

## **APPENDIX**

- Bridge Foundation Investigation
- Phase II Environmental Site Assessment



**BRIDGE FOUNDATION INVESTIGATION (LFD)  
OLD FLOYD RD OVER SOUTHERN NORFOLK RAILROAD  
COBB COUNTY, GEORGIA**

**August 2, 2023**

**Prepared For:**

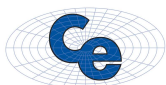
**Atkins, Inc.**  
1600 Riveredge Parkway NW  
Suite 700  
Atlanta, Georgia 30328

BRIDGE FOUNDATION INVESTIGATION	
<b>Project Name</b>	Old Floyd Rd over Southern Norfolk Railroad
<b>Contour Project Number</b>	G22ATK01
<b>Cobb Project Number</b>	X2329
<b>Date</b>	08/02/2023
<b>Location</b>	This project is for a bridge widening over Norfolk Southern Railroad Tracks in Cobb County. The bridge begins at Station 51+26.01 and ends at Station 52+46.24. The location of the project is shown in Appendix A.

GENERAL INFORMATION	
<b>GEOLOGIC FORMATION</b>	This project will be geologically sited in the Biotitic Gneiss / Mica Schist/ Amphibolite Formation of the Georgia Piedmont Region.
<b>SUBSURFACE FEATURES</b>	The soil test borings encountered very loose to very dense silty sands (SM), very loose to very dense clayey sands (SC), loose and very hard sandy clays (CL), soft to very hard, low to highly plastic clays (CL/CH). Groundwater was encountered at elevations between 968 and 974 feet. Partially Weathered Rock (PWR) was encountered at elevations between 944 and 953 feet. Moderately hard to hard rock was encountered at elevations between 936 and 942 ft. For additional information see the boring layout and boring logs.

MAXIMUM PILE DESIGN LOADS	
END BEARING = 73%	<u>Bents (50 ksi loading)</u>
FRICTION = 27%	HP 12 X 53 = 97 Tons

FOUNDATION RECOMMENDATIONS		
BENTS	PILE FOOTING (PILE TYPE)	PILE BENT (PILE TYPE)
1, 4	--	HP 12x53
2, 3	HP 12x53	--





ELEVATIONS		
BENTS	MINIMUM TIP (FT)	ESTIMATED TIP (FT)
1	961	950
2	958	948
3	958	948
4	964	954

NOTES					
<b>Elevations</b>	All elevations are based on an Elevation of 1009.21 at CP #4 located at Station 51+87.29, RT 17.45' RT.				
<b>PDO</b>	Driving resistance after minimum tip elevations are achieved.				
<b>Waiting Period</b>	None required.				
<b>Pilot Holes (for H- piles)</b>	<p>Pilot Holes should be set up for H-piles due to the potential for hard. Drill 24" diameter pilot holes set up to the following minimum elevations:</p> <table> <tr> <th><u>Bent</u></th><th><u>Elevation (ft)</u></th></tr> <tr> <td>1</td><td>959</td></tr> </table>	<u>Bent</u>	<u>Elevation (ft)</u>	1	959
<u>Bent</u>	<u>Elevation (ft)</u>				
1	959				
<b>Freeze Bearing</b>	Piles should not be overdriven at this site. If dynamic bearing has not been achieved by 2 feet above the Estimated Tip Elevation, pile driving should be stopped for a minimum of 24 hours and re-started with a warm hammer to check for "freeze" bearing.				
<b>Temporary Shoring</b>	Shoring may be required to construct the pile footings at Bents 2 and 3 if the excavations cannot be safely sloped back. Because groundwater was encountered near or above the footing elevations, dewatering of the excavations may also be required.				

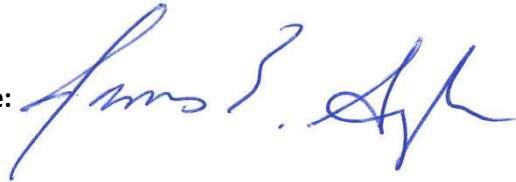


<b>Obstructions</b>	Several of our borings in the area of the bridge indicate concrete fragments within 8 feet of the ground surface. The Contractor should remove these prior to foundation construction.
<b>As Built Foundation Information</b>	The as built foundation information should be forwarded to the Geotechnical Engineering Bureau upon completion of the foundation system.
<b>Special Problems</b>	Erratic pile lengths can be expected.

**Prepared By:** Shacoya Fisher

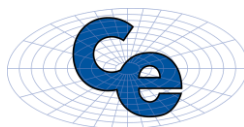
**Approved By Name:** James E. Gough

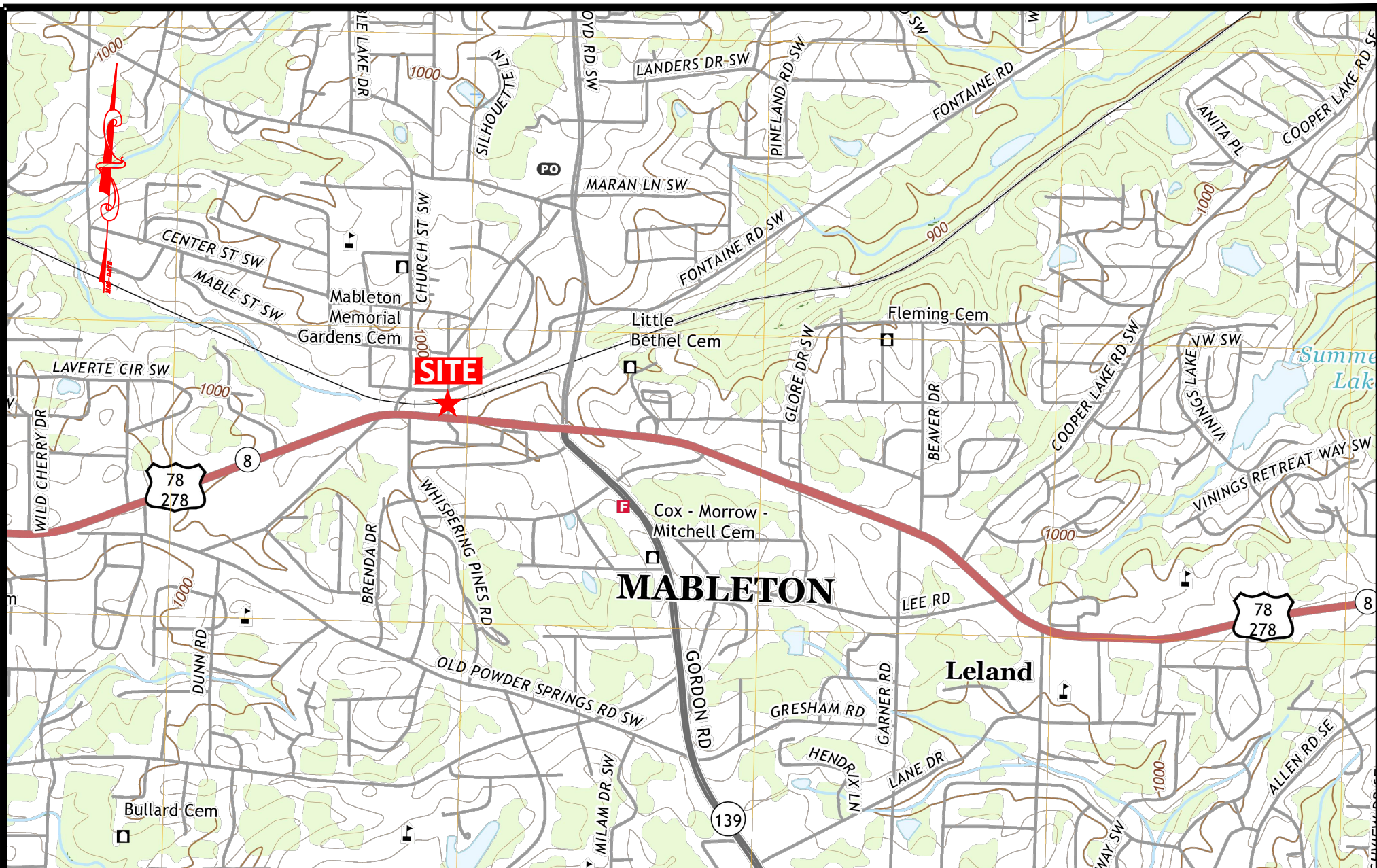
**Approved By Signature:**



## **APPENDIX A:**

**Site Vicinity Map  
Boring Location Plan  
Boring Profile  
Boring Logs (4)  
Soil Classification Chart**





**SITE VICINITY MAP**



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Company**

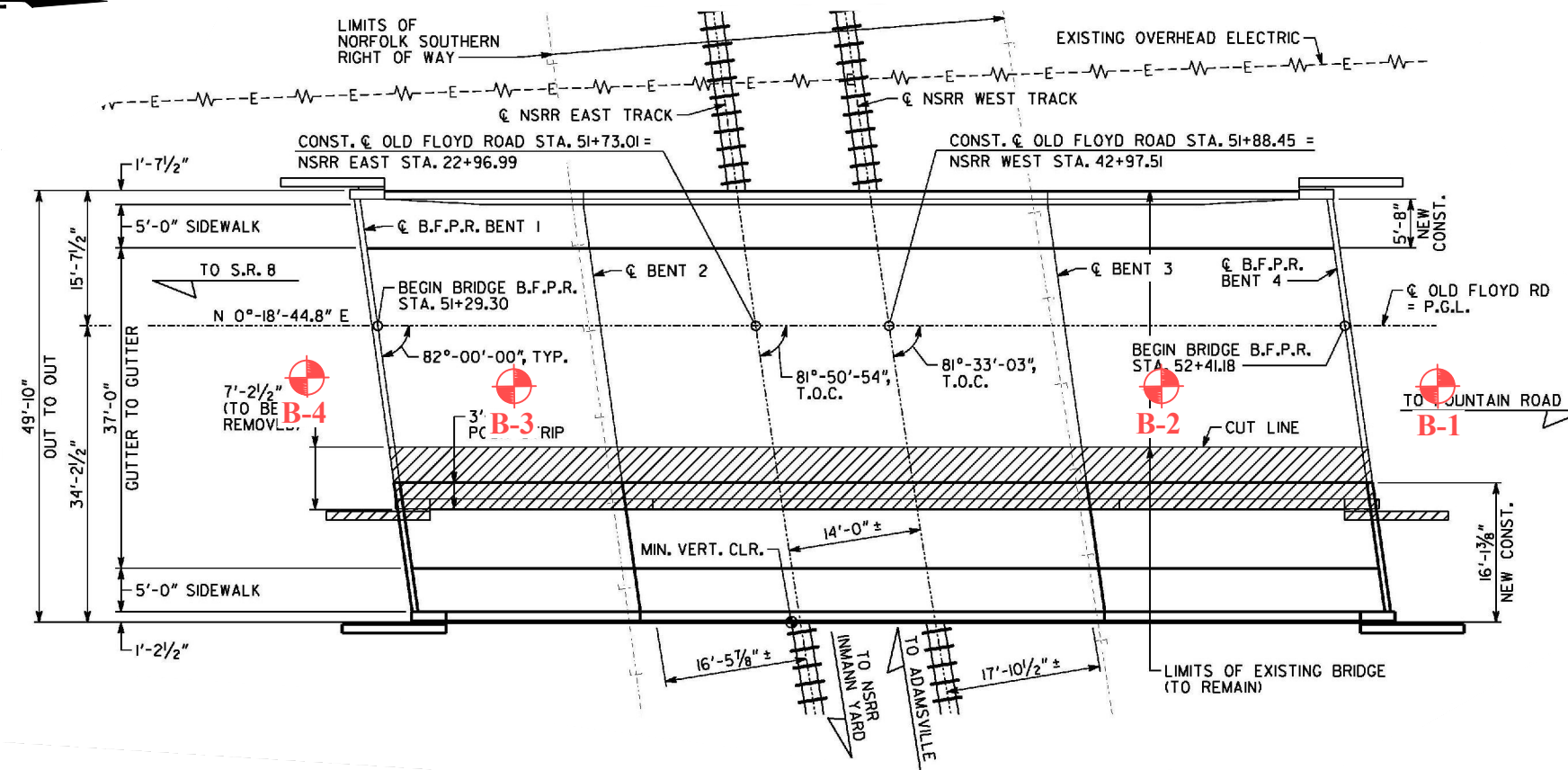
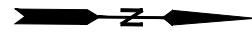
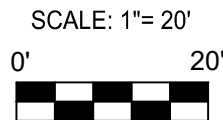
**LEGEND**

Source: USGS Topographic Map -  
Mableton, GA Quadrangle  
Scale: Not to Scale

**PROJECT**

Old Floyd Road over Norfolk  
Southern Railroad  
Cobb County, Georgia  
G22ATK01





**LEGEND:**  
 Boring Location

**Boring Location Plan**

**Old Floyd Road over Norfolk Southern Railroad**  
Mableton, Cobb County, Georgia  
Cobb County Project Number: X2329

Scale: 1" = 20'

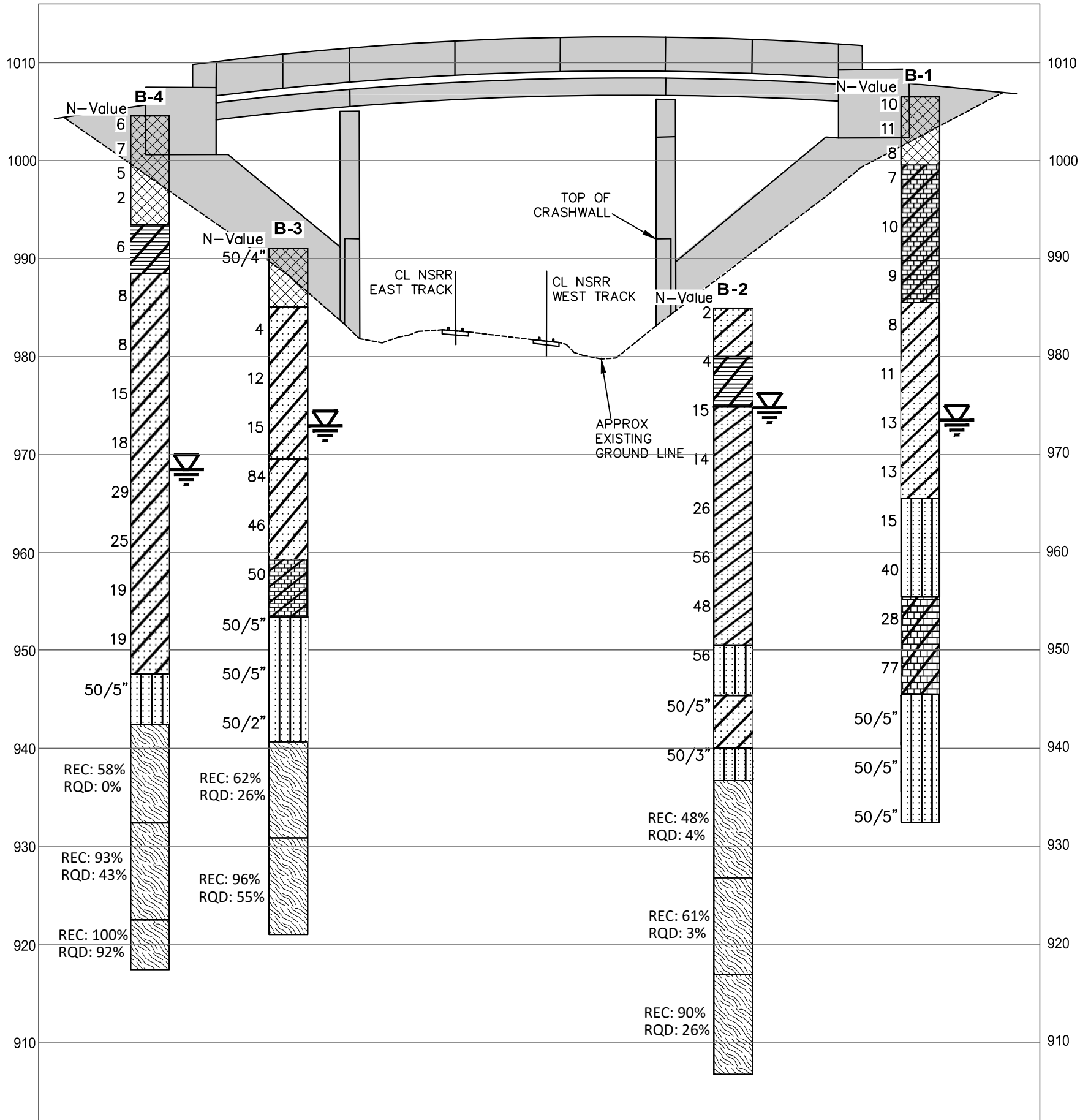
Drawn by: JS  
Checked by: JG  
Date Drawn: 7-26-2022

**Bridge 1**

Y: 1" = 12'  
X: 1" = 20'

### LEGEND

	Silty sand		Fill
	Clayey sand		Silty Clay
	Sandy clay		
	Cored Rock		
	Groundwater Level		



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**CONTOUR** ENGINEERING

### Bridge Boring Profile

Old Floyd Road over Norfolk Southern Railroad

Mableton, Cobb County, Georgia

Cobb County Project Number: X2329

Scale: 1" = 20' Horizontal  
1" = 12' Vertical

Drawn by: JS  
Checked by: JG  
Date Drawn: 7-26-2022

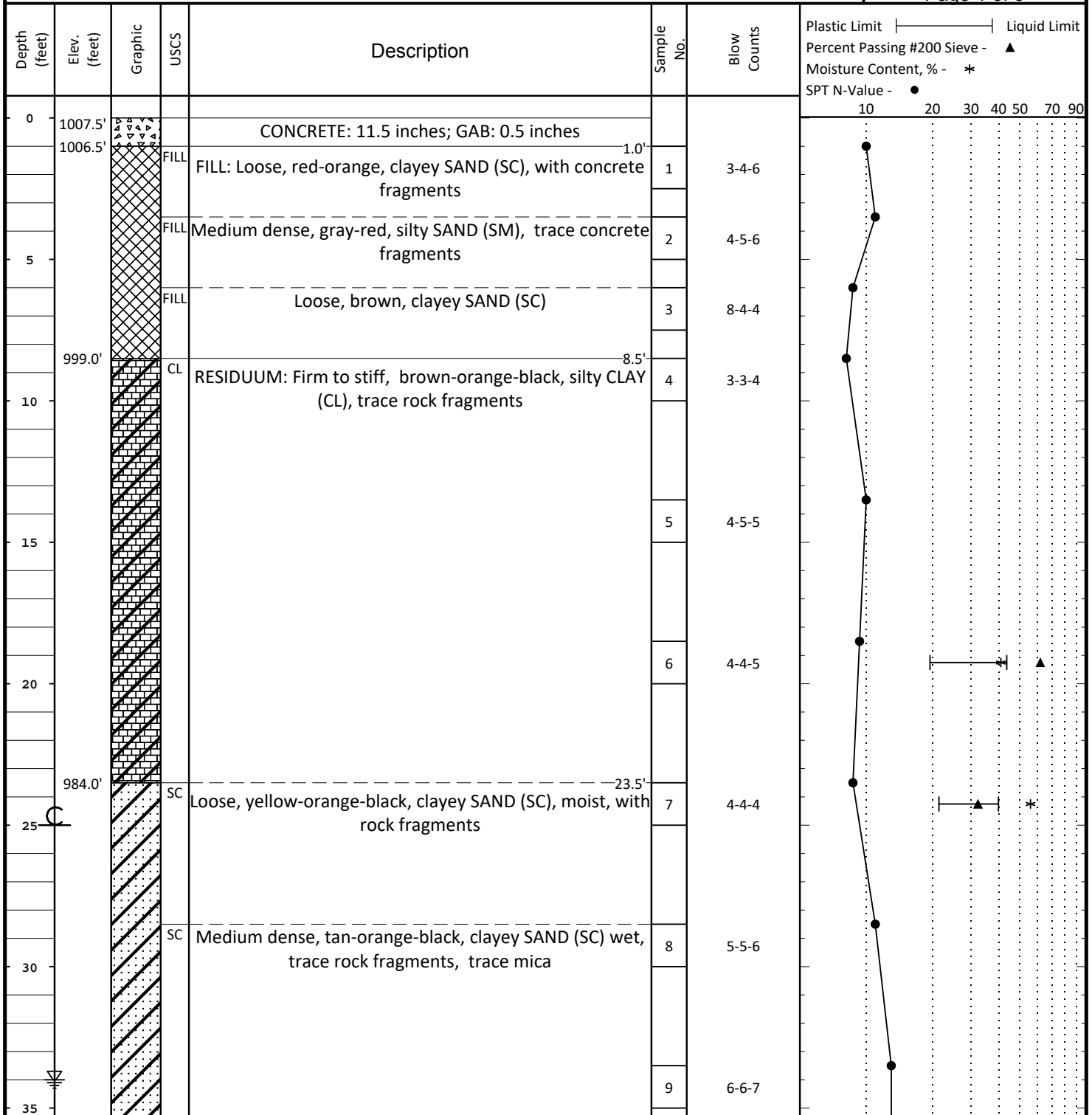
### Bridge 1

PROJECT: Old Floyd Road over Norfolk Southern Railroad PROJECT NO.: Cobb No.: X2329  
 CLIENT: Arcadis  
 PROJECT LOCATION: Mableton, Cobb County, Georgia  
 ELEVATION: 1007.52 LOGGED BY: Sydney Smith STATION: 52+52, 7' RT  
 DRILLING METHOD: Hollow Stem Auger HAMMER EFFICIENCY: 99 DATE: 05/25/2022  
 GROUNDWATER DEPTH: INITIAL 34 feet 24 HOURS: NM CAVE IN: CL 25 feet

**LOG OF BORING**  
**No.**  
**B-1**

Page 1 of 3

This information pertains only to this boring and should not be interpreted as being indicative of the site.

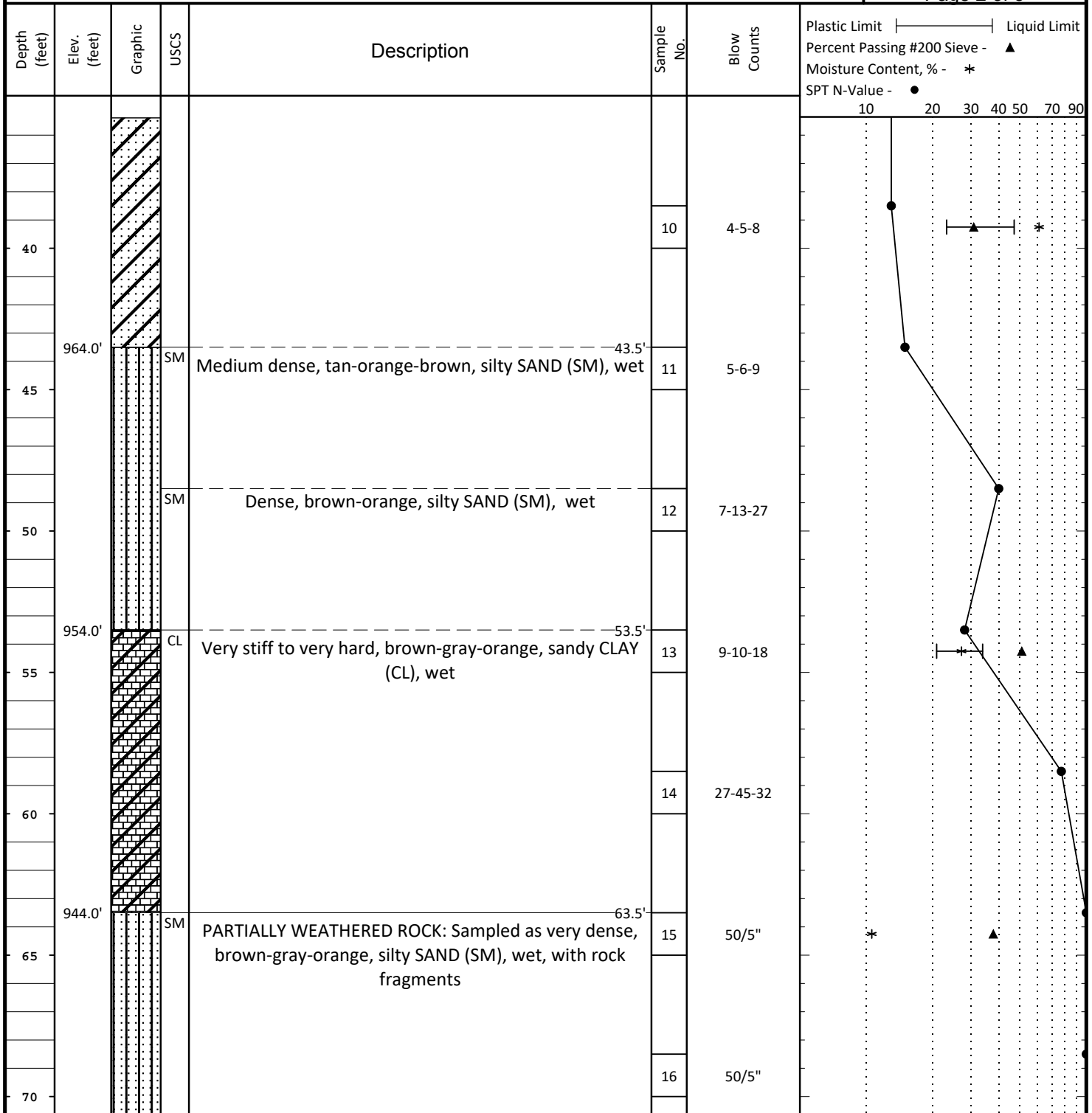


PROJECT: Old Floyd Road over Norfolk Southern Railroad PROJECT NO.: Cobb No.: X2329  
 CLIENT: Arcadis  
 PROJECT LOCATION: Mableton, Cobb County, Georgia  
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 GROUNDWATER DEPTH: INITIAL 34 feet 24 HOURS: NM CAVE IN: 25 feet

**LOG OF BORING**  
**No.**  
**B-1**

Page 2 of 3

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PROJECT: Old Floyd Road over Norfolk Southern Railroad PROJECT NO.: Cobb No.: X2329  
 CLIENT: Arcadis  
 PROJECT LOCATION: Mableton, Cobb County, Georgia  
 ELEVATION: 1007.52 LOGGED BY: Sydney Smith STATION: 52+52, 7' RT  
 DRILLING METHOD: Hollow Stem Auger HAMMER EFFICIENCY: 99 DATE: 05/25/2022  
 GROUNDWATER DEPTH: INITIAL 34 feet 24 HOURS: NM CAVE IN: 25 feet

**LOG OF BORING**  
**No.**  
**B-1**  
 Page 3 of 3

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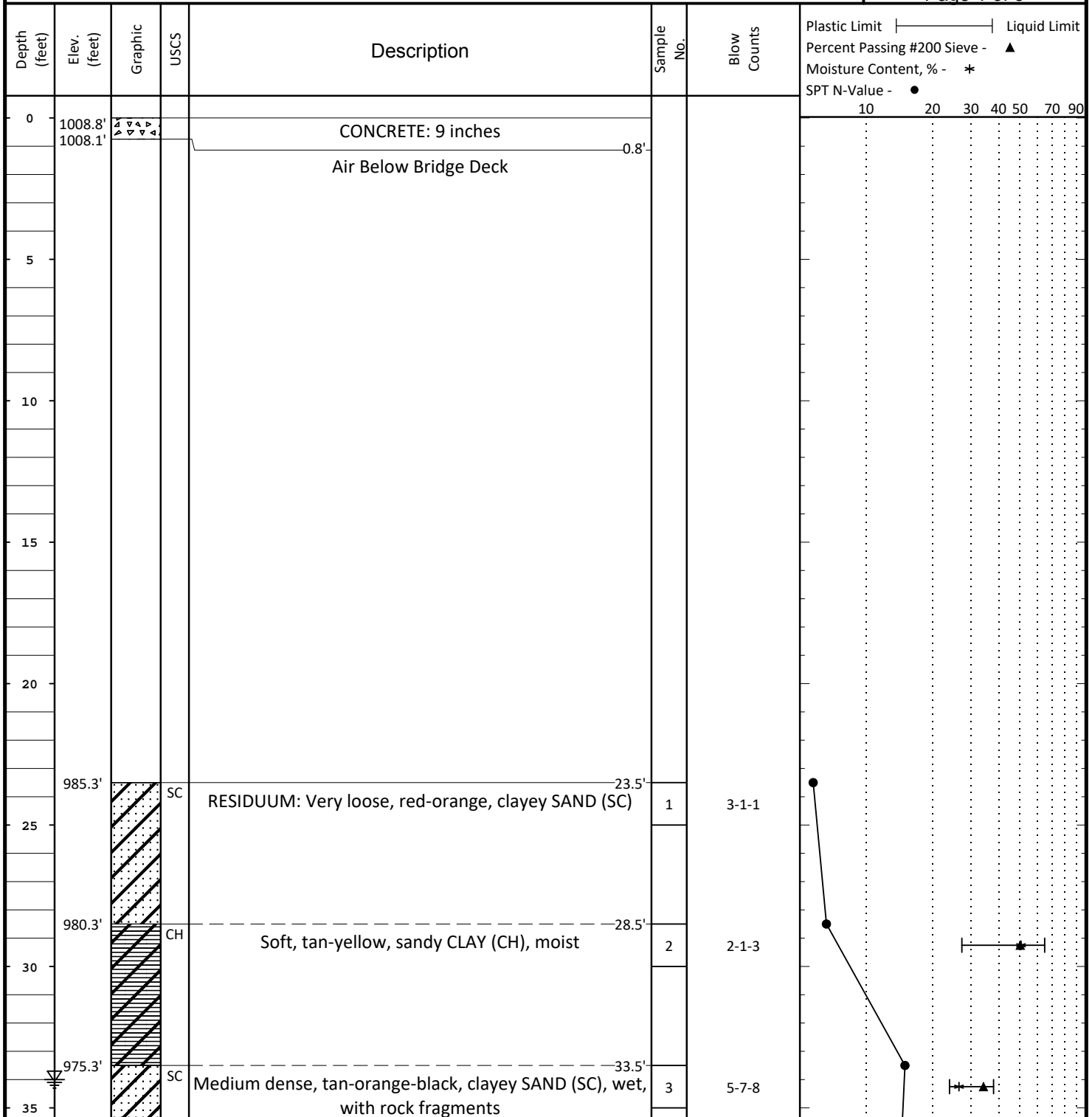
Depth (feet)	Elev. (feet)	Graphic	USCS	Description	Sample No.	Blow Counts	Plastic Limit Percent Passing #200 Sieve - Moisture Content, % - SPT N-Value -	Liquid Limit ▲ *		
							17	50/5"	10 20 30 40 50 70 90	
75	932.5'			Boring terminated at 75 feet						

PROJECT: Old Floyd Road over Norfolk Southern Railroad PROJECT NO.: Cobb No.: X2329  
 CLIENT: Arcadis  
 PROJECT LOCATION: Mableton, Cobb County, Georgia  
 ELEVATION: 1008.80 LOGGED BY: Sydney Smith STATION: 52+20, 7' RT  
 DRILLING METHOD: Hollow Stem Auger HAMMER EFFICIENCY: 99 DATE: 06/02 - 06/03/2022  
 GROUNDWATER DEPTH: INITIAL 34 feet 24 HOURS: NM CAVE IN: C

**LOG OF BORING**  
**No.**  
**B-2**

Page 1 of 3

This information pertains only to this boring and should not be interpreted as being indicative of the site.

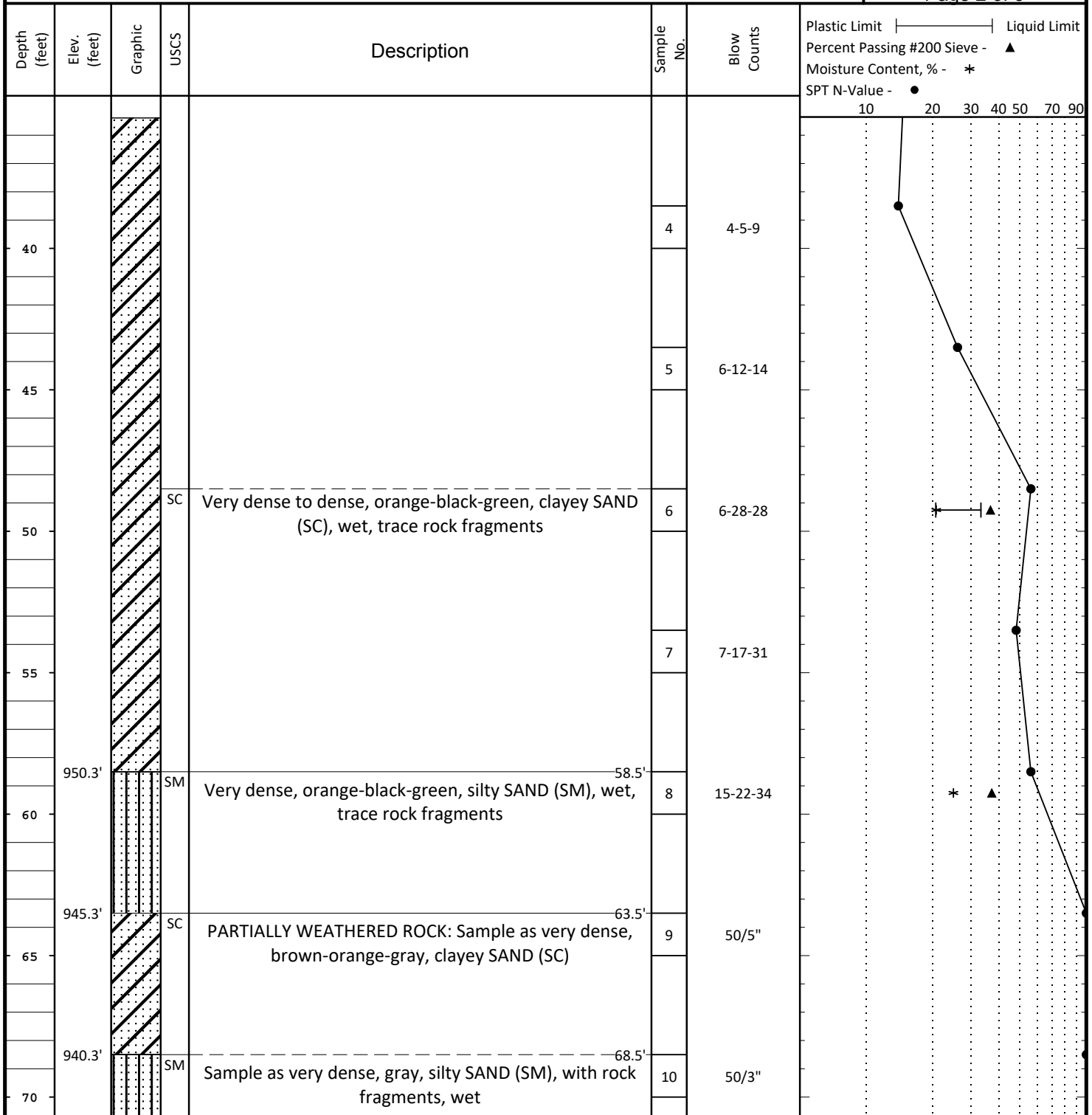


PROJECT: Old Floyd Road over Norfolk Southern Railroad PROJECT NO.: Cobb No.: X2329  
 CLIENT: Arcadis  
 PROJECT LOCATION: Mableton, Cobb County, Georgia  
 ELEVATION: 1008.80 LOGGED BY: Sydney Smith STATION: 52+20, 7' RT  
 DRILLING METHOD: Hollow Stem Auger HAMMER EFFICIENCY: 99 DATE: 06/02 - 06/03/2022  
 GROUNDWATER DEPTH: INITIAL 34 feet 24 HOURS: NM CAVE IN: C

**LOG OF BORING**  
**No.**  
**B-2**

Page 2 of 3

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PROJECT: Old Floyd Road over Norfolk Southern Railroad PROJECT NO.: Cobb No.: X2329  
 CLIENT: Arcadis  
 PROJECT LOCATION: Mableton, Cobb County, Georgia  
 ELEVATION: 1008.80 LOGGED BY: Sydney Smith STATION: 52+20, 7' RT  
 DRILLING METHOD: Hollow Stem Auger HAMMER EFFICIENCY: 99 DATE: 06/02 - 06/03/2022  
 GROUNDWATER DEPTH: INITIAL 34 feet 24 HOURS: NM CAVE IN: CL

**LOG OF BORING**  
**No.**  
**B-2**

Page 3 of 3

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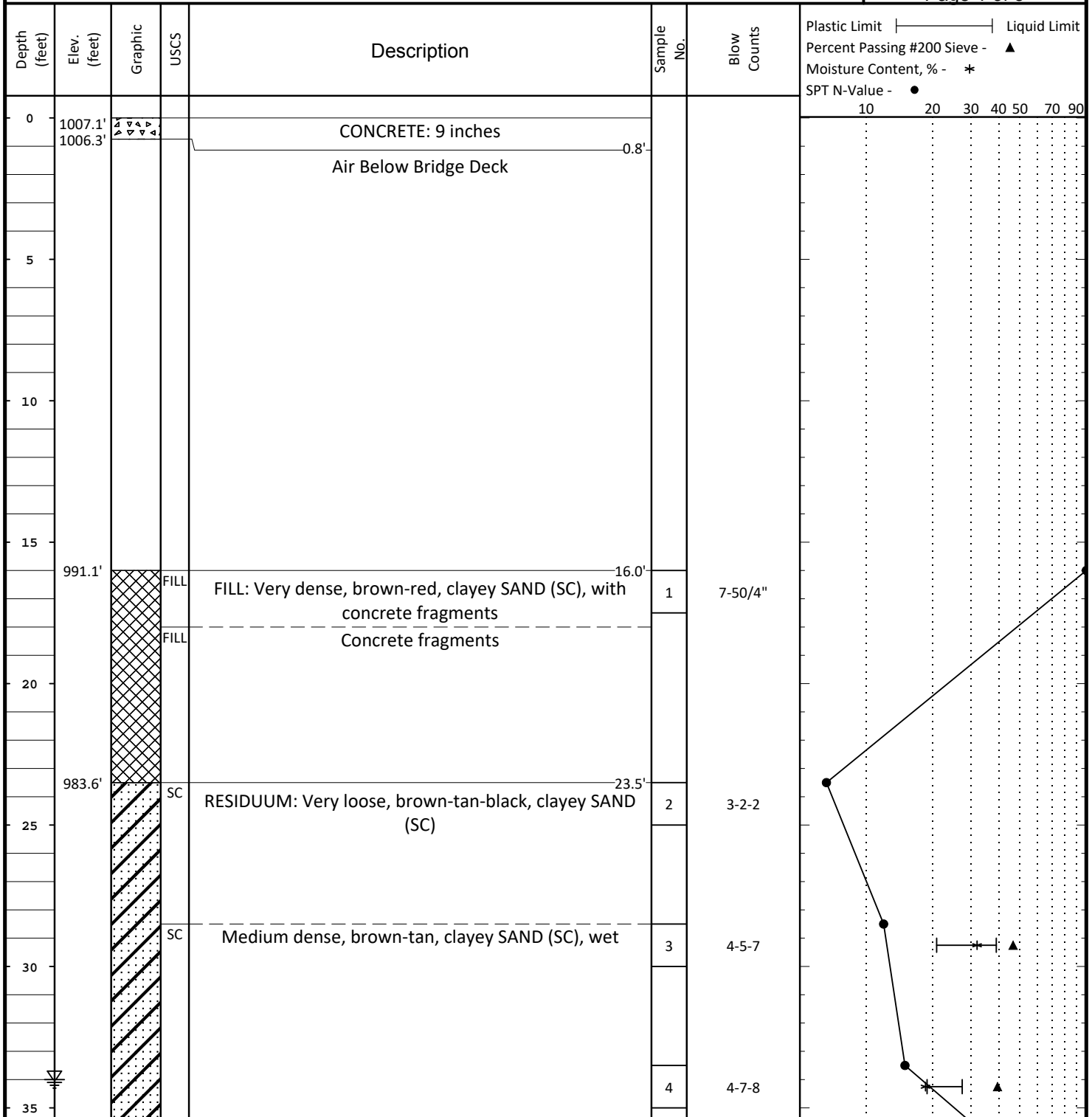
Depth (feet)	Elev. (feet)	Graphic	USCS	Description	Sample No.	Blow Counts	Plastic Limit Percent Passing #200 Sieve - Moisture Content, % - SPT N-Value -	Liquid Limit ▲ *
							10 20 30 40 50 70 90	
	936.8'			Auger refusal at 72 feet Rock coring initiated				
75				BIOTITE GNEISS: Sampled as partially weathered rock/ soft rock, gray-white				
80				REC: 48% RQD: 4%				
				Sampled as partially weathered rock/soft rock, gray-white				
85				REC: 61% RQD: 3%				
90				Sampled as partially weathered rock/soft rock, gray-white				
95				REC: 90% RQD: 26%				
100								
	906.8'			Boring terminated at 102 feet				
105								

PROJECT: Old Floyd Road over Norfolk Southern Railroad PROJECT NO.: Cobb No.: X2329  
 CLIENT: Arcadis  
 PROJECT LOCATION: Mableton, Cobb County, Georgia  
 ELEVATION: 1007.07 LOGGED BY: Sydney Smith STATION: 51+45, 7' RT  
 DRILLING METHOD: Hollow Stem Auger HAMMER EFFICIENCY: 99 DATE: 06/01 - 06/02/2022  
 GROUNDWATER DEPTH: INITIAL 34 feet 24 HOURS: NM CAVE IN: C

**LOG OF BORING**  
**No.**  
**B-3**

Page 1 of 3

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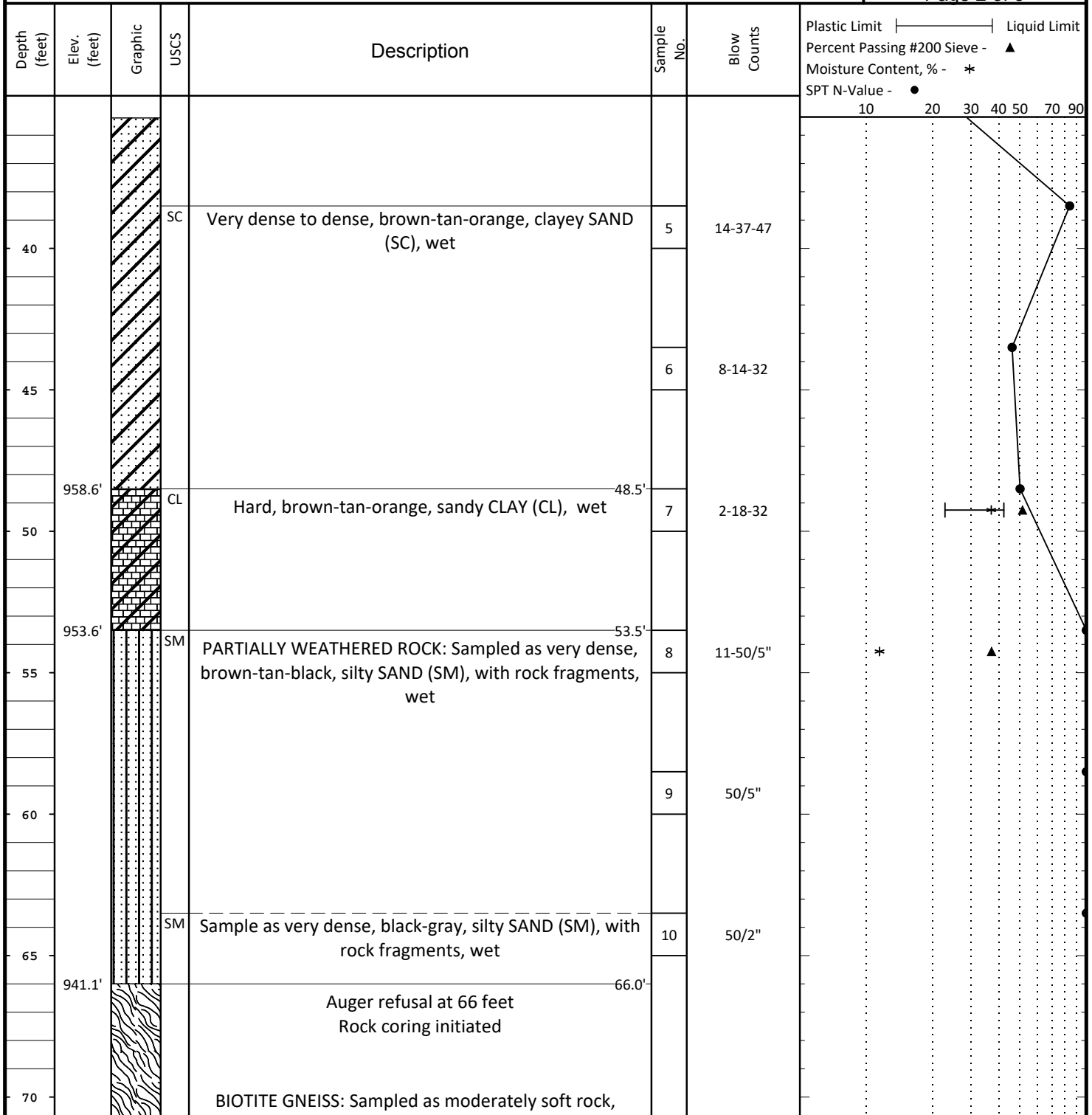


PROJECT: Old Floyd Road over Norfolk Southern Railroad PROJECT NO.: Cobb No.: X2329  
 CLIENT: Arcadis  
 PROJECT LOCATION: Mableton, Cobb County, Georgia  
 ELEVATION: 1007.07 LOGGED BY: Sydney Smith STATION: 51+45, 7' RT  
 DRILLING METHOD: Hollow Stem Auger HAMMER EFFICIENCY: 99 DATE: 06/01 - 06/02/2022  
 GROUNDWATER DEPTH: INITIAL 34 feet 24 HOURS: NM CAVE IN: C

**LOG OF BORING**  
**No.**  
**B-3**

Page 2 of 3

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PROJECT: Old Floyd Road over Norfolk Southern Railroad PROJECT NO.: Cobb No.: X2329  
 CLIENT: Arcadis  
 PROJECT LOCATION: Mableton, Cobb County, Georgia  
 ELEVATION: 1007.07 LOGGED BY: Sydney Smith STATION: 51+45, 7' RT  
 DRILLING METHOD: Hollow Stem Auger HAMMER EFFICIENCY: 99 DATE: 06/01 - 06/02/2022  
 GROUNDWATER DEPTH: INITIAL 34 feet 24 HOURS: NM CAVE IN: C

**LOG OF BORING**  
**No.**  
**B-3**

Page 3 of 3

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Depth (feet)	Elev. (feet)	Graphic	USCS	Description	Sample No.	Blow Counts	Plastic Limit Percent Passing #200 Sieve - Moisture Content, % - SPT N-Value -	Liquid Limit ▲ *
				white-gray  REC: 62% RQD: 26%			10 20 30 40 50 70 90	
75				Sampled as moderately hard rock, gray-white  REC: 96% RQD: 55%				
80								
85								
90								
95								
100								
105								

921.1'

Boring terminated at 86 feet

PROJECT: Old Floyd Road over Norfolk Southern Railroad PROJECT NO.: Cobb No.: X2329  
 CLIENT: Arcadis  
 PROJECT LOCATION: Mableton, Cobb County, Georgia  
 ELEVATION: 1005.48 LOGGED BY: Sydney Smith STATION: 51+21, 6' RT  
 DRILLING METHOD: Hollow Stem Auger HAMMER EFFICIENCY: 99 DATE: 05/31/2022  
 GROUNDWATER DEPTH: INITIAL 37 feet 24 HOURS: NM CAVE IN: C

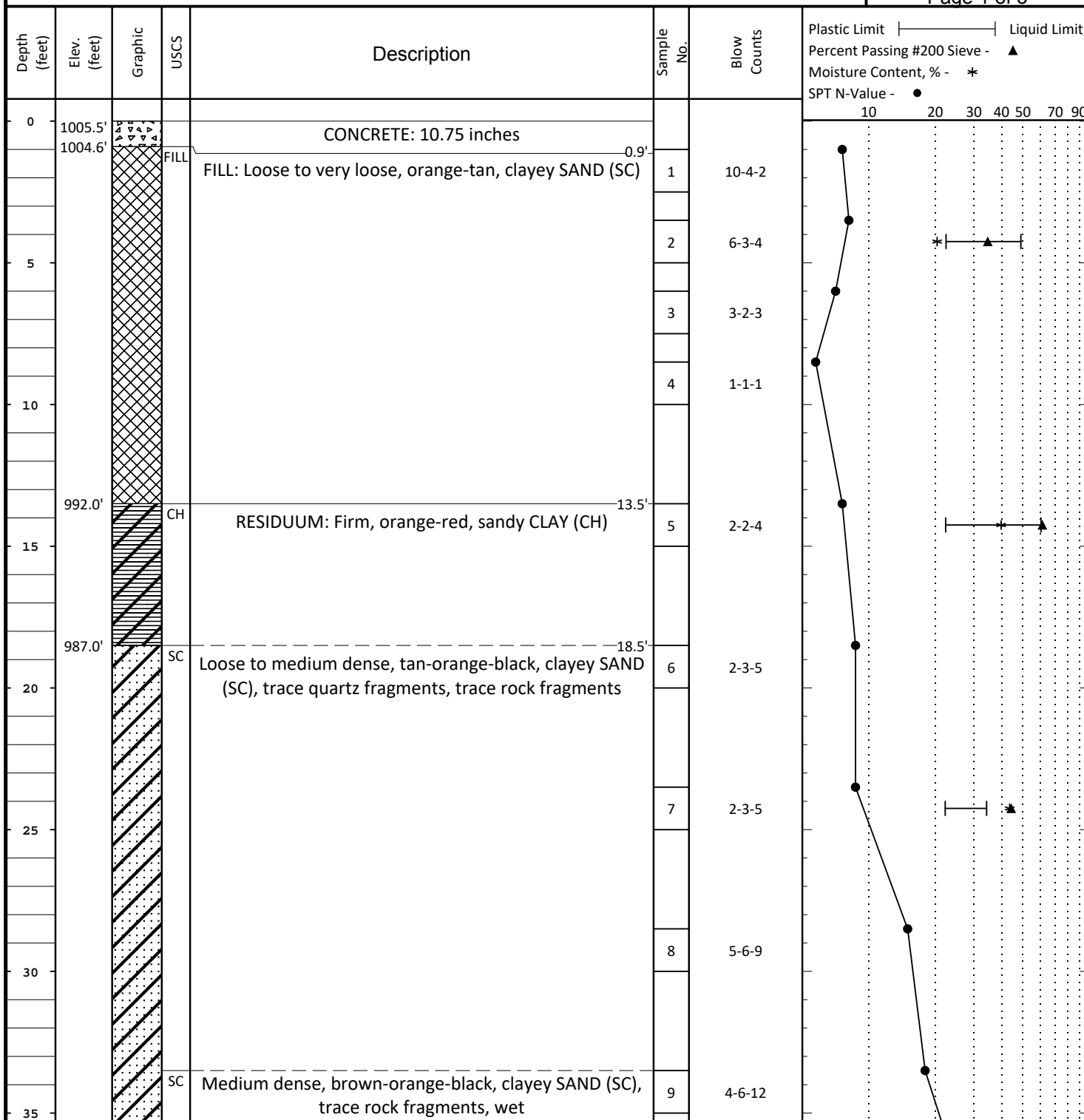
# LOG OF BORING

## No.

**B-4**

Page 1 of 3

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PROJECT: Old Floyd Road over Norfolk Southern Railroad PROJECT NO.: Cobb No.: X2329  
 CLIENT: Arcadis  
 PROJECT LOCATION: Mableton, Cobb County, Georgia  
 ELEVATION: 1005.48 LOGGED BY: Sydney Smith STATION: 51+21, 6' RT  
 DRILLING METHOD: Hollow Stem Auger HAMMER EFFICIENCY: 99 DATE: 05/31/2022  
 GROUNDWATER DEPTH: INITIAL 37 feet 24 HOURS: NM CAVE IN: C

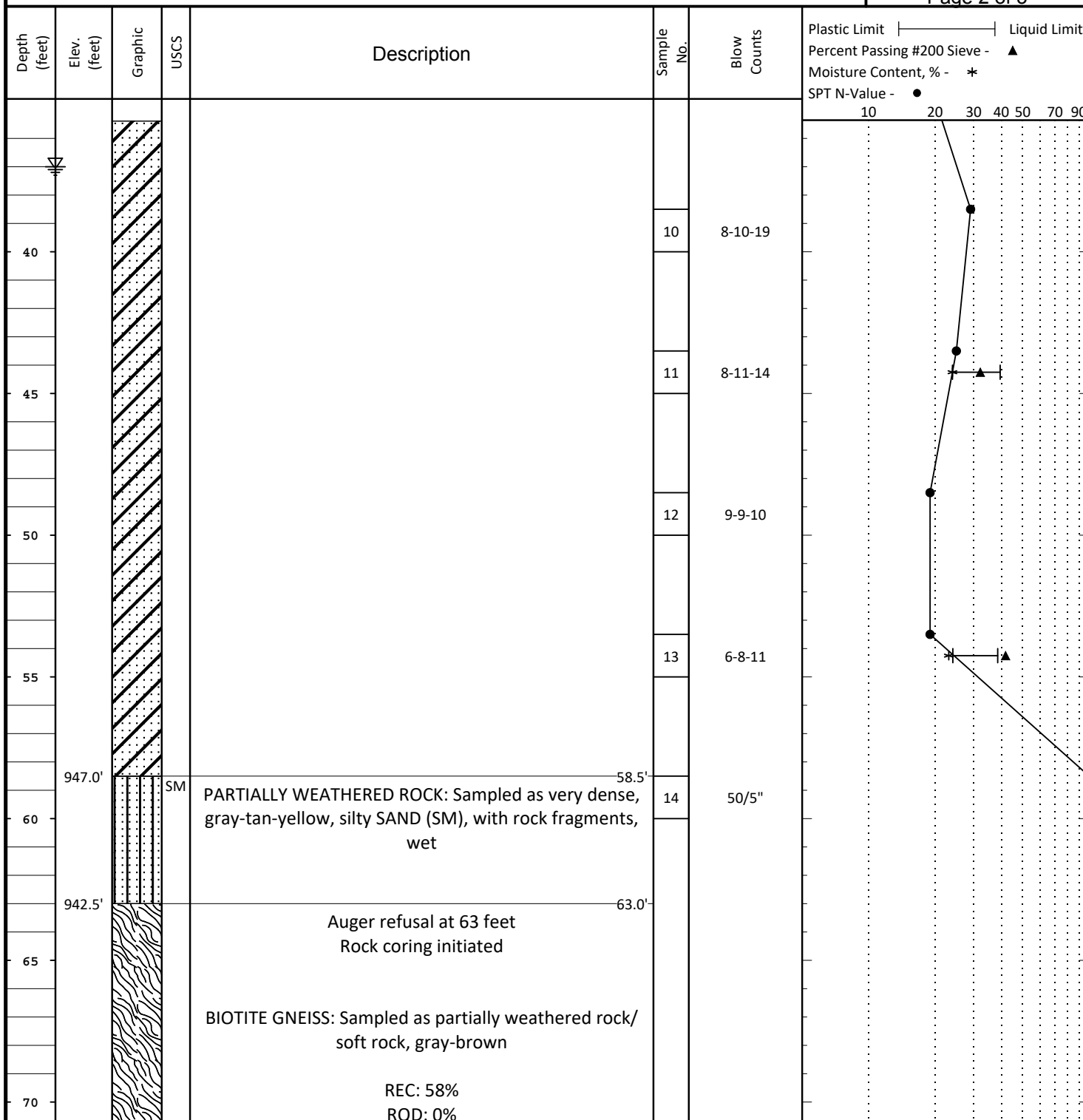
# LOG OF BORING

No.

B-4

Page 2 of 3

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PROJECT: Old Floyd Road over Norfolk Southern Railroad PROJECT NO.: Cobb No.: X2329  
 CLIENT: Arcadis  
 PROJECT LOCATION: Mableton, Cobb County, Georgia  
 ELEVATION: 1005.48 LOGGED BY: Sydney Smith STATION: 51+21, 6' RT  
 DRILLING METHOD: Hollow Stem Auger HAMMER EFFICIENCY: 99 DATE: 05/31/2022  
 GROUNDWATER DEPTH: INITIAL 37 feet 24 HOURS: NM CAVE IN: C

**LOG OF BORING**  
**No.**  
**B-4**  
 Page 3 of 3

This information pertains only to this boring and should not be interpreted as being indicative of the site.

Depth (feet)	Elev. (feet)	Graphic	USCS	Description	Sample No.	Blow Counts	Plastic Limit Percent Passing #200 Sieve - Moisture Content, % - SPT N-Value -	Liquid Limit ▲ *
							10 20 30 40 50 70 90	
75				Sampled as moderately hard rock, gray-white  REC: 93% RQD: 43%				
80								
85				Sampled as hard to very hard continuous rock, gray-white  REC: 100% RQD: 92%				
90	917.5'			Boring terminated at 88 feet				
95								
100								
105								

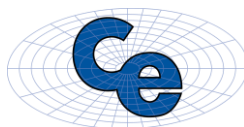
# SOIL CLASSIFICATION CHART

MAJOR DIVISIONS			SYMBOLS		TYPICAL DESCRIPTIONS
			GRAPH	LETTER	
COARSE GRAINED SOILS  MORE THAN 50% OF MATERIAL IS LARGER THAN NO. 200 SIEVE SIZE	GRAVEL AND GRAVELLY SOILS  MORE THAN 50% OF COARSE FRACTION RETAINED ON NO. 4 SIEVE	CLEAN GRAVELS  (LITTLE OR NO FINES)		GW	WELL-GRADED GRAVELS, GRAVEL - SAND MIXTURES, LITTLE OR NO FINES
				GP	POORLY-GRADED GRAVELS, GRAVEL - SAND MIXTURES, LITTLE OR NO FINES
		GRAVELS WITH FINES  (APPRECIABLE AMOUNT OF FINES)		GM	SILTY GRAVELS, GRAVEL - SAND - SILT MIXTURES
				GC	CLAYEY GRAVELS, GRAVEL - SAND - CLAY MIXTURES
	SAND AND SANDY SOILS  MORE THAN 50% OF COARSE FRACTION PASSING ON NO. 4 SIEVE	CLEAN SANDS  (LITTLE OR NO FINES)		SW	WELL-GRADED SANDS, GRAVELLY SANDS, LITTLE OR NO FINES
				SP	POORLY-GRADED SANDS, GRAVELLY SAND, LITTLE OR NO FINES
		SANDS WITH FINES  (APPRECIABLE AMOUNT OF FINES)		SM	SILTY SANDS, SAND - SILT MIXTURES
				SC	CLAYEY SANDS, SAND - CLAY MIXTURES
FINE GRAINED SOILS  MORE THAN 50% OF MATERIAL IS SMALLER THAN NO. 200 SIEVE SIZE	SILTS AND CLAYS  LIQUID LIMIT LESS THAN 50			ML	INORGANIC SILTS AND VERY FINE SANDS, ROCK FLOUR, SILTY OR CLAYEY FINE SANDS OR CLAYEY SILTS WITH SLIGHT PLASTICITY
				CL	INORGANIC CLAYS OF LOW TO MEDIUM PLASTICITY, GRAVELLY CLAYS, SANDY CLAYS, SILTY CLAYS, LEAN CLAYS
				OL	ORGANIC SILTS AND ORGANIC SILTY CLAYS OF LOW PLASTICITY
	SILTS AND CLAYS  LIQUID LIMIT GREATER THAN 50			MH	INORGANIC SILTS, MICACEOUS OR DIATOMACEOUS FINE SAND OR SILTY SOILS
				CH	INORGANIC CLAYS OF HIGH PLASTICITY
				OH	ORGANIC CLAYS OF MEDIUM TO HIGH PLASTICITY, ORGANIC SILTS
HIGHLY ORGANIC SOILS				PT	PEAT, HUMUS, SWAMP SOILS WITH HIGH ORGANIC CONTENTS

NOTE: DUAL SYMBOLS ARE USED TO INDICATE BORDERLINE SOIL CLASSIFICATIONS

## **APPENDIX B:**

### **Provided Structural Data for Foundation Design Seismic Site Classification Spreadsheet APILE Analysis**



FILE Old Floyd Rd Widening  
PI No. X2329

OFFICE Contour Engineering

DATE 6/21/2023

FROM Patrick Pecot, PE, SE, Arcadis US, Inc.

TO Contour Engineering, Inc.  
Attn: Andrew M. Rebeiz, P.E.

SUBJECT **FOUNDATION DESIGN DATA (LFD)**

The following design loads, stress limits (as necessary), and structural capacities (as necessary) have been calculated for the above listed structure. Please use the provided values to complete the Bridge Foundation Investigation report for this project.

BENT	BENT TYPE	MAX DESIGN LOADS (KIPS)		PILE TYPE & GRADE (KSI)	PILE SIZE (IN x WT)	DRIVEABILITY		MAX. FACTORED STRUCTURAL RESISTANCE (KIPS)
		FACTORED LOAD	SERVICE LOAD			COMP. (KSI)	TENSION (KSI)	
1	Pile End Bent	93	65	HP (50)	12x53	45	45	384
2	Int Bent	148	115	HP (50)	12x53	45	45	384
3	Int Bent	154	120	HP (50)	12x53	45	45	384
4	Pile End Bent	100	71	HP (50)	12x53	45	45	384

#### ADDITIONAL COMMENTS

If you have any questions please contact Patrick Pecot at 770-384-6588 or by email at [patrick.pecot@arcadis.com](mailto:patrick.pecot@arcadis.com).

KNK:RW



Site Classification using Standard Penetration Test (SPT) Blowcounts  
Corrected for Hammer Efficiency:

Site Class:	Stiff soil profile	D
-------------	--------------------	---

**Where:**  $\bar{N} = \frac{\sum_{i=1}^n d_i}{\sum_{i=1}^n \frac{d_i}{N_{60i}}}$

B-2						
Sample	Start Depth (feet)	End Depth (feet)	Blow Count $N_i$	Blow Count $N_{60i}$	Layer Thickness $d_i$ (feet)	$\frac{d_i}{N_{60i}}$
1	23.5	28.5	2	3.3	5	1.52
2	28.5	33.5	4	6.6	5	0.76
3	33.5	38.5	15	24.8	5	0.20
4	38.5	43.5	14	23.1	5	0.22
5	43.5	48.5	26	42.9	5	0.12
6	48.5	53.5	56	92.4	5	0.05
7	53.5	58.5	48	79.2	5	0.06
8	58.5	63.5	56	92.4	5	0.05
9	63.5	123.5	100	100.0	60	0.60
	Sum				100	3.58
	Hammer Efficiency (ER) = 99.0%				$\bar{N} =$	27.9
Site Class:			Stiff soil profile			D



Site Classification using Standard Penetration Test (SPT) Blowcounts  
Corrected for Hammer Efficiency:

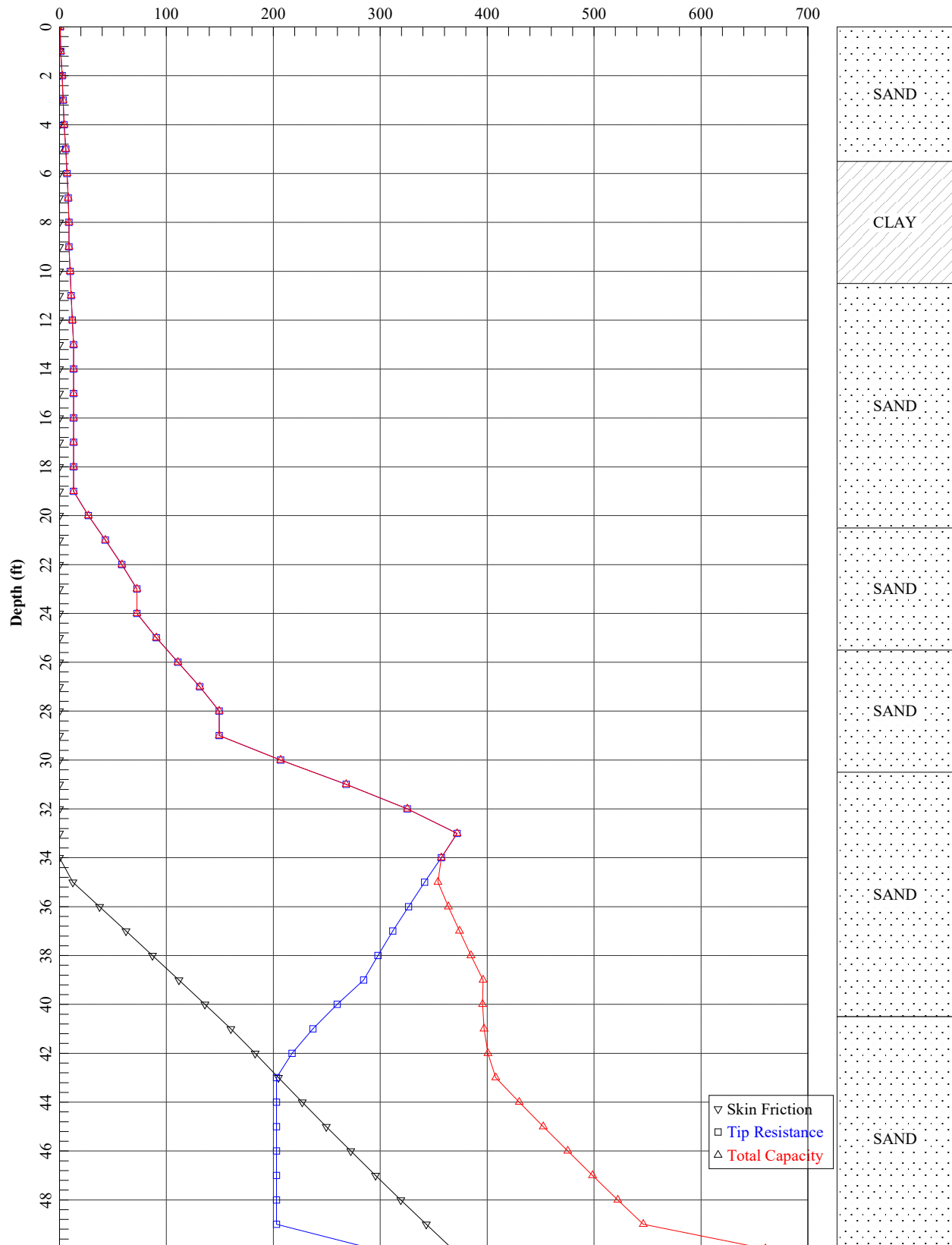
Site Class:	Stiff soil profile	D
-------------	--------------------	---

**Where:**  $\bar{N} = \frac{\sum_{i=1}^n d_i}{\sum_{i=1}^n \frac{d_i}{N_{60i}}}$

B-4						
Sample	Start Depth (feet)	End Depth (feet)	Blow Count $N_i$	Blow Count $N_{60i}$	Layer Thickness $d_i$ (feet)	$\frac{d_i}{N_{60i}}$
1	1	3.5	6	9.9	2.5	0.25
2	3.5	6	7	11.6	2.5	0.22
3	6	8.5	5	8.3	2.5	0.30
4	8.5	13.5	2	3.3	5	1.52
5	13.5	18.5	6	9.9	5	0.51
6	18.5	23.5	8	13.2	5	0.38
7	23.5	28.5	8	13.2	5	0.38
8	28.5	33.5	15	24.8	5	0.20
9	33.5	38.5	18	29.7	5	0.17
10	38.5	43.5	29	47.9	5	0.10
11	43.5	48.5	25	41.3	5	0.12
12	48.5	53.5	19	31.4	5	0.16
13	53.5	58.5	19	31.4	5	0.16
14	58.5	101	100	100.0	42.5	0.43
15						
	Sum				100	4.89
	Hammer Efficiency (ER) = 99.0%				$\bar{N} =$	20.5
Site Class:			Stiff soil profile			D

Site Class:	Stiff soil profile	D
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Old Floyd Road over Norfolk Southern Railroad - Bent 1 - Boring 4  
Axial Capacity (kips)





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APILE for Windows, Version 2015.7.2

Serial Number : 155211552

A Program for Analyzing the Axial Capacity  
and Short-term Settlement of Driven Piles  
under Axial Loading.  
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Birmingham, Alabama

Path to file locations : C:\Users\SFisher\OneDrive - Universal  
Engineering-Team UES\Desktop\Old Floyd\Revised\  
Name of input data file : Bent 1.ap7d  
Name of output file : Bent 1.ap7o  
Name of plot output file : Bent 1.ap7p

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Time and Date of Analysis  
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Date: August 02, 2023 Time: 19:11:55

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\* INPUT INFORMATION \*  
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Old Floyd Road over Norfolk Southern Railroad - Bent 1 - Boring 4

DESIGNER : STF

JOB NUMBER : G22ATK01

METHOD FOR UNIT LOAD TRANSFERS :

- FHWA (Federal Highway Administration)  
Unfactored Unit Side Friction and Unit Side Resistance are used.

COMPUTATION METHOD(S) FOR PILE CAPACITY :

- FHWA (Federal Highway Administration)

TYPE OF LOADING :

- COMPRESSION

PILE TYPE :

H-Pile/Steel Pile

DATA FOR AXIAL STIFFNESS :

- MODULUS OF ELASTICITY = 0.300E+08 PSI
- CROSS SECTION AREA = 141.89 IN2

NONCIRCULAR PILE PROPERTIES :

- TOTAL PILE LENGTH, TL = 50.00 FT.
- PILE STICKUP LENGTH, PSL = 0.00 FT.
- ZERO FRICTION LENGTH, ZFL = 35.00 FT.
- PERIMETER OF PILE = 47.65 IN.
- TIP AREA OF PILE = 141.89 IN2
- INCREMENT OF PILE LENGTH  
USED IN COMPUTATION = 1.00 FT.

SOIL INFORMATIONS :

DEPTH FT.	SOIL TYPE	LATERAL EARTH PRESSURE	EFFECTIVE UNIT WEIGHT LB/CF	FRICTION ANGLE DEGREES	BEARING CAPACITY FACTOR
0.00	SAND	0.00	100.00	29.00	0.00
5.50	SAND	0.00	100.00	27.00	0.00
5.50	CLAY	0.00	125.00	0.00	0.00
10.50	CLAY	0.00	125.00	0.00	0.00
10.50	SAND	0.00	125.00	30.00	0.00

20.50	SAND	0.00	125.00	30.00	0.00
20.50	SAND	0.00	125.00	34.00	0.00
25.50	SAND	0.00	125.00	34.00	0.00
25.50	SAND	0.00	62.60	36.00	0.00
30.50	SAND	0.00	62.60	36.00	0.00
30.50	SAND	0.00	67.60	40.00	0.00
40.50	SAND	0.00	67.60	38.00	0.00
40.50	SAND	0.00	67.60	37.00	0.00
50.50	SAND	0.00	67.60	37.00	0.00
50.50	SAND	0.00	92.60	42.00	0.00
55.00	SAND	0.00	92.60	42.00	0.00

MAXIMUM UNIT FRICTION KSF	MAXIMUM UNIT BEARING KSF	UNDISTURB SHEAR STRENGTH KSF	REMOLDED SHEAR STRENGTH KSF	BLOW COUNT	UNIT SKIN FRICTION KSF	UNIT END BEARING KSF
0.10E+08*	0.10E+08*	0.00	0.00	0.00	0.00	0.00
0.10E+08*	0.10E+08*	0.00	0.00	0.00	0.00	0.00
0.10E+08*	0.10E+08*	1.00	0.00	0.00	0.00	0.00
0.10E+08*	0.10E+08*	1.00	0.00	0.00	0.00	0.00
0.10E+08*	0.10E+08*	0.00	0.00	0.00	0.00	0.00
0.10E+08*	0.10E+08*	0.00	0.00	0.00	0.00	0.00
0.10E+08*	0.10E+08*	0.00	0.00	0.00	0.00	0.00
0.10E+08*	0.10E+08*	0.00	0.00	0.00	0.00	0.00
0.10E+08*	0.10E+08*	0.00	0.00	0.00	0.00	0.00
0.10E+08*	0.10E+08*	0.00	0.00	0.00	0.00	0.00
0.10E+08*	0.10E+08*	0.00	0.00	0.00	0.00	0.00
0.10E+08*	0.10E+08*	0.00	0.00	0.00	0.00	0.00
0.10E+08*	0.10E+08*	0.00	0.00	0.00	0.00	0.00
0.10E+08*	0.10E+08*	0.00	0.00	0.00	0.00	0.00
0.10E+08*	0.10E+08*	0.00	0.00	0.00	0.00	0.00
0.10E+08*	0.10E+08*	0.00	0.00	0.00	0.00	0.00

\* MAXIMUM UNIT FRICTION AND/OR MAXIMUM UNIT BEARING WERE SET TO BE 0.10E+08 BECAUSE THE USER DOES NOT PLAN TO LIMIT THE COMPUTED DATA.

DEPTH FT.	LRFD FACTOR ON UNIT FRICTION	LRFD FACTOR ON UNIT BEARING
0.00	1.000	1.000
5.50	1.000	1.000
5.50	1.000	1.000
10.50	1.000	1.000
10.50	1.000	1.000

20.50	1.000	1.000
20.50	1.000	1.000
25.50	1.000	1.000
25.50	1.000	1.000
30.50	1.000	1.000
30.50	1.000	1.000
40.50	1.000	1.000
40.50	1.000	1.000
50.50	1.000	1.000
50.50	1.000	1.000
55.00	1.000	1.000

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 \* COMPUTATION RESULT \*  
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 \* FED. HWY. METHOD \*  
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	PILE PENETRATION FT.	TOTAL SKIN FRICTION KIP	END BEARING KIP	ULTIMATE CAPACITY KIP
DEPTH 0' = ELEVATION 998'	0.00	0.0	0.6	0.6
	1.00	0.0	1.2	1.2
	2.00	0.0	2.4	2.4
	3.00	0.0	3.5	3.5
	4.00	0.0	4.3	4.3
	5.00	0.0	5.8	5.8
	6.00	0.0	7.0	7.0
	7.00	0.0	8.1	8.1
	8.00	0.0	8.9	8.9
	9.00	0.0	8.9	8.9
	10.00	0.0	9.9	9.9
	11.00	0.0	11.0	11.0
	12.00	0.0	12.1	12.1
	13.00	0.0	13.1	13.1
	14.00	0.0	13.1	13.1
	15.00	0.0	13.1	13.1
	16.00	0.0	13.1	13.1
	17.00	0.0	13.1	13.1
	18.00	0.0	13.1	13.1
	19.00	0.0	13.1	13.1
	20.00	0.0	27.1	27.1
	21.00	0.0	42.8	42.8

22.00	0.0	58.4	58.4
23.00	0.0	72.4	72.4
24.00	0.0	72.4	72.4
25.00	0.0	90.6	90.6
26.00	0.0	110.9	110.9
27.00	0.0	131.2	131.2
28.00	0.0	149.4	149.4
29.00	0.0	149.4	149.4
30.00	0.0	206.8	206.8
31.00	0.0	268.1	268.1
32.00	0.0	325.4	325.4
33.00	0.0	371.9	371.9
34.00	0.0	357.1	357.1
35.00	12.5	341.5	354.0
36.00	37.4	326.4	363.8
MIN 37.00	62.3	311.8	374.1
38.00	87.0	297.9	384.9
39.00	111.6	284.5	396.1
40.00	136.0	259.8	395.8
41.00	160.2	237.0	397.2
42.00	183.1	217.6	400.7
43.00	204.9	203.0	407.9
44.00	227.1	203.0	430.1
45.00	249.6	203.0	452.6
46.00	272.4	203.0	475.4
47.00	295.6	203.0	498.6
48.00	319.2	203.0	522.2
49.00	343.1	203.0	546.1
EST 50.00	367.3	293.0	660.3

NOTES:

- AN ASTERISK IS PLACED IN THE END-BEARING COLUMN IF THE TIP RESISTANCE IS CONTROLLED BY THE FRICTION OF SOIL PLUG INSIDE AN OPEN-ENDED PIPE PILE.

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 \* COMPUTE LOAD-DISTRIBUTION AND LOAD-SETTLEMENT \*  
 \* CURVES FOR AXIAL LOADING \*  
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T-Z CURVE NO.	NO. OF POINTS	DEPTH TO CURVE FT.	LOAD TRANSFER PSI	PILE MOVEMENT IN.
1	10	0.0000E+00	0.0000E+00 0.0000E+00	0.0000E+00 0.1000E-01

2	10	0.2775E+01	0.0000E+00	0.2000E-01
			0.0000E+00	0.4000E-01
			0.0000E+00	0.6000E-01
			0.0000E+00	0.8000E-01
			0.0000E+00	0.9000E-01
			0.0000E+00	0.1000E+00
			0.0000E+00	0.5000E+00
			0.0000E+00	0.2000E+01
			0.0000E+00	0.0000E+00
			0.0000E+00	0.1000E-01
			0.0000E+00	0.2000E-01
			0.0000E+00	0.4000E-01
			0.0000E+00	0.6000E-01
			0.0000E+00	0.8000E-01
			0.0000E+00	0.9000E-01
			0.0000E+00	0.1000E+00
3	10	0.5458E+01	0.0000E+00	0.5000E+00
			0.0000E+00	0.2000E+01
			0.0000E+00	0.0000E+00
			0.0000E+00	0.1000E-01
			0.0000E+00	0.2000E-01
			0.0000E+00	0.4000E-01
			0.0000E+00	0.6000E-01
			0.0000E+00	0.8000E-01
			0.0000E+00	0.9000E-01
			0.0000E+00	0.1000E+00
			0.0000E+00	0.5000E+00
			0.0000E+00	0.2000E+01
			0.0000E+00	0.0000E+00
			0.0000E+00	0.1000E-01
			0.0000E+00	0.2000E-01
			0.0000E+00	0.4000E-01
4	10	0.5500E+01	0.0000E+00	0.6000E-01
			0.0000E+00	0.8000E-01
			0.0000E+00	0.9000E-01
			0.0000E+00	0.1000E+00
			0.0000E+00	0.5000E+00
			0.0000E+00	0.2000E+01
			0.0000E+00	0.0000E+00
			0.0000E+00	0.2427E-01
			0.0000E+00	0.4702E-01
			0.0000E+00	0.8645E-01
			0.0000E+00	0.1213E+00
			0.0000E+00	0.1517E+00
			0.0000E+00	0.3033E+00
			0.0000E+00	0.4550E+00
			0.0000E+00	0.7584E+00
			0.0000E+00	0.3033E+01
5	10	0.8025E+01	0.0000E+00	0.0000E+00
			0.0000E+00	0.2427E-01
			0.0000E+00	0.4702E-01
			0.0000E+00	0.8645E-01
			0.0000E+00	0.1213E+00
			0.0000E+00	0.1517E+00
			0.0000E+00	0.3033E+00
			0.0000E+00	0.4550E+00

6	10	0.1046E+02	0.0000E+00	0.7584E+00
			0.0000E+00	0.3033E+01
			0.0000E+00	0.0000E+00
			0.0000E+00	0.2427E-01
			0.0000E+00	0.4702E-01
			0.0000E+00	0.8645E-01
			0.0000E+00	0.1213E+00
			0.0000E+00	0.1517E+00
			0.0000E+00	0.3033E+00
			0.0000E+00	0.4550E+00
7	10	0.1050E+02	0.0000E+00	0.7584E+00
			0.0000E+00	0.3033E+01
			0.0000E+00	0.0000E+00
			0.0000E+00	0.1000E-01
			0.0000E+00	0.2000E-01
			0.0000E+00	0.4000E-01
			0.0000E+00	0.6000E-01
			0.0000E+00	0.8000E-01
			0.0000E+00	0.9000E-01
			0.0000E+00	0.1000E+00
8	10	0.1553E+02	0.0000E+00	0.5000E+00
			0.0000E+00	0.2000E+01
			0.0000E+00	0.0000E+00
			0.0000E+00	0.1000E-01
			0.0000E+00	0.2000E-01
			0.0000E+00	0.4000E-01
			0.0000E+00	0.6000E-01
			0.0000E+00	0.8000E-01
			0.0000E+00	0.9000E-01
			0.0000E+00	0.1000E+00
9	10	0.2046E+02	0.0000E+00	0.5000E+00
			0.0000E+00	0.2000E+01
			0.0000E+00	0.0000E+00
			0.0000E+00	0.1000E-01
			0.0000E+00	0.2000E-01
			0.0000E+00	0.4000E-01
			0.0000E+00	0.6000E-01
			0.0000E+00	0.8000E-01
			0.0000E+00	0.9000E-01
			0.0000E+00	0.1000E+00
10	10	0.2050E+02	0.0000E+00	0.5000E+00
			0.0000E+00	0.2000E+01
			0.0000E+00	0.0000E+00
			0.0000E+00	0.1000E-01
			0.0000E+00	0.2000E-01

11	10	0.2303E+02	0.0000E+00	0.4000E-01
			0.0000E+00	0.6000E-01
			0.0000E+00	0.8000E-01
			0.0000E+00	0.9000E-01
			0.0000E+00	0.1000E+00
			0.0000E+00	0.5000E+00
			0.0000E+00	0.2000E+01
			0.0000E+00	0.0000E+00
12	10	0.2546E+02	0.0000E+00	0.1000E-01
			0.0000E+00	0.2000E-01
			0.0000E+00	0.4000E-01
			0.0000E+00	0.6000E-01
			0.0000E+00	0.8000E-01
			0.0000E+00	0.9000E-01
			0.0000E+00	0.1000E+00
			0.0000E+00	0.5000E+00
13	10	0.2550E+02	0.0000E+00	0.2000E+01
			0.0000E+00	0.0000E+00
			0.0000E+00	0.1000E-01
			0.0000E+00	0.2000E-01
			0.0000E+00	0.4000E-01
			0.0000E+00	0.6000E-01
			0.0000E+00	0.8000E-01
			0.0000E+00	0.9000E-01
14	10	0.2803E+02	0.0000E+00	0.1000E+00
			0.0000E+00	0.5000E+00
			0.0000E+00	0.2000E+01
			0.0000E+00	0.0000E+00
			0.0000E+00	0.1000E-01
			0.0000E+00	0.2000E-01
			0.0000E+00	0.4000E-01
			0.0000E+00	0.6000E-01
			0.0000E+00	0.8000E-01
			0.0000E+00	0.9000E-01
			0.0000E+00	0.1000E+00
			0.0000E+00	0.5000E+00
			0.0000E+00	0.2000E+01
			0.0000E+00	0.0000E+00
			0.0000E+00	0.1000E-01
			0.0000E+00	0.2000E-01



15	10	0.3046E+02	0.0000E+00	0.2000E+01
			0.0000E+00	0.0000E+00
			0.0000E+00	0.1000E-01
			0.0000E+00	0.2000E-01
			0.0000E+00	0.4000E-01
			0.0000E+00	0.6000E-01
			0.0000E+00	0.8000E-01
			0.0000E+00	0.9000E-01
			0.0000E+00	0.1000E+00
			0.0000E+00	0.5000E+00
16	10	0.3050E+02	0.0000E+00	0.2000E+01
			0.0000E+00	0.0000E+00
			0.0000E+00	0.1000E-01
			0.0000E+00	0.2000E-01
			0.0000E+00	0.4000E-01
			0.0000E+00	0.6000E-01
			0.0000E+00	0.8000E-01
			0.0000E+00	0.9000E-01
			0.0000E+00	0.1000E+00
			0.0000E+00	0.5000E+00
17	10	0.3553E+02	0.0000E+00	0.2000E+01
			0.0000E+00	0.0000E+00
			0.4353E+01	0.1000E-01
			0.8707E+01	0.2000E-01
			0.1741E+02	0.4000E-01
			0.2612E+02	0.6000E-01
			0.3483E+02	0.8000E-01
			0.3918E+02	0.9000E-01
			0.4353E+02	0.1000E+00
			0.4353E+02	0.5000E+00
18	10	0.4046E+02	0.0000E+00	0.2000E+01
			0.0000E+00	0.0000E+00
			0.4122E+01	0.1000E-01
			0.8243E+01	0.2000E-01
			0.1649E+02	0.4000E-01
			0.2473E+02	0.6000E-01
			0.3297E+02	0.8000E-01
			0.3709E+02	0.9000E-01
			0.4122E+02	0.1000E+00
			0.4122E+02	0.5000E+00
19	10	0.4050E+02	0.4122E+02	0.2000E+01
			0.0000E+00	0.0000E+00
			0.4122E+01	0.1000E-01
			0.8243E+01	0.2000E-01
			0.1649E+02	0.4000E-01

20	10	0.4553E+02	0.2473E+02	0.6000E-01
			0.3297E+02	0.8000E-01
			0.3709E+02	0.9000E-01
			0.4122E+02	0.1000E+00
			0.4122E+02	0.5000E+00
			0.4122E+02	0.2000E+01
			0.0000E+00	0.0000E+00
			0.4026E+01	0.1000E-01
			0.8053E+01	0.2000E-01
			0.1611E+02	0.4000E-01
			0.2416E+02	0.6000E-01
			0.3221E+02	0.8000E-01
			0.3624E+02	0.9000E-01
21	10	0.5046E+02	0.4026E+02	0.1000E+00
			0.4026E+02	0.5000E+00
			0.4026E+02	0.2000E+01
			0.0000E+00	0.0000E+00
			0.4242E+01	0.1000E-01
			0.8483E+01	0.2000E-01
			0.1697E+02	0.4000E-01
			0.2545E+02	0.6000E-01
			0.3393E+02	0.8000E-01
			0.3818E+02	0.9000E-01
			0.4242E+02	0.1000E+00
			0.4242E+02	0.5000E+00
			0.4242E+02	0.2000E+01
22	10	0.5050E+02	0.0000E+00	0.0000E+00
			0.4242E+01	0.1000E-01
			0.8483E+01	0.2000E-01
			0.1697E+02	0.4000E-01
			0.2545E+02	0.6000E-01
			0.3393E+02	0.8000E-01
			0.3818E+02	0.9000E-01
			0.4242E+02	0.1000E+00
			0.4242E+02	0.5000E+00
			0.4242E+02	0.2000E+01
23	10	0.5278E+02	0.0000E+00	0.0000E+00
			0.4242E+01	0.1000E-01
			0.8483E+01	0.2000E-01
			0.1697E+02	0.4000E-01
			0.2545E+02	0.6000E-01
			0.3393E+02	0.8000E-01
			0.3818E+02	0.9000E-01
			0.4242E+02	0.1000E+00
			0.4242E+02	0.5000E+00
			0.4242E+02	0.2000E+01

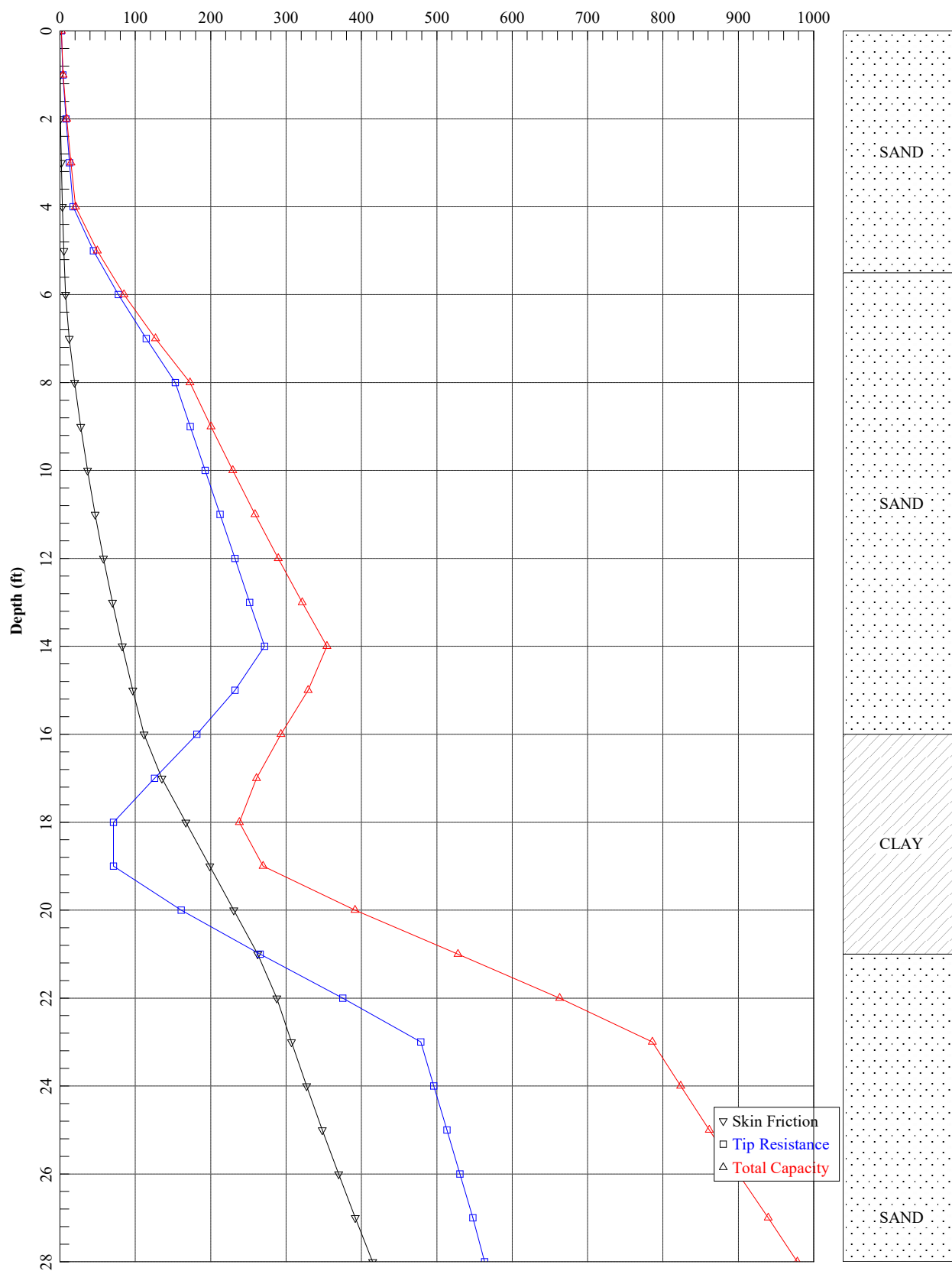
24	10	0.5496E+02	0.0000E+00	0.0000E+00
			0.4242E+01	0.1000E-01
			0.8483E+01	0.2000E-01
			0.1697E+02	0.4000E-01
			0.2545E+02	0.6000E-01
			0.3393E+02	0.8000E-01
			0.3818E+02	0.9000E-01
			0.4242E+02	0.1000E+00
			0.4242E+02	0.5000E+00
			0.4242E+02	0.2000E+01

TIP LOAD KIP	TIP MOVEMENT IN.
0.0000E+00	0.0000E+00
0.1831E+02	0.7584E-02
0.3663E+02	0.1517E-01
0.7325E+02	0.3033E-01
0.1465E+03	0.1972E+00
0.2198E+03	0.6370E+00
0.2637E+03	0.1107E+01
0.2930E+03	0.1517E+01
0.2930E+03	0.2275E+01
0.2930E+03	0.3033E+01

LOAD VERSUS SETTLEMENT CURVE  
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TOP LOAD KIP	TOP MOVEMENT IN.	TIP LOAD KIP	TIP MOVEMENT IN.
0.6826E+00	0.1851E-03	0.2415E+00	0.1000E-03
0.6826E+01	0.1851E-02	0.2415E+01	0.1000E-02
0.3413E+02	0.9254E-02	0.1207E+02	0.5000E-02
0.6826E+02	0.1851E-01	0.2415E+02	0.1000E-01
0.2998E+03	0.8678E-01	0.8189E+02	0.5000E-01
0.5096E+03	0.1619E+00	0.1038E+03	0.1000E+00
0.6027E+03	0.5750E+00	0.1969E+03	0.5000E+00
0.6594E+03	0.1083E+01	0.2537E+03	0.1000E+01
0.6987E+03	0.2089E+01	0.2930E+03	0.2000E+01

Old Floyd Road over Norfolk Southern Railroad - Bent 2 - Boring 3  
Axial Capacity (kips)



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APILE for Windows, Version 2015.7.2

Serial Number : 155211552

A Program for Analyzing the Axial Capacity  
and Short-term Settlement of Driven Piles  
under Axial Loading.  
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Birmingham, Alabama

Path to file locations : C:\Users\SFisher\OneDrive - Universal  
Engineering-Team UES\Desktop\Old Floyd\Revised\  
Name of input data file : Bent 2.ap7d  
Name of output file : Bent 2.ap7o  
Name of plot output file : Bent 2.ap7p

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Time and Date of Analysis  
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Date: August 02, 2023 Time: 19:05:51

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\* INPUT INFORMATION \*  
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Old Floyd Road over Norfolk Southern Railroad - Bent 2 - Boring 3

DESIGNER : STF

JOB NUMBER : G22ATK01

METHOD FOR UNIT LOAD TRANSFERS :

- FHWA (Federal Highway Administration)  
Unfactored Unit Side Friction and Unit Side Resistance are used.

COMPUTATION METHOD(S) FOR PILE CAPACITY :

- FHWA (Federal Highway Administration)

TYPE OF LOADING :

- COMPRESSION

PILE TYPE :

H-Pile/Steel Pile

DATA FOR AXIAL STIFFNESS :

- MODULUS OF ELASTICITY = 0.300E+08 PSI
- CROSS SECTION AREA = 141.89 IN2

NONCIRCULAR PILE PROPERTIES :

- TOTAL PILE LENGTH, TL = 28.00 FT.
- PILE STICKUP LENGTH, PSL = 0.00 FT.
- ZERO FRICTION LENGTH, ZFL = 0.00 FT.
- PERIMETER OF PILE = 47.65 IN.
- TIP AREA OF PILE = 141.89 IN2
- INCREMENT OF PILE LENGTH  
USED IN COMPUTATION = 1.00 FT.

SOIL INFORMATIONS :

DEPTH FT.	SOIL TYPE	LATERAL EARTH PRESSURE	EFFECTIVE UNIT WEIGHT LB/CF	FRICTION ANGLE DEGREES	BEARING CAPACITY FACTOR
0.00	SAND	0.00	125.00	33.00	0.00
5.50	SAND	0.00	125.00	34.00	0.00
5.50	SAND	0.00	130.00	41.00	0.00
16.00	SAND	0.00	130.00	41.00	0.00
16.00	CLAY	0.00	67.60	0.00	0.00

21.00	CLAY	0.00	67.60	0.00	0.00
21.00	SAND	0.00	92.60	42.00	0.00
33.00	SAND	0.00	92.60	42.00	0.00

MAXIMUM UNIT FRICTION KSF	MAXIMUM UNIT BEARING KSF	UNDISTURB SHEAR STRENGTH KSF	REMOLDED SHEAR STRENGTH KSF	BLOW COUNT	UNIT SKIN FRICTION KSF	UNIT END BEARING KSF
0.10E+08*	0.10E+08*	0.00	0.00	0.00	0.00	0.00
0.10E+08*	0.10E+08*	0.00	0.00	0.00	0.00	0.00
0.10E+08*	0.10E+08*	0.00	0.00	0.00	0.00	0.00
0.10E+08*	0.10E+08*	0.00	0.00	0.00	0.00	0.00
0.10E+08*	0.10E+08*	8.00	0.00	0.00	0.00	0.00
0.10E+08*	0.10E+08*	8.00	0.00	0.00	0.00	0.00
0.10E+08*	0.10E+08*	0.00	0.00	0.00	0.00	0.00
0.10E+08*	0.10E+08*	0.00	0.00	0.00	0.00	0.00

\* MAXIMUM UNIT FRICTION AND/OR MAXIMUM UNIT BEARING  
WERE SET TO BE 0.10E+08 BECAUSE THE USER DOES NOT  
PLAN TO LIMIT THE COMPUTED DATA.

DEPTH FT.	LRFD FACTOR ON UNIT FRICTION	LRFD FACTOR ON UNIT BEARING
0.00	1.000	1.000
5.50	1.000	1.000
5.50	1.000	1.000
16.00	1.000	1.000
16.00	1.000	1.000
21.00	1.000	1.000
21.00	1.000	1.000
33.00	1.000	1.000

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\* COMPUTATION RESULT \*  
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\* FED. HWY. METHOD \*  
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	PILE PENETRATION FT.	TOTAL SKIN FRICTION KIP	END BEARING KIP	ULTIMATE CAPACITY KIP
DEPTH 0' = ELEVATION 974'	0.00	0.0	1.9	1.9
	1.00	0.2	3.9	4.1
	2.00	0.8	8.2	9.0
	3.00	1.8	12.7	14.5
	4.00	3.3	17.5	20.8
	5.00	5.2	44.3	49.6
	6.00	7.6	77.5	85.1
	7.00	12.3	114.6	126.9
	8.00	19.4	153.2	172.6
	9.00	27.5	172.9	200.4
	10.00	36.6	192.6	229.2
	11.00	46.6	212.3	259.0
	12.00	57.7	232.1	289.7
	13.00	69.7	251.8	321.5
	14.00	82.7	271.5	354.2
	15.00	96.7	232.4	329.1
MIN	16.00	111.6	181.6	293.2
	17.00	135.3	125.6	260.8
	18.00	167.0	70.9	238.0
	19.00	198.8	70.9	269.7
	20.00	230.6	161.0	391.6
	21.00	262.3	265.8	528.1
	22.00	287.7	375.2	662.9
	23.00	307.1	478.8	786.0
	24.00	327.3	496.1	823.4
	25.00	348.1	513.3	861.4
EST	26.00	369.7	530.5	900.2
	27.00	391.9	547.8	939.7
	28.00	414.9	563.4	978.3

NOTES:

- AN ASTERISK IS PLACED IN THE END-BEARING COLUMN IF THE TIP RESISTANCE IS CONTROLLED BY THE FRICTION OF SOIL PLUG INSIDE AN OPEN-ENDED PIPE PILE.

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 \* COMPUTE LOAD-DISTRIBUTION AND LOAD-SETTLEMENT \*  
 \* CURVES FOR AXIAL LOADING \*  
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T-Z CURVE NO.	NO. OF POINTS	DEPTH TO CURVE FT.	LOAD TRANSFER PSI	PILE MOVEMENT IN.
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1	10	0.0000E+00		
			0.0000E+00	0.0000E+00
			0.1062E+00	0.1000E-01
			0.2124E+00	0.2000E-01
			0.4248E+00	0.4000E-01
			0.6371E+00	0.6000E-01
			0.8495E+00	0.8000E-01
			0.9557E+00	0.9000E-01
			0.1062E+01	0.1000E+00
			0.1062E+01	0.5000E+00
2	10	0.2775E+01	0.1062E+01	0.2000E+01
			0.0000E+00	0.0000E+00
			0.2184E+00	0.1000E-01
			0.4369E+00	0.2000E-01
			0.8738E+00	0.4000E-01
			0.1311E+01	0.6000E-01
			0.1748E+01	0.8000E-01
			0.1966E+01	0.9000E-01
			0.2184E+01	0.1000E+00
			0.2184E+01	0.5000E+00
3	10	0.5458E+01	0.2184E+01	0.2000E+01
			0.0000E+00	0.0000E+00
			0.6142E+00	0.1000E-01
			0.1228E+01	0.2000E-01
			0.2457E+01	0.4000E-01
			0.3685E+01	0.6000E-01
			0.4914E+01	0.8000E-01
			0.5528E+01	0.9000E-01
			0.6142E+01	0.1000E+00
			0.6142E+01	0.5000E+00
4	10	0.5500E+01	0.6142E+01	0.2000E+01
			0.0000E+00	0.0000E+00
			0.6142E+00	0.1000E-01
			0.1228E+01	0.2000E-01
			0.2457E+01	0.4000E-01
			0.3685E+01	0.6000E-01
			0.4914E+01	0.8000E-01
			0.5528E+01	0.9000E-01
			0.6142E+01	0.1000E+00
			0.6142E+01	0.5000E+00
5	10	0.1078E+02	0.6142E+01	0.2000E+01
			0.0000E+00	0.0000E+00
			0.1846E+01	0.1000E-01
			0.3691E+01	0.2000E-01
			0.7383E+01	0.4000E-01

6	10	0.1596E+02	0.1107E+02	0.6000E-01
			0.1477E+02	0.8000E-01
			0.1661E+02	0.9000E-01
			0.1846E+02	0.1000E+00
			0.1846E+02	0.5000E+00
			0.1846E+02	0.2000E+01
			0.0000E+00	0.0000E+00
			0.3373E+01	0.1000E-01
			0.6746E+01	0.2000E-01
			0.1349E+02	0.4000E-01
			0.2024E+02	0.6000E-01
			0.2698E+02	0.8000E-01
			0.3036E+02	0.9000E-01
			0.3373E+02	0.1000E+00
			0.3373E+02	0.5000E+00
7	10	0.1600E+02	0.3373E+02	0.2000E+01
			0.0000E+00	0.0000E+00
			0.1453E+02	0.2427E-01
			0.2421E+02	0.4702E-01
			0.3632E+02	0.8645E-01
			0.4358E+02	0.1213E+00
			0.4842E+02	0.1517E+00
			0.4358E+02	0.3033E+00
			0.4358E+02	0.4550E+00
			0.4358E+02	0.7584E+00
			0.4358E+02	0.3033E+01
			0.0000E+00	0.0000E+00
			0.1667E+02	0.2427E-01
			0.2778E+02	0.4702E-01
			0.4167E+02	0.8645E-01
8	10	0.1853E+02	0.5000E+02	0.1213E+00
			0.5556E+02	0.1517E+00
			0.5000E+02	0.3033E+00
			0.5000E+02	0.4550E+00
			0.5000E+02	0.7584E+00
			0.5000E+02	0.3033E+01
			0.0000E+00	0.0000E+00
			0.1500E+02	0.2427E-01
			0.2500E+02	0.4702E-01
			0.3750E+02	0.8645E-01
			0.4500E+02	0.1213E+00
			0.5000E+02	0.1517E+00
			0.4500E+02	0.3033E+00
			0.4500E+02	0.4550E+00
			0.4500E+02	0.7584E+00
			0.4500E+02	0.3033E+01
9	10	0.2096E+02	0.0000E+00	0.0000E+00
			0.1500E+02	0.2427E-01
			0.2500E+02	0.4702E-01
			0.3750E+02	0.8645E-01
			0.4500E+02	0.1213E+00
			0.5000E+02	0.1517E+00
			0.4500E+02	0.3033E+00
			0.4500E+02	0.4550E+00
			0.4500E+02	0.7584E+00
			0.4500E+02	0.3033E+01

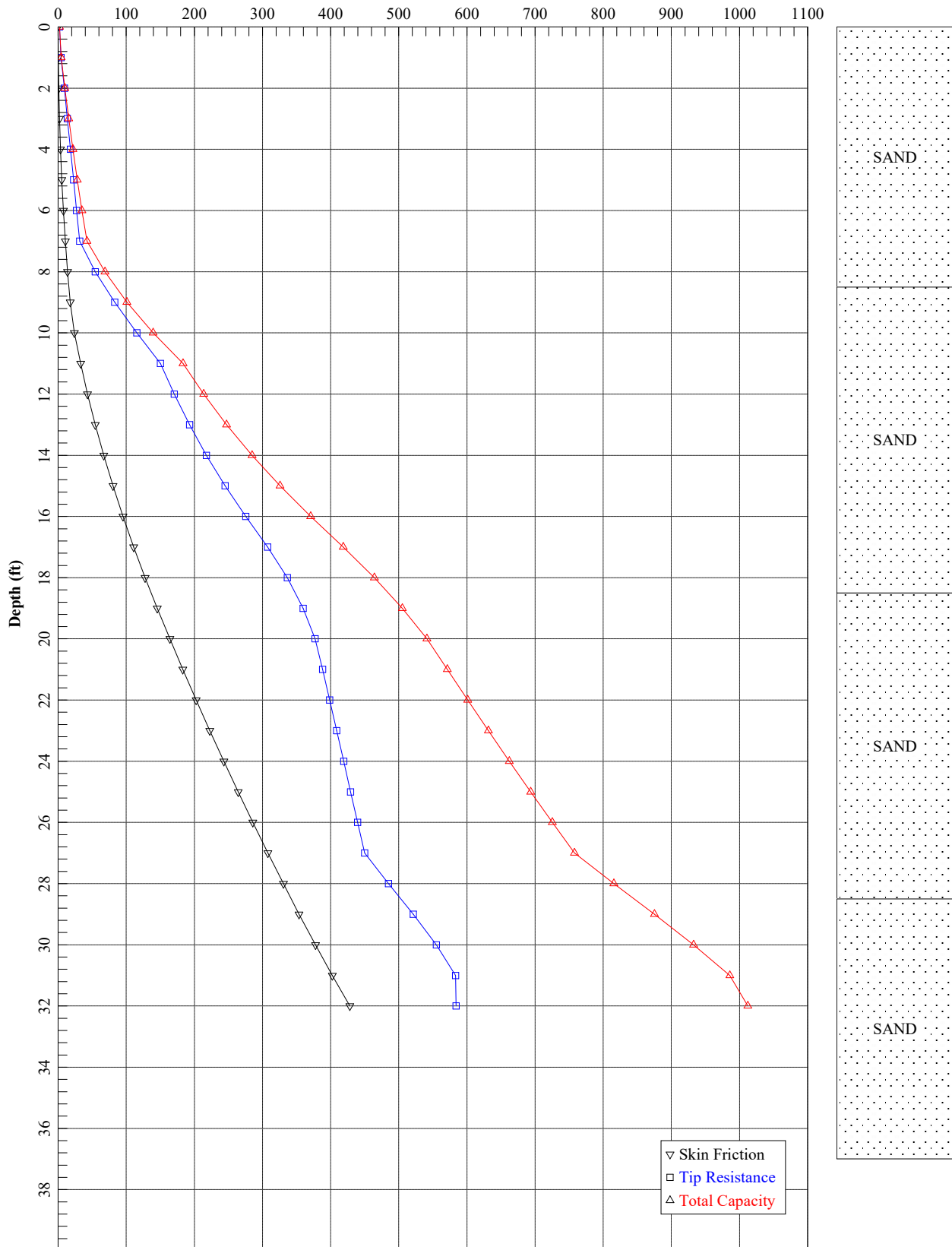
10	10	0.2100E+02	0.0000E+00	0.0000E+00
			0.3920E+01	0.1000E-01
			0.7840E+01	0.2000E-01
			0.1568E+02	0.4000E-01
			0.2352E+02	0.6000E-01
			0.3136E+02	0.8000E-01
			0.3528E+02	0.9000E-01
			0.3920E+02	0.1000E+00
			0.3920E+02	0.5000E+00
			0.3920E+02	0.2000E+01
11	10	0.2703E+02	0.0000E+00	0.0000E+00
			0.4018E+01	0.1000E-01
			0.8036E+01	0.2000E-01
			0.1607E+02	0.4000E-01
			0.2411E+02	0.6000E-01
			0.3214E+02	0.8000E-01
			0.3616E+02	0.9000E-01
			0.4018E+02	0.1000E+00
			0.4018E+02	0.5000E+00
			0.4018E+02	0.2000E+01
12	10	0.3296E+02	0.0000E+00	0.0000E+00
			0.4018E+01	0.1000E-01
			0.8036E+01	0.2000E-01
			0.1607E+02	0.4000E-01
			0.2411E+02	0.6000E-01
			0.3214E+02	0.8000E-01
			0.3616E+02	0.9000E-01
			0.4018E+02	0.1000E+00
			0.4018E+02	0.5000E+00
			0.4018E+02	0.2000E+01

TIP LOAD KIP	TIP MOVEMENT IN.
0.0000E+00	0.0000E+00
0.3521E+02	0.7584E-02
0.7042E+02	0.1517E-01
0.1408E+03	0.3033E-01
0.2817E+03	0.1972E+00
0.4225E+03	0.6370E+00
0.5070E+03	0.1107E+01
0.5634E+03	0.1517E+01
0.5634E+03	0.2275E+01
0.5634E+03	0.3033E+01

LOAD VERSUS SETTLEMENT CURVE  
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TOP LOAD KIP	TOP MOVEMENT IN.	TIP LOAD KIP	TIP MOVEMENT IN.
0.1002E+01	0.1642E-03	0.4643E+00	0.1000E-03
0.1002E+02	0.1642E-02	0.4643E+01	0.1000E-02
0.5012E+02	0.8208E-02	0.2321E+02	0.5000E-02
0.1005E+03	0.1643E-01	0.4643E+02	0.1000E-01
0.3997E+03	0.7486E-01	0.1574E+03	0.5000E-01
0.6080E+03	0.1373E+00	0.1996E+03	0.1000E+00
0.7953E+03	0.5518E+00	0.3786E+03	0.5000E+00
0.9044E+03	0.1060E+01	0.4877E+03	0.1000E+01
0.9800E+03	0.2066E+01	0.5634E+03	0.2000E+01

Old Floyd Road over Norfolk Southern Railroad - Bent 3 - Boring 2  
Axial Capacity (kips)



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APILE for Windows, Version 2015.7.2

Serial Number : 155211552

A Program for Analyzing the Axial Capacity  
and Short-term Settlement of Driven Piles  
under Axial Loading.  
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Birmingham, Alabama

Path to file locations : C:\Users\SFisher\OneDrive - Universal  
Engineering-Team UES\Desktop\Old Floyd\Revised\  
Name of input data file : Bent 3.ap7d  
Name of output file : Bent 3.ap7o  
Name of plot output file : Bent 3.ap7p

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Time and Date of Analysis  
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Date: August 02, 2023 Time: 18:57:00

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\* INPUT INFORMATION \*  
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Old Floyd Road over Norfolk Southern Railroad - Bent 3 - Boring 2

DESIGNER : STF

JOB NUMBER : G22ATK01

METHOD FOR UNIT LOAD TRANSFERS :

- FHWA (Federal Highway Administration)  
Unfactored Unit Side Friction and Unit Side Resistance are used.

