PM ENVIRONMENTAL
Risk Well Managed

Environmental & Engineering Services Nationwide

ENVIRONMENTAL SERVICES

BUILDING ARCHITECTURE, ENGINEERING & SCIENCE

INDUSTRIAL HYGIENE SERVICES

BROWNFIELDS & ECONOMIC INCENTIVES CONSULTING

Know Your Risk.
Take Control.
Work with the Experts.

www.pmenv.com

Corrective Action Evaluation

Listerhill Chevron
3800 East 2nd Street | Muscle Shoals, Colbert County, Alabama
AST19-05-01, Facility ID No. 13706-033-010801, ATTF CP #10
PM Project Number 70-816-A

Prepared for:

O'Steen Oil Company
608 Rumson Road
Birmingham, Alabama 35209

Prepared by:

PM Environmental, Inc.
717 Highway 67 South, Suite 26
Decatur, Alabama 35603

PM ENVIRONMENTAL
Risk Well Managed

Birmingham
1 Chase Corporate Center
Suite 400
Birmingham, AL 35244
f: 877.884.6775
t: 205.986.0270

Decatur
717 Highway 67 South
Suite 26
Decatur, AL 35603
f: 877.884.6775
t: 256.353.6222

Florence
4050 Helton Drive
Suite 111
Florence, AL 35633
f: 877.884.6775
t: 256.476.6252

Starkville
500 Russell Street
Suite 106
Starkville, MS 39759
f: 877.884.6775
t: 800.313.2966

September 28, 2020

Emil Johnson, Hydrogeologist
Alabama Department of Environmental Management
Post Office Box 301463
Montgomery, Alabama 36130-1463

RE: CORRECTIVE ACTION PLAN DEVELOPMENT
REMEDIATION BY NATURAL ATTENUATION WITH MEME EVENTS
Listerhill Chevron
3800 East 2nd Street
Muscle Shoals, Colbert County, Alabama
Facility I.D. No. 13706-033-010801
Incident No. AST19-05-01
PM Project No. 70-00816-A 0010
ATTF Cost Proposal No. 10

Dear Mr. Johnson:

On behalf of O'Steen Oil Company, PM Environmental, Inc. (PM) is pleased to present this Corrective Action Plan Development Remediation by Natural Attenuation with Meme Events for the above referenced site.

If you have any questions, please feel free to contact Suzy Evans in our Florence, Alabama office at (256) 367-0637 or John Hargraves in our Decatur, Alabama office at (256) 353-6222.

Sincerely,
PM Environmental, Inc.

Suzanne Evans, P.G.
Project Manager
Alabama P.G. No. 1228

John W. Hargraves, P.G
Regional Manager
Alabama P.G. No. 701

cc. O'Steen Oil Company

PM ENVIRONMENTAL, INC.

RISK WELL MANAGED

PROJECT NO. 70-00816-A 0010
CORRECTIVE ACTION PLAN DEVELOPMENT FOR
REMEDIATION BY NATURAL ATTENUATION WITH MEME EVENTS

Site Location:

LISTERHILL CHEVRON

3800 EAST 2ND STREET

MUSCLE SHOALS, COLBERT COUNTY, ALABAMA

FACILITY ID NO. 13706-033-010801

UST RELEASE INCIDENT NO. AST19-05-01

COST PROPOSAL NO. 10

SEPTEMBER 28, 2020

Prepared for:

O'STEEN OIL COMPANY.
608 RUMSON ROAD
BIRMINGHAM, ALABAMA 35209
swilcox@brasfieldgorrie.com
(205) 714-1732

Prepared by:

PM ENVIRONMENTAL, INC.
717 HIGHWAY 67 SOUTH, SUITE 26
DECATUR, AL 35603
evans@pmenv.com
(256) 367-0637

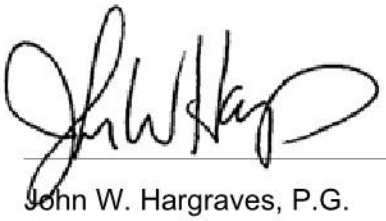
TABLE OF CONTENTS

LIST OF FIGURES

LIST OF APPENDICES

CERTIFICATION PAGE

"I certify under penalty of law that this Corrective Action Plan for Remediation by Natural Attenuation and all technical data submitted within were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gathered and evaluated the information submitted. Based on my inquiring of the person or persons who directly gathered the enclosed information, the information submitted is, to the best of my knowledge and belief, true, accurate and complete. I am aware that there are significant penalties for submitting false information. "



John W. Hargraves, P.G.
Alabama P.G. No. 701
Date: 09/21/2020

CERTIFICATION PAGE

"I certify under penalty of law that this Corrective Action Plan for Remediation by Natural Attenuation and all technical data submitted within were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gathered and evaluated the information submitted. Based on my inquiring of the person or persons who directly gathered the enclosed information, the information submitted is, to the best of my knowledge and belief, true, accurate and complete. I am aware that there are significant penalties for submitting false information. "

Peter S. Bosanic, P.E.
Alabama P.E. No. 29882
Date: 09/23/2020

1.0 UST RELEASE FACT SHEET AND SITE CLASSIFICATION CHECKLIST

UST RELEASE FACT SHEET

GENERAL INFORMATION:

SITE NAME:	Listerhill Chevron
ADDRESS:	3800 East 2nd Street, Muscle Shoals, Colbert County, Alabama
FACILITY I.D. NO.:	13706-033-010801
UST INCIDENT NO.:	AST19-05-01

RESULTS OF EXPOSURE ASSESSMENT:

How many private drinking water wells are located within 1,000 ft. of site?	3
How many public water supply wells are located within 1 mile of the site?	0
Have any drinking water supply wells been impacted by contamination from this release?	NO
Is there an imminent threat of contamination to any drinking water wells?	{ } Yes {X} No
Have vapors or contaminated groundwater posed a threat to the public?	{ } Yes {X} No
Are any underground utilities impacted or imminently threatened by the release?	{ } Yes {X} No
Have surface waters been impacted by the release?	{ } Yes {X} No
Is there an imminent threat of contamination to surface waters?	{ } Yes {X} No
What is the type of surrounding population?	Commercial & Residential & Wetland

CONTAMINATION DESCRIPTION:

Type of contamination at site: {X} Gasoline, {X} Diesel, { } Waste Oil
{ } Kerosene, { } Other _____

Free product present in wells? { } Yes {X} No Maximum thickness measured: Not Detected

Maximum BTEX concentrations measured in soil: 18.85 ppm in SB-10 at 9-11 feet bgs on 11/19/2019

Maximum BTEX concentrations measured in groundwater: Historic: 1.77 ppm in MW-1 on 07/05/2019

ADEM UST Form - 001 (04/22/93)

ADEM GROUNDWATER BRANCH
UST SITE CLASSIFICATION SYSTEM
CHECKLIST

Please read all of the following statements and mark either yes or no if the statement applies to your site. If you have conducted a Preliminary or Secondary Investigation, all questions should be answered. Closure site assessment reports may not provide you with all the necessary information, but answer the statements with the knowledge obtained during the closure site assessment.

SITE NAME:	Listerhill Chevron
SITE ADDRESS:	3800 East 2nd Street
	Muscle Shoals, Colbert County, Alabama
FACILITY I.D. NO.:	13706-033-010801
UST INCIDENT NO.:	AST19-05-01
OWNER NAME:	O'Steen Oil Company
OWNER ADDRESS:	608 Rumson Road
	Birmingham, Alabama 35209
NAME & ADDRESS OF PERSON COMPLETING THIS FORM:	Suzanne Evans, P.G.
	PM Environmental, Inc.
	717 Highway 67 South, Suite 26
	Decatur, Alabama 35603

CLASSIFICATION	*DESCRIPTION*	*YES*	*NO*
CLASS A	IMMEDIATE THREAT TO HUMAN HEALTH, HUMAN SAFETY OR SENSITIVE ENVIRONMENTAL RECEPTOR		
A.1	Vapor concentrations at or approaching explosive levels that could cause health effects, are present in a residence or building.	☐	☒
A.2	Vapor concentrations at or approaching explosive levels are present in subsurface utility system(s), but no buildings or residences are impacted.	☐	☒
CLASS B	IMMEDIATE THREAT TO HUMAN HEALTH, HUMAN SAFETY OR SENSITIVE ENVIRONMENTAL RECEPTOR		
B.1	An active public water supply well, public water supply line, or public surface water intake is impacted or immediately threatened.	☐	☒
B.2	An active domestic water supply well, domestic water supply line or domestic surface water intake is impacted or immediately threatened.	☐	☒
B.3	The release is located within a designated Wellhead Protection Area I.	☐	☒
CLASS C	IMMEDIATE THREAT TO HUMAN HEALTH, HUMAN SAFETY OR SENSITIVE ENVIRONMENTAL RECEPTOR		
C.1	Ambient vapor/particulate concentrations exceed concentrations of concern from an acute exposure, or safety viewpoint.	☐	☒
C.2	Free product is present on the groundwater, at ground surface, on surface water bodies, in utilities other than water supply lines, or in surface water runoff.	☐	☒

CLASSIFICATION	*DESCRIPTION*	*YES*	*NO*
CLASS D	SHORT TERM THREAT TO HUMAN HEALTH, SAFETY, OR SENSITIVE ENVIRONMENTAL RECEPTORS		
D.1	There is a potential for explosive levels, or concentrations of vapors that could cause acute effects, to accumulate in a residence or other building.	☐	☒
D.2	A non-potable water supply well is impacted or immediately threatened.	☐	☒
D.3	Shallow contaminated surface soils are open to public access, and dwellings, parks, playgrounds, day care centers, schools or similar use facilities are within 500 feet of those soils.	☐	☒
CLASS E	SHORT TERM THREAT TO HUMAN HEALTH, SAFETY, OR SENSITIVE ENVIRONMENTAL RECEPTORS		
E.1	A sensitive habitat or sensitive resources (sport fish, economically important species, threatened and endangered species, etc.) are impacted and affected.	☐	☒
CLASS F	SHORT TERM THREAT TO HUMAN HEALTH, SAFETY, OR SENSITIVE ENVIRONMENTAL RECEPTORS		
F.1	Groundwater is impacted and a public well is located within 1 mile of the site.	☐	☒
F.2	Groundwater is impacted and a domestic well is located within 1,000 feet of the site.	☒	☐
F.3	Contaminated soils and/or groundwater are located within designated Wellhead Protection Areas (Areas II or III).	☐	☒
CLASS G	SHORT TERM THREAT TO HUMAN HEALTH, SAFETY, OR SENSITIVE ENVIRONMENTAL RECEPTORS		
G.1	Contaminated soils and/or groundwater are located within areas vulnerable to contamination from surface sources.	☒	☐
GLASS H	SHORT TERM THREAT TO HUMAN HEALTH, SAFETY, OR SENSITIVE ENVIRONMENTAL RECEPTORS		
H.1	Impacted surface water, stormwater or groundwater discharges within 500 feet of a surface water body used for human drinking water, whole body water-contact sports, or habitat to a protected or listed endangered plant and animal species.	☐	☒
CLASS I	LONG TERM THREAT TO HUMAN HEALTH, SAFETY, OR SENSITIVE ENVIRONMENTAL RECEPTORS		
I.1.	Site has contaminated soils and/or groundwater but does not meet any of the above mentioned criteria.	☐	☒

ADDITIONAL COMMENTS:

Complete the classification evaluation questions listed above. Upon completion, determine the highest rank of the site (A.1 is the highest rank) based on the statements answered with a yes.

Enter the determined classification ranking:	F.2

ADEM GROUNDWATER BRANCH
SITE CLASSIFICATION CHECKLIST
(5/8/95)

2.0 INTRODUCTION

This Corrective Action Development portion of the Corrective Action Plan (CAP) has been prepared in response to a directive provided by the Alabama Department of Environmental Management (ADEM) and was developed in accordance with the CAP requirements of the ADEM Administrative Code R. 335-6-15-29. ADEM requires that corrective actions be taken when soil and/or groundwater contamination is found to exceed the established corrective action limits. Measured concentrations of gasoline constituents in the soils and groundwater at the subject site exceed the established corrective action limits. The objective of this CAP is to:

- Evaluate the current condition of the groundwater and soil contamination at the subject site;
- Evaluate potential remediation technologies which will result in soil and groundwater contaminants below the corrective action limits in an effective and timely matter;
- Address the measures to be taken to control concentrations of COC's above the Alabama Risked Based Corrective Actions Groundwater Resource Protection Target Levels (ARBCA GRP Target Levels) and Protection Target Levels (SP Target Levels); and
- Provide a proposed schedule for a monitoring plan.

The geographic location, site description, site history and status, surrounding development, water well inventory, underground utilities, regional geology and hydrology, local geology and hydrology, groundwater flow and gradient, surface water drainage, and physical soil characteristics were evaluated in the Corrective Action Evaluation and are not being re-evaluated here. Please refer to Figures 1-9 for site vicinity, site diagram, and historical data. Please refer to Appendix A for tables summarizing the soil and groundwater data for the site. Please refer to Appendix B for the boring logs associated with the site.

3.0 SUMMARY OF PREVIOUSLY CONDUCTED SITE ASSESSMENTS AND REMEDIAL ACTIVITIES

This section lists the previously conducted site assessments including the Preliminary Investigation, the Secondary Investigation, the Additional Well Installation Report, Groundwater Monitoring Reports, the Tier II Alabama Risk Based Corrective Action Report, and the Corrective Action Evaluation which were summarized in the Corrective Action Evaluation.

Date:	Chronology Of Events
May 28, 2019	Based upon findings of a Phase II Environmental Site Assessment conducted by TTL, Inc., ADEM issued a Notification of Requirement to conduct investigative and Corrective Actions to O'Steen Oil Company on May 28, 2019.
July 24, 2019	The Preliminary Investigation Report was submitted to ADEM by PM. Cost Proposal-1 (CP-1)
January 31, 2020	The On-site Secondary Investigation Report was submitted to ADEM by PM. (CP-2)
June 5, 2020	A Monitoring Well Installation Report was submitted to ADEM by PM. (CP-9)
June 10, 2020	A Groundwater Monitoring Report was submitted to ADEM by PM. (CP-3)

Date:	Chronology Of Events
June 26, 2020	An Alabama Risk Based Corrective Action Tier 1/Tier 2 Report was submitted to ADEM by PM. (CP-7)
June 26, 2020	A Corrective Action Evaluation was submitted to ADEM by PM. (CP-8)

4.0 PROJECT PERSONNEL

The Project Manager for this project was Suzanne Evans a geologist with PM. The Professional Geologist reviewing the report and consulting on site activities was John W. Hargraves, P.G. (PG #701). The Professional Engineer reviewing the report and consulting on site activities was Peter S. Bosanic (P.E. # 29882). The Cost Proposal and Work Plan were written by Suzanne Evans; reviewed by John W. Hargraves; and compiled, printed, and mailed by Marian Edmonson a staff scientist with PM. The report was written by Suzanne Evans, the report was compiled by Marian Edmonson, and the figures were created by Chad Seely, Eric Shinabarker, and Kyle Shinabarker of PM.

