INITIAL ASSESSMENT REPORT

with an

EXPANDED ASSESSMENT PROPOSAL

for

J.J.'s TEXACO
105 N. MAIN STREET
GASTON, S.C. 29053

GWPD# 05986

prepared by

UST PROGRAM
DOCKETING # 98 Tech

TERRA NOVA ENVIRONMENTAL, INC.
POST OFFICE BOX 7791
NORTH AUGUSTA, SC 29841

April 1, 1993

RECEIVED
APR 2 0 1993
Groundwater Protection
Division

TABLE OF CONTENTS

TERRA NOVA ENVIRONMENTAL, INC.

P.O. Box 7791
North Augusta, South Carolina 29841

March 29, 1993

Mr. William Turner
UST Regulatory Section
Ground-Water Protection Division
2600 Bull Street
Columbia, S.C. 29201

RE: Expanded Assessment Proposal

Dear Mr. Turner:

Enclosed please find the Initial Assessment Report for the J.J.'s Texaco site, GWPD# 05986.

The recent delay was due to interaction with the laboratory with respect to their unidentifiable or unquantifiable results for some of the samples. This is discussed in the Geology section.

An EAP is included in the Geology section, and a cost proposal in Exhibit D.

Thank you for your consideration.

Gary M. Iversen 4-9-93

Gary Iversen
Professional Geologist
Terra Nova Environmental, Inc.

Site History

On February 8, 1993 Terra Nova Environmental, Inc. conducted an Initial Site Assessment of the J.J. 's Texaco site, 105 N. Main St., Gaston, S.C. 29053, Lexington County, S.C.

Fourteen boreholes were drilled with respect to 7 UST's which has been excavated on or about November 15, 1991. The area was backfilled and paved over with concrete. A new UST facility was installed on the north side of the property 180' away from the old UST field.

Samples were obtained from each borehole and delivered to TMA/ Eberline, a SCDHEC certified laboratory (02002), for TPH and BTEX analysis.

This site was previously investigated by Allied Environmental, Inc. which has been reincorporated into Terra Nova Environmental, Inc. Past site investigation efforts were null and void due to the use of a laboratory not certified by SCDHEC for TPH/BTEX analyses.

This report should rectify past problems and allow for the approval of the EAP proposed within the Geology section.

Geology

J.J.'s Texaco, GWPD site NO.05986 is located at 105 Main Street, Gaston, SC. This is on the USGS Gaston, SC 7.5 minute quadrangle, Lexington County, SC. The site is on the northwest corner of the intersection of highways 321 and 65. The elevation at the site is approximately 494 feet.

The South Carolina Geological Survey (SCGS Open File Report No. 42, 1984) has mapped the underlying formation at the site as the Tertiary Upland Unit which is approximately 26 feet thick beneath the site. There is good stratigraphic control on the basis of nearby state borehole No. 32-85 0.3 miles to the south (see attached log) which encountered groundwater at 20 feet on July 7, 1984. This would be approaching the seasonally low watertable. Relative to bore hole No. 32-85 the site is 9 feet higher in elevation and therefore the low watertable might be encounterred at approximately 29 feet in depth and the high watertable somewhat shallower.

Underlying the Upland Unit is the Barnwell Group comprised of the Tobacco Road Sand (12' thick) and the Dry Branch Formation (8' thick).

The next underlying Middle Eocene Formation is undifferentiated by the SCGS but, in this area, is probably the Lower Middle Eocene Huber Formation.

In cross section A-A'of OFR #42 the SCGS indicates two Paleocene units beneath the Middle Eocene separating the Middle Eocene from the underlying Upper Cretaceous Sediments. One of the Paleocene units consists of the fullers earth and black clays which are characteristic of the Black Mingo Formation and should act as a confining unit separating the Tertiary Sand Acquifer which is comprised of the Barnwell Group and Huber Formations above, from the Cretaceous Middendorf Formation, below, which contains the primary regional acquifer the Middendorf Acquifer or A3a3.

The USDA Soil Conservation Service has mapped the soil at the site as Lakeland Soils, undulating (LaB). This soil is composed of unconsolidated sands with negligible clay content. As a result the permeability is rapid (6-20"/hr) and the available water capacity is very low (.03-.05 in/in of soil)

All known public supply wells in the area are placed at depths of 269-469 feet which places them within the Middendorf Acquifer. Yields are typically 75-250 gal/min depending on the well construction. As part of an EAP all wells in the area within 1/2 mile of the site would be located. Older wells for domestic use were probably placed within the shallower Tertiary Sand Acquifer and would have considerably lower yields.

On February 8 & 9, 1993 Terra Nova Environmental, Inc. drilled 14 bore holes at the site with respect to 7 old UST's which had been excavated and the area backfilled on the south side of the property. There is a new tank field of three new UST's now located to the north end of the same site which was not the object of Terra Nova's Initial Assessment.

One sample was taken at the bottom of each bore hole at depths of 4 to 19.5 feet, as appropriate, and all were delivered to TMA/Eberline, a SCDHEC certified laboratory, No. 02002, for TPH and BTEX analysis.

Four of the fourteen samples (5,6,9 & 10) indicate significant contamination at J.J.'s Texaco with respect to the old UST's and dispenser island. In borehole No. 10, at a depth of 14' beneath the old excavated kerosene tank, a TPH of 126 ppm as kerosene was reported. Borehole #9 on the opposite end of the kerosene tank also has significant BTEX values reported. The laboratory reported the presence of an unidentified hydrocarbon in hole #9 with respect to the TPH analysis. This is interpreted as either a breakdown product of one of the regular hydrocarbon fuels which in this case may have once been kerosene or the result of leakage from now excavated waste oil Tank "B" adjacent to Hole No. 9. The laboratory reports such results as non-detected because chromatogram peaks do not match the signatures of the usual TPH Components of gasoline, kerosene or diesel.

Hole No. 5 located at the end of the dispenser island has very significant BTEX values and also an unidentifiable hydrocarbon at 14 feet. Hole No. 6, 26 feet north of hole No. 5 reports BTEX Ethylbenzene and Xylene values.

The area between holes 9 & 10 and 5 & 6 was backfilled at the time the old tanks were removed. None of the Intial Assessment boreholes were placed in this area due to the clean backfill which had been emplaced and the fact that the contaminated area was paved over with concrete.

As an Expanded Assessment Proposal it is proposed here that 20 holes be drilled at the site to further define the lateral and vertical extent of the contamination.

The holes should go to forty feet. The water table may be encountered at depths as shallow as 20-30 feet. State bore hole 32-85 encountered the saturated zone at an elevation of 475-480' 3 mi. south of the site which at the site would mean an equivalent depth of 24-29 feet.

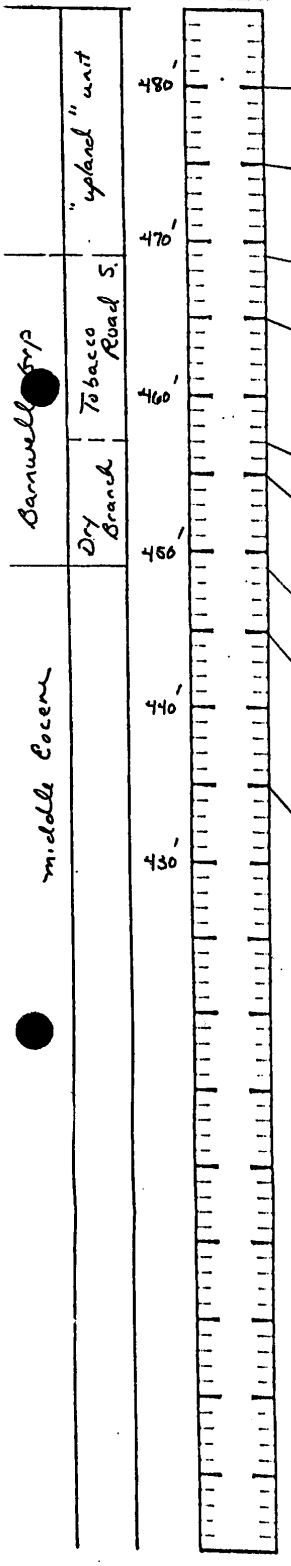
DRILL HOLE LOG —

Drill Hole: Lexington Co. # 85 Date: July 6, 1984 Total Depth: 50 ft.

Location: NW ¼ Gaston 7½' quad; .3 mi. S 54 E of center of town of Gaston (intersection US 321 and Co road 65), in roadbed of dirtroad (Indiana Dr.) alongside open field.

Collar Elevation: 485 ft. (by contours) Logged by: Lou Kite

Drilled by: Gary Taylor
Andy Timmerman
Lou Kite



Description

0 - 5' Loose sand grading down to clayey residuum of fine to coarse sand, micaceous, yellow-orange color.

5'-10' Sandy silty clay, sand is fine to very coarse, with small granules, bimodal; micaceous; compacted on rods; orange, yellow, maroon and white swirled together.

10'-16' Clayey sand, very coarse and small granules, subrounded grains to subangular; one or two small pebbles; very damp and solt; red orange down to orange yellow.

16'-20' Clayey sand, fine to coarse, very coarse, to mostly fine, well sorted; micaceous; some swirls of purple clay, otherwise mostly orange yellow; is mixed with above segment over small interval.

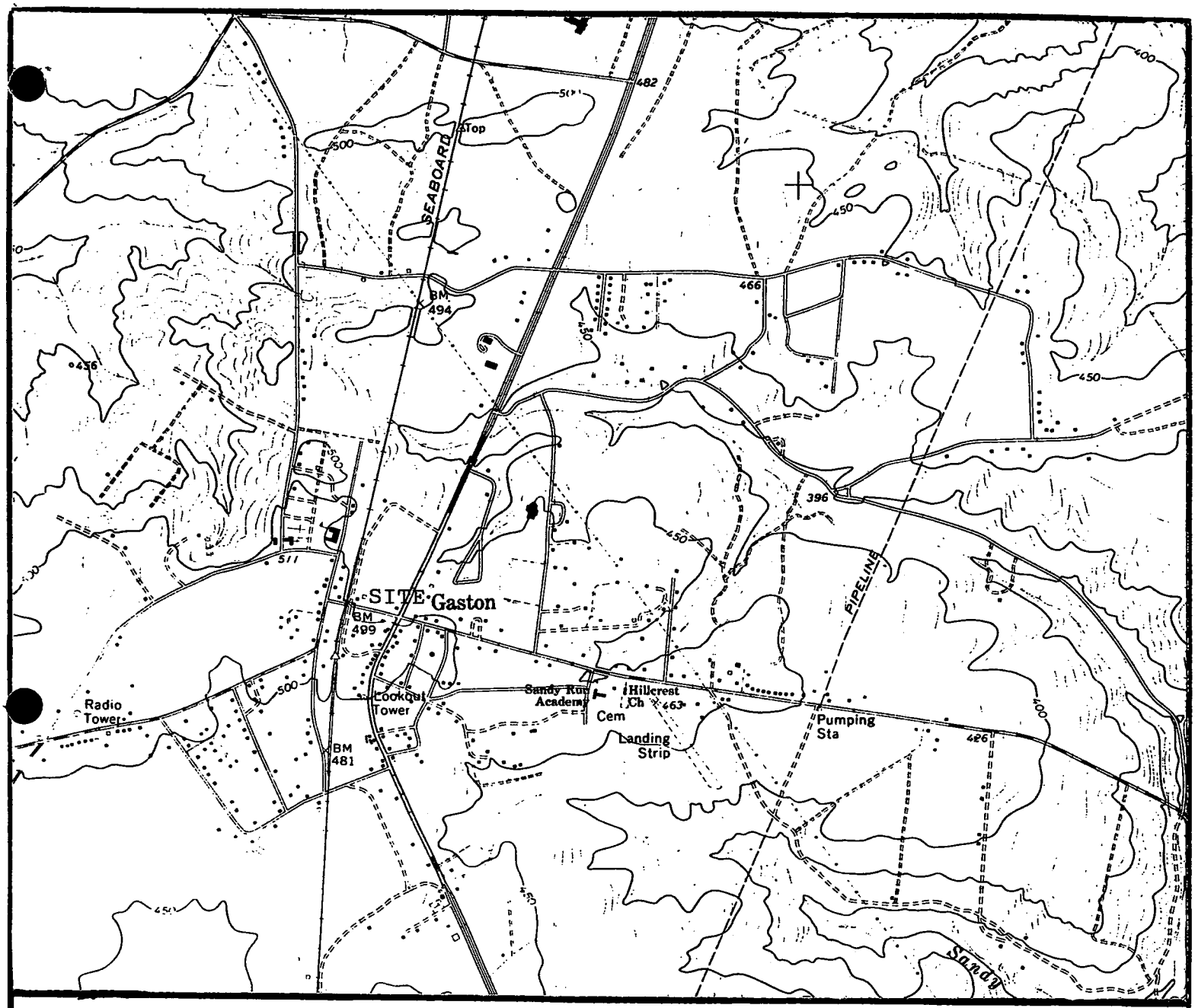
20'-28' Fining upward clayey sand; from mostly very fine sand, silt and micaceous clay, down to fine to very coarse, poorly sorted, with at least two rounded qtz pebbles; dull yellow color; wet, easily compacted.

28'-30' Clayey sand, mostly fine to medium, is mixed with sand above on rod over ~1 ft. interval; abundant interstitial clay; yellow down to maroon-purple.

30'-36' Sand, fine to medium to coarse, moderately to poorly sorted; clay varies from some to abund.; easily friable; deep maroon and purple.

36'-40' Sand, coarse to very coare, granular, poorly sorted; subrounded grains; clayey at top becomes looser down rod; yellow with lavender down to mostly yellow-orange; wet.

40'-50' Sand, fine to medium to coarse, moderatly to poorly sorted; to fine, well sorted; overall coarsening upwards; scattered dark heavies; fairly loose, very little clay; off-white to white color; some sample lost from bottom rod.



SCALE 1:24 000

1 0 1 MILE

1000 0 1000 2000 3000 4000 5000 6000 7000 FEET

1 .5 0 1 KILOMETER

CONTOUR INTERVAL 10 FEET

REFERENCE:

USGS GASTON, SC
7 & 1/2 Minute quadrangle
Lexington Co., SC

(Figure 1)

N

TERRA NOVA ENVIRONMENTAL INC
NORTH AUGUSTA, SOUTH CAROLINA

SITE LOCATION MAP
J.J.'s Texaco
105 N. Main St.
Gaston, SC 29053

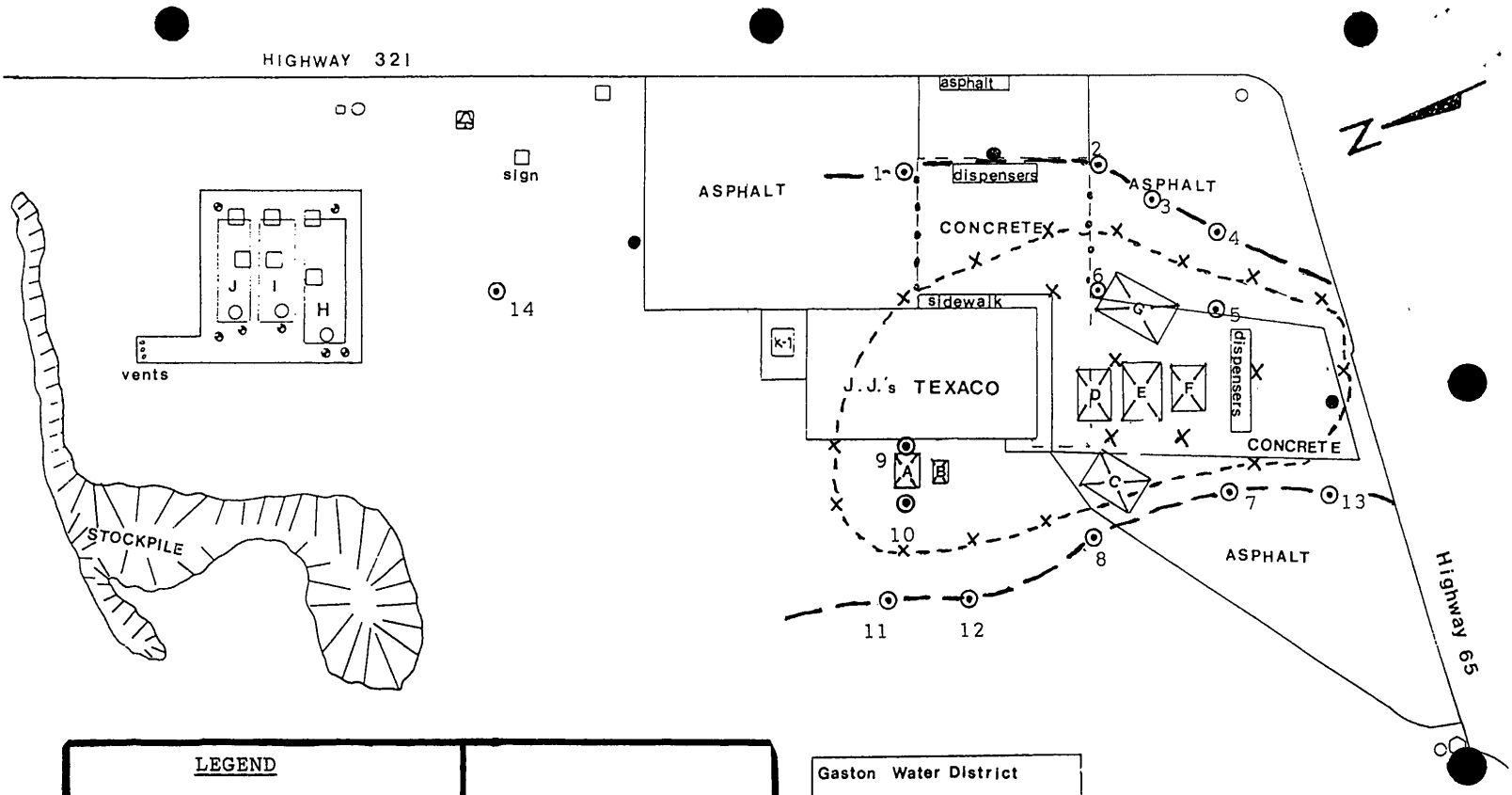
Project No. TN93013

GWPD# 05986

SITE MAP

A Site map is attached which shows the position of buildings, roadways, parking area, initial Phase I soil borings, UST positions, proposed drill hole locations.

A detailed site map will be compiled during expanded assessment proceedings. Essential site information will be run in by a South Carolina Certified Surveyor and all surveyor and all survey data referenced to a common datum point.



LEGEND

- Light Pole
- Power Pole
- Fire Hydrant
- Overhead Canopy
- Telephone
- Above Ground Tank (K-1)
- New U.S.T. (H)
- Old U.S.T. Site (A)
- Soil Boring
- Monitoring Well
- Non-Detect
- Contaminant Plume
- Proposed Borehole (EAP) X

TANK KEY

A-	Kerosene	1,000	gal.
B-	Waste Oil	550	gal.
C-	Unleaded	4,000	gal.
D-	Premium	3,000	gal.
E-	Plus	4,000	gal.
F-	Unleaded	3,000	gal.
G-	Unleaded	5,000	gal.
H-	Unleaded	10,000	gal.
I-	Premium	8,000	gal.
J-	Plus	8,000	gal.

Gaston Water District

TERRA NOVA ENVIRONMENTAL INC.

POST OFFICE BOX 7791

NORTH AUGUSTA S.C. 29841

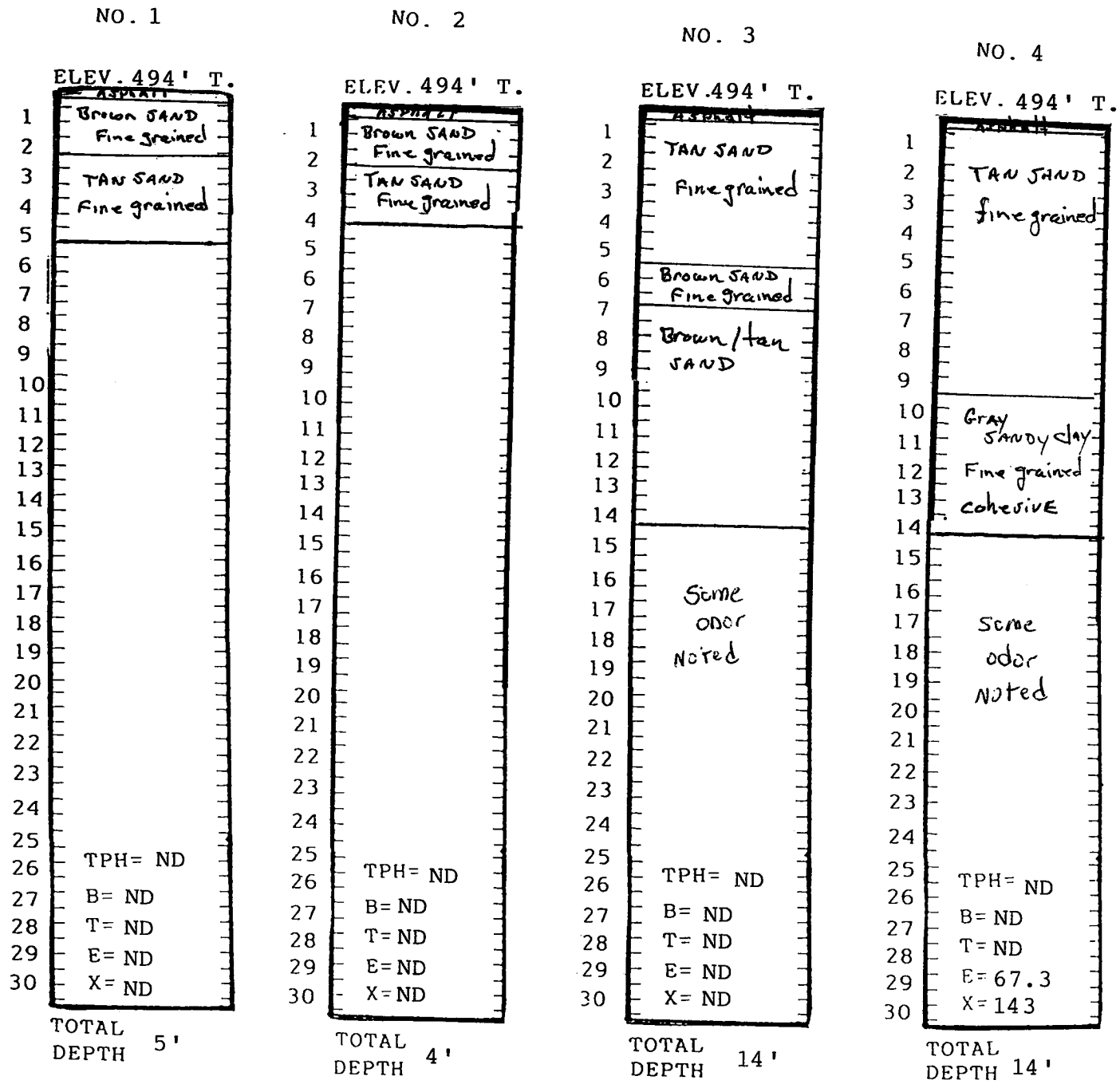
SCALE: 1 INCH = 30 FEET | DATE: 12-29-92

J. J.'s TEXACO
105 NORTH MAIN ST.
GASTON, SC 29053

JOB NO: TN93013 | GWPD NO: 05986

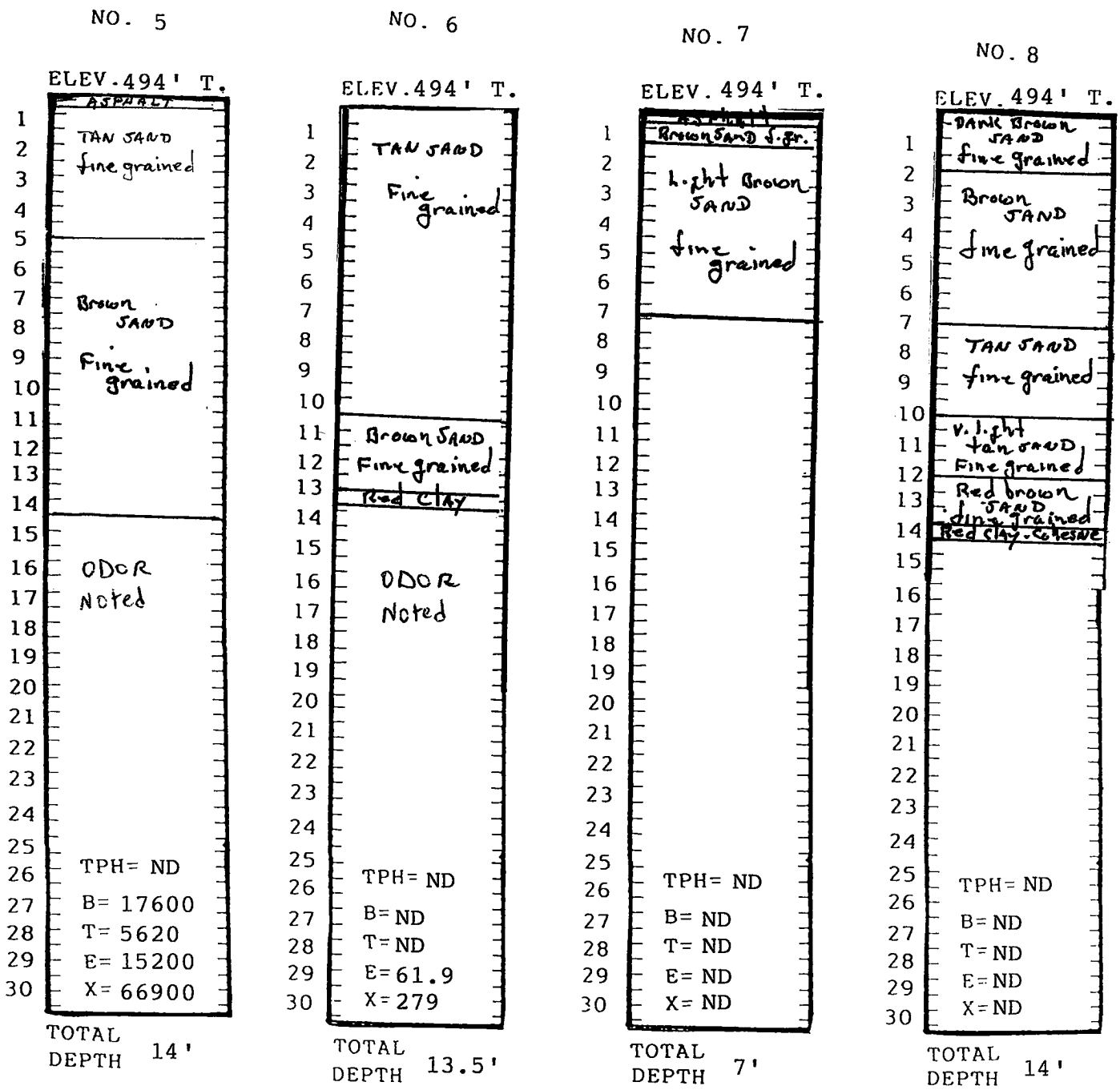
(figure- 2)

BORE HOLE PROFILE



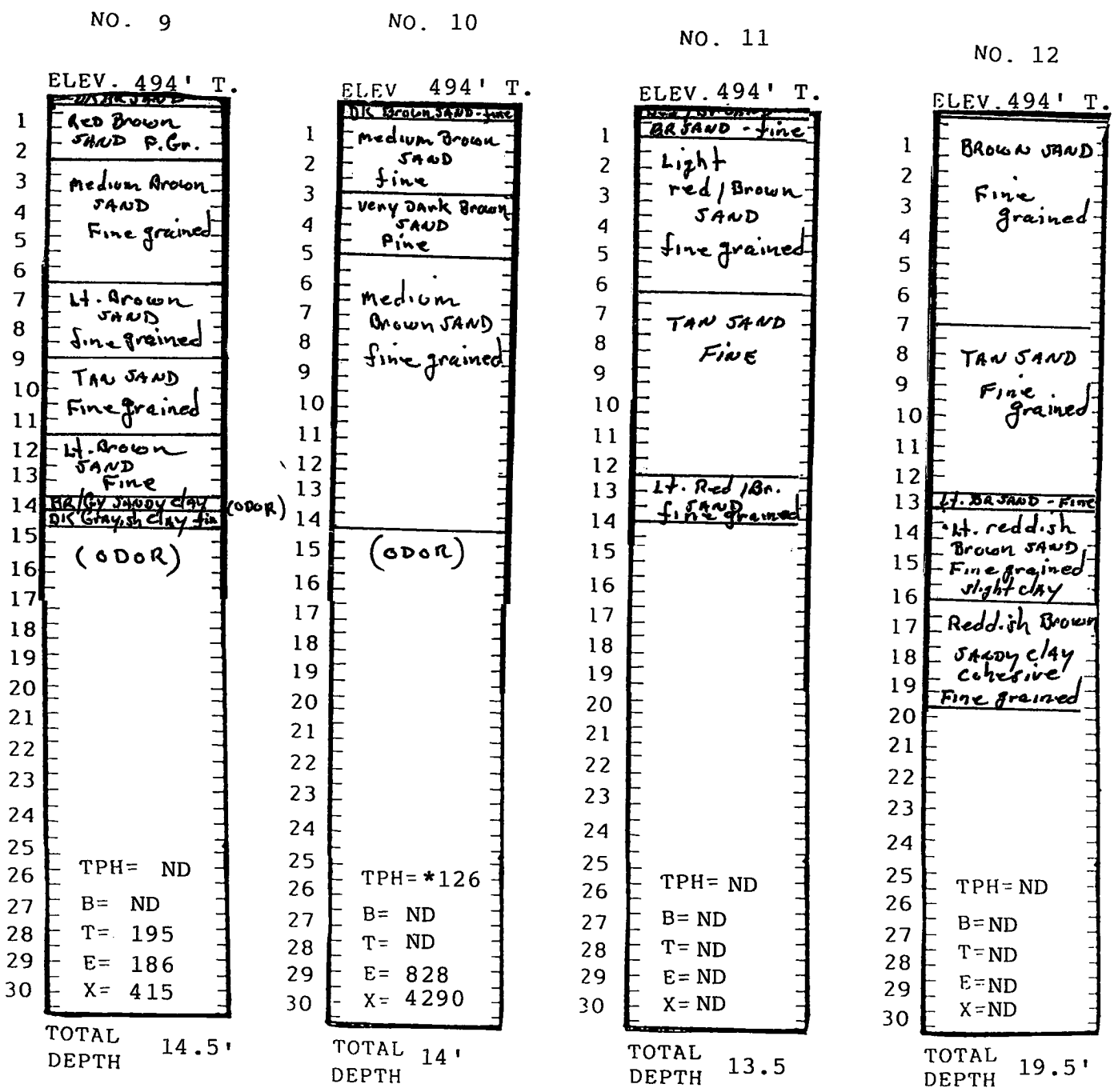
TERRA NOVA ENVIRONMENTAL INC. POST OFFICE BOX 7791 NORTH AUGUSTA S.C. 29841	
SCALE: 1 INCH = 5 FEET	DATE: March 9, 1993
LOCATION: J.J.'s Texaco 105 N. Main Street Gaston, S.C. 29053	
JOB NO: TN93013	GWPD NO: 05986

BORE HOLE PROFILE



TERRA NOVA ENVIRONMENTAL INC. POST OFFICE BOX 7791 NORTH AUGUSTA S.C. 29841	
SCALE: 1 INCH = 5 FEET	DATE: March 9, 1993
LOCATION: J.J.'s Texaco 105 N. Main Street Gaston, SC 29053	
JOB NO: TN93013	GWPD NO: 05986

BORE HOLE PROFILE



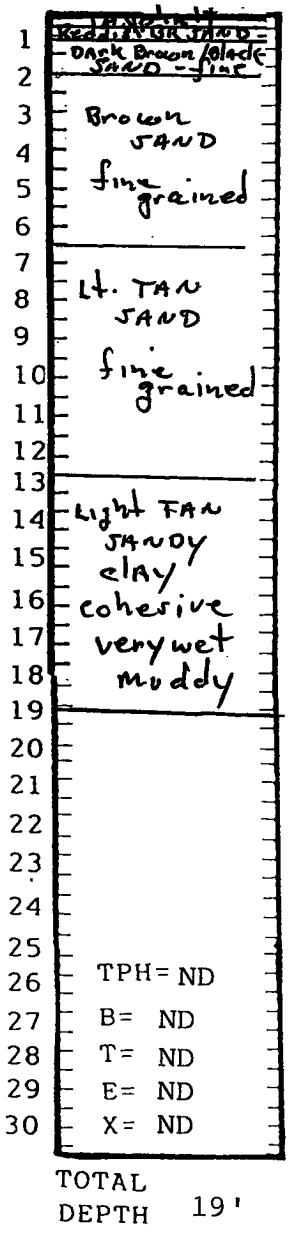
* as gasoline

TERRA NOVA ENVIRONMENTAL INC. POST OFFICE BOX 7791 NORTH AUGUSTA S.C. 29841	
SCALE: 1 INCH = 5 FEET	DATE: March 10, 1993
LOCATION: J.J.'s Texaco 105 N. Main Street Gaston, SC 29053	
JOB NO: TN93013	GWPD NO: 05986

BORE HOLE PROFILE

NO. 13

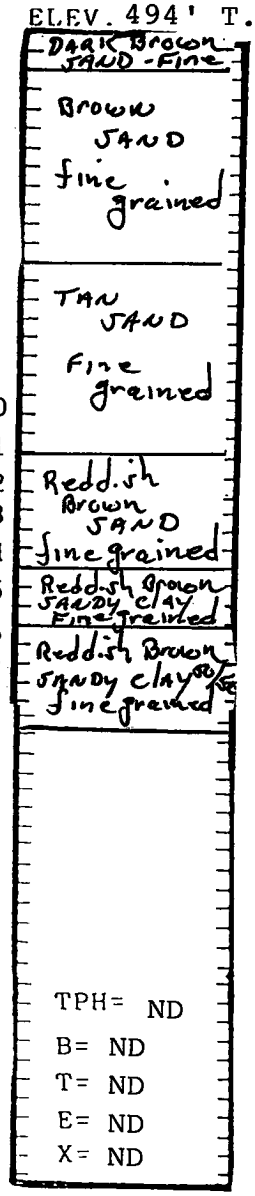
ELEV. 494' T.



TOTAL DEPTH 19'

NO. 14

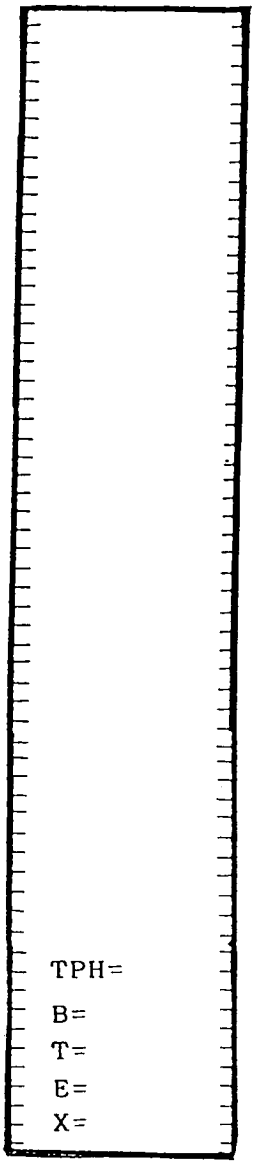
ELEV. 494' T.



TOTAL DEPTH 18.5'

NO.

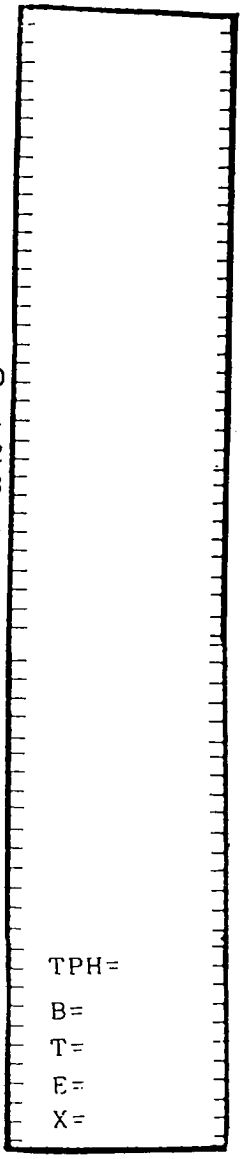
ELEV.



TOTAL DEPTH

NO.

ELEV.



TOTAL DEPTH

TERRA NOVA ENVIRONMENTAL INC. POST OFFICE BOX 7791 NORTH AUGUSTA S.C. 29841	
SCALE: 1 INCH = 5 FEET	DATE: March 10, 1993
LOCATION: J.J.'s Texaco 105 N. Main Street Gaston, SC 29053	
JOB NO: Tn93013	GWPD NO: 05986

TERRA NOVA ENVIRONMENTAL, INC.

P.O. Box 7791
North Augusta, South Carolina 29841

Boring Log Report

Client: _____ Job No.: 193013

Job Description: Drilling / Sampling Hole/Boring No.: # 1

Site / Location: JJ's TEXACO, 105 N. MAIN, GASTON, SC

Driller: John Moser / Steve Ellis Date: 2-8-93

Weather: Overcast / cool Surface Elev.: —

Hole Dia.: 2" Casing Left in Place: Yes ☐ No ☒

Casing Size: N/A Casing Length: —

Water Level: Yes ☐ No ☒ ⟷ Depth from Surface: —

Soil / Water Samples: Yes ☒ No ☐ ⟷ Depth from Surface: 5'

From	To	Soil Strata Description & Classification		Sampling Blows/Foot 1st 6"	2nd 6"	3rd 6"
0	4"	Asphalt				
4"	2'	Brown Sand / Fine gr-				
2'	5'	Tan Sand / Fine Gr-				
	5'	Sample taken at 1325 HRS				
		in-situ by Shelby Tube				
		Container # 043168				

Logged by: John Moser Date: 2-8-93

TERRA NOVA ENVIRONMENTAL, INC.

P.O. Box 7791
North Augusta, South Carolina 29841

Boring Log Report

Client: _____
Job Description: Soil Boring / Sampling
Site / Location: W's Texaco, 105 N. Main St, Easton, GA
Driller: Colin Mullins
Weather: Overcast / cool
Hole Dia.: 2"
Casing Size: N/A
Water Level: Yes ☐ No ☒ ←→ Depth from Surface: —
Soil / Water Samples: Yes ☒ No ☐ ←→ Depth from Surface: 4'

Job No.: TN 92013
Hole/Boring No.: #2
Date: 2-8-93
Surface Elev.: _____
Casing Left in Place: Yes ☐ No ☐
Casing Length: —

From	To	Soil Strata Description & Classification		Sampling Blows/Foot 1st 6"	2nd 6"	3rd 6"
0	4"	Asphalt				
4"	2'	Brown Sand - Fine Gr -				
2'	3½'	Tan Sand - Fine Gr -				
	4'	Sample taken at 1235 hrs in-site by Shelby Tube Container # 043169				

Logged by: John Moser Date: 2-8-93

TERRA NOVA ENVIRONMENTAL, INC.

P.O. Box 7791
North Augusta, South Carolina 29841

Boring Log Report

Client: _____ Job No.: TN 93013

Job Description: Soil Boring / Sample(s) Hole/Boring No.: # 3

Site / Location: J's Texaco, 105 No Main ST, Gaston SC

Driller: Colin Mullins Date: 2-8-93

Weather: Overcast / Cool Surface Elev.: —

Hole Dia.: 2.11 Casing Left in Place: Yes ☐ No ☒

Casing Size: N/A Casing Length: —

Water Level: Yes ☐ No ☒ ← → Depth from Surface: —

Soil / Water Samples: Yes ☒ No ☐ ← → Depth from Surface: 14'

From	To	Soil Strata Description & Classification		Sampling Blows/Foot 1st 6"	2nd 6"	3rd 6"
0	4"	Asphalt				
4"	5'	Tan Sand / Fine Gr -				
5'	6½'	Brown Sand / Fine Gr /				
6½'	13½'	Brown / Tan Sand Mix - Fine Gr -				
	14'	Sample taken at 1329 hrs @ on-site by Shelby Tube -				
		Some Odor -				

Logged by: John Moser Date: 2-8-93

TERRA NOVA ENVIRONMENTAL, INC.

P.O. Box 7791
North Augusta, South Carolina 29841

Boring Log Report

Client: _____
Job Description: Soil Boring / Sampling
Site / Location: JJ's TEXACO, 105 N. Main St. Gaston, SC
Driller: Colin Mullins / John Moser
Weather: Overcast / Cool
Hole Dia.: 2"
Casing Size: N/A
Water Level: Yes ☐ No ☒
Soil / Water Samples: Yes ☒ No ☐

Job No.: TN93013
Hole/Boring No.: ~~#~~ 4
Date: 2-8-93
Surface Elev.: —
Casing Left in Place: Yes ☐ No ☒
Casing Length: —
Depth from Surface: —
Depth from Surface: 14'

From	To	Soil Strata Description & Classification		Sampling Blows/Foot 1st 6"	2nd 6"	3rd 6"
0	4"	Asphalt				
4"	9'	Tan Sand - Fine Gr.				
9'	14'	Grey Sandy Clay - Fine Gr - Partially adhesive				
	14'	Sample taken at 1400 hrs				
		in-situ by Shelby Tube				
		- Some odor -				

Logged by: John Moser Date: 2-8-93

TERRA NOVA ENVIRONMENTAL, INC.

P.O. Box 7791
North Augusta, South Carolina 29841

Boring Log Report

Client: _____
Job Description: Soil Boring / Sampling
Site / Location: JJ's Texaco, 105 No Main St, Easton, SC
Driller: John Moser
Weather: Overcast / cool
Hole Dia.: 2"
Casing Size: N/A
Water Level: Yes ☐ No ☒ ←→ Depth from Surface: _____
Soil / Water Samples: Yes ☒ No ☐ ←→ Depth from Surface: 14'

Job No.: JN 93013
Hole/Boring No.: # 5
Date: 2-8-93
Surface Elev.: _____
Casing Left in Place: Yes ☐ No ☒
Casing Length: _____

From	To	Soil Strata Description & Classification		Sampling Blows/Foot 1st 6"	2nd 6"	3rd 6"
0	4"	Asphalt				
4"	4½'	Tan Sand / Fine Gr.				
4½'	14'	Brown Sand / Fine Gr.				
	14'	Sample taken at 1500 hrs in-site by Shelby Tube				
		- Odor -				

Logged by: John Moser Date: 2-8-93

TERRA NOVA ENVIRONMENTAL, INC.

P.O. Box 7791
North Augusta, South Carolina 29841

Boring Log Report

Client: _____
Job Description: Soil Boring / Sampling
Site / Location: J.J.'s TEXACO, 105 N. Main St, Easton, SC
Driller: John Moser / Colin Mullins
Weather: Overcast / Cool
Hole Dia.: 2"
Casing Size: N/A
Water Level: Yes ☐ No ☒ ←→ Depth from Surface: —
Soil / Water Samples: Yes ☒ No ☐ ←→ Depth from Surface: 13½'

Job No.: TN93013
Hole/Boring No.: #6
Date: 2-8-93
Surface Elev.: —
Casing Left in Place: Yes ☐ No ☒
Casing Length: —

From	To	Soil Strata Description & Classification		Sampling Blows/Foot 1st 6"	2nd 6"	3rd 6"
0	4"	Asphalt				
4"	11'	Tan Sand / Fine Gr-				
11'	13½'	Brown Sand / Fine G-				
13½'	14'	Red Clay -				
	13½'	Sample taken at 1550 hrs				
		Composite sample				
		~ Odor -				

Logged by: John Moser Date: 2-8-93

TERRA NOVA ENVIRONMENTAL, INC.

P.O. Box 7791
North Augusta, South Carolina 29841

Boring Log Report

Client: _____ Job No.: TN93013

Job Description: Soil Boring / Sampling Hole/Boring No.: #7

Site / Location: JJ's Texaco, 105 N. Main St. Gaston, SC

Driller: John Moser / Colin Mullins Date: 2-4-93

Weather: Overcast / cool Surface Elev.: —

Hole Dia.: 2" Casing Left in Place: Yes ☐ No ☒

Casing Size: N/A Casing Length: —

Water Level: Yes ☐ No ☒ ⟷ Depth from Surface: —

Soil / Water Samples: Yes ☐ No ☐ ⟷ Depth from Surface: _____

From	To	Soil Strata Description & Classification		Sampling Blows/Foot 1st 6"	2nd 6"	3rd 6"
0	2"	Asphalt				
2"	1'	Brown Sand / Fine Gr.				
1'	7'	LT Brown Sand / Fine Gr.				
7'		Struck buried asphalt — No Sample				

Logged by: John Moser Date: 2-8-93

TERRA NOVA ENVIRONMENTAL, INC.

P.O. Box 7791
North Augusta, South Carolina 29841

Boring Log Report

Client: _____
Job Description: Soil Boring / Sampling
Site / Location: JJ's TERRACE, 105 N. Main St, Gaston, SC
Driller: John Moser
Weather: Overcast / cool
Hole Dia.: 2"
Casing Size: DTA
Water Level: Yes ☐ No ☒ ⟷
Soil / Water Samples: Yes ☒ No ☐ ⟷

Job No.: TN93013
Hole/Boring No.: # 8
Date: 2-8-93
Surface Elev.: _____
Casing Left in Place: Yes ☐ No ☒
Casing Length: _____
Depth from Surface: _____
Depth from Surface: 13'

From	To	Soil Strata Description & Classification		Sampling Blows/Foot 1st 6"	2nd 6"	3rd 6"
0	2"	Asphalt.				
2"	10'	Brown Sand / Fine				
10'	12'	Tan Sand / Fine				
12'	13'	Tan Sandy Mud / Fine				
	13'	Sample taken at 1800 hrs				
		in-situ by Shelby Tube				
		Hit Rock @ 13'				

Logged by: _____ Date: _____

TERRA NOVA ENVIRONMENTAL, INC.

P.O. Box 7791
North Augusta, South Carolina 29841

Boring Log Report

Client: _____
Job Description: Soil Boring/Sampling
Site/Location: N's Towne 105 N Main St Gaston SC
Driller: John Maser
Weather: Overcast / Cool
Hole Dia.: 2"
Casing Size: N/A
Water Level: Yes ☐ No ☒
Soil/Water Samples: Yes ☒ No ☐

Job No.: TN 93013
Hole/Boring No.: # 8
Date: 2-8-93
Surface Elev.: —
Casing Left in Place: Yes ☐ No ☒
Casing Length: —
Depth from Surface: —
Depth from Surface: 14'

From	To	Soil Strata Description & Classification		Sampling Blows/Foot 1st 6"	2nd 6"	3rd 6"
0"	2'	DK Brown Sand-fine Gr.				
2'	7'	Brown Sand/fine Gr.				
7'	10'	Tan Sand/fine Gr.				
10'	12"	Very Light Tan Sand/fine Gr				
12"	13½"	Red Brown Sand/fine/				
13½"	14'	Red Clay – adhesive –				
		Sample Taken at 1400 hrs				
		in-situ by Shelby Tube				

Logged by: John Maser Date: 2-8-93

TERRA NOVA ENVIRONMENTAL, INC.

P.O. Box 7791
North Augusta, South Carolina 29841

Boring Log Report

Client: _____
Job Description: Soil Boring / Sampling
Site / Location: Jo's TEXACO 105 N. MAIN ST. Gaston, SC
Driller: John Moser / Steve Ellis
Weather: Overcast / cool
Hole Dia.: 2"
Casing Size: N/A
Water Level: Yes ☐ No ☒
Soil / Water Samples: Yes ☒ No ☐

Job No.: TN93013
Hole/Boring No.: # 9
Date: 2-9-93
Surface Elev.: —
Casing Left in Place: Yes ☐ No ☒
Casing Length: —
Depth from Surface: —
Depth from Surface: 14½'

From	To	Soil Strata Description & Classification		Sampling Blows/Foot 1st 6"	2nd 6"	3rd 6"
0	4"	DK Brown Sand / Fine				
4"	2'	Red Brown Sand / Fine -				
2'	6'	Med Brown Sand / Fine				
6'	8½'	LT. Brown Sand / Fine				
8½'	11'	Tan Sand / Fine				
11'	13'	LT Brown Sand / Fine				
13'	13½'	Brown Greyish Sandy Clay - Fine				
		Moist Sand - Odor				
13½'	14'	DK Greyish Clay - highly adhesive				
	14½'	Sample taken at 1015 hrs				
		in-site by Shelby Tube				

Logged by: John Moser Date: 2-9-93

TERRA NOVA ENVIRONMENTAL, INC.

P.O. Box 7791
North Augusta, South Carolina 29841

Boring Log Report

Client: _____
Job Description: Soil Boring/Sampling
Site / Location: J's TERRACE, 105 No MAIN ST, Gaston, SC
Driller: John Moser / Steve Ellis
Weather: Overcast / Cool
Hole Dia.: 2"
Casing Size: N/A
Water Level: Yes ☐ No ☒
Soil / Water Samples: Yes ☒ No ☐

Job No.: TN 93013
Hole/Boring No.: ~~#~~ 10
Date: 2-9-93
Surface Elev.: —
Casing Left in Place: Yes ☐ No ☒
Casing Length: —
Depth from Surface: —
Depth from Surface: 14

From	To	Soil Strata Description & Classification		Sampling Blows/Foot 1st 6"	2nd 6"	3rd 6"
0	6"	DK Brown Sand / Fine				
6"	3'	Med Brown Sand / Fine				
3'	5'	V. DK Brown Sand / Fine				
5'	14'	Med Brown Sand / Fine				
	14'	Sample taken at 1135 Hrs in-situ by Shelby Tube				
		— Odor				

Logged by: John Moser Date: 2-9-93

TERRA NOVA ENVIRONMENTAL, INC.

P.O. Box 7791
North Augusta, South Carolina 29841

Boring Log Report

Client: _____
Job Description: Soil Boring / Sampling
Site / Location: JJ's TEXACO, 105 No Main St, Gaston, SC
Driller: John Moser
Weather: Overcast / cool
Hole Dia.: 2"
Casing Size: N/A
Water Level: Yes ☐ No ☒ ←→ Depth from Surface: —
Soil / Water Samples: Yes ☒ No ☐ ←→ Depth from Surface: 14

Job No.: TN 93013
Hole/Boring No.: # 11
Date: 2-9-93
Surface Elev.: —
Casing Left in Place: Yes ☐ No ☒
Casing Length: —

From	To	Soil Strata Description & Classification		Sampling Blows/Foot 1st 6"	2nd 6"	3rd 6"
0	4"	Red/Br Sand with a trace of clay Med gr;		/		
4"	1'	Brown Sand / fine				
1'	6'	LT Red/Br Sand / fine				
6'	12'	Tan Sand / fine				
12'	13'6"	LT Red/Br Sand / fine				
	11	Sample taken at 1215 hrs				
		in-situ by Shelby Tube				
		Hole collapsed some —				

Logged by: John Moser Date: 2-9-93

TERRA NOVA ENVIRONMENTAL, INC.

P.O. Box 7791
North Augusta, South Carolina 29841

Boring Log Report

Client: _____
Job Description: Soil Boring / Sampling
Site / Location: Jay's TEXACO 105 De Main St, Gaston, SC
Driller: John Moser / Colin Mullins
Weather: Overcast / Cool
Hole Dia.: 2"
Casing Size: N/A
Water Level: Yes ☐ No ☒
Soil / Water Samples: Yes ☒ No ☐

Job No.: TN93013
Hole/Boring No.: #12
Date: 2-9-93
Surface Elev.: _____
Casing Left in Place: Yes ☐ No ☒
Casing Length: _____
Depth from Surface: _____
Depth from Surface: 19½'

From	To	Soil Strata Description & Classification		Sampling Blows/Foot 1st 6"	2nd 6"	3rd 6"
0	2"	Red Br Sand / Med Gr				
2"	7'	Brown Sand / Fine				
7'	12½'	Tan Sand / Fine.				
12½'	13'	Lt Brown Sand / Fine				
13'	16'	Lt Redish Brown Sand / Fine with a slight amount of Clay.				
16'	19'	Redish Brown Sandy Clay - adhesive - Fine Gr -				
	19½'	Sample taken at 1350 hrs in-situ by Shelby Tube				

Logged by: John Moser Date: 2-9-93

TERRA NOVA ENVIRONMENTAL, INC.

P.O. Box 7791
North Augusta, South Carolina 29841

Boring Log Report

Client: _____
Job Description: Soil Boring / Sampling
Site / Location: QQ's TEXACO, 105 N. Main St.
Driller: John Moser
Weather: P. Cloudy / mild -
Hole Dia.: 2"
Casing Size: N / A
Water Level: Yes ☐ No ☒ ←→ Depth from Surface: —
Soil / Water Samples: Yes ☒ No ☐ ←→ Depth from Surface: 19'

Job No.: IN93013
Hole/Boring No.: # 13
Date: 2-9-93
Surface Elev.: —
Casing Left in Place: Yes ☐ No ☒
Casing Length: —

From	To	Soil Strata Description & Classification		Sampling Blows/Foot 1st 6"	2nd 6"	3rd 6"
0	4"	Asphalt				
4"	7"	Redish Brown Sand / Fine				
7"	18"	DK Brown / Blk Sand / Fine				
18"	6'	Brown Sand / Fine				
6'	12'	LT Tan Sand / Fine				
12'	19'	LT tan Sandy Clay - Somewhat adhesive / Fine gr - Very Wet muddy -				
	19'	Sample taken at 1540 hrs in-situ by Shelby Tube				

Logged by: John Moser Date: 2-9-93

TERRA NOVA ENVIRONMENTAL, INC.

P.O. Box 7791
North Augusta, South Carolina 29841

Boring Log Report

Client: _____ **Job No.:** TN 93013

Job Description: Soil Boring / Sampling **Hole/Boring No.:** # 14

Site / Location: Jo's Texaco, 105 N. Main St, Gaston, SC

Driller: John Moser **Date:** 2-9-93

Weather: P. Cloudy **Surface Elev.:** —

Hole Dia.: 2" **Casing Left in Place:** Yes ☐ No ☒

Casing Size: N/A **Casing Length:** —

Water Level: Yes ☐ No ☒ ⟷ **Depth from Surface:** —

Soil / Water Samples: Yes ☒ No ☐ ⟷ **Depth from Surface:** _____

From	To	Soil Strata Description & Classification		Sampling Blows/Foot 1st 6"	2nd 6"	3rd 6"
0	1'	DK. Brown Sand / Fine				
1'	6'	Brown Sand / Fine				
6'	11'	Tan Sand / Fine				
11'	14'	Redish Brown Sand / Fine				
14'	15½'	Redish Brown Sandy Clay / Fine				
		Mostly Sand —				
15½'	14½'	Redish Brown Sandy Clay / Fine +				
		about ½ & ½ Clay & Sand —				
		Good Adhesion —				
		Sample taken at 1720 Hrs				
		in-situ by Shelby Tube				

Logged by: John Moser **Date:** 2-9-93

SUMMARY OF LABORATORY AND ANALYTICAL RESULTS

BOREHOLE NUMBER	DEPTH OF SAMPLE	T.P.H	B.	T.	E.	X.
1	5'	N/D	N/D	N/D	N/D	N/D
2	4'	N/D	N/D	N/D	N/D	N/D
3	14'	N/D	N/D	N/D	N/D	N/D
4	14'	N/D	N/D	N/D	67.3	143
5	14'	N/D**	17,600	5,620	15,200	66,900
6	13.5'	N/D	N/D	N/D	61.9	279
7	7'	N/D	N/D	N/D	N/D	N/D
8	14'	N/D	N/D	N/D	N/D	N/D
9	14.5'	N/D**	N/D	195	186	415
10	14'	126*	1640	N/D	828	4290

105.3 ppm BTEX

* 126 ppm as Kerosene
** Unidentified Hydrocarbon

ALL ANALYSIS BY TMA/EBERLINE LAB, SCDHEC CERTIFIED NO. 02002

water Table approx 10'

UNITS: T.P.H.: ppm DETECTION LIMIT: 5 ppm
B.T.E.X.: ppb DETECTION LIMIT: 1 ppb

TERRA NOVA ENVIRONMENTAL INC.

POST OFFICE BOX 7791

NORTH AUGUSTA S.C. 29841

LOCATION: Gaston, SC | DATE: 3-17-93

J.J.'s Texaco
105 North Main Street
Gaston, S.C. 29053

JOB NO: TN93013 | GWPD NO: 05986

SUMMARY OF LABORATORY AND ANALYTICAL RESULTS

BOREHOLE NUMBER	DEPTH OF SAMPLE	T.P.H	B.	T.	E.	X.
11	13.5'	N/D	N/D	N/D	N/D	N/D
12	19.5'	N/D	N/D	N/D	N/D	N/D
13	19'	N/D	N/D	N/D	N/D	N/D
14	18.5'	N/D	N/D	N/D	N/D	N/D

ALL ANALYSIS BY TMA/EBERLINE LAB, SCDHEC CERTIFIED NO. 02002

UNITS: T.P.H.: ppm DETECTION LIMIT: 5 ppm
B.T.E.X.: ppb DETECTION LIMIT: 1 ppb

TERRA NOVA ENVIRONMENTAL INC.

POST OFFICE BOX 7791

NORTH AUGUSTA S.C. 29841

LOCATION: Gaston, SC | DATE: 3-17-93

J.J.'s Texaco
105 North Main Street
Gaston, S.C. 29053

JOB NO: TN93013 | GWPD NO: 05986

Rapid Assessment Report
JJ's Texaco
Site ID #05986
Lexington County, South Carolina

October, 1997

Prepared By:
Marshall Miller & Associates
P.O. Box 848
Bluefield, Virginia 24605
MM&A Project #A89115

MARSHALL MILLER & ASSOCIATES

MARSHALL MILLER & ASSOCIATES

GEOLOGY
ENGINEERING
GEOPHYSICS

October 22, 1997

Mr. Scott McInnis, III, P.G.
South Carolina Department of Health and Environmental Control
2600 Bull Street
Columbia, South Carolina 29201

Re: Rapid Assessment Report
JJ's Texaco, Site ID #05986
Lexington County, South Carolina

Dear Mr. McInnis:

Please find enclosed the Rapid Assessment Report for the JJ's Texaco, Site ID #05986. The Rapid Assessment identified and delineated free phase hydrocarbons at the site. Results of the assessment indicates dissolved phase impact is not migrating towards any identified potential receptors (within 1,000 feet of the site). Fate and transport modeling results indicate plume attenuation within 1,000 feet. However, a public water supply well is located in close proximity to the site and should be monitored to afford early detection in the event of any impact from future vertical migration.

If you have any questions, please feel free to contact us.

Sincerely,
Marshall Miller & Associates

Gregory E. Tieman
Vice President

Ronald H. Mullennex, C.P.G., C.G.W.P.
Senior Vice President
South Carolina Registered
Professional Geologist No. 381

Charles E. Cline
Senior Project Hydrogeologist

lhr

Bluefield Virginia Industrial Park / P.O. Box 848 / Bluefield, VA 24605 / Tel 540.322.5467 / Fax 540.322.5460

TABLE OF CONTENTS

TABLE OF CONTENTS
(Continued)

APPENDIX I

TABLE OF CONTENTS
(Continued)

1.0 INTRODUCTION

1.1 Background

JJ's Texaco is a convenience store and service station located at the northwestern corner of U.S. Highway 321 and S.C. Highway 65 in Gaston, Lexington County, South Carolina. The site is depicted on the Gaston, South Carolina U.S. Geological Survey 7.5 minute topographic map (see *Vicinity Map, Map 1, Appendix I*). A petroleum hydrocarbon release was reported to the South Carolina Department of Health and Environmental Control (DHEC) at the site in April 1993, by Terra Nova Environmental, Inc., based on their initial assessment investigation. Terra Nova Environmental, Inc. identified the source of the release as an old underground storage tank (UST) system that that had been removed from the site and had been upgraded with a new system installed in a different portion of the site. The old system was reported to consist of seven USTs that had been located on the southern end of the property adjacent to S.C. Highway 65. The specifications of these USTs were as follows:

- 1-550 gallon waste oil tank.
- 1-1000 gallon kerosene tank.
- 2-3000 gallon unleaded gasoline tanks.
- 2-4000 gallon unleaded gasoline tanks.
- 1-5000 gallon unleaded gasoline tanks.

In September 1997, Marshall Miller & Associates (MM&A) performed a Rapid Assessment to further assess the site, as directed by DHEC. This Rapid Assessment Report (RAR) describes the work activities performed by MM&A, which are as follows:

- Performed a potential receptor survey.
- Installed 18 soil borings and groundwater field screening points utilizing the Geoprobe® technology; identified as SB/FS-1 through SB/FS-18.

- Installed 12 permanent groundwater monitoring wells, MW-1 through MW-12. Two wells previously installed by Enviro-Test Services, Inc., were designated by MM&A as monitoring wells OMW-13 and OMW-14.

- Sampled nine of the 14 monitoring wells and one public water well (four of the remaining monitoring wells exhibited the presence of free product and were not sampled, the remaining well, MW-2, was dry). The samples were analyzed for benzene, toluene, ethylbenzene, and xylene (BTEX), methyl tertiary butyl ether (MTBE), and naphthalene. In addition, six of the wells were sampled and analyzed for lead and polynuclear aromatic hydrocarbons (PAH), and three of the wells were sampled and analyzed for ethylene dibromide (EDB).

- Delineated the lateral and vertical extent of contamination.

- Prepared both Tier I and Tier II Risk Evaluations for the site.

1.2 Regional Geology and Hydrogeology

The JJ's Texaco site is located within the Coastal Plain Province of South Carolina. As described in the "*Geology of the Carolinas*," published by the University of Tennessee Press in 1991, the unconsolidated sediments that are present at the surface are underlain by a veneer of shallow marine, silica-clastic unconsolidated sediments of Cretaceous and Cenozoic age. These sediments are themselves underlain be pre-Mesozoic crystalline rocks and tilted sedimentary rocks in buried Triassic and Jurassic age basins.

In general, the near-surface aquifer system within the Coastal Plain Province consists of fine to coarse sands containing silt and clay. Groundwater flow within the near-surface aquifer system typically follows topography. Local groundwater flow typically is to the northeast with discharge to springs, ponds, or tributaries. The regional groundwater flow is to the southeast towards the Saluda River.

1.3 Receptor Survey Results

MM&A identified potential receptors within 1,000 feet of the site, which are depicted on the *Potential Receptors Map, Map 2, Appendix I.* MM&A performed a potential receptor survey, which provided evidence of the following potential receptors:

- Underground utilities.
- Drainage structures.
- Potable water wells.
- Structures.

1.3.1 Underground Utilities

Underground utilities that were identified during the potential receptor survey include fiber optics, water, stormwater, septic field, and telephone lines. The locations of these utilities are as follows:

- A main water line is located on the north berm of SC Highway 65. This line is buried under US Highway 321, and also along the southeast side of US Highway 321.
- In addition to this water line, there is a fiber optics line and a stormwater line and drop inlet located on the southeast side of US Highway 321.
- An underground telephone line is located on the northwest side of US Highway 321. This line was also installed in SC Highway 65 to the south of JJ's Texaco.
- A septic tank and a septic drain field are located between JJ's Texaco and the Gaston Rural Community Water District water well.

Based on the probable shallow depth of burial and the depth to groundwater at the site, which ranges from approximately 33 to 51 feet below ground surface, it does not appear that these underground utilities are in direct contact with contaminated subsurface

soil or groundwater. Therefore, these utilities do not appear to represent potential migration pathways.

1.3.2 Drainage Structures

The only drainage structure that was identified within 1,000 feet of the site was the stormwater line and drop inlet discussed in Section 1.3.1. No other surface water structures or features were identified within 1,000 feet of the site during the potential receptor survey. The drop inlet was field screened with a photoionization detector (PID), and no elevated concentrations of volatile organic compounds (VOCs) were detected.

Based on the depth to groundwater and the apparent lack of drainage features, it does not appear that drainage features are in direct contact with contaminated subsurface soil or groundwater. Therefore, these features do not appear to represent potential migration pathways.

1.3.3 Potable Water Wells

One potable water supply well was identified within 1,000 feet of the site during the potential receptor survey. This Gaston Rural Community Water District water well is located approximately 75 feet to the west of JJ's Texaco and has a total reported depth of 326 feet. The screened interval is 30 feet in thickness, from 296 feet to 326 feet. Based on the groundwater flow direction, this well is located upgradient of JJ's Texaco. No Chemicals of Concern (COC) were detected in a water sample collected from the well by MM&A on September 4, 1997. There was no indication of any other potable water wells located within 1,000 feet of JJ's Texaco.

Based on the direction of groundwater flow, and no evidence for potable water wells located downgradient of JJ's Texaco, it does not appear that potable water wells are potential receptors within 1,000 feet of the site. Therefore, potable water wells do not appear to represent potential migration pathways.

1.3.4 Structures

As discussed in the Tier I and Tier II Risk Evaluation (see Section 8.0), the potential exists for both groundwater-vapor intrusion from groundwater, and from subsurface soil-vapor intrusion of benzene from soil into buildings (based on a cancer risk of 1.0×10^{-6}). Therefore, buildings or structures that could be characterized as confined spaces (basements, well insulated buildings, etc.) could represent potential receptors.

1.4 Site Location Maps

A site location map identifying the relevant portion of the Gaston, South Carolina U.S. Geological Survey 7.5 minute topographic map, which depicts the location of the site, is located in *Appendix I, Map 1, Vicinity Map*. The locations of the potential receptors are depicted on *the Potential Receptors Map, Map 2, Appendix 1*. The location of JJ's Texaco, structures, roads, and adjacent property uses are also depicted on *The Potential Receptors Map*.

2.0 ASSESSMENT INFORMATION

2.1 Site Specific Geology and Hydrogeology

The site specific geology and hydrogeology of the JJ's Texaco site were described in the Initial Assessment Report (IAR), prepared by Terra Nova Environmental, Inc., dated April 1,1993. The IAR discussion is reproduced in full, as follows:

> "The South Carolina Geological Survey (SCGS Open File Report No. 42, 1984) has mapped the under lying formation at the site as the Tertiary Upland Unit which is approximately 26 feet thick beneath the site." "Underlying the Upland Unit is the Barnwell Group comprised of the Tobacco Road Sand (12' thick) and the Dry Branch Formation (8' thick). The next underlying Middle Eocene Formation is undifferentiated by the SCGS but, in this area, it is probably the Lower Middle Eocene Huber Formation.
>
> In the cross-section A-A' of OFR #42 the SCGS indicates two Paleocene units beneath the Middle Eocene separating the Middle Eocene from the underlying Upper Cretaceous Sediments. One of the Paleocene units consists of the fullers earth and black clays which are characteristic of the Black Mingo Formation and should act as a confining unit separating the Tertiary Sand Aquifer which is comprised of the Barnwell Group and Huber Formations above, from the Cretaceous Middendorf formation, below, which contains the primary regional aquifer the Middendorf Aquifer or A3a3.
>
> All known Public supply wells in the area are placed at depths of 269-469 feet which places them within the Middendorf Aquifer."

Based on the lithologic descriptions prepared by MM&A for the 18 soil boring and field screening points, the site specific geology and hydrogeology at the site are as follows:

- The upper lithology consists of a fine to medium grained, sandy clay, with alternating layers of unconsolidated sand and clay lenses to a depth of approximately 30 feet below ground surface where some iron staining is observed. Based on a sieve analysis, 82% of the sample passed the No. 200 sieve (82% of the soil particles are silt and clay sized).

- At a depth of approximately 30 feet below ground surface, the lithology changes slightly to a coarser grained sand, which becomes saturated at a depth of approximately 33 to 51 feet below ground surface.

2.2 Potentiometric Surface

The depth to groundwater was measured in all 14 permanent groundwater monitoring wells at the site on September 25, 1997, and the data are illustrated on the *Potentiometric Surface Map, Map 4, Appendix I.* The potentiometric data for these wells are summarized in Table 1. The depth to groundwater ranged from 32.73 feet to 50.98 feet below ground surface. Based on these contours, the calculated hydraulic gradient is approximately 0.06 feet per feet (6.0) % to the northeast.

Table 1
Potentiometric Data
JJ's Texaco
September 25, 1997

Monitoring Well ID	Static Water Level from TOC	TOC Elevation	Groundwater Elevation
MW-1	34.55	99.82	65.27
MW-2*	Dry		
MW-3	34.06	95.88	61.80**
MW-4	37.90	91.62	53.72
MW-5	40.25	88.30	48.05
MW-6	34.77	99.23	64.46
MW-7	36.23	99.72	63.49
MW-8	40.10	93.01	52.91
MW-9	39.03	94.19	55.14**
MW-10	34.96	97.88	62.80**
MW-11	32.73	99.60	66.87
MW-12	50.98	89.18	38.20
MW-13	31.97	99.35	***
MW-14	35.76	98.94	***

* *Type III monitoring well, screen installed in a deeper stratigraphic horizon.*
** *Adjusted static water level, based on free product density of 0.729.*
*** *Static water level measured on 9-4-97. Not applicable to static water levels measured on 9-25-97.*

3.0 FIELD ASSESSMENT METHODOLOGY

3.1 Soil Boring and Field Screening Points Installation and Sampling

MM&A installed 18 soil borings and groundwater field screening points (SB/FS-1 through SB/FS-18) to a maximum depth of 44 feet below ground surface utilizing direct push technology (Geoprobe®). The locations of these points are indicated on the map *Soil Boring/Field Screening Monitor Well Locations Map, Map 3, Appendix I.* The groundwater field screening samples were collected using a two-inch diameter stainless steel groundwater sampling device advanced ahead of the probe. The soil samples were collected utilizing a macro-coring device consisting of a two-inch diameter decontaminated stainless steel barrel with expendable acetate liners. Continuous cores were collected following penetration of the asphalt and concrete to obtain lithologic descriptions (see *Appendix II*).

All field screening samples were evaluated for indications of petroleum staining and/or odors, and lithologically logged using the ASTM D2488-84, Standard Practices for Description and Identification of Soils (Visual-Manual Procedures). Each field screening point was advanced to assess the extent of the contamination in the upper unconfined aquifer.

A portion of the field screening soil sample was geologically logged at the site by a geologist, placed into laboratory supplied glassware following QA/QC protocols, and then placed into a cooler with ice and Chain-of-Custody forms for shipment to the approved analytical laboratory. A second portion of the field screening soil sample was placed into a Zip-Lock ® type bag, broken apart, and placed in the sun for approximately 15 minutes. After approximately 15 minutes, the head space of each soil sample was screened for the presence of VOCs with a PID. The PID was calibrated daily with 100 parts per million (ppm) isobutylene and air. All PID readings and field observations were recorded (see *Table 4, Field Screening Analytical Results*).

The groundwater field screenings samples were collected using a four foot long Geoprobe® stainless steel groundwater sampling device or through a one inch diameter temporary monitoring well, and single use, 0.5 inch diameter polyethylene tubing with a decontaminated stainless steel check valve. The groundwater samples were collected in a Zip-Lock® type bag and the head space of each sample was screened within two minutes of collection for the presence of VOCs with a PID.

All drilling and sampling equipment was steam cleaned and/or cleaned with an industrial grade detergent (Alconox®) prior to use at each of the soil boring locations to minimize the potential for cross-boring contamination, and between each sampling interval. *Table 2* identifies the total depth of each soil boring and field screening point.

Table 2
Soil Boring/Field Screening Total Depth
JJ's Texaco
September 1997

Soil Boring (SB)	Total Depth (ft)
SB/FS-1	40
SB/FS –2	36
SB/FS –3	40
SB/FS –4	32
SB/FS –5	36
SB/FS –6	36
SB/FS –7	36
SB/FS –8	36
SB/FS –9	36
SB/FS –10	36
SB/FS –11	36
SB/FS –12	36
SB/FS –13	36
SB/FS –14	44
SB/FS –15	36
SB/FS –16	36
SB/FS –17	36
SB/FS –18	36
Total Soil Boring Footage	**660.0**

3.2 Monitoring Well Installation

Twelve permanent groundwater monitoring wells were installed per the June 2, 1985 South Carolina Well Standards and Regulations, with a drill rig equipped with 6.25 inch inside diameter hollow stem augers. The wells were installed under the supervision

of a South Carolina Certified Well Driller No. 1152, American Environmental Drilling Service, Inc. Monitoring well construction details are provided in this report in *Appendix III.*

Monitoring wells MW-1, and MW-3 through MW-11 were installed by MM&A down to a typical depth of 40 to 44 feet below ground surface; however, MW-11 was installed by MM&A down to a depth of 50 feet below ground surface. Monitoring wells OMW-13 and OMW-14 had been installed by Enviro-Test Services on September 19, 1996 as part of an Initial Ground Water Assessment performed at the site. The 12 wells installed under MM&A's supervision were constructed using two inch diameter, flush-threaded, PVC well casings and 20 feet long 0.010 inch slot screens.

After a PVC well casing and screen were installed in each borehole, a well sorted, medium-grained, silica sand was installed for the sand pack. The sand pack extended approximately 0.5 feet above the top of the well screen. Approximately one to two feet of bentonite was then placed in the borehole above the sandpack and hydrated. The remainder of the annuals was filled with cement grout, and a flush mounted steel protective casing was set in the grout to protect the PVC well head. To complete the well, a PVC cap was placed on the PVC well casing and locked.

One Type III monitoring well, MW-2, was installed to delineate the vertical extent of dissolved phase impacted groundwater. The outer casing of the Type III monitoring well was constructed using six inch diameter PVC casing, and was installed to a depth of 70 feet. The casing was then grouted into place. The following day, the boring was advanced an additional ten feet below the base of the six inch diameter casing. A five feet long, two inch diameter PVC riser pipe, and a five feet length of 0.010 inch slot well screen were installed from 70 to 80 feet below ground surface. MW-2 is screened from 75 to 80 feet below ground surface, with a filter pack extending five feet above the top of the screen. The effective screened interval; therefore, is from 70 to 80 feet below ground surface, and the total depth of MW-2 is 80 feet below ground

surface. The total depths of the groundwater monitoring wells are presented in *Table 3, Monitoring Well Total Depth.*

Table 3
Monitoring Well Total Depth
JJ's Texaco
September 1997

Monitoring Well Installation	Total Depth
MW-1	44
MW-2*	80
MW-3	42
MW-4	40
MW-5	40
MW-6	42
MW-7	42
MW-8	40
MW-9	44
MW-10	44
MW-11	42
MW-12	50

** Type III monitoring well*

3.3 Monitoring Well Sampling

The top of each monitoring well casing and the ground level elevation were surveyed relative to an arbitrary benchmark of 100 feet during a comprehensive site survey conducted by Arthur J. Weed, South Carolina Professional Surveyor Number 4193. The northern edge of each well casing was marked with a permanent indelible marker as a reference point. All potentiometric groundwater levels were measured in relation to this surveyed reference point. The depth to groundwater was measured to the nearest 0.01 feet using a decontaminated interface probe. The presence or absence of free product was confirmed by this probe.

The groundwater sampling data were recorded on water sampling forms (see *Appendix II*). These data include the name of the person conducting the measurement,

monitoring well number, date and time of measurement, well elevation, and depth to groundwater in the well.

After measuring the depth to groundwater, the wells were properly developed by evacuating a minimum of three well volumes or until pH, temperature, and specific conductivity measurements stabilized. As per MM&A's verbal approval from SCDHEC, all water generated from the wells during well development and sampling was treated on site using an activated carbon filter.

The groundwater samples were collected in a manner to minimize the potential to alter or to contaminate the sample during collection or introduction into the sample containers. Sample collection procedures and field measurements were conducted in accordance with accepted United States Environmental Protection Agency (USEPA), American Society of Testing and Materials (ASTM), and DHEC protocols. Sampling personnel wore new, laboratory-quality latex gloves during all sample collection activities; at a minimum, the gloves were replaced between each well. The filled sample containers, which were provided by the laboratory, were placed immediately into a clean sample cooler and covered with ice packs.

The samples remained in the custody of MM&A sampling personnel throughout the collection process. The samples were transported directly to the laboratory by an overnight courier service. This transaction is documented on the Chain-of-Custody Record (see *Appendix IV)*. Chain-of-Custody was maintained for all samples from the time of collection through the completion of the analyses.

4.0 HYDROGEOLOGIC PARAMETERS

4.1 Hydraulic Conductivity

The hydraulic conductivity (K) is the rate at which water can move through an aquifer, or porous medium (Fetter, 1980). An "average" hydraulic conductivity for the near-surface aquifer at the site has been estimated on the basis of performing slug tests on three monitoring wells: MW-1, MW-6, and MW-11. Each slug test was conducted by quickly removing a volume of water from each well, and measuring the rate of the recovery of the water level. The recovery data were plotted onto semi-log graph paper, and a best fit line was imposed on the graphs. The hydraulic conductivity (K) was calculated using the following formula (Hvorslev, 1951):

: $$K = \frac{r^2 \ln (R/L)}{2 L To}$$

K	=	hydraulic conductivity
ln	=	natural logarithm
*r	=	effective radius of screened interval
T_o	=	basis lag time
R	=	radius of well
L	=	length of saturated screened interval

*effective radius is based on average sand pack porosity of 40%

The slug test data are included are included in this report in *Appendix V*. The following K-values were calculated for each well.

MW-1	0.046 feet/day
MW-6	0.086 feet/day
MW-11	0.112 feet/day
Arithmetic average	0.081 feet/day

4.2 Hydraulic Gradient

The hydraulic gradient (i) is the difference in hydraulic head between two potentiometric lines, divided by the differences at right angles between the two potentiometric lines. The hydraulic gradient for the site was calculated to be approximately 0.06 feet per feet (6.0%) to the southeast (see *Potentiometric Surface Map, Map 4, Appendix I*).

4.3 Average Linear Velocity

The average linear velocity (V) of groundwater flow is the calculated rate of movement of groundwater. The average linear velocity equation utilizes the following parameters:

- Calculated value for the hydraulic conductivity (K), 0.081 feet per day.
- Calculated value for the hydraulic gradient (i), 0.06 feet per feet.
- Estimated effective porosity (N_e), 0.55 (55%).

The effective porosity for the unconsolidated, unconfined upper aquifer at the site was estimated based on the procedures outlined in the DHEC Risk-Based Corrective Action for Petroleum Releases (see *Appendix B, Figure 4*), and the grain size and hydrometer data (see *Appendix IV*). Based on these procedures and data, the effective porosity was estimated to be 0.55 (55%).

$$V = \frac{K}{N_e}(i)$$

V	=	average linear velocity (feet/day)
K	=	hydraulic conductivity (feet/day)
N_e	=	effective porosity
i	=	hydraulic gradient (feet/feet)

$$V = \frac{0.081\,\text{feet/day}}{0.55}(0.06\,\text{feet/feet})$$

$V = 0.00883$ feet/day, or 3.22 feet/year

The DHEC "Summary of Slug Test" data form, which summarizes the data for MW-1, MW-6, and MW-11, is summarized on the following page.

SUMMARY OF SLUG TEST

SOUTH CAROLINA

Department of Health and Environmental Control (DHEC)

Site Data

Site ID: #05986 County: Lexington

Facility Name: JJ's Texaco

Slug Data

See Appendix V Table _____ Figure ____ for a list of all data measurements. (water level logs, etc.) (Complete as appropriate)

Water Level Recovery Data was measured by manually with 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	MW-1	MW-6	MW-11	
Initial Rise/Drawdown in well (feet)	0.95	0.53	0.57	
Radius of Well Casing (feet)	0.083	0.083	0.083	
Effective Radius of Well (feet)	0.22	0.22	0.22	
Static Saturated Aquifer Thickness (feet)	Unknown	Unknown	Unknown	
Length of Well Screen (feet)	20	20	20	
Static Height of Water Column in Well (ft)	9.45	7.23	9.27	

Calculations

See Appendix V Table _____ Figure ____ for calculations. (*Complete as appropriate*)

The method for aquifer calculations was Hvorslev (*i.e. Bouwer-Rice, Cooper, etc.*)

Calculated values by well were as follows:

Slug Test Conducted in well(s) number	MW-1	MW-6	MW-11
Hydraulic Conductivity (ft/day)	0.046	0.086	0.112

Thickness of the aquifer used to calculate hydraulic conductivity was ____ feet.

The aquifer is _____ confined _____ semi-confined X _____ water table (*Check as appropriate*).

The estimated seepage velocity is 3.22 feet per year based on a hydraulic conductivity of 0.081 (avg.), a hydraulic gradient of 6.0%, and a porosity of 55 percent for sandy clay (*list type, i.e., silty sand, clay, etc.*).

SUMMARY OF SLUG TEST

5.0 ASSESSMENT RESULTS

5.1 Soil Boring/Field Screening Results

MM&A installed 18 soil boring and field screening points in September, 1997. The PID field screening results are summarized in *Table 4.*

Table 4
Soil Boring/Field Screening Results (ppm)
JJ's Texaco
September 1997

Soil Boring/Field Screening (SB/FS)	Total Depth (feet)	Field Screening Result (ppm)
SB/FS-1	40	0
SB/FS –2	36	0
SB/FS –3	40	46
SB/FS –4	32	32
SB/FS –5	36	0
SB/FS –6	36	1.5
SB/FS –7	36	0
SB/FS –8	36	1.0
SB/FS –9	36	2.0
SB/FS –10	36	0
SB/FS –11	36	0
SB/FS –12	36	7
SB/FS –13	36	30
SB/FS –14	44	60
SB/FS –15	36	20
SB/FS –16	36	0
SB/FS –17	36	0
SB/FS –18	36	0

The analytical results were compared to the Tier I Risk-Based Screening Levels (RBSL) look-up table (DHEC Risk Based Corrective Action for Petroleum Releases, June, 1995) for clay rich soil where depth to groundwater is less than five feet. Based on this comparison, benzene, toluene, ethylbenzene, xylene, and naphthalene were present in concentrations greater than their RBSLs in soil boring/field screening points SB-3, SB-4, SB-14, SB-15, and SB-16. Therefore, these COCs are potential sources of groundwater impact at the site. COCs were not detected above the RBSLs in any of the other soil boring and field screening points. The concentrations of these COCs in soil are depicted on the following maps:

- *Benzene Concentrations in Soil, Map 7, Appendix 1.*
- *Toluene Concentrations in Soil, Map 8, Appendix I.*
- *Ethylbenzene Concentrations in Soil, Map 9, Appendix I.*
- *Xylene Concentrations in Soil, Map 10, Appendix I.*
- *Naphthalene Concentrations in Soil, Map 11, Appendix I..*

5.3 Free Phase Results

During measurement of the depth to groundwater in the permanent monitoring wells, free phase hydrocarbon product was identified in four of the monitoring wells. The measured thickness of the free phase product in these wells is presented in *Table 6.*

Table 6
Free Phase Product Thickness (feet)
JJ's Texaco
September 4, 1997

MW ID	Thickness
MW-3	.01
MW-9	.015
MW-10	.5
OMW-13	.005

The PID measurements indicate that VOCs were detected in nine of the soil boring and field screening points; however, VOCs were detected in concentrations above 5.0 ppm in only five of the borings. The PID concentrations greater than 5.0 ppm are depicted on the *Groundwater Field Screening Map*, Map 5, Appendix I.

5.2 Soil Analytical Results

As noted in Section 3.1, MM&A installed 18 soil borings and field sampling points during September 1997. The laboratory analytical results from these borings are summarized in *Table 5*. Concentrations that exceed the RBSLs are highlighted.

Table 5
Soil Analytical Results (mg/kg)
JJ's Texaco
September 18 through 20, 1997

Sample ID	Depth ft	Benzene	Toluene	Ethylbenzene	Total Xylene	Naphthalene	TPH DRO	Total Organic Carbon
SB-1	16'-20'	BDL	BDL	BDL	BDL	BDL	NA	NA
SB-2	16'-18'	BDL	BDL	BDL	BDL	BDL	NA	NA
SB-3	30'-32'	.124	.0396	.0910	.418	1.4	NA	NA
SB-3	36'-38'	.0275	.135	.0746	.356	.0459	NA	NA
SB-4	25'-28'	.0122	BDL	BDL	BDL	BDL	NA	NA
SB-4	30'-32'	.0174	.0442	.0103	.0488	BDL	NA	NA
SB-5	27'-28'	BDL	BDL	BDL	BDL	BDL	NA	NA
SB-6	24'-28'	BDL	BDL	BDL	BDL	BDL	NA	NA
SB-7	20'-24'	BDL	BDL	BDL	BDL	BDL	NA	NA
SB-8	20'-24'	BDL	BDL	BDL	BDL	BDL	NA	NA
SB-9	24'-28'	.0118	.0157	.0118	.0629	BDL	NA	NA
SB-10	28'-32'	BDL	BDL	BDL	BDL	BDL	NA	NA
SB-11	28'-32'	BDL	BDL	BDL	BDL	.166	BDL	NA
SB-12	24'-28'	BDL	BDL	BDL	BDL	BDL	BDL	343
SB-13	24'-28'	BDL	BDL	BDL	BDL	BDL	BDL	NA
SB-14	28'-32'	1.12	.274	7.26	34.3	6.88	BDL	NA
SB-14	32'-33'	.782	.895	3.62	19.6	3.23	BDL	NA
SB-15	16'-20'	.0104	.0247	.0376	.230	.224	BDL	NA
SB-15	20'-24'	BDL	.00582	BDL	.00923	.0391	BDL	NA
SB-15	24'-28'	BDL	BDL	BDL	.005	.0153	BDL	NA
SB-15	28'-32'	.0142	.0223	.026	.131	.0609	BDL	NA
SB-16	24'-28'	.0180	.0716	.015	.0402	.330	BDL	NA
SB-17	28'-32'	BDL	BDL	BDL	BDL	.0195	BDL	NA
SB-18	32'-36'	BDL	BDL	BDL	BDL	.00359	BDL	399

BDL - Below Detection Level *NA – Not Applicable* *TPH – Total Petroleum Hydrocarbons*
TOC - Total Organic Carbon *DRO-Diesel Range Organics*
Exceeds RBSL's for Clay-Rich Soil, where the depth to groundwater is less than 5 feet.

The location and thickness contours for this free phase product is depicted on the *Free Phase Product Thickness, Map 6, Appendix I.*

5.3.1 Free Product Drawdown Results

To estimate the thickness of free phase product in the plume area, a free product drawdown test was conducted on monitoring well MW-10. Monitoring well MW-10 is located in the apparent area of highest COC concentrations at the site. The results of the free product drawdown test are summarized in *Table 7*, and the results are graphically presented in *Graph I.* Based on the Yaniga and Demko Method for free product baildown, the estimated free phase product thickness in MW-10 is approximately 0.15 feet.

Table 7
Free Phase Product Drawdown in MW-10
JJ's Texaco

Time (minutes)	Top of Fluid Elevation	Oil Water Interface Elevation
0	63	62.94
2	63.016	62.886
4	63.032	62.832
8	63.048	62.828
12	63.064	62.844
16	63.08	62.87
24	63.096	62.876

5.3.2 Free Product Recovery Rate Estimates

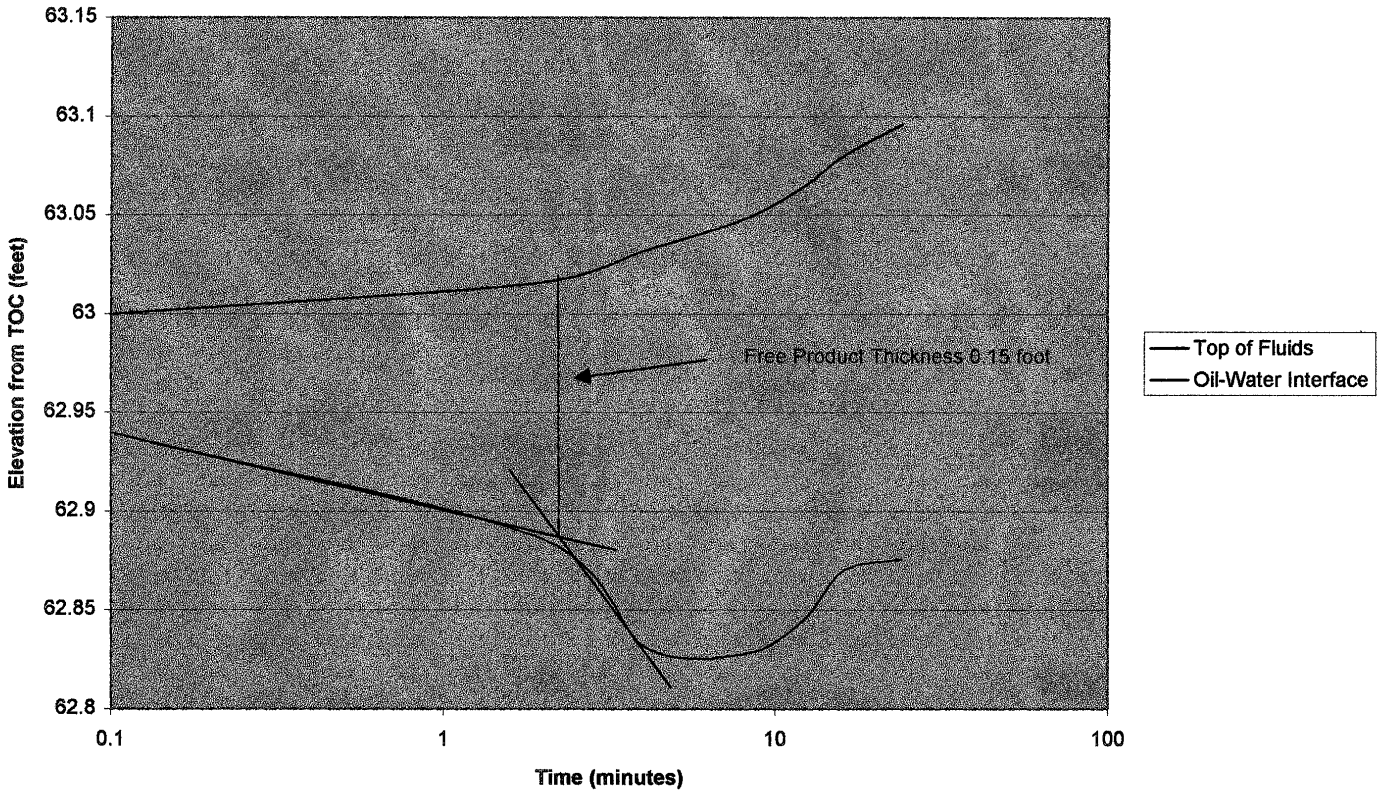
The free phase product recovery rates have been calculated for the free phase product in monitoring well MW-10. The calculations assume an average recovery rate to 80% of full free phase recovery in each monitoring well, as referenced on page IV-29 in the USEPA document 510-R-96-001 *How to Effectively Recover Free Product At Leaking Underground Storage Tank Sites: A Guide to State Regulators (1996).* Based on

these calculations represented in the following table, the potential recovery rate for MW-10 is approximately 11.73 gallons per day.

Free Product Recovery Rate For MW-10

		MW-10 Time	Free Product Thickness
Inside Diameter of Well Screen	= 2inches	0.1	0.06
Radius	= 1inch	2	0.13
	= .083 foot	4	0.2
		8	0.22
Maximum thickness from table.	=0.22 feet	12	0.22
		16	0.21
80% maximum thickness recovery.	=0.176 feet	24	0.22
Time corresponding to 80% interpolated from table.	=3.5 min		
Gallons per foot of oil thickness in well screen. pi*(0.083)^2*7.48 gal/ft^3	=0.162 gal/ft		
Average recovery rate to 80% recovery. 0.162gal/ft x 0.176 ft / 3.5 min	= 0.008 gal/min or 11.73 gal/day		

Graph I-Yaniga and Demko Method (1983) Free Product Baildown Test in MW-10
September 11,1997 JJ's Texaco, Gaston SC #05986



MARSHALL MILLER & ASSOCIATES

5.4 Dissolved Phase Results

The groundwater analytical results are summarized in *Table 8* for the September 4, 1997 sampling event. Monitoring wells MW-3, MW-9, MW-10, and OMW-13 were not sampled due to the presence of free product, while MW-2 was not sampled because it was dry. Several hydrocarbon constituents, which are highlighted, exceed the Tier I RBSL concentrations for groundwater.

Table 8
Groundwater Analytical Results (µg/l)
JJ's Texaco
September 4, 1997

Sample ID	Benzene	Toluene	Ethylbenzene	Xylenes	MTBE	Naphthalene	EDB	Lead	PAH
MW-1	BDL	BDL	BDL	BDL	BDL	BDL	NA	15	BDL
MW-4	1.07	4.17	2.12	22.8	41.9	BDL	BDL	NA	NS
MW-5	BDL	BDL	BDL	BDL	NS	BDL	NA	NA	NS
MW-6	1.83	BDL	BDL	1.14	12.2	BDL	BDL	BDL	BDL
MW-7	BDL	BDL	BDL	BDL	BDL	BDL	NA	BDL	BDL
MW-8	1020	3960	461	3530	BDL	BDL	BDL	NS	NS
MW-11	2.72	1.27	7.03	10.5	BDL	BDL	NA	BDL	BDL
MW-12	BDL	BDL	BDL	BDL	NS	BDL	NA	NS	NS
OMW-14	18.0	4.83	9.27	75.8	11.7	42.1	NA	BDL	BDL
Gaston WW	BDL	BDL	BDL	BDL	BDL	BDL	NA	BDL	BDL

NA - Not applicable BDL - Below method detection limits Lead – 5 ug/g
B - Benzene 5 ug/l T – toluene 1,000 ug/l E - ethylbenzene 700 ug/l X - xylene 10,000 ug/l
MTBE - methyl tertiary butyl ether 40 ug/l NAP - naphthalene 25 ug/l EDB – ethylene dibromide
Exceeds RBSL's for groundwater

Isoconcentration maps of the known and estimated horizontal extent of COCs in groundwater are presented in *Appendix I*, and are as follows:

- *Benzene Concentration in Groundwater, Map 12.*
- *Toluene Concentration in Groundwater, Map 13.*
- *MTBE Concentration in Groundwater, Map14.*
- *Naphthalene Concentration in Groundwater, Map 15.*

The data indicate that dissolved phase impact continues to pose a potential threat to human health and the environment at the site. The concentrations of benzene , toluene, MTBE, naphthalene, and lead exceed the RBSLs in monitoring wells MW-1, MW-2, MW-8 and MW-14. Finally, the concentrations of COCs in the Gaston Rural Community Water District water well were all below detection limits (BDL).

6.0 CONTAMINANT PLUME DELINEATION

6.1 Lateral Delineation

The lateral delineation of the plume was established upgradient of and to the west of JJ's Texaco by either the absence and/or low concentration of COCs in monitoring wells MW-6, MW-11, and MW-14. A point of compliance, MW-1, was established upgradient of the plume, between the plume and the Gaston Rural Community Water District water well. The concentrations of all CoCs in these monitoring wells were below detection limits, except for lead which was detected at a concentration of 15 micrograms per liter (ug/l) in MW-1. This concentration is 10 ug/l above the RBSL.

The lateral extent of the plume was established downgradient of JJ's Texaco by either the absence and/or low concentration of COCs in monitoring wells MW-4 and MW-5. The concentrations for all COCs were below the detection limit for MW-4, except for the concentration of MTBE which was detected at a concentration of 41.9 mg/l. The concentrations of all COCs were below the detection limit for MW-5.

6.2 Vertical Delineation

To delineate the vertical extent of the plume, one Type III groundwater monitoring well, MW-2, was installed to a total depth of 80 feet below ground surface. MM&A attempted to collect a groundwater sample from this well during three separate attempts over a period of several weeks in September 1997. In each case the monitoring well remained dry. Based on the analytical results obtained from the upper horizon monitoring wells, the vertical extent of the plume is present down to at least a depth of 40 feet below ground surface. Below that depth lies a relatively impermeable unit which appears to act as an aquiclude to prevent downward migration of groundwater (and of dissolved constituents). The fact that the nearby public supply well, screened at a depth of 296 to 326 feet, does not exhibit any impact suggests further that there is little intercommunication between the surficial aquifer and deeper aquifers, as this supply well likely creates a substantial capture radius within the deeper aquifer.

7.0 ASSESSMENT MAPS AND TABLES

7.1 Site Assessment Map

The location of the structures, underground utilities, potential receptors, USTs, and sampling points and monitoring wells are depicted on the following three maps:

- Vicinity Map, Map 1, Appendix I.
- Potential Receptors Map, Map 2, Appendix I.
- Soil Boring/Field Screening and Monitoring Wells, Map 3, Appendix I.

7.2 COC Site Maps

Site maps for CoCs that indicate the known and estimated horizontal extent of CoCs in soil and groundwater are presented in *Appendix I*, and are as follows:

- Benzene concentrations in soil, Map 7.
- Benzene concentrations in groundwater, Map 12
- Toluene concentrations in soil, Map 8.
- Toluene concentrations in groundwater, Map 13.
- Ethylbenzene concentrations in soil, Map 9.
- Xylene concentrations in soil, Map 10.
- MTBE concentrations in groundwater, Map 14.
- Naphthalene concentrations in soil, Map 11.
- Naphthalene concentrations in groundwater, Map 15.

7.3 Geologic Cross-Sections

Two geologic-cross sections that depict the lithology and stratigraphy of the site, and the known and estimated vertical extent of CoCs in the soil and groundwater are presented in *Appendix I*. These cross-sections are as follows:

- Cross-Section A-A' showing groundwater concentrations, Map 16.
- Cross-Section B-B' showing groundwater concentrations, Map 17.

7.4 Analytical Data

Soil and groundwater laboratory analytical data for the site are presented in tabular form as follows:

- Soil Boring/Field Screening Results, Table 4.
- Soil Analytical Results, Table 5.
- Free Phase Product Thickness, Table 6.
- Free Phase Product Drawdown in MW-10, Table 7.
- Groundwater Analytical Results, Table 8.

7.5 Aquifer Evaluation Results

The aquifer evaluation methodology and the data, graphs, and equations used to evaluate the aquifer are briefly discussed in Section 3.0 of this Rapid Assessment Report.

7.6 Aquifer Characteristics

The aquifer characteristics of the upper unconfined aquifer at the site are presented in Section 4.0 of this Rapid Assessment Report.

7.7 Groundwater Fate and Transport Modeling

To assess the potential for COCs to impact a potential receptor, a site specific, one dimensional groundwater fate and transport model was performed utilizing the ONED-1 program in SOLUTE to address plume migration and natural attenuation. The following dissolved phase COCs were evaluated:

- Benzene.
- Toluene.
- MTBE.
- Naphthalene.

SOLUTE was developed to provide an analytic solution to the advection-dispersion equation assuming a non-conservative (possibly decaying) tracer. A non-conservative tracer is a chemical that can be retarded onto soil particles in the flow path of the chemical. As the constituent is sorbed, less of it remains in the dissolved phase to be transported further downgradient. If a tracer can decay, that implies that natural processes of biodegradation and natural attenuation need to be accounted for in solving the transport equations. There are certain inherent assumptions when using an analytic model. For instance, analytic models are only valid for uniform groundwater flow, through a homogenous, isotropic media where the density and viscosity of the flowing fluid is constant over time and space. In essence, one dimensional analytic models generally provide a "first cut," order of magnitude approximation for the fate and transport of the dissolved chemicals in the subsurface.

The input parameters for the SOLUTE fate and transport model assume a long duration source, based on the following assumptions:

- Free phase product contributing to dissolved phase COC concentrations in groundwater.

- Chemical half-lives referenced in the Handbook of Environmental Degradation Rates.
- Retardation factors calculated from TOC analysis.
- Highest concentrations of COCs detected at the site.

The results of the modeling indicate that each COC will naturally attenuate to concentrations that are below their RBSLs, and that the concentrations of the COCs will decrease to below their RBSLs within approximately 50 to 150 feet downgradient from the source area. The SOLUTE input parameters, model results, and one dimension graphical output are summarized in *Appendix VI.*

Table 3
Site Conceptual Model - CURRENT LAND USE

Media (for exposure)	Exposure Route	Pathway Selected for Evaluation? (Yes or No)	Exposure point or Reason for Non-Selection	Data Requirements (If pathway selected)
Air	Inhalation	Yes _____ No __X___	PID air screening did not reveal elevated CoC concentrations.	
	Explosion Hazard	Yes _____ No __X___		
Ground Water	Ingestion	Yes __X___ No _____	-CoCs exceed RBSLs but there are no downgradient potable water wells .	
	Dermal Contact	Yes _____ No __X___		
	Volatile Inhalation	Yes _____ No __X___	-Benzene Conc. exceeds ASTM RBSL for volaltilization to air.	
Surface Water	Ingestion	Yes _____ No __X___	- There were no surface water bodies identified during the site assessment.	
	Dermal Contact	Yes _____ No __X___		
	Volatile Inhalation	Yes _____ No __X___		
Surficial Soil	Ingestion	Yes _____ No __X___	-Surficial soils are not impacted.	
	Dermal Contact	Yes _____ No __X___		
	Volatile Inhalation	Yes _____ No __X___		
	Leaching to Ground-Water	Yes _____ No __X___		
Subsurface Soil	Ingestion	Yes _____ No __X___	Subsurficial soils do not exceed RBSLs for ingestion or dermal contact.	
	Dermal Contact	Yes _____ No __X___		
	Volatile Inhalation	Yes __X___ No _____	-Exceeds ASTM RBSL for volatilization to air.	
	Leaching to Ground-Water	Yes _____ No __X___	-Soils does not fail leachability model.	

Table 3
Site Conceptual Model - FUTURE LAND USE

Media (for exposure)	Exposure Route	Pathway Selected for Evaluation? (Yes or No)	Exposure point or Reason for Non-Selection	Data Requirements (If pathway selected)
Air	Inhalation	Yes _____ No __X___	PID air screening did not reveal elevated CoC concentrations.	
	Explosion Hazard	Yes _____ No __X___		
Ground Water	Ingestion	Yes __X___ No _____	-CoCs exceed RBSLs but there are no downgradient potable water wells .	
	Dermal Contact	Yes _____ No __X___		
	Volatile Inhalation	Yes _____ No __X___	-Benzene Conc. exceeds ASTM RBSL for volaltilization to air.	
Surface Water	Ingestion	Yes _____ No __X___	- There were no surface water bodies identified during the site assessment.	
	Dermal Contact	Yes _____ No __X___		
	Volatile Inhalation	Yes _____ No __X___		
Surficial Soil	Ingestion	Yes _____ No __X___	-Surficial soils are not impacted.	
	Dermal Contact	Yes _____ No __X___		
	Volatile Inhalation	Yes _____ No __X___		
	Leaching to Ground-Water	Yes _____ No __X___		
Subsurface Soil	Ingestion	Yes _____ No __X___	Subsurficial soils do not exceed RBSLs for ingestion or dermal contact.	
	Dermal Contact	Yes _____ No __X___		
	Volatile Inhalation	Yes __X___ No _____	-Exceeds ASTM RBSL for volatilization to air.	
	Leaching to Ground-Water	Yes _____ No __X___	-Soils does not fail leachability model.	

MARSHALL MILLER & ASSOCIATES

8.0 TIER I AND TIER II RISK EVALUATION

The Tier I RBSLs were exceeded based on the analytical results for benzene, toluene, ethylbenzene, xylene, total xylenes, and naphthalene in soil. The Tier I RBSLs were exceeded based on the analytical results for benzene, toluene, MTBE, naphthalene, and lead in groundwater. Therefore, a Tier II Risk Evaluation for COCs is required.

Exposure Pathway Summary tables are presented in this section of the Rapid Assessment Report. These tables detail exposure potentials based on the current and potential future land use. The Exposure Pathways process assesses the following media for potential exposure:

- Air.
- Surface soil.
- Subsurface soil.
- Surface water.
- Groundwater.

8.1 Air

There is no evidence to indicate that air represents a potential exposure pathway, because the CoCs have only been identified in the subsurface soil and groundwater media.

8.2 Surface Soil

There is no evidence to indicate that surficial soil represents a potential exposure pathway, because the CoCs have only been identified in the subsurface soil and groundwater media.

8.3 Subsurface Soil

Benzene, toluene, ethylbenzene, total xylenes, and naphthalene were detected in soil samples obtained from five of the 18 soil boring and field screening points. The highest concentrations were detected in soil boring SB-14, at a depth of 28 to 32 feet below ground surface. These concentrations for benzene and naphthalene were compared to the Tier I RBSL data presented in the "Example Tier I RBSL Look-up Table," ASTM E 1739-95, "Standard Guide for Risk-Based Corrective Action Applied at Petroleum Release Sites." Assuming a cancer risk of 1.0×10^{-6}, the potential for a subsurface soil volatilization human health risk at the site is as follows:

- Soil volatilization to outdoor air: residential, commercial, and industrial (benzene only).
- Soil-vapor intrusion from soil to buildings: residential, commercial, and industrial (benzene only).

Based on comparing the subsurface soil laboratory analytical results to the ASTM RBSL "Look-up Table" values, volatilization from the subsurface soil to the air or into buildings is a potential media for exposure at JJ's Texaco.

8.4 TIER II Soil Evaluation

As discussed previously, benzene, toluene, ethylbenzene, total xylenes, and naphthalene were detected in the soil boring and field screening samples at concentrations that exceed their Tier I RBSL values, based on clay rich soils where the separation from the worst case soil sample to groundwater is less then five feet (SCDHEC Risk-Based Corrective Action for Petroleum Releases, June 20, 1997, page 133). The potential for benzene, toluene, ethylbenzene, and naphthalene to impact groundwater at the site was evaluated using soil leachability models (Risk Based Corrective Action for Petroleum Releases, June, 1995). The results, which are presented

in *Appendix VII*, indicate that the concentrations of COCs in soil do not pose a continuing source of dissolved phase impact.

8.5 Surface Water

Surface water was not identified during the potential receptor survey at the JJ's Texaco site, or within 1,000 feet of the site. Therefore, there is no evidence to indicate that surface water represents a potential exposure pathway, and COCs have only been identified in the subsurface soil and groundwater media.

8.6 Groundwater

The concentrations of benzene, toluene, MTBE, and naphthalene were detected in groundwater at concentrations greater than their Tier I RBSLs; however, there are no potable water wells or irrigation wells downgradient of the source area. One potable water well was identified upgradient of the source area, and no COCs were detected at concentrations above the method detection limits. As discussed in Section 6.0, the concentrations of the COCs in the plume are expected to naturally attenuate over time, and these COCs should not pose a significant risk to human health or the environment.

The highest concentration of benzene that was identified at the site was detected in the sample obtained from monitoring well MW-8, with a concentration of 3,960 ug/l. These concentrations for benzene and naphthalene were compared to the Tier I RBSL data presented in the "Example Tier I RBSL Look-up Table," ASTM E 1739-95, "Standard Guide for Risk-Based Corrective Action Applied at Petroleum Release Sites." Assuming a cancer risk of 1.0×10^{-6}, the potential for a groundwater volatilization or vapor human health risk at the site is as follows:

- Groundwater volatilization to outdoor air: none.
- Groundwater-vapor intrusion from groundwater to buildings: residential, commercial, and industrial (benzene only).

Based on the comparison of the analytical results to the values presented in the ASTM RBSL "Look-up Table," volatilization from groundwater to buildings is a potential media for exposure at JJ's Texaco.

9.0 CONCLUSIONS AND RECOMMENDATIONS

9.1 Conclusions

During September 1997, MM&A performed a Rapid Assessment to further assess the JJ's Texaco site, as directed by the South Carolina Department of Health and Environmental Control. As part of this assessment, MM&A performed the following work tasks:

- Performed a potential receptor survey.
- Installed 18 soil borings and groundwater field screening points.
- Installed 12 permanent groundwater monitoring wells, and sampled nine groundwater monitoring wells.
- Sampled one potable water well.
- Delineated both the lateral and vertical extent of contamination.
- Performed a free product baildown and recovery test.
- Prepared both Tier I and Tier II Risk Evaluations.

9.1.1 Soil Contamination

The analyses of the soil boring and field screening samples identified concentrations of benzene, toluene, ethylbenzene, xylene, total xylenes, and naphthalene at concentrations greater than their RBSLs. However, the soil leaching modeling results indicate that the COCs detected in the soil will not be a source of dissolved phase groundwater impact. The Tier II Risk Evaluation indicates; however, that subsurface soil volatilization to outdoor air and soil-vapor intrusion from subsurface soil to buildings is a potential migration pathway for benzene.

9.1.2 Free Phase Product Contamination

The detection of free phase hydrocarbons in four monitoring wells indicates that this material will be a source for dissolved phase groundwater impact. A maximum thickness of approximately 0.5 feet of free phase product was detected in monitoring well MW-10. The results of a baildown and recovery test performed on MW-10 identified an estimated potential free product recovery rate of 11.73 gallons per day.

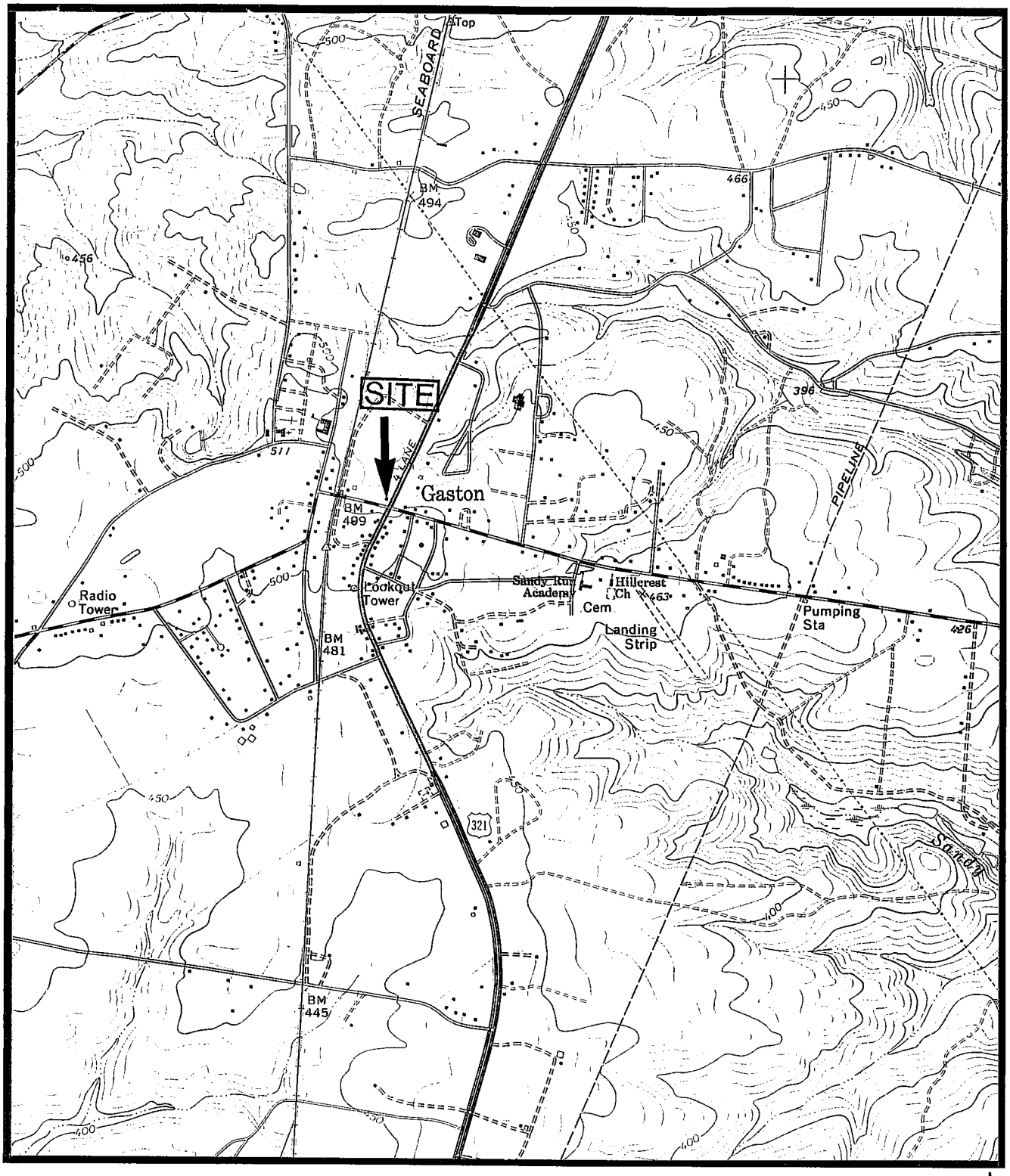
9.1.3 Dissolved Phase Groundwater Contamination

The groundwater analytical results indicated that benzene, toluene, MTBE and naphthalene were detected at concentrations that exceed their TIER I RBSLs. No potential receptors were identified downgradient of the source area, and SOLUTE fate and transport modeling indicates that the concentrations of COCs will decrease to less than their RBSLs due to natural attenuation over time within approximately 150 feet downgradient of the source area. However, the Tier II Risk Evaluation indicates that groundwater-vapor intrusion from groundwater to buildings is a potential migration pathway for benzene.

9.2 Recommendations

Based on the data obtained from the Rapid Assessment work activities, we recommend the following:

- That site remediation be implemented to abate the free phase hydrocarbon product detected at JJ's Texaco, as per the South Carolina standards.
- Continued groundwater monitoring be implemented after source removal, to determine the continuing concentrations of COCs, and the migration rate of the plume.
- Quarterly monitoring of the nearby public supply well for the CoCs involved here, to afford early detection in the event of any impact from future vertical migration.



LEXINGTON JJ'S TEXACO

NORTHWEST SECTION OF USGS 7.5' GASTON, S.C. QUADRANGLE

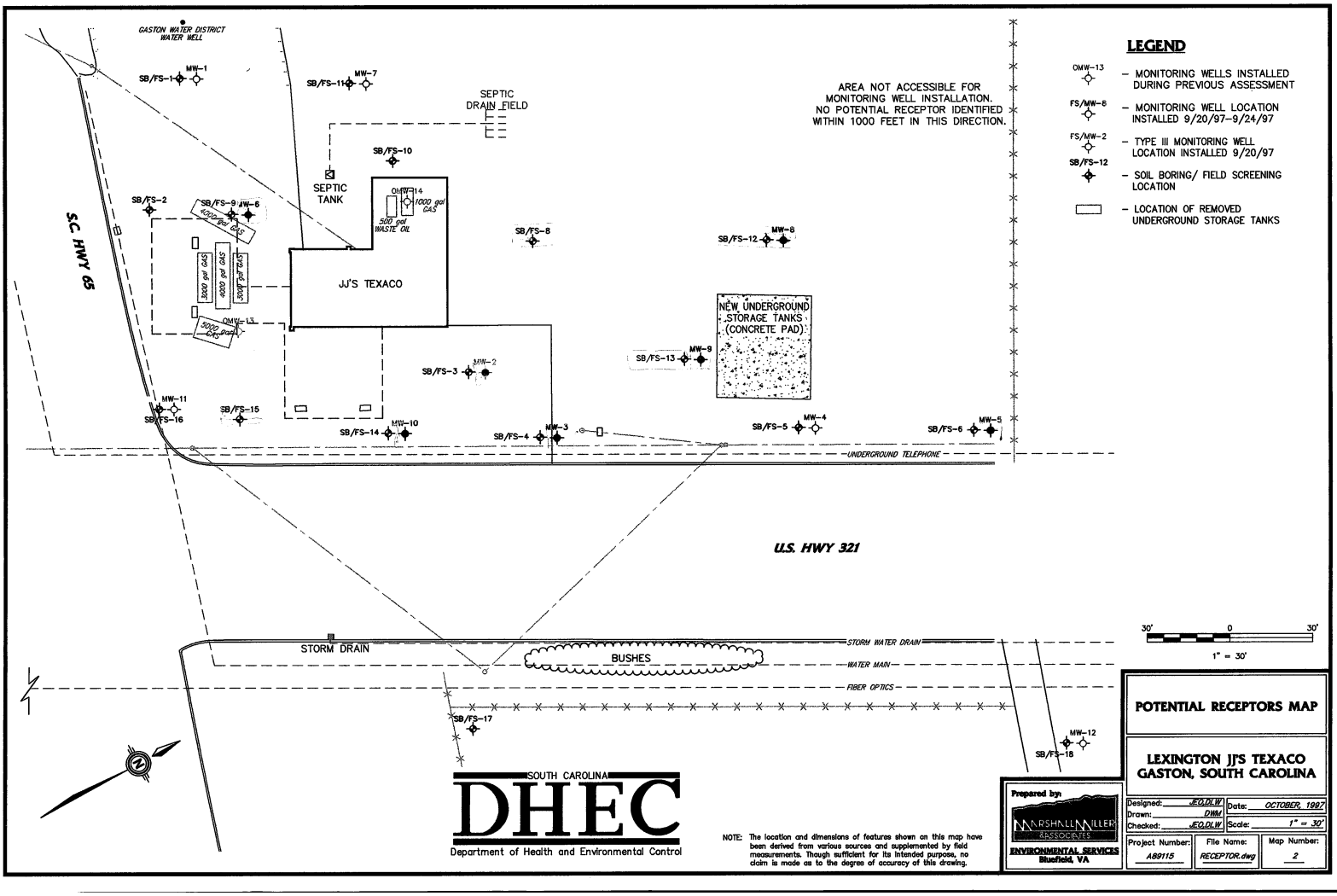
Prepared by:

MARSHALL MILLER & ASSOCIATES

2,000' 0 2,000'

SCALE 1:24,000

VICINITY MAP



SOUTH CAROLINA
DHEC
Department of Health and Environmental Control

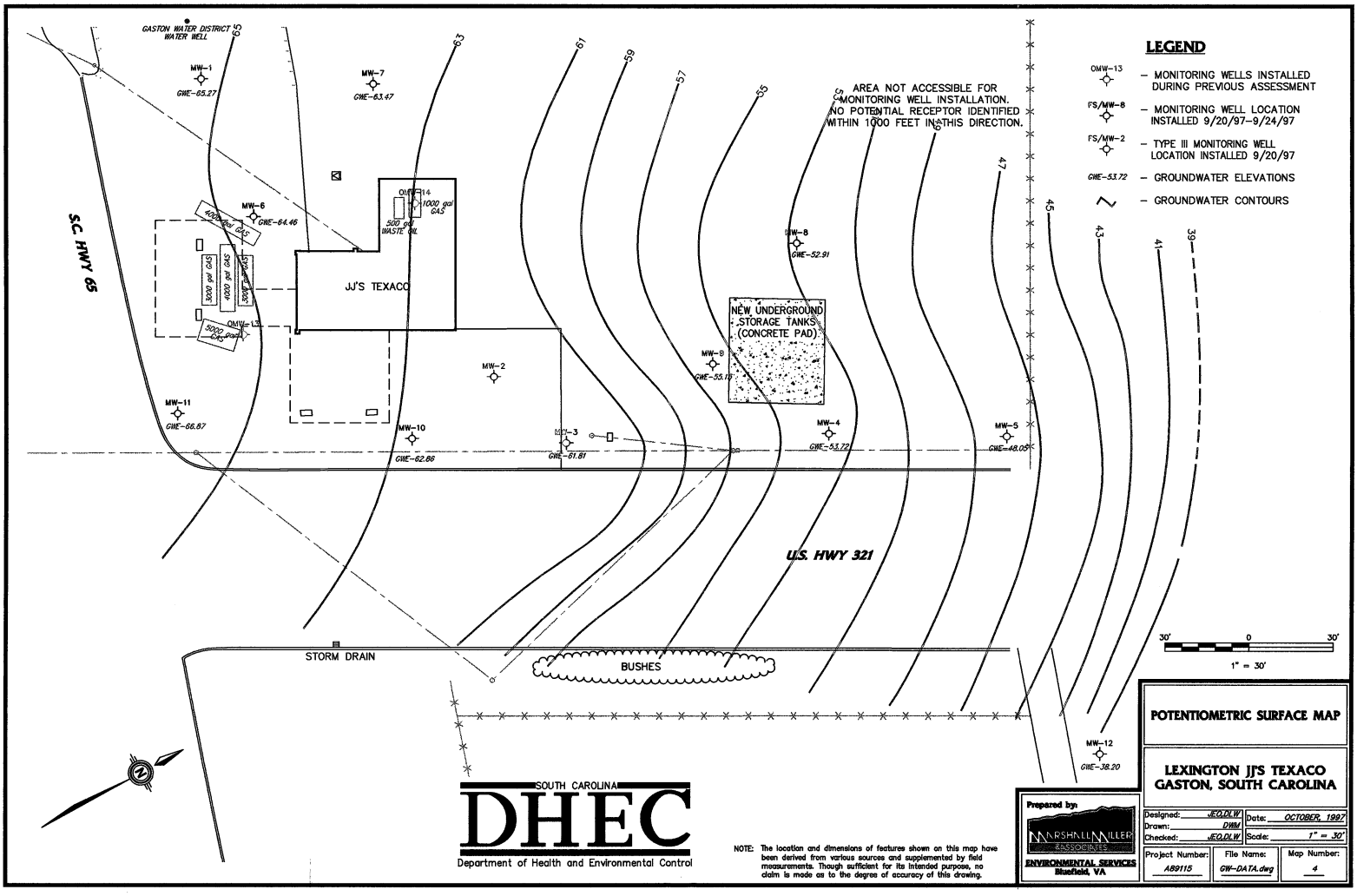
NOTE: The location and dimensions of features shown on this map have been derived from various sources and supplemented by field measurements. Though sufficient for its intended purpose, no claim is made as to the degree of accuracy of this drawing.

POTENTIAL RECEPTORS MAP

LEXINGTON JJ'S TEXACO
GASTON, SOUTH CAROLINA

Prepared by:
MARSHALL MILLER & ASSOCIATES
ENVIRONMENTAL SERVICES
Bluefield, VA

Designed: JEQ,DLW	Date: OCTOBER, 1997		
Drawn: DWM			
Checked: JEQ,DLW	Scale: 1" = 30'		
Project Number: A89115	File Name: RECEPTOR.dwg	Map Number: 2	



SOUTH CAROLINA DHEC
Department of Health and Environmental Control

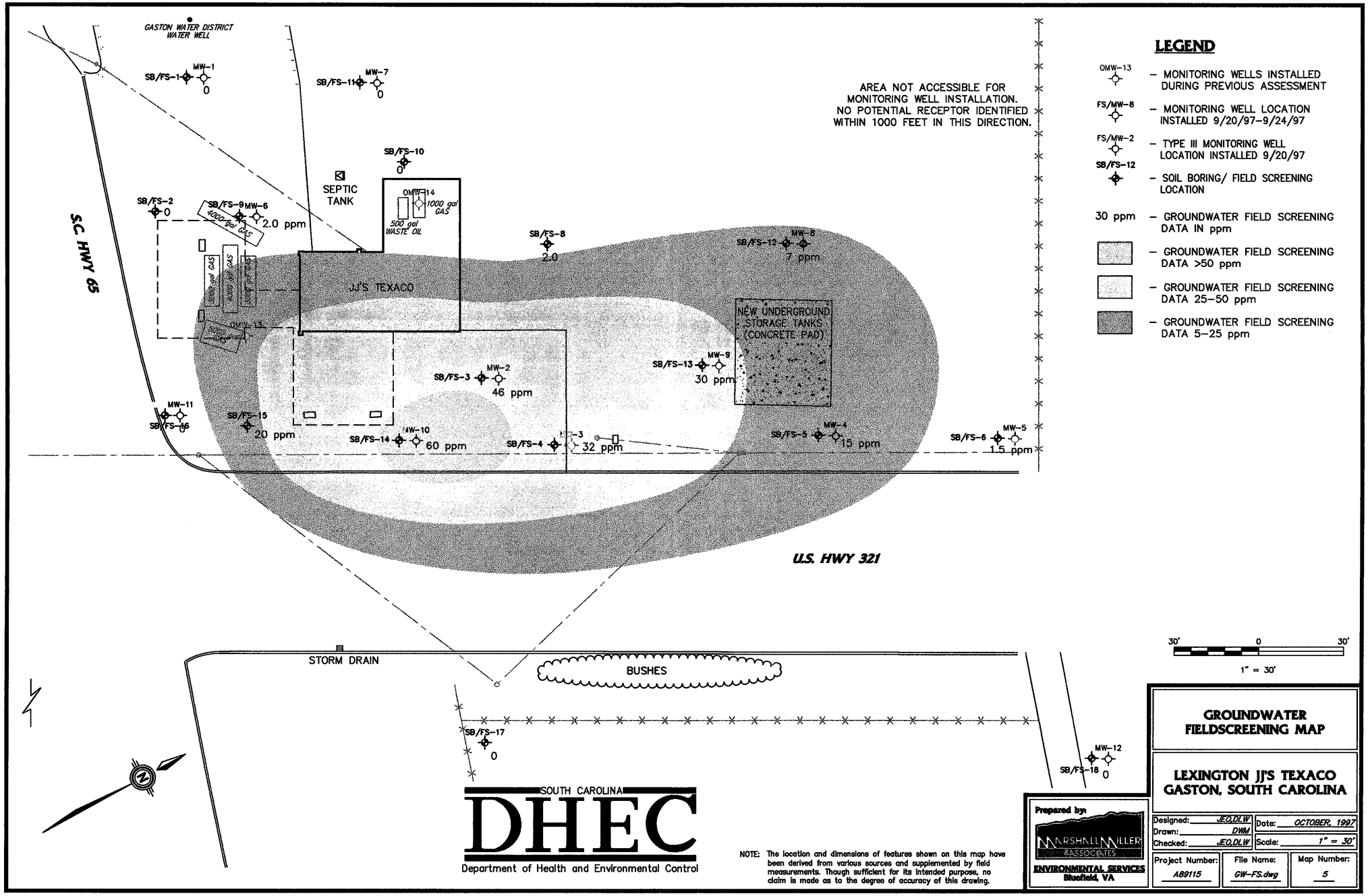
NOTE: The location and dimensions of features shown on this map have been derived from various sources and supplemented by field measurements. Though sufficient for its intended purpose, no claim is made as to the degree of accuracy of this drawing.

POTENTIOMETRIC SURFACE MAP

LEXINGTON JJ'S TEXACO
GASTON, SOUTH CAROLINA

Prepared by:
MARSHALL MILLER & ASSOCIATES
ENVIRONMENTAL SERVICES
Bluefield, VA

Designed: JEO,DLW	Date: OCTOBER, 1997		
Drawn: DWM	Scale: 1" = 30'		
Checked: JEO,DLW			
Project Number: A89115	File Name: GW-DATA.dwg	Map Number: 4	



SOUTH CAROLINA DHEC
Department of Health and Environmental Control

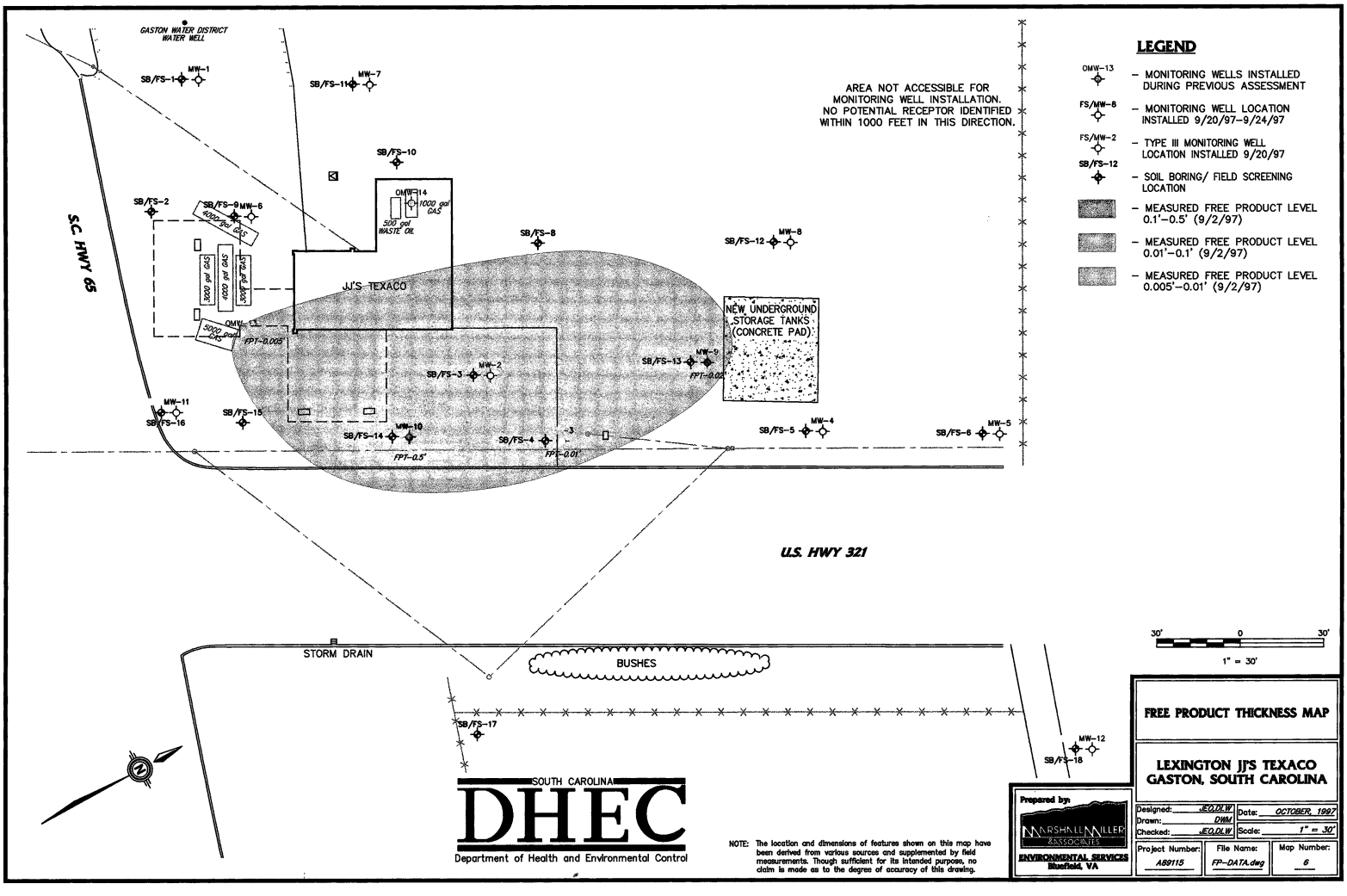
NOTE: The location and dimensions of features shown on this map have been derived from various sources and supplemented by field measurements. Though sufficient for its intended purpose, no claim is made as to the degree of accuracy of this drawing.

GROUNDWATER FIELDSCREENING MAP

LEXINGTON JJ'S TEXACO GASTON, SOUTH CAROLINA

Prepared by: MARSHALL MILLER & ASSOCIATES
ENVIRONMENTAL SERVICES Bluefield, VA

Designed: JEO,DLW		Date: OCTOBER, 1997	
Drawn: DWM			
Checked: JEO,DLW		Scale: 1" = 30'	
Project Number: A89115	File Name: GW-FS.dwg	Map Number: 5	



SOUTH CAROLINA DHEC
Department of Health and Environmental Control

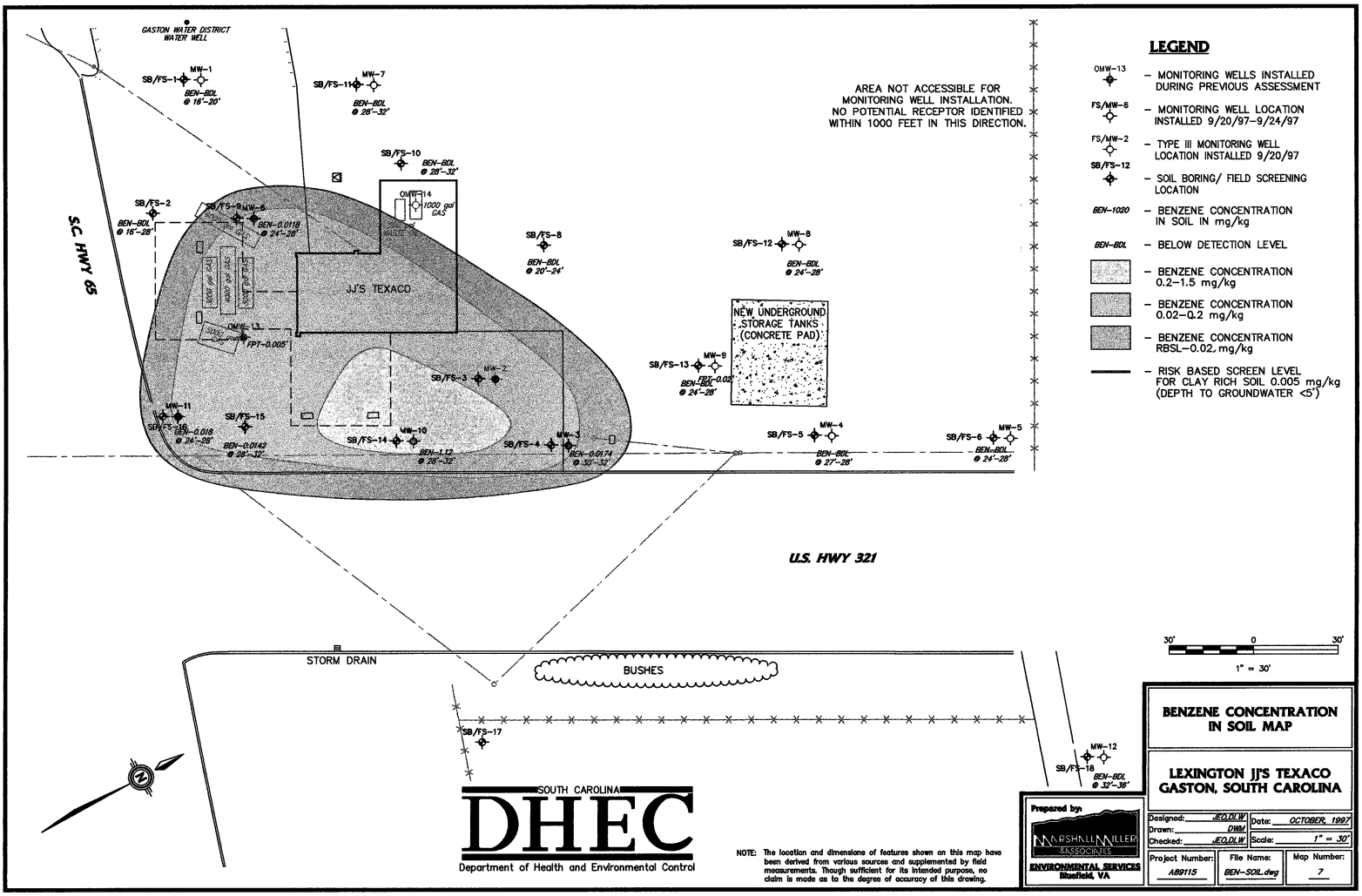
NOTE: The location and dimensions of features shown on this map have been derived from various sources and supplemented by field measurements. Though sufficient for its intended purpose, no claim is made as to the degree of accuracy of this drawing.

FREE PRODUCT THICKNESS MAP

LEXINGTON JJ'S TEXACO
GASTON, SOUTH CAROLINA

Prepared by:
MARSHALL MILLER & ASSOCIATES
ENVIRONMENTAL SERVICES
Bluefield, VA

Designed: JEO,DLW	Date: OCTOBER, 1997		
Drawn: DWM	Scale: 1" = 30'		
Checked: JEO,DLW			
Project Number: A89115	File Name: FP-DATA.dwg	Map Number: 6	



BENZENE CONCENTRATION IN SOIL MAP

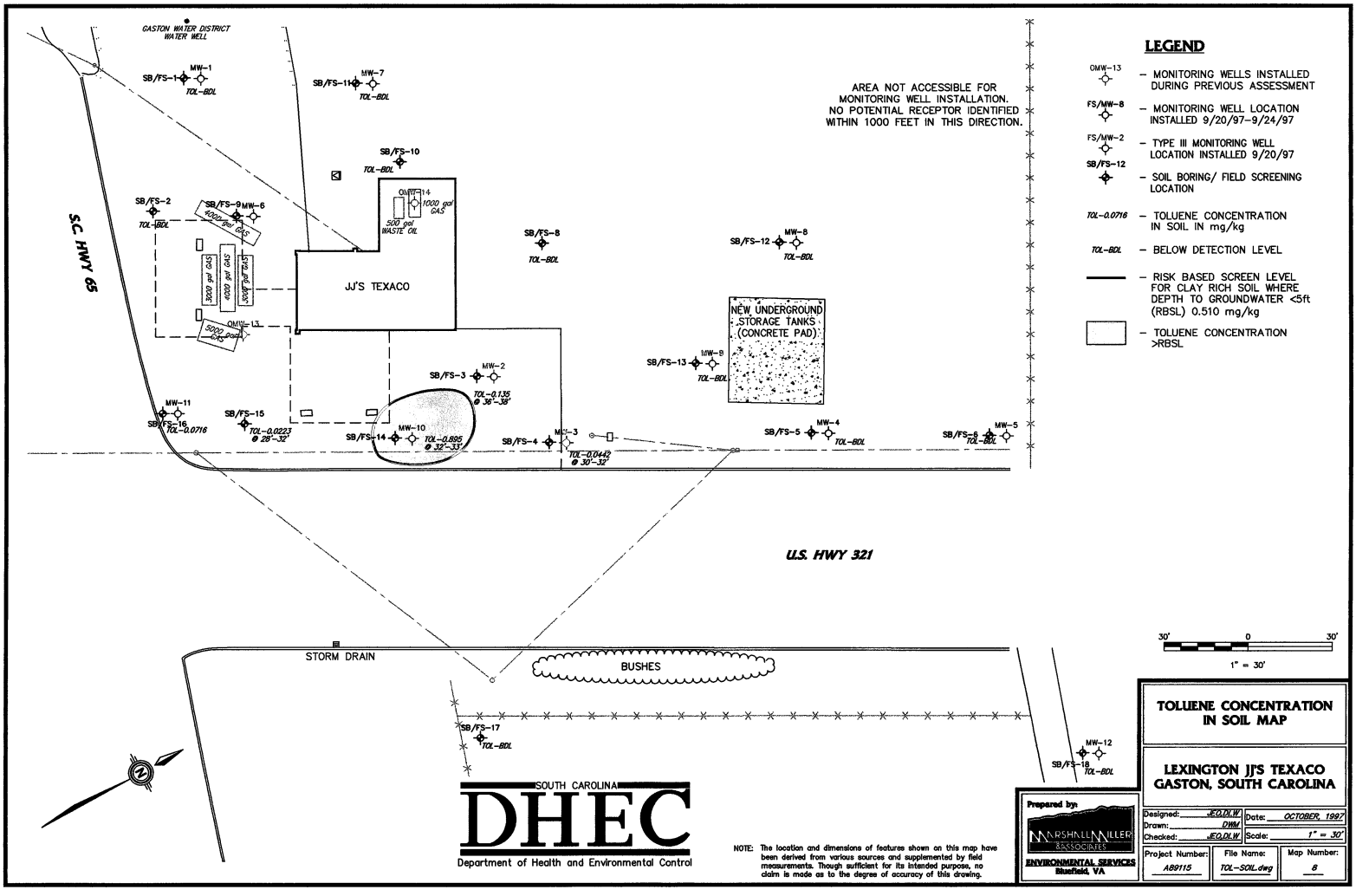
LEXINGTON JJ'S TEXACO
GASTON, SOUTH CAROLINA

SOUTH CAROLINA
DHEC
Department of Health and Environmental Control

NOTE: The location and dimensions of features shown on this map have been derived from various sources and supplemented by field measurements. Though sufficient for its intended purpose, no claim is made as to the degree of accuracy of this drawing.

Prepared by:
MARSHALL MILLER & ASSOCIATES
ENVIRONMENTAL SERVICES
Bluefield, VA

Designed: JEO,DLW	Date: OCTOBER, 1997		
Drawn: DWM			
Checked: JEO,DLW	Scale: 1" = 30'		
Project Number: AB9115	File Name: BEN-SOIL.dwg	Map Number: 7	



SOUTH CAROLINA DHEC
Department of Health and Environmental Control

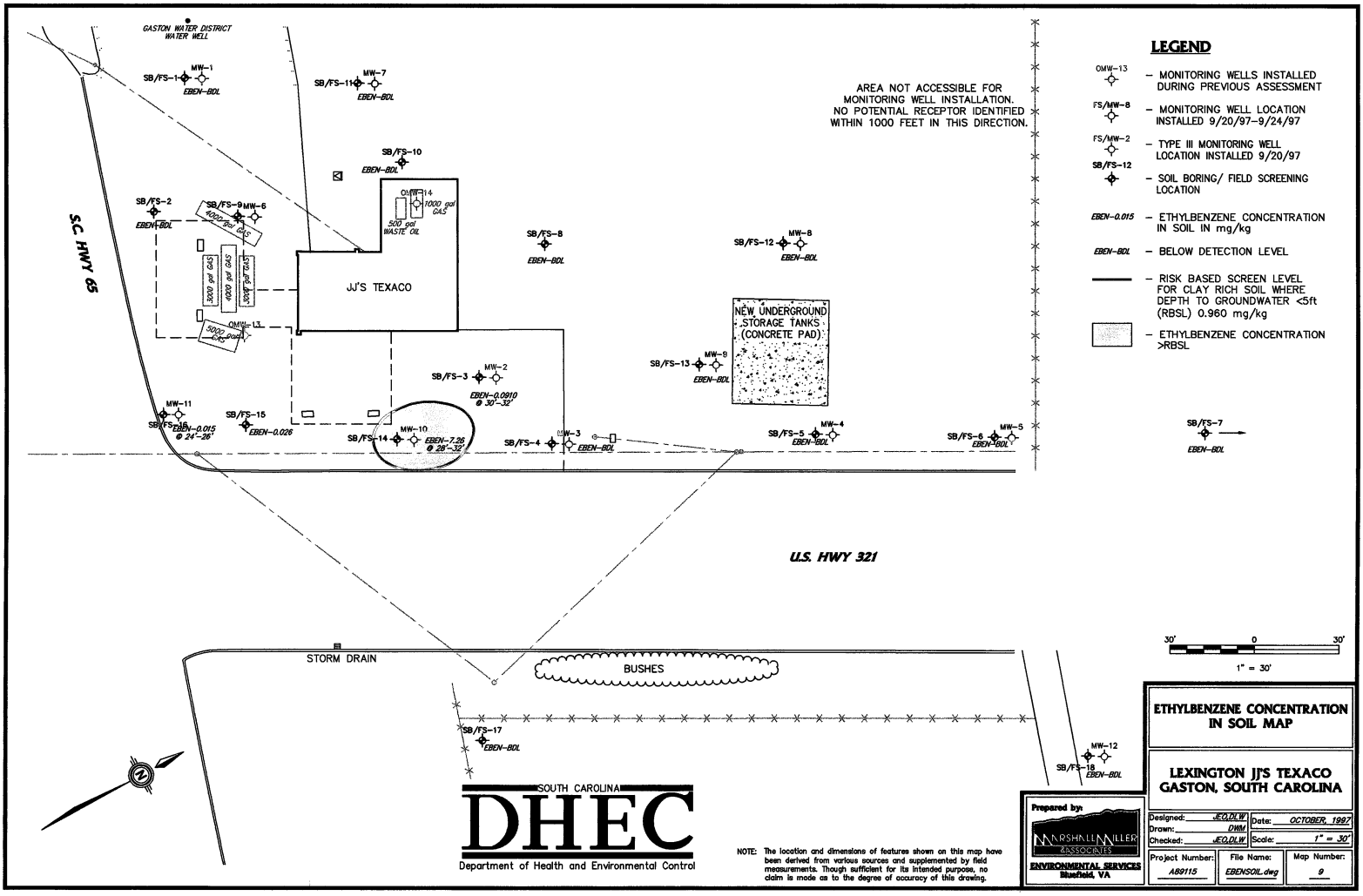
NOTE: The location and dimensions of features shown on this map have been derived from various sources and supplemented by field measurements. Though sufficient for its intended purpose, no claim is made as to the degree of accuracy of this drawing.

TOLUENE CONCENTRATION IN SOIL MAP

LEXINGTON JJ'S TEXACO GASTON, SOUTH CAROLINA

Prepared by: MARSHALL MILLER & ASSOCIATES ENVIRONMENTAL SERVICES Bluefield, VA

Designed: JEQ,DLW	Date: OCTOBER, 1997		
Drawn: DWM			
Checked: JEQ,DLW	Scale: 1" = 30'		
Project Number: AB9115	File Name: TOL-SOIL.dwg	Map Number: 8	



SOUTH CAROLINA DHEC
Department of Health and Environmental Control

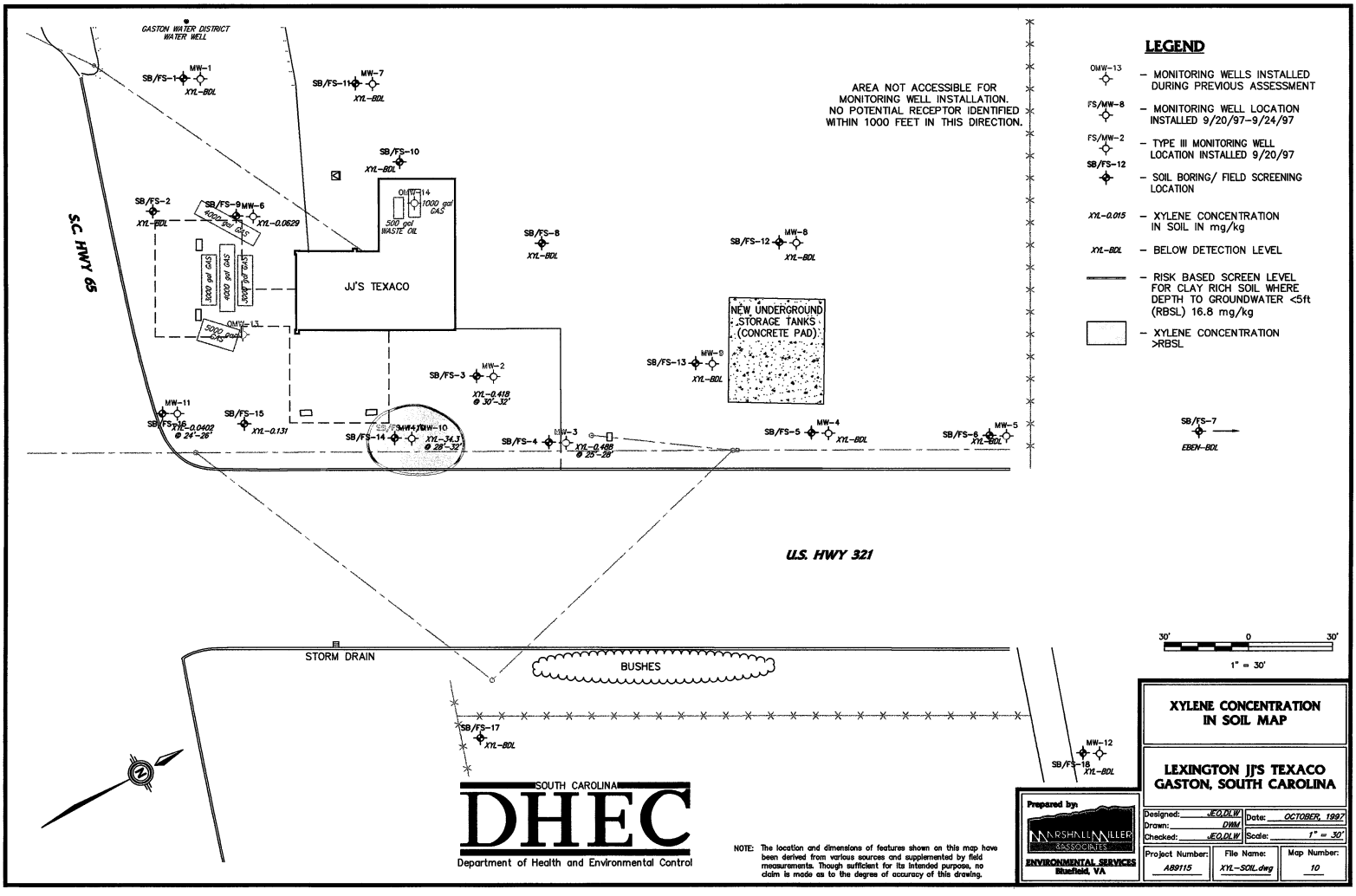
NOTE: The location and dimensions of features shown on this map have been derived from various sources and supplemented by field measurements. Though sufficient for its intended purpose, no claim is made as to the degree of accuracy of this drawing.

ETHYLBENZENE CONCENTRATION IN SOIL MAP

LEXINGTON JJ'S TEXACO GASTON, SOUTH CAROLINA

Prepared by:
MARSHALL MILLER & ASSOCIATES
ENVIRONMENTAL SERVICES
Bluefield, VA

Designed: JEO,DLW	Date: OCTOBER, 1997		
Drawn: DWM			
Checked: JEO,DLW	Scale: 1" = 30'		
Project Number: A89115	File Name: EBENSOIL.dwg	Map Number: 9	



SOUTH CAROLINA DHEC
Department of Health and Environmental Control

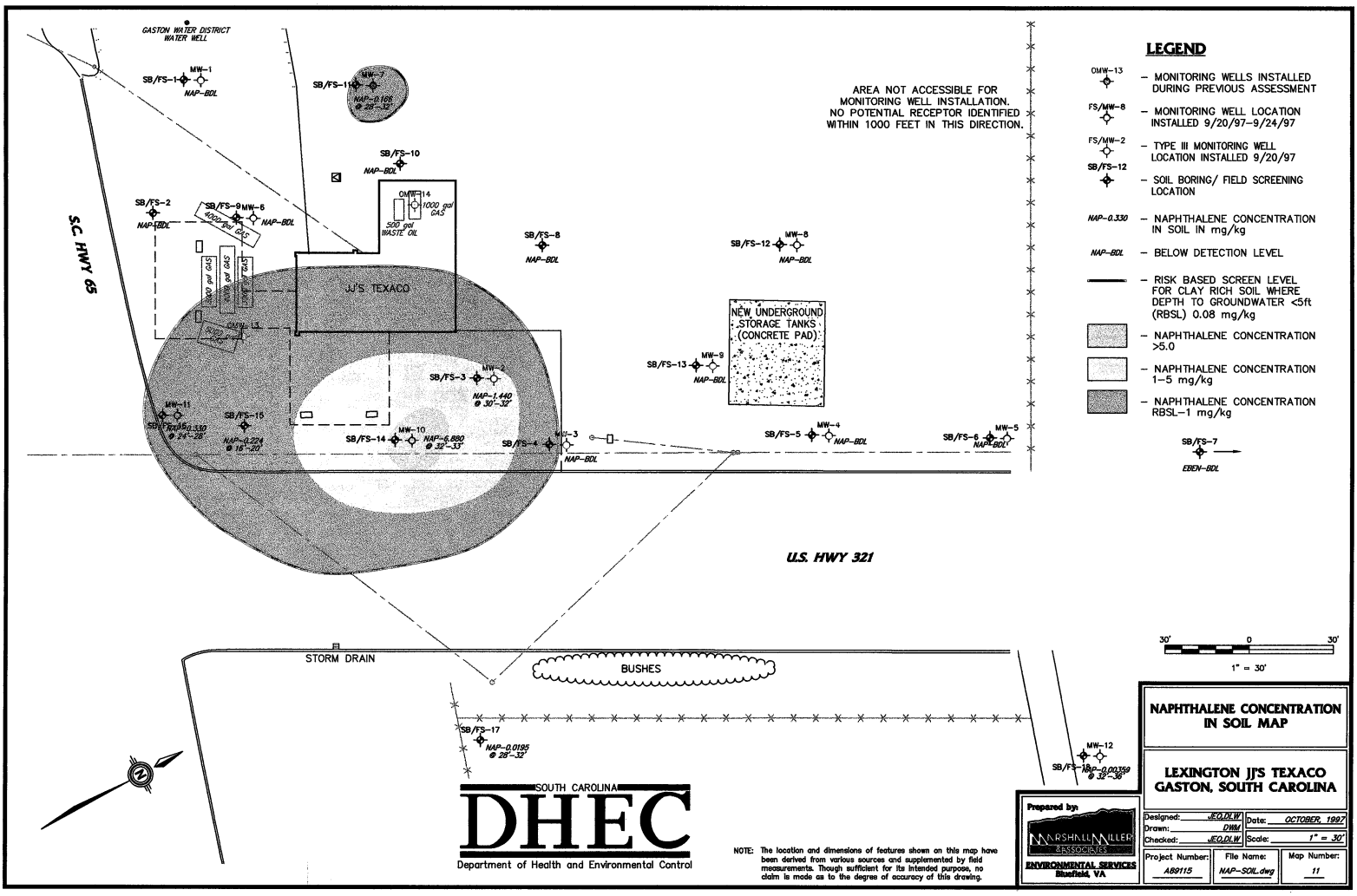
NOTE: The location and dimensions of features shown on this map have been derived from various sources and supplemented by field measurements. Though sufficient for its intended purpose, no claim is made as to the degree of accuracy of this drawing.

XYLENE CONCENTRATION IN SOIL MAP

LEXINGTON JJ'S TEXACO GASTON, SOUTH CAROLINA

Prepared by: MARSHALL MILLER & ASSOCIATES
ENVIRONMENTAL SERVICES
Bluefield, VA

Designed: JEQ,DLW	Date: OCTOBER, 1997		
Drawn: DWM			
Checked: JEQ,DLW	Scale: 1" = 30'		
Project Number: A89115	File Name: XYL-SOIL.dwg	Map Number: 10	



SOUTH CAROLINA DHEC
Department of Health and Environmental Control

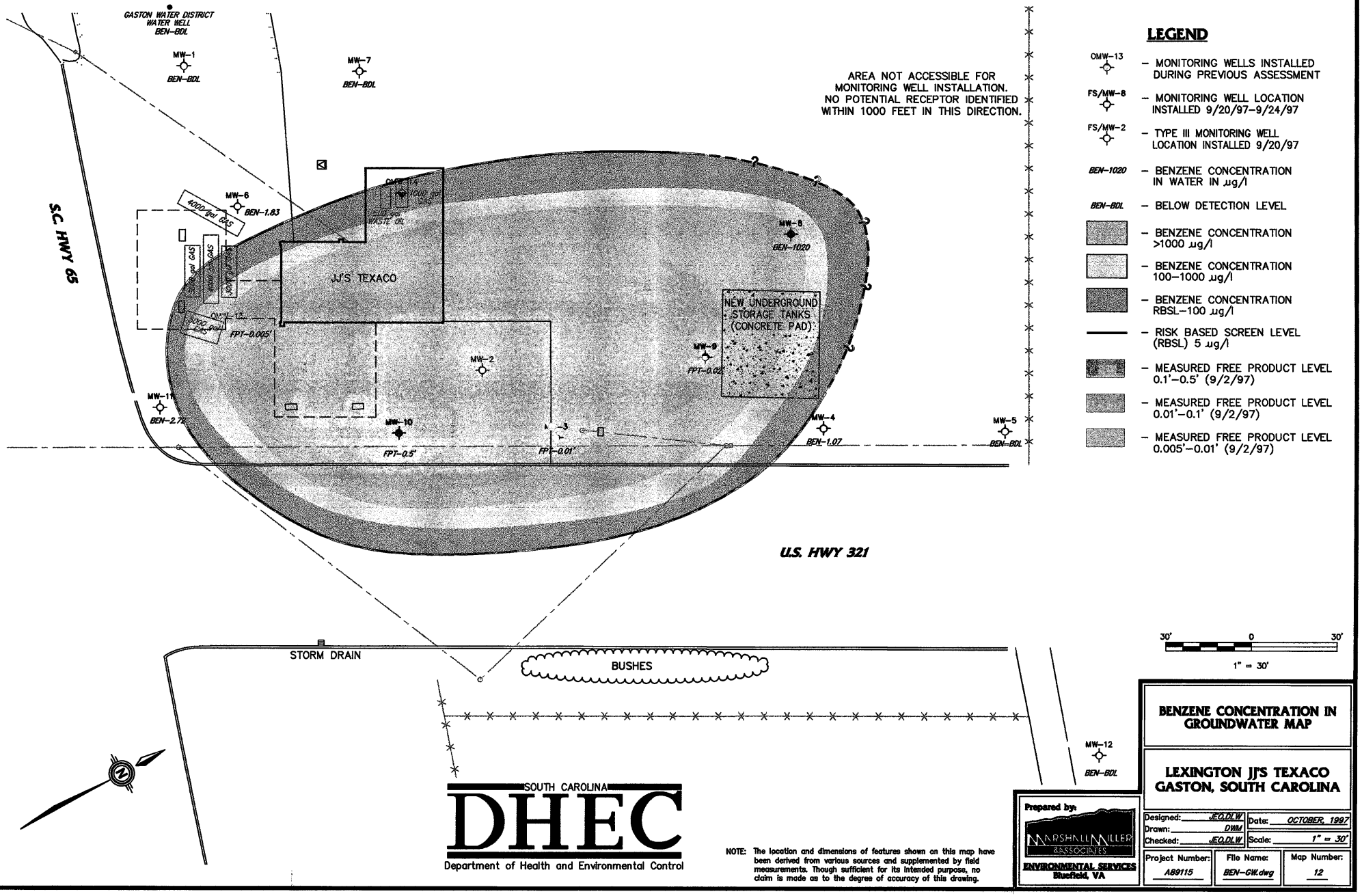
NOTE: The location and dimensions of features shown on this map have been derived from various sources and supplemented by field measurements. Though sufficient for its intended purpose, no claim is made as to the degree of accuracy of this drawing.

NAPHTHALENE CONCENTRATION IN SOIL MAP

LEXINGTON JJ'S TEXACO GASTON, SOUTH CAROLINA

Prepared by: MARSHALL MILLER & ASSOCIATES
ENVIRONMENTAL SERVICES Bluefield, VA

Designed: JEO,DLW	Drawn: DWM	Checked: JEO,DLW
Date: OCTOBER, 1997	Scale: 1" = 30'	
Project Number: AB9115	File Name: NAP-SOIL.dwg	Map Number: 11



SOUTH CAROLINA DHEC
Department of Health and Environmental Control

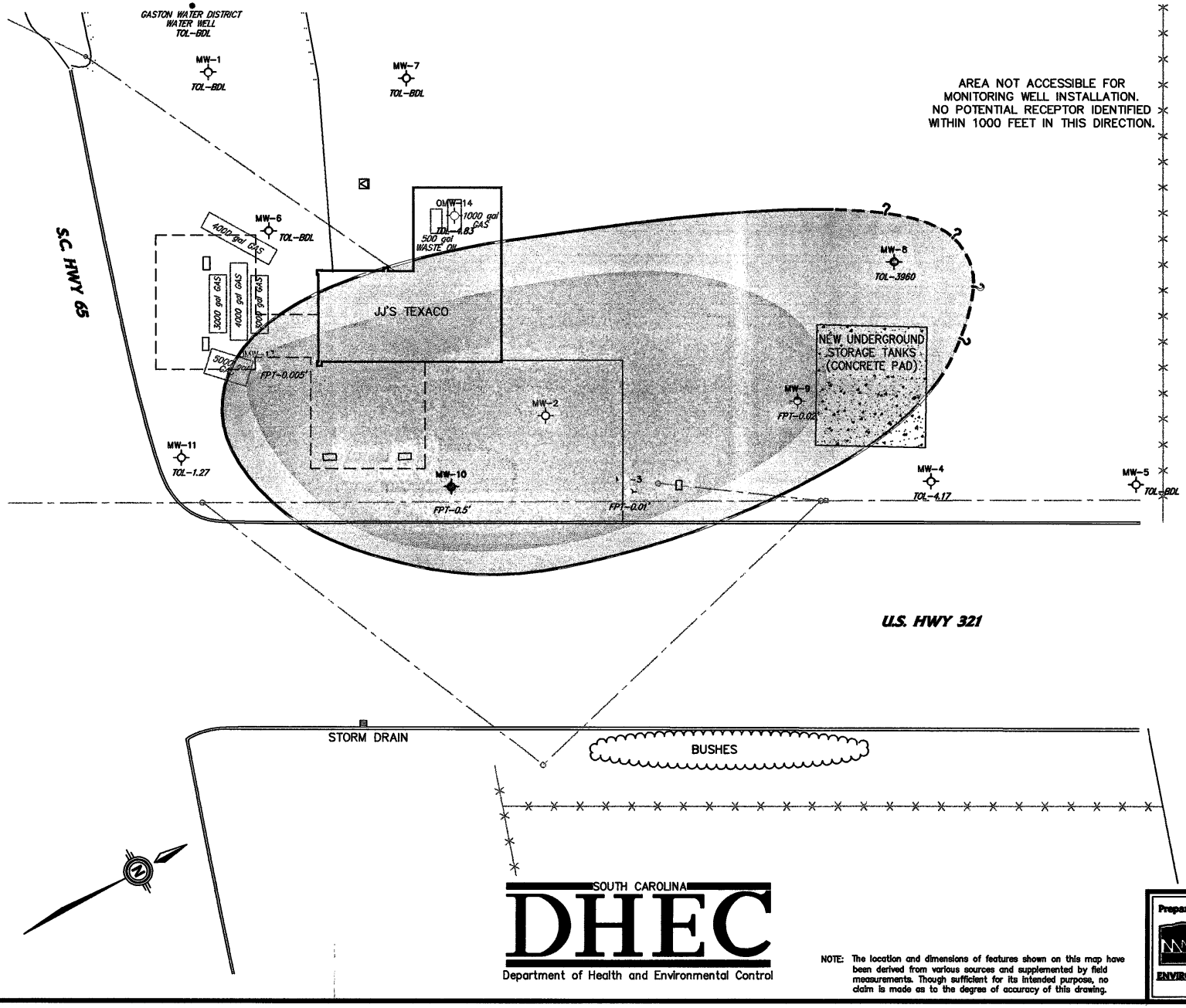
NOTE: The location and dimensions of features shown on this map have been derived from various sources and supplemented by field measurements. Though sufficient for its intended purpose, no claim is made as to the degree of accuracy of this drawing.

BENZENE CONCENTRATION IN GROUNDWATER MAP

LEXINGTON JJ'S TEXACO GASTON, SOUTH CAROLINA

Prepared by: MARSHALL MILLER & ASSOCIATES
ENVIRONMENTAL SERVICES
Bluefield, VA

Designed: JEQ,DLW	Date: OCTOBER, 1997		
Drawn: DWM	Scale: 1" = 30'		
Checked: JEQ,DLW			
Project Number: A89115	File Name: BEN-GW.dwg	Map Number: 12	



LEGEND

- OMW-13 – MONITORING WELLS INSTALLED DURING PREVIOUS ASSESSMENT
- FS/MW-8 – MONITORING WELL LOCATION INSTALLED 9/20/97–9/24/97
- FS/MW-2 – TYPE III MONITORING WELL LOCATION INSTALLED 9/20/97
- TOL-3960 – TOLUENE CONCENTRATION IN WATER IN µg/l
- TOL-BDL – BELOW DETECTION LEVEL
- – RISK BASED SCREEN LEVEL (RBSL) 1000 µg/l
- – TOLUENE CONCENTRATION >RBSL
- – MEASURED FREE PRODUCT LEVEL 0.1'–0.5' (9/2/97)
- – MEASURED FREE PRODUCT LEVEL 0.01'–0.1' (9/2/97)
- – MEASURED FREE PRODUCT LEVEL 0.005'–0.01' (9/2/97)

30' 0 30'

1" = 30'

SOUTH CAROLINA
DHEC
Department of Health and Environmental Control

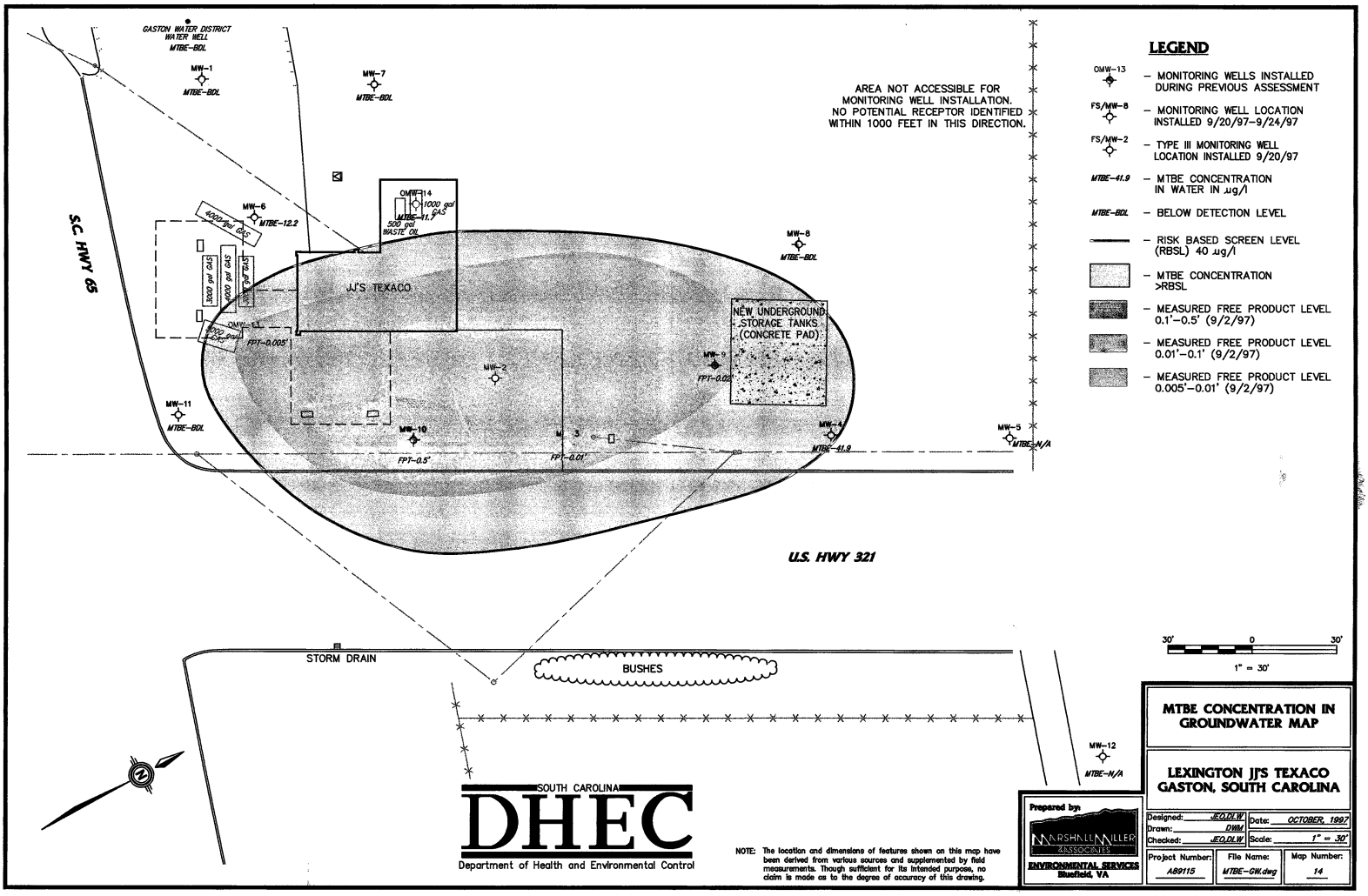
NOTE: The location and dimensions of features shown on this map have been derived from various sources and supplemented by field measurements. Though sufficient for its intended purpose, no claim is made as to the degree of accuracy of this drawing.

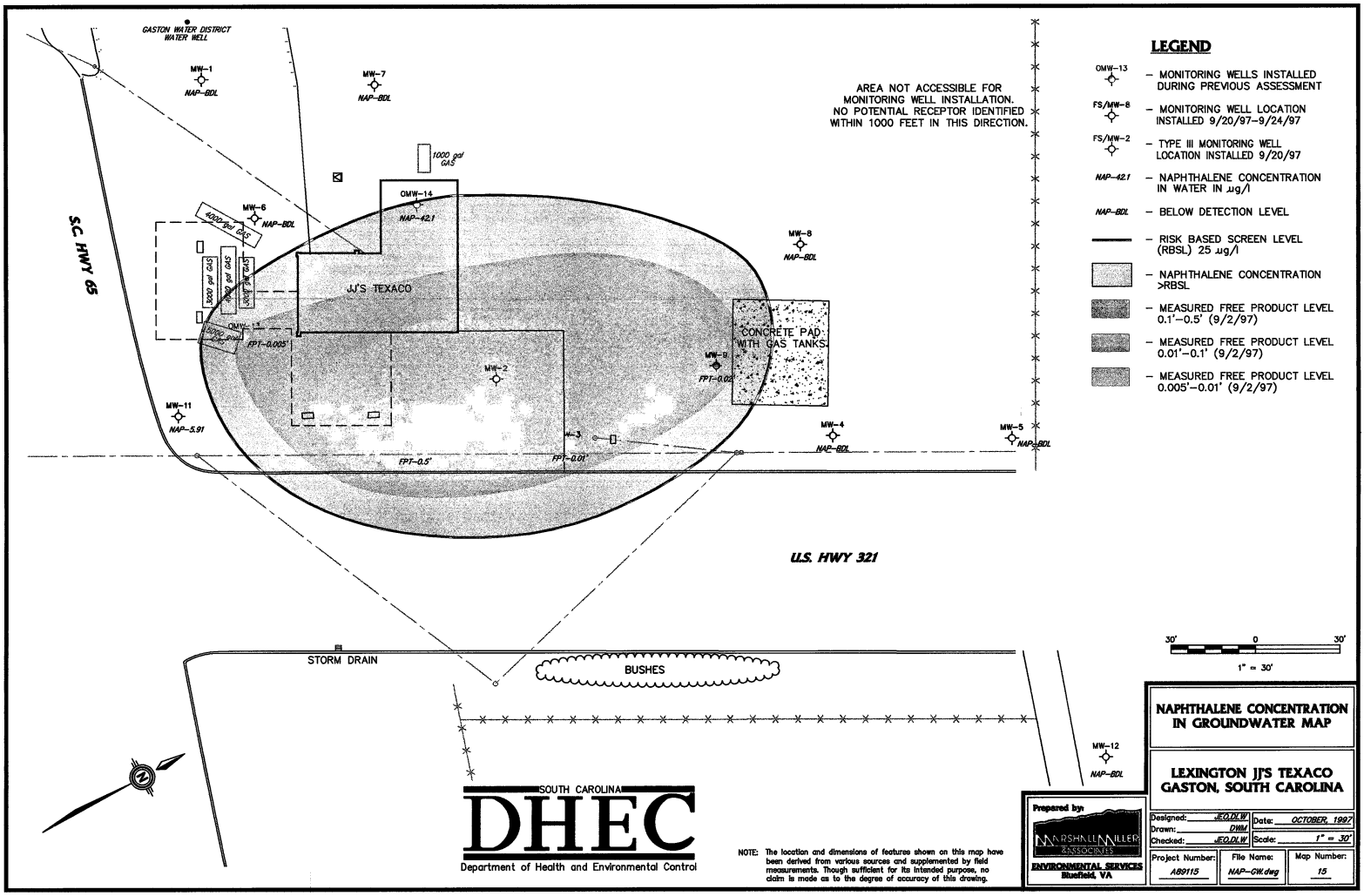
TOLUENE CONCENTRATION IN GROUNDWATER MAP

LEXINGTON JJ'S TEXACO
GASTON, SOUTH CAROLINA

Prepared by:
MARSHALL MILLER & ASSOCIATES
ENVIRONMENTAL SERVICES
Bluefield, VA

Designed: JEO,DLW	Date: OCTOBER, 1997		
Drawn: DWM			
Checked: JEO,DLW	Scale: 1" = 30'		
Project Number: A89115	File Name: TOL-GW.dwg	Map Number: 13	


GASTON WATER DISTRICT WATER WELL
MTBE-BDL
MW-1
MTBE-BDL
MW-7
MTBE-BDL
AREA NOT ACCESSIBLE FOR MONITORING WELL INSTALLATION. NO POTENTIAL RECEPTOR IDENTIFIED WITHIN 1000 FEET IN THIS DIRECTION.
S.C. HWY 65
OMW-14
1000 gal GAS
MTBE-11.1
500 gal WASTE Oil
MW-6
MTBE-12.2
4000 gal GAS
3000 gal GAS
1000 gal GAS
1000 gal GAS
JJ'S TEXACO
MW-8
MTBE-BDL
NEW UNDERGROUND STORAGE TANKS (CONCRETE PAD)
OMW-13
FPT-0.005'
MW-2
MW-9
FPT-0.02'
MW-11
MTBE-BDL
MW-10
FPT-0.5'
MW-3
FPT-0.01'
MW-4
MTBE-41.9
MW-5
MTBE-N/A
U.S. HWY 321
STORM DRAIN
BUSHES
MW-12
MTBE-N/A
SOUTH CAROLINA
DHEC
Department of Health and Environmental Control
NOTE: The location and dimensions of features shown on this map have been derived from various sources and supplemented by field measurements. Though sufficient for its intended purpose, no claim is made as to the degree of accuracy of this drawing.
LEGEND
OMW-13 – MONITORING WELLS INSTALLED DURING PREVIOUS ASSESSMENT
FS/MW-8 – MONITORING WELL LOCATION INSTALLED 9/20/97-9/24/97
FS/MW-2 – TYPE III MONITORING WELL LOCATION INSTALLED 9/20/97
MTBE-41.9 – MTBE CONCENTRATION IN WATER IN µg/l
MTBE-BDL – BELOW DETECTION LEVEL
– RISK BASED SCREEN LEVEL (RBSL) 40 µg/l
– MTBE CONCENTRATION >RBSL
– MEASURED FREE PRODUCT LEVEL 0.1'-0.5' (9/2/97)
– MEASURED FREE PRODUCT LEVEL 0.01'-0.1' (9/2/97)
– MEASURED FREE PRODUCT LEVEL 0.005'-0.01' (9/2/97)
30' 0 30'
1" = 30'
MTBE CONCENTRATION IN GROUNDWATER MAP
LEXINGTON JJ'S TEXACO
GASTON, SOUTH CAROLINA
Prepared by:
MARSHALL MILLER & ASSOCIATES
ENVIRONMENTAL SERVICES
Bluefield, VA
Designed: JEO,DLW
Drawn: DWM
Checked: JEO,DLW
Date: OCTOBER, 1997
Scale: 1" = 30'
Project Number: A89115
File Name: MTBE-GW.dwg
Map Number: 14


GASTON WATER DISTRICT WATER WELL
MW-1
NAP-BDL
MW-7
NAP-BDL
AREA NOT ACCESSIBLE FOR MONITORING WELL INSTALLATION. NO POTENTIAL RECEPTOR IDENTIFIED WITHIN 1000 FEET IN THIS DIRECTION.
1000 gal GAS
OMW-14
NAP-42.1
MW-6
NAP-BDL
SC HWY 65
4000 gal GAS
3000 gal GAS
1000 gal WASTE OIL
JJ'S TEXACO
OMW-13
FPT-0.005'
MW-8
NAP-BDL
CONCRETE PAD WITH GAS TANKS
MW-2
MW-9
FPT-0.02'
MW-11
NAP-5.91
MW-3
FPT-0.5'
FPT-0.01'
MW-4
NAP-BDL
MW-5
NAP-BDL
U.S. HWY 321
STORM DRAIN
BUSHES
MW-12
NAP-BDL
N
SOUTH CAROLINA
DHEC
Department of Health and Environmental Control
NOTE: The location and dimensions of features shown on this map have been derived from various sources and supplemented by field measurements. Though sufficient for its intended purpose, no claim is made as to the degree of accuracy of this drawing.
LEGEND
OMW-13 – MONITORING WELLS INSTALLED DURING PREVIOUS ASSESSMENT
FS/MW-8 – MONITORING WELL LOCATION INSTALLED 9/20/97-9/24/97
FS/MW-2 – TYPE III MONITORING WELL LOCATION INSTALLED 9/20/97
NAP-42.1 – NAPHTHALENE CONCENTRATION IN WATER IN µg/l
NAP-BDL – BELOW DETECTION LEVEL
– RISK BASED SCREEN LEVEL (RBSL) 25 µg/l
– NAPHTHALENE CONCENTRATION >RBSL
– MEASURED FREE PRODUCT LEVEL 0.1'-0.5' (9/2/97)
– MEASURED FREE PRODUCT LEVEL 0.01'-0.1' (9/2/97)
– MEASURED FREE PRODUCT LEVEL 0.005'-0.01' (9/2/97)
30' 0 30'
1" = 30'
NAPHTHALENE CONCENTRATION IN GROUNDWATER MAP
LEXINGTON JJ'S TEXACO
GASTON, SOUTH CAROLINA
Prepared by
MARSHALL MILLER & ASSOCIATES
ENVIRONMENTAL SERVICES
Bluefield, VA
Designed: JEO,DLW
Drawn: DWM
Checked: JEO,DLW
Date: OCTOBER, 1997
Scale: 1" = 30'
Project Number: AB9115
File Name: NAP-GW.dwg
Map Number: 15

Soil Boring Log

Company SCDHEC
Project J.J. Texaco
Project No. A89115
Facility I.D.

Date Started 08/13/97 Hole No. SB-1 (MW-1)

Date Completed 08/13/97 Type of Hole Geoprobe

Logged by J. Owrey Dia. of Hole ±8"

Ground Elev. Top of Casing

From	To	Thickness	Description
0.0	4.0	4.0	*0.0 – 2.0 feet drilled through asphalt and fill gravel, 2.0 – 4.0 feet sand, dark brown, unconsolidated, dry, PID = 0.0 ppm*
4.0	8.0	4.0	*Fine to medium grain, sand, tan with dark brown mottling, unconsolidated, dry, PID = 0.0 ppm*
8.0	12.0	4.0	*Fine to medium grain, sandy clay, orange with red mottling, consolidated, moist, PID = 0.0 ppm*
12.0	16.0	4.0	*Fine to medium grain, sandy clay, orange with red mottling, consolidated, moist, PID = 0.0 ppm*
16.0	20.0	4.0	*Fine grain, silty sandy clay, reddish brown with pink mottling, consolidated, moist, PID = 0.0 ppm*
20.0	24.0	4.0	*Fine grain, silty sandy clay, reddish brown with pink mottling, consolidated, moist, PID = 0.0 ppm*
24.0	28.0	4.0	*Fine grain, silty sandy clay, reddish brown with pink mottling, consolidated, moist, PID = 0.0 ppm*
28.0	32.0	4.0	*Fine grain, silty sandy clay, reddish brown with pink mottling, consolidated, moist, iron staining, PID = 0.0 ppm*
32.0	36.0	4.0	*32 – 34 feet large grain, reddish brown sand with red mottling, unconsolidated, moist, 34 – 36 feet fine grain, silty sandy clay, reddish brown with pink mottling, consolidated, moist, PID = 0.0 ppm*
36.0	40.0	4.0	*36 – 38 feet fine grain, silty sandy clay, reddish brown with pink mottling, consolidated, moist, 38 – 40 feet large grain, reddish brown sand with red mottling, unconsolidated, moist, saturated, PID = 0.0 ppm*
40.0	TD		*PID = 0.0 ppm*

MARSHALL MILLER & ASSOCIATES

Project No. A89115

Date Started	08/13/97	Hole No.	SB-2
Date Completed	08/13/97	Type of Hole	Geoprobe
Logged by	J. Owrey	Dia. of Hole	±8"
Ground Elev.		Top of Casing	

From	To	Thickness	Description
0.0	4.0	4.0	*0.0 – 2.0 feet drilled through asphalt and fill gravel, 2.0 – 4.0 feet sand, dark brown, unconsolidated, dry, PID = 0.0 ppm*
4.0	8.0	4.0	*Fine to medium grain, sand, tan with dark brown mottling, unconsolidated, dry, PID = 0.0 ppm*
8.0	12.0	4.0	*Fine to medium grain, sand, tan with dark brown mottling, unconsolidated, dry, PID = 0.0 ppm*
12.0	16.0	4.0	*Fine to medium grain, sand, tan with dark brown mottling, unconsolidated, dry, PID = 0.0 ppm*
16.0	20.0	4.0	*Fine to medium grain, sand, tan, unconsolidated, dry, PID = 0.0 ppm*
20.0	24.0	4.0	*Fine to medium grain, sand, tan, unconsolidated, dry, PID = 0.0 ppm*
24.0	28.0	4.0	*Fine to medium grain, sand, tan, unconsolidated, dry, PID = 0.0 ppm*
28.0	32.0	4.0	*Fine to medium grain, sand, tan, unconsolidated, dry, PID = 0.0 ppm*
32.0	36.0	4.0	*Fine to medium grain, sand, tan, unconsolidated, saturated, PID = 0.0 ppm*
36.0	TD		*PID = 0 ppm*

Project No. A89115

Date Started	08/13/97	Hole No.	SB-3 (DMW-2)
Date Completed	08/13/97	Type of Hole	Geoprobe
Logged by	J. Owrey	Dia. of Hole	±8"
Ground Elev.		Top of Casing	

From	To	Thickness	Description
0.0	4.0	4.0	*0.0 – 2.0 feet drilled through asphalt and fill gravel, 2.0 – 4.0 feet sand, dark brown, unconsolidated, dry, PID = 0.0 ppm*
4.0	8.0	4.0	*Fine to medium grain, sand, tan with dark brown mottling, unconsolidated, dry, PID = 0.0 ppm*
8.0	12.0	4.0	*8 – 10 feet fine to medium grain, sand, light to dark tan, mottled, unconsolidated, stained, slightly moist, 10 – 12 feet fine to medium grain sand, red brown, mottled, unconsolidated, slightly moist, PID = 0.0 ppm*
12.0	16.0	4.0	*Fine to medium grain sand, red brown, mottled, unconsolidated, slightly moist, PID = 0.0 ppm*
16.0	20.0	4.0	*16 – 18 feet fine to medium grain sand, red brown, mottled, unconsolidated, slightly moist, 18 – 20 feet fine grain, sandy, silty clay, red brown, mottled, consolidated, slightly moist, PID = 0.0 ppm*
20.0	24.0	4.0	*20 –22 feet fine grain sandy, silty clay, red brown, mottled, consolidated, slightly moist, 22 – 24 feet, fine grain, sandy, silty clay, red brown, mottled, consolidated, slightly moist, no staining, PID = 3.6 ppm*
24.0	28.0	4.0	*24 – 26 feet large grain, red brown, sand, mottled, iron staining, unconsolidated, moist, 26 – 28 feet fine grain, silty, sandy clay red brown, mottled, consolidated, moist, PID = 8 ppm*
28.0	32.0	4.0	*28 – 30 feet large grain sand, brown, unconsolidated, moist, 30 – 32 feet fine grain, silty sandy clay, red to purple iron staining, mottled, consolidated, moist, PID = 38 ppm*
32.0	36.0	4.0	*32 – 34 feet fine grain, silty sandy clay, red to purple iron staining, mottled, consolidated, moist, 34 – 36 feet large grain sand, brown, unconsolidated, moist, PID = 15 ppm*
36.0	40.0	4.0	*36 – 38 feet fine grain, silty sandy clay, red to purple iron staining, mottled, consolidated, moist, 38 – 40 feet large grain sand, brown, unconsolidated, moist, PID = 90 ppm*
40.0	TD		

Project No. A89115

Date Started	08/14/97	Hole No.	SB-4 (MW-3)
Date Completed	08/14/97	Type of Hole	Geoprobe
Logged by	J. Owrey	Dia. of Hole	±8"
Ground Elev.		Top of Casing	

From	To	Thickness	Description
0.0	4.0	4.0	*0.0 – 2.0 feet drilled through asphalt and fill gravel, 2.0 – 4.0 feet sand, dark brown, unconsolidated, dry, PID = 0.0 ppm*
4.0	8.0	4.0	*Fine to medium grain, sand, tan with brown mottling, unconsolidated, dry, PID = 0.0 ppm*
8.0	12.0	4.0	*Fine to medium grain, sand, tan with brown mottling, unconsolidated, dry, PID = 0.0 ppm*
12.0	16.0	4.0	*12 – 15 feet fine to medium grain sand, tan with brown mottling, consolidated, 15 – 16 feet fine to medium grain sand, tan with brown mottling, consolidated, PID = 3.0 ppm*
16.0	20.0	4.0	*Fine to medium grain, sandy silty clay, red brown, red mottling, consolidated, staining, moist, PID = 5.0 ppm*
20.0	24.0	4.0	*Fine to medium grain, sandy silty clay, red brown, red mottling, consolidated, staining, moist, PID = 6 ppm*
24.0	28.0	4.0	*Fine to medium grain, sandy silty clay, red brown, red mottling, consolidated, purple staining, PID = 33 ppm*
28.0	32.0	4.0	*28 – 30 feet fine to medium grain sandy silty clay, red brown, red mottling, consolidated, purple staining, 30 – 32 feet large grain, sand with quartz, brown, unconsolidated, moist, PID = 80 ppm*
32.0	36.0	4.0	*Large grain, sand with quartz, brown, unconsolidated, moist, PID = 70 ppm*
36.0	TD		

Project No. A89115

Date Started	08/14/97	Hole No.	SB-5 (MW-4)
Date Completed	08/14/97	Type of Hole	Geoprobe
Logged by	J. Owrey	Dia. of Hole	±8"
Ground Elev.		Top of Casing	

From	To	Thickness	Description
0.0	4.0	4.0	*Fine to medium grain sand, tan to dark brown, unconsolidated, dry, PID = 0.0 ppm*
4.0	8.0	4.0	*Fine to medium grain, sand, tan with brown mottling, unconsolidated, dry, PID = 0.0 ppm*
8.0	12.0	4.0	*Fine to medium grain, sandy, silty clay, reddish brown with red mottling, consolidated, moist, PID = 0.0 ppm*
12.0	16.0	4.0	*Fine to medium grain, sandy, silty, clay, reddish brown with red mottling, consolidated, moist, PID = 0.0 ppm*
16.0	20.0	4.0	*Fine grain, silty sandy clay with quartz red brown with red mottling, consolidated, moist, staining, PID = 5.0 ppm*
20.0	24.0	4.0	*Fine grain, silty sandy clay with quartz red brown with red mottling, consolidated, moist, staining, PID = 4.0 ppm*
24.0	28.0	4.0	*24-27 feet fine grain, silty sandy clay with quartz red brown with red mottling, consolidated, 27-28 feet large grain, sandy clay, brown with quartz fragments, unconsolidated, moist, PID = 15 ppm*
28.0	32.0	4.0	*28-30 feet fine grain, silty sandy clay with quartz red brown with red mottling, consolidated, 30-32 feet large grain, sandy clay, brown with quartz fragments, unconsolidated, saturated, PID = 14.0 ppm*
32.0	36.0	4.0	*Fine grain, silty sandy clay with quartz red brown with red mottling, consolidated, saturated, PID = 8 ppm*
36.0	TD		

Project No. A89115

Date Started	08/14/97	Hole No.	SB-6 (MW-5)
Date Completed	08/14/97	Type of Hole	Geoprobe
Logged by	J. Owrey	Dia. of Hole	±8"
Ground Elev.		Top of Casing	

From	To	Thickness	Description
0.0	4.0	4.0	*Fine to medium grain sand, tan to dark brown, unconsolidated, dry, PID = 0.0 ppm*
4.0	8.0	4.0	*Fine to medium grain, sand, tan with brown mottling, unconsolidated, dry, PID = 0.0 ppm*
8.0	12.0	4.0	*Fine to medium grain, sandy, silty clay, reddish brown with red mottling, consolidated, moist, PID = 0.0 ppm*
12.0	16.0	4.0	*Fine to medium grain, sandy, silty, clay, reddish brown with red mottling, consolidated, moist, PID = 0.0 ppm*
16.0	20.0	4.0	*16-18 feet large grain sandy clay, red brown with red mottling, consolidated, moist, 18-20' fine grain silty sandy clay, red mottling, stained, consolidated, moist, PID = 3.0 ppm*
20.0	24.0	4.0	*20-22 feet fine grain silty sandy clay, red brown with quartz with red mottling, consolidated, moist, 23-24 feet large grain sandy clay, brown to white with quartz, stained, consolidated, moist, PID = 2.8 ppm*
24.0	28.0	4.0	*Large grain sandy clay, brown to white with quartz, staining, consolidated, moist, PID = 3.0 ppm*
28.0	32.0	4.0	*Medium grain, sandy clay, tan to red brown, with red mottling, consolidated, saturated, PID = 2.5 ppm*
32.0	36.0	4.0	*Medium grain, sandy clay, PID = 1.5 ppm*
36.0	TD		*PID = 0.0*

Project No. A89115

Date Started	08/14/97	Hole No.	SB-7
Date Completed	08/14/97	Type of Hole	Geoprobe
Logged by	J. Owrey	Dia. of Hole	±8"
Ground Elev.		Top of Casing	

From	To	Thickness	Description
0.0	4.0	4.0	*Fine to medium grain sand, tan to dark brown, unconsolidated, dry, PID = 0.0 ppm*
4.0	8.0	4.0	*Fine to medium grain, sand, tan with brown mottling, unconsolidated, dry, PID = 0.0 ppm*
8.0	12.0	4.0	*Fine to medium grain, sandy, silty clay, reddish brown with quartz, red mottling, consolidated, moist, PID = 0.0 ppm*
12.0	16.0	4.0	*Medium to large grain sandy clay, red brown with quartz, iron staining, consolidated, moist, PID = 0.0 ppm*
16.0	20.0	4.0	*Medium to large grain sandy clay, red brown with quartz, iron staining, consolidated, moist, PID = 0.0 ppm*
20.0	24.0	4.0	*Large grain sandy clay, red brown with quartz, iron staining, consolidated, moist, PID = 2.0 ppm*
24.0	28.0	4.0	*Large grain sand, red brown, iron staining, consolidated, moist, PID = 1.0 ppm*
28.0	32.0	4.0	*Large grain sand, red brown, iron staining, consolidated, moist, PID = 0.0 ppm*
32.0	36.0	4.0	*Large grain sand, red brown, iron staining, consolidated, moist, PID = 0.0 ppm*
36.0	TD		*PID = 0.0*

Project No. A89115

Date Started	08/14/97	Hole No.	SB-8
Date Completed	08/14/97	Type of Hole	Geoprobe
Logged by	J. Owrey	Dia. of Hole	±8"
Ground Elev.		Top of Casing	

From	To	Thickness	Description
0.0	4.0	4.0	*Fine to medium grain sand, tan to brown, unconsolidated, organics, moist, PID = 0.0 ppm*
4.0	8.0	4.0	*Fine to medium grain sand, tan to brown, unconsolidated, organics, moist, PID = 0.0*
8.0	12.0	4.0	*Fine to medium grain sand, tan to brown, unconsolidated, organics, moist, PID = 2.0 ppm*
12.0	16.0	4.0	*12-13 feet fine to medium grain sand, tan to brown, unconsolidated, organics, moist, 13-16 feet fine to medium grain, silty sandy clay, brown with orange mottling, consolidated, moist, PID = 0.0 ppm*
16.0	20.0	4.0	*Fine to medium grain, silty sandy clay, brown with orange mottling, consolidated, moist, PID = 0.0 ppm*
20.0	24.0	4.0	*20-22 large grain, silty sandy clay, brown with orange mottling, consolidated, moist, 22-24 feet fine to medium grain, silty sandy clay, brown with orange mottling, consolidated, moist, PID = 2.7 ppm*
24.0	28.0	4.0	*Medium to large grain with quartz, brown with orange mottling, consolidated, moist, PID = 2.2 ppm*
28.0	32.0	4.0	*Fine to medium grain, quartz, brown with orange mottling, consolidated, moist, PID = 2.5 ppm*
32.0	36.0	4.0	*Saturated, PID = 1.0 ppm*
36.0	TD		*PID = 0.0*

Project No. A89115

Date Started	08/15/97	Hole No.	SB-9 (MW-6)
Date Completed	08/15/97	Type of Hole	Geoprobe
Logged by	J. Owrey	Dia. of Hole	±8"
Ground Elev.		Top of Casing	

From	To	Thickness	Description
0.0	4.0	4.0	*Fine grain sand, dark brown, unconsolidated, dry, PID = 0.0 ppm*
4.0	8.0	4.0	*Fine to medium grain, sand, tan to brown, consolidated, dry, PID = 0.0 ppm*
8.0	12.0	4.0	*Fine to medium grain, sand, tan to brown, consolidated, dry, some trace organics, PID = 0.7 ppm*
12.0	16.0	4.0	*Fine to medium grain, sandy clay, red brown with red mottling, trace organics, consolidated, slightly moist, PID = 0.0 ppm*
16.0	20.0	4.0	*Fine to medium grain, sandy clay, red brown with red mottling, consolidated, moist, PID = 0.0 ppm*
20.0	24.0	4.0	*Fine to medium grain, sandy silty clay, red brown with red mottling, consolidated, moist, PID = 0.0 ppm*
24.0	28.0	4.0	*Fine to medium grain, sandy silty clay, red brown with red mottling, consolidated, moist, PID = 0.0 ppm*
28.0	32.0	4.0	*Fine to medium grain, sandy silty clay, red brown with red mottling, consolidated, moist, PID = 0.0 ppm*
32.0	36.0	4.0	*Fine to medium grain, sandy silty clay, red brown with red mottling, consolidated, saturated, PID = 1.0 ppm*
36.0	TD		*PID = 2.0*

Project No. A89115

Date Started	08/15/97	Hole No.	SB-10
Date Completed	08/15/97	Type of Hole	Geoprobe
Logged by	J. Owrey	Dia. of Hole	±8"
Ground Elev.		Top of Casing	

From	To	Thickness	Description
0.0	4.0	4.0	*Fine grain sand, dark brown, unconsolidated, dry, PID = 0.0 ppm*
4.0	8.0	4.0	*Fine to medium grain, sand, tan to brown, unconsolidated, dry, PID = 0.0 ppm*
8.0	12.0	4.0	*Fine to medium grain, sand, tan to brown, trace organics, unconsolidated, dry, PID = 0.0 ppm*
12.0	16.0	4.0	*Fine to medium grain, sandy clay, red brown with red mottling, trace organics, consolidated, slightly moist, PID = 0.0 ppm*
16.0	20.0	4.0	*Fine to medium grain, silty sandy clay, red brown with red mottling, consolidated, moist, PID = 0.0 ppm*
20.0	24.0	4.0	*Fine to medium grain, silty sandy clay, red brown with red mottling, consolidated, moist, PID = 0.0 ppm*
24.0	28.0	4.0	*Fine to medium grain, silty sandy clay, red brown with red mottling, consolidated, moist, PID = 0.0 ppm*
28.0	32.0	4.0	*Fine to medium grain, silty sandy clay, red brown with red mottling, consolidated, moist, PID = 0.0 ppm*
32.0	36.0	4.0	*Fine to medium grain, silty sandy clay, red brown with red mottling, consolidated, moist, PID = 0.0 ppm*
36.0	TD		*PID = 0.0*

MARSHALL MILLER & ASSOCIATES

Project No. A89115

Date Started	08/15/97	Hole No.	SB-11 (MW-7)
Date Completed	08/15/97	Type of Hole	Geoprobe
Logged by	J. Owrey	Dia. of Hole	±8"
Ground Elev.		Top of Casing	

From	To	Thickness	Description
0.0	4.0	4.0	*Fine grain sand, dark brown, unconsolidated, dry, PID = 0.0 ppm*
4.0	8.0	4.0	*Fine to medium grain, sand, tan to brown, unconsolidated, dry, PID = 0.0 ppm*
8.0	12.0	4.0	*Fine to medium grain, sand, tan to brown, trace organics, unconsolidated, dry, PID = 0.0 ppm*
12.0	16.0	4.0	*Fine to medium grain, sandy clay, red brown with red mottling, trace organics, consolidated, slightly moist, PID = 0.0 ppm*
16.0	20.0	4.0	*Fine to medium grain, silty sandy clay, red brown with red mottling, consolidated, moist, PID = 0.0 ppm*
20.0	24.0	4.0	*20-21.5 feet fine to medium grain, sand, tan, unconsolidated, moist, 21.5-24 feet fine to medium grain, sandy clay, red brown with red mottling, consolidated, moist, PID = 0.0 ppm*
24.0	28.0	4.0	*24-26 feet fine grain, silty sandy clay, tan to brown with red mottling, consolidated, moist, 26-28 feet fine to medium grain, sandy clay, reddish brown with red mottling, consolidated, moist, PID = 6.0 ppm*
28.0	32.0	4.0	*Fine to medium grain, sandy clay, reddish brown with red mottling, consolidated, moist, PID = 10.0 ppm*
32.0	36.0	4.0	*Fine to medium grain, sandy clay, reddish brown with red mottling, consolidated, moist, PID = 0.0 ppm*
36.0	TD		*PID = 0.0*

MARSHALL MILLER & ASSOCIATES

Project No. A89115

Date Started	08/18/97	Hole No.	SB-12 (MW-8)
Date Completed	08/18/97	Type of Hole	Geoprobe
Logged by	J. Owrey	Dia. of Hole	±8"
Ground Elev.		Top of Casing	

From	To	Thickness	Description
0.0	4.0	4.0	*Fine grain sand, dark brown, unconsolidated, moist, PID = 0.0 ppm*
4.0	8.0	4.0	*Fine to medium grain, sand, tan to brown, unconsolidated, dry, PID = 0.0 ppm*
8.0	12.0	4.0	*8-10 feet UST basin gravel backfill, 10-12 fine grain sand, red brown, unconsolidated, moist, PID = 0.0 ppm*
12.0	16.0	4.0	*Fine grain, red brown, unconsolidated, moist, PID = 0.0 ppm*
16.0	20.0	4.0	*Fine grain, silty sandy clay, brown with iron staining, consolidated, moist, PID = 0.0 ppm*
20.0	24.0	4.0	*Fine grain, silty sandy clay with quartz, tan mottling, consolidated, moist PID = 0.0 ppm*
24.0	28.0	4.0	*Fine grain, silty sandy clay with quartz, iron staining, consolidated, moist, PID = 0.0 ppm*
28.0	32.0	4.0	*Large grain sand, tan with quartz, unconsolidated, saturated, PID = 0.0 ppm*
32.0	36.0	4.0	*Large grain sand, tan with quartz, unconsolidated, saturated, PID = 0.0 ppm*
36.0	TD		*PID = 7.0*

Project No. A89115

Date Started	08/18/97	Hole No.	SB-13 (MW-9)
Date Completed	08/18/97	Type of Hole	Geoprobe
Logged by	J. Owrey	Dia. of Hole	±8"
Ground Elev.		Top of Casing	

From	To	Thickness	Description
0.0	4.0	4.0	*Fine grain sand, dark brown, unconsolidated, moist, PID = 0.0 ppm*
4.0	8.0	4.0	*Fine to medium grain, sand, tan to brown, unconsolidated, dry, PID = 0.0 ppm*
8.0	12.0	4.0	*8-10 feet UST basin gravel backfill, 10-12 fine grain sand, red brown, unconsolidated, iron staining, moist, PID = 0.0 ppm*
12.0	16.0	4.0	*12-13 feet fine grain sand, brown, unconsolidated, dry, 13-16 feet fine grain, silty sandy clay, red brown, mottling, consolidated, moist, PID = 0.0 ppm*
16.0	20.0	4.0	*Fine grain, silty sandy clay, red brown, mottling, consolidated, moist, PID = 0.0 ppm*
20.0	24.0	4.0	*Fine grain, silty sandy clay, red brown, mottling, consolidated, moist PID = 0.0 ppm*
24.0	28.0	4.0	*24-27 feet fine to medium grain, sandy clay, red brown with trace organics, staining, quartz fragments, consolidated, moist, 27-28 feet fine grain, silty sandy clay, tan, with red mottling, consolidated, moist, PID = 0.0 ppm*
28.0	32.0	4.0	*Fine grain silty sandy clay, tan with red mottling, consolidated, saturated, PID = 0.0 ppm*
32.0	36.0	4.0	*Fine grain, silty sandy clay, tan with red mottling, consolidated, saturated, PID = 30.0 ppm*
36.0	TD		*PID = 30.0*

MARSHALL MILLER & ASSOCIATES

Project No. A89115

Date Started	08/18/97	Hole No.	SB-14 (MW-10)
Date Completed	08/18/97	Type of Hole	Geoprobe
Logged by	J. Owrey	Dia. of Hole	±8"
Ground Elev.		Top of Casing	

From	To	Thickness	Description
0.0	4.0	4.0	*0 –2.0 feet drilled through asphalt and fill gravel, 2-4 feet sand, dark brown, unconsolidated, dry, PID = 0.0 ppm*
4.0	8.0	4.0	*Fine to medium grain, sand, tan to brown, unconsolidated, dry, PID = 0.0 ppm*
8.0	12.0	4.0	*8-10 feet UST basin gravel backfill, 10-12 fine grain sand, red brown, unconsolidated, moist, PID = 0.0 ppm*
12.0	16.0	4.0	*Fine to medium grain, sandy silty clay, red brown, consolidated, with staining, moist, PID = 0.0 ppm*
16.0	20.0	4.0	*Fine to medium grain, sandy silty clay, red brown, consolidated with staining, moist, PID = 3.0 ppm*
20.0	24.0	4.0	*Fine to medium grain, sandy silty clay, red brown, consolidated with staining, moist, PID = 5.0 ppm*
24.0	28.0	4.0	*Fine to medium grain, sandy silty clay, red brown, consolidated with staining, moist, PID = 5.0 ppm*
28.0	32.0	4.0	*28-30 feet fine to medium grain, sandy silty clay, red brown, consolidated with staining, moist, 30-32 feet fine to medium grain, sandy silty clay, red brown, consolidated with staining, moist, PID = 50.0 ppm*
32.0	36.0	4.0	*32-33 feet fine to medium grain, sandy silty clay, red brown, consolidated with staining, moist, 33-36 feet fine to medium grain, sandy silty clay, red brown, consolidated, moist, PID = 50.0 ppm*
36.0	40.0	4.0	*36-39 feet large grain sandy clay with quartz tan with pink mottling, consolidated, moist, 39-40 feet large grain sandy clay with quartz tan with pink mottling, consolidated, moist, PID = 20 ppm*
40.0	44.0	4.0	*Large grain sandy clay with quartz tan with pink mottling, consolidated, moist, PID = 0.0 ppm*
44.0	TD		*PID = 60 ppm*

MARSHALL MILLER & ASSOCIATES

Project No. A89115

Date Started	08/19/97	Hole No.	SB-15
Date Completed	08/19/97	Type of Hole	Geoprobe
Logged by	J. Owrey	Dia. of Hole	±8"
Ground Elev.		Top of Casing	

From	To	Thickness	Description
0.0	4.0	4.0	*0 –2.0 feet drilled through asphalt and fill gravel, 2-4 feet sand, dark brown, unconsolidated, dry, PID = 0.0 ppm*
4.0	8.0	4.0	*Fine to medium grain, sand, tan to brown, unconsolidated, dry, PID = 0.0 ppm*
8.0	12.0	4.0	*Fine to medium grain sand, brown with quartz, consolidated, slightly moist, PID = 2.8 ppm*
12.0	16.0	4.0	*Fine to medium grain, sandy clay, red brown with red mottling, consolidated, moist, PID = 15.0 ppm*
16.0	20.0	4.0	*Fine to medium grain, sandy clay, red brown with red mottling, consolidated, moist, PID = 80.0 ppm*
20.0	24.0	4.0	*Fine to medium grain, sandy clay, red brown with red mottling, consolidated, moist, PID = 10.0 ppm*
24.0	28.0	4.0	*Fine to medium grain, sandy clay, red brown with red mottling, consolidated, moist, PID = 98.0 ppm*
28.0	32.0	4.0	*Fine to medium grain, sandy clay, red brown with red mottling, consolidated, moist, PID = 7.0 ppm*
32.0	36.0	4.0	*Fine to medium grain, sandy clay, red brown with red mottling, consolidated, moist, PID = 20.0 ppm*
36.0	TD		*PID = 10.0 ppm*

MARSHALL MILLER & ASSOCIATES

Project No. A89115

Date Started	08/19/97	Hole No.	SB-16 (MW-11)
Date Completed	08/19/97	Type of Hole	Geoprobe
Logged by	J. Owrey	Dia. of Hole	±8"
Ground Elev.		Top of Casing	

From	To	Thickness	Description
0.0	4.0	4.0	*0 –2.0 feet drilled through asphalt and fill gravel, 2-4 feet sand, dark brown, unconsolidated, dry, PID = 0.0 ppm*
4.0	8.0	4.0	*Fine to medium grain, sand, tan to brown, unconsolidated, dry, PID = 0.0 ppm*
8.0	12.0	4.0	*Fine to medium grain sand, brown with quartz, consolidated, slightly moist, PID = 0.0 ppm*
12.0	16.0	4.0	*Fine to medium grain, sandy clay, red brown with pink mottling, consolidated, moist, PID = 3.0 ppm*
16.0	20.0	4.0	*Fine grain sand, dark brown, unconsolidated, dry, PID = 30.0 ppm*
20.0	24.0	4.0	*Fine grain sand, red brown with pink mottling, unconsolidated, dry, PID = 17.0 ppm*
24.0	28.0	4.0	*Fine grain sand, red brown with pink mottling, unconsolidated, dry, PID = 70.0 ppm*
28.0	32.0	4.0	*Fine grain, silty sandy clay with quartz, reddish brown, consolidated, moist, PID = 7.0 ppm*
32.0	36.0	4.0	*Fine grain, silty sandy clay with quartz, reddish brown, consolidated, saturated, PID = 0.0 ppm*
36.0	TD		*PID = 0.0 ppm*

MARSHALL MILLER & ASSOCIATES

Project No. A89115

Date Started	08/20/97	Hole No.	SB-17
Date Completed	08/20/97	Type of Hole	Geoprobe
Logged by	J. Owrey	Dia. of Hole	±8"
Ground Elev.		Top of Casing	

From	To	Thickness	Description
0.0	4.0	4.0	*Fine to medium grain sand, tan to brown, unconsolidated, dry, PID = 0.0 ppm*
4.0	8.0	4.0	*Fine to medium grain sand, tan to brown, unconsolidated, moist, PID = 0.0 ppm*
8.0	12.0	4.0	*Fine to medium grain, sandy clay, red brown with pink mottling, consolidated, moist, PID = 0.0 ppm*
12.0	16.0	4.0	*12-14 feet fine to medium grain, sandy clay, red with pink mottling, consolidated, moist, 14-16 feet fine to medium grain, sandy silty clay, red with pink mottling, consolidated, moist, PID = 0.0 ppm*
16.0	20.0	4.0	*Fine to medium grain, sandy silty clay, red with pink mottling, trace organics, consolidated, moist, PID = 0.0 ppm*
20.0	24.0	4.0	*Fine to medium grain, sandy silty clay, red with pink mottling, trace organics, large quartz fragments, consolidated, moist, PID = 0.0 ppm*
24.0	28.0	4.0	*24-27 feet, fine to medium grain, sandy silty clay, red with pink mottling, trace organics, large quartz fragments, consolidated, moist, 27-28 feet staining, PID = 0.0 ppm*
28.0	32.0	4.0	*Fine to medium grain, sandy silty clay, tan with quartz fragments, staining, moist, PID = 0.0 ppm*
32.0	36.0	4.0	*32-34 feet fine grain, silty sandy clay, tan with quartz fragments, consolidated, saturated, 34-36 large grain, sandy clay, with quartz purple, consolidated, saturated, PID = 0.0 ppm*
36.0	TD		*PID = 0.0 ppm*

MARSHALL MILLER & ASSOCIATES

Project No. A89115

Date Started	08/20/97	Hole No.	SB-18 (MW-12)
Date Completed	08/20/97	Type of Hole	Geoprobe
Logged by	J. Owrey	Dia. of Hole	±8"
Ground Elev.		Top of Casing	

From	To	Thickness	Description
0.0	4.0	4.0	*Fine to medium grain sand, tan to brown, unconsolidated, dry, PID = 0.0 ppm*
4.0	8.0	4.0	*Fine to medium grain sandy silty clay, red brown, iron staining, consolidated, moist, PID = 0.0 ppm*
8.0	12.0	4.0	*Fine to medium grain, sandy silty clay, red brown, consolidated, moist, PID = 0.0 ppm*
12.0	16.0	4.0	*Fine to medium grain, sandy silty clay, red brown, staining, consolidated, moist, PID = 0.0 ppm*
16.0	20.0	4.0	*Fine to medium grain, sandy silty clay, red brown, staining, consolidated, moist, PID = 0.0 ppm*
24.0	24.0	4.0	*Fine to medium grain, sandy silty clay, red brown, staining, PID = 0.0 ppm*
24.0	28.0	4.0	*24-26 feet, fine to medium grain, sandy silty clay, red brown, staining, 25-28 feet large grain, sandy clay, tan brown mottling, consolidated, moist, PID = 0.0 ppm*
28.0	32.0	4.0	*Fine to medium grain, sandy silty clay, red brown mottling, consolidated, moist, PID = 0.0 ppm*
32.0	36.0	4.0	*32-35 feet large grain, sandy clay, tan brown mottling, consolidated, moist, 35-36 large grain, sandy clay, purple, consolidated, moist, PID = 0.0 ppm*
36.0	TD		*PID = 0.0 ppm*

Water Sampling Field Data Record Sheet

Technician(s) J.O./B.W, Location No. MW-1

Job No. A89115, Blank No. _____

Time _____, Date(s) 9-4-97

Additional notes (especially weather) on back . yes / no

WELL DATA:

Type Water Pipe PVC, Diameter Water Pipe 2"

Condition of Guard Pipe, Lock, Water Pipe, Etc.:

Measured from: _____

Depth of Well: _____, Top of Guard Pipe: _____

Depth of Water: 33.63, Top of Water Pipe: _____

Height of Water: _____, Top of Ground: _____

Volume of Water in Well: _____ (V = 3.14 r2h)

2" = .16 gal/ft, 4" = .65 gal/ft

EVACUATION DATA:

_____ Bailer _____ Pump _____ Airlift _____ Other

Volume Removed or Time Pumped:

Equipment Cleaned: _____ Field _____ Lab

_____ Distilled Water _____ Sample Water _____ Other

SAMPLING DATA: Date Sampled _____ Time _____

Color _____ Odor _____

pH					
Dissolved O2					
Temperature					
Conductivity uMHOS/cm					

Samples Collected:

Preservative	Volume	Parameters	Filtered	Iced	Lab No.

Water Sampling Field Data Record Sheet

Technician(s) JO/DW, Location No. D MW-2

Job No. A89115, Blank No. _____

Time _____, Date(s) 9-4-97

Additional notes (especially weather) on back . yes / no

WELL DATA:

Type Water Pipe PVC, Diameter Water Pipe 2"

Condition of Guard Pipe, Lock, Water Pipe, Etc.:

Measured from: _____

Depth of Well: _____, Top of Guard Pipe: _____

Depth of Water: DRY, Top of Water Pipe: _____

Height of Water: _____, Top of Ground: _____

Volume of Water in Well: _____ (V = 3.14 r2h)

2" = .16 gal/ft, 4" = .65 gal/ft

EVACUATION DATA:

_____ Bailer _____ Pump _____ Airlift _____ Other

Volume Removed or Time Pumped:

Equipment Cleaned: _____ Field _____ Lab

_____ Distilled Water _____ Sample Water _____ Other

SAMPLING DATA: Date Sampled _____ Time _____

Color _____ Odor _____

pH					
Dissolved O2					
Temperature					
Conductivity uMHOS/cm					

Samples Collected:

Preservative	Volume	Parameters	Filtered	Iced	Lab No.

Water Sampling Field Data Record Sheet

Technician(s) JO/BW, Location No. MW-3

Job No. 489115, Blank No. _____

Time _____, Date(s) 9-4-97

Additional notes (especially weather) on back. yes / no

WELL DATA:

Type Water Pipe PVC, Diameter Water Pipe 2"

Condition of Guard Pipe, Lock, Water Pipe, Etc.:

GOOD

Measured from: _____

Depth of Well: _____, Top of Guard Pipe: _____

Depth of Water: 33.82, Top of Water Pipe: _____

Height of Water: _____, Top of Ground: _____

Volume of Water in Well: _____ (V = 3.14 r2h)

2" = .16 gal/ft, 4" = .65 gal/ft

EVACUATION DATA:

_____ Bailer _____ Pump _____ Airlift _____ Other

Volume Removed or Time Pumped:

DID NOT SAMPLE - 1/8" F.P.

Equipment Cleaned: _____ Field _____ Lab

_____ Distilled Water _____ Sample Water _____ Other

SAMPLING DATA: Date Sampled _____ Time _____

Color _____ Odor _____

pH					
Dissolved O2					
Temperature					
Conductivity uMHOS/cm					

Samples Collected:

Preservative	Volume	Parameters	Filtered	Iced	Lab No.

Water Sampling Field Data Record Sheet

Technician(s) JO / DW, Location No. MW-4

Job No. 489115, Blank No.

Time, Date(s) 9-4-97

Additional notes (especially weather) on back . yes / no

WELL DATA:

Type Water Pipe PVC, Diameter Water Pipe 2"

Condition of Guard Pipe, Lock, Water Pipe, Etc.:

Measured from:

Depth of Well:, Top of Guard Pipe:

Depth of Water: 37.19, Top of Water Pipe:

Height of Water:, Top of Ground:

Volume of Water in Well: (V = 3.14 r2h)

2" = .16 gal/ft, 4" = .65 gal/ft

EVACUATION DATA:

Bailer, Pump, Airlift, Other

Volume Removed or Time Pumped:

Equipment Cleaned: Field, Lab

Distilled Water, Sample Water, Other

SAMPLING DATA: Date Sampled, Time

Color, Odor

pH					
Dissolved O2					
Temperature					
Conductivity uMHOS/cm					

Samples Collected:

Preservative	Volume	Parameters	Filtered	Iced	Lab No.
HCl	2-40ml	BTEX, NAPH MTBE			
HCl	1-40ml	EDB			
Not Sufficient Refovery for PAH or lead					

Water Sampling Field Data Record Sheet

Technician(s) JO/DW, Location No. MW-5

Job No. A89115, Blank No. _____

Time _____, Date(s) 9-4-97

Additional notes (especially weather) on back . yes / no

WELL DATA:

Type Water Pipe PVC, Diameter Water Pipe 2"

Condition of Guard Pipe, Lock, Water Pipe, Etc.:

Measured from: _____

Depth of Well: _____, Top of Guard Pipe: _____

Depth of Water: 39.45, Top of Water Pipe: _____

Height of Water: _____, Top of Ground: _____

Volume of Water in Well: _____ (V = 3.14 r2h)

2" = .16 gal/ft, 4" = .65 gal/ft

EVACUATION DATA:

_____ Bailer _____ Pump _____ Airlift _____ Other

Volume Removed or Time Pumped:

Equipment Cleaned: _____ Field _____ Lab

_____ Distilled Water _____ Sample Water _____ Other

SAMPLING DATA: Date Sampled _____ Time _____

Color _____ Odor _____

pH					
Dissolved O2					
Temperature					
Conductivity uMHOS/cm					

Samples Collected:

Preservative	Volume	Parameters	Filtered	Iced	Lab No.

Water Sampling Field Data Record Sheet

Technician(s) JO/DW, Location No. MW-6

Job No. A89115, Blank No. _____

Time _____, Date(s) 9-4-97

Additional notes (especially weather) on back . yes / no

WELL DATA:

Type Water Pipe PVC, Diameter Water Pipe 2"

Condition of Guard Pipe, Lock, Water Pipe, Etc.:

Measured from: _____

Depth of Well: _____, Top of Guard Pipe: _____

Depth of Water: 34.14, Top of Water Pipe: _____

Height of Water: _____, Top of Ground: _____

Volume of Water in Well: _____ (V = 3.14 r2h)

2" = .16 gal/ft, 4" = .65 gal/ft

EVACUATION DATA:

_____ Bailer _____ Pump _____ Airlift _____ Other

Volume Removed or Time Pumped:

Equipment Cleaned: _____ Field _____ Lab

_____ Distilled Water _____ Sample Water _____ Other

SAMPLING DATA: Date Sampled _____ Time _____

Color _____ Odor _____

pH					
Dissolved O2					
Temperature					
Conductivity uMHOS/cm					

Samples Collected:

Preservative	Volume	Parameters	Filtered	Iced	Lab No.

Water Sampling Field Data Record Sheet

Technician(s) JO/DW, Location No. MW-7

Job No. 489115, Blank No. _____

Time _____, Date(s) 9-4-97

Additional notes (especially weather) on back . yes / no

WELL DATA:

Type Water Pipe PVC, Diameter Water Pipe 2"

Condition of Guard Pipe, Lock, Water Pipe, Etc.:

Measured from: _____

Depth of Well: _____, Top of Guard Pipe: _____

Depth of Water: 35.64, Top of Water Pipe: _____

Height of Water: _____, Top of Ground: _____

Volume of Water in Well: _____ (V = 3.14 r2h)

2" = .16 gal/ft, 4" = .65 gal/ft

EVACUATION DATA:

_____ Bailer _____ Pump _____ Airlift _____ Other

Volume Removed or Time Pumped:

Equipment Cleaned: _____ Field _____ Lab

_____ Distilled Water _____ Sample Water _____ Other

SAMPLING DATA: Date Sampled _____ Time _____

Color _____ Odor _____

pH					
Dissolved O2					
Temperature					
Conductivity uMHOS/cm					

Samples Collected:

Preservative	Volume	Parameters	Filtered	Iced	Lab No.

Water Sampling Field Data Record Sheet

Technician(s) JO/DW, Location No. MW-8

Job No. 489115, Blank No. _____

Time _____, Date(s) 9-4-97

Additional notes (especially weather) on back . yes / no

WELL DATA:

Type Water Pipe PVC, Diameter Water Pipe 2"

Condition of Guard Pipe, Lock, Water Pipe, Etc.:

Measured from: _____

Depth of Well: _____, Top of Guard Pipe: _____

Depth of Water: 39.38, Top of Water Pipe: _____

Height of Water: _____, Top of Ground: _____

Volume of Water in Well: _____ (V = 3.14 r2h)

2" = .16 gal/ft, 4" = .65 gal/ft

EVACUATION DATA:

_____ Bailer _____ Pump _____ Airlift _____ Other

Volume Removed or Time Pumped:

Equipment Cleaned: _____ Field _____ Lab

_____ Distilled Water _____ Sample Water _____ Other

SAMPLING DATA: Date Sampled _____ Time _____

Color _____ Odor _____

pH					
Dissolved O2					
Temperature					
Conductivity uMHOS/cm					

Samples Collected:

Preservative	Volume	Parameters	Filtered	Iced	Lab No.
HCl	3 - 40 ml	BTEX NAP & MTBE			
		insufficient recovery for			
		PAH & LEAD			
HCl	1 - 40 ml	EDB			

Water Sampling Field Data Record Sheet

Technician(s) JD/DW Location No. MW-9

Job No. 489115 Blank No.

Time Date(s) 9-4-97

Additional notes (especially weather) on back . yes / no

WELL DATA:

Type Water Pipe PVC Diameter Water Pipe 2"

Condition of Guard Pipe, Lock, Water Pipe, Etc.:

GOOD

Measured from:

Depth of Well: Top of Guard Pipe:

Depth of Water: 39.00 Top of Water Pipe:

Height of Water: Top of Ground:

Volume of Water in Well: (Y = 3.14 r2h)

2" = .16 gal/ft, 4" = .65 gal/ft

EVACUATION DATA:

Bailer Pump Airlift Other

Volume Removed or Time Pumped:

DID NOT SAMPLE - 3/16" F.P.

Equipment Cleaned: Field Lab

Distilled Water Sample Water Other

SAMPLING DATA: Date Sampled Time

Color Odor

pH					
Dissolved O2					
Temperature					
Conductivity uMHOS/cm					

Samples Collected:

Preservative	Volume	Parameters	Filtered	Iced	Lab No.

Water Sampling Field Data Record Sheet

Technician(s) JO/DW Location No. MW-10

Job No. A89115 Blank No. _____

Time _____ Date(s) 9-4-97

Additional notes (especially weather) on back . yes / no

WELL DATA:

Type Water Pipe PVC Diameter Water Pipe 2"

Condition of Guard Pipe, Lock, Water Pipe, Etc.:

GOOD

Measured from: _____

Depth of Well: _____ Top of Guard Pipe: _____

Depth of Water: 34.66 Top of Water Pipe: _____

Height of Water: _____ Top of Ground: _____

Volume of Water in Well: _____ (Y = 3.14 r2h)

2" = .16 gal/ft, 4" = .65 gal/ft

EVACUATION DATA:

_____ Bailer _____ Pump _____ Airlift _____ Other

Volume Removed or Time Pumped:

DID NOT SAMPLE - 1" F.P.

Equipment Cleaned: _____ Field _____ Lab

_____ Distilled Water _____ Sample Water _____ Other

SAMPLING DATA: Date Sampled _____ Time _____

Color _____ Odor _____

pH					
Dissolved O2					
Temperature					
Conductivity uMHOS/cm					

Samples Collected:

Preservative	Volume	Parameters	Filtered	Iced	Lab No.

Water Sampling Field Data Record Sheet

Technician(s) JO/DW, Location No. MW-11

Job No. A89115, Blank No. _____

Time _____, Date(s) 9-4-97

Additional notes (especially weather) on back . yes / no

WELL DATA:

Type Water Pipe PVC, Diameter Water Pipe 2"

Condition of Guard Pipe, Lock, Water Pipe, Etc.:

Measured from: _____

Depth of Well: _____, Top of Guard Pipe: _____

Depth of Water: 31.10, Top of Water Pipe: _____

Height of Water: _____, Top of Ground: _____

Volume of Water in Well: _____ (Y = 3.14 r2h)

2" = .16 gal/ft, 4" = .65 gal/ft

EVACUATION DATA:

_____ Bailer _____ Pump _____ Airlift _____ Other

Volume Removed or Time Pumped:

Equipment Cleaned: _____ Field _____ Lab

_____ Distilled Water _____ Sample Water _____ Other

SAMPLING DATA: Date Sampled _____ Time _____

Color _____ Odor _____

pH					
Dissolved O2					
Temperature					
Conductivity uMHOS/cm					

Samples Collected:

Preservative	Volume	Parameters	Filtered	Iced	Lab No.

Water Sampling Field Data Record Sheet

Technician(s) JO/DW Location No. MW-12

Job No. 489115 Blank No. _____

Time _____ Date(s) 9/4/97

Additional notes (especially weather) on back . yes / no

WELL DATA:

Type Water Pipe PVC Diameter Water Pipe 2"

Condition of Guard Pipe, Lock, Water Pipe, Etc.:

_____

_____

Measured from: _____

Depth of Well: _____ Top of Guard Pipe: _____

Depth of Water: 50.77 Top of Water Pipe: _____

Height of Water: _____ Top of Ground: _____

Volume of Water in Well: _____ (V = 3.14 r2h)

2" = .16 gal/ft, 4" = .65 gal/ft

EVACUATION DATA:

_____ Bailer _____ Pump _____ Airlift _____ Other

Volume Removed or Time Pumped:

_____

_____

Equipment Cleaned: _____ Field _____ Lab

_____ Distilled Water _____ Sample Water _____ Other

SAMPLING DATA: Date Sampled _____ Time _____

Color _____ Odor _____

pH					
Dissolved O2					
Temperature					
Conductivity uMHOS/cm					

Samples Collected:

Preservative	Volume	Parameters	Filtered	Iced	Lab No.

Water Sampling Field Data Record Sheet

Technician(s) JO/DW, Location No. WW GASTON

Job No. A89115, Blank No. _____

Time _____, Date(s) 9-4-97

Additional notes (especially weather) on back . yes / no

WELL DATA:

Type Water Pipe PVC, Diameter Water Pipe 2"

Condition of Guard Pipe, Lock, Water Pipe, Etc.:

Measured from: _____

Depth of Well: _____, Top of Guard Pipe: _____

Depth of Water: _____, Top of Water Pipe: _____

Height of Water: _____, Top of Ground: _____

Volume of Water in Well: _____ (V = 3.14 r2h)

2" = .16 gal/ft, 4" = .65 gal/ft

EVACUATION DATA:

Bailer _____ Pump _____ Airlift _____ Other _____

Volume Removed or Time Pumped:

Equipment Cleaned: _____ Field _____ Lab

_____ Distilled Water _____ Sample Water _____ Other

SAMPLING DATA:

Date Sampled _____ Time _____

Color _____ Odor _____

pH					
Dissolved O2					
Temperature					
Conductivity uMHOS/cm					

Samples Collected:

Preservative	Volume	Parameters	Filtered	Iced	Lab No.

Water Sampling Field Data Record Sheet

Technician(s) JO/DW, Location No. OMW 13

Job No. A89115, Blank No. _____

Time _____, Date(s) 9-4-97

Additional notes (especially weather) on back . yes / no

WELL DATA:

Type Water Pipe PVC, Diameter Water Pipe 2"

Condition of Guard Pipe, Lock, Water Pipe, Etc.:

FAIR

Measured from: _____

Depth of Well: _____, Top of Guard Pipe: _____

Depth of Water: 31.97, Top of Water Pipe: _____

Height of Water: _____, Top of Ground: _____

Volume of Water in Well: _____ (V = 3.14 r2h)

2" = .16 gal/ft, 4" = .65 gal/ft

EVACUATION DATA:

_____ Bailer _____ Pump _____ Airlift _____ Other

Volume Removed or Time Pumped:

DID Not Sample 1/16" F.P.

Equipment Cleaned: _____ Field _____ Lab

_____ Distilled Water _____ Sample Water _____ Other

SAMPLING DATA: Date Sampled _____ Time _____

Color _____ Odor _____

pH					
Dissolved O2					
Temperature					
Conductivity uMHOS/cm					

Samples Collected:

Preservative	Volume	Parameters	Filtered	Iced	Lab No.

Water Sampling Field Data Record Sheet

Technician(s) JO/DW, Location No. OMW-14

Job No. 189115, Blank No. _____

Time _____, Date(s) 9-4-97

Additional notes (especially weather) on back . yes / no

WELL DATA:

Type Water Pipe PVC, Diameter Water Pipe 2"

Condition of Guard Pipe, Lock, Water Pipe, Etc.:

Measured from: _____

Depth of Well: _____, Top of Guard Pipe: _____

Depth of Water: 35.76, Top of Water Pipe: _____

Height of Water: _____, Top of Ground: _____

Volume of Water in Well: _____ (V = 3.14 r2h)

2" = .16 gal/ft, 4" = .65 gal/ft

EVACUATION DATA:

_____ Bailer _____ Pump _____ Airlift _____ Other

Volume Removed or Time Pumped:

Equipment Cleaned: _____ Field _____ Lab

_____ Distilled Water _____ Sample Water _____ Other

SAMPLING DATA: Date Sampled _____ Time _____

Color _____ Odor _____

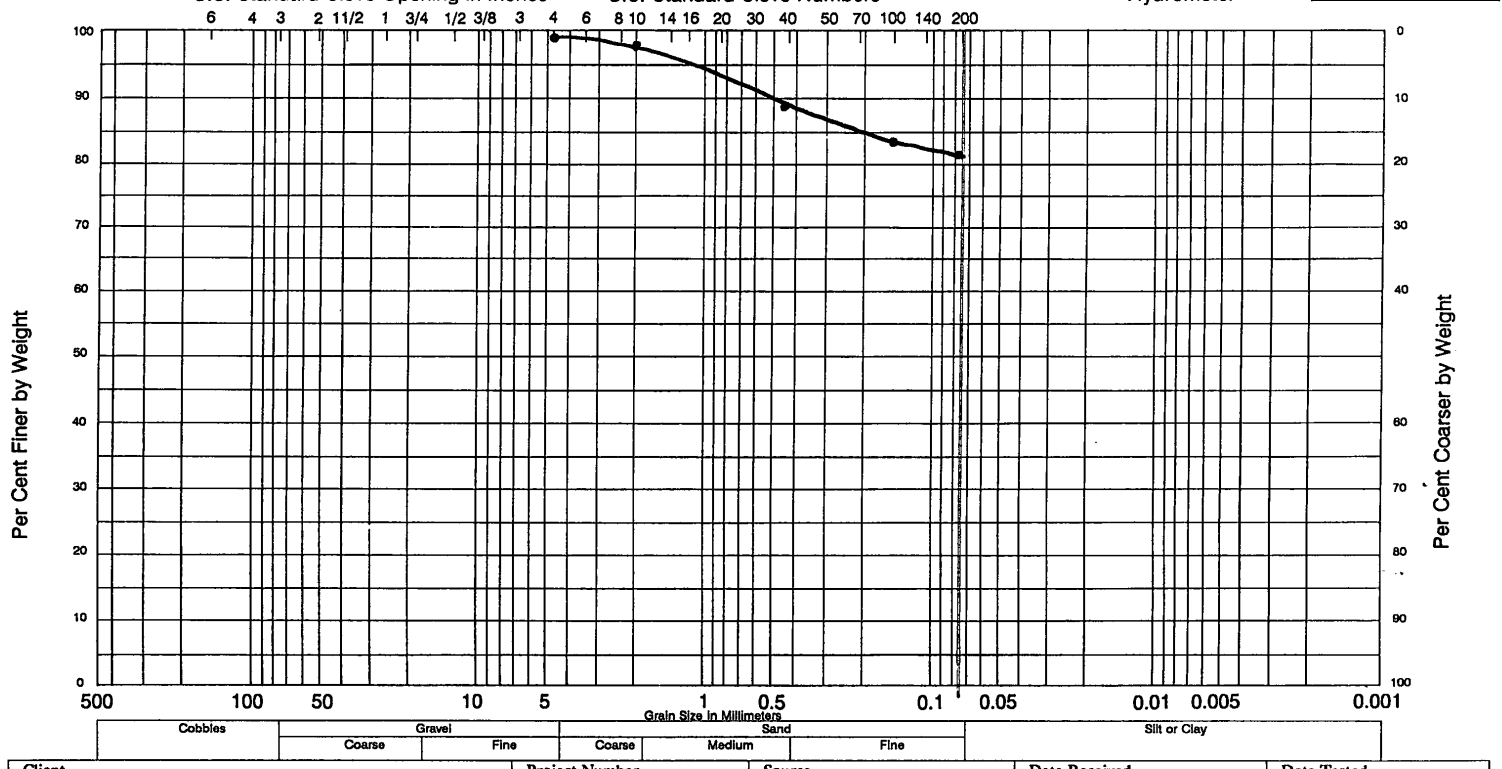
pH					
Dissolved O2					
Temperature					
Conductivity uMHOS/cm					

Samples Collected:

Preservative	Volume	Parameters	Filtered	Iced	Lab No.

Gradation Curve

Test Number



Client	Project Number	Source	Date Received	Date Tested
	A89115			

Project	Soil Description

Sample Number	Boring Number	Depth

Location

GEOLOGICAL CONSULTING SERVICES, INC.
Bluefield, Virginia - 703/322-5467
Lexington, Kentucky - 606/253-3951
Charleston, West Virginia - 304/925-0507

Sample	Classification	Nat. W.%	LL	PL	PI	Dry Density	Opt. Moisture

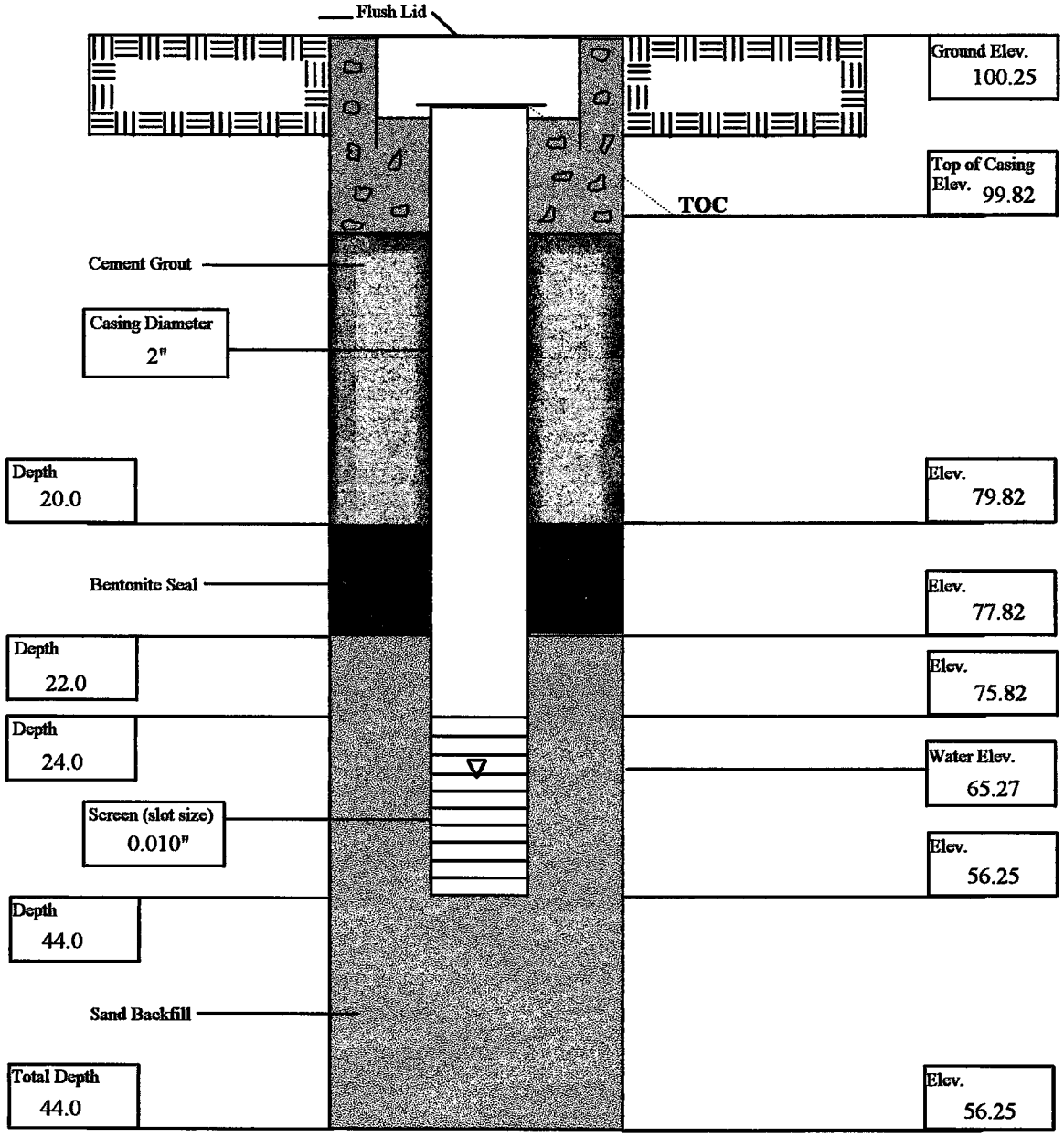
Monitor Well Construction Diagram

Client:	Project:	PC/Facility I.D. Number:	Project Number:
SCDHEC	JJ's Texaco	05986	A89115

Well Number:	Location:	Date Started:	Date Completed:
MW-1	Gaston Water Company Parking Lot	8/20/97	8/20/97

Drilling Method:	Hole Diameter:	Geologist/Engineer:	Driller:
Hollow Stem Auger	6 ¼ "	Jim Owery	American Environmental

Remarks:



MARSHALL MILLER & ASSOCIATES

Monitor Well Construction Diagram

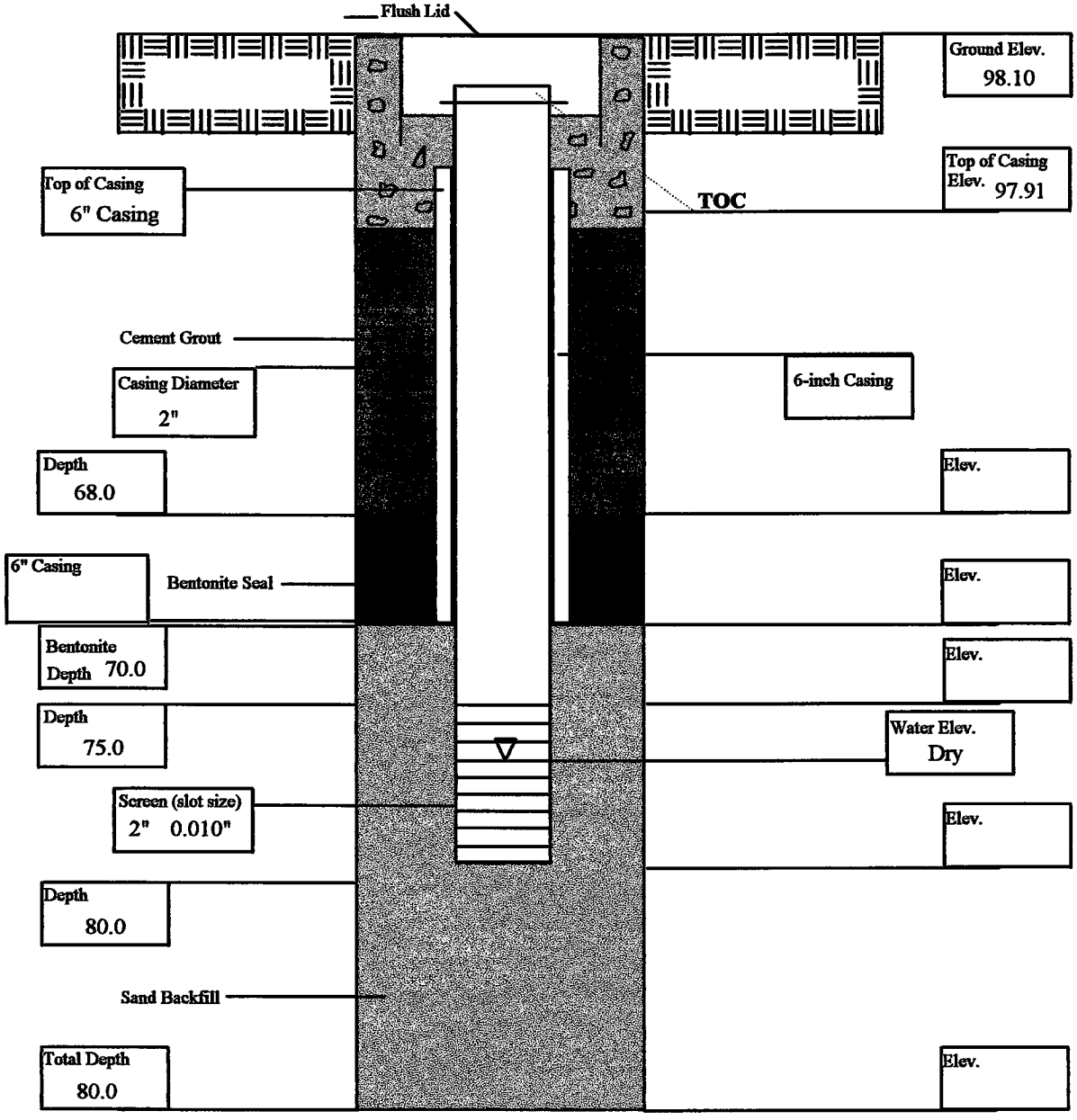
Client:	Project:	PC/Facility I.D. Number:	Project Number:
SCDHEC	JJ's Texaco	05986	A89115

Well Number:	Location:	Date Started:	Date Completed:
MW-2	Front of store	8/20/97	8/20/97

Drilling Method:	Hole Diameter:	Geologist/Engineer:	Driller:
Hollow Stem Auger Air Rotary	6 ¼ "	Jim Owery	American Environmental

Remarks:

Type III



MARSHALL MILLER & ASSOCIATES

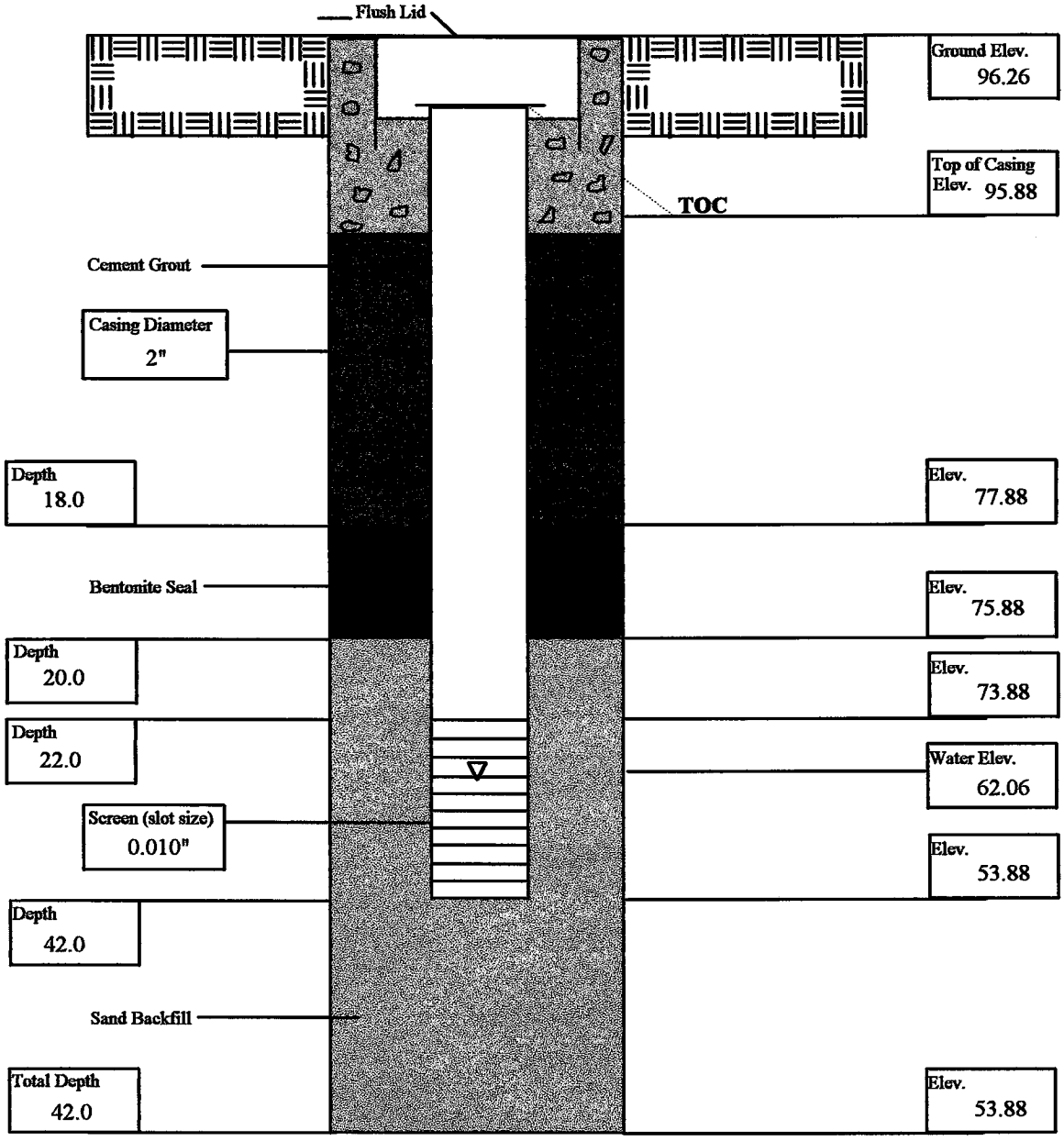
Monitor Well Construction Diagram

Client:	Project:	PC/Facility I.D. Number:	Project Number:
SCDHEC	JJ's Texaco	05986	A89115

Well Number:	Location:	Date Started:	Date Completed:
MW-3	East of Store	8/20/97	8/20/97

Drilling Method:	Hole Diameter:	Geologist/Engineer:	Driller:
Hollow Stem Auger	6 ¼ "	Jim Owery	American Environmental

Remarks:



MARSHALL MILLER & ASSOCIATES

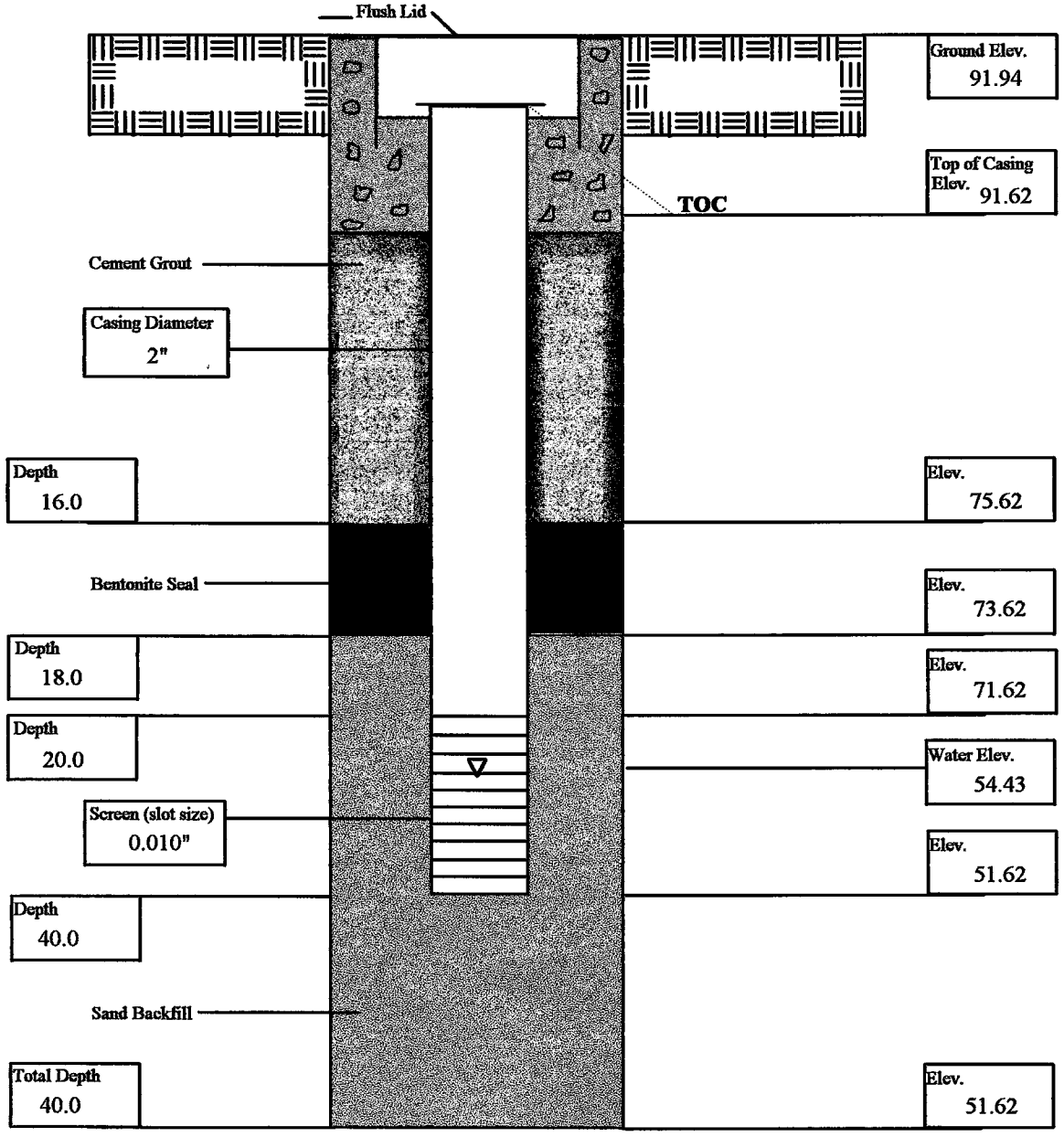
Monitor Well Construction Diagram

Client:	Project:	PC/Facility I.D. Number:	Project Number:
SCDHEC	JJ's Texaco	05986	A89115

Well Number:	Location:	Date Started:	Date Completed:
MW-4	Between road and new tank basin	8/20/97	8/20/97

Drilling Method:	Hole Diameter:	Geologist/Engineer:	Driller:
Hollow Stem Auger	6 ¼ "	Jim Owery	American Environmental

Remarks:



MARSHALL MILLER & ASSOCIATES

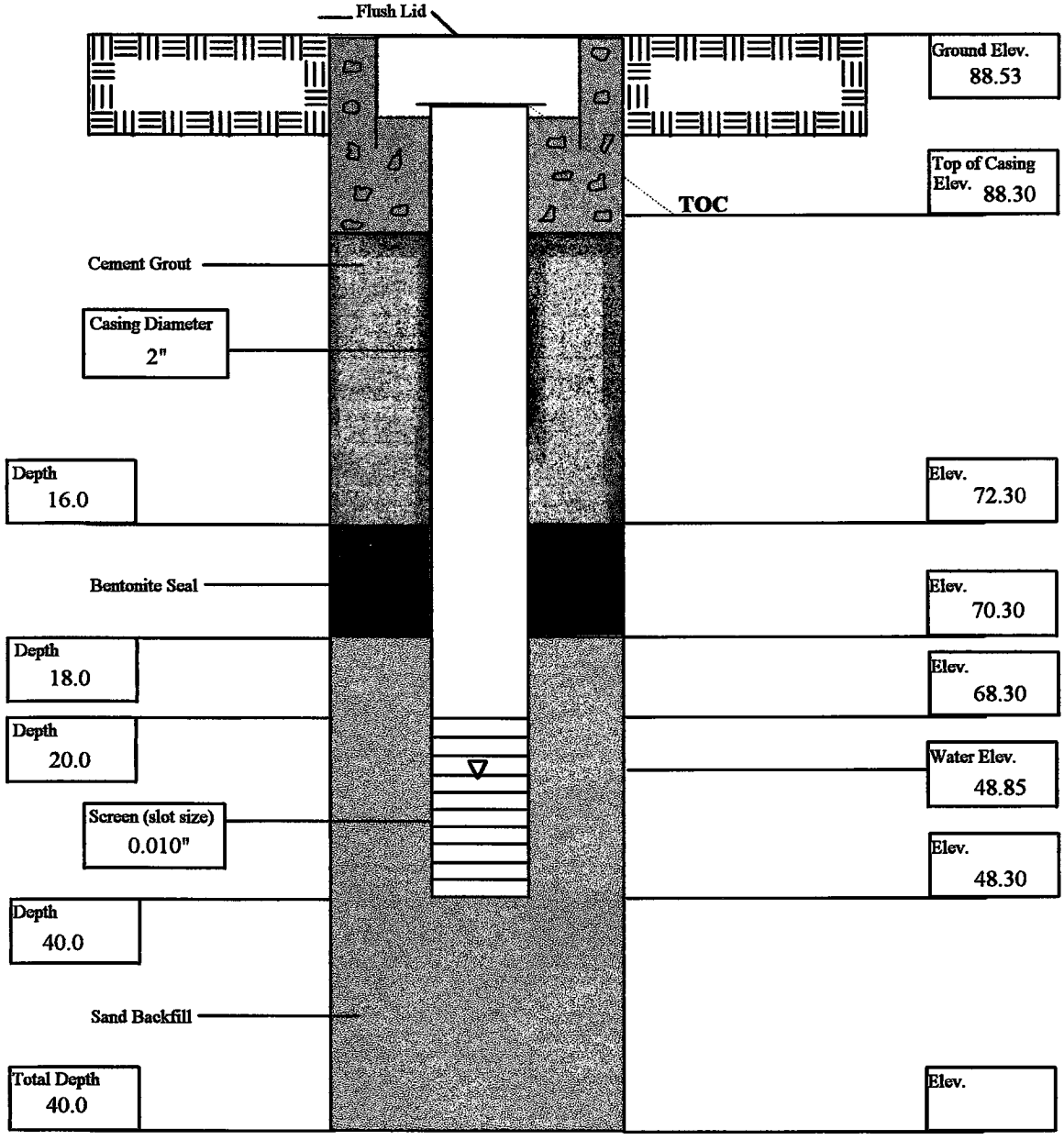
Monitor Well Construction Diagram

Client:	Project:	PC/Facility I.D. Number:	Project Number:
SCDHEC	JJ's Texaco	05986	A89115

Well Number:	Location:	Date Started:	Date Completed:
MW-5	North east corner of property	8/20/97	8/20/97

Drilling Method:	Hole Diameter:	Geologist/Engineer:	Driller:
Hollow Stem Auger	6 ¼ "	Jim Owery	American Environmental

Remarks:



MARSHALL MILLER & ASSOCIATES

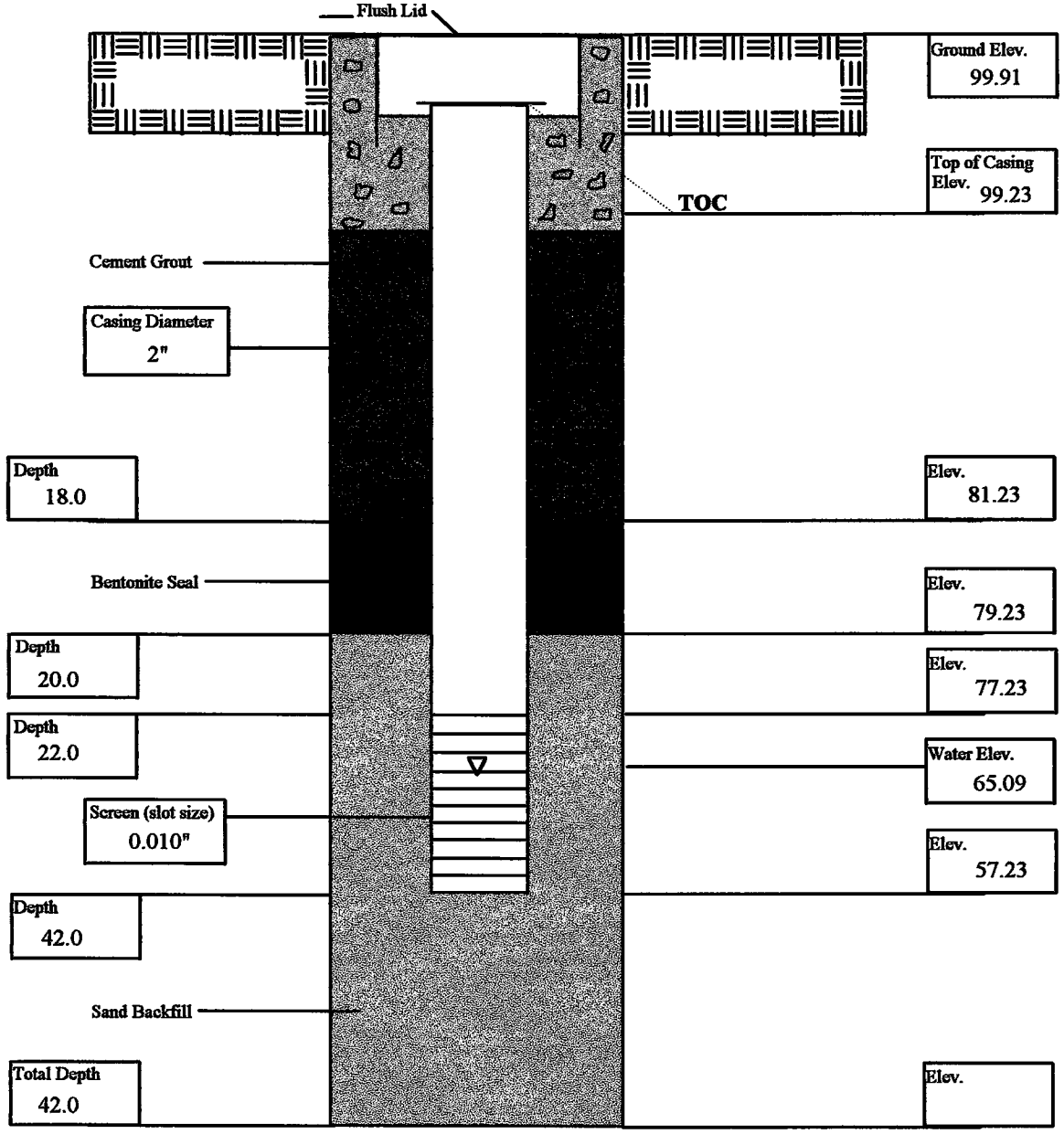
Monitor Well Construction Diagram

Client:	Project:	PC/Facility I.D. Number:	Project Number:
SCDHEC	JJ's Texaco	05986	A89115

Well Number:	Location:	Date Started:	Date Completed:
MW-6	Next to south side pumps	8/20/97	8/20/97

Drilling Method:	Hole Diameter:	Geologist/Engineer:	Driller:
Hollow Stem Auger	6 ¼ "	Jim Owery	American Environmental

Remarks:



MARSHALL MILLER & ASSOCIATES

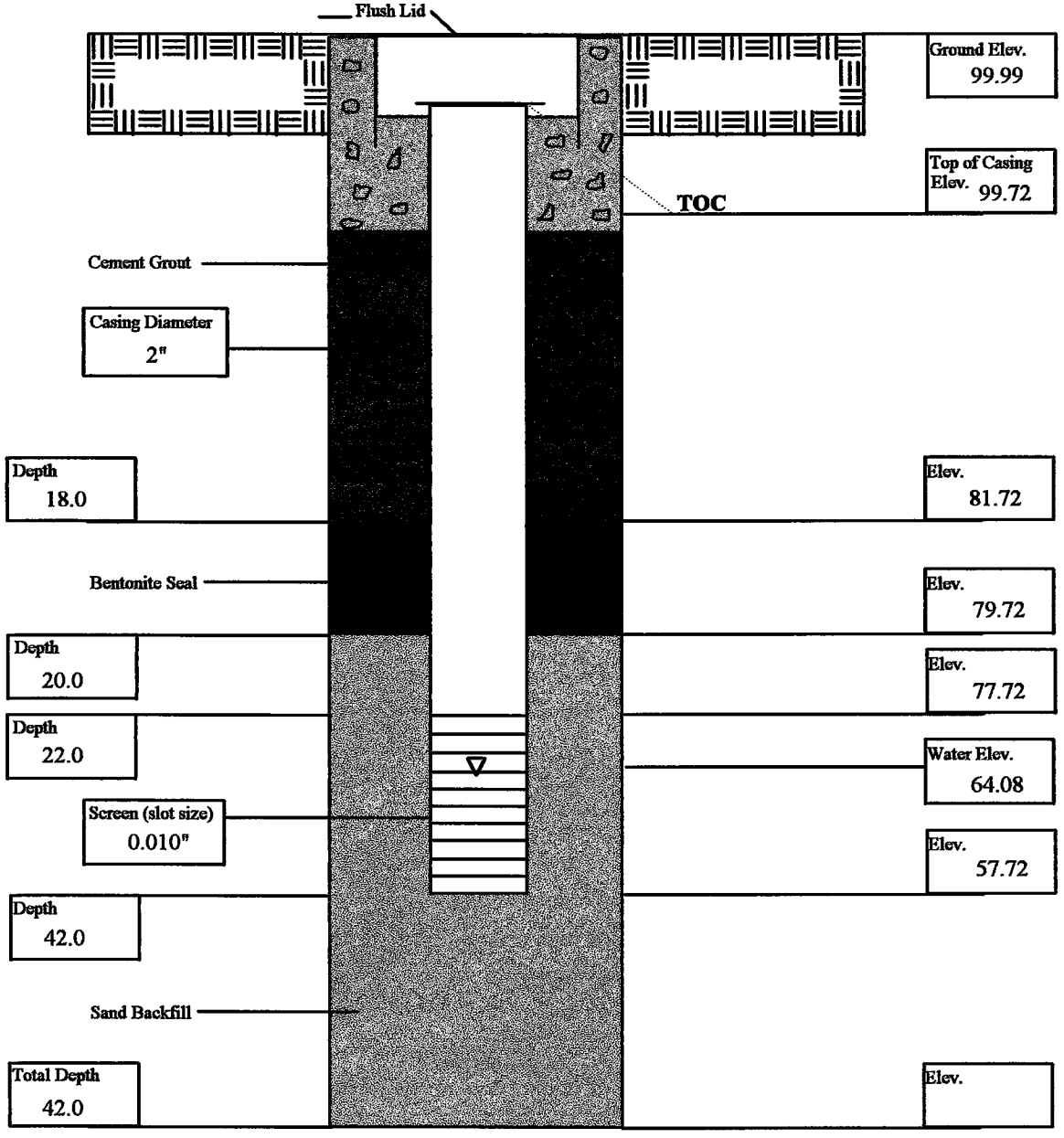
Monitor Well Construction Diagram

Client:	Project:	PC/Facility I.D. Number:	Project Number:
SCDHEC	JJ's Texaco	05986	A89115

Well Number:	Location:	Date Started:	Date Completed:
MW-7	Between Gaston Water Company and JJ's Texaco	8/20/97	8/20/97

Drilling Method:	Hole Diameter:	Geologist/Engineer:	Driller:
Hollow Stem Auger	6 ¼ "	Jim Owery	American Environmental

Remarks:



MARSHALL MILLER & ASSOCIATES

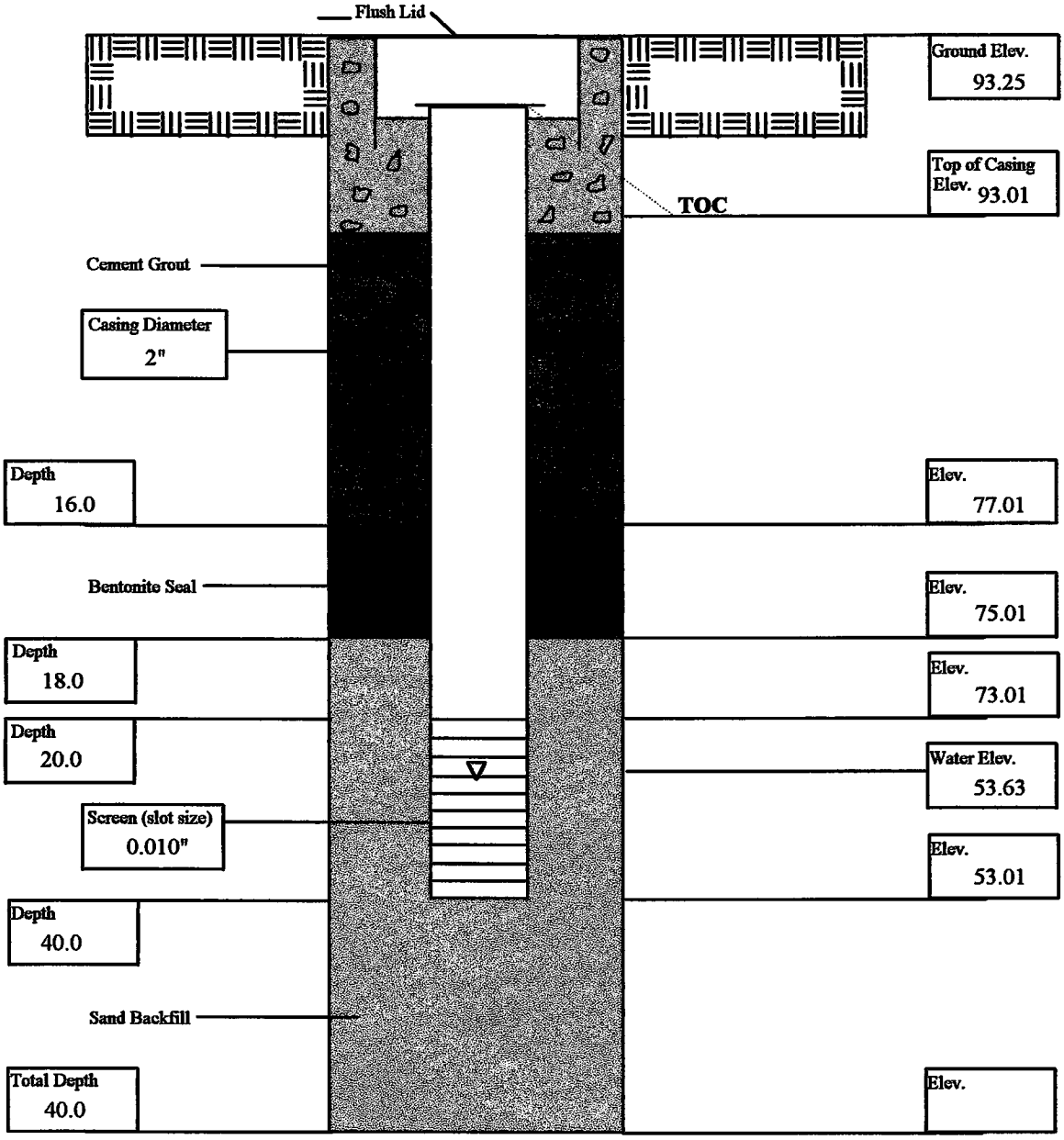
Monitor Well Construction Diagram

Client:	Project:	PC/Facility I.D. Number:	Project Number:
SCDHEC	JJ's Texaco	05986	A89115

Well Number:	Location:	Date Started:	Date Completed:
MW-8	West side of new tanks	8/20/97	8/20/97

Drilling Method:	Hole Diameter:	Geologist/Engineer:	Driller:
Hollow Stem Auger	6 ¼ "	Jim Owery	American Environmental

Remarks:



MARSHALL MILLER & ASSOCIATES

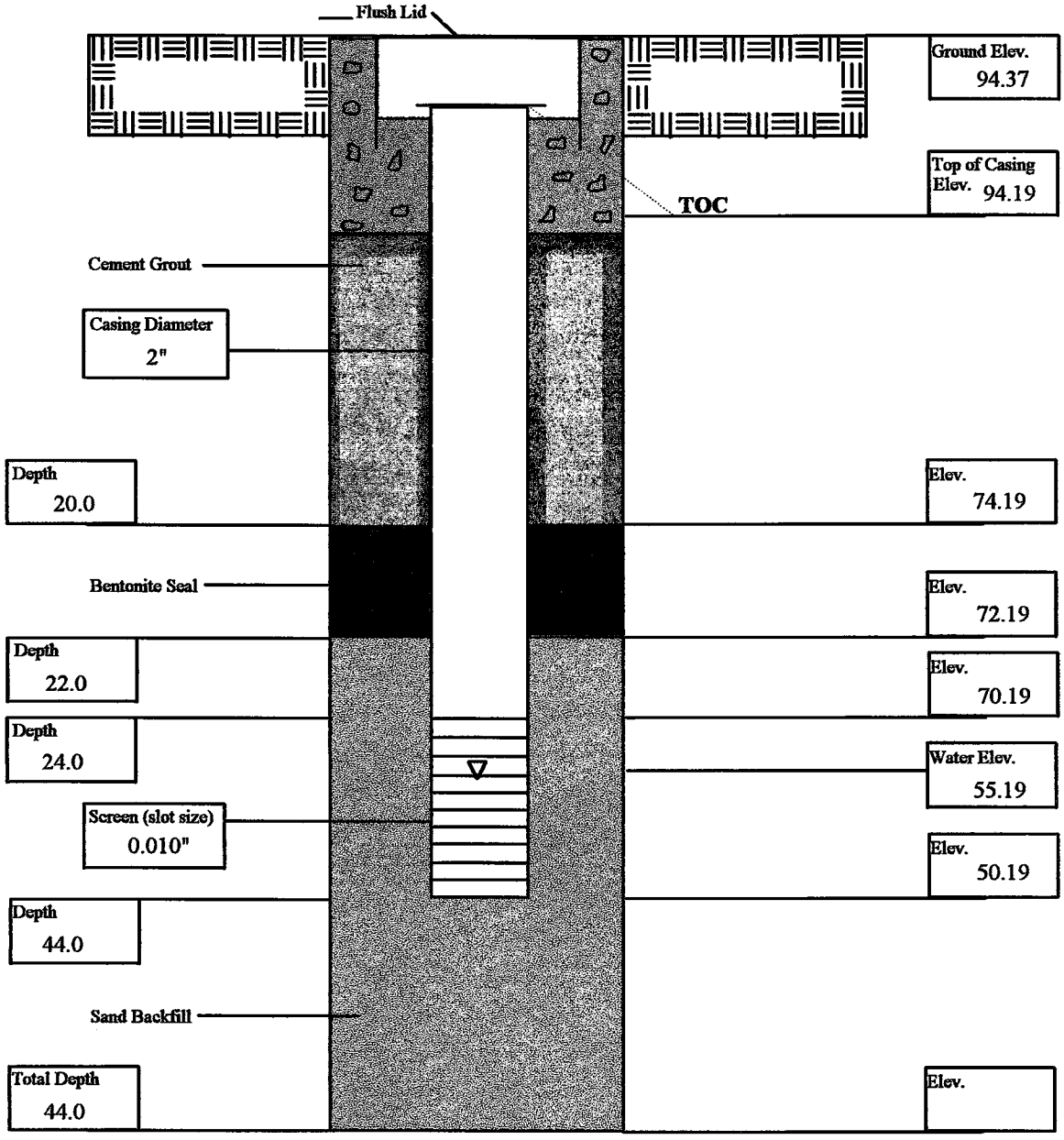
Monitor Well Construction Diagram

Client:	Project:	PC/Facility I.D. Number:	Project Number:
SCDHEC	JJ's Texaco	05986	A89115

Well Number:	Location:	Date Started:	Date Completed:
MW-9	Southside of new tanks	8/20/97	8/20/97

Drilling Method:	Hole Diameter:	Geologist/Engineer:	Driller:
Hollow Stem Auger	6 ¼ "	Jim Owery	American Environmental

Remarks:



MARSHALL MILLER & ASSOCIATES

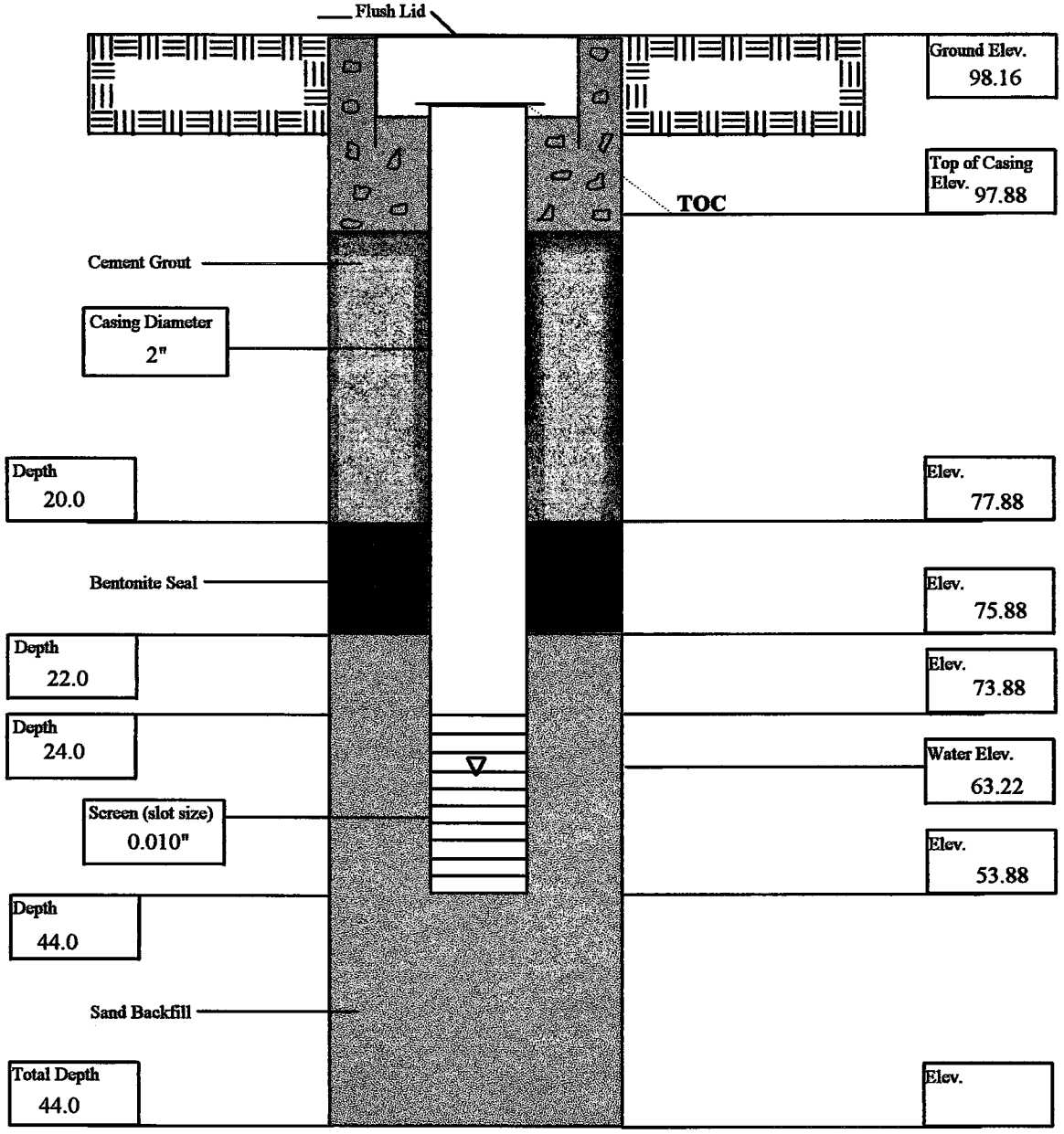
Monitor Well Construction Diagram

Client:	Project:	PC/Facility I.D. Number:	Project Number:
SCDHEC	JJ's Texaco	05986	A89115

Well Number:	Location:	Date Started:	Date Completed:
MW-10	Front of store	8/20/97	8/20/97

Drilling Method:	Hole Diameter:	Geologist/Engineer:	Driller:
Hollow Stem Auger	6 ¼ "	Jim Owery	American Environmental

Remarks:



MARSHALL MILLER & ASSOCIATES

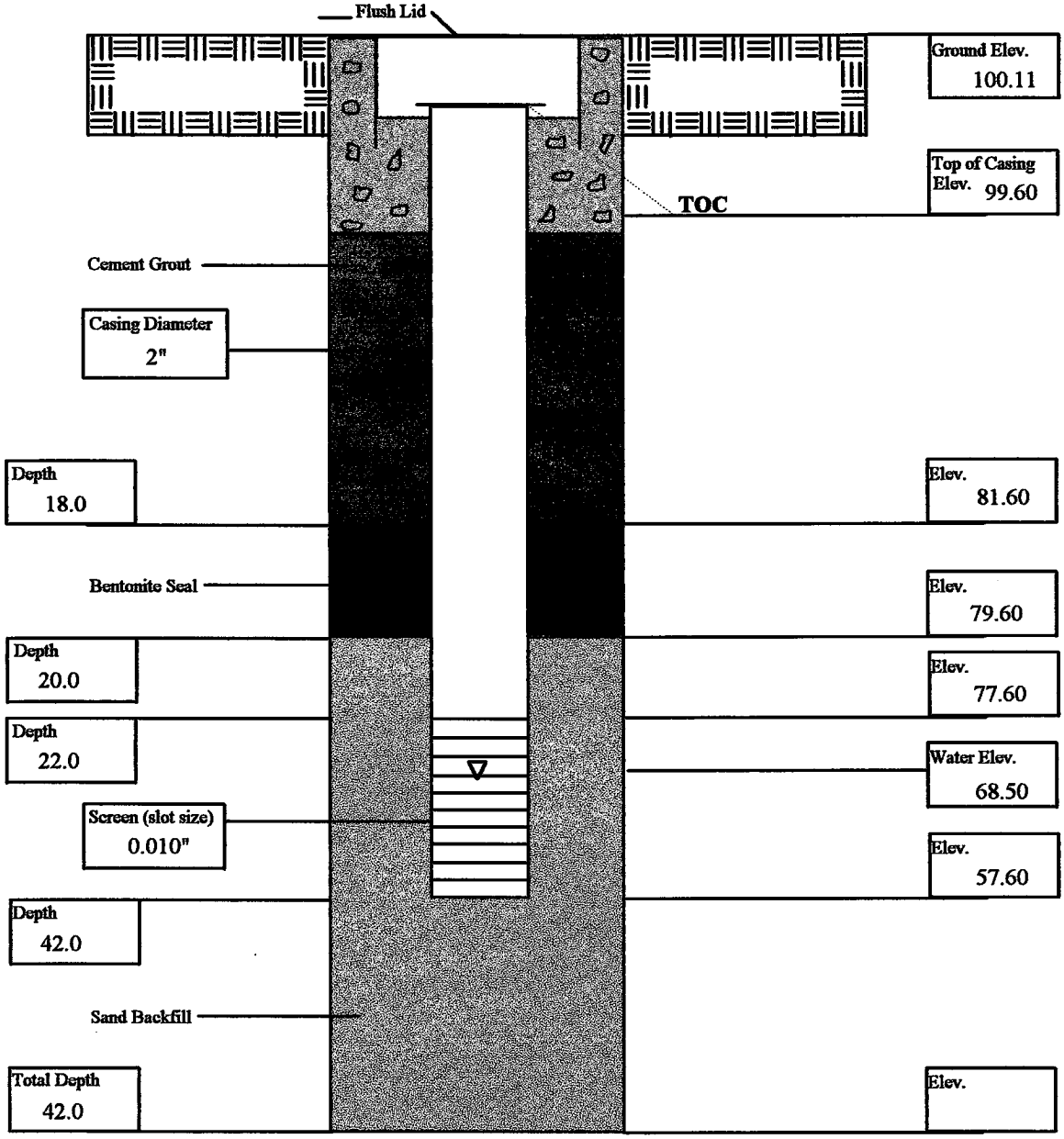
Monitor Well Construction Diagram

Client:	Project:	PC/Facility I.D. Number:	Project Number:
SCDHEC	JJ's Texaco	05986	A89115

Well Number:	Location:	Date Started:	Date Completed:
MW-11	South east corner of property	8/20/97	8/20/97

Drilling Method:	Hole Diameter:	Geologist/Engineer:	Driller:
Hollow Stem Auger	6 ¼ "	Jim Owery	American Environmental

Remarks:



MARSHALL MILLER & ASSOCIATES

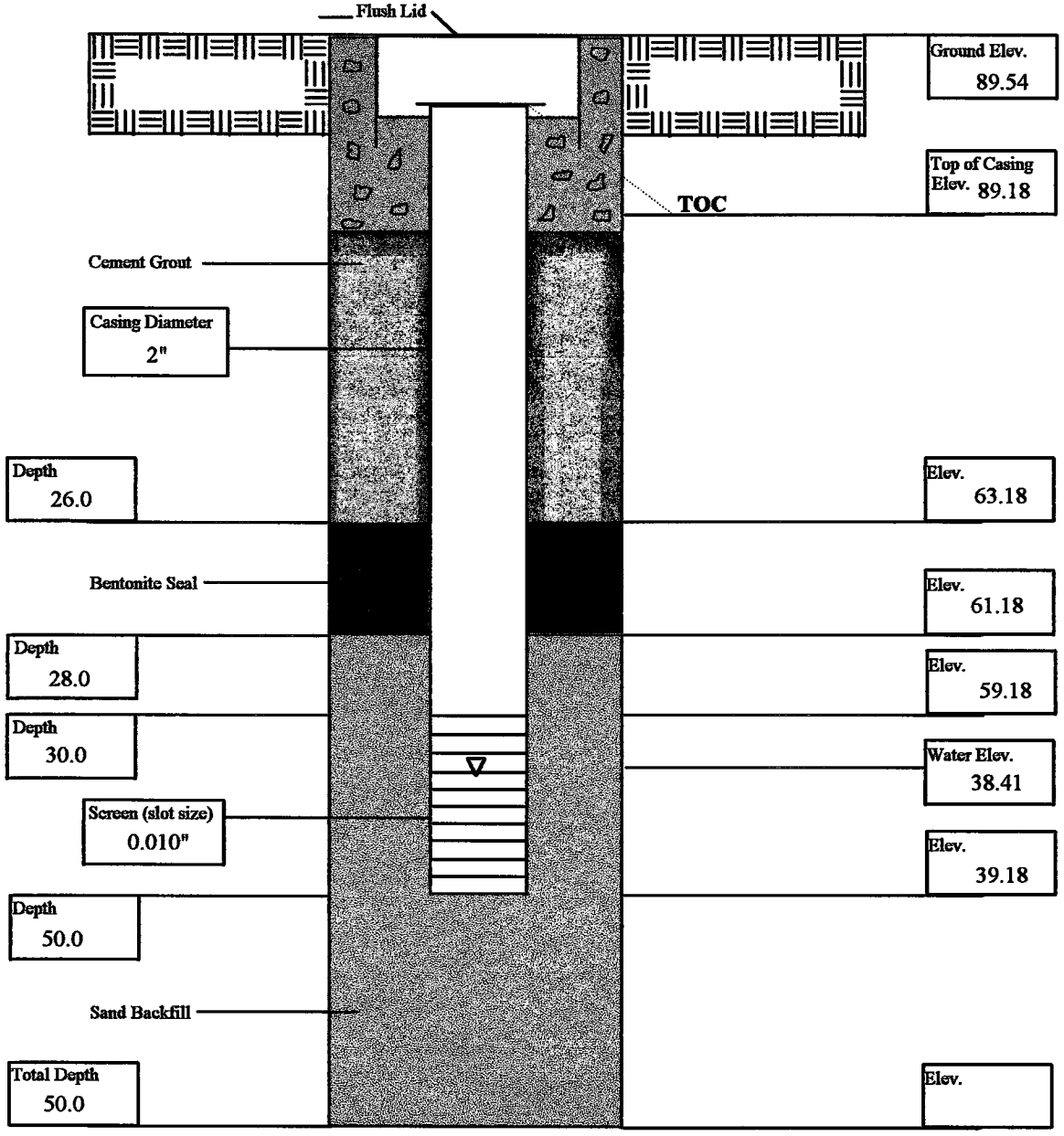
Monitor Well Construction Diagram

Client:	Project:	PC/Facility I.D. Number:	Project Number:
SCDHEC	JJ's Texaco	05986	A89115

Well Number:	Location:	Date Started:	Date Completed:
MW-12	North east across road	8/20/97	8/20/97

Drilling Method:	Hole Diameter:	Geologist/Engineer:	Driller:
Hollow Stem Auger	6 ¼ "	Jim Owery	American Environmental

Remarks:



MARSHALL MILLER & ASSOCIATES

HYDROLOGIC, INC.

August 26, 1997

REPORTING:

MARSHAL MILLER & ASSOC.
P.O. BOX 848
BLUEFIELD, VA 24605

INVOICING:

MARSHAL MILLER & ASSOC.
P.O. BOX 848
BLUEFIELD, VA 24605

PROJECT NUMBER: K9717148

DATE COMPLETED: August 26, 1997
DATE RECEIVED: August 21, 1997

PROJECT DESCRIPTION:

JJ TEXACO-A89115--12 soil samples were received and analyzed for 8020-BTEX +NAPHTHALENE.

Enclosed is the laboratory report for the project described above. If you have any questions or if we can be of further assistance, please feel free to contact Jack Hale Jr. at 1-800-728-2251. We appreciate your business and look forward to serving you again soon.

Respectfully,

Walter Hogg
Laboratory Director

HYDROLOGIC, INC.

COMPANY NAME: MARSHAL MILLER & ASSOC.
COMPANY PROJECT NUMBER: JJ TEXACO-A89115

HYDROLOGIC PROJECT NUMBER: K9717148
HYDROLOGIC LAB ID #: N/A
HYDROLOGIC SAMPLE NUMBER: 9717148
SAMPLE IDENTIFICATION: SB-1 16-20'
DATE SAMPLED: 08/13/97
DATE EXTRACTED: N/A
DATE/TIME ANALYZED: 08/22/97

METHOD SW 846 8020

ANALYSIS	CAS NO.	SDL (ug/kg)	RESULT (ug/kg)
Benzene	71-43-2	5.0	BDL
Toluene	108-88-3	5.0	BDL
Ethylbenzene	100-41-4	5.0	BDL
Xylenes (Total)	1330-20-7	5.0	BDL
Naphthalene	91-20-3	5.0	BDL
Surrogate Recovery: BFB			113%

BDL = Below Sample Detection Limit
SDL = Sample Detection Limit

COMMENTS: _____

1491 TWILIGHT TRAIL FRANKFORT, KY 40601
502-223-0251 FAX: 502-875-8016 / TOLL FREE 800-728-2251

HYDROLOGIC, INC.

COMPANY NAME: MARSHAL MILLER & ASSOC.
COMPANY PROJECT NUMBER: JJ TEXACO-A89115

HYDROLOGIC PROJECT NUMBER: K9717148
HYDROLOGIC LAB ID #: N/A
HYDROLOGIC SAMPLE NUMBER: 9717149
SAMPLE IDENTIFICATION: SB-2 16-18'
DATE SAMPLED: 08/13/97
DATE EXTRACTED: N/A
DATE/TIME ANALYZED: 08/22/97

METHOD SW 846 8020

ANALYSIS	CAS NO.	SDL (ug/kg)	RESULT (ug/kg)
Benzene	71-43-2	5.0	BDL
Toluene	108-88-3	5.0	BDL
Ethylbenzene	100-41-4	5.0	BDL
Xylenes (Total)	1330-20-7	5.0	BDL
Naphthalene	91-20-3	5.0	BDL
Surrogate Recovery: BFB			112%

BDL = Below Sample Detection Limit
SDL = Sample Detection Limit

COMMENTS: _____

1491 TWILIGHT TRAIL FRANKFORT, KY 40601
502-223-0251 FAX: 502-875-8016 / TOLL FREE 800-728-2251

HYDROLOGIC, INC.

COMPANY NAME:	MARSHAL MILLER & ASSOC.
COMPANY PROJECT NUMBER:	JJ TEXACO-A89115
HYDROLOGIC PROJECT NUMBER:	K9717148
HYDROLOGIC LAB ID #:	N/A
HYDROLOGIC SAMPLE NUMBER:	9717150
SAMPLE IDENTIFICATION:	SB-3 30-32'
DATE SAMPLED:	08/13/97
DATE EXTRACTED:	N/A
DATE/TIME ANALYZED:	08/22/97

METHOD SW 846 8020

ANALYSIS	CAS NO.	SDL (ug/kg)	RESULT (ug/kg)
Benzene	**71-43-2**	**10.0**	**124**
Toluene	**108-88-3**	**10.0**	**39.6**
Ethylbenzene	**100-41-4**	**10.0**	**91.0**
Xylenes (Total)	**1330-20-7**	**10.0**	**418**
Naphthalene	**91-20-3**	**10.0**	**1400**
Surrogate Recovery:			
BFB			117%

BDL = Below Sample Detection Limit
SDL = Sample Detection Limit

COMMENTS: COMPOUNDS WITH ELEVATED SDL ARE DUE TO A SAMPLE DILUTION.

1491 TWILIGHT TRAIL FRANKFORT, KY 40601
502-223-0251 FAX: 502-875-8016 / TOLL FREE 800-728-2251

HYDROLOGIC, INC.

COMPANY NAME: MARSHAL MILLER & ASSOC.
COMPANY PROJECT NUMBER: JJ TEXACO-A89115

HYDROLOGIC PROJECT NUMBER: K9717148
HYDROLOGIC LAB ID #: N/A
HYDROLOGIC SAMPLE NUMBER: 9717151
SAMPLE IDENTIFICATION: SB-3 36-38'
DATE SAMPLED: 08/13/97
DATE EXTRACTED: N/A
DATE/TIME ANALYZED: 08/25/97

METHOD SW 846 8020

ANALYSIS	CAS NO.	SDL (ug/kg)	RESULT (ug/kg)
Benzene	71-43-2	10.0	27.5
Toluene	108-88-3	10.0	135
Ethylbenzene	100-41-4	10.0	74.6
Xylenes (Total)	1330-20-7	10.0	356
Naphthalene	91-20-3	10.0	45.9
Surrogate Recovery:			
BFB			94%

BDL = Below Sample Detection Limit
SDL = Sample Detection Limit

COMMENTS: COMPOUNDS WITH ELEVATED SDL ARE DUE TO A SAMPLE DILUTION.

1491 TWILIGHT TRAIL FRANKFORT, KY 40601
502-223-0251 FAX: 502-875-8016 / TOLL FREE 800-728-2251

HYDROLOGIC, INC.

COMPANY NAME: MARSHAL MILLER & ASSOC.
COMPANY PROJECT NUMBER: JJ TEXACO-A89115

HYDROLOGIC PROJECT NUMBER: K9717148
HYDROLOGIC LAB ID #: N/A
HYDROLOGIC SAMPLE NUMBER: 9717152
SAMPLE IDENTIFICATION: SB-4 25-28'
DATE SAMPLED: 08/13/97
DATE EXTRACTED: N/A
DATE/TIME ANALYZED: 08/22/97

METHOD SW 846 8020

ANALYSIS	CAS NO.	SDL (ug/kg)	RESULT (ug/kg)
Benzene	71-43-2	5.0	12.2
Toluene	108-88-3	5.0	BDL
Ethylbenzene	100-41-4	5.0	BDL
Xylenes (Total)	1330-20-7	5.0	BDL
Naphthalene	91-20-3	5.0	BDL
Surrogate Recovery: BFB			89%

BDL = Below Sample Detection Limit
SDL = Sample Detection Limit

COMMENTS: _____

1491 TWILIGHT TRAIL FRANKFORT, KY 40601
502-223-0251 FAX: 502-875-8016 / TOLL FREE 800-728-2251

HYDROLOGIC, INC.

COMPANY NAME: MARSHAL MILLER & ASSOC.
COMPANY PROJECT NUMBER: JJ TEXACO-A89115

HYDROLOGIC PROJECT NUMBER: K9717148
HYDROLOGIC LAB ID #: N/A
HYDROLOGIC SAMPLE NUMBER: 9717153
SAMPLE IDENTIFICATION: SB-4 30-32'
DATE SAMPLED: 08/13/97
DATE EXTRACTED: N/A
DATE/TIME ANALYZED: 08/22/97

METHOD SW 846 8020

ANALYSIS	CAS NO.	SDL (ug/kg)	RESULT (ug/kg)
Benzene	71-43-2	5.0	**17.4**
Toluene	108-88-3	5.0	**44.2**
Ethylbenzene	100-41-4	5.0	**10.3**
Xylenes (Total)	1330-20-7	5.0	**48.8**
Naphthalene	91-20-3	5.0	BDL
Surrogate Recovery:			
BFB			92%

BDL = Below Sample Detection Limit
SDL = Sample Detection Limit

COMMENTS: _____

1491 TWILIGHT TRAIL FRANKFORT, KY 40601
502-223-0251 FAX: 502-875-8016 / TOLL FREE 800-728-2251

HYDROLOGIC, INC.

COMPANY NAME: MARSHAL MILLER & ASSOC.
COMPANY PROJECT NUMBER: JJ TEXACO-A89115

HYDROLOGIC PROJECT NUMBER: K9717148
HYDROLOGIC LAB ID #: N/A
HYDROLOGIC SAMPLE NUMBER: 9717154
SAMPLE IDENTIFICATION: SB-5 27-28'
DATE SAMPLED: 08/13/97
DATE EXTRACTED: N/A
DATE/TIME ANALYZED: 08/22/97

METHOD SW 846 8020

ANALYSIS	CAS NO.	SDL (ug/kg)	RESULT (ug/kg)
Benzene	71-43-2	5.0	BDL
Toluene	108-88-3	5.0	BDL
Ethylbenzene	100-41-4	5.0	BDL
Xylenes (Total)	1330-20-7	5.0	BDL
Naphthalene	91-20-3	5.0	BDL
Surrogate Recovery:			
BFB			91%

BDL = Below Sample Detection Limit
SDL = Sample Detection Limit

COMMENTS: _____

1491 TWILIGHT TRAIL FRANKFORT, KY 40601
502-223-0251 FAX: 502-875-8016 / TOLL FREE 800-728-2251

HYDROLOGIC, INC.

COMPANY NAME: MARSHAL MILLER & ASSOC.
COMPANY PROJECT NUMBER: JJ TEXACO-A89115

HYDROLOGIC PROJECT NUMBER: K9717148
HYDROLOGIC LAB ID #: N/A
HYDROLOGIC SAMPLE NUMBER: 9717155
SAMPLE IDENTIFICATION: SB-6 24-28'
DATE SAMPLED: 08/13/97
DATE EXTRACTED: N/A
DATE/TIME ANALYZED: 08/22/97

METHOD SW 846 8020

ANALYSIS	CAS NO.	SDL (ug/kg)	RESULT (ug/kg)
Benzene	71-43-2	5.0	BDL
Toluene	108-88-3	5.0	BDL
Ethylbenzene	100-41-4	5.0	BDL
Xylenes (Total)	1330-20-7	5.0	BDL
Naphthalene	91-20-3	5.0	BDL
Surrogate Recovery:			
BFB			91%

BDL = Below Sample Detection Limit
SDL = Sample Detection Limit

COMMENTS: _____

1491 TWILIGHT TRAIL FRANKFORT, KY 40601
502-223-0251 FAX: 502-875-8016 / TOLL FREE 800-728-2251

HYDROLOGIC, INC.

COMPANY NAME: MARSHAL MILLER & ASSOC.
COMPANY PROJECT NUMBER: JJ TEXACO-A89115

HYDROLOGIC PROJECT NUMBER: K9717148
HYDROLOGIC LAB ID #: N/A
HYDROLOGIC SAMPLE NUMBER: 9717156
SAMPLE IDENTIFICATION: SB-7 20-24'
DATE SAMPLED: 08/13/97
DATE EXTRACTED: N/A
DATE/TIME ANALYZED: - 08/22/97

METHOD SW 846 8020

ANALYSIS	CAS NO.	SDL (ug/kg)	RESULT (ug/kg)
Benzene	71-43-2	5.0	BDL
Toluene	108-88-3	5.0	BDL
Ethylbenzene	100-41-4	5.0	BDL
Xylenes (Total)	1330-20-7	5.0	BDL
Naphthalene	91-20-3	5.0	BDL
Surrogate Recovery:			
BFB			91%

BDL = Below Sample Detection Limit
SDL = Sample Detection Limit

COMMENTS: _____

1491 TWILIGHT TRAIL FRANKFORT, KY 40601
502-223-0251 FAX: 502-875-8016 / TOLL FREE 800-728-2251

HYDROLOGIC, INC.

COMPANY NAME: MARSHAL MILLER & ASSOC.
COMPANY PROJECT NUMBER: JJ TEXACO-A89115

HYDROLOGIC PROJECT NUMBER: K9717148
HYDROLOGIC LAB ID #: N/A
HYDROLOGIC SAMPLE NUMBER: 9717157
SAMPLE IDENTIFICATION: SB-8 20-24'
DATE SAMPLED: 08/13/97
DATE EXTRACTED: N/A
DATE/TIME ANALYZED: 08/22/97

METHOD SW 846 8020

ANALYSIS	CAS NO.	SDL (ug/kg)	RESULT (ug/kg)
Benzene	71-43-2	5.0	BDL
Toluene	108-88-3	5.0	BDL
Ethylbenzene	100-41-4	5.0	BDL
Xylenes (Total)	1330-20-7	5.0	BDL
Naphthalene	91-20-3	5.0	BDL
Surrogate Recovery: BFB			88%

BDL = Below Sample Detection Limit
SDL = Sample Detection Limit

COMMENTS: _____

1491 TWILIGHT TRAIL FRANKFORT, KY 40601
502-223-0251 FAX: 502-875-8016 / TOLL FREE 800-728-2251

HYDROLOGIC, INC.

COMPANY NAME:	MARSHAL MILLER & ASSOC.
COMPANY PROJECT NUMBER:	JJ TEXACO-A89115
HYDROLOGIC PROJECT NUMBER:	K9717148
HYDROLOGIC LAB ID #:	N/A
HYDROLOGIC SAMPLE NUMBER:	9717158
SAMPLE IDENTIFICATION:	SB-9 24-28'
DATE SAMPLED:	08/13/97
DATE EXTRACTED:	N/A
DATE/TIME ANALYZED:	08/22/97

METHOD SW 846 8020

ANALYSIS	CAS NO.	SDL (ug/kg)	RESULT (ug/kg)
Benzene	**71-43-2**	**5.0**	**11.8**
Toluene	**108-88-3**	**5.0**	**15.7**
Ethylbenzene	**100-41-4**	**5.0**	**11.8**
Xylenes (Total)	**1330-20-7**	**5.0**	**62.9**
Naphthalene	91-20-3	5.0	BDL
Surrogate Recovery: BFB			**88%**

BDL = Below Sample Detection Limit
SDL = Sample Detection Limit

COMMENTS: _____

1491 TWILIGHT TRAIL FRANKFORT, KY 40601
502-223-0251 FAX: 502-875-8016 / TOLL FREE 800-728-2251

HYDROLOGIC, INC.

COMPANY NAME:	MARSHAL MILLER & ASSOC.
COMPANY PROJECT NUMBER:	JJ TEXACO-A89115
HYDROLOGIC PROJECT NUMBER:	K9717148
HYDROLOGIC LAB ID #:	N/A
HYDROLOGIC SAMPLE NUMBER:	9717159
SAMPLE IDENTIFICATION:	SB-10 28-32'
DATE SAMPLED:	08/13/97
DATE EXTRACTED:	N/A
DATE/TIME ANALYZED:	08/22/97

METHOD SW 846 8020

ANALYSIS	CAS NO.	SDL (ug/kg)	RESULT (ug/kg)
Benzene	71-43-2	5.0	BDL
Toluene	108-88-3	5.0	BDL
Ethylbenzene	100-41-4	5.0	BDL
Xylenes (Total)	1330-20-7	5.0	BDL
Naphthalene	91-20-3	5.0	BDL
Surrogate Recovery: BFB			88%

BDL = Below Sample Detection Limit
SDL = Sample Detection Limit

COMMENTS:

1491 TWILIGHT TRAIL FRANKFORT, KY 40601
502-223-0251 FAX: 502-875-8016 / TOLL FREE 800-728-2251

KY 11/170

Chain of Custody

MARSHALL MILLER & ASSOCIATES

Bluefield Virginia Industrial Park
P. O. Box 848
Bluefield, VA 24605-0848
703/322-5467 • FAX 703/322-5460

5480 Swanton Drive
Lexington, KY 40509-9420
606/263-2855 • FAX 606/263-2839

3622 B MacCorkle Ave., S.E.
Charleston, WV 25304-1422
304/925-0507 • FAX 304/925-0508

Sample Collection Information

Client:	Project:	Project Number:
DHEC	JJ Texaco	A89115
Sampler: J. Owrey		
Date of Collection: 8-13,14,15-97	Date of Sample Shipment:	How Shipped: Self

Sample Log and Analysis Request

Turnaround Requirements
✓ Regular
____ Rush

Sample Number:	Sample ID:	Matrix	Grab/ Comp.	Containers Number & Type	Analysis Requested: BTEX + NAP.	Remarks	OVA/HNU
1.	SB-1 16-20'	Soil	G	1-4oz	X	Background	0
2	SB-2 16-18'	"	"	"			0
3	SB-3 30-32'	"	"	"	X		38
4	SB-3 36-38'	"	"	"			90
5	SB-4 25-28'	"	"	"			33
6	SB-4 30-32'	"	"	"	X		80
7	SB-5 27-28'	"	"	"	X		15
8	SB-6 24-28'	"	"	"	X		3
9	SB-7 20-24'	"	"	"	X		2
10	SB-8 20-24'	"	"	"	X		2.7
11	SB-9 24-28'	"	"	"	X		70
12	SB-10 28-32'	"	"	"	X		0

Relinquished by: (Signature)	Date/Time	Received by: (Signature)	Date/Time	Condition:
Steve Hutchinson	8/20/97	Rick Jones	8/20/97	
Relinquished by: (Signature)	Date/Time	Received for Laboratory by: (Signature)	Date/Time	Condition:
		Dana Estes	8/21/97 1000	

Comments: received iced 291 8349 585

Possible Interfering Compounds:

Requested by: (Name, Title)

TOTAL P.014

HYDROLOGIC, INC.

September 10, 1997

REPORTING:

MARSHAL MILLER & ASSOC.
P.O. BOX 848
BLUEFIELD, VA 24605

INVOICING:

MARSHAL MILLER & ASSOC.
P.O. BOX 848
BLUEFIELD, VA 24605

PROJECT NUMBER: K9717892

DATE COMPLETED: September 10, 1997
DATE RECEIVED: August 29, 1997

PROJECT DESCRIPTION:

RAPID ASSESS-J.J. TEXACO A89115--12 soil samples were received and analyzed for 8020-BTEX+NAPHTHALENE and 3550-TPH.

Enclosed is the laboratory report for the project described above. If you have any questions or if we can be of further assistance, please feel free to contact Jack Hale Jr. at 1-800-728-2251. We appreciate your business and look forward to serving you again soon.

Respectfully,

Walter Hogg
Laboratory Director

1491 TWILIGHT TRAIL FRANKFORT, KY 40601
502-223-0251 FAX: 502-875-8016 / TOLL FREE 800-728-2251

HYDROLOGIC, INC.

COMPANY NAME:	MARSHAL MILLER & ASSOC.
COMPANY PROJECT NUMBER:	A89115-RAPID ASSESS-J.J. TEXACO
HYDROLOGIC PROJECT NUMBER:	K9717892
HYDROLOGIC LAB ID #:	N/A
HYDROLOGIC SAMPLE NUMBER:	9717892
SAMPLE IDENTIFICATION:	SB-11 28-32
DATE SAMPLED:	08/18/97
DATE EXTRACTED:	N/A
DATE/TIME ANALYZED:	08/31/97

METHOD SW 846 8020

ANALYSIS	CAS NO.	SDL (ug/kg)	RESULT (ug/kg)
Benzene	71-43-2	5.0	BDL
Toluene	108-88-3	5.0	BDL
Ethylbenzene	100-41-4	5.0	BDL
Xylenes (Total)	1330-20-7	5.0	BDL
Naphthalene	**91-20-3**	**5.0**	**166**
Surrogate Recovery:			
BFB			99%

BDL = Below Sample Detection Limit
SDL = Sample Detection Limit

COMMENTS: _____

1491 TWILIGHT TRAIL FRANKFORT, KY 40601
502-223-0251 FAX: 502-875-8016 / TOLL FREE 800-728-2251

HYDROLOGIC, INC.

COMPANY NAME:	MARSHAL MILLER & ASSOC.
COMPANY PROJECT NUMBER:	A89115-RAPID ASSESS-J.J. TEXACO
HYDROLOGIC PROJECT NUMBER:	K9717892
HYDROLOGIC LAB ID #:	N/A
HYDROLOGIC SAMPLE NUMBER:	9717892
SAMPLE IDENTIFICATION:	SB-11 28-32
DATE SAMPLED:	08/18/97
DATE EXTRACTED:	08/29/97
DATE/TIME ANALYZED:	09/02/97

METHOD TPH 3550

ANALYSIS	CAS NO.	SDL (mg/kg)	RESULT (mg/kg)
Diesel		10.0	BDL
Surrogate Recoveries:			
Nonane			127%

BDL = Below Sample Detection Limit
SDL = Sample Detection Limit

COMMENTS: _____

1491 TWILIGHT TRAIL FRANKFORT, KY 40601
502-223-0251 FAX: 502-875-8016 / TOLL FREE 800-728-2251

HYDROLOGIC, INC.

COMPANY NAME:	MARSHAL MILLER & ASSOC.
COMPANY PROJECT NUMBER:	A89115-RAPID ASSESS-J.J. TEXACO
HYDROLOGIC PROJECT NUMBER:	K9717892
HYDROLOGIC LAB ID #:	N/A
HYDROLOGIC SAMPLE NUMBER:	9717893
SAMPLE IDENTIFICATION:	SB-12 24-28
DATE SAMPLED:	08/18/97
DATE EXTRACTED:	N/A
DATE/TIME ANALYZED:	08/31/97

METHOD SW 846 8020

ANALYSIS	CAS NO.	SDL (ug/kg)	RESULT (ug/kg)
Benzene	71-43-2	5.0	BDL
Toluene	108-88-3	5.0	BDL
Ethylbenzene	100-41-4	5.0	BDL
Xylenes (Total)	1330-20-7	5.0	BDL
Naphthalene	91-20-3	5.0	BDL
Surrogate Recovery:			
BFB			101%

BDL = Below Sample Detection Limit
SDL = Sample Detection Limit

COMMENTS: _____

1491 TWILIGHT TRAIL FRANKFORT, KY 40601
502-223-0251 FAX: 502-875-8016 / TOLL FREE 800-728-2251

HYDROLOGIC, INC.

COMPANY NAME:	MARSHAL MILLER & ASSOC.
COMPANY PROJECT NUMBER:	A89115-RAPID ASSESS-J.J. TEXACO
HYDROLOGIC PROJECT NUMBER:	K9717892
HYDROLOGIC LAB ID #:	N/A
HYDROLOGIC SAMPLE NUMBER:	9717893
SAMPLE IDENTIFICATION:	SB-12 24-28
DATE SAMPLED:	08/18/97
DATE EXTRACTED:	08/29/97
DATE/TIME ANALYZED:	09/02/97

METHOD TPH 3550

ANALYSIS	CAS NO.	SDL (mg/kg)	RESULT (mg/kg)
Diesel		10.0	BDL
Surrogate Recoveries:			
Nonane			91%

BDL = Below Sample Detection Limit
SDL = Sample Detection Limit

COMMENTS: _____

1491 TWILIGHT TRAIL FRANKFORT, KY 40601
502-223-0251 FAX: 502-875-8016 / TOLL FREE 800-728-2251

HYDROLOGIC, INC.

COMPANY NAME:	MARSHAL MILLER & ASSOC.
COMPANY PROJECT NUMBER:	A89115-RAPID ASSESS-J.J. TEXACO
HYDROLOGIC PROJECT NUMBER:	K9717892
HYDROLOGIC LAB ID #:	N/A
HYDROLOGIC SAMPLE NUMBER:	9717894
SAMPLE IDENTIFICATION:	SB-13 24-28
DATE SAMPLED:	08/18/97
DATE EXTRACTED:	N/A
DATE/TIME ANALYZED:	08/31/97

METHOD SW 846 8020

ANALYSIS	CAS NO.	SDL (ug/kg)	RESULT (ug/kg)
Benzene	71-43-2	5.0	BDL
Toluene	108-88-3	5.0	BDL
Ethylbenzene	100-41-4	5.0	BDL
Xylenes (Total)	1330-20-7	5.0	BDL
Naphthalene	91-20-3	5.0	BDL
Surrogate Recovery:			
BFB			99%

BDL = Below Sample Detection Limit
SDL = Sample Detection Limit

COMMENTS: _____

1491 TWILIGHT TRAIL FRANKFORT, KY 40601
502-223-0251 FAX: 502-875-8016 / TOLL FREE 800-728-2251

HYDROLOGIC, INC.

