.31	92.20	3.99	36.00	No Odor, Added 2 Bolts
DW-3	Y	1/19/23	10:51	45-50	***	13.32	***	96.83	83.51	4.21	30.00	No Odor, Unable to add locking bolts
DW-4	Y	1/19/23	10:55	45-50	***	12.10	***	96.75	84.65	4.15	31.00	No Odor, Added 1 Bolt
DW-5	Y	1/19/23	14:10	80-85	***	1.86	***	98.09	96.23	4.85	41.50	No Odor, Added 2 Bolts
DW-6	Y	1/19/23	14:00	80-85	***	0.01	***	99.26	99.25	2.28	43.00	No Odor
DUP-1	Y	1/19/23	13:07	***	***	***	***	***	***	***	***	Duplicate of MW-7R
Field Blank	Y	1/19/23	14:15	***	***	***	***	***	***	***	***	Field Blank
Trip Blank	Y	1/19/23	8:00	***	***	***	***	***	***	***	***	Trip Blank
WSW-1	Y	1/19/23	13:28	***	***	***	***	***	***	***	***	235 Bowers Lane, Collected from Spigot on House (32.627995, -80.886757)
WSW-2	Y	1/19/23	13:36	***	***	***	***	***	***	***	***	425 Bowers Lane, Collected from Spigot on Well (32.628673, -80.887550)
WSW-3	N	1/19/23	NS	***	***	***	***	***	***	***	***	10951 Frontage Road, Inactive with no electrical supply (32.6311550, -80.8841174)
WSW-4	Y	1/19/23	13:47	***	***	***	***	***	***	***	***	10943 Frontage Road, Collected from spigot on front of house (32.631229, -80.884500)
WSW-5	N	1/19/23	NS	***	***	***	***	***	***	***	***	10939 West Frontage Road, Inactive with no electrical supply (32.6306801, -80.8847765)
WSW-DUP	Y	1/19/23	13:28	***	***	***	***	***	***	***	***	Duplicate of WSW-1
											222.50	**TOTAL GALLONS PURGED**

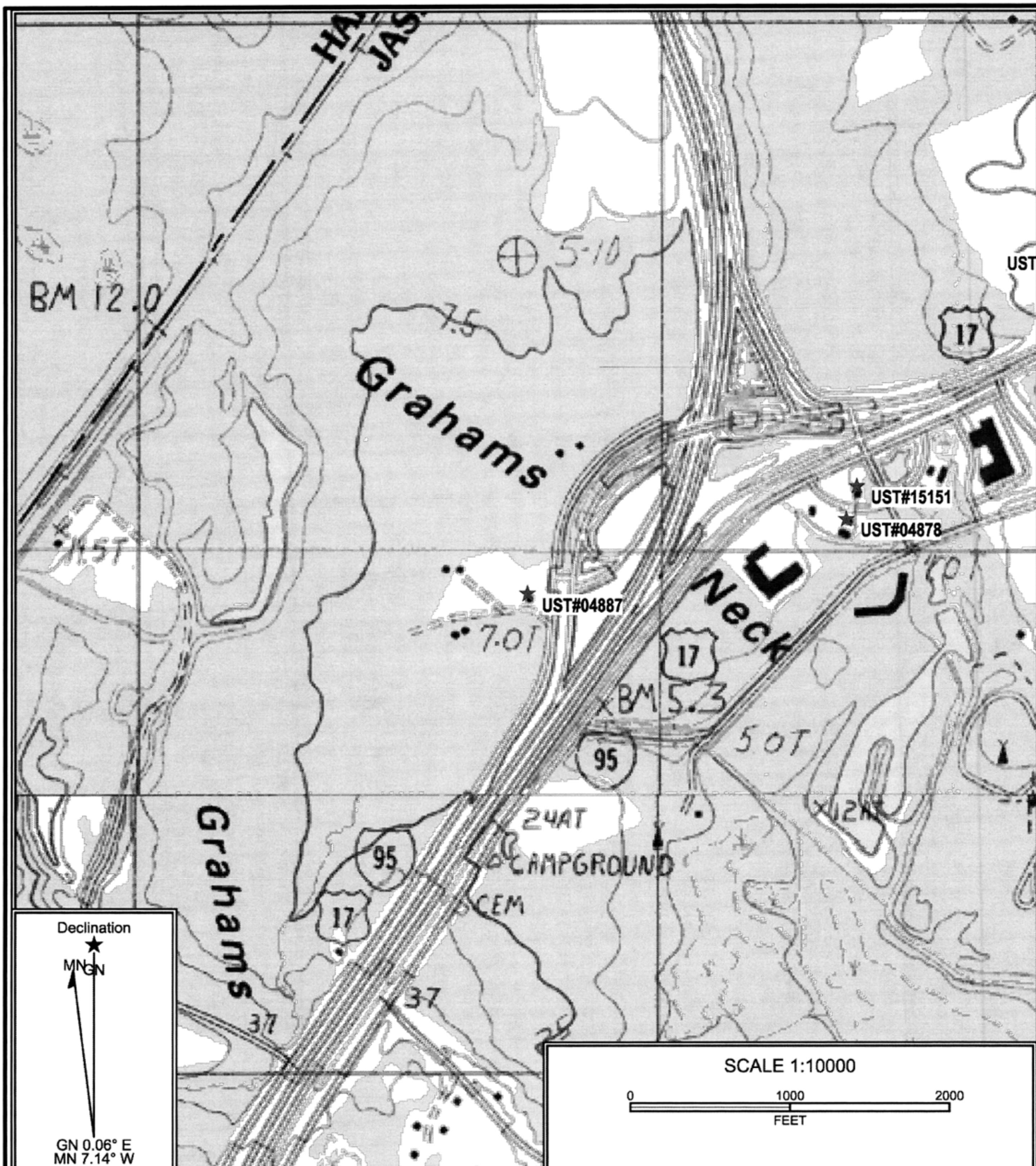
Table 2
Site Activity Summary

UST Permit #: 04887
Facility Name: Warren Green
County: Jasper
Field Personnel: H.Sloan, S. Sprott, J. Canavan

Midlands Environmental Consultants, Inc.
231 Dooley Road, Lexington, SC 29073
(803) 808-2043 fax: 808-2048

Sample ID	Sampled?	Date	Time	Screened Interval	Depth to Product (ft)	Depth to Water (ft)	Product Thickness (ft)	TOC Elevation	Groundwater Elevation	Initial DO (mg/l)	# Gals. Purged	Comments
Field Blank	Y	1/19/23	13:50	***	***	***	***	***	***	***	***	Field Blank
Trip Blank	Y	1/19/23	8:00	***	***	***	***	***	***	***	***	Trip Blank
											0.00	**TOTAL GALLONS PURGED**

FIGURES



Reference: McPhersonville, South Carolina
USGS 7.5 Min. Quad
Contour Interval – 1.50 Meters

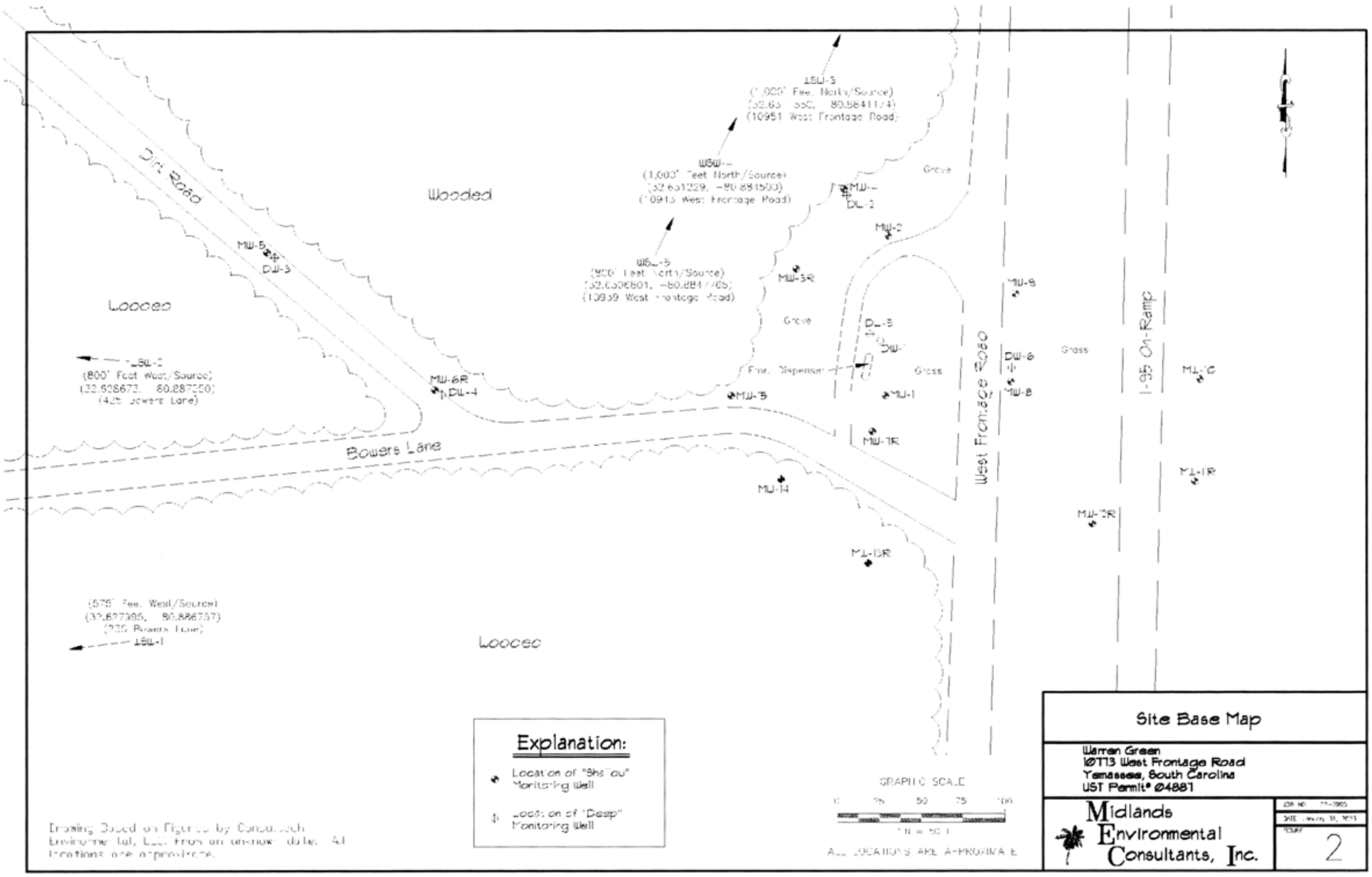
Midlands Environmental Consultants, Inc.

Site Location

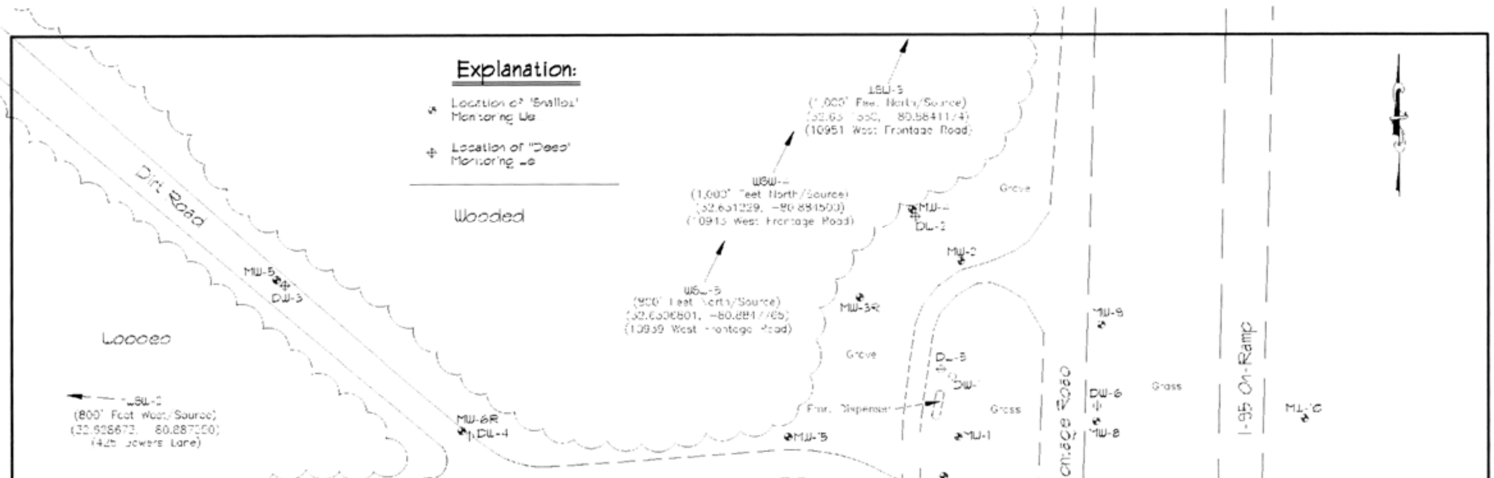
Warren Green
10773 West Frontage Road, Yemassee, SC
UST Permit# 00712

Figure 1

MECI 22-7995



Dirt Road
Wooded
Wooded
Wooded
Grass
Grove
Bowers Lane
West Frontage Road
I-95 On-Ramp
MW-5
MW-3R
MW-6R
MW-1
MW-1R
MW-2
MW-8
MW-9
MW-14
Explanation:
Location of "Shallow" Monitoring Well
Location of "Deep" Monitoring Well
(10951 West Frontage Road)
(10959 West Frontage Road)
GRAPHIC SCALE
0 25 50 75 100
Site Base Map
Warren Green
10T13 West Frontage Road
Yemassee, South Carolina
UST Permit# 04887
Midlands Environmental Consultants, Inc.
FIGURE
2



Analytical Method		EPA 8011	EPA 8260B																
Sample ID	Constituent of Concern	1,2-Dibromoethane (EDB)	1,2-Dichloroethane	3,3-Dimethyl-1-Butanol	Benzene	Diisopropyl ether	Ethanol	Ethyl tert-butyl ether	Ethylbenzene	Methyl tert-butyl ether	Naphthalene	Toluene	Xylene (Total)	m&p-Xylene	o-Xylene	tert-Amyl Alcohol	tert-Amyl methyl ether	tert-Butyl Alcohol	tert-Butyl Formate
	Date Collected (mm/dd/yy)	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
DUP-1	10/15/2023	6.84	<250	<5000	1110	<250	<10000	<500	1150	<250	1800	8840	39100	31900	7510	<5000	<500	<5000	<2500
DW-1	10/15/2023	<0.015	<5.0	<100	<5.0	<5.0	<200	<10.0	<5.0	<5.0	<5.0	<5.0	<5.0	<10.0	<5.0	<100	<10.0	<100	<50.0
DW-2	10/15/2023	<0.020	<5.0	<100	<5.0	<5.0	<200	<10.0	<5.0	<5.0	<5.0	<5.0	<5.0	<10.0	<5.0	<100	<10.0	<100	<50.0
DW-3	10/15/2023	<0.020	<5.0	<100	<5.0	<5.0	<200	<10.0	<5.0	<5.0	<5.0	<5.0	<5.0	<10.0	<5.0	<100	<10.0	<100	<50.0
DW-4	10/07/2023	<0.020	<5.0	<100	<5.0	<5.0	<200	<10.0	<5.0	<5.0	<5.0	<5.0	<5.0	<10.0	<5.0	<100	<10.0	<100	<50.0
DW-5	10/07/2023	<0.020	<5.0	<100	<5.0	<5.0	<200	<10.0	<5.0	<5.0	<5.0	<5.0	<5.0	<10.0	<5.0	<100	<10.0	<100	<50.0
DW-6	10/15/2023	<0.019	<5.0	<100	<5.0	<5.0	<200	<10.0	<5.0	<5.0	<5.0	<5.0	<5.0	<10.0	<5.0	<100	<10.0	<100	<50.0
FB	10/15/2023	<0.015	<5.0	<100	<5.0	<5.0	<200	<10.0	<5.0	<5.0	<5.0	<5.0	<5.0	<10.0	<5.0	<100	<10.0	<100	<50.0
MW-1	10/15/2023	<0.020	<1000	<20000	2420	<1000	<40000	<2000	4860	<1000	<1000	27800	26400	19900	6530	<20000	<2000	<20000	<10000
MW-10	10/15/2023	<0.020	<5.0	<100	<5.0	<5.0	<200	<10.0	<5.0	<5.0	<5.0	<5.0	<5.0	<10.0	<5.0	<100	<10.0	<100	<50.0
MW-11R	10/15/2023	<0.020	<5.0	<100	<5.0	<5.0	<200	<10.0	<5.0	<5.0	<5.0	<5.0	<5.0	<10.0	<5.0	<100	<10.0	<100	<50.0
MW-13R	10/15/2023	<0.020	<5.0	<100	<5.0	<5.0	<200	<10.0	<5.0	<5.0	<5.0	<5.0	<5.0	<10.0	<5.0	<100	<10.0	<100	<50.0
MW-14	10/15/2023	<0.020	<5.0	<100	<5.0	<5.0	<200	<10.0	<5.0	<5.0	<5.0	<5.0	<5.0	<10.0	<5.0	<100	<10.0	<100	<50.0
MW-15	10/15/2023	<0.019	<5.0	<100	<5.0	<5.0	<200	<10.0	<5.0	<5.0	<5.0	<5.0	<5.0	<10.0	<5.0	<100	<10.0	<100	<50.0
MW-3R	10/15/2023	<0.020	<5.0	<100	<5.0	<5.0	<200	<10.0	<5.0	<5.0	<5.0	<5.0	<5.0	<10.0	<5.0	<100	<10.0	<100	<50.0
MW-4	10/07/2023	<0.020	<5.0	<100	<5.0	<5.0	<200	<10.0	<5.0	<5.0	<5.0	<5.0	<5.0	<10.0	<5.0	<100	<10.0	<100	<50.0
MW-5	10/15/2023	<0.020	<5.0	<100	<5.0	<5.0	<200	<10.0	<5.0	<5.0	<5.0	<5.0	<5.0	<10.0	<5.0	<100	<10.0	<100	<50.0
MW-6R	10/15/2023	<0.020	<5.0	<100	<5.0	<5.0	<200	<10.0	<5.0	<5.0	<5.0	<5.0	<5.0	<10.0	<5.0	<100	<10.0	<100	<50.0
MW-7R	10/15/2023	6.88	<250	<5000	1120	<250	<10000	<500	1150	<250	688	9670	29100	31100	7280	<5000	<500	<5000	<2100
MW-8	10/15/2023	<0.020	<25.0	<500	825	<25.0	<1000	<50.0	363	<25.0	145	105	970	870	100	<500	<50.0	<500	<250
MW-9	10/15/2023	<0.020	<5.0	<100	<5.0	<5.0	<200	<10.0	<5.0	<5.0	<5.0	<5.0	<5.0	<10.0	<5.0	<100	<10.0	<100	<50.0
TB	10/15/2023	N/A	<5.0	<100	<5.0	<5.0	<200	<10.0	<5.0	<5.0	<5.0	<5.0	<5.0	<10.0	<5.0	<100	<10.0	<100	<50.0
South Carolina RBSL for Groundwater		0.05	5	N/A	5	150	10000	47	700	40	25	1000	10000	N/A	N/A	240	128	1400	N/A
South Carolina Action Levels for Groundwater		N/A	N/A	N/A	N/A	150	10000	47	N/A	N/A	N/A	N/A	N/A	N/A	N/A	240	128	1400	N/A

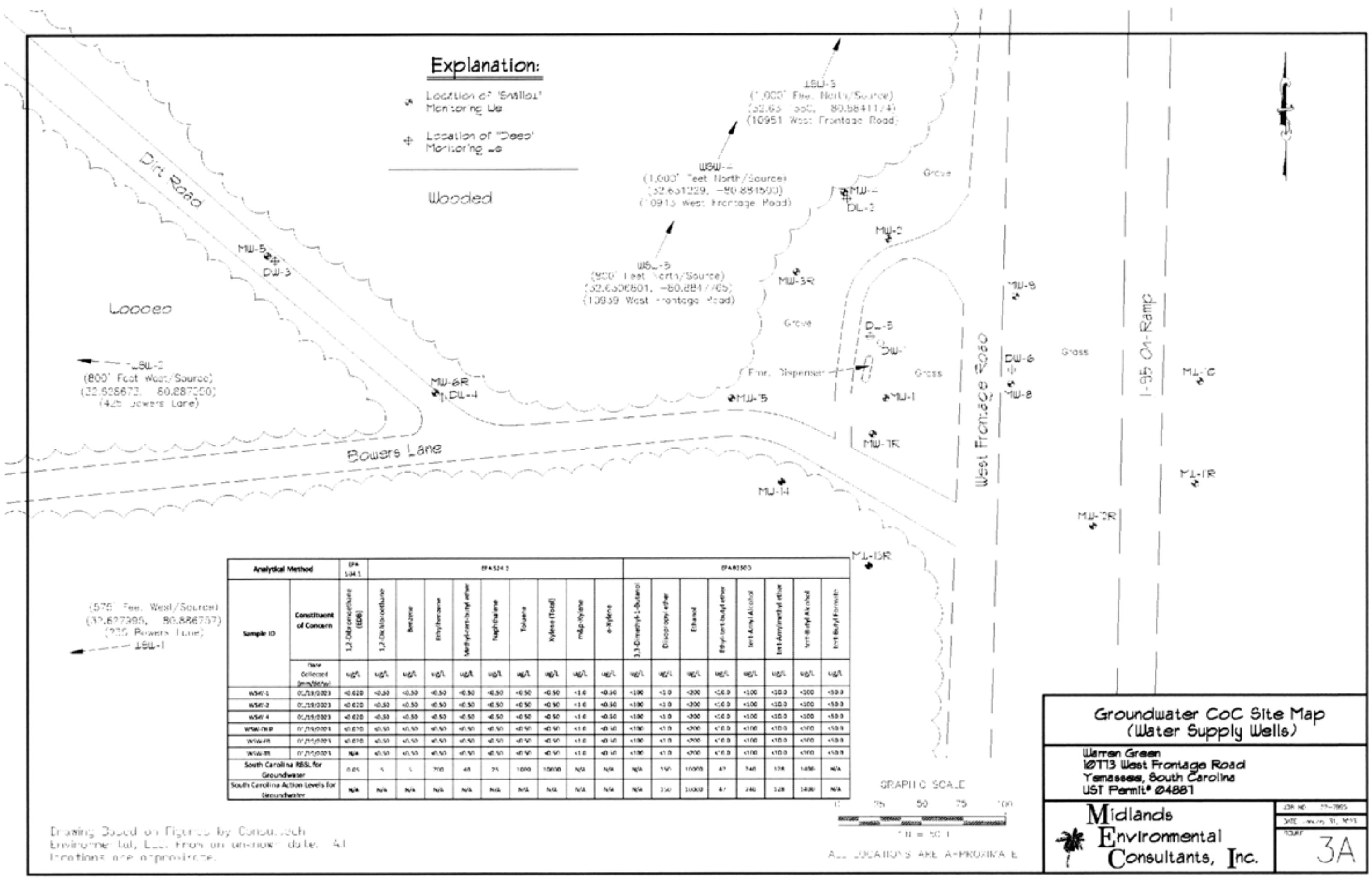
Drawing Based on Figures by Consultech Environmental, LLC. From an unknown date. All locations are approximate.

Groundwater CoC Site Map

Warren Green
10713 West Frontage Road
Yemassee, South Carolina
UST Permit # 04881

Midlands Environmental Consultants, Inc.

FIGURE 3



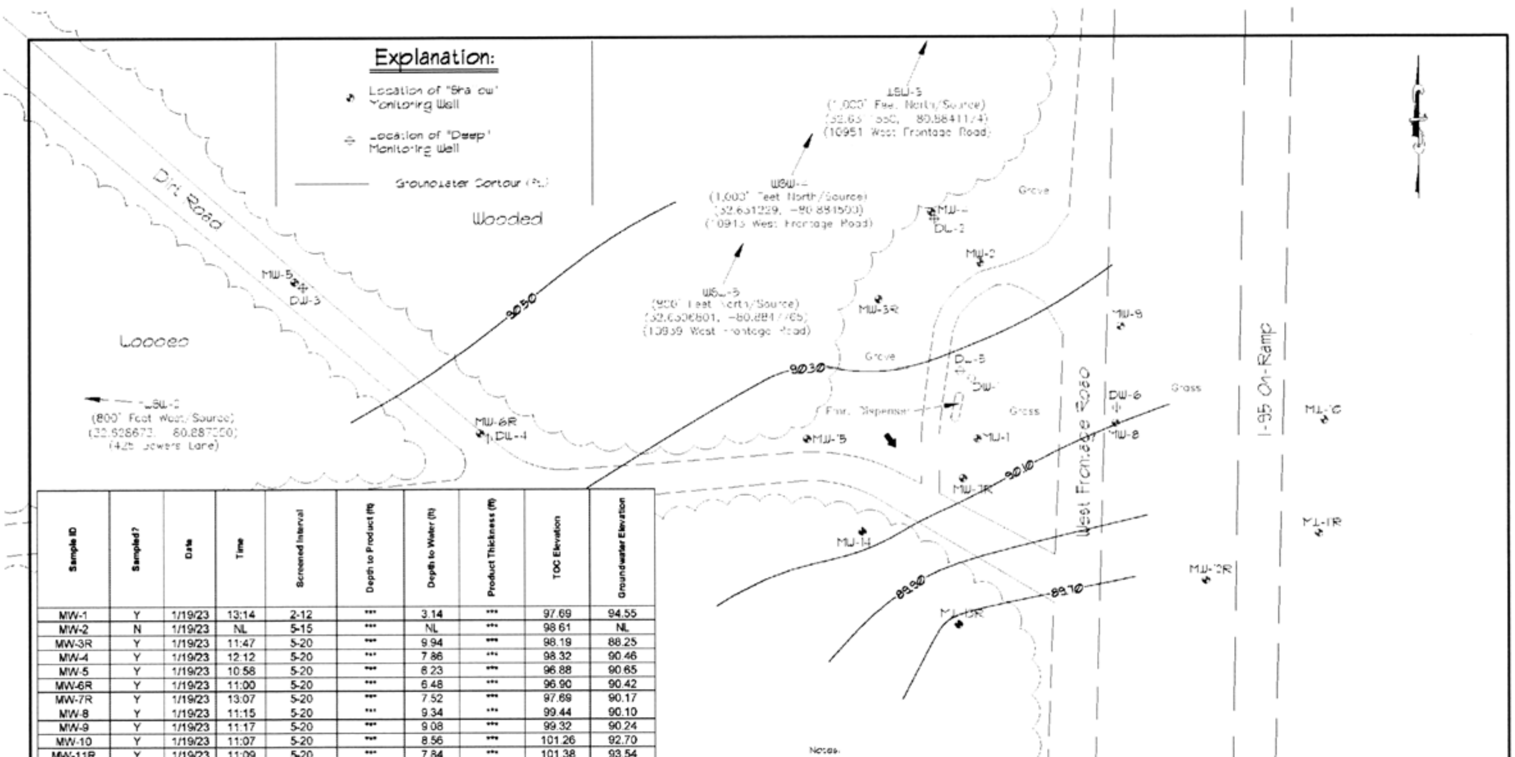
Analytical Method		EPA 504.1	EPA 524.2										EPA 8260D							
Sample ID	Constituent of Concern	1,2-Dibromoethane (EDB)	1,2-Dichloroethane	Benzene	Ethylbenzene	Methyl-tert-butyl ether	Naphthalene	Toluene	Xylene (Total)	m&p-Xylene	o-Xylene	3,3-Dimethyl-1-Butanol	Diisopropyl ether	Ethanol	Ethyl-tert-butyl ether	tert-Amyl Alcohol	tert-Amylmethyl ether	tert-Butyl Alcohol	tert-Butyl Formate
	Date Collected (mm/dd/yy)	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
WSW-1	01/19/2023	<0.020	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<0.50	<100	<1.0	<200	<10.0	<100	<10.0	<100	<50.0
WSW-2	01/19/2023	<0.020	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<0.50	<100	<1.0	<200	<10.0	<100	<10.0	<100	<50.0
WSW-4	01/19/2023	<0.020	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<0.50	<100	<1.0	<200	<10.0	<100	<10.0	<100	<50.0
WSW-DUP	01/19/2023	<0.020	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<0.50	<100	<1.0	<200	<10.0	<100	<10.0	<100	<50.0
WSW-FB	01/19/2023	<0.020	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<0.50	<100	<1.0	<200	<10.0	<100	<10.0	<100	<50.0
WSW-TB	01/19/2023	N/A	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<0.50	<100	<1.0	<200	<10.0	<100	<10.0	<100	<50.0
South Carolina RBSL for Groundwater		0.05	5	5	700	40	25	1000	10000	N/A	N/A	N/A	150	10000	47	240	128	1400	N/A
South Carolina Action Levels for Groundwater		N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	150	10000	47	240	128	1400	N/A

Groundwater CoC Site Map (Water Supply Wells)

Warren Green
10713 West Frontage Road
Yemassee, South Carolina
UST Permit# 04881

Midlands Environmental Consultants, Inc.

JOB NO. 22-2995
DATE January 31, 2023
FIGURE 3A



Sample ID	Sampled?	Date	Time	Screened Interval	Depth to Product (ft)	Depth to Water (ft)	Product Thickness (ft)	TOC Elevation	Groundwater Elevation
MW-1	Y	1/19/23	13:14	2-12	***	3.14	***	97.69	94.55
MW-2	N	1/19/23	NL	5-15	***	NL	***	98.61	NL
MW-3R	Y	1/19/23	11:47	5-20	***	9.94	***	98.19	88.25
MW-4	Y	1/19/23	12:12	5-20	***	7.86	***	98.32	90.46
MW-5	Y	1/19/23	10:58	5-20	***	6.23	***	96.88	90.65
MW-6R	Y	1/19/23	11:00	5-20	***	6.48	***	96.90	90.42
MW-7R	Y	1/19/23	13:07	5-20	***	7.52	***	97.69	90.17
MW-8	Y	1/19/23	11:15	5-20	***	9.34	***	99.44	90.10
MW-9	Y	1/19/23	11:17	5-20	***	9.08	***	99.32	90.24
MW-10	Y	1/19/23	11:07	5-20	***	8.56	***	101.26	92.70
MW-11R	Y	1/19/23	11:09	5-20	***	7.84	***	101.38	93.54
MW-12R	N	1/19/23	NL	5-20	***	NL	***	98.12	NL
MW-13R	Y	1/19/23	11:24	5-20	***	7.68	***	97.33	89.65
MW-14	Y	1/19/23	11:40	5-20	***	7.22	***	97.39	90.17
MW-15	Y	1/19/23	11:31	5-20	***	7.02	***	97.22	90.20
DW-1	Y	1/19/23	13:27	45-50	***	0.28	***	97.84	97.56
DW-2	Y	1/19/23	12:35	45-50	***	6.11	***	98.31	92.20
DW-3	Y	1/19/23	10:51	45-50	***	13.32	***	96.83	83.51
DW-4	Y	1/19/23	10:55	45-50	***	12.10	***	96.75	84.65
DW-5	Y	1/19/23	14:10	80-85	***	1.86	***	98.09	96.23
DW-6	Y	1/19/23	14:00	80-85	***	0.01	***	99.26	99.25

Drawing Based on Figures by Consultech Environmental, LLC. From an unknown date. All locations are approximate.

Notes:

Contour Interval = 0.20 Feet

Monitoring well MW-1, MW-3, MW-10, MW-11 and "Deep" wells not used in contouring.

Contours Computer Generated using Surfer by Golden Graphics and Modified by MECI Personnel.

GRAPHIC SCALE

0 25 50 75 100

1 in = 50 ft

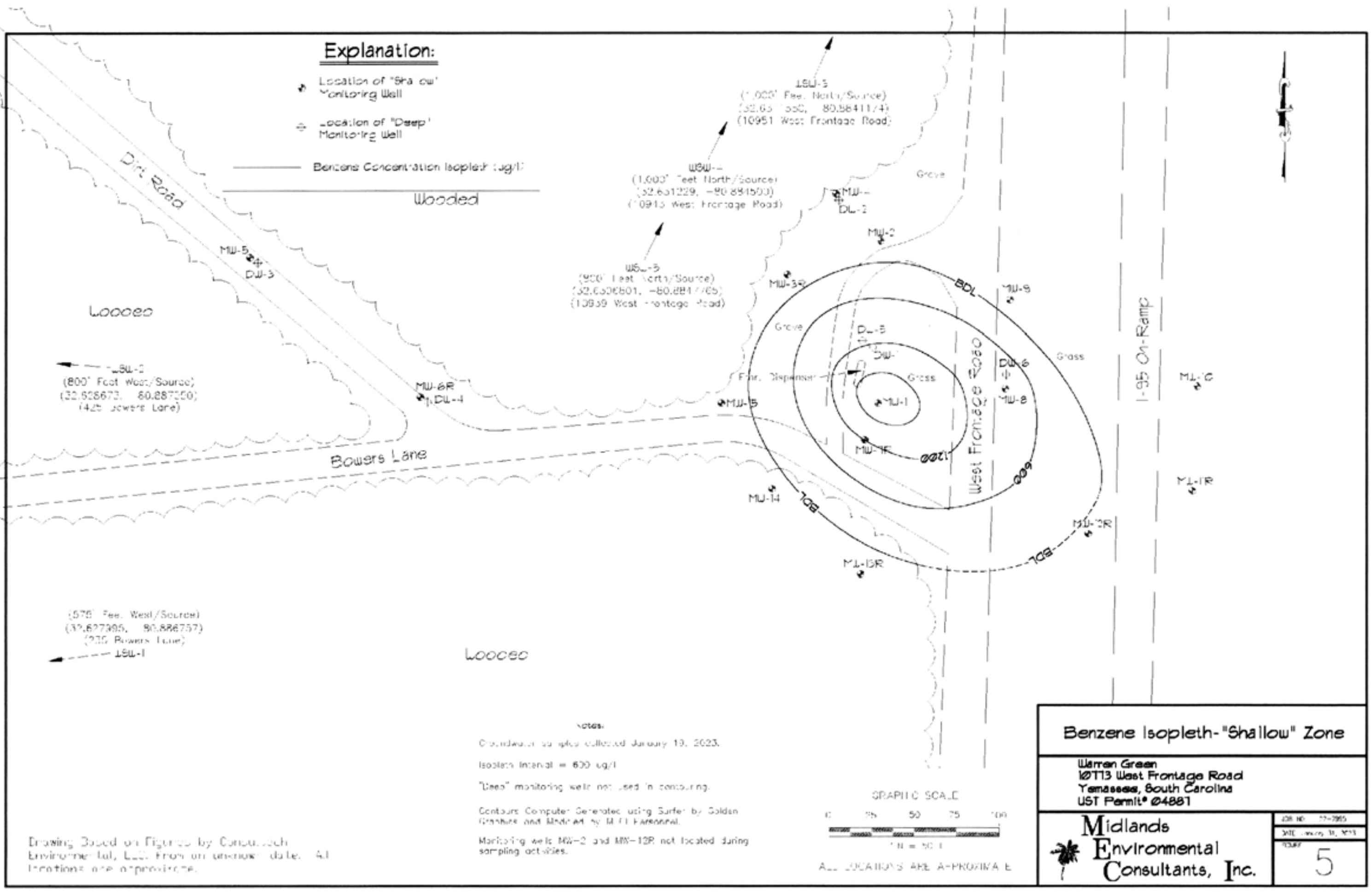
ALL LOCATIONS ARE APPROXIMATE

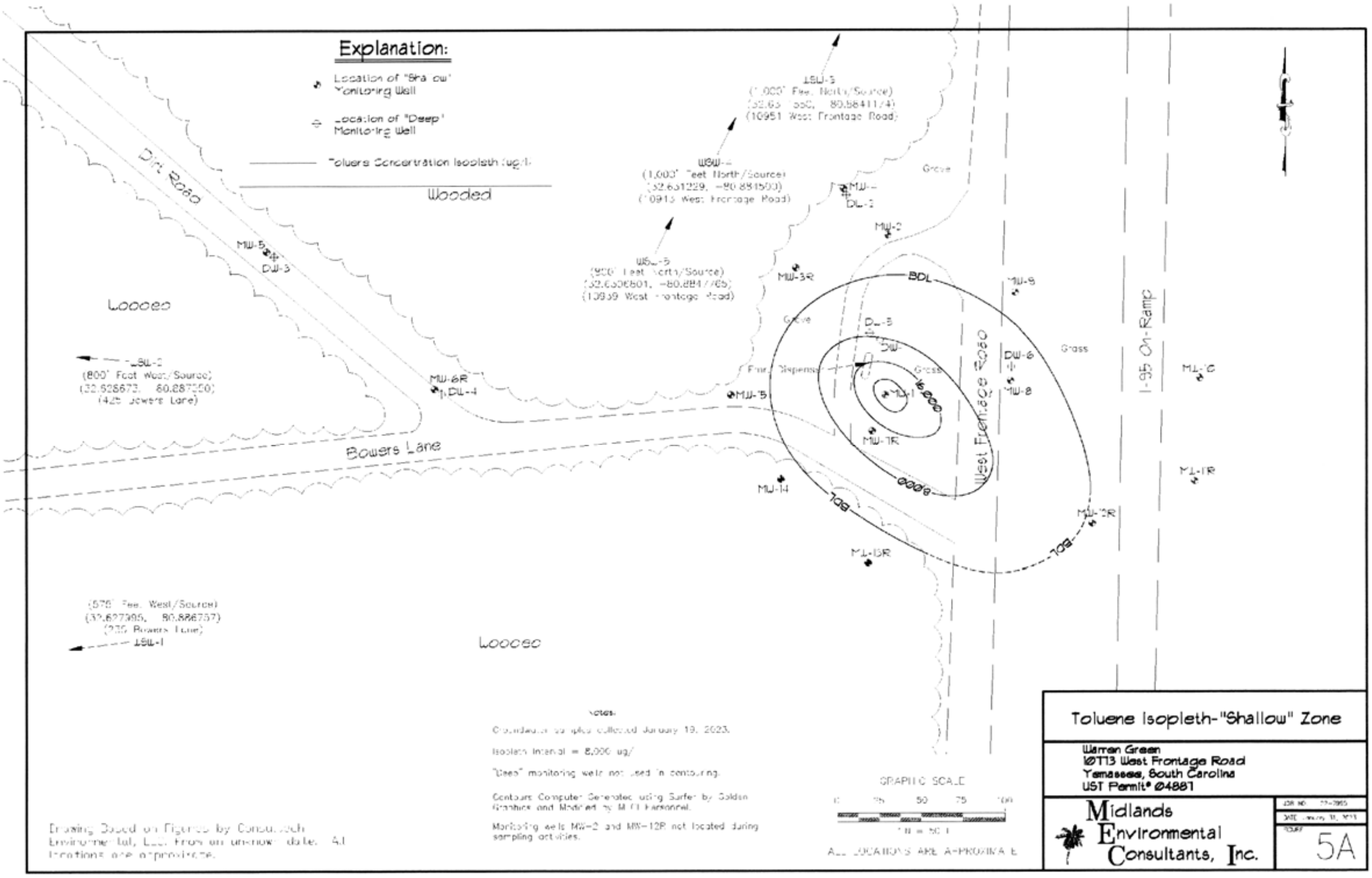
Potentiometric Data Site Map

Warren Green
10T13 West Frontage Road
Yemassee, South Carolina
UST Permit# 04887

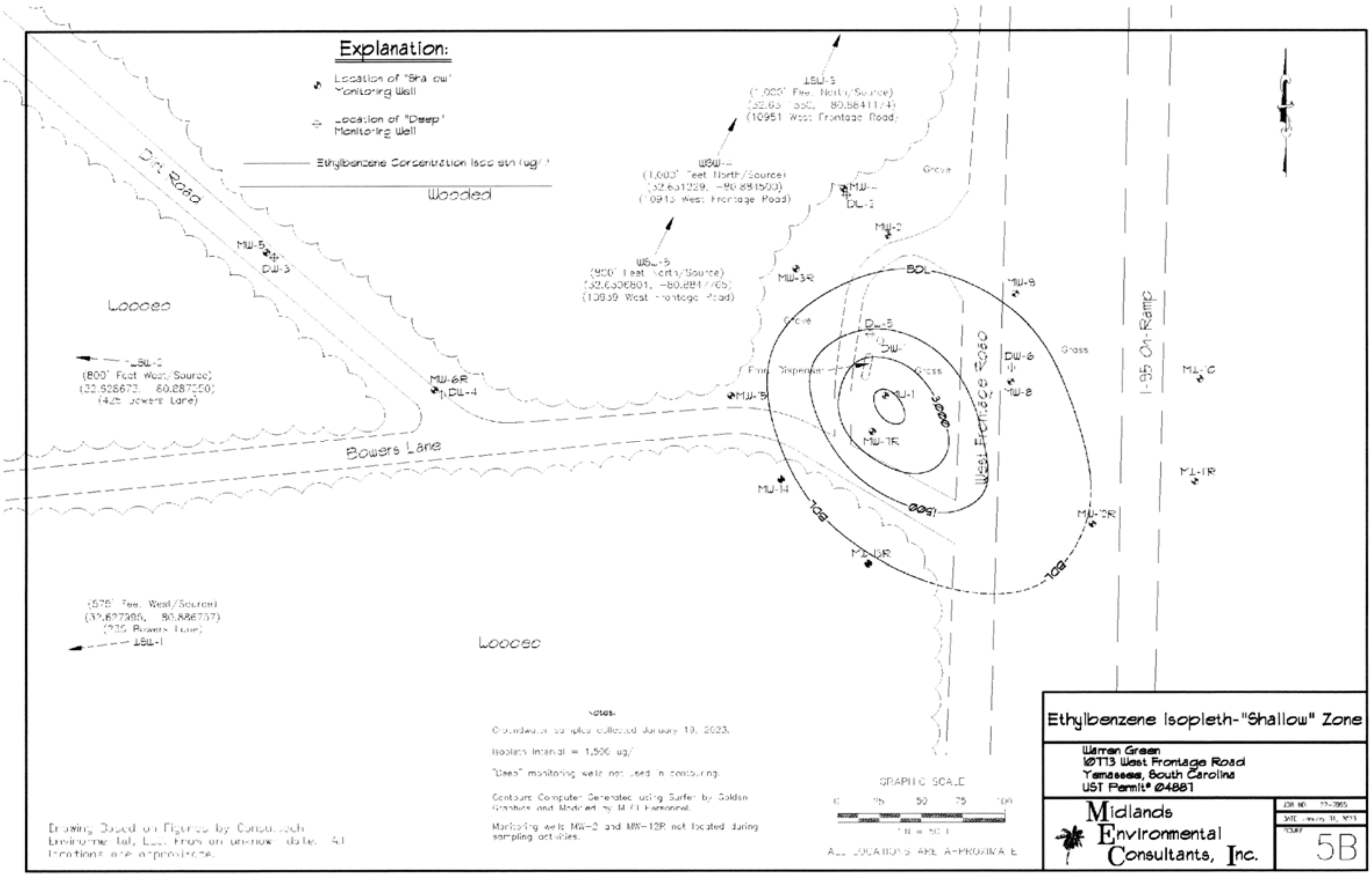
Midlands Environmental Consultants, Inc.

4

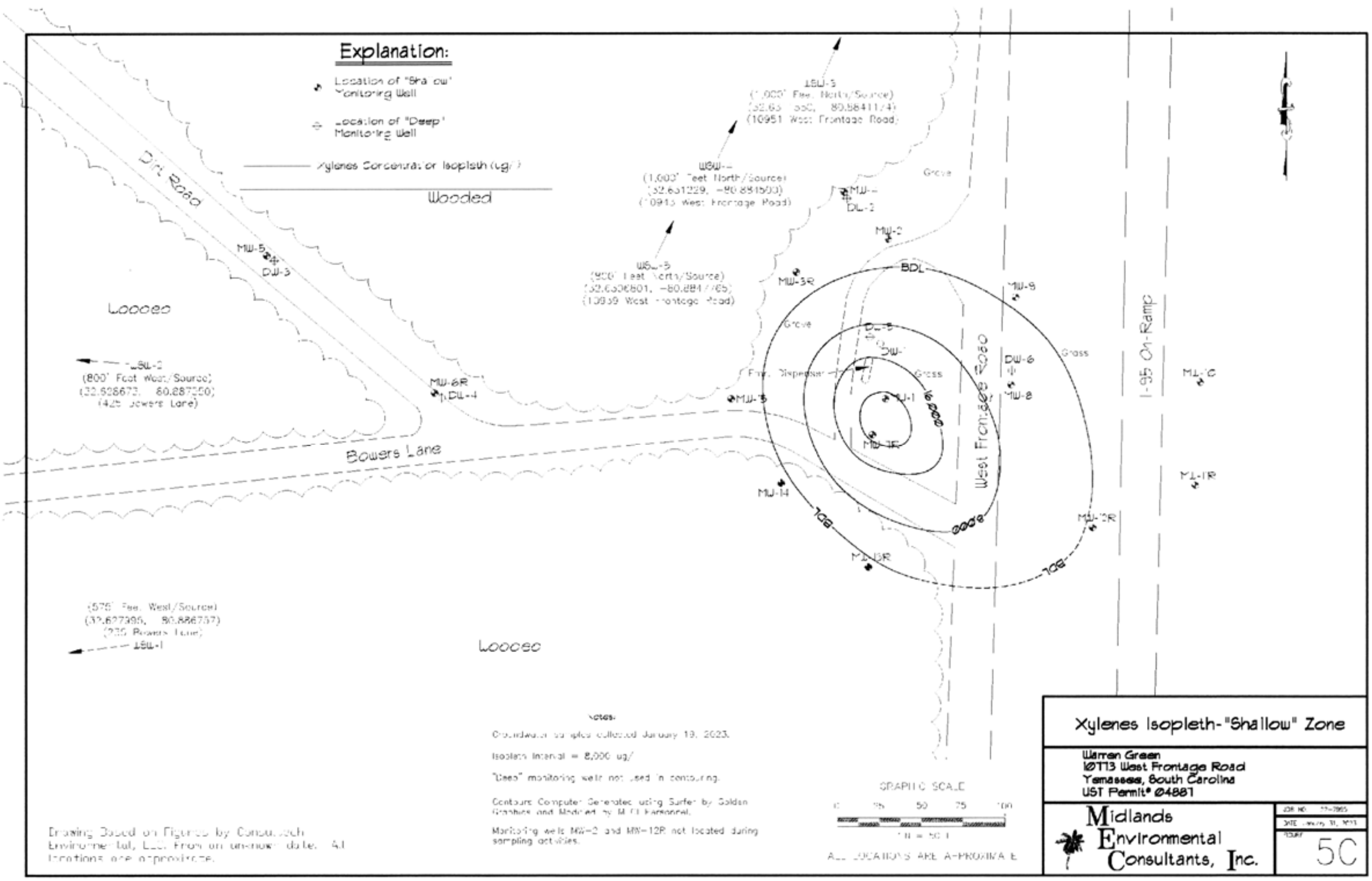

Explanation:
Location of "Deep" Monitoring Well
Wooded
Dirt Road
Bowers Lane
West Frontage Road
I-95 On-Ramp
Grass
BDL
600
1200
MW-1
MW-3R
MW-6R
MW-8
MW-9
MW-14
MW-15
DW-3
DW-4
DW-5
DW-6
Notes:
Isopleth Interval = 600 ug/l
Monitoring wells MW-2 and MW-12R not located during sampling activities.
GRAPHIC SCALE
0
50
Benzene Isopleth-"Shallow" Zone
Warren Green
10713 West Frontage Road
Yemassee, South Carolina
UST Permit# 04887
Midlands Environmental Consultants, Inc.
5



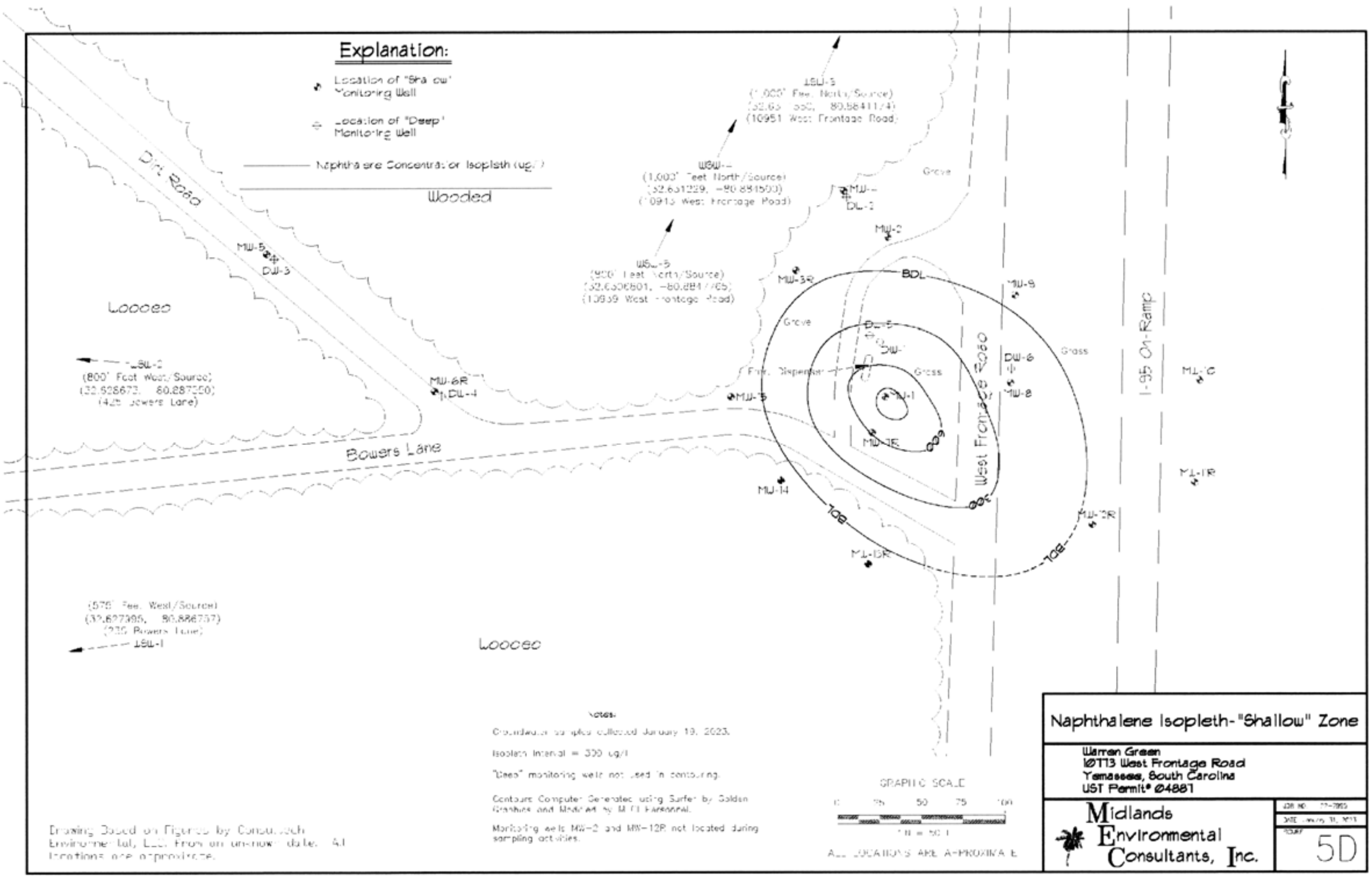
Explanation:
Location of "Shallow" Monitoring Well
Location of "Deep" Monitoring Well
Toluene Concentration Isopleth (ug/l)
Wooded
Dirt Road
Bowers Lane
West Frontage Road
I-95 On-Ramp
Grass
BDL
8000
16,000
MW-5
DW-3
MW-6R
DW-4
MW-3R
MW-14
MW-1R
MW-8
MW-12R
MW-2
DW-6
(800' Feet West/Source)
(425 Bowers Lane)
(10951 West Frontage Road)
(10915 West Frontage Road)
(10959 West Frontage Road)
(230 Bowers Lane)
Notes:
Groundwater samples collected January 19, 2023.
"Deep" monitoring wells not used in contouring.
Monitoring wells MW-2 and MW-12R not located during sampling activities.
GRAPHIC SCALE
50
75
Toluene Isopleth-"Shallow" Zone
Warren Green
10T13 West Frontage Road
Yemassee, South Carolina
UST Permit# 04887
Midlands Environmental Consultants, Inc.
5A



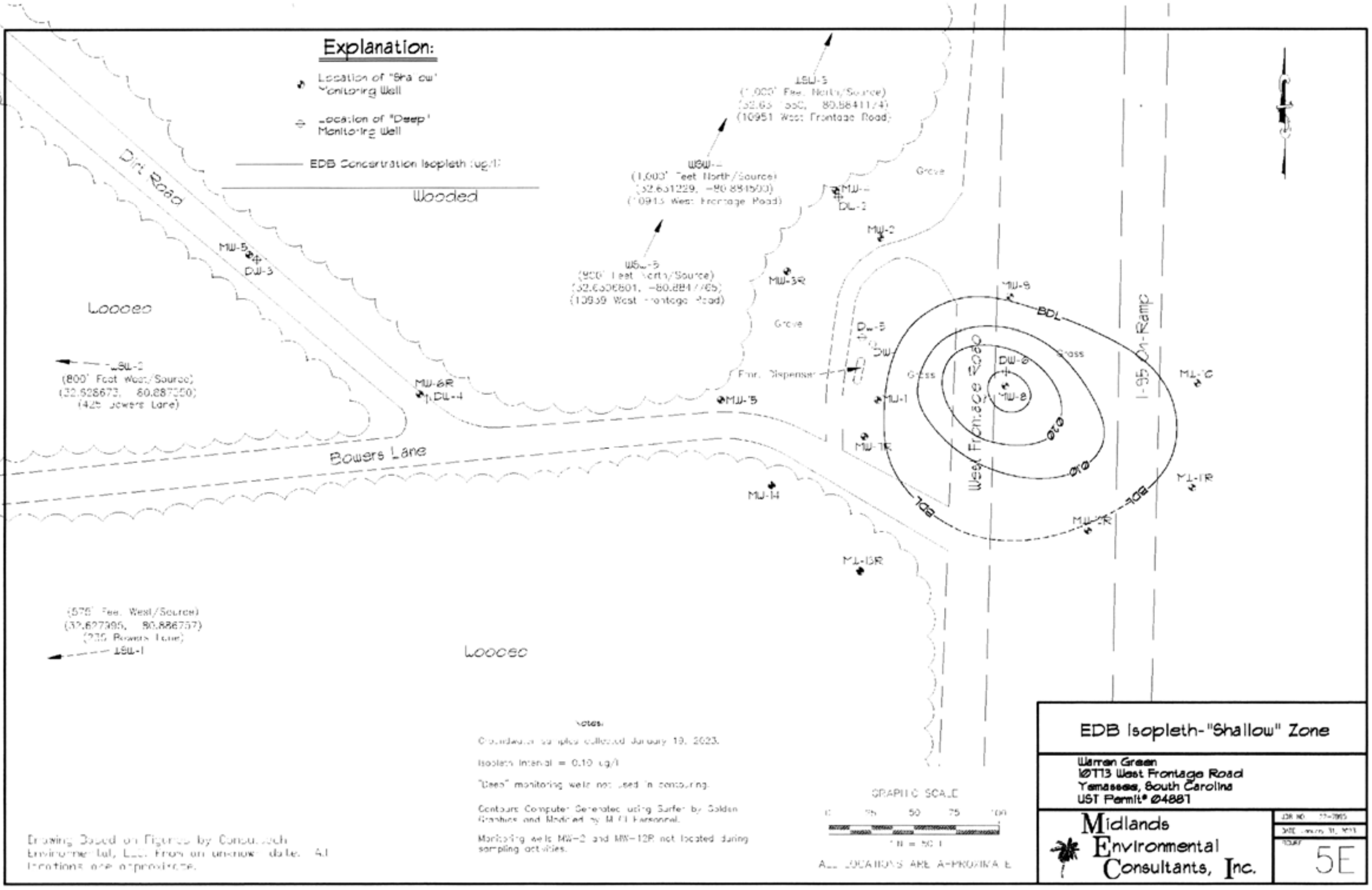
Explanation:
Location of "Deep" Monitoring Well
Wooded
Dirt Road
Bowers Lane
West Frontage Road
I-95 On-Ramp
(800' Feet West/Source)
(10951 West Frontage Road)
(10939 West Frontage Road)
(575' Feet West/Source)
MW-5
DW-3
MW-6R
DW-4
MW-2
MW-3R
MW-1
MW-1R
MW-14
MW-8
DW-6
MW-9
BDL
3000
1500
Grass
Notes:
Isopleth Interval = 1,500 ug/
"Deep" monitoring wells not used in contouring.
Monitoring wells MW-2 and MW-12R not located during sampling activities.
GRAPHIC SCALE
0 25 50 75 100
Ethylbenzene Isopleth-"Shallow" Zone
Warren Green
10713 West Frontage Road
Yemassee, South Carolina
UST Permit# 04881
Midlands Environmental Consultants, Inc.
5B



Explanation:
Location of "Shallow" Monitoring Well
Location of "Deep" Monitoring Well
Xylenes Concentration Isopleth (ug/l)
Dirt Road
Wooded
Grove
Grass
MW-5
DW-3
MW-6R
DW-4
MW-4
DW-2
MW-2
MW-3R
MW-3
BDL
DW-1
MW-1
MW-1R
16,000
8000
DW-6
MW-8
MW-9
MW-14
MW-12R
100
West Frontage Road
I-95 On-Ramp
Bowers Lane
(800' Feet West/Source)
(425 Bowers Lane)
(10951 West Frontage Road)
(10939 West Frontage Road)
(575' Feet West/Source)
(330 Bowers Lane)
Notes:
Groundwater samples collected January 19, 2023.
Isopleth Interval = 8,000 ug/l
"Deep" monitoring wells not used in contouring.
Contours Computer Generated using Surfer by Golden Graphics and Modified by MEC Personnel.
Monitoring wells MW-2 and MW-12R not located during sampling activities.
GRAPHIC SCALE
0 25 50 75 100
ALL LOCATIONS ARE APPROXIMATE
Drawing Based on Figures by Consultech Environmental, LLC. From an unknown date. All locations are approximate.
Xylenes Isopleth-"Shallow" Zone
Warren Green
10T13 West Frontage Road
Yemassee, South Carolina
UST Permit# 04881
Midlands Environmental Consultants, Inc.
5C



Explanation:
Location of "Deep" Monitoring Well
Wooded
Dirt Road
MW-5
DW-3
MW-6R
DW-4
Bowers Lane
(800' Feet West/Source)
(10951 West Frontage Road)
MW-3R
BDL
Grove
Grass
MW-14
DW-6
MW-8
MW-12R
West Frontage Road
I-95 On-Ramp
Notes:
Groundwater samples collected January 19, 2023.
"Deep" monitoring wells not used in contouring.
Monitoring wells MW-2 and MW-12R not located during sampling activities.
GRAPHIC SCALE
0 25 50 75 100
ALL LOCATIONS ARE APPROXIMATE
Naphthalene Isopleth-"Shallow" Zone
Warren Green
10773 West Frontage Road
Yemassee, South Carolina
UST Permit# 04887
Midlands Environmental Consultants, Inc.
5D



Explanation:
Location of "Shallow" Monitoring Well
Location of "Deep" Monitoring Well
EDB Concentration Isopleth (ug/l)
Wooded
Dirt Road
Bowers Lane
West Frontage Road
I-95 On-Ramp
Grove
Grass
MW-5
DW-3
MW-6R
DW-4
MW-3R
MW-2
MW-8
DW-8
MW-9
MW-1
MW-14
DW-5
BDL
0.10
0.20
(10951 West Frontage Road)
(800' Feet West/Source)
Notes:
Groundwater samples collected January 19, 2023.
Isopleth Interval = 0.10 ug/l
"Deep" monitoring wells not used in contouring.
Contours Computer Generated using Surfer by Golden Graphics and Modified by MEC Personnel.
Monitoring wells MW-2 and MW-12R not located during sampling activities.
GRAPHIC SCALE
0
25
50
75
100
ALL LOCATIONS ARE APPROXIMATE
EDB Isopleth-"Shallow" Zone
Warren Green
10T13 West Frontage Road
Yemassee, South Carolina
UST Permit# 04887
Midlands Environmental Consultants, Inc.
5E

APPENDIX A:

SAMPLING LOGS, LABORATORY DATA SHEETS, & CHAIN-OF-CUSTODY FORMS

Midlands Environmental Consultants, Inc.