5.0 SUMMARY OF PREVIOUS CONDUCTED CORRECTIVE ACTIONS

No Corrective Actions have been conducted at this site.

6.0 EXPOSURE ASSESSMENT

The exposure assessment was completed during the Corrective Action Evaluation and is not being repeated in this Corrective Action Plan Development.

7.0 RATIONALE FOR SELECTION OF REMEDIATION BY NATURAL ATTENUATION WITH MOBILE ENHANCED MUTI-PHASE EXTRACTION (MEME) EVENTS

The following is a discussion of the proposed remedial methods for the impacted soils and groundwater at the subject site.

7.1 Site Characterization

The site characterization was completed during the Corrective Action Evaluation and is not being repeated in this Corrective Action Plan Development.

7.2 Site Remediation Goals Based on ARBCA Evaluation Data

Based on the findings of the 2020 ARBCA Tier I and II evaluation, it is recommended that remedial activities be instituted in order to reach the GRP and SP Target Levels. Therefore, it is proposed that during each trimester of remediation three 8-hour MEME events be conducted approximately one month apart to help speed the remediation process. The recovery wells designated RW-1 and RW-2 will be installed upon approval. The recovery wells, MW-1 and MW-2 will be utilized as the recovery points during the tri-annual MEME events. Prior approval will be obtained from ADEM's Air Division prior to initiation of any MEME event.

PM proposes to install two 4-inch recovery wells at the site with twenty feet of screen. The recovery well designated RW-1 on the Proposed Recovery Well Map will be installed to a depth

30 feet below ground surface (bgs) to mirror the depth of MW-1. The recovery well designated RW-2 on the Proposed Well Map will be installed to a depth of 20 feet to mirror the depth of MW-2. Please refer to Figure 10 for the Typical Recovery Well Installation Diagram. Please see Appendix C for the complete Tier II GRP and SP Target Levels. Please see Appendix D for MEME bids. Please refer to Figure 11 for the Proposed Recovery Well Map.

7.3 Receptor Evaluation

The Receptor Evaluation was completed during the Corrective Action Evaluation and is not being repeated in this Corrective Action Plan Development.

7.4 Evaluation of Plume

The plume evaluation was completed during the Corrective Action Evaluation and is not being repeated in this Corrective Action Plan Development.

7.5 Remedial Goals

During the last two groundwater sampling events concentrations of Benzene are not below the ARBCA GRP and/or SP Target Levels in groundwater monitoring wells MW-1 and MW-2. The addition of MEME events would remove a portion of the impacted water at the site allowing natural remediation during periods of inactivity at the site. PM recommends three 8-hour MEME events should be scheduled during each trimester, approximately one month apart. If the groundwater concentrations in any planned recovery point decrease below the GRP and SP Target Levels for two consecutive groundwater monitoring events, the MEME configuration may be altered to provide for the most effective use of the MEME event. Conversely, if the groundwater concentrations in any monitoring wells increases above the GRP or SP Target Levels, the MEME configuration may be altered to provide for the most effective use of the MEME event. Please refer to Figure 10 for the proposed recovery well map.

8.0 GROUNDWATER MONITORING PROGRAM

Monitoring Wells

Proposed monitoring wells to encompass all wells (MW-1 through MW-12, RW-1, and RW-2) associated with the site. A copy of the Health and Safety Plan is included in Appendix E.

Determination of Static Water Level/Free Product Thickness

Static water level and free product thickness, if any, measurements will be recorded using an electronic interface probe, accurate to 0.01-inch, from each monitoring well prior to purging and sampling activities. To avoid the potential for cross contamination, the interface probe will be decontaminated by washing and rinsing between each use. All groundwater level measurements will be recorded within a 24-hour time period to avoid any temporal variations which may occur in groundwater flow systems. Measurements will be made from the top of the casing surveyed to a relative benchmark or feet above mean sea level. After measuring the static water level, sampling personnel will determine the total depth of the monitoring well to evaluate if excessive siltation has occurred within the well and to determine purge volumes.

Sampling Procedures

Sample Collection: Groundwater samples will be collected by personnel who have thoroughly reviewed this monitoring program and are familiar with the sampling procedures. Care will be taken to avoid the potential for cross contamination between samples and to prevent loss of volatiles to the atmosphere. Groundwater samples will be collected using a new disposable bailer with new nylon cord. Prior to sample collection, wells will be purged until a minimum of three well casing volumes are evacuated.

Groundwater sampling will proceed from the least contaminated well to the most contaminated well. Equipment decontamination fluids and purged groundwater evacuated from each monitoring well will be transported to a disposal facility after the groundwater sampling event.

Sample Preservation: Groundwater samples will be collected in the designated size and type of containers required for specific parameters. Sample containers will be filled in such a manner as not to lose any preservative chemicals from the containers.

Sample Shipment: The samples will be stored in an ice-packed cooler and transported, with appropriate trip blanks and chain-of-custody forms, to the laboratory for chemical analysis within the appropriate holding times.

Chain-of-Custody: Chain-of-custody procedures will be used to allow for the tracing of possession and handling of samples from the time of collection to the completion of laboratory analysis. A chain-of-custody form will accompany each set of samples transported to the laboratory.

Detection Limits: Laboratory analysis of all test parameters listed as part of the groundwater monitoring plan will meet or exceed the site specific target levels.

Quality Assurance/Quality Control:

Field QA/QC: A trip blank of distilled or deionized water will accompany each shipment cooler of samples for volatile organic analysis to the laboratory to evaluate the potential for cross contamination during shipment or storage of samples. The trip blank will be analyzed for VOCs using USEPA approved methods.

Laboratory QA/QC: At least one duplicate sample from a monitoring well within the contaminant plume will be submitted to the laboratory for analysis of VOCs. This will be done to evaluate sampling and analysis reproducibility. The sample duplicate will be labeled Duplicate. Sampling personnel will record the actual well number of the duplicate in their field notes. The duplicate location and sample results will be reported in each monitoring report.

Well Maintenance

The condition of each monitoring well will be evaluated for integrity during each monitoring event. All monitoring wells at the subject site will be clearly labeled, securely capped, locked, and covered with protective casings. ADEM will be notified in advance of replacing or repairing any monitoring well.

9.0 CLEAN-UP GOALS

The subject site-specific clean-up goals will be determined by the Rule 335-6-15.32 which allows for the development of alternative corrective action limits through a Risk Assessment (Rule 335-6-15.33) or when the concentrations of groundwater contamination have reached asymptotic levels. The final ARBCA GRP and SP Target Levels are found on the Site Specific Target Levels Tables located in Appendix C.

9.1 Verification of Clean-up Goals

Verification of clean-up goals sampling will be initiated when the following benchmark criteria has been met during implementation of the remediation plan:

- The concentrations in the source area monitoring wells have demonstrated a reduction of contaminants from pre-treatment groundwater concentrations to below the site specific Tier II cleanup criteria for the subject site, for a period of one year (3 tri-annual sampling events).

10.0 PROPOSED REPORTING REQUIREMENTS

A Well Installation Report will be submitted to ADEM upon installation of the recovery wells.

A RNA report will be submitted to ADEM on a tri-annual basis. The report will document the MEME events (three each trimester) and the groundwater monitoring event. Each report will include the following:

A. Site Summary
B. Site Vicinity Map
C. Generalized Diagram of the Subject Property and Adjoining Properties
D. Natural Attenuation Monitoring Report forms
    a. Well Inventory Data
    b. Sampling Methodology
    c. Current and Historical Monitoring Well Groundwater Elevation Data
    d. Current and Historical Monitoring Well Analytical Summary
    e. Remediation Cost versus Time
E. MEME Report with off Gas Data and Product Removal Calculations
F. Laboratory Reports and Chain of Custody

When monitoring reports indicate the remediation activities have achieved the clean-up goals or the remaining contamination has reached asymptotic levels, a request for cessation of corrective action (or monitoring only) will be submitted to the ADEM. It will include data indicating that the clean-up goals have been achieved or the remaining contamination has reached asymptotic levels and proposed methods to abandon the monitoring and recovery wells.

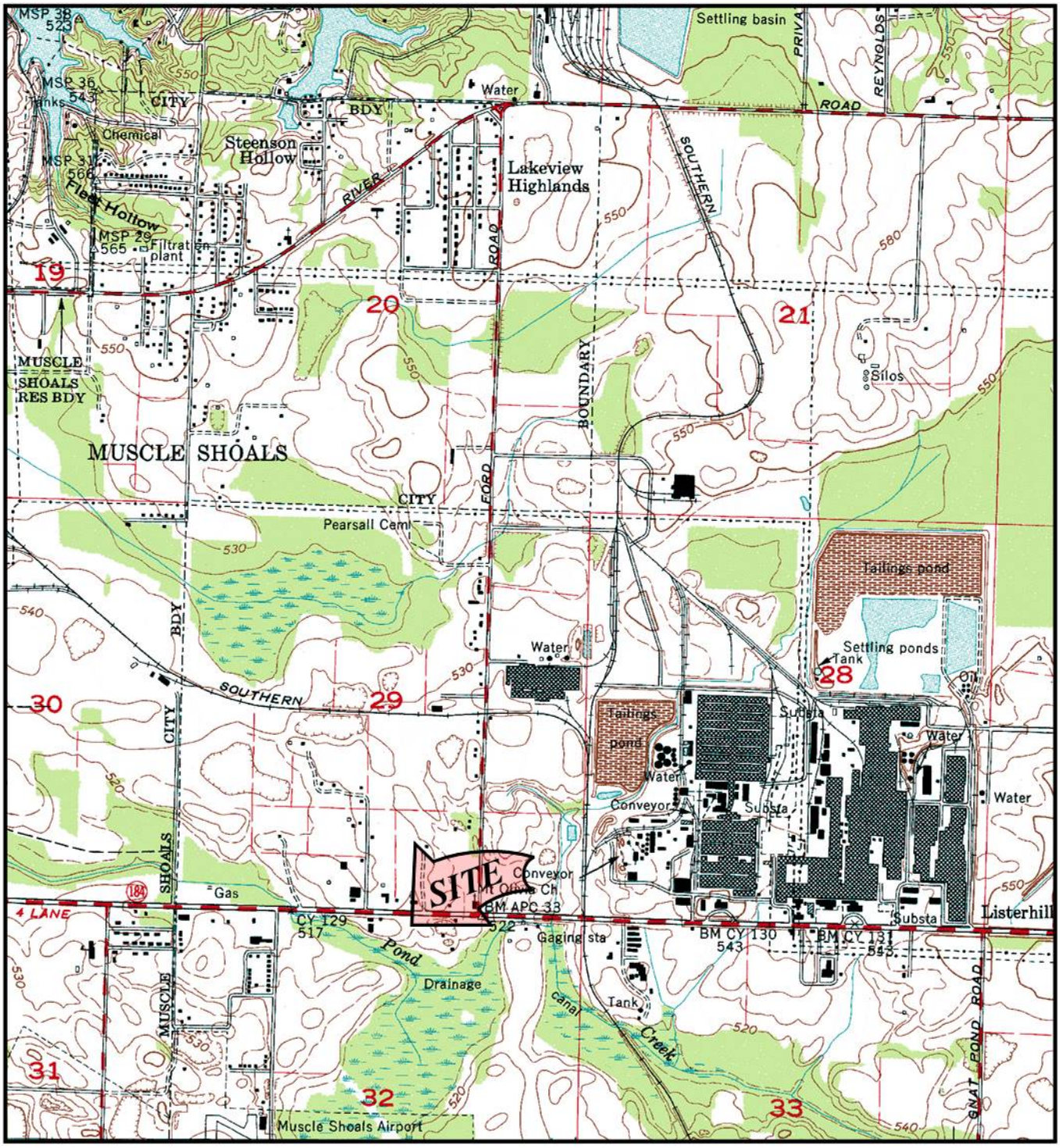
Upon approval of the request for cessation of the corrective action from ADEM, a site closure report summarizing closure activities will be prepared and submitted to the ADEM. This report will include the details of the well abandonment.

11.0 CONCLUSIONS AND RECOMMENDATIONS

This Corrective Action Development has developed a remediation alternative within the limits that are currently set for the site. Further PM recommends that the proposed remedial activities be re-evaluated annually to ensure continued progress at the site.

Figures

PM ENVIRONMENTAL Environmental & Engineering Services



COUNTY LOCATIONS

COLBERT COUNTY

FIGURE 1

PROPERTY VICINITY MAP

UNITED STATES GEOLOGICAL SURVEY, 7.5 MINUTE SERIES

KILLEN, AL QUADRANGLE, 1971.