COMPANY NAME:	MARSHAL MILLER & ASSOC.
COMPANY PROJECT NUMBER:	A89115-RAPID ASSESS-J.J. TEXACO
HYDROLOGIC PROJECT NUMBER:	K9717892
HYDROLOGIC LAB ID #:	N/A
HYDROLOGIC SAMPLE NUMBER:	9717894
SAMPLE IDENTIFICATION:	SB-13 24-28
DATE SAMPLED:	08/18/97
DATE EXTRACTED:	08/29/97
DATE/TIME ANALYZED:	09/02/97

METHOD TPH 3550

ANALYSIS	CAS NO.	SDL (mg/kg)	RESULT (mg/kg)
Diesel		10.0	BDL
Surrogate Recoveries:			
Nonane			104%

BDL = Below Sample Detection Limit
SDL = Sample Detection Limit

COMMENTS: _____

1491 TWILIGHT TRAIL FRANKFORT, KY 40601
502-223-0251 FAX: 502-875-8016 / TOLL FREE 800-728-2251

HYDROLOGIC, INC.

COMPANY NAME:	MARSHAL MILLER & ASSOC.
COMPANY PROJECT NUMBER:	A89115-RAPID ASSESS-J.J. TEXACO
HYDROLOGIC PROJECT NUMBER:	K9717892
HYDROLOGIC LAB ID #:	N/A
HYDROLOGIC SAMPLE NUMBER:	9717895
SAMPLE IDENTIFICATION:	SB-14 28-32
DATE SAMPLED:	08/18/97
DATE EXTRACTED:	N/A
DATE/TIME ANALYZED:	09/02/97

METHOD SW 846 8020

ANALYSIS	CAS NO.	SDL (ug/kg)	RESULT (ug/kg)
Benzene	**71-43-2**	**10.0**	**1120**
Toluene	**108-88-3**	**10.0**	**274**
Ethylbenzene	**100-41-4**	**200**	**7260**
Xylenes (Total)	**1330-20-7**	**200**	**34300**
Naphthalene	**91-20-3**	**200**	**6880**
Surrogate Recovery: BFB			115%

BDL = Below Sample Detection Limit
SDL = Sample Detection Limit

COMMENTS: COMPOUNDS WITH ELEVATED SDL ARE DUE TO A SAMPLE DILUTION.

1491 TWILIGHT TRAIL FRANKFORT, KY 40601
502-223-0251 FAX: 502-875-8016 / TOLL FREE 800-728-2251

HYDROLOGIC, INC.

COMPANY NAME: MARSHAL MILLER & ASSOC.
COMPANY PROJECT NUMBER: A89115-RAPID ASSESS-J.J. TEXACO

HYDROLOGIC PROJECT NUMBER: K9717892
HYDROLOGIC LAB ID #: N/A
HYDROLOGIC SAMPLE NUMBER: 9717895
SAMPLE IDENTIFICATION: SB-14 28-32
DATE SAMPLED: 08/18/97
DATE EXTRACTED: 08/29/97
DATE/TIME ANALYZED: 09/02/97

METHOD TPH 3550

ANALYSIS	CAS NO.	SDL (mg/kg)	RESULT (mg/kg)
Diesel		10.0	BDL
Surrogate Recoveries:			
Nonane			206%

BDL = Below Sample Detection Limit
SDL = Sample Detection Limit

COMMENTS: _____

1491 TWILIGHT TRAIL FRANKFORT, KY 40601
502-223-0251 FAX: 502-875-8016 / TOLL FREE 800-728-2251

HYDROLOGIC, INC.

COMPANY NAME:	MARSHAL MILLER & ASSOC.
COMPANY PROJECT NUMBER:	A89115-RAPID ASSESS-J.J. TEXACO
HYDROLOGIC PROJECT NUMBER:	K9717892
HYDROLOGIC LAB ID #:	N/A
HYDROLOGIC SAMPLE NUMBER:	9717896
SAMPLE IDENTIFICATION:	SB-14 32-33
DATE SAMPLED:	08/18/97
DATE EXTRACTED:	N/A
DATE/TIME ANALYZED:	09/02/97

METHOD SW 846 8020

ANALYSIS	CAS NO.	SDL (ug/kg)	RESULT (ug/kg)
Benzene	71-43-2	5.0	782
Toluene	108-88-3	5.0	895
Ethylbenzene	100-41-4	5.0	3620
Xylenes (Total)	1330-20-7	5.0	19600
Naphthalene	91-20-3	5.0	3230
Surrogate Recovery:			
BFB			98%

BDL = Below Sample Detection Limit
SDL = Sample Detection Limit

COMMENTS: _____

1491 TWILIGHT TRAIL FRANKFORT, KY 40601
502-223-0251 FAX: 502-875-8016 / TOLL FREE 800-728-2251

HYDROLOGIC, INC.

COMPANY NAME:	MARSHAL MILLER & ASSOC.
COMPANY PROJECT NUMBER:	A89115-RAPID ASSESS-J.J. TEXACO
HYDROLOGIC PROJECT NUMBER:	K9717892
HYDROLOGIC LAB ID #:	N/A
HYDROLOGIC SAMPLE NUMBER:	9717896
SAMPLE IDENTIFICATION:	SB-14 32-33
DATE SAMPLED:	08/18/97
DATE EXTRACTED:	08/29/97
DATE/TIME ANALYZED: .	09/02/97

METHOD TPH 3550

ANALYSIS	CAS NO.	SDL (mg/kg)	RESULT (mg/kg)
Diesel		10.0	BDL
Surrogate Recoveries:			
Nonane			247%

BDL = Below Sample Detection Limit
SDL = Sample Detection Limit

COMMENTS: _____

1491 TWILIGHT TRAIL FRANKFORT, KY 40601
502-223-0251 FAX: 502-875-8016 / TOLL FREE 800-728-2251

HYDROLOGIC, INC.

COMPANY NAME:	MARSHAL MILLER & ASSOC.
COMPANY PROJECT NUMBER:	A89115-RAPID ASSESS-J.J. TEXACO
HYDROLOGIC PROJECT NUMBER:	K9717892
HYDROLOGIC LAB ID #:	N/A
HYDROLOGIC SAMPLE NUMBER:	9717897
SAMPLE IDENTIFICATION:	SB-15 16-20
DATE SAMPLED:	08/18/97
DATE EXTRACTED:	N/A
DATE/TIME ANALYZED:	08/31/97

METHOD SW 846 8020

ANALYSIS	CAS NO.	SDL (ug/kg)	RESULT (ug/kg)
Benzene	**71-43-2**	**10.0**	**10.4**
Toluene	**108-88-3**	**10.0**	**24.7**
Ethylbenzene	**100-41-4**	**10.0**	**37.6**
Xylenes (Total)	**1330-20-7**	**10.0**	**230**
Naphthalene	**91-20-3**	**10.0**	**224**
Surrogate Recovery:			
BFB			97%

BDL = Below Sample Detection Limit
SDL = Sample Detection Limit

COMMENTS: COMPOUNDS WITH ELEVATED SDL ARE DUE TO A SAMPLE DILUTION.

1491 TWILIGHT TRAIL FRANKFORT, KY 40601
502-223-0251 FAX: 502-875-8016 / TOLL FREE 800-728-2251

HYDROLOGIC, INC.

COMPANY NAME:	MARSHAL MILLER & ASSOC.
COMPANY PROJECT NUMBER:	AB9115-RAPID ASSESS-J.J. TEXACO
HYDROLOGIC PROJECT NUMBER:	K9717892
HYDROLOGIC LAB ID #:	N/A
HYDROLOGIC SAMPLE NUMBER:	9717897
SAMPLE IDENTIFICATION:	SB-15 16-20
DATE SAMPLED:	08/18/97
DATE EXTRACTED:	08/29/97
DATE/TIME ANALYZED:	09/02/97

METHOD TPH 3550

ANALYSIS	CAS NO.	SDL (mg/kg)	RESULT (mg/kg)
Diesel		10.0	BDL
Surrogate Recoveries:			
Nonane			104%

BDL = Below Sample Detection Limit
SDL = Sample Detection Limit

COMMENTS: _____

1491 TWILIGHT TRAIL FRANKFORT, KY 40601
502-223-0251 FAX: 502-875-8016 / TOLL FREE 800-728-2251

HYDROLOGIC, INC.

COMPANY NAME: MARSHAL MILLER & ASSOC.
COMPANY PROJECT NUMBER: A89115-RAPID ASSESS-J.J. TEXACO

HYDROLOGIC PROJECT NUMBER: K9717892
HYDROLOGIC LAB ID #: N/A
HYDROLOGIC SAMPLE NUMBER: 9717898
SAMPLE IDENTIFICATION: SB-15 20-24
DATE SAMPLED: 08/18/97
DATE EXTRACTED: N/A
DATE/TIME ANALYZED: 08/31/97

METHOD SW 846 8020

ANALYSIS	CAS NO.	SDL (ug/kg)	RESULT (ug/kg)
Benzene	71-43-2	5.0	BDL
Toluene	**108-88-3**	**5.0**	**5.82**
Ethylbenzene	100-41-4	5.0	BDL
Xylenes (Total)	**1330-20-7**	**5.0**	**9.23**
Naphthalene	**91-20-3**	**5.0**	**39.1**
Surrogate Recovery:			
BFB			95%

BDL = Below Sample Detection Limit
SDL = Sample Detection Limit

COMMENTS: _____

1491 TWILIGHT TRAIL FRANKFORT, KY 40601
502-223-0251 FAX: 502-875-8016 / TOLL FREE 800-728-2251

HYDROLOGIC, INC.

COMPANY NAME:	MARSHAL MILLER & ASSOC.
COMPANY PROJECT NUMBER:	A89115-RAPID ASSESS-J.J. TEXACO
HYDROLOGIC PROJECT NUMBER:	K9717892
HYDROLOGIC LAB ID #:	N/A
HYDROLOGIC SAMPLE NUMBER:	9717898
SAMPLE IDENTIFICATION:	SB-15 20-24
DATE SAMPLED:	08/18/97
DATE EXTRACTED:	08/29/97
DATE/TIME ANALYZED:	09/02/97

METHOD TPH 3550

ANALYSIS	CAS NO.	SDL (mg/kg)	RESULT (mg/kg)
Diesel		10.0	BDL
Surrogate Recoveries:			
Nonane			84%

BDL = Below Sample Detection Limit
SDL = Sample Detection Limit

COMMENTS: _____

1491 TWILIGHT TRAIL FRANKFORT, KY 40601
502-223-0251 FAX: 502-875-8016 / TOLL FREE 800-728-2251

HYDROLOGIC, INC.

COMPANY NAME: MARSHAL MILLER & ASSOC.
COMPANY PROJECT NUMBER: A89115-RAPID ASSESS-J.J. TEXACO

HYDROLOGIC PROJECT NUMBER: K9717892
HYDROLOGIC LAB ID #: N/A
HYDROLOGIC SAMPLE NUMBER: 9717899
SAMPLE IDENTIFICATION: SB-15 24-28
DATE SAMPLED: 08/18/97
DATE EXTRACTED: N/A
DATE/TIME ANALYZED: 08/31/97

METHOD SW 846 8020

ANALYSIS	CAS NO.	SDL (ug/kg)	RESULT (ug/kg)
Benzene	71-43-2	5.0	BDL
Toluene	108-88-3	5.0	BDL
Ethylbenzene	100-41-4	5.0	BDL
Xylenes (Total)	**1330-20-7**	**5.0**	**5.00**
Naphthalene	**91-20-3**	**5.0**	**15.3**
Surrogate Recovery:			
BFB			100%

BDL = Below Sample Detection Limit
SDL = Sample Detection Limit

COMMENTS: _____

1491 TWILIGHT TRAIL FRANKFORT, KY 40601
502-223-0251 FAX: 502-875-8016 / TOLL FREE 800-728-2251

HYDROLOGIC, INC.

COMPANY NAME:	MARSHAL MILLER & ASSOC.
COMPANY PROJECT NUMBER:	A89115-RAPID ASSESS-J.J. TEXACO
HYDROLOGIC PROJECT NUMBER:	K9717892
HYDROLOGIC LAB ID #:	N/A
HYDROLOGIC SAMPLE NUMBER:	9717899
SAMPLE IDENTIFICATION:	SB-15 24-28
DATE SAMPLED:	08/18/97
DATE EXTRACTED:	08/29/97
DATE/TIME ANALYZED:	09/02/97

METHOD TPH 3550

ANALYSIS	CAS NO.	SDL (mg/kg)	RESULT (mg/kg)
Diesel		10.0	BDL
Surrogate Recoveries:			
Nonane			75%

BDL = Below Sample Detection Limit
SDL = Sample Detection Limit

COMMENTS: _____

HYDROLOGIC, INC.

COMPANY NAME:	MARSHAL MILLER & ASSOC.
COMPANY PROJECT NUMBER:	A89115-RAPID ASSESS-J.J. TEXACO
HYDROLOGIC PROJECT NUMBER:	K9717892
HYDROLOGIC LAB ID #:	N/A
HYDROLOGIC SAMPLE NUMBER:	9717900
SAMPLE IDENTIFICATION:	SB-15 28-32
DATE SAMPLED:	08/18/97
DATE EXTRACTED:	N/A
DATE/TIME ANALYZED:	08/31/97

METHOD SW 846 8020

ANALYSIS	CAS NO.	SDL (ug/kg)	RESULT (ug/kg)
Benzene	**71-43-2**	**5.0**	**14.2**
Toluene	**108-88-3**	**5.0**	**22.3**
Ethylbenzene	**100-41-4**	**5.0**	**26.0**
Xylenes (Total)	**1330-20-7**	**5.0**	**131**
Naphthalene	**91-20-3**	**5.0**	**60.9**
Surrogate Recovery:			
BFB			110%

HYDROLOGIC, INC.

COMPANY NAME: MARSHAL MILLER & ASSOC.
COMPANY PROJECT NUMBER: A89115-RAPID ASSESS-J.J. TEXACO

HYDROLOGIC PROJECT NUMBER: K9717892
HYDROLOGIC LAB ID #: N/A
HYDROLOGIC SAMPLE NUMBER: 9717900
SAMPLE IDENTIFICATION: SB-15 28-32
DATE SAMPLED: 08/18/97
DATE EXTRACTED: 08/29/97
DATE/TIME ANALYZED: 09/02/97

METHOD TPH 3550

ANALYSIS	CAS NO.	SDL (mg/kg)	RESULT (mg/kg)
Diesel		10.0	BDL
Surrogate Recoveries:			
Nonane			91%

BDL = Below Sample Detection Limit
SDL = Sample Detection Limit

COMMENTS: _____

1491 TWILIGHT TRAIL FRANKFORT, KY 40601
502-223-0251 FAX: 502-875-8016 / TOLL FREE 800-728-2251

HYDROLOGIC, INC.

COMPANY NAME:	MARSHAL MILLER & ASSOC.
COMPANY PROJECT NUMBER:	A89115-RAPID ASSESS-J.J. TEXACO
HYDROLOGIC PROJECT NUMBER:	K9717892
HYDROLOGIC LAB ID #:	N/A
HYDROLOGIC SAMPLE NUMBER:	9717901
SAMPLE IDENTIFICATION:	SB-16 24-28
DATE SAMPLED:	08/18/97
DATE EXTRACTED:	N/A
DATE/TIME ANALYZED:	08/31/97

METHOD SW 846 8020

ANALYSIS	CAS NO.	SDL (ug/kg)	RESULT (ug/kg)
Benzene	**71-43-2**	**5.0**	**18.0**
Toluene	**108-88-3**	**5.0**	**71.6**
Ethylbenzene	**100-41-4**	**5.0**	**15.0**
Xylenes (Total)	**1330-20-7**	**5.0**	**40.2**
Naphthalene	**91-20-3**	**5.0**	**330**
Surrogate Recovery:			
BFB			**114%**

BDL = Below Sample Detection Limit
SDL = Sample Detection Limit

COMMENTS: _____

1491 TWILIGHT TRAIL FRANKFORT, KY 40601
502-223-0251 FAX: 502-875-8016 / TOLL FREE 800-728-2251

HYDROLOGIC, INC.

COMPANY NAME: MARSHAL MILLER & ASSOC.
COMPANY PROJECT NUMBER: A89115-RAPID ASSESS-J.J. TEXACO

HYDROLOGIC PROJECT NUMBER: K9717892
HYDROLOGIC LAB ID #: N/A
HYDROLOGIC SAMPLE NUMBER: 9717901
SAMPLE IDENTIFICATION: SB-16 24-28
DATE SAMPLED: 08/18/97
DATE EXTRACTED: 08/29/97
DATE/TIME ANALYZED: 09/02/97

METHOD TPH 3550

ANALYSIS	CAS NO.	SDL (mg/kg)	RESULT (mg/kg)
Diesel		10.0	BDL
Surrogate Recoveries:			
Nonane			139%

BDL = Below Sample Detection Limit
SDL = Sample Detection Limit

COMMENTS: _____

1491 TWILIGHT TRAIL FRANKFORT, KY 40601
502-223-0251 FAX: 502-875-8016 / TOLL FREE 800-728-2251

HYDROLOGIC, INC.

COMPANY NAME: MARSHAL MILLER & ASSOC.
COMPANY PROJECT NUMBER: A89115-RAPID ASSESS-J.J. TEXACO

HYDROLOGIC PROJECT NUMBER: K9717892
HYDROLOGIC LAB ID #: N/A
HYDROLOGIC SAMPLE NUMBER: 9717902
SAMPLE IDENTIFICATION: SB-17 28-32
DATE SAMPLED: 08/18/97
DATE EXTRACTED: N/A
DATE/TIME ANALYZED: 09/02/97

METHOD SW 846 8020

ANALYSIS	CAS NO.	SDL (ug/kg)	RESULT (ug/kg)
Benzene	71-43-2	5.0	BDL
Toluene	108-88-3	5.0	BDL
Ethylbenzene	100-41-4	5.0	BDL
Xylenes (Total)	1330-20-7	5.0	BDL
Naphthalene	**91-20-3**	**5.0**	**19.5**
Surrogate Recovery:			
BFB			100%

BDL = Below Sample Detection Limit
SDL = Sample Detection Limit

COMMENTS: _____

1491 TWILIGHT TRAIL FRANKFORT, KY 40601
502-223-0251 FAX: 502-875-8016 / TOLL FREE 800-728-2251

HYDROLOGIC, INC.

COMPANY NAME:	MARSHAL MILLER & ASSOC.
COMPANY PROJECT NUMBER:	A89115-RAPID ASSESS-J.J. TEXACO
HYDROLOGIC PROJECT NUMBER:	K9717892
HYDROLOGIC LAB ID #:	N/A
HYDROLOGIC SAMPLE NUMBER:	9717902
SAMPLE IDENTIFICATION:	SB-17 28-32
DATE SAMPLED:	08/18/97
DATE EXTRACTED:	08/29/97
DATE/TIME ANALYZED:	09/02/97

METHOD TPH 3550

ANALYSIS	CAS NO.	SDL (mg/kg)	RESULT (mg/kg)
Diesel		10.0	BDL
Surrogate Recoveries:			
Nonane			96%

BDL = Below Sample Detection Limit
SDL = Sample Detection Limit

COMMENTS: _____

1491 TWILIGHT TRAIL FRANKFORT, KY 40601
502-223-0251 FAX: 502-875-8016 / TOLL FREE 800-728-2251

HYDROLOGIC, INC.

COMPANY NAME: MARSHAL MILLER & ASSOC.
COMPANY PROJECT NUMBER: A89115-RAPID ASSESS-J.J. TEXACO

HYDROLOGIC PROJECT NUMBER: K9717892
HYDROLOGIC LAB ID #: N/A
HYDROLOGIC SAMPLE NUMBER: 9717903
SAMPLE IDENTIFICATION: SB-18 32-36
DATE SAMPLED: 08/18/97
DATE EXTRACTED: N/A
DATE/TIME ANALYZED: 09/02/97

METHOD SW 846 8020

ANALYSIS	CAS NO.	SDL (ug/kg)	RESULT (ug/kg)
Benzene	71-43-2	5.0	BDL
Toluene	108-88-3	5.0	BDL
Ethylbenzene	100-41-4	5.0	BDL
Xylenes (Total)	1330-20-7	5.0	BDL
Naphthalene	**91-20-3**	**5.0**	**3.59**
Surrogate Recovery:			
BFB			100%

BDL = Below Sample Detection Limit
SDL = Sample Detection Limit

COMMENTS:

1491 TWILIGHT TRAIL FRANKFORT, KY 40601
502-223-0251 FAX: 502-875-8016 / TOLL FREE 800-728-2251

HYDROLOGIC, INC.

COMPANY NAME:	MARSHAL MILLER & ASSOC.
COMPANY PROJECT NUMBER:	A89115-RAPID ASSESS-J.J. TEXACO
HYDROLOGIC PROJECT NUMBER:	K9717892
HYDROLOGIC LAB ID #:	N/A
HYDROLOGIC SAMPLE NUMBER:	9717903
SAMPLE IDENTIFICATION:	SB-18 32-36
DATE SAMPLED:	08/18/97
DATE EXTRACTED:	08/29/97
DATE/TIME ANALYZED:	09/02/97

METHOD TPH 3550

ANALYSIS	CAS NO.	SDL (mg/kg)	RESULT (mg/kg)
Diesel		10.0	BDL
Surrogate Recoveries:			
Nonane			53%

BDL = Below Sample Detection Limit
SDL = Sample Detection Limit

COMMENTS: _____

MARSHALL MILLER & ASSOCIATES

Bluefield Virginia Industrial Park
P. O. Box 848
Bluefield, VA 24605-0848
703/322-5467 • FAX 703/322-5460

5480 Swanton Drive
Lexington, KY 40509-9420
606/263-2855 • FAX 606/263-2839

3622 B MacCorkle Ave. S.E.
Charleston, WV 25304-1423
304/925-0507 • FAX 304/925-0508

Chain of Custody

Sample Collection Information

Client: S.C.D.H.E.C

Project: Rapid Assess - J.J. Texaco

Project Number: A54115

Sampler: J. Ownby

Date of Collection: 8-18, 19, 20-97

Date of Sample Shipment:

How Shipped: Courier

Sample Log and Analysis Request

Turnaround Requirements: ✓ Regular ____ Rush

Analysis Requested: BTEX + MAP TPH (3550) TOC

Sample Number	Sample ID		Matrix	Grab/ Comp	Container Number & Type	BTEX + MAP	TPH (3550)	TOC	Remarks	OVA/PID
13	SB-11	28-32'	Soil	G	1-4oz.	X				10
14	SB-12	24-28'	"	"	"	X	X			0
15	SB-13	24-28'	"	"	"	X				0
16	SB-14	28-32'	"	"	"	X				50
17	SB-14	32-36'	"	"	"					50
18	SB-15	16-20'	"	"	"					80
19	SB-15	20-24'	"	"	"					70
20	SB-15	24-28'	"	"	"	X	X			98
21	SB-15	28-32'	"	"	"		X			SATURATED
22	SB-16	24-28'	"	"	"	X				70
23	SB-17	28-32'	"	"	"	X				0
24	SB-18	32-36'	"	"	"	X	X			0

Relinquished by: (Signature)	Date/Time	Received by: (Signature)	Date/Time	Condition:
Relinquished by: (Signature) Jack Tate Jr.	Date/Time 9-2-97/1700	Received for Laboratory by: (Signature)	Date/Time	Condition:

Remarks:

Possible Interfering Components:

Instructions by: (Name, Co.)

F-1 11/10 12

Chain of Custody

MARSHALL MILLER & ASSOCIATES

Bluefield Virginia Industrial Park
P. O. Box 848
Bluefield, VA 24605-0848
703/322-5467 • FAX 703/322-5460

5480 Swanton Drive
Lexington, KY 40509-9420
606/263-2855 • FAX 606/263-2839

3622 B MacCorkle Ave., S.E.
Charleston, WV 25304-1422
304/925-0507 • FAX 304/925-0508

Sample Collection Information

Client:	Project:	Project Number:
S.C. D.H.E.C	RAPID ASSESS - J.J. TEXACO	AF9115
Sampler: J. OWNEY		
Date of Collection: 8-18, 19, 20 -97	Date of Sample Shipment:	How Shipped: Courier

Sample Log and Analysis Request

Turnaround Requirements
✓ Regular
____ Rush

Sample Number:	Sample ID:		Matrix	Grab/ Comp.	Containers Number & Type	BTEX + MAP TPH (3550)	Analysis Requested					Remarks	OVA/HNU
13	SB-11	28-32'	SOIL	G	1-4oz								10
14	SB-12	24-28'	"	"	"								0
15	SB-13	24-28'	"	"	"								0
16	SB-14	28-32'	"	"	"								50
17	SB-14	32-33'	"	"	"								50
18	SB-15	16-20'	"	"	"								80
19	SB-15	20-24'	"	"	"								70
20	SB-15	24-28'	"	"	"								98
21	SB-15	28-32'	"	"	"								SATURATED
22	SB-16	24-28'	"	"	"								70
23	SB-17	28-32'	"	"	"								0
24	SB-18	32-36'	"	"	"								0

Relinquished by: (Signature)	Date/Time 8-25-97 5:01	Received by: (Signature)	Date/Time 8-25-97 5:01	Condition:
Relinquished by: (Signature)	Date/Time	Received for Laboratory by: (Signature) Dana Estes	Date/Time 8/29/97 1000	Condition: received on ice (JD)

Comments: 291 9882 752

Possible Interfering Compounds:

Requested by: (Name, title)

HYDROLOGIC, INC.

September 17, 1997

REPORTING:

MARSHAL MILLER & ASSOC.
P.O. BOX 848
BLUEFIELD, VA 24605

INVOICING:

MARSHAL MILLER & ASSOC.
P.O. BOX 848
BLUEFIELD, VA 24605

PROJECT NUMBER: K9718251

DATE COMPLETED: September 17, 1997
DATE RECEIVED: September 6, 1997

PROJECT DESCRIPTION: Partial

JJ TEXACO/A89115--8 water samples were received and analyzed for the following: 8 BTEX+MTBE+Naphthalene, 3 EDB, 6 PAH and 6 lead.

Enclosed is the laboratory report for the project described above. If you have any questions or if we can be of further assistance, please feel free to contact Jack Hale Jr. at 1-800-728-2251. We appreciate your business and look forward to serving you again soon.

Respectfully,

Walter Hogg
Laboratory Director

HYDROLOGIC, INC.

COMPANY NAME: MARSHAL MILLER & ASSOC.
COMPANY PROJECT NUMBER: JJ TEXACO/A89115

HYDROLOGIC PROJECT NUMBER: K9718251
HYDROLOGIC SAMPLE NUMBER: 9718251
HYDROLOGIC LAB ID #: N/A
SAMPLE IDENTIFICATION: GASTON WW
DATE SAMPLED: 09/04/97
DATE EXTRACTED: N/A
DATE/TIME ANALYZED: 09/11/97

METHOD 8020/MTBE/NAPHTHALENE

ANALYSIS	CAS NO.	SDL (ug/l)	RESULT (ug/l)
Benzene	71-43-2	1.0	BDL
Toluene	108-88-3	1.0	BDL
Ethylbenzene	100-41-4	1.0	BDL
Xylenes (Total)	1330-20-7	1.0	BDL
MTBE		5.0	BDL
Naphthalene	91-20-3	5.0	BDL
Surrogate Recovery:			
BFB			97%

BDL = Below Sample Detection Limit
SDL = Sample Detection Limit

COMMENTS: _____

1491 TWILIGHT TRAIL FRANKFORT, KY 40601
502-223-0251 FAX: 502-875-8016 / TOLL FREE 800-728-2251

HYDROLOGIC, INC.

COMPANY NAME:	MARSHAL MILLER & ASSOC.
COMPANY PROJECT NUMBER:	JJ TEXACO/A89115
HYDROLOGIC PROJECT NUMBER:	K9718251
HYDROLOGIC SAMPLE NUMBER:	9718251
HYDROLOGIC LAB ID #:	N/A
SAMPLE IDENTIFICATION:	GASTON WW
DATE SAMPLED:	09/4/97
DATE EXTRACTED:	09/09/97
DATE/TIME ANALYZED:	09/14/97

METHOD PAH-8270

ANALYSIS	CAS NO.	SDL (ug/l)	RESULT (ug/l)
Benzo(a)anthracene	56-55-3	10.0	BDL
Benzo(b)fluoranthene	205-99-2	10.0	BDL
Benzo(k)fluoranthene	207-08-9	10.0	BDL
Chrysene	218-01-9	10.0	BDL
Dibenzo(a,h)anthracene	53-70-3	10.0	BDL
Surrogate Recovery:			
p-Terphenyl			94%

BDL = Below Sample Detection Limit
SDL = Sample Detection Limit

COMMENTS: _____

1491 TWILIGHT TRAIL FRANKFORT, KY 40601
502-223-0251 FAX: 502-875-8016 / TOLL FREE 800-728-2251

HYDROLOGIC, INC.

COMPANY NAME: MARSHAL MILLER & ASSOC.
COMPANY PROJECT NUMBER: JJ TEXACO/A89115

HYDROLOGIC PROJECT NUMBER: K9718251
HYDROLOGIC SAMPLE NUMBER: 9718252
HYDROLOGIC LAB ID #: N/A
SAMPLE IDENTIFICATION: MW-1
DATE SAMPLED: 09/04/97
DATE EXTRACTED: N/A
DATE/TIME ANALYZED: 09/11/97

METHOD 8020/MTBE/NAPHTHALENE

ANALYSIS	CAS NO.	SDL (ug/l)	RESULT (ug/l)
Benzene	71-43-2	1.0	BDL
Toluene	108-88-3	1.0	BDL
Ethylbenzene	100-41-4	1.0	BDL
Xylenes (Total)	1330-20-7	1.0	BDL
MTBE		5.0	BDL
Naphthalene	91-20-3	5.0	BDL
Surrogate Recoveries:			
BFB			98%

BDL = Below Sample Detection Limit
SDL = Sample Detection Limit

COMMENTS: _____

1491 TWILIGHT TRAIL FRANKFORT, KY 40601
502-223-0251 FAX: 502-875-8016 / TOLL FREE 800-728-2251

HYDROLOGIC, INC.

COMPANY NAME:	MARSHAL MILLER & ASSOC.
COMPANY PROJECT NUMBER:	JJ TEXACO/A89115
HYDROLOGIC PROJECT NUMBER:	K9718251
HYDROLOGIC SAMPLE NUMBER:	9718252
HYDROLOGIC LAB ID #:	N/A
SAMPLE IDENTIFICATION:	MW-1
DATE SAMPLED:	09/04/97
DATE EXTRACTED:	09/09/97
DATE/TIME ANALYZED:	09/14/97

METHOD PAH-8270

ANALYSIS	CAS NO.	SDL (ug/l)	RESULT (ug/l)
Benzo(a)anthracene	56-55-3	10.0	BDL
Benzo(b)fluoranthene	205-99-2	10.0	BDL
Benzo(k)fluoranthene	207-08-9	10.0	BDL
Chrysene	218-01-9	10.0	BDL
Dibenzo(a,h)anthracene	53-70-3	10.0	BDL
Surrogate Recovery:			
p-Terphenyl			93%

BDL = Below Sample Detection Limit
SDL = Sample Detection Limit

COMMENTS: _____

1491 TWILIGHT TRAIL FRANKFORT, KY 40601
502-223-0251 FAX: 502-875-8016 / TOLL FREE 800-728-2251

HYDROLOGIC, INC.

COMPANY NAME: MARSHAL MILLER & ASSOC.
COMPANY PROJECT NUMBER: JJ TEXACO/A89115

HYDROLOGIC PROJECT NUMBER: K9718251
HYDROLOGIC SAMPLE NUMBER: 9718253
HYDROLOGIC LAB ID #: N/A
SAMPLE IDENTIFICATION: MW-4
DATE SAMPLED: 09/04/97
DATE EXTRACTED: N/A
DATE/TIME ANALYZED: 09/11/97

METHOD 8020/MTBE/NAPHTHALENE

ANALYSIS	CAS NO.	SDL (ug/l)	RESULT (ug/l)
Benzene	**71-43-2**	**1.0**	**1.07**
Toluene	**108-88-3**	**1.0**	**4.17**
Ethylbenzene	**100-41-4**	**1.0**	**2.12**
Xylenes (Total)	**1330-20-7**	**1.0**	**22.8**
MTBE		**5.0**	**41.9**
Naphthalene	91-20-3	5.0	BDL
Surrogate Recoveries:			
BFB			96%

BDL = Below Sample Detection Limit
SDL = Sample Detection Limit

COMMENTS: _____

1491 TWILIGHT TRAIL FRANKFORT, KY 40601
502-223-0251 FAX: 502-875-8016 / TOLL FREE 800-728-2251

HYDROLOGIC, INC.

COMPANY NAME: MARSHAL MILLER & ASSOC.
COMPANY PROJECT NUMBER: JJ TEXACO/A89115

HYDROLOGIC PROJECT NUMBER: K9718251
HYDROLOGIC SAMPLE NUMBER: 9718253
HYDROLOGIC LAB ID #: N/A
SAMPLE IDENTIFICATION: MW-4
DATE SAMPLED: 09/04/97
DATE EXTRACTED: 09/16/97
DATE/TIME ANALYZED: 09/16/97

METHOD 504

ANALYSIS	CAS NO.	SDL (ug/L)	RESULT (ug/L)
EDB	106-93-4	0.05	BDL

BDL = Below Sample Detection Limit
SDL = Sample Detection Limit

COMMENTS: _____

1491 TWILIGHT TRAIL FRANKFORT, KY 40601
502-223-0251 FAX: 502-875-8016 / TOLL FREE 800-728-2251

HYDROLOGIC, INC.

COMPANY NAME:	MARSHAL MILLER & ASSOC.
COMPANY PROJECT NUMBER:	JJ TEXACO/A89115
HYDROLOGIC PROJECT NUMBER:	K9718251
HYDROLOGIC SAMPLE NUMBER:	9718254
HYDROLOGIC LAB ID #:	N/A
SAMPLE IDENTIFICATION:	MW-6
DATE SAMPLED:	09/04/97
DATE EXTRACTED:	N/A
DATE/TIME ANALYZED:	09/11/97

METHOD 8020/MTBE/NAPHTHALENE

ANALYSIS	CAS NO.	SDL (ug/l)	RESULT (ug/l)
Benzene	**71-43-2**	**1.0**	**1.83**
Toluene	108-88-3	1.0	BDL
Ethylbenzene	100-41-4	1.0	BDL
Xylenes (Total)	**1330-20-7**	**1.0**	**1.14**
MTBE		**5.0**	**12.2**
Naphthalene	91-20-3	5.0	BDL
Surrogate Recoveries:			
BFB			95%

BDL = Below Sample Detection Limit
SDL = Sample Detection Limit

COMMENTS: _____

1491 TWILIGHT TRAIL FRANKFORT, KY 40601
502-223-0251 FAX: 502-875-8016 / TOLL FREE 800-728-2251

HYDROLOGIC, INC.

COMPANY NAME: MARSHAL MILLER & ASSOC.
COMPANY PROJECT NUMBER: JJ TEXACO/A89115

HYDROLOGIC PROJECT NUMBER: K9718251
HYDROLOGIC SAMPLE NUMBER: 9718254
HYDROLOGIC LAB ID #: N/A
SAMPLE IDENTIFICATION: MW-6
DATE SAMPLED: 09/04/97
DATE EXTRACTED: 09/09/97
DATE/TIME ANALYZED: 09/14/97

METHOD PAH-8270

ANALYSIS	CAS NO.	SDL (ug/l)	RESULT (ug/l)
Benzo(a)anthracene	56-55-3	10.0	BDL
Benzo(b)fluoranthene	205-99-2	10.0	BDL
Benzo(k)fluoranthene	207-08-9	10.0	BDL
Chrysene	218-01-9	10.0	BDL
Dibenzo(a,h)anthracene	53-70-3	10.0	BDL
Surrogate Recovery:			
p-Terphenyl			70%

BDL = Below Sample Detection Limit
SDL = Sample Detection Limit

COMMENTS: _____

1491 TWILIGHT TRAIL FRANKFORT, KY 40601
502-223-0251 FAX: 502-875-8016 / TOLL FREE 800-728-2251

HYDROLOGIC, INC.

COMPANY NAME:	MARSHAL MILLER & ASSOC.
COMPANY PROJECT NUMBER:	JJ TEXACO/A89115
HYDROLOGIC PROJECT NUMBER:	K9718251
HYDROLOGIC SAMPLE NUMBER:	9718254
HYDROLOGIC LAB ID #:	N/A
SAMPLE IDENTIFICATION:	MW-6
DATE SAMPLED:	09/04/97
DATE EXTRACTED:	09/16/97
DATE/TIME ANALYZED:	09/16/97

METHOD 504

ANALYSIS	CAS NO.	SDL (ug/L)	RESULT (ug/L)
EDB	106-93-4	0.05	BDL

BDL = Below Sample Detection Limit
SDL = Sample Detection Limit

COMMENTS: _____

1491 TWILIGHT TRAIL FRANKFORT, KY 40601
502-223-0251 FAX: 502-875-8016 / TOLL FREE 800-728-2251

HYDROLOGIC, INC.

COMPANY NAME: MARSHAL MILLER & ASSOC.
COMPANY PROJECT NUMBER: JJ TEXACO/A89115

HYDROLOGIC PROJECT NUMBER: K9718251
HYDROLOGIC SAMPLE NUMBER: 9718255
HYDROLOGIC LAB ID #: N/A
SAMPLE IDENTIFICATION: MW-7
DATE SAMPLED: 09/04/97
DATE EXTRACTED: N/A
DATE/TIME ANALYZED: 09/11/97

METHOD 8020/MTBE/NAPHTHALENE

ANALYSIS	CAS NO.	SDL (ug/l)	RESULT (ug/l)
Benzene	71-43-2	1.0	BDL
Toluene	108-88-3	1.0	BDL
Ethylbenzene	100-41-4	1.0	BDL
Xylenes (Total)	1330-20-7	1.0	BDL
MTBE		5.0	BDL
Naphthalene	91-20-3	5.0	BDL
Surrogate Recoveries:			
BFB			93%

BDL = Below Sample Detection Limit
SDL = Sample Detection Limit

COMMENTS: _____

1491 TWILIGHT TRAIL FRANKFORT, KY 40601
502-223-0251 FAX: 502-875-8016 / TOLL FREE 800-728-2251

HYDROLOGIC, INC.

COMPANY NAME: MARSHAL MILLER & ASSOC.
COMPANY PROJECT NUMBER: JJ TEXACO/A89115

HYDROLOGIC PROJECT NUMBER: K9718251
HYDROLOGIC SAMPLE NUMBER: 9718255
HYDROLOGIC LAB ID #: N/A
SAMPLE IDENTIFICATION: MW-7
DATE SAMPLED: 09/04/97
DATE EXTRACTED: 09/09/97
DATE/TIME ANALYZED: 09/14/97

METHOD PAH-8270

ANALYSIS	CAS NO.	SDL (ug/l)	RESULT (ug/l)
Benzo(a)anthracene	56-55-3	10.0	BDL
Benzo(b)fluoranthene	205-99-2	10.0	BDL
Benzo(k)fluoranthene	207-08-9	10.0	BDL
Chrysene	218-01-9	10.0	BDL
Dibenzo(a,h)anthracene	53-70-3	10.0	BDL
Surrogate Recovery:			
p-Terphenyl			88%

BDL = Below Sample Detection Limit
SDL = Sample Detection Limit

COMMENTS: _____

1491 TWILIGHT TRAIL FRANKFORT, KY 40601
502-223-0251 FAX: 502-875-8016 / TOLL FREE 800-728-2251

HYDROLOGIC, INC.

COMPANY NAME:	MARSHAL MILLER & ASSOC.
COMPANY PROJECT NUMBER:	JJ TEXACO/A89115
HYDROLOGIC PROJECT NUMBER:	K9718251
HYDROLOGIC SAMPLE NUMBER:	9718256
HYDROLOGIC LAB ID #:	N/A
SAMPLE IDENTIFICATION:	MW-8
DATE SAMPLED:	09/04/97
DATE EXTRACTED:	N/A
DATE/TIME ANALYZED:	09/12/97

METHOD 8020/MTBE/NAPHTHALENE

ANALYSIS	CAS NO.	SDL (ug/l)	RESULT (ug/l)
Benzene	71-43-2	100	1020
Toluene	108-88-3	100	3960
Ethylbenzene	100-41-4	100	461
Xylenes (Total)	1330-20-7	100	3530
MTBE		500	BDL
Naphthalene	91-20-3	500	BDL
Surrogate Recoveries:			
BFB			97%

BDL = Below Sample Detection Limit
SDL = Sample Detection Limit

COMMENTS: COMPOUNDS WITH ELEVATED SDL ARE DUE TO A SAMPLE DILUTION.

1491 TWILIGHT TRAIL FRANKFORT, KY 40601
502-223-0251 FAX: 502-875-8016 / TOLL FREE 800-728-2251

HYDROLOGIC, INC.

COMPANY NAME:	MARSHAL MILLER & ASSOC.
COMPANY PROJECT NUMBER:	JJ TEXACO/A89115
HYDROLOGIC PROJECT NUMBER:	K9718251
HYDROLOGIC SAMPLE NUMBER:	9718256
HYDROLOGIC LAB ID #:	N/A
SAMPLE IDENTIFICATION:	MW-8
DATE SAMPLED:	09/04/97
DATE EXTRACTED:	09/16/97
DATE/TIME ANALYZED:	09/16/97

METHOD 504

ANALYSIS	CAS NO.	SDL (ug/L)	RESULT (ug/L)
EDB	106-93-4	0.05	BDL

BDL = Below Sample Detection Limit
SDL = Sample Detection Limit

COMMENTS: _____

1491 TWILIGHT TRAIL FRANKFORT, KY 40601
502-223-0251 FAX: 502-875-8016 / TOLL FREE 800-728-2251

HYDROLOGIC, INC.

COMPANY NAME: MARSHAL MILLER & ASSOC.
COMPANY PROJECT NUMBER: JJ TEXACO/A89115

HYDROLOGIC PROJECT NUMBER: K9718251
HYDROLOGIC SAMPLE NUMBER: 9718257
HYDROLOGIC LAB ID #: N/A
SAMPLE IDENTIFICATION: MW-11
DATE SAMPLED: 09/04/97
DATE EXTRACTED: N/A
DATE/TIME ANALYZED: 09/12/97

METHOD 8020/MTBE/NAPHTHALENE

ANALYSIS	CAS NO.	SDL (ug/l)	RESULT (ug/l)
Benzene	71-43-2	1.0	2.72
Toluene	108-88-3	1.0	1.27
Ethylbenzene	100-41-4	1.0	7.03
Xylenes (Total)	1330-20-7	1.0	10.5
MTBE		5.0	BDL
Naphthalene	91-20-3	5.0	5.91
Surrogate Recoveries:			
BFB			106%

BDL = Below Sample Detection Limit
SDL = Sample Detection Limit

COMMENTS: _____

1491 TWILIGHT TRAIL FRANKFORT, KY 40601
502-223-0251 FAX: 502-875-8016 / TOLL FREE 800-728-2251

HYDROLOGIC, INC.

COMPANY NAME: MARSHAL MILLER & ASSOC.
COMPANY PROJECT NUMBER: JJ TEXACO/A89115

HYDROLOGIC PROJECT NUMBER: K9718251
HYDROLOGIC SAMPLE NUMBER: 9718257
HYDROLOGIC LAB ID #: N/A
SAMPLE IDENTIFICATION: MW-11
DATE SAMPLED: 09/04/97
DATE EXTRACTED: 09/09/97
DATE/TIME ANALYZED: 09/14/97

METHOD PAH-8270

ANALYSIS	CAS NO.	SDL (ug/l)	RESULT (ug/l)
Benzo(a)anthracene	56-55-3	10.0	BDL
Benzo(b)fluoranthene	205-99-2	10.0	BDL
Benzo(k)fluoranthene	207-08-9	10.0	BDL
Chrysene	218-01-9	10.0	BDL
Dibenzo(a,h)anthracene	53-70-3	10.0	BDL
Surrogate Recovery:			
p-Terphenyl			96%

BDL = Below Sample Detection Limit
SDL = Sample Detection Limit

COMMENTS: _____

1491 TWILIGHT TRAIL FRANKFORT, KY 40601
502-223-0251 FAX: 502-875-8016 / TOLL FREE 800-728-2251

HYDROLOGIC, INC.

COMPANY NAME: MARSHAL MILLER & ASSOC.
COMPANY PROJECT NUMBER: JJ TEXACO/A89115

HYDROLOGIC PROJECT NUMBER: K9718251
HYDROLOGIC SAMPLE NUMBER: 9718258
HYDROLOGIC LAB ID #: N/A
SAMPLE IDENTIFICATION: OMW-14
DATE SAMPLED: 09/04/97
DATE EXTRACTED: N/A
DATE/TIME ANALYZED: 09/11/97

METHOD 8020/MTBE/NAPHTHALENE

ANALYSIS	CAS NO.	SDL (ug/l)	RESULT (ug/l)
Benzene	71-43-2	1.0	18.0
Toluene	108-88-3	1.0	4.83
Ethylbenzene	100-41-4	1.0	9.27
Xylenes (Total)	1330-20-7	1.0	75.8
MTBE		5.0	11.7
Naphthalene	91-20-3	5.0	42.1
Surrogate Recoveries:			
BFB			81%

BDL = Below Sample Detection Limit
SDL = Sample Detection Limit

COMMENTS: _____

1491 TWILIGHT TRAIL FRANKFORT, KY 40601
502-223-0251 FAX: 502-875-8016 / TOLL FREE 800-728-2251

HYDROLOGIC, INC.

COMPANY NAME:	MARSHAL MILLER & ASSOC.
COMPANY PROJECT NUMBER:	JJ TEXACO/A89115
HYDROLOGIC PROJECT NUMBER:	K9718251
HYDROLOGIC SAMPLE NUMBER:	9718258
HYDROLOGIC LAB ID #:	N/A
SAMPLE IDENTIFICATION:	OMW-14
DATE SAMPLED:	09/04/97
DATE EXTRACTED:	09/09/97
DATE/TIME ANALYZED:	09/14/97

METHOD PAH-8270

ANALYSIS	CAS NO.	SDL (ug/l)	RESULT (ug/l)
Benzo(a)anthracene	56-55-3	10.0	BDL
Benzo(b)fluoranthene	205-99-2	10.0	BDL
Benzo(k)fluoranthene	207-08-9	10.0	BDL
Chrysene	218-01-9	10.0	BDL
Dibenzo(a,h)anthracene	53-70-3	10.0	BDL
Surrogate Recovery:			
p-Terphenyl			101%

BDL = Below Sample Detection Limit
SDL = Sample Detection Limit

COMMENTS: _____

1491 TWILIGHT TRAIL FRANKFORT, KY 40601
502-223-0251 FAX: 502-875-8016 / TOLL FREE 800-728-2251

HYDROLOGIC, INC.

Chain of Custody Record

Page 1 of 1

☐ Asheville, NC (704) 254-5169 ☐ Norcross, GA (770) 368-0636 ☐ Frankfort KY (502) 223-0251 ☐ Lumberton, NC (910) 738-6190 ☐ Charlotte, NC (704) 392-1164 ☐ Morrisville, NC (919) 380-9699
☐ Brighton, CO (303) 659-0497 ☐ Orlando, FL (407) 851-2560 ☐ Lexington, SC (803) 796-8989 ☐ Richmond, VA (804) 358-3145 ☐ Burlington, NC (910) 570-4661 ☐ Macon, GA (912) 757-0811

Client: MARSHALL MILLER
Report Address: P.O. Box 848
BLUEFIELD VA 24605
Attn: JIM OWSLEY
Phone No.: (540)322-5467
Fax No.: (540)322-1510

Project No.: A89115
Invoice Address: SAME
& J.J. TOOLEY
Attn: CHUCK CLINE
Sampled By: OWSLEY/WILSON
P.O. No:
State Samples Collected S.C.

TURNAROUND TIME
☐ 24 Hours ☐ 48 Hours
☐ 5 Days ☐ 10 Days
Date Needed:

REQUESTED PARAMETERS

K97825

LAB CODE I.D.
A = Asheville, NC
B = Burlington, NC
C = Charlotte, NC
D = Denver, CO
E = Lexington, SC
G = Macon, GA
K = Frankfort, KY
L = Lumberton, NC
M = Morrisville, NC
N = Norcross, GA
O = Orlando, FL
R = Richmond, VA
S = Subcontracted

Sample ID	Date	Time	Comp/ Grab	Matrix	Containers	BTEX - NAP - MTBE	EDB	PAH	LEAD						← Preserv.	REMARKS
GASTON WW	9/4	5:15	G	H2O		✓		✓	✓							
MW-1	"	5:21	"	"		✓		✓	✓							
MW-4	"	5:36	"	"		✓	✓	~~✓~~	~~✓~~							NO PAH OR LEAD
MW-6	"	5:45	"	"		✓	✓	✓	✓							
MW-7	"	6:01	"	"		✓		✓	✓							
MW-8	"	6:10	"	"		✓	✓	~~✓~~	~~✓~~							NO PAH OR LEAD
MW-11	"	6:15	"	"		✓		✓	✓							
OMW-14	"	6:30	"	"		✓		✓	✓							
Lab Use Only	Custody Seal: ☐ Yes ☐ No ☐ N/A					K	K	K	A							Rec. Lab Temp.

COMMENTS:

Relinquished By:	Date	Time	Received By:	Date	Time	Lab Use Only
	9-4-97	7:55		9/5/97	7:55 AM	
Relinquished By:	9/5/97	13:54	Received By:	9-6-97	10:00	
Relinquished By:	Date	Time	Received By:	Date	Time	
Relinquished By:	Date	Time	Received By:	Date	Time	

HYDROLOGIC, INC.

September 18, 1997

REPORTING:

MARSHAL MILLER & ASSOC.
P.O. BOX 848
BLUEFIELD, VA 24605

INVOICING:

MARSHAL MILLER & ASSOC.
P.O. BOX 848
BLUEFIELD, VA 24605

PROJECT NUMBER: K9718502S

DATE COMPLETED: September 18, 1997
DATE RECEIVED: September 12, 1997

PROJECT DESCRIPTION:

SCDHEC JJ TEXACO--2 water samples were received and analyzed for BTEX + NAPHTHALENE.

Enclosed is the laboratory report for the project described above. If you have any questions or if we can be of further assistance, please feel free to contact Jack Hale Jr. at 1-800-728-2251. We appreciate your business and look forward to serving you again soon.

Respectfully,

Walter Hogg
Laboratory Director

HYDROLOGIC, INC.

COMPANY NAME: MARSHAL MILLER & ASSOC.
COMPANY PROJECT NUMBER: SCDHEC JJ TEXACO

HYDROLOGIC PROJECT NUMBER: K9718502S
HYDROLOGIC SAMPLE NUMBER: 9718502
HYDROLOGIC LAB ID #: N/A
SAMPLE IDENTIFICATION: MW-12
DATE SAMPLED: 09/11/97
DATE EXTRACTED: N/A
DATE/TIME ANALYZED: 09/17/97

METHOD EPA 8020-BTEX+NAPHTHALENE

ANALYSIS	CAS NO.	SDL (ug/l)	RESULT (ug/l)
Benzene	71-43-2	1.0	BDL
Toluene	108-88-3	1.0	BDL
Ethylbenzene	100-41-4	1.0	BDL
Xylene	1330-20-7	1.0	BDL
Naphthalene	91-20-3	1.0	BDL
Surrogate Recoveries:			
BFB			99%

BDL = Below Sample Detection Limit
SDL = Sample Detection Limit

COMMENTS: _____

HYDROLOGIC, INC.

COMPANY NAME:	MARSHAL MILLER & ASSOC.
COMPANY PROJECT NUMBER:	SCDHEC JJ TEXACO
HYDROLOGIC PROJECT NUMBER:	K9718502S
HYDROLOGIC SAMPLE NUMBER:	9718503
HYDROLOGIC LAB ID #:	N/A
SAMPLE IDENTIFICATION:	MW-5
DATE SAMPLED:	09/11/97
DATE EXTRACTED:	N/A
DATE/TIME ANALYZED:	09/17/97

METHOD EPA 8020-BTEX+NAPHTHALENE

ANALYSIS	CAS NO.	SDL (ug/l)	RESULT (ug/l)
Benzene	71-43-2	1.0	BDL
Toluene	108-88-3	1.0	BDL
Ethylbenzene	100-41-4	1.0	BDL
Xylene	1330-20-7	1.0	BDL
Naphthalene	91-20-3	1.0	BDL
Surrogate Recoveries:			
BFB			99%

BDL = Below Sample Detection Limit
SDL = Sample Detection Limit

COMMENTS: _____

1491 TWILIGHT TRAIL FRANKFORT, KY 40601
502-223-0251 FAX: 502-875-8016 / TOLL FREE 800-728-2251

KY 110 (20 #5)

Chain of Custody

MARSHALL MILLER & ASSOCIATES

Bluefield Virginia Industrial Park
P. O. Box 848
Bluefield, VA 24605-0848
703/322-5467 • FAX 703/322-5460

5480 Swanton Drive
Lexington, KY 40509-9420
606/263-2855 • FAX 606/263-2839

3622 B MacCorkle Ave., S.E.
Charleston, WV 25304-1422
304/925-0507 • FAX 304/925-0508

Sample Collection Information

Client:	Project:	Project Number:
Scotia	55 = Texaco	
Sampler:		
Chris		
Date of Collection:	Date of Sample Shipment:	How Shipped:
9-11-97	9-11-97	FED EX

Sample Log and Analysis Request

Turnaround Requirements
X Regular 5 DAY
____ Rush

Sample Number:	Sample ID:	Matrix	Grab/ Comp.	Containers Number & Type	Analysis Requested: HNU	Remarks	OVA/HNU
	MW-12	Water		1 40-ml	X	Results Due	
	MW-5 CMU			1 40-ml	X	9-18-97	
	George Robertson			HCl Added		Attn:	
						C. Cline	
					K Balling		

Relinquished by: (Signature)	Date/Time	Received by: (Signature)	Date/Time	Condition:
C Cline	9/11/97 14:30	S W Baker	9/11/97 14:30	Rec. on ice SWB
Relinquished by: (Signature)	Date/Time	Received for Laboratory by: (Signature)	Date/Time	Condition:
		Laura Estes	9/12/97	received on ice LE

Comments: Rec. 2-40ml(g) w/HCL
Shipped Fed Ex to Hydro/KY Airbill # 800574409749

Possible Interfering Compounds:

Requested by: (Name, Title)

MARSHALL MILLER & ASSOCIATES
Soils Laboratory

Hydrometer Analysis
ASTM D 422-63

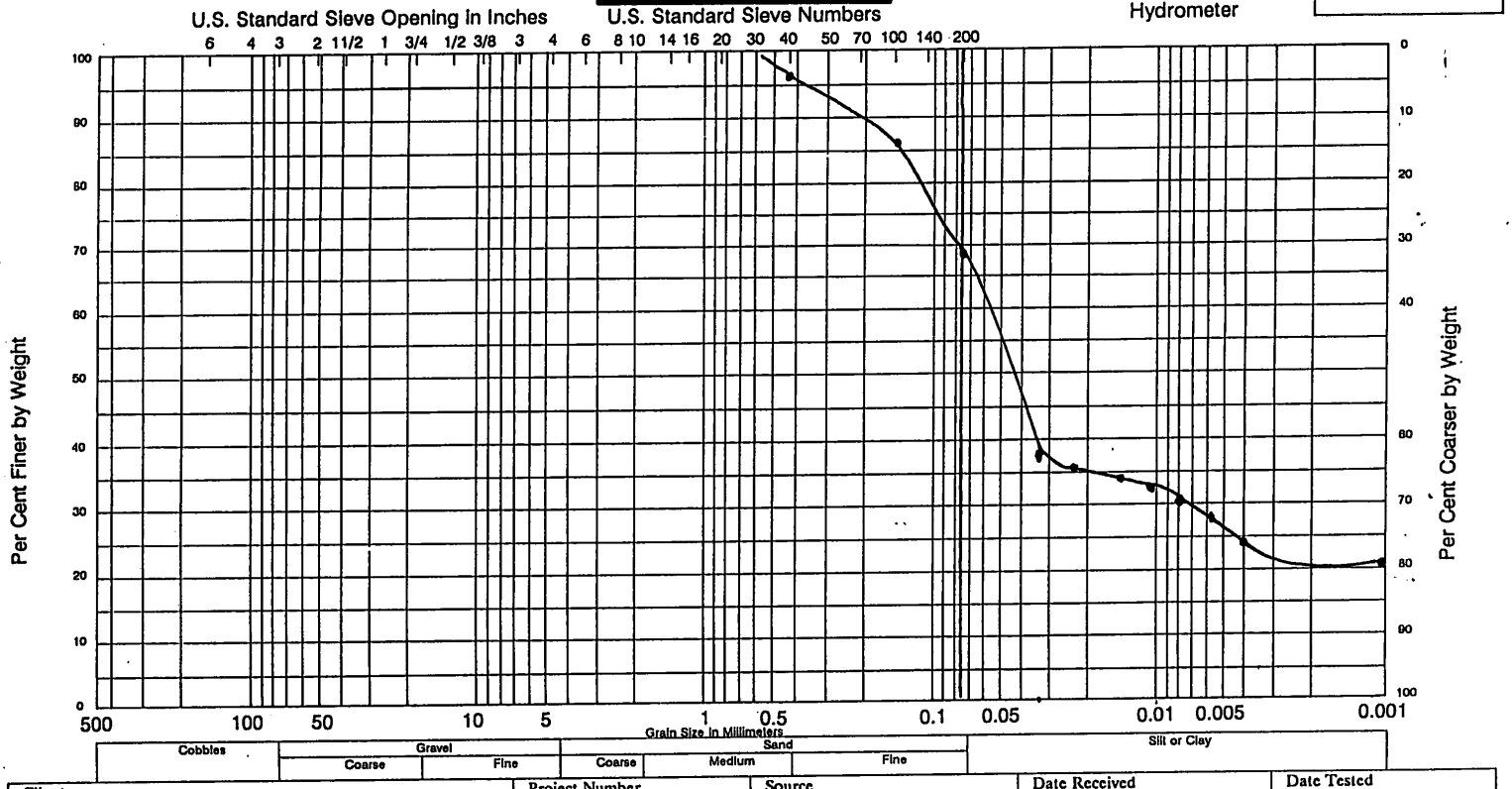
P. O. Box 848 • Bluefield, Virginia 24605-0848 • 703/322-5467, FAX 703/322-5460

Client/Project		Project Number
SCDHEC - JJ's TEXACO		A89115
Test Number	**Technician**	**Date**
1	CURRY	9-19-97
Sample Number	**Sample Depth**	
1		
Sample Weight	**Sieve Size**	**G_s**
177g	#10	2.70

Time				Hydrometer Reading	Temperature °C	L CM	Particle Size (mm)	Hydrometer %	Total % Passing
Minutes	Target	Actual	Cum. Minutes						
2			2	1.012	25°	12.7	.032	58	37.1
4			6	1.011		12.9	.023	50	34.6
8			14	1.011		12.9	.016	49	34.1
16			30	1.011		12.9	.011	47	33.8
30			60	1.010		13.0	.008	40	31.1
60			120	1.009		13.0	.006	39	30.2
120			240	1.008	25°	13.5	.004	35	24.8
1110			1350	1.007	22°	13.7	.002	29	21.7

Gradation Curve

Test Number



Client	Project Number	Source	Date Received	Date Tested
SCDHEC	A89115			

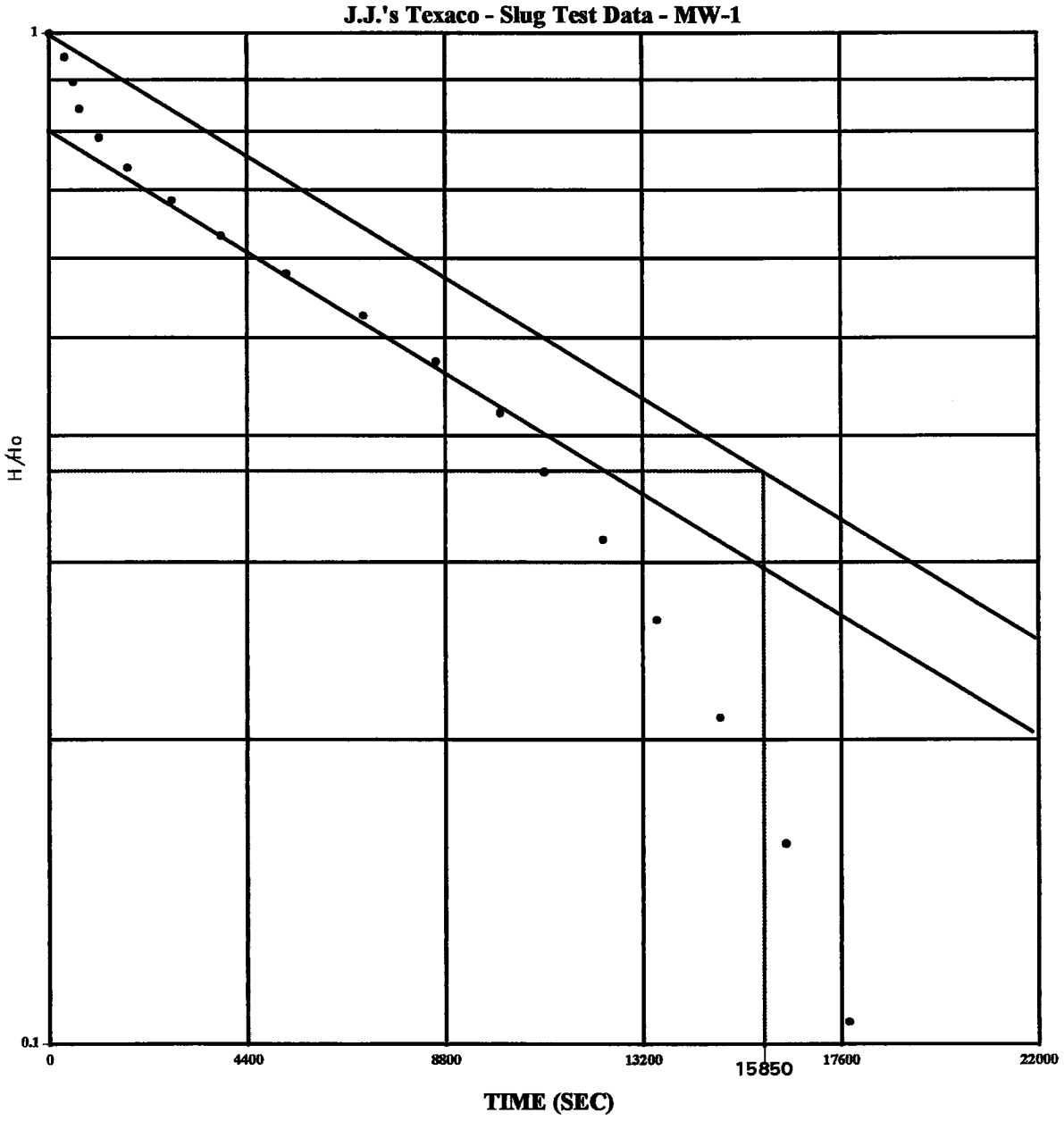
Project	Soil Description
JJ's TEXACO	

Sample Number	Boring Number	Depth

Location

GEOLOGICAL CONSULTING SERVICES, INC
Bluefield, Virginia - 703/322-5467
Lexington, Kentucky - 606/253-3951
Charleston, West Virginia - 304/925-0507

Sample	Classification	Nat. W.%	LL	PL	PI	Dry Density	Opt. Moisture



HVORSLEV METHOD

K = hydraulic conductivity
r = effective radius of screened interval*
R = radius of filter pack interval
L = length of saturated screened interval
To = basic time lag

r = 0.22 Ft.
To = 15850 sec.
L = 9.45 Ft.
R = .333 Ft.

* effective radius is based on average filter pack porosity of 40%

$$K = \frac{r^2 \ln (L/R)}{2 L To}$$

$$K = \frac{(.22)^2 \ln (9.45/.333)}{(2)(9.45)(15850)}$$

$$K = \frac{(.048)\ (3.345)}{299{,}565}$$

$$K = 5.405 \times 10^{-7} \text{ ft./sec}$$

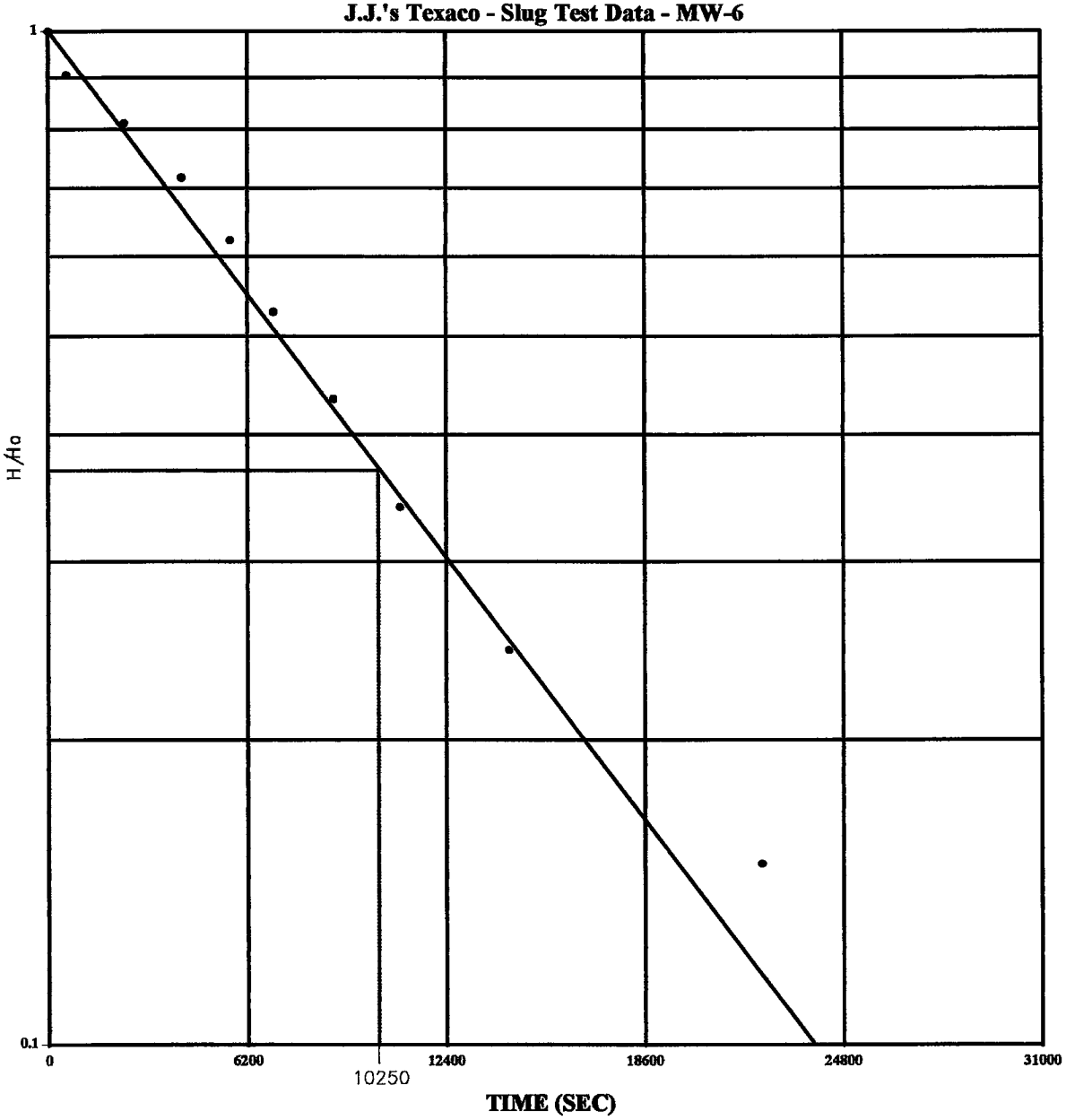
$$K = 0.046 \text{ ft./day}$$

MARSHALL MILLER & ASSOCIATES

J.J.'S TEXACO - SLUG TEST DATA -MW-1

Elapsed Time (Sec)	Depth to Water (Ft)	Change in Water Levels (H,Ft)	Ratio H/Ho
Static Level =	34.55		
0	35.5	0.95	1.00
334	35.45	0.9	0.95
527	35.4	0.85	0.89
672	35.35	0.8	0.84
1099	35.3	0.75	0.79
1738	35.25	0.7	0.74
2718	35.2	0.65	0.68
3825	35.15	0.6	0.63
5263	35.1	0.55	0.58
6983	35.05	0.5	0.53
8593	35	0.45	0.47
10027	34.95	0.4	0.42
11002	34.9	0.35	0.37
12309	34.85	0.3	0.32
13513	34.8	0.25	0.26
14911	34.75	0.2	0.21
16373	34.7	0.15	0.16
17781	34.65	0.1	0.11
19577	34.6	0.05	0.05
21042	34.55	0	0.00

MARSHALL MILLER & ASSOCIATES



HVORSLEV METHOD

K = hydraulic conductivity
r = effective radius of screened interval*
R = radius of filter pack interval
L = length of saturated screened interval
To = basic time lag

r = 0.22 Ft.
To = 10,250 sec.
L = 7.23 Ft.
R = .333 Ft.

* effective radius is based on average filter pack porosity of 40%

$$K = \frac{r^2 \ln (L/R)}{2 L To}$$

$$K = \frac{(.22)^2 \ln (7.23/.333)}{(2)(7.23)(10,250)}$$

$$K = \frac{(.048)(3.077)}{148,215}$$

$$K = 1.005 \times 10^{-6} \text{ ft./sec}$$

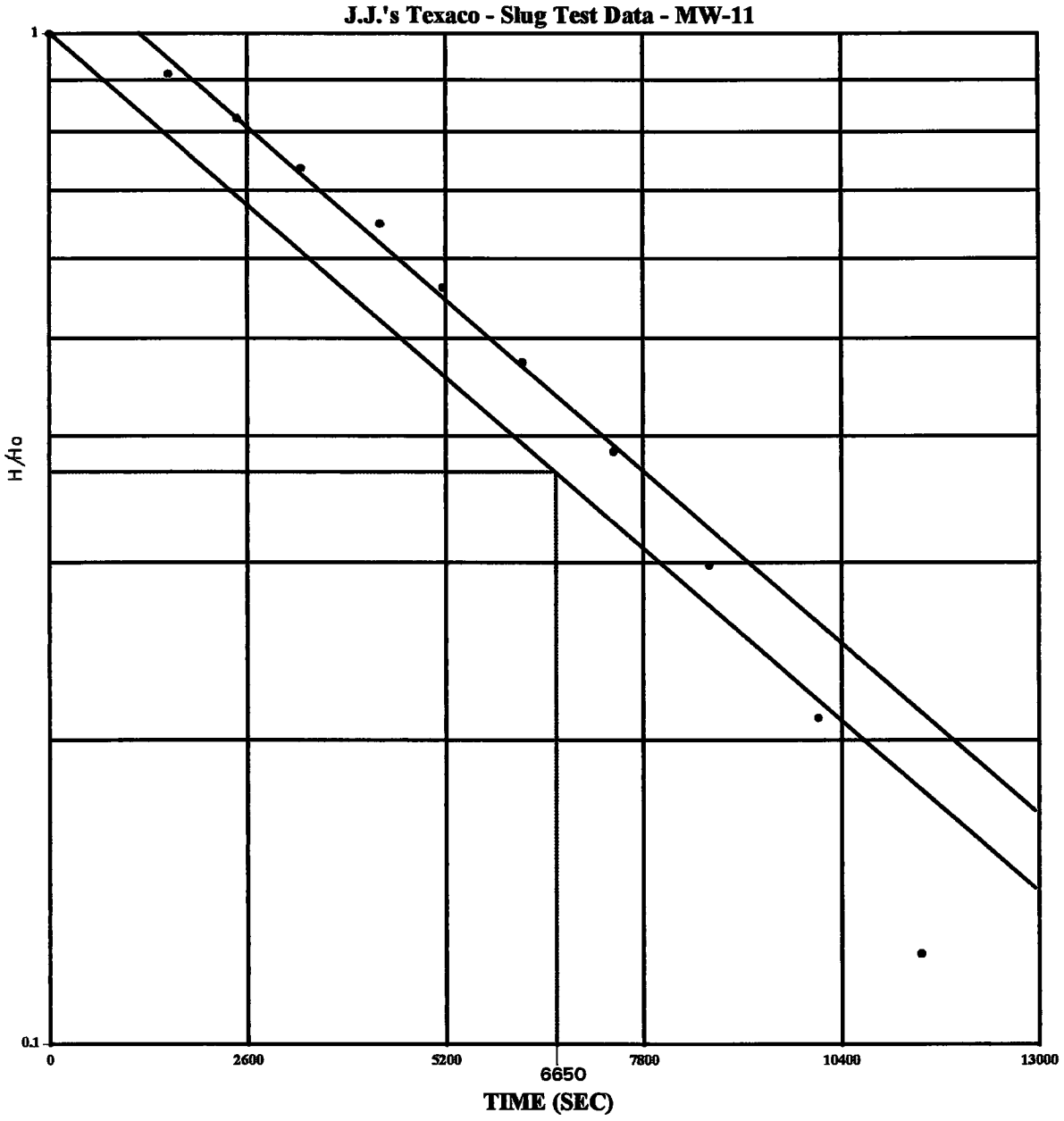
$$K = 0.086 \text{ ft./day}$$

MARSHALL MILLER & ASSOCIATES

J.J.'S TEXACO - SLUG TEST DATA -MW-6

Elapsed Time (Sec)	Depth to Water (Ft)	Change in Water Levels (H,Ft)	Ratio H/Ho
Static Level =	34.77		
0	35.3	0.53	1.00
567	35.25	0.48	0.91
2360	35.2	0.43	0.81
4152	35.15	0.38	0.72
5667	35.1	0.33	0.62
7020	35.05	0.28	0.53
8900	35	0.23	0.43
10970	34.95	0.18	0.34
14367	34.9	0.13	0.25
22250	34.85	0.08	0.15
30825	34.8	0.03	0.06

MARSHALL MILLER & ASSOCIATES



HVORSLEV METHOD

K = hydraulic conductivity
r = effective radius of screened interval*
R = radius of filter pack interval
L = length of saturated screened interval
To = basic time lag

r = 0.22 Ft.
To = 6,650 sec.
L = 9.27 Ft.
R = .333 Ft.

* effective radius is based on average filter pack porosity of 40%

$$K = \frac{r2 \ln (L/R)}{2 L To}$$

$$K = \frac{(.22)^2 \ln (9.27/.333)}{(2)(9.27)(6,650)}$$

$$K = \frac{(.048)\ (3.326)}{123,291}$$

$$K = 1.305 \times 10^{-6} \text{ ft./sec}$$

$$K = 0.112 \text{ ft./day}$$

MARSHALL MILLER & ASSOCIATES

J.J.'S TEXACO - SLUG TEST DATA -MW-11

Elapsed Time (Sec)	Depth to Water (Ft)	Change in Water Levels (H,Ft)	Ratio H/Ho
Static Level =	32.73		
0	33.3	0.57	1.00
1560	33.25	0.52	0.91
2460	33.2	0.47	0.82
3300	33.15	0.42	0.74
4345	33.1	0.37	0.65
5170	33.05	0.32	0.56
6217	33	0.27	0.47
7411	32.95	0.22	0.39
8663	32.9	0.17	0.30
10096	32.85	0.12	0.21
11451	32.8	0.07	0.12
12936	32.75	0.02	0.04

MARSHALL MILLER & ASSOCIATES

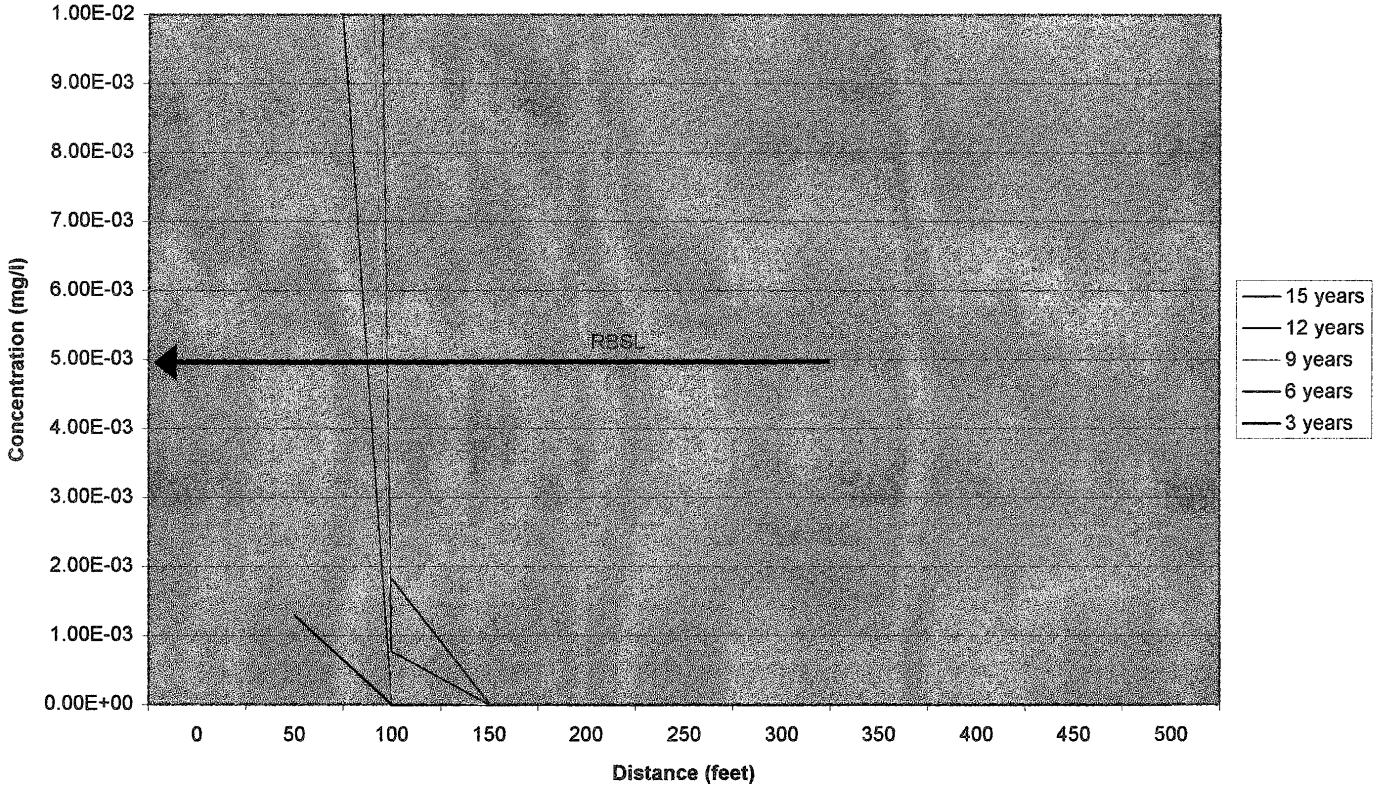
The following are the input parameters and output for the SOLUTE model for benzene.

```
          ******************************************************
*             S O L U T E   version 4.04                     *
*       ANALYTICAL MODELS FOR SOLUTE TRANSPORT               *
******************************************************

          Model:  ONEd-1
          Project..... = A89115-BENZENE
          User name..... = Wilson
          Date..... = 10-08-1997
          Data file..... = ben115.dat

                          INPUT DATA:
          Groundwater (seepage) velocity... =  3.22 [ft/y]
          Longitudinal dispersivity..... =  10 [ft]
          Retardation factor..... =  1
          Initial aquifer concentration.... =  0.00000D+00[mg/l]
          Constant source concentration.... =  1.02000D+00[mg/l]
          Duration of solute pulse..... =  10 [y]
          Half-life in aquifer (no decay=0) =  2 [y]
          Decay coefficient for aquifer.... =  0.3466D+00 [1/y]
          Distance increment..... =  50 [ft]
          Number of distance increments.... =  20
          Number of time periods..... =  5

             1  Time..... =  3 [y]
             2  Time..... =  6 [y]
             3  Time..... =  9 [y]
             4  Time..... =  12 [y]
             5  Time..... =  15 [y]
```

Concentration [mg/l]

Distance [ft]	Time 3.00[y]	Time 6.00[y]	Time 9.00[y]	Time 12.00[y]	Time 15.00[y]
0.00	1.0200E+00	1.0200E+00	1.0200E+00	0.0000E+00	0.0000E+00
50.00	1.2964E-03	1.8299E-02	3.2117E-02	3.7140E-02	2.7041E-02
100.00	2.7615E-11	5.0774E-06	1.5894E-04	6.0230E-04	1.0480E-03
150.00	1.9722E-24	3.6087E-12	2.2217E-08	1.0574E-06	7.4104E-06
200.00	3.8396E-43	4.6882E-21	5.2493E-14	1.0209E-10	6.2846E-09
250.00	0.0000E+00	1.0219E-32	1.8390E-21	4.4425E-16	4.8211E-13
300.00	0.0000E+00	0.0000E+00	9.1239E-31	8.1626E-23	3.0408E-18
350.00	0.0000E+00	0.0000E+00	6.2792E-42	6.1567E-31	1.5175E-24
400.00	0.0000E+00	0.0000E+00	0.0000E+00	1.8798E-40	5.8826E-32
450.00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	1.7538E-40
500.00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00
550.00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00
600.00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00
650.00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00
700.00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00
750.00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00
800.00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00
850.00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00
900.00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00
950.00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00
1000.00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00

JJ's Texaco
Benzene in Groundwater (mg/l)

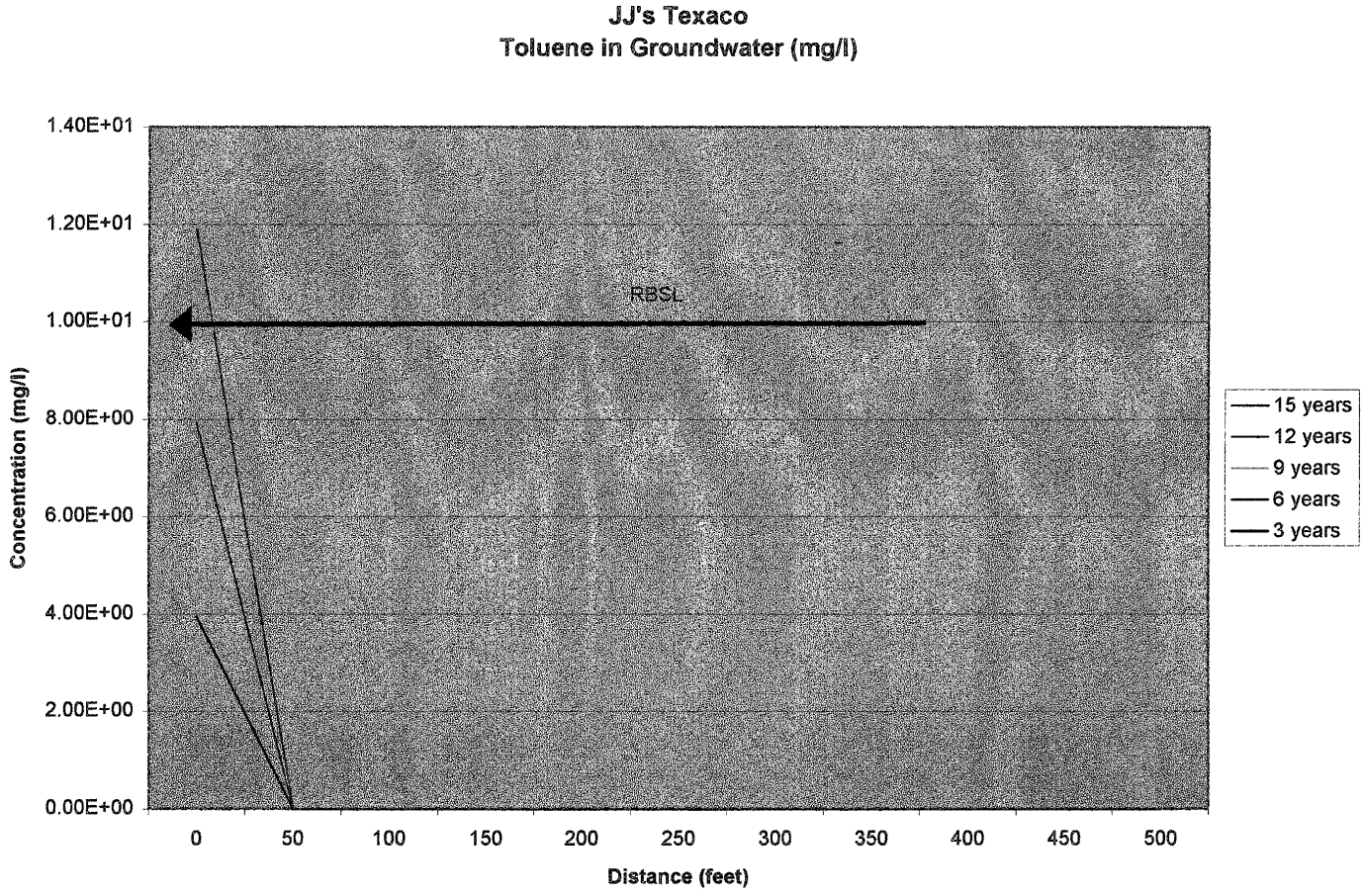


MARSHALL MILLER & ASSOCIATES

The following are the input parameters and output for the SOLUTE model for toluene.

```
          ******************************************************
*             S O L U T E   version 4.04                     *
*       ANALYTICAL MODELS FOR SOLUTE TRANSPORT               *
******************************************************

          Model:  ONEd-1
          Project..... = A89115-TOLUENE
          User name..... = Wilson
          Date..... = 10-08-1997
          Data file..... = tol115.dat

                          INPUT DATA:
          Groundwater (seepage) velocity... =  3.22 [ft/y]
          Longitudinal dispersivity..... =  10 [ft]
          Retardation factor..... =  1
          Initial aquifer concentration.... =  0.00000D+00[mg/l]
          Constant source concentration.... =  3.96000D+00[mg/l]
          Duration of solute pulse..... =  10 [y]
          Half-life in aquifer (no decay=0) =  .58 [y]
          Decay coefficient for aquifer.... =  0.1195D+01 [1/y]
          Distance increment..... =  50 [ft]
          Number of distance increments.... =  20
          Number of time periods..... =  5

             1  Time..... =  3 [y]
             2  Time..... =  6 [y]
             3  Time..... =  9 [y]
             4  Time..... =  12 [y]
             5  Time..... =  15 [y]
```

Distance	Concentration [mg/l] Time	Time	Time	Time	Time
[ft]	3.00[y]	6.00[y]	9.00[y]	12.00[y]	15.00[y]
0.00	3.9600E+00	3.9600E+00	3.9600E+00	0.0000E+00	0.0000E+00
50.00	5.6648E-04	2.1565E-03	2.2943E-03	2.2486E-03	3.9341E-04
100.00	9.2718E-12	1.8947E-07	1.0330E-06	1.3079E-06	1.2950E-06
150.00	6.2735E-25	1.0408E-13	6.8040E-11	4.5729E-10	7.1823E-10
200.00	1.1911E-43	1.2411E-22	1.2679E-16	2.5244E-14	1.9431E-13
250.00	0.0000E+00	2.6041E-34	4.0232E-24	8.8416E-20	9.5479E-18
300.00	0.0000E+00	0.0000E+00	1.8981E-33	1.4638E-26	4.9329E-23
350.00	0.0000E+00	0.0000E+00	1.2612E-44	1.0420E-34	2.2156E-29
400.00	0.0000E+00	0.0000E+00	0.0000E+00	3.0829E-44	8.0693E-37
450.00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	2.8026E-45
500.00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00
550.00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00
600.00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00
650.00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00
700.00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00
750.00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00
800.00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00
850.00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00
900.00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00
950.00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00
1000.00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00



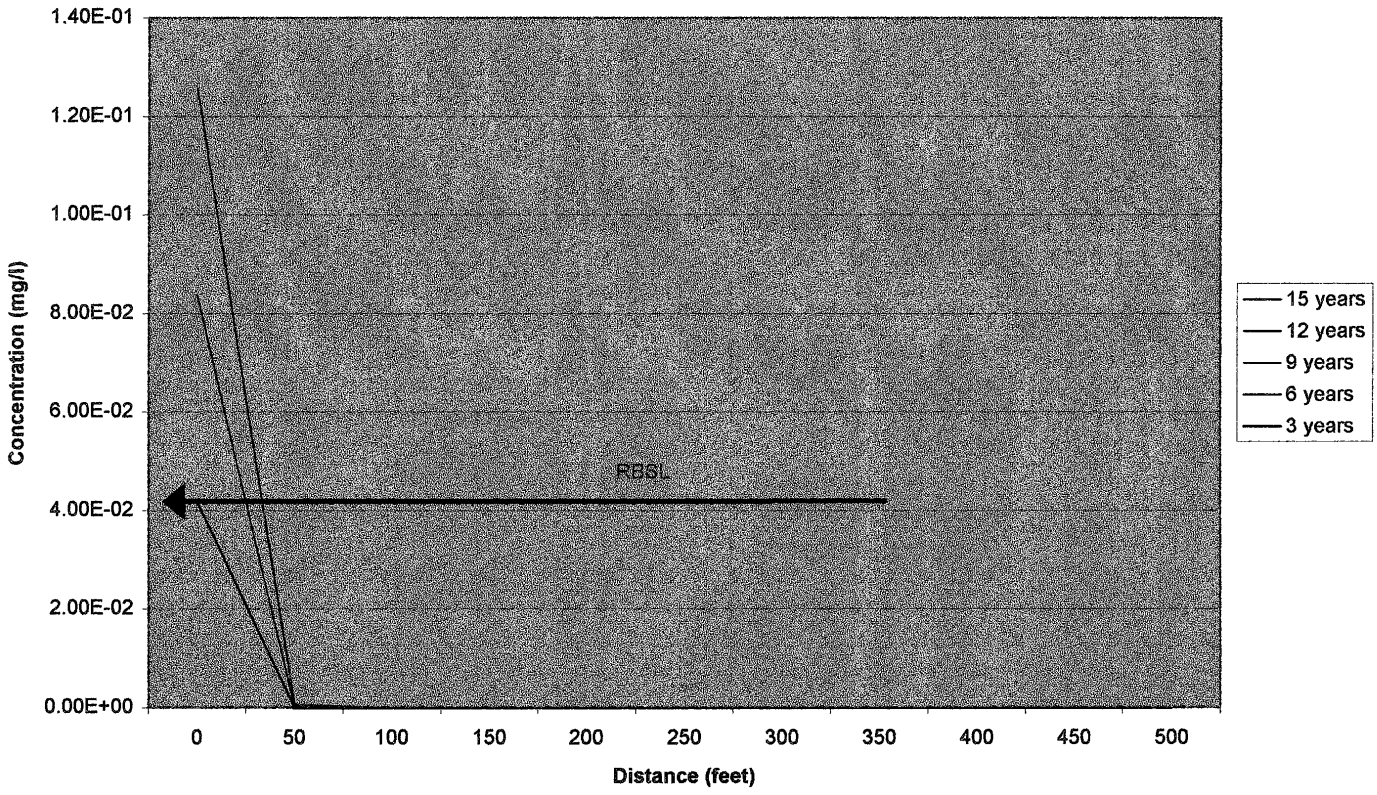
MARSHALL MILLER & ASSOCIATES

The following are the input parameters and output for the SOLUTE model for MTBE.

```
          ******************************************************
*             S O L U T E   version 4.04                     *
*       ANALYTICAL MODELS FOR SOLUTE TRANSPORT               *
******************************************************

          Model:  ONEd-1
          Project..... = A89115-MTBE
          User name..... = Wilson
          Date..... = 10-08-1997
          Data file..... = MTBE115.dat

                          INPUT DATA:
          Groundwater (seepage) velocity... =  3.22 [ft/y]
          Longitudinal dispersivity..... =  10 [ft]
          Retardation factor..... =  1
          Initial aquifer concentration.... =  0.00000D+00[mg/l]
          Constant source concentration.... =  4.19000D-02[mg/l]
          Duration of solute pulse..... =  10 [y]
          Half-life in aquifer (no decay=0) =  1 [y]
          Decay coefficient for aquifer.... =  0.6931D+00 [1/y]
          Distance increment..... =  50 [ft]
          Number of distance increments.... =  20
          Number of time periods..... =  5

             1  Time..... =  3 [y]
             2  Time..... =  6 [y]
             3  Time..... =  9 [y]
             4  Time..... =  12 [y]
             5  Time..... =  15 [y]
```

Distance	Concentration [mg/l] Time	Time	Time	Time	Time
[ft]	3.00[y]	6.00[y]	9.00[y]	12.00[y]	15.00[y]
0.00	4.1900E-02	4.1900E-02	4.1900E-02	0.0000E+00	0.0000E+00
50.00	2.1624E-05	1.6567E-04	2.1279E-04	2.1779E-04	9.4991E-05
100.00	4.1698E-13	3.0781E-08	4.4065E-07	9.2294E-07	1.1017E-06
150.00	2.9153E-26	1.9940E-14	4.8267E-11	9.7475E-10	3.2523E-09
200.00	5.6052E-45	2.5078E-23	1.0502E-16	7.9051E-14	1.9815E-12
250.00	0.0000E+00	5.3855E-35	3.5478E-24	3.1971E-19	1.3277E-16
300.00	0.0000E+00	0.0000E+00	1.7267E-33	5.6590E-26	7.8388E-22
350.00	0.0000E+00	0.0000E+00	1.1210E-44	4.1774E-34	3.7700E-28
400.00	0.0000E+00	0.0000E+00	0.0000E+00	1.2612E-43	1.4286E-35
450.00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	4.2039E-44
500.00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00
550.00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00
600.00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00
650.00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00
700.00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00
750.00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00
800.00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00
850.00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00
900.00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00
950.00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00
1000.00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00

JJ's Texaco
MTBE in Groundwater (mg/l)



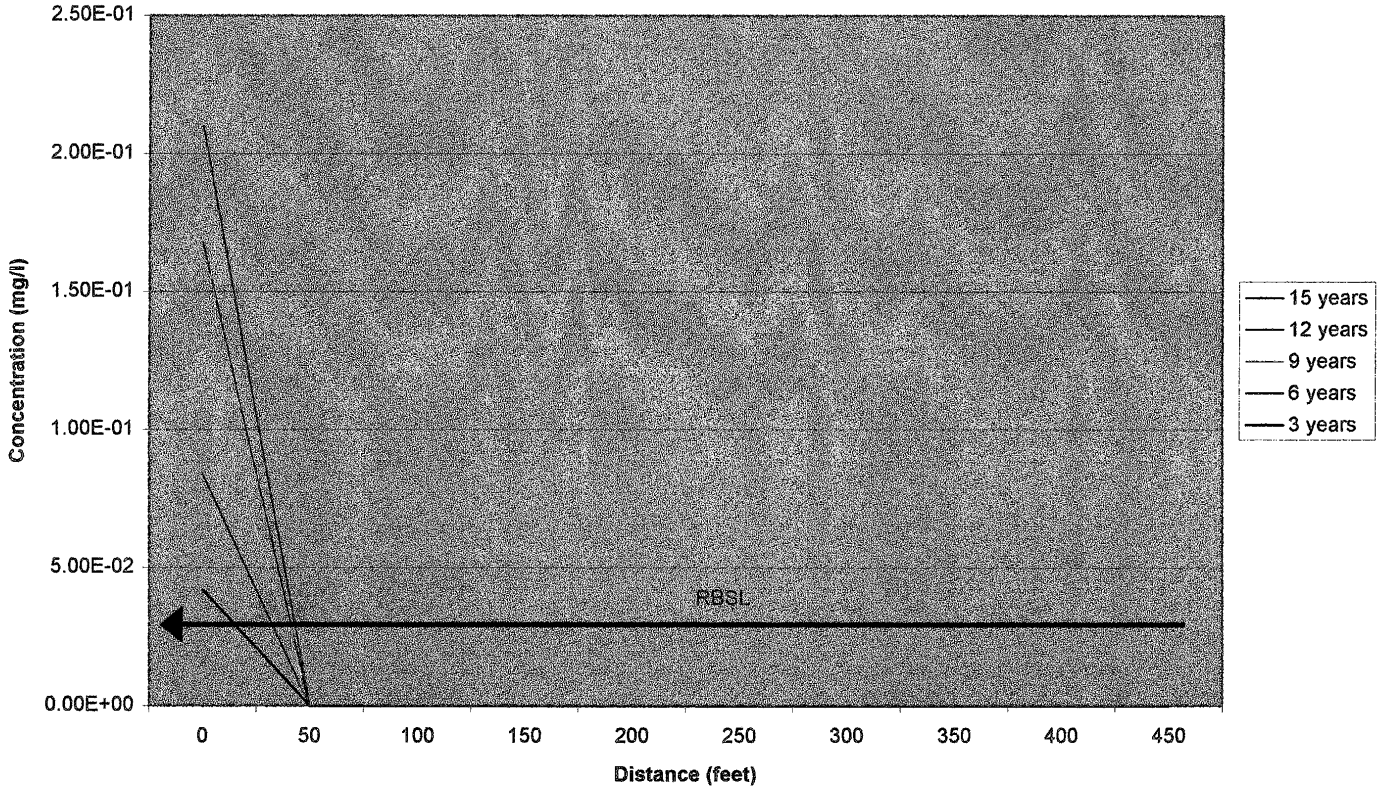
MARSHALL MILLER & ASSOCIATES

The following are the input parameters and output for the SOLUTE model for naphthalene.

```
          ******************************************************
*             S O L U T E   version 4.04                     *
*       ANALYTICAL MODELS FOR SOLUTE TRANSPORT               *
******************************************************

          Model:  ONEd-1
          Project..... = A89115-NAP
          User name..... = Wilson
          Date..... = 10-08-1997
          Data file..... = nap115.dat

                          INPUT DATA:
          Groundwater (seepage) velocity... =  3.22 [ft/y]
          Longitudinal dispersivity..... =  10 [ft]
          Retardation factor..... =  1
          Initial aquifer concentration.... =  0.00000D+00[mg/l]
          Constant source concentration.... =  4.20000D-02[mg/l]
          Duration of solute pulse..... =  10 [y]
          Half-life in aquifer (no decay=0) =  .71 [y]
          Decay coefficient for aquifer.... =  0.9763D+00 [1/y]
          Distance increment..... =  50 [ft]
          Number of distance increments.... =  20
          Number of time periods..... =  5

             1  Time..... =  3 [y]
             2  Time..... =  6 [y]
             3  Time..... =  9 [y]
             4  Time..... =  12 [y]
             5  Time..... =  15 [y]
```

Distance	Concentration [mg/l] Time	Time	Time	Time	Time
[ft]	3.00[y]	6.00[y]	9.00[y]	12.00[y]	15.00[y]
0.00	4.2000E-02	4.2000E-02	4.2000E-02	0.0000E+00	0.0000E+00
50.00	1.0475E-05	5.2646E-05	5.9188E-05	5.8783E-05	1.5693E-05
100.00	1.8472E-13	6.5683E-09	5.3050E-08	7.9562E-08	8.2967E-08
150.00	1.2682E-26	3.8974E-15	4.4749E-12	4.7384E-11	9.7966E-11
200.00	2.8026E-45	4.7600E-24	8.9778E-18	3.1663E-15	3.9881E-14
250.00	0.0000E+00	1.0092E-35	2.9315E-25	1.1888E-20	2.2906E-18
300.00	0.0000E+00	0.0000E+00	1.4027E-34	2.0302E-27	1.2633E-23
350.00	0.0000E+00	0.0000E+00	1.4013E-45	1.4695E-35	5.8586E-30
400.00	0.0000E+00	0.0000E+00	0.0000E+00	4.2039E-45	2.1733E-37
450.00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00
500.00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00
550.00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00
600.00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00
650.00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00
700.00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00
750.00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00
800.00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00
850.00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00
900.00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00
950.00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00
1000.00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00

JJ's Texaco
Naphthalene in Groundwater (mg/l)



MARSHALL MILLER & ASSOCIATES

Leachability Input Parameters

South Carolina Department of Health and Environmental Control (DHEC)
Bureau of Underground Storage Tank Management

Site Data

Facility Name JJ's Texaco Site ID # 05986

Input Parameters

Percent Sand in Soil		40	%	5% < sand < 70%	
Percent Clay in Soil		60	%	5% < clay < 60%	
DAF					
Worst Case Soil Analyses	Benzene	1.120	mg/kg	C s	
	Toluene	.895	mg/kg	C s	
	Ethylbenzene	7.26	mg/kg	C s	
	Xylenes	34.3	mg/kg	C s	
	Naphthalene	6.88	mg/kg	C s	
	Other CoC		mg/kg	C s	
					Figure
Natural organic carbon content		399	mg/kg	f_{oc}	
TPH		1,000	mg/kg	TPH - ?	
Porosity		.55	decimal %	∅ - ?	C1
Residual water content		.04	decimal %	W_r	C2
Bulk density of soil		1.2	g/cc	B_d	C3
Soil hydraulic conductivity		1.4 E^{-6}	cm/sec	K_r	C4
Average annual recharge			cm	H_w	
Wetting front suction (negative Number)		-150	cm	H_r	C5
Distance from highest soil contamination to water table		152	cm	L	
Groundwater RBSL (or SSTL if appropriate)			mg/L	C_{rbsl}	

List possible human exposure pathways from soil.

Leachability Results and Conclusions

South Carolina Department of Health and Environmental Control (DHEC)
Bureau of Underground Storage Tank Management

Site Data

Facility Name JJ's Texaco Site ID # 05986

Chemical of Concern (Benzene, Naphthalene, etc.): Benzene

(Please use a separate form for each Chemical of Concern that exceeds the RBSL in soil).

Chemical Specific Data

Biodegradation half-life period	16 days	$t_{½}$	Refer to
Soil/water partitioning coefficient	81 mg/L	K_{oc}	Table
Henry's law constant	.226	H^{9}	C2

Results

			Equation Set	Step
Total organic carbon content	0.000979 decimal %	f_{cs}	I	1
Air filled porosity	0.51 decimal %	f	I	2
Leachate concentration	5.54581 mg/L	C_w	I	3
Infiltration time	15516574 seconds	t	II	1
Velocity of water	10.1238 ft/yr	V_w	II	2
Soil/water distribution coefficient	0.032319 mL/g	K_d	III	1
CoC percolation rate	9.456946 ft/yr	V_c	III	2
Time to reach groundwater	192.47 days	T_c	IV	1
Concentration to protect groundwater	20.836 mg/L	C_p	IV	2
Site specific target level	8.42 mg/kg	C_{sstl}	V	

Conclusions

Does concentration of CoC in soil exceed SSTL?	Yes _____	No X
Risk of human exposure due to contaminated soil?	Yes _____	No X

MARSHALL MILLER & ASSOCIATES

Leachability Results and Conclusions

South Carolina Department of Health and Environmental Control (DHEC)
Bureau of Underground Storage Tank Management

Site Data

Facility Name JJ's Texaco Site ID # 05986

Chemical of Concern (Benzene, Naphthalene, etc.): Toluene

(Please use a separate form for each Chemical of Concern that exceeds the RBSL in soil).

Chemical Specific Data

Biodegradation half-life period	22 days	$t_{½}$	Refer to
Soil/water partitioning coefficient	133 mg/L	K_{oc}	Table
Henry's law constant	.301	H^{9}	C2

Results

			Equation Set	Step
Total organic carbon content	.000979 decimal %	f_{cs}	I	1
Air filled porosity	.51 decimal %	f	I	2
Leachate concentration	3.173 mg/L	C_w	I	3
Infiltration time	15516574 seconds	t	II	1
Velocity of water	10.124 ft/yr	V_w	II	2
Soil/water distribution coefficient	.05307 mL/g	K_d	III	1
CoC percolation rate	9.07 ft/yr	V_c	III	2
Time to reach groundwater	200.61 days	T_c	IV	1
Concentration to protect groundwater	554.55 mg/L	C_p	IV	2
Site specific target level	313 mg/kg	C_{sstl}	V	

Conclusions

Does concentration of CoC in soil exceed SSTL?	Yes _____	No X
Risk of human exposure due to contaminated soil?	Yes _____	No X

MARSHALL MILLER & ASSOCIATES

Leachability Results and Conclusions

South Carolina Department of Health and Environmental Control (DHEC)
Bureau of Underground Storage Tank Management

Site Data

Facility Name JJ's Texaco Site ID # 05986
Chemical of Concern (Benzene, Naphthalene, etc.): Ethylbenzene

(Please use a separate form for each Chemical of Concern that exceeds the RBSL in soil).

Chemical Specific Data

Biodegradation half-life period	10 days	$t_{½}$	Refer to
Soil/water partitioning coefficient	176 mg/L	K_{oc}	Table
Henry's law constant	.280	H^{9}	C2

Results

			Equation Set	Step
Total organic carbon content	0.000979 decimal %	f_{cs}	I	1
Air filled porosity	0.51 decimal %	f	I	2
Leachate concentration	23.10828 mg/L	C_w	I	3
Infiltration time	15516574 seconds	t	II	1
Velocity of water	10.123 ft/yr	V_w	II	2
Soil/water distribution coefficient	.070224 mL/g	K_d	III	1
CoC percolation rate	8.779 ft/yr	V_c	III	2
Time to reach groundwater	207.342 days	T_c	IV	1
Concentration to protect groundwater	1214189 mg/L	C_p	IV	2
Site specific target level	763000 mg/kg	C_{sstl}	V	

Conclusions

Does concentration of CoC in soil exceed SSTL? Yes _____ No X

Risk of human exposure due to contaminated soil? Yes _____ No X

MARSHALL MILLER & ASSOCIATES

Leachability Results and Conclusions

South Carolina Department of Health and Environmental Control (DHEC)
Bureau of Underground Storage Tank Management

Site Data

Facility Name JJ' Texaco Site ID # 05986

Chemical of Concern (Benzene, Naphthalene, etc.): Xylene

(Please use a separate form for each Chemical of Concern that exceeds the RBSL in soil).

Chemical Specific Data

Biodegradation half-life period	28 days	$t_{1/2}$	Refer to
Soil/water partitioning coefficient	639 mg/L	K_{oc}	Table
Henry's law constant	0.278	H^{o}	C2

Results

			Equation Set	Step
Total organic carbon content	0.000979 decimal %	f_{cs}	I	1
Air filled porosity	0.51 decimal %	f	I	2
Leachate concentration	45.61 mg/L	C_w	I	3
Infiltration time	15516574 seconds	t	II	1
Velocity of water	10.1238 ft/yr	V_w	II	2
Soil/water distribution coefficient	0.2549 mL/g	K_d	III	1
CoC percolation rate	6.505 ft/yr	V_c	III	2
Time to reach groundwater	279.8 days	T_c	IV	1
Concentration to protect groundwater	10164.64 mg/L	C_p	IV	2
Site specific target level	15300 mg/kg	C_{sstl}	V	

Conclusions

Does concentration of CoC in soil exceed SSTL?	Yes _____	No X
Risk of human exposure due to contaminated soil?	Yes _____	No X

MARSHALL MILLER & ASSOCIATES

Leachability Results and Conclusions

South Carolina Department of Health and Environmental Control (DHEC)
Bureau of Underground Storage Tank Management

Site Data

Facility Name JJ's Texaco Site ID # 05986

Chemical of Concern (Benzene, Naphthalene, etc.): Naphthalene

(Please use a separate form for each Chemical of Concern that exceeds the RBSL in soil).

Chemical Specific Data

Biodegradation half-life period	48 days	$t_{½}$	Refer to
Soil/water partitioning coefficient	1543 mg/L	K_{oc}	Table
Henry's law constant	0.002	H^{9}	C2

Results

			Equation Set	Step
Total organic carbon content	.000979 decimal %	f_{cs}	I	1
Air filled porosity	.51 decimal %	f	I	2
Leachate concentration	4.602 mg/L	C_w	I	3
Infiltration time	15516574 seconds	t	II	1
Velocity of water	10.1238 ft/yr	V_w	II	2
Soil/water distribution coefficient	0.6157 mL/g	K_d	III	1
CoC percolation rate	4.32 ft/yr	V_c	III	2
Time to reach groundwater	421.3 days	T_c	IV	1
Concentration to protect groundwater	10.94 mg/L	C_p	IV	2
Site specific target level	32.7 mg/kg	C_{sstl}	V	

Conclusions

Does concentration of CoC in soil exceed SSTL? Yes _____ No X

Risk of human exposure due to contaminated soil? Yes _____ No X

MARSHALL MILLER & ASSOCIATES

File copy

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

October 20, 2003

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

RECEIVED
OCT 22 2003
UNDERGROUND STORAGE TANK PROGRAM

RE: Lab Project Number: 9252399
Client Project ID: JJ Texaco 05986-19571

Dear Ms. Thoma:

Enclosed are the analytical results for sample(s) received by the laboratory on October 14, 2003. 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

UST PROGRAM DOCKETING # 96 Tech

Enclosures

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

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

Lab Project Number: 9252399
Client Project ID: JJ Texaco 05986-19571

Lab Sample No: 923431910 Project Sample Number: 9252399-001 Date Collected: 10/13/03 13:40
Client Sample ID: MW-1 Matrix: Water Date Received: 10/14/03 10:30

Parameters	Results		Units	Report Limit	DF	Analyzed	By	CAS No.	Qual	RegLmt
GC/MS Volatiles										
GC/MS VOCs by 8260	Method: EPA 8260									
Benzene	ND		ug/l	5.0	1.0	10/16/03 04:59	DLK	71-43-2		
Ethylbenzene	ND		ug/l	5.0	1.0	10/16/03 04:59	DLK	100-41-4		
Methyl-tert-butyl ether	4.4	J	ug/l	5.0	1.0	10/16/03 04:59	DLK	1634-04-4		
Naphthalene	ND		ug/l	5.0	1.0	10/16/03 04:59	DLK	91-20-3		
Toluene	ND		ug/l	5.0	1.0	10/16/03 04:59	DLK	108-88-3		
m&p-Xylene	ND		ug/l	10.	1.0	10/16/03 04:59	DLK			
o-Xylene	ND		ug/l	5.0	1.0	10/16/03 04:59	DLK	95-47-6		
Toluene-d8 (S)	100		%		1.0	10/16/03 04:59	DLK	2037-26-5		
4-Bromofluorobenzene (S)	104		%		1.0	10/16/03 04:59	DLK	460-00-4		
Dibromofluoromethane (S)	101		%		1.0	10/16/03 04:59	DLK	1868-53-7		
1,2-Dichloroethane-d4 (S)	93		%		1.0	10/16/03 04:59	DLK	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

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

Lab Project Number: 9252399
Client Project ID: JJ Texaco 05986-19571

Lab Sample No: 923431928 Project Sample Number: 9252399-002 Date Collected: 10/13/03 13:40
Client Sample ID: MW-3 Matrix: Water Date Received: 10/14/03 10:30

Parameters	Results	Units	Report Limit	DF	Analyzed	By	CAS No.	Qual	RegLmt
GC/MS Volatiles									
GC/MS VOCs by 8260	Method: EPA 8260								
Benzene	9300	ug/l	500	100	10/16/03 06:26	DLK	71-43-2		
Ethylbenzene	2500	ug/l	500	100	10/16/03 06:26	DLK	100-41-4		
Methyl-tert-butyl ether	3200	ug/l	500	100	10/16/03 06:26	DLK	1634-04-4		
Naphthalene	1000	ug/l	500	100	10/16/03 06:26	DLK	91-20-3		
Toluene	29000	ug/l	1000	200	10/16/03 06:26	DLK	108-88-3		
m&p-Xylene	10000	ug/l	1000	100	10/16/03 06:26	DLK			
o-Xylene	4700	ug/l	500	100	10/16/03 06:26	DLK	95-47-6		
Toluene-d8 (S)	102	%		1.0	10/16/03 06:26	DLK	2037-26-5		
4-Bromofluorobenzene (S)	105	%		1.0	10/16/03 06:26	DLK	460-00-4		
Dibromofluoromethane (S)	94	%		1.0	10/16/03 06:26	DLK	1868-53-7		
1,2-Dichloroethane-d4 (S)	86	%		1.0	10/16/03 06:26	DLK	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

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

Lab Project Number: 9252399
Client Project ID: JJ Texaco 05986-19571

Lab Sample No: 923431936 Project Sample Number: 9252399-003 Date Collected: 10/13/03 12:50
Client Sample ID: MW-7 Matrix: Water Date Received: 10/14/03 10:30

Parameters	Results	Units	Report Limit	DF	Analyzed	By	CAS No.	Qual	RegLmt
GC/MS Volatiles									
GC/MS VOCs by 8260	Method: EPA 8260								
Benzene	ND	ug/l	5.0	1.0	10/16/03 21:28	DLK	71-43-2		
Ethylbenzene	ND	ug/l	5.0	1.0	10/16/03 21:28	DLK	100-41-4		
Methyl-tert-butyl ether	ND	ug/l	5.0	1.0	10/16/03 21:28	DLK	1634-04-4		
Naphthalene	ND	ug/l	5.0	1.0	10/16/03 21:28	DLK	91-20-3		
Toluene	ND	ug/l	5.0	1.0	10/16/03 21:28	DLK	108-88-3		
m&p-Xylene	ND	ug/l	10.	1.0	10/16/03 21:28	DLK			
o-Xylene	ND	ug/l	5.0	1.0	10/16/03 21:28	DLK	95-47-6		
Toluene-d8 (S)	100	%		1.0	10/16/03 21:28	DLK	2037-26-5		
4-Bromofluorobenzene (S)	103	%		1.0	10/16/03 21:28	DLK	460-00-4		
Dibromofluoromethane (S)	107	%		1.0	10/16/03 21:28	DLK	1868-53-7		
1,2-Dichloroethane-d4 (S)	104	%		1.0	10/16/03 21:28	DLK	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

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

Lab Project Number: 9252399
Client Project ID: JJ Texaco 05986-19571

Lab Sample No: 923431944 Project Sample Number: 9252399-004 Date Collected: 10/13/03 14:10
Client Sample ID: MW-8 Matrix: Water Date Received: 10/14/03 10:30

Parameters	Results	Units	Report Limit	DF	Analyzed	By	CAS No.	Qual	RegLmt
GC/MS Volatiles									
GC/MS VOCs by 8260	Method: EPA 8260								
Benzene	500	ug/l	120	25.0	10/16/03 18:04	DLK	71-43-2		
Ethylbenzene	740	ug/l	120	25.0	10/16/03 18:04	DLK	100-41-4		
Methyl-tert-butyl ether	90.	J ug/l	120	25.0	10/16/03 18:04	DLK	1634-04-4		
Naphthalene	200	ug/l	120	25.0	10/16/03 18:04	DLK	91-20-3		
Toluene	3500	ug/l	120	25.0	10/16/03 18:04	DLK	108-88-3		
m&p-Xylene	4000	ug/l	250	25.0	10/16/03 18:04	DLK			
o-Xylene	1700	ug/l	120	25.0	10/16/03 18:04	DLK	95-47-6		
Toluene-d8 (S)	104	%		1.0	10/16/03 18:04	DLK	2037-26-5		
4-Bromofluorobenzene (S)	107	%		1.0	10/16/03 18:04	DLK	460-00-4		
Dibromofluoromethane (S)	96	%		1.0	10/16/03 18:04	DLK	1868-53-7		
1,2-Dichloroethane-d4 (S)	85	%		1.0	10/16/03 18:04	DLK	17060-07-0		

REPORT OF LABORATORY ANALYSIS

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

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

Lab Project Number: 9252399
Client Project ID: JJ Texaco 05986-19571

Lab Sample No: 923431951 Project Sample Number: 9252399-005 Date Collected: 10/13/03 12:40
Client Sample ID: MW-9 Matrix: Water Date Received: 10/14/03 10:30

Parameters	Results	Units	Report Limit	DF	Analyzed	By	CAS No.	Qual	RegLmt
GC/MS Volatiles									
GC/MS VOCs by 8260	Method: EPA 8260								
Benzene	2500	ug/l	250	50.0	10/16/03 05:57	DLK	71-43-2		
Ethylbenzene	3100	ug/l	250	50.0	10/16/03 05:57	DLK	100-41-4		
Methyl-tert-butyl ether	1800	ug/l	250	50.0	10/16/03 05:57	DLK	1634-04-4		
Naphthalene	670	ug/l	250	50.0	10/16/03 05:57	DLK	91-20-3		
Toluene	12000	ug/l	500	100	10/16/03 05:57	DLK	108-88-3		
m&p-Xylene	14000	ug/l	500	50.0	10/16/03 05:57	DLK			
o-Xylene	5700	ug/l	250	50.0	10/16/03 05:57	DLK	95-47-6		
Toluene-d8 (S)	102	%		1.0	10/16/03 05:57	DLK	2037-26-5		
4-Bromofluorobenzene (S)	107	%		1.0	10/16/03 05:57	DLK	460-00-4		
Dibromofluoromethane (S)	98	%		1.0	10/16/03 05:57	DLK	1868-53-7		
1,2-Dichloroethane-d4 (S)	87	%		1.0	10/16/03 05:57	DLK	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

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

Lab Project Number: 9252399
Client Project ID: JJ Texaco 05986-19571

Lab Sample No: 923431969 Project Sample Number: 9252399-006 Date Collected: 10/13/03 13:10
Client Sample ID: MW-11 Matrix: Water Date Received: 10/14/03 10:30

Parameters	Results	Units	Report Limit	DF	Analyzed	By	CAS No.	Qual	RegLmt
GC/MS Volatiles									
GC/MS VOCs by 8260	Method: EPA 8260								
Benzene	ND	ug/l	5.0	1.0	10/17/03 07:10	DLK	71-43-2		
Ethylbenzene	14.	ug/l	5.0	1.0	10/17/03 07:10	DLK	100-41-4		
Methyl-tert-butyl ether	4.3	J ug/l	5.0	1.0	10/17/03 07:10	DLK	1634-04-4		
Naphthalene	3.9	J ug/l	5.0	1.0	10/17/03 07:10	DLK	91-20-3		
Toluene	ND	ug/l	5.0	1.0	10/17/03 07:10	DLK	108-88-3		
m&p-Xylene	31.	ug/l	10.	1.0	10/17/03 07:10	DLK			
o-Xylene	4.2	J ug/l	5.0	1.0	10/17/03 07:10	DLK	95-47-6		
Toluene-d8 (S)	97	%		1.0	10/17/03 07:10	DLK	2037-26-5		
4-Bromofluorobenzene (S)	94	%		1.0	10/17/03 07:10	DLK	460-00-4		
Dibromofluoromethane (S)	113	%		1.0	10/17/03 07:10	DLK	1868-53-7		
1,2-Dichloroethane-d4 (S)	108	%		1.0	10/17/03 07:10	DLK	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

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

Lab Project Number: 9252399
Client Project ID: JJ Texaco 05986-19571

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.

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

REPORT OF LABORATORY ANALYSIS

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

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

QUALITY CONTROL DATA

Lab Project Number: 9252399
Client Project ID: JJ Texaco 05986-19571

QC Batch: 83363 Analysis Method: EPA 8260
QC Batch Method: EPA 8260 Analysis Description: GC/MS VOCs by 8260
Associated Lab Samples: 923431910 923431928 923431944 923431951

METHOD BLANK: 923437537
Associated Lab Samples: 923431910 923431928 923431944 923431951

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	3.1	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)	%	99		
4-Bromofluorobenzene (S)	%	103		
Dibromofluoromethane (S)	%	101		
1,2-Dichloroethane-d4 (S)	%	91		

LABORATORY CONTROL SAMPLE: 923437545

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	Footnotes
Benzene	ug/l	50.00	47.45	95	
Ethylbenzene	ug/l	50.00	45.02	90	
Methyl-tert-butyl ether	ug/l	50.00	38.21	76	
Naphthalene	ug/l	50.00	44.28	89	
Toluene	ug/l	50.00	44.30	89	
m&p-Xylene	ug/l	100.00	92.55	92	
o-Xylene	ug/l	50.00	44.87	90	
Toluene-d8 (S)				100	
4-Bromofluorobenzene (S)				102	
Dibromofluoromethane (S)				96	
1,2-Dichloroethane-d4 (S)				90	

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

QUALITY CONTROL DATA

Lab Project Number: 9252399
Client Project ID: JJ Texaco 05986-19571

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 923437552 923437560

Parameter	Units	923431829 Result	Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	RPD	Footnotes
Benzene	ug/l	0	50.00	42.72	50.45	85	101	17	
Toluene	ug/l	0	50.00	41.42	48.52	83	97	16	
Toluene-d8 (S)						100	101		
4-Bromofluorobenzene (S)						103	105		
Dibromofluoromethane (S)						95	99		
1,2-Dichloroethane-d4 (S)						87	94		

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

QUALITY CONTROL DATA

Lab Project Number: 9252399
Client Project ID: JJ Texaco 05986-19571

QC Batch: 83374 Analysis Method: EPA 8260
QC Batch Method: EPA 8260 Analysis Description: GC/MS VOCs by 8260
Associated Lab Samples: 923431936

METHOD BLANK: 923438469
Associated Lab Samples: 923431936

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	2.9	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)	%	99		
4-Bromofluorobenzene (S)	%	104		
Dibromofluoromethane (S)	%	93		
1,2-Dichloroethane-d4 (S)	%	88		

LABORATORY CONTROL SAMPLE: 923438477

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	Footnotes
Benzene	ug/l	50.00	34.34	69	
Ethylbenzene	ug/l	50.00	35.33	71	
Methyl-tert-butyl ether	ug/l	50.00	27.56	55	
Naphthalene	ug/l	50.00	26.47	53	
Toluene	ug/l	50.00	33.64	67	
m&p-Xylene	ug/l	100.00	69.91	70	
o-Xylene	ug/l	50.00	36.43	73	
Toluene-d8 (S)				101	
4-Bromofluorobenzene (S)				105	
Dibromofluoromethane (S)				94	
1,2-Dichloroethane-d4 (S)				87	

REPORT OF LABORATORY ANALYSIS

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

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

QUALITY CONTROL DATA

Lab Project Number: 9252399
Client Project ID: JJ Texaco 05986-19571

MATRIX SPIKE: 923438485

Parameter	Units	923416648 Result	Spike Conc.	MS Result	MS % Rec	Footnotes
Benzene	ug/l	10.02	50.00	58.56	97	
Toluene	ug/l	0	50.00	46.34	93	
Toluene-d8 (S)					100	
4-Bromofluorobenzene (S)					103	
Dibromofluoromethane (S)					99	
1,2-Dichloroethane-d4 (S)					96	

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

QUALITY CONTROL DATA

Lab Project Number: 9252399
Client Project ID: JJ Texaco 05986-19571

QC Batch: 83463 Analysis Method: EPA 8260
QC Batch Method: EPA 8260 Analysis Description: GC/MS VOCs by 8260
Associated Lab Samples: 923431969

METHOD BLANK: 923443345
Associated Lab Samples: 923431969

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)	%	98		
4-Bromofluorobenzene (S)	%	95		
Dibromofluoromethane (S)	%	99		
1,2-Dichloroethane-d4 (S)	%	93		

LABORATORY CONTROL SAMPLE: 923443352

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	Footnotes
Benzene	ug/l	50.00	48.36	97	
Ethylbenzene	ug/l	50.00	44.25	88	
Methyl-tert-butyl ether	ug/l	50.00	43.58	87	
Naphthalene	ug/l	50.00	19.60	39	1
Toluene	ug/l	50.00	45.07	90	
m&p-Xylene	ug/l	100.00	95.30	95	
o-Xylene	ug/l	50.00	49.17	98	
Toluene-d8 (S)				98	
4-Bromofluorobenzene (S)				99	
Dibromofluoromethane (S)				93	
1,2-Dichloroethane-d4 (S)				93	

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

Lab Project Number: 9252399
Client Project ID: JJ Texaco 05986-19571

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
[1]	The surrogate and/or spike recovery was outside acceptance limits.

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

ACCREDITED IN ACCORDANCE WITH nelac

CHAIN-OF-CUSTODY / Analytical Request Document

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

Pace Analytical®
www.pacelabs.com

769550

Page: 1 of 1

To Be Completed by Pace Analytical and Client

Section A — Required Client Information:

Company: SC DHEC - UST
Address: 2600 Bull St
Columbia SC 29201
Phone: 896 6240 Fax:

Section B — Required Client Information:

Report To: D. THOMA
Copy To:
Invoice To: FINANCE
P.O.: 463276
Project Name: JJ Travco
Project Number: 03956-19571

Client Information (Check quote/contract):
Requested Due Date: *TAT:

* Turn around times 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

Quote Reference:
Project Manager:
Project #: 92532399
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
WATER	WT
SOIL	SL
OIL	OL
WIPE	WP
AIR	AR
TISSUE	TS
OTHER	OT

ITEM #	SAMPLE ID	MATRIX CODE	DATE COLLECTED (mm / dd / yy)	TIME COLLECTED (hh:mm a/p)	# Containers	Preservatives: Unpreserved	H_2SO_4	HNO_3	HCl	NaOH	$Na_2S_2O_3$	Methanol	Other	Remarks / Lab ID
1	MW-1		10-13-03	1340	3				X					92 3431910
2	MW-2D													DRY
3	MW-3		10-13-03	1340	3				X					92 5431920
4	MW-4													Not Located
5	MW-5													DRY
6	MW-6													Product
7	MW-7		10-13-03	1250	3				X					92 5431936
8	MW-8		↓	1410	3				X					92 5431944
9	MW-9		10-13-03	1240	3				X					92 5431951
10	MW-10													Product
11	MW-11		10-13-03	1310	3				X					92 5431969
12	MW-12													DRY

SHIPMENT METHOD	AIRBILL NO.	SHIPPING DATE	NO. OF COOLERS

ITEM NUMBER	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME

SAMPLE CONDITION

Temp in °C	5.5
Received on Ice	(Y)/N
Sealed Cooler	(Y)/N
Samples Intact	(Y)/N

SAMPLE NOTES

Additional Comments:

SAMPLER NAME AND SIGNATURE

PRINT Name of SAMPLER: B. WATTING
SIGNATURE of SAMPLER: B. Watting
DATE Signed: (MM / DD / YY) 10/13/03

SEE REVERSE SIDE FOR INSTRUCTIONS

Form COC01 Rev 0402

Instructions for completing Chain of Custody (COC)

1. Complete all Client Information at top of sheet: name, address, phone, contact (person to whom report will be sent and contact can be made if questions arise), billing information if different from client, PO#, Project Name and/or Project Number as it will appear on the report.
2. Quote Reference, Project Manager, Project No. and Profile No. will be completed by Pace.
3. A separate COC must be filled out for each day of sample collection.
4. Sampler should print their name in the space provided and sign their name followed by the date of the sampling event.
5. Complete Sample Description as it will appear on the laboratory report; include time of sampling, sample matrix, no. of containers and preservative used.
6. Analysis Requested: Complete analysis on the lines provided and place a check in the column for the samples requiring the analysis. It may be necessary to use the space provided for additional comments or include attachments for extended lists of parameters.
7. Submission of samples to laboratory: Indicate Item Number of those samples being transferred; sign relinquished by, and include your affiliation.

*** IMPORTANT NOTE:**

Standard Turnaround Time is 2 weeks. If this does not satisfy your requirements, arrangements must be made prior to samples being submitted to the laboratory. Contact your project manager.

Special Project Requirements such as Low Level Detection Limits or level of QC reported must be indicated on the chain of custody. (Use Additional Comments Section.)

D H E C
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: J A Jones Environmental Services

FROM: Umar K. Khattak

RE: **NOTICE TO PROCEED**

Facility Name: J J TEXACO

Permit Number: 05986

County: Lexington

Work To Be Completed: Please guage and sample MW-1 thru MW-12 for BTEX, Naphthalene, and MtBE. For questions, please call Umar K. Khattak Phone: 803-896-6629.

PACE CA# 19571

JA Jones CA# 19570

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): 10/13/03
Field Personnel: William McClary
General Weather Conditions: Sunny, Windy

Ambient Air Temperature: 19 °C

Quality Assurance

pH Meter	YSI Model 63	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: JJ TEXACO
Site ID#: 05986 **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)	29.22		feet
Total Well Depth (TWD)	40		feet
Length of the water column (LWC=TWD-DGW)		10.78	feet
1 casing volume (CV=LWC X C)=	0.163	1.75714	gallons
3 casing volume (3 X CV)=	3	5.27142	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) within screen	Inital	1st Vol	2nd Vol	3rd Vol	4th Vol	5th Vol	Post Sampling	
Time (military)		1340						
pH (s.u.)		7.21						
Specific Conductivity (µmhos/cm)		109.5						
Water Temperature (°C)		24.8						
Dissolved Oxygen		4.04						
PID readings, if required								

Remarks: Sample Time: 1340

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): 10/13/03

Field Personnel: William McClary

General Weather Conditions: Sunny, Windy

Ambient Air Temperature: 19 °C

Quality Assurance

pH Meter	YSI Model 63	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: JJ TEXACO

Site ID#: 05986 **Monitoring Well #** DMW-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)	80		feet
Total Well Depth (TWD)	80		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 0 gals.

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

Cumulative Volume Purged (gallons) DRY	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: Sample Time: DRY at the time of Sampling.

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): 10/13/03
Field Personnel: William McClary
General Weather Conditions: Sunny, Windy

Ambient Air Temperature: 19 °C

Quality Assurance

pH Meter	YSI Model 63	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: JJ TEXACO
Site ID#: 05986 **Monitoring Well #** MW-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)	31.19		feet
Total Well Depth (TWD)	42		feet
Length of the water column (LWC=TWD-DGW)		10.81	feet
1 casing volume (CV=LWC X C)=	0.163	1.76203	gallons
3 casing volume (3 X CV)=	3	5.28609	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) within screen	Inital	1st Vol	2nd Vol	3rd Vol	4th Vol	5th Vol	Post Sampling	
Time (military)		1340						
pH (s.u.)		6.95						
Specific Conductivity (µmhos/cm)		98.5						
Water Temperature (°C)		23.3						
Dissolved Oxygen		0.99						
PID readings, if required								

Remarks: Sample Time: 1340 - Strong Petroleum Odor, 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): 10/13/03

Field Personnel: William McClary

General Weather Conditions: Sunny, Windy

Ambient Air Temperature: 19 °C

Quality Assurance

pH Meter YSI Model 63 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: JJ TEXACO

Site ID#: 05986 **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)			feet
Total Well Depth (TWD)	40		feet
Length of the water column (LWC=TWD-DGW)		40	feet
1 casing volume (CV=LWC X C)=	0.163	6.52	gallons
3 casing volume (3 X CV)=	3	19.56	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)								
pH (s.u.)								
Specific Conductivity (µmhos/cm)								
Water Temperature (°C)								
Dissolved Oxygen								
PID readings, if required								

Remarks: Sample Time: Well Not Located

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): 10/13/03
Field Personnel: William McClary
General Weather Conditions: Sunny, Windy

Ambient Air Temperature: 19 °C

Quality Assurance

pH Meter	YSI Model 63	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: JJ TEXACO
Site ID#: 05986 **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)	40		feet
Total Well Depth (TWD)	40		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 0 gals.
*If free product is present over 1/8 inch, sampling will not be required.

Cumulative Volume Purged (gallons) within screen	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: Sample Time: DRY at the time of Sampling

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): 10/13/03
Field Personnel: William McClary
General Weather Conditions: Sunny, Windy

Ambient Air Temperature: 19 °C

Quality Assurance

pH Meter	YSI Model 63	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: JJ TEXACO
Site ID#: 05986 **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:	0.29		feet
Depth to Free Product (DFP)	32.51		feet
Depth to Ground Water (DGW)	32.80		feet
Total Well Depth (TWD)	42		feet
Length of the water column (LWC=TWD-DGW)		9.2	feet
1 casing volume (CV=LWC X C)= _____	0.163	1.4996	gallons
3 casing volume (3 X CV)=	3	4.4988	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) within screen	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: Sample Time: Free Phase Petroleum Product Encountered

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): 10/13/03
Field Personnel: William McClary
General Weather Conditions: Sunny, Windy

Ambient Air Temperature: 19 °C

Quality Assurance

pH Meter	YSI Model 63	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: JJ TEXACO
Site ID#: 05986 **Monitoring Well #** MW-7
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)	32.51		feet
Total Well Depth (TWD)	42		feet
Length of the water column (LWC=TWD-DGW)		9.49	feet
1 casing volume (CV=LWC X C)=	0.163	1.54687	gallons
3 casing volume (3 X CV)=	3	4.64061	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) within screen	Inital	1st Vol	2nd Vol	3rd Vol	4th Vol	5th Vol	Post Sampling	
Time (military)		1250						
pH (s.u.)		7.03						
Specific Conductivity (µmhos/cm)		94.6						
Water Temperature (°C)		23.3						
Dissolved Oxygen		4.92						
PID readings, if required								

Remarks: Sample Time: 1250

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): 10/13/03
Field Personnel: William McClary
General Weather Conditions: Sunny, Windy

Ambient Air Temperature: 19 °C

Quality Assurance

pH Meter	YSI Model 63	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: JJ TEXACO
Site ID#: 05986 **Monitoring Well #** MW-8
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)	38.22		feet
Total Well Depth (TWD)	40		feet
Length of the water column (LWC=TWD-DGW)		1.78	feet
1 casing volume (CV=LWC X C)=	0.163	0.29014	gallons
3 casing volume (3 X CV)=	3	0.87042	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) within screen	Inital	1st Vol	2nd Vol	3rd Vol	4th Vol	5th Vol	Post Sampling	
Time (military)		1410						
pH (s.u.)		7.01						
Specific Conductivity (µmhos/cm)		99.9						
Water Temperature (°C)		23.1						
Dissolved Oxygen		1.19						
PID readings, if required								

Remarks: Sample Time: 1410 - Strong Petroleum Odor, 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): 10/13/03
Field Personnel: William McClary
General Weather Conditions: Sunny, Windy

Ambient Air Temperature: 19 °C

Quality Assurance

pH Meter	YSI Model 63	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: JJ TEXACO
Site ID#: 05986 **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)	37.94		feet
Total Well Depth (TWD)	44		feet
Length of the water column (LWC=TWD-DGW)		6.06	feet
1 casing volume (CV=LWC X C)=	0.163	0.98778	gallons
3 casing volume (3 X CV)=	3	2.96334	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) within screen	Inital	1st Vol	2nd Vol	3rd Vol	4th Vol	5th Vol	Post Sampling	
Time (military)		1240						
pH (s.u.)		7.24						
Specific Conductivity (µmhos/cm)		108.3						
Water Temperature (°C)		22.1						
Dissolved Oxygen		1.14						
PID readings, if required								

Remarks: Sample Time: 1240 - Sheen, Well Cap will not fit on with well lid bolted down.

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): 10/13/03
Field Personnel: William McClary
General Weather Conditions: Sunny, Windy

Ambient Air Temperature: 19 °C

Quality Assurance

pH Meter	YSI Model 63	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: JJ TEXACO
Site ID#: 05986 **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:	0.82		feet
Depth to Free Product (DFP)	30.91		feet
Depth to Ground Water (DGW)	31.73		feet
Total Well Depth (TWD)	44		feet
Length of the water column (LWC=TWD-DGW)		12.27	feet
1 casing volume (CV=LWC X C)= _____	0.163	2.00001	gallons
3 casing volume (3 X CV)=	3	6.00003	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) within screen	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: Sample Time: Free Phase Petroleum Product Encountered

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): 10/13/03
Field Personnel: William McClary
General Weather Conditions: Sunny, Windy

Ambient Air Temperature: 19 °C

Quality Assurance

pH Meter	YSI Model 63	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: JJ TEXACO
Site ID#: 05986 **Monitoring Well #** MW-11
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)	22.53		feet
Total Well Depth (TWD)	42		feet
Length of the water column (LWC=TWD-DGW)		19.47	feet
1 casing volume (CV=LWC X C)=	0.163	3.17361	gallons
3 casing volume (3 X CV)=	3	9.52083	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) within screen	Inital	1st Vol	2nd Vol	3rd Vol	4th Vol	5th Vol	Post Sampling	
Time (military)		1310						
pH (s.u.)		7.06						
Specific Conductivity (µmhos/cm)		196.1						
Water Temperature (°C)		25.6						
Dissolved Oxygen		1.35						
PID readings, if required								

Remarks: Sample Time: 1310 - Petroleum Odor

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): 10/13/03
Field Personnel: William McClary
General Weather Conditions: Sunny, Windy

Ambient Air Temperature: 19 °C

Quality Assurance

pH Meter	YSI Model 63	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: JJ TEXACO
Site ID#: 05986 **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)	50		feet
Total Well Depth (TWD)	50		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 0 gals.
*If free product is present over 1/8 inch, sampling will not be required.

Cumulative Volume Purged (gallons) within screen	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: Sample Time: Dry at the time of Sampling

File #05986

TERRY ENVIRONMENTAL SERVICES

P.O. BOX 25 • SUMMERVILLE, SC 29484 • 843-873-8200 • WWW.TERRYENVIRONMENTAL.COM

February 27, 2004

Ms. Debra L. Thoma
SCDHEC BLWM UST Program
2600 Bull Street
Columbia, South Carolina 29201

Re: JJ Texaco
105 N Main St.
Gaston, South Carolina
Permit ID# 05986; Cost Agreement # 20483

Dear Ms. Thoma,

On February 23, 2004 Terry Environmental Services, Inc. (TERRY) performed an eight-hour Aggressive Fluid Vapor Recovery (AFVR) event on monitoring well MW-10 at JJ Texaco in Gaston, South Carolina. MW-6 was to be pumped as well but no free product was detected. MW-10 was pumped for 8 hours. Product thickness was gauged in the well prior to the event. MW-10 had a product thickness of 0.85 feet. A scaled site map is included in the attachments as Figure 1. The stinger pipe was set six inches below the product/water interface. Once pumping began, a magnehelic gauge was used to measure vacuum pressure every thirty minutes at neighboring wells. These wells exhibited no measurable vacuum during the eight-hour AFVR event. Measurements on emissions exiting the stack of the vac truck were also taken on thirty minute intervals and are included in the attachments as Table 1. These measurements include vacuum (on the truck), temperature, velocity, humidity, and volatile concentrations in parts per million. Emission calculations are included as Table 2 in the attachments. Off gas treatment was provided as directed by the SCDHEC.

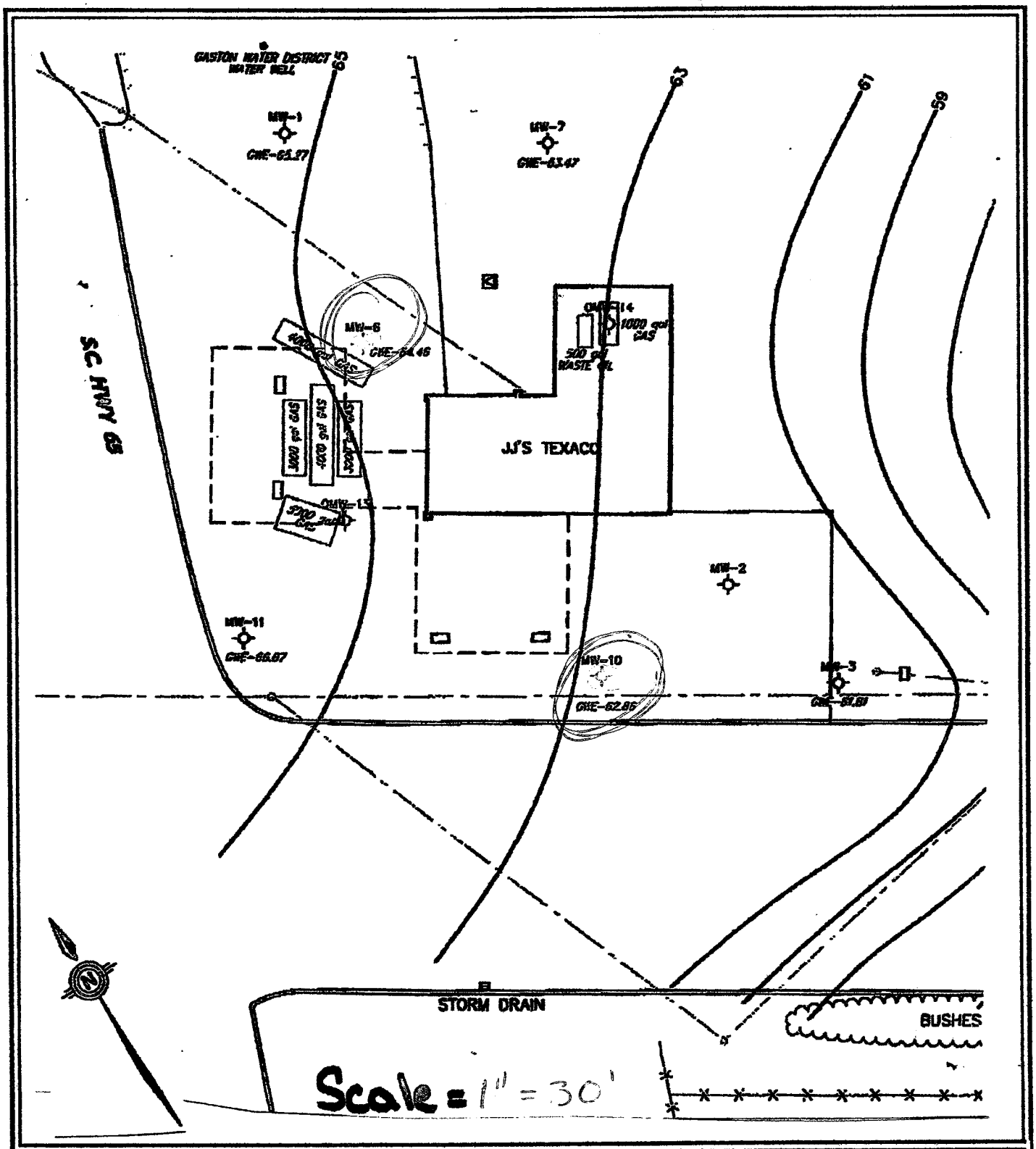
Upon completion of the AFVR event, MW-10 was gauged again, and there was no measurable free product detected in the well. A total of 750 gallons of product and water were recovered during the AFVR event. The disposal manifest is included with the attachments.

Sincerely,

Chris C. Martin
Environmental Scientist

Mark L. Keller, P.G.
Vice President / COO

ATTACHMENTS



TERRY ENVIRONMENTAL SERVICES

...providing our clients with the very best environmental services available, actually understanding our Clients' objectives, and making their objectives our own!

P.O. BOX 25 SUMMERVILLE, SOUTH CAROLINA 29484 1-800-325-0605
www.terryenvironmental.com

FIGURE 1
JJ TEXACO
105 N. MAIN ST.
GASTON, SOUTH CAROLINA
PROJECT # 2105.38
FEBRUARY, 2004
SITE ID# 05986

TABLE 1
AFVR EMISSIONS DATA
February 27, 2004

Date	February 23, 2004
SITE NAME	JJ Texaco
PERMIT ID	05986
AVERAGE DEPTH TO GROUND WATEI	34.55
DESCRIBE SOIL IN SATURATED ZONE	Unknown
Bws	0.024994845
WELL IDS	MW-10
BLOWER SPECIFICATIONS OF THE VACUUM TRUCK (CFM @ in Hg) - 25	

DRY STANDARD CUBIC FEET PER MINUTE (DSCFM) AIR FLOW CALCULATIONS (Qstd)

Date	Phase	Wells	Time	Vacuum	Velocity	Pipe Id	Temp.	Rel.Humid	$PPM_{measured}$
				(inches of Hg)	(ft/min)	(in)	(F)	(%)	(ppm)
2/23/2004	1	MW-10	7:00	21	22	4	79.5	99	1638
2/23/2004	1	MW-10	7:30	21	22	4	79.5	99	1638
2/23/2004	1	MW-10	8:00	21	20	4	80	99	1525
2/23/2004	1	MW-10	8:30	21	20	4	80	99	1525
2/23/2004	1	MW-10	9:00	21	21	4	81	99	1501
2/23/2004	1	MW-10	9:30	21	21	4	81	99	1501
2/23/2004	1	MW-10	10:00	21	21	4	81.4	99	1489
2/23/2004	1	MW-10	10:30	21	21	4	81.4	99	1489
2/23/2004	1	MW-10	11:00	22	20	4	84.7	99	1453
2/23/2004	1	MW-10	11:30	22	20	4	84.7	99	1453
2/23/2004	1	MW-10	12:00	20	19	4	86.8	99	1427
2/23/2004	1	MW-10	12:30	20	19	4	86.8	99	1427
2/23/2004	1	MW-10	13:00	21	19	4	87.3	99	1389
2/23/2004	1	MW-10	13:30	21	19	4	87.3	99	1389
2/23/2004	1	MW-10	14:00	20	21	4	87.7	99	1251
2/23/2004	1	MW-10	14:30	20	21	4	87.7	99	1251
2/23/2004	1	MW-10	15:00	21	18	4	88	99	1232
Average				20.88235294	20.2353	4	83.812	99	1445.76471

Bws = 0.02499

Qstd = =(60 sec/min)(1-Bws)(V)(A)(Temp deg Rankin)

Qstd = 1.67

PPMmeasured = obtained directly from OVA or TVA

PPMwet = "wet" concentration

PPMdry = "dry" concentration

K = number of carbons in calibration gas (methane = 1)

PPMc = PPMv, volumetric concentration of VOC emissions as carbon, dry basis, at STP

Ccm = mg/dsm^3, mass concentration of VOC emissions as carbon

Mc = 12.01 mg/mg-mole, molecular wt. of carbon

K_3 = 24.07 $dsm^3/10^6$ mg-mole, mass to volume conversion factor at stp

Cc = lb/dscf, mass concentration of VOC emissions as carbon, dry basis, at STP

PMRc = lb/hr, pollutant mass removal rate of VOC's as carbon

PMRg = lb/hr, pollutant mass removal rate of VOC's as gasoline

Mg = 103 mg/mg-mole, molecular wt. of gasoline

Mcg = 89 mg/mg-mole, weight of carbon in gasoline molecule

TABLE 2
AFVR EMMISSIONS CALCULATIONS
February 27, 2004

SITE NAME	JJ Texaco
PERMIT ID	05986
AVERAGE DEPTH TO GROUND WATER	34.55
DESCRIBE SOIL IN SATURATED ZONE	Unkown
Bwsw	0.016
Bws	0.024995
WELL IDS	MW-10
BLOWER SPECIFICATIONS OF THE VACUUM TRUCK (CFM @ in Hg) - 25	

EMISSION CALCULATION

Elapsed time	Flow	$PPM_{measured}$	PPM_d	PPM_c	K	C_{cm}	C_c	PMR_c	PMR_g	PMR_g
(min)	(DSCFM)	(ppm)			(Hexane)	(mg/dsm^3)	(lb/dscf)	(lb/hr)	(lb/hr)	(gal/hr)
0	1.67	1638.00	1679.99	10079.95	6	5029.50	3.140E-04	0.03	0.04	0.01
30	1.67	1638.00	1679.99	10079.95	6	5029.50	3.140E-04	0.03	0.04	0.01
60	1.67	1525.00	1564.09	9384.57	6	4682.54	2.923E-04	0.03	0.03	0.01
90	1.67	1525.00	1564.09	9384.57	6	4682.54	2.923E-04	0.03	0.03	0.01
120	1.67	1501.00	1539.48	9236.87	6	4608.84	2.877E-04	0.03	0.03	0.01
150	1.67	1501.00	1539.48	9236.87	6	4608.84	2.877E-04	0.03	0.03	0.01
180	1.67	1489.00	1527.17	9163.03	6	4572.00	2.854E-04	0.03	0.03	0.01
210	1.67	1489.00	1527.17	9163.03	6	4572.00	2.854E-04	0.03	0.03	0.01
240	1.67	1453.00	1490.25	8941.49	6	4461.46	2.785E-04	0.03	0.03	0.01
270	1.67	1453.00	1490.25	8941.49	6	4461.46	2.785E-04	0.03	0.03	0.01
300	1.67	1427.00	1463.58	8781.49	6	4381.63	2.735E-04	0.03	0.03	0.01
330	1.67	1427.00	1463.58	8781.49	6	4381.63	2.735E-04	0.03	0.03	0.01
360	1.67	1389.00	1424.61	8547.65	6	4264.95	2.663E-04	0.03	0.03	0.00
390	1.67	1389.00	1424.61	8547.65	6	4264.95	2.663E-04	0.03	0.03	0.00
420	1.67	1251.00	1283.07	7698.42	6	3841.21	2.398E-04	0.02	0.03	0.00
450	1.67	1251.00	1283.07	7698.42	6	3841.21	2.398E-04	0.02	0.03	0.00
480	1.67	1232.00	1263.58	7581.50	6	3782.87	2.362E-04	0.02	0.03	0.00
Average	1.67082	1445.76	1482.83	8896.97	6	4439.24	2.771E-04	0.03	0.03	0.01

Total gallons of gasoline recovered from emissions = 0.04

Total pounds of gasoline recovered from emissions = 0.26

(THIS NUMBER REPRESENTS THE GALLONS RECOVERED VIA VAPORS, NOT TOTAL LIQUIDS)

Bwsw - water vapor % by wieght, i.e. pounds of water per pound of dry air, derived from the psychrometric chart (temp Vs relative hum)

Bws - water vapor by volume

EQUATIONS

PPMw = PPM measured

PPMd = (PPMw) / (1-Bws)

PMRc = Cc (Qstd) (60 min/hr)

PMRg = (PMRc) (Mg/Mcg)

PPMc = (PPM) (K)

Ccm = PPMc (Mc/K_3)

Cc = Ccm (62.43 E -9 lb-m^3/mg-ft^3)

Q_{std} = (60 sec/min) (1- B_{ws}) (velocity) (Pipe ID sq.ft.) [(528 °R / (Temp. + 460)] (LISTED AS FLOW ABOVE)

Bws = (B_{WSW} / 18 lb-mole H_2O) / [(1/28.84 lb-mole dry air) + B_{wsw} / 18 lb-mole H_2O)]

NON-HAZARDOUS WASTE MANIFEST

1. Generator's US EPA ID No.	Manifest Document No.	2. Page 1 of 1
	64505	

GENERATOR

3. Generator's Name and Mailing Address
JJ TEXACO
105 NORTH MAIN STREET
GASTON SC

TERRY ENVIRO
800-325-0605
Chris Merlin

4. Generator's Phone ( )

5. Transporter 1 Company Name	6. US EPA ID Number	A. Transporter's Phone
NU-WAY INDUSTRIAL SVC., INC.	SCD987598331	803-957-9175
7. Transporter 2 Company Name	8. US EPA ID Number	B. Transporter's Phone

9. Designated Facility Name and Site Address	10. US EPA ID Number	C. Facility's Phone
NU-WAY ENVIRONMENTAL SERVICES 1741 CALKS FERRY ROAD LEXINGTON,SC 29073		

11. Waste Shipping Name and Description	12. Containers No.	12. Containers Type	13. Total Quantity	14. Unit Wt/Vol
a. NON REGULATED NON HAZORDOUS MATERIAL (WELL WATER)	001	TT	750	G
b.				
c.				
d.				

D. Additional Descriptions for Materials listed Above	E. Handling Codes for Wastes listed Above

15. Special Handling Instructions and Additional Information

EMERGENCY CONTACT NUWAY ENVIRONMENTAL. INC. 803-957-9175
NIS JOB#24204

16. 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.

Printed/Typed Name	Signature	Month	Day	Year

TRANSPORTER

17. Transporter 1 Acknowledgement of Receipt of Materials

Printed/Typed Name	Signature	Month	Day	Year
Chris Risinger		02	13	30-4

18. Transporter 2 Acknowledgement of Receipt of Materials

Printed/Typed Name	Signature	Month	Day	Year

FACILITY

19. Discrepancy Indication Space

20. Facility Owner or Operator: Certification of receipt of waste materials covered by this manifest except as noted in Item 19.

Printed/Typed Name	Signature	Month	Day	Year

ORIGINAL - RETURN TO GENERATOR

DUNCAN ENVIRONMENTAL ASSOCIATES, INC.

ASSESSMENT ADDENDUM REPORT
JJ'S TEXACO
105 NORTH MAIN STREET
GASTON, SOUTH CAROLINA
SITE ID ~~#23534~~ 05986

DECEMBER 13, 2005

UST PROGRAM
DOCKETING # 9B Tech

RECEIVED
DEC 1 4 2005
UNDERGROUND STORAGE
TANK PROGRAM

10817-C Two Notch Road
Elgin, SC 29045
(803) 788-4333
FAX (803)788-4555

DUNCAN ENVIRONMENTAL ASSOCIATES, INC.

RECEIVED
DEC 14 2005
UNDERGROUND STORAGE
TANK PROGRAM

December 14, 2005

Mr. Konstantine Akhvlediani
Bureau of UST Management
SCDHEC
2600 Bull Street
Columbia, S.C. 29201

Re: Monitor well installation 1/12-7/20/05 and resample event 08/25, 26 & 29/05
J J's Texaco- Gaston, SC
Site ID #05986
CP #23534

Dear Mr Akhvlediani:

In order to delineate both the shallow and the deep aquifer at the JJs Texaco site, the SCDHEC requested field screening and monitor well installation both on and off site. Numerous soil borings, temporary wells and permanent wells were installed between January 12 and July 20, 2005, in an attempt to delineate the hydrocarbon plume. Through extensive drilling efforts it was determined that the primary shallow aquifer is a thin lense approximately 2-3' in thickness at approximately 32-35' in depth below land surface and that the deeper aquifer is greater than 75' in depth bls. Soil boring and monitor well construction logs are included in Appendix A.

A total of four temporary monitoring wells were installed between January 27 and February 9, 2005. Temporary monitoring well locations are shown on Figure 2. The wells were sampled for BTEX constituents, methyl-tert-butyl-ether (MTBE), and naphthalene. SB-6/TMW-1 exceeded the MCL for benzene with a concentration of 42 ppb. All petroleum constituents were reported to be below MCL/RBSL or laboratory detection limits in the remaining temporary wells. Analytical results for the temporary monitoring wells are tabulated below. Temporary monitoring well laboratory data sheets are included in Appendix B.

10817-C Two Notch Road
Elgin, SC 29045
(803) 788-4333
FAX (803)788-4555

Slug tests were completed in monitoring wells RMW-20 and MW-9. Slug test data and aquifer characteristics were entered into the computer software program, AQTESOLV v. 1.01. The average hydraulic conductivity for the shallow aquifer based on RMW-20 only was calculated to be 10.73 ft/yr. A seepage velocity could not be determined as no porosity data was available.

The hydraulic gradient was calculated using surveyed top of casing (TOC) elevations and static water levels obtained during the completion of this scope of work. Ground water levels are based on August 28, 2005 measurements. The primary ground-water flow direction appears radial to the central portion of the JJs site. The hydraulic gradient across the site from well RMW-5 to MW-8 was calculated to be 0.228 ft/ft. Details of these calculations are included in Appendix E.

It appears at this time that the site is adequately delineated in all directions with the exception of the area around MW-15 in which the benzene plume remains undefined. If you have any questions or comments about this information, please don't hesitate to call me at (803)788-4333.

Sincerely,

Jan Reynolds

Jan Reynolds, P. G.
Project Manager

cc: Mr. Frank Shumpert

Monitoring Well ID #	TOC Elevation (ft)	Screened Interval (ft)	Depth to Water (ft)	Water Table Elevation (ft)	Free Product Thickness (ft)
MW-1	102.14	30-40	32.12	70.02	
MW-2	100.00	70-80	78.10	Dry	
MW-3	98.08	24-34	Dry	Dry	
MW-4	NL	---	---	---	
MW-5	NL	---	---	---	
RMW-5	90.98	10-20	7.55	83.43	
MW-6	101.80	25-35	33.39	68.41*	0.15'
MW-7	101.88	32-42	35.02	66.86	
MW-8	96.40	30-40	38.00	58.40	
MW-9	95.22	33-43	34.40	60.82	
MW-10	100.02	30-35	30.74	69.28*	3.76'
MW-11	102.00	30-40	21.16	80.84	
MW-12	Abandoned	41-51	---	---	
MW-13	102.38	25-35	21.08	81.30	
MW-14	101.02	35-45	39.82	61.20	
MW-15	100.68	35-45	---	---	
MW-16	103.82	31-41	31.35	72.47	
MW-17	Abandoned	42-52	---	---	
RMW-17	Abandoned	25-35	---	---	
MW-18	Abandoned	41-51	---	---	
MW-19	96.48	51-61	52.61	43.87	
MW-20	Abandoned	55-65	---	---	
RMW-20	96.12	16-26	19.67	76.45	
MW-21	86.56	3-13	3.82	82.74	
DW-1	102.12	40-45	53.03	49.09	
DW-2	100.70	50-55	55.05	45.65	

Based on water levels collected August 28, 2005. RMW-20 sampled on 8/29/05
* = Free product, corrected water level
NL = Not located

Ground-water elevations and ground-water samples for BTEX, MTBE, lead, naphthalene, EDB, methane, nitrate, sulfate and ferrous iron were collected from all existing monitor wells and the newly installed wells that contained sufficient water for sampling purposes on August 25, 26 and 29, 2005. The three supply wells were sampled for BTEX, naphthalene and MTBE only. Prior to sampling, all wells were gauged for the presence of free product. Free phase product was detected in MW-10 (3.76') and MW-6 (0.15'). Ground water sampling procedures included: equipment decontamination, acquisition of water levels, and purging until stabilization occurred as determined by field analysis of temperature, pH, and conductivity or wells bailed dry with little recharge. A

***Temporary Monitor Well Analytical Data:* 02/07/05 & 02/24/05**

COC (ug/l)	RBSL	SB-6/TMW-1	SB-8/TMW-2	RMW-5/TMW-3	MW-18/TMW-4
Free Product Thickness (ft)	N/A	0	0	0	0
Benzene	5	**42**	BDL	BDL	BDL
Toluene	1,000	BDL	BDL	BDL	BDL
Ethylbenzene	700	BDL	BDL	BDL	BDL
Xylenes	10,000	46	BDL	BDL	BDL
MTBE	40	BDL	BDL	BDL	BDL
Naphthalene	25	BDL	BDL	BDL	BDL

Notes: 1) All values are expressed in ug/L.
2) RBSL values taken from RBCA Table B1.
3) Bolded values exceed RBSLs.
4) BDL = Below laboratory detection limits.

On the basis of field screening data DEA installed monitor wells MW-13-MW-21, RMW-17, RMW-5, RMW-20, DW-1 and DW-2 on January 12 through July 20, 2005 in SCDHEC preapproved locations. Detailed monitoring well construction and boring logs are presented in Appendix A. The screened intervals, top of casing (TOC) elevations, and potentiometric data for all wells are summarized below.

dissolved oxygen reading was recorded for each well containing sufficient water . Field measurements for each well were recorded on field data sheets, which are included as Appendix C. Ground water samples were collected with clean, disposable polyethylene bailers, placed in laboratory supplied containers, maintained at 4°C, and shipped overnight to a South Carolina certified laboratory for analysis. Proper preservation techniques and chain of custody documentation were followed throughout the sampling and analysis process.

Ground Water Analytical Data: **08/25/05, 08/26/05 & 8/29/05**

COC	RBSL (ug/l)	MW-1	MW-2	MW-3	MW-4
Free Product Thickness (ft)	NA	0	DRY	DRY	NL
Benzene	5	BDL	-	-	-
Toluene	1000	BDL	-	-	-
Ethylbenzene	700	BDL	-	-	-
Xylenes	10,000	BDL	-	-	-
Total BTEX	NA	BDL	-	-	-
Methane	-	BDL	-	-	-
Lead	15	17	-	-	-
MTBE	40	1.9	-	-	-
Naphthalene	25	BDL	-	-	-
EDB	0.01	BDL	-	-	-
Benzo(a)anthracene	10	BDL	-	-	-
Benzo(b)flouranthene	10	BDL	-	-	-
Benzo(k)flouranthene	10	BDL	-	-	-
Chrysene	10	BDL	-	-	-
Dibenz(a,h)anthracene	10	BDL	-	-	-
Ferrous Iron	NA	60	-	-	-
Nitrate	NA	2700	-	-	-
Sulfate	NA	BDL	-	-	-
Dissolved Oxygen	NA	5.0	-	-	-

COC	RBSL (ug/l)	MW-5	RMW-5	MW-6	MW-7
Free Product Thickness (ft)	**NA**	NL	0	0.15'	0
Benzene	**5**	-	BDL	-	BDL
Toluene	**1000**	-	BDL	-	BDL
Ethylbenzene	**700**	-	BDL	-	BDL
Xylenes	**10,000**	-	BDL	-	BDL
Total BTEX	**NA**	-	BDL	-	BDL
Methane	**-**	-	BDL	-	BDL
Lead	**15**	-	**1700**	-	**22**
MTBE	**40**	-	BDL	-	BDL
Naphthalene	**25**	-	BDL	-	BDL
EDB	**0.01**	-	BDL	-	BDL
Benzo(a)anthracene	**10**	-	BDL	-	BDL
Benzo(b)flouranthene	**10**	-	BDL	-	BDL
Benzo(k)flouranthene	**10**	-	BDL	-	BDL
Chrysene	**10**	-	BDL	-	BDL
Dibenz(a,h)anthracene	**10**	-	BDL	-	BDL
Ferrous Iron	**NA**	-	1220	-	80
Nitrate	**NA**	-	3000	-	1800
Sulfate	**NA**	-	400	-	200
Dissolved Oxygen	**NA**	-	3.6	-	5.2

COC	RBSL (ug/l)	MW-8	MW-9	MW-10	MW-11
Free Product Thickness (ft)	NA	0	0	3.76'	0
Benzene	5	210	3300	-	BDL
Toluene	1000	1200	7400	-	BDL
Ethylbenzene	700	440	610	-	24
Xylenes	10,000	3300	8900	-	34
Total BTEX	NA	5150	BDL	-	58
Methane	-	BDL	BDL	-	BDL
Lead	15	65	100	-	BDL
MTBE	40	29	500	-	BDL
Naphthalene	25	190	2500	-	13
EDB	0.01	BDL	5100	-	BDL
Benzo(a)anthracene	10	BDL	BDL	-	BDL
Benzo(b)flouranthene	10	BDL	BDL	-	BDL
Benzo(k)flouranthene	10	BDL	BDL	-	BDL
Chrysene	10	BDL	BDL	-	BDL
Dibenz(a,h)anthracene	10	BDL	BDL	-	BDL
Ferrous Iron	NA	370	23250	-	420
Nitrate	NA	2100	600	-	400
Sulfate	NA	BDL	500	-	1200
Dissolved Oxygen	NA	3.8	2.1	-	2.6

COC	RBSL (ug/l)	MW-12	MW-13	MW-14	MW-15
Free Product Thickness (ft)	**NA**	Abandoned	0	0	0
Benzene	**5**	-	BDL	BDL	20
Toluene	**1000**	-	BDL	BDL	BDL
Ethylbenzene	**700**	-	BDL	BDL	BDL
Xylenes	**10,000**	-	BDL	BDL	30
Total BTEX	**NA**	-	BDL	BDL	50
Methane	**-**	-	BDL	BDL	BDL
Lead	**15**	-	7.6	**1100**	**69**
MTBE	**40**	-	1.8	BDL	BDL
Naphthalene	**25**	-	BDL	BDL	BDL
EDB	**0.01**	-	BDL	BDL	**200**
Benzo(a)anthracene	**10**	-	BDL	BDL	BDL
Benzo(b)flouranthene	**10**	-	BDL	BDL	BDL
Benzo(k)flouranthene	**10**	-	BDL	BDL	BDL
Chrysene	**10**	-	BDL	BDL	BDL
Dibenz(a,h)anthracene	**10**	-	BDL	BDL	BDL
Ferrous Iron	**NA**	-	60	60	700
Nitrate	**NA**	-	2100	24200	1150
Sulfate	**NA**	-	200	BDL	200
Dissolved Oxygen	**NA**	-	4.8	7.5	3.8

COC	RBSL (ug/l)	MW-16	MW-17	RMW-17	MW-18
Free Product Thickness (ft)	**NA**	0	Abandoned	Abandoned	Abandoned
Benzene	**5**	BDL	-	-	-
Toluene	**1000**	BDL	-	-	-
Ethylbenzene	**700**	BDL	-	-	-
Xylenes	**10,000**	BDL	-	-	-
Total BTEX	**NA**	BDL	-	-	-
Methane	**-**	BDL	-	-	-
Lead	**15**	10	-	-	-
MTBE	**40**	BDL	-	-	-
Naphthalene	**25**	BDL	-	-	-
EDB	**0.01**	BDL	-	-	-
Benzo(a)anthracene	**10**	BDL	-	-	-
Benzo(b)flouranthene	**10**	BDL	-	-	-
Benzo(k)flouranthene	**10**	BDL	-	-	-
Chrysene	**10**	BDL	-	-	-
Dibenz(a,h)anthracene	**10**	BDL	-	-	-
Ferrous Iron	**NA**	230	-	-	-
Nitrate	**NA**	600	-	-	-
Sulfate	**NA**	BDL	-	-	-
Dissolved Oxygen	**NA**	5.9	-	-	-

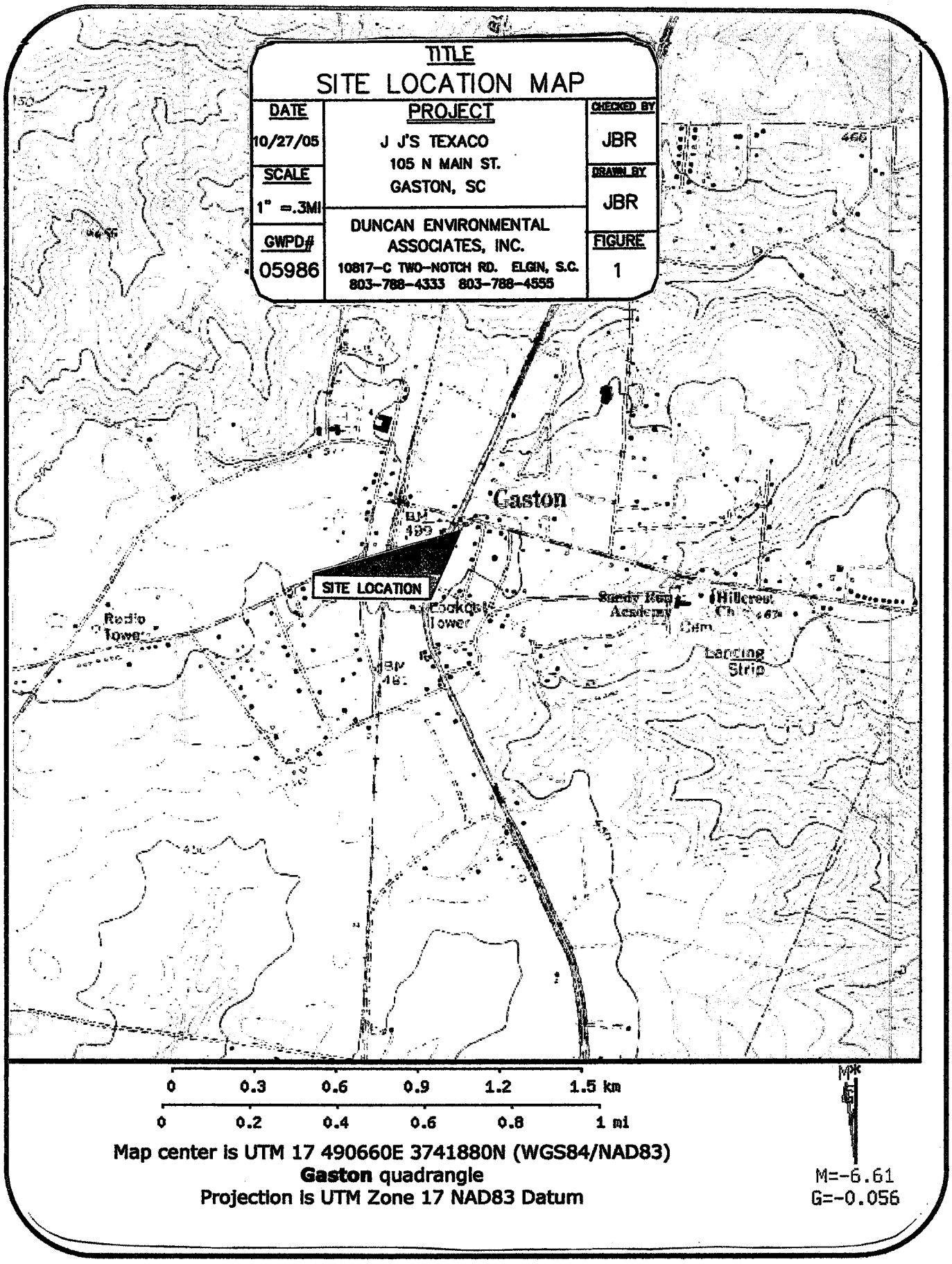
COC	RBSL (ug/l)	MW-19	MW-20	RMW-20	MW-21
Free Product Thickness (ft)	**NA**	0	Abandoned	0	0
Benzene	**5**	BDL	-	2.3	BDL
Toluene	**1000**	BDL	-	21	BDL
Ethylbenzene	**700**	BDL	-	BDL	BDL
Xylenes	**10,000**	BDL	-	BDL	BDL
Total BTEX	**NA**	BDL	-	23.3	BDL
Methane	**-**	BDL	-	BDL	BDL
Lead	**15**	21	-	330	860
MTBE	**40**	BDL	-	BDL	BDL
Naphthalene	**25**	BDL	-	BDL	BDL
EDB	**0.01**	BDL	-	BDL	BDL
Benzo(a)anthracene	**10**	BDL	-	BDL	BDL
Benzo(b)flouranthene	**10**	BDL	-	BDL	BDL
Benzo(k)flouranthene	**10**	BDL	-	BDL	BDL
Chrysene	**10**	BDL	-	BDL	BDL
Dibenz(a,h)anthracene	**10**	BDL	-	BDL	BDL
Ferrous Iron	**NA**	220	-	2195	220
Nitrate	**NA**	4800	-	3200	4300
Sulfate	**NA**	500	-	500	400
Dissolved Oxygen	**NA**	4.8	-	1.0	7.2

COC	RBSL (ug/l)	DW-1	DW-2	SUPPLY 1	SUPPLY 2	SUPPLY 3
Free Product Thickness (ft)	NA	0	0	0	0	0
Benzene	5	BDL	BDL	BDL	BDL	BDL
Toluene	1000	BDL	BDL	BDL	BDL	BDL
Ethylbenzene	700	BDL	BDL	BDL	BDL	BDL
Xylenes	10,000	BDL	BDL	BDL	BDL	BDL
Total BTEX	NA	BDL	BDL	BDL	BDL	BDL
Methane	-	-	-	-	-	-
Lead	15	-	-	-	-	-
MTBE	40	BDL	BDL	BDL	24	12
Naphthalene	25	40	BDL	BDL	BDL	BDL
EDB	0.01	-	-	-	-	-
Benzo(a)anthracene	10	-	-	-	-	-
Benzo(b)flouranthene	10	-	-	-	-	-
Benzo(k)flouranthene	10	-	-	-	-	-
Chrysene	10	-	-	-	-	-
Dibenz(a,h)anthracene	10	-	-	-	-	-
Ferrous Iron	NA	-	-	-	-	-
Nitrate	NA	-	-	-	-	-
Sulfate	NA	-	-	-	-	-
Dissolved Oxygen	NA	-	-	-	-	-

Notes: 1) All values are expressed in ug/l
2) RBSL values taken from RBCA Table B1.
3) NS = Not sampled

Free phase product was present in monitor wells MW-6 (0.15') and MW-10 (3.76') on the sampling dates. The ground-water results indicate that the MCL for lead was exceeded in all monitor wells with the exception of MW-11, MW-13 and MW-16. DW-1 and DW-2 did not contain sufficient water for lead analysis. The MCL for EDB was exceeded in monitor wells 9 and 15. The MCL/ RBSLs for benzene, toluene and naphthalene have been exceeded in monitor well MW-8; benzene, toluene, MTBE and naphthalene in monitor well MW-9, and naphthalene only in DW-1. All other wells are below the MCL/RBSL or laboratory detection levels or did not contain sufficient water to sample for all constituents. Groundwater Analytical Data Sheets are presented in Appendix D.

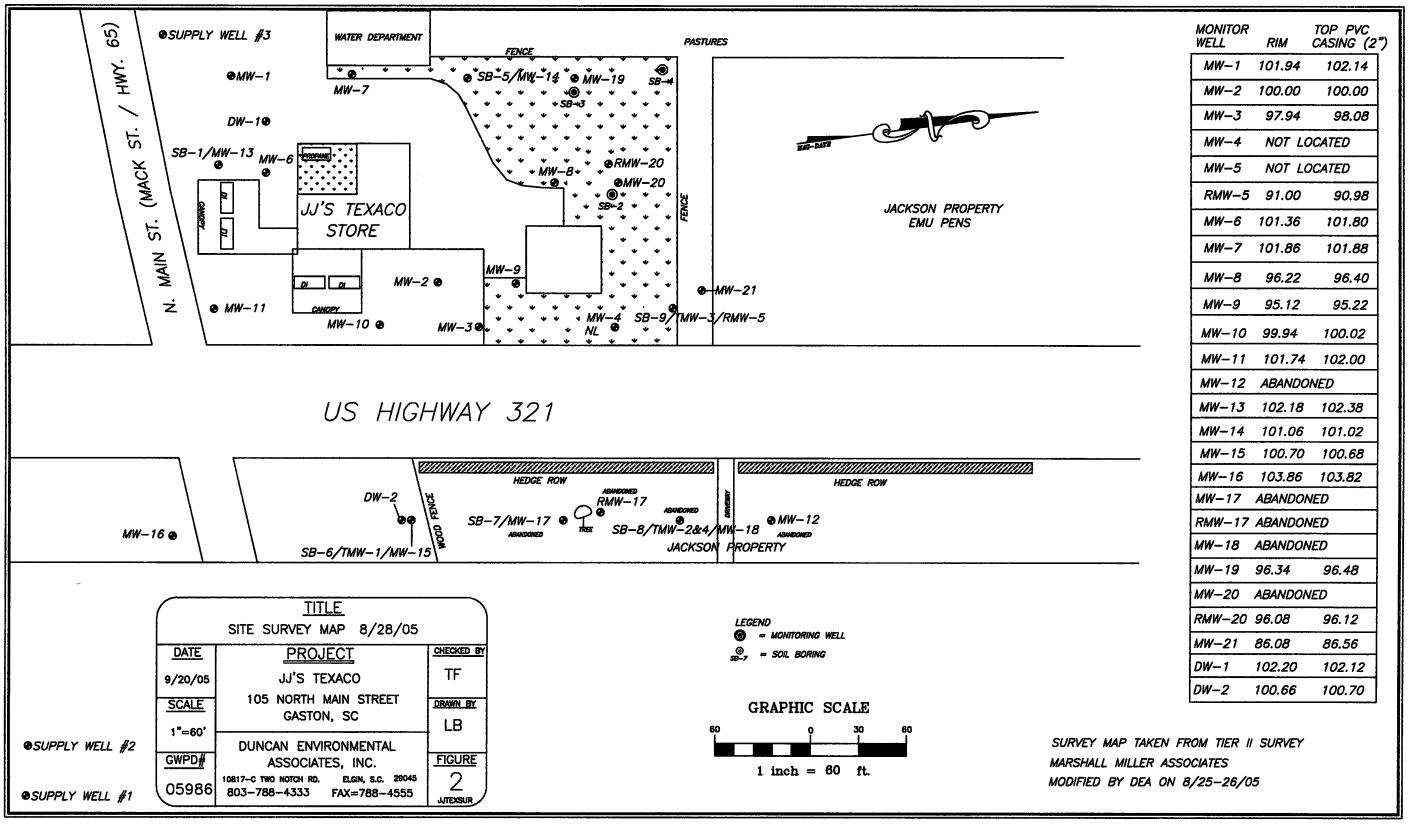
List of Figures



Map center is UTM 17 490660E 3741880N (WGS84/NAD83)

Gaston quadrangle

Projection is UTM Zone 17 NAD83 Datum



MONITOR WELL	RIM	TOP PVC CASING (2")
MW-1	101.94	102.14
MW-2	100.00	100.00
MW-3	97.94	98.08
MW-4	NOT LOCATED	
MW-5	NOT LOCATED	
RMW-5	91.00	90.98
MW-6	101.36	101.80
MW-7	101.86	101.88
MW-8	96.22	96.40
MW-9	95.12	95.22
MW-10	99.94	100.02
MW-11	101.74	102.00
MW-12	ABANDONED	
MW-13	102.18	102.38
MW-14	101.06	101.02
MW-15	100.70	100.68
MW-16	103.86	103.82
MW-17	ABANDONED	
RMW-17	ABANDONED	
MW-18	ABANDONED	
MW-19	96.34	96.48
MW-20	ABANDONED	
RMW-20	96.08	96.12
MW-21	86.08	86.56
DW-1	102.20	102.12
DW-2	100.66	100.70

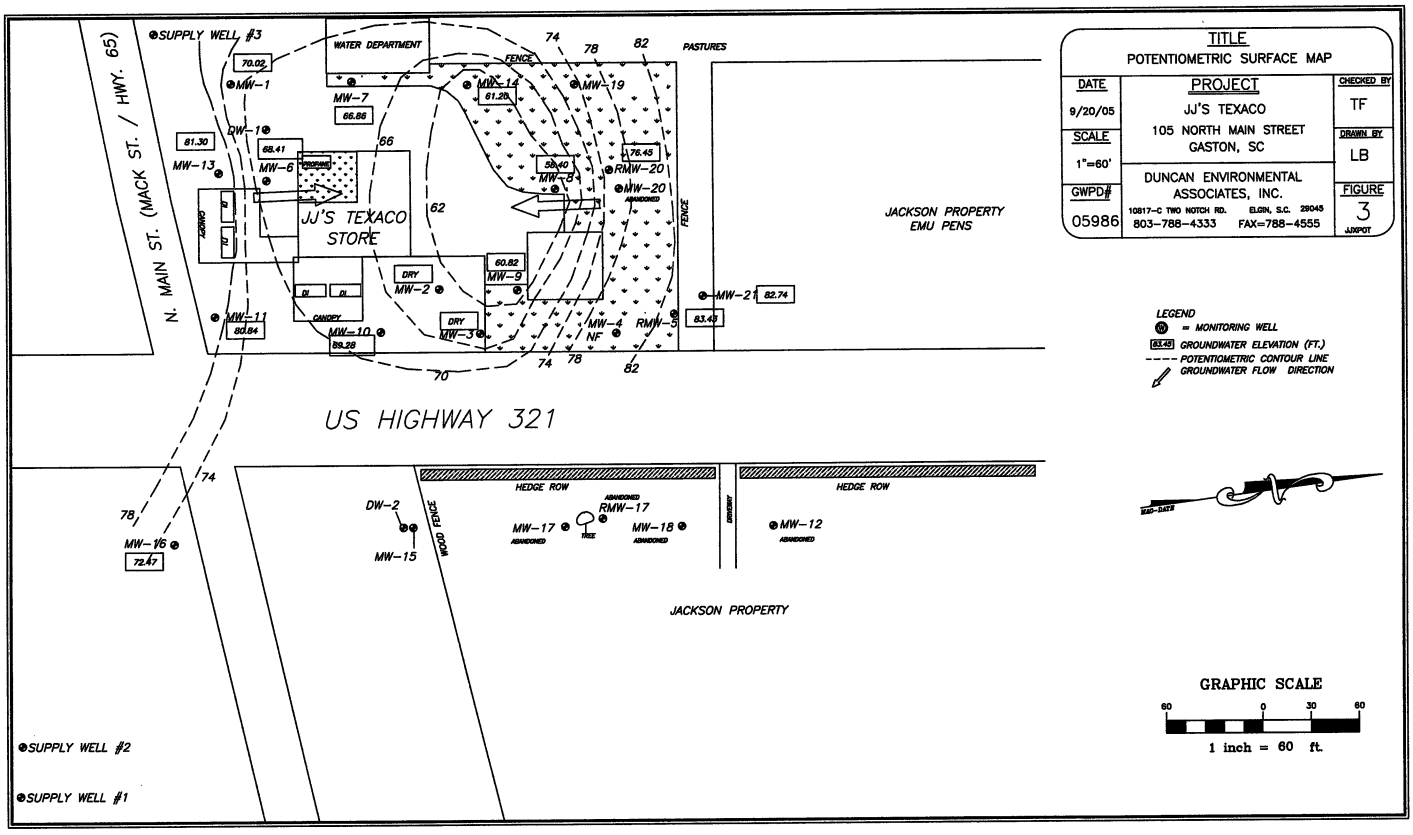
TITLE
SITE SURVEY MAP 8/28/05

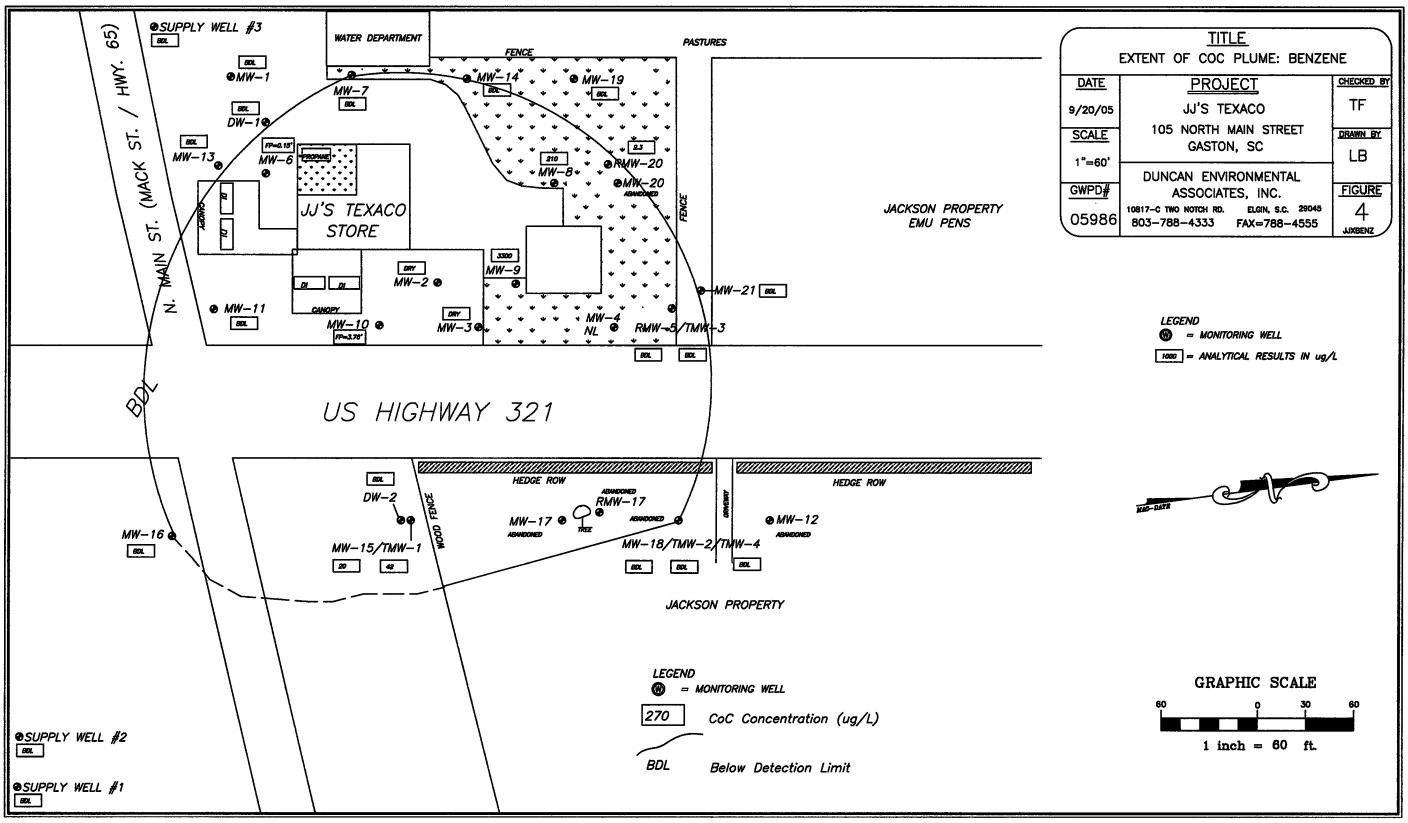
DATE	PROJECT	CHECKED BY
9/20/05	JJ'S TEXACO 105 NORTH MAIN STREET GASTON, SC	TF
SCALE		DRAWN BY
1"=60'		LB
GWPD#	DUNCAN ENVIRONMENTAL ASSOCIATES, INC.	FIGURE
05986	10817-C TWO NOTCH RD. ELGIN, S.C. 29045 803-788-4333 FAX=788-4555	2
		JJTEXSUR

LEGEND
MW = MONITORING WELL
SB-7 = SOIL BORING

GRAPHIC SCALE
60 0 30 60
1 inch = 60 ft.

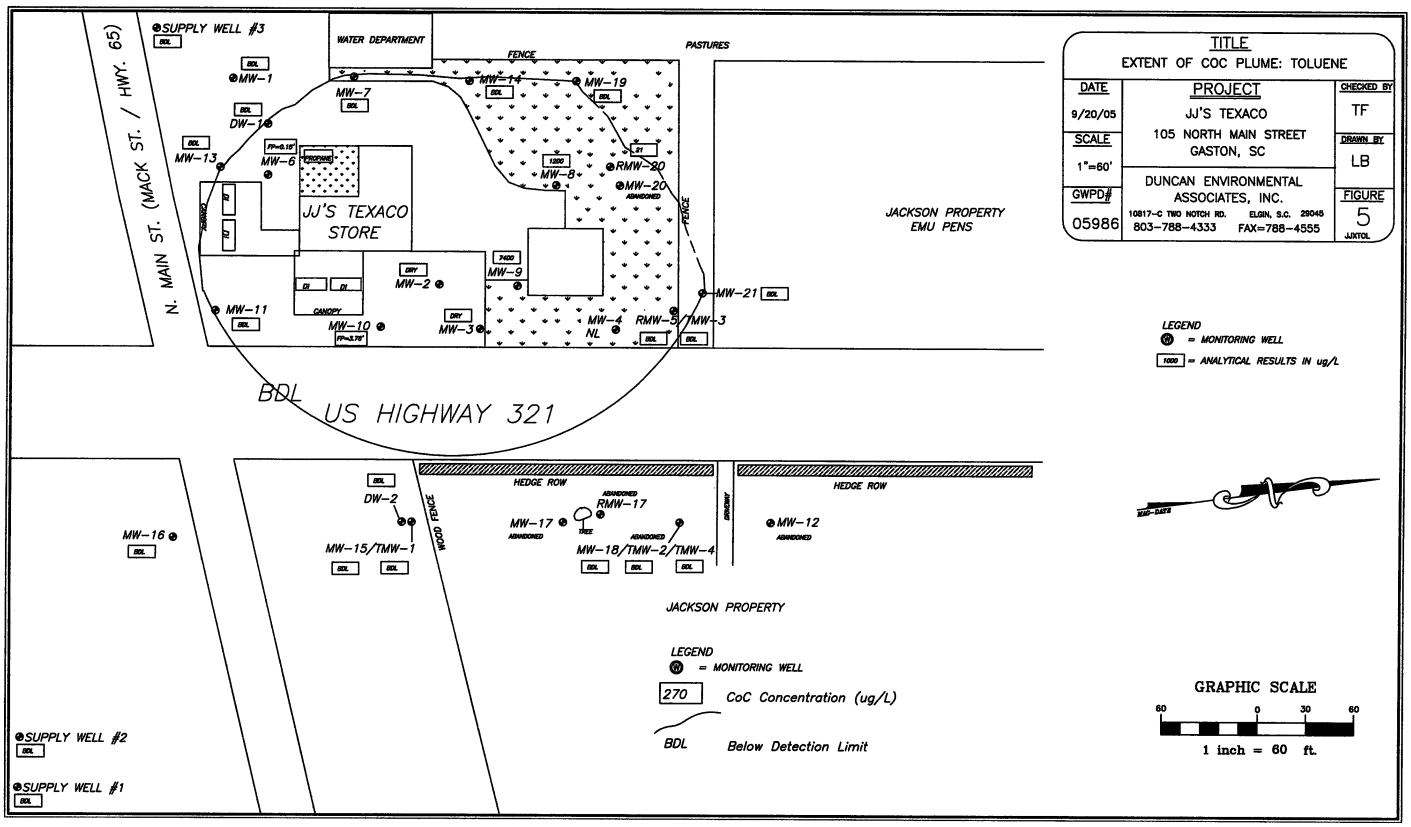
SURVEY MAP TAKEN FROM TIER II SURVEY
MARSHALL MILLER ASSOCIATES
MODIFIED BY DEA ON 8/25-26/05


TITLE
POTENTIOMETRIC SURFACE MAP
DATE
9/20/05
PROJECT
JJ'S TEXACO
105 NORTH MAIN STREET
GASTON, SC
CHECKED BY
TF
SCALE
1"=60'
DRAWN BY
LB
DUNCAN ENVIRONMENTAL ASSOCIATES, INC.
10817-C TWO NOTCH RD. ELGIN, S.C. 29045
803-788-4333 FAX-788-4555
GWPD#
05986
FIGURE
3
JJXPOT
SUPPLY WELL #3
WATER DEPARTMENT
FENCE
PASTURES
N. MAIN ST. (MACK ST. / HWY. 65)
JJ'S TEXACO STORE
CANOPY
JACKSON PROPERTY
EMU PENS
US HIGHWAY 321
HEDGE ROW
ABANDONED
TREE
DRIVEWAY
JACKSON PROPERTY
SUPPLY WELL #2
SUPPLY WELL #1
LEGEND
= MONITORING WELL
GROUNDWATER ELEVATION (FT.)
POTENTIOMETRIC CONTOUR LINE
GROUNDWATER FLOW DIRECTION
GRAPHIC SCALE
60 0 30 60
1 inch = 60 ft.



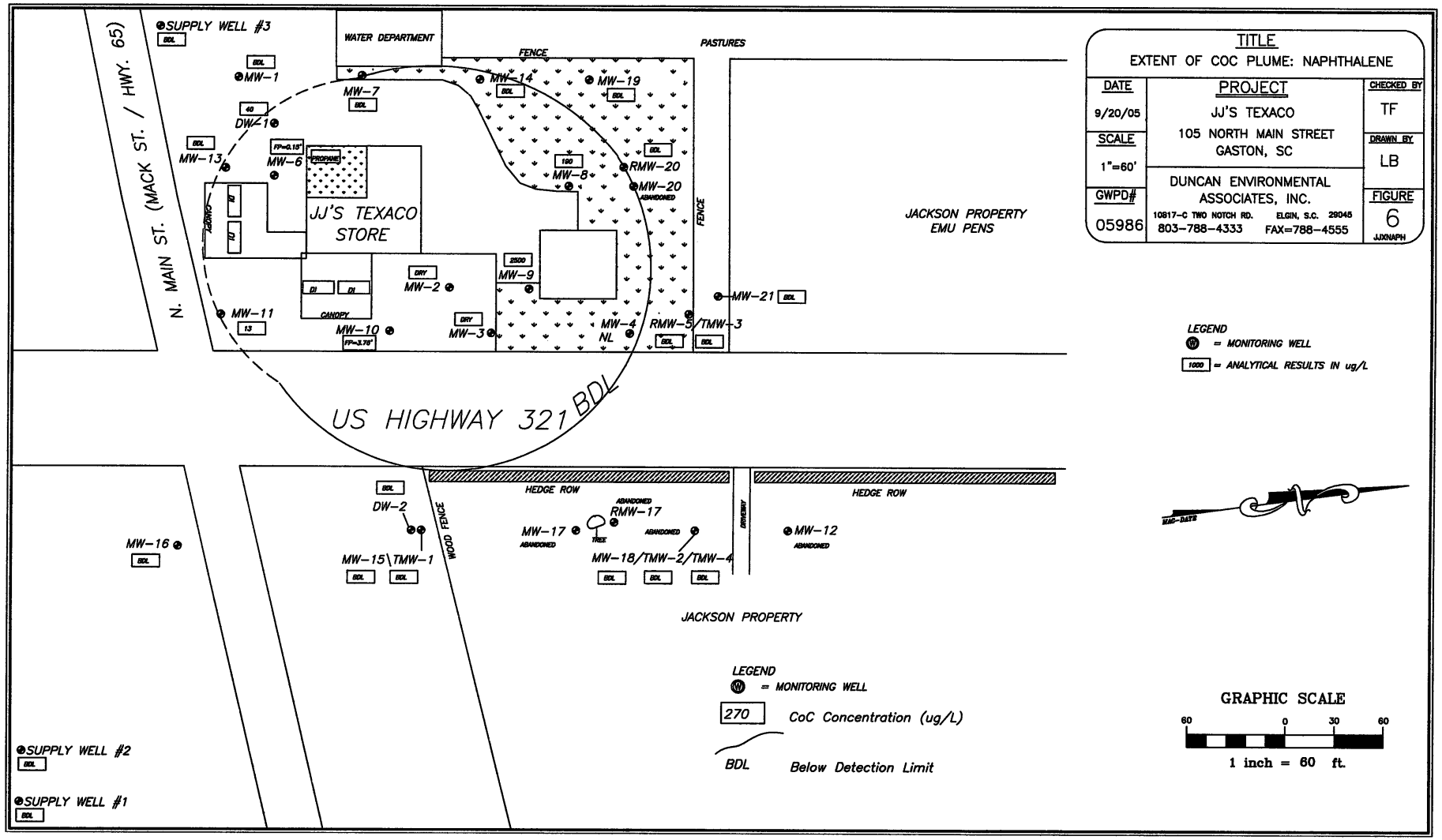
TITLE
EXTENT OF COC PLUME: BENZENE

DATE	PROJECT	CHECKED BY
9/20/05	JJ'S TEXACO 105 NORTH MAIN STREET GASTON, SC	TF
SCALE		DRAWN BY
1"=60'		LB
GWPD#	DUNCAN ENVIRONMENTAL ASSOCIATES, INC.	FIGURE
05986	10817-C TWO NOTCH RD. ELGIN, S.C. 29045 803-788-4333 FAX=788-4555	4 JJXBENZ



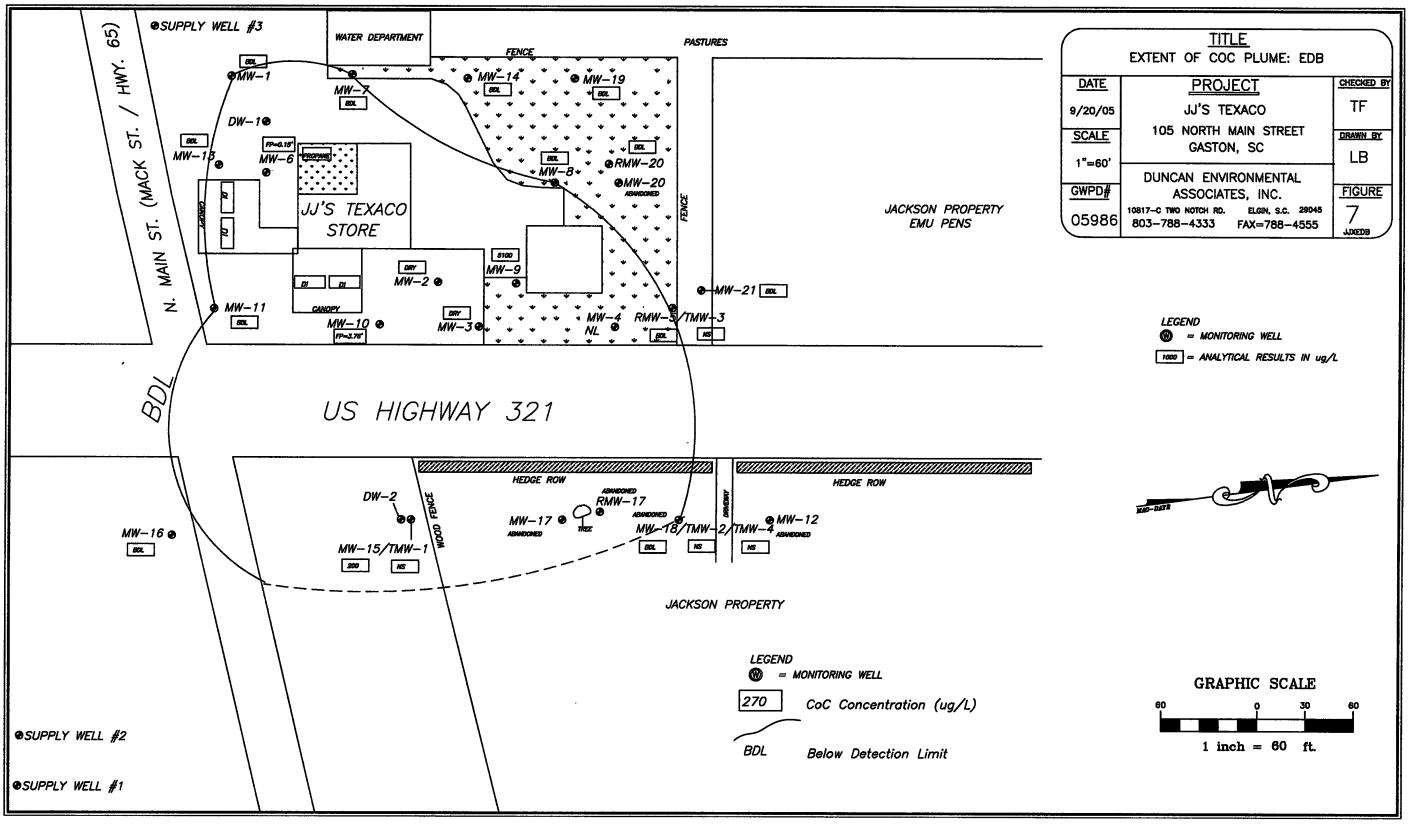
TITLE
EXTENT OF COC PLUME: TOLUENE

DATE	PROJECT	CHECKED BY
9/20/05	JJ'S TEXACO 105 NORTH MAIN STREET GASTON, SC	TF
SCALE		DRAWN BY
1"=60'		LB
GWPD#	DUNCAN ENVIRONMENTAL ASSOCIATES, INC.	FIGURE
05986	10817-C TWO NOTCH RD. ELGIN, S.C. 29045 803-788-4333 FAX=788-4555	5 JJXTOL



TITLE
EXTENT OF COC PLUME: NAPHTHALENE

DATE	PROJECT	CHECKED BY
9/20/05	JJ'S TEXACO 105 NORTH MAIN STREET GASTON, SC	TF
SCALE		DRAWN BY
1"=60'		LB
GWPD#	DUNCAN ENVIRONMENTAL ASSOCIATES, INC.	FIGURE
05986	10817-C TWO NOTCH RD. ELGIN, S.C. 29045 803-788-4333 FAX=788-4555	6 JJXNAPH

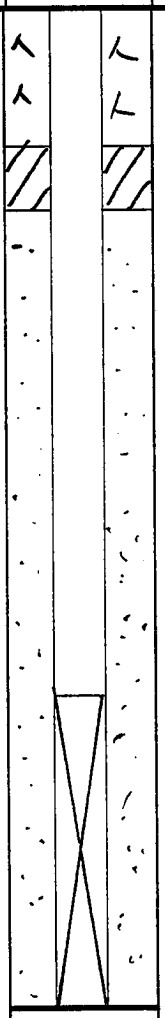

SUPPLY WELL #3
WATER DEPARTMENT
FENCE
PASTURES
N. MAIN ST. (MACK ST. / HWY. 65)
MW-1
MW-7
MW-14
MW-19
DW-1
MW-13
MW-6
RMW-20
MW-8
MW-20
ABANDONED
JJ'S TEXACO STORE
JACKSON PROPERTY EMU PENS
MW-9
MW-2
MW-21
MW-11
MW-10
MW-3
MW-4
NL
RMW-3/TMW-3
BDL
US HIGHWAY 321
HEDGE ROW
DW-2
RMW-17
ABANDONED
MW-16
MW-17
ABANDONED
MW-18/TMW-2/TMW-4
MW-12
ABANDONED
MW-15/TMW-1
JACKSON PROPERTY
SUPPLY WELL #2
SUPPLY WELL #1
LEGEND
= MONITORING WELL
270 CoC Concentration (ug/L)
BDL Below Detection Limit
TITLE
EXTENT OF COC PLUME: EDB
DATE 9/20/05
PROJECT
JJ'S TEXACO
105 NORTH MAIN STREET
GASTON, SC
CHECKED BY TF
SCALE 1"=60'
DRAWN BY LB
GWPD# 05986
DUNCAN ENVIRONMENTAL ASSOCIATES, INC.
10817-C TWO NOTCH RD. ELGIN, S.C. 29045
803-788-4333 FAX=788-4555
FIGURE 7
LEGEND
= MONITORING WELL
= ANALYTICAL RESULTS IN ug/L
GRAPHIC SCALE
60 0 30 60
1 inch = 60 ft.

List of Appendices

Appendix A
Soil Boring & Monitoring Well Construction Logs

Site Name: **JJ's Texaco**	Location: **105 N. Main St.**		Well No. **SB-1\MW-13**
City: **Gaston**	County: **Lexington**	State: **SC**	Logged By: **L. Baxley**
Latitude: **33°49'03"**	Drilled By: **T. Faller @ Duncan Environmental Assoc., Inc.**		Date: **1/12/05**
Longitude: **81°06'04"**	State License No. **908**		
Static Water Level: **21.08' on 8/28/05**	TOC Elev.: **102.38'**		Sampling Method: **Grab**
Drilling Method: **Solid Stem Auger**		Development Method: **Bail / Surge**	
Grout: **Cement 0-2'**	Seal: **Bentonite 2-3'**		Gravel Pack: **Sand 3-35'**
Casing Type: **PVC Schedule 40**	Diameter: **2"**	Depth: **0-25'**	Hole Diameter: **5"**
Screen Type: **PVC Schedule 40** Slot Size: **0.010**	Diameter: **2"**	Depth: **25-35'**	Total Depth: **35'**

Depth (ft)	Remarks: Located in front of the store, along N. Main St.	Well Completion	OVA (ppm)	Odors
0	Asphalt			
-	Red fine grained sand.			
1				
-				
2				
-				
3				
-				
10	Orange fine grained sand.			
-				
12				
-				
14				
-				
16				
-				
18	Orange clayey sand.			
-				
20				
-	Orange sandy clay.			
22				
-				
24				
-				
26				
-				
28				
-				
30				
-				
32				
-				
34				
-	Total well depth.			
36				
-				
38				
-				
40				
-				
42				



Site Name: **JJ's Texaco**	Location: **105 N. Main St.**	Well No. **SB-2**

City: **Gaston**	County: **Lexington**	State: **SC**	Logged By: **L. Baxley**

Latitude: 33°49'03"	Drilled By: **T. Faller @ Duncan Environmental Assoc., Inc.**	Date: **1/19/05**
Longitude: 81°06'04"	State License No. **908** Ted Faller	

Static Water Level: **NA**	TOC Elev.: **NA**	Sampling Method: **Grab**

Drilling Method: **Solid Stem Auger**	Development Method: **NA**

Grout: **NA**	Seal: **NA**	Gravel Pack: **NA**

Casing Type: **NA**	Diameter: **NA**	Depth: **NA**	Hole Diameter: **5"**

Screen Type: **NA**	Slot Size: **NA**	Diameter: **NA**	Depth: **NA**	Total Depth: **55'**

Depth (ft)	Remarks: NW section near the fence.	Well Completion	OVA (ppm)	Odors
0	Brown fine grained sand.			
-				
4				
-				
8	Orange fine grained sand.			
-				
10				
-				
12	Brownish tan fine grained sand. Very slight clay.			
-				
14	Brownish tan fine grained sandy clay.			
-				
16				
-				
18				
-				
20				
-				
25	Yellow fine grained clayey sand.			
-				
30	Orange sandy clay.			
-				
35	Stiff brown to tan fine grained sandy clay.			
-				
40				
-				
46	Yellow fine grained sand.			
-				
50				
-				
55	Total drilled depth. No water.		32	Strong
-				
60				
-				
65				
-				
70				
-				
75				
-				

Site Name: **JJ's Texaco**	Location: **105 N. Main St.**	Well No. **SB-3**

City: **Gaston**	County: **Lexington**	State: **SC**	Logged By: **L. Baxley**

Latitude: **33°49'03"**	Drilled By: **T. Faller @ Duncan Environmental Assoc., Inc.**	Date: **1/20/05**
Longitude: **81°06'04"**	State License No. **908** Ted Faller	

Static Water Level: **NA**	TOC Elev.: **NA**	Sampling Method: **Grab**

Drilling Method: **Solid Stem Auger**	Development Method: **NA**

Grout: **NA**	Seal: **NA**	Gravel Pack: **NA**

Casing Type: **NA**	Diameter: **NA**	Depth: **NA**	Hole Diameter: **5"**

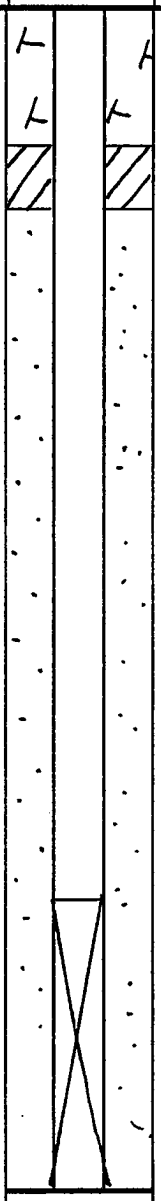
Screen Type: **NA**	Slot Size: **NA**	Diameter: **NA**	Depth: **NA**	Total Depth: **55'**

Depth (ft)	Remarks: Inside white fence, 20' north of the storage trailers.	Well Completion	OVA (ppm)	Odors
0	Dark brown fine grained sand.			
-				
3	Tan to yellow to dark brown fine grained sand.			
-				
8	Orange fine grained sand.			
-				
10				
-				
13	Rusty orange fine grained sand.			
-				
15				
-				
20	Brown fine grained sand.			
-				
25				
-				
27	Brown fine grained sand with slight clay.			
-				
29	Brown fine grained sandy clay.			
-				
30				
-				
35				
-				
40	Purple coarse grained sandy clay.			
-				
45				
-				
50				
-				
55	Total drilled depth. No water.		32	Strong
-				
60				
-				
65				
-				
70				
-				
75				
-				

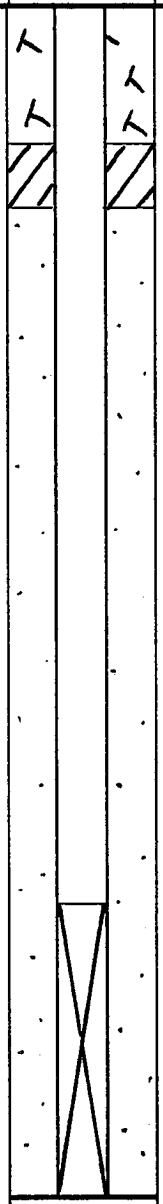
Site Name: **JJ's Texaco**	Location: **105 N. Main St.**		Well No. **SB-4**
City: **Gaston**	County: **Lexington**	State: **SC**	Logged By: **L. Baxley**
Latitude: 33°49'03"	Drilled By: **T. Faller @ Duncan Environmental Assoc., Inc.**		Date: **1/25/05**
Longitude: 81°06'04"	State License No. **908** Ted Faller		
Static Water Level: **NA**	TOC Elev.: **NA**	Sampling Method: **Grab**	
Drilling Method: **Solid Stem Auger**	Development Method: **NA**		
Grout: **NA**	Seal: **NA**	Gravel Pack: **NA**	
Casing Type: **NA**	Diameter: **NA**	Depth: **NA**	Hole Diameter: **5"**
Screen Type: **NA**	Slot Size: **NA**	Diameter: **NA**	Depth: **NA**	Total Depth: **70'**

Depth (ft)	Remarks: Very far north west corner.	Well Completion	OVA (ppm)	Odors
0	Tan to light brown fine grained sand.			
-				
3				
-				
8	Dark brown fine grained sand with increasing clay and moisture.			
-				
10				
-				
13	Reddish brown fine grained sandy clay.			
-				
15				
-				
20				
-				
25				
-				
26	Yellow fine grained sand with fingers of clay.			
-				
28	Very moist and pliable brown fine grained sandy clay. No water.			
-				
30				
-				
35				
-				
40				
-				
43	Yellow fine grained sand.			
-				
50				
-				
55	Yellow to white fine grained sand.			
-				
60				
-				
65				
-				
70	Total drilled depth. No water.			
-				
75				
-				

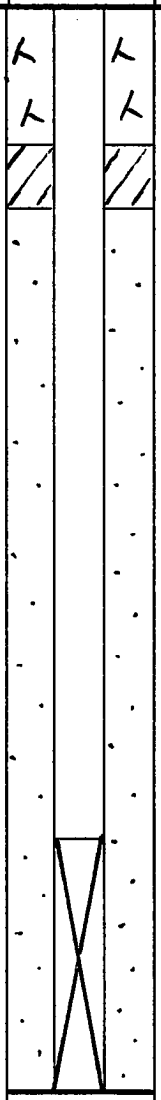
Site Name: **JJ's Texaco**	Location: **105 N. Main St.**		Well No. **SB-5/MW-14**
City: **Gaston**	County: **Lexington**	State: **SC**	Logged By: **L. Baxley**
Latitude: **33°49'03"**	Drilled By: **T. Faller @ Duncan Environmental Assoc., Inc.**		Date: **1/25/05**
Longitude: **81°06'04"**	State License No. **908** Ted Faller		
Static Water Level: **39.82' on 8/28/05**	TOC Elev.: **101.02'**	Sampling Method: **Grab**	
Drilling Method: **Mud Rotory**	Development Method: **Bail / Surge**		
Grout: **Cement 0-2'**	Seal: **Bentonite 2-3'**	Gravel Pack: **Sand 3-45'**	
Casing Type: **PVC Schedule 40**	Diameter: **2"**	Depth: **0-35'**	Hole Diameter: **5"**
Screen Type: **PVC Schedule 40** Slot Size: **0.010**	Diameter: **2"**	Depth: **35-45'**	Total Depth: **45'**

Depth (ft)	Remarks: Close to back fence.	Well Completion	OVA (ppm)	Odors
0	Tan fine grained sand.			
-				
1				
-				
2				
-				
3				
-				
6				
-	Tan to light brown fine grained sand.			
8	Rust to yellow fine grained sand, with moisture.			
-				
12				
-				
16				
-				
18				
-				
20				
-				
23	Brown fine grained sandy clay.			
-				
24				
-				
28				
-				
30				
-				
32	Tan fine grained sandy clay.			
-				
35				
-				
38				
-				
40				
-				
42				
-				
44				
-	Total well depth.			
46				

Site Name: **JJ's Texaco**	Location: **105 N. Main St.**		Well No. **SB-6 \ TMW-1 \ MW-15**
City: **Gaston**	County: **Lexington**	State: **SC**	Logged By: **L. Baxley**
Latitude: **33°49'03"**	Drilled By: **T. Faller @ Duncan Environmental Assoc., Inc.**		Date: **1/27/05**
Longitude: **81°06'04"**	State License No. **908**		
Static Water Level: **NA**	TOC Elev.: **100.68'**		Sampling Method: **Grab**
Drilling Method: **Solid Stem Auger**	Development Method: **Bail / Surge**		
Grout: **Cement 0-2'**	Seal: **Bentonite 2-3'**		Gravel Pack: **Sand 3-45'**
Casing Type: **PVC Schedule 40**	Diameter: **2"**	Depth: **0-35'**	Hole Diameter: **5"**
Screen Type: **PVC Schedule 40**	Slot Size: **0.010**	Diameter: **2"**	Depth: **35-45'**	Total Depth: **45'**

Depth (ft)	Remarks: Across Hwy. 321, next to Amick Guns.	Well Completion	OVA (ppm)	Odors
0	Brown fine grained sand.			
-				
1				
-				
2				
-				
3				
-				
5	Tan fine grain sand.			
-				
8	Orange to tan stiffer fine grained sand.			
-				
12	Brown fine grained clayey sand.			
-				
15	Brown fine grained sandy clays with fingers of purple clay.			
-				
18				
-				
20				
-				
23				
-				
24				
-				
28				
-				
30				
-				
32				
-				
35				
-				
38				
-				
40				
-				
42				
-				
44				
-	Total well depth.			
46				

Site Name: **JJ's Texaco**	Location: **105 N. Main St.**		Well No.**MW-16**
City: **Gaston**	County: **Lexington**	State: **SC**	Logged By: **L. Baxley**
Latitude: **33°49'03"**	Drilled By: **T. Faller @ Duncan Environmental Assoc., Inc.**		Date: **2/22/05**
Longitude: **81°06'04"**	State License No. **908**		
Static Water Level: **31.35' on 8/28/05**	TOC Elev.: **103.82'**	Sampling Method: **Grab**	
Drilling Method: **Solid Stem Auger**	Development Method: **Bail / Surge**		
Grout: **Cement 0-2'**	Seal: **Bentonite 2-3'**	Gravel Pack: **Sand 3-41'**	
Casing Type: **PVC Schedule 40**	Diameter: **2"**	Depth: **0-31'**	Hole Diameter: **5"**
Screen Type: **PVC Schedule 40** Slot Size: **0.010**	Diameter: **2"**	Depth: **31-41'**	Total Depth: **41'**

Depth (ft)	Remarks: In the SE corner of the intersection at the church.	Well Completion	OVA (ppm)	Odors
0	Gravel.			
-	Tan \ brown fine grained sand.			
1				
-				
2				
-				
3				
-				
6				
-				
8	Stiff reddish \ brown fine grained sand with increasing clay content.			
-				
10	Stiff reddish \ brown fine to coarse grained sandy clay.			
-				
14	Stiff reddish \ brown fine grained moist sandy clay.			
-				
18				
-				
20				
-				
22	Tan fine grained sandy clay.			
-				
24				
-				
28				
-				
30				
-				
32				
-				
35				
-				
38				
-				
40				
-				
41	Total well depth.			
-				
42				
-				
43				

Site Name: **JJ's Texaco**	Location: **105 N. Main St.**	Well No. **SB-7\ TMW-2\MW-17**

City: **Gaston**	County: **Lexington**	State: **SC**	Logged By: **L. Baxley**

Latitude: **33°49'03"**	Drilled By: **T. Faller @ Duncan Environmental Assoc., Inc.**	Date: **1/31/05**
Longitude: **81°06'04"**	State License No. **908** T. D. Faller	

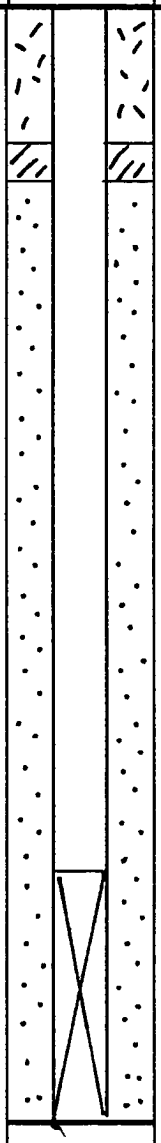
Static Water Level: **Abandoned**	TOC Elev.: **NA**	Sampling Method: **Grab**

Drilling Method: **Solid Stem Auger**	Development Method: **Bail / Surge**

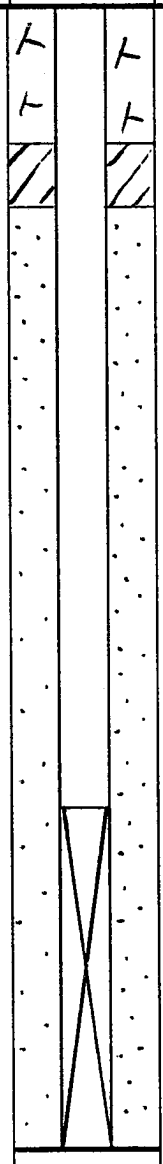
Grout: **Cement 0-2'**	Seal: **Bentonite 2-3'**	Gravel Pack: **Sand 3-52'**

Casing Type: **PVC Schedule 40**	Diameter: **2"**	Depth: **0-42'**	Hole Diameter: **5"**

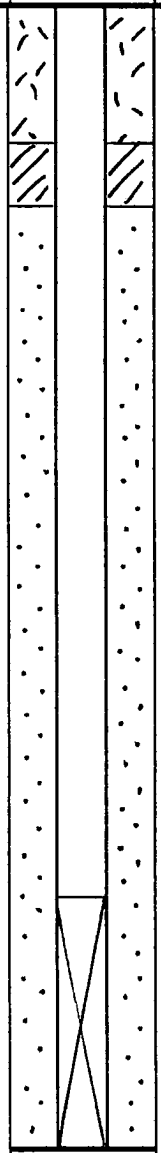
Screen Type: **PVC Schedule 40**	Slot Size: **0.010**	Diameter: **2"**	Depth: **42-52'**	Total Depth: **52'**

Depth (ft)	Remarks: Approx. 90' east of SB-6.	Well Completion	OVA (ppm)	Odors
0	Tan to brown fine grained sand.			
-				
1				
-				
2				
-				
3				
-				
6				
-	Orange to brown fine grained clayey sand.			
8				
-	Brown fine to coarse grained stiff sandy clay.			
10				
-	Orange to red fine grained sandy clay.			
12				
-				
17	Red to orange coarse grained sandy clay.			
-				
20				
-				
26				
-				
28				
-				
30				
-				
35				
-				
40				
-				
42				
-				
46				
-				
48				
-				
50				
-				
52	Total well depth.			
-				
54				

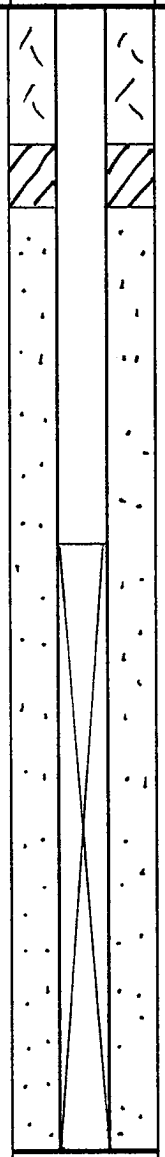
Site Name: **JJ's Texaco**	Location: **105 N. Main St.**		Well No. **RMW-17**
City: **Gaston**	County: **Lexington**	State: **SC**	Logged By: **L. Baxley**
Latitude: **33°49'03"**	Drilled By: **T. Faller @ Duncan Environmental Assoc., Inc.**		Date: **06/16/05**
Longitude: **81°06'04"**	State License No. **908** Ted Faller		
Static Water Level: **Abandoned**	TOC Elev.: **NA**	Sampling Method: **Grab**	
Drilling Method: **Solid Stem Auger**	Development Method: **Bail / Surge**		
Grout: **Cement 0-2'**	Seal: **Bentonite 2-3'**	Gravel Pack: **Sand 3-35'**	
Casing Type: **PVC Schedule 40**	Diameter: **2"**	Depth: **0-25'**	Hole Diameter: **5"**
Screen Type: **PVC Schedule 40** Slot Size: **0.010**	Diameter: **2"**	Depth: **25-35'**	Total Depth: **35'**

Depth (ft)	Remarks: Next to the Pine tree, between MW-17 and MW-18.	Well Completion	OVA (ppm)	Odors
0	Tan fine grained sand.			
-				
1				
-				
2				
-				
3	Orange to tan fine grained sand.			
-				
6	Reddish/orange fine grained clayey sand.			
-				
8				
-				
10	Tan fine grained sandy clay.			
-				
12				
-				
14				
-				
16				
-				
18				
-				
20				
-				
22				
-				
24				
-				
26				
-				
28				
-				
30				
-				
32				
-				
34				
-				
35	Total well depth.			
-				
36				

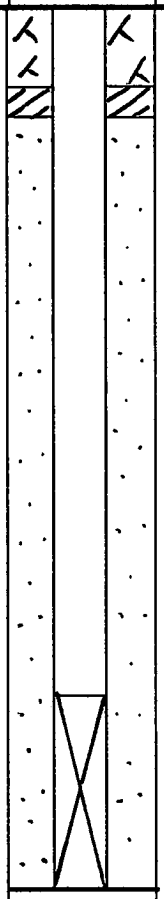
Site Name: **JJ's Texaco**	Location: **105 N. Main St.**		Well No. **SB-8 \ TMW-4 \ MW-18**
City: **Gaston**	County: **Lexington**	State: **SC**	Logged By: **L. Baxley**
Latitude: **33°49'03"**	Drilled By: **T. Faller @ Duncan Environmental Assoc., Inc.**		Date: **2/9/05**
Longitude: **81°06'04"**	State License No. **908** T. Faller		
Static Water Level: **Abandoned**	TOC Elev.: **NA**		Sampling Method: **Grab**
Drilling Method: **Solid Stem Auger**		Development Method: **Bail / Surge**	
Grout: **Cement 0-2'**	Seal: **Bentonite 2-3'**		Gravel Pack: **Sand 3-51'**
Casing Type: **PVC Schedule 40**	Diameter: **2"**	Depth: **0-41'**	Hole Diameter: **5"**
Screen Type: **PVC Schedule 40** Slot Size: **0.010**	Diameter: **2"**	Depth: **41-51'**	Total Depth: **51'**

Depth (ft)	Remarks: Across Hwy 321, at the private property drive.	Well Completion	OVA (ppm)	Odors
0	Grey to brown fine grained sand.			
-				
1				
-				
2	Tan fine grained sand.			
-				
3				
-				
4				
-	Red to tan fine grained sand with slight clay.			
6				
-	Red fine grained sandy clay.			
8				
-				
12				
-				
17				
-				
20				
-				
26				
-				
28				
-				
30	Tan fine to coarse grained clayey sand.			
-				
35				
-				
40				
-				
42				
-	Tan to purple fine to coarse grained sandy clay.			
46				
-				
48				
-				
50				
-				
51	Total well depth.			
-				
54				

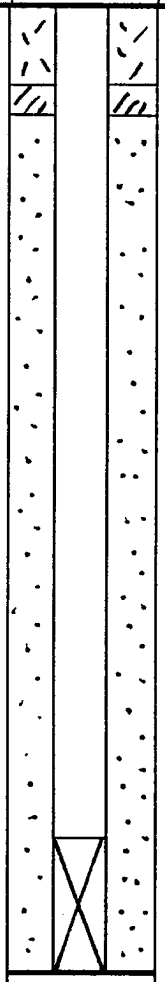
Site Name: **JJ's Texaco**	Location: **105 N. Main St.**		Well No. **SB-9 \ TMW-3 \ \RMW-5**
City: **Gaston**	County: **Lexington**	State: **SC**	Logged By: **L. Baxley**
Latitude: **33°49'03"**	Drilled By: **T. Faller @ Duncan Environmental Assoc., Inc.**		Date: **2/4/05**
Longitude: **81°06'04"**	State License No. **908**		
Static Water Level: **7.55' on 8/28/05**	TOC Elev.: **90.98'**		Sampling Method: **Grab**
Drilling Method: **Solid Stem Auger**	Development Method: **Bail / Surge**		
Grout: **Cement 0-2'**	Seal: **Bentonite 2-3'**		Gravel Pack: **Sand 3-20'**
Casing Type: **PVC Schedule 40**	Diameter: **2"**	Depth: **0-10'**	Hole Diameter: **5"**
Screen Type: **PVC Schedule 40** Slot Size: **0.010**	Diameter: **2"**	Depth: **10-20'**	Total Depth: **20'**

Depth (ft)	Remarks: Replacement well for MW-5.	Well Completion	OVA (ppm)	Odors
0	Brown fine grained sand.			
-				
1				
-				
2				
-				
3	Tan to white fine grained sand.			
-				
4				
-	Light tan stiff and moist fine grained clayey sand.			
6				
-				
7				
-				
8	Orange fine grained sandy clay with increasing moisture.			
-				
9				
-				
10				
-				
11				
-				
12				
-				
13				
-				
14				
-				
15				
-				
16	Very moist orange fine grained sandy clay.			
-				
17				
-				
18	Purple silty clay with decreasing moisture.			
-				
19				
-				
20	Total well depth.			
-				
21				

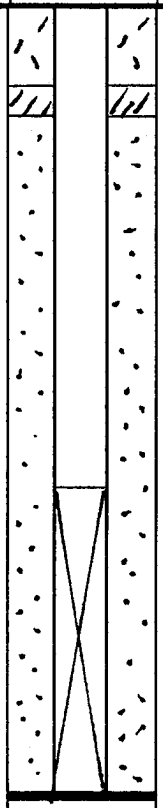
Site Name: **JJ's Texaco**	Location: **105 N. Main St.**		Well No. **MW-19**
City: **Gaston**	County: **Lexington**	State: **SC**	Logged By: **L. Baxley**
Latitude: **33°49'03"**	Drilled By: **T. Faller @ Duncan Environmental Assoc., Inc.**		Date: **3/31/05**
Longitude: **81°06'04"**	State License No. **908**		
Static Water Level: **52.61' on 8/28/05**	TOC Elev.: **96.48'**	Sampling Method: **Grab**	
Drilling Method: **Mud Rotory**	Development Method: **Bail / Surge**		
Grout: **Cement 0-2'**	Seal: **Bentonite 2-3'**	Gravel Pack: **Sand 3-61'**	
Casing Type: **PVC Schedule 40**	Diameter: **2"**	Depth: **0-51'**	Hole Diameter: **5"**
Screen Type: **PVC Schedule 40**	Slot Size: **0.010**	Diameter: **2"**	Depth: **51-61'**	Total Depth: **61'**

Depth (ft)	Remarks: In place of SB-3.	Well Completion	OVA (ppm)	Odors
0	Dark brown fine grained sand.			
-				
2				
-	Tan to yellow to dark brown fine grained sand.			
4				
-				
8	Orange fine grained sand.			
-				
13	Rusty orange fine grained sand.			
-				
20	Brown fine grained sand.			
-				
27	Brown fine grained sand with slight clay.			
-				
29	Brown fine grained sandy clay.			
-				
35	Stiff brown to tan fine grained sandy clay.			
-				
40	Purple coarse grained sandy clay.			
-				
46	Yellow fine grained sand.			
-				
50				
-				
52				
-				
55				
-				
60				
-	Total well depth.			
62				
-				
70	Tan very fine grained sand.			
80				
90				
100				
108	White silty very fine gained sandy clay.			
110				
120	Total drilled depth.			
125				
130				

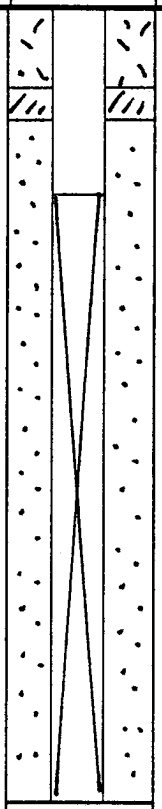
Site Name: **JJ's Texaco**	Location: **105 N. Main St.**		Well No. **MW-20**
City: **Gaston**	County: **Lexington**	State: **SC**	Logged By: **L. Baxley**
Latitude: **33°49'03"**	Drilled By: **T. Faller @ Duncan Enyironmental Assoc., Inc.**		Date: **3/31/05**
Longitude: **81°06'04"**	State License No. **908**		
Static Water Level: **Abandoned**	TOC Elev.: **NA**		Sampling Method: **Grab**
Drilling Method: **Solid stem auger**		Development Method: **Bail / Surge**	
Grout: **Cement 0-2'**	Seal: **Bentonite 2-3'**		Gravel Pack: **Sand 3-65'**
Casing Type: **PVC Schedule 40**	Diameter: **2"**	Depth: **0-55'**	Hole Diameter: **5"**
Screen Type: **PVC Schedule 40** Slot Size: **0.010**	Diameter: **2"**	Depth: **55-65'**	Total Depth: **65'**

Depth (ft)	Remarks: In place of SB-2.	Well Completion	OVA (ppm)	Odors
0	Brown fine grained sand.			
-				
2				
-				
4				
-				
6				
-				
8	Orange fine grained sand.			
-				
12	Brownish tan fine grained sand. Very slight clay.			
-				
14	Brownish tan fine grained sandy clay.			
-				
20				
-				
25	Yellow fine grained clayey sand.			
-				
30	Orange sandy clay.			
-				
35	Stiff brown to tan fine grained sandy clay.			
-				
40				
-				
46	Yellow fine grained sand.			
-				
50				
-				
55	Tan coarse grained sandy clay.			
-				
60	Tan to white coarse grained sand.			
-				
65	Total well depth.			
-				
70				
-				
75				
-				
80				
-				
85	Total drilled depth.			

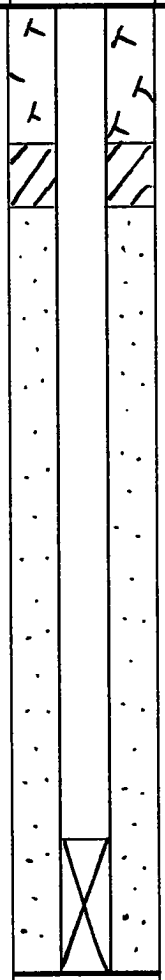
Site Name: **JJ's Texaco**	Location: **105 N. Main St.**		Well No. **RMW-20**
City: **Gaston**	County: **Lexington**	State: **SC**	Logged By: **L. Baxley**
Latitude: **33°49'03"**	Drilled By: **T. Faller @ Duncan Environmental Assoc., Inc.**		Date: **06/30/05**
Longitude: **81°06'04"**	State License No. **908**		
Static Water Level: **19.67' on 8/29/05**	TOC Elev.: **96.12'**	Sampling Method: **Grab**	
Drilling Method: **Solid stem auger**	Development Method: **Bail / Surge**		
Grout: **Cement 0-2'**	Seal: **Bentonite 2-3'**	Gravel Pack: **Sand 3-65'**	
Casing Type: **PVC Schedule 40**	Diameter: **2"**	Depth: **0-16'**	Hole Diameter: **5"**
Screen Type: **PVC Schedule 40**	Slot Size: **0.010**	Diameter: **2"**	Depth: **16-26'**	Total Depth: **26'**

Depth (ft)	Remarks: In place of MW-20.	Well Completion	OVA (ppm)	Odors
0	Tan/brown fine grained sand.			
-				
2				
-				
4				
-				
6				
-				
8	Brown fine grained clayey sand.			
-				
10				
-				
12				
-				
14				
-	Brown fine grained sandy clay.			
16				
-				
18				
-				
20				
-				
22				
-				
24				
-				
26	Total well depth.			
-				
28	Total drilled depth.			
-				
30				
-				
32				
-				
34				
-				
36				
-				
38				
-				
40				

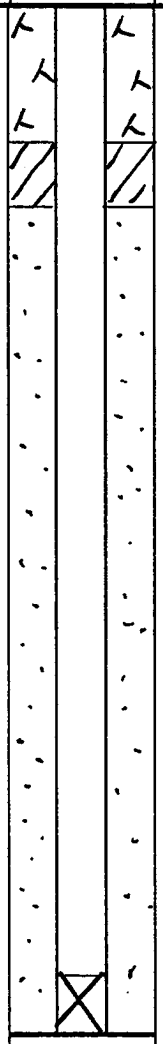
Site Name: **JJ's Texaco**	Location: **105 N. Main St.**		Well No. **MW-21**
City: **Gaston**	County: **Lexington**	State: **SC**	Logged By: **L. Baxley**
Latitude: **33°49'03"**	Drilled By: **T. Faller @ Duncan Environmental Assoc., Inc.**		Date: **7/20/05**
Longitude: **81°06'04"**	State License No. **908**		
Static Water Level: **3.82' on 8/28/05**	TOC Elev.: **86.56'**		Sampling Method: **Grab**
Drilling Method: **Solid stem auger**		Development Method: **Bail / Surge**	
Grout: **Cement 0-2'**	Seal: **Bentonite 2-3'**		Gravel Pack: **Sand 3-13'**
Casing Type: **PVC Schedule 40**	Diameter: **2"**	Depth: **0-3'**	Hole Diameter: **5"**
Screen Type: **PVC Schedule 40**	Slot Size: **0.010**	Diameter: **2"**	Depth: **3-13'**	Total Depth: **13'**

Depth (ft)	Remarks: Inside the gate to the Emu pen.	Well Completion	OVA (ppm)	Odors
0	Tan fine grained sand.			
-				
1				
-				
2				
-				
3				
-				
4				
-				
5				
-				
6				
-				
7				
-				
8	Orange fine grained clayey sand.			
-				
9				
-				
10				
-				
11				
-				
12				
-				
13	Total well depth.			
-				
14	Total drilled depth.			
-				
15				
-				
16				
-				
17				
-				
18				
-				
19				
-				
20				

Site Name: **JJ's Texaco**	Location: **105 N. Main St.**		Well No. **DW-1**
City: **Gaston**	County: **Lexington**	State: **SC**	Logged By: **L. Baxley**
Latitude: **33°49'03"**	Drilled By: **T. Faller @ Duncan Environmental Assoc., Inc.**		Date: **2/8-10/05**
Longitude: **81°06'04"**	State License No. **908**		
Static Water Level: **53.03' on 8/28/05**	TOC Elev.: **102.12'**	Sampling Method: **Grab**	
Drilling Method: **Solid Stem Auger**	Development Method: **Bail / Surge**		
Grout: **Cement 0-2'**	Seal: **Bentonite 2-3'**	Gravel Pack: **Sand 3-45'**	
Casing Type: **PVC Schedule 40**	Diameter: **2"**	Depth: **0-40'**	Hole Diameter: **5"**
Screen Type: **PVC Schedule 40**	Slot Size: **0.010**	Diameter: **2"**	Depth: **40-45'**	Total Depth: **45'**

Depth (ft)	Remarks: Between MW-1 and MW-6.	Well Completion	OVA (ppm)	Odors
0	Asphalt.			
-	Dark brown fine grained sand.			
1				
-				
2				
-				
3				
-	Tan fine grained sand.			
4				
-				
8				
-				
10				
-				
11	Tan to brown fine grained sand with slight clay.			
-				
17	Brown fine grained sandy clay.			
-				
20	Tan fine grained sandy clay.			
-				
26				
-				
28				
-				
31	Purple to white fine grained sandy clay.			
-				
35				
-				
40				
-				
41				
-				
45	Total well depth.			
-				
48				
-				
50				
-				
51				
-				
54				

Site Name: **JJ's Texaco**	Location: **105 N. Main St.**		Well No. **DW-2**
City: **Gaston**	County: **Lexington**	State: **SC**	Logged By: **L. Baxley**
Latitude: **33°49'03"**	Drilled By: **T. Faller @ Duncan Environmental Assoc., Inc.**		Date: **2/17-18/05**
Longitude: **81°06'04"**	State License No. **908**		
Static Water Level: **55.05' on 8/28/05**	TOC Elev.: **100.70'**	Sampling Method: **Grab**	
Drilling Method: **Solid Stem Auger**	Development Method: **Bail / Surge**		
Grout: **Cement 0-2'**	Seal: **Bentonite 2-3'**	Gravel Pack: **Sand 3-55'**	
Casing Type: **PVC Schedule 40**	Diameter: **2"**	Depth: **0-50'**	Hole Diameter: **5"**
Screen Type: **PVC Schedule 40** Slot Size: **0.010**	Diameter: **2"**	Depth: **50-55'**	Total Depth: **55'**

Depth (ft)	Remarks: Adjacent to MW-15.	Well Completion	OVA (ppm)	Odors
0	Asphalt.			
-	Dark brown fine grained sand.			
1				
-				
2				
-				
3				
-	Tan fine grained sand.			
4				
-				
8				
-				
10				
-				
11	Tan to brown fine grained sand with slight clay.			
-				
17	Brown fine grained sandy clay.			
-				
20	Tan fine grained sandy clay.			
-				
26				
-				
28				
-				
31	Reddish/purple coarse to fine grained sandy clay.			
-				
35				
-				
40				
-				
45				
-				
50				
-				
55	Total well depth.			
-				
60				
-				
65				
-				
70				

Well Abandonment

D H E C
PROMOTE PROTECT PROSPER

Water Well Record
Bureau of Water
2600 Bull Street, Columbia, SC 29201-1708; (803) 734-5300

1. LOCATION OF WELL:

County: Lexington System Name: MW-18

Latitude: 33° 49' 03" Longitude: 81° 06' 04"

Distance and Direction from Road Intersections:

Street Address & City of Well Location:

Sketch Map:

see map

2. CUTTING SAMPLES: ☐ Yes ☐ No

Geophysical Logs: ☐ Yes (please enclose) ☐ No

Formation Description	*Thickness of Stratum	Depth to Bottom of Stratum
Removed manhole		
and grouted screen		
and casing in place		
0 - 51'		
*Indicate Water Bearing Zones (Use a 2nd sheet if needed)		

3. REMARKS:

4. OWNER OF WELL: Shumpert Oil Co.
Address: P.O. Box 6 Elgin, SC 29045
Telephone No.: (803) 894-4178

Engineer: Duncan Environmental Assoc, Inc.
Address: 10817-C Two Notch Rd. Elgin, SC 29045
Telephone No.: (803) 788-4333

5. WELL DEPTH (completed) 51' ft. Date Started: 7/20/05 Date Completed: 7/20/05

6. ☐ Mud Rotary ☐ Jetted ☐ Bored ☐ Dug ☐ Air Rotary ☐ Driven ☐ Cable tool ☐ Other

7. USE: ☐ Domestic ☐ Public Supply–Permit No. _____ ☐ Industry ☐ Irrigation ☐ Air Conditioning ☐ Commercial ☐ Test Well ☐ Monitor Well ☐ _____

8. CASING: ☐ Threaded ☐ Welded
Diam.: _____
Type: ☐ PVC ☐ Galvanized ☐ Steel ☐ Other
_____ in. to _____ ft. depth
_____ in. to _____ ft. depth
Height: Above/Below Surface _____ ft.
Weight _____ lb./ft.
Drive Shoe? ☐ Yes ☐ No

9. SCREEN
Type: _____ Diam.: _____
Slot/Gauge: _____ Length: _____
Set Between: _____ ft. and _____ ft.
_____ ft. and _____ ft.
NOTE: MULTIPLE SCREENS USE SECOND SHEET
Sieve Analysis ☐ Yes (please enclose) ☐ No

10. STATIC WATER LEVEL
_____ ft. below land surface after 24 hours

11. PUMPING LEVEL Below Land Surface.
_____ ft. after _____ hrs. Pumping _____ G.P.M.
Pumping Test: ☐ Yes (please enclose) ☐ No
Yield: _____

12. WATER QUALITY
Chemical Analysis ☐ Yes ☐ No Bacterial Analysis ☐ Yes ☐ No
Please enclose lab results.

13. ARTIFICIAL FILTER (gravel pack) ☐ Yes ☐ No
Installed from _____ ft. to _____ ft.
Effective size _____ Uniformity Coefficient _____

14. WELL GROUTED? ☐ Yes ☐ No
☐ Neat Cement ☐ Sand Cement ☐ Concrete ☐ Other _____
Depth: From _____ ft. to _____ ft.

15. NEAREST SOURCE OF POSSIBLE CONTAMINATION: _____ ft. _____ direction
_____ Type well disinfected ☐ Yes Type: _____
upon completion ☐ No Amount: _____

16. 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

17. WATER WELL CONTRACTOR'S CERTIFICATION: This well was drilled under my direction and this report is true to the best of my knowledge and belief.
Registered Business Name: Duncan Env Assoc, Inc Date: 10/26/05
Address: 10817-C Two Notch Rd. Elgin, SC 29045
Signed: _____ Cert. No.: 908
Authorized Representative

DHEC 1903 (10/96) COPY 1 MAIL TO: S.C. DEPARTMENT OF HEALTH AND ENVIRONMENTAL CONTROL (ADDRESS ABOVE)

Well Abandonment

DHEC
PROMOTE PROTECT PROSPER

Water Well Record
Bureau of Water
2600 Bull Street, Columbia, SC 29201-1708; (803) 734-5300

1. LOCATION OF WELL:
County: Lexington
System Name: MW-17 JJs Texaco
Latitude: 33° 49' 03" Longitude: 81° 06' 04"
Distance and Direction from Road Intersections:
Street Address & City of Well Location:
Sketch Map:

See map

2. CUTTING SAMPLES: ☐ Yes ☐ No
Geophysical Logs: ☐ Yes (please enclose) ☐ No

Formation Description	*Thickness of Stratum	Depth to Bottom of Stratum
Removed manhole and grouted screen and casing in place 0-52'		
*Indicate Water Bearing Zones (Use a 2nd sheet if needed)		

3. REMARKS:

4. OWNER OF WELL: Shompert Oil Co.
Address: P.O. Box 6 Pelion, SC 29123
Telephone No.: (803) 894-4178
Engineer: Duncan Environmental Assoc, Inc.
Address: 10817-C Two Notch Rd. Elgin, SC 29045
Telephone No.: (803) 788-4333

5. WELL DEPTH (completed) 52' ft. Date Started: 7/20/05 Date Completed: 7/20/05

6. ☐ Mud Rotary ☐ Jetted ☐ Bored ☐ Dug ☐ Air Rotary ☐ Driven ☐ Cable tool ☐ Other

7. USE:
☐ Domestic ☐ Public Supply–Permit No. _____ ☐ Industry
☐ Irrigation ☐ Air Conditioning ☐ Commercial
☐ Test Well ☐ Monitor Well ☐ _____

8. CASING: ☐ Threaded ☐ Welded
Diam.: _____
Type: ☐ PVC ☐ Galvanized ☐ Steel ☐ Other
_____ in. to _____ ft. depth
_____ in. to _____ ft. depth
Height: Above/Below Surface _____ ft.
Weight _____ lb./ft.
Drive Shoe? ☐ Yes ☐ No

9. SCREEN
Type: _____ Diam.: _____
Slot/Gauge: _____ Length: _____
Set Between: _____ ft. and _____ ft.
_____ ft. and _____ ft.
NOTE: MULTIPLE SCREENS USE SECOND SHEET
Sieve Analysis ☐ Yes (please enclose) ☐ No

10. STATIC WATER LEVEL
_____ ft. below land surface after 24 hours

11. PUMPING LEVEL Below Land Surface.
_____ ft. after _____ hrs. Pumping _____ G.P.M.
Pumping Test: ☐ Yes (please enclose) ☐ No
Yield: _____

12. WATER QUALITY
Chemical Analysis ☐ Yes ☐ No Bacterial Analysis ☐ Yes ☐ No
Please enclose lab results.

13. ARTIFICIAL FILTER (gravel pack) ☐ Yes ☐ No
Installed from _____ ft. to _____ ft.
Effective size _____ Uniformity Coefficient _____

14. WELL GROUTED? ☐ Yes ☐ No
☐ Neat Cement ☐ Sand Cement ☐ Concrete ☐ Other _____
Depth: From _____ ft. to _____ ft.

15. NEAREST SOURCE OF POSSIBLE CONTAMINATION: _____ ft. _____ direction
_____ Type well disinfected upon completion ☐ Yes ☐ No Type: _____ Amount: _____

16. 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

17. WATER WELL CONTRACTOR'S CERTIFICATION: This well was drilled under my direction and this report is true to the best of my knowledge and belief.
Registered Business Name: Duncan Env. Assoc. Inc. Date: 10/26/05
Address: 10817-C Two Notch Rd. Elgin, S. 29045
Signed: _____ Cert. No.: 908
Authorized Representative

DHEC 1903 (10/96) COPY 1 MAIL TO: S.C. DEPARTMENT OF HEALTH AND ENVIRONMENTAL CONTROL (ADDRESS ABOVE)

Well Abandonment

DHEC
PROMOTE PROTECT PROSPER

Water Well Record
Bureau of Water
2600 Bull Street, Columbia, SC 29201-1708; (803) 734-5300

1. LOCATION OF WELL:
County: Lexington System Name: RMW-17 JJ's Texaco
Latitude: 33°49'03" Longitude: 81°06'04"
Distance and Direction from Road Intersections:
Street Address & City of Well Location:
Sketch Map:

see map

2. CUTTING SAMPLES: ☐ Yes ☐ No
Geophysical Logs: ☐ Yes (please enclose) ☐ No

Formation Description	*Thickness of Stratum	Depth to Bottom of Stratum
Removed manhole		
and grouted screen		
and casing in place		
0 - 35'		
*Indicate Water Bearing Zones (Use a 2nd sheet if needed)		

3. REMARKS:

4. OWNER OF WELL: Shumpert Oil Co.
Address: P.O. Box 6 Pelion, SC 29123
Telephone No.: (803) 894-4178
Engineer: Duncan Environmental Assoc. Inc.
Address: 10817-C Two Notch Rd. Elgin, SC 29045
Telephone No.: (803) 788-4333

5. WELL DEPTH (completed) 35' ft. Date Started: 7/20/05 Date Completed: 7/20/05

6. ☐ Mud Rotary ☐ Jetted ☐ Bored ☐ Dug ☐ Air Rotary ☐ Driven ☐ Cable tool ☐ Other

7. USE: ☐ Domestic ☐ Public Supply–Permit No. ____ ☐ Industry ☐ Irrigation ☐ Air Conditioning ☐ Commercial ☐ Test Well ☐ Monitor Well ☐ ____

8. CASING: ☐ Threaded ☐ Welded
Diam.: ____
Type: ☐ PVC ☐ Galvanized ☐ Steel ☐ Other
____ in. to ____ ft. depth
____ in. to ____ ft. depth
Height: Above/Below Surface ____ ft.
Weight ____ lb./ft.
Drive Shoe? ☐ Yes ☐ No

9. SCREEN
Type: ____ Diam.: ____
Slot/Gauge: ____ Length: ____
Set Between: ____ ft. and ____ ft.
____ ft. and ____ ft.
NOTE: MULTIPLE SCREENS USE SECOND SHEET
Sieve Analysis ☐ Yes (please enclose) ☐ No

10. STATIC WATER LEVEL
____ ft. below land surface after 24 hours

11. PUMPING LEVEL Below Land Surface.
____ ft. after ____ hrs. Pumping ____ G.P.M.
Pumping Test: ☐ Yes (please enclose) ☐ No
Yield: ____

12. WATER QUALITY
Chemical Analysis ☐ Yes ☐ No Bacterial Analysis ☐ Yes ☐ No
Please enclose lab results.

13. ARTIFICIAL FILTER (gravel pack) ☐ Yes ☐ No
Installed from ____ ft. to ____ ft.
Effective size ____ Uniformity Coefficient ____

14. WELL GROUTED? ☐ Yes ☐ No
☐ Neat Cement ☐ Sand Cement ☐ Concrete ☐ Other ____
Depth: From ____ ft. to ____ ft.

15. NEAREST SOURCE OF POSSIBLE CONTAMINATION: ____ ft. ____ direction
____ Type well disinfected ☐ Yes Type: ____
upon completion ☐ No Amount: ____

16. 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

17. WATER WELL CONTRACTOR'S CERTIFICATION: This well was drilled under my direction and this report is true to the best of my knowledge and belief.
Registered Business Name: Duncan Env. Assoc., Inc. Date: 10/26/05
Address: 10817-C Two Notch Rd. Elgin, SC 29045
Signed: [signature] Cert. No.: 908
Authorized Representative

DHEC 1903 (10/96) COPY 1 MAIL TO: S.C. DEPARTMENT OF HEALTH AND ENVIRONMENTAL CONTROL (ADDRESS ABOVE)

Well Abandonment

D H E C
PROMOTE PROTECT PROSPER

Water Well Record
Bureau of Water
2600 Bull Street, Columbia, SC 29201-1708; (803) 734-5300

1. LOCATION OF WELL:

County: Lexington System Name: MW-12

Latitude: 33° 49' 03" Longitude: 81° 06' 04"

Distance and Direction from Road Intersections:

Street Address & City of Well Location:

Sketch Map:

SEE map

2. CUTTING SAMPLES: ☐ Yes ☐ No

Geophysical Logs: ☐ Yes (please enclose) ☐ No

Formation Description	*Thickness of Stratum	Depth to Bottom of Stratum
Removed manhole		
and grouted screen		
and casing in place		
0-5'		
*Indicate Water Bearing Zones (Use a 2nd sheet if needed)		

3. REMARKS:

4. OWNER OF WELL: Thompert Oil Co.
Address: P.O. Box 6 Pelion, SC 29123
Telephone No.: (803) 894-4178

Engineer: Duncan Environmental Assoc., Inc.
Address: 10817-C Two Notch Rd. Elgin, SC 29045
Telephone No.: (803) 788-4333

5. WELL DEPTH (completed) 51 ft. Date Started: 7/20/05 Date Completed: 7/20/05

6. ☐ Mud Rotary ☐ Jetted ☐ Bored ☐ Dug ☐ Air Rotary ☐ Driven ☐ Cable tool ☐ Other

7. USE: ☐ Domestic ☐ Public Supply–Permit No. _____ ☐ Industry ☐ Irrigation ☐ Air Conditioning ☐ Commercial ☐ Test Well ☐ Monitor Well ☐ _____

8. CASING: ☐ Threaded ☐ Welded
Diam.: _____
Type: ☐ PVC ☐ Galvanized ☐ Steel ☐ Other
_____ in. to _____ ft. depth
_____ in. to _____ ft. depth
Height: Above/Below Surface _____ ft.
Weight _____ lb./ft.
Drive Shoe? ☐ Yes ☐ No

9. SCREEN
Type: _____ Diam.: _____
Slot/Gauge: _____ Length: _____
Set Between: _____ ft. and _____ ft.
_____ ft. and _____ ft.
NOTE: MULTIPLE SCREENS USE SECOND SHEET
Sieve Analysis ☐ Yes (please enclose) ☐ No

10. STATIC WATER LEVEL
_____ ft. below land surface after 24 hours

11. PUMPING LEVEL Below Land Surface.
_____ ft. after _____ hrs. Pumping _____ G.P.M.
Pumping Test: ☐ Yes (please enclose) ☐ No
Yield: _____

12. WATER QUALITY
Chemical Analysis ☐ Yes ☐ No Bacterial Analysis ☐ Yes ☐ No
Please enclose lab results.

13. ARTIFICIAL FILTER (gravel pack) ☐ Yes ☐ No
Installed from _____ ft. to _____ ft.
Effective size _____ Uniformity Coefficient _____

14. WELL GROUTED? ☐ Yes ☐ No
☐ Neat Cement ☐ Sand Cement ☐ Concrete ☐ Other _____
Depth: From _____ ft. to _____ ft.

15. NEAREST SOURCE OF POSSIBLE CONTAMINATION: _____ ft. ____ direction
_____ Type well disinfected ☐ Yes Type: _____
upon completion ☐ No Amount: _____

16. 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

17. WATER WELL CONTRACTOR'S CERTIFICATION: This well was drilled under my direction and this report is true to the best of my knowledge and belief.
Registered Business Name: Duncan Env. Assoc, Inc. Date: 10/26/05
Address: 10817-C Two Notch Rd. Elgin, SC 29045
Signed: _____ Cert. No.: 908
Authorized Representative

DHEC 1903 (10/96) COPY 1 MAIL TO: S.C. DEPARTMENT OF HEALTH AND ENVIRONMENTAL CONTROL (ADDRESS ABOVE)

Appendix B
TMW Analytical Data

ENVIRONMENTAL
SCIENCE CORP.

12065 Lebanon Rd.
Mt. Juliet, TN 37122
(615) 758-5858
1-800-767-5859
Fax (615) 758-5859

Tax I.D. 62-0814289

Est. 1970

REPORT OF ANALYSIS

Ms. Jan Reynolds
Duncan Environmental
10817C Two Notch Rd.
Elgin, SC 29045

February 14,2005

ESC Sample # : L187546-01

Site ID :

Project # : JJ'S TEXACO

Date Received : February 09, 2005
Description : JJ's Texaco

Sample ID : SB-6 (TMW-1)

Collected By : TF
Collection Date : 02/07/05 10:40

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
Benzene	42.	1.0	ug/l	8260B	02/10/05	1
Toluene	BDL	5.0	ug/l	8260B	02/10/05	1
Ethylbenzene	BDL	1.0	ug/l	8260B	02/10/05	1
Total Xylenes	46.	6.0	ug/l	8260B	02/11/05	2
Methyl tert-butyl ether	BDL	2.0	ug/l	8260B	02/11/05	2
Naphthalene	BDL	5.0	ug/l	8260B	02/10/05	1
Surrogate Recovery						
Toluene-d8	100		% Rec.	8260B	02/10/05	1
Dibromofluoromethane	89.		% Rec.	8260B	02/10/05	1
4-Bromofluorobenzene	96.		% Rec.	8260B	02/10/05	1

Jimmy Hunt, ESC Representative

BDL - Below Detection Limit
Det. Limit - Estimated Quantitation Limit(EQL)

Laboratory Certification Numbers:
AIHA - 100789, AL - 40660, CA - I-2327, CT- PH-0197, FL - E87487, GA - 923, IN - C-TN-01
KY - 90010, KYUST - 0016, NC - ENV375,DW21704, ND - R-140, SC - 84004, TN - 2006, VA - 00109, WV - 233
AZ -0612, MN - 047-999-395, NY - 11742, NJ - 81002, WI - 998093910

Note:
The reported analytical results relate only to the sample submitted.

Reported: 02/14/05 11:42 Printed: 02/14/05 11:42

ENVIRONMENTAL
SCIENCE CORP.

12065 Lebanon Rd.
Mt. Juliet, TN 37122
(615) 758-5858
1-800-767-5859
Fax (615) 758-5859

Tax I.D. 62-0814289

Est. 1970

REPORT OF ANALYSIS

Ms. Jan Reynolds
Duncan Environmental
10817C Two Notch Rd.
Elgin, SC 29045

February 14,2005

ESC Sample # : L187546-02

Site ID :

Project # : JJ'S TEXACO

Date Received : February 09, 2005
Description : JJ's Texaco

Sample ID : SB-7 (TMW-2)

Collected By : TF
Collection Date : 02/07/05 11:00

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
Benzene	BDL	1.0	ug/l	8260B	02/10/05	1
Toluene	BDL	5.0	ug/l	8260B	02/10/05	1
Ethylbenzene	BDL	1.0	ug/l	8260B	02/10/05	1
Total Xylenes	BDL	3.0	ug/l	8260B	02/10/05	1
Methyl tert-butyl ether	BDL	1.0	ug/l	8260B	02/11/05	1
Naphthalene	BDL	5.0	ug/l	8260B	02/10/05	1
Surrogate Recovery						
Toluene-d8	99.		% Rec.	8260B	02/10/05	1
Dibromofluoromethane	99.		% Rec.	8260B	02/10/05	1
4-Bromofluorobenzene	95.		% Rec.	8260B	02/10/05	1

Jimmy Hunt, ESC Representative

BDL - Below Detection Limit
Det. Limit - Estimated Quantitation Limit(EQL)

Laboratory Certification Numbers:
AIHA - 100789, AL - 40660, CA - I-2327, CT- PH-0197, FL - E87487, GA - 923, IN - C-TN-01
KY - 90010, KYUST - 0016, NC - ENV375,DW21704, ND - R-140, SC - 84004, TN - 2006, VA - 00109, WV - 233
AZ -0612, MN - 047-999-395, NY - 11742, NJ - 81002, WI - 998093910

Note:
The reported analytical results relate only to the sample submitted.

Reported: 02/14/05 11:42 Printed: 02/14/05 11:42

ENVIRONMENTAL
SCIENCE CORP.

12065 Lebanon Rd.
Mt. Juliet, TN 37122
(615) 758-5858
1-800-767-5859
Fax (615) 758-5859

Tax I.D. 62-0814289

Est. 1970

REPORT OF ANALYSIS

Ms. Jan Reynolds
Duncan Environmental
10817C Two Notch Rd.
Elgin, SC 29045

February 14,2005

ESC Sample # : L187546-03

Date Received : February 09, 2005
Description : JJ's Texaco

Site ID :

Sample ID : RMW-5

Project # : JJ'S TEXACO

Collected By : TF
Collection Date : 02/07/05 11:30

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
Benzene	BDL	1.0	ug/l	8260B	02/10/05	1
Toluene	BDL	5.0	ug/l	8260B	02/10/05	1
Ethylbenzene	BDL	1.0	ug/l	8260B	02/10/05	1
Total Xylenes	BDL	3.0	ug/l	8260B	02/10/05	1
Methyl tert-butyl ether	BDL	1.0	ug/l	8260B	02/11/05	1
Naphthalene	BDL	5.0	ug/l	8260B	02/10/05	1
Surrogate Recovery						
Toluene-d8	100		% Rec.	8260B	02/10/05	1
Dibromofluoromethane	94.		% Rec.	8260B	02/10/05	1
4-Bromofluorobenzene	93.		% Rec.	8260B	02/10/05	1

Jimmy Hunt, ESC Representative

BDL - Below Detection Limit
Det. Limit - Estimated Quantitation Limit(EQL)

Laboratory Certification Numbers:
AIHA - 100789, AL - 40660, CA - I-2327, CT- PH-0197, FL - E87487, GA - 923, IN - C-TN-01
KY - 90010, KYUST - 0016, NC - ENV375,DW21704, ND - R-140, SC - 84004, TN - 2006, VA - 00109, WV - 233
AZ -0612, MN - 047-999-395, NY - 11742, NJ - 81002, WI - 998093910

Note:
The reported analytical results relate only to the sample submitted.

Reported: 02/14/05 11:42 Printed: 02/14/05 11:42

Attachment A
List of Analytes with QC Qualifiers

Sample #	Analyte	Qualifier
L187546-01	Benzene	J3
	Toluene	J3
	Ethylbenzene	J3
	Naphthalene	J3
L187546-02	Benzene	J3
	Toluene	J3
	Ethylbenzene	J3
	Total Xylenes	J3
	Naphthalene	J3
L187546-03	Benzene	J3
	Toluene	J3
	Ethylbenzene	J3
	Total Xylenes	J3
	Naphthalene	J3

Attachment B
Explanation of QC Qualifier Codes

Qualifier	Meaning
J3	The associated batch QC was outside the established quality control range for precision.

Qualifier Report Information

ESC utilizes sample and result qualifiers as set forth by the EPA Contract Laboratory Program and as required by most certifying bodies including NELAC. In addition to the EPA qualifiers adopted by ESC, we have implemented ESC qualifiers to provide more information pertaining to our analytical results. Each qualifier is designated in the qualifier explanation as either EPA or ESC. Data qualifiers are intended to provide the ESC client with more detailed information concerning the potential bias of reported data. Because of the wide range of constituents and variety of matrices incorporated by most EPA methods,it is common for some compounds to fall outside of established ranges. These exceptions are evaluated and all reported data is valid and useable unless qualified as 'R' (Rejected).

Definitions

Accuracy - The relationship of the observed value of a known sample to the true value of a known sample. Represented by percent recovery and relevant to samples such as: control samples, matrix spike recoveries, surrogate recoveries, etc.

Precision - The agreement between a set of samples or between duplicate samples. Relates to how close together the results are and is represented by Relative Percent Differrence.

Surrogate - Organic compounds that are similar in chemical composition, extraction, and chromotography to analytes of interest. The surrogates are used to determine the probable response of the group of analytes that are chemically related to the surrogate compound. Surrogates are added to the sample and carried through all stages of preparation and analyses.

	Control Limits				(AQ)	(SS)
2-Fluorophenol	31-119	Nitrobenzene-d5	43-118	Dibromfluoromethane	79-126	83-119
Phenol-d5	12-134	2-Fluorobiphenyl	45-128	Toluene-d8	81-114	82-116
2,4,6-Tribromophenol	51-141	Terphenyl-d14	43-137	4-Bromofluorobenzene	65-129	72-126

TIC - Tentatively Identified Compound: Compounds detected in samples that are not target compounds, internal standards, system monitoring compounds, or surrogates.

Duncan Environmental
10817C Two Notch Road
Elgin, SC 29045

Alternate billing information:

Report to: Ms. Jan Reynolds

Email to: duncanl2@earthlink.net

Project Description: JJ's Texaco

City/State Collected: SC

Phone: 803-788-4333
FAX: 803-788-4555

Client Project #: JJ's Texaco

ESC Key:

Collected by: TF

Site/Facility ID#:

P.O.#:

Collected by (signature):

Packed on Ice N ___ Y ✓

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

Date Results Needed: 2-15-05

Email? _No ✓Yes

FAX? ✓No _Yes

Analysis/Container/Preservative

Sample ID	Comp/Grab	Matrix*	Depth	Date	Time	No. of Cntrs	BTEX + MTBE (40ml VOA, HCl)	Remarks/Contaminant	Sample # (lab only)
SB-6 (TMW-1)	G	Water		2/7/05	10:40	2	X		L187546-01
SB-7 (TMW-2)	"	"	"	"	11:00	"	X		02
RMW-5	"	"	"	"	11:30	"	X		03

Chain of Custody Page 1 of 1

Prepared by:

ENVIRONMENTAL SCIENCE CORP.
12065 Lebanon Road
Mt. Juliet, TN 37122
Phone (615) 758-5858
Phone (800) 767-5859
FAX (615) 758-5859

CoCode DUNCENV (lab use only)

Template/Prelogin

Shipped Via:

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

pH _____ Temp _____

Remarks: 8418 5817 5260

Flow _____ Other _____

Relinquished by: (Signature)	Date:	Time:	Received by: (Signature)
	2/8/05	1023	
Relinquished by: (Signature)	Date:	Time:	Received by: (Signature)
Relinquished by: (Signature)	Date:	Time:	Received for lab by: (Signature)

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

Temp: 3.0°

Bottles Received: 6v

Date: 2/9/05

Time: 900

Condition: (lab use only) OK

pH Checked:

NCF:

ENVIRONMENTAL
SCIENCE CORP.

12065 Lebanon Rd.
Mt. Juliet, TN 37122
(615) 758-5858
1-800-767-5859
Fax (615) 758-5859

Tax I.D. 62-0814289

Est. 1970

REPORT OF ANALYSIS

Ms. Jan Reynolds
Duncan Environmental
10817C Two Notch Rd.
Elgin, SC 29045

March 03,2005

ESC Sample # : L189824-01

Date Received : March 01, 2005
Description : JJs Texaco

Sample ID : MW-18 (TMW)

Site ID :

Project # : JJS TEXACO

Collected By : T Faller
Collection Date : 02/24/05 13:00

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
Benzene	BDL	1.0	ug/l	8260B	03/02/05	1
Toluene	BDL	5.0	ug/l	8260B	03/02/05	1
Ethylbenzene	BDL	1.0	ug/l	8260B	03/02/05	1
Total Xylenes	BDL	3.0	ug/l	8260B	03/02/05	1
Methyl tert-butyl ether	BDL	1.0	ug/l	8260B	03/02/05	1
Naphthalene	BDL	5.0	ug/l	8260B	03/02/05	1
Surrogate Recovery						
Toluene-d8	100		% Rec.	8260B	03/02/05	1
Dibromofluoromethane	100		% Rec.	8260B	03/02/05	1
4-Bromofluorobenzene	100		% Rec.	8260B	03/02/05	1

Jimmy Hunt, ESC Representative

BDL - Below Detection Limit
Det. Limit - Estimated Quantitation Limit(EQL)

Laboratory Certification Numbers:
AIHA - 100789, AL - 40660, CA - I-2327, CT- PH-0197, FL - E87487, GA - 923, IN - C-TN-01
KY - 90010, KYUST - 0016, NC - ENV375,DW21704, ND - R-140, SC - 84004, TN - 2006, VA - 00109, WV - 233
AZ -0612, MN - 047-999-395, NY - 11742, NJ - 81002, WI - 998093910

Note:
The reported analytical results relate only to the sample submitted.

Reported: 03/03/05 15:58 Printed: 03/03/05 15:58

Duncan Environmental
10817C Two Notch Road
Elgin, SC 29045

Alternate billing information:

Report to: Ms. Jan Reynolds

Email to: duncanl2@earthlink.net

Project Description: JJ's Texaco

City/State Collected: SC

Phone: 803-788-4333
FAX: 803-788-4555

Client Project #: JJ's Texaco

ESC Key:

Collected by: T. Faller

Site/Facility ID#:

P.O.#:

Collected by (signature):

Packed on Ice N ___ Y ✓

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

Date Results Needed: 2-9-05

Email? __No ✓Yes

FAX? ✓No __Yes

Analysis/Container/Preservative

BTEX + Napl + MTBE (4 vol VOA, HCl)

Chain of Custody Page 1 of 1

Prepared by:

ENVIRONMENTAL SCIENCE CORP.
12065 Lebanon Road
Mt. Juliet, TN 37122
Phone (615) 758-5858
Phone (800) 767-5859
FAX (615) 758-5859

CoCode DUNCENV (lab use only)

Template/Prelogin

Shipped Via:

Sample ID	Comp/Grab	Matrix*	Depth	Date	Time	No. of Cntrs	BTEX + Napl + MTBE (4 vol VOA, HCl)	Remarks/Contaminant	Sample # (lab only)
MW-18	Grab	GW	—	2/24/05	1300	2	X	L1898404-01	

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

pH _____ Temp _____

Remarks:

Flow _____ Other _____

Relinquished by: (Signature)	Date:	Time:	Received by: (Signature)	Samples returned via: ☐ UPS ☒ FedEx ☐ Courier ☐_____	Condition: (lab use only)
Jan Bailey	2/28/05	0938			
Relinquished by: (Signature)	Date:	Time:	Received by: (Signature)	Temp: 3.1 / Bottles Received: 2	01
Relinquished by: (Signature)	Date:	Time:	Received for lab by: (Signature) Lesa Bates	Date: 3/1/05 / Time: 10:00	pH Checked: / NCF:

8410581752 48

Appendix C
Field Data Sheets

South Carolina Department of Health and Environmental Contol
Bureau of Underground Storage Tank Management

Field Data Information Sheet for Ground Water Sampling

Date (mm/dd/yy) 08-28-05
Field Personnel TF, JR, JR, CW & LB
General Weather Conditions Mostly Sunny & Hot
Ambient Air Temperature _____ °C

Facility Name JJ's Texaco Site Number 05986

Quality Assurance:

pH Meter:
Serial No. DEA 1
pH 4.0 = 4.0
pH 7.0 = 7.0
pH 10.0 = 10.0

Conductivity Meter:
Serial No. DEA 1
Standard 1413
Standard _____
Standard _____

Chain of Custody

Relinquished by:	Date/Time	Received by	Date/Time

Well # MW-1

Well Diameter (D) 2 inch or _____ feet
conversion factor (C): 3.143*(D/2)^2
for a 2 inch well 0.6178
4 inch well 0.652
Total Well Depth (TWD) 39.99 ft.
Depth to GW (DGW) 32.12 ft.

Length of Water Column (LWC = TWD -DGW) 7.87 ft.

1 Csg. Volume (LWC * C) = 7.87 x 0.6178 = 4.86 Liters

3 Csg. Volume = 3 x _____ = _____ Liters (Std. Purge Vol.)

Total Volume of Water Purged Before Sampling 10 Liters

	Initial	1st vol.	2nd vol.	3rd vol.	4 th vol.	5 th vol.	Post	Sampling
Volume Purged (Liters)	1	4	5					
Time (Military)	1005	1010	1015					
pH (s.u.)	5.20	5.04	4.84					
Specific Cond. (umhos/cm)	90	90	89					
Water Temp (°C)	24.6	24.0	23.4					
Turbidity (*)								
Dissolved Oxygen (mg/L)	4.9	4.8	5.0					

* Subjective (1)None (2)Faint (3)Moderate (4)Strong

Remarks: _____

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

Field Data Information Sheet for Ground Water Sampling

Date (mm/dd/yy) 08-28-05
Field Personnel TF, CW, JR, JR + LB
General Weather Conditions Mostly Sunny + Hot
Ambient Air Temperature _____ °C

Facility Name JJ's Texaco Site Number 05986

Quality Assurance:

pH Meter:
Serial No. DEA 1
pH 4.0 = 4.0
pH 7.0 = 7.0
pH 10.0 = 10.0

Conductivity Meter:
Serial No. DEA 1
Standard 1413
Standard _____
Standard _____

Chain of Custody

Relinquished by:	Date/Time	Received by	Date/Time

Well # MW-2

Well Diameter (D) 2 inch or _____ feet
conversion factor (C): 3.143*(D/2)^2
for a 2 inch well 0.6178
4 inch well 0.652
Total Well Depth (TWD) 79.33 ft.
Depth to GW (DGW) 78.10 ft.

Length of Water Column (LWC = TWD -DGW) 1.23 ft.

1 Csg. Volume (LWC * C) = 1.23 x 0.6178 = 0.76 Liters

3 Csg. Volume = 3 x _____ = _____ Liters (Std. Purge Vol.)

Total Volume of Water Purged Before Sampling 1 Liters

	Initial	1st vol.	2nd vol.	3rd vol.	4 th vol.	5 th vol.	Post	Sampling
Volume Purged (Liters)	1							
Time (Military)	1230							
pH (s.u.)								
Specific Cond. (umhos/cm)								
Water Temp (°C)								
Turbidity (*)								
Dissolved Oxygen (mg/L)								

* Subjective (1)None (2)Faint (3)Moderate (4)Strong

Remarks: Well not sampled due to lack of water.

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

Field Data Information Sheet for Ground Water Sampling

Date (mm/dd/yy) 08-28-05
Field Personnel TF, JR, JR, CW + LB
General Weather Conditions Mostly Sunny + Hot
Ambient Air Temperature _____ °C

Facility Name JJ's Texaco Site Number 059866

Quality Assurance:

pH Meter:
Serial No. DEA 1
pH 4.0 = 4.0
pH 7.0 = 7.0
pH 10.0 = 10.0

Conductivity Meter:
Serial No. DEA 1
Standard 1413
Standard _____
Standard _____

Chain of Custody

Relinquished by:	Date/Time	Received by	Date/Time

Well # MW-3

Well Diameter (D) 2 inch or _____ feet
conversion factor (C): 3.143*(D/2)^2
for a 2 inch well 0.6178
4 inch well 0.652
Total Well Depth (TWD) _____ ft.
Depth to GW (DGW) _____ ft.

Length of Water Column (LWC = TWD -DGW) _____ ft.

1 Csg. Volume (LWC * C) _____ x 0.6178 = _____ Liters

3 Csg. Volume = 3 x _____ _____ Liters (Std. Purge Vol.)

Total Volume of Water Purged Before Sampling _____ Liters

	Initial	1st vol.	2nd vol.	3rd vol.	4 th vol.	5 th vol.	Post	Sampling
Volume Purged (Liters)	1							
Time (Military)								
pH (s.u.)								
Specific Cond. (umhos/cm)								
Water Temp (°C)								
Turbidity (*)								
Dissolved Oxygen (mg/L)								

* Subjective (1)None (2)Faint (3)Moderate (4)Strong

Remarks: Well not sampled due to no water.

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

Field Data Information Sheet for Ground Water Sampling

Date (mm/dd/yy) 08-28-05
Field Personnel TF, JR, JR, CW & LB
General Weather Conditions Mostly Sunny & Hot
Ambient Air Temperature _____ °C

Facility Name JJ's Texaco Site Number 05986

Quality Assurance:

pH Meter:
Serial No. DEA 1
pH 4.0 = 4.0
pH 7.0 = 7.0
pH 10.0 = 10.0

Conductivity Meter:
Serial No. DEA 1
Standard 1413
Standard _____
Standard _____

Chain of Custody

Relinquished by:	Date/Time	Received by	Date/Time

Well # RMW-5

Well Diameter (D) 2 inch or _____ feet
conversion factor (C): 3.143*(D/2)^2
for a 2 inch well 0.6178
4 inch well 0.652
Total Well Depth (TWD) 15.36 ft.
Depth to GW (DGW) 7.55 ft.

Length of Water Column (LWC = TWD - DGW) 7.81 ft.

1 Csg. Volume (LWC * C) = 7.81 x 0.6178 = 4.83 Liters

3 Csg. Volume = 3 x _____ = _____ Liters (Std. Purge Vol.)

Total Volume of Water Purged Before Sampling 9 Liters

	Initial	1st vol.	2nd vol.	3rd vol.	4 th vol.	5 th vol.	Post	Sampling
Volume Purged (Liters)	1	4	4					
Time (Military)	1121	1125	1137					
pH (s.u.)	4.73	4.70						
Specific Cond. (umhos/cm)	065	065						
Water Temp (°C)	25.4	24.7						
Turbidity (*)								
Dissolved Oxygen (mg/L)	3.2	3.6						

* Subjective (1)None (2)Faint (3)Moderate (4)Strong

Remarks: Well Sampled after 9 bails due to lack of water.

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

Field Data Information Sheet for Ground Water Sampling

Date (mm/dd/yy) 08-28-05
Field Personnel TF, JR, JR, CW & LB
General Weather Conditions Mostly Sunny & Hot
Ambient Air Temperature _____ °C

Facility Name JJ's Texaco Site Number 05986

Quality Assurance:

pH Meter:
Serial No. DEA 1
pH 4.0 = 4.0
pH 7.0 = 7.0
pH 10.0 = 10.0

Conductivity Meter:
Serial No. DEA 1
Standard 1413
Standard _____
Standard _____

Chain of Custody

Relinquished by:	Date/Time	Received by	Date/Time

Well # MW-6

Well Diameter (D) 2 inch or _____ feet
conversion factor (C): 3.143*(D/2)^2
for a 2 inch well 0.6178
4 inch well 0.652
Total Well Depth (TWD) _____ ft.
Depth to GW (DGW) 33.50 ft.
Free Product 33.35 ft.
Length of Water Column (LWC = TWD - DGW) _____ ft.

1 Csg. Volume (LWC * C) _____ x 0.6178 = _____ Liters
3 Csg. Volume = 3 x _____ = _____ Liters (Std. Purge Vol.)

Total Volume of Water Purged Before Sampling _____ Liters

	Initial	1st vol.	2nd vol.	3rd vol.	4 th vol.	5 th vol.	Post	Sampling
Volume Purged (Liters)	1							
Time (Military)								
pH (s.u.)								
Specific Cond. (umhos/cm)								
Water Temp (°C)								
Turbidity (*)								
Dissolved Oxygen (mg/L)								

* Subjective (1)None (2)Faint (3)Moderate (4)Strong

Remarks: Well not sampled due to 0.15 ft. of free product.

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

Field Data Information Sheet for Ground Water Sampling

Date (mm/dd/yy) 08-28-05
Field Personnel TF, JR, JR, CW + LB
General Weather Conditions Mostly Sunny + Hot
Ambient Air Temperature _____ °C

Facility Name JJ's Texaco Site Number 059866

Quality Assurance:

pH Meter:
Serial No. DEA 1
pH 4.0 = 4.0
pH 7.0 = 7.0
pH 10.0 = 10.0

Conductivity Meter:
Serial No. DEA 1
Standard 1413
Standard _____
Standard _____

Chain of Custody

Relinquished by:	Date/Time	Received by	Date/Time

Well # MW-7

Well Diameter (D) 2 inch or _____ feet
conversion factor (C): 3.143*(D/2)^2
for a 2 inch well 0.6178
4 inch well 0.652
Total Well Depth (TWD) 41.23 ft.
Depth to GW (DGW) 35.02 ft.

Length of Water Column (LWC = TWD - DGW) 6.21 ft.

1 Csg. Volume (LWC * C) 6.21 x 0.6178 = 3.84 Liters

3 Csg. Volume = 3 x _____ _____ Liters (Std. Purge Vol.)

Total Volume of Water Purged Before Sampling 8 Liters

	Initial	1st vol.	2nd vol.	3rd vol.	4 th vol.	5 th vol.	Post	Sampling
Volume Purged (Liters)	1	3	4					
Time (Military)	1030	1045	1050					
pH (s.u.)	5.07	5.16	5.28					
Specific Cond. (umhos/cm)	81	81	81					
Water Temp (°C)	23.0	23.4	22.8					
Turbidity (*)								
Dissolved Oxygen (mg/L)	5.1	5.5	5.2					

* Subjective (1)None (2)Faint (3)Moderate (4)Strong

Remarks: _____

South Carolina Department of Health and Environmental Contol
Bureau of Underground Storage Tank Management

Field Data Information Sheet for Ground Water Sampling

Date (mm/dd/yy) 08-28-05
Field Personnel TF, JR, JR, CW + LB
General Weather Conditions Mostly Sunny + Hot
Ambient Air Temperature _____ °C

Facility Name JJ's Texaco Site Number 05986

Quality Assurance:

pH Meter:
Serial No. DEA 1
pH 4.0 = 4.0
pH 7.0 = 7.0
pH 10.0 = 10.0

Conductivity Meter:
Serial No. DEA 1
Standard 1413
Standard _____
Standard _____

Chain of Custody

Relinquished by:	Date/Time	Received by	Date/Time

Well # MW-8

Well Diameter (D) 2 inch or _____ feet
conversion factor (C): 3.143*(D/2)^2
for a 2 inch well 0.6178
4 inch well 0.652
Total Well Depth (TWD) 40.10 ft.
Depth to GW (DGW) 38.00 ft.

Length of Water Column (LWC = TWD - DGW) 2.10 ft.

1 Csg. Volume (LWC * C) = 2.10 x 0.6178 = 1.30 Liters

3 Csg. Volume = 3 x _____ = _____ Liters (Std. Purge Vol.)

Total Volume of Water Purged Before Sampling 1 Liters

	Initial	1st vol.	2nd vol.	3rd vol.	4 th vol.	5 th vol.	Post	Sampling
Volume Purged (Liters)	1							
Time (Military)	1200							
pH (s.u.)	5.27							
Specific Cond. (umhos/cm)	046							
Water Temp (°C)	23.6							
Turbidity (*)								
Dissolved Oxygen (mg/L)	3.8							

* Subjective (1)None (2)Faint (3)Moderate (4)Strong

Remarks: Sampled after 1 bail due to lack of water.

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

Field Data Information Sheet for Ground Water Sampling

Date (mm/dd/yy) 08-28-05
Field Personnel TF, JR, JR, CW & LB
General Weather Conditions Mostly Sunny & Hot
Ambient Air Temperature _____ °C

Facility Name JJ's Texaco Site Number 05986

Quality Assurance:

pH Meter:
Serial No. DEA 1
pH 4.0 = 4.0
pH 7.0 = 7.0
pH 10.0 = 10.0

Conductivity Meter:
Serial No. DEA 1
Standard 1413
Standard _____
Standard _____

Chain of Custody

Relinquished by:	Date/Time	Received by	Date/Time

Well # MW-9

Well Diameter (D) 2 inch or _____ feet
conversion factor (C): 3.143*(D/2)^2
for a 2 inch well 0.6178
4 inch well 0.652
Total Well Depth (TWD) 43.20 ft.
Depth to GW (DGW) 34.40 ft

Length of Water Column (LWC = TWD - DGW) 8.80 ft.

1 Csg. Volume (LWC * C) = 8.80 x 0.6178 = 5.42 Liters

3 Csg. Volume = 3 x _____ = _____ Liters (Std. Purge Vol.)

Total Volume of Water Purged Before Sampling 5 Liters

	Initial	1st vol.	2nd vol.	3rd vol.	4 th vol.	5 th vol.	Post	Sampling
Volume Purged (Liters)	1	4						
Time (Military)	1218	1223						
pH (s.u.)	5.10	5.34						
Specific Cond. (umhos/cm)	039	038						
Water Temp (°C)	23.8	22.3						
Turbidity (*)								
Dissolved Oxygen (mg/L)	5.1	2.1						

* Subjective (1)None (2)Faint (3)Moderate (4)Strong

Remarks: Well sampled after 5 bails due to lack of water.

South Carolina Department of Health and Environmental Contol
Bureau of Underground Storage Tank Management

Field Data Information Sheet for Ground Water Sampling

Date (mm/dd/yy) 08-28-05
Field Personnel TF, JR, JR, CW & LB
General Weather Conditions Mostly Sunny & Hot
Ambient Air Temperature _____ °C

Facility Name JJ's Texaco Site Number 05986

Quality Assurance:

pH Meter:
Serial No. DEA 1
pH 4.0 = 4.0
pH 7.0 = 7.0
pH 10.0 = 10.0

Conductivity Meter:
Serial No. DEA 1
Standard 1413
Standard _____
Standard _____

Chain of Custody

Relinquished by: Date/Time Received by Date/Time

Well # MW-10

Well Diameter (D) 2 inch or _____ feet
conversion factor (C): 3.143*(D/2)^2
for a 2 inch well 0.6178
4 inch well 0.652
Total Well Depth (TWD) _____ ft.
Depth to GW (DGW) 33.56 ft.
Free Product 29.80 ft.
Length of Water Column (LWC TWD-DGW) _____ ft.

1 Csg. Volume (LWC * C) = _____ x 0.6178 = _____ Liters

3 Csg. Volume 3 x _____ _____ Liters (Std. Purge Vol.)

Total Volume of Water Purged Before Sampling _____ Liters

	Initial	1st vol.	2nd vol.	3rd vol.	4 th vol.	5 th vol.	Post	Sampling
Volume Purged (Liters)	1							
Time (Military)								
pH (s.u.)								
Specific Cond. (umhos/cm)								
Water Temp (°C)								
Turbidity (*)								
Dissolved Oxygen (mg/L)								

* Subjective (1)None (2)Faint (3)Moderate (4)Strong

Remarks: Well not sampled due to 3.76ft. of free product.

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

Field Data Information Sheet for Ground Water Sampling

Date (mm/dd/yy) 08-28-05
Field Personnel TF, JR, JR, CW & LB
General Weather Conditions Mostly Sunny & Hot
Ambient Air Temperature _____ °C

Facility Name JJ's Texaco Site Number 059866

Quality Assurance:

pH Meter:
Serial No. DEA 1
pH 4.0 = 4.0
pH 7.0 = 7.0
pH 10.0 = 10.0

Conductivity Meter:
Serial No. DEA 1
Standard 1413
Standard _____
Standard _____

Chain of Custody

Relinquished by:	Date/Time	Received by	Date/Time

Well # MW-11

Well Diameter (D) 2 inch or _____ feet
conversion factor (C): 3.143*(D/2)^2
for a 2 inch well 0.6178
4 inch well 0.652
Total Well Depth (TWD) 40.02 ft.
Depth to GW (DGW) 21.16 ft.

Length of Water Column (LWC = TWD - DGW) 18.86 ft.

1 Csg. Volume (LWC * C) = 18.86 x 0.6178 = 11.65 Liters

3 Csg. Volume = 3 x _____ = _____ Liters (Std. Purge Vol.)

Total Volume of Water Purged Before Sampling 24 Liters

	Initial	1st vol.	2nd vol.	3rd vol.	4 th vol.	5 th vol.	Post	Sampling
Volume Purged (Liters)	1	11	12					
Time (Military)	1200	1210	1223					
pH (s.u.)	5.45	5.49	5.30					
Specific Cond. (umhos/cm)	045	045	039					
Water Temp (°C)	20.9	23.3	22.7					
Turbidity (*)								
Dissolved Oxygen (mg/L)	3.0	1.6	2.6					

* Subjective (1)None (2)Faint (3)Moderate (4)Strong

Remarks:

South Carolina Department of Health and Environmental Contol
Bureau of Underground Storage Tank Management

Field Data Information Sheet for Ground Water Sampling

Date (mm/dd/yy) 08-28-05
Field Personnel TF, JR, JR, CW & LB
General Weather Conditions Mostly Sunny & Hot
Ambient Air Temperature _____ °C

Facility Name JJ's Texaco Site Number 05986

Quality Assurance:

pH Meter:
Serial No. DEA 1
pH 4.0 = 4.0
pH 7.0 = 7.0
pH 10.0 = 10.0

Conductivity Meter:
Serial No DEA 1
Standard 1413
Standard _____
Standard _____

Chain of Custody

Relinquished by:	Date/Time	Received by	Date/Time

Well # MW-13

Well Diameter (D) 2 inch or _____ feet
conversion factor (C): 3.143*(D/2)^2
for a 2 inch well 0.6178
4 inch well 0.652
Total Well Depth (TWD) 33.53 ft.
Depth to GW (DGW) 21.08 ft.

Length of Water Column (LWC = TWD - DGW) 12.45 ft.

1 Csg. Volume (LWC * C) = 12.45 x 0.6178 = 7.69 Liters

3 Csg. Volume = 3 x _____ = _____ Liters (Std. Purge Vol.)

Total Volume of Water Purged Before Sampling 16 Liters

	Initial	1st vol.	2nd vol.	3rd vol.	4 th vol.	5 th vol.	Post	Sampling
Volume Purged (Liters)	1	7	8					
Time (Military)	1105	1110	1115					
pH (s.u.)	5.16	4.96	4.89					
Specific Cond. (umhos/cm)	69	68	68					
Water Temp (°C)	25.0	24.8	24.1					
Turbidity (*)								
Dissolved Oxygen (mg/L)	4.2	3.7	4.8					

* Subjective (1)None (2)Faint (3)Moderate (4)Strong

Remarks: _____

South Carolina Department of Health and Environmental Contol
Bureau of Underground Storage Tank Management

Field Data Information Sheet for Ground Water Sampling

Date (mm/dd/yy) 08-28-05
Field Personnel TF, JR, JR, CW + LB
General Weather Conditions Mostly Sunny + Hot
Ambient Air Temperature _____ °C

Facility Name JJ's Texaco Site Number 05986

Quality Assurance:

pH Meter:
Serial No. DEA 1
pH 4.0 = 4.0
pH 7.0 = 7.0
pH 10.0 = 10.0

Conductivity Meter:
Serial No. DEA 1
Standard 1413
Standard _____
Standard _____

Chain of Custody

Relinquished by:	Date/Time	Received by	Date/Time

Well # MW-14

Well Diameter (D) 2 inch or _____ feet
conversion factor (C): 3.143*(D/2)^2
for a 2 inch well 0.6178
4 inch well 0.652
Total Well Depth (TWD) 46.81 ft.
Depth to GW (DGW) 39.82 ft

Length of Water Column (LWC = TWD - DGW) 6.99 ft.

1 Csg. Volume (LWC * C) = 6.99 x 0.6178 = 4.32 Liters

3 Csg. Volume = 3 x _____ _____ Liters (Std. Purge Vol.)

Total Volume of Water Purged Before Sampling 12 Liters

	Initial	1st vol.	2nd vol.	3rd vol.	4 th vol.	5 th vol.	Post	Sampling
Volume Purged (Liters)	1	3	4	4				
Time (Military)	1042	1047	1050	1100				
pH (s.u.)	4.36	4.33	4.68	4.73				
Specific Cond. (umhos/cm)	082	081	080	078				
Water Temp (°C)	21.7	20.3	21.2	20.9				
Turbidity (*)								
Dissolved Oxygen (mg/L)	5.0	5.6	6.4	7.5				

* Subjective (1)None (2)Faint (3)Moderate (4)Strong

Remarks: _____

South Carolina Department of Health and Environmental Contol
Bureau of Underground Storage Tank Management

Field Data Information Sheet for Ground Water Sampling

Date (mm/dd/yy) 08-28-05
Field Personnel TF, JR, JR, CW & LB
General Weather Conditions Mostly Sunny & Hot
Ambient Air Temperature _____ °C

Facility Name JJ's Texaco Site Number 059860

Quality Assurance:

pH Meter:
Serial No. DEA 1
pH 4.0 = 4.0
pH 7.0 = 7.0
pH 10.0 = 10.0

Conductivity Meter:
Serial No. DEA 1
Standard 1413
Standard _____
Standard _____

Chain of Custody

Relinquished by:	Date/Time	Received by	Date/Time

Well # MW-15

Well Diameter (D) 2 inch or _____ feet
conversion factor (C): 3.143*(D/2)^2
for a 2 inch well 0.6178
4 inch well 0.652
Total Well Depth (TWD) _____ ft.
Depth to GW (DGW) _____ ft

Length of Water Column (LWC = TWD - DGW) _____ ft.

1 Csg. Volume (LWC * C) = _____ x 0.6178 = _____ Liters

3 Csg. Volume = 3 x _____ = _____ Liters (Std. Purge Vol.)

Total Volume of Water Purged Before Sampling 1 Liters

	Initial	1st vol.	2nd vol.	3rd vol.	4 th vol.	5 th vol.	Post	Sampling
Volume Purged (Liters)	1							
Time (Military)	1215							
pH (s.u.)	5.04							
Specific Cond. (umhos/cm)	042							
Water Temp (°C)	21.4							
Turbidity (*)								
Dissolved Oxygen (mg/L)	3.8							

* Subjective (1)None (2)Faint (3)Moderate (4)Strong

Remarks: Sampled without bailing due to lack of recharge.

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

Field Data Information Sheet for Ground Water Sampling

Date (mm/dd/yy) 08-28-05
Field Personnel TF, JR, JR, CW & LB
General Weather Conditions Mostly Sunny & Hot
Ambient Air Temperature _____ °C

Facility Name JJ's Texaco Site Number 059866

Quality Assurance:

pH Meter:
Serial No. DEA 1
pH 4.0 = 4.0
pH 7.0 = 7.0
pH 10.0 = 10.0

Conductivity Meter:
Serial No. DEA 1
Standard 1413
Standard _____
Standard _____

Chain of Custody

Relinquished by:	Date/Time	Received by	Date/Time

Well # MW-16

Well Diameter (D) 2 inch or _____ feet
conversion factor (C): 3.143*(D/2)^2
for a 2 inch well 0.6178
4 inch well 0.652
Total Well Depth (TWD) 36.62 ft.
Depth to GW (DGW) 31.35 ft.

Length of Water Column (LWC = TWD - DGW) 5.27 ft.

1 Csg. Volume (LWC * C) = 5.27 x 0.6178 = 3.26 Liters

3 Csg. Volume = 3 x _____ = _____ Liters (Std. Purge Vol.)

Total Volume of Water Purged Before Sampling 6 Liters

	Initial	1st vol.	2nd vol.	3rd vol.	4 th vol.	5 th vol.	Post	Sampling
Volume Purged (Liters)	1	2	3					
Time (Military)	1125	1130	1135					
pH (s.u.)	4.66	4.62	4.61					
Specific Cond. (umhos/cm)	060	059	059					
Water Temp (°C)	23.4	22.7	21.6					
Turbidity (*)								
Dissolved Oxygen (mg/L)	6.2	5.6	5.9					

* Subjective (1)None (2)Faint (3)Moderate (4)Strong

Remarks: _____

South Carolina Department of Health and Environmental Contol
Bureau of Underground Storage Tank Management

Field Data Information Sheet for Ground Water Sampling

Date (mm/dd/yy) 08-28-05
Field Personnel TF, JR, JR, CW & LB
General Weather Conditions Mostly Sunny & Hot
Ambient Air Temperature _____ °C

Facility Name JJ's Texaco Site Number 05986

Quality Assurance:

pH Meter:
Serial No. DEA 1
pH 4.0 = 4.0
pH 7.0 = 7.0
pH 10.0 = 10.0

Conductivity Meter:
Serial No. DEA 1
Standard 1413
Standard _____
Standard _____

Chain of Custody

Relinquished by:	Date/Time	Received by	Date/Time

Well # MW-19

Well Diameter (D) 2 inch or _____ feet
conversion factor (C): 3.143*(D/2)^2
for a 2 inch well 0.6178
4 inch well 0.652
Total Well Depth (TWD) 59.13 ft.
Depth to GW (DGW) 52.61 ft.

Length of Water Column (LWC = TWD -DGW) 6.52 ft.

1 Csg. Volume (LWC * C) = 6.52 x 0.6178 = 4.03 Liters

3 Csg. Volume = 3 x _____ = _____ Liters (Std. Purge Vol.)

Total Volume of Water Purged Before Sampling 8 Liters

	Initial	1st vol.	2nd vol.	3rd vol.	4 th vol.	5 th vol.	Post	Sampling
Volume Purged (Liters)	1	3	4					
Time (Military)	1058	1101	1105					
pH (s.u.)	5.25	5.32	5.43					
Specific Cond. (umhos/cm)	079	077	076					
Water Temp (°C)	20.5	20.2	20.4					
Turbidity (*)								
Dissolved Oxygen (mg/L)	4.2	4.6	4.8					

* Subjective (1)None (2)Faint (3)Moderate (4)Strong

Remarks: _____

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

Field Data Information Sheet for Ground Water Sampling

Date (mm/dd/yy) 08-28-05
Field Personnel TF, JR, JR, CW & LB
General Weather Conditions Mostly Sunny & Hot
Ambient Air Temperature _____ °C

Facility Name JJ's Texaco Site Number 059866

Quality Assurance:

pH Meter:
Serial No. DEA 1
pH 4.0 = 4.0
pH 7.0 = 7.0
pH 10.0 = 10.0

Conductivity Meter:
Serial No. DEA 1
Standard 1413
Standard _____
Standard _____

Chain of Custody

Relinquished by:	Date/Time	Received by	Date/Time

Well # MW-21

Well Diameter (D) 2 inch or _____ feet
conversion factor (C): 3.143*(D/2)^2
for a 2 inch well 0.6178
4 inch well 0.652
Total Well Depth (TWD) 12.43 ft.
Depth to GW (DGW) 3.82 ft.

Length of Water Column (LWC = TWD - DGW) 8.61 ft.

1 Csg. Volume (LWC * C) = 8.61 x 0.6178 = 5.32 Liters

3 Csg. Volume = 3 x _____ = _____ Liters (Std. Purge Vol.)

Total Volume of Water Purged Before Sampling 8 1/2 Liters

	Initial	1st vol.	2nd vol.	3rd vol.	4 th vol.	5 th vol.	Post	Sampling
Volume Purged (Liters)	1	4	3 1/2					
Time (Military)	1121	1127	1135					
pH (s.u.)	4.79	4.61	4.70					
Specific Cond. (umhos/cm)	066	065	058					
Water Temp (°C)	23.7	21.9	22.5					
Turbidity (*)								
Dissolved Oxygen (mg/L)	6.2	5.5	7.2					

* Subjective (1)None (2)Faint (3)Moderate (4)Strong

Remarks: Well sampled after 8 1/2 bails due to lack of water.

South Carolina Department of Health and Environmental Contol
Bureau of Underground Storage Tank Management

Field Data Information Sheet for Ground Water Sampling

Date (mm/dd/yy) 08-28-05
Field Personnel TF, JR, JR, CW & LB
General Weather Conditions Mostly Sunny & Hot
Ambient Air Temperature _____ °C

Facility Name JJ's Texaco Site Number 059866

Quality Assurance:

pH Meter:
Serial No. DEA 1
pH 4.0 = 4.0
pH 7.0 = 7.0
pH 10.0 = 10.0

Conductivity Meter:
Serial No. DEA 1
Standard 1413
Standard _____
Standard _____

Chain of Custody

Relinquished by:	Date/Time	Received by	Date/Time

Well # DW-1

Well Diameter (D) 2 inch or _____ feet
conversion factor (C): 3.143*(D/2)^2
for a 2 inch well 0.6178
4 inch well 0.652
Total Well Depth (TWD) 53.27 ft.
Depth to GW (DGW) 53.03 ft.

Length of Water Column (LWC TWD -DGW) 0.24 ft.

1 Csg. Volume (LWC * C) = 0.24 x 0.6178 = 0.148 Liters

3 Csg. Volume = 3 x _____ = _____ Liters (Std. Purge Vol.)

Total Volume of Water Purged Before Sampling _____ Liters

	Initial	1st vol.	2nd vol.	3rd vol.	4 th vol.	5 th vol.	Post	Sampling
Volume Purged (Liters)	1							
Time (Military)								
pH (s.u.)								
Specific Cond. (umhos/cm)								
Water Temp (°C)								
Turbidity (*)								
Dissolved Oxygen (mg/L)								

* Subjective (1)None (2)Faint (3)Moderate (4)Strong

Remarks: Not enough water to Sample.

South Carolina Department of Health and Environmental Contol
Bureau of Underground Storage Tank Management

Field Data Information Sheet for Ground Water Sampling

Date (mm/dd/yy) 08-28-05
Field Personnel TF, JR, JR, CW & LB
General Weather Conditions Mostly Sunny & Hot
Ambient Air Temperature _____ °C

Facility Name JJ's Texaco Site Number 059866

Quality Assurance:

pH Meter:
Serial No. DEA 1
pH 4.0 = 4.0
pH 7.0 = 7.0
pH 10.0 = 10.0

Conductivity Meter:
Serial No. DEA 1
Standard 1413
Standard _____
Standard _____

Chain of Custody

Relinquished by:	Date/Time	Received by	Date/Time

Well # DW-2

Well Diameter (D) 2 inch or _____ feet
conversion factor (C): 3.143*(D/2)^2
for a 2 inch well 0.6178
4 inch well 0.652
Total Well Depth (TWD) 55.49 ft.
Depth to GW (DGW) 55.05 ft.

Length of Water Column (LWC = TWD -DGW) 0.44 ft.

1 Csg. Volume (LWC * C) = 0.44 x 0.6178 = 0.272 Liters

3 Csg. Volume = 3 x _____ = _____ Liters (Std. Purge Vol.)

Total Volume of Water Purged Before Sampling _____ Liters

	Initial	1st vol.	2nd vol.	3rd vol.	4 th vol.	5 th vol.	Post	Sampling
Volume Purged (Liters)	1							
Time (Military)	1245							
pH (s.u.)								
Specific Cond. (umhos/cm)								
Water Temp (°C)								
Turbidity (*)								
Dissolved Oxygen (mg/L)								

* Subjective (1)None (2)Faint (3)Moderate (4)Strong

Remarks: Well sampled without bailing due to lack of water.

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

Field Data Information Sheet for Ground Water Sampling

Date (mm/dd/yy) 8-29-05
Field Personnel JR + LB
General Weather Conditions Mostly Sunny + Hot
Ambient Air Temperature _____ °C

Facility Name JJ's Texaco Site Number 05986

Quality Assurance:

pH Meter:
Serial No. DEA 1
pH 4.0 = 4.0
pH 7.0 = 7.0
pH 10.0 = 10.0

Conductivity Meter:
Serial No. DEA 1
Standard 1413
Standard _____
Standard _____

Chain of Custody

Relinquished by:	Date/Time	Received by	Date/Time

Well # RMW-20

Well Diameter (D) 2 inch or _____ feet
conversion factor (C): 3.143*(D/2)^2
for a 2 inch well 0.6178
4 inch well 0.652
Total Well Depth (TWD) 28.02 ft.
Depth to GW (DGW) 19.67 ft.

Length of Water Column (LWC = TWD -DGW) 8.35 ft.

1 Csg. Volume (LWC * C) = 8.35 x 0.6178 = 5.16 Liters

3 Csg. Volume = 3 x _____ _____ Liters (Std. Purge Vol.)

Total Volume of Water Purged Before Sampling _____ Liters

	Initial	1st vol.	2nd vol.	3rd vol.	4 th vol.	5 th vol.	Post	Sampling
Volume Purged (Liters)	1	4	3					
Time (Military)	1030	1033	1035					
pH (s.u.)	4.88	4.80						
Specific Cond. (umhos/cm)	007	006						
Water Temp (°C)	23.0	21.7						
Turbidity (*)								
Dissolved Oxygen (mg/L)	1.4	1.0						

* Subjective (1)None (2)Faint (3)Moderate (4)Strong

Remarks: Sampled after 8 bails due to lack of recharge.

Appendix D
Ground Water Analytical Data Sheets

ENVIRONMENTAL
SCIENCE CORP.

12065 Lebanon Rd.
Mt. Juliet, TN 37122
(615) 758-5858
1-800-767-5859
Fax (615) 758-5859

Tax I.D. 62-0814289

Est. 1970

REPORT OF ANALYSIS

Ms. Jan Reynolds
Duncan Environmental
10817C Two Notch Rd.
Elgin, SC 29045

September 12,2005

ESC Sample # : L212491-01

Site ID :

Project # : JJS TEXACO

Date Received : August 27, 2005
Description : JJ's Texaco

Sample ID : DW-1

Collected By : L Baxley
Collection Date : 08/26/05 09:30

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
Benzene	BDL	1.0	ug/l	8260B	08/30/05	1
Toluene	BDL	5.0	ug/l	8260B	08/30/05	1
Ethylbenzene	BDL	1.0	ug/l	8260B	08/30/05	1
Total Xylenes	BDL	3.0	ug/l	8260B	08/30/05	1
Methyl tert-butyl ether	BDL	1.0	ug/l	8260B	09/01/05	1
Naphthalene	40.	5.0	ug/l	8260B	08/30/05	1
Surrogate Recovery						
Toluene-d8	92.		% Rec.	8260B	08/30/05	1
Dibromofluoromethane	96.		% Rec.	8260B	08/30/05	1
4-Bromofluorobenzene	84.		% Rec.	8260B	08/30/05	1

Jimmy Hunt, ESC Representative

BDL - Below Detection Limit
Det. Limit - Practical Quantitation Limit(PQL)

Laboratory Certification Numbers:
AIHA - 100789, AL - 40660, CA - I-2327, CT- PH-0197, FL - E87487, GA - 923, IN - C-TN-01
KY - 90010, KYUST - 0016, NC - ENV375,DW21704, ND - R-140, SC - 84004, TN - 2006, VA - 00109, WV - 233
AZ -0612, MN - 047-999-395, NY - 11742, NJ - 81002, WI - 998093910

Note:
The reported analytical results relate only to the sample submitted.

Reported: 09/06/05 17:15 Printed: 09/12/05 13:42

ENVIRONMENTAL
SCIENCE CORP.

12065 Lebanon Rd.
Mt. Juliet, TN 37122
(615) 758-5858
1-800-767-5859
Fax (615) 758-5859

Tax I.D. 62-0814289

Est. 1970

REPORT OF ANALYSIS

Ms. Jan Reynolds
Duncan Environmental
10817C Two Notch Rd.
Elgin, SC 29045

September 12,2005

ESC Sample # : L212491-02

Site ID :

Project # : JJS TEXACO

Date Received : August 27, 2005
Description : JJ's Texaco

Sample ID : DW-2

Collected By : L Baxley
Collection Date : 08/25/05 12:45

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
Benzene	BDL	1.0	ug/l	8260B	08/30/05	1
Toluene	BDL	5.0	ug/l	8260B	08/30/05	1
Ethylbenzene	BDL	1.0	ug/l	8260B	08/30/05	1
Total Xylenes	BDL	3.0	ug/l	8260B	08/30/05	1
Methyl tert-butyl ether	BDL	1.0	ug/l	8260B	09/01/05	1
Naphthalene	BDL	5.0	ug/l	8260B	08/30/05	1
Surrogate Recovery						
Toluene-d8	93.		% Rec.	8260B	08/30/05	1
Dibromofluoromethane	110		% Rec.	8260B	08/30/05	1
4-Bromofluorobenzene	85.		% Rec.	8260B	08/30/05	1

Jimmy Hunt, ESC Representative

BDL - Below Detection Limit
Det. Limit - Practical Quantitation Limit(PQL)

Laboratory Certification Numbers:
AIHA - 100789, AL - 40660, CA - I-2327, CT- PH-0197, FL - E87487, GA - 923, IN - C-TN-01
KY - 90010, KYUST - 0016, NC - ENV375,DW21704, ND - R-140, SC - 84004, TN - 2006, VA - 00109, WV - 233
AZ -0612, MN - 047-999-395, NY - 11742, NJ - 81002, WI - 998093910

Note:
The reported analytical results relate only to the sample submitted.

Reported: 09/06/05 17:15 Printed: 09/12/05 13:42

ENVIRONMENTAL
SCIENCE CORP.

12065 Lebanon Rd.
Mt. Juliet, TN 37122
(615) 758-5858
1-800-767-5859
Fax (615) 758-5859

Tax I.D. 62-0814289

Est. 1970

REPORT OF ANALYSIS

Ms. Jan Reynolds
Duncan Environmental
10817C Two Notch Rd.
Elgin, SC 29045

September 12,2005

ESC Sample # : L212491-03

Site ID :

Project # : JJS TEXACO

Date Received : August 27, 2005
Description : JJ's Texaco

Sample ID : MW-1

Collected By : L Baxley
Collection Date : 08/25/05 10:15

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
Methane	BDL	1000	ug/l	8015M	08/29/05	1
Lead	17.	5.0	ug/l	6010B	09/01/05	1
Benzene	BDL	1.0	ug/l	8260B	08/30/05	1
Toluene	BDL	5.0	ug/l	8260B	08/30/05	1
Ethylbenzene	BDL	1.0	ug/l	8260B	08/30/05	1
Total Xylenes	BDL	3.0	ug/l	8260B	08/30/05	1
Methyl tert-butyl ether	1.9	1.0	ug/l	8260B	09/01/05	1
Naphthalene	BDL	5.0	ug/l	8260B	08/30/05	1
Surrogate Recovery						
Toluene-d8	93.		% Rec.	8260B	08/30/05	1
Dibromofluoromethane	100		% Rec.	8260B	08/30/05	1
4-Bromofluorobenzene	82.		% Rec.	8260B	08/30/05	1
Ethylene Dibromide	BDL	0.010	ug/l	8011	09/01/05	1
1,2-Dibromo-3-Chloropropane	BDL	0.020	ug/l	8011	09/01/05	1

Jimmy Hunt, ESC Representative

BDL - Below Detection Limit
Det. Limit - Practical Quantitation Limit(PQL)

Laboratory Certification Numbers:
AIHA - 100789, AL - 40660, CA - I-2327, CT- PH-0197, FL - E87487, GA - 923, IN - C-TN-01
KY - 90010, KYUST - 0016, NC - ENV375,DW21704, ND - R-140, SC - 84004, TN - 2006, VA - 00109, WV - 233
AZ -0612, MN - 047-999-395, NY - 11742, NJ - 81002, WI - 998093910

Note:
The reported analytical results relate only to the sample submitted.