Monitoring Well Purge And Sampling Data

Field Personnel: HS, SS, JC

Sampling Date(s): 1/19/23

Sampling Case#: 2

Job Name: Warren Green

Job Number: 22-7995

Calibration Data for :
Calibration Successful? Yes or No (Please Circle)
pH: Yes No
Conductivity: Yes No
Dissolved Oxygen: Yes No
Turbidity: **Conductivity Calibrated Every 3 Months by QA Manager**

Well No.	Purge Volume	Sample Time	pH(i)	cond(i)	Temp. (°C)	DO (mg/l)	Turbidity (NTU)	Depth to (feet): product	Initial H_2O	final H_2O	Well Depth (feet)	Water Height *(feet)	Gallons Purged **calc.	actual	Notes
MW-1	Initial	13:14	6.19	128.5	17.6	2.02	18.39		3.14		2-12	—	—	—	odor added 2 bolts
	1st														
	2nd														
	3rd														
	4th														
	5th														
	Sampling												—		
MW-2	Initial										5-15				NL ok
	1st														
	2nd														
	3rd														
	4th														
	5th														
	Sampling														
MW-3r	Initial	11:47	5.56	206.4	19.6	2.31	20.95		9.94		5-20	—	—	—	no odor added 2 bolts Replaced cap
	1st														
	2nd														
	3rd														
	4th														
	5th														
	Sampling												—		
MW-4	Initial	12:12	6.50	156.6	19.7	2.49	18.22		7.86		5-20	—	—	—	no odor added 1 bolt
	1st														
	2nd														
	3rd														
	4th														
	5th														
	Sampling												—		

*= (Depth of Well) - (Depth to Water = **Water Height**
One Well Volume =x.047 for 1" wells * x **.163 for 2" wells**, or * x .66 for 4" wells, 1.469 for 6" wells

= One Well Volume x 5 = **Gallons Purged (calculated)

Casing	Gallons
1"	0.047
2"	0.163
4"	0.653
6"	1.469

Sampling Case#	PH/Conductance SN	DO SN	Turbidity
Case #1	15H101448	17E101302	201301183
Case #2	15E101481	14H103098	201301174
Case #3	17E100512	17E103488	201510251

Midlands Environmental Consultants, Inc.

Monitoring Well Purge And Sampling Data

Field Personnel: HS, SS, JC

Sampling Date(s): 1/19/23

Sampling Case#: 2

Job Name: Warren Green

Job Number: 22-7995

Calibration Data for :

Calibration Successful? Yes or No (Please Circle)

pH:	Yes	No
Conductivity:	Yes	No
Dissolved Oxygen:	Yes	No
Turbidity:		

Conductivity Calibrated Every 3 Months by QA Manager

Well No.	Purge Volume	Sample Time	pH(i)	cond(i)	Temp. (°C)	DO (mg/l)	Turbidity (NTU)	Depth to (feet): product	Initial H_2O	final H_2O	Well Depth (feet)	Water Height *(feet)	Gallons Purged **calc.	actual	Notes
mw-5	Initial	10:58	8.02	104.8	18.0	2.16	29.88		6.23		5-20	—	—	—	no odor added cup Vault damaged, can't add lid
	1st												—		
	2nd														
	3rd														
	4th														
	5th														
	Sampling														
mw-8	Initial	11:15	7.54	165.6	21.5	1.71	22.73		9.34		5-20	—	—	—	Slight odor added 1 bolt
	1st												—		
	2nd														
	3rd														
	4th														
	5th														
	Sampling														
mw-7r (Dup)	Initial	13:07	6.76	86.2	18.6	1.80	15.75		2.52		5-20	—	—	—	Strong odor Dup *Casing too high for lid to fit flush
	1st												—		
	2nd														
	3rd														
	4th														
	5th														
	Sampling														
mw-6R	Initial	11:00	8.20	114.8	18.0	2.18	26.53		6.48		5-20	—	—	—	no odor Can't add bolts
	1st												—		
	2nd														
	3rd														
	4th														
	5th														
	Sampling														

* = (Depth of Well) - (Depth to Water = **Water Height**

*One Well Volume =x.047 for 1" wells * x .163 for 2" wells, or * x .66 for 4" wells, 1.469 for 6" wells

**= One Well Volume x 5 = Gallons Purged (calculated)

Casing	Gallons
1"	0.047
2"	0.163
4"	0.653
6"	1.469

Sampling Case#	Ph/Conductance SN	DO SN	Turbidity
Case #1	15H101448	17E101302	201301183
Case #2	15E101481	14H103098	201301174
Case #3	17E100512	17E103488	201510251

Midlands Environmental Consultants, Inc.

Monitoring Well Purge And Sampling Data

Field Personnel: HS, SS, JC

Sampling Date(s): 1/19/23

Sampling Case#: 2

Job Name: Warren Green

Job Number: 22-7995

Calibration Data for :

Calibration Successful? Yes or No (Please Circle)

pH: Yes No

Conductivity: Yes No

Dissolved Oxygen: Yes No

Turbidity: **Conductivity Calibrated Every 3 Months by QA Manager**

Well No.	Purge Volume	Sample Time	pH(i)	cond(i)	Temp. (°C)	DO (mg/l)	Turbidity (NTU)	Depth to (feet): product	Depth to (feet): initial H_2O	Depth to (feet): final H_2O	Well Depth (feet)	Water Height *(feet)	Gallons Purged **calc.	Gallons Purged actual	Notes
mw-9	Initial	11:17	7.08	199.8	22.4	1.55	17.36		9.08		5-20	—	— / —	—	no odor added 2 bolts
	1st														
	2nd														
	3rd														
	4th														
	5th														
	Sampling														
mw-10	Initial	11:07	7.87	179.9	22.2	2.72	28.69		6.56		5-20	—	— / —	—	no odor. can't add bolts
	1st														
	2nd														
	3rd														
	4th														
	5th														
	Sampling														
mw-11r	Initial	11:09	7.91	192.7	21.6	1.79	22.73		7.64		5-20	—	— / —	—	no odor can't add bolts
	1st														
	2nd														
	3rd														
	4th														
	5th														
	Sampling														
mw-12r	Initial										5-20				NL OK
	1st														
	2nd														
	3rd														
	4th														
	5th														
	Sampling														

= (Depth of Well) - (Depth to Water = **Water Height**

One Well Volume =x.047 for 1" wells * x **.163 for 2" wells**, or * x .66 for 4" wells, 1.469 for 6" wells

**= One Well Volume x 5 = Gallons Purged (calculated)

Casing	Gallons
1"	0.047
2"	0.163
4"	0.653
6"	1.469

Sampling Cases	Ph/Conductance SN	DO SN	Turbidity
Case #1	15H101448	17E101302	201301183
Case #2	15E101481	14H103098	201301174
Case #3	17E100512	17E103488	201510251

Midlands Environmental Consultants, Inc.

Monitoring Well Purge And Sampling Data

Field Personnel: HS, SS, JC

Sampling Date(s): 1/19/23

Sampling Case#: 2

Job Name: Warren Green

Job Number: 22-7995

Calibration Data for :

Calibration Successful? Yes or No (Please Circle)

pH: Yes No

Conductivity: Yes No

Dissolved Oxygen: Yes No

Turbidity: **Conductivity Calibrated Every 3 Months by QA Manager**

Well No.	Purge Volume	Sample Time	pH(l)	cond(l)	Temp. (°C)	DO (mg/l)	Turbidity (NTU)	Depth to (feet): product	Initial H_2O	final H_2O	Well Depth (feet)	Water Height *(feet)	Gallons Purged **calc.	actual	Notes
MW-13R	Initial	11:24	6.72	113.4	20.8	3.28	22.61		7.68		5-20	—	— / —	-	no odor
	1st														
	2nd														
	3rd														
	4th														
	5th														
	Sampling														
MW-14	Initial	11:40	6.56	135.4	20.1	2.57	24.95		7.22		5-20	-	— / /	-	no odor
	1st														
	2nd														
	3rd														
	4th														
	5th														
	Sampling														
MW-15	Initial	11:31	6.97	107.2	20.7	3.54	19.66		7.02		5-20	—	- / —	—	no odor
	1st														
	2nd														
	3rd														
	4th														
	5th														
	Sampling														
DW-1	Initial	12:43	6.58	174.1	19.8	3.25	23.19		0.26		45-50	49.72	8.10 / 40.52	41	can't add bolts
	1st	12:51	6.63	166.3	19.6	3.10	56.55								
	2nd	13:00	6.72	154.2	19.4	3.02	78.97								no odor
	3rd	13:09	6.89	136.5	19.2	2.96	61.05								Replaced cap
	4th	13:18	7.07	121.2	19.0	2.85	48.13								added 2 bolts
	5th	13:27	7.15	115.9	18.8	2.76	26.99								
	Sampling														

* = (Depth of Well) - (Depth to Water = **Water Height**

One Well Volume =x.047 for 1" wells * x .163 for 2" wells, or * x .86 for 4" wells, 1.469 for 6" wells

**= One Well Volume x 5 = Gallons Purged (calculated)

Casing	Gallons
1"	0.047
2"	0.163
4"	0.653
6"	1.469

Sampling Case#	Ph/Conductance SN	DO SN	Turbidity
Case #1	15H101448	17E101302	201301183
Case #2	15E101481	14H103098	201301174
Case #3	17E100512	17E103488	201510251

Midlands Environmental Consultants, Inc.

Monitoring Well Purge And Sampling Data

Field Personnel: HS, SS, JC

Sampling Date(s): 1/19/23

Sampling Case#: 2

Job Name: Warren Green

Job Number: 22-7995

Calibration Data for :

Calibration Successful? Yes or No (Please Circle)

pH: Yes No

Conductivity: Yes No

Dissolved Oxygen: Yes No

Turbidity: **Conductivity Calibrated Every 3 Months by QA Manager**

Well No.	Purge Volume	Sample Time	pH(i)	cond(i)	Temp. (°C)	DO (mg/l)	Turbidity (NTU)
DW-2	Initial	11:55	5.89	178.4	19.9	3.99	24.60
	1st	12:03	5.96	171.2	19.6	3.71	51.92
	2nd	12:11	6.03	160.7	19.3	3.53	73.58
	3rd	12:19	6.17	153.1	19.1	3.36	64.16
	4th	12:27	6.25	136.9	18.7	3.15	47.35
	5th	12:35	6.39	115.2	18.7	3.01	22.98
	Sampling						
DW-3	Initial	10:21	8.63	130.6	19.4	4.21	17.67
	1st	10:27	8.71	126.2	19.2	4.13	39.16
	2nd	10:33	8.55	119.5	19.0	4.07	67.55
	3rd	10:39	8.96	107.1	18.8	4.01	42.73
	4th	10:45	9.03	101.8	18.6	3.95	28.16
	5th	10:51	9.12	95.6	18.3	3.87	24.25
	Sampling						
DW-4	Initial	10:20	8.52	145.9	19.0	4.15	18.35
	1st	10:27	8.63	137.5	18.8	4.05	31.29
	2nd	10:34	8.67	130.2	18.6	3.68	57.86
	3rd	10:41	8.73	125.1	18.4	3.21	45.18
	4th	10:48	8.86	116.4	18.2	2.87	29.32
	5th	10:55	8.95	103.8	18.0	2.35	21.65
	Sampling						
DW-5	Initial	12:19	6.44	153.6	19.6	4.55	20.16
	1st	12:33	6.69	130.2	19.3	4.56	41.23
	2nd	12:47	6.75	121.9	19.0	4.21	58.91
	3rd	13:00	6.92	106.4	18.7	4.12	36.55
	4th						
	5th						
	Sampling	14:10	6.82	125.3	18.9	4.46	22.19

Well No.	Depth to (feet): product	initial H_2O	final H_2O	Well Depth (feet)	Water Height *(feet)	Gallons Purged **calc.	Gallons Purged actual	Notes
DW-2		6.11		45-50	43.89	7.15 / 35.77	36	no odor added 2 bolts
DW-3		13.32		45-50	36.68	5.97 / 29.89	30	no odor can't add bolts
DW-4		12.10		45-50	37.90	6.17 / 30.88	31	no odor added 1 bolt
DW-5		1.86	5.92	80-85	83.14	13.55 / 67.75	Dry @ 41.50	no odor added 2 bolts

* = (Depth of Well) - (Depth to Water = **Water Height**

One Well Volume =x.047 for 1" wells * x **.163 for 2" wells**, or * x .66 for 4" wells, 1.469 for 6" wells

**= One Well Volume x 5 = Gallons Purged (calculated)

Casing	Gallons
1"	0.047
2"	0.163
4"	0.653
6"	1.469

Sampling Case#	Ph/Conductance SN	DO SN	Turbidity
Case #1	15H101448	17E101302	201301183
Case #2	15E101481	14H103098	201301174
Case #3	17E100512	17E103488	201510251

Midlands Environmental Consultants, Inc.

Monitoring Well Purge And Sampling Data

Field Personnel: HS, SS, JC

Sampling Date(s): 1/19/23

Sampling Case#: 2

Job Name: Warren Green

Job Number: 22-7995

Calibration Data for :

Calibration Successful? Yes or No (Please Circle)

pH: Yes No

Conductivity: Yes No

Dissolved Oxygen: Yes No

Turbidity: **Conductivity Calibrated Every 3 Months by QA Manager**

Well No.	Purge Volume	Sample Time	pH(l)	cond(l)	Temp. (°C)	DO (mg/l)	Turbidity (NTU)	Depth to (feet): product	Depth to (feet): initial H_2O	Depth to (feet): final H_2O	Well Depth (feet)	Water Height *(feet)	Gallons Purged **calc.	Gallons Purged actual	Notes
Dw-6	Initial	11:22	6.51	230.5	20.8	2.28	24.62		0.01'	14.65'	80-85	84.99	13.85	Dry @ 43g	no odor
	1st	11:36	6.63	221.7	20.6	2.35	51.73								
	2nd	11:50	6.78	210.6	20.3	2.49	75.16								
	3rd	12:04	6.85	203.9	20.0	2.55	47.22								
	4th												69.26		
	5th														
	Sampling	14:00	6.69	216.2	20.2	2.45	29.13								
	Initial														
Dup-1	1st	MW-7R Strong odor						13:07							
FB	2nd	14:15													
TB	3rd														
	4th	0890													
6&C	5th														
	Sampling	13:20													
	Initial														
	1st														
	2nd														
	3rd														
	4th														
	5th														
	Sampling														
	Initial														
	1st														
	2nd														
	3rd														
	4th														
	5th														
	Sampling														

* = (Depth of Well) - (Depth to Water = **Water Height**

One Well Volume =x.047 for 1" wells * x .163 for 2" wells, or * x .66 for 4" wells, 1.469 for 6" wells

= One Well Volume x 5 = **Gallons Purged (calculated)

Casing	Gallons
1"	0.047
2"	0.163
4"	0.653
6"	1.469

Sampling Case#	Ph/Conductance SN	DO SN	Turbidity
Case #1	15H101448	17E101302	201301183
Case #2	15E101481	14H103098	201301174
Case #3	17E100512	17E103488	201510251

Midlands Environmental Consultants, Inc.

Monitoring Well Purge And Sampling Data

Field Personnel: HS, SS, JC

Sampling Date(s): 1/19/23

Sampling Case#: 2

Job Name: Warren Green

Job Number: 22-7995

Calibration Data for :

Calibration Successful? Yes or No (Please Circle)

pH: Yes / No

Conductivity: Yes / No

Dissolved Oxygen: Yes / No

Turbidity: **Conductivity Calibrated Every 3 Months by QA Manager**

Well No.	Purge Volume	Sample Time	pH(l)	cond(l)	Temp. (°C)	DO (mg/l)	Turbidity (NTU)	Depth to (feet): product	Initial H_2O	final H_2O	Well Depth (feet)	Water Height *(feet)	Gallons Purged **calc.	actual	Notes
WSW-1	Initial	13:28													
	1st		Spigot on side of house												
WSW-2	2nd										235 Bowers lane				
	3rd	13:36	Spigot on well 425 Bower's Lane								(32.627995, -80.886757)				
WSW-3	4th										Lane (32.628673, -80.887550)				
	5th														
	Sampling		Inactive/no power to well								(32.6311550, -80.884174) 10951				
WSW-4	Initial	13:47	Spigot on front of house								10943 Frontage Rd				Frontage Rd
	1st										(32.631229, -80.884500)				
WSW Dup	2nd	WSW-1		13:28											
	3rd														
FB	4th														
	5th														
	Sampling	[illegible]	13:50												
TB	Initial	~~0800~~													
	1st														
	2nd														
WSW-5	3rd	Inactive/no power to well									(32.636801, -80.8847765)				
	4th	Cased @ 80' TD @ 90'													
	5th														
	Sampling														
	Initial														
	1st														
	2nd														
	3rd														
	4th														
	5th														
	Sampling														

* = (Depth of Well) - (Depth to Water = **Water Height**

One Well Volume =x.047 for 1" wells * x .163 for 2" wells, or * x .66 for 4" wells, 1.469 for 6" wells

**= One Well Volume x 5 = Gallons Purged (calculated)

Casing	Gallons
1"	0.047
2"	0.163
4"	0.653
6"	1.469

Sampling Cases	Ph/Conductance SN	DO SN	Turbidity
Case #1	15H101448	17E101302	201301183
Case #2	15E101481	14H103098	201301174
Case #3	17E100512	17E103488	201510251

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January 28, 2023

Arthur Brown
SCDHEC
2600 Bull Street
Columbia, SC 29201

RE: Project: WARREN GREEN 04887/166252
Pace Project No.: 92648032

Dear Arthur Brown:

Enclosed are the analytical results for sample(s) received by the laboratory on January 23, 2023. The results relate only to the samples included in this report. Results reported herein conform to the applicable TNI/NELAC Standards and the laboratory's Quality Manual, where applicable, unless otherwise noted in the body of the report.

The test results provided in this final report were generated by each of the following laboratories within the Pace Network:

- Pace Analytical Services - Charlotte

If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Taylor M Cannon
taylor.cannon@pacelabs.com
(704)875-9092
Project Manager

Enclosures

cc: Jeff Coleman, Midlands Environmental Consultants, Inc.
Robert Dunn, SCDHEC
Kyle Pudney, Midlands Environmental Consultants, Inc.

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CERTIFICATIONS

Project:	WARREN GREEN 04887/166252
Pace Project No.:	92648032

Pace Analytical Services Charlotte

South Carolina Laboratory ID: 99006
9800 Kincey Ave. Ste 100, Huntersville, NC 28078
North Carolina Drinking Water Certification #: 37706
North Carolina Field Services Certification #: 5342
North Carolina Wastewater Certification #: 12
South Carolina Laboratory ID: 99006
South Carolina Certification #: 99006001
South Carolina Drinking Water Cert. #: 99006003
Florida/NELAP Certification #: E87627
Kentucky UST Certification #: 84
Louisiana DoH Drinking Water #: LA029
Virginia/VELAP Certification #: 460221

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SAMPLE ANALYTE COUNT

Project: WARREN GREEN 04887/166252
Pace Project No.: 92648032

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
92648032001	**MW-1**	EPA 8011	HH	2	PASI-C
		EPA 8260D	SAS	20	PASI-C
92648032002	**MW-3R**	EPA 8011	HH	2	PASI-C
		EPA 8260D	LMB	20	PASI-C
92648032003	**MW-4**	EPA 8011	HH	2	PASI-C
		EPA 8260D	SAS	20	PASI-C
92648032004	**MW-5**	EPA 8011	HH	2	PASI-C
		EPA 8260D	SAS	20	PASI-C
92648032005	**MW-6R**	EPA 8011	HH	2	PASI-C
		EPA 8260D	SAS	20	PASI-C
92648032006	**MW-7R**	EPA 8011	HH	2	PASI-C
		EPA 8260D	SAS	20	PASI-C
92648032007	**MW-8**	EPA 8011	HH	2	PASI-C
		EPA 8260D	LMB	20	PASI-C
92648032008	**MW-9**	EPA 8011	HH	2	PASI-C
		EPA 8260D	SAS	20	PASI-C
92648032009	**MW-10**	EPA 8011	HH	2	PASI-C
		EPA 8260D	SAS	20	PASI-C
92648032010	**MW-11R**	EPA 8011	HH	2	PASI-C
		EPA 8260D	SAS	20	PASI-C
92648032011	**MW-13R**	EPA 8011	HH	2	PASI-C
		EPA 8260D	SAS	20	PASI-C
92648032012	**MW-14**	EPA 8011	HH	2	PASI-C
		EPA 8260D	SAS	20	PASI-C
92648032013	**MW-15**	EPA 8011	HH	2	PASI-C
		EPA 8260D	SAS	20	PASI-C
92648032014	**DW-1**	EPA 8011	HH	2	PASI-C
		EPA 8260D	SAS	20	PASI-C
92648032015	**DW-2**	EPA 8011	HH	2	PASI-C
		EPA 8260D	SAS	20	PASI-C
92648032016	**DW-3**	EPA 8011	HH	2	PASI-C
		EPA 8260D	SAS	20	PASI-C
92648032017	**DW-4**	EPA 8011	HH	2	PASI-C
		EPA 8260D	SAS	20	PASI-C
92648032018	**DW-5**	EPA 8011	HH	2	PASI-C
		EPA 8260D	SAS	20	PASI-C
92648032019	**DW-6**	EPA 8011	HH	2	PASI-C

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SAMPLE ANALYTE COUNT

Project: WARREN GREEN 04887/166252
Pace Project No.: 92648032

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
		EPA 8260D	SAS	20	PASI-C
92648032020	**DUP-1**	EPA 8011	HH	2	PASI-C
		EPA 8260D	SAS	20	PASI-C
92648032021	**TB**	EPA 8260D	SAS	20	PASI-C
92648032022	**FB**	EPA 8011	HH	2	PASI-C
		EPA 8260D	SAS	20	PASI-C

PASI-C = Pace Analytical Services - Charlotte

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SUMMARY OF DETECTION

Project: WARREN GREEN 04887/166252
Pace Project No.: 92648032

Lab Sample ID / Method	Client Sample ID / Parameters	Result	Units	Report Limit	Analyzed	Qualifiers
92648032001	**MW-1**					
EPA 8260D	Benzene	2420	ug/L	1000	01/25/23 15:38	
EPA 8260D	Ethylbenzene	4800	ug/L	1000	01/25/23 15:38	
EPA 8260D	Toluene	27600	ug/L	1000	01/25/23 15:38	
EPA 8260D	Xylene (Total)	26400	ug/L	1000	01/25/23 15:38	
EPA 8260D	m&p-Xylene	19900	ug/L	2000	01/25/23 15:38	
EPA 8260D	o-Xylene	6500	ug/L	1000	01/25/23 15:38	
92648032006	**MW-7R**					
EPA 8011	1,2-Dibromoethane (EDB)	0.38	ug/L	0.020	01/26/23 01:09	
EPA 8260D	Benzene	1120	ug/L	250	01/25/23 01:24	
EPA 8260D	Ethylbenzene	4350	ug/L	250	01/25/23 01:24	
EPA 8260D	Naphthalene	636	ug/L	250	01/25/23 01:24	
EPA 8260D	Toluene	9020	ug/L	250	01/25/23 01:24	
EPA 8260D	Xylene (Total)	25500	ug/L	250	01/25/23 01:24	
EPA 8260D	m&p-Xylene	18200	ug/L	500	01/25/23 01:24	
EPA 8260D	o-Xylene	7290	ug/L	250	01/25/23 01:24	
92648032007	**MW-8**					
EPA 8260D	Benzene	825	ug/L	25.0	01/24/23 20:27	
EPA 8260D	Ethylbenzene	262	ug/L	25.0	01/24/23 20:27	
EPA 8260D	Naphthalene	145	ug/L	25.0	01/24/23 20:27	
EPA 8260D	Toluene	105	ug/L	25.0	01/24/23 20:27	
EPA 8260D	Xylene (Total)	970	ug/L	25.0	01/24/23 20:27	
EPA 8260D	m&p-Xylene	670	ug/L	50.0	01/24/23 20:27	
EPA 8260D	o-Xylene	301	ug/L	25.0	01/24/23 20:27	
92648032020	**DUP-1**					
EPA 8011	1,2-Dibromoethane (EDB)	0.34	ug/L	0.020	01/26/23 03:39	
EPA 8260D	Benzene	1110	ug/L	250	01/25/23 19:47	
EPA 8260D	Ethylbenzene	4150	ug/L	250	01/25/23 19:47	
EPA 8260D	Naphthalene	1010	ug/L	250	01/25/23 19:47	
EPA 8260D	Toluene	8500	ug/L	250	01/25/23 19:47	
EPA 8260D	Xylene (Total)	24400	ug/L	250	01/25/23 19:47	
EPA 8260D	m&p-Xylene	16900	ug/L	500	01/25/23 19:47	
EPA 8260D	o-Xylene	7510	ug/L	250	01/25/23 19:47	

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PROJECT NARRATIVE

Project: WARREN GREEN 04887/166252
Pace Project No.: 92648032

Method: **EPA 8011**
Description: 8011 GCS EDB and DBCP
Client: SCDHEC
Date: January 28, 2023

General Information:
21 samples were analyzed for EPA 8011 by Pace Analytical Services Charlotte. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Sample Preparation:
The samples were prepared in accordance with EPA 8011 with any exceptions noted below.

Initial Calibrations (including MS Tune as applicable):
All criteria were within method requirements with any exceptions noted below.

Continuing Calibration:
All criteria were within method requirements with any exceptions noted below.

Surrogates:
All surrogates were within QC limits with any exceptions noted below.

Method Blank:
All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

QC Batch: 751563

R1: RPD value was outside control limits.
- LCSD (Lab ID: 3905414)
  - 1,2-Dibromoethane (EDB)

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

QC Batch: 751562

A matrix spike and/or matrix spike duplicate (MS/MSD) were performed on the following sample(s): 92647689007

M1: Matrix spike recovery exceeded QC limits. Batch accepted based on laboratory control sample (LCS) recovery.
- MS (Lab ID: 3905410)
  - 1,2-Dibromoethane (EDB)
- MSD (Lab ID: 3905411)
  - 1,2-Dibromoethane (EDB)

Duplicate Sample:
All duplicate sample results were within method acceptance criteria with any exceptions noted below.

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PROJECT NARRATIVE

Project: WARREN GREEN 04887/166252
Pace Project No.: 92648032

Method: **EPA 8011**
Description: 8011 GCS EDB and DBCP
Client: SCDHEC
Date: January 28, 2023

Additional Comments:

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PROJECT NARRATIVE

Project: WARREN GREEN 04887/166252
Pace Project No.: 92648032

Method: **EPA 8260D**
Description: 8260 MSV
Client: SCDHEC
Date: January 28, 2023

General Information:
22 samples were analyzed for EPA 8260D by Pace Analytical Services Charlotte. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Initial Calibrations (including MS Tune as applicable):
All criteria were within method requirements with any exceptions noted below.

QC Batch: 751347

IK: The recalculated concentration of the calibration standard(s) did not meet method acceptance criteria; this result should be considered an estimated value.

- BLANK (Lab ID: 3904482)
  - Diisopropyl ether
- DW-1 (Lab ID: 92648032014)
  - Diisopropyl ether
- DW-2 (Lab ID: 92648032015)
  - Diisopropyl ether
- DW-3 (Lab ID: 92648032016)
  - Diisopropyl ether
- DW-4 (Lab ID: 92648032017)
  - Diisopropyl ether
- DW-5 (Lab ID: 92648032018)
  - Diisopropyl ether
- DW-6 (Lab ID: 92648032019)
  - Diisopropyl ether
- LCS (Lab ID: 3904483)
  - Diisopropyl ether
- MW-10 (Lab ID: 92648032009)
  - Diisopropyl ether
- MW-11R (Lab ID: 92648032010)
  - Diisopropyl ether
- MW-13R (Lab ID: 92648032011)
  - Diisopropyl ether
- MW-14 (Lab ID: 92648032012)
  - Diisopropyl ether
- MW-15 (Lab ID: 92648032013)
  - Diisopropyl ether
- MW-4 (Lab ID: 92648032003)
  - Diisopropyl ether
- MW-5 (Lab ID: 92648032004)
  - Diisopropyl ether
- MW-6R (Lab ID: 92648032005)
  - Diisopropyl ether

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PROJECT NARRATIVE

Project: WARREN GREEN 04887/166252
Pace Project No.: 92648032

Method: **EPA 8260D**
Description: 8260 MSV
Client: SCDHEC
Date: January 28, 2023

QC Batch: 751347

IK: The recalculated concentration of the calibration standard(s) did not meet method acceptance criteria; this result should be considered an estimated value.

- MW-7R (Lab ID: 92648032006)
  - Diisopropyl ether
- MW-9 (Lab ID: 92648032008)
  - Diisopropyl ether

QC Batch: 751679

IK: The recalculated concentration of the calibration standard(s) did not meet method acceptance criteria; this result should be considered an estimated value.

- BLANK (Lab ID: 3906004)
  - Diisopropyl ether
- LCS (Lab ID: 3906005)
  - Diisopropyl ether
- MW-1 (Lab ID: 92648032001)
  - Diisopropyl ether

Continuing Calibration:
All criteria were within method requirements with any exceptions noted below.

Internal Standards:
All internal standards were within QC limits with any exceptions noted below.

Surrogates:
All surrogates were within QC limits with any exceptions noted below.

Method Blank:
All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

QC Batch: 751679

A matrix spike and/or matrix spike duplicate (MS/MSD) were performed on the following sample(s): 92648507001

M1: Matrix spike recovery exceeded QC limits. Batch accepted based on laboratory control sample (LCS) recovery.

- MS (Lab ID: 3906006)
  - 1,2-Dichloroethane
  - Benzene
  - Diisopropyl ether
  - Ethyl-tert-butyl ether
  - Ethylbenzene
  - Methyl-tert-butyl ether

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PROJECT NARRATIVE

Project: WARREN GREEN 04887/166252
Pace Project No.: 92648032

Method: **EPA 8260D**
Description: 8260 MSV
Client: SCDHEC
Date: January 28, 2023

QC Batch: 751679

A matrix spike and/or matrix spike duplicate (MS/MSD) were performed on the following sample(s): 92648507001

M1: Matrix spike recovery exceeded QC limits. Batch accepted based on laboratory control sample (LCS) recovery.

- Naphthalene
- Toluene
- m&p-Xylene
- o-Xylene
- tert-Amylmethyl ether

- MSD (Lab ID: 3906007)
  - 1,2-Dichloroethane
  - Benzene
  - Diisopropyl ether
  - Ethyl-tert-butyl ether
  - Ethylbenzene
  - Methyl-tert-butyl ether
  - Naphthalene
  - Toluene
  - m&p-Xylene
  - o-Xylene
  - tert-Amylmethyl ether

Additional Comments:

This data package has been reviewed for quality and completeness and is approved for release.

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ANALYTICAL RESULTS

Project: WARREN GREEN 04887/166252
Pace Project No.: 92648032

Sample: MW-1 **Lab ID: 92648032001** Collected: 01/19/23 13:14 Received: 01/23/23 08:00 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8011 GCS EDB and DBCP	Analytical Method: EPA 8011 Preparation Method: EPA 8011							
	Pace Analytical Services - Charlotte							
1,2-Dibromoethane (EDB)	ND	ug/L	0.020	1	01/25/23 11:22	01/25/23 23:00	106-93-4	
Surrogates								
1-Chloro-2-bromopropane (S)	107	%	60-140	1	01/25/23 11:22	01/25/23 23:00	301-79-56	
8260 MSV	Analytical Method: EPA 8260D							
	Pace Analytical Services - Charlotte							
tert-Amyl Alcohol	ND	ug/L	20000	200		01/25/23 15:38	75-85-4	
tert-Amylmethyl ether	ND	ug/L	2000	200		01/25/23 15:38	994-05-8	
Benzene	**2420**	ug/L	1000	200		01/25/23 15:38	71-43-2	
3,3-Dimethyl-1-Butanol	ND	ug/L	20000	200		01/25/23 15:38	624-95-3	
tert-Butyl Alcohol	ND	ug/L	20000	200		01/25/23 15:38	75-65-0	
tert-Butyl Formate	ND	ug/L	10000	200		01/25/23 15:38	762-75-4	
1,2-Dichloroethane	ND	ug/L	1000	200		01/25/23 15:38	107-06-2	
Diisopropyl ether	ND	ug/L	1000	200		01/25/23 15:38	108-20-3	IK
Ethanol	ND	ug/L	40000	200		01/25/23 15:38	64-17-5	
Ethylbenzene	**4800**	ug/L	1000	200		01/25/23 15:38	100-41-4	
Ethyl-tert-butyl ether	ND	ug/L	2000	200		01/25/23 15:38	637-92-3	
Methyl-tert-butyl ether	ND	ug/L	1000	200		01/25/23 15:38	1634-04-4	
Naphthalene	ND	ug/L	1000	200		01/25/23 15:38	91-20-3	
Toluene	**27600**	ug/L	1000	200		01/25/23 15:38	108-88-3	
Xylene (Total)	**26400**	ug/L	1000	200		01/25/23 15:38	1330-20-7	
m&p-Xylene	**19900**	ug/L	2000	200		01/25/23 15:38	179601-23-1	
o-Xylene	**6500**	ug/L	1000	200		01/25/23 15:38	95-47-6	
Surrogates								
4-Bromofluorobenzene (S)	100	%	70-130	200		01/25/23 15:38	460-00-4	
1,2-Dichloroethane-d4 (S)	90	%	70-130	200		01/25/23 15:38	17060-07-0	
Toluene-d8 (S)	101	%	70-130	200		01/25/23 15:38	2037-26-5	

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ANALYTICAL RESULTS

Project: WARREN GREEN 04887/166252
Pace Project No.: 92648032

Sample: MW-3R | **Lab ID: 92648032002** | Collected: 01/19/23 11:47 | Received: 01/23/23 08:00 | Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8011 GCS EDB and DBCP	Analytical Method: EPA 8011 Preparation Method: EPA 8011							
	Pace Analytical Services - Charlotte							
1,2-Dibromoethane (EDB)	ND	ug/L	0.020	1	01/25/23 11:22	01/25/23 23:54	106-93-4	
Surrogates								
1-Chloro-2-bromopropane (S)	111	%	60-140	1	01/25/23 11:22	01/25/23 23:54	301-79-56	
8260 MSV	Analytical Method: EPA 8260D							
	Pace Analytical Services - Charlotte							
tert-Amyl Alcohol	ND	ug/L	100	1		01/24/23 19:52	75-85-4	
tert-Amylmethyl ether	ND	ug/L	10.0	1		01/24/23 19:52	994-05-8	
Benzene	ND	ug/L	5.0	1		01/24/23 19:52	71-43-2	
3,3-Dimethyl-1-Butanol	ND	ug/L	100	1		01/24/23 19:52	624-95-3	
tert-Butyl Alcohol	ND	ug/L	100	1		01/24/23 19:52	75-65-0	
tert-Butyl Formate	ND	ug/L	50.0	1		01/24/23 19:52	762-75-4	
1,2-Dichloroethane	ND	ug/L	5.0	1		01/24/23 19:52	107-06-2	
Diisopropyl ether	ND	ug/L	5.0	1		01/24/23 19:52	108-20-3	
Ethanol	ND	ug/L	200	1		01/24/23 19:52	64-17-5	
Ethylbenzene	ND	ug/L	5.0	1		01/24/23 19:52	100-41-4	
Ethyl-tert-butyl ether	ND	ug/L	10.0	1		01/24/23 19:52	637-92-3	
Methyl-tert-butyl ether	ND	ug/L	5.0	1		01/24/23 19:52	1634-04-4	
Naphthalene	ND	ug/L	5.0	1		01/24/23 19:52	91-20-3	
Toluene	ND	ug/L	5.0	1		01/24/23 19:52	108-88-3	
Xylene (Total)	ND	ug/L	5.0	1		01/24/23 19:52	1330-20-7	
m&p-Xylene	ND	ug/L	10.0	1		01/24/23 19:52	179601-23-1	
o-Xylene	ND	ug/L	5.0	1		01/24/23 19:52	95-47-6	
Surrogates								
4-Bromofluorobenzene (S)	102	%	70-130	1		01/24/23 19:52	460-00-4	
1,2-Dichloroethane-d4 (S)	97	%	70-130	1		01/24/23 19:52	17060-07-0	
Toluene-d8 (S)	106	%	70-130	1		01/24/23 19:52	2037-26-5	

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ANALYTICAL RESULTS

Project: WARREN GREEN 04887/166252
Pace Project No.: 92648032

Sample: MW-4 **Lab ID: 92648032003** Collected: 01/19/23 12:12 Received: 01/23/23 08:00 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8011 GCS EDB and DBCP	Analytical Method: EPA 8011 Preparation Method: EPA 8011							
	Pace Analytical Services - Charlotte							
1,2-Dibromoethane (EDB)	ND	ug/L	0.020	1	01/25/23 11:22	01/26/23 00:16	106-93-4	
Surrogates								
1-Chloro-2-bromopropane (S)	139	%	60-140	1	01/25/23 11:22	01/26/23 00:16	301-79-56	
8260 MSV	Analytical Method: EPA 8260D							
	Pace Analytical Services - Charlotte							
tert-Amyl Alcohol	ND	ug/L	100	1		01/24/23 20:11	75-85-4	
tert-Amylmethyl ether	ND	ug/L	10.0	1		01/24/23 20:11	994-05-8	
Benzene	ND	ug/L	5.0	1		01/24/23 20:11	71-43-2	
3,3-Dimethyl-1-Butanol	ND	ug/L	100	1		01/24/23 20:11	624-95-3	
tert-Butyl Alcohol	ND	ug/L	100	1		01/24/23 20:11	75-65-0	
tert-Butyl Formate	ND	ug/L	50.0	1		01/24/23 20:11	762-75-4	
1,2-Dichloroethane	ND	ug/L	5.0	1		01/24/23 20:11	107-06-2	
Diisopropyl ether	ND	ug/L	5.0	1		01/24/23 20:11	108-20-3	IK
Ethanol	ND	ug/L	200	1		01/24/23 20:11	64-17-5	
Ethylbenzene	ND	ug/L	5.0	1		01/24/23 20:11	100-41-4	
Ethyl-tert-butyl ether	ND	ug/L	10.0	1		01/24/23 20:11	637-92-3	
Methyl-tert-butyl ether	ND	ug/L	5.0	1		01/24/23 20:11	1634-04-4	
Naphthalene	ND	ug/L	5.0	1		01/24/23 20:11	91-20-3	
Toluene	ND	ug/L	5.0	1		01/24/23 20:11	108-88-3	
Xylene (Total)	ND	ug/L	5.0	1		01/24/23 20:11	1330-20-7	
m&p-Xylene	ND	ug/L	10.0	1		01/24/23 20:11	179601-23-1	
o-Xylene	ND	ug/L	5.0	1		01/24/23 20:11	95-47-6	
Surrogates								
4-Bromofluorobenzene (S)	83	%	70-130	1		01/24/23 20:11	460-00-4	
1,2-Dichloroethane-d4 (S)	112	%	70-130	1		01/24/23 20:11	17060-07-0	
Toluene-d8 (S)	102	%	70-130	1		01/24/23 20:11	2037-26-5	

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ANALYTICAL RESULTS

Project: WARREN GREEN 04887/166252
Pace Project No.: 92648032

Sample: MW-5 | **Lab ID: 92648032004** | Collected: 01/19/23 10:58 | Received: 01/23/23 08:00 | Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8011 GCS EDB and DBCP	Analytical Method: EPA 8011 Preparation Method: EPA 8011							
	Pace Analytical Services - Charlotte							
1,2-Dibromoethane (EDB)	ND	ug/L	0.020	1	01/25/23 11:22	01/26/23 00:48	106-93-4	
Surrogates								
1-Chloro-2-bromopropane (S)	94	%	60-140	1	01/25/23 11:22	01/26/23 00:48	301-79-56	
8260 MSV	Analytical Method: EPA 8260D							
	Pace Analytical Services - Charlotte							
tert-Amyl Alcohol	ND	ug/L	100	1		01/24/23 20:28	75-85-4	
tert-Amylmethyl ether	ND	ug/L	10.0	1		01/24/23 20:28	994-05-8	
Benzene	ND	ug/L	5.0	1		01/24/23 20:28	71-43-2	
3,3-Dimethyl-1-Butanol	ND	ug/L	100	1		01/24/23 20:28	624-95-3	
tert-Butyl Alcohol	ND	ug/L	100	1		01/24/23 20:28	75-65-0	
tert-Butyl Formate	ND	ug/L	50.0	1		01/24/23 20:28	762-75-4	
1,2-Dichloroethane	ND	ug/L	5.0	1		01/24/23 20:28	107-06-2	
Diisopropyl ether	ND	ug/L	5.0	1		01/24/23 20:28	108-20-3	IK
Ethanol	ND	ug/L	200	1		01/24/23 20:28	64-17-5	
Ethylbenzene	ND	ug/L	5.0	1		01/24/23 20:28	100-41-4	
Ethyl-tert-butyl ether	ND	ug/L	10.0	1		01/24/23 20:28	637-92-3	
Methyl-tert-butyl ether	ND	ug/L	5.0	1		01/24/23 20:28	1634-04-4	
Naphthalene	ND	ug/L	5.0	1		01/24/23 20:28	91-20-3	
Toluene	ND	ug/L	5.0	1		01/24/23 20:28	108-88-3	
Xylene (Total)	ND	ug/L	5.0	1		01/24/23 20:28	1330-20-7	
m&p-Xylene	ND	ug/L	10.0	1		01/24/23 20:28	179601-23-1	
o-Xylene	ND	ug/L	5.0	1		01/24/23 20:28	95-47-6	
Surrogates								
4-Bromofluorobenzene (S)	113	%	70-130	1		01/24/23 20:28	460-00-4	
1,2-Dichloroethane-d4 (S)	102	%	70-130	1		01/24/23 20:28	17060-07-0	
Toluene-d8 (S)	118	%	70-130	1		01/24/23 20:28	2037-26-5	

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ANALYTICAL RESULTS

Project: WARREN GREEN 04887/166252
Pace Project No.: 92648032

Sample: MW-6R | **Lab ID: 92648032005** | Collected: 01/19/23 11:00 | Received: 01/23/23 08:00 | Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8011 GCS EDB and DBCP	Analytical Method: EPA 8011 Preparation Method: EPA 8011							
	Pace Analytical Services - Charlotte							
1,2-Dibromoethane (EDB)	ND	ug/L	0.020	1	01/25/23 11:22	01/26/23 00:58	106-93-4	
Surrogates								
1-Chloro-2-bromopropane (S)	95	%	60-140	1	01/25/23 11:22	01/26/23 00:58	301-79-56	
8260 MSV	Analytical Method: EPA 8260D							
	Pace Analytical Services - Charlotte							
tert-Amyl Alcohol	ND	ug/L	100	1		01/24/23 20:46	75-85-4	
tert-Amylmethyl ether	ND	ug/L	10.0	1		01/24/23 20:46	994-05-8	
Benzene	ND	ug/L	5.0	1		01/24/23 20:46	71-43-2	
3,3-Dimethyl-1-Butanol	ND	ug/L	100	1		01/24/23 20:46	624-95-3	
tert-Butyl Alcohol	ND	ug/L	100	1		01/24/23 20:46	75-65-0	
tert-Butyl Formate	ND	ug/L	50.0	1		01/24/23 20:46	762-75-4	
1,2-Dichloroethane	ND	ug/L	5.0	1		01/24/23 20:46	107-06-2	
Diisopropyl ether	ND	ug/L	5.0	1		01/24/23 20:46	108-20-3	IK
Ethanol	ND	ug/L	200	1		01/24/23 20:46	64-17-5	
Ethylbenzene	ND	ug/L	5.0	1		01/24/23 20:46	100-41-4	
Ethyl-tert-butyl ether	ND	ug/L	10.0	1		01/24/23 20:46	637-92-3	
Methyl-tert-butyl ether	ND	ug/L	5.0	1		01/24/23 20:46	1634-04-4	
Naphthalene	ND	ug/L	5.0	1		01/24/23 20:46	91-20-3	
Toluene	ND	ug/L	5.0	1		01/24/23 20:46	108-88-3	
Xylene (Total)	ND	ug/L	5.0	1		01/24/23 20:46	1330-20-7	
m&p-Xylene	ND	ug/L	10.0	1		01/24/23 20:46	179601-23-1	
o-Xylene	ND	ug/L	5.0	1		01/24/23 20:46	95-47-6	
Surrogates								
4-Bromofluorobenzene (S)	107	%	70-130	1		01/24/23 20:46	460-00-4	
1,2-Dichloroethane-d4 (S)	98	%	70-130	1		01/24/23 20:46	17060-07-0	
Toluene-d8 (S)	113	%	70-130	1		01/24/23 20:46	2037-26-5	

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ANALYTICAL RESULTS

Project: WARREN GREEN 04887/166252
Pace Project No.: 92648032

Sample: MW-7R **Lab ID: 92648032006** Collected: 01/19/23 13:07 Received: 01/23/23 08:00 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8011 GCS EDB and DBCP	Analytical Method: EPA 8011 Preparation Method: EPA 8011							
	Pace Analytical Services - Charlotte							
1,2-Dibromoethane (EDB)	**0.38**	ug/L	0.020	1	01/25/23 11:22	01/26/23 01:09	106-93-4	
Surrogates								
1-Chloro-2-bromopropane (S)	115	%	60-140	1	01/25/23 11:22	01/26/23 01:09	301-79-56	
8260 MSV	Analytical Method: EPA 8260D							
	Pace Analytical Services - Charlotte							
tert-Amyl Alcohol	ND	ug/L	5000	50		01/25/23 01:24	75-85-4	
tert-Amylmethyl ether	ND	ug/L	500	50		01/25/23 01:24	994-05-8	
Benzene	**1120**	ug/L	250	50		01/25/23 01:24	71-43-2	
3,3-Dimethyl-1-Butanol	ND	ug/L	5000	50		01/25/23 01:24	624-95-3	
tert-Butyl Alcohol	ND	ug/L	5000	50		01/25/23 01:24	75-65-0	
tert-Butyl Formate	ND	ug/L	2500	50		01/25/23 01:24	762-75-4	
1,2-Dichloroethane	ND	ug/L	250	50		01/25/23 01:24	107-06-2	
Diisopropyl ether	ND	ug/L	250	50		01/25/23 01:24	108-20-3	IK
Ethanol	ND	ug/L	10000	50		01/25/23 01:24	64-17-5	
Ethylbenzene	**4350**	ug/L	250	50		01/25/23 01:24	100-41-4	
Ethyl-tert-butyl ether	ND	ug/L	500	50		01/25/23 01:24	637-92-3	
Methyl-tert-butyl ether	ND	ug/L	250	50		01/25/23 01:24	1634-04-4	
Naphthalene	**636**	ug/L	250	50		01/25/23 01:24	91-20-3	
Toluene	**9020**	ug/L	250	50		01/25/23 01:24	108-88-3	
Xylene (Total)	**25500**	ug/L	250	50		01/25/23 01:24	1330-20-7	
m&p-Xylene	**18200**	ug/L	500	50		01/25/23 01:24	179601-23-1	
o-Xylene	**7290**	ug/L	250	50		01/25/23 01:24	95-47-6	
Surrogates								
4-Bromofluorobenzene (S)	109	%	70-130	50		01/25/23 01:24	460-00-4	
1,2-Dichloroethane-d4 (S)	100	%	70-130	50		01/25/23 01:24	17060-07-0	
Toluene-d8 (S)	106	%	70-130	50		01/25/23 01:24	2037-26-5	

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ANALYTICAL RESULTS

Project: WARREN GREEN 04887/166252
Pace Project No.: 92648032

Sample: MW-8 **Lab ID: 92648032007** Collected: 01/19/23 11:15 Received: 01/23/23 08:00 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8011 GCS EDB and DBCP	Analytical Method: EPA 8011 Preparation Method: EPA 8011							
	Pace Analytical Services - Charlotte							
1,2-Dibromoethane (EDB)	ND	ug/L	0.020	1	01/25/23 11:22	01/26/23 01:20	106-93-4	
Surrogates								
1-Chloro-2-bromopropane (S)	119	%	60-140	1	01/25/23 11:22	01/26/23 01:20	301-79-56	
8260 MSV	Analytical Method: EPA 8260D							
	Pace Analytical Services - Charlotte							
tert-Amyl Alcohol	ND	ug/L	500	5		01/24/23 20:27	75-85-4	
tert-Amylmethyl ether	ND	ug/L	50.0	5		01/24/23 20:27	994-05-8	
Benzene	**825**	ug/L	25.0	5		01/24/23 20:27	71-43-2	
3,3-Dimethyl-1-Butanol	ND	ug/L	500	5		01/24/23 20:27	624-95-3	
tert-Butyl Alcohol	ND	ug/L	500	5		01/24/23 20:27	75-65-0	
tert-Butyl Formate	ND	ug/L	250	5		01/24/23 20:27	762-75-4	
1,2-Dichloroethane	ND	ug/L	25.0	5		01/24/23 20:27	107-06-2	
Diisopropyl ether	ND	ug/L	25.0	5		01/24/23 20:27	108-20-3	
Ethanol	ND	ug/L	1000	5		01/24/23 20:27	64-17-5	
Ethylbenzene	**262**	ug/L	25.0	5		01/24/23 20:27	100-41-4	
Ethyl-tert-butyl ether	ND	ug/L	50.0	5		01/24/23 20:27	637-92-3	
Methyl-tert-butyl ether	ND	ug/L	25.0	5		01/24/23 20:27	1634-04-4	
Naphthalene	**145**	ug/L	25.0	5		01/24/23 20:27	91-20-3	
Toluene	**105**	ug/L	25.0	5		01/24/23 20:27	108-88-3	
Xylene (Total)	**970**	ug/L	25.0	5		01/24/23 20:27	1330-20-7	
m&p-Xylene	**670**	ug/L	50.0	5		01/24/23 20:27	179601-23-1	
o-Xylene	**301**	ug/L	25.0	5		01/24/23 20:27	95-47-6	
Surrogates								
4-Bromofluorobenzene (S)	119	%	70-130	5		01/24/23 20:27	460-00-4	
1,2-Dichloroethane-d4 (S)	96	%	70-130	5		01/24/23 20:27	17060-07-0	
Toluene-d8 (S)	104	%	70-130	5		01/24/23 20:27	2037-26-5	