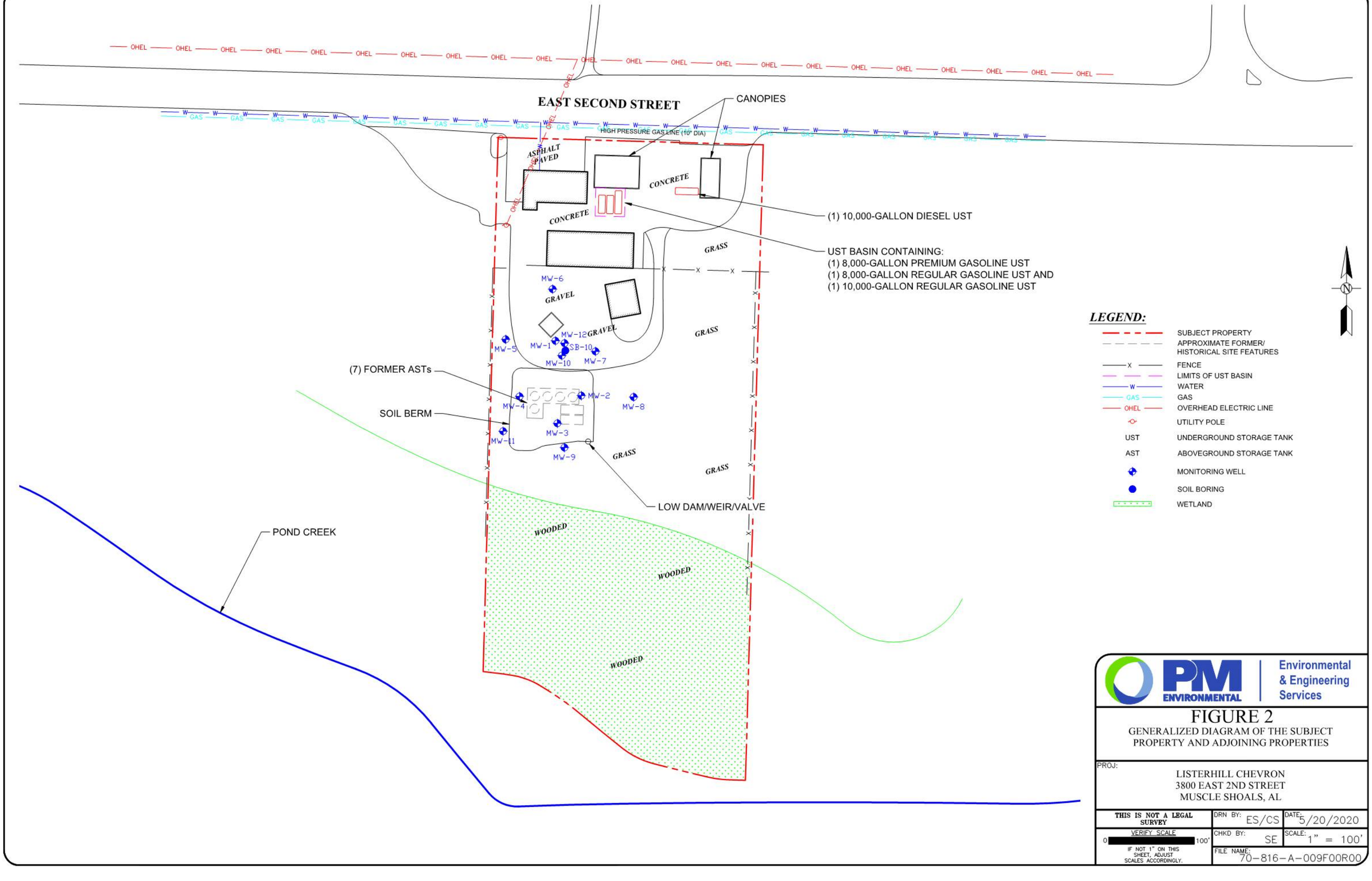
PM ENVIRONMENTAL | Environmental & Engineering Services

PROJ:
LISTERHILL CHEVRON
3800 EAST 2ND STREET
MUSCLE SHOALS, AL

THIS IS NOT A LEGAL SURVEY

VERIFY SCALE
0 2,000'
IF NOT 1" ON THIS SHEET, ADJUST SCALES ACCORDINGLY.

DRN BY: ES
DATE: 6/25/2019
CHKD BY: SE
SCALE: 1" = 2,000'
FILE NAME: 70-816-A-001F00R00



PM ENVIRONMENTAL | Environmental & Engineering Services

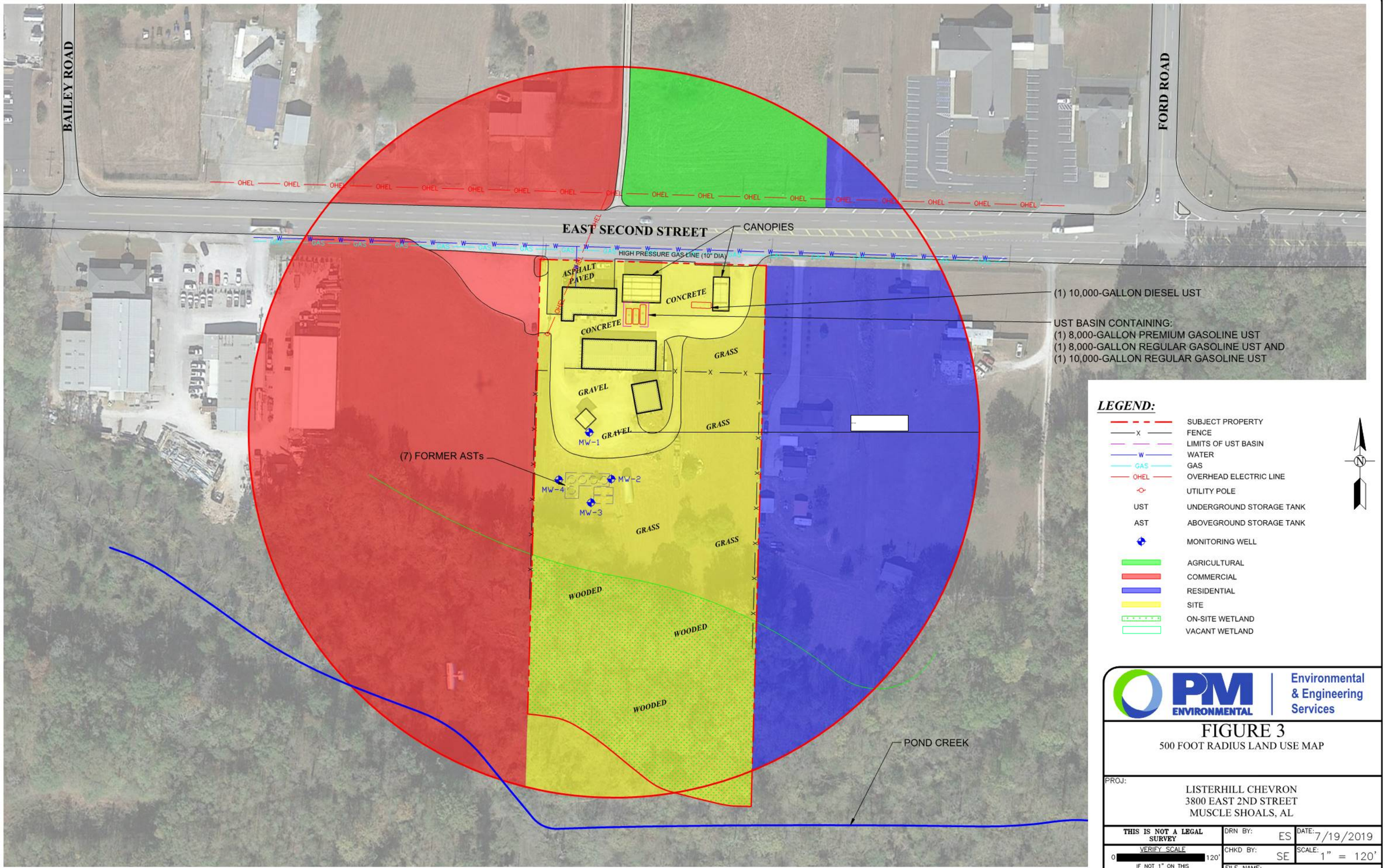
FIGURE 2

GENERALIZED DIAGRAM OF THE SUBJECT PROPERTY AND ADJOINING PROPERTIES

PROJ:

LISTERHILL CHEVRON
3800 EAST 2ND STREET
MUSCLE SHOALS, AL

THIS IS NOT A LEGAL SURVEY	DRN BY: ES/CS	DATE: 5/20/2020
VERIFY SCALE 0 — 100' IF NOT 1" ON THIS SHEET, ADJUST SCALES ACCORDINGLY.	CHKD BY: SE	SCALE: 1" = 100'
	FILE NAME: 70-816-A-009F00R00	

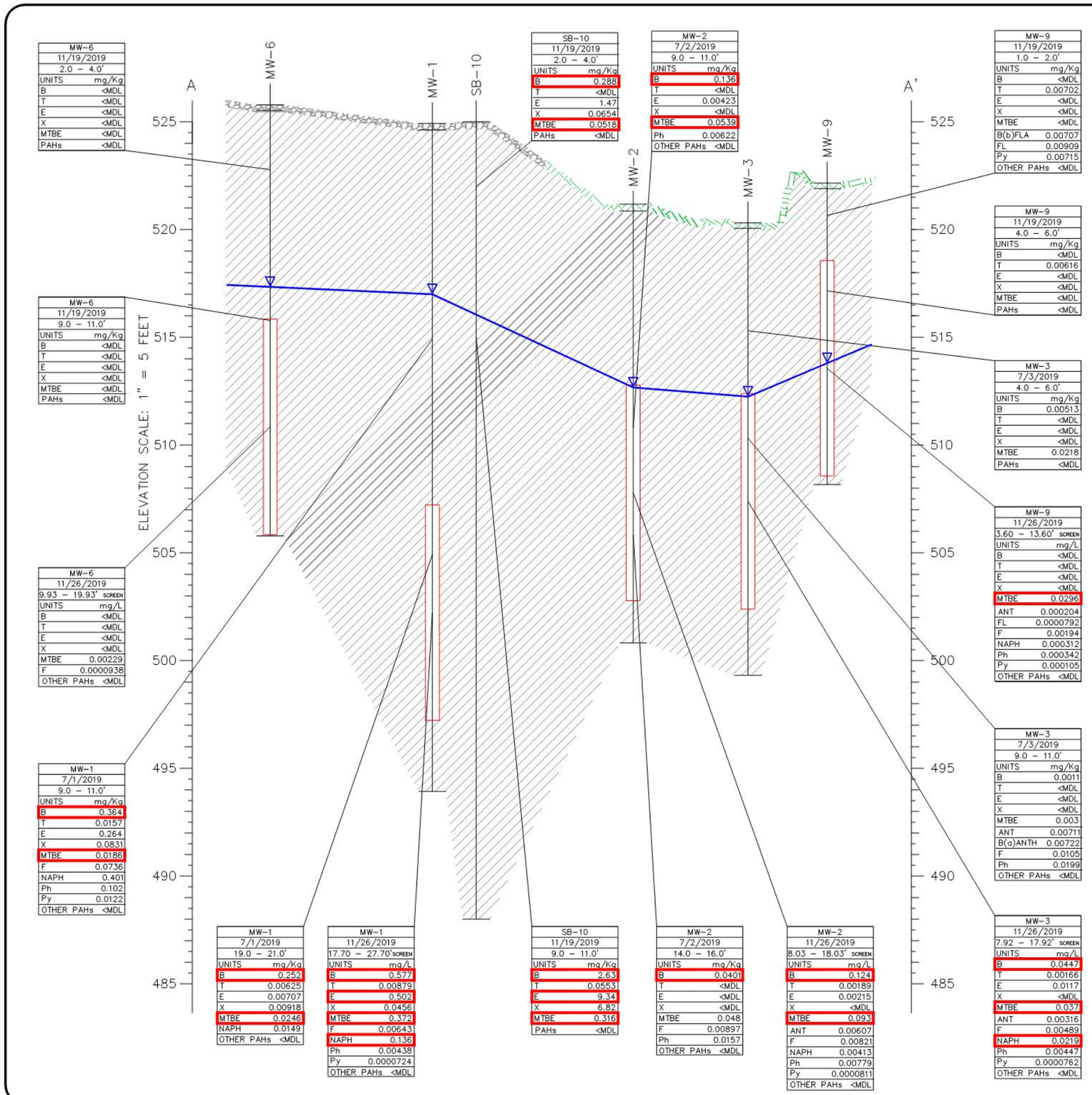


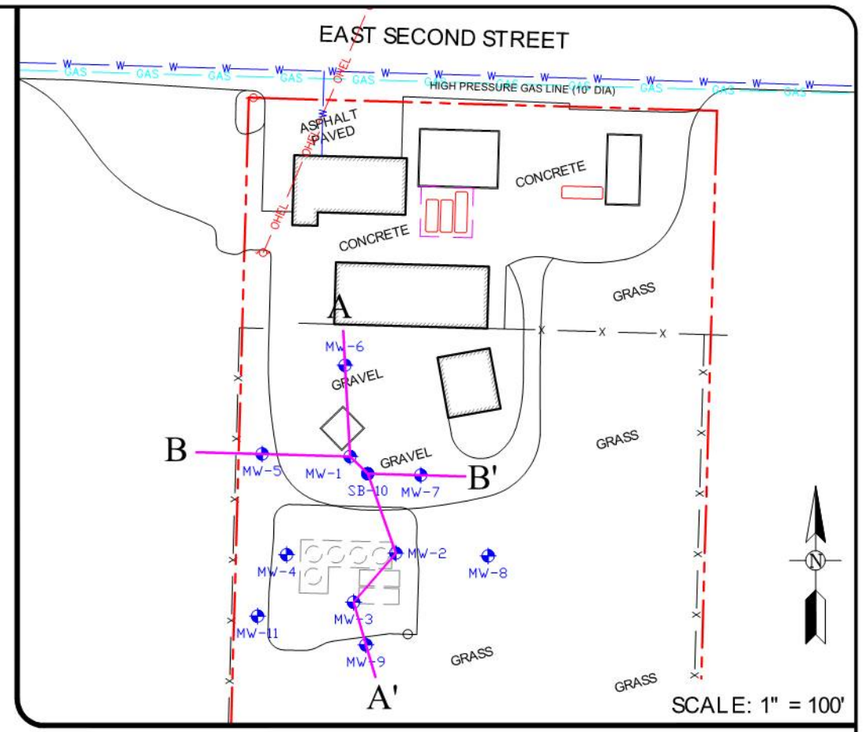
PM ENVIRONMENTAL | Environmental & Engineering Services

FIGURE 3
500 FOOT RADIUS LAND USE MAP

PROJ:
LISTERHILL CHEVRON
3800 EAST 2ND STREET
MUSCLE SHOALS, AL

THIS IS NOT A LEGAL SURVEY	DRN BY: ES	DATE: 7/19/2019
VERIFY SCALE 0 — 120' IF NOT 1" ON THIS SHEET, ADJUST SCALES ACCORDINGLY.	CHKD BY: SE	SCALE: 1" = 120'
	FILE NAME: 70-816-A-001F00R00	





LEGEND:

GRAVEL
TOP SOIL
CLAY
SCREEN
GROUNDWATER ELEVATION (11/26/2019)

B	BENZENE
T	TOLUENE
E	ETHYLBENZENE
X	XYLENES
MTBE	METHYL TERT BUTYL ETHER
ANT	ANTHRACENE
B(a)ANTH	BENZO(a)ANTHRACENE
F	FLUORENE
NAPH	NAPHTHALENE
Ph	PHENANTHRENE
Py	PYRENE
PAHs	POLYNUCLEAR AROMATIC HYDROCARBON
MDL	METHOD DETECTION LIMIT
UNITs	mg/Kg (UNLESS NOTED)
	VALUE EXCEEDS APPLICABLE CRITERIA

NOTES: REFER TO TABLES FOR SPECIFIC COMPOUNDS ANALYZED

5'
0
0 SCALE 40'