Reported: 09/06/05 17:15 Printed: 09/12/05 13:42

ENVIRONMENTAL
SCIENCE CORP.

12065 Lebanon Rd.
Mt. Juliet, TN 37122
(615) 758-5858
1-800-767-5859
Fax (615) 758-5859

Tax I.D. 62-0814289

Est. 1970

REPORT OF ANALYSIS

Ms. Jan Reynolds
Duncan Environmental
10817C Two Notch Rd.
Elgin, SC 29045

September 12,2005

ESC Sample # : L212491-04

Site ID :

Project # : JJS TEXACO

Date Received : August 27, 2005
Description : JJ's Texaco

Sample ID : RMW-5

Collected By : L Baxley
Collection Date : 08/25/05 11:37

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
Methane	BDL	1000	ug/l	8015M	08/29/05	1
Lead	1700	5.0	ug/l	6010B	09/01/05	1
Benzene	BDL	1.0	ug/l	8260B	08/30/05	1
Toluene	BDL	5.0	ug/l	8260B	08/30/05	1
Ethylbenzene	BDL	1.0	ug/l	8260B	08/30/05	1
Total Xylenes	BDL	3.0	ug/l	8260B	08/30/05	1
Methyl tert-butyl ether	BDL	1.0	ug/l	8260B	09/01/05	1
Naphthalene	BDL	5.0	ug/l	8260B	08/30/05	1
Surrogate Recovery						
Toluene-d8	95.		% Rec.	8260B	08/30/05	1
Dibromofluoromethane	100		% Rec.	8260B	08/30/05	1
4-Bromofluorobenzene	84.		% Rec.	8260B	08/30/05	1

Jimmy Hunt, ESC Representative

BDL - Below Detection Limit
Det. Limit - Practical Quantitation Limit(PQL)

Laboratory Certification Numbers:
AIHA - 100789, AL - 40660, CA - I-2327, CT- PH-0197, FL - E87487, GA - 923, IN - C-TN-01
KY - 90010, KYUST - 0016, NC - ENV375,DW21704, ND - R-140, SC - 84004, TN - 2006, VA - 00109, WV - 233
AZ -0612, MN - 047-999-395, NY - 11742, NJ - 81002, WI - 998093910

Note:
The reported analytical results relate only to the sample submitted.

Reported: 09/06/05 17:15 Printed: 09/12/05 13:42

ENVIRONMENTAL
SCIENCE CORP.

12065 Lebanon Rd.
Mt. Juliet, TN 37122
(615) 758-5858
1-800-767-5859
Fax (615) 758-5859

Tax I.D. 62-0814289

Est. 1970

REPORT OF ANALYSIS

Ms. Jan Reynolds
Duncan Environmental
10817C Two Notch Rd.
Elgin, SC 29045

September 12,2005

ESC Sample # : L212491-05

Site ID :

Project # : JJS TEXACO

Date Received : August 27, 2005
Description : JJ's Texaco

Sample ID : MW-7

Collected By : L Baxley
Collection Date : 08/25/05 10:50

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
Methane	BDL	1000	ug/l	8015M	08/29/05	1
Lead	22.	5.0	ug/l	6010B	09/01/05	1
Benzene	BDL	1.0	ug/l	8260B	08/30/05	1
Toluene	BDL	5.0	ug/l	8260B	08/30/05	1
Ethylbenzene	BDL	1.0	ug/l	8260B	08/30/05	1
Total Xylenes	BDL	3.0	ug/l	8260B	08/30/05	1
Methyl tert-butyl ether	BDL	1.0	ug/l	8260B	09/01/05	1
Naphthalene	BDL	5.0	ug/l	8260B	08/30/05	1
Surrogate Recovery						
Toluene-d8	92.		% Rec.	8260B	08/30/05	1
Dibromofluoromethane	100		% Rec.	8260B	08/30/05	1
4-Bromofluorobenzene	85.		% Rec.	8260B	08/30/05	1
Ethylene Dibromide	BDL	0.010	ug/l	8011	09/01/05	1
1,2-Dibromo-3-Chloropropane	BDL	0.020	ug/l	8011	09/01/05	1

Jimmy Hunt, ESC Representative

BDL - Below Detection Limit
Det. Limit - Practical Quantitation Limit(PQL)

Laboratory Certification Numbers:
AIHA - 100789, AL - 40660, CA - I-2327, CT- PH-0197, FL - E87487, GA - 923, IN - C-TN-01
KY - 90010, KYUST - 0016, NC - ENV375,DW21704, ND - R-140, SC - 84004, TN - 2006, VA - 00109, WV - 233
AZ -0612, MN - 047-999-395, NY - 11742, NJ - 81002, WI - 998093910

Note:
The reported analytical results relate only to the sample submitted.

Reported: 09/06/05 17:15 Printed: 09/12/05 13:42

ENVIRONMENTAL
SCIENCE CORP.

12065 Lebanon Rd.
Mt. Juliet, TN 37122
(615) 758-5858
1-800-767-5859
Fax (615) 758-5859

Tax I.D. 62-0814289

Est. 1970

REPORT OF ANALYSIS

Ms. Jan Reynolds
Duncan Environmental
10817C Two Notch Rd.
Elgin, SC 29045

September 12,2005

ESC Sample # : L212491-06

Date Received : August 27, 2005
Description : JJ's Texaco

Site ID :

Sample ID : MW-8

Project # : JJS TEXACO

Collected By : L Baxley
Collection Date : 08/25/05 12:00

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
Methane	BDL	1000	ug/l	8015M	08/29/05	1
Lead	65.	5.0	ug/l	6010B	09/01/05	1
Benzene	210	100	ug/l	8260B	08/30/05	100
Toluene	1200	500	ug/l	8260B	08/30/05	100
Ethylbenzene	440	100	ug/l	8260B	08/30/05	100
Total Xylenes	3300	300	ug/l	8260B	08/30/05	100
Methyl tert-butyl ether	29.	20.	ug/l	8260B	09/01/05	20
Naphthalene	190	500	ug/l	8260B	08/30/05	100
Surrogate Recovery						
Toluene-d8	94.		% Rec.	8260B	08/30/05	100
Dibromofluoromethane	100		% Rec.	8260B	08/30/05	100
4-Bromofluorobenzene	83.		% Rec.	8260B	08/30/05	100
Ethylene Dibromide	BDL	0.010	ug/l	8011	09/01/05	1
1,2-Dibromo-3-Chloropropane	BDL	0.020	ug/l	8011	09/01/05	1

Jimmy Hunt, ESC Representative

BDL - Below Detection Limit
Det. Limit - Practical Quantitation Limit(PQL)

Laboratory Certification Numbers:
AIHA - 100789, AL - 40660, CA - I-2327, CT- PH-0197, FL - E87487, GA - 923, IN - C-TN-01
KY - 90010, KYUST - 0016, NC - ENV375,DW21704, ND - R-140, SC - 84004, TN - 2006, VA - 00109, WV - 233
AZ -0612, MN - 047-999-395, NY - 11742, NJ - 81002, WI - 998093910

Note:
The reported analytical results relate only to the sample submitted.

Reported: 09/06/05 17:15 Printed: 09/12/05 13:42

ENVIRONMENTAL
SCIENCE CORP.

12065 Lebanon Rd.
Mt. Juliet, TN 37122
(615) 758-5858
1-800-767-5859
Fax (615) 758-5859

Tax I.D. 62-0814289

Est. 1970

REPORT OF ANALYSIS

Ms. Jan Reynolds
Duncan Environmental
10817C Two Notch Rd.
Elgin, SC 29045

September 12,2005

ESC Sample # : L212491-07

Site ID :

Project # : JJS TEXACO

Date Received : August 27, 2005
Description : JJ's Texaco

Sample ID : MW-9

Collected By : L Baxley
Collection Date : 08/25/05 12:23

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
Methane	BDL	1000	ug/l	8015M	08/29/05	1
Lead	100	5.0	ug/l	6010B	09/01/05	1
Benzene	3300	500	ug/l	8260B	09/02/05	500
Toluene	7400	2500	ug/l	8260B	09/02/05	500
Ethylbenzene	610	500	ug/l	8260B	09/02/05	500
Total Xylenes	8900	1500	ug/l	8260B	09/02/05	500
Methyl tert-butyl ether	810	500	ug/l	8260B	09/02/05	500
Naphthalene	BDL	2500	ug/l	8260B	09/02/05	500
Surrogate Recovery						
Toluene-d8	96.		% Rec.	8260B	09/02/05	500
Dibromofluoromethane	96.		% Rec.	8260B	09/02/05	500
4-Bromofluorobenzene	90.		% Rec.	8260B	09/02/05	500
Ethylene Dibromide	5100	0.20	ug/l	8011	09/01/05	20
1,2-Dibromo-3-Chloropropane	BDL	0.40	ug/l	8011	09/01/05	20

Jimmy Hunt, ESC Representative

BDL - Below Detection Limit
Det. Limit - Practical Quantitation Limit(PQL)

Laboratory Certification Numbers:
AIHA - 100789, AL - 40660, CA - I-2327, CT- PH-0197, FL - E87487, GA - 923, IN - C-TN-01
KY - 90010, KYUST - 0016, NC - ENV375,DW21704, ND - R-140, SC - 84004, TN - 2006, VA - 00109, WV - 233
AZ -0612, MN - 047-999-395, NY - 11742, NJ - 81002, WI - 998093910

Note:
The reported analytical results relate only to the sample submitted.

Reported: 09/06/05 17:15 Printed: 09/12/05 13:42

ENVIRONMENTAL
SCIENCE CORP.

12065 Lebanon Rd.
Mt. Juliet, TN 37122
(615) 758-5858
1-800-767-5859
Fax (615) 758-5859

Tax I.D. 62-0814289

Est. 1970

REPORT OF ANALYSIS

Ms. Jan Reynolds
Duncan Environmental
10817C Two Notch Rd.
Elgin, SC 29045

September 12,2005

ESC Sample # : L212491-08

Site ID :

Project # : JJS TEXACO

Date Received : August 27, 2005
Description : JJ's Texaco

Sample ID : MW-11

Collected By : L Baxley
Collection Date : 08/25/05 12:23

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
Methane	BDL	1000	ug/l	8015M	08/29/05	1
Lead	BDL	5.0	ug/l	6010B	09/01/05	1
Benzene	BDL	1.0	ug/l	8260B	08/30/05	1
Toluene	BDL	5.0	ug/l	8260B	08/30/05	1
Ethylbenzene	24.	1.0	ug/l	8260B	08/30/05	1
Total Xylenes	34.	3.0	ug/l	8260B	08/30/05	1
Methyl tert-butyl ether	BDL	1.0	ug/l	8260B	09/01/05	1
Naphthalene	13.	5.0	ug/l	8260B	08/30/05	1
Surrogate Recovery						
Toluene-d8	95.		% Rec.	8260B	08/30/05	1
Dibromofluoromethane	98.		% Rec.	8260B	08/30/05	1
4-Bromofluorobenzene	85.		% Rec.	8260B	08/30/05	1
Ethylene Dibromide	BDL	0.010	ug/l	8011	09/01/05	1
1,2-Dibromo-3-Chloropropane	BDL	0.020	ug/l	8011	09/01/05	1

Jimmy Hunt, ESC Representative

BDL - Below Detection Limit
Det. Limit - Practical Quantitation Limit(PQL)

Laboratory Certification Numbers:
AIHA - 100789, AL - 40660, CA - I-2327, CT- PH-0197, FL - E87487, GA - 923, IN - C-TN-01
KY - 90010, KYUST - 0016, NC - ENV375,DW21704, ND - R-140, SC - 84004, TN - 2006, VA - 00109, WV - 233
AZ -0612, MN - 047-999-395, NY - 11742, NJ - 81002, WI - 998093910

Note:
The reported analytical results relate only to the sample submitted.

Reported: 09/06/05 17:15 Printed: 09/12/05 13:42

ENVIRONMENTAL
SCIENCE CORP.

12065 Lebanon Rd.
Mt. Juliet, TN 37122
(615) 758-5858
1-800-767-5859
Fax (615) 758-5859

Tax I.D. 62-0814289

Est. 1970

REPORT OF ANALYSIS

Ms. Jan Reynolds
Duncan Environmental
10817C Two Notch Rd.
Elgin, SC 29045

September 12,2005

ESC Sample # : L212491-09

Site ID :

Project # : JJS TEXACO

Date Received : August 27, 2005
Description : JJ's Texaco

Sample ID : MW-13

Collected By : L Baxley
Collection Date : 08/25/05 11:15

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
Methane	BDL	1000	ug/l	8015M	08/29/05	1
Lead	7.6	5.0	ug/l	6010B	09/01/05	1
Benzene	BDL	1.0	ug/l	8260B	08/30/05	1
Toluene	BDL	5.0	ug/l	8260B	08/30/05	1
Ethylbenzene	BDL	1.0	ug/l	8260B	08/30/05	1
Total Xylenes	BDL	3.0	ug/l	8260B	08/30/05	1
Methyl tert-butyl ether	1.8	1.0	ug/l	8260B	09/01/05	1
Naphthalene	BDL	5.0	ug/l	8260B	08/30/05	1
Surrogate Recovery						
Toluene-d8	93.		% Rec.	8260B	08/30/05	1
Dibromofluoromethane	100		% Rec.	8260B	08/30/05	1
4-Bromofluorobenzene	87.		% Rec.	8260B	08/30/05	1
Ethylene Dibromide	BDL	0.010	ug/l	8011	09/01/05	1
1,2-Dibromo-3-Chloropropane	BDL	0.020	ug/l	8011	09/01/05	1

Jimmy Hunt, ESC Representative

BDL - Below Detection Limit
Det. Limit - Practical Quantitation Limit(PQL)

Laboratory Certification Numbers:
AIHA - 100789, AL - 40660, CA - I-2327, CT- PH-0197, FL - E87487, GA - 923, IN - C-TN-01
KY - 90010, KYUST - 0016, NC - ENV375,DW21704, ND - R-140, SC - 84004, TN - 2006, VA - 00109, WV - 233
AZ -0612, MN - 047-999-395, NY - 11742, NJ - 81002, WI - 998093910

Note:
The reported analytical results relate only to the sample submitted.

Reported: 09/06/05 17:15 Printed: 09/12/05 13:42

ENVIRONMENTAL
SCIENCE CORP.

12065 Lebanon Rd.
Mt. Juliet, TN 37122
(615) 758-5858
1-800-767-5859
Fax (615) 758-5859

Tax I.D. 62-0814289

Est. 1970

REPORT OF ANALYSIS

Ms. Jan Reynolds
Duncan Environmental
10817C Two Notch Rd.
Elgin, SC 29045

September 12,2005

ESC Sample # : L212491-10

Site ID :

Project # : JJS TEXACO

Date Received : August 27, 2005
Description : JJ's Texaco

Sample ID : MW-14

Collected By : L Baxley
Collection Date : 08/25/05 00:00

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
Methane	BDL	1000	ug/l	8015M	08/29/05	1
Lead	1100	5.0	ug/l	6010B	09/01/05	1
Benzene	BDL	1.0	ug/l	8260B	08/30/05	1
Toluene	BDL	5.0	ug/l	8260B	08/30/05	1
Ethylbenzene	BDL	1.0	ug/l	8260B	08/30/05	1
Total Xylenes	BDL	3.0	ug/l	8260B	08/30/05	1
Methyl tert-butyl ether	BDL	1.0	ug/l	8260B	09/01/05	1
Naphthalene	BDL	5.0	ug/l	8260B	08/30/05	1
Surrogate Recovery						
Toluene-d8	94.		% Rec.	8260B	08/30/05	1
Dibromofluoromethane	100		% Rec.	8260B	08/30/05	1
4-Bromofluorobenzene	84.		% Rec.	8260B	08/30/05	1
Ethylene Dibromide	BDL	0.010	ug/l	8011	09/01/05	1
1,2-Dibromo-3-Chloropropane	BDL	0.020	ug/l	8011	09/01/05	1

Jimmy Hunt, ESC Representative

BDL - Below Detection Limit
Det. Limit - Practical Quantitation Limit(PQL)

Laboratory Certification Numbers:
AIHA - 100789, AL - 40660, CA - I-2327, CT- PH-0197, FL - E87487, GA - 923, IN - C-TN-01
KY - 90010, KYUST - 0016, NC - ENV375,DW21704, ND - R-140, SC - 84004, TN - 2006, VA - 00109, WV - 233
AZ -0612, MN - 047-999-395, NY - 11742, NJ - 81002, WI - 998093910

Note:
The reported analytical results relate only to the sample submitted.

.
Reported: 09/06/05 17:15 Printed: 09/12/05 13:42

ENVIRONMENTAL
SCIENCE CORP.

12065 Lebanon Rd.
Mt. Juliet, TN 37122
(615) 758-5858
1-800-767-5859
Fax (615) 758-5859

Tax I.D. 62-0814289

Est. 1970

REPORT OF ANALYSIS

Ms. Jan Reynolds
Duncan Environmental
10817C Two Notch Rd.
Elgin, SC 29045

September 12,2005

ESC Sample # : L212491-11

Site ID :

Project # : JJS TEXACO

Date Received : August 27, 2005
Description : JJ's Texaco

Sample ID : MW-15

Collected By : L Baxley
Collection Date : 08/25/05 00:00

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
Methane	BDL	1000	ug/l	8015M	08/29/05	1
Lead	69.	5.0	ug/l	6010B	09/01/05	1
Benzene	20.	1.0	ug/l	8260B	08/30/05	1
Toluene	BDL	5.0	ug/l	8260B	08/30/05	1
Ethylbenzene	BDL	1.0	ug/l	8260B	08/30/05	1
Total Xylenes	30.	3.0	ug/l	8260B	08/30/05	1
Methyl tert-butyl ether	BDL	1.0	ug/l	8260B	09/01/05	1
Naphthalene	BDL	5.0	ug/l	8260B	08/30/05	1
Surrogate Recovery						
Toluene-d8	91.		% Rec.	8260B	08/30/05	1
Dibromofluoromethane	110		% Rec.	8260B	08/30/05	1
4-Bromofluorobenzene	83.		% Rec.	8260B	08/30/05	1
Ethylene Dibromide	200	0.010	ug/l	8011	09/01/05	1
1,2-Dibromo-3-Chloropropane	BDL	0.020	ug/l	8011	09/01/05	1

Jimmy Hunt, ESC Representative

BDL - Below Detection Limit
Det. Limit - Practical Quantitation Limit(PQL)

Laboratory Certification Numbers:
AIHA - 100789, AL - 40660, CA - I-2327, CT- PH-0197, FL - E87487, GA - 923, IN - C-TN-01
KY - 90010, KYUST - 0016, NC - ENV375,DW21704, ND - R-140, SC - 84004, TN - 2006, VA - 00109, WV - 233
AZ -0612, MN - 047-999-395, NY - 11742, NJ - 81002, WI - 998093910

Note:
The reported analytical results relate only to the sample submitted.

Reported: 09/06/05 17:15 Printed: 09/12/05 13:42

ENVIRONMENTAL
SCIENCE CORP.

12065 Lebanon Rd.
Mt. Juliet, TN 37122
(615) 758-5858
1-800-767-5859
Fax (615) 758-5859

Tax I.D. 62-0814289

Est. 1970

REPORT OF ANALYSIS

Ms. Jan Reynolds
Duncan Environmental
10817C Two Notch Rd.
Elgin, SC 29045

September 12,2005

ESC Sample # : L212491-12

Date Received : August 27, 2005
Description : JJ's Texaco

Site ID :

Sample ID : MW-16

Project # : JJS TEXACO

Collected By : L Baxley
Collection Date : 08/25/05 00:00

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
Methane	BDL	1000	ug/l	8015M	08/29/05	1
Lead	10.	5.0	ug/l	6010B	09/01/05	1
Benzene	BDL	1.0	ug/l	8260B	08/30/05	1
Toluene	BDL	5.0	ug/l	8260B	08/30/05	1
Ethylbenzene	BDL	1.0	ug/l	8260B	08/30/05	1
Total Xylenes	BDL	3.0	ug/l	8260B	08/30/05	1
Methyl tert-butyl ether	BDL	1.0	ug/l	8260B	09/01/05	1
Naphthalene	BDL	5.0	ug/l	8260B	08/30/05	1
Surrogate Recovery						
Toluene-d8	94.		% Rec.	8260B	08/30/05	1
Dibromofluoromethane	100		% Rec.	8260B	08/30/05	1
4-Bromofluorobenzene	84.		% Rec.	8260B	08/30/05	1
Ethylene Dibromide	BDL	0.010	ug/l	8011	09/01/05	1
1,2-Dibromo-3-Chloropropane	BDL	0.020	ug/l	8011	09/01/05	1

Jimmy Hunt, ESC Representative

BDL - Below Detection Limit
Det. Limit - Practical Quantitation Limit(PQL)

Laboratory Certification Numbers:
AIHA - 100789, AL - 40660, CA - I-2327, CT- PH-0197, FL - E87487, GA - 923, IN - C-TN-01
KY - 90010, KYUST - 0016, NC - ENV375,DW21704, ND - R-140, SC - 84004, TN - 2006, VA - 00109, WV - 233
AZ -0612, MN - 047-999-395, NY - 11742, NJ - 81002, WI - 998093910

Note:
The reported analytical results relate only to the sample submitted.

Reported: 09/06/05 17:15 Printed: 09/12/05 13:42

ENVIRONMENTAL
SCIENCE CORP.

12065 Lebanon Rd.
Mt. Juliet, TN 37122
(615) 758-5858
1-800-767-5859
Fax (615) 758-5859

Tax I.D. 62-0814289

Est. 1970

REPORT OF ANALYSIS

Ms. Jan Reynolds
Duncan Environmental
10817C Two Notch Rd.
Elgin, SC 29045

September 12,2005

ESC Sample # : L212491-13

Site ID :

Project # : JJS TEXACO

Date Received : August 27, 2005
Description : JJ's Texaco

Sample ID : MW-19

Collected By : L Baxley
Collection Date : 08/25/05 00:00

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
Methane	BDL	1000	ug/l	8015M	08/29/05	1
Lead	21.	5.0	ug/l	6010B	09/01/05	1
Benzene	BDL	1.0	ug/l	8260B	08/30/05	1
Toluene	BDL	5.0	ug/l	8260B	08/30/05	1
Ethylbenzene	BDL	1.0	ug/l	8260B	08/30/05	1
Total Xylenes	BDL	3.0	ug/l	8260B	08/30/05	1
Methyl tert-butyl ether	BDL	1.0	ug/l	8260B	09/01/05	1
Naphthalene	BDL	5.0	ug/l	8260B	08/30/05	1
Surrogate Recovery						
Toluene-d8	94.		% Rec.	8260B	08/30/05	1
Dibromofluoromethane	110		% Rec.	8260B	08/30/05	1
4-Bromofluorobenzene	79.		% Rec.	8260B	08/30/05	1
Ethylene Dibromide	BDL	0.010	ug/l	8011	09/01/05	1
1,2-Dibromo-3-Chloropropane	BDL	0.020	ug/l	8011	09/01/05	1

Jimmy Hunt, ESC Representative

BDL - Below Detection Limit
Det. Limit - Practical Quantitation Limit(PQL)

Laboratory Certification Numbers:
AIHA - 100789, AL - 40660, CA - I-2327, CT- PH-0197, FL - E87487, GA - 923, IN - C-TN-01
KY - 90010, KYUST - 0016, NC - ENV375,DW21704, ND - R-140, SC - 84004, TN - 2006, VA - 00109, WV - 233
AZ -0612, MN - 047-999-395, NY - 11742, NJ - 81002, WI - 998093910

Note:
The reported analytical results relate only to the sample submitted.

Reported: 09/06/05 17:15 Printed: 09/12/05 13:42

ENVIRONMENTAL
SCIENCE CORP.

12065 Lebanon Rd.
Mt. Juliet, TN 37122
(615) 758-5858
1-800-767-5859
Fax (615) 758-5859

Tax I.D. 62-0814289

Est. 1970

REPORT OF ANALYSIS

Ms. Jan Reynolds
Duncan Environmental
10817C Two Notch Rd.
Elgin, SC 29045

September 12,2005

ESC Sample # : L212491-14

Site ID :

Project # : JJS TEXACO

Date Received : August 27, 2005
Description : JJ's Texaco

Sample ID : MW-21

Collected By : L Baxley
Collection Date : 08/25/05 00:00

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
Methane	BDL	1000	ug/l	8015M	08/29/05	1
Lead	860	5.0	ug/l	6010B	09/01/05	1
Benzene	BDL	1.0	ug/l	8260B	08/30/05	1
Toluene	BDL	5.0	ug/l	8260B	08/30/05	1
Ethylbenzene	BDL	1.0	ug/l	8260B	08/30/05	1
Total Xylenes	BDL	3.0	ug/l	8260B	08/30/05	1
Methyl tert-butyl ether	BDL	1.0	ug/l	8260B	09/01/05	1
Naphthalene	BDL	5.0	ug/l	8260B	08/30/05	1
Surrogate Recovery						
Toluene-d8	94.		% Rec.	8260B	08/30/05	1
Dibromofluoromethane	100		% Rec.	8260B	08/30/05	1
4-Bromofluorobenzene	75.		% Rec.	8260B	08/30/05	1
Ethylene Dibromide	BDL	0.010	ug/l	8011	09/01/05	1
1,2-Dibromo-3-Chloropropane	BDL	0.020	ug/l	8011	09/01/05	1

Jimmy Hunt, ESC Representative

BDL - Below Detection Limit
Det. Limit - Practical Quantitation Limit(PQL)

Laboratory Certification Numbers:
AIHA - 100789, AL - 40660, CA - I-2327, CT- PH-0197, FL - E87487, GA - 923, IN - C-TN-01
KY - 90010, KYUST - 0016, NC - ENV375,DW21704, ND - R-140, SC - 84004, TN - 2006, VA - 00109, WV - 233
AZ -0612, MN - 047-999-395, NY - 11742, NJ - 81002, WI - 998093910

Note:
The reported analytical results relate only to the sample submitted.

Reported: 09/06/05 17:15 Printed: 09/12/05 13:42

ENVIRONMENTAL
SCIENCE CORP.

12065 Lebanon Rd.
Mt. Juliet, TN 37122
(615) 758-5858
1-800-767-5859
Fax (615) 758-5859

Tax I.D. 62-0814289

Est. 1970

REPORT OF ANALYSIS

Ms. Jan Reynolds
Duncan Environmental
10817C Two Notch Rd.
Elgin, SC 29045

September 12,2005

ESC Sample # : L212491-15

Site ID :

Project # : JJS TEXACO

Date Received : August 27, 2005
Description : JJ's Texaco

Sample ID : RMW-5

Collected By : L Baxley
Collection Date : 08/26/05 09:18

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
Ethylene Dibromide	BDL	0.010	ug/l	8011	09/01/05	1
1,2-Dibromo-3-Chloropropane	BDL	0.020	ug/l	8011	09/01/05	1

Jimmy Hunt, ESC Representative

BDL - Below Detection Limit
Det. Limit - Practical Quantitation Limit(PQL)

Laboratory Certification Numbers:
AIHA - 100789, AL - 40660, CA - I-2327, CT- PH-0197, FL - E87487, GA - 923, IN - C-TN-01
KY - 90010, KYUST - 0016, NC - ENV375,DW21704, ND - R-140, SC - 84004, TN - 2006, VA - 00109, WV - 233
AZ -0612, MN - 047-999-395, NY - 11742, NJ - 81002, WI - 998093910

Note:
The reported analytical results relate only to the sample submitted.

Reported: 09/06/05 17:15 Printed: 09/12/05 13:42

Attachment A
List of Analytes with QC Qualifiers

Sample #	Analyte	Qualifier
L212491-06	Naphthalene	DJ

Attachment B
Explanation of QC Qualifier Codes

Qualifier	Meaning
J	(EPA) - Estimated value below the lowest calibration point. Confidence correlates with concentration.
D	Less than lower calibration limit. Actual value is known to be less than the lower calibration range due to dilution.

Qualifier Report Information

ESC utilizes sample and result qualifiers as set forth by the EPA Contract Laboratory Program and as required by most certifying bodies including NELAC. In addition to the EPA qualifiers adopted by ESC, we have implemented ESC qualifiers to provide more information pertaining to our analytical results. Each qualifier is designated in the qualifier explanation as either EPA or ESC. Data qualifiers are intended to provide the ESC client with more detailed information concerning the potential bias of reported data. Because of the wide range of constituents and variety of matrices incorporated by most EPA methods, it is common for some compounds to fall outside of established ranges. These exceptions are evaluated and all reported data is valid and useable unless qualified as 'R' (Rejected).

Definitions

Accuracy - The relationship of the observed value of a known sample to the true value of a known sample. Represented by percent recovery and relevant to samples such as: control samples, matrix spike recoveries, surrogate recoveries, etc.

Precision - The agreement between a set of samples or between duplicate samples. Relates to how close together the results are and is represented by Relative Percent Differrence.

Surrogate - Organic compounds that are similar in chemical composition, extraction, and chromotography to analytes of interest. The surrogates are used to determine the probable response of the group of analytes that are chemically related to the surrogate compound. Surrogates are added to the sample and carried through all stages of preparation and analyses.

	Control Limits			(AQ)	(SS)
2-Fluorophenol	31-119	Nitrobenzene-d5	43-118	Dibromfluoromethane	68-128	64-125
Phenol-d5	12-134	2-Fluorobiphenyl	45-128	Toluene-d8	76-115	69-118
2,4,6-Tribromophenol	51-141	Terphenyl-d14	43-137	4-Bromofluorobenzene	79-127	61-134

TIC - Tentatively Identified Compound: Compounds detected in samples that are not target compounds, internal standards, system monitoring compounds, or surrogates.

Duncan Environmental
10817C Two Notch Road
Elgin, SC 29045

Alternate billing information:

Report to: Ms. Jan Reynolds

Email to: duncanl2@earthlink.net

Project Description: JJ's Texaco | City/State Collected: SC

Phone: | Client Project #: JJ's Texaco | ESC Key:

FAX: | Site/Facility ID#: | P.O.#:

Collected by: L Baxley

Collected by (signature): L Baxley

Packed on Ice N ___ Y ✓

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

Date Results Needed: 7-2-05

Email? ___No ✓Yes

FAX? ✓No ___Yes

Analysis/Container/Preservative

Chain of Custody Page 1 of 2

Prepared by:

ENVIRONMENTAL SCIENCE CORP.
12065 Lebanon Road
Mt. Juliet, TN 37122
Phone (615) 758-5858
Phone (800) 767-5859
FAX (615) 758-5859

CoCode (lab use only)

Template/Prelogin

Shipped Via:

Sample ID	Comp/Grab	Matrix*	Depth	Date	Time	No. of Cntrs	BTEX + Naph + MTBE (VOA, HCl)	EDB (VOA, Na2S2O3)	Methane (VOA, Unpres)	Pb (250 ml plastic, HNO3)	Remarks/Contaminant	Sample # (lab only)
DW-1	Grab	GW		8/26/05	0930	2	X				L212491-01	
DW-2				8/26/05	1245	2	X				-02	
MW-1					1015		X	X	X	X	-03	
PMW-5					1137		X		X	X	-04	
MW-7					1050		X	X	X	X	-05	
MW-8					1200						-06	
MW-9					1223						-07	
MW-11					1223						-08	
MW-13					1115						-09	

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

pH _____ Temp _____

Remarks: 8497 8885 5226
8497 8885 5215

Flow _____ Other _____

Relinquished by: (Signature)	Date:	Time:	Received by: (Signature)	Samples returned via: ☐ UPS ☐ FedEx ☐ Courier ☐	Condition: (lab use only)
L Baxley	8/26/05	1330			
Relinquished by: (Signature)	Date:	Time:	Received by: (Signature)	Temp: 3.0 ✓ / Bottles Received: 100	
Relinquished by: (Signature)	Date:	Time:	Received for lab by: (Signature)	Date: 8/26/05 / Time: 2330	pH Checked: ✓ / NCF: ✓

Duncan Environmental
10817C Two Notch Road
Elgin, SC 29045

Alternate billing information:

Report to: Ms. Jan Reynolds

Email to: duncanl2@earthlink.net

Project Description: JJ's Texaco

City/State Collected: SC

Phone:

FAX:

Client Project #: JJ's Texaco

ESC Key:

Collected by: L Barkley

Site/Facility ID#:

P.O.#:

Collected by (signature): L Barkley

Packed on Ice N ___ Y ___

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

Date Results Needed: 5-27-05

Email? ___No ___Yes

FAX? ___No ___Yes

Analysis/Container/Preservative

Sample ID	Comp/Grab	Matrix*	Depth	Date	Time	No. of Cntrs	BTEX + Naphthalene (HCl)	EDB/Naphthalene (40ml vial, Sodium Thiosulfate)	Nitrates (40ml vial, HNO3)	Pb (250ml Plastic, HNO3)	Remarks/Contaminant	Sample # (lab only)
MW-14	Grab	GW		5/25/05		7	X	X	X	X	C212491-10	
MW-15											-11	
MW-16											-12	
MW-19											-13	
MW-21											-14	
RMW-5	Grab	GW		5/26/05	0915	3					-15	

Chain of Custody Page 1 of 1

Prepared by:

ENVIRONMENTAL SCIENCE CORP.
12065 Lebanon Road
Mt. Juliet, TN 37122
Phone (615) 758-5858
Phone (800) 767-5859
FAX (615) 758-5859

CoCode (lab use only)

Template/Prelogin

Shipped Via:

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

pH _____ Temp _____

Remarks:

Flow _____ Other _____

Relinquished by: (Signature)	Date:	Time:	Received by: (Signature)	Samples returned via: ☐ UPS ☐ FedEx ☐ Courier ☐ _____	Condition: (lab use only)
L Barkley	5/26/05	1530			
Relinquished by: (Signature)	Date:	Time:	Received by: (Signature)	Temp: 3.0c / Bottles Received: 100	
Relinquished by: (Signature)	Date:	Time:	Received for lab by: (Signature)	Date: 5/27/05 / Time: 930	pH Checked: 12 / NCF: ✓

ENVIRONMENTAL
SCIENCE CORP.

12065 Lebanon Rd.
Mt. Juliet, TN 37122
(615) 758-5858
1-800-767-5859
Fax (615) 758-5859

Tax I.D. 62-0814289

Est. 1970

REPORT OF ANALYSIS

Ms. Jan Reynolds
Duncan Environmental
10817C Two Notch Rd.
Elgin, SC 29045

September 08,2005

ESC Sample # : L213015-01

Site ID :

Project # : JJ TEXACO

Date Received : September 01, 2005
Description : JJ's Texaco

Sample ID : MW-20

Collected By : J Reynolds
Collection Date : 08/29/05 10:35

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
Methane	BDL	1000	ug/l	8015M	09/06/05	1
Lead	330	5.0	ug/l	6010B	09/07/05	1
Benzene	2.3	1.0	ug/l	8260B	09/02/05	1
Toluene	21.	5.0	ug/l	8260B	09/02/05	1
Ethylbenzene	BDL	1.0	ug/l	8260B	09/02/05	1
Total Xylenes	BDL	3.0	ug/l	8260B	09/02/05	1
Methyl tert-butyl ether	BDL	1.0	ug/l	8260B	09/02/05	1
Naphthalene	BDL	5.0	ug/l	8260B	09/02/05	1
Surrogate Recovery						
Toluene-d8	98.		% Rec.	8260B	09/02/05	1
Dibromofluoromethane	97.		% Rec.	8260B	09/02/05	1
4-Bromofluorobenzene	110		% Rec.	8260B	09/02/05	1
Ethylene Dibromide	BDL	0.010	ug/l	8011	09/07/05	1
1,2-Dibromo-3-Chloropropane	BDL	0.020	ug/l	8011	09/07/05	1

Jimmy Hunt, ESC Representative

BDL - Below Detection Limit
Det. Limit - Practical Quantitation Limit(PQL)

Laboratory Certification Numbers:
AIHA - 100789, AL - 40660, CA - I-2327, CT- PH-0197, FL - E87487, GA - 923, IN - C-TN-01
KY - 90010, KYUST - 0016, NC - ENV375,DW21704, ND - R-140, SC - 84004, TN - 2006, VA - 00109, WV - 233
AZ -0612, MN - 047-999-395, NY - 11742, NJ - 81002, WI - 998093910

Note:
The reported analytical results relate only to the sample submitted.

Reported: 09/08/05 16:08 Printed: 09/08/05 16:09

ENVIRONMENTAL
SCIENCE CORP.

12065 Lebanon Rd.
Mt. Juliet, TN 37122
(615) 758-5858
1-800-767-5859
Fax (615) 758-5859

Tax I.D. 62-0814289

Est. 1970

REPORT OF ANALYSIS

Ms. Jan Reynolds
Duncan Environmental
10817C Two Notch Rd.
Elgin, SC 29045

September 08,2005

ESC Sample # : L213015-02

Site ID :

Project # : JJ TEXACO

Date Received : September 01, 2005
Description : JJ's Texaco

Sample ID : SUPPLY WELL 1

Collected By : J Reynolds
Collection Date : 08/29/05 11:05

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
Benzene	BDL	1.0	ug/l	8260B	09/02/05	1
Toluene	BDL	5.0	ug/l	8260B	09/02/05	1
Ethylbenzene	BDL	1.0	ug/l	8260B	09/02/05	1
Total Xylenes	BDL	3.0	ug/l	8260B	09/02/05	1
Methyl tert-butyl ether	BDL	1.0	ug/l	8260B	09/02/05	1
Naphthalene	BDL	5.0	ug/l	8260B	09/02/05	1
Surrogate Recovery						
Toluene-d8	98.		% Rec.	8260B	09/02/05	1
Dibromofluoromethane	96.		% Rec.	8260B	09/02/05	1
4-Bromofluorobenzene	100		% Rec.	8260B	09/02/05	1

Jimmy Hunt, ESC Representative

BDL - Below Detection Limit
Det. Limit - Practical Quantitation Limit(PQL)

Laboratory Certification Numbers:
AIHA - 100789, AL - 40660, CA - I-2327, CT- PH-0197, FL - E87487, GA - 923, IN - C-TN-01
KY - 90010, KYUST - 0016, NC - ENV375,DW21704, ND - R-140, SC - 84004, TN - 2006, VA - 00109, WV - 233
AZ -0612, MN - 047-999-395, NY - 11742, NJ - 81002, WI - 998093910

Note:
The reported analytical results relate only to the sample submitted.

Reported: 09/08/05 16:08 Printed: 09/08/05 16:09

ENVIRONMENTAL
SCIENCE CORP.

12065 Lebanon Rd.
Mt. Juliet, TN 37122
(615) 758-5858
1-800-767-5859
Fax (615) 758-5859

Tax I.D. 62-0814289

Est. 1970

REPORT OF ANALYSIS

Ms. Jan Reynolds
Duncan Environmental
10817C Two Notch Rd.
Elgin, SC 29045

September 08,2005

Date Received : September 01, 2005
Description : JJ's Texaco

Sample ID : SUPPLY WELL 2

Collected By : J Reynolds
Collection Date : 08/29/05 11:00

ESC Sample # : L213015-03

Site ID :

Project # : JJ TEXACO

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
Benzene	BDL	1.0	ug/l	8260B	09/02/05	1
Toluene	BDL	5.0	ug/l	8260B	09/02/05	1
Ethylbenzene	BDL	1.0	ug/l	8260B	09/02/05	1
Total Xylenes	BDL	3.0	ug/l	8260B	09/02/05	1
Methyl tert-butyl ether	24.	1.0	ug/l	8260B	09/02/05	1
Naphthalene	BDL	5.0	ug/l	8260B	09/02/05	1
Surrogate Recovery						
Toluene-d8	99.		% Rec.	8260B	09/02/05	1
Dibromofluoromethane	100		% Rec.	8260B	09/02/05	1
4-Bromofluorobenzene	100		% Rec.	8260B	09/02/05	1

Jimmy Hunt, ESC Representative

BDL - Below Detection Limit
Det. Limit - Practical Quantitation Limit(PQL)

Laboratory Certification Numbers:
AIHA - 100789, AL - 40660, CA - I-2327, CT- PH-0197, FL - E87487, GA - 923, IN - C-TN-01
KY - 90010, KYUST - 0016, NC - ENV375,DW21704, ND - R-140, SC - 84004, TN - 2006, VA - 00109, WV - 233
AZ -0612, MN - 047-999-395, NY - 11742, NJ - 81002, WI - 998093910

Note:
The reported analytical results relate only to the sample submitted.
This report shall not be reproduced, except in full, without the written approval from ESC.

Reported: 09/08/05 16:08 Printed: 09/08/05 16:09

ENVIRONMENTAL
SCIENCE CORP.

12065 Lebanon Rd.
Mt. Juliet, TN 37122
(615) 758-5858
1-800-767-5859
Fax (615) 758-5859

Tax I.D. 62-0814289

Est. 1970

REPORT OF ANALYSIS

Ms. Jan Reynolds
Duncan Environmental
10817C Two Notch Rd.
Elgin, SC 29045

September 08,2005

ESC Sample # : L213015-04

Site ID :

Project # : JJ TEXACO

Date Received : September 01, 2005
Description : JJ's Texaco

Sample ID : SUPPLY WELL 3

Collected By : J Reynolds
Collection Date : 08/29/05 11:01

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
Benzene	BDL	1.0	ug/l	8260B	09/02/05	1
Toluene	BDL	5.0	ug/l	8260B	09/02/05	1
Ethylbenzene	BDL	1.0	ug/l	8260B	09/02/05	1
Total Xylenes	BDL	3.0	ug/l	8260B	09/02/05	1
Methyl tert-butyl ether	12.	1.0	ug/l	8260B	09/02/05	1
Naphthalene	BDL	5.0	ug/l	8260B	09/02/05	1
Surrogate Recovery						
Toluene-d8	100		% Rec.	8260B	09/02/05	1
Dibromofluoromethane	94.		% Rec.	8260B	09/02/05	1
4-Bromofluorobenzene	110		% Rec.	8260B	09/02/05	1

Jimmy Hunt, ESC Representative

BDL - Below Detection Limit
Det. Limit - Practical Quantitation Limit(PQL)

Laboratory Certification Numbers:
AIHA - 100789, AL - 40660, CA - I-2327, CT- PH-0197, FL - E87487, GA - 923, IN - C-TN-01
KY - 90010, KYUST - 0016, NC - ENV375,DW21704, ND - R-140, SC - 84004, TN - 2006, VA - 00109, WV - 233
AZ -0612, MN - 047-999-395, NY - 11742, NJ - 81002, WI - 998093910

Note:
The reported analytical results relate only to the sample submitted.

Reported: 09/08/05 16:08 Printed: 09/08/05 16:09

Duncan Environmental
10817C Two Notch Road
Elgin, SC 29045

Alternate billing information:

Report to: Ms. Jan Reynolds

Email to: duncanl2@earthlink.net

Project Description: JJ's Texaco

City/Sate Collected: SC

Phone:

FAX:

Client Project #: JJ's Texaco

ESC Key:

Collected by: J. Reynolds

Site/Facility ID#:

P.O.#:

Collected by (signature):

Packed on Ice N ___ Y ✓

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

Date Results Needed: 9-8-05

Email? _No_~~Yes~~

FAX? ~~No~~ Yes

Sample ID	Comp/Grab	Matrix*	Depth	Date	Time	No. of Cntrs	BTEX+Napl+MTBE (VOA, HCl)	EDB (VOA, Na2S2O3, Sodium Thiosulfate)	Methane (VOA, unpres)	Pb (250 ml Plastic, HNO3)	Remarks/Contaminant	Sample # (lab only)
MW-20	Grab	GW	—	8/29/05	1035	8	X	X	X	X		L213015-01
Supply Well 1	"	"	"	"	1105	2	"					02
Supply Well 2	"	"	"	"	1100	"	"					03
Supply Well 3	"	"	"	"	1101	"	"					04

Analysis/Container/Preservative

Chain of Custody Page 1 of 1

Prepared by:

ENVIRONMENTAL SCIENCE CORP.
12065 Lebanon Road
Mt. Juliet, TN 37122
Phone (615) 758-5858
Phone (800) 767-5859
FAX (615) 758-5859

CoCode (lab use only)

Template/Prelogin

Shipped Via:

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

pH _____ Temp _____

Remarks: 84105817 5010 / 84105817 5020

Flow _____ Other _____

Relinquished by: (Signature)	Date:	Time:	Received by: (Signature)	Samples returned via: ☐ UPS ☒ FedEx ☐ Courier ☐	Condition: (lab use only)
Tom Bakley	8/29/05	0935			OK
Relinquished by: (Signature)	Date:	Time:	Received by: (Signature)	Temp: 3.4°C / Bottles Received: 14	
Relinquished by: (Signature)	Date:	Time:	Received for lab by: (Signature)	Date: 9-1-05 / Time: 09:00	pH Checked: ≤2 / NCF:

Colormetric Analyses **HACH DR/820 Colorimeter Cat.# 484400**

Procedure: **Ferrous Iron** **Site:** **JJ's Texaco**

Date: **08/26/05** **Analyst:** **L. Baxley**

Methods:

Ferrous Iron 1, 10 Phenantroline Method 8146 (0-3mg/L Fe^{+})

Reagents:

Ferrous Iron Reagent Lot # A3332 Exp. Date NA Cat. # 1037-69

Smpl. ID	mls Smpl. Used	Observed mg/L	Conc. mg/L	Conc. ug/L	Comments
Blank	25	0.00	0	0	
MW-1	25	0.06	0.06	60	
RMW-5	25	1.22	1.22	1220	
MW-7	25	0.08	0.08	80	
MW-8	25	0.37	0.37	370	
MW-9	1.0	0.93	23.25	23250	
MW-11	25	0.42	0.42	420	
MW-13	25	0.06	0.06	60	
MW-14	25	0.06	0.06	60	
MW-15	25	0.70	0.7	700	
MW-16	25	0.24	0.24	240	
MW-16 Dup.	25	0.22	0.22	220	Dup. Ave. = 230ug/L
MW-19	25	0.22	0.22	220	
MW-21	25	0.21	0.21	210	
MW-21 Dup.	25	0.23	0.23	230	Dup. Ave. = 220ug/L

Colormetric Analyses **HACH DR/820 Colorimeter Cat.# 484400** **Page 1 of 1**

Procedure: **Ferrous Iron** **Site:** **JJ's Texaco**

Date: **8/29/05** **Analyst:** **L. Baxley**

Methods:

Ferrous Iron 1, 10 Phenantroline Method 8146 (0-3mg/L Fe^{+})

Reagents:

Ferrous Iron Reagent Lot # A3332 Exp. Date NA Cat. # 1037-69

Smpl. ID	mls Smpl. Used	Observed mg/L	Conc. mg/L	Conc. ug/L	Comments
Blank	25	0.00	0	0	
MW-20	25	2.25	2.25	2250	Dup. Ave. = 2195ug/L
MW-20 Dup.	25	2.14	2.14	2140	

Colormetric Analyses **HACH DR/820 Colorimeter Cat.# 484400**

Procedure: Nitrate **Site:** JJ's Texaco

Date: 08/31/05 **Analyst:** L. Baxley

Methods:

_____ Nitrate Low Range Method 8192 (0-0.50mg/L NO_3-N)
__X__ Nitrate High Range Method 8039 (0-30mg/L NO_3-N)

Reagents:

_____	Low Range Std. Solution	1mg/L NO_3-N	Lot# A1054	Exp. Date NA	Cat.# 2046-49
_____	Low Range Nitraver 3		Lot# A0259	Exp. Date NA	Cat.# 21071-69
_____	Low Range Nitraver 6		Lot# A1054	Exp. Date NA	Cat.# 2046-49
X	High Range Std. Solution	10mg/L NO_3-N	Lot# A4261	Exp. Date NA	Cat.# 307-49
X	High Range Nitraver 5		Lot# A3325	Exp. Date NA	Cat.# 21061-69

Quality Control Standards		
Standard	**Observed**	**% Recovery**
2.0	2.7	135%
5.0	4.4	88%
10.0	9.1	91%

Smpl. ID	mls Smpl. Used	Observed mg/L	Conc. mg/L	Conc. ug/L	Comments
BLANK	10	0.00	0.00	0	
MW-1	10	2.70	2.70	2700	
RMW-5	10	3.00	3.00	3000	
MW-7	10	1.80	1.80	1800	
MW-8	10	2.10	2.10	2100	
MW-9	10	0.60	0.60	600	
MW-11	10	0.40	0.40	400	
MW-13	10	2.10	2.10	2100	
MW-14	5	12.10	24.20	24200	
MW-15	10	1.20	1.20	1200	Dup. Ave. = 1150ug/L
MW-15 Dup.	10	1.10	1.10	1100	

Procedure: Nitrate **Site:** JJ's Texaco

Date: 08/31/05 **Analyst:** L. Baxley

Smpl. ID	mls Smpl. Used	Observed mg/L	Conc. mg/L	Conc. ug/L	Comments
MW-16	10	0.60	0.60	600	
MW-19	10	4.80	4.80	4800	
RMW-20	10	3.20	3.20	3200	
MW-21	10	4.00	4.00	4000	Dup. Ave. = 4300ug/L
MW-21 Dup.	10	4.60	4.60	4600	

Colormetric Analysis HACH DR/820 Colorimeter Cat. #48400 Page 1 of 1

Procedure: Sulfate | Site: JJ's Texaco

Date: 08/31/05 | Analyst: Lori Baxley

Methods:

X Sulfate SulfaVer 4 Method 8051 (0-70mg/L SO_4)

Reagents and Standard Solutions:

X Sulfate Std. Solution 100mg/L SO4 Lot # A3052 Cat. # 891-49

X SulfaVer 4 Sulfate Reagent Lot # A3003 Cat. # 21067-69

Quality Control Standards		
Standard	**Observed**	**% Recovery**
20	18	90
50	54	108
70	79	113

Smpl. ID	mls. used	Observed mg/L	Conc. ug/L	Comments
Blank	10	0	0	
MW-1	10	0	0	
RMW-5	10	4	400	
MW-7	10	2	200	
MW-8	10	0	0	
MW-9	10	5	500	
MW-11	10	12	1200	
MW-13	10	2	200	
MW-14	10	0	0	
MW-15	10	2	200	Dup. Ave. = 200ug/L
MW-15 Dup.	10	2	200	
MW-16	10	0	0	
MW-19	10	5	500	
RMW-20	10	5	500	
MW-21	10	4	400	Dup. Ave. = 400ug/L
MW-21 Dup.	10	4	400	

Appendix E
Aquifer Characterization/Calculations

HYDRAULIC GRADIENT

The top of casing elevations of the newly installed ground water monitoring wells were established by direct survey. An assumed elevation of 100.00 feet above mean sea level was utilized as the benchmark during the survey. The elevation of the shallow water table was then calculated and utilized to evaluate the primary direction of ground water flow and the hydraulic gradient within the most shallow water bearing formation at the site. The water level and survey data collected from the site is tabulated below.

Monitoring Well ID #	TOC Elevation (ft)	Screened Interval (ft)	Depth to Water (ft)	Water Table Elevation (ft)	Free Product Thickness (ft)
MW-1	102.14	30-40	32.12	70.02	
MW-2	100.00	70-80	78.10	Dry	
MW-3	98.08	24-34	Dry	Dry	
MW-4	NL	---	---	---	
MW-5	NL	---	---	---	
RMW-5	90.98	10-20	7.55	83.43	
MW-6	101.80	25-35	33.39	68.41*	0.15'
MW-7	101.88	32-42	35.02	66.86	
MW-8	96.40	30-40	38.00	58.40	
MW-9	95.22	33-43	34.40	60.82	
MW-10	100.02	30-35	30.74	69.28*	3.76'
MW-11	102.00	30-40	21.16	80.84	
MW-12	Abandoned	41-51	---	---	
MW-13	102.38	25-35	21.08	81.30	
MW-14	101.02	35-45	39.82	61.20	
MW-15	100.68	35-45	---	---	
MW-16	103.82	31-41	31.35	72.47	
MW-17	Abandoned	42-52	---	---	
RMW-17	Abandoned	25-35	---	---	
MW-18	Abandoned	41-51	---	---	
MW-19	96.48	51-61	52.61	43.87	
MW-20	Abandoned	55-65	---	---	
RMW-20	96.12	16-26	19.67	76.45	
MW-21	86.56	3-13	3.82	82.74	
DW-1	102.12	40-45	53.03	49.09	
DW-2	100.70	50-55	55.05	45.65	

Based on water levels collected August 28, 2005. RMW-20 sampled on 8/29/05

* = Free product, corrected water level

NL = Not located

Hydraulic gradient calculations across the site from well RMW-5 to well MW-8:

I = 83.43 - 58.40 / 110

I = 25.03 / 110

I = 0.228 ft/ft

TABLE 1a
JJ'S TEXACO - GASTON, SC
SUMMARY OF WATER LEVELS

WELL NO.	DATE MEASURED	TOC ELEV.	D.T.W.	DEPTH TO PRODUCT	PRODUCT THICKNESS	PRODUCT GRAVITY	HYDRO. EQUIV.	CORRECT D.T.W.	CORRECT WL ELEV.
MW-6	8/28/05	101.80	33.50	33.35	0.15	0.75	0.11	33.39	68.41
MW-10	8/28/05	100.02	33.56	29.80	3.76	0.75	2.82	30.74	69.28

Note: Formula used to calculate correct water level elevations:

Correct WL = D.T.W. - [(Product thickness) X (Product Gravity)]
WL = Water Level
TOC = Top of Casing
D.T.W. = Depth to Water
Hydro. Equiv. = Hydrologic Equivalent
All measurements in feet.

SUMMARY of SLUG TEST

SOUTH CAROLINA
Department of Health and Environmental Control (DHEC)

Site Data

SITE ID: # 05986 COUNTY Lexington

FACILITY NAME JJ's Texaco

Slug Data

See Appendix C Table _____ Figure _____ for a list of all data measurements.
(water level logs, etc.) (Complete as appropriate).

Water Level Recovery Data was measured ~~by~~ manually w/ 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			
Initial Rise/Drawdown in well (feet)			
Radius of Well Casing (feet)			
Effective Radius of Well (feet)			
Static Saturated Aquifer Thickness (feet)			
Length of Well Screen (feet)			
Static Height of Water Column in Well (ft)			

Calculations

See Appendix C 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	RMW -20	MW-9
Hydraulic Conductivity ft/min =	2.0416 x 10-5	- head possible boundary cond.

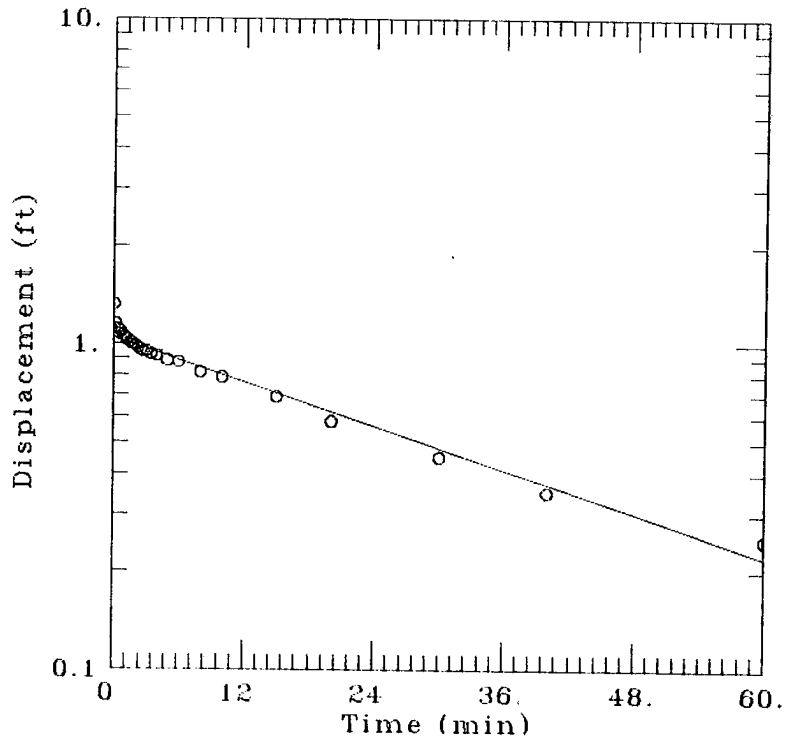
Thickness of the aquifer used to calculate hydraulic conductivity was 45 feet.
The aquifer is _____ confined _____ semi-confined ✓ water table (Check as appropriate).

The estimated seepage velocity is _____ feet per year based on a hydraulic conductivity of 10.73 ft/yr, a hydraulic gradient of .228, and a porosity of unknown per cent for _____ soil (list type i.e., silty sand, clay, etc).

SUMMARY of SLUG TEST

DUNCAN ENVIRONMENTAL ASSOC	Client: SHUMPERT OIL
Project No.: JJ'S TEXACO	Location: GASTON, SC

RMW-20



DATA SET:
JJRMW-20
11/01/05

AQUIFER TYPE:
Unconfined
SOLUTION METHOD:
Bouwer-Rice
TEST DATE:
8/26/05
TEST WELL:
RMW-20
OBS. WELL:
RMW-20

ESTIMATED PARAMETERS:
K = 2.0416E-05 ft/min
y0 = 1.043 ft

TEST DATA:
H0 = 1.32 ft
rc = 0.0833 ft
rw = 0.208 ft
L = 10. ft
b = 45. ft
H = 8.3 ft

SITE: JJ'S TEXACO
SLUG TEST DATA RMW-20
08/26/05 SLUG# S1 PAGE 1

ELAPSED TIME IN SECONDS	ELAPSED TIME IN MINUTES	DEPTH TO WATER IN FEET	REBOUND IN FEET
0	0.00	19.70	
10	0.17	20.85	1.15
20	0.33	20.81	1.11
30	0.50	20.80	1.10
40	0.67	20.79	1.09
50	0.83	20.76	1.06
60	1.00	20.75	1.05
70	1.17	20.73	1.03
80	1.33	20.73	1.03
90	1.50	20.71	1.01
100	1.67	20.70	1.00
110	1.83	20.70	1.00
120	2.00	20.69	0.99
135	2.25	20.67	0.97
150	2.50	20.66	0.96
165	2.75	20.65	0.95
180	3.00	20.65	0.95
210	3.50	20.63	0.93
240	4.00	20.62	0.92
300	5.00	20.59	0.89
360	6.00	20.58	0.88
480	8.00	20.52	0.82
600	10.00	20.49	0.79
900	15.00	20.39	0.69
1200	20.00	20.28	0.58
1800	30.00	20.15	0.45
2400	40.00	20.05	0.35
3600	60.00	19.95	0.25

SITE: JJ'S TEXACO
SLUG TEST DATA MW-9
08/26/05 SLUG# L2 PAGE 1

ELAPSED TIME IN SECONDS	ELAPSED TIME IN MINUTES	DEPTH TO WATER IN FEET	REBOUND IN FEET
0	0.00	35.39	
20	0.33	36.15	0.76
30	0.50	36.14	0.75
40	0.67	36.08	0.69
50	0.83	36.07	0.68
60	1.00	36.07	0.68
70	1.17	36.07	0.68
80	1.33	36.07	0.68
90	1.50	36.12	0.73
100	1.67	36.17	0.78
110	1.83	36.18	0.79
135	2.25	36.18	0.79
150	2.50	36.22	0.83
165	2.75	36.27	0.88
180	3.00	36.26	0.87
210	3.50	36.29	0.90
240	4.00	36.34	0.95
300	5.00	36.37	0.98
360	6.00	36.40	1.01
480	8.00	36.49	1.10
600	10.00	36.55	1.16
900	15.00	36.66	1.27
1200	20.00	36.74	1.35
1800	30.00	36.82	1.43
2400	40.00	36.88	1.49
3600	60.00	36.94	1.55

Appendix F
Disposal Manifests

NON-HAZARDOUS WASTE MANIFEST

1. Generator's US EPA ID No.	Manifest Document No.	2. Page 1 of

3. Generator's Name and Mailing Address
Tommy Browder, Stumpert Oil, Chris Cloyd

4. Generator's Phone ( )

5. Transporter 1 Company Name	6. US EPA ID Number	A. Transporter's Phone
Duncan Environmental Assoc.	SCD987557557	(803) 788-4333
7. Transporter 2 Company Name	8. US EPA ID Number	B. Transporter's Phone

9. Designated Facility Name and Site Address	10. US EPA ID Number	C. Facility's Phone
G&K Tank Services, Inc. 5070 Broad St Ext. Sumter, SC 29151		(803) 494-4593

11. Waste Shipping Name and Description	12. Containers No.	12. Containers Type	13. Total Quantity	14. Unit Wt/Vol
a. Non-Hazardous Petroleum	2	DM		
b.				
c.				
d.				

D. Additional Descriptions for Materials Listed Above	E. Handling Codes for Wastes Listed Above

15. Special Handling Instructions and Additional Information
Browder's (654)
JJs Tenaco (655)
JRs Deli (656)

16. **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.

Printed/Typed Name	Signature	Month	Day	Year

17. Transporter 1 Acknowledgement of Receipt of Materials

Printed/Typed Name	Signature	Month	Day	Year
Duncan Environmental Assoc.		09	12	05

18. Transporter 2 Acknowledgement of Receipt of Materials

Printed/Typed Name	Signature	Month	Day	Year

19. Discrepancy Indication Space

20. Facility Owner or Operator: Certification of receipt of waste materials covered by this manifest except as noted in Item 19.

Printed/Typed Name	Signature	Month	Day	Year
S. Collins	S. Collins	9	12	05

GENERATOR — TRANSPORTER — FACILITY

DUNCAN ENVIRONMENTAL ASSOCIATES, INC.

ASSESSMENT ADDENDUM REPORT
JJ'S TEXACO
105 NORTH MAIN STREET
GASTON, SOUTH CAROLINA
SITE ID #~~23534~~ 05986

DECEMBER 13, 2005

UST PROGRAM
DOCKETING # 93Tech

RECEIVED
DEC 14 2005
UNDERGROUND STORAGE
TANK PROGRAM

10817-C Two Notch Road
Elgin, SC 29045
(803) 788-4333
FAX (803)788-4555

DUNCAN ENVIRONMENTAL ASSOCIATES, INC.

RECEIVED

DEC 1 4 2005

UNDERGROUND STORAGE
TANK PROGRAM

December 14, 2005

Mr. Konstantine Akhvlediani
Bureau of UST Management
SCDHEC
2600 Bull Street
Columbia, S.C. 29201

Re: Monitor well installation 1/12-7/20/05 and resample event 08/25, 26 & 29/05
J J's Texaco- Gaston, SC
Site ID #05986
CP #23534

Dear Mr Akhvlediani:

In order to delineate both the shallow and the deep aquifer at the JJs Texaco site, the SCDHEC requested field screening and monitor well installation both on and off site. Numerous soil borings, temporary wells and permanent wells were installed between January 12 and July 20, 2005, in an attempt to delineate the hydrocarbon plume. Through extensive drilling efforts it was determined that the primary shallow aquifer is a thin lense approximately 2-3' in thickness at approximately 32-35' in depth below land surface and that the deeper aquifer is greater than 75' in depth bls. Soil boring and monitor well construction logs are included in Appendix A.

A total of four temporary monitoring wells were installed between January 27 and February 9, 2005. Temporary monitoring well locations are shown on Figure 2. The wells were sampled for BTEX constituents, methyl-tert-butyl-ether (MTBE), and naphthalene. SB-6/TMW-1 exceeded the MCL for benzene with a concentration of 42 ppb. All petroleum constituents were reported to be below MCL/RBSL or laboratory detection limits in the remaining temporary wells. Analytical results for the temporary monitoring wells are tabulated below. Temporary monitoring well laboratory data sheets are included in Appendix B.

10817-C Two Notch Road
Elgin, SC 29045
(803) 788-4333
FAX (803)788-4555

Slug tests were completed in monitoring wells RMW-20 and MW-9. Slug test data and aquifer characteristics were entered into the computer software program, AQTESOLV v. 1.01. The average hydraulic conductivity for the shallow aquifer based on RMW-20 only was calculated to be 10.73 ft/yr. A seepage velocity could not be determined as no porosity data was available.

The hydraulic gradient was calculated using surveyed top of casing (TOC) elevations and static water levels obtained during the completion of this scope of work. Ground water levels are based on August 28, 2005 measurements. The primary ground-water flow direction appears radial to the central portion of the JJs site. The hydraulic gradient across the site from well RMW-5 to MW-8 was calculated to be 0.228 ft/ft. Details of these calculations are included in Appendix E.

It appears at this time that the site is adequately delineated in all directions with the exception of the area around MW-15 in which the benzene plume remains undefined. If you have any questions or comments about this information, please don't hesitate to call me at (803)788-4333.

Sincerely,

Jan Reynolds

Jan Reynolds, P. G.
Project Manager

cc: Mr. Frank Shumpert

Monitoring Well ID #	TOC Elevation (ft)	Screened Interval (ft)	Depth to Water (ft)	Water Table Elevation (ft)	Free Product Thickness (ft)
MW-1	102.14	30-40	32.12	70.02	
MW-2	100.00	70-80	78.10	Dry	
MW-3	98.08	24-34	Dry	Dry	
MW-4	NL	—	—	—	
MW-5	NL	—	—	—	
RMW-5	90.98	10-20	7.55	83.43	
MW-6	101.80	25-35	33.39	68.41*	0.15'
MW-7	101.88	32-42	35.02	66.86	
MW-8	96.40	30-40	38.00	58.40	
MW-9	95.22	33-43	34.40	60.82	
MW-10	100.02	30-35	30.74	69.28*	3.76'
MW-11	102.00	30-40	21.16	80.84	
MW-12	Abandoned	41-51	—	—	
MW-13	102.38	25-35	21.08	81.30	
MW-14	101.02	35-45	39.82	61.20	
MW-15	100.68	35-45	—	—	
MW-16	103.82	31-41	31.35	72.47	
MW-17	Abandoned	42-52	—	—	
RMW-17	Abandoned	25-35	—	—	
MW-18	Abandoned	41-51	—	—	
MW-19	96.48	51-61	52.61	43.87	
MW-20	Abandoned	55-65	—	—	
RMW-20	96.12	16-26	19.67	76.45	
MW-21	86.56	3-13	3.82	82.74	
DW-1	102.12	40-45	53.03	49.09	
DW-2	100.70	50-55	55.05	45.65	

Based on water levels collected August 28, 2005. RMW-20 sampled on 8/29/05
* = Free product, corrected water level
NL = Not located

Ground-water elevations and ground-water samples for BTEX, MTBE, lead, naphthalene, EDB, methane, nitrate, sulfate and ferrous iron were collected from all existing monitor wells and the newly installed wells that contained sufficient water for sampling purposes on August 25, 26 and 29, 2005. The three supply wells were sampled for BTEX, naphthalene and MTBE only. Prior to sampling, all wells were gauged for the presence of free product. Free phase product was detected in MW-10 (3.76') and MW-6 (0.15'). Ground water sampling procedures included: equipment decontamination, acquisition of water levels, and purging until stabilization occurred as determined by field analysis of temperature, pH, and conductivity or wells bailed dry with little recharge. A

Temporary Monitor Well Analytical Data: **02/07/05 & 02/24/05**

COC (ug/l)	RBSL	SB-6/TMW-1	SB-8/TMW-2	RMW-5/TMW-3	MW-18/TMW-4
Free Product Thickness (ft)	N/A	0	0	0	0
Benzene	5	42	BDL	BDL	BDL
Toluene	1,000	BDL	BDL	BDL	BDL
Ethylbenzene	700	BDL	BDL	BDL	BDL
Xylenes	10,000	46	BDL	BDL	BDL
MTBE	40	BDL	BDL	BDL	BDL
Naphthalene	25	BDL	BDL	BDL	BDL

Notes: 1) All values are expressed in ug/L.
2) RBSL values taken from RBCA Table B1.
3) Bolded values exceed RBSLs.
4) BDL = Below laboratory detection limits.

On the basis of field screening data DEA installed monitor wells MW-13-MW-21, RMW-17, RMW-5, RMW-20, DW-1 and DW-2 on January 12 through July 20, 2005 in SCDHEC preapproved locations. Detailed monitoring well construction and boring logs are presented in Appendix A. The screened intervals, top of casing (TOC) elevations, and potentiometric data for all wells are summarized below.

dissolved oxygen reading was recorded for each well containing sufficient water . Field measurements for each well were recorded on field data sheets, which are included as Appendix C. Ground water samples were collected with clean, disposable polyethylene bailers, placed in laboratory supplied containers, maintained at 4°C, and shipped overnight to a South Carolina certified laboratory for analysis. Proper preservation techniques and chain of custody documentation were followed throughout the sampling and analysis process.

Ground Water Analytical Data: **08/25/05, 08/26/05 & 8/29/05**

COC	RBSL (ug/l)	MW-1	MW-2	MW-3	MW-4
Free Product Thickness (ft)	**NA**	0	DRY	DRY	NL
Benzene	**5**	BDL	-	-	-
Toluene	**1000**	BDL	-	-	-
Ethylbenzene	**700**	BDL	-	-	-
Xylenes	**10,000**	BDL	-	-	-
Total BTEX	**NA**	BDL	-	-	-
Methane	**-**	BDL	-	-	-
Lead	**15**	17	-	-	-
MTBE	**40**	1.9	-	-	-
Naphthalene	**25**	BDL	-	-	-
EDB	**0.01**	BDL	-	-	-
Benzo(a)anthracene	**10**	BDL	-	-	-
Benzo(b)flouranthene	**10**	BDL	-	-	-
Benzo(k)flouranthene	**10**	BDL	-	-	-
Chrysene	**10**	BDL	-	-	-
Dibenz(a,h)anthracene	**10**	BDL	-	-	-
Ferrous Iron	**NA**	60	-	-	-
Nitrate	**NA**	2700	-	-	-
Sulfate	**NA**	BDL	-	-	-
Dissolved Oxygen	**NA**	5.0	-	-	-

COC	RBSL (ug/l)	MW-5	RMW-5	MW-6	MW-7
Free Product Thickness (ft)	**NA**	NL	0	0.15'	0
Benzene	**5**	-	BDL	-	BDL
Toluene	**1000**	-	BDL	-	BDL
Ethylbenzene	**700**	-	BDL	-	BDL
Xylenes	**10,000**	-	BDL	-	BDL
Total BTEX	**NA**	-	BDL	-	BDL
Methane	-	-	BDL	-	BDL
Lead	**15**	-	1700	-	22
MTBE	**40**	-	BDL	-	BDL
Naphthalene	**25**	-	BDL	-	BDL
EDB	**0.01**	-	BDL	-	BDL
Benzo(a)anthracene	**10**	-	BDL	-	BDL
Benzo(b)flouranthene	**10**	-	BDL	-	BDL
Benzo(k)flouranthene	**10**	-	BDL	-	BDL
Chrysene	**10**	-	BDL	-	BDL
Dibenz(a,h)anthracene	**10**	-	BDL	-	BDL
Ferrous Iron	**NA**	-	1220	-	80
Nitrate	**NA**	-	3000	-	1800
Sulfate	**NA**	-	400	-	200
Dissolved Oxygen	**NA**	-	3.6	-	5.2

COC	RBSL (ug/l)	MW-8	MW-9	MW-10	MW-11
Free Product Thickness (ft)	NA	0	0	3.76'	0
Benzene	5	210	3300	-	BDL
Toluene	1000	1200	7400	-	BDL
Ethylbenzene	700	440	610	-	24
Xylenes	10,000	3300	8900	-	34
Total BTEX	NA	5150	BDL	-	58
Methane	-	BDL	BDL	-	BDL
Lead	15	65	100	-	BDL
MTBE	40	29	500	-	BDL
Naphthalene	25	190	2500	-	13
EDB	0.01	BDL	5100	-	BDL
Benzo(a)anthracene	10	BDL	BDL	-	BDL
Benzo(b)flouranthene	10	BDL	BDL	-	BDL
Benzo(k)flouranthene	10	BDL	BDL	-	BDL
Chrysene	10	BDL	BDL	-	BDL
Dibenz(a,h)anthracene	10	BDL	BDL	-	BDL
Ferrous Iron	NA	370	23250	-	420
Nitrate	NA	2100	600	-	400
Sulfate	NA	BDL	500	-	1200
Dissolved Oxygen	NA	3.8	2.1	-	2.6

COC	RBSL (ug/l)	MW-12	MW-13	MW-14	MW-15
Free Product Thickness (ft)	**NA**	Abandoned	0	0	0
Benzene	**5**	-	BDL	BDL	20
Toluene	**1000**	-	BDL	BDL	BDL
Ethylbenzene	**700**	-	BDL	BDL	BDL
Xylenes	**10,000**	-	BDL	BDL	30
Total BTEX	**NA**	-	BDL	BDL	50
Methane	**-**	-	BDL	BDL	BDL
Lead	**15**	-	7.6	**1100**	**69**
MTBE	**40**	-	1.8	BDL	BDL
Naphthalene	**25**	-	BDL	BDL	BDL
EDB	**0.01**	-	BDL	BDL	**200**
Benzo(a)anthracene	**10**	-	BDL	BDL	BDL
Benzo(b)flouranthene	**10**	-	BDL	BDL	BDL
Benzo(k)flouranthene	**10**	-	BDL	BDL	BDL
Chrysene	**10**	-	BDL	BDL	BDL
Dibenz(a,h)anthracene	**10**	-	BDL	BDL	BDL
Ferrous Iron	**NA**	-	60	60	700
Nitrate	**NA**	-	2100	24200	1150
Sulfate	**NA**	-	200	BDL	200
Dissolved Oxygen	**NA**	-	4.8	7.5	3.8

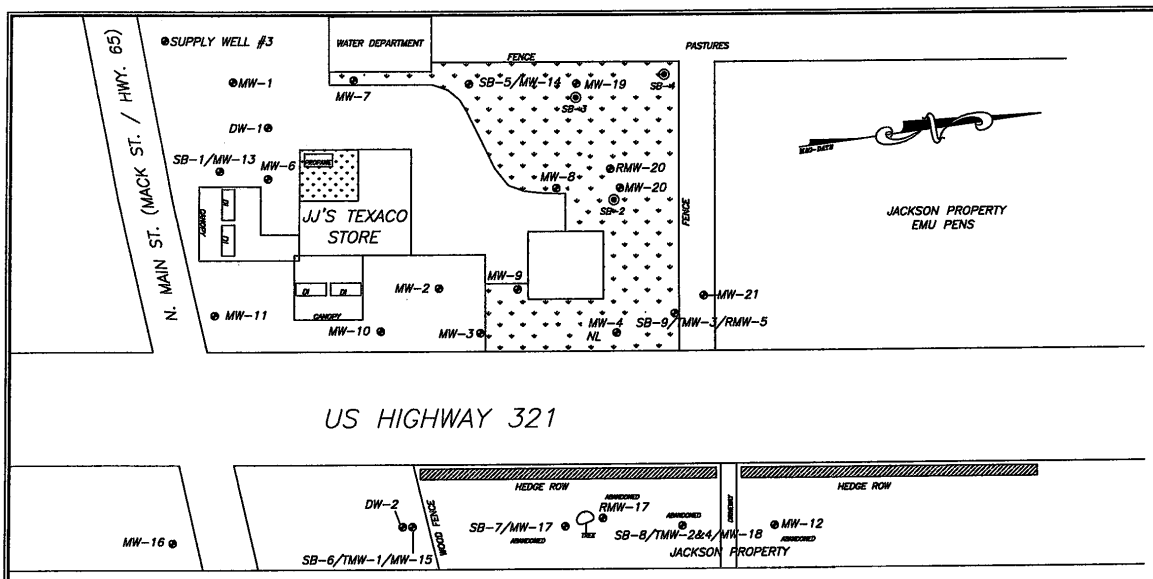
COC	RBSL (ug/l)	MW-16	MW-17	RMW-17	MW-18
Free Product Thickness (ft)	**NA**	0	Abandoned	Abandoned	Abandoned
Benzene	**5**	BDL	-	-	-
Toluene	**1000**	BDL	-	-	-
Ethylbenzene	**700**	BDL	-	-	-
Xylenes	**10,000**	BDL	-	-	-
Total BTEX	**NA**	BDL	-	-	-
Methane	**-**	BDL	-	-	-
Lead	**15**	10	-	-	-
MTBE	**40**	BDL	-	-	-
Naphthalene	**25**	BDL	-	-	-
EDB	**0.01**	BDL	-	-	-
Benzo(a)anthracene	**10**	BDL	-	-	-
Benzo(b)flouranthene	**10**	BDL	-	-	-
Benzo(k)flouranthene	**10**	BDL	-	-	-
Chrysene	**10**	BDL	-	-	-
Dibenz(a,h)anthracene	**10**	BDL	-	-	-
Ferrous Iron	**NA**	230	-	-	-
Nitrate	**NA**	600	-	-	-
Sulfate	**NA**	BDL	-	-	-
Dissolved Oxygen	**NA**	5.9	-	-	-

COC	RBSL (ug/l)	MW-19	MW-20	RMW-20	MW-21
Free Product Thickness (ft)	**NA**	0	Abandoned	0	0
Benzene	**5**	BDL	-	2.3	BDL
Toluene	**1000**	BDL	-	21	BDL
Ethylbenzene	**700**	BDL	-	BDL	BDL
Xylenes	**10,000**	BDL	-	BDL	BDL
Total BTEX	**NA**	BDL	-	23.3	BDL
Methane	**-**	BDL	-	BDL	BDL
Lead	**15**	**21**	-	**330**	**860**
MTBE	**40**	BDL	-	BDL	BDL
Naphthalene	**25**	BDL	-	BDL	BDL
EDB	**0.01**	BDL	-	BDL	BDL
Benzo(a)anthracene	**10**	BDL	-	BDL	BDL
Benzo(b)flouranthene	**10**	BDL	-	BDL	BDL
Benzo(k)flouranthene	**10**	BDL	-	BDL	BDL
Chrysene	**10**	BDL	-	BDL	BDL
Dibenz(a,h)anthracene	**10**	BDL	-	BDL	BDL
Ferrous Iron	**NA**	220	-	2195	220
Nitrate	**NA**	4800	-	3200	4300
Sulfate	**NA**	500	-	500	400
Dissolved Oxygen	**NA**	4.8	-	1.0	7.2

COC	RBSL (ug/l)	DW-1	DW-2	SUPPLY 1	SUPPLY 2	SUPPLY 3
Free Product Thickness (ft)	NA	0	0	0	0	0
Benzene	5	BDL	BDL	BDL	BDL	BDL
Toluene	1000	BDL	BDL	BDL	BDL	BDL
Ethylbenzene	700	BDL	BDL	BDL	BDL	BDL
Xylenes	10,000	BDL	BDL	BDL	BDL	BDL
Total BTEX	NA	BDL	BDL	BDL	BDL	BDL
Methane	-	-	-	-	-	-
Lead	15	-	-	-	-	-
MTBE	40	BDL	BDL	BDL	24	12
Naphthalene	25	40	BDL	BDL	BDL	BDL
EDB	0.01	-	-	-	-	-
Benzo(a)anthracene	10	-	-	-	-	-
Benzo(b)flouranthene	10	-	-	-	-	-
Benzo(k)flouranthene	10	-	-	-	-	-
Chrysene	10	-	-	-	-	-
Dibenz(a,h)anthracene	10	-	-	-	-	-
Ferrous Iron	NA	-	-	-	-	-
Nitrate	NA	-	-	-	-	-
Sulfate	NA	-	-	-	-	-
Dissolved Oxygen	NA	-	-	-	-	-

Notes: 1) All values are expressed in ug/l
2) RBSL values taken from RBCA Table B1.
3) NS = Not sampled

Free phase product was present in monitor wells MW-6 (0.15') and MW-10 (3.76') on the sampling dates. The ground-water results indicate that the MCL for lead was exceeded in all monitor wells with the exception of MW-11, MW-13 and MW-16. DW-1 and DW-2 did not contain sufficient water for lead analysis. The MCL for EDB was exceeded in monitor wells 9 and 15. The MCL/ RBSLs for benzene, toluene and naphthalene have been exceeded in monitor well MW-8; benzene, toluene, MTBE and naphthalene in monitor well MW-9, and naphthalene only in DW-1. All other wells are below the MCL/RBSL or laboratory detection levels or did not contain sufficient water to sample for all constituents. Groundwater Analytical Data Sheets are presented in Appendix D.



MONITOR WELL	RIM	TOP PVC CASING (2")
MW-1	101.94	102.14
MW-2	100.00	100.00
MW-3	97.94	98.08
MW-4	NOT LOCATED	
MW-5	NOT LOCATED	
RMW-5	91.00	90.98
MW-6	101.36	101.80
MW-7	101.86	101.88
MW-8	96.22	96.40
MW-9	95.12	95.22
MW-10	99.94	100.02
MW-11	101.74	102.00
MW-12	ABANDONED	
MW-13	102.18	102.38
MW-14	101.06	101.02
MW-15	100.70	100.68
MW-16	103.86	103.82
MW-17	ABANDONED	
RMW-17	ABANDONED	
MW-18	ABANDONED	
MW-19	96.34	96.48
MW-20	ABANDONED	
RMW-20	96.08	96.12
MW-21	86.08	86.56
DW-1	102.20	102.12
DW-2	100.66	100.70

TITLE
SITE SURVEY MAP 8/28/05

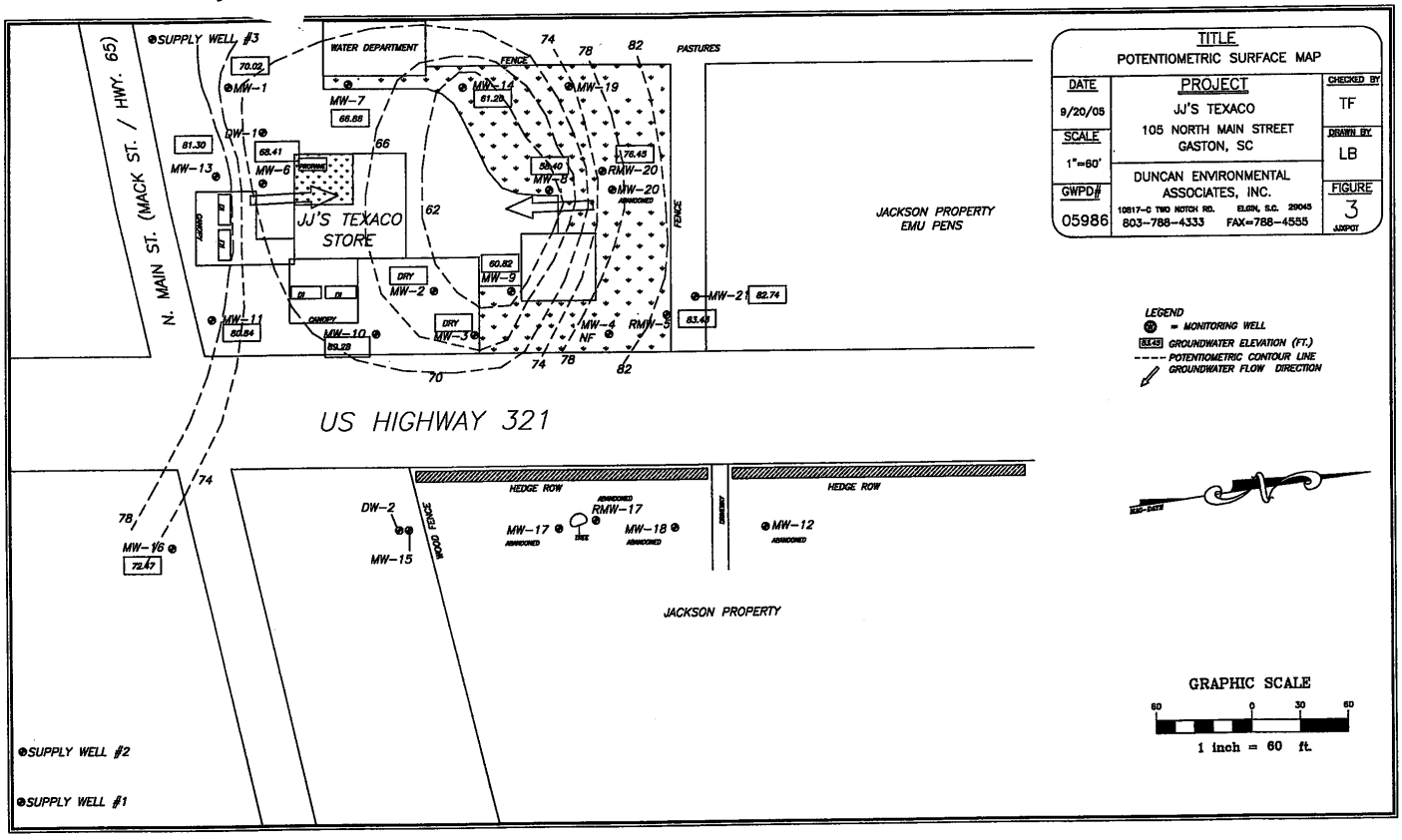
DATE	PROJECT	CHECKED BY
9/20/05	JJ'S TEXACO 105 NORTH MAIN STREET GASTON, SC	TF
SCALE		DRAWN BY
1"=60'		LB
GWPD#	DUNCAN ENVIRONMENTAL ASSOCIATES, INC.	FIGURE
05986	10817-C TWO NOTCH RD. ELGIN, S.C. 29045 803-788-4333 FAX=788-4555	2

LEGEND
= MONITORING WELL
= SOIL BORING

GRAPHIC SCALE
60 0 30 60
1 inch = 60 ft.

SURVEY MAP TAKEN FROM TIER II SURVEY
MARSHALL MILLER ASSOCIATES
MODIFIED BY DEA ON 8/25-26/05

Eastern Supply well in L BDL Oct 97'



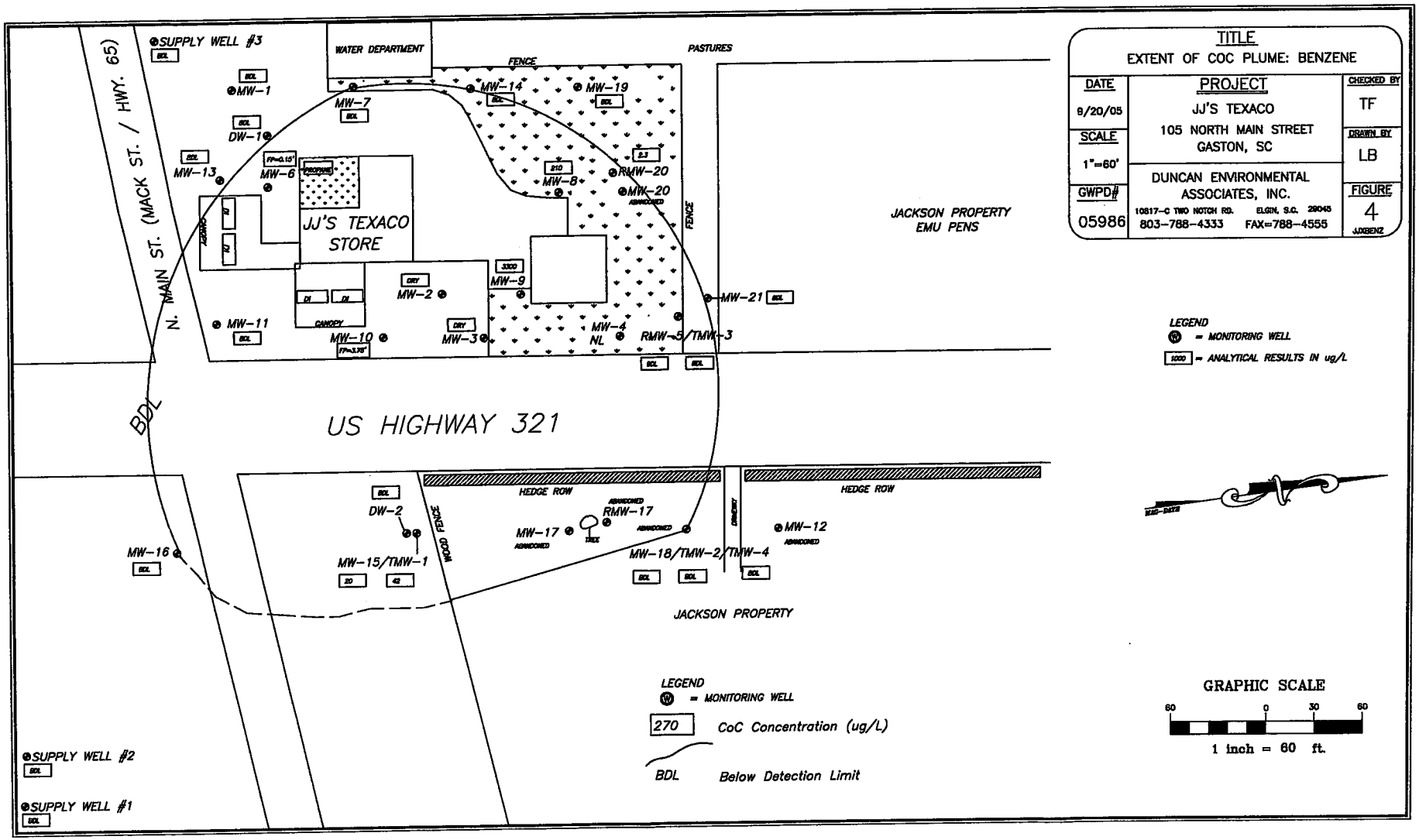
TITLE	
POTENTIOMETRIC SURFACE MAP	
DATE: 9/20/05	PROJECT: JJ'S TEXACO, 105 NORTH MAIN STREET, GASTON, SC
SCALE: 1"=60'	DUNCAN ENVIRONMENTAL ASSOCIATES, INC.
GWPD#: 05986	10817-C TWO NOTCH RD. ELGIN, S.C. 29045, 803-788-4333 FAX-788-4555
CHECKED BY: TF	DRAWN BY: LB
FIGURE: 3	ADEPOT

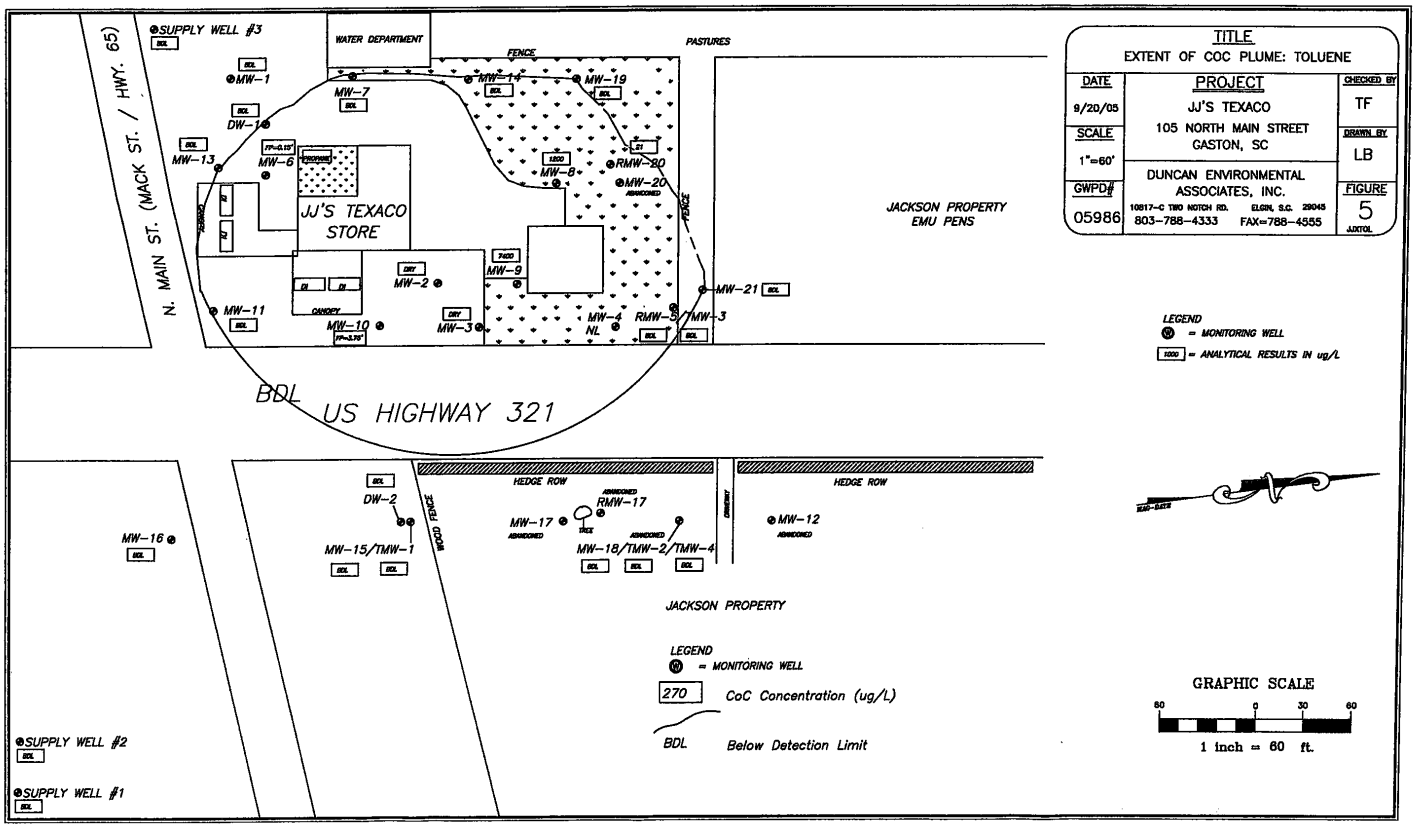
LEGEND
- MW = MONITORING WELL
- 63.45 GROUNDWATER ELEVATION (FT.)
- ---- POTENTIOMETRIC CONTOUR LINE
- GROUNDWATER FLOW DIRECTION

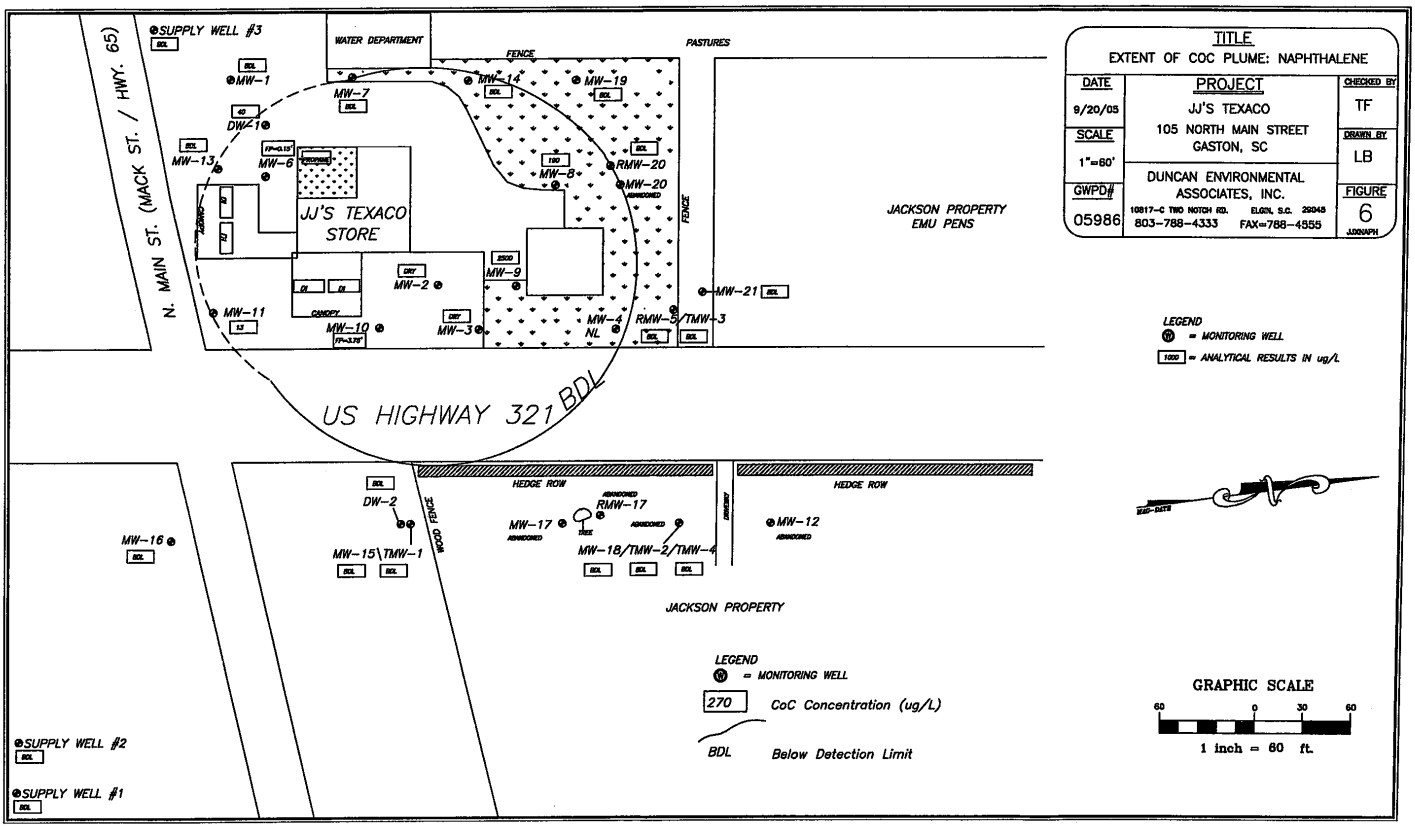
GRAPHIC SCALE

60 0 30 60

1 inch = 60 ft.


SUPPLY WELL #3
WATER DEPARTMENT
FENCE
PASTURES
MW-1
MW-7
MW-14
MW-19
DW-1
MW-13
MW-6
RMW-20
MW-8
MW-20
ABANDONED
JJ'S TEXACO STORE
JACKSON PROPERTY
EMU PENS
FENCE
MW-9
MW-21
MW-2
MW-11
MW-10
MW-3
MW-4
NL
RMW-5/TMW-3
N. MAIN ST. (MACK ST. / HWY. 65)
US HIGHWAY 321
BDL
HEDGE ROW
HEDGE ROW
DW-2
WOOD FENCE
RMW-17
ABANDONED
MW-17
ABANDONED
MW-12
ABANDONED
MW-16
MW-15/TMW-1
MW-18/TMW-2/TMW-4
JACKSON PROPERTY
LEGEND
= MONITORING WELL
270 CoC Concentration (ug/L)
BDL Below Detection Limit
SUPPLY WELL #2
SUPPLY WELL #1
TITLE
EXTENT OF COC PLUME: BENZENE
DATE
9/20/05
SCALE
1"=60'
GWPD#
05986
PROJECT
JJ'S TEXACO
105 NORTH MAIN STREET
GASTON, SC
DUNCAN ENVIRONMENTAL ASSOCIATES, INC.
10817-C TWO NOTCH RD. ELGIN, S.C. 29045
803-788-4333 FAX=788-4555
CHECKED BY
TF
DRAWN BY
LB
FIGURE
4
JJGBENZ
LEGEND
= MONITORING WELL
1000 = ANALYTICAL RESULTS IN ug/L
GRAPHIC SCALE
60 0 30 60
1 inch = 60 ft.


SUPPLY WELL #3
WATER DEPARTMENT
FENCE
PASTURES
MW-1
MW-7
MW-14
MW-19
DW-1
MW-13
MW-6
RMW-20
MW-8
MW-20
ABANDONED
JJ'S TEXACO STORE
JACKSON PROPERTY EMU PENS
MW-2
MW-9
MW-21
MW-11
MW-10
MW-3
MW-4
NL
RMW-5/TMW-3
N. MAIN ST. (MACK ST. / HWY. 65)
BDL
US HIGHWAY 321
HEDGE ROW
RMW-17
ABANDONED
DW-2
MW-17
MW-12
MW-16
MW-15/TMW-1
MW-18/TMW-2/TMW-4
JACKSON PROPERTY
SUPPLY WELL #2
SUPPLY WELL #1
LEGEND
= MONITORING WELL
270 CoC Concentration (ug/L)
BDL Below Detection Limit
TITLE
EXTENT OF COC PLUME: TOLUENE
DATE
9/20/05
PROJECT
JJ'S TEXACO
105 NORTH MAIN STREET
GASTON, SC
CHECKED BY
TF
SCALE
1"=60'
DRAWN BY
LB
GWPD#
05986
DUNCAN ENVIRONMENTAL ASSOCIATES, INC.
10817-C TWO NOTCH RD. ELGIN, S.C. 29045
803-788-4333 FAX-788-4555
FIGURE
5
JJXTOL
LEGEND
= MONITORING WELL
1000 = ANALYTICAL RESULTS IN ug/L
GRAPHIC SCALE
60 0 30 60
1 inch = 60 ft.



TITLE

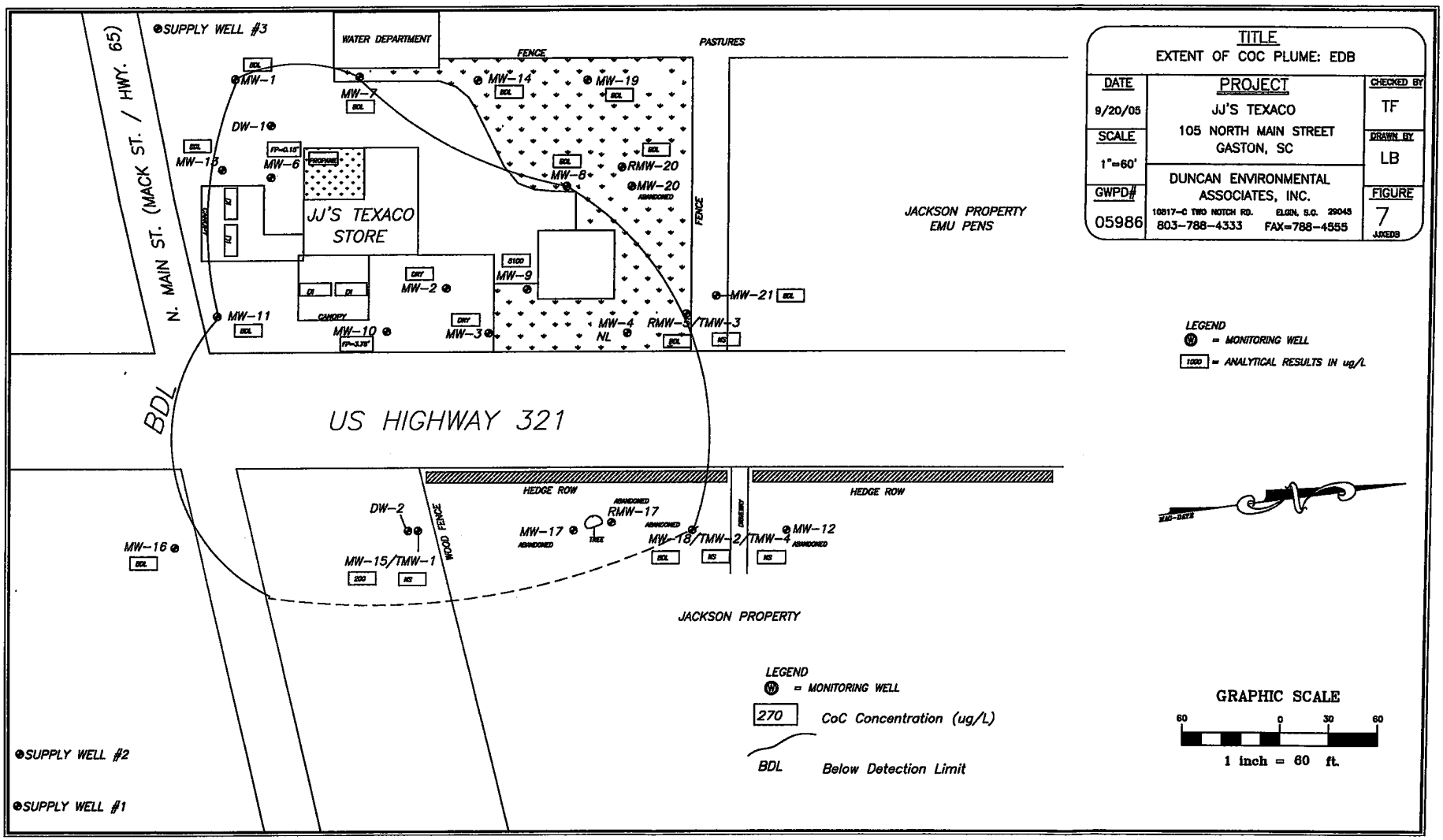
EXTENT OF COC PLUME: NAPHTHALENE

DATE	PROJECT	CHECKED BY
9/20/05	JJ'S TEXACO 105 NORTH MAIN STREET GASTON, SC	TF
SCALE		DRAWN BY
1"=60'		LB
GWPD#	DUNCAN ENVIRONMENTAL ASSOCIATES, INC.	FIGURE
05986	10817-C TWO NOTCH RD. ELGIN, S.C. 29045 803-788-4333 FAX=788-4555	6

LEGEND

= MONITORING WELL

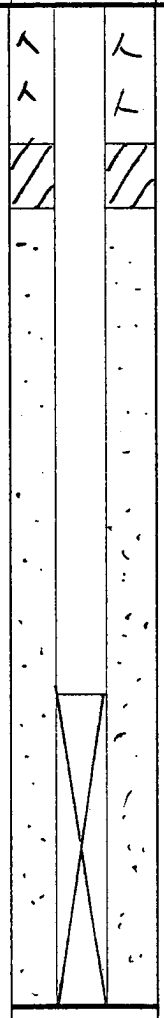
1000 = ANALYTICAL RESULTS IN ug/L



TITLE
EXTENT OF COC PLUME: EDB

DATE	PROJECT	CHECKED BY
9/20/05	JJ'S TEXACO 105 NORTH MAIN STREET GASTON, SC	TF
SCALE		DRAWN BY
1"=60'		LB
GWPD#	DUNCAN ENVIRONMENTAL ASSOCIATES, INC.	FIGURE
05986	10817-C TWO NOTCH RD. ELGIN, S.C. 29045 803-788-4333 FAX=788-4555	7 JJXEDB

Site Name: **JJ's Texaco**	Location: **105 N. Main St.**		Well No. **SB-1\MW-13**
City: **Gaston**	County: **Lexington**	State: **SC**	Logged By: **L. Baxley**
Latitude: **33°49'03"**	Drilled By: **T. Faller @ Duncan Environmental Assoc., Inc.**		Date: **1/12/05**
Longitude: **81°06'04"**	State License No. **908** Ted Faller		
Static Water Level: **21.08' on 8/28/05**	TOC Elev.: **102.38'**	Sampling Method: **Grab**	
Drilling Method: **Solid Stem Auger**	Development Method: **Bail / Surge**		
Grout: **Cement 0-2'**	Seal: **Bentonite 2-3'**	Gravel Pack: **Sand 3-35'**	
Casing Type: **PVC Schedule 40**	Diameter: **2"**	Depth: **0-25'**	Hole Diameter: **5"**
Screen Type: **PVC Schedule 40** Slot Size: **0.010**	Diameter: **2"**	Depth: **25-35'**	Total Depth: **35'**

Depth (ft)	Remarks: Located in front of the store, along N. Main St.	Well Completion	OVA (ppm)	Odors
0	Asphalt			
-	Red fine grained sand.			
1				
-				
2				
-				
3				
-				
10	Orange fine grained sand.			
-				
12				
-				
14				
-				
16				
-				
18	Orange clayey sand.			
-				
20				
-	Orange sandy clay.			
22				
-				
24				
-				
26				
-				
28				
-				
30				
-				
32				
-				
34				
-	Total well depth.			
36				
-				
38				
-				
40				
-				
42				

Site Name: **JJ's Texaco**	Location: **105 N. Main St.**	Well No. **SB-2**

City: **Gaston**	County: **Lexington**	State: SC	Logged By: **L. Baxley**

Latitude: 33°49'03"	Drilled By: **T. Faller @ Duncan Environmental Assoc., Inc.**	Date: **1/19/05**
Longitude: 81°06'04"	State License No. **908** Ted Faller	

Static Water Level: **NA**	TOC Elev.: **NA**	Sampling Method: **Grab**

Drilling Method: **Solid Stem Auger**	Development Method: **NA**

Grout: **NA**	Seal: **NA**	Gravel Pack: **NA**

Casing Type: **NA**	Diameter: **NA**	Depth: **NA**	Hole Diameter: **5"**

Screen Type: **NA**	Slot Size: **NA**	Diameter: **NA**	Depth: **NA**	Total Depth: **55'**

Depth (ft)	Remarks: NW section near the fence.	Well Completion	OVA (ppm)	Odors
0	Brown fine grained sand.			
-				
4				
-				
8	Orange fine grained sand.			
-				
10				
-				
12	Brownish tan fine grained sand. Very slight clay.			
-				
14	Brownish tan fine grained sandy clay.			
-				
16				
-				
18				
-				
20				
-				
25	Yellow fine grained clayey sand.			
-				
30	Orange sandy clay			
-				
35	Stiff brown to tan fine grained sandy clay.			
-				
40				
-				
46	Yellow fine grained sand.			
-				
50				
-				
55	Total drilled depth. No water.		32	Strong
-				
60				
-				
65				
-				
70				
-				
75				
-				

Site Name: **JJ's Texaco**	Location: **105 N. Main St.**	Well No. **SB-3**

City: **Gaston**	County: **Lexington**	State: **SC**	Logged By: **L. Baxley**

Latitude: **33°49'03"**	Drilled By: **T. Faller @ Duncan Environmental Assoc., Inc.**	Date: **1/20/05**
Longitude: **81°06'04"**	State License No. **908** Ted Faller	

Static Water Level: **NA**	TOC Elev.: **NA**	Sampling Method: **Grab**

Drilling Method: **Solid Stem Auger**	Development Method: **NA**

Grout: **NA**	Seal: **NA**	Gravel Pack: **NA**

Casing Type: **NA**	Diameter: **NA**	Depth: **NA**	Hole Diameter: **5"**

Screen Type: **NA**	Slot Size: **NA**	Diameter: **NA**	Depth: **NA**	Total Depth: **55'**

Depth (ft)	Remarks: Inside white fence, 20' north of the storage trailers.	Well Completion	OVA (ppm)	Odors
0	Dark brown fine grained sand.			
-				
3	Tan to yellow to dark brown fine grained sand.			
-				
8	Orange fine grained sand.			
-				
10				
-				
13	Rusty orange fine grained sand.			
-				
15				
-				
20	Brown fine grained sand.			
-				
25				
-				
27	Brown fine grained sand with slight clay.			
-				
29	Brown fine grained sandy clay.			
-				
30				
-				
35				
-				
40	Purple coarse grained sandy clay.			
-				
45				
-				
50				
-				
55	Total drilled depth. No water.		32	Strong
-				
60				
-				
65				
-				
70				
-				
75				
-				

Site Name: **JJ's Texaco**	Location: **105 N. Main St.**	Well No. **SB-4**

City: **Gaston**	County: **Lexington**	State: SC	Logged By: **L. Baxley**

Latitude: 33°49'03"	Drilled By: **T. Faller @ Duncan Environmental Assoc., Inc.**	Date: **1/25/05**
Longitude: 81°06'04"	State License No. **908** Ted Faller	

Static Water Level: **NA**	TOC Elev.: **NA**	Sampling Method: **Grab**

Drilling Method: **Solid Stem Auger**	Development Method: **NA**

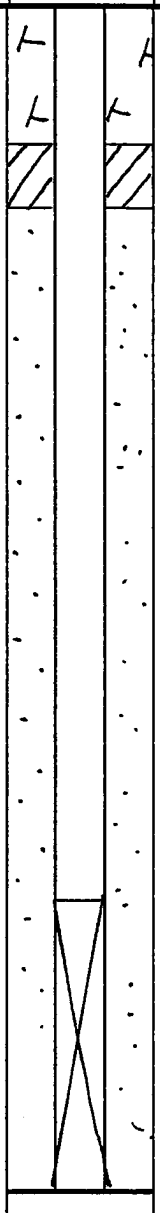
Grout: **NA**	Seal: **NA**	Gravel Pack: **NA**

Casing Type: **NA**	Diameter: **NA**	Depth: **NA**	Hole Diameter: **5"**

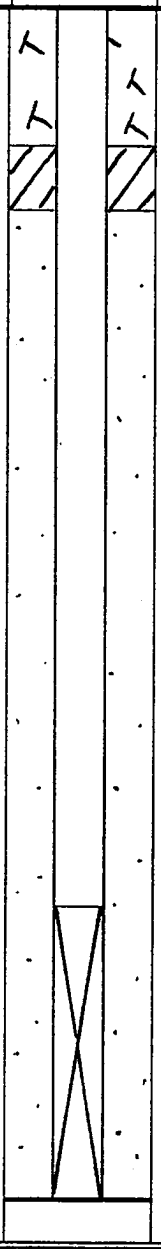
Screen Type: **NA**	Slot Size: **NA**	Diameter: **NA**	Depth: **NA**	Total Depth: **70'**

Depth (ft)	Remarks: Very far north west corner.	Well Completion	OVA (ppm)	Odors
0	Tan to light brown fine grained sand.			
-				
3				
-				
8	Dark brown fine grained sand with increasing clay and moisture.			
-				
10				
-				
13	Reddish brown fine grained sandy clay.			
-				
15				
-				
20				
-				
25				
-				
26	Yellow fine grained sand with fingers of clay.			
-				
28	Very moist and pliable brown fine grained sandy clay. No water.			
-				
30				
-				
35				
-				
40				
-				
43	Yellow fine grained sand.			
-				
50				
-				
55	Yellow to white fine grained sand.			
-				
60				
-				
65				
-				
70	Total drilled depth. No water.			
-				
75				
-				

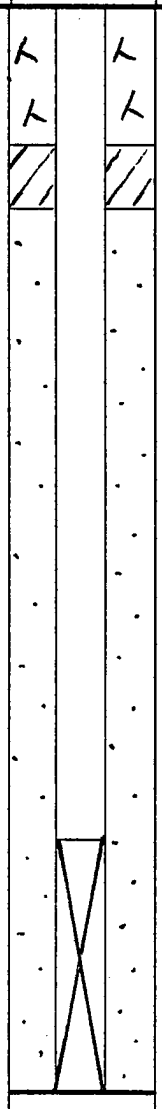
Site Name: **JJ's Texaco**	Location: **105 N. Main St.**		Well No. **SB-5/MW-14**
City: **Gaston**	County: **Lexington**	State: **SC**	Logged By: **L. Baxley**
Latitude: **33°49'03"**	Drilled By: **T. Faller @ Duncan Environmental Assoc., Inc.**		Date: **1/25/05**
Longitude: **81°06'04"**	State License No. **908** Ted Faller		
Static Water Level: **39.82' on 8/28/05**	TOC Elev.: **101.02'**	Sampling Method: **Grab**	
Drilling Method: **Mud Rotory**	Development Method: **Bail / Surge**		
Grout: **Cement 0-2'**	Seal: **Bentonite 2-3'**	Gravel Pack: **Sand 3-45'**	
Casing Type: **PVC Schedule 40**	Diameter: **2"**	Depth: **0-35'**	Hole Diameter: **5"**
Screen Type: **PVC Schedule 40** Slot Size: **0.010**	Diameter: **2"**	Depth: **35-45'**	Total Depth: **45'**

Depth (ft)	Remarks: Close to back fence.	Well Completion	OVA (ppm)	Odors
0	Tan fine grained sand.			
-				
1				
-				
2				
-				
3				
-				
6				
-	Tan to light brown fine grained sand.			
8	Rust to yellow fine grained sand, with moisture.			
-				
12				
-				
16				
-				
18				
-				
20				
-				
23	Brown fine grained sandy clay.			
-				
24				
-				
28				
-				
30				
-				
32	Tan fine grained sandy clay.			
-				
35				
-				
38				
-				
40				
-				
42				
-				
44				
-	Total well depth.			
46				

Site Name: **JJ's Texaco**	Location: **105 N. Main St.**		Well No. **SB-6 \ TMW-1 \ MW-15**
City: **Gaston**	County: **Lexington**	State: **SC**	Logged By: **L. Baxley**
Latitude: **33°49'03"**	Drilled By: **T. Faller @ Duncan Environmental Assoc., Inc.**		Date: **1/27/05**
Longitude: **81°06'04"**	State License No. **908**		
Static Water Level: **NA**	TOC Elev.: **100.68'**		Sampling Method: **Grab**
Drilling Method: **Solid Stem Auger**		Development Method: **Bail / Surge**	
Grout: **Cement 0-2'**	Seal: **Bentonite 2-3'**		Gravel Pack: **Sand 3-45'**
Casing Type: **PVC Schedule 40**	Diameter: **2"**	Depth: **0-35'**	Hole Diameter: **5"**
Screen Type: **PVC Schedule 40** Slot Size: **0.010**	Diameter: **2"**	Depth: **35-45'**	Total Depth: **45'**

Depth (ft)	Remarks: Across Hwy. 321, next to Amick Guns.	Well Completion	OVA (ppm)	Odors
0	Brown fine grained sand.			
-				
1				
-				
2				
-				
3				
-				
5	Tan fine grain sand.			
-				
8	Orange to tan stiffer fine grained sand.			
-				
12	Brown fine grained clayey sand.			
-				
15	Brown fine grained sandy clays with fingers of purple clay.			
-				
18				
-				
20				
-				
23				
-				
24				
-				
28				
-				
30				
-				
32				
-				
35				
-				
38				
-				
40				
-				
42				
-				
44				
-	Total well depth.			
46				

Site Name: **JJ's Texaco**	Location: **105 N. Main St.**		Well No.**MW-16**
City: **Gaston**	County: **Lexington**	State: SC	Logged By: **L. Baxley**
Latitude: **33°49'03"**	Drilled By: **T. Faller @ Duncan Environmental Assoc., Inc.**		Date: **2/22/05**
Longitude: **81°06'04"**	State License No. **908** Ted Faller		
Static Water Level: **31.35' on 8/28/05**	TOC Elev.: **103.82'**	Sampling Method: **Grab**	
Drilling Method: **Solid Stem Auger**	Development Method: **Bail / Surge**		
Grout: **Cement 0-2'**	Seal: **Bentonite 2-3'**	Gravel Pack: **Sand 3-41'**	
Casing Type: **PVC Schedule 40**	Diameter: **2"**	Depth: **0-31'**	Hole Diameter: **5"**
Screen Type: **PVC Schedule 40** Slot Size: **0.010**	Diameter: **2"**	Depth: **31-41'**	Total Depth: **41'**

Depth (ft)	Remarks: In the SE corner of the intersection at the church.	Well Completion	OVA (ppm)	Odors
0	Gravel.			
-	Tan \ brown fine grained sand.			
1				
-				
2				
-				
3				
-				
6				
-				
8	Stiff reddish \ brown fine grained sand with increasing clay content.			
-				
10	Stiff reddish \ brown fine to coarse grained sandy clay.			
-				
14	Stiff reddish \ brown fine grained moist sandy clay.			
-				
18				
-				
20				
-				
22	Tan fine grained sandy clay.			
-				
24				
-				
28				
-				
30				
-				
32				
-				
35				
-				
38				
-				
40				
-				
41	Total well depth.			
-				
42				
-				
43				

Site Name: **JJ's Texaco**	Location: **105 N. Main St.**	Well No. **SB-7\ TMW-2\MW-17**

City: **Gaston**	County: **Lexington**	State: **SC**	Logged By: **L. Baxley**

Latitude: **33°49'03"**	Drilled By: **T. Faller @ Duncan Environmental Assoc., Inc.**	Date: **1/31/05**
Longitude: **81°06'04"**	State License No. **908** T. J. Faller	

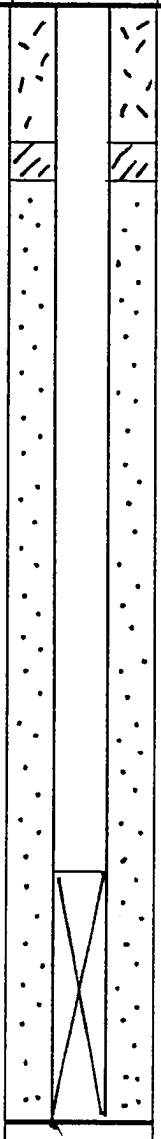
Static Water Level: **Abandoned**	TOC Elev.: **NA**	Sampling Method: **Grab**

Drilling Method: **Solid Stem Auger**	Development Method: **Bail / Surge**

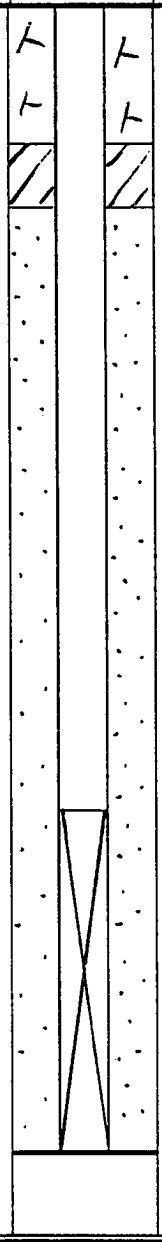
Grout: **Cement 0-2'**	Seal: **Bentonite 2-3'**	Gravel Pack: **Sand 3-52'**

Casing Type: **PVC Schedule 40**	Diameter: **2"**	Depth: **0-42'**	Hole Diameter: **5"**

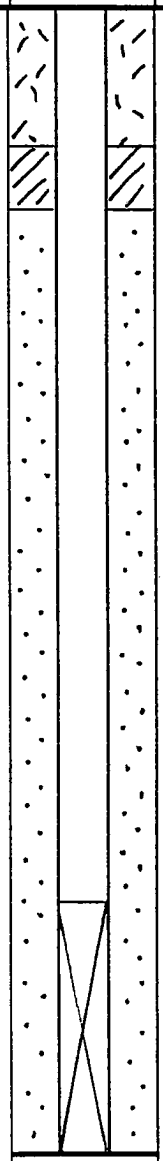
Screen Type: **PVC Schedule 40**	Slot Size: **0.010**	Diameter: **2"**	Depth: **42-52'**	Total Depth: **52'**

Depth (ft)	Remarks: Approx. 90' east of SB-6.	Well Completion	OVA (ppm)	Odors
0	Tan to brown fine grained sand.			
-				
1				
-				
2				
-				
3				
-				
6				
-	Orange to brown fine grained clayey sand.			
8				
-	Brown fine to coarse grained stiff sandy clay.			
10				
-	Orange to red fine grained sandy clay.			
12				
-				
17	Red to orange coarse grained sandy clay.			
-				
20				
-				
26				
-				
28				
-				
30				
-				
35				
-				
40				
-				
42				
-				
46				
-				
48				
-				
50				
-				
52	Total well depth.			
-				
54				

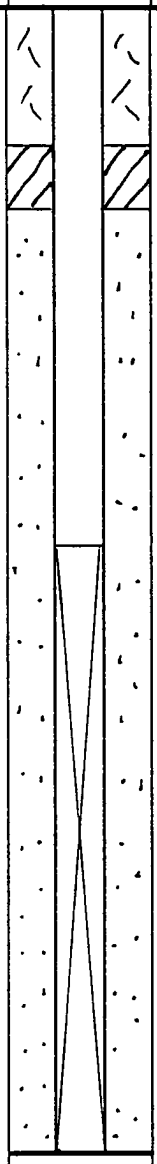
Site Name: **JJ's Texaco**	Location: **105 N. Main St.**		Well No. **RMW-17**
City: **Gaston**	County: **Lexington**	State: **SC**	Logged By: **L. Baxley**
Latitude: **33°49'03"**	Drilled By: **T. Faller @ Duncan Environmental Assoc., Inc.**		Date: **06/16/05**
Longitude: **81°06'04"**	State License No. **908** Ted Faller		
Static Water Level: **Abandoned**	TOC Elev.: **NA**		Sampling Method: **Grab**
Drilling Method: **Solid Stem Auger**	Development Method: **Bail / Surge**		
Grout: **Cement 0-2'**	Seal: **Bentonite 2-3'**		Gravel Pack: **Sand 3-35'**
Casing Type: **PVC Schedule 40**	Diameter: **2"**	Depth: **0-25'**	Hole Diameter: **5"**
Screen Type: **PVC Schedule 40** Slot Size: **0.010**	Diameter: **2"**	Depth: **25-35'**	Total Depth: **35'**

Depth (ft)	Remarks: Next to the Pine tree, between MW-17 and MW-18.	Well Completion	OVA (ppm)	Odors
0	Tan fine grained sand.			
-				
1				
-				
2				
-				
3	Orange to tan fine grained sand.			
-				
6	Reddish/orange fine grained clayey sand.			
-				
8				
-				
10	Tan fine grained sandy clay.			
-				
12				
-				
14				
-				
16				
-				
18				
-				
20				
-				
22				
-				
24				
-				
26				
-				
28				
-				
30				
-				
32				
-				
34				
-				
35	Total well depth.			
-				
36				

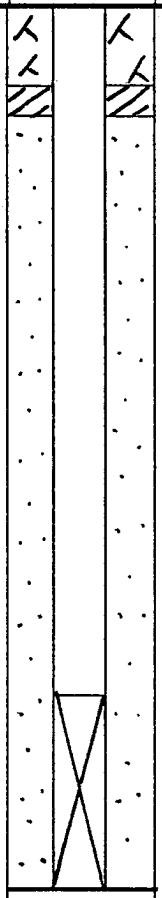
Site Name: **JJ's Texaco**	Location: **105 N. Main St.**		Well No. **SB-8 \ TMW-4 \ MW-18**
City: **Gaston**	County: **Lexington**	State: **SC**	Logged By: **L. Baxley**
Latitude: **33°49'03"**	Drilled By: **T. Faller @ Duncan Environmental Assoc., Inc.**		Date: **2/9/05**
Longitude: **81°06'04"**	State License No. **908** T. Faller		
Static Water Level: **Abandoned**	TOC Elev.: **NA**		Sampling Method: **Grab**
Drilling Method: **Solid Stem Auger**		Development Method: **Bail / Surge**	
Grout: **Cement 0-2'**	Seal: **Bentonite 2-3'**		Gravel Pack: **Sand 3-51'**
Casing Type: **PVC Schedule 40**	Diameter: **2"**	Depth: **0-41'**	Hole Diameter: **5"**
Screen Type: **PVC Schedule 40**	Slot Size: **0.010**	Diameter: **2"**	Depth: **41-51'**	Total Depth: **51'**

Depth (ft)	Remarks: Across Hwy 321, at the private property drive.	Well Completion	OVA (ppm)	Odors
0	Grey to brown fine grained sand.			
-				
1				
-				
2	Tan fine grained sand.			
-				
3				
-				
4				
-	Red to tan fine grained sand with slight clay.			
6				
-	Red fine grained sandy clay.			
8				
-				
12				
-				
17				
-				
20				
-				
26				
-				
28				
-				
30	Tan fine to coarse grained clayey sand.			
-				
35				
-				
40				
-				
42				
-	Tan to purple fine to coarse grained sandy clay.			
46				
-				
48				
-				
50				
-				
51	Total well depth.			
-				
54				

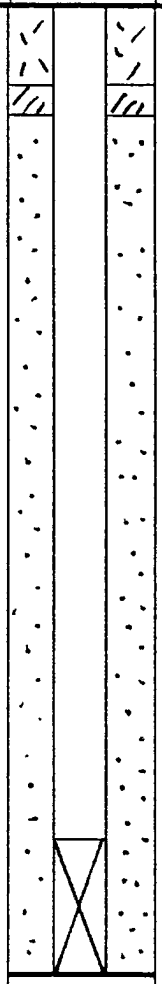
Site Name: **JJ's Texaco**	Location: **105 N. Main St.**		Well No. **SB-9 \ TMW-3 \ \RMW-5**
City: **Gaston**	County: **Lexington**	State: SC	Logged By: **L. Baxley**
Latitude: **33°49'03"**	Drilled By: **T. Faller @ Duncan Environmental Assoc., Inc.**		Date: **2/4/05**
Longitude: **81°06'04"**	State License No. **908**		
Static Water Level: **7.55' on 8/28/05**	TOC Elev.: **90.98'**		Sampling Method: **Grab**
Drilling Method: **Solid Stem Auger**		Development Method: **Bail / Surge**	
Grout: **Cement 0-2'**	Seal: **Bentonite 2-3'**		Gravel Pack: **Sand 3-20'**
Casing Type: **PVC Schedule 40**	Diameter: **2"**	Depth: **0-10'**	Hole Diameter: **5"**
Screen Type: **PVC Schedule 40** Slot Size: **0.010**	Diameter: **2"**	Depth: **10-20'**	Total Depth: **20'**

Depth (ft)	Remarks: Replacement well for MW-5.	Well Completion	OVA (ppm)	Odors
0	Brown fine grained sand.			
-				
1				
-				
2				
-				
3	Tan to white fine grained sand.			
-				
4				
-	Light tan stiff and moist fine grained clayey sand.			
6				
-				
7				
-				
8	Orange fine grained sandy clay with increasing moisture.			
-				
9				
-				
10				
-				
11				
-				
12				
-				
13				
-				
14				
-				
15				
-				
16	Very moist orange fine grained sandy clay.			
-				
17				
-				
18	Purple silty clay with decreasing moisture.			
-				
19				
-				
20	Total well depth.			
-				
21				

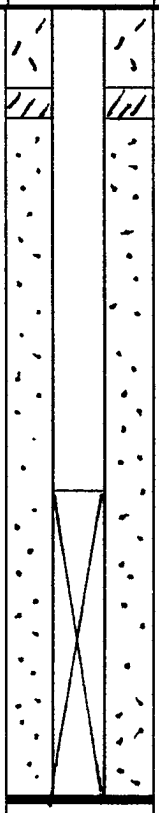
Site Name: **JJ's Texaco**	Location: **105 N. Main St.**		Well No. **MW-19**
City: **Gaston**	County: **Lexington**	State: **SC**	Logged By: **L. Baxley**
Latitude: **33°49'03"**	Drilled By: **T. Faller @ Duncan Environmental Assoc., Inc.**		Date: **3/31/05**
Longitude: **81°06'04"**	State License No. **908**		
Static Water Level: **52.61' on 8/28/05**	TOC Elev.: **96.48'**	Sampling Method: **Grab**	
Drilling Method: **Mud Rotory**	Development Method: **Bail / Surge**		
Grout: **Cement 0-2'**	Seal: **Bentonite 2-3'**	Gravel Pack: **Sand 3-61'**	
Casing Type: **PVC Schedule 40**	Diameter: **2"**	Depth: **0-51'**	Hole Diameter: **5"**
Screen Type: **PVC Schedule 40** Slot Size: **0.010**	Diameter: **2"**	Depth: **51-61'**	Total Depth: **61'**

Depth (ft)	Remarks: In place of SB-3.	Well Completion	OVA (ppm)	Odors
0	Dark brown fine grained sand.			
-				
2				
-	Tan to yellow to dark brown fine grained sand.			
4				
-				
8	Orange fine grained sand.			
-				
13	Rusty orange fine grained sand.			
-				
20	Brown fine grained sand.			
-				
27	Brown fine grained sand with slight clay.			
-				
29	Brown fine grained sandy clay.			
-				
35	Stiff brown to tan fine grained sandy clay.			
-				
40	Purple coarse grained sandy clay.			
-				
46	Yellow fine grained sand.			
-				
50				
-				
52				
-				
55				
-				
60				
-	Total well depth.			
62				
-				
70	Tan very fine grained sand.			
80				
90				
100				
108	White silty very fine gained sandy clay.			
110				
120	Total drilled depth.			
125				
130				

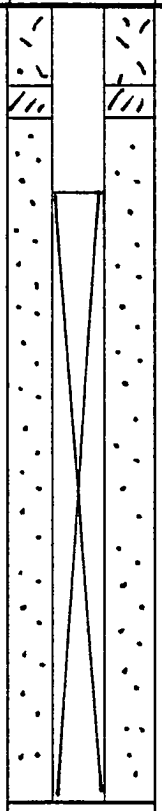
Site Name: **JJ's Texaco**	Location: **105 N. Main St.**	Well No. **MW-20**
City: **Gaston**	County: **Lexington**	State: **SC**	Logged By: **L. Baxley**
Latitude: **33°49'03"**	Drilled By: **T. Faller @ Duncan Enyjronmental Assoc., Inc.**	Date: **3/31/05**
Longitude: **81°06'04"**	State License No. **908** Ted Faller	
Static Water Level: **Abandoned**	TOC Elev.: **NA**	Sampling Method: **Grab**
Drilling Method: **Solid stem auger**	Development Method: **Bail / Surge**	
Grout: **Cement 0-2'**	Seal: **Bentonite 2-3'**	Gravel Pack: **Sand 3-65'**
Casing Type: **PVC Schedule 40**	Diameter: **2"**	Depth: **0-55'**	Hole Diameter: **5"**
Screen Type: **PVC Schedule 40**	Slot Size: **0.010**	Diameter: **2"**	Depth: **55-65'**	Total Depth: **65'**

Depth (ft)	Remarks: In place of SB-2.	Well Completion	OVA (ppm)	Odors
0	Brown fine grained sand.			
-				
2				
-				
4				
-				
6				
-				
8	Orange fine grained sand.			
-				
12	Brownish tan fine grained sand. Very slight clay			
-				
14	Brownish tan fine grained sandy clay.			
-				
20				
-				
25	Yellow fine grained clayey sand.			
-				
30	Orange sandy clay.			
-				
35	Stiff brown to tan fine grained sandy clay.			
-				
40				
-				
46	Yellow fine grained sand.			
-				
50				
-				
55	Tan coarse grained sandy clay.			
-				
60	Tan to white coarse grained sand.			
-				
65	Total well depth.			
-				
70				
-				
75				
-				
80				
-				
85	Total drilled depth.			

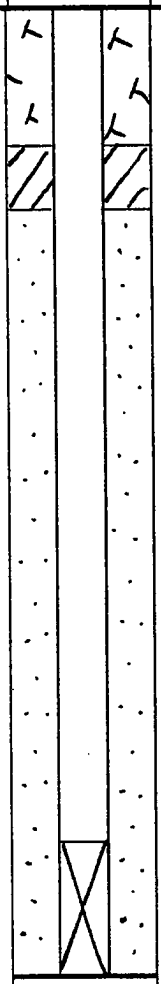
Site Name: **JJ's Texaco**	Location: **105 N. Main St.**		Well No. **RMW-20**
City: **Gaston**	County: **Lexington**	State: **SC**	Logged By: **L. Baxley**
Latitude: **33°49'03"**	Drilled By: **T. Faller @ Duncan Environmental Assoc., Inc.**		Date: **06/30/05**
Longitude: **81°06'04"**	State License No. **908**		
Static Water Level: **19.67' on 8/29/05**	TOC Elev.: **96.12'**	Sampling Method: **Grab**	
Drilling Method: **Solid stem auger**	Development Method: **Bail / Surge**		
Grout: **Cement 0-2'**	Seal: **Bentonite 2-3'**	Gravel Pack: **Sand 3-65'**	
Casing Type: **PVC Schedule 40**	Diameter: **2"**	Depth: **0-16'**	Hole Diameter: **5"**
Screen Type: **PVC Schedule 40**	Slot Size: **0.010**	Diameter: **2"**	Depth: **16-26'**	Total Depth: **26'**

Depth (ft)	Remarks: In place of MW-20.	Well Completion	OVA (ppm)	Odors
0	Tan/brown fine grained sand.			
-				
2				
-				
4				
-				
6				
-				
8	Brown fine grained clayey sand.			
-				
10				
-				
12				
-				
14				
-	Brown fine grained sandy clay.			
16				
-				
18				
-				
20				
-				
22				
-				
24				
-				
26	Total well depth.			
-				
28	Total drilled depth.			
-				
30				
-				
32				
-				
34				
-				
36				
-				
38				
-				
40				

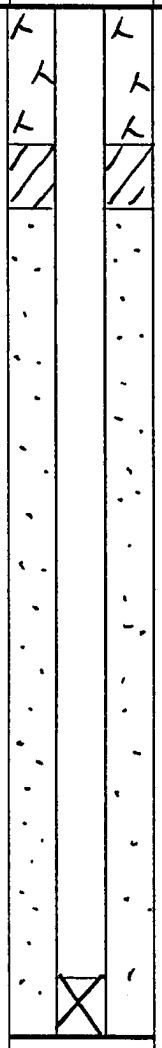
Site Name: **JJ's Texaco**	Location: **105 N. Main St.**	Well No. **MW-21**
City: **Gaston**	County: **Lexington**	State: **SC**	Logged By: **L. Baxley**
Latitude: **33°49'03"**	Drilled By: **T. Faller @ Duncan Environmental Assoc., Inc.**	Date: **7/20/05**
Longitude: **81°06'04"**	State License No. **908**	
Static Water Level: **3.82' on 8/28/05**	TOC Elev.: **86.56'**	Sampling Method: **Grab**
Drilling Method: **Solid stem auger**	Development Method: **Bail / Surge**	
Grout: **Cement 0-2'**	Seal: **Bentonite 2-3'**	Gravel Pack: **Sand 3-13'**
Casing Type: **PVC Schedule 40**	Diameter: **2"**	Depth: **0-3'**	Hole Diameter: **5"**
Screen Type: **PVC Schedule 40**	Slot Size: **0.010**	Diameter: **2"**	Depth: **3-13'**	Total Depth: **13'**

Depth (ft)	Remarks: Inside the gate to the Emu pen.	Well Completion	OVA (ppm)	Odors
0	Tan fine grained sand.			
-				
1				
-				
2				
-				
3				
-				
4				
-				
5				
-				
6				
-				
7				
-				
8	Orange fine grained clayey sand.			
-				
9				
-				
10				
-				
11				
-				
12				
-				
13	Total well depth.			
-				
14	Total drilled depth.			
-				
15				
-				
16				
-				
17				
-				
18				
-				
19				
-				
20				

Site Name: **JJ's Texaco**	Location: **105 N. Main St.**		Well No. **DW-1**
City: **Gaston**	County: **Lexington**	State: **SC**	Logged By: **L. Baxley**
Latitude: **33°49'03"**	Drilled By: **T. Faller @ Duncan Environmental Assoc., Inc.**		Date: **2/8-10/05**
Longitude: **81°06'04"**	State License No. **908**		
Static Water Level: **53.03' on 8/28/05**	TOC Elev.: **102.12'**	Sampling Method: **Grab**	
Drilling Method: **Solid Stem Auger**	Development Method: **Bail / Surge**		
Grout: **Cement 0-2'**	Seal: **Bentonite 2-3'**	Gravel Pack: **Sand 3-45'**	
Casing Type: **PVC Schedule 40**	Diameter: **2"**	Depth: **0-40'**	Hole Diameter: **5"**
Screen Type: **PVC Schedule 40**	Slot Size: **0.010**	Diameter: **2"**	Depth: **40-45'**	Total Depth: **45'**

Depth (ft)	Remarks: Between MW-1 and MW-6.	Well Completion	OVA (ppm)	Odors
0	Asphalt.			
-	Dark brown fine grained sand.			
1				
-				
2				
-				
3				
-	Tan fine grained sand.			
4				
-				
8				
-				
10				
-				
11	Tan to brown fine grained sand with slight clay.			
-				
17	Brown fine grained sandy clay.			
-				
20	Tan fine grained sandy clay.			
-				
26				
-				
28				
-				
31	Purple to white fine grained sandy clay.			
-				
35				
-				
40				
-				
41				
-				
45	Total well depth.			
-				
48				
-				
50				
-				
51				
-				
54				

Site Name: **JJ's Texaco**	Location: **105 N. Main St.**		Well No. **DW-2**
City: **Gaston**	County: **Lexington**	State: SC	Logged By: **L. Baxley**
Latitude: **33°49'03"**	Drilled By: **T. Faller @ Duncan Environmental Assoc., Inc.**		Date: **2/17-18/05**
Longitude: **81°06'04"**	State License No. **908**		
Static Water Level: **55.05' on 8/28/05**	TOC Elev.: **100.70'**	Sampling Method: **Grab**	
Drilling Method: **Solid Stem Auger**	Development Method: **Bail / Surge**		
Grout: **Cement 0-2'**	Seal: **Bentonite 2-3'**	Gravel Pack: **Sand 3-55'**	
Casing Type: **PVC Schedule 40**	Diameter: **2"**	Depth: **0-50'**	Hole Diameter: **5"**
Screen Type: **PVC Schedule 40**	Slot Size: **0.010**	Diameter: **2"**	Depth: **50-55'**	Total Depth: **55'**

Depth (ft)	Remarks: Adjacent to MW-15.	Well Completion	OVA (ppm)	Odors
0	Asphalt.			
-	Dark brown fine grained sand.			
1				
-				
2				
-				
3				
-	Tan fine grained sand.			
4				
-				
8				
-				
10				
-				
11	Tan to brown fine grained sand with slight clay.			
-				
17	Brown fine grained sandy clay.			
-				
20	Tan fine grained sandy clay.			
-				
26				
-				
28				
-				
31	Reddish/purple coarse to fine grained sandy clay.			
-				
35				
-				
40				
-				
45				
-				
50				
-				
55	Total well depth.			
-				
60				
-				
65				
-				
70				

Well Abandonment

D H E C
PROMOTE PROTECT PROSPER

Water Well Record
Bureau of Water
2600 Bull Street, Columbia, SC 29201-1708; (803) 734-5300

1. LOCATION OF WELL:
County: Lexington System Name: MW-18
Latitude: 33°49'03" Longitude: 81°06'04"
Distance and Direction from Road Intersections:
Street Address & City of Well Location:
Sketch Map:
See Map

2. CUTTING SAMPLES: ☐ Yes ☐ No
Geophysical Logs: ☐ Yes (please enclose) ☐ No

Formation Description	*Thickness of Stratum	Depth to Bottom of Stratum
Removed manhole		
and grated screen		
and casing in place		
0-51'		
*Indicate Water Bearing Zones (Use a 2nd sheet if needed)		

3. REMARKS:

4. OWNER OF WELL: Shumpert Oil Co.
Address: P.O. Box 6 Elgin, SC 29123
Telephone No.: (803) 894-4178
Engineer: Duncan Environmental Assoc, Inc.
Address: 10817-C Two Notch Rd. Elgin, SC 29045
Telephone No.: (803) 788-4333

5. WELL DEPTH (completed) 51' ft. Date Started: 7/20/05 Date Completed: 7/20/05

6. ☐ Mud Rotary ☐ Jetted ☐ Bored ☐ Dug
☐ Air Rotary ☐ Driven ☐ Cable tool ☐ Other

7. USE:
☐ Domestic ☐ Public Supply–Permit No. _____ ☐ Industry
☐ Irrigation ☐ Air Conditioning ☐ Commercial
☐ Test Well ☐ Monitor Well ☐ _____

8. CASING: ☐ Threaded ☐ Welded
Diam.: _____
Type: ☐ PVC ☐ Galvanized ☐ Steel ☐ Other
_____ in. to _____ ft. depth
_____ in. to _____ ft. depth
Height: Above/Below Surface _____ ft.
Weight _____ lb./ft.
Drive Shoe? ☐ Yes ☐ No

9. SCREEN
Type: _____ Diam.: _____
Slot/Gauge: _____ Length: _____
Set Between: _____ ft. and _____ ft.
_____ ft. and _____ ft.
NOTE: MULTIPLE SCREENS USE SECOND SHEET
Sieve Analysis ☐ Yes (please enclose) ☐ No

10. STATIC WATER LEVEL
_____ ft. below land surface after 24 hours

11. PUMPING LEVEL Below Land Surface.
_____ ft. after _____ hrs. Pumping _____ G.P.M.
Pumping Test: ☐ Yes (please enclose) ☐ No
Yield: _____

12. WATER QUALITY
Chemical Analysis ☐ Yes ☐ No Bacterial Analysis ☐ Yes ☐ No
Please enclose lab results.

13. ARTIFICIAL FILTER (gravel pack) ☐ Yes ☐ No
Installed from _____ ft. to _____ ft.
Effective size _____ Uniformity Coefficient _____

14. WELL GROUTED? ☐ Yes ☐ No
☐ Neat Cement ☐ Sand Cement ☐ Concrete ☐ Other _____
Depth: From _____ ft. to _____ ft.

15. NEAREST SOURCE OF POSSIBLE CONTAMINATION: _____ ft. _____ direction
_____ Type well disinfected ☐ Yes Type: _____
upon completion ☐ No Amount: _____

16. 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

17. WATER WELL CONTRACTOR'S CERTIFICATION: This well was drilled under my direction and this report is true to the best of my knowledge and belief.
Registered Business Name: Duncan Env. Assoc, Inc. Date: 10/26/05
Address: 10817-C Two Notch Rd. Elgin, SC 29045
Signed: _____ Cert. No.: 908
Authorized Representative

DHEC 1903 (10/96) COPY 1 MAIL TO: S.C. DEPARTMENT OF HEALTH AND ENVIRONMENTAL CONTROL (ADDRESS ABOVE)

Well Abandonment

Water Well Record
Bureau of Water
2600 Bull Street, Columbia, SC 29201-1708; (803) 734-5300

DHEC — PROMOTE PROTECT PROSPER

1. LOCATION OF WELL:

County: Lexington

System Name: MW-17 JJs Texaco

Latitude: 33° 49' 03" Longitude: 81° 06' 04"

Distance and Direction from Road Intersections:

Street Address & City of Well Location:

Sketch Map:

See map

2. CUTTING SAMPLES: ☐ Yes ☐ No

Geophysical Logs: ☐ Yes (please enclose) ☐ No

Formation Description	*Thickness of Stratum	Depth to Bottom of Stratum
Removed manhole and grouted screen and casing in place 0-52'		

*Indicate Water Bearing Zones (Use a 2nd sheet if needed)

3. REMARKS:

4. OWNER OF WELL: Shumpert Oil Co.
Address: P.O. Box 6 Pelion, SC 29123
Telephone No.: (803) 894-4178

Engineer: Duncan Environmental Assoc, Inc.
Address: 10817-C Two Notch Rd. Elgin, SC 29045
Telephone No.: (803) 788-4333

5. WELL DEPTH (completed) 52' ft. Date Started: 7/20/05 Date Completed: 7/20/05

6. ☐ Mud Rotary ☐ Jetted ☐ Bored ☐ Dug ☐ Air Rotary ☐ Driven ☐ Cable tool ☐ Other

7. USE: ☐ Domestic ☐ Public Supply–Permit No. _____ ☐ Industry ☐ Irrigation ☐ Air Conditioning ☐ Commercial ☐ Test Well ☐ Monitor Well ☐ _____

8. CASING: ☐ Threaded ☐ Welded
Diam.: _____
Type: ☐ PVC ☐ Galvanized ☐ Steel ☐ Other
_____ in. to _____ ft. depth
_____ in. to _____ ft. depth
Height: Above/Below Surface _____ ft.
Weight _____ lb./ft.
Drive Shoe? ☐ Yes ☐ No

9. SCREEN
Type: _____ Diam.: _____
Slot/Gauge: _____ Length: _____
Set Between: _____ ft. and _____ ft.
_____ ft. and _____ ft.
NOTE: MULTIPLE SCREENS USE SECOND SHEET
Sieve Analysis ☐ Yes (please enclose) ☐ No

10. STATIC WATER LEVEL
_____ ft. below land surface after 24 hours

11. PUMPING LEVEL Below Land Surface.
_____ ft. after _____ hrs. Pumping _____ G.P.M.
Pumping Test: ☐ Yes (please enclose) ☐ No
Yield: _____

12. WATER QUALITY
Chemical Analysis ☐ Yes ☐ No Bacterial Analysis ☐ Yes ☐ No
Please enclose lab results.

13. ARTIFICIAL FILTER (gravel pack) ☐ Yes ☐ No
Installed from _____ ft. to _____ ft.
Effective size _____ Uniformity Coefficient _____

14. WELL GROUTED? ☐ Yes ☐ No
☐ Neat Cement ☐ Sand Cement ☐ Concrete ☐ Other _____
Depth: From _____ ft. to _____ ft.

15. NEAREST SOURCE OF POSSIBLE CONTAMINATION: _____ ft. ____ direction
_____ Type well disinfected ☐ Yes Type: _____
upon completion ☐ No Amount: _____

16. 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

17. WATER WELL CONTRACTOR'S CERTIFICATION: This well was drilled under my direction and this report is true to the best of my knowledge and belief.
Registered Business Name: Duncan Env. Assoc. Inc. Date: 10/26/05
Address: 10817-C Two Notch Rd. Elgin, SC 29045
Signed: _____ (Authorized Representative) Cert. No.: 908

DHEC 1903 (10/96) COPY 1 MAIL TO: S.C. DEPARTMENT OF HEALTH AND ENVIRONMENTAL CONTROL (ADDRESS ABOVE)

Well Abandonment

D H E C
PROMOTE PROTECT PROSPER

Water Well Record
Bureau of Water
2600 Bull Street, Columbia, SC 29201-1708; (803) 734-5300

1. LOCATION OF WELL:

County: Lexington System Name: RMW-17 JJ's Tyreo

Latitude: 33° 49' 03" Longitude: 81° 06' 04"

Distance and Direction from Road Intersections:

Street Address & City of Well Location:

Sketch Map:

see map

2. CUTTING SAMPLES: ☐ Yes ☐ No

Geophysical Logs: ☐ Yes (please enclose) ☐ No

Formation Description	*Thickness of Stratum	Depth to Bottom of Stratum
Removed manhole		
and grouted screen		
and casing in place		
0 - 35'		
*Indicate Water Bearing Zones (Use a 2nd sheet if needed)		

3. REMARKS:

4. OWNER OF WELL: Thompert Oil Co.
Address: P.O. Box G Pelion, SC 29123
Telephone No.: (803) 894-4178

Engineer: Duncan Environmental Assoc. Inc.
Address: 10817-C Two Notch Rd. Elgin, SC 29045
Telephone No.: (803) 788-4333

5. WELL DEPTH (completed) 35' ft. Date Started: 7/20/05 Date Completed: 7/20/05

6. ☐ Mud Rotary ☐ Jetted ☐ Bored ☐ Dug ☐ Air Rotary ☐ Driven ☐ Cable tool ☐ Other

7. USE:
☐ Domestic ☐ Public Supply–Permit No. _____ ☐ Industry
☐ Irrigation ☐ Air Conditioning ☐ Commercial
☐ Test Well ☐ Monitor Well ☐ _____

8. CASING: ☐ Threaded ☐ Welded
Diam.: _____
Type: ☐ PVC ☐ Galvanized ☐ Steel ☐ Other
_____ in. to _____ ft. depth
_____ in. to _____ ft. depth
Height: Above/Below Surface _____ ft.
Weight _____ lb./ft.
Drive Shoe? ☐ Yes ☐ No

9. SCREEN
Type: _____ Diam.: _____
Slot/Gauge: _____ Length: _____
Set Between: _____ ft. and _____ ft.
_____ ft. and _____ ft.
NOTE: MULTIPLE SCREENS USE SECOND SHEET
Sieve Analysis ☐ Yes (please enclose) ☐ No

10. STATIC WATER LEVEL
_____ ft. below land surface after 24 hours

11. PUMPING LEVEL Below Land Surface.
_____ ft. after _____ hrs. Pumping _____ G.P.M.
Pumping Test: ☐ Yes (please enclose) ☐ No
Yield: _____

12. WATER QUALITY
Chemical Analysis ☐ Yes ☐ No Bacterial Analysis ☐ Yes ☐ No
Please enclose lab results.

13. ARTIFICIAL FILTER (gravel pack) ☐ Yes ☐ No
Installed from _____ ft. to _____ ft.
Effective size _____ Uniformity Coefficient _____

14. WELL GROUTED? ☐ Yes ☐ No
☐ Neat Cement ☐ Sand Cement ☐ Concrete ☐ Other _____
Depth: From _____ ft. to _____ ft.

15. NEAREST SOURCE OF POSSIBLE CONTAMINATION: _____ ft. ____ direction
_____ Type well disinfected ☐ Yes Type: _____
upon completion ☐ No Amount: _____

16. 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

17. WATER WELL CONTRACTOR'S CERTIFICATION: This well was drilled under my direction and this report is true to the best of my knowledge and belief.
Registered Business Name: Duncan Env. Assoc., Inc. Date: 10/26/05
Address: 10817-C Two Notch Rd. Elgin, SC 29045
Signed: _____ (Authorized Representative) Cert. No.: 908

DHEC 1903 (10/96) COPY 1 MAIL TO: S.C. DEPARTMENT OF HEALTH AND ENVIRONMENTAL CONTROL (ADDRESS ABOVE)

Well Abandonment

DHEC
PROMOTE PROTECT PROSPER

Water Well Record
Bureau of Water
2600 Bull Street, Columbia, SC 29201-1708; (803) 734-5300

1. LOCATION OF WELL:

County: Lexington System Name: MW-12

Latitude: 33° 49' 03" Longitude: 81° 06' 04"

Distance and Direction from Road Intersections:

Street Address & City of Well Location:

Sketch Map:

see map

2. CUTTING SAMPLES: ☐ Yes ☐ No

Geophysical Logs: ☐ Yes (please enclose) ☐ No

Formation Description	*Thickness of Stratum	Depth to Bottom of Stratum
Removed manhole		
and grouted screen		
and casing in place		
0-5'		
*Indicate Water Bearing Zones (Use a 2nd sheet if needed)		

3. REMARKS:

4. OWNER OF WELL: Shumpert Oil Co.
Address: P.O. Box 6 Pelion, SC 29123
Telephone No.: (803) 894-4178

Engineer: Duncan Environmental Assoc., Inc.
Address: 10817-C Two Notch Rd. Elgin, SC 29045
Telephone No.: (803) 788-4333

5. WELL DEPTH (completed) 51 ft. Date Started: 7/20/05 Date Completed: 7/20/05

6. ☐ Mud Rotary ☐ Jetted ☐ Bored ☐ Dug ☐ Air Rotary ☐ Driven ☐ Cable tool ☐ Other

7. USE: ☐ Domestic ☐ Public Supply–Permit No. _____ ☐ Industry ☐ Irrigation ☐ Air Conditioning ☐ Commercial ☐ Test Well ☐ Monitor Well ☐ _____

8. CASING: ☐ Threaded ☐ Welded
Diam.: _____
Type: ☐ PVC ☐ Galvanized ☐ Steel ☐ Other
_____ in. to _____ ft. depth
_____ in. to _____ ft. depth
Height: Above/Below Surface _____ ft.
Weight _____ lb./ft.
Drive Shoe? ☐ Yes ☐ No

9. SCREEN
Type: _____ Diam.: _____
Slot/Gauge: _____ Length: _____
Set Between: _____ ft. and _____ ft.
_____ ft. and _____ ft.
NOTE: MULTIPLE SCREENS USE SECOND SHEET
Sieve Analysis ☐ Yes (please enclose) ☐ No

10. STATIC WATER LEVEL
_____ ft. below land surface after 24 hours

11. PUMPING LEVEL Below Land Surface.
_____ ft. after _____ hrs. Pumping _____ G.P.M.
Pumping Test: ☐ Yes (please enclose) ☐ No
Yield: _____

12. WATER QUALITY
Chemical Analysis ☐ Yes ☐ No Bacterial Analysis ☐ Yes ☐ No
Please enclose lab results.

13. ARTIFICIAL FILTER (gravel pack) ☐ Yes ☐ No
Installed from _____ ft. to _____ ft.
Effective size _____ Uniformity Coefficient _____

14. WELL GROUTED? ☐ Yes ☐ No
☐ Neat Cement ☐ Sand Cement ☐ Concrete ☐ Other _____
Depth: From _____ ft. to _____ ft.

15. NEAREST SOURCE OF POSSIBLE CONTAMINATION: _____ ft. _____ direction _____
Type well disinfected upon completion ☐ Yes ☐ No Type: _____ Amount: _____

16. 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

17. WATER WELL CONTRACTOR'S CERTIFICATION: This well was drilled under my direction and this report is true to the best of my knowledge and belief.
Registered Business Name: Duncan Env. Assoc. Inc Date: 10/26/05
Address: 10817-C Two Notch Rd. Elgin, SC 29045
Signed: _____ Cert. No.: 908
Authorized Representative

DHEC 1903 (10/96) COPY 1 MAIL TO: S.C. DEPARTMENT OF HEALTH AND ENVIRONMENTAL CONTROL (ADDRESS ABOVE)

HYDRAULIC GRADIENT

The top of casing elevations of the newly installed ground water monitoring wells were established by direct survey. An assumed elevation of 100.00 feet above mean sea level was utilized as the benchmark during the survey. The elevation of the shallow water table was then calculated and utilized to evaluate the primary direction of ground water flow and the hydraulic gradient within the most shallow water bearing formation at the site. The water level and survey data collected from the site is tabulated below.

Monitoring Well ID #	TOC Elevation (ft)	Screened Interval (ft)	Depth to Water (ft)	Water Table Elevation (ft)	Free Product Thickness (ft)
MW-1	102.14	30-40	32.12	70.02	
MW-2	100.00	70-80	78.10	Dry	
MW-3	98.08	24-34	Dry	Dry	
MW-4	NL	---	---	---	
MW-5	NL	---	---	---	
RMW-5	90.98	10-20	7.55	83.43	
MW-6	101.80	25-35	33.39	68.41*	0.15'
MW-7	101.88	32-42	35.02	66.86	
MW-8	96.40	30-40	38.00	58.40	
MW-9	95.22	33-43	34.40	60.82	
MW-10	100.02	30-35	30.74	69.28*	3.76'
MW-11	102.00	30-40	21.16	80.84	
MW-12	Abandoned	41-51	---	---	
MW-13	102.38	25-35	21.08	81.30	
MW-14	101.02	35-45	39.82	61.20	
MW-15	100.68	35-45	---	---	
MW-16	103.82	31-41	31.35	72.47	
MW-17	Abandoned	42-52	---	---	
RMW-17	Abandoned	25-35	---	---	
MW-18	Abandoned	41-51	---	---	
MW-19	96.48	51-61	52.61	43.87	
MW-20	Abandoned	55-65	---	---	
RMW-20	96.12	16-26	19.67	76.45	
MW-21	86.56	3-13	3.82	82.74	
DW-1	102.12	40-45	53.03	49.09	
DW-2	100.70	50-55	55.05	45.65	

Based on water levels collected August 28, 2005. RMW-20 sampled on 8/29/05

* = Free product, corrected water level

NL = Not located

STATE OF SOUTH CAROLINA

Public Water System
OPERATING PERMIT

Issued in accordance with the provisions of the State Safe Drinking Water Act (SDWA) (S.C. Code Ann. § 44-55-10 et seq., 1976) and the State Primary Drinking Water Regulations (SPDWR) (R.61-58).

This Permit is Issued to: *GASTON RURAL WATER DISTRICT, DONALD SHARPE*

For the Operation of a Public Water System Serving: *GASTON RURAL WATER DISTRICT*

County: *Lexington*

Public Water System Name: *GASTON RURAL WATER DISTRICT*

Permit Number: *3220002*

Date of Issuance:

Jeffrey P. deBessonet, P.E., Director
Water Facilities Permitting Division

UST PROGRAM
DOCKETING # 97-Tech

D H E C
PROMOTE PROTECT PROSPER
South Carolina Department of Health and Environmental Control

632115 ROW
" Well 3" 365'

632114
" Well 2" -338'

632113
" Well 1"
@ office off Mack St
326'

Contact: Steven Spires 880-5995

I. DESCRIPTION OF WATER SYSTEM

A. System Type: *Community*

B. Distribution System Classification: *Group III, Distribution Operator Grade "C", or as otherwise designated by the South Carolina Department of Labor, Licensing, and Regulation, Environmental Certification Board*

C. Maximum Number of Allowable Taps: *1*
0 3510 3829 0 3651 1 256

D. Reliable System Capacity: *1347840 gallons per day*

E. Surface Water Treatment Facilities:
Name of Surface Water Treatment Facility:
Raw Water Source:
Raw Water Source Identification Number:
Location of Raw Water Intake:
Total Raw Water Pumping Capacity:
Reliable Raw Water Pumping Capacity:
Treatment Facility Capacity:
DHEC Treatment Facility Identification Number:
Location of Treatment Facility:
Treatment Facility Classification:
Treatment:
Total Finish Water Pumping Capacity:
Reliable Finish Water Pumping Capacity:

F. Groundwater Sources/Treatment Facilities:

Plant Name	Plant ID	Total Cap.	Treatments Applied
PLANT #1	B32655	.1536	PH ADJ, POST(LIME); HYPOCHLORINATION, POST;
PLANT #2	B32656	0	PH ADJ, POST(LIME); HYPOCHLORINATION, POST;
PLANT #3	B32657	0	PH ADJ, POST(LIME); HYPOCHLORINATION, POST;
PLANT #4	B32658	0	PH ADJ, POST(LIME); HYPOCHLORINATION, POST;
PLANT #5	B32659	0	PH ADJ, POST(LIME); HYPOCHLORINATION, POST;
PLANT #6	B32694	0	PH ADJ, POST(LIME); HYPOCHLORINATION, POST;
PLANT #7	B32695	0	PH ADJ, POST(LIME); HYPOCHLORINATION, POST;

Treatment Facility Classification: *Group _, Treatment Operator Grade _, or as otherwise designated by the South Carolina Department of Labor, Licensing, and Regulation, Environmental Certification Board*

Well Name	Latitude/Longitude	Well ID	Yield (gpm)	Cap (gpd)	Treatments
WELL SIX	33.8182868 / -81.1128929	G32874	316	303360	TRTMNT APPLIED AT PLANT;
WELL 1	33.8175525 / -	G32113	200	192000	TRTMNT APPLIED AT

	81.1015984				PLANT;
WELL FIVE	33.8334374 / -81.0931498	G32739	170	163200	TRTMNT APPLIED AT PLANT;
WELL TWO	33.8158475 / -81.0992628	G32114	70	67200	TRTMNT APPLIED AT PLANT;
WELL THREE	33.8159754 / -81.1001044	G32115	85	81600	TRTMNT APPLIED AT PLANT;
WELL FOUR	33.8180357 / -81.1551469	G32116	180	172800	TRTMNT APPLIED AT PLANT;
WELL SEVEN	33.4812 / -81.1017	G32918	383	367680	TRTMNT APPLIED AT PLANT;

G. Master Meter Connections:

Public Water System	DHEC System No.	Location	Reliable Capacity (mgd)
<meter_table>			

H. Emergency Sources of Water:

(Enter the same information as for a well, surface water source or master meter connection for each emergency source of water.)

I. Distribution Treatment Facilities: *N/A*

J. Storage Capacity:

Type of Storage	Total Capacity
Elevated (million gallons)	.5
Ground (million gallons)	0
Pressure (thousand gallons)	50

II. SPECIAL CONDITIONS

A. Last Sanitary Survey Rating and Business Plan Requirements

1. The overall rating of the sanitary survey which was conducted by the Department on (11/14/2007) prior to the issuance of this operating permit was "Satisfactory". However, should the water system receive an overall rating of "Unsatisfactory" on any future sanitary survey, the Permittee shall submit a business plan to the Department within six (6) months following the issuance of the unsatisfactory rating.
2. A business plan is defined in the SPDWR as a document consisting of three (3) sub-plans, a facilities plan a management plan, and a financial plan which is intended to show how a water system will be self-sustaining and have the commitment and the financial, managerial and technical capability to consistently comply with the SDWA and the SPDWR.
3. The definitions of a facilities plan, a management plan, and a financial plan may be found in the SPDWR.
4. The business plan shall include a schedule for achieving compliance with the SDWA and the SPDWR. Once the compliance schedule is approved by the Department, it shall be considered a part of the Operating Permit.

B. System Specific Conditions

(In some cases an existing water system may be out of compliance with some of the requirements of the SDWA or the SPDWR., however, such non-compliance may not justify and overall Aunsatisfactory≅ sanitary survey rating. If this is the case, enter any other special conditions with a schedule for achieving compliance with the SDWA and the SPDWR..)

III. GENERAL REQUIREMENTS

A. Duty to Comply

The Permittee shall comply with all applicable portions of the State Safe Drinking Water Act (SDWA) and the State Primary Drinking Water Regulations (SPDWR) to include all conditions and requirements of this permit. Failure to comply with any portion of this permit constitutes a violation of the SDWA and is grounds for enforcement action.

B. Permit Revocation

In accordance with SC Code Ann. ə 44-55-120 the Department may revoke this Operating Permit for failure to demonstrate the ability to continue to comply with the SDWA.

C. Maximum Allowable Taps

The number of taps served by the water system shall not exceed the maximum allowable taps specified in Section I of this Operating Permit.

D. Permit Modification

1. The Department may modify this Operating Permit at any time to include all newly promulgated requirements of the SDWA or the SPDWR which are applicable to the public water system, to address requirements necessary to ensure compliance with the SDWA and SPDWR, and to provide updated information as a result of any future permitted construction.

2. The Permittee may request a modification of the Operating Permit at any time with adequate justification.

3. Permit modification will be issued in accordance with R.61-58.1(O)(3).

E. Transfer of Operating Permit

This Operating Permit is non-transferable, except with prior approval of the Department. To obtain Department approval of the transfer of this Operating Permit, the Permittee shall submit written notification to the Department at least thirty (30) days in advance of the proposed transfer. This notification shall include an Operating Permit application form which has been completed by the proposed new owner of the water system. The Department may request that the proposed new owner submit a business plan which shows how the system will be managed to insure its long term viability. If the Department approves the transfer, a new Operating Permit will be issued to the new owner of the system in accordance with R.61-58.1(O)(3).

F. Annual Fee

1. The Permittee shall remit payment of the annual fee to the Department within thirty (30) days of the billing date.

2. The Department **will not** conduct compliance monitoring if the fee remains unpaid at the end of ninety (90) days after the billing date.

G. Construction Permits

An application for a Water Supply Construction Permit shall be made to, and a Water Supply Construction Permit obtained from, the Department before the system can be modified or expanded.

H. Operation and Maintenance

The Permittee shall comply with the operation and maintenance requirements of R.61-58.7.

I. Emergency Procedures

1. The Permittee shall prepare and maintain an up-to-date emergency preparedness plan in accordance with R.61-58.8(B).

2. The Permittee shall comply with the requirements of R.61-58.8(C) and (D) when operating under emergency conditions.

J. Monitoring and Reporting Requirements

The Permittee shall comply with the monitoring and reporting requirements of the SPDWR.

3220002	GASTON RURAL WD	B32655	IN FRONT OF OFFICE	2251	MTBE	0.00065	02/15/07
3220002		B32655	IN FRONT OF OFFICE	2251	MTBE	0.0005	04/12/07
3220002		B32655	IN FRONT OF OFFICE	2251	MTBE	0.00058	07/05/07
3220002		B32656-7	RT SIDE MAGNICE - OFF MACK	2251	MTBE	0.0099	02/15/07
3220002		B32656-7	R/S MAGINICE - OFF MACK	2251	MTBE	0.0123	04/12/07
3220002		B32656-7	R/S MAGINICE - OFF MACK	2251	MTBE	0.0152	07/05/07
3220002		B32656-7	R/S MAGINICE - OFF MACK	2251	MTBE	0.00681	07/05/07
3220002		B32656-7	R/S MAGINICE - OFF MACK	2251	MTBE	0.00681	10/11/07
3220002		B32659	AT TANK HIGHWAY 321	2251	MTBE	0.00109	10/11/07
3220002		B32659	AT TANK AT HIGHWAY 321	2251	MTBE	0.00065	04/12/07
3220002		B32659	AT TANK AT HIGHWAY 321	2251	MTBE	0.00068	07/05/07
3220002		B32659	AT TANK AT HIGHWAY 321	2251	MTBE	0.00072	10/11/07

	04/11/07
	07/19/07
	08/09/07
	04/11/07
	07/19/07
	08/09/07
	08/09/07
	12/03/07
	11/06/07
	07/19/07
	08/09/07
	11/06/07

Domenico Model

UST # 05986
Site Name: Gaston Food Mart
Modeler: JDA
Date: 6/21/2007

Groundwater Flow Parameters

K	29.57	ft/yr
dh/dx	0.066	
θ	0.55	
v_x	3.5484	ft/yr

Transport Parameters

x_{max}	140	ft
y_{max}	125	ft
z	0	ft
Source Width	150	ft
Source Thickness	30	ft
Plume Length	500	ft
α_x	17.92561	ft
α_y	1.792561	ft
α_z	1.00E-99	ft

Simulation Time

t_{sim} 35 yrs

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	19.1	81	Benzene	1.050	3.38
Toluene	24.6	133	Toluene	1.082	3.28
Ethylbenzene	1.43	176	Ethylbenzene	1.109	3.20
Xylenes	9.92	639	Xylenes	1.395	2.54
Naphthalene	5	1290	Naphthalene	1.797	1.97
MtBE	60.6	11	MtBE	1.007	3.52
EDB	1.9	28	EDB	1.017	3.49
1,2-DCA	3.7	17.5	1,2-DCA	1.011	3.51

Simulation Points for Breakthrough Curves

MW-15					
x	140	ft	x	0	ft
y	0	ft	y	0	ft
z	0	ft	z	0	ft

$$C(x,y,z,t) = \left(\frac{C_0}{8}\right)\exp\left[\left(\frac{x}{2\alpha_x}\right)\left(1-\sqrt{1+\frac{4\lambda\alpha_x}{v}}\right)\right] erfc\left[\frac{x-vt\sqrt{1+\frac{4\lambda\alpha_x}{v}}}{2\sqrt{\alpha_x vt}}\right]\left\{erf\left[\frac{y+\frac{Y}{2}}{2\sqrt{\alpha_y x}}\right]-erf\left[\frac{y-\frac{Y}{2}}{2\sqrt{\alpha_y x}}\right]\right\}\left\{erf\left[\frac{z+Z}{2\sqrt{\alpha_z x}}\right]-erf\left[\frac{z-Z}{2\sqrt{\alpha_z x}}\right]\right\}$$

UST PROGRAM
DOCKETING # 9Dtech

UST PROGRAM
DOCKETING #

SSTLs t 1000 yrs

UST Permit # 05986
Site Name: Gaston Food Mart

SSTLs in mg/L			RBSLs (mg/L):	0.005	1.000	0.700	10.000	0.040	0.025	0.00005	0.005
MW #	x (ft)	y (ft)	z (ft)	Benzene SSTL	Toluene SSTL	Ethylbenzene SSTL	Xylenes SSTL	MtBE SSTL	Naphthalene SSTL	EDB SSTL	1,2-DCA SSTL
MW-6	125	0	0	1.199	2432.135	47.498	299.005	175.947	5.867	0.65608	1.983
MW-8	290	0	0	1691.709	>99999	12669.119	27036.945	>99999	8050.456	>99999	5441.263
MW-9	300	0	0	2628.202	>99999	17792.111	35560.396	>99999	12485.703	>99999	8800.927
MW-10	255	0	0	362.246	>99999	3862.831	10369.773	>99999	1734.162	12736.24288	1011.911
RMW-3	300	0	0	2628.202	>99999	17792.111	35560.396	>99999	12485.703	>99999	8800.927
MW-15	295	0	0	2108.566	>99999	15013.499	31006.809	>99999	10025.631	>99999	6920.047
MW-1	60	0	0	0.069	42.188	5.299	51.079	2.243	0.343	0.00474	0.088
RMW-5	405	0	0	>99999	>99999	>99999	>99999	>99999	>99999	>99999	>99999
MW-11	200	0	0	32.246	>99999	599.197	2306.905	27121.804	155.826	194.84426	72.176
MW-12	1	0	0	0.005	1.064	0.724	10.276	0.043	0.026	0.00005	0.005
MW-13	95	0	0	0.322	374.318	17.258	132.253	23.490	1.583	0.06738	0.472
MW-16	1	0	0	0.005	1.064	0.724	10.276	0.043	0.026	0.00005	0.005
MW-19	295	0	0	2108.566	>99999	15013.499	31006.809	>99999	10025.631	>99999	6920.047
RMW-20	325	0	0	7909.638	>99999	41600.196	70575.544	>99999	37416.185	>99999	29293.105
MW-21	415	0	0	>99999	>99999	>99999	>99999	>99999	>99999	>99999	>99999
DW-1	100	0	0	0.401	511.311	20.429	151.509	32.856	1.969	0.09846	0.599
DW-2	295	0	0	2108.566	>99999	15013.499	31006.809	>99999	10025.631	>99999	6920.047
			λ (yr^{-1}):	0.265	0.433	0.173	0.103	0.521	0.154	0.624	0.312
			R:	1.050	1.082	1.109	1.395	1.007	1.797	1.017	1.011
			Pure Substance Solubility:	1750	526	169	175	5110	31	4321	8520
			Effective Solubility:	44.39	26.54	3.7	21.68	173	6.7	1.9	3.7

Ground Water Analytical Data: 03/14/2007

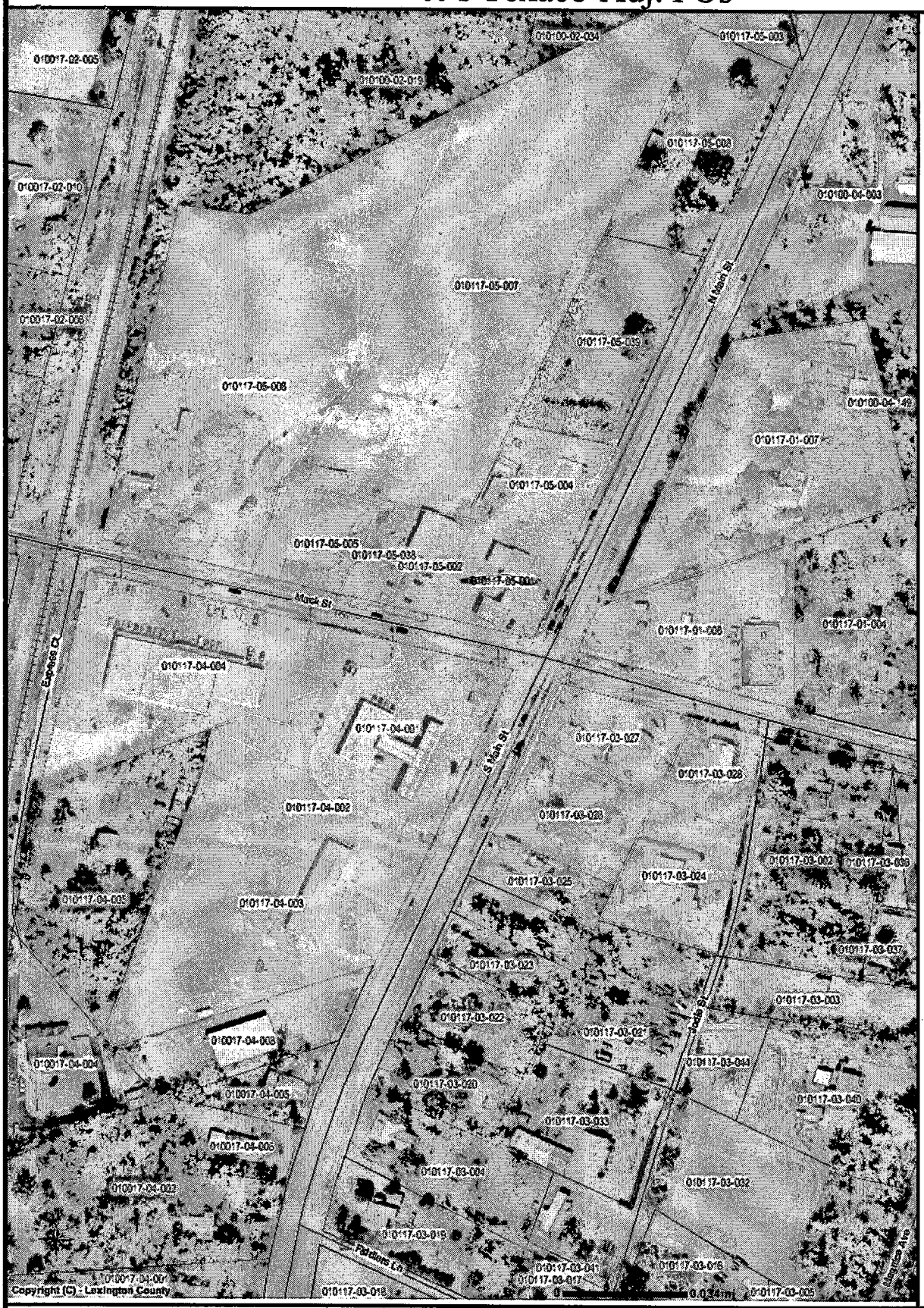
COC (ug/l)	MCL/RBSL	MW-1	RMW-3	MW-4	RMW-5	MW-6	MW-8	MW-9
Free Product Thickness (ft)	N/A	0	0	0	0	0.11'	0	0
Benzene	5	<1.00	**9790**	<1.00	<1.00	-	**153**	**2150**
Toluene	1,000	<1.00	**29600**	<1.00	<1.00	-	185	**9290**
Ethylbenzene	700	<1.00	**2570**	<1.00	<1.00	-	43.1	**1740**
Xylenes	10,000	<3.00	**13600**	<3.00	<3.00	-	347	**11200**
MTBE	40	2.33	**1160**	<1.00	<1.00	-	15.7	**234**
Naphthalene	25	<5.00	**<2000**	<5.00	<5.00	-	15.3	**<1000**

COC (ug/l)	MCL/RBSL	MW-10	MW-11	MW-12	MW-13	MW-15	MW-16
Free Product Thickness (ft)	N/A	0	0	0	0	0	0
Benzene	5	**19100**	<1.00	<1.00	<1.00	**41.1**	<1.00
Toluene	1,000	**24600**	<1.00	<1.00	<1.00	3.76	<1.00
Ethylbenzene	700	**1430**	6.05	<1.00	<1.00	12.0	<1.00
Xylenes	10,000	9920	5.55	<3.00	<3.00	163	<3.00
MTBE	40	**60600**	<1.00	<1.00	1.58	<1.00	<1.00
Naphthalene	25	**<5000**	5.03	<5.00	<5.00	8.92	<5.00

COC (ug/l)	MCL/RBSL	MW-19	RMW-20	DW-1	DW-2
Free Product Thickness (ft)	N/A	0	0	0	0
Benzene	5	<1.00	<1.00	<1.00	**<100**
Toluene	1,000	<1.00	<1.00	<1.00	**<100**
Ethylbenzene	700	<1.00	<1.00	<1.00	**<100**
Xylenes	10,000	<3.00	<3.00	<3.00	**<300**
MTBE	40	<1.00	<1.00	1.31	**<100**
Naphthalene	25	<5.00	<5.00	<5.00	**<500**

Notes:
1) All values are expressed in ug/L.
2) RBSL values taken from RBCA Table B1.
3) Bolded values exceed RBSLs.
4) BDL = Below laboratory detection limits.

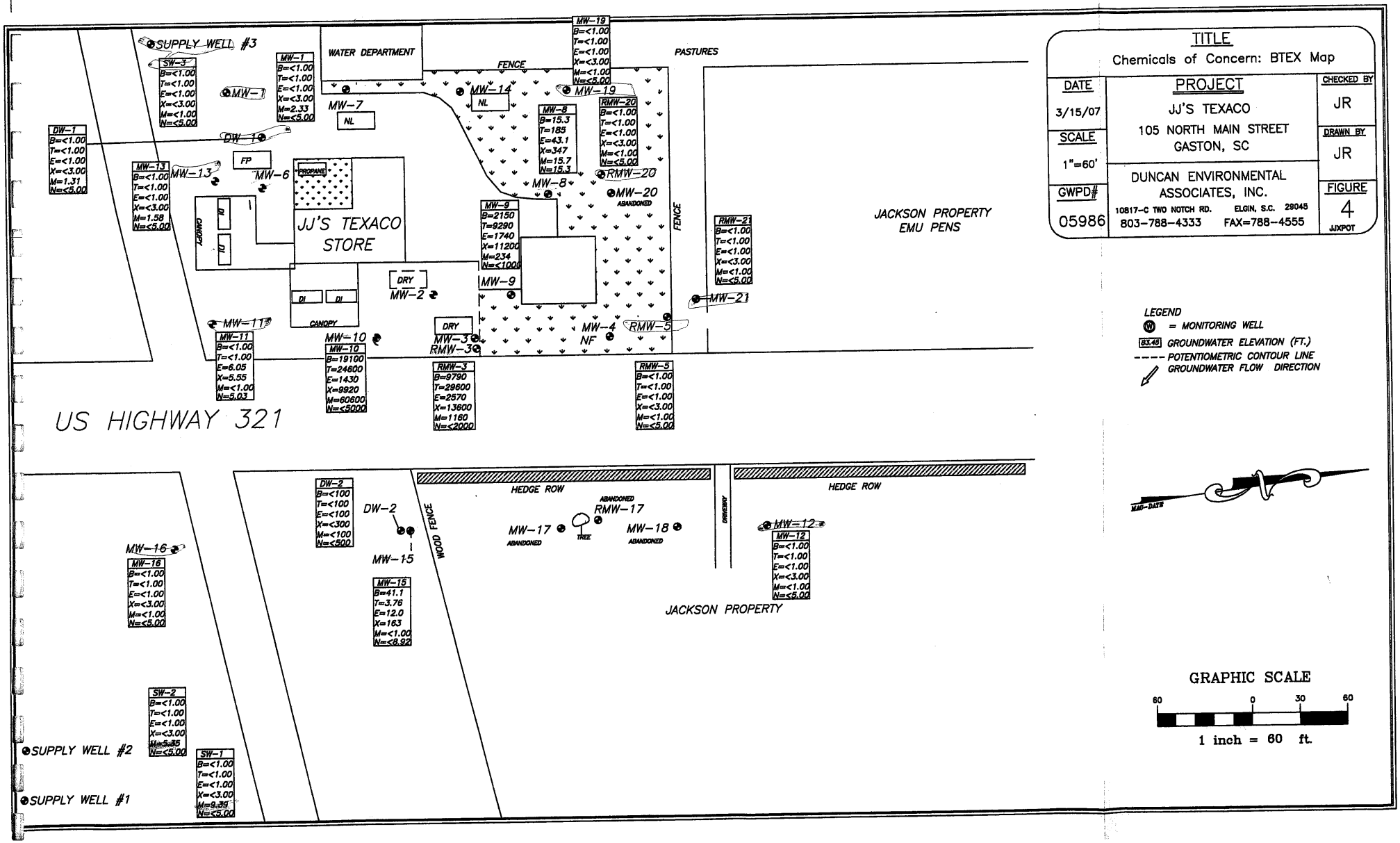
JJ's Texaco-Adj. POs



DISCLAIMER : Lexington County makes no warranty, representation or guaranty as to the content, sequence, accuracy, timeliness or completeness of any of the database information provided herein. The reader should not rely on the data provided herein for any reason. Lexington County explicitly disclaims any representations and warranties, including, without limitation, the implied warranties of merchantability and fitness for a particular purpose.

UST Permit #05986
JJ's Texaco
Parcels

Rec	Tax Map Number	Property Address	Owner Name	Mailing Address	City	State	Zip	Tax District	Land Use
1	010117-04-001	105 MAIN ST	BIG FOUR ENTERPRISES	PO BOX 1285	BARNWELL	SC	29812	4G	CONVENIENCE STORE
2	010117-04-004	1128 MACK ST	PARTS STORES INC	PO BOX 4304	COLUMBIA	SC	29240	4G	SHOPPING CENTER - COMMUNITY
3	010117-05-007	MACK ST	JACKSON, W S III	PO BOX 26	GASTON	SC	29053	4G	GENERAL COMMERCIAL - UNIMPROVED
4	010117-05-006	MACK ST	JACKSON, MARY L	PO BOX 26	GASTON	SC	29053	4G	RESIDENTIAL - IMPROVED
5	010117-01-007	112 MAIN ST	JACKSON, W S JR & MARY LEE	BOX 26	GASTON	SC	29053	4G	LEGAL RES IN COMMERCIAL ZONED AREA
6	010117-05-004	W/S OF HWY 321	SHUMPERT, D F III	PO BOX 6	PELION	SC	29123	4G	GENERAL COMMERCIAL - UNIMPROVED
7	010117-05-005	MACK ST	FREE, SABRINA	109 AMICK ST	LEXINGTON	SC	29072	4G	GENERAL COMMERCIAL - UNIMPROVED
8	010117-05-038	MACK ST	GASTON RURAL COMMUNITY WATER D	PO BOX 66	GASTON	SC	29053	4G	WATER AND SEWER
9	010117-05-002	MACK ST	GASTON RURAL COMM WATER DIST	000000000000000000000000	GASTON	SC	29053	4G	WATER AND SEWER
10	[redacted]	MAIN ST	SHUMPERT OIL CO	BOX 6	PELION	SC	29123	4G	SERVICE STATION
11	010117-01-006	MAIN ST	MATTHEWS, DONNY R	4932 HWY 321	GASTON	SC	29053	4G	CONVENIENCE STORE
12	010117-03-027	1204 MACK ST	FRANKFURTH, BETTY J & DALE E	3244 SUNSET BLVD	WEST COLUMBIA	SC	29169	4G	RETAIL STORE
13	010117-03-028	1210 MACK ST	SHIVERS, DONALD E & LLEWELLYN	PO BOX 607	GASTON	SC	29053	4G	RESIDENTIAL - IMPROVED
14	010117-04-002	W SIDE HWY 321	BIG FOUR ENTERPRISES A SC PART	PO BOX 1285	BARNWELL	SC	29812	4G	GENERAL COMMERCIAL - UNIMPROVED
15	010117-03-026	S MAIN ST	DAVIS, RACHEL	PO BOX 206	GASTON	SC	29053	4G	RESIDENTIAL - IMPROVED
16	010117-04-003	113 MAIN ST	ALPINE OF SOUTH CAROLINA	PO BOX 3017	WEST COLUMBIA	SC	29171	4G	CAR WASH
17	010117-03-024	111 JODIE ST	BAILEY, CHARLEEN	111 JODIE ST	GASTON	SC	29053	4G	RESIDENTIAL - IMPROVED



TITLE

Chemicals of Concern: BTEX Map

DATE	PROJECT	CHECKED BY
3/15/07	JJ'S TEXACO 105 NORTH MAIN STREET GASTON, SC	JR
SCALE		DRAWN BY
1"=60'		JR
GWPD#	DUNCAN ENVIRONMENTAL ASSOCIATES, INC.	FIGURE
05986	10817-C TWO NOTCH RD. ELGIN, S.C. 29045 803-788-4333 FAX=788-4555	4 JJXPOT

LEGEND

(W) = MONITORING WELL

8X.48 GROUNDWATER ELEVATION (FT.)

---- POTENTIOMETRIC CONTOUR LINE

GROUNDWATER FLOW DIRECTION

MAG-DATE

GRAPHIC SCALE

60 0 30 60

1 inch = 60 ft.

Secretary of State Search
Mark Hammond's Office

Office of the South Carolina Secretary of State
Business Filings Division

Information for: **PELION MANUFACTURING COMPANY** Check Cha

Note*** This online database was last updated on 10/26/2006 see our Disclaimer

DOMESTIC / FOREIGN:	Domestic
STATUS:	Good Standing
STATE OF INCORPORATION / ORGANIZATION:	SOUTH CAROLINA
	For Profit

REGISTERED AGENT INFORMATION

REGISTERED AGENT NAME:	DANIEL F SHUMPERT III
ADDRESS:	814 PINE ST
CITY:	PELION
STATE:	SC
ZIP:	29123 0000
SECOND ADDRESS:	

FILE DATE:	02/06/1951
EFFECTIVE DATE:	02/06/1951
DISSOLVED DATE:	

CORPORATION HISTORY RECORDS			
Code	File Date	Comment	
Agent	07/03/2001	CH AGT/ADD FR-HEADQUARTERS	
AMENDMENT(DOMESTIC)	06/20/2001	AMD/STATUTORY CLOSE	
INCORPORATION (DOMESTIC)	02/06/1951	INCORPORATION	

Return to Previous Page

UST PROGRAM DOCKETING # 89 Tech

Secretary of State Search
Mark Hammond's Office

Office of the South Carolina Secretary of State
Business Filings Division

Information for: **LITTLE GIANT ATM, INC.** Check Cha

Note*** This online database was last updated on 10/26/2006 see our Disclaimer

DOMESTIC / FOREIGN:	Domestic
STATUS:	Good Standing
STATE OF INCORPORATION / ORGANIZATION:	SOUTH CAROLINA
	For Profit

REGISTERED AGENT INFORMATION

REGISTERED AGENT NAME:	D FRANK SHUMPERT
ADDRESS:	814 PINE ST
CITY:	PELION
STATE:	SC
ZIP:	29123 0000
SECOND ADDRESS:	

FILE DATE:	02/13/2003
EFFECTIVE DATE:	02/13/2003
DISSOLVED DATE:	

CORPORATION HISTORY RECORDS			
Code	File Date	Comment	
INCORPORATION (DOMESTIC)	02/13/2003	INCORPORATION	

Return to Previous Page

Secretary of State Search
Mark Hammond's Office

Office of the South Carolina Secretary of State
Business Filings Division

Information for: **SHUMPERT PROPERTIES, LLC** Check Cha

Note*** This online database was last updated on 10/26/2006 see our Disclaimer

DOMESTIC / FOREIGN:	Domestic
STATUS:	Good Standing
STATE OF INCORPORATION / ORGANIZATION:	SOUTH CAROLINA
	For Profit

REGISTERED AGENT INFORMATION

REGISTERED AGENT NAME:	DF SHUMPERT, III
ADDRESS:	503 PELION RD.
CITY:	PELION
STATE:	SC
ZIP:	29123 0000
SECOND ADDRESS:	

FILE DATE:	08/11/2004
EFFECTIVE DATE:	08/11/2004
DISSOLVED DATE:	08/11/2049

CORPORATION HISTORY RECORDS			
Code	File Date	Comment	
DOMESTIC LIMITED LIABILITY COMPANY	08/11/2004	DOMESTIC LIMITED LIABILITY CO (TERM:8/11/2049)	

Return to Previous Page

Secretary of State Search
Mark Hammond's Office

Office of the South Carolina Secretary of State
Business Filings Division

Information for: **PINE STREET & COMPANY, LLC** Check Cha

Note*** This online database was last updated on 10/26/2006 see our Disclaimer

DOMESTIC / FOREIGN:	Domestic
STATUS:	Good Standing
STATE OF INCORPORATION / ORGANIZATION:	SOUTH CAROLINA
	For Profit

REGISTERED AGENT INFORMATION

REGISTERED AGENT NAME:	D. F. SHUMPERT III
ADDRESS:	503 PELION RD
CITY:	PELION
STATE:	SC
ZIP:	29123
SECOND ADDRESS:	

FILE DATE:	01/14/2004
EFFECTIVE DATE:	01/14/2004
DISSOLVED DATE:	

CORPORATION HISTORY RECORDS			
Code	File Date	Comment	
Agent	10/13/2006	ASSIGN AN AGENT/ADD/CHANGED DESIGNATED OFFICE ADDRESS	
NOT ABLE TO MAINTAIN REGISTRATED AGENT	04/24/2006	RESIGNATION OF AGENT	
DOMESTIC LIMITED LIABILITY COMPANY	01/14/2004	DOMESTIC LIMITED LIABILITY CO(AT WILL)	

Return to Previous Page

Secretary of State Search

Mark Hammond's Office

Boards & Commissions

Business Filings

Business Opportunities

Employment Agencies

Municipal Incorporations

Municipal Annexations

Notaries & Apostilles

Press Releases

Other Helpful Links

Public Charities

Service of Process

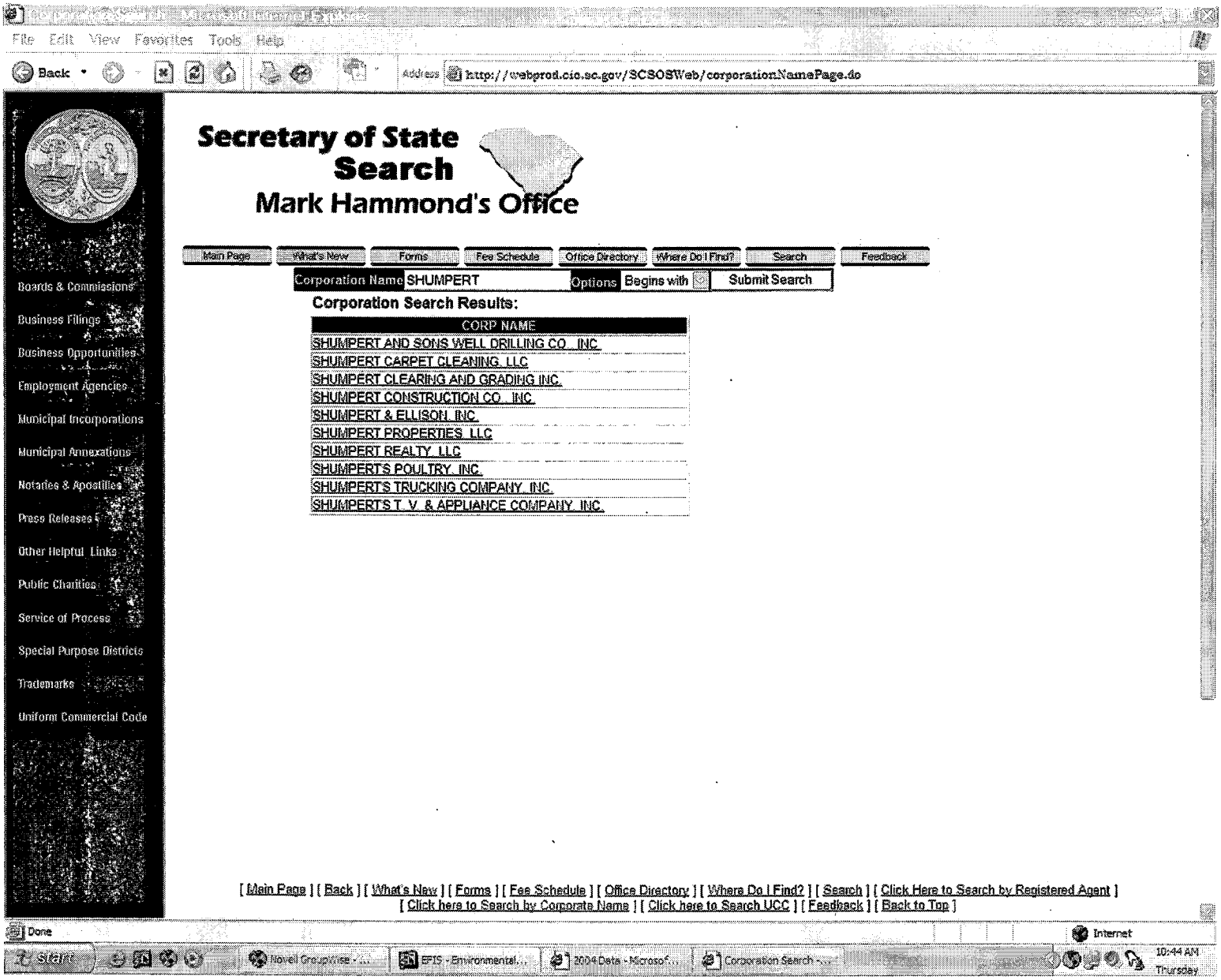
Special Purpose Districts

Trademarks

Uniform Commercial Code

Corporation Name SHUMPERT OIL Options Contains Submit S

No Search Results Were Found.


File Edit View Favorites Tools Help
Back
Address http://webprod.cio.sc.gov/SCSOSWeb/corporationNamePage.do
Secretary of State
Search
Mark Hammond's Office
Main Page
What's New
Forms
Fee Schedule
Office Directory
Where Do I Find?
Search
Feedback
Boards & Commissions
Business Filings
Business Opportunities
Employment Agencies
Municipal Incorporations
Municipal Annexations
Notaries & Apostilles
Press Releases
Other Helpful Links
Public Charities
Service of Process
Special Purpose Districts
Trademarks
Uniform Commercial Code
Corporation Name SHUMPERT
Options Begins with
Submit Search
Corporation Search Results:
CORP NAME
SHUMPERT AND SONS WELL DRILLING CO INC
SHUMPERT CARPET CLEANING, LLC
SHUMPERT CLEARING AND GRADING INC.
SHUMPERT CONSTRUCTION CO INC
SHUMPERT & ELLISON, INC.
SHUMPERT PROPERTIES, LLC
SHUMPERT REALTY, LLC
SHUMPERT'S POULTRY, INC.
SHUMPERT'S TRUCKING COMPANY, INC.
SHUMPERT'S T. V. & APPLIANCE COMPANY, INC.
[Main Page] [Back] [What's New] [Forms] [Fee Schedule] [Office Directory] [Where Do I Find?] [Search] [Click Here to Search by Registered Agent]
[Click here to Search by Corporate Name] [Click here to Search UCC] [Feedback] [Back to Top]
Done
Internet
Start
Novell GroupWise - ...
EPIS - Environmental...
2004 Data - Microsof...
Corporation Search - ...
10:44 AM
Thursday

DUNCAN ENVIRONMENTAL ASSOCIATES, INC.

RECEIVED
APR 2 0 2007
UNDERGROUND STORAGE TANK PROGRAM

April 5, 2007

John D. Abernathy
Southwestern SC Corrective Action Section
Underground Storage Tank Program
SCDHEC
2600 Bull Street
Columbia, SC 29261

Re: Resample event 3/15/2007 & AFVR
JJ's Texaco - Gaston, SC
Site ID #05986
CP #27936

Dear Mr. Abernathy:

Enclosed please find the following groundwater resample results for the JJ's Texaco site. Included are the ground-water elevations from all sampled monitor wells and ground-water samples for BTEX, naphthalene, MTBE from monitor wells MW-1, RMW-3, RMW-5, MW-6, MW-8, MW-9,MW-10, MW-11, MW-12, MW-13, MW-15, MW-16, MW-19, RMW-20, MW-21, DW-1, and DW-2 on March 15, 2007 and the three supply wells SW-1, SW-2, and SW-3.

MW-6 had 0.11' of free phase product. Corrected groundwater tables are included as table 1a. RMW-3, MW-9 and DW-2's analyticals indicate that they were above the RSBL/MCL's for benzene, toluene, ethylbenzene, xylene, naphthalene, and MTBE. MW-10 was above the RSBL/MCL's for benzene, toluene, ethylbenzene, naphthalene, and MTBE. MW-15 and MW-8 's analyticals showed that the groundwater in those areas are above the RSBL/MCL for benzene. The ground-water results indicate that the MW-1, RMW-5, MW-11,MW-12,MW-13, MW-16, MW-19, RMW-20, MW-21, and DW-1 were all below the MCL/RBSLs for benzene, toluene, ethylbenzene, xylene, MTBE and naphthalene. MW-7 and MW-14 could not be located and were not sampled.

MW-3 was replaced by RMW-3 which is approximately 40 feet deep. It was installed and developed February 6, 2007 and was sampled on the March 15 date. Drill logs for the replacement well are included in this report.

Supply wells were sampled on April 2, 2007. The supply well analytical results show that SW-1, SW-2, SW-3 are all below the RSBL/MCL's for benzene, toluene, ethylbenzene, xylene, naphthalene, and MTBE.

The ground-water flow direction is approximated to be towards the center of the site in both a southwestern and northeastern direction at a hydraulic gradient on the order of 0.207 ft/ft.

If you have any questions or comments about this information, please don't hesitate to call me at (803)788-4333.

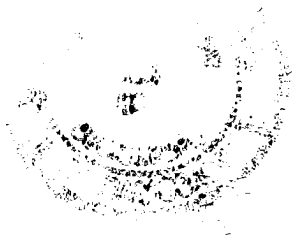
Sincerely,

UST PROGRAM
DOCKETING # 88 Tech

Justin Reynolds
Project Manager

CLYDE M. LIVINGSTON JR. REGISTERED SOUTH CAROLINA PROFESSIONAL GEOLOGIST

4/17/07



Ground Water Analytical Data: 03/14/2007

COC (ug/l)	MCL/RBSL	MW-1	RMW-3	MW-4	RMW-5	MW-6	MW-8	MW-9
Free Product Thickness (ft)	N/A	0	0	0	0	0.11'	0	0
Benzene	5	<1.00	**9790**	<1.00	<1.00	-	**15.3**	**2150**
Toluene	1,000	<1.00	**29600**	<1.00	<1.00	-	185	**9290**
Ethylbenzene	700	<1.00	**2570**	<1.00	<1.00	-	43.1	**1740**
Xylenes	10,000	<3.00	**13600**	<3.00	<3.00	-	347	**11200**
MTBE	40	2.33	**1160**	<1.00	<1.00	-	15.7	**234**
Naphthalene	25	<5.00	**<2000**	<5.00	<5.00	-	15.3	**<1000**

COC (ug/l)	MCL/RBSL	MW-10	MW-11	MW-12	MW-13	MW-15	MW-16
Free Product Thickness (ft)	N/A	0	0	0	0	0	0
Benzene	5	**19100**	<1.00	<1.00	<1.00	**41.1**	<1.00
Toluene	1,000	**24600**	<1.00	<1.00	<1.00	3.76	<1.00
Ethylbenzene	700	**1430**	6.05	<1.00	<1.00	12.0	<1.00
Xylenes	10,000	9920	5.55	<3.00	<3.00	163	<3.00
MTBE	40	**60600**	<1.00	<1.00	1.58	<1.00	<1.00
Naphthalene	25	**<5000**	5.03	<5.00	<5.00	8.92	<5.00

COC (ug/l)	MCL/RBSL	MW-19	RMW-20	DW-1	DW-2
Free Product Thickness (ft)	N/A	0	0	0	0
Benzene	5	<1.00	<1.00	<1.00	**<100**
Toluene	1,000	<1.00	<1.00	<1.00	**<100**
Ethylbenzene	700	<1.00	<1.00	<1.00	**<100**
Xylenes	10,000	<3.00	<3.00	<3.00	**<300**
MTBE	40	<1.00	<1.00	1.31	**<100**
Naphthalene	25	<5.00	<5.00	<5.00	**<500**

Notes:
1) All values are expressed in ug/L.
2) RBSL values taken from RBCA Table B1.
3) Bolded values exceed RBSLs.
4) BDL = Below laboratory detection limits.

Supply Well Analytical Data: 04/02/2007

COC (ug/l)	MCL/RBSL	SW-1	SW-2	SW-3
Free Product Thickness (ft)	**N/A**	0	0	0
Benzene	**5**	<1.00	<1.00	<1.00
Toluene	**1,000**	<1.00	<1.00	<1.00
Ethylbenzene	**700**	<1.00	<1.00	<1.00
Xylenes	**10,000**	<3.00	<3.00	<3.00
MTBE	**40**	9.39	5.35	<1.00
Naphthalene	**25**	<5.00	<5.00	<5.00

Notes:
1) All values are expressed in ug/L.
2) RBSL values taken from RBCA Table B1.
3) Bolded values exceed RBSLs.
4) BDL = Below laboratory detection limits.

TABLE 1a
Jjs Texaco – Gaston, SC
SUMMARY OF WATER LEVELS

WELL NO.	DATE MEASURED	TOC ELEV.	D.T.W.	DEPTH TO PRODUCT	PRODUCT THICKNESS	PRODUCT GRAVITY	HYDRO. EQUIV.	CORRECT D.T.W.	CORREC TWL ELEV.
MW-6	03/14/07	101.8	33.18	33.37	0.11	.75	0.08	33.40	68.40

Note: Formula used to calculate correct water level elevations:

Correct WL. D.T.W. [(Product thickness) X (Product Gravity)]
WL. Water Level
TOC Top of Casing
D.T.W. – Depth to Water
Hydro. Equiv. Hydrologic Equivalent
All measurements in feet.

HYDRAULIC GRADIENT

The top of casing elevations of the newly installed ground water monitoring wells were established by direct survey. An assumed elevation of 100.00 feet above mean sea level was utilized as the benchmark during the survey. The elevation of the shallow water table was then calculated and utilized to evaluate the primary direction of ground water flow and the hydraulic gradient within the most shallow water bearing formation at the site. The water level and survey data collected from the site is tabulated below.

Monitoring Well ID #	TOC Elevation (ft)	Screened Interval (ft)	Depth to Water (ft)	Water Table Elevation (ft)	Free Product Thickness (ft)
MW-1	102.14	30-40	32.21	69.93	
MW-2	100.00	70-80	78.10	Dry	
RMW-3	98.04	30-40	33.66	64.38	
RMW-5	90.98	10-20	5.60	85.38	
MW-6	101.80	25-35	33.48	68.40*	0.11'
MW-7	NL	32-42	NL	NL	
MW-8	96.40	30-40	37.63	58.77	
MW-9	95.22	33-43	34.17	61.05	
MW-10	100.02	30-35	34.08	65.94	
MW-11	102.00	30-40	23.90	78.10	
MW-13	102.38	25-35	21.41	80.97	
MW-14	NL	35-45	NL	NL	
MW-15	100.68	35-45	38.22	62.46	
MW-16	103.82	31-41	32.93	70.89	
MW-19	96.48	51-61	53.20	43.28	
RMW-20	96.12	16-26	17.93	78.19	
MW-21	86.56	5-15	9.41	77.15	
DW-1	102.12	40-45	52.80	49.32	
DW-2	100.70	50-55	55.14	45.56	

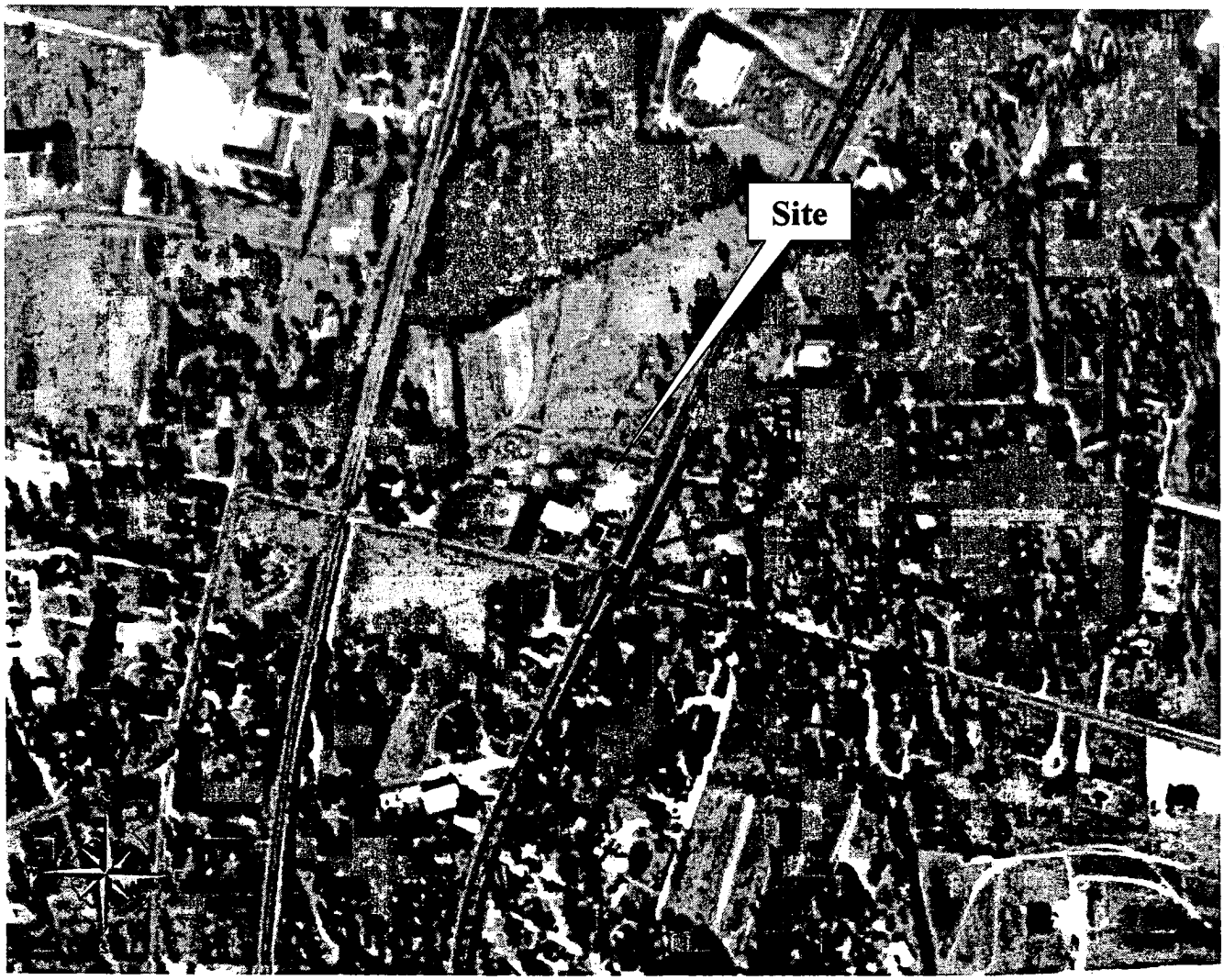
Based on water levels collected March 14, 2007.
* = Free product, corrected water level
NL = Not located

Hydraulic gradient calculations across the site from well RMW-5 to well MW-8:

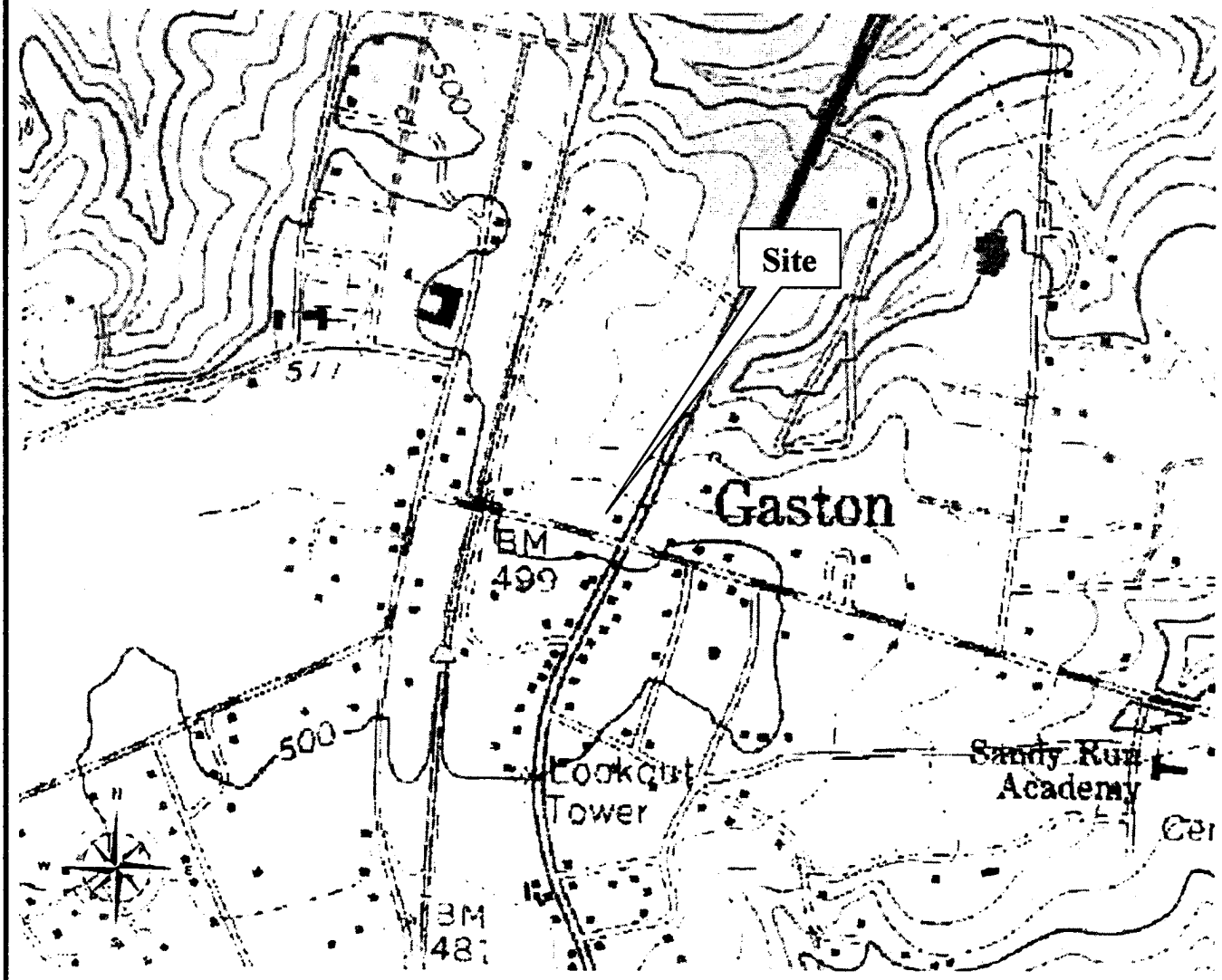
I = 81.57 - 58.77 / 110

I = 22.80 / 110

I = 0.207 ft/ft



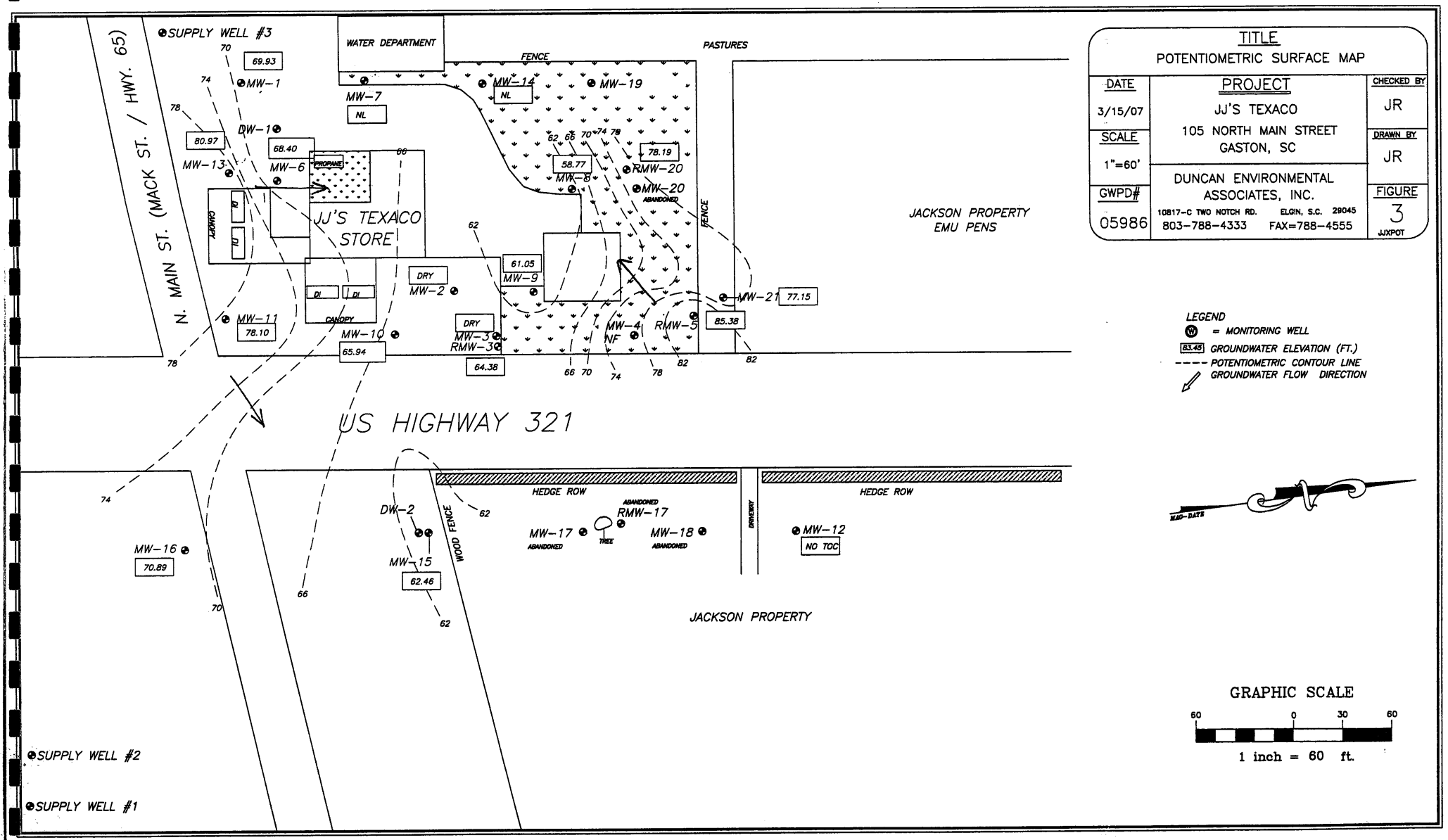
Duncan Environmental Associates, Inc. 10817-C Two-North Road Elgin, SC	**Figure 1. Site Location Map** Former JJ's Texaco 105 North Main Street Gaston, SC	⇑ **N**



Duncan Environmental Associates, Inc.
10817-C Two-North Road
Elgin, SC

Figure 1. Topographic Map
Former JJ's Texaco
105 North Main Street
Gaston, SC

⇑
N



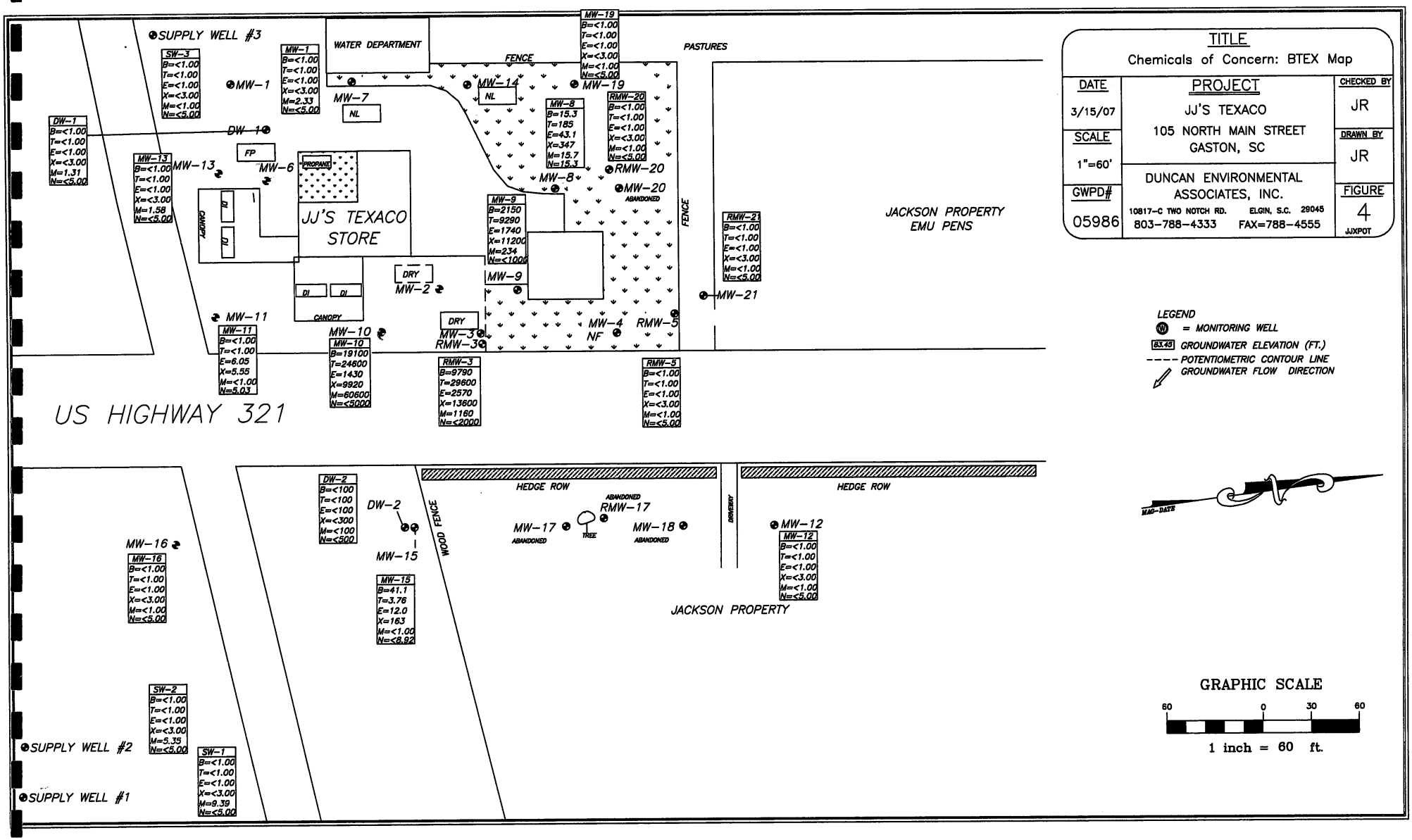
TITLE
POTENTIOMETRIC SURFACE MAP

DATE	PROJECT	CHECKED BY
3/15/07	JJ'S TEXACO 105 NORTH MAIN STREET GASTON, SC	JR
SCALE		DRAWN BY
1"=60'		JR
GWPD#	DUNCAN ENVIRONMENTAL ASSOCIATES, INC.	FIGURE
05986	10817-C TWO NOTCH RD. ELGIN, S.C. 29045 803-788-4333 FAX=788-4555	3 JJXPOT

LEGEND
- (W) = MONITORING WELL
- 83.45 GROUNDWATER ELEVATION (FT.)
- ---- POTENTIOMETRIC CONTOUR LINE
- GROUNDWATER FLOW DIRECTION

MAP-DATE

GRAPHIC SCALE
60 0 30 60
1 inch = 60 ft.

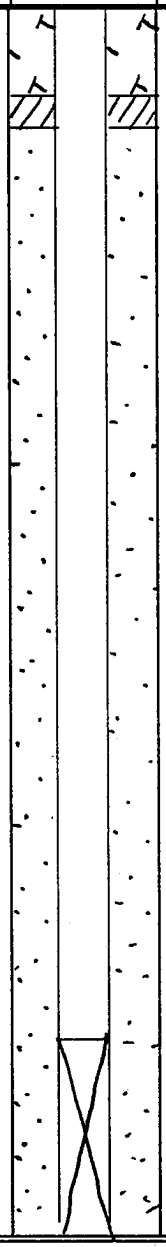


TITLE

Chemicals of Concern: BTEX Map

DATE	PROJECT	CHECKED BY
3/15/07	JJ'S TEXACO 105 NORTH MAIN STREET GASTON, SC	JR
SCALE		DRAWN BY
1"=60'		JR
GWPD#	DUNCAN ENVIRONMENTAL ASSOCIATES, INC.	FIGURE
05986	10817-C TWO NOTCH RD. ELGIN, S.C. 29045 803-788-4333 FAX=788-4555	4 JJXPOT

Site Name: **JJ's Texaco**	Location: **105 N. Main St.**		Well No. **RMW--3**
City: **Gaston**	County: **Lexington**	State: **SC**	Logged By: **BJ Ratliff**
Latitude: **33°49'03"**	Drilled By: **T. Faller @ Duncan Environmental Assoc., Inc.**		Date: **2/6/07**
Longitude: **81°06'04"**	State License No. **908**		
Static Water Level: **NA**	TOC Elev.: **NA**		Sampling Method: **Grab**
Drilling Method: **Solid Stem Auger**		Development Method: **Bail / Surge**	
Grout: **Cement 0-2'**	Seal: **Bentonite 2-3'**		Gravel Pack: **Sand 3-40'**
Casing Type: **PVC Schedule 40**	Diameter: **2"**	Depth: **0-30'**	Hole Diameter: **2"**
Screen Type: **PVC Schedule 40**	Slot Size: **0.010**	Diameter: **2"**	Depth: **30-40'**	Total Depth: **40'**

Depth (ft)	Remarks:	Well Completion	OVA (ppm)	Odors
0	Asphalt 0.0 -0.3 Tan fine sand 0.3 - 6.0			
-				
2				
-				
4				
-				
6	Orange tan fine sand			
-				
8	White fine/ Orange interfigured			
-				
10	Tan fine sand			
-				
12				
-				
14				
-				
16				
-	Brown fine clayey sand, sandy clay			
18				
-				
20	Brown fine sandy clay moist			
-				
22				
-				
24				
-				
26				
-				
28				
-				
30				
-				
32				
-				
34				
-				
36				
-				
38				
-				
40	Brown Fine clayey Sand Total Well depth			

Water Well Record
Bureau of Water
2600 Bull Street, Columbia, SC 29201-1708; (803) 734-5300

DHEC — PROMOTE PROTECT PROSPER

1. LOCATION OF WELL:
County: Lexington System Name: RMW-3
Latitude: Longitude:
Distance and Direction from Road Intersections:
Street Address & City of Well Location:
Sketch Map:

2. CUTTING SAMPLES: ☐ Yes ☐ No
Geophysical Logs: ☐ Yes (please enclose) ☐ No

Formation Description	*Thickness of Stratum	Depth to Bottom of Stratum
Tan fx sand	0-6	6
Orange tan fx sand	6-8	8
White/Orange fx sand	8-10	10
Tan fine sand	10-20	15
Brown fine clayey Sand	20-39	20
Brown fine sandy clay	39-40	39
Brown fine clayey sand	40-	40
*Indicate Water Bearing Zones (Use a 2nd sheet if needed)		

3. REMARKS:

4. OWNER OF WELL: ☒ D. F Shumpert
Address: 814 Pine St. Pelion, SC 29123
Telephone No.: 803-xxx-xxxx
Engineer: Ted Fauser
Address: 10817-C Two Notch Road, Elgin, SC 29045
Telephone No.: 803-788-4333

5. WELL DEPTH (completed) 40 ft. Date Started: Date Completed:

6. ☐ Mud Rotary ☐ Jetted ☒ Bored ☐ Dug ☐ Air Rotary ☐ Driven ☐ Cable tool ☐ Other

7. USE: ☐ Domestic ☐ Public Supply–Permit No. ☐ Industry ☐ Irrigation ☐ Air Conditioning ☐ Commercial ☐ Test Well ☒ Monitor Well ☐

8. CASING: ☒ Threaded ☐ Welded
Diam.: 2"
Type: ☒ PVC ☐ Galvanized ☐ Steel ☐ Other
0 in. to 30' ft. depth
in. to ft. depth
Height: Above/Below Surface ft.
Weight lb./ft.
Drive Shoe? ☐ Yes ☐ No

9. SCREEN
Type: PVC Schedule 40 Diam.: 2 inch
Slot/Gauge: 0.010 Length: 10'
Set Between: 30 ft. and 40 ft.
ft. and ft.
NOTE: MULTIPLE SCREENS USE SECOND SHEET
Sieve Analysis ☐ Yes (please enclose) ☐ No

10. STATIC WATER LEVEL
ft. below land surface after 24 hours

11. PUMPING LEVEL Below Land Surface.
ft. after hrs. Pumping G.P.M.
Pumping Test: ☐ Yes (please enclose) ☐ No
Yield:

12. WATER QUALITY
Chemical Analysis ☒ Yes ☐ No Bacterial Analysis ☐ Yes ☒ No
Please enclose lab results.

13. ARTIFICIAL FILTER (gravel pack) ☒ Yes ☐ No
Installed from 3' ft. to 40' ft.
Effective size Uniformity Coefficient

14. WELL GROUTED? ☒ Yes ☐ No Bentonite 2-3'
☐ Neat Cement ☐ Sand Cement ☒ Concrete ☐ Other
Depth: From 0' ft. to 2' ft.

15. NEAREST SOURCE OF POSSIBLE CONTAMINATION: ft. direction
Type well disinfected ☐ Yes Type:
upon completion ☐ No Amount:

16. 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

17. WATER WELL CONTRACTOR'S CERTIFICATION: This well was drilled under my direction and this report is true to the best of my knowledge and belief.
Registered Business Name: Duncan Environmental Date:
Address: 10817-C Two Notch Rd. Elgin, SC 29045
Signed: Authorized Representative Cert. No.: 908

DHEC 1903 (10/96) **COPY 1 MAIL TO: S.C. DEPARTMENT OF HEALTH AND ENVIRONMENTAL CONTROL (ADDRESS ABOVE)**

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

Field Data Information Sheet for Ground Water Sampling

Date (mm/dd/yy) 3/14/07
Field Personnel JR BLWN
General Weather Conditions CLOUDY AND HUMID
Ambient Air Temperature 73 °F

Facility Name JJ'S Texaco Site Number 05986

Quality Assurance:

pH Meter:
Serial No. DEA 1
pH 4.0 = 4.0
pH 7.0 = 7.0
pH 10.0 = 10.0

Conductivity Meter:
Serial No. DEA 1
Standard 1413
Standard _____
Standard _____

Chain of Custody

Relinquished by:	Date/Time	Received by	Date/Time

Well # MW-1

Well Diameter (D) 2 inch or _____ feet
conversion factor (C): 3.143*(D/2)^2
for a 2 inch well 0.6178
4 inch well 0.652
Total Well Depth (TWD) 39.42 ft.
Depth to GW (DGW) 32.21 ft.

Length of Water Column (LWC = TWD -DGW)_____ ft.

1 Csg. Volume (LWC * C) = _____ x 0.6178 = _____Liters

3 Csg. Volume = 3 x _____ = _____ Liters (Std. Purge Vol.)

Total Volume of Water Purged Before Sampling _____Liters

	Initial	1st vol.	2nd vol.	3rd vol.	4 th vol.	5 th vol.	Post	Sampling
Volume Purged (Liters)	1							
Time (Military)	1356							
pH (s.u.)	5.13							
Specific Cond. (umhos/cm)	44.8							
Water Temp (°C)	23.6							
Turbidity (*)								
Dissolved Oxygen (mg/L)	1.00							

* Subjective (1)None (2)Faint (3)Moderate (4)Strong

Remarks: Water column within screened bracket: no purge

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

Field Data Information Sheet for Ground Water Sampling

Date (mm/dd/yy) 3/14/07
Field Personnel JR BLWN
General Weather Conditions CLOUDY AND HUMID
Ambient Air Temperature 73 °F

Facility Name JJ'S Texaco Site Number 05986

Quality Assurance:

pH Meter:
Serial No. DEA 1
pH 4.0 = 4.0
pH 7.0 = 7.0
pH 10.0 = 10.0

Conductivity Meter:
Serial No. DEA 1
Standard 1413
Standard _____
Standard _____

Chain of Custody

Relinquished by:	Date/Time	Received by	Date/Time

Well # RMW-3

Well Diameter (D) 2 inch or _____ feet
conversion factor (C): 3.143*(D/2)^2
for a 2 inch well 0.6178
4 inch well 0.652
Total Well Depth (TWD) 40.40 ft.
Depth to GW (DGW) 33.66 ft.

Length of Water Column (LWC = TWD -DGW)_____ ft.

1 Csg. Volume (LWC * C) = _____ x 0.6178 = _____Liters

3 Csg. Volume = 3 x _____ = _____ Liters (Std. Purge Vol.)

Total Volume of Water Purged Before Sampling _____Liters

	Initial	1st vol.	2nd vol.	3rd vol.	4 th vol.	5 th vol.	Post	Sampling
Volume Purged (Liters)	1							
Time (Military)	1400							
pH (s.u.)	5.36							
Specific Cond. (umhos/cm)	49.5							
Water Temp (°C)	23.1							
Turbidity (*)								
Dissolved Oxygen (mg/L)	14.3							

* Subjective (1)None (2)Faint (3)Moderate (4)Strong

Remarks: Water Column within screened bracket: No Purge

[redacted] Car[redacted] Dep[redacted]ent o[redacted]lth [redacted]nvir[redacted]ntal [redacted]ol [redacted]

Bureau of Underground Storage Tank Management

Field Data Information Sheet for Ground Water Sampling

Date (mm/dd/yy) 3/14/07
Field Personnel JR BJ WN
General Weather Conditions CLOUDY AND HUMID
Ambient Air Temperature 73 °F

Facility Name JJ'S Texaco Site Number 05986

Quality Assurance:

pH Meter:
Serial No. DEA 1
pH 4.0 = 4.0
pH 7.0 = 7.0
pH 10.0 = 10.0

Conductivity Meter:
Serial No. DEA 1
Standard 1413
Standard
Standard

Chain of Custody

Relinquished by:	Date/Time	Received by	Date/Time

Well # RMW-5

Well Diameter (D) 2 inch or ____ feet
conversion factor (C): 3.143*(D/2)^2
for a 2 inch well 0.6178
4 inch well 0.652
Total Well Depth (TWD) 13.10 ft.
Depth to GW (DGW) 5.60 ft.

Length of Water Column (LWC = TWD -DGW) 7.5 ft.

1 Csg. Volume (LWC * C) = ____ x 0.6178 = 4.63 Liters

3 Csg. Volume = 3 x ____ = ____ Liters (Std. Purge Vol.)

Total Volume of Water Purged Before Sampling ____ Liters

	Initial	1st vol.	2nd vol.	3rd vol.	4 th vol.	5 th vol.	Post	Sampling
Volume Purged (Liters)	1							
Time (Military)	13:41							
pH (s.u.)	5.61							
Specific Cond. (umhos/cm)	33.2							
Water Temp (°C)	17.7							
Turbidity (*)								
Dissolved Oxygen (mg/L)	1.0							

* Subjective (1)None (2)Faint (3)Moderate (4)Strong

Remarks: Water within screened bracket: No Purge

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

Field Data Information Sheet for Ground Water Sampling

Date (mm/dd/yy) 3/14/07
Field Personnel JR BJ WN
General Weather Conditions CLOUDY AND HUMID
Ambient Air Temperature 73 °F

Facility Name JJ'S Texaco Site Number 05986

Quality Assurance:

pH Meter:
Serial No. DEA 1
pH 4.0 = 4.0
pH 7.0 = 7.0
pH 10.0 = 10.0

Conductivity Meter:
Serial No. DEA 1
Standard 1413
Standard _____
Standard _____

Chain of Custody

Relinquished by:	Date/Time	Received by	Date/Time

Well # MW-6

Well Diameter (D) 2 inch or _____ feet
conversion factor (C): 3.143*(D/2)^2
for a 2 inch well 0.6178
4 inch well 0.652
Total Well Depth (TWD) 34.88 ft.
Depth to GW (DGW) 33.48 ft.
Depth to FP (DFP) 33.37
Length of Water Column (LWC = TWD -DGW)_____ ft.

1 Csg. Volume (LWC * C) = _____ x 0.6178 = _____Liters
3 Csg. Volume = 3 x _____ = _____ Liters (Std. Purge Vol.)

Total Volume of Water Purged Before Sampling _____Liters

	Initial	1st vol.	2nd vol.	3rd vol.	4 th vol.	5 th vol.	Post	Sampling
Volume Purged (Liters)	1							
Time (Military)								
pH (s.u.)								
Specific Cond. (umhos/cm)								
Water Temp (°C)								
Turbidity (*)								
Dissolved Oxygen (mg/L)								

* Subjective (1)None (2)Faint (3)Moderate (4)Strong

Remarks: 0.11' of Free Product: Not Sampled

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

Field Data Information Sheet for Ground Water Sampling

Date (mm/dd/yy) 3/14/07
Field Personnel JR BLWN
General Weather Conditions CLOUDY AND HUMID
Ambient Air Temperature 73 °F

Facility Name JJ'S Texaco Site Number 05986

Quality Assurance:

pH Meter:
Serial No. DEA 1
pH 4.0 = 4.0
pH 7.0 = 7.0
pH 10.0 = 10.0

Conductivity Meter:
Serial No. DEA 1
Standard 1413
Standard _____
Standard _____

Chain of Custody

Relinquished by:	Date/Time	Received by	Date/Time

Well # MW-8

Well Diameter (D) 2 inch or _____ feet
conversion factor (C): 3.143*(D/2)^2
for a 2 inch well 0.6178
4 inch well 0.652
Total Well Depth (TWD) 40.10 ft.
Depth to GW (DGW) 37.63 ft.

Length of Water Column (LWC = TWD -DGW) 2.47 ft.

1 Csg. Volume (LWC * C) = _____ x 0.6178 = 1.52 Liters

3 Csg. Volume = 3 x _____ = _____ Liters (Std. Purge Vol.)

Total Volume of Water Purged Before Sampling _____ Liters

	Initial	1st vol.	2nd vol.	3rd vol.	4 th vol.	5 th vol.	Post	Sampling
Volume Purged (Liters)	1							
Time (Military)	1418							
pH (s.u.)	5.30							
Specific Cond. (umhos/cm)	55.6							
Water Temp (°C)	21.7							
Turbidity (*)								
Dissolved Oxygen (mg/L)	2.9							

* Subjective (1)None (2)Faint (3)Moderate (4)Strong

Remarks: Water Column within screened bracket: no Purge

South Carolina Department of Health and Environmental Contol
Bureau of Underground Storage Tank Management

Field Data Information Sheet for Ground Water Sampling

Date (mm/dd/yy) 3/14/07
Field Personnel JR BLWN
General Weather Conditions CLOUDY AND HUMID
Ambient Air Temperature 73 °F

Facility Name JJ'S Texaco Site Number 05986

Quality Assurance:

pH Meter:
Serial No. DEA 1
pH 4.0 = 4.0
pH 7.0 = 7.0
pH 10.0 = 10.0

Conductivity Meter:
Serial No. DEA 1
Standard 1413
Standard
Standard

Chain of Custody

Relinquished by:	Date/Time	Received by	Date/Time

Well # MW-9

Well Diameter (D) 2 inch or _____ feet
conversion factor (C): 3.143*(D/2)^2
for a 2 inch well 0.6178
4 inch well 0.652
Total Well Depth (TWD) 43.19 ft.
Depth to GW (DGW) 34.17 ft.

Length of Water Column (LWC = TWD -DGW) 9.02 ft.

1 Csg. Volume (LWC * C) = _____ x 0.6178 = 5.573 Liters

3 Csg. Volume = 3 x _____ = _____ Liters (Std. Purge Vol.)

Total Volume of Water Purged Before Sampling _____ Liters

	Initial	1st vol.	2nd vol.	3rd vol.	4 th vol.	5 th vol.	Post	Sampling
Volume Purged (Liters)	1							
Time (Military)	1407							
pH (s.u.)	5.30							
Specific Cond. (umhos/cm)	34.4							
Water Temp (°C)	22.5							
Turbidity (*)								
Dissolved Oxygen (mg/L)	8.7							

* Subjective (1)None (2)Faint (3)Moderate (4)Strong

Remarks: Water Column within Screened Bracket: No Purge

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

Field Data Information Sheet for Ground Water Sampling

Date (mm/dd/yy) 3/14/07
Field Personnel IR BJ WN
General Weather Conditions CLOUDY AND HUMID
Ambient Air Temperature 73 °F

Facility Name JJ'S Site Number 05986

Quality Assurance:

pH Meter:
Serial No. DEA 1
pH 4.0 = 4.0
pH 7.0 = 7.0
pH 10.0 = 10.0

Conductivity Meter:
Serial No. DEA 1
Standard 1413
Standard
Standard

Chain of Custody

Relinquished by:	Date/Time	Received by	Date/Time

Well # MW-10

Well Diameter (D) 2 inch or _____ feet
conversion factor (C): 3.143*(D/2)^2
for a 2 inch well 0.6178
4 inch well 0.652
Total Well Depth (TWD) 40.17 ft.
Depth to GW (DGW) 34.06 ft.

Length of Water Column (LWC = TWD -DGW) 6.11 ft.

1 Csg. Volume (LWC * C) = _____ x 0.6178 = 3.77 Liters

3 Csg. Volume = 3 x _____ = _____ Liters (Std. Purge Vol.)

Total Volume of Water Purged Before Sampling _____ Liters

	Initial	1st vol.	2nd vol.	3rd vol.	4 th vol.	5 th vol.	Post	Sampling
Volume Purged (Liters)	1							
Time (Military)	1340							
pH (s.u.)	5.54							
Specific Cond. (umhos/cm)	70.0							
Water Temp (°C)	23.0							
Turbidity (*)								
Dissolved Oxygen (mg/L)	1.0							

* Subjective (1)None (2)Faint (3)Moderate (4)Strong

Remarks: Water Column within Screened Bracket: No Purge

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

Field Data Information Sheet for Ground Water Sampling

Date (mm/dd/yy) 3/14/07
Field Personnel IR BI WN
General Weather Conditions CLOUDY AND HUMID
Ambient Air Temperature 73 °F

Facility Name JJ'S Texaco Site Number 05986

Quality Assurance:

pH Meter:
Serial No. DEA 1
pH 4.0 = 4.0
pH 7.0 = 7.0
pH 10.0 = 10.0

Conductivity Meter:
Serial No. DEA 1
Standard 1413
Standard _____
Standard _____

Chain of Custody

Relinquished by:	Date/Time	Received by	Date/Time

Well # MW-11

Well Diameter (D) 2 inch or _____ feet
conversion factor (C): 3.143*(D/2)^2
for a 2 inch well 0.6178
4 inch well 0.652
Total Well Depth (TWD) 40.06 ft.
Depth to GW (DGW) 23.90 ft.

Length of Water Column (LWC = TWD -DGW) 16.16 ft.

1 Csg. Volume (LWC * C) = _____ x 0.6178 = 9.98 Liters

3 Csg. Volume = 3 x _____ = _____ Liters (Std. Purge Vol.)

Total Volume of Water Purged Before Sampling _____ Liters

	Initial	1st vol.	2nd vol.	3rd vol.	4 th vol.	5 th vol.	Post	Sampling
Volume Purged (Liters)	1	9/7	10/8	5				
Time (Military)	1340	1343	1348	1352				
pH (s.u.)	5.68	5.71	5.75					
Specific Cond. (umhos/cm)	73.7	74.7	66.2					
Water Temp (°C)	23.2	23.3	23.1					
Turbidity (*)								
Dissolved Oxygen (mg/L)	1.00	16.3	15.0					

* Subjective (1)None (2)Faint (3)Moderate (4)Strong

Remarks: Incorrect bail interval applied: correct number of bails applied before sample collection

[redacted] Bureau of Underground Storage Tank Management

Field Data Information Sheet for Ground Water Sampling

Date (mm/dd/yy) 3/14/07
Field Personnel JR BROWN
General Weather Conditions CLOUDY AND HUMID
Ambient Air Temperature 73 °F

Facility Name JJ'S Texaco Site Number 05986

Quality Assurance:

pH Meter:
Serial No. DEA 1
pH 4.0 = 4.0
pH 7.0 = 7.0
pH 10.0 = 10.0

Conductivity Meter:
Serial No. DEA 1
Standard 1413
Standard _____
Standard _____

Chain of Custody

Relinquished by:	Date/Time	Received by	Date/Time

Well # MW-12

Well Diameter (D) 2 inch or _____ feet
conversion factor (C): 3.143*(D/2)^2
for a 2 inch well 0.6178
4 inch well 0.652
Total Well Depth (TWD) 40.40 ft.
Depth to GW (DGW) 35.28 ft.

Length of Water Column (LWC = TWD -DGW) 5.12 ft.

1 Csg. Volume (LWC * C) = _____ x 0.6178 = 3.16 Liters

3 Csg. Volume = 3 x _____ = _____ Liters (Std. Purge Vol.)

Total Volume of Water Purged Before Sampling _____ Liters

	Initial	1st vol.	2nd vol.	3rd vol.	4 th vol.	5 th vol.	Post	Sampling
Volume Purged (Liters)	1							
Time (Military)	1233							
pH (s.u.)	6.93							
Specific Cond. (umhos/cm)	59.8							
Water Temp (°C)	21.6							
Turbidity (*)								
Dissolved Oxygen (mg/L)	4.1							

* Subjective (1)None (2)Faint (3)Moderate (4)Strong

Remarks: Water within screened bracket: No Purge

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

Field Data Information Sheet for Ground Water Sampling

Date (mm/dd/yy) 3/14/07
Field Personnel IR BI WN
General Weather Conditions CLOUDY AND HUMID
Ambient Air Temperature 73 °F

Facility Name JJ'S Texaco Site Number 05986

Quality Assurance:

pH Meter:
Serial No. DEA 1
pH 4.0 = 4.0
pH 7.0 = 7.0
pH 10.0 = 10.0

Conductivity Meter:
Serial No. DEA 1
Standard 1413
Standard
Standard

Chain of Custody

Relinquished by:	Date/Time	Received by	Date/Time

Well # MW-13

Well Diameter (D) 2 inch or _____ feet
conversion factor (C): 3.143*(D/2)^2
for a 2 inch well 0.6178
4 inch well 0.652
Total Well Depth (TWD) 33.65 ft.
Depth to GW (DGW) 21.41 ft.

Length of Water Column (LWC = TWD -DGW) 12.24 ft.

1 Csg. Volume (LWC * C) = _____ x 0.6178 = 7.56 Liters

3 Csg. Volume = 3 x _____ = _____ Liters (Std. Purge Vol.)

Total Volume of Water Purged Before Sampling _____ Liters

	Initial	1st vol.	2nd vol.	3rd vol.	4 th vol.	5 th vol.	Post	Sampling
Volume Purged (Liters)	1	7	8					
Time (Military)	1357	1403	1418					
pH (s.u.)	5.27	4.99	5.09					
Specific Cond. (umhos/cm)	48.4	45.5	46.1					
Water Temp (°C)	27.0	24.0	23.4					
Turbidity (*)								
Dissolved Oxygen (mg/L)	5.1	4.7	5.2					

* Subjective (1)None (2)Faint (3)Moderate (4)Strong

Remarks: _____

[redacted] S[redacted] Car[redacted] Dep[redacted]ent o[redacted] Health a[redacted] Envir[redacted]ntal [redacted]ol [redacted]

Bureau of Underground Storage Tank Management

Field Data Information Sheet for Ground Water Sampling

Date (mm/dd/yy) 3/14/07
Field Personnel IR BROWN
General Weather Conditions CLOUDY AND HUMID
Ambient Air Temperature 73 °F

Facility Name JJ'S Texaco Site Number 05986

Quality Assurance:

pH Meter:
Serial No. DEA 1
pH 4.0 = 4.0
pH 7.0 = 7.0
pH 10.0 = 10.0

Conductivity Meter:
Serial No. DEA 1
Standard 1413
Standard _____
Standard _____

Chain of Custody

Relinquished by:	Date/Time	Received by	Date/Time

Well # MW-15

Well Diameter (D) 2 inch or _____ feet
conversion factor (C): 3.143*(D/2)^2
for a 2 inch well 0.6178
4 inch well 0.652
Total Well Depth (TWD) 45.43 ft.
Depth to GW (DGW) 38.22 ft.

Length of Water Column (LWC = TWD -DGW) 7.21 ft.

1 Csg. Volume (LWC * C) = _____ x 0.6178 = 4.45 Liters

3 Csg. Volume = 3 x _____ = _____ Liters (Std. Purge Vol.)

Total Volume of Water Purged Before Sampling _____ Liters

	Initial	1st vol.	2nd vol.	3rd vol.	4 th vol.	5 th vol.	Post	Sampling
Volume Purged (Liters)	1	3	4					
Time (Military)	1237							
pH (s.u.)	6.63							
Specific Cond. (umhos/cm)	33.7							
Water Temp (°C)	21.0							
Turbidity (*)								
Dissolved Oxygen (mg/L)	6.5							

* Subjective (1)None (2)Faint (3)Moderate (4)Strong

Remarks: Water column within screened bracket: No Purge

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

Field Data Information Sheet for Ground Water Sampling

Date (mm/dd/yy) 3/14/07
Field Personnel JR BLWN
General Weather Conditions CLOUDY AND HUMID
Ambient Air Temperature 73 °F

Facility Name JJ'S Texaco Site Number 05986

Quality Assurance:

pH Meter:
Serial No. DEA 1
pH 4.0 = 4.0
pH 7.0 = 7.0
pH 10.0 = 10.0

Conductivity Meter:
Serial No. DEA 1
Standard 1413
Standard _____
Standard _____

Chain of Custody

Relinquished by:	Date/Time	Received by	Date/Time

Well # MW-16

Well Diameter (D) 2 inch or _____ feet
conversion factor (C): 3.143*(D/2)^2
for a 2 inch well 0.6178
4 inch well 0.652
Total Well Depth (TWD) 36.30 ft.
Depth to GW (DGW) 32.93 ft.

Length of Water Column (LWC = TWD -DGW) 3.37 ft.

1 Csg. Volume (LWC * C) = _____ x 0.6178 = 2.08 Liters

3 Csg. Volume = 3 x _____ = _____ Liters (Std. Purge Vol.)

Total Volume of Water Purged Before Sampling _____ Liters

	Initial	1st vol.	2nd vol.	3rd vol.	4 th vol.	5 th vol.	Post	Sampling
Volume Purged (Liters)	1							
Time (Military)	1308							
pH (s.u.)	5.34							
Specific Cond. (umhos/cm)	33.6							
Water Temp (°C)	22.1							
Turbidity (*)								
Dissolved Oxygen (mg/L)	1.0							

* Subjective (1)None (2)Faint (3)Moderate (4)Strong

Remarks: Water within Screened Bracket: No Purge

[redacted] S[redacted] Car[redacted] Dep[redacted]ent o[redacted]lth a[redacted]nvir[redacted]mental [redacted]ontrol [redacted]

Bureau of Underground Storage Tank Management

Field Data Information Sheet for Ground Water Sampling

Date (mm/dd/yy) 3/14/07
Field Personnel IR BJ WN
General Weather Conditions CLOUDY AND HUMID
Ambient Air Temperature 73 °F

Facility Name JJ'S Texaco Site Number 05986

Quality Assurance:

pH Meter:
Serial No. DEA 1
pH 4.0 = 4.0
pH 7.0 = 7.0
pH 10.0 = 10.0

Conductivity Meter:
Serial No. DEA 1
Standard 1413
Standard
Standard

Chain of Custody

Relinquished by:	Date/Time	Received by	Date/Time

Well # MW-19

Well Diameter (D) 2 inch or ____ feet
conversion factor (C): 3.143*(D/2)^2
for a 2 inch well 0.6178
4 inch well 0.652
Total Well Depth (TWD) 58.86 ft.
Depth to GW (DGW) 53.20 ft.

Length of Water Column (LWC = TWD -DGW) 5.66 ft.

1 Csg. Volume (LWC * C) = ____ x 0.6178 = 3.49 Liters
3 Csg. Volume = 3 x ____ = ____ Liters (Std. Purge Vol.)

Total Volume of Water Purged Before Sampling ____ Liters

	Initial	1st vol.	2nd vol.	3rd vol.	4 th vol.	5 th vol.	Post	Sampling
Volume Purged (Liters)	1							
Time (Military)	1329							
pH (s.u.)	5.32							
Specific Cond. (umhos/cm)	64.2							
Water Temp (°C)	22.9							
Turbidity (*)								
Dissolved Oxygen (mg/L)	1.0							

* Subjective (1)None (2)Faint (3)Moderate (4)Strong

Remarks: Water column within screened bracket: no Purge

South Carolina Department of Health and Environmental Contol
Bureau of Underground Storage Tank Management

Field Data Information Sheet for Ground Water Sampling

Date (mm/dd/yy) 3/14/07
Field Personnel JR BLWN
General Weather Conditions CLOUDY AND HUMID
Ambient Air Temperature 73 °F

Facility Name JJ'S Texaco
Site Number 05986

Quality Assurance:

pH Meter:		Conductivity Meter:	
Serial No.	DEA 1	Serial No.	DEA 1
pH 4.0 =	4.0	Standard	1413
pH 7.0 =	7.0	Standard	
pH 10.0 =	10.0	Standard	

Chain of Custody

Relinquished by: ____ Date/Time ____ Received by ____ Date/Time ____

Well # MW-20

Well Diameter (D) 2 inch or ____ feet
conversion factor (C): 3.143*(D/2)^2
for a 2 inch well 0.6178
4 inch well 0.652
Total Well Depth (TWD) 28.04 ft.
Depth to GW (DGW) 17.93 ft.

Length of Water Column (LWC = TWD -DGW) 10.11 ft.

1 Csg. Volume (LWC * C) = ____ x 0.6178 = 6.24 Liters

3 Csg. Volume = 3 x ____ = ____ Liters (Std. Purge Vol.)

Total Volume of Water Purged Before Sampling ____ Liters

	Initial	1st vol.	2nd vol.	3rd vol.	4 th vol.	5 th vol.	Post	Sampling
Volume Purged (Liters)	1	5	6					
Time (Military)	1255	1300						
pH (s.u.)	5.70	5.58						
Specific Cond. (umhos/cm)	43.0	42.2						
Water Temp (°C)	21.9	21.6						
Turbidity (*)								
Dissolved Oxygen (mg/L)	9.3	9.1						

* Subjective (1)None (2)Faint (3)Moderate (4)Strong

Remarks: Bailed out 3 bails into the third set:

South Carolina Department of Health and Environmental Contol
Bureau of Underground Storage Tank Management

Field Data Information Sheet for Ground Water Sampling

Date (mm/dd/yy) 3/14/07
Field Personnel JR BJ WN
General Weather Conditions CLOUDY AND HUMID
Ambient Air Temperature 73 °F

Facility Name JJ'S Texaco Site Number 05986

Quality Assurance:

pH Meter:
Serial No. DEA 1
pH 4.0 = 4.0
pH 7.0 = 7.0
pH 10.0 = 10.0

Conductivity Meter:
Serial No. DEA 1
Standard 1413
Standard
Standard

Chain of Custody

Relinquished by:	Date/Time	Received by	Date/Time

Well # MW-21

Well Diameter (D) 2 inch or _____ feet
conversion factor (C): 3.143*(D/2)^2
for a 2 inch well 0.6178
4 inch well 0.652
Total Well Depth (TWD) 15.38 ft.
Depth to GW (DGW) 9.41 ft.

Length of Water Column (LWC = TWD -DGW) 5.97 ft.

1 Csg. Volume (LWC * C) = _____ x 0.6178 = 3.68 Liters
3 Csg. Volume = 3 x _____ = _____ Liters (Std. Purge Vol.)

Total Volume of Water Purged Before Sampling _____ Liters

	Initial	1st vol.	2nd vol.	3rd vol.	4 th vol.	5 th vol.	Post	Sampling
Volume Purged (Liters)	1							
Time (Military)	1312							
pH (s.u.)	5.79							
Specific Cond. (umhos/cm)	25.1							
Water Temp (°C)	17.5							
Turbidity (*)								
Dissolved Oxygen (mg/L)	1.00							

* Subjective (1)None (2)Faint (3)Moderate (4)Strong

Remarks: Water within screened bracket: No Purge

South Carolina Department of Health and Environmental Contol
Bureau of Underground Storage Tank Management

Field Data Information Sheet for Ground Water Sampling

Date (mm/dd/yy) 3/14/07
Field Personnel IR BJ WN
General Weather Conditions CLOUDY AND HUMID
Ambient Air Temperature 73 °F

Facility Name JJ'S Texaco Site Number 05986

Quality Assurance:

pH Meter:
Serial No. DEA 1
pH 4.0 = 4.0
pH 7.0 = 7.0
pH 10.0 = 10.0

Conductivity Meter:
Serial No. DEA 1
Standard 1413
Standard
Standard

Chain of Custody

Relinquished by:	Date/Time	Received by	Date/Time

Well # DW-1

Well Diameter (D) 2 inch or _____ feet
conversion factor (C): 3.143*(D/2)^2
for a 2 inch well 0.6178
4 inch well 0.652
Total Well Depth (TWD) 53.10 ft.
Depth to GW (DGW) 52.80 ft.

Length of Water Column (LWC = TWD -DGW)_____ ft.

1 Csg. Volume (LWC * C) = _____ x 0.6178 = _____Liters

3 Csg. Volume = 3 x _____ = _____ Liters (Std. Purge Vol.)

Total Volume of Water Purged Before Sampling _____Liters

	Initial	1st vol.	2nd vol.	3rd vol.	4 th vol.	5 th vol.	Post	Sampling
Volume Purged (Liters)	1							
Time (Military)								
pH (s.u.)								
Specific Cond. (umhos/cm)								
Water Temp (°C)								
Turbidity (*)								
Dissolved Oxygen (mg/L)								

* Subjective (1)None (2)Faint (3)Moderate (4)Strong

Remarks: Water column was less than 0.30': No Initial could be obtained.

South Carolina Department of Health and Environmental Contol
Bureau of Underground Storage Tank Management

Field Data Information Sheet for Ground Water Sampling

Date (mm/dd/yy) 3/14/07
Field Personnel JR BROWN
General Weather Conditions CLOUDY AND HUMID
Ambient Air Temperature 73 °F

Facility Name JJ'S Texaco Site Number 05986

Quality Assurance:

pH Meter:		Conductivity Meter:	
Serial No.	DEA 1	Serial No.	DEA 1
pH 4.0 =	4.0	Standard	1413
pH 7.0 =	7.0	Standard	
pH 10.0 =	10.0	Standard	

Chain of Custody

Relinquished by: Date/Time Received by Date/Time

Well # DW-2

Well Diameter (D) 2 inch or feet
conversion factor (C): 3.143*(D/2)^2
for a 2 inch well 0.6178
4 inch well 0.652
Total Well Depth (TWD) 55.45 ft.
Depth to GW (DGW) 55.14 ft.

Length of Water Column (LWC = TWD -DGW) ft.

1 Csg. Volume (LWC * C) = x 0.6178 = Liters

3 Csg. Volume = 3 x = Liters (Std. Purge Vol.)

Total Volume of Water Purged Before Sampling Liters

	Initial	1st vol.	2nd vol.	3rd vol.	4 th vol.	5 th vol.	Post	Sampling
Volume Purged (Liters)	1							
Time (Military)								
pH (s.u.)								
Specific Cond. (umhos/cm)								
Water Temp (°C)								
Turbidity (*)								
Dissolved Oxygen (mg/L)								

* Subjective (1)None (2)Faint (3)Moderate (4)Strong

Remarks: Water Column was less than 0.30' : no initial could be obtained.

ACCESS
ANALYTICAL, INC.

ANALYTICAL REPORT

CLIENT
Duncan Environmental
10817 C Two Notch Rd
Elgin, SC 29045

ATTENTION
Ted Faller

PROJECT ID
Duncan Env -JJ's Texaco

LABORATORY REPORT NUMBER
207032102

DATE
03/26/2007

Primary Data Review By

Curtis Ekker
Data Validation Manager, GCAL

Secondary Data Review By

Ashley B. Amick
Project Manager, Access Analytical
[illegible]@accessanalytical.com

PLEASE NOTE:

- **Unless otherwise noted, all analysis on this report performed at Gulf Coast Analytical Labs (GCAL), 7979 GSRI Rd. Baton Rouge, LA 70820.**
- **GCAL is SCDHEC certified laboratory # 73006, NCDENR certified lab # 618, GA certified lab # LA-01955, NELAP certified laboratory # 01955**
- Local support services for this project are provided by Access Analytical, Inc.. Access Analytical is a representative of GCAL serving clients in the SC/NC/GA areas. All questions regarding this report should be directed to your local Access Analytical representative at 803.781.4243 or toll free at 888.315.4243.

CASE NARRATIVE

Client: Duncan Environmental **Report:** 207032102

Gulf Coast Analytical Laboratories received and analyzed the sample(s) listed on the sample cross-reference page of this report. Receipt of the sample(s) is documented by the attached chain of custody. This applies only to the sample(s) listed in this report. No sample integrity or quality control exceptions were identified unless noted below.

VOLATILES MASS SPECTROMETRY

In the SW-846 8260B analysis for analytical batches 345421 and 345517, no MS/MSD was performed due to insufficient sample volume. All LCS/LCSD recoveries and RPDs were acceptable.

In the SW-846 8260B analysis, samples 20703210207 (MW-10), 20703210202 (MW-3), and 20703210206 (MW-9) had to be diluted to bracket the concentrations of target compounds within the calibration range of the instrument. The dilutions are reflected in elevated detection limits.

In the SW-846 8260B analysis, sample 20703210216 (DW-2) required a dilution due to the sample matrix. The sample aliquot in the vials was primarily solid material with a small amount of water. The suspended solid concentration was high in the water. The dilution is reflected in elevated detection limits.

Report Sample Summary

GCAL ID	Client ID	Matrix	Collect Date/Time	Receive Date/Time
20703210201	MW-1	Water	03/15/2007 13:56	03/21/2007 09:31
20703210202	MW-3	Water	03/15/2007 14:00	03/21/2007 09:31
20703210203	MW-5	Water	03/15/2007 13:41	03/21/2007 09:31
20703210204	RMW-5	Water	03/15/2007 13:12	03/21/2007 09:31
20703210205	MW-8	Water	03/15/2007 14:18	03/21/2007 09:31
20703210206	MW-9	Water	03/15/2007 14:07	03/21/2007 09:31
20703210207	MW-10	Water	03/15/2007 13:40	03/21/2007 09:31
20703210208	MW-11	Water	03/15/2007 13:48	03/21/2007 09:31
20703210209	MW-12	Water	03/15/2007 12:33	03/21/2007 09:31
20703210210	MW-13	Water	03/15/2007 14:18	03/21/2007 09:31
20703210211	MW-15	Water	03/15/2007 12:37	03/21/2007 09:31
20703210212	MW-16	Water	03/15/2007 13:08	03/21/2007 09:31
20703210213	MW-19	Water	03/15/2007 13:29	03/21/2007 09:31
20703210214	RMW-20	Water	03/15/2007 13:00	03/21/2007 09:31
20703210215	DW-1	Water	03/15/2007 13:13	03/21/2007 09:31
20703210216	DW-2	Water	03/15/2007 13:21	03/21/2007 09:31

Summary of Compounds Detected

GCAL ID	Client ID	Matrix	Collect Date/Time	Receive Date/Time
20703210201	MW-1	Water	03/15/2007 13:56	03/21/2007 09:31

8260B, Volatiles

CAS#	Parameter	Result	RDL	REG LIMIT	Units
1634-04-4	tert-Butyl methyl ether (MTBE)	2.33	1.00		ug/L

GCAL ID	Client ID	Matrix	Collect Date/Time	Receive Date/Time
20703210202	MW-3	Water	03/15/2007 14:00	03/21/2007 09:31

8260B, Volatiles

CAS#	Parameter	Result	RDL	REG LIMIT	Units
71-43-2	Benzene	9790	400		ug/L
108-88-3	Toluene	29600	400		ug/L
100-41-4	Ethylbenzene	2570	400		ug/L
1330-20-7	Xylene (total)	13600	1200		ug/L
1634-04-4	tert-Butyl methyl ether (MTBE)	1160	400		ug/L

GCAL ID	Client ID	Matrix	Collect Date/Time	Receive Date/Time
20703210205	MW-8	Water	03/15/2007 14:18	03/21/2007 09:31

8260B, Volatiles

CAS#	Parameter	Result	RDL	REG LIMIT	Units
71-43-2	Benzene	15.3	1.00		ug/L
108-88-3	Toluene	185	1.00		ug/L
100-41-4	Ethylbenzene	43.1	1.00		ug/L
1330-20-7	Xylene (total)	347	3.00		ug/L
91-20-3	Naphthalene	15.3	5.00		ug/L
1634-04-4	tert-Butyl methyl ether (MTBE)	15.7	1.00		ug/L

GCAL ID	Client ID	Matrix	Collect Date/Time	Receive Date/Time
20703210206	MW-9	Water	03/15/2007 14:07	03/21/2007 09:31

8260B, Volatiles

CAS#	Parameter	Result	RDL	REG LIMIT	Units
71-43-2	Benzene	2150	200		ug/L
108-88-3	Toluene	9290	200		ug/L
100-41-4	Ethylbenzene	1740	200		ug/L
1330-20-7	Xylene (total)	11200	600		ug/L
1634-04-4	tert-Butyl methyl ether (MTBE)	234	200		ug/L

Summary of Compounds Detected (con't)

GCAL ID	Client ID	Matrix	Collect Date/Time	Receive Date/Time
20703210207	MW-10	Water	03/15/2007 13:40	03/21/2007 09:31

8260B, Volatiles

CAS#	Parameter	Result	RDL	REG LIMIT	Units
71-43-2	Benzene	19100	1000		ug/L
108-88-3	Toluene	24600	1000		ug/L
100-41-4	Ethylbenzene	1430	1000		ug/L
1330-20-7	Xylene (total)	9920	3000		ug/L
1634-04-4	tert-Butyl methyl ether (MTBE)	60600	1000		ug/L

GCAL ID	Client ID	Matrix	Collect Date/Time	Receive Date/Time
20703210208	MW-11	Water	03/15/2007 13:48	03/21/2007 09:31

8260B, Volatiles

CAS#	Parameter	Result	RDL	REG LIMIT	Units
100-41-4	Ethylbenzene	6.05	1.00		ug/L
1330-20-7	Xylene (total)	5.55	3.00		ug/L
91-20-3	Naphthalene	5.03	5.00		ug/L

GCAL ID	Client ID	Matrix	Collect Date/Time	Receive Date/Time
20703210210	MW-13	Water	03/15/2007 14:18	03/21/2007 09:31

8260B, Volatiles

CAS#	Parameter	Result	RDL	REG LIMIT	Units
1634-04-4	tert-Butyl methyl ether (MTBE)	1.58	1.00		ug/L

GCAL ID	Client ID	Matrix	Collect Date/Time	Receive Date/Time
20703210211	MW-15	Water	03/15/2007 12:37	03/21/2007 09:31

8260B, Volatiles

CAS#	Parameter	Result	RDL	REG LIMIT	Units
71-43-2	Benzene	41.1	1.00		ug/L
108-88-3	Toluene	3.76	1.00		ug/L
100-41-4	Ethylbenzene	12.0	1.00		ug/L
1330-20-7	Xylene (total)	163	3.00		ug/L
91-20-3	Naphthalene	8.92	5.00		ug/L

GCAL ID	Client ID	Matrix	Collect Date/Time	Receive Date/Time
20703210215	DW-1	Water	03/15/2007 13:13	03/21/2007 09:31

8260B, Volatiles

CAS#	Parameter	Result	RDL	REG LIMIT	Units
1634-04-4	tert-Butyl methyl ether (MTBE)	1.31	1.00		ug/L

GCAL ID	Client ID	Matrix	Collect Date/Time	Receive Date/Time
20703210201	MW-1	Water	03/15/2007 13:56	03/21/2007 09:31

8260B, Volatiles

Prep Date	Prep Batch	Prep Method	Dilution	Analyzed	By	Analytical Batch
			1	03/24/2007 02:03	RJO	345421

CAS#	Parameter	Result	RDL	REG LIMIT	Units
71-43-2	Benzene	ND	1.00		ug/L
108-88-3	Toluene	ND	1.00		ug/L
100-41-4	Ethylbenzene	ND	1.00		ug/L
1330-20-7	Xylene (total)	ND	3.00		ug/L
91-20-3	Naphthalene	ND	5.00		ug/L
1634-04-4	tert-Butyl methyl ether (MTBE)	2.33	1.00		ug/L

CAS#	Surrogate	Conc. Spiked	Conc. Rec	Units	% Recovery	Rec Limits
460-00-4	4-Bromofluorobenzene	50	46.4	ug/L	93	78 - 130
1868-53-7	Dibromofluoromethane	50	42.1	ug/L	84	77 - 127
2037-26-5	Toluene d8	50	47.9	ug/L	96	76 - 134
17060-07-0	1,2-Dichloroethane-d4	50	41.2	ug/L	82	71 - 127

GCAL ID	Client ID	Matrix	Collect Date/Time	Receive Date/Time
20703210202	MW-3	Water	03/15/2007 14:00	03/21/2007 09:31

8260B, Volatiles

Prep Date	Prep Batch	Prep Method	Dilution	Analyzed	By	Analytical Batch
			400	03/24/2007 22:52	RJO	345517

CAS#	Parameter	Result	RDL	REG LIMIT	Units
71-43-2	Benzene	9790	400		ug/L
108-88-3	Toluene	29600	400		ug/L
100-41-4	Ethylbenzene	2570	400		ug/L
1330-20-7	Xylene (total)	13600	1200		ug/L
91-20-3	Naphthalene	ND	2000		ug/L
1634-04-4	tert-Butyl methyl ether (MTBE)	1160	400		ug/L

CAS#	Surrogate	Conc. Spiked	Conc. Rec	Units	% Recovery	Rec Limits
460-00-4	4-Bromofluorobenzene	20000	19000	ug/L	95	78 - 130
1868-53-7	Dibromofluoromethane	20000	18000	ug/L	90	77 - 127
2037-26-5	Toluene d8	20000	19300	ug/L	97	76 - 134
17060-07-0	1,2-Dichloroethane-d4	20000	18700	ug/L	94	71 - 127

GCAL ID	Client ID	Matrix	Collect Date/Time	Receive Date/Time
20703210203	**MW-5**	Water	03/15/2007 13:41	03/21/2007 09:31

8260B, Volatiles

Prep Date	Prep Batch	Prep Method	Dilution	Analyzed	By	Analytical Batch
			1	03/24/2007 02:26	RJO	345421

CAS#	Parameter	Result	RDL	REG LIMIT	Units
71-43-2	Benzene	ND	1.00		ug/L
108-88-3	Toluene	ND	1.00		ug/L
100-41-4	Ethylbenzene	ND	1.00		ug/L
1330-20-7	Xylene (total)	ND	3.00		ug/L
91-20-3	Naphthalene	ND	5.00		ug/L
1634-04-4	tert-Butyl methyl ether (MTBE)	ND	1.00		ug/L

CAS#	Surrogate	Conc. Spiked	Conc. Rec	Units	% Recovery	Rec Limits
460-00-4	4-Bromofluorobenzene	50	45.5	ug/L	91	78 - 130
1868-53-7	Dibromofluoromethane	50	48.3	ug/L	97	77 - 127
2037-26-5	Toluene d8	50	47.6	ug/L	95	76 - 134
17060-07-0	1,2-Dichloroethane-d4	50	41.9	ug/L	84	71 - 127

GCAL ID	Client ID	Matrix	Collect Date/Time	Receive Date/Time
20703210204	**RMW-5**	Water	03/15/2007 13:12	03/21/2007 09:31

8260B, Volatiles

Prep Date	Prep Batch	Prep Method	Dilution	Analyzed	By	Analytical Batch
			1	03/24/2007 02:48	RJO	345421

CAS#	Parameter	Result	RDL	REG LIMIT	Units
71-43-2	Benzene	ND	1.00		ug/L
108-88-3	Toluene	ND	1.00		ug/L
100-41-4	Ethylbenzene	ND	1.00		ug/L
1330-20-7	Xylene (total)	ND	3.00		ug/L
91-20-3	Naphthalene	ND	5.00		ug/L
1634-04-4	tert-Butyl methyl ether (MTBE)	ND	1.00		ug/L

CAS#	Surrogate	Conc. Spiked	Conc. Rec	Units	% Recovery	Rec Limits
460-00-4	4-Bromofluorobenzene	50	45.5	ug/L	91	78 - 130
1868-53-7	Dibromofluoromethane	50	48	ug/L	96	77 - 127
2037-26-5	Toluene d8	50	47.6	ug/L	95	76 - 134
17060-07-0	1,2-Dichloroethane-d4	50	41.9	ug/L	84	71 - 127

GCAL ID	Client ID	Matrix	Collect Date/Time	Receive Date/Time
20703210205	MW-8	Water	03/15/2007 14:18	03/21/2007 09:31

8260B, Volatiles

Prep Date	Prep Batch	Prep Method	Dilution	Analyzed	By	Analytical Batch
			1	03/25/2007 21:39	KCB	345539

CAS#	Parameter	Result	RDL	REG LIMIT	Units
71-43-2	Benzene	15.3	1.00		ug/L
108-88-3	Toluene	185	1.00		ug/L
100-41-4	Ethylbenzene	43.1	1.00		ug/L
1330-20-7	Xylene (total)	347	3.00		ug/L
91-20-3	Naphthalene	15.3	5.00		ug/L
1634-04-4	tert-Butyl methyl ether (MTBE)	15.7	1.00		ug/L

CAS#	Surrogate	Conc. Spiked	Conc. Rec	Units	% Recovery	Rec Limits
460-00-4	4-Bromofluorobenzene	50	58.7	ug/L	117	78 - 130
1868-53-7	Dibromofluoromethane	50	47	ug/L	94	77 - 127
2037-26-5	Toluene d8	50	56.7	ug/L	113	76 - 134
17060-07-0	1,2-Dichloroethane-d4	50	44.8	ug/L	90	71 - 127

GCAL ID	Client ID	Matrix	Collect Date/Time	Receive Date/Time
20703210206	MW-9	Water	03/15/2007 14:07	03/21/2007 09:31

8260B, Volatiles

Prep Date	Prep Batch	Prep Method	Dilution	Analyzed	By	Analytical Batch
			200	03/24/2007 23:14	RJO	345517

CAS#	Parameter	Result	RDL	REG LIMIT	Units
71-43-2	Benzene	2150	200		ug/L
108-88-3	Toluene	9290	200		ug/L
100-41-4	Ethylbenzene	1740	200		ug/L
1330-20-7	Xylene (total)	11200	600		ug/L
91-20-3	Naphthalene	ND	1000		ug/L
1634-04-4	tert-Butyl methyl ether (MTBE)	234	200		ug/L

CAS#	Surrogate	Conc. Spiked	Conc. Rec	Units	% Recovery	Rec Limits
460-00-4	4-Bromofluorobenzene	10000	9670	ug/L	97	78 - 130
1868-53-7	Dibromofluoromethane	10000	9060	ug/L	91	77 - 127
2037-26-5	Toluene d8	10000	9830	ug/L	98	76 - 134
17060-07-0	1,2-Dichloroethane-d4	10000	9530	ug/L	95	71 - 127

GCAL ID	Client ID	Matrix	Collect Date/Time	Receive Date/Time
20703210207	MW-10	Water	03/15/2007 13:40	03/21/2007 09:31

8260B, Volatiles

Prep Date	Prep Batch	Prep Method	Dilution	Analyzed	By	Analytical Batch
			1000	03/25/2007 13:16	ADI	345530

CAS#	Parameter	Result	RDL	REG LIMIT	Units
71-43-2	Benzene	19100	1000		ug/L
108-88-3	Toluene	24600	1000		ug/L
100-41-4	Ethylbenzene	1430	1000		ug/L
1330-20-7	Xylene (total)	9920	3000		ug/L
91-20-3	Naphthalene	ND	5000		ug/L
1634-04-4	tert-Butyl methyl ether (MTBE)	60600	1000		ug/L

CAS#	Surrogate	Conc. Spiked	Conc. Rec	Units	% Recovery	Rec Limits
460-00-4	4-Bromofluorobenzene	50000	47600	ug/L	95	78 - 130
1868-53-7	Dibromofluoromethane	50000	46500	ug/L	93	77 - 127
2037-26-5	Toluene d8	50000	48300	ug/L	97	76 - 134
17060-07-0	1,2-Dichloroethane-d4	50000	47800	ug/L	96	71 - 127

GCAL ID	Client ID	Matrix	Collect Date/Time	Receive Date/Time
20703210208	MW-11	Water	03/15/2007 13:48	03/21/2007 09:31

8260B, Volatiles

Prep Date	Prep Batch	Prep Method	Dilution	Analyzed	By	Analytical Batch
			1	03/24/2007 03:10	RJO	345421

CAS#	Parameter	Result	RDL	REG LIMIT	Units
71-43-2	Benzene	ND	1.00		ug/L
108-88-3	Toluene	ND	1.00		ug/L
100-41-4	**Ethylbenzene**	6.05	1.00		ug/L
1330-20-7	**Xylene (total)**	5.55	3.00		ug/L
91-20-3	**Naphthalene**	5.03	5.00		ug/L
1634-04-4	tert-Butyl methyl ether (MTBE)	ND	1.00		ug/L

CAS#	Surrogate	Conc. Spiked	Conc. Rec	Units	% Recovery	Rec Limits
460-00-4	4-Bromofluorobenzene	50	47.1	ug/L	94	78 - 130
1868-53-7	Dibromofluoromethane	50	41.6	ug/L	83	77 - 127
2037-26-5	Toluene d8	50	45.7	ug/L	91	76 - 134
17060-07-0	1,2-Dichloroethane-d4	50	43.3	ug/L	87	71 - 127

GCAL ID	Client ID	Matrix	Collect Date/Time	Receive Date/Time
20703210209	MW-12	Water	03/15/2007 12:33	03/21/2007 09:31

8260B, Volatiles

Prep Date	Prep Batch	Prep Method	Dilution	Analyzed	By	Analytical Batch
			1	03/24/2007 03:32	RJO	345421

CAS#	Parameter	Result	RDL	REG LIMIT	Units
71-43-2	Benzene	ND	1.00		ug/L
108-88-3	Toluene	ND	1.00		ug/L
100-41-4	Ethylbenzene	ND	1.00		ug/L
1330-20-7	Xylene (total)	ND	3.00		ug/L
91-20-3	Naphthalene	ND	5.00		ug/L
1634-04-4	tert-Butyl methyl ether (MTBE)	ND	1.00		ug/L

CAS#	Surrogate	Conc. Spiked	Conc. Rec	Units	% Recovery	Rec Limits
460-00-4	4-Bromofluorobenzene	50	46.6	ug/L	93	78 - 130
1868-53-7	Dibromofluoromethane	50	43.6	ug/L	87	77 - 127
2037-26-5	Toluene d8	50	48	ug/L	96	76 - 134
17060-07-0	1,2-Dichloroethane-d4	50	40.6	ug/L	81	71 - 127

GCAL ID	Client ID	Matrix	Collect Date/Time	Receive Date/Time
20703210210	MW-13	Water	03/15/2007 14:18	03/21/2007 09:31

8260B, Volatiles

Prep Date	Prep Batch	Prep Method	Dilution	Analyzed	By	Analytical Batch
			1	03/24/2007 03:54	RJO	345421

CAS#	Parameter	Result	RDL	REG LIMIT	Units
71-43-2	Benzene	ND	1.00		ug/L
108-88-3	Toluene	ND	1.00		ug/L
100-41-4	Ethylbenzene	ND	1.00		ug/L
1330-20-7	Xylene (total)	ND	3.00		ug/L
91-20-3	Naphthalene	ND	5.00		ug/L
1634-04-4	tert-Butyl methyl ether (MTBE)	1.58	1.00		ug/L

CAS#	Surrogate	Conc. Spiked	Conc. Rec	Units	% Recovery	Rec Limits
460-00-4	4-Bromofluorobenzene	50	46.7	ug/L	93	78 - 130
1868-53-7	Dibromofluoromethane	50	42.2	ug/L	84	77 - 127
2037-26-5	Toluene d8	50	48.7	ug/L	97	76 - 134
17060-07-0	1,2-Dichloroethane-d4	50	40.9	ug/L	82	71 - 127

GCAL ID	Client ID	Matrix	Collect Date/Time	Receive Date/Time
20703210211	MW-15	Water	03/15/2007 12:37	03/21/2007 09:31

8260B, Volatiles

Prep Date	Prep Batch	Prep Method	Dilution	Analyzed	By	Analytical Batch
			1	03/24/2007 04:18	RJO	345421

CAS#	Parameter	Result	RDL	REG LIMIT	Units
71-43-2	Benzene	41.1	1.00		ug/L
108-88-3	Toluene	3.76	1.00		ug/L
100-41-4	Ethylbenzene	12.0	1.00		ug/L
1330-20-7	Xylene (total)	163	3.00		ug/L
91-20-3	Naphthalene	8.92	5.00		ug/L
1634-04-4	tert-Butyl methyl ether (MTBE)	ND	1.00		ug/L

CAS#	Surrogate	Conc. Spiked	Conc. Rec	Units	% Recovery	Rec Limits
460-00-4	4-Bromofluorobenzene	50	49.8	ug/L	100	78 - 130
1868-53-7	Dibromofluoromethane	50	47.1	ug/L	94	77 - 127
2037-26-5	Toluene d8	50	47.4	ug/L	95	76 - 134
17060-07-0	1,2-Dichloroethane-d4	50	49.3	ug/L	99	71 - 127

GCAL ID	Client ID	Matrix	Collect Date/Time	Receive Date/Time
20703210212	**MW-16**	Water	03/15/2007 13:08	03/21/2007 09:31

8260B, Volatiles

Prep Date	Prep Batch	Prep Method	Dilution	Analyzed	By	Analytical Batch
			1	03/24/2007 04:40	RJO	345421

CAS#	Parameter	Result	RDL	REG LIMIT	Units
71-43-2	Benzene	ND	1.00		ug/L
108-88-3	Toluene	ND	1.00		ug/L
100-41-4	Ethylbenzene	ND	1.00		ug/L
1330-20-7	Xylene (total)	ND	3.00		ug/L
91-20-3	Naphthalene	ND	5.00		ug/L
1634-04-4	tert-Butyl methyl ether (MTBE)	ND	1.00		ug/L

CAS#	Surrogate	Conc. Spiked	Conc. Rec	Units	% Recovery	Rec Limits
460-00-4	4-Bromofluorobenzene	50	46.2	ug/L	92	78 - 130
1868-53-7	Dibromofluoromethane	50	46.6	ug/L	93	77 - 127
2037-26-5	Toluene d8	50	47.8	ug/L	96	76 - 134
17060-07-0	1,2-Dichloroethane-d4	50	41.7	ug/L	83	71 - 127

GCAL ID	Client ID	Matrix	Collect Date/Time	Receive Date/Time
20703210213	MW-19	Water	03/15/2007 13:29	03/21/2007 09:31

8260B, Volatiles

Prep Date	Prep Batch	Prep Method	Dilution	Analyzed	By	Analytical Batch
			1	03/24/2007 05:02	RJO	345421

CAS#	Parameter	Result	RDL	REG LIMIT	Units
71-43-2	Benzene	ND	1.00		ug/L
108-88-3	Toluene	ND	1.00		ug/L
100-41-4	Ethylbenzene	ND	1.00		ug/L
1330-20-7	Xylene (total)	ND	3.00		ug/L
91-20-3	Naphthalene	ND	5.00		ug/L
1634-04-4	tert-Butyl methyl ether (MTBE)	ND	1.00		ug/L

CAS#	Surrogate	Conc. Spiked	Conc. Rec	Units	% Recovery	Rec Limits
460-00-4	4-Bromofluorobenzene	50	46.6	ug/L	93	78 - 130
1868-53-7	Dibromofluoromethane	50	42.6	ug/L	85	77 - 127
2037-26-5	Toluene d8	50	48.7	ug/L	97	76 - 134
17060-07-0	1,2-Dichloroethane-d4	50	40.9	ug/L	82	71 - 127

GCAL ID	Client ID	Matrix	Collect Date/Time	Receive Date/Time
20703210214	RMW-20	Water	03/15/2007 13:00	03/21/2007 09:31

8260B, Volatiles

Prep Date	Prep Batch	Prep Method	Dilution	Analyzed	By	Analytical Batch
			1	03/24/2007 22:08	RJO	345517

CAS#	Parameter	Result	RDL	REG LIMIT	Units
71-43-2	Benzene	ND	1.00		ug/L
108-88-3	Toluene	ND	1.00		ug/L
100-41-4	Ethylbenzene	ND	1.00		ug/L
1330-20-7	Xylene (total)	ND	3.00		ug/L
91-20-3	Naphthalene	ND	5.00		ug/L
1634-04-4	tert-Butyl methyl ether (MTBE)	ND	1.00		ug/L

CAS#	Surrogate	Conc. Spiked	Conc. Rec	Units	% Recovery	Rec Limits
460-00-4	4-Bromofluorobenzene	50	47	ug/L	94	78 - 130
1868-53-7	Dibromofluoromethane	50	45.5	ug/L	91	77 - 127
2037-26-5	Toluene d8	50	48.1	ug/L	96	76 - 134
17060-07-0	1,2-Dichloroethane-d4	50	47	ug/L	94	71 - 127

GCAL ID	Client ID	Matrix	Collect Date/Time	Receive Date/Time
20703210215	DW-1	Water	03/15/2007 13:13	03/21/2007 09:31

8260B, Volatiles

Prep Date	Prep Batch	Prep Method	Dilution	Analyzed	By	Analytical Batch
			1	03/24/2007 22:30	RJO	345517

CAS#	Parameter	Result	RDL	REG LIMIT	Units
71-43-2	Benzene	ND	1.00		ug/L
108-88-3	Toluene	ND	1.00		ug/L
100-41-4	Ethylbenzene	ND	1.00		ug/L
1330-20-7	Xylene (total)	ND	3.00		ug/L
91-20-3	Naphthalene	ND	5.00		ug/L
1634-04-4	tert-Butyl methyl ether (MTBE)	1.31	1.00		ug/L

CAS#	Surrogate	Conc. Spiked	Conc. Rec	Units	% Recovery	Rec Limits
460-00-4	4-Bromofluorobenzene	50	47.7	ug/L	95	78 - 130
1868-53-7	Dibromofluoromethane	50	46.5	ug/L	93	77 - 127
2037-26-5	Toluene d8	50	48.6	ug/L	97	76 - 134
17060-07-0	1,2-Dichloroethane-d4	50	48.2	ug/L	96	71 - 127

GCAL ID	Client ID	Matrix	Collect Date/Time	Receive Date/Time
20703210216	DW-2	Water	03/15/2007 13:21	03/21/2007 09:31

8260B, Volatiles

Prep Date	Prep Batch	Prep Method	Dilution	Analyzed	By	Analytical Batch
			100	03/26/2007 05:57	KCB	345539

CAS#	Parameter	Result	RDL	REG LIMIT	Units
71-43-2	Benzene	ND	100		ug/L
108-88-3	Toluene	ND	100		ug/L
100-41-4	Ethylbenzene	ND	100		ug/L
1330-20-7	Xylene (total)	ND	300		ug/L
91-20-3	Naphthalene	ND	500		ug/L
1634-04-4	tert-Butyl methyl ether (MTBE)	ND	100		ug/L

CAS#	Surrogate	Conc. Spiked	Conc. Rec	Units	% Recovery	Rec Limits
460-00-4	4-Bromofluorobenzene	5000	5710	ug/L	114	78 - 130
1868-53-7	Dibromofluoromethane	5000	4770	ug/L	95	77 - 127
2037-26-5	Toluene d8	5000	5490	ug/L	110	76 - 134
17060-07-0	1,2-Dichloroethane-d4	5000	4550	ug/L	91	71 - 127

GC/MS Volatiles Quality Control Summary

Analytical Batch	345421	Client ID	MB345421			LCS345421			LCSD345421			
Prep Batch	N/A	GCAL ID	467907			467908			467909			
		Sample Type	Method Blank			LCS			LCSD			
		Analytical Date	03/23/2007 21:14			03/23/2007 20:08			03/23/2007 20:30			
		Matrix	Water			Water			Water			
8260B, Volatiles		Units	ug/L	Spike Added	Result	Result	% R	Control Limits % R	Result	% R	RPD	RPD Limit
107-06-2	1,2-Dichloroethane	ND	1.00	25.0	24.4	98	75 - 122	23.8	95	2	30	
100-41-4	Ethylbenzene	ND	1.00	25.0	25.0	100	80 - 125	24.1	96	4	30	
1634-04-4	tert-Butyl methyl ether (MTBE)	ND	1.00	25.0	24.9	100	72 - 127	24.3	97	2	30	
1330-20-7	Xylene (total)	ND	3.00	75.0	76.2	102	80 - 129	73.6	98	3	30	
91-20-3	Naphthalene	ND	5.00	25.0	28.7	115	67 - 149	27.6	110	4	30	
71-43-2	Benzene	ND	1.00	25.0	25.1	100	80 - 120	23.6	94	6	11	
108-88-3	Toluene	ND	1.00	25.0	25.7	103	80 - 124	25.1	100	2	13	
Surrogate												
460-00-4	4-Bromofluorobenzene	46	92	50	46.7	93	78 - 130	47.2	94			
1868-53-7	Dibromofluoromethane	44	88	50	47.1	94	77 - 127	46.3	93			
2037-26-5	Toluene d8	47.4	95	50	46.4	93	76 - 134	46.7	93			
17060-07-0	1,2-Dichloroethane-d4	40.5	81	50	41.9	84	71 - 127	40.8	82			

Analytical Batch	345517	Client ID	MB345517			LCS345517			LCSD345517			
Prep Batch	N/A	GCAL ID	468399			468400			468401			
		Sample Type	Method Blank			LCS			LCSD			
		Analytical Date	03/24/2007 20:28			03/24/2007 19:22			03/24/2007 19:44			
		Matrix	Water			Water			Water			
8260B, Volatiles		Units	ug/L	Spike Added	Result	Result	% R	Control Limits % R	Result	% R	RPD	RPD Limit
107-06-2	1,2-Dichloroethane	ND	1.00	25.0	23.6	94	75 - 122	24.6	98	4	30	
100-41-4	Ethylbenzene	ND	1.00	25.0	24.3	97	80 - 125	24.9	100	2	30	
1634-04-4	tert-Butyl methyl ether (MTBE)	ND	1.00	25.0	25.1	100	72 - 127	25.3	101	0.8	30	
1330-20-7	Xylene (total)	ND	3.00	75.0	71.9	96	80 - 129	73.6	98	2	30	
91-20-3	Naphthalene	ND	5.00	25.0	26.0	104	67 - 149	24.8	99	5	30	
71-43-2	Benzene	ND	1.00	25.0	23.9	96	80 - 120	24.2	97	1	11	
108-88-3	Toluene	ND	1.00	25.0	24.0	96	80 - 124	24.4	98	2	13	
Surrogate												
460-00-4	4-Bromofluorobenzene	47.9	96	50	47.4	95	78 - 130	48.1	96			
1868-53-7	Dibromofluoromethane	46.4	93	50	47	94	77 - 127	47	94			
2037-26-5	Toluene d8	49.3	99	50	47.6	95	76 - 134	48.3	97			
17060-07-0	1,2-Dichloroethane-d4	47.9	96	50	43.6	87	71 - 127	47	94			

GC/MS Volatiles Quality Control Summary

Analytical Batch	345530	Client ID	MB345530			LCS345530			LCSD345530			
Prep Batch	N/A	GCAL ID	468422			468423			468424			
		Sample Type	Method Blank			LCS			LCSD			
		Analytical Date	03/25/2007 11:31			03/25/2007 10:25			03/25/2007 10:47			
		Matrix	Water			Water			Water			
8260B, Volatiles		**Units**	ug/L	**Spike Added**	**Result**	**Result**	**% R**	**Control Limits % R**	**Result**	**% R**	**RPD**	**RPD Limit**
107-06-2	1,2-Dichloroethane	ND	1.00	25.0	27.5	110	75 - 122		24.6	98	11	30
100-41-4	Ethylbenzene	ND	1.00	25.0	26.1	104	80 - 125		23.9	96	9	30
1634-04-4	tert-Butyl methyl ether (MTBE)	ND	1.00	25.0	26.5	106	72 - 127		24.5	98	8	30
1330-20-7	Xylene (total)	ND	3.00	75.0	77.3	103	80 - 129		70.9	95	9	30
91-20-3	Naphthalene	ND	5.00	25.0	26.1	104	67 - 149		23.6	94	10	30
71-43-2	Benzene	ND	1.00	25.0	25.6	102	80 - 120		23.4	94	9	11
108-88-3	Toluene	ND	1.00	25.0	25.7	103	80 - 124		23.7	95	8	13
Surrogate												
460-00-4	4-Bromofluorobenzene	48	96	50	48.1	96	78 - 130		47.7	95		
1868-53-7	Dibromofluoromethane	46.9	94	50	47.7	95	77 - 127		46.7	93		
2037-26-5	Toluene d8	49.1	98	50	48	96	76 - 134		47.7	95		
17060-07-0	1,2-Dichloroethane-d4	48.3	97	50	43.8	88	71 - 127		47.3	95		

Analytical Batch	345530	Client ID	TANK20D19TW203160702			466076MS			466076MSD			
Prep Batch	N/A	GCAL ID	20703171302			468443			468444			
		Sample Type	SAMPLE			MS			MSD			
		Analytical Date	03/25/2007 16:12			03/25/2007 18:46			03/25/2007 19:08			
		Matrix	Water			Water			Water			
8260B, Volatiles		**Units**	ug/L	**Spike Added**	**Result**	**Result**	**% R**	**Control Limits % R**	**Result**	**% R**	**RPD**	**RPD Limit**
1634-04-4	tert-Butyl methyl ether (MTBE)	0.00	1.00	25.0	23.9	96	72 - 127		24.9	100	4	30
Surrogate												
460-00-4	4-Bromofluorobenzene			50	47.7	95	78 - 130		48.4	97		
1868-53-7	Dibromofluoromethane			50	45.5	91	77 - 127		46.5	93		
2037-26-5	Toluene d8			50	47.3	95	76 - 134		47.7	95		
17060-07-0	1,2-Dichloroethane-d4			50	46.7	93	71 - 127		48.5	97		

GC/MS Volatiles Quality Control Summary

Analytical Batch 345539 / Prep Batch N/A	Client ID	MB345539			LCS345539			LCSD345539			
	GCAL ID	468440			468441			468442			
	Sample Type	Method Blank			LCS			LCSD			
	Analytical Date	03/25/2007 21:17			03/25/2007 20:10			03/25/2007 20:32			
	Matrix	Water			Water			Water			
8260B, Volatiles		**Units**	ug/L	**Spike Added**	**Result**	**% R**	**Control Limits %R**	**Result**	**% R**	**RPD**	**RPD Limit**
107-06-2	1,2-Dichloroethane	ND	1.00	25.0	20.0	80	75 - 122	19.6	78	2	30
100-41-4	Ethylbenzene	ND	1.00	25.0	27.2	109	80 - 125	25.8	103	5	30
1634-04-4	tert-Butyl methyl ether (MTBE)	ND	1.00	25.0	20.4	82	72 - 127	20.3	81	0.5	30
1330-20-7	Xylene (total)	ND	3.00	75.0	75.0	100	80 - 129	72.4	97	4	30
91-20-3	Naphthalene	ND	5.00	25.0	27.3	109	67 - 149	26.2	105	4	30
71-43-2	Benzene	ND	1.00	25.0	22.1	88	80 - 120	21.1	84	5	11
108-88-3	Toluene	ND	1.00	25.0	25.3	101	80 - 124	24.2	97	4	13
Surrogate											
460-00-4	4-Bromofluorobenzene	58.6	117	50	60.1	120	78 - 130	60	120		
1868-53-7	Dibromofluoromethane	47.3	95	50	47.1	94	77 - 127	47.5	95		
2037-26-5	Toluene d8	55.6	111	50	56.6	113	76 - 134	56.8	114		
17060-07-0	1,2-Dichloroethane-d4	44	88	50	44.1	88	71 - 127	43.6	87		

Analytical Batch 345539 / Prep Batch N/A	Client ID	M-150-200			M-150-200-MS1			M-150-200-SD1			
	GCAL ID	20703230801			20703230802			20703230803			
	Sample Type	SAMPLE			MS			MSD			
	Analytical Date	03/25/2007 22:02			03/25/2007 22:24			03/25/2007 22:47			
	Matrix	Water			Water			Water			
8260B, Volatiles		**Units**	ug/L	**Spike Added**	**Result**	**% R**	**Control Limits %R**	**Result**	**% R**	**RPD**	**RPD Limit**
107-06-2	1,2-Dichloroethane	0.00	5.00	125	117	94	75 - 122	113	90	3	30
100-41-4	Ethylbenzene	0.00	5.00	125	138	110	80 - 125	125	100	10	30
1330-20-7	Xylene (total)	10.6	15.0	375	387	100	80 - 129	353	91	9	30
71-43-2	Benzene	0.00	5.00	125	111	89	80 - 120	106	85	5	30
108-88-3	Toluene	0.00	5.00	125	132	106	80 - 124	119	95	10	30
Surrogate											
460-00-4	4-Bromofluorobenzene			250	306	122	78 - 130	295	118		
1868-53-7	Dibromofluoromethane			250	237	95	77 - 127	237	95		
2037-26-5	Toluene d8			250	292	117	76 - 134	280	112		
17060-07-0	1,2-Dichloroethane-d4			250	224	90	71 - 127	226	90		

Access Analytical - Chain of Custody Record

Project Submission #

Access Analytical Reports 1203216 2/03 26 07

PO #

Laboratory ID:

Duncan Environmental
Ted Fuller
1081-C Two Notch Road
Elgin SC 29045
803 788 4399 803-788-4555
duncanen@earthlink.net
JJ's Texaco

Sampled By (print): Jason Reynolds, Larry Irving, BJ Ratliff

Sample Label	Date Collected	Time Collected	Matrix	# of Cont.	BTEX + Naph + MTBE X 8021 VOA	REQUESTED LAB ANALYSIS
MW-1	3-05-07	13:56	GW	2	X	
MW-3		14:00				
MW-5		13:41				
RMW 5		13:12				
MW-8		14:18				
MW-9		14:07				
MW-10		13:40				
MW-11		13:48				
MW-12		12:33				
MW-13		14:18				

Preservative Codes (place corresponding # in block above and/or ICE): 0=None, 1=HCL, 2=HNO3, 3=H2SO4, 4=NaOH, 5=Na2S2O3, 6=NaHSO4, Other=Specify

ACCESS

Phone: 803-781-4949
Fax: 781-4951
Toll Free: 866-314-4943
www.accessanalytical.com

NOTES / COMMENTS

1 2 3 4 5 6 7 8 9 10

Turnaround Time:

X Std. (5-7 Bus. days)

___RUSH*

*Date Required: _____

(For rush work, results faxed by end of business day on date required)

Relinquished By:	Date:	Time:	Received By:
	03 20 07	1570	CSK
		1700	Fed Ex
	3-21-07	0931	Rebecca

Pg ___ of

Access Analytical, Inc.
See Reverse for Terms and Conditions

Original Copy - Returned w/Report
Yellow Copy - Access File Copy
Pink Copy - Client Copy

Access Analytical - Chain of Custody Record

Project Submission #

PO # Access Analytical 1436 / 0703131102

Laboratory ID: 3.26.07

Company Name: Duncan Environmental

Contact: Ted Fuller

Address: 10617-C Two Notch Road

City: Elgin State: SC Zip: 29045

Phone: 803-788-4333 Fax: 803-788-4555

Email: duncanenv@earthlink.net

Project Name: JJ's Texaco

Sampled By (print): Justin Reynolds, Walt, Nig, BJ Ratliff

* Preservative Codes (place corresponding # in black above matrix in table): 0=None, 1=HCl, 2=HNO3, 3=H2SO4, 4=NaOH, 5=Na2S2O3, 6=NaHSO4, 7=Other Specify

ACCESS

Phone: (803) 791-9700 Fax: 791-1003

Toll Free: (800) 345-1249

www.accessanalytical.com

Sample Label	Date Collected	Time Collected	Matrix	# of Cont	* REQUESTED LAB ANALYSIS: Btex+Napth+MtBE (21)	40ml VOA HCl
ML 15	3-15-07	12:37	GW	2	X	
ML-16		13:08				
ML-19		13:29				
RMC-20		13:00				
DL-1		13:13				
DL-2		13:21				

NOTES / COMMENTS

11
12
13
14
15
16

Turnaround Time:

___Std. (5-7 Bus. days)
___RUSH*
*Date Required: ____
(For rush work, results faxed by end of business day on date required)

Relinquished By:	Date:	Time:	Received By:
[signature]	3.20.07	1510	[signature]
[signature]	3/21/07	1700	[signature]
[signature]	3 21 07	0931	[signature]

Pg 2 of 2

Access Analytical, Inc.
See Reverse for Terms and Conditions

Original Copy - Returned w/Report
Yellow Copy - Access File Copy
Pink Copy - Client Copy

ACCESS
ANALYTICAL, INC.

ANALYTICAL REPORT

CLIENT
Duncan Environmental
10817 C Two Notch Rd
Elgin, SC 29045

ATTENTION
Ted Faller

PROJECT ID
Duncan Env -JJ's

LABORATORY REPORT NUMBER
207040406

DATE
04/10/2007

Primary Data Review By

Curtis Ekker
Data Validation Manager, GCAL

Secondary Data Review By

Ashley B. Amick
Project Manager, Access Analytical
aamick@accessanalyticalinc.com

PLEASE NOTE:

- **Unless otherwise noted, all analysis on this report performed at Gulf Coast Analytical Labs (GCAL), 7979 GSRI Rd. Baton Rouge, LA 70820.**
- **GCAL is SCDHEC certified laboratory # 73006, NCDENR certified lab # 618, GA certified lab # LA-01955, NELAP certified laboratory # 01955**
- Local support services for this project are provided by Access Analytical, Inc.. Access Analytical is a representative of GCAL serving clients in the SC/NC/GA areas. All questions regarding this report should be directed to your local Access Analytical representative at 803.781.4243 or toll free at 888.315.4243.

CASE NARRATIVE

Client: Duncan Environmental **Report:** 207040406

Gulf Coast Analytical Laboratories received and analyzed the sample(s) listed on the sample cross-reference page of this report. Receipt of the sample(s) is documented by the attached chain of custody. This applies only to the sample(s) listed in this report. No sample integrity or quality control exceptions were identified unless noted below.

VOLATILES MASS SPECTROMETRY

In the SW-846 8260B analysis for analytical batch 346542, the MS/MSD exhibited sporadic recovery and RPD failures. These recoveries were within limits in the LCS. This is attributed to matrix interference.

Laboratory Endorsement

Sample analysis was performed in accordance with approved methodologies provided by the Environmental Protection Agency or other recognized agencies. The samples and their corresponding extracts will be maintained for a period of 30 days unless otherwise arranged. Following this retention period the samples will be disposed in accordance with GCAL's Standard Operating Procedures.

Common Abbreviations Utilized in this Report

ND	Indicates the result was Not Detected at the specified RDL
DO	Indicates the result was Diluted Out
MI	Indicates the result was subject to Matrix Interference
TNTC	Indicates the result was Too Numerous To Count
SUBC	Indicates the analysis was Sub-Contracted
FLD	Indicates the analysis was performed in the Field
PQL	Practical Quantitation Limit
MDL	Method Detection Limit
RDL	Reporting Detection Limit
00:00	Reported as a time equivalent to 12:00 AM

Reporting Flags Utilized in this Report

J	Indicates an estimated value
U	Indicates the compound was analyzed for but not detected
B	(ORGANICS) Indicates the analyte was detected in the associated Method Blank
B	(INORGANICS) Indicates the result is between the RDL and MDL

Sample receipt at GCAL is documented through the attached chain of custody. In accordance with ISO Guide 25 and NELAC, this report shall be reproduced only in full and with the written permission of GCAL. The results contained within this report relate only to the samples reported. The documented results are presented within this report.

This report pertains only to the samples listed in the Report Sample Summary and should be retained as a permanent record thereof. The results contained within this report are intended for the use of the client. Any unauthorized use of the information contained in this report is prohibited.

I certify that this data package is in compliance with the terms and conditions of the contract and Statement of Work both technically and for completeness, for other than the conditions in the case narrative. Release of the data contained in this hardcopy data package and in the computer-readable data submitted has been authorized by the Quality Assurance Manager or his/her designee, as verified by the following signature.