COMPUTATION METHOD(S) FOR PILE CAPACITY :

- FHWA (Federal Highway Administration)

TYPE OF LOADING :

- COMPRESSION

PILE TYPE :

H-Pile/Steel Pile

DATA FOR AXIAL STIFFNESS :

- MODULUS OF ELASTICITY = 0.300E+08 PSI
- CROSS SECTION AREA = 141.89 IN2

NONCIRCULAR PILE PROPERTIES :

- TOTAL PILE LENGTH, TL = 32.00 FT.
- PILE STICKUP LENGTH, PSL = 0.00 FT.
- ZERO FRICTION LENGTH, ZFL = 0.00 FT.
- PERIMETER OF PILE = 47.65 IN.
- TIP AREA OF PILE = 141.89 IN2
- INCREMENT OF PILE LENGTH  
USED IN COMPUTATION = 1.00 FT.

SOIL INFORMATIONS :

DEPTH FT.	SOIL TYPE	LATERAL EARTH PRESSURE	EFFECTIVE UNIT WEIGHT LB/CF	FRICTION ANGLE DEGREES	BEARING CAPACITY FACTOR
0.00	SAND	0.00	125.00	34.00	0.00
8.50	SAND	0.00	125.00	34.00	0.00
8.50	SAND	0.00	130.00	39.00	0.00
18.50	SAND	0.00	130.00	41.00	0.00
18.50	SAND	0.00	67.60	41.00	0.00

28.50	SAND	0.00	67.60	41.00	0.00
28.50	SAND	0.00	92.60	42.00	0.00
37.00	SAND	0.00	92.60	42.00	0.00

MAXIMUM UNIT FRICTION KSF	MAXIMUM UNIT BEARING KSF	UNDISTURB SHEAR STRENGTH KSF	REMOLDED SHEAR STRENGTH KSF	BLOW COUNT	UNIT SKIN FRICTION KSF	UNIT END BEARING KSF
0.10E+08*	0.10E+08*	0.00	0.00	0.00	0.00	0.00
0.10E+08*	0.10E+08*	0.00	0.00	0.00	0.00	0.00
0.10E+08*	0.10E+08*	0.00	0.00	0.00	0.00	0.00
0.10E+08*	0.10E+08*	0.00	0.00	0.00	0.00	0.00
0.10E+08*	0.10E+08*	0.00	0.00	0.00	0.00	0.00
0.10E+08*	0.10E+08*	0.00	0.00	0.00	0.00	0.00
0.10E+08*	0.10E+08*	0.00	0.00	0.00	0.00	0.00
0.10E+08*	0.10E+08*	0.00	0.00	0.00	0.00	0.00

\* MAXIMUM UNIT FRICTION AND/OR MAXIMUM UNIT BEARING  
WERE SET TO BE 0.10E+08 BECAUSE THE USER DOES NOT  
PLAN TO LIMIT THE COMPUTED DATA.

DEPTH FT.	LRFD FACTOR ON UNIT FRICTION	LRFD FACTOR ON UNIT BEARING
0.00	1.000	1.000
8.50	1.000	1.000
8.50	1.000	1.000
18.50	1.000	1.000
18.50	1.000	1.000
28.50	1.000	1.000
28.50	1.000	1.000
37.00	1.000	1.000

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\* COMPUTATION RESULT \*  
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\*\*\*\*\*  
\* FED. HWY. METHOD \*  
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	PILE PENETRATION	TOTAL SKIN FRICTION	END BEARING	ULTIMATE CAPACITY
	FT.	KIP	KIP	KIP
DEPTH 0' = ELEVATION 974'	0.00	0.0	2.2	2.2
	1.00	0.2	4.4	4.6
	2.00	0.9	9.1	10.0
	3.00	2.0	13.6	15.6
	4.00	3.5	18.2	21.7
	5.00	5.5	22.7	28.2
	6.00	7.9	27.2	35.1
	7.00	10.7	31.8	42.5
	8.00	14.0	54.7	68.7
	9.00	17.8	83.2	101.0
	10.00	24.0	115.6	139.6
	11.00	33.1	150.3	183.3
	12.00	43.2	170.5	213.7
	13.00	54.5	192.9	247.4
	14.00	67.1	217.7	284.8
MIN	15.00	80.7	245.2	325.9
	16.00	95.3	275.4	370.8
	17.00	111.0	307.5	418.5
	18.00	127.7	336.4	464.1
	19.00	145.5	359.7	505.2
	20.00	164.0	377.0	541.1
	21.00	183.1	388.3	571.4
	22.00	202.6	398.6	601.2
	23.00	222.7	408.8	631.5
	24.00	243.2	419.1	662.3
EST	25.00	264.3	429.3	693.6
	26.00	285.9	439.6	725.5
	27.00	308.0	449.8	757.8
	28.00	330.6	484.9	815.6
	29.00	353.7	521.3	875.1
	30.00	377.7	555.1	932.8
	31.00	402.6	583.2	985.8
	32.00	428.2	583.9	1012.1

NOTES:

- AN ASTERISK IS PLACED IN THE END-BEARING COLUMN IF THE TIP RESISTANCE IS CONTROLLED BY THE FRICTION OF SOIL PLUG INSIDE AN OPEN-ENDED PIPE PILE.

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 \* COMPUTE LOAD-DISTRIBUTION AND LOAD-SETTLEMENT \*  
 \* CURVES FOR AXIAL LOADING \*  
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T-Z CURVE NO.	NO. OF POINTS	DEPTH TO CURVE FT.	LOAD TRANSFER PSI	PILE MOVEMENT IN.
1	10	0.0000E+00		
			0.0000E+00	0.0000E+00
			0.1150E+00	0.1000E-01
			0.2301E+00	0.2000E-01
			0.4601E+00	0.4000E-01
			0.6902E+00	0.6000E-01
			0.9202E+00	0.8000E-01
			0.1035E+01	0.9000E-01
			0.1150E+01	0.1000E+00
			0.1150E+01	0.5000E+00
			0.1150E+01	0.2000E+01
2	10	0.4275E+01		
			0.0000E+00	0.0000E+00
			0.3834E+00	0.1000E-01
			0.7669E+00	0.2000E-01
			0.1534E+01	0.4000E-01
			0.2301E+01	0.6000E-01
			0.3067E+01	0.8000E-01
			0.3451E+01	0.9000E-01
			0.3834E+01	0.1000E+00
			0.3834E+01	0.5000E+00
			0.3834E+01	0.2000E+01
3	10	0.8458E+01		
			0.0000E+00	0.0000E+00
			0.8708E+00	0.1000E-01
			0.1742E+01	0.2000E-01
			0.3483E+01	0.4000E-01
			0.5225E+01	0.6000E-01
			0.6967E+01	0.8000E-01
			0.7837E+01	0.9000E-01
			0.8708E+01	0.1000E+00
			0.8708E+01	0.5000E+00
			0.8708E+01	0.2000E+01
4	10	0.8500E+01		
			0.0000E+00	0.0000E+00
			0.8708E+00	0.1000E-01
			0.1742E+01	0.2000E-01
			0.3483E+01	0.4000E-01
			0.5225E+01	0.6000E-01
			0.6967E+01	0.8000E-01
			0.7837E+01	0.9000E-01
			0.8708E+01	0.1000E+00
			0.8708E+01	0.5000E+00
			0.8708E+01	0.2000E+01
5	10	0.1353E+02		
			0.0000E+00	0.0000E+00
			0.8708E+00	0.1000E-01
			0.1742E+01	0.2000E-01
			0.3483E+01	0.4000E-01
			0.5225E+01	0.6000E-01
			0.6967E+01	0.8000E-01
			0.7837E+01	0.9000E-01
			0.8708E+01	0.1000E+00
			0.8708E+01	0.5000E+00
			0.8708E+01	0.2000E+01

6	10	0.1846E+02	0.0000E+00	0.0000E+00
			0.2286E+01	0.1000E-01
			0.4571E+01	0.2000E-01
			0.9142E+01	0.4000E-01
			0.1371E+02	0.6000E-01
			0.1828E+02	0.8000E-01
			0.2057E+02	0.9000E-01
			0.2286E+02	0.1000E+00
			0.2286E+02	0.5000E+00
			0.2286E+02	0.2000E+01
7	10	0.1850E+02	0.0000E+00	0.0000E+00
			0.3173E+01	0.1000E-01
			0.6347E+01	0.2000E-01
			0.1269E+02	0.4000E-01
			0.1904E+02	0.6000E-01
			0.2539E+02	0.8000E-01
			0.2856E+02	0.9000E-01
			0.3173E+02	0.1000E+00
			0.3173E+02	0.5000E+00
			0.3173E+02	0.2000E+01
8	10	0.2353E+02	0.0000E+00	0.0000E+00
			0.3173E+01	0.1000E-01
			0.6347E+01	0.2000E-01
			0.1269E+02	0.4000E-01
			0.1904E+02	0.6000E-01
			0.2539E+02	0.8000E-01
			0.2856E+02	0.9000E-01
			0.3173E+02	0.1000E+00
			0.3173E+02	0.5000E+00
			0.3173E+02	0.2000E+01
9	10	0.2846E+02	0.0000E+00	0.0000E+00
			0.3642E+01	0.1000E-01
			0.7285E+01	0.2000E-01
			0.1457E+02	0.4000E-01
			0.2185E+02	0.6000E-01
			0.2914E+02	0.8000E-01
			0.3278E+02	0.9000E-01
			0.3642E+02	0.1000E+00
			0.3642E+02	0.5000E+00
			0.3642E+02	0.2000E+01
			0.0000E+00	0.0000E+00
			0.4117E+01	0.1000E-01
			0.8233E+01	0.2000E-01
			0.1647E+02	0.4000E-01
			0.2470E+02	0.6000E-01
			0.3293E+02	0.8000E-01

10	10	0.2850E+02	0.3705E+02	0.9000E-01
			0.4117E+02	0.1000E+00
			0.4117E+02	0.5000E+00
			0.4117E+02	0.2000E+01
			0.0000E+00	0.0000E+00
			0.4117E+01	0.1000E-01
			0.8233E+01	0.2000E-01
			0.1647E+02	0.4000E-01
			0.2470E+02	0.6000E-01
			0.3293E+02	0.8000E-01
11	10	0.3278E+02	0.3705E+02	0.9000E-01
			0.4117E+02	0.1000E+00
			0.4117E+02	0.5000E+00
			0.4117E+02	0.2000E+01
			0.0000E+00	0.0000E+00
			0.4478E+01	0.1000E-01
			0.8956E+01	0.2000E-01
			0.1791E+02	0.4000E-01
			0.2687E+02	0.6000E-01
			0.3583E+02	0.8000E-01
12	10	0.3696E+02	0.4030E+02	0.9000E-01
			0.4478E+02	0.1000E+00
			0.4478E+02	0.5000E+00
			0.4478E+02	0.2000E+01
			0.0000E+00	0.0000E+00
			0.4478E+01	0.1000E-01
			0.8956E+01	0.2000E-01
			0.1791E+02	0.4000E-01
			0.2687E+02	0.6000E-01
			0.3583E+02	0.8000E-01
			0.4030E+02	0.9000E-01
			0.4478E+02	0.1000E+00
			0.4478E+02	0.5000E+00
			0.4478E+02	0.2000E+01
			0.0000E+00	0.0000E+00
			0.4478E+01	0.1000E-01
			0.8956E+01	0.2000E-01
			0.1791E+02	0.4000E-01
			0.2687E+02	0.6000E-01
			0.3583E+02	0.8000E-01

TIP	LOAD	TIP	MOVEMENT
	KIP		IN.

0.0000E+00	0.0000E+00
0.3649E+02	0.7584E-02
0.7298E+02	0.1517E-01
0.1460E+03	0.3033E-01
0.2919E+03	0.1972E+00
0.4379E+03	0.6370E+00
0.5255E+03	0.1107E+01

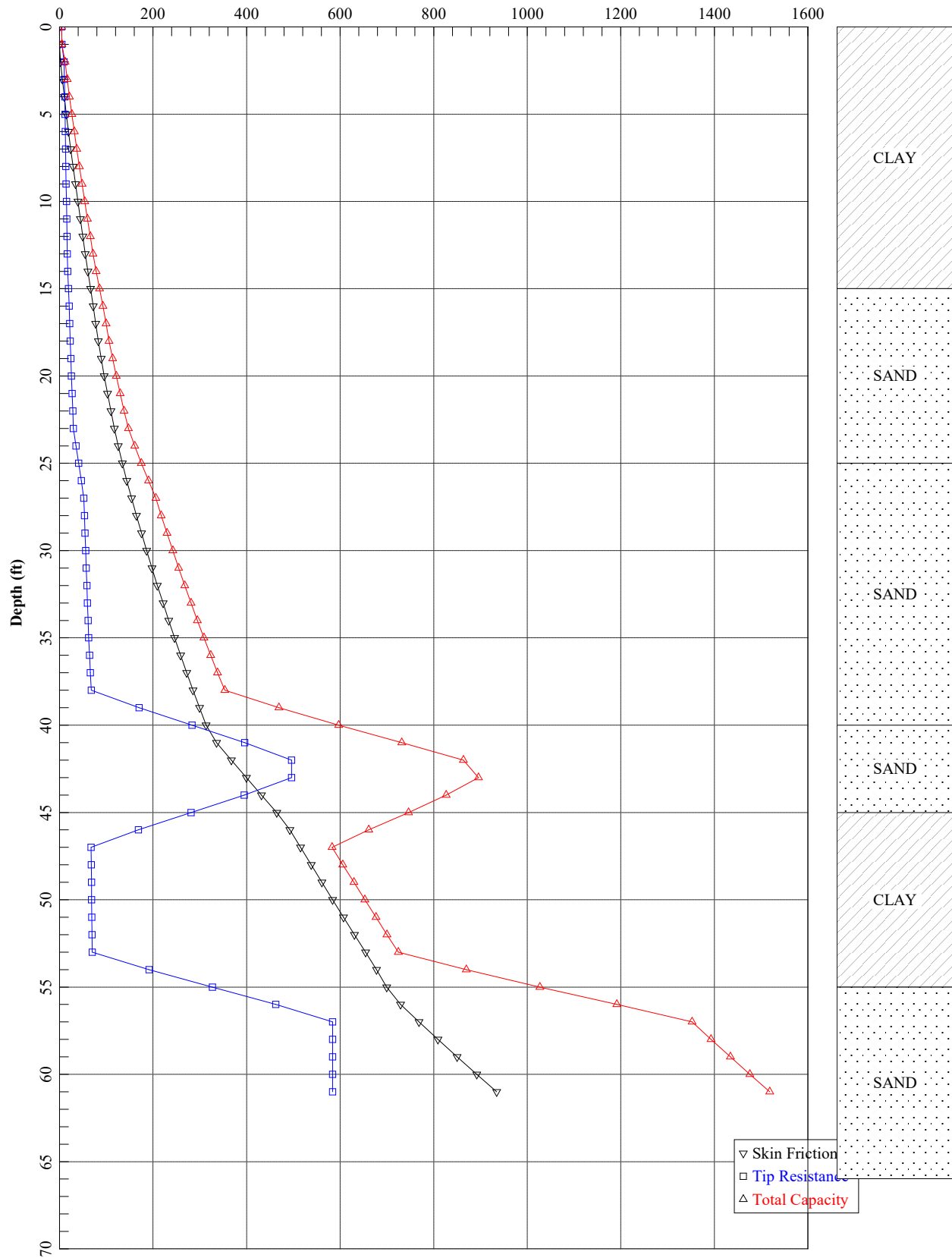
0.5839E+03	0.1517E+01
0.5839E+03	0.2275E+01
0.5839E+03	0.3033E+01

# LOAD VERSUS SETTLEMENT CURVE

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TOP LOAD KIP	TOP MOVEMENT IN.	TIP LOAD KIP	TIP MOVEMENT IN.
0.1001E+01	0.1736E-03	0.4812E+00	0.1000E-03
0.1001E+02	0.1736E-02	0.4812E+01	0.1000E-02
0.5005E+02	0.8678E-02	0.2406E+02	0.5000E-02
0.1003E+03	0.1737E-01	0.4812E+02	0.1000E-01
0.4150E+03	0.7944E-01	0.1632E+03	0.5000E-01
0.6450E+03	0.1452E+00	0.2069E+03	0.1000E+00
0.8305E+03	0.5619E+00	0.3924E+03	0.5000E+00
0.9436E+03	0.1072E+01	0.5055E+03	0.1000E+01
0.1022E+04	0.2079E+01	0.5839E+03	0.2000E+01

Old Floyd Road over Norfolk Southern Railroad - Bent 4 - Boring 1  
Axial Capacity (kips)



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APILE for Windows, Version 2015.7.2

Serial Number : 155211552

A Program for Analyzing the Axial Capacity  
and Short-term Settlement of Driven Piles  
under Axial Loading.  
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=====

This program is licensed to :

Contour Engineering  
Birmingham, Alabama

Path to file locations : C:\Users\SFisher\OneDrive - Universal  
Engineering-Team UES\Desktop\Old Floyd\Revised\  
Name of input data file : Bent 4.ap7d  
Name of output file : Bent 4.ap7o  
Name of plot output file : Bent 4.ap7p

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Time and Date of Analysis  
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Date: August 02, 2023 Time: 19:22:52

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\*\*\*\*\*  
\* INPUT INFORMATION \*  
\*\*\*\*\*

Old Floyd Road over Norfolk Southern Railroad - Bent 4 - Boring 1

DESIGNER : STF

JOB NUMBER : G22ATK01

METHOD FOR UNIT LOAD TRANSFERS :

- FHWA (Federal Highway Administration)  
Unfactored Unit Side Friction and Unit Side Resistance are used.

#### COMPUTATION METHOD(S) FOR PILE CAPACITY :

- FHWA (Federal Highway Administration)

#### TYPE OF LOADING :

- COMPRESSION

#### PILE TYPE :

H-Pile/Steel Pile

#### DATA FOR AXIAL STIFFNESS :

- MODULUS OF ELASTICITY = 0.300E+08 PSI
- CROSS SECTION AREA = 141.89 IN<sup>2</sup>

#### NONCIRCULAR PILE PROPERTIES :

- TOTAL PILE LENGTH, TL = 61.00 FT.
- PILE STICKUP LENGTH, PSL = 0.00 FT.
- ZERO FRICTION LENGTH, ZFL = 0.00 FT.
- PERIMETER OF PILE = 47.65 IN.
- TIP AREA OF PILE = 141.89 IN<sup>2</sup>
- INCREMENT OF PILE LENGTH  
USED IN COMPUTATION = 1.00 FT.

#### SOIL INFORMATIONS :

DEPTH FT.	SOIL TYPE	LATERAL EARTH PRESSURE	EFFECTIVE UNIT WEIGHT LB/CF	FRICTION ANGLE DEGREES	BEARING CAPACITY FACTOR
0.00	CLAY	0.00	125.00	0.00	0.00
15.00	CLAY	0.00	125.00	0.00	0.00
15.00	SAND	0.00	125.00	31.00	0.00
25.00	SAND	0.00	125.00	32.00	0.00
25.00	SAND	0.00	62.60	33.00	0.00



40.00	SAND	0.00	62.60	34.00	0.00
40.00	SAND	0.00	67.60	41.00	0.00
45.00	SAND	0.00	67.60	41.00	0.00
45.00	CLAY	0.00	62.60	0.00	0.00
55.00	CLAY	0.00	62.60	0.00	0.00
55.00	SAND	0.00	92.60	42.00	0.00
66.00	SAND	0.00	92.60	42.00	0.00

MAXIMUM UNIT FRICTION KSF	MAXIMUM UNIT BEARING KSF	UNDISTURB SHEAR STRENGTH KSF	REMOLDED SHEAR STRENGTH KSF	BLOW COUNT	UNIT SKIN FRICTION KSF	UNIT END BEARING KSF
0.10E+08*	0.10E+08*	1.00	0.00	0.00	0.00	0.00
0.10E+08*	0.10E+08*	2.00	0.00	0.00	0.00	0.00
0.10E+08*	0.10E+08*	0.00	0.00	0.00	0.00	0.00
0.10E+08*	0.10E+08*	0.00	0.00	0.00	0.00	0.00
0.10E+08*	0.10E+08*	0.00	0.00	0.00	0.00	0.00
0.10E+08*	0.10E+08*	0.00	0.00	0.00	0.00	0.00
0.10E+08*	0.10E+08*	0.00	0.00	0.00	0.00	0.00
0.10E+08*	0.10E+08*	0.00	0.00	0.00	0.00	0.00
0.10E+08*	0.10E+08*	7.50	0.00	0.00	0.00	0.00
0.10E+08*	0.10E+08*	8.00	0.00	0.00	0.00	0.00
0.10E+08*	0.10E+08*	0.00	0.00	0.00	0.00	0.00
0.10E+08*	0.10E+08*	0.00	0.00	0.00	0.00	0.00

\* MAXIMUM UNIT FRICTION AND/OR MAXIMUM UNIT BEARING WERE SET TO BE 0.10E+08 BECAUSE THE USER DOES NOT PLAN TO LIMIT THE COMPUTED DATA.

DEPTH FT.	LRFD FACTOR ON UNIT FRICTION	LRFD FACTOR ON UNIT BEARING
0.00	1.000	1.000
15.00	1.000	1.000
15.00	1.000	1.000
25.00	1.000	1.000
25.00	1.000	1.000
40.00	1.000	1.000
40.00	1.000	1.000
45.00	1.000	1.000
45.00	1.000	1.000
55.00	1.000	1.000
55.00	1.000	1.000
66.00	1.000	1.000

\*\*\*\*\*  
 \* COMPUTATION RESULT \*  
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 \* FED. HWY. METHOD \*  
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	PILE PENETRATION FT.	TOTAL SKIN FRICTION KIP	END BEARING KIP	ULTIMATE CAPACITY KIP
DEPTH 0' = ELEVATION 1000'	0.00	0.0	4.7	4.7
	1.00	0.0	5.0	5.0
	2.00	2.0	10.1	12.0
	3.00	6.1	10.6	16.7
	4.00	10.3	11.2	21.5
	5.00	14.7	11.8	26.6
	6.00	19.3	12.4	31.8
	7.00	24.1	13.0	37.1
	8.00	29.0	13.6	42.6
	9.00	34.1	14.2	48.3
	10.00	39.2	14.8	54.0
	11.00	44.5	15.4	59.9
	12.00	49.8	16.0	65.8
	13.00	55.2	16.6	71.8
	14.00	60.7	17.8	78.5
	15.00	66.5	19.1	85.7
	16.00	72.2	20.5	92.7
	17.00	77.4	22.0	99.4
	18.00	83.1	23.0	106.1
	19.00	89.2	24.2	113.4
	20.00	95.6	25.6	121.2
	21.00	102.5	27.0	129.5
	22.00	109.8	28.4	138.1
	23.00	117.5	29.8	147.2
	24.00	125.6	35.1	160.7
	25.00	134.2	40.9	175.1
	26.00	143.7	46.6	190.3
	27.00	154.0	51.9	205.8
	28.00	164.5	53.2	217.7
	29.00	175.3	54.5	229.8
	30.00	186.4	55.8	242.2
	31.00	197.8	57.2	254.9
	32.00	209.4	58.5	267.9
	33.00	221.4	59.8	281.2

34.00	233.6	61.1	294.7
35.00	246.2	62.5	308.6
MIN 36.00	259.0	64.1	323.1
37.00	272.1	65.9	338.0
38.00	285.6	68.0	353.5
39.00	299.3	170.0	469.4
40.00	313.4	283.2	596.6
41.00	336.0	395.8	731.8
42.00	367.4	496.1	863.6
43.00	399.4	496.1	895.5
44.00	431.8	394.7	826.5
45.00	464.7	281.5	746.2
EST 46.00	492.6	168.5	661.1
47.00	515.2	67.4	582.6
48.00	538.0	67.8	605.9
49.00	561.0	68.3	629.3
50.00	584.1	68.7	652.8
51.00	607.3	69.2	676.5
52.00	630.7	69.6	700.3
53.00	654.3	70.1	724.3
54.00	678.0	191.6	869.6
55.00	699.6	327.2	1026.8
56.00	729.0	462.6	1191.7
57.00	768.7	583.9	1352.6
58.00	809.1	583.9	1393.0
59.00	850.3	583.9	1434.2
60.00	892.1	583.9	1476.0
61.00	934.7	583.9	1518.5

NOTES:

- AN ASTERISK IS PLACED IN THE END-BEARING COLUMN IF THE TIP RESISTANCE IS CONTROLLED BY THE FRICTION OF SOIL PLUG INSIDE AN OPEN-ENDED PIPE PILE.

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 \* COMPUTE LOAD-DISTRIBUTION AND LOAD-SETTLEMENT \*  
 \* CURVES FOR AXIAL LOADING \*  
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T-Z CURVE NO.	NO. OF POINTS	DEPTH TO CURVE FT.	LOAD TRANSFER PSI	PILE MOVEMENT IN.
1	10	0.0000E+00	0.0000E+00	0.0000E+00
			0.1043E+01	0.2427E-01
			0.1738E+01	0.4702E-01

2	10	0.7525E+01	0.2607E+01	0.8645E-01
			0.3129E+01	0.1213E+00
			0.3476E+01	0.1517E+00
			0.3129E+01	0.3033E+00
			0.3129E+01	0.4550E+00
			0.3129E+01	0.7584E+00
			0.3129E+01	0.3033E+01
			0.0000E+00	0.0000E+00
			0.2618E+01	0.2427E-01
			0.4363E+01	0.4702E-01
			0.6544E+01	0.8645E-01
			0.7853E+01	0.1213E+00
			0.8725E+01	0.1517E+00
			0.7853E+01	0.3033E+00
3	10	0.1496E+02	0.7853E+01	0.4550E+00
			0.7853E+01	0.7584E+00
			0.7853E+01	0.3033E+01
			0.0000E+00	0.0000E+00
			0.3012E+01	0.2427E-01
			0.5020E+01	0.4702E-01
			0.7530E+01	0.8645E-01
			0.9036E+01	0.1213E+00
			0.1004E+02	0.1517E+00
			0.9036E+01	0.3033E+00
			0.9036E+01	0.4550E+00
			0.9036E+01	0.7584E+00
			0.9036E+01	0.3033E+01
4	10	0.1500E+02	0.0000E+00	0.0000E+00
			0.9533E+00	0.1000E-01
			0.1907E+01	0.2000E-01
			0.3813E+01	0.4000E-01
			0.5720E+01	0.6000E-01
			0.7626E+01	0.8000E-01
			0.8580E+01	0.9000E-01
			0.9533E+01	0.1000E+00
			0.9533E+01	0.5000E+00
			0.9533E+01	0.2000E+01
5	10	0.2003E+02	0.0000E+00	0.0000E+00
			0.1237E+01	0.1000E-01
			0.2475E+01	0.2000E-01
			0.4949E+01	0.4000E-01
			0.7424E+01	0.6000E-01
			0.9898E+01	0.8000E-01
			0.1114E+02	0.9000E-01
			0.1237E+02	0.1000E+00
			0.1237E+02	0.5000E+00

6	10	0.2496E+02	0.1237E+02	0.2000E+01
			0.0000E+00	0.0000E+00
			0.1580E+01	0.1000E-01
			0.3160E+01	0.2000E-01
			0.6320E+01	0.4000E-01
			0.9480E+01	0.6000E-01
			0.1264E+02	0.8000E-01
			0.1422E+02	0.9000E-01
			0.1580E+02	0.1000E+00
			0.1580E+02	0.5000E+00
7	10	0.2500E+02	0.1580E+02	0.2000E+01
			0.0000E+00	0.0000E+00
			0.1726E+01	0.1000E-01
			0.3452E+01	0.2000E-01
			0.6905E+01	0.4000E-01
			0.1036E+02	0.6000E-01
			0.1381E+02	0.8000E-01
			0.1554E+02	0.9000E-01
			0.1726E+02	0.1000E+00
			0.1726E+02	0.5000E+00
8	10	0.3253E+02	0.1726E+02	0.2000E+01
			0.0000E+00	0.0000E+00
			0.2115E+01	0.1000E-01
			0.4231E+01	0.2000E-01
			0.8462E+01	0.4000E-01
			0.1269E+02	0.6000E-01
			0.1692E+02	0.8000E-01
			0.1904E+02	0.9000E-01
			0.2115E+02	0.1000E+00
			0.2115E+02	0.5000E+00
9	10	0.3996E+02	0.2115E+02	0.2000E+01
			0.0000E+00	0.0000E+00
			0.3212E+01	0.1000E-01
			0.6424E+01	0.2000E-01
			0.1285E+02	0.4000E-01
			0.1927E+02	0.6000E-01
			0.2569E+02	0.8000E-01
			0.2891E+02	0.9000E-01
			0.3212E+02	0.1000E+00
			0.3212E+02	0.5000E+00
10	10	0.4000E+02	0.3212E+02	0.2000E+01
			0.0000E+00	0.0000E+00
			0.4729E+01	0.1000E-01
			0.9457E+01	0.2000E-01
			0.1891E+02	0.4000E-01

11	10	0.4253E+02	0.2837E+02	0.6000E-01
			0.3783E+02	0.8000E-01
			0.4256E+02	0.9000E-01
			0.4729E+02	0.1000E+00
			0.4729E+02	0.5000E+00
			0.4729E+02	0.2000E+01
			0.0000E+00	0.0000E+00
			0.5625E+01	0.1000E-01
			0.1125E+02	0.2000E-01
			0.2250E+02	0.4000E-01
			0.3375E+02	0.6000E-01
			0.4500E+02	0.8000E-01
			0.5062E+02	0.9000E-01
			0.5625E+02	0.1000E+00
			0.5625E+02	0.5000E+00
12	10	0.4496E+02	0.5625E+02	0.2000E+01
			0.0000E+00	0.0000E+00
			0.5317E+01	0.1000E-01
			0.1063E+02	0.2000E-01
			0.2127E+02	0.4000E-01
			0.3190E+02	0.6000E-01
			0.4254E+02	0.8000E-01
			0.4785E+02	0.9000E-01
			0.5317E+02	0.1000E+00
			0.5317E+02	0.5000E+00
			0.5317E+02	0.2000E+01
13	10	0.4500E+02	0.0000E+00	0.0000E+00
			0.1326E+02	0.2427E-01
			0.2209E+02	0.4702E-01
			0.3314E+02	0.8645E-01
			0.3977E+02	0.1213E+00
			0.4418E+02	0.1517E+00
			0.3977E+02	0.3033E+00
			0.3977E+02	0.4550E+00
			0.3977E+02	0.7584E+00
			0.3977E+02	0.3033E+01
14	10	0.5003E+02	0.0000E+00	0.0000E+00
			0.1224E+02	0.2427E-01
			0.2040E+02	0.4702E-01
			0.3059E+02	0.8645E-01
			0.3671E+02	0.1213E+00
			0.4079E+02	0.1517E+00
			0.3671E+02	0.3033E+00
			0.3671E+02	0.4550E+00
			0.3671E+02	0.7584E+00
			0.3671E+02	0.3033E+01

15	10	0.5496E+02	0.0000E+00	0.0000E+00
			0.1339E+02	0.2427E-01
			0.2232E+02	0.4702E-01
			0.3348E+02	0.8645E-01
			0.4017E+02	0.1213E+00
			0.4464E+02	0.1517E+00
			0.4017E+02	0.3033E+00
			0.4017E+02	0.4550E+00
			0.4017E+02	0.7584E+00
			0.4017E+02	0.3033E+01
16	10	0.5500E+02	0.0000E+00	0.0000E+00
			0.6044E+01	0.1000E-01
			0.1209E+02	0.2000E-01
			0.2418E+02	0.4000E-01
			0.3626E+02	0.6000E-01
			0.4835E+02	0.8000E-01
			0.5440E+02	0.9000E-01
			0.6044E+02	0.1000E+00
			0.6044E+02	0.5000E+00
			0.6044E+02	0.2000E+01
17	10	0.6053E+02	0.0000E+00	0.0000E+00
			0.7441E+01	0.1000E-01
			0.1488E+02	0.2000E-01
			0.2976E+02	0.4000E-01
			0.4465E+02	0.6000E-01
			0.5953E+02	0.8000E-01
			0.6697E+02	0.9000E-01
			0.7441E+02	0.1000E+00
			0.7441E+02	0.5000E+00
			0.7441E+02	0.2000E+01
18	10	0.6596E+02	0.0000E+00	0.0000E+00
			0.7441E+01	0.1000E-01
			0.1488E+02	0.2000E-01
			0.2976E+02	0.4000E-01
			0.4465E+02	0.6000E-01
			0.5953E+02	0.8000E-01
			0.6697E+02	0.9000E-01
			0.7441E+02	0.1000E+00
			0.7441E+02	0.5000E+00
			0.7441E+02	0.2000E+01

TIP LOAD  
KIP

TIP MOVEMENT  
IN.

0.0000E+00	0.0000E+00
0.3649E+02	0.7584E-02
0.7298E+02	0.1517E-01
0.1460E+03	0.3033E-01
0.2919E+03	0.1972E+00
0.4379E+03	0.6370E+00
0.5255E+03	0.1107E+01
0.5839E+03	0.1517E+01
0.5839E+03	0.2275E+01
0.5839E+03	0.3033E+01

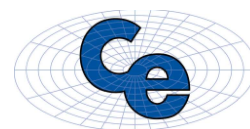
LOAD VERSUS SETTLEMENT CURVE  
\*\*\*\*\*

TOP LOAD KIP	TOP MOVEMENT IN.	TIP LOAD KIP	TIP MOVEMENT IN.
0.2057E+01	0.3463E-03	0.4812E+00	0.1000E-03
0.2057E+02	0.3463E-02	0.4812E+01	0.1000E-02
0.1032E+03	0.1733E-01	0.2406E+02	0.5000E-02
0.2059E+03	0.3475E-01	0.4812E+02	0.1000E-01
0.8168E+03	0.1499E+00	0.1632E+03	0.5000E-01
0.1132E+04	0.2455E+00	0.2069E+03	0.1000E+00
0.1323E+04	0.6787E+00	0.3924E+03	0.5000E+00
0.1437E+04	0.1198E+01	0.5055E+03	0.1000E+01
0.1515E+04	0.2212E+01	0.5839E+03	0.2000E+01



## **APPENDIX C:**

### **Lab Summary Sheet Complete Laboratory Results**



Contour Project No.: G22ATK01  
Submitted By: Shacoya Fisher  
Examined For: USCS, Moisture

Project/Lab No.:	X2329	X2329	X2329	X2329	X2329	X2329	X2329	X2329
Sample No.:	6 (18.5')	7 (23.5')	10 (38.5')	13 (53.5')	15 (63.5')	2 (28.5')	3 (33.5')	6 (48.5')
Station	52+52, 7' RT	52+52, 7' RT	52+52, 7' RT	52+52, 7' RT	52+52, 7' RT	52+20, 7' RT	52+20, 7' RT	52+20, 7' RT
Location	B-1	B-1	B-1	B-1	B-1	B-2	B-2	B-2
Surface Elevation	1007.52	1007.52	1007.52	1007.52	1007.52	1008.8	1008.8	1008.8

2 1/2" Sieve	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1 1/2" Sieve	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
#10 Sieve	95.6	79.8	90.0	94.0	85.2	88.2	80.2	91.3
#40 Sieve	86.5	59.8	64.7	81.6	72.5	78.1	60.9	74.0
#60 Sieve	83.5	51.9	56.0	77.0	65.6	72.0	56.0	68.7
#200 Sieve	61.8	32.2	30.8	50.9	37.8	50.1	34.1	36.7
% Clay								
T Vol Chg								
% Swell								
% Shrinkage								
Max. Dry Den								
%Opt Moist.								
Liquid Limit (LL)	43.5	39.9	47	33.8	NV	64.7	37.9	33.2
Plastic Index (PI)	24	18.5	23.8	12.9	NP	37.5	14	12.5
Erosion Index								
Resistivity								
CBR - SSV								
Ph								
Organic								
Natural Moisture	40.9	55.8	61.0	27.1	10.6	50.5	26.4	20.8

Class								
USCS	CL	SC	SC	CL	SM	CH	SC	SC
AASHTO	A-7-6(13)	A-2-6(2)	A-2-7(2)	A-6(4)	A-4(0)	A-7-6(15)	A-2-6(1)	A-6(1)

[illegible]

Contour Project No.: G22ATK01  
Submitted By: Shacoya Fisher  
Examined For: USCS, Moisture

Project/Lab No.:	X2329	X2329	X2329	X2329	X2329	X2329	X2329	X2329
Sample No.:	8 (58.5')	3 (28.5')	4 (33.5')	7 (48.5')	8 (53.5')	2 (3.5')	5 (13.5')	7 (23.5')
Station	52+20, 7' RT	51+45, 7' RT	51+45, 7' RT	51+45, 7' RT	51+45, 7' RT	51+21, 6' RT	51+21, 6' RT	51+21, 6' RT
Location	B-2	B-3	B-3	B-3	B-3	B-4	B-4	B-4
Surface Elevation	1008.8	1007.07	1007.07	1007.07	1007.07	1005.48	1005.48	1005.48

## PHYSICAL TESTS

2 1/2" Sieve	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1 1/2" Sieve	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
#10 Sieve	96.1	85.0	78.6	84.1	76.2	86.4	97.3	95.2
#40 Sieve	75.2	78.2	61.5	78.0	61.1	62.4	91.0	89.7
#60 Sieve	66.4	74.7	58.5	74.9	58.6	51.3	86.8	85.6
#200 Sieve	37.2	46.5	39.5	51.3	37.1	34.6	61.2	44.2
% Clay								
T Vol Chg								
% Swell								
% Shrinkage								
Max. Dry Den								
%Opt Moist.								
Liquid Limit (LL)	NV	39	27.3	42.2	NV	48.9	60.3	34.2
Plastic Index (PI)	NP	18.1	8.4	19.4	NP	26.5	38	12
Erosion Index								
Resistivity								
CBR - SSV								
Ph								
Organic								
Natural Moisture	24.9	31.9	18.6	37.0	11.5	20.4	39.8	43.5

## CLASSIFICATION

Class								
USCS	SM	SC	SC	CL	SM	SC	CH	SC
AASHTO	A-4(0)	A-6(5)	A-4(0)	A-7-6(7)	A-4(0)	A-2-7(3)	A-7-6(21)	A-6(2)

### TESTING DATES

[illegible]

Contour Engineering, LLC  
Old Floyd Rd over Norfolk Southern Railroad  
Cobb County, Georgia

Contour Project No.: G22ATK01  
Submitted By: Shacoya Fisher  
Examined For: USCS, Moisture

Laboratory Testing

Project/Lab No.:	X2329	X2329						
Sample No.:	11 (43.5')	13 (53.5')						
Station	51+21, 6' RT	51+21, 6' RT						
Location	B-4	B-4						
Surface Elevation	1005.48	1005.48						

PHYSICAL TESTS

2 1/2" Sieve	100.0	100.0						
1 1/2" Sieve	100.0	100.0						
#10 Sieve	73.4	81.1						
#40 Sieve	60.3	71.2						
#60 Sieve	56.1	68.0						
#200 Sieve	32.1	41.8						
% Clay								
T Vol Chg								
% Swell								
% Shrinkage								
Max. Dry Den								
%Opt Moist.								
Liquid Limit (LL)	39.5	38.5						
Plastic Index (PI)	15.5	14.4						
Erosion Index								
Resistivity								
CBR - SSV								
Ph								
Organic								
Natural Moisture	24.0	23.1						

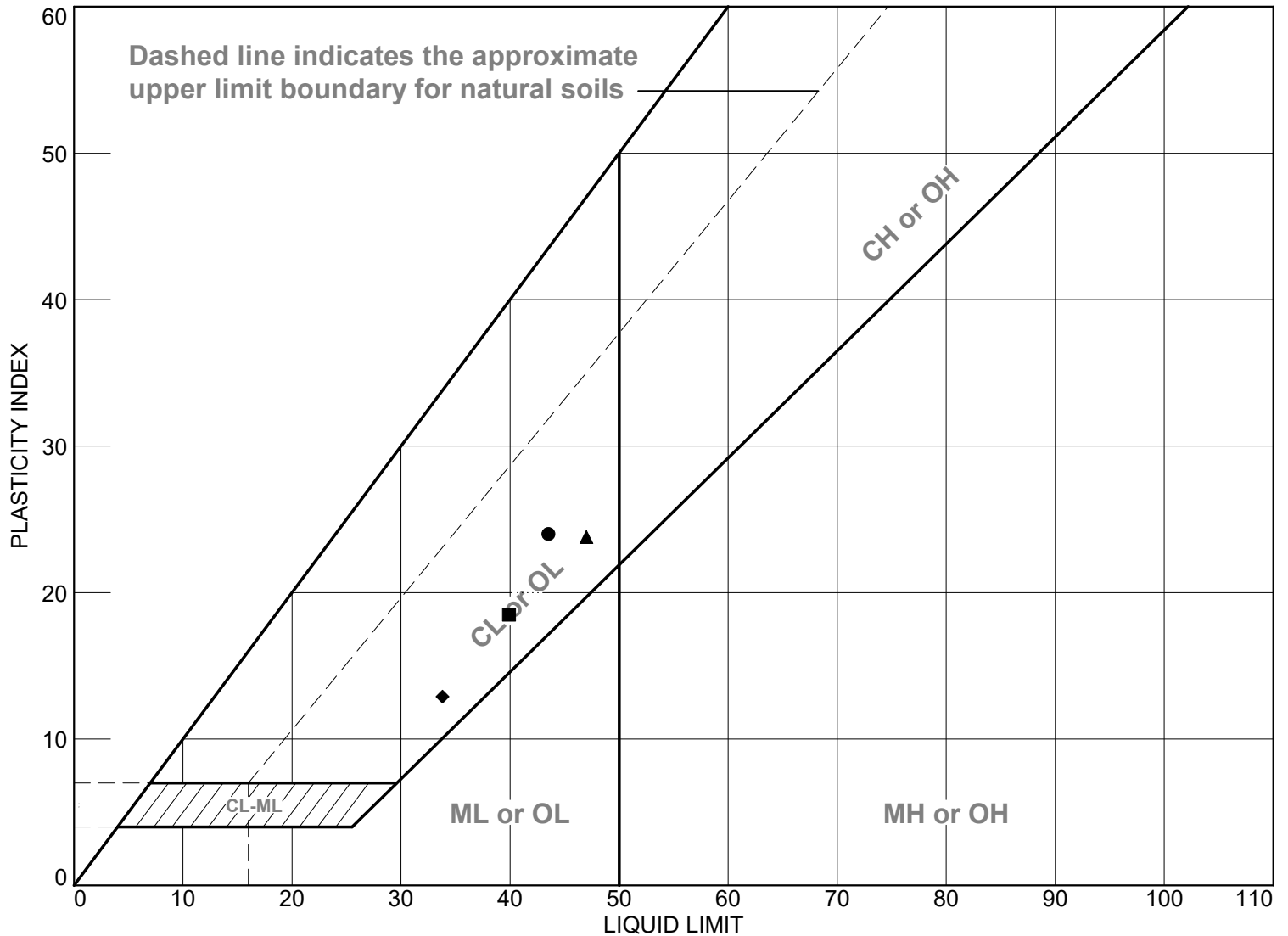
CLASSIFICATION

Class								
USCS	SC	SC						
AASHTO	A-2-6(1)	A-6(2)						

TESTING DATES

Date Sampled	5/31/2022	5/31/2022						
Date Received	6/3/2022	6/3/2022						
Date Completed	6/27/2023	6/27/2023						

# LIQUID AND PLASTIC LIMITS TEST REPORT



## SOIL DATA

SYMBOL	SOURCE	SAMPLE NO.	DEPTH	NATURAL WATER CONTENT (%)	PLASTIC LIMIT (%)	LIQUID LIMIT (%)	PLASTICITY INDEX (%)	USCS
●	B-1	6	18.5	40.9	19.5	43.5	24.0	CL
■	B-1	7	23.5	55.8	21.4	39.9	18.5	SC
▲	B-1	10	38.5	61.0	23.2	47.0	23.8	SC
◆	B-1	13	53.5	27.1	20.9	33.8	12.9	CL
▼	B-1	15	63.5	10.6	NP	NV	NP	SM



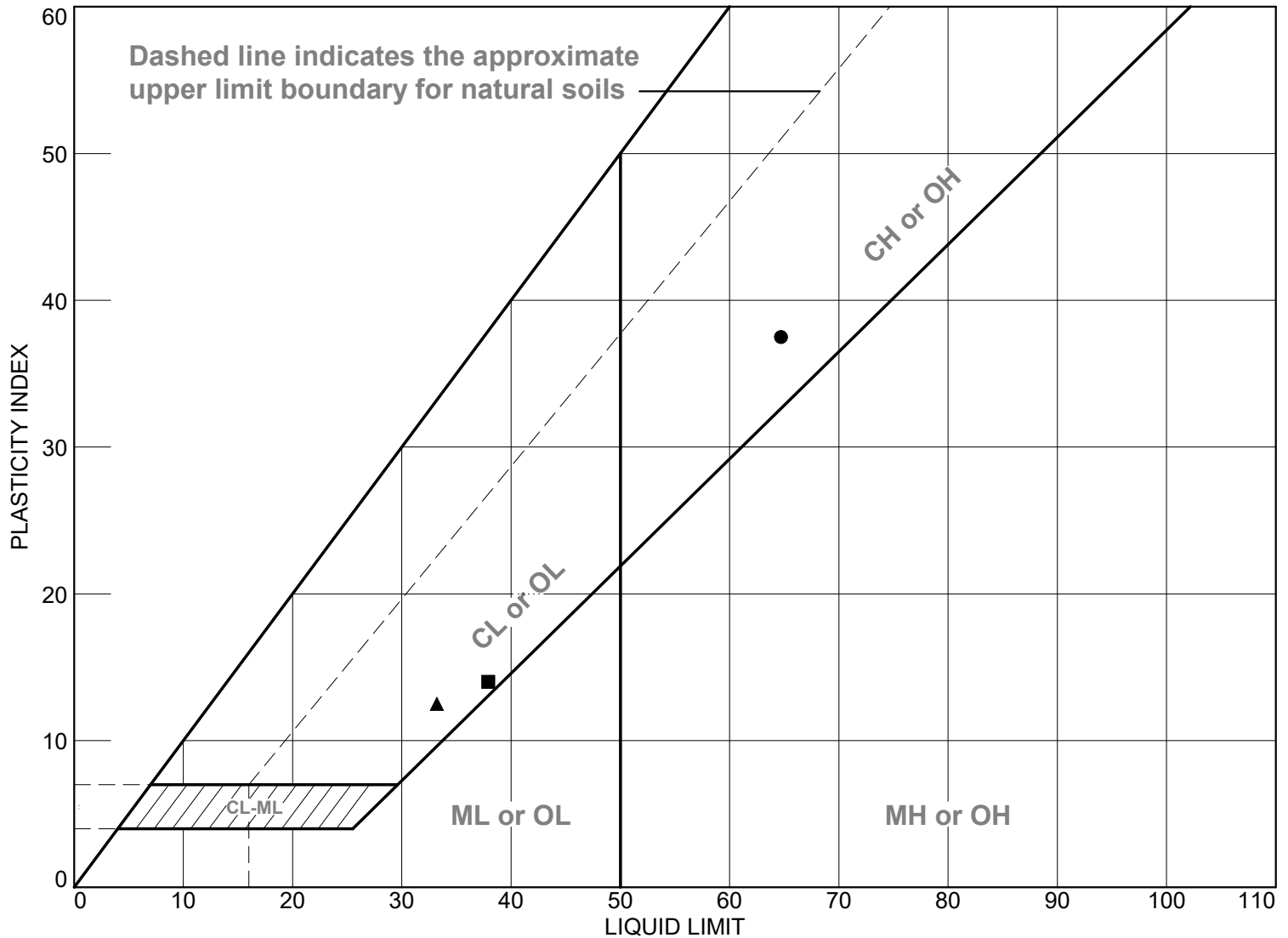
**Client:** Arcadis

**Project:** Old Floyd Road over Norfolk Southern Railroad

**Project No.:** Cobb No.: X2329

**Figure**

# LIQUID AND PLASTIC LIMITS TEST REPORT



## SOIL DATA

SYMBOL	SOURCE	SAMPLE NO.	DEPTH	NATURAL WATER CONTENT (%)	PLASTIC LIMIT (%)	LIQUID LIMIT (%)	PLASTICITY INDEX (%)	USCS
●	B-2	2	28.5	50.5	27.2	64.7	37.5	CH
■	B-2	3	33.5	26.4	23.9	37.9	14.0	SC
▲	B-2	6	48.5	20.8	20.7	33.2	12.5	SC
◆	B-2	8	58.5	24.9	NP	NV	NP	SM



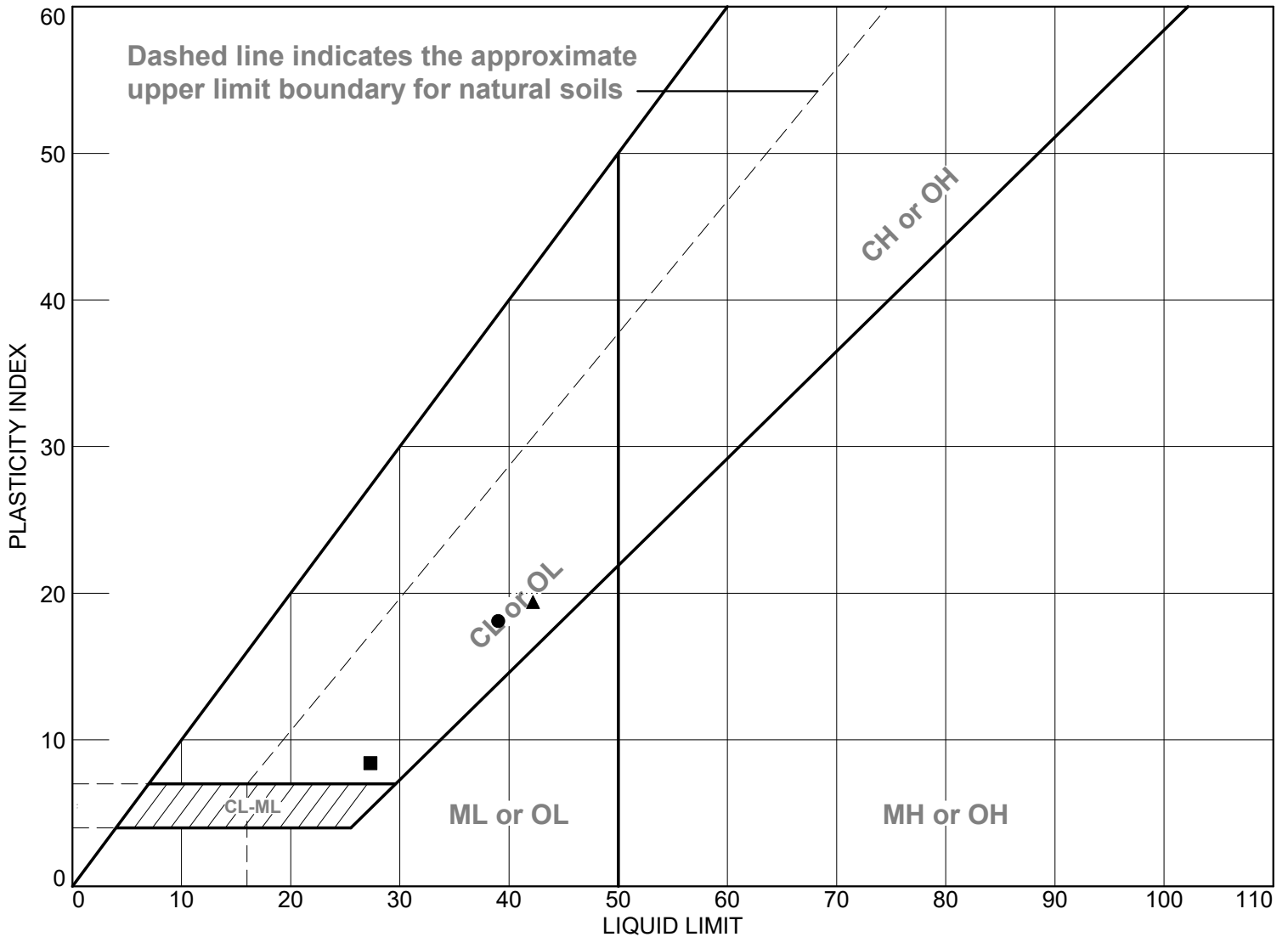
**Client:** Arcadis

**Project:** Old Floyd Road over Norfolk Southern Railroad

**Project No.:** Cobb No.: X2329

**Figure**

# LIQUID AND PLASTIC LIMITS TEST REPORT



## SOIL DATA

SYMBOL	SOURCE	SAMPLE NO.	DEPTH	NATURAL WATER CONTENT (%)	PLASTIC LIMIT (%)	LIQUID LIMIT (%)	PLASTICITY INDEX (%)	USCS
●	B-3	3	28.5	31.9	20.9	39.0	18.1	SC
■	B-3	4	33.5	18.6	18.9	27.3	8.4	SC
▲	B-3	7	48.5	37.0	22.8	42.2	19.4	CL
◆	B-3	8	53.5	11.5	NP	NV	NP	SM



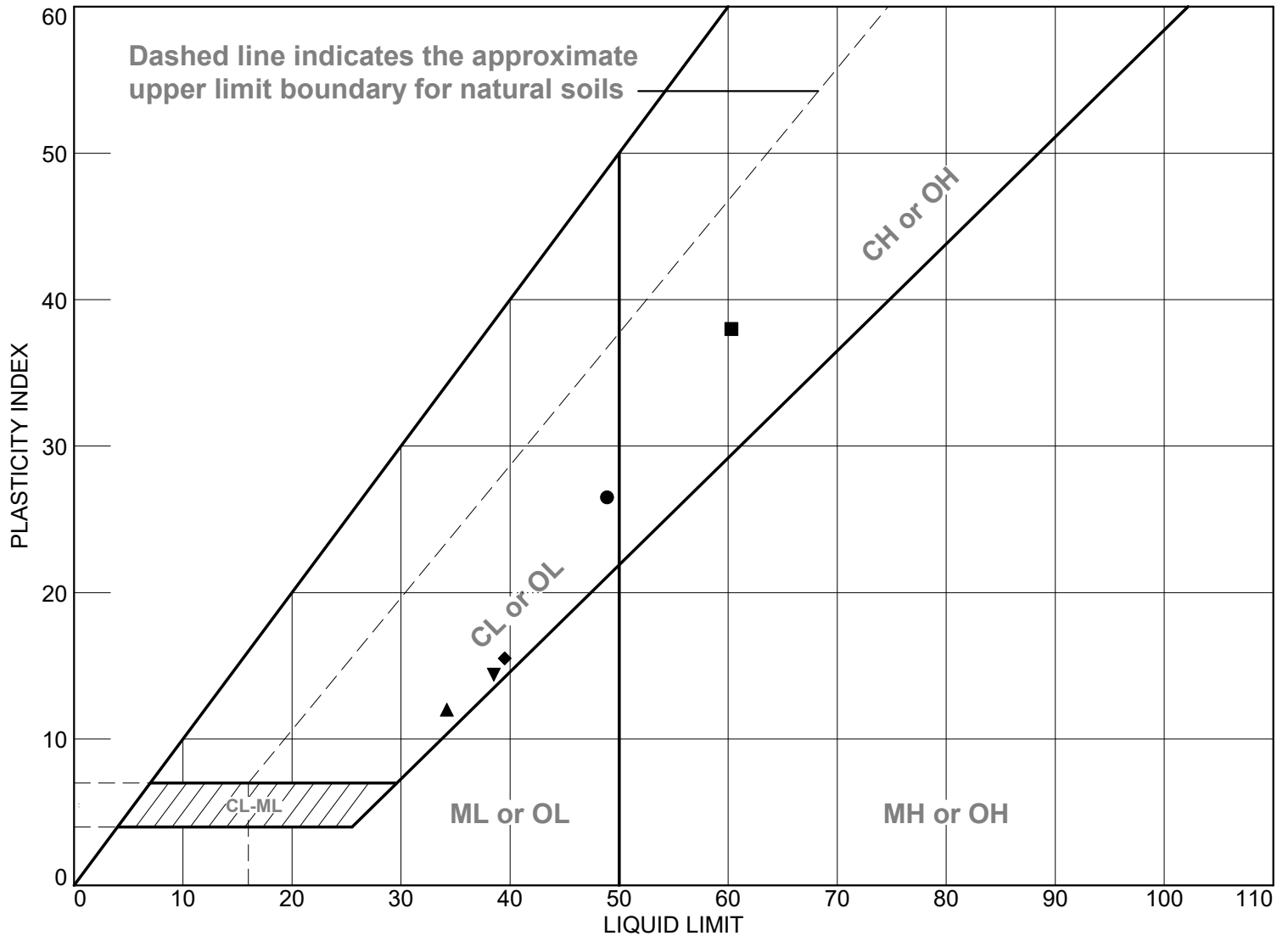
**Client:** Arcadis

**Project:** Old Floyd Road over Norfolk Southern Railroad

**Project No.:** Cobb No.: X2329

**Figure**

# LIQUID AND PLASTIC LIMITS TEST REPORT



## SOIL DATA

SYMBOL	SOURCE	SAMPLE NO.	DEPTH	NATURAL WATER CONTENT (%)	PLASTIC LIMIT (%)	LIQUID LIMIT (%)	PLASTICITY INDEX (%)	USCS
●	B-4	2	3.5	20.4	22.4	48.9	26.5	SC
■	B-4	5	13.5	39.8	22.3	60.3	38.0	CH
▲	B-4	7	23.5	43.5	22.2	34.2	12.0	SC
◆	B-4	11	43.5	24.0	24.0	39.5	15.5	SC
▼	B-4	13	53.5	23.1	24.1	38.5	14.4	SC



**Client:** Arcadis

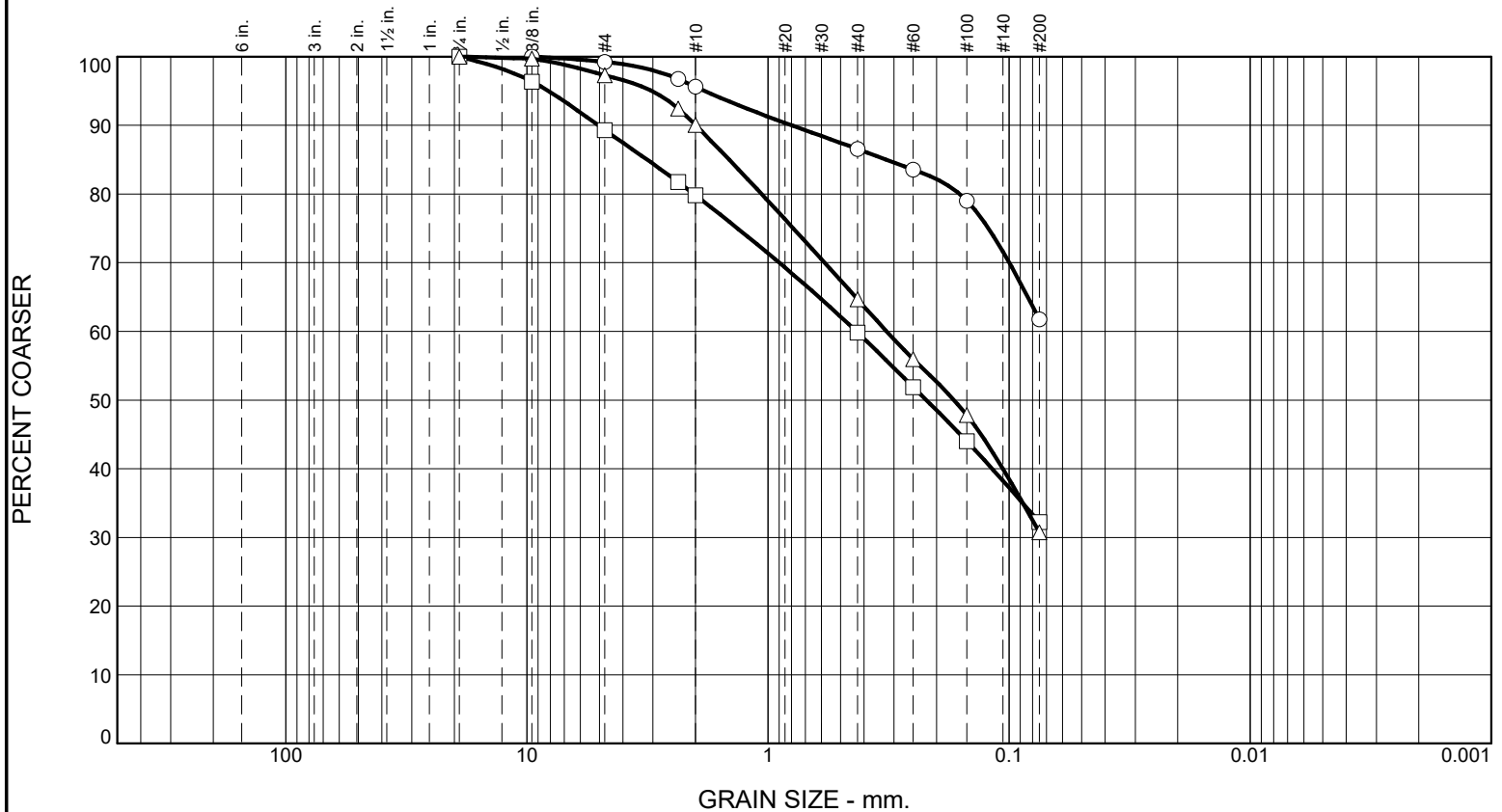
**Project:** Old Floyd Road over Norfolk Southern Railroad

**Project No.:** Cobb No.: X2329

**Figure**



# Particle Size Distribution Report



	+3"	% GRAVEL	% SAND	% SILT	% CLAY	USCS	AASHTO	PL	LL
○	0.0	0.8	37.4	61.8		CL	A-7-6(13)	19.5	43.5
□	0.0	10.7	57.1	32.2		SC	A-2-6(2)	21.4	39.9
△	0.0	2.7	66.5	30.8		SC	A-2-7(2)	23.2	47.0

SIEVE inches size	PERCENT FINER		
	○	□	△
.75		100.0	100.0
.375	100.0	96.4	99.7
GRAIN SIZE			
D <sub>60</sub>		0.4306	0.3224
D <sub>30</sub>			
D <sub>10</sub>			
COEFFICIENTS			
C <sub>c</sub>			
C <sub>u</sub>			

SIEVE number size	PERCENT FINER		
	○	□	△
#4	99.2	89.3	97.3
#8	96.8	81.8	92.5
#10	95.6	79.8	90.0
#40	86.5	59.8	64.7
#60	83.5	51.9	56.0
#100	79.0	44.0	47.8
#200	61.8	32.2	30.8

Material Description
○
□
△

REMARKS:
○
□
△

○ Source of Sample: B-1      Depth: 18.5  
 □ Source of Sample: B-1      Depth: 23.5  
 △ Source of Sample: B-1      Depth: 38.5

Sample Number: 6  
 Sample Number: 7  
 Sample Number: 10



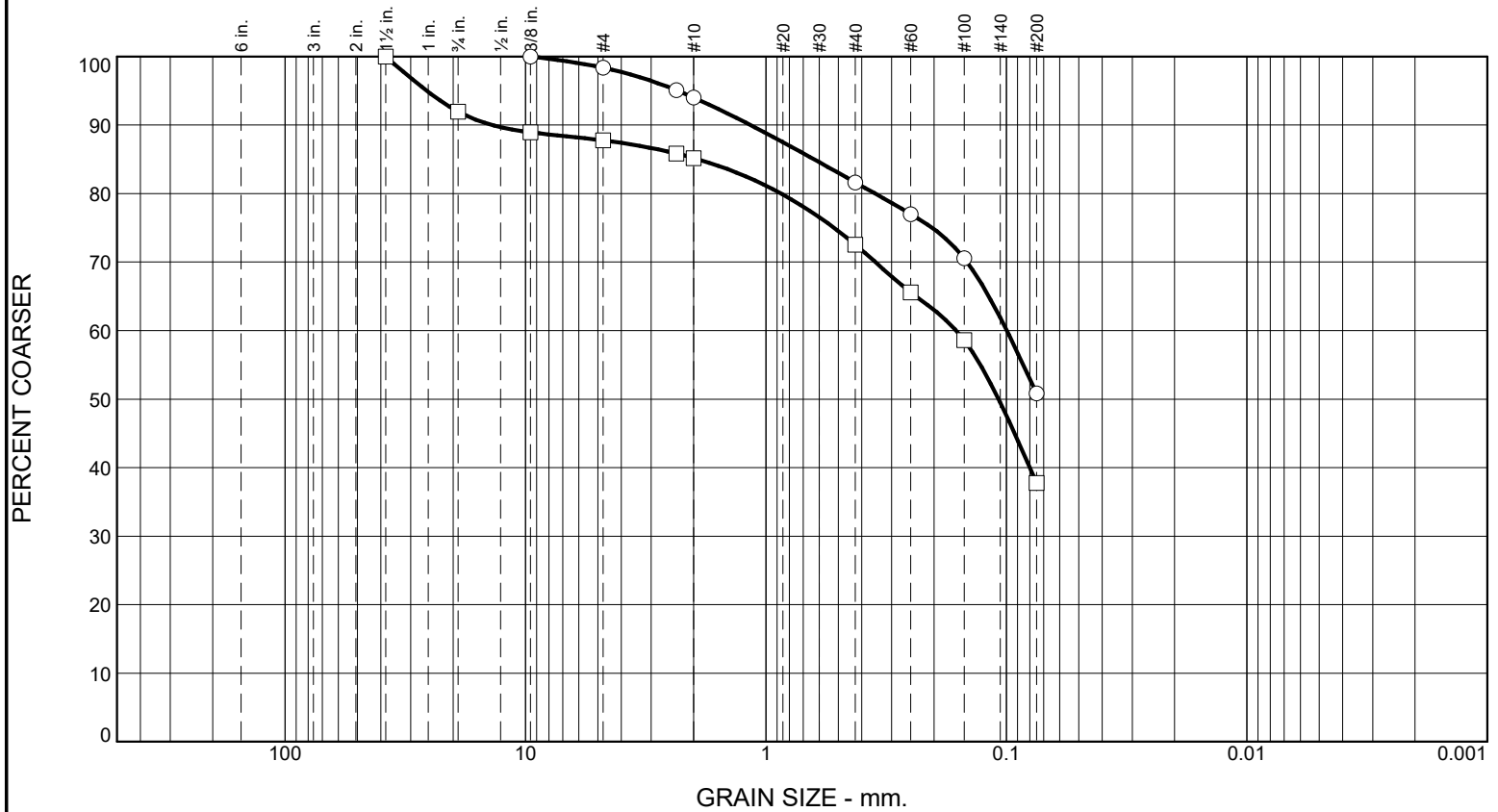
Client: Arcadis  
 Project: Old Floyd Road over Norfolk Southern Railroad  
 Project No.: Cobb No.: X2329

Figure

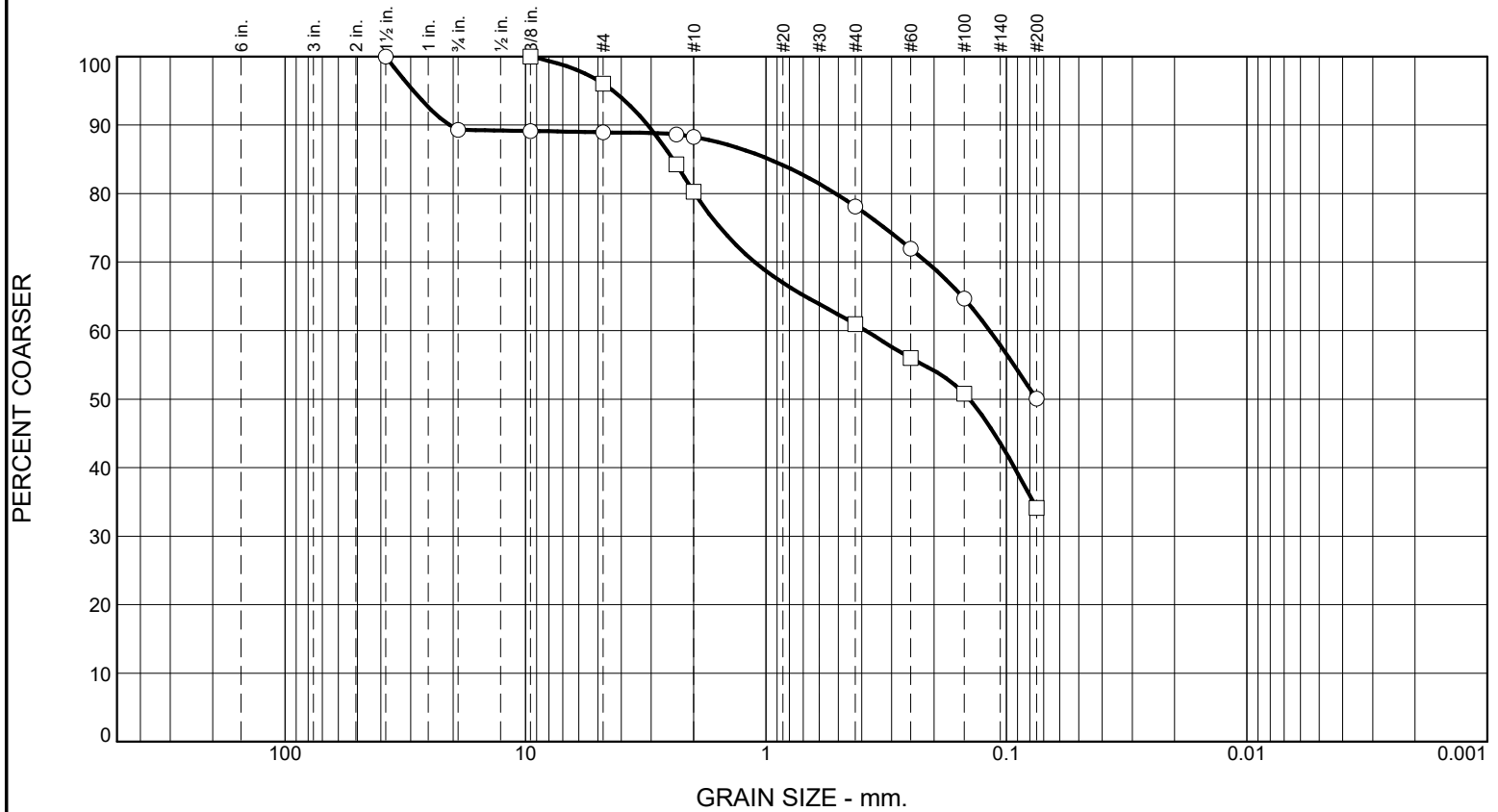
Tested By: Ray Boyd

Checked By: Chris LeBeau

# Particle Size Distribution Report



# Particle Size Distribution Report



	+3"	% GRAVEL	% SAND	% SILT	% CLAY	USCS	AASHTO	PL	LL
○	0.0	11.1	38.8	50.1		CH	A-7-6(15)	27.2	64.7
□	0.0	4.0	61.9	34.1		SC	A-2-6(1)	23.9	37.9

SIEVE inches size	PERCENT FINER		
	○	□	
1.5	100.0		
.75	89.3		
.375	89.1	100.0	
GRAIN SIZE			
D <sub>60</sub>	0.1174	0.3849	
D <sub>30</sub>			
D <sub>10</sub>			
COEFFICIENTS			
C <sub>c</sub>			
C <sub>u</sub>			

SIEVE number size	PERCENT FINER		
	○	□	
#4	88.9	96.0	
#8	88.6	84.2	
#10	88.2	80.2	
#40	78.1	60.9	
#60	72.0	56.0	
#100	64.7	50.8	
#200	50.1	34.1	

Material Description
○
□

REMARKS:
○
□

○ Source of Sample: B-2      Depth: 28.5  
 □ Source of Sample: B-2      Depth: 33.5

Sample Number: 2  
 Sample Number: 3



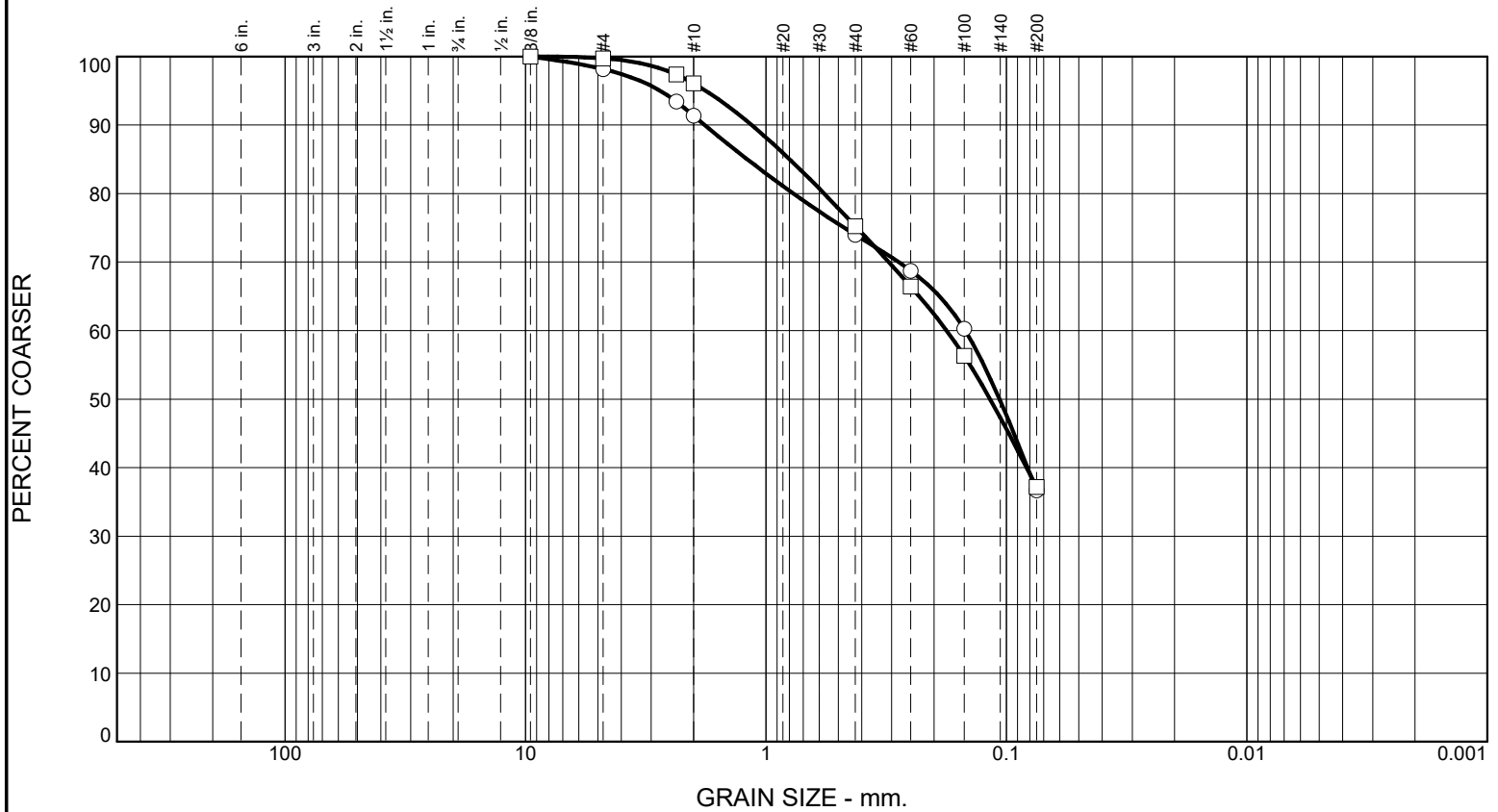
Client: Arcadis  
 Project: Old Floyd Road over Norfolk Southern Railroad  
 Project No.: Cobb No.: X2329

Figure

Tested By: Ray Boyd

Checked By: Chris LeBeau

# Particle Size Distribution Report



	+3"	% GRAVEL	% SAND	% SILT	% CLAY	USCS	AASHTO	PL	LL
○	0.0	1.8	61.5	36.7		SC	A-6(1)	20.7	33.2
□	0.0	0.3	62.5	37.2		SM	A-4(0)	NP	NV

SIEVE inches size	PERCENT FINER	
	○	□
.375	100.0	100.0
GRAIN SIZE		
D <sub>60</sub>	0.1485	0.1776
D <sub>30</sub>		
D <sub>10</sub>		
COEFFICIENTS		
C <sub>c</sub>		
C <sub>u</sub>		

SIEVE number size	PERCENT FINER	
	○	□
#4	98.2	99.7
#8	93.4	97.4
#10	91.3	96.1
#40	74.0	75.2
#60	68.7	66.4
#100	60.2	56.3
#200	36.7	37.2

**Material Description**

○

□

**REMARKS:**

○

□

○ Source of Sample: B-2      Depth: 48.5  
 □ Source of Sample: B-2      Depth: 58.5

Sample Number: 6  
 Sample Number: 8



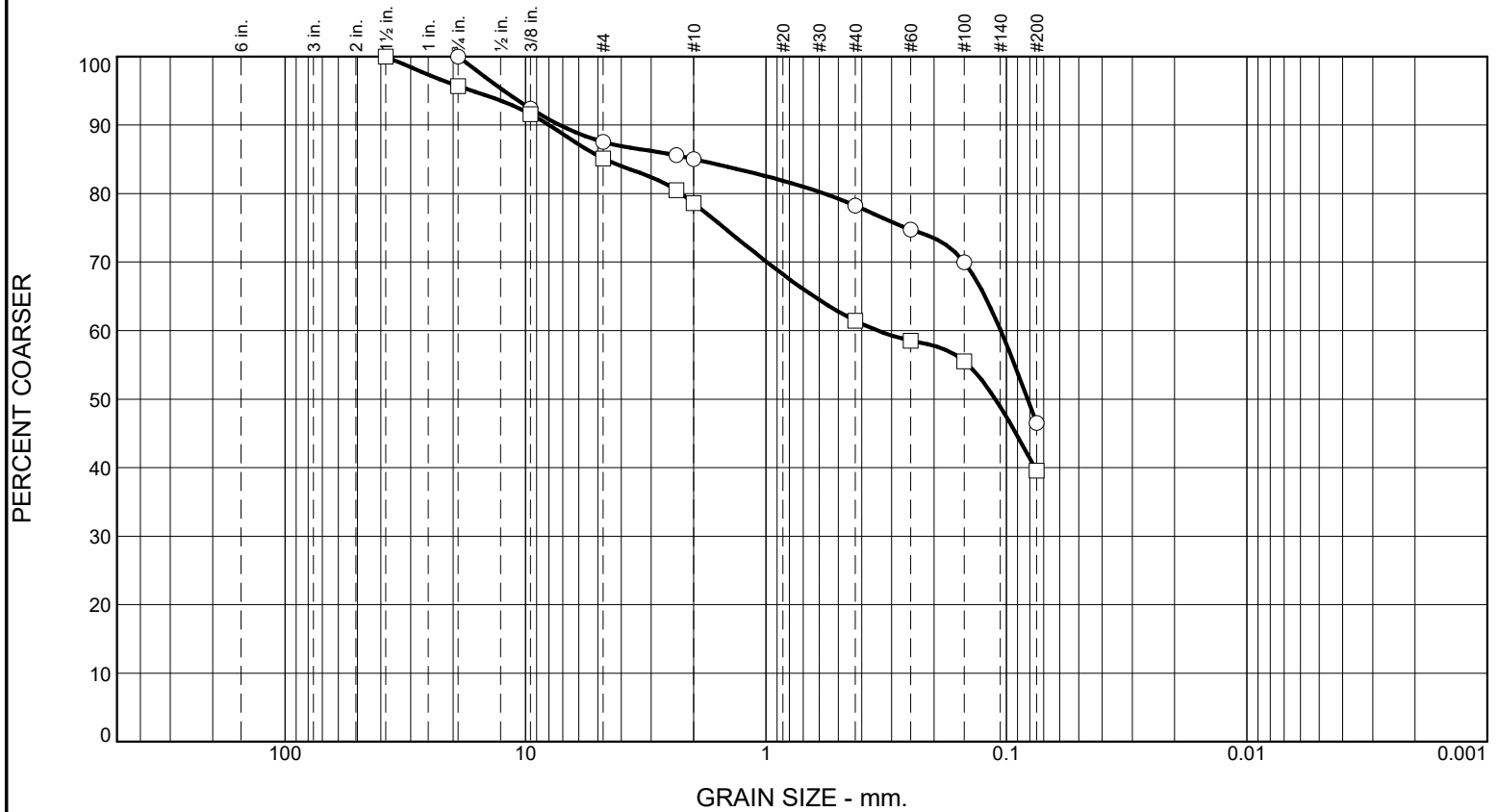
Client: Arcadis  
 Project: Old Floyd Road over Norfolk Southern Railroad  
 Project No.: Cobb No.: X2329

Figure

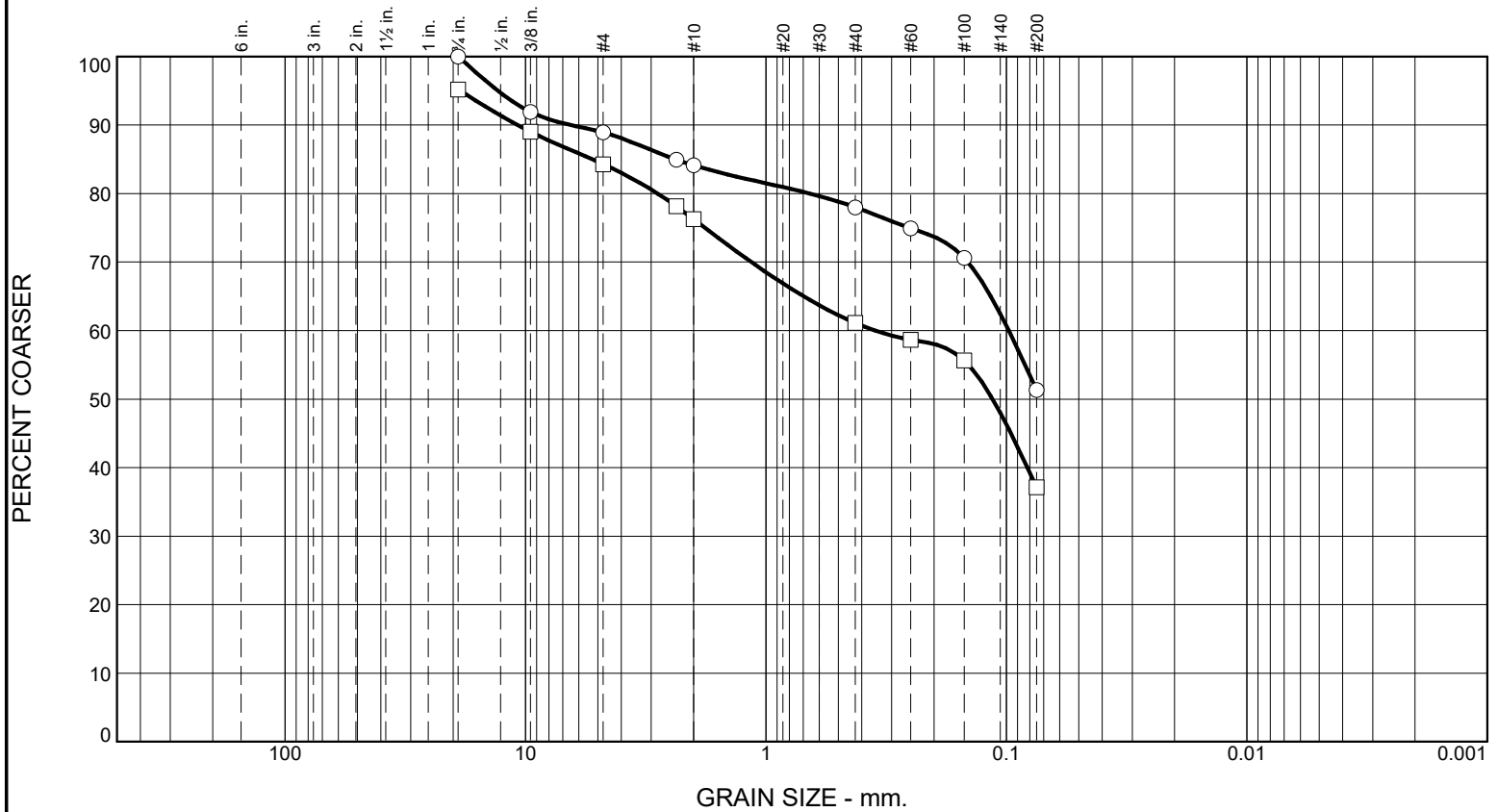
Tested By: Ray Boyd

Checked By: Chris LeBeau

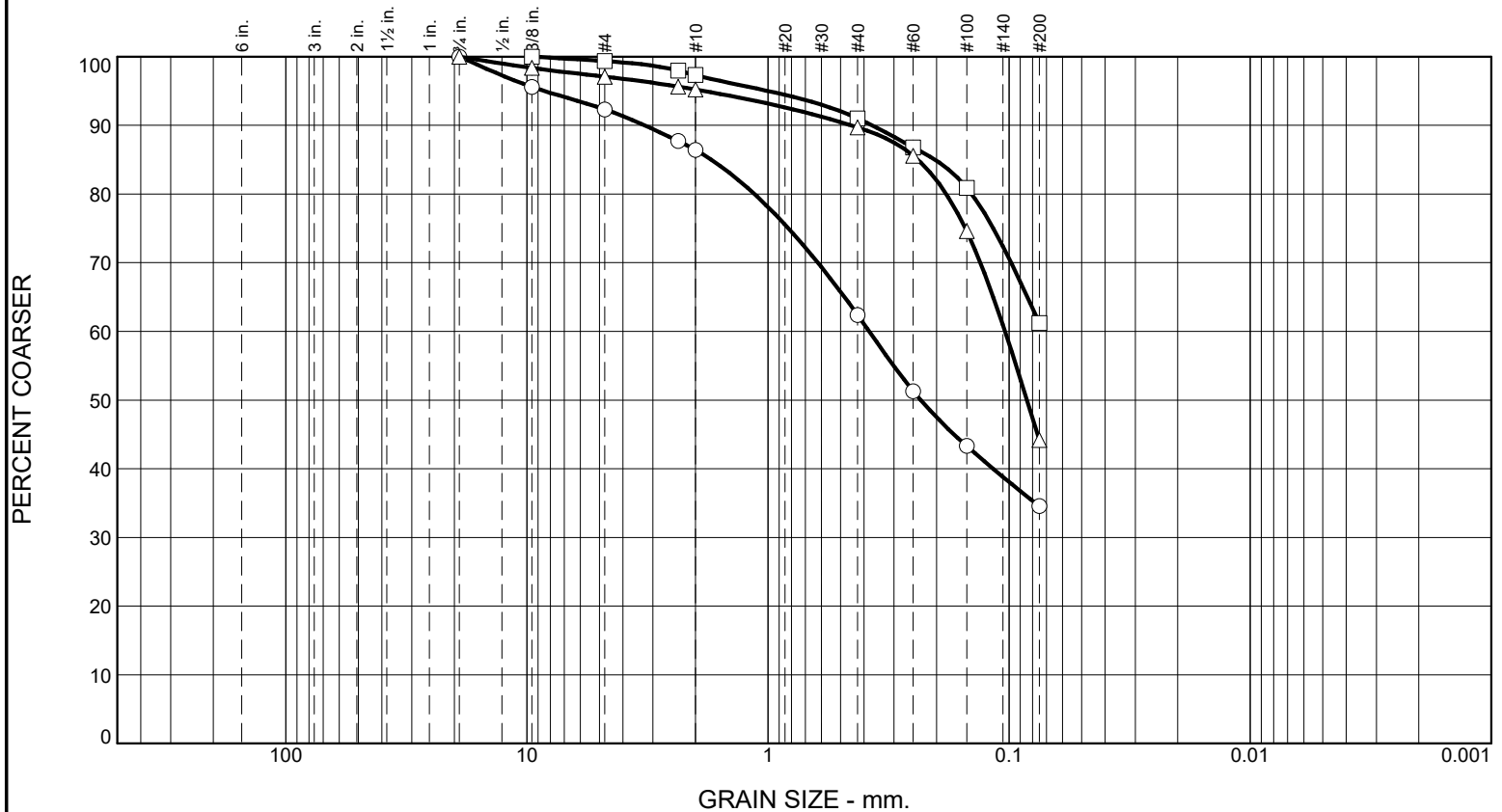
# Particle Size Distribution Report



# Particle Size Distribution Report



# Particle Size Distribution Report



	+3"	% GRAVEL	% SAND	% SILT	% CLAY	USCS	AASHTO	PL	LL
○	0.0	7.7	57.7	34.6		SC	A-2-7(3)	22.4	48.9
□	0.0	0.7	38.1	61.2		CH	A-7-6(21)	22.3	60.3
△	0.0	2.9	52.9	44.2		SC	A-6(2)	22.2	34.2

SIEVE inches size	PERCENT FINER		
	○	□	△
.75	100.0		100.0
.375	95.6	100.0	98.3
GRAIN SIZE			
D <sub>60</sub>	0.3806		0.1040
D <sub>30</sub>			
D <sub>10</sub>			
COEFFICIENTS			
C <sub>c</sub>			
C <sub>u</sub>			

SIEVE number size	PERCENT FINER		
	○	□	△
#4	92.3	99.3	97.1
#8	87.7	98.0	95.6
#10	86.4	97.3	95.2
#40	62.4	91.0	89.7
#60	51.3	86.8	85.6
#100	43.3	80.9	74.6
#200	34.6	61.2	44.2

Material Description
○
□
△

REMARKS:
○
□
△

○ Source of Sample: B-4      Depth: 3.5  
 □ Source of Sample: B-4      Depth: 13.5  
 △ Source of Sample: B-4      Depth: 23.5

Sample Number: 2  
 Sample Number: 5  
 Sample Number: 7



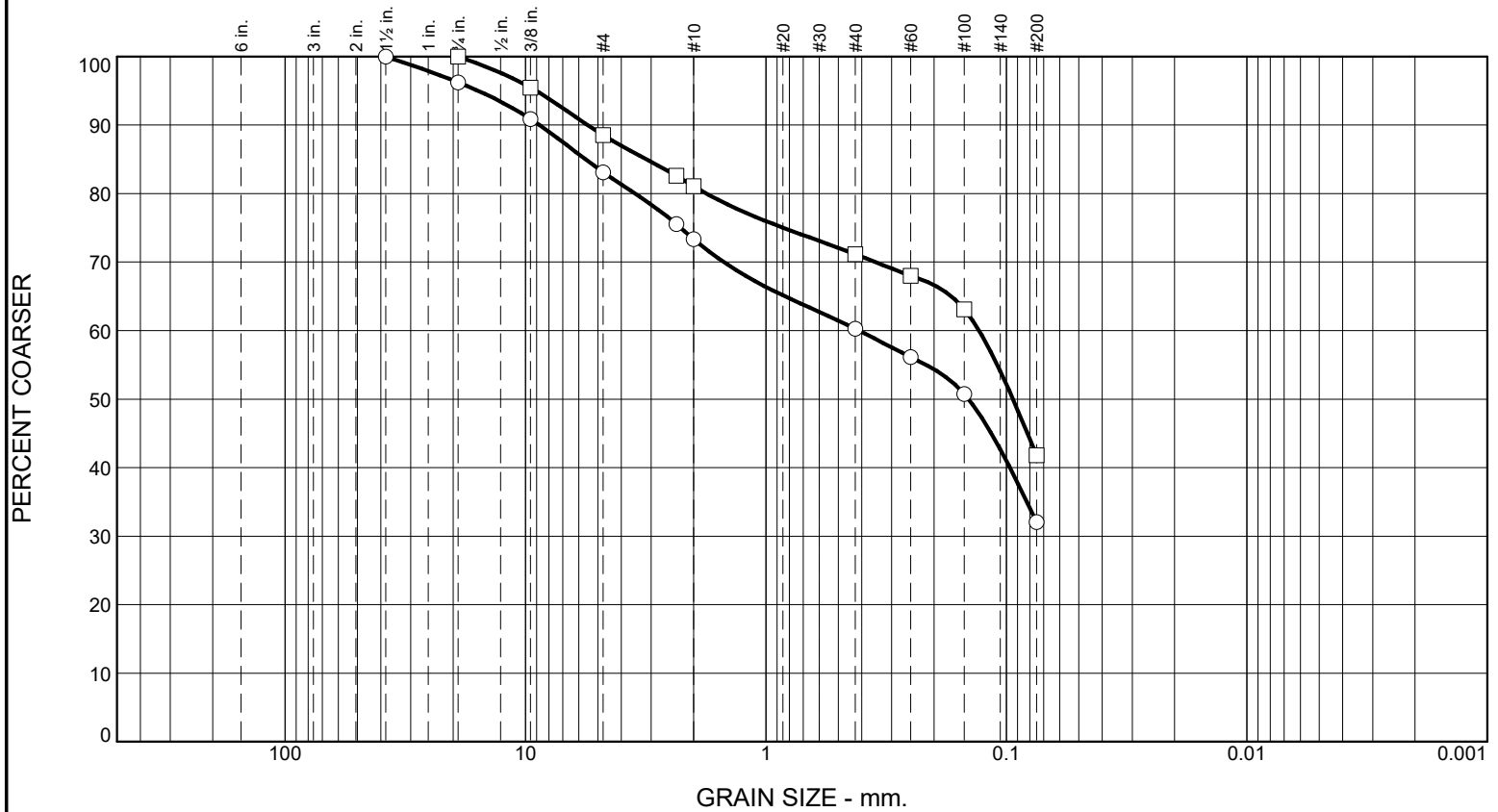
Client: Arcadis  
 Project: Old Floyd Road over Norfolk Southern Railroad  
 Project No.: Cobb No.: X2329

Figure

Tested By: Ray Boyd

Checked By: Chris LeBeau

# Particle Size Distribution Report



	+3"	% GRAVEL	% SAND	% SILT	% CLAY	USCS	AASHTO	PL	LL
○	0.0	16.9	51.0	32.1		SC	A-2-6(1)	24.0	39.5
□	0.0	11.5	46.7	41.8		SC	A-6(2)	24.1	38.5

SIEVE inches size	PERCENT FINER	
	○	□
1.5	100.0	
.75	96.2	100.0
.375	90.9	95.5
GRAIN SIZE		
D <sub>60</sub>	0.4101	0.1302
D <sub>30</sub>		
D <sub>10</sub>		
COEFFICIENTS		
C <sub>c</sub>		
C <sub>u</sub>		

SIEVE number size	PERCENT FINER	
	○	□
#4	83.1	88.5
#8	75.6	82.6
#10	73.4	81.1
#40	60.3	71.2
#60	56.1	68.0
#100	50.8	63.1
#200	32.1	41.8

Material Description

○

□

REMARKS:

○

□

○ Source of Sample: B-4      Depth: 43.5  
 □ Source of Sample: B-4      Depth: 53.5

Sample Number: 11  
 Sample Number: 13



Client: Arcadis  
 Project: Old Floyd Road over Norfolk Southern Railroad  
 Project No.: Cobb No.: X2329

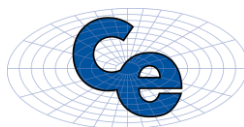
Figure

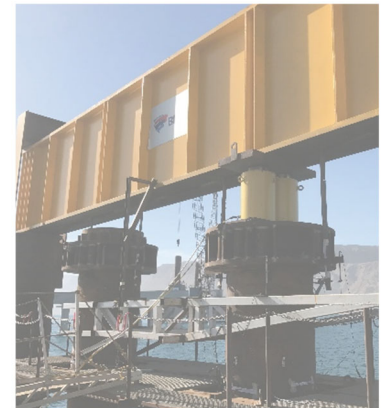
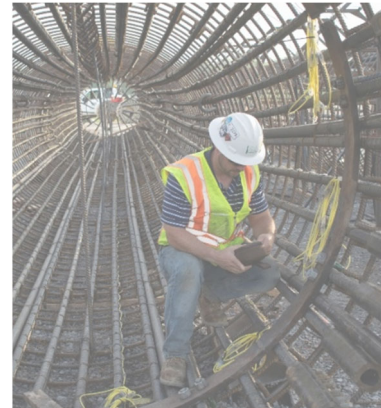
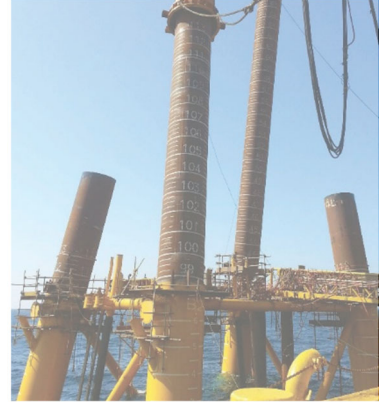
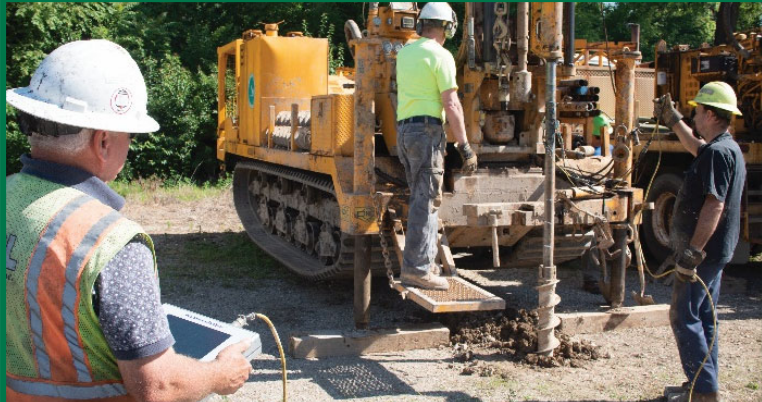
Tested By: Ray Boyd

Checked By: Chris LeBeau



**APPENDIX D:**  
**SPT Hammer Calibration Report**





**Job No. 2095011-1**  
**June 15, 2020**

**Project: Standard Penetration Testing  
Dynamic Measurements for  
Diedrich D-50 S/N 447  
Dawsonville, GA**

**Prepared For: Dodd Drilling, LLC.**

**By: Thomas G. Hyatt, P.E. & Joel S. Webster**

[www.grlengineers.com](http://www.grlengineers.com)



June 15, 2020

Mr. John Dodd  
Dodd Drilling, LLC.  
64 Timberwalk  
Dawsonville, GA 30534

Re: Standard Penetration Test Energy Measurements  
Diedrich D-50 S/N 447  
Cartersville, Georgia

GRL Job No. 2095011-1

Dear Mr. Dodd;

This report presents results of energy measurements obtained on June 15, 2020 during Standard Penetration Test (SPT) sampling. One automatic hammer mounted on one Diedrich D-50 drill rig owned by Dodd Drilling, LLC. was tested. The drill rig is an ATV mounted Diedrich D-50. Dynamic tests were performed on AW drill rods having J tapered threads. GRL Engineers, Inc. obtained the dynamic measurements with an instrumented AW-J subsection and an 8G Model Pile Driving Analyzer®. This report describes the testing procedures and summarizes the test results. Appendix A describes our measurement and analysis methods, Appendix B contains the instrumentation calibration certificates, and Appendix C contains a summary of the field data as well as sample plots of the force and velocity measurements.

## **PURPOSE AND SCOPE OF WORK**

At the request of Dodd Drilling, LLC, GRL Engineers conducted SPT energy measurements and in general tried to follow ASTM D4633-10. Specifically, we provided SPT energy measurements for one drill rig, at five-foot sample intervals starting at a minimum depth of 20.0 feet and ending at a maximum depth of 36.5 feet below the existing ground surface. All of the SPT samples were driven for a total of three 6 inch increments, or 1.5 feet. GRL performed energy measurements during four sampling events for this drill rig.

## **EQUIPMENT**

### ***Drilling and SPT Hammer Equipment***

#### **Diedrich D-50 (Serial Number 447)**

SPT energy measurements were made on an automatic hammer mounted on a Diedrich D-50 drill rig. Energy measurements were collected every five feet while taking four soil samples at a test bore hole. Blank drilling was performed to 20 feet before collecting the first sample. Testing started with sample 1 from 20.0 to 21.5 feet and concluding with sample 4 from 35.0 to 36.5 feet.

### ***Instrumentation***

An 8G Model Pile Driving Analyzer (PDA) data acquisition system manufactured by Pile Dynamics, Inc. was used to collect and process the dynamic measurements of force and velocity. A two foot long subsection of standard AW rod with J tapered threads (S/N 486 AWJ) was instrumented with two full bridge foil resistance strain gages and two piezoresistive accelerometers mounted in the midpoint location of the instrumented rod.

Analog signals from the strain gages and accelerometers were conditioned, digitized, processed and stored with the PDA. Selected output from the PDA for each recorded impact included the maximum calculated maximum energy transfer, (EFV); the energy transfer ratio, (ETR); the maximum calculated rod force, (FMX); maximum rod top velocity, (VMX); the hammer operating rate, (BPM); the maximum computed displacement, (DMX); the final displacement, (DFN); and the maximum compressive stress at the gage location, (CSX).

### **MEASUREMENTS AND CALCULATIONS**

#### ***FV Method (EFV)***

Energy transfer to the PDA gage location, EFV, was computed by the PDA using force,  $F(t)$ , and velocity,  $v(t)$ , records as follows:

$$EFV = \int_a^b F(t) \cdot v(t) dt$$

The time "a" corresponds to the start of the record when the energy transfer begins, and "b" is the time at which energy transferred to the rod reaches a maximum value. The FV Method is currently recognized in ASTM D4633-10, and is the theoretically correct result; therefore, no other energy calculation methods are reported.