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ANALYTICAL RESULTS

Project: WARREN GREEN 04887/166252
Pace Project No.: 92648032

Sample: MW-9 **Lab ID: 92648032008** Collected: 01/19/23 11:17 Received: 01/23/23 08:00 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8011 GCS EDB and DBCP	Analytical Method: EPA 8011 Preparation Method: EPA 8011							
	Pace Analytical Services - Charlotte							
1,2-Dibromoethane (EDB)	ND	ug/L	0.020	1	01/25/23 11:22	01/26/23 01:30	106-93-4	
Surrogates								
1-Chloro-2-bromopropane (S)	96	%	60-140	1	01/25/23 11:22	01/26/23 01:30	301-79-56	
8260 MSV	Analytical Method: EPA 8260D							
	Pace Analytical Services - Charlotte							
tert-Amyl Alcohol	ND	ug/L	100	1		01/24/23 21:03	75-85-4	
tert-Amylmethyl ether	ND	ug/L	10.0	1		01/24/23 21:03	994-05-8	
Benzene	ND	ug/L	5.0	1		01/24/23 21:03	71-43-2	
3,3-Dimethyl-1-Butanol	ND	ug/L	100	1		01/24/23 21:03	624-95-3	
tert-Butyl Alcohol	ND	ug/L	100	1		01/24/23 21:03	75-65-0	
tert-Butyl Formate	ND	ug/L	50.0	1		01/24/23 21:03	762-75-4	
1,2-Dichloroethane	ND	ug/L	5.0	1		01/24/23 21:03	107-06-2	
Diisopropyl ether	ND	ug/L	5.0	1		01/24/23 21:03	108-20-3	IK
Ethanol	ND	ug/L	200	1		01/24/23 21:03	64-17-5	
Ethylbenzene	ND	ug/L	5.0	1		01/24/23 21:03	100-41-4	
Ethyl-tert-butyl ether	ND	ug/L	10.0	1		01/24/23 21:03	637-92-3	
Methyl-tert-butyl ether	ND	ug/L	5.0	1		01/24/23 21:03	1634-04-4	
Naphthalene	ND	ug/L	5.0	1		01/24/23 21:03	91-20-3	
Toluene	ND	ug/L	5.0	1		01/24/23 21:03	108-88-3	
Xylene (Total)	ND	ug/L	5.0	1		01/24/23 21:03	1330-20-7	
m&p-Xylene	ND	ug/L	10.0	1		01/24/23 21:03	179601-23-1	
o-Xylene	ND	ug/L	5.0	1		01/24/23 21:03	95-47-6	
Surrogates								
4-Bromofluorobenzene (S)	81	%	70-130	1		01/24/23 21:03	460-00-4	
1,2-Dichloroethane-d4 (S)	105	%	70-130	1		01/24/23 21:03	17060-07-0	
Toluene-d8 (S)	121	%	70-130	1		01/24/23 21:03	2037-26-5	

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ANALYTICAL RESULTS

Project: WARREN GREEN 04887/166252
Pace Project No.: 92648032

Sample: MW-10 | **Lab ID: 92648032009** | Collected: 01/19/23 11:07 | Received: 01/23/23 08:00 | Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8011 GCS EDB and DBCP	Analytical Method: EPA 8011 Preparation Method: EPA 8011							
	Pace Analytical Services - Charlotte							
1,2-Dibromoethane (EDB)	ND	ug/L	0.020	1	01/25/23 11:22	01/26/23 01:41	106-93-4	
Surrogates								
1-Chloro-2-bromopropane (S)	93	%	60-140	1	01/25/23 11:22	01/26/23 01:41	301-79-56	
8260 MSV	Analytical Method: EPA 8260D							
	Pace Analytical Services - Charlotte							
tert-Amyl Alcohol	ND	ug/L	100	1		01/24/23 21:21	75-85-4	
tert-Amylmethyl ether	ND	ug/L	10.0	1		01/24/23 21:21	994-05-8	
Benzene	ND	ug/L	5.0	1		01/24/23 21:21	71-43-2	
3,3-Dimethyl-1-Butanol	ND	ug/L	100	1		01/24/23 21:21	624-95-3	
tert-Butyl Alcohol	ND	ug/L	100	1		01/24/23 21:21	75-65-0	
tert-Butyl Formate	ND	ug/L	50.0	1		01/24/23 21:21	762-75-4	
1,2-Dichloroethane	ND	ug/L	5.0	1		01/24/23 21:21	107-06-2	
Diisopropyl ether	ND	ug/L	5.0	1		01/24/23 21:21	108-20-3	IK
Ethanol	ND	ug/L	200	1		01/24/23 21:21	64-17-5	
Ethylbenzene	ND	ug/L	5.0	1		01/24/23 21:21	100-41-4	
Ethyl-tert-butyl ether	ND	ug/L	10.0	1		01/24/23 21:21	637-92-3	
Methyl-tert-butyl ether	ND	ug/L	5.0	1		01/24/23 21:21	1634-04-4	
Naphthalene	ND	ug/L	5.0	1		01/24/23 21:21	91-20-3	
Toluene	ND	ug/L	5.0	1		01/24/23 21:21	108-88-3	
Xylene (Total)	ND	ug/L	5.0	1		01/24/23 21:21	1330-20-7	
m&p-Xylene	ND	ug/L	10.0	1		01/24/23 21:21	179601-23-1	
o-Xylene	ND	ug/L	5.0	1		01/24/23 21:21	95-47-6	
Surrogates								
4-Bromofluorobenzene (S)	93	%	70-130	1		01/24/23 21:21	460-00-4	
1,2-Dichloroethane-d4 (S)	95	%	70-130	1		01/24/23 21:21	17060-07-0	
Toluene-d8 (S)	104	%	70-130	1		01/24/23 21:21	2037-26-5	

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ANALYTICAL RESULTS

Project: WARREN GREEN 04887/166252
Pace Project No.: 92648032

Sample: MW-11R **Lab ID: 92648032010** Collected: 01/19/23 11:09 Received: 01/23/23 08:00 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8011 GCS EDB and DBCP	Analytical Method: EPA 8011 Preparation Method: EPA 8011							
	Pace Analytical Services - Charlotte							
1,2-Dibromoethane (EDB)	ND	ug/L	0.020	1	01/25/23 11:22	01/26/23 01:52	106-93-4	
Surrogates								
1-Chloro-2-bromopropane (S)	94	%	60-140	1	01/25/23 11:22	01/26/23 01:52	301-79-56	
8260 MSV	Analytical Method: EPA 8260D							
	Pace Analytical Services - Charlotte							
tert-Amyl Alcohol	ND	ug/L	100	1		01/24/23 21:38	75-85-4	
tert-Amylmethyl ether	ND	ug/L	10.0	1		01/24/23 21:38	994-05-8	
Benzene	ND	ug/L	5.0	1		01/24/23 21:38	71-43-2	
3,3-Dimethyl-1-Butanol	ND	ug/L	100	1		01/24/23 21:38	624-95-3	
tert-Butyl Alcohol	ND	ug/L	100	1		01/24/23 21:38	75-65-0	
tert-Butyl Formate	ND	ug/L	50.0	1		01/24/23 21:38	762-75-4	
1,2-Dichloroethane	ND	ug/L	5.0	1		01/24/23 21:38	107-06-2	
Diisopropyl ether	ND	ug/L	5.0	1		01/24/23 21:38	108-20-3	IK
Ethanol	ND	ug/L	200	1		01/24/23 21:38	64-17-5	
Ethylbenzene	ND	ug/L	5.0	1		01/24/23 21:38	100-41-4	
Ethyl-tert-butyl ether	ND	ug/L	10.0	1		01/24/23 21:38	637-92-3	
Methyl-tert-butyl ether	ND	ug/L	5.0	1		01/24/23 21:38	1634-04-4	
Naphthalene	ND	ug/L	5.0	1		01/24/23 21:38	91-20-3	
Toluene	ND	ug/L	5.0	1		01/24/23 21:38	108-88-3	
Xylene (Total)	ND	ug/L	5.0	1		01/24/23 21:38	1330-20-7	
m&p-Xylene	ND	ug/L	10.0	1		01/24/23 21:38	179601-23-1	
o-Xylene	ND	ug/L	5.0	1		01/24/23 21:38	95-47-6	
Surrogates								
4-Bromofluorobenzene (S)	88	%	70-130	1		01/24/23 21:38	460-00-4	
1,2-Dichloroethane-d4 (S)	113	%	70-130	1		01/24/23 21:38	17060-07-0	
Toluene-d8 (S)	122	%	70-130	1		01/24/23 21:38	2037-26-5	

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ANALYTICAL RESULTS

Project: WARREN GREEN 04887/166252

Pace Project No.: 92648032

Sample: MW-13R **Lab ID: 92648032011** Collected: 01/19/23 11:24 Received: 01/23/23 08:00 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8011 GCS EDB and DBCP	Analytical Method: EPA 8011 Preparation Method: EPA 8011							
	Pace Analytical Services - Charlotte							
1,2-Dibromoethane (EDB)	ND	ug/L	0.020	1	01/25/23 11:22	01/26/23 02:02	106-93-4	
Surrogates								
1-Chloro-2-bromopropane (S)	95	%	60-140	1	01/25/23 11:22	01/26/23 02:02	301-79-56	
8260 MSV	Analytical Method: EPA 8260D							
	Pace Analytical Services - Charlotte							
tert-Amyl Alcohol	ND	ug/L	100	1		01/24/23 21:55	75-85-4	
tert-Amylmethyl ether	ND	ug/L	10.0	1		01/24/23 21:55	994-05-8	
Benzene	ND	ug/L	5.0	1		01/24/23 21:55	71-43-2	
3,3-Dimethyl-1-Butanol	ND	ug/L	100	1		01/24/23 21:55	624-95-3	
tert-Butyl Alcohol	ND	ug/L	100	1		01/24/23 21:55	75-65-0	
tert-Butyl Formate	ND	ug/L	50.0	1		01/24/23 21:55	762-75-4	
1,2-Dichloroethane	ND	ug/L	5.0	1		01/24/23 21:55	107-06-2	
Diisopropyl ether	ND	ug/L	5.0	1		01/24/23 21:55	108-20-3	IK
Ethanol	ND	ug/L	200	1		01/24/23 21:55	64-17-5	
Ethylbenzene	ND	ug/L	5.0	1		01/24/23 21:55	100-41-4	
Ethyl-tert-butyl ether	ND	ug/L	10.0	1		01/24/23 21:55	637-92-3	
Methyl-tert-butyl ether	ND	ug/L	5.0	1		01/24/23 21:55	1634-04-4	
Naphthalene	ND	ug/L	5.0	1		01/24/23 21:55	91-20-3	
Toluene	ND	ug/L	5.0	1		01/24/23 21:55	108-88-3	
Xylene (Total)	ND	ug/L	5.0	1		01/24/23 21:55	1330-20-7	
m&p-Xylene	ND	ug/L	10.0	1		01/24/23 21:55	179601-23-1	
o-Xylene	ND	ug/L	5.0	1		01/24/23 21:55	95-47-6	
Surrogates								
4-Bromofluorobenzene (S)	105	%	70-130	1		01/24/23 21:55	460-00-4	
1,2-Dichloroethane-d4 (S)	106	%	70-130	1		01/24/23 21:55	17060-07-0	
Toluene-d8 (S)	107	%	70-130	1		01/24/23 21:55	2037-26-5	

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ANALYTICAL RESULTS

Project: WARREN GREEN 04887/166252
Pace Project No.: 92648032

Sample: MW-14 **Lab ID: 92648032012** Collected: 01/19/23 11:40 Received: 01/23/23 08:00 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8011 GCS EDB and DBCP	Analytical Method: EPA 8011 Preparation Method: EPA 8011							
	Pace Analytical Services - Charlotte							
1,2-Dibromoethane (EDB)	ND	ug/L	0.020	1	01/25/23 11:22	01/26/23 02:13	106-93-4	
Surrogates								
1-Chloro-2-bromopropane (S)	101	%	60-140	1	01/25/23 11:22	01/26/23 02:13	301-79-56	
8260 MSV	Analytical Method: EPA 8260D							
	Pace Analytical Services - Charlotte							
tert-Amyl Alcohol	ND	ug/L	100	1		01/24/23 22:13	75-85-4	
tert-Amylmethyl ether	ND	ug/L	10.0	1		01/24/23 22:13	994-05-8	
Benzene	ND	ug/L	5.0	1		01/24/23 22:13	71-43-2	
3,3-Dimethyl-1-Butanol	ND	ug/L	100	1		01/24/23 22:13	624-95-3	
tert-Butyl Alcohol	ND	ug/L	100	1		01/24/23 22:13	75-65-0	
tert-Butyl Formate	ND	ug/L	50.0	1		01/24/23 22:13	762-75-4	
1,2-Dichloroethane	ND	ug/L	5.0	1		01/24/23 22:13	107-06-2	
Diisopropyl ether	ND	ug/L	5.0	1		01/24/23 22:13	108-20-3	IK
Ethanol	ND	ug/L	200	1		01/24/23 22:13	64-17-5	
Ethylbenzene	ND	ug/L	5.0	1		01/24/23 22:13	100-41-4	
Ethyl-tert-butyl ether	ND	ug/L	10.0	1		01/24/23 22:13	637-92-3	
Methyl-tert-butyl ether	ND	ug/L	5.0	1		01/24/23 22:13	1634-04-4	
Naphthalene	ND	ug/L	5.0	1		01/24/23 22:13	91-20-3	
Toluene	ND	ug/L	5.0	1		01/24/23 22:13	108-88-3	
Xylene (Total)	ND	ug/L	5.0	1		01/24/23 22:13	1330-20-7	
m&p-Xylene	ND	ug/L	10.0	1		01/24/23 22:13	179601-23-1	
o-Xylene	ND	ug/L	5.0	1		01/24/23 22:13	95-47-6	
Surrogates								
4-Bromofluorobenzene (S)	104	%	70-130	1		01/24/23 22:13	460-00-4	
1,2-Dichloroethane-d4 (S)	106	%	70-130	1		01/24/23 22:13	17060-07-0	
Toluene-d8 (S)	115	%	70-130	1		01/24/23 22:13	2037-26-5	

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ANALYTICAL RESULTS

Project: WARREN GREEN 04887/166252
Pace Project No.: 92648032

Sample: MW-15 **Lab ID: 92648032013** Collected: 01/19/23 11:31 Received: 01/23/23 08:00 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8011 GCS EDB and DBCP	Analytical Method: EPA 8011 Preparation Method: EPA 8011							
	Pace Analytical Services - Charlotte							
1,2-Dibromoethane (EDB)	ND	ug/L	0.019	1	01/25/23 11:22	01/26/23 02:24	106-93-4	
Surrogates								
1-Chloro-2-bromopropane (S)	95	%	60-140	1	01/25/23 11:22	01/26/23 02:24	301-79-56	
8260 MSV	Analytical Method: EPA 8260D							
	Pace Analytical Services - Charlotte							
tert-Amyl Alcohol	ND	ug/L	100	1		01/24/23 22:30	75-85-4	
tert-Amylmethyl ether	ND	ug/L	10.0	1		01/24/23 22:30	994-05-8	
Benzene	ND	ug/L	5.0	1		01/24/23 22:30	71-43-2	
3,3-Dimethyl-1-Butanol	ND	ug/L	100	1		01/24/23 22:30	624-95-3	
tert-Butyl Alcohol	ND	ug/L	100	1		01/24/23 22:30	75-65-0	
tert-Butyl Formate	ND	ug/L	50.0	1		01/24/23 22:30	762-75-4	
1,2-Dichloroethane	ND	ug/L	5.0	1		01/24/23 22:30	107-06-2	
Diisopropyl ether	ND	ug/L	5.0	1		01/24/23 22:30	108-20-3	IK
Ethanol	ND	ug/L	200	1		01/24/23 22:30	64-17-5	
Ethylbenzene	ND	ug/L	5.0	1		01/24/23 22:30	100-41-4	
Ethyl-tert-butyl ether	ND	ug/L	10.0	1		01/24/23 22:30	637-92-3	
Methyl-tert-butyl ether	ND	ug/L	5.0	1		01/24/23 22:30	1634-04-4	
Naphthalene	ND	ug/L	5.0	1		01/24/23 22:30	91-20-3	
Toluene	ND	ug/L	5.0	1		01/24/23 22:30	108-88-3	
Xylene (Total)	ND	ug/L	5.0	1		01/24/23 22:30	1330-20-7	
m&p-Xylene	ND	ug/L	10.0	1		01/24/23 22:30	179601-23-1	
o-Xylene	ND	ug/L	5.0	1		01/24/23 22:30	95-47-6	
Surrogates								
4-Bromofluorobenzene (S)	103	%	70-130	1		01/24/23 22:30	460-00-4	
1,2-Dichloroethane-d4 (S)	105	%	70-130	1		01/24/23 22:30	17060-07-0	
Toluene-d8 (S)	116	%	70-130	1		01/24/23 22:30	2037-26-5	

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ANALYTICAL RESULTS

Project: WARREN GREEN 04887/166252
Pace Project No.: 92648032

Sample: DW-1 **Lab ID: 92648032014** Collected: 01/19/23 13:27 Received: 01/23/23 08:00 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8011 GCS EDB and DBCP	Analytical Method: EPA 8011 Preparation Method: EPA 8011							
	Pace Analytical Services - Charlotte							
1,2-Dibromoethane (EDB)	ND	ug/L	0.019	1	01/25/23 11:22	01/26/23 02:35	106-93-4	
Surrogates								
1-Chloro-2-bromopropane (S)	98	%	60-140	1	01/25/23 11:22	01/26/23 02:35	301-79-56	
8260 MSV	Analytical Method: EPA 8260D							
	Pace Analytical Services - Charlotte							
tert-Amyl Alcohol	ND	ug/L	100	1		01/24/23 22:47	75-85-4	
tert-Amylmethyl ether	ND	ug/L	10.0	1		01/24/23 22:47	994-05-8	
Benzene	ND	ug/L	5.0	1		01/24/23 22:47	71-43-2	
3,3-Dimethyl-1-Butanol	ND	ug/L	100	1		01/24/23 22:47	624-95-3	
tert-Butyl Alcohol	ND	ug/L	100	1		01/24/23 22:47	75-65-0	
tert-Butyl Formate	ND	ug/L	50.0	1		01/24/23 22:47	762-75-4	
1,2-Dichloroethane	ND	ug/L	5.0	1		01/24/23 22:47	107-06-2	
Diisopropyl ether	ND	ug/L	5.0	1		01/24/23 22:47	108-20-3	IK
Ethanol	ND	ug/L	200	1		01/24/23 22:47	64-17-5	
Ethylbenzene	ND	ug/L	5.0	1		01/24/23 22:47	100-41-4	
Ethyl-tert-butyl ether	ND	ug/L	10.0	1		01/24/23 22:47	637-92-3	
Methyl-tert-butyl ether	ND	ug/L	5.0	1		01/24/23 22:47	1634-04-4	
Naphthalene	ND	ug/L	5.0	1		01/24/23 22:47	91-20-3	
Toluene	ND	ug/L	5.0	1		01/24/23 22:47	108-88-3	
Xylene (Total)	ND	ug/L	5.0	1		01/24/23 22:47	1330-20-7	
m&p-Xylene	ND	ug/L	10.0	1		01/24/23 22:47	179601-23-1	
o-Xylene	ND	ug/L	5.0	1		01/24/23 22:47	95-47-6	
Surrogates								
4-Bromofluorobenzene (S)	108	%	70-130	1		01/24/23 22:47	460-00-4	
1,2-Dichloroethane-d4 (S)	109	%	70-130	1		01/24/23 22:47	17060-07-0	
Toluene-d8 (S)	103	%	70-130	1		01/24/23 22:47	2037-26-5	

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ANALYTICAL RESULTS

Project: WARREN GREEN 04887/166252
Pace Project No.: 92648032

Sample: DW-2 **Lab ID: 92648032015** Collected: 01/19/23 12:35 Received: 01/23/23 08:00 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8011 GCS EDB and DBCP	Analytical Method: EPA 8011 Preparation Method: EPA 8011							
	Pace Analytical Services - Charlotte							
1,2-Dibromoethane (EDB)	ND	ug/L	0.020	1	01/25/23 11:22	01/26/23 02:45	106-93-4	
Surrogates								
1-Chloro-2-bromopropane (S)	99	%	60-140	1	01/25/23 11:22	01/26/23 02:45	301-79-56	
8260 MSV	Analytical Method: EPA 8260D							
	Pace Analytical Services - Charlotte							
tert-Amyl Alcohol	ND	ug/L	100	1		01/24/23 23:05	75-85-4	
tert-Amylmethyl ether	ND	ug/L	10.0	1		01/24/23 23:05	994-05-8	
Benzene	ND	ug/L	5.0	1		01/24/23 23:05	71-43-2	
3,3-Dimethyl-1-Butanol	ND	ug/L	100	1		01/24/23 23:05	624-95-3	
tert-Butyl Alcohol	ND	ug/L	100	1		01/24/23 23:05	75-65-0	
tert-Butyl Formate	ND	ug/L	50.0	1		01/24/23 23:05	762-75-4	
1,2-Dichloroethane	ND	ug/L	5.0	1		01/24/23 23:05	107-06-2	
Diisopropyl ether	ND	ug/L	5.0	1		01/24/23 23:05	108-20-3	IK
Ethanol	ND	ug/L	200	1		01/24/23 23:05	64-17-5	
Ethylbenzene	ND	ug/L	5.0	1		01/24/23 23:05	100-41-4	
Ethyl-tert-butyl ether	ND	ug/L	10.0	1		01/24/23 23:05	637-92-3	
Methyl-tert-butyl ether	ND	ug/L	5.0	1		01/24/23 23:05	1634-04-4	
Naphthalene	ND	ug/L	5.0	1		01/24/23 23:05	91-20-3	
Toluene	ND	ug/L	5.0	1		01/24/23 23:05	108-88-3	
Xylene (Total)	ND	ug/L	5.0	1		01/24/23 23:05	1330-20-7	
m&p-Xylene	ND	ug/L	10.0	1		01/24/23 23:05	179601-23-1	
o-Xylene	ND	ug/L	5.0	1		01/24/23 23:05	95-47-6	
Surrogates								
4-Bromofluorobenzene (S)	104	%	70-130	1		01/24/23 23:05	460-00-4	
1,2-Dichloroethane-d4 (S)	108	%	70-130	1		01/24/23 23:05	17060-07-0	
Toluene-d8 (S)	114	%	70-130	1		01/24/23 23:05	2037-26-5	

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ANALYTICAL RESULTS

Project: WARREN GREEN 04887/166252
Pace Project No.: 92648032

Sample: DW-3 | **Lab ID: 92648032016** | Collected: 01/19/23 10:51 | Received: 01/23/23 08:00 | Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8011 GCS EDB and DBCP	Analytical Method: EPA 8011 Preparation Method: EPA 8011							
	Pace Analytical Services - Charlotte							
1,2-Dibromoethane (EDB)	ND	ug/L	0.020	1	01/25/23 11:22	01/26/23 02:56	106-93-4	
Surrogates								
1-Chloro-2-bromopropane (S)	100	%	60-140	1	01/25/23 11:22	01/26/23 02:56	301-79-56	
8260 MSV	Analytical Method: EPA 8260D							
	Pace Analytical Services - Charlotte							
tert-Amyl Alcohol	ND	ug/L	100	1		01/24/23 23:22	75-85-4	
tert-Amylmethyl ether	ND	ug/L	10.0	1		01/24/23 23:22	994-05-8	
Benzene	ND	ug/L	5.0	1		01/24/23 23:22	71-43-2	
3,3-Dimethyl-1-Butanol	ND	ug/L	100	1		01/24/23 23:22	624-95-3	
tert-Butyl Alcohol	ND	ug/L	100	1		01/24/23 23:22	75-65-0	
tert-Butyl Formate	ND	ug/L	50.0	1		01/24/23 23:22	762-75-4	
1,2-Dichloroethane	ND	ug/L	5.0	1		01/24/23 23:22	107-06-2	
Diisopropyl ether	ND	ug/L	5.0	1		01/24/23 23:22	108-20-3	IK
Ethanol	ND	ug/L	200	1		01/24/23 23:22	64-17-5	
Ethylbenzene	ND	ug/L	5.0	1		01/24/23 23:22	100-41-4	
Ethyl-tert-butyl ether	ND	ug/L	10.0	1		01/24/23 23:22	637-92-3	
Methyl-tert-butyl ether	ND	ug/L	5.0	1		01/24/23 23:22	1634-04-4	
Naphthalene	ND	ug/L	5.0	1		01/24/23 23:22	91-20-3	
Toluene	ND	ug/L	5.0	1		01/24/23 23:22	108-88-3	
Xylene (Total)	ND	ug/L	5.0	1		01/24/23 23:22	1330-20-7	
m&p-Xylene	ND	ug/L	10.0	1		01/24/23 23:22	179601-23-1	
o-Xylene	ND	ug/L	5.0	1		01/24/23 23:22	95-47-6	
Surrogates								
4-Bromofluorobenzene (S)	103	%	70-130	1		01/24/23 23:22	460-00-4	
1,2-Dichloroethane-d4 (S)	118	%	70-130	1		01/24/23 23:22	17060-07-0	
Toluene-d8 (S)	111	%	70-130	1		01/24/23 23:22	2037-26-5	

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ANALYTICAL RESULTS

Project: WARREN GREEN 04887/166252
Pace Project No.: 92648032

Sample: DW-4 **Lab ID: 92648032017** Collected: 01/19/23 10:55 Received: 01/23/23 08:00 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8011 GCS EDB and DBCP	Analytical Method: EPA 8011 Preparation Method: EPA 8011							
	Pace Analytical Services - Charlotte							
1,2-Dibromoethane (EDB)	ND	ug/L	0.021	1	01/25/23 11:22	01/26/23 03:07	106-93-4	
Surrogates								
1-Chloro-2-bromopropane (S)	95	%	60-140	1	01/25/23 11:22	01/26/23 03:07	301-79-56	
8260 MSV	Analytical Method: EPA 8260D							
	Pace Analytical Services - Charlotte							
tert-Amyl Alcohol	ND	ug/L	100	1		01/24/23 23:40	75-85-4	
tert-Amylmethyl ether	ND	ug/L	10.0	1		01/24/23 23:40	994-05-8	
Benzene	ND	ug/L	5.0	1		01/24/23 23:40	71-43-2	
3,3-Dimethyl-1-Butanol	ND	ug/L	100	1		01/24/23 23:40	624-95-3	
tert-Butyl Alcohol	ND	ug/L	100	1		01/24/23 23:40	75-65-0	
tert-Butyl Formate	ND	ug/L	50.0	1		01/24/23 23:40	762-75-4	
1,2-Dichloroethane	ND	ug/L	5.0	1		01/24/23 23:40	107-06-2	
Diisopropyl ether	ND	ug/L	5.0	1		01/24/23 23:40	108-20-3	IK
Ethanol	ND	ug/L	200	1		01/24/23 23:40	64-17-5	
Ethylbenzene	ND	ug/L	5.0	1		01/24/23 23:40	100-41-4	
Ethyl-tert-butyl ether	ND	ug/L	10.0	1		01/24/23 23:40	637-92-3	
Methyl-tert-butyl ether	ND	ug/L	5.0	1		01/24/23 23:40	1634-04-4	
Naphthalene	ND	ug/L	5.0	1		01/24/23 23:40	91-20-3	
Toluene	ND	ug/L	5.0	1		01/24/23 23:40	108-88-3	
Xylene (Total)	ND	ug/L	5.0	1		01/24/23 23:40	1330-20-7	
m&p-Xylene	ND	ug/L	10.0	1		01/24/23 23:40	179601-23-1	
o-Xylene	ND	ug/L	5.0	1		01/24/23 23:40	95-47-6	
Surrogates								
4-Bromofluorobenzene (S)	98	%	70-130	1		01/24/23 23:40	460-00-4	
1,2-Dichloroethane-d4 (S)	100	%	70-130	1		01/24/23 23:40	17060-07-0	
Toluene-d8 (S)	108	%	70-130	1		01/24/23 23:40	2037-26-5	

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ANALYTICAL RESULTS

Project: WARREN GREEN 04887/166252
Pace Project No.: 92648032

Sample: DW-5 **Lab ID: 92648032018** Collected: 01/19/23 14:10 Received: 01/23/23 08:00 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8011 GCS EDB and DBCP	Analytical Method: EPA 8011 Preparation Method: EPA 8011							
	Pace Analytical Services - Charlotte							
1,2-Dibromoethane (EDB)	ND	ug/L	0.020	1	01/25/23 11:22	01/26/23 03:17	106-93-4	
Surrogates								
1-Chloro-2-bromopropane (S)	94	%	60-140	1	01/25/23 11:22	01/26/23 03:17	301-79-56	
8260 MSV	Analytical Method: EPA 8260D							
	Pace Analytical Services - Charlotte							
tert-Amyl Alcohol	ND	ug/L	100	1		01/24/23 23:57	75-85-4	
tert-Amylmethyl ether	ND	ug/L	10.0	1		01/24/23 23:57	994-05-8	
Benzene	ND	ug/L	5.0	1		01/24/23 23:57	71-43-2	
3,3-Dimethyl-1-Butanol	ND	ug/L	100	1		01/24/23 23:57	624-95-3	
tert-Butyl Alcohol	ND	ug/L	100	1		01/24/23 23:57	75-65-0	
tert-Butyl Formate	ND	ug/L	50.0	1		01/24/23 23:57	762-75-4	
1,2-Dichloroethane	ND	ug/L	5.0	1		01/24/23 23:57	107-06-2	
Diisopropyl ether	ND	ug/L	5.0	1		01/24/23 23:57	108-20-3	IK
Ethanol	ND	ug/L	200	1		01/24/23 23:57	64-17-5	
Ethylbenzene	ND	ug/L	5.0	1		01/24/23 23:57	100-41-4	
Ethyl-tert-butyl ether	ND	ug/L	10.0	1		01/24/23 23:57	637-92-3	
Methyl-tert-butyl ether	ND	ug/L	5.0	1		01/24/23 23:57	1634-04-4	
Naphthalene	ND	ug/L	5.0	1		01/24/23 23:57	91-20-3	
Toluene	ND	ug/L	5.0	1		01/24/23 23:57	108-88-3	
Xylene (Total)	ND	ug/L	5.0	1		01/24/23 23:57	1330-20-7	
m&p-Xylene	ND	ug/L	10.0	1		01/24/23 23:57	179601-23-1	
o-Xylene	ND	ug/L	5.0	1		01/24/23 23:57	95-47-6	
Surrogates								
4-Bromofluorobenzene (S)	103	%	70-130	1		01/24/23 23:57	460-00-4	
1,2-Dichloroethane-d4 (S)	105	%	70-130	1		01/24/23 23:57	17060-07-0	
Toluene-d8 (S)	115	%	70-130	1		01/24/23 23:57	2037-26-5	

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ANALYTICAL RESULTS

Project: WARREN GREEN 04887/166252
Pace Project No.: 92648032

Sample: DW-6 **Lab ID: 92648032019** Collected: 01/19/23 14:00 Received: 01/23/23 08:00 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8011 GCS EDB and DBCP	Analytical Method: EPA 8011 Preparation Method: EPA 8011							
	Pace Analytical Services - Charlotte							
1,2-Dibromoethane (EDB)	ND	ug/L	0.021	1	01/25/23 11:22	01/26/23 03:28	106-93-4	
Surrogates								
1-Chloro-2-bromopropane (S)	102	%	60-140	1	01/25/23 11:22	01/26/23 03:28	301-79-56	
8260 MSV	Analytical Method: EPA 8260D							
	Pace Analytical Services - Charlotte							
tert-Amyl Alcohol	ND	ug/L	100	1		01/25/23 00:15	75-85-4	
tert-Amylmethyl ether	ND	ug/L	10.0	1		01/25/23 00:15	994-05-8	
Benzene	ND	ug/L	5.0	1		01/25/23 00:15	71-43-2	
3,3-Dimethyl-1-Butanol	ND	ug/L	100	1		01/25/23 00:15	624-95-3	
tert-Butyl Alcohol	ND	ug/L	100	1		01/25/23 00:15	75-65-0	
tert-Butyl Formate	ND	ug/L	50.0	1		01/25/23 00:15	762-75-4	
1,2-Dichloroethane	ND	ug/L	5.0	1		01/25/23 00:15	107-06-2	
Diisopropyl ether	ND	ug/L	5.0	1		01/25/23 00:15	108-20-3	IK
Ethanol	ND	ug/L	200	1		01/25/23 00:15	64-17-5	
Ethylbenzene	ND	ug/L	5.0	1		01/25/23 00:15	100-41-4	
Ethyl-tert-butyl ether	ND	ug/L	10.0	1		01/25/23 00:15	637-92-3	
Methyl-tert-butyl ether	ND	ug/L	5.0	1		01/25/23 00:15	1634-04-4	
Naphthalene	ND	ug/L	5.0	1		01/25/23 00:15	91-20-3	
Toluene	ND	ug/L	5.0	1		01/25/23 00:15	108-88-3	
Xylene (Total)	ND	ug/L	5.0	1		01/25/23 00:15	1330-20-7	
m&p-Xylene	ND	ug/L	10.0	1		01/25/23 00:15	179601-23-1	
o-Xylene	ND	ug/L	5.0	1		01/25/23 00:15	95-47-6	
Surrogates								
4-Bromofluorobenzene (S)	104	%	70-130	1		01/25/23 00:15	460-00-4	
1,2-Dichloroethane-d4 (S)	109	%	70-130	1		01/25/23 00:15	17060-07-0	
Toluene-d8 (S)	108	%	70-130	1		01/25/23 00:15	2037-26-5	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: WARREN GREEN 04887/166252
Pace Project No.: 92648032

Sample: DUP-1 | **Lab ID: 92648032020** | Collected: 01/19/23 13:07 | Received: 01/23/23 08:00 | Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8011 GCS EDB and DBCP	Analytical Method: EPA 8011 Preparation Method: EPA 8011							
	Pace Analytical Services - Charlotte							
1,2-Dibromoethane (EDB)	**0.34**	ug/L	0.020	1	01/25/23 11:22	01/26/23 03:39	106-93-4	
Surrogates								
1-Chloro-2-bromopropane (S)	100	%	60-140	1	01/25/23 11:22	01/26/23 03:39	301-79-56	
8260 MSV	Analytical Method: EPA 8260D							
	Pace Analytical Services - Charlotte							
tert-Amyl Alcohol	ND	ug/L	5000	50		01/25/23 19:47	75-85-4	
tert-Amylmethyl ether	ND	ug/L	500	50		01/25/23 19:47	994-05-8	
Benzene	**1110**	ug/L	250	50		01/25/23 19:47	71-43-2	
3,3-Dimethyl-1-Butanol	ND	ug/L	5000	50		01/25/23 19:47	624-95-3	
tert-Butyl Alcohol	ND	ug/L	5000	50		01/25/23 19:47	75-65-0	
tert-Butyl Formate	ND	ug/L	2500	50		01/25/23 19:47	762-75-4	
1,2-Dichloroethane	ND	ug/L	250	50		01/25/23 19:47	107-06-2	
Diisopropyl ether	ND	ug/L	250	50		01/25/23 19:47	108-20-3	
Ethanol	ND	ug/L	10000	50		01/25/23 19:47	64-17-5	
Ethylbenzene	**4150**	ug/L	250	50		01/25/23 19:47	100-41-4	
Ethyl-tert-butyl ether	ND	ug/L	500	50		01/25/23 19:47	637-92-3	
Methyl-tert-butyl ether	ND	ug/L	250	50		01/25/23 19:47	1634-04-4	
Naphthalene	**1010**	ug/L	250	50		01/25/23 19:47	91-20-3	
Toluene	**8500**	ug/L	250	50		01/25/23 19:47	108-88-3	
Xylene (Total)	**24400**	ug/L	250	50		01/25/23 19:47	1330-20-7	
m&p-Xylene	**16900**	ug/L	500	50		01/25/23 19:47	179601-23-1	
o-Xylene	**7510**	ug/L	250	50		01/25/23 19:47	95-47-6	
Surrogates								
4-Bromofluorobenzene (S)	96	%	70-130	50		01/25/23 19:47	460-00-4	
1,2-Dichloroethane-d4 (S)	91	%	70-130	50		01/25/23 19:47	17060-07-0	
Toluene-d8 (S)	105	%	70-130	50		01/25/23 19:47	2037-26-5	

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ANALYTICAL RESULTS

Project: WARREN GREEN 04887/166252
Pace Project No.: 92648032

Sample: TB **Lab ID: 92648032021** Collected: 01/19/23 19:15 Received: 01/23/23 08:00 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV	Analytical Method: EPA 8260D Pace Analytical Services - Charlotte							
tert-Amyl Alcohol	ND	ug/L	100	1		01/25/23 15:17	75-85-4	
tert-Amylmethyl ether	ND	ug/L	10.0	1		01/25/23 15:17	994-05-8	
Benzene	ND	ug/L	5.0	1		01/25/23 15:17	71-43-2	
3,3-Dimethyl-1-Butanol	ND	ug/L	100	1		01/25/23 15:17	624-95-3	
tert-Butyl Alcohol	ND	ug/L	100	1		01/25/23 15:17	75-65-0	
tert-Butyl Formate	ND	ug/L	50.0	1		01/25/23 15:17	762-75-4	
1,2-Dichloroethane	ND	ug/L	5.0	1		01/25/23 15:17	107-06-2	
Diisopropyl ether	ND	ug/L	5.0	1		01/25/23 15:17	108-20-3	
Ethanol	ND	ug/L	200	1		01/25/23 15:17	64-17-5	
Ethylbenzene	ND	ug/L	5.0	1		01/25/23 15:17	100-41-4	
Ethyl-tert-butyl ether	ND	ug/L	10.0	1		01/25/23 15:17	637-92-3	
Methyl-tert-butyl ether	ND	ug/L	5.0	1		01/25/23 15:17	1634-04-4	
Naphthalene	ND	ug/L	5.0	1		01/25/23 15:17	91-20-3	
Toluene	ND	ug/L	5.0	1		01/25/23 15:17	108-88-3	
Xylene (Total)	ND	ug/L	5.0	1		01/25/23 15:17	1330-20-7	
m&p-Xylene	ND	ug/L	10.0	1		01/25/23 15:17	179601-23-1	
o-Xylene	ND	ug/L	5.0	1		01/25/23 15:17	95-47-6	
Surrogates								
4-Bromofluorobenzene (S)	97	%	70-130	1		01/25/23 15:17	460-00-4	
1,2-Dichloroethane-d4 (S)	93	%	70-130	1		01/25/23 15:17	17060-07-0	
Toluene-d8 (S)	106	%	70-130	1		01/25/23 15:17	2037-26-5	

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ANALYTICAL RESULTS

Project: WARREN GREEN 04887/166252
Pace Project No.: 92648032

Sample: FB **Lab ID: 92648032022** Collected: 01/19/23 08:20 Received: 01/23/23 08:00 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8011 GCS EDB and DBCP	Analytical Method: EPA 8011 Preparation Method: EPA 8011							
	Pace Analytical Services - Charlotte							
1,2-Dibromoethane (EDB)	ND	ug/L	0.019	1	01/25/23 11:22	01/26/23 03:49	106-93-4	
Surrogates								
1-Chloro-2-bromopropane (S)	115	%	60-140	1	01/25/23 11:22	01/26/23 03:49	301-79-56	
8260 MSV	Analytical Method: EPA 8260D							
	Pace Analytical Services - Charlotte							
tert-Amyl Alcohol	ND	ug/L	100	1		01/25/23 15:35	75-85-4	
tert-Amylmethyl ether	ND	ug/L	10.0	1		01/25/23 15:35	994-05-8	
Benzene	ND	ug/L	5.0	1		01/25/23 15:35	71-43-2	
3,3-Dimethyl-1-Butanol	ND	ug/L	100	1		01/25/23 15:35	624-95-3	
tert-Butyl Alcohol	ND	ug/L	100	1		01/25/23 15:35	75-65-0	
tert-Butyl Formate	ND	ug/L	50.0	1		01/25/23 15:35	762-75-4	
1,2-Dichloroethane	ND	ug/L	5.0	1		01/25/23 15:35	107-06-2	
Diisopropyl ether	ND	ug/L	5.0	1		01/25/23 15:35	108-20-3	
Ethanol	ND	ug/L	200	1		01/25/23 15:35	64-17-5	
Ethylbenzene	ND	ug/L	5.0	1		01/25/23 15:35	100-41-4	
Ethyl-tert-butyl ether	ND	ug/L	10.0	1		01/25/23 15:35	637-92-3	
Methyl-tert-butyl ether	ND	ug/L	5.0	1		01/25/23 15:35	1634-04-4	
Naphthalene	ND	ug/L	5.0	1		01/25/23 15:35	91-20-3	
Toluene	ND	ug/L	5.0	1		01/25/23 15:35	108-88-3	
Xylene (Total)	ND	ug/L	5.0	1		01/25/23 15:35	1330-20-7	
m&p-Xylene	ND	ug/L	10.0	1		01/25/23 15:35	179601-23-1	
o-Xylene	ND	ug/L	5.0	1		01/25/23 15:35	95-47-6	
Surrogates								
4-Bromofluorobenzene (S)	96	%	70-130	1		01/25/23 15:35	460-00-4	
1,2-Dichloroethane-d4 (S)	96	%	70-130	1		01/25/23 15:35	17060-07-0	
Toluene-d8 (S)	109	%	70-130	1		01/25/23 15:35	2037-26-5	

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QUALITY CONTROL DATA

Project: WARREN GREEN 04887/166252
Pace Project No.: 92648032

QC Batch: 751344 | Analysis Method: EPA 8260D
QC Batch Method: EPA 8260D | Analysis Description: 8260 MSV SC
Laboratory: Pace Analytical Services - Charlotte

Associated Lab Samples: 92648032002, 92648032007

METHOD BLANK: 3904471 Matrix: Water

Associated Lab Samples: 92648032002, 92648032007

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
1,2-Dichloroethane	ug/L	ND	5.0	01/24/23 14:33	
3,3-Dimethyl-1-Butanol	ug/L	ND	100	01/24/23 14:33	
Benzene	ug/L	ND	5.0	01/24/23 14:33	
Diisopropyl ether	ug/L	ND	5.0	01/24/23 14:33	
Ethanol	ug/L	ND	200	01/24/23 14:33	
Ethyl-tert-butyl ether	ug/L	ND	10.0	01/24/23 14:33	
Ethylbenzene	ug/L	ND	5.0	01/24/23 14:33	
m&p-Xylene	ug/L	ND	10.0	01/24/23 14:33	
Methyl-tert-butyl ether	ug/L	ND	5.0	01/24/23 14:33	
Naphthalene	ug/L	ND	5.0	01/24/23 14:33	
o-Xylene	ug/L	ND	5.0	01/24/23 14:33	
tert-Amyl Alcohol	ug/L	ND	100	01/24/23 14:33	
tert-Amylmethyl ether	ug/L	ND	10.0	01/24/23 14:33	
tert-Butyl Alcohol	ug/L	ND	100	01/24/23 14:33	
tert-Butyl Formate	ug/L	ND	50.0	01/24/23 14:33	
Toluene	ug/L	ND	5.0	01/24/23 14:33	
Xylene (Total)	ug/L	ND	5.0	01/24/23 14:33	
1,2-Dichloroethane-d4 (S)	%	88	70-130	01/24/23 14:33	
4-Bromofluorobenzene (S)	%	100	70-130	01/24/23 14:33	
Toluene-d8 (S)	%	105	70-130	01/24/23 14:33	

LABORATORY CONTROL SAMPLE: 3904472

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,2-Dichloroethane	ug/L	20	20.8	104	70-130	
3,3-Dimethyl-1-Butanol	ug/L	400	404	101	70-130	
Benzene	ug/L	20	21.8	109	70-130	
Diisopropyl ether	ug/L	20	21.8	109	70-130	
Ethanol	ug/L	800	903	113	70-130	
Ethyl-tert-butyl ether	ug/L	40	43.2	108	70-130	
Ethylbenzene	ug/L	20	22.1	111	70-130	
m&p-Xylene	ug/L	40	44.7	112	70-130	
Methyl-tert-butyl ether	ug/L	20	20.9	105	70-130	
Naphthalene	ug/L	20	22.9	115	70-130	
o-Xylene	ug/L	20	22.2	111	70-130	
tert-Amyl Alcohol	ug/L	400	393	98	70-130	
tert-Amylmethyl ether	ug/L	40	42.4	106	70-130	
tert-Butyl Alcohol	ug/L	200	198	99	70-130	
tert-Butyl Formate	ug/L	160	168	105	70-130	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: WARREN GREEN 04887/166252
Pace Project No.: 92648032

LABORATORY CONTROL SAMPLE: 3904472

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Toluene	ug/L	20	21.3	107	70-130	
Xylene (Total)	ug/L	60	66.9	112	70-130	
1,2-Dichloroethane-d4 (S)	%			92	70-130	
4-Bromofluorobenzene (S)	%			99	70-130	
Toluene-d8 (S)	%			97	70-130	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3904473 3904474

Parameter	Units	92648039001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Qual
1,2-Dichloroethane	ug/L	ND	20	20	24.8	24.7	124	124	70-137	1	
3,3-Dimethyl-1-Butanol	ug/L	ND	400	400	493	541	123	135	39-157	9	
Benzene	ug/L	ND	20	20	24.2	23.4	121	117	70-151	4	
Diisopropyl ether	ug/L	ND	20	20	20.9	22.1	104	110	63-144	5	
Ethanol	ug/L	ND	800	800	912	881	114	110	39-176	3	
Ethyl-tert-butyl ether	ug/L	ND	40	40	43.5	44.6	109	111	66-137	2	
Ethylbenzene	ug/L	ND	20	20	23.8	24.6	119	123	66-153	3	
m&p-Xylene	ug/L	ND	40	40	48.6	44.3	121	111	69-152	9	
Methyl-tert-butyl ether	ug/L	ND	20	20	20.9	21.5	104	107	54-156	3	
Naphthalene	ug/L	ND	20	20	22.5	25.4	113	127	61-148	12	
o-Xylene	ug/L	ND	20	20	23.9	22.3	120	111	70-148	7	
tert-Amyl Alcohol	ug/L	ND	400	400	466	487	116	122	54-153	4	
tert-Amylmethyl ether	ug/L	ND	40	40	48.6	47.9	122	120	69-139	2	
tert-Butyl Alcohol	ug/L	ND	200	200	204	222	102	111	43-188	9	
tert-Butyl Formate	ug/L	ND	160	160	184	161	115	101	10-170	14	
Toluene	ug/L	ND	20	20	23.1	27.6	116	138	59-148	18	
Xylene (Total)	ug/L	ND	60	60	72.5	66.6	121	111	63-158	8	
1,2-Dichloroethane-d4 (S)	%						97	93	70-130		
4-Bromofluorobenzene (S)	%						113	103	70-130		
Toluene-d8 (S)	%						97	113	70-130		

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

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QUALITY CONTROL DATA

Project: WARREN GREEN 04887/166252
Pace Project No.: 92648032

QC Batch: 751347 | Analysis Method: EPA 8260D
QC Batch Method: EPA 8260D | Analysis Description: 8260 MSV SC
Laboratory: Pace Analytical Services - Charlotte

Associated Lab Samples: 92648032003, 92648032004, 92648032005, 92648032006, 92648032008, 92648032009, 92648032010, 92648032011, 92648032012, 92648032013, 92648032014, 92648032015, 92648032016, 92648032017, 92648032018, 92648032019

METHOD BLANK: 3904482 Matrix: Water

Associated Lab Samples: 92648032003, 92648032004, 92648032005, 92648032006, 92648032008, 92648032009, 92648032010, 92648032011, 92648032012, 92648032013, 92648032014, 92648032015, 92648032016, 92648032017, 92648032018, 92648032019

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
1,2-Dichloroethane	ug/L	ND	5.0	01/24/23 19:36	
3,3-Dimethyl-1-Butanol	ug/L	ND	100	01/24/23 19:36	
Benzene	ug/L	ND	5.0	01/24/23 19:36	
Diisopropyl ether	ug/L	ND	5.0	01/24/23 19:36	IK
Ethanol	ug/L	ND	200	01/24/23 19:36	
Ethyl-tert-butyl ether	ug/L	ND	10.0	01/24/23 19:36	
Ethylbenzene	ug/L	ND	5.0	01/24/23 19:36	
m&p-Xylene	ug/L	ND	10.0	01/24/23 19:36	
Methyl-tert-butyl ether	ug/L	ND	5.0	01/24/23 19:36	
Naphthalene	ug/L	ND	5.0	01/24/23 19:36	
o-Xylene	ug/L	ND	5.0	01/24/23 19:36	
tert-Amyl Alcohol	ug/L	ND	100	01/24/23 19:36	
tert-Amylmethyl ether	ug/L	ND	10.0	01/24/23 19:36	
tert-Butyl Alcohol	ug/L	ND	100	01/24/23 19:36	
tert-Butyl Formate	ug/L	ND	50.0	01/24/23 19:36	
Toluene	ug/L	ND	5.0	01/24/23 19:36	
Xylene (Total)	ug/L	ND	5.0	01/24/23 19:36	
1,2-Dichloroethane-d4 (S)	%	101	70-130	01/24/23 19:36	
4-Bromofluorobenzene (S)	%	91	70-130	01/24/23 19:36	
Toluene-d8 (S)	%	102	70-130	01/24/23 19:36	

LABORATORY CONTROL SAMPLE: 3904483

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,2-Dichloroethane	ug/L	20	20.4	102	70-130	
3,3-Dimethyl-1-Butanol	ug/L	400	373	93	70-130	
Benzene	ug/L	20	17.5	88	70-130	
Diisopropyl ether	ug/L	20	16.7	83	70-130	IK
Ethanol	ug/L	800	718	90	70-130	
Ethyl-tert-butyl ether	ug/L	40	43.1	108	70-130	
Ethylbenzene	ug/L	20	20.2	101	70-130	
m&p-Xylene	ug/L	40	40.9	102	70-130	
Methyl-tert-butyl ether	ug/L	20	19.8	99	70-130	
Naphthalene	ug/L	20	23.4	117	70-130	
o-Xylene	ug/L	20	18.7	94	70-130	

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QUALITY CONTROL DATA

Project: WARREN GREEN 04887/166252
Pace Project No.: 92648032

LABORATORY CONTROL SAMPLE: 3904483

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
tert-Amyl Alcohol	ug/L	400	359	90	70-130	
tert-Amylmethyl ether	ug/L	40	42.0	105	70-130	
tert-Butyl Alcohol	ug/L	200	156	78	70-130	
tert-Butyl Formate	ug/L	160	162	101	70-130	
Toluene	ug/L	20	19.7	99	70-130	
Xylene (Total)	ug/L	60	59.6	99	70-130	
1,2-Dichloroethane-d4 (S)	%			98	70-130	
4-Bromofluorobenzene (S)	%			107	70-130	
Toluene-d8 (S)	%			99	70-130	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3904484 3904485

Parameter	Units	92648032003 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Qual
1,2-Dichloroethane	ug/L	ND	20	20	20.4	19.3	102	96	70-137	5	
3,3-Dimethyl-1-Butanol	ug/L	ND	400	400	487	475	122	119	39-157	2	
Benzene	ug/L	ND	20	20	22.5	21.6	112	108	70-151	4	
Diisopropyl ether	ug/L	ND	20	20	19.1	18.8	96	94	63-144	1	
Ethanol	ug/L	ND	800	800	874	821	109	103	39-176	6	
Ethyl-tert-butyl ether	ug/L	ND	40	40	40.7	39.3	102	98	66-137	3	
Ethylbenzene	ug/L	ND	20	20	23.5	22.5	117	112	66-153	4	
m&p-Xylene	ug/L	ND	40	40	46.8	45.3	117	113	69-152	3	
Methyl-tert-butyl ether	ug/L	ND	20	20	20.4	20.5	102	102	54-156	0	
Naphthalene	ug/L	ND	20	20	23.5	21.9	117	110	61-148	7	
o-Xylene	ug/L	ND	20	20	24.4	22.0	122	110	70-148	10	
tert-Amyl Alcohol	ug/L	ND	400	400	435	421	109	105	54-153	3	
tert-Amylmethyl ether	ug/L	ND	40	40	44.6	42.0	112	105	69-139	6	
tert-Butyl Alcohol	ug/L	ND	200	200	220	220	110	110	43-188	0	
tert-Butyl Formate	ug/L	ND	160	160	151	139	94	87	10-170	8	
Toluene	ug/L	ND	20	20	22.2	20.9	111	105	59-148	6	
Xylene (Total)	ug/L	ND	60	60	71.2	67.3	119	112	63-158	6	
1,2-Dichloroethane-d4 (S)	%						91	93	70-130		
4-Bromofluorobenzene (S)	%						97	101	70-130		
Toluene-d8 (S)	%						99	100	70-130		

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QUALITY CONTROL DATA

Project: WARREN GREEN 04887/166252
Pace Project No.: 92648032

QC Batch:	751511	Analysis Method:	EPA 8260D
QC Batch Method:	EPA 8260D	Analysis Description:	8260 MSV SC
		Laboratory:	Pace Analytical Services - Charlotte

Associated Lab Samples: 92648032020, 92648032021, 92648032022

METHOD BLANK: 3905311 Matrix: Water

Associated Lab Samples: 92648032020, 92648032021, 92648032022

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
1,2-Dichloroethane	ug/L	ND	5.0	01/25/23 13:28	
3,3-Dimethyl-1-Butanol	ug/L	ND	100	01/25/23 13:28	
Benzene	ug/L	ND	5.0	01/25/23 13:28	
Diisopropyl ether	ug/L	ND	5.0	01/25/23 13:28	
Ethanol	ug/L	ND	200	01/25/23 13:28	
Ethyl-tert-butyl ether	ug/L	ND	10.0	01/25/23 13:28	
Ethylbenzene	ug/L	ND	5.0	01/25/23 13:28	
m&p-Xylene	ug/L	ND	10.0	01/25/23 13:28	
Methyl-tert-butyl ether	ug/L	ND	5.0	01/25/23 13:28	
Naphthalene	ug/L	ND	5.0	01/25/23 13:28	
o-Xylene	ug/L	ND	5.0	01/25/23 13:28	
tert-Amyl Alcohol	ug/L	ND	100	01/25/23 13:28	
tert-Amylmethyl ether	ug/L	ND	10.0	01/25/23 13:28	
tert-Butyl Alcohol	ug/L	ND	100	01/25/23 13:28	
tert-Butyl Formate	ug/L	ND	50.0	01/25/23 13:28	
Toluene	ug/L	ND	5.0	01/25/23 13:28	
Xylene (Total)	ug/L	ND	5.0	01/25/23 13:28	
1,2-Dichloroethane-d4 (S)	%	93	70-130	01/25/23 13:28	
4-Bromofluorobenzene (S)	%	97	70-130	01/25/23 13:28	
Toluene-d8 (S)	%	109	70-130	01/25/23 13:28	