CURTIS EKKER
DATA VALIDATION MANAGER
GCAL REPORT 207040406

Report Sample Summary

GCAL ID	Client ID	Matrix	Collect Date/Time	Receive Date/Time
20704040601	SW-1	Water	04/02/2007 13:10	04/04/2007 09:15
20704040602	SW-2	Water	04/02/2007 13:20	04/04/2007 09:15
20704040603	SW-3	Water	04/02/2007 13:30	04/04/2007 09:15

Summary of Compounds Detected

GCAL ID	Client ID	Matrix	Collect Date/Time	Receive Date/Time
20704040601	SW-1	Water	04/02/2007 13:10	04/04/2007 09:15

8260B, Volatiles

CAS#	Parameter	Result	RDL	REG LIMIT	Units
1634-04-4	tert-Butyl methyl ether (MTBE)	9.39	1.00		ug/L

GCAL ID	Client ID	Matrix	Collect Date/Time	Receive Date/Time
20704040602	SW-2	Water	04/02/2007 13:20	04/04/2007 09:15

8260B, Volatiles

CAS#	Parameter	Result	RDL	REG LIMIT	Units
1634-04-4	tert-Butyl methyl ether (MTBE)	5.35	1.00		ug/L

GCAL ID	Client ID	Matrix	Collect Date/Time	Receive Date/Time
20704040601	SW-1	Water	04/02/2007 13:10	04/04/2007 09:15

8260B, Volatiles

Prep Date	Prep Batch	Prep Method	Dilution	Analyzed	By	Analytical Batch
			1	04/09/2007 12:41	DLB	346542

CAS#	Parameter	Result	RDL	REG LIMIT	Units
71-43-2	Benzene	ND	1.00		ug/L
108-88-3	Toluene	ND	1.00		ug/L
100-41-4	Ethylbenzene	ND	1.00		ug/L
1330-20-7	Xylene (total)	ND	3.00		ug/L
91-20-3	Naphthalene	ND	5.00		ug/L
1634-04-4	tert-Butyl methyl ether (MTBE)	9.39	1.00		ug/L

CAS#	Surrogate	Conc. Spiked	Conc. Rec	Units	% Recovery	Rec Limits
460-00-4	4-Bromofluorobenzene	50	55.3	ug/L	111	78 - 130
1868-53-7	Dibromofluoromethane	50	51.6	ug/L	103	77 - 127
2037-26-5	Toluene d8	50	52.1	ug/L	104	76 - 134
17060-07-0	1,2-Dichloroethane-d4	50	47	ug/L	94	71 - 127

GCAL ID	Client ID	Matrix	Collect Date/Time	Receive Date/Time
20704040602	SW-2	Water	04/02/2007 13:20	04/04/2007 09:15

8260B, Volatiles

Prep Date	Prep Batch	Prep Method	Dilution	Analyzed	By	Analytical Batch
			1	04/09/2007 13:06	DLB	346542

CAS#	Parameter	Result	RDL	REG LIMIT	Units
71-43-2	Benzene	ND	1.00		ug/L
108-88-3	Toluene	ND	1.00		ug/L
100-41-4	Ethylbenzene	ND	1.00		ug/L
1330-20-7	Xylene (total)	ND	3.00		ug/L
91-20-3	Naphthalene	ND	5.00		ug/L
1634-04-4	**tert-Butyl methyl ether (MTBE)**	**5.35**	**1.00**		**ug/L**

CAS#	Surrogate	Conc. Spiked	Conc. Rec	Units	% Recovery	Rec Limits
460-00-4	4-Bromofluorobenzene	50	52.4	ug/L	105	78 - 130
1868-53-7	Dibromofluoromethane	50	51.3	ug/L	103	77 - 127
2037-26-5	Toluene d8	50	54.2	ug/L	108	76 - 134
17060-07-0	1,2-Dichloroethane-d4	50	45.8	ug/L	92	71 - 127

GCAL ID	Client ID	Matrix	Collect Date/Time	Receive Date/Time
20704040603	SW-3	Water	04/02/2007 13:30	04/04/2007 09:15

8260B, Volatiles

Prep Date	Prep Batch	Prep Method	Dilution	Analyzed	By	Analytical Batch
			1	04/09/2007 13:31	DLB	346542

CAS#	Parameter	Result	RDL	REG LIMIT	Units
71-43-2	Benzene	ND	1.00		ug/L
108-88-3	Toluene	ND	1.00		ug/L
100-41-4	Ethylbenzene	ND	1.00		ug/L
1330-20-7	Xylene (total)	ND	3.00		ug/L
91-20-3	Naphthalene	ND	5.00		ug/L
1634-04-4	tert-Butyl methyl ether (MTBE)	ND	1.00		ug/L

CAS#	Surrogate	Conc. Spiked	Conc. Rec	Units	% Recovery	Rec Limits
460-00-4	4-Bromofluorobenzene	50	52.2	ug/L	104	78 - 130
1868-53-7	Dibromofluoromethane	50	52	ug/L	104	77 - 127
2037-26-5	Toluene d8	50	53.4	ug/L	107	76 - 134
17060-07-0	1,2-Dichloroethane-d4	50	51.3	ug/L	103	71 - 127

GC/MS Volatiles Quality Control Summary

Analytical Batch 346542	Client ID	MB346542	LCS346542
Prep Batch N/A	GCAL ID	472942	472943
	Sample Type	Method Blank	LCS
	Analytical Date	04/09/2007 10:38	04/09/2007 08:37
	Matrix	Water	Water

8260B, Volatiles		Units	ug/L Result	Spike Added	Result	% R	Control Limits % R
107-06-2	1,2-Dichloroethane		ND 1.00	25.0	23.8	95	75 - 122
100-41-4	Ethylbenzene		ND 1.00	25.0	25.3	101	80 - 125
1634-04-4	tert-Butyl methyl ether (MTBE)		ND 1.00	25.0	27.5	110	72 - 127
1330-20-7	Xylene (total)		ND 3.00	75.0	75.5	101	80 - 129
91-20-3	Naphthalene		ND 5.00	25.0	24.3	97	67 - 149
71-43-2	Benzene		ND 1.00	25.0	25.9	104	80 - 120
108-88-3	Toluene		ND 1.00	25.0	24.5	98	80 - 124
Surrogate							
460-00-4	4-Bromofluorobenzene		50.9 102	50	51.9	104	78 - 130
1868-53-7	Dibromofluoromethane		54.7 109	50	53.6	107	77 - 127
2037-26-5	Toluene d8		54.2 108	50	54.2	108	76 - 134
17060-07-0	1,2-Dichloroethane-d4		50.8 102	50	49.7	99	71 - 127

Analytical Batch 346542	Client ID	SW-1	471811MS	471811MSD
Prep Batch N/A	GCAL ID	20704040601	473065	473066
	Sample Type	SAMPLE	MS	MSD
	Analytical Date	04/09/2007 12:41	04/09/2007 14:23	04/09/2007 14:48
	Matrix	Water	Water	Water

8260B, Volatiles		Units	ug/L	Spike Added	Result Result	% R	Control Limits % R	Result	% R	RPD	RPD Limit
107-06-2	1,2-Dichloroethane	0.00	1.00	25.0	19.0	76	75 - 122	25.8	103	30	30
100-41-4	Ethylbenzene	0.00	1.00	25.0	25.3	101	80 - 125	23.8	95	6	30
1634-04-4	tert-Butyl methyl ether (MTBE)	9.39	1.00	25.0	26.0	66*	72 - 127	37.4	112	36*	30
1330-20-7	Xylene (total)	0.00	3.00	75.0	76.7	102	80 - 129	73.7	98	4	30
91-20-3	Naphthalene	0.00	5.00	25.0	18.2	73	67 - 149	28.2	113	43*	30
71-43-2	Benzene	0.00	1.00	25.0	25.8	103	80 - 120	25.8	103	0	30
108-88-3	Toluene	0.00	1.00	25.0	25.9	104	80 - 124	24.3	97	6	30
Surrogate											
460-00-4	4-Bromofluorobenzene	55.3	111	50	51.8	104	78 - 130	52.3	105		
1868-53-7	Dibromofluoromethane	51.6	103	50	49.3	99	77 - 127	53.1	106		
2037-26-5	Toluene d8	52.1	104	50	57.6	115	76 - 134	53.6	107		
17060-07-0	1,2-Dichloroethane-d4	47	94	50	39.4	79	71 - 127	52.1	104		

Access Analytical - Chain of Custody Record

Project Submission # | **PO #** | **Laboratory ID:**

Company Name: DUNCAN ENVIRONMENTAL

Report To: TED FALLER

Address: 10817-C Two Notch Road

City: Elgin State: SC Zip: 29045

Phone: 803-788-4333 Fax:

Email: DUNCANLZ@EARTHLINK.NET

Project Name: JJ's

Sampled By (print): JR & NN

Sample Label	Date Collected	Time Collected	Matrix	# of Cont	* REQUESTED LAB ANALYSIS: BTEX Naph MTBE (8260 GAS)
SW-1	4-2-07	1:10	GW	2	X 1
SW-2	4-2-07	1:20	"	2	X 2
SW-3	4-2-07	1:30	"	2	X 3

* Preservative Codes (place corresponding # in block above analysis field): 0=None, 1=HCL, 2=HNO3, 3=H2SO4, 4=NaOH, 5=Na2S2O3, 6=NaHSO4, Other=Specify

ACCESS
Phone: (803) 781-4243
1478 Carlisle Street Fax: 781-4303
Irmo, SC 29063 Toll Free (888) 315-4243
www.accessanalyticalinc.com

NOTES / COMMENTS

Turnaround Time:	Samples Received on Ice	Project Requires
X Std. (5-7 Bus. days)	X	X
___ RUSH*	Y / N	
*Date Required: ___ (For rush work, results faxed by end of business day on date required)		

Relinquished By:	Date:	Time:	Received By:
Ray Rate	4-3-07	1420	Chris Rayfield
Chris Rayfield	4/3/07	1700	FedEx
		1917	

Access Analytical, Inc.

See Reverse for Terms and Conditions

Original Copy - Returned w/Report
Yellow Copy - Access File Copy
Pink Copy - Client Copy

ARM ENVIRONMENTAL SERVICES, INC.

ASSESSMENT & REMEDIAL SERVICES DIVISION *www.armenv.com*

February 13, 2007

Jan Reynolds
Duncan Environmental Associates, Inc.
10817-C Two Notch Road
Elgin, South Carolina 29045

Re: Former JJ's Texaco
105 N. Main St.
Gaston, South Carolina
UST Permit #05986; CA #27936
ARM Project #06-404.1-07

Dear Ms. Reynolds;

ARM Environmental Services, Inc. (ARM) has completed the 8-hour Aggressive Fluid Vapor Recovery (AFVR) events at the above referenced site located in Lexington County, South Carolina. The pertinent information regarding the AFVR is presented on the following pages and in the appendices of this document.

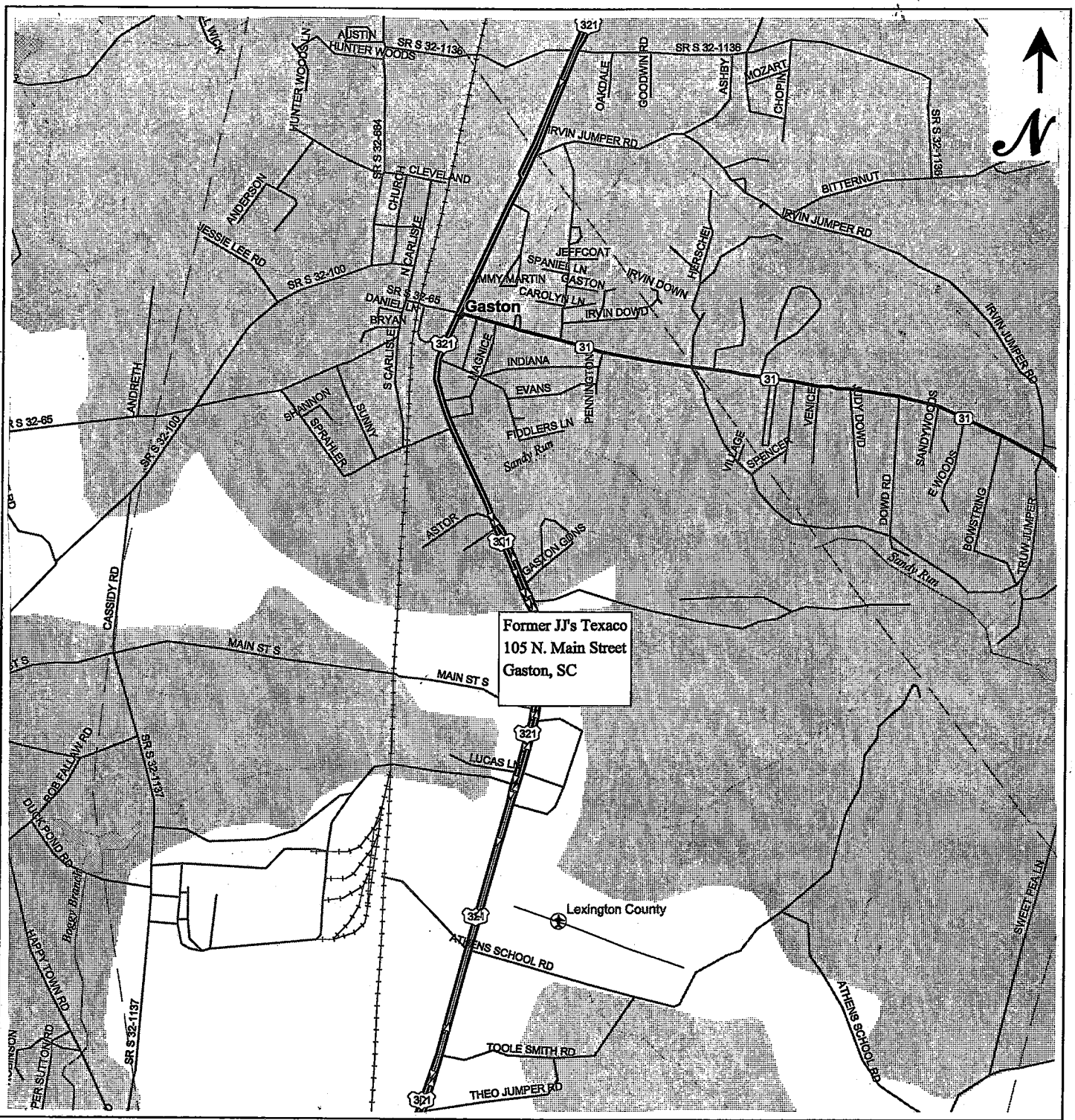
ARM personnel mobilized to the Former JJ's Texaco site on January 19, 2007 and January 23, 2007. Ambient air temperature for January 19 was 45° - 50° F and the general weather conditions were partly cloudy. Ambient air temperature for January 23 was 45° F and the general weather conditions were partly cloudy. The depths to product and water were measured and recorded for monitoring wells MW-6 and MW-10 prior to and subsequent to the events. Monitoring well MW-6 and MW-10 had 0.72' and 0.01', respectively, of free product present prior to stinger placement into the wells. Pumping began at 8:30 am and ended at 4:30 pm on January 19, and began at 8:15 am and ended at 4:15 pm on January 23. At cessation of the 8-hour AFVR events, no appreciable thickness of product was present in either MW-6 or MW-10. Approximately 250 gallons of water/product were removed from the referenced wells. It is estimated that approximately 2 gallons of free-phase product was removed from the site during the AFVR.

If you should have any questions regarding the results of this assessment, or should you need additional information, please do not hesitate to contact our office.

Sincerely,
ARM Environmental Services, Inc.

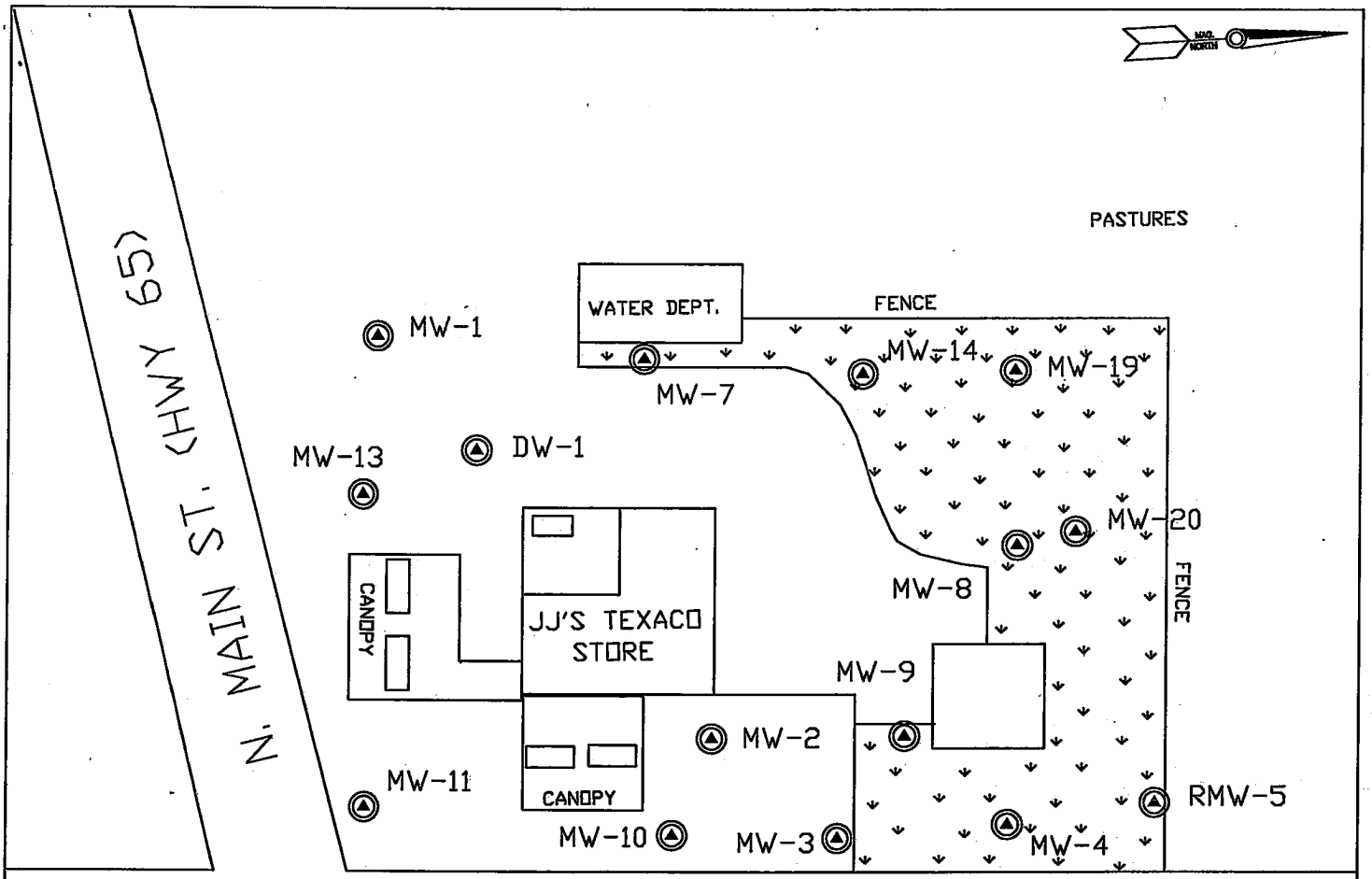
Michael L. Faris, P.G.
Senior Geologist

Andrew M. Wilson, P.G.
Principal Hydrogeologist



Project	Figure 1
Former JJ's Texaco 105 N. Main Street Lexington County, South Carolina	Site Location Map 2000 DeLorme Street Atlas

Scale	Date	
1 inch ≅ 2,000 feet	January 2007	ARM ENVIRONMENTAL SERVICES, INC.



PROJECT: FORMER JJ'S TEXACO 105 N. MAIN STREET LEXINGTON COUNTY	DESCRIPTION: SITE PLAN	**FIGURE 2** DATE: JANUARY 2007
ARM ENVIRONMENTAL SERVICES, INC.	LEGEND: MW = ◎ = MONITORING WELL	DRAWN BY: KGP CHECKED BY: AW

ARM ENVIRONMENTAL SERVICES, INC.

Aggressive Fluid/Vapor Recovery Notes
[Page 1 of 3]

Site Identification: 05986 Location: former JJ's Texaco

EFR Contractor: ARM Environmental Svcs. Personnel: Billy Pittenger

Date: 1-19-07 Ambient Air Temperature and general weather condition partly cloudy, then sunny 45°-50, windy

Start Time: 08:30 Stop Time: 16:30

Total volume of water removed during this site's AFVR Event: 109 gallons

Total volume of product removed during this site's AFVR Event: 1 gallon

Water/Product Recovery Rate: .22 gallons per minute

Monitoring Well Identification	Static depth to product prior to stinger placement in well (ft. below TOC)	Static depth to water prior to stinger placement in well (ft. below TOC)	Depth to product at cessation of pumping (ft. below TOC)	Depth to water at cessation of pumping (ft. below TOC)	Estimated volume of water removed during this event	Relevant Observations
MW-6	34.06	34.78	None	35.23	110 gallons	

Aggressive Fluid/Vapor Recovery Notes
[Page 2 of 3]

[Inches of water X 0.07355 = inches of mercury]

Time	PID Reading at stack (ppm)	Vacuum at Targeted Well (inches of merc.)	Vacuum at Targeted Well (inches of merc.)	Vacuum at Targeted Well (inches of merc.)	Well ID	Vacuum (inches of mercury)	Well ID	Vacuum (inches of mercury)
08:30	152	MW-6 10			MW-13			
09:00	265	8				0		
09:30	250	7				↓		
10:00	202	7						
10:30	137	7						
11:00	138	7						
11:30	124	7.5						
12:00	152	7.5						
12:30	141	7.5						
13:00	134	7.5						
13:30	144	7.5						
14:00	99	7.5						
14:30	128	7						
15:00	118	7						
15:30	120	7						
16:00	116	7.5						
16:30	129	7.5				↓		

Vacuum at Pump = 10 - 12

Aggressive Fluid/Vapor Recovery Notes
[Page 3 of 3]

- - Stinger Placement - -

Time	Stinger Depth	Product Depth	GroundWater Depth	Notes
initial 08:30	35.0	34.06	34.78	
10:30	35.5	N/A	N/A	

ARM ENVIRONMENTAL SERVICES, INC.

Aggressive Fluid/Vapor Recovery Notes
[Page 1 of 2]

Site Identification: 05986 Location: former JJ's Texaco

EFR Contractor: ARM Environmental Svcs. Personnel: Billy Pitlenger

Date: 1-23-07 Ambient Air Temperature and general weather condition partly cloudy 45°

Start Time: 08:15 Stop Time: 15:15

Total volume of water removed during this site's EFR Event: 139 gallon

Total volume of product removed during this site's EFR Event: 1 gallon

Product Recovery Rate: .29 gallons per minute

Monitoring Well Identification	Static depth to product prior to stinger placement in well (ft. below TOC)	Static depth to water prior to stinger placement in well (ft. below TOC)	Depth to product at cessation of pumping (ft. below TOC)	Depth to water at cessation of pumping (ft. below TOC)	Estimated volume of water removed during this event and product	Relevant Observations
MW-10	34.66	34.67	None.	35.23	140 gallons	

Aggressive Fluid/Vapor Recovery Notes
[Page 3 of 3]

- - Stinger Placement - -

initial

Time	Stinger Depth	Product Depth	GroundWater Depth	Notes
08:15	34.75	34.66	34.67	
10:00	35.0	N/A	N/A	
10:45	35.25	N/A	N/A	

Aggressive Fluid/Vapor Recovery Notes
[Page 2 of 3]

[Inches of water X 0.07355 = inches of mercury]

Time	PID Reading at stack (ppm)	Vacuum at Targeted Well (inches of merc.)	Vacuum at Targeted Well (inches of merc.)	Vacuum at Targeted Well (inches of merc.)	Well ID	Vacuum (inches of mercury)	Well ID	Vacuum (inches of mercury)
08:35	150	MW-10 10						
08:45	227	9						
09:15	190	8						
09:45	179	8						
10:15	194	8						
10:45	187	8						
11:15	206	8						
11:45	201	8						
12:15	189	↓						
12:45	192							
13:15	190							
13:45	201							
14:15	212							
14:45	190							
15:15	194							
15:45	187							
16:15	202							

Vacuum at Pump = 9-11

NON-HAZARDOUS WASTE MANIFEST

Please print or type (Form designed for use on elite (12 pitch) typewriter)

NON-HAZARDOUS WASTE MANIFEST

1. Generator's US EPA ID No.

Manifest Document No. 106

2. Page 1 of

3. Generator's Name and Mailing Address JJ's Texaco
105 North Main Street
Gaston, S.C

06-404.1-2007

4. Generator's Phone ( )

5. Transporter 1 Company Name ARM Environmental Svcs.

6. US EPA ID Number

A. State Transporter's ID

B. Transporter 1 Phone 803-783-3314

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
Crandall Corp.
100 Rich Lex Drive
Lexington, S.C

10. US EPA ID Number

E. State Facility's ID

F. Facility's Phone 803 791-4800

11. WASTE DESCRIPTION	12. Containers No.	12. Containers Type	13. Total Quantity	14. Unit Wt./Vol.
a. Petroleum Contact Water	1	TT	250	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: Billy Pittenger Agent for JJ's Texaco | Signature: Billy Pittenger | Date: Month 1 Day 19 Year 07

TRANSPORTER

17. Transporter 1 Acknowledgement of Receipt of Materials

Printed/Typed Name: Billy Pittenger | Signature: Billy Pittenger | Date: Month 1 Day 19 Year 07

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: Bob Grooms | Signature | Date: Month 01 Day 25 Year 07

Please print or type
(Form designed for use on elite (12-pitch) typewriter.)

NON-HAZARDOUS WASTE MANIFEST

1. Generator's US EPA ID No. | Manifest Document No. | 2. Page 1 of

GENERATOR

3. Generator's Name and Mailing Address
DF Shumpert — Willard Oil Co.
819 Pine St. Pelion, SC — P.O. Box 3000
4. Generator's Phone ( ) — Spartanburg, SC

5. Transporter 1 Company Name: Duncan Environmental Assoc. | 6. US EPA ID Number: SCD987573557 | A. Transporter's Phone: (803) 788-4333

7. Transporter 2 Company Name | 8. US EPA ID Number | B. Transporter's Phone

9. Designated Facility Name and Site Address: GRK Sumter, SC | 10. US EPA ID Number | C. Facility's Phone

11. Waste Shipping Name and Description	12. Containers No.	12. Containers Type	13. Total Quantity	14. Unit Wt/Vol
a. Non-Hazardous Petroleum (Groundwater & Soil)	2	DR		
b.				
c.				
d.				

D. Additional Descriptions for Materials Listed Above

E. Handling Codes for Wastes Listed Above

15. Special Handling Instructions and Additional Information
JJ's Texaco (Soil & Groundwater) 1190 & 1208
Pick-A-Pack (BK Stop/FP #8) (Groundwater & Soil) 912-913

16. **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.

Printed/Typed Name | Signature | Month | Day | Year

TRANSPORTER

17. Transporter 1 Acknowledgement of Receipt of Materials

Printed/Typed Name: Duncan Environmental Associates | Signature | Month: 04 | Day: 16 | Year: 07

18. Transporter 2 Acknowledgement of Receipt of Materials

Printed/Typed Name | Signature | Month | Day | Year

FACILITY

19. Discrepancy Indication Space

20. Facility Owner or Operator: Certification of receipt of waste materials covered by this manifest except as noted in Item 19.

Printed/Typed Name: S. Kelley | Signature: S. Kelley | Month: 4 | Day: 16 | Year: 07

Printed by J.J. Keller & Associates, Inc.
Neenah, WI 54957-0368

ORIGINAL - RETURN TO GENERATOR

12-BLC-M5

4-19-91

Joe Vine (737-2070) at Dept of Ag lab checking for any reports concerning H_2O in gas at site. Will call me back.

UST PROGRAM
DOCKETING # 87 Tech

6 USTs
3K GN 19
4K 19
5K 9
3K 9
5K 9
550 KN 9

Dist of Ag # 10757

SOUTH CAROLINA DEPARTMENT OF HEALTH
AND ENVIRONMENTAL CONTROL

MB
Please follow-up on

J. MARION SIMS BUILDING • COLUMBIA, SOUTH CAROLINA 29201
PHONE 803-734-5000

N-32-NO-05986
J.J.'s Texaco - Hwy 321
Gaston
D.F. Schumpert's Oil Company
6 tanks

TO: Read - Miner
Groundwater Protection
Underground Storage Tanks

MEMO

DATE: 11 July 84

From: Charles Lewis - Emergency Response 4-5200
(Bureau of Solid & Haz Waste Mgt)
Subj: "water in gasoline obtained from J.J.'s Texaco in Gaston (Hwy 321)
Received call @ 1900h on 10 July from citizen in Gaston. Number of people complaining of stalling and sputtering of automobiles. — (only gas station locally).
I have also contacted Truck Kelly @ SC Dept of Agriculture. * Complainants name & # avail if needed

LABORATORY DIVISION

Dr. Thomas W. Brooks
Assistant Commissioner
for Laboratory Services

State of South Carolina
Department of Agriculture
B. Leslie Tindal — Commissioner

1101 Williams Street,
P.O. Box 11280
Columbia, S.C. 29211

803-737-2070

REPORT OF ANALYSES OF GASOLINE PRODUCTS

OFFICIAL SAMPLE

LABORATORY NO.: 879-1075 — DATE: MAY 8, 1991

DRAWN BY: TALBERT TURNER — DATE DRAWN: JULY 11, 1989

IN POSSESSION OF: J J'S TEXACO, 105 N MAIN STREET, GASTON, SOUTH CAROLINA 29053

BRAND SOLD: TEXACO REGULAR UNLEADED

BRAND DELIVERED: NA

PUMP: #2 — GALLONS IN STORAGE: BAILMENT

GALLONS DELIVERED: NA — DELIVERY DATE: NA

REGISTERED BY: TEXACO INC, PO BOX 4582, ATLANTA, GEORGIA 30302

REGISTERED OCTANE INDEX: 87 — INVOICED OCTANE INDEX: NA

SHIPPER: NA

ANALYSES

DISTILLATION:

INITIAL BOILING POINT	42		OCTANE INDEX (R+M/2)	87.1
10% RECOVERY	57	C	LEAD CONTENT, g/gal	NA
50% RECOVERY	110	C	API GRAVITY @ 60 F	58.7
90% RECOVERY	178	C	WATER and/or SEDIMENT ...	NEGATIVE
END POINT	220	C	METHANOL	NA

SCDA METHODS AND STANDARDS CONFORM TO ASTM.

REMARKS: SAMPLE OK FOR REGULAR UNLEADED GASOLINE.

cc: MR MARK BERENBROK, GROUND WATER PROTECTION DIV, 2600 BULL ST, COLUMBIA, SC

Rudy M. Curtis
Chief Chemist
For Laboratory Services

UST PROGRAM
DOCKETING # 8611

ALLIED TANK TESTING

P.O. BOX 14785 • AUGUSTA, GEORGIA 30919
(404) 860-7068

PRESIDENT
COLIN B. MULLINS

21 NOV 91

PROJECT NUMBER: WS9124

PROJECT LOCATION: JJ'S TEXACO 105 N. MAIN ST. GADSON,SC 29053: (803)7915653

SAMPLE TYPE: SOIL

ANALYSIS REQUESTED: TPH

METHODOLOGY: EPA 503.E

SAMPLE CONTROL #	ANALYSIS	DETERMINATION	DETECTION LIMIT
WS9124A	TPH	12,061 ppm	25 ppm
WS9124B	TPH	10,948 ppm	25 ppm
WS9124C	TPH	9,126 ppm	25 ppm
WS9124D	TPH	15,198 ppm	25 ppm
WS9124E	TPH	19,967 ppm	25 ppm
WS9124F	TPH	14,449 ppm	25 ppm
WS9124G	TPH	6,631 ppm	25 ppm
WS9124H	TPH	558 ppm	25 ppm
WS9124I	TPH	9,747 ppm	25 ppm
WS9124J	TPH	492 ppm	25 ppm

ALL INQUIRIES SHOULD BE DIRECTED TO GEORGE ALLEN B.S. CHEMIST.

SINCERELY;

Colin B Mullins

COLIN B. MULLINS

UST PROGRAM DOCKETING # 85 Tech

ALLIED TANK TESTING

P.O. BOX 14785 • AUGUSTA, GEORGIA 30919
(404) 860-7068

PRESIDENT
COLIN B. MULLINS

CHAIN OF CUSTODY RECORD

P.O.C.: WATKINS SERVICE CO. PROJECT #: WS 9124-2

PHONE : 724 3636 LOCATION : SJS REALTY GASTON S.C.

CONTROL NUMBER	LOCATION	DATE / TIME	ANALYSIS REQUESTED	PRESERVATION SEQUENCE
WS 9124-2/K	EXCAVATION #4 POINT K 12' DEPTH	15 NOV 91 / 1340	TPH	ICE BATH
WS 9124-2/L	EXCAVATION #4 POINT L 11' DEPTH	15 NOV 91 / 1345	TPH	ICE BATH
WS 9124-2/m	EXCAVATION #5 POINT M 13' DEPTH	15 NOV 91 / 2050	TPH	ICE BATH
WS 9124-2/N	EXCAVATION #5 POINT N 15' DEPTH	15 NOV 91 / 2055	TPH	ICE BATH

SAMPLE COLLECTION PROTOCOL

EXPOSED VERGIN SOIL WITH ALLEGAN SHOVEL 2' BELOW OLD TANK BOTTOM AT EACH END. SAMPLES WERE TAKEN AT POINTS NOTED ON THE MAP

Sample Collection Team Members: C.B. MULLINS
D.A. HOPKINS

Relinquished by: David A Hopkins Jr Date/Time 16 NOV 91 / 0800 Received by: George M. Allen

Relinquished by: Date/Time Received by:

Shipped by: Date/Time Shipped to:

Recieved for laboratory: George M. Allen Date/Time

NATIONAL CERTIFICATION

ALLIED TANK TESTING

P.O. BOX 14785 • AUGUSTA, GEORGIA 30919
(404) 860-7068

PRESIDENT
COLIN B. MULLINS

CHAIN OF CUSTODY RECORD

P.O.C.: WATKINS SCRUGGS CO. PROJECT #: WS 9124
JJ'S TEXACO
PHONE: 724-3636 LOCATION: 105 N. MAIN ST. GASTON, S.C. 29053
(803) 791-5653

CONTROL NUMBER	LOCATION	DATE / TIME	ANALYSIS REQUESTED	PRESERVATION SEQUENCE
WS 9124 A	EXCAVATION #1 AT POINT A AT 8' DEPTH	14 NOV 91 / 1315	TPH	ICE BATH
WS 9124 B	EXCAVATION #1 AT POINT B AT 8' DEPTH	14 NOV 91 / 1320	TPH	ICE BATH
WS 9124 C	EXCAVATION #1 AT POINT C AT 8' DEPTH	14 NOV 91 / 1330	TPH	ICE BATH
WS 9125 D	EXCAVATION #1 AT POINT D AT 8' DEPTH	14 NOV 91 / 1340	TPH	ICE BATH

SAMPLE COLLECTION PROTOCOL

EXPOSED VIRGIN SOIL TWO FEET BELOW OLD TANK BOTTOM ATTACHMENTS WITH A CLEAN SHOVEL. SAMPLES WERE TAKEN AT POINTS NOTED ON MAP AND IMMEDIATELY PLACED IN ICE BATH

DAHJ

Sample Collection Team Members: D. A. HOPKINS
B. H. HODGES

Relinquished by: David A Hopkins	Date/Time 15 NOV 91 / 0830	Received by: George M. Allen
Relinquished by:	Date/Time	Received by:
Shipped by:	Date/Time	Shipped to:
Recieved for laboratory: George M. Allen	Date/Time 15 NOV 91 / 08:30	

NATIONAL CERTIFICATION

ALLIED TANK TESTING

P.O. BOX 14785 • AUGUSTA, GEORGIA 30919
(404) 860-7068

PRESIDENT
COLIN B. MULLINS

CHAIN OF CUSTODY RECORD

P.O.C.: WATKINS SERVICE COMPANY PROJECT #: WS9124

PHONE : 724-3636 LOCATION : JJ'S TEXACO GASTON S.C.

CONTROL NUMBER	LOCATION	DATE / TIME	ANALYSIS REQUESTED	PRESERVATION SEQUENCE
WS 9124 E	EXCAVATION #2, POINT E 14' DEPTH	14NOV91 / 13:55	TPH	ICE BATH
WS 9124 F	EXCAVATION #2, POINT F 14' DEPTH	14NOV91 / 1405	TPH	ICE BATH
WS 9124 G	EXCAVATION #2, POINT G 14' DEPTH	14NOV91 / 1415	TPH	ICE BATH
WS 9124 H	EXCAVATION #2, POINT H 14' DEPTH	14NOV91 / 1430	TPH	ICE BATH

SAMPLE COLLECTION PROTOCOL

EXPOSED VIRGIN SOIL TWO FEET BELOW OLD TANK BOTTOM AT EXCAVATION WITH A CLEAN SHOVEL, SAMPLES WERE TAKEN AT POINTS NOTED ON MAP AND IMMEDIATELY PLACED IN ICE BATH

DAH

Sample Collection Team Members: D. A. HOPKINS

B. H. HODGES

Relinquished by: David A Hopkins Jr. Date/Time 15Nov91 / 0830 Received by: George M. Allen

Relinquished by: Date/Time Received by:

Shipped by: Date/Time Shipped to:

Received for laboratory: George M Allen Date/Time 15 Nov 91 / 0830

NATIONAL CERTIFICATION

ALLIED TANK TESTING

P.O. BOX 14785 • AUGUSTA, GEORGIA 30919
(404) 860-7068

PRESIDENT
COLIN B. MULLINS

CHAIN OF CUSTODY RECORD

P.O.C.: WATKINS SCHULTZ CO. PROJECT #: WS9124

PHONE : 724-3636 LOCATION : JJ's TEXACO GASTON S.C.

CONTROL NUMBER	LOCATION	DATE / TIME	ANALYSIS REQUESTED	PRESERVATION SEQUENCE
WS 9124 I	EXCAVATION #3, POINT I 9' DEPTH	14 NOV 91 / 15:30	TPH	ICE BATH
WS 9124 J	EXCAVATION #3 POINT J 9' DEPTH	14 NOV 91 / 15:35	TPH	ICE BATH
WS 9124 K				
WS 9124 L				

SAMPLE COLLECTION PROTOCOL

EXPOSED VIRGIN SOIL TWO FEET BELOW OLD TANK BOTTOM AT BOTH ENDS WITH A CLEAN SHOVEL. SAMPLES WERE TAKEN AT POINTS NOTED ON THE MAP AND IMMEDIATELY PLACED IN ICE BATH

DAH

Sample Collection Team Members: D.A. HOPKINS

B.H. HODGES

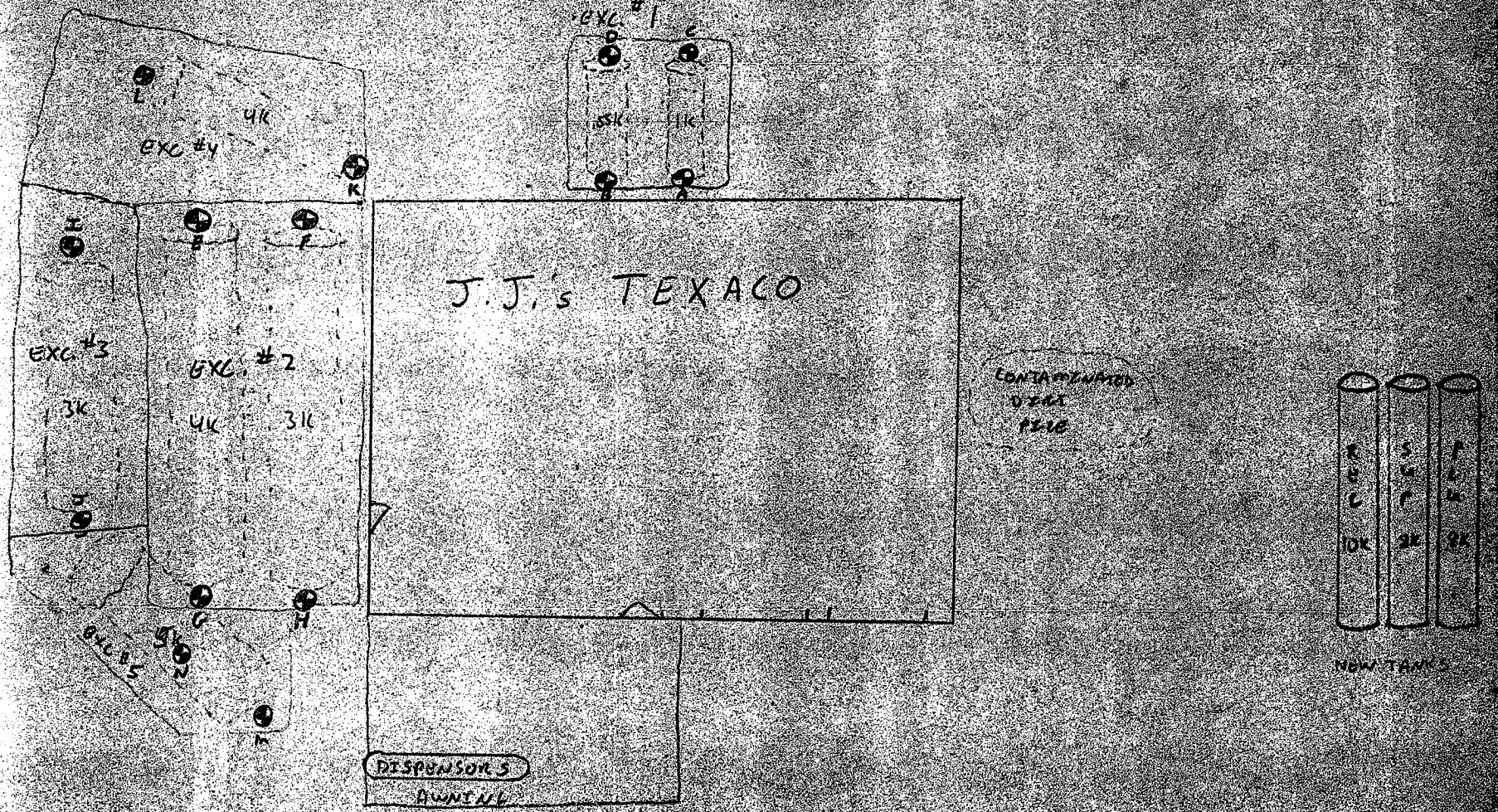
Relinquished by: [signature] Date/Time 15 NOV 91 / 0836 Received by: George M. Allen

Relinquished by: Date/Time Received by:

Shipped by: Date/Time Shipped to:

Recieved for laboratory: George M. Allen Date/Time 15 Nov 91 / 0830

NATIONAL CERTIFICATION


EXC. #1
5K
1K
EXC #4
4K
J. J.'s TEXACO
EXC. #3
3K
EXC. #2
4K
3K
CONTAINMENT AREA
EXC #5
DISPENSORS
AWNING
REG 10K
SUP 3K
DSL 8K
NEW TANKS
HWY 321
N
ALLIED TANK TESTING
DRAWN
DATE
21 NOV 91
D.A. HOPKINS
J. J.'s TEXACO GASTON CO.
WS 9124

TERRA NOVA ENVIRONMENTAL, INC.

P.O. Box 7791
North Augusta, South Carolina 29841
(803) 279-7749

Laurel F. Mullins
President

Colin B. Mullins
Dir. of Technical Support

September 16, 1992

05986

South Carolina Department of
Health and Environmental Control
Ground Water Protection Division
ATTN: Ms. Kathy Kauchinski
2600 Bull Street
Columbia, SC 29201

SUBJECT: Proposed Expanded Assessment Plan

Terra Nova Environmental, Inc. is pleased to submit for your approval an Expanded Assessment Plan for the site indicated.

The plan outlines the information and proposed course of action to be undertaken to investigate and delineate the extent of hydrocarbon contamination.

Terra Nova Environmental, Inc. took over Allied Environmental, Inc. accounts. Some of these accounts were subcontracted through other firms. As a consequence of this, Allied Environmental received paperwork through another firm shortly prior to Terra Nova Environmental's acquisition. Some of this paperwork is months over due in being processed. The project before you is one of these. We have attempted to expedite matters to get these over due projects into state channels and beg your understanding that what you see before you is a conglomerate of efforts to correct these other firms negligence.

In view of these factors, Terra Nova Environmental, Inc. appreciates the opportunity to provide our professional environmental services. Please contact us if there are any questions concerning this proposal.

Sincerely,

Gary R. Gerlach

Gary R. Gerlach
Professional Geologist
Registered, Georgia #861

Enclosures

GARY R. GERLACH
GEORGIA REGISTERED PROFESSIONAL GEOLOGIST
No. 0861

RECEIVED
SEP 16 1992
Groundwater Protection
Division

UST PROGRAM
DOCKETING # 8447

TERRA NOVA ENVIRONMENTAL, INC.

P.O. Box 7791
North Augusta, South Carolina 29841
(803) 279-7749

Laurel F. Mullins
President

Colin B. Mullins
Dir. of Technical Support

10/91 fc

SITE INVESTIGATION STATUS REPORT

SITE: J. J.'s Texaco — GWPD Site #05986
105 N. Main Street — Lexington County
Gaston, SC 29053 — R.P. - Mr. D. F. Shumpert

SUBJECT: Early Incentive Program Initiative and Intent For Further Investigation.

BACKGROUND: Allied Tank Testing was contracted through Watkins Service Company of Augusta to perform initial site investigation on the J. J.'s Texaco site in Gaston, SC. See the attached topographic map.

Allied Tank Testing/Allied Environmental, Inc. was subsequently purchased with all client accounts transferred to Terra Nova Environmental, Inc. ~~Initially, 14 soil grab samples were obtained for analysis of TPH from the J. J.'s Texaco site by Allied Tank Testing.~~ See the attached site sketch map of approximate tank locations and sampling points during initial investigation.

UST's were removed adjacent to the service station ~~and soil was found to be stockpiled on the site.~~ A soil grab sample was obtained on November 14 and 15, 1991, near the end of each UST removed from the excavations. Samples were obtained with a clean shovel at two feet below the old tank bottom. Samples were immediately placed in an ice bath and Chain of Custody initiated. See the attached Chain of Custody record.

GEOLOGY: The J. J.'s Texaco site is on unconsolidated sediments of the Upper Coastal Plain Physiographic Province.

Stratigraphically the Miocene(?) Upland Unit occurs at the surface and is about 25 feet thick. The Upland Unit is coarse, poorly sorted, very clayey sand with local gravels.

The underlying Upper Eocene Barnwell Group consists of the upper Tobacco Road Sand and lower Dry Branch Formation together of about 25 feet thick. The Tobacco Road Sand consists of medium to very coarse grained sand, typically poorly sorted, with abundant interstitial clay. The Dry Branch Formation is mostly fine to medium grained sand that is usually moderately well sorted, with

a clay component that varies from minor to fairly abundant.

The Barnwell Group is underlain by about 75 feet of Mid-Eocene sediments that may be Huber Formation. The Huber Formation is mainly well sorted, fine grain, clean sand with, thin clay interbeds, and locally burrowed in the lower part. The upper part of the Huber Formation is poorly sorted, medium to very coarse grained, cross-bedded, kaolinitic sand with Kaolin balls and local massive Kaolin lenses.

Under the Mid-Eocene, sediments are about 10 feet of Paleocene sediments consisting of fullers earth and block clay that is locally sandy or silty and fossiliferous.

Underlying this is another 50 feet of Paleocene sediments of feldspathic, sandy clay, and clayey sand.

Underlying the Paleocene sediments are an undetermined thickness of Upper Cretaceous sediments that consist of very poorly sorted, cross-bedded, micaceous, clayey sand, subangular quartz from fine-grained sand to granule size, commonly with Kaolin balls, locally with smoky quartz pebbles. This lithology may be Middendorf Formation.

The total thickness of sediments from the surface to the top of the Upper Cretaceous may be approximately 185 feet thick.

The post Cretaceous sediments belong to the Tertiary Sand Aquifer System and the Middendorf Formation is referred as the Middendorf Aquifer. It was noted that in the bottom of the excavated tank pits that the tanks were placed on top of a clay band that may function as a local perched water table condition.

Depth to water table on the site is presently unknown. Water table level can be estimated to be about 150 feet from general knowledge of the area. Locations of public/private supply wells are presently unknown, but will be determined when expanded assessment activities commence.

RESULTS: Test results for TPH on each sample analyzed indicate levels of contamination in excess of non-detect limits. See the attached analytical reports.

ADDITIONAL INVESTIGATION:

We anticipate the need for drilling at least 15 bore holes in order to delineate the horizonal and lateral extent of petroleum hydrocarbon contamination.

At lest three of these borings will be made to the water table in order to access any impact on groundwater.

The three deep borings will be cased and screened into the water table. Appropriate water samples will be taken and analyzed for contamination. Soil samples will be taken every 5 feet of depth and analyzed for contamination.

All bore holes may not be necessary and locations will vary according to tracing the contamination.

All samples will be analyzed by a state approved and certified laboratory.

Respectfully submitted,

Laurel F. Mullins

Laurel F. Mullins, CEO

TERRA NOVA ENVIRONMENTAL, INC.

Gary R. Gerlach

Gary R. Gerlach, Prof. Geologist

TERRA NOVA ENVIRONMENTAL, INC.

D.F. Shumpert

D. F. Shumpert

Responsible Party/Client

RC

South Carolina
DHEC
Department of Health and Environmental Control
2600 Bull Street, Columbia, SC 29201

November 04, 1992

N-32-NO-05986

Terra Nova Environmental, Inc.
Attn: Mr. Gary R. Gerlach
P.O. Box 7791
North Augusta, SC 29841

Re: J. J's Texaco Facility
Lexington County
Closure Report; Cost Proposal; Additional Assessment and Proposed EAP
GWPD Site ID: #05986

Dear Mr. Gerlach:

The Ground-Water Protection Division has reviewed the material previously submitted by Allied Environmental and your company's correspondence dated September 16, 1992. Terra Nova Environmental's request for SUPERB reimbursement under the EAP cost proposal method is hereby denied. Denial is based on the following:

1) the closure report submitted by Allied was incomplete. We need to know the size and contents of each tank that was removed and when it was removed.

2) the need for site rehabilitation has never been established, therefore the site does not qualify for reimbursement, at this point.

3) you must be a PG registered in the state of SC or have a temporary permit from the SC State Board of Registration for Geologists.

4) the laboratory analysis was not performed by a SC certified laboratory for volatile organics.

The site needs additional assessment. Please provide this office with an **Assessment Plan** to include an **S-CAP** for stockpiled soils on site, to my attention on or before **January 15, 1993.**

Once the need for site rehabilitation has been established, reasonable costs associated with the assessment may be reimbursable from the SUPERB fund.

Should you have any questions or comments, please call. My number is (803) 734-5391. You will find enclosed the referenced CP and EAP.

UST PROGRAM
DOCKETING # 83 Tech

Sincerely,

William B. Turner

William B. Turner
UST Regulatory Section
Ground-Water Protection Division
Bureau of Drinking Water Protection

cc: Mr. D. F. Shumpert
Shumpert Oil Co.

TERRA NOVA ENVIRONMENTAL, INC.

P.O. Box 7791
North Augusta, South Carolina 29841

January 5, 1993

INITIAL ASSESSMENT PLAN (PROPOSAL)

J. J.'s TEXACO FACILITY
LEXINGTON COUNTY
GWPD SITE # 05986

OBJECTIVE: The purpose of this assessment plan when implemented is to establish the need for additional expanded site assessment within the guidelines of the DHEC UST PROGRAM AND SUPERB FUND.

HISTORICAL: The J. J.'s Texaco Facility is located in Gaston, SC on the northwest corner of the intersection of highways 321 and 65 in Lexington County.

Seven (7) UST's were removed by Watkin's Service Company of Augusta, GA on or just prior to November 15, 1991. Watkin's Service Company contracted Alled Tank Testing of Augusta, GA to obtain soil samples from the bottom of the open excavations for analysis. Samples were obtained November 14 and 15, 1991 and incompletely analyzed for contamination. The analyses were done by a non-certified laboratory - thus invalidating any assessment done to date.

Soil that was stockpiled on the site from the excavations was replaced back into the excavated pits. Some soil stockpiled on the site remains in irregular piles north of the station building.

It is unclear at this time if the present stockpiles are remanents of the old tank excavation or a mixture of the old tank excavation and new tank installation. A new UST field was installed north of the station building and east of the present stockpiles. See Figures 1 and 2 for locations of the site and the locations of old tanks now removed, new tank installation, and soil stockpile remanents.

Watkin's Service Company has since closed its Augusta, Ga office and Allied Tank Testing became Allied Environmental, Inc. which was purchased by Terra Nova Environmental, Inc.

Terra Nova Environmental, Inc. intends to rectify past deficiencies associated with this site and proceed responsibly to a successful and proper closure of this site in accordance with DHEC guidelines.

UST PROGRAM DOCKETING# 82Tech

GEOLOGY: The J. J.'s Texaco site is on unconsolidated sands and clays of the Upper Coastal Plain consisting of about 25 feet of the upland unit. The underlying Barnwell Group consists of about 25 feet of the Tobacco Road Sand and the Dry Branch Formation. Underlying the Barnwell Group may be another 75 feet that may be Huber Formation.

These formations belong to the Tertiery Sand Aquifer System. Depth to the ground water table is presently unknown but may occur at considerable depth. Locations of public/private supply wells are presently unknown but will be pursued upon expanded assessment activities.

ASSESSMENT METHODOLOGY: For initial assessment purposes we propose the drilling of eighteen (18) bore holes adjacent to the old tank locations, tank piping runs, and dispenser islands. See the attached site map for proposed boring placements.

Bore holes will be made to a depth of fifteen (15) feet adjacent to old UST positions and four (4) feet along old piping runs and dispensers.

We propose that boring will be performed by hollow stem auger and insitu samples obtained by split spoon method. We anticipate obtaining one sample below the three (3) foot interval under a UST as current practice dictates for closure, ie. one sample at the bottom of each hole. However, we leave the collection of multiple samples at five (5) foot intervalls to the discretion of the State, if the State will pay for the additional samples at this phase of initial assessment and closure. Please advise! Utilities will be notified prior to when drilling commences.

The soil samples will be sealed in glass containers and stored in ice for transportation to a SC certified laboratory for analysis of TPH and BTEX. We propose to have the soil samples analyzed by TMA/Eberline of New Ellenton, SC. Chain of custody will be initiated at time of sample collection and carried on through to the laboratory taking custody for analysis.

We anticipate that the drilling equipment will be steam cleaned in between sampling to prohibit the possibility of cross contamination of samples. A rinsate sample will be collected to verify cleaning technique. All drill holes will be cemented to the surface according to state regulations.

DISPOSITION OF GENERATED WASTES: Solid soil borings (wastes) will be contained on impermeable plastic sheeting on site until the nature of any contaminant that may be found is known. Upon knowledge that the soil borings are contaminated, proper and approved disposal method will be researched at that time.

Rise water from steam cleaning of drilling equipment will be collected and stored in 55 gallon drums. If it is determined that the rinsate water is contaminated, then a proper and approved disposal method will be researched at that time.

SOIL STOCKPILES: We propose to take several samples of soil at various points along the stockpile run and have them analyzed for TPH and BTEX in order to establish if the stockpile is contaminated and/or what portions of the stockpile run may be contaminated.

Once the status of the stockpile is known, then we propose to send in an S-CAP for the proper and approved disposition of any contaminated soil stockpiled on site.

ADDITIONAL INVESTIGATION: If the initial site investigation as outlined above proves to show contamination present from the old removed UST's and/or present stockpile, then we will be assembling an Expanded Assessment Plan (Proposed) to evaluate the extent of contamination.

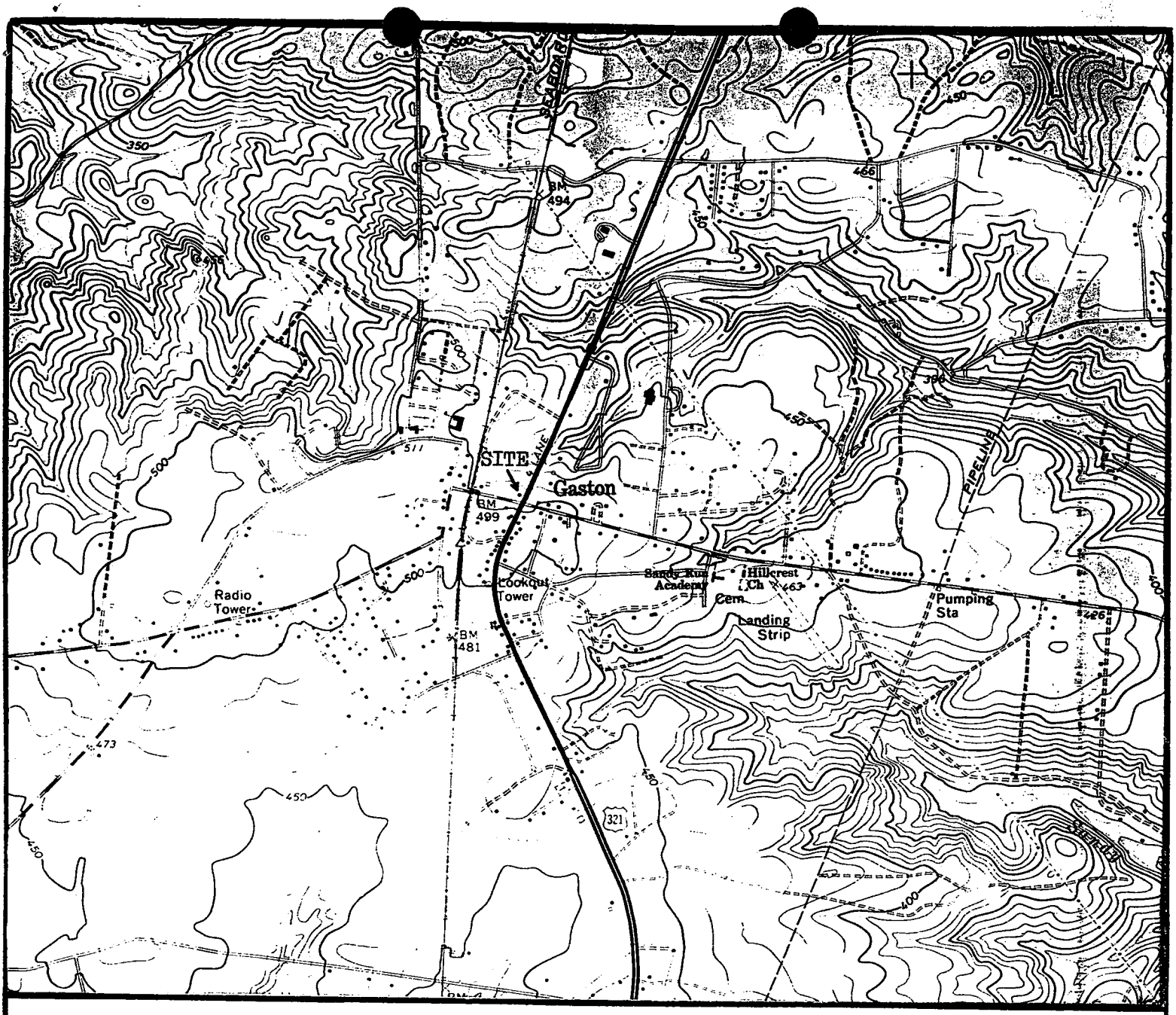
We trust that we have proposed an initial assessment on the site sufficiently in order to be able to begin work on the site as soon as possible on January 18 or shortly there after.

Please let us know as soon as possible and if you have any further questions or concerns.

Sincerely yours,

Gary R. Gerlach

Gary R. Gerlach
SC Registered Geologist # 1017



SCALE 1:24 000

1 0 1 MILE

1000 0 1000 2000 3000 4000 5000 6000 7000 FEET

1 5 0 1 KILOMETER

CONTOUR INTERVAL 10 FEET

REFERENCE:

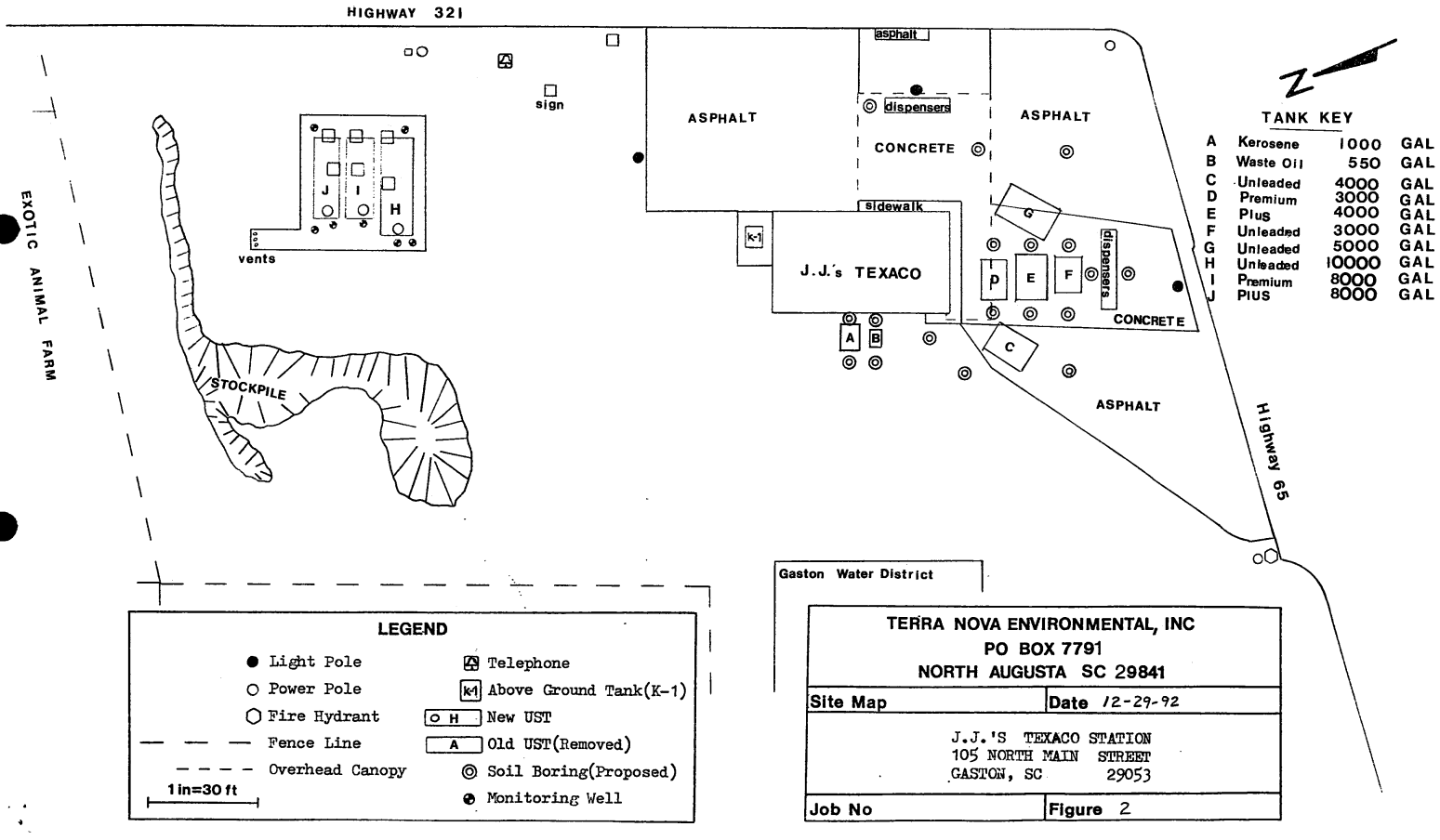
USGS Topographic Map,
Gaston, S.C. Quadrangle,
7.5 Minute Series,
Dated 1982

N

TERRA NOVA ENVIRONMENTAL INC
NORTH AUGUSTA, SOUTH CAROLINA

SITE LOCATION MAP
J.J.'S TEXACO STATION
105 NORTH MAIN STREET
GASTON, SC 29053

Project No.	Figure 1



TERRA NOVA ENVIRONMENTAL, INC
PO BOX 7791
NORTH AUGUSTA SC 29841

Site Map	Date 12-29-92

J.J.'S TEXACO STATION
105 NORTH MAIN STREET
GASTON, SC 29053

Job No	Figure 2

TERRA NOVA ENVIRONMENTAL, INC.

P.O. Box 7791
North Augusta, South Carolina 29841

January 5, 1993

Mr. William Turner
UST Regulatory Section
Ground-Water Protection Division
Department of Health and Environmental Control
2600 Bull Street
Columbia, SC 29201

Re: J. J.'s Texaco Facility
Lexington County
GWPD Site # 05986

Dear Mr. Turner:

In response to your letter of November 4, 1992, this letter, we hope, will clarify and answer your concerns regarding the J. J.'s Texaco site so we may continue with an acceptable assessment and evaluation. We will try to answer your questions point by point as itemized in your letter.

1.) Seven (7) UST's were removed by Watkin's Service Company of Augusta, Georgia on or just prior to November 15, 1991 from the J. J.'s Texaco site. Watkins contracted personnel from Allied Tank Testing to obtain soil samples from the bottom of the excavations for contaminant analysis which was done incomplete and not performed by a SC certified laboratory. Samples were obtained on November 14 and 15, 1991.

Since this activity, Watkin's Service Company closed its Augusta office, Allied Tank Testing became Allied Environmental, Inc. and Allied Environmental was bought by Terra Nova Environmental, Inc.

To the best of our knowledge the old tanks were removed by Watkin's Service Company and what they subsequently did with them is unknown.

OLD TANK FIELD

The seven (7) tanks were located on the South and West sides of the station building as approximately shown on the enclosed site map. They are labeled UST's A through G. To the best of our knowledge the tank capacities and contents were as follows:

UST	CAPACITY	CONTENTS
A	1000 GALLON	KEROSENE
B	550 GALLON	WASTE OIL
C	4000 GALLON	UNLEADED GASOLINE
D	3000 GALLON	UNLEADED PREMIUM GASOLINE
E	4000 GALLON	UNLEADED PLUS GASOLINE
F	3000 GALLON	UNLEADED GASOLINE
G	5000 GALLON	UNLEADED GASOLINE

NEW TANK FIELD

A new tank field was installed north of the station building and is in current use. The new UST's are shown on the attached site map and labled UST's H, I, and J. An above ground kerosene tank was installed immediately north of the building on a concrete pad and is shown as tank K-1 on the site map.

The new tank capacity and contents are as follows:

ABOVE GROUND TANK	CAPACITY	CONTENTS
K-1	1000 GALLON	KEROSENE
UST		
H	10,000 GALLON	UNLEADED GASOLINE
I	8000 GALLON	UNLEADED PREMIUM GASOLINE
J	8000 GALLON	UNLEADED PLUS GASOLINE

2.) We believe that the need for site rehabilitation will be established once soil samples are collected and analyzed for contamination by a SC certified laboratory. This statement is based on laboratory findings of previous samples of which the results were disallowed due to the technicality of non-certified status.

3.) I am now a SC Registered Professional Geologist with Registration # 1017. This can be verified by contacting the SC State Board of Registration for Geologists at 803-253-4127.

4.) Terra Nova Environmental will use a SC certified laboratory for any future analytical work including the attached assessment plan proposed for the J. J.'s Texaco site.

STOCKPILED SOILS

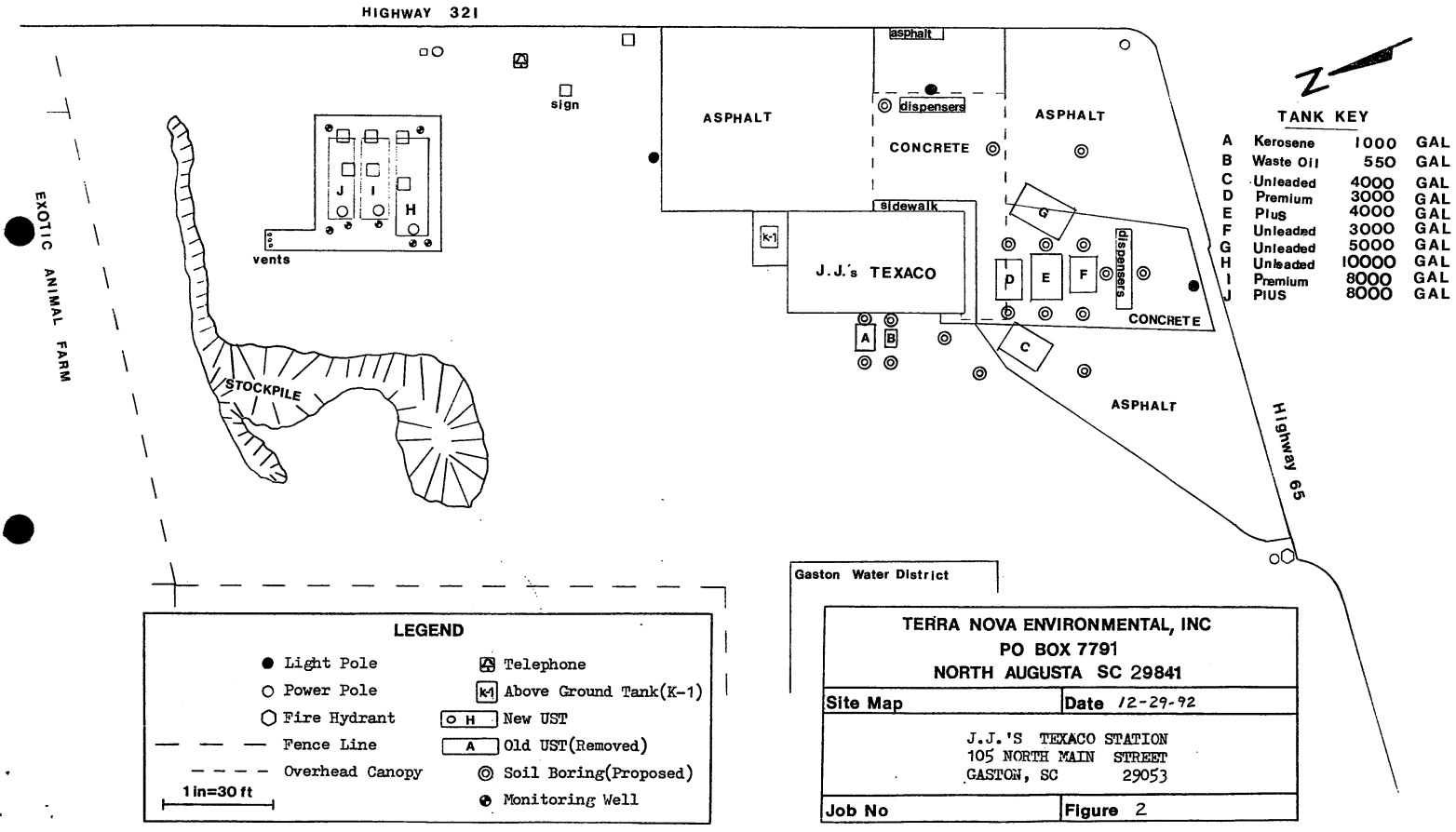
During tank excavation work, soils from the excavations were stockpiled in an area north of the station building. The stockpiled soil was later placed back into the excavations to the best of our knowledge and remanents of unknown quantity still exist on the site. We have outlined the approximate location of the remanent excavated soil as it exists at the present. It is unclear what portions of the stockpiles remaining came from the old tank excavations or new implacement. We were informed that the closest mound to the station building may be from the old tank excavations.

Sincerely yours,

Gary R. Gerlach

Gary R. Gerlach

Colin B. Mullins

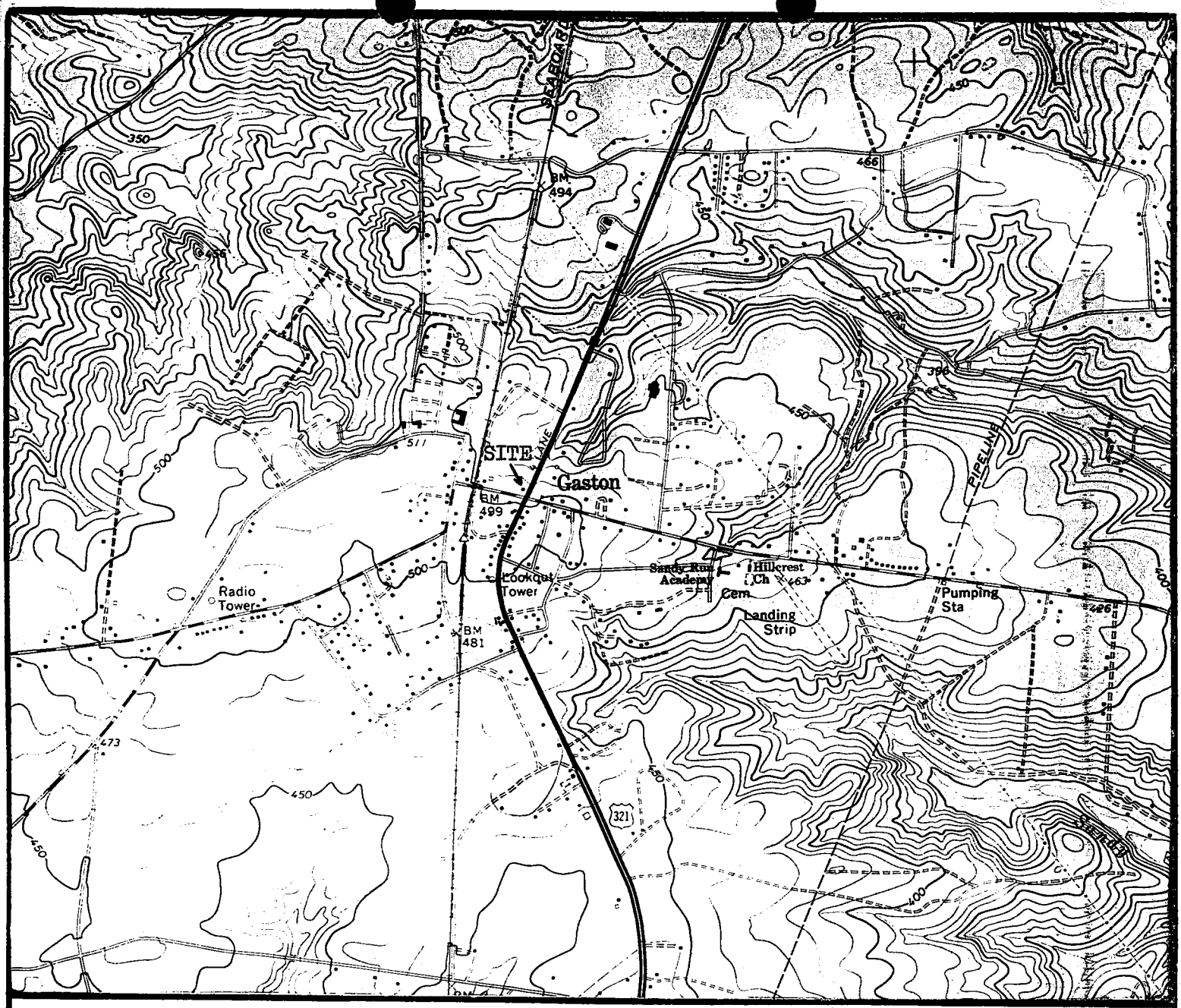


TERRA NOVA ENVIRONMENTAL, INC
PO BOX 7791
NORTH AUGUSTA SC 29841

Site Map	Date 12-29-92

J.J.'S TEXACO STATION
105 NORTH MAIN STREET
GASTON, SC 29053

Job No	Figure 2



SCALE 1:24 000

1 0 1 MILE

1000 0 1000 2000 3000 4000 5000 6000 7000 FEET

1 .5 0 1 KILOMETER

CONTOUR INTERVAL 10 FEET

REFERENCE:

USGS Topographic Map,
Gaston, S.C. Quadrangle,
7.5 Minute Series,
Dated 1982

N

TERRA NOVA ENVIRONMENTAL INC
NORTH AUGUSTA, SOUTH CAROLINA

SITE LOCATION MAP
J.J.'S TEXACO STATION
105 NORTH MAIN STREET
GASTON, SC 29053

Project No.	Figure 1

South Carolina
DHEC
Department of Health and Environmental Control
2600 Bull Street, Columbia, SC 29201

FL

Sent to Petroleum Workers

January 26, 1993

Terra Nova Environmental, Inc.
Attn: ~~Mr. Gary R. Gerlach~~ Colin Mullins
P.O. Box 7791
North Augusta, SC 29841

Gary Iversen P.E.

Re: J. J. Texaco
Lexington County
Initial Assessment Plan Proposal
GWPD Site ID: #05986

Dear Mr. Gerlach:

The Ground-Water Protection Division has reviewed the AP asked for in our November 11th correspondence to your office. We appreciate your prompt response and approve your plan as proposed.

Multiple sampling per borehole is satisfactory, however reimbursement can not be made until site rehabilitation has been established.

Please provide this office with two copies of your AR on or before **February 26, 1993.**

two more weeks

Should you have any questions or comments, please call. My number is (803) 734-5391.

Sincerely,

William "Burke" Turner

William "Burke" Turner
UST Regulatory Section
Ground-Water Protection Division
Bureau of Drinking Water Protection

UST PROGRAM
DOCKETING # 81 TECH

cc: Colin B. Mullins

2-20-93 Schedules are actually clean backfill → that was not used

WBT 05986

South Carolina DHEC
Department of Health and Environmental Control
2600 Bull Street, Columbia, SC 29201

S.C. UNDERGROUND STORAGE TANKS
REPORT OF SUSPECTED/CONFIRMED RELEASE

TODAY'S DATE: April 8, 1993

REPORTED BY: Terra Nova Environmental **PHONE:** 803-279-4630
(print)

ADDRESS: P.O. Box 7791
North Augusta, S.C. 29841

OWNER NAME: Frank Shumpert **PHONE:** 803-894-3131

FACILITY NAME: Shumperts Texaco

ADDRESS: Hwy 178
Pelion, S.C. 29123

S.C. UST REGISTRATION #: GWPD 05986

DATE DISCOVERED: April 8, 1993

HOW DISCOVERED: TPH/BTEX Analysis

TYPE OF PRODUCT RELEASED: Unknown

HOW RELEASE OCCURRED: Unknown

RECEIVED
APR 15 1993
Groundwater Protection Division

UST PROGRAM DOCKETING # 80 Tech

INITIAL CLEAN-UP MEASURES TAKEN:

SIGNATURE OF PERSON COMPLETING FORM: _____

Be sure to notify all other relevant parties
(i.e., Facility Owner, Adjacent Property Owners, EPA, Fire Department, Etc.)

follow the directives of Subpart F of the S.C. Underground Storage Tank Control Regulations

Terra Nova
Environmental Inc.
Post Office Box 7791
N. Augusta, SC 29841

Place Stamp Here

Ground-Water Protection Division
SC Department of Health and Environmental Control
2600 Bull Street
Columbia, South Carolina 29201

WBT

South Carolina
DHEC
Department of Health and Environmental Control
2600 Bull Street, Columbia, SC 29201

S.C. UNDERGROUND STORAGE TANKS
REPORT OF SUSPECTED/CONFIRMED RELEASE

TODAY'S DATE: 4-13-93

REPORTED BY: Terra Nova Environmental, Inc **PHONE:** (803) 279-4630
(print)

ADDRESS: P.O. Box 7791

North Augusta, SC 29841

OWNER NAME: Frank Shumpert **PHONE:** (803) 894-3131

FACILITY NAME: Shumperts Texaco

ADDRESS: Highway 178

Pelion, SC 29123

S.C. UST REGISTRATION #: 05986

DATE DISCOVERED: 4-8-93

HOW DISCOVERED: TPH / BTEX Analysis

PROGRAM **DOCKETING#** 78Tech

TYPE OF PRODUCT RELEASED: Gasoline

HOW RELEASE OCCURRED:

Probably an old leak in tank or line.

RECEIVED
APR 19 1993
Groundwater Protection Division

INITIAL CLEAN-UP MEASURES TAKEN:

None to date. Soil anomaly.

SIGNATURE OF PERSON COMPLETING FORM: Gary M. Laverson

Be sure to notify all other relevant parties
(i.e., Facility Owner, Adjacent Property Owners, EPA, Fire Department, Etc.)

follow the directives of Subpart F of the S.C. Underground Storage Tank Control Regulations

Ecological Rescue Services, Inc.

P.O. Box 146
Pelion, South Carolina 29123

(803) 894-3998

DATE: 4/19/93

I Frank Shumpert the undersigned, do hereby affirm that my facility at:

J.J.'s Texaco

105 N. Main Street

Gaston, S.C. 29053

Is registered with SC DHEC under GWPD # 05986 has/has not been covered by an environmental clean-up policy to the extent of $ N/A while in operation from the periods of N/A.

Based upon these facts I hereby request SUPERB funding for GWPD # 05986 for amounts not covered.

Signature: Frank Shumpert

Witness: Donna Bentley

UST PROGRAM DOCKETING # 17868

rec. 4/20/93

Per Phone Call
01/05/93
EIN 57-0966769

Form **SS-4**
(Rev. August 1989)
Department of the Treasury
Internal Revenue Service

Application for Employer Identification Number

(For use by employers and others. Please read the attached instructions before completing this form.) Please type or print clearly.

OMB No. 1545-0003
Expires 7-31-92

RECEIVED
APR 20 1993
Groundwater Protection Division

1 Name of applicant (True legal name) (See instructions.)
Ecological Rescue Services, Inc.

2 Trade name of business, if different from name in line 1	**3** Executor, trustee, "care of name"
4a Mailing address (street address) (room, apt., or suite no.) Post Office Box 146	**5a** Address of business. (See instructions.) 927 Magnolia Street
4b City, state, and ZIP code Pelion, South Carolina 29123	**5b** City, state, and ZIP code Pelion, South Carolina 29123

6 County and state where principal business is located
Lexington, South Carolina

7 Name of principal officer, grantor, or general partner. (See instructions.) ▶

8a Type of entity (Check only one box.) (See instructions.)

- ☐ Individual SSN ___ : ___ : ___
- ☐ REMIC
- ☒ Personal service corp.
- ☐ State/local government
- ☐ National guard
- ☐ Other nonprofit organization (specify) ___
- ☐ Other (specify) ▶
- ☐ Estate
- ☐ Plan administrator SSN ___ : ___ : ___
- ☐ Other corporation (specify) ___
- ☐ Federal government/military
- ☐ Trust
- ☐ Partnership
- ☐ Farmers' cooperative
- ☐ Church or church controlled organization
- If nonprofit organization enter GEN (if applicable) ___

8b If a corporation, give name of foreign country (if applicable) or state in the U.S. where incorporated ▶	Foreign country	State
		S.C.

9 Reason for applying (Check only one box)

- ☒ Started new business
- ☐ Hired employees
- ☐ Created a pension plan (specify type) ▶
- ☐ Banking purpose (specify) ▶
- ☐ Changed type of organization (specify) ▶
- ☐ Purchased going business
- ☐ Created a trust (specify) ▶
- ☐ Other (specify) ▶

10 Date business started or acquired (Mo., day, year) (See instructions.)	**11** Enter closing month of accounting year. (See instructions.)
01/10/93	12/31

12 First date wages or annuities were paid or will be paid (Mo., day, year). **Note:** *If applicant is a withholding agent, enter date income will first be paid to nonresident alien. (Mo., day, year).* ▶ Unknown

13 Enter highest number of employees expected in the next 12 months. **Note:** *If the applicant does not expect to have any employees during the period, enter "0."* ▶	Nonagricultural	Agricultural	Household

14 Does the applicant operate more than one place of business? ☐ Yes ☒ No
If "Yes," enter name of business. ▶

15 Principal activity or service (See instructions.) ▶

16 Is the principal business activity manufacturing? ☐ Yes ☒ No
If "Yes," principal product and raw material used ▶

17 To whom are most of the products or services sold? Please check the appropriate box.
☒ Business (wholesale) ☐ Public (retail) ☐ Other (specify) ▶ ☐ N/A

18a Has the applicant ever applied for an identification number for this or any other business? ☐ Yes ☒ No
Note: *If "Yes," please complete lines 18b and 18c.*

18b If you checked the "Yes" box in line 18a, give applicant's true name and trade name, if different than name shown on prior application.
True name ▶ Trade name ▶

18c Enter approximate date, city, and state where the application was filed and the previous employer identification number if known.

Approximate date when filed (Mo., day, year)	City and state where filed	Previous EIN
None		

Under penalties of perjury, I declare that I have examined this application, and to the best of my knowledge and belief, it is true, correct, and complete.

Telephone number (include area code)
(803) 894-3998

Name and title (Please type or print clearly.) ▶ Elizabeth V. Shumpert, President

Signature ▶ Elizabeth V. Shumpert Date ▶ 1/5/93

Note: *Do not write below this line. For official use only.*

Please leave blank ▶	Geo.	Ind.	Class	Size	Reason for applying

For Paperwork Reduction Act Notice, see attached instructions. UST PROGRAM DOCKETING # 76tech

Form **SS-4** (Rev. 8-89)

South Carolina
DHEC
Department of Health and Environmental Control
2600 Bull Street, Columbia, SC 29201

S.C. UNDERGROUND STORAGE TANKS
REPORT OF SUSPECTED/CONFIRMED RELEASE

TODAY'S DATE: April 23, 1993

REPORTED BY: Terra Nova Environmental, Inc **PHONE:** (803) 279-4630
(print)

ADDRESS: P. O. Box 7791
North Augusta, SC 29841

OWNER NAME: Frank Shumpert **PHONE:** (803) 894-3131

FACILITY NAME: J's J's Texaco

ADDRESS: 105 N. Main Street
Gaston, SC 29053

S.C. UST REGISTRATION #: GWPD # 05986

DATE DISCOVERED: 3-15-93

HOW DISCOVERED: BTEX / TPH Lab. Analysis

TYPE OF PRODUCT RELEASED: Kerosene and an unidentified hydrocarbon.

HOW RELEASE OCCURRED: Unknown

RECEIVED
APR 2 9 1993
Groundwater Protection Division

UST PROGRAM **DOCKETING #** 75 Tech

INITIAL CLEAN-UP MEASURES TAKEN:

Unknown

Full Assessment Report Completed and Submitted to DHEC.

SIGNATURE OF PERSON COMPLETING FORM: L Meller

Be sure to notify all other relevant parties
(i.e., Facility Owner, Adjacent Property Owners, EPA, Fire Department, Etc.)

follow the directives of Subpart E of the S.C. Underground Storage Tank Control Regulations

Invoice # TW93013

South Carolina
DHEC
Department of Health and Environmental Control
2600 Bull Street, Columbia, SC 29201

S.C. UNDERGROUND STORAGE TANKS
REPORT OF SUSPECTED/CONFIRMED RELEASE

TODAY'S DATE: April 23, 1993

REPORTED BY: Terra Nova Environmental, Inc **PHONE:** (803) 279-4630
(print)

ADDRESS: P. O. Box 7791
North Augusta, SC 29841

OWNER NAME: Frank Shumpert **PHONE:** (803) 894-3131

FACILITY NAME: J's J's Texaco

ADDRESS: 105 N. Main Street
Gaston, SC 29053

S.C. UST REGISTRATION #: GWPD # 05986

DATE DISCOVERED: 3-15-93

HOW DISCOVERED: BTEX / TPH Lab. Analysis

TYPE OF PRODUCT RELEASED: Kerosene and an unidentified hydrocarbon.

HOW RELEASE OCCURRED: Unknown

UST PROGRAM DOCKETING # 74 Tech

RECEIVED
APR 30 1993
Groundwater P.

INITIAL CLEAN-UP MEASURES TAKEN:

Unknown

Full Assessment Report Completed and Submitted to DHEC.

SIGNATURE OF PERSON COMPLETING FORM: L Meller

Be sure to notify all other relevant parties
(i.e., Facility Owner, Adjacent Property Owners, EPA, Fire Department, Etc.)
Follow the directives of Subpart E of the S.C. Underground Storage Tank Control Regulations

Invoice # TW93013

South Carolina
DHEC
Department of Health and Environmental Control
2600 Bull Street, Columbia, SC 29201

Site Rehabilitation Certification/Application for SUPERB Funds

UST OWNER and ADDRESS	FACILITY NAME and ADDRESS
Frank Shumpert	J.J.'s Texaco
P.O.Box 6	105 N. Main Street
Pelion, S.C. 29123	Gaston, S.C. 29053
TELEPHONE (803) 894-3131	TELEPHONE (803) 791-5653

DATE RELEASE DISCOVERED _____	ANY UST IN USE (CIRCLE) (YES) NO
DATE RELEASE REPORTED _____	LIST ALL GWPD SITE ID #05986
DATE OF LAST SYSTEM TEST _____	

§44-2-130(F)(1) of the State Underground Petroleum Environmental Response Bank Act (SUPERB) states, in part, that any owner or operator of an underground storage tank or their agent seeking to qualify for direct billing to or reimbursement from the SUPERB account shall submit a written application to the Department. The Department shall accept certification that the site is in need of rehabilitation if the certification is provided jointly by the owner/operator and a South Carolina registered professional geologist or engineer, and if the certification is supported with geotechnical data which reasonably justifies the claim.

In an effort to expedite processing of this application, please submit supporting geotechnical data (closure reports, etc.) and other appropriate information specified on the reverse of this document.

We, the undersigned, certify that this site is in need of rehabilitation and have included supporting geotechnical data which justifies the claim. We further certify that all USTs at this site have been registered and fees paid in compliance with the South Carolina UST Control Regulations.

Frank Shumpert
OWNER'S SIGNATURE Date 4-26-93

REGISTERED PROFESSIONAL SIGNATURE (Optional) Date _____

SEAL HERE (Optional)

RECEIVED
APR 30 1993
Water Protection Division

DATE RECEIVED STAMP	DHEC USE ONLY	
	( ) REHABILITATION ( ) REGISTERED ( ) FEES PAID	DATE SUPERB APPROVED _____ APPROVED BY _____ DATE LETTER MAILED _____

SR-CERT4 930319

South Carolina
DHEC
Department of Health and Environmental Control
2600 Bull Street, Columbia, SC 29201

August 19, 1993

Terra Nova Environmental, Inc.
Attn: Gary Iverson
P.O. Box 7791
North Augusta, S.C. 29841

Re: J.J. Texaco
GWPD Site ID #05986
SUPERB Request received April 30, 1993
Lexington County

Dear Mr. Iverson:

The Ground-Water Protection Division of the South Carolina Department of Health and Environmental Control (SCDHEC) has reviewed your request for participation in the State Underground Petroleum Environmental Response Bank Act of 1988 (SUPERB). None of the exclusions listed in Section 44-2-110 and -130 apply to the site and the Department has determined that the site is qualified for SUPERB.

Since analytical data suggests that a release has occurred, the file is being forwarded to the UST Corrective Action Section where additional guidance will be provided by the assigned project manager concerning any further assessment and\or remediation which may be deemed necessary.

On all correspondence concerning this site, please reference **GWPD Site ID #05986.** If you have any questions please feel free to call me at (803) 734-5391.

Sincerely,

William "Burke" Turner

UST PROGRAM
DOCKETING # 13 Tech

William "Burke" Turner
UST Regulatory Section
Ground-Water Protection Division
Bureau of Drinking Water Protection

cc: Cathy Kuchinsky, Financial and Data Management Section

South Carolina
DHEC
Department of Health and Environmental Control
2600 Bull Street, Columbia, SC 29201-1708

3/12/96
gm

D. F. Shumpert Oil Company
Attn: D. Frank Shumpert
P.O. Box 6
Pelion, SC 29123

MAR 1 1 1996

Re: J. J.'s Texaco
105 N. Main Street
Site ID #05986
Lexington County

UST PROGRAM
DOCKETING # 72Tech

Dear Mr. Shumpert:

The Bureau of Underground Storage Tank Management is implementing an initiative to fund investigations at sites such as yours where a release has been confirmed but where sufficient data about the risk the release may pose is not available.

Bids from contractors have been secured by the Department for performance of specified investigative activities so that DHEC can evaluate the risk, if any, presented by the release at the referenced facility. This investigation will include the installation of two monitoring wells and a survey of the surrounding area to identify potential receptors such as water wells. Through the bid process, the Department intends to obtain the lowest possible price. If you agree to accept the contractor selected through the bid process as your contractor for these activities, the Department will coordinate these activities for your site and ensure reimbursement to the contractor. Please note that the contractor selected by DHEC carries a minimum of $500,000 of liability insurance to cover any contractor mishaps that may occur.

If you do not wish to allow DHEC to select a contractor for this activity, you may select a contractor. However, DHEC reserves the right to reimburse you or your contractor only the per site bid price obtained by DHEC for these activities. This agency intends to address any future activities that may be necessary at this site in this fashion as well.

To ensure that the referenced facility is included in the bid package, the enclosed form should be signed and submitted to the attention of H. Reed Corley, with a copy of this letter, **within 10 days** of the date of this letter. On all correspondence related to this site, please reference Site ID #05986. If you have any questions or comments, feel free to call me at 734-5331.

Sincerely,

Read S Miner

Read S. Miner, P.G., Hydrologist
Technical Section
Bureau of Underground Storage Tank Management

HRC/rsm/05986-02.IGW

enc: Right of Entry form

cc: Paul Bristol, Central Midlands District EQC

Administrative Services

South Carolina
DHEC
Department of Health and Environmental Control
2600 Bull Street, Columbia, SC 29201-1708

DEC 30 1996

DEC 30 1996

D. F. Shumpert Oil Company
Attn: D. Frank Shumpert
P.O. Box 6
Pelion, SC 29123

Re: J. J.'s Texaco
105 N. Main Street
Site ID #05986
Assessment Reports received
Availability of SUPERB Funding
Lexington County

Dear Mr. Shumpert:

The Bureau of Underground Storage Tank (UST) Management of the South Carolina Department of Health and Environmental Control (SCDHEC) has reviewed the referenced assessment reports by Enviro-Test Services. A copy of the reports are enclosed for your information.

A receptor survey and installation of two monitoring wells were conducted as part of the initial site assessment. The results of the ground-water quality analysis indicates the concentrations of Benzene, Naphthalene and MTBE were above allowable Risk-Based Screening Levels (RBSL).

Currently, the release reported November 20, 1991, at the referenced site has a priority classification of 3A. Therefore, SUPERB funds are available, or will soon be available, to implement the next necessary scope of work. The scope of work to be implemented is completion of the Rapid Assessment.

As the Owner or Operator of the Underground Storage Tanks (USTs) for this site, you have two funding options for proceeding with implementation of the scope of work indicated above:

Funding Option 1

You or your contractor can receive direct billing from the fund at the SUPERB allowable costs. If you need assistance in finding a contractor, please let us know and we will provide you with a list of companies for you to contact. If you wish to proceed under this option and you do not require assistance, please complete and return the enclosed information sheet within 10 days. Please have your contractor complete and submit the enclosed Assessment Component Cost Proposal form and Rapid Assessment Plan forms within 30 days of the date of this letter. Every component may not be necessary to complete the above scope of work. The SUPERB allowable cost for each component is included on the Assessment Cost Proposal form.

DOCKETING # 11 Tech

Funding Option 2

The SCDHEC will directly procure the services of an environmental contractor on your behalf. All activities will be directed and coordinated by SCDHEC and you will be informed of the results. If you wish to use this option, please complete the enclosed Right-Of-Entry form(s). Completed Right-Of-Entry forms are needed from both the underground storage tank and property owners. If you own the underground storage tank but do not own the property, please provide a copy of the appropriate form to the property owner and return the completed forms **within 10 days of receipt of this letter.**

On all correspondence regarding this site, please reference site ID #05986. Please be sure to include the requested information so that the appropriate approvals can be issued. **Note: approval from the Department must be issued before work begins.** Please feel free to call H. Reed Corley, at (803) 734-5430 if you have questions or need additional information.

Sincerely,

State Lead and Field Services Section
Assessment and Corrective Action Division
Bureau of Underground Storage Tank Management

H. Reed Corley, Hydrogeologist

Christopher S. Doll, P.G., Manager

HRC/CSD/05986-01.RA

enc: UST Owner/Operator Information Sheet
Right-Of-Entry/Permission Forms (3)
Initial Ground-Water Assessment Reports
Assessment Component Cost Proposal
Rapid Assessment Plan Form
Assessment Reports

cc: Technical File

DHEC/UST/122396

D · H E C
PROMOTE PROTECT PROSPER
2600 Bull Street
Columbia, SC 29201-1708

February 25, 1997

Marshall Miller & Associates
Attn: Chuck Cline
P.O. Box 848
Bluefield, VA 24605

Re: Rapid Assessments
Contract SB-76499-08/29/96MJN
Rapid Assessment Plan Request

Dear Mr. Cline:

The Bureau of Underground Storage Tank Management of the South Carolina Department of Health and Environmental Control (SCDHEC) is providing you with the Rights-of-Entry for Sites # 02940 and 05986.

Rapid Assessment Implementation and Report submittal shall be performed in accordance within the referenced contract.

On all correspondence regarding these sites, please reference the Site # and C.P. #. The Rapid Assessment Reports shall be submitted to the attention of Scott McInnis.

Sincerely,

State Lead and Field Services Section
Assessment and Corrective Action Division
Bureau of Underground Storage Tank Management

W. A. (Scott) McInnis III, P.G., Hydrogeologist

Christopher S. Doll, P.G., Manager

UST PROGRAM
DOCKETING # 70Tech

enc: Rights-of-Entry

cc: Read File
Sites # 02940 and 05986 Technical Files(w/enc.)
Rapid Assessment File (w/enc.)

wam/mrshmlra.go6

DHEC/UST/022597

RA

RECEIVED
FEB 07 1997
Bureau of Underground
Storage Tank Management

PERMISSION FORM - SITE ID #02940
(Option 2)

I, John D. Sanders Jr., 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 services of a contractor for only the Rapid Assessment (RA) activities and authorize SCDHEC, or a contractor selected by SCDHEC, to enter this property at reasonable times only to accomplish these tasks. The contractor will be designated as my contractor for only the site rehabilitation activities outlined therein. Compensation to the contractor will be from the SUPERB Account and I will have no obligation to pay the contractor. I understand that SCDHEC shall be responsible for notifying me of all activities that are necessary prior to their initiation and shall promptly provide to me a summary of the data upon request.

Name of Facility J. D. Sanders Deep Well, Incorporated Phone # (803) 873-4380

Street Address of Facility 353 Beltline Road

Town, City, District, Suburb Summerville, SC

Name of nearest intersecting street, road, highway, alley
State Roads 8-16 and 8-158

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

Is this facility serviced by a public water or sewer utility? (yes or no) 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 J. D. Sanders, Jr, phone number (803) 873-4380

Were underground storage tanks previously removed from the ground at this facility? (yes or no) YES, 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 J. D. Sanders, Jr, phone number (803) 873-4380

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): John D. Sanders Jr.

Phone Number (home) Same (work) 803-873-4380

Signature of UST/property Owner: John D. Sanders Jr.

Witness: Kenneth S. Collins

Date: 02 Month 05 Day 1997 Year

RECEIVED

FEB 1 8 1997

Bureau of Underground Storage Tank Management

PERMISSION FORM - SITE ID #05986

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

I, FRANK SHUMPERT, 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 services of a contractor for only the activities outlined in the DEC 30 letter and authorize SCDHEC, or a contractor selected by SCDHEC, to enter this property at reasonable times only to accomplish these tasks. The contractor will be designated as my contractor for only the site rehabilitation activities outlined therein. Compensation to the contractor will be from the SUPERB Account and I will have no obligation to pay the contractor. I understand that SCDHEC shall be responsible for notifying me of all activities that are necessary prior to their initiation and shall promptly provide to me a summary of the data upon request.

Name of Facility J. J.'s TEXACO Phone # 803-791-5653

Street Address of Facility 105 N. MAIN STREET

Town, City, District, Suburb GASTON SC 29053

Name of nearest intersecting street, road, highway, alley
HIGHWAY 321 & MEADOWFIELD ROAD

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

Is this facility serviced by a public water or sewer utility? (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) YES, 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 FRANK SHUMPERT,
Phone number 803-894-3131

Is the property currently leased or rented to someone? (yes or no) YES, if yes, please provide their name J J JONES and phone number 803-791-5653 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): FRANK SHUMPERT

Phone Number (home) 803-894-3998 (work) 803-894-3131

Signature of UST/property Owner: Frank Shumpert

Witness: Sharon Doke

Date: 20 Month January Day 1997 Year

RA Scope
Lexington Cnty

D.F. Shumpert Oil Co.
P.O. Box 6
Pelion, South Carolina 29123
803-894-3131
"Since 1892"

FAX TRANSMISSION

TO: H. Reed Corley

FROM: Frank Shumpert

DATE: 1-20-97 TIME: 9:45 PAGES:

COMMENTS:

THE INFORMATION CONTAINED IN THIS FACSIMILE MESSAGE IS PRIVILEGED AND CONFIDENTIAL INFORMATION INTENDED ONLY FOR THE USE OF THE INDIVIDUAL OR ENTITY NAMED ABOVE.

IF YOU ARE HAVING PROBLEMS RECEIVING, PLEASE CALL:

(803) 894-3131 ask for FRANK.

THANK YOU

PERMISSION FORM - SITE ID #05986

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

I, FRANK SHUMPERT, 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 services of a contractor for only the activities outlined in the DEC 30 letter and authorize SCDHEC, or a contractor selected by SCDHEC, to enter this property at reasonable times only to accomplish these tasks. The contractor will be designated as my contractor for only the site rehabilitation activities outlined therein. Compensation to the contractor will be from the SUPERB Account and I will have no obligation to pay the contractor. I understand that SCDHEC shall be responsible for notifying me of all activities that are necessary prior to their initiation and shall promptly provide to me a summary of the data upon request.

Name of Facility J. J.'s TEXACO Phone # 803-791-5653

Street Address of Facility 105 N. MAIN STREET

Town, City, District, Suburb GASTON SC 29053

Name of nearest intersecting street, road, highway, alley
HIGHWAY 321 & MEADOWFIELD ROAD

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

Is this facility serviced by a public water or sewer utility? (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) YES, 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 FRANK SHUMPERT,
Phone number 803-894-3131

Is the property currently leased or rented to someone? (yes or no) YES, if yes, please provide their name J J JONES and phone number 803-791-5653 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.

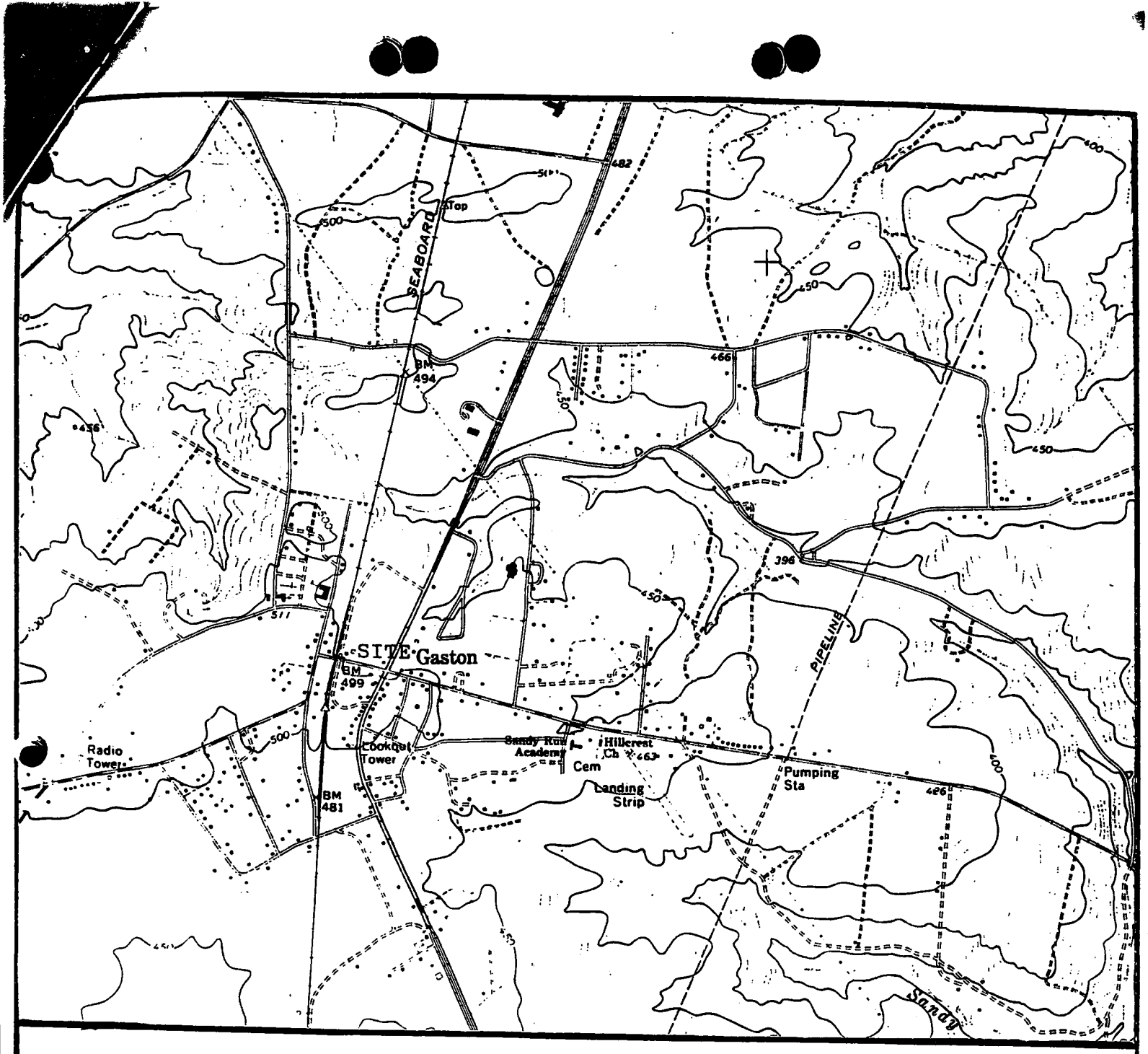
NAME of UST/property owner (Please Print): FRANK SHUMPERT

Phone Number (home) 803-894-3998 (work) 803-894-3131

Signature of UST/property Owner: Frank Shumpert

Witness: Sharon Bolt

Date: 20 Month January Day 1997 Year



SCALE 1:24 000

1 0 1 MILE

1000 0 1000 2000 3000 4000 5000 6000 7000 FEET

1 5 0 1 KILOMETER

CONTOUR INTERVAL 10 FEET

REFERENCE:

USGS GASTON, SC
7 & 1/2 Minute quadrangle
Lexington Co., SC

(Figure 1)

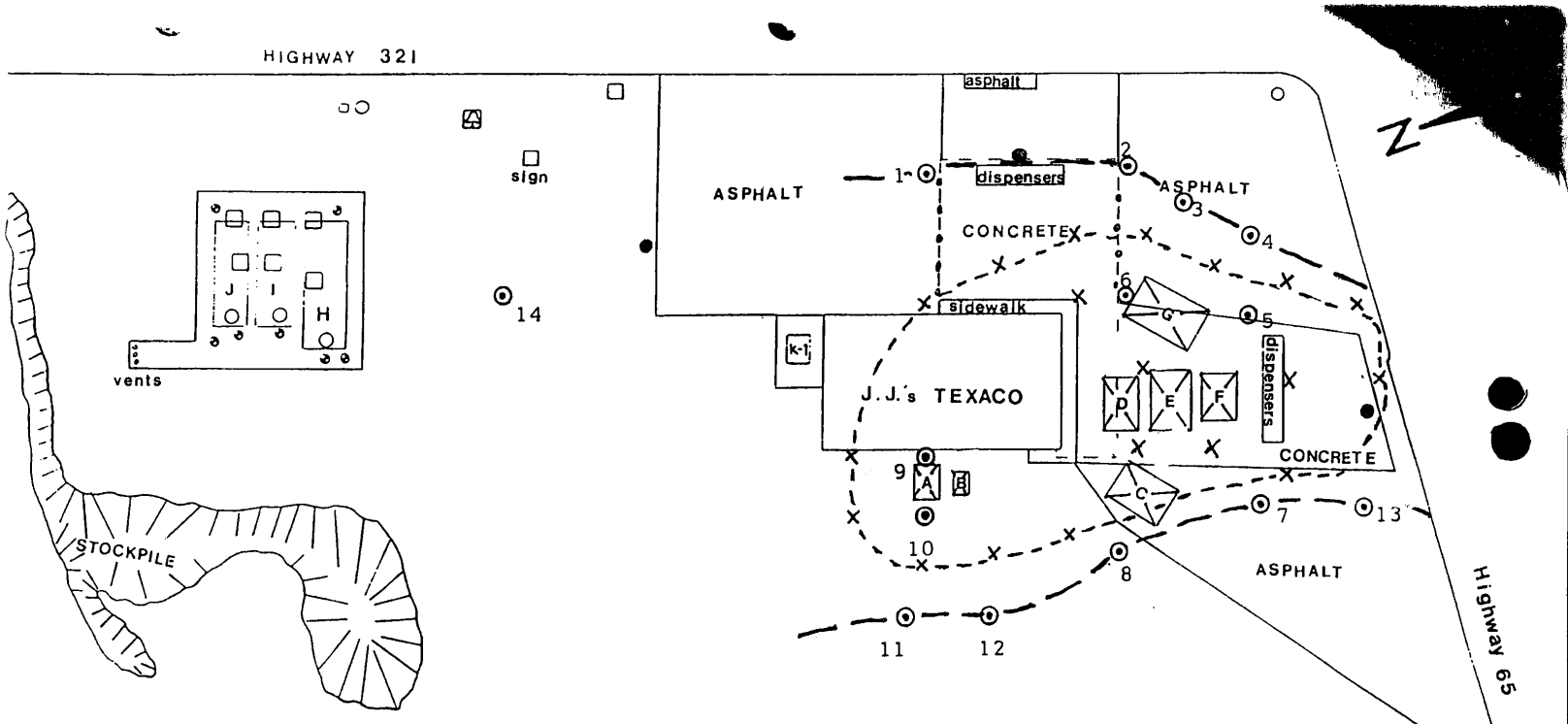
N

TERRA NOVA ENVIRONMENTAL INC
NORTH AUGUSTA, SOUTH CAROLINA

SITE LOCATION MAP
J.J.'s Texaco
105 N. Main St.
Gaston, SC 29053

Project No. TN93013

GWPD# 05986



LEGEND

- Light Pole
- Power Pole
- Fire Hydrant
- Overhead Canopy
- Telephone
- Above Ground Tank (k-1)
- New U.S.T. (H O)
- Old U.S.T. Site (A)
- Soil Boring
- Monitoring Well
- Non-Detect — — — — —
- Contaminant Plume . . .
- Proposed Borehole (EAP) X

TANK KEY

A-	Kerosene	1,000	gal.
B-	Waste Oil	550	gal.
C-	Unleaded	4,000	gal.
D-	Premium	3,000	gal.
E-	Plus	4,000	gal.
F-	Unleaded	3,000	gal.
G-	Unleaded	5,000	gal.
H-	Unleaded	10,000	gal.
I-	Premium	8,000	gal.
J-	Plus	8,000	gal.

Gaston Water District

TERRA NOVA ENVIRONMENTAL INC.

POST OFFICE BOX 7791

NORTH AUGUSTA S.C. 29841

SCALE: 1 INCH = 30 FEET | DATE: 12-29-92

J. J.'s TEXACO
105 NORTH MAIN ST.
GASTON, SC 29053

JOB NO: TN93013 | GWPD NO: 05986

(figure- 2)

SUMMARY OF LABORATORY AND ANALYTICAL RESULTS

BOREHOLE NUMBER	DEPTH OF SAMPLE	T.P.H	B.	T.	E.	X.
1	5'	N/D	N/D	N/D	N/D	N/D
2	4'	N/D	N/D	N/D	N/D	N/D
3	14'	N/D	N/D	N/D	N/D	N/D
4	14'	N/D	N/D	N/D	67.3	143
5	14'	N/D**	17,600	5,620	15,200	66,900
6	13.5'	N/D	N/D	N/D	61.9	279
7	7'	N/D	N/D	N/D	N/D	N/D
8	14'	N/D	N/D	N/D	N/D	N/D
9	14.5'	N/D**	N/D	195	186	415
10	14'	126*	1640	N/D	828	4290

105.3 ppm BTEX

* 126 ppm as Kerosene
** Unidentified Hydrocarbon

ALL ANALYSIS BY TMA/EBERLINE LAB, SCDHEC CERTIFIED NO. 02002

water table approx 10'

UNITS: T.P.H.: ppm DETECTION LIMIT: 5 ppm
B.T.E.X.: ppb DETECTION LIMIT: 1 ppb

TERRA NOVA ENVIRONMENTAL INC.

POST OFFICE BOX 7791

NORTH AUGUSTA S.C. 29841

LOCATION: Gaston, SC | DATE: 3-17-93

J.J.'s Texaco
105 North Main Street
Gaston, S.C. 29053

JOB NO: TN93013 | GWPD NO: 05986

ENVIRO-TEST SERVICES

"Underground Storage Tank Program, SUPERB-Funded Site Assessment"

[INITIAL GROUNDWATER ASSESSMENT]

Facility ID # SCDHEC SITE #: [05986-A **] State Of South Carolina**

Facility Name : J.J.'s Texaco

Facility Address: 105 N. Main Street

Town Of: Gaston **County:** Lexington

Owner/ Authorized Representative: Frank Shumpert

Owner/ Rep Address: Shumpert Oil Company

Owner's Phone No: H (803) 894-3998 W(803) 894-3131

Date Sampled: 10 / 01 / 96 **Sampling Method: Teflon Bailer**

Groundwater Level: 32 **ft.** 7 **tenths** **Total-Depth Of Well:** 40 **ft.** 0 **tenths**

Free Product: . [No] x **[Yes]** **[Sheen]** **+ Thickness [** **ft.** **] tenths**

Field Parameters:

pH: 5.0 **Temperature:** 21.7 **•c** **Conductivity:** 100 ***u/S***

Total Dissolved Solids 50 **ppm; Water Quality** org **Odor:** gas

[Groundwater Analytical Data]

Benzene:	Toluene:	Ethylbenzene:	Xylenes: (Total)	BTEX: (Total)	Naphthalenes: (Total)
200 ug/L	140 ug/L	310 ug/L	758 ug/L	1408 ug/L	40 ug/L

Receptor & Site Data: Survey Questions;

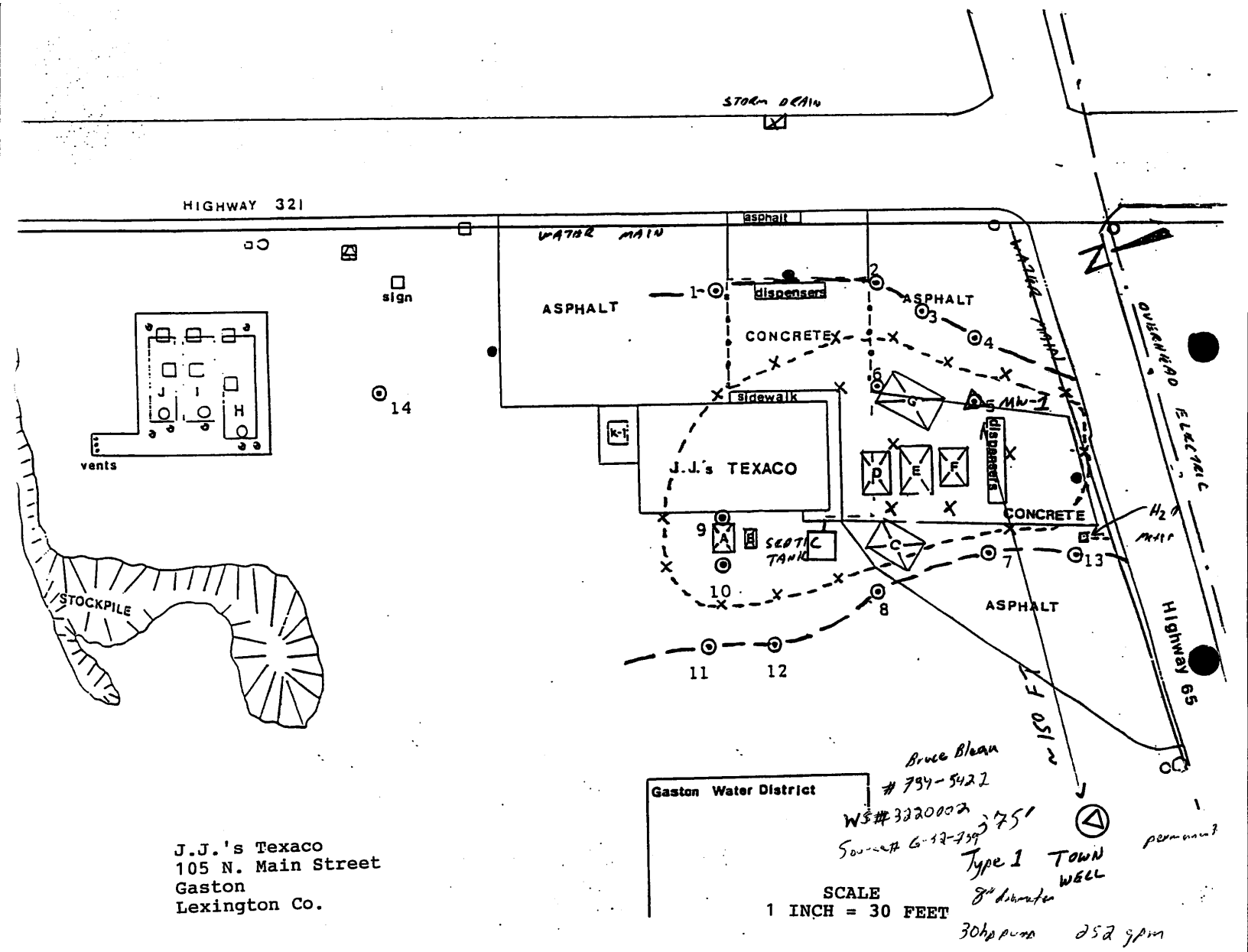
Is there a drinking water supply well [*public, private*] , or surface water supply intake within 1,000 ft. of the UST? City of Gaston well approx. 350 ft W **[yes** x **]** **[No** **]**

Are Irrigation or other non-drinking water wells within 1,000 ft. of the UST? **[yes** **]** **[No** x **]**

Are there potential receptors [*Utilities, Surface Waters, Wetlands, Ditch*] less than 500 feet from the UST? storm drain across US321 **[yes** x**]** **[No** **]**

If Yes, Provide Additional Information septic tank & water lines

Is the current use of the site and surrounding properties *commercial, residential, agricultural, industrial* or Other? (explain): xxxxxxxxx



J.J.'s Texaco
105 N. Main Street
Gaston
Lexington Co.

ENVIRO-TEST SERVICES

"Underground Storage Tank Program, SUPERB-Funded Site Assessment"

[INITIAL GROUNDWATER ASSESSMENT]

Facility ID # SCDHEC SITE #: [05986-B **] State Of South Carolina**

Facility Name : J.J.'s Texaco

Facility Address: 105 N. Main Street

Town Of: Gaston **County:** Lexington

Owner/ Authorized Representative: Frank Schumpert

Owner/ Rep Address: Schumpert Oil

Owner's Phone No: (803) 894-3131

Date Sampled: 9 / 19 / 96 **Sampling Method:** Teflon Bailer

Groundwater Level: 33 ft. 8 tenths **Total-Depth Of Well:** 40 ft. 0 tenths

Free Product: . [No] x **[Yes]** ____ **[Sheen]** x **+ Thickness [** ____ **ft.** ____ **] tenths**

Field Parameters:

pH: 5.0 **Temperature:** 20.3 **•c Conductivity:** 89 ***u/S***

Total Dissolved Solids: 50 **ppm; Water Quality** clr-org **Odor:** diesel

[Groundwater Analytical Data]

Benzene:	Toluene:	Ethylbenzene:	Xylenes: (Total)	BTEX: (Total)	Naphthalenes: (Total)
86 ug/L	<0.83 ug/L	62 ug/L	1310 ug/L	1458 ug/L	44 ug/L

Receptor & Site Data: Survey Questions;

Is there a drinking water supply well [*public, private*] , or surface water supply intake within 1,000 ft. of the UST? xxxxxx **[yes** x **] [No** ___ **]**

Town well approx 350 ft SW

Are Irrigation or other non-drinking water wells within 1,000 ft. of the UST? [yes ___ **] [No** x **]**

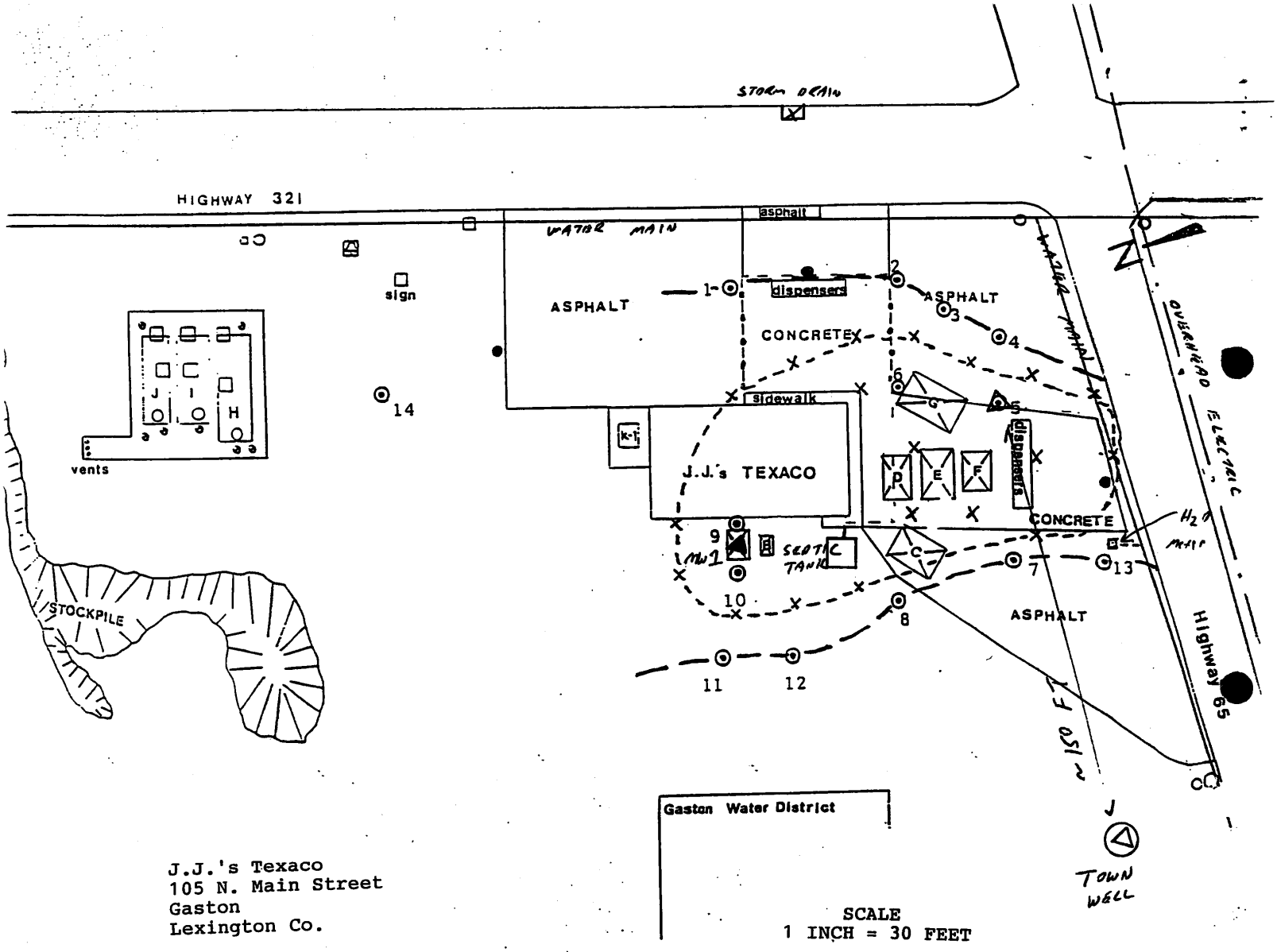
Are there potential receptors [*Utilities, Surface Waters, Wetlands, Ditch*] less than 500 feet from the UST? [yes x **] [No** ___ **]**

If Yes, Provide Additional Information storm drain, septic tank & water lines see map

Is the current use of the site and surrounding properties *commercial, residential, agricultural, industrial* or Other? (explain): ____

Environmental Laboratory & Drilling

1015-A Kinley Road • Columbia, South Carolina 29063 • (803) 732-5770 • 1-800-881-8854



J.J.'s Texaco
105 N. Main Street
Gaston
Lexington Co.

D H E C
PROMOTE PROTECT PROSPER
2600 Bull Street
Columbia, SC 29201-1708

JUN 19 1997

Mr. Charles E. Cline, P.G.
Marshall Miller and Associates
Post Office Box 848
Bluefield, Virginia 24605

Re: J.J.'s Texaco
Site ID #05986, CP #03515:P
Rapid Assessment Plan received March 25, 1997
Bid Number SB-76499-08/29/96/MJN awarded September 25, 1996
Lexington County

Dear Mr. Cline:

The Bureau of Underground Storage Tank Management has reviewed the Rapid Assessment Plan and associated Cost Proposal for the referenced site. Assessment activities at the site, as outlined in the referenced plan and as amended in this letter, should begin immediately.

Cost proposal number 03515:P (CP#03515:P) has been approved in the amount of $28,369.26 and will be kept on file so that compensation can begin. Please note, the following adjustments were made:

- $84.00 less for Item 10A (Initial event ground-water sample collection). A maximum of eleven wells will be installed during this scope of work, therefore this item has been adjusted accordingly.
- $56.00 additional for Item 10B (Subsequent event ground-water sample collection). Two monitoring wells are currently on-site.
- $55.00 less for Item 11A (BTEX + Naphth + MTBE analysis). Thirteen wells will sampled and analyzed.
- $975.00 additional for Item 11B (PAHs analysis). All wells sampled should be analyzed for this parameter.
- $200.00 additional for Item 11C (Lead analysis). All wells sampled should be analyzed for this parameter.
- $155.00 less for Item 11F (TPH 9070 Analysis - Groundwater). This is not a required analysis. Please provide justification if this analysis is necessary.

DHEC/UST/061697/kaw

UST PROGRAM
DOCKETING # 61 Tech

- $152.00 additional for Item 11I (BTEX + Naph analysis - Soil). As soil borings will be taken at two tank basins, fourteen borings may be installed (seven borings in each pit area and along lines and one background boring - see the standard limited assessment guidelines).
- $1,092.00 additional for Item 11J (PAH analysis -Soil). See note above.
- $400.00 less for Item 14B (Computer model - Fate and transport modeling). As discussed with Mr. Scott McInnis of this office, one model per transport medium is allowed.

A copy of the approved assessment cost proposal is enclosed for your information. A copy will be kept on file by the Bureau. Future invoices and/or other criteria included therein must comply with current SUPERB criteria per Section 44-2-20(2). If for any reason there is a change in this work proposal, any associated changes to the cost proposal must be preapproved by this Bureau in order for Marshall Miller and Associates to seek future cost compensation. 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. **Additionally, 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 SB-76499-08/29/96/MJN.** 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.

In accordance with the referenced contract, two copies of The Rapid Assessment Report are due within 60 days from the date of this letter. One component assessment invoice shall be submitted with the Rapid Assessment Report. **Any item(s) not clearly or completely addressed in the report (SC certified driller's number, disposal manifest for soil borings, disposal manifests for generated ground water, modeling input data, etc.) WILL NOT be compensated by the SUPERB Account.** As agreed to in the referenced contract, the Owner/Operator of the referenced site will not be responsible for any costs associated with this assessment.

Monitoring well approval for 30 temporary monitoring wells (geoprobe), ten shallow monitoring wells, and one deep pit cased monitoring well have been approved. A copy 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. A copy of the Right-Of-Entry form by the site Owner/Operator (O/O) has been provided to you.

DHEC/UST/061697/kaw

On all correspondence regarding this site, please reference Site ID #05986, CP #03515:P and PO #2129. If you have questions concerning this correspondence, or would like to submit additional information, contact H. Reed Corley at (803) 734-5430 or Scott McInnis, the contract coordinator, at (803) 734-5615.

Sincerely,

State Lead and Field Services Section
Assessment and Corrective Action Division
Bureau of Underground Storage Tank Management

Kimberly A. Wilson

Kimberly A. Wilson, P.G., Hydrogeologist

Christopher S. Doll, P.G., Manager

enc: Monitoring Well Approval
Assessment Component Invoice
Approved Assessment Component Cost Agreement
Rapid Assessment Plan

cc: **Scott McInnis**, State Lead and Field Services Section (*w/Monitoring Well Approval and Approved Assessment Component Cost Agreement*)
Financial Section (*w/ Approved Assessment Component Cost Agreement*)
Technical File (*w/ Monitoring Well Approval, Approved Assessment Component Cost Agreement and Rapid Assessment Plan*)
D.F. Shumpert, III, Shumpert Oil, PO Box 6, Pelion SC 29123 (*w/ Monitoring Well Approval, Approved Assessment Component Cost Agreement and Rapid Assessment Plan*)

DHEC/UST/061697/kaw

D H E C
PROMOTE PROTECT PROSPER
2600 Bull Street
Columbia, SC 29201-1708

JUN 19 1997

Monitoring Well Installation Approval Form

Date of Issue: June 16, 1997 Approval No.: 8401

Approval is hereby granted to : Marshall Miller and Associates
Site ID : # 05986
County : Lexington

This approval is for the construction of 30 temporary (geoprobe), ten shallow permanent, and one pit cased monitoring wells in accordance with the construction plans and technical specifications outlined in the Rapid Assessment dated June 1995 and Bid Specification dated August 29, 1996. The wells 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 be submitted as part of the Rapid Assessment Report.
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) 734-0726.
5. Provide ground-water quality analytical data (chemical analysis and/or water level(s)) associated measurements (i.e., in-situ field measurements) as part of the Rapid Assessment Report.
6. Monitoring wells shall be installed by a well driller certified by the State of South Carolina.

This approval is pursuant to the provisions of Section 4-5540 of the 1976 South Carolina Code of Laws and the Department of Health and Environmental Control Regulations R.61-71.

Approved by: Kimberly A. Wilson

Kimberly A. Wilson, P.G., Hydrogeologist
State Lead and Field Services Section
Assessment and Corrective Action Section
Bureau of Underground Storage Tank Management

cc: Technical File
Central Midlands District EQC
DF Shumpert III, Shumpert Oil, PO Box 6, Pelion SC 29123
Scott McInnis, State Lead & Field Services Section

DHEC/UST/060297/kaw

ASSESSMENT COMPONENT COST PROPOSAL

SOUTH CAROLINA
Department of Health and Environmental Control
Bureau of Underground Storage Tank Management
State Underground Petroleum Environmental Response Bank

Site Name J.J.'s Texaco
Site ID # 05986 CP# 03515:P

ITEM	QUANTITY	UNIT	UNIT PRICE	TOTAL
1. Plan Preparation*	1	x	$400.00	$400.00
2. Receptor Survey*	1	x	$700.00	$700.00
3. Comprehensive Survey	1	x	$1,100.00	$1,100.00
4. Mob/Demob				
A. Equipment	2	x	$350.00	$700.00
B. Personnel	2	x	$150.00	$300.00
5. Soil Borings (hand augered)*	210	feet x	$15.00	$3,150.00
6. Soil Borings (drilled)	(includes collection and quantification)			
and Field Screening*	435	feet x	$12.00	$5,220.00
7. Soil Leachability Model	2	x	$100.00	$200.00
8. Abandonment*				$0.00
(separate from #5 and #6)	645	feet x	$4.00	$2,580.00
9. Well Installation*	(includes drilling costs)			
A. Water Table (hand auger)		feet x	$0.00	$0.00
B. Water Table	150	feet x	$24.00	$3,600.00
C. Telescoping	80	feet x	$40.00	$3,200.00
D. Rock Drilling		feet x	$12.00	$0.00
10. Ground-water sample collection				
A. Inital event	11	samples x	$28.00	$308.00
B. Subsequent event	2	samples x	$28.00	$56.00
11. Analyses-Groundwater	(See RA Guidance for site specific analyses)			
A. BTEX+Napth.+MTBE	13	samples x	$55.00	$715.00
B. PAH's	13	samples x	$75.00	$975.00
C. Lead	13	samples x	$20.00	$260.00
D. EDB	3	samples x	$50.00	$150.00
E. 8 RCRA Metals		samples x	$76.00	$0.00
F. TPH (9070)		samples x	$31.00	$0.00
G. pH		samples x	NA	$0.00
H. BOD		samples x	NA	$0.00
Analyses-Soil				
I. BTEX + Napth.	14	samples x	$38.00	$532.00
J. PAH's	14	samples x	$78.00	$1,092.00
K. 8 RCRA Metals		samples x	$76.00	$0.00
L. TPH (9071)		samples x	$31.00	$0.00
M. TPH (3550)	2	samples x	$40.00	$80.00
N. Grain size / hydrometer	1	samples x	$85.00	$85.00
O. Total Organic Carbon	2	samples x	$30.00	$60.00
12. Aquifer Characterization*				
A. Pumping Test		hours x	$90.00	$0.00
B. Slug test	3	tests x	$50.00	$150.00
13. Free Product Recovery Rate Test*		tests x	$50.00	$0.00
14. Fate/Transport Modeling				
A. Mathematical Model		models x	$150.00	$0.00
B. Computer Model	2	models x	$200.00	$400.00
15. Risk Evaluation				
A. Tier I	1	x	$450.00	$450.00
B. Tier II	1	x	$200.00	$200.00
16. Subsequent Survey*	1	x	$100.00	$100.00
17. Disposal				
A. Wastewater				
1. Purging/Sampling	5	drums x	$70.00	$350.00
2. Pumping test		gallons x	$0.60	$0.00
B. Free Product		drums x	$80.00	$0.00
C. Soil (Treatment/Disposal)*		tons x	NA	$0.00
	20	drums x	$35.00	$700.00
18. Miscellaneous				
		x		$0.00
		x		$0.00
		x		$0.00
		x		$0.00
19. Report/Project Management			(SUBTOTAL)	
and Coordination	0.02	x	$27,813.00	$556.26
20. Total				$28,369.26

RAPID ASSESSMENT PLAN

SOUTH CAROLINA
Department of Health and Environmental Control
Bureau of Underground Storage Tank Management

Site ID # 05986 **County** Lexington **Facility Name** J.J's Texaco
Facility Address 105 N. Main Street, Gaston, SC 29053
Responsible Party Frank Shumpert **Address** 105 N. Main Street, Gaston, SC 29053
No. USTs 7 **Removed?** 11/91 (date) **Replaced?** 1991 (date)

Current use of facility/property J.J.'s Texaco Gasoline Station
Current property owner name Frank Shumpert
Current property owner address 105 N. Main Street, Gaston, SC 29053

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.
Geoprobe discrete interval groundwater sampling. Samples will be screened utilizing a photoionization detector calibrated with 100 ppm isobutylene and zero air.

Permanent Monitoring wells (Estimate number and total completed depth)
# of shallow wells 10 **total depth** 150
# of deep wells 1 **total depth** 80 **(if necessary)**

Comments, if warranted

Analyses
List the analytical parameters (e.g., BTEX, MTBE) and estimated number.
Water - MTBE - 12, BTEX - 12, Naphthalene - 12, Lead - 3, EDB - 5
Soil - BTEX and Naphthalene - 10, TPH (3550) - 2, Grain Size - 1, TOC - 2

Implementation Schedule
Start up date upon approval **Completion date** 60 days following approval pending
Report submittal date 90 days following approval.

RAPTEMP.doc

RAPID ASSESSMENT PLAN

SOUTH CAROLINA
Department of Health and Environmental Control
Bureau of Underground Storage Tank Management

Site ID # 05986 **Facility Name** J.J.'s Texaco

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, Site ID number, date, and a bar scale
Location of property lines	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 aboveground utilities on or adjacent to site
Previous monitoring well locations	Location of any other potential receptor

Aquifer Characterization (Check one and provide explanation for choice)

Pump Test _____ **Slug Tests** X

Slug tests will provide aquifer characteristics necessary for a risk assessment while reducing cost.

Small Volume Disposal Type and Method

Soil Pending analysis

Purge Water Carbon filter and discharge on site.

Additional Comments

Assessment Component Cost Proposal

South Carolina
Department of Health and Environmental Control
Bureau of Underground Storage Tank Management
State Underground Petroleum Environmental Response Bank

Site Name J.J's Texaco

Site ID # 5986 **CP#**

ITEM	QUANTITY	UNIT	UNIT PRICE	TOTAL
1. Plan Preparation	1	x	$400.00	$400.00
2. Receptor Survey no receptor within 1/2 mile	1	x	$700.00	$700.00
3. Comprehensive Survey	1	x	$1,100.00	$1,100.00
4. Mob/Demob				$0.00
A. Equipment	2	x	$350.00	$700.00
B. Personnel	2	x	$150.00	$300.00
5. Soil Borings (hand augered) Only 3 for claim	240	feet x	$15.00	$3,150.00
6. Soil Borings (drilled) and				$0.00
Field Screening	435	feet x	$12.00	$5,220.00
7. Soil Leachibility Model	2	x	$100.00	$200.00
8. Abandonment				$0.00
separate from #5 and #6)	645	feet x	$4.00	$2,580.00
9. Well Installation				$0.00
A. Water Table (hand auger)		feet x	$0.00	$0.00
B. Water Table	150	feet x	$24.00	$3,600.00
C. Telescoping	80	feet x	$40.00	$3,200.00
D. Rock Drilling		feet x	$12.00	$0.00
10. Ground-water sample collection				$0.00
A. Initial event	11 ~~14~~	samples x	$28.00	~~$392.00~~
B. Subsequent event	2	samples x	$28.00	~~$0.00~~
11. Analyses-Groundwater				$0.00
A. BTEX+Napth.+MTBE	13 ~~14~~	samples x	$55.00	~~$770.00~~
B. PAH's	13	samples x	$75.00	~~$0.00~~
C. Lead	13 ~~0~~	samples x	20	~~$60.00~~
D. EDB	~~0~~	samples x	$50.00	~~$260.00~~
E. 8 RCRA Metals		samples x	$76.00	$0.00
F. TPH (9070)	5	samples x	$31.00	$155.00
G. pH		samples x	10	$0.00
H. BOD		samples x	40	$0.00
Analyses-soil				$0.00
I. BTEX + Napth.	10	samples x	$38.00	$380.00
J. PAH's		samples x	$78.00	$0.00
K. 8 RCRA Metals		samples x	$76.00	$0.00
L. TPH (9071)		samples x	$31.00	$0.00
M. TPH (3550)	2	samples x	$40.00	$80.00
N. Grain size / hydrometer	1	samples x	$85.00	$85.00
O. Total Organic Carbon	1 ~~2~~	samples x	$30.00	~~$60.00~~
12. Aquifer Characterization				$0.00
A. Pumping Test		hours x	$90.00	$0.00
B. Slug Test	3	tests x	$50.00	$150.00
13. Free Product Recovery Rate Test		tests x	$50.00	$0.00
14. Fate/Transport Modeling				$0.00
A. Mathematical Model		models x	$150.00	$0.00
B. Computer Model	2 ~~4~~	models x	$200.00	~~$800.00~~
15. Risk Evaluation				$0.00
A. Tier I	1	x	$450.00	$450.00
B. Tier II	1	x	$200.00	$200.00
16. Subsequent Survey	1	x	$100.00	$100.00
17. Disposal				$0.00
A. Wastewater				$0.00
1. Purging/Sampling	5	drums x	$70.00	$350.00
2 Pumping Test		gallons x	$0.60	$0.00
B. Free Product		drums x	$80.00	$0.00
C. Soil (Treatment/Disposal)		tons x	NA	
	20	drums x	$35.00	$700.00
18. Miscellaneous				$0.00
		x		$0.00
		x		$0.00
19. Report/Project Management				
and Coordination	0.02	x	400	$8.00
20. Total				**$26,140.00**

D H E C
PROMOTE PROTECT PROSPER
South Carolina Department of Health
and Environmental Control

BUREAU OF
UNDERGROUND STORAGE TANK MANAGEMENT
2600 Bull Street
Columbia, SC 29201
Telephone (803) 734-5331

MEMORANDUM

To: J. J.'s Texaco Technical File
Site ID #05986
Lexington County

From: H. Reed Corley, Hydrogeologist
Bureau of Underground Storage Tank Management

Date: August 20, 1997

- A site visit was conducted on August 15, 1997. The purpose of the visit was to conduct a SUPERB verification audit and observe rapid assessment activities. Upon arrival, the writer met with James Owrey, Marshall Miller & Associates technician, and Craig Pelletier. Mr. Pelletier is with the American Environmental Drilling Company; he was in the process of drilling.

- Mr. Owrey proceeded to show the writer the soil boring locations previously drilled by their subcontractor. From initial field screening results, contamination appears to be flowing in the direction of observed topographic features. In addition, Mr. Owrey suspects contamination has flowed off-site across Highway 321. The off-site public water supply well was noted as mentioned in the IGWAR. And the two existing IGWA monitoring wells (one well per source area) were observed and appeared to be in good condition.

- The writer observed Mr. Owrey "bagging" soil samples for screening but he was not allowing the sample to "bake" in the sun for volatilization purposes. The writer contacted Mr. Chuck Cline of Marshall Miller & Associates and informed him of the site visit evaluation.

- The Technical Audit Checklist was completed in accordance with the established procedures.

hrc/05986-01.mem

UST PROGRAM
DOCKETING # 68 Tech

FAX

FROM: Chuck Cline

MARSHALL MILLER & ASSOCIATES
(MM&A)
P.O. Box 848
Bluefield, Virginia 24605-0848
Phone: 540.322.5467 Fax: 540.322.1510

Number of Pages: 3

Including Cover

TO: Reed Corley Site # 05986

Date: 9/2/97

RECEIVED
SEP 0 2 1997
Bureau of Underground
Storage Tank Management

UST PROGRAM
DOCKETING # 67Tech

Gaston Rural Community Water District

1133 Mack Street
Post Office Box [illegible]
Gaston, South Carolina [illegible]
Telephone (803) 794-2819
Facsimile (803) 791-9494

DATE: 8-27-97

TO: MR. CHUCK CLINE

LOCATION: MARSHALL MILLER & ASSOC Bluefield, Va.

FAX NUMBER: (540) 322-1510

MESSAGE: INFORMATION ON WELL IN FRONT OFFICE.

HOPE THIS WILL BE SUFFICENT FOR WHAT YOU NEED

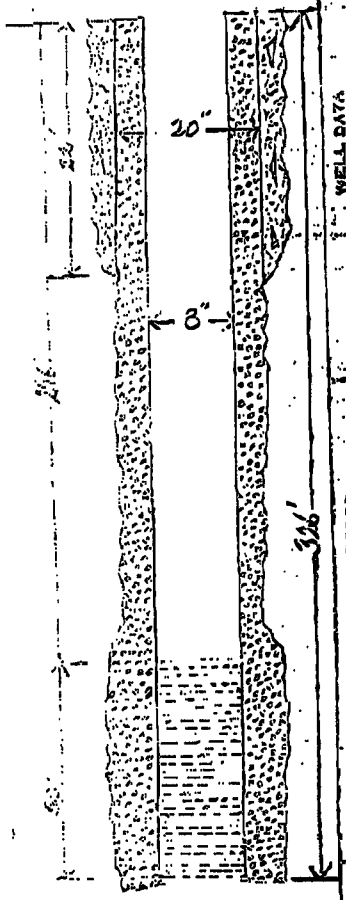
THANK YOU

FROM: Donald R Sharpe FAX # (803) 791-9494

TOTAL NUMBER OF PAGES INCLUDING COVER PAGE 2

ALL MEASUREMENTS TAKEN FROM (GROUND) (TOP OF FOUNDATION) (TOP OF CASING) (TOP CASE PLATE)

DRAWING OF THE WELL



WELL DATA

STARTED WELL April 18, 19 72 AND COMPLETED May 16, 19 72
TOTAL DEPTH 326' ELEVATION STATIC WATER LEVEL 184'
LENGTH SURFACE CASING 22 SIZE 20" THICKNESS
CEMENTED WITH 40 SACKS CEMENT TYPE PACKER
LENGTH WELL CASING 296 SIZE 8" WEIGHT T & C Galv.
CEMENTED WITH SACKS CEMENT TYPE PACKER
INNER CASING LENGTH SIZE WEIGHT
WITH X GUIDES LOCATED TYPE BACKOFF
LEAD SEAL BACKPRESSURE VALVE GUIDE
WELL STRAINER MAKE Layne SIZE 8" LENGTH 30' OPENING 6
TYPE MATERIAL SS WITH Welded CONNECTIONS
SIZE HOLE DRILLED FOR SURFACE CASING 23" WITH Roller Bit
SIZE HOLE DRILLED FOR WELL CASING 19" WITH
SIZE HOLE DRILLED FOR STRAINER 10" WITH Roller Bit
YARDS OF GRAVEL USED 23 Tons HOW PLACED Tremming Line
HOW WAS WELL DEVELOPED Test Pump
NOTES
RIG USED 1500 MD DRILLER W. A. Canady

PUMP RECORD

SERIAL NUMBER 821672 MAKE Burke (Sub.) FOUNDATION
LENGTH COLUMN 231 SIZE 4" pipe 21' TYPE O 20 LENGTHS
BOWL SIZE 6" TYPE STAGES MATERIAL IMPELLER SHAFT
MATERIAL BOWL WITH PONTS AND SUCTION STRAINER
SUCTION SIZE LENGTH WITH WHAT
IS PUMP SEALED HOW WHERE VOLTAGE
LUBRICATOR TYPE SIZE
LENGTH OF AIRLINE SIZE TYPE MATERIAL
AIR RELEASE VALVE TYPE SIZE
SIZE SURFACE DISCHARGE TYPE DAYTON COUPLING
PRESSURE GUAGE SPEED
NOTES Total setting 238' - 97' Static
RIG USED TO SET PUMP INSTALLER Fred Smith
DATE PUMP INSTALLED 10/7 19 72 DATE IN OPERATION 19

MOTOR

MAKE Franklin HP 25 FRAME PHASE 3 CYCLE 60 VOLT 230 SERV
SPEED 3450 MODEL 2361069000 SERIAL NUMBER
TOP BEARING MOTOR BEARING RATCHET
STARTER OVERLOAD SWITCH FLOAT
Amps 64.0 SF 1.15 SFA 73.6 Code J

GEAR

MAKE MODEL SIZE RATIO NO.
SIZE PULLEY TYPE MOTOR FRAME

ENGINE

MAKE MODEL HP SERIAL NUMBER
SPEED SIZE PULLEY FOUNDATION
TYPE FUEL TANK MAKE MAG NO.
MAKE STARTER NO. TYPE FUEL
MAKE FLEXIBLE SHAFT SIZE LENGTH BELT LENGTH

GENERAL

PURPOSE FOR WHICH THIS WATER IS USED
TEMPERATURE IS WATER CLEAR CAPACITY
HARD HARDNESS PH IRON
TYPE TREATMENT USED
IS THERE A DERRICK OVER THIS WELL HEIGHT TYPE
CAN TRUCK OR RIG EASILY GET TO WELL
PUMP HOUSE SIZE MATCH

CONTRACT NO. 62200

OUR WELL NO. 1 THEIR WELL NO. 3 IN TEST HOLE NO 1
LOCATION OF THE WELL Behind Texaco Station
INSTALLED FOR Gaston Rural Water District
ADDRESS CITY Gaston COUNTY Lexington STATE S. C.

YEAR 1972

D H E C
PROMOTE PROTECT PROSPER
2600 Bull Street
Columbia, SC 29201-1708

December 9, 1997

Mr. Michael A. Wilson
Resident Maintenance Engineer
South Carolina Department of Transportation (SCDOT) Lexington Maintenance Facility
P.O. Box 70
Lexington, SC 29072

Re: Application for Encroachment Permit received December 8, 1997
USA Mini Mart #170
Site ID #05986
Lexington County

Dear Mr. Wilson:

The SCDOT Liaison has reviewed the referenced Application for Encroachment Permit submitted by Midlands Environmental Consultants, Inc. on behalf of the South Carolina Department of Health and Environmental Control (SCDHEC). The application requests permission to install fifteen temporary sampling points (Geoprobe™) and five permanent monitoring wells in the rights-of-way of US-21/176/321 (Charleston Highway), SC-302 (Airport Boulevard), S-32-804 (Williams Street), Middleton Street, and Joyce Street in West Columbia, SC.

The SCDHEC considers the proposed location of the sampling points and monitoring wells within the rights-of-way as necessary and appropriate to assess the severity and extent of soil and ground-water contamination at the USA Mini Mart #170 site. This assessment is in the public interest of protecting the ground-water supply of the State of South Carolina. The Department, therefore, respectfully requests that the SCDOT approve the application as submitted. Should you require additional information regarding this site, feel free to contact me at (803) 734-5432.

Sincerely,

Joel P. Padgett, P.G., SCDOT Liaison
Assessment and Corrective Action Division
Bureau of Underground Storage Tank Management

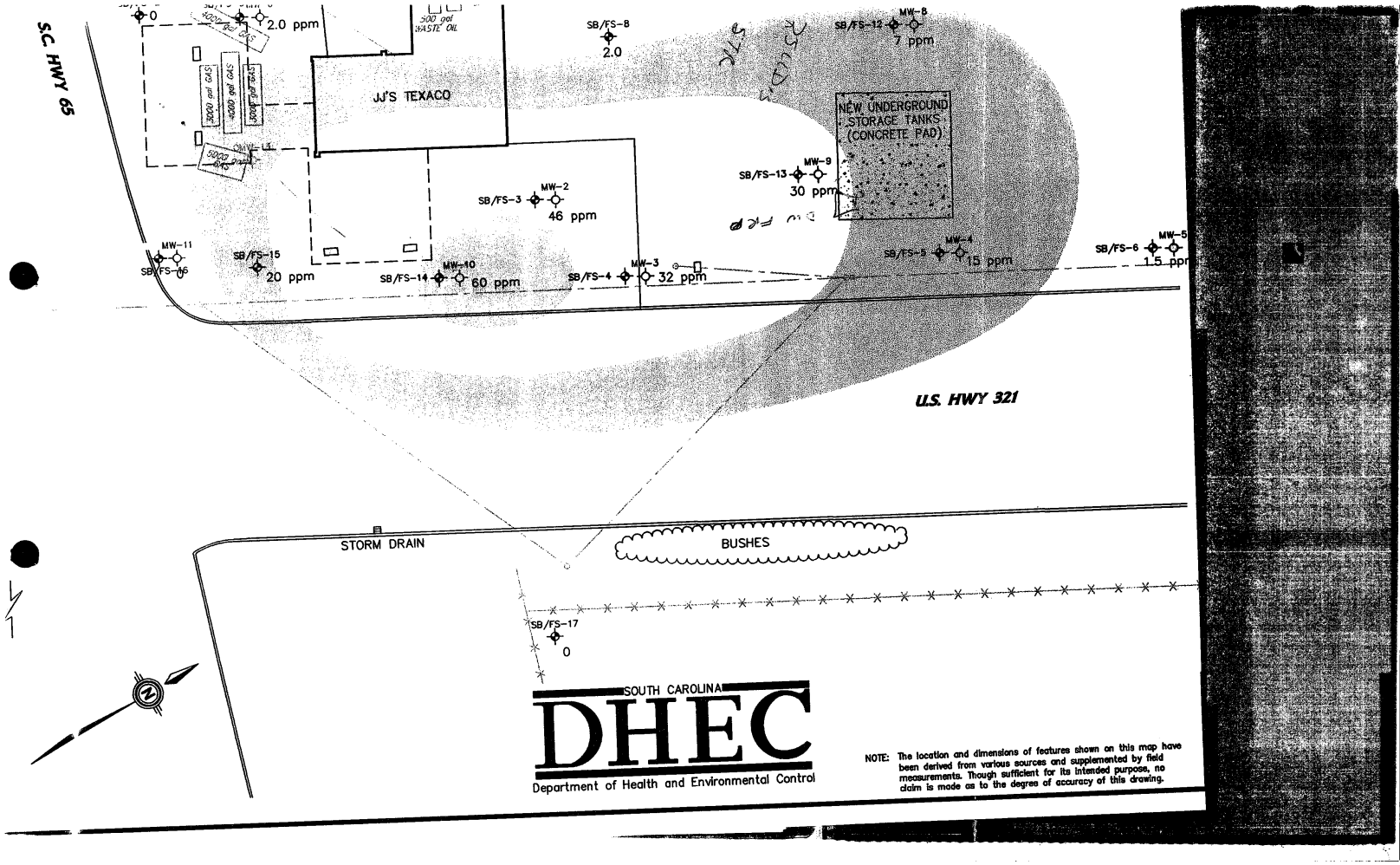
JPP/jpp
06037.OFF

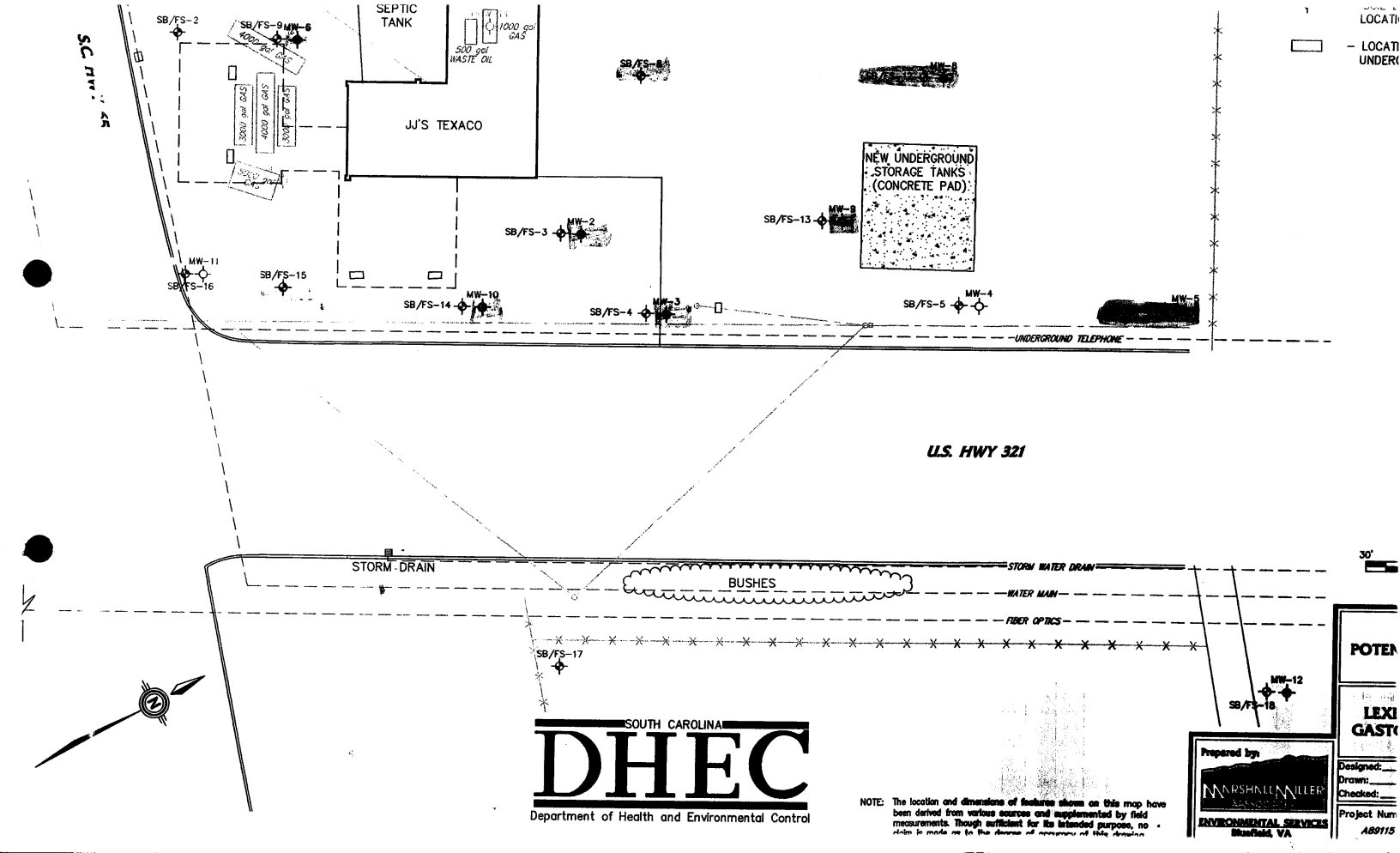
UST PROGRAM DOCKETING # 6676

DHEC/UST/JPP/120997

From: Connie J. Anderson
To: CORLEYHR
Subject: 05986 JJ's Texaco

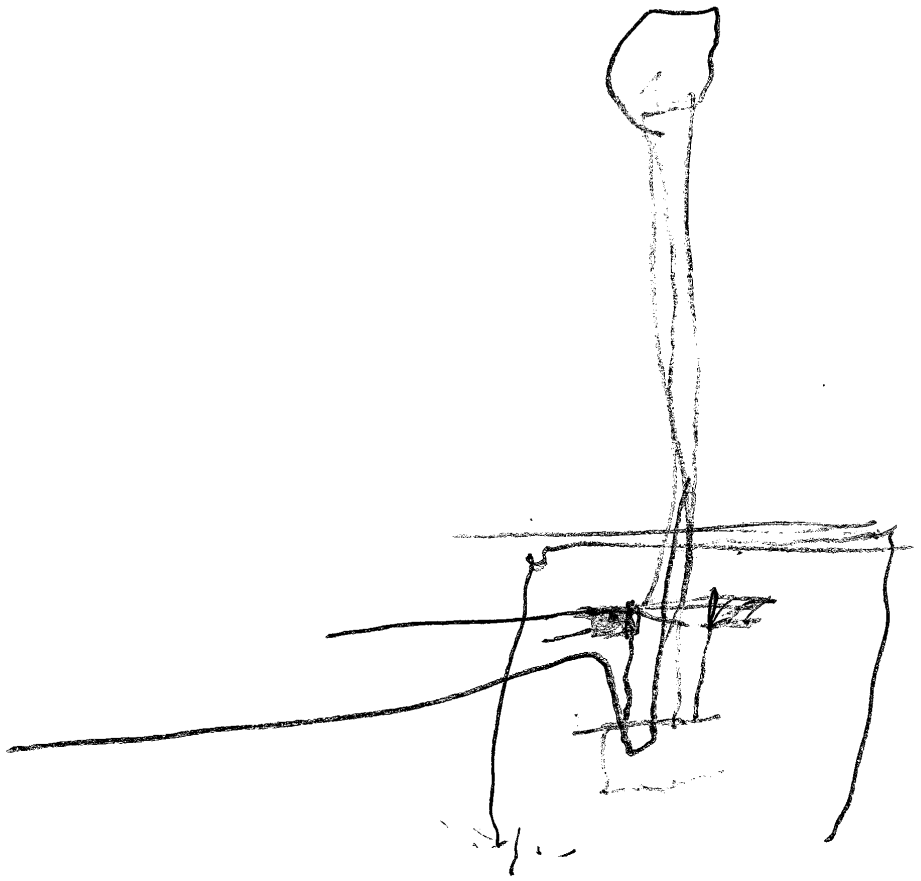
I met with Frank Shumpert (representative of UST owner - D F Shumpert Oil Co) and William Croft (UST installer) at JJ's Texaco this morning. We discussed tank and piping installation details and reviewed the site history.
The USTs that are suspected of causing the contamination at JJ's were removed from the ground and replaced with ones that meet the 1998 standards (corrosion protection and spill and overfill prevention).
The new tanks are made of steel but clad in fiberglass. Pumps are submerged in the tanks and product is pushed through double wall piping to the dispenser islands. Piping is made of galvanized steel (2" diameter) enclosed in a fiberglass pipe (4" diameter). I could not find any metal components of the piping system direct buried (in a corrosive environment). Red Jacket (diaphragm) line leak detectors watch the pressured piping for catastrophic leaks. Containment sumps were located under the dispensers and the tanks are down-gradient from the dispensers. Should a leak occur in the galvanized piping, the product should drain back to the pump sumps by way of the secondary (fiberglass) pipe.
I could not see any indication that there had been any damages to the dispensers, for example, autos ramming the dispensers and pushing same off the islands, causing a leak or spill. Mr Shumpert reported that there had been no such problems.
Next, we discussed leak detection - A Petrosonic III automatic tank gauging system had been installed with the new USTs. Mr. Shumpert was disappointed in the system because it seemed to "be down" an unacceptable amount of time. He switched to Statisical Inventory Reconcilation (outside vendor certifies inventory control) and reports that he has no leaks. I asked for copies of recent SIR records for our file. I reminded Mr. Shumpert that the line leak detectors are due their annual function check this month and asked for copies of the results. When I receive the results (model & serial # are listed on the results sheet), I will phone Red Jacket's technical support folks and verify that the leak detectors are capable of watching piping runs that are on a slope and which are 200-300 in length. The information I have to date indicate the leak detectors can do this work.
To summarize, I have no valid suspician that a release from the new tank and piping systems has occurred.

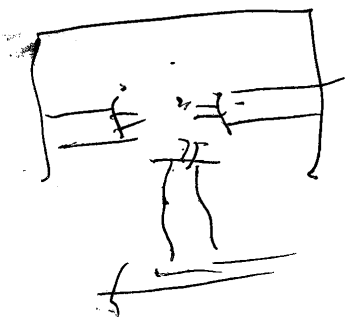

S.C. HWY 65
0
2.0 ppm
500 gal WASTE OIL
JJ'S TEXACO
3000 gal GAS
4000 gal GAS
3000 gal GAS
5000 gal GAS
SB/FS-8
2.0
SB/FS-12
MW-8
7 ppm
NEW UNDERGROUND STORAGE TANKS (CONCRETE PAD)
SB/FS-13
MW-9
30 ppm
SB/FS-3
MW-2
46 ppm
MW-11
SB/FS-16
SB/FS-15
20 ppm
SB/FS-14
MW-10
60 ppm
SB/FS-4
MW-3
32 ppm
SB/FS-5
MW-4
15 ppm
SB/FS-6
MW-5
1.5 ppm
U.S. HWY 321
STORM DRAIN
BUSHES
SB/FS-17
0
N
SOUTH CAROLINA
DHEC
Department of Health and Environmental Control
NOTE: The location and dimensions of features shown on this map have been derived from various sources and supplemented by field measurements. Though sufficient for its intended purpose, no claim is made as to the degree of accuracy of this drawing.

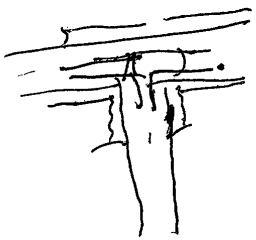


SOUTH CAROLINA
DHEC
Department of Health and Environmental Control

NOTE: The location and dimensions of features shown on this map have been derived from various sources and supplemented by field measurements. Though sufficient for its intended purpose, no claim is made as to the degree of accuracy of this drawing







ENVIRO-TEST SERVICES

DHEC

[SUPERB SITE RANKING]

IGWA

INITIAL GROUND WATER ASSESSMENT

SITE # 05986-A
J.J's TEXACO

LEXINGTON COUNTY, S.C.

Project Manager: Terry L. Teate
Site Geologist: Ed Leach

Environmental Laboratory & Drilling

1015-A Kinley Road • Columbia, South Carolina 29063 • (803) 732-5770 • 1-800-881-8854

ENVIRO-TEST SERVICES

"Underground Storage Tank Program, SUPERB-Funded Site Assessment"

Monitor Well Construction Data

DHEC FACILITY SITE# [05986-A] PUPS Ticket # [149264]

Facility Name: J.J.'s Texaco

Facility Address: 105 N. Main Street

Town Of: Gaston **County:** Lexington

(Monitor Well Location):

Latitude: 33 **deg** 49 . 051 **Min-North**

Longitude: 81 **deg** 06 - 063 **Min-West**

MW ID#: 1A **[2" PVC (.010) Slot-Screen]**

Construction Date: 9 / 19 / 96

Driller's Name: T. Teate

State Certification ID: # 1242

Groundwater Level : 33 **ft.** - 0 **tenths**

Total Depth Of Well: 40 **ft.** - 0 **tenths**

Interval Screened: 25 **ft. (to)** 40 **ft.**

<.....>Ground Level Surface Conditions: Asphalt, Concrete, Dirt, Other: xxxxxx

.....> 5 ft. Lithology	SD-fine- med, lt ye-brn, moist	**OVM**	18	**ppm**
.....> 10 ft. Lithology	SD-fine-med, mod brn, moist	**OVM**	12	**ppm**
.....> 15 ft. Lithology	SD-fine-med, mod brn, moist	**OVM**	56	**ppm**
.....> 20 ft. Lithology	SD-fine-med, mod brn, moist	**OVM**	88	**ppm**
.....> 25 ft. Lithology	CLSD-mod ye-brn, fine-med, 10% clay, damp	**OVM**	118	**ppm**
.....> 30 ft. Lithology	CLSD-fine-md, mod ye-brn, 15% clay, damp	**OVM**	162	**ppm**
.....> 35 ft. Lithology	CL-soft, mod ye-brn, WET	**OVM**	34	**ppm**

ENVIRO-TEST SERVICES

Underground Storage Tank Program, SUPERB-Funded Site Assessment

Monitor Well Construction Data
DHEC FACILITY SITE# [05986-A]

Facililty Name: J.J.'s Texaco

.....> 40 ft. Lithology CLSD-fine-coarse, mod purple w/mod rd mottling, 10-15% clay, WET **OVM** 4 **ppm**

.....> 45 ft. Lithology _____ **OVM** _____ **ppm**

.....> 50 ft. Lithology _____ **OVM** _____ **ppm**

.....> 55 ft. Lithology _____ **OVM** _____ **ppm**

.....> 60 ft. Lithology _____ **OVM** _____ **ppm**

.....> 65 ft. Lithology _____ **OVM** _____ **ppm**

.....> 70 ft. Lithology _____ **OVM** _____ **ppm**

.....> 75 ft. Lithology _____ **OVM** _____ **ppm**

.....> 80 ft. Lithology _____ **OVM** _____ **ppm**

.....> 85 ft. Lithology _____ **OVM** _____ **ppm**

.....> 90 ft. Lithology _____ **OVM** _____ **ppm**

.....> 95 ft. Lithology _____ **OVM** _____ **ppm**

<-This Monitoring Well Constructed By The Hollow-Stem Auger Method->

.....<-This Monitoring Well Developed By Centrifugal Pump Method->.....

***SOIL SAMPLES* Are Screened For Evidence Of Contamination via Headspace Analysis, Utilizing An Organic Vapor Meter (OVM) With A Photoionization Detector (PID) Calibrated On Zero Air Then On 250 ppm Of Isobutylene.**

Environmental Laboratory & Drilling

7435 Broad River Road, Suite 105 • IRMO, South Carolina 29063 • (803) 732-5770 • FAX (803) 732-5714

ENVIRO-TEST SERVICES

"Underground Storage Tank Program, SUPERB-Funded Site Assessment"

[INITIAL GROUNDWATER ASSESSMENT]

Facility ID # SCDHEC SITE #: [05986-A **] State Of South Carolina**

Facility Name : J.J.'s Texaco

Facility Address: 105 N. Main Street

Town Of: Gaston **County:** Lexington

Owner/ Authorized Representative: Frank Shumpert

Owner/ Rep Address: Shumpert Oil Company

Owner's Phone No: H (803) 894-3998 W(803) 894-3131

Date Sampled: 10/ 01/ 96 **Sampling Method: Teflon Bailer**

Groundwater Level: 32 **ft.** 7 **tenths** **Total-Depth Of Well:** 40 **ft.** 0 **tenths**

Free Product: . [No] x **[Yes]** **[Sheen]** **+ Thickness [** **ft.** **] tenths**

Field Parameters:

pH: 5 . 0 **Temperature:** 21 . 7 ***c** **Conductivity:** 100 ***u/S***

Total Dissolved Solids 50 **ppm; Water Quality** org **Odor:** gas

[Groundwater Analytical Data]

Benzene:	Toluene:	Ethylbenzene:	Xylenes: (Total)	BTEX: (Total)	Naphthalenes: (Total)
200 ug/L	140 ug/L	310 ug/L	758 ug/L	1408 ug/L	40 ug/L

Receptor & Site Data: Survey Questions;

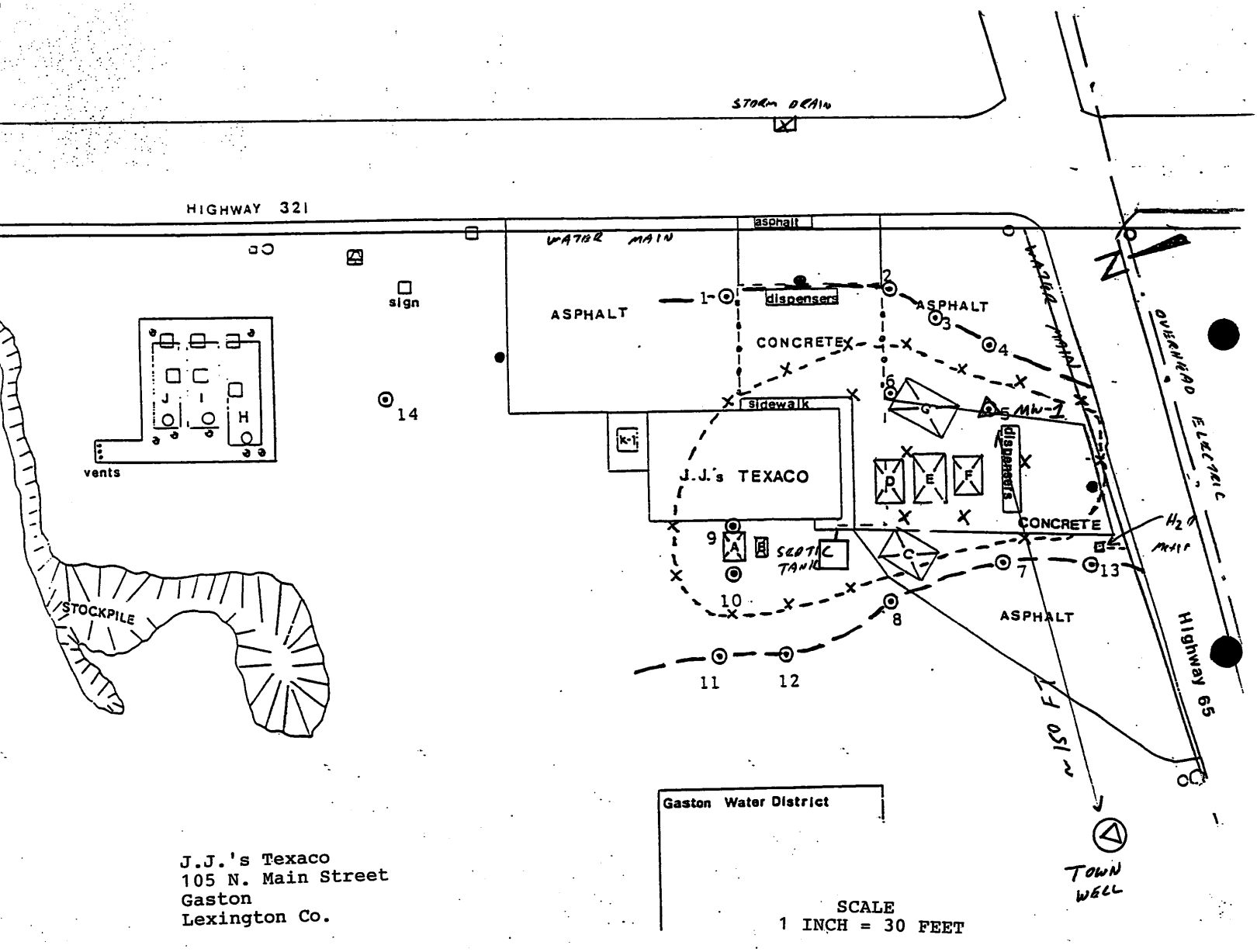
Is there a drinking water supply well [*public, private*] , or surface water supply intake within 1,000 ft. of the UST? City of Gaston well approx. 350 ft W **[yes**x **] [No** **]**

Are Irrigation or other non-drinking water wells within 1,000 ft. of the UST? [yes **] [No**x **]**

Are there potential receptors [*Utilities, Surface Waters, Wetlands, Ditch*] less than 500 feet from the UST? storm drain across US321 **[yes** x**] [No** **]**

If Yes, Provide Additional Information septic tank & water lines

Is the current use of the site and surrounding properties *commercial, residential, agricultural, industrial* or Other? (explain): xxxxxxxxx



J.J.'s Texaco
105 N. Main Street
Gaston
Lexington Co.

Center For Applied Engineering, Inc.
Environmental Testing Services

ANALYSIS REPORT

Attention: Terry L. Teate
Enviro-test, Inc.
7435 Broad River Road
Suite 105
Irmo SC 29063

Date of Report: 10/07/96
C-of-C Number: C16137
Date Collected: 10/01/96 14:45
Collected By: cst
Date Received: 10/03/96 11:45

Cust Proj: DHEC #05986-A

FL-DHRS Cert. No: E84254/84453

Sample Desc: MW-1A, D.F. Shumpert III, JJ's Texaco, Gaston, SC

FL-DEP CompQAP: 900359G

Lab ID: 96 0010458

	Result	Unit	Det. Limit	Dilutn Factor	Procedure	Test Date	QC Number	Regulatory Lower Limit	Regulatory Upper Limit	
ORGANIC										
MTBE BY GC										
Methyl tert-Butyl Ether (MTBE)	87	UG/L	.96	1	602	10/03	24862	N/A	40	*
PAH'S-HPLC										
Benzo (a) anthracene	BDL	UG/L	.81	1	610	10/04	24870	N/A	10	
Benzo (b) fluoranthene	BDL	UG/L	.84	1	610	10/04	24870	N/A	10	
Benzo (k) fluoranthene	BDL	UG/L	.8	1	610	10/04	24870	N/A	10	
Chrysene	BDL	UG/L	1.1	1	610	10/04	24870	N/A	10	
Dibenzo (a,h) anthracene	BDL	UG/L	1.2	1	610	10/04	24870	N/A	10	
Naphthalene	40	UG/L	1	1	610	10/04	24870	N/A	5	*
VOA BY GC										
Benzene	200	UG/L	43	50	602	10/04	24868	N/A	5	*
Ethylbenzene	310	UG/L	43.5	50	602	10/04	24868	N/A	5	*
m- and p-Xylenes	710	UG/L	80	50	602	10/04	24868	N/A	5	*
o-Xylene	48	UG/L	45	50	602	10/04	24868	N/A	5	*
Toluene	140	UG/L	41.5	50	602	10/04	24868	N/A	5	*

COMMENTS

Note 'BDL' = Below Detection Limit
* = Exceeds Regulatory Limits

Distribution of Report:

Respectfully Submitted
Center For Applied Eng., Inc.
Reviewed and Approved by:

Chris Given
Laboratory Director

Center For Applied Engineering, Inc.
Environmental Testing Services

ANALYSIS REPORT

Attention: Terry L. Teate
Enviro-test, Inc.
7435 Broad River Road
Suite 105
Irmo SC 29063

Date of Report: 10/07/96
C-of-C Number: C16137
Date Collected: 10/01/96 14:45
Collected By: cst
Date Received: 10/03/96 11:45

Cust Proj: DHEC #05986-A

FL-DHRS Cert. No: E84254/84453

Sample Desc: MW-1A, D.F. Shumpert III, JJ's Texaco, Gaston, SC

FL-DEP CompQAP: 900359G

Lab ID: 96 0010458

		Result	Unit	Det. Limit	Dilutn Factor	Procedure	Test Date	QC Number	Regulatory Lower Limit	Regulatory Upper Limit	F
01	South Carolina Certification DHEC # 96015.										

Note 'BDL' = Below Detection Limit
* = Exceeds Regulatory Limits

Distribution of Report:

Respectfully Submitted
Center For Applied Eng., Inc.
Reviewed and Approved by:

Chris Given
Laboratory Director

CHAIN OF CUSTODY RECORD

ENVIRO-TEST SERVICES

CHAIN OF CUSTODY RECORD

Environmental Laboratory & Drilling

8111 Old Kings Rd. S. Bldg 100 • Jacksonville, Florida 32217 • (904) 733-2835 • 1-800-881-8854

Project Name or Number	Project Location
DHEC 05986-A	JJ's TEXACO 105 NORTH MAIN St. GASTON, SC
Client Name	
D.F. SHUMPERT III	

Item Number	Sample Number	Date	Time	Ground Water	Surface Water	Soil	Other (specify)	Number of Containers	Laboratory Analysis: 602	610	C16134 96100017 305 10-10-96	COMMENTS
1	MW-1A	10-1-96	2:45	X				2-40 ml vil	X			96-10458
								1-1000 AG		X		

(4)

Person Responsible for Sample	Transfer Number	Item Number	Transfers Relinquished by:	Accepted by:	Date	Time
Terry L. Teate	1		Terry L. Teate	Greyhound		
Remarks:	2		Greyhound/ACE	D. Jenkins	10-3-96	11:45
	3			COMPLETED		
	4					

Corley
Lex

Lexington County

PERMISSION FORM - SITE ID #05986 — A

I, D.F. SHUMPERT III, 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 services of a contractor for only the activities outlined in the MAR 11 1996 letter and authorize SCDHEC, or a contractor selected by SCDHEC, to enter this property at reasonable times only to accomplish these tasks. The contractor will be designated as my contractor for only the site rehabilitation activities outlined therein. Compensation to the contractor will be from the SUPERB Account and I will have no obligation to pay the contractor. I understand that SCDHEC shall be responsible for obtaining right-of-entry from the property owner and notifying me of all activities that are necessary prior to their initiation and shall promptly provide to me a summary of the data.

Name of Facility JJ's TEXACO Phone # 791-5653

Street Address of Facility 105 North Main Street

Town, City, District, Suburb Gaston, SC 29053

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

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

Is this facility serviced by a public water or sewer utility? (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 _____

NAME of UST/property owner (Please Print): D. Frank Shumpert

Phone Number (home) 894-3998 (work) 894-3131

Signature of UST/property Owner: D. Frank Shumpert

Witness: James Tindal

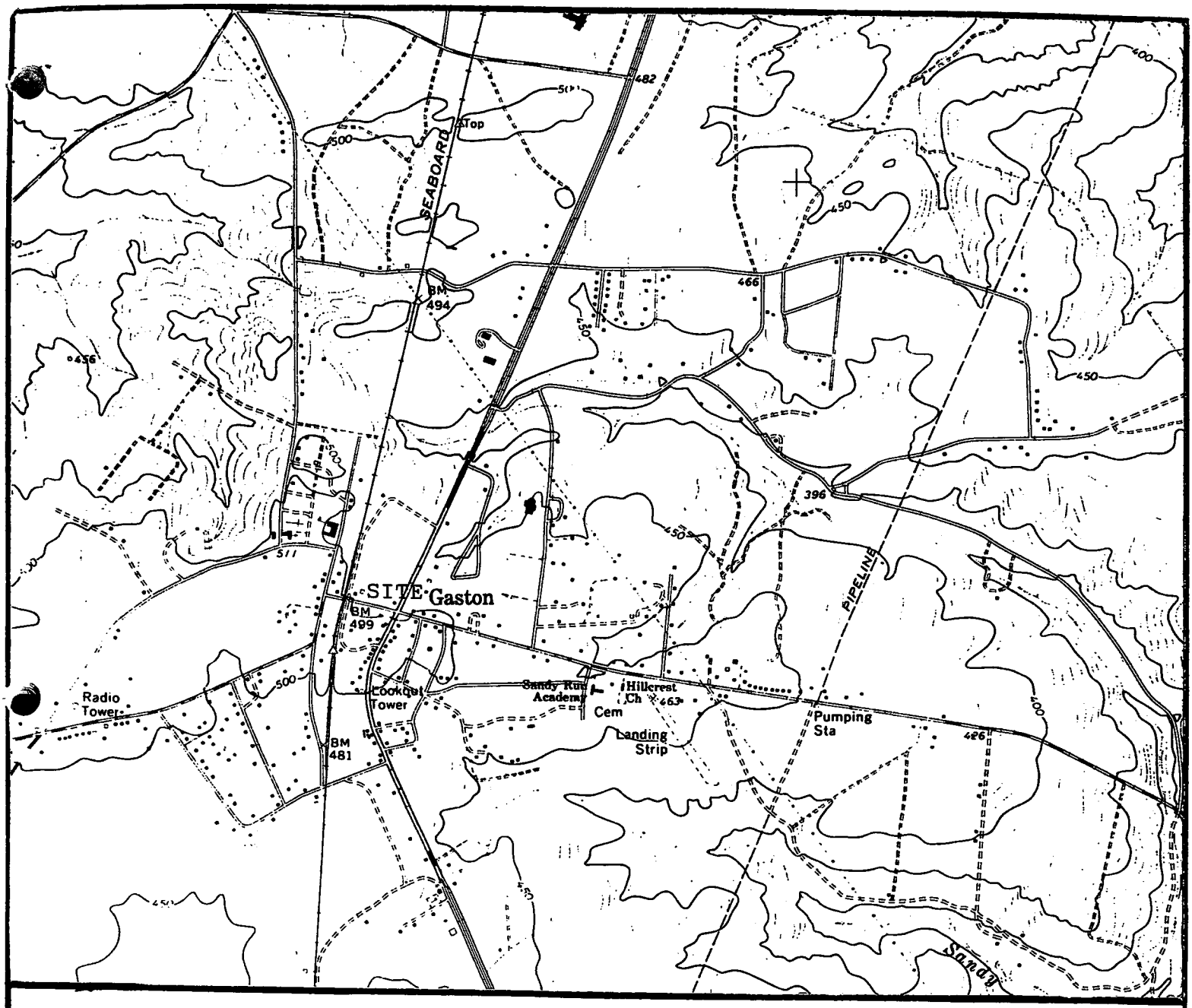
Date: May Month 17 Day 1996 Year

Three new USTs have been installed on site.

Place 1 well around borehole #5

RECEIVED
MAY 20 1996
Bureau of Underground Storage Tank Management

QA/QC



SCALE 1:24 000

1 0 1 MILE

1000 0 1000 2000 3000 4000 5000 6000 7000 FEET

1 5 0 1 KILOMETER

CONTOUR INTERVAL 10 FEET

REFERENCE:

USGS GASTON, SC
7 & 1/2 Minute quadrangle
Lexington Co., SC

(Figure 1)

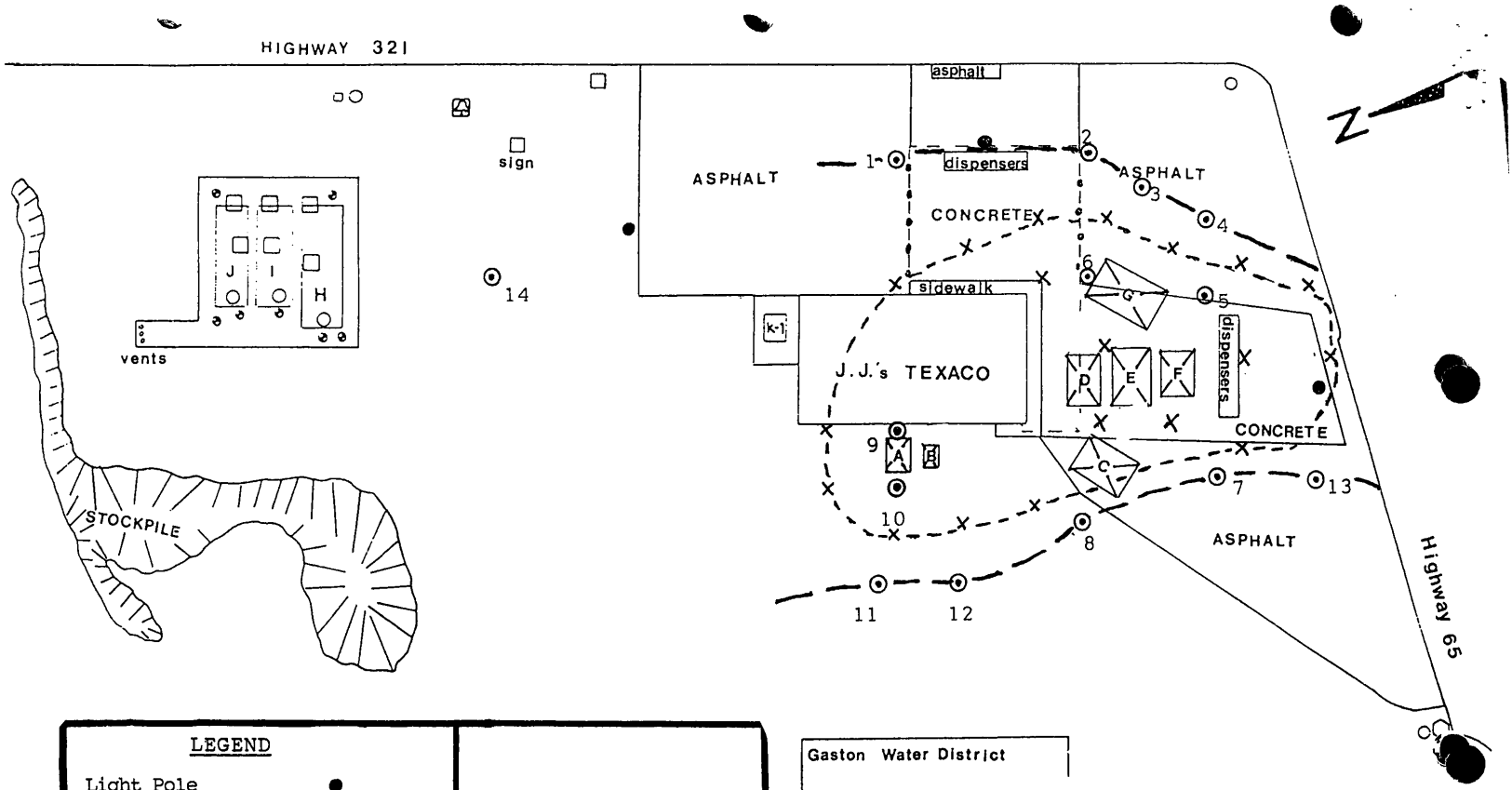
N

TERRA NOVA ENVIRONMENTAL INC
NORTH AUGUSTA, SOUTH CAROLINA

SITE LOCATION MAP
J.J.'s Texaco
105 N. Main St.
Gaston, SC 29053

Project No. TN93013

GWPD# 05986



LEGEND	
Light Pole	●
Power Pole	○
Fire Hydrant	⬡
Overhead Canopy	•—•—•—•—•—•
Telephone	☎
Above Ground Tank	K-1
New U.S.T.	H O
Old U.S.T. Site	A
Soil Boring	◉
Monitoring Well	◉
Non-Detect	— — — — —
Contaminant Plume	- -
Proposed Borehole (EAP)	X

TANK KEY		
A- Kerosene	1,000	gal.
B- Waste Oil	550	gal.
C- Unleaded	4,000	gal.
D- Premium	3,000	gal.
E- Plus	4,000	gal.
F- Unleaded	3,000	gal.
G- Unleaded	5,000	gal.
H- Unleaded	10,000	gal.
I- Premium	8,000	gal.
J- Plus	8,000	gal.

Gaston Water District

TERRA NOVA ENVIRONMENTAL INC.

POST OFFICE BOX 7791

NORTH AUGUSTA S.C. 29841

SCALE: 1 INCH = 30 FEET	DATE: 12-29-92

J. J.'s TEXACO
105 NORTH MAIN ST.
GASTON, SC 29053

JOB NO: TN93013	GWPD NO: 05986

(figure- 2)

SUMMARY OF LABORATORY AND ANALYTICAL RESULTS

BOREHOLE NUMBER	DEPTH OF SAMPLE	T.P.H	B.	T.	E.	X.
1	5'	N/D	N/D	N/D	N/D	N/D
2	4'	N/D	N/D	N/D	N/D	N/D
3	14'	N/D	N/D	N/D	N/D	N/D
4	14'	N/D	N/D	N/D	67.3	143
5	14'	N/D**	17,600	5,620	15,200	66,900
6	13.5'	N/D	N/D	N/D	61.9	279
7	7'	N/D	N/D	N/D	N/D	N/D
8	14'	N/D	N/D	N/D	N/D	N/D
9	14.5'	N/D**	N/D	195	186	415
10	14'	126*	1640	N/D	828	4290

105.3 ppm BTEX

* 126 ppm as Kerosene
** Unidentified Hydrocarbon

ALL ANALYSIS BY TMA/EBERLINE LAB, SCDHEC CERTIFIED NO. 02002

water table approx 10'

UNITS: T.P.H.: ppm DETECTION LIMIT: 5 ppm
B.T.E.X.: ppb DETECTION LIMIT: 1 ppb

TERRA NOVA ENVIRONMENTAL INC.

POST OFFICE BOX 7791

NORTH AUGUSTA S.C. 29841

LOCATION: Gaston, SC	DATE: 3-17-93

J.J.'s Texaco
105 North Main Street
Gaston, S.C. 29053

JOB NO: TN93013	GWPD NO: 05986

DHEC

[SUPERB SITE RANKING]

IGWA

INITIAL GROUND WATER ASSESSMENT

SITE # 05986-B
J.J's TEXACO

LEXINGTON COUNTY, S.C.

Project Manager: Terry L. Teate
Site Geologist: Ed Leach

ENVIRO-TEST SERVICES

"Underground Storage Tank Program, SUPERB-Funded Site Assessment"

Monitor Well Construction Data

DHEC FACILITY SITE# [05986-B] PUPS Ticket # [149266]

Facility Name: J.J.'s Texaco

Facility Address: 105 N. Main Street

Town Of: Gaston **County:** Lexington

(Monitor Well Location):

Latitude: 33 **deg** 49 . 105 **Min-North**

Longitude: 81 **deg** 06 . 037 **Min-West**

MW ID#: 1 **[2" PVC (.010) Slot-Screen]**

Construction Date: 9 / 19 / 96

Driller's Name: T. Teate

State Certification ID: # 1242

Groundwater Level : 33 **ft.** - 8 **tenths**

Total Depth Of Well: 35 **ft.** - 0 **tenths**

Interval Screened: 20 **ft. (to)** 35 **ft.**

<.....>Ground Level Surface Conditions: Asphalt, Concrete, Dirt, Other: xxxx

.....> 5 ft. Lithology SD-fine-med, mod brn, moist **OVM** 3 **ppm**

.....> 10 ft. Lithology SD-fine-med, lt brn, moist **OVM** 15 **ppm**

.....> 15 ft. Lithology CLSD-fine-med, dk ye-brn, 5% clay, damp **OVM** 308 **ppm**

.....> 20 ft. Lithology CLSD-fine-med, or-brn, 10% cla damp **OVM** 185 **ppm**

.....> 25 ft. Lithology Cl-mod soft, or-brn, damp **OVM** 142 **ppm**

.....> 30 ft. Lithology CL-mod soft, or-brn, damp **OVM** 120 **ppm**

.....> 35 ft. Lithology CL-mod soft, or-brn, WET **OVM** 102 **ppm**

ENVIRO-TEST SERVICES

Underground Storage Tank Program, SUPERB-Funded Site Assessment

Monitor Well Construction Data
DHEC FACILITY SITE# [05986-B]

Facililty Name: J.J.'s Texaco

.....> 40 ft. Lithology	CLSD-fine-med, mod dk ye & mod rd, 5-10% clay, WET	OVM	ppm
.....> 45 ft. Lithology		OVM	ppm
.....> 50 ft. Lithology		OVM	ppm
.....> 55 ft. Lithology		OVM	ppm
.....> 60 ft. Lithology		OVM	ppm
.....> 65 ft. Lithology		OVM	ppm
.....> 70 ft. Lithology		OVM	ppm
.....> 75 ft. Lithology		OVM	ppm
.....> 80 ft. Lithology		OVM	ppm
.....> 85 ft. Lithology		OVM	ppm
.....> 90 ft. Lithology		OVM	ppm
.....> 95 ft. Lithology		OVM	ppm

<-This Monitoring Well Constructed By The Hollow-Stem Auger Method->
.....<-This Monitoring Well Developed By Centrifugal Pump Method->.....

SOIL SAMPLES **Are Screened For Evidence Of Contamination via Headspace Analysis, Utilizing An Organic Vapor Meter (OVM) With A Photoionization Detector (PID) Calibrated On Zero Air Then On 250 ppm Of Isobutylene.**

ENVIRO-TEST SERVICES

"Underground Storage Tank Program, SUPERB-Funded Site Assessment"

[INITIAL GROUNDWATER ASSESSMENT]

Facility ID # SCDHEC SITE #: [05986-B **] State Of South Carolina**

Facility Name : J.J.'s Texaco

Facility Address: 105 N. Main Street

Town Of: Gaston **County:** Lexington

Owner/ Authorized Representative: Frank Schumpert

Owner/ Rep Address: Schumpert Oil

Owner's Phone No: (803) 894-3131

Date Sampled: 9 / 19 / 96 **Sampling Method: Teflon Bailer**

Groundwater Level: 33 **ft.** 8 **tenths** **Total-Depth Of Well:** 40 **ft.** 0 **tenths**

Free Product: . [No] x **[Yes]** ____ **[Sheen]** x **+ Thickness [** ____ **ft.** ____ **] tenths**

Field Parameters:

pH: 5.0 **Temperature:** 20.3 **•c** **Conductivity:** 89 ***u/S***

Total Dissolved Solids: 50 **ppm; Water Quality** clr-org **Odor:** diesel

[Groundwater Analytical Data]

Benzene:	Toluene:	Ethylbenzene:	Xylenes: (Total)	BTEX: (Total)	Naphthalenes: (Total)
86 ug/L	<0.83 ug/L	62 ug/L	1310 ug/L	1458 ug/L	44 ug/L

Receptor & Site Data: Survey Questions;

Is there a drinking water supply well [*public, private*] , or surface water supply intake within 1,000 ft. of the UST? xxxxxx **[yes** x **] [No** ___ **]**

Town well approx 350 ft SW

Are Irrigation or other non-drinking water wells within 1,000 ft. of the UST?
[yes ___ **] [No** x **]**

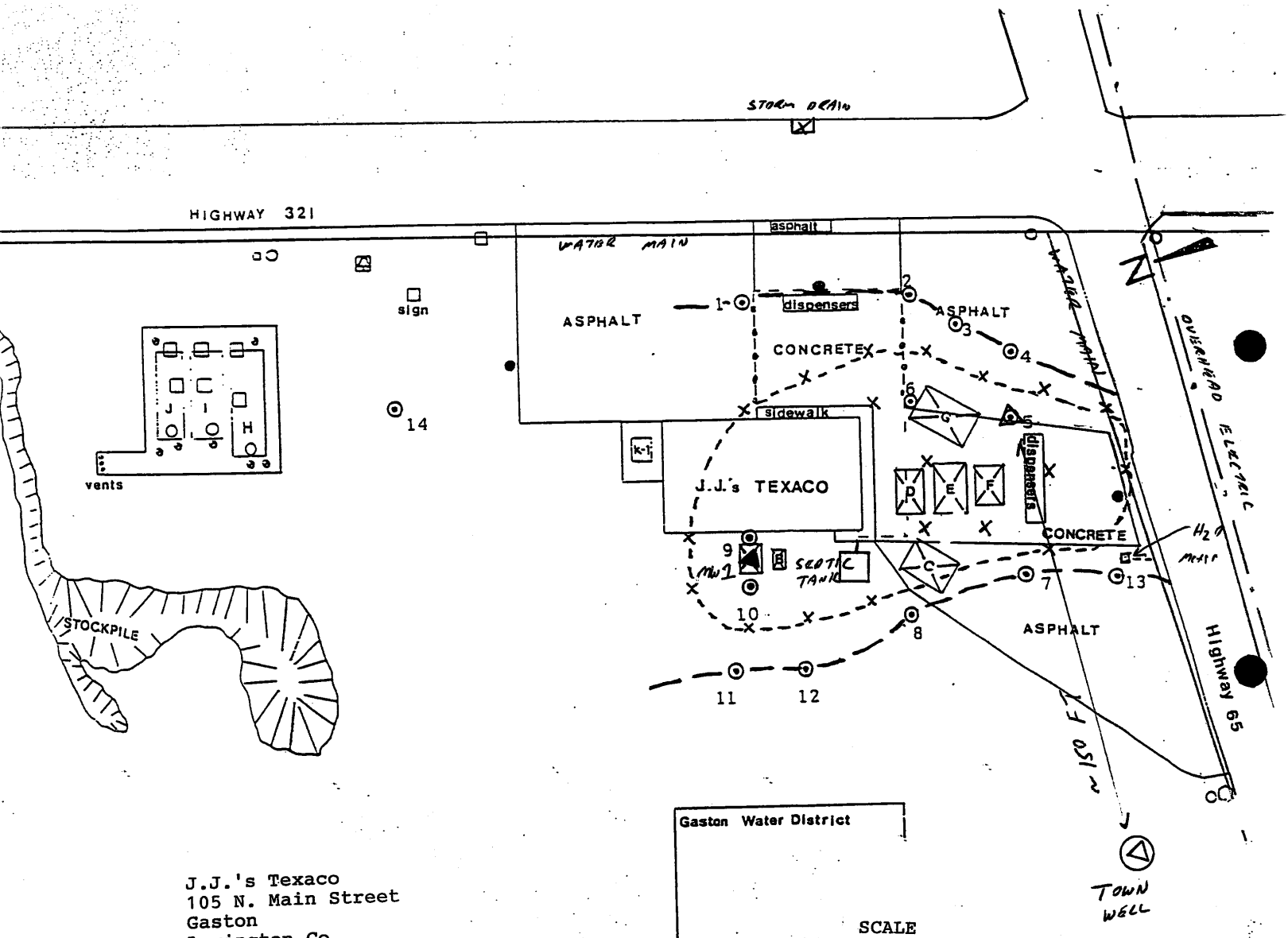
Are there potential receptors [*Utilities, Surface Waters, Wetlands, Ditch*] less than 500 feet from the UST? **[yes** x **] [No** ___ **]**

If Yes, Provide Additional Information storm drain, septic tank & water lines see map

Is the current use of the site and surrounding properties *commercial, residential, agricultural, industrial* or Other? (explain): ____

Environmental Laboratory & Drilling

1015-A Kinley Road • Columbia, South Carolina 29063 • (803) 732-5770 • 1-800-881-8854



J.J.'s Texaco
105 N. Main Street
Gaston
Lexington Co.

Center For Applied Engineering, Inc.
Environmental Testing Services

ANALYSIS REPORT

Attention: Terry L. Teate
Enviro-test, Inc.
7435 Broad River Road
Suite 105
Irmo SC 29063

Cust Proj: DHEC #05986-B

Sample Desc: MW-2B, D.F. Shumpert, JJ's Texaco, Gaston, SC

Lab ID: 96 0010459

Date of Report: 10/07/96
C-of-C Number: C16138
Date Collected: 10/01/96 15:20
Collected By: cst
Date Received: 10/03/96 11:45

FL-DHRS Cert. No: E84254/84453

FL-DEP CompQAP: 900359G

	Result	Unit	Det. Limit	Dilutn Factor	Procedure	Test Date	QC Number	Regulatory Lower Limit	Regulatory Upper Limit	F
ORGANIC										
MTBE BY GC										
Methyl tert-Butyl Ether (MTBE)	50	UG/L	.96	1	602	10/03	24862	N/A	40	*
PAH'S-HPLC										
Benzo (a) anthracene	BDL	UG/L	.81	1	610	10/04	24870	N/A	10	
Benzo (b) fluoranthene	BDL	UG/L	.84	1	610	10/04	24870	N/A	10	
Benzo (k) fluoranthene	BDL	UG/L	.8	1	610	10/04	24870	N/A	10	
Chrysene	BDL	UG/L	1.1	1	610	10/04	24870	N/A	10	
Dibenzo (a,h) anthracene	BDL	UG/L	1.2	1	610	10/04	24870	N/A	10	
Naphthalene	44	UG/L	1	1	610	10/04	24870	N/A	5	*
VOA BY GC										
Benzene	86	UG/L	.86	1	602	10/03	24862	N/A	5	*
Ethylbenzene	62	UG/L	43.5	50	602	10/04	24868	N/A	5	*
m- and p-Xylenes	1000	UG/L	80	50	602	10/04	24868	N/A	5	*
o-Xylene	310	UG/L	45	50	602	10/04	24868	N/A	5	*
Toluene	BDL	UG/L	.83	1	602	10/03	24862	N/A	5	

COMMENTS

Note 'BDL' = Below Detection Limit
* = Exceeds Regulatory Limits

Distribution of Report:

Respectfully Submitted
Center For Applied Eng., Inc.
Reviewed and Approved by:

Chris Given
Laboratory Director

Center For Applied Engineering, Inc.
Environmental Testing Services

ANALYSIS REPORT

Attention: Terry L. Teate
Enviro-test, Inc.
7435 Broad River Road
Suite 105
Irmo SC 29063

Date of Report: 10/07/96
C-of-C Number: C16138
Date Collected: 10/01/96 15:20
Collected By: cst
Date Received: 10/03/96 11:45

Cust Proj: DHEC #05986-B

FL-DHRS Cert. No: E84254/84453

Sample Desc: MW-2B, D.F. Shumpert, JJ's Texaco, Gaston, SC

FL-DEP CompQAP: 900359G

Lab ID: 96 0010459

		Result	Unit	Det. Limit	Dilutn Factor	Procedure	Test Date	QC Number	Regulatory Lower Limit	Regulatory Upper Limit	F
01	South Carolina Certification DHEC # 96015.										

Note 'BDL' = Below Detection Limit
* = Exceeds Regulatory Limits

Distribution of Report:

Respectfully Submitted
Center For Applied Eng., Inc.
Reviewed and Approved by:

Chris Given
Laboratory Director

CHAIN OF CUSTODY RECORD

ENVIRO-TEST SERVICES

CHAIN OF CUSTODY RECORD

Environmental Laboratory & Drilling

8111 Old Kings Rd. S. Bldg 100 • Jacksonville, Florida 32217 • (904) 733-2835 • 1-800-881-8854

5

Project Name or Number	Project Location	Laboratory Analysis
DHEC 05986-B	UJ's TEXACO 105 NORTH MAIN ST. GASTON SC	602 / 610 / CK6138 / 9610018 / 305 / 10-10-96
Client Name		
DF SHUMPERT		

Item Number	Sample Number	Date	Time	Ground Water	Surface Water	Soil	Other (specify)	Number of Containers	COMMENTS
1	MW-2B	10-1-96	3:20	X				2-40 Mil Vil	96-10459
								1-1000 AG	

Transfer Number	Item Number	Transfers Relinquished by:	Accepted by:	Date	Time
1		Terry L Teate	Greyhound		
2		Greyhound/ACE	D. Judkins	10-3-96	11:45
3			COMPLETED		
4					

Person Responsible for Sample: Terry L Teate

Remarks:

Lex

Lexington County

PERMISSION FORM - SITE ID #05986 B

I, D.F. SHUMPERT III, 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 services of a contractor for only the activities outlined in the MAR 11 1996 letter and authorize SCDHEC, or a contractor selected by SCDHEC, to enter this property at reasonable times only to accomplish these tasks. The contractor will be designated as my contractor for only the site rehabilitation activities outlined therein. Compensation to the contractor will be from the SUPERB Account and I will have no obligation to pay the contractor. I understand that SCDHEC shall be responsible for obtaining right-of-entry from the property owner and notifying me of all activities that are necessary prior to their initiation and shall promptly provide to me a summary of the data.

Name of Facility J.J's TEXACO Phone # 791-5653

Street Address of Facility 105 North Main Street

Town, City, District, Suburb Gaston, SC 29053

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

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

Is this facility serviced by a public water or sewer utility? (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 _____

NAME of UST/property owner (Please Print): D. Frank Shumpert

Phone Number (home) 894-3998 (work) 894-3131

Signature of UST/property Owner: D. Frank Shumpert

Witness: James Sandel

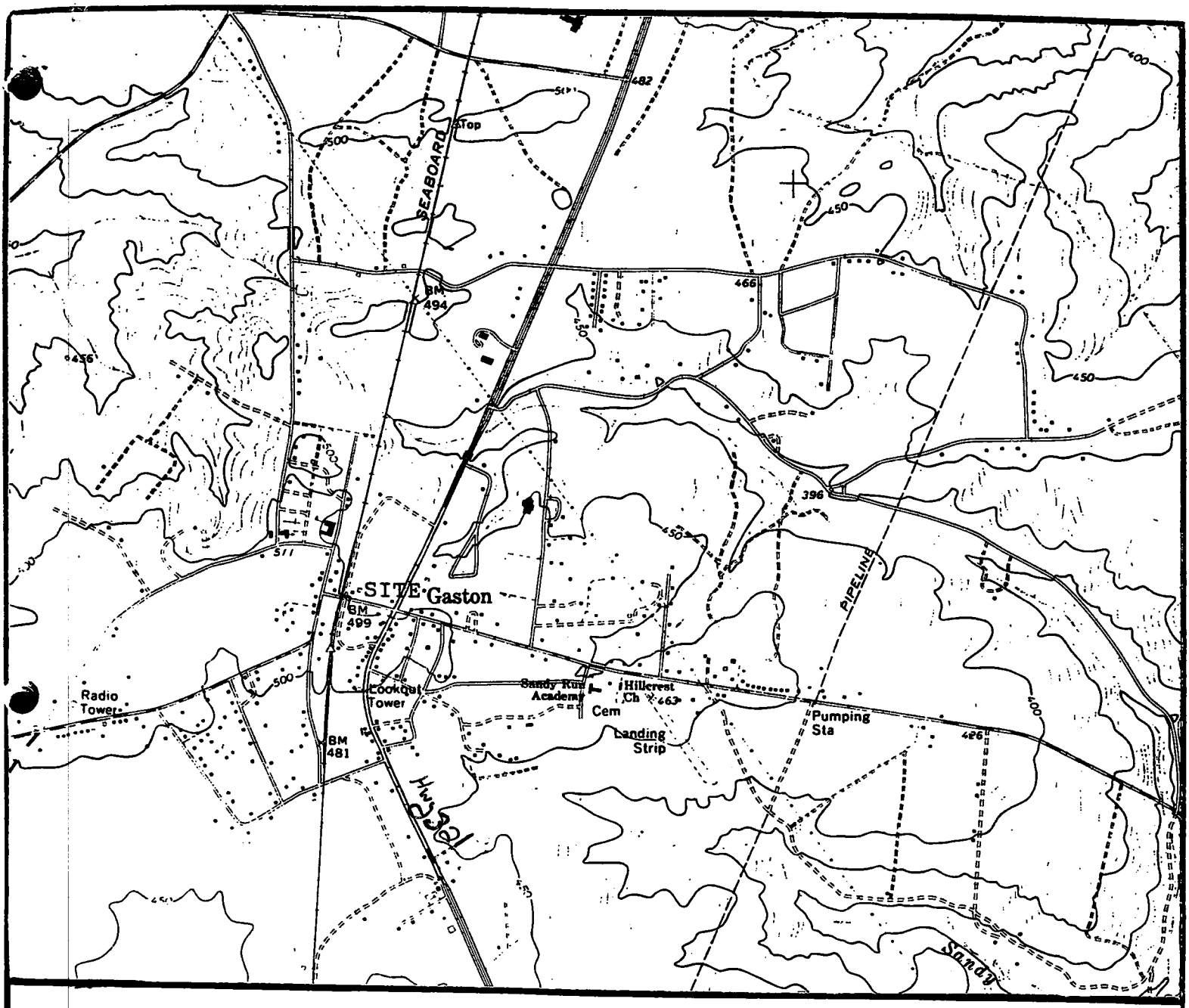
Date: May Month 17 Day 1996 Year

Three new USTs have been installed on site.

Place 1 well around borehole #10

RECEIVED
MAY 20 1996
Bureau of Underground Storage Tank Management

QA/QC



SCALE 1:24 000

1 0 1 MILE

1000 0 1000 2000 3000 4000 5000 6000 7000 FEET

1 5 0 1 KILOMETER

CONTOUR INTERVAL 10 FEET

REFERENCE:

USGS GASTON, SC
7 & 1/2 Minute quadrangle
Lexington Co., SC

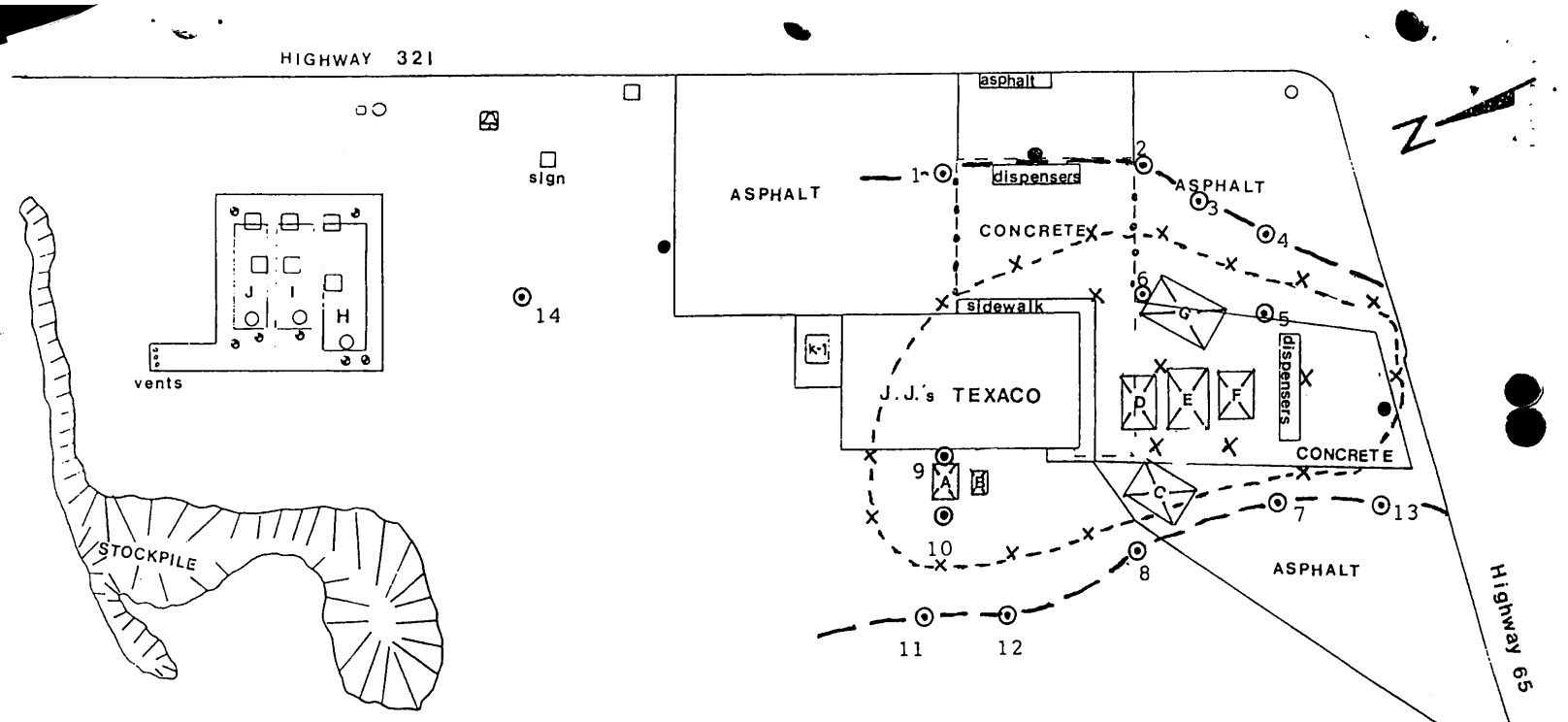
(Figure 1)

N

TERRA NOVA ENVIRONMENTAL INC
NORTH AUGUSTA, SOUTH CAROLINA

SITE LOCATION MAP
J.J.'s Texaco
105 N. Main St.
Gaston, SC 29053

Project No. TN93013	GWPD# 05986



LEGEND	
Light Pole	●
Power Pole	○
Fire Hydrant	⬡
Overhead Canopy	•—•—•—•—•
Telephone	☎
Above Ground Tank	K-1
New U.S.T.	H O
Old U.S.T. Site	A
Soil Boring	◉
Monitoring Well	⊕
Non-Detect	— — — — —
Contaminant Plume	- - -
Proposed Borehole (EAP)	X

TANK KEY		
A- Kerosene	1,000	gal.
B- Waste Oil	550	gal.
C- Unleaded	4,000	gal.
D- Premium	3,000	gal.
E- Plus	4,000	gal.
F- Unleaded	3,000	gal.
G- Unleaded	5,000	gal.
H- Unleaded	10,000	gal.
I- Premium	8,000	gal.
J- Plus	8,000	gal.

Gaston Water District

TERRA NOVA ENVIRONMENTAL INC.

POST OFFICE BOX 7791

NORTH AUGUSTA S.C. 29841

SCALE: 1 INCH = 30 FEET | DATE: 12-29-92

J. J.'s TEXACO
105 NORTH MAIN ST.
GASTON, SC 29053

JOB NO: TN93013 | GWPD NO: 05986

(figure- 2)

SUMMARY OF LABORATORY AND ANALYTICAL RESULTS

BOREHOLE NUMBER	DEPTH OF SAMPLE	T.P.H	B.	T.	E.	X.
1	5'	N/D	N/D	N/D	N/D	N/D
2	4'	N/D	N/D	N/D	N/D	N/D
3	14'	N/D	N/D	N/D	N/D	N/D
4	14'	N/D	N/D	N/D	67.3	143
5	14'	N/D**	17,600	5,620	15,200	66,900
6	13.5'	N/D	N/D	N/D	61.9	279
7	7'	N/D	N/D	N/D	N/D	N/D
8	14'	N/D	N/D	N/D	N/D	N/D
9	14.5'	N/D**	N/D	195	186	415
10	14'	126*	1640	N/D	828	4290

105.3 ppm BTEX

* 126 ppm as Kerosene
** Unidentified Hydrocarbon

ALL ANALYSIS BY TMA/EBERLINE LAB, SCDHEC CERTIFIED NO. 02002

water table approx 10'

UNITS: T.P.H.: ppm DETECTION LIMIT: 5 ppm
B.T.E.X.: ppb DETECTION LIMIT: 1 ppb

TERRA NOVA ENVIRONMENTAL INC.

POST OFFICE BOX 7791

NORTH AUGUSTA S.C. 29841

LOCATION: Gaston, SC | DATE: 3-17-93

J.J.'s Texaco
105 North Main Street
Gaston, S.C. 29053

JOB NO: TN93013 | GWPD NO: 05986

SUPERB APPROVAL CHECKLIST

Site Name J. J's Texaco Full ID # N-32-No-05986

FREE PRODUCT Reported? YES (NO) NOT REPORTED

SOIL (Determined on a case by case basis)

	TPH	B	T	E	X	Total	LEAD (Total)
Boring #10	125	1.2	8.2	4.2		14 ppm	
Boring #5	ND	17.6	5.6	15.2	66.9	105.3 ppm	

WATER (Based upon Drinking Water MCL's)

TPH	B	T	E	X	Total BTEX	LEAD (Total)
> 10 ppm	> 5ppb	1000	700	10000		50
N/A						

Release report date 11-20-91 Analytical Data Received Date 4-15-93

___ Before Jan 1, 1988	Prior to SUPERB Bill *
___ Jan 1, 1988 TO Dec 31, 1989	NO DEDUCTIBLE
___ Jan 1, 1990 TO May 8, 1990	**$100K** DEDUCTIBLE **
___ May 9, 1990 TO Jun 31, 1991	**$ 25K** DEDUCTIBLE **
X Jul 1, 1991 TO Jun 30, 1993	NO DEDUCTIBLE
___ After Jun 30, 1993	**$ 25K** DEDUCTIBLE

* Rehabilitation costs incurred prior to December 31, 1987 are not eligible for reimbursement.

** Rehabilitation costs incurred during deductible periods are not reimbursable unless the costs exceed the deductible.

OK

EXCLUSIONS FROM PARTICIPATION ~~44~~-2-110

___ A) DHEC has NOT initiated administrative or civil enforcement action prior to December 31, 1987.
___ B) DHEC has NOT been denied site access.
If YES, stop and forward the file to Division/Section Manager.

SUPERB ELIGIBILITY SUMMARY

✓ C) All tanks registered? Tanks/Site must be registered before site is eligible.
✓ D) Fees paid to date? Check financial data-base. ALL appropriate fees must be paid before site is eligible.
___ 88-89 ___ 89-90 ___ 90-91 ___ 91-92 ___ 92-93 ___ 93-94 ___ 94-95 ___ 95-96 ___ 96-97 ___ 97-98

SUPERB QUALIFICATION SUMMARY

✓ E) Contamination requiring remediation confirmed?
✓ F) Written request for SUPERB (Dated) 4-19-93
___ G) **SPILL INSURANCE** (Check one) This information must be received before funds are disbursed.
___ Company _____ Policy Received. Deductible $ _____ Limit $ _____
___ A written statement of **NO INSURANCE** (Letter Dated 4-19-93)

___ H) **ABATEMENT** (Check one) This information must be received before funds are disbursed.
X A) USTs closed (RFG or filled in place). Date closed _____
___ B) USTs not closed, system test results received and passed. Date tested _____
___ C) USTs not closed, all USTs emptied. Date emptied _____

New tanks tested tight — 4 above ground tanks

SUPERB Requested (Date Received) 4-19-93 **SUPERB Eligible (Date mailed)** _____ **BY** ___

All complete. SUPERB Qualified (Date Mailed) 8/20/93 **Forward File to SCAS (Date)** _____

SUP-APP7 930402

10/28/97

Carolina BioServices, Inc
Soil Bioremediation / Reclamation / Reuse

October 9, 1997

Jim Owrey
Marshall Miller & Associates
Post Office Box 848
Bluefield Virginia 24605-0848

RE JJ's Texaco Site ID #05986; Lexington County
Settle Oil Co. Site ID #07775; Richland County

Dear Mr. Owrey:

Carolina BioServices, Incorporated, at your request, agrees to accept drums of soil from the sites listed above at our Orangeburg bioremediation facility. We will arrange for transportation of these drums using one of our contract haulers.

By copy of this letter, we request permission to treat the contents of these drums from the Bureau of Land and Waste Management. When the soil has been treated to reduce levels of contamination to South Carolina Department of Health and Environmental Control acceptable levels, we will dispose of the soil pursuant to the terms of our Approval to Operate.

Should you have any further questions, please do not hesitate to contact me at the above address, or by telephone at 1-888-337-7645 toll free. Thank you for choosing Carolina BioServices for remediation and disposal services.

Sincerely yours,

LST PROGRAM DOCKETING # 63-Tech

David S. Brownlee

Attachments

cc Mr. Harold Seabrook, Bureau of Land and Waste Management w/attachments
Ms. Myra Reece, Lower Savannah District Evironmental Quality Control
Mr. Scott McInnis, Bureau of Underground Storage Tank Mgmt. w/attachments

DISPOSAL REQUEST

SOUTH CAROLINA
Department of Health and Environmental Control (DHEC)
Bureau of Underground Storage Tank Management

****Please check appropriate box****

SITE ID # 05986 COUNTY LEXINGTON
FACILITY NAME J.J's TEXACO
STREET ADDRESS 105 NORTH MAIN STREET CITY GASTON

CONTAMINANT (QUANTITY & TYPE OF UNITS)

26 Drums VIRGIN PETROLEUM _____ WASTE OIL _____ OTHER(describe)

TYPE OF WASTE (CHECK ONLY ONE)

✓ SOIL _____ WATER _____ OTHER(describe)

Please fill out all the applicable sections

POINT OF CONTACT

CHUCK CLINE
Name (Type or Print)

MARSHALL MILLER + ASSOCIATES (540) 322-5467
Company Phone Number

P.O. Box 848, BLUEFIELD, VA. 24605
Address City State Zip Code

GENERATOR

D.E. SHUMPERT
Name (Type or Print)

D.E. SHUMPERT OIL COMPANY (803) 894-3131
Company Phone Number

P.O. Box 6, PELION, S.C. 29123
Address City State Zip Code

TRANSPORTER

THOMAS JACKSON CONSTRUCTION CO. (803) 531-4018
Name of Individual or Company (please print) Phone Number

3553 FIVE CHOP ROAD ORANGEBURG SC 29115
Address (please print) City State Zip Code

DESIGNATED FACILITY

CAROLINA BIO SERVICES, INC. (803) 535-0080
Name of Individual or Company (please print) Phone Number

3553 FIVE CHOP ROAD ORANGEBURG SC 29115
Address (please print) City State Zip Code

Please include copy of acceptance letter

Total Quantity 26 **UNITS (drums, tons, gallons, etc.)**

DISPOSAL REQUEST DISPOSAL REQUEST DISPOSAL REQUEST

dasp.jb

HYDROLOGIC, INC.

COMPANY NAME:	MARSHAL MILLER & ASSOC.
COMPANY PROJECT NUMBER:	A89115-RAPID ASSESS-J.J. TEXACO
HYDROLOGIC PROJECT NUMBER:	K9717892
HYDROLOGIC LAN ID #:	N/A
HYDROLOGIC SAMPLE NUMBER:	9717895
SAMPLE IDENTIFICATION:	SB-14 28-32
DATE SAMPLED:	08/18/97
DATE EXTRACTED:	N/A
DATE/TIME ANALYZED:	09/02/97

METHOD SW 846 8020

ANALYSIS	CAS NO.	SDL (ug/kg)	RESULT (ug/kg)
Benzene	71-43-2	10.0	1120
Toluene	108-88-3	10.0	274
Ethylbenzene	100-41-4	200	7260
Xylenes (Total)	1330-20-7	200	34300
Naphthalene	91-20-3	200	5880
Surrogate Recovery:			
BFB			115%

BDL = Below Sample Detection Limit
SDL = Sample Detection Limit

COMMENTS: COMPOUNDS WITH ELEVATED SDL ARE DUE TO A SAMPLE DILUTION.

1491 TWILIGHT TRAIL FRANKFORT, KY 40601
502-223-0251 FAX: 502-875-8016/TOLL FREE 800-728-2251

mil 3/20/98

JJ's Texaco #05986 Domenico's Model to Determine SSTLs for Monitoring Well –1 from the Property Line (Fence)

Generalized Formula:

$$Csstl = \frac{8 * Crbsl}{\exp\left[\left(\frac{x}{2ax}\right)\left(1-\sqrt{1+\frac{4\lambda ax}{v}}\right)\right] * erfc\left[\frac{x-vt\sqrt{1+\frac{4\lambda ax}{v}}}{2\sqrt{axvt}}\right] * \left\{erf\left[\frac{y-\frac{Y}{2}}{2\sqrt{axvt}}\right] - ert\left[\frac{y-\frac{Y}{2}}{2\sqrt{axvt}}\right]\right\} * \left\{erf\left[\frac{(z+Z)}{2\sqrt{azx}}\right] - erf\left[\frac{(z-Z}{2\sqrt{azx}}\right]\right\}}$$

Y	43	Width of source area perpendicular to GW flo
Z	8	Vertical thickness of source (m)
x	70	Distance from source to receptor (x-coordinat
yb	0	y coordinate of the receptor relative to the so
zb	0	z coordinate of the receptor relative to the so
ax	7	Longitudal dispersivity (m) (x/10)
ay	2.333333333	Transverse dispersivity (m) (ax/3)
az	0.35	Vertical dispersivity (m) (ax/20)
v	3.11E-08	Contaminant velocity (m/s)

L	0	First order decay rate (1/sec)
t	2.00E+09	Time during which contaminant transport tak
Koc	(in equations)	Chemical specific soil/water partitioning coeffi
foc	5	Naturally occuring organic carbon in soil mea
Bd	5	Bulk Density (gm/cc)
o	0.5	Porosity (decimal %)
Crbsl (ben)	0.005	RBSL concentration for selected CoC
Crbsl (tol)	1	
Crbsl (eth)	0.7	
Crbsl (xyl)	10	
Crbsl (nap)	0.025	
Crbsl (mtbe)	0.04	

Chemical of Concern	SSTL
benzene	0.087298854
toluene	17.45977083
ethylbenzene	12.22183958
xylenes	174.5977083
naphthalene	0.436494271
MTBE	0.698390833

UST PROGRAM
DOCKETING # 62 Tech

MARSHALL MILLER & ASSOCIATES
GEOLOGY
ENGINEERING
GEOPHYSICS

April 24, 1998

Mr. Reed Corley
South Carolina Department of Health and Environmental Control
Bureau of Underground Storage Tank Management
2600 Bull Street
Columbia, SC 29201

Re: *J.J.'s Texaco, Gaston, South Carolina*
Analytical Results for the Deep Well
DHEC ID #05986

Dear Mr. Corley:

Please find enclosed a copy of the analytical results for the telescopy well at the J.J.'s Texaco site. If you have any questions or comments, please feel free to contact me.

Sincerely

Marshall Miller & Associates

Charles E. Cline
Senior Project Hydrogeologist

lhr

HYDROLOGIC, INC.

ANALYTICAL AND QUALITY CONTROL REPORT

CHUCK CLINE
MARSHALL MILLER &
ASSOCIATES
P.O. Box 848
Bluefield, VA 24605

04/20/1998

HydroLogic Job Number: 98.00885

Enclosed is the Analytical and Quality Control Reports for the following samples submitted to HydroLogic - Frankfort for analysis:

Project Description: A89115

Sample Number	Sample Description	Matrix	Date Sampled	Date Received
14143	DMW	WATER	04/09/1998	04/10/1998

The Quality Control report is generated on a batch basis. All information contained in this report is for the analytical batch(es) in which your sample(s) were analyzed. All anlytical batch(es) are initiated at 8:00 a.m. unless otherwise flagged on report.

All samples were analyzed according to the RCRA guidelines described in SW-846, NPDES regulations, and Standard Methods for the Examination of Water and Wastewater.

Project Representative

1491 TWILIGHT TRAIL FRANKFORT, KY 40601
502-223-0251 FAX: 502-875-8016 / TOLL FREE 800-728-2251

HYDROLOGIC, INC.

ANALYTICAL REPORT

CHUCK CLINE
MARSHALL MILLER &
ASSOCIATES
P.O. Box 848
Bluefield, VA 24605

04/20/1998

HydroLogic Job Number: 98.00885

Matrix Type: WATER

Client Project ID: A89115

SAMPLE NO.	SAMPLE DESCRIPTION	DATE-TIME SAMPLED
14143	DMW	04/09/1998 11:00

Analyte	Method	Result	Rep. Limit	Units	Flags	Date Analyzed
Lead, ICP		Attached				04/14/1998
BTEX by 8021B (AQ)	8021B					
Benzene		<1.0	1.0	ug/L		04/16/1998
Ethylbenzene		<1.0	1.0	ug/L		04/16/1998
Naphthalene		<5.0	5.0	ug/L		04/16/1998
Toluene		1.15	1.0	ug/L		04/16/1998
m+p-Xylenes		<1.0	1.0	ug/L		04/16/1998
o-Xylene		<1.0	1.0	ug/L		04/16/1998
SURR: Bromofluorobenzene		112		%		04/16/1998

1491 TWILIGHT TRAIL FRANKFORT, KY 40601
502-223-0251 FAX: 502-875-8016 / TOLL FREE 800-728-2251

HYDROLOGIC, INC.

FINAL REPORT OF ANALYSES

HYDROLOGIC FRANKFORT
1491 TWILIGHT TRAIL
FRANKFORT, KY 40601-
Attn: BEATE LYNN

PROJECT NAME: MARSHALL MILLER
REPORT DATE: 04/15/98

SAMPLE NUMBER- 119303 SAMPLE ID- A89115 DMW
DATE SAMPLED- 04/09/98
DATE RECEIVED- 04/10/98 SAMPLER- JO
TIME RECEIVED- 0920 DELIVERED BY- FED EX

SAMPLE MATRIX- WW
TIME SAMPLED- 1100
RECEIVED BY- DHT

ANALYSIS	METHOD	SAMPLE PREP DATE	BY	ANALYSIS DATE	BY	RESULT	UNITS	DET. LIMIT
LEAD, TOTAL	239.2	04/10/98	LJP	04/14/98	LJP	< 0.003	mg/l	0.003

LABORATORY DIRECTOR Lou J Patton

P.O. BOX 18029 ASHEVILLE NC 28814-0029
704-254-5169 FAX: 704-252-9711 / TOLL FREE: 800-344-5759

Chain of Custody Record

HYDROLOGIC, INC.

Page____ of ____

☐ Asheville, NC (704) 254-5169 ☐ Norcross, GA (770) 368-0636 ☐ Charlotte, NC (704) 392-1164 ☐ Frankfort KY (502) 223-0251 ☐ Morrisville, NC (919) 380-9699
☐ Lumberton, NC (910) 738-6190 ☐ Lexington, SC (803) 796-8989 ☐ Brighton, CO (303) 659-0497 ☐ Macon, GA (912) 757-0811 ☐ Orlando, FL (407) 851-2560

Client: Marshall Miller	Project No.: A89115
Report Address: P.O. Box 848	Invoice Address: Same
Bluefield VA 24605	
Attn: Cherie Cline	Attn: Jim Avery
Phone No.: 540-322-5467	Sampled By: J.O.
Fax No.: 540-322-1510	P.O. No: —
	State Samples Collected S.C.

TURNAROUND TIME

☐ 24 Hours ☐ 48 Hours
☒ 5 Days ☐ 10 Days Date Needed: A.S.A.P. 4/16

REQUESTED PARAMETERS

BTEX + Naph (8021) ↓ Lead (Pb) ↓

LAB CODE I.D.
A = Asheville, NC
C = Charlotte, NC
D = Denver, CO
E = Lexington, SC
G = Macon, GA
K = Frankfort, KY
L = Lumberton, NC
M = Morrisville, NC
N = Norcross, GA
O = Orlando, FL
S = Subcontracted

Sample ID	Date	Time	Comp/ Grab	Matrix	Containers	HCl	HNO3								← Preserv.	REMARKS
DMW	4/9/98	11:00	G	H2O	2-40 1-250	X	X									

Lab Use Only Custody Seal: ☐Yes ☐No ☐N/A K A Billing Onice Init Lab Temp. Rec. Lab Temp

COMMENTS: Shipped Pb to Hydro/Ashe via FedEx# 803804992530 Shipped BTEX, NAPH, to Hydro/ky via FedEx# 803804992298
Project Name - JJ's Texaco

Relinquished By:	Date 4-9-98 Time 12:35	Received By: Gene E. Hooks	Date 4/9/98 Time 1243	Lab Use Only:	
Relinquished By: Karen Moore	Date 4/9/98 Time	Received By: Jack Hale Jr	Date 4-10-98 Time 1000		
Relinquished By:	Date Time	Received By:	Date Time		
Relinquished By:	Date Time	Received By:	Date Time		

D H E C

PROMOTE PROTECT PROSPER

2600 Bull Street
Columbia, SC 29201-1708

DIVISION OF
UNDERGROUND STORAGE TANK MANAGEMENT

Phone (800) 826-5435 Fax (803) 898-4330

FEB 11 1999

D. F. Shumpert Oil Company
Attn: D. Frank Shumpert, III
P.O. Box 6
Pelion, SC 29123

Re: J. J.'s Texaco
105 N. Main St., Gaston, SC
Facility ID #05986
Lexington County

UST PROGRAM
DOCKETING # 60 Tech

Dear Mr. Shumpert:

The next scope of work deemed necessary at the referenced facility is additional assessment and subsequent active corrective action.

With your approval, the SCDHEC can directly procure the services of an environmental contractor on your behalf for the necessary site rehabilitation activities. If you concur with this option, please complete and return the enclosed Permission Form within 15 days of the date of this letter. You will be informed of the results upon completion.

If you do not wish for the SCDHEC to procure the services of an environmental contractor on your behalf, please call H. Reed Corley **within 15 days of the date of this letter.**

On all correspondence regarding this site, please reference the Facility ID number. Please be sure to include the requested information so that the appropriate approvals can be issued. Please feel free to call H. Reed Corley at (803) 898-4360 or (800) 826-5435 (within SC only) if you have questions or need additional information.

Sincerely,

State Lead and Field Services Section
Assessment and Corrective Action Branch
Division of Underground Storage Tank Management

H. Reed Corley, Hydrogeologist

Christopher S. Doll, P.G., Manager

HRC/CSD/05986-01.add

enc: Permission Form

cc: Technical File (without enclosures)

SCDHEC/UST/020899

file away

Add MWs needed

RECEIVED

FEB 18 1999

DIVISION OF UNDERGROUND STORAGE TANK MANAGEMENT

UNDERGROUND STORAGE TANK AND PROPERTY OWNER

PERMISSION FORM - FACILITY ID #05986

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

I, D.Frank Shumpert III, 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 assessment and corrective action activities as required, and authorize SCDHEC, or a contractor selected by SCDHEC, 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 SCDHEC 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 J.J.'s Texaco Phone # 803-791-5653

Street Address of Facility 105 N. Main St

Town, City, District, Suburb Gaston, S.C.

Name of nearest intersecting street, road, highway, alley

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

Is this facility serviced by a public water or sewer utility? (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) Yes, 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 Shumpert Oil Co, Phone number 803-894-3131

Is the property currently leased or rented to someone? (yes or no) Yes, if yes, please provide their name JJ Jones and phone number 791-5653 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): D.F. Shumpert Oil Co.

Phone Number (home) 803-894-3998 (work) 803-894-3131

Signature of UST/property Owner: D. Frank Shumpert III

Witness: Sharon Doni

Date: February Month 15 Day 1999 Year

UST PROGRAM DOCKETING # 59-Tech

D H E C
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

AUG 22 2003

MR BRIAN CRAWFORD
JA JONES ENVIRONMENTAL SERVICES
CHARLESTON NAVAL COMPLEX
1849 AVENUE F
NORTH CHARLESTON SC 29405

Re: **Notice to Proceed**
Bid # SB-21868-3/18/03; PO# 463276

UST PROGRAM DOCKETING # 58Tech

Dear Mr. Crawford:

Based on the award of the referenced bid package, enclosed are the information packets to conduct twenty-eight (28) 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#	JA Jones CA#
15777	4B	Charles Furniture	Anderson	4	U. Khattak	BTEX, Naph, MTBE	19540	19539
14243	3B	Iva Rescue Squad	Anderson	6	R. Miner	BTEX, Naph, MTBE & EDB	19703	19704
11636	4B	Buddy's Inc	Greenville	6	K. Doran	BTEX, Naph, MTBE & EDB	19611	19747
04341	3A	Lil Cricket 217	Greenville	6	U. Khattak	BTEX, Naph, MTBE	18583	19582
04179	3B	Nimmons Oil Co	Greenville	15	U. Khattak	BTEX, Naph, MTBE	19509	19508
08591	2B	Spartan Spot	Spartanburg	9	U. Khattak	BTEX, Naph, MTBE	19504	19503
10915	3B	Ayers & Sons	Spartanburg	11	U. Khattak	BTEX, Naph, MTBE	19598	19597
09945	3B	Prince Oil Co	Spartanburg	4	U. Khattak	BTEX, Naph, MTBE	19575	19574
17289	2B	SCDOT Richburg	Chester	9	K. Doran	BTEX, Naph, MTBE, EDB, & Lead	19840	19839
00822	2B	Neighborhood Grocery	Bamberg	13	K. Doran	BTEX, Naph, MTBE, EDB, & Lead	19851	19850
09609	3B	SCDOT Barnwell	Barnwell	10	K. Doran	BTEX, Naph, MTBE	19854	19853
14385	4A	Garvin Oil	Aiken	4	U. Khattak	BTEX, Naph, MTBE	19600	19599
05986	2B	JJ Texaco	Lexington	12	U. Khattak	BTEX, Naph, MTBE	19571	19570
15000	3B	West End Groc.	Lexington	5	U. Khattak	BTEX, Naph, MTBE	19497	19496
11943	3B	Quick Mart	Lexington	12	R. Miner	BTEX, Naph, MTBE	19673	19674

07684	2B	Pantry Express	Richland	21	U. Khattak	BTEX, Naph, MTBE	19544	19543
07792*	1D	Joe Hatcher's Exxon	Richland	20	K. Doran	BTEX, Naph, MTBE, EDB, & Lead	19836	19835
02329	3B	Bobby's Exxon	Clarenden	13	U. Khattak	BTEX, Naph, MTBE	19551	19550
09876	3B	Langstons Auto	Orangeburg	14	R. Miner	BTEX, Naph, MTBE, & EDB	19695	19696
08776*	2A	Santee Wateree RTA	Sumter	20	R. Miner	BTEX, Naph, MTBE	19904/ 19906	19905/ 19907
10588	3B	Wesmark Exxon	Sumter	18	U. Khattak	BTEX, Naph, MTBE	19499	19498
12575	3B	Palmetto Plaza	Sumter	3	U. Khattak	BTEX, Naph, MTBE	19561	19560
06346*	1D	Kountry Mart	Marlboro	35	D. Thoma	BTEX, Naph, MTBE, & EDB	19876	19877
05336	2B	Boise Cascade	Kershaw	16	K. Doran	BTEX, Naph, MTBE, EDB, & Lead	19899	19898
14496	3B	Royle Road Assoc.	Berkeley	9	R. Miner	BTEX, Naph, MTBE, & EDB	19700	19701
02940	2B	Sanders Deep Well	Berkeley	15	R. Miner	BTEX, Naph, MTBE, & EDB	19863	19864
03073	2B	Weathers BP	Dorchester	15	K. Doran	BTEX, Naph, MTBE, EDB, & Lead	19843	19841
18906*	1D	Beaton's Grocery	Jasper	33	D. Thoma	BTEX, Naph, MTBE, & EDB	19895	19896

*** These facilities should be sampled on or before September 30, 2003. If sampling is not completed by this date, a late fee of $25 per day may be levied in accordance with Special Condition 15.**

JA Jones Environmental Services 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
State Lead & Field Services Section
Assessment & Corrective Action Division

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 [redacted]571

Facility: 05986 J J TEXACO
KHATTAUK
PO Number:

Task / Description	Categories	Item Description	Qty / Pct	Unit Price	Amount
11 ANALYSES					
	GW GROUNDWATER	A BTEX+NAPTH+MTBE	12.0000	30.00	360.00
			Total Amount		360.00

Approved Cost Agreement 70

Facility: 05986 J J TEXACO
KHATTAUK
PO Number:

Task / Description	Categories	Item	Description	Qty / Pct	Unit Price	Amount
04 MOB/DEMOB						
		B	PERSONNEL	1.0000	59.95	59.95
17 DISPOSAL						
		A2	WASTEWATER - PUMPING TEST	60.0000	0.50	30.00
18 MISCELLANEOUS						
			GAUGE & SAMPLE	12.0000	17.95	215.40
				Total Amount		305.35

D H E C
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) 898-4330

OCT 2 4 2003

DF SHUMPERT OIL CO
948 MAIN ST
PELION SC 29123

UST PROGRAM
DOCKETING # 57 Tech

Re: JJ Texaco, 105 N Main St., Gaston, SC
UST Permit # 05986
Analytical Results received October 22, 2003
Lexington County

Dear Sir or Madam:

Please find the analytical results for the October 13, 2003 groundwater-sampling event at the referenced facility. Monitoring wells MW-6 and MW-10 contained free-phase petroleum. An Aggressive Fluid Vacuum Recovery Event will be required, followed by a comprehensive sampling event.

This office will continue to procure the services of an environmental contractor on your behalf, per your signed permission form.

On all correspondence regarding this site, please reference the UST Permit Number. Please feel free to contact me at (803) 896-6397 or thomadl@dhec.sc.gov, if you have questions or need additional information.

Sincerely,

Debra L. Thoma

Debra L. Thoma, Hydrogeologist
State Lead and Field Services Section
Assessment and Corrective Action Division

Enc.: Analytical results

cc: Technical File (w/o enc.)

D H E C
PROMOTE PROTECT PROSPER
2600 Bull Street
Columbia, SC 29201-1708

UNDERGROUND STORAGE TANK PROGRAM
BUREAU OF LAND AND WASTE MANAGEMENT

Phone (803) 896-6240 Fax (803) 896-6245

NOV 10 2003

JASON TERRY
TERRY ENVIRONMENTAL INC
PO BOX 41784
CHARLESTON SC 29423

UST PROGRAM DOCKETING # 56 Tech

Re: **Notice to Proceed**
JJ Texaco, 105 N Main St., Gaston, SC
UST Permit # 05986; CA# 20483
SB-19572-05/28/02-EMW; PO # 413548
Lexington County

Dear Mr. Terry:

An 8-hour Aggressive Fluid Vapor Recovery event is needed to remove free product from monitoring well #6 and #10 at the referenced facility. A Bureau of Air Quality UST Modeling Form shall be completed and submitted to my attention within thirty days from the date of this correspondence. The final report and invoice should be submitted within 60 days from the date of this letter. If upon mobilization to the site, the monitoring wells do not contain measurable free phase product, the AFVR Event should not be conducted and the UST Program contacted immediately.

A cost agreement (CA) #20483 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 South Carolina Department of Health and Environmental Control (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 SB-19572-05/28/02-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.

A copy of the approved assessment cost agreement is enclosed for your information. Future invoices and/or other criteria included therein must comply with current State Underground Petroleum Environmental Response Bank (SUPERB) criteria per Section 44-2-20(2). Please reference Cost Agreement #20483 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 to this cost agreement must be pre-approved by this Department in order for Terry Environmental, Inc. to seek future cost compensation. Any item(s) not clearly or completely addressed in the report (disposal manifest for generated ground water, etc.) WILL NOT be compensated by the SUPERB Account.

The Department grants pre-approval for transportation of free phase product and petroleum contaminated groundwater from the referenced site to a permitted treatment facility. The free product 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 in the report.

On all correspondence regarding this site, please reference the UST Permit #05986 and Cost Agreement # 20483. If you have questions concerning this correspondence, or would like to submit additional information, please contact me at (803) 896-6397 or thomadl@dhec.sc.gov.

Sincerely,

Debra L. Thoma

Debra L. Thoma, Hydrogeologist
State Lead and Field Services Section
Assessment and Corrective Action Division

enc: Approved Cost Agreement # 20483
Bureau of Air Quality UST Modeling Form
AFVR Event Information Package

cc: Central Midlands District EQC
Technical File

Approved Cost Agreement [redacted]0483

Facility: 05986 J J TEXACO
KHATTAUK
PO Number:

Task / Description	Categories	Item Description	Qty / Pct	Unit Price	Amount
04 MOB/DEMOB					
		A EQUIPMENT	1.0000	130.00	130.00
17 DISPOSAL					
		A2 WASTEWATER - PUMPING TEST	1,000.0000	0.40	400.00
23 EFR					
		A 8 HOUR EVENT	1.0000	1,240.00	1,240.00
		C OFF GAS TREATMENT	1.0000	150.00	150.00
			Total Amount		1,920.00

D H E C

PROMOTE PROTECT PROSPER

C. Earl Hunter, Commissioner

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

FEB 24 2004

JASON TERRY
TERRY ENVIRONMENTAL INC
PO BOX 25
SUMMERVILLE SC 29484

UST PROGRAM
DOCKETING # 55Tech

Re: **Notice to Proceed**
JJ Texaco, 105 N Main St., Gaston, SC
UST Permit # 05986; CA# 20483
SB-19572-05/28/02-EMW; PO # 413548
Air Quality Modeling Information received November 18, 2004
Lexington County

Dear Mr. Terry:

You may commence with the Aggressive Fluid Vapor Recovery event at the referenced facility for monitoring wells MW-6 & MW-10. The final report and invoice should be submitted on or before April 15, 2004. If upon mobilization to the site, the monitoring well does not contain measurable free phase product, the AFVR Event should not be conducted and the UST Program contacted immediately.

Cost agreement (CA) # 20483 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 SB-19572-05/28/02-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.

Future invoices and/or other criteria included therein must comply with current State Underground Petroleum Environmental Response Bank (SUPERB) criteria per Section 44-2-20(2). Please reference Cost Agreement #20483 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 to this cost agreement must be pre-approved by this Department in order for Terry Environmental, Inc. to seek future cost compensation. Any item(s) not clearly or completely addressed in the report (disposal manifest for generated ground water, etc.) WILL NOT be compensated by the SUPERB Account.

The Department grants pre-approval for transportation of free phase product and petroleum contaminated groundwater from the referenced site to a permitted treatment facility. The free product 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 in the report.

On all correspondence regarding this site, please reference the UST Permit #05986 and Cost Agreement # 20483. If you have questions concerning this correspondence, or would like to submit additional information, please contact Patricia Hydrick at (803) 896-6629 or hydricpa@dhec.sc.gov.

Sincerely,

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
Telephone: (803) 896-6240; Fax (803) 896-6245

cc: DF Shumpert Oil Co., 948 Main St., Pelion, SC, 29123
Technical File

D H E C

PROMOTE PROTECT PROSPER

C. Earl Hunter, Commissioner

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

APR 05 2004

UST PROGRAM
DOCKETING # 54 Tech

DF SHUMPERT OIL CO
948 MAIN ST
PELION SC 29123

Re: JJ Texaco, 105 N Main St., Gaston, SC
UST Permit # **05986**
Aggressive Fluid Vapor Recovery Report received March 1, 2004
Lexington County

Dear Sir or Madam:

The Underground Storage Tank (UST) Program has reviewed the AFVR Report submitted by Terry Environmental Services. Free product was removed from monitoring well MW-10 during the event. No free product was detected in monitoring well MW-6. The next scope of work needed is sampling of the monitoring wells at the site.

On all correspondence regarding this site, please reference the UST Permit Number **#05986**. Please feel free to contact me at (803) 896-6629 or hydricpa@dhec.sc.gov, if you have questions or need additional information.

Sincerely,

Patricia Hydrick

Patricia Hydrick, Hydrogeologist
Assessment Section
Assessment and Corrective Action Division
Bureau of Land and Waste Management

Enc: AFVR Report
cc: Technical File

D H E C

PROMOTE PROTECT PROSPER

C. Earl Hunter, Commissioner

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

DEC 15 2004

D F SHUMPERT OIL CO
948 MAIN ST
PELION SC 29123

UST PROGRAM
DOCKETING # 53Tech

Re: J J Texaco, 105 N Main St., Gaston, SC
UST Permit # 05986, CA # 23534, MWA #UMW-18869
Release Reported November 20, 1991
Assessment Plan received December 8, 2004
Lexington County

To Whom It May Concern:

The Underground Storage Tank (UST) Program of the South Carolina Department of Health and Environmental Control (SCDHEC) recognizes your commitment to continue work at this site utilizing your own contractor. The UST Program has reviewed the referenced Assessment Plan and cost agreement submitted by Duncan Environmental, Inc.

Cost Agreement #23534 has been approved in the amount shown on the enclosed cost agreement for complete delineation of the hydrocarbon plume. This includes the adjustment of the following rates and/or site rehabilitation activities proposed in the cost proposal to ensure compliance with current SUPERB program criteria per Section 44-2-20(2):

- Shallow monitoring well footage was increased from 225 feet to 270 feet and two telescoping wells were added.
- Number of groundwater samples was increased from 18 to 22; PAH analyses were omitted.
- One soil sample analysis was added.
- Four slug tests were added (two for deep and two for shallow monitoring wells).
- Soil disposal was increased from one to three drums.

Duncan Environmental, Inc. can submit an invoice for direct billing from the State Underground Petroleum Environmental Response Bank (SUPERB) Account. Please note that all applicable South Carolina certification requirements apply to the laboratory services, well installation, and report preparation. All site rehabilitation activities must be performed and submitted by a South Carolina Certified Underground Storage Tank Site Rehabilitation Contractor.

A Report of Findings and the invoice are due within 90 days from the date of this letter. An interim well drilling invoice may be submitted for this scope of work only if the project manager is notified of drilling activity schedule. If the invoice and completed report are not submitted within 120 days from the date of this letter, monies allocated to pay this invoice will be uncommitted. This means that the invoice will not be processed for payment until all other committed funds are paid or monies become available.

Please note that Sections 44-2-110(4) and 44-2-130 of the SUPERB Statute state that no costs will be allowed unless prior approval from the Department is obtained. If for any reason additional tasks will be completed, these additional tasks and the associated cost must be pre-approved by the Department for the cost to be paid. The SCDHEC reserves the authority to pay only for work properly performed and/or technically justified and will only pay rates in accordance with established criteria. 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 work.

The Bureau grants pre-approval for the transportation of the investigative derived waste (virgin petroleum contaminated soil and groundwater) from the referenced site to a permitted treatment facility. All contaminated investigative derived waste must be accepted by the approved treatment facility. There can be no spillage or leakage in transport. A copy of the disposal manifest and approval letter from the receiving facility must be included as an appendix to the final report. If the levels of petroleum contamination based on laboratory analysis are below treatment levels, please contact the project manager for approval to dispose of the investigative derived waste on-site. The SUPERB Account will not compensate for transportation or treatment of clean soil and/or groundwater.

On all correspondence regarding this site and scope of work, please reference UST Permit #05986 and CA #23534. If you have any questions concerning this correspondence, please contact me at (803) 896-6647 or 1-800-826-5435 (within South Carolina only).

Sincerely,

K. Akhvlediani

Konstantine T. Akhvlediani, Hydrogeologist
Assessment Section
Assessment and Corrective Action Division
Underground Storage Tank Program
Bureau of Land and Waste Management

enc.: Approved Cost Agreement (ACA)
Monitoring Well Approval (MWA copy)

cc: Duncan Environmental, 10817 Two Notch Rd., Elgin, SC 29209 (w/ACA & original MWA)
Technical File (w/MWA)

SCDHEC/UST/KTA/12/08/04

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: May 17, 2004

Approval No.:UMW-18869

Approval is hereby granted to:	Duncan Environmental, Inc.
(On behalf of):	D F Shumpert Oil Co.
UST Permit #:	05986
Name & Address:	J J Texaco, 105 N Main St., Gaston, SC
County:	Lexington

This approval is for the construction of two telescoping wells, 270 feet of shallow monitoring wells and 225 feet of temporary wells in accordance with the Tier II Assessment document. The wells are to be constructed within the shallow aquifer for the intended purpose of monitoring groundwater 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 Konstantine Akhvlediani at (803) 896-6647 or akhvlekt@dhec.sc.gov and Michael Radford at (803) 896-0620 or Radforrm@dhec.sc.gov

5. Please provide groundwater 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 will be installed by or under the direct supervision of a licensed well driller certified by the State of South Carolina.

7. Monitoring wells will be abandoned, when no longer required, by or under the direct supervision of a 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: K. Akhvlediani

Konstantine T. Akhvlediani, Hydrogeologist
Assessment Section
Assessment and Corrective Action Division
UST Program

Approved Cost Agreement 23534

Facility: 05986 J J TEXACO
AKHVLEKT
PO Number:

Task / Description	Categories	Item Description	Qty / Pct	Unit Price	Amount
01 PLAN					
		A PLAN PREPARATION	1.0000	100.00	100.00
04 MOB/DEMOB					
		A EQUIPMENT	2.0000	500.00	1,000.00
		B PERSONNEL	4.0000	250.00	1,000.00
06 SOIL BORINGS (DRILLED)					
		SOIL BORINGS & FLD SCREENING	225.0000	17.00	3,825.00
08 ABANDONMENT					
		ABANDONMENT	225.0000	4.00	900.00
09 WELL INSTALLATION					
		B WATER TABLE (DRILLED)	270.0000	38.00	10,260.00
		C TELESCOPING	130.0000	58.00	7,540.00
10 SAMPLE COLLECTION					
		A GROUND WATER	21.0000	55.00	1,155.00
		C WATER SUPPLY	1.0000	25.00	25.00
11 ANALYSES					
	GW GROUNDWATER	A BTEX+NAPTH+MTBE	22.0000	100.00	2,200.00
		E LEAD	17.0000	20.00	340.00
		F EDB	17.0000	55.00	935.00
		K NITRATE	17.0000	20.00	340.00
		L SULFATE	17.0000	20.00	340.00
		M FERROUS IRON	17.0000	20.00	340.00
		N METHANE	17.0000	110.00	1,870.00
	SOIL SOIL	Q BTEX+NAPTH	1.0000	100.00	100.00
12 AQUIFER CHARACTERIZATION					
		B SLUG TEST	4.0000	150.00	600.00
16 SUBSEQUENT SURVEY					
		SUBSEQUENT SURVEY	1.0000	260.00	260.00
17 DISPOSAL					
		C SOIL (TREATMENT/DISPOSAL)	3.0000	50.00	150.00
19 RPT/PROJECT MNGT & COORDINATIO					
		PCT PERCENT	0.1500	33,280.00	4,992.00
				Total Amount	38,272.00

D H E C

PROMOTE PROTECT PROSPER

C. Earl Hunter, Commissioner

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

NOV 28 2005

D F SHUMPERT OIL CO
814 PINE ST
PELION SC 29123

UST PROGRAM
DOCKETING # 52-Tech

Re: J J Texaco, 105 N Main St., Gaston, SC
UST Permit # 05986
Notice of Alleged Violation
Lexington County

To Whom It May Concern:

The Underground Storage Tank (UST) Program of the South Carolina Department of Health and Environmental Control directed you to submit an assessment report, with the report due May 26, 2005. To date the required report has not been received. In accordance with Section 280.65 of the South Carolina Underground Storage Tank Regulations, the assessment must be conducted as documented chemicals of concern were above the risk-based-screening levels.

Implementation of this scope of work should proceed upon receipt of this correspondence. **The report must be submitted within 30 days from the date of this letter, if the report is not received in accordance with this schedule, enforcement procedures will be initiated.**

On all correspondence regarding this site, please reference UST Permit #05986. If you have any questions concerning this correspondence, please call at (803) 896-6647.

Sincerely,

K. Akhvlediani

Konstantine T. Akhvlediani, Hydrogeologist
Assessment Section
Assessment and Corrective Action Division
Underground Storage Tank Program
Bureau of Land and Waste Management

cc: Duncan Environmental, 10817 C Two Notch Rd., Elgin, SC 29045
Technical File

SCDHEC/UST/11/28/2005

D H E C

PROMOTE PROTECT PROSPER

C. Earl Hunter, Commissioner

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

OCT 17 2006

D F SHUMPERT
814 PINE ST
PELION SC 29123

UST PROGRAM
DOCKETING # 51 Tech

Re: Former JJ's Texaco, 105 N. Main St., Gaston, SC
UST Permit #05986; Cost Agreement #27936
Release Reported November 20, 1991
Assessment Addendum report received December 14, 2005
Lexington County

Dear Mr. Shumpert:

The Underground Storage Tank (UST) Program of the South Carolina Department of Health and Environmental Control (SCDHEC) recognizes your commitment to continue work at this site utilizing your own contractor. Based upon a review of the referenced report, the UST Program has determined that additional work will be necessary. Initially two Aggressive Fluid Vapor Recovery (AFVR) events, on MW-6 and MW-10 are necessary to reduce the levels of free phase petroleum present in these two wells. The replacement of monitoring well MW-3 will be necessary to define the dissolved plume on-site. Upon completion of the aforementioned activities, a comprehensive groundwater-sampling event should be conducted to obtain current data to determine the appropriate future course of action for remediation of the referenced release.

Cost Agreement #27936 has been approved for the amount shown on the enclosed cost agreement. The AFVR events should be completed within 60 days of receipt of this correspondence. Installation of the monitoring well (up to 45 feet) to replace MW-3 should follow this with the appropriate forms submitted with the final report. Sampling of all wells should not take place until at least 30 AFTER the last AFVR event is completed. Samples should be collected from all existing monitoring and water supply wells, including the newly installed well, and sampled for BTEX, Naphthalene, & MTBE by EPA Method 8260B. Please note purging of a well is not necessary if the water table is within the screened interval. UST Program standards for report formatting should be followed when submitting the final report.

Duncan Environmental Associates, Inc. can submit an invoice for direct billing from the State Underground Petroleum Environmental Response Bank (SUPERB) Account. Please note that all applicable South Carolina certification requirements apply to the laboratory services, well installation, and report preparation. All site rehabilitation activities must be performed and submitted by a South Carolina Certified Underground Storage Tank Site Rehabilitation Contractor.

An assessment report and invoice are due upon completion of all requested activities. Please note that interim invoices may be submitted for this work scope. If the invoice and completed report are not submitted within 120 days from the date of this letter, monies allocated to pay this invoice will be uncommitted. This means that the invoice will not be processed for payment until all other committed funds are paid or monies become available.

Please note that Sections 44-2-110(4) and 44-2-130 of the SUPERB Statute state that no costs will be allowed unless prior approval from the Program is obtained. If for any reason additional tasks will be completed, these additional tasks and the associated cost must be preapproved by the Program for the cost to be paid. The SCDHEC reserves the authority to pay only for work properly performed and/or technically justified and will only pay rates in accordance with established criteria. 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 work.

The Program grants preapproval for transportation of virgin petroleum contaminated soil and groundwater from the referenced site to a permitted treatment facility. The contaminated soil or groundwater must be properly stored in labeled containers or covered with plastic as appropriate. 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 and/or acceptance letter from the receiving facility that clearly designates the quantity received must be included as an appendix to the final report. If the levels of petroleum contamination based on laboratory analysis are below risk-based screening levels, please contact the project manager for approval to dispose of soil and/or groundwater on site. The SUPERB Account will not compensate for transportation or treatment of clean soil and/or groundwater.

On all correspondence concerning this site, please reference UST Permit #05986 and CA #. If you have any questions or need additional information, you can reach me by phone at (803) 896-6396, fax (803) 896-6245, or email at abernajd@dhec.sc.gov.

Sincerely,

John D. Abernathy, Hydrogeologist
Southwestern SC Corrective Action Section
Underground Storage Tank Program
Bureau of Land and Waste Management

enc: Approved Cost Agreement

cc: Duncan Environmental Associates, Inc., 10817-C Two Notch Rd., Elgin, SC 29045 (w/enc)
Technical File

D H E C

PROMOTE PROTECT PROSPER

C. Earl Hunter, Commissioner

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

Monitoring Well Approval

Approval is hereby granted to: Duncan Environmental Associates, Inc.
(On behalf of): D. F. Shumpert
Facility: Gaston Food Mart, 105 N. Main St., Gaston, SC
UST Permit Number: 05986
County: Lexington

This approval is for the installation of 45 feet of groundwater monitoring wells. The monitoring well(s) 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 John Abernathy (803-896-6396 or e-mail: abernajd@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.

This approval is pursuant to the provisions of Section 44-55-40 of the 1976 South Carolina Code of Laws and R.61-71 of the South Carolina Well Standards and Regulations, dated April 26, 2002. A copy of this approval should be on the site during well installation.

Date of Issuance: October 9, 2006 **Approval #: UMW-20332**

John D. Abernathy, Hydrogeologist
Southwestern SC Corrective Action Section
Underground Storage Tank Program
Bureau of Land and Waste Management

Approved Cost Agreement [redacted]936

Facility: 05986 GASTON FOOD MART
ABERNAJD
PO Number:

Task / Description	Categories	Item Description	Qty / Pct	Unit Price	Amount
04 MOB/DEMOB					
		A EQUIPMENT	3.0000	550.00	1,650.00
		B PERSONNEL	5.0000	275.00	1,375.00
09 WELL INSTALLATION					
		B WATER TABLE (DRILLED)	45.0000	38.00	1,710.00
10 SAMPLE COLLECTION					
		A GROUND WATER	14.0000	55.00	770.00
		C WATER SUPPLY	3.0000	25.00	75.00
		D GROUNDWATER NO-PURGE	4.0000	35.00	140.00
11 ANALYSES					
	GW GROUNDWATER	A BTEX+NAPTH+MTBE	21.0000	100.00	2,100.00
16 SUBSEQUENT SURVEY					
		SUBSEQUENT SURVEY	1.0000	260.00	260.00
17 DISPOSAL					
		A1 WASTEWATER - PURGING/SAMPLING	3.0000	90.00	270.00
		A2 WASTEWATER - PUMPING TEST	2,000.0000	0.60	1,200.00
		C SOIL (TREATMENT/DISPOSAL)	2.0000	50.00	100.00
19 RPT/PROJECT MNGT & COORDINATIO					
		PCT PERCENT	0.1500	16,210.00	2,431.50
23 EFR					
		A 8 HOUR EVENT	2.0000	3,000.00	6,000.00
		C OFF GAS TREATMENT	16.0000	35.00	560.00
			Total Amount		18,641.50

Midlands
Environmental
Consultants, Inc.

June 14, 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

Subject: Report of Groundwater Sampling
Gaston Food Mart
105 N Main St
Gaston, South Carolina
SCDHEC Site ID Number 05986, CA # 45649
MECI Project Number 13-4418
Certified Site Rehabilitation Contractor UCC-0009

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 (Gaston Food Mart) is located at 105 North Main Street, Gaston, Lexington County, South Carolina. The subject site previously maintained one 550 gallon gasoline underground storage tank (UST), two 3,000 gallon gasoline UST's, one 4,000 gallon gasoline UST, and two 5,000 gallon gasoline UST's. The subject tanks were abandoned by removal from ground in November of 1991. The South Carolina Department of Health and Environmental Control (SCDHEC) reported a release of petroleum product from the subject tanks in November of 1991 and confirmed the release in August 1993. The subject site is currently rated a Class 1.

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

MONITORING WELL SAMPLING AND CHEMICAL ANALYSIS

On May 23, 2013, MECI personnel collected groundwater samples from sixteen (16) monitoring wells and one (1) water supply well at the subject site. Monitoring wells RMW-3, MW-10, and MW-25 were found to have free standing product and were not sampled. Monitoring wells MW-9, MW-

12, MW-14, MW-17R. MW-17RR, MW-21, DW-1, and DW-2 were gauged and found to be dry. Monitoring well MW-26 was not located. 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 purged prior to sampling. Twelve (12) monitoring wells were purged prior to sampling. Purging was completed by bailing at least three well volumes of water from the well or until pH, conductivity, dissolved oxygen stabilized to within 10%, 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 YSI550A meter for DO (mg/L) and temperature readings (°C) and YSI63 meters for pH and conductivity (uS) 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	Product	Dry	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-1A	X				X	X	X	X						
MW-3		X												
RMW-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											
MW-10		X												
MW-11	X				X	X	X	X						
MW-12			X											
MW-13	X				X	X	X	X						
MW-14			X											
MW-15	X				X	X	X	X						
MW-16	X				X	X	X	X						
MW-16R	X				X	X	X	X						
MW-17R			X											
MW-17RR			X											

Notes: BTEX = benzene, toluene, ethylbenzene, & total xylenes MTBE=methyl tertiary butyl ether 1,2 DCA = 1,2 dicloroethane PAH = polycyclic aromatic hydrocarbons

*** = Indicates Duplicate Sample**

Monitoring Well	Purge	Product	Dry	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-19	X				X	X	X	X						
RMW-20	X				X	X	X	X						
MW-21			X											
MW-22	X				X	X	X	X						
MW-23	X				X	X	X	X						
MW-24	X				X	X	X	X						
MW-25		X												
MW-26				X										
DW-1		X												
DW-2		X												
SW-3					X	X	X	X						
MW-1A Dup					X	X	X	X						
MW-24 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

*** = Indicates Duplicate Sample**

Purge water produced by the purging process was treated on-site utilizing a granular activated carbon unit. A total of 28.0 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.

Patrick G. Boylan
Staff Geologist

Courtney M. Sanders
Project Biologist

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? (For detailed specifics, See MECI's SOP on file with SCDHEC)	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? (For detailed specifics, See MECI's SOP on file with SCDHEC)	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 #: 05986
Facility Name: Gaston Food Mart
County: Lexington
Field Personnel: Kyle Pudney, Chris Lashley

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	5/23/13	13:15	25-40	***	34.00	***	3.84	1.0	No Odor
MW-1A	Y	5/23/13	12:38	24-44	***	24.00	***	2.03	3.0	Odor, Sheen
RMW-3	N	5/23/13	***	30-40	36.20	36.86	0.66	***	***	Product, Added 2 Bolts
RMW-5	Y	5/23/13	11:00	10-20	***	6.30	***	5.87	1.0	Pad and Vault Destroyed, No Odor
MW-6	Y	5/23/13	12:58	22-42	***	35.60	***	***	1.0	Odor, Sheen, Added 2 Bolts
MW-7	Y	5/23/13	12:00	22-42	***	37.25	***	3.91	0.5	No Odor
MW-8	Y	5/23/13	11:05	20-40	***	37.72	***	1.65	Ins H2O	Added Well Cap, Added 2 Bolts, Odor
MW-9	N	5/23/13	***	24-44	***	42.48	***	***	***	Dry
MW-10	N	5/23/13	***	24-44	35.75	36.05	0.30	***	***	Product, Added 2 Bolts
MW-11	Y	5/23/13	12:51	22-42	***	29.30	***	1.49	7.0	No Odor, Added 2 Bolts
MW-12	N	5/23/13	***	30-50	***	***	***	***	***	Dry TD: 38.50
MW-13	Y	5/23/13	13:10	25-35	***	24.30	***	2.99	2.0	No Odor, Added 2 Bolts
MW-14	N	5/23/13	***	35-45	***	***	***	***	***	Dry
MW-15	Y	5/23/13	9:54	35-45	***	36.05	***	4.10	1.5	No Odor, Added 2 Bolts
MW-16	Y	5/23/13	9:27	31-41	***	34.57	***	5.65	Ins H2O	No Odor, Silted in, Added 1 Bolt
									17.0	**TOTAL GALLONS PURGED**

Site Activity Summary

UST Permit #: 05986
Facility Name: Gaston Food Mart
County: Lexington
Field Personnel: Kyle Pudney, Chris Lashley

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-16R	Y	5/23/13	9:25	30-45	***	37.09	***	5.65	Ins H2O	No Odor
MW-17R	N	5/23/13	***	***	***	***	***	***	***	Dry
MW-17RR	N	5/23/13	***	***	***	***	***	***	***	Dry
MW-19	Y	5/23/13	11:36	51-61	***	55.06	***	1.27	1	Possibly Silted in, Added Well Cap, Odor
RMW-20	Y	5/23/13	11:19	16-26	***	20.60	***	0.65	0.5	Odor, Added 2 Bolts
MW-21	N	5/23/13	***	3-13	***	***	***	***	***	Dry
MW-22	Y	5/23/13	10:08	34-44	***	42.04	***	3.79	Ins H2O	No Odor
MW-23	Y	5/23/13	9:40	33-43	***	36.88	***	4.48	2.00	Added Well Cap, Added 1 Bolt, No Odor
MW-24	Y	5/23/13	12:12	29-44	***	38.26	***	1.63	2.00	Added 2 Bolts, Odor, Duplicated
MW-25	N	5/23/13	***	40-60	55.83	55.85	0.02	***	***	Product
MW-26	N	5/23/13	***	45-75	***	***	***	***	***	Not Located
DW-1	N	5/23/13	***	40-45	***	***	***	***	***	Dry
DW-2	N	5/23/13	***	50-55	***	***	***	***	***	Dry
SW-3	Y	5/23/13	13:55	***	***	***	***	***	***	Taken From Spigot Behind Gas Station
MW-1A Dup	Y	5/23/13	12:38	***	***	***	***	***	***	Duplicate Sample
									5.5	**TOTAL GALLONS PURGED**

Site Activity Summary

UST Permit #: 05986
Facility Name: Gaston Food Mart
County: Lexington
Field Personnel: Kyle Pudney, Chris Lashley

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-24 Dup	Y	5/23/13	12:12	***	***	***	***	***	***	Duplicate Sample
Field Blank	Y	5/23/13	9:15	***	***	***	***	***	***	Field Blank
Trip Blank	Y	5/23/13	9:16	***	***	***	***	***	***	Trip Blank
										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): 5/23/2013

Field Personnel: Kyle Pudney, Chris Lashley

General Weather Conditions: Clear

Ambient Air Temperature: 24.0 °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: Gaston Food Mart

Site ID#: 05986 **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)	34.00			feet
Total Well Depth (TWD)	40			feet
Length of the water column (LWC=TWD-DGW)			6	feet
1 casing volume (CV=LWC X C)=	____ X	0.163	0.98	gallons
5 casing volume (5 X CV)=		5	4.89	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)	13:12	13:15						
pH (s.u.)	4.13	3.93						
Specific Conductivity (µmhos/cm)	49.6	35.9						
Water Temperature (°C)	23.9	23.5						
Dissolved Oxygen	3.84	4.08						
Turbidity (NTU)	36.21	364.9						
PID readings, if required								

Remarks: Sample Time: 13:15 **Dry at 1.0 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): 5/23/2013
Field Personnel: Kyle Pudney, Chris Lashley
General Weather Conditions: Clear

Ambient Air Temperature: 24.0 °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: Gaston Food Mart
Site ID#: 05986 **Monitoring Well #** MW-1A
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)	24.00		feet
Total Well Depth (TWD)	44		feet
Length of the water column (LWC=TWD-DGW)			20 feet
1 casing volume (CV=LWC X C)= ____ X		0.163	3.26 gallons
5 casing volume (5 X CV)=		5	16.30 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)	12:30	12:38						
pH (s.u.)	5.65	Sheen						
Specific Conductivity (µmhos/cm)	177.4	Sheen						
Water Temperature (°C)	23.7	Sheen						
Dissolved Oxygen	2.03	Sheen						
Turbidity (NTU)	28.41	Sheen						
PID readings, if required								

Remarks: Sample Time: 12:38 **Dry at 3.0 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): 5/23/2013
Field Personnel: Kyle Pudney, Chris Lashley
General Weather Conditions: Clear

Ambient Air Temperature: 24.0 °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: Gaston Food Mart
Site ID#: 05986 **Monitoring Well #** RMW-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)	6.30		feet
Total Well Depth (TWD)	20		feet
Length of the water column (LWC=TWD-DGW)			13.7 feet
1 casing volume (CV=LWC X C)= ____ X		0.163	2.23 gallons
5 casing volume (5 X CV)=		5	11.17 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)	10:55	11:00						
pH (s.u.)	4.38	4.50						
Specific Conductivity (µmhos/cm)	19.8	17.5						
Water Temperature (°C)	19.6	19.0						
Dissolved Oxygen	5.87	5.19						
Turbidity (NTU)	54.28	297.3						
PID readings, if required								

Remarks: Sample Time: 11:00 **Dry at 1.0 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): 5/23/2013
Field Personnel: Kyle Pudney, Chris Lashley
General Weather Conditions: Clear

Ambient Air Temperature: 24.0 °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: Gaston Food Mart
Site ID#: 05986 **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)	35.60			feet
Total Well Depth (TWD)	42			feet
Length of the water column (LWC=TWD-DGW)			6.4	feet
1 casing volume (CV=LWC X C)= ____ X		0.163	1.04	gallons
5 casing volume (5 X CV)=		5	5.22	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)	12:53	12:58						
pH (s.u.)	Sheen	Sheen						
Specific Conductivity (µmhos/cm)	Sheen	Sheen						
Water Temperature (°C)	Sheen	Sheen						
Dissolved Oxygen	Sheen	Sheen						
Turbidity (NTU)	Sheen	Sheen						
PID readings, if required								

Remarks: Sample Time: 12:58 **Dry at 1.0 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): 5/23/2013

Field Personnel: Kyle Pudney, Chris Lashley

General Weather Conditions: Clear

Ambient Air Temperature: 24.0 °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: Gaston Food Mart

Site ID#: 05986 **Monitoring Well #** MW-7

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)	37.25			feet
Total Well Depth (TWD)	42			feet
Length of the water column (LWC=TWD-DGW)			4.75	feet
1 casing volume (CV=LWC X C)= ____ X		0.163	0.77	gallons
5 casing volume (5 X CV)=		5	3.87	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)	11:56	12:00						
pH (s.u.)	5.59	5.35						
Specific Conductivity (µmhos/cm)	36.3	33.8						
Water Temperature (°C)	23.7	23.0						
Dissolved Oxygen	3.91	4.87						
Turbidity (NTU)	56.21	352.4						
PID readings, if required								

Remarks: Sample Time: 12:00 **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): 5/23/2013

Field Personnel: Kyle Pudney, Chris Lashley

General Weather Conditions: Clear

Ambient Air Temperature: 24.0 °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: Gaston Food Mart

Site ID#: 05986 **Monitoring Well #** MW-8

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)	37.72			feet
Total Well Depth (TWD)	42			feet
Length of the water column (LWC=TWD-DGW)			4.28	feet
1 casing volume (CV=LWC X C)=	____ X	0.163	0.70	gallons
5 casing volume (5 X CV)=		5	3.49	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)	11:05							
pH (s.u.)	4.34							
Specific Conductivity (µmhos/cm)	48.3							
Water Temperature (°C)	21.6							
Dissolved Oxygen	1.65							
Turbidity (NTU)	68.91							
PID readings, if required								

Remarks: Sample Time: 11:05 **Ins H2O to Purge, Well Not Recharging**

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): 5/23/2013
Field Personnel: Kyle Pudney, Chris Lashley
General Weather Conditions: Clear

Ambient Air Temperature: 24.0 °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: Gaston Food Mart
Site ID#: 05986 **Monitoring Well #** MW-11
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)	29.30		feet
Total Well Depth (TWD)	42		feet
Length of the water column (LWC=TWD-DGW)		12.7	feet
1 casing volume (CV=LWC X C)= ____ X	0.163	2.07	gallons
5 casing volume (5 X CV)=	5	10.35	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)	12:40	12:43	12:47	12:51				
pH (s.u.)	5.42	5.34	5.29	5.31				
Specific Conductivity (µmhos/cm)	54.6	53.8	51.0	50.9				
Water Temperature (°C)	23.1	22.7	22.3	22.0				
Dissolved Oxygen	1.49	1.38	1.10	1.08				
Turbidity (NTU)	38.41	238.6	884.9	920.3				
PID readings, if required								

Remarks: Sample Time: 12:51 **Parameters at Ten Percent**

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): 5/23/2013
Field Personnel: Kyle Pudney, Chris Lashley
General Weather Conditions: Clear

Ambient Air Temperature: 24.0 °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: Gaston Food Mart
Site ID#: 05986 **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)	24.30			feet
Total Well Depth (TWD)	35			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 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)	13:00	13:10						
pH (s.u.)	4.57	4.60						
Specific Conductivity (µmhos/cm)	60.7	61.1						
Water Temperature (°C)	23.2	23.4						
Dissolved Oxygen	2.99	4.21						
Turbidity (NTU)	24.28	887.2						
PID readings, if required								

Remarks: Sample Time: 13:10 **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): 5/23/2013

Field Personnel: Kyle Pudney, Chris Lashley

General Weather Conditions: Clear

Ambient Air Temperature: 24.0 °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: Gaston Food Mart

Site ID#: 05986 **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)	36.05			feet
Total Well Depth (TWD)	45			feet
Length of the water column (LWC=TWD-DGW)			8.95	feet
1 casing volume (CV=LWC X C)= ____ X		0.163	1.46	gallons
5 casing volume (5 X CV)=		5	7.29	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)	9:48	9:54						
pH (s.u.)	4.31	4.30						
Specific Conductivity (µmhos/cm)	34.7	33.0						
Water Temperature (°C)	21.1	21.0						
Dissolved Oxygen	4.10	4.76						
Turbidity (NTU)	36.14	641.3						
PID readings, if required								

Remarks: Sample Time: 9:54 **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): 5/23/2013
Field Personnel: Kyle Pudney, Chris Lashley
General Weather Conditions: Clear

Ambient Air Temperature: 24.0 °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: Gaston Food Mart
Site ID#: 05986 **Monitoring Well #** MW-16
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)	34.57			feet
Total Well Depth (TWD)	41			feet
Length of the water column (LWC=TWD-DGW)			6.43	feet
1 casing volume (CV=LWC X C)=	____ X	0.163	1.05	gallons
5 casing volume (5 X CV)=		5	5.24	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)	9:27							
pH (s.u.)	4.10							
Specific Conductivity (µmhos/cm)	39.0							
Water Temperature (°C)	21.0							
Dissolved Oxygen	5.65							
Turbidity (NTU)	541.3							
PID readings, if required								

Remarks: Sample Time: 9:27 **Ins H2O to Purge, Well Not Recharging**
TD: 36.98

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): 5/23/2013
Field Personnel: Kyle Pudney, Chris Lashley
General Weather Conditions: Clear

Ambient Air Temperature: 24.0 °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: Gaston Food Mart
Site ID#: 05986 **Monitoring Well #** MW-16R
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)	37.09			feet
Total Well Depth (TWD)	45			feet
Length of the water column (LWC=TWD-DGW)			7.91	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 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)	9:15	9:20	9:23	9:25				
pH (s.u.)	6.42	4.58	4.27	4.29				
Specific Conductivity (µmhos/cm)	35.8	34.4	33.6	34.1				
Water Temperature (°C)	21.4	20.7	20.7	20.8				
Dissolved Oxygen	4.19	4.66	4.60	4.58				
Turbidity (NTU)	26.1	594.3	884.1	904.1				
PID readings, if required								

Remarks: Sample Time: 9:25 **Parameters at Ten Percent**

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): 5/23/2013
Field Personnel: Kyle Pudney, Chris Lashley
General Weather Conditions: Clear

Ambient Air Temperature: 24.0 °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: Gaston Food Mart
Site ID#: 05986 **Monitoring Well #** MW-19
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)	55.06			feet
Total Well Depth (TWD)	61			feet
Length of the water column (LWC=TWD-DGW)			5.94	feet
1 casing volume (CV=LWC X C)= ____ X		0.163	0.97	gallons
5 casing volume (5 X CV)=		5	4.84	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)	11:30	11:36						
pH (s.u.)	5.28	5.52						
Specific Conductivity (µmhos/cm)	48.2	72.1						
Water Temperature (°C)	21.1	21.7						
Dissolved Oxygen	1.27	2.15						
Turbidity (NTU)	24.18	1100+						
PID readings, if required								

Remarks: Sample Time: 11:36 **Dry @ 1.0 Gallon**

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): 5/23/2013
Field Personnel: Kyle Pudney, Chris Lashley
General Weather Conditions: Clear

Ambient Air Temperature: 24.0 °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: Gaston Food Mart
Site ID#: 05986 **Monitoring Well #** RMW-20
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)	20.60			feet
Total Well Depth (TWD)	26			feet
Length of the water column (LWC=TWD-DGW)			5.4	feet
1 casing volume (CV=LWC X C)= _____ X		0.163	0.88	gallons
5 casing volume (5 X CV)=		5	4.40	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)	11:16	11:19						
pH (s.u.)	4.94	4.99						
Specific Conductivity (µmhos/cm)	63.5	67.9						
Water Temperature (°C)	19.8	19.9						
Dissolved Oxygen	0.65	1.08						
Turbidity (NTU)	36.48	194.6						
PID readings, if required								

Remarks: Sample Time: 11:19 **Dry @ 0.5 Gallon**

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): 5/23/2013
Field Personnel: Kyle Pudney, Chris Lashley
General Weather Conditions: Clear

Ambient Air Temperature: 24.0 °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: Gaston Food Mart
Site ID#: 05986 **Monitoring Well #** MW-22
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)	42.04			feet
Total Well Depth (TWD)	44			feet
Length of the water column (LWC=TWD-DGW)			1.96	feet
1 casing volume (CV=LWC X C)=		X 0.163	0.32	gallons
5 casing volume (5 X CV)=		5	1.60	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)	10:08							
pH (s.u.)	3.95							
Specific Conductivity (µmhos/cm)	34.2							
Water Temperature (°C)	21.5							
Dissolved Oxygen	3.79							
Turbidity (NTU)	261.4							
PID readings, if required								

Remarks: Sample Time: 10:08 **Ins H2O to Purge, Well Not Recharging**

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): 5/23/2013
Field Personnel: Kyle Pudney, Chris Lashley
General Weather Conditions: Clear

Ambient Air Temperature: 24.0 °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: Gaston Food Mart
Site ID#: 05986 **Monitoring Well #** MW-23
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)	36.88		feet
Total Well Depth (TWD)	43		feet
Length of the water column (LWC=TWD-DGW)		6.12	feet
1 casing volume (CV=LWC X C)= ____ X	0.163	1.00	gallons
5 casing volume (5 X CV)=	5	4.99	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)	9:34	9:37	9:40					
pH (s.u.)	4.03	3.83	3.99					
Specific Conductivity (µmhos/cm)	62.7	70.6	74.8					
Water Temperature (°C)	21.1	20.9	20.8					
Dissolved Oxygen	4.48	5.34	5.09					
Turbidity (NTU)	58.23	1100+	1100+					
PID readings, if required								

Remarks: Sample Time: 9:40 **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): 5/23/2013
Field Personnel: Kyle Pudney, Chris Lashley
General Weather Conditions: Clear

Ambient Air Temperature: 24.0 °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: Gaston Food Mart
Site ID#: 05986 **Monitoring Well #** MW-24
Water Supply Well **Public** _____ **Private** _____

Monitoring Well Diameter (D): 2 inches

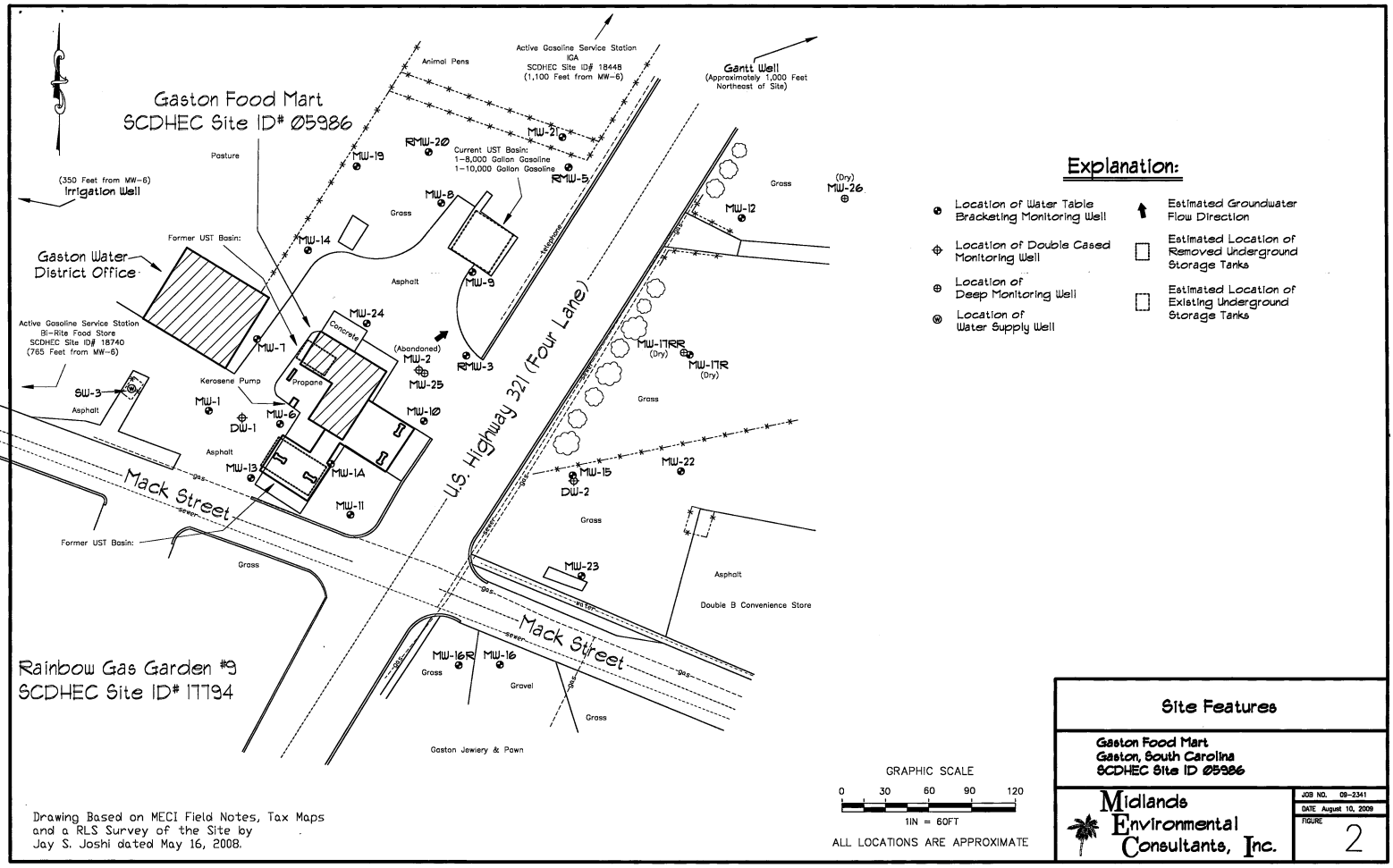
Conversion Factor (C): 3.14 x $(D/2)^2$ for a 2 inch well C=0.163
for a 4 inch well C=0.652

* Free Product Thickness:			feet
Depth to Free Product (DFP)			feet
Depth to Ground Water (DGW)	38.26		feet
Total Well Depth (TWD)	44		feet
Length of the water column (LWC=TWD-DGW)		5.74	feet
1 casing volume (CV=LWC X C)= ____ X	0.163	0.94	gallons
5 casing volume (5 X CV)=	5	4.68	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)	12:05	12:08	12:12					
pH (s.u.)	5.66	5.71	5.78					
Specific Conductivity (µmhos/cm)	142.9	205.7	177.7					
Water Temperature (°C)	23.9	23.4	23.4					
Dissolved Oxygen	1.63	1.23	1.47					
Turbidity (NTU)	69.24	238.4	704.1					
PID readings, if required								

Remarks: Sample Time: 12:12 **Dry @ 2.0 Gallons**



Explanation:

- Location of Water Table Bracketing Monitoring Well
- Location of Double Cased Monitoring Well
- Location of Deep Monitoring Well
- Location of Water Supply Well
- Estimated Groundwater Flow Direction
- Estimated Location of Removed Underground Storage Tanks
- Estimated Location of Existing Underground Storage Tanks

Drawing Based on MECI Field Notes, Tax Maps and a RLS Survey of the Site by Jay S. Joshi dated May 16, 2008.

GRAPHIC SCALE

0 30 60 90 120

1IN = 60FT

ALL LOCATIONS ARE APPROXIMATE

Site Features

Gaston Food Mart
Gaston, South Carolina
SCDHEC Site ID 05986

Midlands Environmental Consultants, Inc.

JOB NO. 09-2341
DATE August 10, 2009
FIGURE 2

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 21194

Client: SCDHEC	Report to Contact: D. Thoms	Sampler (Printed Name): Lyle Pudney	Quote No.
Address: 2600 Bull Street	Telephone No. / Fax No. / Email	Waybill No.	Page: 1 of 4
City: Columbia State: SC Zip Code: 29201	Preservative: 1. Unpres. 2. NaOH/ZnA 3. H_2SO_4 4. HNO_3 5. HCL 6. Na Thio. 7. NaOH		Number of Containers
Project Name: Gaston Food Mart			Bottle (See Instructions on back)
Project Number: 05986/45649	P.O Number		Preservative
			Lot No. 0K24047

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: BTEX w/ MTBE (8260)	9 oxygenates	1,2 DCA	EDB (8011)	Remarks / Cooler ID
MW-1	5/23	13:15	G	X					X	X	X	X	No odor
MW-1A		12:38											odor / sheen
RMW-3													Product
RMW-5		11:00											No odor
MW-6		12:58											odor / sheen
MW-7		12:00											No odor
MW-8		11:05											odor
MW-9													DRY
MW-10													Product
MW-11	5/23	12:51	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	5/23	14:30	1. Received by	5/23	1430
2. Relinquished by	5/24	715	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 5/24/13	Time 725

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. 2.0 °C
Temp. Blank ☒ Y / ☐ N

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

SHEALY **Chain of Custody Record** **Number** 21193

Client	Report to Contact	Sampler (Printed Name)	Quote No.
SCDHEC	D. Thoma	Kyle Rudny	
Address: 2600 Bull Street	Telephone No. / Fax No. / Email	Waybill No.	Page 2 of 4
City: Columbia State: SC Zip Code: 29201	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.
Project Name: Gaston Food Mart			
Project Number: 05486/45649	P.O Number		

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: VOCs by 8260B	8 Oxygenates by 8260B	1,2 DCA	EDB (504)	Remarks / Cooler ID
~~MW-12~~													DRY
MW-13	5/23	13:10	G	X					X	X	X	X	No odor
~~MW-14~~													DRY
MW-15		9:59											No odor
MW-16		9:27											No odor
MW-16R		9:25											No odor
~~MW-17R~~													DRY
~~MW-17RR~~													DRY
MW-19		11:36											odor
RMW-20	5/23	11:19	G	X					X	X	X	X	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	5/23	14:30	1. Received by	5/23	14:30
2. Relinquished by	5/24	1250	2. Received by		
3. Relinquished by			3. Received by		
4. Relinquished by			4. Laboratory Received by	5/23/13	1250

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. 2 °C
Temp. Blank ☑ Y / ☐ N

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

SHEALY **Chain of Custody Record** **Number** 21195

Client: SCDHEC	Report to Contact: D. Thomas	Sampler (Printed Name): Kyle Pudney	Quote No.
Address: 2600 Bull Street	Telephone No. / Fax No. / Email	Waybill No.	Page: 3 of 4
City: Columbia State: SC Zip Code: 29201	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
Project Name: Coastal Food Mart			Lot No. 0E24097
Project Number: 054661/45649	P.O Number		

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: BTEX, MTBE (8260B)	1,2 DCA	8 oxygenates	EDB (504)	Remarks / Cooler ID
~~MW-21~~													DRY
MW-22	5/23	10:08	G	X					X	X	X	X	No odor
MW-23		9:40											No odor
MW-24		12:12											odor
~~MW-25~~													Product
~~MW-26~~													Abandoned
~~DW-1~~													DRY
~~DW-2~~													DRY
SW-3		13:55											low detection limits
MW-1A Dup	5/23	12:38	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

	Date	Time		Date	Time
1. Relinquished by / Sampler	5/23	19:30	1. Received by	5/23	14:30
2. Relinquished by	5/24	1120	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 5/24/13	Time 1250

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. 2.0 °C
Temp. Blank ☑ Y / ☐ N

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

SHEALY **Chain of Custody Record** **Number** 21196

Client: SCDHEC	Report to Contact: D. Thomas	Sampler (Printed Name): Kyle Rudney
Address: 2600 Bull Street	Telephone No. / Fax No. / Email:	Waybill No.:
City: Columbia	State: SC	Zip Code: 29201
Project Name: Eastern Food Mart		
Project Number: C5966 / 45649	P.O Number:	

Quote No.:

Page 4 of 4

Number of Containers

Bottle (See Instructions on back)

Preservative

Lot No.: CR21405

Preservative: 1. Unpres. 2. NaOH/ZnA 3. H2SO4 4. HNO3 5. HCL 6. Na Thio. 7. NaOH

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: BTEX/MTBE (8260B)	1,2 DCA	6 Oxygenates	EDB (504)	Remarks / Cooler ID
~~Mw-3 Trip~~	~~5/22~~	~~12:12~~	~~6~~	~~X~~					~~X~~	~~X~~	~~X~~	~~X~~	~~Please dispose of~~
Field Blank	5/21	9:15	6	X					X	X	X	X	
Trip Blank	5/22	9:16	D	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	5/23	14:30	1. Received by	5/23	1430
2. Relinquished by	5/24	1:20	2. Received by		
3. Relinquished by			3. Received by		
4. Relinquished by			4. Laboratory Received by	5/24/13	1320

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. 2.0 °C
Temp. Blank ☑ Y / ☐ N

Midlands Environmental Consultants, Inc.

June 14, 2013

Re: Treatment of Purge Water
Gaston Food Mart
Gaston, South Carolina
SCDHEC Site ID Number 05986
MECI Project Number 13-4418

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 22.5 gallons were treated on May 23, 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.

Patrick G. Boylan
Staff Geologist

SHEALY ENVIRONMENTAL SERVICES, INC.

Report of Analysis

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

Project Name: **Gaston Food Mart**

Project Number: **UST Permit #05986/CA #45649**

Lot Number: **OE24057**

Date Completed: **06/07/2013**

Kelly M. Maberry
Project Manager

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: OE24057

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.

Volatiles
Sample -004 was diluted 5x due to matrix interference. The reporting limits have been raised accordingly.

The LCS associated with batch 22176 had tert-butyl formate, ethanol and ethyl-tert-butyl ether recovered above the acceptance limits. This demonstrates a high bias on analytical results. There were no detections for these compounds in the samples associated with this batch; therefore, data quality is not impacted.

The MS associated with sample -016 had tert-butyl formate 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.

EDB
The sample result for -009 has 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 result is reported for this sample. The higher result for sample -009 was 0.037 ug/L.

Sample -006 had the surrogate recovered above the acceptance limits. This reflects a high bias for compounds associated with this surrogate. There were no detections for these compounds in the sample; therefore, there is no impact on data quality and no corrective action is required.

Samples -011, -012 and -015 had sediment in the vials that altered the sample volume.