Any cross-sectional area difference between the GRL rod subsection and the drill rods, any loose connections or changes in area at section joints, or any cross-sectional area differences between the individual drill rod sections could result in stress wave reflections that could influence the energy transfer. The EFV transferred energy calculation method, utilizing both force and velocity records, is theoretically correct and gives energy transfer results that are not significantly affected by cross-sectional area changes or loose connectors. The EFV results are included in Appendix C for all records collected and accepted after checking them for consistency.

#### **Corrected SPT number ( $N_{60}$ )**

While the primary purpose of SPT energy testing is to calculate the maximum transferred energy of each hammer blow, the overall average energy transfer value can be used to calculate the corrected SPT number ( $N_{60}$ ). To adjust the SPT N-values for hammer performance, the following correction as suggested by Seed for N-value adjustment to 60 percent transfer efficiency (e.g. 210 foot-pounds) was used:



$$N_{60} = \left( \frac{E_m}{210} \right) N_m$$

Where:

$N_{60}$  = Corrected N-value

$E_m$  = overall average measured energy transfer (EFV)

$N_m$  = number of blows for last 12 inches of sampler penetration

A general introduction to dynamic SPT testing methods is included in Appendix A. References for more detailed descriptions of our testing and analysis methods are available upon request.

## **RESULTS**

The records collected by the PDA were checked for consistency and accuracy. Records from weak startup or final impacts were not included in average results. Appendix C contains tables of PDA results for all hammer blows at each dynamically monitored sampling depth. The tables show the individual blow results for the N value blows and also statistical summaries for each 6 inch increment. At the end of each table is a statistical evaluation of the results which includes the average and standard deviation of the entire measurement sample. Appendix C contains a representative plot of force and normalized velocity versus time.

The table below and Tables included in the Appendix C summarize the average transferred energy values calculated by the EFV method. The records consist of averaged hammer blows from the last 12 inches (i.e. N value) at each dynamically monitored sampling depth. The “energy transfer ratio” (ETR) is defined as the ratio of maximum transferred energy EFV divided by the theoretical hammer potential energy of 350 ft-lbs (i.e., computed per the 140 pound SPT hammer and the standard 30 inch drop as specified by ASTM D1586-99).

Drill Rig	Avg. EFV (ft-lbs)	Avg. ETR (%)	Range of EFV (ft-lbs)	Range of ETR (%)
<b>Diedrich D-50 S/N 447</b>	347	99	274 – 406	78 - 116

## **CONCLUSIONS**

Based upon the dynamic test data obtained, the following conclusions are presented:

1. The average transferred energy (EFV) and energy transfer ratio (ETR) for each drill rig tested was as follows:

Diedrich D-50 S/N 447: Average EFV = 347 ft-lbs, Average ETR = 99%

June 15, 2020

Please review both ASTM D4633-10 and ASTM D1586-99 prior to applying these test results. The energy calibrations reported herein are valid for the same hammer/drill rig, with the same drill operator, same anvil dimensions, and same drilling methods.

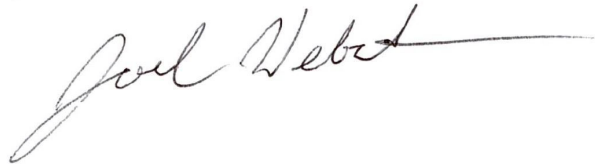
We appreciate the opportunity to be of assistance to you on this project. Please contact our office should you have any questions regarding this submittal, require additional information, or if we may be of further service.

Sincerely,

GRL Engineers, Inc.

A handwritten signature in dark ink, appearing to read "T. G. Hyatt", with a stylized flourish at the end.

Thomas G. Hyatt, P.E.

A handwritten signature in dark ink, appearing to read "Joel Webster", with a long horizontal flourish extending to the right.

Joel S. Webster, E.I.

## **Appendix A**

### **An Introduction into SPT Pile Testing**

# APPENDIX A

## AN INTRODUCTION INTO SPT DYNAMIC PILE TESTING

The following has been written by GRL Engineers, Inc. and may only be copied with its written permission.

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### 1. BACKGROUND

The Standard Penetration Test is frequently conducted as an in-situ assessment of soil strength. This test requires that a 140 lb weight is dropped 30 inches onto a drive rod at whose bottom a sampler is usually installed. The sampler is driven for 18 inches; the number of blows required for the last 12 inches of driving is the so-called N-value. The N-value may be used as a strength indicator for foundation design or as a means of assessing the liquefaction potential of soils.

Obviously, the SPT hammer efficiency is an important consideration when using the N-values for design purposes. Measurements have indicated that the energy in the drive rod is sometimes only 30% and may reach 90% of the potential or rated energy of the SPT hammer (E-rated = 0.35 kip-ft or 0.475 kJ). The type of hammer used to drive the rod is the main reason for these variations. On the average, the energy in the drive rod is 60% of the standard rated energy.

Because of the variability of energy, methods based on N-values are considered unreliable. However, measurements during SPT testing using the Case Method can be done on a routine basis and these measurements yield the transferred energy values. With measured energy, EMX, known, an adjustment of the measured N-value,  $N_m$ , can be made as follows.

$$N_{60} = N_m [E_m / (0.6E_r)] \quad (1)$$

Thus, if the measured energy value is equal to the normally expected transferred energy of 60% of E-rated then the adjusted and measured N-values are identical. On the other hand, if the measured energy is only 30% then the adjusted blow count will be reduced by 50%.

### 2. DYNAMIC TESTING AND ANALYSIS METHODS APPLIED TO SPT

The Case Method of dynamic pile testing, named after the Case Institute of Technology where it was

developed between 1964 and 1975, requires that a substantial ram mass (e.g. a pile driving hammer) impacts the pile top such that the pile undergoes at least a small permanent set. Thus, the method is also referred to as a "High Strain Method". The Case Method requires dynamic measurements on the pile or shaft under the ram impact and then a calculation of various quantities. Conveniently, for SPT applications, the measurements and analyses are done by a single piece of equipment: the SPT Analyzer. The Pile Driving Analyzer® (PDA) is also suitable to perform these measurements and data processing.

A related analysis method is the "Wave Equation Analysis" which calculates a relationship between bearing capacity, pile stresses, transferred energy and field blow count. The GRLWEAP™ program performs this analysis and provides a complete set of helpful information and input data. This program can be used very effectively to simulate the SPT driving process.

### 3. MEASUREMENTS

GRL uses equipment manufactured by Pile Dynamics, Inc. The system includes either an SPT-Analyzer™ (SPTA) or a Pile Driving Analyzer® (PDA), an instrumented rod section and two accelerometers. SPT energy testing is very closely related to and borrows procedures from dynamic pile testing. Those interested in the basis of the SPT energy testing method may obtain extensive literature on dynamic pile testing from GRL Engineers, Inc.

#### 3.1 SPT Analyzer or Pile Driving Analyzer

The basis for the results calculated by the SPTA or PDA are strain and acceleration measured in an instrumented rod section. These signals are converted to rod top force,  $F(t)$ , and rod top velocity,  $v(t)$ . The SPTA or PDA conditions, calibrates and displays these signals and immediately computes average pile force and velocity thereby eliminating bending effects. The product of these two



measurements is then integrated over time which yields the energy transferred to the instrumented section as a function of time (see Section 4.1).

For convenience and accuracy, strain measurements are usually taken on an instrumented section of SPT drive rod. Ideally, the section properties of the instrumented rod and those of the drive rod are the same, however, using subs, other sections can also be utilized.

For the instrumented section, PDI provides a force calibration in such a way that the output of the instrumented rod is directly calculated without the need for an accurate elastic modulus or cross sectional area of the rod section.

The acceleration measurements are often demanding in the SPT environment, because of high frequency and high acceleration motion components. An experienced measurement engineer, therefore, has to evaluate the quality of this data before final conclusions are drawn from the numerical results calculated by SPTA or PDA.

SPTA or PDA records are taken while the standard N-value is acquired in the conventional manner. This then allows a direct correlation between N-value and average transferred energy.

### 3.2 HPA

The SPT hammer's ram velocity may be directly obtained using radar technology in the Hammer Performance Analyzer™. The impact velocity results can be automatically processed with a PC or recorded on a strip chart. HPA measurements yield a hammer kinetic energy, but not the energy transferred to the drive rod.

## 4 RECORD EVALUATION BY SPTA OR PDA

### 4.1 HAMMER PERFORMANCE

The PDA calculates the energy transferred to the pile top from:

$$E(t) = \int_0^t F(\tau)v(\tau) d\tau \quad (2)$$

The maximum of the  $E(t)$  curve is often called **ENTHRU** or **EMX**; it is the most important quantity for an overall evaluation of the performance of a hammer

and driving system. **EMX** allows for a classification of the hammer's performance when presented as,  $e_T$ , the rated transfer efficiency, also called energy transfer ratio (**ETR**) or global efficiency.

$$e_T = EMX/E_R \quad (3)$$

where  $E_R$  is the hammer manufacturer's rated energy value or 0.35 kip-ft (0.475 kJ) in the case of the SPT hammer.

Often in the SPT literature one finds also reference to the EF2 energy. This evaluation is based on assumed proportionality between force and velocity (see also Section 5):

$$v(t) = F(t) / Z \quad (4)$$

where  $Z = EA/c$  is the pile impedance,  $E$  is the elastic modulus,  $A$  is the cross sectional area and  $c$  is the speed of the stress wave in the pile material..

Combining equations 2 and 4 leads to

$$EF(t) = \int_0^t F(\tau)^2 / Z d\tau \quad (5)$$

The EF2 transferred energy value is the EF-value at the time  $t = 2L/c$ , where  $L$  is the drive rod length and  $c$  is the stress wave speed in steel (16,800 ft/s or 5,124 m/s). Since the force is easier to measure than both force and velocity, Equation 5 is preferred by some test engineers. However, the EF method is fraught with errors and certain correction factors have to be applied to make it approximately correct. Among the error sources are the following:

- Proportionality is often violated prior to time  $2L/c$ . The proportionality between force and velocity in a downward traveling wave only holds if the wave does not encounter a disturbance prior to reflecting off the pile toe. Such disturbances include a change in cross sectional area, an open or loose splice or joint, or resistance along the shaft.
- Using only one force measurement precludes a data quality check based on the proportionality between force and velocity. Thus, a force measurement that is for some reason in error may not be detectable, which will lead to errors in the EF2 value. Data quality checks will be discussed further in Section 5.

The use of EF2 is therefore not recommended but it is often included in result presentations for the sake of completeness.

## 4.2 STRESSES

During SPT monitoring, it is also of interest to monitor compressive stresses at both the top of the drive rod and at its bottom.

At the pile top (location of sensors) the maximum compression stress averaged over the rod's cross section, **CSX**, is directly obtained from the measurements. Note that this stress value refers to the instrumented section. If the rod has a different cross sectional area then the stress in the rod will be different from CSX.

The SPTA or PDA can also calculate, in an approximate manner, the force at the rod bottom, **CFB**. To obtain the corresponding stress, this force value should be divided by the appropriate cross sectional area, e.g. by the rod area just above the sampler or by the sampler area itself. Of course, non-uniform stress components as they might occur at the sampler tip due to a sloping rock are not considered in this calculation.

## 5. DATA QUALITY CHECKS

Quality data is the first and foremost requirement for accurate dynamic testing results. It is therefore important that the measurement engineer performing SPTA or PDA tests has the experience necessary to recognize measurement problems and take appropriate corrective action should problems develop. Fortunately, dynamic pile testing allows for certain data quality checks because two independent measurements are taken that have to conform to the so-called proportionality relationship.

As long as there is only a wave traveling in one direction, as is the case during impact when only a downward traveling wave exists in the rod, force and velocity measured at its top are proportional

$$F = v Z \quad (5)$$

where Z is again the pile impedance,  $Z = EA/c$ . This relationship can also be expressed in terms of stress

$$\sigma = F/A = v (E/c) \quad (6)$$

or strain

$$\epsilon = \sigma/E = v / c \quad (7)$$

This means that the early portion of strain times wave speed must be equal to the velocity unless the proportionality is affected by high friction near the pile top or by a pile cross sectional change not far below the sensors. Checking the proportionality is an excellent means of assuring meaningful measurements but is only truly meaningful for perfectly uniform rods. Open or loose splices, for example, will lead to a non-proportionality. For SPT rods it is fortunate that usually no soil resistance acts along the shaft and for that reason, proportionality can exist until the stress wave returns from sampler top or rod bottom unless connectors are not sufficiently tightened or have a significant mass.

Velocity data quality can also be checked by looking at the final displacement, DFN, which is calculated from the acceleration by double integration. If the calculated final displacement is much higher or lower than indicated by the N-value, the accelerometer attachment may be loose or the sensor may be faulty. If major drift in the velocity is observed, the EMX value may be in error, even though proportionality from impact to time  $2L/c$  exists. In this case, it may be useful to evaluate the energy transferred to the drill rod at time  $2L/c$ , which is calculated by the PDA or SPTA as the E2E quantity.



## Appendix B

### Calibrations





This documents that  
**Thomas Hyatt**  
**GRL Engineers, Inc.**

has on January 26, 2017 achieved the rank of

**MASTER**

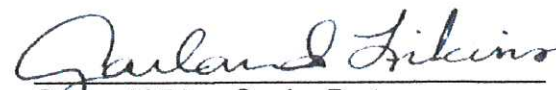
**on the Dynamic Measurement and Analysis Proficiency Test.**

The individual identified on this document demonstrated to the degree granted above an understanding of theory, data quality evaluation, interpretation and signal matching for high strain dynamic testing of deep foundations. ***It is recommended that individuals at the Master level seek to attain Expert level through additional study within eight years of the date of this document***

The ability of the individual named to provide appropriate knowledge and advice on a specific project is not implied or warranted by the Pile Driving Contractors Association or Pile Dynamics, Inc. The Pile Driving Contractors Association or Pile Dynamics, Inc. assumes no liability for foundation testing and analysis work performed by the bearer of this certificate. This certificate can be verified at [www.PDAproficiencytest.com](http://www.PDAproficiencytest.com).

  
Steven A. Hall, Executive Director  
Pile Driving Contractors Association



  
Garland Likins, Senior Partner  
Pile Dynamics, Inc.

No. 2182



# Certificate of Calibration

**Pile Dynamics, Inc. certifies that the**

**Pile Driving Analyzer®, Model 8G**



**Serial Number: 4763 LE**

was calibrated on 02 APRIL 2019

using a PDA Calibration Box whose output was calibrated with test equipment  
traceable to NIST.

This certificate is valid for 2 years from above date.



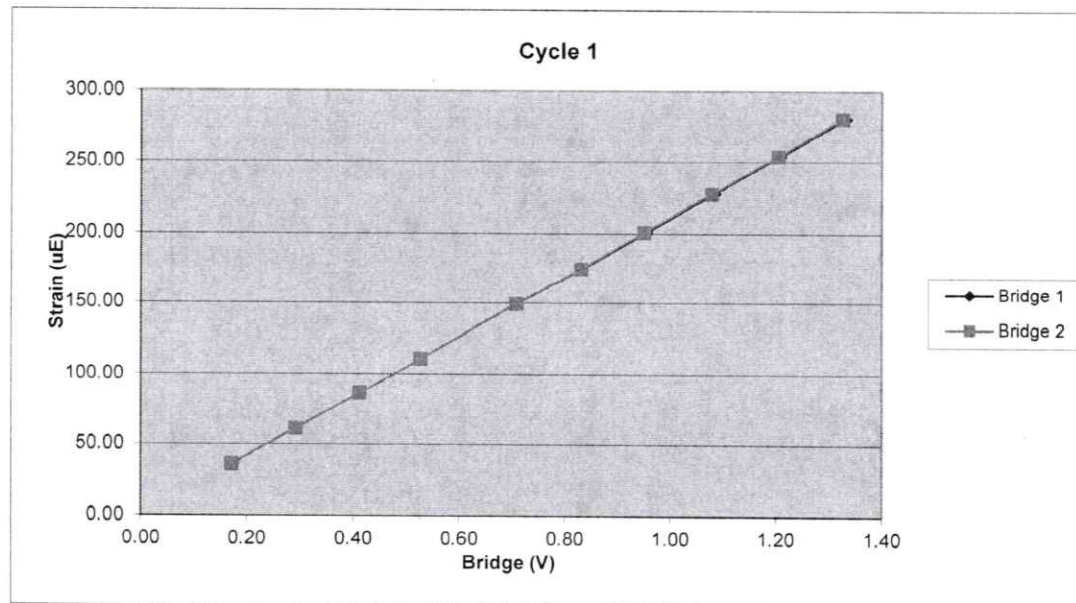
Tested by:   
 Pile Dynamics, Inc.  
30725 Aurora Road  
Cleveland, Ohio 44139 USA



486AWJ		Cycle 1		
Sample	Force (lb)	Strain ( $\mu\text{E}$ )	Bridge 1 (V)	Bridge 2 (V)
1	0.00	0.00	0.00	0.00
2	1278.86	35.92	0.17	0.17
3	2168.60	61.34	0.29	0.29
4	3069.46	86.20	0.41	0.41
5	3937.33	110.67	0.53	0.53
6	5292.73	149.53	0.71	0.71
7	6220.93	174.88	0.83	0.83
8	7117.70	200.77	0.95	0.95
9	8072.65	227.79	1.08	1.08
10	9021.35	253.71	1.21	1.20
11	9942.13	280.21	1.33	1.33

Bridge 1		Bridge 2	
Force Calibration (lb/V)	7477.85	Force Calibration (lb/V)	7504.74
Offset	-5.58	Offset	-12.71
Correlation	0.999998	Correlation	0.999999
Strain Calibration ( $\mu\text{E}/\text{V}$ )	210.73	Strain Calibration ( $\mu\text{E}/\text{V}$ )	211.48
Offset	-0.21	Offset	-0.41
Correlation	0.999995	Correlation	0.999993

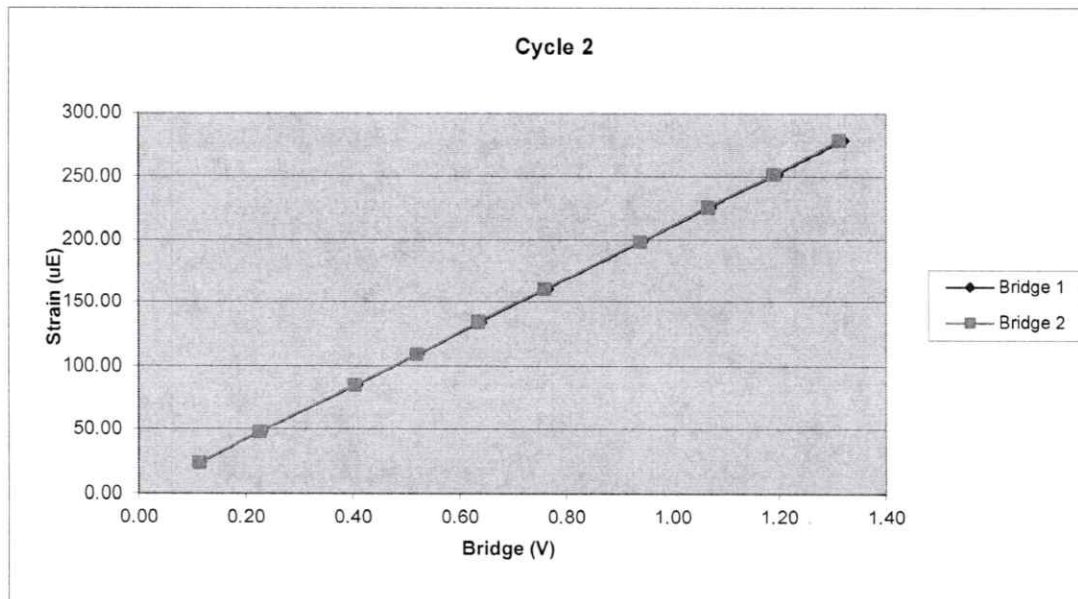
Force Strain Calibration	
EA (Kips)	35485.64
Offset	1.86
Correlation	0.999993



486AWJ		Cycle 2		
Sample	Force (lb)	Strain ( $\mu$ E)	Bridge 1 (V)	Bridge 2 (V)
1	0.00	0.00	0.00	0.00
2	857.52	23.79	0.12	0.11
3	1698.64	47.94	0.23	0.23
4	3027.88	85.21	0.41	0.40
5	3889.89	109.21	0.52	0.52
6	4762.05	134.36	0.64	0.63
7	5693.77	160.38	0.76	0.76
8	7038.23	198.52	0.94	0.94
9	7993.57	225.63	1.07	1.07
10	8932.90	251.73	1.20	1.19
11	9856.61	278.11	1.32	1.31

Bridge 1		Bridge 2	
Force Calibration (lb/V)	7475.96	Force Calibration (lb/V)	7504.10
Offset	-6.95	Offset	0.64
Correlation	0.999999	Correlation	0.999998
Strain Calibration ( $\mu$ E/V)	211.12	Strain Calibration ( $\mu$ E/V)	211.91
Offset	-0.50	Offset	-0.28
Correlation	0.999997	Correlation	0.999996

Force Strain Calibration	
EA (Kips)	35411.39
Offset	10.65
Correlation	0.999997

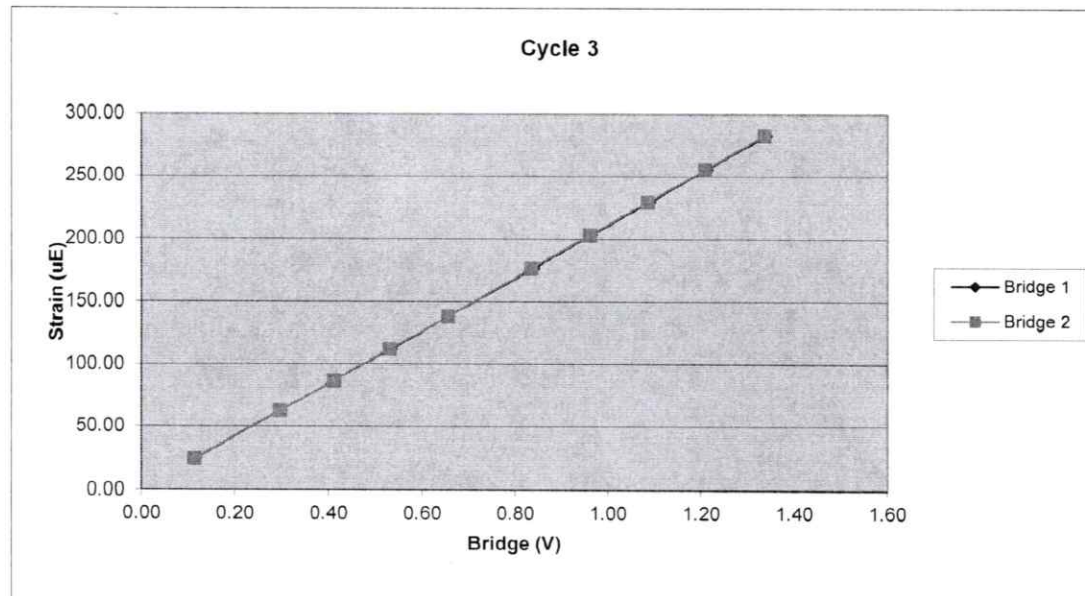




486AWJ		Cycle 3		
Sample	Force (lb)	Strain ( $\mu\text{E}$ )	Bridge 1 (V)	Bridge 2 (V)
1	0.00	0.00	0.00	0.00
2	862.99	24.53	0.11	0.11
3	2219.75	62.30	0.30	0.30
4	3088.60	86.68	0.41	0.41
5	3980.48	112.26	0.53	0.53
6	4903.80	138.19	0.66	0.66
7	6256.27	176.45	0.84	0.83
8	7193.06	203.18	0.96	0.96
9	8152.31	229.19	1.09	1.09
10	9051.42	255.15	1.21	1.21
11	10021.99	282.47	1.34	1.34

Bridge 1		Bridge 2	
Force Calibration (lb/V)	7471.12	Force Calibration (lb/V)	7487.98
Offset	5.63	Offset	7.27
Correlation	0.999998	Correlation	0.999997
Strain Calibration ( $\mu\text{E}/\text{V}$ )	210.59	Strain Calibration ( $\mu\text{E}/\text{V}$ )	211.06
Offset	0.11	Offset	0.16
Correlation	0.999997	Correlation	0.999995

Force Strain Calibration	
EA (Kips)	35477.05
Offset	1.74
Correlation	0.999994



Bridge Excitation (V) 5  
Shunt Resistor (ohm) 60.4k

Calibration Factors	486AWJ		
Bridge 1 ( $\mu\text{E/V}$ )	210.81	Bridge 2 ( $\mu\text{E/V}$ )	211.49
EA Factor (Kips)	35458.03	Area ( $\text{in}^2$ )	1.18

Calibrated by:

Calibrated Date:

  
4/25/2019

Pile Dynamics Inc  
30725 Aurora Rd  
Solon, OH 44139

Traceable to N.I.S.T.

QBTA: ON [ALT-F1/BB=60]

Pile Dynamics, Inc.

TG F2 DPF

File Dynamics  
2019-04-15 11:20FS —  
10BN 1609  
SL 917/ 3440/ 2PJ:  
PN: HOPBARA 4 -- US  
F 2 3.3LE 17.0 ft  
AR 1.7 in2  
EM 30000 Ksi  
SP 0.492 K/ft3  
WS 16810 ft/s  
WC 7312 ft/sJC 0.40  
FM 1.00  
UM 1.00EA/C 30.3 Ks/ft  
UN KIPS\*0.1  
FR 20000 MB 90DL -41  
UT -1 IP 0.00  
PK 1 TM-PEAKF1/2 500/ 213  
F3/4 213/ 213  
A1/2 999/ 999  
A3/4 999/ 368TS 12 E B PD: K4817 LP 0.00 ft  
TB 8.0 T1 9.6 2L/C 4.7 UA 1000 UE 1024 LI 1.0VMX= 4.4 FMX= 67 AMX= 159  
EMX= 0.3 MEX= 131 FVP= 0.99

ACCEPT SQ-OFF FL-OFF PR-OFF

ACCEPT



ACCELEROMETER CALIBRATION N.I.S.T. Traceable

SERIAL NUMBER: K4817

CALIBRATION FACTOR: .0736 mV/g

PAK (\*5000): 368 DATE: 15APR19

PDA OPERATOR: [Signature]

&lt;-AT:PIEZORESISTIVE

OP: LAINE [ver:5.01]

AT:PIEZOELECTRIC-&gt;

Smart Sensor

Programmed By: [Signature]

CRC Value

41E0

QBTA: ON [ALT-F1/BB=60]

Pile Dynamics, Inc.

TG F2 DPF

Pile Dynamics  
2020-02-26 09:19FS — BN 4881/14880  
10 SL 1200/ 3440/ 2PJ:  
PN: HOPBARA 4 -- US  
F 2 3.3LE 39.6 ft  
AR 1.7 in2  
EM 30000 Ksi  
SP 0.492 K/ft3  
WS 16815 ft/s  
WC 16851 ft/sJC 0.40  
FM 1.00  
VM 1.00EA/C 30.3 Ks/ft  
UN KIPS\*0.1  
FR 20000 MB 90DL -42  
UT -1 IP 0.00  
PK 1 TM-PEAKF1/2 500/ 213  
F3/4 213/ 213  
A1/2 999/ 999  
A3/4 999/ 324TS 12 E B PD: K4998 LP 0.00 ft  
TB 8.0 T1 9.6 2L/C 4.7 VA 1000 UE 1024 LI 1.0VMX= 4.1 FMX= 63 AMX= 149  
EMX= 0.2 MEX= 123 FVP= 1.00

ACCEPT SQ-OFF FL-OFF PR-OFF

ACCEPT



ACCELEROMETER CALIBRATION N.I.S.T. Traceable

SERIAL NUMBER: K4998

CALIBRATION FACTOR: .0648 MV/G

PAK (\*5000): 324 DATE: 26Feb20

PDA OPERATOR: [Signature]

&lt;-AT:PIEZORESISTIVE

OP: LAINE [ver:5.01]

AT:PIEZOELECTRIC-&gt;

Smart Sensor

Programmed By: [Signature]

CRC Value B9B1

## Appendix C

### Summary of Results

**Summary of SPT Test Results**

Project: DIEDRICH SN D50-447, Test Date: 6/15/2020

CSX: Compression Stress Maximum

FMX: Maximum Force

VMX: Maximum Velocity

BPM: Blows/Minute

EFV: Maximum Energy

ETR: Energy Transfer Ratio - Rated

DMX: Maximum Displacement

DFN: Final Displacement

FVP: Force/Velocity Proportionality

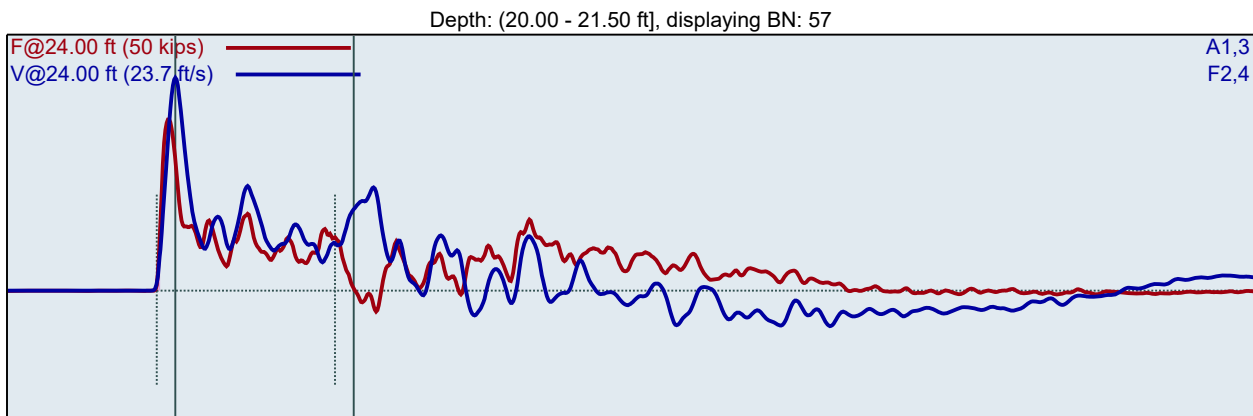
Instr. Length ft	Blows Applied /6"	Start Depth ft	Final Depth ft	N Value	N60 Value	Average CSX ksi	Average FMX kips	Average VMX ft/s	Average BPM bpm	Average EFV ft-lb	Average ETR %	Average DMX in	Average DFN in	Average FVP
24.00	<b>13-23-23</b>	20.00	21.50	<b>46</b>	<b>76</b>	27.8	33	20.4	51.2	314	89.6	0.37	0.26	0.65
29.00	<b>15-15-30</b>	25.00	26.50	<b>45</b>	<b>74</b>	27.0	32	20.0	51.4	308	88.1	0.45	0.27	0.58
34.00	<b>22-47-50</b>	30.00	31.50	<b>97</b>	<b>160</b>	29.8	35	24.0	50.6	376	107.4	0.58	0.12	0.65
39.00	<b>24-25-42</b>	35.00	36.50	<b>67</b>	<b>110</b>	29.4	35	23.6	51.7	357	102.0	0.59	0.18	0.66
<b>Overall Average Values:</b>						28.8	34	22.5	51.1	347	99.3	0.52	0.19	0.64
<b>Standard Deviation:</b>						1.4	2	1.9	4.3	30	8.7	0.15	0.08	0.04
<b>Overall Maximum Value:</b>						30.9	36	24.9	52.8	406	116.0	0.99	0.40	0.72
<b>Overall Minimum Value:</b>						24.0	28	17.2	6.4	274	78.4	0.33	0.12	0.51

DIEDRICH SN D50-447  
TGH  
TEST HOLE

20-21.5FT  
Test date: 6/15/2020

AR: 1.18 in<sup>2</sup>  
LE: 24.00 ft  
WS: 16807.9 ft/s

SP: 0.492 k/ft<sup>3</sup>  
EM: 30000 ksi



F2 : [486AWJ2] 211.49 PDICAL (1) FF5  
F4 : [486AWJ1] 210.81 PDICAL (1) FF5

A1 (PR): [K4817] 368 mv/6.4v/5000g (1) VF5  
A3 (PR): [K4998] 324 mv/6.4v/5000g (1) VF5

CSX: Compression Stress Maximum  
FMX: Maximum Force  
VMX: Maximum Velocity  
BPM: Blows/Minute  
EFV: Maximum Energy

ETR: Energy Transfer Ratio - Rated  
DMX: Maximum Displacement  
DFN: Final Displacement  
FVP: Force/Velocity Proportionality

BL#	BC /6"	LP ft	CSX ksi	FMX kips	VMX ft/s	BPM bpm	EFV ft-lb	ETR %	DMX in	DFN in	FVP
1	13	20.04	28.2	33	21.2	1.9	313	89.5	2.05	0.46	0.69
2	13	20.08	28.2	33	20.9	52.0	328	93.7	1.42	0.46	0.65
3	13	20.12	28.2	33	20.6	51.5	306	87.6	0.53	0.45	0.67
4	13	20.15	28.3	33	21.0	51.5	322	92.1	0.64	0.47	0.63
5	13	20.19	28.8	34	20.7	51.7	321	91.6	0.75	0.46	0.64
6	13	20.23	28.7	34	21.3	51.7	332	94.8	0.59	0.47	0.66
7	13	20.27	28.5	34	21.4	51.2	327	93.4	0.46	0.46	0.64
8	13	20.31	28.9	34	21.3	51.4	331	94.6	0.72	0.46	0.64
9	13	20.35	29.3	35	21.4	51.3	326	93.2	0.46	0.46	0.66
10	13	20.38	28.1	33	20.6	51.9	315	90.1	0.48	0.46	0.65
11	13	20.42	29.1	34	21.3	51.2	321	91.8	0.46	0.46	0.65
12	13	20.46	28.9	34	20.9	51.2	315	89.9	0.47	0.46	0.65
13	13	20.50	29.1	34	21.2	51.7	321	91.8	0.49	0.46	0.66
14	23	20.52	28.7	34	20.9	51.0	310	88.5	0.37	0.25	0.68
15	23	20.54	29.3	35	20.9	51.6	313	89.4	0.37	0.26	0.66
16	23	20.57	29.3	35	21.6	51.0	318	90.8	0.37	0.26	0.66
17	23	20.59	28.0	33	20.8	51.3	313	89.4	0.37	0.26	0.66
18	23	20.61	29.6	35	21.6	51.6	318	90.9	0.37	0.26	0.67
19	23	20.63	28.6	34	20.8	51.5	313	89.3	0.36	0.26	0.66
20	23	20.65	27.8	33	21.3	51.6	321	91.8	0.37	0.26	0.64
21	23	20.67	27.3	32	20.6	51.3	311	88.9	0.36	0.26	0.66
22	23	20.70	28.0	33	20.6	51.3	311	88.9	0.36	0.26	0.64
23	23	20.72	27.4	32	20.4	51.2	308	88.1	0.35	0.26	0.68
24	23	20.74	27.3	32	20.6	51.3	319	91.3	0.36	0.26	0.64
25	23	20.76	27.9	33	20.7	51.1	316	90.2	0.35	0.26	0.64
26	23	20.78	27.4	32	20.8	50.8	321	91.7	0.36	0.26	0.65

27	23	20.80	27.3	32	20.5	51.2	313	89.3	0.35	0.26	0.66
28	23	20.83	27.5	32	20.6	51.4	311	88.9	0.35	0.26	0.65
29	23	20.85	27.4	32	20.6	51.2	317	90.6	0.36	0.26	0.65
30	23	20.87	28.9	34	20.0	50.9	313	89.5	0.35	0.26	0.65
31	23	20.89	29.1	34	20.0	51.2	328	93.6	0.46	0.26	0.67
32	23	20.91	28.9	34	20.1	51.1	315	90.0	0.36	0.27	0.66
33	23	20.93	28.8	34	20.6	51.1	319	91.0	0.42	0.26	0.62
34	23	20.96	29.0	34	21.3	51.3	328	93.8	0.37	0.26	0.63
35	23	20.98	29.1	34	21.5	51.0	321	91.7	0.35	0.25	0.66
36	23	21.00	26.6	31	19.3	51.1	315	89.9	0.49	0.26	0.69
37	23	21.02	27.1	32	20.8	51.3	323	92.4	0.36	0.26	0.67
38	23	21.04	26.8	32	20.4	51.0	316	90.4	0.36	0.26	0.66
39	23	21.07	28.5	34	20.9	51.4	320	91.4	0.36	0.26	0.65
40	23	21.09	27.2	32	20.6	50.9	317	90.6	0.36	0.26	0.67
41	23	21.11	27.0	32	20.5	51.0	314	89.6	0.35	0.26	0.65
42	23	21.13	26.7	32	20.3	51.3	314	89.9	0.35	0.26	0.65
43	23	21.15	27.8	33	20.8	50.8	319	91.1	0.35	0.26	0.63
44	23	21.17	27.4	32	20.6	51.3	319	91.1	0.35	0.26	0.65
45	23	21.20	27.6	33	20.6	51.2	318	90.8	0.35	0.26	0.62
46	23	21.22	26.7	32	20.0	51.1	310	88.6	0.35	0.26	0.66
47	23	21.24	27.5	32	20.4	51.0	319	91.1	0.36	0.26	0.66
48	23	21.26	28.2	33	20.2	51.2	322	92.1	0.46	0.26	0.62
49	23	21.28	26.3	31	19.3	51.2	302	86.2	0.35	0.26	0.68
50	23	21.30	24.0	28	17.2	51.0	274	78.4	0.33	0.25	0.66
51	23	21.33	25.4	30	17.7	51.4	286	81.6	0.36	0.26	0.67
52	23	21.35	26.2	31	19.0	51.0	303	86.5	0.35	0.26	0.72
53	23	21.37	27.9	33	19.7	51.3	307	87.8	0.36	0.26	0.62
54	23	21.39	28.2	33	20.6	50.9	319	91.2	0.36	0.26	0.61
55	23	21.41	28.5	34	20.4	51.5	313	89.4	0.36	0.26	0.62
56	23	21.43	28.7	34	20.1	51.0	319	91.1	0.47	0.26	0.62
57	23	21.46	28.4	33	19.8	51.0	310	88.5	0.36	0.26	0.62
58	23	21.48	28.6	34	20.1	51.6	308	87.9	0.36	0.25	0.59
59	23	21.50	28.9	34	20.1	50.6	310	88.6	0.35	0.26	0.59
Average			27.8	33	20.4	51.2	314	89.6	0.37	0.26	0.65
Std Dev			1.1	1	0.8	0.2	9	2.6	0.03	0.00	0.02
Maximum			29.6	35	21.6	51.6	328	93.8	0.49	0.27	0.72
Minimum			24.0	28	17.2	50.6	274	78.4	0.33	0.25	0.59

N-value: 46

BN: 59 13-23-23

Sample Interval Time: 67.83 seconds.



DIEDRICH SN D50-447

20-21.5FT

TGH

Test date: 6/15/2020

TEST HOLE

AR: 1.18 in<sup>2</sup>

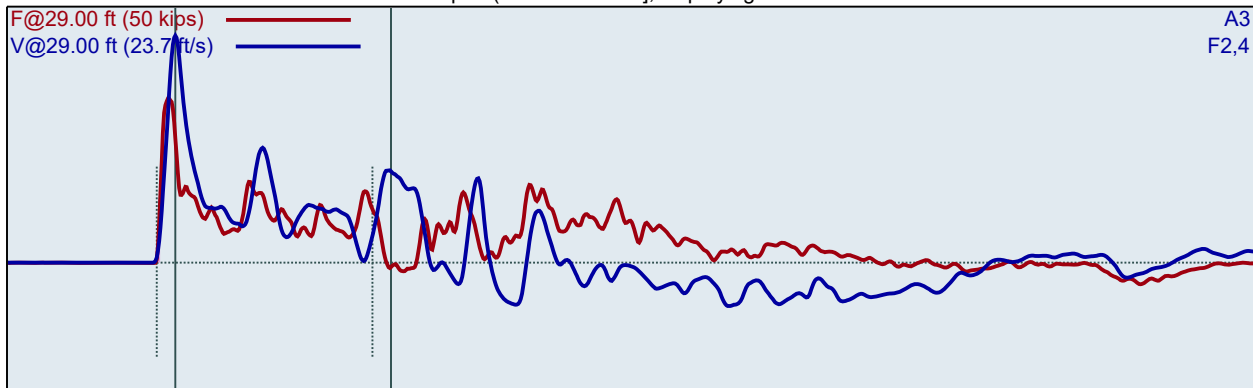
SP: 0.492 k/ft3

LE: 29.00 ft

EM: 30000 ksi

WS: 16807.9 ft/s

Depth: (25.00 - 26.50 ft), displaying BN: 117



F2 : [486AWJ2] 211.49 PDICAL (1) FF5

A3 (PR): [K4998] 324 mv/6.4v/5000g (1) VF5

F4 : [486AWJ1] 210.81 PDICAL (1) FF5

BL#	BC /6"	LP ft	CSX ksi	FMX kips	VMX ft/s	BPM bpm	EFV ft-lb	ETR %	DMX in	DFN in	FVP
60	15	25.03	27.7	33	20.2	1.9	281	80.2	1.09	0.40	0.63
61	15	25.07	27.6	33	20.7	51.5	304	86.8	0.90	0.40	0.62
62	15	25.10	27.8	33	19.7	51.5	286	81.7	0.67	0.40	0.62
63	15	25.13	27.2	32	20.4	51.5	301	86.0	0.64	0.40	0.61
64	15	25.17	28.2	33	21.6	51.6	312	89.0	0.62	0.40	0.62
65	15	25.20	28.0	33	20.8	51.5	303	86.6	0.51	0.40	0.61
66	15	25.23	27.9	33	19.7	51.6	297	84.9	0.46	0.40	0.62
67	15	25.27	28.4	33	22.2	51.3	314	89.7	0.55	0.40	0.59
68	15	25.30	28.3	33	20.5	51.5	301	86.0	0.47	0.40	0.62
69	15	25.33	27.9	33	20.0	51.3	306	87.4	0.74	0.40	0.58
70	15	25.37	28.3	33	21.2	51.6	304	86.9	0.49	0.40	0.58
71	15	25.40	27.9	33	20.3	51.8	299	85.3	0.54	0.40	0.64
72	15	25.43	28.4	34	21.2	51.3	308	87.9	0.65	0.40	0.57
73	15	25.47	27.9	33	21.3	51.7	312	89.0	0.78	0.40	0.61
74	15	25.50	27.4	32	20.8	51.7	303	86.5	0.82	0.40	0.60
75	15	25.53	27.7	33	20.8	51.5	300	85.8	0.61	0.40	0.61
76	15	25.57	27.2	32	20.2	51.1	299	85.5	0.87	0.40	0.58
77	15	25.60	27.0	32	21.0	51.5	304	87.0	0.71	0.40	0.61
78	15	25.63	26.9	32	20.2	51.2	299	85.4	0.79	0.40	0.62
79	15	25.67	26.9	32	20.3	51.2	304	87.0	0.71	0.40	0.57
80	15	25.70	26.8	32	19.1	51.2	292	83.3	0.54	0.40	0.59
81	15	25.73	26.5	31	21.3	51.2	318	90.9	0.66	0.40	0.52
82	15	25.77	26.1	31	17.6	51.0	281	80.3	0.42	0.40	0.64
83	15	25.80	26.7	31	20.3	51.1	308	87.9	0.42	0.40	0.58
84	15	25.83	25.1	30	17.6	51.3	309	88.4	0.59	0.40	0.72
85	15	25.87	26.8	32	21.8	50.7	332	94.9	0.41	0.40	0.58
86	15	25.90	26.6	31	19.7	51.4	301	86.0	0.48	0.40	0.60
87	15	25.93	26.7	32	20.0	51.4	316	90.4	0.50	0.40	0.60
88	15	25.97	27.2	32	20.8	51.2	320	91.4	0.46	0.40	0.60
89	15	26.00	27.2	32	20.2	50.5	307	87.7	0.43	0.40	0.60
90	30	26.02	25.8	30	19.0	51.6	298	85.1	0.37	0.20	0.60

91	30	26.03	26.5	31	18.8	50.8	311	89.0	0.39	0.20	0.64
92	30	26.05	27.4	32	20.1	51.2	308	88.0	0.38	0.20	0.52
93	30	26.07	27.2	32	20.0	51.3	309	88.2	0.38	0.20	0.53
94	30	26.08	26.7	31	18.3	51.4	294	84.1	0.35	0.20	0.62
95	30	26.10	27.1	32	19.4	51.4	301	86.1	0.34	0.20	0.54
96	30	26.12	27.2	32	19.2	51.5	302	86.3	0.34	0.20	0.59
97	30	26.13	27.2	32	19.9	51.5	312	89.2	0.48	0.20	0.58
98	30	26.15	27.7	33	20.1	51.1	313	89.3	0.41	0.20	0.56
99	30	26.17	27.3	32	19.9	51.7	306	87.5	0.34	0.20	0.52
100	30	26.18	27.3	32	19.6	51.6	320	91.5	0.54	0.20	0.59
101	30	26.20	26.9	32	20.9	51.0	322	92.0	0.36	0.20	0.54
102	30	26.22	27.3	32	20.4	51.9	307	87.7	0.34	0.20	0.51
103	30	26.23	27.2	32	20.6	51.8	306	87.4	0.34	0.20	0.52
104	30	26.25	27.2	32	20.1	51.2	319	91.1	0.48	0.20	0.57
105	30	26.27	27.0	32	20.7	51.5	305	87.1	0.35	0.20	0.52
106	30	26.28	26.9	32	19.9	51.5	294	84.0	0.33	0.20	0.56
107	30	26.30	26.5	31	20.7	51.6	308	88.1	0.34	0.19	0.51
108	30	26.32	25.6	30	18.9	51.8	296	84.7	0.33	0.20	0.61
109	30	26.33	26.7	32	21.7	51.3	330	94.4	0.51	0.20	0.55
110	30	26.35	26.5	31	19.3	52.1	299	85.5	0.33	0.20	0.60
111	30	26.37	27.0	32	20.9	51.0	331	94.6	0.60	0.20	0.54
112	30	26.38	26.8	32	20.4	51.5	306	87.5	0.34	0.19	0.56
113	30	26.40	27.0	32	21.3	51.7	316	90.3	0.35	0.20	0.57
114	30	26.42	28.0	33	20.2	51.2	320	91.5	0.43	0.20	0.59
115	30	26.43	27.8	33	20.1	51.9	304	86.8	0.34	0.20	0.57
116	30	26.45	27.6	33	19.6	51.3	307	87.6	0.34	0.20	0.61
117	30	26.47	27.2	32	21.1	51.4	311	88.9	0.34	0.20	0.55
118	30	26.48	27.4	32	19.9	51.5	303	86.6	0.34	0.20	0.55
119	30	26.50	28.0	33	19.7	51.8	317	90.7	0.52	0.20	0.60
Average		27.0		32	20.0	51.4	308	88.1	0.45	0.27	0.58
Std Dev		0.6		1	0.9	0.3	10	3.0	0.13	0.10	0.04
Maximum		28.0		33	21.8	52.1	332	94.9	0.87	0.40	0.72
Minimum		25.1		30	17.6	50.5	281	80.3	0.33	0.19	0.51

N-value: 45

BN: 119 15-15-30

Sample Interval Time: 68.91 seconds.

DIEDRICH SN D50-447

20-21.5FT

TGH

Test date: 6/15/2020

TEST HOLE

AR: 1.18 in<sup>2</sup>

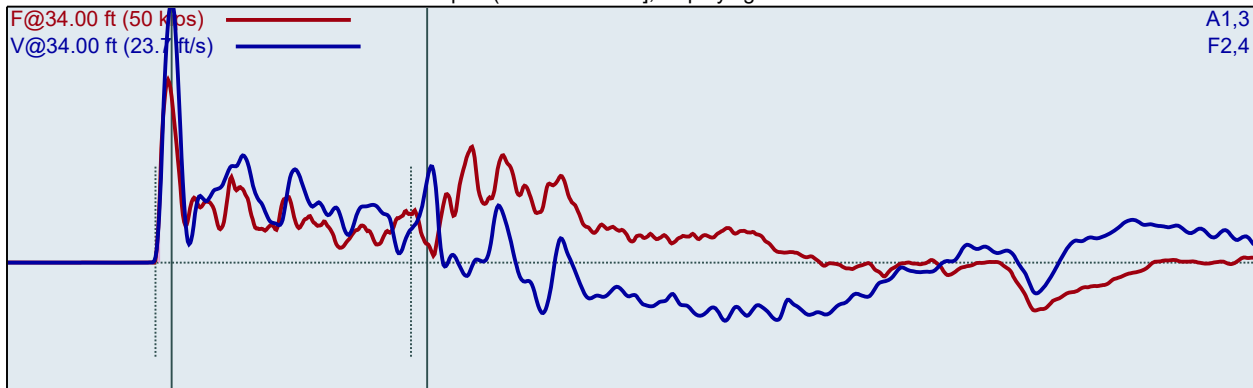
SP: 0.492 k/ft<sup>3</sup>

LE: 34.00 ft

EM: 30000 ksi

WS: 16807.9 ft/s

Depth: (30.00 - 31.50 ft), displaying BN: 233



F2 : [486AWJ2] 211.49 PDICAL (1) FF5

A1 (PR): [K4817] 368 mv/6.4v/5000g (1) VF5

F4 : [486AWJ1] 210.81 PDICAL (1) FF5

A3 (PR): [K4998] 324 mv/6.4v/5000g (1) VF5

BL#	BC /6"	LP ft	CSX ksi	FMX kips	VMX ft/s	BPM bpm	EFV ft-lb	ETR %	DMX in	DFN in	FVP
120	22	30.02	29.3	35	23.2	1.9	323	92.3	0.79	0.27	0.68
121	22	30.05	28.4	34	23.1	52.0	332	94.8	0.71	0.27	0.64
122	22	30.07	28.7	34	22.9	51.4	324	92.6	0.52	0.27	0.66
123	22	30.09	28.9	34	23.0	51.0	342	97.8	0.61	0.27	0.66
124	22	30.11	28.7	34	22.8	51.7	329	94.1	0.41	0.27	0.67
125	22	30.14	28.7	34	23.2	51.2	347	99.0	0.67	0.27	0.66
126	22	30.16	29.1	34	23.3	51.2	349	99.7	0.70	0.27	0.66
127	22	30.18	29.1	34	23.4	51.3	352	100.5	0.59	0.27	0.67
128	22	30.20	28.8	34	23.6	51.7	352	100.7	0.56	0.27	0.64
129	22	30.23	28.7	34	23.4	51.4	339	96.9	0.48	0.27	0.64
130	22	30.25	29.2	34	23.8	51.2	350	100.1	0.46	0.27	0.65
131	22	30.27	29.0	34	23.3	51.7	347	99.2	0.53	0.27	0.67
132	22	30.30	28.9	34	23.3	52.0	339	96.8	0.44	0.27	0.67
133	22	30.32	28.8	34	23.8	51.2	345	98.7	0.48	0.27	0.65
134	22	30.34	28.7	34	23.6	51.9	350	100.0	0.54	0.27	0.65
135	22	30.36	28.8	34	23.9	51.1	348	99.4	0.49	0.27	0.65
136	22	30.39	27.9	33	23.6	51.8	342	97.7	0.49	0.27	0.64
137	22	30.41	27.6	33	24.1	51.4	355	101.5	0.54	0.27	0.63
138	22	30.43	27.5	32	24.1	51.3	347	99.1	0.49	0.27	0.61
139	22	30.45	28.7	34	24.4	51.5	360	102.9	0.48	0.27	0.63
140	22	30.48	30.1	36	24.4	51.2	364	104.0	0.51	0.27	0.66
141	22	30.50	29.7	35	24.0	51.5	351	100.2	0.46	0.27	0.66
142	47	30.51	29.6	35	24.0	51.5	363	103.8	0.61	0.13	0.65
143	47	30.52	29.4	35	23.9	51.6	349	99.8	0.38	0.13	0.64
144	47	30.53	28.9	34	23.6	51.5	344	98.2	0.37	0.13	0.65
145	47	30.54	28.8	34	23.7	52.0	359	102.5	0.61	0.13	0.66
146	47	30.55	28.8	34	23.9	51.6	359	102.7	0.59	0.13	0.65
147	47	30.56	28.7	34	23.7	51.3	353	100.8	0.46	0.13	0.65
148	47	30.57	29.4	35	24.3	51.9	365	104.2	0.52	0.13	0.65
149	47	30.59	30.1	36	24.1	51.2	378	108.1	0.79	0.13	0.64
150	47	30.60	30.5	36	24.4	51.9	362	103.5	0.52	0.13	0.67

151	47	30.61	30.3	36	24.2	51.2	362	103.5	0.43	0.13	0.65
152	47	30.62	30.1	35	24.1	51.9	359	102.5	0.51	0.13	0.65
153	47	30.63	29.7	35	23.8	51.5	368	105.2	0.68	0.13	0.67
154	47	30.64	30.0	35	24.0	51.6	365	104.3	0.63	0.13	0.66
155	47	30.65	30.0	35	23.9	51.8	366	104.5	0.51	0.13	0.68
156	47	30.66	30.0	35	24.1	51.9	376	107.6	0.57	0.13	0.66
157	47	30.67	30.0	35	24.1	51.8	381	108.8	0.58	0.13	0.67
158	47	30.68	30.3	36	24.3	51.9	376	107.6	0.62	0.13	0.67
159	47	30.69	30.3	36	24.3	51.7	375	107.0	0.50	0.13	0.66
160	47	30.70	30.0	35	24.2	51.9	373	106.6	0.53	0.13	0.67
161	47	30.71	30.0	35	24.2	52.0	368	105.2	0.41	0.13	0.65
162	47	30.72	30.0	35	24.2	52.2	375	107.0	0.58	0.13	0.67
163	47	30.73	30.8	36	24.9	51.7	403	115.2	0.82	0.13	0.64
164	47	30.74	30.8	36	24.7	52.4	406	116.0	0.99	0.13	0.63
165	47	30.76	30.9	36	24.7	52.0	395	112.7	0.77	0.13	0.65
166	47	30.77	30.7	36	24.5	52.0	383	109.4	0.55	0.13	0.67
167	47	30.78	30.7	36	24.5	52.1	381	108.9	0.55	0.13	0.67
168	47	30.79	30.9	36	24.6	52.1	387	110.7	0.61	0.13	0.66
169	47	30.80	30.9	36	24.6	51.9	383	109.5	0.58	0.13	0.67
170	47	30.81	30.6	36	24.5	52.2	396	113.2	0.63	0.13	0.64
171	47	30.82	30.7	36	24.4	52.4	394	112.6	0.80	0.13	0.64
172	47	30.83	30.9	36	24.5	52.0	386	110.4	0.50	0.13	0.65
173	47	30.84	30.6	36	24.5	52.1	389	111.1	0.65	0.13	0.63
174	47	30.85	30.1	35	24.4	52.2	380	108.5	0.48	0.13	0.63
175	47	30.86	29.2	34	24.1	52.2	376	107.4	0.42	0.13	0.65
176	47	30.87	29.3	35	24.6	52.1	376	107.5	0.43	0.13	0.62
177	47	30.88	29.3	35	24.5	52.4	373	106.6	0.44	0.13	0.63
178	47	30.90	27.2	32	22.8	6.4	340	97.1	0.48	0.13	0.65
179	47	30.91	28.3	33	23.8	50.8	375	107.0	0.56	0.13	0.64
180	47	30.93	28.2	33	23.7	52.4	366	104.7	0.55	0.13	0.64
181	47	30.94	27.1	32	23.2	52.2	369	105.5	0.51	0.13	0.64
182	47	30.95	27.5	32	23.7	52.0	374	106.9	0.66	0.13	0.64
183	47	30.96	27.6	33	24.0	52.3	379	108.3	0.62	0.13	0.64
184	47	30.97	27.9	33	23.9	52.2	385	109.9	0.79	0.13	0.65
185	47	30.98	29.4	35	23.7	52.2	377	107.6	0.49	0.13	0.65
186	47	30.99	30.5	36	24.4	51.9	388	111.0	0.58	0.13	0.66
187	47	31.00	30.3	36	24.2	52.2	380	108.6	0.45	0.13	0.65
188	50	31.01	30.3	36	24.2	52.2	382	109.1	0.57	0.12	0.64
189	50	31.02	30.1	36	24.1	52.0	377	107.8	0.45	0.12	0.64
190	50	31.03	30.0	35	23.9	52.3	380	108.5	0.60	0.12	0.63
191	50	31.04	30.4	36	24.1	51.7	380	108.5	0.46	0.12	0.64
192	50	31.05	30.2	36	23.9	52.2	373	106.7	0.40	0.12	0.63
193	50	31.06	30.2	36	23.8	52.0	377	107.7	0.49	0.12	0.65
194	50	31.07	30.4	36	23.6	52.2	368	105.2	0.49	0.12	0.67
195	50	31.08	30.3	36	23.7	52.0	368	105.0	0.36	0.12	0.65
196	50	31.09	30.2	36	23.5	52.0	372	106.1	0.39	0.12	0.67
197	50	31.10	29.9	35	23.3	52.4	360	103.0	0.44	0.12	0.65
198	50	31.11	30.1	36	23.4	51.8	376	107.3	0.60	0.12	0.65
199	50	31.12	29.0	34	22.9	52.5	362	103.5	0.40	0.12	0.66
200	50	31.13	28.7	34	22.9	52.0	367	104.9	0.53	0.12	0.66
201	50	31.14	28.2	33	22.6	52.4	364	104.1	0.45	0.12	0.66
202	50	31.15	28.1	33	22.6	52.1	372	106.3	0.69	0.12	0.66
203	50	31.16	28.9	34	23.0	52.1	360	102.9	0.38	0.12	0.65
204	50	31.17	28.5	34	22.5	16.9	333	95.2	0.50	0.12	0.66
205	50	31.18	30.7	36	24.4	50.4	393	112.3	0.56	0.12	0.63
206	50	31.19	29.7	35	23.7	52.8	380	108.6	0.74	0.12	0.63
207	50	31.20	30.0	35	24.3	52.0	389	111.3	0.72	0.12	0.65
208	50	31.21	29.9	35	24.0	52.0	384	109.6	0.67	0.12	0.65
209	50	31.22	30.2	36	24.3	52.0	389	111.1	0.69	0.12	0.62
210	50	31.23	30.0	35	24.2	52.4	387	110.5	0.70	0.12	0.63
211	50	31.25	28.0	33	22.6	23.3	335	95.8	0.47	0.12	0.64

212	50	31.26	30.4	36	24.5	51.0	394	112.5	0.62	0.12	0.63
213	50	31.27	30.0	35	24.1	52.4	389	111.2	0.79	0.12	0.66
214	50	31.28	30.2	36	24.2	52.1	378	108.0	0.59	0.12	0.62
215	50	31.29	30.1	36	24.3	52.1	380	108.6	0.54	0.12	0.64
216	50	31.30	30.0	35	24.2	52.2	381	109.0	0.72	0.12	0.64
217	50	31.31	30.2	36	24.4	52.1	385	110.0	0.62	0.12	0.63
218	50	31.32	30.0	35	24.0	52.4	374	107.0	0.54	0.12	0.63
219	50	31.33	30.2	36	24.2	51.8	384	109.7	0.63	0.12	0.63
220	50	31.34	30.1	36	24.2	52.4	382	109.3	0.63	0.12	0.62
221	50	31.35	30.3	36	24.3	52.1	378	107.9	0.50	0.12	0.65
222	50	31.36	30.2	36	24.3	52.0	376	107.4	0.59	0.12	0.64
223	50	31.37	30.2	36	24.2	52.2	384	109.8	0.61	0.12	0.66
224	50	31.38	30.1	35	24.3	52.1	380	108.6	0.54	0.12	0.63
225	50	31.39	29.9	35	24.0	52.6	372	106.2	0.54	0.12	0.62
226	50	31.40	30.3	36	24.4	51.9	381	108.7	0.57	0.12	0.65
227	50	31.41	29.8	35	24.1	52.2	395	112.7	0.94	0.12	0.63
228	50	31.43	28.8	34	23.4	26.4	359	102.6	0.68	0.12	0.64
229	50	31.44	30.5	36	24.7	50.9	388	110.9	0.62	0.12	0.64
230	50	31.45	29.8	35	23.9	52.4	379	108.4	0.59	0.12	0.65
231	50	31.46	30.2	36	24.4	52.3	389	111.1	0.63	0.12	0.64
232	50	31.47	30.1	36	24.3	52.2	387	110.6	0.67	0.12	0.62
233	50	31.48	30.3	36	24.2	52.2	395	112.7	0.66	0.12	0.63
234	50	31.49	30.3	36	24.3	52.1	387	110.6	0.58	0.12	0.63
235	50	31.50	29.8	35	24.1	52.3	395	112.7	0.80	0.12	0.63
Average		29.8		35	24.0	50.6	376	107.4	0.58	0.12	0.65
Std Dev		0.9		1	0.5	7.0	14	3.9	0.12	0.00	0.01
Maximum		30.9		36	24.9	52.8	406	116.0	0.99	0.13	0.68
Minimum		27.1		32	22.5	6.4	333	95.2	0.36	0.12	0.62

N-value: 94

BN: 235 22-47-50/4IN

Sample Interval Time: 150.65 seconds.

DIEDRICH SN D50-447

20-21.5FT

TGH

Test date: 6/15/2020

TEST HOLE

AR: 1.18 in<sup>2</sup>

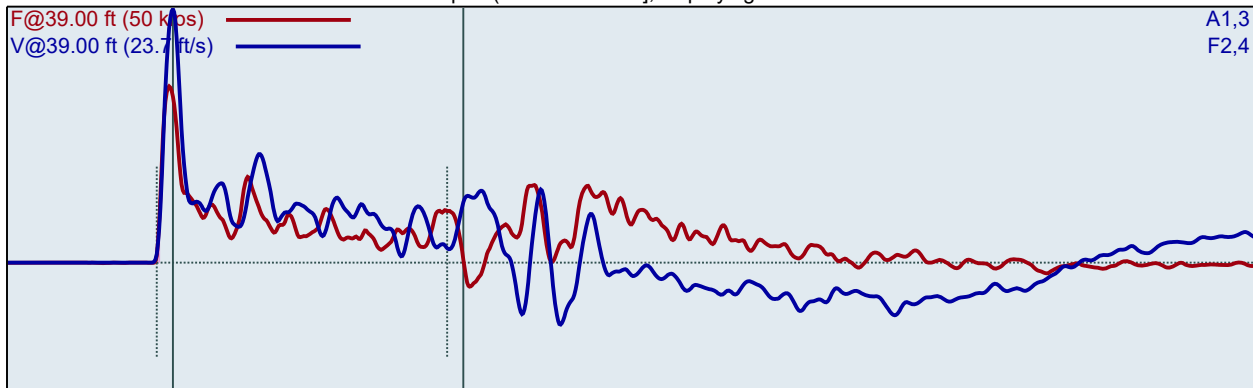
SP: 0.492 k/ft<sup>3</sup>

LE: 39.00 ft

EM: 30000 ksi

WS: 16807.9 ft/s

Depth: (35.00 - 36.50 ft), displaying BN: 324



F2 : [486AWJ2] 211.49 PDICAL (1) FF5

A1 (PR): [K4817] 368 mv/6.4v/5000g (1) VF5

F4 : [486AWJ1] 210.81 PDICAL (1) FF5

A3 (PR): [K4998] 324 mv/6.4v/5000g (1) VF5

BL#	BC /6"	LP ft	CSX ksi	FMX kips	VMX ft/s	BPM bpm	EFV ft-lb	ETR %	DMX in	DFN in	FVP
236	24	35.02	29.0	34	23.6	1.9	327	93.5	0.64	0.25	0.67
237	24	35.04	28.6	34	23.2	51.5	338	96.7	0.56	0.25	0.65
238	24	35.06	28.9	34	23.4	51.0	351	100.2	0.82	0.25	0.67
239	24	35.08	28.1	33	23.1	51.7	344	98.3	0.87	0.25	0.67
240	24	35.10	29.4	35	23.5	51.0	344	98.3	0.68	0.25	0.67
241	24	35.13	29.2	34	23.2	51.9	347	99.2	0.84	0.25	0.66
242	24	35.15	29.4	35	23.1	51.2	338	96.4	0.63	0.25	0.69
243	24	35.17	29.2	34	22.9	51.4	344	98.4	0.78	0.25	0.68
244	24	35.19	29.2	34	23.1	51.2	348	99.5	0.64	0.25	0.68
245	24	35.21	29.2	34	23.2	52.1	359	102.5	0.81	0.25	0.68
246	24	35.23	29.5	35	23.3	51.2	348	99.6	0.56	0.25	0.68
247	24	35.25	29.9	35	23.5	51.5	360	102.8	0.65	0.25	0.68
248	24	35.27	29.5	35	23.2	52.4	354	101.1	0.69	0.25	0.68
249	24	35.29	29.6	35	23.7	51.4	357	101.9	0.70	0.25	0.64
250	24	35.31	29.3	35	23.2	52.0	356	101.6	0.71	0.25	0.67
251	24	35.33	29.4	35	23.3	51.7	361	103.0	0.81	0.25	0.68
252	24	35.35	30.0	35	23.5	51.3	362	103.3	0.68	0.25	0.67
253	24	35.38	29.7	35	23.5	51.4	353	100.8	0.60	0.25	0.66
254	24	35.40	29.7	35	23.5	52.0	374	106.7	1.09	0.25	0.66
255	24	35.42	29.8	35	23.5	51.3	362	103.4	0.74	0.25	0.68
256	24	35.44	29.5	35	23.4	51.4	361	103.1	0.80	0.25	0.68
257	24	35.46	29.4	35	23.4	51.6	356	101.6	0.71	0.25	0.68
258	24	35.48	27.6	33	22.3	51.1	352	100.4	0.75	0.25	0.67
259	24	35.50	29.7	35	23.7	51.4	355	101.5	0.74	0.25	0.65
260	25	35.52	28.6	34	23.0	51.1	343	97.9	0.51	0.24	0.67
261	25	35.54	29.9	35	23.8	51.2	369	105.6	0.85	0.24	0.65
262	25	35.56	28.8	34	23.0	51.8	348	99.3	0.62	0.24	0.67
263	25	35.58	29.3	35	23.4	51.1	352	100.5	0.60	0.24	0.67
264	25	35.60	28.8	34	23.1	51.7	351	100.4	0.72	0.24	0.66
265	25	35.62	28.5	34	22.9	51.5	342	97.8	0.60	0.24	0.66
266	25	35.64	29.6	35	23.7	51.2	355	101.3	0.63	0.24	0.67

267	25	35.66	29.4	35	23.4	51.3	359	102.5	0.94	0.24	0.68
268	25	35.68	29.0	34	23.2	51.2	364	104.0	0.97	0.24	0.66
269	25	35.70	29.4	35	23.9	51.3	345	98.6	0.47	0.24	0.64
270	25	35.72	28.4	34	23.0	51.8	351	100.2	0.83	0.24	0.67
271	25	35.74	28.1	33	22.7	51.3	349	99.6	0.71	0.24	0.67
272	25	35.76	28.0	33	22.7	51.1	354	101.3	0.84	0.24	0.66
273	25	35.78	29.2	34	23.5	51.9	354	101.1	0.70	0.24	0.67
274	25	35.80	28.5	34	23.0	51.0	357	102.0	0.85	0.24	0.67
275	25	35.82	29.8	35	23.9	51.2	363	103.8	0.70	0.24	0.66
276	25	35.84	28.8	34	23.1	51.7	350	100.1	0.74	0.24	0.67
277	25	35.86	29.2	34	23.4	51.3	353	100.8	0.62	0.24	0.66
278	25	35.88	29.1	34	23.4	51.5	354	101.1	0.68	0.24	0.67
279	25	35.90	29.1	34	23.5	51.3	362	103.5	0.62	0.24	0.66
280	25	35.92	28.7	34	23.1	51.1	361	103.1	0.65	0.24	0.67
281	25	35.94	28.6	34	23.1	52.3	353	100.8	0.68	0.24	0.65
282	25	35.96	27.5	32	22.3	51.3	345	98.5	0.67	0.24	0.66
283	25	35.98	27.6	33	22.5	51.5	354	101.2	0.75	0.24	0.67
284	25	36.00	29.1	34	23.7	51.4	361	103.1	0.73	0.24	0.67
285	42	36.01	29.4	35	24.0	52.2	356	101.6	0.75	0.14	0.67
286	42	36.02	29.4	35	23.6	51.6	362	103.5	0.86	0.14	0.66
287	42	36.04	28.8	34	23.6	51.7	357	102.0	0.78	0.14	0.67
288	42	36.05	29.6	35	23.7	51.9	356	101.7	0.65	0.14	0.67
289	42	36.06	29.8	35	24.0	51.5	352	100.6	0.61	0.14	0.67
290	42	36.07	29.2	34	23.5	51.7	348	99.6	0.55	0.14	0.66
291	42	36.08	29.1	34	23.7	51.7	354	101.2	0.56	0.14	0.65
292	42	36.10	29.2	34	23.7	52.2	344	98.3	0.52	0.14	0.66
293	42	36.11	29.3	35	23.8	51.5	351	100.2	0.46	0.14	0.66
294	42	36.12	30.0	35	24.1	51.9	355	101.6	0.57	0.14	0.66
295	42	36.13	28.3	33	23.7	51.8	364	104.0	0.82	0.14	0.65
296	42	36.14	29.7	35	23.9	51.8	361	103.1	0.51	0.14	0.65
297	42	36.15	30.2	36	24.2	51.9	362	103.4	0.46	0.14	0.64
298	42	36.17	29.1	34	23.5	52.0	346	98.7	0.37	0.14	0.65
299	42	36.18	29.4	35	23.6	51.7	357	102.1	0.42	0.14	0.65
300	42	36.19	29.5	35	23.8	51.6	360	102.8	0.55	0.14	0.66
301	42	36.20	29.5	35	23.6	52.1	357	102.1	0.47	0.14	0.68
302	42	36.21	29.1	34	24.4	51.8	366	104.7	0.51	0.14	0.65
303	42	36.23	30.0	35	24.8	52.0	364	104.0	0.41	0.14	0.64
304	42	36.24	29.7	35	23.7	51.7	355	101.5	0.42	0.14	0.67
305	42	36.25	29.2	34	23.7	52.0	365	104.3	0.52	0.14	0.67
306	42	36.26	29.5	35	23.7	51.9	354	101.1	0.37	0.14	0.65
307	42	36.27	30.4	36	24.3	51.9	366	104.5	0.45	0.14	0.66
308	42	36.29	30.2	36	24.0	51.8	360	103.0	0.47	0.14	0.65
309	42	36.30	29.5	35	23.6	51.6	365	104.2	0.48	0.14	0.65
310	42	36.31	29.1	34	23.3	52.1	361	103.3	0.50	0.14	0.66
311	42	36.32	30.2	36	24.2	51.7	354	101.2	0.42	0.14	0.66
312	42	36.33	30.0	35	23.9	51.7	359	102.5	0.49	0.14	0.67
313	42	36.35	30.5	36	24.1	52.1	359	102.6	0.41	0.14	0.67
314	42	36.36	30.3	36	23.9	51.6	354	101.1	0.48	0.14	0.66
315	42	36.37	29.7	35	23.6	52.2	358	102.2	0.50	0.14	0.66
316	42	36.38	30.0	35	23.9	51.3	348	99.4	0.37	0.14	0.65
317	42	36.39	29.9	35	23.8	51.9	365	104.2	0.56	0.14	0.66
318	42	36.40	30.6	36	24.2	51.8	361	103.2	0.46	0.14	0.64
319	42	36.42	29.1	34	23.3	52.0	356	101.7	0.41	0.14	0.67
320	42	36.43	30.5	36	24.0	51.9	367	104.9	0.54	0.14	0.64
321	42	36.44	30.3	36	24.1	51.9	367	104.7	0.53	0.14	0.66
322	42	36.45	30.2	36	23.8	51.7	363	103.6	0.46	0.14	0.67
323	42	36.46	30.6	36	24.3	51.7	371	105.9	0.52	0.14	0.64
324	42	36.48	29.2	34	23.5	52.0	358	102.2	0.47	0.14	0.66
325	42	36.49	30.9	36	24.3	51.5	367	104.8	0.37	0.14	0.67
326	42	36.50	29.2	34	23.5	52.3	368	105.1	0.59	0.14	0.66

Average	29.4	35	23.6	51.7	357	102.0	0.59	0.18	0.66
Std Dev	0.7	1	0.5	0.3	7	2.0	0.15	0.05	0.01
Maximum	30.9	36	24.8	52.3	371	105.9	0.97	0.24	0.68
Minimum	27.5	32	22.3	51.0	342	97.8	0.37	0.14	0.64

N-value: 67

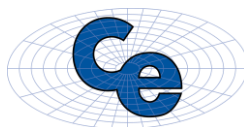
BN: 325  
BN: 326 24-25-42

Sample Interval Time: 104.60 seconds.



## **APPENDIX E:**

### **Important Information about this Geotechnical-Engineering Report**



# Important Information about This Geotechnical-Engineering Report

Subsurface problems are a principal cause of construction delays, cost overruns, claims, and disputes.

While you cannot eliminate all such risks, you can manage them. The following information is provided to help.

**The Geoprofessional Business Association (GBA) has prepared this advisory to help you – assumedly a client representative – interpret and apply this geotechnical-engineering report as effectively as possible. In that way, clients can benefit from a lowered exposure to the subsurface problems that, for decades, have been a principal cause of construction delays, cost overruns, claims, and disputes. If you have questions or want more information about any of the issues discussed below, contact your GBA-member geotechnical engineer. Active involvement in the Geoprofessional Business Association exposes geotechnical engineers to a wide array of risk-confrontation techniques that can be of genuine benefit for everyone involved with a construction project.**

## **Geotechnical-Engineering Services Are Performed for Specific Purposes, Persons, and Projects**

Geotechnical engineers structure their services to meet the specific needs of their clients. A geotechnical-engineering study conducted for a given civil engineer will not likely meet the needs of a civil-works constructor or even a different civil engineer. Because each geotechnical-engineering study is unique, each geotechnical-engineering report is unique, prepared *solely* for the client. *Those who rely on a geotechnical-engineering report prepared for a different client can be seriously misled.* No one except authorized client representatives should rely on this geotechnical-engineering report without first conferring with the geotechnical engineer who prepared it. *And no one – not even you – should apply this report for any purpose or project except the one originally contemplated.*

## **Read this Report in Full**

Costly problems have occurred because those relying on a geotechnical-engineering report did not read it *in its entirety*. Do not rely on an executive summary. Do not read selected elements only. *Read this report in full.*

## **You Need to Inform Your Geotechnical Engineer about Change**

Your geotechnical engineer considered unique, project-specific factors when designing the study behind this report and developing the confirmation-dependent recommendations the report conveys. A few typical factors include:

- the client's goals, objectives, budget, schedule, and risk-management preferences;
- the general nature of the structure involved, its size, configuration, and performance criteria;
- the structure's location and orientation on the site; and
- other planned or existing site improvements, such as retaining walls, access roads, parking lots, and underground utilities.

Typical changes that could erode the reliability of this report include those that affect:

- the site's size or shape;
- the function of the proposed structure, as when it's changed from a parking garage to an office building, or from a light-industrial plant to a refrigerated warehouse;
- the elevation, configuration, location, orientation, or weight of the proposed structure;
- the composition of the design team; or
- project ownership.

As a general rule, *always* inform your geotechnical engineer of project changes – even minor ones – and request an assessment of their impact. *The geotechnical engineer who prepared this report cannot accept responsibility or liability for problems that arise because the geotechnical engineer was not informed about developments the engineer otherwise would have considered.*

## **This Report May Not Be Reliable**

*Do not rely on this report* if your geotechnical engineer prepared it:

- for a different client;
- for a different project;
- for a different site (that may or may not include all or a portion of the original site); or
- before important events occurred at the site or adjacent to it; e.g., man-made events like construction or environmental remediation, or natural events like floods, droughts, earthquakes, or groundwater fluctuations.

Note, too, that it could be unwise to rely on a geotechnical-engineering report whose reliability may have been affected by the passage of time, because of factors like changed subsurface conditions; new or modified codes, standards, or regulations; or new techniques or tools. *If your geotechnical engineer has not indicated an "apply-by" date on the report, ask what it should be, and, in general, if you are the least bit uncertain about the continued reliability of this report, contact your geotechnical engineer before applying it.* A minor amount of additional testing or analysis – if any is required at all – could prevent major problems.

## **Most of the "Findings" Related in This Report Are Professional Opinions**

Before construction begins, geotechnical engineers explore a site's subsurface through various sampling and testing procedures. *Geotechnical engineers can observe actual subsurface conditions only at those specific locations where sampling and testing were performed.* The data derived from that sampling and testing were reviewed by your geotechnical engineer, who then applied professional judgment to form opinions about subsurface conditions throughout the site. Actual sitewide-subsurface conditions may differ – maybe significantly – from those indicated in this report. Confront that risk by retaining your geotechnical engineer to serve on the design team from project start to project finish, so the individual can provide informed guidance quickly, whenever needed.

## This Report's Recommendations Are Confirmation-Dependent

The recommendations included in this report – including any options or alternatives – are confirmation-dependent. In other words, *they are not final*, because the geotechnical engineer who developed them relied heavily on judgment and opinion to do so. Your geotechnical engineer can finalize the recommendations *only after observing actual subsurface conditions* revealed during construction. If through observation your geotechnical engineer confirms that the conditions assumed to exist actually do exist, the recommendations can be relied upon, assuming no other changes have occurred. *The geotechnical engineer who prepared this report cannot assume responsibility or liability for confirmation-dependent recommendations if you fail to retain that engineer to perform construction observation.*

## This Report Could Be Misinterpreted

Other design professionals' misinterpretation of geotechnical-engineering reports has resulted in costly problems. Confront that risk by having your geotechnical engineer serve as a full-time member of the design team, to:

- confer with other design-team members,
- help develop specifications,
- review pertinent elements of other design professionals' plans and specifications, and
- be on hand quickly whenever geotechnical-engineering guidance is needed.

You should also confront the risk of constructors misinterpreting this report. Do so by retaining your geotechnical engineer to participate in prebid and preconstruction conferences and to perform construction observation.

## Give Constructors a Complete Report and Guidance

Some owners and design professionals mistakenly believe they can shift unanticipated-subsurface-conditions liability to constructors by limiting the information they provide for bid preparation. To help prevent the costly, contentious problems this practice has caused, include the complete geotechnical-engineering report, along with any attachments or appendices, with your contract documents, *but be certain to note conspicuously that you've included the material for informational purposes only*. To avoid misunderstanding, you may also want to note that "informational purposes" means constructors have no right to rely on the interpretations, opinions, conclusions, or recommendations in the report, but they may rely on the factual data relative to the specific times, locations, and depths/elevations referenced. Be certain that constructors know they may learn about specific project requirements, including options selected from the report, *only* from the design drawings and specifications. Remind constructors that they may

perform their own studies if they want to, and *be sure to allow enough time* to permit them to do so. Only then might you be in a position to give constructors the information available to you, while requiring them to at least share some of the financial responsibilities stemming from unanticipated conditions. Conducting prebid and preconstruction conferences can also be valuable in this respect.

## Read Responsibility Provisions Closely

Some client representatives, design professionals, and constructors do not realize that geotechnical engineering is far less exact than other engineering disciplines. That lack of understanding has nurtured unrealistic expectations that have resulted in disappointments, delays, cost overruns, claims, and disputes. To confront that risk, geotechnical engineers commonly include explanatory provisions in their reports. Sometimes labeled "limitations," many of these provisions indicate where geotechnical engineers' responsibilities begin and end, to help others recognize their own responsibilities and risks. *Read these provisions closely*. Ask questions. Your geotechnical engineer should respond fully and frankly.

## Geoenvironmental Concerns Are Not Covered

The personnel, equipment, and techniques used to perform an environmental study – e.g., a "phase-one" or "phase-two" environmental site assessment – differ significantly from those used to perform a geotechnical-engineering study. For that reason, a geotechnical-engineering report does not usually relate any environmental findings, conclusions, or recommendations; e.g., about the likelihood of encountering underground storage tanks or regulated contaminants. *Unanticipated subsurface environmental problems have led to project failures*. If you have not yet obtained your own environmental information, ask your geotechnical consultant for risk-management guidance. As a general rule, *do not rely on an environmental report prepared for a different client, site, or project, or that is more than six months old*.

## Obtain Professional Assistance to Deal with Moisture Infiltration and Mold

While your geotechnical engineer may have addressed groundwater, water infiltration, or similar issues in this report, none of the engineer's services were designed, conducted, or intended to prevent uncontrolled migration of moisture – including water vapor – from the soil through building slabs and walls and into the building interior, where it can cause mold growth and material-performance deficiencies. Accordingly, *proper implementation of the geotechnical engineer's recommendations will not of itself be sufficient to prevent moisture infiltration*. Confront the risk of moisture infiltration by including building-envelope or mold specialists on the design team. *Geotechnical engineers are not building-envelope or mold specialists*.



**GEOPROFESSIONAL  
BUSINESS  
ASSOCIATION**

Telephone: 301/565-2733

e-mail: [info@geoprofessional.org](mailto:info@geoprofessional.org) [www.geoprofessional.org](http://www.geoprofessional.org)



November 16, 2023

Mr. Wade Kelly  
Mr. James Hudgins  
Cobb County DOT/Atkins  
1890 County Services Parkway  
Marietta, Georgia 30008

RE: Limited Phase II Environmental Site Assessment  
Former Retail Petroleum Outlet and Service Station  
890 Veterans Memorial Highway  
Mableton, Cobb County, Georgia  
Contour Project No: A23104.02027.000

Dear Mr. Kelly and Mr. Hudgins,

Contour Engineering, LLC (Contour) has completed the authorized Limited Phase II Environmental Site Assessment (ESA) for the above referenced Subject Property. The Limited Phase II ESA was performed in general conformance with Contour's Proposal Number: A23104.02027.000 dated October 11, 2023.

If you have any questions regarding this report or if we may be of further service to you, please call our office at (770) 794-0266.

Sincerely,  
**CONTOUR ENGINEERING, LLC**



Trey Young  
Project Manager



Jeanette Hamm, P.E.  
Vice President

Enclosure: Limited Phase II ESA Report

**Limited Phase II Environmental Site Assessment  
Former Retail Petroleum Outlet & Service Station  
890 Veterans Memorial Highway  
Mableton, Cobb County, Georgia  
Contour Project No: A23104.02027.000**

Prepared For:

**Cobb County DOT/Atkins**  
1890 County Services Parkway  
Marietta, GA 30008

Prepared By:

**CONTOUR ENGINEERING, LLC**  
1955 Vaughn Road  
Suite 101  
Kennesaw, Georgia 30144

November 16, 2023

# Executive Summary

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On October 20, 2023, Contour Engineering, LLC (Contour) conducted a Limited Phase II Environmental Site Assessment (ESA) of a developed property located at 890 Veterans Memorial Highway in Mableton, Cobb County, Georgia. This property, hereinafter referred to as “Subject Property,” consists of one property parcel (tax parcel: P92103127) totaling approximately 0.1598-acres. The Subject Property is developed with an approximate 1,320 square-foot commercial building, a former underground storage tank (UST) system, and associated asphalt paved parking lot covering the southern portion of the property. The Subject Property is located in an area of commercial uses within the city limits of Mableton, Georgia.

The purpose of this Limited Phase II ESA was to assess soil and groundwater conditions at the Subject Property as it pertains to the potential impacts associated with a former fueling system and automotive service facility, as well as dry-cleaning operations conducted to the east of the Subject Property.

During the Limited Phase II ESA investigation conducted on October 20, 2023, Contour advanced four soil borings (B-1 through B-4) using a direct push technology (DPT) drilling rig until approximately 25 feet below ground surface (bgs), groundwater was encountered at approximately 18 to 25 feet bgs. Soil and groundwater samples were collected from each of the borings. The samples were submitted to Analytical Environmental Services (AES) for either volatile organic compounds (VOC) or benzene, toluene, ethylbenzene, and total xylenes (BTEX) analysis and semi-volatile organic compounds (SVOC) or polyaromatic hydrocarbons (PAH) analysis. Soil samples from two borings (B-3 and B-4) were also submitted for laboratory analysis of Resource Conservation and Recovery Act (RCRA) metals.

Soil analytical data were compared to their respective Georgia Environmental Protection Division (GA EPD) Response and Remediation Program (RRP) Hazardous Site Response Act (HSRA) notification concentrations (NCs) contained in Appendix I of Georgia Administrative Code (GAC) 391-3-19 [applicable to non-petroleum-based constituents] or the most stringent GA EPD Underground Storage Tank Management Program (USTMP) Soil Threshold Levels (STLs) [applicable to petroleum-based constituents].

Groundwater analytical data was compared to the GA EPD RRP HSRA GAC 391-3-19 Appendix III, Table 1 media target concentrations (MTCs) and Federal Maximum Contaminant Levels (MCLs).

## Soil Summary

BTEX concentrations were detected in the soil samples from borings B-1 and B-2 advanced on either side of the UST basin as well as benzene, ethylbenzene, and total xylenes in the soil sample collected from boring B-3 adjacent to the automotive repair building. Other petroleum related constituents were detected in soil sample B-2 including 1-methylnaphthalene, 2-methylnaphthalene, and naphthalene. The concentrations of BTEX in the soil sample collected from boring B-2 exceed their respective STLs as established by the GA EPD USTMP indicating a confirmed release has occurred from the UST system.

## Groundwater Summary

Several VOC constituents were detected in groundwater, both petroleum and solvent related. Petroleum constituents detected in groundwater include BTEX, isopropylbenzene, cyclohexane, methylcyclohexane, 1-methylnaphthalene, 2-methylnaphthalene, and naphthalene. BTEX concentrations in groundwater exceed their respective Federal Drinking Water MCLs and MTCs. Additionally, naphthalene concentrations in groundwater exceeds its Appendix III, Table 1 MTC.

Solvent related VOCs detected in groundwater include 1,2-dichloroethane, 2-butanone (MEK), 2-hexanone, 4-methyl-2-pentanone, and acetophenone. The concentration of 1,2-dichloroethane in the groundwater sample from boring B-3 exceeds its respective Appendix III, Table 1 MTC concentration.



## Conclusions and Recommendations

The soil and groundwater impacts detected near the UST basin are related to the potential historical petroleum use and/or storage at the Site. Concentrations of benzene, cyclohexane, ethylbenzene, isopropylbenzene, methylcyclohexane, toluene, xylenes and naphthalene in soil and/or groundwater are indicators of a petroleum release. Based on the results of the Limited Phase II ESA, and in accordance with the USTMP regulations, the confirmed petroleum-related release in soil and groundwater should be reported by the owner/operator of the UST system within 24 hours of the discovery (to the extent the owner/operator is known and is informed of the sampling results).

Based on the solvent 1,2-dichloroethane concentration in groundwater exceeding its respective Appendix III, Table 1 MTC and MCL, regulatory notification is required. A release notification for the former automotive repair facility should be prepared and submitted to the GA EPD RRP of the Land Protection Branch by the owner within 30 days of the property owner's knowledge or discovery of a release. The release notification will trigger scoring by the GA EPD RRP using the reportable quantities screening method (RQSM) to determine the subsequent placement on the Hazardous Site Inventory (HSI) or Non-HSI list.





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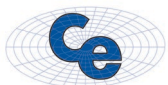
Figure 1:	Subject Property Location Map
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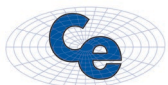
Appendix A:	EDR Database Report
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# Acronyms and Abbreviations

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CFR	Code of Federal Regulations
COC	Chain-of-Custody
DPT	Direct Push Technology
EDR	Environmental Data Resources
EPA	United States Environmental Protection Agency
ESA	Environmental Site Assessment
ft bgs	Feet Below Ground Surface
GAC	Georgia Administrative Code
GA EPD	Georgia Environmental Protection Division
HSRA	Hazardous Site Response Act
HQ	Hazard Quotient
µg/L	Micrograms per Liter
mg/kg	Milligrams per kilogram
MCL	Maximum Contaminant Level
MTC	Media Target Concentration
NC	Notification Concentration
NFA	No Further Action
NOV	Notice of Violation
REC	Recognized Environmental Condition
RRP	Response and Remediation Program
STL	Soil Threshold Level
TPH	Total Petroleum Hydrocarbons
UST	Underground Storage Tank
USTMP	Underground Storage Tank Management Program
VEC	Vapor Encroachment Condition
VISL	Vapor Intrusion Screening Level
VOC	Volatile Organic Compound



# Introduction

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On October 20, 2023, Contour Engineering, LLC (Contour) conducted a Limited Phase II Environmental Site Assessment (ESA) of a developed property located at 890 Veterans Memorial Highway in Mableton, Cobb County, Georgia. This property, hereinafter referred to as “Subject Property,” consists of one property parcel (tax parcel: P92103127) totaling approximately 0.1598-acres. The Subject Property is developed with an approximate 1,320 square-foot commercial building, a former UST system, and associated asphalt paved parking lot covering the southern portion of the property. The Subject Property is located in an area of commercial uses within the city limits of Mableton, Georgia. Figure 1 presents the Subject Property location map.

Prior to conducting the Phase II ESA, Contour reviewed regulatory agency database information which was obtained from Environmental Data Resources (EDR). The regulatory agency database maps and lists properties in Federal and state environmental databases with existing conditions or status that may have the potential to affect the subject site. The listing of databases searched and reviewed in accordance with ASTM E1527-21 can be found under the Map Findings Summary section of the complete EDR report that is provided as Appendix A. The database information reviewed did not include the Subject Property on any of the databases searched. This includes a search of the Georgia Environmental Protection Division’s (GA EPD) Leaking Underground Storage Tanks (LUST), Registered Underground Storage Tanks (USTs), the Non-Hazardous Site Inventory (non-HSI), as well as other state or federal databases. However, the EDR database information did reveal that the South Cobb Cleaners, located to the east-southeast and within 1/10<sup>th</sup> of a mile from the Subject Property is included as a RCRA Historical Non-Generator facility. The South Cobb Cleaners facility is included in this database due to the handling of spent solvents associated with dry cleaning operations.

Additionally, Contour ordered a City Directory search of the Subject Property and general vicinity from EDR. The directories have listings by address for the years covered by the directory service from 1970 to 2020. The Subject Property currently addressed as 890 Veterans Memorial Highway or 890 Bankhead Highway was listed as Mableton Mobile Auto Repair in 2010, Bankhead Foreign Car Repair in 2005, Bankhead Foreign & Domestic Car Repair in 2000, and Bankhead Foreign Car Repair from 1976 to 1995. The address was not listed from 1973 to 2010. Other city directory information for the surrounding properties for the years searched generally consists of residential and commercial listings. The City Directory findings has been included in Appendix B.

## 1.1 Purpose, Scope and Reliance

The purpose of this Limited Phase II ESA was to assess soil and groundwater conditions at the Subject Property for potential onsite and offsite impacts. The scope of work to assess soil and groundwater conditions included:

- Advancing four borings using a GeoProbe® direct push technology (DPT) drilling method to groundwater, anticipated to be encountered at a depth of 30 feet or less. Soil samples will be collected continuously during DPT boring advancement, evaluated for fill materials, and screened with a photoionization detector (PID). Two borings are proposed to be advanced in close proximity to the UST burial and the remaining two borings will be advanced in close proximity to the on-site automotive garage structure.
- Soils from the two borings advanced to address the USTs will be submitted for laboratory analysis of benzene, toluene, ethylbenzene, and xylenes (BTEX) and polynuclear aromatic hydrocarbons (PAHs) by United States Environmental Protection Agency (EPA) Methods 8260D and 8270E, respectively. Soils from the two borings advanced to address the potential use of the subject property as an automotive service facility will be submitted for laboratory analysis of volatile organic compounds (VOCs), semi-volatile organic compounds



(SVOCs), and RCRA Metals by United States Environmental Protection Agency (EPA) Methods 8260D, 8270E, and 6010B/7473, respectively.

- One groundwater sample will be collected from each boring for laboratory analysis. The two borings adjacent to the UST burial will be analyzed for VOCs and PAHs via EPA Method 8260D and 8270E, respectively. The groundwater samples collected from the borings located adjacent to the garage structure will be analyzed for VOCs and SVOCs via EPA Method 8260D and 8270E, respectively.

This report is certified to, can be relied upon by, and has been prepared for the exclusive use of Cobb County DOT/Atkins and their respective subsidiaries and affiliates.

## 1.2 Limiting Conditions and Methodology

On October 20, 2023, Contour and RHD Services conducted a ground penetrating radar (GPR) survey to clear utilities near the four (4) proposed onsite boring locations and to verify the presence/absence of the UST system associated with the historical use as a filling station.

On October 20, 2023, Contour advanced four soil borings (B-1 through B-4) to assess soil and groundwater conditions as it pertains to the potential impacts from the on-site UST system and former automotive service operations as well as an offsite former dry cleaners. Borings B-1 through B-4 were advanced using a GeoProbe® DPT drilling method in five-foot intervals to 25 feet below ground surface (bgs). Soil samples were collected continuously during DPT boring advancement, evaluated for fill materials, and screened with a PID. Groundwater was encountered in each of the borings at depths ranging from 18 to 22 feet bgs. The boring locations are illustrated in Figure 2. Boring logs are included in Appendix C.

For BTEX/VOC assessment in soil, an approximate five-gram sample was collected from the interval exhibiting the highest PID reading and placed in three pre-weighed laboratory-supplied 40 milliliter vials containing sodium bisulfate and methanol preservatives. For PAH/SVOC and RCRA metals assessment in soil, an approximate four-ounce sample was collected and placed in a laboratory supplied jar.

Groundwater was retrieved from each of the boring locations (B-1 through B-4) using a peristaltic pump and clean polyethylene tubing. Groundwater samples were collected at each of the boring locations in two, 40 milliliter vials containing hydrochloric acid for the analysis of BTEX/VOCs by EPA Method 8260 and two, 1-Liter amber vials for the analysis of PAHs/SVOCs by EPA Method 8270.

The soil and groundwater samples were placed on ice in coolers and submitted to Analytical Environmental Services Laboratory in Atlanta, Georgia under standard chain-of-custody (COC) procedures and submitted for analysis of VOCs or BTEX by EPA Method 8260D, SVOCs or PAHs by EPA Method 8270E, and RCRA Metals by EPA Method 6010B/7473.



# Findings/Conclusions and Recommendations

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## 2.1 GPR Results

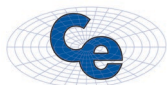
During the GPR survey activities, all utilities were cleared and the dimensions of the UST basin were outlined. The UST basin measures approximately 21.5 feet long and 12 feet wide. Additionally, the fill ports of the UST were opened and an interface probe was used to determine if any free phase petroleum product and/or water remained in the UST. The UST was found to be dry and measures approximately seven feet from the top of the fill port to the bottom of the UST. The UST is estimated to be approximately 5,000-gallons. No petroleum product piping was detected by the GPR; however, the UST vent lines were identified and mapped running from the UST basin to the on-site structure to the north. Soil borings B-1 and B-2 were advanced just outside of the UST basin.

## 2.2 Soil

Soil analytical data from borings B-3 and B-4 were compared to their respective GA EPD Response and Remediation Program (RRP) Hazardous Site Response Act (HSRA) notification concentrations (NCs) contained in Appendix I of Georgia Administrative Code (GAC) 391-3-19 [applicable to non-petroleum-based constituents] while soil data from borings B-1 and B-2 were compared to the most stringent GA EPD Underground Storage Tank Management Program (USTMP) Soil Threshold Levels (STLs) [applicable to petroleum-based constituents]. Laboratory analysis of the soil samples collected from each of the boring locations did not indicate the presence of VOC or SVOC/PAH constituents or RCRA Metals above laboratory reporting limits with the exception of the following:

- B-1: benzene (0.0018 milligrams per kilogram (mg/kg))  
ethylbenzene (0.0070 mg/kg)  
m,p-xylene/o-xylene (0.035 mg/kg / 0.0022 mg/kg)
- B-2: benzene (1.9 mg/kg)  
toluene (21 mg/kg)  
ethylbenzene (140 mg/kg)  
m,p-xylene/o-xylene (660 mg/kg / 240 mg/kg)  
1-methylnaphthalene (2.1 mg/kg)  
2-methylnaphthalene (5.6 mg/kg)  
naphthalene (26 mg/kg)
- B-3: arsenic (4.06 mg/kg)  
barium (29.7 mg/kg)  
chromium (123 mg/kg)  
lead (25 mg/kg)  
benzene (0.049 mg/kg)  
ethylbenzene (0.053 mg/kg)  
m,p-xylene/o-xylene (0.18 mg/kg / 0.058 mg/kg)
- B-4: arsenic (5.29 mg/kg)  
barium (23.1 mg/kg)  
chromium (93.3 mg/kg)  
lead (24.7 mg/kg)

The detections of benzene, toluene, ethylbenzene, and total xylenes in the soil sample submitted from boring B-2 exceed the most stringent respective STL and the NC.



The benzene concentration from boring B-3 was compared to the GA EPD's HSRA NC, due to the distance from the UST system and the close proximity to the garage portion of the on-site structure. The reported concentration exceeds the established NC.

The remaining constituents detected in soil samples are below their respective STL or NC. The Soil Quality Map is provided as Figure 3 and the soil analytical data are summarized in Table 1A and 1B. The laboratory analytical report is provided in Appendix B.

## 2.3 Groundwater

Groundwater analytical data were compared to their respective standard exposure assumptions listed in Appendix III, Table 1 of GAC 391-3-19. No BTEX/VOC or PAH/SVOC constituents were detected above their laboratory reporting limits at any sample locations with the exception of the following:

- B-1: benzene (570 micrograms per liter (µg/L))  
toluene (94 µg/L)  
ethylbenzene (4,800 µg/L)  
m,p-xylene/o-xylene (16,000 µg/L / 1300 µg/L)  
1-methylnaphthalene (15 µg/L)  
2-methylnaphthalene (36 µg/L)  
naphthalene (660 µg/L)
- B-2: acetone (84 µg/L)  
benzene (3,500 µg/L)  
toluene (2,300 µg/L)  
ethylbenzene (9,300 µg/L)  
isopropylbenzene (440 µg/L)  
m,p-xylene/o-xylene (39,000 µg/L / 9,100 µg/L)  
1-methylnaphthalene (17 µg/L)  
2-methylnaphthalene (42 µg/L)  
naphthalene (730 µg/L)
- B-3: 1,2-dichloroethane (300 µg/L)  
2-butanone (5,300 µg/L)  
2-hexanone (1,300 µg/L)  
4-methyl-2-pentanone (520 µg/L)  
acetone (5,000 µg/L)  
benzene (5,600 µg/L)  
cyclohexane (310 µg/L)  
toluene (67 µg/L)  
ethylbenzene (4,800 µg/L)  
isopropylbenzene (160 µg/L)  
m,p-xylene/o-xylene (16,000 µg/L / 4,700 µg/L)  
methylcyclohexane (65 µg/L)  
2-methylnaphthalene (11 µg/L)  
Acetophenone (330 µg/L)  
naphthalene (330 µg/L)



- B-4: ethylbenzene (13 µg/L)  
m,p-xylene (50 µg/L)  
methylcyclohexane (5.5 µg/L)

The constituents detected above laboratory reporting limits did not exceed any of their respective Appendix III, Table 1 MTCs or MCLs with the exception of 1,2-dichloroethane, benzene, ethylbenzene, toluene, total xylenes, and naphthalene identified in borings B-1, B-2, and B-3. The concentrations of benzene, ethylbenzene, toluene, total xylenes, and naphthalene can be attributed to impacts from petroleum products. The presence of 1,2-dichloroethane indicates impacts from the use of solvents, likely associated with automotive service activities. It should be noted that Appendix III, Table 1 MTCS for multiple VOC and SVOC constituents has not been established by GA EPD.

The Groundwater Quality Map is provided as Figure 4 and the groundwater analytical data are summarized in Table 2. The laboratory analytical report is provided in Appendix B.

## 2.4 Recommendations

The soil and groundwater impacts detected near the UST basin are related to the potential historical petroleum use and/or storage at the Site. Concentrations of benzene, cyclohexane, ethylbenzene, isopropylbenzene, methylcyclohexane, toluene, xylenes and naphthalene in soil and/or groundwater are indicators of a petroleum release. Based on the results of the Limited Phase II ESA, and in accordance with the USTMP regulations, the confirmed petroleum-related release in soil and groundwater should be reported by the owner/operator of the UST system within 24 hours of the discovery (to the extent the owner/operator is known and is informed of the sampling results).

Based on the solvent 1,2-dichloroethane concentration in groundwater exceeding its respective Appendix III, Table 1 MTC and MCL, regulatory notification is required. A release notification for the former automotive repair facility should be prepared and submitted to the GA EPD RRP of the Land Protection Branch by the owner within 30 days of the property owner's knowledge or discovery of a release. The release notification will trigger scoring by the GA EPD RRP using the reportable quantities screening method (RQSM) to determine the subsequent placement on the Hazardous Site Inventory (HSI) or Non-HSI list.

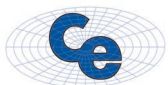


## SECTION 3.0

# Limitations

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Contour's assessment is solely based upon the scope of work described herein. No environmental site assessment can wholly eliminate uncertainty regarding the potential for environmental conditions that may affect a Subject Property. This Limited Phase II ESA was performed with a reasonable and customary standard of care. This report must be considered in its entirety. The purpose of this Limited Phase II ESA was to assess soil and groundwater conditions as it pertains to the potential impacts associated with the on-site former UST system and automotive servicing as well as the offsite dry cleaning operation located in close proximity to the Subject Property. The extent of any impacts detected during the subject investigation has not been defined.





#### SECTION 4.0

## Environmental Professional Statement

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I declare that, to the best of my professional knowledge and belief, I meet the definition of an Environmental Professional as defined in §312.10 of 40 Code of Federal Regulations (CFR) Part 312.

I have the specific qualifications based on education, training, and experience to assess the nature, history, and setting of the subject property. I have developed and performed the all appropriate inquiries in conformance with the standards and practices set forth in 40 CFR Part 312.

Report Reviewed By:



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Jeanette L. Hamm, P.E.