LABORATORY CONTROL SAMPLE: 3905312

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,2-Dichloroethane	ug/L	20	18.1	91	70-130	
3,3-Dimethyl-1-Butanol	ug/L	400	440	110	70-130	
Benzene	ug/L	20	19.4	97	70-130	
Diisopropyl ether	ug/L	20	18.4	92	70-130	
Ethanol	ug/L	800	810	101	70-130	
Ethyl-tert-butyl ether	ug/L	40	37.8	94	70-130	
Ethylbenzene	ug/L	20	20.8	104	70-130	
m&p-Xylene	ug/L	40	41.2	103	70-130	
Methyl-tert-butyl ether	ug/L	20	19.2	96	70-130	
Naphthalene	ug/L	20	23.7	118	70-130	
o-Xylene	ug/L	20	20.9	105	70-130	
tert-Amyl Alcohol	ug/L	400	405	101	70-130	
tert-Amylmethyl ether	ug/L	40	40.8	102	70-130	
tert-Butyl Alcohol	ug/L	200	199	100	70-130	
tert-Butyl Formate	ug/L	160	154	96	70-130	

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REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: WARREN GREEN 04887/166252
Pace Project No.: 92648032

LABORATORY CONTROL SAMPLE: 3905312

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Toluene	ug/L	20	19.4	97	70-130	
Xylene (Total)	ug/L	60	62.1	104	70-130	
1,2-Dichloroethane-d4 (S)	%			95	70-130	
4-Bromofluorobenzene (S)	%			100	70-130	
Toluene-d8 (S)	%			99	70-130	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3905313 3905314

Parameter	Units	92647807002 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Qual
1,2-Dichloroethane	ug/L	ND	20	20	18.8	19.5	94	98	70-137	4	
3,3-Dimethyl-1-Butanol	ug/L	ND	400	400	405	432	101	108	39-157	6	
Benzene	ug/L	ND	20	20	20.5	20.7	101	102	70-151	1	
Diisopropyl ether	ug/L	ND	20	20	17.8	17.3	89	86	63-144	3	
Ethanol	ug/L	ND	800	800	750	798	94	100	39-176	6	
Ethyl-tert-butyl ether	ug/L	ND	40	40	36.4	36.6	91	91	66-137	0	
Ethylbenzene	ug/L	ND	20	20	20.8	20.9	104	104	66-153	0	
m&p-Xylene	ug/L	ND	40	40	41.2	42.3	103	106	69-152	3	
Methyl-tert-butyl ether	ug/L	ND	20	20	18.4	18.3	92	92	54-156	1	
Naphthalene	ug/L	ND	20	20	24.5	26.6	102	113	61-148	8	
o-Xylene	ug/L	ND	20	20	20.5	21.0	103	105	70-148	2	
tert-Amyl Alcohol	ug/L	ND	400	400	414	389	104	97	54-153	6	
tert-Amylmethyl ether	ug/L	ND	40	40	39.6	39.1	99	98	69-139	1	
tert-Butyl Alcohol	ug/L	ND	200	200	247	241	124	120	43-188	3	
tert-Butyl Formate	ug/L	ND	160	160	63.8	54.4	40	34	10-170	16	
Toluene	ug/L	ND	20	20	19.7	20.3	98	102	59-148	3	
Xylene (Total)	ug/L	ND	60	60	61.7	63.4	103	106	63-158	3	
1,2-Dichloroethane-d4 (S)	%						97	96	70-130		
4-Bromofluorobenzene (S)	%						102	101	70-130		
Toluene-d8 (S)	%						103	102	70-130		

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QUALITY CONTROL DATA

Project: WARREN GREEN 04887/166252
Pace Project No.: 92648032

QC Batch: 751679 | Analysis Method: EPA 8260D
QC Batch Method: EPA 8260D | Analysis Description: 8260 MSV SC
Laboratory: Pace Analytical Services - Charlotte

Associated Lab Samples: 92648032001

METHOD BLANK: 3906004 Matrix: Water
Associated Lab Samples: 92648032001

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
1,2-Dichloroethane	ug/L	ND	5.0	01/25/23 12:09	
3,3-Dimethyl-1-Butanol	ug/L	ND	100	01/25/23 12:09	
Benzene	ug/L	ND	5.0	01/25/23 12:09	
Diisopropyl ether	ug/L	ND	5.0	01/25/23 12:09	IK
Ethanol	ug/L	ND	200	01/25/23 12:09	
Ethyl-tert-butyl ether	ug/L	ND	10.0	01/25/23 12:09	
Ethylbenzene	ug/L	ND	5.0	01/25/23 12:09	
m&p-Xylene	ug/L	ND	10.0	01/25/23 12:09	
Methyl-tert-butyl ether	ug/L	ND	5.0	01/25/23 12:09	
Naphthalene	ug/L	ND	5.0	01/25/23 12:09	
o-Xylene	ug/L	ND	5.0	01/25/23 12:09	
tert-Amyl Alcohol	ug/L	ND	100	01/25/23 12:09	
tert-Amylmethyl ether	ug/L	ND	10.0	01/25/23 12:09	
tert-Butyl Alcohol	ug/L	ND	100	01/25/23 12:09	
tert-Butyl Formate	ug/L	ND	50.0	01/25/23 12:09	
Toluene	ug/L	ND	5.0	01/25/23 12:09	
Xylene (Total)	ug/L	ND	5.0	01/25/23 12:09	
1,2-Dichloroethane-d4 (S)	%	100	70-130	01/25/23 12:09	
4-Bromofluorobenzene (S)	%	106	70-130	01/25/23 12:09	
Toluene-d8 (S)	%	107	70-130	01/25/23 12:09	

LABORATORY CONTROL SAMPLE: 3906005

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,2-Dichloroethane	ug/L	20	21.8	109	70-130	
3,3-Dimethyl-1-Butanol	ug/L	400	402	101	70-130	
Benzene	ug/L	20	18.5	93	70-130	
Diisopropyl ether	ug/L	20	17.7	89	70-130	IK
Ethanol	ug/L	800	891	111	70-130	
Ethyl-tert-butyl ether	ug/L	40	42.3	106	70-130	
Ethylbenzene	ug/L	20	20.9	105	70-130	
m&p-Xylene	ug/L	40	43.2	108	70-130	
Methyl-tert-butyl ether	ug/L	20	21.8	109	70-130	
Naphthalene	ug/L	20	23.2	116	70-130	
o-Xylene	ug/L	20	19.8	99	70-130	
tert-Amyl Alcohol	ug/L	400	417	104	70-130	
tert-Amylmethyl ether	ug/L	40	45.0	113	70-130	
tert-Butyl Alcohol	ug/L	200	190	95	70-130	
tert-Butyl Formate	ug/L	160	172	108	70-130	

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QUALITY CONTROL DATA

Project: WARREN GREEN 04887/166252
Pace Project No.: 92648032

LABORATORY CONTROL SAMPLE: 3906005

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Toluene	ug/L	20	20.6	103	70-130	
Xylene (Total)	ug/L	60	63.0	105	70-130	
1,2-Dichloroethane-d4 (S)	%			108	70-130	
4-Bromofluorobenzene (S)	%			102	70-130	
Toluene-d8 (S)	%			100	70-130	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3906006 3906007

Parameter	Units	92648507001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Qual
1,2-Dichloroethane	ug/L	ND	40	40	17.0	16.2	42	40	70-137	5	M1
3,3-Dimethyl-1-Butanol	ug/L	ND	800	800	362	362	45	45	39-157	0	
Benzene	ug/L	ND	40	40	19.2	18.8	45	44	70-151	2	M1
Diisopropyl ether	ug/L	17.8	40	40	38.2	37.4	51	49	63-144	2	M1
Ethanol	ug/L	ND	1600	1600	746	762	47	48	39-176	2	
Ethyl-tert-butyl ether	ug/L	ND	80	80	32.6	31.4	41	39	66-137	4	M1
Ethylbenzene	ug/L	ND	40	40	17.0	17.7	43	44	66-153	4	M1
m&p-Xylene	ug/L	ND	80	80	34.5	36.0	43	45	69-152	4	M1
Methyl-tert-butyl ether	ug/L	53.2	40	40	69.5	68.0	41	37	54-156	2	M1
Naphthalene	ug/L	ND	40	40	18.1	18.7	45	47	61-148	3	M1
o-Xylene	ug/L	ND	40	40	17.4	17.8	43	45	70-148	2	M1
tert-Amyl Alcohol	ug/L	4260	800	800	5010	5060	95	100	54-153	1	
tert-Amylmethyl ether	ug/L	ND	80	80	35.5	36.0	44	45	69-139	1	M1
tert-Butyl Alcohol	ug/L	2420	400	400	3040	2950	154	134	43-188	3	
tert-Butyl Formate	ug/L	ND	320	320	104	94.8J	33	30	10-170		
Toluene	ug/L	ND	40	40	19.1	18.3	48	46	59-148	4	M1
Xylene (Total)	ug/L	ND	120	120	51.9	53.8	43	45	63-158	4	MS
1,2-Dichloroethane-d4 (S)	%						98	97	70-130		
4-Bromofluorobenzene (S)	%						101	101	70-130		
Toluene-d8 (S)	%						103	102	70-130		

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QUALITY CONTROL DATA

Project: WARREN GREEN 04887/166252
Pace Project No.: 92648032

QC Batch: 751562 | Analysis Method: EPA 8011
QC Batch Method: EPA 8011 | Analysis Description: GCS 8011 EDB DBCP
Laboratory: Pace Analytical Services - Charlotte

Associated Lab Samples: 92648032001

METHOD BLANK: 3905406 | Matrix: Water
Associated Lab Samples: 92648032001

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
1,2-Dibromoethane (EDB)	ug/L	ND	0.020	01/25/23 18:33	
1-Chloro-2-bromopropane (S)	%	110	60-140	01/25/23 18:33	

LABORATORY CONTROL SAMPLE & LCSD: 3905407 | 3905408

Parameter	Units	Spike Conc.	LCS Result	LCSD Result	LCS % Rec	LCSD % Rec	% Rec Limits	RPD	Max RPD	Qualifiers
1,2-Dibromoethane (EDB)	ug/L	0.25	0.27	0.28	108	111	60-140	2	20	
1-Chloro-2-bromopropane (S)	%				107	108	60-140			

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3905410 | 3905411

Parameter	Units	92647689007 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Qual
1,2-Dibromoethane (EDB)	ug/L	ND	0.25	0.25	0.37	0.37	146	147	60-140	0	M1
1-Chloro-2-bromopropane (S)	%						104	105	60-140		

SAMPLE DUPLICATE: 3905409

Parameter	Units	92647689006 Result	Dup Result	RPD	Qualifiers
1,2-Dibromoethane (EDB)	ug/L	ND	ND		
1-Chloro-2-bromopropane (S)	%	103	102		

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QUALITY CONTROL DATA

Project: WARREN GREEN 04887/166252
Pace Project No.: 92648032

QC Batch:	751563	Analysis Method:	EPA 8011
QC Batch Method:	EPA 8011	Analysis Description:	GCS 8011 EDB DBCP
		Laboratory:	Pace Analytical Services - Charlotte

Associated Lab Samples: 92648032002, 92648032003, 92648032004, 92648032005, 92648032006, 92648032007, 92648032008, 92648032009, 92648032010, 92648032011, 92648032012, 92648032013, 92648032014, 92648032015, 92648032016, 92648032017, 92648032018, 92648032019, 92648032020, 92648032022

METHOD BLANK: 3905412 Matrix: Water

Associated Lab Samples: 92648032002, 92648032003, 92648032004, 92648032005, 92648032006, 92648032007, 92648032008, 92648032009, 92648032010, 92648032011, 92648032012, 92648032013, 92648032014, 92648032015, 92648032016, 92648032017, 92648032018, 92648032019, 92648032020, 92648032022

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
1,2-Dibromoethane (EDB)	ug/L	ND	0.020	01/25/23 23:22	
1-Chloro-2-bromopropane (S)	%	112	60-140	01/25/23 23:22	

LABORATORY CONTROL SAMPLE & LCSD: 3905413 3905414

Parameter	Units	Spike Conc.	LCS Result	LCSD Result	LCS % Rec	LCSD % Rec	% Rec Limits	RPD	Max RPD	Qualifiers
1,2-Dibromoethane (EDB)	ug/L	0.25	0.25	0.33	102	133	60-140	27	20	R1
1-Chloro-2-bromopropane (S)	%				101	129	60-140			

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3905416 3905417

Parameter	Units	92648032003 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Qual
1,2-Dibromoethane (EDB)	ug/L	ND	0.25	0.25	0.27	0.27	109	108	60-140	1	
1-Chloro-2-bromopropane (S)	%						107	109	60-140		

SAMPLE DUPLICATE: 3905415

Parameter	Units	92648032002 Result	Dup Result	RPD	Qualifiers
1,2-Dibromoethane (EDB)	ug/L	ND	ND		
1-Chloro-2-bromopropane (S)	%	111	115		

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

Pace Analytical®
www.pacelabs.com

Pace Analytical Services, LLC
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

QUALIFIERS

Project: WARREN GREEN 04887/166252
Pace Project No.: 92648032

DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to dilution of the sample aliquot.

ND - Not Detected at or above adjusted reporting limit.

TNTC - Too Numerous To Count

J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.

MDL - Adjusted Method Detection Limit.

PQL - Practical Quantitation Limit.

RL - Reporting Limit - The lowest concentration value that meets project requirements for quantitative data with known precision and bias for a specific analyte in a specific matrix.

S - Surrogate

1,2-Diphenylhydrazine decomposes to and cannot be separated from Azobenzene using Method 8270. The result for each analyte is a combined concentration.

Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

U - Indicates the compound was analyzed for, but not detected.

Acid preservation may not be appropriate for 2 Chloroethylvinyl ether.

A separate vial preserved to a pH of 4-5 is recommended in SW846 Chapter 4 for the analysis of Acrolein and Acrylonitrile by EPA Method 8260.

N-Nitrosodiphenylamine decomposes and cannot be separated from Diphenylamine using Method 8270. The result reported for each analyte is a combined concentration.

Reported results are not rounded until the final step prior to reporting. Therefore, calculated parameters that are typically reported as "Total" may vary slightly from the sum of the reported component parameters.

Pace Analytical is TNI accredited. Contact your Pace PM for the current list of accredited analytes.

TNI - The NELAC Institute.

ANALYTE QUALIFIERS

IK	The recalculated concentration of the calibration standard(s) did not meet method acceptance criteria; this result should be considered an estimated value.
M1	Matrix spike recovery exceeded QC limits. Batch accepted based on laboratory control sample (LCS) recovery.
MS	Analyte recovery in the matrix spike was outside QC limits for one or more of the constituent analytes used in the calculated result.
R1	RPD value was outside control limits.

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QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: WARREN GREEN 04887/166252
Pace Project No.: 92648032

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
92648032001	MW-1	EPA 8011	751562	EPA 8011	751671
92648032002	MW-3R	EPA 8011	751563	EPA 8011	751672
92648032003	MW-4	EPA 8011	751563	EPA 8011	751672
92648032004	MW-5	EPA 8011	751563	EPA 8011	751672
92648032005	MW-6R	EPA 8011	751563	EPA 8011	751672
92648032006	MW-7R	EPA 8011	751563	EPA 8011	751672
92648032007	MW-8	EPA 8011	751563	EPA 8011	751672
92648032008	MW-9	EPA 8011	751563	EPA 8011	751672
92648032009	MW-10	EPA 8011	751563	EPA 8011	751672
92648032010	MW-11R	EPA 8011	751563	EPA 8011	751672
92648032011	MW-13R	EPA 8011	751563	EPA 8011	751672
92648032012	MW-14	EPA 8011	751563	EPA 8011	751672
92648032013	MW-15	EPA 8011	751563	EPA 8011	751672
92648032014	DW-1	EPA 8011	751563	EPA 8011	751672
92648032015	DW-2	EPA 8011	751563	EPA 8011	751672
92648032016	DW-3	EPA 8011	751563	EPA 8011	751672
92648032017	DW-4	EPA 8011	751563	EPA 8011	751672
92648032018	DW-5	EPA 8011	751563	EPA 8011	751672
92648032019	DW-6	EPA 8011	751563	EPA 8011	751672
92648032020	DUP-1	EPA 8011	751563	EPA 8011	751672
92648032022	FB	EPA 8011	751563	EPA 8011	751672
92648032001	MW-1	EPA 8260D	751679		
92648032002	MW-3R	EPA 8260D	751344		
92648032003	MW-4	EPA 8260D	751347		
92648032004	MW-5	EPA 8260D	751347		
92648032005	MW-6R	EPA 8260D	751347		
92648032006	MW-7R	EPA 8260D	751347		
92648032007	MW-8	EPA 8260D	751344		
92648032008	MW-9	EPA 8260D	751347		
92648032009	MW-10	EPA 8260D	751347		
92648032010	MW-11R	EPA 8260D	751347		
92648032011	MW-13R	EPA 8260D	751347		
92648032012	MW-14	EPA 8260D	751347		
92648032013	MW-15	EPA 8260D	751347		
92648032014	DW-1	EPA 8260D	751347		
92648032015	DW-2	EPA 8260D	751347		
92648032016	DW-3	EPA 8260D	751347		
92648032017	DW-4	EPA 8260D	751347		
92648032018	DW-5	EPA 8260D	751347		
92648032019	DW-6	EPA 8260D	751347		
92648032020	DUP-1	EPA 8260D	751511		
92648032021	TB	EPA 8260D	751511		
92648032022	FB	EPA 8260D	751511		

Pace Analytical®

CHAIN-OF-CUSTODY Analytical Request Document

Chain-of-Custody is a LEGAL DOCUMENT - Complete all relevent fields

LAB USE ONLY-

WO#: 92648032

ALL 92648032

Company: SCDHEC

Billing Information:

Address: 2600 Bull st

Report To: A Brown

Email To: BrownAJ@DHEC.SC.GOV

Copy To:

Site Collection Info/Address: 10773 West frontage rd

Customer Project Name/Number: Warren Green

State: SC / County/City: Jasper

Time Zone Collected: [ ] PT [ ] MT [ ] CT [✓] ET

Phone:

Email:

Site/Facility ID #: 04887 / 66252

Compliance Monitoring? [ ] Yes [ ] No

Collected By (print): Jatrad C

Purchase Order #:

Quote #:

DW PWS ID #:

DW Location Code:

Collected By (signature):

Turnaround Date Required:

Immediately Packed on Ice: [✓] Yes [ ] No

Sample Disposal: [ ] Dispose as appropriate [ ] Return [ ] Archive: ______ [ ] Hold: ______

Rush: [ ] Same Day [ ] Next Day [ ] 2 Day [ ] 3 Day [ ] 4 Day [ ] 5 Day (Expedite Charges Apply)

Field Filtered (if applicable): [ ] Yes [ ] No

Analysis: ______

* Matrix Codes (Insert in Matrix box below): Drinking Water (DW), Ground Water (GW), Wastewater (WW), Product (P), Soil/Solid (SL), Oil (OL), Wipe (WP), Air (AR), Tissue (TS), Bioassay (B), Vapor (V), Other (OT)

Container Preservative Type **: 3 | 3

** Preservative Types: (1) nitric acid, (2) sulfuric acid, (3) hydrochloric acid, (4) sodium hydroxide, (5) zinc acetate, (6) methanol, (7) sodium bisulfate, (8) sodium thiosulfate, (9) hexane, (A) ascorbic acid, (B) ammonium sulfate, (C) ammonium hydroxide, (D) TSP, (U) Unpreserved, (O) Other ______

Lab Project Manager:

Analyses: Hexum 1,2 DCA/Dioxane 8260 | edb dpe (8011)

Customer Sample ID	Matrix *	Comp / Grab	Collected Date	Collected Time	Composite End Date	Composite End Time	Res Cl	# of Ctns	Hexum 1,2 DCA/Dioxane 8260	edb dpe (8011)	Lab Sample # / Comments
mw-1	gw	g	1/19/23	13:14				6	x	x	odor 001
~~mw-2~~											nL
mw-3r	↓	↓	↓	11:47				↓	↓	↓	no odor 002
mw-4				12:12							no odor 003
mw-5				10:58							no odor 004
mw-6r				11:00							slight odor 005
mw-7r				13:07							Strong odor 006
mw-8				11:15							Slight odor 007
mw-9				11:17							no odor 008
mw-10	↓	↓	↓	11:07				↓	↓	↓	no odor 009

Lab Profile/Line:

Lab Sample Receipt Checklist:

- Custody Seals Present/Intact Y N NA — N
- Custody Signatures Present Y N NA — N
- Collector Signature Present Y N NA — Y
- Bottles Intact Y N NA — Y
- Correct Bottles Y N NA — Y
- Sufficient Volume Y N NA — Y
- Samples Received on Ice Y N NA — Y
- VOA - Headspace Acceptable Y N NA — Y
- USDA Regulated Soils Y N NA — NA
- Samples in Holding Time Y N NA — Y
- Residual Chlorine Present Y N NA — NA
- Cl Strips: ______
- Sample pH Acceptable Y N NA — NA
- pH Strips: ______
- Sulfide Present Y N NA — NA
- Lead Acetate Strips: ______

LAB USE ONLY:
Lab Sample # / Comments: 92648032

Customer Remarks / Special Conditions / Possible Hazards:

Type of Ice Used: Wet Blue Dry None — Wet

Packing Material Used: Bubble bags

Radchem sample(s) screened (<500 cpm): Y N NA

SHORT HOLDS PRESENT (<72 hours): Y N N/A — N

Lab Tracking #: 2621952

Samples received via: FEDEX UPS Client Courier Pace Courier — Pace Courier

Lab Sample Temperature Info: GMM 1/23/23

Temp Blank Received: Y N NA — N

Therm ID#: 92T050

Cooler 1 Temp Upon Receipt: 4.1, 1.4 oC

Cooler 1 Therm Corr. Factor: 0 oC

Cooler 1 Corrected Temp: 4.1, 1.4 oC

Comments:

Relinquished by/Company: (Signature)	Date/Time:	Received by/Company: (Signature)	Date/Time:	MTJL LAB USE ONLY
[signature]	1/20/23 1544	[signature] - PACE	1-20-23 1544	Table #:
[signature] - PACE	1-20-23 1819	GMM Pace HH	1/23/23 0800	Acctnum: Template: Prelogin:
				PM: PB:

Trip Blank Received: Y N NA — Y

HCl MeOH TSP Other — HCl

Non Conformance(s): YES / NO

Page: ______ of: ______

Pace Analytical

CHAIN-OF-CUSTODY Analytical Request Document

Chain-of-Custody is a LEGAL DOCUMENT - Complete all relevent fields

WO#: 92648032
PM: TMC Due Date: 01/30/23
CLIENT: 92-SCDHEC

Company: SC DHEC	Billing Information:
Address: 2600 Bull St	
Report To: A Brown	Email To: BrownAJ@DHEC.SC.GOV
Copy To:	Site Collection Info/Address: 10773 West frontage rd
Customer Project Name/Number: Warren green	State: SC County/City: Jasper Time Zone Collected: [ ] PT [ ] MT [ ] CT [✓] ET
Phone: Email:	Site/Facility ID #: 04207 / 66252 — Compliance Monitoring? [ ] Yes [ ] No
Collected By (print): Julian C	Purchase Order #: Quote #: — DW PWS ID #: DW Location Code:
Collected By (signature):	Turnaround Date Required: — Immediately Packed on Ice: [✓] Yes [ ] No
Sample Disposal: [ ] Dispose as appropriate [ ] Return [ ] Archive: [ ] Hold:	Rush: [ ] Same Day [ ] Next Day [ ] 2 Day [ ] 3 Day [ ] 4 Day [ ] 5 Day (Expedite Charges Apply) — Field Filtered (if applicable): [ ] Yes [ ] No Analysis:

LAB USE ONLY — Container Preservative Type: 3 3

** Preservative Types: (1) nitric acid, (2) sulfuric acid, (3) hydrochloric acid, (4) sodium hydroxide, (5) zinc acetate, (6) methanol, (7) sodium bisulfate, (8) sodium thiosulfate, (9) hexane, (A) ascorbic acid, (B) ammonium sulfate, (C) ammonium hydroxide, (D) TSP, (U) Unpreserved, (O) Other

Analyses: 8260 D 4 day Full Fee; edb 8011

Lab Project Manager:

Lab Profile/Line:

Lab Sample Receipt Checklist:

Custody Seals Present/Intact	Y (N) NA
Custody Signatures Present	Y (N) NA
Collector Signature Present	(Y) N NA
Bottles Intact	(Y) N NA
Correct Bottles	(Y) N NA
Sufficient Volume	(Y) N NA
Samples Received on Ice	(Y) N NA
VOA - Headspace Acceptable	(Y) N NA
USDA Regulated Soils	Y N (NA)
Samples in Holding Time	(Y) N NA
Residual Chlorine Present	Y N (NA)
Cl Strips:	
Sample pH Acceptable	Y N (NA)
pH Strips:	
Sulfide Present	Y N (NA)
Lead Acetate Strips:	

LAB USE ONLY: Lab Sample # / Comments: 92648032

* Matrix Codes (Insert in Matrix box below): Drinking Water (DW), Ground Water (GW), Wastewater (WW), Product (P), Soil/Solid (SL), Oil (OL), Wipe (WP), Air (AR), Tissue (TS), Bioassay (B), Vapor (V), Other (OT)

Customer Sample ID	Matrix *	Comp / Grab	Collected Date	Collected Time	Composite End Date	Composite End Time	Res Cl	# of Ctns	8260	edb 8011	Lab Sample # / Comments	
mw-11r	Gw	G	1/19/22	11:09				6	+	Y	no odor	010
mw-12r											NL	
mw-13r				11:24							no odor	011
mw-14				11:40							no odor	012
mw-15				11:31							no odor	013
Dw-1				13:27							no odor	014
Dw-2				12:35							no odor	015
Dw-3				10:51							no odor	016
Dw-4				10:55							no odor	017
Dw-5				14:10							no odor	018

Customer Remarks / Special Conditions / Possible Hazards:

Type of Ice Used: (Wet) Blue Dry None

Packing Material Used: Bubble bags

Radchem sample(s) screened (<500 cpm): Y N NA

SHORT HOLDS PRESENT (<72 hours): Y (N) N/A

Lab Tracking #: 2621953

Samples received via: FEDEX UPS Client Courier Pace Courier

Lab Sample Temperature Info:
Temp Blank Received: Y N NA
Therm ID#: 92T020
Cooler 1 Temp Upon Receipt: 4.1,1.9 oC
Cooler 1 Therm Corr. Factor: 0 oC
Cooler 1 Corrected Temp: 4.1,1.9 oC
Comments:

Relinquished by/Company: (Signature)	Date/Time:	Received by/Company: (Signature)	Date/Time:
[signature]	1/20/23 1544	[signature] PACE	1-20-23 1544
[signature] PACE	1-20-23 1819	[signature] Pace HH	1/23/23 0850

MTJL LAB USE ONLY
Table #:
Acctnum:
Template:
Prelogin:
PM:
PB:

Trip Blank Received: (Y) N NA
(HCl) MeOH TSP Other

Non Conformance(s): YES / NO

Page: of:

Pace Analytical

CHAIN-OF-CUSTODY Analytical Request Document

Chain-of-Custody is a LEGAL DOCUMENT - Complete all relevent fields

LAB USE ONLY- Affix Workorder/Login Label Here or List Pace Workorder Number or MTJL Log-in Number Here

ALL SHADED AREAS are for LAB USE ONLY

Company: SCDHEC	Billing Information:
Address: 2600 Bull st	
Report To: A Brown	Email To: BrownAJ@DHEC.SC.GOV
Copy To:	Site Collection Info/Address: 10773 west frontage rd
Customer Project Name/Number: Warren Green	State: SC / County/City: Jasper / Time Zone Collected: [ ] PT [ ] MT [ ] CT [✓] ET

Phone: Email:	Site/Facility ID #: 04287 / 86252	Compliance Monitoring? [ ] Yes [ ] No
Collected By (print):	Purchase Order #: Quote #:	DW PWS ID #: DW Location Code:
Collected By (signature):	Turnaround Date Required:	Immediately Packed on Ice: [✓] Yes [ ] No
Sample Disposal: [ ] Dispose as appropriate [ ] Return [ ] Archive: ______ [ ] Hold: ______	Rush: [ ] Same Day [ ] Next Day [ ] 2 Day [ ] 3 Day [ ] 4 Day [ ] 5 Day (Expedite Charges Apply)	Field Filtered (if applicable): [ ] Yes [ ] No Analysis: ______

Container Preservative Type **: 3 | 3

Lab Project Manager:

** Preservative Types: (1) nitric acid, (2) sulfuric acid, (3) hydrochloric acid, (4) sodium hydroxide, (5) zinc acetate, (6) methanol, (7) sodium bisulfate, (8) sodium thiosulfate, (9) hexane, (A) ascorbic acid, (B) ammonium sulfate, (C) ammonium hydroxide, (D) TSP, (U) Unpreserved, (O) Other ______

* Matrix Codes (Insert in Matrix box below): Drinking Water (DW), Ground Water (GW), Wastewater (WW), Product (P), Soil/Solid (SL), Oil (OL), Wipe (WP), Air (AR), Tissue (TS), Bioassay (B), Vapor (V), Other (OT)

Customer Sample ID	Matrix *	Comp / Grab	Collected (or Composite Start) Date	Time	Composite End Date	Time	Res Cl	# of Ctns	Analyses: Btex vm 1,2 DCA + oxys 8260D	edb 8011	Lab Sample # / Comments: 92648032
DW-6	gw	G	1/19/23	14:00				6	X	X	no odor 019
Dup-1	↓	↓	↓	13:07				↓	X	X	020
TB				19:15				2	X		021
FB				0800					X	X	022
GAC				13:20					X	X	023

Lab Profile/Line:

Lab Sample Receipt Checklist:

- Custody Seals Present/Intact Y N NA — N
- Custody Signatures Present Y N NA — N
- Collector Signature Present Y N NA — Y
- Bottles Intact Y N NA — Y
- Correct Bottles Y N NA — Y
- Sufficient Volume Y N NA — Y
- Samples Received on Ice Y N NA — Y
- VOA - Headspace Acceptable Y N NA — Y
- USDA Regulated Soils Y N NA — NA
- Samples in Holding Time Y N NA — Y
- Residual Chlorine Present Y N NA — NA
- Cl Strips: ______
- Sample pH Acceptable Y N NA — NA
- pH Strips: ______
- Sulfide Present Y N NA — NA
- Lead Acetate Strips: ______

LAB USE ONLY:
Lab Sample # / Comments: 92648032

Customer Remarks / Special Conditions / Possible Hazards:

Type of Ice Used: **Wet** Blue Dry None

Packing Material Used: Bubble bags

Radchem sample(s) screened (<500 cpm): Y N NA

SHORT HOLDS PRESENT (<72 hours): Y **N** N/A

Lab Tracking #: 2806275

Samples received via: FEDEX UPS Client Courier **Pace Courier**

Lab Sample Temperature Info:
Temp Blank Received: Y **N** NA
Therm ID#: 92T030
Cooler 1 Temp Upon Receipt: 4.1,4 oC
Cooler 1 Therm Corr. Factor: 0 oC
Cooler 1 Corrected Temp: 4.1,4 oC
Comments:

Relinquished by/Company: (Signature)	Date/Time:	Received by/Company: (Signature)	Date/Time:	MTJL LAB USE ONLY
[signature]	1/20/23 1544	[signature] PACE	1-20-23 1544	Table #:
[signature] PACE	1-20-23 1819	[signature] Pace HM	1/23/23 0700	Acctnum: Template: Prelogin:
				PM: PB:

Trip Blank Received: **Y** N NA
HCl MeOH TSP Other

Non Conformance(s): YES / NO

Page: ______ of: ______

Pace

…_Sample Condition Upon Receipt

Effective Date: 05/12/202205/12/2022

*Check mark top half of box if pH and/or dechlorination is verified and within the acceptance range for preservation samples.
Exceptions: VOA, Coliform, TOC, Oil and Grease, DRO/8015 (water) DOC, LLHg

**Bottom half of box is to list number of bottles

***Check <u>all</u> unpreserved Nitrates for chlorine

Project #

WO#: 92648032
PM: TMC Due Date: 01/30/23
CLIENT: 92-SCDHEC

Item#	BP4U-125 mL Plastic Unpreserved (N/A) (Cl-)	BP3U-250 mL Plastic Unpreserved (N/A)	BP2U-500 mL Plastic Unpreserved (N/A)	BP1U-1 liter Plastic Unpreserved (N/A)	BP4S-125 mL Plastic H2SO4 (pH < 2) (Cl-)	BP3N-250 mL plastic HNO3 (pH < 2)	BP4Z-125 mL Plastic ZN Acetate & NaOH (>9)	BP4B-125 mL Plastic NaOH (pH > 12) (Cl-)	WGFU-Wide-mouthed Glass jar Unpreserved	AG1U-1 liter Amber Unpreserved (N/A) (Cl-)	AG1H-1 liter Amber HCl (pH < 2)	AG3U-250 mL Amber Unpreserved (N/A) (Cl-)	AG1S-1 liter Amber H2SO4 (pH < 2)	AG3S-250 mL Amber H2SO4 (pH < 2)	DG94-250 mL Amber NH4Cl (N/A)(Cl-)	DG9H-40 mL VOA HCl (N/A)	VG9T-40 mL VOA Na2S2O3 (N/A)	VG9U-40 mL VOA Unpreserved (N/A)	DG9V-40 mL VOA H3PO4 (N/A)	DG9S-40 mL VOA H2SO4 (N/A)	V/GK (3 vials per kit)-VPH/Gas kit (N/A)	SP5T-125 mL Sterile Plastic (N/A – lab)	SP2T-250 mL Sterile Plastic (N/A – lab)		BP3R-250 mL Plastic (NH2)2SO4 (9.3-9.7)	AG0U-100 mL Amber Unpreserved (N/A) (Cl-)	VSGU-20 mL Scintillation vials (N/A)	DG9U-40 mL Amber Unpreserved vials (N/A)
1																6												
2																												
3																6												
4																6												
5																6												
6																6												
7																6												
8																6												
9																6												
10																6												
11																												
12																												

pH Adjustment Log for Preserved Samples

Sample ID	Type of Preservative	pH upon receipt	Date preservation adjusted	Time preservation adjusted	Amount of Preservative added	Lot #

Note: Whenever there is a discrepancy affecting North Carolina compliance samples, a copy of this form will be sent to the North Carolina DENR Certification Office (i.e. Out of hold, incorrect preservative, out of temp, incorrect containers.

***Check mark top half of box if pH and/or dechlorination is verified and within the acceptance range for preservation samples.**

Exceptions: VOA, Coliform, TOC, Oil and Grease, DRO/8015 (water) DOC, LLHg

Project #

****Bottom half of box is to list number of bottles**

*****Check <u>all</u> unpreserved Nitrates for chlorine**

Item#	BP4U-125 mL Plastic Unpreserved (N/A) (Cl-)	BP3U-250 mL Plastic Unpreserved (N/A)	BP2U-500 mL Plastic Unpreserved (N/A)	BP1U-1 liter Plastic Unpreserved (N/A)	BP4S-125 mL Plastic H2SO4 (pH < 2) (Cl-)	BP3N-250 mL plastic HNO3 (pH < 2)	BP4Z-125 mL Plastic ZN Acetate & NaOH (>9)	BP4B-125 mL Plastic NaOH (pH > 12) (Cl-)	WGFU-Wide-mouthed Glass jar Unpreserved	AG1U-1 liter Amber Unpreserved (N/A) (Cl-)	AG1H-1 liter Amber HCl (pH < 2)	AG3U-250 mL Amber Unpreserved (N/A) (Cl-)	AG1S-1 liter Amber H2SO4 (pH < 2)	AG3S-250 mL Amber H2SO4 (pH < 2)	DG94-250 mL Amber NH4Cl (N/A)(Cl-)	DG9H-40 mL VOA HCl (N/A)	VG9T-40 mL VOA Na2S2O3 (N/A)	VG9U-40 mL VOA Unpreserved (N/A)	DG9V-40 mL VOA H3PO4 (N/A)	DG9S-40 mL VOA H2SO4 (N/A)	V/GK (3 vials per kit)-VPH/Gas kit (N/A)	SP5T-125 mL Sterile Plastic (N/A – lab)	SP2T-250 mL Sterile Plastic (N/A – lab)		BP3R-250 mL Plastic (NH2)2SO4 (9.3-9.7)	AG0U-100 mL Amber Unpreserved (N/A) (Cl-)	VSGU-20 mL Scintillation vials (N/A)	DG9U-40 mL Amber Unpreserved vials (N/A)
1																6												
2																												
3																6												
4																6												
5																6												
6																6												
7																6												
8																6												
9																6												
10																6												
11																												
12																												

pH Adjustment Log for Preserved Samples

Sample ID	Type of Preservative	pH upon receipt	Date preservation adjusted	Time preservation adjusted	Amount of Preservative added	Lot #

Note: Whenever there is a discrepancy affecting North Carolina compliance samples, a copy of this form will be sent to the North Carolina DENR Certification Office (i.e. Out of hold, incorrect preservative, out of temp, incorrect containers.

***Check mark top half of box if pH and/or dechlorination is verified and within the acceptance range for preservation samples.**

Exceptions: VOA, Coliform, TOC, Oil and Grease, DRO/8015 (water) DOC, LLHg

Project #

****Bottom half of box is to list number of bottles**

*****Check all unpreserved Nitrates for chlorine**

Item#	BP4U-125 mL Plastic Unpreserved (N/A) (Cl-)	BP3U-250 mL Plastic Unpreserved (N/A)	BP2U-500 mL Plastic Unpreserved (N/A)	BP1U-1 liter Plastic Unpreserved (N/A)	BP4S-125 mL Plastic H2SO4 (pH < 2) (Cl-)	BP3N-250 mL plastic HNO3 (pH < 2)	BP4Z-125 mL Plastic ZN Acetate & NaOH (>9)	BP4B-125 mL Plastic NaOH (pH > 12) (Cl-)	WGFU-Wide-mouthed Glass jar Unpreserved	AG1U-1 liter Amber Unpreserved (N/A) (Cl-)	AG1H-1 liter Amber HCl (pH < 2)	AG3U-250 mL Amber Unpreserved (N/A) (Cl-)	AG1S-1 liter Amber H2SO4 (pH < 2)	AG3S-250 mL Amber H2SO4 (pH < 2)	DG94-250 mL Amber NH4Cl (N/A)(Cl-)	DG9H-40 mL VOA HCl (N/A)	VG9T-40 mL VOA Na2S2O3 (N/A)	VG9U-40 mL VOA Unpreserved (N/A)	DG9V-40 mL VOA H3PO4 (N/A)	DG9S-40 mL VOA H2SO4 (N/A)	V/GK (3 vials per kit)-VPH/Gas kit (N/A)	SP5T-125 mL Sterile Plastic (N/A – lab)	SP2T-250 mL Sterile Plastic (N/A – lab)		BP3R-250 mL Plastic (NH2)2SO4 (9.3-9.7)	AG0U-100 mL Amber Unpreserved (N/A) (Cl-)	VSGU-20 mL Scintillation vials (N/A)	DG9U-40 mL Amber Unpreserved vials (N/A)
1																6												
2																6												
3																2												
4																6												
5																6												
6																												
7																												
8																												
9																												
10																												
11																												
12																												

pH Adjustment Log for Preserved Samples

Sample ID	Type of Preservative	pH upon receipt	Date preservation adjusted	Time preservation adjusted	Amount of Preservative added	Lot #

Note: Whenever there is a discrepancy affecting North Carolina compliance samples, a copy of this form will be sent to the North Carolina DENR Certification Office (i.e. Out of hold, incorrect preservative, out of temp, incorrect containers.

Pace Analytical Services, LLC
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

January 30, 2023

Arthur Brown
SCDHEC
2600 Bull Street
Columbia, SC 29201

RE: Project: WARREN GREEN 04887/66252
Pace Project No.: 92648035

Dear Arthur Brown:

Enclosed are the analytical results for sample(s) received by the laboratory on January 20, 2023. The results relate only to the samples included in this report. Results reported herein conform to the applicable TNI/NELAC Standards and the laboratory's Quality Manual, where applicable, unless otherwise noted in the body of the report.

The test results provided in this final report were generated by each of the following laboratories within the Pace Network:

- Pace Analytical Services - Charlotte

If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Angela M. Baioni

Angela Baioni for
Taylor M Cannon
taylor.cannon@pacelabs.com
(704)875-9092
Project Manager

Enclosures

cc: Jeff Coleman, Midlands Environmental Consultants, Inc.
Robert Dunn, SCDHEC
Kyle Pudney, Midlands Environmental Consultants, Inc.

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CERTIFICATIONS

Project: WARREN GREEN 04887/66252
Pace Project No.: 92648035

Pace Analytical Services Charlotte

South Carolina Laboratory ID: 99006
9800 Kincey Ave. Ste 100, Huntersville, NC 28078
North Carolina Drinking Water Certification #: 37706
North Carolina Field Services Certification #: 5342
North Carolina Wastewater Certification #: 12
South Carolina Laboratory ID: 99006

South Carolina Certification #: 99006001
South Carolina Drinking Water Cert. #: 99006003
Florida/NELAP Certification #: E87627
Kentucky UST Certification #: 84
Louisiana DoH Drinking Water #: LA029
Virginia/VELAP Certification #: 460221

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SAMPLE ANALYTE COUNT

Project: WARREN GREEN 04887/66252
Pace Project No.: 92648035

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
92648035001	**WSW-1**	EPA 504.1	HH	2	PASI-C
		EPA 524.2	LMB	11	PASI-C
		EPA 8260D	SAS	11	PASI-C
92648035002	**WSW-2**	EPA 504.1	HH	2	PASI-C
		EPA 524.2	LMB	11	PASI-C
		EPA 8260D	SAS	11	PASI-C
92648035003	**WSW-4**	EPA 504.1	HH	2	PASI-C
		EPA 524.2	LMB	11	PASI-C
		EPA 8260D	SAS	11	PASI-C
92648035004	**WSW-DUP**	EPA 504.1	HH	2	PASI-C
		EPA 524.2	LMB	11	PASI-C
		EPA 8260D	SAS	11	PASI-C
92648035005	**WSW-FB**	EPA 504.1	HH	2	PASI-C
		EPA 524.2	LMB	11	PASI-C
		EPA 8260D	SAS	11	PASI-C
92648035006	**WSW-TB**	EPA 524.2	LMB	11	PASI-C
		EPA 8260D	SAS	11	PASI-C

PASI-C = Pace Analytical Services - Charlotte

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PROJECT NARRATIVE

Project: WARREN GREEN 04887/66252
Pace Project No.: 92648035

Method: **EPA 504.1**
Description: 504 GCS EDB and DBCP
Client: SCDHEC
Date: January 30, 2023

General Information:
5 samples were analyzed for EPA 504.1 by Pace Analytical Services Charlotte. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Sample Preparation:
The samples were prepared in accordance with EPA 504.1 with any exceptions noted below.

Initial Calibrations (including MS Tune as applicable):
All criteria were within method requirements with any exceptions noted below.

Continuing Calibration:
All criteria were within method requirements with any exceptions noted below.

Surrogates:
All surrogates were within QC limits with any exceptions noted below.

Method Blank:
All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

Duplicate Sample:
All duplicate sample results were within method acceptance criteria with any exceptions noted below.

Additional Comments:

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PROJECT NARRATIVE

Project:	WARREN GREEN 04887/66252
Pace Project No.:	92648035

Method: **EPA 524.2**
Description: 524.2 MSV SC List
Client: SCDHEC
Date: January 30, 2023

General Information:
6 samples were analyzed for EPA 524.2 by Pace Analytical Services Charlotte. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Initial Calibrations (including MS Tune as applicable):
All criteria were within method requirements with any exceptions noted below.

Continuing Calibration:
All criteria were within method requirements with any exceptions noted below.

Internal Standards:
All internal standards were within QC limits with any exceptions noted below.

Surrogates:
All surrogates were within QC limits with any exceptions noted below.

Method Blank:
All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

Additional Comments:

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PROJECT NARRATIVE

Project: WARREN GREEN 04887/66252
Pace Project No.: 92648035

Method: **EPA 8260D**
Description: 8260 MSV Low Level SC
Client: SCDHEC
Date: January 30, 2023

General Information:
6 samples were analyzed for EPA 8260D by Pace Analytical Services Charlotte. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Initial Calibrations (including MS Tune as applicable):
All criteria were within method requirements with any exceptions noted below.

Continuing Calibration:
All criteria were within method requirements with any exceptions noted below.

Internal Standards:
All internal standards were within QC limits with any exceptions noted below.

Surrogates:
All surrogates were within QC limits with any exceptions noted below.

Method Blank:
All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

Duplicate Sample:
All duplicate sample results were within method acceptance criteria with any exceptions noted below.

Additional Comments:

This data package has been reviewed for quality and completeness and is approved for release.

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ANALYTICAL RESULTS

Project: WARREN GREEN 04887/66252
Pace Project No.: 92648035

Sample: WSW-1 **Lab ID: 92648035001** Collected: 01/19/23 13:28 Received: 01/20/23 15:44 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
504 GCS EDB and DBCP	Analytical Method: EPA 504.1 Preparation Method: EPA 504.1							
	Pace Analytical Services - Charlotte							
1,2-Dibromoethane (EDB)	ND	ug/L	0.020	1	01/27/23 10:13	01/28/23 03:17	106-93-4	
Surrogates								
1-Chloro-2-bromopropane (S)	117	%	70-130	1	01/27/23 10:13	01/28/23 03:17	301-79-56	
524.2 MSV SC List	Analytical Method: EPA 524.2							
	Pace Analytical Services - Charlotte							
Benzene	ND	ug/L	0.50	1		01/25/23 02:01	71-43-2	
1,2-Dichloroethane	ND	ug/L	0.50	1		01/25/23 02:01	107-06-2	
Ethylbenzene	ND	ug/L	0.50	1		01/25/23 02:01	100-41-4	
Methyl-tert-butyl ether	ND	ug/L	0.50	1		01/25/23 02:01	1634-04-4	
Naphthalene	ND	ug/L	0.50	1		01/25/23 02:01	91-20-3	
Toluene	ND	ug/L	0.50	1		01/25/23 02:01	108-88-3	
Xylene (Total)	ND	ug/L	0.50	1		01/25/23 02:01	1330-20-7	
m&p-Xylene	ND	ug/L	1.0	1		01/25/23 02:01	179601-23-1	
o-Xylene	ND	ug/L	0.50	1		01/25/23 02:01	95-47-6	
Surrogates								
1,2-Dichlorobenzene-d4 (S)	97	%	70-130	1		01/25/23 02:01	2199-69-1	
4-Bromofluorobenzene (S)	92	%	70-130	1		01/25/23 02:01	460-00-4	
8260 MSV Low Level SC	Analytical Method: EPA 8260D							
	Pace Analytical Services - Charlotte							
tert-Amyl Alcohol	ND	ug/L	100	1		01/24/23 18:09	75-85-4	
tert-Amylmethyl ether	ND	ug/L	10.0	1		01/24/23 18:09	994-05-8	
3,3-Dimethyl-1-Butanol	ND	ug/L	100	1		01/24/23 18:09	624-95-3	
tert-Butyl Alcohol	ND	ug/L	100	1		01/24/23 18:09	75-65-0	
tert-Butyl Formate	ND	ug/L	50.0	1		01/24/23 18:09	762-75-4	
Diisopropyl ether	ND	ug/L	1.0	1		01/24/23 18:09	108-20-3	
Ethanol	ND	ug/L	200	1		01/24/23 18:09	64-17-5	
Ethyl-tert-butyl ether	ND	ug/L	10.0	1		01/24/23 18:09	637-92-3	
Surrogates								
4-Bromofluorobenzene (S)	100	%	70-130	1		01/24/23 18:09	460-00-4	
1,2-Dichloroethane-d4 (S)	95	%	70-130	1		01/24/23 18:09	17060-07-0	
Toluene-d8 (S)	110	%	70-130	1		01/24/23 18:09	2037-26-5	

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ANALYTICAL RESULTS

Project: WARREN GREEN 04887/66252

Pace Project No.: 92648035

Sample: WSW-2	Lab ID: 92648035002		Collected: 01/19/23 13:36		Received: 01/20/23 15:44		Matrix: Water	
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
504 GCS EDB and DBCP	Analytical Method: EPA 504.1 Preparation Method: EPA 504.1							
	Pace Analytical Services - Charlotte							
1,2-Dibromoethane (EDB)	ND	ug/L	0.020	1	01/27/23 10:13	01/28/23 03:39	106-93-4	
Surrogates								
1-Chloro-2-bromopropane (S)	112	%	70-130	1	01/27/23 10:13	01/28/23 03:39	301-79-56	
524.2 MSV SC List	Analytical Method: EPA 524.2							
	Pace Analytical Services - Charlotte							
Benzene	ND	ug/L	0.50	1		01/25/23 02:27	71-43-2	
1,2-Dichloroethane	ND	ug/L	0.50	1		01/25/23 02:27	107-06-2	
Ethylbenzene	ND	ug/L	0.50	1		01/25/23 02:27	100-41-4	
Methyl-tert-butyl ether	ND	ug/L	0.50	1		01/25/23 02:27	1634-04-4	
Naphthalene	ND	ug/L	0.50	1		01/25/23 02:27	91-20-3	
Toluene	ND	ug/L	0.50	1		01/25/23 02:27	108-88-3	
Xylene (Total)	ND	ug/L	0.50	1		01/25/23 02:27	1330-20-7	
m&p-Xylene	ND	ug/L	1.0	1		01/25/23 02:27	179601-23-1	
o-Xylene	ND	ug/L	0.50	1		01/25/23 02:27	95-47-6	
Surrogates								
1,2-Dichlorobenzene-d4 (S)	96	%	70-130	1		01/25/23 02:27	2199-69-1	
4-Bromofluorobenzene (S)	92	%	70-130	1		01/25/23 02:27	460-00-4	
8260 MSV Low Level SC	Analytical Method: EPA 8260D							
	Pace Analytical Services - Charlotte							
tert-Amyl Alcohol	ND	ug/L	100	1		01/24/23 18:27	75-85-4	
tert-Amylmethyl ether	ND	ug/L	10.0	1		01/24/23 18:27	994-05-8	
3,3-Dimethyl-1-Butanol	ND	ug/L	100	1		01/24/23 18:27	624-95-3	
tert-Butyl Alcohol	ND	ug/L	100	1		01/24/23 18:27	75-65-0	
tert-Butyl Formate	ND	ug/L	50.0	1		01/24/23 18:27	762-75-4	
Diisopropyl ether	ND	ug/L	1.0	1		01/24/23 18:27	108-20-3	
Ethanol	ND	ug/L	200	1		01/24/23 18:27	64-17-5	
Ethyl-tert-butyl ether	ND	ug/L	10.0	1		01/24/23 18:27	637-92-3	
Surrogates								
4-Bromofluorobenzene (S)	96	%	70-130	1		01/24/23 18:27	460-00-4	
1,2-Dichloroethane-d4 (S)	98	%	70-130	1		01/24/23 18:27	17060-07-0	
Toluene-d8 (S)	107	%	70-130	1		01/24/23 18:27	2037-26-5	

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ANALYTICAL RESULTS

Project: WARREN GREEN 04887/66252
Pace Project No.: 92648035

Sample: WSW-4 **Lab ID: 92648035003** Collected: 01/19/23 13:47 Received: 01/20/23 15:44 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
504 GCS EDB and DBCP	Analytical Method: EPA 504.1 Preparation Method: EPA 504.1							
	Pace Analytical Services - Charlotte							
1,2-Dibromoethane (EDB)	ND	ug/L	0.020	1	01/27/23 10:13	01/28/23 04:10	106-93-4	
Surrogates								
1-Chloro-2-bromopropane (S)	108	%	70-130	1	01/27/23 10:13	01/28/23 04:10	301-79-56	
524.2 MSV SC List	Analytical Method: EPA 524.2							
	Pace Analytical Services - Charlotte							
Benzene	ND	ug/L	0.50	1		01/25/23 02:53	71-43-2	
1,2-Dichloroethane	ND	ug/L	0.50	1		01/25/23 02:53	107-06-2	
Ethylbenzene	ND	ug/L	0.50	1		01/25/23 02:53	100-41-4	
Methyl-tert-butyl ether	ND	ug/L	0.50	1		01/25/23 02:53	1634-04-4	
Naphthalene	ND	ug/L	0.50	1		01/25/23 02:53	91-20-3	
Toluene	ND	ug/L	0.50	1		01/25/23 02:53	108-88-3	
Xylene (Total)	ND	ug/L	0.50	1		01/25/23 02:53	1330-20-7	
m&p-Xylene	ND	ug/L	1.0	1		01/25/23 02:53	179601-23-1	
o-Xylene	ND	ug/L	0.50	1		01/25/23 02:53	95-47-6	
Surrogates								
1,2-Dichlorobenzene-d4 (S)	97	%	70-130	1		01/25/23 02:53	2199-69-1	
4-Bromofluorobenzene (S)	93	%	70-130	1		01/25/23 02:53	460-00-4	
8260 MSV Low Level SC	Analytical Method: EPA 8260D							
	Pace Analytical Services - Charlotte							
tert-Amyl Alcohol	ND	ug/L	100	1		01/24/23 18:45	75-85-4	
tert-Amylmethyl ether	ND	ug/L	10.0	1		01/24/23 18:45	994-05-8	
3,3-Dimethyl-1-Butanol	ND	ug/L	100	1		01/24/23 18:45	624-95-3	
tert-Butyl Alcohol	ND	ug/L	100	1		01/24/23 18:45	75-65-0	
tert-Butyl Formate	ND	ug/L	50.0	1		01/24/23 18:45	762-75-4	
Diisopropyl ether	ND	ug/L	1.0	1		01/24/23 18:45	108-20-3	
Ethanol	ND	ug/L	200	1		01/24/23 18:45	64-17-5	
Ethyl-tert-butyl ether	ND	ug/L	10.0	1		01/24/23 18:45	637-92-3	
Surrogates								
4-Bromofluorobenzene (S)	93	%	70-130	1		01/24/23 18:45	460-00-4	
1,2-Dichloroethane-d4 (S)	97	%	70-130	1		01/24/23 18:45	17060-07-0	
Toluene-d8 (S)	107	%	70-130	1		01/24/23 18:45	2037-26-5	