Sample Summary
SC DHEC - UST Management
Lot Number: OE24057

Sample Number	Sample ID	Matrix	Date Sampled	Date Received
001	MW-1	Aqueous	05/23/2013 1315	05/24/2013
002	MW-1A	Aqueous	05/23/2013 1238	05/24/2013
003	RMW-5	Aqueous	05/23/2013 1100	05/24/2013
004	MW-6	Aqueous	05/23/2013 1258	05/24/2013
005	MW-7	Aqueous	05/23/2013 1200	05/24/2013
006	MW-8	Aqueous	05/23/2013 1105	05/24/2013
007	MW-11	Aqueous	05/23/2013 1251	05/24/2013
008	MW-13	Aqueous	05/23/2013 1310	05/24/2013
009	MW-15	Aqueous	05/23/2013 0954	05/24/2013
010	MW-16	Aqueous	05/23/2013 0927	05/24/2013
011	MW-16R	Aqueous	05/23/2013 0925	05/24/2013
012	MW-19	Aqueous	05/23/2013 1136	05/24/2013
013	RMW-20	Aqueous	05/23/2013 1119	05/24/2013
014	MW-22	Aqueous	05/23/2013 1008	05/24/2013
015	MW-23	Aqueous	05/23/2013 0940	05/24/2013
016	MW-24	Aqueous	05/23/2013 1212	05/24/2013
017	SW-3	Aqueous	05/23/2013 1355	05/24/2013
018	MW-1A Dup	Aqueous	05/23/2013 1238	05/24/2013
019	Field Blank	Aqueous	05/23/2013 0915	05/24/2013
020	Trip Blank	Aqueous	05/23/2013 0916	05/24/2013

(20 samples)

Executive Summary
SC DHEC - UST Management
Lot Number: OE24057

Sample	Sample ID	Matrix	Parameter	Method	Result	Q	Units	Page
002	MW-1A	Aqueous	Benzene	8260B	10	J	ug/L	6
002	MW-1A	Aqueous	Ethylbenzene	8260B	37		ug/L	6
002	MW-1A	Aqueous	Naphthalene	8260B	27		ug/L	6
002	MW-1A	Aqueous	Toluene	8260B	28		ug/L	6
002	MW-1A	Aqueous	Xylenes (total)	8260B	47		ug/L	6
004	MW-6	Aqueous	Xylenes (total)	8260B	18	J	ug/L	8
006	MW-8	Aqueous	tert-Amyl alcohol (TAA)	8260B	160	J	ug/L	10
006	MW-8	Aqueous	Benzene	8260B	6.3	J	ug/L	10
006	MW-8	Aqueous	Ethylbenzene	8260B	310		ug/L	10
006	MW-8	Aqueous	Naphthalene	8260B	83		ug/L	10
006	MW-8	Aqueous	Toluene	8260B	370		ug/L	10
006	MW-8	Aqueous	Xylenes (total)	8260B	2200		ug/L	10
009	MW-15	Aqueous	tert-Amyl alcohol (TAA)	8260B	6.8	J	ug/L	13
009	MW-15	Aqueous	Benzene	8260B	1.2	J	ug/L	13
009	MW-15	Aqueous	Ethylbenzene	8260B	2.8	J	ug/L	13
009	MW-15	Aqueous	Naphthalene	8260B	4.3	J	ug/L	13
009	MW-15	Aqueous	Xylenes (total)	8260B	10		ug/L	13
009	MW-15	Aqueous	1,2-Dibromoethane (EDB)	8011	0.020	P	ug/L	13
012	MW-19	Aqueous	Benzene	8260B	0.47	J	ug/L	16
012	MW-19	Aqueous	Ethylbenzene	8260B	7.5		ug/L	16
012	MW-19	Aqueous	Naphthalene	8260B	10		ug/L	16
012	MW-19	Aqueous	Toluene	8260B	5.4		ug/L	16
012	MW-19	Aqueous	Xylenes (total)	8260B	62		ug/L	16
015	MW-23	Aqueous	1,2-Dibromoethane (EDB)	8011	0.044		ug/L	19
016	MW-24	Aqueous	tert-Amyl alcohol (TAA)	8260B	680	J	ug/L	20
016	MW-24	Aqueous	Benzene	8260B	1100		ug/L	20
016	MW-24	Aqueous	Ethylbenzene	8260B	1600		ug/L	20
016	MW-24	Aqueous	Naphthalene	8260B	400		ug/L	20
016	MW-24	Aqueous	Toluene	8260B	5600		ug/L	20
016	MW-24	Aqueous	Xylenes (total)	8260B	7300		ug/L	20
016	MW-24	Aqueous	1,2-Dibromoethane (EDB)	8011	0.54		ug/L	20
018	MW-1A Dup	Aqueous	tert-Amyl alcohol (TAA)	8260B	14	J	ug/L	22
018	MW-1A Dup	Aqueous	Benzene	8260B	13		ug/L	22
018	MW-1A Dup	Aqueous	Ethylbenzene	8260B	41		ug/L	22
018	MW-1A Dup	Aqueous	Naphthalene	8260B	13		ug/L	22
018	MW-1A Dup	Aqueous	Toluene	8260B	35		ug/L	22
018	MW-1A Dup	Aqueous	Xylenes (total)	8260B	47		ug/L	22

(37 detections)

Client: **SC DHEC - UST Management**
Description: **MW-1**
Date Sampled: **05/23/2013 1315**
Date Received: **05/24/2013**

Laboratory ID: **OE24057-001**
Matrix: **Aqueous**

Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	06/04/2013 0650	MLH		21913

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		100	70-130
Bromofluorobenzene		87	70-130
Toluene-d8		88	70-130

EDB & DBCP by Microextraction

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	8011	8011	1	06/02/2013 1109	AMY	05/29/2013 1447	21506

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		128	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
Q = Surrogate failure
L = LCS/LCSD failure
S = MS/MSD failure
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-1A**
Date Sampled: **05/23/2013 1238**
Date Received: **05/24/2013**

Laboratory ID: **OE24057-002**
Matrix: **Aqueous**

Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	5	06/04/2013 0737	MLH		21913

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**	**10**	**J**	**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**	**37**		**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**	**27**		**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**	**28**		**25**	**8.5**	**ug/L**	**1**
Xylenes (total)	**1330-20-7**	**8260B**	**47**		**25**	**8.5**	**ug/L**	**1**

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		97	70-130
Bromofluorobenzene		93	70-130
Toluene-d8		90	70-130

EDB & DBCP by Microextraction

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	8011	8011	1	06/02/2013 1131	AMY	05/29/2013 1447	21506

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		123	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
Q = Surrogate failure
L = LCS/LCSD failure
S = MS/MSD failure
Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Client: **SC DHEC - UST Management**
Description: **RMW-5**
Date Sampled: **05/23/2013 1100**
Date Received: **05/24/2013**

Laboratory ID: **OE24057-003**
Matrix: **Aqueous**

Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	06/04/2013 0320	MLH		21913

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		98	70-130
Bromofluorobenzene		88	70-130
Toluene-d8		91	70-130

EDB & DBCP by Microextraction

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	8011	8011	1	06/02/2013 1152	AMY	05/29/2013 1447	21506

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		114	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
Q = Surrogate failure
L = LCS/LCSD failure
S = MS/MSD failure
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: **05/23/2013 1258**
Date Received: **05/24/2013**

Laboratory ID: **OE24057-004**
Matrix: **Aqueous**

Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
2	5030B	8260B	5	06/05/2013 2202	MLH		22194

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
tert-Amyl alcohol (TAA)	75-85-4	8260B	ND		500	34	ug/L	2
tert-Amyl methyl ether (TAME)	994-05-8	8260B	ND		50	1.0	ug/L	2
Benzene	71-43-2	8260B	ND		25	1.0	ug/L	2
tert-Butyl formate (TBF)	762-75-4	8260B	ND		500	5.0	ug/L	2
1,2-Dichloroethane	107-06-2	8260B	ND		25	1.5	ug/L	2
Diisopropyl ether (IPE)	108-20-3	8260B	ND		50	2.0	ug/L	2
3,3-Dimethyl-1-butanol	624-95-3	8260B	ND		500	5.0	ug/L	2
Ethanol	64-17-5	8260B	ND		5000	170	ug/L	2
Ethylbenzene	100-41-4	8260B	ND		25	8.5	ug/L	2
Ethyl-tert-butyl ether (ETBE)	637-92-3	8260B	ND		500	1.0	ug/L	2
Methyl tertiary butyl ether (MTBE)	1634-04-4	8260B	ND		25	2.0	ug/L	2
Naphthalene	91-20-3	8260B	ND		25	8.5	ug/L	2
tert-butyl alcohol (TBA)	75-65-0	8260B	ND		500	34	ug/L	2
Toluene	108-88-3	8260B	ND		25	8.5	ug/L	2
Xylenes (total)	**1330-20-7**	**8260B**	**18**	**J**	**25**	**8.5**	**ug/L**	**2**

Surrogate	Q	Run 2 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		94	70-130
Bromofluorobenzene		104	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	06/02/2013 1214	AMY	05/29/2013 1447	21506

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		132	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
Q = Surrogate failure
L = LCS/LCSD failure
S = MS/MSD failure
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: **05/23/2013 1200**
Date Received: **05/24/2013**

Laboratory ID: **OE24057-005**
Matrix: **Aqueous**

Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	06/04/2013 0343	MLH		21913

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		96	70-130
Bromofluorobenzene		87	70-130
Toluene-d8		90	70-130

EDB & DBCP by Microextraction

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	8011	8011	1	06/02/2013 1236	AMY	05/29/2013 1447	21506

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		130	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
Q = Surrogate failure
L = LCS/LCSD failure
S = MS/MSD failure
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: **05/23/2013 1105**
Date Received: **05/24/2013**

Laboratory ID: **OE24057-006**
Matrix: **Aqueous**

Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
2	5030B	8260B	10	06/05/2013 2232	MLH		22194

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
tert-Amyl alcohol (TAA)	**75-85-4**	**8260B**	**160**	**J**	**1000**	**67**	**ug/L**	**2**
tert-Amyl methyl ether (TAME)	994-05-8	8260B	ND		100	2.0	ug/L	2
Benzene	**71-43-2**	**8260B**	**6.3**	**J**	**50**	**2.0**	**ug/L**	**2**
tert-Butyl formate (TBF)	762-75-4	8260B	ND		1000	10	ug/L	2
1,2-Dichloroethane	107-06-2	8260B	ND		50	3.0	ug/L	2
Diisopropyl ether (IPE)	108-20-3	8260B	ND		100	4.0	ug/L	2
3,3-Dimethyl-1-butanol	624-95-3	8260B	ND		1000	10	ug/L	2
Ethanol	64-17-5	8260B	ND		10000	330	ug/L	2
Ethylbenzene	**100-41-4**	**8260B**	**310**		**50**	**17**	**ug/L**	**2**
Ethyl-tert-butyl ether (ETBE)	637-92-3	8260B	ND		1000	2.0	ug/L	2
Methyl tertiary butyl ether (MTBE)	1634-04-4	8260B	ND		50	4.0	ug/L	2
Naphthalene	**91-20-3**	**8260B**	**83**		**50**	**17**	**ug/L**	**2**
tert-butyl alcohol (TBA)	75-65-0	8260B	ND		1000	67	ug/L	2
Toluene	**108-88-3**	**8260B**	**370**		**50**	**17**	**ug/L**	**2**
Xylenes (total)	**1330-20-7**	**8260B**	**2200**		**50**	**17**	**ug/L**	**2**

Surrogate	Q	Run 2 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		93	70-130
Bromofluorobenzene		103	70-130
Toluene-d8		106	70-130

EDB & DBCP by Microextraction

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	8011	8011	1	06/02/2013 1258	AMY	05/29/2013 1447	21506

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	N	157	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
Q = Surrogate failure
L = LCS/LCSD failure
S = MS/MSD failure
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-11**
Date Sampled: **05/23/2013 1251**
Date Received: **05/24/2013**

Laboratory ID: **OE24057-007**
Matrix: **Aqueous**

Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
2	5030B	8260B	1	06/05/2013 1401	JAC		22176

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	2
tert-Amyl methyl ether (TAME)	994-05-8	8260B	ND		10	0.20	ug/L	2
Benzene	71-43-2	8260B	ND		5.0	0.20	ug/L	2
tert-Butyl formate (TBF)	762-75-4	8260B	ND	L	100	1.0	ug/L	2
1,2-Dichloroethane	107-06-2	8260B	ND		5.0	0.30	ug/L	2
Diisopropyl ether (IPE)	108-20-3	8260B	ND		10	0.40	ug/L	2
3,3-Dimethyl-1-butanol	624-95-3	8260B	ND		100	1.0	ug/L	2
Ethanol	64-17-5	8260B	ND	L	1000	33	ug/L	2
Ethylbenzene	100-41-4	8260B	ND		5.0	1.7	ug/L	2
Ethyl-tert-butyl ether (ETBE)	637-92-3	8260B	ND	L	100	0.20	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
tert-butyl alcohol (TBA)	75-65-0	8260B	ND		100	6.7	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		92	70-130
Bromofluorobenzene		102	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	06/02/2013 1319	AMY	05/29/2013 1447	21506

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		114	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
Q = Surrogate failure
L = LCS/LCSD failure
S = MS/MSD failure
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: **05/23/2013 1310**
Date Received: **05/24/2013**

Laboratory ID: **OE24057-008**
Matrix: **Aqueous**

Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	06/04/2013 0406	MLH		21913

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		100	70-130
Bromofluorobenzene		89	70-130
Toluene-d8		89	70-130

EDB & DBCP by Microextraction

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	8011	8011	1	06/02/2013 1341	AMY	05/29/2013 1447	21506

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		124	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
Q = Surrogate failure
L = LCS/LCSD failure
S = MS/MSD failure
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-15**
Date Sampled: **05/23/2013 0954**
Date Received: **05/24/2013**

Laboratory ID: **OE24057-009**
Matrix: **Aqueous**

Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	06/04/2013 0430	MLH		21913

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
tert-Amyl alcohol (TAA)	**75-85-4**	**8260B**	**6.8**	**J**	**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**	**1.2**	**J**	**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**	**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	ND		5.0	0.40	ug/L	1
Naphthalene	**91-20-3**	**8260B**	**4.3**	**J**	**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**	**10**		**5.0**	**1.7**	**ug/L**	**1**

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		96	70-130
Bromofluorobenzene		90	70-130
Toluene-d8		88	70-130

EDB & DBCP by Microextraction

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	8011	8011	1	06/02/2013 1403	AMY	05/29/2013 1447	21506

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
1,2-Dibromoethane (EDB)	**106-93-4**	**8011**	**0.020**	**P**	**0.020**	**0.020**	**ug/L**	**1**

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,1,1,2-Tetrachloroethane		127	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
Q = Surrogate failure
L = LCS/LCSD failure
S = MS/MSD failure
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-16**
Date Sampled: **05/23/2013 0927**
Date Received: **05/24/2013**

Laboratory ID: **OE24057-010**
Matrix: **Aqueous**

Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	06/04/2013 0454	MLH		21913

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		95	70-130
Bromofluorobenzene		86	70-130
Toluene-d8		86	70-130

EDB & DBCP by Microextraction

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	8011	8011	1	06/02/2013 1425	AMY	05/29/2013 1447	21506

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		132	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
Q = Surrogate failure
L = LCS/LCSD failure
S = MS/MSD failure
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-16R**
Date Sampled: **05/23/2013 0925**
Date Received: **05/24/2013**

Laboratory ID: **OE24057-011**
Matrix: **Aqueous**

Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
2	5030B	8260B	1	06/05/2013 1347	JAC		22174

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	2
tert-Amyl methyl ether (TAME)	994-05-8	8260B	ND		10	0.20	ug/L	2
Benzene	71-43-2	8260B	ND		5.0	0.20	ug/L	2
tert-Butyl formate (TBF)	762-75-4	8260B	ND		100	1.0	ug/L	2
1,2-Dichloroethane	107-06-2	8260B	ND		5.0	0.30	ug/L	2
Diisopropyl ether (IPE)	108-20-3	8260B	ND		10	0.40	ug/L	2
3,3-Dimethyl-1-butanol	624-95-3	8260B	ND		100	1.0	ug/L	2
Ethanol	64-17-5	8260B	ND		1000	33	ug/L	2
Ethylbenzene	100-41-4	8260B	ND		5.0	1.7	ug/L	2
Ethyl-tert-butyl ether (ETBE)	637-92-3	8260B	ND		100	0.20	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
tert-butyl alcohol (TBA)	75-65-0	8260B	ND		100	6.7	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		102	70-130
Bromofluorobenzene		109	70-130
Toluene-d8		120	70-130

EDB & DBCP by Microextraction

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	8011	8011	1	06/02/2013 1446	AMY	05/29/2013 1447	21506

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		116	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
Q = Surrogate failure
L = LCS/LCSD failure
S = MS/MSD failure
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-19**
Date Sampled: **05/23/2013 1136**
Date Received: **05/24/2013**

Laboratory ID: **OE24057-012**
Matrix: **Aqueous**

Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
2	5030B	8260B	1	06/05/2013 2116	MLH		22193

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	2
tert-Amyl methyl ether (TAME)	994-05-8	8260B	ND		10	0.20	ug/L	2
Benzene	**71-43-2**	**8260B**	**0.47**	**J**	**5.0**	**0.20**	**ug/L**	**2**
tert-Butyl formate (TBF)	762-75-4	8260B	ND		100	1.0	ug/L	2
1,2-Dichloroethane	107-06-2	8260B	ND		5.0	0.30	ug/L	2
Diisopropyl ether (IPE)	108-20-3	8260B	ND		10	0.40	ug/L	2
3,3-Dimethyl-1-butanol	624-95-3	8260B	ND		100	1.0	ug/L	2
Ethanol	64-17-5	8260B	ND		1000	33	ug/L	2
Ethylbenzene	**100-41-4**	**8260B**	**7.5**		**5.0**	**1.7**	**ug/L**	**2**
Ethyl-tert-butyl ether (ETBE)	637-92-3	8260B	ND		100	0.20	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**	**10**		**5.0**	**1.7**	**ug/L**	**2**
tert-butyl alcohol (TBA)	75-65-0	8260B	ND		100	6.7	ug/L	2
Toluene	**108-88-3**	**8260B**	**5.4**		**5.0**	**1.7**	**ug/L**	**2**
Xylenes (total)	**1330-20-7**	**8260B**	**62**		**5.0**	**1.7**	**ug/L**	**2**

Surrogate	Q	Run 2 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		99	70-130
Bromofluorobenzene		110	70-130
Toluene-d8		120	70-130

EDB & DBCP by Microextraction

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	8011	8011	1	06/02/2013 1508	AMY	05/29/2013 1447	21506

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		131	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
Q = Surrogate failure
L = LCS/LCSD failure
S = MS/MSD failure
Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Client: **SC DHEC - UST Management**
Description: **RMW-20**
Date Sampled: **05/23/2013 1119**
Date Received: **05/24/2013**

Laboratory ID: **OE24057-013**
Matrix: **Aqueous**

Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	06/04/2013 0517	MLH		21913

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		97	70-130
Bromofluorobenzene		86	70-130
Toluene-d8		86	70-130

EDB & DBCP by Microextraction

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	8011	8011	1	06/02/2013 1530	AMY	05/29/2013 1447	21506

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		132	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
Q = Surrogate failure
L = LCS/LCSD failure
S = MS/MSD failure
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-22**
Date Sampled: **05/23/2013 1008**
Date Received: **05/24/2013**

Laboratory ID: **OE24057-014**
Matrix: **Aqueous**

Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	06/04/2013 0540	MLH		21913

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		97	70-130
Bromofluorobenzene		86	70-130
Toluene-d8		87	70-130

EDB & DBCP by Microextraction

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	8011	8011	1	06/02/2013 1551	AMY	05/29/2013 1447	21506

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		122	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
Q = Surrogate failure
L = LCS/LCSD failure
S = MS/MSD failure
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-23**
Date Sampled: **05/23/2013 0940**
Date Received: **05/24/2013**

Laboratory ID: **OE24057-015**
Matrix: **Aqueous**

Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	06/04/2013 0604	MLH		21913

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		97	70-130
Bromofluorobenzene		86	70-130
Toluene-d8		89	70-130

EDB & DBCP by Microextraction

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	8011	8011	1	06/02/2013 1613	AMY	05/29/2013 1447	21506

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
1,2-Dibromoethane (EDB)	**106-93-4**	**8011**	**0.044**		**0.021**	**0.021**	**ug/L**	**1**

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,1,1,2-Tetrachloroethane		123	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
Q = Surrogate failure
L = LCS/LCSD failure
S = MS/MSD failure
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-24**
Date Sampled: **05/23/2013 1212**
Date Received: **05/24/2013**

Laboratory ID: **OE24057-016**
Matrix: **Aqueous**

Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	50	06/04/2013 1044	MLH		21913

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
tert-Amyl alcohol (TAA)	**75-85-4**	**8260B**	**680**	**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**	**1100**		**250**	**10**	**ug/L**	**1**
tert-Butyl formate (TBF)	762-75-4	8260B	ND	S	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**	**1600**		**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	ND		250	20	ug/L	1
Naphthalene	**91-20-3**	**8260B**	**400**		**250**	**85**	**ug/L**	**1**
tert-butyl alcohol (TBA)	75-65-0	8260B	ND		5000	340	ug/L	1
Toluene	**108-88-3**	**8260B**	**5600**		**250**	**85**	**ug/L**	**1**
Xylenes (total)	**1330-20-7**	**8260B**	**7300**		**250**	**85**	**ug/L**	**1**

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		93	70-130
Bromofluorobenzene		88	70-130
Toluene-d8		91	70-130

EDB & DBCP by Microextraction

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	8011	8011	1	06/02/2013 1740	AMY	05/29/2013 1935	21543

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
1,2-Dibromoethane (EDB)	**106-93-4**	**8011**	**0.54**		**0.020**	**0.020**	**ug/L**	**1**

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,1,1,2-Tetrachloroethane		120	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
Q = Surrogate failure
L = LCS/LCSD failure
S = MS/MSD failure
Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Client: **SC DHEC - UST Management**
Description: **SW-3**
Date Sampled: **05/23/2013 1355**
Date Received: **05/24/2013**

Laboratory ID: **OE24057-017**
Matrix: **Aqueous**

Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	06/04/2013 0627	MLH		21913

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		101	70-130
Bromofluorobenzene		88	70-130
Toluene-d8		88	70-130

EDB & DBCP by Microextraction

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	8011	8011	1	06/02/2013 1802	AMY	05/29/2013 1935	21543

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		120	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
Q = Surrogate failure
L = LCS/LCSD failure
S = MS/MSD failure
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-1A Dup**
Date Sampled: **05/23/2013 1238**
Date Received: **05/24/2013**

Laboratory ID: **OE24057-018**
Matrix: **Aqueous**

Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
2	5030B	8260B	1	06/05/2013 2131	MLH		22194

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
tert-Amyl alcohol (TAA)	**75-85-4**	**8260B**	**14**	**J**	**100**	**6.7**	**ug/L**	**2**
tert-Amyl methyl ether (TAME)	994-05-8	8260B	ND		10	0.20	ug/L	2
Benzene	**71-43-2**	**8260B**	**13**		**5.0**	**0.20**	**ug/L**	**2**
tert-Butyl formate (TBF)	762-75-4	8260B	ND		100	1.0	ug/L	2
1,2-Dichloroethane	107-06-2	8260B	ND		5.0	0.30	ug/L	2
Diisopropyl ether (IPE)	108-20-3	8260B	ND		10	0.40	ug/L	2
3,3-Dimethyl-1-butanol	624-95-3	8260B	ND		100	1.0	ug/L	2
Ethanol	64-17-5	8260B	ND		1000	33	ug/L	2
Ethylbenzene	**100-41-4**	**8260B**	**41**		**5.0**	**1.7**	**ug/L**	**2**
Ethyl-tert-butyl ether (ETBE)	637-92-3	8260B	ND		100	0.20	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**	**13**		**5.0**	**1.7**	**ug/L**	**2**
tert-butyl alcohol (TBA)	75-65-0	8260B	ND		100	6.7	ug/L	2
Toluene	**108-88-3**	**8260B**	**35**		**5.0**	**1.7**	**ug/L**	**2**
Xylenes (total)	**1330-20-7**	**8260B**	**47**		**5.0**	**1.7**	**ug/L**	**2**

Surrogate	Q	Run 2 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		92	70-130
Bromofluorobenzene		102	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	06/02/2013 1907	AMY	05/29/2013 1935	21543

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		114	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
Q = Surrogate failure
L = LCS/LCSD failure
S = MS/MSD failure
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: **05/23/2013 0915**
Date Received: **05/24/2013**

Laboratory ID: **OE24057-019**
Matrix: **Aqueous**

Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	06/04/2013 1509	JAC		22063

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		97	70-130
Bromofluorobenzene		90	70-130
Toluene-d8		90	70-130

EDB & DBCP by Microextraction

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	8011	8011	1	06/02/2013 1929	AMY	05/29/2013 1935	21543

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		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
Q = Surrogate failure
L = LCS/LCSD failure
S = MS/MSD failure
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: **05/23/2013 0916**
Date Received: **05/24/2013**

Laboratory ID: **OE24057-020**
Matrix: **Aqueous**

Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	06/04/2013 1533	JAC		22063

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		96	70-130
Bromofluorobenzene		88	70-130
Toluene-d8		85	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
Q = Surrogate failure
L = LCS/LCSD failure
S = MS/MSD failure
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: OQ21913-001
Batch: 21913
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	06/04/2013 0233
tert-Amyl methyl ether (TAME)	ND		1	10	0.20	ug/L	06/04/2013 0233
Benzene	ND		1	1.0	0.20	ug/L	06/04/2013 0233
tert-Butyl formate (TBF)	ND		1	100	1.0	ug/L	06/04/2013 0233
1,2-Dichloroethane	ND		1	1.0	0.30	ug/L	06/04/2013 0233
Diisopropyl ether (IPE)	ND		1	10	0.40	ug/L	06/04/2013 0233
3,3-Dimethyl-1-butanol	ND		1	100	1.0	ug/L	06/04/2013 0233
Ethanol	ND		1	1000	33	ug/L	06/04/2013 0233
Ethylbenzene	ND		1	1.0	1.7	ug/L	06/04/2013 0233
Ethyl-tert-butyl ether (ETBE)	ND		1	100	0.20	ug/L	06/04/2013 0233
Methyl tertiary butyl ether (MTBE)	ND		1	1.0	0.40	ug/L	06/04/2013 0233
Naphthalene	ND		1	1.0	1.7	ug/L	06/04/2013 0233
tert-butyl alcohol (TBA)	ND		1	100	6.7	ug/L	06/04/2013 0233
Toluene	ND		1	1.0	1.7	ug/L	06/04/2013 0233
Xylenes (total)	ND		1	1.0	1.7	ug/L	06/04/2013 0233

Surrogate	Q	% Rec	Acceptance Limit
Bromofluorobenzene		90	70-130
1,2-Dichloroethane-d4		96	70-130
Toluene-d8		88	70-130

Volatile Organic Compounds by GC/MS - LCS

Sample ID: OQ21913-002
Batch: 21913
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	940		1	94	70-130	06/04/2013 0059
tert-Amyl methyl ether (TAME)	50	49		1	98	70-130	06/04/2013 0059
Benzene	50	50		1	99	70-130	06/04/2013 0059
tert-Butyl formate (TBF)	250	190		1	77	70-130	06/04/2013 0059
1,2-Dichloroethane	50	47		1	95	70-130	06/04/2013 0059
Diisopropyl ether (IPE)	50	52		1	104	70-130	06/04/2013 0059
3,3-Dimethyl-1-butanol	1000	1100		1	111	70-130	06/04/2013 0059
Ethanol	5000	5600		1	111	70-130	06/04/2013 0059
Ethylbenzene	50	52		1	104	70-130	06/04/2013 0059
Ethyl-tert-butyl ether (ETBE)	50	50		1	100	70-130	06/04/2013 0059
Methyl tertiary butyl ether (MTBE)	50	49		1	98	70-130	06/04/2013 0059

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: OQ21913-002
Batch: 21913
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	50		1	101	70-130	06/04/2013 0059
tert-butyl alcohol (TBA)	1000	930		1	93	70-130	06/04/2013 0059
Toluene	50	52		1	103	70-130	06/04/2013 0059
Xylenes (total)	100	100		1	104	70-130	06/04/2013 0059

Surrogate	Q	% Rec	Acceptance Limit
Bromofluorobenzene		85	70-130
1,2-Dichloroethane-d4		79	70-130
Toluene-d8		89	70-130

Volatile Organic Compounds by GC/MS - LCSD

Sample ID: OQ21913-003
Batch: 21913
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	1.6	70-130	20	06/04/2013 0123
tert-Amyl methyl ether (TAME)	50	50		1	100	1.3	70-130	20	06/04/2013 0123
Benzene	50	49		1	99	0.63	70-130	20	06/04/2013 0123
tert-Butyl formate (TBF)	250	180		1	73	5.3	70-130	20	06/04/2013 0123
1,2-Dichloroethane	50	47		1	94	0.71	70-130	20	06/04/2013 0123
Diisopropyl ether (IPE)	50	51		1	102	2.7	70-130	20	06/04/2013 0123
3,3-Dimethyl-1-butanol	1000	1100		1	106	4.6	70-130	20	06/04/2013 0123
Ethanol	5000	5500		1	111	0.44	70-130	20	06/04/2013 0123
Ethylbenzene	50	51		1	101	2.1	70-130	20	06/04/2013 0123
Ethyl-tert-butyl ether (ETBE)	50	49		1	99	1.1	70-130	20	06/04/2013 0123
Methyl tertiary butyl ether (MTBE)	50	48		1	96	1.4	70-130	20	06/04/2013 0123
Naphthalene	50	47		1	94	6.7	70-130	20	06/04/2013 0123
tert-butyl alcohol (TBA)	1000	900		1	90	3.8	70-130	20	06/04/2013 0123
Toluene	50	51		1	101	1.8	70-130	20	06/04/2013 0123
Xylenes (total)	100	100		1	104	0.54	70-130	20	06/04/2013 0123

Surrogate	Q	% Rec	Acceptance Limit
Bromofluorobenzene		87	70-130
1,2-Dichloroethane-d4		83	70-130
Toluene-d8		92	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 - Duplicate

Sample ID: OE24057-006DU
Batch: 21913
Analytical Method: 8260B

Matrix: Aqueous
Prep Method: 5030B

Parameter	Sample Amount (ug/L)	Result (ug/L)	Q	Dil	% RPD	% RPD Limit	Analysis Date
tert-Amyl alcohol (TAA)	160	ND		50	0.00	20	06/04/2013 1021
tert-Amyl methyl ether (TAME)	ND	ND		50	0.00	20	06/04/2013 1021
Benzene	6.3	ND		50	0.00	20	06/04/2013 1021
tert-Butyl formate (TBF)	ND	ND		50	0.00	20	06/04/2013 1021
1,2-Dichloroethane	ND	ND		50	0.00	20	06/04/2013 1021
Diisopropyl ether (IPE)	ND	ND		50	0.00	20	06/04/2013 1021
3,3-Dimethyl-1-butanol	ND	ND		50	0.00	20	06/04/2013 1021
Ethanol	ND	ND		50	0.00	20	06/04/2013 1021
Ethylbenzene	310	290		50	2.1	20	06/04/2013 1021
Ethyl-tert-butyl ether (ETBE)	ND	ND		50	0.00	20	06/04/2013 1021
Methyl tertiary butyl ether (MTBE)	ND	ND		50	0.00	20	06/04/2013 1021
Naphthalene	83	240	J	50	1.2	20	06/04/2013 1021
tert-butyl alcohol (TBA)	ND	ND		50	0.00	20	06/04/2013 1021
Toluene	370	320		50	1.9	20	06/04/2013 1021
Xylenes (total)	2200	2100		50	0.97	20	06/04/2013 1021

Surrogate	Q	% Rec	Acceptance Limit
1,2-Dichloroethane-d4		100	70-130
Bromofluorobenzene		93	70-130
Toluene-d8		89	70-130

Volatile Organic Compounds by GC/MS - MS

Sample ID: OE24057-016MS
Batch: 21913
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)	680	50000	42000		50	82	70-130	06/04/2013 1107
tert-Amyl methyl ether (TAME)	ND	2500	2500		50	102	70-130	06/04/2013 1107
Benzene	1100	2500	3900		50	111	70-130	06/04/2013 1107
tert-Butyl formate (TBF)	ND	13000	7900	N	50	63	70-130	06/04/2013 1107
1,2-Dichloroethane	ND	2500	2700		50	106	70-130	06/04/2013 1107
Diisopropyl ether (IPE)	ND	2500	2700		50	108	70-130	06/04/2013 1107
3,3-Dimethyl-1-butanol	ND	50000	49000		50	97	70-130	06/04/2013 1107
Ethanol	ND	250000	240000		50	97	70-130	06/04/2013 1107
Ethylbenzene	1600	2500	4300		50	108	70-130	06/04/2013 1107
Ethyl-tert-butyl ether (ETBE)	ND	2500	2500		50	100	70-130	06/04/2013 1107
Methyl tertiary butyl ether (MTBE)	ND	2500	2400		50	97	70-130	06/04/2013 1107

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 - MS

Sample ID: OE24057-016MS
Batch: 21913
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
Naphthalene	400	2500	2600		50	88	70-130	06/04/2013 1107
tert-butyl alcohol (TBA)	ND	50000	39000		50	78	70-130	06/04/2013 1107
Toluene	5600	2500	8400		50	109	70-130	06/04/2013 1107
Xylenes (total)	7300	5000	13000		50	105	70-130	06/04/2013 1107

Surrogate	Q	% Rec	Acceptance Limit
1,2-Dichloroethane-d4		87	70-130
Bromofluorobenzene		88	70-130
Toluene-d8		92	70-130

Volatile Organic Compounds by GC/MS - MB

Sample ID: OQ21913-001
Batch: 21913
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	06/04/2013 0233
tert-Amyl methyl ether (TAME)	ND		1	10	0.20	ug/L	06/04/2013 0233
Benzene	ND		1	1.0	0.13	ug/L	06/04/2013 0233
tert-Butyl formate (TBF)	ND		1	100	1.0	ug/L	06/04/2013 0233
1,2-Dichloroethane	ND		1	1.0	0.15	ug/L	06/04/2013 0233
Diisopropyl ether (IPE)	ND		1	10	0.40	ug/L	06/04/2013 0233
3,3-Dimethyl-1-butanol	ND		1	100	1.0	ug/L	06/04/2013 0233
Ethanol	ND		1	1000	33	ug/L	06/04/2013 0233
Ethylbenzene	ND		1	1.0	0.33	ug/L	06/04/2013 0233
Ethyl-tert-butyl ether (ETBE)	ND		1	100	0.20	ug/L	06/04/2013 0233
Methyl tertiary butyl ether (MTBE)	ND		1	1.0	0.40	ug/L	06/04/2013 0233
Naphthalene	ND		1	1.0	0.40	ug/L	06/04/2013 0233
tert-butyl alcohol (TBA)	ND		1	100	6.7	ug/L	06/04/2013 0233
Toluene	ND		1	1.0	0.33	ug/L	06/04/2013 0233
Xylenes (total)	ND		1	1.0	0.33	ug/L	06/04/2013 0233

Surrogate	Q	% Rec	Acceptance Limit
Bromofluorobenzene		90	70-130
1,2-Dichloroethane-d4		96	70-130
Toluene-d8		88	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: OQ21913-002
Batch: 21913
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	940		1	94	70-130	06/04/2013 0059
tert-Amyl methyl ether (TAME)	50	49		1	98	70-130	06/04/2013 0059
Benzene	50	50		1	99	70-130	06/04/2013 0059
tert-Butyl formate (TBF)	250	190		1	77	70-130	06/04/2013 0059
1,2-Dichloroethane	50	47		1	95	70-130	06/04/2013 0059
Diisopropyl ether (IPE)	50	52		1	104	70-130	06/04/2013 0059
3,3-Dimethyl-1-butanol	1000	1100		1	111	70-130	06/04/2013 0059
Ethanol	5000	5600		1	111	70-130	06/04/2013 0059
Ethylbenzene	50	52		1	104	70-130	06/04/2013 0059
Ethyl-tert-butyl ether (ETBE)	50	50		1	100	70-130	06/04/2013 0059
Methyl tertiary butyl ether (MTBE)	50	49		1	98	70-130	06/04/2013 0059
Naphthalene	50	50		1	101	70-130	06/04/2013 0059
tert-butyl alcohol (TBA)	1000	930		1	93	70-130	06/04/2013 0059
Toluene	50	52		1	103	70-130	06/04/2013 0059
Xylenes (total)	100	100		1	104	70-130	06/04/2013 0059

Surrogate	Q	% Rec	Acceptance Limit
Bromofluorobenzene		85	70-130
1,2-Dichloroethane-d4		79	70-130
Toluene-d8		89	70-130

Volatile Organic Compounds by GC/MS - LCSD

Sample ID: OQ21913-003
Batch: 21913
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	1.6	70-130	20	06/04/2013 0123
tert-Amyl methyl ether (TAME)	50	50		1	100	1.3	70-130	20	06/04/2013 0123
Benzene	50	49		1	99	0.63	70-130	20	06/04/2013 0123
tert-Butyl formate (TBF)	250	180		1	73	5.3	70-130	20	06/04/2013 0123
1,2-Dichloroethane	50	47		1	94	0.71	70-130	20	06/04/2013 0123
Diisopropyl ether (IPE)	50	51		1	102	2.7	70-130	20	06/04/2013 0123
3,3-Dimethyl-1-butanol	1000	1100		1	106	4.6	70-130	20	06/04/2013 0123
Ethanol	5000	5500		1	111	0.44	70-130	20	06/04/2013 0123
Ethylbenzene	50	51		1	101	2.1	70-130	20	06/04/2013 0123
Ethyl-tert-butyl ether (ETBE)	50	49		1	99	1.1	70-130	20	06/04/2013 0123
Methyl tertiary butyl ether (MTBE)	50	48		1	96	1.4	70-130	20	06/04/2013 0123

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: OQ21913-003
Batch: 21913
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	47		1	94	6.7	70-130	20	06/04/2013 0123
tert-butyl alcohol (TBA)	1000	900		1	90	3.8	70-130	20	06/04/2013 0123
Toluene	50	51		1	101	1.8	70-130	20	06/04/2013 0123
Xylenes (total)	100	100		1	104	0.54	70-130	20	06/04/2013 0123

Surrogate	Q	% Rec	Acceptance Limit
Bromofluorobenzene		87	70-130
1,2-Dichloroethane-d4		83	70-130
Toluene-d8		92	70-130

Volatile Organic Compounds by GC/MS - MB

Sample ID: OQ22063-001
Batch: 22063
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	06/04/2013 1433
tert-Amyl methyl ether (TAME)	ND		1	10	0.20	ug/L	06/04/2013 1433
Benzene	ND		1	5.0	0.20	ug/L	06/04/2013 1433
tert-Butyl formate (TBF)	ND		1	100	1.0	ug/L	06/04/2013 1433
1,2-Dichloroethane	ND		1	5.0	0.30	ug/L	06/04/2013 1433
Diisopropyl ether (IPE)	ND		1	10	0.40	ug/L	06/04/2013 1433
3,3-Dimethyl-1-butanol	ND		1	100	1.0	ug/L	06/04/2013 1433
Ethanol	ND		1	1000	33	ug/L	06/04/2013 1433
Ethylbenzene	ND		1	5.0	1.7	ug/L	06/04/2013 1433
Ethyl-tert-butyl ether (ETBE)	ND		1	100	0.20	ug/L	06/04/2013 1433
Methyl tertiary butyl ether (MTBE)	ND		1	5.0	0.40	ug/L	06/04/2013 1433
Naphthalene	ND		1	5.0	1.7	ug/L	06/04/2013 1433
tert-butyl alcohol (TBA)	ND		1	100	6.7	ug/L	06/04/2013 1433
Toluene	ND		1	5.0	1.7	ug/L	06/04/2013 1433
Xylenes (total)	ND		1	5.0	1.7	ug/L	06/04/2013 1433

Surrogate	Q	% Rec	Acceptance Limit
Bromofluorobenzene		88	70-130
1,2-Dichloroethane-d4		94	70-130
Toluene-d8		87	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: OQ22063-002
Batch: 22063
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	1000		1	100	70-130	06/04/2013 1259
tert-Amyl methyl ether (TAME)	50	49		1	98	70-130	06/04/2013 1259
Benzene	50	52		1	104	70-130	06/04/2013 1259
tert-Butyl formate (TBF)	250	220		1	90	70-130	06/04/2013 1259
1,2-Dichloroethane	50	50		1	99	70-130	06/04/2013 1259
Diisopropyl ether (IPE)	50	52		1	105	70-130	06/04/2013 1259
3,3-Dimethyl-1-butanol	1000	1100		1	107	70-130	06/04/2013 1259
Ethanol	5000	5900		1	117	70-130	06/04/2013 1259
Ethylbenzene	50	55		1	110	70-130	06/04/2013 1259
Ethyl-tert-butyl ether (ETBE)	50	50		1	100	70-130	06/04/2013 1259
Methyl tertiary butyl ether (MTBE)	50	49		1	98	70-130	06/04/2013 1259
Naphthalene	50	49		1	97	70-130	06/04/2013 1259
tert-butyl alcohol (TBA)	1000	940		1	94	70-130	06/04/2013 1259
Toluene	50	55		1	110	70-130	06/04/2013 1259
Xylenes (total)	100	110		1	110	70-130	06/04/2013 1259

Surrogate	Q	% Rec	Acceptance Limit
Bromofluorobenzene		87	70-130
1,2-Dichloroethane-d4		85	70-130
Toluene-d8		92	70-130

Volatile Organic Compounds by GC/MS - MB

Sample ID: OQ22174-001
Batch: 22174
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	06/05/2013 1201
tert-Amyl methyl ether (TAME)	ND		1	10	0.20	ug/L	06/05/2013 1201
Benzene	ND		1	5.0	0.20	ug/L	06/05/2013 1201
tert-Butyl formate (TBF)	ND		1	100	1.0	ug/L	06/05/2013 1201
1,2-Dichloroethane	ND		1	5.0	0.30	ug/L	06/05/2013 1201
Diisopropyl ether (IPE)	ND		1	10	0.40	ug/L	06/05/2013 1201
3,3-Dimethyl-1-butanol	ND		1	100	1.0	ug/L	06/05/2013 1201
Ethanol	ND		1	1000	33	ug/L	06/05/2013 1201
Ethylbenzene	ND		1	5.0	1.7	ug/L	06/05/2013 1201
Ethyl-tert-butyl ether (ETBE)	ND		1	100	0.20	ug/L	06/05/2013 1201
Methyl tertiary butyl ether (MTBE)	ND		1	5.0	0.40	ug/L	06/05/2013 1201

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: OQ22174-001
Batch: 22174
Analytical Method: 8260B

Matrix: Aqueous
Prep Method: 5030B

Parameter	Result	Q	Dil	PQL	MDL	Units	Analysis Date
Naphthalene	ND		1	5.0	1.7	ug/L	06/05/2013 1201
tert-butyl alcohol (TBA)	ND		1	100	6.7	ug/L	06/05/2013 1201
Toluene	ND		1	5.0	1.7	ug/L	06/05/2013 1201
Xylenes (total)	ND		1	5.0	1.7	ug/L	06/05/2013 1201

Surrogate	Q	% Rec	Acceptance Limit
Bromofluorobenzene		113	70-130
1,2-Dichloroethane-d4		108	70-130
Toluene-d8		119	70-130

Volatile Organic Compounds by GC/MS - LCS

Sample ID: OQ22174-002
Batch: 22174
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	960		1	96	70-130	06/05/2013 1036
tert-Amyl methyl ether (TAME)	50	51		1	102	70-130	06/05/2013 1036
Benzene	50	53		1	107	70-130	06/05/2013 1036
tert-Butyl formate (TBF)	250	300		1	119	70-130	06/05/2013 1036
1,2-Dichloroethane	50	53		1	107	70-130	06/05/2013 1036
Diisopropyl ether (IPE)	50	52		1	104	70-130	06/05/2013 1036
3,3-Dimethyl-1-butanol	1000	900		1	90	70-130	06/05/2013 1036
Ethanol	5000	4600		1	93	70-130	06/05/2013 1036
Ethylbenzene	50	53		1	106	70-130	06/05/2013 1036
Ethyl-tert-butyl ether (ETBE)	50	56		1	112	70-130	06/05/2013 1036
Methyl tertiary butyl ether (MTBE)	50	54		1	107	70-130	06/05/2013 1036
Naphthalene	50	43		1	87	70-130	06/05/2013 1036
tert-butyl alcohol (TBA)	1000	890		1	89	70-130	06/05/2013 1036
Toluene	50	56		1	112	70-130	06/05/2013 1036
Xylenes (total)	100	110		1	106	70-130	06/05/2013 1036

Surrogate	Q	% Rec	Acceptance Limit
Bromofluorobenzene		111	70-130
1,2-Dichloroethane-d4		105	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 - LCSD

Sample ID: OQ22174-003
Batch: 22174
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	970		1	97	1.4	70-130	20	06/05/2013 1104
tert-Amyl methyl ether (TAME)	50	52		1	104	1.7	70-130	20	06/05/2013 1104
Benzene	50	54		1	108	0.90	70-130	20	06/05/2013 1104
tert-Butyl formate (TBF)	250	310		1	123	3.1	70-130	20	06/05/2013 1104
1,2-Dichloroethane	50	55		1	110	2.8	70-130	20	06/05/2013 1104
Diisopropyl ether (IPE)	50	52		1	105	0.80	70-130	20	06/05/2013 1104
3,3-Dimethyl-1-butanol	1000	900		1	90	0.79	70-130	20	06/05/2013 1104
Ethanol	5000	4700		1	93	0.65	70-130	20	06/05/2013 1104
Ethylbenzene	50	53		1	107	1.1	70-130	20	06/05/2013 1104
Ethyl-tert-butyl ether (ETBE)	50	57		1	114	2.0	70-130	20	06/05/2013 1104
Methyl tertiary butyl ether (MTBE)	50	56		1	111	4.0	70-130	20	06/05/2013 1104
Naphthalene	50	44		1	89	2.2	70-130	20	06/05/2013 1104
tert-butyl alcohol (TBA)	1000	900		1	90	1.4	70-130	20	06/05/2013 1104
Toluene	50	56		1	112	0.011	70-130	20	06/05/2013 1104
Xylenes (total)	100	110		1	109	2.0	70-130	20	06/05/2013 1104

Surrogate	Q	% Rec	Acceptance Limit
Bromofluorobenzene		111	70-130
1,2-Dichloroethane-d4		106	70-130
Toluene-d8		114	70-130

Volatile Organic Compounds by GC/MS - MB

Sample ID: OQ22176-001
Batch: 22176
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	06/05/2013 1147
tert-Amyl methyl ether (TAME)	ND		1	10	0.20	ug/L	06/05/2013 1147
Benzene	ND		1	5.0	0.20	ug/L	06/05/2013 1147
tert-Butyl formate (TBF)	ND		1	100	1.0	ug/L	06/05/2013 1147
1,2-Dichloroethane	ND		1	5.0	0.30	ug/L	06/05/2013 1147
Diisopropyl ether (IPE)	ND		1	10	0.40	ug/L	06/05/2013 1147
3,3-Dimethyl-1-butanol	ND		1	100	1.0	ug/L	06/05/2013 1147
Ethanol	ND		1	1000	33	ug/L	06/05/2013 1147
Ethylbenzene	ND		1	5.0	1.7	ug/L	06/05/2013 1147
Ethyl-tert-butyl ether (ETBE)	ND		1	100	0.20	ug/L	06/05/2013 1147
Methyl tertiary butyl ether (MTBE)	ND		1	5.0	0.40	ug/L	06/05/2013 1147

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: OQ22176-001
Batch: 22176
Analytical Method: 8260B

Matrix: Aqueous
Prep Method: 5030B

Parameter	Result	Q	Dil	PQL	MDL	Units	Analysis Date
Naphthalene	ND		1	5.0	1.7	ug/L	06/05/2013 1147
tert-butyl alcohol (TBA)	ND		1	100	6.7	ug/L	06/05/2013 1147
Toluene	ND		1	5.0	1.7	ug/L	06/05/2013 1147
Xylenes (total)	ND		1	5.0	1.7	ug/L	06/05/2013 1147

Surrogate	Q	% Rec	Acceptance Limit
Bromofluorobenzene		93	70-130
1,2-Dichloroethane-d4		87	70-130
Toluene-d8		97	70-130

Volatile Organic Compounds by GC/MS - LCS

Sample ID: OQ22176-002
Batch: 22176
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	113	70-130	06/05/2013 1022
tert-Amyl methyl ether (TAME)	50	61		1	121	70-130	06/05/2013 1022
Benzene	50	62		1	125	70-130	06/05/2013 1022
tert-Butyl formate (TBF)	250	360	N	1	145	70-130	06/05/2013 1022
1,2-Dichloroethane	50	59		1	118	70-130	06/05/2013 1022
Diisopropyl ether (IPE)	50	61		1	121	70-130	06/05/2013 1022
3,3-Dimethyl-1-butanol	1000	1200		1	120	70-130	06/05/2013 1022
Ethanol	5000	6500	N	1	131	70-130	06/05/2013 1022
Ethylbenzene	50	61		1	121	70-130	06/05/2013 1022
Ethyl-tert-butyl ether (ETBE)	50	67	N	1	133	70-130	06/05/2013 1022
Methyl tertiary butyl ether (MTBE)	50	62		1	124	70-130	06/05/2013 1022
Naphthalene	50	58		1	117	70-130	06/05/2013 1022
tert-butyl alcohol (TBA)	1000	1100		1	108	70-130	06/05/2013 1022
Toluene	50	62		1	124	70-130	06/05/2013 1022
Xylenes (total)	100	120		1	122	70-130	06/05/2013 1022

Surrogate	Q	% Rec	Acceptance Limit
Bromofluorobenzene		110	70-130
1,2-Dichloroethane-d4		106	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 - LCSD

Sample ID: OQ22176-003
Batch: 22176
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	1000		1	105	7.7	70-130	20	06/05/2013 1050
tert-Amyl methyl ether (TAME)	50	57		1	114	5.8	70-130	20	06/05/2013 1050
Benzene	50	58		1	115	7.7	70-130	20	06/05/2013 1050
tert-Butyl formate (TBF)	250	320		1	130	11	70-130	20	06/05/2013 1050
1,2-Dichloroethane	50	55		1	111	6.4	70-130	20	06/05/2013 1050
Diisopropyl ether (IPE)	50	56		1	112	7.4	70-130	20	06/05/2013 1050
3,3-Dimethyl-1-butanol	1000	1100		1	112	7.6	70-130	20	06/05/2013 1050
Ethanol	5000	5800		1	117	11	70-130	20	06/05/2013 1050
Ethylbenzene	50	56		1	113	7.5	70-130	20	06/05/2013 1050
Ethyl-tert-butyl ether (ETBE)	50	62		1	124	7.2	70-130	20	06/05/2013 1050
Methyl tertiary butyl ether (MTBE)	50	61		1	121	1.9	70-130	20	06/05/2013 1050
Naphthalene	50	54		1	108	7.8	70-130	20	06/05/2013 1050
tert-butyl alcohol (TBA)	1000	990		1	99	8.6	70-130	20	06/05/2013 1050
Toluene	50	57		1	115	7.9	70-130	20	06/05/2013 1050
Xylenes (total)	100	110		1	113	7.6	70-130	20	06/05/2013 1050

Surrogate	Q	% Rec	Acceptance Limit
Bromofluorobenzene		106	70-130
1,2-Dichloroethane-d4		102	70-130
Toluene-d8		107	70-130

Volatile Organic Compounds by GC/MS - MB

Sample ID: OQ22193-001
Batch: 22193
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	06/05/2013 1953
tert-Amyl methyl ether (TAME)	ND		1	10	0.20	ug/L	06/05/2013 1953
Benzene	ND		1	5.0	0.20	ug/L	06/05/2013 1953
tert-Butyl formate (TBF)	ND		1	100	1.0	ug/L	06/05/2013 1953
1,2-Dichloroethane	ND		1	5.0	0.30	ug/L	06/05/2013 1953
Diisopropyl ether (IPE)	ND		1	10	0.40	ug/L	06/05/2013 1953
3,3-Dimethyl-1-butanol	ND		1	100	1.0	ug/L	06/05/2013 1953
Ethanol	ND		1	1000	33	ug/L	06/05/2013 1953
Ethylbenzene	ND		1	5.0	1.7	ug/L	06/05/2013 1953
Ethyl-tert-butyl ether (ETBE)	ND		1	100	0.20	ug/L	06/05/2013 1953
Methyl tertiary butyl ether (MTBE)	ND		1	5.0	0.40	ug/L	06/05/2013 1953

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: OQ22193-001
Batch: 22193
Analytical Method: 8260B
Matrix: Aqueous
Prep Method: 5030B

Parameter	Result	Q	Dil	PQL	MDL	Units	Analysis Date
Naphthalene	ND		1	5.0	1.7	ug/L	06/05/2013 1953
tert-butyl alcohol (TBA)	ND		1	100	6.7	ug/L	06/05/2013 1953
Toluene	ND		1	5.0	1.7	ug/L	06/05/2013 1953
Xylenes (total)	ND		1	5.0	1.7	ug/L	06/05/2013 1953

Surrogate	Q	% Rec	Acceptance Limit
Bromofluorobenzene		110	70-130
1,2-Dichloroethane-d4		108	70-130
Toluene-d8		118	70-130

Volatile Organic Compounds by GC/MS - LCS

Sample ID: OQ22193-002
Batch: 22193
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	1000		1	100	70-130	06/05/2013 1759
tert-Amyl methyl ether (TAME)	50	54		1	108	70-130	06/05/2013 1759
Benzene	50	53		1	107	70-130	06/05/2013 1759
tert-Butyl formate (TBF)	250	320		1	129	70-130	06/05/2013 1759
1,2-Dichloroethane	50	54		1	108	70-130	06/05/2013 1759
Diisopropyl ether (IPE)	50	52		1	104	70-130	06/05/2013 1759
3,3-Dimethyl-1-butanol	1000	920		1	92	70-130	06/05/2013 1759
Ethanol	5000	4800		1	96	70-130	06/05/2013 1759
Ethylbenzene	50	54		1	109	70-130	06/05/2013 1759
Ethyl-tert-butyl ether (ETBE)	50	55		1	111	70-130	06/05/2013 1759
Methyl tertiary butyl ether (MTBE)	50	56		1	111	70-130	06/05/2013 1759
Naphthalene	50	45		1	89	70-130	06/05/2013 1759
tert-butyl alcohol (TBA)	1000	930		1	93	70-130	06/05/2013 1759
Toluene	50	55		1	110	70-130	06/05/2013 1759
Xylenes (total)	100	110		1	108	70-130	06/05/2013 1759

Surrogate	Q	% Rec	Acceptance Limit
Bromofluorobenzene		114	70-130
1,2-Dichloroethane-d4		101	70-130
Toluene-d8		116	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: OQ22194-001
Batch: 22194
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	06/05/2013 1938
tert-Amyl methyl ether (TAME)	ND		1	10	0.20	ug/L	06/05/2013 1938
Benzene	ND		1	5.0	0.20	ug/L	06/05/2013 1938
tert-Butyl formate (TBF)	ND		1	100	1.0	ug/L	06/05/2013 1938
1,2-Dichloroethane	ND		1	5.0	0.30	ug/L	06/05/2013 1938
Diisopropyl ether (IPE)	ND		1	10	0.40	ug/L	06/05/2013 1938
3,3-Dimethyl-1-butanol	ND		1	100	1.0	ug/L	06/05/2013 1938
Ethanol	ND		1	1000	33	ug/L	06/05/2013 1938
Ethylbenzene	ND		1	5.0	1.7	ug/L	06/05/2013 1938
Ethyl-tert-butyl ether (ETBE)	ND		1	100	0.20	ug/L	06/05/2013 1938
Methyl tertiary butyl ether (MTBE)	ND		1	5.0	0.40	ug/L	06/05/2013 1938
Naphthalene	ND		1	5.0	1.7	ug/L	06/05/2013 1938
tert-butyl alcohol (TBA)	ND		1	100	6.7	ug/L	06/05/2013 1938
Toluene	ND		1	5.0	1.7	ug/L	06/05/2013 1938
Xylenes (total)	ND		1	5.0	1.7	ug/L	06/05/2013 1938

Surrogate	Q	% Rec	Acceptance Limit
Bromofluorobenzene		106	70-130
1,2-Dichloroethane-d4		95	70-130
Toluene-d8		107	70-130

Volatile Organic Compounds by GC/MS - LCS

Sample ID: OQ22194-002
Batch: 22194
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	990		1	99	70-130	06/05/2013 1744
tert-Amyl methyl ether (TAME)	50	56		1	113	70-130	06/05/2013 1744
Benzene	50	55		1	111	70-130	06/05/2013 1744
tert-Butyl formate (TBF)	250	320		1	128	70-130	06/05/2013 1744
1,2-Dichloroethane	50	53		1	105	70-130	06/05/2013 1744
Diisopropyl ether (IPE)	50	53		1	107	70-130	06/05/2013 1744
3,3-Dimethyl-1-butanol	1000	1100		1	106	70-130	06/05/2013 1744
Ethanol	5000	5300		1	106	70-130	06/05/2013 1744
Ethylbenzene	50	55		1	111	70-130	06/05/2013 1744
Ethyl-tert-butyl ether (ETBE)	50	58		1	116	70-130	06/05/2013 1744
Methyl tertiary butyl ether (MTBE)	50	56		1	112	70-130	06/05/2013 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 - LCS

Sample ID: OQ22194-002
Batch: 22194
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	51		1	102	70-130	06/05/2013 1744
tert-butyl alcohol (TBA)	1000	940		1	94	70-130	06/05/2013 1744
Toluene	50	56		1	112	70-130	06/05/2013 1744
Xylenes (total)	100	110		1	110	70-130	06/05/2013 1744

Surrogate	Q	% Rec	Acceptance Limit
Bromofluorobenzene		104	70-130
1,2-Dichloroethane-d4		99	70-130
Toluene-d8		104	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: OQ21506-001
Batch: 21506
Analytical Method: 8011
Matrix: Aqueous
Prep Method: 8011
Prep Date: 05/29/2013 1447

Parameter	Result	Q	Dil	PQL	MDL	Units	Analysis Date
1,2-Dibromoethane (EDB)	ND		1	0.020	0.020	ug/L	06/02/2013 0753

Surrogate	Q	% Rec	Acceptance Limit
1,1,1,2-Tetrachloroethane		111	57-137

EDB & DBCP by Microextraction - LCS

Sample ID: OQ21506-002
Batch: 21506
Analytical Method: 8011
Matrix: Aqueous
Prep Method: 8011
Prep Date: 05/29/2013 1447

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	06/02/2013 0814

Surrogate	Q	% Rec	Acceptance Limit
1,1,1,2-Tetrachloroethane		120	57-137

EDB & DBCP by Microextraction - MB

Sample ID: OQ21543-001
Batch: 21543
Analytical Method: 8011
Matrix: Aqueous
Prep Method: 8011
Prep Date: 05/29/2013 1935

Parameter	Result	Q	Dil	PQL	MDL	Units	Analysis Date
1,2-Dibromoethane (EDB)	ND		1	0.020	0.020	ug/L	06/02/2013 1657

Surrogate	Q	% Rec	Acceptance Limit
1,1,1,2-Tetrachloroethane		102	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

EDB & DBCP by Microextraction - LCS

Sample ID: OQ21543-002 **Matrix:** Aqueous
Batch: 21543 **Prep Method:** 8011
Analytical Method: 8011 **Prep Date:** 05/29/2013 1935

Parameter	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
1,2-Dibromoethane (EDB)	0.25	0.33		1	131	60-140	06/02/2013 1718

Surrogate	Q	% Rec	Acceptance Limit
1,1,1,2-Tetrachloroethane		113	57-137

EDB & DBCP by Microextraction - MS

Sample ID: OE24057-017MS **Matrix:** Aqueous
Batch: 21543 **Prep Method:** 8011
Analytical Method: 8011 **Prep Date:** 05/29/2013 1935

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	0.34		1	138	60-140	06/02/2013 1824

Surrogate	Q	% Rec	Acceptance Limit
1,1,1,2-Tetrachloroethane		117	57-137

EDB & DBCP by Microextraction - MSD

Sample ID: OE24057-017MD **Matrix:** Aqueous
Batch: 21543 **Prep Method:** 8011
Analytical Method: 8011 **Prep Date:** 05/29/2013 1935

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	0.27	+	1	109	23	60-140	20	06/02/2013 1845

Surrogate	Q	% Rec	Acceptance Limit
1,1,1,2-Tetrachloroethane		132	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 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

SHEALY **Chain of Custody Record** **Number** 21194

Client SCDHEC	Report to Contact D. Thomas	Sampler (Printed Name) Kyle Pudney	Quote No.
Address 2600 Bull Street	Telephone No. / Fax No. / Email	Waybill No.	Page 1 of 4
City Columbia 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
Project Name Gaston - Food Mart			Lot No. 0224057
Project Number 05986/45649	P.O Number		

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: BTEX/MTBE (8260B)	8 Oxygenates	1,2 DCA	EDB (8011)	Remarks / Cooler ID
MW-1	5/23	13:15	G	X					X	X	X	X	No odor
MW-1A		12:38											odor / Sheen
~~RMW-3~~		-											Product
RMW-5		11:00											No odor
MW-6		12:58											odor / Sheen
MW-7		12:00											No odor
MW-8		11:05											odor
~~MW-9~~													DRY
~~MW-10~~													Product
MW-11	5/23	12:51	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	5/23	14:30	1. Received by	5/23	1430
2. Relinquished by	5/24	755	2. Received by		
3. Relinquished by			3. Received by		
4. Relinquished by			4. Laboratory Received by	5/24/13	750

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. 2.0 °C
Temp. Blank ☐Y / ☐ N

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

SHEALY **Chain of Custody Record** **Number** 21193

Client SCDHEC	Report to Contact D. Thoma	Sampler (Printed Name) Kyle Rudny	Quote No.
Address 2600 Bull Street	Telephone No. / Fax No. / Email	Waybill No.	Page 2 of 4
City Columbia 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 Gaston Food Mart			
Project Number 05986/45649	P.O Number		

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: BTEX/Naphthalene (8021B)	Oxygenates (8260B)	1,2 DCA (8260B)	EDB (8011)	Remarks / Cooler ID
~~MW-12~~													DRY
MW-13	5/23	13:10	G	X					X	X	X	X	No odor
~~MW-14~~													DRY
MW-15		9:54											No odor
MW-16		9:27											No odor
MW-16R		9:25											No odor
~~MW-17R~~													DRY
~~MW-17RR~~													DRY
MW-19		11:36											odor
RMW-20	5/23	11:19	G	X					X	X	X	X	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	5/23	14:30	1. Received by	5/23	14:30
2. Relinquished by	5/24	1250	2. Received by	Date	Time
3. Relinquished by	Date	Time	3. Received by	Date	Time
4. Relinquished by	Date	Time	4. Laboratory Received by	5/23/13	1250

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. 2.0 °C
Temp. Blank ☑ Y / ☐ N

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

SHEALY **Chain of Custody Record** **Number** 21195

Client SCDHEC	Report to Contact D. Thomas	Sampler (Printed Name) Kyle Pudney	Quote No.
Address 1600 Bull Street	Telephone No. / Fax No. / Email	Waybill No.	Page 3 of 4
City Columbia State SC Zip Code 2920	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
Project Name Gaston food Mart			Lot No. 0E24057
Project Number 05986/45649	P.O Number		

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: BTEX, MTBE, Naph, 1,2 DCA (8260B)	8 oxygenates (8260B)	EDB (504.1)	Remarks / Cooler ID
~~MW-21~~												DRY
MW-22	5/23	10:08	G	X					X	X	X	No odor
MW-23		9:40										No odor
MW-24		12:12										odor
~~MW-25~~												Product
~~MW-26~~												Abandoned
~~DW-1~~												DRY
~~DW-2~~												DRY
SW-3		13:55										Low detection limits ppb
MW-1A Dup.	5/23	12:38	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

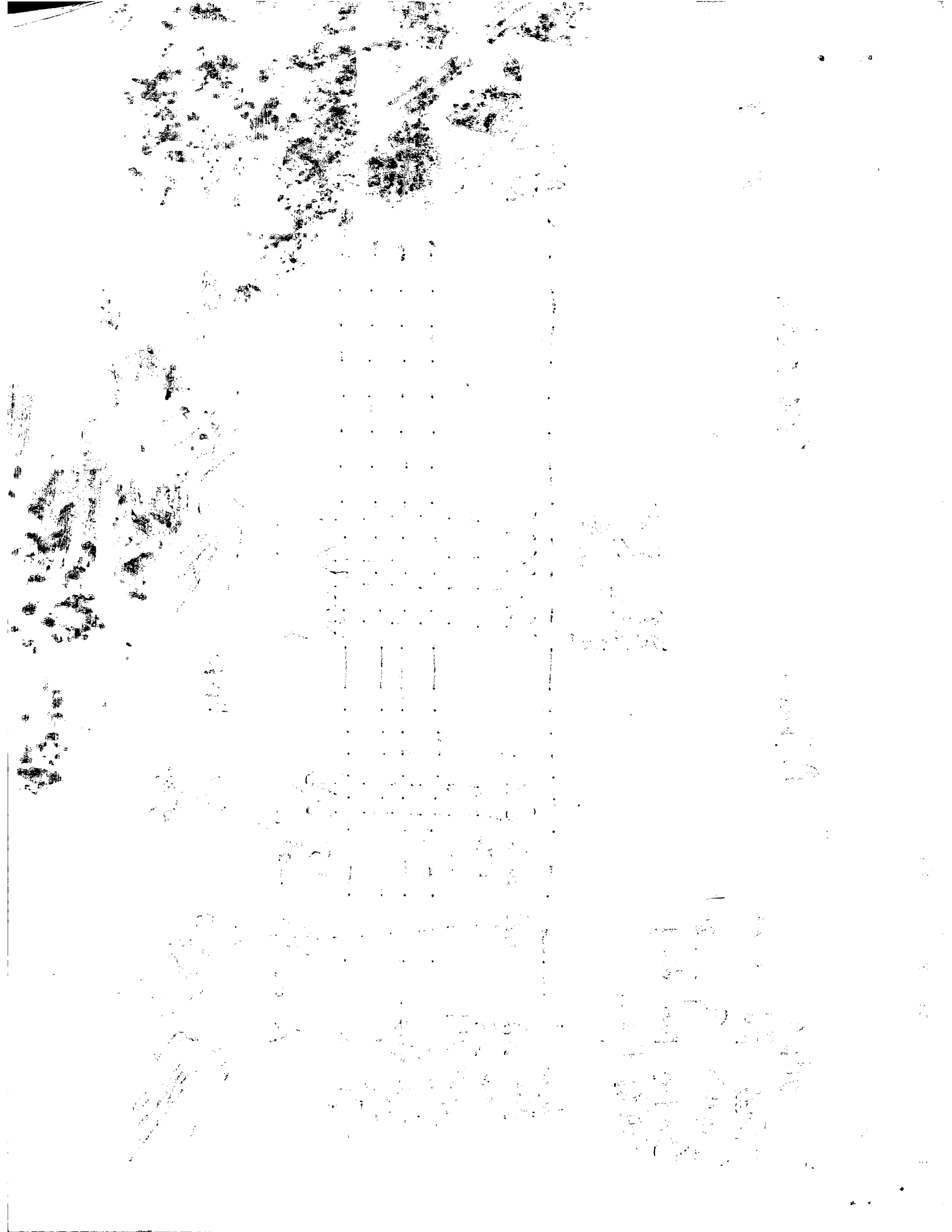
QC Requirements (Specify)

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

	Date	Time		Date	Time
1. Relinquished by / Sampler	5/23	14:30	1. Received by	5/23	14:30
2. Relinquished by	5/24	1350	2. Received by		
3. Relinquished by			3. Received by		
4. Relinquished by			4. Laboratory Received by	5/24/13	1350

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. 2.0 °C Temp. Blank ☐Y / ☐N



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

SHEALY **Chain of Custody Record** **Number** 21196

Client SCDHEC	Report to Contact D. Thomas	Sampler (Printed Name) Kyle Pudney	Quote No.
Address 2600 Bull Street	Telephone No. / Fax No. / Email	Waybill No.	Page 4 of 4
City Columbia 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
Project Name Gaston Food Mart			Lot No. CR24045-
Project Number 05986 // 45649	P.O Number		

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: BTEX (MTBE) (8260B)	1,2 DCA	6 Oxygenates	EDB (8011)	Remarks / Cooler ID
~~MW-24 Dup~~	~~5/23~~	~~12:12~~	~~6~~	~~X~~					~~X~~	~~X~~	~~X~~	~~X~~	Please dispose of
Field Blank	5/23	9:15	6	X					X	X	X	X	
Trip Blank	5/23	9:16	6	X					X	X	X		

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

1. Relinquished by / Sampler	Date 5/23	Time 14:30	1. Received by	Date 5/23	Time 1420
2. Relinquished by	Date 5/24	Time 730	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 5/24/13	Time 730

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. 2.0 °C Temp. Blank ☑ Y / ☐ N

Sample Receipt Checklist (SRC)

Client: SCDHEC Cooler Inspected by/date: [illegible] 5/24/13 Lot #: 0E24057

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 IR4 / 2.0 °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 ☑	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 (<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)_____ 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: 5/24/13

Corrective Action taken, if necessary:

Was client notified: Yes ☐ No ☐ Did client respond: Yes ☐ No ☐

SESI employee: _____ Date of response: _____

Comments:

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

MAY 08 2013

UST 4Mech DOCKETING

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
Gaston Food Mart, 105 N Main St., Gaston, SC
UST Permit #05986; CA #45649 and #45650
Lexington 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 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, 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) 896-6584 or via e-mail at minerrs@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,

Read S. Miner, P.G., Hydrogeologist
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)

Approved Cost Agreement 45649

Facility: 05986 GASTON FOOD MART
MINERRS
PO Number:

Task / Description	Categories	Item Description	Qty / Pct	Unit Price	Amount
11 ANALYSES					
	GW GROUNDWATER	A1 BTEXNM+OXYGS+1,2-DCA+ETH-8260B	38.0000	35.00	1,330.00
		F EDB	38.0000	20.00	760.00
			Total Amount		2,090.00

Approved Cost Agreement 45650

Facility: 05986 GASTON FOOD MART
MINERRS
PO Number:

Task / Description	Categories	Item	Description	Qty / Pct	Unit Price	Amount
04 MOB/DEMOB						
		B	PERSONNEL	3.0000	100.00	300.00
10 SAMPLE COLLECTION						
		A	GROUND WATER	28.0000	4.50	126.00
		C	WATER SUPPLY	1.0000	2.00	2.00
		D	GROUNDWATER NO-PURGE	2.0000	4.50	9.00
		H	FIELD BLANK	2.0000	2.00	4.00
17 DISPOSAL						
		A	WASTEWATER	300.0000	0.10	30.00
18 MISCELLANEOUS						
			QAPP PREP	1.0000	0.00	0.00
25 WELL REPAIR						
		F	REPLACE WELL COVER BOLTS	27.0000	10.00	270.00
				Total Amount		741.00

Section A: Project Management

A1 Title and Approval Page

Quality Assurance Project Plan
Addendum to the SC DHEC UST Programmatic QAPP
For
Gaston Food Mart, SCDHEC Site ID# 05986

105 North Main Street, Gaston, 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: April 22, 2013

Approvals

Read Miner, P.G. SC DHEC Project Manager	Signature	Date 4-30-13
Courtney M. Sanders Contractor QA Manager	Signature	Date 4-23-13
Jeff L. Coleman Site Rehabilitation Contractor	Signature	Date 4/23/13
Daniel J. Wright Laboratory Director	Signature	Date 04/22/2013

April 22, 2013

Midlands Environmental Consultants, Inc.

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: QAPP Contractor Addendum – Revision 0
Gaston Food Mart
Gaston, South Carolina
SCDHEC Site ID Number 05986
MECI Project Number 13-4418
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 April 18, 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
Staff 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
Gaston Food Mart, SCDHEC Site ID# 05986

105 North Main Street, Gaston, 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: April 22, 2013

Approvals

Read Miner, P.G. SC DHEC Project Manager	_____ Signature	Date_____
Courtney M. Sanders Contractor QA Manager	 Signature	Date 4-23-13
Jeff L. Coleman Site Rehabilitation Contractor	 Signature	Date 4/23/13
Daniel J. Wright Laboratory Director	 Signature	Date 04/22/2013

A2 Table of Contents

A3 Distribution List

Name	Title	Organization/Address	Telephone Number	Fax Number	Email Address
Read Miner, P.G.	SC DHEC Technical Project Manager	SCDHEC, UST Management Division, 2600 Bull St., Columbia, SC, 29201	803-896-6584	803-896-6245	minerrs@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	Read Miner, P.G.	SCDHEC, UST Management Division, 2600 Bull St., Columbia, SC, 29201	803-896-6584	803-896-6245	minerrs@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

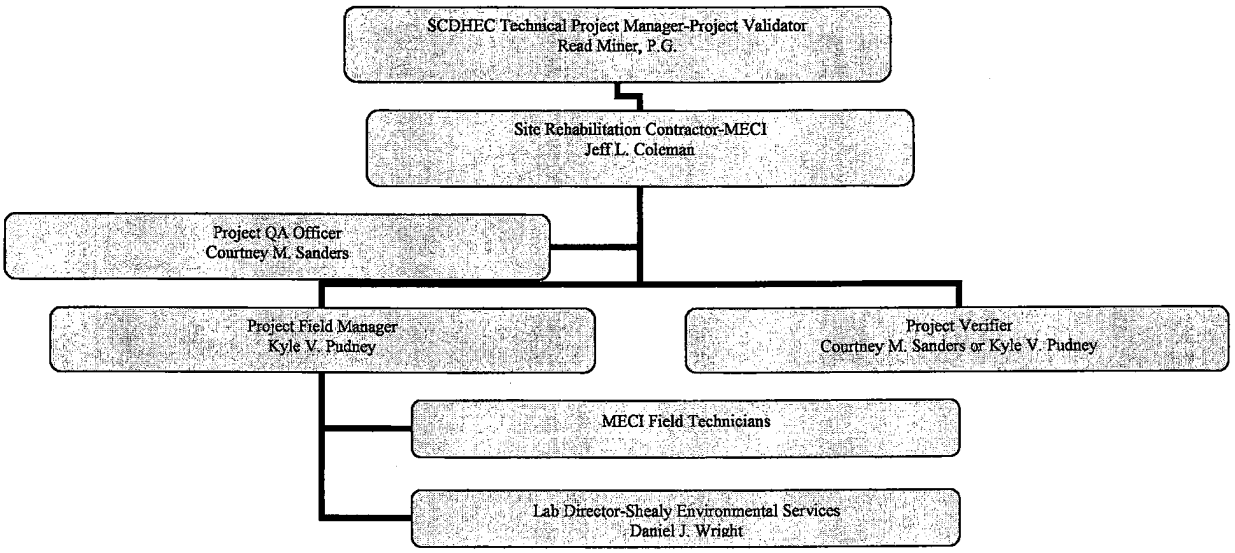


Figure 1A Organizational Chart

Project Manager (Read Miner, P.G.) – 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 (Gaston Food Mart) is located at 105 North Main Street, Gaston, Lexington County, South Carolina. The subject site previously maintained one 550 gallon gasoline underground storage tank (UST), two 3,000 gallon gasoline UST's, one 4,000 gallon gasoline UST, and two 5,000 gallon gasoline UST's. The subject tanks were abandoned by removal from ground in November of 1991. The South Carolina Department of Health and Environmental Control (SCDHEC) reported a release of petroleum product from the subject tanks in November of 1991 and confirmed the release in August 1993. The subject site is currently rated a Class 1.

The site currently maintains one 8,000 gallon regular unleaded gasoline underground storage tank (UST), one 8,000 gallon premium gasoline UST, and one 10,000 gallon regular unleaded gasoline UST. The subject tanks are currently in compliance with an issued compliance date of July 25, 2012.

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 (Gaston Food Mart) 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 105 North Main Street, Gaston, Lexington County, South Carolina. The site is currently occupied by an active gasoline service station..

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	John Bryant	OSHA 40 hr	4/17/2009	N/A	N/A

Title/Job	Name	Training Required	Date training received	Type of License	License Number
Geologist		HAZWOPER			
		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 HAZWOPER refresher	12/10/2012	N/A	N/A
Staff Biologist	Kyle Pudney	OSHA 40 hr HAZWOPER	12/10/2010	N/A	N/A
		OSHA 8 hr HAZWOPER refresher	12/10/2012	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	4/18/13	4/18/13	Already Completed
QAPP preparation	4/22/13	4/22/13	In progress
QAPP approval	4/23/13	5/14/13	Assuming three week turnaround
Monitoring well Sampling	5/15/13	5/29/13	Sampled within 2 weeks of QAPP approval
Report Preparation	5/30/13	6/20/13	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	27
From Drinking/Irrigation water wells	1
Field Duplicate Collection	2
Field Blank Collection	1
Trip Blank	1
From surface water features	_____
Total number of Water samples	32

Notes:
During the April 18, 2013 site visit, twenty seven (27) monitoring wells and one (1) water supply well were located. Monitoring well MW-26 was not located during the initial site visit. MECI personnel spoke with the property owner who stated that monitoring well MW-26 was abandoned. If the monitoring well is located during sampling activities, the newly located monitoring well will be sampled accordingly.

During the site visit it was noted fourteen (14) monitoring wells were in need of bolts. A combined total of twenty seven (27) bolts are needed to properly secure the monitoring wells. Additionally, the pad and vault of monitoring well RMW-5 is destroyed and in need of repair. **Total Bolts Needed: 27 Bolts**

All monitoring well samples will be analyzed by 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,	Check buffer solutions	Weekly	In stock at office	C. Sanders

	10K 101895, 07M 100905	for expiration			
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, 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

Instrument	Calibration Procedure	Frequency of Calibration	Acceptance Criteria	Corrective Action (CA)	Person Responsible for CA	SOP Reference*
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, 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 vials	Shealy Environmental Services	Custody seal intact	Stored in Vehicle Bay, Off of the ground	C. Sanders, Field Staff
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?*

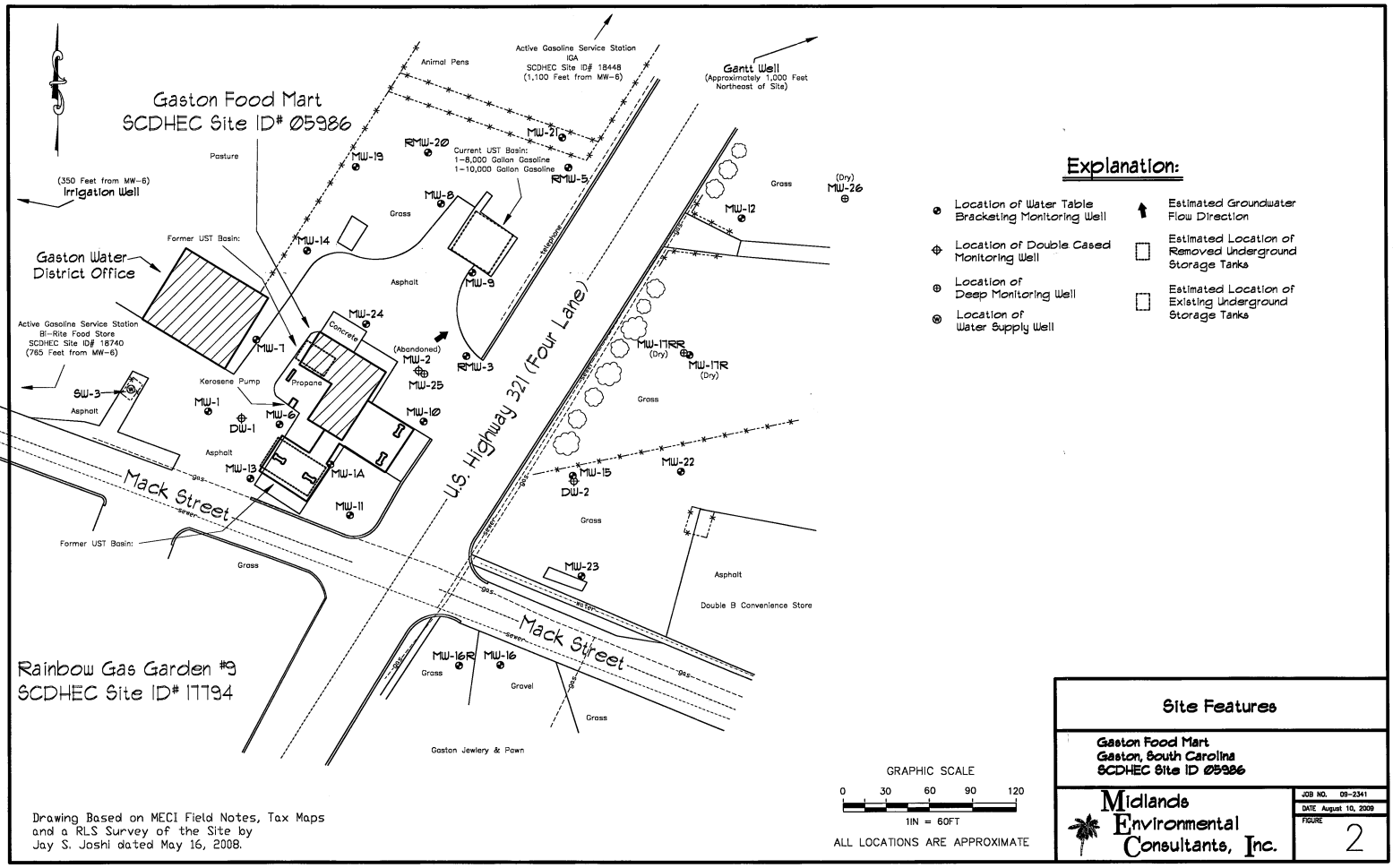
The laboratory participates in annual Proficiency Testing through an approved vendor, Wibby Environmental. If during a random audit, severe problems are found, work will be stopped by the according Wibby Environmental representative and the QA officer contacted to determine corrective action. Proficiency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



Explanation:

- Location of Water Table Bracketing Monitoring Well
- Location of Double Cased Monitoring Well
- Location of Deep Monitoring Well
- Location of Water Supply Well
- Estimated Groundwater Flow Direction
- Estimated Location of Removed Underground Storage Tanks
- Estimated Location of Existing Underground Storage Tanks

GRAPHIC SCALE

0 30 60 90 120

1IN = 60FT

ALL LOCATIONS ARE APPROXIMATE

Drawing Based on MECI Field Notes, Tax Maps and a RLS Survey of the Site by Jay S. Joshi dated May 16, 2008.

Site Features

Gaston Food Mart
Gaston, South Carolina
SCDHEC Site ID 05986

Midlands Environmental Consultants, Inc.

JOB NO. 09-2341
DATE August 10, 2009
FIGURE 2

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

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	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

	Date	Time		Date	Time
1. Relinquished by / Sampler			1. Received by		
2. Relinquished by			2. Received by		
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

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 11 2013

UST 47Hech 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
19260	Goldrush Restaurant	Darlington	85-BTEXMN, DCA, Oxygenates, & EDB	C. Ridgley
02698	Johnny's Truck Stop	Darlington	72-BTEXMN, DCA, Oxygenates, & EDB	C. Ridgley
06898	EP Johnson Grocery	Orangeburg	8-BTEXMN, DCA, Oxygenates, & EDB	R. Miner
05986	Gaston Food Mart	Lexington	35-BTEXMN, DCA, Oxygenates, & EDB	R. Miner
07783	Brazzels Grocery	Richland	7-BTEXMN, DCA, Oxygenates, & EDB	R. Miner
05353	Red Hill Convenience	Lee	18-BTEXMN, DCA, Oxygenates, & EDB	D. Thoma
00949	Dolphin Head	Beaufort	16-BTEXMN, DCA, & Oxygenates	S. Burson
15438	Abandoned Service Stat	Colleton	37-BTEXMN, DCA, Oxygenates, & EDB	S. Burson
05878	Purolator Courier Corp	Lexington	22-BTEXMN, DCA, Oxygenates, & EDB	S. Briney
06157	Weeds Landing	Lexington	16-BTEXMN, DCA, Oxygenates, & EDB	S. Briney
13046	Midway Service Station	Lexington	34-BTEXMN, DCA, Oxygenates, & EDB	S. Briney
12151	Sportsman Corner	Clarendon	17-BTEXMN, DCA, Oxygenates, & EDB	S. Shull
02015	Pops Corner	Cherokee	45-BTEXMN, DCA, Oxygenates, & EDB	S. Shull

* 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

State Lead Option

PERMISSION FORM

UNDERGROUND STORAGE TANK AND PROPERTY OWNER

UST Permit #05986

If you are both the owner of the former or existing underground storage tanks for the release reported on November 20, 1991 and the current property owner, please complete this form.

I, Frank Shumpert, certify that I am the identified legal owner of the underground storage tanks for the releases reported on November 20, 1991 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 (Agency) to secure on my behalf contractor services to conduct assessment and corrective action activities as required, and authorize the Agency, or a contractor selected by the Agency, 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 the Agency 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 Gaston Food Mart Phone # 803-894-3131

Street Address of Facility 105 N. Main St.

Town, City, District, Suburb Gaston, SC 29053

Is the property currently leased or rented to someone? (yes or no) yes. If yes, please provide their name Quick Printing #39 and phone number 803-791-5653 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 the Agency's contractor arrives at the site.

NAME of UST/property owner (Please Print): Daniel Frank Shumpert

Phone Number (home) 803-894-3131 (work) 803-606-8305

Signature of UST/property Owner: X Frank Shumpert

Witness: James Jackson

Date: 1/7/13 Month January Day 7 Year 2013

Please return to: Read Miner, SCDHEC UST Division, 2600 Bull St., Columbia, SC 29201

D H E C
PROMOTE PROTECT PROSPER

Catherine B. Templeton, Director
Promoting and protecting the health of the public and the environment

JAN 0 3 2013

D F SHUMPERT
814 PINE ST
PELION SC 29123

Re: **Corrective Action Options**
Gaston Food Mart, 105 N Main St., Gaston, SC
UST Permit #05986
Release reported November 20, 1991
Lexington County

Dear Mr. Shumpert:

The Underground Storage Tank (UST) Management Division (Division) of the South Carolina Department of Health and Environmental Control (Agency) has reviewed the referenced file. The report indicates that active corrective action is necessary at the site to remove free product, to mitigate petroleum migration, and ensure that there is no detrimental exposure to human health or the environment.

Funds from the State Underground Petroleum Environmental Response Bank (SUPERB) Account will soon be available for active corrective action. The selected technology must reduce free product and petroleum chemicals of concern (CoC) concentrations to site-specific target levels (SSTLs) determined by the Agency.

The SUPERB Site Rehabilitation and Fund Access Regulations R.61-98 require the UST owner/operator to develop and implement a reasonable, cost-effective corrective action to be performed by an Agency-certified site rehabilitation contractor. As the owner/operator for the release reported on November 20, 1991, you may choose one of two options as to how to proceed with this requirement: state lead or owner/operator lead.

State Lead Option:

- If you choose the state lead option, the Agency will procure a certified site rehabilitation contractor to perform corrective action on your behalf. The Agency will enter into an enforceable contract with the awarded contractor. As long as you do not interfere with or prohibit the work at your site, you will not be responsible in the event the state selected contractor does not perform appropriately or does not make satisfactory progress towards achieving the established corrective action goals. To utilize the state lead option, please sign and return the applicable Permission and Right-of-Entry forms within 15 days of the date of this letter.

Owner/Operator Lead Option:

- If you select the owner/operator lead option, you will be required to select a contractor to perform the corrective action. In order to assist you in determining the clean-up technology, time frame, clean-up levels, and associated costs, the Agency will prepare a technical specification package and provide you copies to send to contractors of your choice. In addition, the Agency will announce the request for solicitations in the South Carolina Business Opportunities, a bi-weekly state government publication, to ensure that an adequate solicitation response is obtained so that a fair and competitive price can be established. This announcement will clearly indicate that you will select the contractor to implement the corrective action.
- Compensation to the contractor will be from the SUPERB Account, but you may have the obligation to pay your selected contractor for any costs not approved by the Agency.
- The Agency strongly suggests that a written contract between you and the selected contractor be developed following the completion of the solicitation process. The parties to this contract would be you and the contractor you choose; the Agency would not be a party to this contract. The Agency's function would be to monitor and ensure progress of corrective action activities.
- If the contractor you select does not or cannot complete the required activities, you will be required to find another certified contractor to complete the required activities for the remainder of the existing financial approval amount. No additional funding from the SUPERB Account may be allowed. Under R.61-92, Part 280: Underground Storage Tank Control Regulations, you as the owner/operator are ultimately responsible to the Agency for the actions of your contractor. The Agency will pursue enforcement actions against you if the contractor you select does not make satisfactory progress towards achieving established corrective actions goals. To utilize the owner/operator lead option, please sign and return the enclosed Active Corrective Action Options Form within 15 days of the date of this letter.

On all correspondence or inquiries regarding this project, please reference UST Permit #05986. If you have any questions, please contact me at (803) 896-6584 or by email at miners@dhec.sc.gov.

Sincerely,

Read S. Miner, P.G., Hydrogeologist
Corrective Action Section
UST Management Division
Bureau of Land and Waste Management

enc: Permission/Right-of-Entry forms
Active Corrective Action Options form

cc: Technical file (w/o enc)

D H E C
PROMOTE PROTECT PROSPER

Catherine B. Templeton, Director
Promoting and protecting the health of the public and the environment

JAN 0 3 2013

D F SHUMPERT
814 PINE ST
PELION SC 29123

Re: **Corrective Action Options**
Gaston Food Mart, 105 N Main St., Gaston, SC
UST Permit #05986
Release reported November 20, 1991
Lexington County

Dear Mr. Shumpert:

The Underground Storage Tank (UST) Management Division (Division) of the South Carolina Department of Health and Environmental Control (Agency) has reviewed the referenced file. The report indicates that active corrective action is necessary at the site to remove free product, to mitigate petroleum migration, and ensure that there is no detrimental exposure to human health or the environment.

Funds from the State Underground Petroleum Environmental Response Bank (SUPERB) Account will soon be available for active corrective action. The selected technology must reduce free product and petroleum chemicals of concern (CoC) concentrations to site-specific target levels (SSTLs) determined by the Agency.

The SUPERB Site Rehabilitation and Fund Access Regulations R.61-98 require the UST owner/operator to develop and implement a reasonable, cost-effective corrective action to be performed by an Agency-certified site rehabilitation contractor. As the owner/operator for the release reported on November 20, 1991, you may choose one of two options as to how to proceed with this requirement: state lead or owner/operator lead.

State Lead Option:

- If you choose the state lead option, the Agency will procure a certified site rehabilitation contractor to perform corrective action on your behalf. The Agency will enter into an enforceable contract with the awarded contractor. As long as you do not interfere with or prohibit the work at your site, you will not be responsible in the event the state selected contractor does not perform appropriately or does not make satisfactory progress towards achieving the established corrective action goals. To utilize the state lead option, please sign and return the applicable Permission and Right-of-Entry forms within 15 days of the date of this letter.

Owner/Operator Lead Option:

- If you select the owner/operator lead option, you will be required to select a contractor to perform the corrective action. In order to assist you in determining the clean-up technology, time frame, clean-up levels, and associated costs, the Agency will prepare a technical specification package and provide you copies to send to contractors of your choice. In addition, the Agency will announce the request for solicitations in the South Carolina Business Opportunities, a bi-weekly state government publication, to ensure that an adequate solicitation response is obtained so that a fair and competitive price can be established. This announcement will clearly indicate that you will select the contractor to implement the corrective action.
- Compensation to the contractor will be from the SUPERB Account, but you may have the obligation to pay your selected contractor for any costs not approved by the Agency.
- The Agency strongly suggests that a written contract between you and the selected contractor be developed following the completion of the solicitation process. The parties to this contract would be you and the contractor you choose; the Agency would not be a party to this contract. The Agency's function would be to monitor and ensure progress of corrective action activities.
- If the contractor you select does not or cannot complete the required activities, you will be required to find another certified contractor to complete the required activities for the remainder of the existing financial approval amount. No additional funding from the SUPERB Account may be allowed. Under R.61-92, Part 280: Underground Storage Tank Control Regulations, you as the owner/operator are ultimately responsible to the Agency for the actions of your contractor. The Agency will pursue enforcement actions against you if the contractor you select does not make satisfactory progress towards achieving established corrective actions goals. To utilize the owner/operator lead option, please sign and return the enclosed Active Corrective Action Options Form within 15 days of the date of this letter.

On all correspondence or inquiries regarding this project, please reference UST Permit #05986. If you have any questions, please contact me at (803) 896-6584 or by email at miners@dhec.sc.gov.

Sincerely,

Read S. Miner, P.G., Hydrogeologist
Corrective Action Section
UST Management Division
Bureau of Land and Waste Management

enc: Permission/Right-of-Entry forms
Active Corrective Action Options form

cc: Technical file (w/o enc)

05986

D H E C

PROMOTE PROTECT PROSPER

Catherine B. Templeton, Director

Promoting and protecting the health of the public and the environment

OCT 0 5 2012

UST 44466 DOCKETING

LYNN GANT
316 JIMMY MARTIN CIR
GASTON SC 29053-8921

Re: **Irrigation well results**
Gant irrigation well, 316 Jimmy Martin Circle, Lexington, SC
Laboratory data received September 24, 2012
Lexington County

Dear Ms. Gant:

As you are aware, five water samples have been collected by Agency staff from your irrigation well, the first on March 14, 2008, the second on April 10, 2008, the third on May 1, 2008, the fourth on January 8, 2009, and the most recent sample on September 9, 2012. All five samples showed low concentrations of MTBE, 13.9, 6.9, 24.9, 17.3, and 23 parts per billion, respectively. A copy of the September 2012 lab data is enclosed. The concentration of MTBE is below the South Carolina standard of 40 parts per billion; therefore, the concentrations detected in your well water do not pose a risk to your health.

The source of the MTBE is currently unknown. With your permission, we will continue to re-sample your irrigation well periodically to evaluate any changes in concentration. You will be contacted for permission prior to any proposed sampling event and provided a copy of the results as soon as they are available.

If you have any questions, please contact me at (803) 896-6584 or by e-mail at minerrs@dhec.sc.gov.

Sincerely,

Read S. Miner, P.G., Hydrogeologist
Corrective Action Section
Underground Storage Tank Management Division
Bureau of Land and Waste Management

Enc: Analytical results

Cc: Technical file (without enclosure)

SHEALY ENVIRONMENTAL SERVICES, INC.

Report of Analysis

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

Project Name: **Gaston Food Mart**

Project Number: **UST Permit #05986/CA #44566**

Lot Number: **NI19024**

Date Completed: **09/20/2012**

Kelly M. Mabery
Project Manager

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: NI19024

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.

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

Sample Summary
SC DHEC - UST Management
Lot Number: NI19024

Sample Number	Sample ID	Matrix	Date Sampled	Date Received
001	Gant Well	Aqueous	09/19/2012 1115	09/19/2012
002	WSW-1	Aqueous	09/19/2012 1120	09/19/2012
003	MW-12	Aqueous	09/19/2012 1230	09/19/2012
004	Field Blk	Aqueous	09/19/2012 1245	09/19/2012
005	Trip Blk	Aqueous	09/19/2012	09/19/2012

(5 samples)

Executive Summary
SC DHEC - UST Management
Lot Number: NI19024

Sample	Sample ID	Matrix	Parameter	Method	Result	Q	Units	Page
001	Gant Well	Aqueous	Methyl tertiary butyl ether (MTBE)	8260B	22		ug/L	5
002	WSW-1	Aqueous	Methyl tertiary butyl ether (MTBE)	8260B	23		ug/L	6
002	WSW-1	Aqueous	Ethyl-tert-butyl ether (ETBE)	8260B	0.44	J	ug/L	6

(3 detections)

Client: **SC DHEC - UST Management**
Description: **Gant Well**
Date Sampled: **09/19/2012 1115**
Date Received: **09/19/2012**

Laboratory ID: **NI19024-001**
Matrix: **Aqueous**

Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	09/19/2012 2224	JJG		93614

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
Benzene	71-43-2	8260B	ND		1.0	0.13	ug/L	1
1,2-Dichloroethane	107-06-2	8260B	ND		1.0	0.15	ug/L	1
Ethylbenzene	100-41-4	8260B	ND		1.0	0.33	ug/L	1
Methyl tertiary butyl ether (MTBE)	**1634-04-4**	**8260B**	**22**		**1.0**	**0.40**	**ug/L**	**1**
Naphthalene	91-20-3	8260B	ND		1.0	0.40	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		120	70-130
Bromofluorobenzene		99	70-130
Toluene-d8		109	70-130

Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	09/19/2012 2224	JJG		93614

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		99	70-130
1,2-Dichloroethane-d4		120	70-130
Toluene-d8		109	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
Q = Surrogate failure
L = LCS/LCSD failure
S = MS/MSD failure
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: **WSW-1**
Date Sampled: **09/19/2012 1120**
Date Received: **09/19/2012**

Laboratory ID: **NI19024-002**
Matrix: **Aqueous**

Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	09/19/2012 2248	JJG		93614

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
Benzene	71-43-2	8260B	ND		1.0	0.13	ug/L	1
1,2-Dichloroethane	107-06-2	8260B	ND		1.0	0.15	ug/L	1
Ethylbenzene	100-41-4	8260B	ND		1.0	0.33	ug/L	1
Methyl tertiary butyl ether (MTBE)	**1634-04-4**	**8260B**	**23**		**1.0**	**0.40**	**ug/L**	**1**
Naphthalene	91-20-3	8260B	ND		1.0	0.40	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		123	70-130
Bromofluorobenzene		102	70-130
Toluene-d8		108	70-130

Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	09/19/2012 2248	JJG		93614

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	S	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**	**0.44**	**J**	**100**	**0.20**	**ug/L**	**1**
tert-Amyl alcohol (TAA)	75-85-4	8260B	ND	S	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	S	100	6.7	ug/L	1
tert-Butyl formate (TBF)	762-75-4	8260B	ND	S	100	1.0	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
Bromofluorobenzene		102	70-130
1,2-Dichloroethane-d4		123	70-130
Toluene-d8		108	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
Q = Surrogate failure
L = LCS/LCSD failure
S = MS/MSD failure
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: **09/19/2012 1230**
Date Received: **09/19/2012**

Laboratory ID: **NI19024-003**
Matrix: **Aqueous**

Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	09/19/2012 2313	JJG		93614

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
Benzene	71-43-2	8260B	ND		1.0	0.13	ug/L	1
1,2-Dichloroethane	107-06-2	8260B	ND		1.0	0.15	ug/L	1
Ethylbenzene	100-41-4	8260B	ND		1.0	0.33	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
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		125	70-130
Bromofluorobenzene		102	70-130
Toluene-d8		111	70-130

Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	09/19/2012 2313	JJG		93614

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		102	70-130
1,2-Dichloroethane-d4		125	70-130
Toluene-d8		111	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
Q = Surrogate failure
L = LCS/LCSD failure
S = MS/MSD failure
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 Blk**
Date Sampled: **09/19/2012 1245**
Date Received: **09/19/2012**

Laboratory ID: **NI19024-004**
Matrix: **Aqueous**

Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	09/19/2012 2136	JJG		93614

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
Benzene	71-43-2	8260B	ND		1.0	0.13	ug/L	1
1,2-Dichloroethane	107-06-2	8260B	ND		1.0	0.15	ug/L	1
Ethylbenzene	100-41-4	8260B	ND		1.0	0.33	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
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		118	70-130
Bromofluorobenzene		96	70-130
Toluene-d8		107	70-130

Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	09/19/2012 2136	JJG		93614

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		96	70-130
1,2-Dichloroethane-d4		118	70-130
Toluene-d8		107	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
Q = Surrogate failure
L = LCS/LCSD failure
S = MS/MSD failure
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 Blk**
Date Sampled: **09/19/2012**
Date Received: **09/19/2012**

Laboratory ID: **NI19024-005**
Matrix: **Aqueous**

Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	09/19/2012 2200	JJG		93614

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
Benzene	71-43-2	8260B	ND		1.0	0.13	ug/L	1
1,2-Dichloroethane	107-06-2	8260B	ND		1.0	0.15	ug/L	1
Ethylbenzene	100-41-4	8260B	ND		1.0	0.33	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
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		120	70-130
Bromofluorobenzene		100	70-130
Toluene-d8		107	70-130

Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	09/19/2012 2200	JJG		93614

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		100	70-130
1,2-Dichloroethane-d4		120	70-130
Toluene-d8		107	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
Q = Surrogate failure
L = LCS/LCSD failure
S = MS/MSD failure
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: NQ93614-001
Batch: 93614
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	09/19/2012 2106
tert-Amyl methyl ether (TAME)	ND		1	10	0.20	ug/L	09/19/2012 2106
tert-Butyl formate (TBF)	ND		1	100	1.0	ug/L	09/19/2012 2106
Diisopropyl ether (IPE)	ND		1	10	0.40	ug/L	09/19/2012 2106
3,3-Dimethyl-1-butanol	ND		1	100	1.0	ug/L	09/19/2012 2106
Ethanol	ND		1	1000	33	ug/L	09/19/2012 2106
Ethyl-tert-butyl ether (ETBE)	ND		1	100	0.20	ug/L	09/19/2012 2106
tert-butyl alcohol (TBA)	ND		1	100	6.7	ug/L	09/19/2012 2106

Surrogate	Q	% Rec	Acceptance Limit
Bromofluorobenzene		105	70-130
1,2-Dichloroethane-d4		118	70-130
Toluene-d8		108	70-130

Volatile Organic Compounds by GC/MS - LCS

Sample ID: NQ93614-002
Batch: 93614
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	1000		1	102	70-130	09/19/2012 1929
tert-Amyl methyl ether (TAME)	50	58		1	116	70-130	09/19/2012 1929
tert-Butyl formate (TBF)	250	320		1	128	70-130	09/19/2012 1929
Diisopropyl ether (IPE)	50	52		1	103	70-130	09/19/2012 1929
3,3-Dimethyl-1-butanol	1000	1100		1	108	70-130	09/19/2012 1929
Ethanol	5000	5600		1	113	70-130	09/19/2012 1929
Ethyl-tert-butyl ether (ETBE)	50	56		1	111	70-130	09/19/2012 1929
tert-butyl alcohol (TBA)	1000	910		1	91	70-130	09/19/2012 1929

Surrogate	Q	% Rec	Acceptance Limit
Bromofluorobenzene		100	70-130
1,2-Dichloroethane-d4		113	70-130
Toluene-d8		110	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: NQ93614-003
Batch: 93614
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	1000		1	100	2.6	70-130	20	09/19/2012 1953
tert-Amyl methyl ether (TAME)	50	57		1	113	2.1	70-130	20	09/19/2012 1953
tert-Butyl formate (TBF)	250	300		1	122	5.0	70-130	20	09/19/2012 1953
Diisopropyl ether (IPE)	50	54		1	109	5.0	70-130	20	09/19/2012 1953
3,3-Dimethyl-1-butanol	1000	1100		1	108	0.48	70-130	20	09/19/2012 1953
Ethanol	5000	4900		1	98	14	70-130	20	09/19/2012 1953
Ethyl-tert-butyl ether (ETBE)	50	55		1	110	0.94	70-130	20	09/19/2012 1953
tert-butyl alcohol (TBA)	1000	900		1	90	1.2	70-130	20	09/19/2012 1953

Surrogate	Q	% Rec	Acceptance Limit
Bromofluorobenzene		98	70-130
1,2-Dichloroethane-d4		109	70-130
Toluene-d8		112	70-130

Volatile Organic Compounds by GC/MS - Duplicate

Sample ID: NI19024-003DU
Batch: 93614
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		1	0.00	20	09/19/2012 2337
Ethanol	ND	ND		1	0.00	20	09/19/2012 2337
3,3-Dimethyl-1-butanol	ND	ND		1	0.00	20	09/19/2012 2337
Ethyl-tert-butyl ether (ETBE)	ND	ND		1	0.00	20	09/19/2012 2337
tert-Amyl alcohol (TAA)	ND	ND		1	0.00	20	09/19/2012 2337
tert-Amyl methyl ether (TAME)	ND	ND		1	0.00	20	09/19/2012 2337
tert-butyl alcohol (TBA)	ND	ND		1	0.00	20	09/19/2012 2337
tert-Butyl formate (TBF)	ND	ND		1	0.00	20	09/19/2012 2337

Surrogate	Q	% Rec	Acceptance Limit
Bromofluorobenzene		105	70-130
1,2-Dichloroethane-d4		129	70-130
Toluene-d8		114	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 - MS

Sample ID: NI19024-002MS
Batch: 93614
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	50	47		1	94	70-130	09/20/2012 0615
Ethanol	ND	5000	12000	N	1	238	70-130	09/20/2012 0615
3,3-Dimethyl-1-butanol	ND	1000	1200		1	125	70-130	09/20/2012 0615
Ethyl-tert-butyl ether (ETBE)	0.44	50	51		1	102	70-130	09/20/2012 0615
tert-Amyl alcohol (TAA)	ND	1000	1500	N	1	150	70-130	09/20/2012 0615
tert-Amyl methyl ether (TAME)	ND	50	51		1	102	70-130	09/20/2012 0615
tert-butyl alcohol (TBA)	ND	1000	1800	N	1	184	70-130	09/20/2012 0615
tert-Butyl formate (TBF)	ND	250	ND	N	1	0.00	70-130	09/20/2012 0615

Surrogate	Q	% Rec	Acceptance Limit
Bromofluorobenzene		100	70-130
1,2-Dichloroethane-d4		102	70-130
Toluene-d8		99	70-130

Volatile Organic Compounds by GC/MS - MB

Sample ID: NQ93614-001
Batch: 93614
Analytical Method: 8260B
Matrix: Aqueous
Prep Method: 5030B

Parameter	Result	Q	Dil	PQL	MDL	Units	Analysis Date
Benzene	ND		1	1.0	0.13	ug/L	09/19/2012 2106
1,2-Dichloroethane	ND		1	1.0	0.15	ug/L	09/19/2012 2106
Ethylbenzene	ND		1	1.0	0.33	ug/L	09/19/2012 2106
Methyl tertiary butyl ether (MTBE)	ND		1	1.0	0.40	ug/L	09/19/2012 2106
Naphthalene	ND		1	1.0	0.40	ug/L	09/19/2012 2106
Toluene	ND		1	1.0	0.33	ug/L	09/19/2012 2106
Xylenes (total)	ND		1	1.0	0.33	ug/L	09/19/2012 2106

Surrogate	Q	% Rec	Acceptance Limit
Bromofluorobenzene		105	70-130
1,2-Dichloroethane-d4		118	70-130
Toluene-d8		108	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: NQ93614-002
Batch: 93614
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	09/19/2012 1929
1,2-Dichloroethane	50	59		1	119	70-130	09/19/2012 1929
Ethylbenzene	50	48		1	96	70-130	09/19/2012 1929
Methyl tertiary butyl ether (MTBE)	50	54		1	109	70-130	09/19/2012 1929
Naphthalene	50	46		1	91	70-130	09/19/2012 1929
Toluene	50	53		1	105	70-130	09/19/2012 1929
Xylenes (total)	100	96		1	96	70-130	09/19/2012 1929

Surrogate	Q	% Rec	Acceptance Limit
Bromofluorobenzene		100	70-130
1,2-Dichloroethane-d4		113	70-130
Toluene-d8		110	70-130

Volatile Organic Compounds by GC/MS - LCSD

Sample ID: NQ93614-003
Batch: 93614
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	2.2	70-130	20	09/19/2012 1953
1,2-Dichloroethane	50	58		1	115	3.2	70-130	20	09/19/2012 1953
Ethylbenzene	50	46		1	92	3.5	70-130	20	09/19/2012 1953
Methyl tertiary butyl ether (MTBE)	50	54		1	108	0.33	70-130	20	09/19/2012 1953
Naphthalene	50	50		1	101	10	70-130	20	09/19/2012 1953
Toluene	50	52		1	104	1.1	70-130	20	09/19/2012 1953
Xylenes (total)	100	93		1	93	2.5	70-130	20	09/19/2012 1953

Surrogate	Q	% Rec	Acceptance Limit
Bromofluorobenzene		98	70-130
1,2-Dichloroethane-d4		109	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 - Duplicate

Sample ID: NI19024-003DU
Batch: 93614
Analytical Method: 8260B
Matrix: Aqueous
Prep Method: 5030B

Parameter	Sample Amount (ug/L)	Result (ug/L)	Q	Dil	% RPD	% RPD Limit	Analysis Date
Benzene	ND	ND		1	0.00	20	09/19/2012 2337
1,2-Dichloroethane	ND	ND		1	0.00	20	09/19/2012 2337
Ethylbenzene	ND	ND		1	0.00	20	09/19/2012 2337
Methyl tertiary butyl ether (MTBE)	ND	ND		1	0.00	20	09/19/2012 2337
Naphthalene	ND	ND		1	0.00	20	09/19/2012 2337
Toluene	ND	ND		1	0.00	20	09/19/2012 2337
Xylenes (total)	ND	ND		1	0.00	20	09/19/2012 2337

Surrogate	Q	% Rec	Acceptance Limit
1,2-Dichloroethane-d4		129	70-130
Bromofluorobenzene		105	70-130
Toluene-d8		114	70-130

Volatile Organic Compounds by GC/MS - MS

Sample ID: NI19024-002MS
Batch: 93614
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	ND	50	51		1	103	72-127	09/20/2012 0615
1,2-Dichloroethane	ND	50	51		1	102	59-143	09/20/2012 0615
Ethylbenzene	ND	50	54		1	107	79-132	09/20/2012 0615
Methyl tertiary butyl ether (MTBE)	23	50	68		1	91	60-140	09/20/2012 0615
Naphthalene	ND	50	45		1	90	62-136	09/20/2012 0615
Toluene	ND	50	51		1	101	75-125	09/20/2012 0615
Xylenes (total)	ND	100	100		1	105	70-130	09/20/2012 0615

Surrogate	Q	% Rec	Acceptance Limit
1,2-Dichloroethane-d4		102	70-130
Bromofluorobenzene		100	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

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

SHEALY **Chain of Custody Record** **Number** 30159

Client: SCDHEC/UST Div.	Report to Contact: D. Thomas	Sampler (Printed Name): Robert G. (Bob) Faller	Quote No.
Address: 2600 Bull St.	Telephone No. / Fax No. / Email	Waybill No.	Page ___ of ___
City: Cola. State: SC Zip Code: 29201	Preservative: 1. Unpres. 2. NaOH/ZnA 3. H_2SO_4 4. HNO_3 5. HCl 6. Na Thio. 7. NaOH		Number of Containers / Bottle (See Instructions on back) / Preservative
Project Name: Gaston Food Mart			Lot No. MH9074 (R)
Project Number: 05986	P.O Number: Q#44566		

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: BTEX/MTBE (8021, Oxygenates)	Preservative	Remarks / Cooler ID
Gant Well	09/19/12	1115	G		X					X	24 Hrs. TAT
WSW-1		1120		X						X	
MW-12		1230		X						X	
Field BLK		1245						X		X	
Trip BLK											

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: Robert G. (Bob) Faller	9/19/12	1250	1. Received by		
2. Relinquished by			2. Received by		
3. Relinquished by			3. Received by		
4. Relinquished by			4. Laboratory Received by	9/19/12	1250

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. 9.9 °C
Temp. Blank ☒Y / ☐ N

Sample Receipt Checklist (SRC)

Client: SC DHEC Cooler Inspected by/date: [illegible] / 9/19/12 Lot #: MI9024 (R)

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 9.9/ ___°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 ☐	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)_____ 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: _____

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

SEP 2 1 2012

UST DOCKETING 47tch

KELLY MABERRY
SHEALY ENVIRONMENTAL SERVICES
106 VANTAGE POINT DR
WEST COLUMBIA SC 29172

Re: Laboratory Analyses
Bid # IFB-5400003038-6/2/11-EMW; PO # 4600107190

Dear Ms. Maberry:

Under the terms and conditions of the referenced bid package, the analytical sampling has been approved for the referenced facility. The facility has been assigned an individual Cost Agreement (CA) number as listed below. Please reference the CA number and Purchase Order #4600107190 on the appropriate invoice submitted for payment against the facility. SCDHEC personnel will perform the sampling on Wednesday, September 19, 2012.

UST Permit #	County	Analyses-Groundwater	CA #	Bottles (Y/N)	Date Needed
05986	Lexington	6- BTEXNM + 1,2 DCA + OXY	44566	N	09/19/12

If you have any questions or need further assistance, please contact me at (803) 896-6584 or minerrs@dhec.sc.gov.

Sincerely,

Read S Miner

Read S. Miner, P.G., Hydrogeologist
Corrective Action Section
UST Management Division
Bureau of Land and Waste Management

enc: Approved Cost Agreement

cc: Debra Thoma, Corrective Action Section
Technical File

Approved Cost Agreement 44566

Facility: 05986 GASTON FOOD MART
MINERRS
PO Number:

Task / Description	Categories	Item	Description	Qty / Pct	Unit Price	Amount
11 ANALYSES						
	GW GROUNDWATER	A1	BTEXNM+OXYGS+1,2-DCA+ETH-8260B	6.0000	35.00	210.00
		B	RUSH BTEX+NAPTH+MTBE	6.0000	35.00	210.00
				Total Amount		420.00

Section A: Project Management

A1 Title and Approval Page

Quality Assurance Project Plan
Addendum to the SC DHEC UST Programmatic QAPP
For

Gaston Food Mart, UST Permit #05986

105 N Main St., Gaston, SC

Prepared by: Read S Miner

UST Management Division, Bureau of Land & Waste Management (Contractor Certification # 0116)

Date: 09/17/2012
Day/Month/Year

Approvals

Read S Miner SC DHEC Project Manager	Read S Miner Signature	Date 9-19-12
Lee Monts SCDHEC Section Manager	Signature	Date 9-19-12
Michael Woodrum Laboratory Director	Signature	Date 9/18/12
Debra Thoma Project Verifier	Debra J. Thoma Signature	Date 9/19/12

Section A – Project Management

Section B – Data Generations & Acquisition

Section C – Assessment & Oversight

Section D – Data Validation & Usability

List of Tables

List of Figures

A3 Distribution List

Name	Title	Organization/Address	Telephone Number	Fax Number	Email Address
Read S Miner	SC DHEC Technical Project Manager	SCDHEC, UST Management Division, 2600 Bull St., Columbia, SC, 29201	803-896-6584	803-896-6245	minerrs@dhec.sc.gov
Lee A Monts	SCDHEC Section Manager	SCDHEC, UST Management Division, 2600 Bull St., Columbia, SC, 29201	803-896-6677	803-896-6245	montsla@dhec.sc.gov
Michael Woodrum	Laboratory Director	Shealy Environmental Services, 106 Vantage Dr., West Columbia, SC, 29172	803-791-9700	803-791-9111	mwoodrum@shealylab.com
Debra Thoma	SCDHEC Project Verifier	SCDHEC, UST Management Division, 2600 Bull St., Columbia, SC, 29201	803-896-6397	803-896-6245	thomadl@dhec.sc.gov

Table 1A Addendum Distribution List

A4 Project Organization

Role from the UST Master QAPP	Name of person in this Role for this Project	Organization/Address	Telephone Number	Fax Number	Email Address
Project Manager	Read S Miner	SCDHEC, UST Management Division, 2600 Bull St., Columbia, SC, 29201	803-896-6584	803-896-6245	minerrs@dhec.sc.gov
Analytical Laboratory Director	Michael Woodrum	Shealy Environmental Services, 106 Vantage Dr., West Columbia, SC, 29172	803-791-9700	803-791-9111	mwoodrum@shealylab.com
Project Verifier	Debra Thoma	SCDHEC, UST Management Division, 2600 Bull St., Columbia, SC, 29201	803-896-6397	803-896-6245	thomadl@dhec.sc.gov

Table 2A Addendum Role Identification and Contact Information

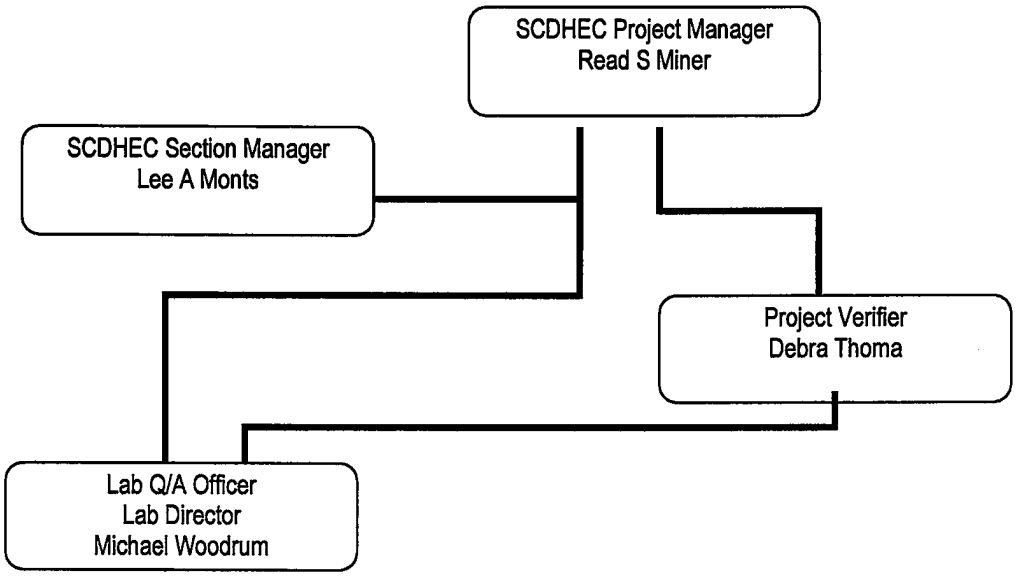


Figure 1A Organizational Chart

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.

Previous assessment activities included the installation of monitoring wells at Gaston Food Mart, 105 N Main St., Gaston, SC, Permit #05986. Groundwater samples will be collected from monitoring wells MW-12, MW-17RR, and the Gant water supply well.

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

Underground Storage Tanks

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).***

Water samples will be collected from monitoring wells, surface water features, and/or water supply wells and sampled for petroleum constituents.

2. ***The QAPP will be sent to the analytical laboratory for signature within 15 days after cost approval. Sampling should be completed 30 days after the laboratory returns signed QAPP.***

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

Factors that may prevent scheduled work may be, but is not limited to, inclement weather, equipment malfunction, and machine failure

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

Topographic Map and Site Map with sampling locations is attached

A8 Training and Certificates

See Section A8 of the UST Management Division Quality Assurance Programmatic Plan

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: BTEXNM, 1,2-DCA, Oxygenates

A9 Documents and Records

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

_X_ US Mail ____ Courier ____ Hand delivered

Other (please specify):_____

Record	Produced By	Hardcopy/ Electronic	Storage Location For how long?	Archival
Field Data Sheets	Project Manager	Hardcopy/ Electronic	Hardcopy kept until scanned into UST WebXtender	Yes
Chain of Custody	Project Manager	Hardcopy/ Electronic	Hardcopy kept until scanned into UST WebXtender	Yes
QAPP Addendum	Project Manager	Hardcopy/ Electronic	Hardcopy kept until scanned into UST WebXtender	Yes
Instrument Raw	Target	Hardcopy and	Hardcopy: offsite storage	Yes

Record	Produced By	Hardcopy/ Electronic	Storage Location For how long?	Archival
Data	Thermospec, or Iteva Software	Electronic	for 7 years; Electronic: Two external storage device backups for 10 years	
Final Report	LIMS	Electronic	Two external storage device backups for 10 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
QAPP Preparation	9/17/2012	9/17/2012	
QAPP Approval	9/18/2012	9/18/2012	
Sampling	Within 14 days of QAPP approval	Within 30 days of QAPP approval	
Final report	Within 10 days for sampling	Within 21 days of sampling	

Table 5A Sampling Activities

B2 Sampling Methods

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

Soil _____

Ground Water from monitoring wells ____2_____

From Drinking/Irrigation water wells ____1_____

From surface water features _____

Total number of Water samples _____3_____

The samples will be (check as many as apply): ____Homogenized ____Split X_____Grab

Please describe how samples will be collected and the equipment needed.

Please see EQC Environmental Investigations Standard Operating Procedures & Quality Assurance Manual and the UST Management Division Master QAPP. This includes requirements for collection of no-purge and purges samples and field parameters to be collected (dissolved oxygen, pH, specific conductivity, turbidity, depth to groundwater and depth to product).

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

All equipment, excluding electronic water level indicators and field probes, 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 EQC Environmental Investigations Standard Operating Procedures & Quality Assurance Manual and the UST Management Division Master QAPP.

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 sampled will be delivered to the laboratory, picked up by laboratory courier, or shipped to the laboratory.

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	Record on field sheet, Take indicator out of rotation until problem identified and corrected	Project Manager, Field Technician (Bob Faller)
Field Meters not working	Attempt to clean probe, recalibrate in field	Record on field sheet, Take meter out of rotation until problem identified and corrected	Project Manager, Field Technician (Bob Faller)
Sampling point not located/accessible	Use metal detector, measure from known points.	Record method used to attempt to locate point on field sheet and possible reason.	Project Manager

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, samples are immediately placed in laboratory provided cooler, pre-filled with wet ice. Samples are transported to the UST Division office, laboratory, or nearest shipping location once sampling is completed. A chain of custody is filled out. If a lab courier is scheduled to pick up samples, the cooler is repacked with wet ice and left at office #2113 for pickup the following morning. If no courier is available or the analysis is time sensitive, cooler is dropped of at Shealy Environmental Services in West Columbia or approved shipping company for overnight delivery to the lab.

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

All samples will be kept on wet ice.

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 at time of receipt at the laboratory. 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 individual conducting sampling and Shealy Environmental lab staff 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.
See attached chain of custody (print copy from commons/statelead/shealycoc.pdf)

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+Ethanol+DCA +	S-VO-002	8260B	GC/MS	

Oxygenates				
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	
Mercury	S-IM-006	7470A/7471B	Hydra AA Analyzer	

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
S-IM-006	S-IM-006	MERCURY ANALYSIS BY COLD-VAPOR-ATOMIC ABSORBTION METHOD 245.1/7470A AND METHOD 245.5/7471B

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 field	Record on data sheet, take meters out of rotation	Field staff (project manager/field technician)
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
BTEX + Naph + Ethanol + Oxygenates + DCA	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.
Mercury	Waters/Soils	Six weeks	Tested for Hazardous Constituents and disposed as Hazardous or non-Hazardous waste.

Table 10A Sample Disposal

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. Not the availability and location of spare parts.

Instrument	Serial Number	Type of Maintenance	Frequency	Parts needed/Location	Person responsible
Volatiles Mass Spec	ALL	Change traps, clean ion source, replace filaments	Periodic	Laboratory	MSV Analyst
Semivolatile Mass Spec	ALL	Injection port maintenance, ion source maintenance, column replacement	Periodic	Laboratory	MSSV Analyst
ECD GC	ALL	Injection port maintenance, column replacement	Periodic	Laboratory	GC Analyst
Dionex IC	ALL	Replace auto sampler filter, tubing, line filter, sample Line and Waste Line, as needed. Check Reagent levels, flow	Periodic	Laboratory	IC Analyst

		rate, waste line.			
ICP	ALL	Clean Sample introduction system , auto sampler, torch, Change spray chamber, torch tubing, tubing	Periodic	Laboratory	ICP Analyst
Leeman Mercury Analyzer	ALL	Clean GLS, Change Pump tubing, Nafion Dryer, Lamp	Periodic	Laboratory	Mercury Analyst
Flow Injection Analysis – Lachat 8000	ALL	Replace sample and reagent lines, replace light source, re-wrap heating coil, replace column	Periodic/As Needed	Laboratory	Nitrate Analyst
YSI 63	11K100545 11K100544 11K100543	Sensor cleaning, replace batteries, replace sensor	Periodic/As Needed	Clean Equipment Storage Room	Field Technican (Bob Faller
YSI 55	11K100007 10L101291	Replace batteries, replace membrane, clean cathode, clean anode, replace O-ring	Periodic/As Needed	Clean Equipment Storage Room	Field Technican (Bob Faller

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	Daily calibration check	Method Requirements	MSV Analyst	Recalibration or instrument maintenance
Semi-volatiles Mass Spec	Daily calibration check	Method Requirements	MSSV Analyst	Recalibration or instrument maintenance
ECD GC	Daily calibration check	Method Requirements	GC Analyst	Recalibration or instrument maintenance
Dionex IC	Daily calibration check	Method Requirements	Nitrate Analyst	Recalibration or instrument maintenance
ICP	Daily calibration check	Method Requirements	ICP Analyst	Recalibration or instrument maintenance
Leeman Mercury Analyzer	Daily calibration check	Method Requirements	Mercury Analyst	Recalibration or instrument maintenance
Flow Injection Analysis – Lachat 8000	Daily and continuing calibration check	See calibration criteria	INM Analyst	Recalibration or instrument maintenance
YSI 63	Daily calibration	See calibration	Field technician	Recalibration or instrument

	check	criteria	(Bob Faller or Jessica Price)	maintenance
YSI 55	Daily calibration check	See calibration criteria	Field technician (Bob Faller or Jessica Price)	Recalibration or instrument maintenance

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	Minimum of 5 calibration	Daily or when indicated by	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*
8000	standards	calibration verification standard				
YSI 63	Minimum of 3 point calibration	Daily before use	Calibration Criteria	Detailed in Operations Manual	Field Technican (Bob Faller or Jessica Price)	Operations Manual
YSI 55	KCl solution calibration	Daily before use	Calibration Criteria	Detailed in Operations Manual	Field Technican (Bob Faller or Jessica Price)	Operations Manual

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.
Clear disposable polyethylene bailers	EON	Individual sleeves intact, ball valve operational	Stored in supply closet	Field technician (Bob Faller), project manager
Nylon Rope	EON	No frays, intact	Stored in supply closet	Field technician (Bob Faller), project manager
Nitrile Gloves	VWR	Unopened box, no holes in gloves	Stored in supply closet	Field technician (Bob Faller), project manager
Sample Containers	Daniels Scientific, QEC	Certificates of analysis and laboratory testing	Stored in supply closet	Bottle Room Personnel/ B. Fedorick, Field Staff
pH buffer	GeoTech	Within expiration date	Stored in supply closet	Field technician (Bob Faller), project manager
Conductivity standard	GeoTech	Within expiration date	Stored in supply closet	Field technician (Bob Faller), project manager
DO membranes	GeoTech	Clean in box	Stored in supply closet	Field technician (Bob Faller), project manager
Batteries	Any	Not previously used	Stored in supply closet	Field technician (Bob Faller), project manager
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

Table 14A List of Consumables and Acceptance Criteria

B9 Data Acquisition Requirements (Non-Direct Measurements)

Not Applicable

B10 Data Management

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

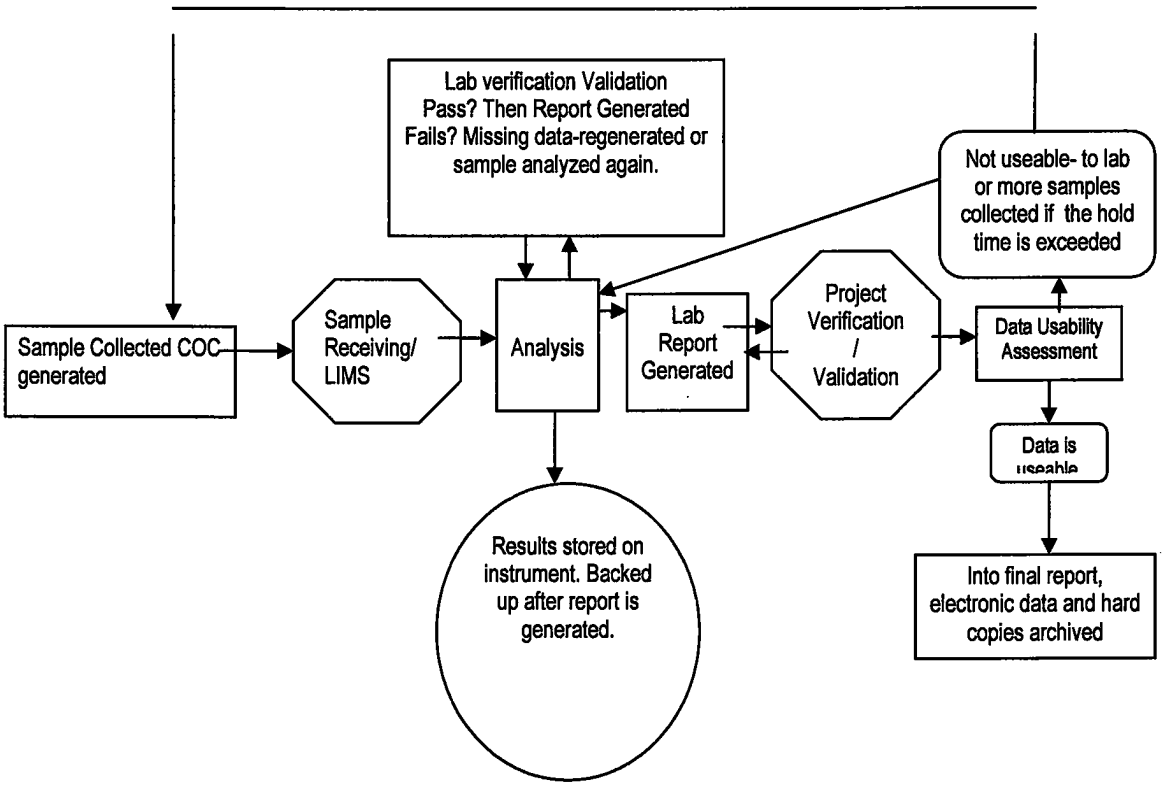


Figure 2 Example of a Data Management Scheme

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 login, and analytical data are peer reviewed, including review for inappropriate changes. Data management, review procedures, and 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 UST fieldwork is produced using ink pens. Any attempt to alter field data, after sampling is complete, can be readily identified. UST sampling personnel keeps a carbon copy of the chain of custody after it is shipped to or picked up by the laboratory. The copy is kept with the fieldwork. If any changes to the chain of custody are suspected, the original carbon copy can be used.

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 by restored in the event of a system failure. These procedures are documented in the 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 offsite 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.

UST Staff will have the paper copy of all field data scanned into WebXtender. The server is backed up on a daily basis. Any files stored can be retrieved by accessing the server.

Section C Assessment and Oversight

C1 Assessment and Response Actions

1. *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?*

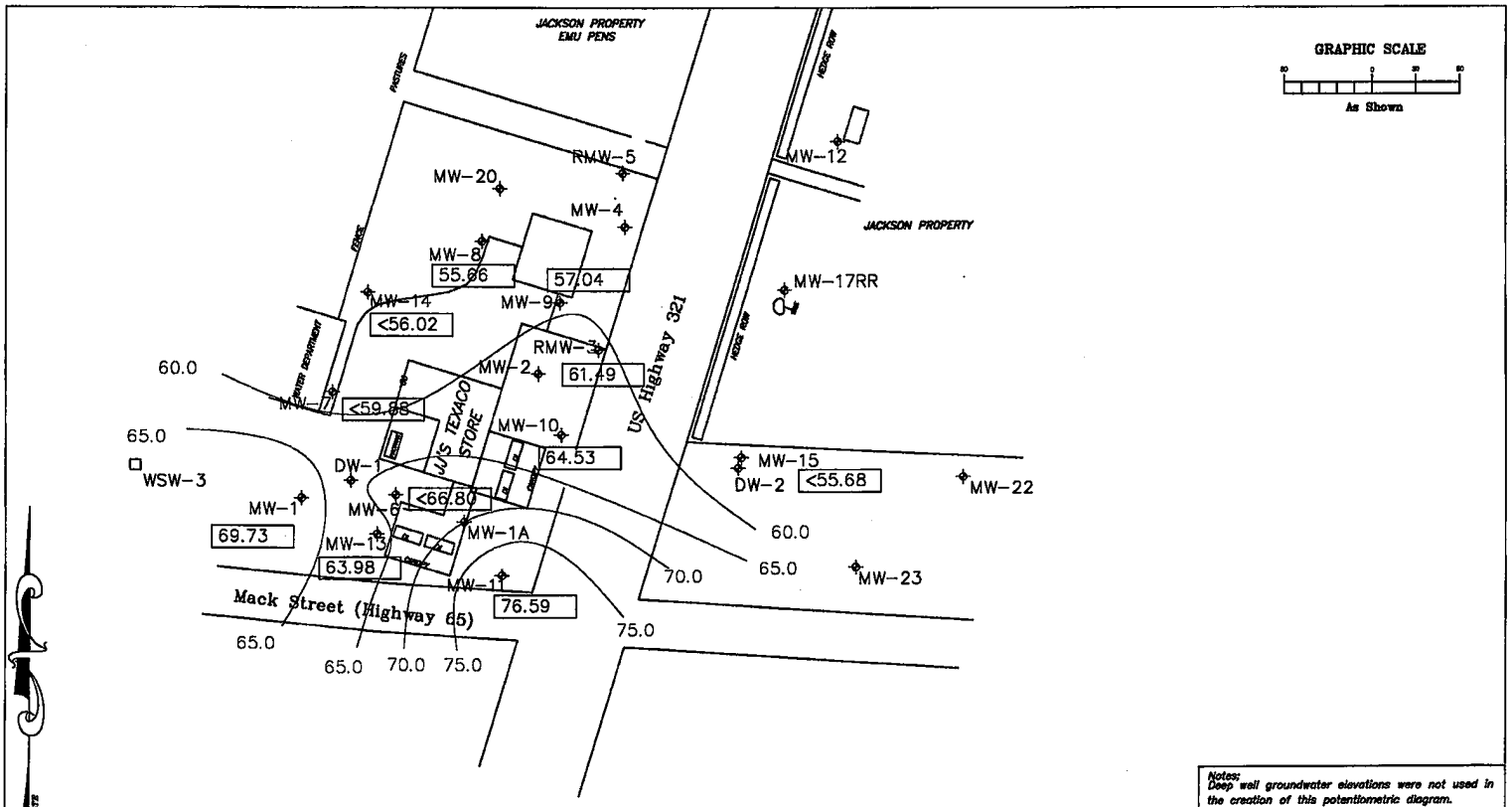
The laboratory participates in annual Proficiency Testing through an approved vendor, Wibby Environmental. Proficiency Testing results are provided to the Office of Environmental Laboratory Certification.

C2 Reports to Management

See the SC DHEC UST Programmatic QAPP.

Section D Data Validation and Usability

See the SC DHEC UST Programmatic QAPP.



GRAPHIC SCALE

80 0 40 80

As Shown

Notes:
Deep well groundwater elevations were not used in the creation of this potentiometric diagram.

LEGEND

Monitoring Well	———	Potentiometric Surface
Water Supply Well	- - - - -	Potentiometric Surface (Estimated)
	69.72	Groundwater Elevation (feet)
	<69.72	Dry Well. Groundwater below total depth elevation of monitoring well.

DR: JSR
CK: HDO
SCALE: AS SHOWN
CES PROJ. NO. 15.030

Groundwater Assessment

CRAWFORD ENVIRONMENTAL SERVICES

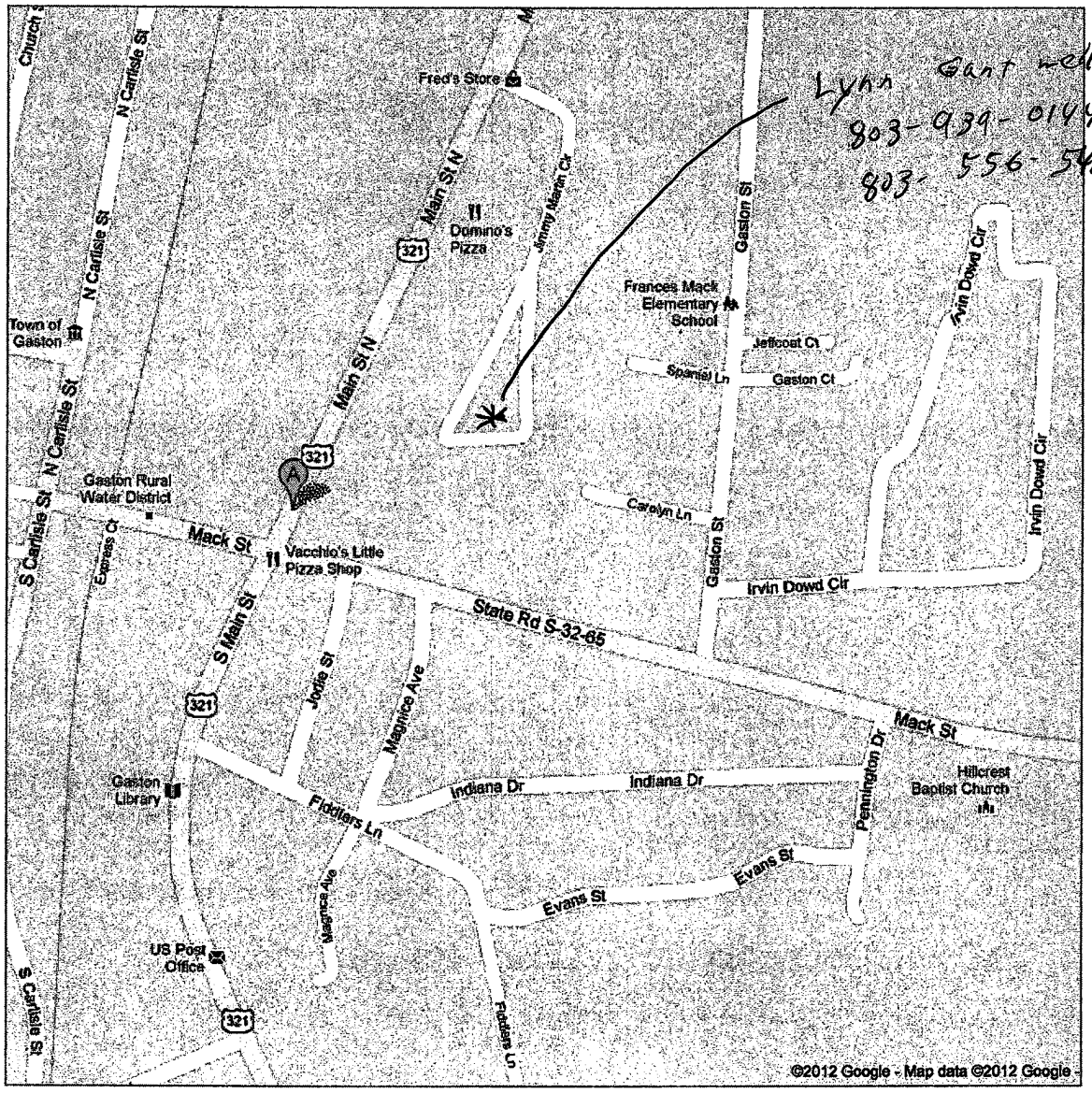
104 Corporate Blvd.
Suite 412
West Columbia, SC 29210
803-708-0079 (ph)
803-708-8137 (Fax)

FIGURE TITLE
Potentiometric Map
Gaston Food Mart
105 North Main Street
Gaston, SC 29053
Site ID: 05986

DRAWING NUMBER: Figure 1
REV: 0

Google

Address **105 Main St N**
Gaston, SC 29053



SHEALY ENVIRONMENTAL SERVICES, INC.
106 Vantage Point Drive
West Columbia, South Carolina 29172
Telephone No. (803) 791-9700 Fax No. (803) 791-9111

SHEALY *Chain of Custody Record*

Number

Client	Report to Contact	Telephone No. / Fax No. / E-mail	Quote No.
Address	Sampler's Signature	Waybill No.	Page ____ of ____
City / State / Zip Code	X_____ Printed Name	Analysis (Attach list if more space is needed.)	
Project Name			
Project No.	P.O. No.		Lot No.

Sample ID / Description (Containers for each sample may be combined on one line.)	Date	Time	G=Grab C=Composite	Matrix: Aqueous	Matrix: Solid	Matrix: Non-Aqueous	**No. of Containers by Preservative Type: Unpres.	H2SO4	HNO3	HCl	NaOH	5035 Kit	Remarks / Cooler I.D.

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

Sample Disposal
☐ Return to Client ☐ Disposal by Lab

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

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

QC Requirements (Specify)

1. Relinquished by	Date	Time	1. Received by	Date	Time
2. Relinquished by	Date	Time	2. Received by	Date	Time
3. Relinquished by	Date	Time	3. Laboratory received by	Date	Time
Comments			LAB USE ONLY Received on ice (Circle) Yes No Ice Pack	Receipt Temp. _____ °C	

DISTRIBUTION: WHITE & YELLOW-Return to laboratory with Sample(s); PINK-Field/Client Copy

CRAWFORD ENVIRONMENTAL SERVICES

May 6, 2011

Read Miner, P.G., Hydrogeologist
Corrective Action Section
Bureau of Land and Waste Management
SCDHEC
2600 Bull Street
Columbia, SC 29201

Re: Groundwater Assessment
Gaston Food Mart (Fmr. JJ's Texaco), 105 North Main Street., Gaston, SC 29053
UST Permit: 05986
Cost Agreement: 41167
Lexington County
CES Project Number: 15.030

Dear Mr. Miner

On behalf of Shumpert Oil Inc., Crawford Environmental Services, Inc. (CES) has completed the Groundwater Assessment documenting site characterization activities performed at the Gaston Food Mart facility (UST Permit #: 05986). This report, compiled by CES in accordance with Cost Agreement No. 41167, documents the results of assessment activities performed by Crawford Environmental Services, Inc.

If you have any questions or comments regarding site 05986, Gaston Food Mart please feel free to contact me at 803-708-0079, or by email at jreynolds@crawfordenvironmental.com.

Sincerely,
Crawford Environmental Services Inc.,

5/6/2011

Justin Reynolds
Project Manager
Contractor Number: 0388

Dee O'Brien, P.G.
Division Manager
SC Registration No: 873

cc. Shumpert Oil Company

Attachments: Groundwater Assessment Report (May 6, 2011)

MID-ATLANTIC REGION
15 CHURCH AVENUE, SW
ROANOKE, VIRGINIA 24011
OFFICE 540 343.6256
FAX 540 343.6259
ccrawford@crawfordenvironmental.com

SOUTHEAST REGION
104 CORPORATE BLVD, SUITE 412
WEST COLUMBIA, SOUTH CAROLINA 29169
OFFICE 803 708.0079
FAX 803 708.8137
dobrien@crawfordenvironmental.com

1.0 Scope of Work

Work performed under Cost Agreement 41167 was approved by the South Carolina Department of Health and Environmental Control (SCDHEC) in correspondence dated March 7, 2011.

Groundwater Elevations

(1) Equilibrated static water levels and free-product thicknesses were recorded for monitoring wells MW-1, MW-1A, MW-2, RMW-3, MW-6, MW-7, MW-8, MW-9, MW-10, MW-11, MW-12, MW-13, MW-14, MW-15, MW-17RR, and MW-24 by CES personnel on April 21, 2011. MW-25 was not located during the event.

Groundwater Sampling

(2) Groundwater chemical samples (BTEX, Naphthalene, and MTBE) were collected from MW-1, MW-1A, MW-2, RMW-3, MW-8, MW-9, MW-10, MW-11, MW-12, MW-13 and MW-24 by CES personnel on April 21, 2011.

.

Diagram Construction

(3) A potentiometric surface map and associated isoconcentration maps were constructed utilizing the March, 2007 survey data, relative groundwater elevations, and results of the chemical analyses established from the sampling event performed on April 21, 2011.

2.0 Assessment Activities

2.1 Groundwater Sampling

A comprehensive groundwater sampling event, including; recording equilibrated static water levels, product thicknesses, and the collection of chemical samples was completed by CES personnel on April 21, 2011. Temperature, pH, specific conductance and dissolved oxygen were taken during sampling and are summarized in Table 3. Groundwater chemical samples were submitted to Access Analytical, Inc., (AA) {SC Certification: 98016} for analysis.

2.1.1 Groundwater Sampling – April 21, 2011

Equilibrated static water levels and free-product thicknesses were recorded for monitoring wells MW-1, MW-1A, MW-2, RMW-3, MW-6, MW-7, MW-8, MW-9, MW-10, MW-11, MW-12, MW-13, MW-14, MW-15, MW-17RR, and MW-24 by CES personnel on April 21, 2011. Ambient air temperature during the time of sampling was recorded at 87°F. Samples were collected by CES personnel (J. Reynolds & T. Allred).

Monitoring wells MW-6, MW-7, MW-14, MW-15 and MW-17RR were dry during the sampling event.

Monitoring well MW-25 was not located during the sampling event, therefore water levels and chemical sample collect was not collected or recorded

Monitoring wells MW-1, MW-1A, MW-2, RMW-3, MW-8, MW-9, MW-10, MW-12, MW-13 and MW-24 maintained equilibrated static groundwater levels within the screened interval and were not purged before sample collection.

Prior to sample collection, three well volumes were purged from MW-11 and DW-2. Details are included in Table 3.

CES recorded groundwater levels from 16 of 17 possible monitoring wells and sampled eleven monitoring wells and a single water supply well as part of the April 21, 2011 event for the following chemical analyses: BTEX, naphthalene, and MTBE.

Table 2 presents the laboratory data for the submitted groundwater samples collected as part of this assessment. The groundwater chemical of concern map is included as Figure 2. The potentiometric surface map is included as Figure 1.

2.2 Disposal Manifests

The non-hazardous waste manifests for the transportation and disposal of residual soil/water generated during monitoring well installations and groundwater sampling are included as Appendix B. The referenced material was profiled as a soil/groundwater mixture and was treated as a solid by TK Tank Services. The residual waste material was transported under proper manifest to TK Tank Services in Sumter, South Carolina for treatment and disposal.

3.0 Summary

During the assessment activities performed at the subject property, CES conducted a comprehensive groundwater monitoring event in an effort to define the horizontal and vertical extent of petroleum impacts. The qualitative and quantitative data collected from recent assessment activities indicates the following regarding current site conditions;

1. Groundwater flow at the Gaston Food Mart facility was mapped with a primarily north/northeastern flow component(s) away from the subject property as inferred from the relative groundwater elevations and calculated gradients on 4/21/2011.

2. Free-phase petroleum was not detected in the monitoring wells during the sampling event.

3. Groundwater from the MW-1A, MW-2, RMW-3, MW-8, MW-9, MW-10, MW-12 and MW-24 indicated the presence of dissolved-phase petroleum constituents above the Risk Based Screening Levels (RBSLs) during the April 21, 2011 sampling event.

Table 1

Facility Name: Gaston Food Mart (Fmr. JJ's Texaco) UST Permit ID: 5986

Address: 105 North Main Street Gaston, SC 29053 CES Project Number: 15.030

Well Construction and Historical Groundwater Elevation Summary

Monitor Well	Well Depth (ft)	Screened Interval		Date Installed	Top of Casing	Date Measured	Depth to Product	Depth to Water	Product Thickness	Groundwater Elevation
MW-1	40	30	40	INA	102.14	**4/21/2011**	**0**	**32.41**	**0**	**69.73**
MW-1A	32	22	32	INA	INA	**4/21/2011**	**0**	**25.95**	**0**	**INA**
MW-2	80	70	80	INA	100	**4/21/2011**	**0**	**78.41**	**0**	**21.59**
RMW-3	40	30	40	INA	98.04	**4/21/2011**	**0**	**36.55**	**0**	**61.49**
MW-6	35	25	35	INA	101.8	**4/21/2011**	**Dry**			**<66.8**
MW-7	42	32	42	INA	101.88	**4/21/2011**	**Dry**			**<59.88**
MW-8	40	30	40	INA	96.4	**4/21/2011**	**0**	**39.36**	**0**	**57.04**
MW-9	43	33	43	INA	95.22	**4/21/2011**	**0**	**39.56**	**0**	**55.66**
MW-10	35	25	35	INA	100.02	**4/21/2011**	**0**	**35.49**	**0**	**64.53**
MW-11	40	30	40	INA	102	**4/21/2011**	**0**	**25.41**	**0**	**76.59**
MW-12	51	41	51	INA	INA	**4/21/2011**	**0**	**38.44**	**0**	**INA**
MW-13	35	25	35	INA	97.09	**4/21/2011**	**0**	**33.11**	**0**	**63.98**
MW-14	45	35	45	INA	101.02	**4/21/2011**	**Dry**			**<56.02**
MW-15	45	35	45	INA	100.68	**4/21/2011**	**Dry**			**<55.68**
MW-17RR	75	65	75	INA	INA	**4/21/2011**	**Dry**			
MW-24	44	34	44	INA	INA	**4/21/2011**	**0**	**37.7**	**0**	**INA**
MW-25	44	34	44	INA	INA	**4/21/2011**	**Not Found**			

Shaded values are from the most recent sampling event.

CRAWFORD ENVIRONMENTAL SERVICES

INA = Information not available for this assessment

Table 2

Facility Name: Gaston Food Mart (Fmr. JJ's Texaco) UST Permit ID: 5986
Address: 105 North Main Street Gaston, SC 29053 CES Project Number: 15.03

Groundwater Laboratory Analytical Result Summary

Well ID:	Date:	Benzene	Toluene	Ethylbenzene	Xylenes (Total)	Naphthalene	MTBE	1,2 DCA	EDB	Pb	NO3	FE+	SO4
RBSL		5	1000	700	10000	25	40	5	0.01	15	10000	NE	NE
MW-1	**4/21/2011**	**<5.0**	**1.4J**	**<5.0**	**<10.0**	**<5.0**	**<5.0**	**NS**	**NS**	**NS**	**NS**	**NS**	**NS**
MW-1A	**4/21/2011**	**10**	**39**	**61**	**81**	**15**	**<5.0**	**NS**	**NS**	**NS**	**NS**	**NS**	**NS**
MW-2	**4/21/2011**	**2600**	**17000**	**2300**	**11700**	**520**	**140J**	**NS**	**NS**	**NS**	**NS**	**NS**	**NS**
RMW-3	**4/21/2011**	**2400**	**16000**	**2100**	**11800**	**550**	**120**	**NS**	**NS**	**NS**	**NS**	**NS**	**NS**
MW-6	**4/21/2011**	**Dry**											
MW-7	**4/21/2011**	**Dry**											
MW-8	**4/21/2011**	**130**	**680E**	**350E**	**2630E**	**140**	**14**	**NS**	**NS**	**NS**	**NS**	**NS**	**NS**
MW-9	**4/21/2011**	**55**	**120**	**120**	**1040**	**61**	**21**	**NS**	**NS**	**NS**	**NS**	**NS**	**NS**
MW-10	**4/21/2011**	**6300**	**28000**	**2100**	**16100**	**580**	**14000**	**NS**	**NS**	**NS**	**NS**	**NS**	**NS**
MW-11	**4/21/2011**	**<5.0**	**<5.0**	**1.1J**	**<10.0**	**4.6J**	**<5.0**	**NS**	**NS**	**NS**	**NS**	**NS**	**NS**
MW-12	**4/21/2011**	**5900**	**12000**	**1400**	**4600**	**340**	**22000**	**NS**	**NS**	**NS**	**NS**	**NS**	**NS**
MW-13	**4/21/2011**	**<5.0**	**<5.0**	**<5.0**	**<10.0**	**<5.0**	**<5.0**	**NS**	**NS**	**NS**	**NS**	**NS**	**NS**
MW-14	**4/21/2011**	**Dry**											
MW-15	**4/21/2011**	**Dry**											
MW-17RR	**4/21/2011**	**Dry**											
MW-24	**4/21/2011**	**2100**	**6200**	**1700**	**7000**	**440J**	**<500**	**NS**	**NS**	**NS**	**NS**	**NS**	**NS**
MW-25	**4/21/2011**	**Not Found**											
Water Supply Wells													
WSW-3	**4/21/2011**	**<5.0**	**<5.0**	**<5.0**	**<10.0**	**<5.0**	**<5.0**	**NS**	**<0.020**	**NS**	**NS**	**NS**	**NS**

BDL= Below Detectable Limit
RBSL= Risk Based Screening Levels
NE= Not Established
EDB= 1,2 Dibromoethane

CRAWFORD ENVIRONMENTAL SERVICES

1,2 DCA = 1,2 Dichloroethane
All values are in ug/L

Table 3

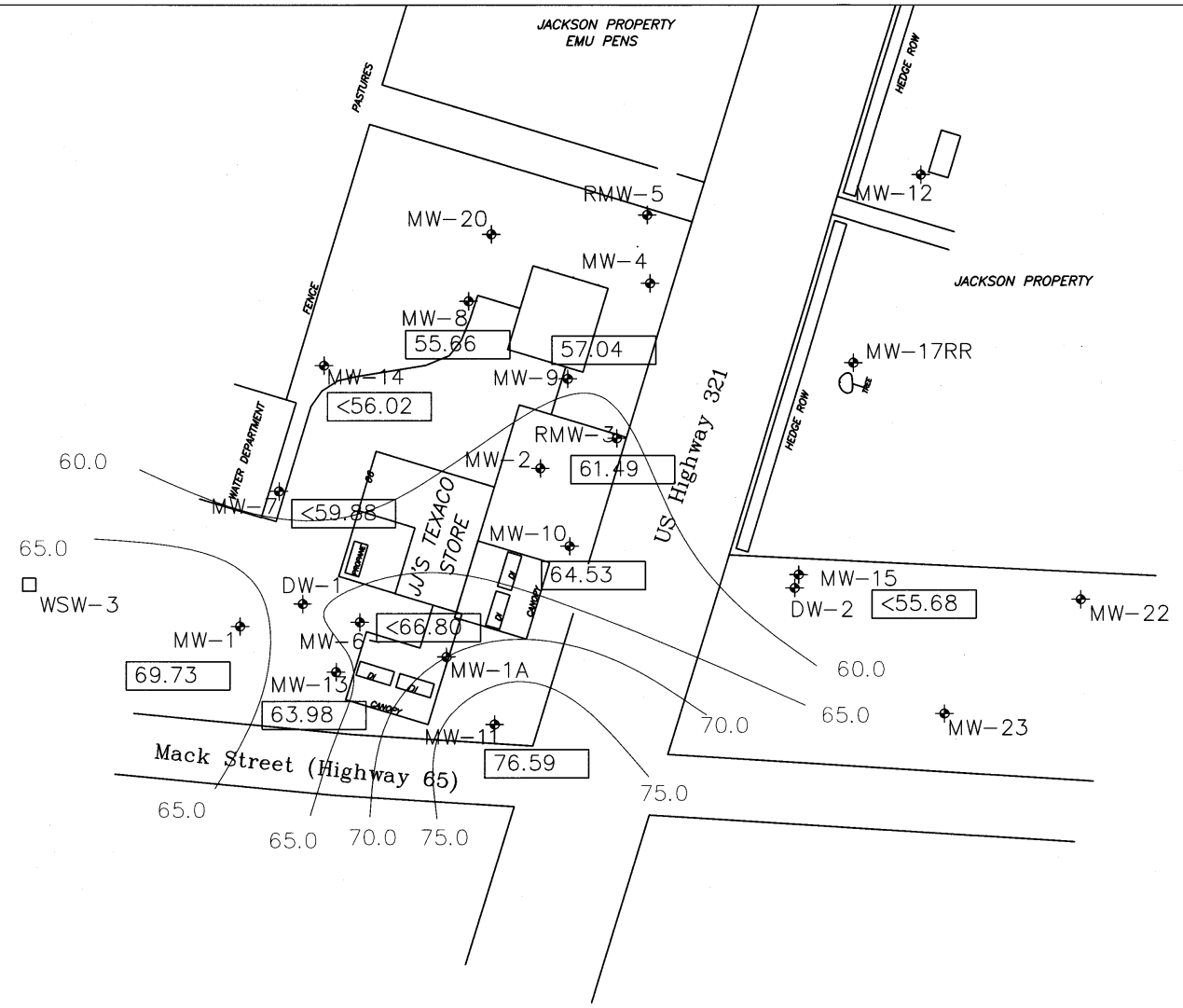
Facility Name: Gaston Food Mart (Fmr. JJ's Texaco) UST Permit ID: 5986
Address: 105 North Main Street Gaston, SC 29053 CES Project Number: 15.03

Field Data Information Sheet

Well ID:	Date:	Time:	Total Depth	Depth to Product	Depth to Water	Initial				1st Volume				2nd Volume				Final				Total Purged Volume
			feet	feet	feet	pH	Con.	Temp.	DO	pH	Con.	Temp.	DO	pH	Con.	Temp	DO	pH	Con.	Temp	DO	Gallons
Shallow Wells																						
MW-1	4/21/2011	1038	40	0	32.41	5.87	0.54	24.1	1.6	No Purge												
MW-1A	4/21/2011	1043	32	0	25.95	5.63	0.68	23.2	2.1	No Purge												
MW-2	4/21/2011	1047	80	0	78.41	5.71	0.64	23.4	1.6	No Purge												
RMW-3	4/21/2011	1053	40	0	36.55	5.32	0.67	23.3	1.3	No Purge												
MW-6	4/21/2011		35			Dry																
MW-7	4/21/2011		42			Dry																
MW-8	4/21/2011	1025	40	0	39.36	6.54	0.67	22.8	2.1	No Purge												
MW-9	4/21/2011	1028	43	0	39.56	6.78	0.67	23.6	3.1	No Purge												
MW-10	4/21/2011	1058	35	0	35.49	EF	EF	23.2	EF													
MW-11	4/21/2011	1052	40	0	25.41	5.31	0.58	22.8	1.3	5.2	0.47	22.5	1.1	5.11	0.67	22.2	0.9	Sample				7
MW-12	4/21/2011	1101	51	0	38.44	5.18	0.71	23.4	1.4	No Purge												
MW-13	4/21/2011	1047	35	0	33.11	5.4	0.52	23.1	1.6	No Purge												
MW-14	4/21/2011		45	0		Dry																
MW-15	4/21/2011		45	0		Dry																
MW-17RR	4/21/2011		75	0		Dry																
MW-24	4/21/2011	1107	44	0	37.7	5.28	0.61	23.9	1.3	No Purge												
MW-25	4/21/2011		44			Not Found																
Water Supply Wells																						
WSW-3	4/21/2011	11:14																				

EF= Equipment Failure

CRAWFORD ENVIRONMENTAL SERVICES



GRAPHIC SCALE

60 0 30 60

As Shown

MAC-DATE

Notes;
Deep well groundwater elevations were not used in the creation of this potentiometric diagram.

LEGEND		
Monitoring Well	———	Potentiometric Surface
Water Supply Well	- - - - -	Potentiometric Surface (Estimated)
	69.72	Groundwater Elevation (feet)
	<69.72	Dry Well. Groundwater below total depth elevation of monitoring well.

REV	BY	DATE

DR: JSR
CK: HDO
SCALE: AS SHOWN
CES PROJ. NO. 15.030

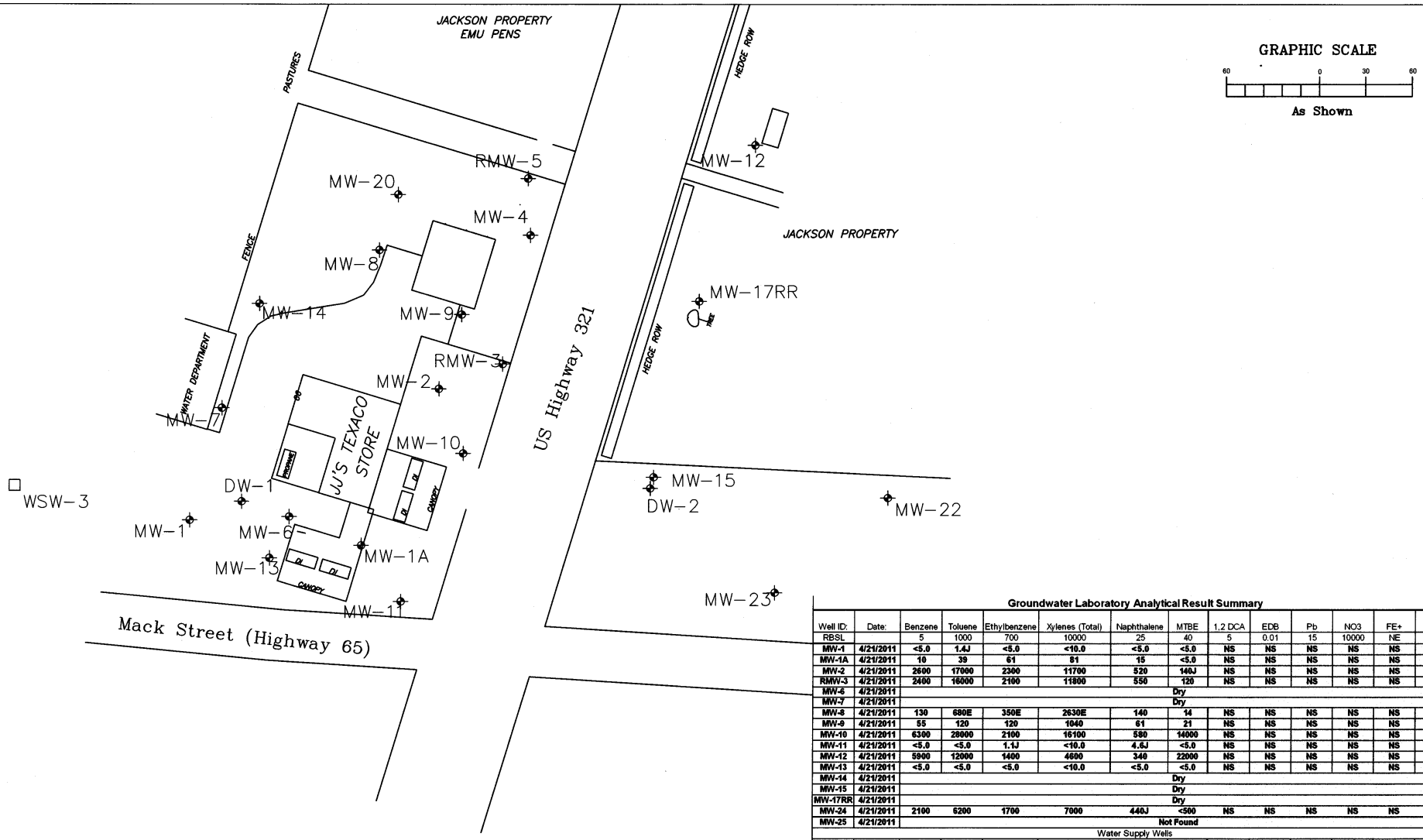
Groundwater Assessment

CRAWFORD ENVIRONMENTAL SERVICES
104 Corporate Blvd.
Suite 412
West Columbia, SC 29210
803-708-0079 (ph)
803-708-8137 (Fax)

FIGURE TITLE

Potentiometric Map
Gaston Food Mart
105 North Main Street
Gaston, SC 29053
Site ID: 05986

DRAWING NUMBER	REV
Figure 1	0



GRAPHIC SCALE

60 0 30 60

As Shown

Groundwater Laboratory Analytical Result Summary

Well ID:	Date:	Benzene	Toluene	Ethylbenzene	Xylenes (Total)	Naphthalene	MTBE	1,2 DCA	EDB	Pb	NO3	FE+	SO4
RBSL		5	1000	700	10000	25	40	5	0.01	15	10000	NE	NE
MW-1	4/21/2011	<5.0	1.4J	<5.0	<10.0	<5.0	<5.0	NS	NS	NS	NS	NS	NS
MW-1A	4/21/2011	10	39	61	81	15	<5.0	NS	NS	NS	NS	NS	NS
MW-2	4/21/2011	2600	17000	2300	11700	520	140J	NS	NS	NS	NS	NS	NS
RMW-3	4/21/2011	2400	16000	2100	11800	550	120	NS	NS	NS	NS	NS	NS
MW-6	4/21/2011	Dry											
MW-7	4/21/2011	Dry											
MW-8	4/21/2011	130	680E	350E	2630E	140	14	NS	NS	NS	NS	NS	NS
MW-9	4/21/2011	55	120	120	1040	61	21	NS	NS	NS	NS	NS	NS
MW-10	4/21/2011	6300	28000	2100	16100	580	14000	NS	NS	NS	NS	NS	NS
MW-11	4/21/2011	<5.0	<5.0	1.1J	<10.0	4.6J	<5.0	NS	NS	NS	NS	NS	NS
MW-12	4/21/2011	5900	12000	1400	4600	340	22000	NS	NS	NS	NS	NS	NS
MW-13	4/21/2011	<5.0	<5.0	<5.0	<10.0	<5.0	<5.0	NS	NS	NS	NS	NS	NS
MW-14	4/21/2011	Dry											
MW-15	4/21/2011	Dry											
MW-17RR	4/21/2011	Dry											
MW-24	4/21/2011	2100	6200	1700	7000	446J	<500	NS	NS	NS	NS	NS	NS
MW-25	4/21/2011	Not Found											
Water Supply Wells													
WSW-3	4/21/2011	<5.0	<5.0	<5.0	<10.0	<5.0	<5.0	NS	<0.020	NS	NS	NS	NS

BDL= Below Detectable Limit
RBSL= Risk Based Screening Levels
NE= Not Established
EDB= 1,2 Dibromoethane

CRAWFORD ENVIRONMENTAL SERVICES

1,2 DCA = 1,2 Dichloroethane
All values are in ug/L

MAC-DATE

LEGEND

- Monitoring Well
- Water Supply Well

REV	BY	DATE

DR: JSR
CK: HDO
SCALE: AS SHOWN
CES PROJ. NO. 15.030

Groundwater Assessment

CRAWFORD ENVIRONMENTAL SERVICES
104 Corporate Blvd.
Suite 412
West Columbia, SC 29210
803-708-0079 (ph)
803-708-8137 (Fax)

FIGURE TITLE

Chemicals of Concern Map (4/21/2011 data)
Gaston Food Mart
105 North Main Street
Gaston, SC 29053
Site ID: 05986

DRAWING NUMBER: Figure 2
REV: 0

APPENDIX A

Laboratory Data Reports, Chain of Custodies and Field Data Information Sheets

CRAWFORD
ENVIRONMENTAL
SERVICES

ACCESS
ANALYTICAL, INC.

ANALYTICAL REPORT

CLIENT

Crawford Environmental Services
101 Corporate Blvd. Suite 412
West Columbia SC 29196

ATTENTION
Justin Reynolds

PROJECT ID
Gaston Foodmart 0598641167

LABORATORY REPORT NUMBER
1104I38

DATE
April 29, 2011

Primary Data Review By

Nicole Jessup

Nicole Jessup
Project Manager, AES

Secondary Data Review By

Ashley Amick

Project Manager, Access Analytical
aamick@axs-inc.com

PLEASE NOTE:

- **Unless otherwise noted, all analysis on this report performed at Analytical Environmental Services Inc. (AES Inc), 3785 Presidential Parkway, Atlanta, GA 30340.**
- **AES is SCDHEC certified laboratory # 98016, NCDENR certified lab # 562, GA certified lab # FL-E87582, NELAP certified laboratory # E87582**
- Local support services for this project are provided by Access Analytical, Inc. Access Analytical is a representative of AES serving client in the SC/NC/GA areas. All questions regarding this report should be directed to your local Access Analytical representative at 803.781.4243 or toll fee at 883.315.4243

Access Analytical - Chain of Custody Record

LAB USE ONLY
Sales Order # ________
PO # ________
Access Quote # ________
Project Work Order # 1104338
Laboratory ID: ________

ACCESS ANALYTICAL, INC.
7478 Carlisle Street
Irmo, SC 29063
Phone: (803) 781-4243
Fax: 781-4303
www.axs-inc.com

Company Name: CES
Report To: J. Reynolds
Address:
City: State: Zip:
Phone: Fax:
Email:
Project ID: Gaston Foodmart 0598641167
Sampled By: J. Reynolds

Preservative (*see codes): 1
Container Type (*see codes): G

*Preservative Codes (place corresponding # in block above analysis field): 0 = None, 1 = HCl, 2 = HNO3, 3 = H2SO4, 4 = NaOH, 5 = Na2S2O3, 6 = [illegible], 7 = NaOH/ZnOAc, 8 = H3PO4
*Matrix Codes (place corresponding code in matrix column): GW = ground water, WW = waste water, DW = drinking water, S = soil, SL = sludge, A = air, IW = industrial waste, WO = waste oil, OT = other (specify in comments section)
*Program Area Codes: CWA = Clean Water Act (for wastewaters), SDWA = Safe Drinking Water Act (for drinking waters), SHW = Solid and Hazardous Wastes (for soils, ground waters and waste samples)
*Container Type: G = Glass, P = Plastic

↓ REQUESTED LAB ANALYSES ↓

Sample ID/Description	Date Collected:	Time Collected:	Type: (grab or composite)	Matrix: (see codes)	Program Area (see codes)	TOTAL # of containers	BTEX, Naph, MTBE	NOTES / COMMENTS (if sample is a composite please use space below to note start/finish times & dates)
MW - 1	4/21/11	10:38	G	GW	SHW	2	2	
MW - 1A		10:43						
MW - 2		10:47						
MW - 32		10:53						
MW - 8		10:25					1	1 Bottle only
MW - 9		10:28					2	
MW - 10		10:58						
MW - 11		10:52						
MW - 13		10:47						
MW - 24		11:07						1 Bottle labeled MW-6

Turnaround Time:
[✓ Standard]
___ RUSH*
*Date Required:________
(For rush work, results emailed/faxed by end of business day on date required)

Project Location:
[✓ SC]
___NC
___Other
(specify) ______

Relinquished By:	Received By:	Date (mm-dd-yy)	Time (24HR)	Sample Temp. Upon Receipt (°C):	
	M. Robertson	4/21/11	1511	26.9 (°C)	___(N/A)
M. Robertson	FedEx	4/21/11	1700	___(°C)	✓ (N/A)
		4/22/11	10:15	___(°C)	___(N/A)
				___(°C)	___(N/A)

See Reverse for Terms and Conditions

Pg____of____

Original Copy - Returned w/Report
Yellow Copy - Access File Copy
Pink Copy - Client Copy

Access Analytical - Chain of Custody Record

LAB USE ONLY

Sales Order #: _____ PO #: _____ Access Quote #: _____

Project Work Order #: 104338

Laboratory ID: _____

Company Name: CES

Report To: J Reynolds

Address:

City: State: Zip:

Phone: Fax:

Email:

Project ID: Gaston Food Mart 05986411167

Sampled By: J. Reynolds

ACCESS ANALYTICAL, INC.

7478 Carlisle Street
Irmo, SC 29063

Phone: (803) 781-4243
Fax: 781-4303

www.axs-inc.com

*Preservative: 1 = HCl, 2 = H2SO4, 3 = NaOH, 4 = HNO3, 5 = NaHSO4, 6 = H3PO4

*Container Type: A = Amber glass, C = Clear glass, D = Encore, J = Jar, O = Other (specify in comments section), P = Plastic, S = Sterile, V = Vial, W = Water sample, WW = Wastewater, WO = Waste oil, OT = other (specify in comments section)

*Program Area Codes: CWA = Clean Water Act (for wastewaters), SDWA = Safe Drinking Water Act (for drinking waters), RCRA = Solid and Hazardous Wastes (for soils, ground waters and waste samples)

*Container Type: G = Glass, P = Plastic

Sample ID/Description	Date Collected	Time Collected	Type: (grab or composite)	Matrix: (see codes)	Program Area (see codes)	TOTAL # of containers	Preservative (*see codes)	Container Type (*see codes)	BTEX, MTBE, EDB, NAPH, MTBE										NOTES / COMMENTS (if sample is a composite please see space below to note start/finish times & dates)
MW-25	4/21/11	11:01	G	GW	SHD	2			2										
WSW-3	1	11:14	1	1	1	1			1										

Turnaround Time:

- ≥ Standard
- ___ RUSH*

*Date Required: _____

(For rush work, results emailed/faxed by end of business day on date required)

Project Location:

- ≥ SC
- ___ NC
- ___ Other

(specify) _____

Relinquished By:	Received By:	Date (mm-dd-yy)	Time (24HR)	Sample Temp. Upon Receipt (°C):	
[signature]	M. Robertson	4/21/11	1571	2.6 (°C)	___ (N/A)
M. Robertson	FedEx	4/21/11	1700	___ (°C)	✓ (N/A)
	[signature]	4/22/11	10.15	___ (°C)	___ (N/A)
				___ (°C)	___ (N/A)

3 of 3

See Reverse for Terms and Conditions

Original Copy - Returned w/Report
Yellow Copy - Access File Copy
Pink Copy - Client Copy

Pg ____ of ____

Analytical Environmental Services, Inc **Date:** 5-May-11

Client:	Crawford Environmental Services
Project:	Gaston Foodmart 0598641167
Lab ID:	1104I38

Case Narrative

Sample Receiving Nonconformance:

Sample information on the Chain of Custody (COC) did not match that on the sample container label for one of the sample vials for sample MW-24 (1104I38-0010A) which is labeled MW-6). The sample was reported using the information on the COC. The client is aware of the sample identification discrepancy because it is noted in the comment section of the COC.

Volatile Organic Compounds Analysis by Method 8260B:

Ethylbenzene, m,p-Xylene, o-Xylene and Toluene values for sample 1104I38-005A is "E" qualified indicating an estimated value over linear calibration range. Sample could not be diluted and reanalyzed due insufficient vials received by laboratory.

Due to sample matrix, sample 1104I38-010A and 1104I38-003A required dilution during preparation and/or analysis resulting in elevated reporting limits.

Per Ashley Amick via email 5/5/2011 10:27am, sample labeled as "MW-25" should be "MW-12."

Analytical Environmental Services, Inc **Date:** 5-May-11

Client:	Crawford Environmental Services	**Client Sample ID:**	MW-1
Project Name:	Gaston Foodmart 0598641167	**Collection Date:**	4/21/2011 10:38:00 AM
Lab ID:	1104I38-001	**Matrix:**	Groundwater

Analyses	Result	Qual	MDL	Reporting Limit	Units	BatchID	DF	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS SW8260B				**(SW5030B)**					
Benzene	BRL		0.38	5.0	ug/L	145520	1	04/27/2011 00:47	NH
Ethylbenzene	BRL		0.48	5.0	ug/L	145520	1	04/27/2011 00:47	NH
m,p-Xylene	BRL		0.89	5.0	ug/L	145520	1	04/27/2011 00:47	NH
Methyl tert-butyl ether	BRL		0.24	5.0	ug/L	145520	1	04/27/2011 00:47	NH
Naphthalene	BRL		0.25	5.0	ug/L	145520	1	04/27/2011 00:47	NH
o-Xylene	BRL		0.38	5.0	ug/L	145520	1	04/27/2011 00:47	NH
Toluene	1.4	J	0.39	5.0	ug/L	145520	1	04/27/2011 00:47	NH
Surr: 4-Bromofluorobenzene	92.2		0	64.7-130	%REC	145520	1	04/27/2011 00:47	NH
Surr: Dibromofluoromethane	100		0	80.7-129	%REC	145520	1	04/27/2011 00:47	NH
Surr: Toluene-d8	96.3		0	71.1-120	%REC	145520	1	04/27/2011 00:47	NH

Qualifiers:

*	Value exceeds maximum contaminant level	E	Estimated value above quantitation range
BRL	Not detected at MDL	S	Spike Recovery outside limits due to matrix
H	Holding times for preparation or analysis exceeded	J	Estimated value detected below Reporting Limit
N	Analyte not NELAC certified	>	Greater than Result value
B	Analyte detected in the associated method blank	<	Less than Result value
NC	Not confirmed	Narr	See case narrative

Analytical Environmental Services, Inc **Date:** 5-May-11

Client:	Crawford Environmental Services	**Client Sample ID:**	MW-1A
Project Name:	Gaston Foodmart 0598641167	**Collection Date:**	4/21/2011 10:43:00 AM
Lab ID:	1104I38-002	**Matrix:**	Groundwater

Analyses	Result	Qual	MDL	Reporting Limit	Units	BatchID	DF	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS SW8260B				**(SW5030B)**					
Benzene	10		0.38	5.0	ug/L	145520	1	04/26/2011 23:23	NH
Ethylbenzene	61		0.48	5.0	ug/L	145520	1	04/26/2011 23:23	NH
m,p-Xylene	62		0.89	5.0	ug/L	145520	1	04/26/2011 23:23	NH
Methyl tert-butyl ether	BRL		0.24	5.0	ug/L	145520	1	04/26/2011 23:23	NH
Naphthalene	15		0.25	5.0	ug/L	145520	1	04/26/2011 23:23	NH
o-Xylene	19		0.38	5.0	ug/L	145520	1	04/26/2011 23:23	NH
Toluene	39		0.39	5.0	ug/L	145520	1	04/26/2011 23:23	NH
Surr: 4-Bromofluorobenzene	97.6		0	64.7-130	%REC	145520	1	04/26/2011 23:23	NH
Surr: Dibromofluoromethane	94.7		0	80.7-129	%REC	145520	1	04/26/2011 23:23	NH
Surr: Toluene-d8	100		0	71.1-120	%REC	145520	1	04/26/2011 23:23	NH

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Not detected at MDL
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- NC Not confirmed
- E Estimated value above quantitation range
- S Spike Recovery outside limits due to matrix
- J Estimated value detected below Reporting Limit
- > Greater than Result value
- < Less than Result value
- Narr See case narrative

Analytical Environmental Services, Inc **Date:** 5-May-11

Client:	Crawford Environmental Services	**Client Sample ID:**	MW-2
Project Name:	Gaston Foodmart 0598641167	**Collection Date:**	4/21/2011 10:47:00 AM
Lab ID:	1104I38-003	**Matrix:**	Groundwater

Analyses	Result	Qual	MDL	Reporting Limit	Units	BatchID	DF	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS SW8260B					**(SW5030B)**				
Benzene	2600		19	250	ug/L	145520	50	04/26/2011 22:28	NH
Ethylbenzene	2300		24	250	ug/L	145520	50	04/26/2011 22:28	NH
m,p-Xylene	8200		45	250	ug/L	145520	50	04/26/2011 22:28	NH
Methyl tert-butyl ether	140	J	12	250	ug/L	145520	50	04/26/2011 22:28	NH
Naphthalene	520		12	250	ug/L	145520	50	04/26/2011 22:28	NH
o-Xylene	3500		19	250	ug/L	145520	50	04/26/2011 22:28	NH
Toluene	17000		39	500	ug/L	145520	100	04/27/2011 18:57	NH
Surr: 4-Bromofluorobenzene	98.4		0	64.7-130	%REC	145520	50	04/26/2011 22:28	NH
Surr: 4-Bromofluorobenzene	104		0	64.7-130	%REC	145520	100	04/27/2011 18:57	NH
Surr: Dibromofluoromethane	95.2		0	80.7-129	%REC	145520	50	04/26/2011 22:28	NH
Surr: Dibromofluoromethane	103		0	80.7-129	%REC	145520	100	04/27/2011 18:57	NH
Surr: Toluene-d8	97.6		0	71.1-120	%REC	145520	50	04/26/2011 22:28	NH
Surr: Toluene-d8	97		0	71.1-120	%REC	145520	100	04/27/2011 18:57	NH

Qualifiers:

*	Value exceeds maximum contaminant level	E	Estimated value above quantitation range
BRL	Not detected at MDL	S	Spike Recovery outside limits due to matrix
H	Holding times for preparation or analysis exceeded	J	Estimated value detected below Reporting Limit
N	Analyte not NELAC certified	>	Greater than Result value
B	Analyte detected in the associated method blank	<	Less than Result value
NC	Not confirmed	Narr	See case narrative

Analytical Environmental Services, Inc **Date:** 5-May-11

Client:	Crawford Environmental Services	**Client Sample ID:**	MW-3R
Project Name:	Gaston Foodmart 0598641167	**Collection Date:**	4/21/2011 10:53:00 AM
Lab ID:	1104I38-004	**Matrix:**	Groundwater

Analyses	Result	Qual	MDL	Reporting Limit	Units	BatchID	DF	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS SW8260B				**(SW5030B)**					
Benzene	2400		38	500	ug/L	145520	100	04/27/2011 19:25	NH
Ethylbenzene	2100		48	500	ug/L	145520	100	04/27/2011 19:25	NH
m,p-Xylene	8500		89	500	ug/L	145520	100	04/27/2011 19:25	NH
Methyl tert-butyl ether	120		2.4	50	ug/L	145520	10	04/26/2011 22:56	NH
Naphthalene	550		2.5	50	ug/L	145520	10	04/26/2011 22:56	NH
o-Xylene	3300		38	500	ug/L	145520	100	04/27/2011 19:25	NH
Toluene	16000		39	500	ug/L	145520	100	04/27/2011 19:25	NH
Surr: 4-Bromofluorobenzene	98.1		0	64.7-130	%REC	145520	10	04/26/2011 22:56	NH
Surr: 4-Bromofluorobenzene	104		0	64.7-130	%REC	145520	100	04/27/2011 19:25	NH
Surr: Dibromofluoromethane	89.7		0	80.7-129	%REC	145520	10	04/26/2011 22:56	NH
Surr: Dibromofluoromethane	102		0	80.7-129	%REC	145520	100	04/27/2011 19:25	NH
Surr: Toluene-d8	97		0	71.1-120	%REC	145520	100	04/27/2011 19:25	NH
Surr: Toluene-d8	98.6		0	71.1-120	%REC	145520	10	04/26/2011 22:56	NH

Qualifiers:

*	Value exceeds maximum contaminant level	E	Estimated value above quantitation range
BRL	Not detected at MDL	S	Spike Recovery outside limits due to matrix
H	Holding times for preparation or analysis exceeded	J	Estimated value detected below Reporting Limit
N	Analyte not NELAC certified	>	Greater than Result value
B	Analyte detected in the associated method blank	<	Less than Result value
NC	Not confirmed	Narr	See case narrative

Analytical Environmental Services, Inc **Date:** 5-May-11

Client:	Crawford Environmental Services	**Client Sample ID:**	MW-8
Project Name:	Gaston Foodmart 0598641167	**Collection Date:**	4/21/2011 10:25:00 AM
Lab ID:	1104I38-005	**Matrix:**	Groundwater

Analyses	Result	Qual	MDL	Reporting Limit	Units	BatchID	DF	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS SW8260B					(SW5030B)				
Benzene	130		0.38	5.0	ug/L	145520	1	04/26/2011 14:34	NH
Ethylbenzene	350	E	0.48	5.0	ug/L	145520	1	04/26/2011 14:34	NH
m,p-Xylene	1800	E	0.89	5.0	ug/L	145520	1	04/26/2011 14:34	NH
Methyl tert-butyl ether	14		0.24	5.0	ug/L	145520	1	04/26/2011 14:34	NH
Naphthalene	140		0.25	5.0	ug/L	145520	1	04/26/2011 14:34	NH
o-Xylene	830	E	0.38	5.0	ug/L	145520	1	04/26/2011 14:34	NH
Toluene	680	E	0.39	5.0	ug/L	145520	1	04/26/2011 14:34	NH
Surr: 4-Bromofluorobenzene	103		0	64.7-130	%REC	145520	1	04/26/2011 14:34	NH
Surr: Dibromofluoromethane	95.8		0	80.7-129	%REC	145520	1	04/26/2011 14:34	NH
Surr: Toluene-d8	101		0	71.1-120	%REC	145520	1	04/26/2011 14:34	NH

Qualifiers:

*	Value exceeds maximum contaminant level	E	Estimated value above quantitation range
BRL	Not detected at MDL	S	Spike Recovery outside limits due to matrix
H	Holding times for preparation or analysis exceeded	J	Estimated value detected below Reporting Limit
N	Analyte not NELAC certified	>	Greater than Result value
B	Analyte detected in the associated method blank	<	Less than Result value
NC	Not confirmed	Narr	See case narrative

Analytical Environmental Services, Inc **Date:** 5-May-11

Client:	Crawford Environmental Services	**Client Sample ID:**	MW-9
Project Name:	Gaston Foodmart 0598641167	**Collection Date:**	4/21/2011 10:28:00 AM
Lab ID:	1104I38-006	**Matrix:**	Groundwater

Analyses	Result	Qual	MDL	Reporting Limit	Units	BatchID	DF	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS SW8260B				**(SW5030B)**					
Benzene	55		0.38	5.0	ug/L	145520	1	04/27/2011 02:11	NH
Ethylbenzene	120		0.48	5.0	ug/L	145520	1	04/27/2011 02:11	NH
m,p-Xylene	720		8.9	50	ug/L	145520	10	04/27/2011 20:21	NH
Methyl tert-butyl ether	21		0.24	5.0	ug/L	145520	1	04/27/2011 02:11	NH
Naphthalene	61		0.25	5.0	ug/L	145520	1	04/27/2011 02:11	NH
o-Xylene	320		3.8	50	ug/L	145520	10	04/27/2011 20:21	NH
Toluene	120		0.39	5.0	ug/L	145520	1	04/27/2011 02:11	NH
Surr: 4-Bromofluorobenzene	104		0	64.7-130	%REC	145520	1	04/27/2011 02:11	NH
Surr: 4-Bromofluorobenzene	102		0	64.7-130	%REC	145520	10	04/27/2011 20:21	NH
Surr: Dibromofluoromethane	101		0	80.7-129	%REC	145520	1	04/27/2011 02:11	NH
Surr: Dibromofluoromethane	105		0	80.7-129	%REC	145520	10	04/27/2011 20:21	NH
Surr: Toluene-d8	98.3		0	71.1-120	%REC	145520	10	04/27/2011 20:21	NH
Surr: Toluene-d8	101		0	71.1-120	%REC	145520	1	04/27/2011 02:11	NH

Qualifiers:

- `*` Value exceeds maximum contaminant level
- BRL Not detected at MDL
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- NC Not confirmed
- E Estimated value above quantitation range
- S Spike Recovery outside limits due to matrix
- J Estimated value detected below Reporting Limit
- > Greater than Result value
- < Less than Result value
- Narr See case narrative

Analytical Environmental Services, Inc **Date:** 5-May-11

Client:	Crawford Environmental Services	**Client Sample ID:**	MW-10
Project Name:	Gaston Foodmart 0598641167	**Collection Date:**	4/21/2011 10:58:00 AM
Lab ID:	1104I38-007	**Matrix:**	Groundwater

Analyses	Result	Qual	MDL	Reporting Limit	Units	BatchID	DF	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS SW8260B					**(SW5030B)**				
Benzene	6300		38	500	ug/L	145520	100	04/27/2011 19:53	NH
Ethylbenzene	2100		48	500	ug/L	145520	100	04/27/2011 19:53	NH
m,p-Xylene	11000		89	500	ug/L	145520	100	04/27/2011 19:53	NH
Methyl tert-butyl ether	14000		24	500	ug/L	145520	100	04/27/2011 19:53	NH
Naphthalene	580		25	500	ug/L	145520	100	04/27/2011 19:53	NH
o-Xylene	5100		38	500	ug/L	145520	100	04/27/2011 19:53	NH
Toluene	28000		200	2500	ug/L	145520	500	04/28/2011 11:21	NH
Surr: 4-Bromofluorobenzene	101		0	64.7-130	%REC	145520	500	04/28/2011 11:21	NH
Surr: 4-Bromofluorobenzene	102		0	64.7-130	%REC	145520	100	04/27/2011 19:53	NH
Surr: Dibromofluoromethane	101		0	80.7-129	%REC	145520	100	04/27/2011 19:53	NH
Surr: Dibromofluoromethane	107		0	80.7-129	%REC	145520	500	04/28/2011 11:21	NH
Surr: Toluene-d8	95.6		0	71.1-120	%REC	145520	500	04/28/2011 11:21	NH
Surr: Toluene-d8	97.1		0	71.1-120	%REC	145520	100	04/27/2011 19:53	NH

Qualifiers:

*	Value exceeds maximum contaminant level	E	Estimated value above quantitation range
BRL	Not detected at MDL	S	Spike Recovery outside limits due to matrix
H	Holding times for preparation or analysis exceeded	J	Estimated value detected below Reporting Limit
N	Analyte not NELAC certified	>	Greater than Result value
B	Analyte detected in the associated method blank	<	Less than Result value
NC	Not confirmed	Narr	See case narrative

Analytical Environmental Services, Inc **Date:** 5-May-11

Client:	Crawford Environmental Services	**Client Sample ID:**	MW-11
Project Name:	Gaston Foodmart 0598641167	**Collection Date:**	4/21/2011 10:52:00 AM
Lab ID:	1104I38-008	**Matrix:**	Groundwater

Analyses	Result	Qual	MDL	Reporting Limit	Units	BatchID	DF	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS SW8260B					**(SW5030B)**				
Benzene	BRL		0.38	5.0	ug/L	145520	1	04/27/2011 16:38	NH
Ethylbenzene	1.1	J	0.48	5.0	ug/L	145520	1	04/27/2011 16:38	NH
m,p-Xylene	BRL		0.89	5.0	ug/L	145520	1	04/27/2011 16:38	NH
Methyl tert-butyl ether	BRL		0.24	5.0	ug/L	145520	1	04/27/2011 16:38	NH
Naphthalene	4.6	J	0.25	5.0	ug/L	145520	1	04/27/2011 16:38	NH
o-Xylene	BRL		0.38	5.0	ug/L	145520	1	04/27/2011 16:38	NH
Toluene	BRL		0.39	5.0	ug/L	145520	1	04/27/2011 16:38	NH
Surr: 4-Bromofluorobenzene	97.3		0	64.7-130	%REC	145520	1	04/27/2011 16:38	NH
Surr: Dibromofluoromethane	101		0	80.7-129	%REC	145520	1	04/27/2011 16:38	NH
Surr: Toluene-d8	102		0	71.1-120	%REC	145520	1	04/27/2011 16:38	NH

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Not detected at MDL
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- NC Not confirmed
- E Estimated value above quantitation range
- S Spike Recovery outside limits due to matrix
- J Estimated value detected below Reporting Limit
- > Greater than Result value
- < Less than Result value
- Narr See case narrative

Analytical Environmental Services, Inc **Date:** 5-May-11

Client:	Crawford Environmental Services	**Client Sample ID:**	MW-13
Project Name:	Gaston Foodmart 0598641167	**Collection Date:**	4/21/2011 10:47:00 AM
Lab ID:	1104138-009	**Matrix:**	Groundwater

Analyses	Result	Qual	MDL	Reporting Limit	Units	BatchID	DF	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS SW8260B				**(SW5030B)**					
Benzene	BRL		0.38	5.0	ug/L	145520	1	04/27/2011 17:34	NH
Ethylbenzene	BRL		0.48	5.0	ug/L	145520	1	04/27/2011 17:34	NH
m,p-Xylene	BRL		0.89	5.0	ug/L	145520	1	04/27/2011 17:34	NH
Methyl tert-butyl ether	BRL		0.24	5.0	ug/L	145520	1	04/27/2011 17:34	NH
Naphthalene	BRL		0.25	5.0	ug/L	145520	1	04/27/2011 17:34	NH
o-Xylene	BRL		0.38	5.0	ug/L	145520	1	04/27/2011 17:34	NH
Toluene	BRL		0.39	5.0	ug/L	145520	1	04/27/2011 17:34	NH
Surr: 4-Bromofluorobenzene	94.9		0	64.7-130	%REC	145520	1	04/27/2011 17:34	NH
Surr: Dibromofluoromethane	105		0	80.7-129	%REC	145520	1	04/27/2011 17:34	NH
Surr: Toluene-d8	96.8		0	71.1-120	%REC	145520	1	04/27/2011 17:34	NH

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Not detected at MDL
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- NC Not confirmed
- E Estimated value above quantitation range
- S Spike Recovery outside limits due to matrix
- J Estimated value detected below Reporting Limit
- > Greater than Result value
- < Less than Result value
- Narr See case narrative

Analytical Environmental Services, Inc **Date:** 5-May-11

Client:	Crawford Environmental Services	**Client Sample ID:**	MW-24
Project Name:	Gaston Foodmart 0598641167	**Collection Date:**	4/21/2011 11:07:00 AM
Lab ID:	1104I38-010	**Matrix:**	Groundwater

Analyses	Result	Qual	MDL	Reporting Limit	Units	BatchID	DF	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS SW8260B					**(SW5030B)**				
Benzene	2100		38	500	ug/L	145520	100	04/26/2011 22:00	NH
Ethylbenzene	1700		48	500	ug/L	145520	100	04/26/2011 22:00	NH
m,p-Xylene	4400		89	500	ug/L	145520	100	04/26/2011 22:00	NH
Methyl tert-butyl ether	BRL		24	500	ug/L	145520	100	04/26/2011 22:00	NH
Naphthalene	440	J	25	500	ug/L	145520	100	04/26/2011 22:00	NH
o-Xylene	2600		38	500	ug/L	145520	100	04/26/2011 22:00	NH
Toluene	6200		39	500	ug/L	145520	100	04/26/2011 22:00	NH
Surr: 4-Bromofluorobenzene	97.7		0	64.7-130	%REC	145520	100	04/26/2011 22:00	NH
Surr: Dibromofluoromethane	93.2		0	80.7-129	%REC	145520	100	04/26/2011 22:00	NH
Surr: Toluene-d8	96.4		0	71.1-120	%REC	145520	100	04/26/2011 22:00	NH

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Not detected at MDL
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- NC Not confirmed
- E Estimated value above quantitation range
- S Spike Recovery outside limits due to matrix
- J Estimated value detected below Reporting Limit
- > Greater than Result value
- < Less than Result value
- Narr See case narrative

Analytical Environmental Services, Inc **Date:** 5-May-11

Client:	Crawford Environmental Services	**Client Sample ID:**	MW-12
Project Name:	Gaston Foodmart 0598641167	**Collection Date:**	4/21/2011 11:01:00 AM
Lab ID:	1104138-011	**Matrix:**	Groundwater

Analyses	Result	Qual	MDL	Reporting Limit	Units	BatchID	DF	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS SW8260B				**(SW5030B)**					
Benzene	5900		190	2500	ug/L	145520	500	04/27/2011 18:30	NH
Ethylbenzene	1400		4.8	50	ug/L	145520	10	04/28/2011 13:27	NH
m,p-Xylene	3500		450	2500	ug/L	145520	500	04/27/2011 18:30	NH
Methyl tert-butyl ether	22000		120	2500	ug/L	145520	500	04/27/2011 18:30	NH
Naphthalene	340		2.5	50	ug/L	145520	10	04/28/2011 13:27	NH
o-Xylene	1100		190	1000	ug/L	145520	500	04/27/2011 18:30	NH
Toluene	12000		200	2500	ug/L	145520	500	04/27/2011 18:30	NH
Surr: 4-Bromofluorobenzene	98.1		0	64.7-130	%REC	145520	500	04/27/2011 18:30	NH
Surr: 4-Bromofluorobenzene	103		0	64.7-130	%REC	145520	10	04/28/2011 13:27	NH
Surr: Dibromofluoromethane	104		0	80.7-129	%REC	145520	500	04/27/2011 18:30	NH
Surr: Dibromofluoromethane	100		0	80.7-129	%REC	145520	10	04/28/2011 13:27	NH
Surr: Toluene-d8	95.6		0	71.1-120	%REC	145520	500	04/27/2011 18:30	NH
Surr: Toluene-d8	100		0	71.1-120	%REC	145520	10	04/28/2011 13:27	NH

Qualifiers:

*	Value exceeds maximum contaminant level	E	Estimated value above quantitation range
BRL	Not detected at MDL	S	Spike Recovery outside limits due to matrix
H	Holding times for preparation or analysis exceeded	J	Estimated value detected below Reporting Limit
N	Analyte not NELAC certified	>	Greater than Result value
B	Analyte detected in the associated method blank	<	Less than Result value
NC	Not confirmed	Narr	See case narrative

Analytical Environmental Services, Inc **Date:** 5-May-11

Client:	Crawford Environmental Services	**Client Sample ID:**	WSW-3
Project Name:	Gaston Foodmart 0598641167	**Collection Date:**	4/21/2011 11:14:00 AM
Lab ID:	1104I38-012	**Matrix:**	Groundwater

Analyses	Result	Qual	MDL	Reporting Limit	Units	BatchID	DF	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS SW8260B					**(SW5030B)**				
Benzene	BRL		0.38	5.0	ug/L	145520	1	04/27/2011 18:02	NH
Ethylbenzene	BRL		0.48	5.0	ug/L	145520	1	04/27/2011 18:02	NH
m,p-Xylene	BRL		0.89	5.0	ug/L	145520	1	04/27/2011 18:02	NH
Methyl tert-butyl ether	BRL		0.24	5.0	ug/L	145520	1	04/27/2011 18:02	NH
Naphthalene	BRL		0.25	5.0	ug/L	145520	1	04/27/2011 18:02	NH
o-Xylene	BRL		0.38	5.0	ug/L	145520	1	04/27/2011 18:02	NH
Toluene	BRL		0.39	5.0	ug/L	145520	1	04/27/2011 18:02	NH
Surr: 4-Bromofluorobenzene	93.4		0	64.7-130	%REC	145520	1	04/27/2011 18:02	NH
Surr: Dibromofluoromethane	106		0	80.7-129	%REC	145520	1	04/27/2011 18:02	NH
Surr: Toluene-d8	97.2		0	71.1-120	%REC	145520	1	04/27/2011 18:02	NH

Qualifiers:

*	Value exceeds maximum contaminant level	E	Estimated value above quantitation range
BRL	Not detected at MDL	S	Spike Recovery outside limits due to matrix
H	Holding times for preparation or analysis exceeded	J	Estimated value detected below Reporting Limit
N	Analyte not NELAC certified	>	Greater than Result value
B	Analyte detected in the associated method blank	<	Less than Result value
NC	Not confirmed	Narr	See case narrative

Analytical Environmental Services, Inc.

Sample/Cooler Receipt Checklist

Client ACCESS Work Order Number 1104138

Checklist completed by [signature] 4-23-11
Signature Date

Carrier name: FedEx ✓ UPS __ Courier __ Client __ US Mail __ Other _____

Shipping container/cooler in good condition?	Yes ✓	No __	Not Present __
Custody seals intact on shipping container/cooler?	Yes __	No __	Not Present ✓
Custody seals intact on sample bottles?	Yes __	No __	Not Present ✓
Container/Temp Blank temperature in compliance? (4°C±2)*	Yes ✓	No __	

Cooler #1 3.4~ Cooler #2 3.7~ Cooler #3 4.0~ Cooler #4 3.1~ Cooler#5 _____ Cooler #6 _____

Chain of custody present?	Yes ✓	No __
Chain of custody signed when relinquished and received?	Yes ✓	No __
Chain of custody agrees with sample labels?	Yes ✓	No __
Samples in proper container/bottle?	Yes ✓	No __
Sample containers intact?	Yes ✓	No __
Sufficient sample volume for indicated test?	Yes ✓	No __
All samples received within holding time?	Yes ✓	No __
Was TAT marked on the COC?	Yes ✓	No __
Proceed with Standard TAT as per project history?	Yes __	No __ Not Applicable ✓
Water - VOA vials have zero headspace? No VOA vials submitted __	Yes ✓	No __
Water - pH acceptable upon receipt?	Yes ✓	No __ Not Applicable __

Adjusted? _____ _____ Checked by _____

Sample Condition: Good ✓ Other(Explain) _____

(For diffusive samples or AIHA lead) Is a known blank included? Yes __ No ✓

See Case Narrative for resolution of the Non-Conformance.

* Samples do not have to comply with the given range for certain parameters.

\L\Quality Assurance\Checklists Procedures Sign-Off Templates\Checklists\Sample Receipt Checklists\Sample_Cooler_Receipt_Checklist

Analytical Environmental Services, Inc

Date: 29-Apr-11

Client: Crawford Environmental Services
Project Name: Gaston Foodmart 0598641167
Workorder: 1104I38

ANALYTICAL QC SUMMARY REPORT

BatchID: 145520

Sample ID: **MB-145520**	Client ID:	Units: **ug/L**	Prep Date: **04/26/2011**	Run No: **195698**
SampleType: **MBLK**	TestCode: **Volatile Organic Compounds by GC/MS SW8260B**	BatchID: **145520**	Analysis Date: **04/26/2011**	Seq No: **4084521**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Benzene	BRL	5.0	0	0	0	0	0	0	0	0	
Ethylbenzene	BRL	5.0	0	0	0	0	0	0	0	0	
m,p-Xylene	BRL	5.0	0	0	0	0	0	0	0	0	
Methyl tert-butyl ether	BRL	5.0	0	0	0	0	0	0	0	0	
Naphthalene	BRL	5.0	0	0	0	0	0	0	0	0	
o-Xylene	BRL	5.0	0	0	0	0	0	0	0	0	
Toluene	BRL	5.0	0	0	0	0	0	0	0	0	
Surr: 4-Bromofluorobenzene	46.66	0	50	0	93.3	64.7	130	0	0	0	
Surr: Dibromofluoromethane	56.16	0	50	0	112	80.7	129	0	0	0	
Surr: Toluene-d8	49.93	0	50	0	99.9	71.1	120	0	0	0	

Sample ID: **LCS-145520**	Client ID:	Units: **ug/L**	Prep Date: **04/26/2011**	Run No: **195698**
SampleType: **LCS**	TestCode: **Volatile Organic Compounds by GC/MS SW8260B**	BatchID: **145520**	Analysis Date: **04/26/2011**	Seq No: **4084630**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Benzene	51.94	5.0	50	0	104	70	130	0	0	0	
Toluene	61.45	5.0	50	0	123	70	130	0	0	0	
Surr: 4-Bromofluorobenzene	46.93	0	50	0	93.9	64.7	130	0	0	0	
Surr: Dibromofluoromethane	47.55	0	50	0	95.1	80.7	129	0	0	0	
Surr: Toluene-d8	47.66	0	50	0	95.3	71.1	120	0	0	0	

Sample ID: **1104I38-001AMS**	Client ID: **MW-1**	Units: **ug/L**	Prep Date: **04/26/2011**	Run No: **195747**
SampleType: **MS**	TestCode: **Volatile Organic Compounds by GC/MS SW8260B**	BatchID: **145520**	Analysis Date: **04/27/2011**	Seq No: **4085466**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Benzene	58.48	5.0	50	0	117	62.2	143	0	0	0	
Toluene	60.30	5.0	50	1.440	118	57.8	149	0	0	0	
Surr: 4-Bromofluorobenzene	47.23	0	50	0	94.5	64.7	130	0	0	0	

Qualifiers:

>	Greater than Result value	<	Less than Result value	B	Analyte detected in the associated method blank
BRL	Below reporting limit	E	Estimated (value above quantitation range)	H	Holding times for preparation or analysis exceeded
J	Estimated value detected below Reporting Limit	N	Analyte not NELAC certified	R	RPD outside limits due to matrix
Rpt Lim	Reporting Limit	S	Spike Recovery outside limits due to matrix		

Analytical Environmental Services, Inc

Date: 29-Apr-11

Client: Crawford Environmental Services
Project Name: Gaston Foodmart 0598641167
Workorder: 1104I38

ANALYTICAL QC SUMMARY REPORT

BatchID: 145520

Sample ID: **1104I38-001AMS**	Client ID: **MW-1**	Units: **ug/L**	Prep Date: **04/26/2011**	Run No: **195747**
SampleType: **MS**	TestCode: **Volatile Organic Compounds by GC/MS SW8260B**	BatchID: **145520**	Analysis Date: **04/27/2011**	Seq No: **4085466**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Surr: Dibromofluoromethane	50.24	0	50	0	100	80.7	129	0	0	0	
Surr: Toluene-d8	47.55	0	50	0	95.1	71.1	120	0	0	0	

Sample ID: **1104I38-001AMSD**	Client ID: **MW-1**	Units: **ug/L**	Prep Date: **04/26/2011**	Run No: **195747**
SampleType: **MSD**	TestCode: **Volatile Organic Compounds by GC/MS SW8260B**	BatchID: **145520**	Analysis Date: **04/27/2011**	Seq No: **4085469**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Benzene	54.41	5.0	50	0	109	62.2	143	58.48	7.21	20	
Toluene	55.23	5.0	50	1.440	108	57.8	149	60.30	8.78	20	
Surr: 4-Bromofluorobenzene	47.37	0	50	0	94.7	64.7	130	47.23	0	0	
Surr: Dibromofluoromethane	49.84	0	50	0	99.7	80.7	129	50.24	0	0	
Surr: Toluene-d8	46.80	0	50	0	93.6	71.1	120	47.55	0	0	

Qualifiers:

>	Greater than Result value	<	Less than Result value	B	Analyte detected in the associated method blank
BRL	Below reporting limit	E	Estimated (value above quantitation range)	H	Holding times for preparation or analysis exceeded
J	Estimated value detected below Reporting Limit	N	Analyte not NELAC certified	R	RPD outside limits due to matrix
Rpt Lim	Reporting Limit	S	Spike Recovery outside limits due to matrix		

APPENDIX B
Disposal Manifests

CRAWFORD
ENVIRONMENTAL
SERVICES

D H E C

PROMOTE PROTECT PROSPER

C. Earl Hunter, Commissioner

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

UST DOCKET 39dech

D F SHUMPERT
814 PINE ST
PELION SC 29123

MAR 07 2011

Re: **Sample Directive**
Gaston Food Mart, 105 N Main St., Gaston, SC
UST Permit #05986; CA #41167
Release reported November 20, 1991
Monitoring Report received August 28, 2009
Lexington County

Dear Mr. Shumpert:

The Underground Storage Tank (UST) Management Division of the South Carolina Department of Health and Environmental Control (SCDHEC) recognizes your commitment to continue work at this site utilizing Crawford Environmental Consultants, Inc. The next necessary scope of work is a groundwater sampling event.

Cost Agreement #41167 has been approved in the amount shown on the enclosed cost agreement form for the sampling. Samples should be collected from monitoring wells MW-1, MW-1A, MW-2, RMW-3, MW-6, MW-7, MW-8, MW-9, MW-10, MW-11, MW-12, MW-13, MW-15, MW-17RR, MW-24, MW-25, and water supply well WSW-3 and analyzed for BTEX, Naphthalene, and MTBE by method 8260B. During sampling, if the well screen does not bracket the water table, then the well should be purged prior to collection of the water samples.

Please have your contractor submit analytical results to the UST Management Division in a monitoring report containing the following items:

- A narrative portion documenting current site conditions and noting the names of field personnel, date, time, ambient air temperature, and general weather conditions during the sampling event. The report shall also contain well purging data, pH, specific conductivity, water temperature, PID readings (where applicable) and turbidity comments.
- Groundwater elevations, depth to groundwater, measurable free product thickness (where applicable), total well depth and screened interval for all monitoring wells associated with the site, unless otherwise directed by the Division, shall be presented in tabular form. Groundwater laboratory analytical data for all monitoring wells shall be presented in tabular format.
- A groundwater elevation contour map of the site based on current groundwater potentiometric data.
- A CoC map based on current groundwater laboratory analytical data. The groundwater data should be adjacent to the relevant monitoring well location.
- Manifests for any contaminated soil and/or groundwater removed from the site for treatment and/or disposal.
- Signature and seal by a professional geologist or engineer registered in the State of South Carolina.

Crawford Environmental Consultants can submit an invoice for direct billing from the State Underground Petroleum Environmental Response Bank (SUPERB) Account. Please note that all applicable South Carolina certification requirements apply to the laboratory services and report preparation. All site rehabilitation activities must be performed and submitted by a South Carolina Certified Underground Storage Tank Site Rehabilitation Contractor.

A Report of Findings and invoice are due within 60 days from the date of this letter. Interim invoices may not be submitted for this scope of work. If the invoice is not submitted within 120 days from the date of this letter, monies allocated to pay this invoice will be uncommitted. This means that the invoice will not be processed for payment until all other committed funds are paid or monies become available.

Please note that Sections 44-2-110(4) and 44-2-130 of the SUPERB Statute state that no costs will be allowed unless prior approval is obtained from the UST Management Division. If for any reason additional tasks will be completed, these additional tasks and the associated cost must be preapproved by the Division for the cost to be paid. The Division reserves the authority to pay only for work properly performed and/or technically justified and will only pay rates in accordance with established criteria. Further, the Division reserves the right to question and/or reject costs if deemed unreasonable and to audit project records at any time during the project or after completion of work.

The UST Management Division grants preapproval for transportation of virgin petroleum-contaminated soil and groundwater from the referenced site to a permitted treatment facility. The contaminated soil or groundwater must be properly stored in labeled containers or covered with plastic as appropriate. 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 and/or acceptance letter from the receiving facility that clearly designates the quantity received must be included as an appendix to the final report. If the levels of petroleum contamination based on laboratory analysis are below risk-based screening levels, please contact the project manager for approval to dispose of soil and/or groundwater on-site. The SUPERB Account will not compensate for transportation or treatment of clean soil and/or groundwater.

On all correspondence concerning this site, please reference UST Permit #05986 and CA #41167. If you have any questions, please contact me at (803) 896-6584 or by e-mail at minerrs@dhec.sc.gov.

Sincerely,

Read S. Miner, P.G., Hydrogeologist
Corrective Action Section
Underground Storage Tank Management Division
Bureau of Land and Waste Management

enc: Approved Cost Agreement

cc: Technical File (with enclosure)
Crawford Environmental Consultants, 810 Dutch Square Blvd., Ste. 210, Columbia, SC 29210 (with enclosure)

Approved Cost Agreement 41167

Facility: 05986 GASTON FOOD MART

MINERRS

PO Number:

Task / Description	Categories	Item Description	Qty / Pct	Unit Price	Amount
04 MOB/DEMOB					
		B PERSONNEL	1.0000	290.00	290.00
10 SAMPLE COLLECTION					
		C WATER SUPPLY	1.0000	25.00	25.00
		D GROUNDWATER NO-PURGE	16.0000	35.00	560.00
11 ANALYSES					
	GW GROUNDWATER	A BTEX+NAPTH+MTBE	17.0000	100.00	1,700.00
19 RPT/PROJECT MNGT & COORDINATIO					
		PCT PERCENT	0.1500	2,575.00	386.25
			Total Amount		2,961.25

UNDERGROUND STORAGE TANK (UST) OWNER/OPERATOR LEAD INFORMATION SHEET

1. CONTRACTOR OF CHOICE

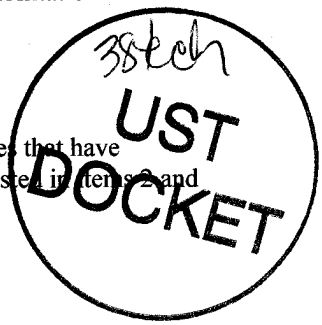
05986

As the UST Owner/Operator of UST Permit # ~~05980~~1 would like to use the contractor or person(s)' listed below and request that they represent me for:

☑ Tier 1
All future assessment scopes.

Name of Contractor/Person(s) **Crawford Environmental**
Address **810 Dutch Square Blvd. Suite 210**
Columbia, S.C. 29210
Telephone Number **803-312-5917**

Note: After September. 20, 1997, rehabilitation activities must be performed by a SC Certified Site Rehabilitation Contractor.



*Indicate if the person listed is your own employee

**If you would like the contractor to perform all future assessment activities at this and or other UST sites that have confirmed releases, please provide a list of all sites on your letterhead and provide the information requested in items 2 and 3 below within the context of the letter.

2. FINANCIAL OR FAMILIAL RELATIONSHIP

Does a financial or familial relationship, as defined below exist between you and the contractor/person that you listed above?

___ Yes ☑ No (Please initial)

Financial Relationship: A connection or association through a material interest of sources of income which exceed five percent of annual gross income from a business entity.

Familial Relationship: A connection or association by family or relatives, in which a family member or relative has a material interest. Family or relatives include: father, mother, son, daughter, brother, sister, uncle, aunt, first cousin, nephew, niece, husband, wife, father-in-law, mother-in-law, son-in-law, daughter-in-law, stepfather, stepmother, stepson, stepdaughter, stepbrother, stepsister, half brother, half sister, grandparent, grandchild, great grandchild, step grandparent, step great grandparent, step grandchild, step great grandchild, or fiancé.

3. PAYMENT

The first $25,000.00 in eligible site rehabilitation costs will be applied against the applicable SUPERB deductible, upon submittal of the cancelled check (front and back) or a notorized statement from the contractor verifying payment.

For eligible costs exceeding the $25,000.00 deductible, you can pay the contractor and, upon the submittal of the canceled check (front and back) or a notorized statement from the contractor verifying payment, be compensated from the SUPURB Account, or have payment issued directly from the SUPERB Account to the contractor. (Check one)

___ For eligible costs exceeding the deductible, I request that payment be made to me after I have paid the contractor.

☑ For eligible costs exceeding the deductible, I request that payment be made directly to the contractor.

(Note: all costs must receive prior financial approval from the Department regardless of payment option)

Underground Storage Tank Owner/Operator Signature Frank Shumpert

Date 11-29-10

Midlands Environmental Consultants, Inc.

August 10, 2009

Mr. Read S. Miner, P.G., Hydrogeologist
Southwestern 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 and Chemical Analysis
Gaston Food Mart
105 North Main Street
Gaston, South Carolina
SCDHEC Site ID# 05986, CA # 36509
MECI Project Number 09-2341

Dear Mr. Miner,

On behalf of Mr. D. F. Shumpert, Midlands Environmental Consultants Inc. (MECI) is pleased to submit the attached Report of Assessment Activities for the referenced site. This report describes assessment activities conducted at the site in general accordance with South Carolina Department of Health and Environmental Control (SCDHEC) guidelines.

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.

John C. Bryant
Staff Geologist

William C. McClary, P.G.
Senior Geologist

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

TABLE OF CONTENTS

1.0 PROJECT INFORMATION

The subject site (Gaston Food Mart) is located at 105 North Main Street in Gaston, Lexington County, South Carolina (see Figure 1). One building is present on the subject site. The site is currently utilized as a gas service station. Asphalt predominately covers the majority of the property with several concrete pads located in the eastern portion of the property. A release of petroleum product was reported in November of 1991. Previous assessment activities have been conducted to determine the extent and severity of contamination emanating from the subject site.

Previously, two 5,000 gallon gasoline UST's, one 4,000 gallon gasoline UST, two 3,000 gallon gasoline UST's, and one 550 gallon gasoline UST were maintained at the subject site. These UST's were removed from the ground in November of 1991. The subject site currently maintains two 8,000 gallon gasoline UST's and one 10,000 gallon gasoline UST.

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

2.0 MONITORING WELL SAMPLING AND CHEMICAL ANALYSES

On July 23, 2009, monitoring wells MW-1, MW1A, RMW-3, RMW-5, MW-6 through MW-16, MW-16R, MW-19, RMW-20, MW-22 through MW-25, and DW-1 were sampled. Monitoring wells MW-1, MW-1A, RMW-3, MW-6 through MW-12, MW-14 through MW-16, MW-16R, MW-19, RMW-20, and MW-22 through MW-25 and DW-1 bracketed the water table and were not purged prior to sampling. Monitoring wells RMW-5 and MW-13 were purged by bailing at least three well volumes of water from each well or until all available water had been evacuated, whichever occurred first. Field measurements of pH, conductivity, dissolved oxygen, and water temperature were obtained before, during and after the well purging process. Monitoring wells MW-17R, MW-17RR, MW-21, MW-26, and DW-2 were determined to be dry at time of sampling. Monitoring wells MW-8, MW-22, and DW-1 contained insufficient water for field measurements. Table 1 presents the results of the field measurements obtained. The groundwater samples obtained were sent to Pace Analytical Services, Inc. of Huntersville, NC (SCDHEC Laboratory Certification #99006) for analysis.

Groundwater samples from monitoring wells MW-1, MW1A, RMW-3, RMW-5, MW6 through MW-16, MW-16R, MW-19, RMW-20, MW-22 through MW-25, and DW-1 were analyzed for volatile

organic compounds including BTEX, naphthalene, methyl-tertiary butyl ether, 1,2 dichloroethane, 8 oxygenates (EPA Method 8260B) and ethylene dibromide (EPA Method 8011). The results of the laboratory analyses are discussed in Section 3.1, summarized in Table 2 and presented in the Appendix.

3.0 TEST RESULTS AND EVALUATION

The following sections discuss groundwater test results for the subject site.

3.1 GROUNDWATER ANALYTICAL RESULTS

Groundwater samples obtained from the monitoring wells were analyzed for dissolved phase petroleum constituents. The analytical results indicate petroleum impact to the local groundwater with the highest concentrations detected in the area northeast of the former UST basin. The analytical results indicate total BTEX concentrations range from below detection limits to 55,630 ug/l in monitoring well MW-10. The analytical results indicate MTBE concentrations range from levels below detection limits (BDL) to 21,500 ug/l in monitoring well MW-10. Results of the analyses for each monitoring well and specific parameters are listed on Table 2 and the detection limit for each parameter is provided in the laboratory reports (Appendix).

4.0 ASSESSMENT SUMMARY

Groundwater elevation data for the July 23, 2009, gauging event was plotted, and points of equal elevation were interpolated between the monitoring wells. A groundwater contour map of the surficial aquifer was thus prepared and is presented on Figure 3. The analytical results indicate total BTEX concentrations range from below detection limits (BDL) to 55,630 ug/l in monitoring well MW-10. The analytical results indicate MTBE concentrations range from levels below detection limits (BDL) to 21,500 ug/l in monitoring well MW-10. Figure 4 depicts graphically the concentrations of Total BTEX (indicator for plume migration) dissolved in the groundwater at the site. Figure 5 depicts graphically the concentrations of MTBE in the groundwater at the site. Concentrations of chemicals of concern have generally decreased since the AFVR events were performed. It is MECI's opinion that additional AFVR events be performed on monitoring wells RMW-3, MW-10 and MW-25 to further reduce dissolved concentrations of chemicals of concern.

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. The general subsurface conditions utilized in our evaluation have been based on interpretation of subsurface data between borings. Contents of this report are intended for the sole use by Mr. D.F. Shumpert and the South Carolina Department of Health and Environmental Control, 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
(PAGE 1 OF 2)
FIELD PARAMETERS
GASTON FOOD MART
GASTON, SOUTH CAROLINA
MECI PROJECT NUMBER 09-2341
SCDHEC SITE ID NUMBER 05986

Well Number	Sample Date	CO_2 (mg/l)	Dissolved Oxygen (mg/l)	Temperature (^{0} Celsius)	pH (Initial)	pH (Final)	Conductivity (Initial)	Conductivity (Final)	Screened Interval (feet)	Depth to Product (feet)	Depth to Water (feet)	Product Thickness (feet)	Well-head Elevation	Groundwater Elevation
MW-1	9/11/2007	115	0.91	24.4	4.61	NT	57.7	NT	25-40	---	35.59	---	104.52	68.93
	5/6/2008	110	3.14	24.3	5.83	NT	68.2	NT		---	36.50	---	104.52	68.02
	7/23/2009	90	3.71	24.1	5.03	NT	62.8	NT			33.60		104.52	70.92
MW-1A	5/6/2008	100	0.96	22.7	6.50	NT	183.0	NT	24-44	---	24.85	---	104.07	79.22
	7/23/2009	60	2.10	23.3	5.64	NT	79.8	NT			25.12		104.07	78.95
RMW-3	9/11/2007	185	0.57	23.6	5.62	NT	90.1	NT	30-40	---	34.62	---	100.61	65.99
	5/6/2008	185	0.67	23.5	6.21	NT	105.0	NT		---	34.91	---	100.61	65.70
	9/11/2008	105	1.13	23.3	5.56	NT	78.3	NT		---	35.31		100.61	65.30
	7/23/2009	140	0.52	24.1	5.38	NT	99.2	NT			34.80		100.61	65.81
RMW-5	9/11/2007	DRY	DRY	DRY	DRY	DRY	DRY	DRY	10-20	---	DRY	---	93.57	DRY
	5/6/2008	35	4.26	18.6	6.85	NT	26.2	NT		---	8.75	---	93.57	84.82
	7/23/2009	40	3.93	23.2	4.95	NT	31.4	NT			7.32		93.57	86.25
MW-6	9/11/2007	FP	FP	FP	FP	FP	FP	FP	22-42	35.66	35.69	0.03	103.95	68.29
	5/6/2008	FP	FP	FP	FP	FP	FP	FP		34.52	34.66	0.14	103.95	69.41
	9/11/2008	135	1.17	23.2	5.64	NT	45.0	NT		---	34.86	---	103.95	69.09
	7/23/2009	95	0.76	25.1	5.47	NT	4.19	NT			34.49		103.95	69.46
MW-7	9/11/2007	NL	NL	NL	NL	NL	NL	NL	22-42	---	NL	---	104.44	NL
	5/6/2008	15	5.03	23.3	7.16	NT	27.9	NT		---	36.62	---	104.44	67.82
	7/23/2009	40	4.76	23.8	5.41	NT	71.7	NT			36.36		104.44	68.08
MW-8	9/11/2007	NT	NT	NT	NT	NT	NT	NT	20-40	---	39.34	---	97.72	58.38
	5/6/2008	INS	INS	INS	INS	INS	INS	INS		---	39.30	---	97.72	58.42
	9/11/2008	INS	INS	INS	INS	INS	INS	INS		---	39.34	---	97.72	58.38
	7/23/2009	INS	INS	INS	INS	INS	INS	INS			39.45		97.72	58.27
MW-9	9/11/2007	150	0.38	22.8	5.11	NT	58.5	NT	24-44	---	35.47	---	98.87	63.40
	5/6/2008	NT	0.97	23.5	6.78	NT	188.4	NT		---	41.09	---	98.87	57.78
	9/11/2008	75	2.03	22.9	6.83	NT	157.7	NT		---	41.50	---	98.87	57.37
	7/23/2009	120	0.96	23.3	5.41	NT	66.7	NT			34.65		98.87	64.22
MW-10	9/11/2007	195	0.51	23.5	5.72	NT	104.9	NT	24-44	---	35.25	---	102.57	67.32
	5/6/2008	165	0.77	23.4	6.44	NT	151.4	NT		---	35.15	---	102.57	67.42
	9/11/2008	100	1.08	23.1	6.03	NT	135.1	NT		---	35.25	---	102.57	67.32
	7/23/2009	140	0.58	24.0	5.55	NT	102.2	NT			34.80		102.57	67.77
MW-11	9/11/2007	75	0.64	23.7	5.51	NT	35.8	NT	22-42	---	27.47	---	104.32	76.85
	5/6/2008	50	0.74	22.8	6.65	NT	85.5	NT		---	25.87	---	104.32	78.45
	7/23/2009	50	0.59	24.2	5.51	NT	77.3	NT			24.80		104.32	79.52
MW-12	9/11/2007	25	0.88	20.7	5.67	NT	38.8	NT	30-50	---	35.16	---	93.93	58.77
	5/6/2008	35	1.08	20.0	7.18	NT	71.0	NT		---	33.25	---	93.93	60.68
	7/23/2009	30	4.21	20.6	5.41	NT	54.7	NT			33.32		93.93	60.61
MW-13	9/11/2007	70	1.28	24.1	4.45	NT	48.6	NT	25-35	---	24.72	---	104.77	80.05
	5/6/2008	55	4.18	23.3	6.25	NT	72.0	NT		---	23.03	---	104.77	81.74
	7/23/2009	50	4.58	24.1	4.84	4.72	47.9	46.7			22.70		104.77	82.07
MW-14	5/6/2008	45	3.96	21.5	6.63	NT	119.7	NT	35-45	---	40.51	---	103.69	63.18
	7/23/2009	45	4.35	22.2	4.51	NT	149.5	NT			41.23		103.69	62.46
MW-15	9/11/2007	100	0.39	21.1	5.12	NT	43.7	NT	35-45	---	38.40	---	103.33	64.93
	5/6/2008	20	3.10	20.3	6.87	NT	37.9	NT		---	35.90	---	103.33	67.43
	7/23/2009	35	2.90	21.5	4.32	NT	34.6	NT			35.05		103.33	68.28

Notes:

1. mg/l = milligrams per liter.
2. NT = Not Tested
3. NL = Well not located during sampling.
4. FP = Free Phase Product encountered during sampling
5. Groundwater depths were measured from the top of the PVC riser pipe.
6. Groundwater levels measured on 7/23/09.
7. Dissolved oxygen, dissolved carbon dioxide, initial pH, initial conductivity, and temperature measurements obtained 7/23/09
8. Groundwater Elevation for MW-6 corrected for the presence of Free Phase Product based on a specific Gravity of Fuel of 0.85.
9. INS = Insufficient water for field measurements, only samples were taken.
10. DRY = Well was dry at the time of sampling.

TABLE 1
(PAGE 2 OF 2)
FIELD PARAMETERS
GASTON FOOD MART
GASTON, SOUTH CAROLINA
MECI PROJECT NUMBER 09-2341
SCDHEC SITE ID NUMBER 05986

Well Number	Sample Date	CO_2 (mg/l)	Dissolved Oxygen (mg/l)	Temperature (^{0} Celsius)	pH (Initial)	pH (Final)	Conductivity (Initial)	Conductivity (Final)	Screened Interval (feet)	Depth to Product (feet)	Depth to Water (feet)	Product Thickness (feet)	Well-head Elevation	Groundwater Elevation
MW-16	9/11/2007	80	0.24	21.3	5.72	NT	49.2	NT	31-41	---	35.12	---	106.43	71.31
	5/6/2008	NT	NT	NT	NT	NT	NT	NT		---	NT	---	106.43	NT
	7/23/2009	35	5.68	20.9	4.51	NT	37.2	NT			32.34		106.43	74.09
MW-16R	5/6/2008	200+	0.76	20.2	8.43	6.95	49.6	37.1	30-45	---	35.74	---	106.29	70.55
	7/23/2009	30	4.17	21.6	6.19	NT	40.8	NT			35.42		106.29	70.87
MW-17R	5/6/2008	DRY	DRY	DRY	DRY	DRY	DRY	DRY	33-48	---	DRY	---	98.22	DRY
	7/23/2009	DRY	DRY	DRY	DRY	DRY	DRY	DRY			DRY		98.22	DRY
MW-17RR	5/6/2008	DRY	DRY	DRY	DRY	DRY	DRY	DRY	45-75	---	DRY	---	98.55	DRY
	7/23/2009	DRY	DRY	DRY	DRY	DRY	DRY	DRY			DRY		98.55	DRY
MW-19	9/11/2007	NL	NL	NL	NL	NL	NL	NL	51-61	---	NL	---	98.96	NL
	5/6/2008	20	3.31	20.7	7.01	NT	74.4	NT		---	54.48	---	98.96	44.48
	7/23/2009	60	1.92	22.0	4.84	NT	49.8	NT			54.47		98.96	44.49
RMW-20	9/11/2007	DRY	DRY	DRY	DRY	DRY	DRY	DRY	16-26	---	DRY	---	98.69	DRY
	5/6/2008	65	1.03	19.4	6.54	NT	43.8	NT		---	19.56	---	98.69	79.13
	7/23/2009	110	1.66	20.8	4.81	NT	37.4	NT			24.30		98.69	74.39
MW-21	9/11/2007	DRY	DRY	DRY	DRY	DRY	DRY	DRY	3-13	---	DRY	---	91.96	DRY
	5/6/2008	45	1.21	18.7	7.01	NT	49.9	NT		---	5.74	---	91.96	86.22
	7/23/2009	DRY	DRY	DRY	DRY	DRY	DRY	DRY			DRY		91.96	DRY
MW-22	9/11/2007	45	0.39	20.7	4.67	NT	36.7	NT	34-44	---	41.65	---	101.82	60.17
	5/6/2008	60	6.69	19.9	6.81	NT	46.5	NT		---	41.68	---	101.82	60.14
	7/23/2009	INS	INS	INS	INS	INS	INS	INS			41.18		101.82	60.64
MW-23	9/11/2007	55	0.60	20.8	4.91	4.39	71.4	68.0	33-43	---	36.62	---	104.47	67.85
	5/6/2008	35	1.14	20.4	6.55	NT	72.2	NT		---	35.50	---	104.47	68.97
	7/23/2009	30	4.65	21.2	3.99	NT	73.0	NT			34.88		104.47	69.59
MW-24	5/6/2008	65	1.45	22.1	6.45	6.55	63.1	150.5	29-44	---	37.47	---	103.39	65.92
	9/11/2008	115	2.49	22.5	6.33	NT	35.5	NT		---	37.43	---	103.39	65.96
	7/23/2009	45	1.03	23.6	5.00	NT	31.1	NT			37.30		103.39	66.09
MW-25	5/6/2008	DRY	DRY	DRY	DRY	DRY	DRY	DRY	40-60	---	DRY	---	102.18	DRY
	9/11/2008	INS	INS	INS	INS	INS	INS	INS		---	58.05	---	102.18	44.13
	7/23/2009	140	0.61	24.1	5.94	NT	96.5	NT			54.30		102.18	47.88
MW-26	5/6/2008	DRY	DRY	DRY	DRY	DRY	DRY	DRY	45-75	---	DRY	---	91.81	DRY
	9/11/2008	DRY	DRY	DRY	DRY	DRY	DRY	DRY		---	DRY	---	91.81	DRY
	7/23/2009	DRY	DRY	DRY	DRY	DRY	DRY	DRY			DRY		91.81	DRY
DW-1	9/11/2007	DRY	DRY	DRY	DRY	DRY	DRY	DRY	40-45	---	DRY	---	104.79	DRY
	5/6/2008	INS	INS	INS	INS	INS	INS	INS			52.81	---	104.79	51.98
	7/23/2009	INS	INS	INS	INS	INS	INS	INS			51.56		104.79	53.23
DW-2	9/11/2007	NT	NT	NT	NT	NT	NT	NT	50-55	---	55.12	---	103.32	48.20
	5/6/2008	INS	INS	INS	INS	INS	INS	INS		---	54.75	---	103.32	48.57
	7/23/2009	DRY	DRY	DRY	DRY	DRY	DRY	DRY			DRY		103.32	DRY

Notes:

1. mg/l = milligrams per liter.
2. NT = Not Tested
3. NL = Well not located during sampling.
4. FP = Free Phase Product encountered during sampling
5. Groundwater depths were measured from the top of the PVC riser pipe.
6. Groundwater levels measured on 7/23/09.
7. Dissolved oxygen, dissolved carbon dioxide, initial pH, initial conductivity, and temperature measurements obtained 7/23/09.
8. Groundwater Elevation for MW-6 corrected for the presence of Free Phase Product based on a specific Gravity of Fuel of 0.85.
9. INS = Insufficient water for field measurements, only samples were taken.
10. DRY = Well was dry at the time of sampling.

TABLE 2
(PAGE 1 0F 2)
GROUNDWATER ANALYTICAL RESULTS
GASTON FOOD MART
GASTON, SOUTH CAROLINA
MECI PROJECT NUMBER 09-2341
SCDHEC SITE ID NUMBER 05986

Well Number	Sample Date	Benzene (µg/l)	Toluene (µg/l)	Ethylbenzene (µg/l)	Total Xylenes (µg/l)	Total BTEX (µg/l)	MTBE (µg/l)	EDB (µg/l)	1,2 DCA (µg/l)	Naphthalene (µg/l)
MW-1	9/11/07	<5.0	<5.0	<5.0	<10.0	BDL	<5.0	<0.020	<5.0	<5.0
	5/6/08	<5.0	<5.0	<5.0	<15.0	BDL	<5.0	<0.020	NT	<5.0
	7/23/09	<5.0	<5.0	<5.0	<10.0	BDL	<5.0	<0.019	<5.0	<5.0
MW-1A	5/6/08	**84.3**	**288**	**184**	**697**	**1,253.3**	<25.0	<0.020	NT	**52.3**
	7/23/09	**54.6**	**221**	**160**	**292**	**727.6**	<10.0	<0.019	<10.0	**37.4**
RMW-3	9/11/07	**7,940**	**18,600**	**2,720**	**14,070**	**43,330**	**550**	**13.9**	<500	**1,790**
	5/6/08	**8,760**	**18,900**	**2,630**	**14,300**	**44,590**	**1,150**	**16.3**	NT	**585**
	9/11/08	**6,470**	**17,100**	**2,200**	**11,100**	**36,870**	**691**	**16.4**	NT	**718**
	7/23/09	**2,860**	**11,600**	**1,700**	**8,830**	**24,990**	<500	**7.0**	<500	**514**
RMW-5	9/11/07	DRY	DRY	DRY	DRY	DRY	DRY	DRY	DRY	DRY
	5/6/08	<5.0	<5.0	<5.0	<15.0	BDL	<5.0	<0.020	NT	<5.0
	7/23/09	<5.0	<5.0	<5.0	<10.0	BDL	<5.0	<0.019	<5.0	<5.0
MW-6	9/11/07	FP	FP	FP	FP	FP	FP	FP	FP	FP
	5/6/08	FP	FP	FP	FP	FP	FP	FP	FP	FP
	9/11/08	**730**	**1,070**	**51.4**	**1,060**	**2,911.4**	<50.0	**11.9**	NT	**94.8**
	7/23/09	**529**	**234**	**11.8J**	**693**	**1,467.8**	<25.0	**7.0**	<25.0	**61.1**
MW-7	9/11/07	NT	NT	NT	NT	NT	NT	NT	NT	NT
	5/6/08	<5.0	<5.0	<5.0	<15.0	BDL	<5.0	<0.020	NT	<5.0
	7/23/09	<5.0	<5.0	<5.0	<10.0	BDL	<5.0	<0.019	<5.0	<5.0
MW-8	9/11/07	**145**	**356**	**24.5**	**1,087**	**1,612.5**	**12.0**	NT	<10.0	**36.9**
	5/6/08	**208**	**1,430**	**197**	**3,350**	**5,185**	<50.0	<0.020	NT	**106**
	9/11/08	**266**	**1,640**	**86.3**	**2,550**	**4,542.3**	<50.0	<0.020	NT	**547**
	7/23/09	**270**	**1,770**	**548**	**4,480**	**7,068**	**24.0J**	<0.019	<50.0	**120**
MW-9	9/11/07	**2,470**	**10,200**	**2,030**	**15,140**	**29,840**	**124**	**2.3**	<100	**612**
	5/6/08	**217**	**1,130**	**387**	**3,080**	**4,814**	<50.0	<0.020	NT	**246**
	9/11/08	**67.3**	**288**	**101**	**839**	**1,295.3**	**107**	**0.11**	NT	**64.2**
	7/23/09	**372**	**3,810**	**495**	**5,130**	**9,807**	**72.0**	**0.34**	<50.0	**203**
MW-10	9/11/07	**9,030**	**16,900**	**2,650**	**12,570**	**41,150**	**12,500**	**27.4**	<500	<500
	5/6/08	**5,500**	**9,880**	**1,600**	**10,300**	**27,280**	**11,500**	**13.0**	NT	**748**
	9/11/08	**6,300**	**10,800**	**1,590**	**7,270**	**25,960**	**16,400**	**20.7**	NT	<500
	7/23/09	**15,000**	**25,600**	**2,330**	**12,700**	**55,630**	**21,500**	**31.5**	<500	**591**
MW-11	9/11/07	<5.0	<5.0	**8.5**	<10.0	**8.5**	<5.0	<0.020	<5.0	**8.3**
	5/6/08	<5.0	<5.0	**26.8**	<15.0	**26.8**	<5.0	<0.020	NT	**9.8**
	7/23/09	<5.0	<5.0	**25.0**	**12.9**	**37.9**	<5.0	<0.019	<5.0	**10.2**
MW-12	9/11/07	<5.0	<5.0	<5.0	<10.0	BDL	<5.0	<0.020	<5.0	<5.0
	5/6/08	<5.0	<5.0	<5.0	<15.0	BDL	<5.0	<0.020	NT	<5.0
	7/23/09	<5.0	<5.0	<5.0	<10.0	BDL	<5.0	<0.019	<5.0	<5.0
MW-13	9/11/07	<5.0	<5.0	<5.0	<10.0	BDL	<5.0	<0.020	<5.0	<5.0
	5/6/08	<5.0	<5.0	<5.0	<15.0	BDL	<5.0	<0.020	NT	<5.0
	7/23/09	<5.0	<5.0	<5.0	<10.0	BDL	<5.0	**0.027**	<5.0	<5.0
MW-14	9/11/07	NT	NT	NT	NT	NT	NT	NT	NT	NT
	5/6/08	<5.0	<5.0	<5.0	<15.0	BDL	<5.0	<0.020	NT	<5.0
	7/23/09	<5.0	<5.0	<5.0	<10.0	BDL	<5.0	<0.019	<5.0	<5.0
MW-15	9/11/07	**21.8**	<5.0	**13.6**	**128.1**	**163.5**	<5.0	**0.37**	<5.0	**5.1**
	5/6/08	<5.0	<5.0	<5.0	**16.2**	**16.2**	<5.0	**0.16**	NT	<5.0
	7/23/09	**10.8**	**2.3J**	**14.4**	**76.7**	**104.2**	<5.0	**0.21**	<5.0	**3.3J**

Notes:
1. BDL = Below Practical Quantitative Limits
2. µg/l = micrograms per liter
3. mg/l = milligrams per liter
4. MTBE = Methyl-Tertiary-Butyl Ether
5. EDB = Ethylene Dibromide
6. FP= Not Sampled Due to Free Phase Petroleum Product
7. NT = Not Tested

TABLE 2
(PAGE 2 0F 2)
GROUNDWATER ANALYTICAL RESULTS
GASTON FOOD MART
GASTON, SOUTH CAROLINA
MECI PROJECT NUMBER 09-2341
SCDHEC SITE ID NUMBER 05986

Well Number	Sample Date	Benzene (µg/l)	Toluene (µg/l)	Ethylbenzene (µg/l)	Total Xylenes (µg/l)	Total BTEX (µg/l)	MTBE (µg/l)	EDB (µg/l)	1,2 DCA (µg/l)	Naphthalene (µg/l)
MW-16	09/11/07	DRY	DRY	DRY	DRY	DRY	DRY	DRY	DRY	DRY
	07/23/09	<5.0	<5.0	<5.0	<10.0	BDL	<5.0	<0.019	<5.0	<5.0
MW-16R	05/06/08	<5.0	<5.0	<5.0	<15.0	BDL	<5.0	<0.020	NT	<5.0
	07/23/09	<5.0	<5.0	<5.0	<10.0	BDL	<5.0	<0.020	<5.0	<5.0
MW-17R	05/06/08	DRY	DRY	DRY	DRY	DRY	DRY	DRY	DRY	DRY
	07/23/09	DRY	DRY	DRY	DRY	DRY	DRY	DRY	DRY	DRY
MW-17RR	05/06/08	DRY	DRY	DRY	DRY	DRY	DRY	DRY	DRY	DRY
	07/23/09	DRY	DRY	DRY	DRY	DRY	DRY	DRY	DRY	DRY
MW-19	09/11/07	NT	NT	NT	NT	NT	NT	NT	NT	NT
	05/06/08	<5.0	<5.0	<5.0	<15.0	BDL	<5.0	<0.020	NT	<5.0
	07/23/09	<5.0	<5.0	**2.9J**	**91.9**	**94.8**	<5.0	<0.019	<5.0	**12.3**
RMW-20	09/11/07	DRY	DRY	DRY	DRY	DRY	DRY	DRY	DRY	DRY
	05/06/08	<5.0	<5.0	<5.0	<15.0	BDL	<5.0	<0.020	NT	<5.0
	07/23/09	<5.0	<5.0	<5.0	<10.0	BDL	<5.0	<0.019	<5.0	<5.0
MW-21	09/11/07	DRY	DRY	DRY	DRY	DRY	DRY	DRY	DRY	DRY
	05/06/08	<5.0	<5.0	<5.0	<15.0	BDL	<5.0	<0.020	NT	<5.0
	07/23/09	DRY	DRY	DRY	DRY	DRY	DRY	DRY	DRY	DRY
MW-22	09/11/07	<5.0	<5.0	<5.0	<10.0	BDL	<5.0	<0.020	<5.0	<5.0
	05/06/08	<5.0	<5.0	<5.0	<15.0	BDL	<5.0	<0.020	NT	<5.0
	07/23/09	<5.0	<5.0	<5.0	<10.0	BDL	<5.0	<0.019	<5.0	<5.0
MW-23	09/11/07	<5.0	<5.0	<5.0	<10.0	BDL	<5.0	<0.020	<5.0	<5.0
	05/06/08	**35.6**	<5.0	<5.0	**22.8**	**58.4**	<5.0	**0.63**	NT	<5.0
	07/23/09	<5.0	<5.0	<5.0	<10.0	BDL	<5.0	<0.019	<5.0	<5.0
MW-24	05/06/08	**620**	**1,790**	**1,000**	**4,390**	**7,800**	<100	**2.8**	NT	**234**
	09/11/08	**515**	**1,480**	**356**	**1,360**	**3,711**	<50.0	**1.2**	NT	**110**
	07/23/09	**213**	**222**	**178**	**972**	**1,585**	<10.0	**0.72**	<10.0	**116**
MW-25	05/06/08	DRY	DRY	DRY	DRY	DRY	DRY	DRY	DRY	DRY
	09/11/08	**1,560**	**3,510**	**360**	**2,170**	**7,600**	**17,500**	**11.1**	NT	**312**
	07/23/09	**7,080**	**13,300**	**2,100**	**10,600**	**33,080**	**19,800**	**16.6**	**73.0J**	**552**
MW-26	05/06/08	DRY	DRY	DRY	DRY	DRY	DRY	DRY	DRY	DRY
	09/11/08	DRY	DRY	DRY	DRY	DRY	DRY	DRY	DRY	DRY
	07/23/09	DRY	DRY	DRY	DRY	DRY	DRY	DRY	DRY	DRY
DW-1	09/11/07	DRY	DRY	DRY	DRY	DRY	DRY	DRY	DRY	DRY
	05/06/08	<5.0	<5.0	<5.0	<15.0	BDL	<5.0	NT	NT	**32.3**
	07/23/09	<5.0	<5.0	<5.0	<10.0	BDL	<5.0	<0.019	<5.0	<5.0
DW-2	09/11/07	<5.0	<5.0	<5.0	<10.0	BDL	<5.0	NT	NT	<5.0
	05/06/08	<5.0	<5.0	<5.0	<15.0	BDL	<5.0	<0.020	NT	<5.0
	07/23/09	DRY	DRY	DRY	DRY	DRY	DRY	DRY	DRY	DRY
SW-3	09/11/07	<5.0	<5.0	<5.0	<10.0	BDL	<5.0	<0.020	NT	<5.0

Notes: Notes:

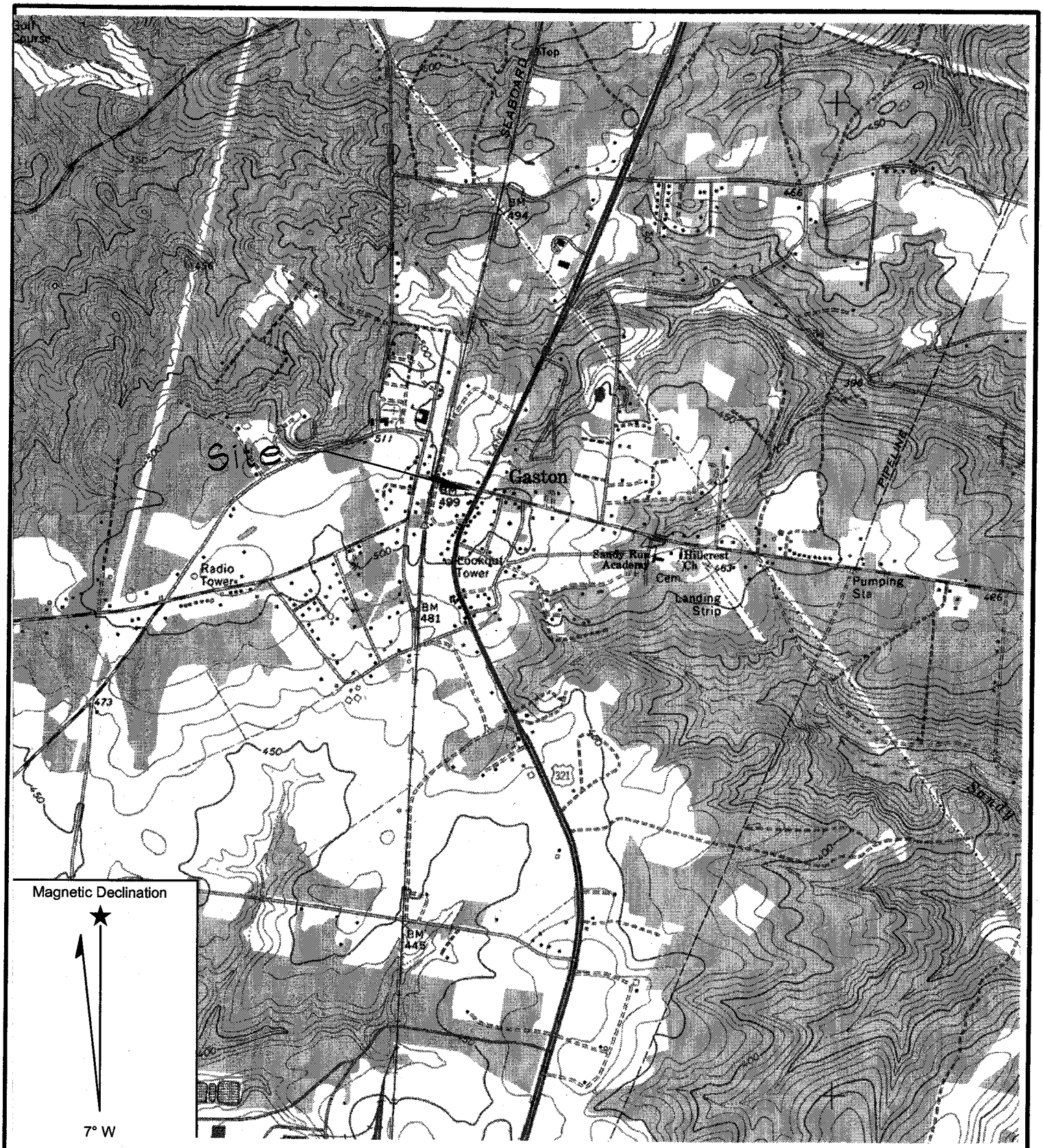
1. BDL = Below Practical Quantitative Limits
2. µg/l = micrograms per liter
3. mg/l = milligrams per liter
4. MTBE = Methyl-Tertiary-Butyl Ether
5. EDB = Ethylene Dibromide
6. FP= Not Sampled Due to Free Phase Petroleum Product
7. NT = Not Tested

TABLE 3
GROUNDWATER ANALYTICAL RESULTS (OXYGENATES)
GASTON FOOD MART
GASTON, SOUTH CAROLINA
MECI PROJECT NUMBER 09-2341
SCDHEC SITE ID NUMBER 05986

Well Number	Sample Date	tert-Amyl alcohol (µg/l)	tert-Amylmethyl ether (µg/l)	3,3-Dimethyl-1-butanol (µg/l)	tert-Butyl Alcohol (µg/l)	tert-Butyl Formate (µg/l)	Diisopropyl ether (µg/l)	Ethanol (µg/l)	Ethyl tert-butyl ether (µg/l)
MW-1	5/6/08	<100	<10.0	<100	<100	<50.0	<5.0	<200	<10.0
	7/23/09	<100	<10.0	<100	<100	<50.0	<5.0	**419**	<10.0
MW-1A	5/6/08	<500	<50.0	<500	<500	<250	<25.0	<1,000	<50.0
	7/23/09	<200	<20.0	<200	<200	<100	<10.0	<400	<20.0
RMW-3	5/6/08	<5,000	<500	<5,000	<5,000	**2,840**	<250	<10,000	<500
	7/23/09	<10,000	<1,000	<10,000	<10,000	<5,000	<500	<20,000	<1,000
RMW-5	5/6/08	<100	<10.0	<100	<100	<50.0	<5.0	<200	<10.0
	7/23/09	<100	<10.0	<100	<100	<50.0	<5.0	<200	<10.0
MW-6	5/6/08	FP	FP	FP	FP	FP	FP	FP	FP
	7/23/09	**486J**	<50.0	<500	<500	<250	<25.0	<1,000	<50.0
MW-7	5/6/08	<100	<10.0	<100	<100	<50.0	<5.0	<200	<10.0
	7/23/09	<100	<10.0	<100	<100	<50.0	<5.0	<200	<10.0
MW-8	5/6/08	<1,000	<100	<1,000	<1,000	<500	<50.0	<2,000	<100
	7/23/09	<1,000	<100	<1,000	<1,000	<500	<50.0	<2,000	<100
MW-9	5/6/08	<1,000	<100	<1,000	<1,000	<500	<50.0	<2,000	<100
	7/23/09	<1,000	<100	<1,000	<1,000	<500	<50.0	<2,000	<100
MW-10	5/6/08	<5,000	<500	<5,000	<5,000	**4,170**	<250	<10,000	<500
	7/23/09	**10,900**	**658J**	<10,000	<10,000	<5,000	<500	<20,000	<1,000
MW-11	5/6/08	<100	<10.0	<100	<100	<50.0	<5.0	<200	<10.0
	7/23/09	<100	<10.0	<100	<100	<50.0	<5.0	<200	<10.0
MW-12	5/6/08	<100	<10.0	<100	<100	<50.0	<5.0	<200	<10.0
	7/23/09	<100	<10.0	<100	<100	<50.0	<5.0	<200	<10.0
MW-13	5/6/08	<100	<10.0	<100	<100	<50.0	<5.0	<200	<10.0
	7/23/09	<100	<10.0	<100	<100	<50.0	<5.0	<200	<10.0
MW-14	5/6/08	<100	<10.0	<100	<100	<50.0	<5.0	<200	<10.0
	7/23/09	<100	<10.0	<100	<100	<50.0	<5.0	<200	<10.0
MW-15	5/6/08	<100	<10.0	<100	<100	<50.0	<5.0	<200	<10.0
	7/23/09	<100	<10.0	<100	<100	<50.0	<5.0	<200	<10.0
MW-16	7/23/09	<100	<10.0	<100	<100	<50.0	<5.0	<200	<10.0
MW-16R	5/6/08	<100	<10.0	<100	<100	<50.0	<5.0	<200	<10.0
	7/23/09	<100	<10.0	<100	<100	<50.0	<5.0	<200	<10.0
MW-17R	7/23/09	DRY	DRY	DRY	DRY	DRY	DRY	DRY	DRY
MW-17RR	7/23/09	DRY	DRY	DRY	DRY	DRY	DRY	DRY	DRY
MW-19	5/6/08	<100	<10.0	<100	<100	<50.0	<5.0	<200	<10.0
	7/23/09	<100	<10.0	<100	<100	<50.0	<5.0	<200	<10.0
RMW-20	5/6/08	<100	<10.0	<100	<100	<50.0	<5.0	<200	<10.0
	7/23/09	<100	<10.0	<100	<100	<50.0	<5.0	<200	<10.0
MW-21	5/6/08	<100	<10.0	<100	<100	<50.0	<5.0	<200	<10.0
	7/23/09	DRY	DRY	DRY	DRY	DRY	DRY	DRY	DRY
MW-22	5/6/08	<100	<10.0	<100	<100	<50.0	<5.0	<200	<10.0
	7/23/09	<100	<10.0	<100	<100	<50.0	<5.0	<200	<10.0
MW-23	5/6/08	<100	<10.0	<100	<100	<50.0	<5.0	<200	<10.0
	7/23/09	<100	<10.0	<100	<100	<50.0	<5.0	<200	<10.0
MW-24	5/6/08	<2,000	<200	<2,000	<2,000	<1,000	<100	<4,000	<200
	7/23/09	**1,200**	<20.0	<200	<200	<100	<10.0	<400	<20.0
MW-25	7/23/09	**13,100**	<500	<5,000	<5,000	<2,500	<250	<10,000	<500
MW-26	7/23/09	DRY	DRY	DRY	DRY	DRY	DRY	DRY	DRY
DW-1	5/6/08	<100	<10.0	<100	<100	<50.0	<5.0	<200	<10.0
	7/23/09	<100	<10.0	<100	<100	<50.0	<5.0	<200	<10.0
DW-2	5/6/08	<100	<10.0	<100	<100	<50.0	<5.0	<200	<10.0
	7/23/09	DRY	DRY	DRY	DRY	DRY	DRY	DRY	DRY

Notes:
1. BDL = Below Practical Quantitative Limits
2. ug/l = micrograms per liter
3. FP = Free phase petroleum product detected

FIGURES



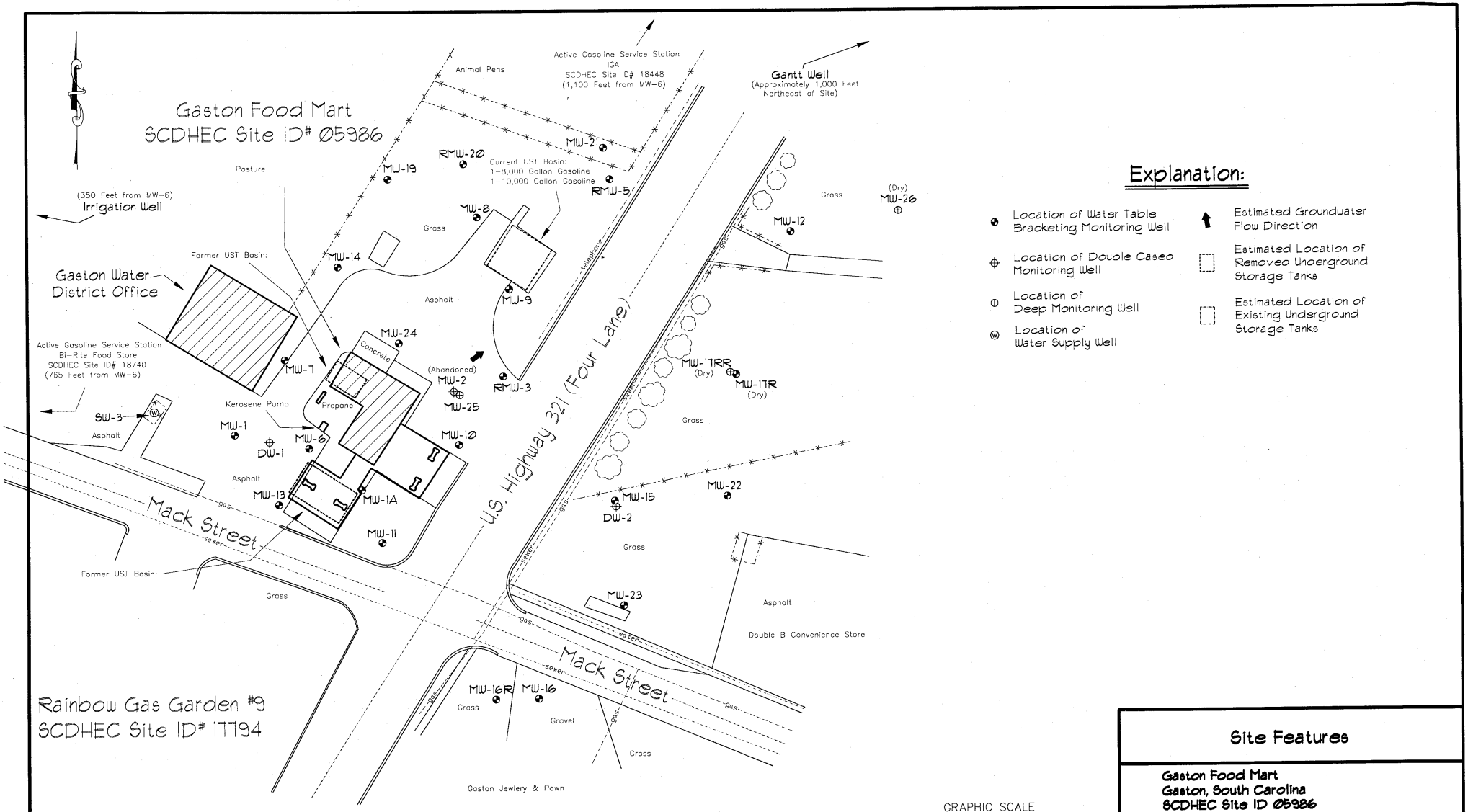
GRAPHIC SCALE

0 1000 2000 4000

1IN = 2000FT

Reference: Gaston, South Carolina
USGS 7.5 Min. Quad
Contour Interval = 10 Feet

Midlands Environmental Consultants, Inc.	Site Location
Gaston Food Mart Gaston, South Carolina SCDHEC Site ID# 05986	
Figure 1	MECI 09-2341



Explanation:

- Location of Water Table Bracketing Monitoring Well
- Location of Double Cased Monitoring Well
- Location of Deep Monitoring Well
- Location of Water Supply Well
- Estimated Groundwater Flow Direction
- Estimated Location of Removed Underground Storage Tanks
- Estimated Location of Existing Underground Storage Tanks

GRAPHIC SCALE

0 30 60 90 120

1IN = 60FT

ALL LOCATIONS ARE APPROXIMATE

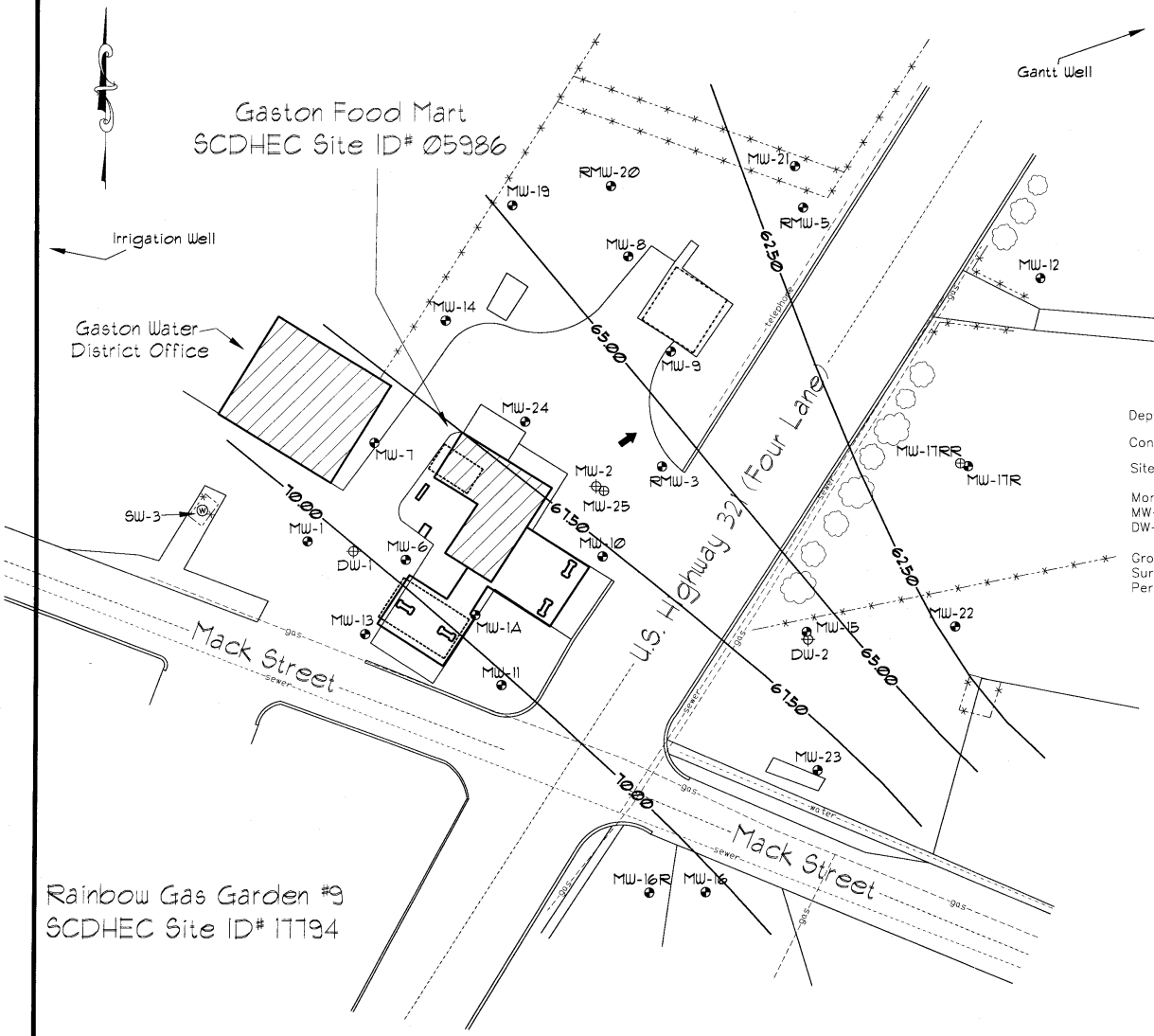
Drawing Based on MECI Field Notes, Tax Maps and a RLS Survey of the Site by Jay S. Joshi dated May 16, 2008.

Site Features

Gaston Food Mart
Gaston, South Carolina
SCDHEC Site ID 05986

Midlands Environmental Consultants, Inc.

JOB NO. 09-2341
DATE August 10, 2009
FIGURE 2



Explanation:

- Location of Water Table Bracketing Monitoring Well
- Location of Double Cased Deep Monitoring Well
- Location of Single Cased Deep Monitoring Well
- Estimated Groundwater Flow Direction
- Estimated Location of Existing Underground Storage Tanks
- Estimated Location of Removed Underground Storage Tanks
- Ground-Water Elevation Isopleth (feet)

Notes:

Depth to groundwater measured on July 23, 2009.

Contour Interval = 2.50 Feet

Site Datum Based on Assumed Spot Elevation.

Monitoring wells MW-1A, RMW-5, MW-8, MW-11, MW-13, MW-14, MW-15, MW-19, RMW-20, MW-25, and DW-1 not used in contouring.

Ground Water Contours Computer Generated using Surfer by Golden Graphics and Modified by MECI Personnel.

Groundwater Elevation Data

Well #	Depth to Water (feet)	Well Head Elevation	Groundwater Elevation
MW-1	33.60	104.52	70.92
MW-1A	25.12	104.07	78.95
RMW-3	34.80	100.61	65.81
RMW-5	7.32	93.57	86.25
MW-6	34.49	103.95	69.46
MW-7	36.36	104.44	68.08
MW-8	39.45	97.72	58.27
MW-9	34.65	98.87	64.22
MW-10	34.80	102.57	67.77
MW-11	24.80	104.32	79.52
MW-12	33.32	93.93	60.61
MW-13	22.70	104.77	82.07
MW-14	41.23	103.69	62.46
MW-15	35.05	103.33	68.28
MW-16	32.34	106.43	74.09
MW-16R	35.42	106.29	70.87
MW-17R	DRY	98.22	DRY
MW-17RR	DRY	98.55	DRY
MW-19	54.47	98.96	44.49
RMW-20	24.30	98.69	74.39
MW-21	DRY	91.96	DRY
MW-22	41.18	101.82	60.64
MW-23	34.88	104.47	69.59
MW-24	37.30	103.39	66.09
MW-25	54.30	102.18	47.88
MW-26	DRY	91.81	DRY
DW-1	51.56	104.79	53.23
DW-2	DRY	103.32	DRY

Drawing Based on MECI Field Notes, Tax Maps and a RLS Survey of the Site by Jay S. Joshi dated May 16, 2008.

GRAPHIC SCALE

0 30 60 90 120

1IN = 60FT

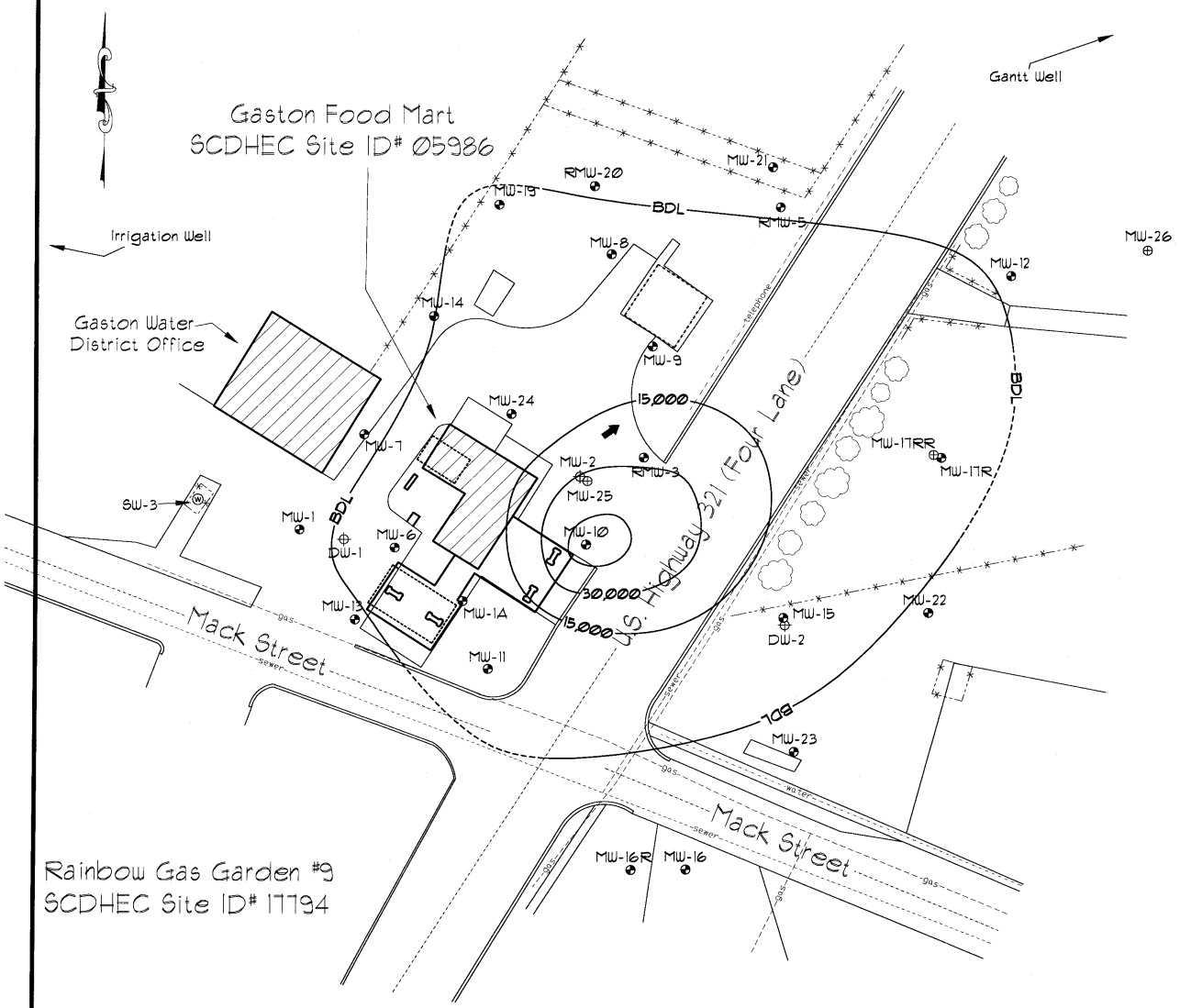
ALL LOCATIONS ARE APPROXIMATE

Groundwater Contour Map

Gaston Food Mart
Gaston, South Carolina
SCDHEC Site ID 05986

Midlands Environmental Consultants, Inc.

JOB NO. 09-2341
DATE August 10, 2009
FIGURE 3



Rainbow Gas Garden #9
SCDHEC Site ID# 17794

Drawing Based on MECI Field Notes, Tax Maps and a RLS Survey of the Site by Jay S. Joshi dated May 16, 2008.

Explanation:

- Location of Water Table Bracketing Monitoring Well
- Location of Double Cased Deep Monitoring Well
- Location of Single Cased Deep Monitoring Well
- Estimated Groundwater Flow Direction
- Estimated Location of Removed Underground Storage Tanks
- Estimated Location of Removed Underground Storage Tanks
- Total BTEX Concentration Isopleth (ug/l)

COC Concentration Data

Sample #	Benzene (ug/l)	Toluene (ug/l)	Ethylbenzene (ug/l)	Total Xylenes (ug/l)	Total BTEX (ug/l)	MTBE (ug/l)	Napthalene (ug/l)	EDB (ug/l)
MW-1	<5.0	<5.0	<5.0	<10.0	BDL	<5.0	<5.0	<0.019
MW-1A	54.6	221	160	292	727.6	<10.0	37.4	<0.019
RMW-3	2,860	11,600	1,700	8,830	24,990	<500	514	7.0
RMW-5	<5.0	<5.0	<5.0	<10.0	BDL	<5.0	<5.0	<0.019
MW-6	529	234	11.8J	693	1,467.8	<25.0	61.1	7.0
MW-7	<5.0	<5.0	<5.0	<10.0	BDL	<5.0	<5.0	<0.019
MW-8	270	1,770	548	4,480	7,068	24.0J	120	<0.019
MW-9	372	3,810	495	5,130	9,807	72.0	203	0.34
MW-10	15,000	25,600	2,330	12,700	55,630	21,500	591	31.5
MW-11	<5.0	<5.0	25.0	12.9	37.9	<5.0	10.2	<0.019
MW-12	<5.0	<5.0	<5.0	<10.0	BDL	<5.0	<5.0	<0.019
MW-13	<5.0	<5.0	<5.0	<10.0	BDL	<5.0	<5.0	0.027
MW-14	<5.0	<5.0	<5.0	<10.0	BDL	<5.0	<5.0	<0.019
MW-15	10.8	2.3J	14.4	76.7	104.2	<5.0	3.3J	0.21
MW-16	<5.0	<5.0	<5.0	<10.0	BDL	<5.0	<5.0	<0.019
MW-16R	<5.0	<5.0	<5.0	<10.0	BDL	<5.0	<5.0	<0.020
MW-17R	DRY	DRY	DRY	DRY	DRY	DRY	DRY	DRY
MW-17RR	DRY	DRY	DRY	DRY	DRY	DRY	DRY	DRY
MW-19	<5.0	<5.0	2.9J	91.9	94.8	<5.0	12.3	<0.019
RMW-20	<5.0	<5.0	<5.0	<10.0	BDL	<5.0	<5.0	<0.019
MW-21	DRY	DRY	DRY	DRY	DRY	DRY	DRY	DRY
MW-22	<5.0	<5.0	<5.0	<10.0	BDL	<5.0	<5.0	<0.019
MW-23	<5.0	<5.0	<5.0	<10.0	BDL	<5.0	<5.0	<0.019
MW-24	213	222	178	972	1,585	<10.0	116	0.72
MW-25	7,080	13,300	2,100	10,600	33,080	19,800	552	16.6
MW-26	DRY	DRY	DRY	DRY	DRY	DRY	DRY	DRY
DW-1	<5.0	<5.0	<5.0	<10.0	BDL	<5.0	<5.0	<0.019
DW-2	DRY	DRY	DRY	DRY	DRY	DRY	DRY	DRY

Notes:
- Groundwater samples collected on July 23, 2009.
- Contour interval = 15,000 ug/l
- DRY = Monitoring well dry at time of sampling
- BDL = Below Detection Limits
- "J" values used in total BTEX calculations.
- Contours Computer Generated using Surfer by Golden Graphics and Modified by MECI Personnel.

GRAPHIC SCALE
0 30 60 90 120
1IN = 60FT

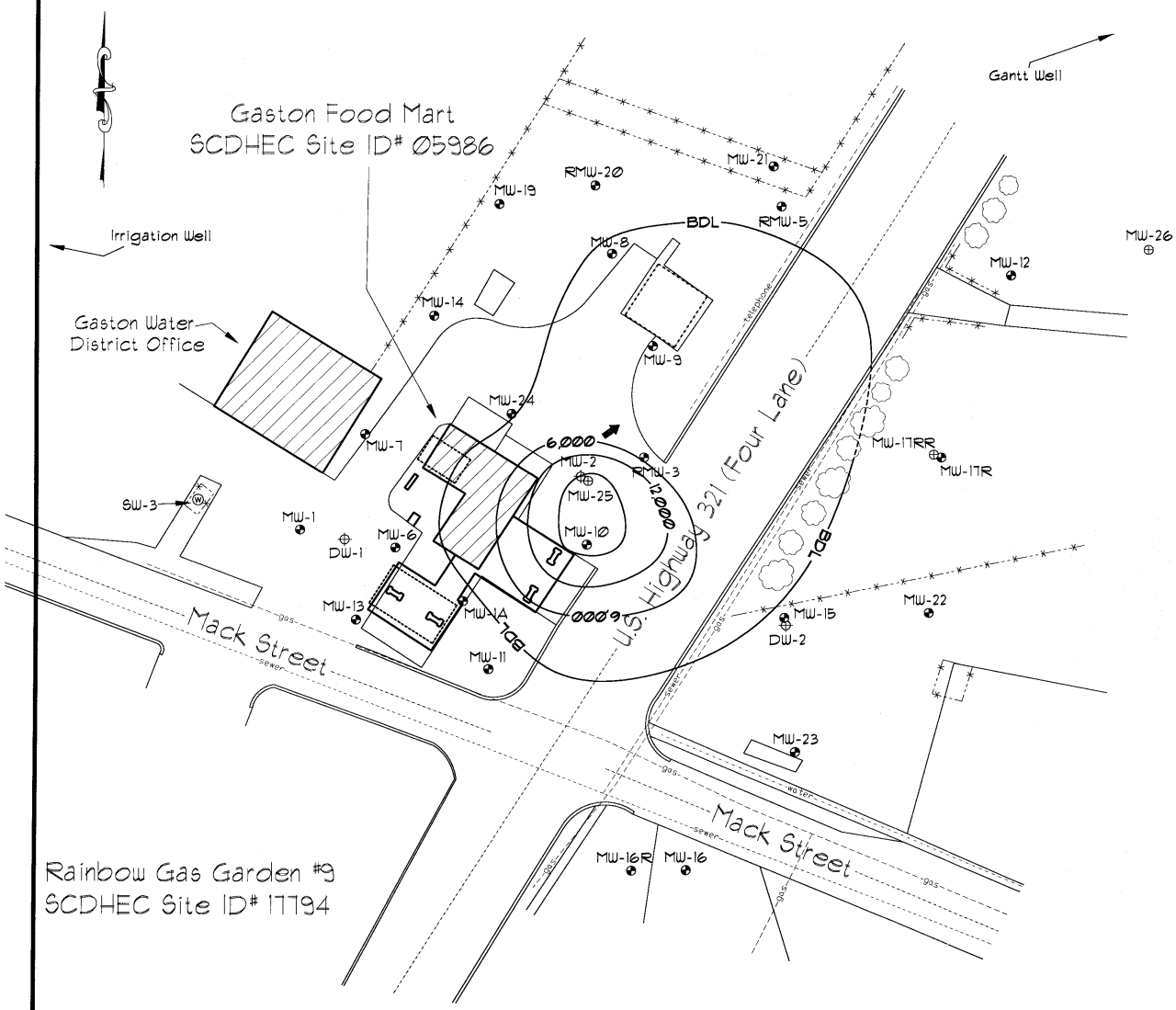
ALL LOCATIONS ARE APPROXIMATE

Total BTEX Isopleth Map

Gaston Food Mart
Gaston, South Carolina
SCDHEC Site ID 05986

Midlands Environmental Consultants, Inc.

JOB NO. 09-2341
DATE August 10, 2009
FIGURE 4



Rainbow Gas Garden #9
SCDHEC Site ID# 17794

Drawing Based on MECI Field Notes, Tax Maps and a RLS Survey of the Site by Jay S. Joshi dated May 16, 2008.

Explanation:

- Location of Water Table Bracketing Monitoring Well
- Location of Double Cased Deep Monitoring Well
- Location of Single Cased Deep Monitoring Well
- Estimated Groundwater Flow Direction
- Estimated Location of Removed Underground Storage Tanks
- Estimated Location of Removed Underground Storage Tanks
- MTBE Concentration Isopleth (ug/l)

COC Concentration Data

Sample #	Benzene (ug/l)	Toluene (ug/l)	Ethylbenzene (ug/l)	Total Xylenes (ug/l)	Total BTEX (ug/l)	MTBE (ug/l)	Napthalene (ug/l)	EDB (ug/l)
MW-1	<5.0	<5.0	<5.0	<10.0	BDL	<5.0	<5.0	<0.019
MW-1A	54.6	221	160	292	727.6	<10.0	37.4	<0.019
RMW-3	2,860	11,600	1,700	8,830	24,990	<500	514	7.0
RMW-5	<5.0	<5.0	<5.0	<10.0	BDL	<5.0	<5.0	<0.019
MW-6	529	234	11.8J	693	1,467.8	<25.0	61.1	7.0
MW-7	<5.0	<5.0	<5.0	<10.0	BDL	<5.0	<5.0	<0.019
MW-8	270	1,770	548	4,480	7,068	24.0J	120	<0.019
MW-9	372	3,810	495	5,130	9,807	72.0	203	0.34
MW-10	15,000	25,600	2,330	12,700	55,630	21,500	591	31.5
MW-11	<5.0	<5.0	25.0	12.9	37.9	<5.0	10.2	<0.019
MW-12	<5.0	<5.0	<5.0	<10.0	BDL	<5.0	<5.0	<0.019
MW-13	<5.0	<5.0	<5.0	<10.0	BDL	<5.0	<5.0	0.027
MW-14	<5.0	<5.0	<5.0	<10.0	BDL	<5.0	<5.0	<0.019
MW-15	10.8	2.3J	14.4	76.7	104.2	<5.0	3.3J	0.21
MW-16	<5.0	<5.0	<5.0	<10.0	BDL	<5.0	<5.0	<0.019
MW-16R	<5.0	<5.0	<5.0	<10.0	BDL	<5.0	<5.0	<0.020
MW-17R	DRY	DRY	DRY	DRY	DRY	DRY	DRY	DRY
MW-17RR	DRY	DRY	DRY	DRY	DRY	DRY	DRY	DRY
MW-19	<5.0	<5.0	2.9J	91.9	94.8	<5.0	12.3	<0.019
RMW-20	<5.0	<5.0	<5.0	<10.0	BDL	<5.0	<5.0	<0.019
MW-21	DRY	DRY	DRY	DRY	DRY	DRY	DRY	DRY
MW-22	<5.0	<5.0	<5.0	<10.0	BDL	<5.0	<5.0	<0.019
MW-23	<5.0	<5.0	<5.0	<10.0	BDL	<5.0	<5.0	<0.019
MW-24	213	222	178	972	1,585	<10.0	116	0.72
MW-25	7,080	13,300	2,100	10,600	33,080	19,800	552	16.6
MW-26	DRY	DRY	DRY	DRY	DRY	DRY	DRY	DRY
DW-1	<5.0	<5.0	<5.0	<10.0	BDL	<5.0	<5.0	<0.019
DW-2	DRY	DRY	DRY	DRY	DRY	DRY	DRY	DRY

Notes:
- Groundwater samples collected on July 23, 2009.
- Contour Interval = 15,000 ug/l
- DRY = Monitoring well dry at time of sampling
- BDL = Below Detection Limits
- "J" values used in total BTEX calculations.
- Contours Computer Generated using Surfer by Golden Graphics and Modified by MECI Personnel.

GRAPHIC SCALE
0 30 60 90 120
1IN = 60FT

ALL LOCATIONS ARE APPROXIMATE

MTBE Isopleth Map

Gaston Food Mart
Gaston, South Carolina
SCDHEC Site ID 05986

Midlands Environmental Consultants, Inc.