Vice -President / Environmental Services Manager



## Figures

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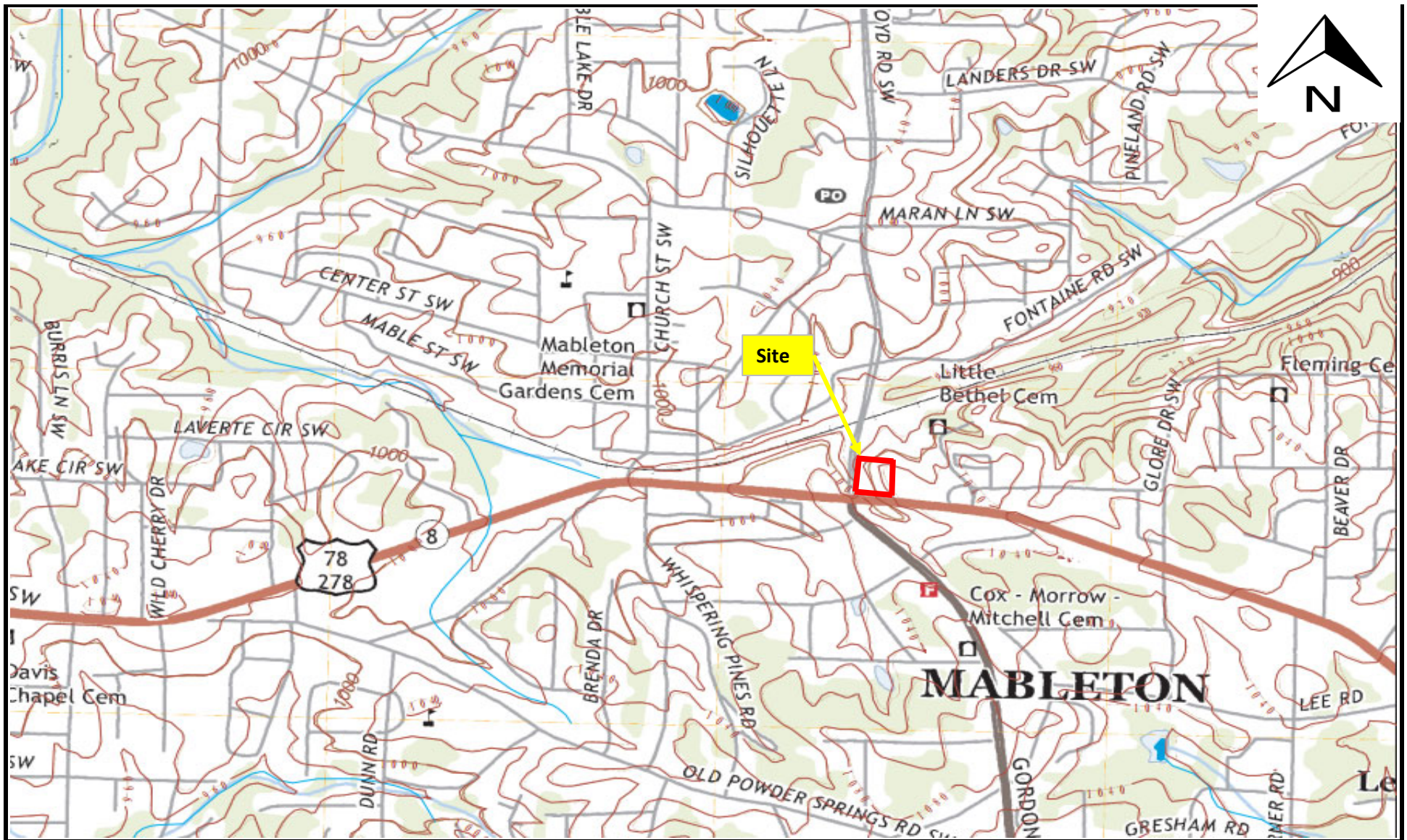



Figure 1: Site Location Map

**CONTOUR**  
ENGINEERING  
A UES COMPANY

#### Legend

Source: USGS Hog Mountain and Suwanee Quadrangles 2014  
 = Approximate Site Boundary

#### PROJECT

Limited Phase II ESA  
 Former Retail Petroleum Outlet & Service Station  
 890 Veterans Memorial Highway  
 Mableton, Cobb County, Georgia  
 Contour Project: A23104.02027.000





Figure 2: Boring Locations Map

**CONTOUR**  
ENGINEERING  
A UES COMPANY

**Legend**

Source: Google Earth

- = Approximate Site Boundary
- ⊕ = Soil & Groundwater Sample Location

Limited Phase II ESA  
Former Retail Petroleum Outlet & Service Station  
890 Veterans Memorial Highway  
Mableton, Cobb County, Georgia  
Contour Project: A23104.02027.000

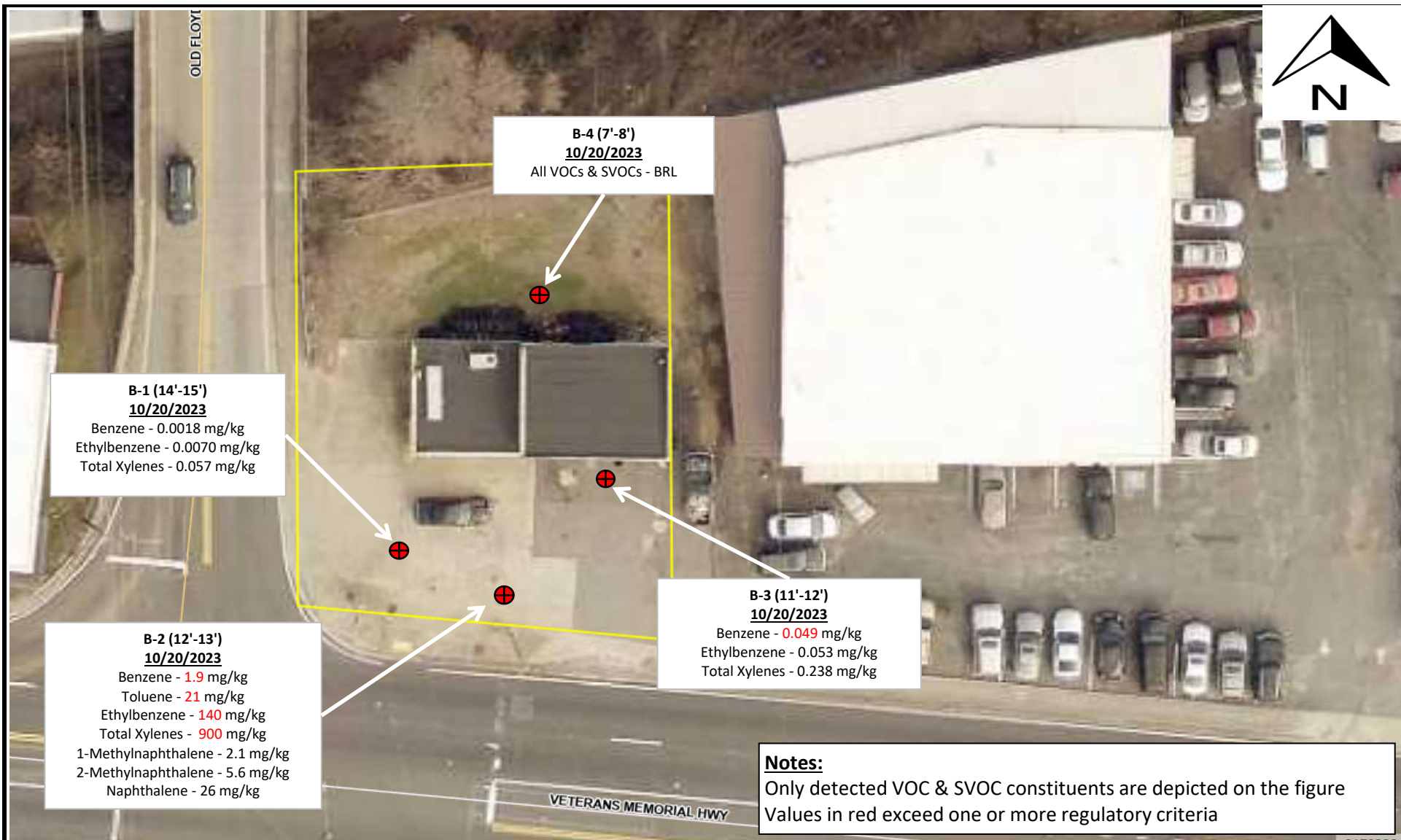


Figure 3: Soil Quality Map

**Legend**

Source: Google Earth

— = Approximate Site Boundary  
 ● = Soil Sample Location



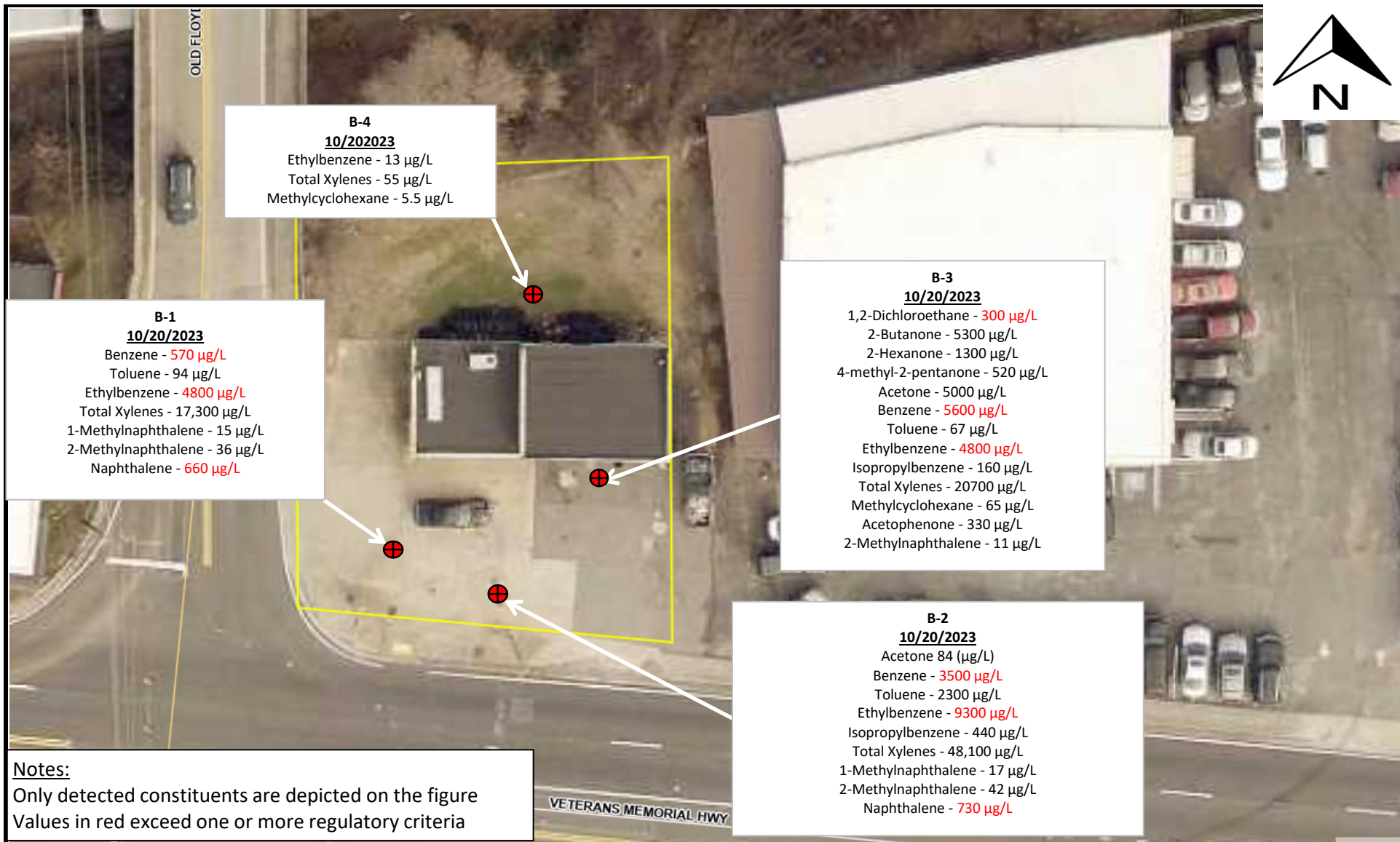


Figure 4: Groundwater Quality Map



**Legend**

Source: Google Earth

- = Approximate Site Boundary
- ⊕ = Groundwater Sample Location

Limited Phase II ESA  
Former Retail Petroleum Outlet & Service Station  
890 Veterans Memorial Hwy  
Mableton, Cobb County, Georgia  
Contour Project: A23104.02027.000



Former Retail Petroleum Outlet & Service Station  
890 Veterans Memorial Highway  
Mableton, Cobb County, Georgia

**TABLE 1A: SOIL ANALYTICAL RESULTS**  
VOCs & SVOCs/PAHs

Sample Location	Depth (ft)	Date Sampled	VOCs						SVOCs/PAHs		
			Benzene (mg/Kg)	Ethylbenzene (mg/Kg)	m,p-Xylenes (mg/Kg)	Methyl tert-butyl ether	o-Xylenes (mg/Kg)	Toluene (mg/Kg)	1-Methylnapthalene (mg/kg)	2-Methylnapthalene (mg/kg)	Napthalene (mg/kg)
B-1	14-15	10/20/2023	0.0018	0.0070	0.035	<0.0045	0.0022	<0.0009	<0.45	<0.45	<0.45
B-2	12-13	10/20/2023	<b>1.9</b>	<b>140</b>	<b>660</b>	<5.1	<b>240</b>	<b>21</b>	2.1	5.6	26
B-3	11-12	10/20/2023	<b>0.049</b>	0.053	0.18	<0.0049	0.058	<0.0049	<0.47	<0.47	<0.47
B-4	7-8	10/20/2023	<0.0045	<0.0045	<0.0045	<0.0045	<0.0045	<0.0045	NT	<0.46	<0.46
STL (in mg/Kg)			0.005	0.50	27.0	NE	27.0	0.40	NE	NE	NE
NC (in mg/Kg)			0.020	20.0	20.0	NE	20.0	14.40	NE	NE	100

Notes:

mg/Kg = Milligrams per Kilogram

VOCs = Volatile Organic Compounds

SVOCs = Semi-Volatile Organic Compounds

PAHs = Polycyclic Aromatic Hydrocarbons

STLs = Soil Threshold Level for sites in lower groundwater pollution susceptibility where public water supplies exist within 1.0-mile or non-public supplies exist within 0.25-miles and the withdrawal point is less than 500 feet

NCs = Notification Concentrations from GA EPD Rule 391-3-1 - Appendix I: REGULATED SUBSTANCES AND SOIL CONCENTRATION THAT TRIGGER NOTIFICATION

NE = Not Established

**Bold = Value Exceeds NC**

**Bold & Red = Value Exceeds STL and NC**



Former Retail Petroleum Outlet & Service Station  
890 Veterans Memorial Highway  
Mableton, Cobb County, Georgia

**TABLE 1B: SOIL ANALYTICAL RESULTS**  
**RCRA Metals**

Sample Location	Depth (ft)	Date Sampled	RCRA Metals			
			Arsenic (mg/Kg)	Barium (mg/Kg)	Chromium (mg/Kg)	Lead (mg/Kg)
B-1	N/A	10/20/2023	NT	NT	NT	NT
B-2	N/A	10/20/2023	NT	NT	NT	NT
B-3	0-1	10/20/2023	4.06	29.7	123	25.0
B-4	0-1	10/20/2023	5.29	23.1	93.3	24.7
NC (in mg/Kg)			41	500	1200	400

Notes:

NT = Not Tested

N/A = Not Applicable

mg/Kg = Milligrams per Kilogram

RCRA = Resource Conservation and Recovery Act

NCs = Notification Concentrations from GA EPD Rule 391-3-1 - Appendix I: REGULATED SUBSTANCES AND SOIL CONCENTRATION THAT TRIGGER NOTIFICATION

Former Retail Petroleum Outlet and Service Station  
890 Veterans Memorial Highway  
Mableton, Cobb County, Georgia

TABLE 2: GROUNDWATER ANALYTICAL RESULTS  
VOCs & SVOCs/PAHs


Sample Location	Date Sampled	VOCs														SVOCs/PAHs			
		1,2-Dichloroethane (µg/L)	2-Butanone (µg/L)	2-Hexanone (µg/L)	4-Methyl-2-pentanone (µg/L)	Acetone (µg/L)	Benzene (µg/L)	Cyclohexane (µg/L)	Ethylbenzene (µg/L)	Isopropylbenzene (µg/L)	m,p-Xylene (µg/L)	MTBE (µg/L)	Methylcyclohexane (µg/L)	o-Xylene (µg/L)	Toluene (µg/L)	Acetophenone (µg/L)	1-Methylnapthalene (µg/L)	2-Methylnapthalene (µg/L)	Napthalene (µg/L)
B-1	10/20/2023	NT	NT	NT	NT	NT	570	NT	4800	NT	16000	<250	NT	1300	94	NT	15	36	660
B-2	10/20/2023	<5.0	<50	<10	<10	84	3500	<5.0	9300	440	39000	<5.0	440	9100	2300	NT	17	42	730
B-3	10/20/2023	300	5300	1300	520	5000	5600	310	4800	160	16000	<5.0	65	4700	67	330	NT	11	330
B-4	10/20/2023	<5.0	<50	<10	<10	<50	<5.0	<5.0	13	<5.0	50	<5.0	5.5	<5.0	<5.0	<10	NT	<10	<10
Federal MCL (in µg/L)		5.0	NE	NE	NE	NE	5.0	NE	700	NE	10000*	NE	NE	10000*	1,000	NE	NE	NE	NE
GAC 391-3-19 Appendix III, Table 1 Criteria (in µg/L)		5.0	5,600	NE	NE	14,000	5.0	12,500	700	450	10000*	NE	NE	10000*	1,000	1,900	NE	NE	6.10


Notes:  
**Bold** = Concentrations above GAC 391-3-19 Appendix III, Table 1 Criteria & MCL  
VOCs = Volatile Organic Compounds  
SVOCs = Semi-Volatile Organic Compounds  
PAHs = Polycyclic Aromatic Hydrocarbons  
µg/L = Micrograms per Liter  
GAC = Georgia Administrative Code  
MTBE = Methyl tert-butyl ether  
BRL = Below Reporting Limits  
NT = Not Tested  
NA = Not Applicable  
NE = Not Established  
\* = Value is for total xylenes


## Appendix A


### Soil Boring Logs

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					PROJECT NUMBER: <b>A23104.02027.000</b>		BORING NUMBER: <b>B-1</b>		SHEET <b>1</b> OF <b>1</b>	
<div style="text-align: center; border: 1px solid black; padding: 5px;"> <b>SOIL BORING LOG</b> </div>										
PROJECT NAME: Former Retail Petroleum Outlet & Automotive Service						LOCATION: 890 Veterans Memorial Highway				
GROUND SURFACE ELEVATION: NA				DRILLING CONTRACTOR: Geo Lab						
DRILLING METHOD AND EQUIPMENT: <b>Direct Push GeoProbe</b>										
WATER LEVELS, DATE, AND TIME:					DRILLING START DATE & TIME:		DRILLING FINISH DATE & TIME:		LOGGER:	
<b>Not Applicable</b>					<b>10/20/23 10:10</b>		<b>10/20/23 10:45</b>		<b>Trey Young</b>	
DEPTH BELOW SURFACE (FEET)	SAMPLE INTERVAL DEPTH (FEET)	RECOVERY Of. core (%)	SAMPLE TYPE <small>CC-Continuous Core</small>	STANDARD PENETRATION TEST	CORE DESCRIPTION			COMMENTS		
0			CC	DPT	Red, silty clay. Dry, faint petroleum odor			0 - 5' - Low Recovery (<25%) PID - 12.9		
5			CC	DPT	Reddish brown silty clay. Dry, slight petroleum odor			5' - 10' PID: (9'-10') 21.1		
10			CC	DPT	Reddish brown silty clay. Dry, slight petroleum odor			10' - 15' PID:(14'-15') - 80.9 Collect sample from 14' to 15' for BTEX/PAHs		
15			CC	DPT	Light brown sandy clay. Wet @ 19'-20', Moderate petroleum odor.			15' - 20' PID: (16'-17') - 66.1		
20			CC	DPT	Push to 25', for groundwater sample. Saturated soil not logged.			20' - 25'		
25					Boring terminated at 25'			Groundwater at ~19'		
30										
35										

					PROJECT NUMBER: <b>A23104.02027.000</b>		BORING NUMBER: <b>B-2</b>		SHEET <b>1</b> OF <b>1</b>	
<b>SOIL BORING LOG</b>										
PROJECT NAME: Former Retail Petroleum Outlet & Automotive Service						LOCATION: 890 Veterans Memorial Highway				
GROUND SURFACE ELEVATION: NA				DRILLING CONTRACTOR: Geo Lab						
DRILLING METHOD AND EQUIPMENT: <b>Direct Push GeoProbe</b>										
WATER LEVELS, DATE, AND TIME:					DRILLING START DATE & TIME:		DRILLING FINISH DATE & TIME:		LOGGER:	
<b>Not Applicable</b>					<b>10/20/23 9:15</b>		<b>10/20/23 9:55</b>		<b>Trey Young</b>	
DEPTH BELOW SURFACE (FEET)	SAMPLE INTERVAL DEPTH (FEET)	RECOVERY Of. core (%)	SAMPLE TYPE <small>CC=Continuous Core</small>	STANDARD PENETRATION TEST	CORE DESCRIPTION			COMMENTS		
0			CC	DPT	No soils recovered.			0 - 5'		
5			CC	DPT	Dark brown silty clay. Dry, moderate petroleum odor.			5' - 10' - Low Recovery (<25%) PID: (9'-10') 862.3		
10			CC	DPT	Dark brown silty clay. Dry, moderate to strong petroleum odor.			10' - 15' PID:(12'-13') - 1,996 Collect sample from 12'-13' for BTEX/PAHs		
15			CC	DPT	Dark brown silty clay, micaceous. Wet @ 17-20', strong petroleum odor.			15' - 20' PID: (16'-17") - 1,549		
20			CC	DPT	Push to 25', for groundwater sample. Saturated soil not logged.			20' - 25'		
25					Boring terminated at 25'			Groundwater at ~18'		
30										
35										

					PROJECT NUMBER: <b>A23104.02027.000</b>		BORING NUMBER: <b>B-3</b>		SHEET <b>1</b> OF <b>1</b>	
					<b>SOIL BORING LOG</b>					
PROJECT NAME: Former Retail Petroleum Outlet & Automotive Service					LOCATION: 890 Veterans Memorial Highway					
GROUND SURFACE ELEVATION: NA					DRILLING CONTRACTOR: Geo Lab					
DRILLING METHOD AND EQUIPMENT: <b>Direct Push GeoProbe</b>										
WATER LEVELS, DATE, AND TIME: <b>Not Applicable</b>					DRILLING START DATE & TIME: <b>10/20/23 8:30</b>		DRILLING FINISH DATE & TIME: <b>10/20/23 9:00</b>		LOGGER: <b>Trey Young</b>	
DEPTH BELOW SURFACE (FEET)	SAMPLE INTERVAL DEPTH (FEET)	RECOVERY Of. core (%)	SAMPLE TYPE <small>CC=Continuous Core</small>	STANDARD PENETRATION TEST	CORE DESCRIPTION			COMMENTS		
0			CC	DPT	Dark reddish orange, silty clay w/ few quartz fragments at 4'-5'. Dry, no			0 - 5' PID: (0'-1') - 0.0 (4'-5') 1.4 Collect sample from 0'-1' for RCRA Metals		
5			CC	DPT	SAA			5' - 10' PID: (7'-8') 25.1		
10			CC	DPT	SAA to 13', slight odor. Then reddish brown silty clay. Moist w/ slight odor to 15'.			10' - 15' PID:(11'-12') - 79.6 Collect sample from 11'-12' for VOCs/SVOCs		
15			CC	DPT	SAA, saturated @ 17'-20'			15' - 20' PID: (15'-16') - 59.2		
20			CC	DPT	Push to 25', for groundwater sample. Saturated soil not logged.			20' - 25'		
25					Boring terminated at 25'			Groundwater at -18'		
30										
35										

					PROJECT NUMBER: <b>A23104.02027.000</b>		BORING NUMBER: <b>B-4</b>		SHEET <b>1</b> OF <b>1</b>	
					<b>SOIL BORING LOG</b>					
PROJECT NAME: Former Retail Petroleum Outlet & Automotive Service					LOCATION: 890 Veterans Memorial Highway					
GROUND SURFACE ELEVATION: NA					DRILLING CONTRACTOR: Geo Lab					
DRILLING METHOD AND EQUIPMENT: <b>Direct Push GeoProbe</b>										
WATER LEVELS, DATE, AND TIME: <b>Not Applicable</b>					DRILLING START DATE & TIME: <b>10/20/23 10:55</b>		DRILLING FINISH DATE & TIME: <b>10/20/23 11:40</b>		LOGGER: <b>Trey Young</b>	
DEPTH BELOW SURFACE (FEET)	SAMPLE INTERVAL DEPTH (FEET)	RECOVERY Of. core (%)	SAMPLE TYPE <small>CC-Continuous Core</small>	STANDARD PENETRATION TEST	CORE DESCRIPTION			COMMENTS		
0			CC	DPT	Red silty clay. Dry, no odor.			0 - 5' PID: (0-1') - 6.4 (4'-5') 8.5 Collect sample from 0-1' for RCRA Metals		
5			CC	DPT	SAA			5' - 10' PID: (7'-8') 10.1 Collect sample from 7'-8' for VOCs/SVOCs		
10			CC	DPT	Orange sandy silty clay. Dry to 14', then slight moisture, no odor.			10' - 15' PID: (12'-13') - 3.3		
15			CC	DPT	Orange silty clay, saprolitic @ 19'-20'. Moisture increases with depth, wet at 18'-20', no odor.			15' - 20' PID: (16'-17') - 2.9		
20			CC	DPT	Push to 25', for groundwater sample. Saturated soil not logged.			20' - 25'		
25					Boring terminated at 25'			Groundwater at -18'		
30										
35										

## Appendix B

### Laboratory Analytical Report

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## ANALYTICAL ENVIRONMENTAL SERVICES, INC.

October 27, 2023

Jeanette Hamm  
Contour Engineering

1955 Vaugh Rd.  
Kennesaw GA 30144

RE: Former Retail Petroleum Outlet & Service Station

Dear Jeanette Hamm:

Order No: 2310018

Analytical Environmental Services, Inc. received 11 samples on October 20, 2023 1:39 pm  
for the analyses presented in following report.

"No problems were encountered during the analyses except as noted in the Case Narrative or by qualifiers in the report or QC Summary. Additionally, all results for the associated Quality Control samples were within EPA and/or AES established limits.

AES's accreditations are as follows:

-NELAP/State of Florida Laboratory ID E87582 for analysis of Non-Potable Water, Solid & Chemical Materials, Air & Emissions Volatile Organics, and Drinking Water Microbiology & Metals, effective 07/01/23-06/30/24.

State of Georgia, Department of Natural Resources ID #800 for analysis of Drinking Water Metals, effective through 06/30/24 and Total Coliforms/ E. coli, effective 04/25/23-04/24/24.

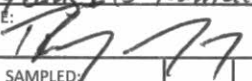
-AIHA LAP, LLC Laboratory ID: 100671 for Industrial Hygiene samples (Metals and PCM Asbestos), Environmental Lead (Paint, Soil, Dust Wipes, Air), and Environmental Microbiology (Fungal) Direct Examination, effective until 11/01/25.


These results relate only to the items tested as received. This report may only be reproduced in full.

If you have any questions regarding these test results, please feel free to call.

Sincerely,

Chris Pafford  
Project Manager

COMPANY: <b>Contour Engineering</b>		ADDRESS: <b>1455 Vaughan Rd. Kennesaw, GA</b>			ANALYSIS REQUESTED <b>VOLs (B260) SVOLs (B270) BTEX (B260) PAHs (B270) PCAB (60107)</b>										Visit our website <b>www.aesatlanta.com</b> for downloadable COCs and to log in to your AESAccess account.		Number of Containers
PHONE: <b>404-643-8795</b>		EMAIL: <b>tyoung10@contour.com</b>			PRESERVATION (see codes)										REMARKS		
SAMPLED BY: <b>Trey Young</b>		SIGNATURE: 															
#	SAMPLE ID	SAMPLED:		GRAB	COMPOSITE	MATRIX (see codes)											
		DATE	TIME														
1	B-1 14-15'	10/20/23	1020	✓		SD											5
2	B-1 6W		1045	✓		GW											4
3	B-2 12-13'		940	✓		SD											5
4	B-2 6W		955	✓		GW	✓										4
5	B-3 0-1'		835	✓		SD											1
6	B-3 11-12'		845	✓		SD	✓	✓									5
7	B-3 6W		900	✓		GW	✓	✓									4
8	B-4 0-1'		1100	✓		SD											1
9	B-4 7-8'		1105	✓		SD	✓	✓									5
10	B-4 6W		1140	✓		GW	✓	✓									4
11	Trap Blank					W											2
12																	
13																	
14																	

RELINQUISHED BY: <b>Trey Young</b>		DATE/TIME: <b>10/20/23 1355</b>		RECEIVED BY: 		DATE/TIME: <b>10-20-23 1339</b>	
SPECIAL INSTRUCTIONS/COMMENTS:		SHIPMENT METHOD OUT: <b>C</b> / <b>I</b> / <b>1</b> IN: <b>C</b> / <b>I</b> / <b>1</b> Client FedEx UPS US mail courier other: _____		PROJECT INFORMATION			
				PROJECT NAME: <b>Former Retail Petroleum Outlet + Service Station</b>			
				PROJECT #: <b>A23104.02027.000</b>			
				SITE ADDRESS: <b>890 Metetrans Memorial Hwy</b>			
				SEND REPORT TO: <b>Trey Young Jenette Henn</b>			
				INVOICE TO (IF DIFFERENT FROM ABOVE):			
				QUOTE #:			
				PO#:			
				REGULATORY PROGRAM (if any):			
				DATA PACKAGE: <input type="radio"/> I <input type="radio"/> II <input type="radio"/> III <input type="radio"/> IV <input type="radio"/> O			

**Client:** Contour Engineering  
**Project:** Former Retail Petroleum Outlet & Service Station  
**Lab ID:** 2310O18

**Case Narrative**

Volatiles Organic Compounds Analysis by Method 8260D:

Due to sample matrix, sample 2310O18-002A, & -003A required dilution during preparation and/or analysis resulting in elevated reporting limits.

M,p-xylene value for the QC samples 2310O18-002 MS/MSD is "E" qualified indicating estimated value over linear calibration range due to the level of target analyte present in the unspiked sample.

<b>Client:</b>	Contour Engineering	<b>Client Sample ID:</b>	B-1 4-15'
<b>Project Name:</b>	Former Retail Petroleum Outlet & Service Station	<b>Collection Date:</b>	10/20/2023 10:20:00 AM
<b>Lab ID:</b>	2310O18-001	<b>Matrix:</b>	Soil

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
<b>VOLATILE ORGANICS SW8260D</b>					<b>(SW5035)</b>			
Benzene	0.0018	0.0009		mg/Kg-dry	365351	1	10/24/2023 19:48	ZH
Toluene	BRL	0.0009		mg/Kg-dry	365351	1	10/24/2023 19:48	ZH
Ethylbenzene	0.0070	0.0009		mg/Kg-dry	365351	1	10/24/2023 19:48	ZH
m,p-Xylene	0.035	0.0018		mg/Kg-dry	365351	1	10/24/2023 19:48	ZH
o-Xylene	0.0022	0.0009		mg/Kg-dry	365351	1	10/24/2023 19:48	ZH
Methyl tert-butyl ether	BRL	0.0045		mg/Kg-dry	365351	1	10/24/2023 19:48	ZH
Surr: 4-Bromofluorobenzene	83.8	74.8-127		%REC	365351	1	10/24/2023 19:48	ZH
<b>POLYAROMATIC HYDROCARBONS SW8270E</b>					<b>(SW3546)</b>			
1-Methylnaphthalene	BRL	0.45		mg/Kg-dry	365127	1	10/24/2023 16:27	DS
2-Methylnaphthalene	BRL	0.45		mg/Kg-dry	365127	1	10/24/2023 16:27	DS
Acenaphthene	BRL	0.45		mg/Kg-dry	365127	1	10/24/2023 16:27	DS
Acenaphthylene	BRL	0.45		mg/Kg-dry	365127	1	10/24/2023 16:27	DS
Anthracene	BRL	0.45		mg/Kg-dry	365127	1	10/24/2023 16:27	DS
Benz(a)anthracene	BRL	0.45		mg/Kg-dry	365127	1	10/24/2023 16:27	DS
Benzo(a)pyrene	BRL	0.45		mg/Kg-dry	365127	1	10/24/2023 16:27	DS
Benzo(b)fluoranthene	BRL	0.45		mg/Kg-dry	365127	1	10/24/2023 16:27	DS
Benzo(g,h,i)perylene	BRL	0.45		mg/Kg-dry	365127	1	10/24/2023 16:27	DS
Benzo(k)fluoranthene	BRL	0.45		mg/Kg-dry	365127	1	10/24/2023 16:27	DS
Chrysene	BRL	0.45		mg/Kg-dry	365127	1	10/24/2023 16:27	DS
Dibenz(a,h)anthracene	BRL	0.45		mg/Kg-dry	365127	1	10/24/2023 16:27	DS
Fluoranthene	BRL	0.45		mg/Kg-dry	365127	1	10/24/2023 16:27	DS
Fluorene	BRL	0.45		mg/Kg-dry	365127	1	10/24/2023 16:27	DS
Indeno(1,2,3-cd)pyrene	BRL	0.45		mg/Kg-dry	365127	1	10/24/2023 16:27	DS
Naphthalene	BRL	0.45		mg/Kg-dry	365127	1	10/24/2023 16:27	DS
Phenanthrene	BRL	0.45		mg/Kg-dry	365127	1	10/24/2023 16:27	DS
Pyrene	BRL	0.45		mg/Kg-dry	365127	1	10/24/2023 16:27	DS
Surr: 2-Fluorobiphenyl	74.2	53.4-120		%REC	365127	1	10/24/2023 16:27	DS
Surr: 4-Terphenyl-d14	90.1	54.3-124		%REC	365127	1	10/24/2023 16:27	DS
Surr: Nitrobenzene-d5	78.3	49-118		%REC	365127	1	10/24/2023 16:27	DS
<b>PERCENT MOISTURE D2216</b>								
Percent Moisture	26.6	0		wt%	R529191	1	10/22/2023 00:00	JW

**Qualifiers:**

- \* Value exceeds maximum contaminant level
- BRL Below reporting limit
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- > Greater than Result value

- E Estimated (value above quantitation range)
- S Spike Recovery outside limits due to matrix
- Narr See case narrative
- F Analyzed in the lab which is a deviation from the method
- < Less than Result value
- J Estimated value detected below Reporting Limit

**Client:** Contour Engineering  
**Project Name:** Former Retail Petroleum Outlet & Service Station  
**Lab ID:** 2310O18-002

**Client Sample ID:** B-1 GW  
**Collection Date:** 10/20/2023 10:45:00 AM  
**Matrix:** Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
<b>VOLATILE ORGANICS SW8260D</b>					<b>(SW5030B)</b>			
Benzene	570	50		ug/L	365368	50	10/25/2023 06:07	ZH
Toluene	94	50		ug/L	365368	50	10/25/2023 06:07	ZH
Ethylbenzene	4800	50		ug/L	365368	50	10/25/2023 06:07	ZH
m,p-Xylene	16000	50		ug/L	365368	50	10/25/2023 06:07	ZH
o-Xylene	1300	50		ug/L	365368	50	10/25/2023 06:07	ZH
Methyl tert-butyl ether	BRL	250		ug/L	365368	50	10/25/2023 06:07	ZH
Surr: 4-Bromofluorobenzene	100	70-126		%REC	365368	50	10/25/2023 06:07	ZH
<b>PAHs by Microextraction SW8270E</b>					<b>(SW3511)</b>			
1-Methylnaphthalene	15	8.6		ug/L	365165	1	10/24/2023 17:47	DS
2-Methylnaphthalene	36	8.6		ug/L	365165	1	10/24/2023 17:47	DS
Acenaphthene	BRL	8.6		ug/L	365165	1	10/24/2023 17:47	DS
Acenaphthylene	BRL	8.6		ug/L	365165	1	10/24/2023 17:47	DS
Anthracene	BRL	8.6		ug/L	365165	1	10/24/2023 17:47	DS
Benz(a)anthracene	BRL	8.6		ug/L	365165	1	10/24/2023 17:47	DS
Benzo(a)pyrene	BRL	8.6		ug/L	365165	1	10/24/2023 17:47	DS
Benzo(b)fluoranthene	BRL	8.6		ug/L	365165	1	10/24/2023 17:47	DS
Benzo(g,h,i)perylene	BRL	8.6		ug/L	365165	1	10/24/2023 17:47	DS
Benzo(k)fluoranthene	BRL	8.6		ug/L	365165	1	10/24/2023 17:47	DS
Chrysene	BRL	8.6		ug/L	365165	1	10/24/2023 17:47	DS
Dibenz(a,h)anthracene	BRL	8.6		ug/L	365165	1	10/24/2023 17:47	DS
Fluoranthene	BRL	8.6		ug/L	365165	1	10/24/2023 17:47	DS
Fluorene	BRL	8.6		ug/L	365165	1	10/24/2023 17:47	DS
Indeno(1,2,3-cd)pyrene	BRL	8.6		ug/L	365165	1	10/24/2023 17:47	DS
Naphthalene	660	43		ug/L	365165	5	10/25/2023 12:14	DS
Phenanthrene	BRL	8.6		ug/L	365165	1	10/24/2023 17:47	DS
Pyrene	BRL	8.6		ug/L	365165	1	10/24/2023 17:47	DS
Surr: 2-Fluorobiphenyl	103	55.5-131		%REC	365165	1	10/24/2023 17:47	DS
Surr: 4-Terphenyl-d14	107	49.6-132		%REC	365165	1	10/24/2023 17:47	DS
Surr: Nitrobenzene-d5	112	57.5-130		%REC	365165	1	10/24/2023 17:47	DS

**Qualifiers:**

- \* Value exceeds maximum contaminant level
- BRL Below reporting limit
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- > Greater than Result value

- E Estimated (value above quantitation range)
- S Spike Recovery outside limits due to matrix
- Narr See case narrative
- F Analyzed in the lab which is a deviation from the method
- < Less than Result value
- J Estimated value detected below Reporting Limit

<b>Client:</b>	Contour Engineering	<b>Client Sample ID:</b>	B-2 12-13'
<b>Project Name:</b>	Former Retail Petroleum Outlet & Service Station	<b>Collection Date:</b>	10/20/2023 9:40:00 AM
<b>Lab ID:</b>	2310O18-003	<b>Matrix:</b>	Soil

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
<b>VOLATILE ORGANICS SW8260D</b>		<b>(SW5035)</b>						
Benzene	1.9	1.0		mg/Kg-dry	365379	1000	10/25/2023 12:04	ZH
Toluene	21	1.0		mg/Kg-dry	365379	1000	10/25/2023 12:04	ZH
Ethylbenzene	140	1.0		mg/Kg-dry	365379	1000	10/25/2023 12:04	ZH
m,p-Xylene	660	10		mg/Kg-dry	365379	5000	10/25/2023 10:56	ZH
o-Xylene	240	5.1		mg/Kg-dry	365379	5000	10/25/2023 10:56	ZH
Methyl tert-butyl ether	BRL	5.1		mg/Kg-dry	365379	1000	10/25/2023 12:04	ZH
Surr: 4-Bromofluorobenzene	103	74.8-127		%REC	365379	5000	10/25/2023 10:56	ZH
Surr: 4-Bromofluorobenzene	102	74.8-127		%REC	365379	1000	10/25/2023 12:04	ZH
<b>POLYAROMATIC HYDROCARBONS SW8270E</b>		<b>(SW3546)</b>						
1-Methylnaphthalene	2.1	0.48		mg/Kg-dry	365127	1	10/24/2023 16:53	DS
2-Methylnaphthalene	5.6	0.48		mg/Kg-dry	365127	1	10/24/2023 16:53	DS
Acenaphthene	BRL	0.48		mg/Kg-dry	365127	1	10/24/2023 16:53	DS
Acenaphthylene	BRL	0.48		mg/Kg-dry	365127	1	10/24/2023 16:53	DS
Anthracene	BRL	0.48		mg/Kg-dry	365127	1	10/24/2023 16:53	DS
Benz(a)anthracene	BRL	0.48		mg/Kg-dry	365127	1	10/24/2023 16:53	DS
Benzo(a)pyrene	BRL	0.48		mg/Kg-dry	365127	1	10/24/2023 16:53	DS
Benzo(b)fluoranthene	BRL	0.48		mg/Kg-dry	365127	1	10/24/2023 16:53	DS
Benzo(g,h,i)perylene	BRL	0.48		mg/Kg-dry	365127	1	10/24/2023 16:53	DS
Benzo(k)fluoranthene	BRL	0.48		mg/Kg-dry	365127	1	10/24/2023 16:53	DS
Chrysene	BRL	0.48		mg/Kg-dry	365127	1	10/24/2023 16:53	DS
Dibenz(a,h)anthracene	BRL	0.48		mg/Kg-dry	365127	1	10/24/2023 16:53	DS
Fluoranthene	BRL	0.48		mg/Kg-dry	365127	1	10/24/2023 16:53	DS
Fluorene	BRL	0.48		mg/Kg-dry	365127	1	10/24/2023 16:53	DS
Indeno(1,2,3-cd)pyrene	BRL	0.48		mg/Kg-dry	365127	1	10/24/2023 16:53	DS
Naphthalene	26	2.4		mg/Kg-dry	365127	5	10/25/2023 16:03	DS
Phenanthrene	BRL	0.48		mg/Kg-dry	365127	1	10/24/2023 16:53	DS
Pyrene	BRL	0.48		mg/Kg-dry	365127	1	10/24/2023 16:53	DS
Surr: 2-Fluorobiphenyl	81.7	53.4-120		%REC	365127	1	10/24/2023 16:53	DS
Surr: 4-Terphenyl-d14	88.2	54.3-124		%REC	365127	1	10/24/2023 16:53	DS
Surr: Nitrobenzene-d5	95.3	49-118		%REC	365127	1	10/24/2023 16:53	DS
<b>PERCENT MOISTURE D2216</b>								
Percent Moisture	31.1	0		wt%	R529191	1	10/22/2023 00:00	JW

**Qualifiers:**

- \* Value exceeds maximum contaminant level
- BRL Below reporting limit
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- > Greater than Result value

- E Estimated (value above quantitation range)
- S Spike Recovery outside limits due to matrix
- Narr See case narrative
- F Analyzed in the lab which is a deviation from the method
- < Less than Result value
- J Estimated value detected below Reporting Limit

**Client:** Contour Engineering  
**Project Name:** Former Retail Petroleum Outlet & Service Station  
**Lab ID:** 2310O18-004

**Client Sample ID:** B-2 GW  
**Collection Date:** 10/20/2023 9:55:00 AM  
**Matrix:** Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
<b>TCL VOLATILE ORGANICS SW8260D</b>				<b>(SW5030B)</b>				
1,1,1-Trichloroethane	BRL	5.0		ug/L	365203	1	10/22/2023 21:34	AV
1,1,2,2-Tetrachloroethane	BRL	5.0		ug/L	365203	1	10/22/2023 21:34	AV
1,1,2-Trichloroethane	BRL	5.0		ug/L	365203	1	10/22/2023 21:34	AV
1,1-Dichloroethane	BRL	5.0		ug/L	365203	1	10/22/2023 21:34	AV
1,1-Dichloroethene	BRL	5.0		ug/L	365203	1	10/22/2023 21:34	AV
1,2,4-Trichlorobenzene	BRL	5.0		ug/L	365203	1	10/22/2023 21:34	AV
1,2-Dibromo-3-chloropropane	BRL	5.0		ug/L	365203	1	10/22/2023 21:34	AV
1,2-Dibromoethane	BRL	5.0		ug/L	365203	1	10/22/2023 21:34	AV
1,2-Dichlorobenzene	BRL	5.0		ug/L	365203	1	10/22/2023 21:34	AV
1,2-Dichloroethane	BRL	5.0		ug/L	365203	1	10/22/2023 21:34	AV
1,2-Dichloropropane	BRL	5.0		ug/L	365203	1	10/22/2023 21:34	AV
1,3-Dichlorobenzene	BRL	5.0		ug/L	365203	1	10/22/2023 21:34	AV
1,4-Dichlorobenzene	BRL	5.0		ug/L	365203	1	10/22/2023 21:34	AV
2-Butanone	BRL	50		ug/L	365203	1	10/22/2023 21:34	AV
2-Hexanone	BRL	10		ug/L	365203	1	10/22/2023 21:34	AV
4-Methyl-2-pentanone	BRL	10		ug/L	365203	1	10/22/2023 21:34	AV
Acetone	84	50		ug/L	365203	1	10/22/2023 21:34	AV
Benzene	3500	250		ug/L	365203	50	10/24/2023 14:26	AV
Bromodichloromethane	BRL	5.0		ug/L	365203	1	10/22/2023 21:34	AV
Bromoform	BRL	5.0		ug/L	365203	1	10/22/2023 21:34	AV
Bromomethane	BRL	5.0		ug/L	365203	1	10/22/2023 21:34	AV
Carbon disulfide	BRL	5.0		ug/L	365203	1	10/22/2023 21:34	AV
Carbon tetrachloride	BRL	5.0		ug/L	365203	1	10/22/2023 21:34	AV
Chlorobenzene	BRL	5.0		ug/L	365203	1	10/22/2023 21:34	AV
Chloroethane	BRL	10		ug/L	365203	1	10/22/2023 21:34	AV
Chloroform	BRL	5.0		ug/L	365203	1	10/22/2023 21:34	AV
Chloromethane	BRL	10		ug/L	365203	1	10/22/2023 21:34	AV
cis-1,2-Dichloroethene	BRL	5.0		ug/L	365203	1	10/22/2023 21:34	AV
cis-1,3-Dichloropropene	BRL	5.0		ug/L	365203	1	10/22/2023 21:34	AV
Cyclohexane	BRL	5.0		ug/L	365203	1	10/22/2023 21:34	AV
Dibromochloromethane	BRL	5.0		ug/L	365203	1	10/22/2023 21:34	AV
Dichlorodifluoromethane	BRL	10		ug/L	365203	1	10/22/2023 21:34	AV
Ethylbenzene	9300	250		ug/L	365203	50	10/24/2023 14:26	AV
Freon-113	BRL	10		ug/L	365203	1	10/22/2023 21:34	AV
Isopropylbenzene	440	50		ug/L	365203	10	10/24/2023 14:02	AV
m,p-Xylene	39000	2500		ug/L	365203	500	10/25/2023 14:32	AV
Methyl acetate	BRL	5.0		ug/L	365203	1	10/22/2023 21:34	AV
Methyl tert-butyl ether	BRL	5.0		ug/L	365203	1	10/22/2023 21:34	AV
Methylcyclohexane	440	50		ug/L	365203	10	10/24/2023 14:02	AV
Methylene chloride	BRL	5.0		ug/L	365203	1	10/22/2023 21:34	AV
o-Xylene	9100	2500		ug/L	365203	500	10/25/2023 14:32	AV
Styrene	BRL	5.0		ug/L	365203	1	10/22/2023 21:34	AV
Tetrachloroethene	BRL	5.0		ug/L	365203	1	10/22/2023 21:34	AV
Toluene	2300	250		ug/L	365203	50	10/24/2023 14:26	AV
trans-1,2-Dichloroethene	BRL	5.0		ug/L	365203	1	10/22/2023 21:34	AV

**Qualifiers:**

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- BRL Below reporting limit
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- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- > Greater than Result value

- E Estimated (value above quantitation range)
- S Spike Recovery outside limits due to matrix
- Narr See case narrative
- F Analyzed in the lab which is a deviation from the method
- < Less than Result value
- J Estimated value detected below Reporting Limit

**Client:** Contour Engineering  
**Project Name:** Former Retail Petroleum Outlet & Service Station  
**Lab ID:** 2310O18-004

**Client Sample ID:** B-2 GW  
**Collection Date:** 10/20/2023 9:55:00 AM  
**Matrix:** Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
<b>TCL VOLATILE ORGANICS SW8260D</b>				<b>(SW5030B)</b>				
trans-1,3-Dichloropropene	BRL	5.0		ug/L	365203	1	10/22/2023 21:34	AV
Trichloroethene	BRL	5.0		ug/L	365203	1	10/22/2023 21:34	AV
Trichlorofluoromethane	BRL	5.0		ug/L	365203	1	10/22/2023 21:34	AV
Vinyl chloride	BRL	2.0		ug/L	365203	1	10/22/2023 21:34	AV
Surr: 4-Bromofluorobenzene	96.5	70-126		%REC	365203	500	10/25/2023 14:32	AV
Surr: 4-Bromofluorobenzene	100	70-126		%REC	365203	50	10/24/2023 14:26	AV
Surr: 4-Bromofluorobenzene	100	70-126		%REC	365203	10	10/24/2023 14:02	AV
Surr: 4-Bromofluorobenzene	103	70-126		%REC	365203	1	10/22/2023 21:34	AV
Surr: Dibromofluoromethane	96.6	77-121		%REC	365203	500	10/25/2023 14:32	AV
Surr: Dibromofluoromethane	96.8	77-121		%REC	365203	50	10/24/2023 14:26	AV
Surr: Dibromofluoromethane	97.9	77-121		%REC	365203	1	10/22/2023 21:34	AV
Surr: Dibromofluoromethane	98.5	77-121		%REC	365203	10	10/24/2023 14:02	AV
Surr: Toluene-d8	99.9	78.6-119		%REC	365203	500	10/25/2023 14:32	AV
Surr: Toluene-d8	100	78.6-119		%REC	365203	50	10/24/2023 14:26	AV
Surr: Toluene-d8	101	78.6-119		%REC	365203	1	10/22/2023 21:34	AV
Surr: Toluene-d8	100	78.6-119		%REC	365203	10	10/24/2023 14:02	AV
<b>PAHs by Microextraction SW8270E</b>				<b>(SW3511)</b>				
1-Methylnaphthalene	17	8.6		ug/L	365165	1	10/25/2023 11:50	DS
2-Methylnaphthalene	42	8.6		ug/L	365165	1	10/25/2023 11:50	DS
Acenaphthene	BRL	8.6		ug/L	365165	1	10/25/2023 11:50	DS
Acenaphthylene	BRL	8.6		ug/L	365165	1	10/25/2023 11:50	DS
Anthracene	BRL	8.6		ug/L	365165	1	10/25/2023 11:50	DS
Benz(a)anthracene	BRL	8.6		ug/L	365165	1	10/25/2023 11:50	DS
Benzo(a)pyrene	BRL	8.6		ug/L	365165	1	10/25/2023 11:50	DS
Benzo(b)fluoranthene	BRL	8.6		ug/L	365165	1	10/25/2023 11:50	DS
Benzo(g,h,i)perylene	BRL	8.6		ug/L	365165	1	10/25/2023 11:50	DS
Benzo(k)fluoranthene	BRL	8.6		ug/L	365165	1	10/25/2023 11:50	DS
Chrysene	BRL	8.6		ug/L	365165	1	10/25/2023 11:50	DS
Dibenz(a,h)anthracene	BRL	8.6		ug/L	365165	1	10/25/2023 11:50	DS
Fluoranthene	BRL	8.6		ug/L	365165	1	10/25/2023 11:50	DS
Fluorene	BRL	8.6		ug/L	365165	1	10/25/2023 11:50	DS
Indeno(1,2,3-cd)pyrene	BRL	8.6		ug/L	365165	1	10/25/2023 11:50	DS
Naphthalene	730	43		ug/L	365165	5	10/25/2023 15:31	DS
Phenanthrene	BRL	8.6		ug/L	365165	1	10/25/2023 11:50	DS
Pyrene	BRL	8.6		ug/L	365165	1	10/25/2023 11:50	DS
Surr: 2-Fluorobiphenyl	99.6	55.5-131		%REC	365165	1	10/25/2023 11:50	DS
Surr: 4-Terphenyl-d14	116	49.6-132		%REC	365165	1	10/25/2023 11:50	DS
Surr: Nitrobenzene-d5	103	57.5-130		%REC	365165	1	10/25/2023 11:50	DS

**Qualifiers:**

- \* Value exceeds maximum contaminant level
- BRL Below reporting limit
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- > Greater than Result value

- E Estimated (value above quantitation range)
- S Spike Recovery outside limits due to matrix
- Narr See case narrative
- F Analyzed in the lab which is a deviation from the method
- < Less than Result value
- J Estimated value detected below Reporting Limit



<b>Client:</b>	Contour Engineering	<b>Client Sample ID:</b>	B-3 0-1'
<b>Project Name:</b>	Former Retail Petroleum Outlet & Service Station	<b>Collection Date:</b>	10/20/2023 8:35:00 AM
<b>Lab ID:</b>	2310O18-005	<b>Matrix:</b>	Soil

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
<b>Total Mercury by SW7473</b>				<b>(SW7473)</b>				
Mercury	BRL	0.116		mg/Kg-dry	365309	1	10/25/2023 09:25	GR
<b>METALS, TOTAL SW6010D</b>				<b>(SW3050B)</b>				
Arsenic	4.06	1.95		mg/Kg-dry	365194	1	10/24/2023 15:15	TA
Barium	29.7	3.90		mg/Kg-dry	365194	1	10/24/2023 15:15	TA
Cadmium	BRL	1.95		mg/Kg-dry	365194	1	10/24/2023 15:15	TA
Chromium	123	1.95		mg/Kg-dry	365194	1	10/24/2023 15:15	TA
Lead	25.0	3.90		mg/Kg-dry	365194	1	10/24/2023 15:15	TA
Selenium	BRL	2.73		mg/Kg-dry	365194	1	10/24/2023 15:15	TA
Silver	BRL	1.95		mg/Kg-dry	365194	1	10/24/2023 15:15	TA
<b>PERCENT MOISTURE D2216</b>								
Percent Moisture	14.2	0		wt%	R529191	1	10/22/2023 00:00	JW

<b>Qualifiers:</b>	* Value exceeds maximum contaminant level	E Estimated (value above quantitation range)
	BRL Below reporting limit	S Spike Recovery outside limits due to matrix
	H Holding times for preparation or analysis exceeded	Narr See case narrative
	N Analyte not NELAC certified	F Analyzed in the lab which is a deviation from the method
	B Analyte detected in the associated method blank	< Less than Result value
	> Greater than Result value	J Estimated value detected below Reporting Limit

**Client:** Contour Engineering  
**Project Name:** Former Retail Petroleum Outlet & Service Station  
**Lab ID:** 2310O18-006

**Client Sample ID:** B-3 11-12'  
**Collection Date:** 10/20/2023 8:45:00 AM  
**Matrix:** Soil

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
<b>TCL-SEMIVOLATILE ORGANICS SW8270E</b>					<b>(SW3550C)</b>			
1,1'-Biphenyl	BRL	0.47		mg/Kg-dry	365158	1	10/25/2023 14:48	NH
2,4,5-Trichlorophenol	BRL	2.4		mg/Kg-dry	365158	1	10/25/2023 14:48	NH
2,4,6-Trichlorophenol	BRL	0.47		mg/Kg-dry	365158	1	10/25/2023 14:48	NH
2,4-Dichlorophenol	BRL	0.47		mg/Kg-dry	365158	1	10/25/2023 14:48	NH
2,4-Dimethylphenol	BRL	0.47		mg/Kg-dry	365158	1	10/25/2023 14:48	NH
2,4-Dinitrophenol	BRL	2.4		mg/Kg-dry	365158	1	10/25/2023 14:48	NH
2,4-Dinitrotoluene	BRL	0.47		mg/Kg-dry	365158	1	10/25/2023 14:48	NH
2,6-Dinitrotoluene	BRL	0.47		mg/Kg-dry	365158	1	10/25/2023 14:48	NH
2-Chloronaphthalene	BRL	0.47		mg/Kg-dry	365158	1	10/25/2023 14:48	NH
2-Chlorophenol	BRL	0.47		mg/Kg-dry	365158	1	10/25/2023 14:48	NH
2-Methylnaphthalene	BRL	0.47		mg/Kg-dry	365158	1	10/25/2023 14:48	NH
2-Methylphenol	BRL	0.47		mg/Kg-dry	365158	1	10/25/2023 14:48	NH
2-Nitroaniline	BRL	2.4		mg/Kg-dry	365158	1	10/25/2023 14:48	NH
2-Nitrophenol	BRL	0.47		mg/Kg-dry	365158	1	10/25/2023 14:48	NH
3,3'-Dichlorobenzidine	BRL	0.96		mg/Kg-dry	365158	1	10/25/2023 14:48	NH
3-Nitroaniline	BRL	2.4		mg/Kg-dry	365158	1	10/25/2023 14:48	NH
4,6-Dinitro-2-methylphenol	BRL	2.4		mg/Kg-dry	365158	1	10/25/2023 14:48	NH
4-Bromophenyl phenyl ether	BRL	0.47		mg/Kg-dry	365158	1	10/25/2023 14:48	NH
4-Chloro-3-methylphenol	BRL	0.47		mg/Kg-dry	365158	1	10/25/2023 14:48	NH
4-Chloroaniline	BRL	0.47		mg/Kg-dry	365158	1	10/25/2023 14:48	NH
4-Chlorophenyl phenyl ether	BRL	0.47		mg/Kg-dry	365158	1	10/25/2023 14:48	NH
4-Methylphenol	BRL	0.47		mg/Kg-dry	365158	1	10/25/2023 14:48	NH
4-Nitroaniline	BRL	2.4		mg/Kg-dry	365158	1	10/25/2023 14:48	NH
4-Nitrophenol	BRL	2.4		mg/Kg-dry	365158	1	10/25/2023 14:48	NH
Acenaphthene	BRL	0.47		mg/Kg-dry	365158	1	10/25/2023 14:48	NH
Acenaphthylene	BRL	0.47		mg/Kg-dry	365158	1	10/25/2023 14:48	NH
Acetophenone	BRL	0.47		mg/Kg-dry	365158	1	10/25/2023 14:48	NH
Anthracene	BRL	0.47		mg/Kg-dry	365158	1	10/25/2023 14:48	NH
Atrazine	BRL	0.47		mg/Kg-dry	365158	1	10/25/2023 14:48	NH
Benz(a)anthracene	BRL	0.47		mg/Kg-dry	365158	1	10/25/2023 14:48	NH
Benzaldehyde	BRL	0.47		mg/Kg-dry	365158	1	10/25/2023 14:48	NH
Benzo(a)pyrene	BRL	0.47		mg/Kg-dry	365158	1	10/25/2023 14:48	NH
Benzo(b)fluoranthene	BRL	0.47		mg/Kg-dry	365158	1	10/25/2023 14:48	NH
Benzo(g,h,i)perylene	BRL	0.47		mg/Kg-dry	365158	1	10/25/2023 14:48	NH
Benzo(k)fluoranthene	BRL	0.47		mg/Kg-dry	365158	1	10/25/2023 14:48	NH
Bis(2-chloroethoxy)methane	BRL	0.47		mg/Kg-dry	365158	1	10/25/2023 14:48	NH
Bis(2-chloroethyl)ether	BRL	0.47		mg/Kg-dry	365158	1	10/25/2023 14:48	NH
Bis(2-chloroisopropyl)ether	BRL	0.47		mg/Kg-dry	365158	1	10/25/2023 14:48	NH
Bis(2-ethylhexyl)phthalate	BRL	0.47		mg/Kg-dry	365158	1	10/25/2023 14:48	NH
Butyl benzyl phthalate	BRL	0.47		mg/Kg-dry	365158	1	10/25/2023 14:48	NH
Caprolactam	BRL	0.47		mg/Kg-dry	365158	1	10/25/2023 14:48	NH
Carbazole	BRL	0.47		mg/Kg-dry	365158	1	10/25/2023 14:48	NH
Chrysene	BRL	0.47		mg/Kg-dry	365158	1	10/25/2023 14:48	NH
Di-n-butyl phthalate	BRL	0.47		mg/Kg-dry	365158	1	10/25/2023 14:48	NH
Di-n-octyl phthalate	BRL	0.47		mg/Kg-dry	365158	1	10/25/2023 14:48	NH

**Qualifiers:**

- \* Value exceeds maximum contaminant level
- BRL Below reporting limit
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- > Greater than Result value

- E Estimated (value above quantitation range)
- S Spike Recovery outside limits due to matrix
- Narr See case narrative
- F Analyzed in the lab which is a deviation from the method
- < Less than Result value
- J Estimated value detected below Reporting Limit

**Client:** Contour Engineering  
**Project Name:** Former Retail Petroleum Outlet & Service Station  
**Lab ID:** 2310O18-006

**Client Sample ID:** B-3 11-12'  
**Collection Date:** 10/20/2023 8:45:00 AM  
**Matrix:** Soil

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
<b>TCL-SEMIVOLATILE ORGANICS SW8270E</b>		<b>(SW3550C)</b>						
Dibenz(a,h)anthracene	BRL	0.47		mg/Kg-dry	365158	1	10/25/2023 14:48	NH
Dibenzofuran	BRL	0.47		mg/Kg-dry	365158	1	10/25/2023 14:48	NH
Diethyl phthalate	BRL	0.47		mg/Kg-dry	365158	1	10/25/2023 14:48	NH
Dimethyl phthalate	BRL	0.47		mg/Kg-dry	365158	1	10/25/2023 14:48	NH
Fluoranthene	BRL	0.47		mg/Kg-dry	365158	1	10/25/2023 14:48	NH
Fluorene	BRL	0.47		mg/Kg-dry	365158	1	10/25/2023 14:48	NH
Hexachlorobenzene	BRL	0.47		mg/Kg-dry	365158	1	10/25/2023 14:48	NH
Hexachlorobutadiene	BRL	0.47		mg/Kg-dry	365158	1	10/25/2023 14:48	NH
Hexachlorocyclopentadiene	BRL	0.95		mg/Kg-dry	365158	1	10/25/2023 14:48	NH
Hexachloroethane	BRL	0.47		mg/Kg-dry	365158	1	10/25/2023 14:48	NH
Indeno(1,2,3-cd)pyrene	BRL	0.47		mg/Kg-dry	365158	1	10/25/2023 14:48	NH
Isophorone	BRL	0.47		mg/Kg-dry	365158	1	10/25/2023 14:48	NH
N-Nitrosodi-n-propylamine	BRL	0.47		mg/Kg-dry	365158	1	10/25/2023 14:48	NH
N-Nitrosodiphenylamine	BRL	0.47		mg/Kg-dry	365158	1	10/25/2023 14:48	NH
Naphthalene	BRL	0.47		mg/Kg-dry	365158	1	10/25/2023 14:48	NH
Nitrobenzene	BRL	0.47		mg/Kg-dry	365158	1	10/25/2023 14:48	NH
Pentachlorophenol	BRL	2.4		mg/Kg-dry	365158	1	10/25/2023 14:48	NH
Phenanthrene	BRL	0.47		mg/Kg-dry	365158	1	10/25/2023 14:48	NH
Phenol	BRL	0.47		mg/Kg-dry	365158	1	10/25/2023 14:48	NH
Pyrene	BRL	0.47		mg/Kg-dry	365158	1	10/25/2023 14:48	NH
Surr: 2,4,6-Tribromophenol	96.8	45.5-127		%REC	365158	1	10/25/2023 14:48	NH
Surr: 2-Fluorobiphenyl	75.9	54.6-120		%REC	365158	1	10/25/2023 14:48	NH
Surr: 2-Fluorophenol	57.2	44-120		%REC	365158	1	10/25/2023 14:48	NH
Surr: 4-Terphenyl-d14	86	54-120		%REC	365158	1	10/25/2023 14:48	NH
Surr: Nitrobenzene-d5	52.1	45-120		%REC	365158	1	10/25/2023 14:48	NH
Surr: Phenol-d5	54	46.5-120		%REC	365158	1	10/25/2023 14:48	NH
<b>TCL VOLATILE ORGANICS SW8260D</b>		<b>(SW5035)</b>						
1,1,1-Trichloroethane	BRL	0.0049		mg/Kg-dry	365340	1	10/24/2023 19:55	RC
1,1,2,2-Tetrachloroethane	BRL	0.0049		mg/Kg-dry	365340	1	10/24/2023 19:55	RC
1,1,2-Trichloroethane	BRL	0.0049		mg/Kg-dry	365340	1	10/24/2023 19:55	RC
1,1-Dichloroethane	BRL	0.0049		mg/Kg-dry	365340	1	10/24/2023 19:55	RC
1,1-Dichloroethene	BRL	0.0049		mg/Kg-dry	365340	1	10/24/2023 19:55	RC
1,2,4-Trichlorobenzene	BRL	0.0049		mg/Kg-dry	365340	1	10/24/2023 19:55	RC
1,2-Dibromo-3-chloropropane	BRL	0.0049		mg/Kg-dry	365340	1	10/24/2023 19:55	RC
1,2-Dibromoethane	BRL	0.0049		mg/Kg-dry	365340	1	10/24/2023 19:55	RC
1,2-Dichlorobenzene	BRL	0.0049		mg/Kg-dry	365340	1	10/24/2023 19:55	RC
1,2-Dichloroethane	BRL	0.0049		mg/Kg-dry	365340	1	10/24/2023 19:55	RC
1,2-Dichloropropane	BRL	0.0049		mg/Kg-dry	365340	1	10/24/2023 19:55	RC
1,3-Dichlorobenzene	BRL	0.0049		mg/Kg-dry	365340	1	10/24/2023 19:55	RC
1,4-Dichlorobenzene	BRL	0.0049		mg/Kg-dry	365340	1	10/24/2023 19:55	RC
2-Butanone	BRL	0.049		mg/Kg-dry	365340	1	10/24/2023 19:55	RC
2-Hexanone	BRL	0.0097		mg/Kg-dry	365340	1	10/24/2023 19:55	RC
4-Methyl-2-pentanone	BRL	0.0097		mg/Kg-dry	365340	1	10/24/2023 19:55	RC
Acetone	BRL	0.097		mg/Kg-dry	365340	1	10/24/2023 19:55	RC

**Qualifiers:**

- \* Value exceeds maximum contaminant level
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- Narr See case narrative
- F Analyzed in the lab which is a deviation from the method
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**Client:** Contour Engineering  
**Project Name:** Former Retail Petroleum Outlet & Service Station  
**Lab ID:** 2310O18-006

**Client Sample ID:** B-3 11-12'  
**Collection Date:** 10/20/2023 8:45:00 AM  
**Matrix:** Soil

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
<b>TCL VOLATILE ORGANICS SW8260D</b>			<b>(SW5035)</b>					
Benzene	0.049	0.0049		mg/Kg-dry	365340	1	10/24/2023 19:55	RC
Bromodichloromethane	BRL	0.0049		mg/Kg-dry	365340	1	10/24/2023 19:55	RC
Bromoform	BRL	0.0049		mg/Kg-dry	365340	1	10/24/2023 19:55	RC
Bromomethane	BRL	0.0049		mg/Kg-dry	365340	1	10/24/2023 19:55	RC
Carbon disulfide	BRL	0.0097		mg/Kg-dry	365340	1	10/24/2023 19:55	RC
Carbon tetrachloride	BRL	0.0049		mg/Kg-dry	365340	1	10/24/2023 19:55	RC
Chlorobenzene	BRL	0.0049		mg/Kg-dry	365340	1	10/24/2023 19:55	RC
Chloroethane	BRL	0.0097		mg/Kg-dry	365340	1	10/24/2023 19:55	RC
Chloroform	BRL	0.0049		mg/Kg-dry	365340	1	10/24/2023 19:55	RC
Chloromethane	BRL	0.0097		mg/Kg-dry	365340	1	10/24/2023 19:55	RC
cis-1,2-Dichloroethene	BRL	0.0049		mg/Kg-dry	365340	1	10/24/2023 19:55	RC
cis-1,3-Dichloropropene	BRL	0.0049		mg/Kg-dry	365340	1	10/24/2023 19:55	RC
Cyclohexane	BRL	0.0049		mg/Kg-dry	365340	1	10/24/2023 19:55	RC
Dibromochloromethane	BRL	0.0049		mg/Kg-dry	365340	1	10/24/2023 19:55	RC
Dichlorodifluoromethane	BRL	0.0097		mg/Kg-dry	365340	1	10/24/2023 19:55	RC
Ethylbenzene	0.053	0.0049		mg/Kg-dry	365340	1	10/24/2023 19:55	RC
Freon-113	BRL	0.0097		mg/Kg-dry	365340	1	10/24/2023 19:55	RC
Isopropylbenzene	BRL	0.0049		mg/Kg-dry	365340	1	10/24/2023 19:55	RC
m,p-Xylene	0.18	0.0049		mg/Kg-dry	365340	1	10/24/2023 19:55	RC
Methyl acetate	BRL	0.0049		mg/Kg-dry	365340	1	10/24/2023 19:55	RC
Methyl tert-butyl ether	BRL	0.0049		mg/Kg-dry	365340	1	10/24/2023 19:55	RC
Methylcyclohexane	BRL	0.0049		mg/Kg-dry	365340	1	10/24/2023 19:55	RC
Methylene chloride	BRL	0.019		mg/Kg-dry	365340	1	10/24/2023 19:55	RC
o-Xylene	0.058	0.0049		mg/Kg-dry	365340	1	10/24/2023 19:55	RC
Styrene	BRL	0.0049		mg/Kg-dry	365340	1	10/24/2023 19:55	RC
Tetrachloroethene	BRL	0.0049		mg/Kg-dry	365340	1	10/24/2023 19:55	RC
Toluene	BRL	0.0049		mg/Kg-dry	365340	1	10/24/2023 19:55	RC
trans-1,2-Dichloroethene	BRL	0.0049		mg/Kg-dry	365340	1	10/24/2023 19:55	RC
trans-1,3-Dichloropropene	BRL	0.0049		mg/Kg-dry	365340	1	10/24/2023 19:55	RC
Trichloroethene	BRL	0.0049		mg/Kg-dry	365340	1	10/24/2023 19:55	RC
Trichlorofluoromethane	BRL	0.0049		mg/Kg-dry	365340	1	10/24/2023 19:55	RC
Vinyl chloride	BRL	0.0097		mg/Kg-dry	365340	1	10/24/2023 19:55	RC
Surr: 4-Bromofluorobenzene	106	65.7-125		%REC	365340	1	10/24/2023 19:55	RC
Surr: Dibromofluoromethane	95	74.3-126		%REC	365340	1	10/24/2023 19:55	RC
Surr: Toluene-d8	100	72.7-124		%REC	365340	1	10/24/2023 19:55	RC

**PERCENT MOISTURE D2216**

Percent Moisture	30.4	0		wt%	R529191	1	10/22/2023 00:00	JW
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- E Estimated (value above quantitation range)
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- < Less than Result value
- J Estimated value detected below Reporting Limit

**Client:** Contour Engineering  
**Project Name:** Former Retail Petroleum Outlet & Service Station  
**Lab ID:** 2310O18-007

**Client Sample ID:** B-3 GW  
**Collection Date:** 10/20/2023 9:00:00 AM  
**Matrix:** Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
<b>TCL-SEMIVOLATILE ORGANICS SW8270E</b>					<b>(SW3510C)</b>			
1,1'-Biphenyl	BRL	10		ug/L	365086	1	10/23/2023 17:43	NH
2,4,5-Trichlorophenol	BRL	25		ug/L	365086	1	10/23/2023 17:43	NH
2,4,6-Trichlorophenol	BRL	10		ug/L	365086	1	10/23/2023 17:43	NH
2,4-Dichlorophenol	BRL	10		ug/L	365086	1	10/23/2023 17:43	NH
2,4-Dimethylphenol	BRL	10		ug/L	365086	1	10/23/2023 17:43	NH
2,4-Dinitrophenol	BRL	25		ug/L	365086	1	10/23/2023 17:43	NH
2,4-Dinitrotoluene	BRL	10		ug/L	365086	1	10/23/2023 17:43	NH
2,6-Dinitrotoluene	BRL	10		ug/L	365086	1	10/23/2023 17:43	NH
2-Chloronaphthalene	BRL	10		ug/L	365086	1	10/23/2023 17:43	NH
2-Chlorophenol	BRL	10		ug/L	365086	1	10/23/2023 17:43	NH
2-Methylnaphthalene	11	10		ug/L	365086	1	10/23/2023 17:43	NH
2-Methylphenol	BRL	10		ug/L	365086	1	10/23/2023 17:43	NH
2-Nitroaniline	BRL	25		ug/L	365086	1	10/23/2023 17:43	NH
2-Nitrophenol	BRL	10		ug/L	365086	1	10/23/2023 17:43	NH
3,3'-Dichlorobenzidine	BRL	10		ug/L	365086	1	10/23/2023 17:43	NH
3-Nitroaniline	BRL	25		ug/L	365086	1	10/23/2023 17:43	NH
4,6-Dinitro-2-methylphenol	BRL	25		ug/L	365086	1	10/23/2023 17:43	NH
4-Bromophenyl phenyl ether	BRL	10		ug/L	365086	1	10/23/2023 17:43	NH
4-Chloro-3-methylphenol	BRL	10		ug/L	365086	1	10/23/2023 17:43	NH
4-Chloroaniline	BRL	10		ug/L	365086	1	10/23/2023 17:43	NH
4-Chlorophenyl phenyl ether	BRL	10		ug/L	365086	1	10/23/2023 17:43	NH
4-Methylphenol	BRL	10		ug/L	365086	1	10/23/2023 17:43	NH
4-Nitroaniline	BRL	25		ug/L	365086	1	10/23/2023 17:43	NH
4-Nitrophenol	BRL	25		ug/L	365086	1	10/23/2023 17:43	NH
Acenaphthene	BRL	10		ug/L	365086	1	10/23/2023 17:43	NH
Acenaphthylene	BRL	10		ug/L	365086	1	10/23/2023 17:43	NH
Acetophenone	330	50		ug/L	365086	5	10/24/2023 13:08	NH
Anthracene	BRL	10		ug/L	365086	1	10/23/2023 17:43	NH
Atrazine	BRL	10		ug/L	365086	1	10/23/2023 17:43	NH
Benz(a)anthracene	BRL	10		ug/L	365086	1	10/23/2023 17:43	NH
Benzaldehyde	BRL	10		ug/L	365086	1	10/23/2023 17:43	NH
Benzo(a)pyrene	BRL	10		ug/L	365086	1	10/23/2023 17:43	NH
Benzo(b)fluoranthene	BRL	10		ug/L	365086	1	10/23/2023 17:43	NH
Benzo(g,h,i)perylene	BRL	10		ug/L	365086	1	10/23/2023 17:43	NH
Benzo(k)fluoranthene	BRL	10		ug/L	365086	1	10/23/2023 17:43	NH
Bis(2-chloroethoxy)methane	BRL	10		ug/L	365086	1	10/23/2023 17:43	NH
Bis(2-chloroethyl)ether	BRL	10		ug/L	365086	1	10/23/2023 17:43	NH
Bis(2-chloroisopropyl)ether	BRL	10		ug/L	365086	1	10/23/2023 17:43	NH
Bis(2-ethylhexyl)phthalate	BRL	10		ug/L	365086	1	10/23/2023 17:43	NH
Butyl benzyl phthalate	BRL	10		ug/L	365086	1	10/23/2023 17:43	NH
Caprolactam	BRL	10		ug/L	365086	1	10/23/2023 17:43	NH
Carbazole	BRL	10		ug/L	365086	1	10/23/2023 17:43	NH
Chrysene	BRL	10		ug/L	365086	1	10/23/2023 17:43	NH
Di-n-butyl phthalate	BRL	10		ug/L	365086	1	10/23/2023 17:43	NH
Di-n-octyl phthalate	BRL	10		ug/L	365086	1	10/23/2023 17:43	NH

**Qualifiers:**

- \* Value exceeds maximum contaminant level
- BRL Below reporting limit
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- F Analyzed in the lab which is a deviation from the method
- < Less than Result value
- J Estimated value detected below Reporting Limit

**Client:** Contour Engineering  
**Project Name:** Former Retail Petroleum Outlet & Service Station  
**Lab ID:** 2310O18-007

**Client Sample ID:** B-3 GW  
**Collection Date:** 10/20/2023 9:00:00 AM  
**Matrix:** Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
<b>TCL-SEMIVOLATILE ORGANICS SW8270E</b>		<b>(SW3510C)</b>						
Dibenz(a,h)anthracene	BRL	10		ug/L	365086	1	10/23/2023 17:43	NH
Dibenzofuran	BRL	10		ug/L	365086	1	10/23/2023 17:43	NH
Diethyl phthalate	BRL	10		ug/L	365086	1	10/23/2023 17:43	NH
Dimethyl phthalate	BRL	10		ug/L	365086	1	10/23/2023 17:43	NH
Fluoranthene	BRL	10		ug/L	365086	1	10/23/2023 17:43	NH
Fluorene	BRL	10		ug/L	365086	1	10/23/2023 17:43	NH
Hexachlorobenzene	BRL	10		ug/L	365086	1	10/23/2023 17:43	NH
Hexachlorobutadiene	BRL	10		ug/L	365086	1	10/23/2023 17:43	NH
Hexachlorocyclopentadiene	BRL	10		ug/L	365086	1	10/23/2023 17:43	NH
Hexachloroethane	BRL	10		ug/L	365086	1	10/23/2023 17:43	NH
Indeno(1,2,3-cd)pyrene	BRL	10		ug/L	365086	1	10/23/2023 17:43	NH
Isophorone	BRL	10		ug/L	365086	1	10/23/2023 17:43	NH
N-Nitrosodi-n-propylamine	BRL	10		ug/L	365086	1	10/23/2023 17:43	NH
N-Nitrosodiphenylamine	BRL	10		ug/L	365086	1	10/23/2023 17:43	NH
Naphthalene	330	50		ug/L	365086	5	10/24/2023 13:08	NH
Nitrobenzene	BRL	10		ug/L	365086	1	10/23/2023 17:43	NH
Pentachlorophenol	BRL	25		ug/L	365086	1	10/23/2023 17:43	NH
Phenanthrene	BRL	10		ug/L	365086	1	10/23/2023 17:43	NH
Phenol	BRL	10		ug/L	365086	1	10/23/2023 17:43	NH
Pyrene	BRL	10		ug/L	365086	1	10/23/2023 17:43	NH
Surr: 2,4,6-Tribromophenol	58.5	48-133		%REC	365086	1	10/23/2023 17:43	NH
Surr: 2-Fluorobiphenyl	48	46.7-118		%REC	365086	1	10/23/2023 17:43	NH
Surr: 2-Fluorophenol	2.37	28.5-120	S	%REC	365086	1	10/23/2023 17:43	NH
Surr: 4-Terphenyl-d14	48.4	45.2-127		%REC	365086	1	10/23/2023 17:43	NH
Surr: Nitrobenzene-d5	97.7	40.9-119		%REC	365086	1	10/23/2023 17:43	NH
Surr: Phenol-d5	84.6	20-63	S	%REC	365086	1	10/23/2023 17:43	NH
<b>TCL VOLATILE ORGANICS SW8260D</b>		<b>(SW5030B)</b>						
1,1,1-Trichloroethane	BRL	5.0		ug/L	365203	1	10/22/2023 21:10	AV
1,1,2,2-Tetrachloroethane	BRL	5.0		ug/L	365203	1	10/22/2023 21:10	AV
1,1,2-Trichloroethane	BRL	5.0		ug/L	365203	1	10/22/2023 21:10	AV
1,1-Dichloroethane	BRL	5.0		ug/L	365203	1	10/22/2023 21:10	AV
1,1-Dichloroethene	BRL	5.0		ug/L	365203	1	10/22/2023 21:10	AV
1,2,4-Trichlorobenzene	BRL	5.0		ug/L	365203	1	10/22/2023 21:10	AV
1,2-Dibromo-3-chloropropane	BRL	5.0		ug/L	365203	1	10/22/2023 21:10	AV
1,2-Dibromoethane	BRL	5.0		ug/L	365203	1	10/22/2023 21:10	AV
1,2-Dichlorobenzene	BRL	5.0		ug/L	365203	1	10/22/2023 21:10	AV
1,2-Dichloroethane	300	50		ug/L	365203	10	10/24/2023 12:03	AV
1,2-Dichloropropane	BRL	5.0		ug/L	365203	1	10/22/2023 21:10	AV
1,3-Dichlorobenzene	BRL	5.0		ug/L	365203	1	10/22/2023 21:10	AV
1,4-Dichlorobenzene	BRL	5.0		ug/L	365203	1	10/22/2023 21:10	AV
2-Butanone	5300	2500		ug/L	365203	50	10/24/2023 12:27	AV
2-Hexanone	1300	500		ug/L	365203	50	10/24/2023 12:27	AV
4-Methyl-2-pentanone	520	100		ug/L	365203	10	10/24/2023 12:03	AV
Acetone	5000	2500		ug/L	365203	50	10/24/2023 12:27	AV

**Qualifiers:**

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- B Analyte detected in the associated method blank
- > Greater than Result value

- E Estimated (value above quantitation range)
- S Spike Recovery outside limits due to matrix
- Narr See case narrative
- F Analyzed in the lab which is a deviation from the method
- < Less than Result value
- J Estimated value detected below Reporting Limit

**Client:** Contour Engineering  
**Project Name:** Former Retail Petroleum Outlet & Service Station  
**Lab ID:** 2310O18-007

**Client Sample ID:** B-3 GW  
**Collection Date:** 10/20/2023 9:00:00 AM  
**Matrix:** Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
<b>TCL VOLATILE ORGANICS SW8260D</b>				<b>(SW5030B)</b>				
Benzene	5600	250		ug/L	365203	50	10/24/2023 12:27	AV
Bromodichloromethane	BRL	5.0		ug/L	365203	1	10/22/2023 21:10	AV
Bromoform	BRL	5.0		ug/L	365203	1	10/22/2023 21:10	AV
Bromomethane	BRL	5.0		ug/L	365203	1	10/22/2023 21:10	AV
Carbon disulfide	BRL	5.0		ug/L	365203	1	10/22/2023 21:10	AV
Carbon tetrachloride	BRL	5.0		ug/L	365203	1	10/22/2023 21:10	AV
Chlorobenzene	BRL	5.0		ug/L	365203	1	10/22/2023 21:10	AV
Chloroethane	BRL	10		ug/L	365203	1	10/22/2023 21:10	AV
Chloroform	BRL	5.0		ug/L	365203	1	10/22/2023 21:10	AV
Chloromethane	BRL	10		ug/L	365203	1	10/22/2023 21:10	AV
cis-1,2-Dichloroethene	BRL	5.0		ug/L	365203	1	10/22/2023 21:10	AV
cis-1,3-Dichloropropene	BRL	5.0		ug/L	365203	1	10/22/2023 21:10	AV
Cyclohexane	310	250		ug/L	365203	50	10/24/2023 12:27	AV
Dibromochloromethane	BRL	5.0		ug/L	365203	1	10/22/2023 21:10	AV
Dichlorodifluoromethane	BRL	10		ug/L	365203	1	10/22/2023 21:10	AV
Ethylbenzene	4800	250		ug/L	365203	50	10/24/2023 12:27	AV
Freon-113	BRL	10		ug/L	365203	1	10/22/2023 21:10	AV
Isopropylbenzene	160	5.0		ug/L	365203	1	10/22/2023 21:10	AV
m,p-Xylene	16000	250		ug/L	365203	50	10/24/2023 12:27	AV
Methyl acetate	BRL	5.0		ug/L	365203	1	10/22/2023 21:10	AV
Methyl tert-butyl ether	BRL	5.0		ug/L	365203	1	10/22/2023 21:10	AV
Methylcyclohexane	65	5.0		ug/L	365203	1	10/22/2023 21:10	AV
Methylene chloride	BRL	5.0		ug/L	365203	1	10/22/2023 21:10	AV
o-Xylene	4700	250		ug/L	365203	50	10/24/2023 12:27	AV
Styrene	BRL	5.0		ug/L	365203	1	10/22/2023 21:10	AV
Tetrachloroethene	BRL	5.0		ug/L	365203	1	10/22/2023 21:10	AV
Toluene	67	5.0		ug/L	365203	1	10/22/2023 21:10	AV
trans-1,2-Dichloroethene	BRL	5.0		ug/L	365203	1	10/22/2023 21:10	AV
trans-1,3-Dichloropropene	BRL	5.0		ug/L	365203	1	10/22/2023 21:10	AV
Trichloroethene	BRL	5.0		ug/L	365203	1	10/22/2023 21:10	AV
Trichlorofluoromethane	BRL	5.0		ug/L	365203	1	10/22/2023 21:10	AV
Vinyl chloride	BRL	2.0		ug/L	365203	1	10/22/2023 21:10	AV
Surr: 4-Bromofluorobenzene	100	70-126		%REC	365203	50	10/24/2023 12:27	AV
Surr: 4-Bromofluorobenzene	102	70-126		%REC	365203	10	10/24/2023 12:03	AV
Surr: 4-Bromofluorobenzene	105	70-126		%REC	365203	1	10/22/2023 21:10	AV
Surr: Dibromofluoromethane	97.1	77-121		%REC	365203	50	10/24/2023 12:27	AV
Surr: Dibromofluoromethane	93.4	77-121		%REC	365203	1	10/22/2023 21:10	AV
Surr: Dibromofluoromethane	97.6	77-121		%REC	365203	10	10/24/2023 12:03	AV
Surr: Toluene-d8	99.5	78.6-119		%REC	365203	50	10/24/2023 12:27	AV
Surr: Toluene-d8	102	78.6-119		%REC	365203	10	10/24/2023 12:03	AV
Surr: Toluene-d8	102	78.6-119		%REC	365203	1	10/22/2023 21:10	AV

**Qualifiers:**

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- B Analyte detected in the associated method blank
- > Greater than Result value

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- S Spike Recovery outside limits due to matrix
- Narr See case narrative
- F Analyzed in the lab which is a deviation from the method
- < Less than Result value
- J Estimated value detected below Reporting Limit

<b>Client:</b>	Contour Engineering	<b>Client Sample ID:</b>	B-4 0-1'
<b>Project Name:</b>	Former Retail Petroleum Outlet & Service Station	<b>Collection Date:</b>	10/20/2023 11:00:00 AM
<b>Lab ID:</b>	2310O18-008	<b>Matrix:</b>	Soil

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
<b>Total Mercury by SW7473</b>				<b>(SW7473)</b>				
Mercury	BRL	0.143		mg/Kg-dry	365309	1	10/25/2023 09:34	GR
<b>METALS, TOTAL SW6010D</b>				<b>(SW3050B)</b>				
Arsenic	5.29	2.56		mg/Kg-dry	365194	1	10/24/2023 15:18	TA
Barium	23.1	5.12		mg/Kg-dry	365194	1	10/24/2023 15:18	TA
Cadmium	BRL	2.56		mg/Kg-dry	365194	1	10/24/2023 15:18	TA
Chromium	93.3	2.56		mg/Kg-dry	365194	1	10/24/2023 15:18	TA
Lead	24.7	5.12		mg/Kg-dry	365194	1	10/24/2023 15:18	TA
Selenium	BRL	3.59		mg/Kg-dry	365194	1	10/24/2023 15:18	TA
Silver	BRL	2.56		mg/Kg-dry	365194	1	10/24/2023 15:18	TA
<b>PERCENT MOISTURE D2216</b>								
Percent Moisture	30.2	0		wt%	R529191	1	10/22/2023 00:00	JW

<b>Qualifiers:</b>	* Value exceeds maximum contaminant level	E Estimated (value above quantitation range)
	BRL Below reporting limit	S Spike Recovery outside limits due to matrix
	H Holding times for preparation or analysis exceeded	Narr See case narrative
	N Analyte not NELAC certified	F Analyzed in the lab which is a deviation from the method
	B Analyte detected in the associated method blank	< Less than Result value
	> Greater than Result value	J Estimated value detected below Reporting Limit



**Client:** Contour Engineering  
**Project Name:** Former Retail Petroleum Outlet & Service Station  
**Lab ID:** 2310O18-009

**Client Sample ID:** B-4 7-8'  
**Collection Date:** 10/20/2023 11:05:00 AM  
**Matrix:** Soil

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
<b>TCL-SEMIVOLATILE ORGANICS SW8270E</b>					<b>(SW3550C)</b>			
1,1'-Biphenyl	BRL	0.46		mg/Kg-dry	365158	1	10/25/2023 15:16	NH
2,4,5-Trichlorophenol	BRL	2.4		mg/Kg-dry	365158	1	10/25/2023 15:16	NH
2,4,6-Trichlorophenol	BRL	0.46		mg/Kg-dry	365158	1	10/25/2023 15:16	NH
2,4-Dichlorophenol	BRL	0.46		mg/Kg-dry	365158	1	10/25/2023 15:16	NH
2,4-Dimethylphenol	BRL	0.46		mg/Kg-dry	365158	1	10/25/2023 15:16	NH
2,4-Dinitrophenol	BRL	2.4		mg/Kg-dry	365158	1	10/25/2023 15:16	NH
2,4-Dinitrotoluene	BRL	0.46		mg/Kg-dry	365158	1	10/25/2023 15:16	NH
2,6-Dinitrotoluene	BRL	0.46		mg/Kg-dry	365158	1	10/25/2023 15:16	NH
2-Chloronaphthalene	BRL	0.46		mg/Kg-dry	365158	1	10/25/2023 15:16	NH
2-Chlorophenol	BRL	0.46		mg/Kg-dry	365158	1	10/25/2023 15:16	NH
2-Methylnaphthalene	BRL	0.46		mg/Kg-dry	365158	1	10/25/2023 15:16	NH
2-Methylphenol	BRL	0.46		mg/Kg-dry	365158	1	10/25/2023 15:16	NH
2-Nitroaniline	BRL	2.4		mg/Kg-dry	365158	1	10/25/2023 15:16	NH
2-Nitrophenol	BRL	0.46		mg/Kg-dry	365158	1	10/25/2023 15:16	NH
3,3'-Dichlorobenzidine	BRL	0.94		mg/Kg-dry	365158	1	10/25/2023 15:16	NH
3-Nitroaniline	BRL	2.4		mg/Kg-dry	365158	1	10/25/2023 15:16	NH
4,6-Dinitro-2-methylphenol	BRL	2.4		mg/Kg-dry	365158	1	10/25/2023 15:16	NH
4-Bromophenyl phenyl ether	BRL	0.46		mg/Kg-dry	365158	1	10/25/2023 15:16	NH
4-Chloro-3-methylphenol	BRL	0.46		mg/Kg-dry	365158	1	10/25/2023 15:16	NH
4-Chloroaniline	BRL	0.46		mg/Kg-dry	365158	1	10/25/2023 15:16	NH
4-Chlorophenyl phenyl ether	BRL	0.46		mg/Kg-dry	365158	1	10/25/2023 15:16	NH
4-Methylphenol	BRL	0.46		mg/Kg-dry	365158	1	10/25/2023 15:16	NH
4-Nitroaniline	BRL	2.4		mg/Kg-dry	365158	1	10/25/2023 15:16	NH
4-Nitrophenol	BRL	2.4		mg/Kg-dry	365158	1	10/25/2023 15:16	NH
Acenaphthene	BRL	0.46		mg/Kg-dry	365158	1	10/25/2023 15:16	NH
Acenaphthylene	BRL	0.46		mg/Kg-dry	365158	1	10/25/2023 15:16	NH
Acetophenone	BRL	0.46		mg/Kg-dry	365158	1	10/25/2023 15:16	NH
Anthracene	BRL	0.46		mg/Kg-dry	365158	1	10/25/2023 15:16	NH
Atrazine	BRL	0.46		mg/Kg-dry	365158	1	10/25/2023 15:16	NH
Benz(a)anthracene	BRL	0.46		mg/Kg-dry	365158	1	10/25/2023 15:16	NH
Benzaldehyde	BRL	0.46		mg/Kg-dry	365158	1	10/25/2023 15:16	NH
Benzo(a)pyrene	BRL	0.46		mg/Kg-dry	365158	1	10/25/2023 15:16	NH
Benzo(b)fluoranthene	BRL	0.46		mg/Kg-dry	365158	1	10/25/2023 15:16	NH
Benzo(g,h,i)perylene	BRL	0.46		mg/Kg-dry	365158	1	10/25/2023 15:16	NH
Benzo(k)fluoranthene	BRL	0.46		mg/Kg-dry	365158	1	10/25/2023 15:16	NH
Bis(2-chloroethoxy)methane	BRL	0.46		mg/Kg-dry	365158	1	10/25/2023 15:16	NH
Bis(2-chloroethyl)ether	BRL	0.46		mg/Kg-dry	365158	1	10/25/2023 15:16	NH
Bis(2-chloroisopropyl)ether	BRL	0.46		mg/Kg-dry	365158	1	10/25/2023 15:16	NH
Bis(2-ethylhexyl)phthalate	BRL	0.46		mg/Kg-dry	365158	1	10/25/2023 15:16	NH
Butyl benzyl phthalate	BRL	0.46		mg/Kg-dry	365158	1	10/25/2023 15:16	NH
Caprolactam	BRL	0.46		mg/Kg-dry	365158	1	10/25/2023 15:16	NH
Carbazole	BRL	0.46		mg/Kg-dry	365158	1	10/25/2023 15:16	NH
Chrysene	BRL	0.46		mg/Kg-dry	365158	1	10/25/2023 15:16	NH
Di-n-butyl phthalate	BRL	0.46		mg/Kg-dry	365158	1	10/25/2023 15:16	NH
Di-n-octyl phthalate	BRL	0.46		mg/Kg-dry	365158	1	10/25/2023 15:16	NH

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**Client:** Contour Engineering  
**Project Name:** Former Retail Petroleum Outlet & Service Station  
**Lab ID:** 2310O18-009

**Client Sample ID:** B-4 7-8'  
**Collection Date:** 10/20/2023 11:05:00 AM  
**Matrix:** Soil

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
<b>TCL-SEMIVOLATILE ORGANICS SW8270E</b>		<b>(SW3550C)</b>						
Dibenz(a,h)anthracene	BRL	0.46		mg/Kg-dry	365158	1	10/25/2023 15:16	NH
Dibenzofuran	BRL	0.46		mg/Kg-dry	365158	1	10/25/2023 15:16	NH
Diethyl phthalate	BRL	0.46		mg/Kg-dry	365158	1	10/25/2023 15:16	NH
Dimethyl phthalate	BRL	0.46		mg/Kg-dry	365158	1	10/25/2023 15:16	NH
Fluoranthene	BRL	0.46		mg/Kg-dry	365158	1	10/25/2023 15:16	NH
Fluorene	BRL	0.46		mg/Kg-dry	365158	1	10/25/2023 15:16	NH
Hexachlorobenzene	BRL	0.46		mg/Kg-dry	365158	1	10/25/2023 15:16	NH
Hexachlorobutadiene	BRL	0.46		mg/Kg-dry	365158	1	10/25/2023 15:16	NH
Hexachlorocyclopentadiene	BRL	0.93		mg/Kg-dry	365158	1	10/25/2023 15:16	NH
Hexachloroethane	BRL	0.46		mg/Kg-dry	365158	1	10/25/2023 15:16	NH
Indeno(1,2,3-cd)pyrene	BRL	0.46		mg/Kg-dry	365158	1	10/25/2023 15:16	NH
Isophorone	BRL	0.46		mg/Kg-dry	365158	1	10/25/2023 15:16	NH
N-Nitrosodi-n-propylamine	BRL	0.46		mg/Kg-dry	365158	1	10/25/2023 15:16	NH
N-Nitrosodiphenylamine	BRL	0.46		mg/Kg-dry	365158	1	10/25/2023 15:16	NH
Naphthalene	BRL	0.46		mg/Kg-dry	365158	1	10/25/2023 15:16	NH
Nitrobenzene	BRL	0.46		mg/Kg-dry	365158	1	10/25/2023 15:16	NH
Pentachlorophenol	BRL	2.4		mg/Kg-dry	365158	1	10/25/2023 15:16	NH
Phenanthrene	BRL	0.46		mg/Kg-dry	365158	1	10/25/2023 15:16	NH
Phenol	BRL	0.46		mg/Kg-dry	365158	1	10/25/2023 15:16	NH
Pyrene	BRL	0.46		mg/Kg-dry	365158	1	10/25/2023 15:16	NH
Surr: 2,4,6-Tribromophenol	92.7	45.5-127		%REC	365158	1	10/25/2023 15:16	NH
Surr: 2-Fluorobiphenyl	75.8	54.6-120		%REC	365158	1	10/25/2023 15:16	NH
Surr: 2-Fluorophenol	59.4	44-120		%REC	365158	1	10/25/2023 15:16	NH
Surr: 4-Terphenyl-d14	84.6	54-120		%REC	365158	1	10/25/2023 15:16	NH
Surr: Nitrobenzene-d5	54.6	45-120		%REC	365158	1	10/25/2023 15:16	NH
Surr: Phenol-d5	56	46.5-120		%REC	365158	1	10/25/2023 15:16	NH
<b>TCL VOLATILE ORGANICS SW8260D</b>		<b>(SW5035)</b>						
1,1,1-Trichloroethane	BRL	0.0045		mg/Kg-dry	365340	1	10/24/2023 20:19	RC
1,1,2,2-Tetrachloroethane	BRL	0.0045		mg/Kg-dry	365340	1	10/24/2023 20:19	RC
1,1,2-Trichloroethane	BRL	0.0045		mg/Kg-dry	365340	1	10/24/2023 20:19	RC
1,1-Dichloroethane	BRL	0.0045		mg/Kg-dry	365340	1	10/24/2023 20:19	RC
1,1-Dichloroethene	BRL	0.0045		mg/Kg-dry	365340	1	10/24/2023 20:19	RC
1,2,4-Trichlorobenzene	BRL	0.0045		mg/Kg-dry	365340	1	10/24/2023 20:19	RC
1,2-Dibromo-3-chloropropane	BRL	0.0045		mg/Kg-dry	365340	1	10/24/2023 20:19	RC
1,2-Dibromoethane	BRL	0.0045		mg/Kg-dry	365340	1	10/24/2023 20:19	RC
1,2-Dichlorobenzene	BRL	0.0045		mg/Kg-dry	365340	1	10/24/2023 20:19	RC
1,2-Dichloroethane	BRL	0.0045		mg/Kg-dry	365340	1	10/24/2023 20:19	RC
1,2-Dichloropropane	BRL	0.0045		mg/Kg-dry	365340	1	10/24/2023 20:19	RC
1,3-Dichlorobenzene	BRL	0.0045		mg/Kg-dry	365340	1	10/24/2023 20:19	RC
1,4-Dichlorobenzene	BRL	0.0045		mg/Kg-dry	365340	1	10/24/2023 20:19	RC
2-Butanone	BRL	0.045		mg/Kg-dry	365340	1	10/24/2023 20:19	RC
2-Hexanone	BRL	0.0090		mg/Kg-dry	365340	1	10/24/2023 20:19	RC
4-Methyl-2-pentanone	BRL	0.0090		mg/Kg-dry	365340	1	10/24/2023 20:19	RC
Acetone	BRL	0.090		mg/Kg-dry	365340	1	10/24/2023 20:19	RC

**Qualifiers:**

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**Client:** Contour Engineering  
**Project Name:** Former Retail Petroleum Outlet & Service Station  
**Lab ID:** 2310O18-009

**Client Sample ID:** B-4 7-8'  
**Collection Date:** 10/20/2023 11:05:00 AM  
**Matrix:** Soil

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
<b>TCL VOLATILE ORGANICS SW8260D</b>				<b>(SW5035)</b>				
Benzene	BRL	0.0045		mg/Kg-dry	365340	1	10/24/2023 20:19	RC
Bromodichloromethane	BRL	0.0045		mg/Kg-dry	365340	1	10/24/2023 20:19	RC
Bromoform	BRL	0.0045		mg/Kg-dry	365340	1	10/24/2023 20:19	RC
Bromomethane	BRL	0.0045		mg/Kg-dry	365340	1	10/24/2023 20:19	RC
Carbon disulfide	BRL	0.0090		mg/Kg-dry	365340	1	10/24/2023 20:19	RC
Carbon tetrachloride	BRL	0.0045		mg/Kg-dry	365340	1	10/24/2023 20:19	RC
Chlorobenzene	BRL	0.0045		mg/Kg-dry	365340	1	10/24/2023 20:19	RC
Chloroethane	BRL	0.0090		mg/Kg-dry	365340	1	10/24/2023 20:19	RC
Chloroform	BRL	0.0045		mg/Kg-dry	365340	1	10/24/2023 20:19	RC
Chloromethane	BRL	0.0090		mg/Kg-dry	365340	1	10/24/2023 20:19	RC
cis-1,2-Dichloroethene	BRL	0.0045		mg/Kg-dry	365340	1	10/24/2023 20:19	RC
cis-1,3-Dichloropropene	BRL	0.0045		mg/Kg-dry	365340	1	10/24/2023 20:19	RC
Cyclohexane	BRL	0.0045		mg/Kg-dry	365340	1	10/24/2023 20:19	RC
Dibromochloromethane	BRL	0.0045		mg/Kg-dry	365340	1	10/24/2023 20:19	RC
Dichlorodifluoromethane	BRL	0.0090		mg/Kg-dry	365340	1	10/24/2023 20:19	RC
Ethylbenzene	BRL	0.0045		mg/Kg-dry	365340	1	10/24/2023 20:19	RC
Freon-113	BRL	0.0090		mg/Kg-dry	365340	1	10/24/2023 20:19	RC
Isopropylbenzene	BRL	0.0045		mg/Kg-dry	365340	1	10/24/2023 20:19	RC
m,p-Xylene	BRL	0.0045		mg/Kg-dry	365340	1	10/24/2023 20:19	RC
Methyl acetate	BRL	0.0045		mg/Kg-dry	365340	1	10/24/2023 20:19	RC
Methyl tert-butyl ether	BRL	0.0045		mg/Kg-dry	365340	1	10/24/2023 20:19	RC
Methylcyclohexane	BRL	0.0045		mg/Kg-dry	365340	1	10/24/2023 20:19	RC
Methylene chloride	BRL	0.018		mg/Kg-dry	365340	1	10/24/2023 20:19	RC
o-Xylene	BRL	0.0045		mg/Kg-dry	365340	1	10/24/2023 20:19	RC
Styrene	BRL	0.0045		mg/Kg-dry	365340	1	10/24/2023 20:19	RC
Tetrachloroethene	BRL	0.0045		mg/Kg-dry	365340	1	10/24/2023 20:19	RC
Toluene	BRL	0.0045		mg/Kg-dry	365340	1	10/24/2023 20:19	RC
trans-1,2-Dichloroethene	BRL	0.0045		mg/Kg-dry	365340	1	10/24/2023 20:19	RC
trans-1,3-Dichloropropene	BRL	0.0045		mg/Kg-dry	365340	1	10/24/2023 20:19	RC
Trichloroethene	BRL	0.0045		mg/Kg-dry	365340	1	10/24/2023 20:19	RC
Trichlorofluoromethane	BRL	0.0045		mg/Kg-dry	365340	1	10/24/2023 20:19	RC
Vinyl chloride	BRL	0.0090		mg/Kg-dry	365340	1	10/24/2023 20:19	RC
Surr: 4-Bromofluorobenzene	104	65.7-125		%REC	365340	1	10/24/2023 20:19	RC
Surr: Dibromofluoromethane	95.3	74.3-126		%REC	365340	1	10/24/2023 20:19	RC
Surr: Toluene-d8	98.9	72.7-124		%REC	365340	1	10/24/2023 20:19	RC

**PERCENT MOISTURE D2216**

Percent Moisture	28.7	0		wt%	R529191	1	10/22/2023 00:00	JW
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**Qualifiers:**

- \* Value exceeds maximum contaminant level
- BRL Below reporting limit
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- > Greater than Result value

- E Estimated (value above quantitation range)
- S Spike Recovery outside limits due to matrix
- Narr See case narrative
- F Analyzed in the lab which is a deviation from the method
- < Less than Result value
- J Estimated value detected below Reporting Limit

**Client:** Contour Engineering  
**Project Name:** Former Retail Petroleum Outlet & Service Station  
**Lab ID:** 2310O18-010

**Client Sample ID:** B-4 GW  
**Collection Date:** 10/20/2023 11:40:00 AM  
**Matrix:** Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
<b>TCL-SEMIVOLATILE ORGANICS SW8270E</b>					<b>(SW3510C)</b>			
1,1'-Biphenyl	BRL	10		ug/L	365086	1	10/23/2023 16:22	NH
2,4,5-Trichlorophenol	BRL	25		ug/L	365086	1	10/23/2023 16:22	NH
2,4,6-Trichlorophenol	BRL	10		ug/L	365086	1	10/23/2023 16:22	NH
2,4-Dichlorophenol	BRL	10		ug/L	365086	1	10/23/2023 16:22	NH
2,4-Dimethylphenol	BRL	10		ug/L	365086	1	10/23/2023 16:22	NH
2,4-Dinitrophenol	BRL	25		ug/L	365086	1	10/23/2023 16:22	NH
2,4-Dinitrotoluene	BRL	10		ug/L	365086	1	10/23/2023 16:22	NH
2,6-Dinitrotoluene	BRL	10		ug/L	365086	1	10/23/2023 16:22	NH
2-Chloronaphthalene	BRL	10		ug/L	365086	1	10/23/2023 16:22	NH
2-Chlorophenol	BRL	10		ug/L	365086	1	10/23/2023 16:22	NH
2-Methylnaphthalene	BRL	10		ug/L	365086	1	10/23/2023 16:22	NH
2-Methylphenol	BRL	10		ug/L	365086	1	10/23/2023 16:22	NH
2-Nitroaniline	BRL	25		ug/L	365086	1	10/23/2023 16:22	NH
2-Nitrophenol	BRL	10		ug/L	365086	1	10/23/2023 16:22	NH
3,3'-Dichlorobenzidine	BRL	10		ug/L	365086	1	10/23/2023 16:22	NH
3-Nitroaniline	BRL	25		ug/L	365086	1	10/23/2023 16:22	NH
4,6-Dinitro-2-methylphenol	BRL	25		ug/L	365086	1	10/23/2023 16:22	NH
4-Bromophenyl phenyl ether	BRL	10		ug/L	365086	1	10/23/2023 16:22	NH
4-Chloro-3-methylphenol	BRL	10		ug/L	365086	1	10/23/2023 16:22	NH
4-Chloroaniline	BRL	10		ug/L	365086	1	10/23/2023 16:22	NH
4-Chlorophenyl phenyl ether	BRL	10		ug/L	365086	1	10/23/2023 16:22	NH
4-Methylphenol	BRL	10		ug/L	365086	1	10/23/2023 16:22	NH
4-Nitroaniline	BRL	25		ug/L	365086	1	10/23/2023 16:22	NH
4-Nitrophenol	BRL	25		ug/L	365086	1	10/23/2023 16:22	NH
Acenaphthene	BRL	10		ug/L	365086	1	10/23/2023 16:22	NH
Acenaphthylene	BRL	10		ug/L	365086	1	10/23/2023 16:22	NH
Acetophenone	BRL	10		ug/L	365086	1	10/23/2023 16:22	NH
Anthracene	BRL	10		ug/L	365086	1	10/23/2023 16:22	NH
Atrazine	BRL	10		ug/L	365086	1	10/23/2023 16:22	NH
Benz(a)anthracene	BRL	10		ug/L	365086	1	10/23/2023 16:22	NH
Benzaldehyde	BRL	10		ug/L	365086	1	10/23/2023 16:22	NH
Benzo(a)pyrene	BRL	10		ug/L	365086	1	10/23/2023 16:22	NH
Benzo(b)fluoranthene	BRL	10		ug/L	365086	1	10/23/2023 16:22	NH
Benzo(g,h,i)perylene	BRL	10		ug/L	365086	1	10/23/2023 16:22	NH
Benzo(k)fluoranthene	BRL	10		ug/L	365086	1	10/23/2023 16:22	NH
Bis(2-chloroethoxy)methane	BRL	10		ug/L	365086	1	10/23/2023 16:22	NH
Bis(2-chloroethyl)ether	BRL	10		ug/L	365086	1	10/23/2023 16:22	NH
Bis(2-chloroisopropyl)ether	BRL	10		ug/L	365086	1	10/23/2023 16:22	NH
Bis(2-ethylhexyl)phthalate	BRL	10		ug/L	365086	1	10/23/2023 16:22	NH
Butyl benzyl phthalate	BRL	10		ug/L	365086	1	10/23/2023 16:22	NH
Caprolactam	BRL	10		ug/L	365086	1	10/23/2023 16:22	NH
Carbazole	BRL	10		ug/L	365086	1	10/23/2023 16:22	NH
Chrysene	BRL	10		ug/L	365086	1	10/23/2023 16:22	NH
Di-n-butyl phthalate	BRL	10		ug/L	365086	1	10/23/2023 16:22	NH
Di-n-octyl phthalate	BRL	10		ug/L	365086	1	10/23/2023 16:22	NH

**Qualifiers:**

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- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- > Greater than Result value

- E Estimated (value above quantitation range)
- S Spike Recovery outside limits due to matrix
- Narr See case narrative
- F Analyzed in the lab which is a deviation from the method
- < Less than Result value
- J Estimated value detected below Reporting Limit