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ANALYTICAL RESULTS

Project: WARREN GREEN 04887/66252
Pace Project No.: 92648035

Sample: WSW-DUP **Lab ID: 92648035004** Collected: 01/19/23 13:28 Received: 01/20/23 15:44 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
504 GCS EDB and DBCP	Analytical Method: EPA 504.1 Preparation Method: EPA 504.1							
	Pace Analytical Services - Charlotte							
1,2-Dibromoethane (EDB)	ND	ug/L	0.020	1	01/27/23 10:13	01/28/23 04:21	106-93-4	
Surrogates								
1-Chloro-2-bromopropane (S)	103	%	70-130	1	01/27/23 10:13	01/28/23 04:21	301-79-56	
524.2 MSV SC List	Analytical Method: EPA 524.2							
	Pace Analytical Services - Charlotte							
Benzene	ND	ug/L	0.50	1		01/25/23 03:19	71-43-2	
1,2-Dichloroethane	ND	ug/L	0.50	1		01/25/23 03:19	107-06-2	
Ethylbenzene	ND	ug/L	0.50	1		01/25/23 03:19	100-41-4	
Methyl-tert-butyl ether	ND	ug/L	0.50	1		01/25/23 03:19	1634-04-4	
Naphthalene	ND	ug/L	0.50	1		01/25/23 03:19	91-20-3	
Toluene	ND	ug/L	0.50	1		01/25/23 03:19	108-88-3	
Xylene (Total)	ND	ug/L	0.50	1		01/25/23 03:19	1330-20-7	
m&p-Xylene	ND	ug/L	1.0	1		01/25/23 03:19	179601-23-1	
o-Xylene	ND	ug/L	0.50	1		01/25/23 03:19	95-47-6	
Surrogates								
1,2-Dichlorobenzene-d4 (S)	98	%	70-130	1		01/25/23 03:19	2199-69-1	
4-Bromofluorobenzene (S)	93	%	70-130	1		01/25/23 03:19	460-00-4	
8260 MSV Low Level SC	Analytical Method: EPA 8260D							
	Pace Analytical Services - Charlotte							
tert-Amyl Alcohol	ND	ug/L	100	1		01/24/23 19:03	75-85-4	
tert-Amylmethyl ether	ND	ug/L	10.0	1		01/24/23 19:03	994-05-8	
3,3-Dimethyl-1-Butanol	ND	ug/L	100	1		01/24/23 19:03	624-95-3	
tert-Butyl Alcohol	ND	ug/L	100	1		01/24/23 19:03	75-65-0	
tert-Butyl Formate	ND	ug/L	50.0	1		01/24/23 19:03	762-75-4	
Diisopropyl ether	ND	ug/L	1.0	1		01/24/23 19:03	108-20-3	
Ethanol	ND	ug/L	200	1		01/24/23 19:03	64-17-5	
Ethyl-tert-butyl ether	ND	ug/L	10.0	1		01/24/23 19:03	637-92-3	
Surrogates								
4-Bromofluorobenzene (S)	98	%	70-130	1		01/24/23 19:03	460-00-4	
1,2-Dichloroethane-d4 (S)	96	%	70-130	1		01/24/23 19:03	17060-07-0	
Toluene-d8 (S)	103	%	70-130	1		01/24/23 19:03	2037-26-5	

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ANALYTICAL RESULTS

Project: WARREN GREEN 04887/66252
Pace Project No.: 92648035

Sample: WSW-FB **Lab ID: 92648035005** Collected: 01/19/23 13:50 Received: 01/20/23 15:44 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
504 GCS EDB and DBCP	Analytical Method: EPA 504.1 Preparation Method: EPA 504.1							
	Pace Analytical Services - Charlotte							
1,2-Dibromoethane (EDB)	ND	ug/L	0.020	1	01/27/23 10:13	01/28/23 04:31	106-93-4	
Surrogates								
1-Chloro-2-bromopropane (S)	101	%	70-130	1	01/27/23 10:13	01/28/23 04:31	301-79-56	
524.2 MSV SC List	Analytical Method: EPA 524.2							
	Pace Analytical Services - Charlotte							
Benzene	ND	ug/L	0.50	1		01/24/23 22:31	71-43-2	
1,2-Dichloroethane	ND	ug/L	0.50	1		01/24/23 22:31	107-06-2	
Ethylbenzene	ND	ug/L	0.50	1		01/24/23 22:31	100-41-4	
Methyl-tert-butyl ether	ND	ug/L	0.50	1		01/24/23 22:31	1634-04-4	
Naphthalene	ND	ug/L	0.50	1		01/24/23 22:31	91-20-3	
Toluene	ND	ug/L	0.50	1		01/24/23 22:31	108-88-3	
Xylene (Total)	ND	ug/L	0.50	1		01/24/23 22:31	1330-20-7	
m&p-Xylene	ND	ug/L	1.0	1		01/24/23 22:31	179601-23-1	
o-Xylene	ND	ug/L	0.50	1		01/24/23 22:31	95-47-6	
Surrogates								
1,2-Dichlorobenzene-d4 (S)	96	%	70-130	1		01/24/23 22:31	2199-69-1	
4-Bromofluorobenzene (S)	92	%	70-130	1		01/24/23 22:31	460-00-4	
8260 MSV Low Level SC	Analytical Method: EPA 8260D							
	Pace Analytical Services - Charlotte							
tert-Amyl Alcohol	ND	ug/L	100	1		01/24/23 16:20	75-85-4	
tert-Amylmethyl ether	ND	ug/L	10.0	1		01/24/23 16:20	994-05-8	
3,3-Dimethyl-1-Butanol	ND	ug/L	100	1		01/24/23 16:20	624-95-3	
tert-Butyl Alcohol	ND	ug/L	100	1		01/24/23 16:20	75-65-0	
tert-Butyl Formate	ND	ug/L	50.0	1		01/24/23 16:20	762-75-4	
Diisopropyl ether	ND	ug/L	1.0	1		01/24/23 16:20	108-20-3	
Ethanol	ND	ug/L	200	1		01/24/23 16:20	64-17-5	
Ethyl-tert-butyl ether	ND	ug/L	10.0	1		01/24/23 16:20	637-92-3	
Surrogates								
4-Bromofluorobenzene (S)	97	%	70-130	1		01/24/23 16:20	460-00-4	
1,2-Dichloroethane-d4 (S)	91	%	70-130	1		01/24/23 16:20	17060-07-0	
Toluene-d8 (S)	108	%	70-130	1		01/24/23 16:20	2037-26-5	

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ANALYTICAL RESULTS

Project: WARREN GREEN 04887/66252
Pace Project No.: 92648035

Sample: WSW-TB **Lab ID: 92648035006** Collected: 01/19/23 08:00 Received: 01/20/23 15:44 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
524.2 MSV SC List	Analytical Method: EPA 524.2							
	Pace Analytical Services - Charlotte							
Benzene	ND	ug/L	0.50	1		01/24/23 22:57	71-43-2	
1,2-Dichloroethane	ND	ug/L	0.50	1		01/24/23 22:57	107-06-2	
Ethylbenzene	ND	ug/L	0.50	1		01/24/23 22:57	100-41-4	
Methyl-tert-butyl ether	ND	ug/L	0.50	1		01/24/23 22:57	1634-04-4	
Naphthalene	ND	ug/L	0.50	1		01/24/23 22:57	91-20-3	
Toluene	ND	ug/L	0.50	1		01/24/23 22:57	108-88-3	
Xylene (Total)	ND	ug/L	0.50	1		01/24/23 22:57	1330-20-7	
m&p-Xylene	ND	ug/L	1.0	1		01/24/23 22:57	179601-23-1	
o-Xylene	ND	ug/L	0.50	1		01/24/23 22:57	95-47-6	
Surrogates								
1,2-Dichlorobenzene-d4 (S)	96	%	70-130	1		01/24/23 22:57	2199-69-1	
4-Bromofluorobenzene (S)	91	%	70-130	1		01/24/23 22:57	460-00-4	
8260 MSV Low Level SC	Analytical Method: EPA 8260D							
	Pace Analytical Services - Charlotte							
tert-Amyl Alcohol	ND	ug/L	100	1		01/24/23 16:38	75-85-4	
tert-Amylmethyl ether	ND	ug/L	10.0	1		01/24/23 16:38	994-05-8	
3,3-Dimethyl-1-Butanol	ND	ug/L	100	1		01/24/23 16:38	624-95-3	
tert-Butyl Alcohol	ND	ug/L	100	1		01/24/23 16:38	75-65-0	
tert-Butyl Formate	ND	ug/L	50.0	1		01/24/23 16:38	762-75-4	
Diisopropyl ether	ND	ug/L	1.0	1		01/24/23 16:38	108-20-3	
Ethanol	ND	ug/L	200	1		01/24/23 16:38	64-17-5	
Ethyl-tert-butyl ether	ND	ug/L	10.0	1		01/24/23 16:38	637-92-3	
Surrogates								
4-Bromofluorobenzene (S)	95	%	70-130	1		01/24/23 16:38	460-00-4	
1,2-Dichloroethane-d4 (S)	95	%	70-130	1		01/24/23 16:38	17060-07-0	
Toluene-d8 (S)	105	%	70-130	1		01/24/23 16:38	2037-26-5	

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QUALITY CONTROL DATA

Project: WARREN GREEN 04887/66252
Pace Project No.: 92648035

QC Batch: 751493 | Analysis Method: EPA 524.2
QC Batch Method: EPA 524.2 | Analysis Description: 524.2 MSV
Laboratory: Pace Analytical Services - Charlotte
Associated Lab Samples: 92648035001, 92648035002, 92648035003, 92648035004, 92648035005, 92648035006

METHOD BLANK: 3905226 | Matrix: Water
Associated Lab Samples: 92648035001, 92648035002, 92648035003, 92648035004, 92648035005, 92648035006

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
1,2-Dichloroethane	ug/L	ND	0.50	01/24/23 22:05	
Benzene	ug/L	ND	0.50	01/24/23 22:05	
Ethylbenzene	ug/L	ND	0.50	01/24/23 22:05	
m&p-Xylene	ug/L	ND	1.0	01/24/23 22:05	
Methyl-tert-butyl ether	ug/L	ND	0.50	01/24/23 22:05	
Naphthalene	ug/L	ND	0.50	01/24/23 22:05	
o-Xylene	ug/L	ND	0.50	01/24/23 22:05	
Toluene	ug/L	ND	0.50	01/24/23 22:05	
Xylene (Total)	ug/L	ND	0.50	01/24/23 22:05	
1,2-Dichlorobenzene-d4 (S)	%	98	70-130	01/24/23 22:05	
4-Bromofluorobenzene (S)	%	93	70-130	01/24/23 22:05	

LABORATORY CONTROL SAMPLE: 3905227

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,2-Dichloroethane	ug/L	20	19.7	98	70-130	
Benzene	ug/L	20	18.5	92	70-130	
Ethylbenzene	ug/L	20	19.6	98	70-130	
m&p-Xylene	ug/L	40	41.0	102	70-130	
Methyl-tert-butyl ether	ug/L	20	18.6	93	70-130	
Naphthalene	ug/L	20	19.6	98	70-130	
o-Xylene	ug/L	20	20.3	101	70-130	
Toluene	ug/L	20	19.0	95	70-130	
Xylene (Total)	ug/L	60	61.2	102		
1,2-Dichlorobenzene-d4 (S)	%			102	70-130	
4-Bromofluorobenzene (S)	%			101	70-130	

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QUALITY CONTROL DATA

Project: WARREN GREEN 04887/66252
Pace Project No.: 92648035

QC Batch: 751193 | Analysis Method: EPA 8260D
QC Batch Method: EPA 8260D | Analysis Description: 8260 MSV Low Level SC
Laboratory: Pace Analytical Services - Charlotte
Associated Lab Samples: 92648035001, 92648035002, 92648035003, 92648035004, 92648035005, 92648035006

METHOD BLANK: 3903937 Matrix: Water
Associated Lab Samples: 92648035001, 92648035002, 92648035003, 92648035004, 92648035005, 92648035006

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
3,3-Dimethyl-1-Butanol	ug/L	ND	100	01/24/23 14:32	
Diisopropyl ether	ug/L	ND	1.0	01/24/23 14:32	
Ethanol	ug/L	ND	200	01/24/23 14:32	
Ethyl-tert-butyl ether	ug/L	ND	10.0	01/24/23 14:32	
tert-Amyl Alcohol	ug/L	ND	100	01/24/23 14:32	
tert-Amylmethyl ether	ug/L	ND	10.0	01/24/23 14:32	
tert-Butyl Alcohol	ug/L	ND	100	01/24/23 14:32	
tert-Butyl Formate	ug/L	ND	50.0	01/24/23 14:32	
1,2-Dichloroethane-d4 (S)	%	86	70-130	01/24/23 14:32	
4-Bromofluorobenzene (S)	%	97	70-130	01/24/23 14:32	
Toluene-d8 (S)	%	103	70-130	01/24/23 14:32	

LABORATORY CONTROL SAMPLE: 3903938

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
3,3-Dimethyl-1-Butanol	ug/L	400	420	105	70-130	
Diisopropyl ether	ug/L	20	15.3	76	70-130	
Ethanol	ug/L	800	620	77	70-130	
Ethyl-tert-butyl ether	ug/L	40	36.2	91	70-130	
tert-Amyl Alcohol	ug/L	400	358	89	70-130	
tert-Amylmethyl ether	ug/L	40	41.4	104	70-130	
tert-Butyl Alcohol	ug/L	200	163	81	70-130	
tert-Butyl Formate	ug/L	160	145	91	70-130	
1,2-Dichloroethane-d4 (S)	%			81	70-130	
4-Bromofluorobenzene (S)	%			98	70-130	
Toluene-d8 (S)	%			100	70-130	

MATRIX SPIKE SAMPLE: 3903940

Parameter	Units	92648035002 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
3,3-Dimethyl-1-Butanol	ug/L	ND	400	464	116	39-157	
Diisopropyl ether	ug/L	ND	20	18.5	92	63-144	
Ethanol	ug/L	ND	800	815	102	39-176	
Ethyl-tert-butyl ether	ug/L	ND	40	39.2	98	66-137	
tert-Amyl Alcohol	ug/L	ND	400	419	105	54-153	
tert-Amylmethyl ether	ug/L	ND	40	41.0	103	69-139	
tert-Butyl Alcohol	ug/L	ND	200	234	117	43-188	

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QUALITY CONTROL DATA

Project: WARREN GREEN 04887/66252
Pace Project No.: 92648035

MATRIX SPIKE SAMPLE: 3903940

Parameter	Units	92648035002 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
tert-Butyl Formate	ug/L	ND	160	114	71	10-170	
1,2-Dichloroethane-d4 (S)	%				92	70-130	
4-Bromofluorobenzene (S)	%				99	70-130	
Toluene-d8 (S)	%				97	70-130	

SAMPLE DUPLICATE: 3903939

Parameter	Units	92648035001 Result	Dup Result	RPD	Qualifiers
3,3-Dimethyl-1-Butanol	ug/L	ND	ND		
Diisopropyl ether	ug/L	ND	ND		
Ethanol	ug/L	ND	ND		
Ethyl-tert-butyl ether	ug/L	ND	ND		
tert-Amyl Alcohol	ug/L	ND	ND		
tert-Amylmethyl ether	ug/L	ND	ND		
tert-Butyl Alcohol	ug/L	ND	ND		
tert-Butyl Formate	ug/L	ND	ND		
1,2-Dichloroethane-d4 (S)	%	95	93		
4-Bromofluorobenzene (S)	%	100	99		
Toluene-d8 (S)	%	110	107		

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QUALITY CONTROL DATA

Project: WARREN GREEN 04887/66252
Pace Project No.: 92648035

QC Batch: 752131
QC Batch Method: EPA 504.1
Analysis Method: EPA 504.1
Analysis Description: GCS 504 EDB DBCP
Laboratory: Pace Analytical Services - Charlotte
Associated Lab Samples: 92648035001, 92648035002, 92648035003, 92648035004, 92648035005

METHOD BLANK: 3908382
Matrix: Water
Associated Lab Samples: 92648035001, 92648035002, 92648035003, 92648035004, 92648035005

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
1,2-Dibromoethane (EDB)	ug/L	ND	0.020	01/28/23 02:46	
1-Chloro-2-bromopropane (S)	%	112	70-130	01/28/23 02:46	

LABORATORY CONTROL SAMPLE & LCSD: 3908383 3908384

Parameter	Units	Spike Conc.	LCS Result	LCSD Result	LCS % Rec	LCSD % Rec	% Rec Limits	RPD	Max RPD	Qualifiers
1,2-Dibromoethane (EDB)	ug/L	0.25	0.29	0.25	118	101	70-130	16	20	
1-Chloro-2-bromopropane (S)	%				120	105	70-130			

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3908386 3908387

Parameter	Units	92648035002 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Qual
1,2-Dibromoethane (EDB)	ug/L	ND	0.24	0.24	0.24	0.25	100	104	65-135	4	
1-Chloro-2-bromopropane (S)	%						108	111	70-130		

SAMPLE DUPLICATE: 3908385

Parameter	Units	92648035001 Result	Dup Result	RPD	Qualifiers
1,2-Dibromoethane (EDB)	ug/L	ND	ND		
1-Chloro-2-bromopropane (S)	%	117	115		

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QUALIFIERS

Project: WARREN GREEN 04887/66252
Pace Project No.: 92648035

DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to dilution of the sample aliquot.

ND - Not Detected at or above adjusted reporting limit.

TNTC - Too Numerous To Count

J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.

MDL - Adjusted Method Detection Limit.

PQL - Practical Quantitation Limit.

RL - Reporting Limit - The lowest concentration value that meets project requirements for quantitative data with known precision and bias for a specific analyte in a specific matrix.

S - Surrogate

1,2-Diphenylhydrazine decomposes to and cannot be separated from Azobenzene using Method 8270. The result for each analyte is a combined concentration.

Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

U - Indicates the compound was analyzed for, but not detected.

Acid preservation may not be appropriate for 2 Chloroethylvinyl ether.

A separate vial preserved to a pH of 4-5 is recommended in SW846 Chapter 4 for the analysis of Acrolein and Acrylonitrile by EPA Method 8260.

N-Nitrosodiphenylamine decomposes and cannot be separated from Diphenylamine using Method 8270. The result reported for each analyte is a combined concentration.

Reported results are not rounded until the final step prior to reporting. Therefore, calculated parameters that are typically reported as "Total" may vary slightly from the sum of the reported component parameters.

Pace Analytical is TNI accredited. Contact your Pace PM for the current list of accredited analytes.

TNI - The NELAC Institute.

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QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: WARREN GREEN 04887/66252
Pace Project No.: 92648035

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
92648035001	**WSW-1**	EPA 504.1	752131	EPA 504.1	752247
92648035002	**WSW-2**	EPA 504.1	752131	EPA 504.1	752247
92648035003	**WSW-4**	EPA 504.1	752131	EPA 504.1	752247
92648035004	**WSW-DUP**	EPA 504.1	752131	EPA 504.1	752247
92648035005	**WSW-FB**	EPA 504.1	752131	EPA 504.1	752247
92648035001	**WSW-1**	EPA 524.2	751493		
92648035002	**WSW-2**	EPA 524.2	751493		
92648035003	**WSW-4**	EPA 524.2	751493		
92648035004	**WSW-DUP**	EPA 524.2	751493		
92648035005	**WSW-FB**	EPA 524.2	751493		
92648035006	**WSW-TB**	EPA 524.2	751493		
92648035001	**WSW-1**	EPA 8260D	751193		
92648035002	**WSW-2**	EPA 8260D	751193		
92648035003	**WSW-4**	EPA 8260D	751193		
92648035004	**WSW-DUP**	EPA 8260D	751193		
92648035005	**WSW-FB**	EPA 8260D	751193		
92648035006	**WSW-TB**	EPA 8260D	751193		

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CHAIN-OF-CUSTODY Analytical Request Document

Chain-of-Custody is a LEGAL DOCUMENT - Complete all relevent fields

LAB USE ONLY

WO# : 92648035

A 92648035

Company: SCDHEC

Billing Information:

Address: 2600 Bull St

Report To: A. Braun

Email To: Braunna@dhec.sc.gov

Copy To:

Site Collection Info/Address:

Customer Project Name/Number: Warren Green

State: SC County/City: Jasper Time Zone Collected: [ ] PT [ ] MT [ ] CT [✓] ET

Phone:
Email:

Site/Facility ID #: 04887

Compliance Monitoring? [ ] Yes [ ] No

Collected By (print): Hunter Sloan

Purchase Order #:
Quote #: 66252

DW PWS ID #:
DW Location Code:

Collected By (signature):

Turnaround Date Required:

Immediately Packed on Ice: [✓] Yes [ ] No

Sample Disposal: [ ] Dispose as appropriate [ ] Return [ ] Archive: [ ] Hold:

Rush: [ ] Same Day [ ] Next Day [ ] 2 Day [ ] 3 Day [ ] 4 Day [ ] 5 Day (Expedite Charges Apply)

Field Filtered (if applicable): [ ] Yes [ ] No

Analysis:

* Matrix Codes (Insert in Matrix box below): Drinking Water (DW), Ground Water (GW), Wastewater (WW), Product (P), Soil/Solid (SL), Oil (OL), Wipe (WP), Air (AR), Tissue (TS), Bioassay (B), Vapor (V), Other (OT)

Container Preservative Type: 3 3 8

** Preservative Types: (1) nitric acid, (2) sulfuric acid, (3) hydrochloric acid, (4) sodium hydroxide, (5) zinc acetate, (6) methanol, (7) sodium bisulfate, (8) sodium thiosulfate, (9) hexane, (A) ascorbic acid, (B) ammonium sulfate, (C) ammonium hydroxide, (D) TSP, (U) Unpreserved, (O) Other

Analyses

Customer Sample ID	Matrix *	Comp / Grab	Collected Date	Collected Time	Composite End Date	Composite End Time	Res Cl	# of Ctns	BTEXNM, 1,2-DCA SOL.2	OXYS 8260D	EDB SO4.1	Lab Sample # / Comments
WSW-1	DW	G	1/19/23	13:28				9	X	X	X	LDL 001
WSW-2	|	|	|	13:36				|	|	|	|	LDL 002
~~WSW-3~~												DNS
WSW-4	DW	G	1/19/23	13:47				9	X	X	X	LDL 003
~~WSW-5~~												DNS
WSW-dup	DW	G	1/19/23	13:28				9	X	X	X	LDL 004
WSW-FB	|	|	|	15:50				|	|	|	|	005
WSW-TB	|	|	|	8:00				6	|	|		006

Lab Profile/Line:

Lab Sample Receipt Checklist:
- Custody Seals Present/Intact Y N NA
- Custody Signatures Present Y N NA
- Collector Signature Present Y N NA
- Bottles Intact Y N NA
- Correct Bottles Y N NA
- Sufficient Volume Y N NA
- Samples Received on Ice Y N NA
- VOA - Headspace Acceptable Y N NA
- USDA Regulated Soils Y N NA
- Samples in Holding Time Y N NA
- Residual Chlorine Present Y N NA
- Cl Strips:
- Sample pH Acceptable Y N NA
- pH Strips:
- Sulfide Present Y N NA
- Lead Acetate Strips:

LAB USE ONLY:
Lab Sample # / Comments: 92648035

Customer Remarks / Special Conditions / Possible Hazards:

Type of Ice Used: Wet Blue Dry None

Packing Material Used: Bubble bag

Radchem sample(s) screened (<500 cpm): Y N NA

SHORT HOLDS PRESENT (<72 hours): Y N N/A

Lab Tracking #: 2857989

Samples received via: FEDEX UPS Client Courier Pace Courier

Lab Sample Temperature Info:
Temp Blank Received: Y N NA
Therm ID#: 221020
Cooler 1 Temp Upon Receipt: 4.6, 4.6 oC
Cooler 1 Therm Corr. Factor: 0 oC
Cooler 1 Corrected Temp: 4.6, 4.6 oC
Comments:

Relinquished by/Company: (Signature)	Date/Time:	Received by/Company: (Signature)	Date/Time:
[signature]	1/20/23 1544	[signature] - PACE	1-20-23 1544
[signature] PACE	1-20-23 1819	GMN Pace HM	1/23/23 0800

MTJL LAB USE ONLY
Table #:
Acctnum:
Template:
Prelogin:
PM:
PB:

Trip Blank Received: Y N NA
HCL MeOH TSP Other

Non Conformance(s): YES / NO

Page: of:

***Check mark top half of box if pH and/or dechlorination is verified and within the acceptance range for preservation samples.**
Exceptions: VOA, Coliform, TOC, Oil and Grease, DRO/8015 (water) DOC, LLHg

****Bottom half of box is to list number of bottles**

*****Check all unpreserved Nitrates for chlorine**

Project # **WO#: 92648035**
PM: TMC Due Date: 01/30/23
CLIENT: 92-SCDHEC

Item#	BP4U-125 mL Plastic Unpreserved (N/A) (Cl-)	BP3U-250 mL Plastic Unpreserved (N/A)	BP2U-500 mL Plastic Unpreserved (N/A)	BP1U-1 liter Plastic Unpreserved (N/A)	BP4S-125 mL Plastic H2SO4 (pH < 2) (Cl-)	BP3N-250 mL plastic HNO3 (pH < 2)	BP4Z-125 mL Plastic ZN Acetate & NaOH (>9)	BP4B-125 mL Plastic NaOH (pH > 12) (Cl-)	WGFU-Wide-mouthed Glass jar Unpreserved	AG1U-1 liter Amber Unpreserved (N/A) (Cl-)	AG1H-1 liter Amber HCl (pH < 2)	AG3U-250 mL Amber Unpreserved (N/A) (Cl-)	AG1S-1 liter Amber H2SO4 (pH < 2)	AG3S-250 mL Amber H2SO4 (pH < 2)	DG94-250 mL Amber NH4Cl (N/A)(Cl-)	DG9H-40 mL VOA HCl (N/A)	VG9T-40 mL VOA Na2S2O3 (N/A)	VG9U-40 mL VOA Unpreserved (N/A)	DG9V-40 mL VOA H3PO4 (N/A)	DG9S-40 mL VOA H2SO4 (N/A)	V/GK (3 vials per kit)-VPH/Gas kit (N/A)	SP5T-125 mL Sterile Plastic (N/A – lab)	SP2T-250 mL Sterile Plastic (N/A – lab)		BP3R-250 mL Plastic (NH2)2SO4 (9.3-9.7)	AG0U-100 mL Amber Unpreserved (N/A) (Cl-)	VSGU-20 mL Scintillation vials (N/A)	DG9U-40 mL Amber Unpreserved vials (N/A)
1																6	3											
2																6	3											
3																												
4																6	3											
5																												
6																6	3											
7																6	3											
8																6												
9																												
10																												
11																												
12																												

pH Adjustment Log for Preserved Samples

Sample ID	Type of Preservative	pH upon receipt	Date preservation adjusted	Time preservation adjusted	Amount of Preservative added	Lot #

Note: Whenever there is a discrepancy affecting North Carolina compliance samples, a copy of this form will be sent to the North Carolina DENR Certification Office (i.e. Out of hold, incorrect preservative, out of temp, incorrect containers.

Pace Analytical Services, LLC
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Huntersville, NC 28078
(704)875-9092

January 31, 2023

Mr. Bryan Shane, P.G.
Midlands Environmental
PO Box 854
Lexington, SC 29071

RE: Project: WARREN GREEN 04887/166252 GAC
Pace Project No.: 92648444

Dear Mr. Shane, P.G.:

Enclosed are the analytical results for sample(s) received by the laboratory on January 23, 2023. The results relate only to the samples included in this report. Results reported herein conform to the applicable TNI/NELAC Standards and the laboratory's Quality Manual, where applicable, unless otherwise noted in the body of the report.

The test results provided in this final report were generated by each of the following laboratories within the Pace Network:
• Pace Analytical Services - Charlotte

If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Angela M. Baioni

Angela Baioni for
Taylor M Cannon
taylor.cannon@pacelabs.com
(704)875-9092
Project Manager

Enclosures

cc: Mr. Jeff Coleman, Midlands Environmental
Mr. Kyle Pudney, Midlands Environmental

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CERTIFICATIONS

Project: WARREN GREEN 04887/166252 GAC
Pace Project No.: 92648444

Pace Analytical Services Charlotte

South Carolina Laboratory ID: 99006
9800 Kincey Ave. Ste 100, Huntersville, NC 28078
North Carolina Drinking Water Certification #: 37706
North Carolina Field Services Certification #: 5342
North Carolina Wastewater Certification #: 12
South Carolina Laboratory ID: 99006

South Carolina Certification #: 99006001
South Carolina Drinking Water Cert. #: 99006003
Florida/NELAP Certification #: E87627
Kentucky UST Certification #: 84
Louisiana DoH Drinking Water #: LA029
Virginia/VELAP Certification #: 460221

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SAMPLE SUMMARY

Project: WARREN GREEN 04887/166252 GAC
Pace Project No.: 92648444

Lab ID	Sample ID	Matrix	Date Collected	Date Received
92648032023	**GAC**	Water	01/19/23 13:20	01/23/23 08:00

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SAMPLE ANALYTE COUNT

Project: WARREN GREEN 04887/166252 GAC
Pace Project No.: 92648444

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
92648032023	**GAC**	EPA 8011	HH	2	PASI-C
		EPA 8260D	SAS	20	PASI-C

PASI-C = Pace Analytical Services - Charlotte

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ANALYTICAL RESULTS

Project: WARREN GREEN 04887/166252 GAC

Pace Project No.: 92648444

Sample: GAC **Lab ID: 92648032023** Collected: 01/19/23 13:20 Received: 01/23/23 08:00 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8011 GCS EDB and DBCP	Analytical Method: EPA 8011 Preparation Method: EPA 8011								
	Pace Analytical Services - Charlotte								
1,2-Dibromoethane (EDB)	ND	ug/L	0.020	0.0075	1	01/27/23 10:11	01/27/23 19:53	106-93-4	
Surrogates									
1-Chloro-2-bromopropane (S)	107	%	60-140		1	01/27/23 10:11	01/27/23 19:53	301-79-56	
8260 MSV	Analytical Method: EPA 8260D								
	Pace Analytical Services - Charlotte								
tert-Amyl Alcohol	ND	ug/L	100	65.6	1		01/25/23 17:05	75-85-4	
tert-Amylmethyl ether	ND	ug/L	10.0	3.0	1		01/25/23 17:05	994-05-8	
Benzene	ND	ug/L	5.0	1.7	1		01/25/23 17:05	71-43-2	
3,3-Dimethyl-1-Butanol	ND	ug/L	100	53.9	1		01/25/23 17:05	624-95-3	
tert-Butyl Alcohol	ND	ug/L	100	91.0	1		01/25/23 17:05	75-65-0	
tert-Butyl Formate	ND	ug/L	50.0	24.1	1		01/25/23 17:05	762-75-4	
1,2-Dichloroethane	ND	ug/L	5.0	2.1	1		01/25/23 17:05	107-06-2	
Diisopropyl ether	ND	ug/L	5.0	3.5	1		01/25/23 17:05	108-20-3	
Ethanol	ND	ug/L	200	144	1		01/25/23 17:05	64-17-5	
Ethylbenzene	ND	ug/L	5.0	1.8	1		01/25/23 17:05	100-41-4	
Ethyl-tert-butyl ether	ND	ug/L	10.0	8.5	1		01/25/23 17:05	637-92-3	
Methyl-tert-butyl ether	ND	ug/L	5.0	3.1	1		01/25/23 17:05	1634-04-4	
Naphthalene	ND	ug/L	5.0	2.1	1		01/25/23 17:05	91-20-3	
Toluene	ND	ug/L	5.0	2.0	1		01/25/23 17:05	108-88-3	
Xylene (Total)	ND	ug/L	5.0	5.0	1		01/25/23 17:05	1330-20-7	
m&p-Xylene	ND	ug/L	10.0	4.1	1		01/25/23 17:05	179601-23-1	
o-Xylene	ND	ug/L	5.0	2.0	1		01/25/23 17:05	95-47-6	
Surrogates									
4-Bromofluorobenzene (S)	95	%	70-130		1		01/25/23 17:05	460-00-4	
1,2-Dichloroethane-d4 (S)	98	%	70-130		1		01/25/23 17:05	17060-07-0	
Toluene-d8 (S)	109	%	70-130		1		01/25/23 17:05	2037-26-5	

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QUALITY CONTROL DATA

Project: WARREN GREEN 04887/166252 GAC
Pace Project No.: 92648444

QC Batch: 751511 | Analysis Method: EPA 8260D
QC Batch Method: EPA 8260D | Analysis Description: 8260 MSV SC
Laboratory: Pace Analytical Services - Charlotte

Associated Lab Samples: 92648032023

METHOD BLANK: 3905311 | Matrix: Water

Associated Lab Samples: 92648032023

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
1,2-Dichloroethane	ug/L	ND	5.0	2.1	01/25/23 13:28	
3,3-Dimethyl-1-Butanol	ug/L	ND	100	53.9	01/25/23 13:28	
Benzene	ug/L	ND	5.0	1.7	01/25/23 13:28	
Diisopropyl ether	ug/L	ND	5.0	3.5	01/25/23 13:28	
Ethanol	ug/L	ND	200	144	01/25/23 13:28	
Ethyl-tert-butyl ether	ug/L	ND	10.0	8.5	01/25/23 13:28	
Ethylbenzene	ug/L	ND	5.0	1.8	01/25/23 13:28	
m&p-Xylene	ug/L	ND	10.0	4.1	01/25/23 13:28	
Methyl-tert-butyl ether	ug/L	ND	5.0	3.1	01/25/23 13:28	
Naphthalene	ug/L	ND	5.0	2.1	01/25/23 13:28	
o-Xylene	ug/L	ND	5.0	2.0	01/25/23 13:28	
tert-Amyl Alcohol	ug/L	ND	100	65.6	01/25/23 13:28	
tert-Amylmethyl ether	ug/L	ND	10.0	3.0	01/25/23 13:28	
tert-Butyl Alcohol	ug/L	ND	100	91.0	01/25/23 13:28	
tert-Butyl Formate	ug/L	ND	50.0	24.1	01/25/23 13:28	
Toluene	ug/L	ND	5.0	2.0	01/25/23 13:28	
Xylene (Total)	ug/L	ND	5.0	5.0	01/25/23 13:28	
1,2-Dichloroethane-d4 (S)	%	93	70-130		01/25/23 13:28	
4-Bromofluorobenzene (S)	%	97	70-130		01/25/23 13:28	
Toluene-d8 (S)	%	109	70-130		01/25/23 13:28	

LABORATORY CONTROL SAMPLE: 3905312

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,2-Dichloroethane	ug/L	20	18.1	91	70-130	
3,3-Dimethyl-1-Butanol	ug/L	400	440	110	70-130	
Benzene	ug/L	20	19.4	97	70-130	
Diisopropyl ether	ug/L	20	18.4	92	70-130	
Ethanol	ug/L	800	810	101	70-130	
Ethyl-tert-butyl ether	ug/L	40	37.8	94	70-130	
Ethylbenzene	ug/L	20	20.8	104	70-130	
m&p-Xylene	ug/L	40	41.2	103	70-130	
Methyl-tert-butyl ether	ug/L	20	19.2	96	70-130	
Naphthalene	ug/L	20	23.7	118	70-130	
o-Xylene	ug/L	20	20.9	105	70-130	
tert-Amyl Alcohol	ug/L	400	405	101	70-130	
tert-Amylmethyl ether	ug/L	40	40.8	102	70-130	
tert-Butyl Alcohol	ug/L	200	199	100	70-130	
tert-Butyl Formate	ug/L	160	154	96	70-130	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

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QUALITY CONTROL DATA

Project: WARREN GREEN 04887/166252 GAC
Pace Project No.: 92648444

LABORATORY CONTROL SAMPLE: 3905312

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Toluene	ug/L	20	19.4	97	70-130	
Xylene (Total)	ug/L	60	62.1	104	70-130	
1,2-Dichloroethane-d4 (S)	%			95	70-130	
4-Bromofluorobenzene (S)	%			100	70-130	
Toluene-d8 (S)	%			99	70-130	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3905313 3905314

Parameter	Units	92647807002 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
1,2-Dichloroethane	ug/L	ND	20	20	18.8	19.5	94	98	70-137	4	30	
3,3-Dimethyl-1-Butanol	ug/L	ND	400	400	405	432	101	108	39-157	6	30	
Benzene	ug/L	ND	20	20	20.5	20.7	101	102	70-151	1	30	
Diisopropyl ether	ug/L	ND	20	20	17.8	17.3	89	86	63-144	3	30	
Ethanol	ug/L	ND	800	800	750	798	94	100	39-176	6	30	
Ethyl-tert-butyl ether	ug/L	ND	40	40	36.4	36.6	91	91	66-137	0	30	
Ethylbenzene	ug/L	ND	20	20	20.8	20.9	104	104	66-153	0	30	
m&p-Xylene	ug/L	ND	40	40	41.2	42.3	103	106	69-152	3	30	
Methyl-tert-butyl ether	ug/L	ND	20	20	18.4	18.3	92	92	54-156	1	30	
Naphthalene	ug/L	ND	20	20	24.5	26.6	102	113	61-148	8	30	
o-Xylene	ug/L	ND	20	20	20.5	21.0	103	105	70-148	2	30	
tert-Amyl Alcohol	ug/L	ND	400	400	414	389	104	97	54-153	6	30	
tert-Amylmethyl ether	ug/L	ND	40	40	39.6	39.1	99	98	69-139	1	30	
tert-Butyl Alcohol	ug/L	ND	200	200	247	241	124	120	43-188	3	30	
tert-Butyl Formate	ug/L	ND	160	160	63.8	54.4	40	34	10-170	16	30	
Toluene	ug/L	ND	20	20	19.7	20.3	98	102	59-148	3	30	
Xylene (Total)	ug/L	ND	60	60	61.7	63.4	103	106	63-158	3	30	
1,2-Dichloroethane-d4 (S)	%						97	96	70-130			
4-Bromofluorobenzene (S)	%						102	101	70-130			
Toluene-d8 (S)	%						103	102	70-130			

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

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QUALITY CONTROL DATA

Project: WARREN GREEN 04887/166252 GAC
Pace Project No.: 92648444

QC Batch: 752128 | Analysis Method: EPA 8011
QC Batch Method: EPA 8011 | Analysis Description: GCS 8011 EDB DBCP
Laboratory: Pace Analytical Services - Charlotte

Associated Lab Samples: 92648032023

METHOD BLANK: 3908368 Matrix: Water
Associated Lab Samples: 92648032023

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
1,2-Dibromoethane (EDB)	ug/L	ND	0.020	0.0074	01/27/23 17:14	
1-Chloro-2-bromopropane (S)	%	123	60-140		01/27/23 17:14	

LABORATORY CONTROL SAMPLE & LCSD: 3908369 3908370

Parameter	Units	Spike Conc.	LCS Result	LCSD Result	LCS % Rec	LCSD % Rec	% Rec Limits	RPD	Max RPD	Qualifiers
1,2-Dibromoethane (EDB)	ug/L	0.25	0.32	0.32	128	130	60-140	1	20	
1-Chloro-2-bromopropane (S)	%				121	125	60-140			

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3908372 3908373

Parameter	Units	92648101038 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
1,2-Dibromoethane (EDB)	ug/L	ND	0.25	0.25	0.31	0.31	124	125	60-140	1	20	
1-Chloro-2-bromopropane (S)	%						121	122	60-140			

SAMPLE DUPLICATE: 3908371

Parameter	Units	92648101037 Result	Dup Result	RPD	Max RPD	Qualifiers
1,2-Dibromoethane (EDB)	ug/L	ND	ND		20	
1-Chloro-2-bromopropane (S)	%	117	114			

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
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QUALIFIERS

Project: WARREN GREEN 04887/166252 GAC
Pace Project No.: 92648444

DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to dilution of the sample aliquot.

ND - Not Detected at or above adjusted reporting limit.

TNTC - Too Numerous To Count

J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.

MDL - Adjusted Method Detection Limit.

PQL - Practical Quantitation Limit.

RL - Reporting Limit - The lowest concentration value that meets project requirements for quantitative data with known precision and bias for a specific analyte in a specific matrix.

S - Surrogate

1,2-Diphenylhydrazine decomposes to and cannot be separated from Azobenzene using Method 8270. The result for each analyte is a combined concentration.

Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

U - Indicates the compound was analyzed for, but not detected.

Acid preservation may not be appropriate for 2 Chloroethylvinyl ether.

A separate vial preserved to a pH of 4-5 is recommended in SW846 Chapter 4 for the analysis of Acrolein and Acrylonitrile by EPA Method 8260.

N-Nitrosodiphenylamine decomposes and cannot be separated from Diphenylamine using Method 8270. The result reported for each analyte is a combined concentration.

Reported results are not rounded until the final step prior to reporting. Therefore, calculated parameters that are typically reported as "Total" may vary slightly from the sum of the reported component parameters.

Pace Analytical is TNI accredited. Contact your Pace PM for the current list of accredited analytes.

TNI - The NELAC Institute.

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QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: WARREN GREEN 04887/166252 GAC
Pace Project No.: 92648444

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
92648032023	**GAC**	EPA 8011	752128	EPA 8011	752243
92648032023	**GAC**	EPA 8260D	751511		

Pace Analytical

CHAIN-OF-CUSTODY Analytical Request Document

Chain-of-Custody is a LEGAL DOCUMENT - Complete all relevent fields

LAB USE ONLY- Affix Workorder/Login Label Here or List Pace Workorder Number or MTJL Log-in Number Here

WO#: 92648444

92648444

ALL SHADED

Company: SCDHEC

Address: 2600 Bull st

Report To: A Brown

Copy To:

Billing Information:

Email To: BrownAJ@DHEC.SC.GOV

Site Collection Info/Address: 10773 west frontage rd

Customer Project Name/Number: Warren Green

State: SC / County/City: Jasper / Time Zone Collected: [ ] PT [ ] MT [ ] CT [✓] ET

Phone:
Email:

Site/Facility ID #: 04887 / 86252

Compliance Monitoring? [ ] Yes [ ] No

Collected By (print):

Purchase Order #:
Quote #:

DW PWS ID #:
DW Location Code:

Collected By (signature):

Turnaround Date Required:

Immediately Packed on Ice: [✓] Yes [ ] No

Sample Disposal:
[ ] Dispose as appropriate [ ] Return
[ ] Archive:
[ ] Hold:

Rush:
[ ] Same Day [ ] Next Day
[ ] 2 Day [ ] 3 Day [ ] 4 Day [ ] 5 Day
(Expedite Charges Apply)

Field Filtered (if applicable): [ ] Yes [ ] No

Analysis:

* Matrix Codes (Insert in Matrix box below): Drinking Water (DW), Ground Water (GW), Wastewater (WW), Product (P), Soil/Solid (SL), Oil (OL), Wipe (WP), Air (AR), Tissue (TS), Bioassay (B), Vapor (V), Other (OT)

Container Preservative Type **: 3 3

** Preservative Types: (1) nitric acid, (2) sulfuric ... (6) methanol, (7) sodium bisulfate, (8) sodium thiosulfate, (9) hexane, (A) ascorbic acid ... (C) ammonium hydroxide, (D) TSP, (U) Unpreserved, (O) Other

Analyses: 8260 Rc vw 12 DCA VOCs 8260 (B) / 8011 edb (D)

Customer Sample ID	Matrix *	Comp / Grab	Collected (or Composite Start) Date	Time	Composite End Date	Time	Res Cl	# of Ctns	8260	8011	Lab Sample # / Comments
DW-6	gw	G	1/19/23	14:00				6	X	X	no odor 019
Dup-1	↓	↓	↓	13:07					X	X	020
TB				19:15				2	X		021
FB				0800					X	X	022
6AC	↓	↓	↓	13:20				↓	X	X	023

Lab Profile/Line:

Lab Sample Receipt Checklist:
Custody Seals Present/Intact Y N NA
Custody Signatures Present Y N NA
Collector Signature Present Y N NA
Bottles Intact Y N NA
Correct Bottles Y N NA
Sufficient Volume Y N NA
Samples Received on Ice Y N NA
VOA - Headspace Acceptable Y N NA
USDA Regulated Soils Y N NA
Samples in Holding Time Y N NA
Residual Chlorine Present Y N NA
Cl Strips:
Sample pH Acceptable Y N NA
pH Strips:
Sulfide Present Y N NA
Lead Acetate Strips:

LAB USE ONLY:
Lab Sample # / Comments:
92648082

Customer Remarks / Special Conditions / Possible Hazards:

Type of Ice Used: Wet Blue Dry None

Packing Material Used: Bubble bags

Radchem sample(s) screened (<500 cpm): Y N NA

SHORT HOLDS PRESENT (<72 hours): Y N N/A

Lab Tracking #: 2806275

Samples received via: FEDEX UPS Client Courier Pace Courier

Lab Sample Temperature Info:
Temp Blank Received: Y N NA
Therm ID#:
Cooler 1 Temp Upon Receipt: 4.1 °C
Cooler 1 Therm Corr. Factor: °C
Cooler 1 Corrected Temp: °C
Comments:

Relinquished by/Company: (Signature)	Date/Time:	Received by/Company: (Signature)	Date/Time:	MTJL LAB USE ONLY
[signature]	1/20/23 1544	[signature] PACE	1-20-23 1544	Table #:
[signature] PACE	1-20-23 1919	Connie Pace AM	1/23/23 0700	Acctnum: / Template: / Prelogin:
				PM: / PB:

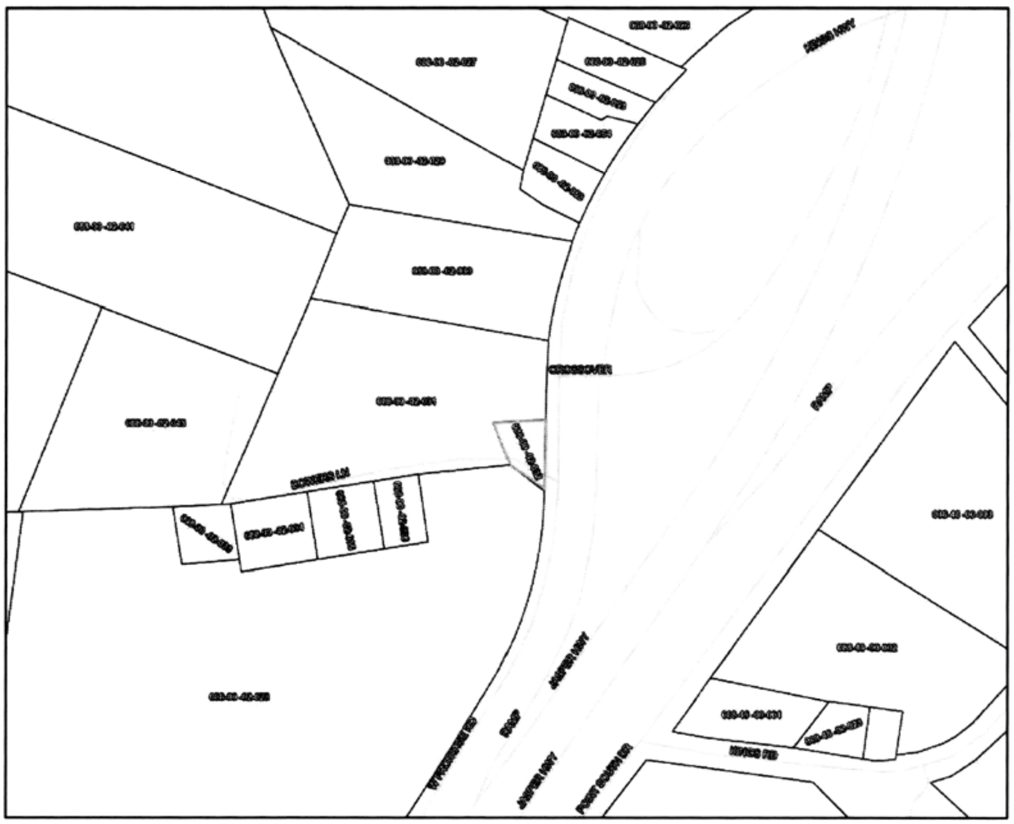
Trip Blank Received: Y N NA
HCL MeOH TSP Other

Non Conformance(s): YES / NO

Page: ____ of: ____

APPENDIX B:

TAX MAP



Tax Map Information obtained from Jasper County, SC GIS Department

Jasper County Tax Map #	Property Owner	Wells on Property
088-00-02-032 *UST# 04887*	Lasonya Fady, Etal. 189 Oakhill Road Ridgeland, SC 29936	MW-1, MW-3R, MW-7R, MW-15, DW-1 & DW-5
088-00-02-031	Rosa G. Lock, Etal. 189 Oakhill Road Ridgeland, SC 29936	MW-2, MW-4, MW-5, MW-6R, DW-2, DW-3 & DW-4
088-00-02-023	Retreat Plantation, LLC P.O. Box 211683 Augusta, GA 30917	MW-13R & MW-14
SCDOT Right of Way	SCDOT-District 6 150 East Woodlawn Street Ridgeland, SC 29936	MW-8, MW-9, MW-10, MW-11R, MW-12R & DW-6
088-00-02-035	Rebecca Bowers 81 Daniels Lane Yemassee, SC 29945	WSW-1
088-00-02-043	James Leroy Meachem 425 Bowers Lane Yemassee, SC 29945	WSW-2
088-00-02-028	Ernest Porchers P.O. Box 43 Yemassee, SC 29945	WSW-3
088-00-02-053	Ernest Porchers, Jr. Etal. P.O. Box 1406 Yemassee, SC 29945	WSW-4
088-00-02-054	Ernest Porchers, Jr. Etal. P.O. Box 1406 Yemassee, SC 29945	WSW-5

Tax Map Data

Warren Green
10713 West Frontage Road
Yemassee, South Carolina
UST Permit# 04887

Midlands Environmental Consultants, Inc.

Job No. 25-7995

Date: January 21, 2003

Figure No. B

APPENDIX C:

DISPOSAL MANIFEST

Midlands Environmental Consultants, Inc.

January 31, 2023

Re: Treatment of Purge Water
Warren Green
Yemassee, South Carolina
UST Permit# 04887
MECI Project Number 22-7995

To Whom It May Concern;

Midlands Environmental Consultants, Inc. is providing the following letter as certification that treatment of the referenced purge water complied with the conditions of "Proposed Conditions for Use of Portable Activated Carbon Units for the Treatment of Small Volumes of Petroleum Hydrocarbon Contaminated Groundwater", as described in the following:

Applicability:

Groundwater treated was obtained as a result development of wells and sampling.

Conditions:

1. The purge/bail water from all wells is mixed before usage of the Activated Carbon Unit.

2. No free-product was detected in any of the purge water drums.

3. Analytical results from well sampling show average concentrations of petroleum hydrocarbon constituents less than 5000 parts per billion (ppb) Benzene and less than 20,000 ppb total BTEX.

4. The existing carbon pack will be replaced/reactivated every 5,000 gallons.

5. Record of usage is maintained by Contractor.

6. Any and all recommendations and conditions issued by the Manufacturer have been adhered to.

7. Any and all recommendations and conditions (even on a site by site basis) issued by the SCDHEC must be adhered to.

All purge waters were treated on-site using an up-flow treatment drum loaded with 80 pounds of activated carbon. Carbon will be loaded to a maximum of 3 pounds of total organic compounds or 5,000 gallons of development/purge water, whichever occurs first.

A total of 222.50 gallons were treated on January 19, 2023 at the referenced site.

Midlands Environmental also tracks cumulative organic compounds adsorbed on the activated carbon to ensure the capacity of carbon mass is not over-charged. This data is available upon request.

Should you have any questions or comments, please contact the undersigned.

Sincerely,
Midlands Environmental Consultants, Inc.

Jeff L. Coleman
Senior Scientist

APPENDIX D:

ACCESS AGREEMENTS

State Lead Option
Property Access Agreement for Site Rehabilitation

Only complete this form if: You are the legal owner of the property **OR** are the designated authorized representative for the legal owner of the property.

I certify that I am the legal owner of the property identified below or serve as the authorized representative for the legal owner of the property. I authorize the South Carolina Department of Health and Environmental Control (DHEC), or a contractor selected by DHEC, to enter this property at reasonable times only to conduct assessment and corrective action activities, as required. The contractor will be designated as the contractor for the UST owner or operator for only the required environmental site rehabilitation activities. I understand that the Agency will notify me of all activities that are necessary prior to their initiation and will promptly provide to me a summary of the data upon request.