JOB NO. 09-2341
DATE August 10, 2009
FIGURE 5

APPENDIX

ANALYTICAL RESULTS

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

August 03, 2009

Mr. Bryan Shane
Midlands Environmental
PO Box 854
Lexington, SC 29071

RE: Project: GASTON FOOD MART 09-2341
Pace Project No.: 9249424

Dear Mr. Shane:
Enclosed are the analytical results for sample(s) received by the laboratory on July 24, 2009. 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

REPORT OF LABORATORY ANALYSIS

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

CERTIFICATIONS

Project: GASTON FOOD MART 09-2341
Pace Project No.: 9249424

Charlotte Certification IDs

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

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

SAMPLE SUMMARY

Project: GASTON FOOD MART 09-2341
Pace Project No.: 9249424

Lab ID	Sample ID	Matrix	Date Collected	Date Received
9249424001	MW-1	Water	07/23/09 12:26	07/24/09 15:25
9249424002	MW-1A	Water	07/23/09 12:57	07/24/09 15:25
9249424003	RMW-3	Water	07/23/09 11:26	07/24/09 15:25
9249424004	RMW-5	Water	07/23/09 10:16	07/24/09 15:25
9249424005	MW-6	Water	07/23/09 12:06	07/24/09 15:25
9249424006	MW-7	Water	07/23/09 12:18	07/24/09 15:25
9249424007	MW-8	Water	07/23/09 10:51	07/24/09 15:25
9249424008	MW-9	Water	07/23/09 10:59	07/24/09 15:25
9249424009	MW-10	Water	07/23/09 11:39	07/24/09 15:25
9249424010	MW-11	Water	07/23/09 12:51	07/24/09 15:25
9249424011	MW-12	Water	07/23/09 09:50	07/24/09 15:25
9249424012	MW-13	Water	07/23/09 12:44	07/24/09 15:25
9249424013	MW-14	Water	07/23/09 11:09	07/24/09 15:25
9249424014	MW-15	Water	07/23/09 09:12	07/24/09 15:25
9249424015	MW-16	Water	07/23/09 08:49	07/24/09 15:25
9249424016	MW-16R	Water	07/23/09 08:40	07/24/09 15:25
9249424017	MW-19	Water	07/23/09 10:42	07/24/09 15:25
9249424018	RMW-20	Water	07/23/09 10:26	07/24/09 15:25
9249424019	MW-22	Water	07/23/09 09:22	07/24/09 15:25
9249424020	MW-23	Water	07/23/09 09:01	07/24/09 15:25
9249424021	MW-24	Water	07/23/09 11:17	07/24/09 15:25
9249424022	MW-25	Water	07/23/09 11:46	07/24/09 15:25
9249424023	DW-1	Water	07/23/09 11:58	07/24/09 15:25

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

SAMPLE ANALYTE COUNT

Project: GASTON FOOD MART 09-2341
Pace Project No.: 9249424

Lab ID	Sample ID	Method	Analysts	Analytes Reported
9249424001	MW-1	EPA 8011	CAH	2
		EPA 8260	MCK	21
9249424002	MW-1A	EPA 8011	CAH	2
		EPA 8260	MCK	21
9249424003	RMW-3	EPA 8011	CAH	2
		EPA 8260	MCK	21
9249424004	RMW-5	EPA 8011	CAH	2
		EPA 8260	MCK	21
9249424005	MW-6	EPA 8011	CAH	2
		EPA 8260	MCK	21
9249424006	MW-7	EPA 8011	CAH	2
		EPA 8260	MCK	21
9249424007	MW-8	EPA 8011	CAH	2
		EPA 8260	MCK	21
9249424008	MW-9	EPA 8011	CAH	2
		EPA 8260	MCK	21
9249424009	MW-10	EPA 8011	CAH	2
		EPA 8260	MCK	21
9249424010	MW-11	EPA 8011	CAH	2
		EPA 8260	MCK	21
9249424011	MW-12	EPA 8011	CAH	2
		EPA 8260	MCK	21
9249424012	MW-13	EPA 8011	CAH	2
		EPA 8260	MCK	21
9249424013	MW-14	EPA 8011	CAH	2
		EPA 8260	MCK	21
9249424014	MW-15	EPA 8011	CAH	2
		EPA 8260	MCK	21
9249424015	MW-16	EPA 8011	CAH	2
		EPA 8260	MCK	21
9249424016	MW-16R	EPA 8011	CAH	2
		EPA 8260	MCK	21
9249424017	MW-19	EPA 8011	CAH	2
		EPA 8260	MCK	21
9249424018	RMW-20	EPA 8011	CAH	2
		EPA 8260	MCK	21
9249424019	MW-22	EPA 8011	CAH	2

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

SAMPLE ANALYTE COUNT

Project: GASTON FOOD MART 09-2341
Pace Project No.: 9249424

Lab ID	Sample ID	Method	Analysts	Analytes Reported
		EPA 8260	MCK	21
9249424020	**MW-23**	EPA 8011	CAH	2
		EPA 8260	MCK	21
9249424021	**MW-24**	EPA 8011	CAH	2
		EPA 8260	MCK	21
9249424022	**MW-25**	EPA 8011	CAH	2
		EPA 8260	MCK	21
9249424023	**DW-1**	EPA 8011	CAH	2
		EPA 8260	MCK	21

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

ANALYTICAL RESULTS

Project: GASTON FOOD MART 09-2341
Pace Project No.: 9249424

Sample: MW-1 **Lab ID: 9249424001** Collected: 07/23/09 12:26 Received: 07/24/09 15:25 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	07/28/09 10:27	07/28/09 17:52	106-93-4	
1-Chloro-2-bromopropane (S)	104	%	60-140		1	07/28/09 10:27	07/28/09 17:52	301-79-56	
8260 MSV Oxygenates	Analytical Method: EPA 8260								
tert-Amyl Alcohol	ND	ug/L	100	62.0	1		08/02/09 21:38	75-85-4	
tert-Amylmethyl ether	ND	ug/L	10.0	4.5	1		08/02/09 21:38	994-05-8	
Benzene	ND	ug/L	5.0	1.2	1		08/02/09 21:38	71-43-2	
3,3-Dimethyl-1-Butanol	ND	ug/L	100	48.0	1		08/02/09 21:38	624-95-3	
tert-Butyl Alcohol	ND	ug/L	100	27.0	1		08/02/09 21:38	75-65-0	
tert-Butyl Formate	ND	ug/L	50.0	9.0	1		08/02/09 21:38	762-75-4	
1,2-Dichloroethane	ND	ug/L	5.0	1.3	1		08/02/09 21:38	107-06-2	
Diisopropyl ether	ND	ug/L	5.0	2.7	1		08/02/09 21:38	108-20-3	
Ethanol	**419**	ug/L	200	170	1		08/02/09 21:38	64-17-5	
Ethylbenzene	ND	ug/L	5.0	1.1	1		08/02/09 21:38	100-41-4	
Ethyl-tert-butyl ether	ND	ug/L	10.0	4.6	1		08/02/09 21:38	637-92-3	
Methyl-tert-butyl ether	ND	ug/L	5.0	2.0	1		08/02/09 21:38	1634-04-4	
Naphthalene	ND	ug/L	5.0	2.9	1		08/02/09 21:38	91-20-3	
Toluene	ND	ug/L	5.0	1.8	1		08/02/09 21:38	108-88-3	
Xylene (Total)	ND	ug/L	10.0	2.7	1		08/02/09 21:38	1330-20-7	
m&p-Xylene	ND	ug/L	10.0	2.7	1		08/02/09 21:38	1330-20-7	
o-Xylene	ND	ug/L	5.0	1.7	1		08/02/09 21:38	95-47-6	
Dibromofluoromethane (S)	102	%	85-115		1		08/02/09 21:38	1868-53-7	
Toluene-d8 (S)	98	%	70-120		1		08/02/09 21:38	2037-26-5	
4-Bromofluorobenzene (S)	96	%	87-109		1		08/02/09 21:38	460-00-4	
1,2-Dichloroethane-d4 (S)	103	%	79-120		1		08/02/09 21:38	17060-07-0	

Sample: MW-1A **Lab ID: 9249424002** Collected: 07/23/09 12:57 Received: 07/24/09 15:25 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	07/28/09 10:27	07/28/09 18:13	106-93-4	
1-Chloro-2-bromopropane (S)	108	%	60-140		1	07/28/09 10:27	07/28/09 18:13	301-79-56	
8260 MSV Oxygenates	Analytical Method: EPA 8260								
tert-Amyl Alcohol	ND	ug/L	200	124	2		07/30/09 09:54	75-85-4	
tert-Amylmethyl ether	ND	ug/L	20.0	9.0	2		07/30/09 09:54	994-05-8	
Benzene	**54.6**	ug/L	10.0	2.4	2		07/30/09 09:54	71-43-2	
3,3-Dimethyl-1-Butanol	ND	ug/L	200	96.0	2		07/30/09 09:54	624-95-3	
tert-Butyl Alcohol	ND	ug/L	200	54.0	2		07/30/09 09:54	75-65-0	
tert-Butyl Formate	ND	ug/L	100	18.0	2		07/30/09 09:54	762-75-4	
1,2-Dichloroethane	ND	ug/L	10.0	2.6	2		07/30/09 09:54	107-06-2	
Diisopropyl ether	ND	ug/L	10.0	5.4	2		07/30/09 09:54	108-20-3	
Ethanol	ND	ug/L	400	340	2		07/30/09 09:54	64-17-5	

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

ANALYTICAL RESULTS

Project: GASTON FOOD MART 09-2341
Pace Project No.: 9249424

Sample: MW-1A **Lab ID: 9249424002** Collected: 07/23/09 12:57 Received: 07/24/09 15:25 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Oxygenates	Analytical Method: EPA 8260								
Ethylbenzene	**160**	ug/L	10.0	2.2	2		07/30/09 09:54	100-41-4	
Ethyl-tert-butyl ether	ND	ug/L	20.0	9.2	2		07/30/09 09:54	637-92-3	
Methyl-tert-butyl ether	ND	ug/L	10.0	4.0	2		07/30/09 09:54	1634-04-4	
Naphthalene	**37.4**	ug/L	10.0	5.8	2		07/30/09 09:54	91-20-3	
Toluene	**221**	ug/L	10.0	3.6	2		07/30/09 09:54	108-88-3	
Xylene (Total)	**292**	ug/L	20.0	5.4	2		07/30/09 09:54	1330-20-7	
m&p-Xylene	**204**	ug/L	20.0	5.4	2		07/30/09 09:54	1330-20-7	
o-Xylene	**88.7**	ug/L	10.0	3.4	2		07/30/09 09:54	95-47-6	
Dibromofluoromethane (S)	102	%	85-115		2		07/30/09 09:54	1868-53-7	
Toluene-d8 (S)	101	%	70-120		2		07/30/09 09:54	2037-26-5	
4-Bromofluorobenzene (S)	98	%	87-109		2		07/30/09 09:54	460-00-4	
1,2-Dichloroethane-d4 (S)	98	%	79-120		2		07/30/09 09:54	17060-07-0	

Sample: RMW-3 **Lab ID: 9249424003** Collected: 07/23/09 11:26 Received: 07/24/09 15:25 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)	**7.0**	ug/L	0.38	0.38	20	07/28/09 10:27	07/30/09 15:20	106-93-4	
1-Chloro-2-bromopropane (S)	0	%	60-140		20	07/28/09 10:27	07/30/09 15:20	301-79-56	S4
8260 MSV Oxygenates	Analytical Method: EPA 8260								
tert-Amyl Alcohol	ND	ug/L	10000	6200	100		07/30/09 06:21	75-85-4	
tert-Amylmethyl ether	ND	ug/L	1000	450	100		07/30/09 06:21	994-05-8	
Benzene	**2860**	ug/L	500	120	100		07/30/09 06:21	71-43-2	
3,3-Dimethyl-1-Butanol	ND	ug/L	10000	4800	100		07/30/09 06:21	624-95-3	
tert-Butyl Alcohol	ND	ug/L	10000	2700	100		07/30/09 06:21	75-65-0	
tert-Butyl Formate	ND	ug/L	5000	900	100		07/30/09 06:21	762-75-4	
1,2-Dichloroethane	ND	ug/L	500	130	100		07/30/09 06:21	107-06-2	
Diisopropyl ether	ND	ug/L	500	270	100		07/30/09 06:21	108-20-3	
Ethanol	ND	ug/L	20000	17000	100		07/30/09 06:21	64-17-5	
Ethylbenzene	**1700**	ug/L	500	110	100		07/30/09 06:21	100-41-4	
Ethyl-tert-butyl ether	ND	ug/L	1000	460	100		07/30/09 06:21	637-92-3	
Methyl-tert-butyl ether	ND	ug/L	500	200	100		07/30/09 06:21	1634-04-4	
Naphthalene	**514**	ug/L	500	290	100		07/30/09 06:21	91-20-3	
Toluene	**11600**	ug/L	500	180	100		07/30/09 06:21	108-88-3	
Xylene (Total)	**8830**	ug/L	1000	270	100		07/30/09 06:21	1330-20-7	
m&p-Xylene	**5940**	ug/L	1000	270	100		07/30/09 06:21	1330-20-7	
o-Xylene	**2890**	ug/L	500	170	100		07/30/09 06:21	95-47-6	
Dibromofluoromethane (S)	97	%	85-115		100		07/30/09 06:21	1868-53-7	
Toluene-d8 (S)	102	%	70-120		100		07/30/09 06:21	2037-26-5	
4-Bromofluorobenzene (S)	99	%	87-109		100		07/30/09 06:21	460-00-4	
1,2-Dichloroethane-d4 (S)	99	%	79-120		100		07/30/09 06:21	17060-07-0	

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

ANALYTICAL RESULTS

Project: GASTON FOOD MART 09-2341
Pace Project No.: 9249424

Sample: RMW-5 **Lab ID: 9249424004** Collected: 07/23/09 10:16 Received: 07/24/09 15:25 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	07/28/09 10:27	07/28/09 18:54	106-93-4	
1-Chloro-2-bromopropane (S)	112	%	60-140		1	07/28/09 10:27	07/28/09 18:54	301-79-56	
8260 MSV Oxygenates	Analytical Method: EPA 8260								
tert-Amyl Alcohol	ND	ug/L	100	62.0	1		07/30/09 06:39	75-85-4	
tert-Amylmethyl ether	ND	ug/L	10.0	4.5	1		07/30/09 06:39	994-05-8	
Benzene	ND	ug/L	5.0	1.2	1		07/30/09 06:39	71-43-2	
3,3-Dimethyl-1-Butanol	ND	ug/L	100	48.0	1		07/30/09 06:39	624-95-3	
tert-Butyl Alcohol	ND	ug/L	100	27.0	1		07/30/09 06:39	75-65-0	
tert-Butyl Formate	ND	ug/L	50.0	9.0	1		07/30/09 06:39	762-75-4	
1,2-Dichloroethane	ND	ug/L	5.0	1.3	1		07/30/09 06:39	107-06-2	
Diisopropyl ether	ND	ug/L	5.0	2.7	1		07/30/09 06:39	108-20-3	
Ethanol	ND	ug/L	200	170	1		07/30/09 06:39	64-17-5	
Ethylbenzene	ND	ug/L	5.0	1.1	1		07/30/09 06:39	100-41-4	
Ethyl-tert-butyl ether	ND	ug/L	10.0	4.6	1		07/30/09 06:39	637-92-3	
Methyl-tert-butyl ether	ND	ug/L	5.0	2.0	1		07/30/09 06:39	1634-04-4	
Naphthalene	ND	ug/L	5.0	2.9	1		07/30/09 06:39	91-20-3	
Toluene	ND	ug/L	5.0	1.8	1		07/30/09 06:39	108-88-3	
Xylene (Total)	ND	ug/L	10.0	2.7	1		07/30/09 06:39	1330-20-7	
m&p-Xylene	ND	ug/L	10.0	2.7	1		07/30/09 06:39	1330-20-7	
o-Xylene	ND	ug/L	5.0	1.7	1		07/30/09 06:39	95-47-6	
Dibromofluoromethane (S)	102	%	85-115		1		07/30/09 06:39	1868-53-7	
Toluene-d8 (S)	102	%	70-120		1		07/30/09 06:39	2037-26-5	
4-Bromofluorobenzene (S)	101	%	87-109		1		07/30/09 06:39	460-00-4	
1,2-Dichloroethane-d4 (S)	104	%	79-120		1		07/30/09 06:39	17060-07-0	

Sample: MW-6 **Lab ID: 9249424005** Collected: 07/23/09 12:06 Received: 07/24/09 15:25 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)	**7.0**	ug/L	0.38	0.38	20	07/28/09 10:27	07/30/09 10:29	106-93-4	
1-Chloro-2-bromopropane (S)	0	%	60-140		20	07/28/09 10:27	07/30/09 10:29	301-79-56	S4
8260 MSV Oxygenates	Analytical Method: EPA 8260								
tert-Amyl Alcohol	**486J**	ug/L	500	310	5		07/31/09 13:06	75-85-4	
tert-Amylmethyl ether	ND	ug/L	50.0	22.5	5		07/31/09 13:06	994-05-8	
Benzene	**529**	ug/L	25.0	6.0	5		07/31/09 13:06	71-43-2	
3,3-Dimethyl-1-Butanol	ND	ug/L	500	240	5		07/31/09 13:06	624-95-3	
tert-Butyl Alcohol	ND	ug/L	500	135	5		07/31/09 13:06	75-65-0	
tert-Butyl Formate	ND	ug/L	250	45.0	5		07/31/09 13:06	762-75-4	
1,2-Dichloroethane	ND	ug/L	25.0	6.5	5		07/31/09 13:06	107-06-2	
Diisopropyl ether	ND	ug/L	25.0	13.5	5		07/31/09 13:06	108-20-3	
Ethanol	ND	ug/L	1000	850	5		07/31/09 13:06	64-17-5	

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

ANALYTICAL RESULTS

Project: GASTON FOOD MART 09-2341
Pace Project No.: 9249424

Sample: MW-6 **Lab ID: 9249424005** Collected: 07/23/09 12:06 Received: 07/24/09 15:25 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Oxygenates	Analytical Method: EPA 8260								
Ethylbenzene	**11.8J**	ug/L	25.0	5.5	5		07/31/09 13:06	100-41-4	
Ethyl-tert-butyl ether	ND	ug/L	50.0	23.0	5		07/31/09 13:06	637-92-3	
Methyl-tert-butyl ether	ND	ug/L	25.0	10.0	5		07/31/09 13:06	1634-04-4	
Naphthalene	**61.1**	ug/L	25.0	14.5	5		07/31/09 13:06	91-20-3	
Toluene	**234**	ug/L	25.0	9.0	5		07/31/09 13:06	108-88-3	
Xylene (Total)	**693**	ug/L	50.0	13.5	5		07/31/09 13:06	1330-20-7	
m&p-Xylene	**396**	ug/L	50.0	13.5	5		07/31/09 13:06	1330-20-7	
o-Xylene	**297**	ug/L	25.0	8.5	5		07/31/09 13:06	95-47-6	
Dibromofluoromethane (S)	97	%	85-115		5		07/31/09 13:06	1868-53-7	
Toluene-d8 (S)	103	%	70-120		5		07/31/09 13:06	2037-26-5	
4-Bromofluorobenzene (S)	102	%	87-109		5		07/31/09 13:06	460-00-4	
1,2-Dichloroethane-d4 (S)	104	%	79-120		5		07/31/09 13:06	17060-07-0	

Sample: MW-7 **Lab ID: 9249424006** Collected: 07/23/09 12:18 Received: 07/24/09 15:25 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	07/28/09 10:27	07/28/09 19:36	106-93-4	
1-Chloro-2-bromopropane (S)	106	%	60-140		1	07/28/09 10:27	07/28/09 19:36	301-79-56	
8260 MSV Oxygenates	Analytical Method: EPA 8260								
tert-Amyl Alcohol	ND	ug/L	100	62.0	1		07/30/09 07:51	75-85-4	
tert-Amylmethyl ether	ND	ug/L	10.0	4.5	1		07/30/09 07:51	994-05-8	
Benzene	ND	ug/L	5.0	1.2	1		07/30/09 07:51	71-43-2	
3,3-Dimethyl-1-Butanol	ND	ug/L	100	48.0	1		07/30/09 07:51	624-95-3	
tert-Butyl Alcohol	ND	ug/L	100	27.0	1		07/30/09 07:51	75-65-0	
tert-Butyl Formate	ND	ug/L	50.0	9.0	1		07/30/09 07:51	762-75-4	
1,2-Dichloroethane	ND	ug/L	5.0	1.3	1		07/30/09 07:51	107-06-2	
Diisopropyl ether	ND	ug/L	5.0	2.7	1		07/30/09 07:51	108-20-3	
Ethanol	ND	ug/L	200	170	1		07/30/09 07:51	64-17-5	
Ethylbenzene	ND	ug/L	5.0	1.1	1		07/30/09 07:51	100-41-4	
Ethyl-tert-butyl ether	ND	ug/L	10.0	4.6	1		07/30/09 07:51	637-92-3	
Methyl-tert-butyl ether	ND	ug/L	5.0	2.0	1		07/30/09 07:51	1634-04-4	
Naphthalene	ND	ug/L	5.0	2.9	1		07/30/09 07:51	91-20-3	
Toluene	ND	ug/L	5.0	1.8	1		07/30/09 07:51	108-88-3	
Xylene (Total)	ND	ug/L	10.0	2.7	1		07/30/09 07:51	1330-20-7	
m&p-Xylene	ND	ug/L	10.0	2.7	1		07/30/09 07:51	1330-20-7	
o-Xylene	ND	ug/L	5.0	1.7	1		07/30/09 07:51	95-47-6	
Dibromofluoromethane (S)	99	%	85-115		1		07/30/09 07:51	1868-53-7	
Toluene-d8 (S)	104	%	70-120		1		07/30/09 07:51	2037-26-5	
4-Bromofluorobenzene (S)	97	%	87-109		1		07/30/09 07:51	460-00-4	
1,2-Dichloroethane-d4 (S)	96	%	79-120		1		07/30/09 07:51	17060-07-0	

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

ANALYTICAL RESULTS

Project: GASTON FOOD MART 09-2341
Pace Project No.: 9249424

Sample: MW-8 **Lab ID: 9249424007** Collected: 07/23/09 10:51 Received: 07/24/09 15:25 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	07/28/09 10:29	07/28/09 12:13	106-93-4	
1-Chloro-2-bromopropane (S)	118	%	60-140		1	07/28/09 10:29	07/28/09 12:13	301-79-56	
8260 MSV Oxygenates	Analytical Method: EPA 8260								
tert-Amyl Alcohol	ND	ug/L	1000	620	10		07/30/09 09:12	75-85-4	
tert-Amylmethyl ether	ND	ug/L	100	45.0	10		07/30/09 09:12	994-05-8	
Benzene	**270**	ug/L	50.0	12.0	10		07/30/09 09:12	71-43-2	
3,3-Dimethyl-1-Butanol	ND	ug/L	1000	480	10		07/30/09 09:12	624-95-3	
tert-Butyl Alcohol	ND	ug/L	1000	270	10		07/30/09 09:12	75-65-0	
tert-Butyl Formate	ND	ug/L	500	90.0	10		07/30/09 09:12	762-75-4	
1,2-Dichloroethane	ND	ug/L	50.0	13.0	10		07/30/09 09:12	107-06-2	
Diisopropyl ether	ND	ug/L	50.0	27.0	10		07/30/09 09:12	108-20-3	
Ethanol	ND	ug/L	2000	1700	10		07/30/09 09:12	64-17-5	
Ethylbenzene	**548**	ug/L	50.0	11.0	10		07/30/09 09:12	100-41-4	
Ethyl-tert-butyl ether	ND	ug/L	100	46.0	10		07/30/09 09:12	637-92-3	
Methyl-tert-butyl ether	**24.0J**	ug/L	50.0	20.0	10		07/30/09 09:12	1634-04-4	
Naphthalene	**120**	ug/L	50.0	29.0	10		07/30/09 09:12	91-20-3	
Toluene	**1770**	ug/L	50.0	18.0	10		07/30/09 09:12	108-88-3	
Xylene (Total)	**4480**	ug/L	100	27.0	10		07/30/09 09:12	1330-20-7	
m&p-Xylene	**3220**	ug/L	100	27.0	10		07/30/09 09:12	1330-20-7	
o-Xylene	**1260**	ug/L	50.0	17.0	10		07/30/09 09:12	95-47-6	
Dibromofluoromethane (S)	98	%	85-115		10		07/30/09 09:12	1868-53-7	
Toluene-d8 (S)	100	%	70-120		10		07/30/09 09:12	2037-26-5	
4-Bromofluorobenzene (S)	101	%	87-109		10		07/30/09 09:12	460-00-4	
1,2-Dichloroethane-d4 (S)	99	%	79-120		10		07/30/09 09:12	17060-07-0	

Sample: MW-9 **Lab ID: 9249424008** Collected: 07/23/09 10:59 Received: 07/24/09 15:25 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)	**0.34**	ug/L	0.019	0.019	1	07/28/09 10:29	07/28/09 12:34	106-93-4	
1-Chloro-2-bromopropane (S)	98	%	60-140		1	07/28/09 10:29	07/28/09 12:34	301-79-56	
8260 MSV Oxygenates	Analytical Method: EPA 8260								
tert-Amyl Alcohol	ND	ug/L	1000	620	10		07/30/09 09:33	75-85-4	
tert-Amylmethyl ether	ND	ug/L	100	45.0	10		07/30/09 09:33	994-05-8	
Benzene	**372**	ug/L	50.0	12.0	10		07/30/09 09:33	71-43-2	
3,3-Dimethyl-1-Butanol	ND	ug/L	1000	480	10		07/30/09 09:33	624-95-3	
tert-Butyl Alcohol	ND	ug/L	1000	270	10		07/30/09 09:33	75-65-0	
tert-Butyl Formate	ND	ug/L	500	90.0	10		07/30/09 09:33	762-75-4	
1,2-Dichloroethane	ND	ug/L	50.0	13.0	10		07/30/09 09:33	107-06-2	
Diisopropyl ether	ND	ug/L	50.0	27.0	10		07/30/09 09:33	108-20-3	
Ethanol	ND	ug/L	2000	1700	10		07/30/09 09:33	64-17-5	

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

ANALYTICAL RESULTS

Project: GASTON FOOD MART 09-2341
Pace Project No.: 9249424

Sample: MW-9 **Lab ID: 9249424008** Collected: 07/23/09 10:59 Received: 07/24/09 15:25 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Oxygenates	Analytical Method: EPA 8260								
Ethylbenzene	**495**	ug/L	50.0	11.0	10		07/30/09 09:33	100-41-4	
Ethyl-tert-butyl ether	ND	ug/L	100	46.0	10		07/30/09 09:33	637-92-3	
Methyl-tert-butyl ether	**72.0**	ug/L	50.0	20.0	10		07/30/09 09:33	1634-04-4	
Naphthalene	**203**	ug/L	50.0	29.0	10		07/30/09 09:33	91-20-3	
Toluene	**3810**	ug/L	250	90.0	50		07/31/09 14:11	108-88-3	
Xylene (Total)	**5130**	ug/L	100	27.0	10		07/30/09 09:33	1330-20-7	
m&p-Xylene	**3370**	ug/L	100	27.0	10		07/30/09 09:33	1330-20-7	
o-Xylene	**1760**	ug/L	50.0	17.0	10		07/30/09 09:33	95-47-6	
Dibromofluoromethane (S)	98	%	85-115		10		07/30/09 09:33	1868-53-7	
Toluene-d8 (S)	101	%	70-120		10		07/30/09 09:33	2037-26-5	
4-Bromofluorobenzene (S)	101	%	87-109		10		07/30/09 09:33	460-00-4	
1,2-Dichloroethane-d4 (S)	99	%	79-120		10		07/30/09 09:33	17060-07-0	

Sample: MW-10 **Lab ID: 9249424009** Collected: 07/23/09 11:39 Received: 07/24/09 15:25 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)	**31.5**	ug/L	1.9	1.9	100	07/28/09 10:29	07/30/09 11:00	106-93-4	
1-Chloro-2-bromopropane (S)	0	%	60-140		100	07/28/09 10:29	07/30/09 11:00	301-79-56	S4
8260 MSV Oxygenates	Analytical Method: EPA 8260								
tert-Amyl Alcohol	**10900**	ug/L	10000	6200	100		07/30/09 07:15	75-85-4	
tert-Amylmethyl ether	**658J**	ug/L	1000	450	100		07/30/09 07:15	994-05-8	
Benzene	**15000**	ug/L	500	120	100		07/30/09 07:15	71-43-2	
3,3-Dimethyl-1-Butanol	ND	ug/L	10000	4800	100		07/30/09 07:15	624-95-3	
tert-Butyl Alcohol	ND	ug/L	10000	2700	100		07/30/09 07:15	75-65-0	
tert-Butyl Formate	ND	ug/L	5000	900	100		07/30/09 07:15	762-75-4	
1,2-Dichloroethane	ND	ug/L	500	130	100		07/30/09 07:15	107-06-2	
Diisopropyl ether	ND	ug/L	500	270	100		07/30/09 07:15	108-20-3	
Ethanol	ND	ug/L	20000	17000	100		07/30/09 07:15	64-17-5	
Ethylbenzene	**2330**	ug/L	500	110	100		07/30/09 07:15	100-41-4	
Ethyl-tert-butyl ether	ND	ug/L	1000	460	100		07/30/09 07:15	637-92-3	
Methyl-tert-butyl ether	**21500**	ug/L	1250	500	250		07/31/09 11:48	1634-04-4	
Naphthalene	**591**	ug/L	500	290	100		07/30/09 07:15	91-20-3	
Toluene	**25600**	ug/L	1250	450	250		07/31/09 11:48	108-88-3	
Xylene (Total)	**12700**	ug/L	1000	270	100		07/30/09 07:15	1330-20-7	
m&p-Xylene	**8690**	ug/L	1000	270	100		07/30/09 07:15	1330-20-7	
o-Xylene	**3980**	ug/L	500	170	100		07/30/09 07:15	95-47-6	
Dibromofluoromethane (S)	97	%	85-115		100		07/30/09 07:15	1868-53-7	
Toluene-d8 (S)	103	%	70-120		100		07/30/09 07:15	2037-26-5	
4-Bromofluorobenzene (S)	101	%	87-109		100		07/30/09 07:15	460-00-4	
1,2-Dichloroethane-d4 (S)	99	%	79-120		100		07/30/09 07:15	17060-07-0	

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

ANALYTICAL RESULTS

Project: GASTON FOOD MART 09-2341
Pace Project No.: 9249424

Sample: MW-11 **Lab ID: 9249424010** Collected: 07/23/09 12:51 Received: 07/24/09 15:25 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	07/28/09 10:29	07/28/09 14:00	106-93-4	
1-Chloro-2-bromopropane (S)	98	%	60-140		1	07/28/09 10:29	07/28/09 14:00	301-79-56	
8260 MSV Oxygenates	Analytical Method: EPA 8260								
tert-Amyl Alcohol	ND	ug/L	100	62.0	1		07/30/09 07:33	75-85-4	
tert-Amylmethyl ether	ND	ug/L	10.0	4.5	1		07/30/09 07:33	994-05-8	
Benzene	ND	ug/L	5.0	1.2	1		07/30/09 07:33	71-43-2	
3,3-Dimethyl-1-Butanol	ND	ug/L	100	48.0	1		07/30/09 07:33	624-95-3	
tert-Butyl Alcohol	ND	ug/L	100	27.0	1		07/30/09 07:33	75-65-0	
tert-Butyl Formate	ND	ug/L	50.0	9.0	1		07/30/09 07:33	762-75-4	
1,2-Dichloroethane	ND	ug/L	5.0	1.3	1		07/30/09 07:33	107-06-2	
Diisopropyl ether	ND	ug/L	5.0	2.7	1		07/30/09 07:33	108-20-3	
Ethanol	ND	ug/L	200	170	1		07/30/09 07:33	64-17-5	
Ethylbenzene	**25.0**	ug/L	5.0	1.1	1		07/30/09 07:33	100-41-4	
Ethyl-tert-butyl ether	ND	ug/L	10.0	4.6	1		07/30/09 07:33	637-92-3	
Methyl-tert-butyl ether	ND	ug/L	5.0	2.0	1		07/30/09 07:33	1634-04-4	
Naphthalene	**10.2**	ug/L	5.0	2.9	1		07/30/09 07:33	91-20-3	
Toluene	ND	ug/L	5.0	1.8	1		07/30/09 07:33	108-88-3	
Xylene (Total)	**12.9**	ug/L	10.0	2.7	1		07/30/09 07:33	1330-20-7	
m&p-Xylene	**12.4**	ug/L	10.0	2.7	1		07/30/09 07:33	1330-20-7	
o-Xylene	ND	ug/L	5.0	1.7	1		07/30/09 07:33	95-47-6	
Dibromofluoromethane (S)	97	%	85-115		1		07/30/09 07:33	1868-53-7	
Toluene-d8 (S)	101	%	70-120		1		07/30/09 07:33	2037-26-5	
4-Bromofluorobenzene (S)	103	%	87-109		1		07/30/09 07:33	460-00-4	
1,2-Dichloroethane-d4 (S)	96	%	79-120		1		07/30/09 07:33	17060-07-0	

Sample: MW-12 **Lab ID: 9249424011** Collected: 07/23/09 09:50 Received: 07/24/09 15:25 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	07/28/09 10:29	07/28/09 14:43	106-93-4	
1-Chloro-2-bromopropane (S)	105	%	60-140		1	07/28/09 10:29	07/28/09 14:43	301-79-56	
8260 MSV Oxygenates	Analytical Method: EPA 8260								
tert-Amyl Alcohol	ND	ug/L	100	62.0	1		08/02/09 21:56	75-85-4	
tert-Amylmethyl ether	ND	ug/L	10.0	4.5	1		08/02/09 21:56	994-05-8	
Benzene	ND	ug/L	5.0	1.2	1		08/02/09 21:56	71-43-2	
3,3-Dimethyl-1-Butanol	ND	ug/L	100	48.0	1		08/02/09 21:56	624-95-3	
tert-Butyl Alcohol	ND	ug/L	100	27.0	1		08/02/09 21:56	75-65-0	
tert-Butyl Formate	ND	ug/L	50.0	9.0	1		08/02/09 21:56	762-75-4	
1,2-Dichloroethane	ND	ug/L	5.0	1.3	1		08/02/09 21:56	107-06-2	
Diisopropyl ether	ND	ug/L	5.0	2.7	1		08/02/09 21:56	108-20-3	
Ethanol	ND	ug/L	200	170	1		08/02/09 21:56	64-17-5	

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

ANALYTICAL RESULTS

Project: GASTON FOOD MART 09-2341
Pace Project No.: 9249424

Sample: MW-12 **Lab ID: 9249424011** Collected: 07/23/09 09:50 Received: 07/24/09 15:25 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Oxygenates	Analytical Method: EPA 8260								
Ethylbenzene	ND	ug/L	5.0	1.1	1		08/02/09 21:56	100-41-4	
Ethyl-tert-butyl ether	ND	ug/L	10.0	4.6	1		08/02/09 21:56	637-92-3	
Methyl-tert-butyl ether	ND	ug/L	5.0	2.0	1		08/02/09 21:56	1634-04-4	
Naphthalene	ND	ug/L	5.0	2.9	1		08/02/09 21:56	91-20-3	
Toluene	ND	ug/L	5.0	1.8	1		08/02/09 21:56	108-88-3	
Xylene (Total)	ND	ug/L	10.0	2.7	1		08/02/09 21:56	1330-20-7	
m&p-Xylene	ND	ug/L	10.0	2.7	1		08/02/09 21:56	1330-20-7	
o-Xylene	ND	ug/L	5.0	1.7	1		08/02/09 21:56	95-47-6	
Dibromofluoromethane (S)	103	%	85-115		1		08/02/09 21:56	1868-53-7	
Toluene-d8 (S)	98	%	70-120		1		08/02/09 21:56	2037-26-5	
4-Bromofluorobenzene (S)	98	%	87-109		1		08/02/09 21:56	460-00-4	
1,2-Dichloroethane-d4 (S)	102	%	79-120		1		08/02/09 21:56	17060-07-0	

Sample: MW-13 **Lab ID: 9249424012** Collected: 07/23/09 12:44 Received: 07/24/09 15:25 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)	**0.027**	ug/L	0.016	0.016	1	07/28/09 10:29	07/28/09 15:05	106-93-4	
1-Chloro-2-bromopropane (S)	109	%	60-140		1	07/28/09 10:29	07/28/09 15:05	301-79-56	
8260 MSV Oxygenates	Analytical Method: EPA 8260								
tert-Amyl Alcohol	ND	ug/L	100	62.0	1		08/02/09 22:14	75-85-4	
tert-Amylmethyl ether	ND	ug/L	10.0	4.5	1		08/02/09 22:14	994-05-8	
Benzene	ND	ug/L	5.0	1.2	1		08/02/09 22:14	71-43-2	
3,3-Dimethyl-1-Butanol	ND	ug/L	100	48.0	1		08/02/09 22:14	624-95-3	
tert-Butyl Alcohol	ND	ug/L	100	27.0	1		08/02/09 22:14	75-65-0	
tert-Butyl Formate	ND	ug/L	50.0	9.0	1		08/02/09 22:14	762-75-4	
1,2-Dichloroethane	ND	ug/L	5.0	1.3	1		08/02/09 22:14	107-06-2	
Diisopropyl ether	ND	ug/L	5.0	2.7	1		08/02/09 22:14	108-20-3	
Ethanol	ND	ug/L	200	170	1		08/02/09 22:14	64-17-5	
Ethylbenzene	ND	ug/L	5.0	1.1	1		08/02/09 22:14	100-41-4	
Ethyl-tert-butyl ether	ND	ug/L	10.0	4.6	1		08/02/09 22:14	637-92-3	
Methyl-tert-butyl ether	ND	ug/L	5.0	2.0	1		08/02/09 22:14	1634-04-4	
Naphthalene	ND	ug/L	5.0	2.9	1		08/02/09 22:14	91-20-3	
Toluene	ND	ug/L	5.0	1.8	1		08/02/09 22:14	108-88-3	
Xylene (Total)	ND	ug/L	10.0	2.7	1		08/02/09 22:14	1330-20-7	
m&p-Xylene	ND	ug/L	10.0	2.7	1		08/02/09 22:14	1330-20-7	
o-Xylene	ND	ug/L	5.0	1.7	1		08/02/09 22:14	95-47-6	
Dibromofluoromethane (S)	102	%	85-115		1		08/02/09 22:14	1868-53-7	
Toluene-d8 (S)	99	%	70-120		1		08/02/09 22:14	2037-26-5	
4-Bromofluorobenzene (S)	96	%	87-109		1		08/02/09 22:14	460-00-4	
1,2-Dichloroethane-d4 (S)	103	%	79-120		1		08/02/09 22:14	17060-07-0	

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

ANALYTICAL RESULTS

Project: GASTON FOOD MART 09-2341
Pace Project No.: 9249424

Sample: MW-14 **Lab ID: 9249424013** Collected: 07/23/09 11:09 Received: 07/24/09 15:25 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	07/28/09 10:29	07/28/09 15:26	106-93-4	
1-Chloro-2-bromopropane (S)	109	%	60-140		1	07/28/09 10:29	07/28/09 15:26	301-79-56	
8260 MSV Oxygenates	Analytical Method: EPA 8260								
tert-Amyl Alcohol	ND	ug/L	100	62.0	1		08/02/09 22:32	75-85-4	
tert-Amylmethyl ether	ND	ug/L	10.0	4.5	1		08/02/09 22:32	994-05-8	
Benzene	ND	ug/L	5.0	1.2	1		08/02/09 22:32	71-43-2	
3,3-Dimethyl-1-Butanol	ND	ug/L	100	48.0	1		08/02/09 22:32	624-95-3	
tert-Butyl Alcohol	ND	ug/L	100	27.0	1		08/02/09 22:32	75-65-0	
tert-Butyl Formate	ND	ug/L	50.0	9.0	1		08/02/09 22:32	762-75-4	
1,2-Dichloroethane	ND	ug/L	5.0	1.3	1		08/02/09 22:32	107-06-2	
Diisopropyl ether	ND	ug/L	5.0	2.7	1		08/02/09 22:32	108-20-3	
Ethanol	ND	ug/L	200	170	1		08/02/09 22:32	64-17-5	
Ethylbenzene	ND	ug/L	5.0	1.1	1		08/02/09 22:32	100-41-4	
Ethyl-tert-butyl ether	ND	ug/L	10.0	4.6	1		08/02/09 22:32	637-92-3	
Methyl-tert-butyl ether	ND	ug/L	5.0	2.0	1		08/02/09 22:32	1634-04-4	
Naphthalene	ND	ug/L	5.0	2.9	1		08/02/09 22:32	91-20-3	
Toluene	ND	ug/L	5.0	1.8	1		08/02/09 22:32	108-88-3	
Xylene (Total)	ND	ug/L	10.0	2.7	1		08/02/09 22:32	1330-20-7	
m&p-Xylene	ND	ug/L	10.0	2.7	1		08/02/09 22:32	1330-20-7	
o-Xylene	ND	ug/L	5.0	1.7	1		08/02/09 22:32	95-47-6	
Dibromofluoromethane (S)	101	%	85-115		1		08/02/09 22:32	1868-53-7	
Toluene-d8 (S)	98	%	70-120		1		08/02/09 22:32	2037-26-5	
4-Bromofluorobenzene (S)	99	%	87-109		1		08/02/09 22:32	460-00-4	
1,2-Dichloroethane-d4 (S)	100	%	79-120		1		08/02/09 22:32	17060-07-0	

Sample: MW-15 **Lab ID: 9249424014** Collected: 07/23/09 09:12 Received: 07/24/09 15:25 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)	**0.21**	ug/L	0.019	0.019	1	07/28/09 10:29	07/28/09 15:48	106-93-4	
1-Chloro-2-bromopropane (S)	65	%	60-140		1	07/28/09 10:29	07/28/09 15:48	301-79-56	
8260 MSV Oxygenates	Analytical Method: EPA 8260								
tert-Amyl Alcohol	ND	ug/L	100	62.0	1		08/02/09 22:50	75-85-4	
tert-Amylmethyl ether	ND	ug/L	10.0	4.5	1		08/02/09 22:50	994-05-8	
Benzene	**10.8**	ug/L	5.0	1.2	1		08/02/09 22:50	71-43-2	
3,3-Dimethyl-1-Butanol	ND	ug/L	100	48.0	1		08/02/09 22:50	624-95-3	
tert-Butyl Alcohol	ND	ug/L	100	27.0	1		08/02/09 22:50	75-65-0	
tert-Butyl Formate	ND	ug/L	50.0	9.0	1		08/02/09 22:50	762-75-4	
1,2-Dichloroethane	ND	ug/L	5.0	1.3	1		08/02/09 22:50	107-06-2	
Diisopropyl ether	ND	ug/L	5.0	2.7	1		08/02/09 22:50	108-20-3	
Ethanol	ND	ug/L	200	170	1		08/02/09 22:50	64-17-5	

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

ANALYTICAL RESULTS

Project: GASTON FOOD MART 09-2341
Pace Project No.: 9249424

Sample: MW-15 **Lab ID: 9249424014** Collected: 07/23/09 09:12 Received: 07/24/09 15:25 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Oxygenates	Analytical Method: EPA 8260								
Ethylbenzene	**14.4**	ug/L	5.0	1.1	1		08/02/09 22:50	100-41-4	
Ethyl-tert-butyl ether	ND	ug/L	10.0	4.6	1		08/02/09 22:50	637-92-3	
Methyl-tert-butyl ether	ND	ug/L	5.0	2.0	1		08/02/09 22:50	1634-04-4	
Naphthalene	**3.3J**	ug/L	5.0	2.9	1		08/02/09 22:50	91-20-3	
Toluene	**2.3J**	ug/L	5.0	1.8	1		08/02/09 22:50	108-88-3	
Xylene (Total)	**76.7**	ug/L	10.0	2.7	1		08/02/09 22:50	1330-20-7	
m&p-Xylene	**45.2**	ug/L	10.0	2.7	1		08/02/09 22:50	1330-20-7	
o-Xylene	**31.4**	ug/L	5.0	1.7	1		08/02/09 22:50	95-47-6	
Dibromofluoromethane (S)	101	%	85-115		1		08/02/09 22:50	1868-53-7	
Toluene-d8 (S)	99	%	70-120		1		08/02/09 22:50	2037-26-5	
4-Bromofluorobenzene (S)	100	%	87-109		1		08/02/09 22:50	460-00-4	
1,2-Dichloroethane-d4 (S)	104	%	79-120		1		08/02/09 22:50	17060-07-0	

Sample: MW-16 **Lab ID: 9249424015** Collected: 07/23/09 08:49 Received: 07/24/09 15:25 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	07/28/09 10:30	07/28/09 16:11	106-93-4	
1-Chloro-2-bromopropane (S)	100	%	60-140		1	07/28/09 10:30	07/28/09 16:11	301-79-56	
8260 MSV Oxygenates	Analytical Method: EPA 8260								
tert-Amyl Alcohol	ND	ug/L	100	62.0	1		08/02/09 23:08	75-85-4	
tert-Amylmethyl ether	ND	ug/L	10.0	4.5	1		08/02/09 23:08	994-05-8	
Benzene	ND	ug/L	5.0	1.2	1		08/02/09 23:08	71-43-2	
3,3-Dimethyl-1-Butanol	ND	ug/L	100	48.0	1		08/02/09 23:08	624-95-3	
tert-Butyl Alcohol	ND	ug/L	100	27.0	1		08/02/09 23:08	75-65-0	
tert-Butyl Formate	ND	ug/L	50.0	9.0	1		08/02/09 23:08	762-75-4	
1,2-Dichloroethane	ND	ug/L	5.0	1.3	1		08/02/09 23:08	107-06-2	
Diisopropyl ether	ND	ug/L	5.0	2.7	1		08/02/09 23:08	108-20-3	
Ethanol	ND	ug/L	200	170	1		08/02/09 23:08	64-17-5	
Ethylbenzene	ND	ug/L	5.0	1.1	1		08/02/09 23:08	100-41-4	
Ethyl-tert-butyl ether	ND	ug/L	10.0	4.6	1		08/02/09 23:08	637-92-3	
Methyl-tert-butyl ether	ND	ug/L	5.0	2.0	1		08/02/09 23:08	1634-04-4	
Naphthalene	ND	ug/L	5.0	2.9	1		08/02/09 23:08	91-20-3	
Toluene	ND	ug/L	5.0	1.8	1		08/02/09 23:08	108-88-3	
Xylene (Total)	ND	ug/L	10.0	2.7	1		08/02/09 23:08	1330-20-7	
m&p-Xylene	ND	ug/L	10.0	2.7	1		08/02/09 23:08	1330-20-7	
o-Xylene	ND	ug/L	5.0	1.7	1		08/02/09 23:08	95-47-6	
Dibromofluoromethane (S)	99	%	85-115		1		08/02/09 23:08	1868-53-7	
Toluene-d8 (S)	98	%	70-120		1		08/02/09 23:08	2037-26-5	
4-Bromofluorobenzene (S)	97	%	87-109		1		08/02/09 23:08	460-00-4	
1,2-Dichloroethane-d4 (S)	101	%	79-120		1		08/02/09 23:08	17060-07-0	

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

ANALYTICAL RESULTS

Project: GASTON FOOD MART 09-2341
Pace Project No.: 9249424

Sample: MW-16R **Lab ID: 9249424016** Collected: 07/23/09 08:40 Received: 07/24/09 15:25 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	07/28/09 10:30	07/28/09 16:33	106-93-4	
1-Chloro-2-bromopropane (S)	103	%	60-140		1	07/28/09 10:30	07/28/09 16:33	301-79-56	
8260 MSV Oxygenates	Analytical Method: EPA 8260								
tert-Amyl Alcohol	ND	ug/L	100	62.0	1		08/02/09 23:26	75-85-4	
tert-Amylmethyl ether	ND	ug/L	10.0	4.5	1		08/02/09 23:26	994-05-8	
Benzene	ND	ug/L	5.0	1.2	1		08/02/09 23:26	71-43-2	
3,3-Dimethyl-1-Butanol	ND	ug/L	100	48.0	1		08/02/09 23:26	624-95-3	
tert-Butyl Alcohol	ND	ug/L	100	27.0	1		08/02/09 23:26	75-65-0	
tert-Butyl Formate	ND	ug/L	50.0	9.0	1		08/02/09 23:26	762-75-4	
1,2-Dichloroethane	ND	ug/L	5.0	1.3	1		08/02/09 23:26	107-06-2	
Diisopropyl ether	ND	ug/L	5.0	2.7	1		08/02/09 23:26	108-20-3	
Ethanol	ND	ug/L	200	170	1		08/02/09 23:26	64-17-5	
Ethylbenzene	ND	ug/L	5.0	1.1	1		08/02/09 23:26	100-41-4	
Ethyl-tert-butyl ether	ND	ug/L	10.0	4.6	1		08/02/09 23:26	637-92-3	
Methyl-tert-butyl ether	ND	ug/L	5.0	2.0	1		08/02/09 23:26	1634-04-4	
Naphthalene	ND	ug/L	5.0	2.9	1		08/02/09 23:26	91-20-3	
Toluene	ND	ug/L	5.0	1.8	1		08/02/09 23:26	108-88-3	
Xylene (Total)	ND	ug/L	10.0	2.7	1		08/02/09 23:26	1330-20-7	
m&p-Xylene	ND	ug/L	10.0	2.7	1		08/02/09 23:26	1330-20-7	
o-Xylene	ND	ug/L	5.0	1.7	1		08/02/09 23:26	95-47-6	
Dibromofluoromethane (S)	101	%	85-115		1		08/02/09 23:26	1868-53-7	
Toluene-d8 (S)	98	%	70-120		1		08/02/09 23:26	2037-26-5	
4-Bromofluorobenzene (S)	93	%	87-109		1		08/02/09 23:26	460-00-4	
1,2-Dichloroethane-d4 (S)	102	%	79-120		1		08/02/09 23:26	17060-07-0	

Sample: MW-19 **Lab ID: 9249424017** Collected: 07/23/09 10:42 Received: 07/24/09 15:25 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	07/28/09 10:30	07/28/09 16:55	106-93-4	
1-Chloro-2-bromopropane (S)	76	%	60-140		1	07/28/09 10:30	07/28/09 16:55	301-79-56	
8260 MSV Oxygenates	Analytical Method: EPA 8260								
tert-Amyl Alcohol	ND	ug/L	100	62.0	1		08/02/09 23:44	75-85-4	
tert-Amylmethyl ether	ND	ug/L	10.0	4.5	1		08/02/09 23:44	994-05-8	
Benzene	ND	ug/L	5.0	1.2	1		08/02/09 23:44	71-43-2	
3,3-Dimethyl-1-Butanol	ND	ug/L	100	48.0	1		08/02/09 23:44	624-95-3	
tert-Butyl Alcohol	ND	ug/L	100	27.0	1		08/02/09 23:44	75-65-0	
tert-Butyl Formate	ND	ug/L	50.0	9.0	1		08/02/09 23:44	762-75-4	
1,2-Dichloroethane	ND	ug/L	5.0	1.3	1		08/02/09 23:44	107-06-2	
Diisopropyl ether	ND	ug/L	5.0	2.7	1		08/02/09 23:44	108-20-3	
Ethanol	ND	ug/L	200	170	1		08/02/09 23:44	64-17-5	

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

ANALYTICAL RESULTS

Project: GASTON FOOD MART 09-2341
Pace Project No.: 9249424

Sample: MW-19 **Lab ID: 9249424017** Collected: 07/23/09 10:42 Received: 07/24/09 15:25 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Oxygenates	Analytical Method: EPA 8260								
Ethylbenzene	**2.9J**	ug/L	5.0	1.1	1		08/02/09 23:44	100-41-4	
Ethyl-tert-butyl ether	ND	ug/L	10.0	4.6	1		08/02/09 23:44	637-92-3	
Methyl-tert-butyl ether	ND	ug/L	5.0	2.0	1		08/02/09 23:44	1634-04-4	
Naphthalene	**12.3**	ug/L	5.0	2.9	1		08/02/09 23:44	91-20-3	
Toluene	ND	ug/L	5.0	1.8	1		08/02/09 23:44	108-88-3	
Xylene (Total)	**91.9**	ug/L	10.0	2.7	1		08/02/09 23:44	1330-20-7	
m&p-Xylene	**40.6**	ug/L	10.0	2.7	1		08/02/09 23:44	1330-20-7	
o-Xylene	**51.3**	ug/L	5.0	1.7	1		08/02/09 23:44	95-47-6	
Dibromofluoromethane (S)	102	%	85-115		1		08/02/09 23:44	1868-53-7	
Toluene-d8 (S)	98	%	70-120		1		08/02/09 23:44	2037-26-5	
4-Bromofluorobenzene (S)	99	%	87-109		1		08/02/09 23:44	460-00-4	
1,2-Dichloroethane-d4 (S)	104	%	79-120		1		08/02/09 23:44	17060-07-0	

Sample: RMW-20 **Lab ID: 9249424018** Collected: 07/23/09 10:26 Received: 07/24/09 15:25 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	07/28/09 10:30	07/28/09 17:17	106-93-4	
1-Chloro-2-bromopropane (S)	75	%	60-140		1	07/28/09 10:30	07/28/09 17:17	301-79-56	
8260 MSV Oxygenates	Analytical Method: EPA 8260								
tert-Amyl Alcohol	ND	ug/L	100	62.0	1		08/03/09 00:03	75-85-4	
tert-Amylmethyl ether	ND	ug/L	10.0	4.5	1		08/03/09 00:03	994-05-8	
Benzene	ND	ug/L	5.0	1.2	1		08/03/09 00:03	71-43-2	
3,3-Dimethyl-1-Butanol	ND	ug/L	100	48.0	1		08/03/09 00:03	624-95-3	
tert-Butyl Alcohol	ND	ug/L	100	27.0	1		08/03/09 00:03	75-65-0	
tert-Butyl Formate	ND	ug/L	50.0	9.0	1		08/03/09 00:03	762-75-4	
1,2-Dichloroethane	ND	ug/L	5.0	1.3	1		08/03/09 00:03	107-06-2	
Diisopropyl ether	ND	ug/L	5.0	2.7	1		08/03/09 00:03	108-20-3	
Ethanol	ND	ug/L	200	170	1		08/03/09 00:03	64-17-5	
Ethylbenzene	ND	ug/L	5.0	1.1	1		08/03/09 00:03	100-41-4	
Ethyl-tert-butyl ether	ND	ug/L	10.0	4.6	1		08/03/09 00:03	637-92-3	
Methyl-tert-butyl ether	ND	ug/L	5.0	2.0	1		08/03/09 00:03	1634-04-4	
Naphthalene	ND	ug/L	5.0	2.9	1		08/03/09 00:03	91-20-3	
Toluene	ND	ug/L	5.0	1.8	1		08/03/09 00:03	108-88-3	
Xylene (Total)	ND	ug/L	10.0	2.7	1		08/03/09 00:03	1330-20-7	
m&p-Xylene	ND	ug/L	10.0	2.7	1		08/03/09 00:03	1330-20-7	
o-Xylene	ND	ug/L	5.0	1.7	1		08/03/09 00:03	95-47-6	
Dibromofluoromethane (S)	100	%	85-115		1		08/03/09 00:03	1868-53-7	
Toluene-d8 (S)	97	%	70-120		1		08/03/09 00:03	2037-26-5	
4-Bromofluorobenzene (S)	100	%	87-109		1		08/03/09 00:03	460-00-4	
1,2-Dichloroethane-d4 (S)	103	%	79-120		1		08/03/09 00:03	17060-07-0	

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

ANALYTICAL RESULTS

Project: GASTON FOOD MART 09-2341
Pace Project No.: 9249424

Sample: MW-22 **Lab ID: 9249424019** Collected: 07/23/09 09:22 Received: 07/24/09 15:25 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	07/28/09 10:30	07/28/09 17:39	106-93-4	
1-Chloro-2-bromopropane (S)	98	%	60-140		1	07/28/09 10:30	07/28/09 17:39	301-79-56	
8260 MSV Oxygenates	Analytical Method: EPA 8260								
tert-Amyl Alcohol	ND	ug/L	100	62.0	1		08/03/09 00:21	75-85-4	
tert-Amylmethyl ether	ND	ug/L	10.0	4.5	1		08/03/09 00:21	994-05-8	
Benzene	ND	ug/L	5.0	1.2	1		08/03/09 00:21	71-43-2	
3,3-Dimethyl-1-Butanol	ND	ug/L	100	48.0	1		08/03/09 00:21	624-95-3	
tert-Butyl Alcohol	ND	ug/L	100	27.0	1		08/03/09 00:21	75-65-0	
tert-Butyl Formate	ND	ug/L	50.0	9.0	1		08/03/09 00:21	762-75-4	
1,2-Dichloroethane	ND	ug/L	5.0	1.3	1		08/03/09 00:21	107-06-2	
Diisopropyl ether	ND	ug/L	5.0	2.7	1		08/03/09 00:21	108-20-3	
Ethanol	ND	ug/L	200	170	1		08/03/09 00:21	64-17-5	
Ethylbenzene	ND	ug/L	5.0	1.1	1		08/03/09 00:21	100-41-4	
Ethyl-tert-butyl ether	ND	ug/L	10.0	4.6	1		08/03/09 00:21	637-92-3	
Methyl-tert-butyl ether	ND	ug/L	5.0	2.0	1		08/03/09 00:21	1634-04-4	
Naphthalene	ND	ug/L	5.0	2.9	1		08/03/09 00:21	91-20-3	
Toluene	ND	ug/L	5.0	1.8	1		08/03/09 00:21	108-88-3	
Xylene (Total)	ND	ug/L	10.0	2.7	1		08/03/09 00:21	1330-20-7	
m&p-Xylene	ND	ug/L	10.0	2.7	1		08/03/09 00:21	1330-20-7	
o-Xylene	ND	ug/L	5.0	1.7	1		08/03/09 00:21	95-47-6	
Dibromofluoromethane (S)	102	%	85-115		1		08/03/09 00:21	1868-53-7	
Toluene-d8 (S)	98	%	70-120		1		08/03/09 00:21	2037-26-5	
4-Bromofluorobenzene (S)	101	%	87-109		1		08/03/09 00:21	460-00-4	
1,2-Dichloroethane-d4 (S)	105	%	79-120		1		08/03/09 00:21	17060-07-0	

Sample: MW-23 **Lab ID: 9249424020** Collected: 07/23/09 09:01 Received: 07/24/09 15:25 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	07/28/09 10:30	07/28/09 18:02	106-93-4	
1-Chloro-2-bromopropane (S)	102	%	60-140		1	07/28/09 10:30	07/28/09 18:02	301-79-56	
8260 MSV Oxygenates	Analytical Method: EPA 8260								
tert-Amyl Alcohol	ND	ug/L	100	62.0	1		08/03/09 00:39	75-85-4	
tert-Amylmethyl ether	ND	ug/L	10.0	4.5	1		08/03/09 00:39	994-05-8	
Benzene	ND	ug/L	5.0	1.2	1		08/03/09 00:39	71-43-2	
3,3-Dimethyl-1-Butanol	ND	ug/L	100	48.0	1		08/03/09 00:39	624-95-3	
tert-Butyl Alcohol	ND	ug/L	100	27.0	1		08/03/09 00:39	75-65-0	
tert-Butyl Formate	ND	ug/L	50.0	9.0	1		08/03/09 00:39	762-75-4	
1,2-Dichloroethane	ND	ug/L	5.0	1.3	1		08/03/09 00:39	107-06-2	
Diisopropyl ether	ND	ug/L	5.0	2.7	1		08/03/09 00:39	108-20-3	
Ethanol	ND	ug/L	200	170	1		08/03/09 00:39	64-17-5	

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

ANALYTICAL RESULTS

Project: GASTON FOOD MART 09-2341
Pace Project No.: 9249424

Sample: MW-23 **Lab ID: 9249424020** Collected: 07/23/09 09:01 Received: 07/24/09 15:25 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Oxygenates	Analytical Method: EPA 8260								
Ethylbenzene	ND	ug/L	5.0	1.1	1		08/03/09 00:39	100-41-4	
Ethyl-tert-butyl ether	ND	ug/L	10.0	4.6	1		08/03/09 00:39	637-92-3	
Methyl-tert-butyl ether	ND	ug/L	5.0	2.0	1		08/03/09 00:39	1634-04-4	
Naphthalene	ND	ug/L	5.0	2.9	1		08/03/09 00:39	91-20-3	
Toluene	ND	ug/L	5.0	1.8	1		08/03/09 00:39	108-88-3	
Xylene (Total)	ND	ug/L	10.0	2.7	1		08/03/09 00:39	1330-20-7	
m&p-Xylene	ND	ug/L	10.0	2.7	1		08/03/09 00:39	1330-20-7	
o-Xylene	ND	ug/L	5.0	1.7	1		08/03/09 00:39	95-47-6	
Dibromofluoromethane (S)	100	%	85-115		1		08/03/09 00:39	1868-53-7	
Toluene-d8 (S)	99	%	70-120		1		08/03/09 00:39	2037-26-5	
4-Bromofluorobenzene (S)	96	%	87-109		1		08/03/09 00:39	460-00-4	
1,2-Dichloroethane-d4 (S)	104	%	79-120		1		08/03/09 00:39	17060-07-0	

Sample: MW-24 **Lab ID: 9249424021** Collected: 07/23/09 11:17 Received: 07/24/09 15:25 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)	**0.72**	ug/L	0.038	0.038	2	07/28/09 10:30	07/30/09 11:21	106-93-4	
1-Chloro-2-bromopropane (S)	112	%	60-140		2	07/28/09 10:30	07/30/09 11:21	301-79-56	
8260 MSV Oxygenates	Analytical Method: EPA 8260								
tert-Amyl Alcohol	**1200**	ug/L	200	124	2		08/02/09 15:57	75-85-4	
tert-Amylmethyl ether	ND	ug/L	20.0	9.0	2		08/02/09 15:57	994-05-8	
Benzene	**213**	ug/L	10.0	2.4	2		08/02/09 15:57	71-43-2	
3,3-Dimethyl-1-Butanol	ND	ug/L	200	96.0	2		08/02/09 15:57	624-95-3	
tert-Butyl Alcohol	ND	ug/L	200	54.0	2		08/02/09 15:57	75-65-0	
tert-Butyl Formate	ND	ug/L	100	18.0	2		08/02/09 15:57	762-75-4	
1,2-Dichloroethane	ND	ug/L	10.0	2.6	2		08/02/09 15:57	107-06-2	
Diisopropyl ether	ND	ug/L	10.0	5.4	2		08/02/09 15:57	108-20-3	
Ethanol	ND	ug/L	400	340	2		08/02/09 15:57	64-17-5	
Ethylbenzene	**178**	ug/L	10.0	2.2	2		08/02/09 15:57	100-41-4	
Ethyl-tert-butyl ether	ND	ug/L	20.0	9.2	2		08/02/09 15:57	637-92-3	
Methyl-tert-butyl ether	ND	ug/L	10.0	4.0	2		08/02/09 15:57	1634-04-4	
Naphthalene	**116**	ug/L	10.0	5.8	2		08/02/09 15:57	91-20-3	
Toluene	**222**	ug/L	50.0	18.0	10		08/02/09 04:58	108-88-3	
Xylene (Total)	**972**	ug/L	20.0	5.4	2		08/02/09 15:57	1330-20-7	
m&p-Xylene	**628**	ug/L	20.0	5.4	2		08/02/09 15:57	1330-20-7	
o-Xylene	**344**	ug/L	10.0	3.4	2		08/02/09 15:57	95-47-6	
Dibromofluoromethane (S)	99	%	85-115		2		08/02/09 15:57	1868-53-7	
Toluene-d8 (S)	98	%	70-120		2		08/02/09 15:57	2037-26-5	
4-Bromofluorobenzene (S)	100	%	87-109		2		08/02/09 15:57	460-00-4	
1,2-Dichloroethane-d4 (S)	100	%	79-120		2		08/02/09 15:57	17060-07-0	

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

ANALYTICAL RESULTS

Project: GASTON FOOD MART 09-2341
Pace Project No.: 9249424

Sample: MW-25 **Lab ID: 9249424022** Collected: 07/23/09 11:46 Received: 07/24/09 15:25 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)	**16.6**	ug/L	0.95	0.95	50	07/28/09 10:30	07/30/09 11:43	106-93-4	
1-Chloro-2-bromopropane (S)	0	%	60-140		50	07/28/09 10:30	07/30/09 11:43	301-79-56	S4
8260 MSV Oxygenates	Analytical Method: EPA 8260								
tert-Amyl Alcohol	**13100**	ug/L	5000	3100	50		08/02/09 05:18	75-85-4	
tert-Amylmethyl ether	ND	ug/L	500	225	50		08/02/09 05:18	994-05-8	
Benzene	**7080**	ug/L	250	60.0	50		08/02/09 05:18	71-43-2	
3,3-Dimethyl-1-Butanol	ND	ug/L	5000	2400	50		08/02/09 05:18	624-95-3	
tert-Butyl Alcohol	ND	ug/L	5000	1350	50		08/02/09 05:18	75-65-0	
tert-Butyl Formate	ND	ug/L	2500	450	50		08/02/09 05:18	762-75-4	
1,2-Dichloroethane	**73.0J**	ug/L	250	65.0	50		08/02/09 05:18	107-06-2	
Diisopropyl ether	ND	ug/L	250	135	50		08/02/09 05:18	108-20-3	
Ethanol	ND	ug/L	10000	8500	50		08/02/09 05:18	64-17-5	
Ethylbenzene	**2100**	ug/L	250	55.0	50		08/02/09 05:18	100-41-4	
Ethyl-tert-butyl ether	ND	ug/L	500	230	50		08/02/09 05:18	637-92-3	
Methyl-tert-butyl ether	**19800**	ug/L	1000	400	200		08/02/09 20:43	1634-04-4	
Naphthalene	**552**	ug/L	250	145	50		08/02/09 05:18	91-20-3	
Toluene	**13300**	ug/L	1000	360	200		08/02/09 20:43	108-88-3	
Xylene (Total)	**10600**	ug/L	500	135	50		08/02/09 05:18	1330-20-7	
m&p-Xylene	**7370**	ug/L	500	135	50		08/02/09 05:18	1330-20-7	
o-Xylene	**3190**	ug/L	250	85.0	50		08/02/09 05:18	95-47-6	
Dibromofluoromethane (S)	100	%	85-115		50		08/02/09 05:18	1868-53-7	
Toluene-d8 (S)	96	%	70-120		50		08/02/09 05:18	2037-26-5	
4-Bromofluorobenzene (S)	98	%	87-109		50		08/02/09 05:18	460-00-4	
1,2-Dichloroethane-d4 (S)	100	%	79-120		50		08/02/09 05:18	17060-07-0	

Sample: DW-1 **Lab ID: 9249424023** Collected: 07/23/09 11:58 Received: 07/24/09 15:25 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	07/28/09 10:30	07/28/09 19:07	106-93-4	
1-Chloro-2-bromopropane (S)	105	%	60-140		1	07/28/09 10:30	07/28/09 19:07	301-79-56	
8260 MSV Oxygenates	Analytical Method: EPA 8260								
tert-Amyl Alcohol	ND	ug/L	100	62.0	1		08/03/09 00:57	75-85-4	
tert-Amylmethyl ether	ND	ug/L	10.0	4.5	1		08/03/09 00:57	994-05-8	
Benzene	ND	ug/L	5.0	1.2	1		08/03/09 00:57	71-43-2	
3,3-Dimethyl-1-Butanol	ND	ug/L	100	48.0	1		08/03/09 00:57	624-95-3	
tert-Butyl Alcohol	ND	ug/L	100	27.0	1		08/03/09 00:57	75-65-0	
tert-Butyl Formate	ND	ug/L	50.0	9.0	1		08/03/09 00:57	762-75-4	
1,2-Dichloroethane	ND	ug/L	5.0	1.3	1		08/03/09 00:57	107-06-2	
Diisopropyl ether	ND	ug/L	5.0	2.7	1		08/03/09 00:57	108-20-3	
Ethanol	ND	ug/L	200	170	1		08/03/09 00:57	64-17-5	

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

ANALYTICAL RESULTS

Project: GASTON FOOD MART 09-2341
Pace Project No.: 9249424

Sample: DW-1 **Lab ID: 9249424023** Collected: 07/23/09 11:58 Received: 07/24/09 15:25 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Oxygenates	Analytical Method: EPA 8260								
Ethylbenzene	ND	ug/L	5.0	1.1	1		08/03/09 00:57	100-41-4	
Ethyl-tert-butyl ether	ND	ug/L	10.0	4.6	1		08/03/09 00:57	637-92-3	
Methyl-tert-butyl ether	ND	ug/L	5.0	2.0	1		08/03/09 00:57	1634-04-4	
Naphthalene	ND	ug/L	5.0	2.9	1		08/03/09 00:57	91-20-3	
Toluene	ND	ug/L	5.0	1.8	1		08/03/09 00:57	108-88-3	
Xylene (Total)	ND	ug/L	10.0	2.7	1		08/03/09 00:57	1330-20-7	
m&p-Xylene	ND	ug/L	10.0	2.7	1		08/03/09 00:57	1330-20-7	
o-Xylene	ND	ug/L	5.0	1.7	1		08/03/09 00:57	95-47-6	
Dibromofluoromethane (S)	104	%	85-115		1		08/03/09 00:57	1868-53-7	
Toluene-d8 (S)	98	%	70-120		1		08/03/09 00:57	2037-26-5	
4-Bromofluorobenzene (S)	102	%	87-109		1		08/03/09 00:57	460-00-4	
1,2-Dichloroethane-d4 (S)	104	%	79-120		1		08/03/09 00:57	17060-07-0	

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: GASTON FOOD MART 09-2341
Pace Project No.: 9249424

QC Batch: MSV/7797 Analysis Method: EPA 8260
QC Batch Method: EPA 8260 Analysis Description: 8260 MSV Oxygenates
Associated Lab Samples: 9249424002, 9249424006, 9249424007, 9249424008

METHOD BLANK: 315138 Matrix: Water
Associated Lab Samples: 9249424002, 9249424006, 9249424007, 9249424008

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
1,2-Dichloroethane	ug/L	ND	5.0	07/30/09 02:25	
3,3-Dimethyl-1-Butanol	ug/L	ND	100	07/30/09 02:25	
Benzene	ug/L	ND	5.0	07/30/09 02:25	
Diisopropyl ether	ug/L	ND	5.0	07/30/09 02:25	
Ethanol	ug/L	ND	200	07/30/09 02:25	
Ethyl-tert-butyl ether	ug/L	ND	10.0	07/30/09 02:25	
Ethylbenzene	ug/L	ND	5.0	07/30/09 02:25	
m&p-Xylene	ug/L	ND	10.0	07/30/09 02:25	
Methyl-tert-butyl ether	ug/L	ND	5.0	07/30/09 02:25	
Naphthalene	ug/L	ND	5.0	07/30/09 02:25	
o-Xylene	ug/L	ND	5.0	07/30/09 02:25	
tert-Amyl Alcohol	ug/L	ND	100	07/30/09 02:25	
tert-Amylmethyl ether	ug/L	ND	10.0	07/30/09 02:25	
tert-Butyl Alcohol	ug/L	ND	100	07/30/09 02:25	
tert-Butyl Formate	ug/L	ND	50.0	07/30/09 02:25	
Toluene	ug/L	ND	5.0	07/30/09 02:25	
Xylene (Total)	ug/L	ND	10.0	07/30/09 02:25	
1,2-Dichloroethane-d4 (S)	%	101	79-120	07/30/09 02:25	
4-Bromofluorobenzene (S)	%	101	87-109	07/30/09 02:25	
Dibromofluoromethane (S)	%	100	85-115	07/30/09 02:25	
Toluene-d8 (S)	%	103	70-120	07/30/09 02:25	

LABORATORY CONTROL SAMPLE: 315139

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,2-Dichloroethane	ug/L	50	54.2	108	72-126	
3,3-Dimethyl-1-Butanol	ug/L	1000	904	90	55-148	
Benzene	ug/L	50	51.3	103	78-128	
Diisopropyl ether	ug/L	50	51.0	102	74-131	
Ethanol	ug/L	2000	2540	127	53-150	
Ethyl-tert-butyl ether	ug/L	100	102	102	77-136	
Ethylbenzene	ug/L	50	50.4	101	80-127	
m&p-Xylene	ug/L	100	101	101	82-127	
Methyl-tert-butyl ether	ug/L	50	48.7	97	71-130	
Naphthalene	ug/L	50	50.0	100	52-136	
o-Xylene	ug/L	50	51.9	104	83-124	
tert-Amyl Alcohol	ug/L	1000	950	95	50-150	
tert-Amylmethyl ether	ug/L	100	95.7	96	50-150	
tert-Butyl Alcohol	ug/L	500	542	108	50-150	
tert-Butyl Formate	ug/L	400	270	67	50-150	
Toluene	ug/L	50	51.7	103	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: GASTON FOOD MART 09-2341
Pace Project No.: 9249424

LABORATORY CONTROL SAMPLE: 315139

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Xylene (Total)	ug/L	150	153	102	83-125	
1,2-Dichloroethane-d4 (S)	%			99	79-120	
4-Bromofluorobenzene (S)	%			99	87-109	
Dibromofluoromethane (S)	%			101	85-115	
Toluene-d8 (S)	%			101	70-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 315140 315141

Parameter	Units	9249424006 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	54.1	55.1	108	110	74-136	2	30	
Toluene	ug/L	ND	50	50	55.0	56.8	110	114	73-131	3	30	
1,2-Dichloroethane-d4 (S)	%						101	102	79-120			
4-Bromofluorobenzene (S)	%						101	100	87-109			
Dibromofluoromethane (S)	%						103	98	85-115			
Toluene-d8 (S)	%						102	103	70-120			

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: GASTON FOOD MART 09-2341
Pace Project No.: 9249424

QC Batch: MSV/7794 Analysis Method: EPA 8260
QC Batch Method: EPA 8260 Analysis Description: 8260 MSV Oxygenates
Associated Lab Samples: 9249424003, 9249424004, 9249424005, 9249424009, 9249424010

METHOD BLANK: 315120 Matrix: Water
Associated Lab Samples: 9249424003, 9249424004, 9249424005, 9249424009, 9249424010

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
1,2-Dichloroethane	ug/L	ND	5.0	07/30/09 02:44	
3,3-Dimethyl-1-Butanol	ug/L	ND	100	07/30/09 02:44	
Benzene	ug/L	ND	5.0	07/30/09 02:44	
Diisopropyl ether	ug/L	ND	5.0	07/30/09 02:44	
Ethanol	ug/L	ND	200	07/30/09 02:44	
Ethyl-tert-butyl ether	ug/L	ND	10.0	07/30/09 02:44	
Ethylbenzene	ug/L	ND	5.0	07/30/09 02:44	
m&p-Xylene	ug/L	ND	10.0	07/30/09 02:44	
Methyl-tert-butyl ether	ug/L	ND	5.0	07/30/09 02:44	
Naphthalene	ug/L	ND	5.0	07/30/09 02:44	
o-Xylene	ug/L	ND	5.0	07/30/09 02:44	
tert-Amyl Alcohol	ug/L	ND	100	07/30/09 02:44	
tert-Amylmethyl ether	ug/L	ND	10.0	07/30/09 02:44	
tert-Butyl Alcohol	ug/L	ND	100	07/30/09 02:44	
tert-Butyl Formate	ug/L	ND	50.0	07/30/09 02:44	
Toluene	ug/L	ND	5.0	07/30/09 02:44	
Xylene (Total)	ug/L	ND	10.0	07/30/09 02:44	
1,2-Dichloroethane-d4 (S)	%	91	79-120	07/30/09 02:44	
4-Bromofluorobenzene (S)	%	106	87-109	07/30/09 02:44	
Dibromofluoromethane (S)	%	101	85-115	07/30/09 02:44	
Toluene-d8 (S)	%	103	70-120	07/30/09 02:44	

LABORATORY CONTROL SAMPLE: 315121

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,2-Dichloroethane	ug/L	50	59.1	118	72-126	
3,3-Dimethyl-1-Butanol	ug/L	1000	1070	107	55-148	
Benzene	ug/L	50	57.5	115	78-128	
Diisopropyl ether	ug/L	50	55.8	112	74-131	
Ethanol	ug/L	2000	2400	120	53-150	
Ethyl-tert-butyl ether	ug/L	100	109	109	77-136	
Ethylbenzene	ug/L	50	56.2	112	80-127	
m&p-Xylene	ug/L	100	115	115	82-127	
Methyl-tert-butyl ether	ug/L	50	52.4	105	71-130	
Naphthalene	ug/L	50	56.2	112	52-136	
o-Xylene	ug/L	50	58.8	118	83-124	
tert-Amyl Alcohol	ug/L	1000	1130	113	50-150	
tert-Amylmethyl ether	ug/L	100	109	109	50-150	
tert-Butyl Alcohol	ug/L	500	646	129	50-150	
tert-Butyl Formate	ug/L	400	295	74	50-150	
Toluene	ug/L	50	57.4	115	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: GASTON FOOD MART 09-2341
Pace Project No.: 9249424

LABORATORY CONTROL SAMPLE: 315121

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Xylene (Total)	ug/L	150	174	116	83-125	
1,2-Dichloroethane-d4 (S)	%			100	79-120	
4-Bromofluorobenzene (S)	%			103	87-109	
Dibromofluoromethane (S)	%			101	85-115	
Toluene-d8 (S)	%			102	70-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 315122 315123

Parameter	Units	9249424004 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	55.0	53.2	110	106	74-136	3	30	
Toluene	ug/L	ND	50	50	56.2	56.7	112	113	73-131	.8	30	
1,2-Dichloroethane-d4 (S)	%						101	97	79-120			
4-Bromofluorobenzene (S)	%						105	101	87-109			
Dibromofluoromethane (S)	%						104	100	85-115			
Toluene-d8 (S)	%						103	102	70-120			

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: GASTON FOOD MART 09-2341
Pace Project No.: 9249424

QC Batch: OEXT/7511 Analysis Method: EPA 8011
QC Batch Method: EPA 8011 Analysis Description: GCS 8011 EDB DBCP
Associated Lab Samples: 9249424001, 9249424002, 9249424003, 9249424004, 9249424005, 9249424006

METHOD BLANK: 314064 Matrix: Water
Associated Lab Samples: 9249424001, 9249424002, 9249424003, 9249424004, 9249424005, 9249424006

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
1,2-Dibromoethane (EDB)	ug/L	ND	0.019	07/28/09 11:05	
1-Chloro-2-bromopropane (S)	%	103	60-140	07/28/09 11:05	

LABORATORY CONTROL SAMPLE & LCSD: 314065 314066

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	0.33	0.29	118	106	60-140	11	20	
1-Chloro-2-bromopropane (S)	%				117	103	60-140			

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 314067 314068

Parameter	Units	9249323002 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	.27	.27	0.31	0.29	114	106	60-140	7	20	
1-Chloro-2-bromopropane (S)	%						112	101	60-140			

SAMPLE DUPLICATE: 314069

Parameter	Units	9249323004 Result	Dup Result	RPD	Max RPD	Qualifiers
1,2-Dibromoethane (EDB)	ug/L	ND	ND		20	
1-Chloro-2-bromopropane (S)	%		112	17		

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: GASTON FOOD MART 09-2341
Pace Project No.: 9249424

QC Batch: MSV/7805 Analysis Method: EPA 8260
QC Batch Method: EPA 8260 Analysis Description: 8260 MSV Oxygenates
Associated Lab Samples: 9249424001, 9249424011, 9249424012, 9249424013, 9249424014, 9249424015, 9249424016, 9249424017, 9249424018, 9249424019, 9249424020, 9249424023

METHOD BLANK: 315675 Matrix: Water
Associated Lab Samples: 9249424001, 9249424011, 9249424012, 9249424013, 9249424014, 9249424015, 9249424016, 9249424017, 9249424018, 9249424019, 9249424020, 9249424023

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
1,2-Dichloroethane	ug/L	ND	5.0	08/02/09 19:49	
3,3-Dimethyl-1-Butanol	ug/L	ND	100	08/02/09 19:49	
Benzene	ug/L	ND	5.0	08/02/09 19:49	
Diisopropyl ether	ug/L	ND	5.0	08/02/09 19:49	
Ethanol	ug/L	ND	200	08/02/09 19:49	
Ethyl-tert-butyl ether	ug/L	ND	10.0	08/02/09 19:49	
Ethylbenzene	ug/L	ND	5.0	08/02/09 19:49	
m&p-Xylene	ug/L	ND	10.0	08/02/09 19:49	
Methyl-tert-butyl ether	ug/L	ND	5.0	08/02/09 19:49	
Naphthalene	ug/L	ND	5.0	08/02/09 19:49	
o-Xylene	ug/L	ND	5.0	08/02/09 19:49	
tert-Amyl Alcohol	ug/L	ND	100	08/02/09 19:49	
tert-Amylmethyl ether	ug/L	ND	10.0	08/02/09 19:49	
tert-Butyl Alcohol	ug/L	ND	100	08/02/09 19:49	
tert-Butyl Formate	ug/L	ND	50.0	08/02/09 19:49	
Toluene	ug/L	ND	5.0	08/02/09 19:49	
Xylene (Total)	ug/L	ND	10.0	08/02/09 19:49	
1,2-Dichloroethane-d4 (S)	%	101	79-120	08/02/09 19:49	
4-Bromofluorobenzene (S)	%	105	87-109	08/02/09 19:49	
Dibromofluoromethane (S)	%	101	85-115	08/02/09 19:49	
Toluene-d8 (S)	%	99	70-120	08/02/09 19:49	

LABORATORY CONTROL SAMPLE: 315676

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,2-Dichloroethane	ug/L	50	60.4	121	72-126	
3,3-Dimethyl-1-Butanol	ug/L	1000	1250	125	55-148	
Benzene	ug/L	50	55.2	110	78-128	
Diisopropyl ether	ug/L	50	56.0	112	74-131	
Ethanol	ug/L	2000	3490	175	53-150	L3
Ethyl-tert-butyl ether	ug/L	100	114	114	77-136	
Ethylbenzene	ug/L	50	56.5	113	80-127	
m&p-Xylene	ug/L	100	115	115	82-127	
Methyl-tert-butyl ether	ug/L	50	57.0	114	71-130	
Naphthalene	ug/L	50	58.8	118	52-136	
o-Xylene	ug/L	50	57.1	114	83-124	
tert-Amyl Alcohol	ug/L	1000	1360	136	50-150	
tert-Amylmethyl ether	ug/L	100	111	111	50-150	
tert-Butyl Alcohol	ug/L	500	687	137	50-150	
tert-Butyl Formate	ug/L	400	383	96	50-150	

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: GASTON FOOD MART 09-2341
Pace Project No.: 9249424

LABORATORY CONTROL SAMPLE: 315676

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Toluene	ug/L	50	55.8	112	76-126	
Xylene (Total)	ug/L	150	172	115	83-125	
1,2-Dichloroethane-d4 (S)	%			102	79-120	
4-Bromofluorobenzene (S)	%			99	87-109	
Dibromofluoromethane (S)	%			101	85-115	
Toluene-d8 (S)	%			99	70-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 315677 315678

Parameter	Units	9249136006 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	59.4	50.0	119	100	74-136	17	30	H1
Toluene	ug/L	ND	50	50	56.5	47.4	113	94	73-131	18	30	
1,2-Dichloroethane-d4 (S)	%						105	104	79-120			
4-Bromofluorobenzene (S)	%						99	100	87-109			
Dibromofluoromethane (S)	%						102	103	85-115			
Toluene-d8 (S)	%						98	97	70-120			

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: GASTON FOOD MART 09-2341
Pace Project No.: 9249424

QC Batch: OEXT/7512 Analysis Method: EPA 8011
QC Batch Method: EPA 8011 Analysis Description: GCS 8011 EDB DBCP
Associated Lab Samples: 9249424007, 9249424008, 9249424009, 9249424010, 9249424011, 9249424012, 9249424013, 9249424014, 9249424015, 9249424016, 9249424017, 9249424018, 9249424019, 9249424020, 9249424021, 9249424022, 9249424023

METHOD BLANK: 314070 Matrix: Water
Associated Lab Samples: 9249424007, 9249424008, 9249424009, 9249424010, 9249424011, 9249424012, 9249424013, 9249424014, 9249424015, 9249424016, 9249424017, 9249424018, 9249424019, 9249424020, 9249424021, 9249424022, 9249424023

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
1,2-Dibromoethane (EDB)	ug/L	ND	0.019	07/28/09 11:10	
1-Chloro-2-bromopropane (S)	%	108	60-140	07/28/09 11:10	

LABORATORY CONTROL SAMPLE & LCSD: 314071 314072

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	110	112	60-140	2	20	
1-Chloro-2-bromopropane (S)	%				106	108	60-140			

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 314073 314074

Parameter	Units	9249424009 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	31.5	.27	.27	44.6	44.3	4760	4640	60-140	.7	20	P6
1-Chloro-2-bromopropane (S)	%						104	103	60-140			

SAMPLE DUPLICATE: 314075

Parameter	Units	9249424010 Result	Dup Result	RPD	Max RPD	Qualifiers
1,2-Dibromoethane (EDB)	ug/L	ND	ND		20	
1-Chloro-2-bromopropane (S)	%		100	2		

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: GASTON FOOD MART 09-2341
Pace Project No.: 9249424

QC Batch: MSV/7810
QC Batch Method: EPA 8260
Analysis Method: EPA 8260
Analysis Description: 8260 MSV Oxygenates
Associated Lab Samples: 9249424021, 9249424022

METHOD BLANK: 315709
Matrix: Water
Associated Lab Samples: 9249424021, 9249424022

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
1,2-Dichloroethane	ug/L	ND	5.0	08/01/09 20:44	
3,3-Dimethyl-1-Butanol	ug/L	ND	100	08/01/09 20:44	
Benzene	ug/L	ND	5.0	08/01/09 20:44	
Diisopropyl ether	ug/L	ND	5.0	08/01/09 20:44	
Ethanol	ug/L	ND	200	08/01/09 20:44	
Ethyl-tert-butyl ether	ug/L	ND	10.0	08/01/09 20:44	
Ethylbenzene	ug/L	ND	5.0	08/01/09 20:44	
m&p-Xylene	ug/L	ND	10.0	08/01/09 20:44	
Methyl-tert-butyl ether	ug/L	ND	5.0	08/01/09 20:44	
Naphthalene	ug/L	ND	5.0	08/01/09 20:44	
o-Xylene	ug/L	ND	5.0	08/01/09 20:44	
tert-Amyl Alcohol	ug/L	ND	100	08/01/09 20:44	
tert-Amylmethyl ether	ug/L	ND	10.0	08/01/09 20:44	
tert-Butyl Alcohol	ug/L	ND	100	08/01/09 20:44	
tert-Butyl Formate	ug/L	ND	50.0	08/01/09 20:44	
Toluene	ug/L	ND	5.0	08/01/09 20:44	
Xylene (Total)	ug/L	ND	10.0	08/01/09 20:44	
1,2-Dichloroethane-d4 (S)	%	101	79-120	08/01/09 20:44	
4-Bromofluorobenzene (S)	%	100	87-109	08/01/09 20:44	
Dibromofluoromethane (S)	%	98	85-115	08/01/09 20:44	
Toluene-d8 (S)	%	99	70-120	08/01/09 20:44	

LABORATORY CONTROL SAMPLE: 315710

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,2-Dichloroethane	ug/L	50	53.4	107	72-126	
3,3-Dimethyl-1-Butanol	ug/L	1000	1130	113	55-148	
Benzene	ug/L	50	50.1	100	78-128	
Diisopropyl ether	ug/L	50	49.6	99	74-131	
Ethanol	ug/L	2000	3240	162	53-150	L3
Ethyl-tert-butyl ether	ug/L	100	99.5	99	77-136	
Ethylbenzene	ug/L	50	51.2	102	80-127	
m&p-Xylene	ug/L	100	108	108	82-127	
Methyl-tert-butyl ether	ug/L	50	49.9	100	71-130	
Naphthalene	ug/L	50	61.6	123	52-136	
o-Xylene	ug/L	50	52.3	105	83-124	
tert-Amyl Alcohol	ug/L	1000	1180	118	50-150	
tert-Amylmethyl ether	ug/L	100	99.4	99	50-150	
tert-Butyl Alcohol	ug/L	500	556	111	50-150	
tert-Butyl Formate	ug/L	400	309	77	50-150	
Toluene	ug/L	50	50.0	100	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: GASTON FOOD MART 09-2341
Pace Project No.: 9249424

LABORATORY CONTROL SAMPLE: 315710

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)	%			98	79-120	
4-Bromofluorobenzene (S)	%			101	87-109	
Dibromofluoromethane (S)	%			100	85-115	
Toluene-d8 (S)	%			100	70-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 315711 315712

Parameter	Units	9249362016 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	55.3	48.3	111	97	74-136	14	30	
Toluene	ug/L	ND	50	50	53.9	47.0	108	94	73-131	14	30	
1,2-Dichloroethane-d4 (S)	%						98	104	79-120			
4-Bromofluorobenzene (S)	%						103	101	87-109			
Dibromofluoromethane (S)	%						99	103	85-115			
Toluene-d8 (S)	%						98	99	70-120			

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

QUALIFIERS

Project: GASTON FOOD MART 09-2341
Pace Project No.: 9249424

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

H1	Analysis conducted outside the EPA method holding time.
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.
P6	Matrix spike recovery was outside laboratory control limits due to a parent sample concentration notably higher than the spike level.
S4	Surrogate recovery not evaluated against control limits due to sample dilution.

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: of 2

1162500

Section A Required Client Information:

Company:	MECI
Address:	235-B Dooley Road
	Lexington, SC 29073
Email To:	mcm@meci.net
Phone: 803-808-2043	Fax:
Requested Due Date/TAT:	

Section B Required Project Information:

Report To:	B. Shane
Copy To:	
Purchase Order No.:	
Project Name:	Gaston Food Mart
Project Number:	09-2341

Section C Invoice Information:

Attention:	
Company Name:	
Address:	
Pace Quote Reference:	
Pace Project Manager:	L. Spencer
Pace Profile #:	836-5

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)

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: Sty. Anal. mtbe, 8260B	1,2 DCA	EDB	8-DX4	Residual Chlorine (Y/N)	Pace Project No./ Lab I.D.
1	MW-1	WT	G			7/23	12:26		6				X					X			X		092464001
2	MW-1A						12:57																002
3	RMW-3						11:46																003
4	RMW-5						10:16																004
5	MW-6						12:06																005
6	MW-7						12:18																006
7	MW-8						10:51																007
8	MW-9						10:59																008
9	MW-10						11:39																009
10	MW-11						12:57																010
11	MW-12						9:50																011
12	MW-13	WT	G			7/23	12:44		6				X					X			X		012

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)
Please report "J" values		7/24	1040		7/24/9	1040				
		7/24/9	1522		7/24/09	1525	3.1	Y	N	Y

ORIGINAL

SAMPLER NAME AND SIGNATURE

PRINT Name of SAMPLER: Logan McConaher

SIGNATURE of SAMPLER: Logan McConaher

DATE Signed (MM/DD/YY): 7/23/09

*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.

Pace Analytical
www.pacelabs.com

Page: 2 of 2

1162499

Section A Required Client Information:

Company: MECI
Address: 735-B Old Dairy Road
Lexington, SC 29073
Email To: wmd mecinet
Phone: 803-957-2043 Fax:
Requested Due Date/TAT:

Section B Required Project Information:

Report To: B. Shane
Copy To:
Purchase Order No.:
Project Name: Gaston Food Mart
Project Number: 09-2541

Section C Invoice Information:

Attention:
Company Name:
Address:
Pace Quote Reference:
Pace Project Manager: R. Spencer
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): BTEX, MTBE, 8260b; 1,2 DCA; EDB; 8 - DRY

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	Residual Chlorine (Y/N)	Pace Project No./ Lab I.D.
1	MW-14	WT	G			7/23	11:09		6				X						013
2	MW-15						9:12												14
3	MW-16						8:49												15
4	MW-16R						8:40												16
5	MW-19						10:42												17
6	MW-20						10:26												18
7	MW-22						9:22												19
8	MW-23						9:01												20
9	MW-24						11:17												21
10	MW-25						11:46												22
11	DW-1			7/23			[illegible]												23
12		WT	G				11:58		6				X						

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)
Please Polish "J"	[signature]	7/24	1040	[signature] Pace	7/24/09	1040				
Values	[signature] Pace	7/24/9	1525	[signature] Pace	7/24/09	1525	3.1	Y	N	Y

ORIGINAL

SAMPLER NAME AND SIGNATURE

PRINT Name of SAMPLER: Logan McConahey

SIGNATURE of SAMPLER: [signature] DATE Signed (MM/DD/YY): 7/23/09

*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.

WASTE DISPOSAL MANIFEST

August 6, 2009

Midlands Environmental Consultants, Inc.

Re: Treatment of Purge Water
Gaston Food Mart
Gaston, South Carolina
SCDHEC Site ID Number 05986
MECI Project Number 09-2341

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

One 55-gallon drum was treated on July 23, 2009 at the referenced site.

A total of one (1) 55-gallon drum was treated 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
Project Scientist

D H E C

PROMOTE PROTECT PROSPER

C. Earl Hunter, Commissioner

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

D F SHUMPERT
814 PINE ST
PELION SC 29123

JUL 17 2009

Re: Sample Directive
Gaston Food Mart, 105 N Main St., Gaston, SC
UST Permit #05986; CA #36509
Release reported November 20, 1991
Monitoring Report received January 20, 2009
Lexington County

Dear Mr. Shumpert:

The Underground Storage Tank (UST) Management Division of the South Carolina Department of Health and Environmental Control (SCDHEC) recognizes your commitment to continue work at this site utilizing Midlands Environmental Consultants, Inc. The next necessary scope of work is a groundwater sampling event.

Cost Agreement #36509 has been approved in the amount shown on the enclosed cost agreement form for the sampling. Samples should be collected from all of the monitoring wells and analyzed for BTEX, Naphthalene, MTBE, and 1,2-DCA by EPA method 8260B, oxygenates by method 8260-Oxy, and EDB by method 8011 (note that the required detection limit for EDB is 0.02 parts per billion). During sampling, if the well screen does not bracket the water table, then the well should be purged prior to collection of the water samples.

Beginning May 1, 2009, the UST Management Division will no longer reimburse costs for oxygenate analysis for any laboratory that is not certified for oxygenate analyses. Detailed information regarding the oxygenate certification can be found on the UST Guidance Documents webpage. http://www.scdhec.gov/environment/envserv/docs/OxygenateCertification.pdf. The document can also be accessed from the UST documents page at http://www.scdhec.net/environment/ lwm/forms/. Any laboratory with questions regarding the certification requirements should contact the Office of Environmental Laboratory Certification at (803) 896-0970.

Please have your contractor submit analytical results to the UST Management Division in a monitoring report containing the following items:

- A narrative portion documenting current site conditions and noting the names of field personnel, date, time, ambient air temperature, and general weather conditions during the sampling event. The report shall also contain well purging data, pH, specific conductivity, water temperature, PID readings (where applicable) and turbidity comments.
- Groundwater elevations, depth to groundwater, measurable free product thickness (where applicable), total well depth and screened interval for all monitoring wells associated with the site, unless otherwise directed by the Division, shall be presented in tabular form. Groundwater laboratory analytical data for all monitoring wells shall be presented in tabular format.

UST DOCKET 36 ecl

- A groundwater elevation contour map of the site based on current groundwater potentiometric data.
- A CoC map based on current groundwater laboratory analytical data. The groundwater data should be adjacent to the relevant monitoring well location.
- Manifests for any contaminated soil and/or groundwater removed from the site for treatment and/or disposal.
- Signature and seal by a professional geologist or engineer registered in the State of South Carolina.

Midlands Environmental Consultants can submit an invoice for direct billing from the State Underground Petroleum Environmental Response Bank (SUPERB) Account. Please note that all applicable South Carolina certification requirements apply to the laboratory services, well installation, and report preparation. All site rehabilitation activities must be performed and submitted by a South Carolina Certified Underground Storage Tank Site Rehabilitation Contractor.

A Report of Findings and invoice are due within 60 days from the date of this letter. Interim invoices may not be submitted for this scope of work. If the invoice is not submitted within 120 days from the date of this letter, monies allocated to pay this invoice will be uncommitted. This means that the invoice will not be processed for payment until all other committed funds are paid or monies become available.

Please note that Sections 44-2-110(4) and 44-2-130 of the SUPERB Statute state that no costs will be allowed unless prior approval is obtained from the UST Management Division. If for any reason additional tasks will be completed, these additional tasks and the associated cost must be preapproved by the Division for the cost to be paid. The Division reserves the authority to pay only for work properly performed and/or technically justified and will only pay rates in accordance with established criteria. Further, the Division reserves the right to question and/or reject costs if deemed unreasonable and to audit project records at any time during the project or after completion of work.

The UST Management Division grants preapproval for transportation of virgin petroleum-contaminated soil and groundwater from the referenced site to a permitted treatment facility. The contaminated soil or groundwater must be properly stored in labeled containers or covered with plastic as appropriate. 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 and/or acceptance letter from the receiving facility that clearly designates the quantity received must be included as an appendix to the final report. If the levels of petroleum contamination based on laboratory analysis are below risk-based screening levels, please contact the project manager for approval to dispose of soil and/or groundwater on-site. The SUPERB Account will not compensate for transportation or treatment of clean soil and/or groundwater.

On all correspondence concerning this site, please reference UST Permit #05986 and CA #36509. If you have any questions, please contact me at (803) 896-6584 or by e-mail at minerrs@dhec.sc.gov.

Sincerely,

Read S. Miner, P.G., Hydrogeologist
Corrective Action Section
Underground Storage Tank Management Division
Bureau of Land and Waste Management

enc: Approved Cost Agreement

cc: Technical File (with enclosure)
Bryan Shane, Midlands Environmental Consultants, PO Box 854, Lexington, SC 29071 (without enclosure)

Approved Cost Agreement 36509

Facility: 05986 GASTON FOOD MART
MINERRS
PO Number:

Task / Description	Categories	Item Description	Qty / Pct	Unit Price	Amount
04 MOB/DEMOB					
		B PERSONNEL	3.0000	290.00	870.00
10 SAMPLE COLLECTION					
		A GROUND WATER	2.0000	55.00	110.00
		D GROUNDWATER NO-PURGE	26.0000	35.00	910.00
11 ANALYSES					
	GW GROUNDWATER	A BTEX+NAPTH+MTBE	28.0000	100.00	2,800.00
		BB 1,2-DCA	28.0000	10.75	301.00
		F EDB	28.0000	55.00	1,540.00
		P 8 OXYGENATES	28.0000	85.00	2,380.00
17 DISPOSAL					
		A1 WASTEWATER - PURGING/SAMPLING	2.0000	90.00	180.00
19 RPT/PROJECT MNGT & COORDINATIO					
		PCT PERCENT	0.1500	9,091.00	1,363.65
				Total Amount	10,454.65

05986

D H E C

PROMOTE PROTECT PROSPER

C. Earl Hunter, Commissioner

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

FEB 12 2009

LYNN GANT
316 JIMMY MARTIN CIR
GASTON SC 29053-8921

Re: **Irrigation well results**
Gant irrigation well, 316 Jimmy Martin Circle, Lexington, SC
Laboratory data received January 20, 2009
Lexington County

Dear Ms. Gant:

As you are aware, four water samples have been collected by SCDHEC staff from your water supply well, the first on March 14, 2008, the second on April 10, 2008, the third on May 1, 2008, and the most recent sample on January 8, 2009. All four samples showed low concentrations of MTBE, 13.9, 6.9, 24.9, and 17.3 parts per billion, respectively. A copy of the January 2009 lab data is enclosed. The concentration of MTBE is below the South Carolina standard of 40 parts per billion; therefore, the concentrations detected in your well water do not pose a risk to your health.

The source of the MTBE is currently unknown. On January 8, 2009, you pointed out a potential source located on Highway 321. During a subsequent telephone conversation, you informed me that the former store burnt down in 1979 or 1980. Because MTBE was not introduced into gasoline until after the gas station burnt down, it is considered to be a very unlikely source for the MTBE found in your irrigation well. With your permission, we will continue to re-sample your irrigation well periodically to evaluate any changes in concentration. You will be contacted for permission prior to any proposed sampling event and provided a copy of the results as soon as they are available.

If you have any questions, please contact me at (803) 896-6584 or by e-mail at minerrs@dhec.sc.gov.

Sincerely,

Read S. Miner

Read S. Miner, P.G., Hydrogeologist
Corrective Action Section
Assessment and Corrective Action Division
Underground Storage Tank Program
Bureau of Land and Waste Management

Enc: Analytical results

UST DOCKET
356

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

January 15, 2009

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

RE: Project: GASTON FOOD MART 05986
Pace Project No.: 9235792

Dear Ms. Thoma:
Enclosed are the analytical results for sample(s) received by the laboratory on January 09, 2009. 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

REPORT OF LABORATORY ANALYSIS

ACCREDITED IN ACCORDANCE WITH nelac

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

CERTIFICATIONS

Project: GASTON FOOD MART 05986
Pace Project No.: 9235792

Charlotte Certification IDs
West Virginia Certification #: 357
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
Connecticut Certification #: PH-0104

Asheville Certification IDs
West Virginia Certification #: 356
Virginia Certification #: 00072
Tennessee Certification #: 2980
South Carolina Certification #: 99030001
South Carolina Bioassay Certification #: 99030002
Pennsylvania Certification #: 68-03578
North Carolina Wastewater Certification #: 40
North Carolina Drinking Water Certification #: 37712
North Carolina Bioassay Certification #: 9
New Jersey Certification #: NC011
Massachusetts Certification #: M-NC030
Louisiana/LELAP Certification #: 03095
Florida/NELAP Certification #: E87648
Connecticut Certification #: PH-0106

Eden Certification IDs
Virginia Drinking Water Certification #: 00424
North Carolina Wastewater Certification #: 633
North Carolina Drinking Water Certification #: 37738

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

SAMPLE SUMMARY

Project: GASTON FOOD MART 05986
Pace Project No.: 9235792

Lab ID	Sample ID	Matrix	Date Collected	Date Received
9235792001	**GANT WELL**	Water	01/08/09 10:40	01/09/09 16:00

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

SAMPLE ANALYTE COUNT

Project: GASTON FOOD MART 05986
Pace Project No.: 9235792

Lab ID	Sample ID	Method	Analysts	Analytes Reported
9235792001	**GANT WELL**	EPA 8260	AW	13

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

ANALYTICAL RESULTS

Project: GASTON FOOD MART 05986
Pace Project No.: 9235792

Sample: GANT WELL **Lab ID: 9235792001** Collected: 01/08/09 10:40 Received: 01/09/09 16:00 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Low Level	Analytical Method: EPA 8260								
Benzene	ND	ug/L	1.0	0.25	1		01/12/09 15:17	71-43-2	
1,2-Dichloroethane	ND	ug/L	1.0	0.12	1		01/12/09 15:17	107-06-2	
Ethylbenzene	ND	ug/L	1.0	0.30	1		01/12/09 15:17	100-41-4	
Methyl-tert-butyl ether	**17.3**	ug/L	1.0	0.21	1		01/12/09 15:17	1634-04-4	
Naphthalene	ND	ug/L	1.0	0.24	1		01/12/09 15:17	91-20-3	
Toluene	ND	ug/L	1.0	0.26	1		01/12/09 15:17	108-88-3	
Xylene (Total)	ND	ug/L	2.0	0.66	1		01/12/09 15:17	1330-20-7	
m&p-Xylene	ND	ug/L	2.0	0.66	1		01/12/09 15:17	1330-20-7	
o-Xylene	ND	ug/L	1.0	0.23	1		01/12/09 15:17	95-47-6	
4-Bromofluorobenzene (S)	98	%	87-109		1		01/12/09 15:17	460-00-4	
Dibromofluoromethane (S)	96	%	85-115		1		01/12/09 15:17	1868-53-7	
1,2-Dichloroethane-d4 (S)	97	%	79-120		1		01/12/09 15:17	17060-07-0	
Toluene-d8 (S)	98	%	70-120		1		01/12/09 15:17	2037-26-5	

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: GASTON FOOD MART 05986
Pace Project No.: 9235792

QC Batch: MSV/5838
QC Batch Method: EPA 8260
Analysis Method: EPA 8260
Analysis Description: 8260 MSV Low Level
Associated Lab Samples: 9235792001

METHOD BLANK: 221958 Matrix: Water
Associated Lab Samples: 9235792001

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
1,2-Dichloroethane	ug/L	ND	1.0	01/12/09 13:42	
Benzene	ug/L	ND	1.0	01/12/09 13:42	
Ethylbenzene	ug/L	ND	1.0	01/12/09 13:42	
m&p-Xylene	ug/L	ND	2.0	01/12/09 13:42	
Methyl-tert-butyl ether	ug/L	ND	1.0	01/12/09 13:42	
Naphthalene	ug/L	ND	1.0	01/12/09 13:42	
o-Xylene	ug/L	ND	1.0	01/12/09 13:42	
Toluene	ug/L	ND	1.0	01/12/09 13:42	
Xylene (Total)	ug/L	ND	2.0	01/12/09 13:42	
1,2-Dichloroethane-d4 (S)	%	98	79-120	01/12/09 13:42	
4-Bromofluorobenzene (S)	%	100	87-109	01/12/09 13:42	
Dibromofluoromethane (S)	%	97	85-115	01/12/09 13:42	
Toluene-d8 (S)	%	99	70-120	01/12/09 13:42	

LABORATORY CONTROL SAMPLE: 221959

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,2-Dichloroethane	ug/L	50	48.4	97	72-126	
Benzene	ug/L	50	47.2	94	78-128	
Ethylbenzene	ug/L	50	47.1	94	80-127	
m&p-Xylene	ug/L	100	94.5	95	82-127	
Methyl-tert-butyl ether	ug/L	50	50.6	101	71-130	
Naphthalene	ug/L	50	47.7	95	52-136	
o-Xylene	ug/L	50	47.4	95	83-124	
Toluene	ug/L	50	47.1	94	76-126	
Xylene (Total)	ug/L	150	142	95	83-125	
1,2-Dichloroethane-d4 (S)	%			99	79-120	
4-Bromofluorobenzene (S)	%			101	87-109	
Dibromofluoromethane (S)	%			101	85-115	
Toluene-d8 (S)	%			100	70-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 221985 221986

Parameter	Units	9235831001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Benzene	ug/L		50	50	50.7	50.1	101	100	74-136	1	30	
Toluene	ug/L		50	50	48.0	47.4	96	95	73-131	1	30	
1,2-Dichloroethane-d4 (S)	%						98	101	79-120			
4-Bromofluorobenzene (S)	%						100	102	87-109			
Dibromofluoromethane (S)	%						98	99	85-115			

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: GASTON FOOD MART 05986
Pace Project No.: 9235792

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 221985 221986

Parameter	Units	9235831001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Toluene-d8 (S)	%						97	99	70-120			

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

QUALIFIERS

Project: GASTON FOOD MART 05986
Pace Project No.: 9235792

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.

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

1164811

Section A — Required Client Information:

Company:	DHEC UST PROGRAM
Address:	2600 Bull St. Columbia SC 29201
Email To:	Thomadl@dhec.sc.gov
Phone: 803-896-6397	Fax: 803-896-6245
Requested Due Date/TAT:	7 day

Section B — Required Project Information:

Report To:	Debra Thoma
Copy To:	Debra Thoma
Purchase Order No.:	729210
Project Name:	Gaston Food mart
Project Number:	05986/34968:P

Section C — Invoice Information:

Attention:	Debra Thoma
Company Name:	DHEC UST PROGRAM
Address:	2600 Bull St.
Pace Quote Reference:	
Pace Project Manager:	Reese Spencer
Pace Profile #:	8429

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	Preservatives: Unpreserved	H_2SO_4	HNO_3	HCl	NaOH	$Na_2S_2O_3$	Methanol	Other	Analysis Test Y/N	BTEX, MTBE, 1,2-DCA 8260B	Residual Chlorine (Y/N)	Pace Project No./ Lab I.D.
1	GANT WELL	WT	G	1-8-09	1040	1-8-09	1040		3				X						X	X	923592 001
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)
	Read Skinner	1-9-09	8:42	Pace	1/9/09	8:42				
	B Singleton Pace	1-9-09	1600	J Moore	1/9	1600	3.6	Y	N	Y

ORIGINAL

SAMPLER NAME AND SIGNATURE

PRINT Name of SAMPLER: READ SKINNER

SIGNATURE of SAMPLER: Read Skinner DATE Signed (MM/DD/YY): 1/9/09

*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.

RENEE SPENCER
PACE ANALYTICAL SERVICES
9800 KINCEY AVE STE 100
HUNTERSVILLE NC 28078

JAN 12 2008

Re: Laboratory Analyses Approval
Bid # IFB-33871-05/29/08-EMW, PO # 729210

Dear Ms. Spencer:

Under the terms and conditions of the referenced bid package, analytical sampling has been approved for the referenced facilities. The facilities have been assigned individual Cost Agreement (CA) numbers as listed below. Please reference the CA number and Purchase Order #729210 on the appropriate invoice submitted for payment against the facility. SCDHEC personnel will perform the sampling.

UST Permit #	Facility	Analyses-Groundwater	CA #	Bottles (Y/N)	Date Needed
05986	Gaston Food Mart	1-BTEXMN	34968	N	-----
14160	Geralds Radiator	16-BTEXMN, DCA, EDB, & Oxygenates	34980	N	-----

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
Assessment & Corrective Action Division
Underground Storage Tank Program
Bureau of Land & Waste Management

Enc: Approved Cost Agreements

cc: Technical Files (w/o enc.)

UST DOCKET
33tech

Approved Cost Agreement 34968

Facility: 05986 GASTON FOOD MART
MINERRS
PO Number:

Task / Description	Categories	Item	Description	Qty / Pct	Unit Price	Amount
11 ANALYSES						
	GW GROUNDWATER	A	BTEX+NAPTH+MTBE	1.0000	23.00	23.00
				Total Amount		23.00

Midlands
Environmental
Consultants, Inc.

September 25, 2008

Mr. Read S. Miner, P.G., Hydrogeologist
Southwestern 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 Assessment Activities
Gaston Food Mart
105 North Main Street
Gaston, South Carolina
SCDHEC Site ID# 05986, CA # 33461
MECI Project Number 08-1873

Dear Mr. Miner,

On behalf of Mr. D. F. Shumpert, Midlands Environmental Consultants Inc. (MECI) is pleased to submit the attached Report of Assessment Activities for the referenced site. This report describes assessment activities conducted at the site in general accordance with South Carolina Department of Health and Environmental Control (SCDHEC) guidelines.

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
Staff Scientist

William C. McClary, P.G.
Senior Geologist

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

TABLE OF CONTENTS

PROJECT INFORMATION

The subject site (Gaston Food Mart) is located at 105 North Main Street in Gaston, Lexington County, South Carolina (see Figure 1). One building is present on the subject site. The site is currently utilized as a gas service station. Asphalt predominately covers the majority of the property with several concrete pads located in the eastern portion of the property. A release of petroleum product was reported in November of 1991. Previous assessment activities have been conducted to determine the extent and severity of contamination emanating from the subject site.

Previously, two 5,000 gallon gasoline UST's, one 4,000 gallon gasoline UST, two 3,000 gallon gasoline UST's, and one 550 gallon gasoline UST were maintained at the subject site. These UST's were removed from the ground in November of 1991. The subject site currently maintains two 8,000 gallon gasoline UST's and one 10,000 gallon gasoline UST.

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

MONITORING WELL SAMPLING AND CHEMICAL ANALYSES

On September 11, 2008, monitoring wells RMW-3, MW-6, MW-8, MW-9, MW-10, MW-24 and MW-25 were sampled. All monitoring wells bracketed the watertable and were not purged prior to sampling. Monitoring well MW-26 was determined to be dry at time of sampling. Monitoring wells MW-8 and MW-25 contained insufficient water for field measurements. Table 1 presents the results of the field measurements obtained. The groundwater samples obtained were sent to Pace Analytical Services, Inc. of Huntersville, NC (SCDHEC Laboratory Certification #99006) for analysis.

Groundwater samples from monitoring wells RMW-3, MW-6, MW-8, MW-9, MW-10, MW-24 and MW-25 were analyzed for volatile organic compounds including BTEX, naphthalene, and methyl-tertiary butyl ether, (EPA Method 8260B) and ethylene dibromide (EPA Method 8011). The results of the laboratory analyses are discussed in Section 3.1, summarized in Table 2 and presented in the Appendix.

TEST RESULTS AND EVALUATION

The following sections discuss groundwater test results for the subject site.

GROUNDWATER ANALYTICAL RESULTS

Groundwater samples obtained from the monitoring wells were analyzed for dissolved phase petroleum constituents. The analytical results indicate petroleum impact to the local groundwater with the highest concentrations detected in the area north of the former UST basin. The analytical results indicate total BTEX concentrations in the wells sampled ranging from 1,295.3 ug/l in monitoring well MW-9 to the highest dissolved concentration of 36,870 ug/l in monitoring well RMW-3. The analytical results indicate MTBE concentrations in the wells sampled ranging from levels below detection limits (BDL) to the highest dissolved concentration of 17,500 ug/l in monitoring well MW-25. Results of the analyses for each monitoring well and specific parameters are listed on Table 2 and the detection limit for each parameter is provided in the laboratory reports (Appendix).

ASSESSMENT SUMMARY

Groundwater elevation data for the September 11, 2008, gauging event was plotted, and points of equal elevation were interpolated between the monitoring wells. A groundwater contour map of the surficial aquifer was thus prepared and is presented on Figure 3. The analytical results indicate total BTEX concentrations in the shallow aquifer ranging from 1,295.3 ug/l in monitoring well MW-9 to the highest dissolved concentration of 36,870 ug/l in monitoring well RMW-3. The analytical results indicate MTBE concentrations in the shallow aquifer ranging from levels below detection limits (BDL) to the highest dissolved concentration of 17,500 ug/l in monitoring well MW-25. Concentrations of chemicals of concern have generally decreased since the AFVR events were performed and free product is no longer present in monitoring well MW-6. It is MECI's opinion that additional AFVR events be performed on monitoring wells RMW-3, MW-10 and MW-25 to further reduce dissolved concentrations of chemicals of concern.

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. The general subsurface conditions utilized in our evaluation have been based on interpretation of subsurface data between borings. Contents of this report are intended for the sole use by Mr. D.F. Shumpert and the South Carolina Department of Health and Environmental Control, 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
PAGE (1 OF 2)
FIELD PARAMETERS
GASTON FOOD MART
GASTON, SOUTH CAROLINA
MECI PROJECT NUMBER 08-1873
SCDHEC SITE ID NUMBER 05986

Well Number	Sample Date	CO_2 (mg/l)	Dissolved Oxygen (mg/l)	Temperature (^{0} Celsius)	pH (Initial)	pH (Final)	Conductivity (Initial)	Conductivity (Final)	Screened Interval (feet)	Depth to Product (feet)	Depth to Water (feet)	Product Thickness (feet)	Well-head Elevation	Groundwater Elevation
MW-1	9/11/2007	115	0.91	24.4	4.61	NT	57.7	NT	25-40	---	35.59	---	104.52	68.93
	5/6/2008	110	3.14	24.3	5.83	NT	68.2	NT		---	36.50	---	104.52	68.02
MW-1A	5/6/2008	100	0.96	22.7	6.50	NT	183.0	NT	24-44	---	24.85	---	104.07	79.22
RMW-3	9/11/2007	185	0.57	23.6	5.62	NT	90.1	NT	30-40	---	34.62	---	100.61	65.99
	5/6/2008	185	0.67	23.5	6.21	NT	105.0	NT		---	34.91	---	100.61	65.70
	9/11/2008	105	1.13	23.3	5.56	NT	78.3	NT		---	35.31		100.61	65.30
RMW-5	9/11/2007	DRY	DRY	DRY	DRY	DRY	DRY	DRY	10-20	---	DRY	---	93.57	DRY
	5/6/2008	35	4.26	18.6	6.85	NT	26.2	NT		---	8.75	---	93.57	84.82
MW-6	9/11/2007	FP	FP	FP	FP	FP	FP	FP	22-42	35.66	35.69	0.03	103.95	68.29
	5/6/2008	FP	FP	FP	FP	FP	FP	FP		34.52	34.66	0.14	103.95	69.41
	9/11/2008	135	1.17	23.2	5.64	NT	45.0	NT		---	34.86	---	103.95	69.09
MW-7	9/11/2007	NL	NL	NL	NL	NL	NL	NL	22-42	---	NL	---	104.44	NL
	5/6/2008	15	5.03	23.3	7.16	NT	27.9	NT		---	36.62	---	104.44	67.82
MW-8	9/11/2007	NT	NT	NT	NT	NT	NT	NT	20-40	---	39.34	---	97.72	58.38
	5/6/2008	INS	INS	INS	INS	INS	INS	INS		---	39.30	---	97.72	58.42
	9/11/2008	INS	INS	INS	INS	INS	INS	INS		---	39.34	---	97.72	58.38
MW-9	9/11/2007	150	0.38	22.8	5.11	NT	58.5	NT	24-44	---	35.47	---	98.87	63.40
	5/6/2008	NT	0.97	23.5	6.78	NT	188.4	NT		---	41.09	---	98.87	57.78
	9/11/2008	75	2.03	22.9	6.83	NT	157.7	NT		---	41.50	---	98.87	57.37
MW-10	9/11/2007	195	0.51	23.5	5.72	NT	104.9	NT	24-44	---	35.25	---	102.57	67.32
	5/6/2008	165	0.77	23.4	6.44	NT	151.4	NT		---	35.15	---	102.57	67.42
	9/11/2008	100	1.08	23.1	6.03	NT	135.1	NT		---	35.25	---	102.57	67.32
MW-11	9/11/2007	75	0.64	23.7	5.51	NT	35.8	NT	22-42	---	27.47	---	104.32	76.85
	5/6/2008	50	0.74	22.8	6.65	NT	85.5	NT		---	25.87	---	104.32	78.45
MW-12	9/11/2007	25	0.88	20.7	5.67	NT	38.8	NT	30-50	---	35.16	---	93.93	58.77
	5/6/2008	35	1.08	20.0	7.18	NT	71.0	NT		---	33.25	---	93.93	60.68
MW-13	9/11/2007	70	1.28	24.1	4.45	NT	48.6	NT	25-35	---	24.72	---	104.77	80.05
	5/6/2008	55	4.18	23.3	6.25	NT	72.0	NT		---	23.03	---	104.77	81.74
MW-14	5/6/2008	45	3.96	21.5	6.63	NT	119.7	NT	35-45	---	40.51	---	103.69	63.18
MW-15	9/11/2007	100	0.39	21.1	5.12	NT	43.7	NT	35-45	---	38.40	---	103.33	64.93
	5/6/2008	20	3.10	20.3	6.87	NT	37.9	NT		---	35.90	---	103.33	67.43

Notes:

1. mg/l = milligrams per liter.
2. NT = Not Tested
3. NL = Well not located during sampling.
4. FP = Free Phase Product encountered during sampling
5. Groundwater depths were measured from the top of the PVC riser pipe.
6. Groundwater levels measured on 9/11/08.
7. Dissolved oxygen, dissolved carbon dioxide, initial pH, initial conductivity, and temperature measurements obtained 9/11/08
8. Groundwater Elevation for MW-6 corrected for the presence of Free Phase Product based on a specific Gravity of Fuel of 0.85.
9. INS = Insufficient water for field measurements, only samples were taken.
10. DRY = Well was dry at the time of sampling.

TABLE 1
PAGE (2 OF 2)
FIELD PARAMETERS
GASTON FOOD MART
GASTON, SOUTH CAROLINA
MECI PROJECT NUMBER 08-1873
SCDHEC SITE ID NUMBER 05986

Well Number	Sample Date	CO_2 (mg/l)	Dissolved Oxygen (mg/l)	Temperature (^{0} Celsius)	pH (Initial)	pH (Final)	Conductivity (Initial)	Conductivity (Final)	Screened Interval (feet)	Depth to Product (feet)	Depth to Water (feet)	Product Thickness (feet)	Well-head Elevation	Groundwater Elevation
MW-16	9/11/2007	80	0.24	21.3	5.72	NT	49.2	NT	31-41	---	35.12	---	106.43	71.31
	5/6/2008	NT	NT	NT	NT	NT	NT	NT		---	NT	---	106.43	NT
MW-16R	5/6/2008	200+	0.76	20.2	8.43	6.95	49.6	37.1	30-45	---	35.74	---	106.29	70.55
MW-17R	5/6/2008	DRY	DRY	DRY	DRY	DRY	DRY	DRY	33-48	---	DRY	---	98.22	DRY
MW-17RR	5/6/2008	DRY	DRY	DRY	DRY	DRY	DRY	DRY	45-75	---	DRY	---	98.55	DRY
MW-19	9/11/2007	NL	NL	NL	NL	NL	NL	NL	51-61	---	NL	---	98.96	NL
	5/6/2008	20	3.31	20.7	7.01	NT	74.4	NT		---	54.48	---	98.96	44.48
RMW-20	9/11/2007	DRY	DRY	DRY	DRY	DRY	DRY	DRY	16-26	---	DRY	---	98.69	DRY
	5/6/2008	65	1.03	19.4	6.54	NT	43.8	NT		---	19.56	---	98.69	79.13
MW-21	9/11/2007	DRY	DRY	DRY	DRY	DRY	DRY	DRY	3-13	---	DRY	---	91.96	DRY
	5/6/2008	45	1.21	18.7	7.01	NT	49.9	NT		---	5.74	---	91.96	86.22
MW-22	9/11/2007	45	0.39	20.7	4.67	NT	36.7	NT	34-44	---	41.65	---	101.82	60.17
	5/6/2008	60	6.69	19.9	6.81	NT	46.5	NT		---	41.68	---	101.82	60.14
MW-23	9/11/2007	55	0.60	20.8	4.91	4.39	71.4	68.0	33-43	---	36.62	---	104.47	67.85
	5/6/2008	35	1.14	20.4	6.55	NT	72.2	NT		---	35.50	---	104.47	68.97
MW-24	5/6/2008	65	1.45	22.1	6.45	6.55	63.1	150.5	29-44	---	37.47	---	103.39	65.92
	9/11/2008	115	2.49	22.5	6.33	NT	35.5	NT		---	37.43	---	103.39	65.96
MW-25	5/6/2008	DRY	DRY	DRY	DRY	DRY	DRY	DRY	40-60	---	DRY	---	102.18	DRY
	9/11/2008	INS	INS	INS	INS	INS	INS	INS		---	58.05	---	102.18	44.13
MW-26	5/6/2008	DRY	DRY	DRY	DRY	DRY	DRY	DRY	45-75	---	DRY	---	91.81	DRY
	9/11/2008	DRY	DRY	DRY	DRY	DRY	DRY	DRY		---	DRY	---	91.81	DRY
DW-1	9/11/2007	DRY	DRY	DRY	DRY	DRY	DRY	DRY	40-45	---	DRY	---	104.79	DRY
	5/6/2008	INS	INS	INS	INS	INS	INS	INS			52.81	---	104.79	51.98
DW-2	9/11/2007	NT	NT	NT	NT	NT	NT	NT	50-55	---	55.12	---	103.32	48.20
	5/6/2008	INS	INS	INS	INS	INS	INS	INS		---	54.75	---	103.32	48.57

Notes:

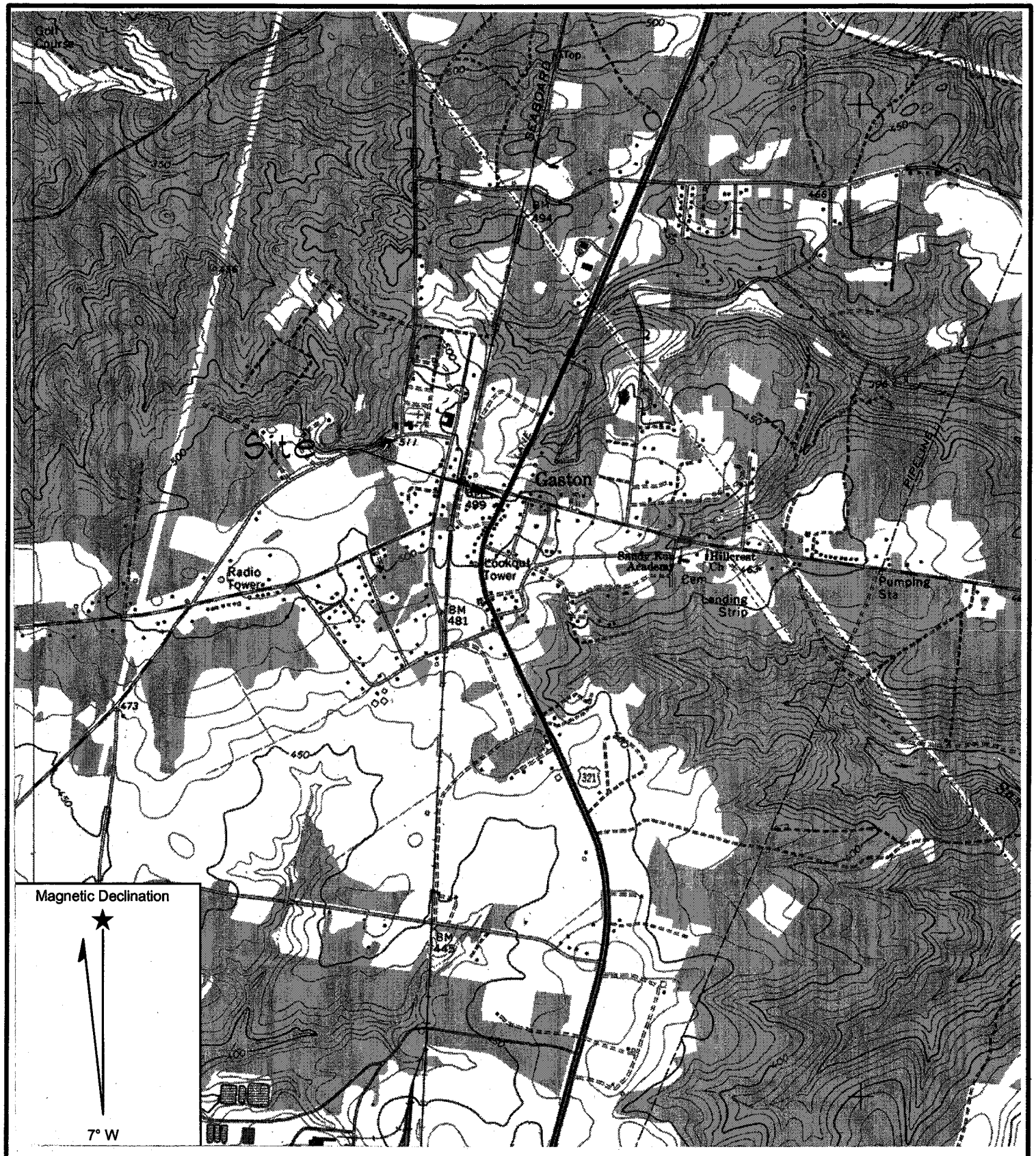
1. mg/l = milligrams per liter.
2. NT = Not Tested
3. NL = Well not located during sampling.
4. FP = Free Phase Product encountered during sampling
5. Groundwater depths were measured from the top of the PVC riser pipe.
6. Groundwater levels measured on 9/11/08.
7. Dissolved oxygen, dissolved carbon dioxide, initial pH, initial conductivity, and temperature measurements obtained 9/11/08
8. Groundwater Elevation for MW-6 corrected for the presence of Free Phase Product based on a specific Gravity of Fuel of 0.85.
9. INS = Insufficient water for field measurements, only samples were taken.
10. DRY = Well was dry at the time of sampling.

TABLE 2
GROUNDWATER ANALYTICAL RESULTS
GASTON FOOD MART
GASTON, SOUTH CAROLINA
MECI PROJECT NUMBER 08-1873
SCDHEC SITE ID # 05986

Well Number	Sample Date	Benzene (µg/l)	Toluene (µg/l)	Ethylbenzene (µg/l)	Total Xylenes (µg/l)	Total BTEX (µg/l)	MTBE (µg/l)	EDB (µg/l)	1,2 DCA (µg/l)	Naphthalene (µg/l)
MW-1	9/11/2007	<5.0	<5.0	<5.0	<10.0	BDL	<5.0	<0.020	<5.0	<5.0
	5/6/2008	<5.0	<5.0	<5.0	<15.0	BDL	<5.0	<0.020	NT	<5.0
MW-1A	5/6/2008	**84.3**	**288**	**184**	**697**	**1,253.3**	<25.0	<0.020	NT	**52.3**
RMW-3	9/11/2007	**7,940**	**18,600**	**2,720**	**14,070**	**43,330**	**550**	**13.9**	<500	**1,790**
	5/6/2008	**8,760**	**18,900**	**2,630**	**14,300**	**44,590**	**1,150**	**16.3**	NT	**585**
	9/11/2008	**6,470**	**17,100**	**2,200**	**11,100**	**36,870**	**691**	**16.4**	NT	**718**
RMW-5	9/11/2007	DRY	DRY	DRY	DRY	DRY	DRY	DRY	DRY	DRY
	5/6/2008	<5.0	<5.0	<5.0	<15.0	BDL	<5.0	<0.020	NT	<5.0
MW-6	9/11/2007	FP	FP	FP	FP	FP	FP	FP	FP	FP
	5/6/2008	FP	FP	FP	FP	FP	FP	FP	FP	FP
	9/11/2008	**730**	**1,070**	**51.4**	**1,060**	**2,911.4**	<50.0	**11.9**	NT	**94.8**
MW-7	9/11/2007	NT	NT	NT	NT	NT	NT	NT	NT	NT
	5/6/2008	<5.0	<5.0	<5.0	<15.0	BDL	<5.0	<0.020	NT	<5.0
MW-8	9/11/2007	**145**	**356**	**24.5**	**1,087**	**1,612.5**	**12.0**	NT	<10.0	**36.9**
	5/6/2008	**208**	**1,430**	**197**	**3,350**	**5,185**	<50.0	<0.020	NT	**106**
	9/11/2008	**266**	**1,640**	**86.3**	**2,550**	**4,542.3**	<50.0	<0.020	NT	**547**
MW-9	9/11/2007	**2,470**	**10,200**	**2,030**	**15,140**	**29,840**	**124**	**2.3**	<100	**612**
	5/6/2008	**217**	**1,130**	**387**	**3,080**	**4,814**	<50.0	<0.020	NT	**246**
	9/11/2008	**67.3**	**288**	**101**	**839**	**1,295.3**	**107**	**0.11**	NT	**64.2**
MW-10	9/11/2007	**9,030**	**16,900**	**2,650**	**12,570**	**41,150**	**12,500**	**27.4**	<500	<500
	5/6/2008	**5,500**	**9,880**	**1,600**	**10,300**	**27,280**	**11,500**	**13.0**	NT	**748**
	9/11/2008	**6,300**	**10,800**	**1,590**	**7,270**	**25,960**	**16,400**	**20.7**	NT	<500
MW-11	9/11/2007	<5.0	<5.0	**8.5**	<10.0	**8.5**	<5.0	<0.020	<5.0	**8.3**
	5/6/2008	<5.0	<5.0	**26.8**	<15.0	**26.8**	<5.0	<0.020	NT	**9.8**
MW-12	9/11/2007	<5.0	<5.0	<5.0	<10.0	BDL	<5.0	<0.020	<5.0	<5.0
	5/6/2008	<5.0	<5.0	<5.0	<15.0	BDL	<5.0	<0.020	NT	<5.0
MW-13	9/11/2007	<5.0	<5.0	<5.0	<10.0	BDL	<5.0	<0.020	<5.0	<5.0
	5/6/2008	<5.0	<5.0	<5.0	<15.0	BDL	<5.0	<0.020	NT	<5.0
MW-14	9/11/2007	NT	NT	NT	NT	NT	NT	NT	NT	NT
	5/6/2008	<5.0	<5.0	<5.0	<15.0	BDL	<5.0	<0.020	NT	<5.0
MW-15	9/11/2007	**21.8**	<5.0	**13.6**	**128.1**	**163.5**	<5.0	**0.37**	<5.0	**5.1**
	5/6/2008	<5.0	<5.0	<5.0	**16.2**	**16.2**	<5.0	**0.16**	NT	<5.0
MW-16	9/11/2007	DRY	DRY	DRY	DRY	DRY	DRY	DRY	DRY	DRY
MW-16R	5/6/2008	<5.0	<5.0	<5.0	<15.0	BDL	<5.0	<0.020	NT	<5.0
MW-17R	5/6/2008	DRY	DRY	DRY	DRY	DRY	DRY	DRY	DRY	DRY
MW-17RR	5/6/2008	DRY	DRY	DRY	DRY	DRY	DRY	DRY	DRY	DRY
MW-19	9/11/2007	NT	NT	NT	NT	NT	NT	NT	NT	NT
	5/6/2008	<5.0	<5.0	<5.0	<15.0	BDL	<5.0	<0.020	NT	<5.0
RMW-20	9/11/2007	DRY	DRY	DRY	DRY	DRY	DRY	DRY	DRY	DRY
	5/6/2008	<5.0	<5.0	<5.0	<15.0	BDL	<5.0	<0.020	NT	<5.0
MW-21	9/11/2007	DRY	DRY	DRY	DRY	DRY	DRY	DRY	DRY	DRY
	5/6/2008	<5.0	<5.0	<5.0	<15.0	BDL	<5.0	<0.020	NT	<5.0
MW-22	9/11/2007	<5.0	<5.0	<5.0	<10.0	BDL	<5.0	<0.020	<5.0	<5.0
	5/6/2008	<5.0	<5.0	<5.0	<15.0	BDL	<5.0	<0.020	NT	<5.0
MW-23	9/11/2007	<5.0	<5.0	<5.0	<10.0	BDL	<5.0	<0.020	<5.0	<5.0
	5/6/2008	**35.6**	<5.0	<5.0	**22.8**	**58.4**	<5.0	**0.63**	NT	<5.0
MW-24	5/6/2008	**620**	**1,790**	**1,000**	**4,390**	**7,800**	<100	**2.8**	NT	**234**
	9/11/2008	**515**	**1,480**	**356**	**1,360**	**3,711**	<50.0	**1.2**	NT	**110**
MW-25	5/6/2008	DRY	DRY	DRY	DRY	DRY	DRY	DRY	DRY	DRY
	9/11/2008	**1,560**	**3,510**	**360**	**2,170**	**7,600**	**17,500**	**11.1**	NT	**312**
MW-26	5/6/2008	DRY	DRY	DRY	DRY	DRY	DRY	DRY	DRY	DRY
	9/11/2008	DRY	DRY	DRY	DRY	DRY	DRY	DRY	DRY	DRY
DW-1	9/11/2007	DRY	DRY	DRY	DRY	DRY	DRY	DRY	DRY	DRY
	5/6/2008	<5.0	<5.0	<5.0	<15.0	BDL	<5.0	NT	NT	**32.3**
DW-2	9/11/2007	<5.0	<5.0	<5.0	<10.0	BDL	<5.0	NT	NT	<5.0
	5/6/2008	<5.0	<5.0	<5.0	<15.0	BDL	<5.0	<0.020	NT	<5.0
SW-3	9/11/2007	<5.0	<5.0	<5.0	<10.0	BDL	<5.0	<0.020	NT	<5.0

Notes:
1. BDL = Below Practical Quantitative Limits
2. µg/l = micrograms per liter
3. mg/l = milligrams per liter
4. MTBE = Methyl-Tertiary-Butyl Ether
5. EDB = Ethylene Dibromide
6. FP= Not Sampled Due to Free Phase Petroleum Product
7. NT = Not Tested

FIGURES



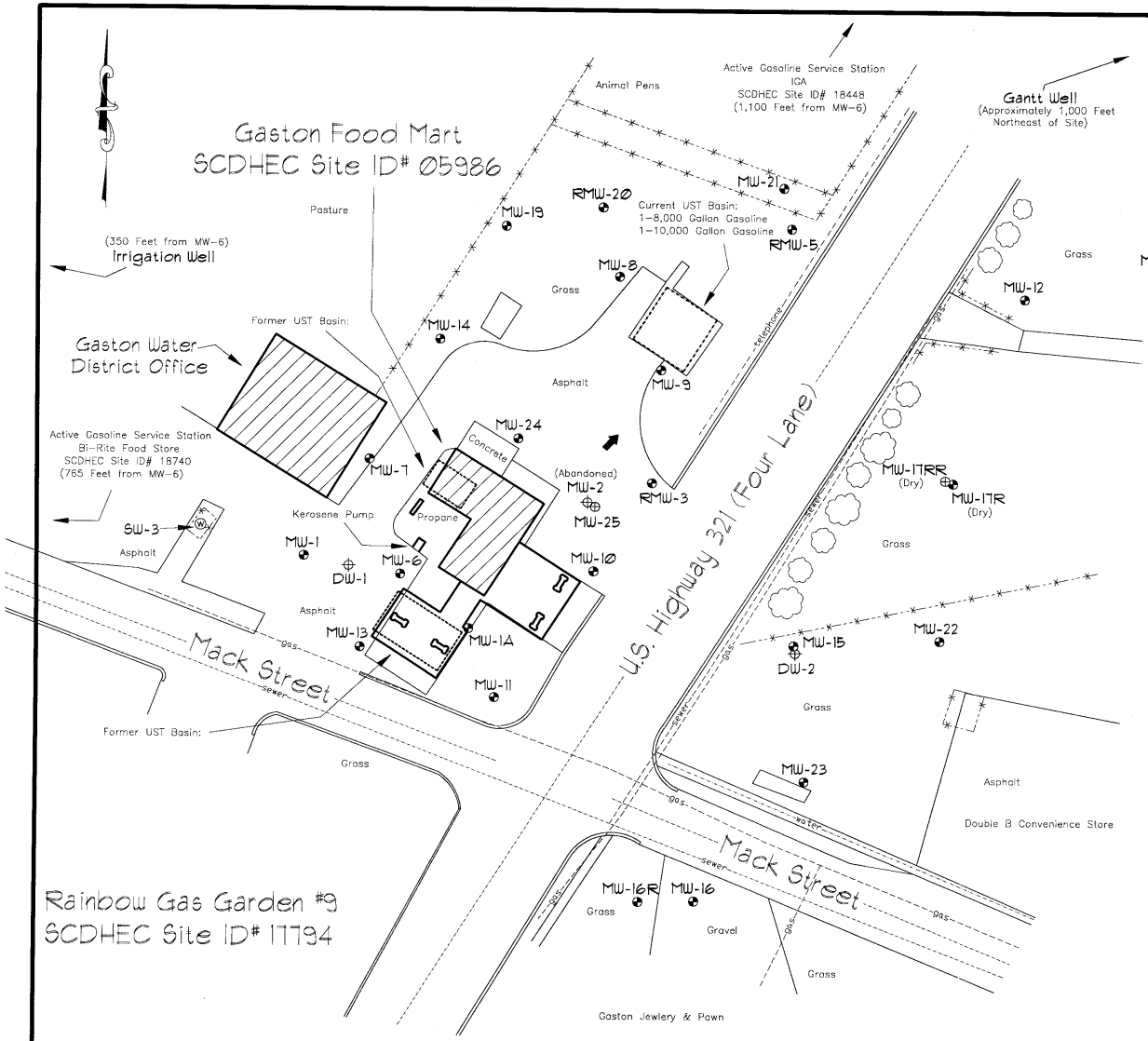
GRAPHIC SCALE

0 1000 2000 4000

1IN = 2000FT

Reference: Gaston, South Carolina
USGS 7.5 Min. Quad
Contour Interval = 10 Feet

Midlands Environmental Consultants, Inc.	Site Location
Gaston Food Mart Gaston, South Carolina SCDHEC Site ID# 05986	
Figure 1	MECI 08-1873



Drawing Based on MECI Field Notes, Tax Maps and a RLS Survey of the Site by Jay S. Joshi dated May 16, 2008.

COC Concentration Data

Sample *	Benzene (ug/l)	Toluene (ug/l)	Ethylbenzene (ug/l)	Total Xylenes (ug/l)	Total BTEX (ug/l)	MTBE (ug/l)	Napthalene (ug/l)	EDB (ug/l)
RMW-3	6,470	17,100	2,200	11,100	36,870	691	718	16.4
MW-6	730	1,070	51.4	1,060	2,911.4	<50.0	94.8	11.9
MW-8	266	1,640	86.3	2,550	4,542.3	<50.0	547	<0.020
MW-9	67.3	288	101	839	1,295.3	107	64.2	0.11
MW-10	6,300	10,800	1,590	7,270	25,960	16,400	<500	20.7
MW-24	515	1,480	356	1,360	3,711	<50.0	110	1.2
MW-25	1,560	3,510	360	2,170	7,600	17,500	312	11.1
MW-26	DRY	DRY	DRY	DRY	DRY	DRY	DRY	DRY

Notes: Groundwater samples collected on September 11, 2008.
DRY = Monitoring well dry at time of sampling.

Explanation:

- Location of Water Table Bracketing Monitoring Well
- Location of Double Cased Monitoring Well
- Location of Deep Monitoring Well
- Location of Water Supply Well
- Estimated Groundwater Flow Direction
- Estimated Location of Removed Underground Storage Tanks
- Estimated Location of Existing Underground Storage Tanks

GRAPHIC SCALE
0 30 60 90 120
1IN = 60FT

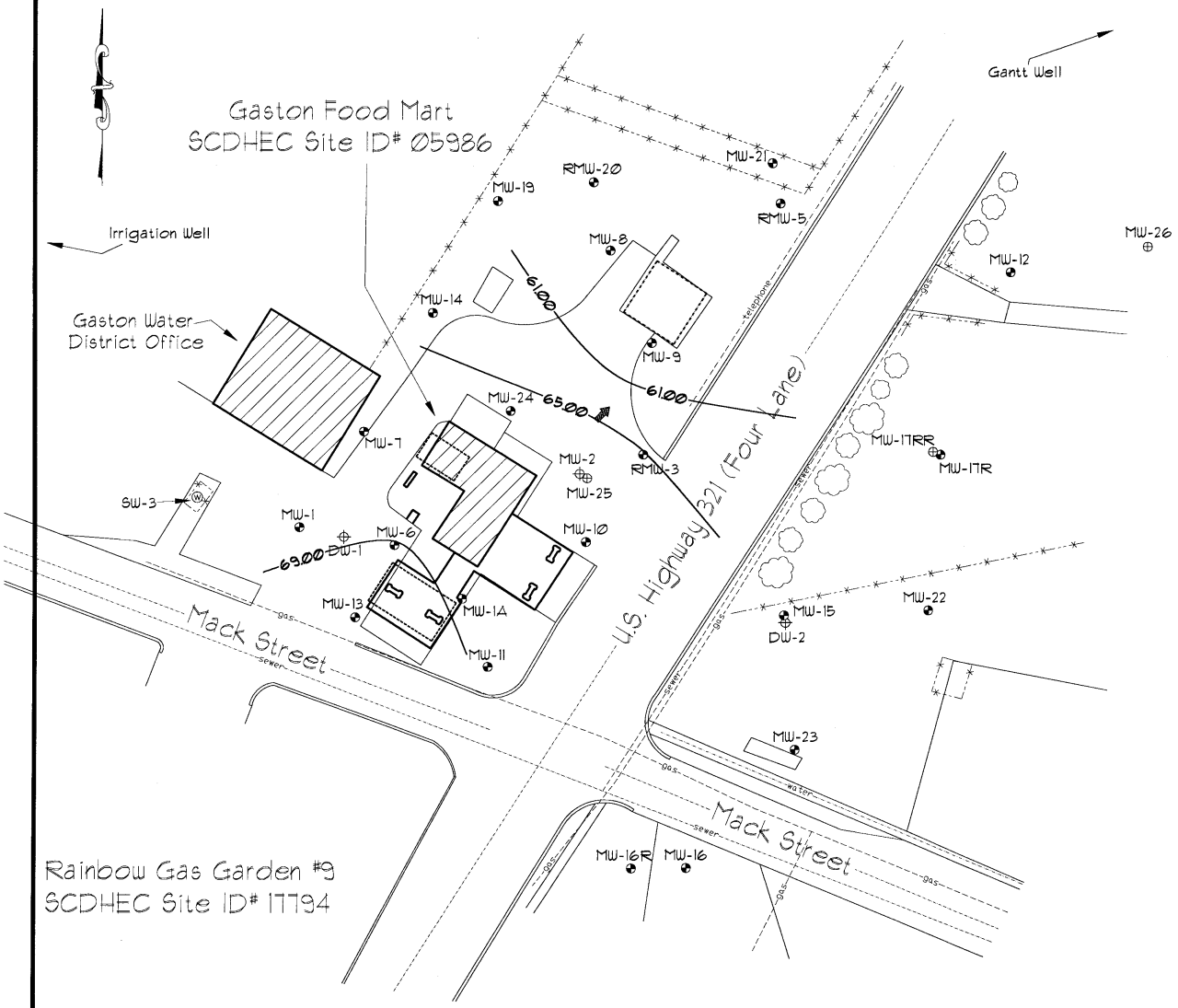
ALL LOCATIONS ARE APPROXIMATE

Site Features

Gaston Food Mart
Gaston, South Carolina
SCDHEC Site ID 05986

Midlands Environmental Consultants, Inc.

JOB NO. 08-1873
DATE September 25, 2008
FIGURE 2



Explanation:

- Location of Water Table Bracketing Monitoring Well
- Location of Double Cased Deep Monitoring Well
- Location of Single Cased Deep Monitoring Well
- Estimated Groundwater Flow Direction
- Estimated Location of Existing Underground Storage Tanks
- Estimated Location of Removed Underground Storage Tanks
- Ground-Water Elevation Isopleth (feet)

Groundwater Elevation Data

Well #	Depth to Product (ft)	Depth to Water (feet)	Product Thickness (feet)	Well Head Elevation	Groundwater Elevation
RMW-3	--	35.31	--	100.61	65.30
MW-6	--	34.86	--	103.95	69.09
MW-8	--	39.34	--	97.72	58.38
MW-9	--	41.50	--	98.87	57.37
MW-10	--	35.25	--	102.57	67.32
MW-24	--	37.43	--	103.39	65.96
MW-25	--	58.05	--	102.18	44.13
MW-26	--	DRY	--	91.81	DRY

Notes: Depth to groundwater measured on September 11, 2008.

Contour Interval = 4.00 Feet

Site Datum Based on Assumed Spot Elevation.

Ground Water Contours Computer Generated using Surfer by Golden Graphics and Modified by MECI Personnel.

GRAPHIC SCALE

0 30 60 90 120

1IN = 60FT

ALL LOCATIONS ARE APPROXIMATE

Drawing Based on MECI Field Notes, Tax Maps and a RLS Survey of the Site by Jay S. Joshi dated May 16, 2008.

Groundwater Contour Map

Gaston Food Mart
Gaston, South Carolina
SCDHEC Site ID 05986

Midlands Environmental Consultants, Inc.

JOB NO. 08-1873
DATE September 25, 2008
FIGURE 3

APPENDIX

ANALYTICAL RESULTS

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

September 22, 2008

Mr. Bryan Shane
Midlands Environmental
PO Box 854
Lexington, SC 29071

RE: Project: GASTON FOOD MART 08-1873
Pace Project No.: 9227792

Dear Mr. Shane:
Enclosed are the analytical results for sample(s) received by the laboratory on September 12, 2008. 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

REPORT OF LABORATORY ANALYSIS

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

CERTIFICATIONS

Project: GASTON FOOD MART 08-1873
Pace Project No.: 9227792

Charlotte Certification IDs
Connecticut Certification Number: PH-0104
Pennsylvania Certification Number: 68-00784
West Virginia Certification Number: 357
Virginia Certification Number: 00213
Tennessee Certification Number: 04010
South Carolina Drinking Water Cert. Number: 990060003
South Carolina Certification Number: 990060001
North Carolina Field Services Certification Number: 5342
North Carolina Wastewater Certification Number: 12
North Carolina Drinking Water Certification Number: 37706
Louisiana/LELAP Certification Number: 04034
Kentucky UST Certification Number: 84
New Jersey Certification Number: NC012
Florida/NELAP Certification Number: E87627

Asheville Certification IDs
Connecticut Certification Number: PH-0106
Massachusetts Certification Number: M-NC030
West Virginia Certification Number: 356
Virginia Certification Number: 00072
Tennessee Certification Number: 2980
South Carolina Bioassay Certification Number: 99030002
South Carolina Certification Number: 99030001
Pennsylvania Certification Number: 68-03578
North Carolina Bioassay Certification Number: 9
North Carolina Wastewater Certification Number: 40
North Carolina Drinking Water Certification Number: 37712
New Jersey Certification Number: NC011
Louisiana/LELAP Certification Number: 03095
Florida/NELAP Certification Number: E87648

Eden Certification IDs
Virginia Drinking Water Certification Number: 00424
North Carolina Wastewater Certification Number: 633
North Carolina Drinking Water Certification Number: 37738

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

ANALYTICAL RESULTS

Project: GASTON FOOD MART 08-1873
Pace Project No.: 9227792

Sample: MW-6 **Lab ID: 9227792001** Collected: 09/11/08 11:05 Received: 09/12/08 16:50 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							
1,2-Dibromoethane (EDB)	**11.9**	ug/L	0.39	20	09/14/08 00:00	09/15/08 10:46	106-93-4	
1-Chloro-2-bromopropane (S)	0	%	60-140	20	09/14/08 00:00	09/15/08 10:46	301-79-56	S4
8260 MSV	Analytical Method: EPA 8260							
Benzene	**730**	ug/L	50.0	10		09/17/08 06:52	71-43-2	
Ethylbenzene	**51.4**	ug/L	50.0	10		09/17/08 06:52	100-41-4	
Methyl-tert-butyl ether	ND	ug/L	50.0	10		09/17/08 06:52	1634-04-4	
Naphthalene	**94.8**	ug/L	50.0	10		09/17/08 06:52	91-20-3	
Toluene	**1070**	ug/L	50.0	10		09/17/08 06:52	108-88-3	
Xylene (Total)	**1060**	ug/L	100	10		09/17/08 06:52	1330-20-7	
m&p-Xylene	**694**	ug/L	100	10		09/17/08 06:52	1330-20-7	
o-Xylene	**370**	ug/L	50.0	10		09/17/08 06:52	95-47-6	
4-Bromofluorobenzene (S)	105	%	87-109	10		09/17/08 06:52	460-00-4	
Dibromofluoromethane (S)	99	%	85-115	10		09/17/08 06:52	1868-53-7	
1,2-Dichloroethane-d4 (S)	108	%	79-120	10		09/17/08 06:52	17060-07-0	
Toluene-d8 (S)	98	%	70-120	10		09/17/08 06:52	2037-26-5	

Sample: MW-8 **Lab ID: 9227792002** Collected: 09/11/08 08:30 Received: 09/12/08 16:50 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							
1,2-Dibromoethane (EDB)	ND	ug/L	0.020	1	09/14/08 00:00	09/15/08 02:42	106-93-4	
1-Chloro-2-bromopropane (S)	80	%	60-140	1	09/14/08 00:00	09/15/08 02:42	301-79-56	
8260 MSV	Analytical Method: EPA 8260							
Benzene	**266**	ug/L	50.0	10		09/17/08 05:52	71-43-2	
Ethylbenzene	**86.3**	ug/L	50.0	10		09/17/08 05:52	100-41-4	
Methyl-tert-butyl ether	ND	ug/L	50.0	10		09/17/08 05:52	1634-04-4	
Naphthalene	**547**	ug/L	50.0	10		09/17/08 05:52	91-20-3	
Toluene	**1640**	ug/L	50.0	10		09/17/08 05:52	108-88-3	
Xylene (Total)	**2550**	ug/L	100	10		09/17/08 05:52	1330-20-7	
m&p-Xylene	**1600**	ug/L	100	10		09/17/08 05:52	1330-20-7	
o-Xylene	**941**	ug/L	50.0	10		09/17/08 05:52	95-47-6	
4-Bromofluorobenzene (S)	108	%	87-109	10		09/17/08 05:52	460-00-4	
Dibromofluoromethane (S)	101	%	85-115	10		09/17/08 05:52	1868-53-7	
1,2-Dichloroethane-d4 (S)	106	%	79-120	10		09/17/08 05:52	17060-07-0	
Toluene-d8 (S)	100	%	70-120	10		09/17/08 05:52	2037-26-5	

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

ANALYTICAL RESULTS

Project: GASTON FOOD MART 08-1873
Pace Project No.: 9227792

Sample: MW-9 **Lab ID: 9227792003** Collected: 09/11/08 08:50 Received: 09/12/08 16:50 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							
1,2-Dibromoethane (EDB)	**0.11**	ug/L	0.020	1	09/14/08 00:00	09/15/08 02:55	106-93-4	
1-Chloro-2-bromopropane (S)	88	%	60-140	1	09/14/08 00:00	09/15/08 02:55	301-79-56	
8260 MSV	Analytical Method: EPA 8260							
Benzene	**67.3**	ug/L	50.0	10		09/19/08 09:46	71-43-2	
Ethylbenzene	**101**	ug/L	50.0	10		09/19/08 09:46	100-41-4	
Methyl-tert-butyl ether	**107**	ug/L	50.0	10		09/19/08 09:46	1634-04-4	
Naphthalene	**64.2**	ug/L	50.0	10		09/19/08 09:46	91-20-3	
Toluene	**288**	ug/L	50.0	10		09/19/08 09:46	108-88-3	
Xylene (Total)	**839**	ug/L	100	10		09/19/08 09:46	1330-20-7	
m&p-Xylene	**571**	ug/L	100	10		09/19/08 09:46	1330-20-7	
o-Xylene	**268**	ug/L	50.0	10		09/19/08 09:46	95-47-6	
4-Bromofluorobenzene (S)	101	%	87-109	10		09/19/08 09:46	460-00-4	
Dibromofluoromethane (S)	100	%	85-115	10		09/19/08 09:46	1868-53-7	
1,2-Dichloroethane-d4 (S)	105	%	79-120	10		09/19/08 09:46	17060-07-0	
Toluene-d8 (S)	101	%	70-120	10		09/19/08 09:46	2037-26-5	

Sample: MW-10 **Lab ID: 9227792004** Collected: 09/11/08 09:25 Received: 09/12/08 16:50 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							
1,2-Dibromoethane (EDB)	**20.7**	ug/L	0.50	25	09/14/08 00:00	09/15/08 10:57	106-93-4	
1-Chloro-2-bromopropane (S)	0	%	60-140	25	09/14/08 00:00	09/15/08 10:57	301-79-56	S4
8260 MSV	Analytical Method: EPA 8260							
Benzene	**6300**	ug/L	500	100		09/16/08 17:52	71-43-2	
Ethylbenzene	**1590**	ug/L	500	100		09/16/08 17:52	100-41-4	
Methyl-tert-butyl ether	**16400**	ug/L	500	100		09/16/08 17:52	1634-04-4	
Naphthalene	ND	ug/L	500	100		09/16/08 17:52	91-20-3	
Toluene	**10800**	ug/L	500	100		09/16/08 17:52	108-88-3	
Xylene (Total)	**7270**	ug/L	1000	100		09/16/08 17:52	1330-20-7	
m&p-Xylene	**5350**	ug/L	1000	100		09/16/08 17:52	1330-20-7	
o-Xylene	**1920**	ug/L	500	100		09/16/08 17:52	95-47-6	
4-Bromofluorobenzene (S)	102	%	87-109	100		09/16/08 17:52	460-00-4	
Dibromofluoromethane (S)	96	%	85-115	100		09/16/08 17:52	1868-53-7	
1,2-Dichloroethane-d4 (S)	95	%	79-120	100		09/16/08 17:52	17060-07-0	
Toluene-d8 (S)	100	%	70-120	100		09/16/08 17:52	2037-26-5	

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

ANALYTICAL RESULTS

Project: GASTON FOOD MART 08-1873
Pace Project No.: 9227792

Sample: MW-24 **Lab ID: 9227792005** Collected: 09/11/08 10:15 Received: 09/12/08 16:50 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							
1,2-Dibromoethane (EDB)	**1.2**	ug/L	0.078	4	09/14/08 00:00	09/15/08 11:10	106-93-4	
1-Chloro-2-bromopropane (S)	0	%	60-140	4	09/14/08 00:00	09/15/08 11:10	301-79-56	S4
8260 MSV	Analytical Method: EPA 8260							
Benzene	**515**	ug/L	50.0	10		09/17/08 06:32	71-43-2	
Ethylbenzene	**356**	ug/L	50.0	10		09/17/08 06:32	100-41-4	
Methyl-tert-butyl ether	ND	ug/L	50.0	10		09/17/08 06:32	1634-04-4	
Naphthalene	**110**	ug/L	50.0	10		09/17/08 06:32	91-20-3	
Toluene	**1480**	ug/L	50.0	10		09/17/08 06:32	108-88-3	
Xylene (Total)	**1360**	ug/L	100	10		09/17/08 06:32	1330-20-7	
m&p-Xylene	**832**	ug/L	100	10		09/17/08 06:32	1330-20-7	
o-Xylene	**529**	ug/L	50.0	10		09/17/08 06:32	95-47-6	
4-Bromofluorobenzene (S)	108	%	87-109	10		09/17/08 06:32	460-00-4	
Dibromofluoromethane (S)	100	%	85-115	10		09/17/08 06:32	1868-53-7	
1,2-Dichloroethane-d4 (S)	107	%	79-120	10		09/17/08 06:32	17060-07-0	
Toluene-d8 (S)	100	%	70-120	10		09/17/08 06:32	2037-26-5	

Sample: MW-25 **Lab ID: 9227792006** Collected: 09/11/08 09:40 Received: 09/12/08 16:50 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							
1,2-Dibromoethane (EDB)	**11.1**	ug/L	0.39	20	09/14/08 00:00	09/15/08 11:22	106-93-4	
1-Chloro-2-bromopropane (S)	0	%	60-140	20	09/14/08 00:00	09/15/08 11:22	301-79-56	S4
8260 MSV	Analytical Method: EPA 8260							
Benzene	**1560**	ug/L	100	20		09/17/08 07:51	71-43-2	
Ethylbenzene	**360**	ug/L	100	20		09/17/08 07:51	100-41-4	
Methyl-tert-butyl ether	**17500**	ug/L	1000	200		09/17/08 15:53	1634-04-4	
Naphthalene	**312**	ug/L	100	20		09/17/08 07:51	91-20-3	
Toluene	**3510**	ug/L	100	20		09/17/08 07:51	108-88-3	
Xylene (Total)	**2170**	ug/L	200	20		09/17/08 07:51	1330-20-7	
m&p-Xylene	**1420**	ug/L	200	20		09/17/08 07:51	1330-20-7	
o-Xylene	**753**	ug/L	100	20		09/17/08 07:51	95-47-6	
4-Bromofluorobenzene (S)	104	%	87-109	20		09/17/08 07:51	460-00-4	
Dibromofluoromethane (S)	98	%	85-115	20		09/17/08 07:51	1868-53-7	
1,2-Dichloroethane-d4 (S)	102	%	79-120	20		09/17/08 07:51	17060-07-0	
Toluene-d8 (S)	100	%	70-120	20		09/17/08 07:51	2037-26-5	

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

ANALYTICAL RESULTS

Project: GASTON FOOD MART 08-1873
Pace Project No.: 9227792

Sample: RMW-3 **Lab ID: 9227792007** Collected: 09/11/08 10:30 Received: 09/12/08 16:50 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							
1,2-Dibromoethane (EDB)	**16.4**	ug/L	0.39	20	09/15/08 00:00	09/16/08 09:38	106-93-4	
1-Chloro-2-bromopropane (S)	0	%	60-140	20	09/15/08 00:00	09/16/08 09:38	301-79-56	S4
8260 MSV	Analytical Method: EPA 8260							
Benzene	**6470**	ug/L	500	100		09/16/08 18:09	71-43-2	
Ethylbenzene	**2200**	ug/L	500	100		09/16/08 18:09	100-41-4	
Methyl-tert-butyl ether	**691**	ug/L	500	100		09/16/08 18:09	1634-04-4	
Naphthalene	**718**	ug/L	500	100		09/16/08 18:09	91-20-3	
Toluene	**17100**	ug/L	500	100		09/16/08 18:09	108-88-3	
Xylene (Total)	**11100**	ug/L	1000	100		09/16/08 18:09	1330-20-7	
m&p-Xylene	**7600**	ug/L	1000	100		09/16/08 18:09	1330-20-7	
o-Xylene	**3450**	ug/L	500	100		09/16/08 18:09	95-47-6	
4-Bromofluorobenzene (S)	106	%	87-109	100		09/16/08 18:09	460-00-4	
Dibromofluoromethane (S)	98	%	85-115	100		09/16/08 18:09	1868-53-7	
1,2-Dichloroethane-d4 (S)	103	%	79-120	100		09/16/08 18:09	17060-07-0	
Toluene-d8 (S)	100	%	70-120	100		09/16/08 18:09	2037-26-5	

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: GASTON FOOD MART 08-1873
Pace Project No.: 9227792

QC Batch: OEXT/4398 Analysis Method: EPA 8011
QC Batch Method: EPA 8011 Analysis Description: GCS 8011 EDB DBCP
Associated Lab Samples: 9227792001, 9227792002, 9227792003, 9227792004, 9227792005, 9227792006

METHOD BLANK: 167876 Matrix: Water
Associated Lab Samples: 9227792001, 9227792002, 9227792003, 9227792004, 9227792005, 9227792006

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
1,2-Dibromoethane (EDB)	ug/L	ND	0.020	09/14/08 22:00	
1-Chloro-2-bromopropane (S)	%	101	60-140	09/14/08 22:00	

LABORATORY CONTROL SAMPLE & LCSD: 167877 167878

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	0.33	108	116	60-140	7	20	
1-Chloro-2-bromopropane (S)	%				97	101	60-140			

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 167879 167880

Parameter	Units	9227716001 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	.29	.29	0.21	0.22	72	76	60-140	5	
1-Chloro-2-bromopropane (S)	%						97	100	60-140		

SAMPLE DUPLICATE: 167881

Parameter	Units	9227716002 Result	Dup Result	RPD	Qualifiers
1,2-Dibromoethane (EDB)	ug/L	ND	ND	0	
1-Chloro-2-bromopropane (S)	%		96	9	

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: GASTON FOOD MART 08-1873
Pace Project No.: 9227792

QC Batch: OEXT/4404
QC Batch Method: EPA 8011
Analysis Method: EPA 8011
Analysis Description: GCS 8011 EDB DBCP
Associated Lab Samples: 9227792007

METHOD BLANK: 168079 Matrix: Water
Associated Lab Samples: 9227792007

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
1,2-Dibromoethane (EDB)	ug/L	ND	0.020	09/15/08 18:26	
1-Chloro-2-bromopropane (S)	%	101	60-140	09/15/08 18:26	

LABORATORY CONTROL SAMPLE & LCSD: 168080 168081

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	0.30	110	106	60-140	4	20	
1-Chloro-2-bromopropane (S)	%				101	100	60-140			

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 168082 168083

Parameter	Units	9227836001 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	0.096	.28	.28	0.35	0.32	90	78	60-140	10	
1-Chloro-2-bromopropane (S)	%						88	86	60-140		

SAMPLE DUPLICATE: 168084

Parameter	Units	9227836002 Result	Dup Result	RPD	Qualifiers
1,2-Dibromoethane (EDB)	ug/L	ND	ND	0	
1-Chloro-2-bromopropane (S)	%		92	1	

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: GASTON FOOD MART 08-1873
Pace Project No.: 9227792

QC Batch: MSV/4623
QC Batch Method: EPA 8260
Analysis Method: EPA 8260
Analysis Description: 8260 MSV
Associated Lab Samples: 9227792004, 9227792007

METHOD BLANK: 168345
Matrix: Water
Associated Lab Samples: 9227792004, 9227792007

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Benzene	ug/L	ND	5.0	09/16/08 11:54	
Ethylbenzene	ug/L	ND	5.0	09/16/08 11:54	
m&p-Xylene	ug/L	ND	10.0	09/16/08 11:54	
Methyl-tert-butyl ether	ug/L	ND	5.0	09/16/08 11:54	
Naphthalene	ug/L	ND	5.0	09/16/08 11:54	
o-Xylene	ug/L	ND	5.0	09/16/08 11:54	
Toluene	ug/L	ND	5.0	09/16/08 11:54	
Xylene (Total)	ug/L	ND	10.0	09/16/08 11:54	
1,2-Dichloroethane-d4 (S)	%	102	79-120	09/16/08 11:54	
4-Bromofluorobenzene (S)	%	104	87-109	09/16/08 11:54	
Dibromofluoromethane (S)	%	100	85-115	09/16/08 11:54	
Toluene-d8 (S)	%	101	70-120	09/16/08 11:54	

LABORATORY CONTROL SAMPLE: 168346

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Benzene	ug/L	50	52.7	105	78-128	
Ethylbenzene	ug/L	50	48.0	96	80-127	
m&p-Xylene	ug/L	100	95.2	95	82-127	
Methyl-tert-butyl ether	ug/L	50	52.9	106	71-130	
Naphthalene	ug/L	50	56.1	112	52-136	
o-Xylene	ug/L	50	46.9	94	83-124	
Toluene	ug/L	50	51.2	102	76-126	
Xylene (Total)	ug/L	150	142	95	83-125	
1,2-Dichloroethane-d4 (S)	%			105	79-120	
4-Bromofluorobenzene (S)	%			103	87-109	
Dibromofluoromethane (S)	%			99	85-115	
Toluene-d8 (S)	%			100	70-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 168347 168348

Parameter	Units	9227803003 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Qual
Benzene	ug/L	ND	50	50	56.0	55.0	112	110	74-136	2	
Toluene	ug/L	ND	50	50	53.7	53.8	106	107	73-131	.2	
1,2-Dichloroethane-d4 (S)	%						108	93	79-120		
4-Bromofluorobenzene (S)	%						107	105	87-109		
Dibromofluoromethane (S)	%						100	96	85-115		
Toluene-d8 (S)	%						99	99	70-120		

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: GASTON FOOD MART 08-1873
Pace Project No.: 9227792

QC Batch: MSV/4624 Analysis Method: EPA 8260
QC Batch Method: EPA 8260 Analysis Description: 8260 MSV
Associated Lab Samples: 9227792002, 9227792003, 9227792005

METHOD BLANK: 168543 Matrix: Water
Associated Lab Samples: 9227792002, 9227792003, 9227792005

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Benzene	ug/L	ND	5.0	09/17/08 00:29	
Ethylbenzene	ug/L	ND	5.0	09/17/08 00:29	
m&p-Xylene	ug/L	ND	10.0	09/17/08 00:29	
Methyl-tert-butyl ether	ug/L	ND	5.0	09/17/08 00:29	
Naphthalene	ug/L	ND	5.0	09/17/08 00:29	
o-Xylene	ug/L	ND	5.0	09/17/08 00:29	
Toluene	ug/L	ND	5.0	09/17/08 00:29	
Xylene (Total)	ug/L	ND	10.0	09/17/08 00:29	
1,2-Dichloroethane-d4 (S)	%	106	79-120	09/17/08 00:29	
4-Bromofluorobenzene (S)	%	105	87-109	09/17/08 00:29	
Dibromofluoromethane (S)	%	99	85-115	09/17/08 00:29	
Toluene-d8 (S)	%	101	70-120	09/17/08 00:29	

LABORATORY CONTROL SAMPLE: 168544

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Benzene	ug/L	50	51.6	103	78-128	
Ethylbenzene	ug/L	50	45.1	90	80-127	
m&p-Xylene	ug/L	100	89.0	89	82-127	
Methyl-tert-butyl ether	ug/L	50	56.4	113	71-130	
Naphthalene	ug/L	50	58.1	116	52-136	
o-Xylene	ug/L	50	44.9	90	83-124	
Toluene	ug/L	50	48.6	97	76-126	
Xylene (Total)	ug/L	150	134	89	83-125	
1,2-Dichloroethane-d4 (S)	%			106	79-120	
4-Bromofluorobenzene (S)	%			106	87-109	
Dibromofluoromethane (S)	%			101	85-115	
Toluene-d8 (S)	%			100	70-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 169221 169222

Parameter	Units	9227835008 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Qual
Benzene	ug/L	ND	50	50	63.9	64.2	128	128	74-136	.4	
Toluene	ug/L	ND	50	50	61.3	61.8	121	122	73-131	.8	
1,2-Dichloroethane-d4 (S)	%						109	113	79-120		
4-Bromofluorobenzene (S)	%						112	111	87-109		S0
Dibromofluoromethane (S)	%						109	106	85-115		
Toluene-d8 (S)	%						101	103	70-120		

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: GASTON FOOD MART 08-1873
Pace Project No.: 9227792

QC Batch: MSV/4629
QC Batch Method: EPA 8260
Analysis Method: EPA 8260
Analysis Description: 8260 MSV
Associated Lab Samples: 9227792001, 9227792006

METHOD BLANK: 168757
Matrix: Water
Associated Lab Samples: 9227792001, 9227792006

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Benzene	ug/L	ND	5.0	09/17/08 00:29	
Ethylbenzene	ug/L	ND	5.0	09/17/08 00:29	
m&p-Xylene	ug/L	ND	10.0	09/17/08 00:29	
Methyl-tert-butyl ether	ug/L	ND	5.0	09/17/08 00:29	
Naphthalene	ug/L	ND	5.0	09/17/08 00:29	
o-Xylene	ug/L	ND	5.0	09/17/08 00:29	
Toluene	ug/L	ND	5.0	09/17/08 00:29	
Xylene (Total)	ug/L	ND	10.0	09/17/08 00:29	
1,2-Dichloroethane-d4 (S)	%	106	79-120	09/17/08 00:29	
4-Bromofluorobenzene (S)	%	105	87-109	09/17/08 00:29	
Dibromofluoromethane (S)	%	99	85-115	09/17/08 00:29	
Toluene-d8 (S)	%	101	70-120	09/17/08 00:29	

LABORATORY CONTROL SAMPLE: 168758

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Benzene	ug/L	50	51.6	103	78-128	
Ethylbenzene	ug/L	50	45.1	90	80-127	
m&p-Xylene	ug/L	100	89.0	89	82-127	
Methyl-tert-butyl ether	ug/L	50	56.4	113	71-130	
Naphthalene	ug/L	50	58.1	116	52-136	
o-Xylene	ug/L	50	44.9	90	83-124	
Toluene	ug/L	50	48.6	97	76-126	
Xylene (Total)	ug/L	150	134	89	83-125	
1,2-Dichloroethane-d4 (S)	%			106	79-120	
4-Bromofluorobenzene (S)	%			106	87-109	
Dibromofluoromethane (S)	%			101	85-115	
Toluene-d8 (S)	%			100	70-120	

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

QUALIFIERS

Project: GASTON FOOD MART 08-1873
Pace Project No.: 9227792

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.

ANALYTE QUALIFIERS

S0	Surrogate recovery outside laboratory control limits.
S4	Surrogate recovery not evaluated against control limits due to sample dilution.

CHAIN-OF-CUSTODY / Analytical Request Document

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

Pace Analytical®

Page: of 1049970

Section A
Required Client Information:

Company	MECI
Address	235 B Dooley Rd
	Lexington SC 29073
Email To:	wcm@meci.net
Phone	808-2043
Fax	
Requested Due Date/TAT:	

Section B
Required Project Information:

Report To:	B. Shane
Copy To:	
Purchase Order No.:	
Project Name:	Gaston Food Mart
Project Number:	08-1873

Section C
Invoice Information:

Attention:	
Company Name:	
Address:	
Pace Quote Reference:	
Pace Project Manager:	R. Spencer
Pace Profile #:	836-1

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

ITEM #	SAMPLE ID	MATRIX CODE	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	Filtered (Y/N) Requested Analysis: 8260B, BTEX, Naphthalene	EDB 8011	Residual Chlorine (Y/N)	Pace Project Number / Lab I.D
1	mw-6	WT	G			9/11	11:05	6→	6				6					X	X		51432
2	mw-8						8:30	5→	5				5					X	X		
3	mw-9						9:50	6→	6				6					X	X		
4	mw-10						9:25	6→	6				6					X	X		
5	mw-24						10:15	6→	6				6					X	X		
6	mw-25						9:40	5→	5				5					X	X		
7	RMW-3	WT	G			9/11	10:30	6→	6				6					X	X		
8																					
9																					
10																					
11																					
12																					

Additional Comments:

RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME
[illegible]	9/12/8	11:20a	[illegible] Pace	9/12/8	11:20
[illegible] Pace	9/12/8	16:55	[illegible]	9/12/08	16:50
					16:50

SAMPLE CONDITION

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

SAMPLER NAME AND SIGNATURE

PRINT Name of SAMPLER: John C. Bryant

SIGNATURE of SAMPLER: [signature] DATE Signed (MM / DD / YY): 9/12-08

SEE REVERSE SIDE FOR INSTRUCTIONS

ORIGINAL

D H E C

PROMOTE PROTECT PROSPER

C. Earl Hunter, Commissioner

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

SEP 03 2008

D F SHUMPERT
814 PINE ST
PELION SC 29123

Re: **Sample Directive**
Gaston Food Mart, 105 N Main St., Gaston, SC
UST Permit #05986; CA #33461
Release reported November 20, 1991
Contractor Selection Form received May 28, 2008
AFVR Report for event #10 received August 26, 2008
Lexington County

Dear Mr. Shumpert:

The Underground Storage Tank (UST) Program of the South Carolina Department of Health and Environmental Control (SCDHEC) recognizes your commitment to continue work at this site utilizing Midlands Environmental. The UST Program has determined the next necessary scope of work to be a groundwater sampling event.

Cost Agreement #33461 has been approved in the amount shown on the enclosed cost agreement form for the sampling. Samples should be collected from monitoring wells RMW-3, MW-6, MW-8, MW-9, MW-10, MW-24, MW-25, and MW-26 and analyzed for BTEX, Naphthalene, and MTBE by EPA method 8260B and EDB by method 8011 (note that the required detection limit for EDB is 0.02 parts per billion). During sampling, if the well screen does not bracket the water table, then the well should be purged prior to collection of the water samples.

Please have your contractor submit analytical results to the UST Program in a monitoring report containing the following items:

- A narrative portion documenting current site conditions and noting the names of field personnel, date, time, ambient air temperature, and general weather conditions during the sampling event. The report shall also contain well purging data, pH, specific conductivity, water temperature, PID readings (where applicable) and turbidity comments.
- Groundwater elevations, depth to groundwater, measurable free product thickness (where applicable), total well depth and screened interval for all monitoring wells associated with the site, unless otherwise directed by the UST Program, shall be presented in tabular form. Groundwater laboratory analytical data for all monitoring wells shall be presented in tabular format.
- A groundwater elevation contour map of the site based on current groundwater potentiometric data.
- A CoC map based on current groundwater laboratory analytical data. The groundwater data should be adjacent to the relevant monitoring well location.
- Manifests for any contaminated soil and/or groundwater removed from the site for treatment and/or disposal.
- Signature and seal by a professional geologist or engineer registered in the State of South Carolina.

UST PROGRAM
DOCKETING # 31

Midlands Environmental can submit an invoice for direct billing from the State Underground Petroleum Environmental Response Bank (SUPERB) Account. Please note that all applicable South Carolina certification requirements apply to the laboratory services, well installation, and report preparation. All site rehabilitation activities must be performed and submitted by a South Carolina Certified Underground Storage Tank Site Rehabilitation Contractor.

A Report of Findings and invoice are due within 60 days from the date of this letter. Interim invoices may not be submitted for this scope of work. If the invoice is not submitted within 120 days from the date of this letter, monies allocated to pay this invoice will be uncommitted. This means that the invoice will not be processed for payment until all other committed funds are paid or monies become available.

Please note that Sections 44-2-110(4) and 44-2-130 of the SUPERB Statute state that no costs will be allowed unless prior approval from the UST Program is obtained. If for any reason additional tasks will be completed, these additional tasks and the associated cost must be preapproved by the UST Program for the cost to be paid. The UST Program reserves the authority to pay only for work properly performed and/or technically justified and will only pay rates in accordance with established criteria. Further, the UST Program reserves the right to question and/or reject costs if deemed unreasonable and to audit project records at any time during the project or after completion of work.

The UST Program grants preapproval for transportation of virgin petroleum-contaminated soil and groundwater from the referenced site to a permitted treatment facility. The contaminated soil or groundwater must be properly stored in labeled containers or covered with plastic as appropriate. 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 and/or acceptance letter from the receiving facility that clearly designates the quantity received must be included as an appendix to the final report. If the levels of petroleum contamination based on laboratory analysis are below risk-based screening levels, please contact the project manager for approval to dispose of soil and/or groundwater on-site. The SUPERB Account will not compensate for transportation or treatment of clean soil and/or groundwater.

On all correspondence concerning this site, please reference UST Permit #05986 and CA #33461. If you have any questions, please contact me at (803) 896-6584 or by e-mail at minerrs@dhec.sc.gov.

Sincerely,

Read S. Miner, P.G., Hydrogeologist
Southwestern SC Corrective Action Section
Assessment and Corrective Action Division
Underground Storage Tank Program
Bureau of Land and Waste Management

enc: Approved Cost Agreement

cc: Technical File (with enclosure)
Bryan Shane, Midlands Environmental Consultants, PO Box 854, Lexington, SC 29071 (with enclosure)

Approved Cost Agreement 33461

Facility: 05986 GASTON FOOD MART
MINERRS
PO Number:

Task / Description	Categories	Item Description	Qty / Pct	Unit Price	Amount
04 MOB/DEMOB					
		B PERSONNEL	1.0000	290.00	290.00
10 SAMPLE COLLECTION					
		D GROUNDWATER NO-PURGE	8.0000	35.00	280.00
11 ANALYSES					
	GW GROUNDWATER	A BTEX+NAPTH+MTBE	8.0000	100.00	800.00
		F EDB	8.0000	55.00	440.00
19 RPT/PROJECT MNGT & COORDINATIO					
		PCT PERCENT	0.1500	1,810.00	271.50
				Total Amount	2,081.50

Midlands
Environmental
Consultants, Inc.

August 25, 2008

Mr. Read Miner, P.G., Hydrogeologist
Southwestern 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: Aggressive Fluid Vapor Recovery Report
Gaston Food Mart
Gaston, South Carolina
SCDHEC Site ID # 05986; CA #32348
MECI Project Number 08-1633J

Dear Mr. Miner,

Midlands Environmental Consultants, Inc. (MECI) is pleased to submit the attached Aggressive Fluid Vapor Recovery Report for the referenced site. This describes the aggressive fluid vapor recovery activities conducted at the site in general accordance with South Carolina Department of Health and Environmental Control (SCDHEC) guidelines.

AGGRESSIVE FLUID VAPOR RECOVERY

MECI personnel conducted an Aggressive Fluid Vapor Recovery (AFVR) event at Gaston Food Mart on August 5, 2008. The event was conducted on monitoring wells RMW-3, MW-9, and MW-10 to reduce dissolved CoC concentrations. Free phase petroleum product was not detected in monitoring wells RMW-3, MW-9, and MW-10 prior to the AFVR event. The event was conducted continuously for eight hours by MECI personnel utilizing a vacuum extraction unit. Free phase petroleum product was not detected in the wells immediately following the event.

MECI treated the off gas produced during the AFVR event using an activated carbon filter system. Calculated total petroleum hydrocarbons removed from the wells were 15.29 pounds or approximately 2.64 equivalent gallons. The average rate of removal for the hydrocarbons was calculated to be 1.91 pounds per hour. Concentrations of off gas produced during the event were recorded from 1,100 parts per million by volume (PPM) to 1,284 PPM. Measurements were obtained from vapors prior to entering off gas treatment. Vacuum readings were recorded at a 12.0 inches of mercury throughout the event. A complete compilation of measurements recorded is presented in attached Table 1J.

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

Differential pressures and groundwater levels were measured and recorded for selected site monitoring wells at regular intervals. This data is summarized in the attached Table 2J. Monitoring well locations are depicted on attached Figure 1.

A total of 150 gallons of liquid was removed from RMW-3, MW-9, and MW-10 during this event. Free Phase Petroleum product was not observed in the holding tank at the end of the event. The fluids produced were transported to Crandall Corporation of Lexington, S.C for disposal. A disposal manifest for these fluids is attached at the end of this report.

QUALIFICATIONS OF REPORT

The activities and evaluative approaches used in this assignment are consistent with those normally employed in enhanced fluid recovery events and waste management projects of this type. Contents of this report are intended for the use by MECI, and the South Carolina Department of Health and Environmental Control, 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.

Midlands Environmental appreciates the opportunity to offer our professional environmental related 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
Staff Scientist

William C. McClary, P.G.
Senior Geologist

Attachments:

TABLE 1J
AFVR MONITORING DATA
GASTON FOOD MART
GASTON, SOUTH CAROLINA
MECI PROJECT NUMBER 08-1633J
SCDHEC SITE ID NUMBER 05986

Extraction Well	Date	Time (hh:mm)	Differential Time (hr)	Extraction Well Head Vacuum (in. Hg)	Off Gas Measurements				
					Concentration (PPM)	Offgas Velocity Ft/Min	Flow Rate CFM	Removal Rate Lbs/Hr	Interval Removal Lbs
RMW-3	08/05/08	9:00	0.50	12.0	1,101	1390	125.10	1.65	0.83
MW-9	08/05/08	9:30	0.50	12.0	1,100	1380	124.20	1.64	0.82
MW-10	08/05/08	10:00	0.50	12.0	1,118	1350	121.50	1.63	0.82
	08/05/08	10:30	0.50	12.0	1,152	1320	118.80	1.64	0.82
	08/05/08	11:00	0.50	12.0	1,236	1300	117.00	1.74	0.87
	08/05/08	11:30	0.50	12.0	1,280	1320	118.80	1.82	0.91
	08/05/08	12:00	0.50	12.0	1,284	1320	118.80	1.83	0.92
	08/05/08	12:30	0.50	12.0	1,279	1320	118.80	1.82	0.91
	08/05/08	13:00	0.50	12.0	1,272	1330	119.70	1.83	0.91
	08/05/08	13:30	0.50	12.0	1,267	1400	126.00	1.92	0.96
	08/05/08	14:00	0.50	12.0	1,260	1510	135.90	2.05	1.03
	08/05/08	14:30	0.50	12.0	1,252	1470	132.30	1.99	0.99
	08/05/08	15:00	0.50	12.0	1,244	1430	128.70	1.92	0.96
	08/05/08	15:30	0.50	12.0	1,251	1400	126.00	1.89	0.95
	08/05/08	16:00	0.50	12.0	1,260	1350	121.50	1.84	0.92
	08/05/08	16:30	0.50	12.0	1,268	1220	109.80	1.67	0.84
	08/05/08	17:00	0.50	12.0	1,272	1230	110.70	1.69	0.84
									TOTAL **15.29**

Well Data:			Pre AFVR Event			Post AFVR Event			Corrected Depth to Water Change (ft)
Well No.	Diameter (in)	Total Depth (ft)	Depth to Product (ft)	Depth to Water (ft)	Product Thickness (ft)	Depth to Product (ft)	Depth to Water (ft)	Product Thickness (ft)	
RMW-3	2"	40.00	***	36.47	***	***	35.56	***	-0.91
MW-9	2"	40.00	***	41.80	***	***	41.34	***	-0.46
MW-10	2"	40.00	***	35.37	***	***	36.01	***	0.64

Vacuum Truck Information		Well ID	Stinger Depth
Subcontractor:	MECI	RMW-3	30.00
Truck Operator:	R. Owen	MW-9	30.00
Stack I.D. (feet)	0.33 feet	MW-10	30.00

Recovery / Disposal Information		
Hydro carbons Removed (vapor):	15.29	Pounds
Hydro carbons Removed (liquid):	0	Gallons
Total Hydrocarbons Removed:	2.64	Equivalent Gallons
Molecular Weight Utilized:	75	g / mole
Disposal Facility	Crandall Corporation	
Total Liquids Removed:	150	Gallons

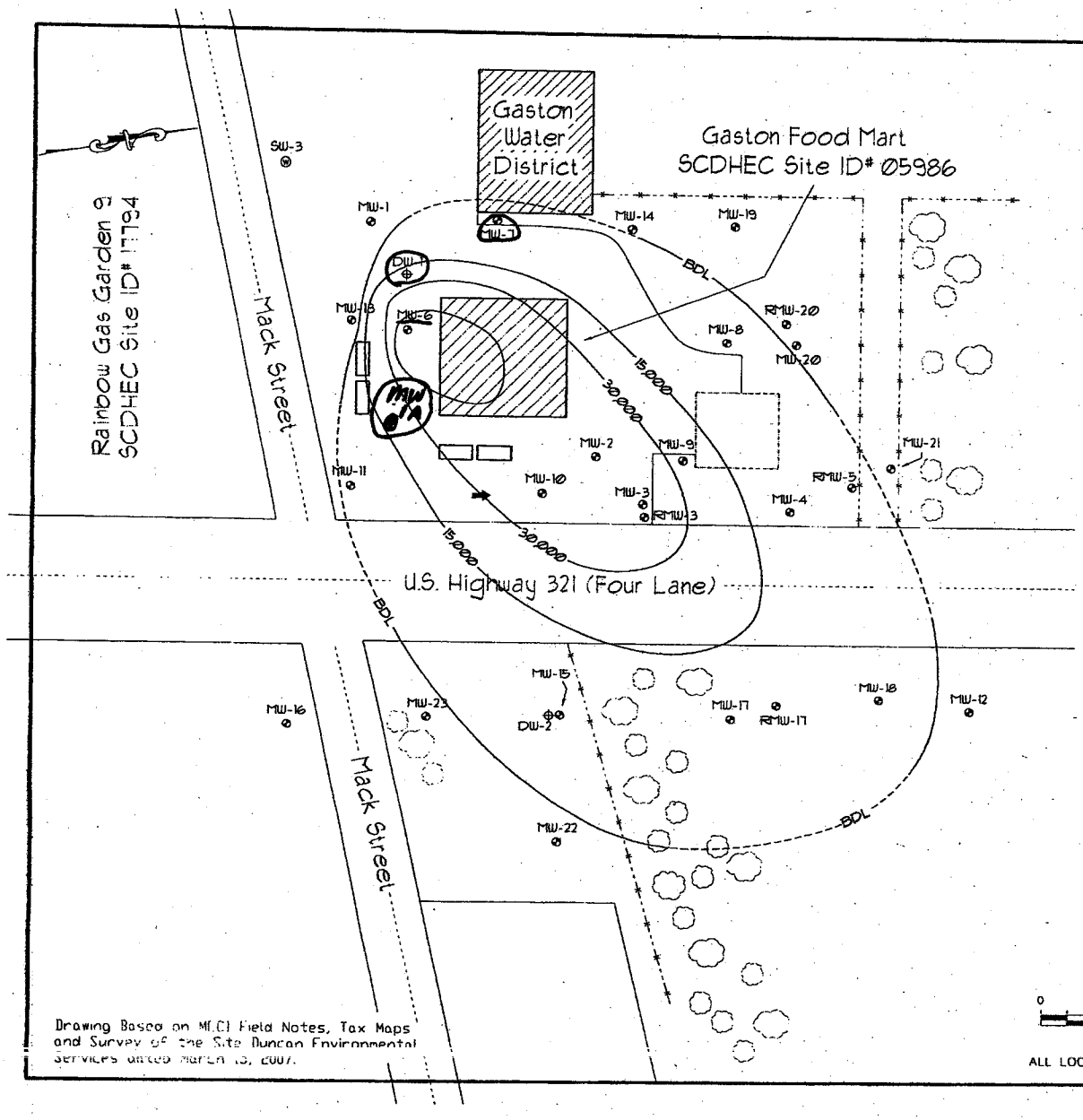
TABLE 2J
DIFFERENTIAL PRESSURE AND GROUNDWATER DRAWDOWN DATA
GASTON FOOD MART
GASTON, SOUTH CAROLINA
MECI PROJECT NUMBER 08-1633J
SCDHEC SITE ID NUMBER 05986

DIFFERENTIAL PRESSURE DATA

		Well Designation:		
		MW-1A	**MW-8**	**MW-25**
Nearest Extraction Well:		MW-10	MW-9	RMW-3
Approximate Distance:		71.5 ft	53 ft	32 ft
Time	**Elapsed Time**	**Differential Pressure Readings (inches of water)**		
9:00	0.0	0	0	0
9:30	0.5	0	0	0
10:00	1.0	0	0	0
10:30	1.5	0	0	0
11:00	2.0	0	0	0
11:30	2.5	0	0	0
12:00	3.0	0	0	0
12:30	3.5	0	0	0
13:00	4.0	0	0	0
13:30	4.5	0	0	0
14:00	5.0	0	0	0
14:30	5.5	0	0	0
15:00	6.0	0	0	0
15:30	6.5	0	0	0
16:00	7.0	0	0	0
16:30	7.5	0	0	0
17:00	8.0	0	0	0
Maximum Change:		**0**	**0**	**0**

GROUNDWATER DRAWDOWN DATA

		Well Designation:		
		MW-1A	**MW-8**	**MW-25**
Nearest Extraction Well:		MW-10	MW-9	RMW-3
Approximate Distance:		71.5 ft	53 ft	32 ft
Time	**Elapsed Time**	**Depth to Liquid (feet below of casing):**		
Prior toAFVR		25.65	39.42	59.26
13:00	4 hours	25.66	39.43	59.31
17:00	8 hours	25.66	39.41	59.32
Maximum Change:		-0.01	0.02	-0.05



Explanation:

- Location of Water Table Bracketing Monitoring Well
- Estimated Groundwater Flow Direction
- Location of Double Cased Monitoring Well
- Estimated Location of Removed Underground Storage Tanks
- Location of Water Supply Well
- Total BTEX Concentration Isopleth (ug/l)

COC Concentration Data

Sample #	Benzene (ug/l)	Toluene (ug/l)	Ethylbenzene (ug/l)	Total Xylenes (ug/l)	Total BTEX (ug/l)	MTBE (ug/l)	Napthalene (ug/l)	EDB (ug/l)
MW-1	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
RMW-3	7,940	18,600	2,720	14,070	43,330	550	1,790	13.9
RMW-5	DRY	DRY	DRY	DRY	DRY	DRY	DRY	DRY
MW-6	PROD	PROD	PROD	PROD	PROD	PROD	PROD	PROD
MW-8	145	356	24.5	1,087	1,612.5	12.0	36.9	NT
MW-9	2,470	10,200	2,030	15,140	29,840	124	612	2.3
MW-10	9,030	16,900	2,650	12,570	41,150	12,500	BDL	27.4
MW-11	BDL	BDL	8.5	BDL	8.5	BDL	8.3	BDL
MW-12	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
MW-13	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
MW-15	21.8	BDL	13.6	128.1	163.5	BDL	5.1	0.37
MW-16	DRY	DRY	DRY	DRY	DRY	DRY	DRY	DRY
MW-19	NL	NL	NL	NL	NL	NL	NL	NL
RMW-20	DRY	DRY	DRY	DRY	DRY	DRY	DRY	DRY
MW-21	DRY	DRY	DRY	DRY	DRY	DRY	DRY	DRY
MW-22	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
MW-23	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
DW-1	DRY	DRY	DRY	DRY	DRY	DRY	DRY	DRY
DW-2	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
SW-3	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL

Notes:
- Groundwater samples collected on September 11, 2007.
- Contour Interval = 15,000 ug/l
- PROD = Free Phase Product encountered at time of sampling
- BDL = Below Detection Limits
- Contours Computer Generated using Surfer by Golden Graphics and Modified by MECI Personnel.

GRAPHIC SCALE
0 30 60 90 120
1IN = 60FT

ALL LOCATIONS ARE APPROXIMATE

Drawing Based on MECI Field Notes, Tax Maps and Survey of the Site Duncan Environmental Services dated March 13, 2007.

Total BTEX Isopleth Map

Gaston Food Mart
Gaston, South Carolina
SCDHEC Site ID 05986

Midlands Environmental Consultants, Inc.

JOB NO. 07-1297
DATE September 20, 2007
FIGURE 5

Crandall

C 138366

NON-HAZARDOUS WASTE MANIFEST

1. Generator's US EPA ID No. .
Manifest Document No. 27584
2. Page 1 of 1

3. Generator's Name and Mailing Address Midlands Environmental
1144 Old Two Notch
Lexington, SC 29073

4. Generator's Phone ( ) (803) 808-2043

5. Transporter 1 Company Name
Crandall Corporation

6. US EPA ID Number
SCD981864499

A. Transporter's Phone (803) 791-4800

7. Transporter 2 Company Name

8. US EPA ID Number

B. Transporter's Phone

9. Designated Facility Name and Site Address
Crandall Corporation
100 Rich-Lex Drive
Lexington, SC 29072

10. US EPA ID Number
SCD981864499

C. Facility's Phone (803) 791-4800

11. Waste Shipping Name and Description	12. Containers No.	Type	13. Total Quantity	14. Unit Wt./Vol.
a. Non - Hazardous Waste, Waste Water	01	TT	2630	G
b.				
c. •Braxon Bros A-04145(300gals) •Gaston Food-5(05986)(150 gals) •Braxon Bros.-04145(600gals) •Hughes Well-00358(110gals) •Cola maint.-07359(1500gals) •Newberry C-06456(180gals)				
d. •Newberry D(06456)175gals) •Smoke's-01269(60gals) •Handy Pantry 89-04233(10gals) •Macks-01263(200gals) •Pitt Stop 31-16604-(400gals) •Comm. Quick-11694(270gals)				

D. Additional Descriptions for Materials Listed Above
•York Co det.09152(10gals) •Corner pantry 103-07687-(100gals)
•Newberry DOT C-10497(250gals)
•Cola maint-07359-(300gals) •Sonny's Grocery-08605(40gal)
•Leo's Gulf(04339)(275gals)
•Anderson Patrol-00769(25gals)
•Beaufort-10801-(150gals)
•Newberry DOT D-10492-(135gals)

FIELD SERVICE

E. Handling Codes for Wastes Listed Above

15. Special Handling Instructions and Additional Information
Service Call ID: GLB0127684
Emergency Response: Infotrac - 800-535-5053
Caller must ID Crandall as registrant

16. 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.

Printed/Typed Name	Signature	Month	Day	Year
X No Signature Available		08	27	08

17. Transporter 1 Acknowledgement of Receipt of Materials

Printed/Typed Name	Signature	Month	Day	Year
Chad Justice	Chad Justice	08	22	08

18. Transporter 2 Acknowledgement of Receipt of Materials

Printed/Typed Name	Signature	Month	Day	Year

19. Discrepancy Indication Space

20. Facility Owner or Operator: Certification of receipt of waste materials covered by this manifest except as noted in item 19.

Printed/Typed Name	Signature	Month	Day	Year

GENERATOR

TRANSPORTER

FACILITY

GENERATOR COPY

D H E C
PROMOTE PROTECT PROSPER

C. Earl Hunter, Commissioner
Promoting and protecting the health of the public and the environment.

AUG 11 2008

D F SHUMPERT
814 PINE ST
PELION SC 29123

Re: **AFVR Report Review**
Gaston Food Mart, 105 N Main St., Gaston, SC
UST Permit #05986
Release reported November 20, 1991
AFVR Reports for event #9 received August 11, 2008
Lexington County

Dear Mr. Shumpert:

As you may be aware, Midlands Environmental Consultants completed an Aggressive Fluid Vapor Recovery (AFVR) event at the referenced facility on July 29, 2008. A copy of the reports is enclosed. Additional AFVR events will be completed to continue with free product removal and reduction of dissolved petroleum concentrations.

On all correspondence concerning this site, please reference UST Permit #05986. If you have any questions, please contact me at (803) 896-6584 or by e-mail at minerrs@dhec.sc.gov.

Sincerely,

Read S. Miner, P.G., Hydrogeologist
Southwestern SC Corrective Action Section
Assessment and Corrective Action Division
Underground Storage Tank Program
Bureau of Land and Waste Management

enc: AFVR Report

cc: Technical (without enclosure)

UST DOCKET
29Tech

Midlands
Environmental
Consultants, Inc.

August 5, 2008

Mr. Read Miner, P.G., Hydrogeologist
Southwestern 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: Aggressive Fluid Vapor Recovery Report
Gaston Food Mart
Gaston, South Carolina
SCDHEC Site ID # 05986; CA #32348
MECI Project Number 08-1633I

Dear Mr. Miner,

Midlands Environmental Consultants, Inc. (MECI) is pleased to submit the attached Aggressive Fluid Vapor Recovery Report for the referenced site. This describes the aggressive fluid vapor recovery activities conducted at the site in general accordance with South Carolina Department of Health and Environmental Control (SCDHEC) guidelines.

AGGRESSIVE FLUID VAPOR RECOVERY

MECI personnel conducted an Aggressive Fluid Vapor Recovery (AFVR) event at Gaston Food Mart on July 29, 2008. The event was conducted on monitoring well MW-6 to reduce dissolved CoC concentrations. Free phase petroleum product was not detected in monitoring well MW-6 prior to the AFVR event. The event was conducted by MECI personnel utilizing a vacuum extraction unit that was continuously conducted for eight hours. Free phase petroleum product was not detected in the well immediately following the event.

MECI treated the off gas produced during the AFVR event using an activated carbon filter system. Calculated total petroleum hydrocarbons removed from the well were 0.89 pounds or approximately 0.15 equivalent gallons. The average rate of removal for the hydrocarbons was calculated to be 0.11 pounds per hour. Concentrations of off gas produced during the event were recorded from 8.3 parts per million by volume (PPM) to 272 PPM. Measurements were obtained from vapors prior to entering off gas treatment. Vacuum readings were recorded at a 16.0 inches of mercury throughout the event. A complete compilation of measurements recorded is presented in attached Table 1I.

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

Differential pressures and groundwater levels were measured and recorded for selected site monitoring wells at regular intervals. This data is summarized in the attached Table 2I. Monitoring well locations are depicted on attached Figure 1.

A total of 250 gallons of liquid was removed from MW-6 during this event. Free Phase Petroleum product was not observed in the holding tank at the end of the event. The fluids produced were transported to Crandall Corporation of Lexington, S.C for disposal. A disposal manifest for these fluids is attached at the end of this report.

QUALIFICATIONS OF REPORT

The activities and evaluative approaches used in this assignment are consistent with those normally employed in enhanced fluid recovery events and waste management projects of this type. Contents of this report are intended for the use by MECI, and the South Carolina Department of Health and Environmental Control, 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.

Midlands Environmental appreciates the opportunity to offer our professional environmental related 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
Staff Scientist

William C. McClary, P.G.
Senior Geologist

Attachments:

TABLE 1I
AFVR MONITORING DATA
GASTON FOOD MART
GASTON, SOUTH CAROLINA
MECI PROJECT NUMBER 08-1633I
SCDHEC SITE ID NUMBER 05986

Extraction Well	Date	Time (hh:mm)	Differential Time (hr)	Extraction Well Head Vacuum (in. Hg)	Off Gas Measurements				
					Concentration (PPM)	Offgas Velocity Ft/Min	Flow Rate CFM	Removal Rate Lbs/Hr	Interval Removal Lbs
MW-6	7/29/208	10:00	0.50	16.0	85.9	1250	112.50	0.12	0.06
	7/29/208	10:30	0.50	16.0	24.9	1510	135.90	0.04	0.02
	7/29/208	11:00	0.50	16.0	23.5	1320	118.80	0.03	0.02
	7/29/208	11:30	0.50	16.0	16.1	1440	129.60	0.03	0.01
	7/29/208	12:00	0.50	16.0	53.2	1480	133.20	0.09	0.04
	7/29/208	12:30	0.50	16.0	122	1410	126.90	0.19	0.09
	7/29/208	13:00	0.50	16.0	272	1400	126.00	0.41	0.21
	7/29/208	13:30	0.50	16.0	149	1530	137.70	0.25	0.12
	7/29/208	14:00	0.50	16.0	265	1480	133.20	0.42	0.21
	7/29/208	14:30	0.50	16.0	12.2	1370	123.30	0.02	0.01
	7/29/208	15:00	0.50	16.0	11.8	1330	119.70	0.02	0.01
	7/29/208	15:30	0.50	16.0	9.6	1320	118.80	0.01	0.01
	7/29/208	16:00	0.50	16.0	9.3	1180	106.20	0.01	0.01
	7/29/208	16:30	0.50	16.0	8.3	1110	99.90	0.01	0.00
	7/29/208	17:00	0.50	16.0	84.6	1180	106.20	0.11	0.05
	7/29/208	17:30	0.50	16.0	9.6	1150	103.50	0.01	0.01
	7/29/208	18:00	0.50	16.0	9.6	1310	117.90	0.01	0.01
									TOTAL **0.89**

Well Data:			Pre AFVR Event			Post AFVR Event			Corrected Depth to Water Change (ft)
Well No.	Diameter (in)	Total Depth (ft)	Depth to Product (ft)	Depth to Water (ft)	Product Thickness (ft)	Depth to Product (ft)	Depth to Water (ft)	Product Thickness (ft)	
MW-6	2"	40.00	***	35.06	***	***	36.27	***	1.21

Vacuum Truck Information		Well ID	Stinger Depth
Subcontractor:	MECI	MW-6	36.00
Truck Operator:	R. Garnett		
Stack I.D. (feet)	0.33 feet		

Recovery / Disposal Information		
Hydro carbons Removed (vapor):	0.89	Pounds
Hydro carbons Removed (liquid):	0	Gallons
Total Hydrocarbons Removed:	0.15	Equivalent Gallons
Molecular Weight Utilized:	75	g / mole
Disposal Facility	Crandall Corporation	
Total Liquids Removed:	250	Gallons

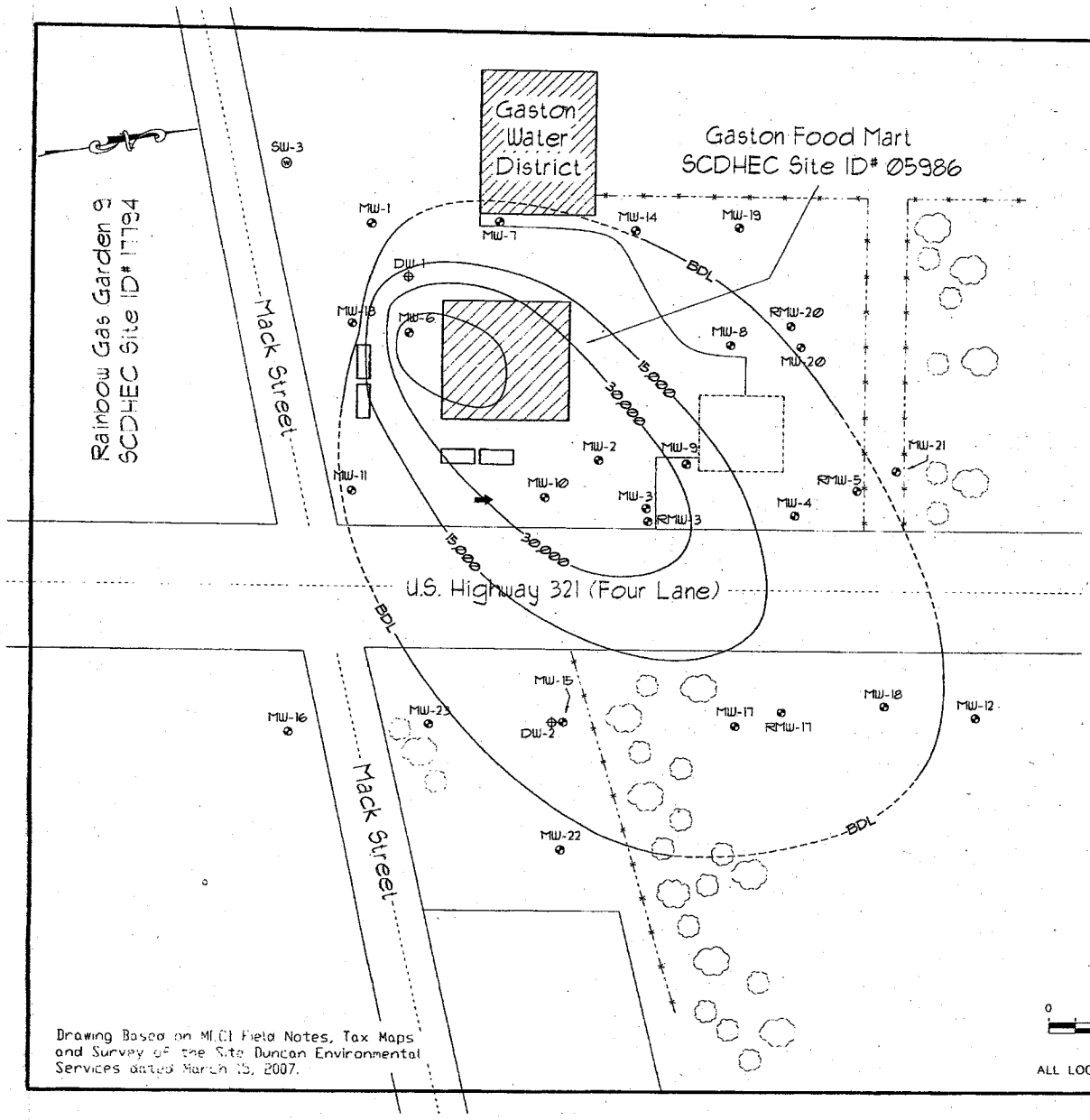
TABLE 2I
DIFFERENTIAL PRESSURE AND GROUNDWATER DRAWDOWN DATA
GASTON FOOD MART
GASTON, SOUTH CAROLINA
MECI PROJECT NUMBER 08-1633I
SCDHEC SITE ID NUMBER 05986

DIFFERENTIAL PRESSURE DATA

		Well Designation:		
		MW-1A	**MW-7**	**DW-1**
Nearest Extraction Well:		MW-6	MW-6	MW-6
Approximate Distance:		40 ft	81 ft	32 ft
Time	**Elapsed Time**	**Differential Pressure Readings (inches of water)**		
10:00	0.0	0	0	0
10:30	0.5	0	0	0
11:00	1.0	0	0	0
11:30	1.5	0	0	0
12:00	2.0	0	0	0
12:30	2.5	0	0	0
13:00	3.0	0	0	0
13:30	3.5	0	0	0
14:00	4.0	0	0	0
14:30	4.5	0	0	0
15:00	5.0	0	0	0
15:30	5.5	0	0	0
16:00	6.0	0	0	0
16:30	6.5	0	0	0
17:00	7.0	0	0	0
17:30	7.5	0	0	0
18:00	8.0	0	0	0
Maximum Change:		**0**	**0**	**0.0**

GROUNDWATER DRAWDOWN DATA

		Well Designation:		
		MW-1A	**MW-7**	**DW-1**
Nearest Extraction Well:		MW-6	MW-6	MW-6
Approximate Distance:		40 ft	81 ft	32 ft
Time	**Elapsed Time**	**Depth to Liquid (feet below of casing):**		
Prior toAFVR		25.44	36.96	52.83
14:00	4 hours	25.48	37.03	52.82
18:00	8 hours	25.47	37.07	52.83
Maximum Change:		-0.04	-0.11	0.01



Explanation:

- Location of Water Table Bracketing Monitoring Well
- Location of Double Cased Monitoring Well
- Location of Water Supply Well
- Estimated Groundwater Flow Direction
- Estimated Location of Removed Underground Storage Tanks
- Total BTEX Concentration Isopleth (ug/l)

COC Concentration Data

Sample #	Benzene (ug/l)	Toluene (ug/l)	Ethylbenzene (ug/l)	Total Xylenes (ug/l)	Total BTEX (ug/l)	MTBE (ug/l)	Napthalene (ug/l)	EDB (ug/l)
MW-1	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
RMW-3	7,940	18,600	2,720	14,070	43,330	550	1,790	13.9
RMW-5	DRY	DRY	DRY	DRY	DRY	DRY	DRY	DRY
MW-6	PROD	PROD	PROD	PROD	PROD	PROD	PROD	PROD
MW-8	145	356	24.5	1,087	1,612.5	12.0	36.9	NT
MW-9	2,470	10,200	2,030	15,140	29,840	124	612	2.3
MW-10	9,030	16,900	2,650	12,570	41,150	12,500	BDL	27.4
MW-11	BDL	BDL	8.5	BDL	8.5	BDL	8.3	BDL
MW-12	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
MW-13	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
MW-15	21.8	BDL	13.6	128.1	163.5	BDL	5.1	0.37
MW-16	DRY	DRY	DRY	DRY	DRY	DRY	DRY	DRY
MW-19	NL	NL	NL	NL	NL	NL	NL	NL
RMW-20	DRY	DRY	DRY	DRY	DRY	DRY	DRY	DRY
MW-21	DRY	DRY	DRY	DRY	DRY	DRY	DRY	DRY
MW-22	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
MW-23	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
DW-1	DRY	DRY	DRY	DRY	DRY	DRY	DRY	DRY
DW-2	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
SW-3	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL

Notes:
- Groundwater samples collected on September 11, 2007.
- Contour Interval = 15,000 ug/l
- PROD = Free Phase Product encountered at time of sampling
- BDL = Below Detection Limits
- Contours Computer Generated using Surfer by Golden Graphics and Modified by MECI Personnel.

GRAPHIC SCALE
0 30 60 90 120
1IN = 60FT

ALL LOCATIONS ARE APPROXIMATE

Drawing Based on MECI Field Notes, Tax Maps and Survey of the Site Duncan Environmental Services dated March 15, 2007.

Total BTEX Isopleth Map

Gaston Food Mart
Gaston, South Carolina
SCDHEC Site ID 05986

Midlands Environmental Consultants, Inc.

JOB NO. 07-1297
DATE September 20, 2007
FIGURE 5

Crandall

C 137612

NON-HAZARDOUS WASTE MANIFEST

1. Generator's US EPA ID No. | Manifest Document No. 26684. | 2. Page 1 of 1

3. Generator's Name and Mailing Address Midlands Environmental
1144 Old Two Notch
Lexington, SC 29073

4. Generator's Phone (803) 808-2043

5. Transporter 1 Company Name: Crandall Corporation | 6. US EPA ID Number: SCD981864499 | A. Transporter's Phone: (803) 791-4800

7. Transporter 2 Company Name | 8. US EPA ID Number | B. Transporter's Phone

9. Designated Facility Name and Site Address
Crandall Corporation
100 Rich-Lex Drive
Lexington, SC 29072

10. US EPA ID Number: SCD981864499

C. Facility's Phone: (803) 791-4800

11. Waste Shipping Name and Description	12. Containers No.	Type	13. Total Quantity	14. Unit Wt./Vol.
a. Non - Hazardous Waste, Waste Water	001	TT	2640	G
b.				
c.				
d. - Majik Market (00140) 900gals. - Friendly Mart (11693) 2000gals. - Florence Bus. (03206) 4200gals. - Macasso (1253) 275gals. - Majik Market (00140) 2400gals - Anderson Petrol (00769) 300gals.				

D. Additional Descriptions for Materials Listed Above
- Pantry 640 (01435) 1600gals - Frm Richon Chevy (00770) 1000gals.
- Refr. Service (11337) 1000gals.
- Gaston Food Mart (05986) 250gals.

FIELD SERVICE

E. Handling Codes for Wastes Listed Above

15. Special Handling Instructions and Additional Information
- Best Buy Quality Foods (09060052) 5000gals.
- Frm Sayes (13889) 275gals.

Service Call ID: GLB0126684

Emergency Response: Infotrac - 800-535-5053
Caller must ID Crandall as registrant

16. 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.

Printed/Typed Name	Signature	Month	Day	Year
T. Backman (for Midlands)	Troy Backman	08	04	08

TRANSPORTER

17. Transporter 1 Acknowledgement of Receipt of Materials

Printed/Typed Name	Signature	Month	Day	Year
Troy Backman	Troy Backman	08	04	08

18. Transporter 2 Acknowledgement of Receipt of Materials

Printed/Typed Name	Signature	Month	Day	Year

FACILITY

19. Discrepancy Indication Space

20. Facility Owner or Operator: Certification of receipt of waste materials covered by this manifest except as noted in item 19.

Printed/Typed Name	Signature	Month	Day	Year

GENERATOR COPY

D H E C

PROMOTE PROTECT PROSPER

C. Earl Hunter, Commissioner

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

D F SHUMPERT
814 PINE ST
PELION SC 29123

JUL 25 2008

Re: **AFVR Report Review**
Gaston Food Mart, 105 N Main St., Gaston, SC
UST Permit #05986
Release reported November 20, 1991
AFVR Reports for events #7 and #8 received July 22, 2008
Lexington County

Dear Mr. Shumpert:

As you may be aware, Midlands Environmental Consultants completed Aggressive Fluid Vapor Recovery (AFVR) events at the referenced facility on July 15 and 16, 2008. A copy of the reports is enclosed. Additional AFVR events will be completed to continue with free product removal and reduction of dissolved petroleum concentrations.

On all correspondence concerning this site, please reference UST Permit #05986. If you have any questions, please contact me at (803) 896-6584 or by e-mail at minerrs@dhec.sc.gov.

Sincerely,

Read S. Miner, P.G., Hydrogeologist
Southwestern SC Corrective Action Section
Assessment and Corrective Action Division
Underground Storage Tank Program
Bureau of Land and Waste Management

enc: AFVR Reports

cc: Technical (without enclosures)

UST DOCKET
27T

D H E C
PROMOTE PROTECT PROSPER

C. Earl Hunter, Commissioner
Promoting and protecting the health of the public and the environment.

D F SHUMPERT
814 PINE ST
PELION SC 29123

JUL 25 2008

Re: **AFVR Report Review**
Gaston Food Mart, 105 N Main St., Gaston, SC
UST Permit #05986
Release reported November 20, 1991
AFVR Reports for events #7 and #8 received July 22, 2008
Lexington County

Dear Mr. Shumpert:

As you may be aware, Midlands Environmental Consultants completed Aggressive Fluid Vapor Recovery (AFVR) events at the referenced facility on July 15 and 16, 2008. A copy of the reports is enclosed. Additional AFVR events will be completed to continue with free product removal and reduction of dissolved petroleum concentrations.

On all correspondence concerning this site, please reference UST Permit #05986. If you have any questions, please contact me at (803) 896-6584 or by e-mail at minerrs@dhec.sc.gov.

Sincerely,

Read S. Miner, P.G., Hydrogeologist
Southwestern SC Corrective Action Section
Assessment and Corrective Action Division
Underground Storage Tank Program
Bureau of Land and Waste Management

enc: AFVR Reports

cc: Technical (without enclosures)

UST DOCKET
26T

Midlands
Environmental
Consultants, Inc.

July 16, 2008

Mr. Read Miner, P.G., Hydrogeologist
Southeastern 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: Aggressive Fluid Vapor Recovery Report
Gaston Food Mart
Gaston, South Carolina
SCDHEC Site ID # 05986; CA #32348
MECI Project Number 08-1633G

Dear Mr. Miner,

Midlands Environmental Consultants, Inc. (MECI) is pleased to submit the attached Aggressive Fluid Vapor Recovery Report for the referenced site. This describes the aggressive fluid vapor recovery activities conducted at the site in general accordance with South Carolina Department of Health and Environmental Control (SCDHEC) guidelines.

AGGRESSIVE FLUID VAPOR RECOVERY

MECI personnel conducted an Aggressive Fluid Vapor Recovery (AFVR) event at Gaston Food Mart on July 15, 2008. The event was conducted on monitoring wells MW-9, MW-10, and RMW-3 to reduce dissolved CoC concentrations. Free phase petroleum product was not detected in the monitoring wells prior to the AFVR event. The event was conducted continuously for eight hours by MECI personnel utilizing a vacuum extraction unit. Free phase petroleum product was not detected in the well immediately following the event.

MECI treated the off gas produced during the AFVR event using an activated carbon filter system. Calculated total petroleum hydrocarbons removed from the well were 11.20 pounds or approximately 1.93 equivalent gallons. The average rate of removal for the hydrocarbons was calculated to be 1.40 pounds per hour. Concentrations of off gas produced during the event were recorded from 889 parts per million by volume (PPM) to 1,399 PPM. Measurements were obtained from vapors prior to entering off gas treatment. Vacuum readings were recorded at a range of 12.0 to 19.0 inches of mercury during the event. A complete compilation of measurements recorded is presented in attached Table 1G.

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

Differential pressures and groundwater levels were measured and recorded for selected site monitoring wells at regular intervals. This data is summarized in the attached Table 2G. Monitoring well locations are depicted on attached Figure 1.

A total of 300 gallons of liquid was removed from monitoring wells MW-9, MW-10, and RMW-3 during the event. Free Phase Petroleum product was not observed in the holding tank at the end of the event. The fluids produced were transported to Crandall Corporation of Lexington, S.C. for disposal. A disposal manifest for these fluids is attached at the end of this report.

QUALIFICATIONS OF REPORT

The activities and evaluative approaches used in this assignment are consistent with those normally employed in enhanced fluid recovery events and waste management projects of this type. Contents of this report are intended for the use by MECI and the South Carolina Department of Health and Environmental Control, 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.

Midlands Environmental appreciates the opportunity to offer our professional environmental related 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.

William R. Owen
Staff Biologist

William C. McClary, P.G.
Senior Geologist

Attachments:

TABLE 1G
AFVR MONITORING DATA
GASTON FOOD MART
GASTON, SOUTH CAROLINA
MECI PROJECT NUMBER 08-1633G
SCDHEC SITE ID NUMBER 05986

Extraction Well	Date	Time (hh:mm)	Differential Time (hr)	Extraction Well Head Vacuum (in. Hg)	Off Gas Measurements				
					Concentration (PPM)	Offgas Velocity Ft/Min	Flow Rate CFM	Removal Rate Lbs/Hr	Interval Removal Lbs
MW-9	07/15/08	9:00	0.50	12.0	937	1580	142.20	1.60	0.80
MW-10	07/15/08	9:30	0.50	12.0	901	1570	141.30	1.53	0.76
RMW-3	07/15/08	10:00	0.50	12.0	889	1540	138.60	1.48	0.74
	07/15/08	10:30	0.50	15.0	995	1260	113.40	1.35	0.68
	07/15/08	11:00	0.50	15.0	974	1230	110.70	1.29	0.65
	07/15/08	11:30	0.50	15.0	939	1270	114.30	1.29	0.64
	07/15/08	12:00	0.50	15.0	924	1270	114.30	1.27	0.63
	07/15/08	12:30	0.50	17.0	921	1160	104.40	1.15	0.58
	07/15/08	13:00	0.50	17.0	918	1130	101.70	1.12	0.56
	07/15/08	13:30	0.50	17.0	945	1110	99.90	1.13	0.57
	07/15/08	14:00	0.50	17.0	1,165	1090	98.10	1.37	0.69
	07/15/08	14:30	0.50	17.0	1,024	1100	99.00	1.22	0.61
	07/15/08	15:00	0.50	19.0	1,146	1040	93.60	1.29	0.64
	07/15/08	15:30	0.50	19.0	1,399	970	87.30	1.47	0.73
	07/15/08	16:00	0.50	19.0	1,264	950	85.50	1.30	0.65
	07/15/08	16:30	0.50	19.0	1,248	950	85.50	1.28	0.64
	07/15/08	17:00	0.50	19.0	1,223	960	86.40	1.27	0.63
									TOTAL **11.20**

Well Data:			Pre AFVR Event			Post AFVR Event			Corrected Depth to Water Change (ft)
Well No.	Diameter (in)	Total Depth (ft)	Depth to Product (ft)	Depth to Water (ft)	Product Thickness (ft)	Depth to Product (ft)	Depth to Water (ft)	Product Thickness (ft)	
MW-9	2"	44.00	***	41.63	***	***	41.24	***	-0.39
MW-10	2"	44.00	***	35.22	***	***	34.16	***	-1.06
RMW-3	2"	40.00	***	35.63	***	***	36.01	***	0.38

Vacuum Truck Information		Well ID	Stinger Depth
Subcontrator:	MECI	MW-9	30.00
Truck Operator	R. Owen	MW-10	30.00
Stack I.D. (feet	0.33 feet	RMW-3	31.00

Recovery / Disposal Information

Hydro carbons Removed (vapor):	11.20	Pounds
Hydro carbons Removed (liquid):	0	Gallons
Total Hydrocarbons Removed:	1.93	Equivalent Gallons
Molecular Weight Utilized:	75	g / mole
Disposal Facility	Crandall Corporation	
Total Liquids Removed:	300	Gallons

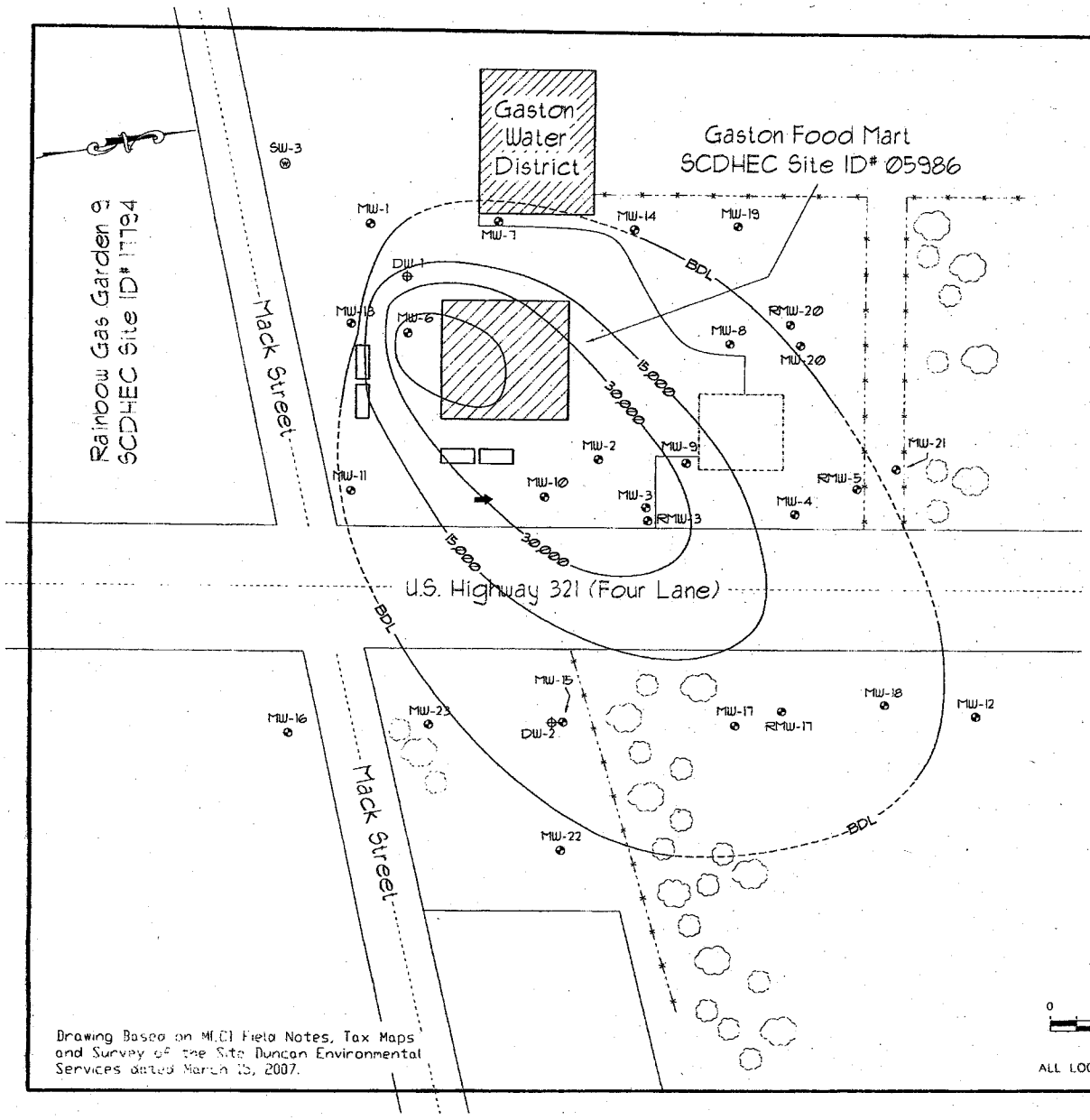
TABLE 2G
DIFFERENTIAL PRESSURE AND GROUNDWATER DRAWDOWN DATA
GASTON FOOD MART
GASTON, SOUTH CAROLINA
MECI PROJECT NUMBER 08-1633G
SCDHEC SITE ID NUMBER 05986

DIFFERENTIAL PRESSURE DATA

		Well Designation:		
		MW-1A	**MW-8**	**MW-25**
Nearest Extraction Well:		MW-10	MW-9	MW-6
Approximate Distance:		90 ft	85 ft	90 ft
Time	**Elapsed Time**	**Differential Pressure Readings (inches of water)**		
9:00	0.0	0	0	0
9:30	0.5	0	0	0
10:00	1.0	0	0	0
10:30	1.5	0	0	0
11:00	2.0	0	0	0
11:30	2.5	0	0	0
12:00	3.0	0	0	0
12:30	3.5	0	0	0
13:00	4.0	0	0	0
13:30	4.5	0	0	0
14:00	5.0	0	0	0
14:30	5.5	0	0	0
15:00	6.0	0	0	0
15:30	6.5	0	0	0
16:00	7.0	0	0	0
16:30	7.5	0	0	0
17:00	8.0	0	0	0
Maximum Change:		**0**	**0**	**0**

GROUNDWATER DRAWDOWN DATA

		Well Designation:		
		MW-1A	**MW-8**	**MW-25**
Nearest Extraction Well:		MW-10	MW-9	MW-6
Approximate Distance:		90 ft	85 ft	90 ft
Time	**Elapsed Time**	**Depth to Liquid (feet below of casing):**		
Prior toAFVR		25.17	39.41	59.24
13:00	4 hours	25.14	39.42	59.34
17:00	8 hours	25.14	39.42	59.32
Maximum Change:		0.03	-0.01	-0.10



Explanation:

- Location of Water Table Bracketing Monitoring Well
- Location of Double Cased Monitoring Well
- Location of Water Supply Well
- Estimated Groundwater Flow Direction
- Estimated Location of Removed Underground Storage Tanks
- Total BTEX Concentration Isopleth (ug/l)

COC Concentration Data

Sample *	Benzene (ug/l)	Toluene (ug/l)	Ethylbenzene (ug/l)	Total Xylenes (ug/l)	Total BTEX (ug/l)	MTBE (ug/l)	Napthalene (ug/l)	EDB (ug/l)
MW-1	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
RMW-3	7,940	18,600	2,720	14,070	43,330	550	1,790	13.9
RMW-5	DRY	DRY	DRY	DRY	DRY	DRY	DRY	DRY
MW-6	PROD	PROD	PROD	PROD	PROD	PROD	PROD	PROD
MW-8	145	356	24.5	1,087	1,612.5	12.0	36.9	NT
MW-9	2,470	10,200	2,030	15,140	29,840	124	612	2.3
MW-10	9,030	16,900	2,650	12,570	41,150	12,500	BDL	27.4
MW-11	BDL	BDL	8.5	BDL	8.5	BDL	8.3	BDL
MW-12	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
MW-13	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
MW-15	21.8	BDL	13.6	128.1	163.5	BDL	5.1	0.37
MW-16	DRY	DRY	DRY	DRY	DRY	DRY	DRY	DRY
MW-19	NL	NL	NL	NL	NL	NL	NL	NL
RMW-20	DRY	DRY	DRY	DRY	DRY	DRY	DRY	DRY
MW-21	DRY	DRY	DRY	DRY	DRY	DRY	DRY	DRY
MW-22	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
MW-23	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
DW-1	DRY	DRY	DRY	DRY	DRY	DRY	DRY	DRY
DW-2	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
SW-3	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL

Notes:
Groundwater samples collected on September 11, 2007.
Contour Interval = 15,000 ug/l
PROD = Free Phase Product encountered at time of sampling
BDL = Below Detection Limits
Contours Computer Generated using Surfer by Golden Graphics and Modified by MECI Personnel.

GRAPHIC SCALE
0 30 60 90 120
1IN = 60FT
ALL LOCATIONS ARE APPROXIMATE

Drawing Based on MECI Field Notes, Tax Maps and Survey of the Site Duncan Environmental Services dated March 15, 2007.

Total BTEX Isopleth Map

Gaston Food Mart
Gaston, South Carolina
SCDHEC Site ID 05986

Midlands Environmental Consultants, Inc.

JOB NO. 07-1297
DATE September 20, 2007
FIGURE 5

Crandall

C 131089

NON-HAZARDOUS WASTE MANIFEST

1. Generator's US EPA ID No.:
Manifest Document No.: 25950
2. Page 1 of 1

GENERATOR

3. Generator's Name and Mailing Address: Midlands Environmental
1144 Old Two Notch
Lexington, SC 29073
4. Generator's Phone: (803) 808-2043

5. Transporter 1 Company Name: Crandall Corporation
6. US EPA ID Number: SCD981864499
A. Transporter's Phone: (803) 791-4800

7. Transporter 2 Company Name:
8. US EPA ID Number:
B. Transporter's Phone:

9. Designated Facility Name and Site Address:
Crandall Corporation
100 Rich-Lex Drive
Lexington, SC 29072
10. US EPA ID Number: SCD981864499
C. Facility's Phone: (803) 791-4800

11. Waste Shipping Name and Description	12. Containers No.	12. Containers Type	13. Total Quantity	14. Unit Wt./Vol.
a. Non - Hazardous Waste, Waste Water	01	TT	2605	G
b.				
c. King's Texaco (04783) - 60 ga. : Newberry County Maintenance Facility (06456) - 30 ga. Newberry County Maintenance Facility (06456) - 175 ga. : Durham's Grocery (06699) - 225 ga Stonewall Jackson (15581) - 250 ga. : Former Smoke's Union Oil (01269) - 150 ga				
d. SCDOT Newberry (10492) - 325 ga. : SCDOT Newberry (10492) - 400 ga Gaston Food Mart (05986) - 300 ga : Gaston Food Mart (05986) - 350 ga Corner Pantry #103 (07686) - 25 ga : Columbia Maintenance Facility (07359) - 315 ga				

D. Additional Descriptions for Materials Listed Above

FIELD SERVICE

E. Handling Codes for Wastes Listed Above

15. Special Handling Instructions and Additional Information

Service Call ID: GLB0125950

Emergency Response: Infotrac - 800-535-5053
Caller must ID Crandall as registrant

16. 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.

Printed/Typed Name | Signature | Month 07 | Day 10 | Year 08

TRANSPORTER

17. Transporter 1 Acknowledgement of Receipt of Materials

Printed/Typed Name: Shawn DeSpain | Signature | Month 07 | Day 10 | Year 08

18. Transporter 2 Acknowledgement of Receipt of Materials

Printed/Typed Name | Signature | Month | Day | Year

FACILITY

19. Discrepancy Indication Space

20. Facility Owner or Operator: Certification of receipt of waste materials covered by this manifest except as noted in item 19.

Printed/Typed Name | Signature | Month | Day | Year

GENERATOR COPY

Midlands
Environmental
Consultants, Inc.

July 17, 2008

Mr. Read Miner, P.G., Hydrogeologist
Southeastern 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: Aggressive Fluid Vapor Recovery Report
Gaston Food Mart
Gaston, South Carolina
SCDHEC Site ID # 05986; CA #32348
MECI Project Number 08-1633H

Dear Mr. Miner,

Midlands Environmental Consultants, Inc. (MECI) is pleased to submit the attached Aggressive Fluid Vapor Recovery Report for the referenced site. This describes the aggressive fluid vapor recovery activities conducted at the site in general accordance with South Carolina Department of Health and Environmental Control (SCDHEC) guidelines.

AGGRESSIVE FLUID VAPOR RECOVERY

MECI personnel conducted an Aggressive Fluid Vapor Recovery (AFVR) event at Gaston Food Mart on July 16, 2008. The event was conducted on monitoring well MW-6 to reduce dissolved CoC concentrations. Free phase petroleum product was not detected in monitoring well MW-6 prior to the AFVR event. The event was conducted by MECI personnel utilizing a vacuum extraction unit that was continuously conducted for eight hours. Free phase petroleum product was not detected in the well immediately following the event.

MECI treated the off gas produced during the AFVR event using an activated carbon filter system. Calculated total petroleum hydrocarbons removed from the well were 0.52 pounds or approximately 0.09 equivalent gallons. The average rate of removal for the hydrocarbons was calculated to be 0.06 pounds per hour. Concentrations of off gas produced during the event were recorded from 2.8 parts per million by volume (PPM) to 394 PPM. Measurements were obtained from vapors prior to entering off gas treatment. Vacuum readings were recorded at a range of 5.0 to 15.0 inches of mercury during the event. A complete compilation of measurements recorded is presented in attached Table 1H.

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

Differential pressures and groundwater levels were measured and recorded for selected site monitoring wells at regular intervals. This data is summarized in the attached Table 2H. Monitoring well locations are depicted on attached Figure 1.

A total of 350 gallons of liquid was removed from MW-6 during this event. Free Phase Petroleum product was not observed in the holding tank at the end of the event. The fluids produced were transported to Crandall Corporation of Lexington, S.C for disposal. A disposal manifest for these fluids is attached at the end of this report.

QUALIFICATIONS OF REPORT

The activities and evaluative approaches used in this assignment are consistent with those normally employed in enhanced fluid recovery events and waste management projects of this type. Contents of this report are intended for the use by MECI, and the South Carolina Department of Health and Environmental Control, 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.

Midlands Environmental appreciates the opportunity to offer our professional environmental related 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.

Rorey E. Garnett
Staff Biologist

William C. McClary, P.G.
Senior Geologist

Attachments:

TABLE 1H
AFVR MONITORING DATA
GASTON FOOD MART
GASTON, SOUTH CAROLINA
MECI PROJECT NUMBER 08-1633H
SCDHEC SITE ID NUMBER 05986

Extraction Well	Date	Time (hh:mm)	Differential Time (hr)	Extraction Well Head Vacuum (in. Hg)	Off Gas Measurements				
					Concentration (PPM)	Offgas Velocity Ft/Min	Flow Rate CFM	Removal Rate Lbs/Hr	Interval Removal Lbs
MW-6	07/16/08	8:30	0.50	15.0	394.0	1250	112.50	0.53	0.27
	07/16/08	9:00	0.50	15.0	94.5	1310	117.90	0.13	0.07
	07/16/08	9:30	0.50	15.0	52.3	1300	117.00	0.07	0.04
	07/16/08	10:00	0.50	15.0	32.0	1550	139.50	0.05	0.03
	07/16/08	10:30	0.50	15.0	24.6	1480	133.20	0.04	0.02
	07/16/08	11:00	0.50	15.0	18.6	1400	126.00	0.03	0.01
	07/16/08	11:30	0.50	15.0	16.4	1550	139.50	0.03	0.01
	07/16/08	12:00	0.50	15.0	14.0	1470	132.30	0.02	0.01
	07/16/08	12:30	0.50	15.0	13.8	1470	132.30	0.02	0.01
	07/16/08	13:00	0.50	17.0	13.8	1360	122.40	0.02	0.01
	07/16/08	13:30	0.50	17.0	13.3	900	81.00	0.01	0.01
	07/16/08	14:00	0.50	11.0	9.8	1360	122.40	0.01	0.01
	07/16/08	14:30	0.50	11.0	10.3	1310	117.90	0.01	0.01
	07/16/08	15:00	0.50	11.0	8.0	1390	125.10	0.01	0.01
	07/16/08	15:30	0.50	11.0	7.4	1280	115.20	0.01	0.01
	07/16/08	16:00	0.50	11.0	5.9	1360	122.40	0.01	0.00
	07/16/08	16:30	0.50	5.0	2.8	1800	162.00	0.01	0.00
									TOTAL 0.52

Well Data:			Pre AFVR Event			Post AFVR Event			Corrected Depth to Water Change (ft)
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-6	2"	22-42	***	35.08	***	***	36.30	***	1.22

Vacuum Truck Information

Subcontrator:	MECI
Truck Operator:	R. Garnett
Stack I.D. (feet)	0.33 feet

Well ID: MW-6

Stinger Depth: 37.00

Recovery / Disposal Information

Hydro carbons Removed (vapor):	0.52	Pounds
Hydro carbons Removed (liquid):	0	Gallons
Total Hydrocarbons Removed:	0.09	Equivalent Gallons
Molecular Weight Utilized:	75	g / mole
Disposal Facility	Crandall Corporation	
Total Liquids Removed:	350	Gallons

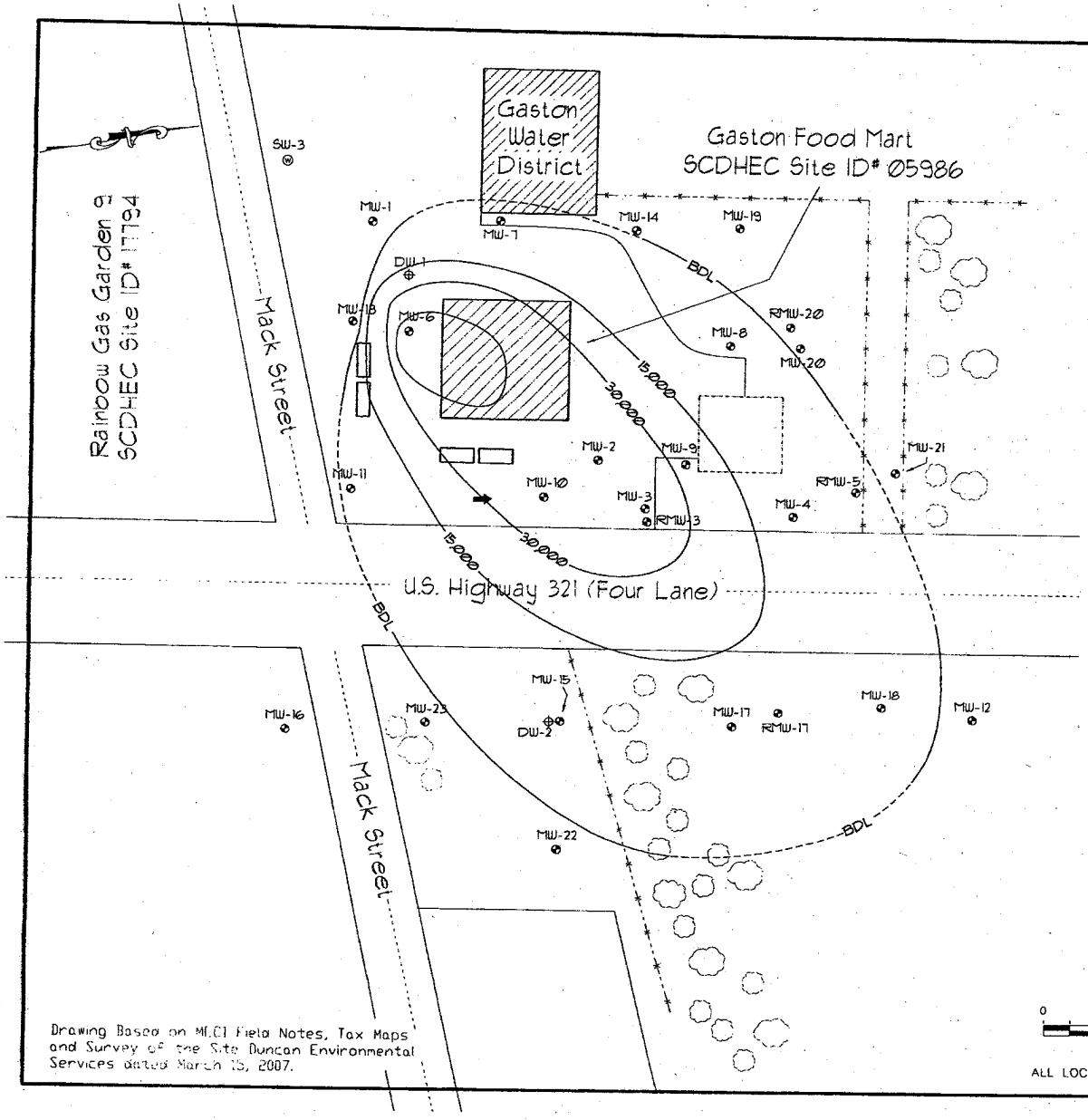
TABLE 2H
DIFFERENTIAL PRESSURE AND GROUNDWATER DRAWDOWN DATA
GASTON FOOD MART
GASTON, SOUTH CAROLINA
MECI PROJECT NUMBER 08-1633H
SCDHEC SITE ID NUMBER 05986

DIFFERENTIAL PRESSURE DATA

		Well Designation:		
		MW-1A	**MW-7**	**DW-1**
Nearest Extraction Well:		MW-6	MW-6	MW-6
Approximate Distance:		40 ft	81 ft	32 ft
Time	**Elapsed Time**	**Differential Pressure Readings (inches of water)**		
8:30	0.0	0	0	2.0
9:00	0.5	0	0	2.5
9:30	1.0	0	0	2.5
10:00	1.5	0	0	2.5
10:30	2.0	0	0	2.0
11:00	2.5	0	0	2.2
11:30	3.0	0	0	2.5
12:00	3.5	0	0	2.0
12:30	4.0	0	0	1.0
13:00	4.5	0	0	2.0
13:30	5.0	0	0	2.0
14:00	5.5	0	0	2.0
14:30	6.0	0	0	2.0
15:00	6.5	0	0	1.0
15:30	7.0	0	0	1.5
16:00	7.5	0	0	1.0
16:30	8.0	0	0	1.5
Maximum Change:		**0**	**0**	**1.0**

GROUNDWATER DRAWDOWN DATA

		Well Designation:		
		MW-1A	**MW-7**	**DW-1**
Nearest Extraction Well:		MW-6	MW-6	MW-6
Approximate Distance:		40 ft	81 ft	32 ft
Time	**Elapsed Time**	**Depth to Liquid (feet below of casing):**		
Prior toAFVR		25.45	36.93	52.23
12:30	4 hours	25.59	37.10	52.40
16:30	8 hours	25.51	37.03	52.54
Maximum Change:		-0.14	-0.17	-0.31



Explanation:

- Location of Water Table Bracketing Monitoring Well
- Location of Double Cased Monitoring Well
- Location of Water Supply Well
- Estimated Groundwater Flow Direction
- Estimated Location of Removed Underground Storage Tanks
- Total BTEX Concentration Isopleth (ug/l)

COC Concentration Data

Sample #	Benzene (ug/l)	Toluene (ug/l)	Ethylbenzene (ug/l)	Total Xylenes (ug/l)	Total BTEX (ug/l)	MTBE (ug/l)	Napthalene (ug/l)	EDB (ug/l)
MW-1	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
RMW-3	7,940	18,600	2,720	14,070	43,330	550	1,790	13.9
RMW-5	DRY	DRY	DRY	DRY	DRY	DRY	DRY	DRY
MW-6	PROD	PROD	PROD	PROD	PROD	PROD	PROD	PROD
MW-8	145	356	24.5	1,087	1,612.5	12.0	36.9	NT
MW-9	2,470	10,200	2,030	15,140	29,840	124	612	2.3
MW-10	9,030	16,900	2,650	12,570	41,150	12,500	BDL	27.4
MW-11	BDL	BDL	8.5	BDL	8.5	BDL	8.3	BDL
MW-12	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
MW-13	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
MW-15	21.8	BDL	13.6	128.1	163.5	BDL	5.1	0.37
MW-16	DRY	DRY	DRY	DRY	DRY	DRY	DRY	DRY
MW-19	NL	NL	NL	NL	NL	NL	NL	NL
RMW-20	DRY	DRY	DRY	DRY	DRY	DRY	DRY	DRY
MW-21	DRY	DRY	DRY	DRY	DRY	DRY	DRY	DRY
MW-22	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
MW-23	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
DW-1	DRY	DRY	DRY	DRY	DRY	DRY	DRY	DRY
DW-2	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
SW-3	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL

Notes:
Groundwater samples collected on September 11, 2007.
Contour interval = 15,000 ug/l
PROD = Free Phase Product encountered at time of sampling
BDL = Below Detection Limits
Contours Computer Generated using Surfer by Golden Graphics and Modified by MECI Personnel.

GRAPHIC SCALE
0 30 60 90 120
1IN = 60FT
ALL LOCATIONS ARE APPROXIMATE

Drawing Based on MECI Field Notes, Tax Maps and Survey of the Site Duncan Environmental Services dated March 15, 2007.

Total BTEX Isopleth Map

Gaston Food Mart
Gaston, South Carolina
SCDHEC Site ID 05986

Midlands Environmental Consultants, Inc.

JOB NO. 07-1297
DATE September 20, 2007
FIGURE 5

Crandall

C 131089

NON-HAZARDOUS WASTE MANIFEST

1. Generator's US EPA ID No. .

Manifest Document No. 25950

2. Page 1 of 1

3. Generator's Name and Mailing Address Midlands Environmental
1144 Old Two Notch
Lexington, SC 29073

4. Generator's Phone ((803)) 808-2043

5. Transporter 1 Company Name
Crandall Corporation

6. US EPA ID Number
SCD981864499

A. Transporter's Phone (803) 791-4800

7. Transporter 2 Company Name

8. US EPA ID Number

B. Transporter's Phone

9. Designated Facility Name and Site Address
Crandall Corporation
100 Rich-Lex Drive
Lexington, SC 29072

10. US EPA ID Number
SCD981864499

C. Facility's Phone (803) 791-4800

11. Waste Shipping Name and Description	12. Containers No.	Type	13. Total Quantity	14. Unit Wt./Vol.
a. Non - Hazardous Waste, Waste Water	01	TT	2685	G
b.				
c. King's Texaco (04783) - 60 ga. : Newberry County Maintenance Facility (06456) - 30 ga. Newberry County Maintenance Facility (06486) - 175 ga. : Durham's Grocery (06699) - 225 ga Stonewall Jackson (15581) - 250 ga. : Former Smoke's Union Oil (01269) - 150 ga				
d. SCDOT Newberry (10492) - 325 ga. : SCDOT Newberry (10492) - 400 ga Gaston Food Mart (05986) - 300 ga : Gaston Food Mart (05986) - 350 ga Corner Pantry #103 (07686) - 25 ga : Columbia Maintenance Facility (07359) - 315 ga				

D. Additional Descriptions for Materials Listed Above

FIELD SERVICE

E. Handling Codes for Wastes Listed Above

15. Special Handling Instructions and Additional Information

Service Call ID: GLB0125950

Emergency Response: Infotrac - 800-535-5053
Caller must ID Crandall as registrant

16. 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.

Printed/Typed Name | Signature | Month 07 | Day 10 | Year 08

17. Transporter 1 Acknowledgement of Receipt of Materials

Printed/Typed Name Shawn DeSpain | Signature | Month 07 | Day 10 | Year 08

18. Transporter 2 Acknowledgement of Receipt of Materials

Printed/Typed Name | Signature | Month | Day | Year

19. Discrepancy Indication Space

20. Facility Owner or Operator: Certification of receipt of waste materials covered by this manifest except as noted in item 19.

Printed/Typed Name | Signature | Month | Day | Year

GENERATOR

TRANSPORTER

FACILITY

GENERATOR COPY

Midlands
Environmental
Consultants, Inc.

July 3, 2008

Mr. Read Miner, P.G., Hydrogeologist
Southwestern 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: Aggressive Fluid Vapor Recovery Report
Gaston Food Mart
Gaston, South Carolina
SCDHEC Site ID # 05986; CA #32348
MECI Project Number 08-1633F

Dear Mr. Miner,

Midlands Environmental Consultants, Inc. (MECI) is pleased to submit the attached Aggressive Fluid Vapor Recovery Report for the referenced site. This describes the aggressive fluid vapor recovery activities conducted at the site in general accordance with South Carolina Department of Health and Environmental Control (SCDHEC) guidelines.

AGGRESSIVE FLUID VAPOR RECOVERY

MECI personnel conducted an Aggressive Fluid Vapor Recovery (AFVR) event at Gaston Food Mart on July 2, 2008. The event was conducted on monitoring well MW-6 to reduce dissolved CoC concentrations. The event was conducted continuously for eight hours. Free phase petroleum product was not detected in monitoring well MW-6 prior to the AFVR event. The event was conducted by MECI personnel utilizing a MECI vacuum extraction unit. Free phase petroleum product was not detected in the well immediately following the event.

MECI treated the off gas produced during the AFVR event using an activated carbon filter system. Calculated total petroleum hydrocarbons removed from the well were 0.16 pounds or approximately 0.03 equivalent gallons. The average rate of removal for the hydrocarbons was calculated to be 0.02 pounds per hour. Concentrations of off gas produced during the event were recorded from 6.0 parts per million by volume (PPM) to 43.6 PPM. Measurements were obtained from vapors prior to entering off gas treatment. Vacuum readings were recorded at a range of 9.0 to 21.0 inches of mercury during the event. A complete compilation of measurements recorded is presented in attached Table 1F.

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

Differential pressures and groundwater levels were measured and recorded for selected site monitoring wells at regular intervals. This data is summarized in the attached Table 2F. Monitoring well locations are depicted on attached Figure 1.

A total of 300 gallons of liquid was removed from monitoring well MW-6 during the event. Free Phase Petroleum product was not observed in the holding tank at the end of the event. The fluids produced were transported to Crandall Corporation of Lexington, S.C. for disposal. A disposal manifest for these fluids is attached at the end of this report.

QUALIFICATIONS OF REPORT

The activities and evaluative approaches used in this assignment are consistent with those normally employed in enhanced fluid recovery events and waste management projects of this type. Contents of this report are intended for the use by MECI and the South Carolina Department of Health and Environmental Control, 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.

Midlands Environmental appreciates the opportunity to offer our professional environmental related 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
Staff Scientist (For)

William C. McClary P.G.
Senior Geologist

Attachments:

TABLE 1F
AFVR MONITORING DATA
GASTON FOOD MART
GASTON, SOUTH CAROLINA
MECI PROJECT NUMBER 08-1633F
SCDHEC SITE ID NUMBER 05986

Extraction Well	Date	Time (hh:mm)	Differential Time (hr)	Extraction Well Head Vacuum (in. Hg)	Off Gas Measurements				
					Concentration (PPM)	Offgas Velocity Ft/Min	Flow Rate CFM	Removal Rate Lbs/Hr	Interval Removal Lbs
MW-6	7/2/208	8:00	0.50	20.0	35.1	600	54.00	0.02	0.01
	7/2/208	8:30	0.50	21.0	34.1	540	48.60	0.02	0.01
	7/2/208	9:00	0.50	21.0	41.4	570	51.30	0.03	0.01
	7/2/208	9:30	0.50	21.0	43.6	560	50.40	0.03	0.01
	7/2/208	10:00	0.50	21.0	39.5	700	63.00	0.03	0.01
	7/2/208	10:30	0.50	21.0	36.9	570	51.30	0.02	0.01
	7/2/208	11:00	0.50	21.0	39.1	540	48.60	0.02	0.01
	7/2/208	11:30	0.50	21.0	38.6	600	54.00	0.03	0.01
	7/2/208	12:00	0.50	21.0	43.2	570	51.30	0.03	0.01
	7/2/208	12:30	0.50	11.0	11.1	1530	137.70	0.02	0.01
	7/2/208	13:00	0.50	11.0	9.2	1550	139.50	0.02	0.01
	7/2/208	13:30	0.50	11.0	8.4	1540	138.60	0.01	0.01
	7/2/208	14:00	0.50	9.0	6.1	1730	155.70	0.01	0.01
	7/2/208	14:30	0.50	9.0	6.3	1710	153.90	0.01	0.01
	7/2/208	15:00	0.50	9.0	6.0	1730	155.70	0.01	0.01
	7/2/208	15:30	0.50	9.0	7.1	1720	154.80	0.01	0.01
	7/2/208	16:00	0.50	9.0	6.9	1720	154.80	0.01	0.01
									TOTAL 0.16

Well Data:			Pre AFVR Event			Post AFVR Event			Corrected Depth to Water Change (ft)
Well No.	Diameter (in)	Total Depth (ft)	Depth to Product (ft)	Depth to Water (ft)	Product Thickness (ft)	Depth to Product (ft)	Depth to Water (ft)	Product Thickness (ft)	
MW-6	2"	40.00	***	35.42	***	***	35.78	***	0.36

Vacuum Truck Information		Well ID	Stinger Depth
Subcontractor:	MECI	MW-6	33.00
Truck Operator:	C. Baer		
Stack I.D. (feet)	0.33 feet		

Recovery / Disposal Information		
Hydro carbons Removed (vapor):	0.16	Pounds
Hydro carbons Removed (liquid):	0	Gallons
Total Hydrocarbons Removed:	0.03	Equivalent Gallons
Molecular Weight Utilized:	75	g / mole
Disposal Facility	Crandall Corporation	
Total Liquids Removed:	300	Gallons

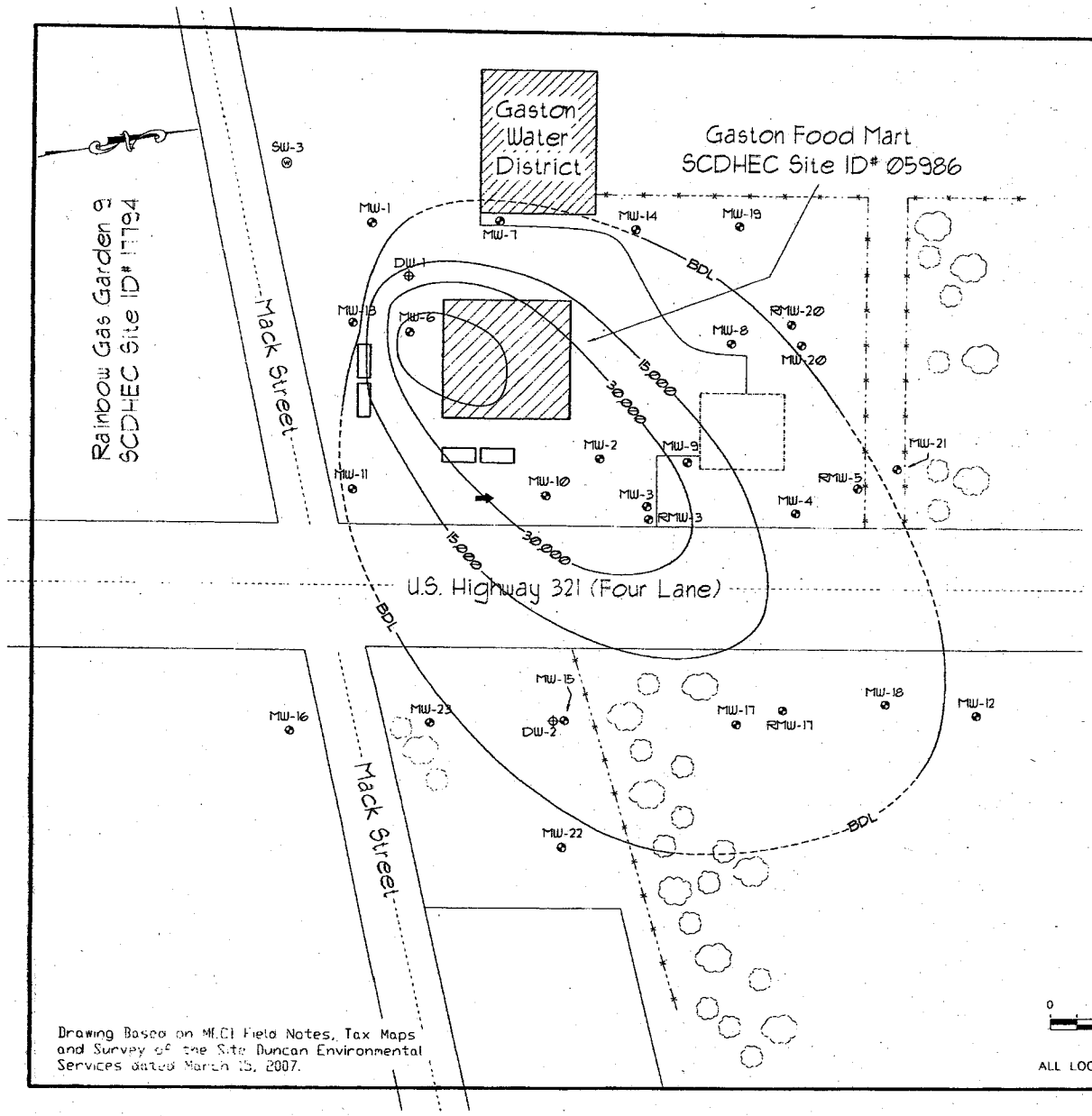
TABLE 2F
DIFFERENTIAL PRESSURE AND GROUNDWATER DRAWDOWN DATA
GASTON FOOD MART
GASTON, SOUTH CAROLINA
MECI PROJECT NUMBER 08-1633F
SCDHEC SITE ID NUMBER 05986

DIFFERENTIAL PRESSURE DATA

		Well Designation:		
		MW-1	**MW-7**	**DW-1**
Nearest Extraction Well:		MW-6	MW-6	MW-6
Approximate Distance:		65 ft	62 ft	27 ft
Time	**Elapsed Time**	**Differential Pressure Readings (inches of water)**		
8:00	0.0	0	0	0
8:30	0.5	0	0	0
9:00	1.0	0	0	0
9:30	1.5	0	0	0
10:00	2.0	0	0	0
10:30	2.5	0	0	0
11:00	3.0	0	0	0
11:30	3.5	0	0	0
12:00	4.0	0	0	0
12:30	4.5	0	0	0
13:00	5.0	0	0	0
13:30	5.5	0	0	0
14:00	6.0	0	0	0
14:30	6.5	0	0	0
15:00	7.0	0	0	0
15:30	7.5	0	0	0
16:00	8.0	0	0	0
Maximum Change:		**0**	**0**	**0**

GROUNDWATER DRAWDOWN DATA

		Well Designation:		
		MW-1	**MW-7**	**DW-1**
Nearest Extraction Well:		MW-6	MW-6	MW-6
Approximate Distance:		65 ft	62 ft	27 ft
Time	**Elapsed Time**	**Depth to Liquid (feet below of casing):**		
Prior toAFVR		35.05	37.27	52.78
12:00	4 hours	35.93	37.47	52.78
16:00	8 hours	35.32	37.34	52.76
Maximum Change:		-0.88	-0.07	0.02



Explanation:

- Location of Water Table Bracketing Monitoring Well
- Estimated Groundwater Flow Direction
- Location of Double Cased Monitoring Well
- Estimated Location of Removed Underground Storage Tanks
- Location of Water Supply Well
- Total BTEX Concentration Isopleth (ug/l)

COC Concentration Data

Sample #	Benzene (ug/l)	Toluene (ug/l)	Ethylbenzene (ug/l)	Total Xylenes (ug/l)	Total BTEX (ug/l)	MTBE (ug/l)	Napthalene (ug/l)	EDB (ug/l)
MW-1	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
RMW-3	7,940	18,600	2,720	14,070	43,330	550	1,790	13.9
RMW-5	DRY	DRY	DRY	DRY	DRY	DRY	DRY	DRY
MW-6	PROD	PROD	PROD	PROD	PROD	PROD	PROD	PROD
MW-8	145	356	24.5	1,087	1,612.5	12.0	36.9	NT
MW-9	2,470	10,200	2,030	15,140	29,840	124	612	2.3
MW-10	9,030	16,900	2,650	12,570	41,150	12,500	BDL	27.4
MW-11	BDL	BDL	8.5	BDL	8.5	BDL	8.3	BDL
MW-12	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
MW-13	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
MW-15	21.8	BDL	13.6	128.1	163.5	BDL	5.1	0.37
MW-16	DRY	DRY	DRY	DRY	DRY	DRY	DRY	DRY
MW-19	NL	NL	NL	NL	NL	NL	NL	NL
RMW-20	DRY	DRY	DRY	DRY	DRY	DRY	DRY	DRY
MW-21	DRY	DRY	DRY	DRY	DRY	DRY	DRY	DRY
MW-22	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
MW-23	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
DW-1	DRY	DRY	DRY	DRY	DRY	DRY	DRY	DRY
DW-2	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
SW-3	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL

Notes: Groundwater samples collected on September 11, 2007.

Contour interval = 15,000 ug/l

PROD = Free Phase Product encountered at time of sampling

BDL = Below Detection Limits

Contours Computer Generated using Surfer by Golden Graphics and Modified by MECI Personnel.

GRAPHIC SCALE

0 30 60 90 120

1IN = 60FT

ALL LOCATIONS ARE APPROXIMATE

Drawing Based on MECI Field Notes, Tax Maps and Survey of the Site Duncan Environmental Services dated March 15, 2007.

Total BTEX Isopleth Map

Gaston Food Mart
Gaston, South Carolina
SCDHEC Site ID 05986

Midlands Environmental Consultants, Inc.

JOB NO. 07-1297
DATE September 20, 2007
FIGURE 5

Crandall

C 130633

NON-HAZARDOUS WASTE MANIFEST

1. Generator's US EPA ID No. . . . . | Manifest Document No. 25363 | 2. Page 1 of 1

GENERATOR

3. Generator's Name and Mailing Address: Midlands Environmental
1144 Old Two Notch
Lexington, SC 29073

4. Generator's Phone (803) 808-2043

5. Transporter 1 Company Name: Crandall Corporation | 6. US EPA ID Number: SCD981864499 | A. Transporter's Phone: (803) 791-4800

7. Transporter 2 Company Name | 8. US EPA ID Number | B. Transporter's Phone

9. Designated Facility Name and Site Address:
Crandall Corporation
100 Rich-Lex Drive
Lexington, SC 29072

10. US EPA ID Number: SCD981864499 | C. Facility's Phone: (803) 791-4800

11. Waste Shipping Name and Description	12. Containers No.	Type	13. Total Quantity	14. Unit Wt./Vol.
a. Non - Hazardous Waste, Waste Water	001	TT	2440	G
b.				
c.				
d.				

D. Additional Descriptions for Materials Listed Above
- Brown Brothers Gulf-04145-60gals - Heath Self Serve-08937-260gal.
- Brown Brothers Gulf-04145-90gals. - Best Buy-09069052(500gal.)
- Pantry 640-07435-200gals
- Zee Mart-07176-0gals.

E. Handling Codes for Wastes Listed Above: FIELD SERVICE

15. Special Handling Instructions and Additional Information
- Zee mart-07176-30gals. - Frm. Action Chevy-02970-60gals.
Service Call ID: GLBOJ25363 - Blumes Grocery-00869-0gals.
- Friendly Marks-11693-150gals - Barnwell-09609-0gals.
- Hughes Well Drilling-00358-190gals. - Shelton Foods-00877-50gal.
Emergency Response: Infotrac - 800-535-5053 - Pac a Sac-15664-275gal.
Caller must ID Crandall as registrant - frm Sayes-13889-275gal.
- Gaston Food-05986-300gal.

16. 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.

Printed/Typed Name | Signature: John C. Bryant | Month 07 Day 08 Year 08

TRANSPORTER

17. Transporter 1 Acknowledgement of Receipt of Materials
Printed/Typed Name: Troy Backman | Signature | Month 07 Day 08 Year 08

18. Transporter 2 Acknowledgement of Receipt of Materials
Printed/Typed Name | Signature | Month . Day . Year .

FACILITY

19. Discrepancy Indication Space

20. Facility Owner or Operator: Certification of receipt of waste materials covered by this manifest except as noted in item 19.
Printed/Typed Name | Signature | Month . Day . Year .

GENERATOR COPY

D H E C

PROMOTE PROTECT PROSPER

C. Earl Hunter, Commissioner

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

JUL 0 2 2008

D F SHUMPERT
814 PINE ST
PELION SC 29123

Re: **AFVR Report Review**
Gaston Food Mart, 105 N Main St., Gaston, SC
UST Permit #05986
Release reported November 20, 1991
AFVR Reports for events #4, and #5 received June 26, 2008
Lexington County

Dear Mr. Shumpert:

As you may be aware, Midlands Environmental Consultants completed Aggressive Fluid Vapor Recovery (AFVR) events at the referenced facility on June 17 and 18, 2008. A copy of the reports is enclosed. Additional AFVR events will be completed to continue with free product removal and reduction of dissolved petroleum concentrations.

On all correspondence concerning this site, please reference UST Permit #05986. If you have any questions, please contact me at (803) 896-6584 or by e-mail at minerrs@dhec.sc.gov.

Sincerely,

Read S. Miner, P.G., Hydrogeologist
Southwestern SC Corrective Action Section
Assessment and Corrective Action Division
Underground Storage Tank Program
Bureau of Land and Waste Management

enc: AFVR Reports

cc: Technical (without enclosures)

UST DOCKET

2Steel

Midlands
Environmental
Consultants, Inc.

June 19, 2008

REC

JUN

UNDERGRO
TANK PROGRAM

Mr. Read Miner, P.G., 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: Aggressive Fluid Vapor Recovery Report
Gaston Food Mart
Gaston, South Carolina
SCDHEC Site ID # 05986; CA #32348
MECI Project Number 08-1633E

Dear Mr. Miner,

Midlands Environmental Consultants, Inc. (MECI) is pleased to submit the attached Aggressive Fluid Vapor Recovery Report for the referenced site. This describes the aggressive fluid vapor recovery activities conducted at the site in general accordance with South Carolina Department of Health and Environmental Control (SCDHEC) guidelines.

AGGRESSIVE FLUID VAPOR RECOVERY

MECI personnel conducted an Aggressive Fluid Vapor Recovery (AFVR) event at Gaston Food Mart on June 18, 2008. The event was conducted on monitoring well MW-6 to reduce dissolved CoC concentrations. The event was conducted continuously for eight hours. Free phase petroleum product was not detected in monitoring well MW-6 prior to the AFVR event. The event was conducted by MECI personnel utilizing a MECI vacuum extraction unit. Free phase petroleum product was not detected in the well immediately following the event.

MECI treated the off gas produced during the AFVR event using an activated carbon filter system. Calculated total petroleum hydrocarbons removed from the well were 1.04 pounds or approximately 0.18 equivalent gallons. The average rate of removal for the hydrocarbons was calculated to be 0.13 pounds per hour. Concentrations of off gas produced during the event were recorded from 9.8 parts per million by volume (PPM) to 697 PPM. Measurements were obtained from vapors prior to entering off gas treatment. Vacuum readings were recorded at 16.0 inches of mercury throughout the event. A complete compilation of measurements recorded is presented in attached Table 1E.

UST DOCKET 21 tech

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

Differential pressures and groundwater levels were measured and recorded for selected site monitoring wells at regular intervals. This data is summarized in the attached Table 2E. Monitoring well locations are depicted on attached Figure 1.

A total of 325 gallons of liquid was removed from monitoring well MW-6 during the event. Free Phase Petroleum product was not observed in the holding tank at the end of the event. The fluids produced were transported to Crandall Corporation of Lexington, S.C. for disposal. A disposal manifest for these fluids is attached at the end of this report.

QUALIFICATIONS OF REPORT

The activities and evaluative approaches used in this assignment are consistent with those normally employed in enhanced fluid recovery events and waste management projects of this type. Contents of this report are intended for the use by MECI and the South Carolina Department of Health and Environmental Control, 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.

Midlands Environmental appreciates the opportunity to offer our professional environmental related 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
Staff Scientist

William C. McClary P.G.
Senior Geologist

Attachments:

TABLE 1E
AFVR MONITORING DATA
GASTON FOOD MART
GASTON, SOUTH CAROLINA
MECI PROJECT NUMBER 08-1633E
SCDHEC SITE ID NUMBER 05986

Extraction Well	Date	Time (hh:mm)	Differential Time (hr)	Extraction Well Head Vacuum (in. Hg)	Off Gas Measurements				
					Concentration (PPM)	Offgas Velocity Ft/Min	Flow Rate CFM	Removal Rate Lbs/Hr	Interval Removal Lbs
MW-6	06/18/08	8:45	0.50	16.0	697	1150	103.50	0.87	0.43
	06/18/08	9:15	0.50	16.0	677	1110	99.90	0.81	0.41
	06/18/08	9:45	0.50	16.0	73.5	1190	107.10	0.09	0.05
	06/18/08	10:15	0.50	16.0	40.5	1180	106.20	0.05	0.03
	06/18/08	10:45	0.50	16.0	27.2	1220	109.80	0.04	0.02
	06/18/08	11:15	0.50	16.0	23.7	1230	110.70	0.03	0.02
	06/18/08	11:45	0.50	16.0	18.7	1180	106.20	0.02	0.01
	06/18/08	12:15	0.50	16.0	15.8	1210	108.90	0.02	0.01
	06/18/08	12:45	0.50	16.0	14.9	1210	108.90	0.02	0.01
	06/18/08	13:15	0.50	16.0	13.6	1200	108.00	0.02	0.01
	06/18/08	13:45	0.50	16.0	13.7	1210	108.90	0.02	0.01
	06/18/08	14:15	0.50	16.0	12.1	1210	108.90	0.02	0.01
	06/18/08	14:45	0.50	16.0	11.2	1200	108.00	0.01	0.01
	06/18/08	15:15	0.50	16.0	16.9	1240	111.60	0.02	0.01
	06/18/08	15:45	0.50	16.0	10.4	1210	108.90	0.01	0.01
	06/18/08	16:15	0.50	16.0	10.0	1200	108.00	0.01	0.01
	06/18/08	16:45	0.50	16.0	9.8	1200	108.00	0.01	0.01
									TOTAL 1.04

Well Data:			Pre AFVR Event			Post AFVR Event			Corrected Depth to Water Change (ft)
Well No.	Diameter (in)	Total Depth (ft)	Depth to Product (ft)	Depth to Water (ft)	Product Thickness (ft)	Depth to Product (ft)	Depth to Water (ft)	Product Thickness (ft)	
MW-6	2"	40.00	***	35.14	***	***	36.80	***	1.66

Vacuum Truck Information		Well ID	Stinger Depth
Subcontrator:	MECI	MW-6	37.00
Truck Operator:	R. Garnett		
Stack I.D. (feet)	0.33 feet		

Recovery / Disposal Information		
Hydro carbons Removed (vapor):	1.04	Pounds
Hydro carbons Removed (liquid):	0	Gallons
Total Hydrocarbons Removed:	0.18	Equivalent Gallons
Molecular Weight Utilized:	75	g / mole
Disposal Facility	Crandall Corporation	
Total Liquids Removed:	325	Gallons

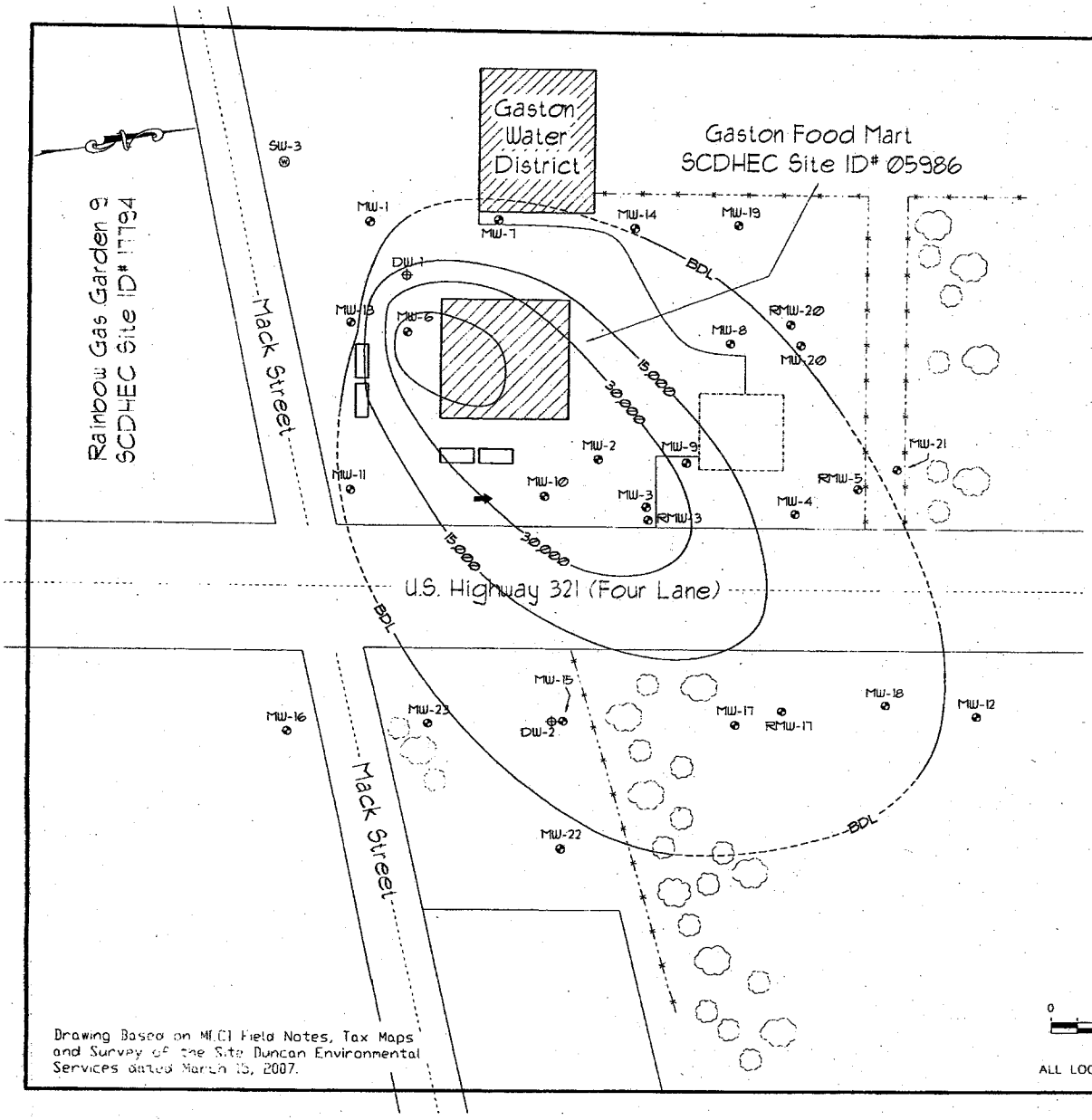
TABLE 2E
DIFFERENTIAL PRESSURE AND GROUNDWATER DRAWDOWN DATA
GASTON FOOD MART
GASTON, SOUTH CAROLINA
MECI PROJECT NUMBER 08-1633E
SCDHEC SITE ID NUMBER 05986

DIFFERENTIAL PRESSURE DATA

		Well Designation:		
		MW-1A	**MW-7**	**DW-1**
Nearest Extraction Well:		MW-6	MW-6	MW-6
Approximate Distance:		45 ft	62 ft	27 ft
Time	**Elapsed Time**	**Differential Pressure Readings (inches of water)**		
8:45	0.0	0	0	0
9:15	0.5	0	0	0
9:45	1.0	0	0	0
10:15	1.5	0	0	0
10:45	2.0	0	0	0
11:15	2.5	0	0	0
11:45	3.0	0	0	0
12:15	3.5	0	0	0
12:45	4.0	0	0	0
13:15	4.5	0	0	0
13:45	5.0	0	0	0
14:15	5.5	0	0	0
14:45	6.0	0	0	0
15:15	6.5	0	0	0
15:45	7.0	0	0	0
16:15	7.5	0	0	0
16:45	8.0	0	0	0
Maximum Change:		**0**	**0**	**0**

GROUNDWATER DRAWDOWN DATA

		Well Designation:		
		MW-1A	**MW-7**	**DW-1**
Nearest Extraction Well:		MW-6	MW-6	MW-6
Approximate Distance:		45 ft	62 ft	27 ft
Time	**Elapsed Time**	**Depth to Liquid (feet below of casing):**		
Prior toAFVR		24.95	37.07	52.85
12:45	4 hours	25.03	37.15	52.85
16:45	8 hours	25.00	37.17	52.85
Maximum Change:		-0.08	-0.10	0.00



Explanation:

- Location of Water Table Bracketing Monitoring Well
- Estimated Groundwater Flow Direction
- Location of Double Cased Monitoring Well
- Estimated Location of Removed Underground Storage Tanks
- Location of Water Supply Well
- Total BTEX Concentration Isopleth (ug/l)

COC Concentration Data

Sample *	Benzene (ug/l)	Toluene (ug/l)	Ethylbenzene (ug/l)	Total Xylenes (ug/l)	Total BTEX (ug/l)	MTBE (ug/l)	Napthalene (ug/l)	EDB (ug/l)
MW-1	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
RMW-3	7,940	18,600	2,720	14,070	43,330	550	1,790	13.9
RMW-5	DRY	DRY	DRY	DRY	DRY	DRY	DRY	DRY
MW-6	PROD	PROD	PROD	PROD	PROD	PROD	PROD	PROD
MW-8	145	356	24.5	1,087	1,612.5	12.0	36.9	NT
MW-9	2,470	10,200	2,030	15,140	29,840	124	612	2.3
MW-10	9,030	16,900	2,650	12,570	41,150	12,500	BDL	27.4
MW-11	BDL	BDL	8.5	BDL	8.5	BDL	8.3	BDL
MW-12	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
MW-13	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
MW-15	21.8	BDL	13.6	128.1	163.5	BDL	5.1	0.37
MW-16	DRY	DRY	DRY	DRY	DRY	DRY	DRY	DRY
MW-19	NL	NL	NL	NL	NL	NL	NL	NL
RMW-20	DRY	DRY	DRY	DRY	DRY	DRY	DRY	DRY
MW-21	DRY	DRY	DRY	DRY	DRY	DRY	DRY	DRY
MW-22	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
MW-23	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
DW-1	DRY	DRY	DRY	DRY	DRY	DRY	DRY	DRY
DW-2	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
SW-3	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL

Notes: Groundwater samples collected on September 11, 2007.

Contour interval = 15,000 ug/l

PROD = Free Phase Product encountered at time of sampling

BDL = Below Detection Limits

Contours Computer Generated using Surfer by Golden Graphics and Modified by MECI Personnel.

GRAPHIC SCALE

0 30 60 90 120

1IN = 60FT

ALL LOCATIONS ARE APPROXIMATE

Drawing Based on MECI Field Notes, Tax Maps and Survey of the Site Duncan Environmental Services dated March 15, 2007.

Total BTEX Isopleth Map

Gaston Food Mart
Gaston, South Carolina
SCDHEC Site ID 05986

Midlands Environmental Consultants, Inc.

JOB NO. 07-1297
DATE September 20, 2007
FIGURE 5

Crandall

C 133243

NON-HAZARDOUS WASTE MANIFEST

1. Generator's US EPA ID No. . . . . | Manifest Document No. 24857 | 2. Page 1 of 1

3. Generator's Name and Mailing Address: Midlands Environmental
1144 Old Two Notch
Lexington, SC 29073

4. Generator's Phone ( ) (803) 808-2043

5. Transporter 1 Company Name: Crandall Corporation | 6. US EPA ID Number: SCD981864499 | A. Transporter's Phone: (803) 791-4800

7. Transporter 2 Company Name | 8. US EPA ID Number | B. Transporter's Phone

9. Designated Facility Name and Site Address:
Crandall Corporation
100 Rich-Lex Drive
Lexington, SC 29072

10. US EPA ID Number: SCD981864499

C. Facility's Phone: (803) 791-4800

11. Waste Shipping Name and Description	12. Containers No.	Type	13. Total Quantity	14. Unit Wt./Vol.
a. Non - Hazardous Waste, Waste Water	01	TT	2810.	G
b.				
c.				
d.				

D. Additional Descriptions for Materials Listed Above

FIELD SERVICE

E. Handling Codes for Wastes Listed Above

15. Special Handling Instructions and Additional Information

Service Call ID: GLB0124857

Emergency Response: Infotrac - 800-535-5053
Caller must ID Crandall as registrant

Richland County PW (ID# 11805) 600gal, Whitaker (ID# 14801) 30gal, Bull Mart (ID# 03527) 275gal, Food chief #47 (ID# 05419) 0gal, Stonewall Jackson (ID# 15581) 250gal, Anglers South (ID# 07710) 0gal, Coastal Mart (Munne saver) (ID# 11776) 200gal, Cousars C (ID# 08897) 30gal, Cousars D (ID# 08897) 175gal, Gaston Food Mart (ID# 05986) 400gal, Gaston Food Mart (ID# 05986) 325gal, Cousars C² (ID# 08897) 325gal, Smiths Gulf (ID# 09466) 30gal, Lowes Grocury (ID# 0720) 50gal, Columbia Maint. Fac. (ID# 07359) 200gal

16. 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.

Printed/Typed Name | Signature | Month 06 | Day 24 | Year 08

TRANSPORTER

17. Transporter 1 Acknowledgement of Receipt of Materials

Printed/Typed Name: Shawn DeSpain | Signature | Month 06 | Day 24 | Year 08

18. Transporter 2 Acknowledgement of Receipt of Materials

Printed/Typed Name | Signature | Month | Day | Year

FACILITY

19. Discrepancy Indication Space

20. Facility Owner or Operator: Certification of receipt of waste materials covered by this manifest except as noted in item 19.

Printed/Typed Name | Signature | Month | Day | Year

GENERATOR COPY

Midlands
Environmental
Consultants, Inc.

June 19, 2008

Mr. Read Miner, P.G., 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: Aggressive Fluid Vapor Recovery Report
Gaston Food Mart
Gaston, South Carolina
SCDHEC Site ID # 05986; CA #32348
MECI Project Number 08-1633D

Dear Mr. Miner,

Midlands Environmental Consultants, Inc. (MECI) is pleased to submit the attached Aggressive Fluid Vapor Recovery Report for the referenced site. This describes the aggressive fluid vapor recovery activities conducted at the site in general accordance with South Carolina Department of Health and Environmental Control (SCDHEC) guidelines.

AGGRESSIVE FLUID VAPOR RECOVERY

MECI personnel conducted an Aggressive Fluid Vapor Recovery (AFVR) event at Gaston Food Mart on June 17, 2008. The event was conducted on monitoring wells MW-9, MW-10, and RMW-3 to reduce dissolved CoC concentrations. The event was conducted continuously for eight hours. Free phase petroleum product was not detected in the monitoring wells prior to the AFVR event. The event was conducted by MECI personnel utilizing a MECI vacuum extraction unit. Free phase petroleum product was not detected in the well immediately following the event.

MECI treated the off gas produced during the AFVR event using an activated carbon filter system. Calculated total petroleum hydrocarbons removed from the well were 7.56 pounds or approximately 1.31 equivalent gallons. The average rate of removal for the hydrocarbons was calculated to be 0.95 pounds per hour. Concentrations of off gas produced during the event were recorded from 631 parts per million by volume (PPM) to 989 PPM. Measurements were obtained from vapors prior to entering off gas treatment. Vacuum readings were recorded at a range of 11.0 to 18.0 inches of mercury during the event. A complete compilation of measurements recorded is presented in attached Table 1D.

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

Differential pressures and groundwater levels were measured and recorded for selected site monitoring wells at regular intervals. This data is summarized in the attached Table 2D. Monitoring well locations are depicted on attached Figure 1.

A total of 400 gallons of liquid was removed from monitoring wells MW-9, MW-10, and RMW-3 during the event. Free Phase Petroleum product was not observed in the holding tank at the end of the event. The fluids produced were transported to Crandall Corporation of Lexington, S.C. for disposal. A disposal manifest for these fluids is attached at the end of this report.

QUALIFICATIONS OF REPORT

The activities and evaluative approaches used in this assignment are consistent with those normally employed in enhanced fluid recovery events and waste management projects of this type. Contents of this report are intended for the use by MECI and the South Carolina Department of Health and Environmental Control, 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.

Midlands Environmental appreciates the opportunity to offer our professional environmental related 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
Staff Scientist

William C. McClary P.G.
Senior Geologist

Attachments:

TABLE 1D
AFVR MONITORING DATA
GASTON FOOD MART
GASTON, SOUTH CAROLINA
MECI PROJECT NUMBER 08-1633D
SCDHEC SITE ID NUMBER 05986

Extraction Well	Date	Time (hh:mm)	Differential Time (hr)	Extraction Well Head Vacuum (in. Hg)	Off Gas Measurements				
					Concentration (PPM)	Offgas Velocity Ft/Min	Flow Rate CFM	Removal Rate Lbs/Hr	Interval Removal Lbs
MW-9	06/17/08	10:30	0.50	11.0	631	1540	138.60	1.05	0.52
MW-10	06/17/08	11:00	0.50	16.0	753	980	88.20	0.80	0.40
RMW-3	06/17/08	11:30	0.50	18.0	691	980	88.20	0.73	0.37
	06/17/08	12:00	0.50	18.0	809	1000	90.00	0.87	0.44
	06/17/08	12:30	0.50	18.0	738	1010	90.90	0.81	0.40
	06/17/08	13:00	0.50	18.0	697	980	88.20	0.74	0.37
	06/17/08	13:30	0.50	18.0	689	980	88.20	0.73	0.36
	06/17/08	14:00	0.50	18.0	811	1050	94.50	0.92	0.46
	06/17/08	14:30	0.50	18.0	800	930	83.70	0.80	0.40
	06/17/08	15:00	0.50	18.0	876	980	88.20	0.93	0.46
	06/17/08	15:30	0.50	17.0	700	1030	92.70	0.78	0.39
	06/17/08	16:00	0.50	17.0	911	1020	91.80	1.00	0.50
	06/17/08	16:30	0.50	17.0	822	1000	90.00	0.89	0.44
	06/17/08	17:00	0.50	17.0	935	990	89.10	1.00	0.50
	06/17/08	17:30	0.50	17.0	989	990	89.10	1.06	0.53
	06/17/08	18:00	0.50	17.0	917	980	88.20	0.97	0.49
	06/17/08	18:30	0.50	17.0	970	1000	90.00	1.05	0.52
									TOTAL 7.56

Well Data:			Pre AFVR Event			Post AFVR Event			Corrected Depth to Water Change (ft)
Well No.	Diameter (in)	Total Depth (ft)	Depth to Product (ft)	Depth to Water (ft)	Product Thickness (ft)	Depth to Product (ft)	Depth to Water (ft)	Product Thickness (ft)	
MW-9	2"	44.00	***	41.24	***	***	38.22	***	-3.02
MW-10	2"	44.00	***	35.70	***	***	36.23	***	0.53
RMW-3	2"	40.00	***	31.86	***	***	32.10	***	0.24

Vacuum Truck Information		Well ID	Stinger Depth
Subcontrator:	MECI	MW-9	35.00
Truck Operator:	R. Garnett	MW-10	33.00
Stack I.D. (feet)	0.33 feet	RMW-3	33.00

Recovery / Disposal Information		
Hydro carbons Removed (vapor):	7.56	Pounds
Hydro carbons Removed (liquid):	0	Gallons
Total Hydrocarbons Removed:	1.31	Equivalent Gallons
Molecular Weight Utilized:	75	g / mole
Disposal Facility	Crandall Corporation	
Total Liquids Removed:	400	Gallons

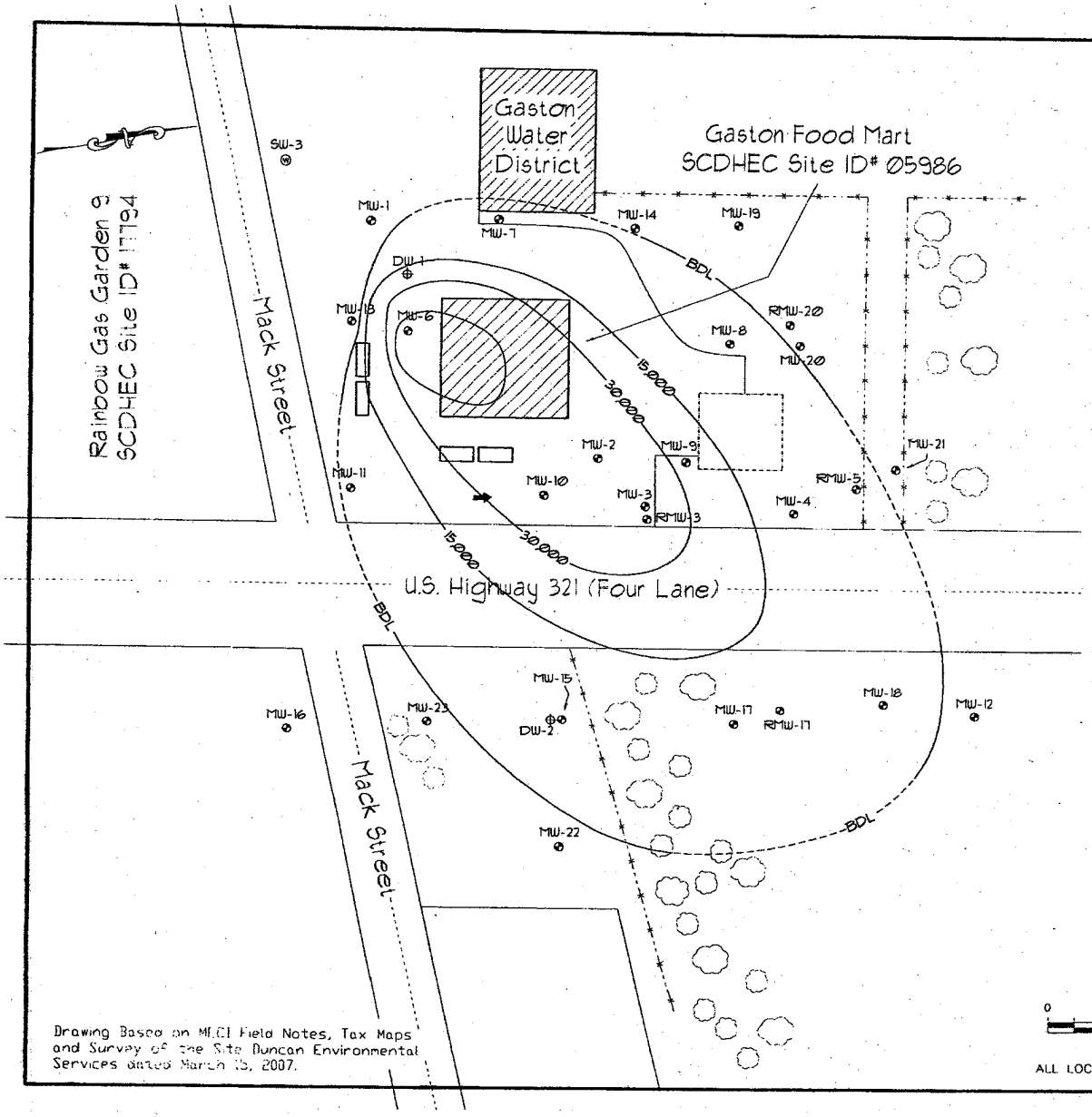
TABLE 2D
DIFFERENTIAL PRESSURE AND GROUNDWATER DRAWDOWN DATA
GASTON FOOD MART
GASTON, SOUTH CAROLINA
MECI PROJECT NUMBER 08-1633D
SCDHEC SITE ID NUMBER 05986

DIFFERENTIAL PRESSURE DATA

		Well Designation:		
		MW-1A	**MW-8**	**MW-11**
Nearest Extraction Well:		MW-10	MW-9	MW-10
Approximate Distance:		72 ft	53 ft	84 ft
Time	**Elapsed Time**	**Differential Pressure Readings (inches of water)**		
10:30	0.0	0	0	0
11:00	0.5	0	0	0
11:30	1.0	0	0	0
12:00	1.5	0	0	0
12:30	2.0	0	0	0
13:00	2.5	0	0	0
13:30	3.0	0	0	0
14:00	3.5	0	0	0
14:30	4.0	0	0	0
15:00	4.5	0	0	0
15:30	5.0	0	0	0
16:00	5.5	0	0	0
16:30	6.0	0	0	0
17:00	6.5	0	0	0
17:30	7.0	0	0	0
18:00	7.5	0	0	0
18:30	8.0	0	0	0
Maximum Change:		**0**	**0**	**0**

GROUNDWATER DRAWDOWN DATA

		Well Designation:		
		MW-1A	**MW-8**	**MW-11**
Nearest Extraction Well:		MW-10	MW-9	MW-10
Approximate Distance:		72 ft	53 ft	84 ft
Time	**Elapsed Time**	**Depth to Liquid (feet below of casing):**		
Prior toAFVR		24.77	39.40	25.10
14:30	4 hours	24.77	39.40	25.10
18:30	8 hours	24.77	39.40	25.10
Maximum Change:		0.00	0.00	0.00



Explanation:

- Location of Water Table Bracketing Monitoring Well
- Estimated Groundwater Flow Direction
- Location of Double Cased Monitoring Well
- Estimated Location of Removed Underground Storage Tanks
- Location of Water Supply Well
- Total BTEX Concentration Isopleth (ug/l)

COC Concentration Data

Sample #	Benzene (ug/l)	Toluene (ug/l)	Ethylbenzene (ug/l)	Total Xylenes (ug/l)	Total BTEX (ug/l)	MTBE (ug/l)	Napthalene (ug/l)	EDB (ug/l)
MW-1	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
RMW-3	7,940	18,600	2,720	14,070	43,330	550	1,790	13.9
RMW-5	DRY	DRY	DRY	DRY	DRY	DRY	DRY	DRY
MW-6	PROD	PROD	PROD	PROD	PROD	PROD	PROD	PROD
MW-8	145	356	24.5	1,087	1,612.5	12.0	36.9	NT
MW-9	2,470	10,200	2,030	15,140	29,840	124	612	2.3
MW-10	9,030	16,900	2,650	12,570	41,150	12,500	BDL	27.4
MW-11	BDL	BDL	8.5	BDL	8.5	BDL	8.3	BDL
MW-12	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
MW-13	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
MW-15	21.8	BDL	13.6	128.1	163.5	BDL	5.1	0.37
MW-16	DRY	DRY	DRY	DRY	DRY	DRY	DRY	DRY
MW-19	NL	NL	NL	NL	NL	NL	NL	NL
RMW-20	DRY	DRY	DRY	DRY	DRY	DRY	DRY	DRY
MW-21	DRY	DRY	DRY	DRY	DRY	DRY	DRY	DRY
MW-22	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
MW-23	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
DW-1	DRY	DRY	DRY	DRY	DRY	DRY	DRY	DRY
DW-2	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
SW-3	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL

Notes: Groundwater samples collected on September 11, 2007.

Contour Interval = 15,000 ug/l

PROD = Free Phase Product encountered at time of sampling

BDL = Below Detection Limits

Contours Computer Generated using Surfer by Golden Graphics and Modified by MECI Personnel.

GRAPHIC SCALE

0 30 60 90 120

1IN = 60FT

ALL LOCATIONS ARE APPROXIMATE

Drawing Based on MECI Field Notes, Tax Maps and Survey of the Site Duncan Environmental Services dated March 15, 2007.

Total BTEX Isopleth Map

Gaston Food Mart
Gaston, South Carolina
SCDHEC Site ID 05986

Midlands Environmental Consultants, Inc.

JOB NO. 07-1297
DATE September 20, 2007
FIGURE 5

Crandall

C 133243

NON-HAZARDOUS WASTE MANIFEST

1. Generator's US EPA ID No. | Manifest Document No. 24857 | 2. Page 1 of 1

GENERATOR

3. Generator's Name and Mailing Address: Midlands Environmental
1144 Old Two Notch
Lexington, SC 29073

4. Generator's Phone ( ): (803) 808-2043

5. Transporter 1 Company Name: Crandall Corporation

6. US EPA ID Number: SCD981864499

A. Transporter's Phone: (803) 791-4800

7. Transporter 2 Company Name

8. US EPA ID Number

B. Transporter's Phone

9. Designated Facility Name and Site Address:
Crandall Corporation
100 Rich-Lex Drive
Lexington, SC 29072

10. US EPA ID Number: SCD981864499

C. Facility's Phone: (803) 791-4800

11. Waste Shipping Name and Description	12. Containers No.	12. Containers Type	13. Total Quantity	14. Unit Wt./Vol.
a. Non - Hazardous Waste, Waste Water	01	TT	2810.	G
b.				
c.				
d.				

D. Additional Descriptions for Materials Listed Above

FIELD SERVICE

E. Handling Codes for Wastes Listed Above

15. Special Handling Instructions and Additional Information

Service Call ID: GLB0124857

Emergency Response: Infotrac - 800-535-5053
Caller must ID Crandall as registrant

Richland County PW (ID# 11805) 600gal, Whitaker (ID# 14301) 30gal, Bull Mart (ID# 03527) 275gal, Food chief #47 (ID# 05419) 0gal, Stonewall Jackson (ID# 15581) 250gal, Anglers South (ID# 07710) 0gal, Coastal Mart (Munne saver) (ID# 11776) 200gal, Cousars C (ID# 08897) 30gal, Cousars D (ID# 08897) 175gal, Gaston Food Mart (ID# 05986) 400gal, Gaston Food Mart (ID# 05986) 325gal, Cousars C2 (ID# 08897) 325gal, Smiths Gulf (ID# 04466) 30gal, Lowes Grocery (ID# 0720) 50gal, Columbia Maint. Fac. (ID# 07359) 200gal

16. 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.

Printed/Typed Name | Signature | Month 06 | Day 24 | Year 08

TRANSPORTER

17. Transporter 1 Acknowledgement of Receipt of Materials

Printed/Typed Name: Shawn DeSpain | Signature | Month 06 | Day 24 | Year 08

18. Transporter 2 Acknowledgement of Receipt of Materials

Printed/Typed Name | Signature | Month | Day | Year

FACILITY

19. Discrepancy Indication Space

20. Facility Owner or Operator: Certification of receipt of waste materials covered by this manifest except as noted in item 19.

Printed/Typed Name | Signature | Month | Day | Year

GENERATOR COPY

D H E C

PROMOTE PROTECT PROSPER

C. Earl Hunter, Commissioner

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

JUN 13 2008

D F SHUMPERT
814 PINE ST
PELION SC 29123

Re: **AFVR Report Review**
Gaston Food Mart, 105 N Main St., Gaston, SC
UST Permit #05986
Release reported November 20, 1991
AFVR Reports for events #1, #2, and #3 received June 10, 2008
Lexington County

Dear Mr. Shumpert:

As you may be aware, Midlands Environmental Consultants completed Aggressive Fluid Vapor Recovery (AFVR) events at the referenced facility on May 28, June 3, and June 4, 2008. A copy of the reports is enclosed. Additional AFVR events will be completed to continue with free product removal and reduction of dissolved petroleum concentrations.

On all correspondence concerning this site, please reference UST Permit #05986. If you have any questions, please contact me at (803) 896-6584 or by e-mail at minerrs@dhec.sc.gov.

Sincerely,

Read S Miner

Read S. Miner, P.G., Hydrogeologist
Southwestern SC Corrective Action Section
Assessment and Corrective Action Division
Underground Storage Tank Program
Bureau of Land and Waste Management

enc: AFVR Reports

cc: Technical (without enclosures)

UST DOCKET

19 Ltr

Midlands
Environmental
Consultants, Inc.

June 9, 2008

Mr. Read Miner, P.G., 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: Aggressive Fluid Vapor Recovery Report
Gaston Food Mart
Gaston, South Carolina
SCDHEC Site ID # 05986; CA #32348
MECI Project Number 08-1633C

Dear Mr. Miner,

Midlands Environmental Consultants, Inc. (MECI) is pleased to submit the attached Aggressive Fluid Vapor Recovery Report for the referenced site. This describes the aggressive fluid vapor recovery activities conducted at the site in general accordance with South Carolina Department of Health and Environmental Control (SCDHEC) guidelines.

AGGRESSIVE FLUID VAPOR RECOVERY

MECI personnel conducted an Aggressive Fluid Vapor Recovery (AFVR) event at Gaston Food Mart on June 4, 2008. The event was conducted on monitoring well MW-6 to reduce concentrations of dissolved CoC's. The event was conducted continuously for eight hours. Free phase petroleum product was not detected in monitoring well MW-6 feet prior to the AFVR event. The event was conducted by MECI personnel utilizing a MECI vacuum extraction unit. Free phase petroleum product was not detected in the well immediately following the event.

MECI treated the off gas produced during the AFVR event using an activated carbon filter system. Calculated total petroleum hydrocarbons removed from the well were 4.67 pounds or approximately 0.81 equivalent gallons. The average rate of removal for the hydrocarbons was calculated to be 0.58 pounds per hour. Concentrations of off gas produced during the event were recorded from 118 parts per million by volume (PPM) to 3,567 PPM. Measurements were obtained from vapors prior to entering off gas treatment. Vacuum readings were recorded at a range of 20.0 to 23.0 inches of mercury during the event. A complete compilation of measurements recorded is presented in attached Table 1C.

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

Differential pressures and groundwater levels were measured and recorded for selected site monitoring wells at regular intervals. This data is summarized in the attached Table 2C. Monitoring well locations are depicted on attached Figure 1.

A total of 325 gallons of liquid was removed from monitoring well MW-6 during the event. Free Phase Petroleum product was not observed in the holding tank at the end of the event. The fluids produced were transported to Crandall Corporation of Lexington, S.C. for disposal. A disposal manifest for these fluids is attached at the end of this report.

QUALIFICATIONS OF REPORT

The activities and evaluative approaches used in this assignment are consistent with those normally employed in enhanced fluid recovery events and waste management projects of this type. Contents of this report are intended for the use by MECI and the South Carolina Department of Health and Environmental Control, 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.

Midlands Environmental appreciates the opportunity to offer our professional environmental related 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.

Rorey E. Garnett
Staff Biologist

William C. McClary P.G.
Senior Geologist

Attachments:

TABLE 1C
AFVR MONITORING DATA
GASTON FOOD MART
GASTON, SOUTH CAROLINA
MECI PROJECT NUMBER 08-1633C
SCDHEC SITE ID NUMBER 05986

Extraction Well	Date	Time (hh:mm)	Differential Time (hr)	Extraction Well Head Vacuum (in. Hg)	Off Gas Measurements				
					Concentration (PPM)	Offgas Velocity Ft/Min	Flow Rate CFM	Removal Rate Lbs/Hr	Interval Removal Lbs
MW-6	06/04/08	10:00	0.50	21.0	3,567	570	51.30	2.20	1.10
	06/04/08	10:30	0.50	23.0	2,195	950	85.50	2.25	1.13
	06/04/08	11:00	0.50	23.0	1,279	1060	95.40	1.46	0.73
	06/04/08	11:30	0.50	23.0	802	1380	124.20	1.20	0.60
	06/04/08	12:00	0.50	23.0	536	1080	97.20	0.63	0.31
	06/04/08	12:30	0.50	20.0	243	700	63.00	0.18	0.09
	06/04/08	13:00	0.50	20.0	240	670	60.30	0.17	0.09
	06/04/08	13:30	0.50	21.0	237	570	51.30	0.15	0.07
	06/04/08	14:00	0.50	21.0	224	620	55.80	0.15	0.07
	06/04/08	14:30	0.50	21.0	191	620	55.80	0.13	0.06
	06/04/08	15:00	0.50	21.0	169	650	58.50	0.12	0.06
	06/04/08	15:30	0.50	21.0	142	670	60.30	0.10	0.05
	06/04/08	16:00	0.50	21.0	179	620	55.80	0.12	0.06
	06/04/08	16:30	0.50	21.0	177	740	66.60	0.14	0.07
	06/04/08	17:00	0.50	21.0	175	780	70.20	0.15	0.07
	06/04/08	17:30	0.50	21.0	130	740	66.60	0.10	0.05
	06/04/08	18:00	0.50	21.0	118	800	72.00	0.10	0.05
									TOTAL 4.67

Well Data:			Pre AFVR Event			Post AFVR Event			Corrected Depth to Water Change (ft)
Well No.	Diameter (in)	Total Depth (ft)	Depth to Product (ft)	Depth to Water (ft)	Product Thickness (ft)	Depth to Product (ft)	Depth to Water (ft)	Product Thickness (ft)	
MW-6	2"	40.00	***	34.80	***	***	38.21	***	3.41

Vacuum Truck Information		Well ID	Stinger Depth
Subcontrator:	MECI	MW-6	35.00
Truck Operator:	R. Garnett		
Stack I.D. (feet)	0.33 feet		

Recovery / Disposal Information		
Hydro carbons Removed (vapor):	4.67	Pounds
Hydro carbons Removed (liquid):	0	Gallons
Total Hydrocarbons Removed:	0.81	Equivalent Gallons
Molecular Weight Utilized:	75	g / mole
Disposal Facility	Crandall Corporation	
Total Liquids Removed:	325	Gallons

Note: Stinger depth was re-adjusted at 12:00 EST and 15:00 EST on June 4, 2008. (see below)

Well No.	Stinger Depth (ft)
MW-6	37.00
MW-6	40.00

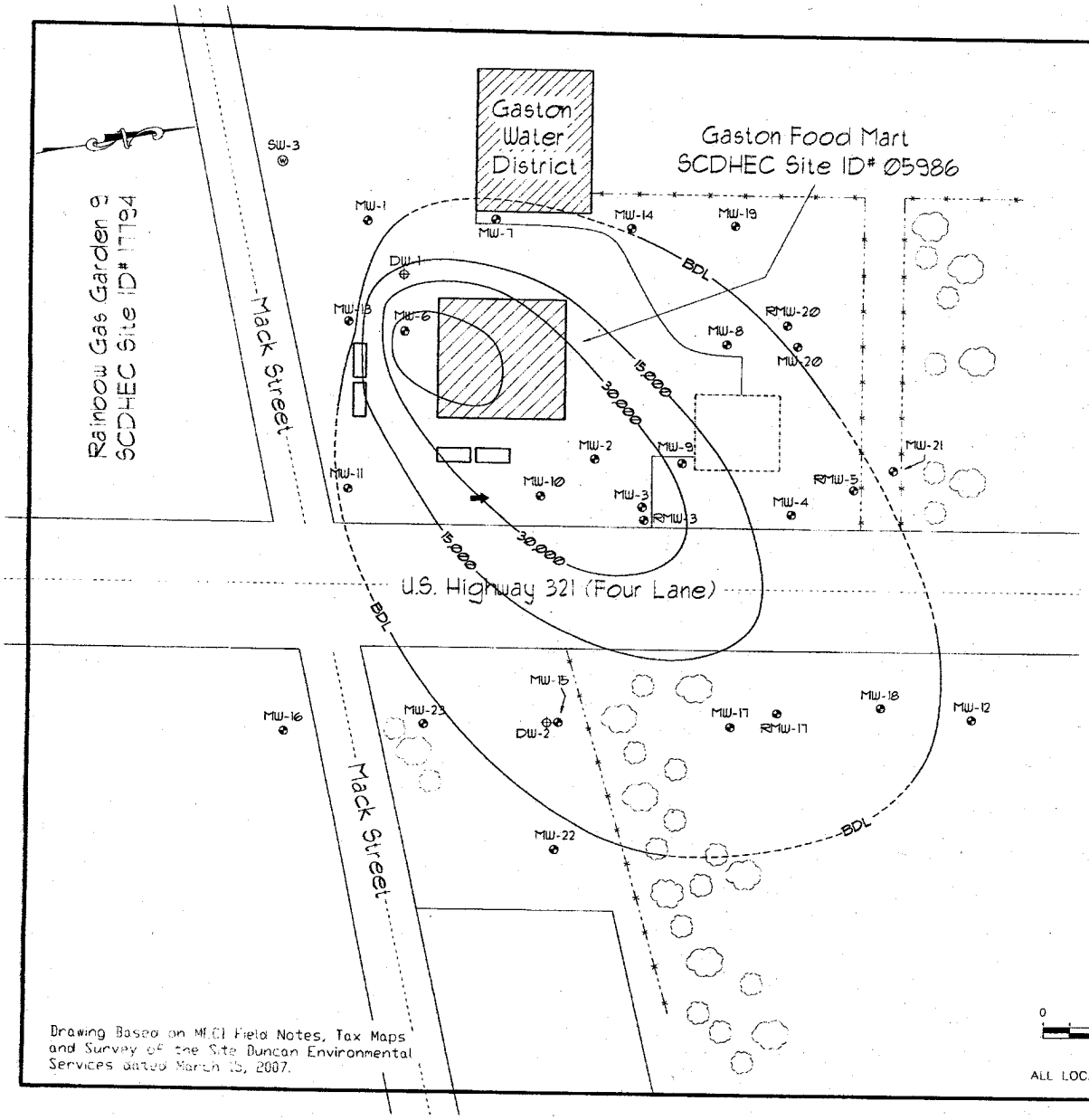
TABLE 2C
DIFFERENTIAL PRESSURE AND GROUNDWATER DRAWDOWN DATA
GASTON FOOD MART
GASTON, SOUTH CAROLINA
MECI PROJECT NUMBER 08-1633C
SCDHEC SITE ID NUMBER 05986

DIFFERENTIAL PRESSURE DATA

		Well Designation:		
		MW-1A	**MW-7**	**DW-1**
Nearest Extraction Well:		MW-6	MW-6	MW-6
Approximate Distance:		40 ft	81 ft	32 ft
Time	**Elapsed Time**	**Differential Pressure Readings (inches of water)**		
10:00	0.0	0	0	0
10:30	0.5	0	0	0
11:00	1.0	0	0	0
11:30	1.5	0	0	0
12:00	2.0	0	0	0
12:30	2.5	0	0	0
13:00	3.0	0	0	0
13:30	3.5	0	0	0
14:00	4.0	0	0	0
14:30	4.5	0	0	0
15:00	5.0	0	0	0
15:30	5.5	0	0	0
16:00	6.0	0	0	0
16:30	6.5	0	0	0
17:00	7.0	0	0	0
17:30	7.5	0	0	0
18:00	8.0	0	0	0
Maximum Change:		**0**	**0**	**0**

GROUNDWATER DRAWDOWN DATA

		Well Designation:		
		MW-1A	**MW-7**	**DW-1**
Nearest Extraction Well:		MW-6	MW-6	MW-6
Approximate Distance:		40 ft	81 ft	32 ft
Time	**Elapsed Time**	**Depth to Liquid (feet below of casing):**		
Prior toAFVR		24.51	36.70	52.80
14:00	4 hours	24.56	36.80	52.80
18:00	8 hours	24.58	36.80	52.80
Maximum Change:		-0.07	-0.10	0.00



Explanation:

- Location of Water Table Bracketing Monitoring Well
- Location of Double Cased Monitoring Well
- Location of Water Supply Well
- Estimated Groundwater Flow Direction
- Estimated Location of Removed Underground Storage Tanks
- Total BTEX Concentration Isopleth (ug/l)

COC Concentration Data

Sample #	Benzene (ug/l)	Toluene (ug/l)	Ethylbenzene (ug/l)	Total Xylenes (ug/l)	Total BTEX (ug/l)	MTBE (ug/l)	Napthalene (ug/l)	EDB (ug/l)
MW-1	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
RMW-3	7,940	18,600	2,720	14,070	43,330	550	1,790	13.9
RMW-5	DRY	DRY	DRY	DRY	DRY	DRY	DRY	DRY
MW-6	PROD	PROD	PROD	PROD	PROD	PROD	PROD	PROD
MW-8	145	356	24.5	1,087	1,612.5	12.0	36.9	NT
MW-9	2,470	10,200	2,030	15,140	29,840	124	612	2.3
MW-10	9,030	16,900	2,650	12,570	41,150	12,500	BDL	27.4
MW-11	BDL	BDL	8.5	BDL	8.5	BDL	8.3	BDL
MW-12	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
MW-13	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
MW-15	21.8	BDL	13.6	128.1	163.5	BDL	5.1	0.37
MW-16	DRY	DRY	DRY	DRY	DRY	DRY	DRY	DRY
MW-19	NL	NL	NL	NL	NL	NL	NL	NL
RMW-20	DRY	DRY	DRY	DRY	DRY	DRY	DRY	DRY
MW-21	DRY	DRY	DRY	DRY	DRY	DRY	DRY	DRY
MW-22	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
MW-23	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
DW-1	DRY	DRY	DRY	DRY	DRY	DRY	DRY	DRY
DW-2	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
SW-3	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL

Notes:
- Groundwater samples collected on September 11, 2007.
- Contour interval = 15,000 ug/l
- PROD = Free Phase Product encountered at time of sampling
- BDL = Below Detection Limits
- Contours Computer Generated using Surfer by Golden Graphics and Modified by MECI Personnel.

GRAPHIC SCALE
0 30 60 90 120
1IN = 60FT
ALL LOCATIONS ARE APPROXIMATE

Drawing Based on MECI Field Notes, Tax Maps and Survey of the Site Duncan Environmental Services dated March 15, 2007.

Total BTEX Isopleth Map

Gaston Food Mart
Gaston, South Carolina
SCDHEC Site ID 05986

Midlands Environmental Consultants, Inc.

JOB NO. 07-1297
DATE September 20, 2007
FIGURE 5

Crandall

C 132657

NON-HAZARDOUS WASTE MANIFEST

1. Generator's US EPA ID No. . . . . | Manifest Document No. 24068 | 2. Page 1 of 1

GENERATOR

3. Generator's Name and Mailing Address: Midlands Environmental
1144 Old Two Notch
Lexington, SC 29073

4. Generator's Phone ((803)) 808-2043

5. Transporter 1 Company Name: Crandall Corporation | 6. US EPA ID Number: SCD981864499 | A. Transporter's Phone: (803) 791-4800

7. Transporter 2 Company Name | 8. US EPA ID Number | B. Transporter's Phone

9. Designated Facility Name and Site Address:
Crandall Corporation
100 Rich-Lex Drive
Lexington, SC 29072

10. US EPA ID Number: SCD981864499 | C. Facility's Phone: (803) 791-4800

11. Waste Shipping Name and Description	12. Containers No.	Type	13. Total Quantity	14. Unit Wt./Vol.
a. Non - Hazardous Waste, Waste Water	001	TT	3165.	G
b.				
c.				
d.				

D. Additional Descriptions for Materials Listed Above:
•Causars(08897)-200gals • Causars(08897)-170gals.
•Johnys grocery(08605)-325gals
•Gaston Food Mart(05986)-325gals •Durams Grocery(08099)-1000gals
•St. matthews(01262)-250gals
•Richland Co. Landfill-(11888)-80gals • Gaston Food Mart-(05986)-325gals.

E. Handling Codes for Wastes Listed Above

15. Special Handling Instructions and Additional Information
•Carsons Amoco(03027)-150gals. •Mack's(01253)-750gals.
Service Call ID: GLB0124068
•Carsons Amoco(03027)-150gals •Zee Mart(07176)-55gals
•Baycreek(18668)-325gals. •Zee Mart(07176)-75gals
•Mauth Self Service(08837)-250gals
Emergency Response: Infotrac - 800-535-5053
Caller must ID Crandall as registrant

16. 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.

Printed/Typed Name: X Korey Garnett | Signature: Korey Garnett | Month 06 Day 06 Year 08

TRANSPORTER

17. Transporter 1 Acknowledgement of Receipt of Materials
Printed/Typed Name: Troy Backman | Signature: Troy Backman | Month 06 Day 06 Year 08

18. Transporter 2 Acknowledgement of Receipt of Materials
Printed/Typed Name | Signature | Month . Day . Year .

FACILITY

19. Discrepancy Indication Space

20. Facility Owner or Operator: Certification of receipt of waste materials covered by this manifest except as noted in item 19.

Printed/Typed Name | Signature | Month . Day . Year .

GENERATOR COPY

Midlands
Environmental
Consultants, Inc.

June 9, 2008

Mr. Read Miner, P.G., 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: Aggressive Fluid Vapor Recovery Report
Gaston Food Mart
Gaston, South Carolina
SCDHEC Site ID # 05986; CA #32348
MECI Project Number 08-1633B

Dear Mr. Miner,

Midlands Environmental Consultants, Inc. (MECI) is pleased to submit the attached Aggressive Fluid Vapor Recovery Report for the referenced site. This describes the aggressive fluid vapor recovery activities conducted at the site in general accordance with South Carolina Department of Health and Environmental Control (SCDHEC) guidelines.

AGGRESSIVE FLUID VAPOR RECOVERY

MECI personnel conducted an Aggressive Fluid Vapor Recovery (AFVR) event at Gaston Food Mart on June 3, 2008. The event was conducted on monitoring wells MW-9, MW-10, and RMW-3 to reduce CoC concentrations. The event was conducted continuously for eight hours. Free phase petroleum product was not detected in the monitoring wells prior to the AFVR event. The event was conducted by MECI personnel utilizing a MECI vacuum extraction unit. Free phase petroleum product was not detected in the well immediately following the event.

MECI treated the off gas produced during the AFVR event using an activated carbon filter system. Calculated total petroleum hydrocarbons removed from the well were 12.91 pounds or approximately 2.23 equivalent gallons. The average rate of removal for the hydrocarbons was calculated to be 1.61 pounds per hour. Concentrations of off gas produced during the event were recorded from 823 parts per million by volume (PPM) to 1,345 PPM. Measurements were obtained from vapors prior to entering off gas treatment. Vacuum readings were recorded at a range of 16.0 to 17.0 inches of mercury during the event. A complete compilation of measurements recorded is presented in attached Table 1B.

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

Differential pressures and groundwater levels were measured and recorded for selected site monitoring wells at regular intervals. This data is summarized in the attached Table 2B. Monitoring well locations are depicted on attached Figure 1.

A total of 510 gallons of liquid was removed from monitoring wells MW-9, MW-10, and RMW-3 during the event. Free Phase Petroleum product was not observed in the holding tank at the end of the event. The fluids produced were transported to Crandall Corporation of Lexington, S.C. for disposal. A disposal manifest for these fluids is attached at the end of this report.

QUALIFICATIONS OF REPORT

The activities and evaluative approaches used in this assignment are consistent with those normally employed in enhanced fluid recovery events and waste management projects of this type. Contents of this report are intended for the use by MECI and the South Carolina Department of Health and Environmental Control, 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.

Midlands Environmental appreciates the opportunity to offer our professional environmental related 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.

Rorey E. Garnett JC
Rorey E. Garnett
Staff Biologist

William C. McClary
William C. McClary P.G.
Senior Geologist

Attachments:

TABLE 1B
AFVR MONITORING DATA
GASTON FOOD MART
GASTON, SOUTH CAROLINA
MECI PROJECT NUMBER 08-1633B
SCDHEC SITE ID NUMBER 05986

Extraction Well	Date	Time (hh:mm)	Differential Time (hr)	Extraction Well Head Vacuum (in. Hg)	Off Gas Measurements				
					Concentration (PPM)	Offgas Velocity Ft/Min	Flow Rate CFM	Removal Rate Lbs/Hr	Interval Removal Lbs
MW-9	06/03/08	11:00	0.50	16.0	823	1020	91.80	0.91	0.45
MW-10	06/03/08	11:30	0.50	17.0	1,316	1150	103.50	1.63	0.82
RMW-3	06/03/08	12:00	0.50	17.0	1,316	1150	103.50	1.63	0.82
	06/03/08	12:30	0.50	17.0	1,320	1090	98.10	1.55	0.78
	06/03/08	13:00	0.50	17.0	1,260	1100	99.00	1.50	0.75
	06/03/08	13:30	0.50	17.0	1,345	1170	105.30	1.70	0.85
	06/03/08	14:00	0.50	17.0	1,284	1120	100.80	1.55	0.78
	06/03/08	14:30	0.50	17.0	1,342	1120	100.80	1.62	0.81
	06/03/08	15:00	0.50	17.0	1,276	1130	101.70	1.56	0.78
	06/03/08	15:30	0.50	17.0	1,324	1130	101.70	1.62	0.81
	06/03/08	16:00	0.50	17.0	1,272	1130	101.70	1.55	0.78
	06/03/08	16:30	0.50	17.0	1,196	1120	100.80	1.45	0.72
	06/03/08	17:00	0.50	17.0	1,244	1100	99.00	1.48	0.74
	06/03/08	17:30	0.50	17.0	1,256	1110	99.90	1.51	0.75
	06/03/08	18:00	0.50	17.0	1,268	1110	99.90	1.52	0.76
	06/03/08	18:30	0.50	17.0	1,310	1100	99.00	1.56	0.78
	06/03/08	19:00	0.50	17.0	1,256	1100	99.00	1.49	0.75
									TOTAL 12.91

Well Data:			Pre AFVR Event			Post AFVR Event			Corrected Depth to Water Change (ft)
Well No.	Diameter (in)	Total Depth (ft)	Depth to Product (ft)	Depth to Water (ft)	Product Thickness (ft)	Depth to Product (ft)	Depth to Water (ft)	Product Thickness (ft)	
MW-9	2"	44.00	***	41.44	***	***	38.83	***	-2.61
MW-10	2"	44.00	***	35.09	***	***	35.26	***	0.17
RMW-3	2"	40.00	***	34.83	***	***	35.06	***	0.23

Vacuum Truck Information		Well ID	Stinger Depth
Subcontrator:	MECI	MW-9	22.00
Truck Operator:	R. Owen	MW-10	36.00
Stack I.D. (feet)	0.33 feet	RMW-3	35.00

Recovery / Disposal Information		
Hydro carbons Removed (vapor):	12.91	Pounds
Hydro carbons Removed (liquid):	0	Gallons
Total Hydrocarbons Removed:	2.23	Equivalent Gallons
Molecular Weight Utilized:	75	g / mole
Disposal Facility	Crandall Corporation	
Total Liquids Removed:	510	Gallons

Note: Stinger depth was re-adjusted at 13:00 EST on June 3, 2008. (see below)

Well No.	Stinger Depth (ft)
MW-10	38.00

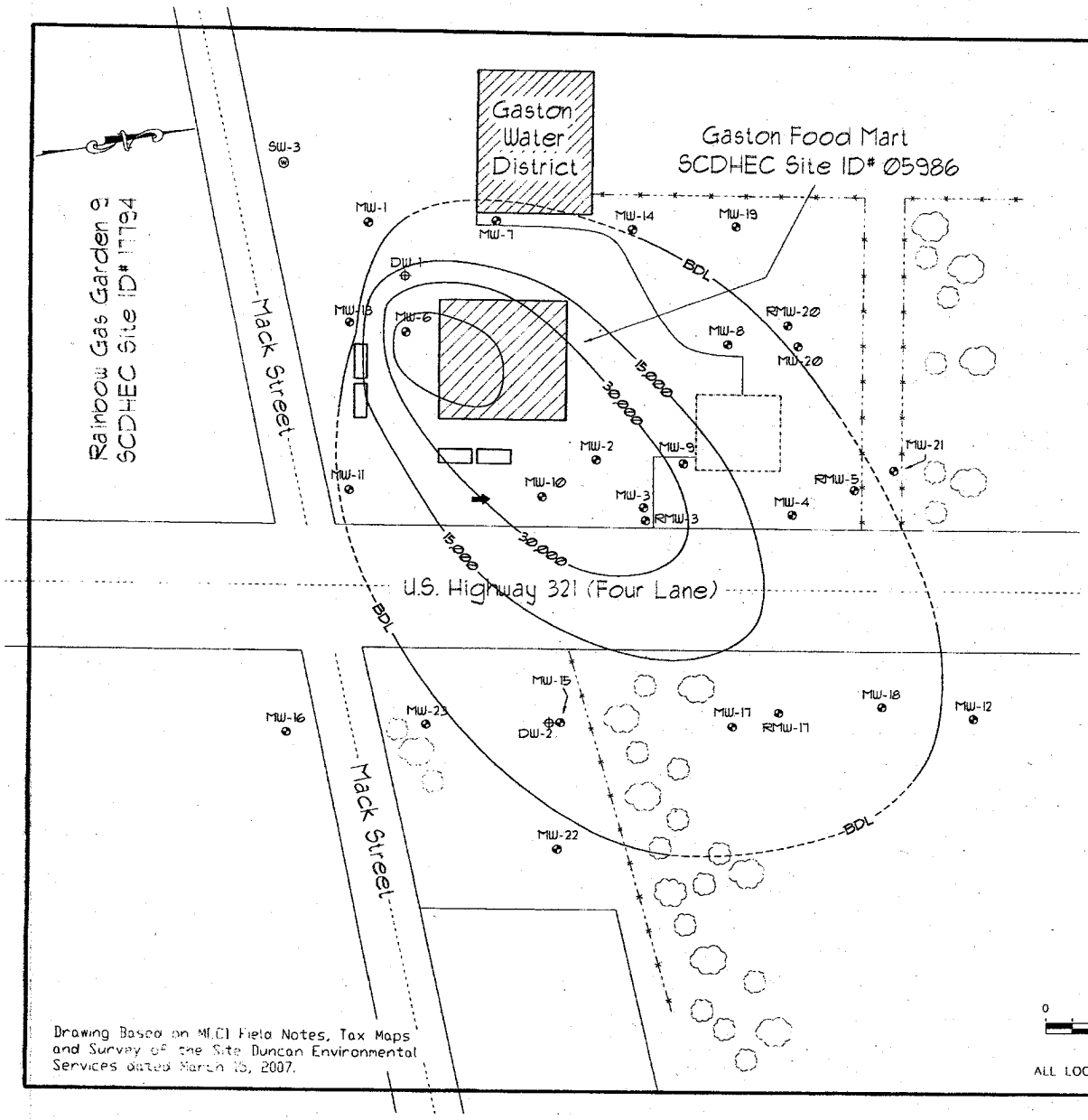
TABLE 2B
DIFFERENTIAL PRESSURE AND GROUNDWATER DRAWDOWN DATA
GASTON FOOD MART
GASTON, SOUTH CAROLINA
MECI PROJECT NUMBER 08-1633B
SCDHEC SITE ID NUMBER 05986

DIFFERENTIAL PRESSURE DATA

		Well Designation:		
		MW-1A	**MW-8**	**MW-25**
Nearest Extraction Well:		MW-10	MW-9	MW-6
Approximate Distance:		90 ft	85 ft	90 ft
Time	**Elapsed Time**	**Differential Pressure Readings (inches of water)**		
11:00	0.0	0	0	0
11:30	0.5	0	0	0
12:00	1.0	0	0	0
12:30	1.5	0	0	0
13:00	2.0	0	0	0
13:30	2.5	0	0	0
14:00	3.0	0	0	0
14:30	3.5	0	0	0
15:00	4.0	0	0	0
15:30	4.5	0	0	0
16:00	5.0	0	0	0
16:30	5.5	0	0	0
17:00	6.0	0	0	0
17:30	6.5	0	0	0
18:00	7.0	0	0	0
18:30	7.5	0	0	0
19:00	8.0	0	0	0
Maximum Change:		**0**	**0**	**0**

GROUNDWATER DRAWDOWN DATA

		Well Designation:		
		MW-1A	**MW-8**	**MW-25**
Nearest Extraction Well:		MW-10	MW-9	MW-6
Approximate Distance:		90 ft	85 ft	90 ft
Time	**Elapsed Time**	**Depth to Liquid (feet below of casing):**		
Prior toAFVR		24.38	39.35	59.23
15:00	4 hours	24.24	39.37	59.23
19:00	8 hours	24.28	39.37	59.23
Maximum Change:		0.14	-0.02	0.00



Explanation:

- Location of Water Table Bracketing Monitoring Well
- Estimated Groundwater Flow Direction
- Location of Double Cased Monitoring Well
- Estimated Location of Removed Underground Storage Tanks
- Location of Water Supply Well
- Total BTEX Concentration Isopleth (ug/l)

COC Concentration Data

Sample #	Benzene (ug/l)	Toluene (ug/l)	Ethylbenzene (ug/l)	Total Xylenes (ug/l)	Total BTEX (ug/l)	MTBE (ug/l)	Napthalene (ug/l)	EDB (ug/l)
MW-1	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
RMW-3	7,940	18,600	2,720	14,070	43,330	550	1,790	13.9
RMW-5	DRY	DRY	DRY	DRY	DRY	DRY	DRY	DRY
MW-6	PROD	PROD	PROD	PROD	PROD	PROD	PROD	PROD
MW-8	145	356	24.5	1,087	1,612.5	12.0	36.9	NT
MW-9	2,470	10,200	2,030	15,140	29,840	124	612	2.3
MW-10	9,030	16,900	2,650	12,570	41,150	12,500	BDL	27.4
MW-11	BDL	BDL	8.5	BDL	8.5	BDL	8.3	BDL
MW-12	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
MW-13	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
MW-15	21.8	BDL	13.6	128.1	163.5	BDL	5.1	0.37
MW-16	DRY	DRY	DRY	DRY	DRY	DRY	DRY	DRY
MW-19	NL	NL	NL	NL	NL	NL	NL	NL
RMW-20	DRY	DRY	DRY	DRY	DRY	DRY	DRY	DRY
MW-21	DRY	DRY	DRY	DRY	DRY	DRY	DRY	DRY
MW-22	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
MW-23	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
DW-1	DRY	DRY	DRY	DRY	DRY	DRY	DRY	DRY
DW-2	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
SW-3	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL

Notes: Groundwater samples collected on September 11, 2007.

Contour interval = 15,000 ug/l

PROD = Free Phase Product encountered at time of sampling

BDL = Below Detection Limits

Contours Computer Generated using Surfer by Golden Graphics and Modified by MECI Personnel.

GRAPHIC SCALE

0 30 60 90 120

1IN = 60FT

ALL LOCATIONS ARE APPROXIMATE

Drawing Based on MECI Field Notes, Tax Maps and Survey of the Site Duncan Environmental Services dated March 15, 2007.

Total BTEX Isopleth Map

Gaston Food Mart
Gaston, South Carolina
SCDHEC Site ID 05986

Midlands Environmental Consultants, Inc.

JOB NO. 07-1297
DATE September 20, 2007
FIGURE 5

Crandall

C 132657

NON-HAZARDOUS WASTE MANIFEST

1. Generator's US EPA ID No. . . . . | Manifest Document No. 24068 | 2. Page 1 of 1

GENERATOR

3. Generator's Name and Mailing Address: Midlands Environmental
1144 Old Two Notch
Lexington, SC 29073

4. Generator's Phone ((803)) 808-2043

5. Transporter 1 Company Name: Crandall Corporation | 6. US EPA ID Number: SCD981864499 | A. Transporter's Phone: (803) 791-4800

7. Transporter 2 Company Name | 8. US EPA ID Number | B. Transporter's Phone

9. Designated Facility Name and Site Address:
Crandall Corporation
100 Rich-Lex Drive
Lexington, SC 29072

10. US EPA ID Number: SCD981864499 | C. Facility's Phone: (803) 791-4800

11. Waste Shipping Name and Description	12. Containers No.	Type	13. Total Quantity	14. Unit Wt./Vol.
a. Non - Hazardous Waste, Waste Water	001	TT	3165	G
b.				
c.				
d.				

D. Additional Descriptions for Materials Listed Above:
- Causars(08897)-200gals
- Gaston Food Mart (05986)-325gals
- St. matthews(01262)-250gals
- Richland Co. Landfill-(11888)80gals
- Causars(08897)-170gals.
- Johnys grocery(08605)-325gals
- Durhams Grocery(08099)-1000gals
- Gaston Food Mart-(05986)-325gals.
- Matth self service(08837)-250gals
- Macks(01253)-750gals.
- Zee Mart(07176)-55gals
- Zee Mart(07176)-75gals

E. Handling Codes for Wastes Listed Above

15. Special Handling Instructions and Additional Information:
- Carsons amaco(03027)-150gals.
  Service Call ID: GLB0124068
- Carsons amaco(03027)-150gals
- Bay Creek (18662)-325gals.

Emergency Response: Infotrac - 800-535-5053
Caller must ID Crandall as registrant

16. 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.

Printed/Typed Name: X Korey Garnett | Signature: Korey Garnett | Month 06 Day 06 Year 08

TRANSPORTER

17. Transporter 1 Acknowledgement of Receipt of Materials
Printed/Typed Name: Troy Backman | Signature: Troy Backman | Month 06 Day 06 Year 08

18. Transporter 2 Acknowledgement of Receipt of Materials
Printed/Typed Name | Signature | Month . Day . Year .

FACILITY

19. Discrepancy Indication Space

20. Facility Owner or Operator: Certification of receipt of waste materials covered by this manifest except as noted in item 19.
Printed/Typed Name | Signature | Month . Day . Year .

GENERATOR COPY

Midlands
Environmental
Consultants, Inc.

June 9, 2008

Mr. Read Miner, P.G., 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: Aggressive Fluid Vapor Recovery Report
Gaston Food Mart
Gaston, South Carolina
SCDHEC Site ID # 05986; CA #32348
MECI Project Number 08-1633A

Dear Mr. Miner,

Midlands Environmental Consultants, Inc. (MECI) is pleased to submit the attached Aggressive Fluid Vapor Recovery Report for the referenced site. This describes the aggressive fluid vapor recovery activities conducted at the site in general accordance with South Carolina Department of Health and Environmental Control (SCDHEC) guidelines.

AGGRESSIVE FLUID VAPOR RECOVERY

MECI personnel conducted an Aggressive Fluid Vapor Recovery (AFVR) event at Gaston Food Mart on May 28, 2008. The event was conducted on monitoring well MW-6 to remove free phase petroleum product. The event was conducted continuously for eight hours. Free phase petroleum product was detected in monitoring well MW-6 at a thickness of 0.19 feet prior to the AFVR event. The event was conducted by MECI personnel utilizing a MECI vacuum extraction unit. Free phase petroleum product was not detected in the well immediately following the event.

MECI treated the off gas produced during the AFVR event using an activated carbon filter system. Calculated total petroleum hydrocarbons removed from the well were 1.17 pounds or approximately 0.20 equivalent gallons. The average rate of removal for the hydrocarbons was calculated to be 0.15 pounds per hour. Concentrations of off gas produced during the event were recorded from 72.6 parts per million by volume (PPM) to 433 PPM. Measurements were obtained from vapors prior to entering off gas treatment. Vacuum readings were recorded at a range of 20.0 to 23.0 inches of mercury during the event. A complete compilation of measurements recorded is presented in attached Table 1A.

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

Differential pressures and groundwater levels were measured and recorded for selected site monitoring wells at regular intervals. This data is summarized in the attached Table 2A. Additional differential pressures and product/groundwater levels were measured and recorded for selected site monitoring wells at regular intervals. This data is summarized in the attached Table 3A. Monitoring well locations are depicted on attached Figure 1.

A total of 325 gallons of liquid was removed from monitoring well MW-6 during the event. Free Phase Petroleum product was not observed in the holding tank at the end of the event. The fluids produced were transported to Crandall Corporation of Lexington, S.C. for disposal. A disposal manifest for these fluids is attached at the end of this report.

QUALIFICATIONS OF REPORT

The activities and evaluative approaches used in this assignment are consistent with those normally employed in enhanced fluid recovery events and waste management projects of this type. Contents of this report are intended for the use by MECI and the South Carolina Department of Health and Environmental Control, 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.

Midlands Environmental appreciates the opportunity to offer our professional environmental related 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.

Clark S. Baer
Staff Biologist

William C. McClary P.G.
Senior Geologist

Attachments:

TABLE 1A
AFVR MONITORING DATA
GASTON FOOD MART
GASTON, SOUTH CAROLINA
MECI PROJECT NUMBER 08-1633A
SCDHEC SITE ID NUMBER 05986

Extraction Well	Date	Time (hh:mm)	Differential Time (hr)	Extraction Well Head Vacuum (in. Hg)	Off Gas Measurements				
					Concentration (PPM)	Offgas Velocity Ft/Min	Flow Rate CFM	Removal Rate Lbs/Hr	Interval Removal Lbs
MW-6	05/28/08	8:30	0.50	20.0	433	830	74.70	0.39	0.19
	05/28/08	9:00	0.50	20.0	365	850	76.50	0.34	0.17
	05/28/08	9:30	0.50	20.0	168	850	76.50	0.15	0.08
	05/28/08	10:00	0.50	20.0	136	750	67.50	0.11	0.06
	05/28/08	10:30	0.50	20.0	122	800	72.00	0.11	0.05
	05/28/08	11:00	0.50	20.0	124	800	72.00	0.11	0.05
	05/28/08	11:30	0.50	20.0	181	770	69.30	0.15	0.08
	05/28/08	12:00	0.50	20.0	143	860	77.40	0.13	0.07
	05/28/08	12:30	0.50	20.0	139	840	75.60	0.13	0.06
	05/28/08	13:00	0.50	22.0	169	550	49.50	0.10	0.05
	05/28/08	13:30	0.50	22.0	175	590	53.10	0.11	0.06
	05/28/08	14:00	0.50	22.0	123	640	57.60	0.09	0.04
	05/28/08	14:30	0.50	22.0	101	640	57.60	0.07	0.03
	05/28/08	15:00	0.50	22.0	84.8	640	57.60	0.06	0.03
	05/28/08	15:30	0.50	22.0	72.6	650	58.50	0.05	0.03
	05/28/08	16:00	0.50	23.0	228	560	50.40	0.14	0.07
	05/28/08	16:30	0.50	23.0	178	580	52.20	0.11	0.06
									TOTAL **1.17**

Well Data:			Pre AFVR Event			Post AFVR Event			Corrected Depth to Water Change (ft)
Well No.	Diameter (in)	Total Depth (ft)	Depth to Product (ft)	Depth to Water (ft)	Product Thickness (ft)	Depth to Product (ft)	Depth to Water (ft)	Product Thickness (ft)	
MW-6	2"	40.00	34.52	34.71	0.19	***	36.61	***	2.06

Vacuum Truck Information		Well ID	Stinger Depth
Subcontrator:	MECI	MW-6	36.00
Truck Operator:	R. Owen		
Stack I.D. (feet)	0.33 feet		
Corrected Depth to Water for MW-6 =		34.55	

Recovery / Disposal Information		
Hydro carbons Removed (vapor):	1.17	Pounds
Hydro carbons Removed (liquid):	0	Gallons
Total Hydrocarbons Removed:	0.20	Equivalent Gallons
Molecular Weight Utilized:	75	g / mole
Disposal Facility	Crandall Corporation	
Total Liquids Removed:	325	Gallons

Note: Stinger depth was re-adjusted at 15:30 EST on May 28, 2008. (see below)

Well No.	Stinger Depth (ft)
MW-6	37.50

TABLE 2A
DIFFERENTIAL PRESSURE AND GROUNDWATER DRAWDOWN DATA
GASTON FOOD MART
GASTON, SOUTH CAROLINA
MECI PROJECT NUMBER 08-1633A
SCDHEC SITE ID NUMBER 05986

DIFFERENTIAL PRESSURE DATA

		Well Designation:		
		MW-1	**MW-13**	**DW-1**
Nearest Extraction Well:		MW-6	MW-6	MW-6
Approximate Distance:		65 ft	32 ft	32 ft
Time	**Elapsed Time**	**Differential Pressure Readings (inches of water)**		
8:30	0.0	0	0	0
9:00	0.5	0	0	0
9:30	1.0	0	0	0
10:00	1.5	0	0	0
10:30	2.0	0	0	0
11:00	2.5	0	0	0
11:30	3.0	0	0	0
12:00	3.5	0	0	0
12:30	4.0	0	0	0
13:00	4.5	0	0	0
13:30	5.0	0	0	0
14:00	5.5	0	0	0
14:30	6.0	0	0	0
15:00	6.5	0	0	0
15:30	7.0	0	0	0
16:00	7.5	0	0	0
16:30	8.0	0	0	0
Maximum Change:		**0**	**0**	**0**

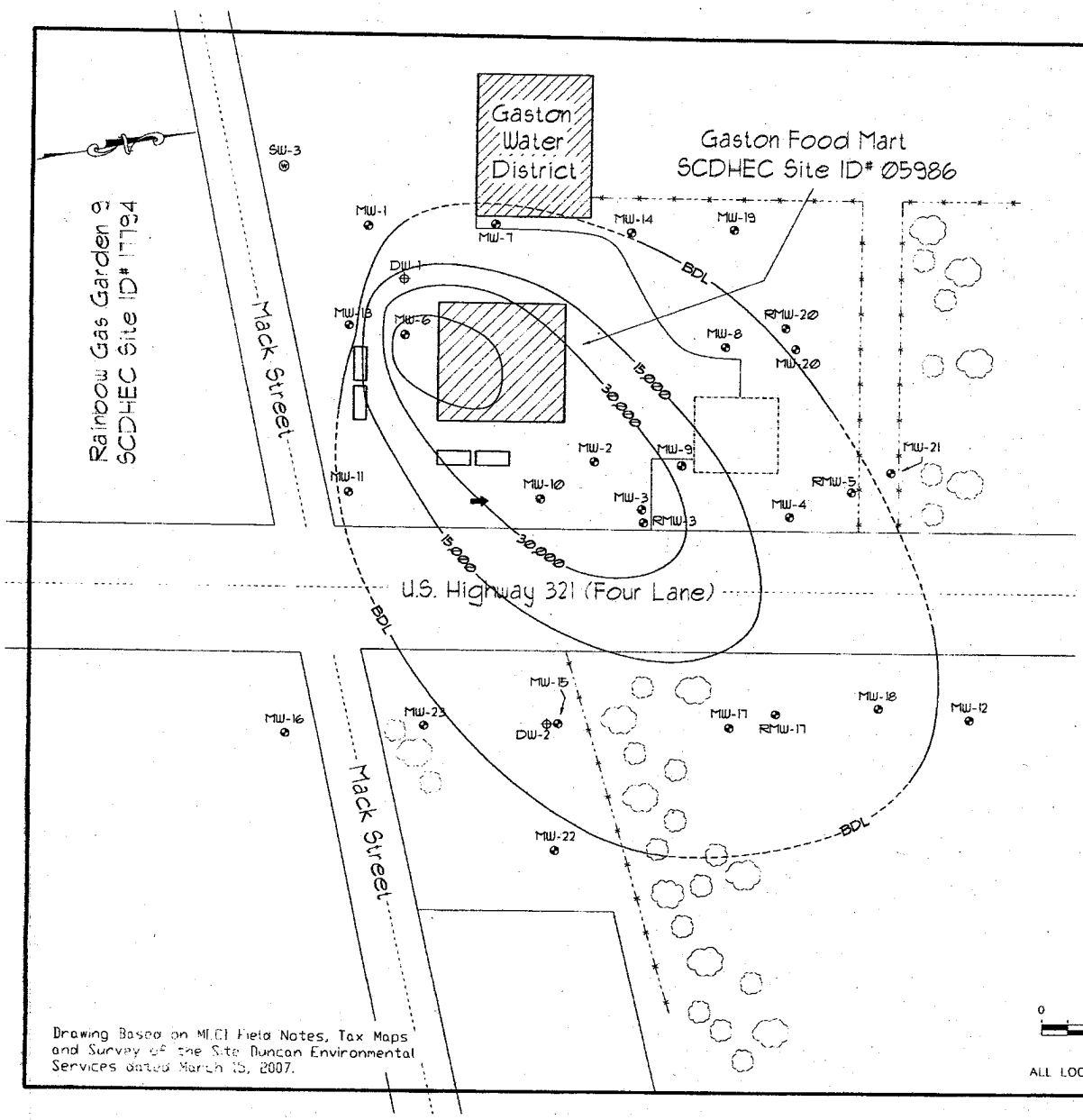
GROUNDWATER DRAWDOWN DATA

		Well Designation:		
		MW-1	**MW-13**	**DW-1**
Nearest Extraction Well:		MW-6	MW-6	MW-6
Approximate Distance:		65 ft	32 ft	32 ft
Time	**Elapsed Time**	**Depth to Liquid (feet below of casing):**		
Prior toAFVR		33.52	22.80	52.83
12:30	4 hours	33.95	22.86	52.83
16:30	8 hours	33.99	22.87	52.83
Maximum Change:		-0.47	-0.07	0.00

TABLE 3A
ADDITIONAL DIFFERENTIAL PRESSURE AND GROUNDWATER DRAWDOWN DATA
GASTON FOOD MART
GASTON, SOUTH CAROLINA
MECI PROJECT NUMBER 08-1633A
SCDHEC SITE ID NUMBER 05986

Well Product and Water Levels

Time	Elapsed Time	MW-1A		MW-7	
		Depth to Product (FT)	Depth to Water (FT)	Depth to Product (FT)	Depth to Water (FT)
8:30	0.0	***	***	***	***
9:00	0.5				
9:30	1.0	***	***	***	***
10:00	1.5				
10:30	2.0	***	***	***	***
11:00	2.5				
11:30	3.0	0	24.48	0	36.87
12:00	3.5				
12:30	4.0	0	24.47	0	36.88
13:00	4.5				
13:30	5.0	0	24.46	0	36.89
14:00	5.5				
14:30	6.0	0	24.44	0	36.91
15:00	6.5				
15:30	7.0	0	24.43	0	36.90
16:00	7.5				
16:30	8.0	0	24.43	0	36.90



Explanation:

- Location of Water Table Bracketing Monitoring Well
- Location of Double Cased Monitoring Well
- Location of Water Supply Well
- Estimated Groundwater Flow Direction
- Estimated Location of Removed Underground Storage Tanks
- Total BTEX Concentration Isopleth (ug/l)

COC Concentration Data

Sample #	Benzene (ug/l)	Toluene (ug/l)	Ethylbenzene (ug/l)	Total Xylenes (ug/l)	Total BTEX (ug/l)	MTBE (ug/l)	Naphthalene (ug/l)	EDB (ug/l)
MW-1	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
RMW-3	7,940	18,600	2,720	14,070	43,330	550	1,790	13.9
RMW-5	DRY	DRY	DRY	DRY	DRY	DRY	DRY	DRY
MW-6	PROD	PROD	PROD	PROD	PROD	PROD	PROD	PROD
MW-8	145	356	24.5	1,087	1,612.5	12.0	36.9	NT
MW-9	2,470	10,200	2,030	15,140	29,840	124	612	2.3
MW-10	9,030	16,900	2,650	12,570	41,150	12,500	BDL	27.4
MW-11	BDL	BDL	8.5	BDL	8.5	BDL	8.3	BDL
MW-12	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
MW-13	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
MW-15	21.8	BDL	13.6	128.1	163.5	BDL	5.1	0.37
MW-16	DRY	DRY	DRY	DRY	DRY	DRY	DRY	DRY
MW-19	NL	NL	NL	NL	NL	NL	NL	NL
RMW-20	DRY	DRY	DRY	DRY	DRY	DRY	DRY	DRY
MW-21	DRY	DRY	DRY	DRY	DRY	DRY	DRY	DRY
MW-22	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
MW-23	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
DW-1	DRY	DRY	DRY	DRY	DRY	DRY	DRY	DRY
DW-2	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
SW-3	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL

Notes: Groundwater samples collected on September 11, 2007.

Contour interval = 15,000 ug/l

PROD = Free Phase Product encountered at time of sampling

BDL = Below Detection Limits

Contours Computer Generated using Surfer by Golden Graphics and Modified by MECI Personnel.

GRAPHIC SCALE

0 30 60 90 120

1IN = 60FT

ALL LOCATIONS ARE APPROXIMATE

Drawing Based on MECI Field Notes, Tax Maps and Survey of the Site Duncan Environmental Services dated March 15, 2007.

Total BTEX Isopleth Map

Gaston Food Mart
Gaston, South Carolina
SCDHEC Site ID 05986

Midlands Environmental Consultants, Inc.

JOB NO. 07-1297
DATE September 20, 2007
FIGURE 5

Crandall

C 132657

NON-HAZARDOUS WASTE MANIFEST

1. Generator's US EPA ID No. | Manifest Document No. 24068 | 2. Page 1 of 1

GENERATOR

3. Generator's Name and Mailing Address: Midlands Environmental
1144 Old Two Notch
Lexington, SC 29073

4. Generator's Phone ((803)) 808-2043

5. Transporter 1 Company Name: Crandall Corporation
6. US EPA ID Number: SCD981864499
A. Transporter's Phone: (803) 791-4800

7. Transporter 2 Company Name
8. US EPA ID Number
B. Transporter's Phone

9. Designated Facility Name and Site Address:
Crandall Corporation
100 Rich-Lex Drive
Lexington, SC 29072
10. US EPA ID Number: SCD981864499
C. Facility's Phone: (803) 791-4800

11. Waste Shipping Name and Description	12. Containers No.	Type	13. Total Quantity	14. Unit Wt./Vol.
a. Non - Hazardous Waste, Waste Water	001	TT	3165.	G
b.				
c.				
d.				

D. Additional Descriptions for Materials Listed Above
•Causars(08897)-200gals • Johnys grocery(08605)-[illegible]
•Gaston Food Mart(05986)-325gals • Durhams Gro[illegible]SHIELD SERVICE(06099)-1000gals
•St. matthews(01262)-250gals
•Richland Co. Landfill-C(11888)-80gals • Gaston Food Mart-(05986)-325gals.
Causars(08897)-170gals.