**Client:** Contour Engineering  
**Project Name:** Former Retail Petroleum Outlet & Service Station  
**Lab ID:** 2310O18-010

**Client Sample ID:** B-4 GW  
**Collection Date:** 10/20/2023 11:40:00 AM  
**Matrix:** Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
<b>TCL-SEMIVOLATILE ORGANICS SW8270E</b>		<b>(SW3510C)</b>						
Dibenz(a,h)anthracene	BRL	10		ug/L	365086	1	10/23/2023 16:22	NH
Dibenzofuran	BRL	10		ug/L	365086	1	10/23/2023 16:22	NH
Diethyl phthalate	BRL	10		ug/L	365086	1	10/23/2023 16:22	NH
Dimethyl phthalate	BRL	10		ug/L	365086	1	10/23/2023 16:22	NH
Fluoranthene	BRL	10		ug/L	365086	1	10/23/2023 16:22	NH
Fluorene	BRL	10		ug/L	365086	1	10/23/2023 16:22	NH
Hexachlorobenzene	BRL	10		ug/L	365086	1	10/23/2023 16:22	NH
Hexachlorobutadiene	BRL	10		ug/L	365086	1	10/23/2023 16:22	NH
Hexachlorocyclopentadiene	BRL	10		ug/L	365086	1	10/23/2023 16:22	NH
Hexachloroethane	BRL	10		ug/L	365086	1	10/23/2023 16:22	NH
Indeno(1,2,3-cd)pyrene	BRL	10		ug/L	365086	1	10/23/2023 16:22	NH
Isophorone	BRL	10		ug/L	365086	1	10/23/2023 16:22	NH
N-Nitrosodi-n-propylamine	BRL	10		ug/L	365086	1	10/23/2023 16:22	NH
N-Nitrosodiphenylamine	BRL	10		ug/L	365086	1	10/23/2023 16:22	NH
Naphthalene	BRL	10		ug/L	365086	1	10/23/2023 16:22	NH
Nitrobenzene	BRL	10		ug/L	365086	1	10/23/2023 16:22	NH
Pentachlorophenol	BRL	25		ug/L	365086	1	10/23/2023 16:22	NH
Phenanthrene	BRL	10		ug/L	365086	1	10/23/2023 16:22	NH
Phenol	BRL	10		ug/L	365086	1	10/23/2023 16:22	NH
Pyrene	BRL	10		ug/L	365086	1	10/23/2023 16:22	NH
Surr: 2,4,6-Tribromophenol	93.6	48-133		%REC	365086	1	10/23/2023 16:22	NH
Surr: 2-Fluorobiphenyl	81	46.7-118		%REC	365086	1	10/23/2023 16:22	NH
Surr: 2-Fluorophenol	57.8	28.5-120		%REC	365086	1	10/23/2023 16:22	NH
Surr: 4-Terphenyl-d14	82.6	45.2-127		%REC	365086	1	10/23/2023 16:22	NH
Surr: Nitrobenzene-d5	77.4	40.9-119		%REC	365086	1	10/23/2023 16:22	NH
Surr: Phenol-d5	41.4	20-63		%REC	365086	1	10/23/2023 16:22	NH
<b>TCL VOLATILE ORGANICS SW8260D</b>		<b>(SW5030B)</b>						
1,1,1-Trichloroethane	BRL	5.0		ug/L	365203	1	10/22/2023 20:46	AV
1,1,2,2-Tetrachloroethane	BRL	5.0		ug/L	365203	1	10/22/2023 20:46	AV
1,1,2-Trichloroethane	BRL	5.0		ug/L	365203	1	10/22/2023 20:46	AV
1,1-Dichloroethane	BRL	5.0		ug/L	365203	1	10/22/2023 20:46	AV
1,1-Dichloroethene	BRL	5.0		ug/L	365203	1	10/22/2023 20:46	AV
1,2,4-Trichlorobenzene	BRL	5.0		ug/L	365203	1	10/22/2023 20:46	AV
1,2-Dibromo-3-chloropropane	BRL	5.0		ug/L	365203	1	10/22/2023 20:46	AV
1,2-Dibromoethane	BRL	5.0		ug/L	365203	1	10/22/2023 20:46	AV
1,2-Dichlorobenzene	BRL	5.0		ug/L	365203	1	10/22/2023 20:46	AV
1,2-Dichloroethane	BRL	5.0		ug/L	365203	1	10/22/2023 20:46	AV
1,2-Dichloropropane	BRL	5.0		ug/L	365203	1	10/22/2023 20:46	AV
1,3-Dichlorobenzene	BRL	5.0		ug/L	365203	1	10/22/2023 20:46	AV
1,4-Dichlorobenzene	BRL	5.0		ug/L	365203	1	10/22/2023 20:46	AV
2-Butanone	BRL	50		ug/L	365203	1	10/22/2023 20:46	AV
2-Hexanone	BRL	10		ug/L	365203	1	10/22/2023 20:46	AV
4-Methyl-2-pentanone	BRL	10		ug/L	365203	1	10/22/2023 20:46	AV
Acetone	BRL	50		ug/L	365203	1	10/22/2023 20:46	AV

**Qualifiers:**

- \* Value exceeds maximum contaminant level
- BRL Below reporting limit
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- > Greater than Result value

- E Estimated (value above quantitation range)
- S Spike Recovery outside limits due to matrix
- Narr See case narrative
- F Analyzed in the lab which is a deviation from the method
- < Less than Result value
- J Estimated value detected below Reporting Limit

**Client:** Contour Engineering  
**Project Name:** Former Retail Petroleum Outlet & Service Station  
**Lab ID:** 2310O18-010

**Client Sample ID:** B-4 GW  
**Collection Date:** 10/20/2023 11:40:00 AM  
**Matrix:** Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
<b>TCL VOLATILE ORGANICS SW8260D</b>				<b>(SW5030B)</b>				
Benzene	BRL	5.0		ug/L	365203	1	10/22/2023 20:46	AV
Bromodichloromethane	BRL	5.0		ug/L	365203	1	10/22/2023 20:46	AV
Bromoform	BRL	5.0		ug/L	365203	1	10/22/2023 20:46	AV
Bromomethane	BRL	5.0		ug/L	365203	1	10/22/2023 20:46	AV
Carbon disulfide	BRL	5.0		ug/L	365203	1	10/22/2023 20:46	AV
Carbon tetrachloride	BRL	5.0		ug/L	365203	1	10/22/2023 20:46	AV
Chlorobenzene	BRL	5.0		ug/L	365203	1	10/22/2023 20:46	AV
Chloroethane	BRL	10		ug/L	365203	1	10/22/2023 20:46	AV
Chloroform	BRL	5.0		ug/L	365203	1	10/22/2023 20:46	AV
Chloromethane	BRL	10		ug/L	365203	1	10/22/2023 20:46	AV
cis-1,2-Dichloroethene	BRL	5.0		ug/L	365203	1	10/22/2023 20:46	AV
cis-1,3-Dichloropropene	BRL	5.0		ug/L	365203	1	10/22/2023 20:46	AV
Cyclohexane	BRL	5.0		ug/L	365203	1	10/22/2023 20:46	AV
Dibromochloromethane	BRL	5.0		ug/L	365203	1	10/22/2023 20:46	AV
Dichlorodifluoromethane	BRL	10		ug/L	365203	1	10/22/2023 20:46	AV
Ethylbenzene	13	5.0		ug/L	365203	1	10/22/2023 20:46	AV
Freon-113	BRL	10		ug/L	365203	1	10/22/2023 20:46	AV
Isopropylbenzene	BRL	5.0		ug/L	365203	1	10/22/2023 20:46	AV
m,p-Xylene	50	5.0		ug/L	365203	1	10/22/2023 20:46	AV
Methyl acetate	BRL	5.0		ug/L	365203	1	10/22/2023 20:46	AV
Methyl tert-butyl ether	BRL	5.0		ug/L	365203	1	10/22/2023 20:46	AV
Methylcyclohexane	5.5	5.0		ug/L	365203	1	10/22/2023 20:46	AV
Methylene chloride	BRL	5.0		ug/L	365203	1	10/22/2023 20:46	AV
o-Xylene	BRL	5.0		ug/L	365203	1	10/22/2023 20:46	AV
Styrene	BRL	5.0		ug/L	365203	1	10/22/2023 20:46	AV
Tetrachloroethene	BRL	5.0		ug/L	365203	1	10/22/2023 20:46	AV
Toluene	BRL	5.0		ug/L	365203	1	10/22/2023 20:46	AV
trans-1,2-Dichloroethene	BRL	5.0		ug/L	365203	1	10/22/2023 20:46	AV
trans-1,3-Dichloropropene	BRL	5.0		ug/L	365203	1	10/22/2023 20:46	AV
Trichloroethene	BRL	5.0		ug/L	365203	1	10/22/2023 20:46	AV
Trichlorofluoromethane	BRL	5.0		ug/L	365203	1	10/22/2023 20:46	AV
Vinyl chloride	BRL	2.0		ug/L	365203	1	10/22/2023 20:46	AV
Surr: 4-Bromofluorobenzene	96.9	70-126		%REC	365203	1	10/22/2023 20:46	AV
Surr: Dibromofluoromethane	101	77-121		%REC	365203	1	10/22/2023 20:46	AV
Surr: Toluene-d8	102	78.6-119		%REC	365203	1	10/22/2023 20:46	AV

**Qualifiers:**

- \* Value exceeds maximum contaminant level
- BRL Below reporting limit
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- > Greater than Result value

- E Estimated (value above quantitation range)
- S Spike Recovery outside limits due to matrix
- Narr See case narrative
- F Analyzed in the lab which is a deviation from the method
- < Less than Result value
- J Estimated value detected below Reporting Limit

**Client:** Contour Engineering  
**Project Name:** Former Retail Petroleum Outlet & Service Station  
**Lab ID:** 2310O18-011

**Client Sample ID:** Trip Blank  
**Collection Date:** 10/20/2023 1:39:00 PM  
**Matrix:** Trip Blank

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
<b>TCL VOLATILE ORGANICS SW8260D</b>				<b>(SW5030B)</b>				
1,1,1-Trichloroethane	BRL	5.0		ug/L	365203	1	10/22/2023 16:24	AV
1,1,2,2-Tetrachloroethane	BRL	5.0		ug/L	365203	1	10/22/2023 16:24	AV
1,1,2-Trichloroethane	BRL	5.0		ug/L	365203	1	10/22/2023 16:24	AV
1,1-Dichloroethane	BRL	5.0		ug/L	365203	1	10/22/2023 16:24	AV
1,1-Dichloroethene	BRL	5.0		ug/L	365203	1	10/22/2023 16:24	AV
1,2,4-Trichlorobenzene	BRL	5.0		ug/L	365203	1	10/22/2023 16:24	AV
1,2-Dibromo-3-chloropropane	BRL	5.0		ug/L	365203	1	10/22/2023 16:24	AV
1,2-Dibromoethane	BRL	5.0		ug/L	365203	1	10/22/2023 16:24	AV
1,2-Dichlorobenzene	BRL	5.0		ug/L	365203	1	10/22/2023 16:24	AV
1,2-Dichloroethane	BRL	5.0		ug/L	365203	1	10/22/2023 16:24	AV
1,2-Dichloropropane	BRL	5.0		ug/L	365203	1	10/22/2023 16:24	AV
1,3-Dichlorobenzene	BRL	5.0		ug/L	365203	1	10/22/2023 16:24	AV
1,4-Dichlorobenzene	BRL	5.0		ug/L	365203	1	10/22/2023 16:24	AV
2-Butanone	BRL	50		ug/L	365203	1	10/22/2023 16:24	AV
2-Hexanone	BRL	10		ug/L	365203	1	10/22/2023 16:24	AV
4-Methyl-2-pentanone	BRL	10		ug/L	365203	1	10/22/2023 16:24	AV
Acetone	BRL	50		ug/L	365203	1	10/22/2023 16:24	AV
Benzene	BRL	5.0		ug/L	365203	1	10/22/2023 16:24	AV
Bromodichloromethane	BRL	5.0		ug/L	365203	1	10/22/2023 16:24	AV
Bromoform	BRL	5.0		ug/L	365203	1	10/22/2023 16:24	AV
Bromomethane	BRL	5.0		ug/L	365203	1	10/22/2023 16:24	AV
Carbon disulfide	BRL	5.0		ug/L	365203	1	10/22/2023 16:24	AV
Carbon tetrachloride	BRL	5.0		ug/L	365203	1	10/22/2023 16:24	AV
Chlorobenzene	BRL	5.0		ug/L	365203	1	10/22/2023 16:24	AV
Chloroethane	BRL	10		ug/L	365203	1	10/22/2023 16:24	AV
Chloroform	BRL	5.0		ug/L	365203	1	10/22/2023 16:24	AV
Chloromethane	BRL	10		ug/L	365203	1	10/22/2023 16:24	AV
cis-1,2-Dichloroethene	BRL	5.0		ug/L	365203	1	10/22/2023 16:24	AV
cis-1,3-Dichloropropene	BRL	5.0		ug/L	365203	1	10/22/2023 16:24	AV
Cyclohexane	BRL	5.0		ug/L	365203	1	10/22/2023 16:24	AV
Dibromochloromethane	BRL	5.0		ug/L	365203	1	10/22/2023 16:24	AV
Dichlorodifluoromethane	BRL	10		ug/L	365203	1	10/22/2023 16:24	AV
Ethylbenzene	BRL	5.0		ug/L	365203	1	10/22/2023 16:24	AV
Freon-113	BRL	10		ug/L	365203	1	10/22/2023 16:24	AV
Isopropylbenzene	BRL	5.0		ug/L	365203	1	10/22/2023 16:24	AV
m,p-Xylene	BRL	5.0		ug/L	365203	1	10/22/2023 16:24	AV
Methyl acetate	BRL	5.0		ug/L	365203	1	10/22/2023 16:24	AV
Methyl tert-butyl ether	BRL	5.0		ug/L	365203	1	10/22/2023 16:24	AV
Methylcyclohexane	BRL	5.0		ug/L	365203	1	10/22/2023 16:24	AV
Methylene chloride	BRL	5.0		ug/L	365203	1	10/22/2023 16:24	AV
o-Xylene	BRL	5.0		ug/L	365203	1	10/22/2023 16:24	AV
Styrene	BRL	5.0		ug/L	365203	1	10/22/2023 16:24	AV
Tetrachloroethene	BRL	5.0		ug/L	365203	1	10/22/2023 16:24	AV
Toluene	BRL	5.0		ug/L	365203	1	10/22/2023 16:24	AV
trans-1,2-Dichloroethene	BRL	5.0		ug/L	365203	1	10/22/2023 16:24	AV

**Qualifiers:**

- \* Value exceeds maximum contaminant level
- BRL Below reporting limit
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- > Greater than Result value

- E Estimated (value above quantitation range)
- S Spike Recovery outside limits due to matrix
- Narr See case narrative
- F Analyzed in the lab which is a deviation from the method
- < Less than Result value
- J Estimated value detected below Reporting Limit

<b>Client:</b>	Contour Engineering	<b>Client Sample ID:</b>	Trip Blank
<b>Project Name:</b>	Former Retail Petroleum Outlet & Service Station	<b>Collection Date:</b>	10/20/2023 1:39:00 PM
<b>Lab ID:</b>	2310O18-011	<b>Matrix:</b>	Trip Blank

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
TCL VOLATILE ORGANICS SW8260D				(SW5030B)				
trans-1,3-Dichloropropene	BRL	5.0		ug/L	365203	1	10/22/2023 16:24	AV
Trichloroethene	BRL	5.0		ug/L	365203	1	10/22/2023 16:24	AV
Trichlorofluoromethane	BRL	5.0		ug/L	365203	1	10/22/2023 16:24	AV
Vinyl chloride	BRL	2.0		ug/L	365203	1	10/22/2023 16:24	AV
Surr: 4-Bromofluorobenzene	97	70-126		%REC	365203	1	10/22/2023 16:24	AV
Surr: Dibromofluoromethane	99.1	77-121		%REC	365203	1	10/22/2023 16:24	AV
Surr: Toluene-d8	101	78.6-119		%REC	365203	1	10/22/2023 16:24	AV

<b>Qualifiers:</b>	* Value exceeds maximum contaminant level	E Estimated (value above quantitation range)
	BRL Below reporting limit	S Spike Recovery outside limits due to matrix
	H Holding times for preparation or analysis exceeded	Narr See case narrative
	N Analyte not NELAC certified	F Analyzed in the lab which is a deviation from the method
	B Analyte detected in the associated method blank	< Less than Result value
	> Greater than Result value	J Estimated value detected below Reporting Limit



**SAMPLE/COOLER RECEIPT CHECKLIST**

1. Client Name: **Contour Engineering**

AES Work Order Number: **2310018**

2. Carrier: FedEx ☐ UPS ☐ USPS ☐ Client ☒ Courier ☐ Other ☐

	Yes	No	N/A	Details	Comments
3. Shipping container/cooler received in good condition?	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	damaged <input type="checkbox"/> leaking <input type="checkbox"/> other <input type="checkbox"/>	
4. Custody seals present on shipping container?	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>		
5. Custody seals intact on shipping container?	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>		
6. Cooler temperature(s) within limits of 0-6°C? [See item 12 for temperature recordings.]	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>		
7. Chain of Custody (COC) present?	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>		
8. Chain of Custody signed, dated, and timed when relinquished and received?	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>		
9. Sampler name and/or signature on COC?	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>		
10. Were all samples received within holding time?	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>		
11. TAT marked on the COC?	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	If no TAT indicated, proceeded with standard TAT per Terms & Conditions.	

12. Cooler 1 Temperature 2.0 °C Cooler 2 Temperature \_\_\_\_\_ °C Cooler 3 Temperature \_\_\_\_\_ °C Cooler 4 Temperature \_\_\_\_\_ °C  
Cooler 5 Temperature \_\_\_\_\_ °C Cooler 6 Temperature \_\_\_\_\_ °C Cooler 7 Temperature \_\_\_\_\_ °C Cooler 8 Temperature \_\_\_\_\_ °C

13. Comments: \_\_\_\_\_ I certify that I have completed sections 1-13 (dated initials). ZB 10/20/23

	Yes	No	N/A	Details	Comments
14. Temperature blanks present?	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>		
15. Were sample containers intact upon receipt?	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>		
16. Custody seals present on sample containers?	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>		
17. Custody seals intact on sample containers?	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>		
18. Do sample container labels match the COC?	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	incomplete info <input type="checkbox"/> illegible <input type="checkbox"/> no label <input type="checkbox"/> other <input type="checkbox"/>	
19. Are analyses requested indicated on the COC?	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>		
20. Were all of the samples listed on the COC received?	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	samples received but not listed on COC <input type="checkbox"/> samples listed on COC not received <input type="checkbox"/>	
21. Was the sample collection date/time noted?	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>		
22. Did we receive sufficient sample volume for indicated analyses?	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>		
23. Were samples received in appropriate containers?	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>		
24. Were VOA samples received without headspace (< 1/4" bubble)?	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>		
25. Were trip blanks submitted?	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	listed on COC <input checked="" type="checkbox"/> not listed on COC <input type="checkbox"/>	

26. Comments: \_\_\_\_\_ I certify that I have completed sections 14-26 (dated initials). AB 10/20/23
**This section only applies to samples where pH can be checked at Sample Receipt.**

	Yes	No	N/A	Details	Comments
27. Have containers needing chemical preservation been checked?*	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>		
28. Containers meet preservation guidelines?	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>		
29. Was pH adjusted at Sample Receipt?	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>		

**\*Note: Certain analyses require chemical preservation but must be checked in the laboratory and not upon Sample Receipt such as Coliforms, VOCs and Oil & Grease/TPH. This also excludes metals by EPA 200.7, 200.8 and 245.1 which will be verified between 16 and 24 hours after preservation.**

I certify that I have completed sections 27-29(dated initials). AB 10/20/23

Client: Contour Engineering  
Project Name: Former Retail Petroleum Outlet & Service Station  
Workorder: 2310O18

ANALYTICAL QC SUMMARY REPORT

BatchID: 365086

Sample ID: <b>MB-365086</b>	Client ID:					Units: <b>ug/L</b>	Prep Date: <b>10/23/2023</b>	Run No: <b>529377</b>			
SampleType: <b>MBLK</b>	TestCode: <b>TCL-SEMIVOLATILE ORGANICS SW8270E</b>					BatchID: <b>365086</b>	Analysis Date: <b>10/23/2023</b>	Seq No: <b>12556782</b>			
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

1,1'-Biphenyl	BRL	10
2,4,5-Trichlorophenol	BRL	25
2,4,6-Trichlorophenol	BRL	10
2,4-Dichlorophenol	BRL	10
2,4-Dimethylphenol	BRL	10
2,4-Dinitrophenol	BRL	25
2,4-Dinitrotoluene	BRL	10
2,6-Dinitrotoluene	BRL	10
2-Chloronaphthalene	BRL	10
2-Chlorophenol	BRL	10
2-Methylnaphthalene	BRL	10
2-Methylphenol	BRL	10
2-Nitroaniline	BRL	25
2-Nitrophenol	BRL	10
3,3'-Dichlorobenzidine	BRL	10
3-Nitroaniline	BRL	25
4,6-Dinitro-2-methylphenol	BRL	25
4-Bromophenyl phenyl ether	BRL	10
4-Chloro-3-methylphenol	BRL	10
4-Chloroaniline	BRL	10
4-Chlorophenyl phenyl ether	BRL	10
4-Methylphenol	BRL	10
4-Nitroaniline	BRL	25
4-Nitrophenol	BRL	25
Acenaphthene	BRL	10
Acenaphthylene	BRL	10
Acetophenone	BRL	10

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		

Client: Contour Engineering  
Project Name: Former Retail Petroleum Outlet & Service Station  
Workorder: 2310O18

ANALYTICAL QC SUMMARY REPORT

BatchID: 365086

Sample ID: <b>MB-365086</b>	Client ID:	Units: <b>ug/L</b>			Prep Date: <b>10/23/2023</b>	Run No: <b>529377</b>					
SampleType: <b>MBLK</b>	TestCode: <b>TCL-SEMIVOLATILE ORGANICS SW8270E</b>	BatchID: <b>365086</b>			Analysis Date: <b>10/23/2023</b>	Seq No: <b>12556782</b>					
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

Anthracene	BRL	10
Atrazine	BRL	10
Benz(a)anthracene	BRL	10
Benzaldehyde	BRL	10
Benzo(a)pyrene	BRL	10
Benzo(b)fluoranthene	BRL	10
Benzo(g,h,i)perylene	BRL	10
Benzo(k)fluoranthene	BRL	10
Bis(2-chloroethoxy)methane	BRL	10
Bis(2-chloroethyl)ether	BRL	10
Bis(2-chloroisopropyl)ether	BRL	10
Bis(2-ethylhexyl)phthalate	BRL	10
Butyl benzyl phthalate	BRL	10
Caprolactam	BRL	10
Carbazole	BRL	10
Chrysene	BRL	10
Di-n-butyl phthalate	BRL	10
Di-n-octyl phthalate	BRL	10
Dibenz(a,h)anthracene	BRL	10
Dibenzofuran	BRL	10
Diethyl phthalate	BRL	10
Dimethyl phthalate	BRL	10
Fluoranthene	BRL	10
Fluorene	BRL	10
Hexachlorobenzene	BRL	10
Hexachlorobutadiene	BRL	10
Hexachlorocyclopentadiene	BRL	10

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		

Client: Contour Engineering  
Project Name: Former Retail Petroleum Outlet & Service Station  
Workorder: 2310018

ANALYTICAL QC SUMMARY REPORT

BatchID: 365086

Sample ID: <b>MB-365086</b>	Client ID:					Units: <b>ug/L</b>	Prep Date: <b>10/23/2023</b>	Run No: <b>529377</b>			
SampleType: <b>MBLK</b>	TestCode: <b>TCL-SEMIVOLATILE ORGANICS SW8270E</b>					BatchID: <b>365086</b>	Analysis Date: <b>10/23/2023</b>	Seq No: <b>12556782</b>			
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

Hexachloroethane	BRL	10									
Indeno(1,2,3-cd)pyrene	BRL	10									
Isophorone	BRL	10									
N-Nitrosodi-n-propylamine	BRL	10									
N-Nitrosodiphenylamine	BRL	10									
Naphthalene	BRL	10									
Nitrobenzene	BRL	10									
Pentachlorophenol	BRL	25									
Phenanthrene	BRL	10									
Phenol	BRL	10									
Pyrene	BRL	10									
Surr: 2,4,6-Tribromophenol	87.13	0	100.0		87.1	48	133				
Surr: 2-Fluorobiphenyl	35.41	0	50.00		70.8	46.7	118				
Surr: 2-Fluorophenol	50.33	0	100.0		50.3	28.5	120				
Surr: 4-Terphenyl-d14	38.34	0	50.00		76.7	45.2	127				
Surr: Nitrobenzene-d5	34.70	0	50.00		69.4	40.9	119				
Surr: Phenol-d5	35.97	0	100.0		36.0	20	63				

Sample ID: <b>LCS-365086</b>	Client ID:					Units: <b>ug/L</b>	Prep Date: <b>10/23/2023</b>	Run No: <b>529377</b>			
SampleType: <b>LCS</b>	TestCode: <b>TCL-SEMIVOLATILE ORGANICS SW8270E</b>					BatchID: <b>365086</b>	Analysis Date: <b>10/23/2023</b>	Seq No: <b>12556783</b>			
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

2,4-Dinitrotoluene	73.20	10	100.0		73.2	60.9	131				
2-Chlorophenol	74.23	10	100.0		74.2	53.5	130				
4-Chloro-3-methylphenol	79.61	10	100.0		79.6	62	123				
4-Nitrophenol	41.48	25	100.0		41.5	20	120				
Acenaphthene	83.93	10	100.0		83.9	65.2	128				
N-Nitrosodi-n-propylamine	82.57	10	100.0		82.6	54.6	129				

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		

**Client:** Contour Engineering  
**Project Name:** Former Retail Petroleum Outlet & Service Station  
**Workorder:** 2310O18

**ANALYTICAL QC SUMMARY REPORT****BatchID: 365086**

Sample ID: <b>LCS-365086</b>	Client ID:					Units: <b>ug/L</b>	Prep Date: <b>10/23/2023</b>	Run No: <b>529377</b>			
SampleType: <b>LCS</b>	TestCode: <b>TCL-SEMIVOLATILE ORGANICS</b>	<b>SW8270E</b>				BatchID: <b>365086</b>	Analysis Date: <b>10/23/2023</b>	Seq No: <b>12556783</b>			
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

Pentachlorophenol	78.89	25	100.0		78.9	50.2	130				
Phenol	35.99	10	100.0		36.0	21.9	130				
Pyrene	85.84	10	100.0		85.8	62	132				
Surr: 2,4,6-Tribromophenol	95.81	0	100.0		95.8	48	133				
Surr: 2-Fluorobiphenyl	41.53	0	50.00		83.1	46.7	118				
Surr: 2-Fluorophenol	57.73	0	100.0		57.7	28.5	120				
Surr: 4-Terphenyl-d14	42.43	0	50.00		84.9	45.2	127				
Surr: Nitrobenzene-d5	40.64	0	50.00		81.3	40.9	119				
Surr: Phenol-d5	40.33	0	100.0		40.3	20	63				

Sample ID: <b>2310O18-010BMS</b>	Client ID: <b>B-4 GW</b>	Units: <b>ug/L</b>				Prep Date: <b>10/23/2023</b>	Run No: <b>529377</b>				
SampleType: <b>MS</b>	TestCode: <b>TCL-SEMIVOLATILE ORGANICS SW8270E</b>	BatchID: <b>365086</b>				Analysis Date: <b>10/23/2023</b>	Seq No: <b>12556785</b>				
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

2,4-Dinitrotoluene	71.97	10	100.0		72.0	50.5	132				
2-Chlorophenol	68.40	10	100.0		68.4	45	120				
4-Chloro-3-methylphenol	73.05	10	100.0		73.0	43.2	124				
4-Nitrophenol	40.56	25	100.0		40.6	23.5	120				
Acenaphthene	86.27	10	100.0		86.3	50.2	126				
N-Nitrosodi-n-propylamine	83.27	10	100.0		83.3	52.5	120				
Pentachlorophenol	74.56	25	100.0		74.6	43	120				
Phenol	32.15	10	100.0		32.2	23.1	120				
Pyrene	82.34	10	100.0		82.3	51.5	130				
Surr: 2,4,6-Tribromophenol	83.63	0	100.0		83.6	48	133				
Surr: 2-Fluorobiphenyl	42.14	0	50.00		84.3	46.7	118				
Surr: 2-Fluorophenol	49.25	0	100.0		49.2	28.5	120				
Surr: 4-Terphenyl-d14	39.86	0	50.00		79.7	45.2	127				
Surr: Nitrobenzene-d5	39.89	0	50.00		79.8	40.9	119				

<b>Qualifiers:</b>	>	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		

**Client:** Contour Engineering  
**Project Name:** Former Retail Petroleum Outlet & Service Station  
**Workorder:** 2310O18

**ANALYTICAL QC SUMMARY REPORT**

**BatchID: 365086**

Sample ID: <b>2310O18-010BMS</b>	Client ID: <b>B-4 GW</b>	Units: <b>ug/L</b>	Prep Date: <b>10/23/2023</b>	Run No: <b>529377</b>							
SampleType: <b>MS</b>	TestCode: <b>TCL-SEMIVOLATILE ORGANICS SW8270E</b>	BatchID: <b>365086</b>	Analysis Date: <b>10/23/2023</b>	Seq No: <b>12556785</b>							
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

Surr: Phenol-d5 35.29 0 100.0 35.3 20 63

Sample ID: <b>2310O18-010BMSD</b>	Client ID: <b>B-4 GW</b>	Units: <b>ug/L</b>	Prep Date: <b>10/23/2023</b>	Run No: <b>529377</b>							
SampleType: <b>MSD</b>	TestCode: <b>TCL-SEMIVOLATILE ORGANICS SW8270E</b>	BatchID: <b>365086</b>	Analysis Date: <b>10/23/2023</b>	Seq No: <b>12556786</b>							
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

2,4-Dinitrotoluene	73.74	10	100.0		73.7	50.5	132	71.97	2.43	33.5	
2-Chlorophenol	74.34	10	100.0		74.3	45	120	68.40	8.32	43.1	
4-Chloro-3-methylphenol	80.50	10	100.0		80.5	43.2	124	73.05	9.70	48.6	
4-Nitrophenol	45.98	25	100.0		46.0	23.5	120	40.56	12.5	43.4	
Acenaphthene	86.89	10	100.0		86.9	50.2	126	86.27	0.716	37	
N-Nitrosodi-n-propylamine	82.92	10	100.0		82.9	52.5	120	83.27	0.421	39.2	
Pentachlorophenol	84.94	25	100.0		84.9	43	120	74.56	13.0	39.4	
Phenol	37.18	10	100.0		37.2	23.1	120	32.15	14.5	45	
Pyrene	89.76	10	100.0		89.8	51.5	130	82.34	8.62	42.3	
Surr: 2,4,6-Tribromophenol	96.02	0	100.0		96.0	48	133	83.63	0	0	
Surr: 2-Fluorobiphenyl	42.90	0	50.00		85.8	46.7	118	42.14	0	0	
Surr: 2-Fluorophenol	57.41	0	100.0		57.4	28.5	120	49.25	0	0	
Surr: 4-Terphenyl-d14	44.62	0	50.00		89.2	45.2	127	39.86	0	0	
Surr: Nitrobenzene-d5	41.32	0	50.00		82.6	40.9	119	39.89	0	0	
Surr: Phenol-d5	41.53	0	100.0		41.5	20	63	35.29	0	0	

<b>Qualifiers:</b>	>	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		

**Client:** Contour Engineering  
**Project Name:** Former Retail Petroleum Outlet & Service Station  
**Workorder:** 2310018

**ANALYTICAL QC SUMMARY REPORT**

**BatchID: 365127**

Sample ID: <b>MB-365127</b>	Client ID:				Units: <b>ug/Kg</b>	Prep Date: <b>10/24/2023</b>	Run No: <b>529443</b>				
SampleType: <b>MBLK</b>	TestCode: <b>POLYAROMATIC HYDROCARBONS</b>	<b>SW8270E</b>	BatchID: <b>365127</b>			Analysis Date: <b>10/24/2023</b>	Seq No: <b>12561423</b>				
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

1-Methylnaphthalene	BRL	330									
2-Methylnaphthalene	BRL	330									
Acenaphthene	BRL	330									
Acenaphthylene	BRL	330									
Anthracene	BRL	330									
Benz(a)anthracene	BRL	330									
Benzo(a)pyrene	BRL	330									
Benzo(b)fluoranthene	BRL	330									
Benzo(g,h,i)perylene	BRL	330									
Benzo(k)fluoranthene	BRL	330									
Chrysene	BRL	330									
Dibenz(a,h)anthracene	BRL	330									
Fluoranthene	BRL	330									
Fluorene	BRL	330									
Indeno(1,2,3-cd)pyrene	BRL	330									
Naphthalene	BRL	330									
Phenanthrene	BRL	330									
Pyrene	BRL	330									
Surr: 2-Fluorobiphenyl	1382	0	1667		82.9	53.4	120				
Surr: 4-Terphenyl-d14	1587	0	1667		95.2	54.3	124				
Surr: Nitrobenzene-d5	1253	0	1667		75.2	49	118				

Sample ID: <b>LCS-365127</b>	Client ID:					Units: <b>ug/Kg</b>	Prep Date: <b>10/24/2023</b>	Run No: <b>529443</b>			
SampleType: <b>LCS</b>	TestCode: <b>POLYAROMATIC HYDROCARBONS</b>	<b>SW8270E</b>	BatchID: <b>365127</b>				Analysis Date: <b>10/24/2023</b>	Seq No: <b>12561424</b>			
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

1-Methylnaphthalene	1483	330	1667		89.0	66.5	120				
2-Methylnaphthalene	1414	330	1667		84.8	66	120				

<b>Qualifiers:</b>	>	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		

**Client:** Contour Engineering  
**Project Name:** Former Retail Petroleum Outlet & Service Station  
**Workorder:** 2310O18

**ANALYTICAL QC SUMMARY REPORT**

**BatchID: 365127**

Sample ID: <b>LCS-365127</b>	Client ID:					Units: <b>ug/Kg</b>	Prep Date: <b>10/24/2023</b>	Run No: <b>529443</b>			
SampleType: <b>LCS</b>	TestCode: <b>POLYAROMATIC HYDROCARBONS</b>	<b>SW8270E</b>	BatchID: <b>365127</b>				Analysis Date: <b>10/24/2023</b>	Seq No: <b>12561424</b>			
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

Acenaphthene	1396	330	1667		83.8	66.1	120				
Acenaphthylene	1451	330	1667		87.0	68.7	120				
Anthracene	1606	330	1667		96.4	70.1	120				
Benz(a)anthracene	1517	330	1667		91.0	69.9	120				
Benzo(a)pyrene	1438	330	1667		86.3	69.4	125				
Benzo(b)fluoranthene	1360	330	1667		81.6	70.3	121				
Benzo(g,h,i)perylene	1194	330	1667		71.6	60.4	124				
Benzo(k)fluoranthene	1591	330	1667		95.5	69.8	130				
Chrysene	1673	330	1667		100	69.4	123				
Dibenz(a,h)anthracene	1339	330	1667		80.3	65.1	121				
Fluoranthene	1596	330	1667		95.7	70.9	120				
Fluorene	1459	330	1667		87.6	69.6	120				
Indeno(1,2,3-cd)pyrene	1279	330	1667		76.7	65	120				
Naphthalene	1397	330	1667		83.8	64.4	120				
Phenanthrene	1514	330	1667		90.9	67.4	120				
Pyrene	1671	330	1667		100	67.4	119				
Surr: 2-Fluorobiphenyl	1343	0	1667		80.6	53.4	120				
Surr: 4-Terphenyl-d14	1495	0	1667		89.7	54.3	124				
Surr: Nitrobenzene-d5	1354	0	1667		81.2	49	118				

Sample ID: <b>2310N61-006BMS</b>	Client ID:					Units: <b>mg/Kg-dry</b>	Prep Date: <b>10/24/2023</b>	Run No: <b>529443</b>			
SampleType: <b>MS</b>	TestCode: <b>POLYAROMATIC HYDROCARBONS</b>	<b>SW8270E</b>	BatchID: <b>365127</b>				Analysis Date: <b>10/24/2023</b>	Seq No: <b>12561426</b>			
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

1-Methylnaphthalene	1.660	0.38	1.901		87.3	50	121				
2-Methylnaphthalene	1.584	0.38	1.901		83.3	51.6	118				
Acenaphthene	1.639	0.38	1.901		86.2	50.8	120				
Acenaphthylene	1.698	0.38	1.901		89.3	52.8	120				

<b>Qualifiers:</b>	>	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		



Client: Contour Engineering  
Project Name: Former Retail Petroleum Outlet & Service Station  
Workorder: 2310O18

ANALYTICAL QC SUMMARY REPORT

BatchID: 365127

Sample ID: <b>2310N61-006BMS</b>	Client ID:				Units: <b>mg/Kg-dry</b>	Prep Date: <b>10/24/2023</b>	Run No: <b>529443</b>				
SampleType: <b>MS</b>	TestCode: <b>POLYAROMATIC HYDROCARBONS</b>	<b>SW8270E</b>	BatchID: <b>365127</b>			Analysis Date: <b>10/24/2023</b>	Seq No: <b>12561426</b>				
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

Anthracene	1.800	0.38	1.901		94.7	54.4	118				
Benz(a)anthracene	1.779	0.38	1.901		93.6	50.5	122				
Benzo(a)pyrene	1.689	0.38	1.901		88.8	50.3	120				
Benzo(b)fluoranthene	1.581	0.38	1.901		83.2	50.1	124				
Benzo(g,h,i)perylene	1.415	0.38	1.901		74.4	50.1	119				
Benzo(k)fluoranthene	1.879	0.38	1.901		98.8	50	128				
Chrysene	1.986	0.38	1.901		104	50.4	130				
Dibenz(a,h)anthracene	1.572	0.38	1.901		82.7	50	120				
Fluoranthene	1.867	0.38	1.901		98.2	50.9	126				
Fluorene	1.700	0.38	1.901		89.5	53.7	120				
Indeno(1,2,3-cd)pyrene	1.489	0.38	1.901		78.4	50	120				
Naphthalene	1.611	0.38	1.901		84.7	50.2	120				
Phenanthrene	1.769	0.38	1.901		93.1	50.6	118				
Pyrene	1.951	0.38	1.901		103	60.1	121				
Surr: 2-Fluorobiphenyl	1.534	0	1.901		80.7	53.4	120				
Surr: 4-Terphenyl-d14	1.724	0	1.901		90.7	54.3	124				
Surr: Nitrobenzene-d5	1.515	0	1.901		79.7	49	118				

Sample ID: 2310N61-006BMSD	Client ID:					Units: mg/Kg-dry	Prep Date: 10/24/2023	Run No: 529443			
SampleType: MSD	TestCode: POLYAROMATIC HYDROCARBONS	SW8270E	BatchID: 365127				Analysis Date: 10/24/2023	Seq No: 12561427			
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

1-Methylnaphthalene	1.868	0.38	1.901		98.3	50	121	1.660	11.8	31.3	
2-Methylnaphthalene	1.767	0.38	1.901		93.0	51.6	118	1.584	11.0	34.4	
Acenaphthene	1.592	0.38	1.901		83.8	50.8	120	1.639	2.92	29.8	
Acenaphthylene	1.659	0.38	1.901		87.3	52.8	120	1.698	2.36	30.7	
Anthracene	1.798	0.38	1.901		94.6	54.4	118	1.800	0.106	30.1	
Benz(a)anthracene	1.689	0.38	1.901		88.9	50.5	122	1.779	5.15	31	

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		

**Client:** Contour Engineering  
**Project Name:** Former Retail Petroleum Outlet & Service Station  
**Workorder:** 2310018

**ANALYTICAL QC SUMMARY REPORT**

**BatchID: 365127**

Sample ID: <b>2310N61-006BMSD</b>		Client ID:				Units: <b>mg/Kg-dry</b>		Prep Date: <b>10/24/2023</b>		Run No: <b>529443</b>	
SampleType: <b>MSD</b>		TestCode: <b>POLYAROMATIC HYDROCARBONS SW8270E</b>				BatchID: <b>365127</b>		Analysis Date: <b>10/24/2023</b>		Seq No: <b>12561427</b>	
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Benzo(a)pyrene	1.622	0.38	1.901		85.3	50.3	120	1.689	4.02	31.6	
Benzo(b)fluoranthene	1.535	0.38	1.901		80.7	50.1	124	1.581	3.00	34.6	
Benzo(g,h,i)perylene	1.376	0.38	1.901		72.4	50.1	119	1.415	2.78	25.8	
Benzo(k)fluoranthene	1.745	0.38	1.901		91.8	50	128	1.879	7.39	29	
Chrysene	1.877	0.38	1.901		98.7	50.4	130	1.986	5.65	30.9	
Dibenz(a,h)anthracene	1.504	0.38	1.901		79.1	50	120	1.572	4.40	25.6	
Fluoranthene	1.785	0.38	1.901		93.9	50.9	126	1.867	4.50	37.4	
Fluorene	1.667	0.38	1.901		87.7	53.7	120	1.700	2.01	29.7	
Indeno(1,2,3-cd)pyrene	1.465	0.38	1.901		77.1	50	120	1.489	1.62	26.4	
Naphthalene	1.747	0.38	1.901		91.9	50.2	120	1.611	8.13	39.8	
Phenanthrene	1.698	0.38	1.901		89.3	50.6	118	1.769	4.12	30.5	
Pyrene	1.820	0.38	1.901		95.8	60.1	121	1.951	6.95	28.9	
Surr: 2-Fluorobiphenyl	1.534	0	1.901		80.7	53.4	120	1.534	0	0	
Surr: 4-Terphenyl-d14	1.619	0	1.901		85.2	54.3	124	1.724	0	0	
Surr: Nitrobenzene-d5	1.628	0	1.901		85.7	49	118	1.515	0	0	

<b>Qualifiers:</b>	>	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		

Client: Contour Engineering  
Project Name: Former Retail Petroleum Outlet & Service Station  
Workorder: 2310O18

ANALYTICAL QC SUMMARY REPORT

BatchID: 365158

Sample ID: <b>MB-365158</b>	Client ID:	Units: <b>ug/Kg</b>				Prep Date: <b>10/24/2023</b>	Run No: <b>529520</b>				
SampleType: <b>MBLK</b>	TestCode: <b>TCL-SEMIVOLATILE ORGANICS SW8270E</b>	BatchID: <b>365158</b>				Analysis Date: <b>10/25/2023</b>	Seq No: <b>12561664</b>				
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

1,1'-Biphenyl	BRL	330
2,4,5-Trichlorophenol	BRL	1700
2,4,6-Trichlorophenol	BRL	330
2,4-Dichlorophenol	BRL	330
2,4-Dimethylphenol	BRL	330
2,4-Dinitrophenol	BRL	1700
2,4-Dinitrotoluene	BRL	330
2,6-Dinitrotoluene	BRL	330
2-Chloronaphthalene	BRL	330
2-Chlorophenol	BRL	330
2-Methylnaphthalene	BRL	330
2-Methylphenol	BRL	330
2-Nitroaniline	BRL	1700
2-Nitrophenol	BRL	330
3,3'-Dichlorobenzidine	BRL	670
3-Nitroaniline	BRL	1700
4,6-Dinitro-2-methylphenol	BRL	1700
4-Bromophenyl phenyl ether	BRL	330
4-Chloro-3-methylphenol	BRL	330
4-Chloroaniline	BRL	330
4-Chlorophenyl phenyl ether	BRL	330
4-Methylphenol	BRL	330
4-Nitroaniline	BRL	1700
4-Nitrophenol	BRL	1700
Acenaphthene	BRL	330
Acenaphthylene	BRL	330
Acetophenone	BRL	330

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		

Client: Contour Engineering  
Project Name: Former Retail Petroleum Outlet & Service Station  
Workorder: 2310O18

ANALYTICAL QC SUMMARY REPORT

BatchID: 365158

Sample ID: <b>MB-365158</b>	Client ID:	Units: <b>ug/Kg</b>			Prep Date: <b>10/24/2023</b>	Run No: <b>529520</b>					
SampleType: <b>MBLK</b>	TestCode: <b>TCL-SEMIVOLATILE ORGANICS SW8270E</b>	BatchID: <b>365158</b>			Analysis Date: <b>10/25/2023</b>	Seq No: <b>12561664</b>					
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

Anthracene	BRL	330
Atrazine	BRL	330
Benz(a)anthracene	BRL	330
Benzaldehyde	BRL	330
Benzo(a)pyrene	BRL	330
Benzo(b)fluoranthene	BRL	330
Benzo(g,h,i)perylene	BRL	330
Benzo(k)fluoranthene	BRL	330
Bis(2-chloroethoxy)methane	BRL	330
Bis(2-chloroethyl)ether	BRL	330
Bis(2-chloroisopropyl)ether	BRL	330
Bis(2-ethylhexyl)phthalate	BRL	330
Butyl benzyl phthalate	BRL	330
Caprolactam	BRL	330
Carbazole	BRL	330
Chrysene	BRL	330
Di-n-butyl phthalate	BRL	330
Di-n-octyl phthalate	BRL	330
Dibenz(a,h)anthracene	BRL	330
Dibenzofuran	BRL	330
Diethyl phthalate	BRL	330
Dimethyl phthalate	BRL	330
Fluoranthene	BRL	330
Fluorene	BRL	330
Hexachlorobenzene	BRL	330
Hexachlorobutadiene	BRL	330
Hexachlorocyclopentadiene	BRL	660

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		

**Client:** Contour Engineering  
**Project Name:** Former Retail Petroleum Outlet & Service Station  
**Workorder:** 2310018

**ANALYTICAL QC SUMMARY REPORT**

**BatchID: 365158**

Sample ID: <b>MB-365158</b>	Client ID:	Units: <b>ug/Kg</b>			Prep Date: <b>10/24/2023</b>	Run No: <b>529520</b>					
SampleType: <b>MBLK</b>	TestCode: <b>TCL-SEMIVOLATILE ORGANICS SW8270E</b>	BatchID: <b>365158</b>			Analysis Date: <b>10/25/2023</b>	Seq No: <b>12561664</b>					
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

Hexachloroethane	BRL	330									
Indeno(1,2,3-cd)pyrene	BRL	330									
Isophorone	BRL	330									
N-Nitrosodi-n-propylamine	BRL	330									
N-Nitrosodiphenylamine	BRL	330									
Naphthalene	BRL	330									
Nitrobenzene	BRL	330									
Pentachlorophenol	BRL	1700									
Phenanthrene	BRL	330									
Phenol	BRL	330									
Pyrene	BRL	330									
Surr: 2,4,6-Tribromophenol	3438	0	3333		103	45.5	127				
Surr: 2-Fluorobiphenyl	1388	0	1667		83.3	54.6	120				
Surr: 2-Fluorophenol	2196	0	3333		65.9	44	120				
Surr: 4-Terphenyl-d14	1538	0	1667		92.3	54	120				
Surr: Nitrobenzene-d5	996.7	0	1667		59.8	45	120				
Surr: Phenol-d5	2018	0	3333		60.6	46.5	120				

Sample ID: <b>LCS-365158</b>	Client ID:	Units: <b>ug/Kg</b>			Prep Date: <b>10/24/2023</b>	Run No: <b>529520</b>					
SampleType: <b>LCS</b>	TestCode: <b>TCL-SEMIVOLATILE ORGANICS SW8270E</b>	BatchID: <b>365158</b>			Analysis Date: <b>10/25/2023</b>	Seq No: <b>12561665</b>					
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

2,4-Dinitrotoluene	2782	330	3333		83.5	50	121				
2-Chlorophenol	2302	330	3333		69.1	51.5	120				
4-Chloro-3-methylphenol	2428	330	3333		72.8	53.1	120				
4-Nitrophenol	1708	1700	3333		51.2	46.6	120				
Acenaphthene	2586	330	3333		77.6	55	120				
N-Nitrosodi-n-propylamine	1910	330	3333		57.3	50.5	122				

<b>Qualifiers:</b>	>	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		

**Client:** Contour Engineering  
**Project Name:** Former Retail Petroleum Outlet & Service Station  
**Workorder:** 2310018

**ANALYTICAL QC SUMMARY REPORT**

**BatchID: 365158**

Sample ID: <b>LCS-365158</b>	Client ID:	Units: <b>ug/Kg</b>				Prep Date: <b>10/24/2023</b>	Run No: <b>529520</b>				
SampleType: <b>LCS</b>	TestCode: <b>TCL-SEMIVOLATILE ORGANICS SW8270E</b>	BatchID: <b>365158</b>				Analysis Date: <b>10/25/2023</b>	Seq No: <b>12561665</b>				
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

Pentachlorophenol	1833	1700	3333		55.0	51.4	120				
Phenol	1890	330	3333		56.7	50.4	120				
Pyrene	2794	330	3333		83.8	62	121				
Surr: 2,4,6-Tribromophenol	3518	0	3333		106	45.5	127				
Surr: 2-Fluorobiphenyl	1443	0	1667		86.6	54.6	120				
Surr: 2-Fluorophenol	2231	0	3333		66.9	44	120				
Surr: 4-Terphenyl-d14	1549	0	1667		92.9	54	120				
Surr: Nitrobenzene-d5	1020	0	1667		61.2	45	120				
Surr: Phenol-d5	2200	0	3333		66.0	46.5	120				

Sample ID: <b>2310M59-021BMS</b>	Client ID:				Units: <b>mg/Kg-dry</b>	Prep Date: <b>10/24/2023</b>	Run No: <b>529520</b>				
SampleType: <b>MS</b>	TestCode: <b>TCL-SEMIVOLATILE ORGANICS SW8270E</b>				BatchID: <b>365158</b>	Analysis Date: <b>10/26/2023</b>	Seq No: <b>12563366</b>				
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

2,4-Dinitrotoluene	2.243	0.39	3.948		56.8	43.2	118				
2-Chlorophenol	2.146	0.39	3.948		54.3	44.9	120				
4-Chloro-3-methylphenol	2.319	0.39	3.948		58.7	47.5	120				
4-Nitrophenol	BRL	2.0	3.948		39.6	32.4	120				
Acenaphthene	2.509	0.39	3.948		63.5	45	120				
N-Nitrosodi-n-propylamine	1.867	0.39	3.948		47.3	50	120				S
Pentachlorophenol	BRL	2.0	3.948		34.2	46.5	120				S
Phenol	1.828	0.39	3.948		46.3	45.5	120				
Pyrene	2.675	0.39	3.948		67.8	49	117				
Surr: 2,4,6-Tribromophenol	3.207	0	3.948		81.2	45.5	127				
Surr: 2-Fluorobiphenyl	1.373	0	1.974		69.5	54.6	120				
Surr: 2-Fluorophenol	2.116	0	3.948		53.6	44	120				
Surr: 4-Terphenyl-d14	1.450	0	1.974		73.4	54	120				
Surr: Nitrobenzene-d5	0.9729	0	1.974		49.3	45	120				

<b>Qualifiers:</b>	>	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		

Client: Contour Engineering  
Project Name: Former Retail Petroleum Outlet & Service Station  
Workorder: 2310O18

ANALYTICAL QC SUMMARY REPORT

BatchID: 365158

Sample ID: 2310M59-021BMS	Client ID:				Units: mg/Kg-dry	Prep Date: 10/24/2023	Run No: 529520				
SampleType: MS	TestCode: TCL-SEMIVOLATILE ORGANICS SW8270E				BatchID: 365158	Analysis Date: 10/26/2023	Seq No: 12563366				
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

Surr: Phenol-d5	2.112	0	3.948		53.5	46.5	120				
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Sample ID: 2310M59-021BMSD	Client ID:	Units: mg/Kg-dry				Prep Date: 10/24/2023	Run No: 529520				
SampleType: MSD	TestCode: TCL-SEMIVOLATILE ORGANICS SW8270E	BatchID: 365158				Analysis Date: 10/26/2023	Seq No: 12563369				
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

2,4-Dinitrotoluene	2.226	0.39	3.948		56.4	43.2	118	2.243	0.760	34.6	
2-Chlorophenol	2.051	0.39	3.948		52.0	44.9	120	2.146	4.50	34.7	
4-Chloro-3-methylphenol	2.228	0.39	3.948		56.4	47.5	120	2.319	4.01	31.9	
4-Nitrophenol	BRL	2.0	3.948		39.6	32.4	120	1.563	0	44	
Acenaphthene	2.425	0.39	3.948		61.4	45	120	2.509	3.38	31	
N-Nitrosodi-n-propylamine	1.790	0.39	3.948		45.3	50	120	1.867	4.19	32.9	S
Pentachlorophenol	BRL	2.0	3.948		32.4	46.5	120	1.349	0	34.7	S
Phenol	1.732	0.39	3.948		43.9	45.5	120	1.828	5.41	35.2	S
Pyrene	2.641	0.39	3.948		66.9	49	117	2.675	1.28	32	
Surr: 2,4,6-Tribromophenol	3.215	0	3.948		81.4	45.5	127	3.207	0	0	
Surr: 2-Fluorobiphenyl	1.319	0	1.974		66.8	54.6	120	1.373	0	0	
Surr: 2-Fluorophenol	1.988	0	3.948		50.4	44	120	2.116	0	0	
Surr: 4-Terphenyl-d14	1.459	0	1.974		73.9	54	120	1.450	0	0	
Surr: Nitrobenzene-d5	0.9294	0	1.974		47.1	45	120	0.9729	0	0	
Surr: Phenol-d5	2.043	0	3.948		51.7	46.5	120	2.112	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		

**Client:** Contour Engineering  
**Project Name:** Former Retail Petroleum Outlet & Service Station  
**Workorder:** 2310018

**ANALYTICAL QC SUMMARY REPORT**

**BatchID: 365165**

Sample ID: <b>MB-365165</b>	Client ID:					Units: <b>ug/L</b>	Prep Date: <b>10/24/2023</b>	Run No: <b>529493</b>			
SampleType: <b>MBLK</b>	TestCode: <b>PAHs by Microextraction</b>	<b>SW8270E</b>				BatchID: <b>365165</b>	Analysis Date: <b>10/24/2023</b>	Seq No: <b>12560380</b>			
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

1-Methylnaphthalene	BRL	8.6									
2-Methylnaphthalene	BRL	8.6									
Acenaphthene	BRL	8.6									
Acenaphthylene	BRL	8.6									
Anthracene	BRL	8.6									
Benz(a)anthracene	BRL	8.6									
Benzo(a)pyrene	BRL	8.6									
Benzo(b)fluoranthene	BRL	8.6									
Benzo(g,h,i)perylene	BRL	8.6									
Benzo(k)fluoranthene	BRL	8.6									
Chrysene	BRL	8.6									
Dibenz(a,h)anthracene	BRL	8.6									
Fluoranthene	BRL	8.6									
Fluorene	BRL	8.6									
Indeno(1,2,3-cd)pyrene	BRL	8.6									
Naphthalene	BRL	8.6									
Phenanthrene	BRL	8.6									
Pyrene	BRL	8.6									
Surr: 2-Fluorobiphenyl	29.51	0	28.57		103	55.5	131				
Surr: 4-Terphenyl-d14	29.41	0	28.57		103	49.6	132				
Surr: Nitrobenzene-d5	26.86	0	28.57		94.0	57.5	130				

Sample ID: <b>LCS-365165</b>	Client ID:					Units: <b>ug/L</b>	Prep Date: <b>10/24/2023</b>	Run No: <b>529493</b>			
SampleType: <b>LCS</b>	TestCode: <b>PAHs by Microextraction</b>	<b>SW8270E</b>				BatchID: <b>365165</b>	Analysis Date: <b>10/24/2023</b>	Seq No: <b>12560384</b>			
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

1-Methylnaphthalene	27.28	8.6	28.57		95.5	70.2	130				
2-Methylnaphthalene	27.60	8.6	28.57		96.6	71.6	130				

<b>Qualifiers:</b>	>	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		



Client: Contour Engineering  
Project Name: Former Retail Petroleum Outlet & Service Station  
Workorder: 2310018

ANALYTICAL QC SUMMARY REPORT

BatchID: 365165

Sample ID: <b>LCS-365165</b>	Client ID:					Units: <b>ug/L</b>	Prep Date: <b>10/24/2023</b>	Run No: <b>529493</b>			
SampleType: <b>LCS</b>	TestCode: <b>PAHs by Microextraction</b>	<b>SW8270E</b>				BatchID: <b>365165</b>	Analysis Date: <b>10/24/2023</b>	Seq No: <b>12560384</b>			
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

Acenaphthene	30.60	8.6	28.57		107	70.4	130				
Acenaphthylene	31.59	8.6	28.57		111	70	130				
Anthracene	32.28	8.6	28.57		113	70	129				
Benz(a)anthracene	31.35	8.6	28.57		110	70	130				
Benzo(a)pyrene	29.74	8.6	28.57		104	70	130				
Benzo(b)fluoranthene	32.42	8.6	28.57		113	70	129				
Benzo(g,h,i)perylene	31.87	8.6	28.57		112	70	131				
Benzo(k)fluoranthene	31.73	8.6	28.57		111	70	129				
Chrysene	30.60	8.6	28.57		107	70	129				
Dibenz(a,h)anthracene	31.14	8.6	28.57		109	69.2	127				
Fluoranthene	34.44	8.6	28.57		121	70	130				
Fluorene	26.36	8.6	28.57		92.3	72.2	129				
Indeno(1,2,3-cd)pyrene	29.70	8.6	28.57		104	67.7	127				
Naphthalene	28.93	8.6	28.57		101	70.1	112				
Phenanthrene	31.90	8.6	28.57		112	70	129				
Pyrene	29.11	8.6	28.57		102	73.2	129				
Surr: 2-Fluorobiphenyl	30.14	0	28.57		106	55.5	131				
Surr: 4-Terphenyl-d14	28.89	0	28.57		101	49.6	132				
Surr: Nitrobenzene-d5	27.33	0	28.57		95.6	57.5	130				

Sample ID: 2310018-002BMS	Client ID: B-1 GW	Units: ug/L				Prep Date: 10/24/2023	Run No: 529493				
SampleType: MS	TestCode: PAHs by Microextraction	SW8270E	BatchID: 365165				Analysis Date: 10/24/2023	Seq No: 12560391			
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

1-Methylnaphthalene	27.71	8.6	28.57	15.27	43.5	50.3	128				S
2-Methylnaphthalene	41.17	8.6	28.57	36.11	17.7	51.2	127				S
Acenaphthene	18.26	8.6	28.57		63.9	56.2	125				
Acenaphthylene	19.49	8.6	28.57		68.2	63.7	130				

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		

**Client:** Contour Engineering  
**Project Name:** Former Retail Petroleum Outlet & Service Station  
**Workorder:** 2310O18

**ANALYTICAL QC SUMMARY REPORT****BatchID: 365165**

Sample ID: <b>2310O18-002BMS</b>		Client ID: <b>B-1 GW</b>			Units: <b>ug/L</b>		Prep Date: <b>10/24/2023</b>		Run No: <b>529493</b>		
SampleType: <b>MS</b>		TestCode: <b>PAHs by Microextraction</b>			BatchID: <b>365165</b>		Analysis Date: <b>10/24/2023</b>		Seq No: <b>12560391</b>		
		SW8270E									
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

Anthracene	22.58	8.6	28.57		79.0	65.9	129				
Benz(a)anthracene	24.75	8.6	28.57		86.6	70	133				
Benzo(a)pyrene	22.40	8.6	28.57		78.4	70	132				
Benzo(b)fluoranthene	24.11	8.6	28.57		84.4	70	130				
Benzo(g,h,i)perylene	25.45	8.6	28.57		89.1	69	132				
Benzo(k)fluoranthene	24.94	8.6	28.57		87.3	71.1	132				
Chrysene	23.09	8.6	28.57		80.8	71.5	130				
Dibenz(a,h)anthracene	24.06	8.6	28.57		84.2	65.4	129				
Fluoranthene	26.68	8.6	28.57		93.4	67.2	129				
Fluorene	15.10	8.6	28.57		52.9	69.1	129				S
Indeno(1,2,3-cd)pyrene	23.38	8.6	28.57		81.8	65.7	129				
Phenanthrene	21.52	8.6	28.57		75.3	68.5	129				
Pyrene	21.23	8.6	28.57		74.3	68.8	131				
Surr: 2-Fluorobiphenyl	17.89	0	28.57		62.6	55.5	131				
Surr: 4-Terphenyl-d14	16.19	0	28.57		56.7	49.6	132				
Surr: Nitrobenzene-d5	18.32	0	28.57		64.1	57.5	130				

Sample ID: <b>2310O18-002BMS</b>	Client ID: <b>B-1 GW</b>					Units: <b>ug/L</b>	Prep Date: <b>10/24/2023</b>	Run No: <b>529556</b>			
SampleType: <b>MS</b>	TestCode: <b>PAHs by Microextraction</b>	<b>SW8270E</b>				BatchID: <b>365165</b>	Analysis Date: <b>10/25/2023</b>	Seq No: <b>12562233</b>			
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

Naphthalene	417.3	43	28.57	539.4	-427	50.4	128				S
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Sample ID: <b>2310O18-002BMSD</b>	Client ID: <b>B-1 GW</b>					Units: <b>ug/L</b>	Prep Date: <b>10/24/2023</b>	Run No: <b>529493</b>			
SampleType: <b>MSD</b>	TestCode: <b>PAHs by Microextraction</b>	<b>SW8270E</b>				BatchID: <b>365165</b>	Analysis Date: <b>10/24/2023</b>	Seq No: <b>12560393</b>			
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

1-Methylnaphthalene	43.94	8.6	28.56	15.27	100	50.3	128	27.71	45.3	32.2	R
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<b>Qualifiers:</b>	>	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		

Client: Contour Engineering  
Project Name: Former Retail Petroleum Outlet & Service Station  
Workorder: 2310O18

ANALYTICAL QC SUMMARY REPORT

BatchID: 365165

Sample ID: 2310O18-002BMSD	Client ID: B-1 GW	Units: ug/L			Prep Date: 10/24/2023	Run No: 529493					
SampleType: MSD	TestCode: PAHs by Microextraction	SW8270E	BatchID: 365165			Analysis Date: 10/24/2023	Seq No: 12560393				
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

2-Methylnaphthalene	68.94	8.6	28.56	36.11	115	51.2	127	41.17	50.4	30.6	R
Acenaphthene	27.88	8.6	28.56		97.6	56.2	125	18.26	41.7	29.1	R
Acenaphthylene	31.01	8.6	28.56		109	63.7	130	19.49	45.6	27.7	R
Anthracene	29.46	8.6	28.56		103	65.9	129	22.58	26.5	20.1	R
Benz(a)anthracene	31.91	8.6	28.56		112	70	133	24.75	25.3	17.8	R
Benzo(a)pyrene	29.24	8.6	28.56		102	70	132	22.40	26.5	17.4	R
Benzo(b)fluoranthene	32.13	8.6	28.56		112	70	130	24.11	28.5	18.4	R
Benzo(g,h,i)perylene	31.51	8.6	28.56		110	69	132	25.45	21.3	19.4	R
Benzo(k)fluoranthene	29.37	8.6	28.56		103	71.1	132	24.94	16.3	18.5	
Chrysene	30.33	8.6	28.56		106	71.5	130	23.09	27.1	17.8	R
Dibenz(a,h)anthracene	31.38	8.6	28.56		110	65.4	129	24.06	26.4	20.6	R
Fluoranthene	35.79	8.6	28.56		125	67.2	129	26.68	29.2	24	R
Fluorene	26.46	8.6	28.56		92.7	69.1	129	15.10	54.7	22.8	R
Indeno(1,2,3-cd)pyrene	30.25	8.6	28.56		106	65.7	129	23.38	25.6	19.7	R
Phenanthrene	30.59	8.6	28.56		107	68.5	129	21.52	34.8	21.7	R
Pyrene	26.69	8.6	28.56		93.5	68.8	131	21.23	22.8	21.4	R
Surr: 2-Fluorobiphenyl	30.15	0	28.56		106	55.5	131	17.89	0	0	
Surr: 4-Terphenyl-d14	26.34	0	28.56		92.2	49.6	132	16.19	0	0	
Surr: Nitrobenzene-d5	33.81	0	28.56		118	57.5	130	18.32	0	0	

Sample ID: 2310O18-002BMSD	Client ID: B-1 GW	Units: ug/L			Prep Date: 10/24/2023	Run No: 529556					
SampleType: MSD	TestCode: PAHs by Microextraction	SW8270E	BatchID: 365165			Seq No: 12562235					
Analysis Date: 10/25/2023											
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

Naphthalene	718.1	43	28.56	539.4	626	50.4	128	417.3	53.0	32.1	SR
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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		

Client: Contour Engineering  
Project Name: Former Retail Petroleum Outlet & Service Station  
Workorder: 2310O18

ANALYTICAL QC SUMMARY REPORT

BatchID: 365194

Sample ID: <b>MB-365194</b>	Client ID:					Units: <b>mg/Kg</b>	Prep Date: <b>10/23/2023</b>	Run No: <b>529428</b>			
SampleType: <b>MBLK</b>	TestCode: <b>METALS, TOTAL</b>	<b>SW6010D</b>	BatchID: <b>365194</b>				Analysis Date: <b>10/24/2023</b>	Seq No: <b>12560020</b>			
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

Arsenic	BRL	2.50
Barium	BRL	5.00
Cadmium	BRL	2.50
Chromium	BRL	2.50
Lead	BRL	5.00
Selenium	BRL	3.50
Silver	BRL	2.50

Sample ID: <b>LCS-365194</b>		Client ID:		Units: <b>mg/Kg</b>		Prep Date: <b>10/23/2023</b>		Run No: <b>529428</b>			
SampleType: <b>LCS</b>		TestCode: <b>METALS, TOTAL SW6010D</b>		BatchID: <b>365194</b>		Analysis Date: <b>10/24/2023</b>		Seq No: <b>12560023</b>			
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

Arsenic	46.06	2.50	50.00	92.1	80	120
Barium	47.16	5.00	50.00	94.3	80	120
Cadmium	46.76	2.50	50.00	93.5	80	120
Chromium	47.75	2.50	50.00	95.5	80	120
Lead	46.38	5.00	50.00	92.8	80	120
Selenium	41.33	3.50	50.00	82.7	80	120
Silver	4.608	2.50	5.000	92.2	80	120

Sample ID: 2310J67-006BMS	Client ID:					Units: mg/Kg-dry	Prep Date: 10/23/2023	Run No: 529428			
SampleType: MS	TestCode: METALS, TOTAL	SW6010D	BatchID: 365194				Analysis Date: 10/24/2023	Seq No: 12560025			
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

Arsenic	39.25	2.28	45.61	2.898	79.7	75	125
Barium	66.72	4.56	45.61	25.52	90.3	75	125
Cadmium	42.75	2.28	45.61		93.7	75	125
Chromium	59.13	2.28	45.61	14.86	97.0	75	125

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		

Client: Contour Engineering  
Project Name: Former Retail Petroleum Outlet & Service Station  
Workorder: 2310O18

ANALYTICAL QC SUMMARY REPORT

BatchID: 365194

Sample ID: 2310J67-006BMS	Client ID:					Units: mg/Kg-dry	Prep Date: 10/23/2023	Run No: 529428			
SampleType: MS	TestCode: METALS, TOTAL	SW6010D	BatchID: 365194				Analysis Date: 10/24/2023	Seq No: 12560025			
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

Lead	49.92	4.56	45.61	11.34	84.6	75	125				
Selenium	31.88	3.19	45.61		69.9	75	125				S
Silver	4.305	2.28	4.561		94.4	75	125				

Sample ID: 2310J67-006BMSD	Client ID:				Units: mg/Kg-dry	Prep Date: 10/23/2023	Run No: 529428				
SampleType: MSD	TestCode: METALS, TOTAL	SW6010D	BatchID: 365194			Analysis Date: 10/24/2023	Seq No: 12560028				
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

Arsenic	38.96	2.28	45.63	2.898	79.0	75	125	39.25	0.740	20	
Barium	65.86	4.56	45.63	25.52	88.4	75	125	66.72	1.29	20	
Cadmium	41.99	2.28	45.63		92.0	75	125	42.75	1.82	20	
Chromium	58.50	2.28	45.63	14.86	95.6	75	125	59.13	1.06	20	
Lead	49.17	4.56	45.63	11.34	82.9	75	125	49.92	1.53	20	
Selenium	31.44	3.19	45.63		68.9	75	125	31.88	1.40	20	S
Silver	4.224	2.28	4.563		92.6	75	125	4.305	1.89	20	

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		

**Client:** Contour Engineering  
**Project Name:** Former Retail Petroleum Outlet & Service Station  
**Workorder:** 2310018

**ANALYTICAL QC SUMMARY REPORT**

**BatchID: 365203**

Sample ID: <b>MB-365203</b>	Client ID:	Units: <b>ug/L</b>				Prep Date: <b>10/21/2023</b>	Run No: <b>529286</b>				
SampleType: <b>MBLK</b>	TestCode: <b>TCL VOLATILE ORGANICS SW8260D</b>	BatchID: <b>365203</b>				Analysis Date: <b>10/21/2023</b>	Seq No: <b>12553792</b>				
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

1,1,1-Trichloroethane	BRL	5.0
1,1,2,2-Tetrachloroethane	BRL	5.0
1,1,2-Trichloroethane	BRL	5.0
1,1-Dichloroethane	BRL	5.0
1,1-Dichloroethene	BRL	5.0
1,2,4-Trichlorobenzene	BRL	5.0
1,2-Dibromo-3-chloropropane	BRL	5.0
1,2-Dibromoethane	BRL	5.0
1,2-Dichlorobenzene	BRL	5.0
1,2-Dichloroethane	BRL	5.0
1,2-Dichloropropane	BRL	5.0
1,3-Dichlorobenzene	BRL	5.0
1,4-Dichlorobenzene	BRL	5.0
2-Butanone	BRL	50
2-Hexanone	BRL	10
4-Methyl-2-pentanone	BRL	10
Acetone	BRL	50
Benzene	BRL	5.0
Bromodichloromethane	BRL	5.0
Bromoform	BRL	5.0
Bromomethane	BRL	5.0
Carbon disulfide	BRL	5.0
Carbon tetrachloride	BRL	5.0
Chlorobenzene	BRL	5.0
Chloroethane	BRL	10
Chloroform	BRL	5.0
Chloromethane	BRL	10

<b>Qualifiers:</b>	>	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		

Client: Contour Engineering  
Project Name: Former Retail Petroleum Outlet & Service Station  
Workorder: 2310018

ANALYTICAL QC SUMMARY REPORT

BatchID: 365203

Sample ID: <b>MB-365203</b>	Client ID:					Units: <b>ug/L</b>	Prep Date: <b>10/21/2023</b>		Run No: <b>529286</b>		
SampleType: <b>MBLK</b>	TestCode: <b>TCL VOLATILE ORGANICS SW8260D</b>					BatchID: <b>365203</b>	Analysis Date: <b>10/21/2023</b>		Seq No: <b>12553792</b>		
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
cis-1,2-Dichloroethene	BRL	5.0									
cis-1,3-Dichloropropene	BRL	5.0									
Cyclohexane	BRL	5.0									
Dibromochloromethane	BRL	5.0									
Dichlorodifluoromethane	BRL	10									
Ethylbenzene	BRL	5.0									
Freon-113	BRL	10									
Isopropylbenzene	BRL	5.0									
m,p-Xylene	BRL	5.0									
Methyl acetate	BRL	5.0									
Methyl tert-butyl ether	BRL	5.0									
Methylcyclohexane	BRL	5.0									
Methylene chloride	BRL	5.0									
o-Xylene	BRL	5.0									
Styrene	BRL	5.0									
Tetrachloroethene	BRL	5.0									
Toluene	BRL	5.0									
trans-1,2-Dichloroethene	BRL	5.0									
trans-1,3-Dichloropropene	BRL	5.0									
Trichloroethene	BRL	5.0									
Trichlorofluoromethane	BRL	5.0									
Vinyl chloride	BRL	2.0									
Surr: 4-Bromofluorobenzene	47.09	0	50.00		94.2	70	126				
Surr: Dibromofluoromethane	50.60	0	50.00		101	77	121				
Surr: Toluene-d8	50.18	0	50.00		100	78.6	119				

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		

**Client:** Contour Engineering  
**Project Name:** Former Retail Petroleum Outlet & Service Station  
**Workorder:** 2310018

**ANALYTICAL QC SUMMARY REPORT**

**BatchID: 365203**

Sample ID: <b>LCS-365203</b>	Client ID:	Units: <b>ug/L</b>				Prep Date: <b>10/21/2023</b>	Run No: <b>529286</b>				
SampleType: <b>LCS</b>	TestCode: <b>TCL VOLATILE ORGANICS SW8260D</b>	BatchID: <b>365203</b>				Analysis Date: <b>10/21/2023</b>	Seq No: <b>12553793</b>				
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

1,1-Dichloroethene	18.05	5.0	20.00		90.2	68.6	130				
Benzene	19.05	5.0	20.00		95.2	76.3	122				
Chlorobenzene	20.07	5.0	20.00		100	75.2	121				
Toluene	19.91	5.0	20.00		99.6	74.3	124				
Trichloroethene	20.42	5.0	20.00		102	71.9	129				
Surr: 4-Bromofluorobenzene	50.63	0	50.00		101	70	126				
Surr: Dibromofluoromethane	49.16	0	50.00		98.3	77	121				
Surr: Toluene-d8	50.25	0	50.00		100	78.6	119				

Sample ID: <b>2310L50-018AMS</b>	Client ID:					Units: <b>ug/L</b>	Prep Date: <b>10/21/2023</b>	Run No: <b>529286</b>			
SampleType: <b>MS</b>	TestCode: <b>TCL VOLATILE ORGANICS SW8260D</b>					BatchID: <b>365203</b>	Analysis Date: <b>10/24/2023</b>	Seq No: <b>12560874</b>			
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

1,1-Dichloroethene	17.49	5.0	20.00		87.4	69	139				
Benzene	17.89	5.0	20.00		89.4	71.3	133				
Chlorobenzene	18.09	5.0	20.00		90.4	77.6	128				
Toluene	18.79	5.0	20.00		94.0	72	134				
Trichloroethene	18.23	5.0	20.00		91.2	76.8	136				
Surr: 4-Bromofluorobenzene	49.85	0	50.00		99.7	70	126				
Surr: Dibromofluoromethane	50.25	0	50.00		100	77	121				
Surr: Toluene-d8	50.45	0	50.00		101	78.6	119				

Sample ID: <b>2310L09-030ADUP</b>	Client ID:	Units: <b>ug/L</b>				Prep Date: <b>10/21/2023</b>	Run No: <b>529286</b>				
SampleType: <b>DUP</b>	TestCode: <b>TCL VOLATILE ORGANICS SW8260D</b>	BatchID: <b>365203</b>				Analysis Date: <b>10/24/2023</b>	Seq No: <b>12560875</b>				
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

1,1,1-Trichloroethane	BRL	5.0						0	0	20	
1,1,2,2-Tetrachloroethane	BRL	5.0						0	0	20	

<b>Qualifiers:</b>	>	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		



**Client:** Contour Engineering  
**Project Name:** Former Retail Petroleum Outlet & Service Station  
**Workorder:** 2310O18

**ANALYTICAL QC SUMMARY REPORT**

**BatchID: 365203**

Sample ID: <b>2310L09-030ADUP</b>	Client ID:	Units: <b>ug/L</b>				Prep Date: <b>10/21/2023</b>	Run No: <b>529286</b>				
SampleType: <b>DUP</b>	TestCode: <b>TCL VOLATILE ORGANICS SW8260D</b>	BatchID: <b>365203</b>				Analysis Date: <b>10/24/2023</b>	Seq No: <b>12560875</b>				
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

1,1,2-Trichloroethane	BRL	5.0						0	0	20	
1,1-Dichloroethane	BRL	5.0						0	0	20	
1,1-Dichloroethene	BRL	5.0						0	0	20	
1,2,4-Trichlorobenzene	BRL	5.0						0	0	20	
1,2-Dibromo-3-chloropropane	BRL	5.0						0	0	20	
1,2-Dibromoethane	BRL	5.0						0	0	20	
1,2-Dichlorobenzene	BRL	5.0						0	0	20	
1,2-Dichloroethane	BRL	5.0						0	0	20	
1,2-Dichloropropane	BRL	5.0						0	0	20	
1,3-Dichlorobenzene	BRL	5.0						0	0	20	
1,4-Dichlorobenzene	BRL	5.0						0	0	20	
2-Butanone	BRL	50						0	0	20	
2-Hexanone	BRL	10						0	0	20	
4-Methyl-2-pentanone	BRL	10						0	0	20	
Acetone	BRL	50						0	0	20	
Benzene	BRL	5.0						0	0	20	
Bromodichloromethane	BRL	5.0						0	0	20	
Bromoform	BRL	5.0						0	0	20	
Bromomethane	BRL	5.0						0	0	20	
Carbon disulfide	BRL	5.0						0	0	20	
Carbon tetrachloride	BRL	5.0						0	0	20	
Chlorobenzene	BRL	5.0						0	0	20	
Chloroethane	BRL	10						0	0	20	
Chloroform	BRL	5.0						0	0	20	
Chloromethane	BRL	10						0	0	20	
cis-1,2-Dichloroethene	BRL	5.0						0	0	20	
cis-1,3-Dichloropropene	BRL	5.0						0	0	20	

<b>Qualifiers:</b>	>	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		

**Client:** Contour Engineering  
**Project Name:** Former Retail Petroleum Outlet & Service Station  
**Workorder:** 2310O18

**ANALYTICAL QC SUMMARY REPORT**

**BatchID: 365203**

Sample ID: 2310L09-030ADUP		Client ID:				Units: ug/L		Prep Date: 10/21/2023		Run No: 529286	
SampleType: DUP		TestCode: TCL VOLATILE ORGANICS SW8260D				BatchID: 365203		Analysis Date: 10/24/2023		Seq No: 12560875	
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Cyclohexane	BRL	5.0						0	0	20	
Dibromochloromethane	BRL	5.0						0	0	20	
Dichlorodifluoromethane	BRL	10						0	0	20	
Ethylbenzene	BRL	5.0						0	0	20	
Freon-113	BRL	10						0	0	20	
Isopropylbenzene	BRL	5.0						0	0	20	
m,p-Xylene	BRL	5.0						0	0	20	
Methyl acetate	BRL	5.0						0	0	20	
Methyl tert-butyl ether	BRL	5.0						0	0	20	
Methylcyclohexane	BRL	5.0						0	0	20	
Methylene chloride	BRL	5.0						0	0	20	
o-Xylene	BRL	5.0						0	0	20	
Styrene	BRL	5.0						0	0	20	
Tetrachloroethene	BRL	5.0						0	0	20	
Toluene	BRL	5.0						0	0	20	
trans-1,2-Dichloroethene	BRL	5.0						0	0	20	
trans-1,3-Dichloropropene	BRL	5.0						0	0	20	
Trichloroethene	BRL	5.0						0	0	20	
Trichlorofluoromethane	BRL	5.0						0	0	20	
Vinyl chloride	BRL	2.0						0	0	20	
Surr: 4-Bromofluorobenzene	48.80	0	50.00		97.6	70	126	48.88	0	0	
Surr: Dibromofluoromethane	48.68	0	50.00		97.4	77	121	49.32	0	0	
Surr: Toluene-d8	49.65	0	50.00		99.3	78.6	119	49.21	0	0	

<b>Qualifiers:</b>	>	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		

Client: Contour Engineering  
Project Name: Former Retail Petroleum Outlet & Service Station  
Workorder: 2310O18

ANALYTICAL QC SUMMARY REPORT

BatchID: 365309

Sample ID: <b>MB-365309</b>	Client ID:	Units: <b>mg/Kg</b>				Prep Date: <b>10/25/2023</b>	Run No: <b>529533</b>				
SampleType: <b>MBLK</b>	TestCode: <b>Total Mercury by SW7473</b>	BatchID: <b>365309</b>				Analysis Date: <b>10/25/2023</b>	Seq No: <b>12561392</b>				
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

Mercury BRL 0.100

Sample ID: <b>LCS-365309</b>	Client ID:	Units: <b>mg/Kg</b>				Prep Date: <b>10/25/2023</b>	Run No: <b>529533</b>				
SampleType: <b>LCS</b>	TestCode: <b>Total Mercury by SW7473</b>	BatchID: <b>365309</b>				Analysis Date: <b>10/25/2023</b>	Seq No: <b>12561393</b>				
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

Mercury 0.8723 0.100 1.000 87.2 80 120

Sample ID: 2310P94-001DMS	Client ID:					Units: mg/Kg-dry	Prep Date: 10/25/2023	Run No: 529533			
SampleType: MS	TestCode: Total Mercury by SW7473					BatchID: 365309	Analysis Date: 10/25/2023	Seq No: 12561410			
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

Mercury 0.9332 0.135 1.154 80.9 80 120

Sample ID: 2310P94-001DMSD	Client ID:					Units: mg/Kg-dry	Prep Date: 10/25/2023	Run No: 529533			
SampleType: MSD	TestCode: Total Mercury by SW7473					BatchID: 365309	Analysis Date: 10/25/2023	Seq No: 12561411			
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

Mercury 1.009 0.135 1.154 87.5 80 120 0.9332 7.81 20

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		

**Client:** Contour Engineering  
**Project Name:** Former Retail Petroleum Outlet & Service Station  
**Workorder:** 2310018

**ANALYTICAL QC SUMMARY REPORT**

**BatchID: 365340**

Sample ID: <b>MB-365340</b>	Client ID:				Units: <b>ug/Kg</b>	Prep Date: <b>10/24/2023</b>	Run No: <b>529475</b>				
SampleType: <b>MBLK</b>	TestCode: <b>TCL VOLATILE ORGANICS SW8260D</b>				BatchID: <b>365340</b>	Analysis Date: <b>10/24/2023</b>	Seq No: <b>12559604</b>				
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

1,1,1-Trichloroethane	BRL	5.0
1,1,2,2-Tetrachloroethane	BRL	5.0
1,1,2-Trichloroethane	BRL	5.0
1,1-Dichloroethane	BRL	5.0
1,1-Dichloroethene	BRL	5.0
1,2,4-Trichlorobenzene	BRL	5.0
1,2-Dibromo-3-chloropropane	BRL	5.0
1,2-Dibromoethane	BRL	5.0
1,2-Dichlorobenzene	BRL	5.0
1,2-Dichloroethane	BRL	5.0
1,2-Dichloropropane	BRL	5.0
1,3-Dichlorobenzene	BRL	5.0
1,4-Dichlorobenzene	BRL	5.0
2-Butanone	BRL	50
2-Hexanone	BRL	10
4-Methyl-2-pentanone	BRL	10
Acetone	BRL	100
Benzene	BRL	5.0
Bromodichloromethane	BRL	5.0
Bromoform	BRL	5.0
Bromomethane	BRL	5.0
Carbon disulfide	BRL	10
Carbon tetrachloride	BRL	5.0
Chlorobenzene	BRL	5.0
Chloroethane	BRL	10
Chloroform	BRL	5.0
Chloromethane	BRL	10

<b>Qualifiers:</b>	>	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		

Client: Contour Engineering  
Project Name: Former Retail Petroleum Outlet & Service Station  
Workorder: 2310O18

ANALYTICAL QC SUMMARY REPORT

BatchID: 365340

Sample ID: <b>MB-365340</b>		Client ID:		Units: <b>ug/Kg</b>		Prep Date: <b>10/24/2023</b>		Run No: <b>529475</b>			
SampleType: <b>MBLK</b>		TestCode: <b>TCL VOLATILE ORGANICS SW8260D</b>		BatchID: <b>365340</b>		Analysis Date: <b>10/24/2023</b>		Seq No: <b>12559604</b>			
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
cis-1,2-Dichloroethene	BRL	5.0									
cis-1,3-Dichloropropene	BRL	5.0									
Cyclohexane	BRL	5.0									
Dibromochloromethane	BRL	5.0									
Dichlorodifluoromethane	BRL	10									
Ethylbenzene	BRL	5.0									
Freon-113	BRL	10									
Isopropylbenzene	BRL	5.0									
m,p-Xylene	BRL	5.0									
Methyl acetate	BRL	5.0									
Methyl tert-butyl ether	BRL	5.0									
Methylcyclohexane	BRL	5.0									
Methylene chloride	BRL	20									
o-Xylene	BRL	5.0									
Styrene	BRL	5.0									
Tetrachloroethene	BRL	5.0									
Toluene	BRL	5.0									
trans-1,2-Dichloroethene	BRL	5.0									
trans-1,3-Dichloropropene	BRL	5.0									
Trichloroethene	BRL	5.0									
Trichlorofluoromethane	BRL	5.0									
Vinyl chloride	BRL	10									
Surr: 4-Bromofluorobenzene	49.33	0	50.00		98.7	65.7	125				
Surr: Dibromofluoromethane	48.28	0	50.00		96.6	74.3	126				
Surr: Toluene-d8	49.08	0	50.00		98.2	72.7	124				

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		

**Client:** Contour Engineering  
**Project Name:** Former Retail Petroleum Outlet & Service Station  
**Workorder:** 2310O18

**ANALYTICAL QC SUMMARY REPORT**

**BatchID: 365340**

Sample ID: <b>LCS-365340</b>	Client ID:	Units: <b>ug/Kg</b>				Prep Date: <b>10/24/2023</b>	Run No: <b>529475</b>				
SampleType: <b>LCS</b>	TestCode: <b>TCL VOLATILE ORGANICS SW8260D</b>	BatchID: <b>365340</b>				Analysis Date: <b>10/24/2023</b>	Seq No: <b>12559605</b>				
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

1,1-Dichloroethene	47.54	5.0	50.00		95.1	70	130				
Benzene	47.63	5.0	50.00		95.3	70	130				
Chlorobenzene	46.70	5.0	50.00		93.4	70	130				
Toluene	47.43	5.0	50.00		94.9	70	130				
Trichloroethene	47.53	5.0	50.00		95.1	70	130				
Surr: 4-Bromofluorobenzene	51.12	0	50.00		102	65.7	125				
Surr: Dibromofluoromethane	49.86	0	50.00		99.7	74.3	126				
Surr: Toluene-d8	50.67	0	50.00		101	72.7	124				

Sample ID: <b>2310M59-020AMS</b>	Client ID:	Units: <b>mg/Kg-dry</b>				Prep Date: <b>10/24/2023</b>	Run No: <b>529475</b>				
SampleType: <b>MS</b>	TestCode: <b>TCL VOLATILE ORGANICS SW8260D</b>	BatchID: <b>365340</b>				Analysis Date: <b>10/25/2023</b>	Seq No: <b>12561605</b>				
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

1,1-Dichloroethene	0.03879	0.0043	0.0426		91.0	54.8	128				
Benzene	0.04152	0.0043	0.0426		97.4	63	124				
Chlorobenzene	0.04049	0.0043	0.0426		95.0	57.9	129				
Toluene	0.04101	0.0043	0.0426		96.2	61.4	128				
Trichloroethene	0.04043	0.0043	0.0426		94.9	57.2	130				
Surr: 4-Bromofluorobenzene	0.04523	0	0.0426		106	65.7	125				
Surr: Dibromofluoromethane	0.04247	0	0.0426		99.7	74.3	126				
Surr: Toluene-d8	0.04355	0	0.0426		102	72.7	124				

Sample ID: <b>2310M59-021ADUP</b>		Client ID:			Units: <b>mg/Kg-dry</b>		Prep Date: <b>10/24/2023</b>		Run No: <b>529475</b>		
SampleType: <b>DUP</b>		TestCode: <b>TCL VOLATILE ORGANICS SW8260D</b>			BatchID: <b>365340</b>		Analysis Date: <b>10/25/2023</b>		Seq No: <b>12561607</b>		
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

1,1,1-Trichloroethane	BRL	0.0036						0	0	20	
1,1,2,2-Tetrachloroethane	BRL	0.0036						0	0	20	

<b>Qualifiers:</b>	>	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 QC SUMMARY REPORT

Client: Contour Engineering  
Project Name: Former Retail Petroleum Outlet & Service Station  
Workorder: 2310O18

BatchID: 365340

Sample ID: 2310M59-021ADUP	Client ID:					Units: mg/Kg-dry	Prep Date: 10/24/2023	Run No: 529475			
SampleType: DUP	TestCode: TCL VOLATILE ORGANICS SW8260D					BatchID: 365340	Analysis Date: 10/25/2023	Seq No: 12561607			
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

1,1,2-Trichloroethane	BRL	0.0036						0	0	20	
1,1-Dichloroethane	BRL	0.0036						0	0	20	
1,1-Dichloroethene	BRL	0.0036						0	0	20	
1,2,4-Trichlorobenzene	BRL	0.0036						0	0	20	
1,2-Dibromo-3-chloropropane	BRL	0.0036						0	0	20	
1,2-Dibromoethane	BRL	0.0036						0	0	20	
1,2-Dichlorobenzene	BRL	0.0036						0	0	20	
1,2-Dichloroethane	BRL	0.0036						0	0	20	
1,2-Dichloropropane	BRL	0.0036						0	0	20	
1,3-Dichlorobenzene	BRL	0.0036						0	0	20	
1,4-Dichlorobenzene	BRL	0.0036						0	0	20	
2-Butanone	BRL	0.036						0	0	20	
2-Hexanone	BRL	0.0072						0	0	20	
4-Methyl-2-pentanone	BRL	0.0072						0	0	20	
Acetone	BRL	0.072						0	0	20	
Benzene	BRL	0.0036						0	0	20	
Bromodichloromethane	BRL	0.0036						0	0	20	
Bromoform	BRL	0.0036						0	0	20	
Bromomethane	BRL	0.0036						0	0	20	
Carbon disulfide	BRL	0.0072						0	0	20	
Carbon tetrachloride	BRL	0.0036						0	0	20	
Chlorobenzene	BRL	0.0036						0	0	20	
Chloroethane	BRL	0.0072						0	0	20	
Chloroform	BRL	0.0036						0	0	20	
Chloromethane	BRL	0.0072						0	0	20	
cis-1,2-Dichloroethene	BRL	0.0036						0	0	20	
cis-1,3-Dichloropropene	BRL	0.0036						0	0	20	

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		

**Client:** Contour Engineering  
**Project Name:** Former Retail Petroleum Outlet & Service Station  
**Workorder:** 2310O18

**ANALYTICAL QC SUMMARY REPORT**

**BatchID: 365340**

Sample ID: <b>2310M59-021ADUP</b>	Client ID:					Units: <b>mg/Kg-dry</b>	Prep Date: <b>10/24/2023</b>	Run No: <b>529475</b>			
SampleType: <b>DUP</b>	TestCode: <b>TCL VOLATILE ORGANICS SW8260D</b>					BatchID: <b>365340</b>	Analysis Date: <b>10/25/2023</b>	Seq No: <b>12561607</b>			
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Cyclohexane	BRL	0.0036						0	0	20	
Dibromochloromethane	BRL	0.0036						0	0	20	
Dichlorodifluoromethane	BRL	0.0072						0	0	20	
Ethylbenzene	BRL	0.0036						0	0	20	
Freon-113	BRL	0.0072						0	0	20	
Isopropylbenzene	BRL	0.0036						0	0	20	
m,p-Xylene	BRL	0.0036						0	0	20	
Methyl acetate	BRL	0.0036						0	0	20	
Methyl tert-butyl ether	BRL	0.0036						0	0	20	
Methylcyclohexane	BRL	0.0036						0	0	20	
Methylene chloride	BRL	0.014						0	0	20	
o-Xylene	BRL	0.0036						0	0	20	
Styrene	BRL	0.0036						0	0	20	
Tetrachloroethene	BRL	0.0036						0	0	20	
Toluene	BRL	0.0036						0	0	20	
trans-1,2-Dichloroethene	BRL	0.0036						0	0	20	
trans-1,3-Dichloropropene	BRL	0.0036						0	0	20	
Trichloroethene	BRL	0.0036						0	0	20	
Trichlorofluoromethane	BRL	0.0036						0	0	20	
Vinyl chloride	BRL	0.0072						0	0	20	
Surr: 4-Bromofluorobenzene	0.03668	0	0.0360		102	65.7	125	0.03886	0	0	
Surr: Dibromofluoromethane	0.03474	0	0.0360		96.4	74.3	126	0.03706	0	0	
Surr: Toluene-d8	0.03627	0	0.0360		101	72.7	124	0.03810	0	0	

<b>Qualifiers:</b>	>	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		



**Client:** Contour Engineering  
**Project Name:** Former Retail Petroleum Outlet & Service Station  
**Workorder:** 2310O18

**ANALYTICAL QC SUMMARY REPORT**

**BatchID: 365351**

Sample ID: <b>MB-</b>	Client ID:	Units: <b>ug/Kg</b>				Prep Date:		Run No: <b>529476</b>			
SampleType: <b>MBLK</b>	TestCode: <b>VOLATILE ORGANICS SW8260D</b>	BatchID: <b>365351</b>				Analysis Date: <b>10/25/2023</b>		Seq No: <b>12561282</b>			
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

Benzene	BRL	1.0									
Ethylbenzene	BRL	1.0									
m,p-Xylene	BRL	2.0									
Methyl tert-butyl ether	BRL	5.0									
o-Xylene	BRL	1.0									
Toluene	BRL	1.0									
Surr: 4-Bromofluorobenzene	61.73	0	50.00		123	74.8	127				

Sample ID: <b>MB-365351</b>	Client ID:	Units: <b>ug/Kg</b>				Prep Date: <b>10/24/2023</b>	Run No: <b>529476</b>				
SampleType: <b>MBLK</b>	TestCode: <b>VOLATILE ORGANICS SW8260D</b>	BatchID: <b>365351</b>				Analysis Date: <b>10/24/2023</b>	Seq No: <b>12560189</b>				
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

Benzene	BRL	1.0									
Ethylbenzene	BRL	1.0									
m,p-Xylene	BRL	2.0									
Methyl tert-butyl ether	BRL	5.0									
o-Xylene	BRL	1.0									
Toluene	BRL	1.0									
Surr: 4-Bromofluorobenzene	49.53	0	50.00		99.1	74.8	127				

Sample ID: <b>LCS-365351</b>	Client ID:	Units: <b>ug/Kg</b>				Prep Date: <b>10/24/2023</b>	Run No: <b>529476</b>				
SampleType: <b>LCS</b>	TestCode: <b>VOLATILE ORGANICS SW8260D</b>	BatchID: <b>365351</b>				Analysis Date: <b>10/24/2023</b>	Seq No: <b>12560407</b>				
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

Benzene	52.09	1.0	50.00		104	70.8	123				
Ethylbenzene	50.51	1.0	50.00		101	72.3	124				
m,p-Xylene	110.8	2.0	100.0		111	71.4	123				
Methyl tert-butyl ether	49.24	5.0	50.00		98.5	73.5	131				

<b>Qualifiers:</b>	>	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		

**Client:** Contour Engineering  
**Project Name:** Former Retail Petroleum Outlet & Service Station  
**Workorder:** 2310018

**ANALYTICAL QC SUMMARY REPORT****BatchID: 365351**

Sample ID: <b>LCS-365351</b>	Client ID:					Units: <b>ug/Kg</b>	Prep Date: <b>10/24/2023</b>	Run No: <b>529476</b>			
SampleType: <b>LCS</b>	TestCode: <b>VOLATILE ORGANICS</b>	<b>SW8260D</b>	BatchID: <b>365351</b>				Analysis Date: <b>10/24/2023</b>	Seq No: <b>12560407</b>			
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

o-Xylene	51.59	1.0	50.00		103	72.8	122				
Toluene	54.01	1.0	50.00		108	72.6	122				
Surr: 4-Bromofluorobenzene	47.36	0	50.00		94.7	74.8	127				

Sample ID: <b>2310P23-001AMS</b>	Client ID:					Units: <b>mg/Kg-dry</b>	Prep Date: <b>10/24/2023</b>	Run No: <b>529476</b>			
SampleType: <b>MS</b>	TestCode: <b>VOLATILE ORGANICS</b>	<b>SW8260D</b>	BatchID: <b>365351</b>				Analysis Date: <b>10/25/2023</b>	Seq No: <b>12561468</b>			
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

Benzene	0.03883	0.0009	0.0434		89.4	64.9	130				
Ethylbenzene	0.04396	0.0009	0.0434		101	64.5	130				
m,p-Xylene	0.09256	0.0017	0.0869	0.0007903	106	62.4	130				
Methyl tert-butyl ether	0.03252	0.0043	0.0434		74.9	65	130				
o-Xylene	0.04430	0.0009	0.0434	0.0003233	101	63.2	129				
Toluene	0.04334	0.0009	0.0434		99.8	63.5	130				
Surr: 4-Bromofluorobenzene	0.05000	0	0.0434		115	74.8	127				

Sample ID: <b>2310O18-001ADUP</b>	Client ID: <b>B-1 4-15'</b>	Units: <b>mg/Kg-dry</b>				Prep Date: <b>10/24/2023</b>	Run No: <b>529476</b>				
SampleType: <b>DUP</b>	TestCode: <b>VOLATILE ORGANICS SW8260D</b>	BatchID: <b>365351</b>				Analysis Date: <b>10/25/2023</b>	Seq No: <b>12561283</b>				
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

Benzene	0.001678	0.0010						0.001789	6.39	20	
Ethylbenzene	0.01161	0.0010						0.006983	49.8	20	R
m,p-Xylene	0.05971	0.0020						0.03533	51.3	20	R
Methyl tert-butyl ether	BRL	0.0049						0	0	20	
o-Xylene	0.003229	0.0010						0.002170	39.2	20	R
Toluene	BRL	0.0010						0	0	20	
Surr: 4-Bromofluorobenzene	0.05474	0	0.0491		112	74.8	127	0.03804	0	0	

<b>Qualifiers:</b>	>	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		

Client: Contour Engineering  
Project Name: Former Retail Petroleum Outlet & Service Station  
Workorder: 2310018

ANALYTICAL QC SUMMARY REPORT

BatchID: 365368

Sample ID: <b>MB-365368</b>	Client ID:					Units: <b>ug/L</b>	Prep Date: <b>10/24/2023</b>	Run No: <b>529510</b>			
SampleType: <b>MBLK</b>	TestCode: <b>VOLATILE ORGANICS</b>	<b>SW8260D</b>				BatchID: <b>365368</b>	Analysis Date: <b>10/24/2023</b>	Seq No: <b>12560938</b>			
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

Benzene	BRL	1.0									
Ethylbenzene	BRL	1.0									
m,p-Xylene	BRL	1.0									
Methyl tert-butyl ether	BRL	5.0									
o-Xylene	BRL	1.0									
Toluene	BRL	1.0									
Surr: 4-Bromofluorobenzene	48.31	0	50.00		96.6	70	126				

Sample ID: LCS-365368		Client ID:				Units: ug/L		Prep Date: 10/24/2023		Run No: 529510	
SampleType: LCS		TestCode: VOLATILE ORGANICS SW8260D				BatchID: 365368		Analysis Date: 10/24/2023		Seq No: 12560936	
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

Benzene	55.15	1.0	50.00		110	76.3	122				
Ethylbenzene	54.17	1.0	50.00		108	75	127				
m,p-Xylene	106.6	1.0	100.0		107	75.5	128				
Methyl tert-butyl ether	51.37	5.0	50.00		103	76.1	123				
o-Xylene	52.81	1.0	50.00		106	77.7	124				
Toluene	54.65	1.0	50.00		109	74.3	124				
Surr: 4-Bromofluorobenzene	49.36	0	50.00		98.7	70	126				

Sample ID: 2310O18-002AMS	Client ID: B-1 GW	Units: ug/L	Prep Date: 10/24/2023	Run No: 529510							
SampleType: MS	TestCode: VOLATILE ORGANICS SW8260D	BatchID: 365368	Analysis Date: 10/25/2023	Seq No: 12561381							
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

Benzene	3076	50	2500	570.5	100	71.3	133				
Ethylbenzene	7677	50	2500	4850	113	74.6	131				
m,p-Xylene	21740	50	5000	15750	120	72.7	133				E
Methyl tert-butyl ether	2457	250	2500		98.3	70.2	130				

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		

Client: Contour Engineering  
Project Name: Former Retail Petroleum Outlet & Service Station  
Workorder: 2310O18

ANALYTICAL QC SUMMARY REPORT

BatchID: 365368

Sample ID: 2310O18-002AMS	Client ID: B-1 GW	Units: ug/L	Prep Date: 10/24/2023	Run No: 529510							
SampleType: MS	TestCode: VOLATILE ORGANICS SW8260D	BatchID: 365368	Analysis Date: 10/25/2023	Seq No: 12561381							
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

o-Xylene	3926	50	2500	1318	104	72.6	132
Toluene	2701	50	2500	94.50	104	72	134
Surr: 4-Bromofluorobenzene	2473	0	2500		98.9	70	126

Sample ID: 2310O18-002AMSD		Client ID: B-1 GW				Units: ug/L		Prep Date: 10/24/2023		Run No: 529510	
SampleType: MSD		TestCode: VOLATILE ORGANICS SW8260D				BatchID: 365368		Analysis Date: 10/25/2023		Seq No: 12561385	
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

Benzene	2920	50	2500	570.5	94.0	71.3	133	3076	5.17	42.4	
Ethylbenzene	7446	50	2500	4850	104	74.6	131	7677	3.06	27.7	
m,p-Xylene	21230	50	5000	15750	110	72.7	133	21740	2.36	28	E
Methyl tert-butyl ether	2582	250	2500		103	70.2	130	2457	4.94	29.9	
o-Xylene	3855	50	2500	1318	102	72.6	132	3926	1.82	27.9	
Toluene	2576	50	2500	94.50	99.2	72	134	2701	4.76	42.5	
Surr: 4-Bromofluorobenzene	2594	0	2500		104	70	126	2473	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		

**Client:** Contour Engineering  
**Project Name:** Former Retail Petroleum Outlet & Service Station  
**Workorder:** 2310018

**ANALYTICAL QC SUMMARY REPORT****BatchID: 365379**

Sample ID: <b>MB-365379</b>	Client ID:					Units: <b>ug/Kg</b>	Prep Date: <b>10/25/2023</b>	Run No: <b>529514</b>			
SampleType: <b>MBLK</b>	TestCode: <b>VOLATILE ORGANICS</b>	<b>SW8260D</b>	BatchID: <b>365379</b>				Analysis Date: <b>10/25/2023</b>	Seq No: <b>12560970</b>			
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

Benzene	BRL	50									
Ethylbenzene	BRL	50									
m,p-Xylene	BRL	100									
Methyl tert-butyl ether	BRL	250									
o-Xylene	BRL	50									
Toluene	BRL	50									
Surr: 4-Bromofluorobenzene	2536	0	2500		101	74.8	127				

Sample ID: <b>LCS-365379</b>	Client ID:					Units: <b>ug/Kg</b>	Prep Date: <b>10/25/2023</b>	Run No: <b>529514</b>			
SampleType: <b>LCS</b>	TestCode: <b>VOLATILE ORGANICS</b>	<b>SW8260D</b>	BatchID: <b>365379</b>				Analysis Date: <b>10/25/2023</b>	Seq No: <b>12560969</b>			
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

Benzene	2533	50	2500		101	70.8	123				
Ethylbenzene	2628	50	2500		105	72.3	124				
m,p-Xylene	5270	100	5000		105	71.4	123				
Methyl tert-butyl ether	2416	250	2500		96.6	73.5	131				
o-Xylene	2597	50	2500		104	72.8	122				
Toluene	2662	50	2500		106	72.6	122				
Surr: 4-Bromofluorobenzene	2501	0	2500		100	74.8	127				

Sample ID: <b>2310018-003AMS</b>	Client ID: <b>B-2 12-13'</b>	Units: <b>mg/Kg-dry</b>				Prep Date: <b>10/25/2023</b>	Run No: <b>529514</b>				
SampleType: <b>MS</b>	TestCode: <b>VOLATILE ORGANICS SW8260D</b>	BatchID: <b>365379</b>				Analysis Date: <b>10/25/2023</b>	Seq No: <b>12561368</b>				
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

Benzene	266.9	5.1	253.4	2.078	104	64.9	130				
Ethylbenzene	415.6	5.1	253.4	145.4	107	64.5	130				
m,p-Xylene	1197	10	506.9	658.9	106	62.4	130				
Methyl tert-butyl ether	261.9	25	253.4		103	65	130				

<b>Qualifiers:</b>	>	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		

Client: Contour Engineering  
Project Name: Former Retail Petroleum Outlet & Service Station  
Workorder: 2310O18

ANALYTICAL QC SUMMARY REPORT

BatchID: 365379

Sample ID: 2310O18-003AMS	Client ID: B-2 12-13'	Units: mg/Kg-dry			Prep Date: 10/25/2023	Run No: 529514					
SampleType: MS	TestCode: VOLATILE ORGANICS SW8260D	BatchID: 365379			Analysis Date: 10/25/2023	Seq No: 12561368					
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

o-Xylene	507.1	5.1	253.4	236.4	107	63.2	129
Toluene	296.9	5.1	253.4	22.00	108	63.5	130
Surr: 4-Bromofluorobenzene	261.0	0	253.4		103	74.8	127

Sample ID: 2310O18-003AMSD	Client ID: B-2 12-13'	Units: mg/Kg-dry			Prep Date: 10/25/2023	Run No: 529514					
SampleType: MSD	TestCode: VOLATILE ORGANICS SW8260D	BatchID: 365379			Analysis Date: 10/25/2023	Seq No: 12561370					
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

Benzene	253.8	5.1	253.4	2.078	99.3	64.9	130	266.9	5.02	20
Ethylbenzene	396.5	5.1	253.4	145.4	99.1	64.5	130	415.6	4.71	20
m,p-Xylene	1141	10	506.9	658.9	95.0	62.4	130	1197	4.86	20
Methyl tert-butyl ether	265.5	25	253.4		105	65	130	261.9	1.35	20
o-Xylene	487.8	5.1	253.4	236.4	99.2	63.2	129	507.1	3.88	20
Toluene	281.2	5.1	253.4	22.00	102	63.5	130	296.9	5.44	20
Surr: 4-Bromofluorobenzene	262.5	0	253.4		104	74.8	127	261.0	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		

End of Report

## Appendix D

### EDR City Directory

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**Former Retail Petroleum Outlet**

890 Veterans Memorial Hwy SW  
Mableton, GA 30126

Inquiry Number: 7471290.2s

October 16, 2023

## The EDR Radius Map™ Report with GeoCheck®



6 Armstrong Road, 4th floor  
Shelton, CT 06484  
Toll Free: 800.352.0050  
[www.edrnet.com](http://www.edrnet.com)

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***Thank you for your business.***  
Please contact EDR at 1-800-352-0050  
with any questions or comments.