UST Permit # 04887		
Facility Name: WARREN GREEN		
Facility Address: 10773 W FRONTAGE RD, YEMASSEE, SC		
Facility Phone Number:		
Is facility within city limits? (check yes/no)	☐ Yes	☒ No
Name of nearest intersecting street/road/highway:		
Does public water/sewer utility service this facility?	☐ Yes	☒ No
*If no, please provide a contact name/number that can assist in the location of private water and septic tank lines:		
Name: LaSonya Eady	**Phone Number:** 843 683 2131	
Were USTs previously removed from the ground at this facility?	☐ Yes	☒ No
*If yes, please provide the name/contact number of a person that can assist in the location of the former UST(s):		
Name:	**Phone Number:**	
Is the facility currently leased to someone?	☐ Yes	☒ No
*If yes, notify them of the pending work scope, and please provide their name/contact number:		
Name:	**Phone Number:**	

***Please note that if vehicles or other mobile structures are parked over the location of the existing or former USTs, they should be moved prior to DHEC's contractor mobilizes to the facility.**

Name of Property Owner (Print): LaSonya Eady, Everette Bascom	
Signature of Property Owner or authorized representative: LaSonya Eady	**Date** 3-18-19
Affiliation (if applicable)	
Signature of Witness	**Date**

Contact Info

Phone Numbers:	**Home:**	**Cell:** 843 683 2131
Email Address:	jseady2@yahoo.com	

UST Kathryn 042

APPENDIX E:

DATA VERIFICATION CHECKLIST

Contractor Checklist

Item#	Item	Yes	No	N/A
1	Are Facility Name, Permit #, and address provided?	X		
2	Is UST Owner/Operator name, address, & phone number provided?	X		
3	Is name, address, & phone number of current property owner provided?	X		
4	Is the DHEC Certified UST Site Rehabilitation Contractor's Name, Address, telephone number, and certification number provided?	X		
5	Is the name, address, telephone number, and certification number of the well driller that installed borings/monitoring wells provided?			X
6	Is the name, address, telephone number, and certification number of the certified laboratory(ies) performing analytical analyses provided?	X		
7	Has the facility history been summarized?			X
8	Has the regional geology and hydrogeology been described?			X
9	Are the receptor survey results provided as required?			X
10	Has current use of the site and adjacent land been described?	X		
11	Has the site-specific geology and hydrogeology been described?			X
12	Has the primary soil type been described?			X
13	Have field screening results been described?			X
14	Has a description of the soil sample collection and preservation been detailed?			X
15	Has the field screening methodology and procedure been detailed?			X
16	Has the monitoring well installation and development dates been provided?			X
17	Has the method of well development been detailed?			X
18	Has justification been provided for the locations of the monitoring wells?			X
19	Have the monitoring wells been labeled in accordance with the UST QAPP guidelines?			X
20	Has the groundwater sampling methodology been detailed?	X		
21	Have the groundwater sampling dates and groundwater measurements been provided? (Table 2 & Figure 4)	X		
22	Has the purging methodology been detailed?	X		
23	Has the volume of water purged from each well been provided along with measurements to verify that purging is complete? (Appendix A)	X		
24	If free-product is present, has the thickness been provided?			X
25	Does the report include a brief discussion of the assessment done and the results?	X		
26	Does the report include a brief discussion of the aquifer evaluation and results?			X
27	Does the report include a brief discussion of the fate & transport models used?			X

Item#	Item	Yes	No	N/A
28	Are the site-conceptual model tables included? (Tier 1 Risk Evaluation)			X
29	Have the exposure pathways been analyzed? (Tier 2 Risk Evaluation)			X
30	Have the SSTLs for each compound and pathway been calculated? (Tier 2 Risk Evaluation)			X
31	Have recommendations for further action been provided and explained?			X
32	Has the soil analytical data for the site been provided in tabular format?			X
33	Has the potentiometric data for the site been provided in tabular format? (Table 2)	X		
34	Has the current and historical laboratory data been provided in tabular format? (Table 1)	X		
35	Have the aquifer characteristics been provided and summarized on the appropriate form?			X
36	Have the Site conceptual model tables been included? (Tier 1 Risk Evaluation)			X
37	Has the topographic map been provided with all required elements? (Figure 1)	X		
38	Has the site base map been provided with all required elements? (Figure 2)	X		
39	Have the CoC site maps been provided? (Figures 3)	X		
40	Has the site potentiometric map been provided? (Figure 4)	X		
41	Have the geologic cross-sections been provided?			X
42	Have maps showing the predicted migration of the CoCs through time been provided? (Tier 2 Risk Evaluation)			X
43	Has the site survey been provided and include all necessary elements?			X
44	Have the sampling logs, chain of custody forms, and the analytical data package been included with all required elements? (Appendix A)	X		
45	Is the laboratory performing the analyses properly certified?	X		
46	Has the tax map been included with all necessary elements? (Appendix B)	X		
47	Have the soil boring/field screening logs been provided?			X
48	Have the well completion logs and SCDHEC Form 1903 been provided?			X
49	Have the aquifer evaluation forms, data, graphs, equations, etc. been provided?			X
50	Have the disposal manifests been provided? (Appendix C)	X		
51	Has a copy of the local zoning regulations been provided?			X
52	Has all fate and transport modeling been provided?			X
53	Have copies of all access agreements obtained by the contractor been provided? (Appendix D)	X		
54	Has a copy of this form been attached to the final report and are explanations for any missing or incomplete data been provided? (Appendix E)	X		

APPENDIX F:

PHOTOS

Table # 1
Summary of Analytical Results - Water Samples
WARREN GREEN
Facility ID# 04887

Analytical Method		EPA 8011	EPA 8260D																
Sample ID	**Constituent of Concern**	1,2-Dibromoethane (EDB)	1,2-Dichloroethane	3,3-Dimethyl-1-Butanol	Benzene	Diisopropyl ether	Ethanol	Ethyl-tert-butyl ether	Ethylbenzene	Methyl-tert-butyl ether	Naphthalene	Toluene	Xylene (Total)	m&p-Xylene	o-Xylene	tert-Amyl Alcohol	tert-Amylmethyl ether	tert-Butyl Alcohol	tert-Butyl Formate
	Date Collected (mm/dd/yy)	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
DUP-1	01/19/2023	**0.34**	<250	<5000	**1110**	<250	<10000	<500	**4150**	<250	**1010**	**8500**	**24400**	16900	7510	<5000	<500	<5000	<2500
DW-1	01/19/2023	<0.019	<5.0	<100	<5.0	<5.0	<200	<10.0	<5.0	<5.0	<5.0	<5.0	<5.0	<10.0	<5.0	<100	<10.0	<100	<50.0
DW-2	01/19/2023	<0.020	<5.0	<100	<5.0	<5.0	<200	<10.0	<5.0	<5.0	<5.0	<5.0	<5.0	<10.0	<5.0	<100	<10.0	<100	<50.0
DW-3	01/19/2023	<0.020	<5.0	<100	<5.0	<5.0	<200	<10.0	<5.0	<5.0	<5.0	<5.0	<5.0	<10.0	<5.0	<100	<10.0	<100	<50.0
DW-4	01/19/2023	<0.021	<5.0	<100	<5.0	<5.0	<200	<10.0	<5.0	<5.0	<5.0	<5.0	<5.0	<10.0	<5.0	<100	<10.0	<100	<50.0
DW-5	01/19/2023	<0.020	<5.0	<100	<5.0	<5.0	<200	<10.0	<5.0	<5.0	<5.0	<5.0	<5.0	<10.0	<5.0	<100	<10.0	<100	<50.0
DW-6	01/19/2023	<0.021	<5.0	<100	<5.0	<5.0	<200	<10.0	<5.0	<5.0	<5.0	<5.0	<5.0	<10.0	<5.0	<100	<10.0	<100	<50.0
FB	01/19/2023	<0.019	<5.0	<100	<5.0	<5.0	<200	<10.0	<5.0	<5.0	<5.0	<5.0	<5.0	<10.0	<5.0	<100	<10.0	<100	<50.0
MW-1	01/19/2023	<0.020	<1000	<20000	**2420**	<1000	<40000	<2000	**4800**	<1000	<1000	**27600**	**26400**	19900	6500	<20000	<2000	<20000	<10000
MW-10	01/19/2023	<0.020	<5.0	<100	<5.0	<5.0	<200	<10.0	<5.0	<5.0	<5.0	<5.0	<5.0	<10.0	<5.0	<100	<10.0	<100	<50.0
MW-11R	01/19/2023	<0.020	<5.0	<100	<5.0	<5.0	<200	<10.0	<5.0	<5.0	<5.0	<5.0	<5.0	<10.0	<5.0	<100	<10.0	<100	<50.0
MW-13R	01/19/2023	<0.020	<5.0	<100	<5.0	<5.0	<200	<10.0	<5.0	<5.0	<5.0	<5.0	<5.0	<10.0	<5.0	<100	<10.0	<100	<50.0
MW-14	01/19/2023	<0.020	<5.0	<100	<5.0	<5.0	<200	<10.0	<5.0	<5.0	<5.0	<5.0	<5.0	<10.0	<5.0	<100	<10.0	<100	<50.0
MW-15	01/19/2023	<0.019	<5.0	<100	<5.0	<5.0	<200	<10.0	<5.0	<5.0	<5.0	<5.0	<5.0	<10.0	<5.0	<100	<10.0	<100	<50.0
MW-3R	01/19/2023	<0.020	<5.0	<100	<5.0	<5.0	<200	<10.0	<5.0	<5.0	<5.0	<5.0	<5.0	<10.0	<5.0	<100	<10.0	<100	<50.0
MW-4	01/19/2023	<0.020	<5.0	<100	<5.0	<5.0	<200	<10.0	<5.0	<5.0	<5.0	<5.0	<5.0	<10.0	<5.0	<100	<10.0	<100	<50.0
MW-5	01/19/2023	<0.020	<5.0	<100	<5.0	<5.0	<200	<10.0	<5.0	<5.0	<5.0	<5.0	<5.0	<10.0	<5.0	<100	<10.0	<100	<50.0
MW-6R	01/19/2023	<0.020	<5.0	<100	<5.0	<5.0	<200	<10.0	<5.0	<5.0	<5.0	<5.0	<5.0	<10.0	<5.0	<100	<10.0	<100	<50.0
MW-7R	01/19/2023	**0.38**	<250	<5000	**1120**	<250	<10000	<500	**4350**	<250	**636**	**9020**	**25500**	18200	7290	<5000	<500	<5000	<2500
MW-8	01/19/2023	<0.020	<25.0	<500	**825**	<25.0	<1000	<50.0	262	<25.0	**145**	105	970	670	301	<500	<50.0	<500	<250
MW-9	01/19/2023	<0.020	<5.0	<100	<5.0	<5.0	<200	<10.0	<5.0	<5.0	<5.0	<5.0	<5.0	<10.0	<5.0	<100	<10.0	<100	<50.0
TB	01/19/2023	N/A	<5.0	<100	<5.0	<5.0	<200	<10.0	<5.0	<5.0	<5.0	<5.0	<5.0	<10.0	<5.0	<100	<10.0	<100	<50.0
South Carolina RBSL for Groundwater		0.05	5	N/A	5	150	10000	47	700	40	25	1000	10000	N/A	N/A	240	128	1400	N/A
South Carolina Action Levels for Groundwater		N/A	N/A	N/A	N/A	150	10000	47	N/A	N/A	N/A	N/A	N/A	N/A	N/A	240	128	1400	N/A

NOTES:

ND = Not Detected

ft. BGS = feet below ground surface

mg/L = milligrams per liter
ug/L = micrograms per liter
Bold data above the RBSL (Risk Based Screening Level)

Table 2
Site Activity Summary

UST Permit #: 04887
Facility Name: Warren Green
County: Jasper
Field Personnel: H.Sloan, S. Sprott, J. Canavan

Midlands Environmental Consultants, Inc.
231 Dooley Road, Lexington, SC 29073
(803) 808-2043 fax: 808-2048

Sample ID	Sampled?	Date	Time	Screened Interval	Depth to Product (ft)	Depth to Water (ft)	Product Thickness (ft)	TOC Elevation	Groundwater Elevation	Initial DO (mg/l)	# Gals. Purged	Comments
MW-1	Y	1/19/23	13:14	2-12	***	3.14	***	97.69	94.55	2.02	0.00	Odor, Added 2 Bolts
MW-2	N	1/19/23	NL	5-15	***	NL	***	98.61	NL	NL	0.00	NL = Not Located, Possibly under gravel/resurfacing debris
MW-3R	Y	1/19/23	11:47	5-20	***	9.94	***	98.19	88.25	2.31	0.00	No Odor, Reaplced Well Cap, Added 2 Bolts
MW-4	Y	1/19/23	12:12	5-20	***	7.86	***	98.32	90.46	2.44	0.00	No Odor, Added 1 Bolt
MW-5	Y	1/19/23	10:58	5-20	***	6.23	***	96.88	90.65	2.16	0.00	No Odor, Added Well Cap, Vault/Pad heavily damaged and has no lid and cannot currently be replaced in current state
MW-6R	Y	1/19/23	11:00	5-20	***	6.48	***	96.90	90.42	2.18	0.00	No Odor, Unable to add locking bolts
MW-7R	Y	1/19/23	13:07	5-20	***	7.52	***	97.69	90.17	1.80	0.00	Strong Odor, Vault/Pad damaged and in need of replacement
MW-8	Y	1/19/23	11:15	5-20	***	9.34	***	99.44	90.10	1.71	0.00	Slight Odor, Added 1 Bolt
MW-9	Y	1/19/23	11:17	5-20	***	9.08	***	99.32	90.24	1.55	0.00	No Odor, Added 2 Bolts
MW-10	Y	1/19/23	11:07	5-20	***	8.56	***	101.26	92.70	2.72	0.00	No Odor, Unable to add locking bolts
MW-11R	Y	1/19/23	11:09	5-20	***	7.84	***	101.38	93.54	1.79	0.00	No Odor, Unable to add locking bolts
MW-12R	N	1/19/23	NL	5-20	***	NL	***	98.12	NL	NL	0.00	NL = Not Located, Possibly destroyed
MW-13R	Y	1/19/23	11:24	5-20	***	7.68	***	97.33	89.65	3.28	0.00	No Odor
MW-14	Y	1/19/23	11:40	5-20	***	7.22	***	97.39	90.17	2.57	0.00	No Odor
MW-15	Y	1/19/23	11:31	5-20	***	7.02	***	97.22	90.20	3.54	0.00	No Odor, Unable to add locking bolts
											0.00	**TOTAL GALLONS PURGED**

Table 2
Site Activity Summary

UST Permit #: 04887
Facility Name: Warren Green
County: Jasper
Field Personnel: H.Sloan, S. Sprott, J. Canavan

Midlands Environmental Consultants, Inc.
231 Dooley Road, Lexington, SC 29073
(803) 808-2043 fax: 808-2048

Sample ID	Sampled?	Date	Time	Screened Interval	Depth to Product (ft)	Depth to Water (ft)	Product Thickness (ft)	TOC Elevation	Groundwater Elevation	Initial DO (mg/l)	# Gals. Purged	Comments
DW-1	Y	1/19/23	13:27	45-50	***	0.28	***	97.84	97.56	3.25	41.00	No Odor, Replaced Well Cap, Added 2 Bolts
DW-2	Y	1/19/23	12:35	45-50	***	6.11	***	98.31	92.20	3.99	36.00	No Odor, Added 2 Bolts
DW-3	Y	1/19/23	10:51	45-50	***	13.32	***	96.83	83.51	4.21	30.00	No Odor, Unable to add locking bolts
DW-4	Y	1/19/23	10:55	45-50	***	12.10	***	96.75	84.65	4.15	31.00	No Odor, Added 1 Bolt
DW-5	Y	1/19/23	14:10	80-85	***	1.86	***	98.09	96.23	4.85	41.50	No Odor, Added 2 Bolts
DW-6	Y	1/19/23	14:00	80-85	***	0.01	***	99.26	99.25	2.28	43.00	No Odor
DUP-1	Y	1/19/23	13:07	***	***	***	***	***	***	***	***	Duplicate of MW-7R
Field Blank	Y	1/19/23	14:15	***	***	***	***	***	***	***	***	Field Blank
Trip Blank	Y	1/19/23	8:00	***	***	***	***	***	***	***	***	Trip Blank
WSW-1	Y	1/19/23	13:28	***	***	***	***	***	***	***	***	235 Bowers Lane, Collected from Spigot on House (32.627995, -80.886757)
WSW-2	Y	1/19/23	13:36	***	***	***	***	***	***	***	***	425 Bowers Lane, Collected from Spigot on Well (32.628673, -80.887550)
WSW-3	N	1/19/23	NS	***	***	***	***	***	***	***	***	10951 Frontage Road, Inactive with no electrical supply (32.6311550, -80.8841174)
WSW-4	Y	1/19/23	13:47	***	***	***	***	***	***	***	***	10943 Frontage Road, Collected from spigot on front of house (32.631229, -80.884500)
WSW-5	N	1/19/23	NS	***	***	***	***	***	***	***	***	10939 West Frontage Road, Inactive with no electrical supply (32.6306801, -80.8847765)
WSW-DUP	Y	1/19/23	13:28	***	***	***	***	***	***	***	***	Duplicate of WSW-1
											222.50	**TOTAL GALLONS PURGED**

Table 2
Site Activity Summary

UST Permit #: 04887
Facility Name: Warren Green
County: Jasper
Field Personnel: H.Sloan, S. Sprott, J. Canavan

Midlands Environmental Consultants,
231 Dooley Road, Lexington, SC
(803) 808-2043 fax: 808-2

Sample ID	Sampled?	Date	Time	Screened Interval	Depth to Product (ft)	Depth to Water (ft)	Product Thickness (ft)	TOC Elevation	Groundwater Elevation	Initial DO (mg/l)	# Gals. Purged	Comments
Field Blank	Y	1/19/23	13:50	***	***	***	***	***	***	***	***	Field Blank
Trip Blank	Y	1/19/23	8:00	***	***	***	***	***	***	***	***	Trip Blank
											0.00	**TOTAL GALLONS PURGED**

Table # 1A
Summary of Analytical Results - Water Samples
WARREN GREEN
Facility ID# 04887

Analytical Method		EPA 504.1	EPA 524.2									EPA 8260D							
Sample ID	**Constituent of Concern**	1,2-Dibromoethane (EDB)	1,2-Dichloroethane	Benzene	Ethylbenzene	Methyl-tert-butyl ether	Naphthalene	Toluene	Xylene (Total)	m&p-Xylene	o-Xylene	3,3-Dimethyl-1-Butanol	Diisopropyl ether	Ethanol	Ethyl-tert-butyl ether	tert-Amyl Alcohol	tert-Amylmethyl ether	tert-Butyl Alcohol	tert-Butyl Formate
	Date Collected (mm/dd/yy)	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
WSW-1	01/19/2023	<0.020	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<0.50	<100	<1.0	<200	<10.0	<100	<10.0	<100	<50.0
WSW-2	01/19/2023	<0.020	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<0.50	<100	<1.0	<200	<10.0	<100	<10.0	<100	<50.0
WSW-4	01/19/2023	<0.020	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<0.50	<100	<1.0	<200	<10.0	<100	<10.0	<100	<50.0
WSW-DUP	01/19/2023	<0.020	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<0.50	<100	<1.0	<200	<10.0	<100	<10.0	<100	<50.0
WSW-FB	01/19/2023	<0.020	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<0.50	<100	<1.0	<200	<10.0	<100	<10.0	<100	<50.0
WSW-TB	01/19/2023	N/A	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<0.50	<100	<1.0	<200	<10.0	<100	<10.0	<100	<50.0
South Carolina RBSL for Groundwater		0.05	5	5	700	40	25	1000	10000	N/A	N/A	N/A	150	10000	47	240	128	1400	N/A
South Carolina Action Levels for Groundwater		N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	150	10000	47	240	128	1400	N/A

NOTES:

ND = Not Detected

ft. BGS = feet below ground surface

mg/L = milligrams per liter

ug/L = micrograms per liter

Bold data above the RBSL (Risk Based Screening Level)

Reference: McPhersonville, South Carolina
USGS 7.5 Min. Quad
Contour Interval - 1.50 Meters

Midlands Environmental Consultants, Inc.	Site Location

Warren Green
10773 West Frontage Road, Yemassee, SC

Reference: McPhersonville, South Carolina
USGS 7.5 Min. Quad
Contour Interval - 1.50 Meters

Midlands Environmental Consultants, Inc.	Site Location
Warren Green 10773 West Frontage Road, Yemassee, SC UST Permit# 00712	
Figure 1	MECI 22-7995

Explanation:

Location of "Shallow" Monitoring Well

Location of "Deep" Monitoring Well

Site Base Map

2

HP LASER JET 4v ORIGIN

Explanation:

Location of Soil Test Boring

Location of Six-inch Aquifer Test Well

MW-1 Location of Watertable Bracketing Monitoring Well

MW-1D Location of Double Cased "Deep" Monitoring Well

Location of Shallow Monitoring Well

Location of "Intermediate" Monitoring Well

Location of 4-Inch Recovery Well

Location of Water Supply Well

Location of Newly Installed Watertable Bracketing Monitoring Well

SW- Location of Surface Water Sample Collection

Buried Electric

Property Line

Buried Gas Line

Buried Water Line

Buried Sewer

Under Ground Telephone

Fence

Storm Sewer

Stream

Buried Product Lines

Estimated Groundwater Flow Direction

Estimated Location of Removed Underground Storage Tanks

Estimated Location of Existing Underground Storage Tanks

Storm Sewer Drop Inlet

Geoprobe, Screening Dry Ho

GPW-1 Geoprobe, Screening BTEX

Geoprobe, Screening Not De

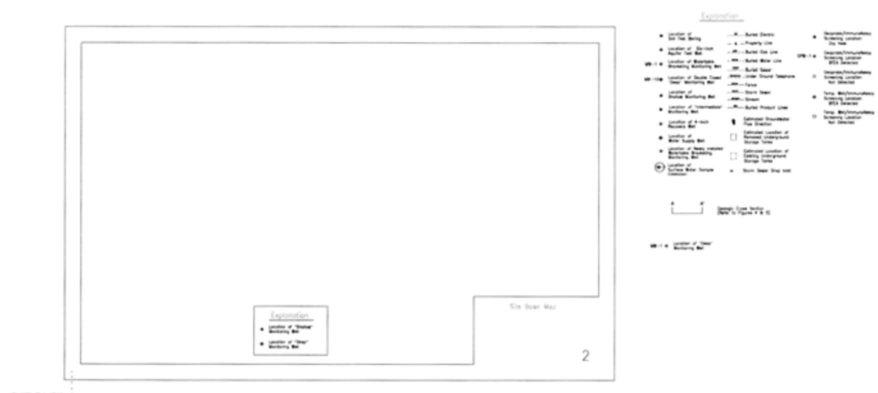
Temp. We Screening BTEX

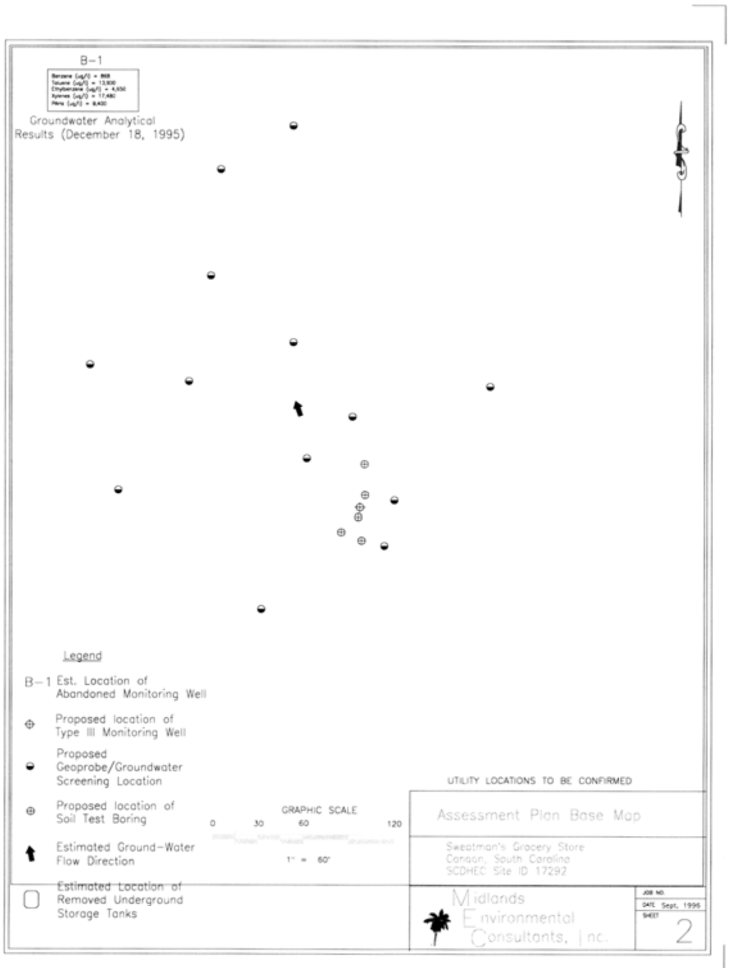
Temp. We Screening Not De

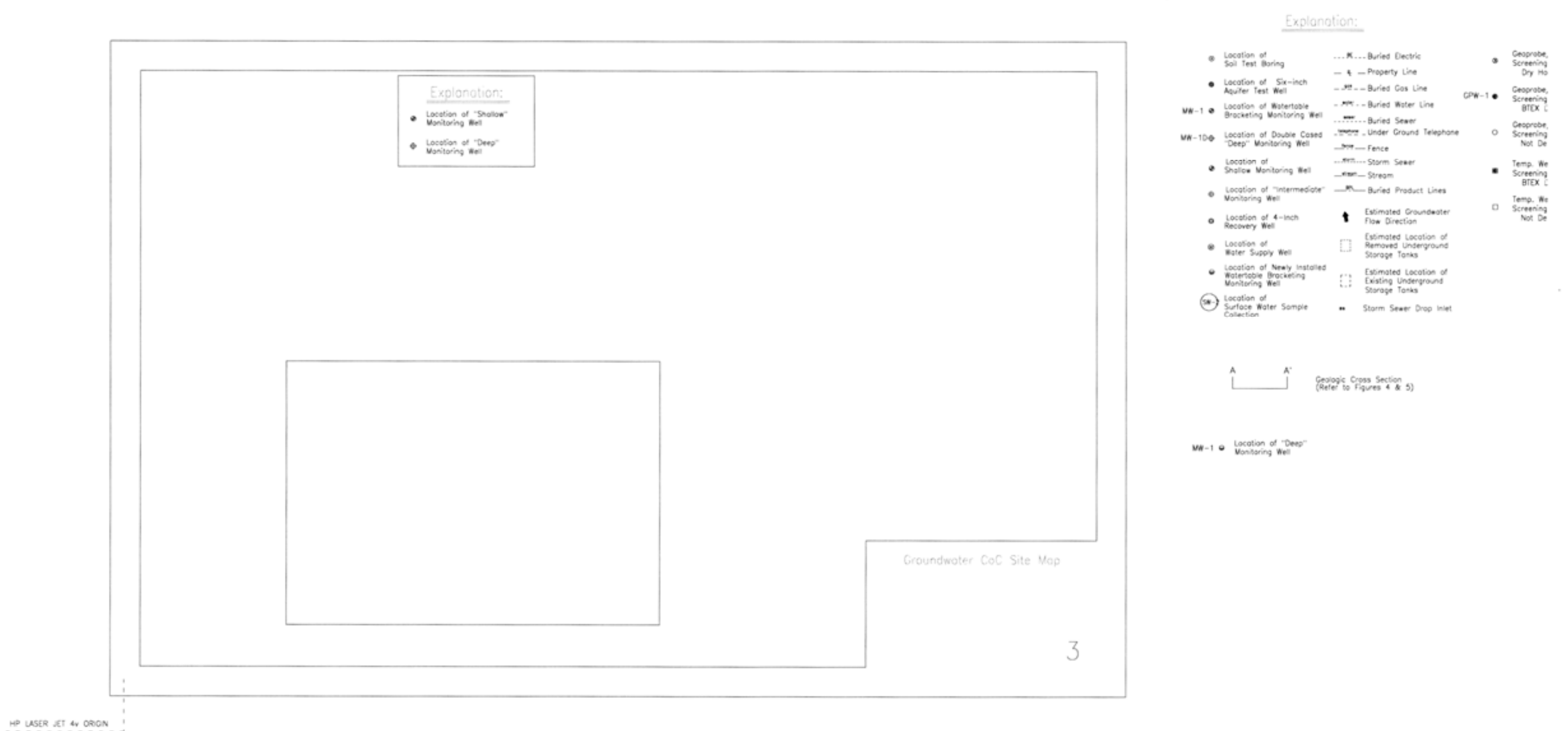
A A'

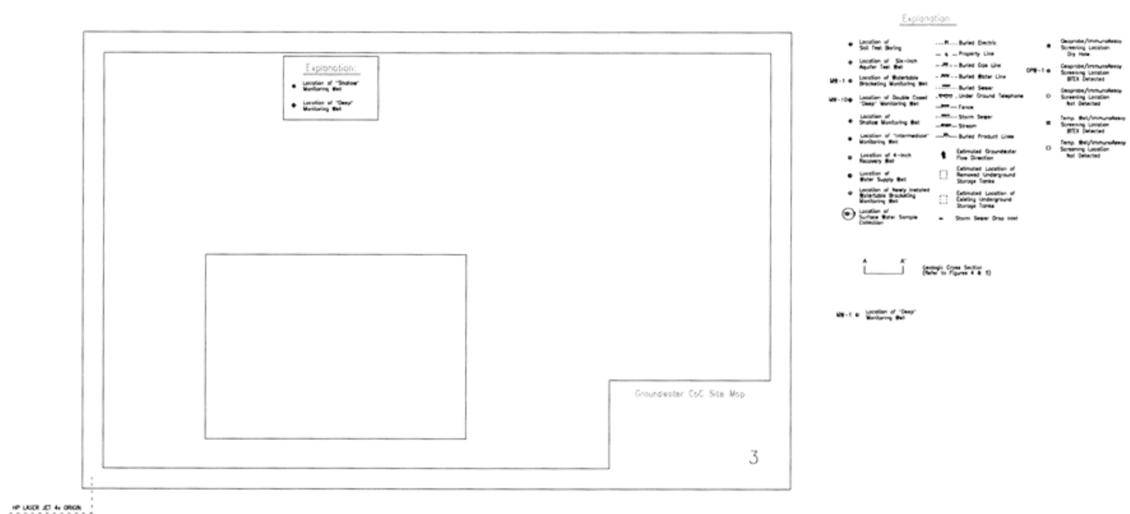
Geologic Cross Section (Refer to Figures 4 & 5)

MW-1 Location of "Deep" Monitoring Well

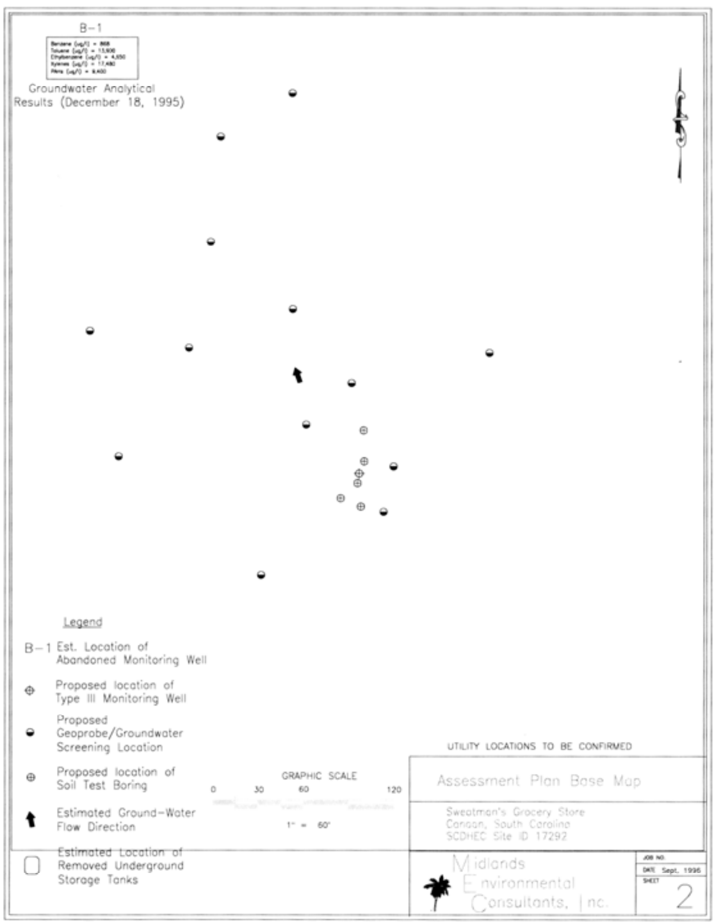

Explanation
Location of Soil Test Boring
Location of Six-inch Aquifer Test Well
Location of Double Cased "Deep" Monitoring Well
Location of Shallow Monitoring Well
Location of "Intermediate" Monitoring Well
Location of 4-inch Recovery Well
Location of Water Supply Well
Location of Surface Water Sample Collection
Buried Electric
Property Line
Buried Gas Line
Buried Water Line
Buried Sewer
Under Ground Telephone
Fence
Storm Sewer
Stream
Buried Product Lines
Estimated Groundwater Flow Direction
Estimated Location of Removed Underground Storage Tanks
Estimated Location of Existing Underground Storage Tanks
Storm Sewer Drop Inlet
BTEX Detected
Not Detected
Geologic Cross Section
Location of "Deep" Monitoring Well
Explanation
Location of "Shallow" Monitoring Well
Location of "Deep" Monitoring Well
Site Base Map
2
HP LASER JET 4v ORIGIN


B-1
Benzene (ug/l) = 868
Toluene (ug/l) = 13,900
Xylenes (ug/l) = 17,480
Groundwater Analytical Results (December 18, 1995)
Legend
B-1 Est. Location of Abandoned Monitoring Well
Proposed location of Type III Monitoring Well
Proposed Geoprobe/Groundwater Screening Location
Proposed location of Soil Test Boring
Estimated Ground-Water Flow Direction
Estimated Location of Removed Underground Storage Tanks
GRAPHIC SCALE
0
30
60
120
1" = 60'
UTILITY LOCATIONS TO BE CONFIRMED
Assessment Plan Base Map
Sweatman's Grocery Store
Canaan, South Carolina
SCDHEC Site ID 17292
Midlands Environmental Consultants, Inc.
JOB NO.
DATE Sept. 1996
SHEET
2


Explanation:
Location of "Shallow" Monitoring Well
Location of "Deep" Monitoring Well
Groundwater CoC Site Map
3
HP LASER JET 4v ORIGIN
Explanation:
Location of Soil Test Boring
Location of Six-inch Aquifer Test Well
MW-1
Location of Watertable Bracketing Monitoring Well
MW-1D
Location of Double Cased "Deep" Monitoring Well
Location of Shallow Monitoring Well
Location of "Intermediate" Monitoring Well
Location of 4-inch Recovery Well
Location of Water Supply Well
Location of Newly Installed Watertable Bracketing Monitoring Well
SW-
Location of Surface Water Sample Collection
Buried Electric
Property Line
Buried Gas Line
Buried Water Line
Buried Sewer
Under Ground Telephone
Fence
Storm Sewer
Stream
Buried Product Lines
Estimated Groundwater Flow Direction
Estimated Location of Removed Underground Storage Tanks
Estimated Location of Existing Underground Storage Tanks
Storm Sewer Drop Inlet
Geoprobe, Screening Dry Ho
GPW-1
Geoprobe, Screening BTEX
Geoprobe, Screening Not De
Temp. We Screening BTEX
Temp. We Screening Not De
A
A'
Geologic Cross Section (Refer to Figures 4 & 5)
MW-1
Location of "Deep" Monitoring Well



Explanation
Location of "Shallow" Monitoring Well
Location of "Deep" Monitoring Well
Groundwater CoC Site Map
3
HP LASER JET 4+ ORIGIN
Explanation
Location of Soil Test Boring
Location of Six-Inch Aquifer Test Well
MW-1 Location of Watertable Bracketing Monitoring Well
MW-10 Location of Double Cased "Deep" Monitoring Well
Location of Shallow Monitoring Well
Location of "Intermediate" Monitoring Well
Location of 4-inch Recovery Well
Location of Water Supply Well
Location of Newly Installed Watertable Bracketing Monitoring Well
Location of Surface Water Sample Collection
Buried Electric
Property Line
Buried Gas Line
Buried Water Line
Buried Sewer
Under Ground Telephone
Fence
Storm Sewer
Stream
Buried Product Lines
Estimated Groundwater Flow Direction
Estimated Location of Removed Underground Storage Tanks
Estimated Location of Existing Underground Storage Tanks
Storm Sewer Drop Inlet
Geoprobe/ImmunoAssay Screening Location Dry Hole
GPB-1 Geoprobe/ImmunoAssay Screening Location BTEX Detected
Geoprobe/ImmunoAssay Screening Location Not Detected
Temp. Well/ImmunoAssay Screening Location BTEX Detected
Temp. Well/ImmunoAssay Screening Location Not Detected
A A'
Geologic Cross Section (Refer to Figures 4 & 5)
MW-1 Location of "Deep" Monitoring Well


B-1
Groundwater Analytical Results (December 18, 1995)
Legend
B-1 Est. Location of Abandoned Monitoring Well
Proposed location of Type III Monitoring Well
Proposed Geoprobe/Groundwater Screening Location
Proposed location of Soil Test Boring
Estimated Ground-Water Flow Direction
Estimated Location of Removed Underground Storage Tanks
GRAPHIC SCALE
0 30 60 120
1" = 60'
UTILITY LOCATIONS TO BE CONFIRMED
Assessment Plan Base Map
Sweatman's Grocery Store
Canaan, South Carolina
SCDHEC Site ID 17292
Midlands Environmental Consultants, Inc.
JOB NO.
DATE Sept. 1996
SHEET
2

Explanation:

Location of "Shallow" Monitoring Well

Location of "Deep" Monitoring Well

Groundwater CoC Site Map
(Water Supply Wells)

3A

HP LASER JET 4v ORIGIN

Explanation:

Location of Soil Test Boring

Location of Six-inch Aquifer Test Well

MW-1 Location of Watertable Bracketing Monitoring Well

MW-1D Location of Double Cased "Deep" Monitoring Well

Location of Shallow Monitoring Well

Location of "Intermediate" Monitoring Well

Location of 4-Inch Recovery Well

Location of Water Supply Well

Location of Newly Installed Watertable Bracketing Monitoring Well

SW- Location of Surface Water Sample Collection

Buried Electric

Property Line

Buried Gas Line

Buried Water Line

Buried Sewer

Under Ground Telephone

Fence

Storm Sewer

Stream

Buried Product Lines

Estimated Groundwater Flow Direction

Estimated Location of Removed Underground Storage Tanks

Estimated Location of Existing Underground Storage Tanks

Storm Sewer Drop Inlet

Geoprobe, Screening Dry Ho

GPW-1 Geoprobe, Screening BTEX

Geoprobe, Screening Not De

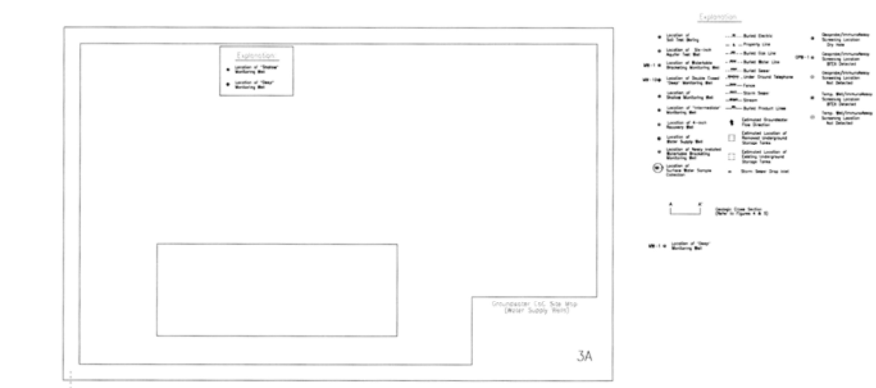
Temp. We Screening BTEX

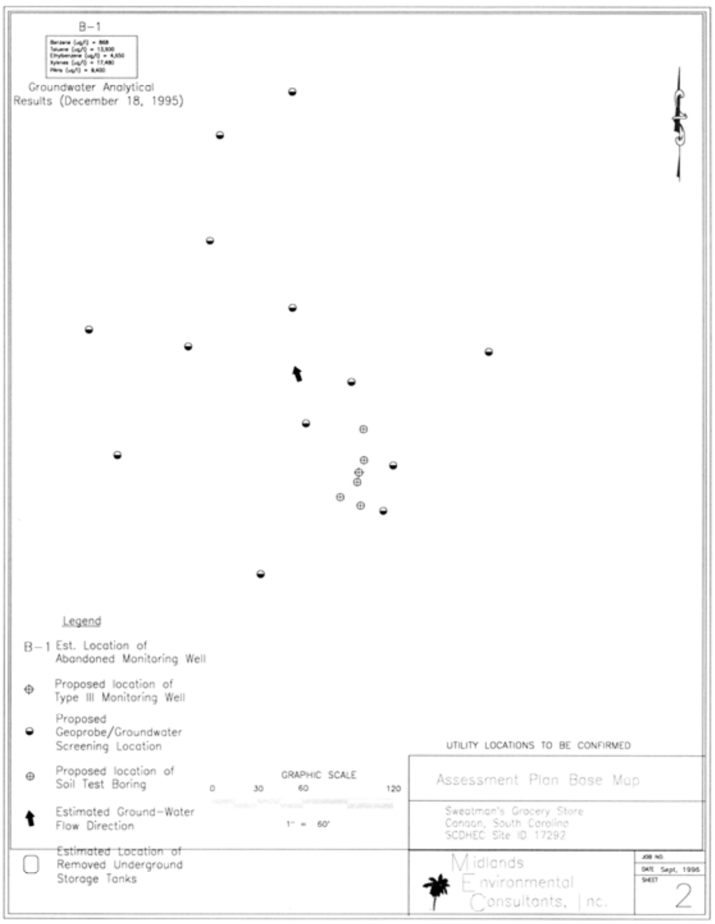
Temp. We Screening Not De

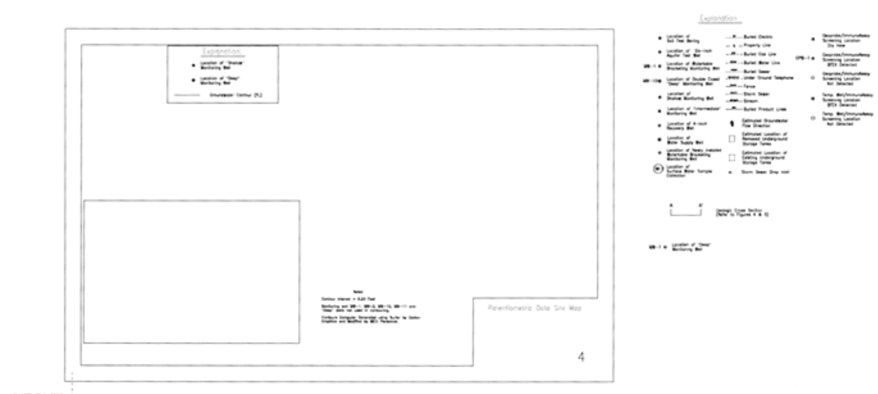
A A'

Geologic Cross Section
(Refer to Figures 4 & 5)

MW-1 Location of "Deep" Monitoring Well


Explanation
Groundwater CoC Site Map
(Water Supply Wells)
3A
Explanation
Location of "Deep"
Monitoring Well


B-1
Benzene (ug/l) = 868
Toluene (ug/l) = 13,900
Xylenes (ug/l) = 17,480
Groundwater Analytical
Results (December 18, 1995)
Legend
B-1 Est. Location of
Abandoned Monitoring Well
Proposed location of
Type III Monitoring Well
Proposed
Geoprobe/Groundwater
Screening Location
Proposed location of
Soil Test Boring
Estimated Ground-Water
Flow Direction
Estimated Location of
Removed Underground
Storage Tanks
GRAPHIC SCALE
0
30
60
120
1" = 60'
UTILITY LOCATIONS TO BE CONFIRMED
Assessment Plan Base Map
Sweatman's Grocery Store
Canaan, South Carolina
SCDHEC Site ID 17292
Midlands
Environmental
Consultants, Inc.
JOB NO.
DATE Sept, 1996
SHEET
2



Explanation
Potentiometric Data Site Map
4

Explanation:

Location of "Shallow" Monitoring Well

Location of "Deep" Monitoring Well

Groundwater Contour (ft.)

Notes:

Contour Interval = 0.20 Feet

Monitoring well MW-1, MW-3, MW-10, MW-11 and "Deep" wells not used in contouring.

Contours Computer Generated using Surfer by Golden Graphics and Modified by MECI Personnel.

Potentiometric Data Site Map

4

HP LASER JET 4v ORIGIN

Explanation:

Location of Soil Test Boring

Location of Six-inch Aquifer Test Well

MW-1 Location of Watertable Bracketing Monitoring Well

MW-1D Location of Double Cased "Deep" Monitoring Well

Location of Shallow Monitoring Well

Location of "Intermediate" Monitoring Well

Location of 4-inch Recovery Well

Location of Water Supply Well

Location of Newly Installed Watertable Bracketing Monitoring Well

SW-1 Location of Surface Water Sample Collection

Buried Electric

Property Line

Buried Gas Line

Buried Water Line

Buried Sewer

Under Ground Telephone

Fence

Storm Sewer

Stream

Buried Product Lines

Estimated Groundwater Flow Direction

Estimated Location of Removed Underground Storage Tanks

Estimated Location of Existing Underground Storage Tanks

Storm Sewer Drop Inlet

Geoprobe, Screening Dry Ho

GPW-1 Geoprobe, Screening BTEX

Geoprobe, Screening Not De

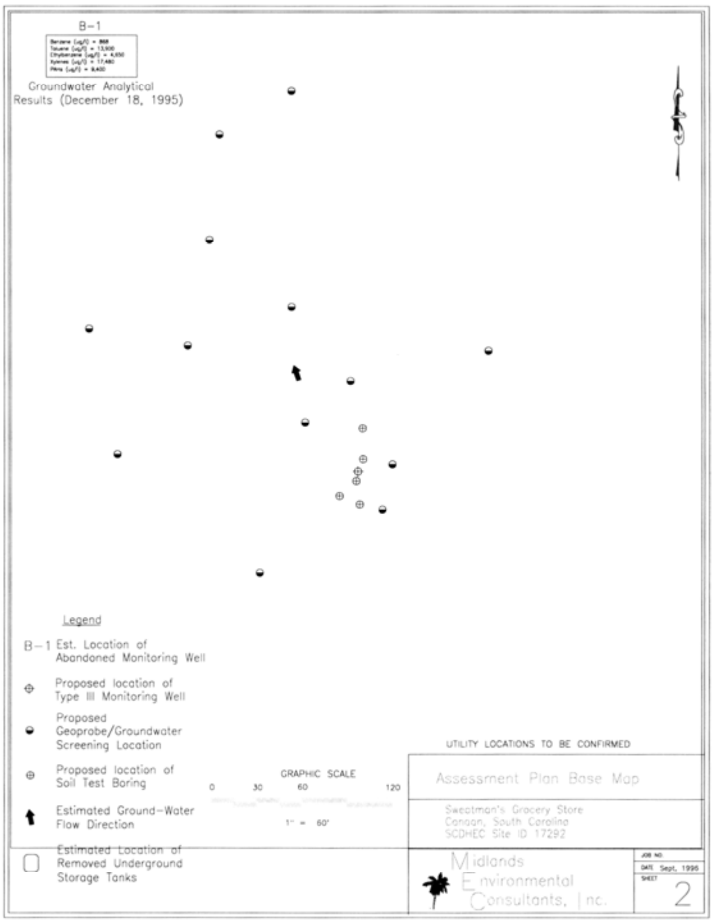
Temp. We Screening BTEX

Temp. We Screening Not De

A A'

Geologic Cross Section (Refer to Figures 4 & 5)

MW-1 Location of "Deep" Monitoring Well



B-1
Toluene (ug/l) = 13,900
Xylenes (ug/l) = 17,480
Groundwater Analytical Results (December 18, 1995)
Legend
B-1 Est. Location of Abandoned Monitoring Well
Proposed location of Type III Monitoring Well
Proposed Geoprobe/Groundwater Screening Location
Proposed location of Soil Test Boring
Estimated Ground-Water Flow Direction
Estimated Location of Removed Underground Storage Tanks
GRAPHIC SCALE
0 30 60 120
1" = 60'
UTILITY LOCATIONS TO BE CONFIRMED
Assessment Plan Base Map
Sweatman's Grocery Store
Canaan, South Carolina
SCDHEC Site ID 17292
Midlands Environmental Consultants, Inc.
JOB NO.
DATE Sept, 1996
SHEET
2

Explanation:

Location of "Shallow" Monitoring Well

Location of "Deep" Monitoring Well

Benzene Concentration Isopleth (ug/l)

Notes:

Groundwater samples collected January 19, 2023.

Isopleth interval = 600 ug/l

"Deep" monitoring wells not used in contouring.

Contours Computer Generated using Surfer by Golden Graphics and Modified by MECI Personnel.

Monitoring wells MW-2 and MW-12R not located during sampling activities.

Benzene Isopleth-"Shallow" Zone

5

HP LASER JET 4v ORIGIN

Explanation:

Location of Soil Test Boring

Location of Six-inch Aquifer Test Well

MW-1 Location of Watertable Bracketing Monitoring Well

MW-1D Location of Double Cased "Deep" Monitoring Well

Location of Shallow Monitoring Well

Location of "Intermediate" Monitoring Well

Location of 4-inch Recovery Well

Location of Water Supply Well

Location of Newly Installed Watertable Bracketing Monitoring Well

SW-1 Location of Surface Water Sample Collection

Buried Electric

Property Line

Buried Gas Line

Buried Water Line

Buried Sewer

Under Ground Telephone

Fence

Storm Sewer

Stream

Buried Product Lines

Estimated Groundwater Flow Direction

Estimated Location of Removed Underground Storage Tanks

Estimated Location of Existing Underground Storage Tanks

Storm Sewer Drop Inlet

Geoprobe, Screening Dry Ho

GPW-1 Geoprobe, Screening BTEX

Geoprobe, Screening Not De

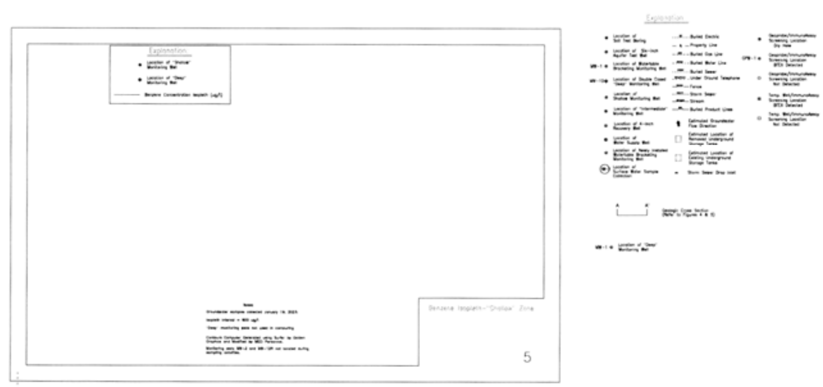
Temp. We Screening BTEX

Temp. We Screening Not De

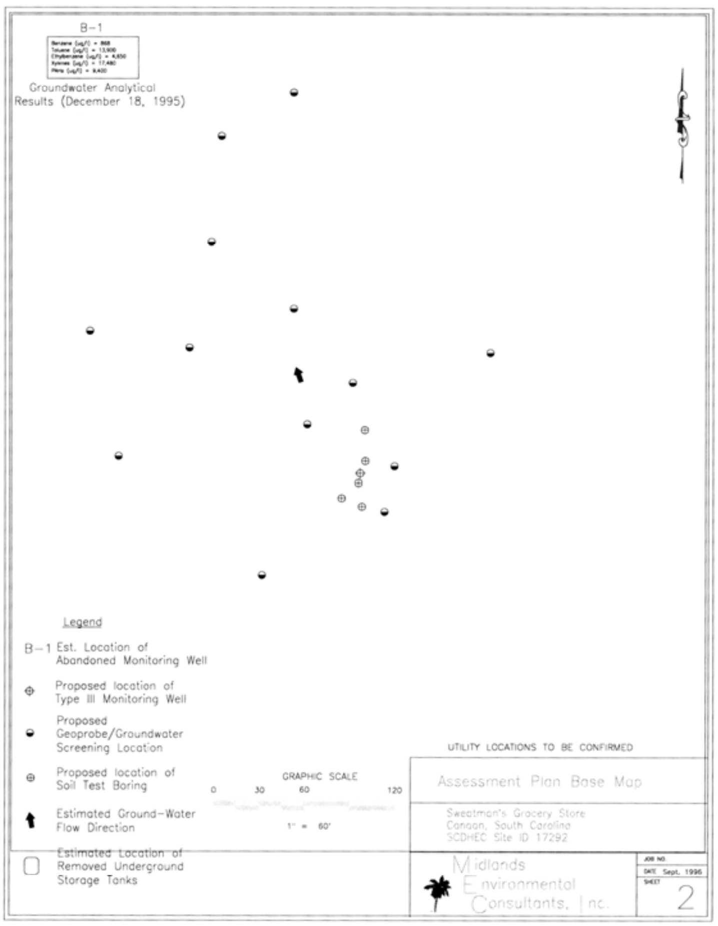
A A'

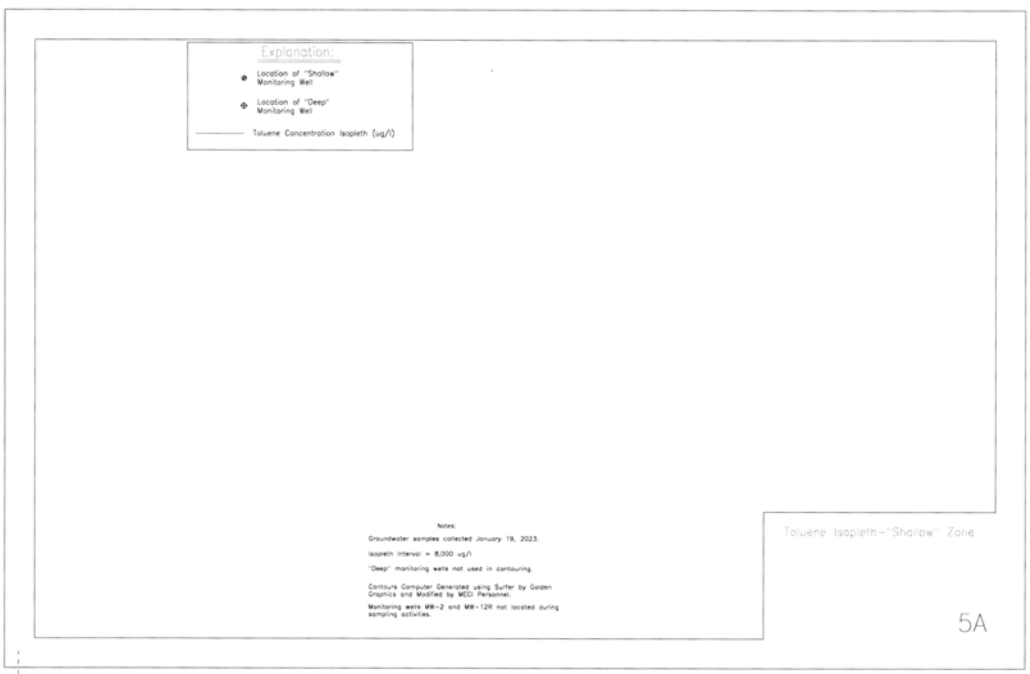
Geologic Cross Section (Refer to Figures 4 & 5)

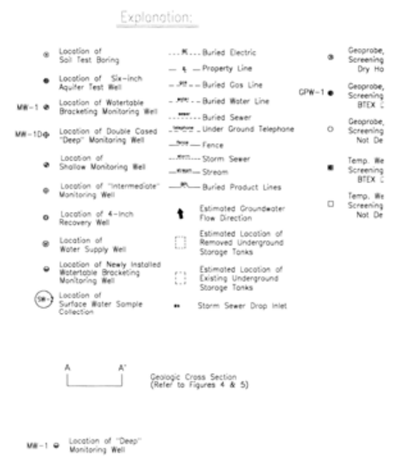
MW-1 Location of "Deep" Monitoring Well



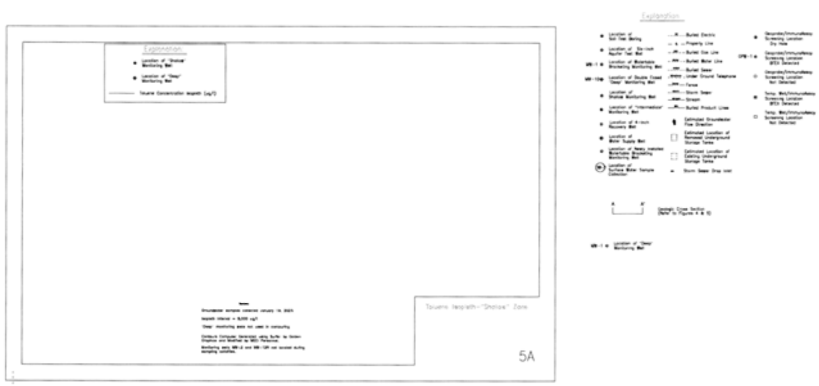
HP LASER JET 4L ORIGIN


B-1
Toluene (ug/l) = 13,900
Xylenes (ug/l) = 17,480
Groundwater Analytical Results (December 18, 1995)
Legend
B-1 Est. Location of Abandoned Monitoring Well
Proposed location of Type III Monitoring Well
Proposed Geoprobe/Groundwater Screening Location
Proposed location of Soil Test Boring
Estimated Ground-Water Flow Direction
Estimated Location of Removed Underground Storage Tanks
GRAPHIC SCALE
0
30
60
120
1" = 60'
UTILITY LOCATIONS TO BE CONFIRMED
Assessment Plan Base Map
Sweatman's Grocery Store
Canaan, South Carolina
SCDHEC Site ID 17292
Midlands Environmental Consultants, Inc.
JOB NO.
DATE Sept. 1996
SHEET
2

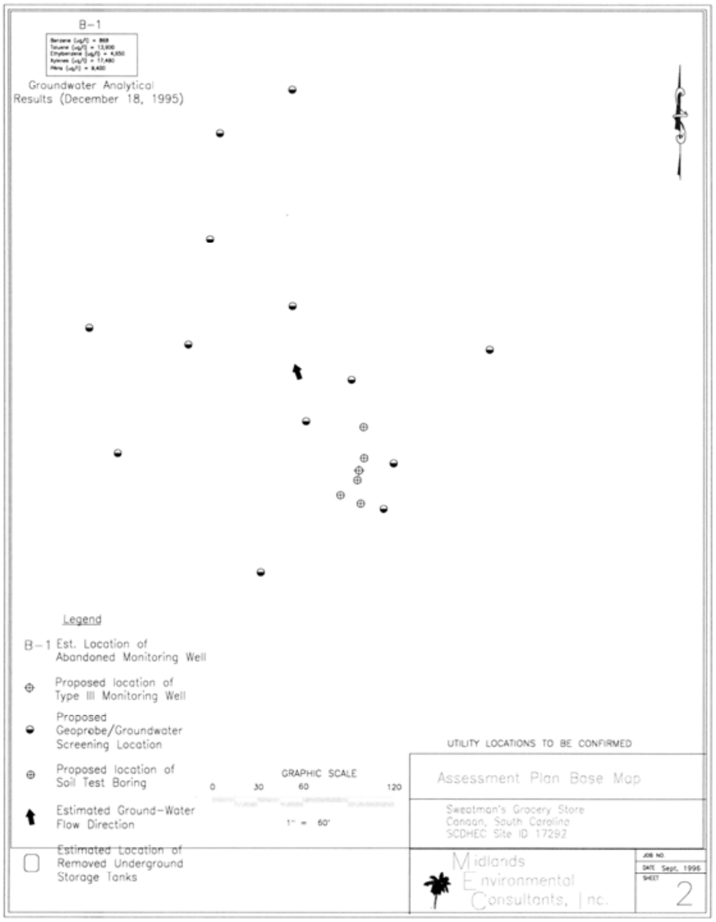




HP LASER JET 4v ORIGIN



Explanation
Location of "Shallow" Monitoring Well
Location of "Deep" Monitoring Well
Toluene Concentration Isopleth (ug/l)
Toluene Isopleth-"Shallow" Zone
5A
Explanation
Location of Soil Test Boring
Location of Six-inch Aquifer Test Well
MW-1 Location of Watertable Bracketing Monitoring Well
MW-10 Location of Double Cased "Deep" Monitoring Well
Location of Shallow Monitoring Well
Location of "Intermediate" Monitoring Well
Location of 4-inch Recovery Well
Location of Water Supply Well
Location of Newly Installed Watertable Bracketing Monitoring Well
Location of Surface Water Sample Collection
Buried Electric
Property Line
Buried Gas Line
Buried Water Line
Buried Sewer
Under Ground Telephone
Fence
Storm Sewer
Stream
Buried Product Lines
Estimated Groundwater Flow Direction
Estimated Location of Removed Underground Storage Tanks
Estimated Location of Existing Underground Storage Tanks
Storm Sewer Drop Inlet
GeoprobeTM/ImmunoAssay Screening Location Dry Hole
GeoprobeTM/ImmunoAssay Screening Location BTEX Detected
GeoprobeTM/ImmunoAssay Screening Location Not Detected
Temp. Well/ImmunoAssay Screening Location BTEX Detected
Temp. Well/ImmunoAssay Screening Location Not Detected
A A'
Geologic Cross Section (Refer to Figures 4 & 5)
MW-1 Location of "Deep" Monitoring Well


B-1
Benzene (ug/l) = 868
Toluene (ug/l) = 13,900
Ethylbenzene (ug/l) = 4,650
Xylenes (ug/l) = 17,480
Groundwater Analytical Results (December 18, 1995)
Legend
B-1 Est. Location of Abandoned Monitoring Well
Proposed location of Type III Monitoring Well
Proposed Geoprobe/Groundwater Screening Location
Proposed location of Soil Test Boring
Estimated Ground-Water Flow Direction
Estimated Location of Removed Underground Storage Tanks
GRAPHIC SCALE
0 30 60 120
1" = 60'
UTILITY LOCATIONS TO BE CONFIRMED
Assessment Plan Base Map
Sweatman's Grocery Store
Canaan, South Carolina
SCDHEC Site ID 17292
Midlands Environmental Consultants, Inc.
JOB NO.
DATE Sept. 1996
SHEET
2

Explanation:

Location of "Shallow" Monitoring Well

Location of "Deep" Monitoring Well

Ethylbenzene Concentration Isopleth (ug/l)

Notes:

Groundwater samples collected January 19, 2023.