E. Handling Codes for Wastes Listed Above

15. Special Handling Instructions and Additional Information
•Carsons amoco(03027)-150gals. • Matth Self Servic(08937)-250gals
Service Call ID: GLB0124068 • Macks(01253)-75gals.
•Carsons amoco(03027)-150gals • Zee Mart(07176)-55gals
•Bay Creek(18668)-325gals. • Zee Mart(07176)-75gals
Emergency Response: Infotrac - 800-535-5053
Caller must ID Crandall as registrant

TRANSPORTER

16. **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.
Printed/Typed Name: X Korey Garnett | Signature: Korey Garnett | Month 06 Day 06 Year 08

17. Transporter 1 Acknowledgement of Receipt of Materials
Printed/Typed Name: Troy Backman | Signature: Troy Backman | Month 06 Day 06 Year 08

18. Transporter 2 Acknowledgement of Receipt of Materials
Printed/Typed Name | Signature | Month Day Year

FACILITY

19. Discrepancy Indication Space

20. Facility Owner or Operator: Certification of receipt of waste materials covered by this manifest except as noted in item 19.
Printed/Typed Name | Signature | Month Day Year

GENERATOR COPY

UNDERGROUND STORAGE TANK (UST) OWNER/OPERATOR LEAD INFORMATION SHEET

1. CONTRACTOR OF CHOICE

As the UST Owner/Operator of UST Permit # 05986, I would like to use the contractor or person(s)* listed below and request that they represent me for: (check one)

( ) Initial Groundwater Assessment
( ) Other (please specify)_____
(X) all future assessments scopes. **

RECEIVED
MAY 28 2008
UNDERGROUND STORAGE TANK PROGRAM

Name of Contractor/Person(s): Midlands Environmental Consultants, Inc.

Address: 235-B Dooley Road, Lexington, SC 29073

Telephone Number: (803) 808-2043

Note: Site rehabilitation activities must be performed by a SCDHEC Certified Site Rehabilitation Contractor in accordance with R.61-98.

* indicate if the person listed is your own employee

** if you would like the contractor to perform all future assessment activities at this and/or other facilities that have confirmed releases, please provide a list of all sites on your letterhead and provide the information requested in items 2 and 3 below within the context of the letter.

2. FINANCIAL OR FAMILIAL RELATIONSHIP

Does a financial or familial relationship, as defined below, exist between you and the contractor/person that you listed above? _____ Yes _X_ No (please initial)

Financial Relationship: A connection or association through a material interest of sources of income which exceed five percent of annual gross income from a business entity.

Familial Relationship: A connection or association by family or relatives, in which a family member or relative has a material interest. Family or relatives include: father, mother, son, daughter, brother, sister, uncle, aunt, first cousin, nephew, niece, husband, wife, father-in-law, mother-in-law, son-in-law, daughter-in-law, stepfather, stepmother, stepson, stepdaughter, stepbrother, stepsister, half brother, half sister, grandparent, grandchild, great grandchild, step grandparent, step great grandparent, step grandchild, step great grandchild, or fiancee.

3. PAYMENT

You can pay the contractor and, upon the submittal of the canceled check (or a notarized statement from the contractor), be compensated from the SUPERB Account, or have payment issued directly from us to the contractor.

I request that payment be made to me after I have paid the contractor. _____ Yes _____ No (please initial)
I request that payment be made directly to the contractor. _X_ Yes _____ No (please initial)

Note: All costs must receive prior financial approval from the Department regardless of payment option.

Underground Storage Tank Owner/Operator Signature Daniel Frank Shumpert III

Date 5-27-08

UST DOCKET
15tech

Midlands
Environmental
Consultants, Inc.

May 21, 2008

Mr. Read S. Miner, P.G., Hydrogeologist
Southwestern 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 Assessment Activities
Gaston Food Mart
105 North Main Street
Gaston, South Carolina
SCDHEC Site ID# 05986, CA # 31487 & 32301
MECI Project Number 08-1501

Dear Mr. Miner,

Midlands Environmental Consultants Inc. (MECI) is pleased to submit the attached Report of Assessment Activities for the referenced site. This report describes assessment activities conducted at the site in general accordance with South Carolina Department of Health and Environmental Control (SCDHEC) guidelines.

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
Staff Scientist

William C. McClary, P.G.
Senior Geologist

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

TABLE OF CONTENTS

1.0 PROJECT INFORMATION

The subject site (Gaston Food Mart) is located at 105 North Main Street in Gaston, Lexington County, South Carolina (see Figure 1). One building is present on the subject site. The site is currently utilized as a gas service station. Asphalt predominately covers the majority of the property with several concrete pads located in the eastern portion of the property. A release of petroleum product was reported in November of 1991. Previous assessment activities have been conducted to determine the extent and severity of contamination emanating from the subject site.

Previously, two 5,000 gallon gasoline UST's, one 4,000 gallon gasoline UST, two 3,000 gallon gasoline UST's, and one 550 gallon gasoline UST were maintained at the subject site. These UST's were removed from the ground in November of 1991. The subject site currently maintains two 8,000 gallon gasoline UST's and one 10,000 gallon gasoline UST.

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

2.0 FIELD EXPLORATION

Field exploration conducted at the site included:

- field screening of groundwater and soil samples collected from the site utilizing direct push techniques and laboratory analysis; and
- construction and sampling of groundwater monitoring wells; and
- comprehensive survey; and
- monitoring well pad repair.

The monitoring well locations were selected based on the results of our field screening of groundwater samples, existing site conditions, estimated groundwater flow direction, drilling accessibility and the SCDHEC project manager instructions. The screening points are illustrated on Figure 4.

Following installation, the wells were surveyed by Construction Support Services of Columbia, SC (PLS # 14811). This survey was conducted to locate the horizontal and vertical position of the monitoring wells.

2.1 GROUNDWATER/DIRECT PUSH FIELD SCREENING

On March 14, 2007, seven direct push borings, (GPW-1 through GPW-9) were advanced at the site to collect groundwater samples. Each direct push sample was collected through disposable Teflon tubing and placed in a laboratory-supplied container for laboratory analysis. The borings were advanced by Geologic Exploration, Inc. of Statesville, North Carolina (S.C. Driller Certification: Johnny Burr # D1740). The sampling depth for each of the locations was based on the water table depth, the yield of the water bearing zone as evidenced by flow of water into the direct push apparatus, and the ability to reach the desired depth below ground surface (BGS). These samples were taken to determine the horizontal and vertical extent of the contaminant plume. The total footage for the direct push groundwater borings was 396 feet. The sample locations are presented on Figure 4 and analytical results are presented in Table 5. To prevent cross-contamination between borings the reusable down-hole portion of the direct push sampling device was cleaned between borings and new Teflon tubing was utilized at each location. Following the collection of the groundwater sample, the hole left open by the direct push apparatus was filled with a bentonite/portland grout slurry.

The groundwater samples obtained by MECI personnel were sent to Pace Analytical Services, Inc. of Huntersville, NC (SCDHEC Laboratory Certification #99006) for laboratory analysis. These samples were tested for the presence of BTEX, Naphthalene and Methyl-tert butyl ether by EPA Method 8260B.

2.2 SOIL SAMPLING AND CHEMICAL ANALYSES

On April 25, 2008, four direct push borings, GPS-1 through GPS-4, were advanced at the site to collect soil samples and stratigraphic data. The borings were advanced by Geologic Exploration (James Hess # D1929). Using direct push techniques, continuous soil samples were collected throughout the boring depth in disposable plastic liner. The locations of the soil collections are presented on Figure 2 and analytical results are presented in Table 2. To prevent cross-contamination between borings, the reusable down-hole portion of the sampling device was cleaned between borings. New plastic liner was utilized at each location. Following the collection of the soil sample,

the hole left open by the sampling was back-filled with a bentonite/portland grout slurry. Test Boring Records showing soil descriptions and field screening results are included in Appendix A. Selected samples were placed in laboratory supplied containers and preserved for laboratory analysis. The selected soil samples were analyzed for BTEX, MTBE and Naphthalene (EPA Method 5035) and Grain Size. Soil analytical results are included in Table 2 and laboratory reports are included in Appendix B.

As requested by SCDHEC project manager, samples were collected from the drill cuttings from MW-17RR. These samples were analyzed for BTEX, MTBE and Naphthalene (EPA Method 5035).

2.3 MONITORING WELL INSTALLATION

From April 2, 2008 through May 2, 2008 six single cased monitoring wells (MW-16R, MW-17R, MW-17RR, MW-24, MW-25, and MW-26) were installed at the subject site. These wells were installed by Geologic Exploration, of Statesville, North Carolina (S.C. Driller Certification: Brian Thomas # B1465, Mark Gettys #A1086, and Mike McConnahey # A1276). These single cased, monitoring wells were installed using a truck-mounted drilling rig, employing an 8-inch outer diameter hollow-stem augers to construct the borehole. Monitoring well MW-16R was installed to a depth of 45.0 feet below ground surface and screened from 30.0 feet BGS to 45.0 feet BGS. Monitoring well MW-17R was installed to a depth of 48.0 feet below ground surface and screened from 33.0 feet BGS to 48.0 feet BGS. Monitoring wells MW-17RR and MW-26 were installed to a depth of 75.0 feet BGS and screened from 45.0 feet BGS to 75.0 feet BGS. Monitoring well MW-24 was installed to depth of 44.0 feet BGS and screened from 29.0 feet BGS to 44.0 feet BGS. Monitoring well MW-25 was installed to a depth of 60.0 feet BGS and screened from 40.0 feet BGS to 60.0 feet BGS. Monitoring wells MW-17R, MW-17RR, and MW-25 were determined to be dry at time of sampling.

Drill cuttings were containerized and transported to Waste Management/Richland Landfill, Elgin, SC by MECI. A total of 2.93 tons was disposed of in this manner. A disposal manifest for these soils is attached at the end of this report.

Following completion of the monitoring wells, the wells were developed by bailing until they were determined to be functioning properly and turbidity was reduced. Test Boring Records showing soil descriptions and well installation details are included in Appendix A. The drummed purge water was

treated using a portable activated carbon unit. A total of one (1) drum of purge/development water was disposed of in this manner. A disposal manifest for the drummed purge water is attached at the end of this report.

2.4 MONITORING WELL PAD REPAIR

On April 3, 2008, the well pad for MW-12 was repaired. Prior to the pad repair of MW-12, the casing from MW-12 was an approximate two foot stick-up with no protective outer cover. After consultation with SCDHEC project manager, MW-12 was made a flush mount monitoring well with a lockable cover.

2.5 MONITORING WELL SAMPLING AND CHEMICAL ANALYSES

On May 6, 2008, monitoring wells MW-1, MW-1A, RMW-3, RMW-5, MW-7, MW-8 through MW-15, MW-16R, MW-19, MW-20 through MW-24, DW-1, and DW-2 were sampled. Monitoring wells MW-1, MW-1A, RMW-3, RMW-5, MW-7 through MW-15, MW-19 through MW-23, DW-1, and DW-2 bracketed the watertable and were not purged prior to sampling. Monitoring well MW-6 contained 0.14 feet of free phase petroleum product and was not sampled. Newly installed monitoring wells MW-16R and MW-24 were purged and sampled. These wells were purged by bailing at least three well volumes of water from each well or until all available water had been evacuated, whichever occurred first. Field measurements of pH, conductivity, temperature and dissolved oxygen were obtained before, during and after the well purging process. Monitoring wells MW-8, DW-1 and DW-2 contained insufficient water for field measurements. Table 1 presents the results of the field measurements obtained. The groundwater samples obtained were sent to Pace Analytical Services, Inc. of Huntersville, NC (SCDHEC Laboratory Certification #99006) for analysis.

Newly installed monitoring wells MW-17R, MW-17RR, MW-25, and MW-26 were determined to be dry at time of sampling. Monitoring well MW-4 was not located during the May 6, 2008 sampling event.

Groundwater samples from monitoring wells MW-1, MW-1A, RMW-3, RMW-5, MW-7, MW-8 through MW-15, MW-16R, MW-19, MW-20 through MW-24, DW-1, and DW-2 were analyzed for volatile organic compounds including BTEX, naphthalene, and methyl-tertiary butyl ether, and 8 oxygenates (EPA Method 8260B) and ethylene dibromide (EPA Method 8011). Due to insufficient

water, monitoring well DW-1 was only sampled for BTEX, naphthalene, and methyl-tertiary butyl ether (EPA Method 8260B). The results of the laboratory analyses are discussed in Section 3.1, summarized in Table 3 and presented in Appendix B.

3.0 TEST RESULTS AND EVALUATION

The following sections discuss groundwater test results for the subject site.

3.1 SOIL ANALYTICAL RESULTS

As discussed in Section 2.2, four direct push soil borings were advanced at the site to collect soil samples and stratigraphic data. Additionally, samples were collected from the drill cuttings from MW-17RR. The selected soil samples were analyzed for BTEX, MTBE, and naphthalene (EPA Method 5035) and Grain Size. The results of the analyses for each soil sample and specific parameters are listed on Table 2, and the detection limit for each parameter is provided in the laboratory reports (Appendix B).

3.2 GROUNDWATER ANALYTICAL RESULTS

As discussed in Section 2.5, groundwater samples obtained from the monitoring wells were analyzed for dissolved phase petroleum constituents. The analytical results indicate petroleum impact to the local groundwater with the highest concentrations detected in the area of the former UST basin. Free phase petroleum product was detected in MW-6 at a thickness of 0.14 feet. The analytical results indicate total BTEX concentrations in the shallow aquifer ranging from levels below detection limits (BDL) to the highest dissolved concentration of 44,590 ug/l in monitoring well RMW-3. The analytical results indicate MTBE concentrations in the shallow aquifer ranging from levels below detection limits (BDL) to the highest dissolved concentration of 11,500 ug/l in monitoring well MW-10. Results of the analyses for each monitoring well and specific parameters are listed on Table 2 and the detection limit for each parameter is provided in the laboratory reports (Appendix B).

4.0 ASSESSMENT SUMMARY

Groundwater elevation data for the May 6, 2008, gauging event was plotted, and points of equal elevation were interpolated between the monitoring wells. A groundwater contour map of the surficial aquifer was thus prepared and is presented on Figure 3. Free phase petroleum product was detected in MW-6 at a thickness of 0.14 feet. The analytical results indicate total BTEX concentrations in the shallow aquifer ranging from levels below detection limits (BDL) to the highest dissolved concentration of 44,590 ug/l in monitoring well RMW-3. The analytical results indicate

MTBE concentrations in the shallow aquifer ranging from levels below detection limits (BDL) to the highest dissolved concentration of 11,500 ug/l in monitoring well MW-10. Figure 5 depicts graphically the concentrations of Total BTEX (indicator for plume migration) dissolved in the groundwater at the site. Figure 6 depicts graphically the concentrations of MTBE dissolved in the groundwater at the site.

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. The general subsurface conditions utilized in our evaluation have been based on interpretation of subsurface data between borings. Contents of this report are intended for the sole use by the South Carolina Department of Health and Environmental Control, 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
FIELD PARAMETERS
GASTON FOOD MART
GASTON, SOUTH CAROLINA
MECI PROJECT NUMBER 08-1501
SCDHEC SITE ID NUMBER 05986

Well Number	Sample Date	CO_2 (mg/l)	Dissolved Oxygen (mg/l)	Temperature (^{0} Celsius)	pH (Initial)	pH (Final)	Conductivity (Initial)	Conductivity (Final)	Screened Interval (feet)	Depth to Product (feet)	Depth to Water (feet)	Product Thickness (feet)	Well-head Elevation	Groundwater Elevation
MW-1	9/11/2007	115	0.91	24.4	4.61	NT	57.7	NT	25-40	---	35.59	---	104.52	68.93
	5/6/2008	110	3.14	24.3	5.83	NT	68.2	NT		---	36.50	---	104.52	68.02
MW-1A	5/6/2008	100	0.96	22.7	6.50	NT	183.0	NT	24-44	---	24.85	---	104.07	79.22
RMW-3	9/11/2007	185	0.57	23.6	5.62	NT	90.1	NT	30-40	---	34.62	---	100.61	65.99
	5/6/2008	185	0.67	23.5	6.21	NT	105.0	NT		---	34.91	---	100.61	65.70
RMW-5	9/11/2007	DRY	DRY	DRY	DRY	DRY	DRY	DRY	10-20	---	DRY	---	93.57	DRY
	5/6/2008	35	4.26	18.6	6.85	NT	26.2	NT		---	8.75	---	93.57	84.82
MW-6	9/11/2007	FP	FP	FP	FP	FP	FP	FP	22-42	35.66	35.69	0.03	103.95	68.29
	5/6/2008	FP	FP	FP	FP	FP	FP	FP		34.52	34.66	0.14	103.95	69.41
MW-7	9/11/2007	NL	NL	NL	NL	NL	NL	NL	22-42	---	NL	---	104.44	NL
	5/6/2008	15	5.03	23.3	7.16	NT	27.9	NT		---	36.62	---	104.44	67.82
MW-8	9/11/2007	NT	NT	NT	NT	NT	NT	NT	20-40	---	39.34	---	97.72	58.38
	5/6/2008	INS	INS	INS	INS	INS	INS	INS		---	39.30	---	97.72	58.42
MW-9	9/11/2007	150	0.38	22.8	5.11	NT	58.5	NT	24-44	---	35.47	---	98.87	63.40
	5/6/2008	NT	0.97	23.5	6.78	NT	188.4	NT		---	41.09	---	98.87	57.78
MW-10	9/11/2007	195	0.51	23.5	5.72	NT	104.9	NT	24-44	---	35.25	---	102.57	67.32
	5/6/2008	165	0.77	23.4	6.44	NT	151.4	NT		---	35.15	---	102.57	67.42
MW-11	9/11/2007	75	0.64	23.7	5.51	NT	35.8	NT	22-42	---	27.47	---	104.32	76.85
	5/6/2008	50	0.74	22.8	6.65	NT	85.5	NT		---	25.87	---	104.32	78.45
MW-12	9/11/2007	25	0.88	20.7	5.67	NT	38.8	NT	30-50	---	35.16	---	93.93	58.77
	5/6/2008	35	1.08	20.0	7.18	NT	71.0	NT		---	33.25	---	93.93	60.68
MW-13	9/11/2007	70	1.28	24.1	4.45	NT	48.6	NT	25-35	---	24.72	---	104.77	80.05
	5/6/2008	55	4.18	23.3	6.25	NT	72.0	NT		---	23.03	---	104.77	81.74
MW-14	5/6/2008	45	3.96	21.5	6.63	NT	119.7	NT	35-45	---	40.51	---	103.69	63.18
MW-15	9/11/2007	100	0.39	21.1	5.12	NT	43.7	NT	35-45	---	38.40	---	103.33	64.93
	5/6/2008	20	3.10	20.3	6.87	NT	37.9	NT		---	35.90	---	103.33	67.43
MW-16	9/11/2007	80	0.24	21.3	5.72	NT	49.2	NT	31-41	---	35.12	---	106.43	71.31
	5/6/2008	NT	NT	NT	NT	NT	NT	NT		---	NT	---	106.43	NT
MW-16R	5/6/2008	200+	0.76	20.2	8.43	6.95	49.6	37.1	30-45	---	35.74	---	106.29	70.55
MW-17R	5/6/2008	DRY	DRY	DRY	DRY	DRY	DRY	DRY	33-48	---	DRY	---	98.22	DRY
MW-17RR	5/6/2008	DRY	DRY	DRY	DRY	DRY	DRY	DRY	45-75	---	DRY	---	98.55	DRY
MW-19	9/11/2007	NL	NL	NL	NL	NL	NL	NL	51-61	---	NL	---	98.96	NL
	5/6/2008	20	3.31	20.7	7.01	NT	74.4	NT		---	54.48	---	98.96	44.48
RMW-20	9/11/2007	DRY	DRY	DRY	DRY	DRY	DRY	DRY	16-26	---	DRY	---	98.69	DRY
	5/6/2008	65	1.03	19.4	6.54	NT	43.8	NT		---	19.56	---	98.69	79.13
MW-21	9/11/2007	DRY	DRY	DRY	DRY	DRY	DRY	DRY	3-13	---	DRY	---	91.96	DRY
	5/6/2008	45	1.21	18.7	7.01	NT	49.9	NT		---	5.74	---	91.96	86.22
MW-22	9/11/2007	45	0.39	20.7	4.67	NT	36.7	NT	34-44	---	41.65	---	101.82	60.17
	5/6/2008	60	6.69	19.9	6.81	NT	46.5	NT		---	41.68	---	101.82	60.14
MW-23	9/11/2007	55	0.60	20.8	4.91	4.39	71.4	68.0	33-43	---	36.62	---	104.47	67.85
	5/6/2008	35	1.14	20.4	6.55	NT	72.2	NT		---	35.50	---	104.47	68.97
MW-24	5/6/2008	65	1.45	22.1	6.45	6.55	63.1	150.5	29-44	---	37.47	---	103.39	65.92
MW-25	5/6/2008	DRY	DRY	DRY	DRY	DRY	DRY	DRY	40-60	---	DRY	---	102.18	DRY
MW-26	5/6/2008	DRY	DRY	DRY	DRY	DRY	DRY	DRY	45-75	---	DRY	---	91.81	DRY
DW-1	9/11/2007	DRY	DRY	DRY	DRY	DRY	DRY	DRY	40-45	---	DRY	---	104.79	DRY
	5/6/2008	INS	INS	INS	INS	INS	INS	INS			52.81	---	104.79	51.98
DW-2	9/11/2007	NT	NT	NT	NT	NT	NT	NT	50-55	---	55.12	---	103.32	48.20
	5/6/2008	INS	INS	INS	INS	INS	INS	INS		---	54.75	---	103.32	48.57

Notes:

1. mg/l = milligrams per liter.
2. NT = Not Tested
3. NL = Well not located during sampling.
4. FP = Free Phase Product encountered during sampling
5. Groundwater depths were measured from the top of the PVC riser pipe.
6. Groundwater levels measured on 5/6/08.
7. Dissolved oxygen, dissolved carbon dioxide, initial pH, initial conductivity, and temperature measurements obtained 5/6/08
8. Groundwater Elevation for MW-6 corrected for the presence of Free Phase Product based on a specific Gravity of Fuel of 0.85.
9. INS = Insufficient water for field measurements, only samples were taken.
10. DRY = Well was dry at the time of sampling.

TABLE 2
SOIL ANALYTICAL RESULTS
GASTON FOOD MART
GASTON, SOUTH CAROLINA
MECI PROJECT NUMBER 08-1501
SCDHEC SITE ID NUMBER 05986

Boring Number	Sample Date	Depth (feet)	Benzene (µg/kg)	Toluene (µg/kg)	Ethylbenzene (µg/kg)	Total Xylenes (µg/kg)	Total BTEX (µg/kg)	MTBE (µg/kg)	Naphthalene (µg/kg)
GPS-2	4/25/2008	40-44	BDL	BDL	BDL	BDL	BDL	BDL	BDL
GPS-3	4/25/2008	35-37	BDL	BDL	BDL	BDL	BDL	BDL	BDL
GPS-4	4/25/2008	34-36	BDL	BDL	BDL	BDL	BDL	BDL	BDL
MW-17RR	5/1/2008	40	BDL	BDL	BDL	**14.5**	**14.5**	BDL	BDL
MW-17RR	5/1/2008	45	BDL	**11.4**	**20.2**	**117**	**148.6**	BDL	BDL
MW-17RR	5/1/2008	50	BDL	**64.0**	**23.7**	**118**	**205.7**	BDL	BDL
MW-17RR	5/1/2008	55	BDL	**10**	**19.4**	**108**	**137.4**	BDL	BDL
MW-17RR	5/1/2008	60	BDL	**6.8**	**7.4**	**41.0**	**55.2**	BDL	BDL
MW-17RR	5/1/2008	65	BDL	**6.1**	**12.8**	**74.9**	**93.8**	BDL	BDL
MW-17RR	5/1/2008	70	BDL	**5.9**	**12.3**	**68.6**	**86.8**	BDL	BDL
MW-17RR	5/1/2008	75	BDL	**6.1**	**10.7**	**61.5**	**78.3**	BDL	BDL

Notes:
1. BDL = Below Sample Detection Limit
2. mg/kg = milligrams per kilogram
3. µg/kg = micrograms per kilogram
4. MTBE = Methyl-Tert-Butyl-Ether

TABLE 3
GROUNDWATER ANALYTICAL RESULTS
GASTON FOOD MART
GASTON, SOUTH CAROLINA
MECI PROJECT NUMBER 08-1501
SCDHEC SITE ID # 05986

Well Number	Sample Date	Benzene (µg/l)	Toluene (µg/l)	Ethylbenzene (µg/l)	Total Xylenes (µg/l)	Total BTEX (µg/l)	MTBE (µg/l)	EDB (µg/l)	1,2 DCA (µg/l)	Naphthalene (µg/l)
MW-1	9/11/2007	<5.0	<5.0	<5.0	<10.0	BDL	<5.0	<0.020	<5.0	<5.0
	5/6/2008	<5.0	<5.0	<5.0	<15.0	BDL	<5.0	<0.020	NT	<5.0
MW-1A	5/6/2008	**84.3**	**288**	**184**	**697**	**1,253.3**	<25.0	<0.020	NT	**52.3**
RMW-3	9/11/2007	**7,940**	**18,600**	**2,720**	**14,070**	**43,330**	**550**	**13.9**	<500	**1,790**
	5/6/2008	**8,760**	**18,900**	**2,630**	**14,300**	**44,590**	**1,150**	**16.3**	NT	**585**
RMW-5	9/11/2007	DRY	DRY	DRY	DRY	DRY	DRY	DRY	DRY	DRY
	5/6/2008	<5.0	<5.0	<5.0	<15.0	BDL	<5.0	<0.020	NT	<5.0
MW-6	9/11/2007	FP	FP	FP	FP	FP	FP	FP	FP	FP
	5/6/2008	FP	FP	FP	FP	FP	FP	FP	FP	FP
MW-7	9/11/2007	NT	NT	NT	NT	NT	NT	NT	NT	NT
	5/6/2008	<5.0	<5.0	<5.0	<15.0	BDL	<5.0	<0.020	NT	<5.0
MW-8	9/11/2007	**145**	**356**	**24.5**	**1,087**	**1,612.5**	**12.0**	NT	<10.0	**36.9**
	5/6/2008	**208**	**1,430**	**197**	**3,350**	**5,185**	<50.0	<0.020	NT	**106**
MW-9	9/11/2007	**2,470**	**10,200**	**2,030**	**15,140**	**29,840**	**124**	**2.3**	<100	**612**
	5/6/2008	**217**	**1,130**	**387**	**3,080**	**4,814**	<50.0	<0.020	NT	**246**
MW-10	9/11/2007	**9,030**	**16,900**	**2,650**	**12,570**	**41,150**	**12,500**	**27.4**	<500	<500
	5/6/2008	**5,500**	**9,880**	**1,600**	**10,300**	**27,280**	**11,500**	**13.0**	NT	**748**
MW-11	9/11/2007	<5.0	<5.0	**8.5**	<10.0	**8.5**	<5.0	<0.020	<5.0	**8.3**
	5/6/2008	<5.0	<5.0	**26.8**	<15.0	**26.8**	<5.0	<0.020	NT	**9.8**
MW-12	9/11/2007	<5.0	<5.0	<5.0	<10.0	BDL	<5.0	<0.020	<5.0	<5.0
	5/6/2008	<5.0	<5.0	<5.0	<15.0	BDL	<5.0	<0.020	NT	<5.0
MW-13	9/11/2007	<5.0	<5.0	<5.0	<10.0	BDL	<5.0	<0.020	<5.0	<5.0
	5/6/2008	<5.0	<5.0	<5.0	<15.0	BDL	<5.0	<0.020	NT	<5.0
MW-14	9/11/2007	NT	NT	NT	NT	NT	NT	NT	NT	NT
	5/6/2008	<5.0	<5.0	<5.0	<15.0	BDL	<5.0	<0.020	NT	<5.0
MW-15	9/11/2007	**21.8**	<5.0	**13.6**	**128.1**	**163.5**	<5.0	**0.37**	<5.0	**5.1**
	5/6/2008	<5.0	<5.0	<5.0	**16.2**	**16.2**	<5.0	**0.16**	NT	<5.0
MW-16	9/11/2007	DRY	DRY	DRY	DRY	DRY	DRY	DRY	DRY	DRY
MW-16R	5/6/2008	<5.0	<5.0	<5.0	<15.0	BDL	<5.0	<0.020	NT	<5.0
MW-17R	5/6/2008	DRY	DRY	DRY	DRY	DRY	DRY	DRY	DRY	DRY
MW-17RR	5/6/2008	DRY	DRY	DRY	DRY	DRY	DRY	DRY	DRY	DRY
MW-19	9/11/2007	NT	NT	NT	NT	NT	NT	NT	NT	NT
	5/6/2008	<5.0	<5.0	<5.0	<15.0	BDL	<5.0	<0.020	NT	<5.0
RMW-20	9/11/2007	DRY	DRY	DRY	DRY	DRY	DRY	DRY	DRY	DRY
	5/6/2008	<5.0	<5.0	<5.0	<15.0	BDL	<5.0	<0.020	NT	<5.0
MW-21	9/11/2007	DRY	DRY	DRY	DRY	DRY	DRY	DRY	DRY	DRY
	5/6/2008	<5.0	<5.0	<5.0	<15.0	BDL	<5.0	<0.020	NT	<5.0
MW-22	9/11/2007	<5.0	<5.0	<5.0	<10.0	BDL	<5.0	<0.020	<5.0	<5.0
	5/6/2008	<5.0	<5.0	<5.0	<15.0	BDL	<5.0	<0.020	NT	<5.0
MW-23	9/11/2007	<5.0	<5.0	<5.0	<10.0	BDL	<5.0	<0.020	<5.0	<5.0
	5/6/2008	**35.6**	<5.0	<5.0	**22.8**	**58.4**	<5.0	**0.63**	NT	<5.0
MW-24	5/6/2008	**620**	**1,790**	**1,000**	**4,390**	**7,800**	<100	**2.8**	NT	**234**
MW-25	5/6/2008	DRY	DRY	DRY	DRY	DRY	DRY	DRY	DRY	DRY
MW-26	5/6/2008	DRY	DRY	DRY	DRY	DRY	DRY	DRY	DRY	DRY
DW-1	9/11/2007	DRY	DRY	DRY	DRY	DRY	DRY	DRY	DRY	DRY
	5/6/2008	<5.0	<5.0	<5.0	<15.0	BDL	<5.0	NT	NT	**32.3**
DW-2	9/11/2007	<5.0	<5.0	<5.0	<10.0	BDL	<5.0	NT	NT	<5.0
	5/6/2008	<5.0	<5.0	<5.0	<15.0	BDL	<5.0	<0.020	NT	<5.0
SW-3	9/11/2007	<5.0	<5.0	<5.0	<10.0	BDL	<5.0	<0.020	NT	<5.0

Notes:
1. BDL = Below Practical Quantitative Limits
2. µg/l = micrograms per liter
3. mg/l = milligrams per liter
4. MTBE = Methyl-Tertiary-Butyl Ether
5. EDB = Ethylene Dibromide
6. FP= Not Sampled Due to Free Phase Petroleum Product
7. NT = Not Tested

TABLE 4
GROUNDWATER ANALYTICAL RESULTS (OXYGENATES)
GASTON FOOD MART
GASTON, SOUTH CAROLINA
MECI PROJECT NUMBER 08-1501
SCDHEC SITE ID NUMBER 05986

Well Number	Sample Date	Ethyl tert-butyl ether (µg/l)	tert-Amylmethyl eather (µg/l)	Diisopropyl ether (µg/l)	tert-Butyl Alcohol (µg/l)	3,3-Dimethyl-1-butanol (µg/l)	tert-Butyl Formate (µg/l)	Ethanol (µg/l)	tert-Amyl alcohol (µg/l)
MW-1	5/6/2008	<10.0	<10.0	<5.0	<100	<100	<50.0	<200	<100
MW-1A	5/6/2008	<50.0	<50.0	<25.0	<500	<500	<250	<1,000	<500
RMW-3	5/6/2008	<500	<500	<250	<5,000	<5,000	**2,840**	<10,000	<5,000
RMW-5	5/6/2008	<10.0	<10.0	<5.0	<100	<100	<50.0	<200	<100
MW-6	5/6/2008	FP	FP	FP	FP	FP	FP	FP	FP
MW-7	5/6/2008	<10.0	<10.0	<5.0	<100	<100	<50.0	<200	<100
MW-8	5/6/2008	<100	<100	<50.0	<1,000	<1,000	<500	<2,000	<1,000
MW-9	5/6/2008	<100	<100	<50.0	<1,000	<1,000	<500	<2,000	<1,000
MW-10	5/6/2008	<500	<500	<250	<5,000	<5,000	**4,170**	<10,000	<5,000
MW-11	5/6/2008	<10.0	<10.0	<5.0	<100	<100	<50.0	<200	<100
MW-12	5/6/2008	<10.0	<10.0	<5.0	<100	<100	<50.0	<200	<100
MW-13	5/6/2008	<10.0	<10.0	<5.0	<100	<100	<50.0	<200	<100
MW-14	5/6/2008	<10.0	<10.0	<5.0	<100	<100	<50.0	<200	<100
MW-15	5/6/2008	<10.0	<10.0	<5.0	<100	<100	<50.0	<200	<100
MW-16R	5/6/2008	<10.0	<10.0	<5.0	<100	<100	<50.0	<200	<100
MW-19	5/6/2008	<10.0	<10.0	<5.0	<100	<100	<50.0	<200	<100
RMW-20	5/6/2008	<10.0	<10.0	<5.0	<100	<100	<50.0	<200	<100
MW-21	5/6/2008	<10.0	<10.0	<5.0	<100	<100	<50.0	<200	<100
MW-22	5/6/2008	<10.0	<10.0	<5.0	<100	<100	<50.0	<200	<100
MW-23	5/6/2008	<10.0	<10.0	<5.0	<100	<100	<50.0	<200	<100
MW-24	5/6/2008	<200	<200	<100	<2,000	<2,000	<1,000	<4,000	<2,000
DW-1	5/6/2008	<10.0	<10.0	<5.0	<100	<100	<50.0	<200	<100
DW-2	5/6/2008	<10.0	<10.0	<5.0	<100	<100	<50.0	<200	<100

Notes:

1. BDL = Below Practical Quantitative Limits
2. ug/l = micrograms per liter
3. FP = Free phase petroleum product detected

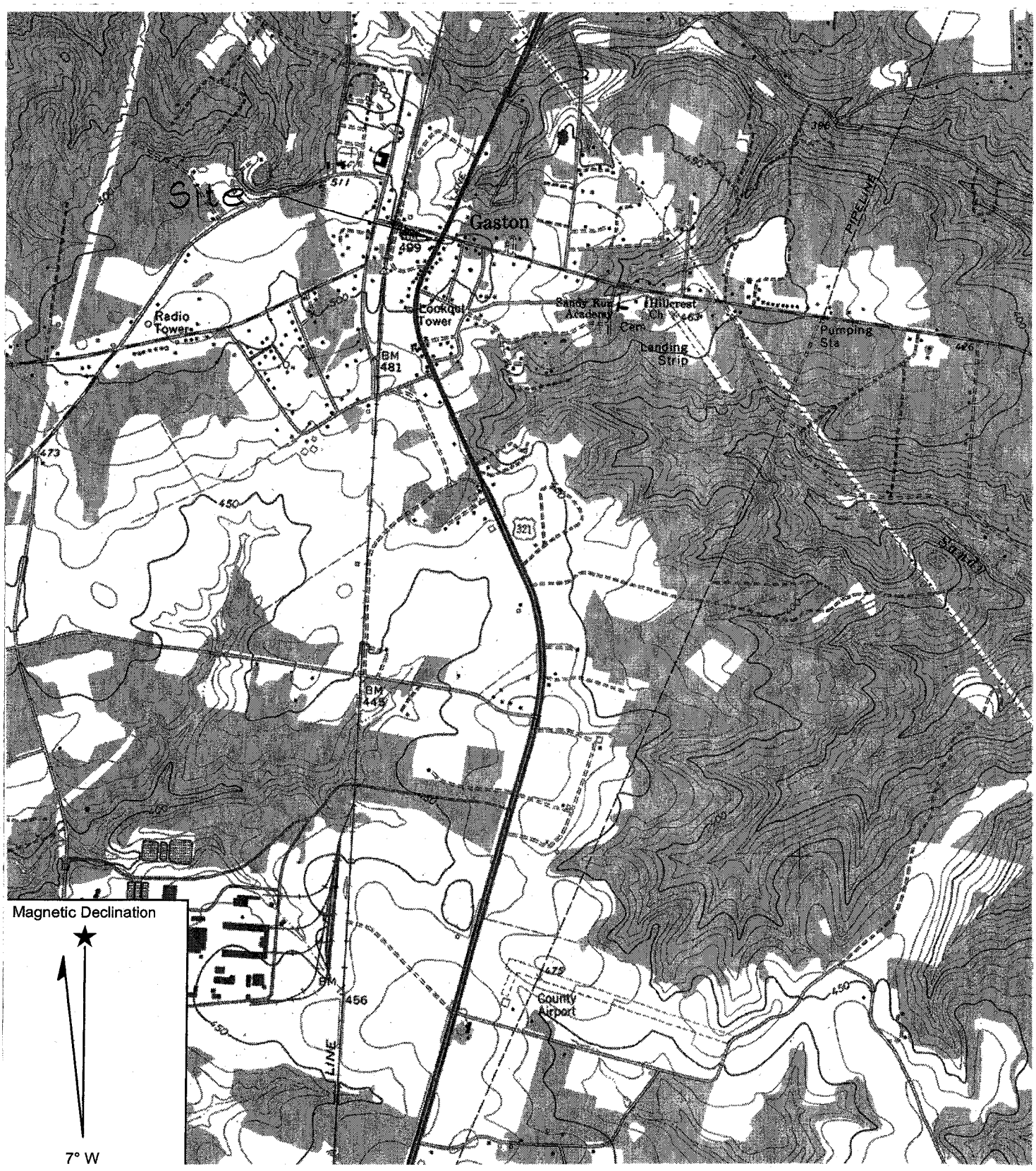
TABLE 5
FIELD SCREENING ANALYTICAL RESULTS
GASTON FOOD MART
GASTON, SOUTH CAROLINA
MECI PROJECT NUMBER 07-1501
SCDHEC ID NUMBER 05986

Boring Number	Sample Depth (Feet)	Benzene (µg/l)	Toluene (µg/l)	Ethylbenzene (µg/l)	Total Xylenes (µg/l)	Total BTEX (µg/l)	MTBE (µg/l)	Naphthalene (µg/l)
GPW-1	34-38	DRY	DRY	DRY	DRY	DRY	DRY	DRY
GPW-2	41-45	DRY	DRY	DRY	DRY	DRY	DRY	DRY
GPW-3	34-38	**1,170**	**4,510**	**739**	**3,400**	**9,819**	**179**	**187**
GPW-4	34-38	**59.9**	**190**	**135**	**299**	**683.9**	**8.8**	**62.6**
GPW-5	36-40	**618**	**3,580**	**735**	**3,530**	**8,463**	BDL	**287**
GPW-6	39-43PR	DRY	DRY	DRY	DRY	DRY	DRY	DRY
GPW-7	35-39PR	DRY	DRY	DRY	DRY	DRY	DRY	DRY
GPW-8	40-44PR	DRY	DRY	DRY	DRY	DRY	DRY	DRY
GPW-9	67-71PR	**5.0**	BDL	BDL	BDL	**5.0**	BDL	BDL

Notes:

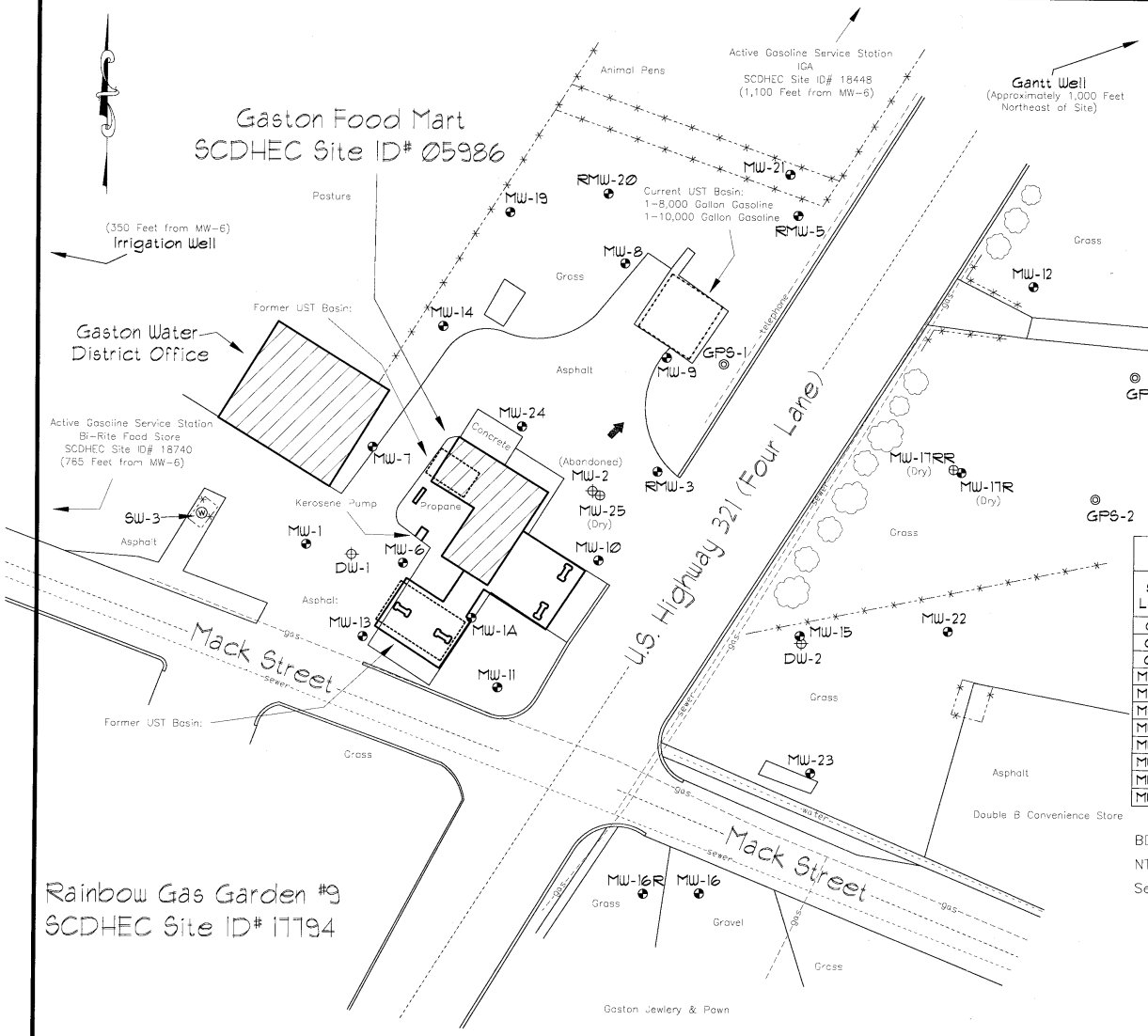
1. BDL = Below Practical Quantitative Limits
2. µg/l = micrograms per liter
3. MTBE = Methyl-Tertiary-Butyl Ether
4. Samples Collected on March 14, 2008.
5. DRY = Dry Hole
6. PR = Probe Refusal

FIGURES



Reference: Gaston, South Carolina
USGS 7.5 Min. Quad
Contour Interval = 10 Feet

Midlands Environmental Consultants, Inc.	Site Location
Gaston Food Mart Gaston, South Carolina SCDHEC Site ID# 05986	
Figure 1	MECI 08-1501



Explanation:

- Location of Water Table Bracketing Monitoring Well
- Location of Double Cased Deep Monitoring Well
- Location of Single Cased Deep Monitoring Well
- Location of Direct Push Soil Boring
- Estimated Groundwater Flow Direction
- Estimated Location of Existing Underground Storage Tanks
- Estimated Location of Removed Underground Storage Tanks

gas — Buried Gas Line
fence — Fence
water — Buried Water Line
sewer — Buried Sewer
telephone — Under Ground Telephone

Soil Analytical Data *

Sample Location	Sample Date	Depth (feet)	Benzene (ug/kg)	Toluene (ug/kg)	Ethylbenzene (ug/kg)	Total Xylenes (ug/kg)	Total BTEX (ug/kg)	Napthalene (ug/kg)	MTBE (ug/kg)
GPS-2	4/25/08	40-44	BDL	BDL	BDL	BDL	BDL	BDL	BDL
GPS-3	4/25/08	35-37	BDL	BDL	BDL	BDL	BDL	BDL	BDL
GPS-4	4/25/08	34-36	BDL	BDL	BDL	BDL	BDL	BDL	BDL
MW-17RR	5/1/08	40	BDL	BDL	BDL	14.5	14.5	BDL	BDL
MW-17RR	5/1/08	45	BDL	11.4	20.2	117	148.6	BDL	BDL
MW-17RR	5/1/08	50	BDL	64.0	23.7	118	205.7	BDL	BDL
MW-17RR	5/1/08	55	BDL	10	19.4	108	137.4	BDL	BDL
MW-17RR	5/1/08	60	BDL	6.8	7.4	41.0	55.2	BDL	BDL
MW-17RR	5/1/08	65	BDL	6.1	12.8	74.9	93.8	BDL	BDL
MW-17RR	5/1/08	70	BDL	5.9	12.3	68.6	86.8	BDL	BDL
MW-17RR	5/1/08	75	BDL	6.1	10.7	61.5	78.3	BDL	BDL

BDL = Below Detection Limits
NT = Not Tested
See Appendix for Detection Limits

GRAPHIC SCALE
0 30 60 90 120
1IN = 60FT

ALL LOCATIONS ARE APPROXIMATE

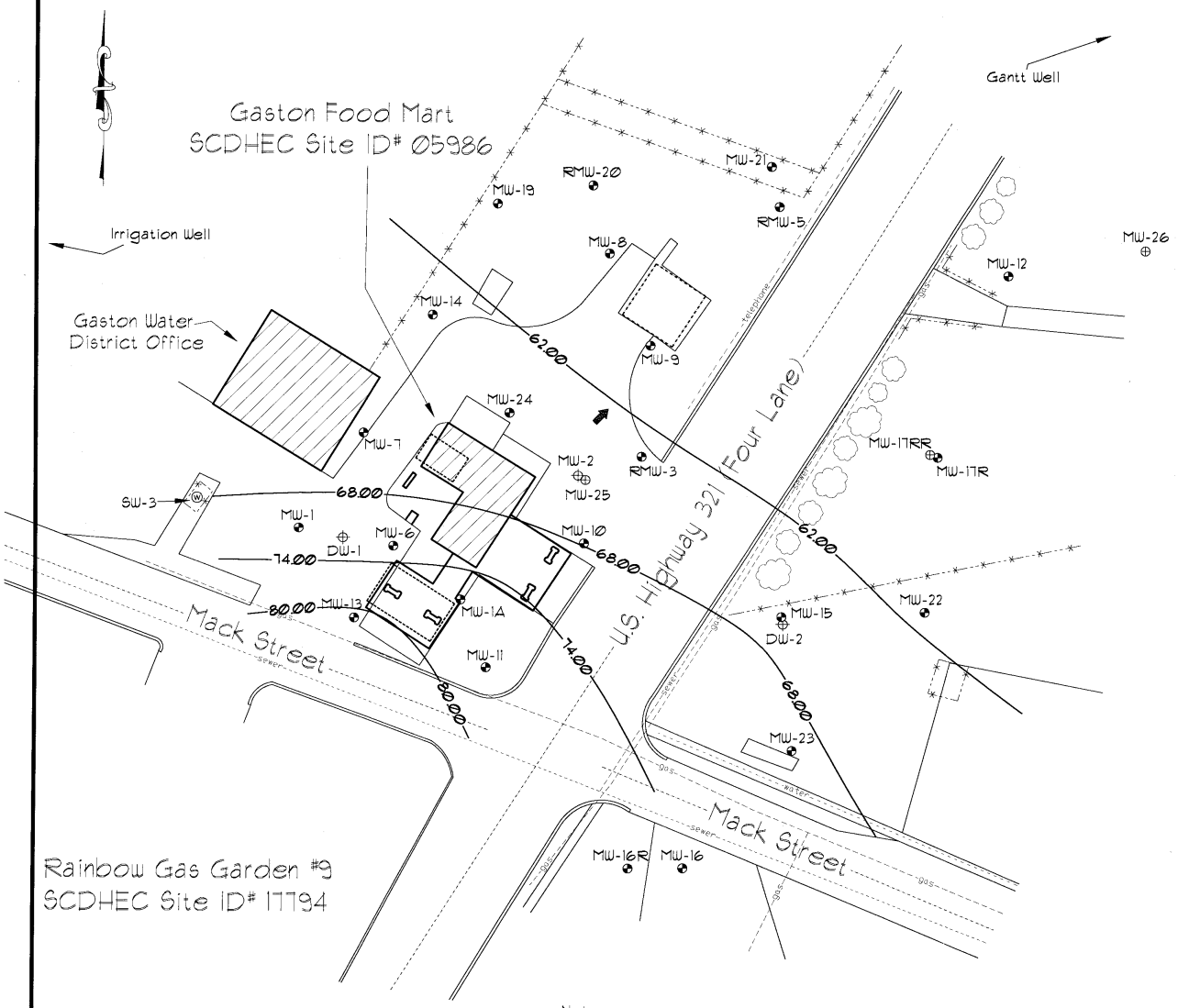
Drawing Based on MECI Field Notes, Tax Maps and a RLS Survey of the Site by Jay S. Joshi dated May 16, 2008.

Site Features

Gaston Food Mart
Gaston, South Carolina
SCDHEC Site ID 05986

Midlands Environmental Consultants, Inc.

JOB NO. 08-1501
DATE May 21, 2008
FIGURE 2



Explanation:

- Location of Water Table Bracketing Monitoring Well
- Location of Double Cased Deep Monitoring Well
- Location of Single Cased Deep Monitoring Well
- Estimated Groundwater Flow Direction
- Estimated Location of Existing Underground Storage Tanks
- Estimated Location of Removed Underground Storage Tanks
- Ground-Water Elevation Isopleth (feet)

Groundwater Elevation Data

Well #	Depth to Product (ft)	Depth to Water (feet)	Product Thickness (feet)	Well Head Elevation	Groundwater Elevation
MW-1	--	36.50	--	104.52	68.02
MW-1A	--	24.85	--	104.07	79.22
RMW-3	--	34.91	--	100.61	65.70
RMW-5	--	8.75	--	93.57	84.82
MW-6	34.52	34.66	0.14	103.95	69.41
MW-7	--	36.62	--	104.44	67.82
MW-8	--	39.30	--	97.72	58.42
MW-9	--	41.09	--	98.87	57.78
MW-10	--	35.15	--	102.57	67.42
MW-11	--	25.87	--	104.32	78.45
MW-12	--	33.25	--	93.93	60.68
MW-13	--	23.03	--	104.77	81.74
MW-14	--	40.51	--	103.69	63.18
MW-15	--	35.90	--	103.33	67.43
MW-16R	--	35.74	--	106.29	70.55
MW-17R	--	DRY	--	98.22	DRY
MW-17RR	--	DRY	--	98.55	DRY
MW-19	--	54.48	--	98.96	44.48
RMW-20	--	19.56	--	98.69	79.13
MW-21	--	5.74	--	91.96	86.22
MW-22	--	41.68	--	101.82	60.14
MW-23	--	35.50	--	104.47	68.97
MW-24	--	37.47	--	103.39	65.92
MW-25	--	DRY	--	102.18	DRY
MW-26	--	DRY	--	91.81	DRY
DW-1	--	52.81	--	104.79	51.98
DW-2	--	54.75	--	103.32	48.57

Notes:
Depth to groundwater measured on May 6, 2008.
Contour Interval = 6.00 Feet
Site Datum Based on Assumed Spot Elevation.
Groundwater elevation for MW-6 corrected for the presence of Free Phase Petroleum Product using a specific gravity of fuel of 0.85.
Ground Water Contours Computer Generated using Surfer by Golden Graphics and Modified by MECI Personnel.

Note:
Monitoring wells RMW-3, RMW-5, MW-16R, MW-20, MW-21, MW-DW-1, and DW-2 were not used in contouring.
Monitoring wells MW-17R, MW-17RR, MW-25 and MW-26 were dry at the time of sampling.

Drawing Based on MECI Field Notes, Tax Maps and a RLS Survey of the Site by Jay S. Joshi dated May 16, 2008.

GRAPHIC SCALE
0 30 60 90 120
1IN = 60FT

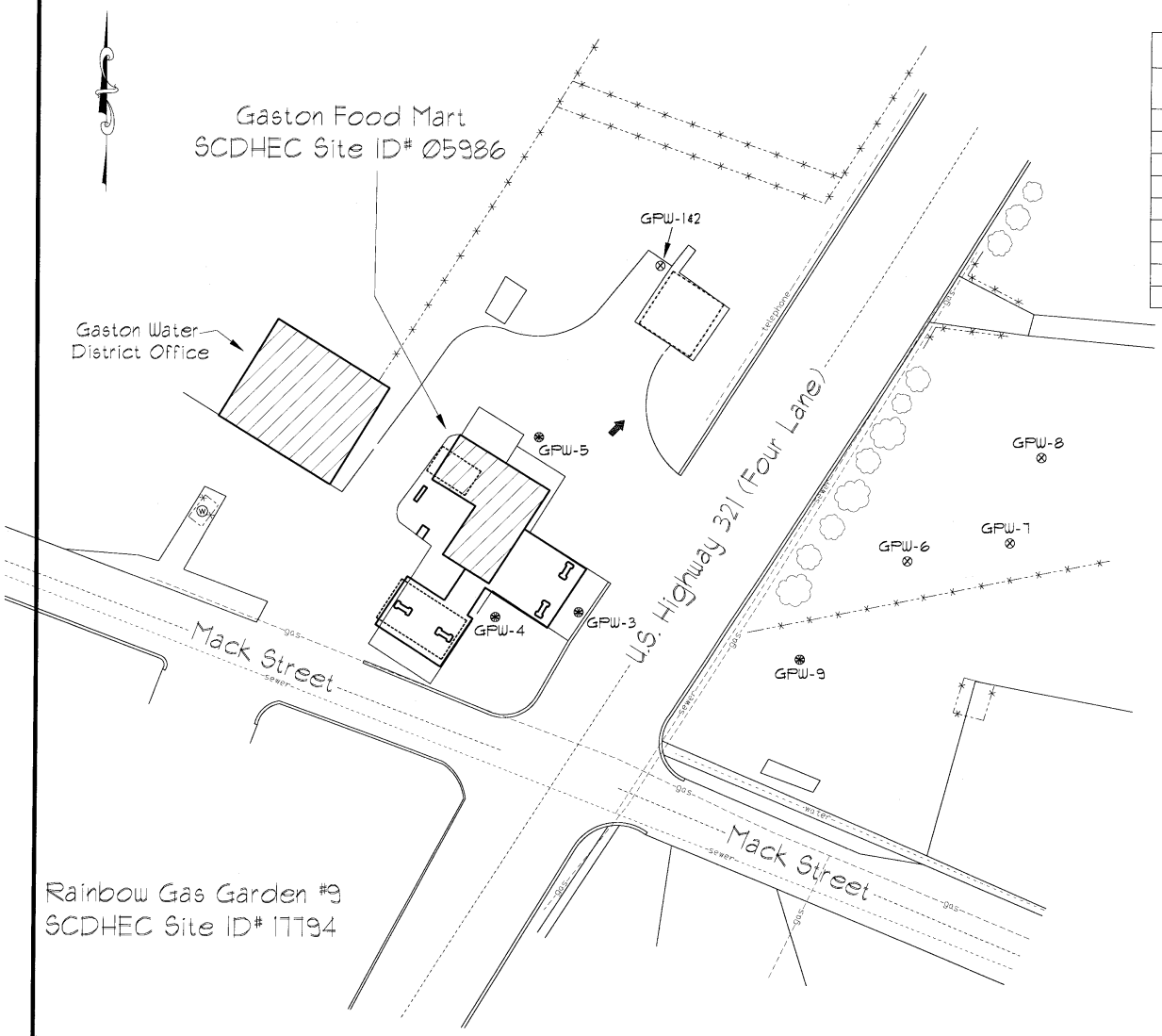
ALL LOCATIONS ARE APPROXIMATE

Groundwater Contour Map

Gaston Food Mart
Gaston, South Carolina
SCDHEC Site ID 05986

Midlands Environmental Consultants, Inc.

JOB NO. 08-1501
DATE May 21, 2008
FIGURE 3



Drawing Based on MECI Field Notes, Tax Maps and a RLS Survey of the Site by Jay S. Joshi dated May 16, 2008.

Field Screening Results

Sample #	Sample Depth (ft)	Benzene (ug/l)	Toluene (ug/l)	Ethylbenzene (ug/l)	Total Xylenes (ug/l)	Total BTEX (ug/l)	MTBE (ug/l)
GPW-1	34-38	DRY	DRY	DRY	DRY	DRY	DRY
GPW-2	41-45	DRY	DRY	DRY	DRY	DRY	DRY
GPW-3	34-38	1,170	4,510	739	3,400	9,819	179.0
GPW-4	34-38	59.9	190	135	299	683.9	8.8
GPW-5	36-40	618	3,580	735	3,530	8,463	BDL
GPW-6	39-43PR	DRY	DRY	DRY	DRY	DRY	DRY
GPW-7	35-39PR	DRY	DRY	DRY	DRY	DRY	DRY
GPW-8	40-44PR	DRY	DRY	DRY	DRY	DRY	DRY
GPW-9	67-71PR	5.0	BDL	BDL	BDL	5.0	BDL

Notes: Samples collected on March 14, 2008.
BDL = Below Detection Limits
DRY = Dry Hole
PR = Probe Refusal

Explanation:

⊗ Direct Push Field Screening Location Dry Hole

⊛ Direct Push Field Screening Location CoC's Above RBSL's

GRAPHIC SCALE
0 30 60 90 120
1IN = 60FT

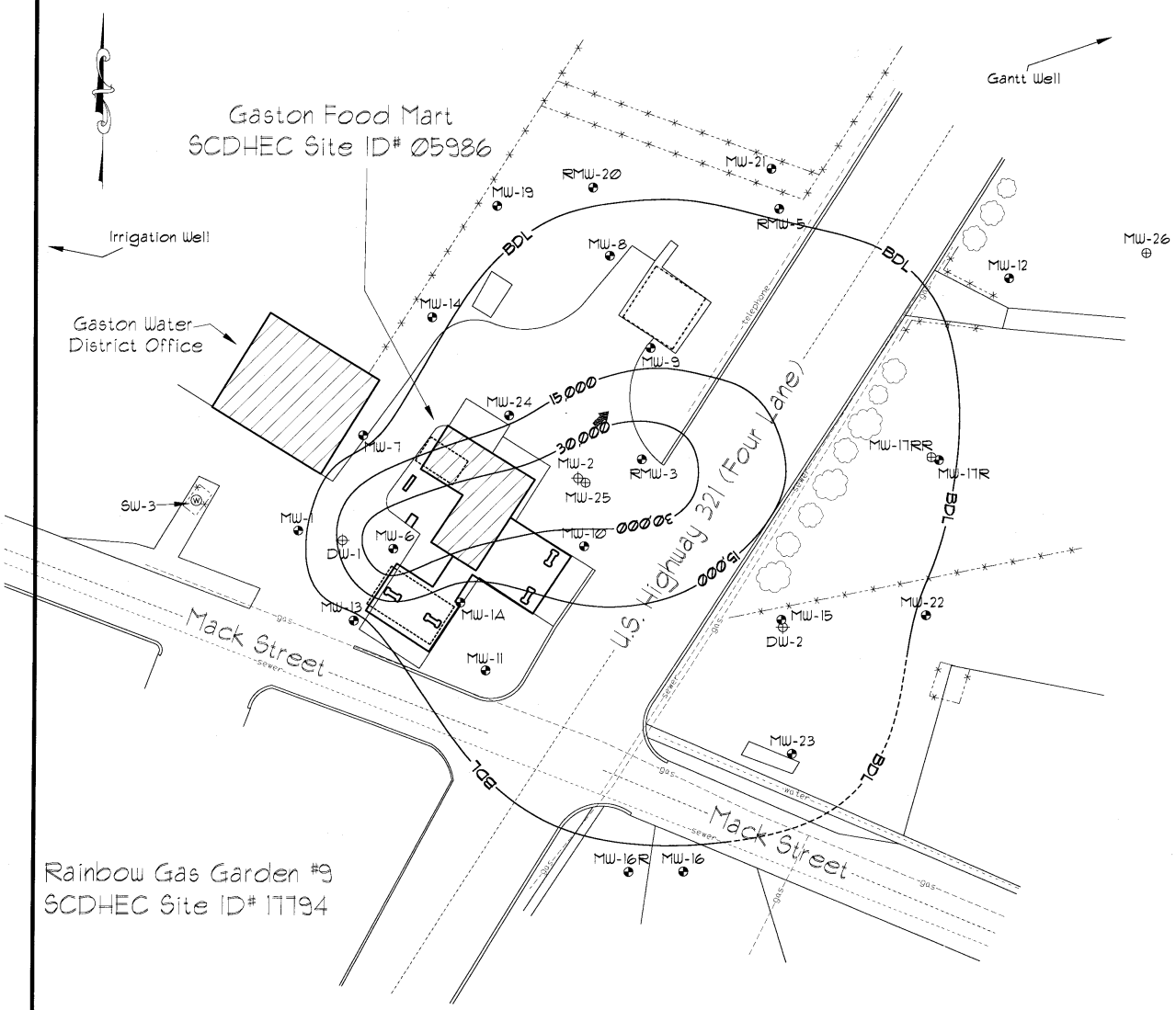
ALL LOCATIONS ARE APPROXIMATE

Field Screening Test Results

Gaston Food Mart
Gaston, South Carolina
SCDHEC Site ID 05986

Midlands Environmental Consultants, Inc.

JOB NO. 08-1501
DATE May 21, 2008
FIGURE 4



Drawing Based on MECI Field Notes, Tax Maps and a RLS Survey of the Site by Jay S. Joshi dated May 16, 2008.

Explanation:

- Location of Water Table Bracketing Monitoring Well
- Location of Double Cased Deep Monitoring Well
- Location of Single Cased Deep Monitoring Well
- Estimated Groundwater Flow Direction
- Estimated Location of Removed Underground Storage Tanks
- Estimated Location of Removed Underground Storage Tanks
- Total BTEX Concentration Isopleth (ug/l)

COC Concentration Data

Sample #	Benzene (ug/l)	Toluene (ug/l)	Ethylbenzene (ug/l)	Total Xylenes (ug/l)	Total BTEX (ug/l)	MTBE (ug/l)	Napthalene (ug/l)	EDB (ug/l)
MW-1	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
MW-1A	84.3	288	184	697	1,253.3	BDL	52.3	BDL
RMW-3	8,760	18,900	2,630	14,300	44,590	1,150	585	16.3
RMW-5	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
MW-6	PROD	PROD	PROD	PROD	PROD	PROD	PROD	PROD
MW-7	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
MW-8	208	1,430	197	3,350	5,185	BDL	106	BDL
MW-9	217	1,130	387	3,080	4,814	BDL	246	BDL
MW-10	5,500	9,880	1,600	10,300	27,280	11,500	748	13.0
MW-11	BDL	BDL	26.8	BDL	26.8	BDL	9.8	BDL
MW-12	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
MW-13	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
MW-14	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
MW-15	BDL	BDL	BDL	16.2	16.2	BDL	BDL	0.16
MW-16R	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
MW-17R	DRY	DRY	DRY	DRY	DRY	DRY	DRY	DRY
MW-17RR	DRY	DRY	DRY	DRY	DRY	DRY	DRY	DRY
MW-19	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
RMW-20	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
MW-21	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
MW-22	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
MW-23	35.6	BDL	BDL	22.8	58.4	BDL	BDL	0.63
MW-24	620	1,790	1,000	4,390	7,800	BDL	234	2.8
MW-25	DRY	DRY	DRY	DRY	DRY	DRY	DRY	DRY
MW-26	DRY	DRY	DRY	DRY	DRY	DRY	DRY	DRY
DW-1	BDL	BDL	BDL	BDL	BDL	BDL	32.3	BDL
DW-2	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL

Notes:

Groundwater samples collected on May 6, 2008.

Contour interval = 15,000 ug/l

PROD = Free Product encountered at time of sampling

BDL = Below Detection Limits

Contours Computer Generated using Surfer by Golden Graphics and Modified by MECI Personnel.

GRAPHIC SCALE

0 30 60 90 120

1IN = 60FT

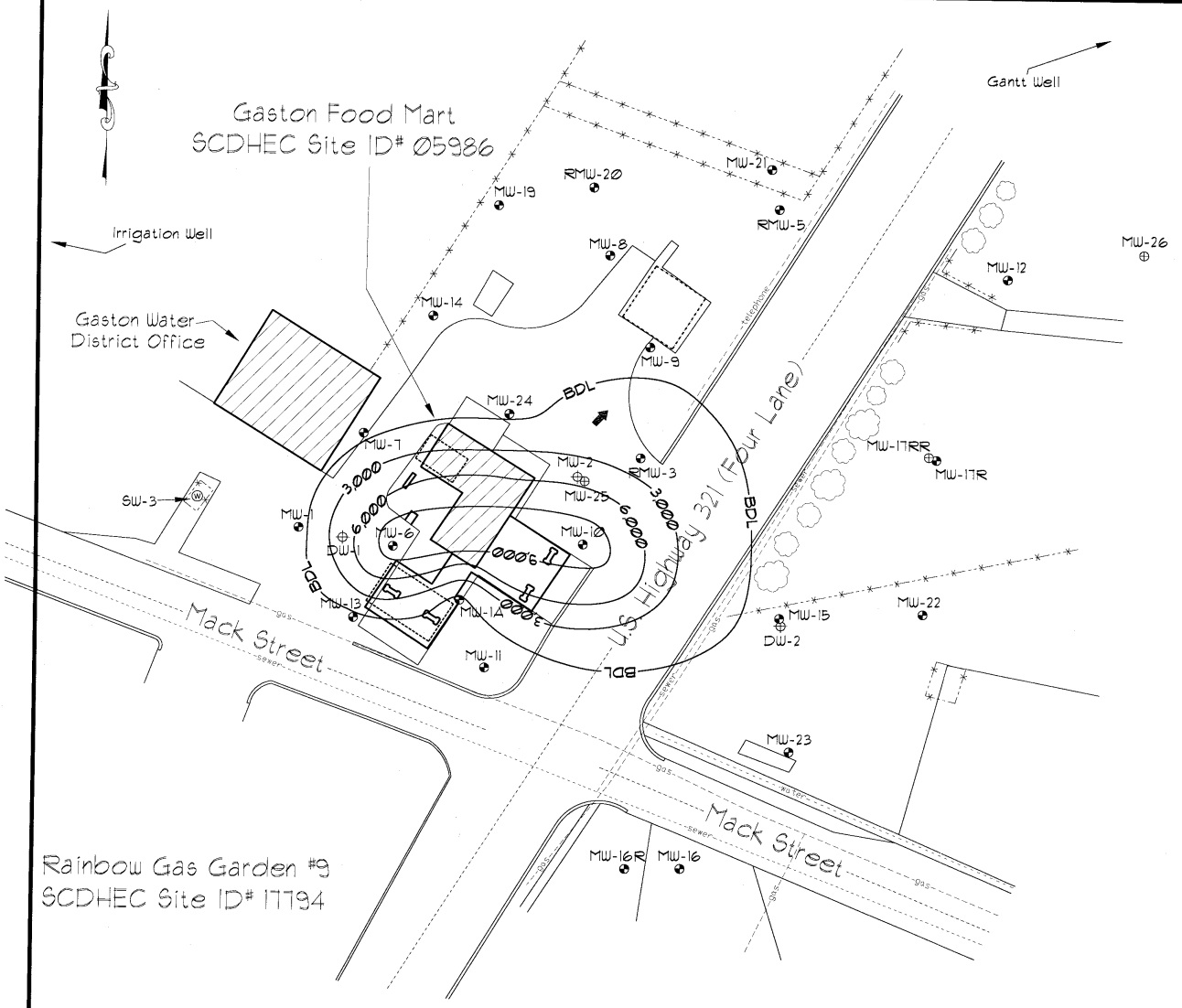
ALL LOCATIONS ARE APPROXIMATE

Total BTEX Isopleth Map

Gaston Food Mart
Gaston, South Carolina
SCDHEC Site ID 05986

Midlands Environmental Consultants, Inc.

JOB NO. 08-1501
DATE May 21, 2008
FIGURE 5



Drawing Based on MECI Field Notes, Tax Maps and a RLS Survey of the Site by Jay S. Joshi dated May 16, 2008.

Explanation:

- Location of Water Table Bracketing Monitoring Well
- Location of Double Cased Deep Monitoring Well
- Location of Single Cased Deep Monitoring Well
- Estimated Groundwater Flow Direction
- Estimated Location of Removed Underground Storage Tanks
- Estimated Location of Removed Underground Storage Tanks
- MTBE Concentration Isopleth (ug/l)

COC Concentration Data

Sample #	Benzene (ug/l)	Toluene (ug/l)	Ethylbenzene (ug/l)	Total Xylenes (ug/l)	Total BTEX (ug/l)	MTBE (ug/l)	Napthalene (ug/l)	EDB (ug/l)
MW-1	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
MW-1A	84.3	288	184	697	1,253.3	BDL	52.3	BDL
RMW-3	8,760	18,900	2,630	14,300	44,590	1,150	585	16.3
RMW-5	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
MW-6	PROD	PROD	PROD	PROD	PROD	PROD	PROD	PROD
MW-7	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
MW-8	208	1,430	197	3,350	5,185	BDL	106	BDL
MW-9	217	1,130	387	3,080	4,814	BDL	246	BDL
MW-10	5,500	9,880	1,600	10,300	27,280	11,500	748	13.0
MW-11	BDL	BDL	26.8	BDL	26.8	BDL	9.8	BDL
MW-12	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
MW-13	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
MW-14	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
MW-15	BDL	BDL	BDL	16.2	16.2	BDL	BDL	0.16
MW-16R	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
MW-17R	DRY	DRY	DRY	DRY	DRY	DRY	DRY	DRY
MW-17RR	DRY	DRY	DRY	DRY	DRY	DRY	DRY	DRY
MW-19	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
RMW-20	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
MW-21	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
MW-22	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
MW-23	35.6	BDL	BDL	22.8	58.4	BDL	BDL	0.63
MW-24	620	1,790	1,000	4,390	7,800	BDL	234	2.8
MW-25	DRY	DRY	DRY	DRY	DRY	DRY	DRY	DRY
MW-26	DRY	DRY	DRY	DRY	DRY	DRY	DRY	DRY
DW-1	BDL	BDL	BDL	BDL	BDL	BDL	32.3	BDL
DW-2	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL

Notes:

Groundwater samples collected on May 6, 2008.

Contour Interval = 3,000 ug/l

PROD = Free Product encountered at time of sampling

BDL = Below Detection Limits

Contours Computer Generated using Surfer by Golden Graphics and Modified by MECI Personnel.

GRAPHIC SCALE

0 30 60 90 120

1IN = 60FT

ALL LOCATIONS ARE APPROXIMATE

MTBE Isopleth Map

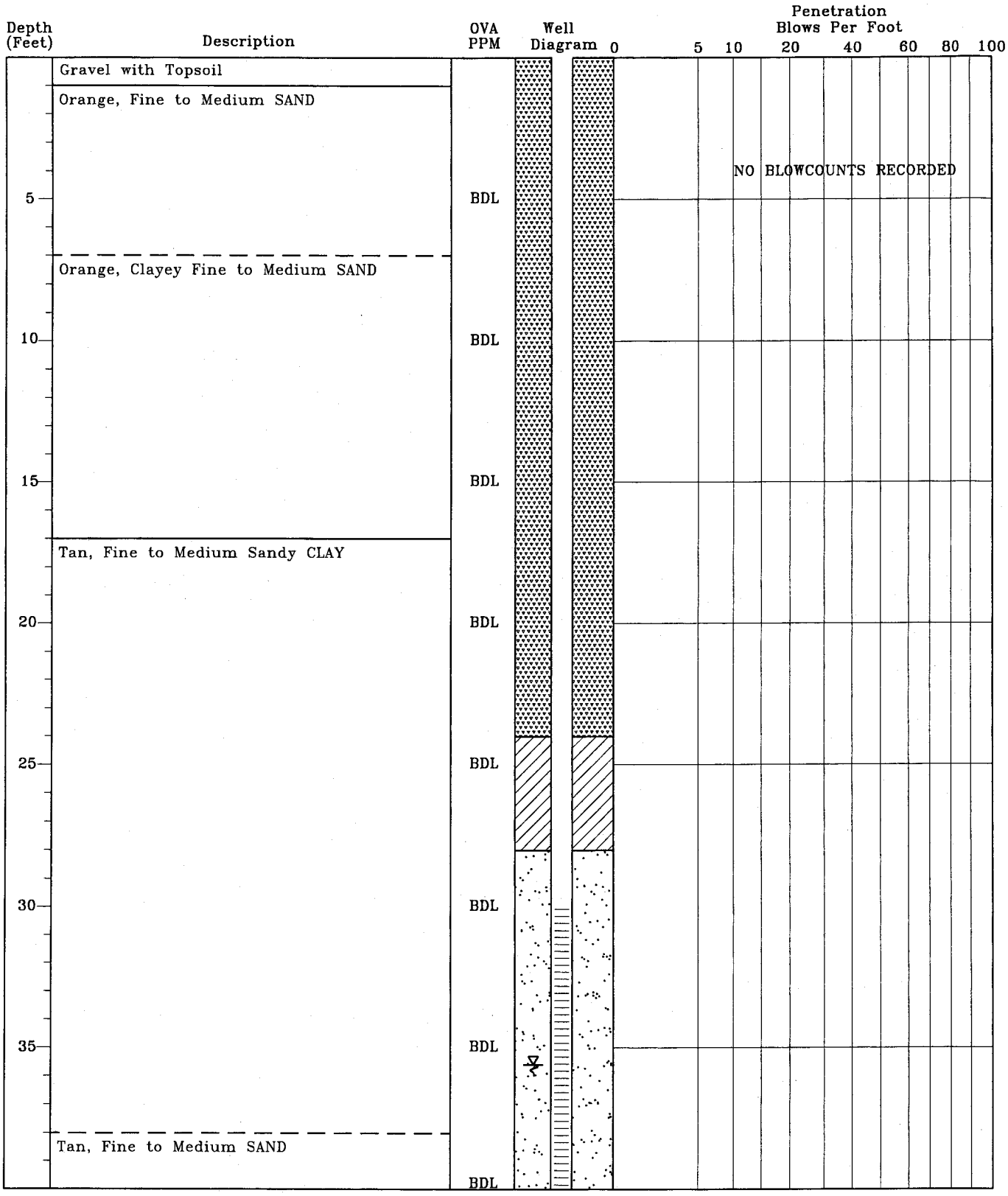
Gaston Food Mart
Gaston, South Carolina
SCDHEC Site ID 05986

Midlands Environmental Consultants, Inc.

JOB NO. 08-1501
DATE May 21, 2008
FIGURE 6

APPENDIX A

TEST BORING AND MONITORING WELL INSTALLATION RECORDS



TEST BORING RECORD
Gaston Food Mart
Gaston, South Carolina
SCDHEC Site ID# 05986
MECI Project Number 08-1501

Boring Number:	MW-16R
Date Drilled:	4/3/2008
Drilled By:	Geologic Exploration Inc.
Logged By:	J. Bryant

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

Depth (Feet)	Description	OVA PPM	Well Diagram	Penetration Blows Per Foot 0 5 10 20 40 60 80 100
	Tan, Fine to Medium SAND			NO BLOWCOUNTS RECORDED
45	Boring Terminated at 45.0 Feet. Monitoring Well Installed to 45.0 Feet. Groundwater Measured at 35.74 Feet Below Ground Surface on 5/6/08.	BDL		
50				
55				
60				
65				
70				
75				

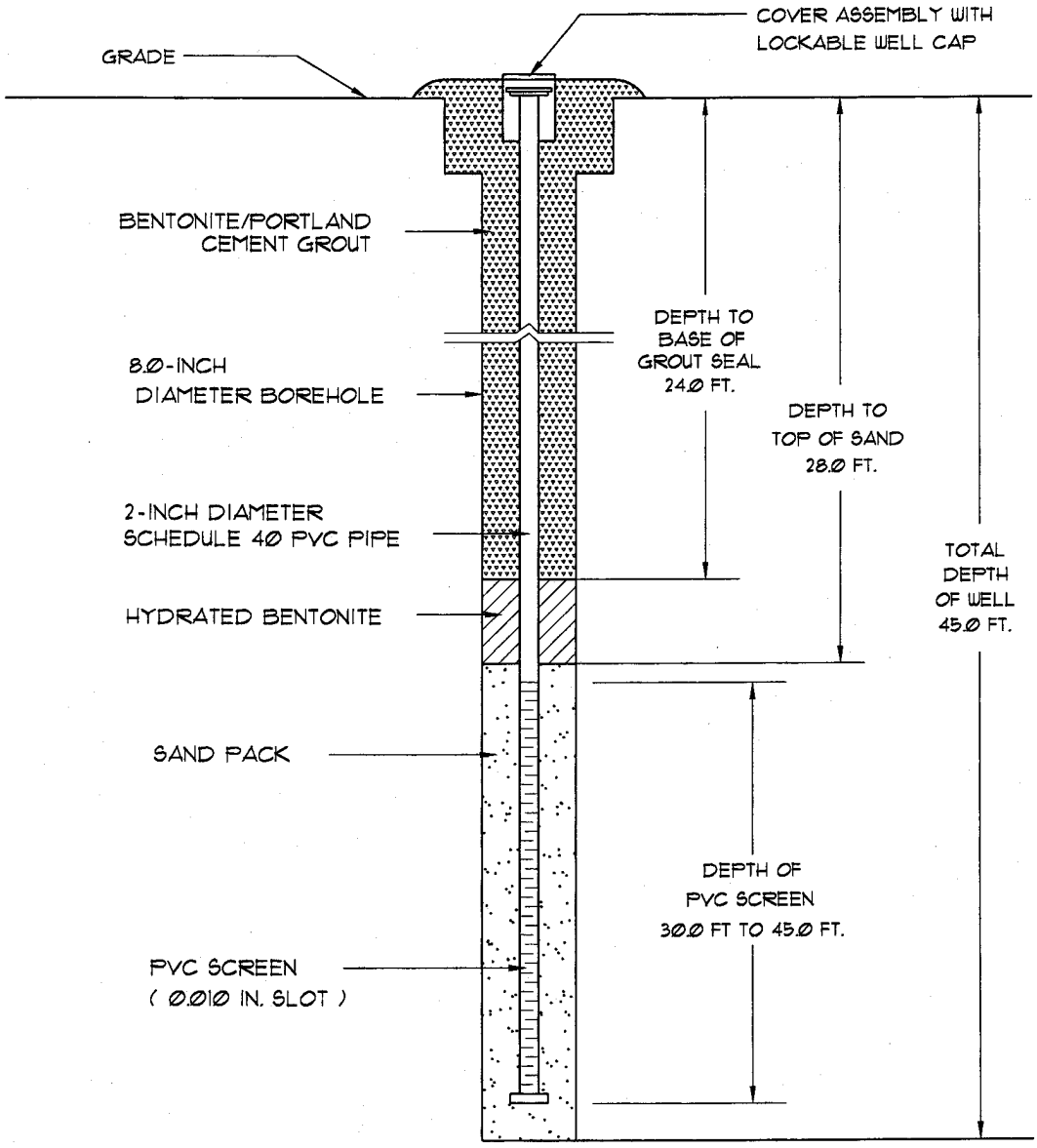
TEST BORING RECORD
Gaston Food Mart
Gaston, South Carolina
SCDHEC Site ID# 05986
MECI Project Number 08-1501

Boring Number:	MW-16R
Date Drilled:	4/3/2008
Drilled By:	Geologic Exploration Inc.
Logged By:	J. Bryant

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

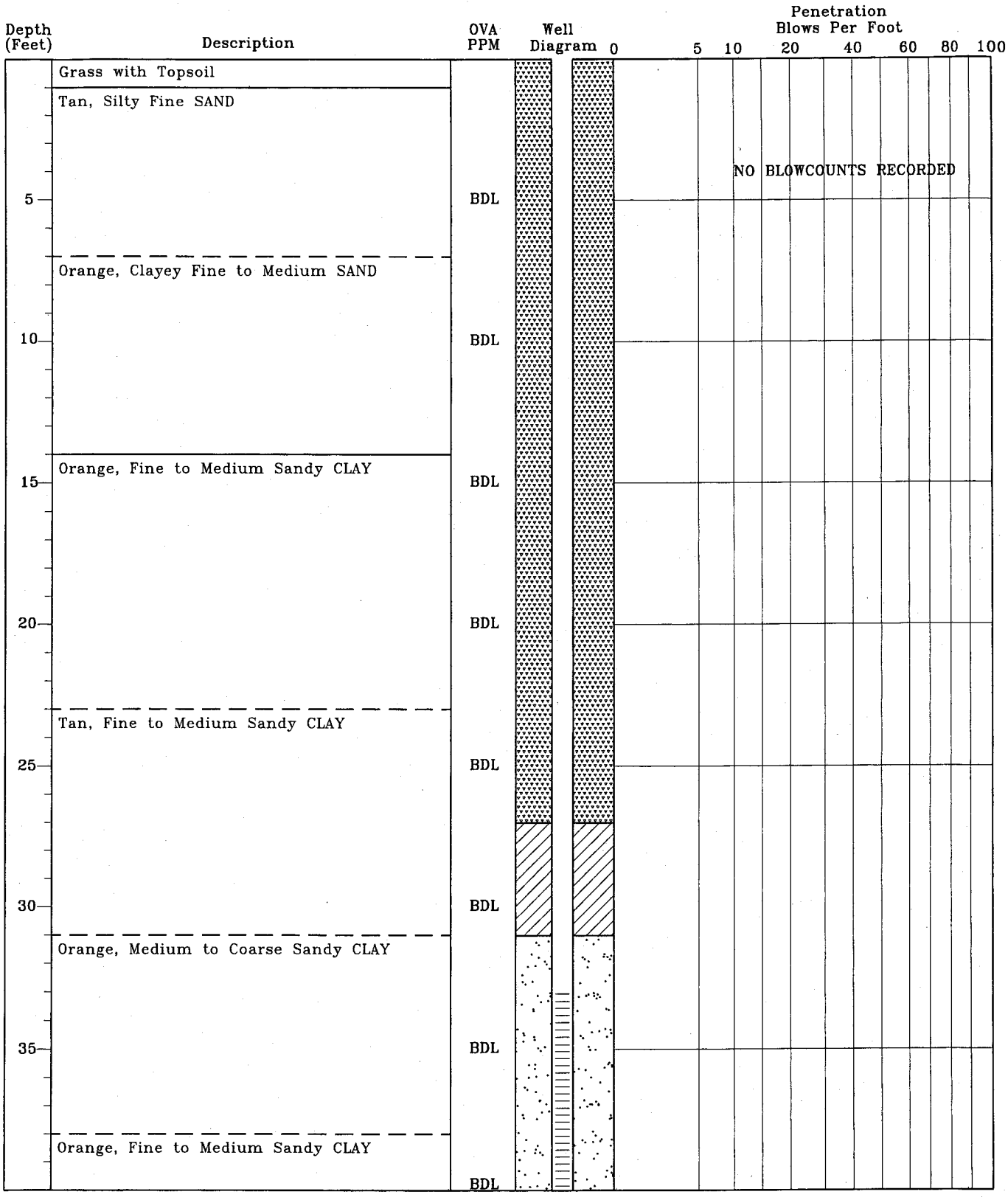
MONITORING WELL INSTALLATION RECORD

Gaston Food Mart
Gaston, South Carolina
SCDHEC Site ID# 05986
MECI Project Number 08-1501



Well Number:	MW-16R
Date Drilled:	4/3/2008
Drilled By:	Geologic Exploration Inc.
Driller: B. Thomas	S.C. I.D. #: B 01465
Logged By:	J. Coleman

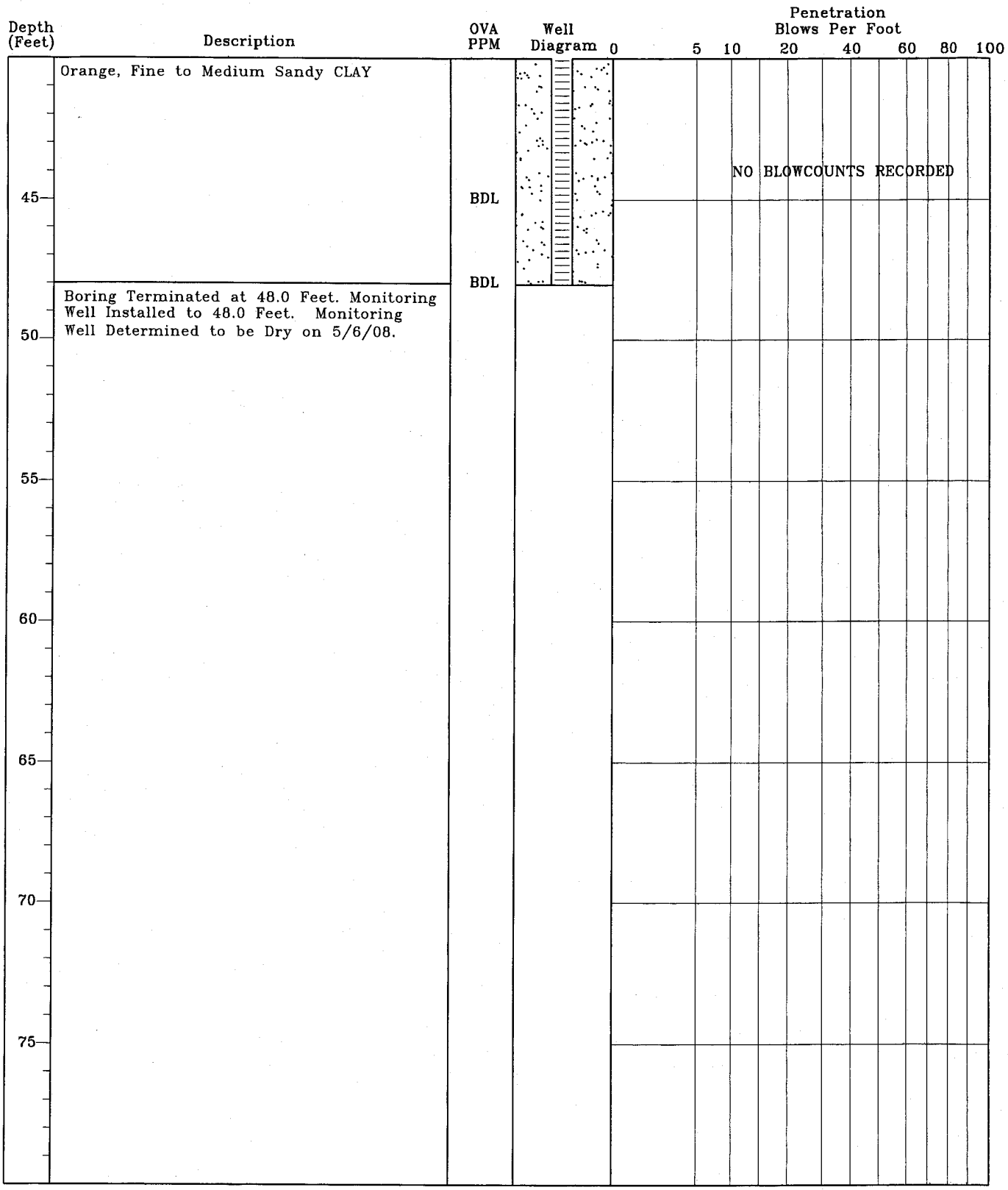
Prepared By:
Midlands Environmental Consultants, Inc.
235-B Dooley Road
Lexington, South Carolina 29073
(803) 808-2043 fax: 808-2048



TEST BORING RECORD
Gaston Food Mart
Gaston, South Carolina
SCDHEC Site ID# 05986
MECI Project Number 08-1501

Boring Number:	MW-17R
Date Drilled:	4/3/08
Drilled By:	Geologic Exploration Inc.
Logged By:	J. Bryant

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



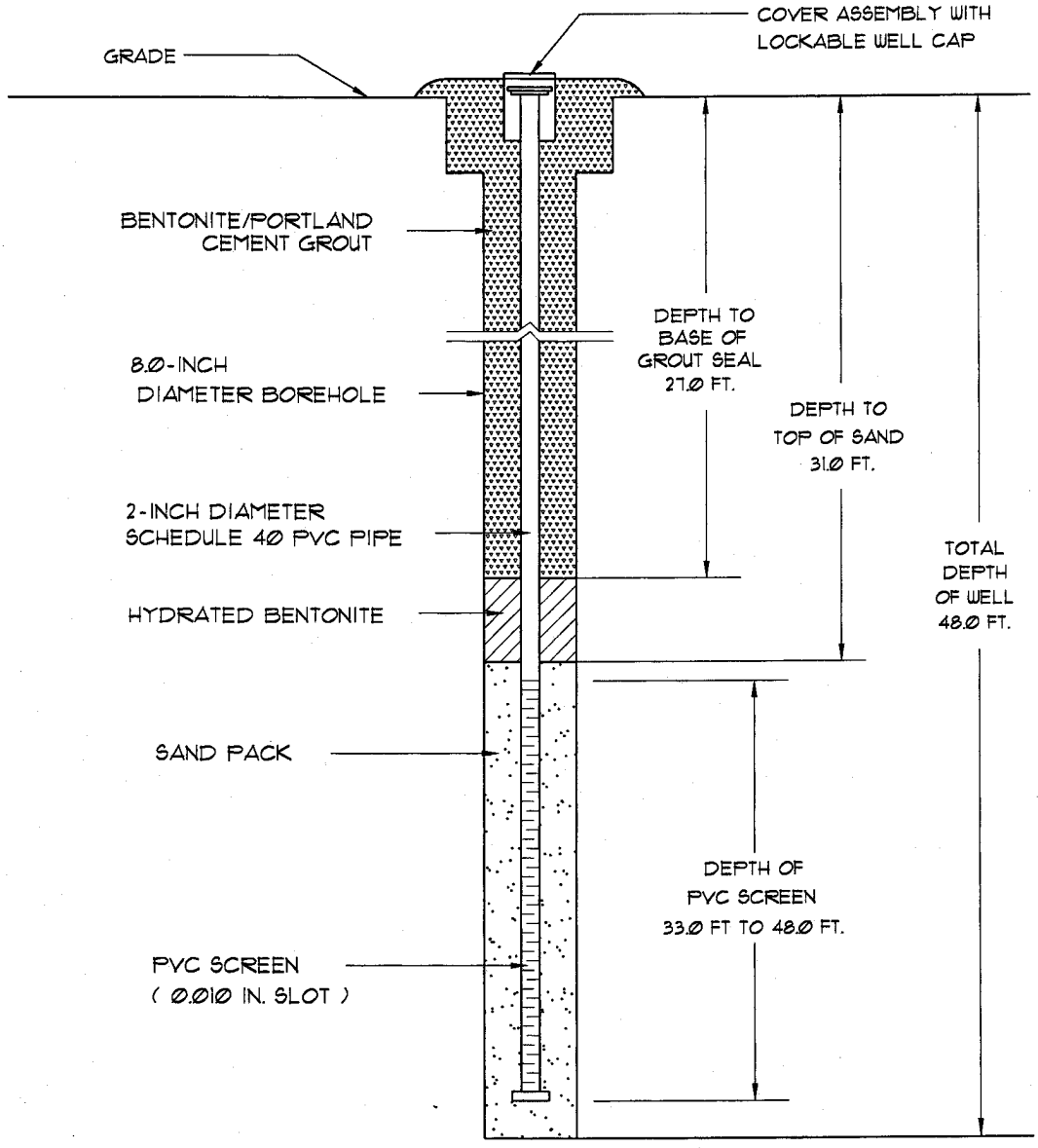
TEST BORING RECORD
Gaston Food Mart
Gaston, South Carolina
SCDHEC Site ID# 05986
MECI Project Number 08-1501

Boring Number:	MW-17R
Date Drilled:	4/3/08
Drilled By:	Geologic Exploration Inc.
Logged By:	J. Bryant

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

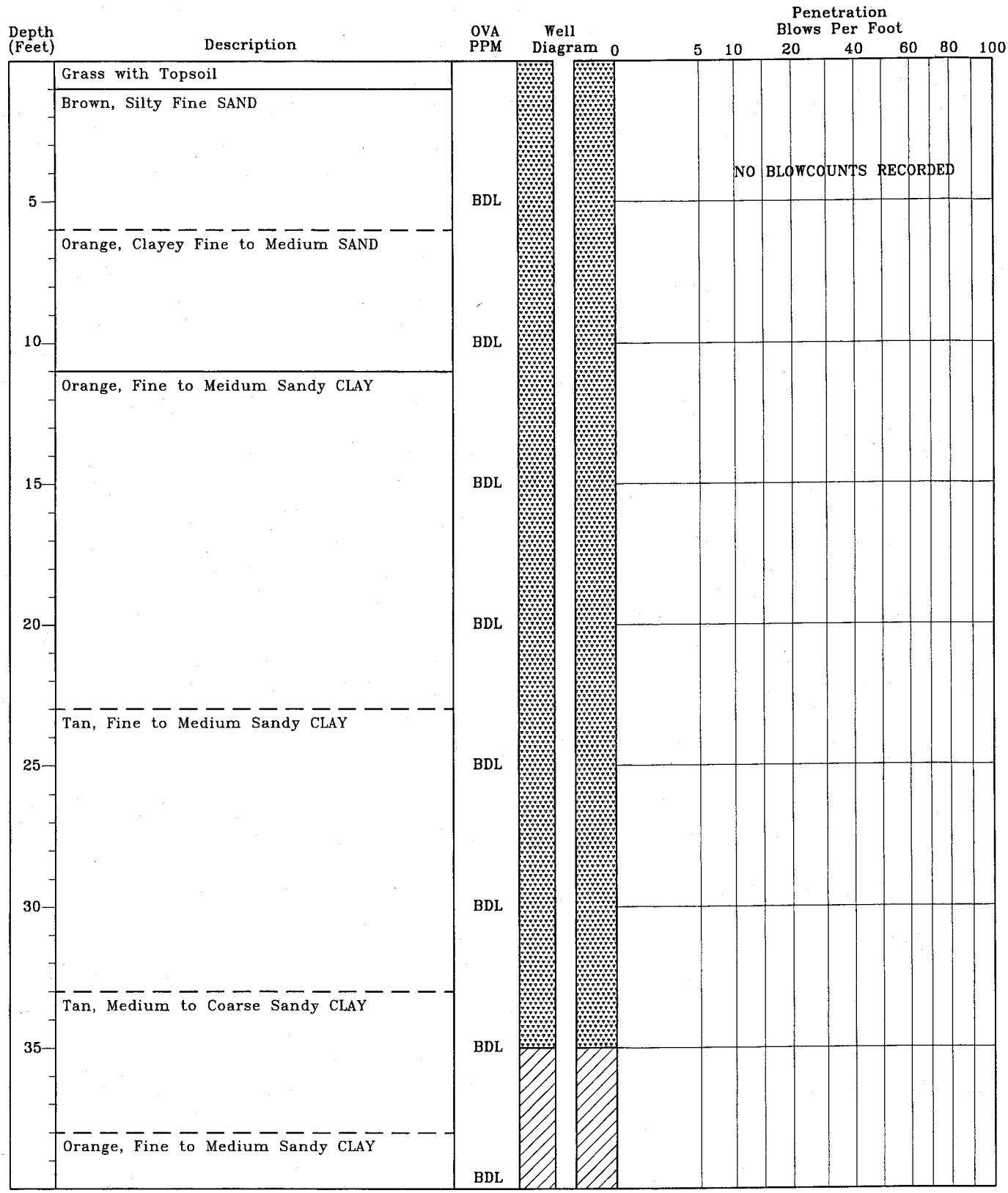
MONITORING WELL INSTALLATION RECORD

Gaston Food Mart
Gaston, South Carolina
SCDHEC Site ID* 05986
MECI Project Number 08-1501



Well Number:	MW-17R
Date Drilled:	4/3/2008
Drilled By:	Geologic Exploration Inc.
Driller: B. Thomas	S.C. I.D. *: B 01465
Logged By:	J. Coleman

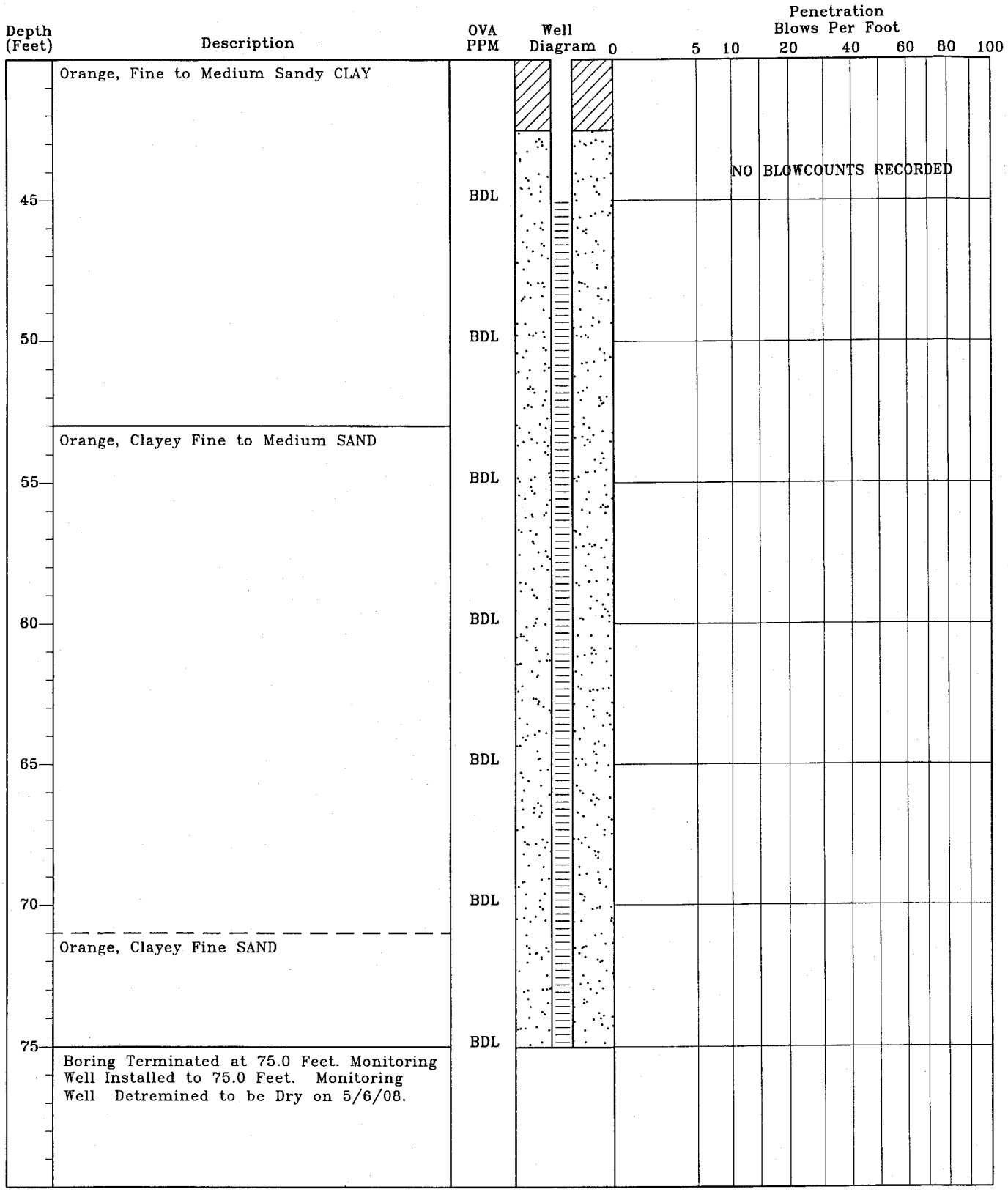
Prepared By:
Midlands Environmental Consultants, Inc.
235-B Dooley Road
Lexington, South Carolina 29073
(803) 808-2043 fax: 808-2048



TEST BORING RECORD
Gaston Food Mart
Gaston, South Carolina
SCDHEC Site ID# 05986
MECI Project Number 08-1501

Boring Number:	MW-17RR
Date Drilled:	5/2/08
Drilled By:	Geologic Exploration Inc.
Logged By:	J. Coleman

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



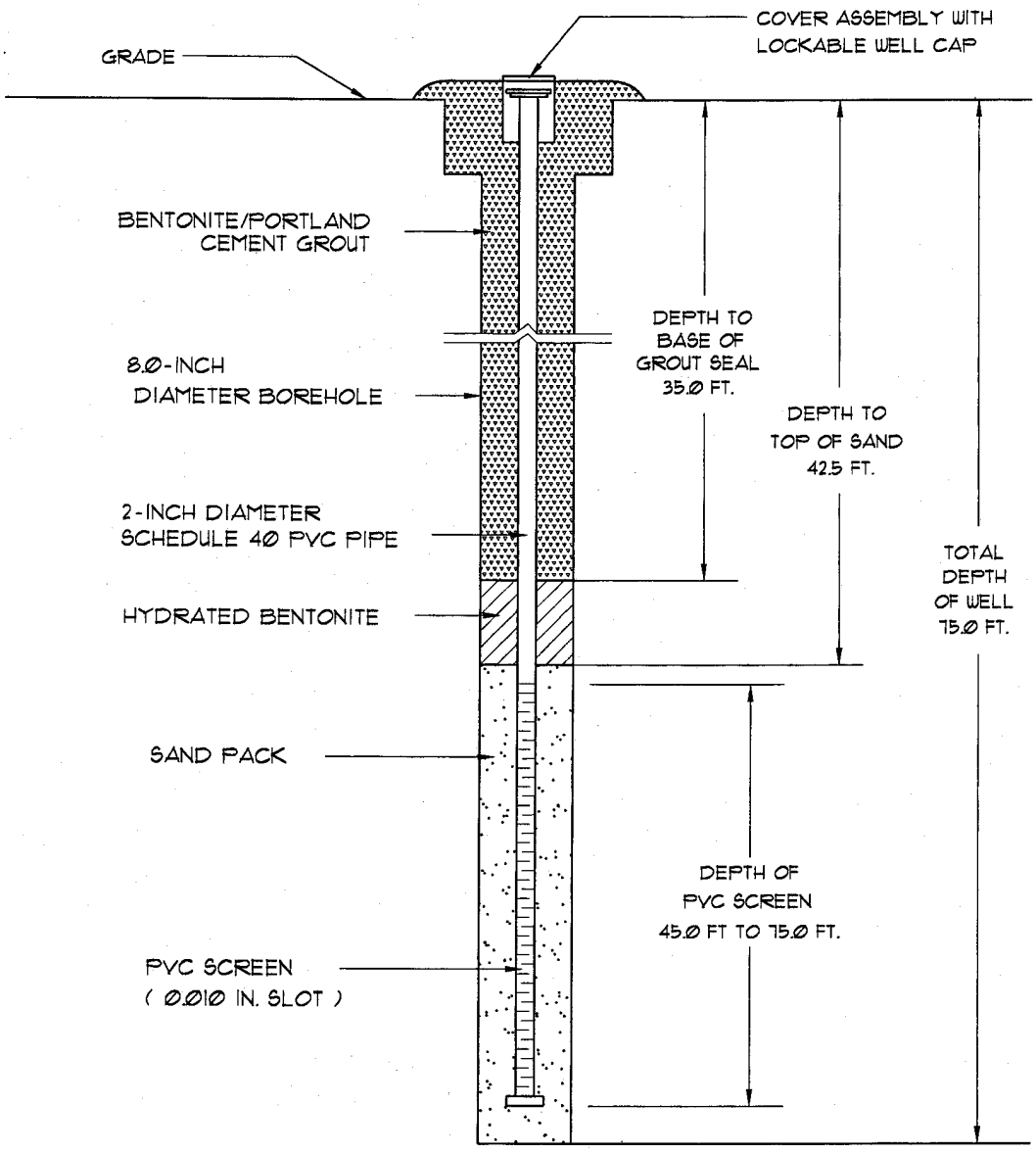
TEST BORING RECORD
Gaston Food Mart
Gaston, South Carolina
SCDHEC Site ID* 05986
MECI Project Number 08-1501

Boring Number:	MW-17RR
Date Drilled:	5/2/08
Drilled By:	Geologic Exploration Inc.
Logged By:	J. Coleman

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

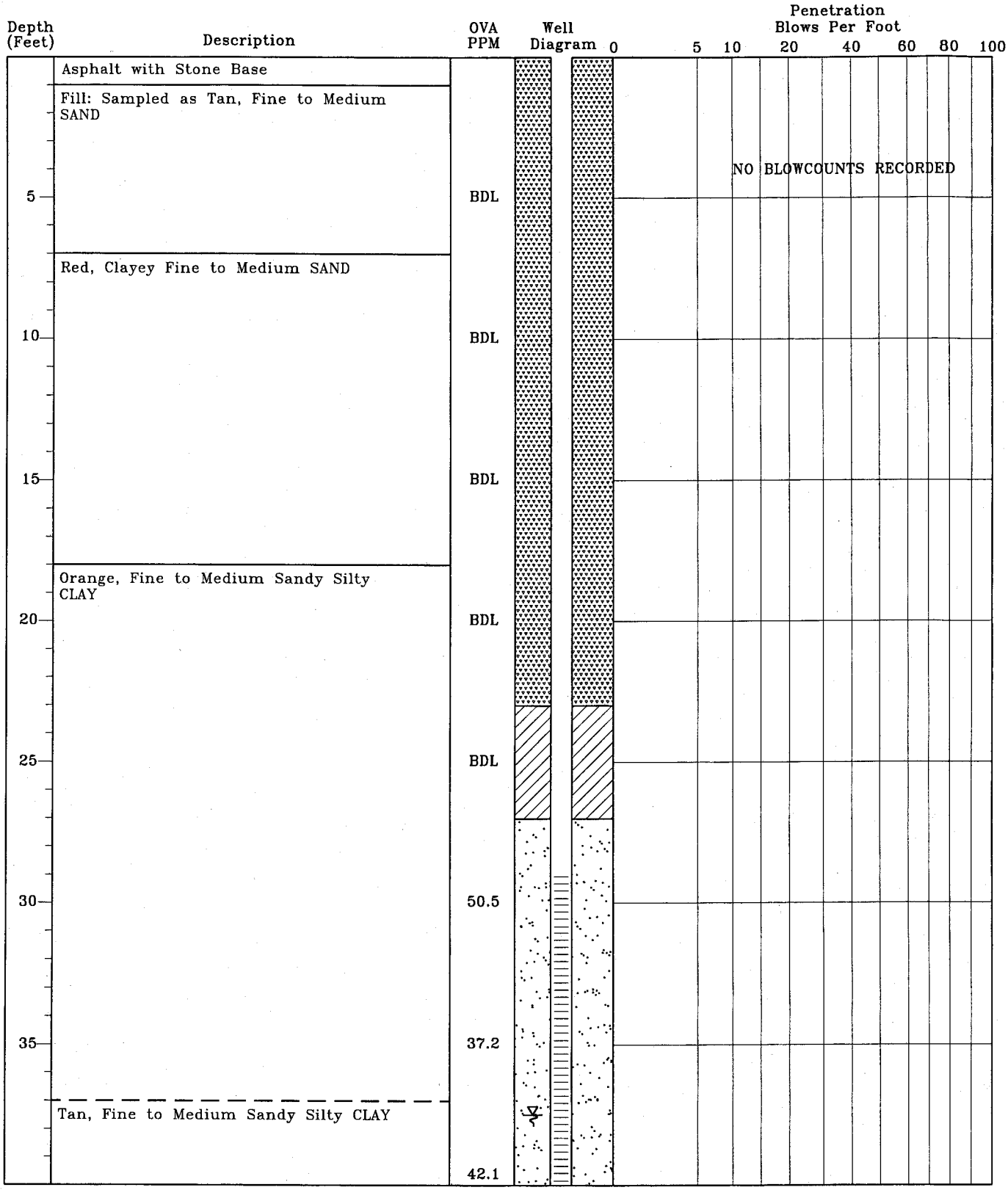
MONITORING WELL INSTALLATION RECORD

Gaston Food Mart
Gaston, South Carolina
SCDHEC Site ID* 05986
MECI Project Number 08-1501



Well Number:	MW-17RR
Date Drilled:	5/2/08
Drilled By:	Geologic Exploration Inc.
Driller: M. McConnahey S.C. I.D. *: A 1276	
Logged By:	J. Coleman

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



TEST BORING RECORD
Gaston Food Mart
Gaston, South Carolina
SCDHEC Site ID* 05986
MECI Project Number 08-1501

Boring Number:	MW-24
Date Drilled:	4/3/08
Drilled By:	Geologic Exploration Inc.
Logged By:	J. Coleman

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

Depth (Feet)	Description	OVA PPM	Well Diagram	Penetration Blows Per Foot 0 5 10 20 40 60 80 100
	Orange and White, Fine to Medium Sandy CLAY	25.7		NO BLOWCOUNTS RECORDED
45	Boring Terminated at 44.0 Feet. Monitoring Well Installed to 44.0 Feet. Groundwater Measured at 37.47 Feet Below Ground Surface on 5/6/08.			
50				
55				
60				
65				
70				
75				

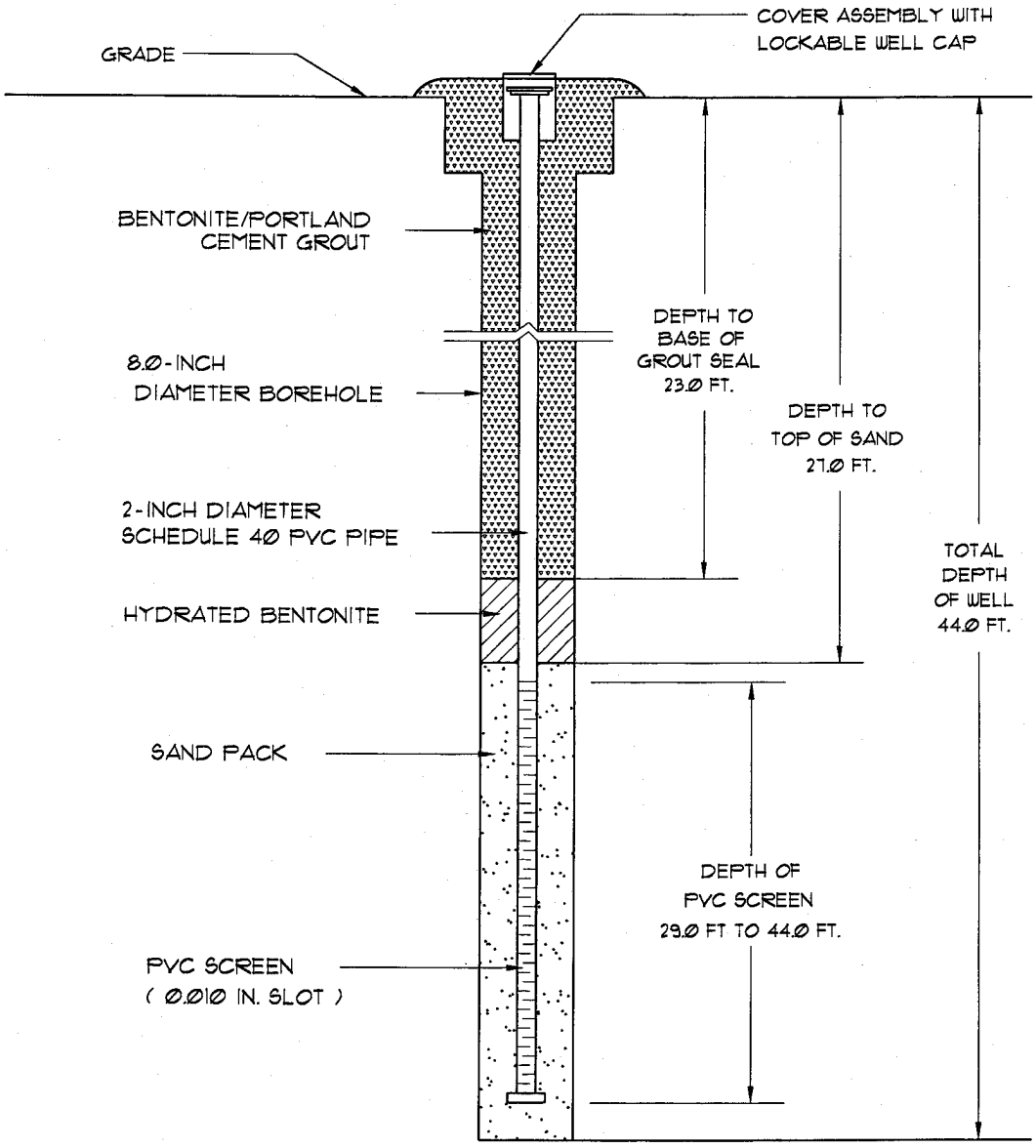
TEST BORING RECORD
Gaston Food Mart
Gaston, South Carolina
SCDHEC Site ID# 05986
MECI Project Number 08-1501

Boring Number:	MW-24
Date Drilled:	4/3/08
Drilled By:	Geologic Exploration Inc.
Logged By:	J. Coleman

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

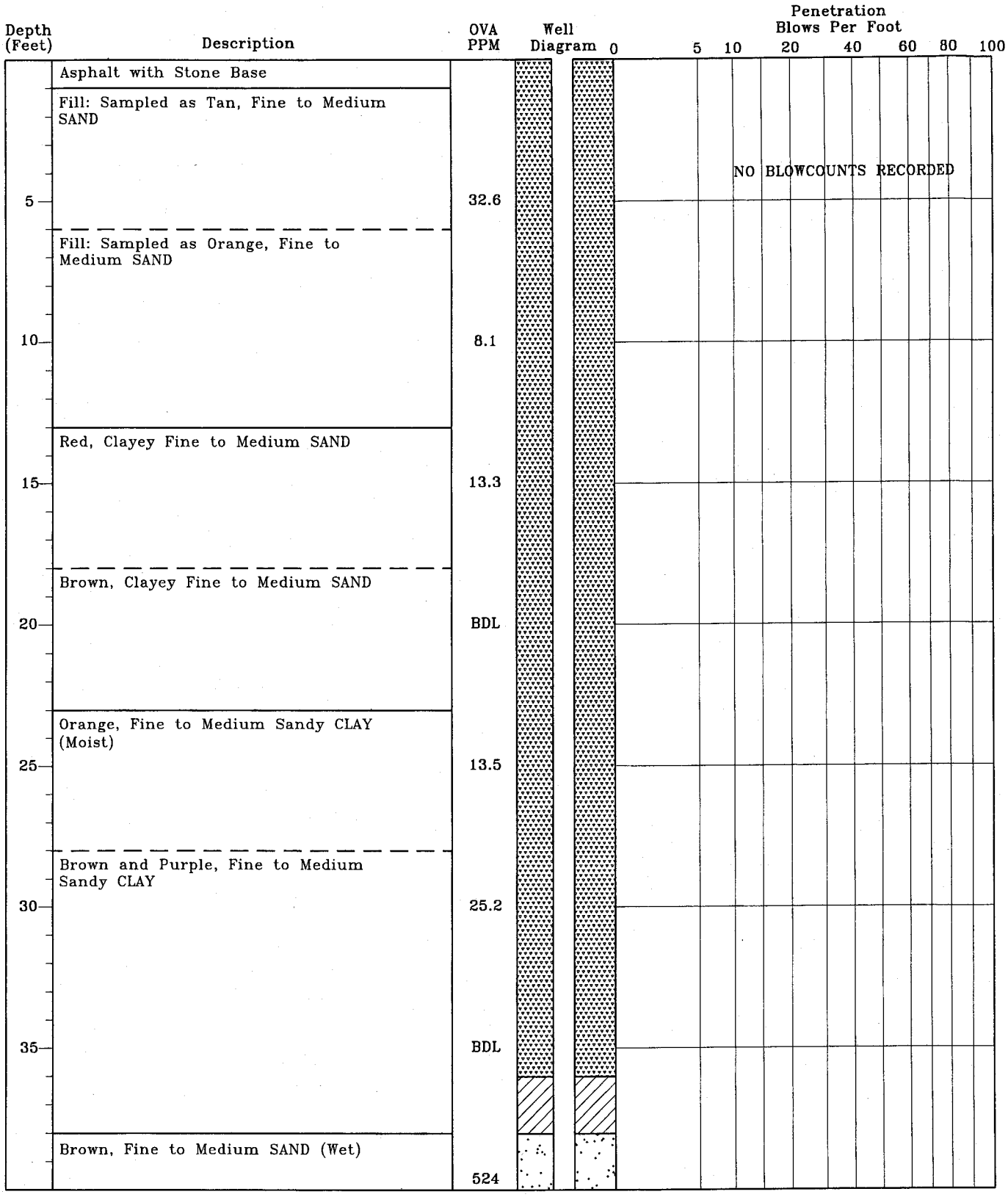
MONITORING WELL INSTALLATION RECORD

Gaston Food Mart
Gaston, South Carolina
SCDHEC Site ID# 05986
MECI Project Number 08-1501



Well Number:	MW-24
Date Drilled:	4/3/2008
Drilled By:	Geologic Exploration Inc.
Driller: B. Thomas	S.C. I.D. #: B 01465
Logged By:	J. Coleman

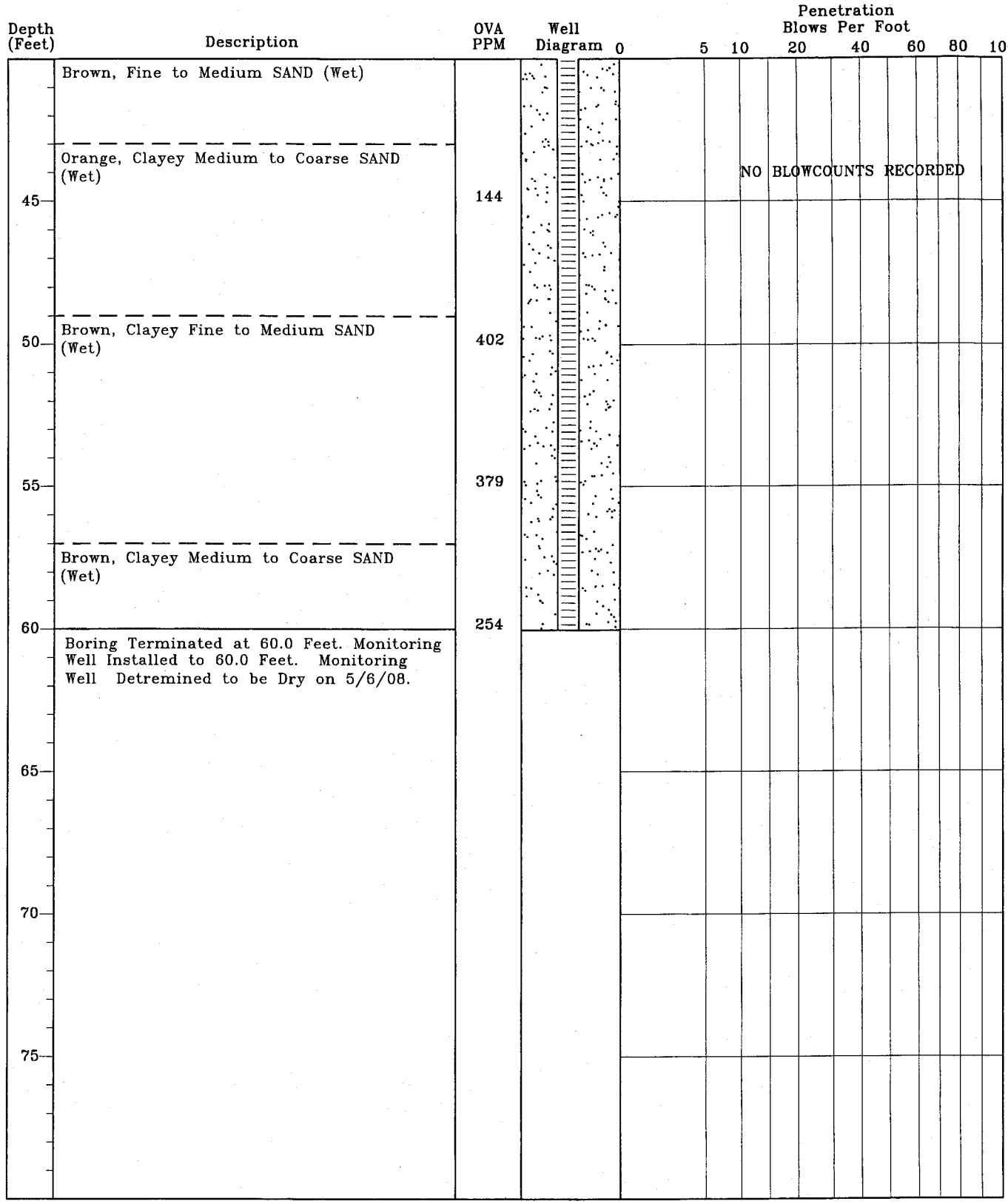
Prepared By:
Midlands Environmental Consultants, Inc.
235-B Dooley Road
Lexington, South Carolina 29073
(803) 808-2043 fax: 808-2048



TEST BORING RECORD
Gaston Food Mart
Gaston, South Carolina
SCDHEC Site ID# 05986
MECI Project Number 08-1501

Boring Number:	MW-25
Date Drilled:	4/30/08
Drilled By:	Geologic Exploration Inc.
Logged By:	J. Coleman

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



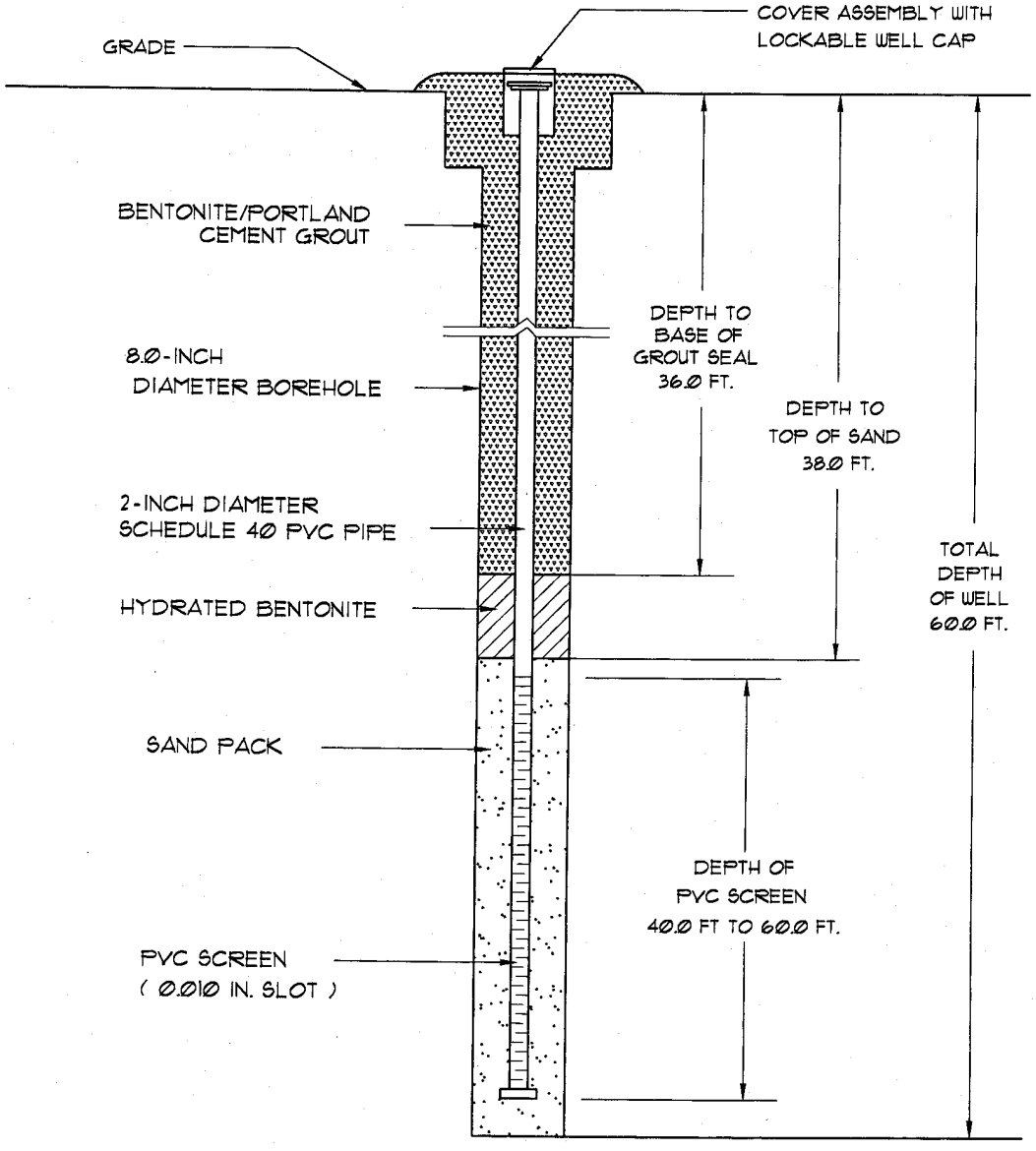
TEST BORING RECORD
Gaston Food Mart
Gaston, South Carolina
SCDHEC Site ID# 05986
MECI Project Number 08-1501

Boring Number:	MW-25
Date Drilled:	4/30/08
Drilled By:	Geologic Exploration Inc.
Logged By:	J. Coleman

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

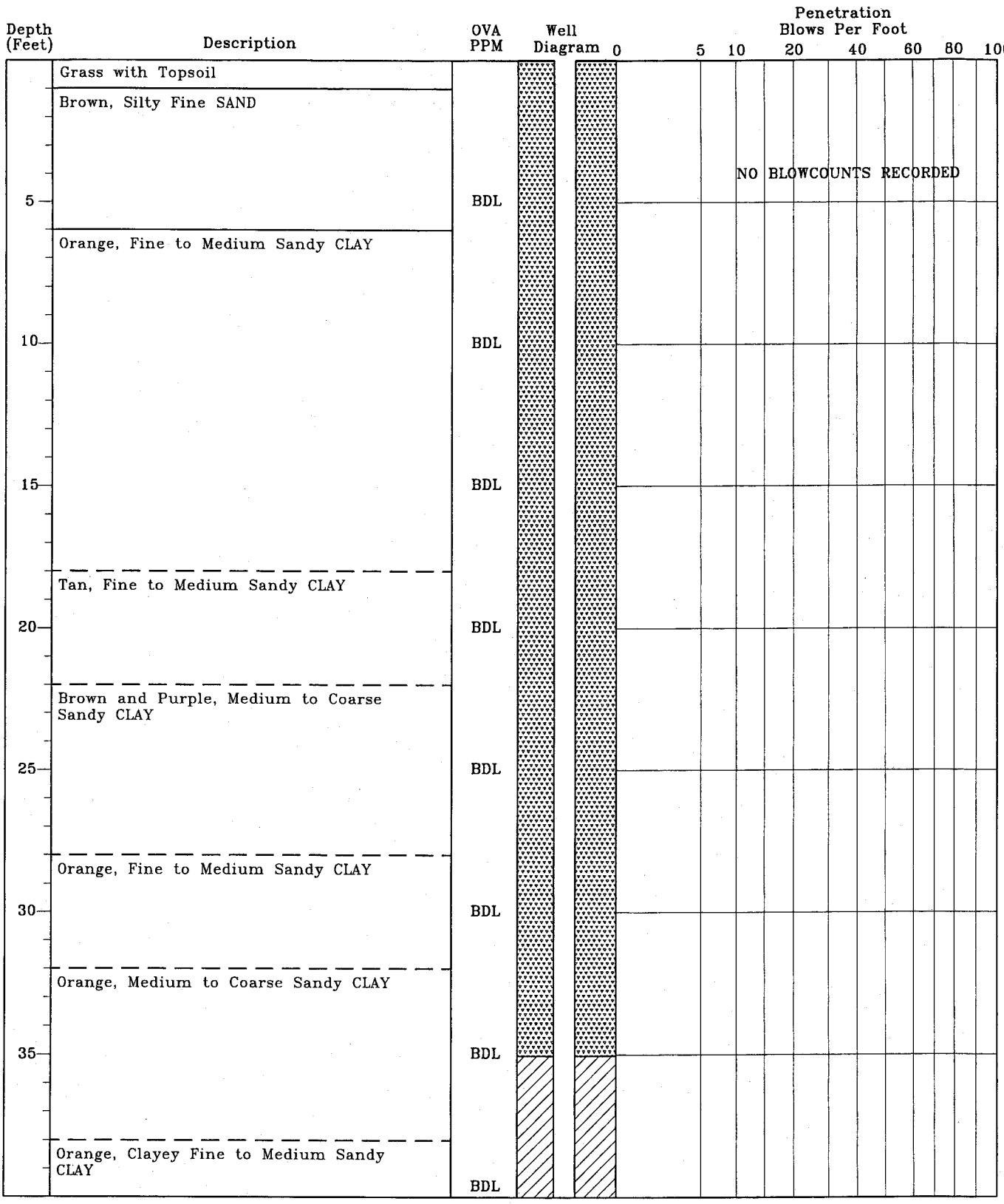
MONITORING WELL INSTALLATION RECORD

Gaston Food Mart
Gaston, South Carolina
SCDHEC Site ID* 05986
MECI Project Number 08-1501



Well Number:	MW-25
Date Drilled:	4/30/08
Drilled By:	Geologic Exploration Inc.
Driller: M. Gettys	S.C. I.D. #: A 01086
Logged By:	J. Coleman

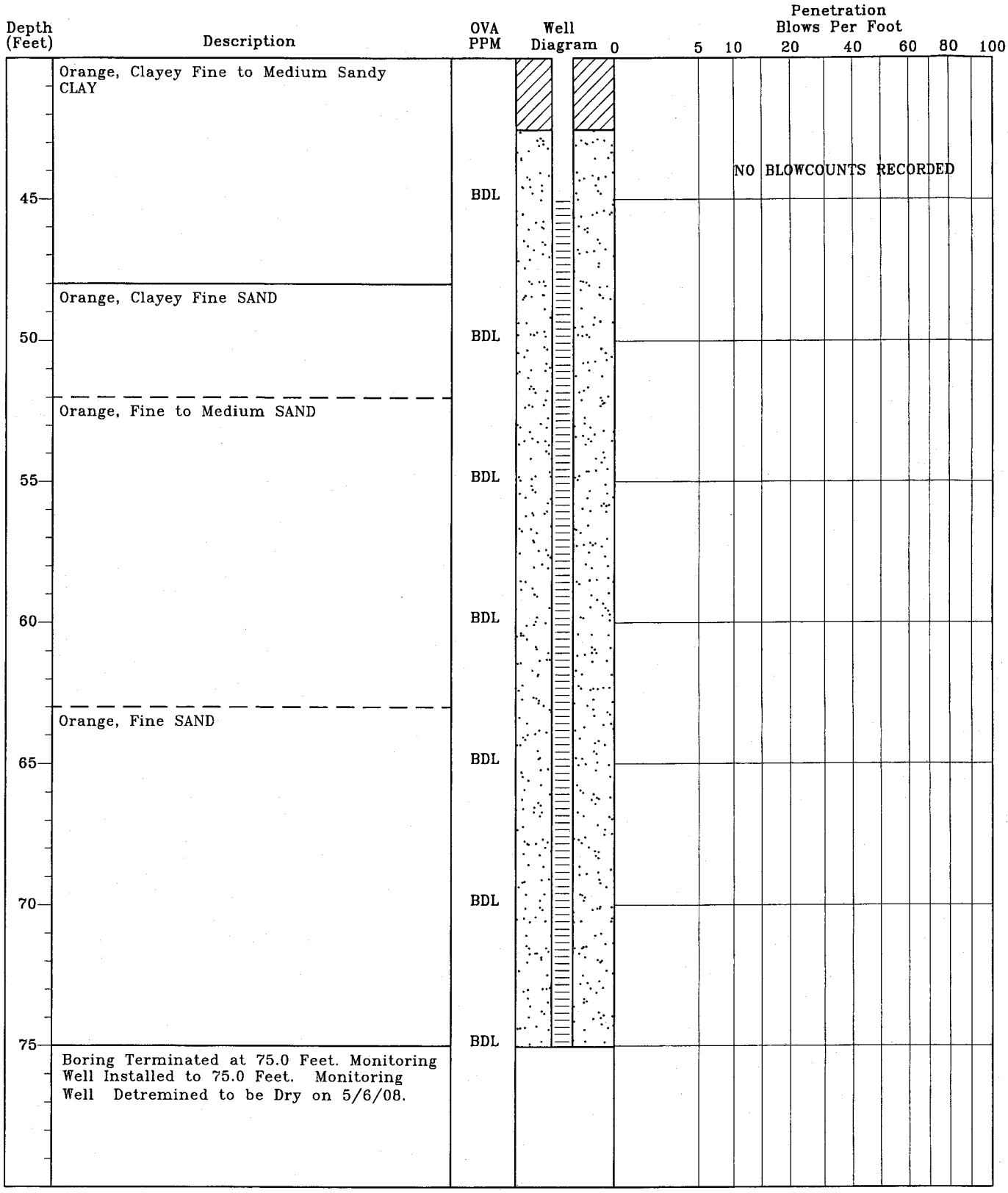
Prepared By:
Midlands Environmental Consultants, Inc.
235-B Dooley Road
Lexington, South Carolina 29073
(803) 808-2043 fax: 808-2048



TEST BORING RECORD
Gaston Food Mart
Gaston, South Carolina
SCDHEC Site ID# 05986
MECI Project Number 08-1501

Boring Number:	MW-26
Date Drilled:	5/2/08
Drilled By:	Geologic Exploration Inc.
Logged By:	J. Coleman

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



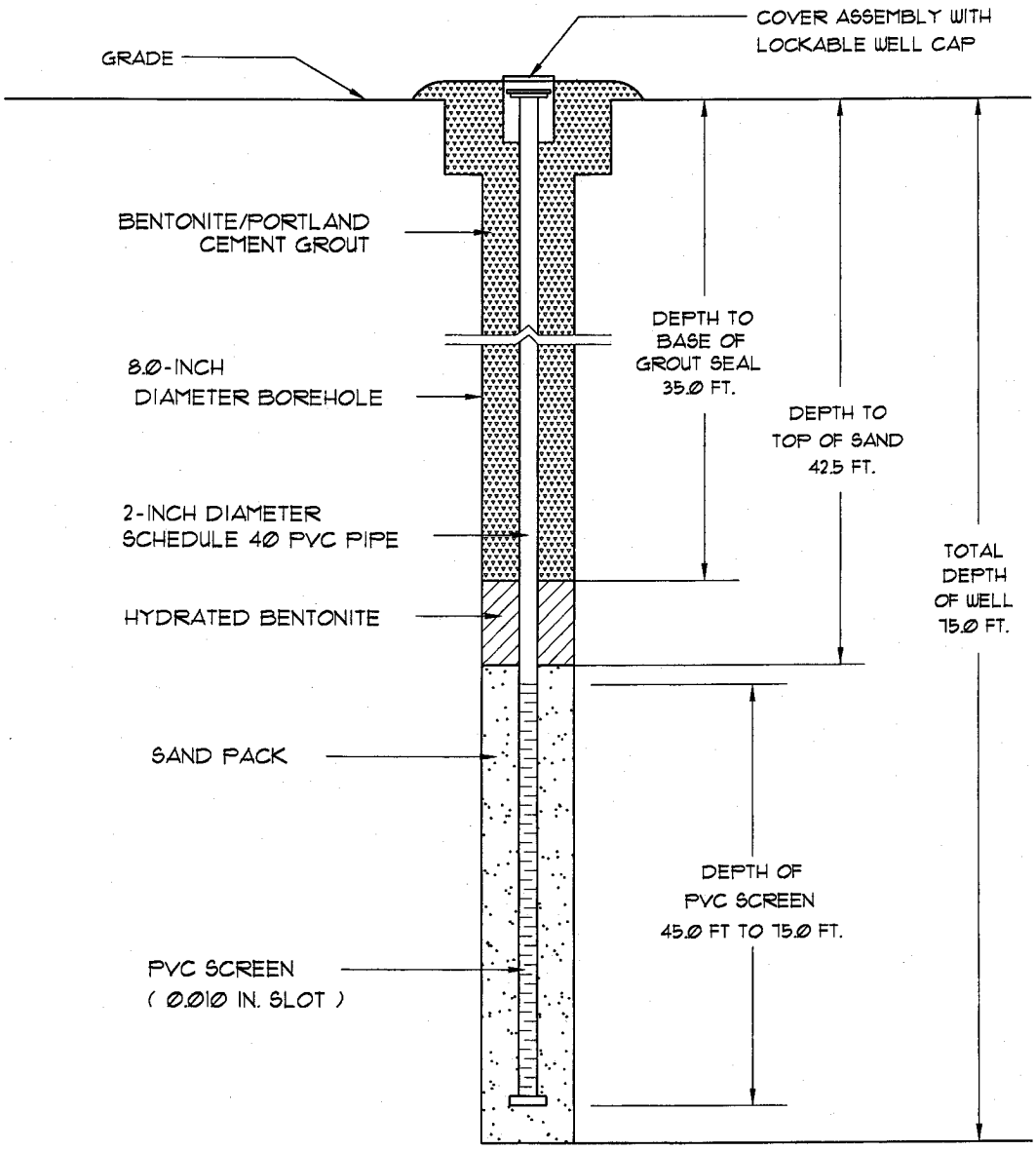
TEST BORING RECORD
Gaston Food Mart
Gaston, South Carolina
SCDHEC Site ID# 05986
MECI Project Number 08-1501

Boring Number:	MW-26
Date Drilled:	5/2/08
Drilled By:	Geologic Exploration Inc.
Logged By:	J. Coleman

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

MONITORING WELL INSTALLATION RECORD

Gaston Food Mart
Gaston, South Carolina
SCDHEC Site ID* 05986
MECI Project Number 08-1501



Well Number:	MW-26
Date Drilled:	5/2/08
Drilled By:	Geologic Exploration Inc.
Driller: M. McConnahey S.C. I.D. *: A 1276	
Logged By:	J. Coleman

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

Depth (Feet)	Description	OVA PPM
	Grass with Topsoil	
	Dry: Fill: Sampled as Brown, Fine to Medium SAND	BDL
		BDL
5		
		BDL
	Dry: Tan and White, Fine to Medium SAND	
		BDL
	Dry: Red and Tan, Fine to Medium SAND	
10		BDL
		BDL
	Dry: Mottled; Clayey Fine to Medium SAND	
		3.8
15	Dry: Red and Grey, Silty Fine SAND	
		2.0
	Dry: Red and Brown, Clayey Silty Fine to Medium SAND	
		BDL
	Dry: Red and Purple, Medium to Coarse Sandy Clay with Angular Quartz	
20		BDL
		4.8
	Dry: Brown and Orange, Clayey Fine to Medium SAND	
		3.0
	Moist: Brown, Silty Fine SAND	
25		3.1
		21.0
	Moist: Tan, SILT with Pebbles	
30		18.9
	Dry: White and Purple, Silty Medium to Coarse SAND with Pebbles	
		3.2
	Wet: Red and Brown, Fine to Medium Sandy SILT	
		1.2
35		
		BDL
	Wet: Brown, Fine Sandy SILT *	
		14.5
	Moist: Purple, Silty Fine to Medium SAND	
		BDL

Well Diagram

Penetration Blows Per Foot

0 5 10 20 40 60 80 100

NO BLOWCOUNTS RECORDED

* = Sampled for Grain Size

** = Sampled for BTEX, Napthalene, and MTBE

TEST BORING RECORD
Gaston Food Mart
Gaston, South Carolina
SCDHEC Site ID# 05986
MECI Project Number 08-1501

Boring Number:	GPS-1
Date Drilled:	4/25/08
Drilled By:	Geologic Exploration Inc.
Logged By:	J. Coleman

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

Depth (Feet)	Description	OVA PPM	Well Diagram
	Dry: Mottled; Brown, White and Purple Medium to Coarse SAND *		
	Wet: Brown, Fine Sandy SILT *	BDL	
45	Probe Refusal Encountered at 45.0 feet BGS. Boring Abandoned with a Bentonite/Grout Slurry on 4/25/2008.	BDL BDL	

Penetration Blows Per Foot: 0 5 10 20 40 60 80 100

NO BLOWCOUNTS RECORDED

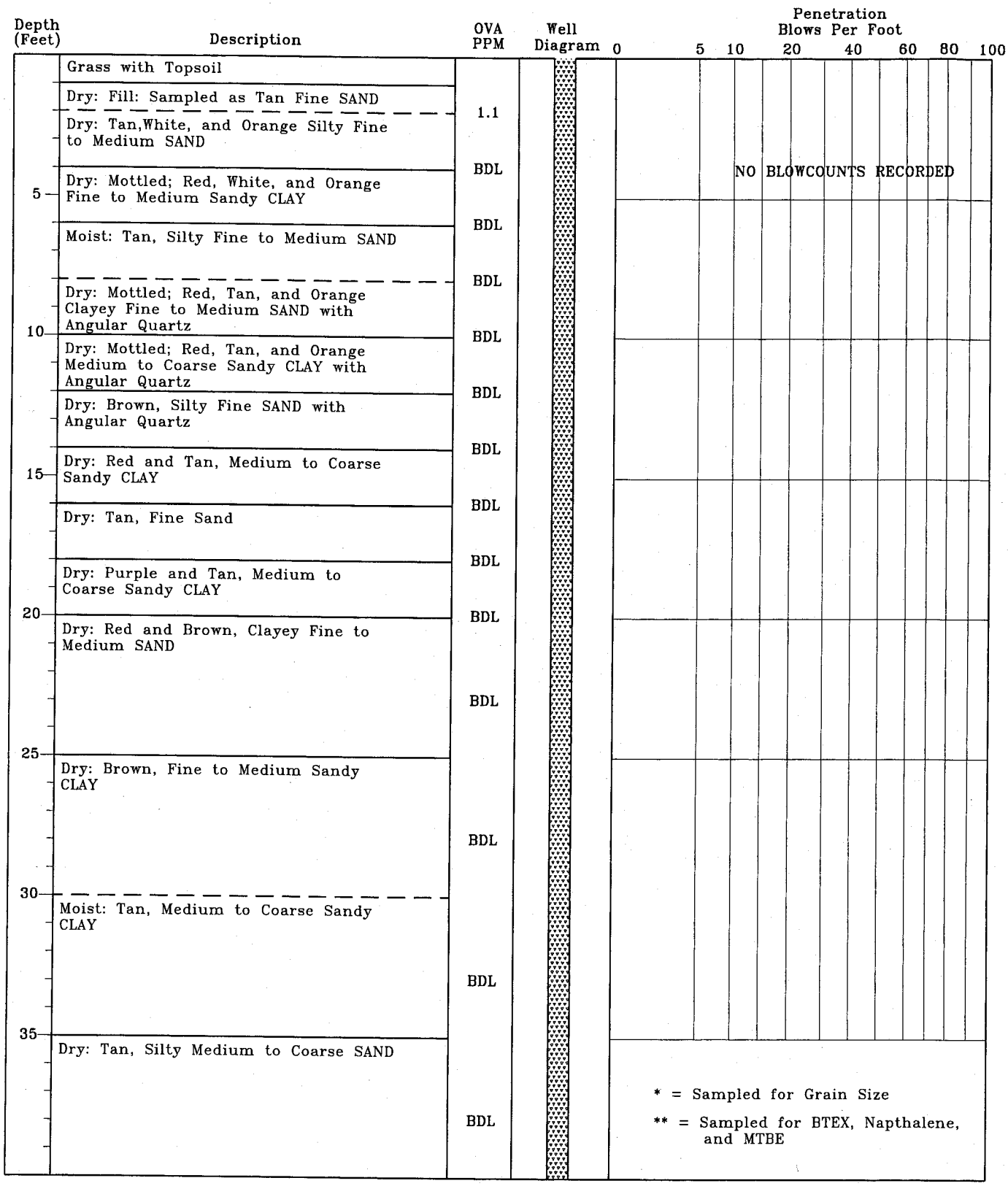
* = Sampled for Grain Size

** = Sampled for BTEX, Napthalene, and MTBE

TEST BORING RECORD
Gaston Food Mart
Gaston, South Carolina
SCDHEC Site ID* 05986
MECI Project Number 08-1501

Boring Number:	GPS-1
Date Drilled:	4/25/08
Drilled By:	Geologic Exploration Inc.
Logged By:	J. Coleman

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



TEST BORING RECORD
Gaston Food Mart
Gaston, South Carolina
SCDHEC Site ID# 05986
MECI Project Number 08-1501

Boring Number:	GPS-2
Date Drilled:	4/25/08
Drilled By:	Geologic Exploration Inc.
Logged By:	J. Coleman

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

Depth (Feet)	Description	OVA PPM	Well Diagram
	Wet: Orange, Silty Fine to Medium SAND *	BDL	
45	Dry: White, Clayey Medium to Coarse SAND */**	BDL	
50	Probe Refusal Encountered at 48.0 feet BGS. Boring Abandoned with a Bentonite/Grout Slurry on 4/25/2008.		
55			
60			
65			
70			
75			

Penetration Blows Per Foot

0 5 10 20 40 60 80 100

NO BLOWCOUNTS RECORDED

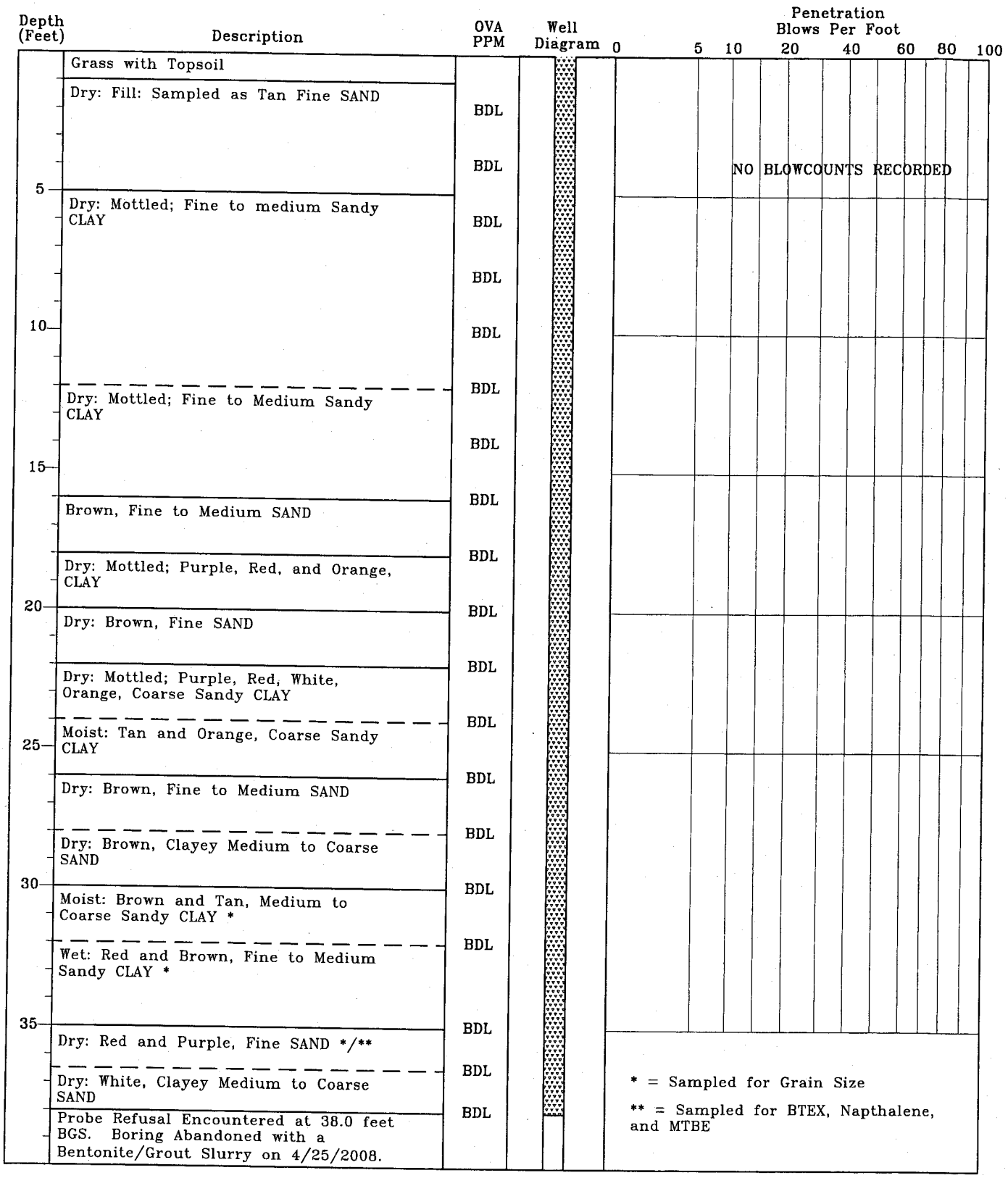
* = Sampled for Grain Size

** = Sampled for BTEX, Napthalene, and MTBE

TEST BORING RECORD
Gaston Food Mart
Gaston, South Carolina
SCDHEC Site ID* 05986
MECI Project Number 08-1501

Boring Number:	GPS-2
Date Drilled:	4/25/08
Drilled By:	Geologic Exploration Inc.
Logged By:	J. Coleman

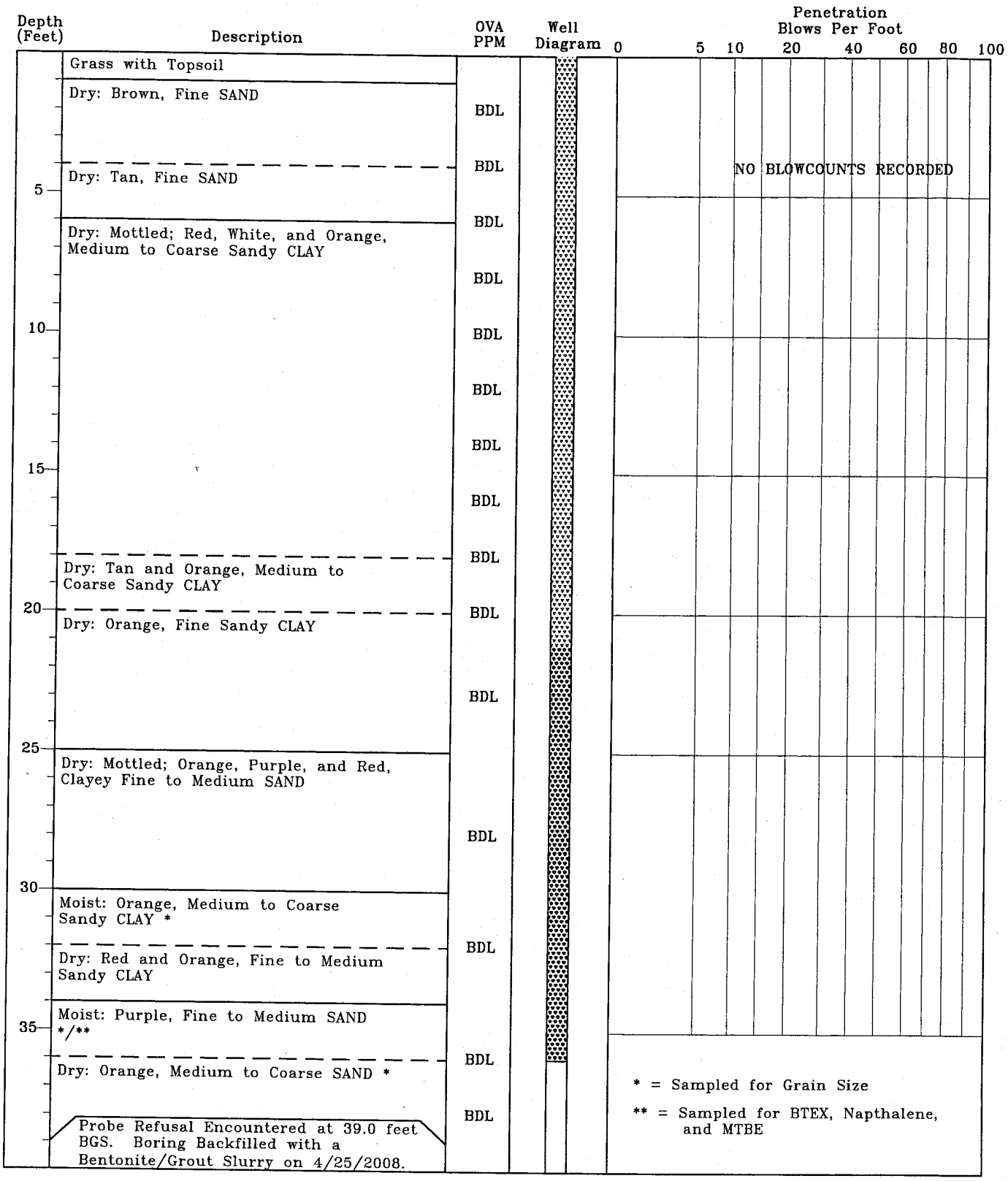
Prepared By:
Midlands Environmental Consultants, Inc.
235-B Dooley Road
Lexington, South Carolina 29073
(803) 808-2043 fax: 808-2048



TEST BORING RECORD
Gaston Food Mart
Gaston, South Carolina
SCDHEC Site ID# 05986
MECI Project Number 08-1501

Boring Number:	GPS-3
Date Drilled:	4/25/08
Drilled By:	Geologic Exploration Inc.
Logged By:	J. Coleman

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



TEST BORING RECORD
Gaston Food Mart
Gaston, South Carolina
SCDHEC Site ID# 05986
MECI Project Number 08-1501

Boring Number:	GPS-4
Date Drilled:	4/25/08
Drilled By:	Geologic Exploration Inc.
Logged By:	J. Coleman

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

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: FRANKFURTH (last) DALE & BETTY (first)
Address: 3244 SUNSET DRIVE
City: WEST COLUMBIA State: SC Zip: 29169
Telephone: Work: Home:

2. LOCATION OF WELL: SC **COUNTY:** LEXINGTON
Name: GASTON FOOD MART
Street Address: 105 N. MAIN STREET
City: GASTON Zip:
Latitude: Longitude:

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
GRAVEL	1.0	1.0
RED SILTY CLAY	15.0	16.0
BROWN SILTY CLAY	12.0	28.0
TAN SILTY CLAY	17.0	45.0
*Indicate Water Bearing Zones (Use a 2nd sheet if needed)		

5. REMARKS:
MW-16R BENTONITE SEAL FROM 24.0 TO 28.0 FT.

6. TYPE: ☐ Mud Rotary ☐ Jetted ☐ Bored ☐ Dug ☐ Air Rotary ☐ Driven ☐ Cable tool ☑ Other AUGER

7. PERMIT NUMBER:

8. USE:
☐ Residential ☐ Public Supply ☐ Process ☐ Irrigation ☐ Air Conditioning ☐ Emergency ☐ Test Well ☑ Monitor Well ☐ Replacement

9. WELL DEPTH (completed) 45.0 ft. Date Started: 04/02/08 Date Completed: 04/03/08

10. CASING: ☑ Threaded ☐ Welded
Diam.: 2 INCH
Type: ☑ PVC ☐ Galvanized ☐ Steel ☐ Other
2.0 in. to 30.0 ft. depth
_____ in. to _____ ft. depth
Height: Above ☐ Below ☐
Surface 0.0 ft.
Weight _____ lb./ft.
Drive Shoe? ☐ Yes ☐ No

11. SCREEN:
Type: SCH 40 PVC Diam.: 2 INCH
Slot/Gauge: .010 Length: 15.0 FEET
Set Between: 30.0 ft. and 45.0 ft.
_____ ft. and _____ ft.
NOTE: MULTIPLE SCREENS USE SECOND SHEET
Sieve Analysis ☐ Yes (please enclose) ☑ No

12. STATIC WATER LEVEL 33.0 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 28.0 ft. to 45.0 ft.
Effective size 1.43 Uniformity Coefficient 1.30

16. WELL GROUTED? ☑ Yes ☐ No
☑ Neat Cement ☐ Bentonite ☐ Bentonite/Cement ☐ Other _____
Depth: From 0.0 ft. to 24.0 ft.

17. NEAREST SOURCE OF POSSIBLE CONTAMINATION: ____ ft. ____ direction
Type _____
Well Disinfected ☐ Yes ☐ No Type: _____ 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: BRIAN THOMAS **CERT. NO.:** 01465
Address: (Print) 176 COMMERCE BLVD
STATESVILLE, NC 28625
Level: A ☐ B ☑ C ☐ D ☐ (circle one)
Telephone No.: 704-872-7686 Fax No.: 704-872-0248

20. WATER WELL DRILLER'S CERTIFICATION: This well was drilled under my direction and this report is true to the best of my knowledge and belief.

Signed: _____ Well Driller Date: 04/08/08

If D Level Driller, provide supervising driller's name:

DHEC 1903 (07/2003)

COPY 1 MAIL TO: S.C. DEPARTMENT OF HEALTH AND ENVIRONMENTAL CONTROL (ADDRESS ABOVE)

D H E C
PROMOTE PROTECT PROSPER

Water Well Record
Bureau of Water
2600 Bull Street, Columbia, SC 29201-1708; (803) 898-4300

1. WELL OWNER INFORMATION:
Name: JACKSON (last) SHERRELL (first)
Address: P.O. BOX 26
City: GASTON State: SC Zip:
Telephone: Work: Home:

2. LOCATION OF WELL: SC **COUNTY:** LEXINGTON
Name: GASTON FOOD MART
Street Address: 105 N. MAIN STREET
City: GASTON Zip:
Latitude: Longitude:

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
GRAVEL	1.0	1.0
RED SILTY CLAY	15.0	16.0
BROWN SILTY CLAY	12.0	28.0
TAN SILTY CLAY	20.0	48.0
*Indicate Water Bearing Zones (Use a 2nd sheet if needed)		

5. REMARKS:
MW-17R BENTONITE SEAL FROM 27.0 TO 31.0 FT.

6. TYPE: ☐ Mud Rotary ☐ Jetted ☐ Bored ☐ Dug ☐ Air Rotary ☐ Driven ☐ Cable tool ☑ Other AUGER

7. PERMIT NUMBER:

8. USE:
☐ Residential ☐ Public Supply ☐ Process ☐ Irrigation ☐ Air Conditioning ☐ Emergency ☐ Test Well ☑ Monitor Well ☐ Replacement

9. WELL DEPTH (completed) 48.0 ft. Date Started: 04/02/08 Date Completed: 04/03/08

10. CASING: ☑ Threaded ☐ Welded
Diam.: 2 INCH
Type: ☑ PVC ☐ Galvanized ☐ Steel ☐ Other
2.0 in. to 33.0 ft. depth
_____ in. to _____ ft. depth
Height: Above ☐ Below ☐
Surface 0.0 ft.
Weight _____ lb./ft.
Drive Shoe? ☐ Yes ☐ No

11. SCREEN:
Type: SCH 40 PVC Diam.: 2 INCH
Slot/Gauge: .010 Length: 15.0 FEET
Set Between: 33.0 ft. and 48.0 ft.
_____ ft. and _____ ft.
NOTE: MULTIPLE SCREENS USE SECOND SHEET
Sieve Analysis ☐ Yes (please enclose) ☑ No

12. STATIC WATER LEVEL 40.0 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 31.0 ft. to 48.0 ft.
Effective size 1.43 Uniformity Coefficient 1.30

16. WELL GROUTED? ☑ Yes ☐ No
☑ Neat Cement ☐ Bentonite ☐ Bentonite/Cement ☐ Other _____
Depth: From 0.0 ft. to 27.0 ft.

17. NEAREST SOURCE OF POSSIBLE CONTAMINATION: _____ ft. _____ direction
Type _____
Well Disinfected ☐ Yes ☐ No Type: _____ 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: BRIAN THOMAS **CERT. NO.:** 01465
Address: (Print) 176 COMMERCE BLVD
STATESVILLE, NC 28625
Level: A ☐ B ☑ C ☐ D ☐ (circle one)
Telephone No.: 704-872-7686 Fax No.: 704-872-0248

20. WATER WELL DRILLER'S CERTIFICATION: This well was drilled under my direction and this report is true to the best of my knowledge and belief.

Signed: _____ Well Driller 04/08/08

If D Level Driller, provide supervising driller's name:

DHEC 1903 (07/2003) **COPY 1 MAIL TO: S.C. DEPARTMENT 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: JACKSON, JR. (last) W.S. (first)
Address: PO BOX 26
City: GASTON State: SC Zip: 29053
Telephone: Work: Home:

2. LOCATION OF WELL: SC **COUNTY:** LEXINGTON
Name: GASTON FOOD MART
Street Address: 105 N. MAIN STREET
City: GASTON Zip:
Latitude: Longitude:

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
GRASS/TOPSOIL	1.0	1.0
GRAY/BROWN SILTY SAND	1.0	2.0
BROWN/ORANGE CLAYEY		
SILTY SAND	8.0	10.0
ORANGE CLAYEY SILTY SAND	10.0	20.0
ORANGE/TAN CLAYEY SILTY		
SAND	20.0	40.0
ORANGE/RED CLAYEY SILTY		
SAND	10.0	50.0
RED SILTY CLAYEY SAND	25.0	75.0
*Indicate Water Bearing Zones (Use a 2nd sheet if needed)		

5. REMARKS:
MW-17RR BENTONITE SEAL FROM 35.0 TO 42.5 FT.

6. TYPE: ☐ Mud Rotary ☐ Jetted ☐ Bored ☐ Dug ☐ Air Rotary ☐ Driven ☐ Cable tool ☑ Other AUGER

7. PERMIT NUMBER:

8. USE:
☐ Residential ☐ Public Supply ☐ Process ☐ Irrigation ☐ Air Conditioning ☐ Emergency ☐ Test Well ☑ Monitor Well ☐ Replacement

9. WELL DEPTH (completed) 75.0 ft. Date Started: 05/02/08 Date Completed: 05/02/08

10. CASING: ☑ Threaded ☐ Welded
Diam.: 2 INCH
Type: ☑ PVC ☐ Galvanized ☐ Steel ☐ Other
2.0 in. to 45.0 ft. depth
_____ in. to _____ ft. depth
Height: Above ☐ Below ☐
Surface 0.0 ft.
Weight _____ lb./ft.
Drive Shoe? ☐ Yes ☐ No

11. SCREEN:
Type: SCH 40 PVC Diam.: 2 INCH
Slot/Gauge: .010 Length: 30.0 FEET
Set Between: 45.0 ft. and 75.0 ft.
_____ ft. and _____ ft.
NOTE: MULTIPLE SCREENS USE SECOND SHEET
Sieve Analysis ☐ Yes (please enclose) ☑ No

12. STATIC WATER LEVEL DRY 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 42.5 ft. to 75.0 ft.
Effective size 1.43 Uniformity Coefficient 1.30

16. WELL GROUTED? ☑ Yes ☐ No
☑ Neat Cement ☐ Bentonite ☐ Bentonite/Cement ☐ Other _____
Depth: From 0.0 ft. to 35.0 ft.

17. NEAREST SOURCE OF POSSIBLE CONTAMINATION: _____ ft. _____ direction
Type _____
Well Disinfected ☐ Yes ☐ No Type: _____ 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: MIKE MCCONAHEY CERT. NO.: 01276
Address: (Print) 176 COMMERCE BLVD
STATESVILLE, NC 28625
Level: A ☑ B ☐ C ☐ D ☐ (circle one)
Telephone No.: 704-872-7686 Fax No.: 704-872-0248

20. WATER WELL DRILLER'S CERTIFICATION: This well was drilled under my direction and this report is true to the best of my knowledge and belief.

Signed: _____ (Well Driller) Date: 05/06/08

If D Level Driller, provide supervising driller's name:

DHEC 1903 (07/2003)

COPY 1 MAIL TO: S.C. DEPARTMENT OF HEALTH AND ENVIRONMENTAL CONTROL (ADDRESS ABOVE)

D H E C
PROMOTE PROTECT PROSPER

Water Well Record
Bureau of Water
2600 Bull Street, Columbia, SC 29201-1708; (803) 898-4300

1. WELL OWNER INFORMATION:
Name: SHUMPERT OIL COMPANY (last) (first)
Address: BOX 6
City: PELION State: SC Zip: 29123
Telephone: Work: Home:

2. LOCATION OF WELL: SC **COUNTY:** LEXINGTON
Name: GASTON FOOD MART
Street Address: 105 N. MAIN STREET
City: GASTON Zip:
Latitude: Longitude:

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
GRAVEL	1.0	1.0
RED SILTY CLAY	15.0	16.0
BROWN SILTY CLAY	12.0	28.0
TAN SILTY CLAY	16.0	44.0
*Indicate Water Bearing Zones (Use a 2nd sheet if needed)		

5. REMARKS:
MW-24 BENTONITE SEAL FROM 23.0 TO 27.0 FT.

6. TYPE: ☐ Mud Rotary ☐ Jetted ☐ Bored ☐ Dug ☐ Air Rotary ☐ Driven ☐ Cable tool ☑ Other AUGER

7. PERMIT NUMBER:

8. USE:
☐ Residential ☐ Public Supply ☐ Process ☐ Irrigation ☐ Air Conditioning ☐ Emergency ☐ Test Well ☑ Monitor Well ☐ Replacement

9. WELL DEPTH (completed) Date Started: 04/02/08
44.0 ft. Date Completed: 04/03/08

10. CASING: ☑ Threaded ☐ Welded
Diam.: 2 INCH
Type: ☑ PVC ☐ Galvanized ☐ Steel ☐ Other
2.0 in. to 29.0 ft. depth
_____ in. to _____ ft. depth
Height: Above ☐ Below ☐
Surface 0.0 ft.
Weight _____ lb./ft.
Drive Shoe? ☐ Yes ☐ No

11. SCREEN:
Type: SCH 40 PVC Diam.: 2 INCH
Slot/Gauge: .010 Length: 15.0 FEET
Set Between: 29.0 ft. and 44.0 ft.
_____ ft. and _____ ft.
NOTE: MULTIPLE SCREENS USE SECOND SHEET
Sieve Analysis ☐ Yes (please enclose) ☑ No

12. STATIC WATER LEVEL 38.0 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 27.0 ft. to 44.0 ft.
Effective size 1.43 Uniformity Coefficient 1.30

16. WELL GROUTED? ☑ Yes ☐ No
☑ Neat Cement ☐ Bentonite ☐ Bentonite/Cement ☐ Other _____
Depth: From 0.0 ft. to 23.0 ft.

17. NEAREST SOURCE OF POSSIBLE CONTAMINATION: ____ ft. ____ direction
Type _____
Well Disinfected ☐ Yes ☐ No Type: _____ 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: BRIAN THOMAS **CERT. NO.:** 01465
Address: (Print) 176 COMMERCE BLVD
STATESVILLE, NC 28625
Level: A ☐ B ☑ C ☐ D ☐ (circle one)
Telephone No.: 704-872-7686 Fax No.: 704-872-0248

20. WATER WELL DRILLER'S CERTIFICATION: This well was drilled under my direction and this report is true to the best of my knowledge and belief.

Signed: _____ (Well Driller) Date: 04/08/08

If D Level Driller, provide supervising driller's name:

DHEC 1903 (07/2003)

COPY 1 MAIL TO: S.C. DEPARTMENT 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: SHUMPERT (last) D.F. (first)
Address: 814 PINE STREET
City: PELION State: SC Zip: 29123
Telephone: Work: Home:

2. LOCATION OF WELL: SC **COUNTY:** LEXINGTON
Name: GASTON FOOD MART
Street Address: 105 N. MAIN STREET
City: GASTON Zip:
Latitude: Longitude:

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
TAN SAND	10.0	10.0
BROWN/RED CLAYEY SAND	10.0	20.0
ORANGE SANDY CLAY	5.0	25.0
BROWN/PURPLE SANDY CLAY	10.0	35.0
BROWN SAND	5.0	40.0
ORANGE CLAYEY SAND	5.0	45.0
BROWN CLAYEY SAND	15.0	60.0
*Indicate Water Bearing Zones (Use a 2nd sheet if needed)		

5. REMARKS:
MW-25 BENTONITE SEAL FROM 36.0 TO 38.0 FT.

6. TYPE: ☐ Mud Rotary ☐ Jetted ☐ Bored ☐ Dug ☐ Air Rotary ☐ Driven ☐ Cable tool ☑ Other AUGER

7. PERMIT NUMBER:

8. USE:
☐ Residential ☐ Public Supply ☐ Process ☐ Irrigation ☐ Air Conditioning ☐ Emergency ☐ Test Well ☑ Monitor Well ☐ Replacement

9. WELL DEPTH (completed) 60.0 ft. Date Started: 04/30/08 Date Completed: 04/30/08

10. CASING: ☑ Threaded ☐ Welded
Diam.: 2 INCH
Type: ☑ PVC ☐ Galvanized ☐ Steel ☐ Other
2.0 in. to 40.0 ft. depth
_____ in. to _____ ft. depth
Height: Above ☐ Below ☐
Surface 0.0 ft.
Weight _____ lb./ft.
Drive Shoe? ☐ Yes ☐ No

11. SCREEN:
Type: SCH 40 PVC Diam.: 2 INCH
Slot/Gauge: .010 Length: 20.0
Set Between: 40.0 ft. and 60.0 ft.
_____ ft. and _____ ft.
NOTE: MULTIPLE SCREENS USE SECOND SHEET
Sieve Analysis ☐ Yes (please enclose) ☑ No

12. STATIC WATER LEVEL 38.0 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 38.0 ft. to 60.0 ft.
Effective size 1.43 Uniformity Coefficient 1.30

16. WELL GROUTED? ☑ Yes ☐ No
☑ Neat Cement ☐ Bentonite ☐ Bentonite/Cement ☐ Other _____
Depth: From 0.0 ft. to 36.0 ft.

17. NEAREST SOURCE OF POSSIBLE CONTAMINATION: ____ ft. ____ direction
Type _____
Well Disinfected ☐ Yes ☐ No Type: _____ 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: MARK GETTYS CERT. NO.: 01086
Address: (Print) 176 COMMERCE BLVD
STATESVILLE, NC 28625
Level: A ☑ B ☐ C ☐ D ☐ (circle one)
Telephone No.: 704-872-7686 Fax No.: 704-872-0248

20. WATER WELL DRILLER'S CERTIFICATION: This well was drilled under my direction and this report is true to the best of my knowledge and belief.

Signed: Mark K. Gettys Well Driller Date: 05/06/08

If D Level Driller, provide supervising driller's name:

DHEC 1903 (07/2003)

COPY 1 MAIL TO: S.C. DEPARTMENT 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: JACKSON, JR. (last) W.S. (first)
Address: PO BOX 26
City: GASTON State: SC Zip: 29053
Telephone: Work: Home:

2. LOCATION OF WELL: SC **COUNTY:** LEXINGTON
Name: GASTON FOOD MART
Street Address: 105 N. MAIN STREET
City: GASTON Zip:
Latitude: Longitude:

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
GRASS/TOPSOIL	1.0	1.0
GRAY/BROWN SILTY SAND	1.0	2.0
BROWN/ORANGE CLAYEY		
SILTY SAND	8.0	10.0
ORANGE CLAYEY SILTY SAND	10.0	20.0
ORANGE/TAN CLAYEY SILTY		
SAND	20.0	40.0
ORANGE/RED CLAYEY SILTY		
SAND	10.0	50.0
RED SILTY CLAYEY SAND	25.0	75.0
*Indicate Water Bearing Zones (Use a 2nd sheet if needed)		

5. REMARKS:
MW-26 BENTONITE SEAL FROM 35.0 TO 42.5 FT.

6. TYPE: ☐ Mud Rotary ☐ Jetted ☐ Bored ☐ Dug ☐ Air Rotary ☐ Driven ☐ Cable tool ☑ Other AUGER

7. PERMIT NUMBER:

8. USE:
☐ Residential ☐ Public Supply ☐ Process ☐ Irrigation ☐ Air Conditioning ☐ Emergency ☐ Test Well ☑ Monitor Well ☐ Replacement

9. WELL DEPTH (completed) Date Started: 05/02/08
75.0 ft. Date Completed: 05/02/08

10. CASING: ☑ Threaded ☐ Welded
Diam.: 2 INCH
Type: ☑ PVC ☐ Galvanized ☐ Steel ☐ Other
2.0 in. to 45.0 ft. depth
_____ in. to _____ ft. depth
Height: Above ☐ Below ☐
Surface 0.0 ft.
Weight _____ lb./ft.
Drive Shoe? ☐ Yes ☐ No

11. SCREEN:
Type: SCH 40 PVC Diam.: 2 INCH
Slot/Gauge: .010 Length: 30.0 FEET
Set Between: 45.0 ft. and 75.0 ft.
_____ ft. and _____ ft.
NOTE: MULTIPLE SCREENS USE SECOND SHEET
Sieve Analysis ☐ Yes (please enclose) ☑ No

12. STATIC WATER LEVEL DRY 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 42.5 ft. to 75.0 ft.
Effective size 1.43 Uniformity Coefficient 1.30

16. WELL GROUTED? ☑ Yes ☐ No
☑ Neat Cement ☐ Bentonite ☐ Bentonite/Cement ☐ Other _____
Depth: From 0.0 ft. to 35.0 ft.

17. NEAREST SOURCE OF POSSIBLE CONTAMINATION: ____ ft. ____ direction
Type _____
Well Disinfected ☐ Yes ☐ No Type: _____ 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: MIKE MCCONAHEY CERT. NO.: 01276
Address: (Print) 176 COMMERCE BLVD
STATESVILLE, NC 28625
Level: A ☑ B ☐ C ☐ D ☐ (circle one)
Telephone No.: 704-872-7686 Fax No.: 704-872-0248

20. WATER WELL DRILLER'S CERTIFICATION: This well was drilled under my direction and this report is true to the best of my knowledge and belief.

Signed: _____ Well Driller Date: 05/06/08

If D Level Driller, provide supervising driller's name:

DHEC 1903 (07/2003)

COPY 1 MAIL TO: S.C. DEPARTMENT OF HEALTH AND ENVIRONMENTAL CONTROL (ADDRESS ABOVE)

APPENDIX B

ANALYTICAL RESULTS

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

May 19, 2008

Mr. Bryan Shane
Midlands Environmental
PO Box 854
Lexington, SC 29071

RE: Project: GASTON FOOD MART 08-1501
Pace Project No.: 9218260

Dear Mr. Shane:
Enclosed are the analytical results for sample(s) received by the laboratory on April 29, 2008. 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 Godwin

kevin.godwin@pacelabs.com
Project Manager

Enclosures

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

CERTIFICATIONS

Project: GASTON FOOD MART 08-1501
Pace Project No.: 9218260

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

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

ANALYTICAL RESULTS

Project: GASTON FOOD MART 08-1501
Pace Project No.: 9218260

Sample: GPS-2 (40'-44') **Lab ID: 9218260006** Collected: 04/25/08 00:00 Received: 04/29/08 12:09 Matrix: Solid

Results reported on a "dry-weight" basis

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260/5035A Volatile Organics	Analytical Method: EPA 8260							
Benzene	ND	ug/kg	5.5	1		04/30/08 17:28	71-43-2	
Ethylbenzene	ND	ug/kg	5.5	1		04/30/08 17:28	100-41-4	
Methyl-tert-butyl ether	ND	ug/kg	5.5	1		04/30/08 17:28	1634-04-4	
Naphthalene	ND	ug/kg	5.5	1		04/30/08 17:28	91-20-3	
Toluene	ND	ug/kg	5.5	1		04/30/08 17:28	108-88-3	
Xylene (Total)	ND	ug/kg	11.0	1		04/30/08 17:28	1330-20-7	
m&p-Xylene	ND	ug/kg	11.0	1		04/30/08 17:28	1330-20-7	
o-Xylene	ND	ug/kg	5.5	1		04/30/08 17:28	95-47-6	
Dibromofluoromethane (S)	105	%	79-116	1		04/30/08 17:28	1868-53-7	
Toluene-d8 (S)	102	%	88-110	1		04/30/08 17:28	2037-26-5	
4-Bromofluorobenzene (S)	96	%	74-115	1		04/30/08 17:28	460-00-4	
1,2-Dichloroethane-d4 (S)	105	%	69-121	1		04/30/08 17:28	17060-07-0	
Percent Moisture	Analytical Method: ASTM D2974-87							
Percent Moisture	**24.5**	%	0.10	1		05/01/08 08:45		

Sample: GPS-3 (35'-37') **Lab ID: 9218260009** Collected: 04/25/08 00:00 Received: 04/29/08 12:09 Matrix: Solid

Results reported on a "dry-weight" basis

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260/5035A Volatile Organics	Analytical Method: EPA 8260							
Benzene	ND	ug/kg	4.5	1		04/30/08 17:46	71-43-2	
Ethylbenzene	ND	ug/kg	4.5	1		04/30/08 17:46	100-41-4	
Methyl-tert-butyl ether	ND	ug/kg	4.5	1		04/30/08 17:46	1634-04-4	
Naphthalene	ND	ug/kg	4.5	1		04/30/08 17:46	91-20-3	
Toluene	ND	ug/kg	4.5	1		04/30/08 17:46	108-88-3	
Xylene (Total)	ND	ug/kg	9.0	1		04/30/08 17:46	1330-20-7	
m&p-Xylene	ND	ug/kg	9.0	1		04/30/08 17:46	1330-20-7	
o-Xylene	ND	ug/kg	4.5	1		04/30/08 17:46	95-47-6	
Dibromofluoromethane (S)	103	%	79-116	1		04/30/08 17:46	1868-53-7	
Toluene-d8 (S)	101	%	88-110	1		04/30/08 17:46	2037-26-5	
4-Bromofluorobenzene (S)	99	%	74-115	1		04/30/08 17:46	460-00-4	
1,2-Dichloroethane-d4 (S)	101	%	69-121	1		04/30/08 17:46	17060-07-0	
Percent Moisture	Analytical Method: ASTM D2974-87							
Percent Moisture	**18.5**	%	0.10	1		05/01/08 08:45		

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

ANALYTICAL RESULTS

Project: GASTON FOOD MART 08-1501
Pace Project No.: 9218260

Sample: GPS-4 (34'-36') **Lab ID: 9218260011** Collected: 04/25/08 00:00 Received: 04/29/08 12:09 Matrix: Solid

Results reported on a "dry-weight" basis

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260/5035A Volatile Organics	Analytical Method: EPA 8260							
Benzene	ND	ug/kg	4.9	1		04/30/08 18:04	71-43-2	
Ethylbenzene	ND	ug/kg	4.9	1		04/30/08 18:04	100-41-4	
Methyl-tert-butyl ether	ND	ug/kg	4.9	1		04/30/08 18:04	1634-04-4	
Naphthalene	ND	ug/kg	4.9	1		04/30/08 18:04	91-20-3	
Toluene	ND	ug/kg	4.9	1		04/30/08 18:04	108-88-3	
Xylene (Total)	ND	ug/kg	9.7	1		04/30/08 18:04	1330-20-7	
m&p-Xylene	ND	ug/kg	9.7	1		04/30/08 18:04	1330-20-7	
o-Xylene	ND	ug/kg	4.9	1		04/30/08 18:04	95-47-6	
Dibromofluoromethane (S)	105	%	79-116	1		04/30/08 18:04	1868-53-7	
Toluene-d8 (S)	104	%	88-110	1		04/30/08 18:04	2037-26-5	
4-Bromofluorobenzene (S)	93	%	74-115	1		04/30/08 18:04	460-00-4	
1,2-Dichloroethane-d4 (S)	103	%	69-121	1		04/30/08 18:04	17060-07-0	
Percent Moisture	Analytical Method: ASTM D2974-87							
Percent Moisture	**13.8**	%	0.10	1		05/01/08 08:46		

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: GASTON FOOD MART 08-1501
Pace Project No.: 9218260

QC Batch: MSV/3255
QC Batch Method: EPA 8260
Analysis Method: EPA 8260
Analysis Description: 8260 MSV 5035A Volatile Organics
Associated Lab Samples: 9218260006, 9218260009, 9218260011

METHOD BLANK: 107578
Associated Lab Samples: 9218260006, 9218260009, 9218260011

Parameter	Units	Blank Result	Reporting Limit	Qualifiers
Benzene	ug/kg	ND	5.0	
Ethylbenzene	ug/kg	ND	5.0	
m&p-Xylene	ug/kg	ND	10.0	
Methyl-tert-butyl ether	ug/kg	ND	5.0	
Naphthalene	ug/kg	ND	5.0	
o-Xylene	ug/kg	ND	5.0	
Toluene	ug/kg	ND	5.0	
Xylene (Total)	ug/kg	ND	10.0	
1,2-Dichloroethane-d4 (S)	%	83	69-121	
4-Bromofluorobenzene (S)	%	94	74-115	
Dibromofluoromethane (S)	%	94	79-116	
Toluene-d8 (S)	%	100	88-110	

LABORATORY CONTROL SAMPLE: 107579

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Benzene	ug/kg	51	60.4	118	71-140	
Ethylbenzene	ug/kg	51	60.2	118	69-141	
m&p-Xylene	ug/kg	102	120	118	72-138	
Methyl-tert-butyl ether	ug/kg	51	67.8	133	2-138	
Naphthalene	ug/kg	51	67.0	131	61-138	
o-Xylene	ug/kg	51	59.2	116	74-137	
Toluene	ug/kg	51	59.4	116	69-139	
Xylene (Total)	ug/kg	153	180	117	73-138	
1,2-Dichloroethane-d4 (S)	%			102	69-121	
4-Bromofluorobenzene (S)	%			99	74-115	
Dibromofluoromethane (S)	%			102	79-116	
Toluene-d8 (S)	%			99	88-110	

MATRIX SPIKE SAMPLE: 108225

Parameter	Units	9218260006 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Benzene	ug/kg	ND	53.2	52.8	99	46-143	
Toluene	ug/kg	ND	53.2	50.7	95	38-145	
1,2-Dichloroethane-d4 (S)	%				101	69-121	
4-Bromofluorobenzene (S)	%				94	74-115	
Dibromofluoromethane (S)	%				100	79-116	
Toluene-d8 (S)	%				101	88-110	

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: GASTON FOOD MART 08-1501
Pace Project No.: 9218260

SAMPLE DUPLICATE: 108224

Parameter	Units	9218082005 Result	Dup Result	RPD	Qualifiers
Benzene	ug/kg	ND	ND	200	
Ethylbenzene	ug/kg	ND	ND	0	
m&p-Xylene	ug/kg	ND	ND	0	
Methyl-tert-butyl ether	ug/kg	ND	ND	0	
Naphthalene	ug/kg	1.8J	ND	200	
o-Xylene	ug/kg	ND	ND	0	
Toluene	ug/kg	ND	ND	200	
Xylene (Total)	ug/kg	ND	ND	2	
1,2-Dichloroethane-d4 (S)	%	107	100	9	
4-Bromofluorobenzene (S)	%	82	94	11	
Dibromofluoromethane (S)	%	107	102	7	
Toluene-d8 (S)	%	99	103	2	

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: GASTON FOOD MART 08-1501
Pace Project No.: 9218260

QC Batch: PMST/1627 Analysis Method: ASTM D2974-87
QC Batch Method: ASTM D2974-87 Analysis Description: Dry Weight/Percent Moisture
Associated Lab Samples: 9218260006, 9218260009, 9218260011

SAMPLE DUPLICATE: 107892

Parameter	Units	9218143001 Result	Dup Result	RPD	Qualifiers
Percent Moisture	%	43.6	42.9	2	

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

QUALIFIERS

Project: GASTON FOOD MART 08-1501
Pace Project No.: 9218260

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)

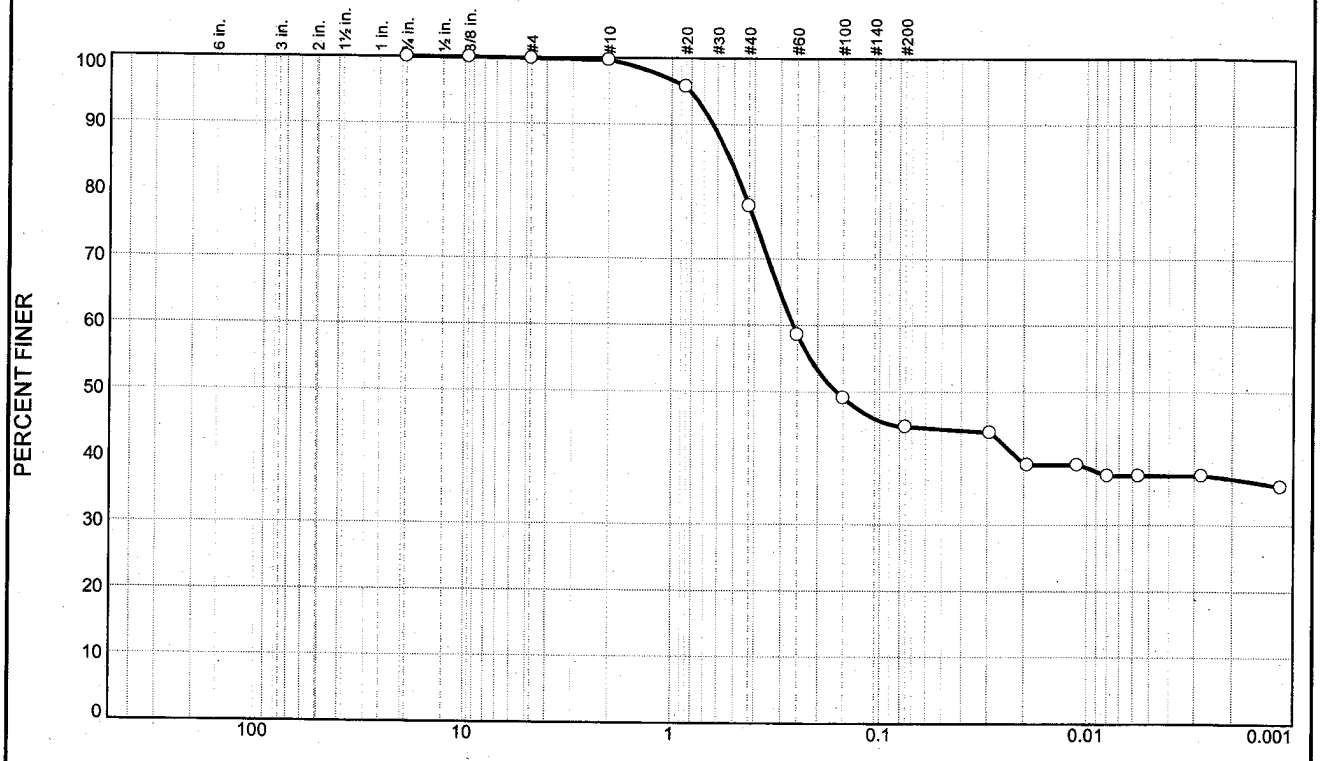
DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

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

Particle Size Distribution Report



% +3"	% Gravel		% Sand			% Fines	
	Coarse	Fine	Coarse	Medium	Fine	Silt	Clay
0.0	0.0	0.2	0.2	21.7	33.1	7.4	37.4

SIEVE SIZE	PERCENT FINER	SPEC.* PERCENT	PASS? (X=NO)
3/4	100.0		
3/8"	100.0		
#4	99.8		
#10	99.6		
#20	95.7		
#40	77.9		
#60	58.6		
#100	49.1		
#200	44.8		
0.0291 mm.	43.9		
0.0192 mm.	39.1		
0.0111 mm.	39.1		
0.0079 mm.	37.4		
0.0056 mm.	37.4		
0.0027 mm.	37.4		
0.0012 mm.	35.8		

* (no specification provided)

Soil Description

Red Brown Silty SAND

Atterberg Limits

PL= LL= PI=

Coefficients

D_{85}= 0.5262 D_{60}= 0.2620 D_{50}= 0.1617
D_{30}= D_{15}= D_{10}=
C_u= C_c=

Classification

USCS= AASHTO=

Remarks

Location: 9218260001
Sample Number: 9218260001 **Depth:** 36' to 38' **Date:** 5/12/08

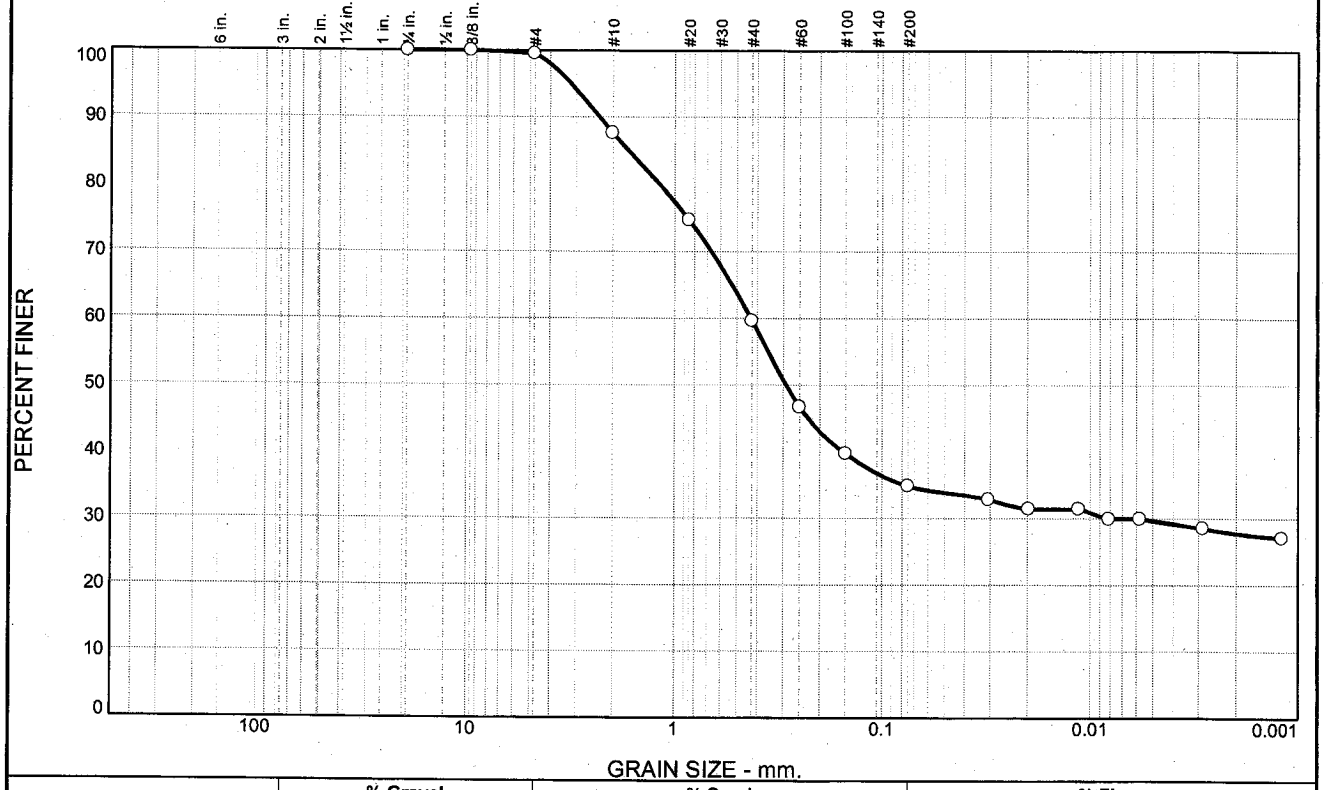
WPC

Charlotte, NC

Client: Pace Analytical
Project: Pace Analytical

Project No: **Figure**

Particle Size Distribution Report



% +3"	% Gravel		% Sand			% Fines	
	Coarse	Fine	Coarse	Medium	Fine	Silt	Clay
0.0	0.0	0.5	11.9	28.0	24.8	5.2	29.6

SIEVE SIZE	PERCENT FINER	SPEC.* PERCENT	PASS? (X=NO)
3/4"	100.0		
3/8"	100.0		
#4	99.5		
#10	87.6		
#20	74.7		
#40	59.6		
#60	46.7		
#100	39.7		
#200	34.8		
0.0307 mm.	32.8		
0.0197 mm.	31.4		
0.0114 mm.	31.4		
0.0081 mm.	29.9		
0.0058 mm.	29.9		
0.0029 mm.	28.5		
0.0012 mm.	27.1		

* (no specification provided)

Soil Description

Light Brown Silty SAND

Atterberg Limits

PL= LL= PI=

Coefficients

D_{85}= 1.6790 D_{60}= 0.4313 D_{50}= 0.2907
D_{30}= 0.0083 D_{15}= D_{10}=
C_u= C_c=

Classification

USCS= AASHTO=

Remarks

Location: 9218260002
Sample Number: 9218260002 **Depth:** 40' to 42' **Date:** 5/12/08

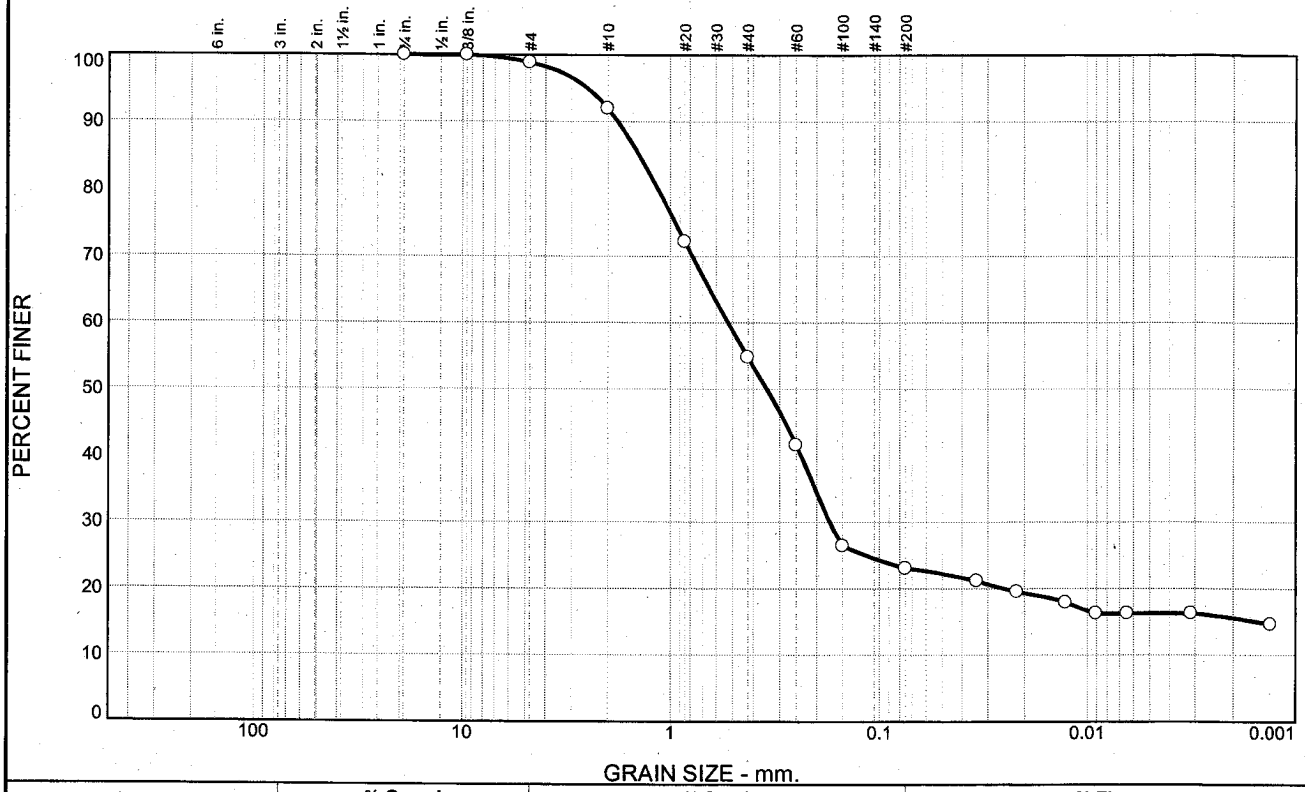
WPC

Charlotte, NC

Client: Pace Analytical
Project: Pace Analytical

Project No: **Figure**

Particle Size Distribution Report



% +3"	% Gravel		% Sand			% Fines	
	Coarse	Fine	Coarse	Medium	Fine	Silt	Clay
0.0	0.0	1.2	6.8	37.2	31.7	6.8	16.3

SIEVE SIZE	PERCENT FINER	SPEC.* PERCENT	PASS? (X=NO)
3/4"	100.0		
3/8"	100.0		
#4	98.8		
#10	92.0		
#20	72.1		
#40	54.8		
#60	41.6		
#100	26.4		
#200	23.1		
0.0341 mm.	21.1		
0.0218 mm.	19.5		
0.0127 mm.	17.9		
0.0091 mm.	16.3		
0.0064 mm.	16.3		
0.0031 mm.	16.3		
0.0013 mm.	14.7		

* (no specification provided)

Soil Description

Red Brown Clayey SAND

Atterberg Limits

PL= LL= PI=

Coefficients

D_{85}= 1.4107 D_{60}= 0.5285 D_{50}= 0.3448
D_{30}= 0.1733 D_{15}= 0.0015 D_{10}=
C_u= C_c=

Classification

USCS= AASHTO=

Remarks

Location: 9218260003 GPS-1
Sample Number: 9218260003 **Depth:** 42' to 44' **Date:**

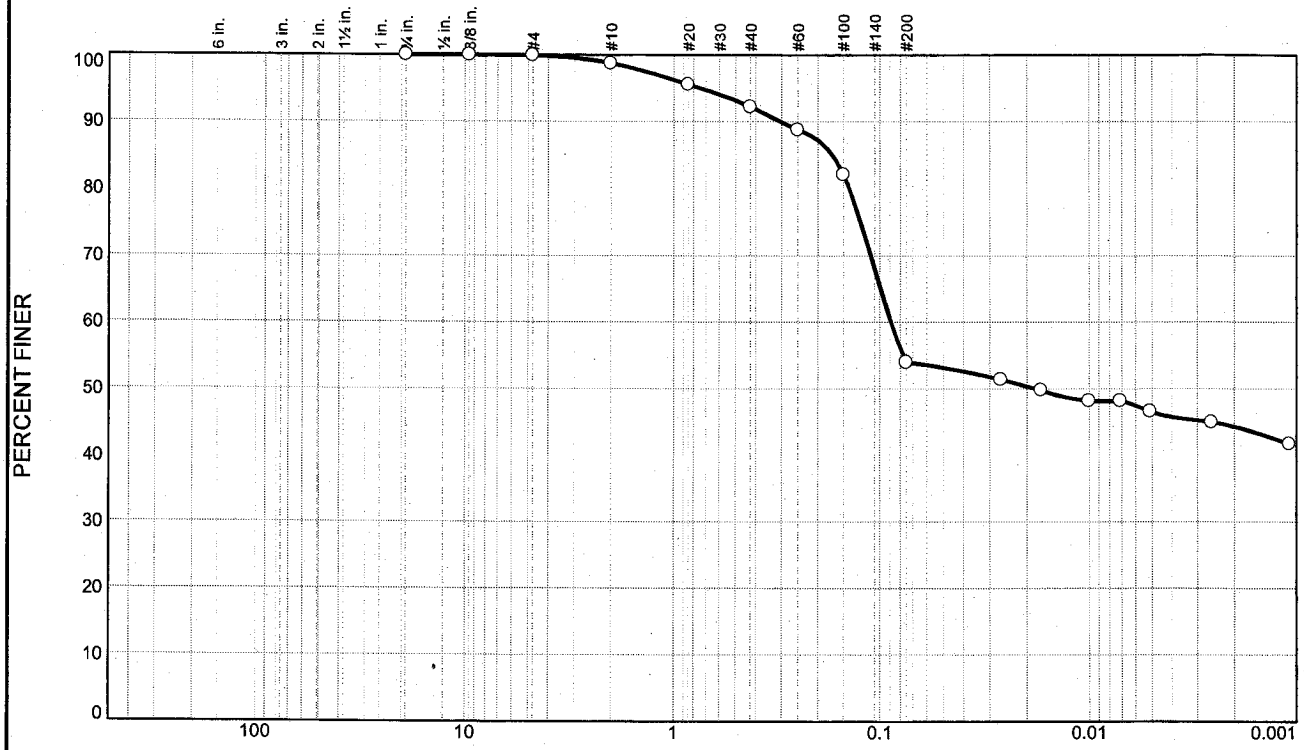
WPC

Charlotte, NC

Client: Pace Analytical
Project: Pace Analytical

Project No: **Figure**

Particle Size Distribution Report



% +3"	% Gravel		% Sand			% Fines	
	Coarse	Fine	Coarse	Medium	Fine	Silt	Clay
0.0	0.0	0.1	1.1	6.6	38.2	7.5	46.5

SIEVE SIZE	PERCENT FINER	SPEC.* PERCENT	PASS? (X=NO)
3/4"	100.0		
3/8"	100.0		
#4	99.9		
#10	98.8		
#20	95.6		
#40	92.2		
#60	88.8		
#100	82.1		
#200	54.0		
0.0266 mm.	51.4		
0.0171 mm.	49.8		
0.0100 mm.	48.2		
0.0071 mm.	48.2		
0.0051 mm.	46.6		
0.0025 mm.	45.0		
0.0011 mm.	41.8		

* (no specification provided)

Soil Description

Light Brown Sandy SILT

Atterberg Limits

PL= LL= PI=

Coefficients

D_{85}= 0.1698 D_{60}= 0.0885 D_{50}= 0.0182
D_{30}= D_{15}= D_{10}=
C_u= C_c=

Classification

USCS= AASHTO=

Remarks

Location: 9218260004 GPS-2
Sample Number: 9218260004 **Depth:** 30' to 35' **Date:**

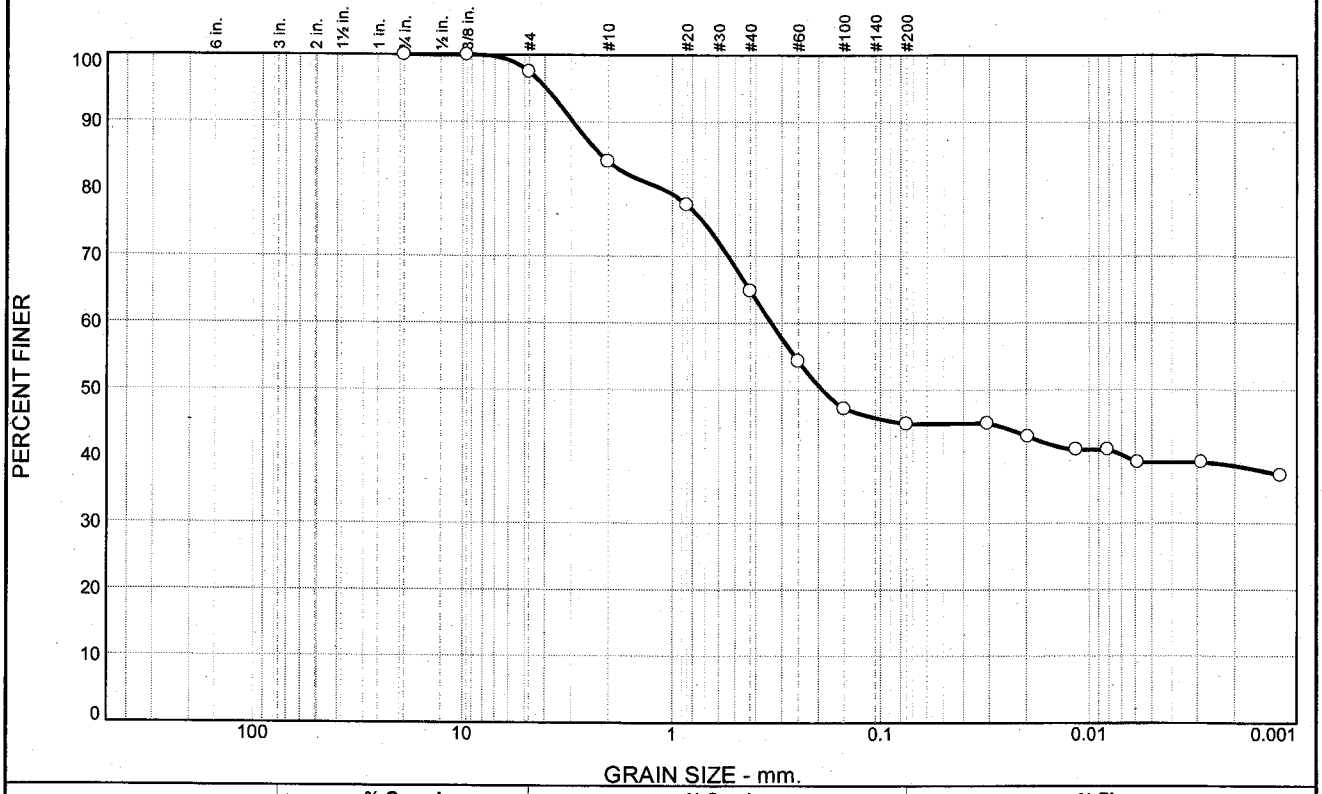
WPC

Charlotte, NC

Client: Pace Analytical
Project: Pace Analytical

Project No: **Figure**

Particle Size Distribution Report



% +3"	% Gravel		% Sand			% Fines	
	Coarse	Fine	Coarse	Medium	Fine	Silt	Clay
0.0	0.0	2.5	13.4	19.3	19.9	5.8	39.1

SIEVE SIZE	PERCENT FINER	SPEC.* PERCENT	PASS? (X=NO)
3/4"	100.0		
3/8"	100.0		
#4	97.5		
#10	84.1		
#20	77.7		
#40	64.8		
#60	54.3		
#100	47.2		
#200	44.9		
0.0307 mm.	45.0		
0.0197 mm.	43.0		
0.0115 mm.	41.1		
0.0081 mm.	41.1		
0.0058 mm.	39.1		
0.0029 mm.	39.1		
0.0012 mm.	37.2		

* (no specification provided)

Soil Description

Light Brown Silty SAND

Atterberg Limits

PL= LL= PI=

Coefficients

D_{85}= 2.1476 D_{60}= 0.3374 D_{50}= 0.1910
D_{30}= D_{15}= D_{10}=
C_u= C_c=

Classification

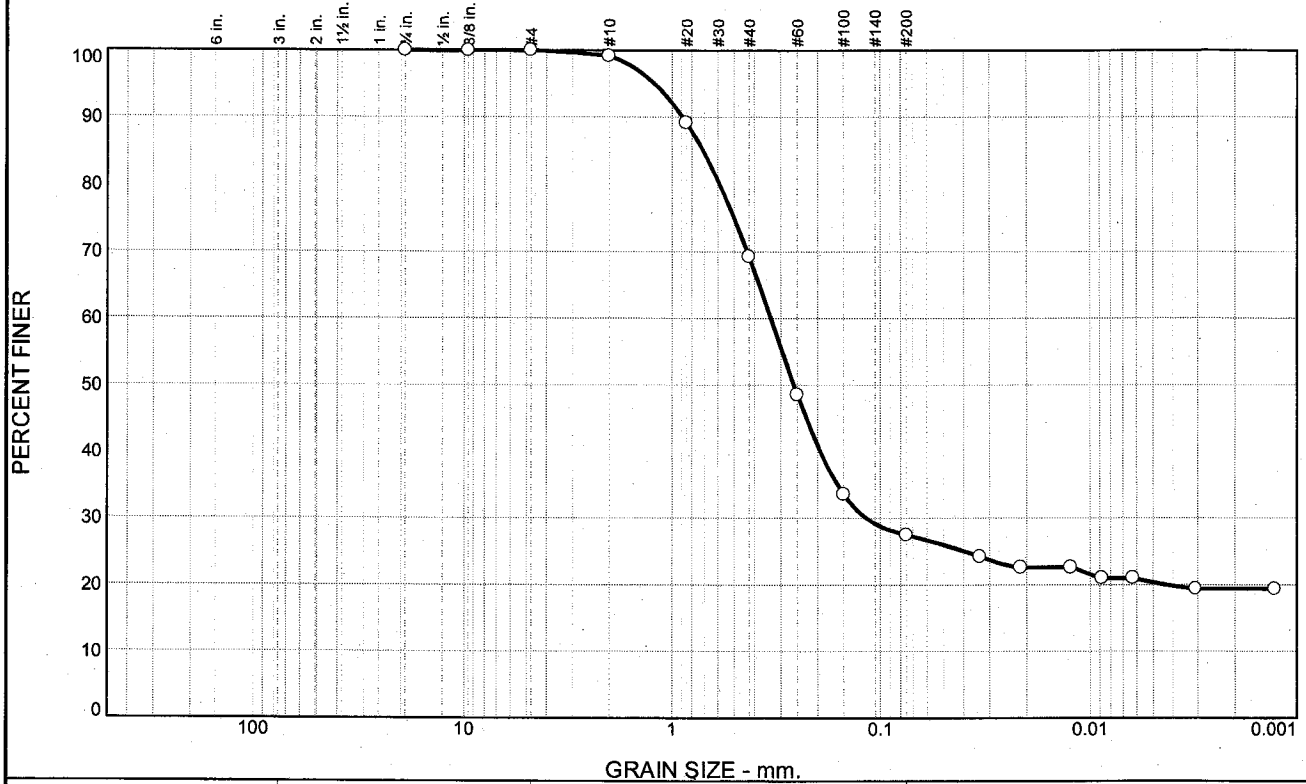
USCS= AASHTO=

Remarks

Location: 9218260005
Sample Number: 9218260005 **Depth:** 44' to 48' **Date:** 5/12/08

WPC **Charlotte, NC**	**Client:** Pace Analytical **Project:** Pace Analytical **Project No:** **Figure**

Particle Size Distribution Report



% +3"	% Gravel		% Sand			% Fines	
	Coarse	Fine	Coarse	Medium	Fine	Silt	Clay
0.0	0.0	0.0	0.8	30.0	41.7	7.2	20.3

SIEVE SIZE	PERCENT FINER	SPEC.* PERCENT	PASS? (X=NO)
3/4"	100.0		
3/8"	100.0		
#4	100.0		
#10	99.2		
#20	89.2		
#40	69.2		
#60	48.6		
#100	33.5		
#200	27.5		
0.0334 mm.	24.2		
0.0213 mm.	22.6		
0.0123 mm.	22.6		
0.0088 mm.	21.0		
0.0062 mm.	21.0		
0.0031 mm.	19.4		
0.0013 mm.	19.4		

* (no specification provided)

Soil Description

Light Brown Silty SAND

Atterberg Limits

PL= LL= PI=

Coefficients

D_{85}= 0.7079 D_{60}= 0.3346 D_{50}= 0.2595
D_{30}= 0.1175 D_{15}= D_{10}=
C_u= C_c=

Classification

USCS= AASHTO=

Remarks

Location: 9218260006 GPS-2
Sample Number: 9218260006 **Depth:** 40' to 44' **Date:**

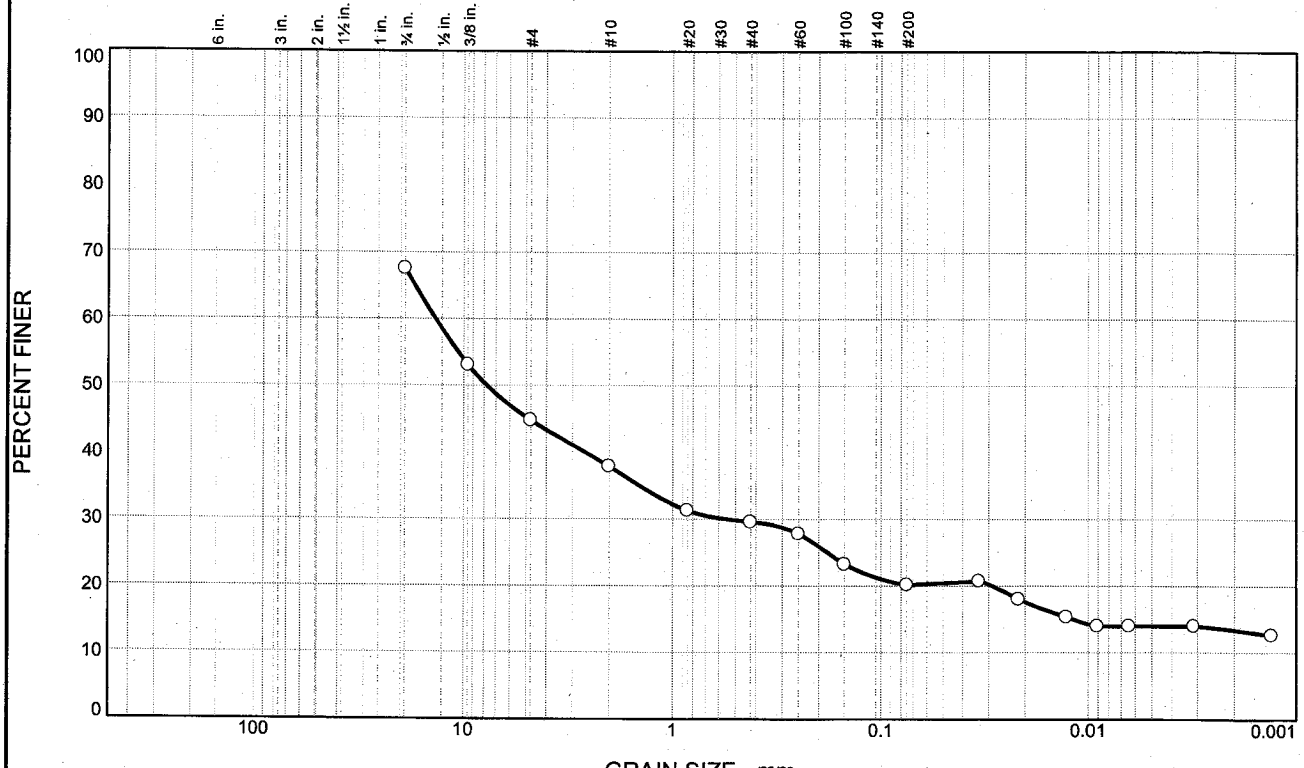
WPC

Charlotte, NC

Client: Pace Analytical
Project: Pace Analytical

Project No: **Figure**

Particle Size Distribution Report



% +3"	% Gravel		% Sand			% Fines	
	Coarse	Fine	Coarse	Medium	Fine	Silt	Clay
		22.7	6.9	8.3	9.5	6.1	14.0

SIEVE SIZE	PERCENT FINER	SPEC.* PERCENT	PASS? (X=NO)
3/4"	67.5		
3/8"	53.1		
#4	44.8		
#10	37.9		
#20	31.3		
#40	29.6		
#60	27.8		
#100	23.2		
#200	20.1		
0.0334 mm.	20.7		
0.0215 mm.	18.0		
0.0127 mm.	15.3		
0.0091 mm.	14.0		
0.0064 mm.	14.0		
0.0031 mm.	14.0		
0.0013 mm.	12.6		

* (no specification provided)

Soil Description

Light Brown Silty SAND

Atterberg Limits

PL= LL= PI=

Coefficients

D_{85}= D_{60}= 13.6379 D_{50}= 7.7537
D_{30}= 0.5706 D_{15}= 0.0119 D_{10}=
C_u= C_c=

Classification

USCS= AASHTO=

Remarks

Location: 9218260007 GPS-3
Sample Number: 9218260007 **Depth:** 28' to 30' **Date:**

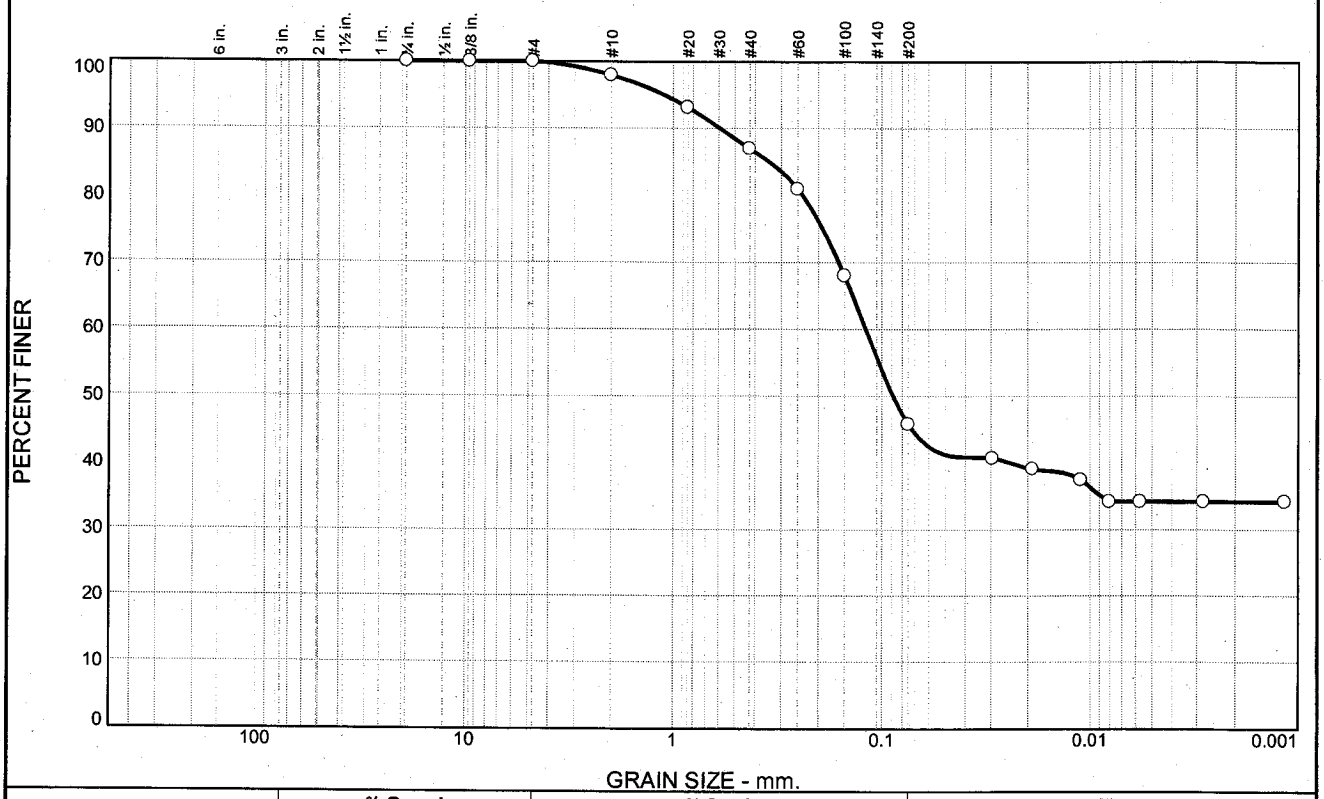
WPC

Charlotte, NC

Client: Pace Analytical
Project: Pace Analytical

Project No: **Figure**

Particle Size Distribution Report



% +3"	% Gravel		% Sand			% Fines	
	Coarse	Fine	Coarse	Medium	Fine	Silt	Clay
0.0	0.0	0.0	2.0	11.0	41.2	11.6	34.2

SIEVE SIZE	PERCENT FINER	SPEC.* PERCENT	PASS? (X=NO)
3/4"	100.0		
3/8"	100.0		
#4	100.0		
#10	98.0		
#20	93.2		
#40	87.0		
#60	80.9		
#100	68.0		
#200	45.8		
0.0296 mm.	40.7		
0.0190 mm.	39.0		
0.0111 mm.	37.4		
0.0080 mm.	34.2		
0.0057 mm.	34.2		
0.0028 mm.	34.2		
0.0012 mm.	34.2		

* (no specification provided)

Soil Description

Light Brown Silty SAND

Atterberg Limits

PL= LL= PI=

Coefficients

D_{85}= 0.3418 D_{60}= 0.1193 D_{50}= 0.0884
D_{30}= D_{15}= D_{10}=
C_u= C_c=

Classification

USCS= AASHTO=

Remarks

Location: 921826008 GPS-3
Sample Number: 9218260008 **Depth:** 30' to 32' **Date:**

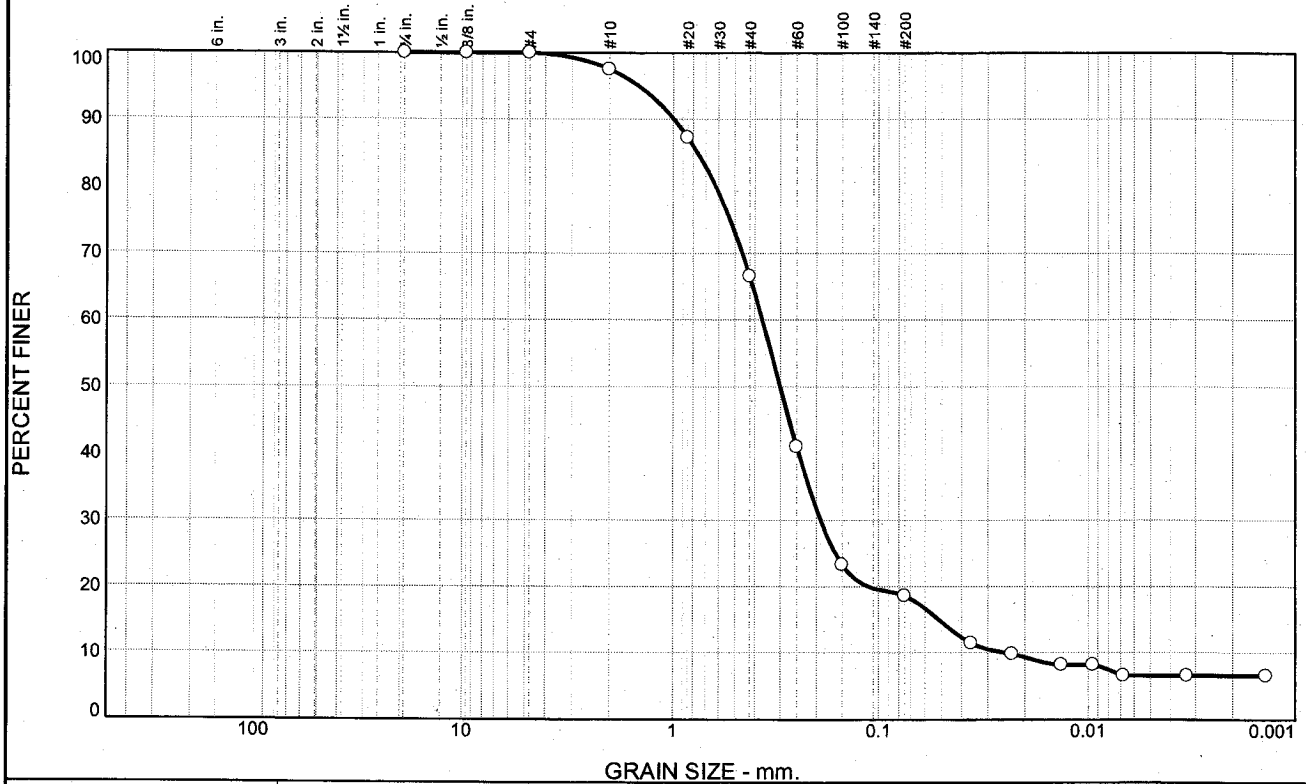
WPC

Charlotte, NC

Client: Pace Analytical
Project: Pace Analytical

Project No: **Figure**

Particle Size Distribution Report



% +3"	% Gravel		% Sand			% Fines	
	Coarse	Fine	Coarse	Medium	Fine	Silt	Clay
0.0	0.0	0.0	2.5	30.9	48.0	12.0	6.6

SIEVE SIZE	PERCENT FINER	SPEC.* PERCENT	PASS? (X=NO)
3/4"	100.0		
3/8"	100.0		
#4	100.0		
#10	97.5		
#20	87.3		
#40	66.6		
#60	41.0		
#100	23.3		
#200	18.6		
0.0361 mm.	11.4		
0.0230 mm.	9.8		
0.0134 mm.	8.2		
0.0095 mm.	8.2		
0.0068 mm.	6.6		
0.0033 mm.	6.6		
0.0014 mm.	6.6		

* (no specification provided)

Soil Description

Red Clayey SAND

Atterberg Limits

PL= LL= PI=

Coefficients

D_{85}= 0.7622 D_{60}= 0.3681 D_{50}= 0.3007
D_{30}= 0.1911 D_{15}= 0.0514 D_{10}= 0.0248
C_u= 14.86 C_c= 4.00

Classification

USCS= AASHTO=

Remarks

Location: 9218260009 GPS-3
Sample Number: 9218260009 **Depth:** 35' to 37' **Date:**

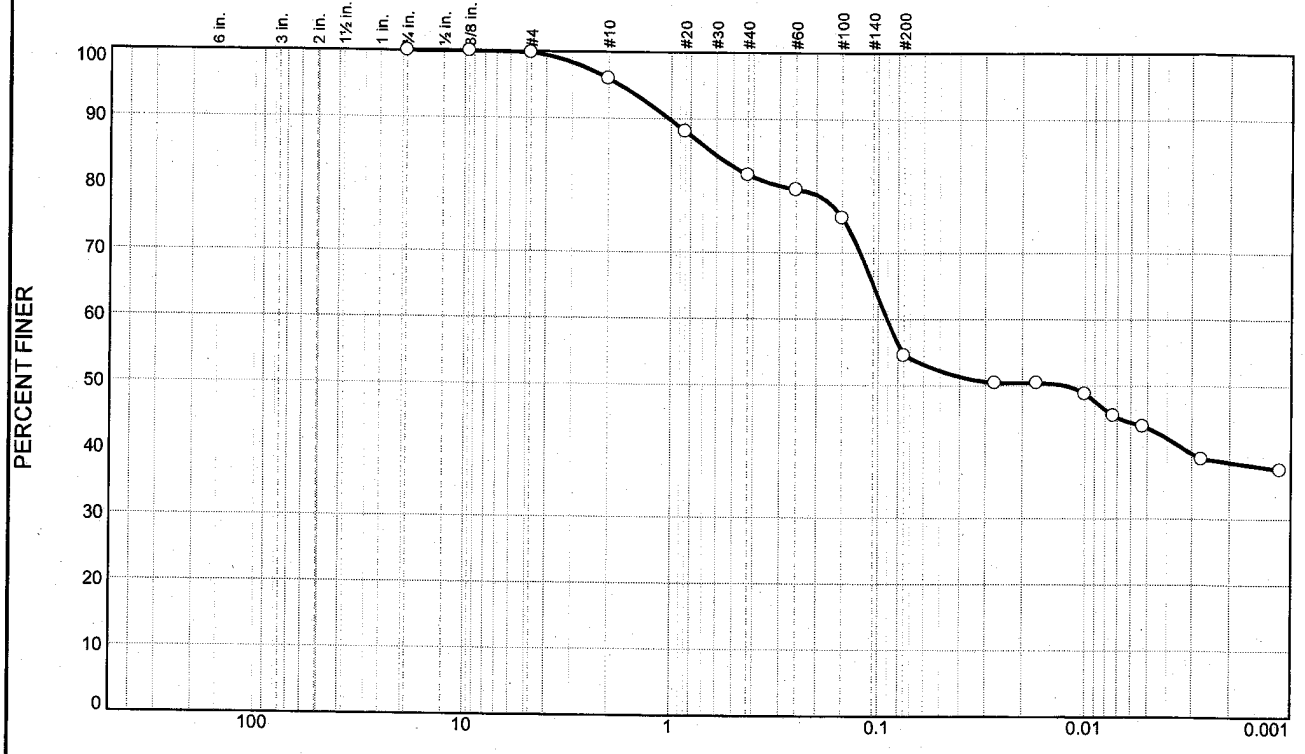
WPC

Charlotte, NC

Client: Pace Analytical
Project: Pace Analytical

Project No: **Figure**

Particle Size Distribution Report



% +3"	% Gravel		% Sand			% Fines	
	Coarse	Fine	Coarse	Medium	Fine	Silt	Clay
0.0	0.0	0.2	3.8	14.4	27.0	10.9	43.7

SIEVE SIZE	PERCENT FINER	SPEC.* PERCENT	PASS? (X=NO)
3/4"	100.0		
3/8"	100.0		
#4	99.8		
#10	96.0		
#20	88.1		
#40	81.6		
#60	79.5		
#100	75.3		
#200	54.6		
0.0270 mm.	50.4		
0.0171 mm.	50.4		
0.0100 mm.	48.8		
0.0073 mm.	45.6		
0.0052 mm.	43.9		
0.0027 mm.	39.1		
0.0011 mm.	37.4		

* (no specification provided)

Soil Description

Light Brown Pink Sandy SILT

Atterberg Limits

PL= LL= PI=

Coefficients

D_{85}= 0.6290 D_{60}= 0.0908 D_{50}= 0.0123
D_{30}= D_{15}= D_{10}=
C_u= C_c=

Classification

USCS= AASHTO=

Remarks

Location: 9218260010 GPS-4
Sample Number: 9218260010 **Depth:** 30' to 32' **Date:**

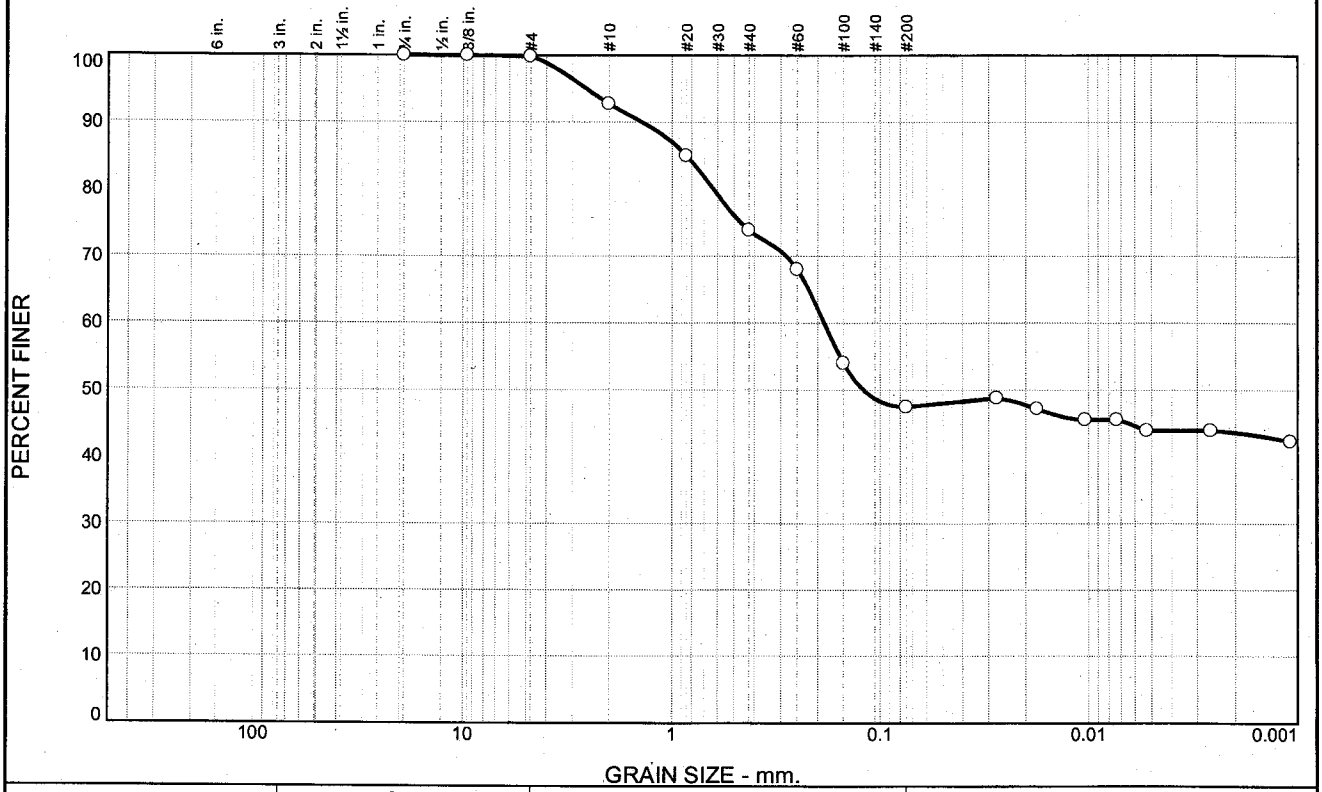
WPC

Charlotte, NC

Client: Pace Analytical
Project: Pace Analytical

Project No: **Figure**

Particle Size Distribution Report



% +3"	% Gravel		% Sand			% Fines	
	Coarse	Fine	Coarse	Medium	Fine	Silt	Clay
0.0	0.0	0.2	7.1	18.8	26.4	3.6	43.9

SIEVE SIZE	PERCENT FINER	SPEC.* PERCENT	PASS? (X=NO)
3/4"	100.0		
3/8"	100.0		
#4	99.8		
#10	92.7		
#20	85.0		
#40	73.9		
#60	68.0		
#100	54.0		
#200	47.5		
0.0275 mm.	48.8		
0.0176 mm.	47.2		
0.0103 mm.	45.6		
0.0073 mm.	45.6		
0.0052 mm.	43.9		
0.0026 mm.	43.9		
0.0011 mm.	42.3		

* (no specification provided)

Soil Description

Red Silty SAND

Atterberg Limits

PL= LL= PI=

Coefficients

D_{85}= 0.8500 D_{60}= 0.1861 D_{50}= 0.1202
D_{30}= D_{15}= D_{10}=
C_u= C_c=

Classification

USCS= AASHTO=

Remarks

Location: 9218260011 GPS-4
Sample Number: 9218260011 **Depth:** 34' to 36' **Date:**

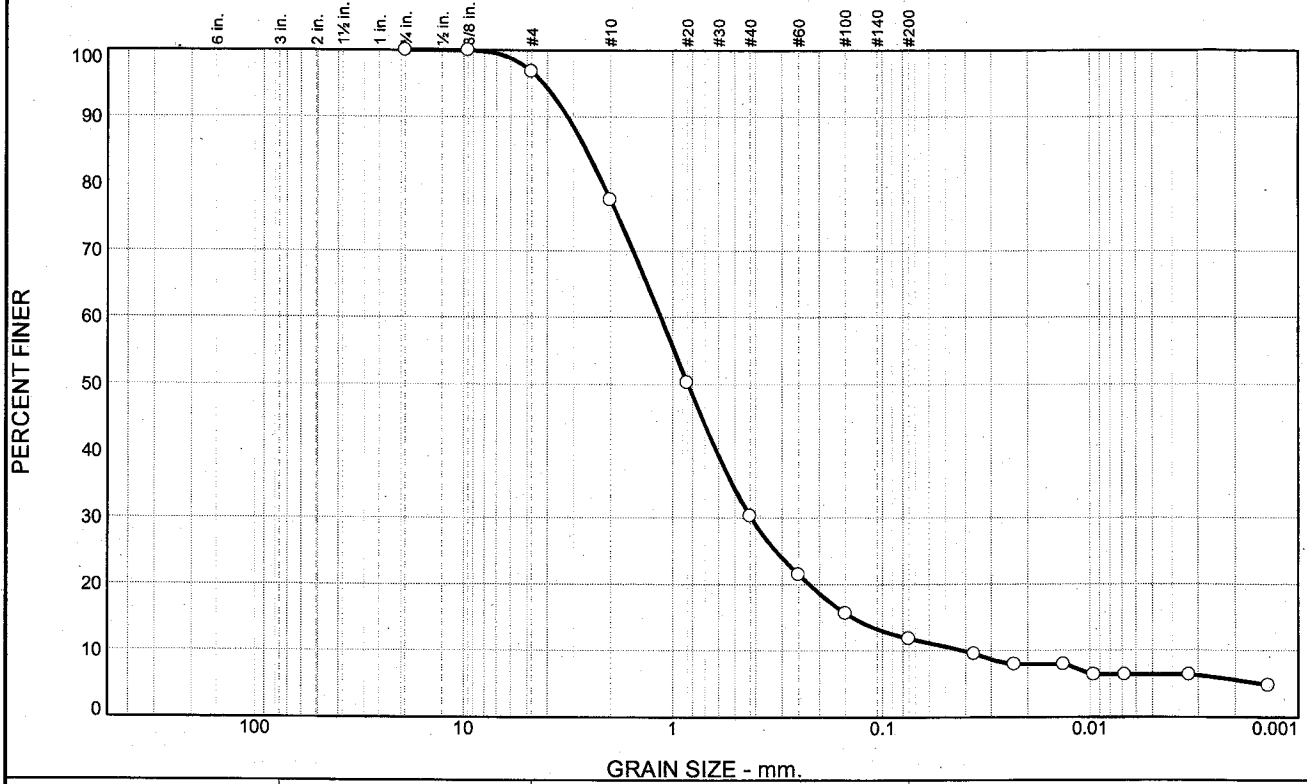
WPC

Charlotte, NC

Client: Pace Analytical
Project: Pace Analytical

Project No: **Figure**

Particle Size Distribution Report



% +3"	% Gravel		% Sand			% Fines	
	Coarse	Fine	Coarse	Medium	Fine	Silt	Clay
0.0	0.0	3.2	19.2	47.4	18.4	5.5	6.3

SIEVE SIZE	PERCENT FINER	SPEC.* PERCENT	PASS? (X=NO)
3/4"	100.0		
3/8"	100.0		
#4	96.8		
#10	77.6		
#20	50.3		
#40	30.2		
#60	21.5		
#100	15.6		
#200	11.8		
0.0364 mm.	9.5		
0.0233 mm.	7.9		
0.0134 mm.	7.9		
0.0096 mm.	6.3		
0.0068 mm.	6.3		
0.0033 mm.	6.3		
0.0014 mm.	4.8		

* (no specification provided)

Soil Description

Light Brown Pink Sandy CLAY

Atterberg Limits

PL= LL= PI=

Coefficients

D_{85}= 2.6070 D_{60}= 1.1414 D_{50}= 0.8423
D_{30}= 0.4207 D_{15}= 0.1396 D_{10}= 0.0418
C_u= 27.34 C_c= 3.71

Classification

USCS= AASHTO=

Remarks

Location: 9218260012 GPS-4
Sample Number: 9218260012 **Depth:** 36' to 38' **Date:**

WPC

Charlotte, NC

Client: Pace Analytical
Project: Pace Analytical

Project No: **Figure**

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

1166550

Section A — **Required** Client Information:

Company: Midlands Environmental Con.
Address: 235-B Dooley Rd
Lexington, SC 29073
Email To: WCM@MEC.NET
Phone: 803-808-2643 Fax: 803-808-2048
Requested Due Date/TAT:

Section B — **Required** Project Information:

Report To: B. Shane
Copy To:
Purchase Order No.:
Project Name: Custom Food Mart
Project Number: 08-1501

Section C — Invoice Information:

Attention:
Company Name:
Address:
Pace Quote Reference:
Pace Project Manager: K. Coodwin
Pace Profile #: 836-3

REGULATORY AGENCY

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

Site Location STATE: SC

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	Preservatives: Unpreserved	H_2SO_4	HNO_3	HCl	NaOH	$Na_2S_2O_3$	Methanol	Other	Analysis Test Y/N	GRAIN SIZE/HYDROMETER	BTEX, Naph, MTBE 8260B	Residual Chlorine (Y/N)	Pace Project No./ Lab I.D.
1	GPS-1 (36'-38')					4/25/08												Y	X			9218260001
2	GPS-1 (40'-42')																	Y	X			002
3	GPS-1 (42'-44')																	Y	X			003
4	GPS-2 (30'-35')																	Y	X			004
5	GPS-2 (44'-48')																	Y	X			005
6	GPS-2 (40'-44')																	Y	X	X		006
7	GPS-3 (28'-30')																	Y	X			007
8	GPS-3 (30'-32')																	Y	X			008
9	GPS-3 (35'-37')																	Y	X	X		009
10	GPS-4 (30'-32')																	Y	X			010
11	GPS-4 (34'-36')																	Y	X	X		011
12	GPS-4 (36'-38')					4/25/08												Y	X			012

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS			
	MLC MLC	4-28-08	10:37	Donna S Pace	4/28/08	10:37				
	Donna S	4/28/08	10:55	Pace	4-28-08	10:53				
		4-28-08	12:09	Jamell (Pace)	4/28/08	12:09	3.5	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: JEFF COLEMAN
SIGNATURE of SAMPLER: [signature] DATE Signed (MM/DD/YY): 4/28/08

*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

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

May 09, 2008

Mr. Bryan Shane
Midlands Environmental
PO Box 854
Lexington, SC 29071

RE: Project: GASTON FOOD MART 08-1501
Pace Project No.: 9218600

Dear Mr. Shane:
Enclosed are the analytical results for sample(s) received by the laboratory on May 05, 2008. 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 Godwin

kevin.godwin@pacelabs.com
Project Manager

Enclosures

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

CERTIFICATIONS

Project: GASTON FOOD MART 08-1501
Pace Project No.: 9218600

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

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

ANALYTICAL RESULTS

Project: GASTON FOOD MART 08-1501
Pace Project No.: 9218600

Sample: MW-17RR (40') **Lab ID: 9218600001** Collected: 05/01/08 14:00 Received: 05/05/08 14:20 Matrix: Solid

Results reported on a "dry-weight" basis

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260/5035A Volatile Organics	Analytical Method: EPA 8260							
Benzene	ND	ug/kg	4.1	1		05/07/08 11:51	71-43-2	
Ethylbenzene	ND	ug/kg	4.1	1		05/07/08 11:51	100-41-4	
Methyl-tert-butyl ether	ND	ug/kg	4.1	1		05/07/08 11:51	1634-04-4	
Naphthalene	ND	ug/kg	4.1	1		05/07/08 11:51	91-20-3	
Toluene	ND	ug/kg	4.1	1		05/07/08 11:51	108-88-3	
Xylene (Total)	**14.5**	ug/kg	8.3	1		05/07/08 11:51	1330-20-7	
m&p-Xylene	**9.7**	ug/kg	8.3	1		05/07/08 11:51	1330-20-7	
o-Xylene	**4.8**	ug/kg	4.1	1		05/07/08 11:51	95-47-6	
Dibromofluoromethane (S)	101	%	79-116	1		05/07/08 11:51	1868-53-7	
Toluene-d8 (S)	103	%	88-110	1		05/07/08 11:51	2037-26-5	
4-Bromofluorobenzene (S)	97	%	74-115	1		05/07/08 11:51	460-00-4	
1,2-Dichloroethane-d4 (S)	94	%	69-121	1		05/07/08 11:51	17060-07-0	
Percent Moisture	Analytical Method: ASTM D2974-87							
Percent Moisture	**15.9**	%	0.10	1		05/06/08 17:02		

Sample: MW-17RR (45') **Lab ID: 9218600002** Collected: 05/01/08 14:30 Received: 05/05/08 14:20 Matrix: Solid

Results reported on a "dry-weight" basis

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260/5035A Volatile Organics	Analytical Method: EPA 8260							
Benzene	ND	ug/kg	4.9	1		05/06/08 14:30	71-43-2	
Ethylbenzene	**20.2**	ug/kg	4.9	1		05/06/08 14:30	100-41-4	
Methyl-tert-butyl ether	ND	ug/kg	4.9	1		05/06/08 14:30	1634-04-4	
Naphthalene	ND	ug/kg	4.9	1		05/06/08 14:30	91-20-3	
Toluene	**11.4**	ug/kg	4.9	1		05/06/08 14:30	108-88-3	
Xylene (Total)	**117**	ug/kg	9.9	1		05/06/08 14:30	1330-20-7	
m&p-Xylene	**78.3**	ug/kg	9.9	1		05/06/08 14:30	1330-20-7	
o-Xylene	**38.5**	ug/kg	4.9	1		05/06/08 14:30	95-47-6	
Dibromofluoromethane (S)	102	%	79-116	1		05/06/08 14:30	1868-53-7	
Toluene-d8 (S)	105	%	88-110	1		05/06/08 14:30	2037-26-5	
4-Bromofluorobenzene (S)	96	%	74-115	1		05/06/08 14:30	460-00-4	
1,2-Dichloroethane-d4 (S)	102	%	69-121	1		05/06/08 14:30	17060-07-0	
Percent Moisture	Analytical Method: ASTM D2974-87							
Percent Moisture	**18.5**	%	0.10	1		05/06/08 17:02		

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

ANALYTICAL RESULTS

Project: GASTON FOOD MART 08-1501
Pace Project No.: 9218600

Sample: MW-17RR (50') **Lab ID: 9218600003** Collected: 05/01/08 15:00 Received: 05/05/08 14:20 Matrix: Solid

Results reported on a "dry-weight" basis

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260/5035A Volatile Organics	Analytical Method: EPA 8260							
Benzene	ND	ug/kg	4.6	1		05/06/08 18:44	71-43-2	
Ethylbenzene	**23.7**	ug/kg	4.6	1		05/06/08 18:44	100-41-4	
Methyl-tert-butyl ether	ND	ug/kg	4.6	1		05/06/08 18:44	1634-04-4	
Naphthalene	ND	ug/kg	4.6	1		05/06/08 18:44	91-20-3	
Toluene	**64.0**	ug/kg	4.6	1		05/06/08 18:44	108-88-3	
Xylene (Total)	**118**	ug/kg	9.1	1		05/06/08 18:44	1330-20-7	
m&p-Xylene	**85.2**	ug/kg	9.1	1		05/06/08 18:44	1330-20-7	
o-Xylene	**33.1**	ug/kg	4.6	1		05/06/08 18:44	95-47-6	
Dibromofluoromethane (S)	105	%	79-116	1		05/06/08 18:44	1868-53-7	
Toluene-d8 (S)	105	%	88-110	1		05/06/08 18:44	2037-26-5	
4-Bromofluorobenzene (S)	101	%	74-115	1		05/06/08 18:44	460-00-4	
1,2-Dichloroethane-d4 (S)	103	%	69-121	1		05/06/08 18:44	17060-07-0	
Percent Moisture	Analytical Method: ASTM D2974-87							
Percent Moisture	**18.1**	%	0.10	1		05/06/08 17:02		

Sample: MW-17RR (55') **Lab ID: 9218600004** Collected: 05/01/08 15:30 Received: 05/05/08 14:20 Matrix: Solid

Results reported on a "dry-weight" basis

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260/5035A Volatile Organics	Analytical Method: EPA 8260							
Benzene	ND	ug/kg	4.2	1		05/06/08 14:48	71-43-2	
Ethylbenzene	**19.4**	ug/kg	4.2	1		05/06/08 14:48	100-41-4	
Methyl-tert-butyl ether	ND	ug/kg	4.2	1		05/06/08 14:48	1634-04-4	
Naphthalene	ND	ug/kg	4.2	1		05/06/08 14:48	91-20-3	
Toluene	**10**	ug/kg	4.2	1		05/06/08 14:48	108-88-3	
Xylene (Total)	**108**	ug/kg	8.3	1		05/06/08 14:48	1330-20-7	
m&p-Xylene	**72.9**	ug/kg	8.3	1		05/06/08 14:48	1330-20-7	
o-Xylene	**35.4**	ug/kg	4.2	1		05/06/08 14:48	95-47-6	
Dibromofluoromethane (S)	100	%	79-116	1		05/06/08 14:48	1868-53-7	
Toluene-d8 (S)	106	%	88-110	1		05/06/08 14:48	2037-26-5	
4-Bromofluorobenzene (S)	93	%	74-115	1		05/06/08 14:48	460-00-4	
1,2-Dichloroethane-d4 (S)	97	%	69-121	1		05/06/08 14:48	17060-07-0	
Percent Moisture	Analytical Method: ASTM D2974-87							
Percent Moisture	**17.7**	%	0.10	1		05/06/08 17:02		

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

ANALYTICAL RESULTS

Project: GASTON FOOD MART 08-1501
Pace Project No.: 9218600

Sample: MW-17RR (60') **Lab ID: 9218600005** Collected: 05/01/08 16:00 Received: 05/05/08 14:20 Matrix: Solid

Results reported on a "dry-weight" basis

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260/5035A Volatile Organics	Analytical Method: EPA 8260							
Benzene	ND	ug/kg	4.0	1		05/06/08 15:06	71-43-2	
Ethylbenzene	**7.4**	ug/kg	4.0	1		05/06/08 15:06	100-41-4	
Methyl-tert-butyl ether	ND	ug/kg	4.0	1		05/06/08 15:06	1634-04-4	
Naphthalene	ND	ug/kg	4.0	1		05/06/08 15:06	91-20-3	
Toluene	**6.8**	ug/kg	4.0	1		05/06/08 15:06	108-88-3	
Xylene (Total)	**41.0**	ug/kg	8.0	1		05/06/08 15:06	1330-20-7	
m&p-Xylene	**28.1**	ug/kg	8.0	1		05/06/08 15:06	1330-20-7	
o-Xylene	**12.9**	ug/kg	4.0	1		05/06/08 15:06	95-47-6	
Dibromofluoromethane (S)	103	%	79-116	1		05/06/08 15:06	1868-53-7	
Toluene-d8 (S)	107	%	88-110	1		05/06/08 15:06	2037-26-5	
4-Bromofluorobenzene (S)	97	%	74-115	1		05/06/08 15:06	460-00-4	
1,2-Dichloroethane-d4 (S)	100	%	69-121	1		05/06/08 15:06	17060-07-0	
Percent Moisture	Analytical Method: ASTM D2974-87							
Percent Moisture	**13.3**	%	0.10	1		05/06/08 17:03		

Sample: MW-17RR (65') **Lab ID: 9218600006** Collected: 05/01/08 16:30 Received: 05/05/08 14:20 Matrix: Solid

Results reported on a "dry-weight" basis

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260/5035A Volatile Organics	Analytical Method: EPA 8260							
Benzene	ND	ug/kg	3.7	1		05/06/08 15:25	71-43-2	
Ethylbenzene	**12.8**	ug/kg	3.7	1		05/06/08 15:25	100-41-4	
Methyl-tert-butyl ether	ND	ug/kg	3.7	1		05/06/08 15:25	1634-04-4	
Naphthalene	ND	ug/kg	3.7	1		05/06/08 15:25	91-20-3	
Toluene	**6.1**	ug/kg	3.7	1		05/06/08 15:25	108-88-3	
Xylene (Total)	**74.9**	ug/kg	7.5	1		05/06/08 15:25	1330-20-7	
m&p-Xylene	**50.2**	ug/kg	7.5	1		05/06/08 15:25	1330-20-7	
o-Xylene	**24.7**	ug/kg	3.7	1		05/06/08 15:25	95-47-6	
Dibromofluoromethane (S)	102	%	79-116	1		05/06/08 15:25	1868-53-7	
Toluene-d8 (S)	104	%	88-110	1		05/06/08 15:25	2037-26-5	
4-Bromofluorobenzene (S)	99	%	74-115	1		05/06/08 15:25	460-00-4	
1,2-Dichloroethane-d4 (S)	99	%	69-121	1		05/06/08 15:25	17060-07-0	
Percent Moisture	Analytical Method: ASTM D2974-87							
Percent Moisture	**11.6**	%	0.10	1		05/06/08 17:03		

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

ANALYTICAL RESULTS

Project: GASTON FOOD MART 08-1501
Pace Project No.: 9218600

Sample: MW-17RR (70') **Lab ID: 9218600007** Collected: 05/01/08 17:00 Received: 05/05/08 14:20 Matrix: Solid

Results reported on a "dry-weight" basis

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260/5035A Volatile Organics	Analytical Method: EPA 8260							
Benzene	ND	ug/kg	3.9	1		05/06/08 15:43	71-43-2	
Ethylbenzene	**12.3**	ug/kg	3.9	1		05/06/08 15:43	100-41-4	
Methyl-tert-butyl ether	ND	ug/kg	3.9	1		05/06/08 15:43	1634-04-4	
Naphthalene	ND	ug/kg	3.9	1		05/06/08 15:43	91-20-3	
Toluene	**5.9**	ug/kg	3.9	1		05/06/08 15:43	108-88-3	
Xylene (Total)	**68.6**	ug/kg	7.8	1		05/06/08 15:43	1330-20-7	
m&p-Xylene	**46.3**	ug/kg	7.8	1		05/06/08 15:43	1330-20-7	
o-Xylene	**22.2**	ug/kg	3.9	1		05/06/08 15:43	95-47-6	
Dibromofluoromethane (S)	103	%	79-116	1		05/06/08 15:43	1868-53-7	
Toluene-d8 (S)	106	%	88-110	1		05/06/08 15:43	2037-26-5	
4-Bromofluorobenzene (S)	97	%	74-115	1		05/06/08 15:43	460-00-4	
1,2-Dichloroethane-d4 (S)	101	%	69-121	1		05/06/08 15:43	17060-07-0	
Percent Moisture	Analytical Method: ASTM D2974-87							
Percent Moisture	**9.4**	%	0.10	1		05/06/08 17:03		

Sample: MW-17RR (75') **Lab ID: 9218600008** Collected: 05/01/08 17:30 Received: 05/05/08 14:20 Matrix: Solid

Results reported on a "dry-weight" basis

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260/5035A Volatile Organics	Analytical Method: EPA 8260							
Benzene	ND	ug/kg	4.3	1		05/06/08 16:01	71-43-2	
Ethylbenzene	**10.7**	ug/kg	4.3	1		05/06/08 16:01	100-41-4	
Methyl-tert-butyl ether	ND	ug/kg	4.3	1		05/06/08 16:01	1634-04-4	
Naphthalene	ND	ug/kg	4.3	1		05/06/08 16:01	91-20-3	
Toluene	**6.1**	ug/kg	4.3	1		05/06/08 16:01	108-88-3	
Xylene (Total)	**61.5**	ug/kg	8.5	1		05/06/08 16:01	1330-20-7	
m&p-Xylene	**41.4**	ug/kg	8.5	1		05/06/08 16:01	1330-20-7	
o-Xylene	**20.1**	ug/kg	4.3	1		05/06/08 16:01	95-47-6	
Dibromofluoromethane (S)	103	%	79-116	1		05/06/08 16:01	1868-53-7	
Toluene-d8 (S)	105	%	88-110	1		05/06/08 16:01	2037-26-5	
4-Bromofluorobenzene (S)	101	%	74-115	1		05/06/08 16:01	460-00-4	
1,2-Dichloroethane-d4 (S)	100	%	69-121	1		05/06/08 16:01	17060-07-0	
Percent Moisture	Analytical Method: ASTM D2974-87							
Percent Moisture	**10.0**	%	0.10	1		05/06/08 17:03		

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: GASTON FOOD MART 08-1501
Pace Project No.: 9218600

QC Batch: PMST/1634 Analysis Method: ASTM D2974-87
QC Batch Method: ASTM D2974-87 Analysis Description: Dry Weight/Percent Moisture
Associated Lab Samples: 9218600001, 9218600002, 9218600003, 9218600004, 9218600005, 9218600006, 9218600007, 9218600008

SAMPLE DUPLICATE: 109634

Parameter	Units	9218592001 Result	Dup Result	RPD	Qualifiers
Percent Moisture	%	26.5	25.6	3	

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: GASTON FOOD MART 08-1501
Pace Project No.: 9218600

QC Batch: MSV/3304 Analysis Method: EPA 8260
QC Batch Method: EPA 8260 Analysis Description: 8260 MSV 5035A Volatile Organics
Associated Lab Samples: 9218600001, 9218600002, 9218600003, 9218600004, 9218600005, 9218600006, 9218600007, 9218600008

METHOD BLANK: 109755
Associated Lab Samples: 9218600001, 9218600002, 9218600003, 9218600004, 9218600005, 9218600006, 9218600007, 9218600008

Parameter	Units	Blank Result	Reporting Limit	Qualifiers
Benzene	ug/kg	ND	4.9	
Ethylbenzene	ug/kg	ND	4.9	
m&p-Xylene	ug/kg	ND	9.8	
Methyl-tert-butyl ether	ug/kg	ND	4.9	
Naphthalene	ug/kg	ND	4.9	
o-Xylene	ug/kg	ND	4.9	
Toluene	ug/kg	ND	4.9	
Xylene (Total)	ug/kg	ND	9.8	
1,2-Dichloroethane-d4 (S)	%	94	69-121	
4-Bromofluorobenzene (S)	%	93	74-115	
Dibromofluoromethane (S)	%	100	79-116	
Toluene-d8 (S)	%	101	88-110	

LABORATORY CONTROL SAMPLE: 109756

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Benzene	ug/kg	50	56.2	112	71-140	
Ethylbenzene	ug/kg	50	54.9	110	69-141	
m&p-Xylene	ug/kg	100	111	111	72-138	
Methyl-tert-butyl ether	ug/kg	50	55.4	111	2-138	
Naphthalene	ug/kg	50	49.3	99	61-138	
o-Xylene	ug/kg	50	53.0	106	74-137	
Toluene	ug/kg	50	55.9	112	69-139	
Xylene (Total)	ug/kg	150	164	110	73-138	
1,2-Dichloroethane-d4 (S)	%			98	69-121	
4-Bromofluorobenzene (S)	%			101	74-115	
Dibromofluoromethane (S)	%			98	79-116	
Toluene-d8 (S)	%			101	88-110	

MATRIX SPIKE SAMPLE: 110208

Parameter	Units	9218600008 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Benzene	ug/kg	ND	42.6	52.4	123	46-143	
Toluene	ug/kg	6.1	42.6	58.6	123	38-145	
1,2-Dichloroethane-d4 (S)	%				100	69-121	
4-Bromofluorobenzene (S)	%				98	74-115	
Dibromofluoromethane (S)	%				100	79-116	
Toluene-d8 (S)	%				103	88-110	

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: GASTON FOOD MART 08-1501
Pace Project No.: 9218600

SAMPLE DUPLICATE: 110207

Parameter	Units	9218592001 Result	Dup Result	RPD	Qualifiers
Benzene	ug/kg	ND	ND	0	
Ethylbenzene	ug/kg	ND	ND	0	
m&p-Xylene	ug/kg	ND	ND	0	
Methyl-tert-butyl ether	ug/kg	ND	ND	0	
Naphthalene	ug/kg	ND	ND	0	
o-Xylene	ug/kg	ND	ND	0	
Toluene	ug/kg	ND	ND	0	
Xylene (Total)	ug/kg	ND	ND	6	
1,2-Dichloroethane-d4 (S)	%	102	101	5	
4-Bromofluorobenzene (S)	%	97	94	3	
Dibromofluoromethane (S)	%	103	102	6	
Toluene-d8 (S)	%	103	103	5	

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

QUALIFIERS

Project: GASTON FOOD MART 08-1501
Pace Project No.: 9218600

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.

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

1156475

Section A Required Client Information:

Company: Midlands Environmental Consultants
Address: 235-B Dooley Rd.
Lexington, SC 29073
Email To: ccm@MECI.NET
Phone: 803-808-2043 Fax: 803-808-2048
Requested Due Date/TAT:

Section B Required Project Information:

Report To: B. Shane
Copy To:
Purchase Order No.:
Project Name: Gaston Food Mart
Project Number: 08-1501

Section C Invoice Information:

Attention:
Company Name:
Address:
Pace Quote Reference:
Pace Project Manager: K. Godwin
Pace Profile #: 836-9

REGULATORY AGENCY

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

Site Location STATE: SC

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	Preservatives: Unpreserved	H_2SO_4	HNO_3	HCl	NaOH	$Na_2S_2O_3$	Methanol	Other	Analysis Test Y/N	Analysis Test: Btx, Naph, MTBE (8260)	Residual Chlorine (Y/N)	Pace Project No./ Lab I.D.
1	MW-17RR (40')	SL	G			5/1/08	1400		4	1					2	1			X		92186000 01
2	MW-17RR (45')						1430															002
3	MW-17RR (50')						1500															003
4	MW-17RR (55')						1530															004
5	MW-17RR (60')						1600															005
6	MW-17RR (65')						1630															006
7	MW-17RR (70')						1700															007
8	MW-17RR (75')	SL	G			5/1/08	1730		4	1					2	1			X			008
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)
	Serena Area	5-5-08	12:30	George Moody Jr.	5-5-08	12:30				
	George Moody	5-5-08	14:20	[signature]	5.5.08	14:20	4.1	Y	N	Y

ORIGINAL

SAMPLER NAME AND SIGNATURE
PRINT Name of SAMPLER: JEFF COLEMAN
SIGNATURE of SAMPLER: [signature] DATE Signed (MM/DD/YY): 5/7/08

*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

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

May 14, 2008

Mr. Bryan Shane
Midlands Environmental
PO Box 854
Lexington, SC 29071

RE: Project: GASTON FOOD MART 08-1501
Pace Project No.: 9218843

Dear Mr. Shane:
Enclosed are the analytical results for sample(s) received by the laboratory on May 07, 2008. 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 Godwin

kevin.godwin@pacelabs.com
Project Manager

Enclosures

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

CERTIFICATIONS

Project: GASTON FOOD MART 08-1501
Pace Project No.: 9218843

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

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

ANALYTICAL RESULTS

Project: GASTON FOOD MART 08-1501
Pace Project No.: 9218843

Sample: MW-1 **Lab ID: 9218843001** Collected: 05/06/08 12:30 Received: 05/07/08 15:15 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							
1,2-Dibromoethane (EDB)	ND	ug/L	0.020	1	05/08/08 00:00	05/10/08 09:16	106-93-4	
1-Chloro-2-bromopropane (S)	74	%	60-140	1	05/08/08 00:00	05/10/08 09:16	301-79-56	
8260 MSV Oxygenates	Analytical Method: EPA 8260							
tert-Amyl Alcohol	ND	ug/L	100	1		05/09/08 12:03	75-85-4	
tert-Amylmethyl ether	ND	ug/L	10.0	1		05/09/08 12:03	994-05-8	
Benzene	ND	ug/L	5.0	1		05/09/08 12:03	71-43-2	
3,3-Dimethyl-1-Butanol	ND	ug/L	100	1		05/09/08 12:03	624-95-3	
tert-Butyl Alcohol	ND	ug/L	100	1		05/09/08 12:03	75-65-0	
tert-Butyl Formate	ND	ug/L	50.0	1		05/09/08 12:03	762-75-4	
Diisopropyl ether	ND	ug/L	5.0	1		05/09/08 12:03	108-20-3	
Ethanol	ND	ug/L	200	1		05/09/08 12:03	64-17-5	
Ethylbenzene	ND	ug/L	5.0	1		05/09/08 12:03	100-41-4	
Ethyl-tert-butyl ether	ND	ug/L	10.0	1		05/09/08 12:03	637-92-3	
Methyl-tert-butyl ether	ND	ug/L	5.0	1		05/09/08 12:03	1634-04-4	
Naphthalene	ND	ug/L	5.0	1		05/09/08 12:03	91-20-3	
Toluene	ND	ug/L	5.0	1		05/09/08 12:03	108-88-3	
Xylene (Total)	ND	ug/L	15.0	1		05/09/08 12:03	1330-20-7	
m&p-Xylene	ND	ug/L	10.0	1		05/09/08 12:03	1330-20-7	
o-Xylene	ND	ug/L	5.0	1		05/09/08 12:03	95-47-6	
Dibromofluoromethane (S)	95	%	85-115	1		05/09/08 12:03	1868-53-7	
Toluene-d8 (S)	99	%	70-120	1		05/09/08 12:03	2037-26-5	
4-Bromofluorobenzene (S)	95	%	87-109	1		05/09/08 12:03	460-00-4	
1,2-Dichloroethane-d4 (S)	90	%	79-120	1		05/09/08 12:03	17060-07-0	

Sample: MW-1A **Lab ID: 9218843002** Collected: 05/06/08 12:00 Received: 05/07/08 15:15 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							
1,2-Dibromoethane (EDB)	ND	ug/L	0.020	1	05/08/08 00:00	05/10/08 09:27	106-93-4	
1-Chloro-2-bromopropane (S)	114	%	60-140	1	05/08/08 00:00	05/10/08 09:27	301-79-56	
8260 MSV Oxygenates	Analytical Method: EPA 8260							
tert-Amyl Alcohol	ND	ug/L	500	5		05/09/08 18:04	75-85-4	
tert-Amylmethyl ether	ND	ug/L	50.0	5		05/09/08 18:04	994-05-8	
Benzene	**84.3**	ug/L	25.0	5		05/09/08 18:04	71-43-2	
3,3-Dimethyl-1-Butanol	ND	ug/L	500	5		05/09/08 18:04	624-95-3	
tert-Butyl Alcohol	ND	ug/L	500	5		05/09/08 18:04	75-65-0	
tert-Butyl Formate	ND	ug/L	250	5		05/09/08 18:04	762-75-4	
Diisopropyl ether	ND	ug/L	25.0	5		05/09/08 18:04	108-20-3	
Ethanol	ND	ug/L	1000	5		05/09/08 18:04	64-17-5	
Ethylbenzene	**184**	ug/L	25.0	5		05/09/08 18:04	100-41-4	
Ethyl-tert-butyl ether	ND	ug/L	50.0	5		05/09/08 18:04	637-92-3	
Methyl-tert-butyl ether	ND	ug/L	25.0	5		05/09/08 18:04	1634-04-4	

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

ANALYTICAL RESULTS

Project: GASTON FOOD MART 08-1501
Pace Project No.: 9218843

Sample: MW-1A **Lab ID: 9218843002** Collected: 05/06/08 12:00 Received: 05/07/08 15:15 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Oxygenates	Analytical Method: EPA 8260							
Naphthalene	**52.3**	ug/L	25.0	5		05/09/08 18:04	91-20-3	
Toluene	**288**	ug/L	25.0	5		05/09/08 18:04	108-88-3	
Xylene (Total)	**697**	ug/L	75.0	5		05/09/08 18:04	1330-20-7	
m&p-Xylene	**511**	ug/L	50.0	5		05/09/08 18:04	1330-20-7	
o-Xylene	**186**	ug/L	25.0	5		05/09/08 18:04	95-47-6	
Dibromofluoromethane (S)	95	%	85-115	5		05/09/08 18:04	1868-53-7	
Toluene-d8 (S)	98	%	70-120	5		05/09/08 18:04	2037-26-5	
4-Bromofluorobenzene (S)	99	%	87-109	5		05/09/08 18:04	460-00-4	
1,2-Dichloroethane-d4 (S)	91	%	79-120	5		05/09/08 18:04	17060-07-0	

Sample: RMW-3 **Lab ID: 9218843003** Collected: 05/06/08 11:25 Received: 05/07/08 15:15 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							
1,2-Dibromoethane (EDB)	**16.3**	ug/L	0.40	20	05/08/08 00:00	05/12/08 12:57	106-93-4	
1-Chloro-2-bromopropane (S)	0	%	60-140	20	05/08/08 00:00	05/12/08 12:57	301-79-56	S4
8260 MSV Oxygenates	Analytical Method: EPA 8260							
tert-Amyl Alcohol	ND	ug/L	5000	50		05/09/08 20:03	75-85-4	
tert-Amylmethyl ether	ND	ug/L	500	50		05/09/08 20:03	994-05-8	
Benzene	**8760**	ug/L	250	50		05/09/08 20:03	71-43-2	
3,3-Dimethyl-1-Butanol	ND	ug/L	5000	50		05/09/08 20:03	624-95-3	
tert-Butyl Alcohol	ND	ug/L	5000	50		05/09/08 20:03	75-65-0	
tert-Butyl Formate	**2840**	ug/L	2500	50		05/09/08 20:03	762-75-4	
Diisopropyl ether	ND	ug/L	250	50		05/09/08 20:03	108-20-3	
Ethanol	ND	ug/L	10000	50		05/09/08 20:03	64-17-5	
Ethylbenzene	**2630**	ug/L	250	50		05/09/08 20:03	100-41-4	
Ethyl-tert-butyl ether	ND	ug/L	500	50		05/09/08 20:03	637-92-3	
Methyl-tert-butyl ether	**1150**	ug/L	250	50		05/09/08 20:03	1634-04-4	
Naphthalene	**585**	ug/L	250	50		05/09/08 20:03	91-20-3	
Toluene	**18900**	ug/L	2500	500		05/10/08 16:05	108-88-3	
Xylene (Total)	**14300**	ug/L	750	50		05/09/08 20:03	1330-20-7	
m&p-Xylene	**10000**	ug/L	500	50		05/09/08 20:03	1330-20-7	
o-Xylene	**4260**	ug/L	250	50		05/09/08 20:03	95-47-6	
Dibromofluoromethane (S)	97	%	85-115	50		05/09/08 20:03	1868-53-7	
Toluene-d8 (S)	100	%	70-120	50		05/09/08 20:03	2037-26-5	
4-Bromofluorobenzene (S)	99	%	87-109	50		05/09/08 20:03	460-00-4	
1,2-Dichloroethane-d4 (S)	94	%	79-120	50		05/09/08 20:03	17060-07-0	

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

ANALYTICAL RESULTS

Project: GASTON FOOD MART 08-1501
Pace Project No.: 9218843

Sample: RMW-5 **Lab ID: 9218843004** Collected: 05/06/08 10:20 Received: 05/07/08 15:15 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							
1,2-Dibromoethane (EDB)	ND	ug/L	0.020	1	05/08/08 00:00	05/10/08 09:50	106-93-4	
1-Chloro-2-bromopropane (S)	85	%	60-140	1	05/08/08 00:00	05/10/08 09:50	301-79-56	
8260 MSV Oxygenates	Analytical Method: EPA 8260							
tert-Amyl Alcohol	ND	ug/L	100	1		05/09/08 12:19	75-85-4	
tert-Amylmethyl ether	ND	ug/L	10.0	1		05/09/08 12:19	994-05-8	
Benzene	ND	ug/L	5.0	1		05/09/08 12:19	71-43-2	
3,3-Dimethyl-1-Butanol	ND	ug/L	100	1		05/09/08 12:19	624-95-3	
tert-Butyl Alcohol	ND	ug/L	100	1		05/09/08 12:19	75-65-0	
tert-Butyl Formate	ND	ug/L	50.0	1		05/09/08 12:19	762-75-4	
Diisopropyl ether	ND	ug/L	5.0	1		05/09/08 12:19	108-20-3	
Ethanol	ND	ug/L	200	1		05/09/08 12:19	64-17-5	
Ethylbenzene	ND	ug/L	5.0	1		05/09/08 12:19	100-41-4	
Ethyl-tert-butyl ether	ND	ug/L	10.0	1		05/09/08 12:19	637-92-3	
Methyl-tert-butyl ether	ND	ug/L	5.0	1		05/09/08 12:19	1634-04-4	
Naphthalene	ND	ug/L	5.0	1		05/09/08 12:19	91-20-3	
Toluene	ND	ug/L	5.0	1		05/09/08 12:19	108-88-3	
Xylene (Total)	ND	ug/L	15.0	1		05/09/08 12:19	1330-20-7	
m&p-Xylene	ND	ug/L	10.0	1		05/09/08 12:19	1330-20-7	
o-Xylene	ND	ug/L	5.0	1		05/09/08 12:19	95-47-6	
Dibromofluoromethane (S)	98	%	85-115	1		05/09/08 12:19	1868-53-7	
Toluene-d8 (S)	100	%	70-120	1		05/09/08 12:19	2037-26-5	
4-Bromofluorobenzene (S)	96	%	87-109	1		05/09/08 12:19	460-00-4	
1,2-Dichloroethane-d4 (S)	93	%	79-120	1		05/09/08 12:19	17060-07-0	

Sample: MW-7 **Lab ID: 9218843005** Collected: 05/06/08 13:10 Received: 05/07/08 15:15 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							
1,2-Dibromoethane (EDB)	ND	ug/L	0.020	1	05/08/08 00:00	05/10/08 10:01	106-93-4	
1-Chloro-2-bromopropane (S)	88	%	60-140	1	05/08/08 00:00	05/10/08 10:01	301-79-56	
8260 MSV Oxygenates	Analytical Method: EPA 8260							
tert-Amyl Alcohol	ND	ug/L	100	1		05/09/08 12:36	75-85-4	
tert-Amylmethyl ether	ND	ug/L	10.0	1		05/09/08 12:36	994-05-8	
Benzene	ND	ug/L	5.0	1		05/09/08 12:36	71-43-2	
3,3-Dimethyl-1-Butanol	ND	ug/L	100	1		05/09/08 12:36	624-95-3	
tert-Butyl Alcohol	ND	ug/L	100	1		05/09/08 12:36	75-65-0	
tert-Butyl Formate	ND	ug/L	50.0	1		05/09/08 12:36	762-75-4	
Diisopropyl ether	ND	ug/L	5.0	1		05/09/08 12:36	108-20-3	
Ethanol	ND	ug/L	200	1		05/09/08 12:36	64-17-5	
Ethylbenzene	ND	ug/L	5.0	1		05/09/08 12:36	100-41-4	
Ethyl-tert-butyl ether	ND	ug/L	10.0	1		05/09/08 12:36	637-92-3	
Methyl-tert-butyl ether	ND	ug/L	5.0	1		05/09/08 12:36	1634-04-4	

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

ANALYTICAL RESULTS

Project: GASTON FOOD MART 08-1501
Pace Project No.: 9218843

Sample: MW-7 **Lab ID: 9218843005** Collected: 05/06/08 13:10 Received: 05/07/08 15:15 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Oxygenates	Analytical Method: EPA 8260							
Naphthalene	ND	ug/L	5.0	1		05/09/08 12:36	91-20-3	
Toluene	ND	ug/L	5.0	1		05/09/08 12:36	108-88-3	
Xylene (Total)	ND	ug/L	15.0	1		05/09/08 12:36	1330-20-7	
m&p-Xylene	ND	ug/L	10.0	1		05/09/08 12:36	1330-20-7	
o-Xylene	ND	ug/L	5.0	1		05/09/08 12:36	95-47-6	
Dibromofluoromethane (S)	98	%	85-115	1		05/09/08 12:36	1868-53-7	
Toluene-d8 (S)	98	%	70-120	1		05/09/08 12:36	2037-26-5	
4-Bromofluorobenzene (S)	94	%	87-109	1		05/09/08 12:36	460-00-4	
1,2-Dichloroethane-d4 (S)	94	%	79-120	1		05/09/08 12:36	17060-07-0	

Sample: MW-8 **Lab ID: 9218843006** Collected: 05/06/08 10:10 Received: 05/07/08 15:15 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							
1,2-Dibromoethane (EDB)	ND	ug/L	0.020	1	05/08/08 00:00	05/10/08 10:12	106-93-4	
1-Chloro-2-bromopropane (S)	94	%	60-140	1	05/08/08 00:00	05/10/08 10:12	301-79-56	
8260 MSV Oxygenates	Analytical Method: EPA 8260							
tert-Amyl Alcohol	ND	ug/L	1000	10		05/10/08 17:36	75-85-4	
tert-Amylmethyl ether	ND	ug/L	100	10		05/10/08 17:36	994-05-8	
Benzene	**208**	ug/L	50.0	10		05/10/08 17:36	71-43-2	
3,3-Dimethyl-1-Butanol	ND	ug/L	1000	10		05/10/08 17:36	624-95-3	
tert-Butyl Alcohol	ND	ug/L	1000	10		05/10/08 17:36	75-65-0	
tert-Butyl Formate	ND	ug/L	500	10		05/10/08 17:36	762-75-4	
Diisopropyl ether	ND	ug/L	50.0	10		05/10/08 17:36	108-20-3	
Ethanol	ND	ug/L	2000	10		05/10/08 17:36	64-17-5	
Ethylbenzene	**197**	ug/L	50.0	10		05/10/08 17:36	100-41-4	
Ethyl-tert-butyl ether	ND	ug/L	100	10		05/10/08 17:36	637-92-3	
Methyl-tert-butyl ether	ND	ug/L	50.0	10		05/10/08 17:36	1634-04-4	
Naphthalene	**106**	ug/L	50.0	10		05/10/08 17:36	91-20-3	
Toluene	**1430**	ug/L	50.0	10		05/10/08 17:36	108-88-3	
Xylene (Total)	**3350**	ug/L	150	10		05/10/08 17:36	1330-20-7	
m&p-Xylene	**2290**	ug/L	100	10		05/10/08 17:36	1330-20-7	
o-Xylene	**1060**	ug/L	50.0	10		05/10/08 17:36	95-47-6	
Dibromofluoromethane (S)	96	%	85-115	10		05/10/08 17:36	1868-53-7	
Toluene-d8 (S)	101	%	70-120	10		05/10/08 17:36	2037-26-5	
4-Bromofluorobenzene (S)	100	%	87-109	10		05/10/08 17:36	460-00-4	
1,2-Dichloroethane-d4 (S)	96	%	79-120	10		05/10/08 17:36	17060-07-0	

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

ANALYTICAL RESULTS

Project: GASTON FOOD MART 08-1501
Pace Project No.: 9218843

Sample: MW-9 **Lab ID: 9218843007** Collected: 05/06/08 10:30 Received: 05/07/08 15:15 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							
1,2-Dibromoethane (EDB)	ND	ug/L	0.020	1	05/08/08 00:00	05/10/08 10:24	106-93-4	
1-Chloro-2-bromopropane (S)	94	%	60-140	1	05/08/08 00:00	05/10/08 10:24	301-79-56	
8260 MSV Oxygenates	Analytical Method: EPA 8260							
tert-Amyl Alcohol	ND	ug/L	1000	10		05/09/08 19:04	75-85-4	
tert-Amylmethyl ether	ND	ug/L	100	10		05/09/08 19:04	994-05-8	
Benzene	**217**	ug/L	50.0	10		05/09/08 19:04	71-43-2	
3,3-Dimethyl-1-Butanol	ND	ug/L	1000	10		05/09/08 19:04	624-95-3	
tert-Butyl Alcohol	ND	ug/L	1000	10		05/09/08 19:04	75-65-0	
tert-Butyl Formate	ND	ug/L	500	10		05/09/08 19:04	762-75-4	
Diisopropyl ether	ND	ug/L	50.0	10		05/09/08 19:04	108-20-3	
Ethanol	ND	ug/L	2000	10		05/09/08 19:04	64-17-5	
Ethylbenzene	**387**	ug/L	50.0	10		05/09/08 19:04	100-41-4	
Ethyl-tert-butyl ether	ND	ug/L	100	10		05/09/08 19:04	637-92-3	
Methyl-tert-butyl ether	ND	ug/L	50.0	10		05/09/08 19:04	1634-04-4	
Naphthalene	**246**	ug/L	50.0	10		05/09/08 19:04	91-20-3	
Toluene	**1130**	ug/L	50.0	10		05/09/08 19:04	108-88-3	
Xylene (Total)	**3080**	ug/L	150	10		05/09/08 19:04	1330-20-7	
m&p-Xylene	**2180**	ug/L	100	10		05/09/08 19:04	1330-20-7	
o-Xylene	**899**	ug/L	50.0	10		05/09/08 19:04	95-47-6	
Dibromofluoromethane (S)	96	%	85-115	10		05/09/08 19:04	1868-53-7	
Toluene-d8 (S)	100	%	70-120	10		05/09/08 19:04	2037-26-5	
4-Bromofluorobenzene (S)	101	%	87-109	10		05/09/08 19:04	460-00-4	
1,2-Dichloroethane-d4 (S)	95	%	79-120	10		05/09/08 19:04	17060-07-0	

Sample: MW-10 **Lab ID: 9218843008** Collected: 05/06/08 11:40 Received: 05/07/08 15:15 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							
1,2-Dibromoethane (EDB)	**13.0**	ug/L	0.40	20	05/08/08 00:00	05/12/08 13:08	106-93-4	
1-Chloro-2-bromopropane (S)	0	%	60-140	20	05/08/08 00:00	05/12/08 13:08	301-79-56	S4
8260 MSV Oxygenates	Analytical Method: EPA 8260							
tert-Amyl Alcohol	ND	ug/L	5000	50		05/09/08 20:22	75-85-4	
tert-Amylmethyl ether	ND	ug/L	500	50		05/09/08 20:22	994-05-8	
Benzene	**5500**	ug/L	250	50		05/09/08 20:22	71-43-2	
3,3-Dimethyl-1-Butanol	ND	ug/L	5000	50		05/09/08 20:22	624-95-3	
tert-Butyl Alcohol	ND	ug/L	5000	50		05/09/08 20:22	75-65-0	
tert-Butyl Formate	**4170**	ug/L	2500	50		05/09/08 20:22	762-75-4	
Diisopropyl ether	ND	ug/L	250	50		05/09/08 20:22	108-20-3	
Ethanol	ND	ug/L	10000	50		05/09/08 20:22	64-17-5	
Ethylbenzene	**1600**	ug/L	250	50		05/09/08 20:22	100-41-4	
Ethyl-tert-butyl ether	ND	ug/L	500	50		05/09/08 20:22	637-92-3	
Methyl-tert-butyl ether	**11500**	ug/L	1250	250		05/10/08 15:48	1634-04-4	

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

ANALYTICAL RESULTS

Project: GASTON FOOD MART 08-1501
Pace Project No.: 9218843

Sample: MW-10 **Lab ID: 9218843008** Collected: 05/06/08 11:40 Received: 05/07/08 15:15 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Oxygenates	Analytical Method: EPA 8260							
Naphthalene	**748**	ug/L	250	50		05/09/08 20:22	91-20-3	
Toluene	**9880**	ug/L	1250	250		05/10/08 15:48	108-88-3	
Xylene (Total)	**10300**	ug/L	750	50		05/09/08 20:22	1330-20-7	
m&p-Xylene	**7400**	ug/L	500	50		05/09/08 20:22	1330-20-7	
o-Xylene	**2930**	ug/L	250	50		05/09/08 20:22	95-47-6	
Dibromofluoromethane (S)	97	%	85-115	50		05/09/08 20:22	1868-53-7	
Toluene-d8 (S)	99	%	70-120	50		05/09/08 20:22	2037-26-5	
4-Bromofluorobenzene (S)	97	%	87-109	50		05/09/08 20:22	460-00-4	
1,2-Dichloroethane-d4 (S)	97	%	79-120	50		05/09/08 20:22	17060-07-0	

Sample: MW-11 **Lab ID: 9218843009** Collected: 05/06/08 11:50 Received: 05/07/08 15:15 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							
1,2-Dibromoethane (EDB)	ND	ug/L	0.020	1	05/08/08 00:00	05/10/08 10:46	106-93-4	
1-Chloro-2-bromopropane (S)	97	%	60-140	1	05/08/08 00:00	05/10/08 10:46	301-79-56	
8260 MSV Oxygenates	Analytical Method: EPA 8260							
tert-Amyl Alcohol	ND	ug/L	100	1		05/09/08 12:52	75-85-4	
tert-Amylmethyl ether	ND	ug/L	10.0	1		05/09/08 12:52	994-05-8	
Benzene	ND	ug/L	5.0	1		05/09/08 12:52	71-43-2	
3,3-Dimethyl-1-Butanol	ND	ug/L	100	1		05/09/08 12:52	624-95-3	
tert-Butyl Alcohol	ND	ug/L	100	1		05/09/08 12:52	75-65-0	
tert-Butyl Formate	ND	ug/L	50.0	1		05/09/08 12:52	762-75-4	
Diisopropyl ether	ND	ug/L	5.0	1		05/09/08 12:52	108-20-3	
Ethanol	ND	ug/L	200	1		05/09/08 12:52	64-17-5	
Ethylbenzene	**26.8**	ug/L	5.0	1		05/09/08 12:52	100-41-4	
Ethyl-tert-butyl ether	ND	ug/L	10.0	1		05/09/08 12:52	637-92-3	
Methyl-tert-butyl ether	ND	ug/L	5.0	1		05/09/08 12:52	1634-04-4	
Naphthalene	**9.8**	ug/L	5.0	1		05/09/08 12:52	91-20-3	
Toluene	ND	ug/L	5.0	1		05/09/08 12:52	108-88-3	
Xylene (Total)	ND	ug/L	15.0	1		05/09/08 12:52	1330-20-7	
m&p-Xylene	ND	ug/L	10.0	1		05/09/08 12:52	1330-20-7	
o-Xylene	ND	ug/L	5.0	1		05/09/08 12:52	95-47-6	
Dibromofluoromethane (S)	97	%	85-115	1		05/09/08 12:52	1868-53-7	
Toluene-d8 (S)	95	%	70-120	1		05/09/08 12:52	2037-26-5	
4-Bromofluorobenzene (S)	100	%	87-109	1		05/09/08 12:52	460-00-4	
1,2-Dichloroethane-d4 (S)	91	%	79-120	1		05/09/08 12:52	17060-07-0	

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

ANALYTICAL RESULTS

Project: GASTON FOOD MART 08-1501
Pace Project No.: 9218843

Sample: MW-12 **Lab ID: 9218843010** Collected: 05/06/08 09:20 Received: 05/07/08 15:15 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							
1,2-Dibromoethane (EDB)	ND	ug/L	0.020	1	05/08/08 00:00	05/13/08 14:02	106-93-4	
1-Chloro-2-bromopropane (S)	73	%	60-140	1	05/08/08 00:00	05/13/08 14:02	301-79-56	
8260 MSV Oxygenates	Analytical Method: EPA 8260							
tert-Amyl Alcohol	ND	ug/L	100	1		05/09/08 13:09	75-85-4	
tert-Amylmethyl ether	ND	ug/L	10.0	1		05/09/08 13:09	994-05-8	
Benzene	ND	ug/L	5.0	1		05/09/08 13:09	71-43-2	
3,3-Dimethyl-1-Butanol	ND	ug/L	100	1		05/09/08 13:09	624-95-3	
tert-Butyl Alcohol	ND	ug/L	100	1		05/09/08 13:09	75-65-0	
tert-Butyl Formate	ND	ug/L	50.0	1		05/09/08 13:09	762-75-4	
Diisopropyl ether	ND	ug/L	5.0	1		05/09/08 13:09	108-20-3	
Ethanol	ND	ug/L	200	1		05/09/08 13:09	64-17-5	
Ethylbenzene	ND	ug/L	5.0	1		05/09/08 13:09	100-41-4	
Ethyl-tert-butyl ether	ND	ug/L	10.0	1		05/09/08 13:09	637-92-3	
Methyl-tert-butyl ether	ND	ug/L	5.0	1		05/09/08 13:09	1634-04-4	
Naphthalene	ND	ug/L	5.0	1		05/09/08 13:09	91-20-3	
Toluene	ND	ug/L	5.0	1		05/09/08 13:09	108-88-3	
Xylene (Total)	ND	ug/L	15.0	1		05/09/08 13:09	1330-20-7	
m&p-Xylene	ND	ug/L	10.0	1		05/09/08 13:09	1330-20-7	
o-Xylene	ND	ug/L	5.0	1		05/09/08 13:09	95-47-6	
Dibromofluoromethane (S)	99	%	85-115	1		05/09/08 13:09	1868-53-7	
Toluene-d8 (S)	94	%	70-120	1		05/09/08 13:09	2037-26-5	
4-Bromofluorobenzene (S)	95	%	87-109	1		05/09/08 13:09	460-00-4	
1,2-Dichloroethane-d4 (S)	94	%	79-120	1		05/09/08 13:09	17060-07-0	

Sample: MW-13 **Lab ID: 9218843011** Collected: 05/06/08 12:08 Received: 05/07/08 15:15 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							
1,2-Dibromoethane (EDB)	ND	ug/L	0.020	1	05/08/08 00:00	05/13/08 14:36	106-93-4	
1-Chloro-2-bromopropane (S)	91	%	60-140	1	05/08/08 00:00	05/13/08 14:36	301-79-56	
8260 MSV Oxygenates	Analytical Method: EPA 8260							
tert-Amyl Alcohol	ND	ug/L	100	1		05/09/08 13:25	75-85-4	
tert-Amylmethyl ether	ND	ug/L	10.0	1		05/09/08 13:25	994-05-8	
Benzene	ND	ug/L	5.0	1		05/09/08 13:25	71-43-2	
3,3-Dimethyl-1-Butanol	ND	ug/L	100	1		05/09/08 13:25	624-95-3	
tert-Butyl Alcohol	ND	ug/L	100	1		05/09/08 13:25	75-65-0	
tert-Butyl Formate	ND	ug/L	50.0	1		05/09/08 13:25	762-75-4	
Diisopropyl ether	ND	ug/L	5.0	1		05/09/08 13:25	108-20-3	
Ethanol	ND	ug/L	200	1		05/09/08 13:25	64-17-5	
Ethylbenzene	ND	ug/L	5.0	1		05/09/08 13:25	100-41-4	
Ethyl-tert-butyl ether	ND	ug/L	10.0	1		05/09/08 13:25	637-92-3	
Methyl-tert-butyl ether	ND	ug/L	5.0	1		05/09/08 13:25	1634-04-4	

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

ANALYTICAL RESULTS

Project: GASTON FOOD MART 08-1501
Pace Project No.: 9218843

Sample: MW-13 **Lab ID: 9218843011** Collected: 05/06/08 12:08 Received: 05/07/08 15:15 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Oxygenates	Analytical Method: EPA 8260							
Naphthalene	ND	ug/L	5.0	1		05/09/08 13:25	91-20-3	
Toluene	ND	ug/L	5.0	1		05/09/08 13:25	108-88-3	
Xylene (Total)	ND	ug/L	15.0	1		05/09/08 13:25	1330-20-7	
m&p-Xylene	ND	ug/L	10.0	1		05/09/08 13:25	1330-20-7	
o-Xylene	ND	ug/L	5.0	1		05/09/08 13:25	95-47-6	
Dibromofluoromethane (S)	96	%	85-115	1		05/09/08 13:25	1868-53-7	
Toluene-d8 (S)	98	%	70-120	1		05/09/08 13:25	2037-26-5	
4-Bromofluorobenzene (S)	94	%	87-109	1		05/09/08 13:25	460-00-4	
1,2-Dichloroethane-d4 (S)	93	%	79-120	1		05/09/08 13:25	17060-07-0	

Sample: MW-14 **Lab ID: 9218843012** Collected: 05/06/08 11:00 Received: 05/07/08 15:15 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							
1,2-Dibromoethane (EDB)	ND	ug/L	0.020	1	05/08/08 00:00	05/13/08 14:58	106-93-4	
1-Chloro-2-bromopropane (S)	105	%	60-140	1	05/08/08 00:00	05/13/08 14:58	301-79-56	
8260 MSV Oxygenates	Analytical Method: EPA 8260							
tert-Amyl Alcohol	ND	ug/L	100	1		05/09/08 13:41	75-85-4	
tert-Amylmethyl ether	ND	ug/L	10.0	1		05/09/08 13:41	994-05-8	
Benzene	ND	ug/L	5.0	1		05/09/08 13:41	71-43-2	
3,3-Dimethyl-1-Butanol	ND	ug/L	100	1		05/09/08 13:41	624-95-3	
tert-Butyl Alcohol	ND	ug/L	100	1		05/09/08 13:41	75-65-0	
tert-Butyl Formate	ND	ug/L	50.0	1		05/09/08 13:41	762-75-4	
Diisopropyl ether	ND	ug/L	5.0	1		05/09/08 13:41	108-20-3	
Ethanol	ND	ug/L	200	1		05/09/08 13:41	64-17-5	
Ethylbenzene	ND	ug/L	5.0	1		05/09/08 13:41	100-41-4	
Ethyl-tert-butyl ether	ND	ug/L	10.0	1		05/09/08 13:41	637-92-3	
Methyl-tert-butyl ether	ND	ug/L	5.0	1		05/09/08 13:41	1634-04-4	
Naphthalene	ND	ug/L	5.0	1		05/09/08 13:41	91-20-3	
Toluene	ND	ug/L	5.0	1		05/09/08 13:41	108-88-3	
Xylene (Total)	ND	ug/L	15.0	1		05/09/08 13:41	1330-20-7	
m&p-Xylene	ND	ug/L	10.0	1		05/09/08 13:41	1330-20-7	
o-Xylene	ND	ug/L	5.0	1		05/09/08 13:41	95-47-6	
Dibromofluoromethane (S)	102	%	85-115	1		05/09/08 13:41	1868-53-7	
Toluene-d8 (S)	98	%	70-120	1		05/09/08 13:41	2037-26-5	
4-Bromofluorobenzene (S)	97	%	87-109	1		05/09/08 13:41	460-00-4	
1,2-Dichloroethane-d4 (S)	100	%	79-120	1		05/09/08 13:41	17060-07-0	

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

ANALYTICAL RESULTS

Project: GASTON FOOD MART 08-1501
Pace Project No.: 9218843

Sample: MW-15 **Lab ID: 9218843013** Collected: 05/06/08 09:10 Received: 05/07/08 15:15 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							
1,2-Dibromoethane (EDB)	**0.16**	ug/L	0.020	1	05/08/08 00:00	05/13/08 15:09	106-93-4	
1-Chloro-2-bromopropane (S)	97	%	60-140	1	05/08/08 00:00	05/13/08 15:09	301-79-56	
8260 MSV Oxygenates	Analytical Method: EPA 8260							
tert-Amyl Alcohol	ND	ug/L	100	1		05/09/08 13:58	75-85-4	
tert-Amylmethyl ether	ND	ug/L	10.0	1		05/09/08 13:58	994-05-8	
Benzene	ND	ug/L	5.0	1		05/09/08 13:58	71-43-2	
3,3-Dimethyl-1-Butanol	ND	ug/L	100	1		05/09/08 13:58	624-95-3	
tert-Butyl Alcohol	ND	ug/L	100	1		05/09/08 13:58	75-65-0	
tert-Butyl Formate	ND	ug/L	50.0	1		05/09/08 13:58	762-75-4	
Diisopropyl ether	ND	ug/L	5.0	1		05/09/08 13:58	108-20-3	
Ethanol	ND	ug/L	200	1		05/09/08 13:58	64-17-5	
Ethylbenzene	ND	ug/L	5.0	1		05/09/08 13:58	100-41-4	
Ethyl-tert-butyl ether	ND	ug/L	10.0	1		05/09/08 13:58	637-92-3	
Methyl-tert-butyl ether	ND	ug/L	5.0	1		05/09/08 13:58	1634-04-4	
Naphthalene	ND	ug/L	5.0	1		05/09/08 13:58	91-20-3	
Toluene	ND	ug/L	5.0	1		05/09/08 13:58	108-88-3	
Xylene (Total)	**16.2**	ug/L	15.0	1		05/09/08 13:58	1330-20-7	
m&p-Xylene	ND	ug/L	10.0	1		05/09/08 13:58	1330-20-7	
o-Xylene	**8.3**	ug/L	5.0	1		05/09/08 13:58	95-47-6	
Dibromofluoromethane (S)	97	%	85-115	1		05/09/08 13:58	1868-53-7	
Toluene-d8 (S)	100	%	70-120	1		05/09/08 13:58	2037-26-5	
4-Bromofluorobenzene (S)	97	%	87-109	1		05/09/08 13:58	460-00-4	
1,2-Dichloroethane-d4 (S)	92	%	79-120	1		05/09/08 13:58	17060-07-0	

Sample: MW-16R **Lab ID: 9218843014** Collected: 05/06/08 08:25 Received: 05/07/08 15:15 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							
1,2-Dibromoethane (EDB)	ND	ug/L	0.020	1	05/08/08 00:00	05/13/08 15:20	106-93-4	
1-Chloro-2-bromopropane (S)	73	%	60-140	1	05/08/08 00:00	05/13/08 15:20	301-79-56	
8260 MSV Oxygenates	Analytical Method: EPA 8260							
tert-Amyl Alcohol	ND	ug/L	100	1		05/09/08 14:14	75-85-4	
tert-Amylmethyl ether	ND	ug/L	10.0	1		05/09/08 14:14	994-05-8	
Benzene	ND	ug/L	5.0	1		05/09/08 14:14	71-43-2	
3,3-Dimethyl-1-Butanol	ND	ug/L	100	1		05/09/08 14:14	624-95-3	
tert-Butyl Alcohol	ND	ug/L	100	1		05/09/08 14:14	75-65-0	
tert-Butyl Formate	ND	ug/L	50.0	1		05/09/08 14:14	762-75-4	
Diisopropyl ether	ND	ug/L	5.0	1		05/09/08 14:14	108-20-3	
Ethanol	ND	ug/L	200	1		05/09/08 14:14	64-17-5	
Ethylbenzene	ND	ug/L	5.0	1		05/09/08 14:14	100-41-4	
Ethyl-tert-butyl ether	ND	ug/L	10.0	1		05/09/08 14:14	637-92-3	
Methyl-tert-butyl ether	ND	ug/L	5.0	1		05/09/08 14:14	1634-04-4	

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

ANALYTICAL RESULTS

Project: GASTON FOOD MART 08-1501
Pace Project No.: 9218843

Sample: MW-16R **Lab ID: 9218843014** Collected: 05/06/08 08:25 Received: 05/07/08 15:15 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Oxygenates	Analytical Method: EPA 8260							
Naphthalene	ND	ug/L	5.0	1		05/09/08 14:14	91-20-3	
Toluene	ND	ug/L	5.0	1		05/09/08 14:14	108-88-3	
Xylene (Total)	ND	ug/L	15.0	1		05/09/08 14:14	1330-20-7	
m&p-Xylene	ND	ug/L	10.0	1		05/09/08 14:14	1330-20-7	
o-Xylene	ND	ug/L	5.0	1		05/09/08 14:14	95-47-6	
Dibromofluoromethane (S)	97	%	85-115	1		05/09/08 14:14	1868-53-7	
Toluene-d8 (S)	97	%	70-120	1		05/09/08 14:14	2037-26-5	
4-Bromofluorobenzene (S)	96	%	87-109	1		05/09/08 14:14	460-00-4	
1,2-Dichloroethane-d4 (S)	91	%	79-120	1		05/09/08 14:14	17060-07-0	

Sample: MW-19 **Lab ID: 9218843015** Collected: 05/06/08 10:41 Received: 05/07/08 15:15 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							
1,2-Dibromoethane (EDB)	ND	ug/L	0.020	1	05/08/08 00:00	05/13/08 15:31	106-93-4	
1-Chloro-2-bromopropane (S)	61	%	60-140	1	05/08/08 00:00	05/13/08 15:31	301-79-56	
8260 MSV Oxygenates	Analytical Method: EPA 8260							
tert-Amyl Alcohol	ND	ug/L	100	1		05/09/08 14:30	75-85-4	
tert-Amylmethyl ether	ND	ug/L	10.0	1		05/09/08 14:30	994-05-8	
Benzene	ND	ug/L	5.0	1		05/09/08 14:30	71-43-2	
3,3-Dimethyl-1-Butanol	ND	ug/L	100	1		05/09/08 14:30	624-95-3	
tert-Butyl Alcohol	ND	ug/L	100	1		05/09/08 14:30	75-65-0	
tert-Butyl Formate	ND	ug/L	50.0	1		05/09/08 14:30	762-75-4	
Diisopropyl ether	ND	ug/L	5.0	1		05/09/08 14:30	108-20-3	
Ethanol	ND	ug/L	200	1		05/09/08 14:30	64-17-5	
Ethylbenzene	ND	ug/L	5.0	1		05/09/08 14:30	100-41-4	
Ethyl-tert-butyl ether	ND	ug/L	10.0	1		05/09/08 14:30	637-92-3	
Methyl-tert-butyl ether	ND	ug/L	5.0	1		05/09/08 14:30	1634-04-4	
Naphthalene	ND	ug/L	5.0	1		05/09/08 14:30	91-20-3	
Toluene	ND	ug/L	5.0	1		05/09/08 14:30	108-88-3	
Xylene (Total)	ND	ug/L	15.0	1		05/09/08 14:30	1330-20-7	
m&p-Xylene	ND	ug/L	10.0	1		05/09/08 14:30	1330-20-7	
o-Xylene	ND	ug/L	5.0	1		05/09/08 14:30	95-47-6	
Dibromofluoromethane (S)	97	%	85-115	1		05/09/08 14:30	1868-53-7	
Toluene-d8 (S)	97	%	70-120	1		05/09/08 14:30	2037-26-5	
4-Bromofluorobenzene (S)	93	%	87-109	1		05/09/08 14:30	460-00-4	
1,2-Dichloroethane-d4 (S)	90	%	79-120	1		05/09/08 14:30	17060-07-0	

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

ANALYTICAL RESULTS

Project: GASTON FOOD MART 08-1501
Pace Project No.: 9218843

Sample: MW-21 **Lab ID: 9218843016** Collected: 05/06/08 12:50 Received: 05/07/08 15:15 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							
1,2-Dibromoethane (EDB)	ND	ug/L	0.020	1	05/08/08 00:00	05/13/08 15:42	106-93-4	
1-Chloro-2-bromopropane (S)	95	%	60-140	1	05/08/08 00:00	05/13/08 15:42	301-79-56	
8260 MSV Oxygenates	Analytical Method: EPA 8260							
tert-Amyl Alcohol	ND	ug/L	100	1		05/10/08 13:38	75-85-4	
tert-Amylmethyl ether	ND	ug/L	10.0	1		05/10/08 13:38	994-05-8	
Benzene	ND	ug/L	5.0	1		05/10/08 13:38	71-43-2	
3,3-Dimethyl-1-Butanol	ND	ug/L	100	1		05/10/08 13:38	624-95-3	
tert-Butyl Alcohol	ND	ug/L	100	1		05/10/08 13:38	75-65-0	
tert-Butyl Formate	ND	ug/L	50.0	1		05/10/08 13:38	762-75-4	
Diisopropyl ether	ND	ug/L	5.0	1		05/10/08 13:38	108-20-3	
Ethanol	ND	ug/L	200	1		05/10/08 13:38	64-17-5	
Ethylbenzene	ND	ug/L	5.0	1		05/10/08 13:38	100-41-4	
Ethyl-tert-butyl ether	ND	ug/L	10.0	1		05/10/08 13:38	637-92-3	
Methyl-tert-butyl ether	ND	ug/L	5.0	1		05/10/08 13:38	1634-04-4	
Naphthalene	ND	ug/L	5.0	1		05/10/08 13:38	91-20-3	
Toluene	ND	ug/L	5.0	1		05/10/08 13:38	108-88-3	
Xylene (Total)	ND	ug/L	15.0	1		05/10/08 13:38	1330-20-7	
m&p-Xylene	ND	ug/L	10.0	1		05/10/08 13:38	1330-20-7	
o-Xylene	ND	ug/L	5.0	1		05/10/08 13:38	95-47-6	
Dibromofluoromethane (S)	97	%	85-115	1		05/10/08 13:38	1868-53-7	
Toluene-d8 (S)	93	%	70-120	1		05/10/08 13:38	2037-26-5	
4-Bromofluorobenzene (S)	97	%	87-109	1		05/10/08 13:38	460-00-4	
1,2-Dichloroethane-d4 (S)	95	%	79-120	1		05/10/08 13:38	17060-07-0	

Sample: MW-22 **Lab ID: 9218843017** Collected: 05/06/08 08:40 Received: 05/07/08 15:15 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							
1,2-Dibromoethane (EDB)	ND	ug/L	0.020	1	05/08/08 00:00	05/13/08 15:54	106-93-4	
1-Chloro-2-bromopropane (S)	70	%	60-140	1	05/08/08 00:00	05/13/08 15:54	301-79-56	
8260 MSV Oxygenates	Analytical Method: EPA 8260							
tert-Amyl Alcohol	ND	ug/L	100	1		05/09/08 15:03	75-85-4	
tert-Amylmethyl ether	ND	ug/L	10.0	1		05/09/08 15:03	994-05-8	
Benzene	ND	ug/L	5.0	1		05/09/08 15:03	71-43-2	
3,3-Dimethyl-1-Butanol	ND	ug/L	100	1		05/09/08 15:03	624-95-3	
tert-Butyl Alcohol	ND	ug/L	100	1		05/09/08 15:03	75-65-0	
tert-Butyl Formate	ND	ug/L	50.0	1		05/09/08 15:03	762-75-4	
Diisopropyl ether	ND	ug/L	5.0	1		05/09/08 15:03	108-20-3	
Ethanol	ND	ug/L	200	1		05/09/08 15:03	64-17-5	
Ethylbenzene	ND	ug/L	5.0	1		05/09/08 15:03	100-41-4	
Ethyl-tert-butyl ether	ND	ug/L	10.0	1		05/09/08 15:03	637-92-3	
Methyl-tert-butyl ether	ND	ug/L	5.0	1		05/09/08 15:03	1634-04-4	

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

ANALYTICAL RESULTS

Project: GASTON FOOD MART 08-1501
Pace Project No.: 9218843

Sample: MW-22 **Lab ID: 9218843017** Collected: 05/06/08 08:40 Received: 05/07/08 15:15 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Oxygenates	Analytical Method: EPA 8260							
Naphthalene	ND	ug/L	5.0	1		05/09/08 15:03	91-20-3	
Toluene	ND	ug/L	5.0	1		05/09/08 15:03	108-88-3	
Xylene (Total)	ND	ug/L	15.0	1		05/09/08 15:03	1330-20-7	
m&p-Xylene	ND	ug/L	10.0	1		05/09/08 15:03	1330-20-7	
o-Xylene	ND	ug/L	5.0	1		05/09/08 15:03	95-47-6	
Dibromofluoromethane (S)	101	%	85-115	1		05/09/08 15:03	1868-53-7	
Toluene-d8 (S)	96	%	70-120	1		05/09/08 15:03	2037-26-5	
4-Bromofluorobenzene (S)	94	%	87-109	1		05/09/08 15:03	460-00-4	
1,2-Dichloroethane-d4 (S)	96	%	79-120	1		05/09/08 15:03	17060-07-0	

Sample: MW-23 **Lab ID: 9218843018** Collected: 05/06/08 08:45 Received: 05/07/08 15:15 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							
1,2-Dibromoethane (EDB)	**0.63**	ug/L	0.020	1	05/08/08 00:00	05/13/08 16:05	106-93-4	
1-Chloro-2-bromopropane (S)	87	%	60-140	1	05/08/08 00:00	05/13/08 16:05	301-79-56	
8260 MSV Oxygenates	Analytical Method: EPA 8260							
tert-Amyl Alcohol	ND	ug/L	100	1		05/09/08 15:19	75-85-4	
tert-Amylmethyl ether	ND	ug/L	10.0	1		05/09/08 15:19	994-05-8	
Benzene	**35.6**	ug/L	5.0	1		05/09/08 15:19	71-43-2	
3,3-Dimethyl-1-Butanol	ND	ug/L	100	1		05/09/08 15:19	624-95-3	
tert-Butyl Alcohol	ND	ug/L	100	1		05/09/08 15:19	75-65-0	
tert-Butyl Formate	ND	ug/L	50.0	1		05/09/08 15:19	762-75-4	
Diisopropyl ether	ND	ug/L	5.0	1		05/09/08 15:19	108-20-3	
Ethanol	ND	ug/L	200	1		05/09/08 15:19	64-17-5	
Ethylbenzene	ND	ug/L	5.0	1		05/09/08 15:19	100-41-4	
Ethyl-tert-butyl ether	ND	ug/L	10.0	1		05/09/08 15:19	637-92-3	
Methyl-tert-butyl ether	ND	ug/L	5.0	1		05/09/08 15:19	1634-04-4	
Naphthalene	ND	ug/L	5.0	1		05/09/08 15:19	91-20-3	
Toluene	ND	ug/L	5.0	1		05/09/08 15:19	108-88-3	
Xylene (Total)	**22.8**	ug/L	15.0	1		05/09/08 15:19	1330-20-7	
m&p-Xylene	ND	ug/L	10.0	1		05/09/08 15:19	1330-20-7	
o-Xylene	**22.4**	ug/L	5.0	1		05/09/08 15:19	95-47-6	
Dibromofluoromethane (S)	100	%	85-115	1		05/09/08 15:19	1868-53-7	
Toluene-d8 (S)	99	%	70-120	1		05/09/08 15:19	2037-26-5	
4-Bromofluorobenzene (S)	97	%	87-109	1		05/09/08 15:19	460-00-4	
1,2-Dichloroethane-d4 (S)	95	%	79-120	1		05/09/08 15:19	17060-07-0	

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

ANALYTICAL RESULTS

Project: GASTON FOOD MART 08-1501
Pace Project No.: 9218843

Sample: MW-24 **Lab ID: 9218843019** Collected: 05/06/08 11:05 Received: 05/07/08 15:15 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							
1,2-Dibromoethane (EDB)	**2.8**	ug/L	0.10	5	05/08/08 00:00	05/14/08 11:01	106-93-4	
1-Chloro-2-bromopropane (S)	93	%	60-140	1	05/08/08 00:00	05/13/08 16:16	301-79-56	
8260 MSV Oxygenates	Analytical Method: EPA 8260							
tert-Amyl Alcohol	ND	ug/L	2000	20		05/12/08 00:27	75-85-4	
tert-Amylmethyl ether	ND	ug/L	200	20		05/12/08 00:27	994-05-8	
Benzene	**620**	ug/L	100	20		05/12/08 00:27	71-43-2	
3,3-Dimethyl-1-Butanol	ND	ug/L	2000	20		05/12/08 00:27	624-95-3	
tert-Butyl Alcohol	ND	ug/L	2000	20		05/12/08 00:27	75-65-0	
tert-Butyl Formate	ND	ug/L	1000	20		05/12/08 00:27	762-75-4	
Diisopropyl ether	ND	ug/L	100	20		05/12/08 00:27	108-20-3	
Ethanol	ND	ug/L	4000	20		05/12/08 00:27	64-17-5	
Ethylbenzene	**1000**	ug/L	100	20		05/12/08 00:27	100-41-4	
Ethyl-tert-butyl ether	ND	ug/L	200	20		05/12/08 00:27	637-92-3	
Methyl-tert-butyl ether	ND	ug/L	100	20		05/12/08 00:27	1634-04-4	
Naphthalene	**234**	ug/L	100	20		05/12/08 00:27	91-20-3	
Toluene	**1790**	ug/L	100	20		05/12/08 00:27	108-88-3	
Xylene (Total)	**4390**	ug/L	300	20		05/12/08 00:27	1330-20-7	
m&p-Xylene	**2870**	ug/L	200	20		05/12/08 00:27	1330-20-7	
o-Xylene	**1530**	ug/L	100	20		05/12/08 00:27	95-47-6	
Dibromofluoromethane (S)	99	%	85-115	20		05/12/08 00:27	1868-53-7	
Toluene-d8 (S)	101	%	70-120	20		05/12/08 00:27	2037-26-5	
4-Bromofluorobenzene (S)	98	%	87-109	20		05/12/08 00:27	460-00-4	
1,2-Dichloroethane-d4 (S)	103	%	79-120	20		05/12/08 00:27	17060-07-0	

Sample: DW-1 **Lab ID: 9218843020** Collected: 05/06/08 11:55 Received: 05/07/08 15:15 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Oxygenates	Analytical Method: EPA 8260							
tert-Amyl Alcohol	ND	ug/L	100	1		05/09/08 15:52	75-85-4	
tert-Amylmethyl ether	ND	ug/L	10.0	1		05/09/08 15:52	994-05-8	
Benzene	ND	ug/L	5.0	1		05/09/08 15:52	71-43-2	
3,3-Dimethyl-1-Butanol	ND	ug/L	100	1		05/09/08 15:52	624-95-3	
tert-Butyl Alcohol	ND	ug/L	100	1		05/09/08 15:52	75-65-0	
tert-Butyl Formate	ND	ug/L	50.0	1		05/09/08 15:52	762-75-4	
Diisopropyl ether	ND	ug/L	5.0	1		05/09/08 15:52	108-20-3	
Ethanol	ND	ug/L	200	1		05/09/08 15:52	64-17-5	
Ethylbenzene	ND	ug/L	5.0	1		05/09/08 15:52	100-41-4	
Ethyl-tert-butyl ether	ND	ug/L	10.0	1		05/09/08 15:52	637-92-3	
Methyl-tert-butyl ether	ND	ug/L	5.0	1		05/09/08 15:52	1634-04-4	
Naphthalene	**32.3**	ug/L	5.0	1		05/09/08 15:52	91-20-3	C8
Toluene	ND	ug/L	5.0	1		05/09/08 15:52	108-88-3	
Xylene (Total)	ND	ug/L	15.0	1		05/09/08 15:52	1330-20-7	
m&p-Xylene	ND	ug/L	10.0	1		05/09/08 15:52	1330-20-7	

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

ANALYTICAL RESULTS

Project: GASTON FOOD MART 08-1501
Pace Project No.: 9218843

Sample: DW-1 **Lab ID: 9218843020** Collected: 05/06/08 11:55 Received: 05/07/08 15:15 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Oxygenates	Analytical Method: EPA 8260							
o-Xylene	ND	ug/L	5.0	1		05/09/08 15:52	95-47-6	
Dibromofluoromethane (S)	97	%	85-115	1		05/09/08 15:52	1868-53-7	
Toluene-d8 (S)	82	%	70-120	1		05/09/08 15:52	2037-26-5	
4-Bromofluorobenzene (S)	94	%	87-109	1		05/09/08 15:52	460-00-4	
1,2-Dichloroethane-d4 (S)	96	%	79-120	1		05/09/08 15:52	17060-07-0	

Sample: DW-2 **Lab ID: 9218843021** Collected: 05/06/08 09:00 Received: 05/07/08 15:15 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							
1,2-Dibromoethane (EDB)	ND	ug/L	0.020	1	05/08/08 00:00	05/13/08 16:49	106-93-4	
1-Chloro-2-bromopropane (S)	109	%	60-140	1	05/08/08 00:00	05/13/08 16:49	301-79-56	
8260 MSV Oxygenates	Analytical Method: EPA 8260							
tert-Amyl Alcohol	ND	ug/L	100	1		05/10/08 13:54	75-85-4	
tert-Amylmethyl ether	ND	ug/L	10.0	1		05/10/08 13:54	994-05-8	
Benzene	ND	ug/L	5.0	1		05/10/08 13:54	71-43-2	
3,3-Dimethyl-1-Butanol	ND	ug/L	100	1		05/10/08 13:54	624-95-3	
tert-Butyl Alcohol	ND	ug/L	100	1		05/10/08 13:54	75-65-0	
tert-Butyl Formate	ND	ug/L	50.0	1		05/10/08 13:54	762-75-4	
Diisopropyl ether	ND	ug/L	5.0	1		05/10/08 13:54	108-20-3	
Ethanol	ND	ug/L	200	1		05/10/08 13:54	64-17-5	
Ethylbenzene	ND	ug/L	5.0	1		05/10/08 13:54	100-41-4	
Ethyl-tert-butyl ether	ND	ug/L	10.0	1		05/10/08 13:54	637-92-3	
Methyl-tert-butyl ether	ND	ug/L	5.0	1		05/10/08 13:54	1634-04-4	
Naphthalene	ND	ug/L	5.0	1		05/10/08 13:54	91-20-3	
Toluene	ND	ug/L	5.0	1		05/10/08 13:54	108-88-3	
Xylene (Total)	ND	ug/L	15.0	1		05/10/08 13:54	1330-20-7	
m&p-Xylene	ND	ug/L	10.0	1		05/10/08 13:54	1330-20-7	
o-Xylene	ND	ug/L	5.0	1		05/10/08 13:54	95-47-6	
Dibromofluoromethane (S)	98	%	85-115	1		05/10/08 13:54	1868-53-7	
Toluene-d8 (S)	96	%	70-120	1		05/10/08 13:54	2037-26-5	
4-Bromofluorobenzene (S)	95	%	87-109	1		05/10/08 13:54	460-00-4	
1,2-Dichloroethane-d4 (S)	90	%	79-120	1		05/10/08 13:54	17060-07-0	

Sample: RMW-20 **Lab ID: 9218843022** Collected: 05/06/08 10:00 Received: 05/07/08 15:15 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							
1,2-Dibromoethane (EDB)	ND	ug/L	0.020	1	05/08/08 00:00	05/13/08 17:01	106-93-4	
1-Chloro-2-bromopropane (S)	95	%	60-140	1	05/08/08 00:00	05/13/08 17:01	301-79-56	

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

ANALYTICAL RESULTS

Project: GASTON FOOD MART 08-1501
Pace Project No.: 9218843

Sample: RMW-20 **Lab ID: 9218843022** Collected: 05/06/08 10:00 Received: 05/07/08 15:15 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Oxygenates	Analytical Method: EPA 8260							
tert-Amyl Alcohol	ND	ug/L	100	1		05/09/08 16:08	75-85-4	
tert-Amylmethyl ether	ND	ug/L	10.0	1		05/09/08 16:08	994-05-8	
Benzene	ND	ug/L	5.0	1		05/09/08 16:08	71-43-2	
3,3-Dimethyl-1-Butanol	ND	ug/L	100	1		05/09/08 16:08	624-95-3	
tert-Butyl Alcohol	ND	ug/L	100	1		05/09/08 16:08	75-65-0	
tert-Butyl Formate	ND	ug/L	50.0	1		05/09/08 16:08	762-75-4	
Diisopropyl ether	ND	ug/L	5.0	1		05/09/08 16:08	108-20-3	
Ethanol	ND	ug/L	200	1		05/09/08 16:08	64-17-5	
Ethylbenzene	ND	ug/L	5.0	1		05/09/08 16:08	100-41-4	
Ethyl-tert-butyl ether	ND	ug/L	10.0	1		05/09/08 16:08	637-92-3	
Methyl-tert-butyl ether	ND	ug/L	5.0	1		05/09/08 16:08	1634-04-4	
Naphthalene	ND	ug/L	5.0	1		05/09/08 16:08	91-20-3	
Toluene	ND	ug/L	5.0	1		05/09/08 16:08	108-88-3	
Xylene (Total)	ND	ug/L	15.0	1		05/09/08 16:08	1330-20-7	
m&p-Xylene	ND	ug/L	10.0	1		05/09/08 16:08	1330-20-7	
o-Xylene	ND	ug/L	5.0	1		05/09/08 16:08	95-47-6	
Dibromofluoromethane (S)	95	%	85-115	1		05/09/08 16:08	1868-53-7	
Toluene-d8 (S)	96	%	70-120	1		05/09/08 16:08	2037-26-5	
4-Bromofluorobenzene (S)	96	%	87-109	1		05/09/08 16:08	460-00-4	
1,2-Dichloroethane-d4 (S)	93	%	79-120	1		05/09/08 16:08	17060-07-0	

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: GASTON FOOD MART 08-1501
Pace Project No.: 9218843

QC Batch: OEXT/3132 Analysis Method: EPA 8011
QC Batch Method: EPA 8011 Analysis Description: GCS 8011 EDB DBCP
Associated Lab Samples: 9218843001, 9218843002, 9218843003, 9218843004, 9218843005, 9218843006, 9218843007, 9218843008, 9218843009

METHOD BLANK: 111180

Associated Lab Samples: 9218843001, 9218843002, 9218843003, 9218843004, 9218843005, 9218843006, 9218843007, 9218843008, 9218843009

Parameter	Units	Blank Result	Reporting Limit	Qualifiers
1,2-Dibromoethane (EDB)	ug/L	ND	0.020	
1-Chloro-2-bromopropane (S)	%	99	60-140	

LABORATORY CONTROL SAMPLE & LCSD: 111181 111182

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	0.33	0.32	116	112	60-140	4	20	
1-Chloro-2-bromopropane (S)	%				102	99	60-140			

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 111183 111184

Parameter	Units	9218312002 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	.29	.29	0.32	0.30	112	106	60-140	6	
1-Chloro-2-bromopropane (S)	%						97	97	60-140		

SAMPLE DUPLICATE: 111185

Parameter	Units	9218312003 Result	Dup Result	RPD	Qualifiers
1,2-Dibromoethane (EDB)	ug/L	ND	ND	0	
1-Chloro-2-bromopropane (S)	%		98	.2	

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: GASTON FOOD MART 08-1501
Pace Project No.: 9218843

QC Batch: OEXT/3133 Analysis Method: EPA 8011
QC Batch Method: EPA 8011 Analysis Description: GCS 8011 EDB DBCP
Associated Lab Samples: 9218843010, 9218843011, 9218843012, 9218843013, 9218843014, 9218843015, 9218843016, 9218843017, 9218843018, 9218843019, 9218843021, 9218843022

METHOD BLANK: 111189

Associated Lab Samples: 9218843010, 9218843011, 9218843012, 9218843013, 9218843014, 9218843015, 9218843016, 9218843017, 9218843018, 9218843019, 9218843021, 9218843022

Parameter	Units	Blank Result	Reporting Limit	Qualifiers
1,2-Dibromoethane (EDB)	ug/L	ND	0.020	
1-Chloro-2-bromopropane (S)	%	104	60-140	

LABORATORY CONTROL SAMPLE & LCSD: 111190 111191

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	0.30	110	106	60-140	4	20	
1-Chloro-2-bromopropane (S)	%				100	98	60-140			

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 111192 111193

Parameter	Units	9218843010 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	.29	.29	0.27	0.27	94	96	60-140	2	
1-Chloro-2-bromopropane (S)	%						73	78	60-140		

SAMPLE DUPLICATE: 111194

Parameter	Units	9218843011 Result	Dup Result	RPD	Qualifiers
1,2-Dibromoethane (EDB)	ug/L	ND	ND	0	
1-Chloro-2-bromopropane (S)	%		89	2	

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: GASTON FOOD MART 08-1501
Pace Project No.: 9218843

QC Batch: MSV/3338 Analysis Method: EPA 8260
QC Batch Method: EPA 8260 Analysis Description: 8260 MSV Oxygenates
Associated Lab Samples: 9218843001, 9218843002, 9218843003, 9218843004, 9218843005, 9218843006, 9218843007, 9218843008, 9218843009, 9218843010, 9218843011, 9218843012, 9218843013, 9218843014, 9218843015, 9218843016, 9218843017, 9218843018, 9218843019, 9218843020

METHOD BLANK: 111610
Associated Lab Samples: 9218843001, 9218843002, 9218843003, 9218843004, 9218843005, 9218843006, 9218843007, 9218843008, 9218843009, 9218843010, 9218843011, 9218843012, 9218843013, 9218843014, 9218843015, 9218843016, 9218843017, 9218843018, 9218843019, 9218843020

Parameter	Units	Blank Result	Reporting Limit	Qualifiers
3,3-Dimethyl-1-Butanol	ug/L	ND	100	
Benzene	ug/L	ND	5.0	
Diisopropyl ether	ug/L	ND	5.0	
Ethanol	ug/L	ND	200	
Ethyl-tert-butyl ether	ug/L	ND	10.0	
Ethylbenzene	ug/L	ND	5.0	
m&p-Xylene	ug/L	ND	10.0	
Methyl-tert-butyl ether	ug/L	ND	5.0	
Naphthalene	ug/L	ND	5.0	
o-Xylene	ug/L	ND	5.0	
tert-Amyl Alcohol	ug/L	ND	100	
tert-Amylmethyl ether	ug/L	ND	10.0	
tert-Butyl Alcohol	ug/L	ND	100	
tert-Butyl Formate	ug/L	ND	50.0	
Toluene	ug/L	ND	5.0	
Xylene (Total)	ug/L	ND	15.0	
1,2-Dichloroethane-d4 (S)	%	93	79-120	
4-Bromofluorobenzene (S)	%	95	87-109	
Dibromofluoromethane (S)	%	97	85-115	
Toluene-d8 (S)	%	100	70-120	

LABORATORY CONTROL SAMPLE: 111611

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
3,3-Dimethyl-1-Butanol	ug/L	1000	838	84	55-148	
Benzene	ug/L	50	47.6	95	78-128	
Diisopropyl ether	ug/L	50	48.0	96	74-131	
Ethanol	ug/L	2000	1940	97	53-150	
Ethyl-tert-butyl ether	ug/L	100	99.1	99	77-136	
Ethylbenzene	ug/L	50	48.2	96	80-127	
m&p-Xylene	ug/L	100	96.8	97	82-127	
Methyl-tert-butyl ether	ug/L	50	48.0	96	71-130	
Naphthalene	ug/L	50	49.4	99	52-136	
o-Xylene	ug/L	50	49.1	98	83-124	
tert-Amyl Alcohol	ug/L	1000	1020	102	50-150	
tert-Amylmethyl ether	ug/L	100	102	102	50-150	
tert-Butyl Alcohol	ug/L	500	504	101	50-150	
tert-Butyl Formate	ug/L	200	195	98	50-150	

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: GASTON FOOD MART 08-1501
Pace Project No.: 9218843

LABORATORY CONTROL SAMPLE: 111611

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Toluene	ug/L	50	48.2	96	76-126	
Xylene (Total)	ug/L	150	146	97	83-125	
1,2-Dichloroethane-d4 (S)	%			95	79-120	
4-Bromofluorobenzene (S)	%			102	87-109	
Dibromofluoromethane (S)	%			94	85-115	
Toluene-d8 (S)	%			99	70-120	

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: GASTON FOOD MART 08-1501
Pace Project No.: 9218843

QC Batch: MSV/3339
QC Batch Method: EPA 8260
Analysis Method: EPA 8260
Analysis Description: 8260 MSV Oxygenates
Associated Lab Samples: 9218843021, 9218843022

METHOD BLANK: 111614
Associated Lab Samples: 9218843021, 9218843022

Parameter	Units	Blank Result	Reporting Limit	Qualifiers
3,3-Dimethyl-1-Butanol	ug/L	ND	100	
Benzene	ug/L	ND	5.0	
Diisopropyl ether	ug/L	ND	5.0	
Ethanol	ug/L	ND	200	
Ethyl-tert-butyl ether	ug/L	ND	10.0	
Ethylbenzene	ug/L	ND	5.0	
m&p-Xylene	ug/L	ND	10.0	
Methyl-tert-butyl ether	ug/L	ND	5.0	
Naphthalene	ug/L	ND	5.0	
o-Xylene	ug/L	ND	5.0	
tert-Amyl Alcohol	ug/L	ND	100	
tert-Amylmethyl ether	ug/L	ND	10.0	
tert-Butyl Alcohol	ug/L	ND	100	
tert-Butyl Formate	ug/L	ND	50.0	
Toluene	ug/L	ND	5.0	
Xylene (Total)	ug/L	ND	15.0	
1,2-Dichloroethane-d4 (S)	%	93	79-120	
4-Bromofluorobenzene (S)	%	95	87-109	
Dibromofluoromethane (S)	%	97	85-115	
Toluene-d8 (S)	%	100	70-120	

LABORATORY CONTROL SAMPLE: 111615

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
3,3-Dimethyl-1-Butanol	ug/L	1000	948	95	55-148	
Benzene	ug/L	50	49.2	98	78-128	
Diisopropyl ether	ug/L	50	50.4	101	74-131	
Ethanol	ug/L	2000	2140	107	53-150	
Ethyl-tert-butyl ether	ug/L	100	107	107	77-136	
Ethylbenzene	ug/L	50	49.6	99	80-127	
m&p-Xylene	ug/L	100	99.5	100	82-127	
Methyl-tert-butyl ether	ug/L	50	50.5	101	71-130	
Naphthalene	ug/L	50	51.3	103	52-136	
o-Xylene	ug/L	50	50.9	102	83-124	
tert-Amyl Alcohol	ug/L	1000	972	97	50-150	
tert-Amylmethyl ether	ug/L	100	109	109	50-150	
tert-Butyl Alcohol	ug/L	500	565	113	50-150	
tert-Butyl Formate	ug/L	200	220	110	50-150	
Toluene	ug/L	50	50.5	101	76-126	
Xylene (Total)	ug/L	150	150	100	83-125	
1,2-Dichloroethane-d4 (S)	%			96	79-120	

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: GASTON FOOD MART 08-1501
Pace Project No.: 9218843

LABORATORY CONTROL SAMPLE: 111615

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
4-Bromofluorobenzene (S)	%			103	87-109	
Dibromofluoromethane (S)	%			96	85-115	
Toluene-d8 (S)	%			99	70-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 111616 111617

Parameter	Units	9218843022 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Qual
Benzene	ug/L	ND	50	50	54.6	56.0	109	112	74-136	3	
Toluene	ug/L	ND	50	50	54.6	55.5	108	110	73-131	2	
1,2-Dichloroethane-d4 (S)	%						94	96	79-120		
4-Bromofluorobenzene (S)	%						95	96	87-109		
Dibromofluoromethane (S)	%						98	95	85-115		
Toluene-d8 (S)	%						99	98	70-120		

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

QUALIFIERS

Project: GASTON FOOD MART 08-1501
Pace Project No.: 9218843

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.