PM ENVIRONMENTAL | Environmental & Engineering Services

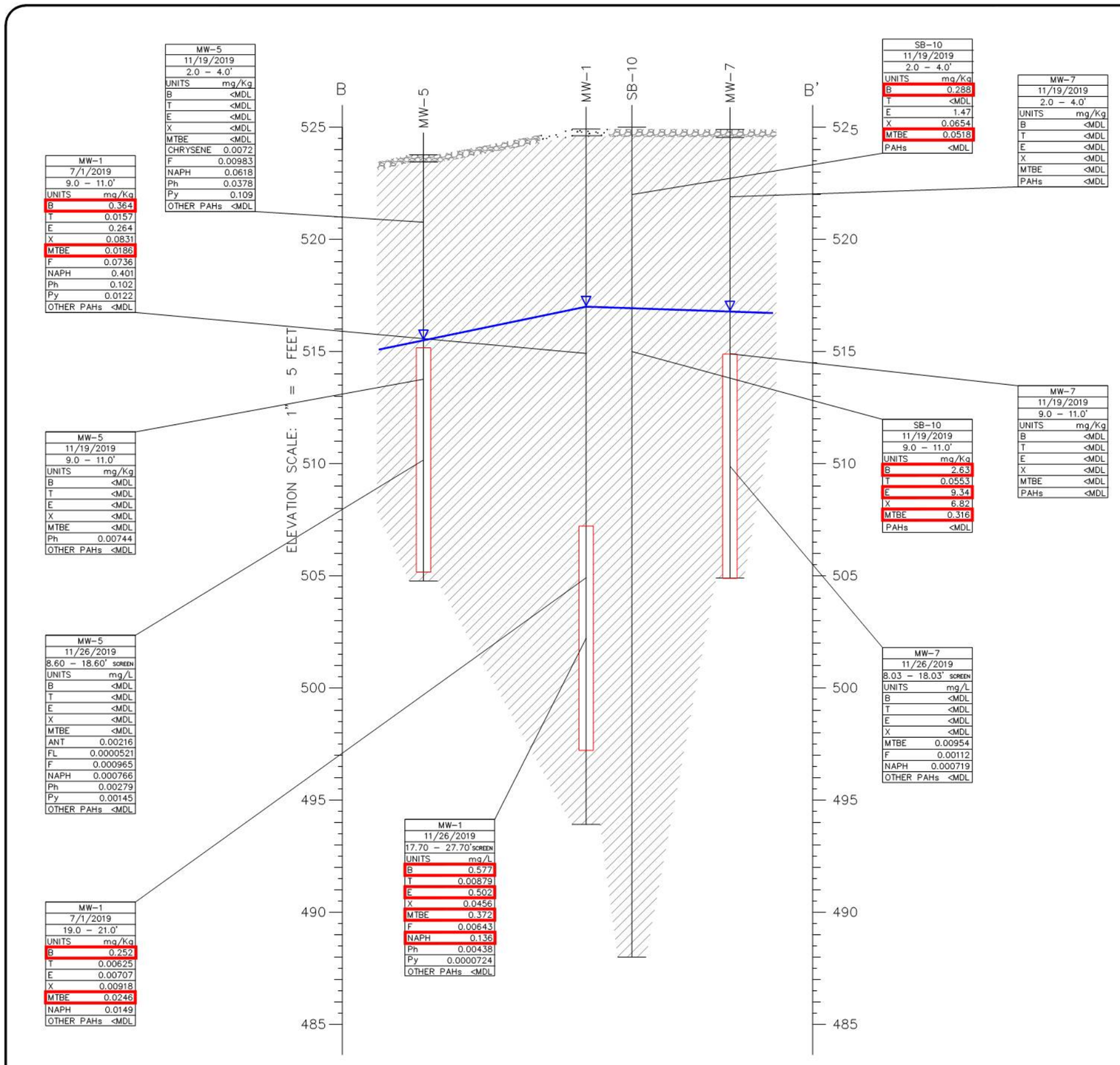
FIGURE 4
GEOLOGICAL CROSS SECTION
A-A'

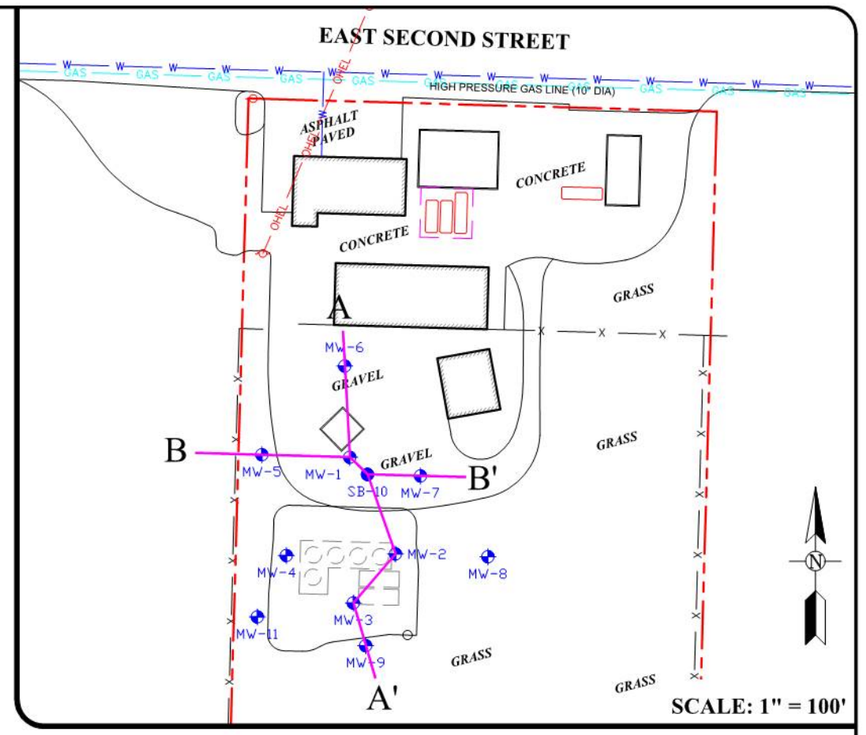
PROJ:
LISTERHILL CHEVRON
3800 EAST 2ND STREET
MUSCLE SHOALS, AL

THIS IS NOT A LEGAL SURVEY

VERIFY SCALE
0 [redacted] NOTED
IF NOT 1" ON THIS SHEET, ADJUST SCALES ACCORDINGLY.

DRN BY: ES
DATE: 1/2/2020
CHKD BY: SE
SCALE: NOTED
FILE NAME: 70-816-A-002F00R00





LEGEND:

- CONCRETE
- GRAVEL
- CLAY
- SCREEN
- GROUNDWATER ELEVATION (11/26/2019)

B	BENZENE
T	TOLUENE
E	ETHYLBENZENE
X	XYLENES
MTBE	METHYL TERT BUTYL ETHER
ANT	ANTHRACENE
B(a)ANTH	BENZO(a)ANTHRACENE
F	FLUORENE
NAPH	NAPHTHALENE
Ph	PHENANTHRENE
Py	PYRENE
PAHs	POLYNUCLEAR AROMATIC HYDROCARBON
MDL	METHOD DETECTION LIMIT
UNITs	mg/Kg (UNLESS NOTED)
	VALUE EXCEEDS APPLICABLE CRITERIA

NOTES: REFER TO TABLES FOR SPECIFIC COMPOUNDS ANALYZED

5'
0
0 40'
SCALE

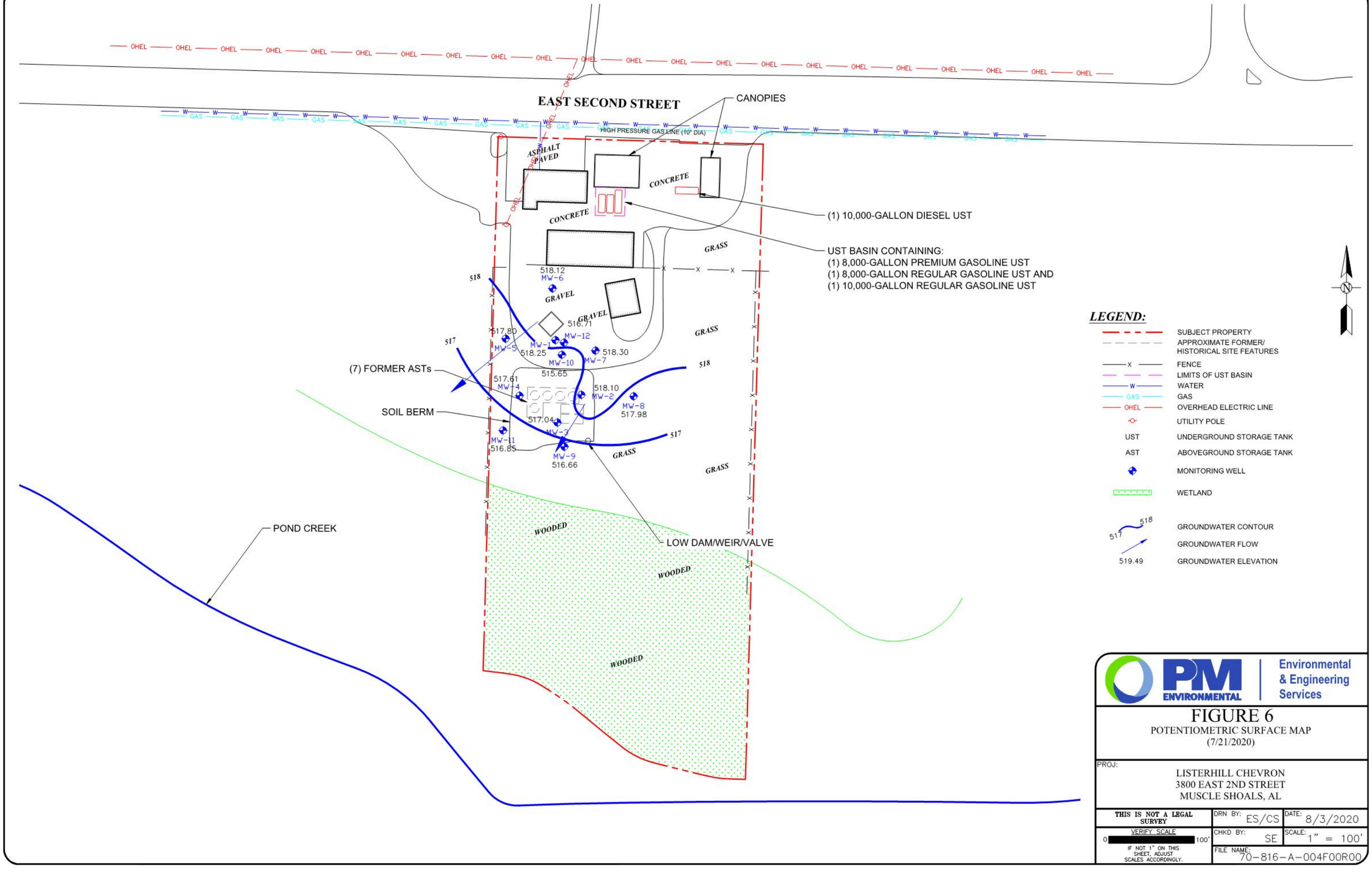
PM ENVIRONMENTAL | Environmental & Engineering Services

FIGURE 5
GEOLOGICAL CROSS SECTION
B-B'

PROJ:
LISTERHILL CHEVRON
3800 EAST 2ND STREET
MUSCLE SHOALS, AL

THIS IS NOT A LEGAL SURVEY
VERIFY SCALE
0 [redacted] NOTED
IF NOT 1" ON THIS SHEET, ADJUST SCALES ACCORDINGLY.

DRN BY: ES
DATE: 1/2/2020
CHKD BY: SE
SCALE: NOTED
FILE NAME: 70-816-A-002F00R00



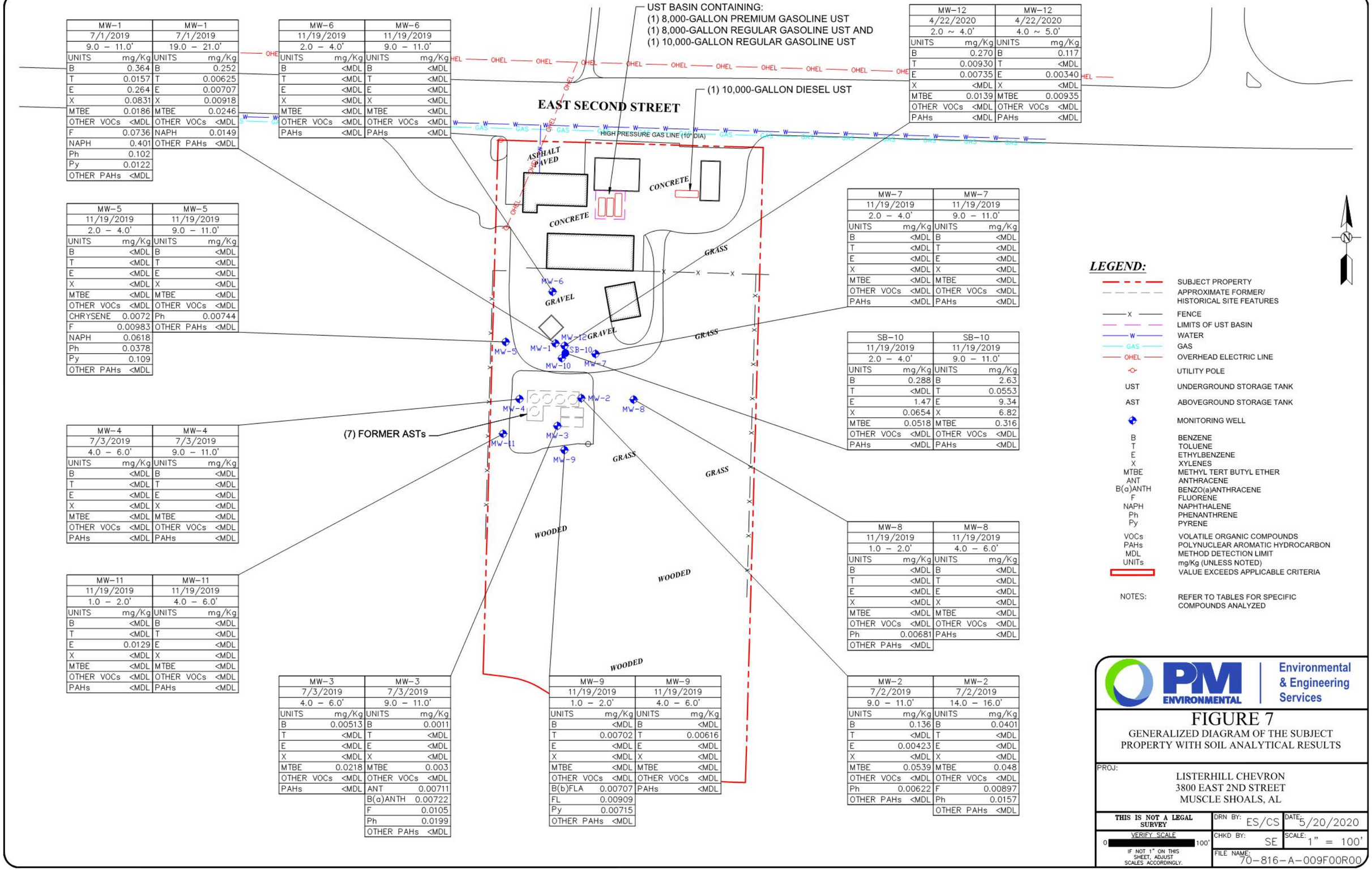
PM ENVIRONMENTAL | Environmental & Engineering Services