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## EXECUTIVE SUMMARY

A search of available environmental records was conducted by Environmental Data Resources, Inc (EDR). The report was designed to assist parties seeking to meet the search requirements of EPA's Standards and Practices for All Appropriate Inquiries (40 CFR Part 312), the ASTM Standard Practice for Environmental Site Assessments (E1527 - 21), the ASTM Standard Practice for Environmental Site Assessments for Forestland or Rural Property (E2247 - 16), the ASTM Standard Practice for Limited Environmental Due Diligence: Transaction Screen Process (E1528 - 22) or custom requirements developed for the evaluation of environmental risk associated with a parcel of real estate.

### **TARGET PROPERTY INFORMATION**

#### **ADDRESS**

890 VETERANS MEMORIAL HWY SW  
MABLETON, GA 30126

#### **COORDINATES**

Latitude (North):	33.8190330 - 33° 49' 8.51"
Longitude (West):	84.5803180 - 84° 34' 49.14"
Universal Transverse Mercator:	Zone 16
UTM X (Meters):	723955.7
UTM Y (Meters):	3744530.0
Elevation:	984 ft. above sea level

### **USGS TOPOGRAPHIC MAP ASSOCIATED WITH TARGET PROPERTY**

Target Property Map:	15919537 MABLETON, GA
Version Date:	2020

### **AERIAL PHOTOGRAPHY IN THIS REPORT**

Portions of Photo from:	20191004
Source:	USDA

# MAPPED SITES SUMMARY

Target Property Address:  
890 VETERANS MEMORIAL HWY SW  
MABLETON, GA 30126

Click on Map ID to see full detail.

MAP ID	SITE NAME	ADDRESS	DATABASE ACRONYMS	RELATIVE ELEVATION	DIST (ft. & mi.) DIRECTION
<a href="#">A1</a>	FLOYD ROAD SHOPPETTE	5515 OLD FLOYD ROAD	AST	Higher	391, 0.074, North
<a href="#">A2</a>	FLOYD ROAD SHOPPETS	5515 OLD FLOYD RD	LUST, UST, FINDS, Financial Assurance	Higher	391, 0.074, North
<a href="#">B3</a>	BARBER OIL CO INC	930 FRONT ST	LUST, UST, Financial Assurance	Higher	398, 0.075, NW
<a href="#">B4</a>	SOBE AUTO GROUP LLC	930 FRONT ST SW	EDR Hist Auto	Higher	398, 0.075, NW
<a href="#">B5</a>	BARBER OIL COMPANY	930 FRONT STREET	AST	Higher	398, 0.075, NW
<a href="#">6</a>	SOUTH COBB CLEANERS	843 BANKHEAD HWY	RCRA NonGen / NLR, FINDS, ECHO	Higher	481, 0.091, ESE
<a href="#">C7</a>	VILLAGE CLEANERS	5590 MABLETON PKWY S	RCRA NonGen / NLR, FINDS, ECHO	Higher	902, 0.171, SE
<a href="#">C8</a>	VILLAGE CLEANERS	5590 MABLETON PARKWA	DRYCLEANERS	Higher	902, 0.171, SE
<a href="#">9</a>	BST/MABLETON/F1390	5445 CHURCH ST	LUST, UST, FINDS, Financial Assurance	Higher	946, 0.179, NNW
<a href="#">D10</a>	FORMER GAS STATION (	757 VETERANS MEMORIA	UST, Financial Assurance	Higher	1046, 0.198, ESE
<a href="#">D11</a>	FORMER GAS STATION (	757 VETERANS MEMORIA	LUST	Higher	1046, 0.198, ESE
<a href="#">E12</a>	BBJ INC	5420 OLD FLOYD RD	UST, Financial Assurance	Higher	1154, 0.219, NNE
<a href="#">E13</a>	MOBILE MANUFACTURING	5412 OLD FLOYD RD	RCRA NonGen / NLR, FINDS, ECHO	Higher	1288, 0.244, NNE
<a href="#">14</a>	KANGAROO #32	1057 BANKHEAD HWY	RCRA NonGen / NLR, FINDS, ECHO	Lower	1292, 0.245, West
<a href="#">15</a>	Q LUBE INC #1163	5547 FLOYD RD	LUST, UST, Financial Assurance	Higher	1369, 0.259, East
<a href="#">16</a>	CITGO FOODS	745 VETRANS MEMORIAL	LUST, UST, Financial Assurance	Higher	1387, 0.263, ESE
<a href="#">17</a>	A&R BUILDING MAINTEN	5396 OLD FLOYD RD	LUST, UST, Financial Assurance	Higher	1405, 0.266, NNE
<a href="#">18</a>	THE PROPERTY OF THER	1038, 1040 & 1058 VE	GA NON-HSI	Lower	1424, 0.270, West
<a href="#">19</a>	ARROW HEATING & AC I	5473 FLOYD RD	LUST, UST, Financial Assurance	Lower	1459, 0.276, ENE
<a href="#">20</a>	CONCRETE CUTTERS	5401 -A OLD FLOYD RO	LUST, UST, Financial Assurance	Higher	1577, 0.299, NNE
<a href="#">21</a>	MABLETON PETROLEUM C	5401 FLOYD RD	LUST, UST, FINDS, Financial Assurance	Higher	2062, 0.391, NE
<a href="#">22</a>	COBB COUNTY FIRE STA	5656 MABLETON PARKWA	LUST, UST, AST, Financial Assurance	Higher	2101, 0.398, ESE
<a href="#">23</a>	RACETRAC #53	5350 FLOYD RD	LUST, FINDS	Higher	2408, 0.456, NNE
<a href="#">24</a>	QUICK'N EASY CONVENI	630 CLAY RD	GA NON-HSI	Higher	2575, 0.488, NNE
<a href="#">25</a>	SERAH ENTERPRISES IN	832 CLAY RD	LUST, UST, FINDS, Financial Assurance	Higher	2615, 0.495, NNE
<a href="#">26</a>	MABLETON VETERINARY	1140 OLD POWDER SPRI	GA NON-HSI	Higher	2838, 0.538, SW

## EXECUTIVE SUMMARY

### TARGET PROPERTY SEARCH RESULTS

The target property was not listed in any of the databases searched by EDR.

### DATABASES WITH NO MAPPED SITES

No mapped sites were found in EDR's search of available ("reasonably ascertainable ") government records either on the target property or within the search radius around the target property for the following databases:

### STANDARD ENVIRONMENTAL RECORDS

#### ***Lists of Federal NPL (Superfund) sites***

NPL..... National Priority List  
Proposed NPL..... Proposed National Priority List Sites  
NPL LIENS..... Federal Superfund Liens

#### ***Lists of Federal Delisted NPL sites***

Delisted NPL..... National Priority List Deletions

#### ***Lists of Federal sites subject to CERCLA removals and CERCLA orders***

FEDERAL FACILITY..... Federal Facility Site Information listing  
SEMS..... Superfund Enterprise Management System

#### ***Lists of Federal CERCLA sites with NFRAP***

SEMS-ARCHIVE..... Superfund Enterprise Management System Archive

#### ***Lists of Federal RCRA facilities undergoing Corrective Action***

CORRACTS..... Corrective Action Report

#### ***Lists of Federal RCRA TSD facilities***

RCRA-TSDF..... RCRA - Treatment, Storage and Disposal

#### ***Lists of Federal RCRA generators***

RCRA-LQG..... RCRA - Large Quantity Generators  
RCRA-SQG..... RCRA - Small Quantity Generators  
RCRA-VSQG..... RCRA - Very Small Quantity Generators (Formerly Conditionally Exempt Small Quantity Generators)

#### ***Federal institutional controls / engineering controls registries***

LUCIS..... Land Use Control Information System

## EXECUTIVE SUMMARY

US ENG CONTROLS..... Engineering Controls Sites List  
US INST CONTROLS..... Institutional Controls Sites List

### ***Federal ERNS list***

ERNS..... Emergency Response Notification System

### ***Lists of state- and tribal hazardous waste facilities***

SHWS..... Hazardous Site Inventory

### ***Lists of state and tribal landfills and solid waste disposal facilities***

SWF/LF..... Solid Waste Disposal Facilities

### ***Lists of state and tribal leaking storage tanks***

INDIAN LUST..... Leaking Underground Storage Tanks on Indian Land

### ***Lists of state and tribal registered storage tanks***

FEMA UST..... Underground Storage Tank Listing  
INDIAN UST..... Underground Storage Tanks on Indian Land

### ***State and tribal institutional control / engineering control registries***

INST CONTROL..... Public Record List  
AUL..... Uniform Environmental Covenants

### ***Lists of state and tribal voluntary cleanup sites***

VCP..... Voluntary Cleanup Program site  
INDIAN VCP..... Voluntary Cleanup Priority Listing

### ***Lists of state and tribal brownfield sites***

BROWNFIELDS..... Brownfields Public Record List

## **ADDITIONAL ENVIRONMENTAL RECORDS**

### ***Local Brownfield lists***

US BROWNFIELDS..... A Listing of Brownfields Sites

### ***Local Lists of Landfill / Solid Waste Disposal Sites***

HIST LF..... Historical Landfills  
SWRCY..... Recycling Center Listing  
INDIAN ODI..... Report on the Status of Open Dumps on Indian Lands  
ODI..... Open Dump Inventory  
DEBRIS REGION 9..... Torres Martinez Reservation Illegal Dump Site Locations  
IHS OPEN DUMPS..... Open Dumps on Indian Land

### ***Local Lists of Hazardous waste / Contaminated Sites***

US HIST CDL..... Delisted National Clandestine Laboratory Register

## EXECUTIVE SUMMARY

CDL..... Clandestine Drug Labs  
DEL SHWS..... Delisted Hazardous Site Inventory Listing  
US CDL..... National Clandestine Laboratory Register

### **Local Land Records**

LIENS 2..... CERCLA Lien Information

### **Records of Emergency Release Reports**

HMIRS..... Hazardous Materials Information Reporting System  
SPILLS..... Spills Information  
SPILLS 90..... SPILLS 90 data from FirstSearch

### **Other Ascertainable Records**

FUDS..... Formerly Used Defense Sites  
DOD..... Department of Defense Sites  
SCRD DRYCLEANERS..... State Coalition for Remediation of Drycleaners Listing  
US FIN ASSUR..... Financial Assurance Information  
EPA WATCH LIST..... EPA WATCH LIST  
2020 COR ACTION..... 2020 Corrective Action Program List  
TSCA..... Toxic Substances Control Act  
TRIS..... Toxic Chemical Release Inventory System  
SSTS..... Section 7 Tracking Systems  
ROD..... Records Of Decision  
RMP..... Risk Management Plans  
RAATS..... RCRA Administrative Action Tracking System  
PRP..... Potentially Responsible Parties  
PADS..... PCB Activity Database System  
ICIS..... Integrated Compliance Information System  
FTTS..... FIFRA/ TSCA Tracking System - FIFRA (Federal Insecticide, Fungicide, & Rodenticide Act)/TSCA (Toxic Substances Control Act)  
MLTS..... Material Licensing Tracking System  
COAL ASH DOE..... Steam-Electric Plant Operation Data  
COAL ASH EPA..... Coal Combustion Residues Surface Impoundments List  
PCB TRANSFORMER..... PCB Transformer Registration Database  
RADINFO..... Radiation Information Database  
HIST FTTS..... FIFRA/TSCA Tracking System Administrative Case Listing  
DOT OPS..... Incident and Accident Data  
CONSENT..... Superfund (CERCLA) Consent Decrees  
INDIAN RESERV..... Indian Reservations  
FUSRAP..... Formerly Utilized Sites Remedial Action Program  
UMTRA..... Uranium Mill Tailings Sites  
LEAD SMELTERS..... Lead Smelter Sites  
US AIRS..... Aerometric Information Retrieval System Facility Subsystem  
US MINES..... Mines Master Index File  
MINES MRDS..... Mineral Resources Data System  
ABANDONED MINES..... Abandoned Mines  
FINDS..... Facility Index System/Facility Registry System  
DOCKET HWC..... Hazardous Waste Compliance Docket Listing  
UXO..... Unexploded Ordnance Sites  
ECHO..... Enforcement & Compliance History Information  
FUELS PROGRAM..... EPA Fuels Program Registered Listing  
PFAS NPL..... Superfund Sites with PFAS Detections Information

## EXECUTIVE SUMMARY

PFAS FEDERAL SITES.....	Federal Sites PFAS Information
PFAS TRIS.....	List of PFAS Added to the TRI
PFAS TSCA.....	PFAS Manufacture and Imports Information
PFAS RCRA MANIFEST.....	PFAS Transfers Identified In the RCRA Database Listing
PFAS ATSDR.....	PFAS Contamination Site Location Listing
PFAS WQP.....	Ambient Environmental Sampling for PFAS
PFAS NPDES.....	Clean Water Act Discharge Monitoring Information
PFAS ECHO.....	Facilities in Industries that May Be Handling PFAS Listing
PFAS ECHO FIRE TRAINING.....	Facilities in Industries that May Be Handling PFAS Listing
PFAS PART 139 AIRPORT.....	All Certified Part 139 Airports PFAS Information Listing
AQUEOUS FOAM NRC.....	Aqueous Foam Related Incidents Listing
BIOSOLIDS.....	ICIS-NPDES Biosolids Facility Data
AIRS.....	Permitted Facility and Emissions Listing
COAL ASH.....	Coal Ash Disposal Site Listing
Financial Assurance.....	Financial Assurance Information Listing
NPDES.....	NPDES Wastewater Permit List
TIER 2.....	Tier 2 Data Listing
UIC.....	Underground Injection Control

### EDR HIGH RISK HISTORICAL RECORDS

#### ***EDR Exclusive Records***

EDR MGP.....	EDR Proprietary Manufactured Gas Plants
EDR Hist Cleaner.....	EDR Exclusive Historical Cleaners

### EDR RECOVERED GOVERNMENT ARCHIVES

#### ***Exclusive Recovered Govt. Archives***

RGA HWS.....	Recovered Government Archive State Hazardous Waste Facilities List
RGA LF.....	Recovered Government Archive Solid Waste Facilities List
RGA LUST.....	Recovered Government Archive Leaking Underground Storage Tank

### SURROUNDING SITES: SEARCH RESULTS

Surrounding sites were identified in the following databases.

Elevations have been determined from the USGS Digital Elevation Model and should be evaluated on a relative (not an absolute) basis. Relative elevation information between sites of close proximity should be field verified. Sites with an elevation equal to or higher than the target property have been differentiated below from sites with an elevation lower than the target property. Page numbers and map identification numbers refer to the EDR Radius Map report where detailed data on individual sites can be reviewed.

Sites listed in ***bold italics*** are in multiple databases.

Unmappable (orphan) sites are not considered in the foregoing analysis.

### STANDARD ENVIRONMENTAL RECORDS

#### ***Lists of state- and tribal hazardous waste facilities***

GA NON-HSI: Georgia Non Hazardous Site Inventory Sites.

A review of the GA NON-HSI list, as provided by EDR, and dated 03/31/2023 has revealed that there are



## EXECUTIVE SUMMARY

3 GA NON-HSI sites within approximately 1 mile of the target property.

<u>Equal/Higher Elevation</u>	<u>Address</u>	<u>Direction / Distance</u>	<u>Map ID</u>	<u>Page</u>
QUICK'N EASY CONVENI	630 CLAY RD	NNE 1/4 - 1/2 (0.488 mi.)	24	47
MABLETON VETERINARY	1140 OLD POWDER SPRI	SW 1/2 - 1 (0.538 mi.)	26	50
<u>Lower Elevation</u>	<u>Address</u>	<u>Direction / Distance</u>	<u>Map ID</u>	<u>Page</u>
THE PROPERTY OF THER	1038, 1040 & 1058 VE	W 1/4 - 1/2 (0.270 mi.)	18	38

### ***Lists of state and tribal leaking storage tanks***

LUST: The Leaking Underground Storage Tank Incident Reports contain an inventory of reported leaking underground storage tank incidents. The data come from the Department of Natural Resources' Confirmed Release List.

A review of the LUST list, as provided by EDR, and dated 01/06/2023 has revealed that there are 13 LUST sites within approximately 0.5 miles of the target property.

<u>Equal/Higher Elevation</u>	<u>Address</u>	<u>Direction / Distance</u>	<u>Map ID</u>	<u>Page</u>
<b>FLOYD ROAD SHOPPETS</b> Cleanup Status: Suspected Release Facility Id: 10000567	<b>5515 OLD FLOYD RD</b>	<b>N 0 - 1/8 (0.074 mi.)</b>	<b>A2</b>	<b>8</b>
<b>BARBER OIL CO INC</b> Cleanup Status: NFA - Remediation Facility Id: 09033598	<b>930 FRONT ST</b>	<b>NW 0 - 1/8 (0.075 mi.)</b>	<b>B3</b>	<b>10</b>
<b>BST/MABLETON/F1390</b> Cleanup Status: NFA - Clean Closure Facility Id: 00330467	<b>5445 CHURCH ST</b>	<b>NNW 1/8 - 1/4 (0.179 mi.)</b>	<b>9</b>	<b>21</b>
FORMER GAS STATION ( Cleanup Status: NFA - No Further Action Facility Id: 10001811	757 VETERANS MEMORIA	ESE 1/8 - 1/4 (0.198 mi.)	D11	24
<b>Q LUBE INC #1163</b> Cleanup Status: NFA - No Further Action Facility Id: 00330147	<b>5547 FLOYD RD</b>	<b>E 1/4 - 1/2 (0.259 mi.)</b>	<b>15</b>	<b>31</b>
<b>CITGO FOODS</b> Cleanup Status: NFA - No Further Action Facility Id: 00330045	<b>745 VETRANS MEMORIAL</b>	<b>ESE 1/4 - 1/2 (0.263 mi.)</b>	<b>16</b>	<b>33</b>
<b>A&amp;R BUILDING MAINTEN</b> Cleanup Status: NFA - Clean Closure Facility Id: 09033292	<b>5396 OLD FLOYD RD</b>	<b>NNE 1/4 - 1/2 (0.266 mi.)</b>	<b>17</b>	<b>37</b>
<b>CONCRETE CUTTERS</b> Cleanup Status: NFA - No Further Action Facility Id: 09033613	<b>5401 -A OLD FLOYD RO</b>	<b>NNE 1/4 - 1/2 (0.299 mi.)</b>	<b>20</b>	<b>39</b>
<b>MABLETON PETROLEUM C</b> Cleanup Status: NFA - No Further Action Cleanup Status: NFA - Suspected Release Cleanup Status: Suspected Release Facility Id: 00330341	<b>5401 FLOYD RD</b>	<b>NE 1/4 - 1/2 (0.391 mi.)</b>	<b>21</b>	<b>41</b>
<b>COBB COUNTY FIRE STA</b>	<b>5656 MABLETON PARKWA</b>	<b>ESE 1/4 - 1/2 (0.398 mi.)</b>	<b>22</b>	<b>44</b>

## EXECUTIVE SUMMARY

Cleanup Status: NFA - No Further Action  
Facility Id: 09033431

<b>RACETRAC #53</b>	<b>5350 FLOYD RD</b>	<b>NNE 1/4 - 1/2 (0.456 mi.)</b>	<b>23</b>	<b>46</b>
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Cleanup Status: NFA - No Further Action  
Facility Id: 00330482

<b>SERAH ENTERPRISES IN</b>	<b>832 CLAY RD</b>	<b>NNE 1/4 - 1/2 (0.495 mi.)</b>	<b>25</b>	<b>47</b>
-----------------------------	--------------------	----------------------------------	-----------	-----------

Cleanup Status: NFA - No Further Action  
Facility Id: 00330160

<u>Lower Elevation</u>	<u>Address</u>	<u>Direction / Distance</u>	<u>Map ID</u>	<u>Page</u>
<b>ARROW HEATING &amp; AC I</b> Cleanup Status: NFA - Clean Closure Facility Id: 00330593	<b>5473 FLOYD RD</b>	<b>ENE 1/4 - 1/2 (0.276 mi.)</b>	<b>19</b>	<b>38</b>

### ***Lists of state and tribal registered storage tanks***

UST: The Underground Storage Tank database contains registered USTs. USTs are regulated under Subtitle I of the Resource Conservation and Recovery Act (RCRA). The data come from the Department of Natural Resources' Underground Storage Tank Database.

A review of the UST list, as provided by EDR, and dated 01/06/2023 has revealed that there are 5 UST sites within approximately 0.25 miles of the target property.

<u>Equal/Higher Elevation</u>	<u>Address</u>	<u>Direction / Distance</u>	<u>Map ID</u>	<u>Page</u>
<b>FLOYD ROAD SHOPPETS</b> Facility Id: 10000567 Status: Currently in Use	<b>5515 OLD FLOYD RD</b>	<b>N 0 - 1/8 (0.074 mi.)</b>	<b>A2</b>	<b>8</b>
<b>BARBER OIL CO INC</b> Facility Id: 9033598 Status: Removed from Ground Status: Closed in Ground	<b>930 FRONT ST</b>	<b>NW 0 - 1/8 (0.075 mi.)</b>	<b>B3</b>	<b>10</b>
<b>BST/MABLETON/F1390</b> Facility Id: 330467 Status: Removed from Ground	<b>5445 CHURCH ST</b>	<b>NNW 1/8 - 1/4 (0.179 mi.)</b>	<b>9</b>	<b>21</b>
<b>FORMER GAS STATION (</b> Facility Id: 10001811 Status: Removed from Ground	<b>757 VETERANS MEMORIA</b>	<b>ESE 1/8 - 1/4 (0.198 mi.)</b>	<b>D10</b>	<b>23</b>
<b>BBJ INC</b> Facility Id: 330596 Status: Removed from Ground	<b>5420 OLD FLOYD RD</b>	<b>NNE 1/8 - 1/4 (0.219 mi.)</b>	<b>E12</b>	<b>24</b>

AST: A listing of LP gas tank site locations.

A review of the AST list, as provided by EDR, and dated 05/25/2023 has revealed that there are 2 AST sites within approximately 0.25 miles of the target property.

<u>Equal/Higher Elevation</u>	<u>Address</u>	<u>Direction / Distance</u>	<u>Map ID</u>	<u>Page</u>
FLOYD ROAD SHOPPETTE	5515 OLD FLOYD ROAD	N 0 - 1/8 (0.074 mi.)	A1	8

## EXECUTIVE SUMMARY

<u>Equal/Higher Elevation</u>	<u>Address</u>	<u>Direction / Distance</u>	<u>Map ID</u>	<u>Page</u>
BARBER OIL COMPANY	930 FRONT STREET	NW 0 - 1/8 (0.075 mi.)	B5	13

### ADDITIONAL ENVIRONMENTAL RECORDS

#### ***Other Ascertainable Records***

RCRA NonGen / NLR: RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Non-Generators do not presently generate hazardous waste.

A review of the RCRA NonGen / NLR list, as provided by EDR, and dated 07/24/2023 has revealed that there are 4 RCRA NonGen / NLR sites within approximately 0.25 miles of the target property.

<u>Equal/Higher Elevation</u>	<u>Address</u>	<u>Direction / Distance</u>	<u>Map ID</u>	<u>Page</u>
<b><i>SOUTH COBB CLEANERS</i></b> EPA ID:: GAD981233034	<b><i>843 BANKHEAD HWY</i></b>	<b><i>ESE 0 - 1/8 (0.091 mi.)</i></b>	<b><i>6</i></b>	<b><i>14</i></b>
<b><i>VILLAGE CLEANERS</i></b> EPA ID:: GAD984300269	<b><i>5590 MABLETON PKWY S</i></b>	<b><i>SE 1/8 - 1/4 (0.171 mi.)</i></b>	<b><i>C7</i></b>	<b><i>17</i></b>
<b><i>MOBILE MANUFACTURING</i></b> EPA ID:: GAD984312991	<b><i>5412 OLD FLOYD RD</i></b>	<b><i>NNE 1/8 - 1/4 (0.244 mi.)</i></b>	<b><i>E13</i></b>	<b><i>25</i></b>

<u>Lower Elevation</u>	<u>Address</u>	<u>Direction / Distance</u>	<u>Map ID</u>	<u>Page</u>
<b><i>KANGAROO #32</i></b> EPA ID:: GA0000478826	<b><i>1057 BANKHEAD HWY</i></b>	<b><i>W 1/8 - 1/4 (0.245 mi.)</i></b>	<b><i>14</i></b>	<b><i>28</i></b>

DRYCLEANERS: A list of drycleaners in the state. The listing includes drycleaner facilities, that use perchloroethylene, that responded to the Notification of Compliance Status forms. It also includes those businesses that are pick-up stores only and do not conduct dry cleaning on site.

A review of the DRYCLEANERS list, as provided by EDR, and dated 03/24/2023 has revealed that there is 1 DRYCLEANERS site within approximately 0.25 miles of the target property.

<u>Equal/Higher Elevation</u>	<u>Address</u>	<u>Direction / Distance</u>	<u>Map ID</u>	<u>Page</u>
VILLAGE CLEANERS	5590 MABLETON PARKWA	SE 1/8 - 1/4 (0.171 mi.)	C8	20

### EDR HIGH RISK HISTORICAL RECORDS

#### ***EDR Exclusive Records***

EDR Hist Auto: EDR has searched selected national collections of business directories and has collected

## EXECUTIVE SUMMARY

listings of potential gas station/filling station/service station sites that were available to EDR researchers. EDR's review was limited to those categories of sources that might, in EDR's opinion, include gas station/filling station/service station establishments. The categories reviewed included, but were not limited to gas, gas station, gasoline station, filling station, auto, automobile repair, auto service station, service station, etc. This database falls within a category of information EDR classifies as "High Risk Historical Records", or HRHR. EDR's HRHR effort presents unique and sometimes proprietary data about past sites and operations that typically create environmental concerns, but may not show up in current government records searches.

A review of the EDR Hist Auto list, as provided by EDR, has revealed that there is 1 EDR Hist Auto site within approximately 0.125 miles of the target property.

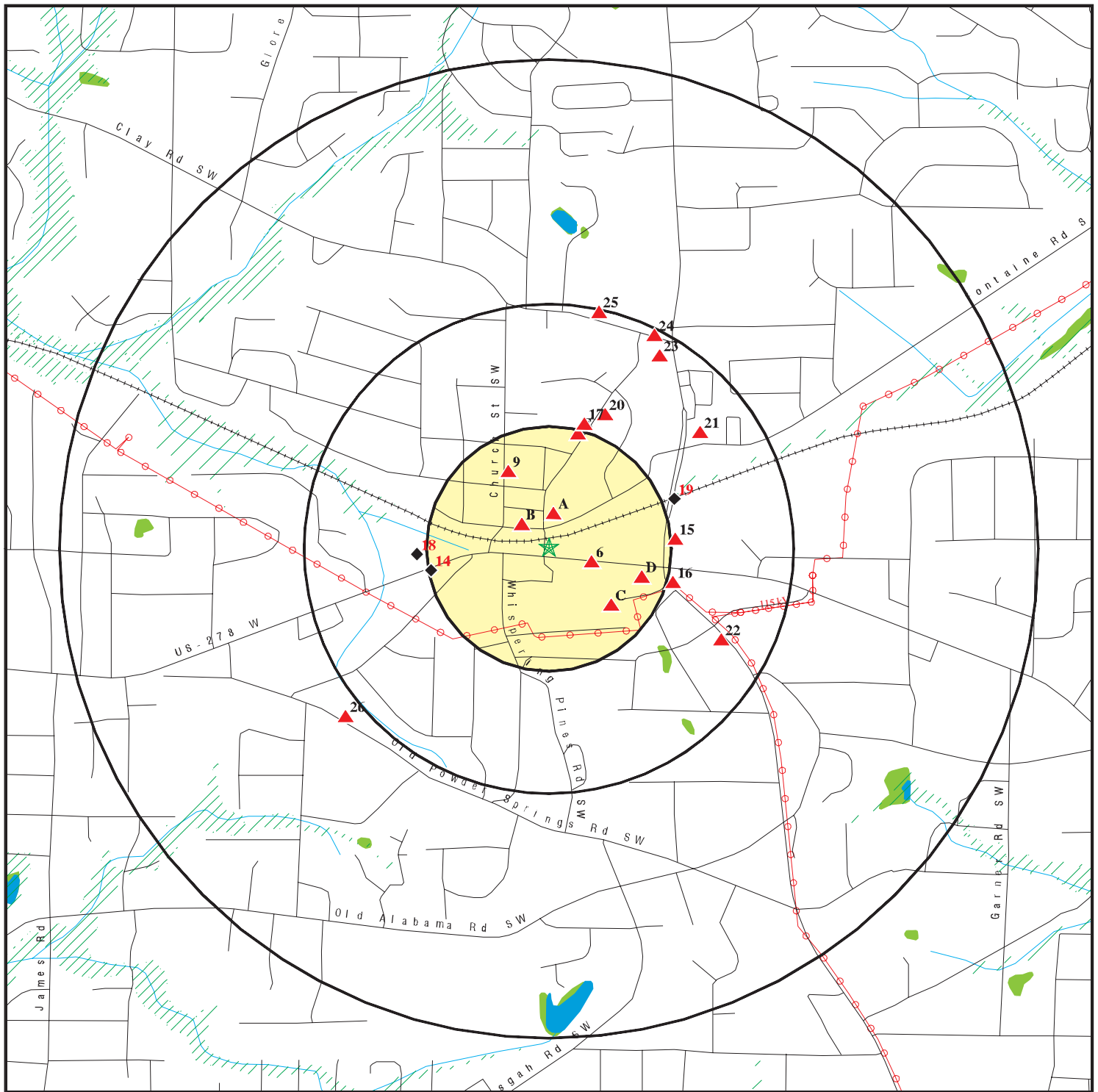
<u>Equal/Higher Elevation</u>	<u>Address</u>	<u>Direction / Distance</u>	<u>Map ID</u>	<u>Page</u>
SOBE AUTO GROUP LLC	930 FRONT ST SW	NW 0 - 1/8 (0.075 mi.)	B4	13

## EXECUTIVE SUMMARY

Due to poor or inadequate address information, the following sites were not mapped. Count: 4 records.

<u>Site Name</u>	<u>Database(s)</u>
JOHN WIELAND HOMES-LEGACY AT THE R	LUST, UST, Financial Assurance
SMCHANG LLC	LUST, UST, Financial Assurance
FORMER GULF OIL STATION	LUST, Financial Assurance
JOHNNY'S	LUST

# OVERVIEW MAP - 7471290.2S



★ Target Property

▲ Sites at elevations higher than or equal to the target property

◆ Sites at elevations lower than the target property

⚡ Manufactured Gas Plants

☒ National Priority List Sites

☒ Dept. Defense Sites

☒ Indian Reservations BIA

⚡ Power transmission lines

☒ Special Flood Hazard Area (1%)

☒ 0.2% Annual Chance Flood Hazard

☒ National Wetland Inventory

☒ State Wetlands

0 1/4 1/2 1 Miles

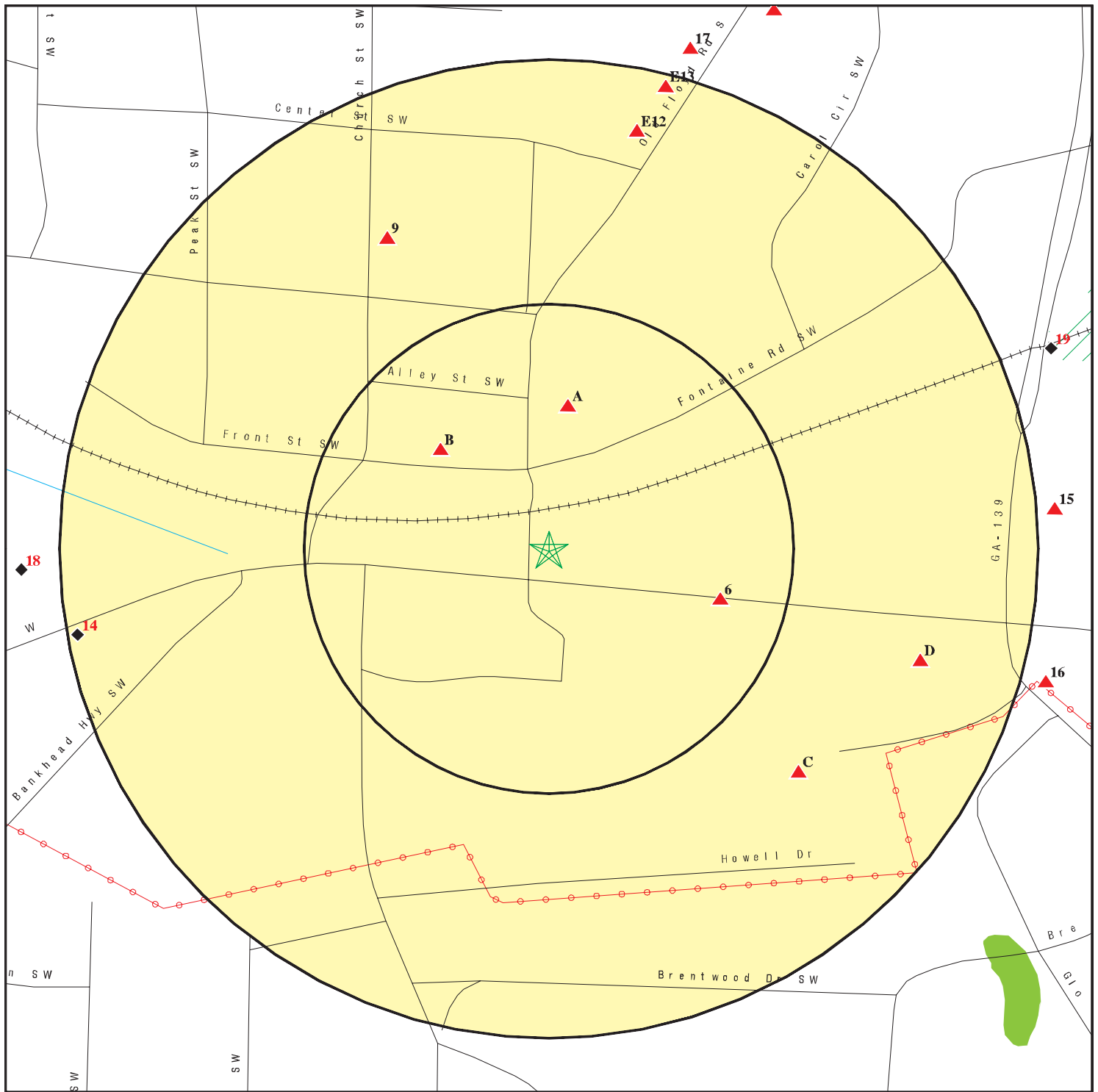


This report includes Interactive Map Layers to display and/or hide map information. The legend includes only those icons for the default map view.

SITE NAME: Former Retail Petroleum Outlet  
ADDRESS: 890 Veterans Memorial Hwy SW  
Mableton GA 30126  
LAT/LONG: 33.819033 / 84.580318

CLIENT: Contour Engineering, LLC  
CONTACT: Trey Young  
INQUIRY #: 7471290.2s  
DATE: October 16, 2023 4:14 pm

# DETAIL MAP - 7471290.2S



★ Target Property

▲ Sites at elevations higher than or equal to the target property

◆ Sites at elevations lower than the target property

▲ Manufactured Gas Plants

■ Sensitive Receptors

■ National Priority List Sites

■ Dept. Defense Sites

■ Indian Reservations BIA

■ Power transmission lines

■ Special Flood Hazard Area (1%)

■ 0.2% Annual Chance Flood Hazard

■ National Wetland Inventory

■ State Wetlands

0 1/16 1/8 1/4 Miles



This report includes Interactive Map Layers to display and/or hide map information. The legend includes only those icons for the default map view.

SITE NAME: Former Retail Petroleum Outlet  
ADDRESS: 890 Veterans Memorial Hwy SW  
Mableton GA 30126  
LAT/LONG: 33.819033 / 84.580318

CLIENT: Contour Engineering, LLC  
CONTACT: Trey Young  
INQUIRY #: 7471290.2s  
DATE: October 16, 2023 4:14 pm

## MAP FINDINGS SUMMARY

Database	Search Distance (Miles)	Target Property	< 1/8	1/8 - 1/4	1/4 - 1/2	1/2 - 1	> 1	Total Plotted
<b>STANDARD ENVIRONMENTAL RECORDS</b>								
<b><i>Lists of Federal NPL (Superfund) sites</i></b>								
NPL	1.000		0	0	0	0	NR	0
Proposed NPL	1.000		0	0	0	0	NR	0
NPL LIENS	1.000		0	0	0	0	NR	0
<b><i>Lists of Federal Delisted NPL sites</i></b>								
Delisted NPL	1.000		0	0	0	0	NR	0
<b><i>Lists of Federal sites subject to CERCLA removals and CERCLA orders</i></b>								
FEDERAL FACILITY	0.500		0	0	0	NR	NR	0
SEMS	0.500		0	0	0	NR	NR	0
<b><i>Lists of Federal CERCLA sites with NFRAP</i></b>								
SEMS-ARCHIVE	0.500		0	0	0	NR	NR	0
<b><i>Lists of Federal RCRA facilities undergoing Corrective Action</i></b>								
CORRACTS	1.000		0	0	0	0	NR	0
<b><i>Lists of Federal RCRA TSD facilities</i></b>								
RCRA-TSDF	0.500		0	0	0	NR	NR	0
<b><i>Lists of Federal RCRA generators</i></b>								
RCRA-LQG	0.250		0	0	NR	NR	NR	0
RCRA-SQG	0.250		0	0	NR	NR	NR	0
RCRA-VSQG	0.250		0	0	NR	NR	NR	0
<b><i>Federal institutional controls / engineering controls registries</i></b>								
LUCIS	0.500		0	0	0	NR	NR	0
US ENG CONTROLS	0.500		0	0	0	NR	NR	0
US INST CONTROLS	0.500		0	0	0	NR	NR	0
<b><i>Federal ERNS list</i></b>								
ERNS	TP		NR	NR	NR	NR	NR	0
<b><i>Lists of state- and tribal hazardous waste facilities</i></b>								
SHWS	1.000		0	0	0	0	NR	0
GA NON-HSI	1.000		0	0	2	1	NR	3
<b><i>Lists of state and tribal landfills and solid waste disposal facilities</i></b>								
SWF/LF	0.500		0	0	0	NR	NR	0
<b><i>Lists of state and tribal leaking storage tanks</i></b>								
LUST	0.500		2	2	9	NR	NR	13



## MAP FINDINGS SUMMARY

Database	Search Distance (Miles)	Target Property	< 1/8	1/8 - 1/4	1/4 - 1/2	1/2 - 1	> 1	Total Plotted
INDIAN LUST	0.500		0	0	0	NR	NR	0
<b><i>Lists of state and tribal registered storage tanks</i></b>								
FEMA UST	0.250		0	0	NR	NR	NR	0
UST	0.250		2	3	NR	NR	NR	5
AST	0.250		2	0	NR	NR	NR	2
INDIAN UST	0.250		0	0	NR	NR	NR	0
<b><i>State and tribal institutional control / engineering control registries</i></b>								
INST CONTROL	0.500		0	0	0	NR	NR	0
AUL	0.500		0	0	0	NR	NR	0
<b><i>Lists of state and tribal voluntary cleanup sites</i></b>								
VCP	0.500		0	0	0	NR	NR	0
INDIAN VCP	0.500		0	0	0	NR	NR	0
<b><i>Lists of state and tribal brownfield sites</i></b>								
BROWNFIELDS	0.500		0	0	0	NR	NR	0
<b><u>ADDITIONAL ENVIRONMENTAL RECORDS</u></b>								
<b><i>Local Brownfield lists</i></b>								
US BROWNFIELDS	0.500		0	0	0	NR	NR	0
<b><i>Local Lists of Landfill / Solid Waste Disposal Sites</i></b>								
HIST LF	0.500		0	0	0	NR	NR	0
SWRCY	0.500		0	0	0	NR	NR	0
INDIAN ODI	0.500		0	0	0	NR	NR	0
ODI	0.500		0	0	0	NR	NR	0
DEBRIS REGION 9	0.500		0	0	0	NR	NR	0
IHS OPEN DUMPS	0.500		0	0	0	NR	NR	0
<b><i>Local Lists of Hazardous waste / Contaminated Sites</i></b>								
US HIST CDL	TP		NR	NR	NR	NR	NR	0
CDL	TP		NR	NR	NR	NR	NR	0
DEL SHWS	1.000		0	0	0	0	NR	0
US CDL	TP		NR	NR	NR	NR	NR	0
<b><i>Local Land Records</i></b>								
LIENS 2	TP		NR	NR	NR	NR	NR	0
<b><i>Records of Emergency Release Reports</i></b>								
HMIRS	TP		NR	NR	NR	NR	NR	0
SPILLS	TP		NR	NR	NR	NR	NR	0
SPILLS 90	TP		NR	NR	NR	NR	NR	0
<b><i>Other Ascertainable Records</i></b>								
RCRA NonGen / NLR	0.250		1	3	NR	NR	NR	4

## MAP FINDINGS SUMMARY

Database	Search Distance (Miles)	Target Property	< 1/8	1/8 - 1/4	1/4 - 1/2	1/2 - 1	> 1	Total Plotted
FUDS	1.000		0	0	0	0	NR	0
DOD	1.000		0	0	0	0	NR	0
SCRD DRYCLEANERS	0.500		0	0	0	NR	NR	0
US FIN ASSUR	TP		NR	NR	NR	NR	NR	0
EPA WATCH LIST	TP		NR	NR	NR	NR	NR	0
2020 COR ACTION	0.250		0	0	NR	NR	NR	0
TSCA	TP		NR	NR	NR	NR	NR	0
TRIS	TP		NR	NR	NR	NR	NR	0
SSTS	TP		NR	NR	NR	NR	NR	0
ROD	1.000		0	0	0	0	NR	0
RMP	TP		NR	NR	NR	NR	NR	0
RAATS	TP		NR	NR	NR	NR	NR	0
PRP	TP		NR	NR	NR	NR	NR	0
PADS	TP		NR	NR	NR	NR	NR	0
ICIS	TP		NR	NR	NR	NR	NR	0
FTTS	TP		NR	NR	NR	NR	NR	0
MLTS	TP		NR	NR	NR	NR	NR	0
COAL ASH DOE	TP		NR	NR	NR	NR	NR	0
COAL ASH EPA	0.500		0	0	0	NR	NR	0
PCB TRANSFORMER	TP		NR	NR	NR	NR	NR	0
RADINFO	TP		NR	NR	NR	NR	NR	0
HIST FTTS	TP		NR	NR	NR	NR	NR	0
DOT OPS	TP		NR	NR	NR	NR	NR	0
CONSENT	1.000		0	0	0	0	NR	0
INDIAN RESERV	1.000		0	0	0	0	NR	0
FUSRAP	1.000		0	0	0	0	NR	0
UMTRA	0.500		0	0	0	NR	NR	0
LEAD SMELTERS	TP		NR	NR	NR	NR	NR	0
US AIRS	TP		NR	NR	NR	NR	NR	0
US MINES	0.250		0	0	NR	NR	NR	0
MINES MRDS	0.250		0	0	NR	NR	NR	0
ABANDONED MINES	0.250		0	0	NR	NR	NR	0
FINDS	TP		NR	NR	NR	NR	NR	0
DOCKET HWC	TP		NR	NR	NR	NR	NR	0
UXO	1.000		0	0	0	0	NR	0
ECHO	TP		NR	NR	NR	NR	NR	0
FUELS PROGRAM	0.250		0	0	NR	NR	NR	0
PFAS NPL	0.250		0	0	NR	NR	NR	0
PFAS FEDERAL SITES	0.250		0	0	NR	NR	NR	0
PFAS TRIS	0.250		0	0	NR	NR	NR	0
PFAS TSCA	0.250		0	0	NR	NR	NR	0
PFAS RCRA MANIFEST	0.250		0	0	NR	NR	NR	0
PFAS ATSDR	0.250		0	0	NR	NR	NR	0
PFAS WQP	0.250		0	0	NR	NR	NR	0
PFAS NPDES	0.250		0	0	NR	NR	NR	0
PFAS ECHO	0.250		0	0	NR	NR	NR	0
PFAS ECHO FIRE TRAINING	0.250		0	0	NR	NR	NR	0
PFAS PART 139 AIRPORT	0.250		0	0	NR	NR	NR	0
AQUEOUS FOAM NRC	0.250		0	0	NR	NR	NR	0
BIOSOLIDS	TP		NR	NR	NR	NR	NR	0
AIRS	TP		NR	NR	NR	NR	NR	0

## MAP FINDINGS SUMMARY

Database	Search Distance (Miles)	Target Property	< 1/8	1/8 - 1/4	1/4 - 1/2	1/2 - 1	> 1	Total Plotted
COAL ASH	0.500		0	0	0	NR	NR	0
DRYCLEANERS	0.250		0	1	NR	NR	NR	1
Financial Assurance	TP		NR	NR	NR	NR	NR	0
NPDES	TP		NR	NR	NR	NR	NR	0
TIER 2	TP		NR	NR	NR	NR	NR	0
UIC	TP		NR	NR	NR	NR	NR	0

### EDR HIGH RISK HISTORICAL RECORDS

#### ***EDR Exclusive Records***

EDR MGP	1.000		0	0	0	0	NR	0
EDR Hist Auto	0.125		1	NR	NR	NR	NR	1
EDR Hist Cleaner	0.125		0	NR	NR	NR	NR	0

### EDR RECOVERED GOVERNMENT ARCHIVES

#### ***Exclusive Recovered Govt. Archives***

RGA HWS	TP		NR	NR	NR	NR	NR	0
RGA LF	TP		NR	NR	NR	NR	NR	0
RGA LUST	TP		NR	NR	NR	NR	NR	0

- Totals --		0	8	9	11	1	0	29
-------------	--	---	---	---	----	---	---	----

#### NOTES:

TP = Target Property

NR = Not Requested at this Search Distance

Sites may be listed in more than one database

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**A1**  
**North**  
**< 1/8**  
**0.074 mi.**  
**391 ft.**  
**FLOYD ROAD SHOPPETTE**  
**5515 OLD FLOYD ROAD**  
**MABLETON, GA 30126**  
**Site 1 of 2 in cluster A**

**AST** **A100497167**  
**N/A**

**Relative:**  
**Higher**

**AST:**

**Actual:**  
**1001 ft.**

Name: FLOYD ROAD SHOPPETTE  
Address: 5515 OLD FLOYD ROAD  
City,State,Zip: MABLETON, GA 30126  
Owner Name: Fareed Sevani  
Owner Address: Not reported  
Owner City/State/Zip: Not reported  
Number Of Tanks: Not reported  
Tank Capacity: Not reported  
File No: 033-SSS-523  
Permit Type: Not reported  
Sub Type: Not reported  
Status: Not reported  
Issue Date: Not reported

**A2**  
**North**  
**< 1/8**  
**0.074 mi.**  
**391 ft.**  
**FLOYD ROAD SHOPPETS**  
**5515 OLD FLOYD RD**  
**MABLETON, GA 30126**  
**Site 2 of 2 in cluster A**

**LUST** **1007453450**  
**UST** **N/A**  
**FINDS**  
**Financial Assurance**

**Relative:**  
**Higher**

**LUST:**

**Actual:**  
**1001 ft.**

Name: FLOYD ROAD SHOPPETS  
Address: 5515 OLD FLOYD RD  
City,State,Zip: MABLETON, GA 30126  
Facility ID: 10000567  
Leak ID: 1  
Description: Suspected Release  
Cleanup Status: Suspected Release  
Date Received: Not reported  
Project Officer: EPD Migration  
Project Name: UST - 1 - FLOYD ROAD SHOPPETS  
Site Code Description: Potential GUST trust fund reimbursement site  
No Further Action Date: Not reported

**UST:**

Name: FLOYD ROAD SHOPPETS  
Address: 5515 OLD FLOYD RD  
City,State,Zip: MABLETON, GA

**Contact:**

LEMIR ID: 161262  
Facility ID: 10000567  
Facility Status: Active  
Location Status: Active  
Contact First Name: Fareed  
Contact Last Name: Sevani  
Contact Email: sevanibros@live.com  
Company Name: Austell Food Store  
Mailing Address: 5565 Austell Powder Springs Rd  
Mailing City: Austell  
Mailing State: GA  
Mailing Zip: 30106  
Start Date: Not reported

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**FLOYD ROAD SHOPPETS (Continued)**

**1007453450**

End Date: Not reported

**Tank Info:**

Tank ID: 1  
Name: FLOYD ROAD SHOPPETS  
Address: 5515 OLD FLOYD RD  
Tank Status: Currently in Use  
City: MABLETON  
Tank Material: Composite  
Pipe Type: Pressurized  
Overfill Type: Ball Float  
Install Date: 12/15/2003  
Facility ID: 10000567  
Product: Regular  
Pipe Material: Double-Walled Fiberglass  
Overfill Protection: False  
Overfill Installed: 01/14/2004  
Tank Exempt From Spill: False  
Date Spill Device Installed: 01/14/2004

Tank ID: 2  
Name: FLOYD ROAD SHOPPETS  
Address: 5515 OLD FLOYD RD  
Tank Status: Currently in Use  
City: MABLETON  
Tank Material: Composite  
Pipe Type: Pressurized  
Overfill Type: Ball Float  
Install Date: 12/15/2003  
Facility ID: 10000567  
Product: Premium  
Pipe Material: Double-Walled Fiberglass  
Overfill Protection: False  
Overfill Installed: 01/14/2004  
Tank Exempt From Spill: False  
Date Spill Device Installed: 01/14/2004

Tank ID: 3  
Name: FLOYD ROAD SHOPPETS  
Address: 5515 OLD FLOYD RD  
Tank Status: Currently in Use  
City: MABLETON  
Tank Material: Composite  
Pipe Type: Pressurized  
Overfill Type: Ball Float  
Install Date: 12/15/2003  
Facility ID: 10000567  
Product: Diesel  
Pipe Material: Double-Walled Fiberglass  
Overfill Protection: False  
Overfill Installed: 01/14/2004  
Tank Exempt From Spill: False  
Date Spill Device Installed: 01/14/2004

**FINDS:**

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**FLOYD ROAD SHOPPETS (Continued)**

**1007453450**

Registry ID: 110017743833

[Click Here for FRS Facility Detail Report:](#)

**Environmental Interest/Information System:**

Georgia's Geographic Environmental Information Management System (GEIMS) provides the EPA and the public a single point of access to core data for all facilities and sites regulated or monitored by the EPA and a single system for the reporting of all environmental data.

[Click this hyperlink](#) while viewing on your computer to access additional FINDS: detail in the EDR Site Report.

**GA Financial Assurance 1:**

Name: FLOYD ROAD SHOPPETS  
Address: 5515 OLD FLOYD RD  
City,State,Zip: MABLETON, GA 30126  
Region: 1  
Facility ID: 10000567  
Financial Responsibility: G.U.S.T. Trust Fund  
Location Start Date: 02/12/2004  
Location End Date: Not reported  
Location Status: Active  
Location Type: Gas Station  
Facility Status: ACTIVE

**B3  
NW  
< 1/8  
0.075 mi.  
398 ft.**

**BARBER OIL CO INC  
930 FRONT ST  
MABLETON, GA**

**Site 1 of 3 in cluster B**

**LUST U003763285  
UST N/A**

**Financial Assurance**

**Relative:  
Higher**

**LUST:**

**Actual:  
988 ft.**

Name: BARBER OIL CO INC  
Address: 930 FRONT ST  
City,State,Zip: MABLETON, GA 30126  
Facility ID: 09033598  
Leak ID: Not reported  
Description: Not reported  
Cleanup Status: NFA - Remediation  
Date Received: 08/14/2001  
Project Officer: Jay Kemberling  
Project Name: UST - 1 - BARBER OIL CO INC  
Site Code Description: Eligible GUST trust fund reimbursement site  
No Further Action Date: 05/02/2012

**UST:**

Name: BARBER OIL CO INC  
Address: 930 FRONT ST  
City,State,Zip: MABLETON, GA

**Tank Info:**

Tank ID: 1  
Name: BARBER OIL CO INC  
Address: 930 FRONT ST  
Tank Status: Removed from Ground  
City: MABLETON  
Tank Material: Fiberglass  
Pipe Type: Suction (American)

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**BARBER OIL CO INC (Continued)**

**U003763285**

Overfill Type: Not reported  
Install Date: 01/01/1981  
Facility ID: 9033598  
Product: Gas (Historical Use)  
Pipe Material: Cathodically Protected  
Overfill Protection: Not reported  
Overfill Installed: 01/01/1999  
Tank Exempt From Spill: Not reported  
Date Spill Device Installed: 01/01/1999

Tank ID: 2  
Name: BARBER OIL CO INC  
Address: 930 FRONT ST  
Tank Status: Removed from Ground  
City: MABLETON  
Tank Material: Fiberglass  
Pipe Type: Suction (American)  
Overfill Type: Not reported  
Install Date: 01/01/1981  
Facility ID: 9033598  
Product: Gas (Historical Use)  
Pipe Material: Cathodically Protected  
Overfill Protection: Not reported  
Overfill Installed: 01/01/1999  
Tank Exempt From Spill: Not reported  
Date Spill Device Installed: 01/01/1999

Tank ID: 3  
Name: BARBER OIL CO INC  
Address: 930 FRONT ST  
Tank Status: Removed from Ground  
City: MABLETON  
Tank Material: Fiberglass  
Pipe Type: Suction (American)  
Overfill Type: Not reported  
Install Date: 01/01/1981  
Facility ID: 9033598  
Product: Diesel  
Pipe Material: Cathodically Protected  
Overfill Protection: Not reported  
Overfill Installed: 01/01/1999  
Tank Exempt From Spill: Not reported  
Date Spill Device Installed: 01/01/1999

Tank ID: 4  
Name: BARBER OIL CO INC  
Address: 930 FRONT ST  
Tank Status: Removed from Ground  
City: MABLETON  
Tank Material: Fiberglass  
Pipe Type: Suction (American)  
Overfill Type: Not reported  
Install Date: 01/01/1981  
Facility ID: 9033598  
Product: Gas (Historical Use)  
Pipe Material: Cathodically Protected  
Overfill Protection: Not reported

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**BARBER OIL CO INC (Continued)**

**U003763285**

Overfill Installed: 01/01/1999  
Tank Exempt From Spill: Not reported  
Date Spill Device Installed: 01/01/1999  
  
Tank ID: 5  
Name: BARBER OIL CO INC  
Address: 930 FRONT ST  
Tank Status: Removed from Ground  
City: MABLETON  
Tank Material: Cathodically Protected Steel  
Pipe Type: Suction (American)  
Overfill Type: Not reported  
Install Date: 01/01/1981  
Facility ID: 9033598  
Product: Diesel  
Pipe Material: Cathodically Protected  
Overfill Protection: Not reported  
Overfill Installed: 01/01/1999  
Tank Exempt From Spill: Not reported  
Date Spill Device Installed: 01/01/1999

Tank ID: 6  
Name: BARBER OIL CO INC  
Address: 930 FRONT ST  
Tank Status: Closed in Ground  
City: MABLETON  
Tank Material: Cathodically Protected Steel  
Pipe Type: Suction (American)  
Overfill Type: Not reported  
Install Date: 01/01/1981  
Facility ID: 9033598  
Product: Kerosene  
Pipe Material: Cathodically Protected  
Overfill Protection: Not reported  
Overfill Installed: 01/01/1999  
Tank Exempt From Spill: Not reported  
Date Spill Device Installed: 01/01/1999

**Payments:**

Obligation Amount: \$23,387.24  
Agreement Number: FY-2010-GUST-09-3021  
Agreement Type: GUST - Reimbursement  
Payment Amount: \$23,387.24

Obligation Amount: \$15,625.55  
Agreement Number: FY-2007-GUST-06-2592  
Agreement Type: GUST - Reimbursement  
Payment Amount: \$15,625.55

**GA Financial Assurance 1:**

Name: BARBER OIL CO INC  
Address: 930 FRONT ST  
City,State,Zip: MABLETON, GA 30126  
Region: 1  
Facility ID: 9033598



Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**BARBER OIL CO INC (Continued)**

**U003763285**

Financial Responsibility: G.U.S.T. Trust Fund  
Location Start Date: 07/13/2000  
Location End Date: 09/02/2005  
Location Status: Close  
Location Type: Not Marked  
Facility Status: INACTIVE

**B4  
NW  
< 1/8  
0.075 mi.  
398 ft.**

**SOBE AUTO GROUP LLC  
930 FRONT ST SW  
MABLETON, GA 30126**

**EDR Hist Auto 1020451009  
N/A**

**Site 2 of 3 in cluster B**

**Relative:  
Higher**

EDR Hist Auto

**Actual:  
988 ft.**

Year:	Name:	Type:
1980	BARBER OIL COMPANY	Petroleum Products, NEC
1982	BARBER OIL COMPANY INC	Petroleum Products, NEC
1983	BARBER OIL COMPANY INC	Petroleum Products, NEC
1985	BARBER OIL COMPANY INC	Petroleum Products, NEC
1986	BARBER OIL COMPANY INC	Petroleum Products, NEC
1987	BARBER OIL COMPANY INC	Petroleum Products, NEC
1988	BARBER OIL COMPANY INC	Petroleum Products, NEC
1989	BARBER OIL COMPANY INC	Petroleum Products, NEC
2012	SOBE AUTO GROUP LLC	General Automotive Repair Shops
2013	SOBE AUTO GROUP LLC	General Automotive Repair Shops
2014	SOBE AUTO GROUP LLC	General Automotive Repair Shops

**B5  
NW  
< 1/8  
0.075 mi.  
398 ft.**

**BARBER OIL COMPANY  
930 FRONT STREET  
MABLETON, GA 30059**

**AST A100493842  
N/A**

**Site 3 of 3 in cluster B**

**Relative:  
Higher**

AST:

**Actual:  
988 ft.**

Name: BARBER OIL COMPANY  
Address: 930 FRONT STREET  
City,State,Zip: MABLETON, GA 30059  
Owner Name: Not reported  
Owner Address: Not reported  
Owner City/State/Zip: Not reported  
Number Of Tanks: Not reported  
Tank Capacity: Not reported  
File No: 033-FLB-010  
Permit Type: Not reported  
Sub Type: Not reported  
Status: Not reported  
Issue Date: Not reported

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

EDR ID Number  
EPA ID Number

6  
ESE  
< 1/8  
0.091 mi.  
481 ft.

**SOUTH COBB CLEANERS**  
**843 BANKHEAD HWY**  
**MABLETON, GA 30059**

**RCRA NonGen / NLR**  
**FINDS**  
**ECHO**

**1000405117**  
**GAD981233034**

**Relative:**  
**Higher**

**Actual:**  
**1003 ft.**

RCRA Listings:

Date Form Received by Agency:	19870403
Handler Name:	South Cobb Cleaners
Handler Address:	BANKHEAD HWY
Handler City,State,Zip:	MABLETON, GA 30059
EPA ID:	GAD981233034
Contact Name:	GEORGE THOMPSON
Contact Address:	843 BANKHEAD HWY
Contact City,State,Zip:	MABLETON, GA 30059
Contact Telephone:	404-948-2400
Contact Fax:	Not reported
Contact Email:	Not reported
Contact Title:	Not reported
EPA Region:	04
Land Type:	Not reported
Federal Waste Generator Description:	Not a generator, verified
Non-Notifier:	Not reported
Biennial Report Cycle:	Not reported
Accessibility:	Not reported
Active Site Indicator:	Not reported
State District Owner:	Ga
State District:	BB
Mailing Address:	BANKHEAD HWY
Mailing City,State,Zip:	MABLETON, GA 30059
Owner Name:	Thompson George
Owner Type:	Private
Operator Name:	Opername
Operator Type:	Private
Short-Term Generator Activity:	No
Importer Activity:	No
Mixed Waste Generator:	No
Transporter Activity:	No
Transfer Facility Activity:	No
Recycler Activity with Storage:	No
Small Quantity On-Site Burner Exemption:	No
Smelting Melting and Refining Furnace Exemption:	No
Underground Injection Control:	No
Off-Site Waste Receipt:	No
Universal Waste Indicator:	No
Universal Waste Destination Facility:	No
Federal Universal Waste:	No
Active Site State-Reg Handler:	---
Federal Facility Indicator:	Not reported
Hazardous Secondary Material Indicator:	NN
Sub-Part K Indicator:	Not reported
2018 GPRA Permit Baseline:	Not on the Baseline
2018 GPRA Renewals Baseline:	Not on the Baseline
202 GPRA Corrective Action Baseline:	No
Subject to Corrective Action Universe:	No
Non-TSDFs Where RCRA CA has Been Imposed Universe:	No
Corrective Action Priority Ranking:	No NCAPS ranking
Environmental Control Indicator:	No
Institutional Control Indicator:	No

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**SOUTH COBB CLEANERS (Continued)**

**1000405117**

Human Exposure Controls Indicator:	N/A
Groundwater Controls Indicator:	N/A
Significant Non-Complier Universe:	No
Unaddressed Significant Non-Complier Universe:	No
Addressed Significant Non-Complier Universe:	No
Significant Non-Complier With a Compliance Schedule Universe:	No
Financial Assurance Required:	Not reported
Handler Date of Last Change:	20000902
Recognized Trader-Importer:	No
Recognized Trader-Exporter:	No
Importer of Spent Lead Acid Batteries:	No
Exporter of Spent Lead Acid Batteries:	No
Recycler Activity Without Storage:	Not reported
Manifest Broker:	Not reported
Sub-Part P Indicator:	No

**Hazardous Waste Summary:**

Waste Code:	F002
Waste Description:	The Following Spent Halogenated Solvents: Tetrachloroethylene, Methylene Chloride, Trichloroethylene, 1,1,1-Trichloroethane, Chlorobenzene, 1,1,2-Trichloro-1,2,2-Trifluoroethane, Ortho-Dichlorobenzene, Trichlorofluoromethane, And 1,1,2, Trichloroethane; All Spent Solvent Mixtures/Blends Containing, Before Use, A Total Of Ten Percent Or More (By Volume) Of One Or More Of The Above Halogenated Solvents Or Those Solvents Listed In F001, F004, And F005; And Still Bottoms From The Recovery Of These Spent Solvents And Spent Solvent Mixtures.

**Handler - Owner Operator:**

Owner/Operator Indicator:	Operator
Owner/Operator Name: OPERNAME	
Legal Status:	Private
Date Became Current:	Not reported
Date Ended Current:	Not reported
Owner/Operator Address:	OPERSTREET
Owner/Operator City,State,Zip:	OPERCITY, WY 99999
Owner/Operator Telephone:	404-555-1212
Owner/Operator Telephone Ext:	Not reported
Owner/Operator Fax:	Not reported
Owner/Operator Email:	Not reported
Owner/Operator Indicator:	Owner
Owner/Operator Name: THOMPSON GEORGE	
Legal Status:	Private
Date Became Current:	Not reported
Date Ended Current:	Not reported
Owner/Operator Address:	OWNERSTREET
Owner/Operator City,State,Zip:	OWNERCITY, WY 99999
Owner/Operator Telephone:	404-555-1212
Owner/Operator Telephone Ext:	Not reported
Owner/Operator Fax:	Not reported
Owner/Operator Email:	Not reported

**Historic Generators:**

Receive Date:	19870403
---------------	----------

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**SOUTH COBB CLEANERS (Continued)**

**1000405117**

Handler Name: SOUTH COBB CLEANERS  
Federal Waste Generator Description: Not a generator, verified  
State District Owner: Ga  
Large Quantity Handler of Universal Waste: No  
Recognized Trader Importer: No  
Recognized Trader Exporter: No  
Spent Lead Acid Battery Importer: No  
Spent Lead Acid Battery Exporter: No  
Current Record: Yes  
Non Storage Recycler Activity: Not reported  
Electronic Manifest Broker: Not reported

List of NAICS Codes and Descriptions:

NAICS Code: 81232  
NAICS Description: DRYCLEANING AND LAUNDRY SERVICES (EXCEPT COIN-OPERATED)

Facility Has Received Notices of Violations:

Violations: No Violations Found

Evaluation Action Summary:

Evaluations: No Evaluations Found

FINDS:

Registry ID: 110006394749

[Click Here for FRS Facility Detail Report:](#)

Environmental Interest/Information System:

The Resource Conservation and Recovery Act Information System (RCRAInfo) is EPA's comprehensive information system in support of the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. It tracks many types of information about generators, transporters, treaters, storers, and disposers of hazardous waste.

[Click this hyperlink](#) while viewing on your computer to access additional FINDS: detail in the EDR Site Report.

ECHO:

Envid: 1000405117  
Registry ID: 110006394749  
DFR URL: <http://echo.epa.gov/detailed-facility-report?fid=110006394749>  
Name: SOUTH COBB CLEANERS  
Address: 843 BANKHEAD HWY  
City,State,Zip: MABLETON, GA 30059

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

EDR ID Number  
EPA ID Number

	Site	Database(s)	
<b>C7</b>	<b>VILLAGE CLEANERS</b>	<b>RCRA NonGen / NLR</b>	<b>1004686939</b>
<b>SE</b>	<b>5590 MABLETON PKWY SUITE 21</b>	<b>FINDS</b>	<b>GAD984300269</b>
<b>1/8-1/4</b>	<b>MABLETON, GA 30059</b>	<b>ECHO</b>	
<b>0.171 mi.</b>			
<b>902 ft.</b>	<b>Site 1 of 2 in cluster C</b>		
<b>Relative:</b>	RCRA Listings:		
<b>Higher</b>	Date Form Received by Agency:	20050531	
	Handler Name:	Village Cleaners	
<b>Actual:</b>	Handler Address:	MABLETON PKWY SUITE 21	
<b>1011 ft.</b>	Handler City,State,Zip:	MABLETON, GA 30059	
	EPA ID:	GAD984300269	
	Contact Name:	BILL CHOPRA	
	Contact Address:	5590 MABLETON PKWY SUITE 21	
	Contact City,State,Zip:	MABLETON, GA 30059	
	Contact Telephone:	404-948-2127	
	Contact Fax:	Not reported	
	Contact Email:	Not reported	
	Contact Title:	Not reported	
	EPA Region:	04	
	Land Type:	Private	
	Federal Waste Generator Description:	Not a generator, verified	
	Non-Notifier:	Not reported	
	Biennial Report Cycle:	Not reported	
	Accessibility:	Not reported	
	Active Site Indicator:	Not reported	
	State District Owner:	Not reported	
	State District:	Not reported	
	Mailing Address:	MABLETON PKWY SUITE 21	
	Mailing City,State,Zip:	MABLETON, GA 30059	
	Owner Name:	Bimal Chopra	
	Owner Type:	Private	
	Operator Name:	Not reported	
	Operator Type:	Not reported	
	Short-Term Generator Activity:	No	
	Importer Activity:	No	
	Mixed Waste Generator:	No	
	Transporter Activity:	No	
	Transfer Facility Activity:	No	
	Recycler Activity with Storage:	No	
	Small Quantity On-Site Burner Exemption:	No	
	Smelting Melting and Refining Furnace Exemption:	No	
	Underground Injection Control:	No	
	Off-Site Waste Receipt:	No	
	Universal Waste Indicator:	No	
	Universal Waste Destination Facility:	No	
	Federal Universal Waste:	No	
	Active Site State-Reg Handler:	---	
	Federal Facility Indicator:	Not reported	
	Hazardous Secondary Material Indicator:	NN	
	Sub-Part K Indicator:	Not reported	
	2018 GPRA Permit Baseline:	Not on the Baseline	
	2018 GPRA Renewals Baseline:	Not on the Baseline	
	202 GPRA Corrective Action Baseline:	No	
	Subject to Corrective Action Universe:	No	
	Non-TSDFs Where RCRA CA has Been Imposed Universe:	No	
	Corrective Action Priority Ranking:	No NCAPS ranking	
	Environmental Control Indicator:	No	
	Institutional Control Indicator:	No	

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**VILLAGE CLEANERS (Continued)**

**1004686939**

Human Exposure Controls Indicator:	N/A
Groundwater Controls Indicator:	N/A
Significant Non-Complier Universe:	No
Unaddressed Significant Non-Complier Universe:	No
Addressed Significant Non-Complier Universe:	No
Significant Non-Complier With a Compliance Schedule Universe:	No
Financial Assurance Required:	Not reported
Handler Date of Last Change:	20050729
Recognized Trader-Importer:	No
Recognized Trader-Exporter:	No
Importer of Spent Lead Acid Batteries:	No
Exporter of Spent Lead Acid Batteries:	No
Recycler Activity Without Storage:	Not reported
Manifest Broker:	Not reported
Sub-Part P Indicator:	No

**Hazardous Waste Summary:**

Waste Code:	F002
Waste Description:	The Following Spent Halogenated Solvents: Tetrachloroethylene, Methylene Chloride, Trichloroethylene, 1,1,1-Trichloroethane, Chlorobenzene, 1,1,2-Trichloro-1,2,2-Trifluoroethane, Ortho-Dichlorobenzene, Trichlorofluoromethane, And 1,1,2, Trichloroethane; All Spent Solvent Mixtures/Blends Containing, Before Use, A Total Of Ten Percent Or More (By Volume) Of One Or More Of The Above Halogenated Solvents Or Those Solvents Listed In F001, F004, And F005; And Still Bottoms From The Recovery Of These Spent Solvents And Spent Solvent Mixtures.

**Handler - Owner Operator:**

Owner/Operator Indicator:	Owner
Owner/Operator Name:	BIMAL CHOPRA
Legal Status:	Private
Date Became Current:	Not reported
Date Ended Current:	Not reported
Owner/Operator Address:	2080 BRECONRIDGE DR
Owner/Operator City,State,Zip:	MARIETTA, GA 30064
Owner/Operator Telephone:	404-425-2807
Owner/Operator Telephone Ext:	Not reported
Owner/Operator Fax:	Not reported
Owner/Operator Email:	Not reported

Owner/Operator Indicator:	Owner
Owner/Operator Name:	BIMAL CHOPRA
Legal Status:	Private
Date Became Current:	Not reported
Date Ended Current:	Not reported
Owner/Operator Address:	2080 BRECONRIDGE DR
Owner/Operator City,State,Zip:	MARIETTA, GA 30064
Owner/Operator Telephone:	404-425-2807
Owner/Operator Telephone Ext:	Not reported
Owner/Operator Fax:	Not reported
Owner/Operator Email:	Not reported

**Historic Generators:**

Receive Date:	20050531
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Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**VILLAGE CLEANERS (Continued)**

**1004686939**

Handler Name:	VILLAGE CLEANERS	
Federal Waste Generator Description:		Not a generator, verified
State District Owner:		Not reported
Large Quantity Handler of Universal Waste:		No
Recognized Trader Importer:		No
Recognized Trader Exporter:		No
Spent Lead Acid Battery Importer:		No
Spent Lead Acid Battery Exporter:		No
Current Record:		Yes
Non Storage Recycler Activity:		Not reported
Electronic Manifest Broker:		Not reported
Receive Date:		19910905
Handler Name:	VILLAGE CLEANERS	
Federal Waste Generator Description:		Conditionally Exempt Small Quantity Generator
State District Owner:		Not reported
Large Quantity Handler of Universal Waste:		No
Recognized Trader Importer:		No
Recognized Trader Exporter:		No
Spent Lead Acid Battery Importer:		No
Spent Lead Acid Battery Exporter:		No
Current Record:		No
Non Storage Recycler Activity:		Not reported
Electronic Manifest Broker:		Not reported

List of NAICS Codes and Descriptions:  
NAICS Codes: No NAICS Codes Found

Facility Has Received Notices of Violations:  
Violations: No Violations Found

Evaluation Action Summary:  
Evaluations: No Evaluations Found

FINDS:  
Registry ID: 110006396792

[Click Here for FRS Facility Detail Report:](#)

Environmental Interest/Information System:  
The Resource Conservation and Recovery Act Information System (RCRAInfo) is EPA's comprehensive information system in support of the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. It tracks many types of information about generators, transporters, treaters, storers, and disposers of hazardous waste.

[Click this hyperlink](#) while viewing on your computer to access additional FINDS: detail in the EDR Site Report.

ECHO:  
Envid: 1004686939  
Registry ID: 110006396792  
DFR URL: <http://echo.epa.gov/detailed-facility-report?fid=110006396792>  
Name: VILLAGE CLEANERS

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**VILLAGE CLEANERS (Continued)**

**1004686939**

Address: 5590 MABLETON PKWY SUITE 21  
City,State,Zip: MABLETON, GA 30059

**C8  
SE  
1/8-1/4  
0.171 mi.  
902 ft.**

**VILLAGE CLEANERS  
5590 MABLETON PARKWAY #123  
MABLETON, GA 30059**

**DRYCLEANERS S116496506  
N/A**

**Site 2 of 2 in cluster C**

**Relative:  
Higher**

**DRYCLN:**

**Actual:  
1011 ft.**

Name: VILLAGE CLEANERS  
Address: 5590 MABLETON PARKWAY #123  
City,State,Zip: MABLETON, GA 30059  
Contact Name: Not reported  
Phone Number: Not reported  
Contact Name: Not reported  
MSA code: Not reported  
MSA desc: Not reported  
CBSA code: Not reported  
CBSA descr: Not reported  
Metro Micro Indicator: Not reported  
CSA code: Not reported  
Csa descr: Not reported  
Census tract: Not reported  
Census block group: Not reported  
Latitude: Not reported  
Longitude: Not reported  
Match level code: Not reported  
Secondary address: Not reported  
Secondary city: Not reported  
Secondary state: Not reported  
Secondary zip10: Not reported  
Secondary carrier route code: Not reported  
Fax number: Not reported  
Toll free number: Not reported  
Web site: Not reported  
Selected SIC code: Not reported  
Selected SIC desc: Not reported  
Primary SIC code: Not reported  
Primary SIC desc: Not reported  
NAICS code: Not reported  
NAICS desc: Not reported  
Location employment size code: Not reported  
Location employment size desc: Not reported  
Actual location employment size: Not reported  
Modeled employment size: Not reported  
Location sales volume code: Not reported  
Location sales volume desc: Not reported  
Actual location sales volume: Not reported  
Corporate sales volume code: Not reported  
Corporate sales volume desc: Not reported  
Actual corporate sales volume: Not reported  
Asset size: Not reported  
Name: Not reported  
Title: Not reported  
Ethnicity code: Not reported  
Infousa id: Not reported  
Site Number: Not reported



Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**VILLAGE CLEANERS (Continued)**

**S116496506**

HQ branch code:	Not reported
HQ branch desc:	Not reported
Public company indicator code:	Not reported
Public filing indicator:	Not reported
Individual firm code:	Not reported
Individual firm desc:	Not reported
Year SIC added:	Not reported
Year first appeared in yellow pages:	Not reported
Yellow page code:	Not reported
Transaction date:	Not reported
Call status code:	Not reported
Call status desc:	Not reported
Credit score code:	Not reported
Credit score desc:	Not reported
Actual credit score:	Not reported
Ad size code:	Not reported
Population code:	Not reported
Population desc:	Not reported
Square footage code:	Not reported
Square footage desc:	Not reported
Radial distance from target element:	Not reported
Actnumbus multitenant location:	Not reported
Building num multi tenant:	Not reported
Number of pcs code:	Not reported
Affluent neighborhood location:	Not reported
Big business:	Not reported
Female owner exec:	Not reported
Highincomeexec:	Not reported
Hightechbusiness:	Not reported
Medium size business entrepreneur:	Not reported
Small business entrepreneur:	Not reported
Tertiary address:	Not reported
Tertiary city:	Not reported
Tertiary state:	Not reported
Tertiary zip10:	Not reported
White collar percentage:	Not reported
White collar indicator:	Not reported
Production date:	Not reported
Obsolescence date:	Not reported
Source:	Not reported
Bookno:	Not reported

**9**  
**NNW**  
**1/8-1/4**  
**0.179 mi.**  
**946 ft.**

**BST/MABLETON/F1390**  
**5445 CHURCH ST**  
**MABLETON, GA 30059**

**LUST**  
**UST**  
**FINDS**  
**1006787976**  
**N/A**

**Financial Assurance**

**Relative:**  
**Higher**

**LUST:**

**Actual:**  
**998 ft.**

Name:	BST/MABLETON/F1390
Address:	5445 CHURCH ST
City,State,Zip:	MABLETON, GA 30059
Facility ID:	00330467
Leak ID:	Not reported
Description:	Not reported
Cleanup Status:	NFA - Clean Closure
Date Received:	Not reported
Project Officer:	Kent Hankinson

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**BST/MABLETON/F1390 (Continued)**

**1006787976**

Project Name: UST - CLOSURE - BST/MABLETON/F1390  
Site Code Description: Owner/Operator funded site  
No Further Action Date: 01/18/2017

UST:

Name: BST/MABLETON/F1390  
Address: 5445 CHURCH ST  
City,State,Zip: MABLETON, GA

Tank Info:

Tank ID: 1  
Name: BST/MABLETON/F1390  
Address: 5445 CHURCH ST  
Tank Status: Removed from Ground  
City: MABLETON  
Tank Material: Bare Steel  
Pipe Type: Suction (American)  
Overfill Type: Not reported  
Install Date: 01/04/1973  
Facility ID: 330467  
Product: Diesel  
Pipe Material: Copper  
Overfill Protection: Not reported  
Overfill Installed: Not reported  
Tank Exempt From Spill: Not reported  
Date Spill Device Installed: Not reported

Tank ID: 2  
Name: BST/MABLETON/F1390  
Address: 5445 CHURCH ST  
Tank Status: Removed from Ground  
City: MABLETON  
Tank Material: Fiberglass Double Walled  
Pipe Type: Safe Suction (Euro)  
Overfill Type: Overfill Alarm  
Install Date: 08/01/1994  
Facility ID: 330467  
Product: Diesel  
Pipe Material: Double-Walled Fiberglass  
Overfill Protection: Not reported  
Overfill Installed: 08/01/1994  
Tank Exempt From Spill: Not reported  
Date Spill Device Installed: 08/01/1994

FINDS:

Registry ID: 110013573846

[Click Here for FRS Facility Detail Report:](#)

Environmental Interest/Information System:

Georgia's Geographic Environmental Information Management System (GEIMS) provides the EPA and the public a single point of access to core data for all facilities and sites regulated or monitored by the EPA and a single system for the reporting of all environmental data.

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**BST/MABLETON/F1390 (Continued)**

**1006787976**

[Click this hyperlink](#) while viewing on your computer to access additional FINDS: detail in the EDR Site Report.

GA Financial Assurance 1:

Name: BST/MABLETON/F1390  
Address: 5445 CHURCH ST  
City,State,Zip: MABLETON, GA 30059  
Region: 1  
Facility ID: 330467  
Financial Responsibility: Insurance  
Location Start Date: 01/01/1987  
Location End Date: 01/06/2017  
Location Status: Close  
Location Type: Utilities  
Facility Status: INACTIVE

D10  
ESE  
1/8-1/4  
0.198 mi.  
1046 ft.

**FORMER GAS STATION (ABANDONED TANKS)  
757 VETERANS MEMORIAL HWY  
MABLETON, GA**

UST  
Financial Assurance

U004188203  
N/A

**Site 1 of 2 in cluster D**

Relative:  
Higher  
Actual:  
1021 ft.

UST:  
Name: FORMER GAS STATION (ABANDONED TANKS)  
Address: 757 VETERANS MEMORIAL HWY  
City,State,Zip: MABLETON, GA

Tank Info:

Tank ID: 1  
Name: FORMER GAS STATION (ABANDONED TANKS)  
Address: 757 VETERANS MEMORIAL HWY  
Tank Status: Removed from Ground  
City: MABLETON  
Tank Material: Bare Steel  
Pipe Type: Not reported  
Overfill Type: Not reported  
Install Date: 01/12/2010  
Facility ID: 10001811  
Product: Gas (Historical Use)  
Pipe Material: Not reported  
Overfill Protection: True  
Overfill Installed: Not reported  
Tank Exempt From Spill: False  
Date Spill Device Installed: Not reported

Tank ID: 2  
Name: FORMER GAS STATION (ABANDONED TANKS)  
Address: 757 VETERANS MEMORIAL HWY  
Tank Status: Removed from Ground  
City: MABLETON  
Tank Material: Bare Steel  
Pipe Type: Not reported  
Overfill Type: Not reported  
Install Date: 01/12/2010  
Facility ID: 10001811  
Product: Not reported  
Pipe Material: Not reported  
Overfill Protection: True

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**FORMER GAS STATION (ABANDONED TANKS) (Continued)**

**U004188203**

Overfill Installed: Not reported  
Tank Exempt From Spill: False  
Date Spill Device Installed: Not reported

**GA Financial Assurance 1:**

Name: FORMER GAS STATION (ABANDONED TANKS)  
Address: 757 VETERANS MEMORIAL HWY  
City,State,Zip: MABLETON, GA 30126  
Region: 1  
Facility ID: 10001811  
Financial Responsibility: Self Insured  
Location Start Date: 02/18/2010  
Location End Date: 02/18/2010  
Location Status: Close  
Location Type: Gas Station  
Facility Status: INACTIVE

**D11**  
**ESE**  
**1/8-1/4**  
**0.198 mi.**  
**1046 ft.**

**FORMER GAS STATION (ABANDONED TANKS)**  
**757 VETERANS MEMORIAL HWY**  
**MABLETON, GA 30126**  
**Site 2 of 2 in cluster D**

**LUST S110591086**  
**N/A**

**Relative:**  
**Higher**  
**Actual:**  
**1021 ft.**

**LUST:**  
Name: FORMER GAS STATION (ABANDONED TANKS)  
Address: 757 VETERANS MEMORIAL HWY  
City,State,Zip: MABLETON, GA 30126  
Facility ID: 10001811  
Leak ID: 1  
Description: Confirmed Release  
Cleanup Status: NFA - No Further Action  
Date Received: 02/18/2010  
Project Officer: Ron Wallace  
Project Name: UST - 1 - FORMER GAS STATION (ABANDONED TANKS)  
Site Code Description: Owner/Operator funded site  
No Further Action Date: 03/04/2010

**E12**  
**NNE**  
**1/8-1/4**  
**0.219 mi.**  
**1154 ft.**

**BBJ INC**  
**5420 OLD FLOYD RD**  
**MABLETON, GA**  
**Site 1 of 2 in cluster E**

**UST U001475866**  
**Financial Assurance N/A**

**Relative:**  
**Higher**  
**Actual:**  
**1021 ft.**

**UST:**  
Name: BBJ INC  
Address: 5420 OLD FLOYD RD  
City,State,Zip: MABLETON, GA  
Tank Info:  
Tank ID: 1  
Name: BBJ INC  
Address: 5420 OLD FLOYD RD  
Tank Status: Removed from Ground  
City: MABLETON  
Tank Material: Bare Steel

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**BBJ INC (Continued)**

**U001475866**

Pipe Type: Not reported  
Overfill Type: Not reported  
Install Date: 02/28/1986  
Facility ID: 330596  
Product: Gas (Historical Use)  
Pipe Material: Galvanized Steel  
Overfill Protection: Not reported  
Overfill Installed: Not reported  
Tank Exempt From Spill: Not reported  
Date Spill Device Installed: Not reported

**GA Financial Assurance 1:**

Name: BBJ INC  
Address: 5420 OLD FLOYD RD  
City,State,Zip: MABLETON, GA 30059  
Region: 1  
Facility ID: 330596  
Financial Responsibility: G.U.S.T. Trust Fund  
Location Start Date: 02/28/1986  
Location End Date: 07/21/1995  
Location Status: Close  
Location Type: Commercial  
Facility Status: INACTIVE

**E13**  
**NNE**  
**1/8-1/4**  
**0.244 mi.**  
**1288 ft.**

**MOBILE MANUFACTURING INC**  
**5412 OLD FLOYD RD**  
**MABLETON, GA 30126**  
**Site 2 of 2 in cluster E**

**RCRA NonGen / NLR**  
**FINDS**  
**ECHO**  
**1004687086**  
**GAD984312991**

**Relative:**  
**Higher**  
**Actual:**  
**1022 ft.**

RCRA Listings:  
Date Form Received by Agency: 20090513  
Handler Name: Mobile Manufacturing Inc  
Handler Address: OLD FLOYD RD  
Handler City,State,Zip: MABLETON, GA 30126  
EPA ID: GAD984312991  
Contact Name: ROBERT ARMSTRONG  
Contact Address: OLD FLOYD RD  
Contact City,State,Zip: MABLETON, GA 30126  
Contact Telephone: 770-455-0352  
Contact Fax: Not reported  
Contact Email: Not reported  
Contact Title: Not reported  
EPA Region: 04  
Land Type: Private  
Federal Waste Generator Description: Not a generator, verified  
Non-Notifier: Not reported  
Biennial Report Cycle: Not reported  
Accessibility: Not reported  
Active Site Indicator: Not reported  
State District Owner: Not reported  
State District: Not reported  
Mailing Address: OLD FLOYD RD  
Mailing City,State,Zip: MABLETON, GA 30126  
Owner Name: Robert Armstrong  
Owner Type: Private

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**MOBILE MANUFACTURING INC (Continued)**

**1004687086**

Operator Name:	Not reported
Operator Type:	Not reported
Short-Term Generator Activity:	No
Importer Activity:	No
Mixed Waste Generator:	No
Transporter Activity:	No
Transfer Facility Activity:	No
Recycler Activity with Storage:	No
Small Quantity On-Site Burner Exemption:	No
Smelting Melting and Refining Furnace Exemption:	No
Underground Injection Control:	No
Off-Site Waste Receipt:	No
Universal Waste Indicator:	No
Universal Waste Destination Facility:	No
Federal Universal Waste:	No
Active Site State-Reg Handler:	---
Federal Facility Indicator:	Not reported
Hazardous Secondary Material Indicator:	NN
Sub-Part K Indicator:	Not reported
2018 GPRA Permit Baseline:	Not on the Baseline
2018 GPRA Renewals Baseline:	Not on the Baseline
202 GPRA Corrective Action Baseline:	No
Subject to Corrective Action Universe:	No
Non-TSDFs Where RCRA CA has Been Imposed Universe:	No
Corrective Action Priority Ranking:	No NCAPS ranking
Environmental Control Indicator:	No
Institutional Control Indicator:	No
Human Exposure Controls Indicator:	N/A
Groundwater Controls Indicator:	N/A
Significant Non-Complier Universe:	No
Unaddressed Significant Non-Complier Universe:	No
Addressed Significant Non-Complier Universe:	No
Significant Non-Complier With a Compliance Schedule Universe:	No
Financial Assurance Required:	Not reported
Handler Date of Last Change:	20090513
Recognized Trader-Importer:	No
Recognized Trader-Exporter:	No
Importer of Spent Lead Acid Batteries:	No
Exporter of Spent Lead Acid Batteries:	No
Recycler Activity Without Storage:	Not reported
Manifest Broker:	Not reported
Sub-Part P Indicator:	No

**Hazardous Waste Summary:**

Waste Code:	D001
Waste Description:	Ignitable Waste

Waste Code:	F003
Waste Description:	The Following Spent Nonhalogenated Solvents: Xylene, Acetone, Ethyl Acetate, Ethyl Benzene, Ethyl Ether, Methyl Isobutyl Ketone, N-Butyl Alcohol, Cyclohexanone, And Methanol; All Spent Solvent Mixtures/Blends Containing, Before Use, Only The Above Spent Nonhalogenated Solvents; And All Spent Solvent Mixtures/Blends Containing, Before Use, One Or More Of The Above Nonhalogenated Solvents, And A Total Of Ten Percent Or More (By Volume) Of One Or More Of Those Solvents Listed In F001, F002, F004, And F005; And Still

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**MOBILE MANUFACTURING INC (Continued)**

**1004687086**

Bottoms From The Recovery Of These Spent Solvents And Spent Solvent Mixtures.

Handler - Owner Operator:

Owner/Operator Indicator:	Owner
Owner/Operator Name:	ROBERT ARMSTRONG
Legal Status:	Private
Date Became Current:	20010701
Date Ended Current:	Not reported
Owner/Operator Address:	2212 SPRING WALK CT
Owner/Operator City,State,Zip:	CHAMBLEE, GA 30341
Owner/Operator Telephone:	770-455-0352
Owner/Operator Telephone Ext:	Not reported
Owner/Operator Fax:	Not reported
Owner/Operator Email:	Not reported

Owner/Operator Indicator:	Owner
Owner/Operator Name:	ROBERT ARMSTRONG
Legal Status:	Private
Date Became Current:	20010701
Date Ended Current:	Not reported
Owner/Operator Address:	2212 SPRING WALK CT
Owner/Operator City,State,Zip:	CHAMBLEE, GA 30341
Owner/Operator Telephone:	770-455-0352
Owner/Operator Telephone Ext:	Not reported
Owner/Operator Fax:	Not reported
Owner/Operator Email:	Not reported

Historic Generators:

Receive Date:	19920601
Handler Name:	MOBILE MANUFACTURING INC
Federal Waste Generator Description:	Conditionally Exempt Small Quantity Generator
State District Owner:	Not reported
Large Quantity Handler of Universal Waste:	No
Recognized Trader Importer:	No
Recognized Trader Exporter:	No
Spent Lead Acid Battery Importer:	No
Spent Lead Acid Battery Exporter:	No
Current Record:	No
Non Storage Recycler Activity:	Not reported
Electronic Manifest Broker:	Not reported

Receive Date:	20010821
Handler Name:	MOBILE MANUFACTURING INC
Federal Waste Generator Description:	Conditionally Exempt Small Quantity Generator
State District Owner:	Not reported
Large Quantity Handler of Universal Waste:	No
Recognized Trader Importer:	No
Recognized Trader Exporter:	No
Spent Lead Acid Battery Importer:	No
Spent Lead Acid Battery Exporter:	No
Current Record:	No
Non Storage Recycler Activity:	Not reported
Electronic Manifest Broker:	Not reported

Receive Date:	20090513
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Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**MOBILE MANUFACTURING INC (Continued)**

**1004687086**

Handler Name: MOBILE MANUFACTURING INC  
Federal Waste Generator Description: Not a generator, verified  
State District Owner: Not reported  
Large Quantity Handler of Universal Waste: No  
Recognized Trader Importer: No  
Recognized Trader Exporter: No  
Spent Lead Acid Battery Importer: No  
Spent Lead Acid Battery Exporter: No  
Current Record: Yes  
Non Storage Recycler Activity: Not reported  
Electronic Manifest Broker: Not reported

List of NAICS Codes and Descriptions:

NAICS Codes: No NAICS Codes Found

Facility Has Received Notices of Violations:

Violations: No Violations Found

Evaluation Action Summary:

Evaluations: No Evaluations Found

**FINDS:**

Registry ID: 110006397247

[Click Here for FRS Facility Detail Report:](#)

Environmental Interest/Information System:

The Resource Conservation and Recovery Act Information System (RCRAInfo) is EPA's comprehensive information system in support of the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. It tracks many types of information about generators, transporters, treaters, storers, and disposers of hazardous waste.

[Click this hyperlink](#) while viewing on your computer to access additional FINDS: detail in the EDR Site Report.

**ECHO:**

Envid: 1004687086  
Registry ID: 110006397247  
DFR URL: <http://echo.epa.gov/detailed-facility-report?fid=110006397247>  
Name: MOBILE MANUFACTURING INC  
Address: 5412 OLD FLOYD RD  
City,State,Zip: MABLETON, GA 30126

**14**  
**West**  
**1/8-1/4**  
**0.245 mi.**  
**1292 ft.**

**KANGAROO #32**  
**1057 BANKHEAD HWY**  
**MABLETON, GA 30059**

**RCRA NonGen / NLR**  
**FINDS**  
**ECHO**

**1000906584**  
**GA0000478826**

**Relative:**  
**Lower**  
**Actual:**  
**976 ft.**

RCRA Listings:  
Date Form Received by Agency: 19980710  
Handler Name: Kangaroo #32  
Handler Address: BANKHEAD HWY  
Handler City,State,Zip: MABLETON, GA 30059



Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**KANGAROO #32 (Continued)**

**1000906584**

EPA ID:	GA0000478826
Contact Name:	DON NEWTON
Contact Address:	1025 AIRPORT PKWY
Contact City,State,Zip:	GAINESVILLE, GA 30505-0198
Contact Telephone:	404-532-7571
Contact Fax:	Not reported
Contact Email:	Not reported
Contact Title:	Not reported
EPA Region:	04
Land Type:	Private
Federal Waste Generator Description:	Not a generator, verified
Non-Notifier:	Not reported
Biennial Report Cycle:	Not reported
Accessibility:	Not reported
Active Site Indicator:	Not reported
State District Owner:	Not reported
State District:	Not reported
Mailing Address:	AIRPORT PKWY
Mailing City,State,Zip:	GAINESVILLE, GA 30505-0198
Owner Name:	Kangaroo Inc
Owner Type:	Private
Operator Name:	Not reported
Operator Type:	Not reported
Short-Term Generator Activity:	No
Importer Activity:	No
Mixed Waste Generator:	No
Transporter Activity:	No
Transfer Facility Activity:	No
Recycler Activity with Storage:	No
Small Quantity On-Site Burner Exemption:	No
Smelting Melting and Refining Furnace Exemption:	No
Underground Injection Control:	No
Off-Site Waste Receipt:	No
Universal Waste Indicator:	No
Universal Waste Destination Facility:	No
Federal Universal Waste:	No
Active Site State-Reg Handler:	---
Federal Facility Indicator:	Not reported
Hazardous Secondary Material Indicator:	NN
Sub-Part K Indicator:	Not reported
2018 GPRA Permit Baseline:	Not on the Baseline
2018 GPRA Renewals Baseline:	Not on the Baseline
202 GPRA Corrective Action Baseline:	No
Subject to Corrective Action Universe:	No
Non-TSDFs Where RCRA CA has Been Imposed Universe:	No
Corrective Action Priority Ranking:	No NCAPS ranking
Environmental Control Indicator:	No
Institutional Control Indicator:	No
Human Exposure Controls Indicator:	N/A
Groundwater Controls Indicator:	N/A
Significant Non-Complier Universe:	No
Unaddressed Significant Non-Complier Universe:	No
Addressed Significant Non-Complier Universe:	No
Significant Non-Complier With a Compliance Schedule Universe:	No
Financial Assurance Required:	Not reported
Handler Date of Last Change:	20000902
Recognized Trader-Importer:	No

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**KANGAROO #32 (Continued)**

**1000906584**

Recognized Trader-Exporter:	No
Importer of Spent Lead Acid Batteries:	No
Exporter of Spent Lead Acid Batteries:	No
Recycler Activity Without Storage:	Not reported
Manifest Broker:	Not reported
Sub-Part P Indicator:	No

**Hazardous Waste Summary:**

Waste Code:	D001
Waste Description:	Ignitable Waste

Waste Code:	D018
Waste Description:	Benzene

**Handler - Owner Operator:**

Owner/Operator Indicator:	Owner
Owner/Operator Name:	KANGAROO INC
Legal Status:	Private
Date Became Current:	Not reported
Date Ended Current:	Not reported
Owner/Operator Address:	1025 AIRPORT PKWY
Owner/Operator City,State,Zip:	GAINESVILLE, GA 30505-0198
Owner/Operator Telephone:	404-532-7571
Owner/Operator Telephone Ext:	Not reported
Owner/Operator Fax:	Not reported
Owner/Operator Email:	Not reported

**Historic Generators:**

Receive Date:	19980710
Handler Name:	KANGAROO #32
Federal Waste Generator Description:	Not a generator, verified
State District Owner:	Not reported
Large Quantity Handler of Universal Waste:	No
Recognized Trader Importer:	No
Recognized Trader Exporter:	No
Spent Lead Acid Battery Importer:	No
Spent Lead Acid Battery Exporter:	No
Current Record:	Yes
Non Storage Recycler Activity:	Not reported
Electronic Manifest Broker:	Not reported

**List of NAICS Codes and Descriptions:**

NAICS Codes:	No NAICS Codes Found
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**Facility Has Received Notices of Violations:**

Violations:	No Violations Found
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**Evaluation Action Summary:**

Evaluations:	No Evaluations Found
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**FINDS:**

Registry ID:	110006393697
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Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**KANGAROO #32 (Continued)**

**1000906584**

Click Here for FRS Facility Detail Report:

Environmental Interest/Information System:

The Resource Conservation and Recovery Act Information System (RCRAInfo) is EPA's comprehensive information system in support of the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. It tracks many types of information about generators, transporters, treaters, storers, and disposers of hazardous waste.

Click this hyperlink while viewing on your computer to access additional FINDS: detail in the EDR Site Report.