Isopleth interval = 1,500 ug/l

"Deep" monitoring wells not used in contouring.

Contours Computer Generated using Surfer by Golden Graphics and Modified by MECI Personnel.

Monitoring wells MW-2 and MW-12R not located during sampling activities.

Ethylbenzene Isopleth-"Shallow" Zone

5B

HP LASER JET 4v ORIGIN

Explanation:

Location of Soil Test Boring

Location of Six-inch Aquifer Test Well

MW-1 Location of Watertable Bracketing Monitoring Well

MW-1D Location of Double Cased "Deep" Monitoring Well

Location of Shallow Monitoring Well

Location of "Intermediate" Monitoring Well

Location of 4-Inch Recovery Well

Location of Water Supply Well

Location of Newly Installed Watertable Bracketing Monitoring Well

SW- Location of Surface Water Sample Collection

Buried Electric

Property Line

Buried Gas Line

Buried Water Line

Buried Sewer

Under Ground Telephone

Fence

Storm Sewer

Stream

Buried Product Lines

Estimated Groundwater Flow Direction

Estimated Location of Removed Underground Storage Tanks

Estimated Location of Existing Underground Storage Tanks

Storm Sewer Drop Inlet

Geoprobe, Screening Dry Ho

GPW-1 Geoprobe, Screening BTEX

Geoprobe, Screening Not De

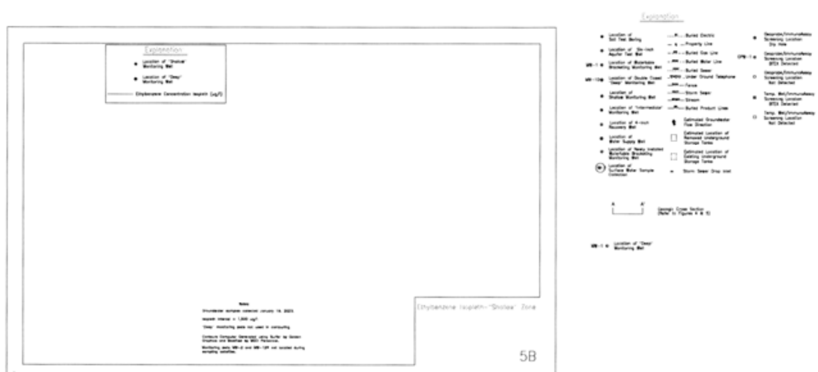
Temp. We Screening BTEX

Temp. We Screening Not De

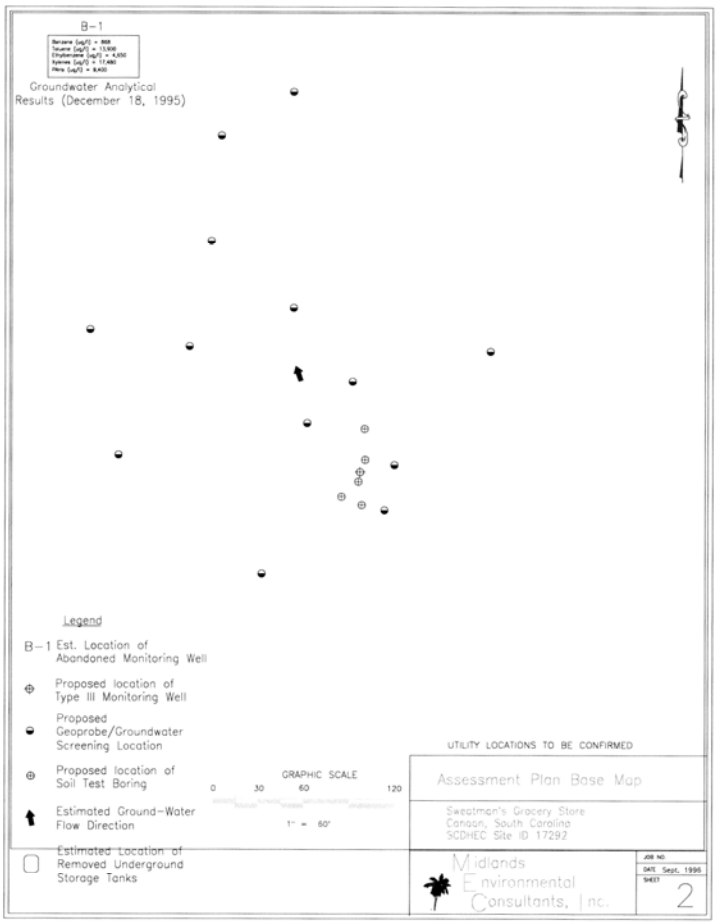
A A'

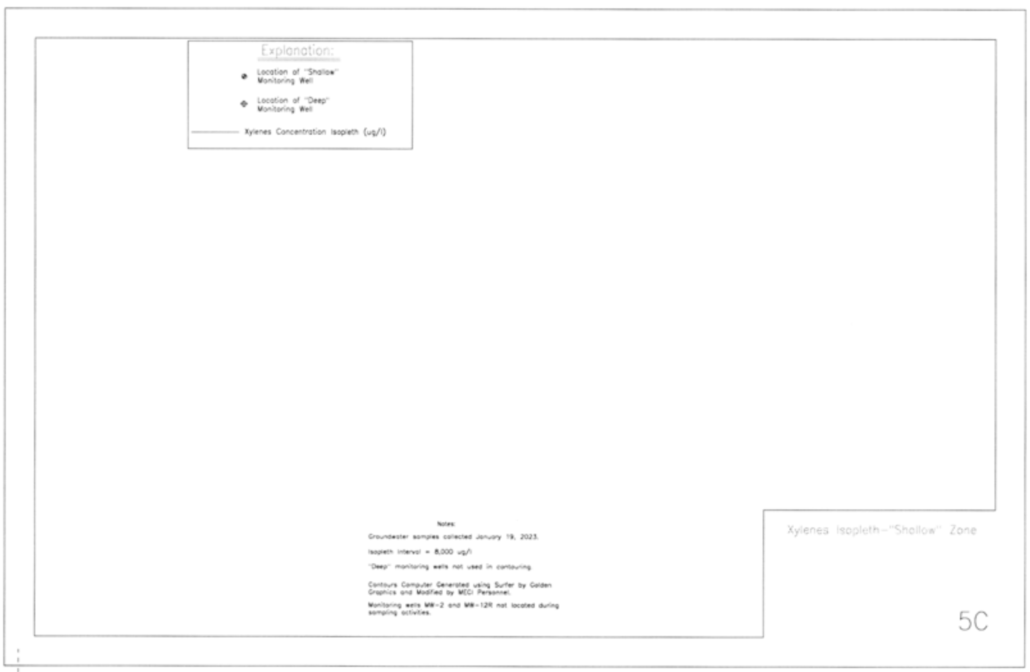
Geologic Cross Section (Refer to Figures 4 & 5)

MW-1 Location of "Deep" Monitoring Well



Explanation
Location of "Shallow" Monitoring Well
Location of "Deep" Monitoring Well
Ethylbenzene Isopleth—"Shallow" Zone
5B
Explanation


B-1
Groundwater Analytical
Results (December 18, 1995)
Legend
B-1 Est. Location of Abandoned Monitoring Well
Proposed location of Type III Monitoring Well
Proposed Geoprobe/Groundwater Screening Location
Proposed location of Soil Test Boring
Estimated Ground-Water Flow Direction
Estimated Location of Removed Underground Storage Tanks
GRAPHIC SCALE
0 30 60 120
1" = 60'
UTILITY LOCATIONS TO BE CONFIRMED
Assessment Plan Base Map
Sweatman's Grocery Store
Canaan, South Carolina
SCDHEC Site ID 17292
Midlands Environmental Consultants, Inc.
JOB NO.
DATE Sept. 1996
SHEET
2



HP LASER JET 4v ORIGIN

Explanation:

Location of Soil Test Boring

Location of Six-inch Aquifer Test Well

MW-1 Location of Watertable Bracketing Monitoring Well

MW-1D Location of Double Cased "Deep" Monitoring Well

Location of Shallow Monitoring Well

Location of "Intermediate" Monitoring Well

Location of 4-Inch Recovery Well

Location of Water Supply Well

Location of Newly Installed Watertable Bracketing Monitoring Well

SW- Location of Surface Water Sample Collection

Buried Electric

Property Line

Buried Gas Line

Buried Water Line

Buried Sewer

Under Ground Telephone

Fence

Storm Sewer

Stream

Buried Product Lines

Estimated Groundwater Flow Direction

Estimated Location of Removed Underground Storage Tanks

Estimated Location of Existing Underground Storage Tanks

Storm Sewer Drop Inlet

Geoprobe, Screening Dry Ho

GPW-1 Geoprobe, Screening BTEX

Geoprobe, Screening Not De

Temp. We Screening BTEX

Temp. We Screening Not De

A A' Geologic Cross Section (Refer to Figures 4 & 5)

MW-1 Location of "Deep" Monitoring Well

Explanation

- Location of "Shallow" Monitoring Well
- Location of "Deep" Monitoring Well
- Xylenes Concentration Isopleth (ug/l)

Notes

Groundwater samples collected January 14, [illegible]

Isopleth interval = 5,000 ug/l

"Deep" monitoring wells not used in contouring

Contours Computer Generated using Surfer by Golden Graphics and Modified by [illegible] Personnel

Monitoring wells MW-2 and MW-12R not located during sampling activities

Xylenes Isopleth—"Shallow" Zone

5C

Explanation

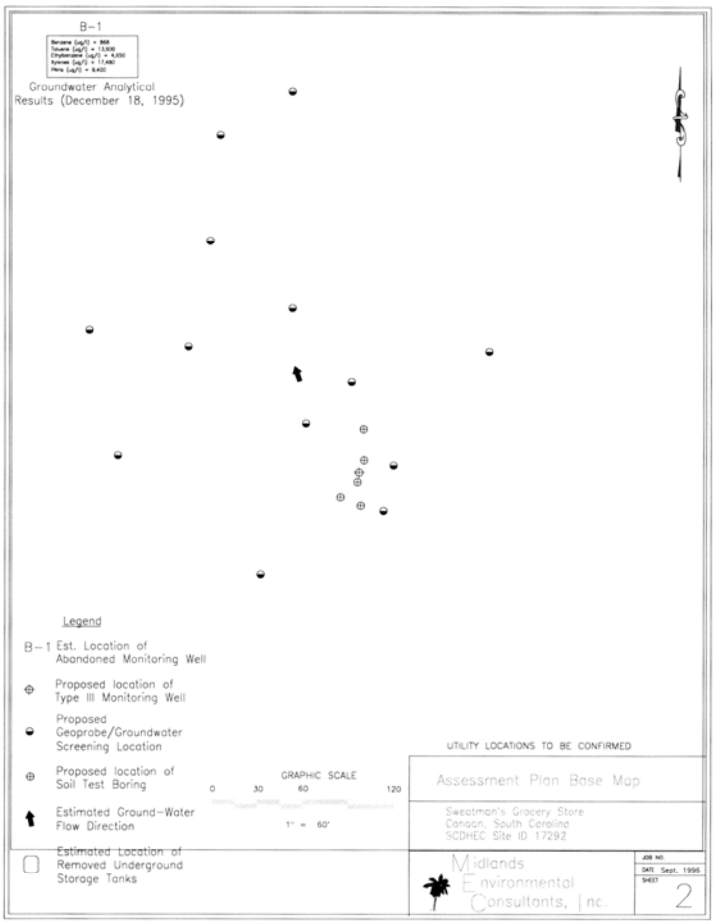
- Location of Soil Test Boring
- Location of Six-inch Aquifer Test Well
- MW-1 Location of Watertable Bracketing Monitoring Well
- MW-10 Location of Double Cased "Deep" Monitoring Well
- Location of Shallow Monitoring Well
- Location of "Intermediate" Monitoring Well
- Location of 4-inch Recovery Well
- Location of Water Supply Well
- Location of Newly Installed Watertable Bracketing Monitoring Well
- Location of Surface Water Sample Collection
- Buried Electric
- Property Line
- Buried Gas Line
- Buried Water Line
- Buried Sewer
- Under Ground Telephone
- Fence
- Storm Sewer
- Stream
- Buried Product Lines
- Estimated Groundwater Flow Direction
- Estimated Location of Removed Underground Storage Tanks
- Estimated Location of Existing Underground Storage Tanks
- Storm Sewer Drop Inlet
- Geoprobe/Immunoassay Screening Location Dry Hole
- GPB-1 Geoprobe/Immunoassay Screening Location BTEX Detected
- Geoprobe/Immunoassay Screening Location Not Detected
- Temp. Well/Immunoassay Screening Location BTEX Detected
- Temp. Well/Immunoassay Screening Location Not Detected

A A'

Geologic Cross Section (Refer to Figures [illegible])

MW-1 Location of "Deep" Monitoring Well

HP LASER JET 4L ORIGIN


B-1
Groundwater Analytical
Results (December 18, 1995)
Legend
B-1 Est. Location of
Abandoned Monitoring Well
Proposed location of
Type III Monitoring Well
Proposed
Geoprobe/Groundwater
Screening Location
Proposed location of
Soil Test Boring
Estimated Ground-Water
Flow Direction
Estimated Location of
Removed Underground
Storage Tanks
GRAPHIC SCALE
0 30 60 120
1" = 60'
UTILITY LOCATIONS TO BE CONFIRMED
Assessment Plan Base Map
Sweatman's Grocery Store
Canaan, South Carolina
SCDHEC Site ID 17292
Midlands
Environmental
Consultants, Inc.
JOB NO.
DATE Sept. 1996
SHEET
2

Explanation:

- Location of "Shallow" Monitoring Well
- Location of "Deep" Monitoring Well
- Naphthalene Concentration Isopleth (ug/l)

Notes:

Groundwater samples collected January 19, 2023.

Isopleth interval = 300 ug/l

"Deep" monitoring wells not used in contouring.

Contours Computer Generated using Surfer by Golden Graphics and Modified by MECI Personnel.

Monitoring wells MW-2 and MW-12R not located during sampling activities.

Naphthalene Isopleth–"Shallow" Zone

5D

HP LASER JET 4v ORIGIN

Explanation:

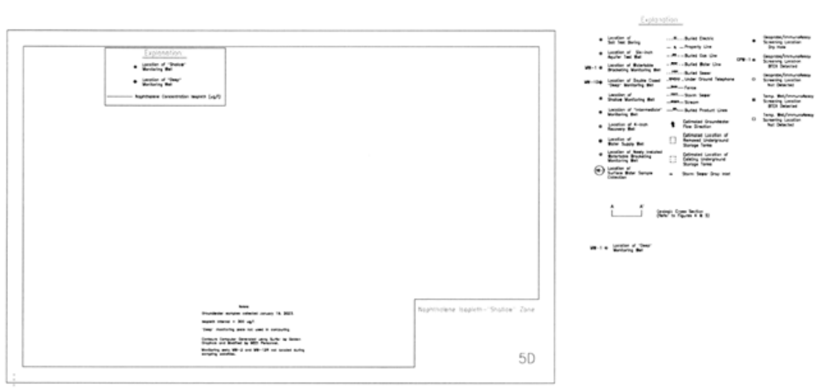
- Location of Soil Test Boring
- Location of Six-inch Aquifer Test Well
- MW-1 Location of Watertable Bracketing Monitoring Well
- MW-1D Location of Double Cased "Deep" Monitoring Well
- Location of Shallow Monitoring Well
- Location of "Intermediate" Monitoring Well
- Location of 4-Inch Recovery Well
- Location of Water Supply Well
- Location of Newly Installed Watertable Bracketing Monitoring Well
- SW-1 Location of Surface Water Sample Collection

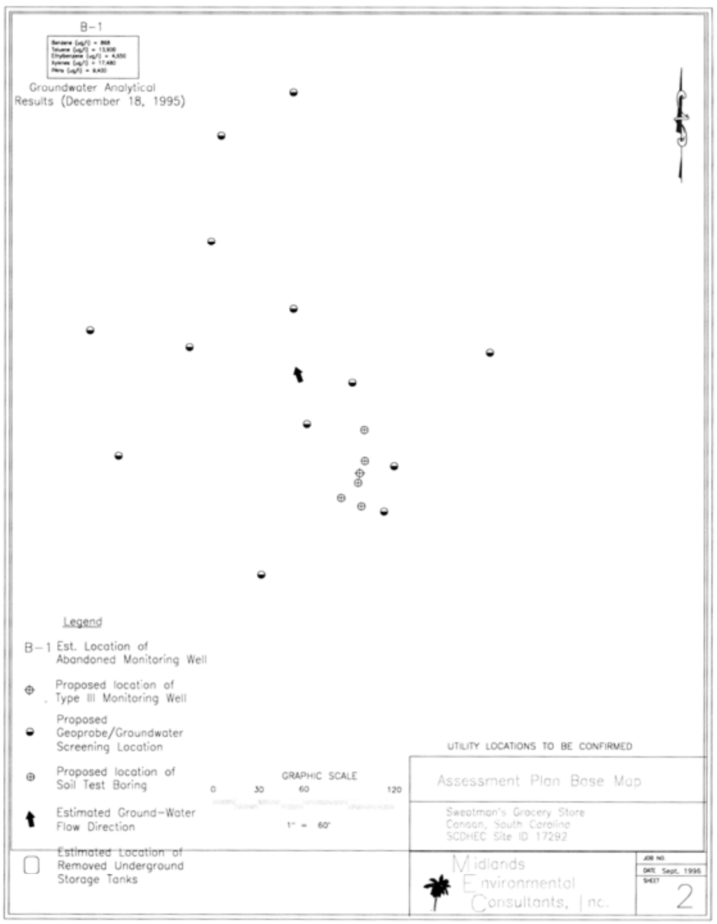
- Buried Electric
- Property Line
- Buried Gas Line
- Buried Water Line
- Buried Sewer
- Under Ground Telephone
- Fence
- Storm Sewer
- Stream
- Buried Product Lines
- Estimated Groundwater Flow Direction
- Estimated Location of Removed Underground Storage Tanks
- Estimated Location of Existing Underground Storage Tanks
- Storm Sewer Drop Inlet

- Geoprobe, Screening Dry Ho
- GPW-1 Geoprobe, Screening BTEX
- Geoprobe, Screening Not De
- Temp. We Screening BTEX
- Temp. We Screening Not De

A A' Geologic Cross Section (Refer to Figures 4 & 5)

MW-1 Location of "Deep" Monitoring Well


Explanation
Location of "Shallow" Monitoring Well
Location of "Deep" Monitoring Well
Naphthalene Concentration Isopleth (ug/l)
Notes
Naphthalene Isopleth - "Shallow" Zone
5D
Explanation
Location of Soil Test Boring
Location of Six-inch Aquifer Test Well
Location of Double Cased "Deep" Monitoring Well
Location of Shallow Monitoring Well
Location of "Intermediate" Monitoring Well
Location of Water Supply Well
Location of Surface Water Sample Collection
Buried Electric
Property Line
Buried Gas Line
Buried Water Line
Buried Sewer
Under Ground Telephone
Fence
Storm Sewer
Stream
Buried Product Lines
Estimated Groundwater Flow Direction
Estimated Location of Removed Underground Storage Tanks
Estimated Location of Existing Underground Storage Tanks
Storm Sewer Drop Inlet
Screening Location Dry Hole
Screening Location BTEX Detected
Screening Location Not Detected
Geologic Cross Section
Location of "Deep" Monitoring Well


B-1
Benzene (ug/l) = 868
Xylenes (ug/l) = 17,480
Groundwater Analytical Results (December 18, 1995)
Legend
B-1 Est. Location of Abandoned Monitoring Well
Proposed location of Type III Monitoring Well
Proposed Geoprobe/Groundwater Screening Location
Proposed location of Soil Test Boring
Estimated Ground-Water Flow Direction
Estimated Location of Removed Underground Storage Tanks
GRAPHIC SCALE
0 30 60 120
1" = 60'
UTILITY LOCATIONS TO BE CONFIRMED
Assessment Plan Base Map
Sweatman's Grocery Store
Canaan, South Carolina
SCDHEC Site ID 17292
Midlands Environmental Consultants, Inc.
JOB NO.
DATE Sept. 1996
SHEET
2

Explanation:

- Location of "Shallow" Monitoring Well
- Location of "Deep" Monitoring Well
- EDB Concentration Isopleth (ug/l)

Notes:

Groundwater samples collected January 19, 2023.

Isopleth interval = 0.10 ug/l

"Deep" monitoring wells not used in contouring.

Contours Computer Generated using Surfer by Golden Graphics and Modified by MECI Personnel.

Monitoring wells MW-2 and MW-12R not located during sampling activities.

EDB Isopleth-"Shallow" Zone

5E

HP LASER JET 4v ORIGIN

Explanation:

- Location of Soil Test Boring
- Location of Six-inch Aquifer Test Well
- MW-1 Location of Watertable Bracketing Monitoring Well
- MW-1D Location of Double Cased "Deep" Monitoring Well
- Location of Shallow Monitoring Well
- Location of "Intermediate" Monitoring Well
- Location of 4-Inch Recovery Well
- Location of Water Supply Well
- Location of Newly Installed Watertable Bracketing Monitoring Well
- SW-1 Location of Surface Water Sample Collection

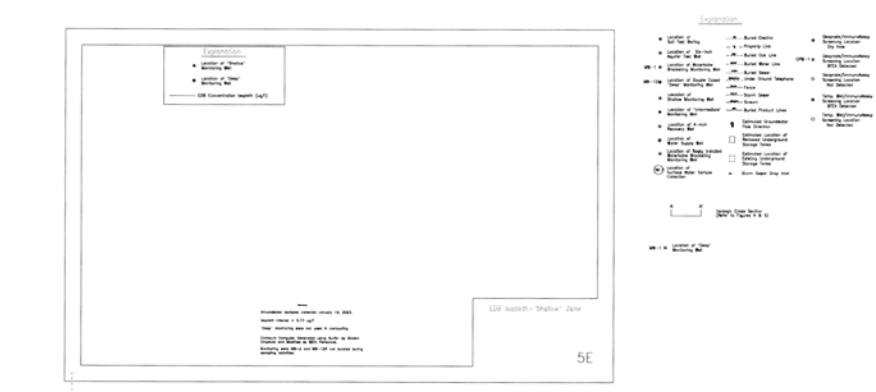
- Buried Electric
- Property Line
- Buried Gas Line
- Buried Water Line
- Buried Sewer
- Under Ground Telephone
- Fence
- Storm Sewer
- Stream
- Buried Product Lines
- Estimated Groundwater Flow Direction
- Estimated Location of Removed Underground Storage Tanks
- Estimated Location of Existing Underground Storage Tanks
- Storm Sewer Drop Inlet

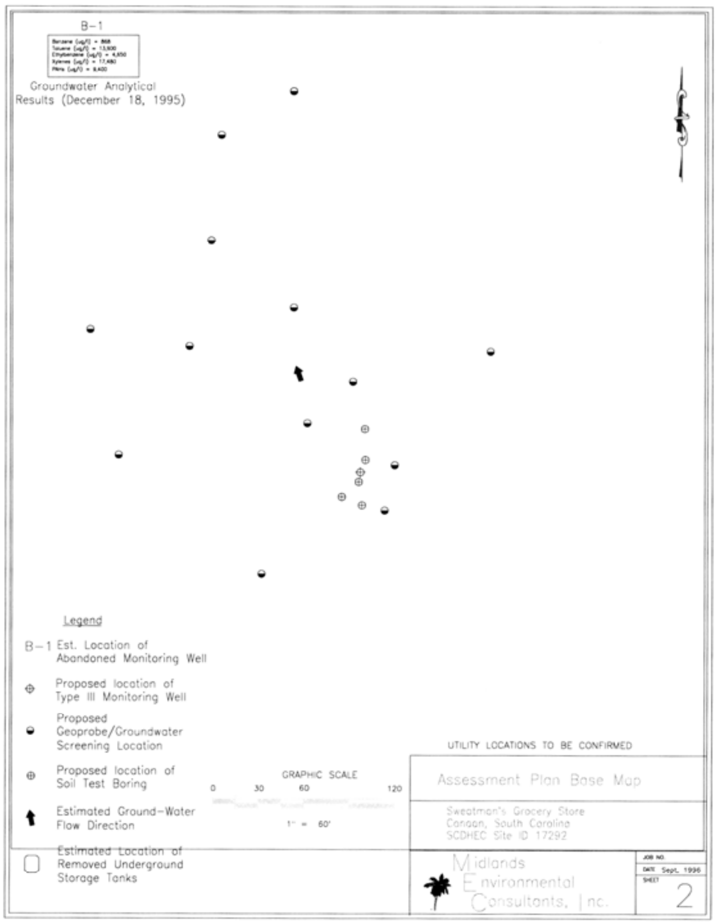
- Geoprobe, Screening Dry Ho
- GPW-1 Geoprobe, Screening BTEX
- Geoprobe, Screening Not De
- Temp. We Screening BTEX
- Temp. We Screening Not De

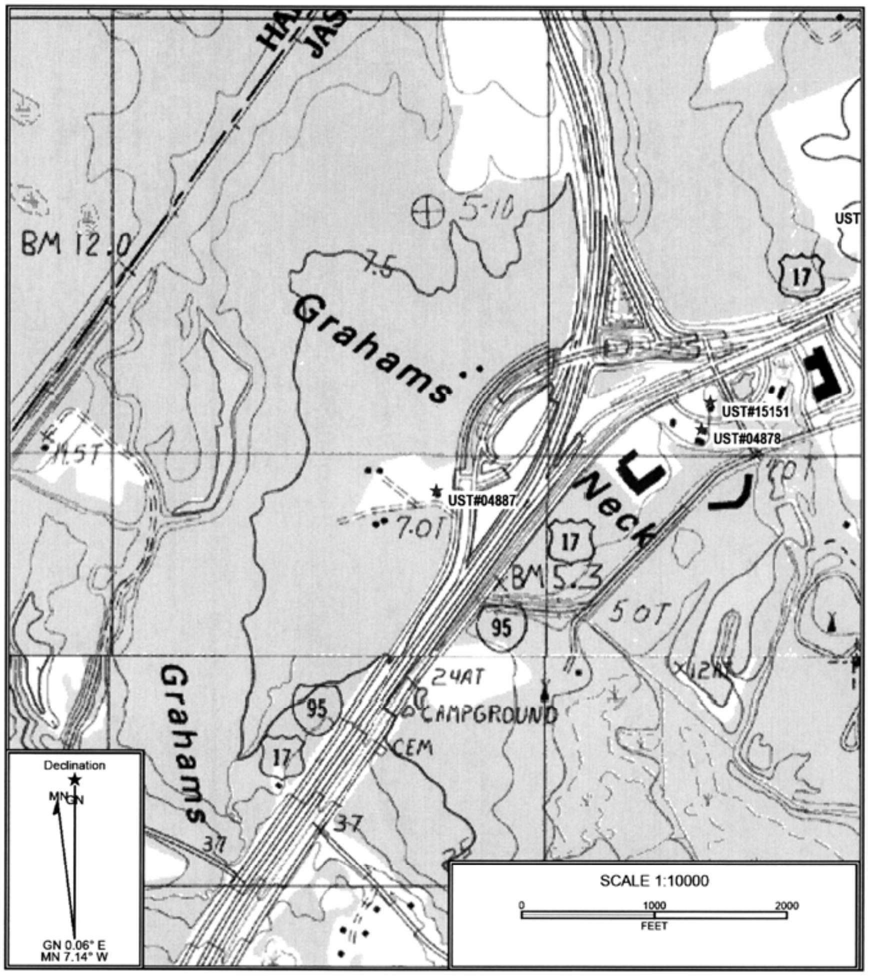
A A'

Geologic Cross Section (Refer to Figures 4 & 5)

MW-1 Location of "Deep" Monitoring Well


Explanation
Location of "Shallow" Monitoring Well
Location of "Deep" Monitoring Well
EDB Concentration Isopleth (ug/l)
EDB Isopleth-"Shallow" Zone
5E
Explanation
Location of Soil Test Boring
Buried Electric
Property Line
Buried Gas Line
Buried Water Line
Buried Sewer
Under Ground Telephone
Fence
Storm Sewer
Buried Product Lines
Estimated Groundwater Flow Direction
Storm Sewer Drop Inlet
Geologic Cross Section
Location of "Deep" Monitoring Well


B-1
Benzene (ug/l) = 868
Toluene (ug/l) = 13,500
Ethylbenzene (ug/l) = 4,850
Xylenes (ug/l) = 17,480
Groundwater Analytical Results (December 18, 1995)
Legend
B-1 Est. Location of Abandoned Monitoring Well
Proposed location of Type III Monitoring Well
Proposed Geoprobe/Groundwater Screening Location
Proposed location of Soil Test Boring
Estimated Ground-Water Flow Direction
Estimated Location of Removed Underground Storage Tanks
GRAPHIC SCALE
0 30 60 120
1" = 60'
UTILITY LOCATIONS TO BE CONFIRMED
Assessment Plan Base Map
Sweatman's Grocery Store
Canaan, South Carolina
SCDHEC Site ID 17292
Midlands Environmental Consultants, Inc.
JOB NO.
DATE Sept. 1996
SHEET
2



BM 12.0
5-10
7.5
Grahams
UST#15151
UST#04878
UST#04887
7.0T
Neck
17
95
BM 5.3
5.0T
2.4AT
CAMPGROUND
CEM
Grahams
37
Declination
MN
GN
GN 0.06° E
MN 7.14° W
SCALE 1:10000
0
1000
2000
FEET

Warren Green
10773 West Frontage Road
Yemassee, South Carolina
UST Permit# 04887

Midlands
Environmental
Consultants, Inc.

JOB NO. 22-7995
DATE January 31, 202
FIGURE

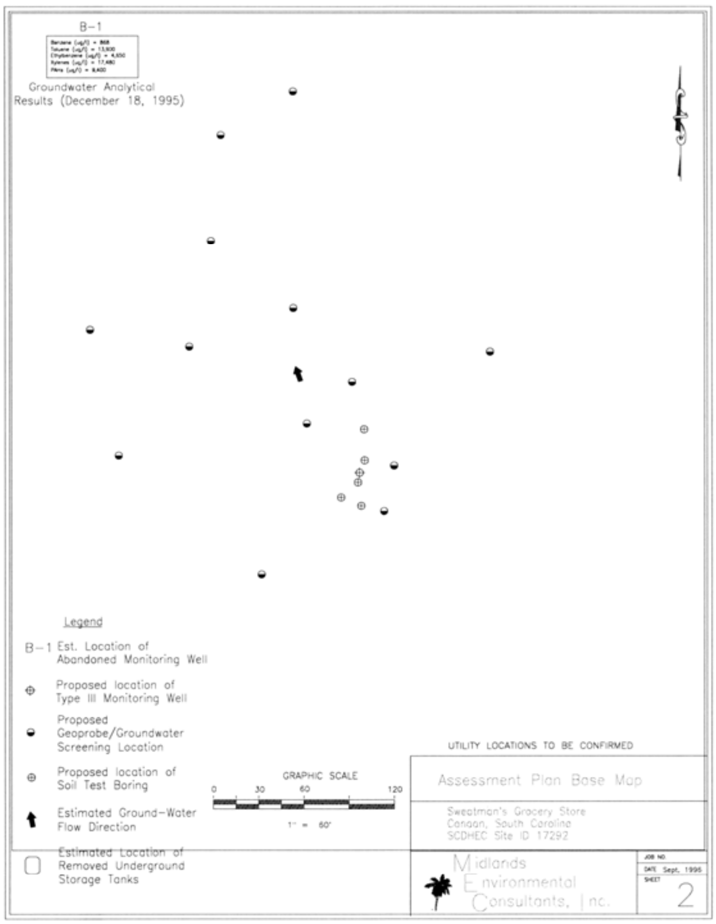
HP LASER JET 4v ORIGIN

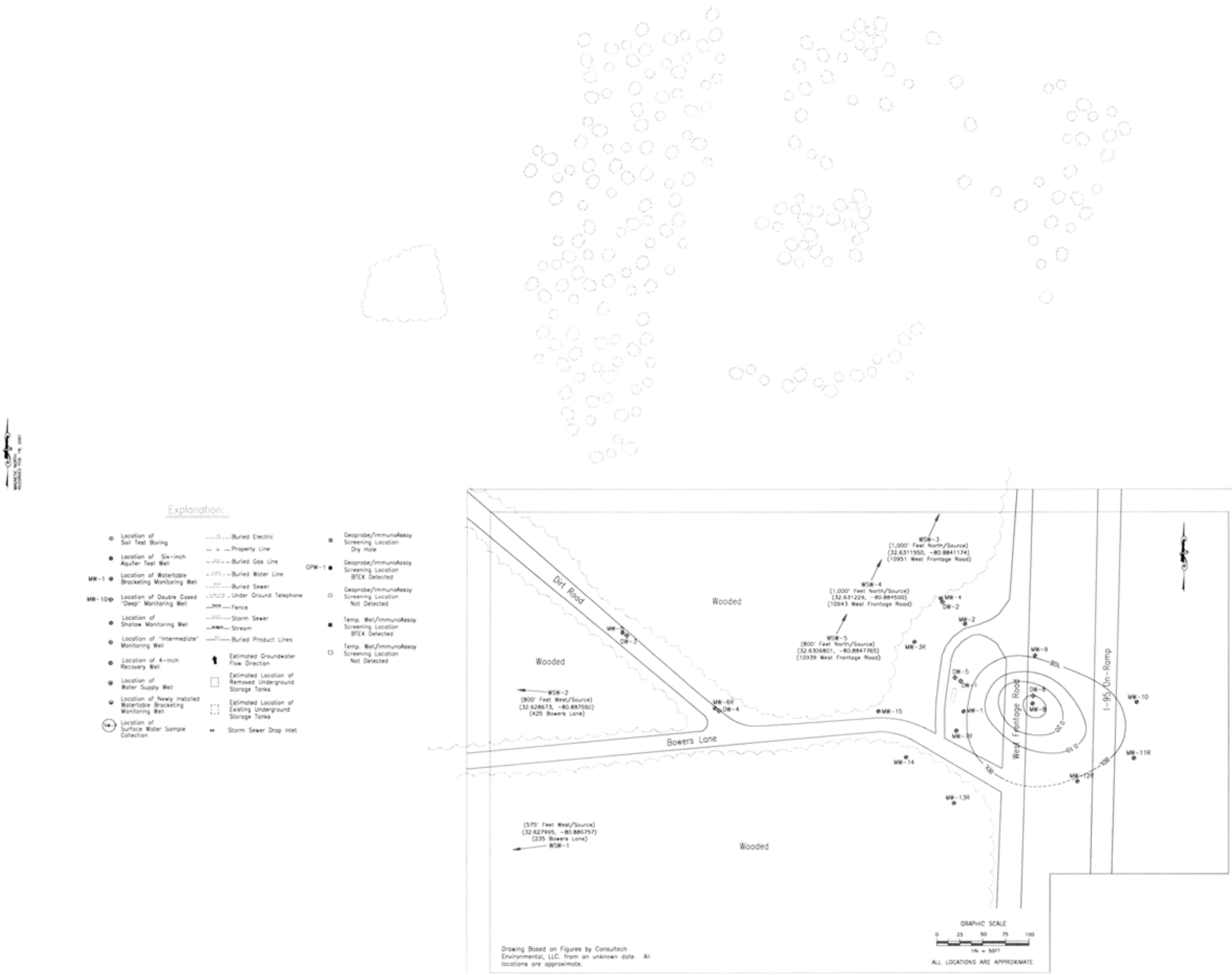
Warren Green
10773 West Frontage Road
Yemassee, South Carolina
UST Permit# 04987

Midlands
Environmental
Consultants, Inc.

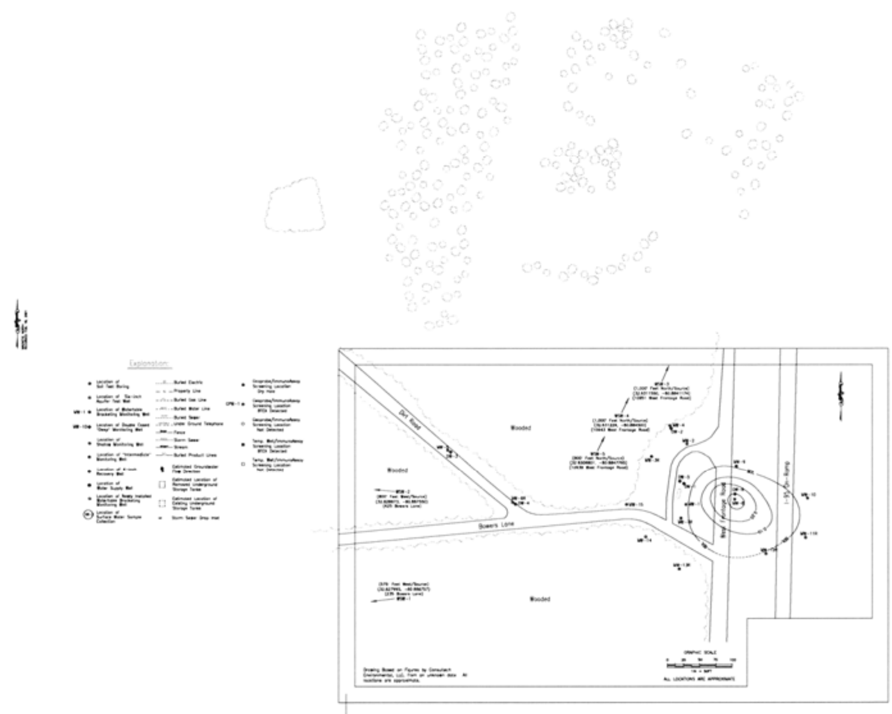
JOB NO. [illegible]
DATE January 31, 2023
FIGURE

HP LASER JET 4v ORIGIN

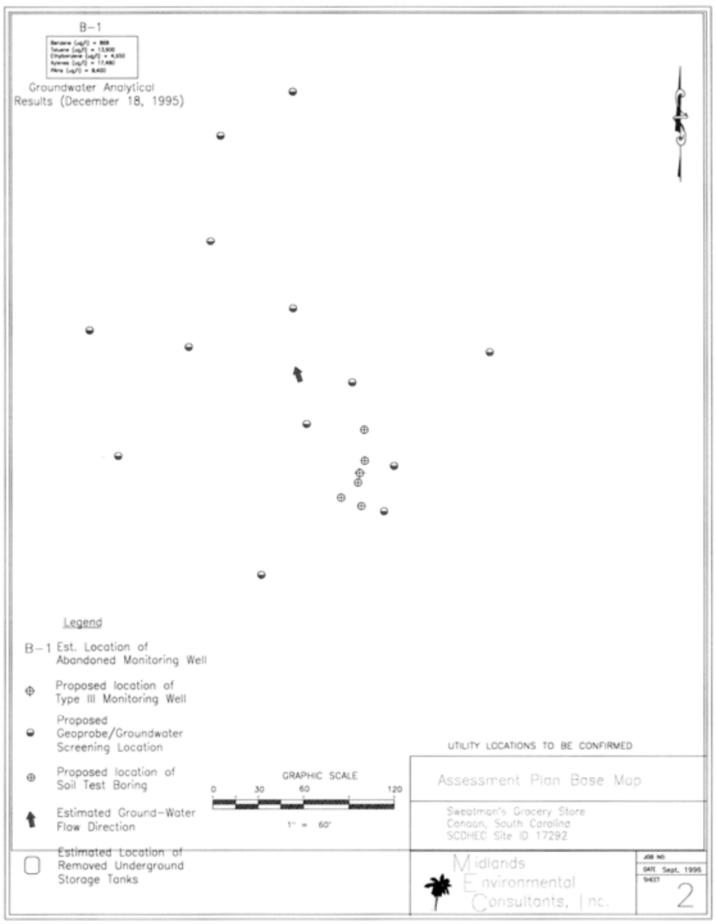

B-1
Groundwater Analytical
Results (December 18, 1995)
Legend
B-1 Est. Location of
Abandoned Monitoring Well
Proposed location of
Type III Monitoring Well
Proposed
Geoprobe/Groundwater
Screening Location
Proposed location of
Soil Test Boring
Estimated Ground-Water
Flow Direction
Estimated Location of
Removed Underground
Storage Tanks
GRAPHIC SCALE
0 30 60 120
1" = 60'
UTILITY LOCATIONS TO BE CONFIRMED
Assessment Plan Base Map
Sweatman's Grocery Store
Canaan, South Carolina
SCDHEC Site ID 17292
Midlands
Environmental
Consultants, Inc.
JOB NO.
DATE Sept. 1996
SHEET
2



Explanation:
Location of Soil Test Boring
Location of Six-inch Aquifer Test Well
MW-1 Location of Watertable Bracketing Monitoring Well
MW-1D Location of Double Cased "Deep" Monitoring Well
Location of Shallow Monitoring Well
Location of "Intermediate" Monitoring Well
Location of 4-inch Recovery Well
Location of Water Supply Well
Location of Newly Installed Watertable Bracketing Monitoring Well
Location of Surface Water Sample Collection
Buried Electric
Property Line
Buried Gas Line
Buried Water Line
Buried Sewer
Under Ground Telephone
Fence
Storm Sewer
Stream
Buried Product Lines
Estimated Groundwater Flow Direction
Estimated Location of Removed Underground Storage Tanks
Estimated Location of Existing Underground Storage Tanks
Storm Sewer Drop Inlet
Geoprobe/ImmunoAssay Screening Location Dry Hole
GPW-1 Geoprobe/ImmunoAssay Screening Location BTEX Detected
Geoprobe/ImmunoAssay Screening Location Not Detected
Temp. Well/ImmunoAssay Screening Location BTEX Detected
Temp. Well/ImmunoAssay Screening Location Not Detected
Dirt Road
Wooded
Wooded
Wooded
Bowers Lane
West Frontage Road
I-95 On-Ramp
WSW-3
(1,000' Feet North/Source)
(32.6311550, -80.8841174)
(10951 West Frontage Road)
WSW-4
(1,000' Feet North/Source)
(32.631229, -80.884500)
(10943 West Frontage Road)
WSW-5
(800' Feet North/Source)
(32.6306801, -80.8847765)
(10939 West Frontage Road)
WSW-2
(800' Feet West/Source)
(32.628673, -80.887550)
(425 Bowers Lane)
(575' Feet West/Source)
(32.627995, -80.887757)
(235 Bowers Lane)
WSW-1
MW-4
DW-2
MW-2
MW-3R
MW-9
DW-5
DW-1
DW-6
MW-8
MW-1
MW-10
MW-15
MW-6R
DW-4
DW-3
MW-7R
MW-14
MW-11R
MW-12R
MW-13R
GRAPHIC SCALE
0 25 50 75 100
1IN = 50FT
ALL LOCATIONS ARE APPROXIMATE
Drawing Based on Figures by Consultech Environmental, LLC. from an unknown date. All locations are approximate.



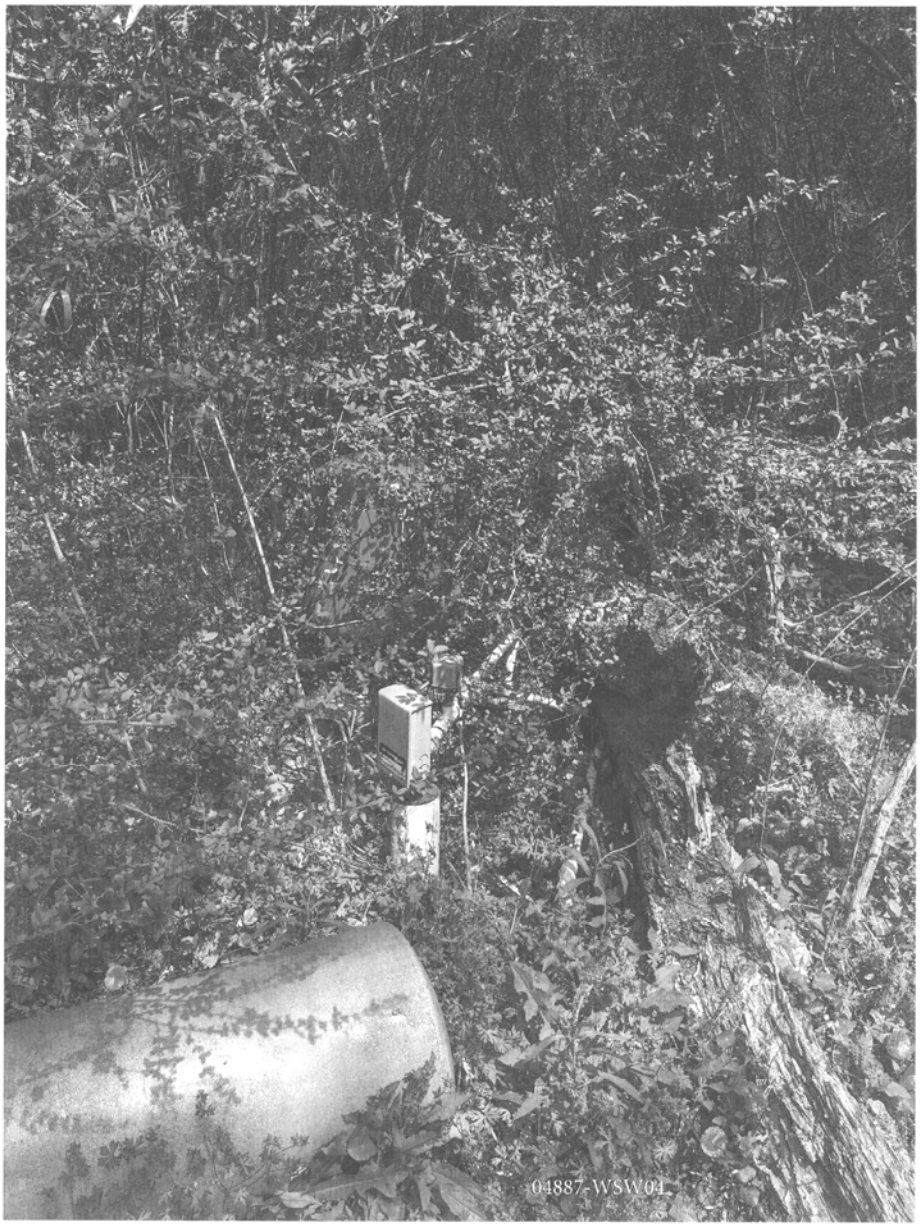
Explanation:
Buried Electric
Property Line
Buried Gas Line
Buried Water Line
Buried Sewer
Under Ground Telephone
Fence
Storm Sewer
Stream
Buried Product Lines
Dirt Road
Wooded
Bowers Lane
Wooded
Wooded
GRAPHIC SCALE
ALL LOCATIONS ARE APPROXIMATE


B-1
Groundwater Analytical Results (December 18, 1995)
Legend
B-1 Est. Location of Abandoned Monitoring Well
Proposed location of Type III Monitoring Well
Proposed Geoprobe/Groundwater Screening Location
Proposed location of Soil Test Boring
Estimated Ground-Water Flow Direction
Estimated Location of Removed Underground Storage Tanks
GRAPHIC SCALE
0 30 60 120
1" = 60'
UTILITY LOCATIONS TO BE CONFIRMED
Assessment Plan Base Map
Sweatman's Grocery Store
Canaan, South Carolina
SCDHEC Site ID 17292
Midlands Environmental Consultants, Inc.
JOB NO.
DATE Sept. 1995
SHEET
2


04887-WSW01


04887-WSW02


04887-WSW03


04887-WSW04


04887-WSW05

04887

dhec
Healthy People. Healthy Communities.

UST 79 DOCKETING

OCT 05 2023

MR BRYAN SHANE PG
MIDLANDS ENVIRONMENTAL CONSULTANTS
PO BOX 854
LEXINGTON SC 29071

Re: Site Specific Work Plan Request
Groundwater Sampling Contract
Solicitation #IFB-5400021335

Dear Mr. Shane:

In accordance with bid solicitation # IFB-5400021335, submission of a Site-Specific Work Plan (SSWP) based on each site information package provided is requested.

The SSWP must be submitted within 20 calendar days of the date of this correspondence. The project manager for each site will issue a notice to proceed once the plan has been reviewed and approved. A weekly update for each site should be emailed to the site's project manager and myself. If you have any questions or need further assistance, please contact me by phone (803) 898-0500 or email brownaj@dhec.sc.gov.

Sincerely,

Guinevere Brown, Hydrogeologist
Corrective Action & Field Support Section
UST Management Division
Bureau of Land & Waste Management

Enc: Site Information Package Summary (SIPS)
Site Information Packages

Cc: Jonathan Biddix, Pace Analytical Services, 9800 Kincey Ave. STE 100, Huntersville, NC 28078 (w/ SIPS)
Technical File (w/o Enc)

dhec
Healthy People. Healthy Communities.