FIGURE 6

POTENTIOMETRIC SURFACE MAP
(7/21/2020)

PROJ:
LISTERHILL CHEVRON
3800 EAST 2ND STREET
MUSCLE SHOALS, AL

THIS IS NOT A LEGAL SURVEY	DRN BY: ES/CS	DATE: 8/3/2020
VERIFY SCALE 0 — 100' IF NOT 1" ON THIS SHEET, ADJUST SCALES ACCORDINGLY.	CHKD BY: SE	SCALE: 1" = 100'
	FILE NAME: 70-816-A-004F00R00	



MW–1	
7/1/2019	
9.0 – 11.0'	
UNITS	mg/Kg
B	0.364
T	0.0157
E	0.264
X	0.0831
MTBE	0.0186
OTHER VOCs	<MDL
F	0.0736
NAPH	0.401
Ph	0.102
Py	0.0122
OTHER PAHs	<MDL

MW–1	
7/1/2019	
19.0 – 21.0'	
UNITS	mg/Kg
B	0.252
T	0.00625
E	0.00707
X	0.00918
MTBE	0.0246
OTHER VOCs	<MDL
NAPH	0.0149
OTHER PAHs	<MDL

MW–6	
11/19/2019	
2.0 – 4.0'	
UNITS	mg/Kg
B	<MDL
T	<MDL
E	<MDL
X	<MDL
MTBE	<MDL
OTHER VOCs	<MDL
PAHs	<MDL

MW–6	
11/19/2019	
9.0 – 11.0'	
UNITS	mg/Kg
B	<MDL
T	<MDL
E	<MDL
X	<MDL
MTBE	<MDL
OTHER VOCs	<MDL
PAHs	<MDL

MW–12	
4/22/2020	
2.0 ~ 4.0'	
UNITS	mg/Kg
B	0.270
T	0.00930
E	0.00735
X	<MDL
MTBE	0.0139
OTHER VOCs	<MDL
PAHs	<MDL

MW–12	
4/22/2020	
4.0 ~ 5.0'	
UNITS	mg/Kg
B	0.117
T	<MDL
E	0.00340
X	<MDL
MTBE	0.00935
OTHER VOCs	<MDL
PAHs	<MDL

MW–5	
11/19/2019	
2.0 – 4.0'	
UNITS	mg/Kg
B	<MDL
T	<MDL
E	<MDL
X	<MDL
MTBE	<MDL
OTHER VOCs	<MDL
CHRYSENE	0.0072
F	0.00983
NAPH	0.0618
Ph	0.0378
Py	0.109
OTHER PAHs	<MDL

MW–5	
11/19/2019	
9.0 – 11.0'	
UNITS	mg/Kg
B	<MDL
T	<MDL
E	<MDL
X	<MDL
MTBE	<MDL
OTHER VOCs	<MDL
Ph	0.00744
OTHER PAHs	<MDL

MW–7	
11/19/2019	
2.0 – 4.0'	
UNITS	mg/Kg
B	<MDL
T	<MDL
E	<MDL
X	<MDL
MTBE	<MDL
OTHER VOCs	<MDL
PAHs	<MDL

MW–7	
11/19/2019	
9.0 – 11.0'	
UNITS	mg/Kg
B	<MDL
T	<MDL
E	<MDL
X	<MDL
MTBE	<MDL
OTHER VOCs	<MDL
PAHs	<MDL

SB–10	
11/19/2019	
2.0 – 4.0'	
UNITS	mg/Kg
B	0.288
T	<MDL
E	1.47
X	0.0654
MTBE	0.0518
OTHER VOCs	<MDL
PAHs	<MDL

SB–10	
11/19/2019	
9.0 – 11.0'	
UNITS	mg/Kg
B	2.63
T	0.0553
E	9.34
X	6.82
MTBE	0.316
OTHER VOCs	<MDL
PAHs	<MDL

MW–4	
7/3/2019	
4.0 – 6.0'	
UNITS	mg/Kg
B	<MDL
T	<MDL
E	<MDL
X	<MDL
MTBE	<MDL
OTHER VOCs	<MDL
PAHs	<MDL

MW–4	
7/3/2019	
9.0 – 11.0'	
UNITS	mg/Kg
B	<MDL
T	<MDL
E	<MDL
X	<MDL
MTBE	<MDL
OTHER VOCs	<MDL
PAHs	<MDL

MW–11	
11/19/2019	
1.0 – 2.0'	
UNITS	mg/Kg
B	<MDL
T	<MDL
E	0.0129
X	<MDL
MTBE	<MDL
OTHER VOCs	<MDL
PAHs	<MDL

MW–11	
11/19/2019	
4.0 – 6.0'	
UNITS	mg/Kg
B	<MDL
T	<MDL
E	<MDL
X	<MDL
MTBE	<MDL
OTHER VOCs	<MDL
PAHs	<MDL

MW–8	
11/19/2019	
1.0 – 2.0'	
UNITS	mg/Kg
B	<MDL
T	<MDL
E	<MDL
X	<MDL
MTBE	<MDL
OTHER VOCs	<MDL
Ph	0.00681
OTHER PAHs	<MDL

MW–8	
11/19/2019	
4.0 – 6.0'	
UNITS	mg/Kg
B	<MDL
T	<MDL
E	<MDL
X	<MDL
MTBE	<MDL
OTHER VOCs	<MDL
PAHs	<MDL

MW–3	
7/3/2019	
4.0 – 6.0'	
UNITS	mg/Kg
B	0.00513
T	<MDL
E	<MDL
X	<MDL
MTBE	0.0218
OTHER VOCs	<MDL
PAHs	<MDL

MW–3	
7/3/2019	
9.0 – 11.0'	
UNITS	mg/Kg
B	0.0011
T	<MDL
E	<MDL
X	<MDL
MTBE	0.003
OTHER VOCs	<MDL
ANT	0.00711
B(a)ANTH	0.00722
F	0.0105
Ph	0.0199
OTHER PAHs	<MDL

MW–9	
11/19/2019	
1.0 – 2.0'	
UNITS	mg/Kg
B	<MDL
T	0.00702
E	<MDL
X	<MDL
MTBE	<MDL
OTHER VOCs	<MDL
B(b)FLA	0.00707
FL	0.00909
Py	0.00715
OTHER PAHs	<MDL

MW–9	
11/19/2019	
4.0 – 6.0'	
UNITS	mg/Kg
B	<MDL
T	0.00616
E	<MDL
X	<MDL
MTBE	<MDL
OTHER VOCs	<MDL
PAHs	<MDL

MW–2	
7/2/2019	
9.0 – 11.0'	
UNITS	mg/Kg
B	0.136
T	<MDL
E	0.00423
X	<MDL
MTBE	0.0539
OTHER VOCs	<MDL
Ph	0.00622
OTHER PAHs	<MDL

MW–2	
7/2/2019	
14.0 – 16.0'	
UNITS	mg/Kg
B	0.0401
T	<MDL
E	<MDL
X	<MDL
MTBE	0.048
OTHER VOCs	<MDL
F	0.00897
Ph	0.0157
OTHER PAHs	<MDL

LEGEND:

	SUBJECT PROPERTY
	APPROXIMATE FORMER/ HISTORICAL SITE FEATURES
X	FENCE
	LIMITS OF UST BASIN
W	WATER
GAS	GAS
OHEL	OVERHEAD ELECTRIC LINE
	UTILITY POLE
UST	UNDERGROUND STORAGE TANK
AST	ABOVEGROUND STORAGE TANK
	MONITORING WELL
B	BENZENE
T	TOLUENE
E	ETHYLBENZENE
X	XYLENES
MTBE	METHYL TERT BUTYL ETHER
ANT	ANTHRACENE
B(a)ANTH	BENZO(a)ANTHRACENE
F	FLUORENE
NAPH	NAPHTHALENE
Ph	PHENANTHRENE
Py	PYRENE
VOCs	VOLATILE ORGANIC COMPOUNDS
PAHs	POLYNUCLEAR AROMATIC HYDROCARBON
MDL	METHOD DETECTION LIMIT
UNITs	mg/Kg (UNLESS NOTED)
	VALUE EXCEEDS APPLICABLE CRITERIA

NOTES: REFER TO TABLES FOR SPECIFIC COMPOUNDS ANALYZED

PM ENVIRONMENTAL | Environmental & Engineering Services

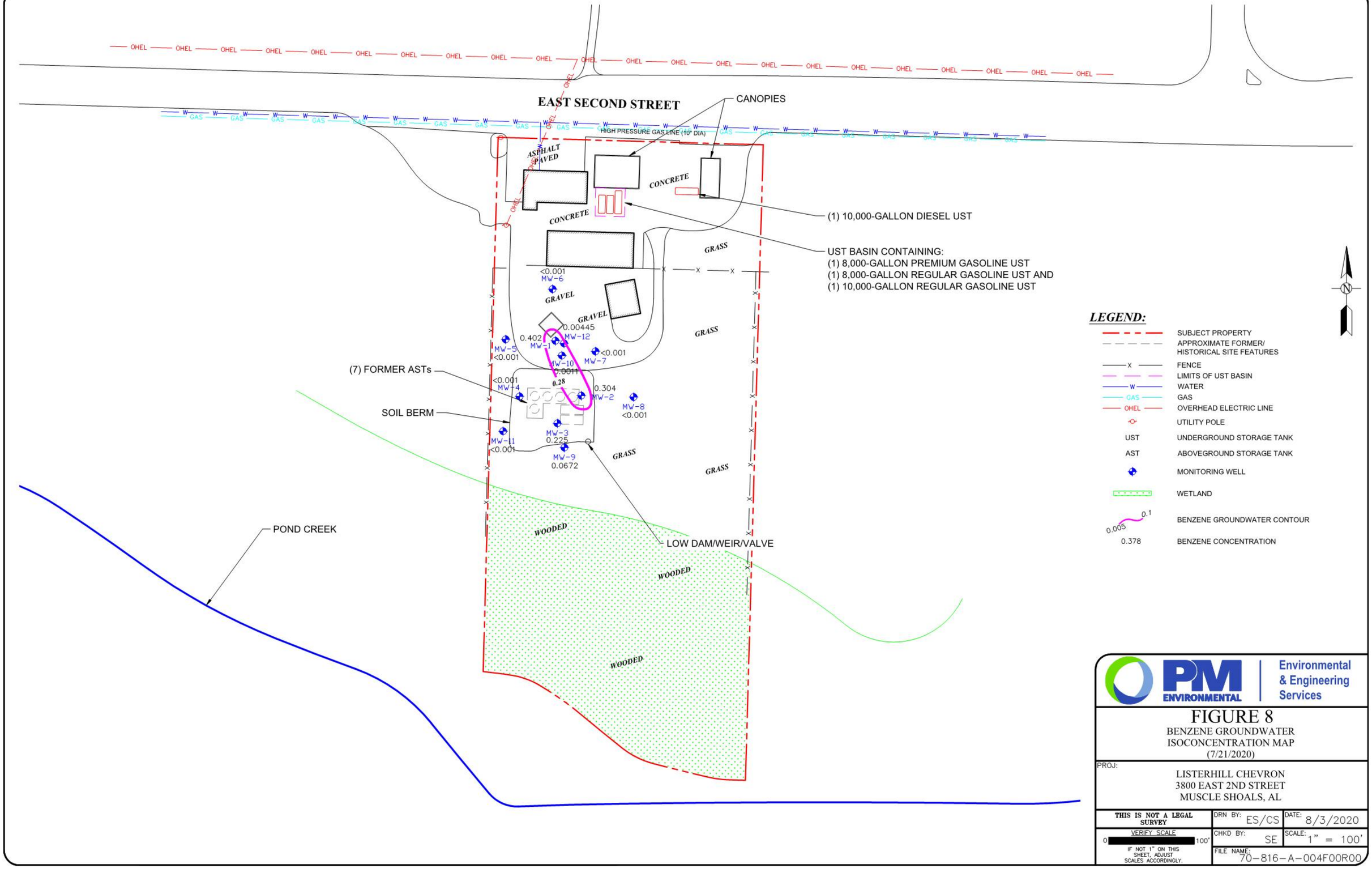
FIGURE 7

GENERALIZED DIAGRAM OF THE SUBJECT PROPERTY WITH SOIL ANALYTICAL RESULTS

PROJ:

LISTERHILL CHEVRON
3800 EAST 2ND STREET
MUSCLE SHOALS, AL

THIS IS NOT A LEGAL SURVEY	DRN BY: ES/CS	DATE: 5/20/2020
VERIFY SCALE 0 — 100' IF NOT 1" ON THIS SHEET, ADJUST SCALES ACCORDINGLY.	CHKD BY: SE	SCALE: 1" = 100'
	FILE NAME: 70–816–A–009F00R00	



PM ENVIRONMENTAL | Environmental & Engineering Services

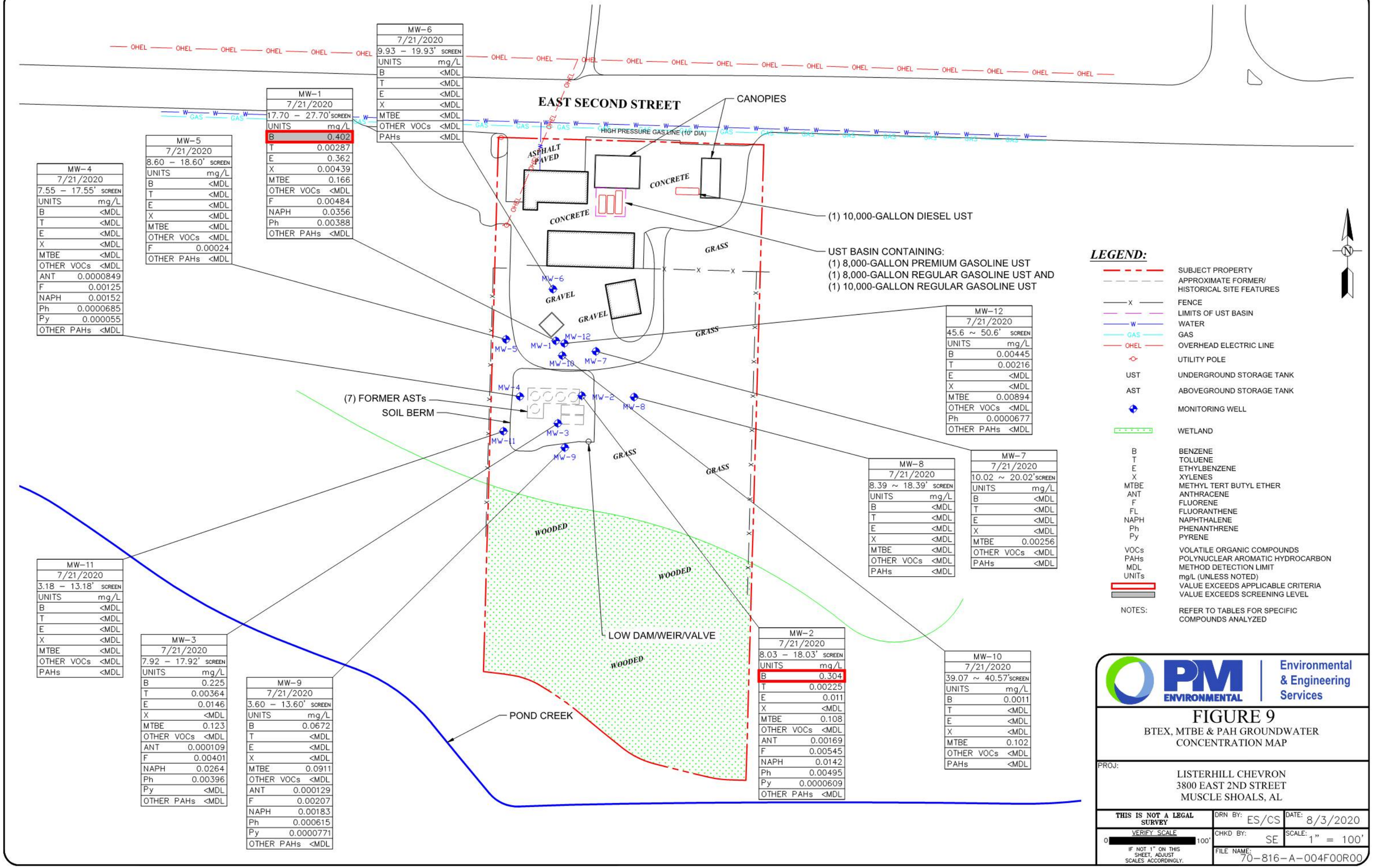
FIGURE 8

BENZENE GROUNDWATER ISOCONCENTRATION MAP (7/21/2020)