ECHO:

Envid: 1000906584  
Registry ID: 110006393697  
DFR URL: <http://echo.epa.gov/detailed-facility-report?fid=110006393697>  
Name: KANGAROO #32  
Address: 1057 BANKHEAD HWY  
City,State,Zip: MABLETON, GA 30059

**15**  
**East**  
**1/4-1/2**  
**0.259 mi.**  
**1369 ft.**

**Q LUBE INC #1163**  
**5547 FLOYD RD**  
**MABLETON, GA**

**LUST** **U003001950**  
**UST** **N/A**  
**Financial Assurance**

**Relative:**  
**Higher**  
**Actual:**  
**1000 ft.**

LUST:

Name: Q LUBE INC #1163  
Address: 5547 FLOYD RD  
City,State,Zip: MABLETON, GA 30059  
Facility ID: 00330147  
Leak ID: Not reported  
Description: Not reported  
Cleanup Status: NFA - No Further Action  
Date Received: 11/25/1998  
Project Officer: EPD Migration  
Project Name: UST - 2 - Q LUBE INC #1163  
Site Code Description: Owner/Operator funded site  
No Further Action Date: 05/12/1999

UST:

Name: Q LUBE INC #1163  
Address: 5547 FLOYD RD  
City,State,Zip: MABLETON, GA

Tank Info:

Tank ID: 1  
Name: Q LUBE INC #1163  
Address: 5547 FLOYD RD  
Tank Status: Removed from Ground  
City: MABLETON  
Tank Material: Cathodically Protected Steel  
Pipe Type: Not reported  
Overfill Type: Not reported  
Install Date: 05/05/1985  
Facility ID: 330147  
Product: Other

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**Q LUBE INC #1163 (Continued)**

**U003001950**

Pipe Material:	Galvanized Steel
Overfill Protection:	Not reported
Overfill Installed:	Not reported
Tank Exempt From Spill:	Not reported
Date Spill Device Installed:	Not reported
Tank ID:	2
Name:	Q LUBE INC #1163
Address:	5547 FLOYD RD
Tank Status:	Removed from Ground
City:	MABLETON
Tank Material:	Cathodically Protected Steel
Pipe Type:	Not reported
Overfill Type:	Not reported
Install Date:	05/05/1985
Facility ID:	330147
Product:	Other
Pipe Material:	Galvanized Steel
Overfill Protection:	Not reported
Overfill Installed:	Not reported
Tank Exempt From Spill:	Not reported
Date Spill Device Installed:	Not reported
Tank ID:	3
Name:	Q LUBE INC #1163
Address:	5547 FLOYD RD
Tank Status:	Removed from Ground
City:	MABLETON
Tank Material:	Cathodically Protected Steel
Pipe Type:	Not reported
Overfill Type:	Not reported
Install Date:	05/05/1985
Facility ID:	330147
Product:	Used Oil
Pipe Material:	Galvanized Steel
Overfill Protection:	True
Overfill Installed:	Not reported
Tank Exempt From Spill:	True
Date Spill Device Installed:	Not reported

**GA Financial Assurance 1:**

Name:	Q LUBE INC #1163
Address:	5547 FLOYD RD
City,State,Zip:	MABLETON, GA 30059
Region:	1
Facility ID:	330147
Financial Responsibility:	Guarantee
Location Start Date:	05/05/1986
Location End Date:	11/30/1998
Location Status:	Close
Location Type:	Commercial
Facility Status:	INACTIVE

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

16  
ESE  
1/4-1/2  
0.263 mi.  
1387 ft.

**CITGO FOODS**  
**745 VETRANS MEMORIAL HWY**  
**MABLETON, GA**

**LUST**  
**UST**  
**Financial Assurance**

**U001475422**  
**N/A**

**Relative:**  
**Higher**

LUST:

**Actual:**  
**1017 ft.**

Name: CITGO FOODS  
Address: 745 VETRANS MEMORIAL HWY  
City,State,Zip: MABLETON, GA 30126  
Facility ID: 00330045  
Leak ID: Not reported  
Description: Not reported  
Cleanup Status: NFA - No Further Action  
Date Received: 02/11/1992  
Project Officer: EPD Migration  
Project Name: UST - 1 - CITGO FOODS  
Site Code Description: Potential GUST trust fund reimbursement site  
No Further Action Date: 06/28/1996

Name: CITGO FOODS  
Address: 745 VETRANS MEMORIAL HWY  
City,State,Zip: MABLETON, GA 30126  
Facility ID: 00330045  
Leak ID: Not reported  
Description: Not reported  
Cleanup Status: NFA - No Further Action  
Date Received: 01/19/1999  
Project Officer: June Li  
Project Name: UST - 2 - CITGO FOODS  
Site Code Description: Potential GUST trust fund reimbursement site  
No Further Action Date: 04/11/2001

Name: CITGO FOODS  
Address: 745 VETRANS MEMORIAL HWY  
City,State,Zip: MABLETON, GA 30126  
Facility ID: 00330045  
Leak ID: Not reported  
Description: Not reported  
Cleanup Status: NFA - No Further Action  
Date Received: 05/19/2015  
Project Officer: Ron Wallace  
Project Name: UST - 3 - CITGO FOODS  
Site Code Description: Potential GUST trust fund reimbursement site  
No Further Action Date: 06/02/2015

UST:

Name: CITGO FOODS  
Address: 745 VETRANS MEMORIAL HWY  
City,State,Zip: MABLETON, GA

Tank Info:

Tank ID: 1  
Name: CITGO FOODS  
Address: 745 VETRANS MEMORIAL HWY  
Tank Status: Removed from Ground  
City: MABLETON  
Tank Material: Bare Steel  
Pipe Type: Not reported

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**CITGO FOODS (Continued)**

**U001475422**

Overfill Type:	Not reported
Install Date:	05/04/1968
Facility ID:	330045
Product:	Gas (Historical Use)
Pipe Material:	Galvanized Steel
Overfill Protection:	Not reported
Overfill Installed:	Not reported
Tank Exempt From Spill:	Not reported
Date Spill Device Installed:	Not reported
Tank ID:	10
Name:	CITGO FOODS
Address:	745 VETRANS MEMORIAL HWY
Tank Status:	Removed from Ground
City:	MABLETON
Tank Material:	Galvanic (STIP-3)
Pipe Type:	Pressurized
Overfill Type:	Not reported
Install Date:	05/01/1999
Facility ID:	330045
Product:	Gas (Historical Use)
Pipe Material:	Double-Walled Fiberglass
Overfill Protection:	Not reported
Overfill Installed:	05/01/1999
Tank Exempt From Spill:	Not reported
Date Spill Device Installed:	05/01/1999
Tank ID:	2
Name:	CITGO FOODS
Address:	745 VETRANS MEMORIAL HWY
Tank Status:	Removed from Ground
City:	MABLETON
Tank Material:	Bare Steel
Pipe Type:	Not reported
Overfill Type:	Not reported
Install Date:	05/04/1968
Facility ID:	330045
Product:	Gas (Historical Use)
Pipe Material:	Galvanized Steel
Overfill Protection:	Not reported
Overfill Installed:	Not reported
Tank Exempt From Spill:	Not reported
Date Spill Device Installed:	Not reported
Tank ID:	3
Name:	CITGO FOODS
Address:	745 VETRANS MEMORIAL HWY
Tank Status:	Removed from Ground
City:	MABLETON
Tank Material:	Bare Steel
Pipe Type:	Not reported
Overfill Type:	Not reported
Install Date:	05/04/1970
Facility ID:	330045
Product:	Gas (Historical Use)
Pipe Material:	Galvanized Steel
Overfill Protection:	Not reported

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**CITGO FOODS (Continued)**

**U001475422**

Overfill Installed:	Not reported
Tank Exempt From Spill:	Not reported
Date Spill Device Installed:	Not reported
Tank ID:	4
Name:	CITGO FOODS
Address:	745 VETRANS MEMORIAL HWY
Tank Status:	Removed from Ground
City:	MABLETON
Tank Material:	Bare Steel
Pipe Type:	Not reported
Overfill Type:	Not reported
Install Date:	05/04/1968
Facility ID:	330045
Product:	Used Oil
Pipe Material:	Galvanized Steel
Overfill Protection:	True
Overfill Installed:	Not reported
Tank Exempt From Spill:	True
Date Spill Device Installed:	Not reported
Tank ID:	5
Name:	CITGO FOODS
Address:	745 VETRANS MEMORIAL HWY
Tank Status:	Removed from Ground
City:	MABLETON
Tank Material:	Tank Jacket
Pipe Type:	Pressurized
Overfill Type:	Not reported
Install Date:	04/23/1992
Facility ID:	330045
Product:	Gas (Historical Use)
Pipe Material:	Fiberglass Reinforced Plastic
Overfill Protection:	Not reported
Overfill Installed:	04/23/1992
Tank Exempt From Spill:	Not reported
Date Spill Device Installed:	04/23/1992
Tank ID:	6
Name:	CITGO FOODS
Address:	745 VETRANS MEMORIAL HWY
Tank Status:	Removed from Ground
City:	MABLETON
Tank Material:	Tank Jacket
Pipe Type:	Pressurized
Overfill Type:	Ball Float
Install Date:	04/23/1992
Facility ID:	330045
Product:	Gas (Historical Use)
Pipe Material:	Fiberglass Reinforced Plastic
Overfill Protection:	Not reported
Overfill Installed:	Not reported
Tank Exempt From Spill:	Not reported
Date Spill Device Installed:	Not reported
Tank ID:	7
Name:	CITGO FOODS

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**CITGO FOODS (Continued)**

**U001475422**

Address: 745 VETRANS MEMORIAL HWY  
Tank Status: Removed from Ground  
City: MABLETON  
Tank Material: Tank Jacket  
Pipe Type: Pressurized  
Overfill Type: Not reported  
Install Date: 04/23/1992  
Facility ID: 330045  
Product: Gas (Historical Use)  
Pipe Material: Fiberglass Reinforced Plastic  
Overfill Protection: Not reported  
Overfill Installed: Not reported  
Tank Exempt From Spill: Not reported  
Date Spill Device Installed: Not reported

Tank ID: 8  
Name: CITGO FOODS  
Address: 745 VETRANS MEMORIAL HWY  
Tank Status: Removed from Ground  
City: MABLETON  
Tank Material: Tank Jacket  
Pipe Type: Gravity Fed  
Overfill Type: Not reported  
Install Date: 04/23/1992  
Facility ID: 330045  
Product: Used Oil  
Pipe Material: Fiberglass Reinforced Plastic  
Overfill Protection: True  
Overfill Installed: Not reported  
Tank Exempt From Spill: True  
Date Spill Device Installed: Not reported

Tank ID: 9  
Name: CITGO FOODS  
Address: 745 VETRANS MEMORIAL HWY  
Tank Status: Removed from Ground  
City: MABLETON  
Tank Material: Galvanic (STIP-3)  
Pipe Type: Pressurized  
Overfill Type: Not reported  
Install Date: 05/01/1999  
Facility ID: 330045  
Product: Gas (Historical Use)  
Pipe Material: Double-Walled Fiberglass  
Overfill Protection: Not reported  
Overfill Installed: 05/01/1999  
Tank Exempt From Spill: Not reported  
Date Spill Device Installed: 05/01/1999

**GA Financial Assurance 1:**

Name: CITGO FOODS  
Address: 745 VETRANS MEMORIAL HWY  
City,State,Zip: MABLETON, GA 30126  
Region: 1  
Facility ID: 330045  
Financial Responsibility: G.U.S.T. Trust Fund



Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**CITGO FOODS (Continued)**

**U001475422**

Location Start Date: 04/30/1986  
Location End Date: 05/19/2015  
Location Status: Close  
Location Type: Gas Station  
Facility Status: INACTIVE

**17**  
**NNE**  
**1/4-1/2**  
**0.266 mi.**  
**1405 ft.**

**A&R BUILDING MAINTENANCE**  
**5396 OLD FLOYD RD**  
**MABLETON, GA**

**LUST**  
**UST**  
**Financial Assurance**

**U001920221**  
**N/A**

**Relative:**  
**Higher**

**LUST:**

**Actual:**  
**1026 ft.**

Name: A&R BUILDING MAINTENANCE  
Address: 5396 OLD FLOYD RD  
City,State,Zip: MABLETON, GA 30059  
Facility ID: 09033292  
Leak ID: Not reported  
Description: Not reported  
Cleanup Status: NFA - Clean Closure  
Date Received: Not reported  
Project Officer: EPD Migration  
Project Name: UST - CLOSURE - A&R BUILDING MAINTENANCE  
Site Code Description: Owner/Operator funded site  
No Further Action Date: 05/11/1994

**UST:**

Name: A&R BUILDING MAINTENANCE  
Address: 5396 OLD FLOYD RD  
City,State,Zip: MABLETON, GA

**Tank Info:**

Tank ID: 1  
Name: A&R BUILDING MAINTENANCE  
Address: 5396 OLD FLOYD RD  
Tank Status: Removed from Ground  
City: MABLETON  
Tank Material: Not Marked/Unknown  
Pipe Type: Not reported  
Overfill Type: Not reported  
Install Date: 01/05/1994  
Facility ID: 9033292  
Product: Gas (Historical Use)  
Pipe Material: Not Marked  
Overfill Protection: Not reported  
Overfill Installed: Not reported  
Tank Exempt From Spill: Not reported  
Date Spill Device Installed: Not reported

Tank ID: 2  
Name: A&R BUILDING MAINTENANCE  
Address: 5396 OLD FLOYD RD  
Tank Status: Removed from Ground  
City: MABLETON  
Tank Material: Not Marked/Unknown  
Pipe Type: Not reported  
Overfill Type: Not reported  
Install Date: 01/05/1994

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**A&R BUILDING MAINTENANCE (Continued)**

**U001920221**

Facility ID: 9033292  
Product: Gas (Historical Use)  
Pipe Material: Not Marked  
Overfill Protection: Not reported  
Overfill Installed: Not reported  
Tank Exempt From Spill: Not reported  
Date Spill Device Installed: Not reported

**GA Financial Assurance 1:**

Name: A&R BUILDING MAINTENANCE  
Address: 5396 OLD FLOYD RD  
City,State,Zip: MABLETON, GA 30059  
Region: 1  
Facility ID: 9033292  
Financial Responsibility: Not reported  
Location Start Date: 01/13/1994  
Location End Date: 02/07/2002  
Location Status: Close  
Location Type: Not Marked  
Facility Status: INACTIVE

**18**  
**West**  
**1/4-1/2**  
**0.270 mi.**  
**1424 ft.**

**THE PROPERTY OF THERON G. BECK**  
**1038, 1040 & 1058 VETERANS MEMORIAL HIGHWAY**  
**MABLETON, GA 30126**

**GA NON-HSI** **S121797033**  
**N/A**

**Relative:**  
**Lower**  
**Actual:**  
**973 ft.**

**NON HSI:**  
Name: THE PROPERTY OF THERON G. BECK  
Address: 1038, 1040 & 1058 VETERANS MEMORIAL HIGHWAY  
City,State,Zip: MABLETON, GA 30126  
Latitude: 33.818889  
Longitude: 84.585000  
Ground Water Pathway Score: 9.80  
On-Site Pathway Score: 8.90  
Report Date: 02/12/2018  
Additional Info: Parcel #s: 19129400490, 19129700030, 19129500370, 19129600330, 19129500740  
Contamination: Trichloroethylene

**19**  
**ENE**  
**1/4-1/2**  
**0.276 mi.**  
**1459 ft.**

**ARROW HEATING & AC INC**  
**5473 FLOYD RD**  
**MABLETON, GA**

**LUST** **U003002012**  
**UST** **N/A**  
**Financial Assurance**

**Relative:**  
**Lower**  
**Actual:**  
**971 ft.**

**LUST:**  
Name: ARROW HEATING & AC INC  
Address: 5473 FLOYD RD  
City,State,Zip: MABLETON, GA 30059  
Facility ID: 00330593  
Leak ID: Not reported  
Description: Not reported  
Cleanup Status: NFA - Clean Closure  
Date Received: Not reported

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**ARROW HEATING & AC INC (Continued)**

**U003002012**

Project Officer: EPD Migration  
Project Name: UST - CLOSURE - ARROW HEATING & AC INC  
Site Code Description: Owner/Operator funded site  
No Further Action Date: 03/23/1998

UST:  
Name: ARROW HEATING & AC INC  
Address: 5473 FLOYD RD  
City,State,Zip: MABLETON, GA

Tank Info:  
Tank ID: 1  
Name: ARROW HEATING & AC INC  
Address: 5473 FLOYD RD  
Tank Status: Removed from Ground  
City: MABLETON  
Tank Material: Bare Steel  
Pipe Type: Not reported  
Overfill Type: Not reported  
Install Date: 03/09/1973  
Facility ID: 330593  
Product: Gas (Historical Use)  
Pipe Material: Unknown  
Overfill Protection: Not reported  
Overfill Installed: Not reported  
Tank Exempt From Spill: Not reported  
Date Spill Device Installed: Not reported

GA Financial Assurance 1:  
Name: ARROW HEATING & AC INC  
Address: 5473 FLOYD RD  
City,State,Zip: MABLETON, GA 30059  
Region: 1  
Facility ID: 330593  
Financial Responsibility: Self Insured  
Location Start Date: 03/06/1986  
Location End Date: 12/11/1997  
Location Status: Close  
Location Type: Contractor  
Facility Status: INACTIVE

**20**  
**NNE**  
**1/4-1/2**  
**0.299 mi.**  
**1577 ft.**

**CONCRETE CUTTERS**  
**5401 -A OLD FLOYD ROAD**  
**MABLETON, GA**

**LUST** **1006791062**  
**UST** **N/A**  
**Financial Assurance**

**Relative:**  
**Higher**  
**Actual:**  
**1032 ft.**

LUST:  
Name: CONCRETE CUTTERS  
Address: 5401 -A OLD FLOYD ROAD  
City,State,Zip: MABLETON, GA 30126  
Facility ID: 09033613  
Leak ID: Not reported  
Description: Not reported  
Cleanup Status: NFA - No Further Action  
Date Received: 06/12/2001

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**CONCRETE CUTTERS (Continued)**

**1006791062**

Project Officer: Ron Wallace  
Project Name: UST - 1 - CONCRETE CUTTERS  
Site Code Description: Owner/Operator funded site  
No Further Action Date: 09/05/2001

UST:

Name: CONCRETE CUTTERS  
Address: 5401 -A OLD FLOYD ROAD  
City,State,Zip: MABLETON, GA

Tank Info:

Tank ID: 1  
Name: CONCRETE CUTTERS  
Address: 5401 -A OLD FLOYD ROAD  
Tank Status: Removed from Ground  
City: MABLETON  
Tank Material: Cathodically Protected Steel  
Pipe Type: Pressurized  
Overfill Type: Not reported  
Install Date: 10/04/2001  
Facility ID: 9033613  
Product: Gas (Historical Use)  
Pipe Material: Cathodically Protected  
Overfill Protection: Not reported  
Overfill Installed: Not reported  
Tank Exempt From Spill: Not reported  
Date Spill Device Installed: Not reported

Tank ID: 2  
Name: CONCRETE CUTTERS  
Address: 5401 -A OLD FLOYD ROAD  
Tank Status: Removed from Ground  
City: MABLETON  
Tank Material: Cathodically Protected Steel  
Pipe Type: Pressurized  
Overfill Type: Not reported  
Install Date: 10/04/2001  
Facility ID: 9033613  
Product: Diesel  
Pipe Material: Cathodically Protected  
Overfill Protection: Not reported  
Overfill Installed: Not reported  
Tank Exempt From Spill: Not reported  
Date Spill Device Installed: Not reported

GA Financial Assurance 1:

Name: CONCRETE CUTTERS  
Address: 5401 -A OLD FLOYD ROAD  
City,State,Zip: MABLETON, GA 30126  
Region: 1  
Facility ID: 9033613  
Financial Responsibility: Not reported  
Location Start Date: 04/27/2001  
Location End Date: 10/10/2001  
Location Status: Close  
Location Type: Commercial

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

CONCRETE CUTTERS (Continued)

1006791062

Facility Status: INACTIVE

21  
NE  
1/4-1/2  
0.391 mi.  
2062 ft.

MABLETON PETROLEUM CORP  
5401 FLOYD RD  
MABLETON, GA 30059

LUST 1006782342  
UST N/A  
FINDS

Financial Assurance

Relative:  
Higher  
Actual:  
1004 ft.

LUST:

Name: HUSSAIN USA LLC DBA DENNY'S FOOD MART  
Address: 5401 FLOYD RD  
City,State,Zip: MABLETON, GA 30126  
Facility ID: 00330341  
Leak ID: Not reported  
Description: Not reported  
Cleanup Status: NFA - No Further Action  
Date Received: 03/22/1991  
Project Officer: EPD Migration  
Project Name: UST - 1 - HUSSAIN USA LLC DBA DENNY'S FOOD MART  
Site Code Description: Eligible GUST trust fund reimbursement site  
No Further Action Date: 04/12/2002

Name: HUSSAIN USA LLC DBA DENNY'S FOOD MART  
Address: 5401 FLOYD RD  
City,State,Zip: MABLETON, GA 30126  
Facility ID: 00330341  
Leak ID: Not reported  
Description: Not reported  
Cleanup Status: NFA - Suspected Release  
Date Received: Not reported  
Project Officer: Shaheer Muhanna  
Project Name: UST - 3 - HUSSAIN USA LLC DBA DENNY'S FOOD MART  
Site Code Description: Potential GUST trust fund reimbursement site  
No Further Action Date: Not reported

Name: HUSSAIN USA LLC DBA DENNY'S FOOD MART  
Address: 5401 FLOYD RD  
City,State,Zip: MABLETON, GA 30126  
Facility ID: 00330341  
Leak ID: Not reported  
Description: Not reported  
Cleanup Status: Suspected Release  
Date Received: Not reported  
Project Officer: Richard Strickfaden  
Project Name: UST - 4 - HUSSAIN USA LLC DBA DENNY'S FOOD MART  
Site Code Description: Potential GUST trust fund reimbursement site  
No Further Action Date: Not reported

Name: HUSSAIN USA LLC DBA DENNY'S FOOD MART  
Address: 5401 FLOYD RD  
City,State,Zip: MABLETON, GA 30126  
Facility ID: 00330341  
Leak ID: Not reported  
Description: Not reported  
Cleanup Status: NFA - Suspected Release  
Date Received: Not reported  
Project Officer: EPD Migration  
Project Name: UST - 5 - HUSSAIN USA LLC DBA DENNY'S FOOD MART

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**MABLETON PETROLEUM CORP (Continued)**

**1006782342**

Site Code Description: Potential GUST trust fund reimbursement site  
No Further Action Date: Not reported

UST:

Name: HUSSAIN USA LLC DBA DENNY'S FOOD MART  
Address: 5401 FLOYD RD  
City, State, Zip: MABLETON, GA

Contact:

LEMIR ID: 140013  
Facility ID: 330341  
Facility Status: Active  
Location Status: Active  
Contact First Name: Hyder  
Contact Last Name: Lalani  
Contact Email: danny.lalani@gmail.com  
Company Name: Not reported  
Mailing Address: 5401 Floyd Road  
Mailing City: Mableton  
Mailing State: GA  
Mailing Zip: 30126  
Start Date: Not reported  
End Date: Not reported

Tank Info:

Tank ID: 1  
Name: HUSSAIN USA LLC DBA DENNY'S FOOD MART  
Address: 5401 FLOYD RD  
Tank Status: Temporarily out of use  
City: MABLETON  
Tank Material: Steel-Imprinted Current  
Pipe Type: Pressurized  
Overfill Type: Overfill Alarm  
Install Date: 04/26/1973  
Facility ID: 330341  
Product: Gas (Historical Use)  
Pipe Material: Steel (Imprinted Current)  
Overfill Protection: True  
Overfill Installed: 04/26/1973  
Tank Exempt From Spill: Not reported  
Date Spill Device Installed: 04/26/1973

Tank ID: 2  
Name: HUSSAIN USA LLC DBA DENNY'S FOOD MART  
Address: 5401 FLOYD RD  
Tank Status: Currently in Use  
City: MABLETON  
Tank Material: Steel-Imprinted Current  
Pipe Type: Pressurized  
Overfill Type: Overfill Alarm  
Install Date: 04/26/1973  
Facility ID: 330341  
Product: Regular  
Pipe Material: Steel (Imprinted Current)  
Overfill Protection: True  
Overfill Installed: 04/26/1973  
Tank Exempt From Spill: False

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**MABLETON PETROLEUM CORP (Continued)**

**1006782342**

Date Spill Device Installed:	04/26/1973
Tank ID:	3
Name:	HUSSAIN USA LLC DBA DENNYS FOOD MART
Address:	5401 FLOYD RD
Tank Status:	Currently in Use
City:	MABLETON
Tank Material:	Steel-Impressed Current
Pipe Type:	Pressurized
Overfill Type:	Overfill Alarm
Install Date:	04/26/1973
Facility ID:	330341
Product:	Diesel
Pipe Material:	Steel (Impressed Current)
Overfill Protection:	True
Overfill Installed:	04/26/1973
Tank Exempt From Spill:	False
Date Spill Device Installed:	04/26/1973
Tank ID:	4
Name:	HUSSAIN USA LLC DBA DENNYS FOOD MART
Address:	5401 FLOYD RD
Tank Status:	Temporarily out of use
City:	MABLETON
Tank Material:	Steel-Impressed Current
Pipe Type:	Safe Suction (Euro)
Overfill Type:	Overfill Alarm
Install Date:	04/26/1973
Facility ID:	330341
Product:	Diesel
Pipe Material:	Steel (Impressed Current)
Overfill Protection:	True
Overfill Installed:	04/26/1973
Tank Exempt From Spill:	Not reported
Date Spill Device Installed:	04/26/1973
Tank ID:	5
Name:	HUSSAIN USA LLC DBA DENNYS FOOD MART
Address:	5401 FLOYD RD
Tank Status:	Temporarily out of use
City:	MABLETON
Tank Material:	Steel-Impressed Current
Pipe Type:	Gravity Fed
Overfill Type:	Overfill Alarm
Install Date:	04/26/1973
Facility ID:	330341
Product:	Used Oil
Pipe Material:	Steel (Impressed Current)
Overfill Protection:	True
Overfill Installed:	04/26/1973
Tank Exempt From Spill:	True
Date Spill Device Installed:	04/26/1973
Tank ID:	6
Name:	HUSSAIN USA LLC DBA DENNYS FOOD MART
Address:	5401 FLOYD RD
Tank Status:	Currently in Use

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**MABLETON PETROLEUM CORP (Continued)**

**1006782342**

City: MABLETON  
Tank Material: Steel-Imprinted Current  
Pipe Type: Pressurized  
Overfill Type: Overfill Alarm  
Install Date: 01/01/1987  
Facility ID: 330341  
Product: Premium  
Pipe Material: Steel (Imprinted Current)  
Overfill Protection: True  
Overfill Installed: 01/01/1987  
Tank Exempt From Spill: False  
Date Spill Device Installed: 01/01/1987

**Payments:**

Obligation Amount: \$97,231.01  
Agreement Number: FY-2002-GUST-01-1461  
Agreement Type: GUST - Reimbursement  
Payment Amount: \$97,231.01

**FINDS:**

Registry ID: 110013517131

[Click Here for FRS Facility Detail Report:](#)

**Environmental Interest/Information System:**

Georgia's Geographic Environmental Information Management System (GEIMS) provides the EPA and the public a single point of access to core data for all facilities and sites regulated or monitored by the EPA and a single system for the reporting of all environmental data.

[Click this hyperlink](#) while viewing on your computer to access additional FINDS: detail in the EDR Site Report.

**GA Financial Assurance 1:**

Name: HUSSAIN USA LLC DBA DENNYS FOOD MART  
Address: 5401 FLOYD RD  
City,State,Zip: MABLETON, GA 30126  
Region: 1  
Facility ID: 330341  
Financial Responsibility: G.U.S.T. Trust Fund  
Location Start Date: 11/04/2016  
Location End Date: Not reported  
Location Status: Active  
Location Type: Gas Station  
Facility Status: ACTIVE

**22**  
**ESE**  
**1/4-1/2**  
**0.398 mi.**  
**2101 ft.**

**COBB COUNTY FIRE STATION #1**  
**5656 MABLETON PARKWAY**  
**MABLETON, GA**

**LUST** **U003005297**  
**UST** **N/A**  
**AST**

**Financial Assurance**

**Relative:**  
**Higher**

**LUST:**

**Actual:**  
**1034 ft.**

Name: COBB COUNTY FIRE STATION #1  
Address: 5656 MABLETON PARKWAY  
City,State,Zip: MABLETON, GA 30059  
Facility ID: 09033431



Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**COBB COUNTY FIRE STATION #1 (Continued)**

**U003005297**

Leak ID: Not reported  
Description: Not reported  
Cleanup Status: NFA - No Further Action  
Date Received: 02/13/1999  
Project Officer: EPD Migration  
Project Name: UST - 1 - COBB COUNTY FIRE STATION #1  
Site Code Description: Potential GUST trust fund reimbursement site  
No Further Action Date: 04/30/2002

**UST:**

Name: COBB COUNTY FIRE STATION #1  
Address: 5656 MABLETON PARKWAY  
City,State,Zip: MABLETON, GA

**Tank Info:**

Tank ID: 1  
Name: COBB COUNTY FIRE STATION #1  
Address: 5656 MABLETON PARKWAY  
Tank Status: Removed from Ground  
City: MABLETON  
Tank Material: Bare Steel  
Pipe Type: Suction (American)  
Overfill Type: Not reported  
Install Date: 10/26/1998  
Facility ID: 9033431  
Product: Gas (Historical Use)  
Pipe Material: Bare Steel  
Overfill Protection: Not reported  
Overfill Installed: Not reported  
Tank Exempt From Spill: Not reported  
Date Spill Device Installed: Not reported

Tank ID: 2  
Name: COBB COUNTY FIRE STATION #1  
Address: 5656 MABLETON PARKWAY  
Tank Status: Removed from Ground  
City: MABLETON  
Tank Material: Bare Steel  
Pipe Type: Safe Suction (Euro)  
Overfill Type: Not reported  
Install Date: 10/26/1998  
Facility ID: 9033431  
Product: Diesel  
Pipe Material: Bare Steel  
Overfill Protection: Not reported  
Overfill Installed: Not reported  
Tank Exempt From Spill: Not reported  
Date Spill Device Installed: Not reported

**AST:**

Name: COBB COUNTY FIRE STATION #1  
Address: 5656 MABLETON PARKWAY  
City,State,Zip: MABLETON, GA 30126  
Owner Name: Cobb County Fire & Emergency Services  
Owner Address: 1596 County Service Parkway  
Owner City/State/Zip: Marietta GA 30008

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**COBB COUNTY FIRE STATION #1 (Continued)**

**U003005297**

Number Of Tanks: 1  
Tank Capacity: 0  
File No: Not reported  
Permit Type: Not reported  
Sub Type: Not reported  
Status: Not reported  
Issue Date: Not reported

**GA Financial Assurance 1:**

Name: COBB COUNTY FIRE STATION #1  
Address: 5656 MABLETON PARKWAY  
City,State,Zip: MABLETON, GA 30059  
Region: 1  
Facility ID: 9033431  
Financial Responsibility: G.U.S.T. Trust Fund  
Location Start Date: 04/07/1995  
Location End Date: 03/02/1999  
Location Status: Close  
Location Type: County  
Facility Status: INACTIVE

**23**  
**NNE**  
**1/4-1/2**  
**0.456 mi.**  
**2408 ft.**

**RACETRAC #53**  
**5350 FLOYD RD**  
**MABLETON, GA 30126**

**LUST** **1006791021**  
**FINDS** **N/A**

**Relative:**  
**Higher**

**LUST:**

**Actual:**  
**1032 ft.**

Name: TASCON INC  
Address: 5350 OLD FLOYD RD  
City,State,Zip: MABLETON, GA 30059  
Facility ID: 00330482  
Leak ID: Not reported  
Description: Not reported  
Cleanup Status: NFA - No Further Action  
Date Received: 09/12/1996  
Project Officer: Kelly Adams  
Project Name: UST - 1 - TASCON INC  
Site Code Description: Owner/Operator funded site  
No Further Action Date: 04/13/2004

**FINDS:**

Registry ID: 110013604536

[Click Here for FRS Facility Detail Report:](#)

**Environmental Interest/Information System:**

Georgia's Geographic Environmental Information Management System (GEIMS) provides the EPA and the public a single point of access to core data for all facilities and sites regulated or monitored by the EPA and a single system for the reporting of all environmental data.

[Click this hyperlink](#) while viewing on your computer to access additional FINDS: detail in the EDR Site Report.

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

24  
NNE  
1/4-1/2  
0.488 mi.  
2575 ft.

**QUICK'N EASY CONVENIENCE STORE #2**  
**630 CLAY RD**  
**MABLETON, GA**

GA NON-HSI

**S107150636**  
**N/A**

**Relative:**  
**Higher**

NON HSI:

**Actual:**  
**1036 ft.**

Name: QUICK'N EASY CONVENIENCE STORE #2  
Address: 630 CLAY RD  
City,State,Zip: MABLETON, GA  
Latitude: Not reported  
Longitude: Not reported  
Ground Water Pathway Score: 6.83  
On-Site Pathway Score: 14.81  
Report Date: 08/01/1999  
Additional Info: Not reported  
Contamination: Not reported

25  
NNE  
1/4-1/2  
0.495 mi.  
2615 ft.

**SERAH ENTERPRISES INC**  
**832 CLAY RD**  
**MABLETON, GA 30126**

LUST

**1006788552**

UST

**N/A**

FINDS

Financial Assurance

**Relative:**  
**Higher**

LUST:

**Actual:**  
**1059 ft.**

Name: SERAH ENTERPRISES INC  
Address: 832 CLAY RD  
City,State,Zip: MABLETON, GA 30126  
Facility ID: 00330160  
Leak ID: Not reported  
Description: Not reported  
Cleanup Status: NFA - No Further Action  
Date Received: 07/28/1998  
Project Officer: EPD Migration  
Project Name: UST - 1 - SERAH ENTERPRISES INC  
Site Code Description: Potential GUST trust fund reimbursement site  
No Further Action Date: 03/19/1999

UST:

Name: SERAH ENTERPRISES INC  
Address: 832 CLAY RD  
City,State,Zip: MABLETON, GA

Contact:

LEMIR ID: 139889  
Facility ID: 330160  
Facility Status: Active  
Location Status: Active  
Contact First Name: Raju  
Contact Last Name: Surani  
Contact Email: rajkumarsus@yahoo.com  
Company Name: Arfaan Investment LLC  
Mailing Address: 832 Clay Rd  
Mailing City: Mableton  
Mailing State: GA  
Mailing Zip: 30126  
Start Date: Not reported  
End Date: Not reported

LEMIR ID: 139889

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**SERAH ENTERPRISES INC (Continued)**

**1006788552**

Facility ID: 330160  
Facility Status: Active  
Location Status: Active  
Contact First Name: raju  
Contact Last Name: surani  
Contact Email: princewholesalellc@gmail.com  
Company Name: arfaan investnments llc  
Mailing Address: 832 clay rd  
Mailing City: mableton  
Mailing State: GA  
Mailing Zip: 30126  
Start Date: 2018-10-03 12:08:56  
End Date: Not reported

**Tank Info:**

Tank ID: 1  
Name: SERAH ENTERPRISES INC  
Address: 832 CLAY RD  
Tank Status: Removed from Ground  
City: MABLETON  
Tank Material: Bare Steel  
Pipe Type: Pressurized  
Overfill Type: Not reported  
Install Date: 05/03/1982  
Facility ID: 330160  
Product: Gas (Historical Use)  
Pipe Material: Galvanized Steel  
Overfill Protection: Not reported  
Overfill Installed: Not reported  
Tank Exempt From Spill: Not reported  
Date Spill Device Installed: Not reported

Tank ID: 2  
Name: SERAH ENTERPRISES INC  
Address: 832 CLAY RD  
Tank Status: Removed from Ground  
City: MABLETON  
Tank Material: Bare Steel  
Pipe Type: Pressurized  
Overfill Type: Not reported  
Install Date: 05/03/1982  
Facility ID: 330160  
Product: Gas (Historical Use)  
Pipe Material: Galvanized Steel  
Overfill Protection: Not reported  
Overfill Installed: Not reported  
Tank Exempt From Spill: Not reported  
Date Spill Device Installed: Not reported

Tank ID: 3  
Name: SERAH ENTERPRISES INC  
Address: 832 CLAY RD  
Tank Status: Removed from Ground  
City: MABLETON  
Tank Material: Bare Steel  
Pipe Type: Pressurized  
Overfill Type: Not reported

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**SERAH ENTERPRISES INC (Continued)**

**1006788552**

Install Date: 05/02/1985  
Facility ID: 330160  
Product: Gas (Historical Use)  
Pipe Material: Galvanized Steel  
Overfill Protection: Not reported  
Overfill Installed: Not reported  
Tank Exempt From Spill: Not reported  
Date Spill Device Installed: Not reported

Tank ID: 4  
Name: SERAH ENTERPRISES INC  
Address: 832 CLAY RD  
Tank Status: Removed from Ground  
City: MABLETON  
Tank Material: Bare Steel  
Pipe Type: Safe Suction (Euro)  
Overfill Type: Not reported  
Install Date: 05/02/1985  
Facility ID: 330160  
Product: Kerosene  
Pipe Material: Galvanized Steel  
Overfill Protection: Not reported  
Overfill Installed: Not reported  
Tank Exempt From Spill: Not reported  
Date Spill Device Installed: Not reported

Tank ID: 897092  
Name: SERAH ENTERPRISES INC  
Address: 832 CLAY RD  
Tank Status: Currently in Use  
City: MABLETON  
Tank Material: Composite  
Pipe Type: Pressurized  
Overfill Type: Ball Float  
Install Date: 12/07/1995  
Facility ID: 330160  
Product: Regular  
Pipe Material: Fiberglass Reinforced Plastic  
Overfill Protection: False  
Overfill Installed: 12/07/1995  
Tank Exempt From Spill: False  
Date Spill Device Installed: 12/07/1995

Tank ID: 897099  
Name: SERAH ENTERPRISES INC  
Address: 832 CLAY RD  
Tank Status: Currently in Use  
City: MABLETON  
Tank Material: Fiberglass  
Pipe Type: Pressurized  
Overfill Type: Ball Float  
Install Date: 12/07/1995  
Facility ID: 330160  
Product: Premium  
Pipe Material: Fiberglass Reinforced Plastic  
Overfill Protection: False  
Overfill Installed: 12/07/1995

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**SERAH ENTERPRISES INC (Continued)**

**1006788552**

Tank Exempt From Spill: False  
Date Spill Device Installed: 12/07/1995

**FINDS:**

Registry ID: 110013579644

[Click Here for FRS Facility Detail Report:](#)

**Environmental Interest/Information System:**

Georgia's Geographic Environmental Information Management System (GEIMS) provides the EPA and the public a single point of access to core data for all facilities and sites regulated or monitored by the EPA and a single system for the reporting of all environmental data.

[Click this hyperlink](#) while viewing on your computer to access additional FINDS: detail in the EDR Site Report.

**GA Financial Assurance 1:**

Name: SERAH ENTERPRISES INC  
Address: 832 CLAY RD  
City,State,Zip: MABLETON, GA 30126  
Region: 1  
Facility ID: 330160  
Financial Responsibility: G.U.S.T. Trust Fund  
Location Start Date: 11/27/2003  
Location End Date: Not reported  
Location Status: Active  
Location Type: Gas Station  
Facility Status: ACTIVE

**26**  
**SW**  
**1/2-1**  
**0.538 mi.**  
**2838 ft.**

**MABLETON VETERINARY CLINIC**  
**1140 OLD POWDER SPRINGS ROAD**  
**MABLETON, GA 30126**

**GA NON-HSI S108118595**  
**N/A**

**Relative:**  
**Higher**

**NON HSI:**

**Actual:**  
**1005 ft.**

Name: MABLETON VETERINARY CLINIC  
Address: 1140 OLD POWDER SPRINGS ROAD  
City,State,Zip: MABLETON, GA 30126  
Latitude: 33.813889  
Longitude: 84.586944  
Ground Water Pathway Score: 4.30  
On-Site Pathway Score: 13.30  
Report Date: 04/11/2006  
Additional Info: Not reported  
Contamination: Formaldehyde

Count: 4 records.

ORPHAN SUMMARY

City	EDR ID	Site Name	Site Address	Zip	Database(s)
MABLETON	U004141689	JOHN WIELAND HOMES-LEGACY AT THE R	VETERANS HIGHWAY & DISCOVERY B		LUST, UST, Financial Assurance
MABLETON	U003728102	SMCHANG LLC	155 VETERANS MEMORIAL HWY		LUST, UST, Financial Assurance
MABLETON	S118627731	JOHNNY'S	1057 VETERANS MEMORIAL HWY	30126	LUST
MABLETON	S125909993	FORMER GULF OIL STATION	1186 VETERANS MEMORIAL HWY	30126	LUST, Financial Assurance

# GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

To maintain currency of the following federal and state databases, EDR contacts the appropriate governmental agency on a monthly or quarterly basis, as required.

**Number of Days to Update:** Provides confirmation that EDR is reporting records that have been updated within 90 days from the date the government agency made the information available to the public.

## **STANDARD ENVIRONMENTAL RECORDS**

### ***Lists of Federal NPL (Superfund) sites***

#### **NPL: National Priority List**

National Priorities List (Superfund). The NPL is a subset of CERCLIS and identifies over 1,200 sites for priority cleanup under the Superfund Program. NPL sites may encompass relatively large areas. As such, EDR provides polygon coverage for over 1,000 NPL site boundaries produced by EPA's Environmental Photographic Interpretation Center (EPIC) and regional EPA offices.

Date of Government Version: 06/22/2023	Source: EPA
Date Data Arrived at EDR: 07/06/2023	Telephone: N/A
Date Made Active in Reports: 07/24/2023	Last EDR Contact: 10/03/2023
Number of Days to Update: 18	Next Scheduled EDR Contact: 01/08/2024
	Data Release Frequency: Quarterly

#### **NPL Site Boundaries**

##### **Sources:**

EPA's Environmental Photographic Interpretation Center (EPIC)  
Telephone: 202-564-7333

EPA Region 1  
Telephone 617-918-1143

EPA Region 6  
Telephone: 214-655-6659

EPA Region 3  
Telephone 215-814-5418

EPA Region 7  
Telephone: 913-551-7247

EPA Region 4  
Telephone 404-562-8033

EPA Region 8  
Telephone: 303-312-6774

EPA Region 5  
Telephone 312-886-6686

EPA Region 9  
Telephone: 415-947-4246

EPA Region 10  
Telephone 206-553-8665

#### **Proposed NPL: Proposed National Priority List Sites**

A site that has been proposed for listing on the National Priorities List through the issuance of a proposed rule in the Federal Register. EPA then accepts public comments on the site, responds to the comments, and places on the NPL those sites that continue to meet the requirements for listing.

Date of Government Version: 06/22/2023	Source: EPA
Date Data Arrived at EDR: 07/06/2023	Telephone: N/A
Date Made Active in Reports: 07/24/2023	Last EDR Contact: 10/03/2023
Number of Days to Update: 18	Next Scheduled EDR Contact: 01/08/2024
	Data Release Frequency: Quarterly

#### **NPL LIENS: Federal Superfund Liens**

Federal Superfund Liens. Under the authority granted the USEPA by CERCLA of 1980, the USEPA has the authority to file liens against real property in order to recover remedial action expenditures or when the property owner received notification of potential liability. USEPA compiles a listing of filed notices of Superfund Liens.



## GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

Date of Government Version: 10/15/1991  
Date Data Arrived at EDR: 02/02/1994  
Date Made Active in Reports: 03/30/1994  
Number of Days to Update: 56

Source: EPA  
Telephone: 202-564-4267  
Last EDR Contact: 08/15/2011  
Next Scheduled EDR Contact: 11/28/2011  
Data Release Frequency: No Update Planned

### ***Lists of Federal Delisted NPL sites***

Delisted NPL: National Priority List Deletions

The National Oil and Hazardous Substances Pollution Contingency Plan (NCP) establishes the criteria that the EPA uses to delete sites from the NPL. In accordance with 40 CFR 300.425.(e), sites may be deleted from the NPL where no further response is appropriate.

Date of Government Version: 06/22/2023  
Date Data Arrived at EDR: 07/06/2023  
Date Made Active in Reports: 07/24/2023  
Number of Days to Update: 18

Source: EPA  
Telephone: N/A  
Last EDR Contact: 10/03/2023  
Next Scheduled EDR Contact: 01/08/2024  
Data Release Frequency: Quarterly

### ***Lists of Federal sites subject to CERCLA removals and CERCLA orders***

FEDERAL FACILITY: Federal Facility Site Information listing

A listing of National Priority List (NPL) and Base Realignment and Closure (BRAC) sites found in the Comprehensive Environmental Response, Compensation and Liability Information System (CERCLIS) Database where EPA Federal Facilities Restoration and Reuse Office is involved in cleanup activities.

Date of Government Version: 06/23/2023  
Date Data Arrived at EDR: 06/23/2023  
Date Made Active in Reports: 09/20/2023  
Number of Days to Update: 89

Source: Environmental Protection Agency  
Telephone: 703-603-8704  
Last EDR Contact: 09/26/2023  
Next Scheduled EDR Contact: 01/08/2024  
Data Release Frequency: Varies

SEMS: Superfund Enterprise Management System

SEMS (Superfund Enterprise Management System) tracks hazardous waste sites, potentially hazardous waste sites, and remedial activities performed in support of EPA's Superfund Program across the United States. The list was formerly known as CERCLIS, renamed to SEMS by the EPA in 2015. The list contains data on potentially hazardous waste sites that have been reported to the USEPA by states, municipalities, private companies and private persons, pursuant to Section 103 of the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA). This dataset also contains sites which are either proposed to or on the National Priorities List (NPL) and the sites which are in the screening and assessment phase for possible inclusion on the NPL.

Date of Government Version: 06/22/2023  
Date Data Arrived at EDR: 07/06/2023  
Date Made Active in Reports: 07/24/2023  
Number of Days to Update: 18

Source: EPA  
Telephone: 800-424-9346  
Last EDR Contact: 10/03/2023  
Next Scheduled EDR Contact: 01/22/2024  
Data Release Frequency: Quarterly

### ***Lists of Federal CERCLA sites with NFRAP***

SEMS-ARCHIVE: Superfund Enterprise Management System Archive

## GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

SEMS-ARCHIVE (Superfund Enterprise Management System Archive) tracks sites that have no further interest under the Federal Superfund Program based on available information. The list was formerly known as the CERCLIS-NFRAP, renamed to SEMS ARCHIVE by the EPA in 2015. EPA may perform a minimal level of assessment work at a site while it is archived if site conditions change and/or new information becomes available. Archived sites have been removed and archived from the inventory of SEMS sites. Archived status indicates that, to the best of EPA's knowledge, assessment at a site has been completed and that EPA has determined no further steps will be taken to list the site on the National Priorities List (NPL), unless information indicates this decision was not appropriate or other considerations require a recommendation for listing at a later time. The decision does not necessarily mean that there is no hazard associated with a given site; it only means that, based upon available information, the location is not judged to be potential NPL site.

Date of Government Version: 06/22/2023	Source: EPA
Date Data Arrived at EDR: 07/06/2023	Telephone: 800-424-9346
Date Made Active in Reports: 07/24/2023	Last EDR Contact: 10/03/2023
Number of Days to Update: 18	Next Scheduled EDR Contact: 01/22/2024
	Data Release Frequency: Quarterly

### ***Lists of Federal RCRA facilities undergoing Corrective Action***

#### **CORRACTS: Corrective Action Report**

CORRACTS identifies hazardous waste handlers with RCRA corrective action activity.

Date of Government Version: 07/24/2023	Source: EPA
Date Data Arrived at EDR: 07/31/2023	Telephone: 800-424-9346
Date Made Active in Reports: 08/14/2023	Last EDR Contact: 09/20/2023
Number of Days to Update: 14	Next Scheduled EDR Contact: 01/01/2024
	Data Release Frequency: Quarterly

### ***Lists of Federal RCRA TSD facilities***

#### **RCRA-TSDF: RCRA - Treatment, Storage and Disposal**

RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Transporters are individuals or entities that move hazardous waste from the generator offsite to a facility that can recycle, treat, store, or dispose of the waste. TSDFs treat, store, or dispose of the waste.

Date of Government Version: 07/24/2023	Source: Environmental Protection Agency
Date Data Arrived at EDR: 07/31/2023	Telephone: (404) 562-8651
Date Made Active in Reports: 08/14/2023	Last EDR Contact: 09/20/2023
Number of Days to Update: 14	Next Scheduled EDR Contact: 01/01/2024
	Data Release Frequency: Quarterly

### ***Lists of Federal RCRA generators***

#### **RCRA-LQG: RCRA - Large Quantity Generators**

RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Large quantity generators (LQGs) generate over 1,000 kilograms (kg) of hazardous waste, or over 1 kg of acutely hazardous waste per month.

Date of Government Version: 07/24/2023	Source: Environmental Protection Agency
Date Data Arrived at EDR: 07/31/2023	Telephone: (404) 562-8651
Date Made Active in Reports: 08/14/2023	Last EDR Contact: 09/20/2023
Number of Days to Update: 14	Next Scheduled EDR Contact: 01/01/2024
	Data Release Frequency: Quarterly

## GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

### RCRA-SQG: RCRA - Small Quantity Generators

RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Small quantity generators (SQGs) generate between 100 kg and 1,000 kg of hazardous waste per month.

Date of Government Version: 07/24/2023  
Date Data Arrived at EDR: 07/31/2023  
Date Made Active in Reports: 08/14/2023  
Number of Days to Update: 14

Source: Environmental Protection Agency  
Telephone: (404) 562-8651  
Last EDR Contact: 09/20/2023  
Next Scheduled EDR Contact: 01/01/2024  
Data Release Frequency: Quarterly

### RCRA-VSQG: RCRA - Very Small Quantity Generators (Formerly Conditionally Exempt Small Quantity Generators)

RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Very small quantity generators (VSQGs) generate less than 100 kg of hazardous waste, or less than 1 kg of acutely hazardous waste per month.

Date of Government Version: 07/24/2023  
Date Data Arrived at EDR: 07/31/2023  
Date Made Active in Reports: 08/14/2023  
Number of Days to Update: 14

Source: Environmental Protection Agency  
Telephone: (404) 562-8651  
Last EDR Contact: 09/20/2023  
Next Scheduled EDR Contact: 01/01/2024  
Data Release Frequency: Quarterly

### ***Federal institutional controls / engineering controls registries***

#### LUCIS: Land Use Control Information System

LUCIS contains records of land use control information pertaining to the former Navy Base Realignment and Closure properties.

Date of Government Version: 08/03/2023  
Date Data Arrived at EDR: 08/07/2023  
Date Made Active in Reports: 10/10/2023  
Number of Days to Update: 64

Source: Department of the Navy  
Telephone: 843-820-7326  
Last EDR Contact: 08/02/2023  
Next Scheduled EDR Contact: 11/20/2023  
Data Release Frequency: Varies

#### US ENG CONTROLS: Engineering Controls Sites List

A listing of sites with engineering controls in place. Engineering controls include various forms of caps, building foundations, liners, and treatment methods to create pathway elimination for regulated substances to enter environmental media or effect human health.

Date of Government Version: 05/22/2023  
Date Data Arrived at EDR: 05/23/2023  
Date Made Active in Reports: 07/24/2023  
Number of Days to Update: 62

Source: Environmental Protection Agency  
Telephone: 703-603-0695  
Last EDR Contact: 08/21/2023  
Next Scheduled EDR Contact: 12/04/2023  
Data Release Frequency: Varies

#### US INST CONTROLS: Institutional Controls Sites List

A listing of sites with institutional controls in place. Institutional controls include administrative measures, such as groundwater use restrictions, construction restrictions, property use restrictions, and post remediation care requirements intended to prevent exposure to contaminants remaining on site. Deed restrictions are generally required as part of the institutional controls.

Date of Government Version: 05/22/2023  
Date Data Arrived at EDR: 05/23/2023  
Date Made Active in Reports: 07/24/2023  
Number of Days to Update: 62

Source: Environmental Protection Agency  
Telephone: 703-603-0695  
Last EDR Contact: 08/21/2023  
Next Scheduled EDR Contact: 12/04/2023  
Data Release Frequency: Varies

# GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

## ***Federal ERNS list***

ERNS: Emergency Response Notification System

Emergency Response Notification System. ERNS records and stores information on reported releases of oil and hazardous substances.

Date of Government Version: 06/12/2023

Date Data Arrived at EDR: 06/20/2023

Date Made Active in Reports: 08/14/2023

Number of Days to Update: 55

Source: National Response Center, United States Coast Guard

Telephone: 202-267-2180

Last EDR Contact: 09/20/2023

Next Scheduled EDR Contact: 01/01/2024

Data Release Frequency: Quarterly

## ***Lists of state- and tribal hazardous waste facilities***

SHWS: Hazardous Site Inventory

State Hazardous Waste Sites. State hazardous waste site records are the states' equivalent to CERCLIS. These sites may or may not already be listed on the federal CERCLIS list. Priority sites planned for cleanup using state funds (state equivalent of Superfund) are identified along with sites where cleanup will be paid for by potentially responsible parties. Available information varies by state.

Date of Government Version: 07/01/2023

Date Data Arrived at EDR: 07/12/2023

Date Made Active in Reports: 10/03/2023

Number of Days to Update: 83

Source: Department of Environmental Protection

Telephone: 404-657-8600

Last EDR Contact: 09/19/2023

Next Scheduled EDR Contact: 01/01/2024

Data Release Frequency: Annually

NON HSI: Non-Hazardous Site Inventory

This list was obtained by EDR in 1998 and contains property listings that have reported contamination of soil or groundwater under the Georgia Hazardous Site Response Act (HSRA). These sites were not placed on the Georgia Priority list (Hazardous Site Inventory or HSI) because their hazard evaluation scores did not exceed the threshold levels established for sites posing an imminent threat to health or the environment. Disclaimer provided by Rindt-McDuff Associates - the database information has been obtained from publicly available sources produced by other entities. While reasonable steps have been taken to insure the accuracy of the data, RMA does not guarantee the accuracy of the data. No claim is made for the actual existence of pollution at any site. This data does not constitute a legal opinion.

Date of Government Version: 03/31/2023

Date Data Arrived at EDR: 05/17/2023

Date Made Active in Reports: 08/09/2023

Number of Days to Update: 84

Source: Rindt-McDuff Associates, Inc.

Telephone: N/A

Last EDR Contact: 08/18/2023

Next Scheduled EDR Contact: 11/13/2023

Data Release Frequency: Annually

## ***Lists of state and tribal landfills and solid waste disposal facilities***

SWF/LF: Solid Waste Disposal Facilities

Solid Waste Facilities/Landfill Sites. SWF/LF type records typically contain an inventory of solid waste disposal facilities or landfills in a particular state. Depending on the state, these may be active or inactive facilities or open dumps that failed to meet RCRA Subtitle D Section 4004 criteria for solid waste landfills or disposal sites.

Date of Government Version: 07/21/2021

Date Data Arrived at EDR: 07/25/2022

Date Made Active in Reports: 10/13/2022

Number of Days to Update: 80

Source: Department of Natural Resources

Telephone: 404-362-2696

Source: Center for GIS, Georgia Institute of Technology

Telephone: 404-385-0900

Last EDR Contact: 07/25/2023

Next Scheduled EDR Contact: 11/06/2023

Data Release Frequency: Semi-Annually

## ***Lists of state and tribal leaking storage tanks***

## GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

### LUST: List of Leaking Underground Storage Tanks

Leaking Underground Storage Tank Incident Reports. LUST records contain an inventory of reported leaking underground storage tank incidents. Not all states maintain these records, and the information stored varies by state.

Date of Government Version: 01/06/2023	Source: Environmental Protection Division
Date Data Arrived at EDR: 01/13/2023	Telephone: 404-362-2687
Date Made Active in Reports: 04/03/2023	Last EDR Contact: 09/06/2023
Number of Days to Update: 80	Next Scheduled EDR Contact: 12/18/2023
	Data Release Frequency: Quarterly

### INDIAN LUST R5: Leaking Underground Storage Tanks on Indian Land

Leaking underground storage tanks located on Indian Land in Michigan, Minnesota and Wisconsin.

Date of Government Version: 04/14/2023	Source: EPA, Region 5
Date Data Arrived at EDR: 05/09/2023	Telephone: 312-886-7439
Date Made Active in Reports: 07/14/2023	Last EDR Contact: 10/11/2023
Number of Days to Update: 66	Next Scheduled EDR Contact: 01/29/2024
	Data Release Frequency: Varies

### INDIAN LUST R9: Leaking Underground Storage Tanks on Indian Land

LUSTs on Indian land in Arizona, California, New Mexico and Nevada

Date of Government Version: 04/19/2023	Source: Environmental Protection Agency
Date Data Arrived at EDR: 05/09/2023	Telephone: 415-972-3372
Date Made Active in Reports: 07/14/2023	Last EDR Contact: 10/11/2023
Number of Days to Update: 66	Next Scheduled EDR Contact: 01/29/2024
	Data Release Frequency: Varies

### INDIAN LUST R8: Leaking Underground Storage Tanks on Indian Land

LUSTs on Indian land in Colorado, Montana, North Dakota, South Dakota, Utah and Wyoming.

Date of Government Version: 04/19/2023	Source: EPA Region 8
Date Data Arrived at EDR: 05/09/2023	Telephone: 303-312-6271
Date Made Active in Reports: 07/14/2023	Last EDR Contact: 10/11/2023
Number of Days to Update: 66	Next Scheduled EDR Contact: 01/29/2024
	Data Release Frequency: Varies

### INDIAN LUST R6: Leaking Underground Storage Tanks on Indian Land

LUSTs on Indian land in New Mexico and Oklahoma.

Date of Government Version: 04/26/2023	Source: EPA Region 6
Date Data Arrived at EDR: 05/09/2023	Telephone: 214-665-6597
Date Made Active in Reports: 07/14/2023	Last EDR Contact: 10/11/2023
Number of Days to Update: 66	Next Scheduled EDR Contact: 01/29/2024
	Data Release Frequency: Varies

### INDIAN LUST R7: Leaking Underground Storage Tanks on Indian Land

LUSTs on Indian land in Iowa, Kansas, and Nebraska

Date of Government Version: 04/25/2023	Source: EPA Region 7
Date Data Arrived at EDR: 05/09/2023	Telephone: 913-551-7003
Date Made Active in Reports: 07/14/2023	Last EDR Contact: 10/11/2023
Number of Days to Update: 66	Next Scheduled EDR Contact: 01/29/2024
	Data Release Frequency: Varies

### INDIAN LUST R4: Leaking Underground Storage Tanks on Indian Land

LUSTs on Indian land in Florida, Mississippi and North Carolina.

Date of Government Version: 04/20/2023	Source: EPA Region 4
Date Data Arrived at EDR: 05/09/2023	Telephone: 404-562-8677
Date Made Active in Reports: 07/14/2023	Last EDR Contact: 10/11/2023
Number of Days to Update: 66	Next Scheduled EDR Contact: 01/29/2024
	Data Release Frequency: Varies

## GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

INDIAN LUST R10: Leaking Underground Storage Tanks on Indian Land  
LUSTs on Indian land in Alaska, Idaho, Oregon and Washington.

Date of Government Version: 04/20/2023	Source: EPA Region 10
Date Data Arrived at EDR: 05/09/2023	Telephone: 206-553-2857
Date Made Active in Reports: 07/14/2023	Last EDR Contact: 10/11/2023
Number of Days to Update: 66	Next Scheduled EDR Contact: 01/29/2024
	Data Release Frequency: Varies

INDIAN LUST R1: Leaking Underground Storage Tanks on Indian Land  
A listing of leaking underground storage tank locations on Indian Land.

Date of Government Version: 04/20/2023	Source: EPA Region 1
Date Data Arrived at EDR: 05/09/2023	Telephone: 617-918-1313
Date Made Active in Reports: 07/14/2023	Last EDR Contact: 10/11/2023
Number of Days to Update: 66	Next Scheduled EDR Contact: 01/29/2024
	Data Release Frequency: Varies

### ***Lists of state and tribal registered storage tanks***

FEMA UST: Underground Storage Tank Listing  
A listing of all FEMA owned underground storage tanks.

Date of Government Version: 03/08/2023	Source: FEMA
Date Data Arrived at EDR: 03/09/2023	Telephone: 202-646-5797
Date Made Active in Reports: 05/30/2023	Last EDR Contact: 10/10/2023
Number of Days to Update: 82	Next Scheduled EDR Contact: 01/15/2024
	Data Release Frequency: Varies

UST: Underground Storage Tank Database  
Registered Underground Storage Tanks. UST's are regulated under Subtitle I of the Resource Conservation and Recovery Act (RCRA) and must be registered with the state department responsible for administering the UST program. Available information varies by state program.

Date of Government Version: 01/06/2023	Source: Environmental Protection Division
Date Data Arrived at EDR: 01/13/2023	Telephone: 404-362-2687
Date Made Active in Reports: 04/03/2023	Last EDR Contact: 09/06/2023
Number of Days to Update: 80	Next Scheduled EDR Contact: 12/18/2023
	Data Release Frequency: Annually

AST: Above Ground Storage Tanks  
A listing of LP gas tank site locations.

Date of Government Version: 05/25/2023	Source: Office of Insurance & Safety Fire Commissioner
Date Data Arrived at EDR: 05/25/2023	Telephone: 404-656-5875
Date Made Active in Reports: 08/18/2023	Last EDR Contact: 08/09/2023
Number of Days to Update: 85	Next Scheduled EDR Contact: 11/27/2023
	Data Release Frequency: No Update Planned

INDIAN UST R4: Underground Storage Tanks on Indian Land  
The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 4 (Alabama, Florida, Georgia, Kentucky, Mississippi, North Carolina, South Carolina, Tennessee and Tribal Nations)

Date of Government Version: 04/20/2023	Source: EPA Region 4
Date Data Arrived at EDR: 05/09/2023	Telephone: 404-562-9424
Date Made Active in Reports: 07/14/2023	Last EDR Contact: 10/11/2023
Number of Days to Update: 66	Next Scheduled EDR Contact: 01/29/2024
	Data Release Frequency: Varies

## GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

### INDIAN UST R9: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 9 (Arizona, California, Hawaii, Nevada, the Pacific Islands, and Tribal Nations).

Date of Government Version: 04/19/2023	Source: EPA Region 9
Date Data Arrived at EDR: 05/09/2023	Telephone: 415-972-3368
Date Made Active in Reports: 07/14/2023	Last EDR Contact: 10/11/2023
Number of Days to Update: 66	Next Scheduled EDR Contact: 01/29/2024
	Data Release Frequency: Varies

### INDIAN UST R8: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 8 (Colorado, Montana, North Dakota, South Dakota, Utah, Wyoming and 27 Tribal Nations).

Date of Government Version: 04/20/2023	Source: EPA Region 8
Date Data Arrived at EDR: 05/09/2023	Telephone: 303-312-6137
Date Made Active in Reports: 07/14/2023	Last EDR Contact: 10/11/2023
Number of Days to Update: 66	Next Scheduled EDR Contact: 01/29/2024
	Data Release Frequency: Varies

### INDIAN UST R7: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 7 (Iowa, Kansas, Missouri, Nebraska, and 9 Tribal Nations).

Date of Government Version: 04/25/2023	Source: EPA Region 7
Date Data Arrived at EDR: 05/09/2023	Telephone: 913-551-7003
Date Made Active in Reports: 07/14/2023	Last EDR Contact: 10/11/2023
Number of Days to Update: 66	Next Scheduled EDR Contact: 01/29/2024
	Data Release Frequency: Varies

### INDIAN UST R5: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 5 (Michigan, Minnesota and Wisconsin and Tribal Nations).

Date of Government Version: 04/14/2023	Source: EPA Region 5
Date Data Arrived at EDR: 05/09/2023	Telephone: 312-886-6136
Date Made Active in Reports: 07/14/2023	Last EDR Contact: 10/11/2023
Number of Days to Update: 66	Next Scheduled EDR Contact: 01/29/2024
	Data Release Frequency: Varies

### INDIAN UST R6: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 6 (Louisiana, Arkansas, Oklahoma, New Mexico, Texas and 65 Tribes).

Date of Government Version: 04/26/2023	Source: EPA Region 6
Date Data Arrived at EDR: 05/09/2023	Telephone: 214-665-7591
Date Made Active in Reports: 07/14/2023	Last EDR Contact: 10/11/2023
Number of Days to Update: 66	Next Scheduled EDR Contact: 01/29/2024
	Data Release Frequency: Varies

### INDIAN UST R10: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 10 (Alaska, Idaho, Oregon, Washington, and Tribal Nations).

Date of Government Version: 04/20/2023	Source: EPA Region 10
Date Data Arrived at EDR: 05/09/2023	Telephone: 206-553-2857
Date Made Active in Reports: 07/14/2023	Last EDR Contact: 10/11/2023
Number of Days to Update: 66	Next Scheduled EDR Contact: 01/29/2024
	Data Release Frequency: Varies

## GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

### INDIAN UST R1: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 1 (Connecticut, Maine, Massachusetts, New Hampshire, Rhode Island, Vermont and ten Tribal Nations).

Date of Government Version: 04/20/2023

Date Data Arrived at EDR: 05/09/2023

Date Made Active in Reports: 07/14/2023

Number of Days to Update: 66

Source: EPA, Region 1

Telephone: 617-918-1313

Last EDR Contact: 10/11/2023

Next Scheduled EDR Contact: 01/29/2024

Data Release Frequency: Varies

### ***State and tribal institutional control / engineering control registries***

#### INST CONTROL: Public Record List

Sites on the Public Record Listing that have institutional controls or limitations on use are sites with Risk Reduction Standards of 3, 4, and 5.

Date of Government Version: 07/31/2023

Date Data Arrived at EDR: 07/31/2023

Date Made Active in Reports: 10/13/2023

Number of Days to Update: 74

Source: Department of Natural Resources

Telephone: 404-657-8600

Last EDR Contact: 07/31/2023

Next Scheduled EDR Contact: 11/13/2023

Data Release Frequency: Varies

#### AUL: Uniform Environmental Covenants

A list of environmental covenants

Date of Government Version: 07/31/2023

Date Data Arrived at EDR: 07/31/2023

Date Made Active in Reports: 10/13/2023

Number of Days to Update: 74

Source: Department of Natural Resources

Telephone: 404-657-8600

Last EDR Contact: 07/31/2023

Next Scheduled EDR Contact: 11/13/2023

Data Release Frequency: Varies

### ***Lists of state and tribal voluntary cleanup sites***

#### INDIAN VCP R7: Voluntary Cleanup Priority Listing

A listing of voluntary cleanup priority sites located on Indian Land located in Region 7.

Date of Government Version: 03/20/2008

Date Data Arrived at EDR: 04/22/2008

Date Made Active in Reports: 05/19/2008

Number of Days to Update: 27

Source: EPA, Region 7

Telephone: 913-551-7365

Last EDR Contact: 07/08/2021

Next Scheduled EDR Contact: 07/20/2009

Data Release Frequency: Varies

#### VCP: Voluntary Cleanup Program site

Georgia's Voluntary Remediation Program Act was created to encourage voluntary investigation and remediation of contaminated properties.

Date of Government Version: 05/05/2023

Date Data Arrived at EDR: 05/19/2023

Date Made Active in Reports: 08/09/2023

Number of Days to Update: 82

Source: DNR

Telephone: 404-657-8600

Last EDR Contact: 08/15/2023

Next Scheduled EDR Contact: 12/04/2023

Data Release Frequency: Varies

#### INDIAN VCP R1: Voluntary Cleanup Priority Listing

A listing of voluntary cleanup priority sites located on Indian Land located in Region 1.

Date of Government Version: 07/27/2015

Date Data Arrived at EDR: 09/29/2015

Date Made Active in Reports: 02/18/2016

Number of Days to Update: 142

Source: EPA, Region 1

Telephone: 617-918-1102

Last EDR Contact: 09/12/2023

Next Scheduled EDR Contact: 01/01/2024

Data Release Frequency: Varies



# GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

## *Lists of state and tribal brownfield sites*

### BROWNFIELDS: Brownfields Public Record List

The Brownfields Public Record lists properties where response actions under the Georgia Hazardous Site Reuse and Redevelopment Act are planned, ongoing or completed.

Date of Government Version: 07/31/2023  
Date Data Arrived at EDR: 07/31/2023  
Date Made Active in Reports: 10/13/2023  
Number of Days to Update: 74

Source: Department of Natural Resources  
Telephone: 404-657-8600  
Last EDR Contact: 07/31/2023  
Next Scheduled EDR Contact: 11/13/2023  
Data Release Frequency: Varies

## **ADDITIONAL ENVIRONMENTAL RECORDS**

### *Local Brownfield lists*

#### US BROWNFIELDS: A Listing of Brownfields Sites

Brownfields are real property, the expansion, redevelopment, or reuse of which may be complicated by the presence or potential presence of a hazardous substance, pollutant, or contaminant. Cleaning up and reinvesting in these properties takes development pressures off of undeveloped, open land, and both improves and protects the environment. Assessment, Cleanup and Redevelopment Exchange System (ACRES) stores information reported by EPA Brownfields grant recipients on brownfields properties assessed or cleaned up with grant funding as well as information on Targeted Brownfields Assessments performed by EPA Regions. A listing of ACRES Brownfield sites is obtained from Cleanups in My Community. Cleanups in My Community provides information on Brownfields properties for which information is reported back to EPA, as well as areas served by Brownfields grant programs.

Date of Government Version: 04/06/2023  
Date Data Arrived at EDR: 04/13/2023  
Date Made Active in Reports: 04/19/2023  
Number of Days to Update: 6

Source: Environmental Protection Agency  
Telephone: 202-566-2777  
Last EDR Contact: 08/30/2023  
Next Scheduled EDR Contact: 12/25/2023  
Data Release Frequency: Semi-Annually

### *Local Lists of Landfill / Solid Waste Disposal Sites*

#### SWRCY: Recycling Center Listing

A listing of recycling facility locations.

Date of Government Version: 06/15/2023  
Date Data Arrived at EDR: 06/15/2023  
Date Made Active in Reports: 09/06/2023  
Number of Days to Update: 83

Source: Department of Community Affairs  
Telephone: 404-679-1598  
Last EDR Contact: 09/20/2023  
Next Scheduled EDR Contact: 01/01/2024  
Data Release Frequency: Varies

#### HIST LF: Historical Landfills

Landfills that were closed many years ago.

Date of Government Version: 01/15/2003  
Date Data Arrived at EDR: 01/20/2004  
Date Made Active in Reports: 02/06/2004  
Number of Days to Update: 17

Source: Department of Natural Resources  
Telephone: 404-362-2696  
Last EDR Contact: 01/20/2004  
Next Scheduled EDR Contact: N/A  
Data Release Frequency: Varies

#### INDIAN ODI: Report on the Status of Open Dumps on Indian Lands

Location of open dumps on Indian land.

Date of Government Version: 12/31/1998  
Date Data Arrived at EDR: 12/03/2007  
Date Made Active in Reports: 01/24/2008  
Number of Days to Update: 52

Source: Environmental Protection Agency  
Telephone: 703-308-8245  
Last EDR Contact: 07/19/2023  
Next Scheduled EDR Contact: 11/06/2023  
Data Release Frequency: Varies

## GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

### ODI: Open Dump Inventory

An open dump is defined as a disposal facility that does not comply with one or more of the Part 257 or Part 258 Subtitle D Criteria.

Date of Government Version: 06/30/1985  
Date Data Arrived at EDR: 08/09/2004  
Date Made Active in Reports: 09/17/2004  
Number of Days to Update: 39

Source: Environmental Protection Agency  
Telephone: 800-424-9346  
Last EDR Contact: 06/09/2004  
Next Scheduled EDR Contact: N/A  
Data Release Frequency: No Update Planned

### DEBRIS REGION 9: Torres Martinez Reservation Illegal Dump Site Locations

A listing of illegal dump sites location on the Torres Martinez Indian Reservation located in eastern Riverside County and northern Imperial County, California.

Date of Government Version: 01/12/2009  
Date Data Arrived at EDR: 05/07/2009  
Date Made Active in Reports: 09/21/2009  
Number of Days to Update: 137

Source: EPA, Region 9  
Telephone: 415-947-4219  
Last EDR Contact: 10/10/2023  
Next Scheduled EDR Contact: 01/29/2024  
Data Release Frequency: No Update Planned

### IHS OPEN DUMPS: Open Dumps on Indian Land

A listing of all open dumps located on Indian Land in the United States.

Date of Government Version: 04/01/2014  
Date Data Arrived at EDR: 08/06/2014  
Date Made Active in Reports: 01/29/2015  
Number of Days to Update: 176

Source: Department of Health & Human Services, Indian Health Service  
Telephone: 301-443-1452  
Last EDR Contact: 07/27/2023  
Next Scheduled EDR Contact: 11/13/2023  
Data Release Frequency: Varies

### **Local Lists of Hazardous waste / Contaminated Sites**

#### US HIST CDL: National Clandestine Laboratory Register

A listing of clandestine drug lab locations that have been removed from the DEAs National Clandestine Laboratory Register.

Date of Government Version: 05/22/2023  
Date Data Arrived at EDR: 05/23/2023  
Date Made Active in Reports: 07/10/2023  
Number of Days to Update: 48

Source: Drug Enforcement Administration  
Telephone: 202-307-1000  
Last EDR Contact: 08/21/2023  
Next Scheduled EDR Contact: 12/04/2023  
Data Release Frequency: No Update Planned

#### CDL: Clandestine Drug Labs

A listing of clandestine drug lab site locations in the state.

Date of Government Version: 06/02/2016  
Date Data Arrived at EDR: 06/13/2016  
Date Made Active in Reports: 08/15/2016  
Number of Days to Update: 63

Source: Georgia Bureau of Investigation  
Telephone: 404-244-2639  
Last EDR Contact: 08/02/2023  
Next Scheduled EDR Contact: 11/20/2023  
Data Release Frequency: Varies

#### DEL SHWS: Delisted Hazardous Site Inventory Listing

A listing of sites delisted from the Hazardous Site Inventory.

Date of Government Version: 07/01/2023  
Date Data Arrived at EDR: 07/12/2023  
Date Made Active in Reports: 10/03/2023  
Number of Days to Update: 83

Source: Department of Natural Resources  
Telephone: 404-657-8636  
Last EDR Contact: 09/19/2023  
Next Scheduled EDR Contact: 01/01/2024  
Data Release Frequency: Annually

## GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

### US CDL: Clandestine Drug Labs

A listing of clandestine drug lab locations. The U.S. Department of Justice ("the Department") provides this web site as a public service. It contains addresses of some locations where law enforcement agencies reported they found chemicals or other items that indicated the presence of either clandestine drug laboratories or dumpsites. In most cases, the source of the entries is not the Department, and the Department has not verified the entry and does not guarantee its accuracy. Members of the public must verify the accuracy of all entries by, for example, contacting local law enforcement and local health departments.

Date of Government Version: 05/22/2023  
Date Data Arrived at EDR: 05/23/2023  
Date Made Active in Reports: 07/10/2023  
Number of Days to Update: 48

Source: Drug Enforcement Administration  
Telephone: 202-307-1000  
Last EDR Contact: 08/21/2023  
Next Scheduled EDR Contact: 12/04/2023  
Data Release Frequency: Quarterly

### Local Land Records

#### LIENS 2: CERCLA Lien Information

A Federal CERCLA ("Superfund") lien can exist by operation of law at any site or property at which EPA has spent Superfund monies. These monies are spent to investigate and address releases and threatened releases of contamination. CERCLIS provides information as to the identity of these sites and properties.

Date of Government Version: 06/22/2023  
Date Data Arrived at EDR: 07/06/2023  
Date Made Active in Reports: 07/24/2023  
Number of Days to Update: 18

Source: Environmental Protection Agency  
Telephone: 202-564-6023  
Last EDR Contact: 10/03/2023  
Next Scheduled EDR Contact: 01/08/2024  
Data Release Frequency: Semi-Annually

### Records of Emergency Release Reports

#### HMIRS: Hazardous Materials Information Reporting System

Hazardous Materials Incident Report System. HMIRS contains hazardous material spill incidents reported to DOT.

Date of Government Version: 06/19/2023  
Date Data Arrived at EDR: 06/23/2023  
Date Made Active in Reports: 09/20/2023  
Number of Days to Update: 89

Source: U.S. Department of Transportation  
Telephone: 202-366-4555  
Last EDR Contact: 09/20/2023  
Next Scheduled EDR Contact: 01/01/2024  
Data Release Frequency: Quarterly

#### SPILLS: Spills Information

Oil or Hazardous Material Spills or Releases.

Date of Government Version: 07/18/2023  
Date Data Arrived at EDR: 07/19/2023  
Date Made Active in Reports: 10/03/2023  
Number of Days to Update: 76

Source: Department of Natural Resources  
Telephone: 770-387-4900  
Last EDR Contact: 09/27/2023  
Next Scheduled EDR Contact: 01/01/2024  
Data Release Frequency: Quarterly

#### SPILLS 90: SPILLS90 data from FirstSearch

Spills 90 includes those spill and release records available exclusively from FirstSearch databases. Typically, they may include chemical, oil and/or hazardous substance spills recorded after 1990. Duplicate records that are already included in EDR incident and release records are not included in Spills 90.

Date of Government Version: 10/04/2012  
Date Data Arrived at EDR: 01/03/2013  
Date Made Active in Reports: 02/11/2013  
Number of Days to Update: 39

Source: FirstSearch  
Telephone: N/A  
Last EDR Contact: 01/03/2013  
Next Scheduled EDR Contact: N/A  
Data Release Frequency: No Update Planned

### Other Ascertainable Records

## GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

### RCRA NonGen / NLR: RCRA - Non Generators / No Longer Regulated

RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Non-Generators do not presently generate hazardous waste.

Date of Government Version: 07/24/2023	Source: Environmental Protection Agency
Date Data Arrived at EDR: 07/31/2023	Telephone: (404) 562-8651
Date Made Active in Reports: 08/14/2023	Last EDR Contact: 09/20/2023
Number of Days to Update: 14	Next Scheduled EDR Contact: 01/01/2024
	Data Release Frequency: Quarterly

### FUDS: Formerly Used Defense Sites

The listing includes locations of Formerly Used Defense Sites properties where the US Army Corps of Engineers is actively working or will take necessary cleanup actions.

Date of Government Version: 08/07/2023	Source: U.S. Army Corps of Engineers
Date Data Arrived at EDR: 08/15/2023	Telephone: 202-528-4285
Date Made Active in Reports: 10/10/2023	Last EDR Contact: 08/15/2023
Number of Days to Update: 56	Next Scheduled EDR Contact: 11/27/2023
	Data Release Frequency: Varies

### DOD: Department of Defense Sites

This data set consists of federally owned or administered lands, administered by the Department of Defense, that have any area equal to or greater than 640 acres of the United States, Puerto Rico, and the U.S. Virgin Islands.

Date of Government Version: 06/07/2021	Source: USGS
Date Data Arrived at EDR: 07/13/2021	Telephone: 888-275-8747
Date Made Active in Reports: 03/09/2022	Last EDR Contact: 10/09/2023
Number of Days to Update: 239	Next Scheduled EDR Contact: 01/22/2024
	Data Release Frequency: Varies

### FEDLAND: Federal and Indian Lands

Federally and Indian administrated lands of the United States. Lands included are administrated by: Army Corps of Engineers, Bureau of Reclamation, National Wild and Scenic River, National Wildlife Refuge, Public Domain Land, Wilderness, Wilderness Study Area, Wildlife Management Area, Bureau of Indian Affairs, Bureau of Land Management, Department of Justice, Forest Service, Fish and Wildlife Service, National Park Service.

Date of Government Version: 04/02/2018	Source: U.S. Geological Survey
Date Data Arrived at EDR: 04/11/2018	Telephone: 888-275-8747
Date Made Active in Reports: 11/06/2019	Last EDR Contact: 10/04/2023
Number of Days to Update: 574	Next Scheduled EDR Contact: 01/15/2024
	Data Release Frequency: N/A

### SCRD DRYCLEANERS: State Coalition for Remediation of Drycleaners Listing

The State Coalition for Remediation of Drycleaners was established in 1998, with support from the U.S. EPA Office of Superfund Remediation and Technology Innovation. It is comprised of representatives of states with established drycleaner remediation programs. Currently the member states are Alabama, Connecticut, Florida, Illinois, Kansas, Minnesota, Missouri, North Carolina, Oregon, South Carolina, Tennessee, Texas, and Wisconsin.

Date of Government Version: 07/30/2021	Source: Environmental Protection Agency
Date Data Arrived at EDR: 02/03/2023	Telephone: 615-532-8599
Date Made Active in Reports: 02/10/2023	Last EDR Contact: 08/01/2023
Number of Days to Update: 7	Next Scheduled EDR Contact: 11/20/2023
	Data Release Frequency: Varies

### US FIN ASSUR: Financial Assurance Information

All owners and operators of facilities that treat, store, or dispose of hazardous waste are required to provide proof that they will have sufficient funds to pay for the clean up, closure, and post-closure care of their facilities.

## GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

Date of Government Version: 06/19/2023  
Date Data Arrived at EDR: 06/20/2023  
Date Made Active in Reports: 08/14/2023  
Number of Days to Update: 55

Source: Environmental Protection Agency  
Telephone: 202-566-1917  
Last EDR Contact: 09/20/2023  
Next Scheduled EDR Contact: 01/01/2024  
Data Release Frequency: Quarterly

### EPA WATCH LIST: EPA WATCH LIST

EPA maintains a "Watch List" to facilitate dialogue between EPA, state and local environmental agencies on enforcement matters relating to facilities with alleged violations identified as either significant or high priority. Being on the Watch List does not mean that the facility has actually violated the law only that an investigation by EPA or a state or local environmental agency has led those organizations to allege that an unproven violation has in fact occurred. Being on the Watch List does not represent a higher level of concern regarding the alleged violations that were detected, but instead indicates cases requiring additional dialogue between EPA, state and local agencies - primarily because of the length of time the alleged violation has gone unaddressed or unresolved.

Date of Government Version: 08/30/2013  
Date Data Arrived at EDR: 03/21/2014  
Date Made Active in Reports: 06/17/2014  
Number of Days to Update: 88

Source: Environmental Protection Agency  
Telephone: 617-520-3000  
Last EDR Contact: 07/31/2023  
Next Scheduled EDR Contact: 11/13/2023  
Data Release Frequency: Quarterly

### 2020 COR ACTION: 2020 Corrective Action Program List

The EPA has set ambitious goals for the RCRA Corrective Action program by creating the 2020 Corrective Action Universe. This RCRA cleanup baseline includes facilities expected to need corrective action. The 2020 universe contains a wide variety of sites. Some properties are heavily contaminated while others were contaminated but have since been cleaned up. Still others have not been fully investigated yet, and may require little or no remediation. Inclusion in the 2020 Universe does not necessarily imply failure on the part of a facility to meet its RCRA obligations.

Date of Government Version: 09/30/2017  
Date Data Arrived at EDR: 05/08/2018  
Date Made Active in Reports: 07/20/2018  
Number of Days to Update: 73

Source: Environmental Protection Agency  
Telephone: 703-308-4044  
Last EDR Contact: 08/03/2023  
Next Scheduled EDR Contact: 11/13/2023  
Data Release Frequency: Varies

### TSCA: Toxic Substances Control Act

Toxic Substances Control Act. TSCA identifies manufacturers and importers of chemical substances included on the TSCA Chemical Substance Inventory list. It includes data on the production volume of these substances by plant site.

Date of Government Version: 12/31/2020  
Date Data Arrived at EDR: 06/14/2022  
Date Made Active in Reports: 03/24/2023  
Number of Days to Update: 283

Source: EPA  
Telephone: 202-260-5521  
Last EDR Contact: 09/15/2023  
Next Scheduled EDR Contact: 12/25/2023  
Data Release Frequency: Every 4 Years

### TRIS: Toxic Chemical Release Inventory System

Toxic Release Inventory System. TRIS identifies facilities which release toxic chemicals to the air, water and land in reportable quantities under SARA Title III Section 313.

Date of Government Version: 12/31/2021  
Date Data Arrived at EDR: 02/16/2023  
Date Made Active in Reports: 05/02/2023  
Number of Days to Update: 75

Source: EPA  
Telephone: 202-566-0250  
Last EDR Contact: 08/18/2023  
Next Scheduled EDR Contact: 11/27/2023  
Data Release Frequency: Annually

### SSTS: Section 7 Tracking Systems

Section 7 of the Federal Insecticide, Fungicide and Rodenticide Act, as amended (92 Stat. 829) requires all registered pesticide-producing establishments to submit a report to the Environmental Protection Agency by March 1st each year. Each establishment must report the types and amounts of pesticides, active ingredients and devices being produced, and those having been produced and sold or distributed in the past year.

## GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

Date of Government Version: 07/17/2023  
Date Data Arrived at EDR: 07/18/2023  
Date Made Active in Reports: 10/10/2023  
Number of Days to Update: 84

Source: EPA  
Telephone: 202-564-4203  
Last EDR Contact: 07/18/2023  
Next Scheduled EDR Contact: 10/30/2023  
Data Release Frequency: Annually

### ROD: Records Of Decision

Record of Decision. ROD documents mandate a permanent remedy at an NPL (Superfund) site containing technical and health information to aid in the cleanup.

Date of Government Version: 06/22/2023  
Date Data Arrived at EDR: 07/06/2023  
Date Made Active in Reports: 07/24/2023  
Number of Days to Update: 18

Source: EPA  
Telephone: 703-416-0223  
Last EDR Contact: 10/03/2023  
Next Scheduled EDR Contact: 12/11/2023  
Data Release Frequency: Annually

### RMP: Risk Management Plans

When Congress passed the Clean Air Act Amendments of 1990, it required EPA to publish regulations and guidance for chemical accident prevention at facilities using extremely hazardous substances. The Risk Management Program Rule (RMP Rule) was written to implement Section 112(r) of these amendments. The rule, which built upon existing industry codes and standards, requires companies of all sizes that use certain flammable and toxic substances to develop a Risk Management Program, which includes a(n): Hazard assessment that details the potential effects of an accidental release, an accident history of the last five years, and an evaluation of worst-case and alternative accidental releases; Prevention program that includes safety precautions and maintenance, monitoring, and employee training measures; and Emergency response program that spells out emergency health care, employee training measures and procedures for informing the public and response agencies (e.g the fire department) should an accident occur.

Date of Government Version: 05/09/2023  
Date Data Arrived at EDR: 06/29/2023  
Date Made Active in Reports: 09/25/2023  
Number of Days to Update: 88

Source: Environmental Protection Agency  
Telephone: 202-564-8600  
Last EDR Contact: 09/26/2023  
Next Scheduled EDR Contact: 01/29/2024  
Data Release Frequency: Varies

### RAATS: RCRA Administrative Action Tracking System

RCRA Administration Action Tracking System. RAATS contains records based on enforcement actions issued under RCRA pertaining to major violators and includes administrative and civil actions brought by the EPA. For administration actions after September 30, 1995, data entry in the RAATS database was discontinued. EPA will retain a copy of the database for historical records. It was necessary to terminate RAATS because a decrease in agency resources made it impossible to continue to update the information contained in the database.

Date of Government Version: 04/17/1995  
Date Data Arrived at EDR: 07/03/1995  
Date Made Active in Reports: 08/07/1995  
Number of Days to Update: 35

Source: EPA  
Telephone: 202-564-4104  
Last EDR Contact: 06/02/2008  
Next Scheduled EDR Contact: 09/01/2008  
Data Release Frequency: No Update Planned

### PRP: Potentially Responsible Parties

A listing of verified Potentially Responsible Parties

Date of Government Version: 06/22/2023  
Date Data Arrived at EDR: 07/06/2023  
Date Made Active in Reports: 07/24/2023  
Number of Days to Update: 18

Source: EPA  
Telephone: 202-564-6023  
Last EDR Contact: 10/03/2023  
Next Scheduled EDR Contact: 11/13/2023  
Data Release Frequency: Quarterly

### PADS: PCB Activity Database System

PCB Activity Database. PADS Identifies generators, transporters, commercial storers and/or brokers and disposers of PCB's who are required to notify the EPA of such activities.

## GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

Date of Government Version: 03/20/2023  
Date Data Arrived at EDR: 04/04/2023  
Date Made Active in Reports: 06/09/2023  
Number of Days to Update: 66

Source: EPA  
Telephone: 202-566-0500  
Last EDR Contact: 10/06/2023  
Next Scheduled EDR Contact: 01/15/2024  
Data Release Frequency: Annually

### ICIS: Integrated Compliance Information System

The Integrated Compliance Information System (ICIS) supports the information needs of the national enforcement and compliance program as well as the unique needs of the National Pollutant Discharge Elimination System (NPDES) program.

Date of Government Version: 11/18/2016  
Date Data Arrived at EDR: 11/23/2016  
Date Made Active in Reports: 02/10/2017  
Number of Days to Update: 79

Source: Environmental Protection Agency  
Telephone: 202-564-2501  
Last EDR Contact: 09/27/2023  
Next Scheduled EDR Contact: 01/15/2024  
Data Release Frequency: Quarterly

**FTTS: FIFRA/ TSCA Tracking System - FIFRA (Federal Insecticide, Fungicide, & Rodenticide Act)/TSCA (Toxic Substances Control Act)**  
FTTS tracks administrative cases and pesticide enforcement actions and compliance activities related to FIFRA, TSCA and EPCRA (Emergency Planning and Community Right-to-Know Act). To maintain currency, EDR contacts the Agency on a quarterly basis.

Date of Government Version: 04/09/2009  
Date Data Arrived at EDR: 04/16/2009  
Date Made Active in Reports: 05/11/2009  
Number of Days to Update: 25

Source: EPA/Office of Prevention, Pesticides and Toxic Substances  
Telephone: 202-566-1667  
Last EDR Contact: 08/18/2017  
Next Scheduled EDR Contact: 12/04/2017  
Data Release Frequency: No Update Planned

**FTTS INSP: FIFRA/ TSCA Tracking System - FIFRA (Federal Insecticide, Fungicide, & Rodenticide Act)/TSCA (Toxic Substances Control Act)**  
A listing of FIFRA/TSCA Tracking System (FTTS) inspections and enforcements.

Date of Government Version: 04/09/2009  
Date Data Arrived at EDR: 04/16/2009  
Date Made Active in Reports: 05/11/2009  
Number of Days to Update: 25

Source: EPA  
Telephone: 202-566-1667  
Last EDR Contact: 08/18/2017  
Next Scheduled EDR Contact: 12/04/2017  
Data Release Frequency: No Update Planned

### MLTS: Material Licensing Tracking System

MLTS is maintained by the Nuclear Regulatory Commission and contains a list of approximately 8,100 sites which possess or use radioactive materials and which are subject to NRC licensing requirements. To maintain currency, EDR contacts the Agency on a quarterly basis.

Date of Government Version: 07/20/2023  
Date Data Arrived at EDR: 09/01/2023  
Date Made Active in Reports: 09/20/2023  
Number of Days to Update: 19

Source: Nuclear Regulatory Commission  
Telephone: 301-415-0717  
Last EDR Contact: 10/10/2023  
Next Scheduled EDR Contact: 01/29/2024  
Data Release Frequency: Quarterly

### COAL ASH DOE: Steam-Electric Plant Operation Data

A listing of power plants that store ash in surface ponds.

Date of Government Version: 12/31/2021  
Date Data Arrived at EDR: 04/14/2023  
Date Made Active in Reports: 07/10/2023  
Number of Days to Update: 87

Source: Department of Energy  
Telephone: 202-586-8719  
Last EDR Contact: 09/01/2023  
Next Scheduled EDR Contact: 12/11/2023  
Data Release Frequency: Varies

### COAL ASH EPA: Coal Combustion Residues Surface Impoundments List

A listing of coal combustion residues surface impoundments with high hazard potential ratings.

## GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

Date of Government Version: 01/12/2017  
Date Data Arrived at EDR: 03/05/2019  
Date Made Active in Reports: 11/11/2019  
Number of Days to Update: 251

Source: Environmental Protection Agency  
Telephone: N/A  
Last EDR Contact: 08/28/2023  
Next Scheduled EDR Contact: 12/11/2023  
Data Release Frequency: Varies

### PCB TRANSFORMER: PCB Transformer Registration Database

The database of PCB transformer registrations that includes all PCB registration submittals.

Date of Government Version: 09/13/2019  
Date Data Arrived at EDR: 11/06/2019  
Date Made Active in Reports: 02/10/2020  
Number of Days to Update: 96

Source: Environmental Protection Agency  
Telephone: 202-566-0517  
Last EDR Contact: 08/03/2023  
Next Scheduled EDR Contact: 11/13/2023  
Data Release Frequency: Varies

### RADINFO: Radiation Information Database

The Radiation Information Database (RADINFO) contains information about facilities that are regulated by U.S. Environmental Protection Agency (EPA) regulations for radiation and radioactivity.

Date of Government Version: 07/01/2019  
Date Data Arrived at EDR: 07/01/2019  
Date Made Active in Reports: 09/23/2019  
Number of Days to Update: 84

Source: Environmental Protection Agency  
Telephone: 202-343-9775  
Last EDR Contact: 09/22/2023  
Next Scheduled EDR Contact: 01/08/2024  
Data Release Frequency: Quarterly

### HIST FTTS: FIFRA/TSCA Tracking System Administrative Case Listing

A complete administrative case listing from the FIFRA/TSCA Tracking System (FTTS) for all ten EPA regions. The information was obtained from the National Compliance Database (NCDB). NCDB supports the implementation of FIFRA (Federal Insecticide, Fungicide, and Rodenticide Act) and TSCA (Toxic Substances Control Act). Some EPA regions are now closing out records. Because of that, and the fact that some EPA regions are not providing EPA Headquarters with updated records, it was decided to create a HIST FTTS database. It included records that may not be included in the newer FTTS database updates. This database is no longer updated.

Date of Government Version: 10/19/2006  
Date Data Arrived at EDR: 03/01/2007  
Date Made Active in Reports: 04/10/2007  
Number of Days to Update: 40

Source: Environmental Protection Agency  
Telephone: 202-564-2501  
Last EDR Contact: 12/17/2007  
Next Scheduled EDR Contact: 03/17/2008  
Data Release Frequency: No Update Planned

### HIST FTTS INSP: FIFRA/TSCA Tracking System Inspection & Enforcement Case Listing

A complete inspection and enforcement case listing from the FIFRA/TSCA Tracking System (FTTS) for all ten EPA regions. The information was obtained from the National Compliance Database (NCDB). NCDB supports the implementation of FIFRA (Federal Insecticide, Fungicide, and Rodenticide Act) and TSCA (Toxic Substances Control Act). Some EPA regions are now closing out records. Because of that, and the fact that some EPA regions are not providing EPA Headquarters with updated records, it was decided to create a HIST FTTS database. It included records that may not be included in the newer FTTS database updates. This database is no longer updated.

Date of Government Version: 10/19/2006  
Date Data Arrived at EDR: 03/01/2007  
Date Made Active in Reports: 04/10/2007  
Number of Days to Update: 40

Source: Environmental Protection Agency  
Telephone: 202-564-2501  
Last EDR Contact: 12/17/2008  
Next Scheduled EDR Contact: 03/17/2008  
Data Release Frequency: No Update Planned

### DOT OPS: Incident and Accident Data

Department of Transportation, Office of Pipeline Safety Incident and Accident data.

Date of Government Version: 01/02/2020  
Date Data Arrived at EDR: 01/28/2020  
Date Made Active in Reports: 04/17/2020  
Number of Days to Update: 80

Source: Department of Transportation, Office of Pipeline Safety  
Telephone: 202-366-4595  
Last EDR Contact: 10/04/2023  
Next Scheduled EDR Contact: 11/06/2023  
Data Release Frequency: Quarterly



## GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

### CONSENT: Superfund (CERCLA) Consent Decrees

Major legal settlements that establish responsibility and standards for cleanup at NPL (Superfund) sites. Released periodically by United States District Courts after settlement by parties to litigation matters.

Date of Government Version: 06/30/2023  
Date Data Arrived at EDR: 07/19/2023  
Date Made Active in Reports: 10/10/2023  
Number of Days to Update: 83

Source: Department of Justice, Consent Decree Library  
Telephone: Varies  
Last EDR Contact: 10/03/2023  
Next Scheduled EDR Contact: 01/15/2024  
Data Release Frequency: Varies

### BRS: Biennial Reporting System

The Biennial Reporting System is a national system administered by the EPA that collects data on the generation and management of hazardous waste. BRS captures detailed data from two groups: Large Quantity Generators (LQG) and Treatment, Storage, and Disposal Facilities.

Date of Government Version: 12/31/2021  
Date Data Arrived at EDR: 03/09/2023  
Date Made Active in Reports: 03/20/2023  
Number of Days to Update: 11

Source: EPA/NTIS  
Telephone: 800-424-9346  
Last EDR Contact: 09/20/2023  
Next Scheduled EDR Contact: 01/01/2024  
Data Release Frequency: Biennially

### INDIAN RESERV: Indian Reservations

This map layer portrays Indian administered lands of the United States that have any area equal to or greater than 640 acres.

Date of Government Version: 12/31/2014  
Date Data Arrived at EDR: 07/14/2015  
Date Made Active in Reports: 01/10/2017  
Number of Days to Update: 546

Source: USGS  
Telephone: 202-208-3710  
Last EDR Contact: 10/02/2023  
Next Scheduled EDR Contact: 01/15/2024  
Data Release Frequency: Semi-Annually

### FUSRAP: Formerly Utilized Sites Remedial Action Program

DOE established the Formerly Utilized Sites Remedial Action Program (FUSRAP) in 1974 to remediate sites where radioactive contamination remained from Manhattan Project and early U.S. Atomic Energy Commission (AEC) operations.

Date of Government Version: 03/03/2023  
Date Data Arrived at EDR: 03/03/2023  
Date Made Active in Reports: 06/09/2023  
Number of Days to Update: 98

Source: Department of Energy  
Telephone: 202-586-3559  
Last EDR Contact: 07/26/2023  
Next Scheduled EDR Contact: 11/13/2023  
Data Release Frequency: Varies

### UMTRA: Uranium Mill Tailings Sites

Uranium ore was mined by private companies for federal government use in national defense programs. When the mills shut down, large piles of the sand-like material (mill tailings) remain after uranium has been extracted from the ore. Levels of human exposure to radioactive materials from the piles are low; however, in some cases tailings were used as construction materials before the potential health hazards of the tailings were recognized.

Date of Government Version: 08/30/2019  
Date Data Arrived at EDR: 11/15/2019  
Date Made Active in Reports: 01/28/2020  
Number of Days to Update: 74

Source: Department of Energy  
Telephone: 505-845-0011  
Last EDR Contact: 08/10/2023  
Next Scheduled EDR Contact: 11/27/2023  
Data Release Frequency: Varies

### LEAD SMELTER 1: Lead Smelter Sites

A listing of former lead smelter site locations.

Date of Government Version: 06/22/2023  
Date Data Arrived at EDR: 07/06/2023  
Date Made Active in Reports: 07/24/2023  
Number of Days to Update: 18

Source: Environmental Protection Agency  
Telephone: 703-603-8787  
Last EDR Contact: 10/03/2023  
Next Scheduled EDR Contact: 01/08/2024  
Data Release Frequency: Varies

## GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

### LEAD SMELTER 2: Lead Smelter Sites

A list of several hundred sites in the U.S. where secondary lead smelting was done from 1931 and 1964. These sites may pose a threat to public health through ingestion or inhalation of contaminated soil or dust

Date of Government Version: 04/05/2001  
Date Data Arrived at EDR: 10/27/2010  
Date Made Active in Reports: 12/02/2010  
Number of Days to Update: 36

Source: American Journal of Public Health  
Telephone: 703-305-6451  
Last EDR Contact: 12/02/2009  
Next Scheduled EDR Contact: N/A  
Data Release Frequency: No Update Planned

### US AIRS (AFS): Aerometric Information Retrieval System Facility Subsystem (AFS)

The database is a sub-system of Aerometric Information Retrieval System (AIRS). AFS contains compliance data on air pollution point sources regulated by the U.S. EPA and/or state and local air regulatory agencies. This information comes from source reports by various stationary sources of air pollution, such as electric power plants, steel mills, factories, and universities, and provides information about the air pollutants they produce. Action, air program, air program pollutant, and general level plant data. It is used to track emissions and compliance data from industrial plants.

Date of Government Version: 10/12/2016  
Date Data Arrived at EDR: 10/26/2016  
Date Made Active in Reports: 02/03/2017  
Number of Days to Update: 100

Source: EPA  
Telephone: 202-564-2496  
Last EDR Contact: 09/26/2017  
Next Scheduled EDR Contact: 01/08/2018  
Data Release Frequency: Annually

### US AIRS MINOR: Air Facility System Data

A listing of minor source facilities.

Date of Government Version: 10/12/2016  
Date Data Arrived at EDR: 10/26/2016  
Date Made Active in Reports: 02/03/2017  
Number of Days to Update: 100

Source: EPA  
Telephone: 202-564-2496  
Last EDR Contact: 09/26/2017  
Next Scheduled EDR Contact: 01/08/2018  
Data Release Frequency: Annually

### MINES VIOLATIONS: MSHA Violation Assessment Data

Mines violation and assessment information. Department of Labor, Mine Safety & Health Administration.

Date of Government Version: 07/05/2023  
Date Data Arrived at EDR: 07/05/2023  
Date Made Active in Reports: 09/25/2023  
Number of Days to Update: 82

Source: DOL, Mine Safety & Health Administration  
Telephone: 202-693-9424  
Last EDR Contact: 10/04/2023  
Next Scheduled EDR Contact: 11/20/2023  
Data Release Frequency: Quarterly

### US MINES: Mines Master Index File

Contains all mine identification numbers issued for mines active or opened since 1971. The data also includes violation information.

Date of Government Version: 05/01/2023  
Date Data Arrived at EDR: 05/24/2023  
Date Made Active in Reports: 07/24/2023  
Number of Days to Update: 61

Source: Department of Labor, Mine Safety and Health Administration  
Telephone: 303-231-5959  
Last EDR Contact: 08/22/2023  
Next Scheduled EDR Contact: 12/04/2023  
Data Release Frequency: Semi-Annually

### US MINES 2: Ferrous and Nonferrous Metal Mines Database Listing

This map layer includes ferrous (ferrous metal mines are facilities that extract ferrous metals, such as iron ore or molybdenum) and nonferrous (Nonferrous metal mines are facilities that extract nonferrous metals, such as gold, silver, copper, zinc, and lead) metal mines in the United States.

Date of Government Version: 01/07/2022  
Date Data Arrived at EDR: 02/24/2023  
Date Made Active in Reports: 05/17/2023  
Number of Days to Update: 82

Source: USGS  
Telephone: 703-648-7709  
Last EDR Contact: 08/24/2023  
Next Scheduled EDR Contact: 12/04/2023  
Data Release Frequency: Varies

## GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

### US MINES 3: Active Mines & Mineral Plants Database Listing

Active Mines and Mineral Processing Plant operations for commodities monitored by the Minerals Information Team of the USGS.

Date of Government Version: 04/14/2011	Source: USGS
Date Data Arrived at EDR: 06/08/2011	Telephone: 703-648-7709
Date Made Active in Reports: 09/13/2011	Last EDR Contact: 08/24/2023
Number of Days to Update: 97	Next Scheduled EDR Contact: 12/04/2023
	Data Release Frequency: Varies

### ABANDONED MINES: Abandoned Mines

An inventory of land and water impacted by past mining (primarily coal mining) is maintained by OSMRE to provide information needed to implement the Surface Mining Control and Reclamation Act of 1977 (SMCRA). The inventory contains information on the location, type, and extent of AML impacts, as well as, information on the cost associated with the reclamation of those problems. The inventory is based upon field surveys by State, Tribal, and OSMRE program officials. It is dynamic to the extent that it is modified as new problems are identified and existing problems are reclaimed.

Date of Government Version: 06/13/2023	Source: Department of Interior
Date Data Arrived at EDR: 06/14/2023	Telephone: 202-208-2609
Date Made Active in Reports: 08/14/2023	Last EDR Contact: 09/12/2023
Number of Days to Update: 61	Next Scheduled EDR Contact: 12/18/2023
	Data Release Frequency: Quarterly

### MINES MRDS: Mineral Resources Data System Mineral Resources Data System

Date of Government Version: 08/23/2022	Source: USGS
Date Data Arrived at EDR: 11/22/2022	Telephone: 703-648-6533
Date Made Active in Reports: 02/28/2023	Last EDR Contact: 08/24/2023
Number of Days to Update: 98	Next Scheduled EDR Contact: 12/04/2023
	Data Release Frequency: Varies

### FINDS: Facility Index System/Facility Registry System

Facility Index System. FINDS contains both facility information and 'pointers' to other sources that contain more detail. EDR includes the following FINDS databases in this report: PCS (Permit Compliance System), AIRS (Aerometric Information Retrieval System), DOCKET (Enforcement Docket used to manage and track information on civil judicial enforcement cases for all environmental statutes), FURS (Federal Underground Injection Control), C-DOCKET (Criminal Docket System used to track criminal enforcement actions for all environmental statutes), FFIS (Federal Facilities Information System), STATE (State Environmental Laws and Statutes), and PADS (PCB Activity Data System).

Date of Government Version: 05/04/2023	Source: EPA
Date Data Arrived at EDR: 05/25/2023	Telephone: (404) 562-9900
Date Made Active in Reports: 07/24/2023	Last EDR Contact: 09/28/2023
Number of Days to Update: 60	Next Scheduled EDR Contact: 12/11/2023
	Data Release Frequency: Quarterly

### ECHO: Enforcement & Compliance History Information

ECHO provides integrated compliance and enforcement information for about 800,000 regulated facilities nationwide.

Date of Government Version: 06/24/2023	Source: Environmental Protection Agency
Date Data Arrived at EDR: 06/29/2023	Telephone: 202-564-2280
Date Made Active in Reports: 09/25/2023	Last EDR Contact: 10/03/2023
Number of Days to Update: 88	Next Scheduled EDR Contact: 01/15/2024
	Data Release Frequency: Quarterly

### DOCKET HWC: Hazardous Waste Compliance Docket Listing

A complete list of the Federal Agency Hazardous Waste Compliance Docket Facilities.

## GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

Date of Government Version: 05/06/2021  
Date Data Arrived at EDR: 05/21/2021  
Date Made Active in Reports: 08/11/2021  
Number of Days to Update: 82

Source: Environmental Protection Agency  
Telephone: 202-564-0527  
Last EDR Contact: 08/15/2023  
Next Scheduled EDR Contact: 12/04/2023  
Data Release Frequency: Varies

### UXO: Unexploded Ordnance Sites

A listing of unexploded ordnance site locations

Date of Government Version: 11/09/2021  
Date Data Arrived at EDR: 10/20/2022  
Date Made Active in Reports: 01/10/2023  
Number of Days to Update: 82

Source: Department of Defense  
Telephone: 703-704-1564  
Last EDR Contact: 09/13/2023  
Next Scheduled EDR Contact: 01/22/2024  
Data Release Frequency: Varies

### FUELS PROGRAM: EPA Fuels Program Registered Listing

This listing includes facilities that are registered under the Part 80 (Code of Federal Regulations) EPA Fuels Programs. All companies now are required to submit new and updated registrations.

Date of Government Version: 05/15/2023  
Date Data Arrived at EDR: 05/17/2023  
Date Made Active in Reports: 07/10/2023  
Number of Days to Update: 54

Source: EPA  
Telephone: 800-385-6164  
Last EDR Contact: 08/15/2023  
Next Scheduled EDR Contact: 11/27/2023  
Data Release Frequency: Quarterly

### PFAS NPL: Superfund Sites with PFAS Detections Information

EPA's Office of Land and Emergency Management and EPA Regional Offices maintain data describing what is known about site investigations, contamination, and remedial actions under the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) where PFAS is present in the environment.

Date of Government Version: 07/05/2023  
Date Data Arrived at EDR: 07/05/2023  
Date Made Active in Reports: 10/02/2023  
Number of Days to Update: 89

Source: Environmental Protection Agency  
Telephone: 703-603-8895  
Last EDR Contact: 10/03/2023  
Next Scheduled EDR Contact: 01/15/2024  
Data Release Frequency: Varies

### PFAS FEDERAL SITES: Federal Sites PFAS Information

Several federal entities, such as the federal Superfund program, Department of Defense, National Aeronautics and Space Administration, Department of Transportation, and Department of Energy provided information for sites with known or suspected detections at federal facilities.

Date of Government Version: 07/05/2023  
Date Data Arrived at EDR: 07/05/2023  
Date Made Active in Reports: 10/02/2023  
Number of Days to Update: 89

Source: Environmental Protection Agency  
Telephone: 202-272-0167  
Last EDR Contact: 10/03/2023  
Next Scheduled EDR Contact: 01/15/2024  
Data Release Frequency: Varies

### PFAS TRIS: List of PFAS Added to the TRI

Section 7321 of the National Defense Authorization Act for Fiscal Year 2020 (NDAA) immediately added certain per- and polyfluoroalkyl substances (PFAS) to the list of chemicals covered by the Toxics Release Inventory (TRI) under Section 313 of the Emergency Planning and Community Right-to-Know Act (EPCRA) and provided a framework for additional PFAS to be added to TRI on an annual basis.

Date of Government Version: 07/05/2023  
Date Data Arrived at EDR: 07/05/2023  
Date Made Active in Reports: 10/02/2023  
Number of Days to Update: 89

Source: Environmental Protection Agency  
Telephone: 202-566-0250  
Last EDR Contact: 10/03/2023  
Next Scheduled EDR Contact: 01/15/2024  
Data Release Frequency: Varies

## GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

### PFAS TSCA: PFAS Manufacture and Imports Information

EPA issued the Chemical Data Reporting (CDR) Rule under the Toxic Substances Control Act (TSCA) and requires chemical manufacturers and facilities that manufacture or import chemical substances to report data to EPA. EPA publishes non-confidential business information (non-CBI) and includes descriptive information about each site, corporate parent, production volume, other manufacturing information, and processing and use information.

Date of Government Version: 07/05/2023	Source: Environmental Protection Agency
Date Data Arrived at EDR: 07/05/2023	Telephone: 202-272-0167
Date Made Active in Reports: 10/02/2023	Last EDR Contact: 10/03/2023
Number of Days to Update: 89	Next Scheduled EDR Contact: 01/15/2024
	Data Release Frequency: Varies

### PFAS RCRA MANIFEST: PFAS Transfers Identified In the RCRA Database Listing

To work around the lack of PFAS waste codes in the RCRA database, EPA developed the PFAS Transfers dataset by mining e-Manifest records containing at least one of these common PFAS keywords: PFAS, PFOA, PFOS, PERFL, AFFF, GENX, GEN-X (plus the VT waste codes). These keywords were searched for in the following text fields: Manifest handling instructions (MANIFEST\_HANDLING\_INSTR), Non-hazardous waste description (NON\_HAZ\_WASTE\_DESCRIPTION), DOT printed information (DOT\_PRINTED\_INFORMATION), Waste line handling instructions (WASTE\_LINE\_HANDLING\_INSTR), Waste residue comments (WASTE\_RESIDUE\_COMMENTS).

Date of Government Version: 07/05/2023	Source: Environmental Protection Agency
Date Data Arrived at EDR: 07/05/2023	Telephone: 202-272-0167
Date Made Active in Reports: 10/02/2023	Last EDR Contact: 10/03/2023
Number of Days to Update: 89	Next Scheduled EDR Contact: 01/15/2024
	Data Release Frequency: Varies

### PFAS ATSDR: PFAS Contamination Site Location Listing

PFAS contamination site locations from the Department of Health & Human Services, Center for Disease Control & Prevention. ATSDR is involved at a number of PFAS-related sites, either directly or through assisting state and federal partners. As of now, most sites are related to drinking water contamination connected with PFAS production facilities or fire training areas where aqueous film-forming firefighting foam (AFFF) was regularly used.

Date of Government Version: 06/24/2020	Source: Department of Health & Human Services
Date Data Arrived at EDR: 03/17/2021	Telephone: 202-741-5770
Date Made Active in Reports: 11/08/2022	Last EDR Contact: 07/19/2023
Number of Days to Update: 601	Next Scheduled EDR Contact: 11/06/2023
	Data Release Frequency: Varies

### PFAS WQP: Ambient Environmental Sampling for PFAS

The Water Quality Portal (WQP) is a part of a modernized repository storing ambient sampling data for all environmental media and tissue samples. A wide range of federal, state, tribal and local governments, academic and non-governmental organizations and individuals submit project details and sampling results to this public repository. The information is commonly used for research and assessments of environmental quality.

Date of Government Version: 09/23/2023	Source: Environmental Protection Agency
Date Data Arrived at EDR: 10/03/2023	Telephone: 202-272-0167
Date Made Active in Reports: 10/10/2023	Last EDR Contact: 10/03/2023
Number of Days to Update: 7	Next Scheduled EDR Contact: 01/15/2024
	Data Release Frequency: Varies

### PFAS NPDES: Clean Water Act Discharge Monitoring Information

Any discharger of pollutants to waters of the United States from a point source must have a National Pollutant Discharge Elimination System (NPDES) permit. The process for obtaining limits involves the regulated entity (permittee) disclosing releases in a NPDES permit application and the permitting authority (typically the state but sometimes EPA) deciding whether to require monitoring or monitoring with limits. Caveats and Limitations: Less than half of states have required PFAS monitoring for at least one of their permittees and fewer states have established PFAS effluent limits for permittees. New rulemakings have been initiated that may increase the number of facilities monitoring for PFAS in the future.

## GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

Date of Government Version: 07/05/2023  
Date Data Arrived at EDR: 07/05/2023  
Date Made Active in Reports: 10/02/2023  
Number of Days to Update: 89

Source: Environmental Protection Agency  
Telephone: 202-272-0167  
Last EDR Contact: 10/03/2023  
Next Scheduled EDR Contact: 01/15/2024  
Data Release Frequency: Varies

### PFAS ECHO: Facilities in Industries that May Be Handling PFAS Listing

Regulators and the public have expressed interest in knowing which regulated entities may be using PFAS. EPA has developed a dataset from various sources that show which industries may be handling PFAS. Approximately 120,000 facilities subject to federal environmental programs have operated or currently operate in industry sectors with processes that may involve handling and/or release of PFAS.