UNDERGROUND STORAGE TANK PROGRAM
BUREAU OF LAND AND WASTE MANAGEMENT
2600 Bull Street, Columbia, South Carolina 29201
Telephone: 803-898-2544

MEMORANDUM

TO: State Lead Groundwater Sampling Contractor

FROM: Guinevere Brown

RE: Site Specific Work Plan Request

Facility Name: Green Warren

Contractor CA# 67756

Permit Number: 4887

PACE CA #: 67757

County: Jasper

RBCA CLASS: 2BB

List Monitoring Wells to be Sampled **Purging Method** Non-Bracketing Only

Shallow MW-1, MW-2, MW-3R, MW-4, MW-5, MW-6R, MW-7R, MW-8, MW-9, MW-10, MW-11R, MW-12R, MW-13R, MW-14, MW-15

Intermediate

Deep DW-1 - DW-6

Surface Water Points to be Sampled (MUST BE ON MAP PROVIDED)

N/A

WSW Points to be Sampled (MUST BE ON MAP PROVIDED CONTACT INFO w TAX MAP INFO)

WSW-1 - WSW-4

Sample Below Product

Additional Potentiometric Maps Requested - See Below (Note: Shallow & Deep Included)

Isopleth Maps requested instead of CoC Map (Only for CoCs >RBSL or SSTL)

Other:

Total Groundwater Sample Points: 22

Analysis Being Requested: K1.1 BTEXN, MTBE, including 8-Oxygenates, and 1,2 DCA (8260D); K7.1 EDB (8011)

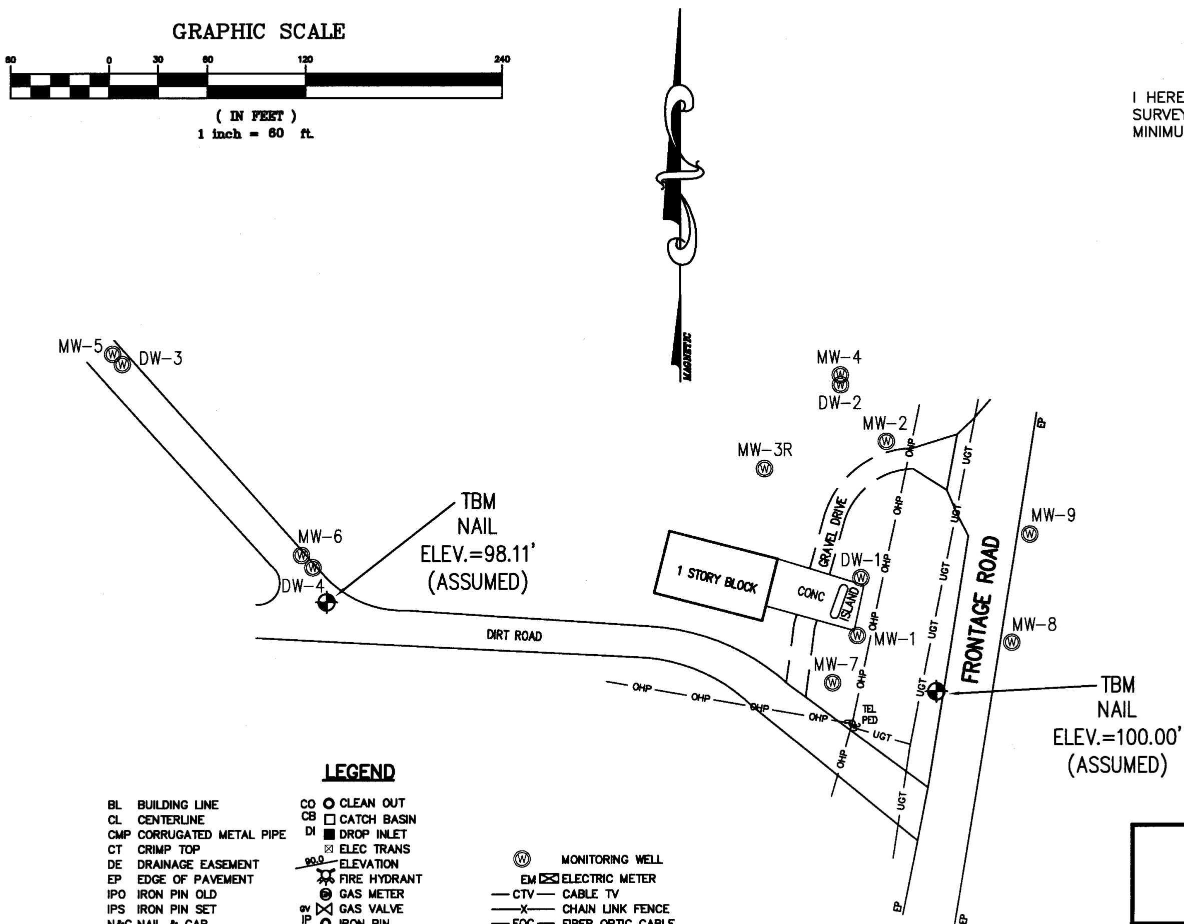
Total Water Supply Well Points: 4

Analysis Being Requested: K14.1 BTEXN, MTBE, and 1,2 DCA (524.2); K.1 8-Oxygenates (8260D); K16.1 EDB (504.1)

10/4/2023

UST DOCKET

8tech



I HEREBY STATE TO THE BEST OF MY KNOWLEDGE, INFORMATION, AND BELIEF, THE SURVEY SHOWN HEREON WAS MADE IN ACCORDANCE WITH THE REQUIREMENTS OF THE MINIMUM STANDARDS MANUAL FOR THE PRACTICE OF LAND SURVEYING IN SOUTH CAROLINA.

Joe F. Gosnell

JOE F. GOSNELL, P.L.S.
S.C. REG. NO. 16501

MW #	TOP OF LID	TOP OF CASING
MW 1	98.02'	97.69'
MW 2	98.90'	98.61'
MW 3R	98.72'	98.19'
MW 4	98.61'	98.32'
MW 5	97.30'	96.88'
MW 6	97.14'	96.90'
MW 7	97.90'	97.69'
MW 8	99.77'	99.44'
MW 9	99.74'	99.32'
DW 1	98.12'	97.84'
DW 2	98.66'	98.31'
DW 3	97.23'	96.83'
DW 4	97.30'	96.75'

LEGEND

BL BUILDING LINE
CL CENTERLINE
CMP CORRUGATED METAL PIPE
CT CRIMP TOP
DE DRAINAGE EASEMENT
EP EDGE OF PAVEMENT
IPO IRON PIN OLD
IPS IRON PIN SET
N&C NAIL & CAP
OT OPEN TOP
RB REBAR
RCP REINFORCED CONC PIPE
R/W RIGHT OF WAY
SD STORM DRAIN
SS SANITARY SEWER
SSE SS EASEMENT
VCP VITRIFIED CLAY PIPE

CO CLEAN OUT
CB CATCH BASIN
DI DROP INLET
ELEC TRANS
90.0 ELEVATION
FIRE HYDRANT
GAS METER
GV GAS VALVE
IP IRON PIN
LP LIGHT POLE
MHBS MANHOLE (BELL SOUTH)
MHSD MANHOLE (SD)
MHSS MANHOLE (SS)
PP POWER POLE
TEL TELEPHONE PEDESTAL
WATER METER
WV WATER VALVE

MONITORING WELL
EM ELECTRIC METER
—CTV— CABLE TV
—X— CHAIN LINK FENCE
—FOC— FIBER OPTIC CABLE
—GAS— GAS LINE
—OHP— OVERHEAD POWER
—OHT— OVERHEAD TELEPHONE
—SD— STORM DRAIN
—SS— SANITARY SEWER
—UGP— UNDERGROUND POWER
—UGT— UNDERGROUND TEL
—W— WATER LINE

S070742

MONITORING WELL SURVEY FOR

CONSULTECH ENVIRONMENTAL, INC.

JASPER COUNTY, SOUTH CAROLINA

SCALE	PROPERTY ADDRESS	CHECKED BY	
1"=60'	FRONTAGE ROAD	ACJ	
DATE	60 0 60 120	FIELD BOOK	DRAWN BY
12-19-07		CH/DF	JFG

SDI
SITE DESIGN, INC.
CIVIL ENGINEERS AND SURVEYORS
420 EAST PARK AVENUE, SUITE 100
GREENVILLE, SOUTH CAROLINA, 29601 (864) 271-0496

Midlands
Environmental
Consultants, Inc.

October 23, 2023

Ms. Guinevere Brown, Hydrogeologist
Corrective Action & Field Support Section
Underground Storage Tank Management Division
Bureau of Land and Waste Management
South Carolina Department of Health
and Environmental Control
2600 Bull Street
Columbia, South Carolina 29201

Subject: Site-Specific Work Plan
Warren Green
Yemassee, South Carolina
Jasper County
UST Permit# 04887
MECI Project Number 23-8213
Certified Site Rehabilitation Contractor UCC-0009

Dear Ms. Brown,

Midlands Environmental Consultants Inc. (MECI) is pleased to submit the attached Site-Specific Work Plan for the referenced site.

On October 16, 2023, MECI personnel performed a site visit to the subject sites to evaluate site conditions, locate monitoring wells and identify potential problems for future sampling activities.

If you have any question or comments, please feel free to contact us at 803-808-2043.

Sincerely,
Midlands Environmental Consultants, Inc.

Jeff L. Coleman
Senior Scientist

Post Office Box 854, Lexington, SC 29071 • 231 Dooley Road, Lexington, SC 29073
Telephone: (803) 808-2043 • Fax: (803) 808-2048

Site-Specific Work Plan for Approved ACQAP
Underground Storage Tank Management Division

To: Ms. Guinevere Brown (SCDHEC Project Manager)
From: Jeff L. Coleman (Contractor Project Manager)
Contractor: Midlands Environmental Consultants, Inc. UST Contractor Certification Number: 009

Facility Name: Warren Green UST Permit #: 04887
Facility Address: Bowers Lane & West Frontage Road, Yemassee, SC
Responsible Party: Lasonya Eady, Reginald Bascom, Everette Bascom Phone: 843-726-9038
RP Address: 194 Oak Hill Road, Ridgeland, SC 29936
Property Owner (if different): SAA
Property Owner Address: SAA
Current Use of Property: Vacant Lot

Scope of Work (Please check all that apply)

- ☐ IGWA
- ☐ Tier I
- ☐ Tier II
- ☐ Monitoring Well Installation
- ☑ Groundwater Sampling
- ☐ Other ______
- ☐ GAC

Analyses (Please check all that apply)

Groundwater/Surface Water:

- ☑ BTEXNMDCA (8260D)
- ☑ Oxygenates (8260D)
- ☑ EDB (8011)
- ☐ PAH (8270E)
- ☐ Lead
- ☐ 8 RCRA Metals
- ☐ TPH
- ☐ pH
- ☐ BOD
- ☐ Nitrate
- ☐ Sulfate
- ☐ Other ______
- ☐ Methane
- ☐ Ethanol
- ☐ Dissolved Iron

Drinking Water Supply Wells:

- ☑ BTEXNMDCA (524.2)
- ☑ Oxygenates & Ethanol (8260D)
- ☐ Mecury (200.8 245.1 or 245.2)
- ☐ RCRA Metals (200.8)
- ☑ EDB (504.1)

Soil:

- ☐ BTEXNM
- ☐ PAH
- ☐ Lead
- ☐ RCRA Metals
- ☐ Oil & Grease (9071)
- ☐ TPH-DRO (3550B/8015B)
- ☐ TPH-GRO (5030B/8015B)
- ☐ Grain Size
- ☐ TOC

Air:

- ☐ BTEXN

Sample Collection (Estimate the number of samples of each matrix that are expected to be collected.)

____ Soil	4 Water Supply Wells	____ Air	2 Field Blank
21 Monitoring Wells	____ Surface Water	3 Duplicate	2 Trip Blank

Field Screening Methodology

Estimate number and total completed depth for each point, and include their proposed locations on the attached map.
# of shallow points proposed: ______ Estimated Footage: ______ feet per point
# of deep points proposed: ______ Estimated Footage: ______ feet per point
Field Screening Methodology: ______

Permanent Monitoring Wells

Estimate number and total completed depth for each well, and include their proposed locations on the attached map.
# of shallow wells: ______ Estimated Footage: ______ feet per point
# of deep wells: ______ Estimated Footage: ______ feet per point
# of recovery wells: ______ Estimated Footage: ______ feet per point
Comments, if warranted:

UST Permit #: 04887 Facility Name: Warren Green

Implementation Schedule (Number of calendar days from approval)
Field Work Start-Up: 10/23/2023 Field Work Completion: 12/23/2023
Report Submittal: 1/23/2024 # of Copies Provided to Property Owners: ______

Aquifer Characterization
Pump Test: ☐ Slug Test: ☐ (Check one and provide explanation below for choice)

Investigation Derived Waste Disposal
Soil: ______ Tons Purge Water: 250.00 Gallons
Drilling Fluids: ______ Gallons Free-Phase Product: ______ Gallons

Additional Details For This Scope of Work
For example, list wells to be sampled, wells to be abandoned/repaired, well pads/bolts/caps to replace, details of AFVR event, etc.

-Monitoring wells MW-2 and MW-12R were unable to located during the initial site visit. If any of these monitoring wells are located during sampling activities, they will be sampled accordingly.
-Only monitoring wells which do not bracket the water table will be purged prior to sample collection.
-MECI will attempt to sample 4 water supply wells during sampling activities.
-MECI is requesting pre-approval to replace 15 locking bolts, 1 well lid and 5 wells caps during the future sampling event.

Compliance With Annual Contractor Quality Assurance Plan (ACQAP)
Yes Laboratory as indicated in ACQAP? (Yes/No) If no, indicate laboratory information below.
Name of Laboratory: ______
SCDHEC Certification Number: ______
Name of Laboratory Director: ______

N/A Well Driller as indicated in ACQAP? (Yes/No) If no, indicate driller information below.
Name of Well Driller: ______
SCLLR Certification Number: ______

None Other variations from ACQAP. Please describe below.

Attachments
1. Attach a copy of the relevant portion of the USGS topographic map showing the site location.
2. Prepare a site base map. This map must be accurately scaled, but does not need to be surveyed. The map must include the following:
   - North Arrow
   - Location of property lines
   - Location of buildings
   - Previous soil sampling locations
   - Previous monitoring well locations
   - Proposed soil boring locations
   - Proposed monitoring well locations
   - Legend with facility name and address, UST permit number, and bar scale
   - Streets or highways (indicate names and numbers)
   - Location of all present and former ASTs and USTs
   - Location of all potential receptors
3. Assessment Component Cost Agreement, SCDHEC Form D-3664

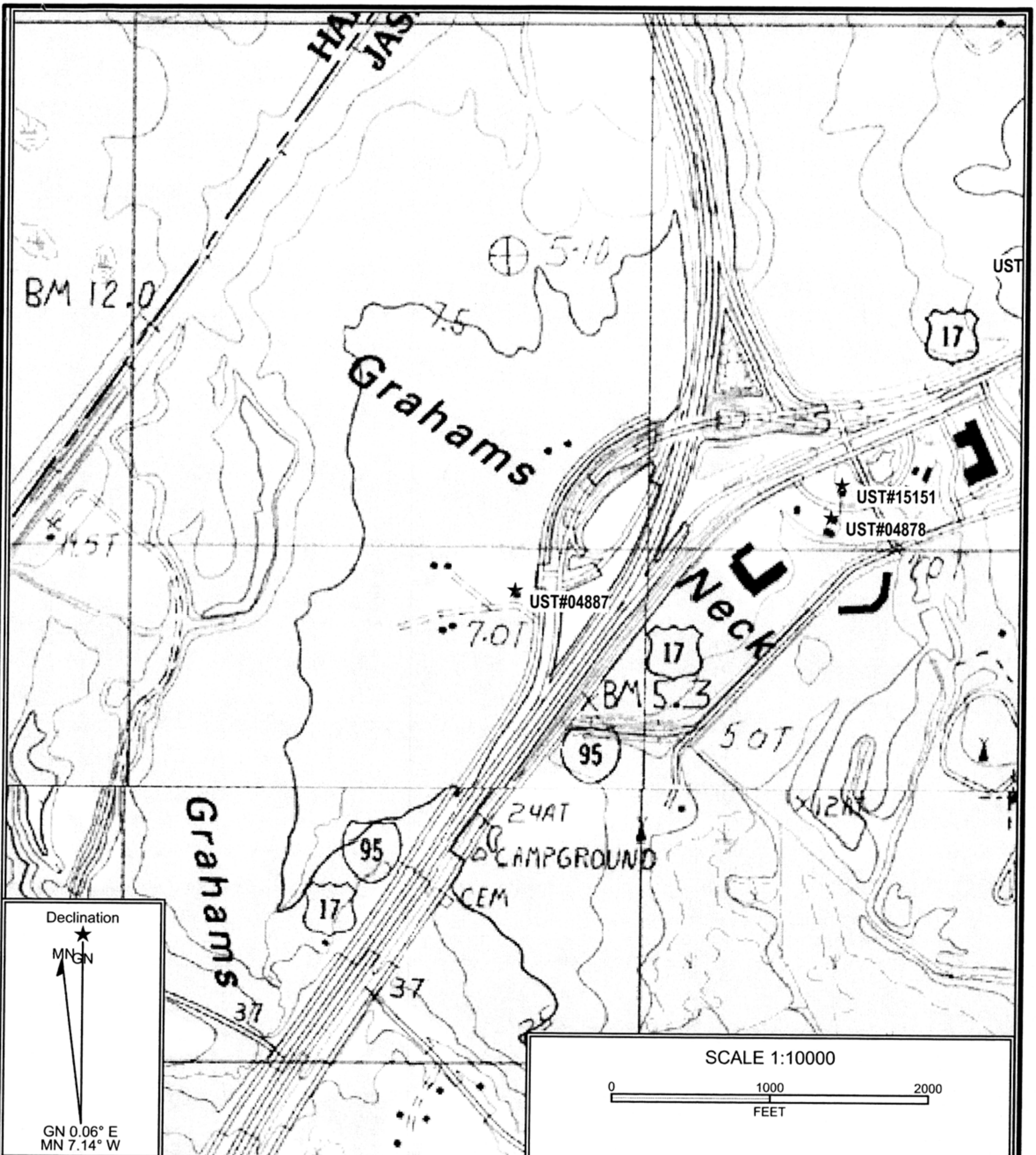
dhec
Healthy People. Healthy Communities.

ASSESSMENT COMPONENT COST AGREEMENT
SOUTH CAROLINA

Department of Health and Environmental Control
Underground Storage Tank Management Division
State Underground Petroleum Environmental Response Bank Account
CONTRACT PO # 4600830568

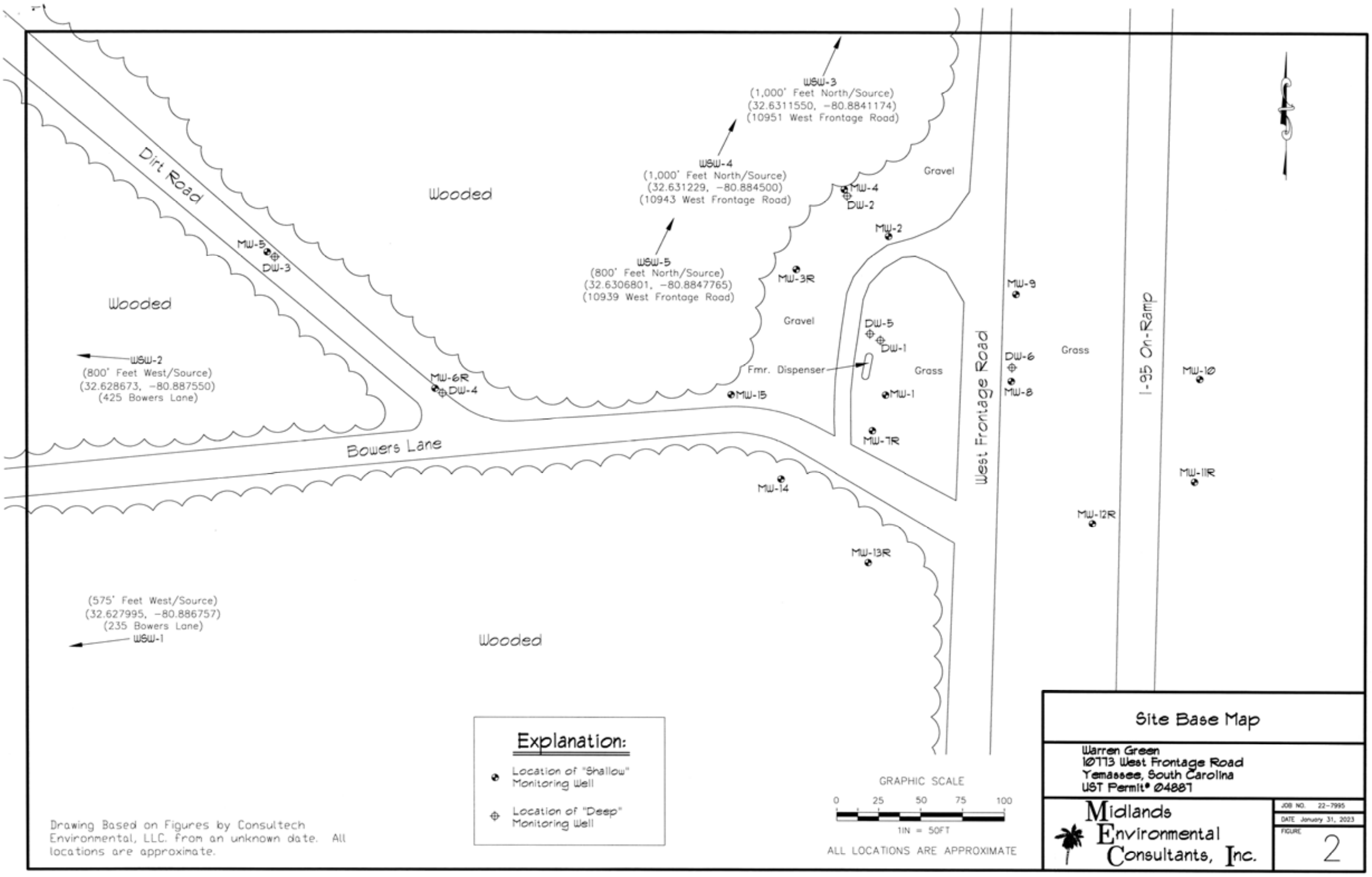
Facility Name: Warren Green
UST Permit #: 15688 **Cost Agreement #:** 67756

ITEM	QUANTITY	UNIT	UNIT PRICE		TOTAL
A. **Plan Preparation**					
1. Site Specific Work Plan	1	each	$450.50		$450.50
2. Tax Map		each	$53.00		$0.00
B. Receptor Survey		each	$53.00		$0.00
D. Mob/Demob					
2. Personnel	2	each	$646.60		$1,293.20
J. **Groundwater Sample Collection / Gauge Depth to Water or Product (Each)**					
1. Groundwater Purge	6	per well	$10.60		$63.60
2. Air or Vapors		per sample	$1.06		$0.00
3. Water Supply Sample	4	per sample	$42.40		$169.60
4. Groundwater No Purge/Surface Water	15	per sample	$8.48		$127.20
R-1. HydraSleeve		per sample	$24.38		$0.00
5. Gauge Well only		per data point	$1.06		$0.00
6. Sample Below Product		per well	$1.91		$0.00
7. Passive Diffusion Bag		per well	$26.50		$0.00
9. Groundwater (low flow purge)		per well	$26.50		$0.00
10. Equipment Blank		per day	$10.60		$0.00
Q. **Disposal (gallons or tons)**					
1. Wastewater	250	per gallon	$0.35		$87.50
2. Free Product		per gallon	$0.01		$0.00
R. **Miscellaneous**					
2. Additional Potentiometric Map		each above required two	$10.60		$0.00
3. Isopleth Map		each above required one	$53.00		$0.00
4. Data Table		per data set	$106.00		$0.00
5. Redraw/Digitize Site Map		each	$159.00		$0.00
6.Replace Well Lid	1	each	$10.60		$10.60
Y. **Well Repair**					
1. Additional Copies of Report Delivered		per copy	$10.60		$0.00
5. Replace well cover bolts	15	each	$6.36		$95.40
6. Replace locking well cap & lock	5	each	$10.60		$53.00
10. Replace missing/illegible well ID plate		each	$10.60		$0.00
Subtotal					**$2,350.60**
S. Report Preparation/Project Coordination		Percent of Subtotal	0%		
TOTAL					**$2,350.60**



Reference: McPhersonville, South Carolina
USGS 7.5 Min. Quad
Contour Interval – 1.50 Meters

Midlands Environmental Consultants, Inc.	Site Location
Warren Green 10773 West Frontage Road, Yemassee, SC UST Permit# 00712	
Figure 1	MECI 22-7995


Dirt Road
Wooded
Wooded
Wooded
Bowers Lane
West Frontage Road
I-95 On-Ramp
Gravel
Gravel
Grass
Grass
WSW-3
(1,000' Feet North/Source)
(32.6311550, -80.8841174)
(10951 West Frontage Road)
WSW-4
(1,000' Feet North/Source)
(32.631229, -80.884500)
(10943 West Frontage Road)
WSW-5
(800' Feet North/Source)
(32.6306801, -80.8847765)
(10939 West Frontage Road)
WSW-2
(800' Feet West/Source)
(32.628673, -80.887550)
(425 Bowers Lane)
(575' Feet West/Source)
(32.627995, -80.886757)
(235 Bowers Lane)
WSW-1
MW-5
DW-3
MW-6R
DW-4
MW-15
MW-4
DW-2
MW-2
MW-3R
DW-5
DW-1
Fmr. Dispenser
MW-1
MW-7R
MW-9
DW-6
MW-8
MW-10
MW-11R
MW-12R
MW-14
MW-13R
Explanation:
Location of "Shallow" Monitoring Well
Location of "Deep" Monitoring Well
Drawing Based on Figures by Consultech Environmental, LLC. from an unknown date. All locations are approximate.
GRAPHIC SCALE
0 25 50 75 100
1IN = 50FT
ALL LOCATIONS ARE APPROXIMATE
Site Base Map
Warren Green
10773 West Frontage Road
Yemassee, South Carolina
UST Permit# 04887
Midlands Environmental Consultants, Inc.
JOB NO. 22-7995
DATE January 31, 2023
FIGURE
2

Healthy People. Healthy Communities.

JAN 31 2024

UST
81
Tech
DOCKETING

MR BRYAN SHANE PG
MIDLANDS ENVIRONMENTAL CONSULTANTS
PO BOX 854
LEXINGTON SC 29071

Re: Notice to Proceed Site-Specific Work Plan (SSWP) Approval
Groundwater Sampling Contract
Solicitation #IFB-5400021335, PO # 4600968007
Green Warren, 10773 West Frontage Road, Yemassee, SC
UST Permit #04887; MECI CA #67756; Pace CA #67757
Jasper County

Dear Mr. Shane:

In accordance with bid solicitation #IFB-5400021335, the SSWP has been reviewed and approved. A status report of the project should be provided on a weekly basis. If any quality assurance problems arise, you must contact me within 24 hours by phone or email.

Please coordinate access to the facility with the property owner. **Sampling should be conducted within 30 calendar days from the date of this letter. If the final report is not submitted within 60 days of the date of this correspondence, a late fee may be imposed.** The final report is to be submitted to the contract manager.

If you have any site-specific questions, please contact me by email brownaj@dhec.sc.gov or phone (803) 898-0500. If you have any contract specific questions, please contact Guinevere Brown by email brownaj@dhec.sc.gov or phone (803) 898-0500.

Sincerely,

Guinevere Brown, Hydrogeologist
Corrective Action & Field Support Section
UST Management Division
Bureau of Land & Waste Management

Enc: Approved Cost Agreement (both CAs)

Cc: Mr. Jonathan Biddix, Pace Analytical Services, 9800 Kincey Ave, STE 100, Huntersville, NC, 28078 (w/ CA)
Technical File (w/ Enc)

Approved Cost Agreement 67756

Facility: 04887 GREEN, WARREN

BROWNAJ

PO Number:

Task / Description Categories	Item Description	Qty / Pct	Unit Price	Amount
A PLAN PREPARATION				
	1 SITE SPECIFIC WORK PLAN	1.0000	$450.500	450.50
D MOB/DEMOB				
	2 PERSONNEL	2.0000	$646.600	1,293.20
J SAMPLE COLLECTION				
	1 GROUND WATER PURGE	6.0000	$10.600	63.60
	3 WATER SUPPLY SAMPLE/ DUPLICATE	4.0000	$42.400	169.60
	4 GROUNDWATER NO-PURGE/DUPL/GRAB	15.0000	$8.480	127.20
Q DISPOSAL				
	1 WASTEWATER	250.0000	$0.350	87.50
R MISCELLANEOUS				
	6. REPLACE WELL LID	1.0000	$10.600	10.60
Y WELL REPAIR				
	5 REPLACE WELL COVER BOLTS	15.0000	$6.360	95.40
	6 REPLACE LOCKING WELL CAP & LOC	5.0000	$10.600	53.00
			Total Amount	2,350.60

Approved Cost Agreement 67757

Facility: 04887 GREEN, WARREN

BROWNAJ

PO Number: 968433-79

Task / Description	Categories	Item Description	Qty / Pct	Unit Price	Amount
K ANALYSES					
	DW DRINKING WATER	14.1 BTEXNM+1,2 DCA (524.2) WSW	7.0000	$42.000	294.00
		15.1 OXYGENATES & ETHANOL 8260B WSW	7.0000	$20.000	140.00
		16.1 EDB (504.1) WSW	6.0000	$22.000	132.00
	GW GROUNDWATER	1.1 BTEXNM+OXYGS+1,2 DCA+ETH-8260D	25.0000	$25.000	625.00
		7.1 EDB BY EPA 8011	24.0000	$22.000	528.00
			Total Amount		1,719.00

D H E C

PROMOTE PROTECT PROSPER

C. Earl Hunter, Commissioner

Promoting and protecting the health of the public and the environment.

JUL 11 2008

MARK CREEL
CONSULTECH ENVIRONMENTAL
1517 OLD APEX ROAD
CAREY NC 27513

Re: Additional Tier II Directive
Warren Green, 10773 W. Frontage Rd., Yemassee, SC
UST Permit #04887; CA# 31590; MWA# UMW-21465
Bid Specification IFB-30950-11/7/06-EMW; PO #663641
Revised Tier II Report received January 22, 2008
Jasper County

Dear Mr. Creel:

The Underground Storage Tank (UST) Program has reviewed the Tier II report and its revisions. Assessment activities should begin immediately upon receipt of this letter.

The SCDHEC reserves the authority to pay only for work properly performed and/or technically justified and will only pay rates in accordance with bid number IFB-30950-11/7/06-EMW. Further, SCDHEC reserves the right to question and/or reject costs if deemed unreasonable. The SCDHEC reserves the right to audit project records at any time during the project or after completion of the work. **The Additional Tier II Assessment Report (2 hardcopies and 1 electronic copy) and invoice should be submitted within 60 days from the date of this correspondence.**

Cost agreement number 31590 has been approved in the amount shown on the enclosed cost agreement spreadsheet conduct six soil five foot borings in the source area, install up to three shallow monitoring wells in the vicinity of monitoring wells MW-7 and MW-8 (to define the horizontal extent of the plume,) install two deep monitoring wells (one deep well should be adjacent to monitoring well DW-1 and one deep well should be installed adjacent to MW-8) and sample all of the monitoring wells at the referenced site. Consultech Environmental, Inc., can submit an invoice for direct billing from the State Underground Petroleum Environmental Response Bank (SUPERB) Account once the plume is defined. The report preparation fee will not be reimbursed if the locations of all water supply wells within 1,000 feet of the facility are not documented on the Site Location Map (Figure 1) and all water supply wells and surface water bodies within 500 feet of the facility are not documented on the Site Plan Map (Figure 2). If the new shallow wells do not bracket the water table and deep wells are not installed between the source area and private wells, the SUPERB Account will not pay mobilization and well footage costs for the deficient monitoring wells. If the plume is not defined both vertically and horizontally, Consultech will not be reimbursed for additional equipment mobilizations after this scope of work. Future invoices and/or other criteria included therein must comply with current SUPERB criteria per Section 44-2-20(2). Please reference cost agreement number 31590 on all pertinent invoices and correspondence. Please note that Sections 44-2-110(4) and 44-2-130(B) of the SUPERB Statute state that no costs will be allowed (considered for payment) unless prior approval from the Department is obtained. If for any reason there is a change in this cost agreement, any associated changes must be pre-approved by this Department in order for Consultech Environmental, Inc. to seek future cost compensation.

UST DOCKET

Please provide the following items in the final report:

- Revised potentiometric map (Figure 7) and data Table 1 using top of casing elevations. All associated text should also be revised. The slug test data and associated calculations should be reviewed with respect to groundwater elevations and all necessary changes should be made.
- Narrative summary of all activities conducted by Consultech to date plus this scope of work for the release.
- Revised geological cross section for these additional shallow and deep monitoring wells.
- Revised table and figures that include previous data plus data associated with the new assessment activities.
- Revised site map with the location of the on-site water supply well and the surface ditch with water in the vicinity of MW-5 and DW-3.
- Location of all active and previous USTs and ASTs within 1,000 feet of the facility and/or 500 feet from a downgradient well.
- Location on maps, address of each private well within 1,000 feet of the facility plus a table with the current name, address, and telephone number for each well owner.

A monitoring well approval has been enclosed for your records. Once screening results are completed, please coordinate with the UST Project Manager before permanent monitoring wells are installed. Please note that all applicable South Carolina certification requirements regarding laboratory analyses, well installation, and report preparation must be met.

The Department grants pre-approval for transportation of virgin petroleum impacted soil and groundwater from the referenced site to a permitted treatment facility. As required by the referenced bid, a roll off container will be used for disposal vs. drums of soil cuttings if more than fifteen (15) drums of cuttings are generated. There can be no spillage or leakage in transport. All investigative-derived water (IDW) must be properly contained and labeled prior to disposal. IDW should not be stored on-site longer than ninety (90) days. A copy of the disposal manifest and/or acceptance letter from the receiving facility that clearly designates the quantity received must be included as an appendix to the report. If the COC concentrations, based on laboratory analysis, are below Risk based Screening Levels (RBSLs), please contact the project manager for approval to dispose of soil and /or groundwater on site. The SUPERB Account will not reimburse for transportation or treatment of soil and /or groundwater with concentrations below RBSLs.

On all correspondence regarding this site, please reference the UST Permit # 04887. If you have questions concerning this correspondence, or would like to submit additional information, please contact me at (803) 896-6395, fax me at (803) 896-6245, or e-mail me at johnsoms@.dhec.sc.gov.

Sincerely,

Minda Johnson

Minda Johnson, Hydrogeologist
Assessment Section, Assessment & Corrective Action Division
Underground Storage Tank Program
Bureau of Land & Waste Management

enc: Approved Cost Agreement
Monitoring Well Approval

cc: Helen Smith, Rt 2 PO Box 814, Coosawhatchie, SC 29912-9702 (w/o enc.)
LaSonya Eady, Reginald Bascom and Everette Bascom, 194 Oak Hill Rd., Ridgeland, SC 29936 (w/o enc.)
Technical File (w/ enc.)

D H E C

PROMOTE PROTECT PROSPER

C. Earl Hunter, Commissioner

Promoting and protecting the health of the public and the environment.

Monitoring Well Installation Approval Form

Approval is hereby granted to: Consultech Environmental, Incorporated
Facility: Warren Green, 10773 W. Frontage Rd., Yemassee, SC
UST Permit Number: 04887
County: Jasper

This approval is for the installation of 12 (6 temporary, 3 shallow, 3 telescoping deep) monitoring wells. The monitoring wells are to be installed in the approved locations. Monitoring wells are to be installed following the South Carolina Well Standards, R.61-71, and all applicable guidance documents. Minimum 48 hour notification should be provided to the Project Manager prior to installation of monitoring wells.

Please note that R.61-71 requires the following:

1. All wells shall be drilled, constructed, and abandoned by a South Carolina certified well driller per R.61-71.D.1.

2. All monitoring wells shall be labeled as required by R.61-71.H.2.c.

3. A Water Well Record Form or other form provided or approved by the Department shall be completed and submitted to the Department within 30 days after well completion or abandonment unless another schedule has been approved by the Department. The form should contain the "as-built" construction details and all other information required by R.61-71.H.1.f

4. All analytical data and water levels obtained from each monitoring well shall be submitted to the Department within 30 days of receipt of laboratory results unless another schedule has been approved by the Department as required by R.61-71.H.1.d.

5. If any of the information provided to the Department changes, notification to Minda Johnson (tel: (803) 896-6395or e-mail: johnsoms@dhec.sc.gov) shall be provided a minimum of twenty-four (24) hours prior to well construction as required by R.61-71.H.1.a.

6. All temporary monitoring wells shall be abandoned within 5 days of borehole completion using appropriate methods as required by R.61-71.H.4.c. All other wells shall be properly developed per R.61-71.H.2.d.

7. Monitoring wells shall have Department approval prior to abandonment as required by R.61-71.H.1.a. A copy of this approval should be on the site during well installation.

Date of Issuance: January 17, 2008 **Approval #: UMW-21465**

Minda Johnson

Minda Johnson, Hydrogeologist
Assessment Section
Division of Assessment and Corrective Action
Bureau of Land and Waste Management

SCDHEC UST Management Tracking

BOTH billable and unbillable tanks

Site Information for N-04887 Facility: WARREN GREEN

Bus. Address 10773 W FRONTAGE RD
YEMASSEE SC 29945
Phone
County Jasper
District Beaufort EQC Office

Category Retail Sales
Last Inspection 09/10/01
Trans. of Ownership 05/09/02

Tank Owner LASONYA EADY REGINALD BASCOM & I
Bus. Address 194 OAK HILL RD
RIDGELAND SC 29936
Phone 843-726-9038

Operator
Bus. Address
Phone

Land Owner LASONYA EADY REGINALD BASCOM & I
Bus. Address 194 OAK HILL RD
RIDGELAND SC 29936
Phone 843-726-9038

Tanks 3 **Billable** 0 **Aband.** 0 **Other** 3

Compliance Operator(s) **ID** **Training Date**

Significant? N **Memo Date:** 02/24/01

Site Memo: According to Ms Smith, she inherited this site--I have asked i
district to visit to determine operational status--2-22-95-jek□
2-23-95- According to Jim Peurifoy, site is not operating and has i
not operated for many years--he will contact Ms Smith and try to i
guide her actions--jek□
8-10-95 SENT TO ENFORCEMENT FOR FEES AND TOU OVER 12 MONTHS. DMO□
01-02-96 I visited this site on 12-31-96. The dispensers have been i
removed. I was not able to get caps off fills to verify if anything i
was in the tanks. RSM□
11-02-00 / Mrs Smith stated in September and October conversations i
with Dept personnel (Reba and I) that she did not own this property i
and had never owned it. Based upon this information from Mrs Smith, i
I removed the site from the Worsley SEP for tank removal. Vijay i
Mishra subsequently received information (documentation and pictures i
in reg file) from Jasper County courthouse that Mrs Smith received i
the property from the estate of Warren Green in 1987. She was the i
executrix for Mr Green's estate. MKB.

Significant? N **Memo Date:** 09/17/01

Site Memo: Per Inspector Ruocco, at least one tank has product in it.

Significant? N **Memo Date:** 11/20/02

Site Memo: This facility is located on the North side of I-95 at exit 33 in Point South. The small brick building is in very deteriorated shape and overgrown with weeds.

Rel. No. 1	**Reported**	05/16/02	**Status**	Confirmed - Active	**Product**	Petroleum	**Compl Required**	Y
Active Tnks	**NFA**		**Fin. Type**	With SUPERB Co	**RBCA / Score**	2BB 38	**Compliance Met**	N
	Confirmed	05/28/02	**Emer. Resp.**		**Superb Qualified**		**Compliance Met Dt**	
	CU Init.		**Abate. Met**		**Superb Determ. Dt**		**Fin Res Mechanism**	
	CU Compl.		**Transferred**		**Project Manager**	JOHNSON, MINDA		

Site Information for N-04887 Facility: WARREN GREEN

CU > MCL		Source	UST	Responsible Party	SMITH, HELEN

Tank No. 1

Const.		Class	N	Tank Const. Mat.	SL	Pipe Const. Mat.	SL
Operate		T Status	RNU	Tank Protect.	CP	Pipe Protect.	CP
Notify	01/06/86	Capacity	3,000	Tank Cont. Meth.	SW	Pipe Cont. Meth.	SW
Variance		Product	GN	Overfill Type	Ver	Piping Type	
Compl.	09/10/01	C Status	OUT	Age @ Notif.	10	Dist. to Well	
Spill Det.		Left Gal.	0	Owner @ ABD		Last Use	04/01/82
Aband.		Method		CAS No.	Chem.		
Under Dispenser Cont.	N	Drop Tube	N	Tank Leak Det.		Pipe Leak Det.	

Tank No. 2

Const.		Class	N	Tank Const. Mat.	SL	Pipe Const. Mat.	SL
Operate		T Status	RNU	Tank Protect.	CP	Pipe Protect.	CP
Notify	01/06/86	Capacity	3,000	Tank Cont. Meth.	SW	Pipe Cont. Meth.	SW
Variance		Product	GN	Overfill Type	Ver	Piping Type	
Compl.	09/10/01	C Status	OUT	Age @ Notif.	10	Dist. to Well	
Spill Det.		Left Gal.	0	Owner @ ABD		Last Use	04/01/82
Aband.		Method		CAS No.	Chem.		
Under Dispenser Cont.	N	Drop Tube	N	Tank Leak Det.		Pipe Leak Det.	

Tank No. 3

Const.		Class	N	Tank Const. Mat.	SL	Pipe Const. Mat.	SL
Operate		T Status	RNU	Tank Protect.	CP	Pipe Protect.	CP
Notify	01/06/86	Capacity	2,000	Tank Cont. Meth.	SW	Pipe Cont. Meth.	SW
Variance		Product	GN	Overfill Type	Ver	Piping Type	
Compl.	09/10/01	C Status	OUT	Age @ Notif.	10	Dist. to Well	
Spill Det.		Left Gal.	0	Owner @ ABD		Last Use	04/01/82
Aband.		Method		CAS No.	Chem.		
Under Dispenser Cont.	N	Drop Tube	N	Tank Leak Det.		Pipe Leak Det.	

PERMISSION FORM

UNDERGROUND STORAGE TANK AND PROPERTY OWNER

UST Permit # 04887, Warren Green Grocery, Point South, South Carolina, Jasper County

If you are the owner of the former underground storage tanks and the property owner, please complete this form.

I, Helen Smith, certify that I am the legal owner of the underground storage tanks and property located at the facility identified below or serve as the authorized representative for the owner. I grant permission to the South Carolina Department of Health and Environmental Control (SCDHEC) to secure on my behalf contractor services to conduct abatement and/or assessment activities, and authorize SCDHEC, or a contractor selected by SCDHEC, to enter this property at reasonable times only to conduct abatement and/or assessment activities, as required. I understand that SCDHEC will be responsible for notifying me of all activities that are necessary prior to their initiation, and will provide to me a copy of the assessment report.

Name of Facility Warren Green Grocery Phone # None

Street Address of Facility I-95 & US 17

Town, City, District, Suburb Point South, SC, Jasper County

Name of nearest intersecting street, road, highway, alley

____

Is this facility within the city limits? (yes or no) no

Does a public water or sewer utility service this facility? (yes or no) yes, if no, please provide the name and phone number of a person that we can contact that can assist in the location of private water and septic tank lines ______________.

phone number ______________

Were underground storage tanks previously removed from the ground at this facility? (yes or no) no. If yes, please provide the name of a person we can contact that can assist in the location of the former underground storage tank excavation ______________

Phone number ______________

Is the property currently leased or rented to someone? (yes or no) no. If yes, please provide their name ______________ and phone number ______________ and let them know about the pending assessment activities. If vehicles or other mobile structures are parked over the former or existing underground storage tanks, they should be moved before SCDHEC's contractor gets to the site.

NAME of UST/property owner (Please Print): Helen R Smith

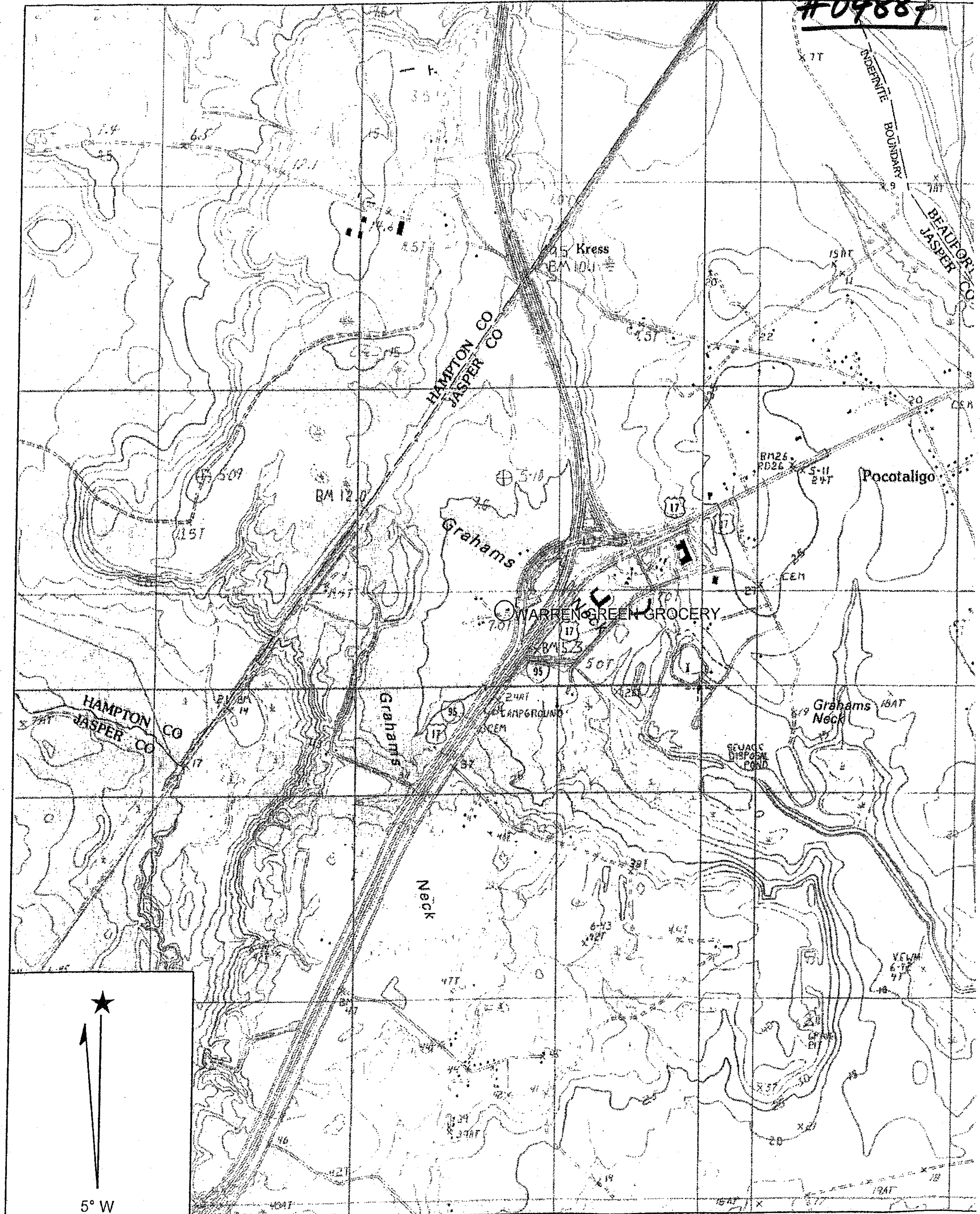
Phone Number (home) 843-726-8267 (work) None

Signature of UST/property Owner: Helen R. Smith

Witness: [signature]

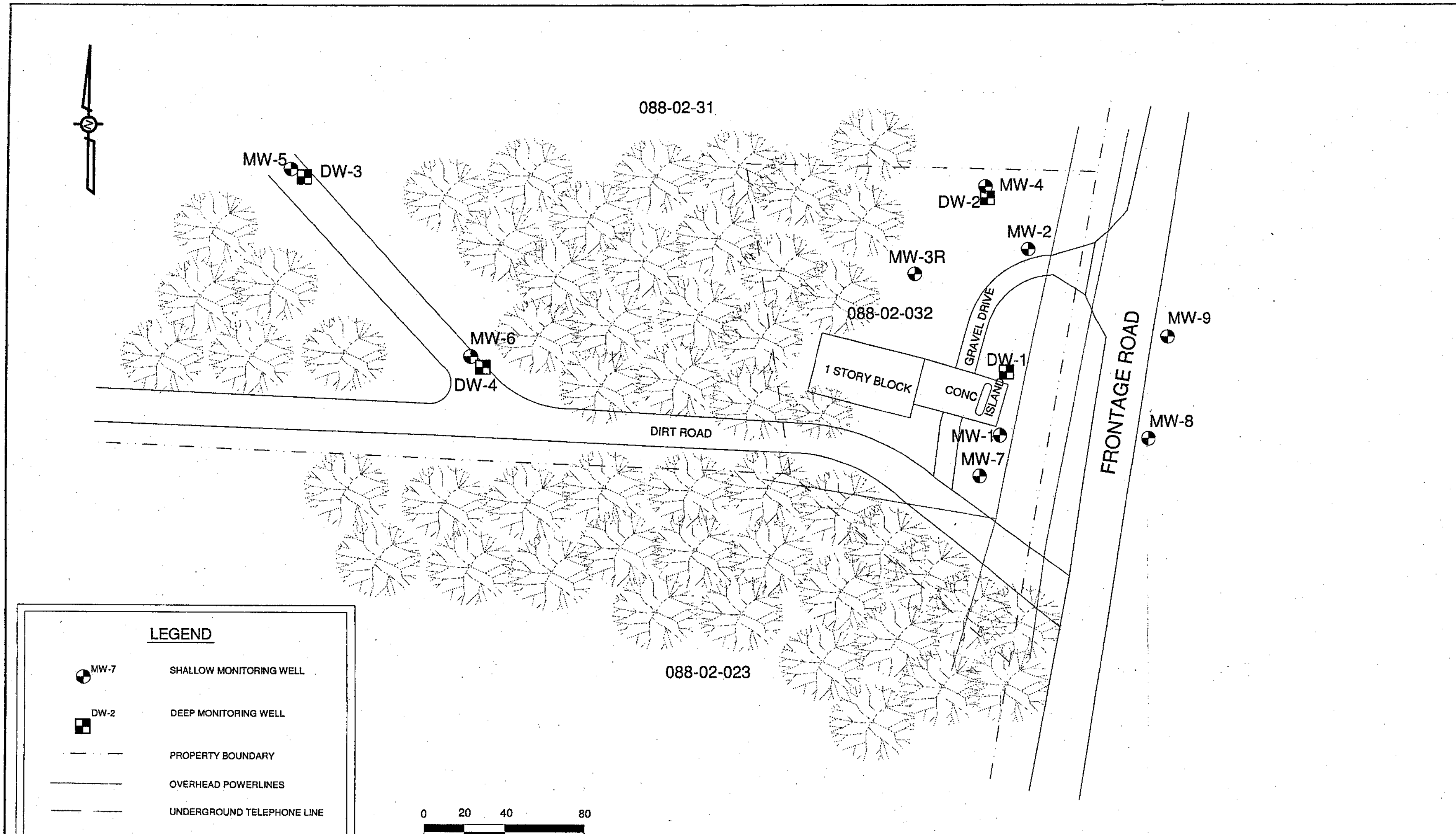
Date: 07 Month 06 Day 2002 Year

#04887



Name: MC PHERSONVILLE
Date: 3/17/103
Scale: 1 inch equals 2000 feet

Location: 032° 37' 42.2" N 080° 53' 08.5" W
Caption: SITE LOCATION MAP
Warren Green Grocery
Figure 1 UST Permit #04887



CONSULTECH ENVIRONMENTAL, LLC. Environmental Consulting and Engineering © 1999	DRAWN: CJH	DATE: 1/3/08	FIGURE 2 SITE PLAN MAP
	SITE ID # 04887		
	PROJECT: Warren Green		
	PROJECT No.: C-07-06-09		
	LOCATION: YEMASSEE, SOUTH CAROLINA		

F. Chemicals of Concern - Ground Water

Well Installation Information

Well No.	Installation Date	Development Date	Sampling Date
MW-1	02/25/03	02/25/03	02/25/03
MW-2	02/25/03	02/25/03	02/25/03
MW-3	02/25/03	02/25/03	02/25/03

Soil Analytical Data - Monitoring Wells

Soil samples were collected from SB-5 and SB-8 during the installation of MW-1 and MW-3, respectively. Please refer to the table containing soil analytical data for the results of analyses.

Summary of Monitoring Well and Ground Water Data (feet)

Well No.	TOC Elevation	Depth to Water	Water Table Elevation	Screened Interval
MW-1	100.00	6.71	93.29	3-13'
MW-2	100.94	8.06	92.88	4-14'
MW-3	100.97	8.20	92.77	3-13'

Dissolved Oxygen Measurements (mg/L)

	MW-1	MW-2	MW-3
Dissolved Oxygen	1.9	4.2	4.6

Ground Water Analytical Data[1]

COC	RBSL	MW-1	MW-2	MW-3	WSW-1	WSW-2
Free Product Thickness	---	---	---	---	---	---
Benzene	5	**178**[2]	<1.0[3]	<1.0	NS[4]	<1.0
Toluene	1,000	240	<1.0	1.6	NS	<1.0
Ethylbenzene	700	58.6	<1.0	<1.0	NS	<1.0
Xylenes	10,000	253	<1.0	1.7	NS	<1.0
Total BTEX	---	729.6	<4.0	3.3	NS	<4.0
MTBE	40	**71.0**	2.6	1.5	NS	<1.0
Naphthalene	25	<5.00	<5.00	<5.00	NS	<5.00
EDB	0.05	<0.02	<0.02	<0.02	NS	<0.02
Benzo(a)anthracene	10	<2.3	<2.2	<2.0	NS	NR[5]
Benzo(b)fluoranthene	10	<2.3	<2.2	<2.0	NS	NR
Benzo(k)fluoranthene	10	<2.3	<2.2	<2.0	NS	NR
Chrysene	10	<2.3	<2.2	<2.0	NS	NR
Dibenzo(a,h)anthrace	10	<2.3	<2.2	<2.0	NS	NR
Total Lead	15	**124**	**57.0**	**86.0**	NS	<3.0
Methane	---	<26	<26	<26	NS	NR
Nitrate	---	<0.100	0.150	<0.100	NS	NR
Sulfate	---	1.51	6.57	7.37	NS	NR
Ferrous Iron	---	9.700	4.410	6.750	NS	NR

Notes:
1. COC concentrations reported in μg/l; natural attenuation parameter concentrations reported in mg/l.
2. Concentrations in bold face type exceeded the RBSLs.
3. Less than the report limit specified in the analytical report.
4. Not sampled; well was not operating.
5. Analysis not requested.

Approved Cost Agreement 31590

Facility: 04887 WARREN GREEN
JOHNSOMS
PO Number:

Task / Description	Categories	Item	Description	Qty / Pct	Unit Price	Amount
04 MOB/DEMOB						
		A	EQUIPMENT	2.0000	150.00	300.00
		B	PERSONNEL	4.0000	50.00	200.00
06 SOIL BORINGS (DRILLED)						
		A	SOIL BORINGS & FLD SCREENING	190.0000	10.00	1,900.00
08 ABANDONMENT						
			ABANDONMENT	60.0000	6.00	360.00
09 WELL INSTALLATION						
		B	WATER TABLE (DRILLED)	60.0000	25.00	1,500.00
		C	TELESCOPING	100.0000	35.00	3,500.00
10 SAMPLE COLLECTION						
		A	GROUND WATER	9.0000	50.00	450.00
		C	WATER SUPPLY	4.0000	20.00	80.00
		D	GROUNDWATER NO-PURGE	9.0000	15.00	135.00
11 ANALYSES						
	GW GROUNDWATER	A	BTEX+NAPTH+MTBE	22.0000	35.00	770.00
		E	LEAD	18.0000	7.00	126.00
		F	EDB	22.0000	35.00	770.00
		K	NITRATE	5.0000	20.00	100.00
		L	SULFATE	5.0000	15.00	75.00
		M	FERROUS IRON	5.0000	10.00	50.00
		N	METHANE	5.0000	37.00	185.00
		P	8 OXYGENATES	5.0000	65.00	325.00
17 DISPOSAL						
		A1	WASTEWATER - PURGING/SAMPLING	5.0000	150.00	750.00
		C	SOIL (TREATMENT/DISPOSAL)	10.0000	175.00	1,750.00
19 RPT/PROJECT MNGT & COORDINATIO						
		PCT	PERCENT	0.0400	13,326.00	533.04
					Total Amount	13,859.04