PROJ:

LISTERHILL CHEVRON
3800 EAST 2ND STREET
MUSCLE SHOALS, AL

THIS IS NOT A LEGAL SURVEY	DRN BY: ES/CS	DATE: 8/3/2020
VERIFY SCALE 0 100' IF NOT 1" ON THIS SHEET, ADJUST SCALES ACCORDINGLY.	CHKD BY: SE	SCALE: 1" = 100'
	FILE NAME: 70-816-A-004F00R00	



MW-6	
7/21/2020	
9.93 – 19.93' SCREEN	
UNITS	mg/L
B	<MDL
T	<MDL
E	<MDL
X	<MDL
MTBE	<MDL
OTHER VOCs	<MDL
PAHs	<MDL

MW-1	
7/21/2020	
17.70 – 27.70' SCREEN	
UNITS	mg/L
B	0.402
T	0.00287
E	0.362
X	0.00439
MTBE	0.166
OTHER VOCs	<MDL
F	0.00484
NAPH	0.0356
Ph	0.00388
OTHER PAHs	<MDL

MW-5	
7/21/2020	
8.60 – 18.60' SCREEN	
UNITS	mg/L
B	<MDL
T	<MDL
E	<MDL
X	<MDL
MTBE	<MDL
OTHER VOCs	<MDL
F	0.00024
OTHER PAHs	<MDL

MW-4	
7/21/2020	
7.55 – 17.55' SCREEN	
UNITS	mg/L
B	<MDL
T	<MDL
E	<MDL
X	<MDL
MTBE	<MDL
OTHER VOCs	<MDL
ANT	0.0000849
F	0.00125
NAPH	0.00152
Ph	0.0000685
Py	0.000055
OTHER PAHs	<MDL

MW-12	
7/21/2020	
45.6 ~ 50.6' SCREEN	
UNITS	mg/L
B	0.00445
T	0.00216
E	<MDL
X	<MDL
MTBE	0.00894
OTHER VOCs	<MDL
Ph	0.0000677
OTHER PAHs	<MDL

MW-8	
7/21/2020	
8.39 ~ 18.39' SCREEN	
UNITS	mg/L
B	<MDL
T	<MDL
E	<MDL
X	<MDL
MTBE	<MDL
OTHER VOCs	<MDL
PAHs	<MDL

MW-7	
7/21/2020	
10.02 ~ 20.02' SCREEN	
UNITS	mg/L
B	<MDL
T	<MDL
E	<MDL
X	<MDL
MTBE	0.00256
OTHER VOCs	<MDL
PAHs	<MDL

MW-11	
7/21/2020	
3.18 – 13.18' SCREEN	
UNITS	mg/L
B	<MDL
T	<MDL
E	<MDL
X	<MDL
MTBE	<MDL
OTHER VOCs	<MDL
PAHs	<MDL

MW-3	
7/21/2020	
7.92 – 17.92' SCREEN	
UNITS	mg/L
B	0.225
T	0.00364
E	0.0146
X	<MDL
MTBE	0.123
OTHER VOCs	<MDL
ANT	0.000109
F	0.00401
NAPH	0.0264
Ph	0.00396
Py	<MDL
OTHER PAHs	<MDL

MW-9	
7/21/2020	
3.60 – 13.60' SCREEN	
UNITS	mg/L
B	0.0672
T	<MDL
E	<MDL
X	<MDL
MTBE	0.0911
OTHER VOCs	<MDL
ANT	0.000129
F	0.00207
NAPH	0.00183
Ph	0.000615
Py	0.0000771
OTHER PAHs	<MDL

MW-2	
7/21/2020	
8.03 – 18.03' SCREEN	
UNITS	mg/L
B	0.304
T	0.00225
E	0.011
X	<MDL
MTBE	0.108
OTHER VOCs	<MDL
ANT	0.00169
F	0.00545
NAPH	0.0142
Ph	0.00495
Py	0.0000609
OTHER PAHs	<MDL

MW-10	
7/21/2020	
39.07 ~ 40.57' SCREEN	
UNITS	mg/L
B	0.0011
T	<MDL
E	<MDL
X	<MDL
MTBE	0.102
OTHER VOCs	<MDL
PAHs	<MDL

LEGEND:

- SUBJECT PROPERTY
- APPROXIMATE FORMER/ HISTORICAL SITE FEATURES
- FENCE
- LIMITS OF UST BASIN
- WATER
- GAS
- OVERHEAD ELECTRIC LINE
- UTILITY POLE
- UST — UNDERGROUND STORAGE TANK
- AST — ABOVEGROUND STORAGE TANK
- MONITORING WELL
- WETLAND

B	BENZENE
T	TOLUENE
E	ETHYLBENZENE
X	XYLENES
MTBE	METHYL TERT BUTYL ETHER
ANT	ANTHRACENE
F	FLUORENE
FL	FLUORANTHENE
NAPH	NAPHTHALENE
Ph	PHENANTHRENE
Py	PYRENE
VOCs	VOLATILE ORGANIC COMPOUNDS
PAHs	POLYNUCLEAR AROMATIC HYDROCARBON
MDL	METHOD DETECTION LIMIT
UNITs	mg/L (UNLESS NOTED)

- VALUE EXCEEDS APPLICABLE CRITERIA
- VALUE EXCEEDS SCREENING LEVEL

NOTES: REFER TO TABLES FOR SPECIFIC COMPOUNDS ANALYZED

PM ENVIRONMENTAL | Environmental & Engineering Services

FIGURE 9

BTEX, MTBE & PAH GROUNDWATER CONCENTRATION MAP

PROJ:

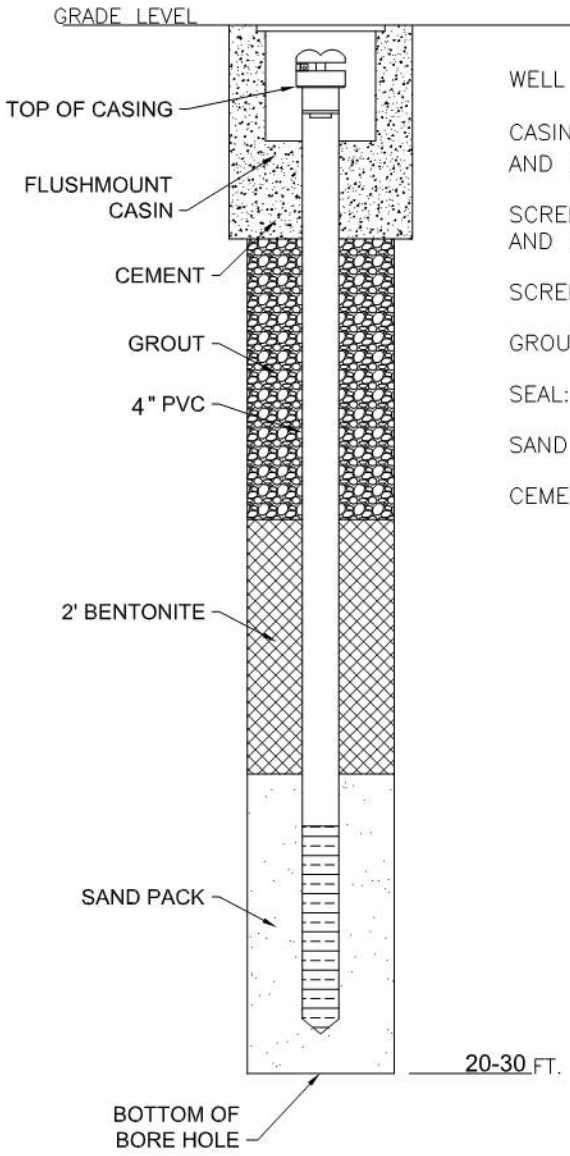
LISTERHILL CHEVRON
3800 EAST 2ND STREET
MUSCLE SHOALS, AL

THIS IS NOT A LEGAL SURVEY

VERIFY SCALE 0 100'
IF NOT 1" ON THIS SHEET, ADJUST SCALES ACCORDINGLY.

DRN BY: ES/CS | DATE: 8/3/2020
CHKD BY: SE | SCALE: 1" = 100'
FILE NAME: 70-816-A-004F00R00

TYPICAL RECOVERY WELL INSTALLATION DIAGRAM



WELL NUMBER: _____

WELL DIAMETER: 4"

CASING LENGTH AND MATERIAL: ~ 5-25' OF PVC

SCREEN LENGTH AND MATERIAL: 15-20' OF PVC

SCREEN SLOT/MESH: 0.01"

GROUT: BENSEAL

SEAL: BENTONITE

SAND PACK: SAND

CEMENT: QUICKRETE

PM ENVIRONMENTAL | Environmental & Engineering Services

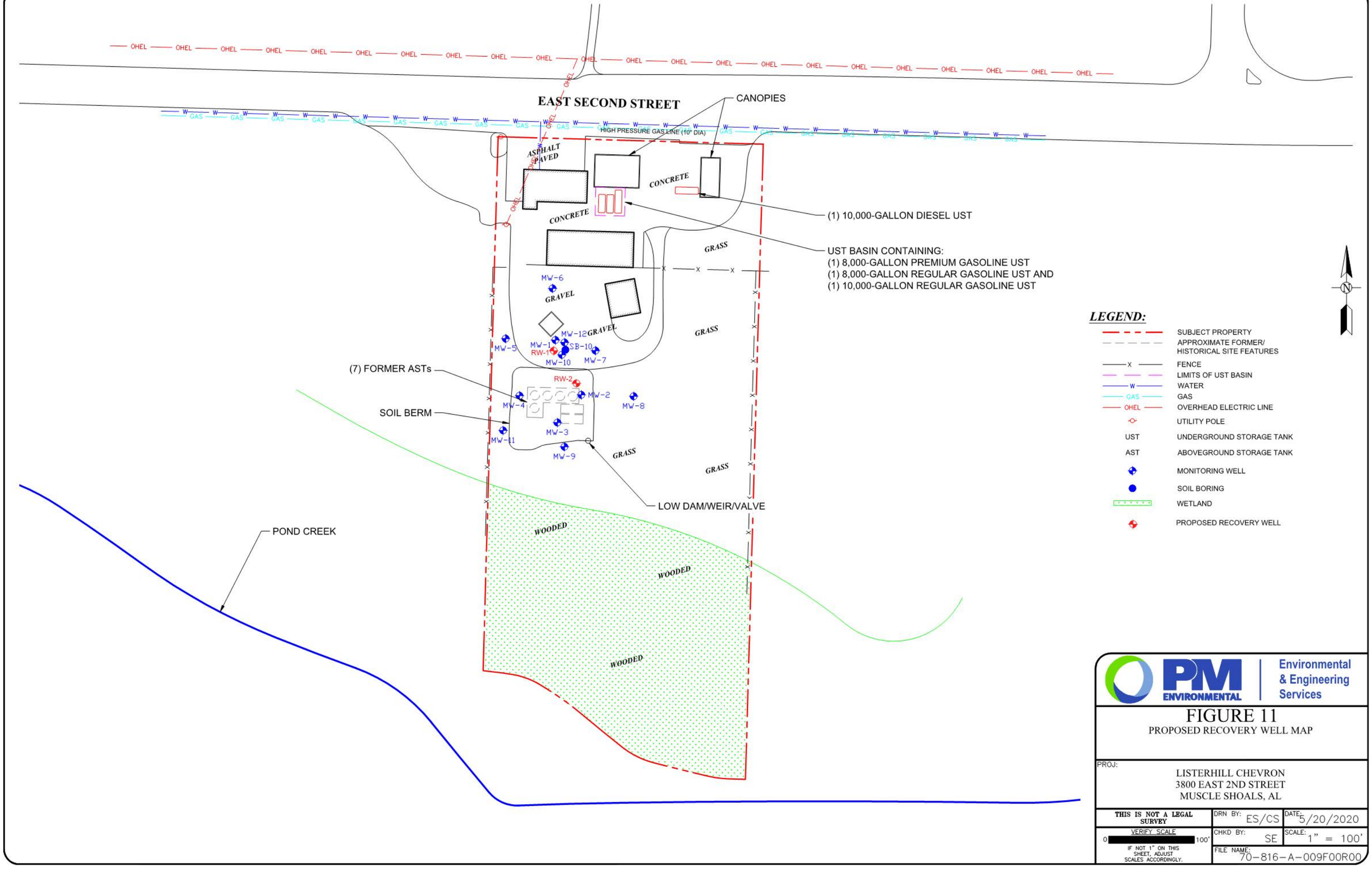
FIGURE 10

TYPICAL RECOVERY WELL INSTALLATION DIAGRAM

PROJ:

LISTERHILL CHEVRON
3800 EAST 2ND STREET
MUSCLE SHOALS, AL

THIS IS NOT A LEGAL SURVEY	DRN BY: CS/KS	DATE: 5/26/2017
VERIFY SCALE 0 [redacted] NTS IF NOT 1" ON THIS SHEET, ADJUST SCALES ACCORDINGLY.	CHKD BY: SE	SCALE: NTS
	FILE NAME: 70-800-T008F02R00	