ANALYTE QUALIFIERS

C8	Result may be biased high due to carryover from previously analyzed sample.
S4	Surrogate recovery not evaluated against control limits due to sample dilution.

CHAIN-OF-CUSTODY / Analytical Request Document

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

Pace Analytical®

Page: 1 of 2

1049956

Section A
Required Client Information:

Company: Midlands Environmental Consultants
Address: 235-B Dooky Road
Lexington, SC 29073
Email To: WCM@MECI.NET
Phone: 803-808-2043 Fax: 803-808-2048
Requested Due Date/TAT:

Section B
Required Project Information:

Report To: B. Shane
Copy To:
Purchase Order No.:
Project Name: Easton Food Mart
Project Number: 08-1501

Section C
Invoice Information:

Attention:
Company Name:
Address:
Pace Quote Reference:
Pace Project Manager: K. Godwin
Pace Profile #: 836-7

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

ITEM #	SAMPLE ID	MATRIX CODE	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	Filtered (Y/N)	Requested Analysis: BTEX, Naph, MTBE (8260B) 2 Oxys, 3 mths (8260B) EDB (8011)	Residual Chlorine (Y/N)	Pace Project Number / Lab I.D
1	MW-1	WT	G			5/6/08	1230		6				6						X X X		92188430 01
2	MW-1A						1200														002
3	RMW-3						1125														003
4	RMW-5						1020														004
5	MW-7						1310														005
6	MW-8						1010		3				3								ONLY 3 VOA'S 004
7	MW-9						1030														007
8	MW-10						1140														008
9	MW-11						1150														009
10	MW-12						920														010
11	MW-13						1208														011
12	MW-14	WT	G			5/6/08	1100		6				6						X X X		012

Additional Comments:

RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME
[signature]	5-7-08		George Moody - Pace	5-7-08	9:35
George Moody	5-7-08	15:15	[signature]	5/7/08	15:39

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

SAMPLER NAME AND SIGNATURE

PRINT Name of SAMPLER: JEFF COLEMAN
SIGNATURE of SAMPLER: [signature]
DATE Signed (MM / DD / YY): 5/7/08

SEE REVERSE SIDE FOR INSTRUCTIONS

ORIGINAL

ALLQ020rev.3,31Mar05

CHAIN-OF-CUSTODY / Analytical Request Document

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

Pace Analytical®

Page: 2 of 2

1049957

Section A — Required Client Information:

Company	Midlands Environmental Consultants
Address	235-B Dooley Rd. Lexington, SC 29073
Email To:	wcm@mecl.net
Phone	803 808-2043
Fax	803-808-2048
Requested Due Date/TAT:	

Section B — Required Project Information:

Report To:	B. Shane
Copy To:	
Purchase Order No.:	
Project Name:	Goston Food Mart
Project Number:	08-1501

Section C — Invoice Information:

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

REGULATORY AGENCY

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

ITEM #	SAMPLE ID	MATRIX CODE	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	Filtered (Y/N)	Requested Analysis: Phenols (EPA 420.4) / VOA (EPA 624) / Oxygenates (EPA 624) / EDB 8011	Residual Chlorine (Y/N)	Pace Project Number / Lab I.D
1	MW-15	WT	G			5/6/08	910		6				6						X	X	92188430 13
2	MW-16R						825														014
3	MW-19						1041														015
4	MW-20						1000														—
5	MW-21						1250														016
6	MW-22						840														017
7	MW-23						845														018
8	MW-24						1105														019
9	DW-1						1155		6				6								1 VOA 020
10	DW-2	WT	G			5/6/08	900		1				1								4 VOA's 021
11									4				4						X	X	022
12																					

Additional Comments:

RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME
[signature]	5-7-08		George Moody-Pace	5-7-08	9:35
George Moody	5-7-08	15:15	[signature]	5/7/08	1515

SAMPLE CONDITION

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

SAMPLER NAME AND SIGNATURE

PRINT Name of SAMPLER: JEFF COLEMAN

SIGNATURE of SAMPLER: [signature] DATE Signed (MM / DD / YY): 5/6/08

SEE REVERSE SIDE FOR INSTRUCTIONS

ORIGINAL

ALLQ020rev.3,31Mar05

WASTE DISPOSAL MANIFEST

WASTE MANAGEMENT

Richland County LF
1047 Highway Church Road
Elgin, SC, 29045
Ph: (803) 788-3054

Original
Ticket# 878768

Customer Name MIDLANDSENVIRON MIDLANDS ENVI
Ticket Date 04/09/2008
Payment Type Credit Account
Manual Ticket#
Hauling Ticket#
Route
State Waste Code
Manifest 0
Destination
PO
Profile VA2718 (SOIL FROM UST ASSESSMENT)
Generator 126-MIDLANDSENVIRONMENTAL MIDLANDS ENVIRONMENTAL

Carrier MIDLANDSENVIRON MIDLANDS ENVIRONMENT
Vehicle# 1
Container
Driver
Check#
Billing # 0000469
Gen EPA ID

Volume

	Time	Scale	ScaleMaster
In	04/09/2008 10:47:17	Scale1	JOYCE
Out	04/09/2008 11:16:54	Scale2	kennyl

Gross	14740 lb
Tare	10200 lb
Net	4540 lb
Tons	2.27

Comments

	Product	LD%	Qty	UOM	Rate	Fee	Amount	Origin
1	SOIL-Cont. Soil -	100	2.27	Tons				40-RICHLAN
2	FUEL-Fuel Surcharg	100		%				40-RICHLAN
3	ENV-ENVIRONMENTAL	100		%				40-RICHLAN

Total Fees
Total Ticket

SIGNATURE _____

Gaston Food Mart

403WM

WASTE MANAGEMENT

SPECIAL WASTE MANIFEST

WASTE ID # VA2718

EXPIRATION DATE: November 14, 2008

RICHLAND LANDI
1047 Hwy Church Rd
Elgin, SC 29045
(803)788-3054
(803)736-0995 Fax

PREPARED BY CAROL WELDON (205)-652-8186

GENERATOR OF WASTE: M.E.I.C. (Midlands Environmental Consultants, Inc)

CUSTOMER ACCOUNT: MIDLANDS ENV/ 820-469

LOCATION OF WASTE : 1144 Old Two Notch Road

PHONE # 803-808-2043 CONTACT: Bryan Shane

FAX # 803-808-2048

GENERATOR'S SIGNATURE Bryan Shane DATE: 4/9/08

TRANSPORTER OF WASTE M.E.I.C.

DATE: 4/9/08 TRUCK NO. 1

DRIVER'S SIGNATURE

**** TO BE COMPLETED BY RICHLAND LANDFILL ****

DISPOSAL SITE: RICHLAND LANDFILL ELGIN, SC

DESCRIPTION OF WASTE SOIL from UST Assessment Soil

TICKET NO.# 278768 TONNAGE 2.27

RECEIVED BY

Gaston Food Mart

WASTE MANAGEMENT

Richland County LF
1047 Highway Church Road
Elgin, SC, 29045
Ph: (803) 788-3054

Original
Ticket# 885482

Customer Name MIDLANDSENVIRON MIDLANDS ENVI
Ticket Date 05/08/2008
Payment Type Credit Account
Manual Ticket#
Hauling Ticket#
Route
State Waste Code
Manifest 0
Destination
PO
Profile VA2718 (SOIL FROM UST ASSESSMENT)
Generator 126-MIDLANDSENVIRONMENTAL MIDLANDS ENVIRONMENTAL

Carrier MIDLANDSENVIRON MIDLANDS ENVIRONMENT
Vehicle# 1
Container
Driver
Check#
Billing # 0000469
Gen EPA ID

Volume

	Time	Scale	ScaleMaster
In	05/08/2008 08:18:15	Scale1	kenny1
Out	05/08/2008 08:40:46	Scale2	kenny1

Gross	12500 lb
Tare	9880 lb
Net	2620 lb
Tons	1.31

Comments

	Product	LD%	Qty	UOM	Rate	Fee	Amount	Origin
1	SOIL-Cont. Soil -	100	1.31	Tons				32-LEXINGT
2	FUEL-Fuel Surcharg	100		%				32-LEXINGT
3	ENV-ENVIRONMENTAL	100		%				32-LEXINGT

Total Fees
Total Ticket

SIGNATURE_____

403WM

WASTE MANAGEMENT

SPECIAL WASTE MANIFEST

WASTE ID # VA2718

EXPIRATION DATE: November 14, 2008

RICHLAND LANDFILL
1047 Hwy Church Rd
Elgin, SC 29045
(803)788-3054
(803)736-0995-Fax

PREPARED BY CAROL WELDON (205)-652-8186

GENERATOR OF WASTE: M.E.I.C. (Midlands Environmental Consultants, Inc)

CUSTOMER ACCOUNT: MIDLANDS ENV/ 820-469

LOCATION OF WASTE : 1144 Old Two Notch Road

PHONE # 803-808-2043 CONTACT: Bryan Shane

FAX # 803-808-2048

GENERATOR'S SIGNATURE _____ DATE: _____

TRANSPORTER OF WASTE _____

DATE: 5/8/08 TRUCK NO. 1

DRIVER'S SIGNATURE Brian McCarley

**** TO BE COMPLETED BY RICHLAND LANDFILL ****

DISPOSAL SITE: RICHLAND LANDFILL ELGIN, SC

DESCRIPTION OF WASTE SOIL from UST Assessment Soil

TICKET NO.# 885482 TONNAGE 1.31

RECEIVED BY _____

Gaston Food Mart 1/2

Mac's Fuel Oil 1/2

Midlands
Environmental
Consultants, Inc.

May 21, 2008

Re: Treatment of Purge Water
Gaston Food Mart
Gaston, South Carolina
SCDHEC Site ID Number 05986
MECI Project Number 08-1501

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 worst-case well analysis was obtained before usage of the Activated Carbon Unit. The worst-case well analysis shows only petroleum hydrocarbon constituents in the purge/bail water with minimal, background concentrations of lead. The purge/bail water was containerized on site before treatment for less than 30 days prior to treatment.

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

One 55-gallon drum was treated on May 6, 2008 at the referenced site.

A total of one (1) 55-gallon drum was treated 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
Staff Scientist

D H E C

PROMOTE PROTECT PROSPER

C. Earl Hunter, Commissioner

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

BRIAN SHANE
MIDLANDS ENVIRONMENTAL CONSULTANTS INC
P O BOX 854
LEXINGTON SC 29071-0854

MAY 14 2008

Re: Bid # IBF-30519-8/8/06-EMW; PO # 646282
Notice to Proceed

Dear Mr. Shane:

Based on the award of the referenced bid package, enclosed are the information packets to conduct Aggressive Fluid Vapor Recovery (AFVR) event at several facilities. The packets contain the necessary approval for work to begin. You may commence with a site reconnaissance before the AFVR. If monitoring wells do not contain measurable free phase product, contact the UST project manager for further instructions. The facilities have been assigned Cost Agreement (CA) numbers as listed below. Please reference the CA numbers and Purchase Order # 646282 on the appropriate invoices 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
05986	Gaston Food Mart	Lexington	1	10 AFVR	60days	32348	10,875.00
08937	Former Heath Self Serve #1	Sumter	1	2 AFVR	60days	32324	2,415.00

*From receipt of 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 SUPERB Account. The site's UST owners have no obligation for payment for this scope of work. 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.

UST DOCKET 13 Ltd

If for any reason there are changes in these cost agreements, any associated changes to this cost agreement must be pre-approved by this Department in order for Midlands Environmental Consultants to seek future cost compensation. Please contact the site's project manager for technical and/or financial approval.

Any item(s) not clearly or completely addressed in the report (disposal manifest for generated ground water, etc.) WILL NOT be compensated by the SUPERB Account.

The Department grants pre-approval for transportation of free phase product and petroleum contaminated groundwater from the referenced site to a permitted treatment facility. The free product 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) 896-6664, by fax at (803) 896-6245 or by email at milenkmp@dhec.sc.gov.

Sincerely,

Maia Milenkova, Hydrogeologist
Assessment Section
Assessment & Corrective Action Division
Underground Storage Tank Program
Bureau of Land and Waste Management

enc.: Approved Cost Agreements (ACA)
Information Packets

cc: Technical File (w/copy of ACA)

SCDHEC/UST/05/13/08/MPM

Approved Cost Agreement 32348

Facility: 05986 GASTON FOOD MART
MINERRS
PO Number:

Task / Description	Categories	Item	Description	Qty / Pct	Unit Price	Amount
04 MOB/DEMOB						
		A	EQUIPMENT	10.0000	350.00	3,500.00
17 DISPOSAL						
		A2	WASTEWATER - PUMPING TEST	3,000.0000	0.10	300.00
23 EFR						
		A	8 HOUR EVENT	10.0000	600.00	6,000.00
		C	OFF GAS TREATMENT	10.0000	100.00	1,000.00
		D	SITE RECONNAISSANCE	1.0000	75.00	75.00
				Total Amount		10,875.00

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

May 05, 2008

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

RE: Project: GANT 05986/32242:P
Pace Project No.: 9218540

Dear Ms. Thoma:
Enclosed are the analytical results for sample(s) received by the laboratory on May 02, 2008. 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 Godwin

kevin.godwin@pacelabs.com
Project Manager

Enclosures

REPORT OF LABORATORY ANALYSIS

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

CERTIFICATIONS

Project: GANT 05986/32242:P
Pace Project No.: 9218540

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

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

ANALYTICAL RESULTS

Project: GANT 05986/32242:P
Pace Project No.: 9218540

Sample: STORE **Lab ID: 9218540001** Collected: 05/01/08 14:10 Received: 05/02/08 15:10 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Low Level	Analytical Method: EPA 8260							
Benzene	ND	ug/L	1.0	1		05/05/08 12:05	71-43-2	
1,2-Dichloroethane	ND	ug/L	1.0	1		05/05/08 12:05	107-06-2	
Ethylbenzene	ND	ug/L	1.0	1		05/05/08 12:05	100-41-4	
Methyl-tert-butyl ether	ND	ug/L	1.0	1		05/05/08 12:05	1634-04-4	
Naphthalene	ND	ug/L	1.0	1		05/05/08 12:05	91-20-3	
Toluene	**1.1**	ug/L	1.0	1		05/05/08 12:05	108-88-3	
m&p-Xylene	ND	ug/L	2.0	1		05/05/08 12:05	1330-20-7	
o-Xylene	ND	ug/L	1.0	1		05/05/08 12:05	95-47-6	
4-Bromofluorobenzene (S)	101	%	87-109	1		05/05/08 12:05	460-00-4	
Dibromofluoromethane (S)	104	%	85-115	1		05/05/08 12:05	1868-53-7	
1,2-Dichloroethane-d4 (S)	103	%	79-120	1		05/05/08 12:05	17060-07-0	
Toluene-d8 (S)	101	%	70-120	1		05/05/08 12:05	2037-26-5	

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

ANALYTICAL RESULTS

Project: GANT 05986/32242:P
Pace Project No.: 9218540

Sample: GANT **Lab ID: 9218540002** Collected: 05/01/08 14:20 Received: 05/02/08 15:10 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Low Level	Analytical Method: EPA 8260							
Benzene	ND	ug/L	1.0	1		05/02/08 20:27	71-43-2	
1,2-Dichloroethane	ND	ug/L	1.0	1		05/02/08 20:27	107-06-2	
Ethylbenzene	ND	ug/L	1.0	1		05/02/08 20:27	100-41-4	
Methyl-tert-butyl ether	**24.9**	ug/L	1.0	1		05/02/08 20:27	1634-04-4	
Naphthalene	ND	ug/L	1.0	1		05/02/08 20:27	91-20-3	
Toluene	ND	ug/L	1.0	1		05/02/08 20:27	108-88-3	
m&p-Xylene	ND	ug/L	2.0	1		05/02/08 20:27	1330-20-7	
o-Xylene	ND	ug/L	1.0	1		05/02/08 20:27	95-47-6	
4-Bromofluorobenzene (S)	104	%	87-109	1		05/02/08 20:27	460-00-4	
Dibromofluoromethane (S)	103	%	85-115	1		05/02/08 20:27	1868-53-7	
1,2-Dichloroethane-d4 (S)	104	%	79-120	1		05/02/08 20:27	17060-07-0	
Toluene-d8 (S)	101	%	70-120	1		05/02/08 20:27	2037-26-5	

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: GANT 05986/32242:P
Pace Project No.: 9218540

QC Batch: MSV/3291
QC Batch Method: EPA 8260
Analysis Method: EPA 8260
Analysis Description: 8260 MSV Low Level
Associated Lab Samples: 9218540001, 9218540002

METHOD BLANK: 109096
Associated Lab Samples: 9218540001, 9218540002

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)	%	106	79-120	
4-Bromofluorobenzene (S)	%	105	87-109	
Dibromofluoromethane (S)	%	103	85-115	
Toluene-d8 (S)	%	100	70-120	

LABORATORY CONTROL SAMPLE: 109097

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,2-Dichloroethane	ug/L	50	50.5	101	72-126	
Benzene	ug/L	50	48.9	98	78-128	
Ethylbenzene	ug/L	50	49.7	99	80-127	
m&p-Xylene	ug/L	100	101	101	82-127	
Methyl-tert-butyl ether	ug/L	50	53.8	108	71-130	
Naphthalene	ug/L	50	55.6	111	52-136	
o-Xylene	ug/L	50	51.2	102	83-124	
Toluene	ug/L	50	49.0	98	76-126	
1,2-Dichloroethane-d4 (S)	%			111	79-120	
4-Bromofluorobenzene (S)	%			106	87-109	
Dibromofluoromethane (S)	%			104	85-115	
Toluene-d8 (S)	%			100	70-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 109098 109099

Parameter	Units	9218455006 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Qual
Benzene	ug/L	ND	50	50	66.9	62.4	134	125	74-136	7	
Toluene	ug/L	ND	50	50	65.7	62.0	131	124	73-131	6	
1,2-Dichloroethane-d4 (S)	%						105	106	79-120		
4-Bromofluorobenzene (S)	%						102	101	87-109		
Dibromofluoromethane (S)	%						102	102	85-115		
Toluene-d8 (S)	%						101	101	70-120		

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

QUALIFIERS

Project: GANT 05986/32242:P
Pace Project No.: 9218540

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.

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 CROSS REFERENCE TABLE

Project: GANT 05986/32242:P
Pace Project No.: 9218540

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
9218540001	STORE	EPA 8260	MSV/3291		
9218540002	GANT	EPA 8260	MSV/3291		

CHAIN-OF-CUSTODY / Analytical Request Document

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

Pace Analytical®

Page: 1 of 1

1021123

Section A
Required Client Information:

Company: DHEC UST PROGRAM
Address: 2600 Bull St
Columbia SC 29201
Email To: Thomadl@dhec.sc.gov
Phone: 803-896-6397 Fax: 803-896-6245
Requested Due Date/TAT: 24-hour

Section B
Required Project Information:

Report To: Debra Thoma
Copy To: Debra Thoma
Purchase Order No.: 587465
Project Name: East
Project Number: 05986/32242:P

Section C
Invoice Information:

Attention: Debra Thoma
Company Name: DHEC UST PROGRAM
Address: 2600 Bull St.
Pace Quote Reference:
Pace Project Manager: Kevin Herring
Pace Profile #: 1387-1

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

ITEM #	SAMPLE ID	MATRIX CODE	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	Filtered (Y/N)	Requested Analysis: 8260B BTEX, naph, MTBE 1,2-DCA	Residual Chlorine (Y/N)	Pace Project Number / Lab I.D
1	STORE	WT	G	5-1-08	1410	5-1-08	1410		6										XX		92185400001
2	GANT	WT	G	5-1-08	1420	5-1-08	1420		6										XX		002
3																					
4																					
5																					
6																					
7																					
8																					
9																					
10																					
11																					
12																					

92185400

Pace Project Number / Lab I.D

Additional Comments:

24-hour Rush analysis
1 ppb reporting limit Requested

RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME
Read S Miner	5-2-08	0800	[signature]	5/2/08	1205
[signature]	5-2-08	15:15	[signature]	5/2/08	15:10

SAMPLE CONDITION

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

SAMPLER NAME AND SIGNATURE

PRINT Name of SAMPLER: READ S MINER
SIGNATURE of SAMPLER: Read S Miner
DATE Signed (MM / DD / YY): 05/01/08

SEE REVERSE SIDE FOR INSTRUCTIONS

ORIGINAL

ALLQ020rev.3,31Mar05

D H E C
PROMOTE PROTECT PROSPER

C. Earl Hunter, Commissioner
Promoting and protecting the health of the public and the environment.

MIKE GANT
316 JIMMY MARTIN CIR
GASTON SC 29053-8921

MAY 12 2008

Re: **Water well results**
Mike Gant well, 316 Jimmy Martin Circle, Lexington, SC
Laboratory data received May 5, 2008
Lexington County
Permit # 05986

Dear Mr. Gant:

As you are aware, three water samples were collected by SCDHEC staff from your water supply well, one on March 14, 2008, the second on April 10, 2008, and the third on May 1, 2008. All three samples showed low concentrations of MTBE, 13.9, 6.9, and 24.9 parts per billion, respectively. A copy of the May 1, 2008 lab data is enclosed. The concentration of MTBE is below the South Carolina standard of 40 parts per billion; therefore, the concentrations detected in your well water do not pose a risk to your health. Please reference the enclosed EPA Fact Sheet on MTBE for additional information.

The source of the MTBE is currently unknown, and assessment activities are in progress to determine a possible source. With your permission, your water well will be re-sampled periodically to evaluate any changes in concentration. You will be contacted for permission prior to any proposed sampling event and provided a copy of the results as soon as they are available.

If you have any questions, please contact me at (803) 896-6584 or by e-mail at minerrs@dhec.sc.gov.

Sincerely,

Read S. Miner

Read S. Miner, P.G., Hydrogeologist
Southwestern SC Corrective Action Section
Assessment and Corrective Action Division
Underground Storage Tank Program
Bureau of Land and Waste Management

Enc: Analytical results

UST DOCKET
117

Pace Analytical
www.pacelabs.com

2225 Riverside Dr.
Asheville, NC 28804
(828)254-7176

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

ANALYTICAL RESULTS

Project: GANT 05986/32242:P
Pace Project No.: 9218540

Sample: GANT Lab ID: **9218540002** Collected: 05/01/08 14:20 Received: 05/02/08 15:10 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Low Level	Analytical Method: EPA 8260							
Benzene	ND	ug/L	1.0	1		05/02/08 20:27	71-43-2	
1,2-Dichloroethane	ND	ug/L	1.0	1		05/02/08 20:27	107-06-2	
Ethylbenzene	ND	ug/L	1.0	1		05/02/08 20:27	100-41-4	
Methyl-tert-butyl ether	24.9	ug/L	1.0	1		05/02/08 20:27	1634-04-4	
Naphthalene	ND	ug/L	1.0	1		05/02/08 20:27	91-20-3	
Toluene	ND	ug/L	1.0	1		05/02/08 20:27	108-88-3	
m&p-Xylene	ND	ug/L	2.0	1		05/02/08 20:27	1330-20-7	
o-Xylene	ND	ug/L	1.0	1		05/02/08 20:27	95-47-6	
4-Bromofluorobenzene (S)	104	%	87-109	1		05/02/08 20:27	460-00-4	
Dibromofluoromethane (S)	103	%	85-115	1		05/02/08 20:27	1868-53-7	
1,2-Dichloroethane-d4 (S)	104	%	79-120	1		05/02/08 20:27	17060-07-0	
Toluene-d8 (S)	101	%	70-120	1		05/02/08 20:27	2037-26-5	

REPORT OF LABORATORY ANALYSIS

D H E C

PROMOTE PROTECT PROSPER

C. Earl Hunter, Commissioner

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

APR 29 2008

D F SHUMPERT
814 PINE ST
PELION SC 29123

Re: **Grain Size Analyses Directive**
Gaston Food Mart, 105 N Main St., Gaston, SC
UST Permit #05986; CA #32301
Release reported November 20, 1991
Lexington County

Dear Mr. Shumpert:

As you may be aware, the state lead contractor, Midlands Environmental Consultants, is completing limited assessment activities to fill in some data gaps in preparation for corrective action. One of those needed tasks includes completion of grain size analyses.

Cost Agreement #32301 has been approved in the amount shown on the enclosed cost agreement to cover the costs associated with completion of the grain size analyses.

Please note that Sections 44-2-110(4) and 44-2-130 of the SUPERB Statute state that no costs will be allowed unless prior approval from the UST Program is obtained. If for any reason additional tasks will be completed, these additional tasks and the associated cost must be preapproved by the UST Program for the cost to be paid. The UST Program reserves the authority to pay only for work properly performed and/or technically justified and will only pay rates in accordance with established criteria. Further, the UST Program reserves the right to question and/or reject costs if deemed unreasonable and the right to audit project records at any time during the project or after completion of work.

On all correspondence concerning this site, please reference UST Permit #05986 and CA #32301. If you have any questions, please contact me at (803) 896-6584 or by e-mail at minerrs@dhec.sc.gov.

Sincerely,

Read S. Miner, P.G., Hydrogeologist
Southwestern SC Corrective Action Section
Assessment and Corrective Action Division
Underground Storage Tank Program
Bureau of Land and Waste Management

UST DOCKET
10tech

enc: Approved Cost Agreement

cc: Technical (with enclosure)
Bryan Shane, Midlands Environmental Consultants, PO Box 854, Lexington, SC 29071 (with enclosure)

Approved Cost Agreement 32301

Facility: 05986 GASTON FOOD MART
MINERRS
PO Number:

Task / Description	Categories	Item Description	Qty / Pct	Unit Price	Amount
11 ANALYSES					
	SOIL SOIL	W GRAIN SIZE/HYDROMETER	12.0000	75.00	900.00
19 RPT/PROJECT MNGT & COORDINATIO					
		PCT PERCENT	0.1500	900.00	135.00
			Total Amount		1,035.00

D H E C

PROMOTE PROTECT PROSPER

C. Earl Hunter, Commissioner

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

APR 23 2008

KEVIN HERRING
PACE ANALYTICAL SERVICES
9800 KINCEY AVE STE 100
HUNTERSVILLE NC 28078

Re: Laboratory Analyses Approval
Bid # SB-28234-6/7/05-EMW, PO # 587465

Dear Mr. Herring:

Under the terms and conditions of the referenced bid package, analytical sampling has been approved for the referenced facilities. The facilities have been assigned individual Cost Agreement (CA) numbers as listed below. Please reference the CA number and Purchase Order #587465 on the appropriate invoice submitted for payment against the facility. SCDHEC personnel will perform the sampling.

UST Permit #	Facility	Analyses-Groundwater	CA #	Bottles (Y/N)	Date Needed
05986	Gaston Food Mart	2-BTEXMN & DCA **(RUSH)**	32242	N	-----
04859	Floyd's Grocery	12-BTEXMN, DCA, & Oxygenates	32243	Y	05/07/08
01719	Scotchman #102	2-Total Lead	32177	N	-----
10381	Times Turn Around	10-BTEXMN, DCA, EDB	32246	N	-----
09390	McConnels Corner	2-BTEXMN & DCA **(RUSH)**	32220	N	-----

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: Approved Cost Agreement

cc: Technical File (w/o enc.)

UST DOCKET

Approved Cost Agreement 32242

Facility: 05986 GASTON FOOD MART
MINERRS
PO Number:

Task / Description	Categories	Item Description	Qty / Pct	Unit Price	Amount
11 ANALYSES					
	GW GROUNDWATER	A BTEX+NAPTH+MTBE	2.0000	23.00	46.00
		B RUSH BTEX+NAPTH+MTBE	2.0000	23.00	46.00
			Total Amount		92.00

WBT

South Carolina
DHEC
Department of Health and Environmental Control
2600 Bull Street, Columbia, SC 29201

S.C. UNDERGROUND STORAGE TANKS
REPORT OF SUSPECTED/CONFIRMED RELEASE

TODAY'S DATE: 4-13-93

REPORTED BY: Terra Nova Environmental, Inc **PHONE:** (803) 279-4630
(print)

ADDRESS: P.O. Box 7791

North Augusta, SC 29841

OWNER NAME: Frank Shumpert **PHONE:** (803) 894-3131

FACILITY NAME: Shumperts Texaco

ADDRESS: Highway 178

Pelion, SC 29123

S.C. UST REGISTRATION #: 05986

DATE DISCOVERED: 4-8-93

HOW DISCOVERED: TPH / BTEX Analysis

TYPE OF PRODUCT RELEASED: Gasoline

UST PROGRAM DOCKETING # 19Tech

HOW RELEASE OCCURRED:

Probably an old leak in tank or line.

RECEIVED
APR 16 1993
Groundwater Protection Division

INITIAL CLEAN-UP MEASURES TAKEN:

None to date. Soil anomaly.

SIGNATURE OF PERSON COMPLETING FORM: Gary M. Iverson

Be sure to notify all other relevant parties
(i.e., Facility Owner, Adjacent Property Owners, EPA, Fire Department, Etc.)
follow the directives of Subpart F of the S.C. Underground Storage Tank Control Regulations

D H E C

05986

PROMOTE PROTECT PROSPER

C. Earl Hunter, Commissioner

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

APR 21 2008

MIKE GANT
316 JIMMY MARTIN CIR
GASTON SC 29053-8921

Re: **Water well results**
Mike Gant well, 316 Jimmy Martin Circle, Lexington, SC
Laboratory data received April 14, 2008
Lexington County

Dear Mr. Gant:

As you are aware, two water samples were collected by SCDHEC staff from your water supply well, one on March 14, 2008 and the second on April 10, 2008. Both samples showed low concentrations of MTBE, 13.9 and 6.9 parts per billion, respectively. A copy of the April 10, 2008 lab data is enclosed. The concentration of MTBE is below the South Carolina standard of 40 parts per billion; therefore, the concentrations detected in your well water do not pose a risk to your health. Please reference the enclosed EPA Fact Sheet on MTBE for additional information.

The source of the MTBE is currently unknown, and assessment activities will be implemented to determine a possible source. With your permission, your water well will be re-sampled periodically to evaluate any changes in concentration. You will be contacted for permission prior to any proposed sampling event and provided a copy of the results as soon as they are available.

If you have any questions, please contact me at (803) 896-6584 or by e-mail at minerrs@dhec.sc.gov.

Sincerely,

Read S Miner

Read S. Miner, P.G., Hydrogeologist
Southwestern SC Corrective Action Section
Assessment and Corrective Action Division
Underground Storage Tank Program
Bureau of Land and Waste Management

Enc: Analytical results
EPA Fact sheet

UST DOCKET Steal

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

April 14, 2008

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

RE: Project: GASTON FOOD MART 05986
Pace Project No.: 9217236

Dear Ms. Thoma:
Enclosed are the analytical results for sample(s) received by the laboratory on April 11, 2008. 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 Godwin

kevin.godwin@pacelabs.com
Project Manager

Enclosures

REPORT OF LABORATORY ANALYSIS

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

CERTIFICATIONS

Project: GASTON FOOD MART 05986
Pace Project No.: 9217236

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

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

ANALYTICAL RESULTS

Project: GASTON FOOD MART 05986
Pace Project No.: 9217236

Sample: GANT RES WSW **Lab ID: 9217236001** Collected: 04/10/08 14:00 Received: 04/11/08 15:05 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							
1,2-Dibromoethane (EDB)	ND	ug/L	0.020	1	04/14/08 00:00	04/14/08 12:18	106-93-4	
1-Chloro-2-bromopropane (S)	102	%	60-140	1	04/14/08 00:00	04/14/08 12:18	301-79-56	
8260 MSV Low Level	Analytical Method: EPA 8260							
Benzene	ND	ug/L	1.0	1		04/14/08 15:13	71-43-2	
1,2-Dichloroethane	ND	ug/L	1.0	1		04/14/08 15:13	107-06-2	
Ethylbenzene	ND	ug/L	1.0	1		04/14/08 15:13	100-41-4	
Methyl-tert-butyl ether	**6.9**	ug/L	1.0	1		04/14/08 15:13	1634-04-4	
Naphthalene	ND	ug/L	1.0	1		04/14/08 15:13	91-20-3	
Toluene	ND	ug/L	1.0	1		04/14/08 15:13	108-88-3	
m&p-Xylene	ND	ug/L	2.0	1		04/14/08 15:13	1330-20-7	
o-Xylene	ND	ug/L	1.0	1		04/14/08 15:13	95-47-6	
4-Bromofluorobenzene (S)	102	%	87-109	1		04/14/08 15:13	460-00-4	
Dibromofluoromethane (S)	96	%	85-115	1		04/14/08 15:13	1868-53-7	
1,2-Dichloroethane-d4 (S)	95	%	79-120	1		04/14/08 15:13	17060-07-0	
Toluene-d8 (S)	99	%	70-120	1		04/14/08 15:13	2037-26-5	

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: GASTON FOOD MART 05986
Pace Project No.: 9217236

QC Batch: OEXT/2891
QC Batch Method: EPA 8011
Analysis Method: EPA 8011
Analysis Description: GCS 8011 EDB DBCP
Associated Lab Samples: 9217236001

METHOD BLANK: 100946
Associated Lab Samples: 9217236001

Parameter	Units	Blank Result	Reporting Limit	Qualifiers
1,2-Dibromoethane (EDB)	ug/L	ND	0.020	
1-Chloro-2-bromopropane (S)	%	90	60-140	

LABORATORY CONTROL SAMPLE & LCSD: 100947 100948

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	0.30	0.29	106	100	60-140	6	20	
1-Chloro-2-bromopropane (S)	%				92	93	60-140			

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: GASTON FOOD MART 05986
Pace Project No.: 9217236

QC Batch: MSV/3097
QC Batch Method: EPA 8260
Analysis Method: EPA 8260
Analysis Description: 8260 MSV Low Level
Associated Lab Samples: 9217236001

METHOD BLANK: 100989
Associated Lab Samples: 9217236001

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)	%	95	79-120	
4-Bromofluorobenzene (S)	%	101	87-109	
Dibromofluoromethane (S)	%	96	85-115	
Toluene-d8 (S)	%	98	70-120	

LABORATORY CONTROL SAMPLE: 100990

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,2-Dichloroethane	ug/L	50	48.4	97	72-126	
Benzene	ug/L	50	54.3	109	78-128	
Ethylbenzene	ug/L	50	54.3	109	80-127	
m&p-Xylene	ug/L	100	111	111	82-127	
Methyl-tert-butyl ether	ug/L	50	51.6	103	71-130	
Naphthalene	ug/L	50	64.6	129	52-136	
o-Xylene	ug/L	50	53.5	107	83-124	
Toluene	ug/L	50	53.9	108	76-126	
1,2-Dichloroethane-d4 (S)	%			93	79-120	
4-Bromofluorobenzene (S)	%			99	87-109	
Dibromofluoromethane (S)	%			99	85-115	
Toluene-d8 (S)	%			99	70-120	

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

QUALIFIERS

Project: GASTON FOOD MART 05986
Pace Project No.: 9217236

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.

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: of 1156562

Section A Required Client Information:

Company: SCDHEC/UST Program
Address: 2600 Bull St. Cola., SC 29201
Email To:
Phone: 803 896-6241 Fax: 803 896-6245
Requested Due Date/TAT:

Section B Required Project Information:

Report To: P. THOMA
Copy To:
Purchase Order No.: 587465
Project Name: GASTON FOOD MART
Project Number: 05986

Section C Invoice Information:

Attention:
Company Name:
Address:
Pace Quote Reference:
Pace Project Manager: Kevin Godwin
Pace Profile #: 849, 1

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	Preservatives: Unpreserved	H_2SO_4	HNO_3	HCl	NaOH	$Na_2S_2O_3$	Methanol	Other	Analysis Test Y/N: BTEX, Naph, MTBE	EDB	Residual Chlorine (Y/N)	Pace Project No. / Lab I.D.
1	GANT Res. WSW	DW	G			4/10/08	1400		6				X					X	X		92172360 01
2																					
3																					
4																					
5																					
6																					
7																					
8																					
9																					
10																					
11																					
12																					

92172360

24 hrs TAT

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)
	Robert G. Falker/NST	4/11/08	8:40	Pace Sample Pace	4/11/08	8:40				
	Pace Sample Pace	4/11/08	15:05	Gun Waters	4/11/08	15:05	7.9	yes	no	yes

ORIGINAL

SAMPLER NAME AND SIGNATURE

PRINT Name of SAMPLER: Robert G. Falker

SIGNATURE of SAMPLER: [signature] DATE Signed (MM/DD/YY): 4/10/08

*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

C. Earl Hunter, Commissioner

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

JAN 14 2008

BRYAN SHANE
MIDLANDS ENVIRONMENTAL CONSULTANTS INC
P O BOX 854
LEXINGTON SC 29071

Re: Bid # SB-28162-5/26/05-EMW; PO# 586441
Notice to Proceed

Dear Mr. Shane:

Based on the award of the referenced bid package, enclosed are the information packets to conduct assessments at several facilities. The packets contain the necessary approval for work to begin. The facilities have been assigned Cost Agreement (CA) numbers as listed below. Please reference the CA numbers and Purchase Order # 586441 on the appropriate invoices 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
05986	Gaston Food Mart	Lexington	1	Monitoring well installation	60 days	31487	$8,730.00
01869	By Rite Petroleum	Charleston	1	Monitoring well installation	60 days	31507	$1,795.00

*From receipt of 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 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.

UST PROGRAM
DOCKETING # 6

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 (803) 896-6323.

Sincerely,

Stephanie Briney

Stephanie Briney, Hydrogeologist
Assessment Section
Assessment & Corrective Action Division
Underground Storage Tank Program
Bureau of Land and Waste Management

enc.: Monitoring Well Approvals (MWA)
Approved Cost Agreements (ACA)
Information Packets

cc: Stephanie Briney, UST Program (w/out enc)
Technical Files (w/ copy of MWA)

D H E C

PROMOTE PROTECT PROSPER

C. Earl Hunter, Commissioner

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

Monitoring Well Approval

Approval is hereby granted to:	Midlands Environmental Consultants, Inc.
(On behalf of):	Daniel Frank Shumpert
Facility:	Gaston Food Mart, 105 N. Main St., Gaston, SC
UST Permit Number:	**05986**
County:	**Lexington**

This approval is for the installation of up to 530 feet of groundwater 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 John Abernathy (803-896-6396 or e-mail: abernajd@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.

This approval is pursuant to the provisions of Section 44-55-40 of the 1976 South Carolina Code of Laws and R.61-71 of the South Carolina Well Standards and Regulations, dated April 26, 2002. A copy of this approval should be on the site during well installation.

Date of Issuance: **January 11, 2008** **Approval #:** **UMW-21437**

John D. Abernathy, Hydrogeologist
Southwestern SC Corrective Action Section
Underground Storage Tank Program
Bureau of Land and Waste Management

Approved Cost Agreement 31487

Facility: 05986 GASTON FOOD MART
ABERNAJD
PO Number:

Task / Description	Categories	Item	Description	Qty / Pct	Unit Price	Amount
04 MOB/DEMOB						
		B	PERSONNEL	3.0000	110.00	330.00
06 SOIL BORINGS (DRILLED)						
		A	SOIL BORINGS & FLD SCREENING	350.0000	15.00	5,250.00
09 WELL INSTALLATION						
		B	WATER TABLE (DRILLED)	180.0000	15.00	2,700.00
16 SUBSEQUENT SURVEY						
			SUBSEQUENT SURVEY	1.0000	50.00	50.00
17 DISPOSAL						
		C	SOIL (TREATMENT/DISPOSAL)	6.0000	50.00	300.00
23 EFR						
		D	SITE RECONNAISSANCE	1.0000	100.00	100.00
				Total Amount		8,730.00

D H E C

PROMOTE PROTECT PROSPER

C. Earl Hunter, Commissioner

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

OCT 05 2007

DANIEL F SHUMPERT
PO BOX 6
PELION SC 29123

Re: **ASSESSMENT REPORT**
Gaston Food Mart (former JJ's Texaco), 105 N Main St., Gaston, SC
UST Permit #05986
Release reported November 20, 1991
Assessment Report received September 27, 2007
Lexington County

Dear Mr. Shumpert:

The South Carolina Department of Health and Environmental Control (DHEC) recently conducted additional site assessment at the referenced facility. The assessment was conducted between August 28th and September 11th, to install additional monitoring wells and collect current groundwater data. A copy of the report is enclosed for your records. The results from this sampling event will be incorporated into a site-information package that will be used to solicit bids for the remediation of the referenced release. The SCDHEC will continue to procure the services of an environmental contractor on your behalf as requested by your permission form received May 30, 2007.

If you have any questions or need additional information, you can reach me by phone at (803) 896-6396, fax (803) 896-6245, or email at abernajd@dhec.sc.gov.

Sincerely,

John D. Abernathy, Hydrogeologist
Southwestern SC Corrective Action Section
Underground Storage Tank Program
Bureau of Land and Waste Management

Enc: Assessment Report

cc: Technical File (w/o enc)

JDA/05986_AR-T_RP/10.4.2007

UST PROGRAM
DOCKETING # 5

Midlands
Environmental
Consultants, Inc.

September 20, 2007

Mr. John D Abernathy, Hydrogeologist
Southwestern 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 Assessment Activities
Gaston Food Mart
105 North Main Street
Gaston, South Carolina
SCDHEC Site ID# 05986, CA # 29933
MECI Project Number 07-1297

Dear Mr. Abernathy,

Midlands Environmental Consultants Inc. (MECI) is pleased to submit the attached Report of Assessment Activities for the referenced site. This report describes assessment activities conducted at the site in general accordance with South Carolina Department of Health and Environmental Control (SCDHEC) guidelines.

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
Staff Scientist

William C. McClary, P.G.
Senior Geologist

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

TABLE OF CONTENTS

1.0 PROJECT INFORMATION

The subject site (Gaston Food Mart) is located at 105 North Main Street in Gaston, Lexington County, South Carolina (see Figure 1). One building is present on the subject site. The site is currently utilized as a gas service station. Asphalt predominately covers the majority of the property with several concrete pads located in the eastern portion of the property. A release of petroleum product was reported in November of 1991. Assessment of the site has previously been conducted by Marshall Miller and Associated and Duncan Environmental. These assessments were conducted to determine the extent of contamination emanating from the subject site.

Previously, two 5,000 gallon gasoline UST's, one 4,000 gallon gasoline UST, two 3,000 gallon gasoline UST's, and one 550 gallon gasoline UST were maintained at the subject site. These UST's were removed from the ground in November of 1991. The subject site currently maintains two 8,000 gallon gasoline UST's and one 10,000 gallon gasoline UST.

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

2.0 FIELD EXPLORATION

Field exploration conducted at the site included:

- field screening of groundwater samples collected from the site utilizing direct push techniques and laboratory analysis; and
- construction and sampling of permanent monitoring wells; and
- abandonment of one permanent monitoring well.

The monitoring well locations were selected based on the results of our field screening of groundwater samples, existing site conditions, estimated groundwater flow direction, and drilling accessibility. The screening points are illustrated on Figure 4.

Following well installation, a subsequent survey was conducted by MECI personnel to locate the newly installed monitoring wells.

2.1 GROUNDWATER/DIRECT PUSH FIELD SCREENING

On August 28, 2007, seven direct push borings, (GPW-1 through GPW-7) were advanced at the site to collect groundwater samples. Each direct push sample was collected through disposable Teflon tubing and placed in a laboratory-supplied container for laboratory analysis. The borings were advanced by Geologic Exploration, Inc. of Statesville, North Carolina (S.C. Driller Certification: James Hess # 1929). The sampling depth for each of the locations was based on the water table depth, the yield of the water bearing zone as evidenced by flow of water into the direct push apparatus, and the ability to reach the desired depth below ground surface (BGS). These samples were taken to determine the horizontal extent of the contaminant plume. The total footage for the direct push groundwater borings was 271 feet. The sample locations are presented on Figure 4 and analytical results are presented in Table 3. To prevent cross-contamination between borings the reusable down-hole portion of the direct push sampling device was cleaned between borings and new Teflon tubing was utilized at each location. Following the collection of the groundwater sample, the hole left open by the direct push apparatus was filled with a bentonite/portland grout slurry.

The groundwater samples obtained by MECI personnel were sent to Pace Analytical Services, Inc. of Huntersville, NC (SCDHEC Laboratory Certification #99006) for laboratory analysis. These samples were tested for the presence of BTEX, Naphthalene and Methyl-tert-butyl ether by EPA Method 8260B.

2.2 MONITORING WELL INSTALLATION

On September 10, 2007 two single cased monitoring wells (MW-22 and MW-23) were installed at the subject site. These wells were installed by Geologic Exploration, of Statesville, North Carolina (S.C. Driller Certification: Mark Gettys #A 1086). These water table bracketing, single cased, monitoring wells were installed using a truck-mounted drilling rig, employing an 8-inch outer diameter hollow-stem augers to construct the borehole. Monitoring well MW-22 was installed to a depth of 44 feet below ground surface and screened from 34.0 feet BGS to 44.0 feet BGS. Monitoring well MW-23 was installed to a depth of 43 feet below ground surface and screened from 33.0 feet BGS to 43.0 feet BGS.

Drill cuttings were containerized and transported to Waste Management/Richland Landfill, Elgin, SC by MECI. A total of 1.33 tons was disposed of in this manner. A disposal manifest for these soils is attached at the end of this report.

Following completion of the monitoring wells, the wells were developed by bailing until they were determined to be functioning properly and turbidity was reduced. Test Boring Records showing soil descriptions and well installation details are included in Appendix A. The drummed purge water was treated using a portable activated carbon unit. A total of one (1) drum of purge/development water was disposed of in this manner. A disposal manifest for the drummed purge water is attached at the end of this report.

2.3 MONITORING WELL ABANDONMENT

On September 10, 2007, monitoring well MW-2 was abandoned at the request of SCDHEC. This monitoring well was abandoned using a bentonite and portland slurry using the tremie method. This well was abandoned by Geologic Exploration, of Statesville, North Carolina (S.C. Driller Certification: Mark Gettys #A 1086). A total of 80 feet was abandoned. Please find the attached the SCDHEC Water Well Records in Appendix B.

2.4 MONITORING WELL SAMPLING AND CHEMICAL ANALYSES

On September 11, 2007, monitoring wells MW-1, RMW-3, MW-8 through MW-13, MW-15, MW-22, MW-23, and DW-2 were sampled. Monitoring wells MW-1, RMW-3, MW-8 through MW-13, MW-15, and DW-2 bracketed the watertable and were not purged prior to sampling. Monitoring well MW-6 was gauged and contained 0.03 feet of free phase petroleum product and was not sampled. Newly installed monitoring wells MW-22 and MW-23 were purged and sampled. These wells were purged by bailing at least three well volumes of water from each well or until all available water had been evacuated, whichever occurred first. Field measurements of pH, conductivity, temperature and dissolved oxygen were obtained before, during and after the well purging process. Table 1 presents the results of the field measurements obtained. The groundwater samples obtained were sent to Pace Analytical Services, Inc. of Huntersville, NC (SCDHEC Laboratory Certification #99006) for analysis.

Monitoring wells RMW-5, MW-16, MW-20, MW-21, and DW-1 were determined to be dry at time of sampling. Monitoring well MW-19 was not located during the September 11, 2007 sampling event.

Groundwater samples from monitoring wells MW-1, RMW-3, MW-8 through MW-13, MW-15, MW-22, and MW-23 were analyzed for volatile organic compounds including BTEX, naphthalene,

and methyl-tertiary butyl ether, and 1,2 DCA (EPA Method 8260B) and ethylene dibromide (EPA Method 8011). Monitoring well DW-2 was only collected for BTEX, naphthalene, and methyl-tertiary butyl ether (EPA Method 8260B) due to insufficient water. The results of the laboratory analyses are discussed in Section 3.1, summarized in Table 2 and presented in Appendix C.

2.5 WATER SUPPLY WELL SAMPLING AND CHEMICAL ANALYSES

On September 11, 2007, MECI sampled a water supply well located approximately 58 feet southwest from MW-1. This water supply well (SW-3) is located on the property owned by the Gaston Rural Community Water District (Lexington County Tax Map # 010117-05-002). The sample obtained was sent to Pace Analytical Services, Inc. of Huntersville, NC (SCDHEC Laboratory Certification #99006) for analysis. The sample collected from SW-3 was analyzed for volatile organic compounds including BTEX, naphthalene, and methyl-tertiary butyl ether, and 1,2 DCA (EPA Method 8260B).

Water supply wells SW-1 and SW-2 were not located at time of sampling.

3.0 TEST RESULTS AND EVALUATION

The following sections discuss groundwater test results for the subject site.

3.1 GROUNDWATER ANALYTICAL RESULTS

As discussed in Section 2.3, groundwater samples obtained from the monitoring wells were analyzed for dissolved phase petroleum constituents. The analytical results indicate petroleum impact to the local groundwater with the highest concentrations detected in the area of the former UST basin. Free phase petroleum product was detected in MW-6 at a thickness of 0.03 feet. The analytical results indicate total BTEX concentrations in the shallow aquifer ranging from levels below detection limits (BDL) to the highest dissolved concentration of 43,330 ug/l in monitoring well RMW-3. The analytical results indicate MTBE concentrations in the shallow aquifer ranging from levels below detection limits (BDL) to the highest dissolved concentration of 12,500 ug/l in monitoring well MW-10. Results of the analyses for each monitoring well and specific parameters are listed on Table 2 and the detection limit for each parameter is provided in the laboratory reports (Appendix C).

3.2 WATER SUPPLY WELL ANALYTICAL RESULTS

As discussed in Section 2.4, one water supply well (SW-3) was obtained and analyzed by Pace Analytical, Inc. for petroleum constituents. Analytical results do not indicate petroleum impact to

the nearby water supply well. This sample (SW-3) was collected approximately 58 feet southwest of MW-1. The results of the analyses are presented on Table 2 and sample location is presented on Figure 2. The detection limit for each parameter is provided in the laboratory reports (Appendix C).

4.0 ASSESSMENT SUMMARY

Groundwater elevation data for the September 11, 2007 gauging event was plotted, and points of equal elevation were interpolated between the monitoring wells. A groundwater contour map of the surficial aquifer was thus prepared and is presented on Figure 3. Free phase petroleum product was detected in MW-6 at a thickness of 0.03 feet. The analytical results indicate total BTEX concentrations in the shallow aquifer ranging from levels below detection limits (BDL) to the highest dissolved concentration of 43,330 ug/l in monitoring well RMW-3. The analytical results indicate MTBE concentrations in the shallow aquifer ranging from levels below detection limits (BDL) to the highest dissolved concentration of 12,500 ug/l in monitoring well MW-10. Figure 5 depicts graphically the concentrations of Total BTEX (indicator for plume migration) dissolved in the groundwater at the site. Figure 6 depicts graphically the concentrations of MTBE dissolved in the groundwater at the site.

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. The general subsurface conditions utilized in our evaluation have been based on interpretation of subsurface data between borings. Contents of this report are intended for the sole use by the South Carolina Department of Health and Environmental Control, 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-

TABLE 1
FIELD PARAMETERS
GASTON FOOD MART
GASTON, SOUTH CAROLINA
MECI PROJECT NUMBER 07-1297
SCDHEC SITE ID NUMBER 05986

Well Number	Sample Date	CO2 (mg/l)	Dissolved Oxygen (mg/l)	Temperature (^{0} Celsius)	pH (Initial)	pH (Final)	Conductivity (Initial)	Conductivity (Final)	Ferrous Iron (mg/l)	Screened Interval (feet)	Depth to Product (feet)	Depth to Water (feet)	Product Thickness (feet)	Well-head Elevation	Groundwater Elevation
MW-1	9/11/2007	115	0.91	24.4	4.61	NT	57.7	NT	NT	25-40	-	35.59	-	102.14	66.55
RMW-3	9/11/2007	185	0.57	23.6	5.62	NT	90.1	NT	NT		-	34.62	-	98.04	63.42
RMW-5	9/11/2007	DRY	DRY	DRY	DRY	DRY	DRY	DRY	DRY		-	DRY	-	90.98	DRY
MW-6	9/11/2007	FP	FP	FP	FP	FP	FP	FP	FP	22-42	35.66	35.69	0.03	101.80	66.14
MW-8	9/11/2007	NT	NT	NT	NT	NT	NT	NT	NT	20-40	-	39.34	-	96.40	57.06
MW-9	9/11/2007	150	0.38	22.8	5.11	NT	58.5	NT	NT	24-44	-	35.47	-	95.22	59.75
MW-10	9/11/2007	195	0.51	23.5	5.72	NT	104.9	NT	NT	24-44	-	35.25	-	100.02	64.77
MW-11	9/11/2007	75	0.64	23.7	5.51	NT	35.8	NT	NT	22-42	-	27.47	-	102.00	74.53
MW-12	9/11/2007	25	0.88	20.7	5.67	NT	38.8	NT	NT	30-50	-	35.16	-		
MW-13	9/11/2007	70	1.28	24.1	4.45	NT	48.6	NT	NT		-	24.72	-	102.38	77.66
MW-15	9/11/2007	100	0.39	21.1	5.12	NT	43.7	NT	NT		-	38.40	-	100.68	62.28
MW-16	9/11/2007	80	0.24	21.3	5.72	NT	49.2	NT	NT		-	35.12	-	103.82	68.70
MW-19	9/11/2007	NL	NL	NL	NL	NL	NL	NL	NL		-	NL	-	96.48	NL
RMW-20	9/11/2007	DRY	DRY	DRY	DRY	DRY	DRY	DRY	DRY		-	DRY	-	96.12	DRY
MW-21	9/11/2007	DRY	DRY	DRY	DRY	DRY	DRY	DRY	DRY		-	DRY	-	86.56	DRY
MW-22	9/11/2007	45	0.39	20.7	4.67	NT	36.7	NT	NT	34-44	-	41.65	-	99.19	57.54
MW-23	9/11/2007	55	0.60	20.8	4.91	4.39	71.4	68.0	NT	33-43	-	36.62	-	101.60	64.98
DW-1	9/11/2007	DRY	DRY	DRY	DRY	DRY	DRY	DRY	DRY		-	DRY	-	102.12	DRY
DW-2	9/11/2007	NT	NT	NT	NT	NT	NT	NT	NT	75-80	-	55.12	-	100.70	45.58

Notes:

1. mg/l = milligrams per liter.
2. NT = Not Tested
3. NL = Well not located during sampling.
4. FP = Free Phase Product encountered during sampling
5. Groundwater depths were measured from the top of the PVC riser pipe.
6. Groundwater levels measured 9/11/07.
7. Dissolved oxygen, dissolved carbon dioxide, initial pH, initial conductivity, and temperature measurements obtained 9/11/2007.
8. Groundwater Elevation for MW-6 corrected for the presence of Free Phase Product based on a specific Gravity of Fuel of 0.85.
9. MW-8 & DW-2 had insufficient water for field measurements, only samples were taken.
10. DRY = Well was dry at the time of sampling.
11. MW-16 had insufficient water for samples, well did not recharge after 5 hours.

TABLE 2
GROUNDWATER ANALYTICAL RESULTS
GASTON FOOD MART
GASTON, SOUTH CAROLINA
MECI PROJECT NUMBER 07-1297
SCDHEC ID # 05986

Well Number	Sample Date	Benzene (µg/l)	Toluene (µg/l)	Ethylbenzene (µg/l)	Total Xylenes (µg/l)	Total BTEX (µg/l)	MTBE (µg/l)	EDB (µg/l)	1,2 DCA (µg/l)	Naphthalene (µg/l)
MW-1	9/11/2007	<5.0	<5.0	<5.0	<10.0		<5.0	<0.020	<5.0	<5.0
RMW-3	9/11/2007	**7,940**	**18,600**	**2,720**	**14,070**	**43,330**	**550**	**13.9**	<500	**1,790**
RMW-5	9/11/2007	DRY	DRY	DRY	DRY	DRY	DRY	DRY	DRY	DRY
MW-6	9/11/2007	FP	FP	FP	FP	FP	FP	FP	FP	FP
MW-8	9/11/2007	**145**	**356**	**24.5**	**1,087**	**1,612.5**	**12.0**	NT	<10.0	**36.9**
MW-9	9/11/2007	**2,470**	**10,200**	**2,030**	**15,140**	**29,840**	**124**	**2.3**	<100	**612**
MW-10	9/11/2007	**9,030**	**16,900**	**2,650**	**12,570**	**41,150**	**12,500**	**27.4**	<500	<500
MW-11	9/11/2007	<5.0	<5.0	**8.5**	<10.0	**8.5**	<5.0	<0.020	<5.0	**8.3**
MW-12	9/11/2007	<5.0	<5.0	<5.0	<10.0		<5.0	<0.020	<5.0	<5.0
MW-13	9/11/2007	<5.0	<5.0	<5.0	<10.0		<5.0	<0.020	<5.0	<5.0
MW-15	9/11/2007	**21.8**	<5.0	**13.6**	**128.1**	**163.5**	<5.0	**0.37**	<5.0	**5.1**
MW-16	9/11/2007	NT	NT	NT	NT	NT	NT	NT	NT	NT
MW-19	9/11/2007	NT	NT	NT	NT	NT	NT	NT	NT	NT
RMW-20	9/11/2007	DRY	DRY	DRY	DRY	DRY	DRY	DRY	DRY	DRY
MW-21	9/11/2007	DRY	DRY	DRY	DRY	DRY	DRY	DRY	DRY	DRY
MW-22	9/11/2007	<5.0	<5.0	<5.0	<10.0		<5.0	<0.020	<5.0	<5.0
MW-23	9/11/2007	<5.0	<5.0	<5.0	<10.0		<5.0	<0.020	<5.0	<5.0
DW-1	9/11/2007	DRY	DRY	DRY	DRY	DRY	DRY	DRY	DRY	DRY
DW-2	9/11/2007	<5.0	<5.0	<5.0	<10.0		<5.0	NT	NT	<5.0
SW-3	9/11/2007	<5.0	<5.0	<5.0	<10.0		<5.0	<0.020	<5.0	<5.0

Notes:

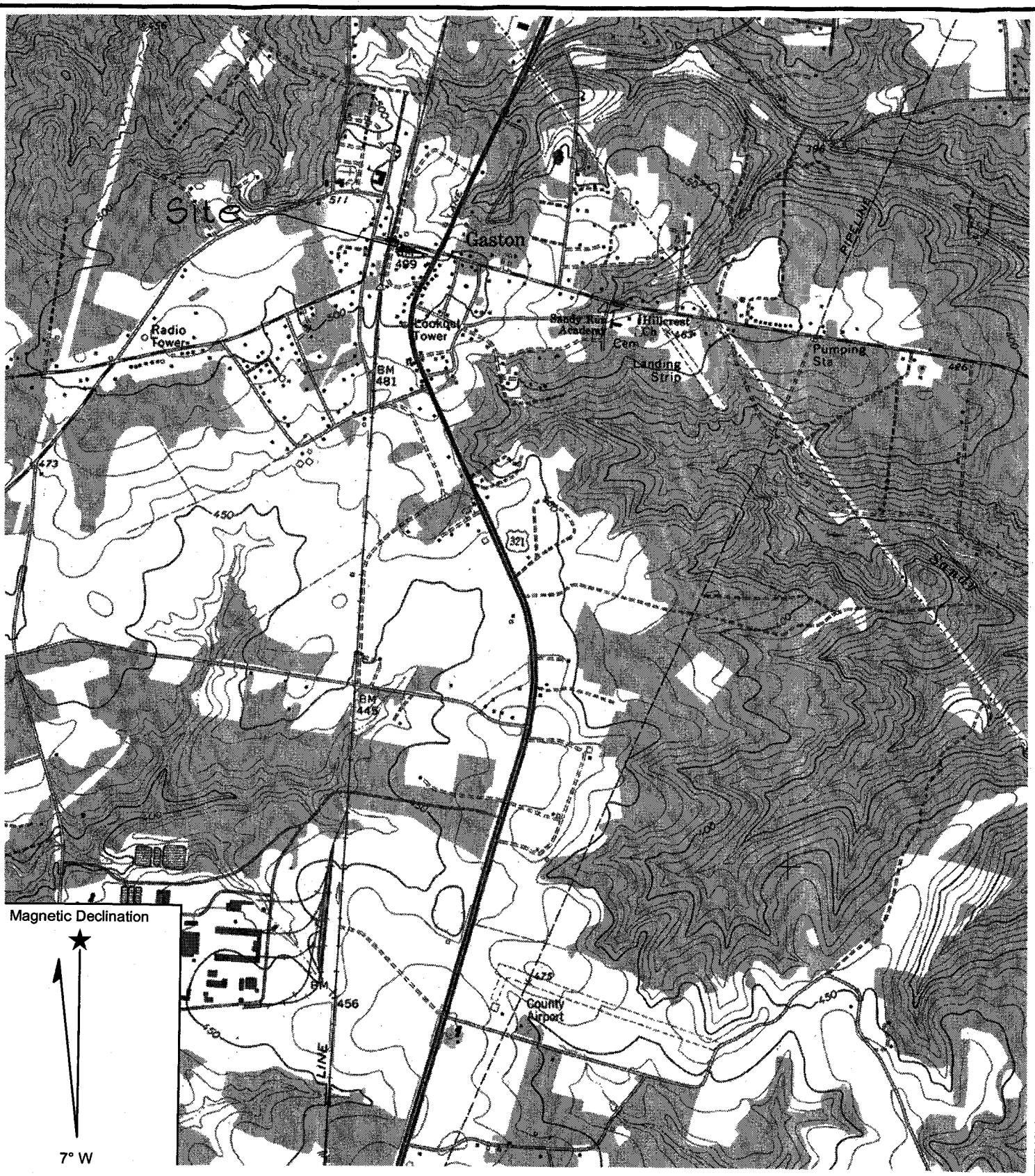
1. BDL = Below Practical Quantitative Limits
2. µg/l = micrograms per liter
3. mg/l = milligrams per liter
4. MTBE = Methyl-Tertiary-Butyl Ether
5. EDB = Ethylene Dibromide
6. FP= Not Sampled Due to Free Phase Petroleum Product

TABLE 3
FIELD SCREENING ANALYTICAL RESULTS
GASTON FOOD MART
GASTON, SOUTH CAROLINA
MECI PROJECT NUMBER 07-1297
SCDHEC ID NUMBER 05986

Boring Number	Sample Depth (Feet)	Benzene (µg/l)	Toluene (µg/l)	Ethylbenzene (µg/l)	Total Xylenes (µg/l)	Total BTEX (µg/l)	MTBE (µg/l)	Naphthalene (µg/l)
GPW-1	34-38	**417**	BDL	BDL	**117**	**534**	BDL	**11.3**
GPW-2	34-38	BDL	BDL	BDL	BDL	BDL	BDL	BDL
GPW-3	34-38	BDL	BDL	BDL	BDL	BDL	BDL	BDL
GPW-4	34-38	BDL	BDL	BDL	BDL	BDL	BDL	BDL
GPW-5	34-38	DRY	DRY	DRY	DRY	DRY	DRY	DRY
GPW-6	39-43	BDL	BDL	BDL	BDL	BDL	BDL	BDL
GPW-7	34-38	DRY	DRY	DRY	DRY	DRY	DRY	DRY

Notes:

1. BDL = Below Practical Quantitative Limits
2. µg/l = micrograms per liter
3. MTBE = Methyl-Tertiary-Butyl Ether
4. Samples Collected on August 28, 2007.
5. DRY = Dry Hole



GRAPHIC SCALE

0 1000 2000 4000

1IN = 2000FT

Reference: Gaston, South Carolina
USGS 7.5 Min. Quad
Contour Interval = 10 Feet

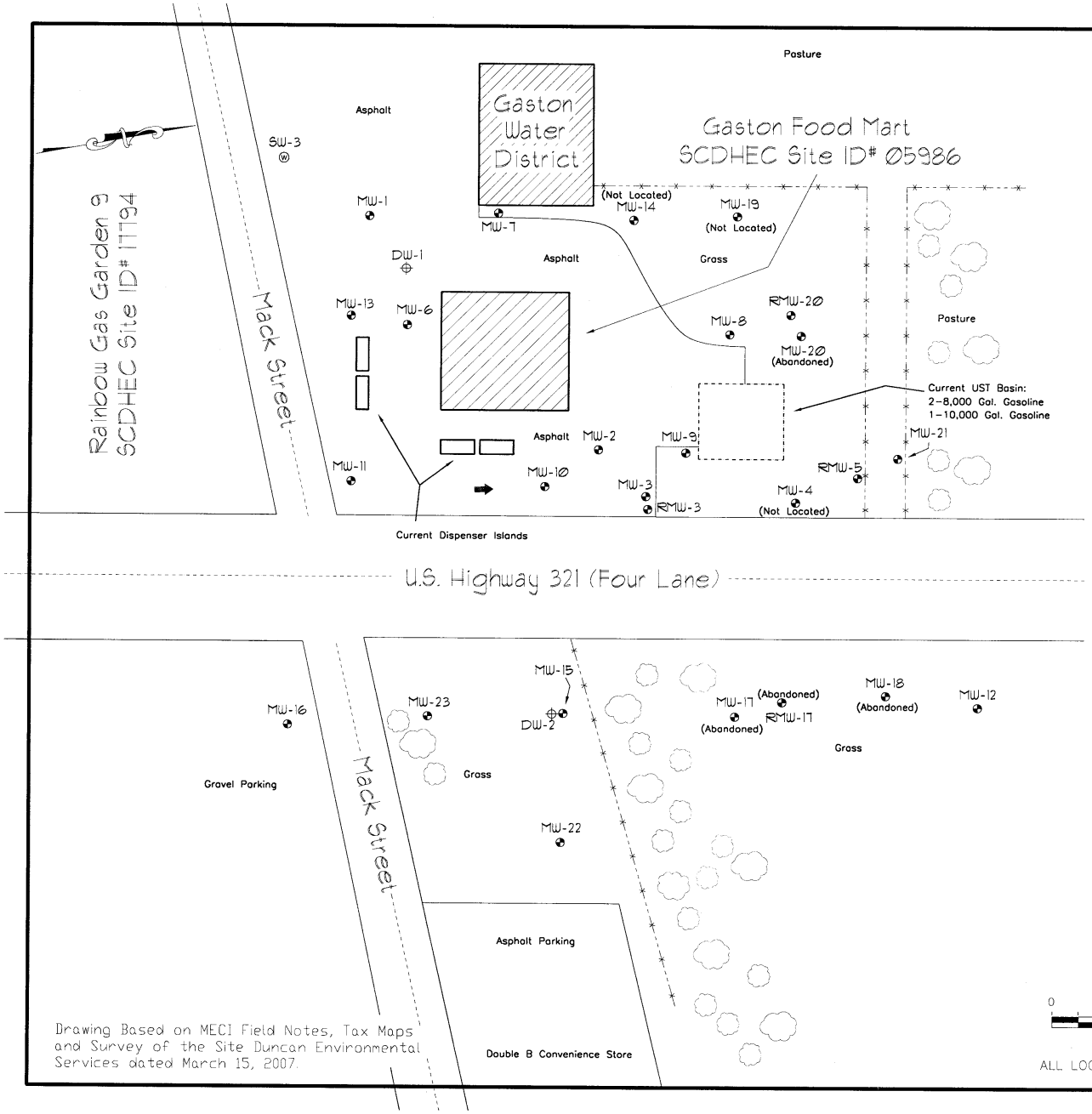
Midlands Environmental Consultants, Inc.

Site Location

Gaston Food Mart
Gaston, South Carolina
SCDHEC Site ID# 05986

Figure 1

MECI 07-1297



Explanation:

- Location of Watertable Bracketing Monitoring Well
- Location of Double Cased Monitoring Well
- Location of Water Supply Well
- Estimated Location of Existing Underground Storage Tanks
- Estimated Groundwater Flow Direction
- Fence — Fence

Drawing Based on MECI Field Notes, Tax Maps and Survey of the Site Duncan Environmental Services dated March 15, 2007.

GRAPHIC SCALE

0 30 60 90 120

1IN = 60FT

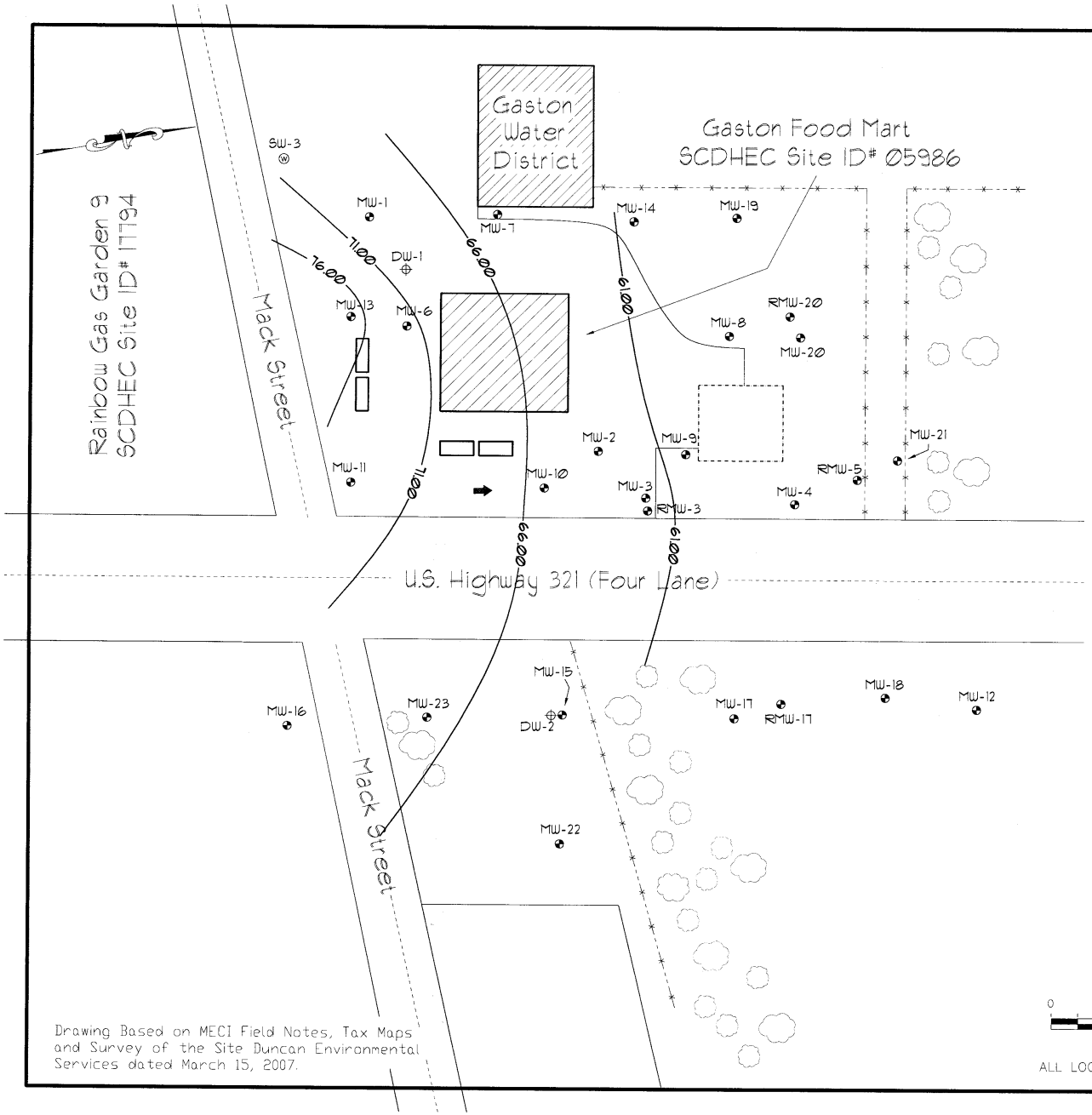
ALL LOCATIONS ARE APPROXIMATE

Site Features

Gaston Food Mart
Gaston, South Carolina
SCDHEC Site ID 05986

Midlands Environmental Consultants, Inc.

JOB NO. 07-1297
DATE September 20, 2007
FIGURE 2



Explanation:

- Location of Watertable Bracketing Monitoring Well
- Location of Double Cased Monitoring Well
- Location of Water Supply Well
- Estimated Groundwater Flow Direction
- Estimated Location of Removed Underground Storage Tanks
- Ground-Water Elevation Isopleth (feet)

Groundwater Elevation Data

Well #	Depth to Product (ft)	Depth to Water (feet)	Product Thickness (feet)	Well Head Elevation	Groundwater Elevation
MW-1	--	35.59	--	102.14	66.55
RMW-3	--	34.62	--	98.04	63.42
RMW-5	--	DRY	--	90.98	DRY
MW-6	35.66	35.69	0.03	101.80	66.14
MW-8	--	39.34	--	96.40	57.06
MW-9	--	35.47	--	95.22	59.75
MW-10	--	35.25	--	100.02	64.77
MW-11	--	27.47	--	102.00	74.53
MW-12	--	35.16	--	???	???
MW-13	--	24.72	--	102.38	77.66
MW-15	--	38.40	--	100.68	62.28
MW-16	--	35.12	--	103.82	68.70
RMW-20	--	DRY	--	96.12	DRY
MW-21	--	DRY	--	86.56	DRY
MW-22	--	41.65	--	99.19	57.54
MW-23	--	36.62	--	101.60	64.98
DW-1	--	DRY	--	102.12	DRY
DW-2	--	55.12	--	100.70	45.58

Notes:

Depth to groundwater measured on September 11, 2007.

Contour Interval = 5.00 Feet

Site Datum Based on Assumed Spot Elevation.

Monitoring wells MW-4, MW-7, MW-14, and MW-19 was not located.

Groundwater elevation for MW-6 corrected for the presence of Free Phase Petroleum Product using a specific gravity of fuel of 0.85.

Ground Water Contours Computer Generated using Surfer by Golden Graphics and Modified by MECI Personnel.

Drawing Based on MECI Field Notes, Tax Maps and Survey of the Site Duncan Environmental Services dated March 15, 2007.

GRAPHIC SCALE

0 30 60 90 120

1IN = 60FT

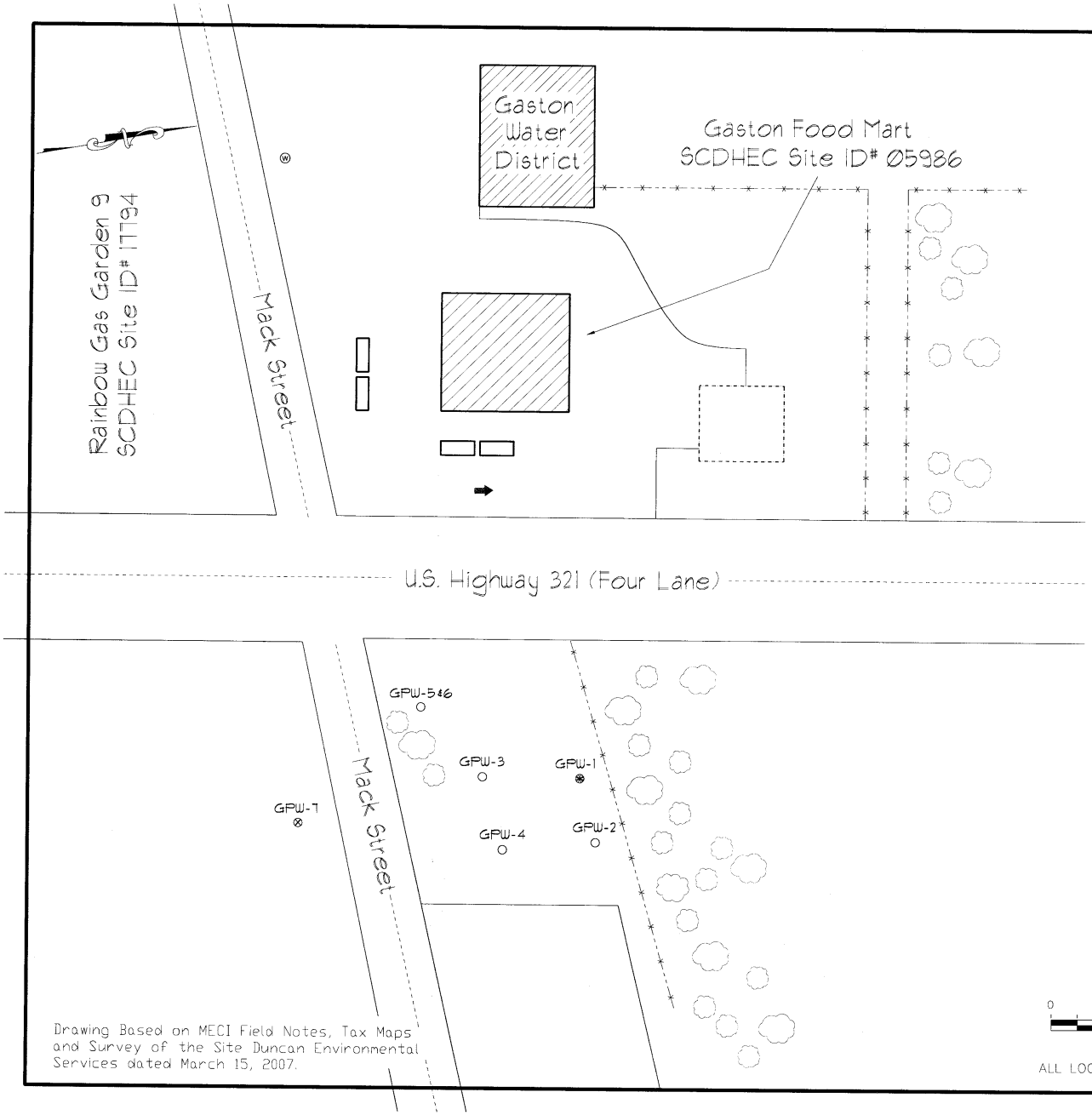
ALL LOCATIONS ARE APPROXIMATE

Groundwater Contour Map

Gaston Food Mart
Gaston, South Carolina
SCDHEC Site ID 05986

Midlands Environmental Consultants, Inc.

JOB NO. 07-1297
DATE September 20, 2007
FIGURE 3



Explanation:

- ⊗ Direct Push Field Screening Location Dry Hole
- ❀ Direct Push Field Screening Location BTEX Detected
- ○ Direct Push Field Screening Location Not Detected

Field Screening Results

Sample #	Sample Depth (ft.)	Benzene (ug/l)	Toluene (ug/l)	Ethylbenzene (ug/l)	Total Xylenes (ug/l)	Total BTEX (ug/l)	MTBE (ug/l)
GPW-1	34-38	417	BDL	BDL	117	534	BDL
GPW-2	34-38	BDL	BDL	BDL	BDL	BDL	BDL
GPW-3	34-38	BDL	BDL	BDL	BDL	BDL	BDL
GPW-4	34-38	BDL	BDL	BDL	BDL	BDL	BDL
GPW-5	34-38	DRY	DRY	DRY	DRY	DRY	DRY
GPW-6	39-43	BDL	BDL	BDL	BDL	BDL	BDL
GPW-7	34-38	DRY	DRY	DRY	DRY	DRY	DRY

Notes: Samples collected on August 28, 2007
BDL = Below Detection Limits
DRY = Dry Hole

Drawing Based on MECI Field Notes, Tax Maps and Survey of the Site Duncan Environmental Services dated March 15, 2007.

GRAPHIC SCALE
0 30 60 90 120
1IN = 60FT

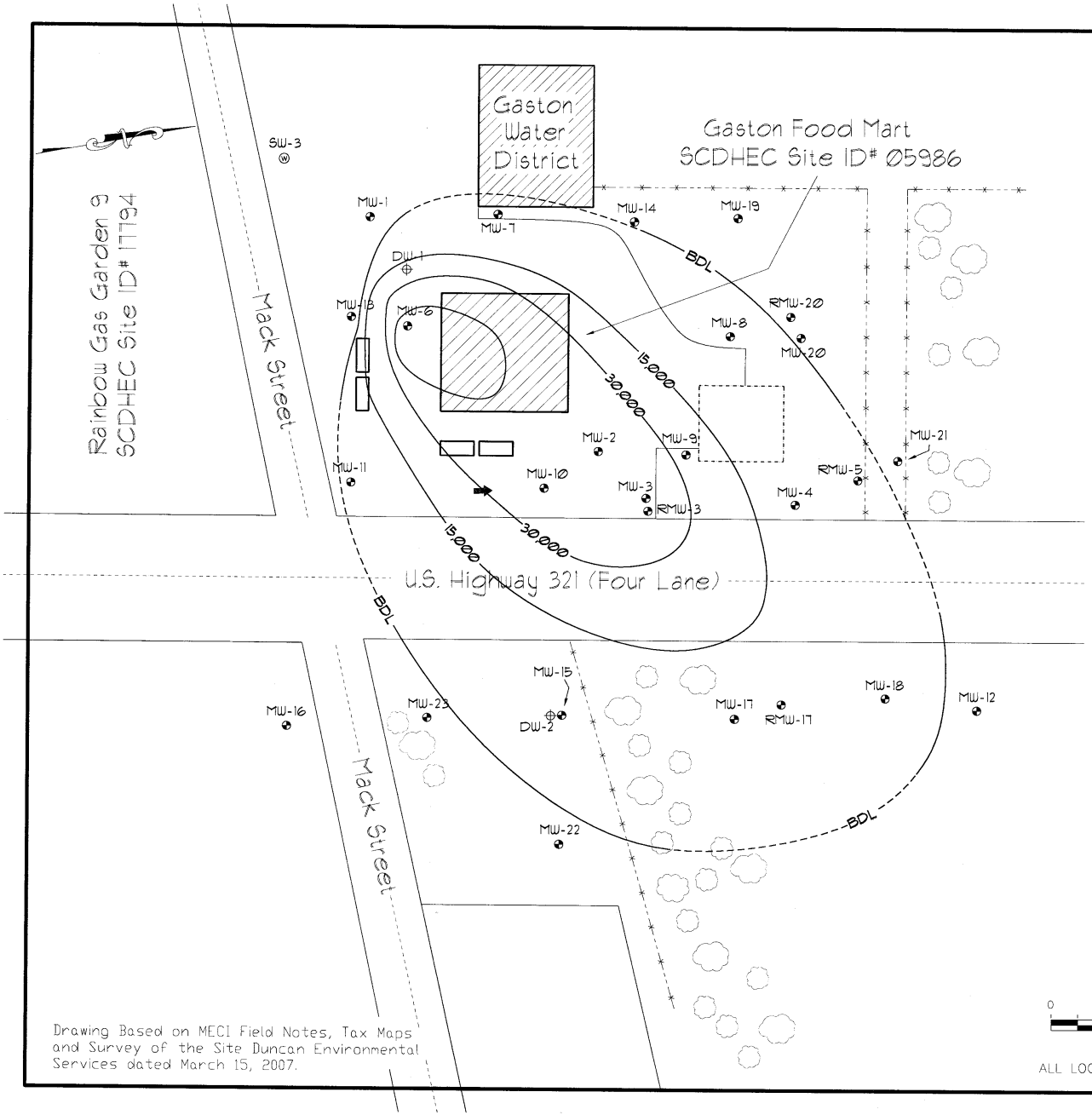
ALL LOCATIONS ARE APPROXIMATE

Field Screening Test Results

Gaston Food Mart
Gaston, South Carolina
SCDHEC Site ID 05986

Midlands Environmental Consultants, Inc.

JOB NO. 07-1297
DATE September 20, 2007
FIGURE 4



Explanation:

- Location of Water Table Bracketing Monitoring Well
- Estimated Groundwater Flow Direction
- Location of Double Cased Monitoring Well
- Estimated Location of Removed Underground Storage Tanks
- Location of Water Supply Well
- Total BTEX Concentration Isopleth (ug/l)

COC Concentration Data

Sample *	Benzene (ug/l)	Toluene (ug/l)	Ethylbenzene (ug/l)	Total Xylenes (ug/l)	Total BTEX (ug/l)	MTBE (ug/l)	Napthalene (ug/l)	EDB (ug/l)
MW-1	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
RMW-3	7,940	18,600	2,720	14,070	43,330	550	1,790	13.9
RMW-5	DRY	DRY	DRY	DRY	DRY	DRY	DRY	DRY
MW-6	PROD	PROD	PROD	PROD	PROD	PROD	PROD	PROD
MW-8	145	356	24.5	1,087	1,612.5	12.0	36.9	NT
MW-9	2,470	10,200	2,030	15,140	29,840	124	612	2.3
MW-10	9,030	16,900	2,650	12,570	41,150	12,500	BDL	27.4
MW-11	BDL	BDL	8.5	BDL	8.5	BDL	8.3	BDL
MW-12	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
MW-13	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
MW-15	21.8	BDL	13.6	128.1	163.5	BDL	5.1	0.37
MW-16	DRY	DRY	DRY	DRY	DRY	DRY	DRY	DRY
MW-19	NL	NL	NL	NL	NL	NL	NL	NL
RMW-20	DRY	DRY	DRY	DRY	DRY	DRY	DRY	DRY
MW-21	DRY	DRY	DRY	DRY	DRY	DRY	DRY	DRY
MW-22	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
MW-23	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
DW-1	DRY	DRY	DRY	DRY	DRY	DRY	DRY	DRY
DW-2	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
SW-3	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL

Notes: Groundwater samples collected on September 11, 2007.

Contour Interval = 15,000 ug/l

PROD = Free Phase Product encountered at time of sampling

BDL = Below Detection Limits

Contours Computer Generated using Surfer by Golden Graphics and Modified by MECI Personnel.

GRAPHIC SCALE

0 30 60 90 120

1IN = 60FT

ALL LOCATIONS ARE APPROXIMATE

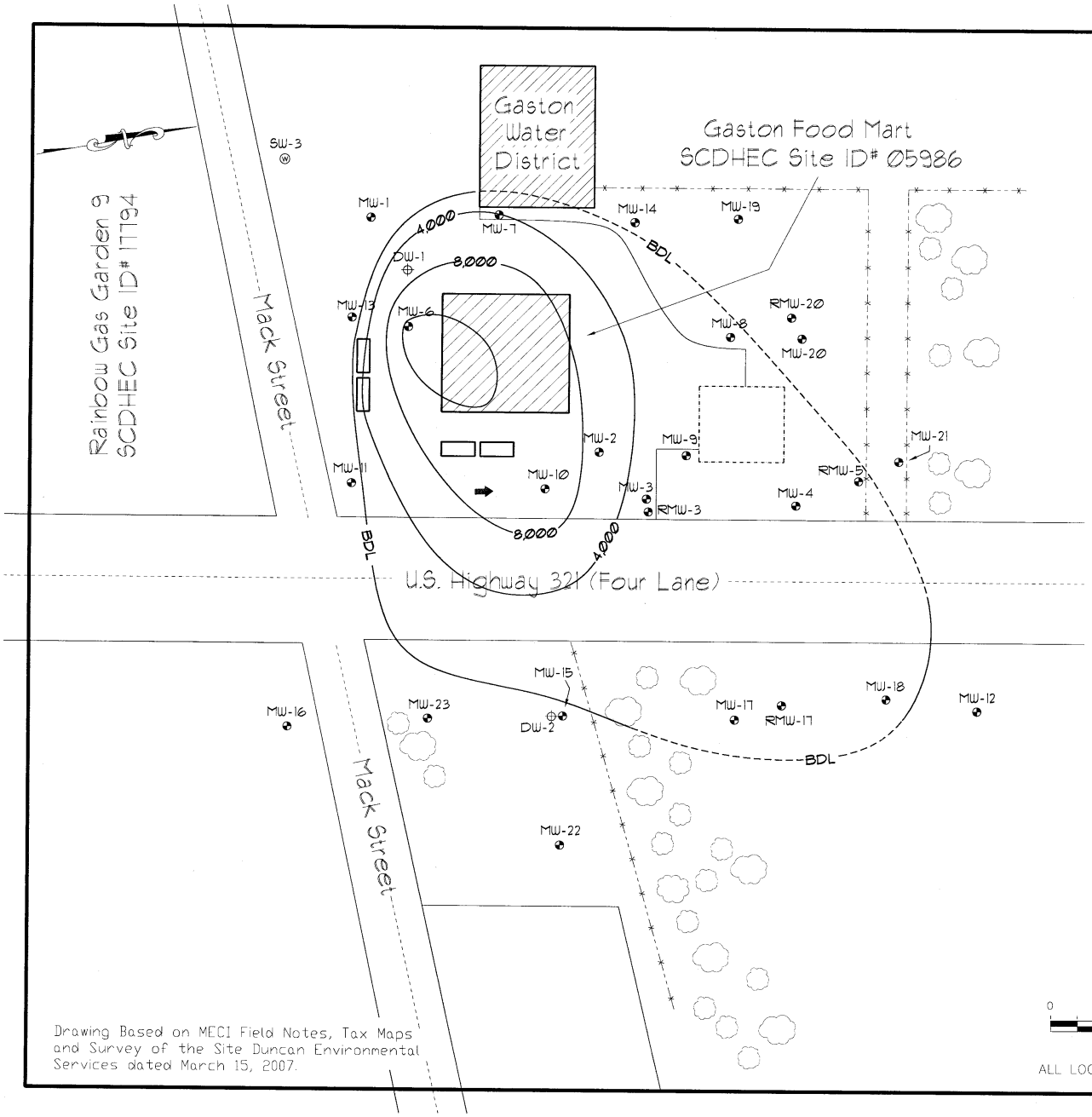
Drawing Based on MECI Field Notes, Tax Maps and Survey of the Site Duncan Environmental Services dated March 15, 2007.

Total BTEX Isopleth Map

Gaston Food Mart
Gaston, South Carolina
SCDHEC Site ID 05986

Midlands Environmental Consultants, Inc.

JOB NO. 07-1297
DATE September 20, 2007
FIGURE 5



Explanation:

- Location of Water Table Bracketing Monitoring Well
- Estimated Groundwater Flow Direction
- Location of Double Cased Monitoring Well
- Estimated Location of Removed Underground Storage Tanks
- Location of Water Supply Well
- MTBE Concentration Isopleth (ug/l)

COC Concentration Data

Sample *	Benzene (ug/l)	Toluene (ug/l)	Ethylbenzene (ug/l)	Total Xylenes (ug/l)	Total BTEX (ug/l)	MTBE (ug/l)	Napthalene (ug/l)	EDB (ug/l)
MW-1	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
RMW-3	7,940	18,600	2,720	14,070	43,330	550	1,790	13.9
RMW-5	DRY	DRY	DRY	DRY	DRY	DRY	DRY	DRY
MW-6	PROD	PROD	PROD	PROD	PROD	PROD	PROD	PROD
MW-8	145	356	24.5	1,087	1,612.5	12.0	36.9	NT
MW-9	2,470	10,200	2,030	15,140	29,840	124	612	2.3
MW-10	9,030	16,900	2,650	12,570	41,150	12,500	BDL	27.4
MW-11	BDL	BDL	8.5	BDL	8.5	BDL	8.3	BDL
MW-12	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
MW-13	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
MW-15	21.8	BDL	13.6	128.1	163.5	BDL	5.1	0.37
MW-16	DRY	DRY	DRY	DRY	DRY	DRY	DRY	DRY
MW-19	NL	NL	NL	NL	NL	NL	NL	NL
RMW-20	DRY	DRY	DRY	DRY	DRY	DRY	DRY	DRY
MW-21	DRY	DRY	DRY	DRY	DRY	DRY	DRY	DRY
MW-22	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
MW-23	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
DW-1	DRY	DRY	DRY	DRY	DRY	DRY	DRY	DRY
DW-2	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
SW-3	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL

Notes: Groundwater samples collected on September 11, 2007.

Contour Interval = 15,000 ug/l

PROD = Free Phase Product encountered at time of sampling

BDL = Below Detection Limits

Contours Computer Generated using Surfer by Golden Graphics and Modified by MECI Personnel.

GRAPHIC SCALE

0 30 60 90 120

1IN = 60FT

ALL LOCATIONS ARE APPROXIMATE

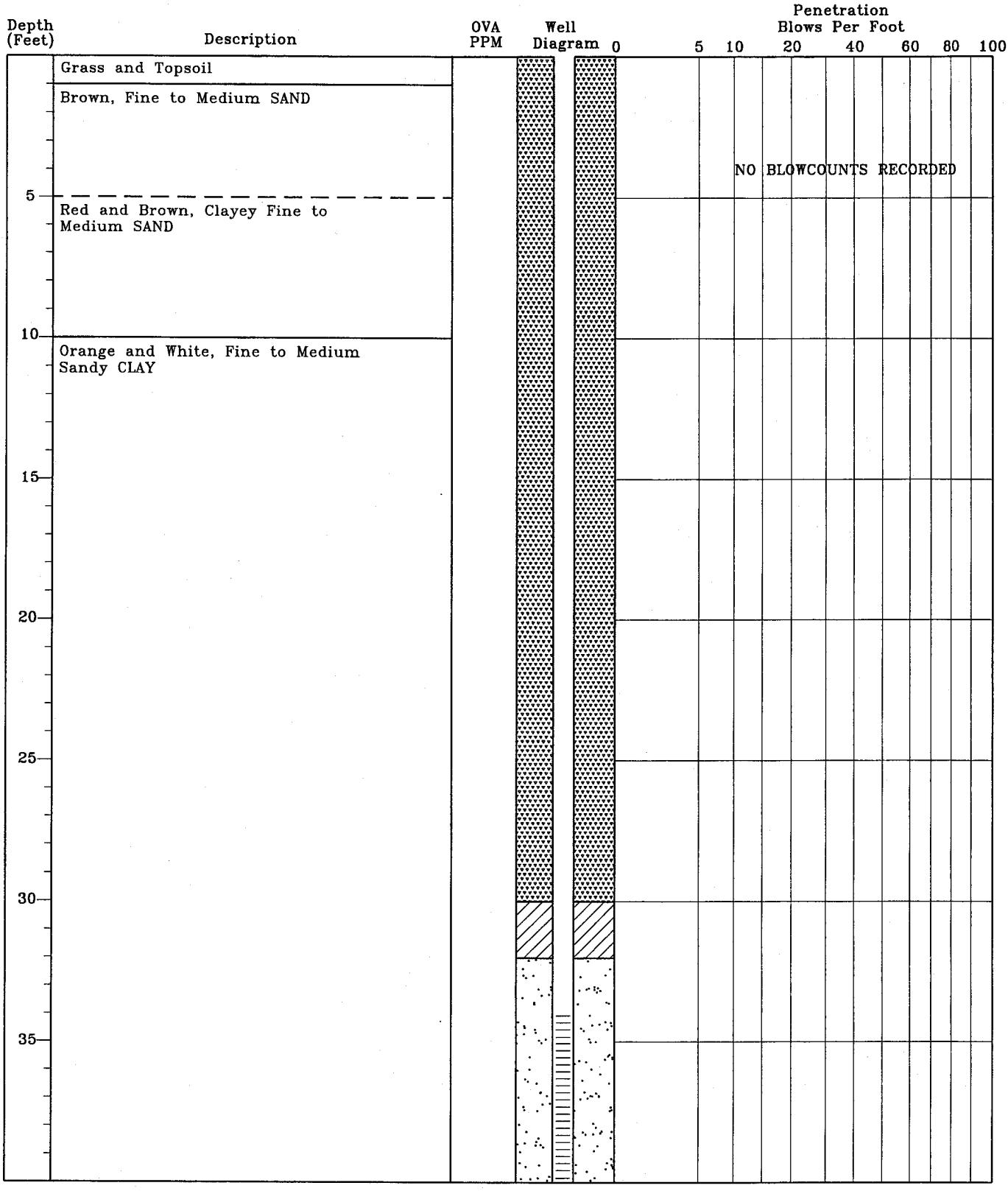
Drawing Based on MECI Field Notes, Tax Maps and Survey of the Site Duncan Environmental Services dated March 15, 2007.

MTBE Isopleth Map

Gaston Food Mart
Gaston, South Carolina
SCDHEC Site ID 05986

Midlands Environmental Consultants, Inc.

JOB NO. 07-1297
DATE September 20, 2007
FIGURE 6



TEST BORING RECORD
Gaston Food Mart
Gaston, South Carolina
SCDHEC Site ID# 05986
MECI Project Number 07-1297

Boring Number:	MW-22
Date Drilled:	9/10/07
Drilled By:	Geologic Exploration Inc.
Logged By:	B. Guiles

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

Depth (Feet)	Description	OVA PPM	Well Diagram	Penetration Blows Per Foot 0 5 10 20 40 60 80 100
	Orange and White, Fine to Medium Sandy CLAY			NO BLOWCOUNTS RECORDED
45	Boring Terminated at 44.0 Feet. Monitoring Well Installed to 44.0 Feet. Groundwater Measured at 41.65 Feet Below Ground Surface on 9/11/2007.			
50				
55				
60				
65				
70				
75				

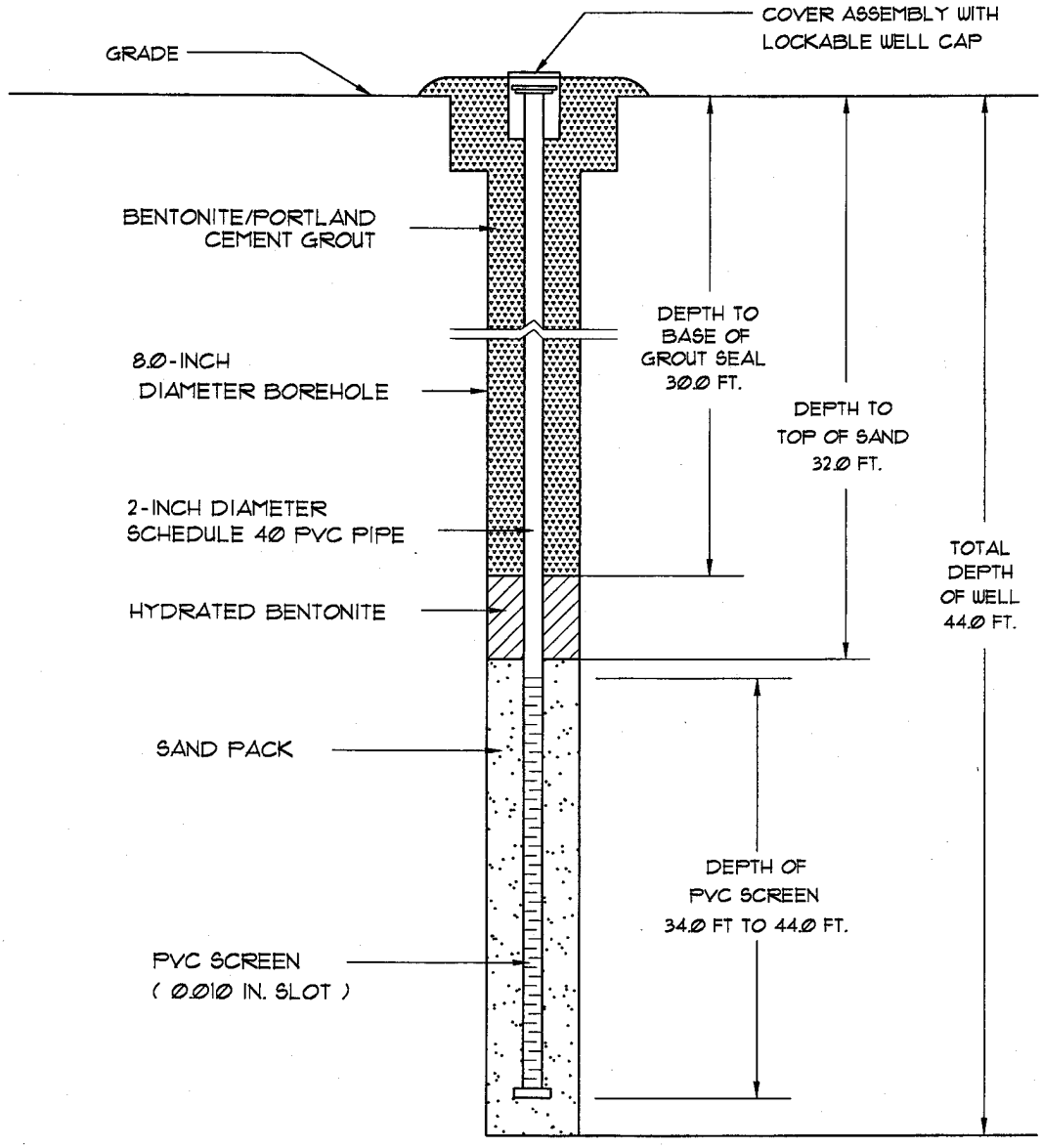
TEST BORING RECORD
Gaston Food Mart
Gaston, South Carolina
SCDHEC Site ID# 05986
MECI Project Number 07-1297

Boring Number:	MW-22
Date Drilled:	9/10/07
Drilled By:	Geologic Exploration Inc.
Logged By:	B. Guiles

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

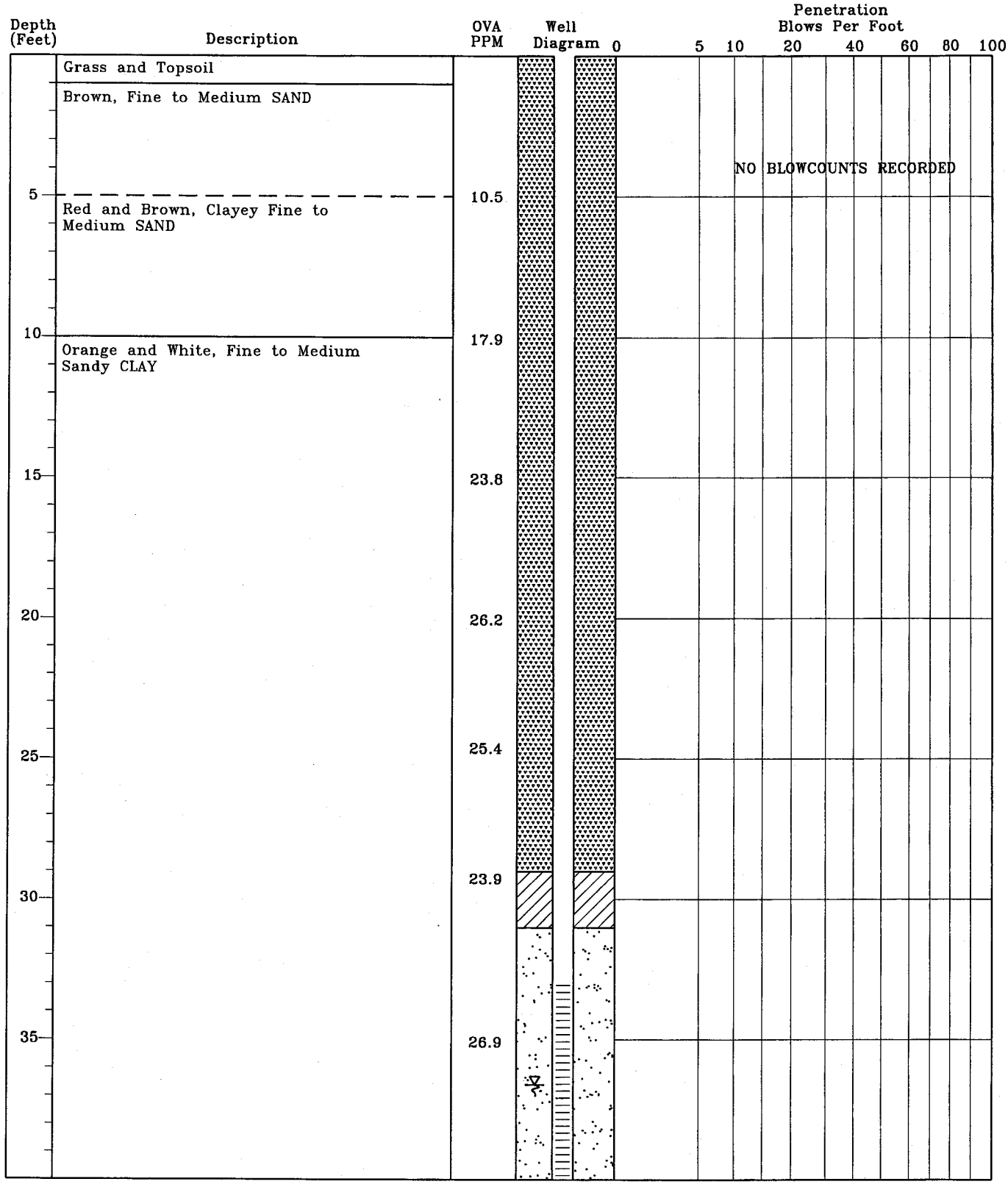
MONITORING WELL INSTALLATION RECORD

Gaston Food Mart
Gaston, South Carolina
SCDHEC Site ID# 05986
MECI Project Number 07-1297



Well Number:	MW-22
Date Drilled:	9/10/07
Drilled By:	Geologic Exploration Inc.
Driller: M. Gettys	S.C. I.D. #: A 01086
Logged By:	B. Guiles

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



TEST BORING RECORD
Gaston Food Mart
Gaston, South Carolina
SCDHEC Site ID# 05986
MECI Project Number 07-1297

Boring Number:	MW-23
Date Drilled:	9/10/07
Drilled By:	Geologic Exploration Inc.
Logged By:	B. Guiles

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

Depth (Feet)	Description	OVA PPM	Well Diagram	Penetration Blows Per Foot 0 5 10 20 40 60 80 100
	Orange and White, Fine to Medium Sandy CLAY	16.8		
45	Boring Terminated at 43.0 Feet. Monitoring Well Installed to 43.0 Feet. Groundwater Measured at 36.62 Feet Below Ground Surface on 9/11/2007.			NO BLOWCOUNTS RECORDED
50				
55				
60				
65				
70				
75				

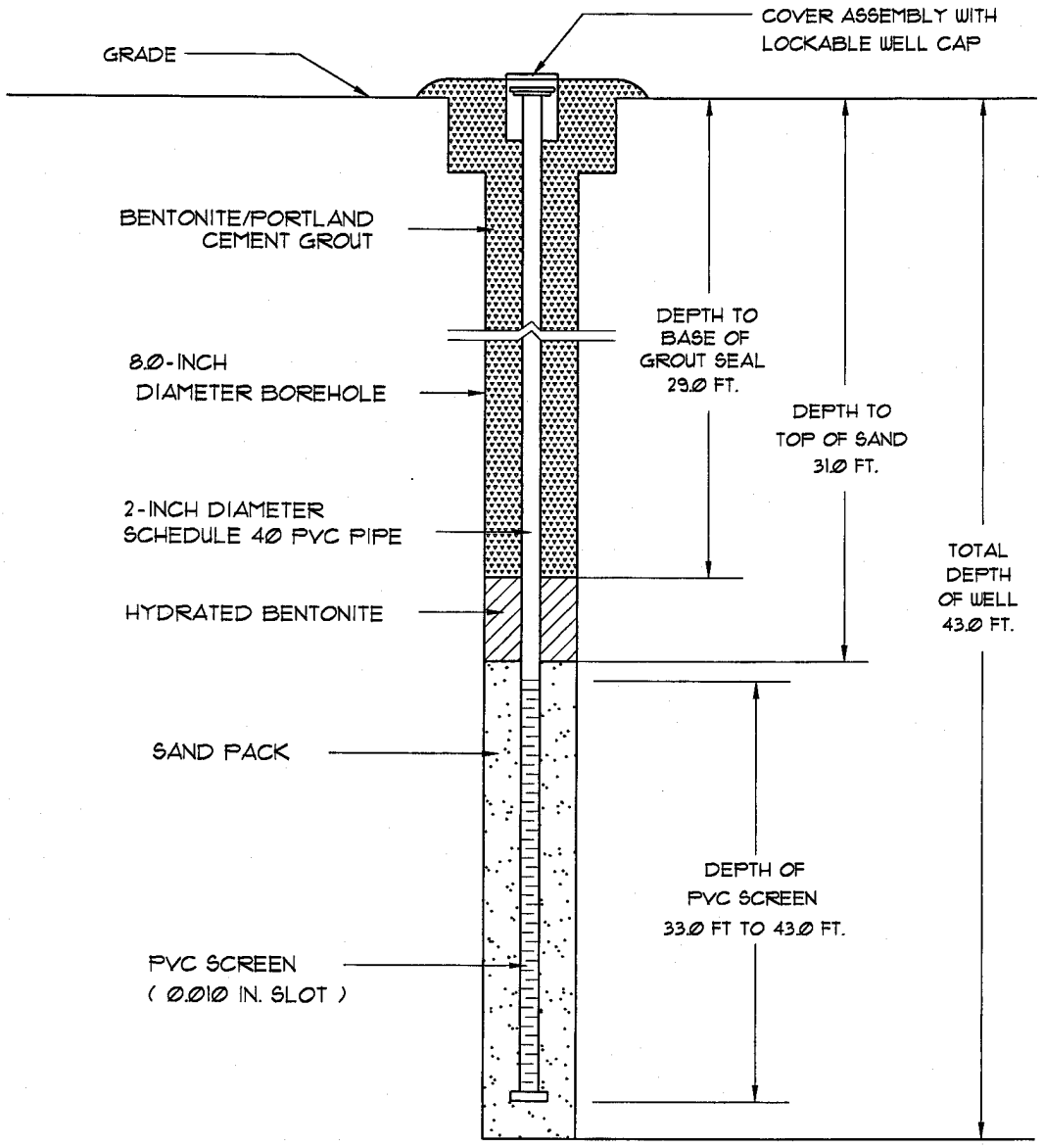
TEST BORING RECORD
Gaston Food Mart
Gaston, South Carolina
SCDHEC Site ID# 05986
MECI Project Number 07-1297

Boring Number:	MW-23
Date Drilled:	9/10/07
Drilled By:	Geologic Exploration Inc.
Logged By:	B. Guiles

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

MONITORING WELL INSTALLATION RECORD

Gaston Food Mart
Gaston, South Carolina
SCDHEC Site ID# 05986
MECI Project Number 07-1297



Well Number:	MW-23
Date Drilled:	9/10/07
Drilled By:	Geologic Exploration Inc.
Driller: M. Gettys	S.C. I.D. #: A 01086
Logged By:	B. Guiles

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

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: MATTHEWS (last) DONNY (first) R.
Address: 4932 HIGHWAY 321
City: GASTON State: SC Zip: 29053
Telephone: Work: Home:

2. LOCATION OF WELL: SC **COUNTY:** LEXINGTON
Name: GASTON FOOD MART
Street Address: 105 NORTH MAIN STREET
City: GASTON Zip:
Latitude: Longitude:

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
ORANGE SAND	5.0	5.0
ORANGE/TAN SANDY CLAYEY		
SILT	13.0	18.0
ORANGE/TAN SANDY CLAY	26.0	44.0
*Indicate Water Bearing Zones (Use a 2nd sheet if needed)		

5. REMARKS:
MW-22 BENTONITE SEAL FROM 30.0 TO 32.0 FT.

6. TYPE: ☐ Mud Rotary ☐ Jetted ☐ Bored ☐ Dug ☐ Air Rotary ☐ Driven ☐ Cable tool ☑ Other AUGER

7. PERMIT NUMBER:

8. USE: ☐ Residential ☐ Public Supply ☐ Process ☐ Irrigation ☐ Air Conditioning ☐ Emergency ☐ Test Well ☑ Monitor Well ☐ Replacement

9. WELL DEPTH (completed) 44.0 ft. Date Started: 09/10/07 Date Completed: 09/10/07

10. CASING: ☑ Threaded ☐ Welded
Diam.: 2 INCH
Type: ☑ PVC ☐ Galvanized ☐ Steel ☐ Other
2.0 in. to 34.0 ft. depth
_____ in. to _____ ft. depth
Height: Above ☐ Below ☐
Surface 0.0 ft.
Weight _____ lb./ft.
Drive Shoe? ☐ Yes ☐ No

11. SCREEN:
Type: SCH 40 PVC Diam.: 2 INCH
Slot/Gauge: .010 Length: 10.0 FEET
Set Between: 34.0 ft. and 44.0 ft.
_____ ft. and _____ ft.
NOTE: MULTIPLE SCREENS USE SECOND SHEET
Sieve Analysis ☐ Yes (please enclose) ☑ No

12. STATIC WATER LEVEL 38.0 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 32.0 ft. to 44.0 ft.
Effective size 1.43 Uniformity Coefficient 1.30

16. WELL GROUTED? ☑ Yes ☐ No
☑ Neat Cement ☐ Bentonite ☐ Bentonite/Cement ☐ Other _____
Depth: From 0.0 ft. to 30.0 ft.

17. NEAREST SOURCE OF POSSIBLE CONTAMINATION: ____ ft. ____ direction
Type _____
Well Disinfected ☐ Yes ☐ No Type: _____ 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: MARK GETTYS **CERT. NO.:** 01086
Address: (Print) 176 COMMERCE BLVD
STATESVILLE, NC 28625
Level: A ☑ B ☐ C ☐ D ☐ (circle one)
Telephone No.: 704-872-7686 Fax No.: 704-872-0248

20. WATER WELL DRILLER'S CERTIFICATION: This well was drilled under my direction and this report is true to the best of my knowledge and belief.

Signed: _____ Well Driller Date: 09/20/07

If D Level Driller, provide supervising driller's name:

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: MATTHEWS (last) DONNY R. (first)
Address: 4932 HIGHWAY 321
City: GASTON State: SC Zip: 29053
Telephone: Work: Home:

2. LOCATION OF WELL: SC **COUNTY:** LEXINGTON
Name: GASTON FOOD MART
Street Address: 105 NORTH MAIN STREET
City: GASTON Zip:
Latitude: Longitude:

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
ORANGE SAND	5.0	5.0
ORANGE/TAN SANDY CLAYEY		
SILT	10.0	15.0
ORANGE/TAN SANDY CLAY	28.0	43.0
*Indicate Water Bearing Zones (Use a 2nd sheet if needed)		

5. REMARKS:
MW-23 BENTONITE SEAL FROM 29.0 TO 31.0 FT.

6. TYPE: ☐ Mud Rotary ☐ Jetted ☐ Bored ☐ Dug ☐ Air Rotary ☐ Driven ☐ Cable tool ☑ Other AUGER

7. PERMIT NUMBER:

8. USE: ☐ Residential ☐ Public Supply ☐ Process ☐ Irrigation ☐ Air Conditioning ☐ Emergency ☐ Test Well ☑ Monitor Well ☐ Replacement

9. WELL DEPTH (completed) 43.0 ft. Date Started: 09/10/07 Date Completed: 09/10/07

10. CASING: ☑ Threaded ☐ Welded
Diam.: 2 INCH
Type: ☑ PVC ☐ Galvanized ☐ Steel ☐ Other
2.0 in. to 33.0 ft. depth
_____ in. to _____ ft. depth
Height: Above ☐ Below ☐
Surface 0.0 ft.
Weight _____ lb./ft.
Drive Shoe? ☐ Yes ☐ No

11. SCREEN:
Type: SCH 40 PVC Diam.: 2 INCH
Slot/Gauge: .010 Length: 10.0 FEET
Set Between: 33.0 ft. and 43.0 ft.
_____ ft. and _____ ft.
NOTE: MULTIPLE SCREENS USE SECOND SHEET
Sieve Analysis ☐ Yes (please enclose) ☑ No

12. STATIC WATER LEVEL 38.0 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 31.0 ft. to 43.0 ft.
Effective size 1.43 Uniformity Coefficient 1.30

16. WELL GROUTED? ☑ Yes ☐ No
☑ Neat Cement ☐ Bentonite ☐ Bentonite/Cement ☐ Other _____
Depth: From 0.0 ft. to 29.0 ft.

17. NEAREST SOURCE OF POSSIBLE CONTAMINATION: ____ ft. ____ direction
Type _____
Well Disinfected ☐ Yes ☐ No Type: _____ 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: MARK GETTYS **CERT. NO.:** 01086
Address: (Print) 176 COMMERCE BLVD
STATESVILLE, NC 28625
Level: A ☑ B ☐ C ☐ D ☐ (circle one)
Telephone No.: 704-872-7686 Fax No.: 704-872-0248

20. WATER WELL DRILLER'S CERTIFICATION: This well was drilled under my direction and this report is true to the best of my knowledge and belief.

Signed: _____ Well Driller Date: 09/20/07

If D Level Driller, provide supervising driller's name:

DHEC 1903 (07/2003) **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: MATTHEWS (last) DONNIE (first) R.
Address: 4932 HIGHWAY 321
City: GASTON State: SC Zip: 29053
Telephone: Work: Home:

2. LOCATION OF WELL: SC **COUNTY:** LEXINGTON
Name: GASTON FOOD MART
Street Address: 105 NORTH MAIN STREET
City: GASTON Zip:
Latitude: Longitude:

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
WELL ABANDONED BY		
GEOLOGIC EXPLORATION, INC.		
ON 09/10/07 VIA TREMIE PIPE		
WITH PORTLAND BENTONITE		
SLURRY.		
*Indicate Water Bearing Zones (Use a 2nd sheet if needed)		

5. REMARKS:
MW-2
15.60 GALLONS PORTLAND BENTONITE SLURRY

6. TYPE: ☐ Mud Rotary ☐ Jetted ☐ Bored ☐ Dug ☐ Air Rotary ☐ Driven ☐ Cable tool ☐ Other

7. PERMIT NUMBER:

8. USE: ☐ Residential ☐ Public Supply ☐ Process ☐ Irrigation ☐ Air Conditioning ☐ Emergency ☐ Test Well ☑ Monitor Well ☐ Replacement

9. WELL DEPTH (completed) 78.0 ft. Date Started: 09/10/07 Date Completed: 09/10/07

10. CASING: ☑ Threaded ☐ Welded
Diam.: 2 INCH
Type: ☑ PVC ☐ Galvanized ☐ Steel ☐ Other
____ in. to ____ ft. depth
____ in. to ____ ft. depth
Height: Above ☐ Below ☐
Surface ____ ft.
Weight ____ lb./ft.
Drive Shoe? ☐ Yes ☐ No

11. SCREEN:
Type: ____ Diam.: ____
Slot/Gauge: ____ Length: ____
Set Between: ____ ft. and ____ 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 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 ____ ft. to ____ ft.
Effective size ____ Uniformity Coefficient ____

16. WELL GROUTED? ☑ Yes ☐ No
☑ Neat Cement ☐ Bentonite ☐ Bentonite/Cement ☐ Other ____
Depth: From 0.0 ft. to 78.0 ft.

17. NEAREST SOURCE OF POSSIBLE CONTAMINATION: ____ ft. ____ direction
Type: ____
Well Disinfected ☐ Yes ☐ No Type: ____ 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: MARK GETTYS **CERT. NO.:** 01086
Address: (Print) 176 COMMERCE BLVD
STATESVILLE, NC 28625
Level: A ☑ B ☐ C ☐ D ☐ (circle one)
Telephone No.: 704-872-7686 Fax No.: 704-872-0248

20. WATER WELL DRILLER'S CERTIFICATION: This well was drilled under my direction and this report is true to the best of my knowledge and belief.

Signed: ____ (Well Driller) Date: 09/20/07

If D Level Driller, provide supervising driller's name:

DHEC 1903 (07/2003) COPY 1 MAIL TO: S.C. DEPARTMENT OF HEALTH AND ENVIRONMENTAL CONTROL (ADDRESS ABOVE)

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

September 19, 2007

Mr. Bryan Shane
Midlands Environmental
PO Box 854
Lexington, SC 29071

RE: Project: GASTON FOOD MART 07-1297
Pace Project No.: 923497

Dear Mr. Shane:
Enclosed are the analytical results for sample(s) received by the laboratory on September 12, 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 Godwin

kevin.godwin@pacelabs.com
Project Manager

Enclosures

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

CERTIFICATIONS

Project: GASTON FOOD MART 07-1297
Pace Project No.: 923497

Charlotte Certification IDs
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
Florida/NELAP Certification Number: E87627
Kansas Certification Number: E-10364
Louisiana/LELAP Certification Number: 04034
North Carolina Drinking Water Certification Number: 37706

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: 990300001
South Carolina Bioassay Certification Number: 990300002
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

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

ANALYTICAL RESULTS

Project: GASTON FOOD MART 07-1297
Pace Project No.: 923497

Sample: MW-1 **Lab ID: 923497001** Collected: 09/11/07 11:25 Received: 09/12/07 17:10 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							
1,2-Dibromoethane (EDB)	ND	ug/L	0.020	1	09/13/07 00:00	09/13/07 21:54	106-93-4	
1-Chloro-2-bromopropane (S)	86	%	60-140	1	09/13/07 00:00	09/13/07 21:54	301-79-56	
8260 MSV	Analytical Method: EPA 8260							
Benzene	ND	ug/L	5.0	1		09/16/07 16:23	71-43-2	
1,2-Dichloroethane	ND	ug/L	5.0	1		09/16/07 16:23	107-06-2	
Ethylbenzene	ND	ug/L	5.0	1		09/16/07 16:23	100-41-4	
Methyl-tert-butyl ether	ND	ug/L	5.0	1		09/16/07 16:23	1634-04-4	
Naphthalene	ND	ug/L	5.0	1		09/16/07 16:23	91-20-3	
Toluene	ND	ug/L	5.0	1		09/16/07 16:23	108-88-3	
Xylene (Total)	ND	ug/L	10.0	1		09/16/07 16:23	1330-20-7	
m&p-Xylene	ND	ug/L	10.0	1		09/16/07 16:23	1330-20-7	
o-Xylene	ND	ug/L	5.0	1		09/16/07 16:23	95-47-6	
4-Bromofluorobenzene (S)	96	%	87-109	1		09/16/07 16:23	460-00-4	
Dibromofluoromethane (S)	99	%	85-115	1		09/16/07 16:23	1868-53-7	
1,2-Dichloroethane-d4 (S)	100	%	79-120	1		09/16/07 16:23	17060-07-0	
Toluene-d8 (S)	99	%	70-120	1		09/16/07 16:23	2037-26-5	

Sample: DW-2 **Lab ID: 923497002** Collected: 09/11/07 09:00 Received: 09/12/07 17:10 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV	Analytical Method: EPA 8260							
Benzene	ND	ug/L	5.0	1		09/18/07 01:57	71-43-2	
1,2-Dichloroethane	ND	ug/L	5.0	1		09/18/07 01:57	107-06-2	
Ethylbenzene	ND	ug/L	5.0	1		09/18/07 01:57	100-41-4	
Methyl-tert-butyl ether	ND	ug/L	5.0	1		09/18/07 01:57	1634-04-4	
Naphthalene	ND	ug/L	5.0	1		09/18/07 01:57	91-20-3	
Toluene	ND	ug/L	5.0	1		09/18/07 01:57	108-88-3	
Xylene (Total)	ND	ug/L	10.0	1		09/18/07 01:57	1330-20-7	
m&p-Xylene	ND	ug/L	10.0	1		09/18/07 01:57	1330-20-7	
o-Xylene	ND	ug/L	5.0	1		09/18/07 01:57	95-47-6	
4-Bromofluorobenzene (S)	93	%	87-109	1		09/18/07 01:57	460-00-4	
Dibromofluoromethane (S)	102	%	85-115	1		09/18/07 01:57	1868-53-7	
1,2-Dichloroethane-d4 (S)	104	%	79-120	1		09/18/07 01:57	17060-07-0	
Toluene-d8 (S)	89	%	70-120	1		09/18/07 01:57	2037-26-5	

Sample: SW-3 **Lab ID: 923497003** Collected: 09/11/07 11:40 Received: 09/12/07 17:10 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							
1,2-Dibromoethane (EDB)	ND	ug/L	0.020	1	09/13/07 00:00	09/13/07 22:50	106-93-4	
1-Chloro-2-bromopropane (S)	80	%	60-140	1	09/13/07 00:00	09/13/07 22:50	301-79-56	

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

ANALYTICAL RESULTS

Project: GASTON FOOD MART 07-1297
Pace Project No.: 923497

Sample: SW-3 **Lab ID: 923497003** Collected: 09/11/07 11:40 Received: 09/12/07 17:10 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV	Analytical Method: EPA 8260							
Benzene	ND	ug/L	5.0	1		09/16/07 16:41	71-43-2	
1,2-Dichloroethane	ND	ug/L	5.0	1		09/16/07 16:41	107-06-2	
Ethylbenzene	ND	ug/L	5.0	1		09/16/07 16:41	100-41-4	
Methyl-tert-butyl ether	ND	ug/L	5.0	1		09/16/07 16:41	1634-04-4	
Naphthalene	ND	ug/L	5.0	1		09/16/07 16:41	91-20-3	
Toluene	ND	ug/L	5.0	1		09/16/07 16:41	108-88-3	
Xylene (Total)	ND	ug/L	10.0	1		09/16/07 16:41	1330-20-7	
m&p-Xylene	ND	ug/L	10.0	1		09/16/07 16:41	1330-20-7	
o-Xylene	ND	ug/L	5.0	1		09/16/07 16:41	95-47-6	
4-Bromofluorobenzene (S)	96	%	87-109	1		09/16/07 16:41	460-00-4	
Dibromofluoromethane (S)	100	%	85-115	1		09/16/07 16:41	1868-53-7	
1,2-Dichloroethane-d4 (S)	95	%	79-120	1		09/16/07 16:41	17060-07-0	
Toluene-d8 (S)	94	%	70-120	1		09/16/07 16:41	2037-26-5	

Sample: RMW-3 **Lab ID: 923497004** Collected: 09/11/07 11:00 Received: 09/12/07 17:10 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							
1,2-Dibromoethane (EDB)	**13.9**	ug/L	2.0	100	09/13/07 00:00	09/14/07 20:46	106-93-4	
1-Chloro-2-bromopropane (S)	102	%	60-140	1	09/13/07 00:00	09/13/07 23:09	301-79-56	
8260 MSV	Analytical Method: EPA 8260							
Benzene	**7940**	ug/L	500	100		09/18/07 13:57	71-43-2	
1,2-Dichloroethane	ND	ug/L	500	100		09/18/07 13:57	107-06-2	
Ethylbenzene	**2720**	ug/L	500	100		09/18/07 13:57	100-41-4	
Methyl-tert-butyl ether	**550**	ug/L	500	100		09/18/07 13:57	1634-04-4	
Naphthalene	**1790**	ug/L	500	100		09/18/07 13:57	91-20-3	
Toluene	**18600**	ug/L	2500	500		09/18/07 04:42	108-88-3	
Xylene (Total)	**14100**	ug/L	1000	100		09/18/07 13:57	1330-20-7	
m&p-Xylene	**9730**	ug/L	1000	100		09/18/07 13:57	1330-20-7	
o-Xylene	**4340**	ug/L	500	100		09/18/07 13:57	95-47-6	
4-Bromofluorobenzene (S)	99	%	87-109	100		09/18/07 13:57	460-00-4	
Dibromofluoromethane (S)	97	%	85-115	100		09/18/07 13:57	1868-53-7	
1,2-Dichloroethane-d4 (S)	104	%	79-120	100		09/18/07 13:57	17060-07-0	
Toluene-d8 (S)	99	%	70-120	100		09/18/07 13:57	2037-26-5	

Sample: MW-8 **Lab ID: 923497005** Collected: 09/11/07 10:20 Received: 09/12/07 17:10 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							
1,2-Dibromoethane (EDB)	ND	ug/L	0.020	1	09/13/07 00:00	09/13/07 23:18	106-93-4	
1-Chloro-2-bromopropane (S)	89	%	60-140	1	09/13/07 00:00	09/13/07 23:18	301-79-56	

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

ANALYTICAL RESULTS

Project: GASTON FOOD MART 07-1297
Pace Project No.: 923497

Sample: MW-8 **Lab ID: 923497005** Collected: 09/11/07 10:20 Received: 09/12/07 17:10 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV	Analytical Method: EPA 8260							
Benzene	**145**	ug/L	10.0	2		09/18/07 13:00	71-43-2	
1,2-Dichloroethane	ND	ug/L	10.0	2		09/18/07 13:00	107-06-2	
Ethylbenzene	**24.5**	ug/L	10.0	2		09/18/07 13:00	100-41-4	
Methyl-tert-butyl ether	**12.0**	ug/L	10.0	2		09/18/07 13:00	1634-04-4	
Naphthalene	**36.9**	ug/L	10.0	2		09/18/07 13:00	91-20-3	
Toluene	**356**	ug/L	10.0	2		09/18/07 13:00	108-88-3	
Xylene (Total)	**1090**	ug/L	20.0	2		09/18/07 13:00	1330-20-7	
m&p-Xylene	**736**	ug/L	20.0	2		09/18/07 13:00	1330-20-7	
o-Xylene	**351**	ug/L	10.0	2		09/18/07 13:00	95-47-6	
4-Bromofluorobenzene (S)	102	%	87-109	2		09/18/07 13:00	460-00-4	
Dibromofluoromethane (S)	99	%	85-115	2		09/18/07 13:00	1868-53-7	
1,2-Dichloroethane-d4 (S)	105	%	79-120	2		09/18/07 13:00	17060-07-0	
Toluene-d8 (S)	101	%	70-120	2		09/18/07 13:00	2037-26-5	

Sample: MW-9 **Lab ID: 923497006** Collected: 09/11/07 10:50 Received: 09/12/07 17:10 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							
1,2-Dibromoethane (EDB)	**2.3**	ug/L	0.20	10	09/13/07 00:00	09/14/07 20:55	106-93-4	
1-Chloro-2-bromopropane (S)	76	%	60-140	1	09/13/07 00:00	09/13/07 23:27	301-79-56	
8260 MSV	Analytical Method: EPA 8260							
Benzene	**2470**	ug/L	100	20		09/18/07 09:36	71-43-2	
1,2-Dichloroethane	ND	ug/L	100	20		09/18/07 09:36	107-06-2	
Ethylbenzene	**2030**	ug/L	100	20		09/18/07 09:36	100-41-4	
Methyl-tert-butyl ether	**124**	ug/L	100	20		09/18/07 09:36	1634-04-4	
Naphthalene	**612**	ug/L	100	20		09/18/07 09:36	91-20-3	
Toluene	**10200**	ug/L	500	100		09/18/07 14:13	108-88-3	
Xylene (Total)	**16100**	ug/L	1000	100		09/18/07 14:13	1330-20-7	
m&p-Xylene	**11300**	ug/L	1000	100		09/18/07 14:13	1330-20-7	
o-Xylene	**3840**	ug/L	100	20		09/18/07 09:36	95-47-6	
4-Bromofluorobenzene (S)	99	%	87-109	20		09/18/07 09:36	460-00-4	
Dibromofluoromethane (S)	97	%	85-115	20		09/18/07 09:36	1868-53-7	
1,2-Dichloroethane-d4 (S)	97	%	79-120	20		09/18/07 09:36	17060-07-0	
Toluene-d8 (S)	99	%	70-120	20		09/18/07 09:36	2037-26-5	

Sample: MW-10 **Lab ID: 923497007** Collected: 09/11/07 12:15 Received: 09/12/07 17:10 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							
1,2-Dibromoethane (EDB)	**27.4**	ug/L	2.0	100	09/13/07 00:00	09/14/07 21:04	106-93-4	
1-Chloro-2-bromopropane (S)	107	%	60-140	1	09/13/07 00:00	09/13/07 23:37	301-79-56	

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

ANALYTICAL RESULTS

Project: GASTON FOOD MART 07-1297
Pace Project No.: 923497

Sample: MW-10 **Lab ID: 923497007** Collected: 09/11/07 12:15 Received: 09/12/07 17:10 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV	Analytical Method: EPA 8260							
Benzene	**9030**	ug/L	500	100		09/18/07 10:12	71-43-2	
1,2-Dichloroethane	ND	ug/L	500	100		09/18/07 10:12	107-06-2	
Ethylbenzene	**2650**	ug/L	500	100		09/18/07 10:12	100-41-4	
Methyl-tert-butyl ether	**12500**	ug/L	500	100		09/18/07 10:12	1634-04-4	
Naphthalene	ND	ug/L	500	100		09/18/07 10:12	91-20-3	
Toluene	**16900**	ug/L	500	100		09/18/07 10:12	108-88-3	
Xylene (Total)	**12600**	ug/L	1000	100		09/18/07 10:12	1330-20-7	
m&p-Xylene	**9090**	ug/L	1000	100		09/18/07 10:12	1330-20-7	
o-Xylene	**3480**	ug/L	500	100		09/18/07 10:12	95-47-6	
4-Bromofluorobenzene (S)	103	%	87-109	100		09/18/07 10:12	460-00-4	
Dibromofluoromethane (S)	100	%	85-115	100		09/18/07 10:12	1868-53-7	
1,2-Dichloroethane-d4 (S)	99	%	79-120	100		09/18/07 10:12	17060-07-0	
Toluene-d8 (S)	99	%	70-120	100		09/18/07 10:12	2037-26-5	

Sample: MW-11 **Lab ID: 923497008** Collected: 09/11/07 12:10 Received: 09/12/07 17:10 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							
1,2-Dibromoethane (EDB)	ND	ug/L	0.020	1	09/13/07 00:00	09/13/07 23:46	106-93-4	
1-Chloro-2-bromopropane (S)	77	%	60-140	1	09/13/07 00:00	09/13/07 23:46	301-79-56	
8260 MSV	Analytical Method: EPA 8260							
Benzene	ND	ug/L	5.0	1		09/18/07 14:29	71-43-2	
1,2-Dichloroethane	ND	ug/L	5.0	1		09/18/07 14:29	107-06-2	
Ethylbenzene	**8.5**	ug/L	5.0	1		09/18/07 14:29	100-41-4	
Methyl-tert-butyl ether	ND	ug/L	5.0	1		09/18/07 14:29	1634-04-4	
Naphthalene	**8.3**	ug/L	5.0	1		09/18/07 14:29	91-20-3	
Toluene	ND	ug/L	5.0	1		09/18/07 14:29	108-88-3	
Xylene (Total)	ND	ug/L	10.0	1		09/18/07 14:29	1330-20-7	
m&p-Xylene	ND	ug/L	10.0	1		09/18/07 14:29	1330-20-7	
o-Xylene	ND	ug/L	5.0	1		09/18/07 14:29	95-47-6	
4-Bromofluorobenzene (S)	101	%	87-109	1		09/18/07 14:29	460-00-4	
Dibromofluoromethane (S)	97	%	85-115	1		09/18/07 14:29	1868-53-7	
1,2-Dichloroethane-d4 (S)	98	%	79-120	1		09/18/07 14:29	17060-07-0	
Toluene-d8 (S)	93	%	70-120	1		09/18/07 14:29	2037-26-5	

Sample: MW-12 **Lab ID: 923497009** Collected: 09/11/07 12:45 Received: 09/12/07 17:10 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							
1,2-Dibromoethane (EDB)	ND	ug/L	0.020	1	09/13/07 00:00	09/14/07 00:14	106-93-4	
1-Chloro-2-bromopropane (S)	96	%	60-140	1	09/13/07 00:00	09/14/07 00:14	301-79-56	

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

ANALYTICAL RESULTS

Project: GASTON FOOD MART 07-1297
Pace Project No.: 923497

Sample: MW-12 **Lab ID: 923497009** Collected: 09/11/07 12:45 Received: 09/12/07 17:10 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV	Analytical Method: EPA 8260							
Benzene	ND	ug/L	5.0	1		09/18/07 14:45	71-43-2	
1,2-Dichloroethane	ND	ug/L	5.0	1		09/18/07 14:45	107-06-2	
Ethylbenzene	ND	ug/L	5.0	1		09/18/07 14:45	100-41-4	
Methyl-tert-butyl ether	ND	ug/L	5.0	1		09/18/07 14:45	1634-04-4	
Naphthalene	ND	ug/L	5.0	1		09/18/07 14:45	91-20-3	
Toluene	ND	ug/L	5.0	1		09/18/07 14:45	108-88-3	
Xylene (Total)	ND	ug/L	10.0	1		09/18/07 14:45	1330-20-7	
m&p-Xylene	ND	ug/L	10.0	1		09/18/07 14:45	1330-20-7	
o-Xylene	ND	ug/L	5.0	1		09/18/07 14:45	95-47-6	
4-Bromofluorobenzene (S)	100	%	87-109	1		09/18/07 14:45	460-00-4	
Dibromofluoromethane (S)	100	%	85-115	1		09/18/07 14:45	1868-53-7	
1,2-Dichloroethane-d4 (S)	101	%	79-120	1		09/18/07 14:45	17060-07-0	
Toluene-d8 (S)	98	%	70-120	1		09/18/07 14:45	2037-26-5	

Sample: MW-13 **Lab ID: 923497010** Collected: 09/11/07 11:50 Received: 09/12/07 17:10 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							
1,2-Dibromoethane (EDB)	ND	ug/L	0.020	1	09/13/07 00:00	09/14/07 00:23	106-93-4	
1-Chloro-2-bromopropane (S)	83	%	60-140	1	09/13/07 00:00	09/14/07 00:23	301-79-56	
8260 MSV	Analytical Method: EPA 8260							
Benzene	ND	ug/L	5.0	1		09/18/07 02:15	71-43-2	
1,2-Dichloroethane	ND	ug/L	5.0	1		09/18/07 02:15	107-06-2	
Ethylbenzene	ND	ug/L	5.0	1		09/18/07 02:15	100-41-4	
Methyl-tert-butyl ether	ND	ug/L	5.0	1		09/18/07 02:15	1634-04-4	
Naphthalene	ND	ug/L	5.0	1		09/18/07 02:15	91-20-3	
Toluene	ND	ug/L	5.0	1		09/18/07 02:15	108-88-3	
Xylene (Total)	ND	ug/L	10.0	1		09/18/07 02:15	1330-20-7	
m&p-Xylene	ND	ug/L	10.0	1		09/18/07 02:15	1330-20-7	
o-Xylene	ND	ug/L	5.0	1		09/18/07 02:15	95-47-6	
4-Bromofluorobenzene (S)	97	%	87-109	1		09/18/07 02:15	460-00-4	
Dibromofluoromethane (S)	98	%	85-115	1		09/18/07 02:15	1868-53-7	
1,2-Dichloroethane-d4 (S)	97	%	79-120	1		09/18/07 02:15	17060-07-0	
Toluene-d8 (S)	96	%	70-120	1		09/18/07 02:15	2037-26-5	

Sample: MW-15 **Lab ID: 923497011** Collected: 09/11/07 09:10 Received: 09/12/07 17:10 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							
1,2-Dibromoethane (EDB)	**0.37**	ug/L	0.020	1	09/13/07 00:00	09/14/07 00:33	106-93-4	
1-Chloro-2-bromopropane (S)	72	%	60-140	1	09/13/07 00:00	09/14/07 00:33	301-79-56	

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

ANALYTICAL RESULTS

Project: GASTON FOOD MART 07-1297
Pace Project No.: 923497

Sample: MW-15 **Lab ID: 923497011** Collected: 09/11/07 09:10 Received: 09/12/07 17:10 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV	Analytical Method: EPA 8260							
Benzene	**21.8**	ug/L	5.0	1		09/18/07 02:34	71-43-2	
1,2-Dichloroethane	ND	ug/L	5.0	1		09/18/07 02:34	107-06-2	
Ethylbenzene	**13.6**	ug/L	5.0	1		09/18/07 02:34	100-41-4	
Methyl-tert-butyl ether	ND	ug/L	5.0	1		09/18/07 02:34	1634-04-4	
Naphthalene	**5.1**	ug/L	5.0	1		09/18/07 02:34	91-20-3	
Toluene	ND	ug/L	5.0	1		09/18/07 02:34	108-88-3	
Xylene (Total)	**128**	ug/L	10.0	1		09/18/07 02:34	1330-20-7	
m&p-Xylene	**62.8**	ug/L	10.0	1		09/18/07 02:34	1330-20-7	
o-Xylene	**65.3**	ug/L	5.0	1		09/18/07 02:34	95-47-6	
4-Bromofluorobenzene (S)	102	%	87-109	1		09/18/07 02:34	460-00-4	
Dibromofluoromethane (S)	100	%	85-115	1		09/18/07 02:34	1868-53-7	
1,2-Dichloroethane-d4 (S)	102	%	79-120	1		09/18/07 02:34	17060-07-0	
Toluene-d8 (S)	97	%	70-120	1		09/18/07 02:34	2037-26-5	

Sample: MW-22 **Lab ID: 923497012** Collected: 09/11/07 09:50 Received: 09/12/07 17:10 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							
1,2-Dibromoethane (EDB)	ND	ug/L	0.020	1	09/13/07 00:00	09/14/07 00:42	106-93-4	
1-Chloro-2-bromopropane (S)	79	%	60-140	1	09/13/07 00:00	09/14/07 00:42	301-79-56	
8260 MSV	Analytical Method: EPA 8260							
Benzene	ND	ug/L	5.0	1		09/18/07 02:52	71-43-2	
1,2-Dichloroethane	ND	ug/L	5.0	1		09/18/07 02:52	107-06-2	
Ethylbenzene	ND	ug/L	5.0	1		09/18/07 02:52	100-41-4	
Methyl-tert-butyl ether	ND	ug/L	5.0	1		09/18/07 02:52	1634-04-4	
Naphthalene	ND	ug/L	5.0	1		09/18/07 02:52	91-20-3	
Toluene	ND	ug/L	5.0	1		09/18/07 02:52	108-88-3	
Xylene (Total)	ND	ug/L	10.0	1		09/18/07 02:52	1330-20-7	
m&p-Xylene	ND	ug/L	10.0	1		09/18/07 02:52	1330-20-7	
o-Xylene	ND	ug/L	5.0	1		09/18/07 02:52	95-47-6	
4-Bromofluorobenzene (S)	98	%	87-109	1		09/18/07 02:52	460-00-4	
Dibromofluoromethane (S)	100	%	85-115	1		09/18/07 02:52	1868-53-7	
1,2-Dichloroethane-d4 (S)	98	%	79-120	1		09/18/07 02:52	17060-07-0	
Toluene-d8 (S)	93	%	70-120	1		09/18/07 02:52	2037-26-5	

Sample: MW-23 **Lab ID: 923497013** Collected: 09/11/07 09:50 Received: 09/12/07 17:10 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							
1,2-Dibromoethane (EDB)	ND	ug/L	0.020	1	09/13/07 00:00	09/14/07 00:51	106-93-4	
1-Chloro-2-bromopropane (S)	97	%	60-140	1	09/13/07 00:00	09/14/07 00:51	301-79-56	

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

ANALYTICAL RESULTS

Project: GASTON FOOD MART 07-1297
Pace Project No.: 923497

Sample: MW-23 **Lab ID: 923497013** Collected: 09/11/07 09:50 Received: 09/12/07 17:10 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV	Analytical Method: EPA 8260							
Benzene	ND	ug/L	5.0	1		09/18/07 03:10	71-43-2	
1,2-Dichloroethane	ND	ug/L	5.0	1		09/18/07 03:10	107-06-2	
Ethylbenzene	ND	ug/L	5.0	1		09/18/07 03:10	100-41-4	
Methyl-tert-butyl ether	ND	ug/L	5.0	1		09/18/07 03:10	1634-04-4	
Naphthalene	ND	ug/L	5.0	1		09/18/07 03:10	91-20-3	
Toluene	ND	ug/L	5.0	1		09/18/07 03:10	108-88-3	
Xylene (Total)	ND	ug/L	10.0	1		09/18/07 03:10	1330-20-7	
m&p-Xylene	ND	ug/L	10.0	1		09/18/07 03:10	1330-20-7	
o-Xylene	ND	ug/L	5.0	1		09/18/07 03:10	95-47-6	
4-Bromofluorobenzene (S)	94	%	87-109	1		09/18/07 03:10	460-00-4	
Dibromofluoromethane (S)	102	%	85-115	1		09/18/07 03:10	1868-53-7	
1,2-Dichloroethane-d4 (S)	101	%	79-120	1		09/18/07 03:10	17060-07-0	
Toluene-d8 (S)	97	%	70-120	1		09/18/07 03:10	2037-26-5	

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: GASTON FOOD MART 07-1297
Pace Project No.: 923497

QC Batch: OEXT/1236 Analysis Method: EPA 8011
QC Batch Method: EPA 8011 Analysis Description: GCS 8011 EDB DBCP
Associated Lab Samples: 923497001, 923497003, 923497004, 923497005, 923497006, 923497007, 923497008, 923497009, 923497010, 923497011, 923497012, 923497013

METHOD BLANK: 15438

Associated Lab Samples: 923497001, 923497003, 923497004, 923497005, 923497006, 923497007, 923497008, 923497009, 923497010, 923497011, 923497012, 923497013

Parameter	Units	Blank Result	Reporting Limit	Qualifiers
1,2-Dibromoethane (EDB)	ug/L	ND	0.020	
1-Chloro-2-bromopropane (S)	%	82	60-140	

LABORATORY CONTROL SAMPLE & LCSD: 15439 15440

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	0.20	0.21	70	72	60-140	3	20	
1-Chloro-2-bromopropane (S)	%				73	75	60-140			

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 15441 15442

Parameter	Units	923497001 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	.29	.29	0.29	0.30	102	104	60-140	2	
1-Chloro-2-bromopropane (S)	%						85	88	60-140		

SAMPLE DUPLICATE: 15443

Parameter	Units	923497003 Result	Dup Result	RPD	Qualifiers
1,2-Dibromoethane (EDB)	ug/L	ND	ND	0	
1-Chloro-2-bromopropane (S)	%		78	3	

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: GASTON FOOD MART 07-1297
Pace Project No.: 923497

QC Batch: MSV/1299 Analysis Method: EPA 8260
QC Batch Method: EPA 8260 Analysis Description: 8260 MSV
Associated Lab Samples: 923497001, 923497003, 923497004

METHOD BLANK: 16603
Associated Lab Samples: 923497001, 923497003, 923497004

Parameter	Units	Blank Result	Reporting Limit	Qualifiers
1,2-Dichloroethane	ug/L	ND	5.0	
Benzene	ug/L	ND	5.0	
Ethylbenzene	ug/L	ND	5.0	
m&p-Xylene	ug/L	ND	10.0	
Methyl-tert-butyl ether	ug/L	ND	5.0	
Naphthalene	ug/L	ND	5.0	
o-Xylene	ug/L	ND	5.0	
Toluene	ug/L	ND	5.0	
Xylene (Total)	ug/L	ND	10.0	
1,2-Dichloroethane-d4 (S)	%	94	79-120	
4-Bromofluorobenzene (S)	%	99	87-109	
Dibromofluoromethane (S)	%	101	85-115	
Toluene-d8 (S)	%	101	70-120	

LABORATORY CONTROL SAMPLE: 16604

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,2-Dichloroethane	ug/L	50	55.5	111	72-126	
Benzene	ug/L	50	61.3	123	78-128	
Ethylbenzene	ug/L	50	59.3	119	80-127	
m&p-Xylene	ug/L	100	116	116	82-127	
Methyl-tert-butyl ether	ug/L	50	57.3	115	71-130	
Naphthalene	ug/L	50	54.1	108	52-136	
o-Xylene	ug/L	50	56.3	113	83-124	
Toluene	ug/L	50	59.9	120	76-126	
Xylene (Total)	ug/L	150	172	115	83-125	
1,2-Dichloroethane-d4 (S)	%			96	79-120	
4-Bromofluorobenzene (S)	%			99	87-109	
Dibromofluoromethane (S)	%			101	85-115	
Toluene-d8 (S)	%			100	70-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 16613 16614

Parameter	Units	923734002 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Qual
Benzene	ug/L	ND	50	50	56.2	58.1	112	116	74-136	3	
Toluene	ug/L	ND	50	50	57.0	63.8	114	128	73-131	11	
1,2-Dichloroethane-d4 (S)	%						96	100	79-120		
4-Bromofluorobenzene (S)	%						98	94	87-109		
Dibromofluoromethane (S)	%						97	97	85-115		

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: GASTON FOOD MART 07-1297
Pace Project No.: 923497

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 16613 16614

Parameter	Units	923734002 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Qual
Toluene-d8 (S)	%						96	98	70-120		

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: GASTON FOOD MART 07-1297
Pace Project No.: 923497

QC Batch: MSV/1310 Analysis Method: EPA 8260
QC Batch Method: EPA 8260 Analysis Description: 8260 MSV
Associated Lab Samples: 923497002, 923497005, 923497006, 923497007, 923497008, 923497009, 923497010, 923497011, 923497012, 923497013

METHOD BLANK: 16781
Associated Lab Samples: 923497002, 923497005, 923497006, 923497007, 923497008, 923497009, 923497010, 923497011, 923497012, 923497013

Parameter	Units	Blank Result	Reporting Limit	Qualifiers
1,2-Dichloroethane	ug/L	ND	5.0	
Benzene	ug/L	ND	5.0	
Ethylbenzene	ug/L	ND	5.0	
m&p-Xylene	ug/L	ND	10.0	
Methyl-tert-butyl ether	ug/L	ND	5.0	
Naphthalene	ug/L	ND	5.0	
o-Xylene	ug/L	ND	5.0	
Toluene	ug/L	ND	5.0	
Xylene (Total)	ug/L	ND	10.0	
1,2-Dichloroethane-d4 (S)	%	100	79-120	
4-Bromofluorobenzene (S)	%	101	87-109	
Dibromofluoromethane (S)	%	100	85-115	
Toluene-d8 (S)	%	99	70-120	

LABORATORY CONTROL SAMPLE: 16782

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,2-Dichloroethane	ug/L	50	51.5	103	72-126	
Benzene	ug/L	50	56.2	112	78-128	
Ethylbenzene	ug/L	50	56.8	114	80-127	
m&p-Xylene	ug/L	100	113	113	82-127	
Methyl-tert-butyl ether	ug/L	50	53.5	107	71-130	
Naphthalene	ug/L	50	58.2	116	52-136	
o-Xylene	ug/L	50	53.8	108	83-124	
Toluene	ug/L	50	53.7	107	76-126	
Xylene (Total)	ug/L	150	167	111	83-125	
1,2-Dichloroethane-d4 (S)	%			100	79-120	
4-Bromofluorobenzene (S)	%			99	87-109	
Dibromofluoromethane (S)	%			98	85-115	
Toluene-d8 (S)	%			96	70-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 16783 16784

Parameter	Units	923561022 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Qual
Benzene	ug/L	ND	50	50	54.5	53.0	109	106	74-136	3	
Toluene	ug/L	ND	50	50	53.4	52.8	107	106	73-131	1	
1,2-Dichloroethane-d4 (S)	%						96	99	79-120		

REPORT OF LABORATORY ANALYSIS

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: GASTON FOOD MART 07-1297
Pace Project No.: 923497

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 16783 16784

Parameter	Units	923561022 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Qual
4-Bromofluorobenzene (S)	%						96	98	87-109		
Dibromofluoromethane (S)	%						100	95	85-115		
Toluene-d8 (S)	%						97	97	70-120		

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

QUALIFIERS

Project: GASTON FOOD MART 07-1297
Pace Project No.: 923497

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.

Pace Analytical®

CHAIN-OF-CUSTODY / Analytical Request Document

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

Page: of 1002959

Section A
Required Client Information:

Company	MECP
Address	235-B Dooley Road
	Lexington, SC 29073
Email To:	wcm@mecpinet
Phone	(803)808-2043
Fax	(803)808-2048
Requested Due Date/TAT:	

Section B
Required Project Information:

Report To:	
Copy To:	B. Shore
Purchase Order No.:	
Project Name:	Gaston Food Mart
Project Number:	07-1297

Section C
Invoice Information:

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

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

ITEM #	SAMPLE ID	MATRIX CODE	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	Filtered (Y/N)	Requested Analysis: 8260B Naphthalene EDB - full list	Residual Chlorine (Y/N)	Pace Project Number / Lab I.D
1	MW-23	WT	G			9/11/07	9:50		6				X					X	X		013
2																					
3																					
4																					
5																					
6																					
7																					
8																					
9																					
10																					
11																					
12																					

Additional Comments:

RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME
Mec Poland	9-12-07	12:00	George Moody Pace	9-12-07	12:00
George Moody	9-12-07	17:10		9/12/07	1716

SAMPLE CONDITION

Temp in °C	Received on Ice	Custody Sealed Cooler	Samples Intact
	Y/N	Y/N	Y/N
7.8	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: [signature]

SIGNATURE of SAMPLER: [signature]

DATE Signed (MM / DD / YY): 9/11/07

SEE REVERSE SIDE FOR INSTRUCTIONS

ORIGINAL

ALLQ020rev.3.31Mar05

CHAIN-OF-CUSTODY / Analytical Request Document

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

Pace Analytical®

Page: of 1002958

Section A
Required Client Information:

Company	MECI
Address	235-B Dooley Road
	Lexington, SC 29073
Email To:	wcm@mecinet
Phone	(803)808-2043
Fax	(803)808-2018
Requested Due Date/TAT:	

Section B
Required Project Information:

Report To:	B. Shane
Copy To:	
Purchase Order No.:	
Project Name:	Gaston Food Mart
Project Number:	07-1297

Section C
Invoice Information:

Attention:	
Company Name:	
Address:	
Pace Quote Reference:	
Pace Project Manager:	K. Godwin
Pace Profile #:	836-1

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

ITEM #	SAMPLE ID	MATRIX CODE	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	Filtered (Y/N)	Requested Analysis: 8260-BTEX, MTBE, Naphth + EDB 8011	Residual Chlorine (Y/N)	Pace Project Number / Lab I.D
1	MW-1	WT	G			9/11/07	11:25		6				X					X	X	X	92349001
2	DW-2						9:00		2										2		002
3	SW-3						11:40		6									X	X		003
4	RMW-3						11:00		6										X		004
5	MW-8						10:20		5										2		005
6	MW-9						10:50		6										X		006
7	MW-10						12:15		6												007
8	MW-11						12:10		6												008
9	MW-12						12:45		6												009
10	MW-13						11:50		6												010
11	MW-15						9:10		6												011
12	MW-[redacted]22	WT	G			9/11/07	9:50		6				X					X	X		012

Additional Comments:

RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME
[signature]	9-12-07	12:00	George Moody - Pace	9-12-07	12:00
George Moody	9-12-07	17:10	[signature]	9/12/07	1710

SAMPLE CONDITION

	Y/N	Y/N	Y/N	
Temp in °C: 2.8	Y/N	Y/N	Y/N	
Received on Ice	Y/N	Y/N	Y/N	
Custody Sealed Cooler	Y/N	Y/N	Y/N	
Samples Intact	Y/N	Y/N	Y/N	

SAMPLER NAME AND SIGNATURE

PRINT Name of SAMPLER: Brandon Kelly

SIGNATURE of SAMPLER: [signature]

DATE Signed (MM / DD / YY): 9/11/07

SEE REVERSE SIDE FOR INSTRUCTIONS

ORIGINAL

WASTE MANAGEMENT

Richland County LF
1047 Highway Church Road
Elgin, SC, 29045
Ph: (803) 788-3054

Original
Ticket# 830854

Customer Name MIDLANDSENVIRON MIDLANDS ENVI
Ticket Date 09/11/2007
Payment Type Credit Account
Manual Ticket#
Hauling Ticket#
Route
State Waste Code
Manifest 0
Destination
PO
Profile VA2718 (SOIL FROM UST ASSESSMENT)
Generator 126-MIDLANDSENVIRONMENTAL MIDLANDS ENVIRONMENTAL

Carrier MIDLANDSENVIRON MIDLANDS ENVIRONMENT
Vehicle# 01
Container
Driver
Check#
Billing # 0000469
Gen EPA ID

Volume

	Time	Scale	ScaleMaster
In	09/11/2007 15:52:17	Scale1	devin
Out	09/11/2007 16:19:11	Scale2	devin

Gross 12000 lb
Tare 9340 lb
Net 2660 lb
Tons 1.33

Comments

	Product	LD%	Qty	UOM	Rate	Fee	Amount	Origin
1	SOIL-Cont. Soil -	100	1.33	Tons				40-RICHLAN
2	FUEL-Fuel Surcharg	100		%				40-RICHLAN
3	ENV-ENVIRONMENTAL	100		%				40-RICHLAN

Total Fees
Total Ticket

SIGNATURE

Gaston Food
Mart

403WM

WASTE MANAGEMENT

SPECIAL WASTE MANIFEST

WASTE ID # VA2408

EXPIRATION DATE: March 6, 2008

RICHLAND LANDFILL
1047 Hwy Church Rd.
Elgin, SC 29045
(803)788-3054
(803)736-0995-Fax

Prepared by Carol Weldon (205)-652-8186

GENERATOR OF WASTE: Asbestos & Demolition

CUSTOMER ACCOUNT: Asbestos & Demolition/ Account # 820-300

LOCATION OF WASTE : 141 CORT ROAD COLUMBIA, SC 29203

PHONE # 803-333-0599 CONTACT: DON BUCHANAN

FAX # 803-333-0962/Asbestos & Demolition

GENERATOR'S SIGNATURE [signature] DATE:

TRANSPORTER OF WASTE CZDS

DATE: 9/11/07 TRUCK NO. 2

DRIVER'S SIGNATURE [signature]

**** TO BE COMPLETED BY RICHLAND LANDFILL ****

DISPOSAL SITE: RICHLAND LANDFILL ELGIN, SC

DESCRIPTION OF WASTE Lead-based Paint contaminated Debris RES

TICKET NO.# 830851 TONNAGE 1.33

RECEIVED BY [signature]

Grabbers
Pwd
Nail

Midlands
Environmental
Consultants, Inc.

September 20, 2007

Re: Treatment of Purge Water
Gaston Food Mart
Gaston, South Carolina
SCDHEC Site ID Number 05986
MECI Project Number 07-1297

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 worst-case well analysis was obtained before usage of the Activated Carbon Unit. The worst-case well analysis shows only petroleum hydrocarbon constituents in the purge/bail water with minimal, background concentrations of lead. The purge/bail water was containerized on site before treatment for less than 30 days prior to treatment.

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

One 55-gallon drum was treated on September 11, 2007 at the referenced site.

A total of one 55-gallon drum was treated 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
Staff Scientist

Midlands Environmental Consultants, Inc.

September 20, 2007

RECEIVED

SEP 27 2007

UNDERGROUND STORAGE TANK PROGRAM

Mr. John D Abernathy, Hydrogeologist
Southwestern 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 Assessment Activities
Gaston Food Mart
105 North Main Street
Gaston, South Carolina
SCDHEC Site ID# 05986, CA # 29933
MECI Project Number 07-1297

* Sample Public well
* 1 MW Boring
* replace dry wells
* resample all

Dear Mr. Abernathy,

Midlands Environmental Consultants Inc. (MECI) is pleased to submit the attached Report of Assessment Activities for the referenced site. This report describes assessment activities conducted at the site in general accordance with South Carolina Department of Health and Environmental Control (SCDHEC) guidelines.

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.

~~UST PROGRAM~~ ~~DOCKETING # 10~~

Sincerely,
Midlands Environmental Consultants, Inc.

Jeff L. Coleman
Staff Scientist

William C. McClary, P.G.
Senior Geologist

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

TABLE OF CONTENTS

1.0 PROJECT INFORMATION

The subject site (Gaston Food Mart) is located at 105 North Main Street in Gaston, Lexington County, South Carolina (see Figure 1). One building is present on the subject site. The site is currently utilized as a gas service station. Asphalt predominately covers the majority of the property with several concrete pads located in the eastern portion of the property. A release of petroleum product was reported in November of 1991. Assessment of the site has previously been conducted by Marshall Miller and Associated and Duncan Environmental. These assessments were conducted to determine the extent of contamination emanating from the subject site.

Previously, two 5,000 gallon gasoline UST's, one 4,000 gallon gasoline UST, two 3,000 gallon gasoline UST's, and one 550 gallon gasoline UST were maintained at the subject site. These UST's were removed from the ground in November of 1991. The subject site currently maintains two 8,000 gallon gasoline UST's and one 10,000 gallon gasoline UST.

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

2.0 FIELD EXPLORATION

Field exploration conducted at the site included:

- field screening of groundwater samples collected from the site utilizing direct push techniques and laboratory analysis; and
- construction and sampling of permanent monitoring wells; and
- abandonment of one permanent monitoring well.

The monitoring well locations were selected based on the results of our field screening of groundwater samples, existing site conditions, estimated groundwater flow direction, and drilling accessibility. The screening points are illustrated on Figure 4.

Following well installation, a subsequent survey was conducted by MECI personnel to locate the newly installed monitoring wells.

2.1 GROUNDWATER/DIRECT PUSH FIELD SCREENING

On August 28, 2007, seven direct push borings, (GPW-1 through GPW-7) were advanced at the site to collect groundwater samples. Each direct push sample was collected through disposable Teflon tubing and placed in a laboratory-supplied container for laboratory analysis. The borings were advanced by Geologic Exploration, Inc. of Statesville, North Carolina (S.C. Driller Certification: James Hess # 1929). The sampling depth for each of the locations was based on the water table depth, the yield of the water bearing zone as evidenced by flow of water into the direct push apparatus, and the ability to reach the desired depth below ground surface (BGS). These samples were taken to determine the horizontal extent of the contaminant plume. The total footage for the direct push groundwater borings was 271 feet. The sample locations are presented on Figure 4 and analytical results are presented in Table 3. To prevent cross-contamination between borings the reusable down-hole portion of the direct push sampling device was cleaned between borings and new Teflon tubing was utilized at each location. Following the collection of the groundwater sample, the hole left open by the direct push apparatus was filled with a bentonite/portland grout slurry.

The groundwater samples obtained by MECI personnel were sent to Pace Analytical Services, Inc. of Huntersville, NC (SCDHEC Laboratory Certification #99006) for laboratory analysis. These samples were tested for the presence of BTEX, Naphthalene and Methyl-tert-butyl ether by EPA Method 8260B.

2.2 MONITORING WELL INSTALLATION

On September 10, 2007 two single cased monitoring wells (MW-22 and MW-23) were installed at the subject site. These wells were installed by Geologic Exploration, of Statesville, North Carolina (S.C. Driller Certification: Mark Gettys #A 1086). These water table bracketing, single cased, monitoring wells were installed using a truck-mounted drilling rig, employing an 8-inch outer diameter hollow-stem augers to construct the borehole. Monitoring well MW-22 was installed to a depth of 44 feet below ground surface and screened from 34.0 feet BGS to 44.0 feet BGS. Monitoring well MW-23 was installed to a depth of 43 feet below ground surface and screened from 33.0 feet BGS to 43.0 feet BGS.

Drill cuttings were containerized and transported to Waste Management/Richland Landfill, Elgin, SC by MECI. A total of 1.33 tons was disposed of in this manner. A disposal manifest for these soils is attached at the end of this report.

Following completion of the monitoring wells, the wells were developed by bailing until they were determined to be functioning properly and turbidity was reduced. Test Boring Records showing soil descriptions and well installation details are included in Appendix A. The drummed purge water was treated using a portable activated carbon unit. A total of one (1) drum of purge/development water was disposed of in this manner. A disposal manifest for the drummed purge water is attached at the end of this report.

2.3 MONITORING WELL ABANDONMENT

On September 10, 2007, monitoring well MW-2 was abandoned at the request of SCDHEC. This monitoring well was abandoned using a bentonite and portland slurry using the tremie method. This well was abandoned by Geologic Exploration, of Statesville, North Carolina (S.C. Driller Certification: Mark Gettys #A 1086). A total of 80 feet was abandoned. Please find the attached the SCDHEC Water Well Records in Appendix B.

2.4 MONITORING WELL SAMPLING AND CHEMICAL ANALYSES

On September 11, 2007, monitoring wells MW-1, RMW-3, MW-8 through MW-13, MW-15, MW-22, MW-23, and DW-2 were sampled. Monitoring wells MW-1, RMW-3, MW-8 through MW-13, MW-15, and DW-2 bracketed the watertable and were not purged prior to sampling. Monitoring well MW-6 was gauged and contained 0.03 feet of free phase petroleum product and was not sampled. Newly installed monitoring wells MW-22 and MW-23 were purged and sampled. These wells were purged by bailing at least three well volumes of water from each well or until all available water had been evacuated, whichever occurred first. Field measurements of pH, conductivity, temperature and dissolved oxygen were obtained before, during and after the well purging process. Table 1 presents the results of the field measurements obtained. The groundwater samples obtained were sent to Pace Analytical Services, Inc. of Huntersville, NC (SCDHEC Laboratory Certification #99006) for analysis.

Monitoring wells RMW-5, MW-16, MW-20, MW-21, and DW-1 were determined to be dry at time of sampling. Monitoring well MW-19 was not located during the September 11, 2007 sampling event.

Groundwater samples from monitoring wells MW-1, RMW-3, MW-8 through MW-13, MW-15, MW-22, and MW-23 were analyzed for volatile organic compounds including BTEX, naphthalene,

and methyl-tertiary butyl ether, and 1,2 DCA (EPA Method 8260B) and ethylene dibromide (EPA Method 8011). Monitoring well DW-2 was only collected for BTEX, naphthalene, and methyl-tertiary butyl ether (EPA Method 8260B) due to insufficient water. The results of the laboratory analyses are discussed in Section 3.1, summarized in Table 2 and presented in Appendix C.

2.5 WATER SUPPLY WELL SAMPLING AND CHEMICAL ANALYSES

On September 11, 2007, MECI sampled a water supply well located approximately 58 feet southwest from MW-1. This water supply well (SW-3) is located on the property owned by the Gaston Rural Community Water District (Lexington County Tax Map # 010117-05-002). The sample obtained was sent to Pace Analytical Services, Inc. of Huntersville, NC (SCDHEC Laboratory Certification #99006) for analysis. The sample collected from SW-3 was analyzed for volatile organic compounds including BTEX, naphthalene, and methyl-tertiary butyl ether, and 1,2 DCA (EPA Method 8260B).

Water supply wells SW-1 and SW-2 were not located at time of sampling.

3.0 TEST RESULTS AND EVALUATION

The following sections discuss groundwater test results for the subject site.

3.1 GROUNDWATER ANALYTICAL RESULTS

As discussed in Section 2.3, groundwater samples obtained from the monitoring wells were analyzed for dissolved phase petroleum constituents. The analytical results indicate petroleum impact to the local groundwater with the highest concentrations detected in the area of the former UST basin. Free phase petroleum product was detected in MW-6 at a thickness of 0.03 feet. The analytical results indicate total BTEX concentrations in the shallow aquifer ranging from levels below detection limits (BDL) to the highest dissolved concentration of 43,330 ug/l in monitoring well RMW-3. The analytical results indicate MTBE concentrations in the shallow aquifer ranging from levels below detection limits (BDL) to the highest dissolved concentration of 12,500 ug/l in monitoring well MW-10. Results of the analyses for each monitoring well and specific parameters are listed on Table 2 and the detection limit for each parameter is provided in the laboratory reports (Appendix C).

3.2 WATER SUPPLY WELL ANALYTICAL RESULTS

As discussed in Section 2.4, one water supply well (SW-3) was obtained and analyzed by Pace Analytical, Inc. for petroleum constituents. Analytical results do not indicate petroleum impact to

the nearby water supply well. This sample (SW-3) was collected approximately 58 feet southwest of MW-1. The results of the analyses are presented on Table 2 and sample location is presented on Figure 2. The detection limit for each parameter is provided in the laboratory reports (Appendix C).

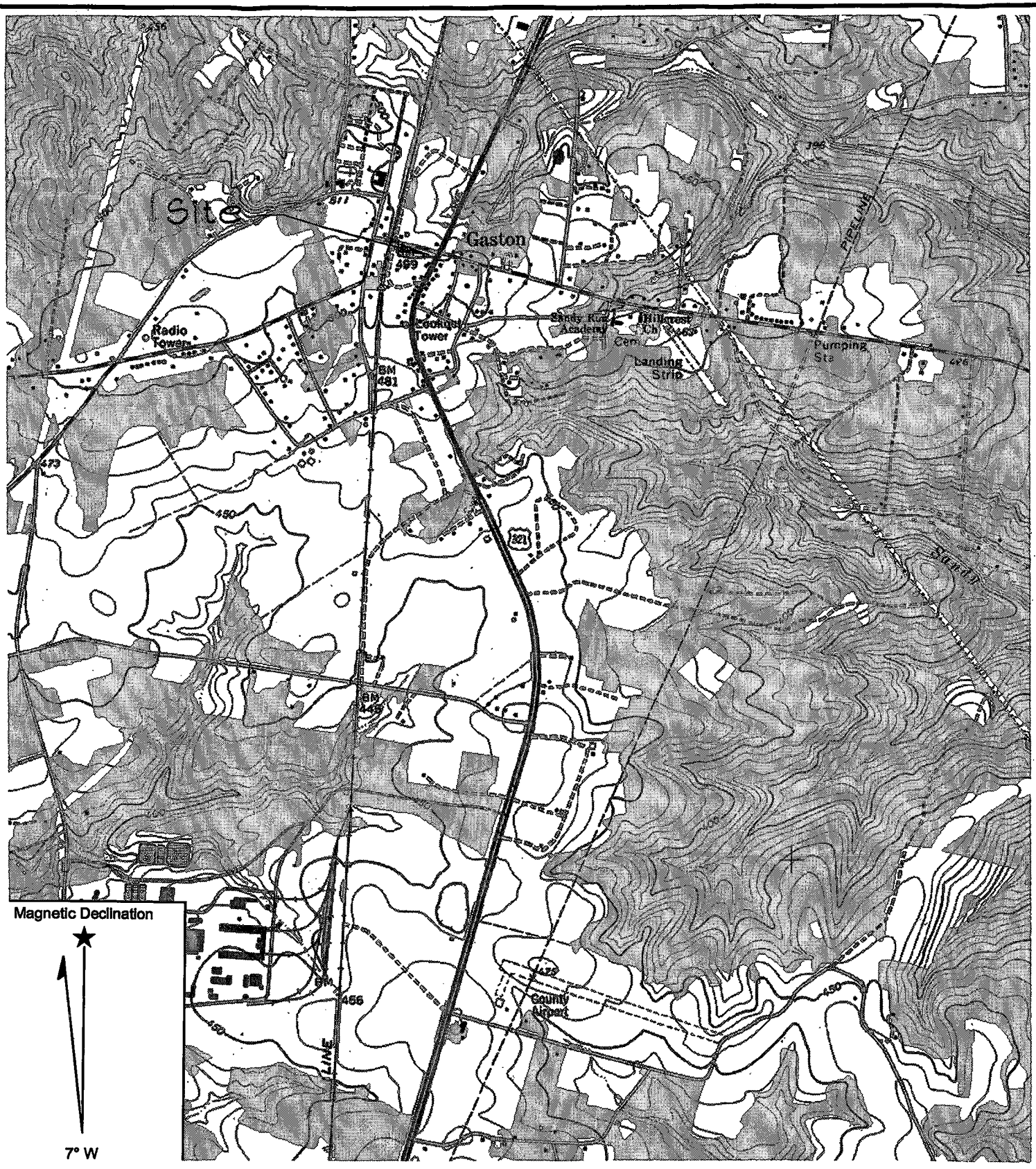
4.0 ASSESSMENT SUMMARY

Groundwater elevation data for the September 11, 2007 gauging event was plotted, and points of equal elevation were interpolated between the monitoring wells. A groundwater contour map of the surficial aquifer was thus prepared and is presented on Figure 3. Free phase petroleum product was detected in MW-6 at a thickness of 0.03 feet. The analytical results indicate total BTEX concentrations in the shallow aquifer ranging from levels below detection limits (BDL) to the highest dissolved concentration of 43,330 ug/l in monitoring well RMW-3. The analytical results indicate MTBE concentrations in the shallow aquifer ranging from levels below detection limits (BDL) to the highest dissolved concentration of 12,500 ug/l in monitoring well MW-10. Figure 5 depicts graphically the concentrations of Total BTEX (indicator for plume migration) dissolved in the groundwater at the site. Figure 6 depicts graphically the concentrations of MTBE dissolved in the groundwater at the site.

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. The general subsurface conditions utilized in our evaluation have been based on interpretation of subsurface data between borings. Contents of this report are intended for the sole use by the South Carolina Department of Health and Environmental Control, 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-



GRAPHIC SCALE

0 1000 2000 4000

1IN = 2000FT

Reference: Gaston, South Carolina
USGS 7.5 Min. Quad
Contour Interval = 10 Feet

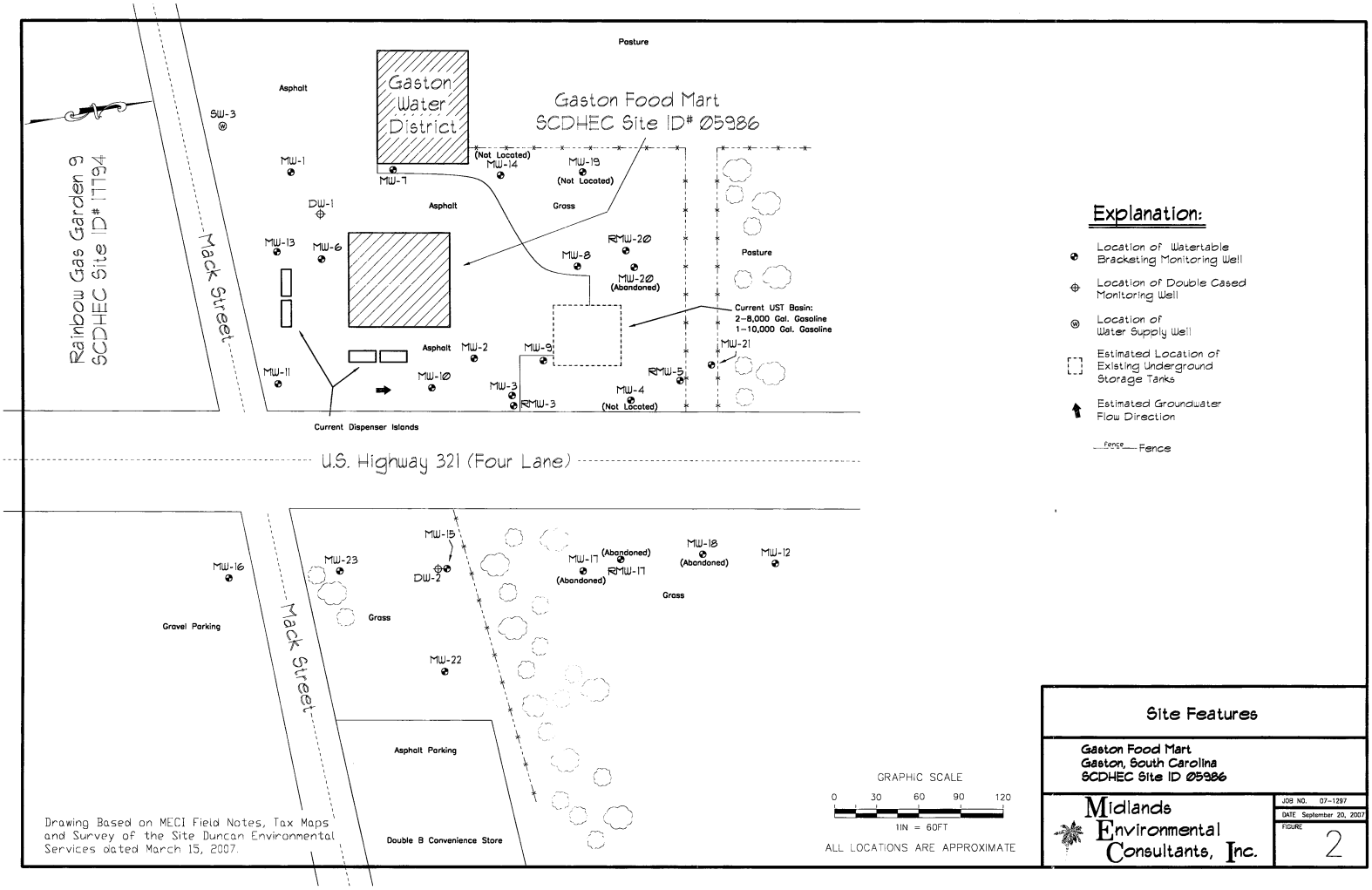
Midlands Environmental Consultants, Inc.	Site Location
Gaston Food Mart Gaston, South Carolina SCDHEC Site ID# 05986	
Figure 1	MECI 07-1297

TABLE 1
FIELD PARAMETERS
GASTON FOOD MART
GASTON, SOUTH CAROLINA
MECI PROJECT NUMBER 07-1297
SCDHEC SITE ID NUMBER 05986

Well Number	Sample Date	CO2 (mg/l)	Dissolved Oxygen (mg/l)	Temperature (^{0} Celsius)	pH (Initial)	pH (Final)	Conductivity (Initial)	Conductivity (Final)	Ferrous Iron (mg/l)	Screened Interval (feet)	Depth to Product (feet)	Depth to Water (feet)	Product Thickness (feet)	Well-head Elevation	Groundwater Elevation
MW-1	9/11/2007	115	0.91	24.4	4.61	NT	57.7	NT	NT	25-40	-	35.59	-	102.14	66.55
RMW-3	9/11/2007	185	0.57	23.6	5.62	NT	90.1	NT	NT		-	34.62	-	98.04	63.42
RMW-5	9/11/2007	DRY	DRY	DRY	DRY	DRY	DRY	DRY	DRY		-	DRY	-	90.98	DRY
MW-6	9/11/2007	FP	FP	FP	FP	FP	FP	FP	FP	22-42	35.66	35.69	0.03	101.80	66.14
MW-8	9/11/2007	NT	NT	NT	NT	NT	NT	NT	NT	20-40	-	39.34	-	96.40	57.06
MW-9	9/11/2007	150	0.38	22.8	5.11	NT	58.5	NT	NT	24-44	-	35.47	-	95.22	59.75
MW-10	9/11/2007	195	0.51	23.5	5.72	NT	104.9	NT	NT	24-44	-	35.25	-	100.02	64.77
MW-11	9/11/2007	75	0.64	23.7	5.51	NT	35.8	NT	NT	22-42	-	27.47	-	102.00	74.53
MW-12	9/11/2007	25	0.88	20.7	5.67	NT	38.8	NT	NT	30-50	-	35.16	-		
MW-13	9/11/2007	70	1.28	24.1	4.45	NT	48.6	NT	NT		-	24.72	-	102.38	77.66
MW-15	9/11/2007	100	0.39	21.1	5.12	NT	43.7	NT	NT		-	38.40	-	100.68	62.28
MW-16	9/11/2007	80	0.24	21.3	5.72	NT	49.2	NT	NT		-	35.12	-	103.82	68.70
MW-19	9/11/2007	NL	NL	NL	NL	NL	NL	NL	NL		-	NL	-	96.48	NL
RMW-20	9/11/2007	DRY	DRY	DRY	DRY	DRY	DRY	DRY	DRY		-	DRY	-	96.12	DRY
MW-21	9/11/2007	DRY	DRY	DRY	DRY	DRY	DRY	DRY	DRY		-	DRY	-	86.56	DRY
MW-22	9/11/2007	45	0.39	20.7	4.67	NT	36.7	NT	NT	34-44	-	41.65	-	99.19	57.54
MW-23	9/11/2007	55	0.60	20.8	4.91	4.39	71.4	68.0	NT	33-43	-	36.62	-	101.60	64.98
DW-1	9/11/2007	DRY	DRY	DRY	DRY	DRY	DRY	DRY	DRY		-	DRY	-	102.12	DRY
DW-2	9/11/2007	NT	NT	NT	NT	NT	NT	NT	NT	75-80	-	55.12	-	100.70	45.58

Notes:

1. mg/l = milligrams per liter.
2. NT = Not Tested
3. NL = Well not located during sampling.
4. FP = Free Phase Product encountered during sampling
5. Groundwater depths were measured from the top of the PVC riser pipe.
6. Groundwater levels measured 9/11/07.
7. Dissolved oxygen, dissolved carbon dioxide, initial pH, initial conductivity, and temperature measurements obtained 9/11/2007.
8. Groundwater Elevation for MW-6 corrected for the presence of Free Phase Product based on a specific Gravity of Fuel of 0.85.
9. MW-8 & DW-2 had insufficient water for field measurements, only samples were taken.
10. DRY = Well was dry at the time of sampling.
11. MW-16 had insufficient water for samples, well did not recharge after 5 hours.



Explanation:

- Location of Watertable Bracketing Monitoring Well
- Location of Double Cased Monitoring Well
- Location of Water Supply Well
- Estimated Location of Existing Underground Storage Tanks
- Estimated Groundwater Flow Direction
- Fence — Fence

Drawing Based on MECI Field Notes, Tax Maps and Survey of the Site Duncan Environmental Services dated March 15, 2007.

GRAPHIC SCALE

0 30 60 90 120

1IN = 60FT

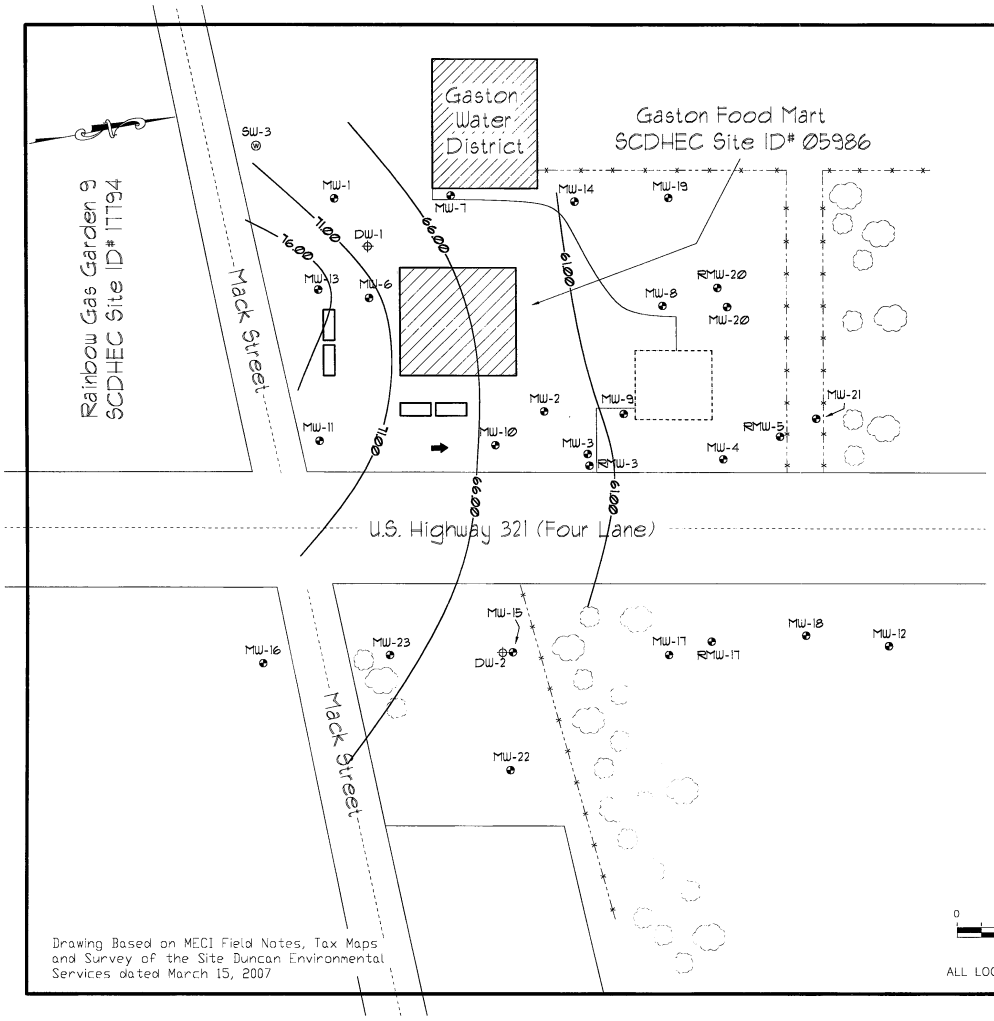
ALL LOCATIONS ARE APPROXIMATE

Site Features

Gaston Food Mart
Gaston, South Carolina
SCDHEC Site ID 05986

Midlands Environmental Consultants, Inc.

JOB NO. 07-1297
DATE September 20, 2007
FIGURE 2



Explanation:

- Location of Watertable Bracketing Monitoring Well
- Estimated Groundwater Flow Direction
- Location of Double Cased Monitoring Well
- Estimated Location of Removed Underground Storage Tanks
- Location of Water Supply Well
- Ground-Water Elevation Isopleth (feet)

Groundwater Elevation Data

Well #	Depth to Product (ft)	Depth to Water (feet)	Product Thickness (feet)	Well Head Elevation	Groundwater Elevation
MW-1	--	35.59	--	102.14	66.55
RMW-3	--	34.62	--	98.04	63.42
RMW-5	--	DRY	--	90.98	DRY
MW-6	35.66	35.69	0.03	101.80	66.14
MW-8	--	39.34	--	96.40	57.06
MW-9	--	35.47	--	95.22	59.75
MW-10	--	35.25	--	100.02	64.77
MW-11	--	27.47	--	102.00	74.53
MW-12	--	35.16	--	???	???
MW-13	--	24.72	--	102.38	77.66
MW-15	--	38.40	--	100.68	62.28
MW-16	--	35.12	--	103.82	68.70
RMW-20	--	DRY	--	96.12	DRY
MW-21	--	DRY	--	86.56	DRY
MW-22	--	41.65	--	99.19	57.54
MW-23	--	36.62	--	101.60	64.98
DW-1	--	DRY	--	102.12	DRY
DW-2	--	55.12	--	100.70	45.58

Notes:
Depth to groundwater measured on September 11, 2007.
Contour Interval = 5.00 Feet
Site Datum Based on Assumed Spot Elevation.
Monitoring wells MW-4, MW-7, MW-14, and MW-19 was not located.
Groundwater elevation for MW-6 corrected for the presence of Free Phase Petroleum Product using a specific gravity of fuel of 0.85.
Ground Water Contours Computer Generated using Surfer by Golden Graphics and Modified by MECI Personnel.

Drawing Based on MECI Field Notes, Tax Maps and Survey of the Site Duncan Environmental Services dated March 15, 2007

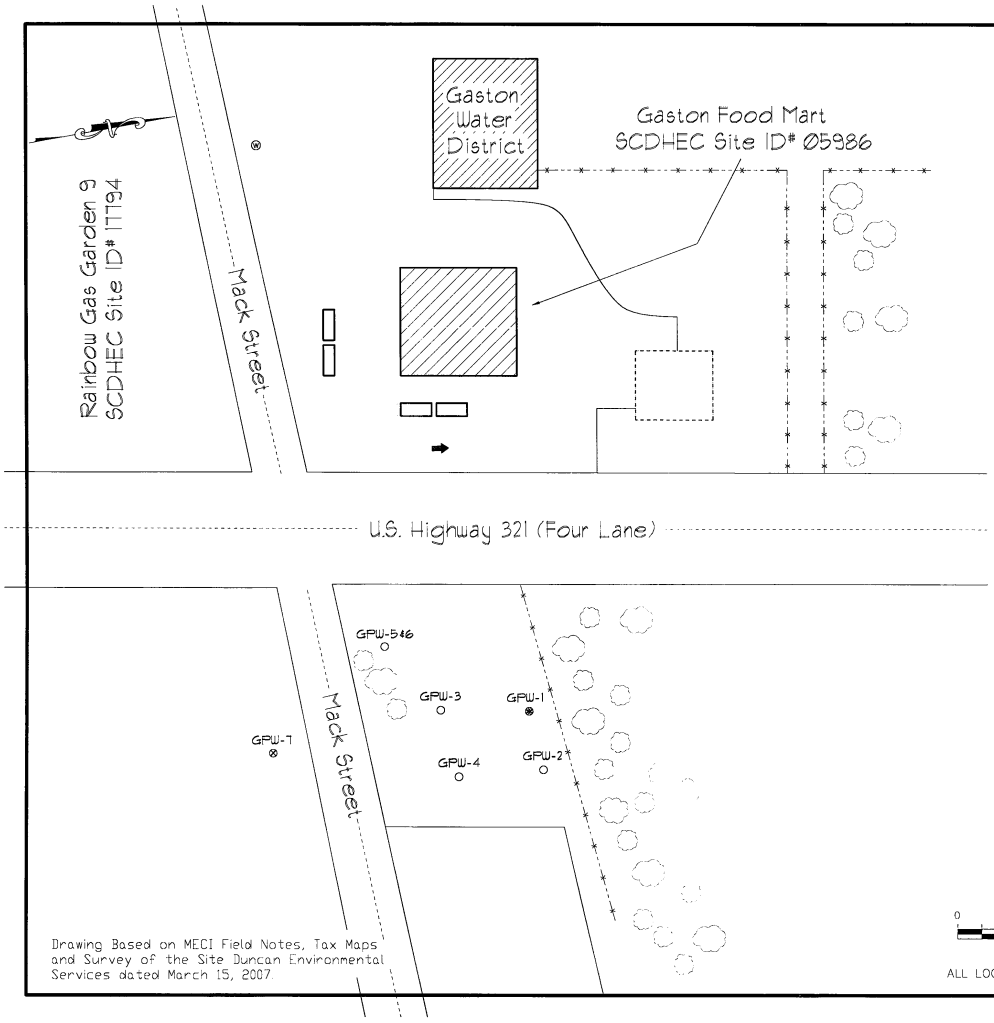
GRAPHIC SCALE
0 30 60 90 120
1IN = 60FT
ALL LOCATIONS ARE APPROXIMATE

Groundwater Contour Map

Gaston Food Mart
Gaston, South Carolina
SCDHEC Site ID 05986

Midlands Environmental Consultants, Inc.

JOB NO. 07-1297
DATE September 20, 2007
FIGURE 3



Explanation:

- ⊗ Direct Push Field Screening Location Dry Hole
- ⊗ Direct Push Field Screening Location BTEX Detected
- ○ Direct Push Field Screening Location Not Detected

Field Screening Results

Sample #	Sample Depth (ft)	Benzene (ug/l)	Toluene (ug/l)	Ethylbenzene (ug/l)	Total Xylenes (ug/l)	Total BTEX (ug/l)	MTBE (ug/l)
GPW-1	34-38	417	BDL	BDL	117	534	BDL
GPW-2	34-38	BDL	BDL	BDL	BDL	BDL	BDL
GPW-3	34-38	BDL	BDL	BDL	BDL	BDL	BDL
GPW-4	34-38	BDL	BDL	BDL	BDL	BDL	BDL
GPW-5	34-38	DRY	DRY	DRY	DRY	DRY	DRY
GPW-6	39-43	BDL	BDL	BDL	BDL	BDL	BDL
GPW-7	34-38	DRY	DRY	DRY	DRY	DRY	DRY

Notes: Samples collected on August 28, 2007
BDL = Below Detection Limits
DRY = Dry Hole

Drawing Based on MECI Field Notes, Tax Maps and Survey of the Site Duncan Environmental Services dated March 15, 2007.

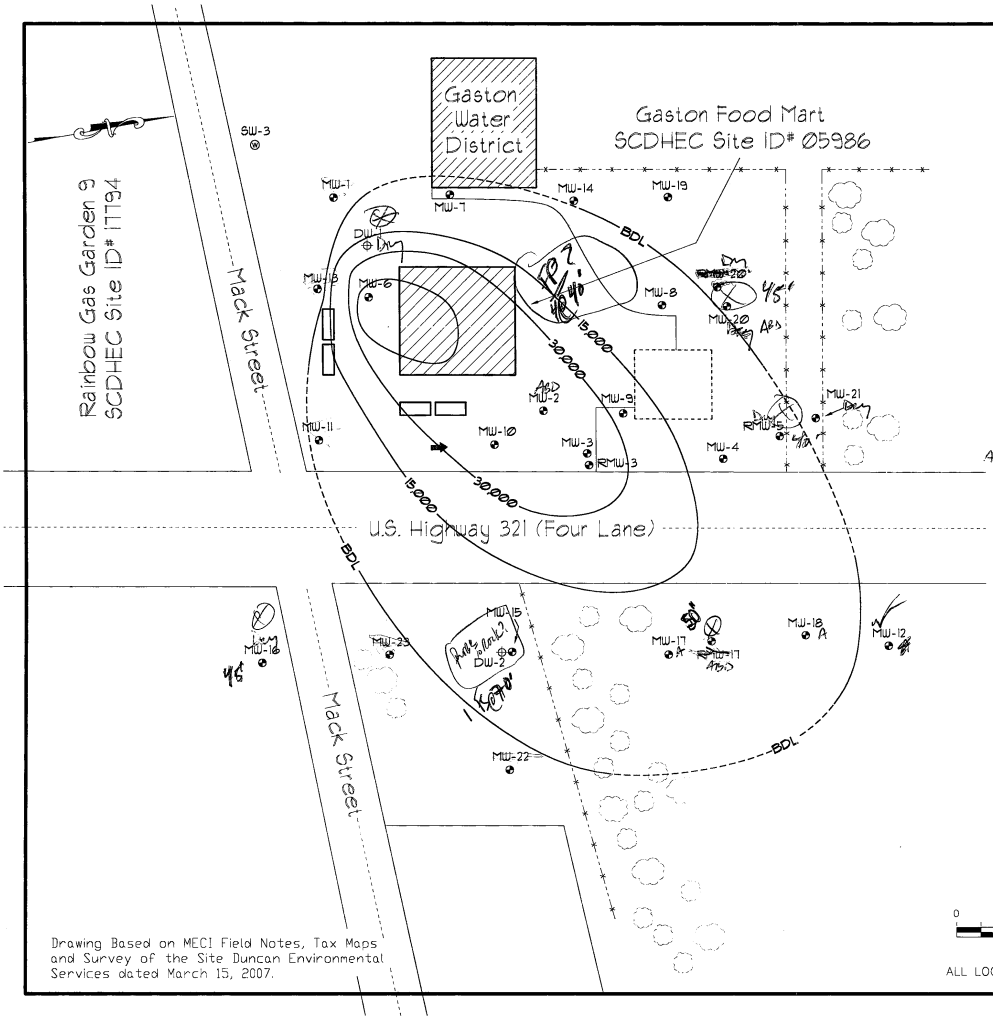
GRAPHIC SCALE
0 30 60 90 120
1IN = 60FT
ALL LOCATIONS ARE APPROXIMATE

Field Screening Test Results

Gaston Food Mart
Gaston, South Carolina
SCDHEC Site ID Ø5986

Midlands Environmental Consultants, Inc.

JOB NO. 07-1297
DATE September 20, 2007
FIGURE 4



Explanation:

- Location of Water Table Bracketing Monitoring Well
- Location of Double Cased Monitoring Well
- Location of Water Supply Well
- Estimated Groundwater Flow Direction
- Estimated Location of Removed Underground Storage Tanks
- Total BTEX Concentration Isopleth (ug/l)

COC Concentration Data

Sample #	Benzene (ug/l)	Toluene (ug/l)	Ethylbenzene (ug/l)	Total Xylenes (ug/l)	Total BTEX (ug/l)	MTBE (ug/l)	Napthalene (ug/l)	EDB (ug/l)
~~MW-1~~	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
RMW-3	7,940	18,600	2,720	14,070	43,330	550	1,790	13.9
RMW-5	DRY	DRY	DRY	DRY	DRY	DRY	DRY	DRY
MW-6	PROD	PROD	PROD	PROD	PROD	PROD	PROD	PROD
MW-8	145	356	24.5	1,087	1,612.5	12.0	36.9	NT
MW-9	2,470	10,200	2,030	15,140	29,840	124	612	2.3
MW-10	9,030	16,900	2,650	12,570	41,150	12,500	BDL	27.4
MW-11	BDL	BDL	8.5	BDL	8.5	BDL	8.3	BDL
MW-12	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
MW-13	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
MW-15	21.8	BDL	13.6	128.1	163.5	BDL	5.1	0.37
MW-16	DRY	DRY	DRY	DRY	DRY	DRY	DRY	DRY
MW-19	NL	NL	NL	NL	NL	NL	NL	NL
RMW-20	DRY	DRY	DRY	DRY	DRY	DRY	DRY	DRY
MW-21	DRY	DRY	DRY	DRY	DRY	DRY	DRY	DRY
MW-22	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
MW-23	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
DW-1	DRY	DRY	DRY	DRY	DRY	DRY	DRY	DRY
DW-2	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
SW-3	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL

Notes: Groundwater samples collected on September 11, 2007.

Contour Interval = 15,000 ug/l

PROD = Free Phase Product encountered at time of sampling

BDL = Below Detection Limits

Contours Computer Generated using Surfer by Golden Graphics and Modified by MECI Personnel.

GRAPHIC SCALE

0 30 60 90 120

1IN = 60FT

ALL LOCATIONS ARE APPROXIMATE

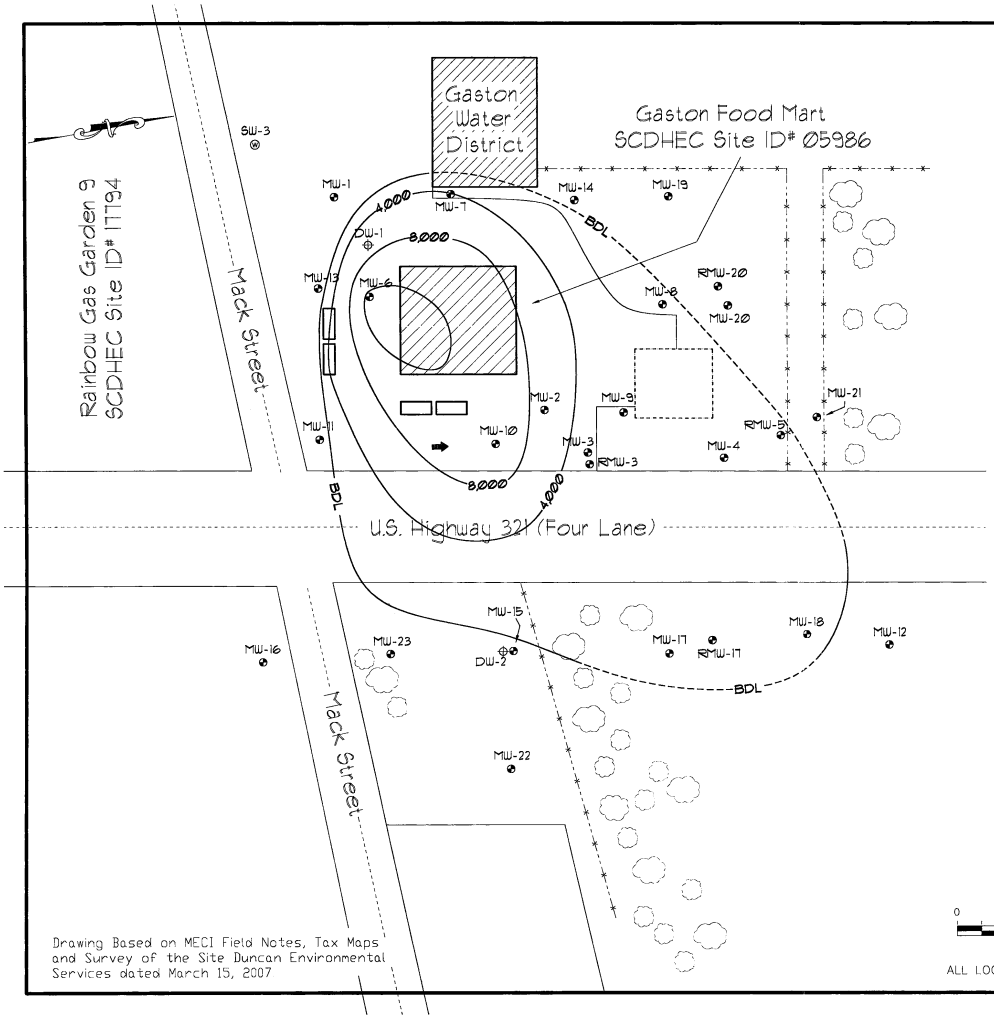
Drawing Based on MECI Field Notes, Tax Maps and Survey of the Site Duncan Environmental Services dated March 15, 2007.

Total BTEX Isopleth Map

Gaston Food Mart
Gaston, South Carolina
SCDHEC Site ID 05986

Midlands Environmental Consultants, Inc.

JOB NO. 07-1297
DATE September 20, 2007
FIGURE 5



Explanation:

- Location of Water Table Bracketing Monitoring Well
- Location of Double Cased Monitoring Well
- Location of Water Supply Well
- Estimated Groundwater Flow Direction
- Estimated Location of Removed Underground Storage Tanks
- MTBE Concentration Isopleth (ug/l)

COC Concentration Data

Sample #	Benzene (ug/l)	Toluene (ug/l)	Ethylbenzene (ug/l)	Total Xylenes (ug/l)	Total BTEX (ug/l)	MTBE (ug/l)	Napthalene (ug/l)	EDB (ug/l)
MW-1	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
RMW-3	7,940	18,600	2,720	14,070	43,330	550	1,790	13.9
RMW-5	DRY	DRY	DRY	DRY	DRY	DRY	DRY	DRY
MW-6	PROD	PROD	PROD	PROD	PROD	PROD	PROD	PROD
MW-8	145	356	24.5	1,087	1,612.5	12.0	36.9	NT
MW-9	2,470	10,200	2,030	15,140	29,840	124	612	2.3
MW-10	9,030	16,900	2,630	12,570	41,150	12,500	BDL	27.4
MW-11	BDL	BDL	8.3	BDL	8.5	BDL	8.3	BDL
MW-12	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
MW-13	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
MW-15	21.8	BDL	13.6	128.1	163.5	BDL	5.1	0.37
MW-16	DRY	DRY	DRY	DRY	DRY	DRY	DRY	DRY
MW-19	NL	NL	NL	NL	NL	NL	NL	NL
RMW-20	DRY	DRY	DRY	DRY	DRY	DRY	DRY	DRY
MW-21	DRY	DRY	DRY	DRY	DRY	DRY	DRY	DRY
MW-22	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
MW-23	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
DW-1	DRY	DRY	DRY	DRY	DRY	DRY	DRY	DRY
DW-2	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
SW-3	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL

Notes:
Groundwater samples collected on September 11, 2007.
Contour interval = 15,000 ug/l
PROD = Free Phase Product encountered at time of sampling
BDL = Below Detection Limits
Contours Computer Generated using Surfer by Golden Graphics and Modified by MECI Personnel.

GRAPHIC SCALE
0 30 60 90 120
1IN = 60FT

ALL LOCATIONS ARE APPROXIMATE

Drawing Based on MECI Field Notes, Tax Maps and Survey of the Site Duncan Environmental Services dated March 15, 2007

MTBE Isopleth Map

Gaston Food Mart
Gaston, South Carolina
SCDHEC Site ID Ø5986

Midlands Environmental Consultants, Inc.

JOB NO. 07-1297
DATE September 20, 2007
FIGURE 6

TABLE 2
GROUNDWATER ANALYTICAL RESULTS
GASTON FOOD MART
GASTON, SOUTH CAROLINA
MECI PROJECT NUMBER 07-1297
SCDHEC ID # 05986

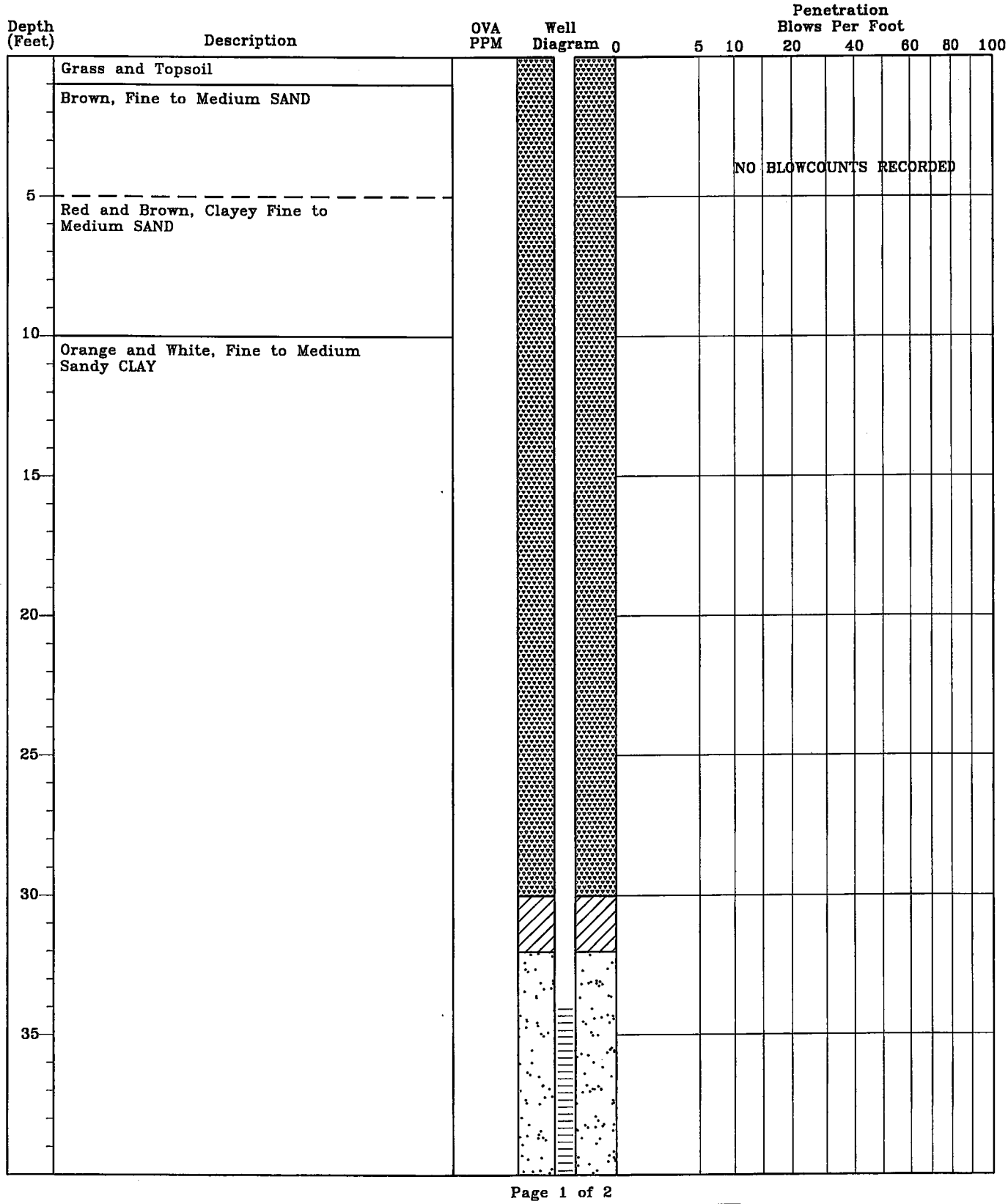
Well Number	Sample Date	Benzene (µg/l)	Toluene (µg/l)	Ethylbenzene (µg/l)	Total Xylenes (µg/l)	Total BTEX (µg/l)	MTBE (µg/l)	EDB (µg/l)	1,2 DCA (µg/l)	Naphthalene (µg/l)
MW-1	9/11/2007	<5.0	<5.0	<5.0	<10.0		<5.0	<0.020	<5.0	<5.0
RMW-3	9/11/2007	**7,940**	**18,600**	**2,720**	**14,070**	**43,330**	**550**	**13.9**	<500	**1,790**
RMW-5	9/11/2007	DRY	DRY	DRY	DRY	DRY	DRY	DRY	DRY	DRY
MW-6	9/11/2007	FP	FP	FP	FP	FP	FP	FP	FP	FP
MW-8	9/11/2007	**145**	**356**	**24.5**	**1,087**	**1,612.5**	**12.0**	NT	<10.0	**36.9**
MW-9	9/11/2007	**2,470**	**10,200**	**2,030**	**15,140**	**29,840**	**124**	**2.3**	<100	**612**
MW-10	9/11/2007	**9,030**	**16,900**	**2,650**	**12,570**	**41,150**	**12,500**	**27.4**	<500	<500
MW-11	9/11/2007	<5.0	<5.0	**8.5**	<10.0	**8.5**	<5.0	<0.020	<5.0	**8.3**
MW-12	9/11/2007	<5.0	<5.0	<5.0	<10.0		<5.0	<0.020	<5.0	<5.0
MW-13	9/11/2007	<5.0	<5.0	<5.0	<10.0		<5.0	<0.020	<5.0	<5.0
MW-15	9/11/2007	**21.8**	<5.0	**13.6**	**128.1**	**163.5**	<5.0	**0.37**	<5.0	**5.1**
MW-16	9/11/2007	NT	NT	NT	NT	NT	NT	NT	NT	NT
MW-19	9/11/2007	NT	NT	NT	NT	NT	NT	NT	NT	NT
RMW-20	9/11/2007	DRY	DRY	DRY	DRY	DRY	DRY	DRY	DRY	DRY
MW-21	9/11/2007	DRY	DRY	DRY	DRY	DRY	DRY	DRY	DRY	DRY
MW-22	9/11/2007	<5.0	<5.0	<5.0	<10.0		<5.0	<0.020	<5.0	<5.0
MW-23	9/11/2007	<5.0	<5.0	<5.0	<10.0		<5.0	<0.020	<5.0	<5.0
DW-1	9/11/2007	DRY	DRY	DRY	DRY	DRY	DRY	DRY	DRY	DRY
DW-2	9/11/2007	<5.0	<5.0	<5.0	<10.0		<5.0	NT	NT	<5.0
SW-3	9/11/2007	<5.0	<5.0	<5.0	<10.0		<5.0	<0.020	<5.0	<5.0

Notes:
1. BDL = Below Practical Quantitative Limits
2. µg/l = micrograms per liter
3. mg/l = milligrams per liter
4. MTBE = Methyl-Tertiary-Butyl Ether
5. EDB = Ethylene Dibromide
6. FP= Not Sampled Due to Free Phase Petroleum Product

TABLE 3
FIELD SCREENING ANALYTICAL RESULTS
GASTON FOOD MART
GASTON, SOUTH CAROLINA
MECI PROJECT NUMBER 07-1297
SCDHEC ID NUMBER 05986

Boring Number	Sample Depth (Feet)	Benzene (µg/l)	Toluene (µg/l)	Ethylbenzene (µg/l)	Total Xylenes (µg/l)	Total BTEX (µg/l)	MTBE (µg/l)	Naphthalene (µg/l)
GPW-1	34-38	**417**	BDL	BDL	**117**	**534**	BDL	**11.3**
GPW-2	34-38	BDL	BDL	BDL	BDL	BDL	BDL	BDL
GPW-3	34-38	BDL	BDL	BDL	BDL	BDL	BDL	BDL
GPW-4	34-38	BDL	BDL	BDL	BDL	BDL	BDL	BDL
GPW-5	34-38	DRY	DRY	DRY	DRY	DRY	DRY	DRY
GPW-6	39-43	BDL	BDL	BDL	BDL	BDL	BDL	BDL
GPW-7	34-38	DRY	DRY	DRY	DRY	DRY	DRY	DRY

Notes:
1. BDL = Below Practical Quantitative Limits
2. µg/l = micrograms per liter
3. MTBE = Methyl-Tertiary-Butyl Ether
4. Samples Collected on August 28, 2007.
5. DRY = Dry Hole



TEST BORING RECORD
Gaston Food Mart
Gaston, South Carolina
SCDHEC Site ID# 05986
MECI Project Number 07-1297

Boring Number:	MW-22
Date Drilled:	9/10/07
Drilled By:	Geologic Exploration Inc.
Logged By:	B. Gulles

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

Depth (Feet)	Description	OVA PPM	Well Diagram	Penetration Blows Per Foot 0 5 10 20 40 60 80 100
	Orange and White, Fine to Medium Sandy CLAY			NO BLOWCOUNTS RECORDED
45	Boring Terminated at 44.0 Feet. Monitoring Well Installed to 44.0 Feet. Groundwater Measured at 41.65 Feet Below Ground Surface on 9/11/2007.			
50				
55				
60				
65				
70				
75				

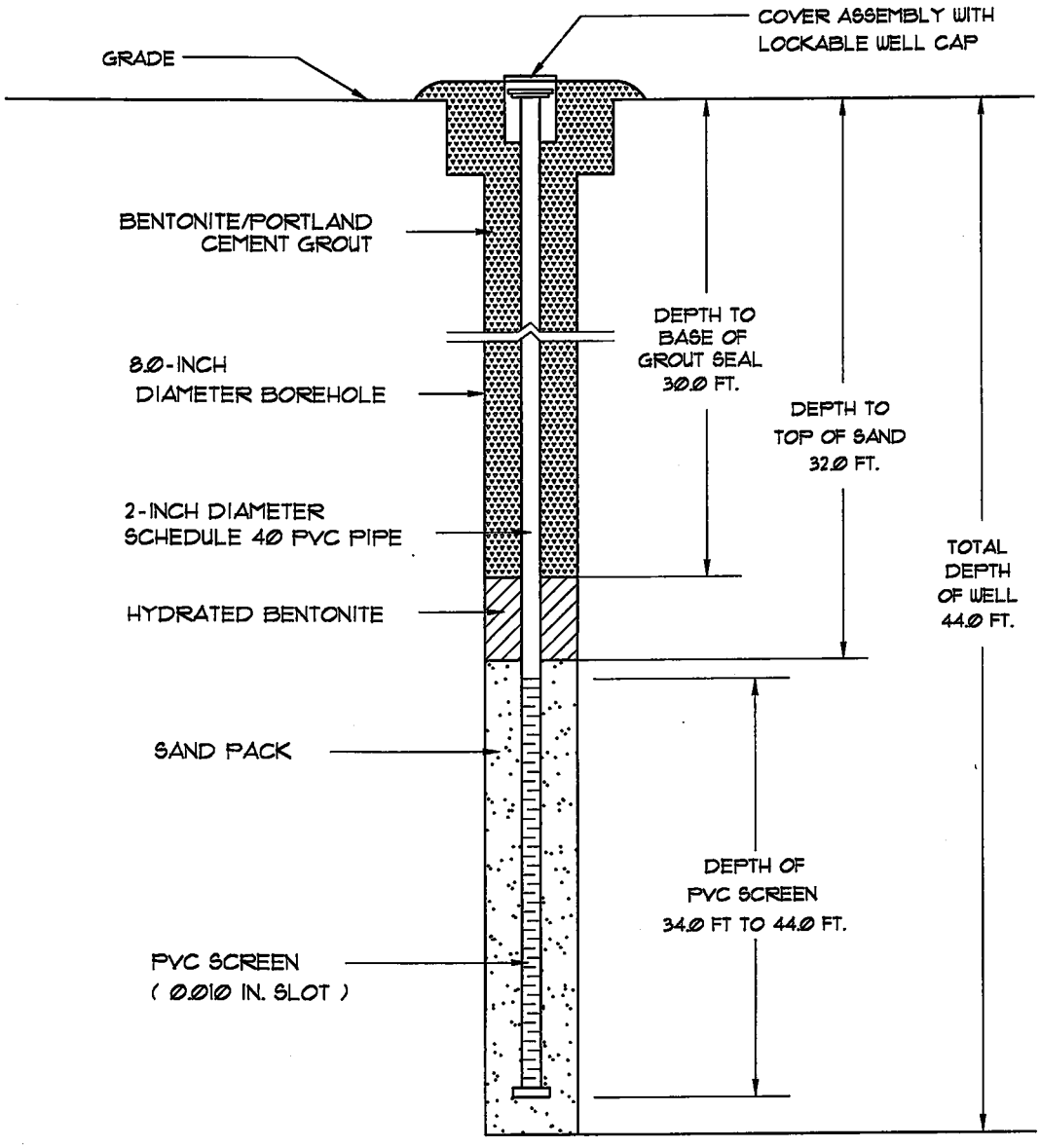
TEST BORING RECORD
Gaston Food Mart
Gaston, South Carolina
SCDHEC Site ID# 05986
MECI Project Number 07-1297

Boring Number:	MW-22
Date Drilled:	9/10/07
Drilled By:	Geologic Exploration Inc.
Logged By:	B. Gulles

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

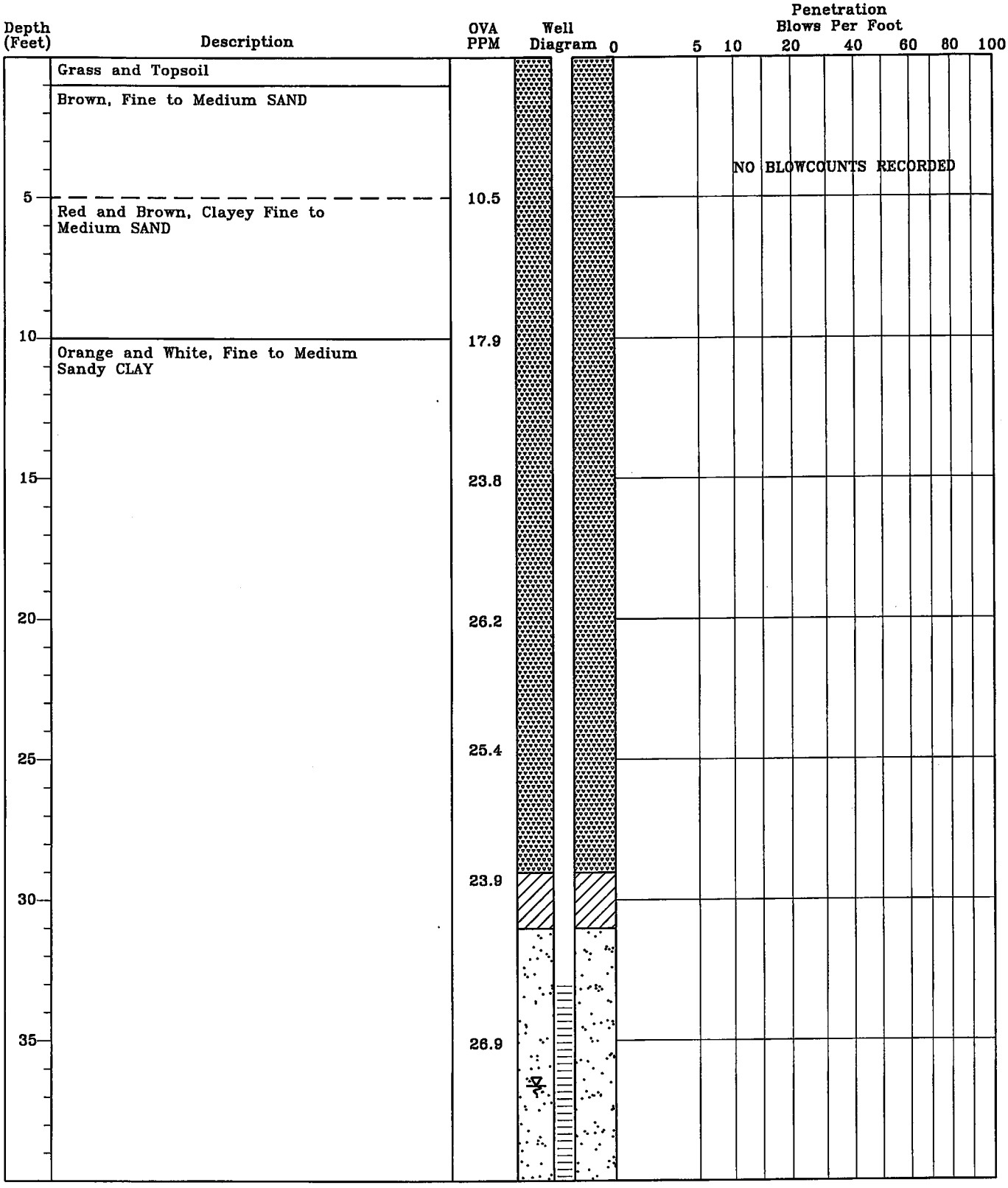
MONITORING WELL INSTALLATION RECORD

Gaston Food Mart
Gaston, South Carolina
SCDHEC Site ID# 05986
MECI Project Number 07-1297



Well Number:	MW-22
Date Drilled:	9/10/07
Drilled By:	Geologic Exploration Inc.
Driller: M. Gettys	S.C. I.D. #: A 01086
Logged By:	B. Gulles

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



TEST BORING RECORD
Gaston Food Mart
Gaston, South Carolina
SCDHEC Site ID# 05986
MECI Project Number 07-1297

Boring Number:	MW-23
Date Drilled:	9/10/07
Drilled By:	Geologic Exploration Inc.
Logged By:	B. Guiles

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

Depth (Feet)	Description	OVA PPM	Well Diagram	Penetration Blows Per Foot 0 5 10 20 40 60 80 100
	Orange and White, Fine to Medium Sandy CLAY	16.8		NO BLOWCOUNTS RECORDED
45	Boring Terminated at 43.0 Feet. Monitoring Well Installed to 43.0 Feet. Groundwater Measured at 36.62 Feet Below Ground Surface on 9/11/2007.			
50				
55				
60				
65				
70				
75				

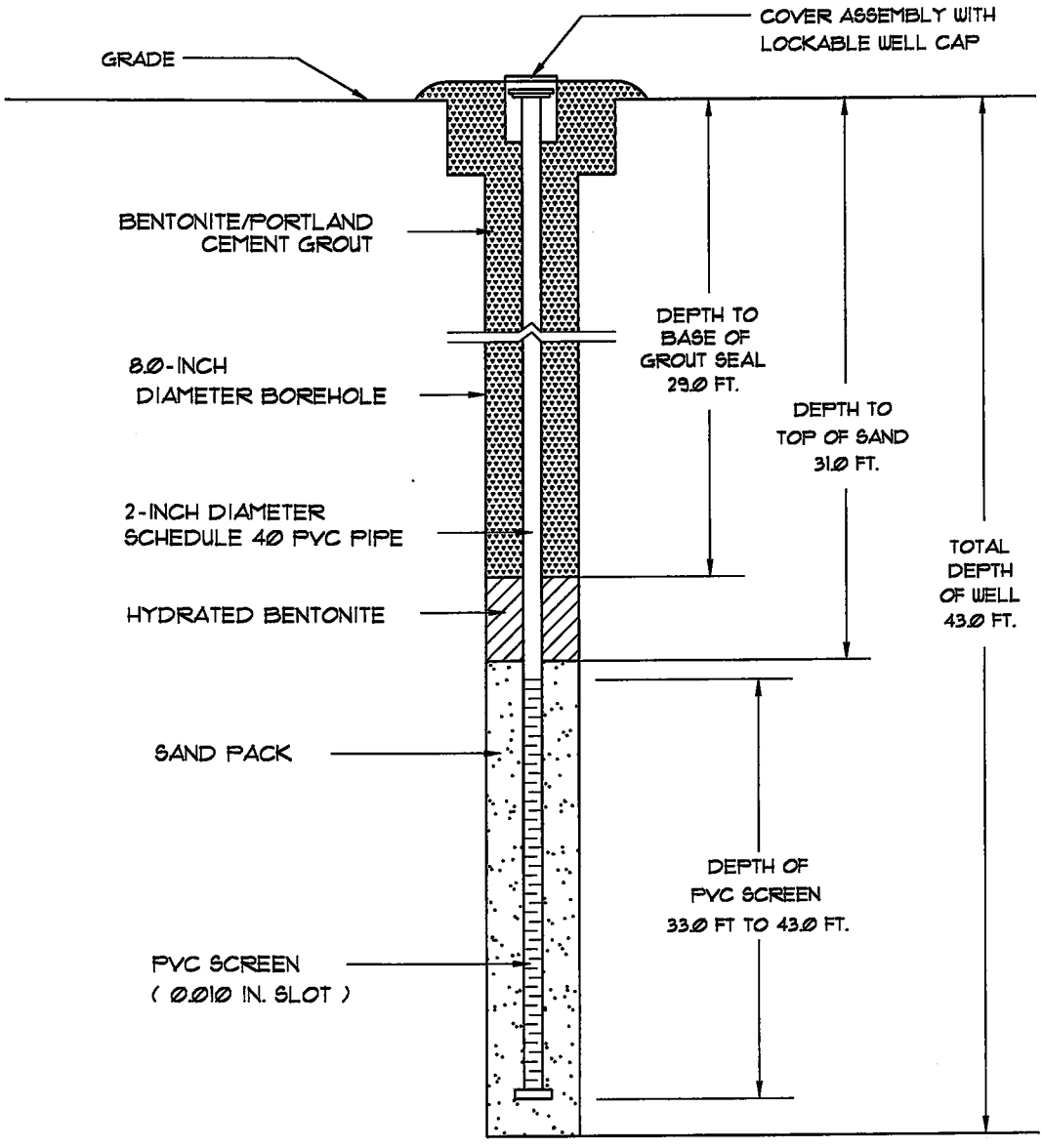
TEST BORING RECORD
Gaston Food Mart
Gaston, South Carolina
SCDHEC Site ID# 05986
MECI Project Number 07-1297

Boring Number:	MW-23
Date Drilled:	9/10/07
Drilled By:	Geologic Exploration Inc.
Logged By:	B. Guiles

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

MONITORING WELL INSTALLATION RECORD

Gaston Food Mart
Gaston, South Carolina
SCDHEC Site ID# 05986
MECI Project Number 07-1297



Well Number:	MW-23
Date Drilled:	9/10/07
Drilled By:	Geologic Exploration Inc.
Driller: M. Gettys	S.C. I.D. #: A 01086
Logged By:	B. Guiles

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

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: MATTHEWS (last) DONNY (first) R.
Address: 4932 HIGHWAY 321
City: GASTON State: SC Zip: 29053
Telephone: Work: Home:

2. LOCATION OF WELL: SC **COUNTY:** LEXINGTON
Name: GASTON FOOD MART
Street Address: 105 NORTH MAIN STREET
City: GASTON Zip:
Latitude: Longitude:

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
ORANGE SAND	5.0	5.0
ORANGE/TAN SANDY CLAYEY		
SILT	13.0	18.0
ORANGE/TAN SANDY CLAY	26.0	44.0
*Indicate Water Bearing Zones (Use a 2nd sheet if needed)		

5. REMARKS:
MW-22 BENTONITE SEAL FROM 30.0 TO 32.0 FT.

6. TYPE: ☐ Mud Rotary ☐ Jetted ☐ Bored ☐ Dug ☐ Air Rotary ☐ Driven ☐ Cable tool ☑ Other AUGER

7. PERMIT NUMBER:

8. USE: ☐ Residential ☐ Public Supply ☐ Process ☐ Irrigation ☐ Air Conditioning ☐ Emergency ☐ Test Well ☑ Monitor Well ☐ Replacement

9. WELL DEPTH (completed) 44.0 ft. Date Started: 09/10/07 Date Completed: 09/10/07

10. CASING: ☑ Threaded ☐ Welded
Diam.: 2 INCH
Type: ☑ PVC ☐ Galvanized ☐ Steel ☐ Other
2.0 in. to 34.0 ft. depth
_____ in. to _____ ft. depth
Height: Above ☐ Below ☐
Surface 0.0 ft.
Weight _____ lb./ft.
Drive Shoe? ☐ Yes ☐ No

11. SCREEN:
Type: SCH 40 PVC Diam.: 2 INCH
Slot/Gauge: .010 Length: 10.0 FEET
Set Between: 34.0 ft. and 44.0 ft.
_____ ft. and _____ ft.
NOTE: MULTIPLE SCREENS USE SECOND SHEET
Sieve Analysis ☐ Yes (please enclose) ☑ No

12. STATIC WATER LEVEL 38.0 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 32.0 ft. to 44.0 ft.
Effective size 1.43 Uniformity Coefficient 1.30

16. WELL GROUTED? ☑ Yes ☐ No
☑ Neat Cement ☐ Bentonite ☐ Bentonite/Cement ☐ Other _____
Depth: From 0.0 ft. to 30.0 ft.

17. NEAREST SOURCE OF POSSIBLE CONTAMINATION: ____ ft. ____ direction
Type _____
Well Disinfected ☐ Yes ☐ No Type: _____ 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: MARK GETTYS **CERT. NO.:** 01086
Address: (Print) 176 COMMERCE BLVD
STATESVILLE, NC 28625
Level: A ☑ B ☐ C ☐ D ☐ (circle one)
Telephone No.: 704-872-7686 Fax No.: 704-872-0248

20. WATER WELL DRILLER'S CERTIFICATION: This well was drilled under my direction and this report is true to the best of my knowledge and belief.

Signed: _____ Well Driller Date: 09/20/07

If D Level Driller, provide supervising driller's name:

DHEC 1903 (07/2003) 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

DHEC — PROMOTE PROTECT PROSPER

1. WELL OWNER INFORMATION:
Name: MATTHEWS (last) DONNY R. (first)
Address: 4932 HIGHWAY 321
City: GASTON State: SC Zip: 29053
Telephone: Work: Home:

2. LOCATION OF WELL: SC **COUNTY:** LEXINGTON
Name: GASTON FOOD MART
Street Address: 105 NORTH MAIN STREET
City: GASTON Zip:
Latitude: Longitude:

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
ORANGE SAND	5.0	5.0
ORANGE/TAN SANDY CLAYEY		
SILT	10.0	15.0
ORANGE/TAN SANDY CLAY	28.0	43.0
*Indicate Water Bearing Zones (Use a 2nd sheet if needed)		

5. REMARKS:
MW-23 BENTONITE SEAL FROM 29.0 TO 31.0 FT.

6. TYPE: ☐ Mud Rotary ☐ Jetted ☐ Bored ☐ Dug ☐ Air Rotary ☐ Driven ☐ Cable tool ☑ Other AUGER

7. PERMIT NUMBER:

8. USE:
☐ Residential ☐ Public Supply ☐ Process ☐ Irrigation ☐ Air Conditioning ☐ Emergency ☐ Test Well ☑ Monitor Well ☐ Replacement

9. WELL DEPTH (completed) 43.0 ft. Date Started: 09/10/07 Date Completed: 09/10/07

10. CASING: ☑ Threaded ☐ Welded
Diam.: 2 INCH
Type: ☑ PVC ☐ Galvanized ☐ Steel ☐ Other
2.0 in. to 33.0 ft. depth
_____ in. to _____ ft. depth
Height: Above ☐ Below ☐
Surface 0.0 ft.
Weight _____ lb./ft.
Drive Shoe? ☐ Yes ☐ No

11. SCREEN:
Type: SCH 40 PVC Diam.: 2 INCH
Slot/Gauge: .010 Length: 10.0 FEET
Set Between: 33.0 ft. and 43.0 ft.
_____ ft. and _____ ft.
NOTE: MULTIPLE SCREENS USE SECOND SHEET
Sieve Analysis ☐ Yes (please enclose) ☑ No

12. STATIC WATER LEVEL 38.0 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 31.0 ft. to 43.0 ft.
Effective size 1.43 Uniformity Coefficient 1.30

16. WELL GROUTED? ☑ Yes ☐ No
☑ Neat Cement ☐ Bentonite ☐ Bentonite/Cement ☐ Other _____
Depth: From 0.0 ft. to 29.0 ft.

17. NEAREST SOURCE OF POSSIBLE CONTAMINATION: ____ ft. ____ direction
Type _____
Well Disinfected ☐ Yes ☐ No Type: _____ 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: MARK GETTYS **CERT. NO.:** 01086
Address: (Print) 176 COMMERCE BLVD
STATESVILLE, NC 28625
Level: A B C D (circle one) ☑ ☐ ☐ ☐
Telephone No.: 704-872-7686 Fax No.: 704-872-0248

20. WATER WELL DRILLER'S CERTIFICATION: This well was drilled under my direction and this report is true to the best of my knowledge and belief.

Signed: _____ Date: 09/20/07
Well Driller

If D Level Driller, provide supervising driller's name:

DHEC 1903 (07/2003) **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: MATTHEWS (last) DONNIE (first) R.
Address: 4932 HIGHWAY 321
City: GASTON State: SC Zip: 29053
Telephone: Work: Home:

2. LOCATION OF WELL: SC **COUNTY:** LEXINGTON
Name: GASTON FOOD MART
Street Address: 105 NORTH MAIN STREET
City: GASTON Zip:
Latitude: Longitude:

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
WELL ABANDONED BY		
GEOLOGIC EXPLORATION, INC.		
ON 09/10/07 VIA TREMIE PIPE		
WITH PORTLAND BENTONITE		
SLURRY.		
Indicate Water Bearing Zones (Use a 2nd sheet if needed)		

5. REMARKS:
MW-2
15.60 GALLONS PORTLAND BENTONITE SLURRY

6. TYPE: ☐ Mud Rotary ☐ Jetted ☐ Bored ☑ Dug ☐ Air Rotary ☐ Driven ☐ Cable tool ☐ Other

7. PERMIT NUMBER:

8. USE: ☐ Residential ☐ Public Supply ☐ Process ☐ Irrigation ☐ Air Conditioning ☐ Emergency ☐ Test Well ☑ Monitor Well ☐ Replacement

9. WELL DEPTH (completed) Date Started: 09/10/07
78.0 ft. Date Completed: 09/10/07

10. CASING: ☑ Threaded ☐ Welded
Diam.: 2 INCH
Type: ☑ PVC ☐ Galvanized ☐ Steel ☐ Other
_____ in. to _____ ft. depth
_____ in. to _____ ft. depth
Height: Above ☐ Below ☐
Surface _____ ft.
Weight _____ lb./ft.
Drive Shoe? ☐ Yes ☐ No

11. SCREEN:
Type: _____ Diam.: _____
Slot/Gauge: _____ Length: _____
Set Between: _____ ft. and _____ 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 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 _____ ft. to _____ ft.
Effective size _____ Uniformity Coefficient _____

16. WELL GROUTED? ☑ Yes ☐ No
☑ Neat Cement ☐ Bentonite ☐ Bentonite/Cement ☐ Other _____
Depth: From 0.0 ft. to 78.0 ft.

17. NEAREST SOURCE OF POSSIBLE CONTAMINATION: _____ ft. _____ direction
Type: _____
Well Disinfected ☐ Yes ☐ No Type: _____ 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: MARK GETTYS **CERT. NO.:** 01086
Address: (Print) 176 COMMERCE BLVD **Level:** A ☑ B ☐ C ☐ D ☐ (circle one)
STATESVILLE, NC 28625
Telephone No.: 704-872-7686 Fax No.: 704-872-0248

20. WATER WELL DRILLER'S CERTIFICATION: This well was drilled under my direction and this report is true to the best of my knowledge and belief.

Signed: _____ (Well Driller) Date: 09/20/07

If D Level Driller, provide supervising driller's name:

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

September 19, 2007

Mr. Bryan Shane
Midlands Environmental
PO Box 854
Lexington, SC 29071

RE: Project: GASTON FOOD MART 07-1297
Pace Project No.: 923497

Dear Mr. Shane:
Enclosed are the analytical results for sample(s) received by the laboratory on September 12, 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 Godwin

kevin.godwin@pacelabs.com
Project Manager

Enclosures

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

CERTIFICATIONS

Project: GASTON FOOD MART 07-1297
Pace Project No.: 923497

Charlotte Certification IDs
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
Florida/NELAP Certification Number: E87627
Kansas Certification Number: E-10364
Louisiana/LELAP Certification Number: 04034
North Carolina Drinking Water Certification Number: 37706

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: 990300001
South Carolina Bioassay Certification Number: 990300002
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

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

ANALYTICAL RESULTS

Project: GASTON FOOD MART 07-1297
Pace Project No.: 923497

Sample: MW-1 **Lab ID: 923497001** Collected: 09/11/07 11:25 Received: 09/12/07 17:10 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							
1,2-Dibromoethane (EDB)	ND	ug/L	0.020	1	09/13/07 00:00	09/13/07 21:54	106-93-4	
1-Chloro-2-bromopropane (S)	86	%	60-140	1	09/13/07 00:00	09/13/07 21:54	301-79-56	
8260 MSV	Analytical Method: EPA 8260							
Benzene	ND	ug/L	5.0	1		09/16/07 16:23	71-43-2	
1,2-Dichloroethane	ND	ug/L	5.0	1		09/16/07 16:23	107-06-2	
Ethylbenzene	ND	ug/L	5.0	1		09/16/07 16:23	100-41-4	
Methyl-tert-butyl ether	ND	ug/L	5.0	1		09/16/07 16:23	1634-04-4	
Naphthalene	ND	ug/L	5.0	1		09/16/07 16:23	91-20-3	
Toluene	ND	ug/L	5.0	1		09/16/07 16:23	108-88-3	
Xylene (Total)	ND	ug/L	10.0	1		09/16/07 16:23	1330-20-7	
m&p-Xylene	ND	ug/L	10.0	1		09/16/07 16:23	1330-20-7	
o-Xylene	ND	ug/L	5.0	1		09/16/07 16:23	95-47-6	
4-Bromofluorobenzene (S)	96	%	87-109	1		09/16/07 16:23	460-00-4	
Dibromofluoromethane (S)	99	%	85-115	1		09/16/07 16:23	1868-53-7	
1,2-Dichloroethane-d4 (S)	100	%	79-120	1		09/16/07 16:23	17060-07-0	
Toluene-d8 (S)	99	%	70-120	1		09/16/07 16:23	2037-26-5	

Sample: DW-2 **Lab ID: 923497002** Collected: 09/11/07 09:00 Received: 09/12/07 17:10 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV	Analytical Method: EPA 8260							
Benzene	ND	ug/L	5.0	1		09/18/07 01:57	71-43-2	
1,2-Dichloroethane	ND	ug/L	5.0	1		09/18/07 01:57	107-06-2	
Ethylbenzene	ND	ug/L	5.0	1		09/18/07 01:57	100-41-4	
Methyl-tert-butyl ether	ND	ug/L	5.0	1		09/18/07 01:57	1634-04-4	
Naphthalene	ND	ug/L	5.0	1		09/18/07 01:57	91-20-3	
Toluene	ND	ug/L	5.0	1		09/18/07 01:57	108-88-3	
Xylene (Total)	ND	ug/L	10.0	1		09/18/07 01:57	1330-20-7	
m&p-Xylene	ND	ug/L	10.0	1		09/18/07 01:57	1330-20-7	
o-Xylene	ND	ug/L	5.0	1		09/18/07 01:57	95-47-6	
4-Bromofluorobenzene (S)	93	%	87-109	1		09/18/07 01:57	460-00-4	
Dibromofluoromethane (S)	102	%	85-115	1		09/18/07 01:57	1868-53-7	
1,2-Dichloroethane-d4 (S)	104	%	79-120	1		09/18/07 01:57	17060-07-0	
Toluene-d8 (S)	89	%	70-120	1		09/18/07 01:57	2037-26-5	

Sample: SW-3 **Lab ID: 923497003** Collected: 09/11/07 11:40 Received: 09/12/07 17:10 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							
1,2-Dibromoethane (EDB)	ND	ug/L	0.020	1	09/13/07 00:00	09/13/07 22:50	106-93-4	
1-Chloro-2-bromopropane (S)	80	%	60-140	1	09/13/07 00:00	09/13/07 22:50	301-79-56	

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

ANALYTICAL RESULTS

Project: GASTON FOOD MART 07-1297
Pace Project No.: 923497

Sample: SW-3 **Lab ID: 923497003** Collected: 09/11/07 11:40 Received: 09/12/07 17:10 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV	Analytical Method: EPA 8260							
Benzene	ND	ug/L	5.0	1		09/16/07 16:41	71-43-2	
1,2-Dichloroethane	ND	ug/L	5.0	1		09/16/07 16:41	107-06-2	
Ethylbenzene	ND	ug/L	5.0	1		09/16/07 16:41	100-41-4	
Methyl-tert-butyl ether	ND	ug/L	5.0	1		09/16/07 16:41	1634-04-4	
Naphthalene	ND	ug/L	5.0	1		09/16/07 16:41	91-20-3	
Toluene	ND	ug/L	5.0	1		09/16/07 16:41	108-88-3	
Xylene (Total)	ND	ug/L	10.0	1		09/16/07 16:41	1330-20-7	
m&p-Xylene	ND	ug/L	10.0	1		09/16/07 16:41	1330-20-7	
o-Xylene	ND	ug/L	5.0	1		09/16/07 16:41	95-47-6	
4-Bromofluorobenzene (S)	96	%	87-109	1		09/16/07 16:41	460-00-4	
Dibromofluoromethane (S)	100	%	85-115	1		09/16/07 16:41	1868-53-7	
1,2-Dichloroethane-d4 (S)	95	%	79-120	1		09/16/07 16:41	17060-07-0	
Toluene-d8 (S)	94	%	70-120	1		09/16/07 16:41	2037-26-5	

Sample: RMW-3 **Lab ID: 923497004** Collected: 09/11/07 11:00 Received: 09/12/07 17:10 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							
1,2-Dibromoethane (EDB)	**13.9**	ug/L	2.0	100	09/13/07 00:00	09/14/07 20:46	106-93-4	
1-Chloro-2-bromopropane (S)	102	%	60-140	1	09/13/07 00:00	09/13/07 23:09	301-79-56	
8260 MSV	Analytical Method: EPA 8260							
Benzene	**7940**	ug/L	500	100		09/18/07 13:57	71-43-2	
1,2-Dichloroethane	ND	ug/L	500	100		09/18/07 13:57	107-06-2	
Ethylbenzene	**2720**	ug/L	500	100		09/18/07 13:57	100-41-4	
Methyl-tert-butyl ether	**550**	ug/L	500	100		09/18/07 13:57	1634-04-4	
Naphthalene	**1790**	ug/L	500	100		09/18/07 13:57	91-20-3	
Toluene	**18600**	ug/L	2500	500		09/18/07 04:42	108-88-3	
Xylene (Total)	**14100**	ug/L	1000	100		09/18/07 13:57	1330-20-7	
m&p-Xylene	**9730**	ug/L	1000	100		09/18/07 13:57	1330-20-7	
o-Xylene	**4340**	ug/L	500	100		09/18/07 13:57	95-47-6	
4-Bromofluorobenzene (S)	99	%	87-109	100		09/18/07 13:57	460-00-4	
Dibromofluoromethane (S)	97	%	85-115	100		09/18/07 13:57	1868-53-7	
1,2-Dichloroethane-d4 (S)	104	%	79-120	100		09/18/07 13:57	17060-07-0	
Toluene-d8 (S)	99	%	70-120	100		09/18/07 13:57	2037-26-5	

Sample: MW-8 **Lab ID: 923497005** Collected: 09/11/07 10:20 Received: 09/12/07 17:10 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							
1,2-Dibromoethane (EDB)	ND	ug/L	0.020	1	09/13/07 00:00	09/13/07 23:18	106-93-4	
1-Chloro-2-bromopropane (S)	89	%	60-140	1	09/13/07 00:00	09/13/07 23:18	301-79-56	

REPORT OF LABORATORY ANALYSIS

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

ANALYTICAL RESULTS

Project: GASTON FOOD MART 07-1297
Pace Project No.: 923497

Sample: MW-8 **Lab ID: 923497005** Collected: 09/11/07 10:20 Received: 09/12/07 17:10 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV	Analytical Method: EPA 8260							
Benzene	**145**	ug/L	10.0	2		09/18/07 13:00	71-43-2	
1,2-Dichloroethane	ND	ug/L	10.0	2		09/18/07 13:00	107-06-2	
Ethylbenzene	**24.5**	ug/L	10.0	2		09/18/07 13:00	100-41-4	
Methyl-tert-butyl ether	**12.0**	ug/L	10.0	2		09/18/07 13:00	1634-04-4	
Naphthalene	**36.9**	ug/L	10.0	2		09/18/07 13:00	91-20-3	
Toluene	**356**	ug/L	10.0	2		09/18/07 13:00	108-88-3	
Xylene (Total)	**1090**	ug/L	20.0	2		09/18/07 13:00	1330-20-7	
m&p-Xylene	**736**	ug/L	20.0	2		09/18/07 13:00	1330-20-7	
o-Xylene	**351**	ug/L	10.0	2		09/18/07 13:00	95-47-6	
4-Bromofluorobenzene (S)	102	%	87-109	2		09/18/07 13:00	460-00-4	
Dibromofluoromethane (S)	99	%	85-115	2		09/18/07 13:00	1868-53-7	
1,2-Dichloroethane-d4 (S)	105	%	79-120	2		09/18/07 13:00	17060-07-0	
Toluene-d8 (S)	101	%	70-120	2		09/18/07 13:00	2037-26-5	

Sample: MW-9 **Lab ID: 923497006** Collected: 09/11/07 10:50 Received: 09/12/07 17:10 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							
1,2-Dibromoethane (EDB)	**2.3**	ug/L	0.20	10	09/13/07 00:00	09/14/07 20:55	106-93-4	
1-Chloro-2-bromopropane (S)	76	%	60-140	1	09/13/07 00:00	09/13/07 23:27	301-79-56	
8260 MSV	Analytical Method: EPA 8260							
Benzene	**2470**	ug/L	100	20		09/18/07 09:36	71-43-2	
1,2-Dichloroethane	ND	ug/L	100	20		09/18/07 09:36	107-06-2	
Ethylbenzene	**2030**	ug/L	100	20		09/18/07 09:36	100-41-4	
Methyl-tert-butyl ether	**124**	ug/L	100	20		09/18/07 09:36	1634-04-4	
Naphthalene	**612**	ug/L	100	20		09/18/07 09:36	91-20-3	
Toluene	**10200**	ug/L	500	100		09/18/07 14:13	108-88-3	
Xylene (Total)	**16100**	ug/L	1000	100		09/18/07 14:13	1330-20-7	
m&p-Xylene	**11300**	ug/L	1000	100		09/18/07 14:13	1330-20-7	
o-Xylene	**3840**	ug/L	100	20		09/18/07 09:36	95-47-6	
4-Bromofluorobenzene (S)	99	%	87-109	20		09/18/07 09:36	460-00-4	
Dibromofluoromethane (S)	97	%	85-115	20		09/18/07 09:36	1868-53-7	
1,2-Dichloroethane-d4 (S)	97	%	79-120	20		09/18/07 09:36	17060-07-0	
Toluene-d8 (S)	99	%	70-120	20		09/18/07 09:36	2037-26-5	

Sample: MW-10 **Lab ID: 923497007** Collected: 09/11/07 12:15 Received: 09/12/07 17:10 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							
1,2-Dibromoethane (EDB)	**27.4**	ug/L	2.0	100	09/13/07 00:00	09/14/07 21:04	106-93-4	
1-Chloro-2-bromopropane (S)	107	%	60-140	1	09/13/07 00:00	09/13/07 23:37	301-79-56	

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

ANALYTICAL RESULTS

Project: GASTON FOOD MART 07-1297
Pace Project No.: 923497

Sample: MW-10 **Lab ID: 923497007** Collected: 09/11/07 12:15 Received: 09/12/07 17:10 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV	Analytical Method: EPA 8260							
Benzene	**9030**	ug/L	500	100		09/18/07 10:12	71-43-2	
1,2-Dichloroethane	ND	ug/L	500	100		09/18/07 10:12	107-06-2	
Ethylbenzene	**2650**	ug/L	500	100		09/18/07 10:12	100-41-4	
Methyl-tert-butyl ether	**12500**	ug/L	500	100		09/18/07 10:12	1634-04-4	
Naphthalene	ND	ug/L	500	100		09/18/07 10:12	91-20-3	
Toluene	**16900**	ug/L	500	100		09/18/07 10:12	108-88-3	
Xylene (Total)	**12600**	ug/L	1000	100		09/18/07 10:12	1330-20-7	
m&p-Xylene	**9090**	ug/L	1000	100		09/18/07 10:12	1330-20-7	
o-Xylene	**3480**	ug/L	500	100		09/18/07 10:12	95-47-6	
4-Bromofluorobenzene (S)	103	%	87-109	100		09/18/07 10:12	460-00-4	
Dibromofluoromethane (S)	100	%	85-115	100		09/18/07 10:12	1868-53-7	
1,2-Dichloroethane-d4 (S)	99	%	79-120	100		09/18/07 10:12	17060-07-0	
Toluene-d8 (S)	99	%	70-120	100		09/18/07 10:12	2037-26-5	

Sample: MW-11 **Lab ID: 923497008** Collected: 09/11/07 12:10 Received: 09/12/07 17:10 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							
1,2-Dibromoethane (EDB)	ND	ug/L	0.020	1	09/13/07 00:00	09/13/07 23:46	106-93-4	
1-Chloro-2-bromopropane (S)	77	%	60-140	1	09/13/07 00:00	09/13/07 23:46	301-79-56	
8260 MSV	Analytical Method: EPA 8260							
Benzene	ND	ug/L	5.0	1		09/18/07 14:29	71-43-2	
1,2-Dichloroethane	ND	ug/L	5.0	1		09/18/07 14:29	107-06-2	
Ethylbenzene	**8.5**	ug/L	5.0	1		09/18/07 14:29	100-41-4	
Methyl-tert-butyl ether	ND	ug/L	5.0	1		09/18/07 14:29	1634-04-4	
Naphthalene	**8.3**	ug/L	5.0	1		09/18/07 14:29	91-20-3	
Toluene	ND	ug/L	5.0	1		09/18/07 14:29	108-88-3	
Xylene (Total)	ND	ug/L	10.0	1		09/18/07 14:29	1330-20-7	
m&p-Xylene	ND	ug/L	10.0	1		09/18/07 14:29	1330-20-7	
o-Xylene	ND	ug/L	5.0	1		09/18/07 14:29	95-47-6	
4-Bromofluorobenzene (S)	101	%	87-109	1		09/18/07 14:29	460-00-4	
Dibromofluoromethane (S)	97	%	85-115	1		09/18/07 14:29	1868-53-7	
1,2-Dichloroethane-d4 (S)	98	%	79-120	1		09/18/07 14:29	17060-07-0	
Toluene-d8 (S)	93	%	70-120	1		09/18/07 14:29	2037-26-5	

Sample: MW-12 **Lab ID: 923497009** Collected: 09/11/07 12:45 Received: 09/12/07 17:10 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							
1,2-Dibromoethane (EDB)	ND	ug/L	0.020	1	09/13/07 00:00	09/14/07 00:14	106-93-4	
1-Chloro-2-bromopropane (S)	96	%	60-140	1	09/13/07 00:00	09/14/07 00:14	301-79-56	

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

ANALYTICAL RESULTS

Project: GASTON FOOD MART 07-1297
Pace Project No.: 923497

Sample: MW-12 **Lab ID: 923497009** Collected: 09/11/07 12:45 Received: 09/12/07 17:10 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV	Analytical Method: EPA 8260							
Benzene	ND	ug/L	5.0	1		09/18/07 14:45	71-43-2	
1,2-Dichloroethane	ND	ug/L	5.0	1		09/18/07 14:45	107-06-2	
Ethylbenzene	ND	ug/L	5.0	1		09/18/07 14:45	100-41-4	
Methyl-tert-butyl ether	ND	ug/L	5.0	1		09/18/07 14:45	1634-04-4	
Naphthalene	ND	ug/L	5.0	1		09/18/07 14:45	91-20-3	
Toluene	ND	ug/L	5.0	1		09/18/07 14:45	108-88-3	
Xylene (Total)	ND	ug/L	10.0	1		09/18/07 14:45	1330-20-7	
m&p-Xylene	ND	ug/L	10.0	1		09/18/07 14:45	1330-20-7	
o-Xylene	ND	ug/L	5.0	1		09/18/07 14:45	95-47-6	
4-Bromofluorobenzene (S)	100	%	87-109	1		09/18/07 14:45	460-00-4	
Dibromofluoromethane (S)	100	%	85-115	1		09/18/07 14:45	1868-53-7	
1,2-Dichloroethane-d4 (S)	101	%	79-120	1		09/18/07 14:45	17060-07-0	
Toluene-d8 (S)	98	%	70-120	1		09/18/07 14:45	2037-26-5	

Sample: MW-13 **Lab ID: 923497010** Collected: 09/11/07 11:50 Received: 09/12/07 17:10 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							
1,2-Dibromoethane (EDB)	ND	ug/L	0.020	1	09/13/07 00:00	09/14/07 00:23	106-93-4	
1-Chloro-2-bromopropane (S)	83	%	60-140	1	09/13/07 00:00	09/14/07 00:23	301-79-56	
8260 MSV	Analytical Method: EPA 8260							
Benzene	ND	ug/L	5.0	1		09/18/07 02:15	71-43-2	
1,2-Dichloroethane	ND	ug/L	5.0	1		09/18/07 02:15	107-06-2	
Ethylbenzene	ND	ug/L	5.0	1		09/18/07 02:15	100-41-4	
Methyl-tert-butyl ether	ND	ug/L	5.0	1		09/18/07 02:15	1634-04-4	
Naphthalene	ND	ug/L	5.0	1		09/18/07 02:15	91-20-3	
Toluene	ND	ug/L	5.0	1		09/18/07 02:15	108-88-3	
Xylene (Total)	ND	ug/L	10.0	1		09/18/07 02:15	1330-20-7	
m&p-Xylene	ND	ug/L	10.0	1		09/18/07 02:15	1330-20-7	
o-Xylene	ND	ug/L	5.0	1		09/18/07 02:15	95-47-6	
4-Bromofluorobenzene (S)	97	%	87-109	1		09/18/07 02:15	460-00-4	
Dibromofluoromethane (S)	98	%	85-115	1		09/18/07 02:15	1868-53-7	
1,2-Dichloroethane-d4 (S)	97	%	79-120	1		09/18/07 02:15	17060-07-0	
Toluene-d8 (S)	96	%	70-120	1		09/18/07 02:15	2037-26-5	

Sample: MW-15 **Lab ID: 923497011** Collected: 09/11/07 09:10 Received: 09/12/07 17:10 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							
1,2-Dibromoethane (EDB)	**0.37**	ug/L	0.020	1	09/13/07 00:00	09/14/07 00:33	106-93-4	
1-Chloro-2-bromopropane (S)	72	%	60-140	1	09/13/07 00:00	09/14/07 00:33	301-79-56	

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

ANALYTICAL RESULTS

Project: GASTON FOOD MART 07-1297
Pace Project No.: 923497

Sample: MW-15 **Lab ID: 923497011** Collected: 09/11/07 09:10 Received: 09/12/07 17:10 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV	Analytical Method: EPA 8260							
Benzene	**21.8**	ug/L	5.0	1		09/18/07 02:34	71-43-2	
1,2-Dichloroethane	ND	ug/L	5.0	1		09/18/07 02:34	107-06-2	
Ethylbenzene	**13.6**	ug/L	5.0	1		09/18/07 02:34	100-41-4	
Methyl-tert-butyl ether	ND	ug/L	5.0	1		09/18/07 02:34	1634-04-4	
Naphthalene	**5.1**	ug/L	5.0	1		09/18/07 02:34	91-20-3	
Toluene	ND	ug/L	5.0	1		09/18/07 02:34	108-88-3	
Xylene (Total)	**128**	ug/L	10.0	1		09/18/07 02:34	1330-20-7	
m&p-Xylene	**62.8**	ug/L	10.0	1		09/18/07 02:34	1330-20-7	
o-Xylene	**65.3**	ug/L	5.0	1		09/18/07 02:34	95-47-6	
4-Bromofluorobenzene (S)	102	%	87-109	1		09/18/07 02:34	460-00-4	
Dibromofluoromethane (S)	100	%	85-115	1		09/18/07 02:34	1868-53-7	
1,2-Dichloroethane-d4 (S)	102	%	79-120	1		09/18/07 02:34	17060-07-0	
Toluene-d8 (S)	97	%	70-120	1		09/18/07 02:34	2037-26-5	

Sample: MW-22 **Lab ID: 923497012** Collected: 09/11/07 09:50 Received: 09/12/07 17:10 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							
1,2-Dibromoethane (EDB)	ND	ug/L	0.020	1	09/13/07 00:00	09/14/07 00:42	106-93-4	
1-Chloro-2-bromopropane (S)	79	%	60-140	1	09/13/07 00:00	09/14/07 00:42	301-79-56	
8260 MSV	Analytical Method: EPA 8260							
Benzene	ND	ug/L	5.0	1		09/18/07 02:52	71-43-2	
1,2-Dichloroethane	ND	ug/L	5.0	1		09/18/07 02:52	107-06-2	
Ethylbenzene	ND	ug/L	5.0	1		09/18/07 02:52	100-41-4	
Methyl-tert-butyl ether	ND	ug/L	5.0	1		09/18/07 02:52	1634-04-4	
Naphthalene	ND	ug/L	5.0	1		09/18/07 02:52	91-20-3	
Toluene	ND	ug/L	5.0	1		09/18/07 02:52	108-88-3	
Xylene (Total)	ND	ug/L	10.0	1		09/18/07 02:52	1330-20-7	
m&p-Xylene	ND	ug/L	10.0	1		09/18/07 02:52	1330-20-7	
o-Xylene	ND	ug/L	5.0	1		09/18/07 02:52	95-47-6	
4-Bromofluorobenzene (S)	98	%	87-109	1		09/18/07 02:52	460-00-4	
Dibromofluoromethane (S)	100	%	85-115	1		09/18/07 02:52	1868-53-7	
1,2-Dichloroethane-d4 (S)	98	%	79-120	1		09/18/07 02:52	17060-07-0	
Toluene-d8 (S)	93	%	70-120	1		09/18/07 02:52	2037-26-5	

Sample: MW-23 **Lab ID: 923497013** Collected: 09/11/07 09:50 Received: 09/12/07 17:10 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							
1,2-Dibromoethane (EDB)	ND	ug/L	0.020	1	09/13/07 00:00	09/14/07 00:51	106-93-4	
1-Chloro-2-bromopropane (S)	97	%	60-140	1	09/13/07 00:00	09/14/07 00:51	301-79-56	

REPORT OF LABORATORY ANALYSIS

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

ANALYTICAL RESULTS

Project: GASTON FOOD MART 07-1297
Pace Project No.: 923497

Sample: MW-23 **Lab ID: 923497013** Collected: 09/11/07 09:50 Received: 09/12/07 17:10 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV	Analytical Method: EPA 8260							
Benzene	ND	ug/L	5.0	1		09/18/07 03:10	71-43-2	
1,2-Dichloroethane	ND	ug/L	5.0	1		09/18/07 03:10	107-06-2	
Ethylbenzene	ND	ug/L	5.0	1		09/18/07 03:10	100-41-4	
Methyl-tert-butyl ether	ND	ug/L	5.0	1		09/18/07 03:10	1634-04-4	
Naphthalene	ND	ug/L	5.0	1		09/18/07 03:10	91-20-3	
Toluene	ND	ug/L	5.0	1		09/18/07 03:10	108-88-3	
Xylene (Total)	ND	ug/L	10.0	1		09/18/07 03:10	1330-20-7	
m&p-Xylene	ND	ug/L	10.0	1		09/18/07 03:10	1330-20-7	
o-Xylene	ND	ug/L	5.0	1		09/18/07 03:10	95-47-6	
4-Bromofluorobenzene (S)	94	%	87-109	1		09/18/07 03:10	460-00-4	
Dibromofluoromethane (S)	102	%	85-115	1		09/18/07 03:10	1868-53-7	
1,2-Dichloroethane-d4 (S)	101	%	79-120	1		09/18/07 03:10	17060-07-0	
Toluene-d8 (S)	97	%	70-120	1		09/18/07 03:10	2037-26-5	

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: GASTON FOOD MART 07-1297
Pace Project No.: 923497

QC Batch: OEXT/1236 Analysis Method: EPA 8011
QC Batch Method: EPA 8011 Analysis Description: GCS 8011 EDB DBCP
Associated Lab Samples: 923497001, 923497003, 923497004, 923497005, 923497006, 923497007, 923497008, 923497009, 923497010, 923497011, 923497012, 923497013

METHOD BLANK: 15438

Associated Lab Samples: 923497001, 923497003, 923497004, 923497005, 923497006, 923497007, 923497008, 923497009, 923497010, 923497011, 923497012, 923497013

Parameter	Units	Blank Result	Reporting Limit	Qualifiers
1,2-Dibromoethane (EDB)	ug/L	ND	0.020	
1-Chloro-2-bromopropane (S)	%	82	60-140	

LABORATORY CONTROL SAMPLE & LCSD: 15439 15440

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	0.20	0.21	70	72	60-140	3	20	
1-Chloro-2-bromopropane (S)	%				73	75	60-140			

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 15441 15442

Parameter	Units	923497001 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	.29	.29	0.29	0.30	102	104	60-140	2	
1-Chloro-2-bromopropane (S)	%						85	88	60-140		

SAMPLE DUPLICATE: 15443

Parameter	Units	923497003 Result	Dup Result	RPD	Qualifiers
1,2-Dibromoethane (EDB)	ug/L	ND	ND	0	
1-Chloro-2-bromopropane (S)	%		78	3	

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: GASTON FOOD MART 07-1297
Pace Project No.: 923497

QC Batch: MSV/1299 Analysis Method: EPA 8260
QC Batch Method: EPA 8260 Analysis Description: 8260 MSV
Associated Lab Samples: 923497001, 923497003, 923497004

METHOD BLANK: 16603
Associated Lab Samples: 923497001, 923497003, 923497004

Parameter	Units	Blank Result	Reporting Limit	Qualifiers
1,2-Dichloroethane	ug/L	ND	5.0	
Benzene	ug/L	ND	5.0	
Ethylbenzene	ug/L	ND	5.0	
m&p-Xylene	ug/L	ND	10.0	
Methyl-tert-butyl ether	ug/L	ND	5.0	
Naphthalene	ug/L	ND	5.0	
o-Xylene	ug/L	ND	5.0	
Toluene	ug/L	ND	5.0	
Xylene (Total)	ug/L	ND	10.0	
1,2-Dichloroethane-d4 (S)	%	94	79-120	
4-Bromofluorobenzene (S)	%	99	87-109	
Dibromofluoromethane (S)	%	101	85-115	
Toluene-d8 (S)	%	101	70-120	

LABORATORY CONTROL SAMPLE: 16604

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,2-Dichloroethane	ug/L	50	55.5	111	72-126	
Benzene	ug/L	50	61.3	123	78-128	
Ethylbenzene	ug/L	50	59.3	119	80-127	
m&p-Xylene	ug/L	100	116	116	82-127	
Methyl-tert-butyl ether	ug/L	50	57.3	115	71-130	
Naphthalene	ug/L	50	54.1	108	52-136	
o-Xylene	ug/L	50	56.3	113	83-124	
Toluene	ug/L	50	59.9	120	76-126	
Xylene (Total)	ug/L	150	172	115	83-125	
1,2-Dichloroethane-d4 (S)	%			96	79-120	
4-Bromofluorobenzene (S)	%			99	87-109	
Dibromofluoromethane (S)	%			101	85-115	
Toluene-d8 (S)	%			100	70-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 16613 16614

Parameter	Units	923734002 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Qual
Benzene	ug/L	ND	50	50	56.2	58.1	112	116	74-136	3	
Toluene	ug/L	ND	50	50	57.0	63.8	114	128	73-131	11	
1,2-Dichloroethane-d4 (S)	%						96	100	79-120		
4-Bromofluorobenzene (S)	%						98	94	87-109		
Dibromofluoromethane (S)	%						97	97	85-115		

REPORT OF LABORATORY ANALYSIS

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: GASTON FOOD MART 07-1297
Pace Project No.: 923497

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 16613 16614

Parameter	Units	923734002 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Qual
Toluene-d8 (S)	%						96	98	70-120		

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: GASTON FOOD MART 07-1297
Pace Project No.: 923497

QC Batch: MSV/1310 Analysis Method: EPA 8260
QC Batch Method: EPA 8260 Analysis Description: 8260 MSV
Associated Lab Samples: 923497002, 923497005, 923497006, 923497007, 923497008, 923497009, 923497010, 923497011, 923497012, 923497013

METHOD BLANK: 16781
Associated Lab Samples: 923497002, 923497005, 923497006, 923497007, 923497008, 923497009, 923497010, 923497011, 923497012, 923497013

Parameter	Units	Blank Result	Reporting Limit	Qualifiers
1,2-Dichloroethane	ug/L	ND	5.0	
Benzene	ug/L	ND	5.0	
Ethylbenzene	ug/L	ND	5.0	
m&p-Xylene	ug/L	ND	10.0	
Methyl-tert-butyl ether	ug/L	ND	5.0	
Naphthalene	ug/L	ND	5.0	
o-Xylene	ug/L	ND	5.0	
Toluene	ug/L	ND	5.0	
Xylene (Total)	ug/L	ND	10.0	
1,2-Dichloroethane-d4 (S)	%	100	79-120	
4-Bromofluorobenzene (S)	%	101	87-109	
Dibromofluoromethane (S)	%	100	85-115	
Toluene-d8 (S)	%	99	70-120	

LABORATORY CONTROL SAMPLE: 16782

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,2-Dichloroethane	ug/L	50	51.5	103	72-126	
Benzene	ug/L	50	56.2	112	78-128	
Ethylbenzene	ug/L	50	56.8	114	80-127	
m&p-Xylene	ug/L	100	113	113	82-127	
Methyl-tert-butyl ether	ug/L	50	53.5	107	71-130	
Naphthalene	ug/L	50	58.2	116	52-136	
o-Xylene	ug/L	50	53.8	108	83-124	
Toluene	ug/L	50	53.7	107	76-126	
Xylene (Total)	ug/L	150	167	111	83-125	
1,2-Dichloroethane-d4 (S)	%			100	79-120	
4-Bromofluorobenzene (S)	%			99	87-109	
Dibromofluoromethane (S)	%			98	85-115	
Toluene-d8 (S)	%			96	70-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 16783 16784

Parameter	Units	923561022 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Qual
Benzene	ug/L	ND	50	50	54.5	53.0	109	106	74-136	3	
Toluene	ug/L	ND	50	50	53.4	52.8	107	106	73-131	1	
1,2-Dichloroethane-d4 (S)	%						96	99	79-120		

REPORT OF LABORATORY ANALYSIS

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: GASTON FOOD MART 07-1297
Pace Project No.: 923497

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 16783 16784

Parameter	Units	923561022 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Qual
4-Bromofluorobenzene (S)	%						96	98	87-109		
Dibromofluoromethane (S)	%						100	95	85-115		
Toluene-d8 (S)	%						97	97	70-120		

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

QUALIFIERS

Project: GASTON FOOD MART 07-1297
Pace Project No.: 923497

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.

Pace Analytical®

CHAIN-OF-CUSTODY / Analytical Request Document

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

Page: of 1002959

Section A Required Client Information:

Company	MECF
Address	235-B Dooley Road
	Lexington, SC 29073
Email To:	wcm@mecf.net
Phone	(803)808-2073
Fax	(803)808-2048
Requested Due Date/TAT:	

Section B Required Project Information:

Report To:	
Copy To:	B. Shore
Purchase Order No.:	
Project Name:	Gaston Food Mart
Project Number:	07-1297

Section C Invoice Information:

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

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

ITEM #	SAMPLE ID	MATRIX CODE	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	Filtered (Y/N)	Requested Analysis: 8260B (Los Angeles, Memphis) EDB - 504 (1,2DCA)	Residual Chlorine (Y/N)	Pace Project Number / Lab I.D
1	MW-23	WT	G			9/11/07	9:50		6				X					X	X		013
2																					
3																					
4																					
5																					
6																					
7																					
8																					
9																					
10																					
11																					
12																					

Additional Comments:

RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME
Mecpoland	9-12-07	12:00	George Moody-Pace	9-12-07	12:00
George Moody	9-12-07	17:10		9/12/07	1716

SAMPLE CONDITION

Temp in °C	Received on Ice	Custody Sealed Cooler	Samples Intact
7.8	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: Brandon Smith

SIGNATURE of SAMPLER: [signature] DATE Signed (MM / DD / YY): 9/11/07

SEE REVERSE SIDE FOR INSTRUCTIONS

ORIGINAL

ALLQ020rev.3.31Mar05

CHAIN-OF-CUSTODY / Analytical Request Document

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

Pace Analytical®

Page: of **1002958**

Section A Required Client Information:	Section B Required Project Information:	Section C Invoice Information:
Company: MECI	Report To: B. Shaw	Attention:
Address: 235-B Dooley Road, Lexington, SC 29073	Copy To:	Company Name:
Email To: bshaw@mecinet	Purchase Order No.:	Address:
Phone: (803)808-2073 Fax: (803)808-2018	Project Name: Gaston Food Mart	Pace Quote Reference:
Requested Due Date/TAT:	Project Number: 07-1297	Pace Project Manager: K. Godwin
		Pace Profile #: 836-1

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

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	Preservatives: Unpreserved	H_2SO_4	HNO_3	HCl	NaOH	$Na_2S_2O_3$	Methanol	Other	Filtered (Y/N)	Requested Analysis: 8260-B BTEX, MTBE, Naphth. EDB 8011	Residual Chlorine (Y/N)	Pace Project Number / Lab I.D.
1	MW-1	WT	G			9/11/07	11:25		6				X					X	X		92349001
2	DW-2						9:00		2									2			002
3	SW-3						11:40		6									X	X		003
4	RMW-3						11:00		6										X		004
5	MW-8						10:20		5										2		5
6	MW-9						10:50		6										X		6
7	MW-10						12:15		6												7
8	MW-11						12:10		6												8
9	MW-12						12:45		6												9
10	MW-13						11:50		6												10
11	MW-15						9:10		6												11
12	MW-[redacted]22	WT	G			9/11/07	9:50		6				X					X	X		12

Additional Comments:

RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITION
Mia Echard	9-12-07	12:00	George Moody - Pace	9-12-07	12:00	
George Moody	9-12-07	17:10	[signature]	9/12/1	1710	2.8

SAMPLER NAME AND SIGNATURE

PRINT Name of SAMPLER: Brandon Kelly

SIGNATURE of SAMPLER: [signature]

DATE Signed (MM / DD / YY): 9/11/07

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

SEE REVERSE SIDE FOR INSTRUCTIONS

ORIGINAL

WASTE MANAGEMENT

Richland County LF
1047 Highway Church Road
Elgin, SC, 29045
Ph: (803) 788-3054

Original
Ticket# 830854

Customer Name MIDLANDSENVIRON MIDLANDS ENVI
Ticket Date 09/11/2007
Payment Type Credit Account
Manual Ticket#
Hauling Ticket#
Route
State Waste Code
Manifest 0
Destination
PO
Profile VA2718 (SOIL FROM UST ASSESSMENT)
Generator 126-MIDLANDSENVIRONMENTAL MIDLANDS ENVIRONMENTAL

Carrier MIDLANDSENVIRON MIDLANDS ENVIRONMENT
Vehicle# 01
Container
Driver
Check#
Billing # 0000469
Gen EPA ID

Volume

	Time	Scale	ScaleMaster
In	09/11/2007 15:52:17	Scale1	devin
Out	09/11/2007 16:19:11	Scale2	devin

Gross	12000 lb
Tare	9340 lb
Net	2660 lb
Tons	1.33

Comments

	Product	LD%	Qty	UOM	Rate	Fee	Amount	Origin
1	SOIL-Cont. Soil -	100	1.33	Tons				40-RICHLAN
2	FUEL-Fuel Surcharg	100		%				40-RICHLAN
3	ENV-ENVIRONMENTAL	100		%				40-RICHLAN

Total Fees
Total Ticket

SIGNATURE

Graston Food
Brent

403WM

WASTE MANAGEMENT

SPECIAL WASTE MANIFEST

WASTE ID # VA2408

EXPIRATION DATE: March 6, 2008

RICHLAND LANDFILL
1047 Hwy Church Rd.
Elgin, SC 29045
(803)788-3054
(803)736-0995-Fax

Prepared by Carol Weldon (205)-652-8186

GENERATOR OF WASTE: Asbestos & Demolition

CUSTOMER ACCOUNT: Asbestos & Demolition/ Account # 820-300

LOCATION OF WASTE : 141 CORT ROAD COLUMBIA, SC 29203

PHONE # 803-333-0599 CONTACT: DON BUCHANAN

FAX # 803-333-0962/Asbestos & Demolition

GENERATOR'S SIGNATURE [signature] DATE:

TRANSPORTER OF WASTE CZDS

DATE: 9/11/07 TRUCK NO. 2

DRIVER'S SIGNATURE [signature]

**** TO BE COMPLETED BY RICHLAND LANDFILL ****

DISPOSAL SITE: RICHLAND LANDFILL ELGIN, SC

DESCRIPTION OF WASTE Lead-based Paint contaminated Debris RES

TICKET NO.# 830851 TONNAGE 1.33

RECEIVED BY [signature]

Groaster
Road

Midlands
Environmental
Consultants, Inc.

September 20, 2007

Re: Treatment of Purge Water
Gaston Food Mart
Gaston, South Carolina
SCDHEC Site ID Number 05986
MECI Project Number 07-1297

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 worst-case well analysis was obtained before usage of the Activated Carbon Unit. The worst-case well analysis shows only petroleum hydrocarbon constituents in the purge/bail water with minimal, background concentrations of lead. The purge/bail water was containerized on site before treatment for less than 30 days prior to treatment.

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

One 55-gallon drum was treated on September 11, 2007 at the referenced site.

A total of one 55-gallon drum was treated 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
Staff Scientist

ACA Option Letter

D H E C

PROMOTE PROTECT PROSPER

C. Earl Hunter, Commissioner

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

APR 30 2007

D F SHUMPERT
PO BOX 6
PELION SC 29123

Re: Former JJ's Texaco, 105 N. Main St., Gaston, SC
UST Permit #05986
Release Reported November 20, 1991
Assessment report received April 20, 2007
Lexington County

Dear Mr. Schumpert:

The Underground Storage Tank (UST) Program of the South Carolina Department of Health and Environmental Control (SCDHEC) has reviewed the referenced Assessment Report submitted by Duncan Environmental Associates, Inc.

The results of the assessment reveal the presence of free-phase petroleum and chemicals of concern (CoC) in excess of calculated site-specific target levels. The next scope of work to be performed at this site is Active Corrective Action to ensure there is no potential impact to human health or the environment.

The site's priority classification is 1D. Therefore, funds from the State Underground Petroleum Environmental Response Bank (SUPERB) Account will soon be available for implementation of an acceptable method of corrective action. The selected technology must reduce the petroleum CoC concentrations to site-specific target levels determined by the UST Program. These concentrations will be listed in the Corrective Action Solicitation. All rehabilitation activities associated with a UST release must be performed by a SCDHEC certified site rehabilitation contractor as required by SUPERB Site Rehabilitation and Fund Access Regulations, R.61-98.

As required in R.61-98, Section II.B.3.a, the UST owner or operator is required to develop and implement a reasonable, cost-effective response for soil and/or groundwater contamination. In order to assist you to determine the clean-up technology, a reasonable time frame and all associated costs, the UST Program will prepare a technical specification package which will specify site specific clean-up levels and mail them to you. In addition to the solicitations you may personally seek, the UST Program will announce the request for solicitations in the South Carolina Business Opportunities, a bi-weekly state government publication. This announcement will clearly indicate that the UST owner/operator will make the contractor selection to implement an accepted method of corrective action at a reasonable cost. If you wish to utilize this option and select the contractor to perform the corrective actions, please call me within 14 days of the date of this letter and return the enclosed Active Corrective Action Options Form within 30 days. Should you select this option, the UST Program strongly suggests that a written contract between you and the selected contractor be developed following the completion of the solicitation process. The only parties to this contract would be you and the contractor you choose. Since the UST Program's only function would be to monitor the corrective action activities, rather than perform and/or oversee the associated activities, the UST Program would not be party to your contract.

UST PROGRAM DOCKETING # 3

If you prefer, the UST Program can directly procure a contractor to perform corrective action activities on your behalf. If you wish to utilize this option and relinquish the right to choose the contractor, please call me within 14 days of the date of this letter to inform of your preference and return the enclosed Permission and Right-of-Entry forms within 30 days. Please understand that under either option the site rehabilitation contractor must provide a performance bond or an irrevocable letter of credit and you remain responsible for completion of site rehabilitation activities.

On all correspondence or inquiries regarding this project, please reference UST Permit #05986. If you have any questions or need additional information, you can reach me by phone at (803) 896-6396, fax (803) 896-6245, or email at abernajd@dhec.sc.gov.

Sincerely,

John D. Abernathy, Hydrogeologist
Southwestern SC Corrective Action Section
Underground Storage Tank Program
Bureau of Land and Waste Management

Enc: Corrective Action Guidance Document
Active Corrective Action Options Form
Permission / Right of Entry Forms

cc: Technical File

JDA/05986_ACA-Options/4.25.2007

D H E C

PROMOTE PROTECT PROSPER

C. Earl Hunter, Commissioner

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

JUL 09 2007

BRIAN SHANE
MIDLANDS ENVIRONMENTAL CONSULTANTS INC
P O BOX 854
LEXINGTON SC 29071

Re: Notice to Proceed
Bid # SB-28162-5/26/05-EMW; PO# 586441

Dear Mr. Shane:

Based on the award of the referenced bid package, enclosed are the information packets to conduct an environmental assessment at one facility. The packet contains the necessary approval for work to begin. The facility has been assigned Cost Agreement (CA) number as listed below. Please reference the CA number and Purchase Order # 586441 on the appropriate invoice submitted for payment against the facilitiy. As specified in the referenced bid, **the completed invoice form and associated report (include contract certification number) is expected on or before the designated due date (see below).**

UST Permit#	Facility	County	Release #	Work Scope	Due Date*	CA #	Approved Amt
05986	Gaston Food Mart	Lexington	1	MW installation	60 days	29933	$4,837.50

*From receipt of letter

Midland's Environmental Associates, Inc. will perform services at the sites on behalf of the site's UST owner; however, payment will be made from the SUPERB Account. The site's UST owner 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 pre-approval 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 (803) 896-6323.

Sincerely,

Stephanie Briney

Stephanie Briney, Hydrogeologist
Assessment Section
Assessment & Corrective Action Division
Underground Storage Tank Program
Bureau of Land and Waste Management

enc.: Approved Cost Agreement (ACA)
Information Packet

cc: Stephanie Briney, UST Program (w/out enc)
Technical File (w/out enc.)

UST PROGRAM
DOCKETING # 2

D H E C

PROMOTE PROTECT PROSPER

C. Earl Hunter, Commissioner

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

Monitoring Well Approval

Approval is hereby granted to:	Midlands Environmental Consultants, Inc.
(On behalf of):	D.F. Shumpert
Facility:	Gaston Food Mart, 105 N. Main St., Gaston, SC
UST Permit Number:	**05986**
County:	**Lexington**

This approval is for the installation of up to 120 feet of temporary groundwater monitoring wells, and up to 100 feet of permanent groundwater 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 John Abernathy (803-896-6396 or e-mail: abernajd@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.

This approval is pursuant to the provisions of Section 44-55-40 of the 1976 South Carolina Code of Laws and R.61-71 of the South Carolina Well Standards and Regulations, dated April 26, 2002. A copy of this approval should be on the site during well installation.

Date of Issuance: **June 22, 2007** **Approval #: UMW-20880**

John D. Abernathy, Hydrogeologist
Southwestern SC Corrective Action Section
Underground Storage Tank Program
Bureau of Land and Waste Management

Approved Cost Agreement 29933

Facility: 05986 GASTON FOOD MART
ABERNAJD
PO Number:

Task / Description	Categories	Item Description	Qty / Pct	Unit Price	Amount
04 MOB/DEMOB					
		B PERSONNEL	4.0000	110.00	440.00
06 SOIL BORINGS (DRILLED)					
		A SOIL BORINGS & FLD SCREENING	120.0000	15.00	1,800.00
08 ABANDONMENT					
		ABANDONMENT	80.0000	5.00	400.00
09 WELL INSTALLATION					
		B WATER TABLE (DRILLED)	100.0000	15.00	1,500.00
10 SAMPLE COLLECTION					
		A GROUND WATER	3.0000	30.00	90.00
11 ANALYSES					
	GW GROUNDWATER	A BTEX+NAPTH+MTBE	3.0000	33.50	100.50
		BB 1,2-DCA	3.0000	43.50	130.50
		F EDB	3.0000	35.50	106.50
16 SUBSEQUENT SURVEY					
		SUBSEQUENT SURVEY	1.0000	50.00	50.00
17 DISPOSAL					
		A1 WASTEWATER - PURGING/SAMPLING	2.0000	10.00	20.00
		C SOIL (TREATMENT/DISPOSAL)	2.0000	50.00	100.00
23 EFR					
		D SITE RECONNAISSANCE	1.0000	100.00	100.00
			Total Amount		4,837.50

DUNCAN ENVIRONMENTAL ASSOCIATES, INC.
10817-C Two Notch Road • Elgin, South Carolina 29045 • Phone#: (803) 788-4333 • duncanenv@earthlink.net

Frank Shumpert
Shumpert Oil Company
P.O. Box 6
Pelion, SC 29123

Re: JJ's Texaco Active Correction Recommendation
Site ID#: 05986

Dear Mr. Shumpert:

I have reviewed the letter sent to you on April 30,2007 regarding the corrective action request at JJ's Texaco. It is DEA's recommendation that Shumpert Oil Company hands over the corrective action to a SCDHEC state lead contractor. We also believe that some oversight should be held by the client to assure that the work is being completed to the clients standards. As with my conversation with you during the earlier part of April, some sort of annual event, most likely a sampling event on the wells where action is taken place should be completed at the clients request to assure progress of the corrective action. Details of what sort of oversight can be discussed as soon as a state lead contractor is assigned to the task. Included with this letter is a partially completed permission form that was faxed to us earlier. Please review, complete and sign the form and send to John Abernathy at SCDHEC. If you have any questions or comments please feel free to contact me at (803) 788-4333.

Sincerely,

Justin Reynolds
Project Manager

PERMISSION FORM

UNDERGROUND STORAGE TANK AND PROPERTY OWNER

UST Permit # 05986

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

I, Daniel Frank Shumpert, 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 assessment and corrective action activities as required, and authorize SCDHEC, or a contractor selected by SCDHEC, 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 SCDHEC 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 Jr's Texaco Phone # (803) 894 3131

Street Address of Facility 105 North Main St

Town, City, District, Suburb Gaston SC

Name of nearest intersecting street, road, highway, alley Mack St & Highway 321

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

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) 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, please arrange to have them moved before SCDHEC's contractor arrives on-site.

NAME of UST/property owner (Please Print): Frank Shumpert

Phone Number (home) _____ (work) 803 894 3131

Signature of UST/property Owner: D.F. Shumpert

Witness: Janet Nuklosky

Date: 5.25.07 Month _____ Day _____ Year

PERMISSION FORM

UNDERGROUND STORAGE TANK OWNER

UST Permit # 05986

If you are the owner of the former or existing underground storage tanks or are designated as their authorized representative, but do not own the property, please complete this form.

I, Daniel Frank Shumpert certify that I am the legal owner of the underground storage tank(s) located at the facility identified below or serve as the authorized representative for the UST owner. I grant permission to the South Carolina Department of Health and Environmental Control (SCDHEC) to secure on my behalf services of a contractor to conduct assessment and corrective action activities, as required. The contractor will be designated as my contractor for only the required environmental site rehabilitation activities. Compensation to the contractor will be from the SUPERB Account and I will have no obligation to pay the contractor. I understand that SCDHEC will be responsible for obtaining right-of-entry from the property owner and 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 JJ's Texaco Phone #(803) 894-3131

Street Address of Facility 105 North Main St

Town, City, District, Suburb Gaston SC

Name of nearest intersecting street, road, highway, alley Mack St & Highway 321

Is this facility within the city limits? (Yes or 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)_____ 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, please arrange to have them moved before SCDHEC's contractor arrives on-site.

NAME of UST owner (Please Print): Frank Shumpert

Phone Number (home)_____ (work) 803 894 3131

Signature of UST Owner: D. F. Shumpert

Witness: Janet Nicholson

Date: 5-25-07 Month _____ Day _____ Year

RIGHT-OF-ENTRY FORM

PROPERTY OWNER

UST Permit # 05986

If you are the Property Owner or are the authorized representative for that person, but did not own the former or existing underground storage tanks at the time the release was reported, please complete this form.

I, Daniel Frank Shumpert, certify that I am the legal owner of the property identified below or serve as the authorized representative for the property owner. I authorize the South Carolina Department of Health and Environmental Control (SCDHEC), or a contractor selected by SCDHEC, 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. Compensation to the contractor will be from the SUPERB Account and I will have no obligation to pay the contractor. I understand that SCDHEC 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.

Name of Facility JJ's Texaco Phone # _____

Street Address of Facility 105 North Main St

Town, City, District, Suburb Gaston SC

Name of nearest intersecting street, road, highway, alley Mack Strand Highway 321

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) 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, please arrange to have them moved before SCDHEC's contractor arrives on-site.

NAME of Property owner (Please Print): Frank Shumpert

Phone Number (home)_____ (work) 803 894 3131

Current Mailing Address: P.O. Box 6 Pelion SC 29123

Signature of Property Owner: D F Shumpert

Witness: Janet Mikolasky

Date: 5 25 07 Month Day Year

ACTIVE CORRECTIVE ACTION OPTIONS FORM

UST PERMIT # 05986

I, Daniel Frank Shumpert, certify that I am the legal owner of the underground storage tanks at the facility identified below or serve as the authorized representative for the owner. I wish to secure price quotations for corrective action activities as required by SCDHEC, and to select my own corrective action contractor after price quotation results are received. I understand that the SCDHEC will also advertise for price quotations in the South Carolina Business Opportunities. I understand compensation to the contractor will be from the SUPERB Account but I will have the obligation to pay the contractor for any costs not approved by the SCDHEC.

Name of Facility JJ's Texaco Phone # (803) 894-3131

Street Address of Facility 105 North Main St.

City, State ZIP Gaston SC

UST Owner Shumpert Oil Company

Signature D F Shumpert Date 5-25-07