Date of Government Version: 07/05/2023  
Date Data Arrived at EDR: 07/05/2023  
Date Made Active in Reports: 09/25/2023  
Number of Days to Update: 82

Source: Environmental Protection Agency  
Telephone: 202-272-0167  
Last EDR Contact: 10/03/2023  
Next Scheduled EDR Contact: 01/15/2024  
Data Release Frequency: Varies

### PFAS ECHO FIRE TRAINING: Facilities in Industries that May Be Handling PFAS Listing

A list of fire training sites was added to the Industry Sectors dataset using a keyword search on the permitted facility's name to identify sites where fire-fighting foam may have been used in training exercises. Additionally, you may view an example spreadsheet of the subset of fire training facility data, as well as the keywords used in selecting or deselecting a facility for the subset. as well as the keywords used in selecting or deselecting a facility for the subset. These keywords were tested to maximize accuracy in selecting facilities that may use fire-fighting foam in training exercises, however, due to the lack of a required reporting field in the data systems for designating fire training sites, this methodology may not identify all fire training sites or may potentially misidentify them.

Date of Government Version: 07/05/2023  
Date Data Arrived at EDR: 07/05/2023  
Date Made Active in Reports: 09/25/2023  
Number of Days to Update: 82

Source: Environmental Protection Agency  
Telephone: 202-272-0167  
Last EDR Contact: 10/03/2023  
Next Scheduled EDR Contact: 01/15/2024  
Data Release Frequency: Varies

### PFAS PART 139 AIRPORT: All Certified Part 139 Airports PFAS Information Listing

Since July 1, 2006, all certified part 139 airports are required to have fire-fighting foam onsite that meet military specifications (MIL-F-24385) (14 CFR 139.317). To date, these military specification fire-fighting foams are fluorinated and have been historically used for training and extinguishing. The 2018 FAA Reauthorization Act has a provision stating that no later than October 2021, FAA shall not require the use of fluorinated AFFF. This provision does not prohibit the use of fluorinated AFFF at Part 139 civilian airports; it only prohibits FAA from mandating its use. The Federal Aviation Administration's document AC 150/5210-6D - Aircraft Fire Extinguishing Agents provides guidance on Aircraft Fire Extinguishing Agents, which includes Aqueous Film Forming Foam (AFFF).

Date of Government Version: 07/05/2023  
Date Data Arrived at EDR: 07/05/2023  
Date Made Active in Reports: 09/25/2023  
Number of Days to Update: 82

Source: Environmental Protection Agency  
Telephone: 202-272-0167  
Last EDR Contact: 10/03/2023  
Next Scheduled EDR Contact: 01/15/2024  
Data Release Frequency: Varies

### AQUEOUS FOAM NRC: Aqueous Foam Related Incidents Listing

The National Response Center (NRC) serves as an emergency call center that fields initial reports for pollution and railroad incidents and forwards that information to appropriate federal/state agencies for response. The spreadsheets posted to the NRC website contain initial incident data that has not been validated or investigated by a federal/state response agency. Response center calls from 1990 to the most recent complete calendar year where there was indication of Aqueous Film Forming Foam (AFFF) usage are included in this dataset. NRC calls may reference AFFF usage in the ?Material Involved? or ?Incident Description? fields.

Date of Government Version: 07/05/2023  
Date Data Arrived at EDR: 07/06/2023  
Date Made Active in Reports: 09/25/2023  
Number of Days to Update: 81

Source: Environmental Protection Agency  
Telephone: 202-267-2675  
Last EDR Contact: 10/03/2023  
Next Scheduled EDR Contact: 01/15/2024  
Data Release Frequency: Varies

## GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

### PCS ENF: Enforcement data

No description is available for this data

Date of Government Version: 12/31/2014  
Date Data Arrived at EDR: 02/05/2015  
Date Made Active in Reports: 03/06/2015  
Number of Days to Update: 29

Source: EPA  
Telephone: 202-564-2497  
Last EDR Contact: 09/28/2023  
Next Scheduled EDR Contact: 01/15/2024  
Data Release Frequency: Varies

### PCS: Permit Compliance System

PCS is a computerized management information system that contains data on National Pollutant Discharge Elimination System (NPDES) permit holding facilities. PCS tracks the permit, compliance, and enforcement status of NPDES facilities.

Date of Government Version: 07/14/2011  
Date Data Arrived at EDR: 08/05/2011  
Date Made Active in Reports: 09/29/2011  
Number of Days to Update: 55

Source: EPA, Office of Water  
Telephone: 202-564-2496  
Last EDR Contact: 09/28/2023  
Next Scheduled EDR Contact: 01/15/2024  
Data Release Frequency: No Update Planned

### BIOSOLIDS: ICIS-NPDES Biosolids Facility Data

The data reflects compliance information about facilities in the biosolids program.

Date of Government Version: 07/16/2023  
Date Data Arrived at EDR: 07/18/2023  
Date Made Active in Reports: 08/28/2023  
Number of Days to Update: 41

Source: Environmental Protection Agency  
Telephone: 202-564-4700  
Last EDR Contact: 10/03/2023  
Next Scheduled EDR Contact: 10/30/2023  
Data Release Frequency: Varies

### AIRS: Permitted Facility & Emissions Listing

A listing of permitted Air facilities and emissions data.

Date of Government Version: 05/11/2023  
Date Data Arrived at EDR: 05/11/2023  
Date Made Active in Reports: 08/07/2023  
Number of Days to Update: 88

Source: Department of Natural Resources  
Telephone: 404-363-7000  
Last EDR Contact: 08/09/2023  
Next Scheduled EDR Contact: 11/27/2023  
Data Release Frequency: Varies

### COAL ASH: Coal Ash Disposal Site Listing

A listing of coal ash landfills.

Date of Government Version: 08/01/2014  
Date Data Arrived at EDR: 08/05/2014  
Date Made Active in Reports: 09/02/2014  
Number of Days to Update: 28

Source: Department of Natural Resources  
Telephone: 404-362-2537  
Last EDR Contact: 07/19/2023  
Next Scheduled EDR Contact: 11/06/2023  
Data Release Frequency: Varies

### DRYCLEANERS: Drycleaner Database

A list of drycleaners in the state. The listing includes drycleaner facilities, that use perchloroethylene, that responded to the Notification of Compliance Status forms. It also includes those businesses that are pick-up stores only and do not conduct dry cleaning on site.

Date of Government Version: 03/24/2023  
Date Data Arrived at EDR: 04/27/2023  
Date Made Active in Reports: 07/25/2023  
Number of Days to Update: 89

Source: Department of Natural Resources  
Telephone: 404-363-7000  
Last EDR Contact: 07/26/2023  
Next Scheduled EDR Contact: 11/13/2023  
Data Release Frequency: Varies

### Financial Assurance 1: Financial Assurance Information Listing

A listing of financial assurance information for underground storage tank facilities.

## GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

Date of Government Version: 06/08/2023  
Date Data Arrived at EDR: 06/08/2023  
Date Made Active in Reports: 08/30/2023  
Number of Days to Update: 83

Source: Department of Natural Resources  
Telephone: 404-362-4892  
Last EDR Contact: 09/05/2023  
Next Scheduled EDR Contact: 12/18/2023  
Data Release Frequency: Varies

### Financial Assurance 2: Financial Assurance Information Listing

Financial assurance information listing for solid waste facilities.

Date of Government Version: 07/08/2019  
Date Data Arrived at EDR: 07/09/2019  
Date Made Active in Reports: 08/26/2019  
Number of Days to Update: 48

Source: Department of Natural Resources  
Telephone: 404-362-2537  
Last EDR Contact: 09/27/2023  
Next Scheduled EDR Contact: 01/15/2024  
Data Release Frequency: Varies

### NPDES: NPDES Wastewater Permit List

A listing of NPDES wastewater permits issued by the Watershed Protection Branch.

Date of Government Version: 05/01/2023  
Date Data Arrived at EDR: 05/02/2023  
Date Made Active in Reports: 07/25/2023  
Number of Days to Update: 84

Source: Department of Natural Resources  
Telephone: 404-362-2680  
Last EDR Contact: 07/25/2023  
Next Scheduled EDR Contact: 11/13/2023  
Data Release Frequency: Varies

### TIER 2: Tier 2 Data Listing

A listing of facilities which store or manufacture hazardous materials and submit a chemical inventory report.

Date of Government Version: 12/31/2021  
Date Data Arrived at EDR: 08/17/2022  
Date Made Active in Reports: 11/07/2022  
Number of Days to Update: 82

Source: Department of Natural Resources  
Telephone: 404-656-4852  
Last EDR Contact: 08/15/2023  
Next Scheduled EDR Contact: 12/04/2023  
Data Release Frequency: Annually

### UIC: Underground Injection Control

Underground injection control

Date of Government Version: 06/06/2023  
Date Data Arrived at EDR: 06/08/2023  
Date Made Active in Reports: 08/30/2023  
Number of Days to Update: 83

Source: Department of Natural Resources  
Telephone: 404-463-2382  
Last EDR Contact: 09/06/2023  
Next Scheduled EDR Contact: 12/18/2023  
Data Release Frequency: Varies

### EDR HIGH RISK HISTORICAL RECORDS

#### ***EDR Exclusive Records***

#### EDR MGP: EDR Proprietary Manufactured Gas Plants

The EDR Proprietary Manufactured Gas Plant Database includes records of coal gas plants (manufactured gas plants) compiled by EDR's researchers. Manufactured gas sites were used in the United States from the 1800's to 1950's to produce a gas that could be distributed and used as fuel. These plants used whale oil, rosin, coal, or a mixture of coal, oil, and water that also produced a significant amount of waste. Many of the byproducts of the gas production, such as coal tar (oily waste containing volatile and non-volatile chemicals), sludges, oils and other compounds are potentially hazardous to human health and the environment. The byproduct from this process was frequently disposed of directly at the plant site and can remain or spread slowly, serving as a continuous source of soil and groundwater contamination.

Date of Government Version: N/A  
Date Data Arrived at EDR: N/A  
Date Made Active in Reports: N/A  
Number of Days to Update: N/A

Source: EDR, Inc.  
Telephone: N/A  
Last EDR Contact: N/A  
Next Scheduled EDR Contact: N/A  
Data Release Frequency: No Update Planned



## GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

### EDR Hist Auto: EDR Exclusive Historical Auto Stations

EDR has searched selected national collections of business directories and has collected listings of potential gas station/filling station/service station sites that were available to EDR researchers. EDR's review was limited to those categories of sources that might, in EDR's opinion, include gas station/filling station/service station establishments. The categories reviewed included, but were not limited to gas, gas station, gasoline station, filling station, auto, automobile repair, auto service station, service station, etc. This database falls within a category of information EDR classifies as "High Risk Historical Records", or HRHR. EDR's HRHR effort presents unique and sometimes proprietary data about past sites and operations that typically create environmental concerns, but may not show up in current government records searches.

Date of Government Version: N/A	Source: EDR, Inc.
Date Data Arrived at EDR: N/A	Telephone: N/A
Date Made Active in Reports: N/A	Last EDR Contact: N/A
Number of Days to Update: N/A	Next Scheduled EDR Contact: N/A
	Data Release Frequency: Varies

### EDR Hist Cleaner: EDR Exclusive Historical Cleaners

EDR has searched selected national collections of business directories and has collected listings of potential dry cleaner sites that were available to EDR researchers. EDR's review was limited to those categories of sources that might, in EDR's opinion, include dry cleaning establishments. The categories reviewed included, but were not limited to dry cleaners, cleaners, laundry, laundromat, cleaning/laundry, wash & dry etc. This database falls within a category of information EDR classifies as "High Risk Historical Records", or HRHR. EDR's HRHR effort presents unique and sometimes proprietary data about past sites and operations that typically create environmental concerns, but may not show up in current government records searches.

Date of Government Version: N/A	Source: EDR, Inc.
Date Data Arrived at EDR: N/A	Telephone: N/A
Date Made Active in Reports: N/A	Last EDR Contact: N/A
Number of Days to Update: N/A	Next Scheduled EDR Contact: N/A
	Data Release Frequency: Varies

## **EDR RECOVERED GOVERNMENT ARCHIVES**

### ***Exclusive Recovered Govt. Archives***

#### RGH HWS: Recovered Government Archive State Hazardous Waste Facilities List

The EDR Recovered Government Archive State Hazardous Waste database provides a list of SHWS incidents derived from historical databases and includes many records that no longer appear in current government lists. Compiled from Records formerly available from the Department of Environmental Protection in Georgia.

Date of Government Version: N/A	Source: Department of Environmental Protection
Date Data Arrived at EDR: 07/01/2013	Telephone: N/A
Date Made Active in Reports: 12/24/2013	Last EDR Contact: 06/01/2012
Number of Days to Update: 176	Next Scheduled EDR Contact: N/A
	Data Release Frequency: Varies

#### RGH LF: Recovered Government Archive Solid Waste Facilities List

The EDR Recovered Government Archive Landfill database provides a list of landfills derived from historical databases and includes many records that no longer appear in current government lists. Compiled from Records formerly available from the Department of Natural Resources in Georgia.

Date of Government Version: N/A	Source: Department of Natural Resources
Date Data Arrived at EDR: 07/01/2013	Telephone: N/A
Date Made Active in Reports: 01/13/2014	Last EDR Contact: 06/01/2012
Number of Days to Update: 196	Next Scheduled EDR Contact: N/A
	Data Release Frequency: Varies

#### RGH LUST: Recovered Government Archive Leaking Underground Storage Tank

The EDR Recovered Government Archive Leaking Underground Storage Tank database provides a list of LUST incidents derived from historical databases and includes many records that no longer appear in current government lists. Compiled from Records formerly available from the Environmental Protection Division in Georgia.

## GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

Date of Government Version: N/A  
Date Data Arrived at EDR: 07/01/2013  
Date Made Active in Reports: 12/24/2013  
Number of Days to Update: 176

Source: Environmental Protection Division  
Telephone: N/A  
Last EDR Contact: 06/01/2012  
Next Scheduled EDR Contact: N/A  
Data Release Frequency: Varies

### OTHER DATABASE(S)

Depending on the geographic area covered by this report, the data provided in these specialty databases may or may not be complete. For example, the existence of wetlands information data in a specific report does not mean that all wetlands in the area covered by the report are included. Moreover, the absence of any reported wetlands information does not necessarily mean that wetlands do not exist in the area covered by the report.

#### CT MANIFEST: Hazardous Waste Manifest Data

Facility and manifest data. Manifest is a document that lists and tracks hazardous waste from the generator through transporters to a tsd facility.

Date of Government Version: 11/16/2022  
Date Data Arrived at EDR: 11/16/2022  
Date Made Active in Reports: 02/06/2023  
Number of Days to Update: 82

Source: Department of Energy & Environmental Protection  
Telephone: 860-424-3375  
Last EDR Contact: 08/08/2023  
Next Scheduled EDR Contact: 11/20/2023  
Data Release Frequency: No Update Planned

#### NJ MANIFEST: Manifest Information

Hazardous waste manifest information.

Date of Government Version: 12/31/2018  
Date Data Arrived at EDR: 04/10/2019  
Date Made Active in Reports: 05/16/2019  
Number of Days to Update: 36

Source: Department of Environmental Protection  
Telephone: N/A  
Last EDR Contact: 09/28/2023  
Next Scheduled EDR Contact: 01/15/2024  
Data Release Frequency: Annually

#### NY MANIFEST: Facility and Manifest Data

Manifest is a document that lists and tracks hazardous waste from the generator through transporters to a TSD facility.

Date of Government Version: 01/01/2019  
Date Data Arrived at EDR: 10/29/2021  
Date Made Active in Reports: 01/19/2022  
Number of Days to Update: 82

Source: Department of Environmental Conservation  
Telephone: 518-402-8651  
Last EDR Contact: 07/27/2023  
Next Scheduled EDR Contact: 11/06/2023  
Data Release Frequency: Quarterly

#### PA MANIFEST: Manifest Information

Hazardous waste manifest information.

Date of Government Version: 06/30/2018  
Date Data Arrived at EDR: 07/19/2019  
Date Made Active in Reports: 09/10/2019  
Number of Days to Update: 53

Source: Department of Environmental Protection  
Telephone: 717-783-8990  
Last EDR Contact: 10/05/2023  
Next Scheduled EDR Contact: 01/22/2024  
Data Release Frequency: Annually

#### RI MANIFEST: Manifest information

Hazardous waste manifest information

Date of Government Version: 12/31/2020  
Date Data Arrived at EDR: 11/30/2021  
Date Made Active in Reports: 02/18/2022  
Number of Days to Update: 80

Source: Department of Environmental Management  
Telephone: 401-222-2797  
Last EDR Contact: 08/10/2022  
Next Scheduled EDR Contact: 11/27/2023  
Data Release Frequency: Annually

## GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

### WI MANIFEST: Manifest Information

Hazardous waste manifest information.

Date of Government Version: 05/31/2018

Date Data Arrived at EDR: 06/19/2019

Date Made Active in Reports: 09/03/2019

Number of Days to Update: 76

Source: Department of Natural Resources

Telephone: N/A

Last EDR Contact: 08/30/2023

Next Scheduled EDR Contact: 12/18/2023

Data Release Frequency: Annually

### Oil/Gas Pipelines

Source: Endeavor Business Media

Petroleum Bundle (Crude Oil, Refined Products, Petrochemicals, Gas Liquids (LPG/NGL), and Specialty Gases (Miscellaneous)) N = Natural Gas Bundle (Natural Gas, Gas Liquids (LPG/NGL), and Specialty Gases (Miscellaneous)). This map includes information copyrighted by Endeavor Business Media. This information is provided on a best effort basis and Endeavor Business Media does not guarantee its accuracy nor warrant its fitness for any particular purpose. Such information has been reprinted with the permission of Endeavor Business Media.

### Electric Power Transmission Line Data

Source: Endeavor Business Media

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**Sensitive Receptors:** There are individuals deemed sensitive receptors due to their fragile immune systems and special sensitivity to environmental discharges. These sensitive receptors typically include the elderly, the sick, and children. While the location of all sensitive receptors cannot be determined, EDR indicates those buildings and facilities - schools, daycares, hospitals, medical centers, and nursing homes - where individuals who are sensitive receptors are likely to be located.

### AHA Hospitals:

Source: American Hospital Association, Inc.

Telephone: 312-280-5991

The database includes a listing of hospitals based on the American Hospital Association's annual survey of hospitals.

### Medical Centers: Provider of Services Listing

Source: Centers for Medicare & Medicaid Services

Telephone: 410-786-3000

A listing of hospitals with Medicare provider number, produced by Centers of Medicare & Medicaid Services, a federal agency within the U.S. Department of Health and Human Services.

### Nursing Homes

Source: National Institutes of Health

Telephone: 301-594-6248

Information on Medicare and Medicaid certified nursing homes in the United States.

### Public Schools

Source: National Center for Education Statistics

Telephone: 202-502-7300

The National Center for Education Statistics' primary database on elementary and secondary public education in the United States. It is a comprehensive, annual, national statistical database of all public elementary and secondary schools and school districts, which contains data that are comparable across all states.

### Private Schools

Source: National Center for Education Statistics

Telephone: 202-502-7300

The National Center for Education Statistics' primary database on private school locations in the United States.

### Daycare Centers: Child Care Centers

Source: Department of Human Resources

Telephone: 404-651-5562

**Flood Zone Data:** This data was obtained from the Federal Emergency Management Agency (FEMA). It depicts 100-year and 500-year flood zones as defined by FEMA. It includes the National Flood Hazard Layer (NFHL) which incorporates Flood Insurance Rate Map (FIRM) data and Q3 data from FEMA in areas not covered by NFHL.

Source: FEMA

Telephone: 877-336-2627

Date of Government Version: 2003, 2015

## GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

NWI: National Wetlands Inventory. This data, available in select counties across the country, was obtained by EDR in 2002, 2005, 2010 and 2015 from the U.S. Fish and Wildlife Service.

State Wetlands Data: Wetlands Inventory  
Source: Georgia GIS Clearinghouse  
Telephone: 706-542-1581

Current USGS 7.5 Minute Topographic Map  
Source: U.S. Geological Survey

### **STREET AND ADDRESS INFORMATION**

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## **GEOCHECK® - PHYSICAL SETTING SOURCE ADDENDUM**

### **TARGET PROPERTY ADDRESS**

FORMER RETAIL PETROLEUM OUTLET  
890 VETERANS MEMORIAL HWY SW  
MABLETON, GA 30126

### **TARGET PROPERTY COORDINATES**

Latitude (North):	33.819033 - 33° 49' 8.52"
Longitude (West):	84.580318 - 84° 34' 49.14"
Universal Tranverse Mercator:	Zone 16
UTM X (Meters):	723955.7
UTM Y (Meters):	3744530.0
Elevation:	984 ft. above sea level

### **USGS TOPOGRAPHIC MAP**

Target Property Map:	15919537 MABLETON, GA
Version Date:	2020

EDR's GeoCheck Physical Setting Source Addendum is provided to assist the environmental professional in forming an opinion about the impact of potential contaminant migration.

Assessment of the impact of contaminant migration generally has two principle investigative components:

1. Groundwater flow direction, and
2. Groundwater flow velocity.

Groundwater flow direction may be impacted by surface topography, hydrology, hydrogeology, characteristics of the soil, and nearby wells. Groundwater flow velocity is generally impacted by the nature of the geologic strata.

## GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

### GROUNDWATER FLOW DIRECTION INFORMATION

Groundwater flow direction for a particular site is best determined by a qualified environmental professional using site-specific well data. If such data is not reasonably ascertainable, it may be necessary to rely on other sources of information, such as surface topographic information, hydrologic information, hydrogeologic data collected on nearby properties, and regional groundwater flow information (from deep aquifers).

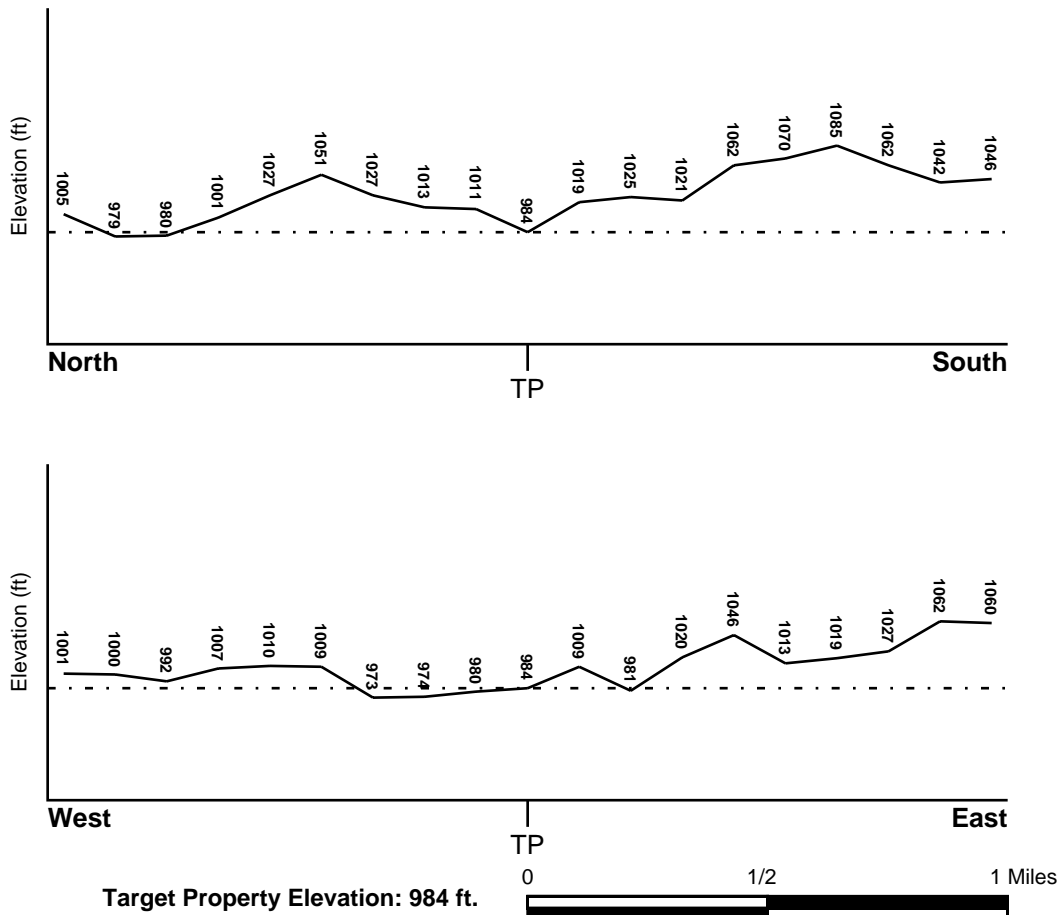
### TOPOGRAPHIC INFORMATION

Surface topography may be indicative of the direction of surficial groundwater flow. This information can be used to assist the environmental professional in forming an opinion about the impact of nearby contaminated properties or, should contamination exist on the target property, what downgradient sites might be impacted.

### TARGET PROPERTY TOPOGRAPHY

General Topographic Gradient: General WNW

### SURROUNDING TOPOGRAPHY: ELEVATION PROFILES



Source: Topography has been determined from the USGS 7.5' Digital Elevation Model and should be evaluated on a relative (not an absolute) basis. Relative elevation information between sites of close proximity should be field verified.

## GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

### HYDROLOGIC INFORMATION

Surface water can act as a hydrologic barrier to groundwater flow. Such hydrologic information can be used to assist the environmental professional in forming an opinion about the impact of nearby contaminated properties or, should contamination exist on the target property, what downgradient sites might be impacted.

Refer to the Physical Setting Source Map following this summary for hydrologic information (major waterways and bodies of water).

### FEMA FLOOD ZONE

<u>Flood Plain Panel at Target Property</u>	<u>FEMA Source Type</u>
13067C0204G	FEMA FIRM Flood data
<u>Additional Panels in search area:</u>	<u>FEMA Source Type</u>
13067C0203H	FEMA FIRM Flood data
13067C0211H	FEMA FIRM Flood data
13067C0212H	FEMA FIRM Flood data

### NATIONAL WETLAND INVENTORY

<u>NWI Quad at Target Property</u>	<u>NWI Electronic Data Coverage</u>
MABLETON	YES - refer to the Overview Map and Detail Map

### HYDROGEOLOGIC INFORMATION

Hydrogeologic information obtained by installation of wells on a specific site can often be an indicator of groundwater flow direction in the immediate area. Such hydrogeologic information can be used to assist the environmental professional in forming an opinion about the impact of nearby contaminated properties or, should contamination exist on the target property, what downgradient sites might be impacted.

### AQUIFLOW®

Search Radius: 1.000 Mile.

EDR has developed the AQUIFLOW Information System to provide data on the general direction of groundwater flow at specific points. EDR has reviewed reports submitted by environmental professionals to regulatory authorities at select sites and has extracted the date of the report, groundwater flow direction as determined hydrogeologically, and the depth to water table.

<u>MAP ID</u>	<u>LOCATION FROM TP</u>	<u>GENERAL DIRECTION GROUNDWATER FLOW</u>
Not Reported		

## **GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY**

### **GROUNDWATER FLOW VELOCITY INFORMATION**

Groundwater flow velocity information for a particular site is best determined by a qualified environmental professional using site specific geologic and soil strata data. If such data are not reasonably ascertainable, it may be necessary to rely on other sources of information, including geologic age identification, rock stratigraphic unit and soil characteristics data collected on nearby properties and regional soil information. In general, contaminant plumes move more quickly through sandy-gravelly types of soils than silty-clayey types of soils.

### **GEOLOGIC INFORMATION IN GENERAL AREA OF TARGET PROPERTY**

Geologic information can be used by the environmental professional in forming an opinion about the relative speed at which contaminant migration may be occurring.

#### **ROCK STRATIGRAPHIC UNIT**

Era:	Precambrian
System:	Precambrian
Series:	Paragneiss and schist
Code:	Ym (decoded above as Era, System & Series)

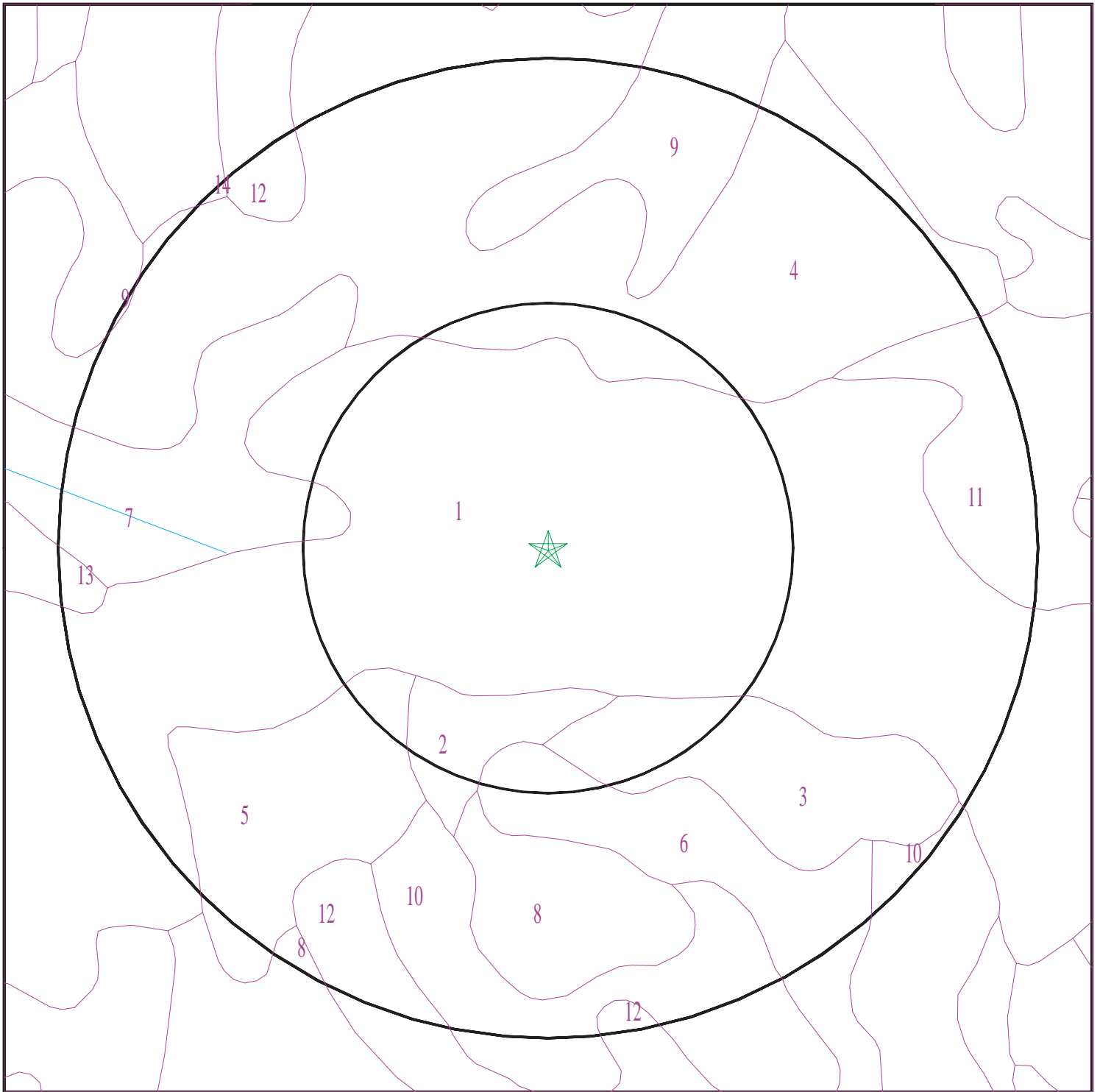
#### **GEOLOGIC AGE IDENTIFICATION**

Category: Metamorphic Rocks

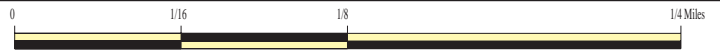
Geologic Age and Rock Stratigraphic Unit Source: P.G. Schruben, R.E. Arndt and W.J. Bawiec, Geology of the Conterminous U.S. at 1:2,500,000 Scale - a digital representation of the 1974 P.B. King and H.M. Beikman Map, USGS Digital Data Series DDS - 11 (1994).



# SSURGO SOIL MAP - 7471290.2s



- ★ Target Property
- SSURGO Soil
- Water



SITE NAME: Former Retail Petroleum Outlet  
ADDRESS: 890 Veterans Memorial Hwy SW  
Mableton GA 30126  
LAT/LONG: 33.819033 / 84.580318

CLIENT: Contour Engineering, LLC  
CONTACT: Trey Young  
INQUIRY #: 7471290.2s  
DATE: October 16, 2023 4:15 pm

## **GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY**

### **DOMINANT SOIL COMPOSITION IN GENERAL AREA OF TARGET PROPERTY**

The U.S. Department of Agriculture's (USDA) Soil Conservation Service (SCS) leads the National Cooperative Soil Survey (NCSS) and is responsible for collecting, storing, maintaining and distributing soil survey information for privately owned lands in the United States. A soil map in a soil survey is a representation of soil patterns in a landscape. The following information is based on Soil Conservation Service SSURGO data.

---

#### **Soil Map ID: 1**

Soil Component Name: Urban land

Soil Surface Texture:  
Hydrologic Group: Not reported

Soil Drainage Class:  
Hydric Status: Not hydric

Corrosion Potential - Uncoated Steel: Not Reported

Depth to Bedrock Min: > 200 inches

Depth to Watertable Min: > 0 inches

No Layer Information available.

---

#### **Soil Map ID: 2**

Soil Component Name: Appling

Soil Surface Texture: clay

Hydrologic Group: Class B - Moderate infiltration rates. Deep and moderately deep, moderately well and well drained soils with moderately coarse textures.

Soil Drainage Class: Well drained

Hydric Status: Not hydric

Corrosion Potential - Uncoated Steel: Moderate

Depth to Bedrock Min: > 0 inches

Depth to Watertable Min: > 0 inches

## GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

Soil Layer Information							
Layer	Boundary		Soil Texture Class	Classification		Saturated hydraulic conductivity micro m/sec	Soil Reaction (pH)
	Upper	Lower		AASHTO Group	Unified Soil		
1	9 inches	35 inches	clay	Silt-Clay Materials (more than 35 pct. passing No. 200), Clayey Soils.	COARSE-GRAINED SOILS, Sands, Sands with fines, Silty Sand.	Max: 42 Min: 14	Max: 6.5 Min: 4.5
2	35 inches	46 inches	clay loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Clayey Soils.	COARSE-GRAINED SOILS, Sands, Sands with fines, Silty Sand.	Max: 42 Min: 14	Max: 6.5 Min: 4.5
3	46 inches	64 inches	sandy clay loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Clayey Soils.	COARSE-GRAINED SOILS, Sands, Sands with fines, Silty Sand.	Max: 42 Min: 14	Max: 6.5 Min: 4.5
4	0 inches	9 inches	sandy loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Clayey Soils.	COARSE-GRAINED SOILS, Sands, Sands with fines, Silty Sand.	Max: 42 Min: 14	Max: 6.5 Min: 4.5

### Soil Map ID: 3

Soil Component Name: Pacolet

Soil Surface Texture: clay

Hydrologic Group: Class B - Moderate infiltration rates. Deep and moderately deep, moderately well and well drained soils with moderately coarse textures.

Soil Drainage Class: Well drained

Hydric Status: Not hydric

Corrosion Potential - Uncoated Steel: High

Depth to Bedrock Min: > 0 inches

Depth to Watertable Min: > 0 inches

## GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

Soil Layer Information							
Layer	Boundary		Soil Texture Class	Classification		Saturated hydraulic conductivity micro m/sec	Soil Reaction (pH)
	Upper	Lower		AASHTO Group	Unified Soil		
1	3 inches	29 inches	clay	Silt-Clay Materials (more than 35 pct. passing No. 200), Clayey Soils.	COARSE-GRAINED SOILS, Sands, Sands with fines, Clayey sand.	Max: 14 Min: 4	Max: 6.5 Min: 4.5
2	29 inches	51 inches	sandy clay loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Clayey Soils.	COARSE-GRAINED SOILS, Sands, Sands with fines, Clayey sand.	Max: 14 Min: 4	Max: 6.5 Min: 4.5
3	51 inches	70 inches	loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Clayey Soils.	COARSE-GRAINED SOILS, Sands, Sands with fines, Clayey sand.	Max: 14 Min: 4	Max: 6.5 Min: 4.5
4	0 inches	3 inches	sandy clay loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Clayey Soils.	COARSE-GRAINED SOILS, Sands, Sands with fines, Clayey sand.	Max: 14 Min: 4	Max: 6.5 Min: 4.5

### Soil Map ID: 4

Soil Component Name: Gwinnett

Soil Surface Texture: loam

Hydrologic Group: Class B - Moderate infiltration rates. Deep and moderately deep, moderately well and well drained soils with moderately coarse textures.

Soil Drainage Class: Well drained

Hydric Status: Not hydric

Corrosion Potential - Uncoated Steel: High

Depth to Bedrock Min: > 0 inches

Depth to Watertable Min: > 0 inches

## GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

Soil Layer Information							
Layer	Boundary		Soil Texture Class	Classification		Saturated hydraulic conductivity micro m/sec	Soil Reaction (pH)
	Upper	Lower		AASHTO Group	Unified Soil		
1	0 inches	7 inches	loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Silty Soils.	FINE-GRAINED SOILS, Silts and Clays (liquid limit less than 50%), Lean Clay	Max: 14 Min: 4	Max: 6.5 Min: 5.1
2	7 inches	35 inches	clay	Silt-Clay Materials (more than 35 pct. passing No. 200), Silty Soils.	FINE-GRAINED SOILS, Silts and Clays (liquid limit less than 50%), Lean Clay	Max: 14 Min: 4	Max: 6.5 Min: 5.1
3	35 inches	44 inches	sandy clay loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Silty Soils.	FINE-GRAINED SOILS, Silts and Clays (liquid limit less than 50%), Lean Clay	Max: 14 Min: 4	Max: 6.5 Min: 5.1

### Soil Map ID: 5

Soil Component Name: Appling

Soil Surface Texture: sandy clay loam

Hydrologic Group: Class B - Moderate infiltration rates. Deep and moderately deep, moderately well and well drained soils with moderately coarse textures.

Soil Drainage Class: Well drained

Hydric Status: Not hydric

Corrosion Potential - Uncoated Steel: Moderate

Depth to Bedrock Min: > 0 inches

Depth to Watertable Min: > 0 inches

## GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

Soil Layer Information							
Layer	Boundary		Soil Texture Class	Classification		Saturated hydraulic conductivity micro m/sec	Soil Reaction (pH)
	Upper	Lower		AASHTO Group	Unified Soil		
1	46 inches	64 inches	sandy clay loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Silty Soils.	FINE-GRAINED SOILS, Silts and Clays (liquid limit less than 50%), Lean Clay	Max: 14 Min: 4	Max: 5.5 Min: 4.5
2	0 inches	9 inches	sandy loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Silty Soils.	FINE-GRAINED SOILS, Silts and Clays (liquid limit less than 50%), Lean Clay	Max: 14 Min: 4	Max: 5.5 Min: 4.5
3	9 inches	35 inches	clay	Silt-Clay Materials (more than 35 pct. passing No. 200), Silty Soils.	FINE-GRAINED SOILS, Silts and Clays (liquid limit less than 50%), Lean Clay	Max: 14 Min: 4	Max: 5.5 Min: 4.5
4	35 inches	46 inches	clay loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Silty Soils.	FINE-GRAINED SOILS, Silts and Clays (liquid limit less than 50%), Lean Clay	Max: 14 Min: 4	Max: 5.5 Min: 4.5

### Soil Map ID: 6

Soil Component Name: Cecil

Soil Surface Texture: loam

Hydrologic Group: Class B - Moderate infiltration rates. Deep and moderately deep, moderately well and well drained soils with moderately coarse textures.

Soil Drainage Class: Well drained

Hydric Status: Not hydric

Corrosion Potential - Uncoated Steel: High

Depth to Bedrock Min: > 0 inches

Depth to Watertable Min: > 0 inches

## GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

Soil Layer Information							
Layer	Boundary		Soil Texture Class	Classification		Saturated hydraulic conductivity micro m/sec	Soil Reaction (pH)
	Upper	Lower		AASHTO Group	Unified Soil		
1	50 inches	75 inches	loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Silty Soils.	FINE-GRAINED SOILS, Silts and Clays (liquid limit 50% or more), Elastic silt.	Max: 14 Min: 4	Max: 5.5 Min: 4.5
2	0 inches	7 inches	sandy loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Silty Soils.	FINE-GRAINED SOILS, Silts and Clays (liquid limit 50% or more), Elastic silt.	Max: 14 Min: 4	Max: 5.5 Min: 4.5
3	7 inches	11 inches	sandy clay loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Silty Soils.	FINE-GRAINED SOILS, Silts and Clays (liquid limit 50% or more), Elastic silt.	Max: 14 Min: 4	Max: 5.5 Min: 4.5
4	11 inches	50 inches	clay	Silt-Clay Materials (more than 35 pct. passing No. 200), Silty Soils.	FINE-GRAINED SOILS, Silts and Clays (liquid limit 50% or more), Elastic silt.	Max: 14 Min: 4	Max: 5.5 Min: 4.5

### Soil Map ID: 7

Soil Component Name: Cartecay

Soil Surface Texture: fine sandy loam

Hydrologic Group: Class C - Slow infiltration rates. Soils with layers impeding downward movement of water, or soils with moderately fine or fine textures.

Soil Drainage Class: Somewhat poorly drained

Hydric Status: Partially hydric

Corrosion Potential - Uncoated Steel: Low

Depth to Bedrock Min: > 0 inches

Depth to Watertable Min: > 31 inches

## GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

Soil Layer Information							
Layer	Boundary		Soil Texture Class	Classification		Saturated hydraulic conductivity micro m/sec	Soil Reaction (pH)
	Upper	Lower		AASHTO Group	Unified Soil		
1	0 inches	9 inches	fine sandy loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Silty Soils.	COARSE-GRAINED SOILS, Sands, Sands with fines, Silty Sand.	Max: 141 Min: 42	Max: 6.5 Min: 5.1
2	9 inches	40 inches	sandy loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Silty Soils.	COARSE-GRAINED SOILS, Sands, Sands with fines, Silty Sand.	Max: 141 Min: 42	Max: 6.5 Min: 5.1
3	40 inches	59 inches	stratified sand to loamy sand	Silt-Clay Materials (more than 35 pct. passing No. 200), Silty Soils.	COARSE-GRAINED SOILS, Sands, Sands with fines, Silty Sand.	Max: 141 Min: 42	Max: 6.5 Min: 5.1

### Soil Map ID: 8

Soil Component Name: Madison

Soil Surface Texture: sandy clay loam

Hydrologic Group: Class B - Moderate infiltration rates. Deep and moderately deep, moderately well and well drained soils with moderately coarse textures.

Soil Drainage Class: Well drained

Hydric Status: Not hydric

Corrosion Potential - Uncoated Steel: High

Depth to Bedrock Min: > 0 inches

Depth to Watertable Min: > 0 inches



## GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

Soil Layer Information							
Layer	Boundary		Soil Texture Class	Classification		Saturated hydraulic conductivity micro m/sec	Soil Reaction (pH)
	Upper	Lower		AASHTO Group	Unified Soil		
1	0 inches	5 inches	sandy clay loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Clayey Soils.	COARSE-GRAINED SOILS, Sands, Sands with fines, Silty Sand.	Max: 14 Min: 4	Max: 6 Min: 4.5
2	5 inches	29 inches	clay	Silt-Clay Materials (more than 35 pct. passing No. 200), Clayey Soils.	COARSE-GRAINED SOILS, Sands, Sands with fines, Silty Sand.	Max: 14 Min: 4	Max: 6 Min: 4.5
3	29 inches	35 inches	clay loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Clayey Soils.	COARSE-GRAINED SOILS, Sands, Sands with fines, Silty Sand.	Max: 14 Min: 4	Max: 6 Min: 4.5
4	35 inches	66 inches	loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Clayey Soils.	COARSE-GRAINED SOILS, Sands, Sands with fines, Silty Sand.	Max: 14 Min: 4	Max: 6 Min: 4.5

### Soil Map ID: 9

Soil Component Name: Gwinnett

Soil Surface Texture: loam

Hydrologic Group: Class B - Moderate infiltration rates. Deep and moderately deep, moderately well and well drained soils with moderately coarse textures.

Soil Drainage Class: Well drained

Hydric Status: Not hydric

Corrosion Potential - Uncoated Steel: High

Depth to Bedrock Min: > 0 inches

Depth to Watertable Min: > 0 inches

## GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

Soil Layer Information							
Layer	Boundary		Soil Texture Class	Classification		Saturated hydraulic conductivity micro m/sec	Soil Reaction (pH)
	Upper	Lower		AASHTO Group	Unified Soil		
1	0 inches	7 inches	loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Silty Soils.	FINE-GRAINED SOILS, Silts and Clays (liquid limit less than 50%), Lean Clay	Max: 14 Min: 4	Max: 6.5 Min: 5.1
2	7 inches	35 inches	clay	Silt-Clay Materials (more than 35 pct. passing No. 200), Silty Soils.	FINE-GRAINED SOILS, Silts and Clays (liquid limit less than 50%), Lean Clay	Max: 14 Min: 4	Max: 6.5 Min: 5.1
3	35 inches	44 inches	sandy clay loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Silty Soils.	FINE-GRAINED SOILS, Silts and Clays (liquid limit less than 50%), Lean Clay	Max: 14 Min: 4	Max: 6.5 Min: 5.1

### Soil Map ID: 10

Soil Component Name: Madison

Soil Surface Texture: clay loam

Hydrologic Group: Class B - Moderate infiltration rates. Deep and moderately deep, moderately well and well drained soils with moderately coarse textures.

Soil Drainage Class: Well drained

Hydric Status: Not hydric

Corrosion Potential - Uncoated Steel: High

Depth to Bedrock Min: > 0 inches

Depth to Watertable Min: > 0 inches

## GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

Soil Layer Information							
Layer	Boundary		Soil Texture Class	Classification		Saturated hydraulic conductivity micro m/sec	Soil Reaction (pH)
	Upper	Lower		AASHTO Group	Unified Soil		
1	0 inches	5 inches	clay loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Clayey Soils.	COARSE-GRAINED SOILS, Sands, Sands with fines, Silty Sand.	Max: 14 Min: 4	Max: 6 Min: 4.5
2	5 inches	29 inches	clay	Silt-Clay Materials (more than 35 pct. passing No. 200), Clayey Soils.	COARSE-GRAINED SOILS, Sands, Sands with fines, Silty Sand.	Max: 14 Min: 4	Max: 6 Min: 4.5
3	29 inches	35 inches	sandy clay loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Clayey Soils.	COARSE-GRAINED SOILS, Sands, Sands with fines, Silty Sand.	Max: 14 Min: 4	Max: 6 Min: 4.5
4	35 inches	66 inches	sandy loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Clayey Soils.	COARSE-GRAINED SOILS, Sands, Sands with fines, Silty Sand.	Max: 14 Min: 4	Max: 6 Min: 4.5

### Soil Map ID: 11

Soil Component Name: Madison

Soil Surface Texture: sandy clay loam

Hydrologic Group: Class B - Moderate infiltration rates. Deep and moderately deep, moderately well and well drained soils with moderately coarse textures.

Soil Drainage Class: Well drained

Hydric Status: Not hydric

Corrosion Potential - Uncoated Steel: High

Depth to Bedrock Min: > 0 inches

Depth to Watertable Min: > 0 inches

## GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

Soil Layer Information							
Layer	Boundary		Soil Texture Class	Classification		Saturated hydraulic conductivity micro m/sec	Soil Reaction (pH)
	Upper	Lower		AASHTO Group	Unified Soil		
1	29 inches	35 inches	sandy clay loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Clayey Soils.	COARSE-GRAINED SOILS, Sands, Sands with fines, Silty Sand.	Max: 14 Min: 4	Max: 6 Min: 4.5
2	0 inches	5 inches	clay loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Clayey Soils.	COARSE-GRAINED SOILS, Sands, Sands with fines, Silty Sand.	Max: 14 Min: 4	Max: 6 Min: 4.5
3	5 inches	29 inches	clay	Silt-Clay Materials (more than 35 pct. passing No. 200), Clayey Soils.	COARSE-GRAINED SOILS, Sands, Sands with fines, Silty Sand.	Max: 14 Min: 4	Max: 6 Min: 4.5
4	35 inches	66 inches	sandy loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Clayey Soils.	COARSE-GRAINED SOILS, Sands, Sands with fines, Silty Sand.	Max: 14 Min: 4	Max: 6 Min: 4.5

### Soil Map ID: 12

Soil Component Name: Madison

Soil Surface Texture: sandy clay loam

Hydrologic Group: Class B - Moderate infiltration rates. Deep and moderately deep, moderately well and well drained soils with moderately coarse textures.

Soil Drainage Class: Well drained

Hydric Status: Not hydric

Corrosion Potential - Uncoated Steel: High

Depth to Bedrock Min: > 0 inches

Depth to Watertable Min: > 0 inches

## GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

Soil Layer Information							
Layer	Boundary		Soil Texture Class	Classification		Saturated hydraulic conductivity micro m/sec	Soil Reaction (pH)
	Upper	Lower		AASHTO Group	Unified Soil		
1	29 inches	35 inches	sandy clay loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Clayey Soils.	COARSE-GRAINED SOILS, Sands, Sands with fines, Silty Sand.	Max: 14 Min: 4	Max: 6 Min: 4.5
2	0 inches	5 inches	sandy loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Clayey Soils.	COARSE-GRAINED SOILS, Sands, Sands with fines, Silty Sand.	Max: 14 Min: 4	Max: 6 Min: 4.5
3	5 inches	29 inches	clay	Silt-Clay Materials (more than 35 pct. passing No. 200), Clayey Soils.	COARSE-GRAINED SOILS, Sands, Sands with fines, Silty Sand.	Max: 14 Min: 4	Max: 6 Min: 4.5
4	35 inches	66 inches	sandy loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Clayey Soils.	COARSE-GRAINED SOILS, Sands, Sands with fines, Silty Sand.	Max: 14 Min: 4	Max: 6 Min: 4.5

### Soil Map ID: 13

Soil Component Name: Toccoa

Soil Surface Texture: sandy loam

Hydrologic Group: Class B - Moderate infiltration rates. Deep and moderately deep, moderately well and well drained soils with moderately coarse textures.

Soil Drainage Class: Moderately well drained

Hydric Status: Not hydric

Corrosion Potential - Uncoated Steel: Low

Depth to Bedrock Min: > 0 inches

Depth to Watertable Min: > 114 inches

## GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

Soil Layer Information							
Layer	Boundary		Soil Texture Class	Classification		Saturated hydraulic conductivity micro m/sec	Soil Reaction (pH)
	Upper	Lower		AASHTO Group	Unified Soil		
1	0 inches	9 inches	sandy loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Silty Soils.	COARSE-GRAINED SOILS, Sands, Sands with fines, Silty Sand.	Max: 42 Min: 14	Max: 6.5 Min: 5.1
2	9 inches	59 inches	sandy loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Silty Soils.	COARSE-GRAINED SOILS, Sands, Sands with fines, Silty Sand.	Max: 42 Min: 14	Max: 6.5 Min: 5.1

### Soil Map ID: 14

Soil Component Name: Madison

Soil Surface Texture: sandy clay loam

Hydrologic Group: Class B - Moderate infiltration rates. Deep and moderately deep, moderately well and well drained soils with moderately coarse textures.

Soil Drainage Class: Well drained

Hydric Status: Not hydric

Corrosion Potential - Uncoated Steel: High

Depth to Bedrock Min: > 0 inches

Depth to Watertable Min: > 0 inches

Soil Layer Information							
Layer	Boundary		Soil Texture Class	Classification		Saturated hydraulic conductivity micro m/sec	Soil Reaction (pH)
	Upper	Lower		AASHTO Group	Unified Soil		
1	29 inches	35 inches	sandy clay loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Clayey Soils.	COARSE-GRAINED SOILS, Sands, Sands with fines, Silty Sand.	Max: 14 Min: 4	Max: 6 Min: 4.5

## GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

Soil Layer Information							
Layer	Boundary		Soil Texture Class	Classification		Saturated hydraulic conductivity micro m/sec	Soil Reaction (pH)
	Upper	Lower		AASHTO Group	Unified Soil		
2	0 inches	5 inches	sandy loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Clayey Soils.	COARSE-GRAINED SOILS, Sands, Sands with fines, Silty Sand.	Max: 14 Min: 4	Max: 6 Min: 4.5
3	5 inches	29 inches	clay	Silt-Clay Materials (more than 35 pct. passing No. 200), Clayey Soils.	COARSE-GRAINED SOILS, Sands, Sands with fines, Silty Sand.	Max: 14 Min: 4	Max: 6 Min: 4.5
4	35 inches	66 inches	sandy loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Clayey Soils.	COARSE-GRAINED SOILS, Sands, Sands with fines, Silty Sand.	Max: 14 Min: 4	Max: 6 Min: 4.5

### LOCAL / REGIONAL WATER AGENCY RECORDS

EDR Local/Regional Water Agency records provide water well information to assist the environmental professional in assessing sources that may impact ground water flow direction, and in forming an opinion about the impact of contaminant migration on nearby drinking water wells.

### WELL SEARCH DISTANCE INFORMATION

<u>DATABASE</u>	<u>SEARCH DISTANCE (miles)</u>
Federal USGS	1.000
Federal FRDS PWS	Nearest PWS within 1 mile
State Database	1.000

### **FEDERAL USGS WELL INFORMATION**

<u>MAP ID</u>	<u>WELL ID</u>	<u>LOCATION FROM TP</u>
No Wells Found		

### **FEDERAL FRDS PUBLIC WATER SUPPLY SYSTEM INFORMATION**

<u>MAP ID</u>	<u>WELL ID</u>	<u>LOCATION FROM TP</u>
No PWS System Found		

Note: PWS System location is not always the same as well location.

## GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

### STATE DATABASE WELL INFORMATION

MAP ID

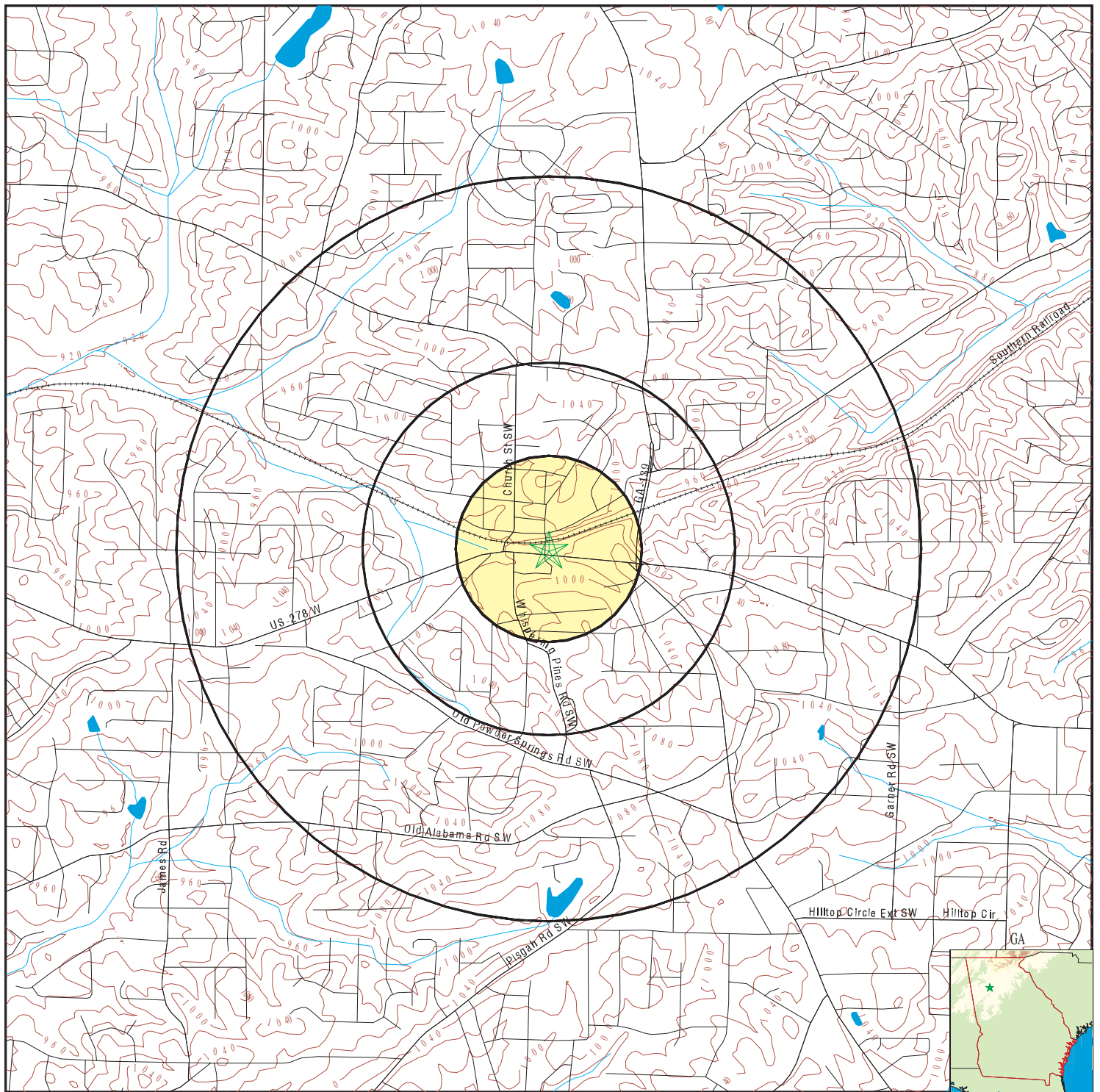
WELL ID

LOCATION  
FROM TP

No Wells Found



# PHYSICAL SETTING SOURCE MAP - 7471290.2s



- County Boundary
- Major Roads
- Contour Lines
- Earthquake epicenter, Richter 5 or greater
- Water Wells
- Public Water Supply Wells
- Cluster of Multiple Icons
- Groundwater Flow Direction
- Indeterminate Groundwater Flow at Location
- Groundwater Flow Varies at Location
- Wildlife Areas

SITE NAME: Former Retail Petroleum Outlet  
 ADDRESS: 890 Veterans Memorial Hwy SW  
 Mableton GA 30126  
 LAT/LONG: 33.819033 / 84.580318

CLIENT: Contour Engineering, LLC  
 CONTACT: Trey Young  
 INQUIRY #: 7471290.2s  
 DATE: October 16, 2023 4:15 pm

## **GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS RADON**

### **AREA RADON INFORMATION**

Federal EPA Radon Zone for COBB County: 1

Note: Zone 1 indoor average level > 4 pCi/L.

: Zone 2 indoor average level >= 2 pCi/L and <= 4 pCi/L.

: Zone 3 indoor average level < 2 pCi/L.

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Federal Area Radon Information for COBB COUNTY, GA

Number of sites tested: 41

<u>Area</u>	<u>Average Activity</u>	<u>% &lt;4 pCi/L</u>	<u>% 4-20 pCi/L</u>	<u>% &gt;20 pCi/L</u>
Living Area - 1st Floor	1.437 pCi/L	95%	5%	0%
Living Area - 2nd Floor	Not Reported	Not Reported	Not Reported	Not Reported
Basement	2.203 pCi/L	87%	13%	0%

# PHYSICAL SETTING SOURCE RECORDS SEARCHED

## **TOPOGRAPHIC INFORMATION**

### **USGS 7.5' Digital Elevation Model (DEM)**

Source: United States Geologic Survey

EDR acquired the USGS 7.5' Digital Elevation Model in 2002 and updated it in 2006. The 7.5 minute DEM corresponds to the USGS 1:24,000- and 1:25,000-scale topographic quadrangle maps. The DEM provides elevation data with consistent elevation units and projection.

### **Current USGS 7.5 Minute Topographic Map**

Source: U.S. Geological Survey

## **HYDROLOGIC INFORMATION**

**Flood Zone Data:** This data was obtained from the Federal Emergency Management Agency (FEMA). It depicts 100-year and 500-year flood zones as defined by FEMA. It includes the National Flood Hazard Layer (NFHL) which incorporates Flood Insurance Rate Map (FIRM) data and Q3 data from FEMA in areas not covered by NFHL.

Source: FEMA

Telephone: 877-336-2627

Date of Government Version: 2003, 2015

**NWI:** National Wetlands Inventory. This data, available in select counties across the country, was obtained by EDR in 2002, 2005, 2010 and 2015 from the U.S. Fish and Wildlife Service.

### **State Wetlands Data: Wetlands Inventory**

Source: Georgia GIS Clearinghouse

Telephone: 706-542-1581

## **HYDROGEOLOGIC INFORMATION**

### **AQUIFLOW<sup>R</sup> Information System**

Source: EDR proprietary database of groundwater flow information

EDR has developed the AQUIFLOW Information System (AIS) to provide data on the general direction of groundwater flow at specific points. EDR has reviewed reports submitted to regulatory authorities at select sites and has extracted the date of the report, hydrogeologically determined groundwater flow direction and depth to water table information.

## **GEOLOGIC INFORMATION**

### **Geologic Age and Rock Stratigraphic Unit**

Source: P.G. Schruben, R.E. Arndt and W.J. Bawiec, Geology of the Conterminous U.S. at 1:2,500,000 Scale - A digital representation of the 1974 P.B. King and H.M. Beikman Map, USGS Digital Data Series DDS - 11 (1994).

### **STATSGO: State Soil Geographic Database**

Source: Department of Agriculture, Natural Resources Conservation Service (NRCS)

The U.S. Department of Agriculture's (USDA) Natural Resources Conservation Service (NRCS) leads the national Conservation Soil Survey (NCSS) and is responsible for collecting, storing, maintaining and distributing soil survey information for privately owned lands in the United States. A soil map in a soil survey is a representation of soil patterns in a landscape. Soil maps for STATSGO are compiled by generalizing more detailed (SSURGO) soil survey maps.

### **SSURGO: Soil Survey Geographic Database**

Source: Department of Agriculture, Natural Resources Conservation Service (NRCS)

Telephone: 800-672-5559

SSURGO is the most detailed level of mapping done by the Natural Resources Conservation Service, mapping scales generally range from 1:12,000 to 1:63,360. Field mapping methods using national standards are used to construct the soil maps in the Soil Survey Geographic (SSURGO) database. SSURGO digitizing duplicates the original soil survey maps. This level of mapping is designed for use by landowners, townships and county natural resource planning and management.

# PHYSICAL SETTING SOURCE RECORDS SEARCHED

## LOCAL / REGIONAL WATER AGENCY RECORDS

### FEDERAL WATER WELLS

#### PWS: Public Water Systems

Source: EPA/Office of Drinking Water

Telephone: 202-564-3750

Public Water System data from the Federal Reporting Data System. A PWS is any water system which provides water to at least 25 people for at least 60 days annually. PWSs provide water from wells, rivers and other sources.

#### PWS ENF: Public Water Systems Violation and Enforcement Data

Source: EPA/Office of Drinking Water

Telephone: 202-564-3750

Violation and Enforcement data for Public Water Systems from the Safe Drinking Water Information System (SDWIS) after August 1995. Prior to August 1995, the data came from the Federal Reporting Data System (FRDS).

#### USGS Water Wells: USGS National Water Inventory System (NWIS)

This database contains descriptive information on sites where the USGS collects or has collected data on surface water and/or groundwater. The groundwater data includes information on wells, springs, and other sources of groundwater.

## OTHER STATE DATABASE INFORMATION

#### A listing of Private Water Well locations

Georgia Department of Public Health

Telephone: (404) 657-2700

A listing of Private Water Well locations

#### Georgia Public Supply Wells

Source: Georgia Department of Community Affairs

Telephone: 404-894-0127

#### USGS Georgia Water Wells

Source: USGS, Georgia District Office

Telephone: 770-903-9100

#### DNR Managed Lands

Source: Department of Natural Resources

Telephone: 706-557-3032

This dataset provides 1:24,000-scale data depicting boundaries of land parcels making up the public lands managed by the Georgia Department of Natural Resources (GDNR). It includes polygon representations of State Parks, State Historic Parks, State Conservation Parks, State Historic Sites, Wildlife Management Areas, Public Fishing Areas, Fish Hatcheries, Natural Areas and other specially-designated areas. The data were collected and located by the Georgia Department of Natural Resources. Boundaries were digitized from survey plats or other information.

### RADON

#### Area Radon Information

Source: USGS

Telephone: 703-356-4020

The National Radon Database has been developed by the U.S. Environmental Protection Agency (USEPA) and is a compilation of the EPA/State Residential Radon Survey and the National Residential Radon Survey. The study covers the years 1986 - 1992. Where necessary data has been supplemented by information collected at private sources such as universities and research institutions.

#### EPA Radon Zones

Source: EPA

Telephone: 703-356-4020

Sections 307 & 309 of IRAA directed EPA to list and identify areas of U.S. with the potential for elevated indoor radon levels.

## PHYSICAL SETTING SOURCE RECORDS SEARCHED

### OTHER

Airport Landing Facilities: Private and public use landing facilities  
Source: Federal Aviation Administration, 800-457-6656

Epicenters: World earthquake epicenters, Richter 5 or greater  
Source: Department of Commerce, National Oceanic and Atmospheric Administration

Earthquake Fault Lines: The fault lines displayed on EDR's Topographic map are digitized quaternary faultlines, prepared in 1975 by the United State Geological Survey

### **STREET AND ADDRESS INFORMATION**

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## Appendix C

### EDR Database Report

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**Former Retail Petroleum Outlet**

890 Veterans Memorial Hwy SW  
Mableton, GA 30126

Inquiry Number: 7471290.5

October 20, 2023

## The EDR-City Directory Image Report

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***Thank you for your business.***

Please contact EDR at 1-800-352-0050  
with any questions or comments.

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## EXECUTIVE SUMMARY

### DESCRIPTION

Environmental Data Resources, Inc.'s (EDR) City Directory Report is a screening tool designed to assist environmental professionals in evaluating potential liability on a target property resulting from past activities. EDR's City Directory Report includes a search of available business directory data at approximately five year intervals.

### RECORD SOURCES

The EDR City Directory Report accesses a variety of business directory sources, including Haines, InfoUSA, Polk, Cole, Bresser, and Stewart. Listings marked as EDR Digital Archive access Cole and InfoUSA records. The various directory sources enhance and complement each other to provide a more thorough and accurate report.

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### RESEARCH SUMMARY

The following research sources were consulted in the preparation of this report. A check mark indicates where information was identified in the source and provided in this report.

<u>Year</u>	<u>Target Street</u>	<u>Cross Street</u>	<u>Source</u>
2020	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	EDR Digital Archive
2017	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	Cole Information
2014	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	Cole Information
2010	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	Cole Information
2005	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	Cole Information
2000	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	Cole Information
1995	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	Cole Information
1992	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	Cole Information
1986	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	Haines Criss-Cross Directory
1981	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	Haines Criss-Cross Directory
1976	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	Haines Criss-Cross Directory
1970	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	Haines Criss-Cross Directory
1966	<input type="checkbox"/>	<input type="checkbox"/>	Haines Criss-Cross Directory

## FINDINGS

### TARGET PROPERTY STREET

890 Veterans Memorial Hwy SW  
Mableton, GA 30126

<u>Year</u>	<u>CD Image</u>	<u>Source</u>
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### BANKHEAD HWY SW

1995	pg A13	Cole Information
1992	pg A16	Cole Information
1986	pg A18	Haines Criss-Cross Directory
1981	pg A20	Haines Criss-Cross Directory
1981	pg A21	Haines Criss-Cross Directory
1976	pg A24	Haines Criss-Cross Directory
1976	pg A25	Haines Criss-Cross Directory
1970	pg A27	Haines Criss-Cross Directory
1966	-	Haines Criss-Cross Directory

Target and Adjoining not listed in Source

### SW VETERANS MEMORIAL HWY

2020	pg A2	EDR Digital Archive
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### VETERANS MEMORIAL HWY SW

2017	pg A4	Cole Information
2014	pg A6	Cole Information
2010	pg A8	Cole Information
2005	pg A10	Cole Information
2000	pg A12	Cole Information

## FINDINGS

### CROSS STREETS

<u>Year</u>	<u>CD Image</u>	<u>Source</u>
-------------	-----------------	---------------

#### OLD FLOYD RD

1995	pg. A14	Cole Information	
1992	pg. A17	Cole Information	
1986	pg. A19	Haines Criss-Cross Directory	
1981	pg. A22	Haines Criss-Cross Directory	
1981	pg. A23	Haines Criss-Cross Directory	
1976	pg. A26	Haines Criss-Cross Directory	
1970	pg. A28	Haines Criss-Cross Directory	
1966	-	Haines Criss-Cross Directory	Target and Adjoining not listed in Source

#### OLD FLOYD RD SW

2017	pg. A3	Cole Information
2014	pg. A5	Cole Information
2010	pg. A7	Cole Information
2005	pg. A9	Cole Information
2000	pg. A11	Cole Information
1995	pg. A15	Cole Information

#### SW OLD FLOYD RD

2020	pg. A1	EDR Digital Archive
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## **City Directory Images**

**SW OLD FLOYD RD      2020**

5342	EFFICIENCY LODGE CORPORATE OFC
5350	KELLY CONSTRUCTION CO INC
5374	TOWER ROOFING
5401	MABLETON AUTO REPAIR
	QUAILTY IMPEX INC
5433	HOYT ENGLETT ELECTRIC
5450	BOOK HOUSE
5473	ARROW HEATING & AIR COND INC
5480	U-HAUL NEIGHBORHOOD DEALER
5514	GEMCO ELEVATOR
5515	ATM
	FLOYD ROAD SHOPPETTE

**SW VETERANS MEMORIAL HWY 2020**

800	ULTIMATE ART BAR LLC
809	BURGER KING
818	COMMUNITY LOANS
838	EYE AM BEAUTY LLC
848	MEXICO LINDO RESTAURANT
850	BLUE RHINO
852	KEYS GLASS & MIRROR CO
853	MABLETON APPLIANCE REPAIR
	PAPA JOHN'S PIZZA
875	SHERWIN-WILLIAMS
890	YOUR NABERS
925	TJ RESTAURANT EQUIPMENT INC
928	MAPLETON TRADING CO
	W C BARNES STORE INC
935	PRINTING PLACE
971	JOHNSON ELECTRONICS
981	KFC
999	WILKES FINANCE CORP
1010	DQ GRILL & CHILL

**OLD FLOYD RD SW 2017**

5334	BONNER, ROBERT M
5335	THOMPSON, KAREN H
5338	MULLINAX, LAURA D
5341	MACK, ORLANDO D
5342	EFFICIENCY LODGE INC
5347	VANN, MARION
5350	KELLY CONSTRUCTION CO INC
5364	MEDLEY, RHONDA R
5374	TOWER ROOFING INC
5396	ALLGOLDEN AUTO SALVAGE LLC
5405	QUEST AUTO SERVICE
5420	MOBILE MANUFACTURING
5438	CASTRO, JOAN
	HARPER, JASMINE
	REYES, CRISTINA
5439	FLOYD ROAD MINI WAREHOUSE
	MINI FLOYD
5450	TERESI WORKS INC
5463	KODAT, THERESA L
5469	PORTER, EARL J
5480	GLORE, JAMES R
5514	GEMCO ELEVATOR
5515	DISH SATELLITE TV
	FLOYD ROAD SHOPPETTE

**VETERANS MEMORIAL HWY SW 2017**

800	DIVINELY GREEK
	TOP QUALITY TAX SERVICES
818	COMMUNITY LOANS
	GEORGIA AUTO PAWN
838	THE ULTIMATE PARTY IN THE BOX
	ULTIMATE PARTY IN A BOX
848	MEXICO LINDO
852	KEYS GLASS & MIRROR CO
854	ANNS PRO CLEAN
	D ANNS HAIR SALON
925	CASH AMERICA PAWN
	CRICKET AUTHORIZED AGENT
	GAMESTOP
	SONJA TAX SERVICE
	V4 INVESTMENTS
928	W C BARNES STORE INC
935	THE PRINTING PLACE
971	JOHNSON ELECTRONICS
	NEVAEH HAIR SALON
	RIGHTEOUS CUTS
	SINGER
981	KFC
1010	DAIRY QUEEN
	PLUMBING SERVICES



**OLD FLOYD RD SW 2014**

5320	EMERGENCY LOCKSMITH MABLETON
5334	OCCUPANT UNKNOWN,
5335	THOMPSON, KAREN H
5338	OCCUPANT UNKNOWN,
5341	MACK, ORLANDO D
5342	EFFICIENCY LODGE INC
	EFFICIENCY LODGE INCMABLETON
5347	VANN, MARION
5349	OCCUPANT UNKNOWN,
5350	KELLY CONSTRUCTION CO INC
5364	MEDLEY, RHONDA
5374	A & R BUILDING MAINTENANCE CO INC
	DOYLE HOLBROOK SEPTIC TANK SERVICES
	TOWER ROOFING INC
5438	CARDENAS, NOEL
	MASON, LYNN
	REYES, CRISTINA
5439	FLOYD ROAD MINIWAREHOUSE
5450	TERESI WORKS INC
5463	OCCUPANT UNKNOWN,
5469	PORTER, EARL J
5480	GLORE, JAMES R
5495	THOMPSON, DOROTHY M
5514	GEMCO ELEVATOR
5515	FLOYD ROAD SHOPPETTE
	FLOYD ROAD SHOPPETTE FAX LN

**VETERANS MEMORIAL HWY SW 2014**

800	DIVINELY GREEK
	SOTERIA HAIR STUDIO
	TOP QUALITY TAX SERVICES
809	BURGER KING
818	COMMUNITY LOANS
	GEORGIA AUTO PAWN
838	THE ULTIMATE PARTY IN THE BOX
848	MEXICO LINDO
852	KEYS GLASS & MIRROR CO
854	AND AFS FINANCIAL
	ANNS PRO CLEAN
875	SHERWINWILLIAMS PAINT STORE
881	OCCUPANT UNKNOWN,
925	CASH AMERICA
	CASH AMERICA PAWN
	SONJA TAX SERVICE
	TITLE EXCHANGE OF MABLETON
	TITLE X CHANGE
935	THE PRINTING PLACE
971	JOHNSON ELECTRONICS
	KIRBYS SEW & VAC
	KIRBYS SEWING MACHINE & VACUUM CL
	NEVAEH HAIR SALON
	SINGER
	SINGER SEWING DEALER
981	KFC
	KFC MABLETON
999	WILKES FINANCE CORP
1010	DAIRY QUEEN

**OLD FLOYD RD SW 2010**

5329	BUTLER, HENRY L
5334	BARNES, BETTY J
5335	THOMPSON, KAREN H
5338	MULLINAX, LAURA J
5341	MACK, ALMORRIS
5342	EFFICIENCY LODGE INC
5347	SOTO, MIGUEL
5350	ISCO INDUSTRIES
5364	MEDLEY, RHONDA
5374	A & R BUILDING MAINTENANCE CO
	DOYLE HOLBROOK SEPTIC TANK SVC
5396	J P AUTO WRECK SOLUTIONS
5401	CONCRETE CUTTERS INC
5420	COBB COUNTY OFFICE
	RECOVERY ADJUSTERS OF GEORGIA
5433	HOYT ENGLETT ELECTRIC
5438	BARAHONA, SANTOS
	NORIEGA, DAVID A
	ZAMORA, RUBEN
5450	TERESI WORKS INC
5463	KODAT, THERESA L
5469	PORTER, ELIZABETH J
5473	ARROW HEATING & AIR COND CO
5480	GLORE, JAMES R
5495	THOMPSON, DOROTHY M
5515	FLOYD ROAD SHOPPETTE

**VETERANS MEMORIAL HWY SW 2010**

800	AUTOMAX
	BRANCH, JEFFREY
	C JS TAX & FINANCIAL SVC
	MARCH, WILLIAM
	SOTERIA HAIR STUDIO
809	BURGER KING
818	WENDYS
838	ULTIMATE PARTY IN THE BOX
848	MEXICO LINDO RESTAURANT
853	PAPA JOHNS PIZZA
878	SOUTHERN COMFORT BUILDERS
890	MABLETON MOBILE AUTO REPAIR
910	BARNES HARDWARE GENERAL MDSE
925	ALL RISK INSURANCE INC
	BIG MOMMAS SOUL FOOD
	CASH AMERICA PAWN
	TITLE X CHANGE
928	BARNES STORE
935	PRINTING PLACE
971	KIRBYS SEWING MACHINE CO
	NEVAEH HAIR SALON
981	KFC
999	WILKES FINANCE CORP
1010	DAIRY QUEEN

# OLD FLOYD RD SW 2005

5329 BUTLER, MARY F  
 5334 SMITH, RAY C  
 5335 THOMPSON, KAREN H  
 5338 MAX SIGNS  
 MULLINAX, LAURA J  
 5341 MACK, ALMORRIS  
 5342 EFFICIENCY LODGE INC  
 5347 URIBE, ELIZABETH  
 5349 HORNSBY, GENE  
 5350 MILLER PIPELINE CORP  
 5364 WRIGHT, ROBIN  
 5374 PROPERTIES LLC  
 TOWER ROOFING INC  
 5401 CONCRETE CUTTERS INC  
 5405 LOCUST GROVE BAPTIST CHURCH  
 5411 WALKER, HOWARD A  
 5412 MOBILE MFG  
 5420 BELLEVUE RECOVERY SERVICES  
 MOBILE TRAILERS INC  
 5425 BANKS PLUMBING SERVICES  
 CATERED AFFAIRS  
 GARY N HENDRICK INC  
 5438 BARAHONA, SANTOS  
 CARBAJAL, MARCO  
 CASTRO, RENE  
 DANIELS, M  
 DELGADO, SANDY  
 EALEY, SAM D  
 GAITAN, MARIA  
 GARCIA, CESAR  
 GARCIA, MARCO A  
 HERNANDEZ, CHARMAN  
 HERNANDEZ, REYES  
 LOPEZ, JARED  
 MACON, BRIAN  
 MALDONADO, ERICK  
 MASON, CHRIS A  
 NORIEGA, DAVID  
 PASTOR, MARLENE  
 RIVERA, I  
 ROSADO, JOSE  
 TOVAR, JOSE L  
 5450 FLOWERS PRINTING INC  
 5463 FLOYD ROAD MINI WAREHO  
 5469 PORTER, ELIZABETH J  
 5473 ACTION PROPERTIES INC  
 5480 AMERICAN CNCER SOC STHST DIVISION  
 5514 GEMCO ELEVATOR CO  
 5515 FIRESTONE MASTER AUTO SERVICE  
 FLOYD ROAD SHOPPETTE

**VETERANS MEMORIAL HWY SW 2005**

793	REID, B
802	LELAND VETERINARY CLINIC
838	MABLETON FLOWER SHOP INC
848	MEXICO LINCO RESTAURANT
853	PAPA JOHNS PIZZA
878	SOUTHERN COMFORT BUILDERS INC
890	BANKHEAD FOREIGN CAR REPAIR
903	TITLE BROKERS INC
910	BARNES HARDWARE
915	CASH AMERICA PAWN
971	DEES FLOWERS CORP
	REMBRANTS FOR HAIR
1038	SUNS LAUNDRY & CLEANERS
1055	BANKHEAD CLINIC

**OLD FLOYD RD SW      2000**

5329	BUTLER, LEROY
5334	SMITH, GEORGE D
5341	HENDON, S G
5347	ECHEVERRY, ULISSES
5350	PETROLEUM EQUIPMENT COMPANY INCORPORATED SERVICE STATION EQU TASCON INCORPORATED
5364	LIGHT, JAMIE L
5374	RILEY, MICHAEL A
5411	WALKER, H A
5412	MOBILE MANUFACTURING TRAILERS SALES & SERVICES
5420	BBJ INCORPORATED RENTL SERVICE
5425	CATERED AFFAIRS & FLORAL DESIGNS EDWARDS, LYNDAS
5433	ENGLETT HOYT ELECTRIC INCORPORATED
5438	EALEY, SAM GILBERT, VICKIE D NORIEGA, DAVID PALMER, ANTHONY
5450	FLOWERS PRINTING INCORPORATED
5473	ARROW HEATING & AIR CONDITIONING INCORPORATED
5574	NATIONAL WHEEL COVER SUPPLY INCORPORATED

**VETERANS MEMORIAL HWY SW 2000**

800	CREATIVE ALTERNATIVES
	DIAMOND DENTAL LABORATORY
	SHAYAR-YASHUV INCORPORATED
809	BURGER KING STORE 6806
818	WENDYS OLD FASHIONED HAMBURGERS
838	MABLETON FLOWER SHOP
848	MEXICO LINDO RESTAURANT
853	DUNKIN DONUTS
854	JS BARBER SHOP
878	SOUTHERN COMFORT BUILDERS
890	BANKHEAD FOREIGN & DOMESTIC CAR REPAIR
901	JACKSON HEWITT TAX SERVICE
910	BARNES HARDWARE
935	VAUGHN RALPH D ATTORNEY
971	DEES FLOWERS
	REMBRANTS FOR HAIR
	SINGER SEWING COMPANY DEALERS
1055	GRIFFITH J A DO
1057	HOLLIS PETROLEUM
	WEST COBB PETROLEUM



**BANKHEAD HWY SW 1995**

800	LANGFORD BOOKKEEPING & TAX SVC
	MANNING CONCRETE & SAWING
	PERFECT PERMS & CUTS
809	BURGER KING
838	MABLETON FLOWER SHOP
848	MEXICO LINDO RESTAURANT
860	BROCK AUCTION SALES CORP
879	HERITAGE CUSTOM UPHOLSTERY
890	BANKHEAD FOREIGN CAR REPAIR
895	ESQUIRE INSURANCE
899	FOWLER KITCHEN & FIXTURE CO
903	SELLARS CORP
905	NATIONWISE AUTOMOTIVE INC
910	BARNES HARDWARE
922	WOODALL, ETHEL M
935	B & B ALTERATION SHOP
	RALPH D VAUGHN
	STORYS INSURANCE CTR
971	ISSHINRYU KARATE USA
	KIRBYS SEW & VAC
	OKINAWAN SCHOOL ISSHINRYU KRT
980	OCCUPANT UNKNOWNN
981	KFC
1050	OCCUPANT UNKNOWNN

**OLD FLOYD RD 1995**

5323	LAKE, DONALD
5335	BEAM, BARRY O
5338	MULLINAX, LAURA
5341	HENDON, S G
5342	OCCUPANT UNKNOWNN
5347	OCCUPANT UNKNOWNN
5349	MYERS, DONALD C
5350	HERRING, DELTON
	PETROLEUM EQUIPMENT CO
	TASCON INC
5364	OCCUPANT UNKNOWNN
5374	DOYLE SEPTIC TANK SVC
5396	BILLYS BRAKE & ALIGNMENT SVC
5401	CONCRETE CUTTERS INC
5411	HAYGOOD, LALON
5412	MOBILE MANUFACTURING INC
5420	BBJ INC
5425	BANKS PLUMBING SVC
	BANKS, DAVID I
	CATERED AFFAIRS & FLORAL DSGNS
	GNH SVC CO
5433	HOYT ENGLETT ELECTRIC INC
5438	BEDDINGTON, R L
	MAY, JULIE
	MITCHELL, CURTIS L
5439	FLOYD RD MINI WAREHOUSE
5450	FLOWERS PRINTING INC
5463	PASLEY, ROBERT
5473	ARROW HEATING & AIR COND CO
5480	AMERICAN CANCER SOCIETY
5511	CHERRIE & CO

**OLD FLOYD RD SW 1995**

5334 SMITH, GEORGE D  
5335 HUFF, MELISSA

**BANKHEAD HWY SW 1992**

800	COSMETIC DENTL STDO GOWNS BY CHRIS LANGFORD BKKPNG&TAX MANNING CNCRTE&SWNG MCWILLIAMS BRENT PERFECT PERMS&CUTS
809	BURGER KING ST 6806
818	WENDYS HAMBURGERS
838	MABLETON FLOWER SHP
848	SIZZLER REST
852	KEYS GLASS&MIRROR
853	TACO BELL
860	BROCK AUCTION SALES
870	CAR PARTS MABLETON
875	ROBERTS OFC SPLYS
878	IRON N STEEL GYM SOUTHRN CMFRT BLDRS
880	SUNRISE IMP&WHSL
890	BANKHEAD FRGN CAR
891	FOWLER BROS CBNT GALAXY INC
893	GALAXY WHOLESALE
895	DEES FLOWERS
899	FOWLER CABINET CO FOWLER KTCHN&FXTR INDEP AUTO PARTS
910	BARNES HARDWARE
922	WOODALL, ETHEL M
925	SOUTHRN TAPE&VDO 3
928	BARNES ACE HDW STR
935	B&B ALTERNATION SHP STORYS INSURANCE CT VAUGHN RALPH D ATTY
971	DREAM HAVEN FOR HEADS ONLY INC SINGER SEWING CO
981	KENTUCKY FRIED CHKN
998	PRIME POWER INC
1010	DAIRY QUEEN&BRAZR

**OLD FLOYD RD****1992**

5335 IVEY, SIDNEY  
5347 SIMS, QUINTON  
5349 STANCIL, BOB L SR  
5425 BANKS, DAVID I  
5438 BRYANT, KELVIN  
HERRIN, ANGIE  
MAY, JULIE  
MITCHELL, CURTIS L

## BANKHEAD HWY SW 1986

800	BROWNS CERAMICS	941-5897	5
	CAROLYN'S BTY SHOP	948-3717	
	LANCASTER REALTY CO	944-9310	2
	LANGFORD BKKPNG&TAX	941-2385	2
	WRIGHT JOHN	948-9494	3
804	XXXX	00	
809	IMPORT ENGINE	948-2123	4
	MABLETON AUTO REPR	948-2278	
810	XXXX	00	
818	WENDYS HAMBURGERS	944-8499	9
819	MABLETON SPRTNG GDS	948-7411	1
827	XXXX	00	
835	XXXX	00	
838	MABLETON FLOWER SHP	948-1500	1
840	XXXX	00	
841	JESSES UPHOLSTERY O	941-2152	3
843	SOUTH COBB CLEANERS	948-2400	
845	XXXX	00	
847	XXXX	00	
848	SIZZLER STEAK 284	941-5480	0
850	XXXX	00	
852	KEYS GLASS&MIRROR	948-2315	+6
853	TACO BELL	944-3194	0
855	US POSTAL SV OFC	948-7812	2
860	BROCK AUCTION SALES	941-6335	
870	CAR PARTS MABLETON	948-9890	4
873	BECKO INC	948-0837	5
	BECKY BRANNON	948-0818	3
	COBB CO CYCLE CTR	948-0618	3
	FREEWHEELING HONDA	948-0818	3
	HONDA OF MABLETON	948-0818	3
874	XXXX	00	
875	ROBERTS OFC SPLY	941-1110	2
878	CAROLINA FURN OTLT	948-1171	3
881	DANIEL PHARMACY	941-8810	
883	GOUGH&SMITH CONSTR	844-0527	5
890	BANKHEAD FRGM CAR	944-8840	
891	MABLETON SHPG CNTR		
	CHARLES J RUFFS STR	948-8392	3
	GENERATION THREE	941-8308	+6
	HOMETOWN BAKERY	948-3331	3
	JENKINS BARBER SHOP	948-2851	3
	KIRBY RALPH P OFC	948-5804	
	KIRBYS SEWING MACH	948-5804	
	LEWIS TEXTILE FCTRY	948-7211	5
	MABLETON BTY SALON	948-5875	
	MABLETON SHPNG CTR	948-0622	1
	MERLE NORMAN CSMTC	941-9824	3
	RUFF CHAS J STR MEN	948-9392	
	RUFF HATTIE MAE	848-0622	1
	GINGER CO DEALERS	948-5804	3
891			
893	GALAXY WHOLESale	841-4583	5
895	XXXX	00	
897	UNIMEX INC	948-3120	4
899	INDEP AUTO PARTS	944-1852	
	INDEP PARTS INC	948-4787	
R	FOWLER CABINET CO	948-4844	4
903	DEES HALLMARK SHPPE	841-3144	0
905	DEES FLOWERS	948-1724	
	DELITE BEAUTY SPLY	941-0773	
907	WOODALL LAMAR	948-3616	+6
910	BARNES HARDWARE	948-2430	
915	XXXX	00	
921	XXXX	00	
922	WOODALL ETHEL M MRS	948-4221	
925	BRYANT DELENE SEWNG	948-4404	7
928	BARNES ACE HDW STR	848-2447	
	BARNES W C STORE	948-2447	
931	REMBRANTS FOR HAIR	944-8468	9
935	STORYS INSURANCE CT	948-0938	8
	VAUGHN RALPH D ATTY	841-2438	3
	WRIGHT H A	944-0620	+6
980	BISHER ROGER	739-2561	5
981	CARLTON STANLEY	944-7686	4
	MRS WINNERS CHICKEN	941-8128	5
983	XXXX	00	
988	U PULL IT INC	841-7800	2
991	GLASS LINDA	941-3398	5
999	FIRST NTL CBB BRNCH	844-2851	2
1010	BRAZIER OF MABLETON	841-0523	
	DAIRY QUEEN&BRAZR	941-0523	

# OLD FLOYD RD 1986

5320	XXXX	00
5323	COTTON J	941-5477 +8
	TAYLOR INEZ	941-4575 +8
5324	LEE NELL D	948-2738 9
5329	BUTLER LEROY	948-5561
5335	PATTERSON GARY W	944-0576 4
5338	MULLINAX LAURA MRS	948-4307 7
5341	HENDON G W	948-5165 7
5347	XXXX	00
5349	WORD TERRY	948-3214 +6
5350	TASCON INC	941-4295 5
5364	ALLSOUTH ENGR&SURV	944-8845 9
	NUTT RICHARD E	944-8845 9
5365	XXXX	00
5374	A&R BUILDING MNTNC	941-2451 5
5396	BILLYS BRKE&ALGNMNT	944-1509 5
	PERFORMANCE BDY WRK	948-2848 5
5411	GARDNERS HEATING	948-4966 +6
	WALKER JESSE L	941-3143 +6
5412	RELTON CORPORATION	941-1673 5
5420	ARMSTRONG C DALE	948-7607
	B B J INC	948-7618 2
5438	APARTMENTS	
	CHEHEY GUY HOWARD	941-5830 3
	ETHERIDGE MARK	944-1956 4
	HOOPER E	944-3439 +6
	JONES DEBRA	944-7977 3
	JONES TRAVIS C	944-3262 5
	JONES W O MRS	941-2480 3
	KEARNEY JAMES	941-0260 5
	REED E M	948-2612 4
5438		
5439	FLOYD RD MINI WRHS	944-8080 1
5441	G&N SERVICE CO	941-3706 +6
5447	ENGLETT ELECTRIC	941-5597 4
	EHGLETT HOYT	948-6463 2
	SORRELLS TRACIE	948-7856 5
5450	FLOWERS OLTY PRINT	948-3340 5
5463	XXXX	00
5469	PORTER EARL J	948-7477
5473	ARROW HTNG&AIR CND	948-8785 8
	ARROW HTNG&AIR CND	948-7704 8
5480	AMER CANCER SOCIETY	941-9188 +6
5495	XXXX	00
5499	HOUSE OF STYLES	948-8697 4
5501	PRICE PNTNG&CLNG	941-5059 +6
5505	MABLETON RESTAURANT	941-1020 1
5513	COBB CO HLTH CNTRS	948-7226 5
5514	BOYS CLUB SO COBB	944-2697 1
5515	FLOYD RD SHOPPETTE	948-7665 9
NO #	COBB SC FLOYD CAFE	948-2988 1
NO #	COBB SC FLOYD CNSLR	948-3018 1
NO #	FLOYD MDL SCHL	941-0366
HO #	FLOYD MDL SCHL CAFE	948-2988

**BANKHEAD HWY SW 1981**

800	CAROLYNS BEAUTY SHP	949-3717
	CREDIT COUNSELORS	941-045S+1
	J&M APPL SRV AND SL	948-4880 0
	KEEPSAKE PORTRAITS	949-8723+1
	LANCASTER REALTY CO	944-931D 9
	PALETTE PAD THE	941-9115+1
804	JACKSON&ASSOCTS	949-1628 0
809	MABLETON AUTO REPR	948-2278 3
810	XXXX	00
818	WENDYS HAMBURGERS	944-8499 9
819	MABLETON SPRTNG GDS	948-7411+1
827	8&B TIRE CENTER	949-0940+1
835	XXXX	00
838	MABLETON FLDWER SHP	949-1500+1
840	XXXX	00
843	SOUTH COBB CLEANERS	949-2400 2
845	XXXX	00
847	DANIEL W A	948-7418 8
848	SIZZLER STEAK 264	941-5460 0
850	XXXX	00
852	LEE JOE TURNER	948-5640 6
	LEES GARAGE	949-5230
853	TACO BELL	944-3194 0
855	US PSTL MABLETON	948-7612+1
860	BROCK AUCTION SALES	941-6335 4
870	WARREN AUTO SUPPLY	948-9690
874	XXXX	00
875	ROBERTS OFC SPPLS	942-1110 0
878	XXXX	00
881	DANIEL PHARMACY	941-8610 2
883	BAR D WESTERN WEAR	948-6695 0
890	BANKHEAD FORGN CAR	944-9940 5
891	MABLETON SHPG CNTR	
	CHARLES J RUFFS STR	949-9392+1
	FABRIC CENTER 120	949-7211+1
	HOMETOWN BAKERY	949-3331+1
	JENKINS BARBER SHP	949-2851+1
	KIRBY RALPH P	949-5804+1
	KIRBYS SEWING MACH	948-5904+1
	KIRBYS SEWING MACH	944-3639+1
	MABLETON BEAUTY SLN	948-5675+1
	MABLETON SHOPPING CT	949-D622+1
	MERLE NORMAN STUDIO	941-9624+1
	RUFF HATTIE MAE	949-D622 4
	RUFFS CHARLES J STR	949-9392+1
	RUFFS CLOTHING INC	949-9392+1
	SINGER CO DEALERS	949-59D4+1
891		
893	XXXX	00
895	NUMBER ONE PARTS	941-3707 3
897	XXXX	00
899	FOWLER CABINET CO	948-4844 3
	INOEPENDNT PARTS&SV	944-1652 0
	INDEPENDNT PARTS&SV	949-4797 0
	INDEPNONT AUTO PTS	948-4797 0
903	DEES HALLMARK CARD	941-3144 0
905	CATES GEORGE	944-8680 7
	DEES FLOWERS	949-1724 5



## BANKHEAD HWY SW 1981

BANKHEAD HWY SW	30059 CONT	
	DEES FLOWERS	948-1827 7
	DELITE BEAUTY SPLY	941-0773 5
910	BARNES HARDWARE	948-2430 3
915	GIANT OSCT AUTO PRT	941-0100 0
921	XXXX	00
922	WOODALL ETHEL M MRS	948-4221 3
	WOODALL LAMAR	948-3616 3
925	BRYANT D SEWG SHP	948-4404 7
928	BARNES ACE HOWRE	948-2447 8
	BARNES W C STORE	948-2447 7
931	REMBRANTS FDR HAIR	944-8468 9
935	INSURANCE CENTER	948-0938 8
	METAL MAN CO THE	948-6099 +1
	POSS LOUISE V	948-8566 +1
	STORYS INS CENTER	948-0938 8
981	HUNTER CAMPER SALES	941-5558 9
	SMITH ROBERT H	948-5187 +1
988	BUDGET INOUSTRIES	944-2707 +1
991	GABLE C H	941-8827 +1
999	FIRST NATL BNK COBB	424-7777 +1
1010	BRAZIER THE MBLTN	941-0523
	DAIRY QUEEN MABLETN	941-0523

## OLD FLOYD RD 1981

5320	CABE LEE	941-2546	0
5323	XXXX	00	
5324	LEE NELL D	948-2738	9
5329	BUTLER LEROY	948-5561	2
5335	BYRD RONNIE	944-2134	+1
5338	MULLINAX LAURA MRS	948-4307	7
5341	HENDON G W	948-5165	7
5347	CASTEEL DAN N	944-1166	8
5349	STOVE SHACK THE	941-5943	+1
5350	BUILDERS AUTOMOTIVE	948-68D1	8
5364	ALL SOUTH ENGINEERG	944-8845	9
	ALLSOUTH ENGRG INC	944-8845	9
	ARROWHEAD SURVEYING	944-8B45	9
	NUTT RICHARD E	944-8845	9
5365	JETT A L	941-1369	8
5374	DRAPER JOSEPHINE	948-6301	+1
5396	RIDDICK TIRE CO	948-252D	5
5411	DRISKELL MYRTLE S	941-5467	0
5412	CUSTOM WOODCRAFTER	944-1453	+1
5420	A&R BUILDING MNTC	941-2451	0
	ARMSTRONG C DALE	948-7607	4
	B B J INC	949-7618	+1
5424	DEAN JERRY V	948-0730	0
5438	APARTMENTS		
	BISHOP S A	948-3753	+1
	COFFEE N	941-3139	+1
	DANIELL H F	948-2061	0
	DUMAS EDUARDO	948-2762	6
	FALKNER E J	948-7369	7

# OLD FLOYD RD 1981

	KEEN MARTHA	944-3073 + 1
5438		
5439	FLOYD RD MINI WRHS	944-B08D + 1
5440	XXXX	00
5441	MAHAFFEY J P	941-9348 5
	NORTHWEST PLUMBING	941-5421 0
5447	ENGLETT HOYT	941-5597 + 1
5450	GA HM INSULATION CO	941-7879 0
5455	RATTEREE FLOSSIE M	941-2648 3
5469	PORTER EARL J	948-7477
5473	ARROW HTG&AIR COND	948-8785 8
	ARROW HTG&AIR COND	948-7704 8
5480	THOMPSON LESTER	948-5049 3
5499	XXXX	00
5505	MABLETON RESTAURANT	941-1D20 + 1
5513	COBB CO HLTH M8LTN	948-7228 4
5514	BOYS CLUB 5 COBB	944-2697 + 1
5515	FLOYD ROAD SHOPPTE	948-7665 9
5545	XXXX	00
NO #	COBB CO SC FLOYD	948-3D18 + 1
NO #	COBB CO SC FLOYD	948-2988 + 1
NO #	COBB CO SC FLOYD	941-0368 + 1
NO #	CONCORD BAPT CHURCH	948-4031
NO #	FLOYD MDDL SC CNSLR	948-3D18
NO #	FLOYD MIDDLE SC	941-0366
NO #	FLOYD MIDDLE SC CAF	948-2988
*	27 BUS 89 RES	22 NEW



## BANKHEAD HWY SW 1976

800\*CAROLYN'S BEAUTY SHP 946-3727 D  
     \*HOLLOWAY FRANK A 944-9318+6  
     \*LIBERTY NATL LIFE 948-3725+6  
     \*LUTHERAN CH NATVITY 941-9347 2  
 804\*JES CONSTRUCTION 948-1628+6  
     \*JACKSON&ASSOC 948-1628 3  
 809\*COUCHS BODY SHOP 944-1066+6  
     \*MABLETON AUTO REPR 948-2278 3  
 810 XXXX 00  
 818\*FLOWERLAND NURSERIES 941-9273 3  
 827\*RELIGIOUS PRODUCTS 944-8457 5  
 835 XXXX 00  
 838\*MABLETON FLOWR&GIFT 948-1500 4  
 840\*BRICKS HAIR PLACE 948-9258+6  
     SHROPSHIRE HOWARD 948-4654 3  
 841 XXXX 00  
 843\*SOUTH COBB CLEANERS 948-2400 2  
 845\*MABLETON STANDRD SV 94E-5822 4  
 850 XXXX 00  
 852 LEE JOE TURNER 948-5640+6  
     \*LEES GARAGE 948-5230 1  
 855\*US POST OFFICE 948-7612 9  
 860\*BROCK AUCTION SALES 941-6335 4  
 870\*WARREN AUTO SUPL 948-9690 7  
 874 XXXX 00  
 879 XXXX 00  
 891\*DANIEL PHARMACY 941-8710 2  
 882\*BANKHEAD HS MUSIC 941-8758 4  
 890\*BANKRD FRGN CAR ROR 944-8840 5  
 891\*ALPHIN WHOLESALE CO 948-8266 5  
     \*K W A INC 944-3899+6  
     \*MABLETON SHOPPG CTR 948-0622 4  
     \*JEFF HATTIE MAE 948-0522 4  
     \*TARA GEM CO 944-3899+6  
 893\*NORTON JOHN SALES 948-4332 5  
 895\*NUMBER ONE PARTS 941-3707 3  
 897 XXXX 00  
 899\*FOWLER CABINET CO 948-4844 3  
     \*QUALITY HARDWARE 948-4870 5  
 905\*DEES FLWRS&ANTIQUES 948-1724 5  
     \*DELITE BEAUTY SPLY 941-0773 5

## BANKHEAD HWY SW 1976

..BANKHEAD HWY SW 30059 CONT..  
 \*MABLETON CAROSEGGFTS 941-9574+6  
 PIEPMEIER W E 941-3227+6  
 910\*BARNES HARDWARE 948-2430 3  
 915\*GIANT OSCNT ATO PRT 941-0100 5  
 921\*FABRIC CENTER 941-1551 4  
 922 WOODALL LAMAR 948-3616 3  
 925\*CHARLES J R STR MEN 948-9392 3  
 WOODALL ETHEL M MRS 948-4221 3  
 935\*HINES&HINES RLT 941-0912 4  
 981 BERRYHILL EDDIE 941-3641+6  
 1010\*BRAZIER THE MBLTN 941-0523 7  
 \*DAIRY QUEEN&BRAZR 941-0523 7

## OLD FLOYD RD 1976

5320	XXXX	00
5323	BUTLER LEROY	948-5561 2
5329	XXXX	00
5332	HULLINAX LAURA HRS	948-4307 1
5335	HENDON G W	948-5165 0
5338	WALKER FRED G	948-5044 3
5347	XXXX	00
5349	*HOUSE OF FLOWERS	948-2380 1
5350	*HUNTER CAMPER SALES	941-5555 4
5364	CARNES KELLY	941-5378+6
5365	RICE A O	948-2565 0
5374	THOMAS O E MRS	941-1054+6
5396	*RIDGICK TIRE CO	948-2520 5
	*ROBERTS ENTERPRISES	948-4000 5
5411	WALKER HOWARD A JR	948-2064 4
5412	*DOOLEYS DEN	941-5452+6
5420	ARMSTRONG C DALE	948-7607 4
	*B B J INC	948-7618 4
	*BOSCH ROBERT CORP	944-8566 5
	*READY RENT ALL SYST	948-7618 5
5424	XXXX	00
5438	DANIELL H F	948-2061 4
	DOMAS EDUARDO	948-2762+6
5441	MAHAFFEY J P	941-9348 5
	*NORTHWEST PLUMB CO	941-5421 5
5447	LOUDERMILK DONNIE	948-6852+6
5455	RAITEREE FLOSSIE H	941-2548 3
5463	FLORENCE BONNIE	944-3791+6
5469	PORTER EARL J	948-7477 1
5480	THOMPSON LESTER	948-5049 3
5499	*ARIES SALON BEAUTY	941-5248 5
5501	*SLOES ELECTRIC CO	941-3278+6
	*T H S CONSTRUCTION	941-3296+6
5503	BARNES ROY E	944-9221 5
5505	*MABLETON RESTAURANT	941-1020+6
5513	*COBB CO HEALTH CNTR	948-7226 4
5514	*AHER LEGION STH 264	948-9270+6
NO	*COBB CO SC FLOYD HI	941-0366 6
NO	*COBB CO SC FLOYD JR	948-3018 3
NO	*COBB CO SC FLOYD CFE	948-2988 5
NO	*CONCORD BAPT CHURCH	948-4031
	* 23 BUS 105 RES 28 NEW	

## BANKHEAD HWY SW 1970

800\*CAROLYN'S BEAUTY SHP 948-3717+0  
804\*J&S CONSTRUCTION 948-1628+0  
\*JACKSON & ASSOC 948-1628+0  
809\*B THOMPSON AUTO SV 948-2278+0  
\*THOMPSON B AUTO SV 948-2278+0  
845\*MAPLETON SERV CENTR 948-5822+0  
855\*U.S. POST OFFICE 948-7612 9  
870\*WARREN AUTO SUPL 948-9690 7  
878\*SPEEDY SALVAGE CO 948-3968 9  
\*SPEEDY SALV & SAMPLS 948-3968 9  
891\*GA FLYERS SCH AVITN 941-8183 8  
897A\*ANCHOR PRINTING CO 948-2621 9  
R\*SOUTH COBB HTNG & AIR 948-8396 8  
899\*FOWLERS ACE HARDWRE 948-4844+0  
\*FOWLERS CABINET CO 948-4844+0  
905\*TOWNCO EQPT & SPLY CO 948-9785+0  
1010\*BRAZIER THE MBLTN 941-0523 7  
\*DAIRY QUEEN & BRAZR 941-0523 7  
1012\*MINNIE PEARLS CHCKN 948-9060+0

## OLD FLOYD RD 1970

5320 GLORE J D	948-5432+0
5335 HENDON G W	948-5165+0
5365 CANNON CAROLYN M	948-8550+0
RICE A D	948-2565+0
5396*HUNTER TIRE CO	948-2520+0
5411 WALKER H A REV	948-2064 7
5424*KELLYS RLTY&INS	948-7488+0
*LESTER J LEWIS	948-5985+0
*LEWIS LESTER J	948-5985+0
NO # BARNES W C	948-4929
NO # CARDELL J E	948-5109