PM ENVIRONMENTAL | Environmental & Engineering Services

FIGURE 11
PROPOSED RECOVERY WELL MAP

PROJ:
LISTERHILL CHEVRON
3800 EAST 2ND STREET
MUSCLE SHOALS, AL

THIS IS NOT A LEGAL SURVEY	DRN BY: ES/CS	DATE: 5/20/2020
VERIFY SCALE 0 — 100' IF NOT 1" ON THIS SHEET, ADJUST SCALES ACCORDINGLY.	CHKD BY: SE	SCALE: 1" = 100'
	FILE NAME: 70-816-A-009F00R00	

Appendix A

PM ENVIRONMENTAL Environmental & Engineering Services

TABLE 1
SUMMARY OF SOIL SAMPLE RESULTS
LISTERHILL CHEVRON
3800 EAST 2ND STREET, MUSCLE SHOALS, COLBERT COUNTY, ALABAMA
FACILITY I.D. #13706-033-010801; UST INCIDENT #AST19-05-01

SAMPLE ID	DEPTH	DATE	BTEX AND MTBE						POLYNUCLEAR AROMATIC HYDROCARBONS											
			BENZENE	TOLUENE	ETHYL BENZENE	TOTAL XYLENES	TOTAL BTEX	MTBE	ANTHRACENE	BENZO(A) ANTHRACENE	BENZO(A) PYRENE	BENZO(B) FLUORANTHENE	BENZO(G,H,I) PERYLENE	BENZO(K) FLUORANTHENE	CHRYSENE	FLUORANTHENE	FLUORENE	NAPHTHALENE	PHENANTHRENE	PYRENE
			Concentrations in mg/Kg or ppm						*Concentrations in mg/Kg or ppm*											
MW-1	9-11	7/1/2019	0.364	0.0157	0.264	0.0831	0.727	0.0186	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006	0.0736	0.401	0.102	0.0122
	19-21		0.252	0.00625	0.00707	0.00918	0.275	0.0246	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006	0.0149	<0.006	<0.006
MW-2	9-11	7/2/2019	0.136	<0.005	0.00423	<0.0065	0.140	0.0539	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006	<0.0125	0.00622	<0.006
	14-16		0.0401	<0.112	<0.056	<0.146	0.0401	0.0479	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006	0.00897	<0.02	0.0157	<0.006
MW-3	4-6	7/3/2019	0.00513	<0.005	<0.0025	<0.0065	0.00513	**0.0218**	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006	<0.02	<0.006	<0.006
	9-11		0.00111	<0.005	<0.0025	<0.0065	0.00111	0.0034	0.00711	0.00722	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006	0.0105	<0.02	0.0199	<0.006
GRP Target Levels			**2.00**	**844**	**59.3**	**175**	**---**	**2.33**	**30.6**	**101**	**47.1**	**55.4**	**33.2**	**29.5**	**19.1**	**303**	**458**	**136**	**423**	**275**
SP Target Levels			**1.33**	**44.6**	**165**	**NA**	**---**	**NA**	**30.6**	**12.2**	**33.1**	**42.0**	**NA**	**29.5**	**13.6**	**303**	**458**	**1110**	**NA**	**0.135**
MW-4	4-6	7/3/2019	<0.001	<0.005	<0.0025	<0.0065	---	<0.001	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006	<0.02	<0.006	<0.006
	9-11		<0.001	<0.005	<0.0025	<0.0065	---	<0.001	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006	<0.02	<0.006	<0.006
MW-5	2-4	11/19/2019	<0.001	<0.005	<0.0025	<0.0065	---	<0.001	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006	0.0072	<0.006	0.00983	0.0618	0.0378	0.109
	9-11		<0.001	<0.005	<0.0025	<0.0065	---	<0.001	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006	<0.02	0.00744	<0.006
MW-6	2-4	11/19/2019	<0.001	<0.005	<0.0025	<0.0065	---	<0.001	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006	<0.02	<0.006	<0.006
	9-11		<0.001	<0.005	<0.0025	<0.0065	---	<0.001	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006	<0.02	<0.006	<0.006
MW-7	2-4	11/19/2019	<0.001	<0.005	<0.0025	<0.0065	---	<0.001	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006	<0.02	<0.006	<0.006
	9-11		<0.001	<0.005	<0.0025	<0.0065	---	<0.001	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006	<0.02	<0.006	<0.006
MW-8	1-2	11/19/2019	<0.001	<0.005	<0.0025	<0.0065	---	<0.001	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006	<0.02	0.00681	<0.006
	4-6		<0.001	<0.005	<0.0025	<0.0065	---	<0.001	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006	<0.02	<0.006	<0.006
MW-9	1-2	11/20/2019	<0.001	0.00702	<0.0025	<0.0065	0.00702	<0.001	<0.006	<0.006	<0.006	0.00707	<0.006	<0.006	<0.006	0.00909	<0.006	<0.02	<0.006	0.00715
	4-6		<0.001	0.00616	<0.0025	<0.0065	0.00616	<0.001	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006	<0.02	<0.006	<0.006
ARBCA ISLs			**0.00845**	**3.6**	**3.61**	**62.4**	**---**	**0.00862**	**10.2**	**10.1**	**2.24**	**18.5**	**11.1**	**9.84**	**6.37**	**101**	**153**	**0.579**	**141**	**91.8**

TABLE 1
SUMMARY OF SOIL SAMPLE RESULTS
LISTERHILL CHEVRON
3800 EAST 2ND STREET, MUSCLE SHOALS, COLBERT COUNTY, ALABAMA
FACILITY I.D. #13706-033-010801; UST INCIDENT #AST19-05-01

SAMPLE ID	DEPTH	DATE	BTEX AND MTBE						POLYNUCLEAR AROMATIC HYDROCARBONS											
			BENZENE	TOLUENE	ETHYL BENZENE	TOTAL XYLENES	TOTAL BTEX	MTBE	ANTHRACENE	BENZO(A) ANTHRACENE	BENZO(A) PYRENE	BENZO(B) FLUORANTHENE	BENZO(G,H,I) PERYLENE	BENZO(K) FLUORANTHENE	CHRYSENE	FLUORANTHENE	FLUORENE	NAPHTHALENE	PHENANTHRENE	PYRENE
			Concentrations in mg/Kg or ppm						*Concentrations in mg/Kg or ppm*											
SB-10	2-4	11/19/2019	0.288	<0.005	1.47	0.0654	1.82	0.0518	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006	<0.02	<0.006	<0.006
	9-11		**2.63**	0.0553	9.34	6.82	18.85	0.316	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006	<0.02	<0.006	<0.006
MW-10	2-4	1/2/2020	0.034	0.0050	0.841	0.0275	0.908	0.0177	0.0137	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006	0.0194	0.200	0.0322	0.00633
	4-6		**1.43**	<0.04	5.21	0.074	6.71	0.0861	0.037	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006	0.0536	0.636	0.0873	0.0098
GRP Target Levels			**2.00**	**844**	**59.3**	**175**	**---**	**2.33**	**30.6**	**101**	**47.1**	**55.4**	**33.2**	**29.5**	**19.1**	**303**	**458**	**136**	**423**	**275**
SP Target Levels			**1.33**	**44.6**	**165**	**NA**	**---**	**NA**	**30.6**	**12.2**	**33.1**	**42.0**	**NA**	**29.5**	**13.6**	**303**	**458**	**1110**	**NA**	**0.135**
MW-11	1-2	11/20/2019	<0.001	<0.005	0.0129	<0.0065	0.0129	<0.001	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006	<0.02	<0.006	<0.006
	4-6		<0.001	<0.005	<0.0025	<0.0065	---	<0.001	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006	<0.02	<0.006	<0.006
ARBCA ISLs			**0.00845**	**3.6**	**3.61**	**62.4**	**---**	**0.00862**	**10.2**	**10.1**	**2.24**	**18.5**	**11.1**	**9.84**	**6.37**	**101**	**153**	**0.579**	**141**	**91.8**
MW-12	2-4	4/22/2020	0.270	0.00930	0.00735	<0.0065	0.287	0.0139	<0.0333	<0.0333	<0.0333	<0.0333	<0.0333	<0.0333	<0.0333	<0.0333	<0.0333	<0.0333	<0.0333	<0.0333
	4-5		0.117	<0.005	0.00340	<0.0065	0.120	0.00935	<0.0333	<0.0333	<0.0333	<0.0333	<0.0333	<0.0333	<0.0333	<0.0333	<0.0333	<0.0333	<0.0333	<0.0333
GRP Target Levels			**2.00**	**844**	**59.3**	**175**	**---**	**2.33**	**30.6**	**101**	**47.1**	**55.4**	**33.2**	**29.5**	**19.1**	**303**	**458**	**136**	**423**	**275**
SP Target Levels			**1.33**	**44.6**	**165**	**NA**	**---**	**NA**	**30.6**	**12.2**	**33.1**	**42.0**	**NA**	**29.5**	**13.6**	**303**	**458**	**1110**	**NA**	**0.135**

NOTES:
1. ID - Identification; mg/kg - millgrams per kilogram; ppm - parts per million
2. ARBCA ISLs - Alabama Risk Based Corrective Action Initial Screening Levels; GRP - Groundwater Resource Protection: SP - Stream Protection
3. Shaded Values Exceed the GRP Target Levels
4. Bolded Values Exceed the SP Target Levels

TABLE 2
SUMMARY OF WELL CONSTRUCTION, GROUNDWATER ELEVATION, & ANALYTICAL RESULTS
LISTERHILL CHEVRON
3800 EAST 2ND STREET, MUSCLE SHOALS, COLBERT COUNTY, ALABAMA
FACILITY I.D. #13706-033-010801; UST INCIDENT #AST19-05-01

DATE	DEPTH TO WATER	FREE PRODUCT	WATER TABLE ELEVATION	BTEX AND MTBE						POLYNUCLEAR AROMATIC HYDROCARBONS											
				BENZENE	TOLUENE	ETHYL-BENZENE	TOTAL XYLENES	TOTAL BTEX	MTBE	ANTHRACENE	BENZO(A) ANTHRACENE	BENZO(A) PYRENE	BENZO(B) FLUORANTHENE	BENZO(G,H,I) PERYLENE	BENZO(K) FLUORANTHENE	CHRYSENE	FLUORANTHENE	FLUORENE	NAPHTHALENE	PHENANTHRENE	PYRENE
	feet below TOC	feet	feet above msl	*Concentrations in mg/L (ppm)*																	
MW-1	*Date of Installation:*			*July 1, 2019*		*Surface Elevation:*		*524.92*	*TOC Elevation:*	*524.62*		*Well Type:*		*2" Type II*		*Screened Interval in feet below TOC:*		*17.70-27.70*			
07/05/19	8.45	ND	516.17	**0.835**	0.0126	0.764	0.102	1.71	0.230	<0.0000715	<0.0000715	<0.0000715	<0.0000715	<0.0000715	<0.0000715	<0.0000715	<0.0000715	0.00633	0.232	0.00433	0.072
	Duplicate			**0.866**	0.0139	0.804	0.0897	1.77	0.236	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	0.196	0.00334	<0.00005
11/26/19	7.54	ND	517.08	**0.549**	0.00879	0.466	0.0451	1.07	0.370	<0.000054	<0.000054	<0.000054	<0.000054	<0.000054	<0.000054	<0.000054	<0.000054	0.00643	0.136	0.00438	0.0000724
	Duplicate			**0.577**	0.00772	0.502	0.0456	1.13	0.372	<0.000054	<0.000054	<0.000054	<0.000054	<0.000054	<0.000054	<0.000054	<0.000054	0.00612	0.415	0.00394	<0.000054
05/01/20	5.01	ND	519.61	**0.383**	0.00243	0.136	0.00339	0.525	0.211	<0.0001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.0002	0.00403	0.538	0.00289	<0.0001
07/21/20	6.37	ND	518.25	**0.402**	0.00287	0.362	0.00439	0.771	0.133	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.0001	0.00495	0.0337	0.00388	<0.00005
	Duplicate			**0.374**	0.00229	0.331	0.00357	0.711	0.166	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.0001	0.00484	0.0356	0.00361	<0.00005
ARBCA GRP Target Levels				0.424	84.8	59.3	175	---	1.7	0.0434	0.0094	0.00162	0.0015	0.0007	0.0008	0.0016	0.206	1.98	1.7	1.0	0.135
ARBCA SP Target Levels				**0.281**	**4.47**	**11.6**	**NA**	**---**	**NA**	**0.0434**	**0.000511**	**0.000511**	**0.000511**	**NA**	**0.000511**	**0.000511**	**0.206**	**1.98**	**15.9**	**NA**	**0.135**
MW-2	*Date of Installation:*			*July 1, 2019*		*Surface Elevation:*		*520.81*	*TOC Elevation:*	*521.26*		*Well Type:*		*2" Type II*		*Screened Interval in feet below TOC:*		*8.03-18.03*			
07/05/19	4.83	ND	516.43	**0.607**	0.00381	0.0339	0.00513	0.650	0.249	<0.0000715	<0.0000715	<0.0000715	<0.0000715	<0.0000715	<0.0000715	<0.0000715	<0.0000715	0.00725	0.0202	0.00735	0.000169
11/26/19	3.95	ND	517.31	0.124	0.00189	0.00215	<0.003	0.128	0.0933	0.00607	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	0.00821	0.00413	0.00779	0.0000811
05/01/20	2.05	ND	519.21	**0.319**	0.00366	0.0451	0.00877	0.377	0.132	0.00016	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.0001	0.00667	0.0218	0.00640	0.000113
	Duplicate			**0.378**	0.00314	0.0375	0.00694	0.426	0.127	0.00012	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.0001	0.00514	0.0171	0.00493	0.0000865
07/21/20	3.10	ND	518.16	**0.304**	0.00225	0.011	<0.003	0.317	0.108	0.00169	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.0001	0.00545	0.0142	0.00495	0.0000609
ARBCA GRP Target Levels				0.424	84.8	59.3	175	---	1.7	0.0434	0.0094	0.00162	0.0015	0.0007	0.0008	0.0016	0.206	1.98	1.7	1.0	0.135
ARBCA SP Target Levels				**0.281**	**4.47**	**11.6**	**NA**	**---**	**NA**	**0.0434**	**0.000511**	**0.000511**	**0.000511**	**NA**	**0.000511**	**0.000511**	**0.206**	**1.98**	**15.9**	**NA**	**0.135**
MW-3	*Date of Installation:*			*July 1, 2019*		*Surface Elevation:*		*520.31*	*TOC Elevation:*	*520.06*		*Well Type:*		*2" Type II*		*Screened Interval in feet below TOC:*		*7.92-17.92*			
07/05/19	4.40	ND	515.66	0.0834	<0.001	0.00639	<0.003	0.0898	0.108	<0.0000715	<0.0000715	<0.0000715	<0.0000715	<0.0000715	<0.0000715	<0.0000715	<0.0000715	0.00425	0.016	0.00395	0.0000843
11/26/19	3.37	ND	516.69	0.0447	0.00166	0.0117	<0.003	0.0581	0.0368	0.00316	<0.0000525	<0.0000525	<0.0000525	<0.0000525	<0.0000525	<0.0000525	<0.0000525	0.00489	0.0219	0.00447	0.0000762
05/01/20	2.26	ND	517.80	0.222	0.00332	0.0132	<0.003	0.239	0.155	0.000139	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.0001	0.00417	0.0235	0.00442	0.0000711
07/21/20	3.02	ND	517.04	0.225	0.00364	0.0146	<0.003	0.243	0.123	0.000109	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.0001	0.00401	0.0264	0.00396	<0.00005
ARBCA GRP Target Levels				0.424	84.8	59.3	175	---	1.7	0.0434	0.0094	0.00162	0.0015	0.0007	0.0008	0.0016	0.206	1.98	1.7	1.0	0.135
ARBCA SP Target Levels				**0.281**	**4.47**	**11.6**	**NA**	**---**	**NA**	**0.0434**	**0.000511**	**0.000511**	**0.000511**	**NA**	**0.000511**	**0.000511**	**0.206**	**1.98**	**15.9**	**NA**	**0.135**
MW-4	*Date of Installation:*			*July 1, 2019*		*Surface Elevation:*		*520.32*	*TOC Elevation:*	*520.01*		*Well Type:*		*2" Type II*		*Screened Interval in feet below TOC:*		*7.55-17.55*			
07/05/19	4.33	ND	515.68	<0.001	<0.001	<0.001	<0.003	---	0.00289	0.000126	<0.0000715	<0.0000715	<0.0000715	<0.0000715	<0.0000715	<0.0000715	<0.0000715	0.00104	0.000877	0.000221	<0.00005
11/26/19	2.70	ND	517.31	<0.001	<0.001	<0.001	<0.003	---	0.00298	0.000247	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	0.00129	0.00182	0.0000832	0.0000602
05/01/20	1.32	ND	518.69	<0.001	<0.001	<0.001	<0.003	---	0.00188	0.000101	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.0001	0.00146	0.00165	0.000195	0.0000645
07/21/20	2.40	ND	517.61	<0.001	<0.001	<0.001	<0.003	---	<0.001	0.0000849	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.0001	0.00125	0.00152	0.0000685	0.000055
ARBCA GRP Target Levels				0.424	84.7	59.3	175	---	1.69	0.0434	0.0094	0.00162	0.0015	0.0007	0.0008	0.0016	0.206	1.98	1.69	1.0	0.135
ARBCA SP Target Levels				**0.281**	**4.47**	**11.6**	**NA**	**---**	**NA**	**0.0434**	**0.000511**	**0.000511**	**0.000511**	**NA**	**0.000511**	**0.000511**	**0.206**	**1.98**	**15.9**	**NA**	**0.135**

TABLE 2
SUMMARY OF WELL CONSTRUCTION, GROUNDWATER ELEVATION, & ANALYTICAL RESULTS
LISTERHILL CHEVRON
3800 EAST 2ND STREET, MUSCLE SHOALS, COLBERT COUNTY, ALABAMA
FACILITY I.D. #13706-033-010801; UST INCIDENT #AST19-05-01

DATE	DEPTH TO WATER	FREE PRODUCT	WATER TABLE ELEVATION	BTEX AND MTBE						POLYNUCLEAR AROMATIC HYDROCARBONS											
				BENZENE	TOLUENE	ETHYL-BENZENE	TOTAL XYLENES	TOTAL BTEX	MTBE	ANTHRACENE	BENZO(A) ANTHRACENE	BENZO(A) PYRENE	BENZO(B) FLUORANTHENE	BENZO(G,H,I) PERYLENE	BENZO(K) FLUORANTHENE	CHRYSENE	FLUORANTHENE	FLUORENE	NAPHTHALENE	PHENANTHRENE	PYRENE
	feet below TOC	feet	feet above msl	*Concentrations in mg/L (ppm)*																	
MW-5	*Date of Installation:*		*November 19, 2019*	*Surface Elevation:*		*523.77*	*TOC Elevation:*		*523.45*	*Well Type:*		*2" Type II*		*Screened Interval in feet below TOC:*		*8.6-18.6*					
11/26/19	6.72	ND	516.73	<0.001	<0.001	<0.001	<0.003	---	<0.001	0.00216	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	0.0000521	0.000965	0.000766	0.00279	0.00145
05/01/20	4.12	ND	519.33	<0.001	<0.001	<0.001	<0.003	---	<0.001	0.000113	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.0001	0.000555	0.000392	<0.00005	0.0000522
07/21/20	5.65	ND	517.80	<0.001	<0.001	<0.001	<0.003	---	<0.001	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.0001	0.00024	<0.00025	<0.00005	<0.00005
ARBCA GRP Target Levels				0.401	80.2	56.1	175	---	1.60	0.0434	0.0094	0.00162	0.0015	0.0007	0.0008	0.0016	0.206	1.98	1.6	1.0	0.135
ARBCA SP Target Levels				**0.266**	**4.23**	**11.0**	**NA**	**---**	**NA**	**0.0434**	**0.000484**	**0.000484**	**0.000484**	**NA**	**0.000484**	**0.000484**	**0.206**	**1.98**	**15.0**	**NA**	**0.135**
MW-6	*Date of Installation:*		*November 19, 2019*	*Surface Elevation:*		*525.78*	*TOC Elevation:*		*525.52*	*Well Type:*		*2" Type II*		*Screened Interval in feet below TOC:*		*9.93-19.93*					
11/25/19	8.96	ND	516.56	<0.001	<0.001	<0.001	<0.003	---	0.00229	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	0.0000938	<0.00025	<0.00005	<0.00005
05/01/20	5.58	ND	519.94	<0.001	<0.001	<0.001	<0.003	---	<0.001	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.0001	<0.00005	<0.00025	<0.00005	<0.00005
07/21/20	7.40	ND	518.12	<0.001	<0.001	<0.001	<0.003	---	<0.001	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.0001	<0.00005	<0.00025	<0.00005	<0.00005
ARBCA GRP Target Levels				0.407	81.3	56.9	175	---	1.63	0.0434	0.0094	0.00162	0.0015	0.0007	0.0008	0.0016	0.206	1.98	1.63	1.0	0.135
ARBCA SP Target Levels				**0.270**	**4.29**	**11.1**	**NA**	**---**	**NA**	**0.0434**	**0.000491**	**0.000491**	**0.000491**	**NA**	**0.000491**	**0.000491**	**0.206**	**1.98**	**15.2**	**NA**	**0.135**
MW-7	*Date of Installation:*		*November 19, 2019*	*Surface Elevation:*		*524.90*	*TOC Elevation:*		*524.54*	*Well Type:*		*2" Type II*		*Screened Interval in feet below TOC:*		*10.02-20.02*					
11/25/19	7.66	ND	516.88	<0.001	<0.001	<0.001	<0.003	---	0.00954	<0.0000525	<0.0000525	<0.0000525	<0.0000525	<0.0000525	<0.0000525	<0.0000525	<0.0000525	0.00112	0.000719	<0.0000525	<0.0000525
05/01/20	4.87	ND	519.67	<0.001	<0.001	<0.001	<0.003	---	0.00508	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.0001	<0.00005	<0.00025	<0.00005	<0.00005
07/21/20	6.24	ND	518.30	<0.001	<0.001	<0.001	<0.003	---	0.00256	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.0001	<0.00005	<0.00025	<0.00005	<0.00005
ARBCA GRP Target Levels				0.424	84.7	59.3	175	---	1.69	0.0434	0.0094	0.00162	0.0015	0.0007	0.0008	0.0016	0.206	1.98	1.69	1.0	0.135
ARBCA SP Target Levels				**0.281**	**4.47**	**11.6**	**NA**	**---**	**NA**	**0.0434**	**0.000511**	**0.000511**	**0.000511**	**NA**	**0.000511**	**0.000511**	**0.206**	**1.98**	**15.9**	**NA**	**0.135**
MW-8	*Date of Installation:*		*November 19, 2019*	*Surface Elevation:*		*523.01*	*TOC Elevation:*		*522.77*	*Well Type:*		*2" Type II*		*Screened Interval in feet below TOC:*		*8.39-18.39*					
11/25/19	5.67	ND	517.10	<0.001	<0.001	<0.001	<0.003	---	<0.001	<0.0000515	<0.0000515	<0.0000515	<0.0000515	<0.0000515	<0.0000515	<0.0000515	<0.0000515	<0.0000515	<0.000258	<0.0000515	<0.0000515
05/01/20	3.28	ND	519.49	<0.001	<0.001	<0.001	<0.003	---	<0.001	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.0001	<0.00005	<0.00025	<0.00005	<0.00005
07/21/20	4.79	ND	517.98	<0.001	<0.001	<0.001	<0.003	---	<0.001	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.0001	<0.00005	<0.00025	<0.00005	<0.00005
ARBCA GRP Target Levels				0.407	81.3	56.9	175	---	1.63	0.0434	0.0094	0.00162	0.0015	0.0007	0.0008	0.0016	0.206	1.98	1.63	1.0	0.135
ARBCA SP Target Levels				**0.27**	**4.29**	**11.1**	**NA**	**---**	**NA**	**0.0434**	**0.000491**	**0.000491**	**0.000491**	**NA**	**0.000491**	**0.000491**	**0.206**	**1.98**	**15.2**	**NA**	**0.135**
MW-9	*Date of Installation:*		*November 20, 2019*	*Surface Elevation:*		*522.16*	*TOC Elevation:*		*521.90*	*Well Type:*		*2" Type II*		*Screened Interval in feet below TOC:*		*3.6-13.6*					
11/25/19	5.52	ND	516.38	<0.001	<0.001	<0.001	<0.003	---	0.0296	0.000204	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	0.0000792	0.00194	0.000312	0.000342	0.000105
05/01/20	4.85	ND	517.05	0.0708	<0.001	<0.001	<0.003	0.0708	0.0921	0.000116	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.0001	0.00236	0.00284	0.001	0.0000974
07/21/20	5.24	ND	516.66	0.0672	<0.001	<0.001	<0.003	0.0672	0.0911	0.000129	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.0001	0.00207	0.00183	0.000615	0.0000771
ARBCA GRP Target Levels				0.407	81.3	56.9	175	---	1.63	0.0434	0.0094	0.00162	0.0015	0.0007	0.0008	0.0016	0.206	1.98	1.63	1.0	0.135
ARBCA SP Target Levels				**0.272**	**4.32**	**11.2**	**NA**	**---**	**NA**	**0.0434**	**0.000494**	**0.000494**	**0.000494**	**NA**	**0.000494**	**0.000494**	**0.206**	**1.98**	**15.3**	**NA**	**0.135**

TABLE 2
SUMMARY OF WELL CONSTRUCTION, GROUNDWATER ELEVATION, & ANALYTICAL RESULTS
LISTERHILL CHEVRON
3800 EAST 2ND STREET, MUSCLE SHOALS, COLBERT COUNTY, ALABAMA
FACILITY I.D. #13706-033-010801; UST INCIDENT #AST19-05-01

DATE	DEPTH TO WATER	FREE PRODUCT	WATER TABLE ELEVATION	BTEX AND MTBE						POLYNUCLEAR AROMATIC HYDROCARBONS											
				BENZENE	TOLUENE	ETHYL-BENZENE	TOTAL XYLENES	TOTAL BTEX	MTBE	ANTHRACENE	BENZO(A) ANTHRACENE	BENZO(A) PYRENE	BENZO(B) FLUORANTHENE	BENZO(G,H,I) PERYLENE	BENZO(K) FLUORANTHENE	CHRYSENE	FLUORANTHENE	FLUORENE	NAPHTHALENE	PHENANTHRENE	PYRENE
	feet below TOC	feet	feet above msl	*Concentrations in mg/L (ppm)*																	
MW-10	*Date of Installation:*		*January 2-3, 2020*	*Surface Elevation:*		*524.51*	*TOC Elevation:*		*524.30*	*Well Type:*		*2" Type III*		*Screened Interval in feet below TOC:*			*39.07-40.57*				
01/03/20	8.38	ND	513.52	0.0121	0.00449	0.0237	0.011	---	0.0677	0.000216	<0.0000665	<0.0000665	<0.0000665	<0.0000665	<0.0000665	<0.0000665	<0.0000665	0.000309	0.00808	0.00201	<0.0000665
05/01/20	4.40	ND	517.50	0.00585	0.00124	0.00671	0.00413	0.0179	0.161	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.0001	0.0000559	0.00103	<0.00005	<0.00005
07/21/20	6.27	ND	515.63	0.0011	<0.001	<0.001	<0.003	---	0.102	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.0001	<0.00005	<0.00025	<0.00005	<0.00005
ARBCA GRP Target Levels				0.424	84.8	59.3	175	---	1.7	0.0434	0.0094	0.00162	0.0015	0.0007	0.0008	0.0016	0.206	1.98	1.7	1.0	0.135
ARBCA SP Target Levels				**0.281**	**4.47**	**1.16**	**NA**	**---**	**NA**	**0.0434**	**0.000511**	**0.000511**	**0.000511**	**NA**	**0.000511**	**0.000511**	**0.206**	**1.98**	**15.9**	**NA**	**0.135**
MW-11	*Date of Installation:*		*November 20, 2019*	*Surface Elevation:*		*521.50*	*TOC Elevation:*		*521.17*	*Well Type:*		*2" Type II*		*Screened Interval in feet below TOC:*			*3.18-13.18*				
11/25/19	4.17	ND	517.00	<0.001	<0.001	<0.001	<0.003	---	<0.001	0.0000515	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	0.0000666	<0.00005	<0.00025	0.0000583	<0.00005
05/01/20	3.51	ND	517.66	<0.001	<0.001	<0.001	<0.003	---	<0.001	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.0001	<0.00005	<0.00025	<0.00005	<0.00005
07/21/20	4.32	ND	516.85	<0.001	<0.001	<0.001	<0.003	---	<0.001	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.0001	<0.00005	<0.00025	<0.00005	<0.00005
ARBCA GRP Target Levels				0.322	64.4	45.1	175	---	1.29	0.0434	0.0094	0.00162	0.0015	0.0007	0.0008	0.0016	0.206	1.98	1.29	1.0	0.135
ARBCA SP Target Levels				**0.214**	**3.40**	**8.81**	**NA**	**---**	**NA**	**0.0434**	**0.000389**	**0.000389**	**0.000389**	**NA**	**0.000389**	**0.000389**	**0.206**	**1.98**	**12.1**	**NA**	**0.135**
MW-12	*Date of Installation:*		*May 12 - 14, 2020*	*Surface Elevation:*		*524.61*	*TOC Elevation:*		*524.39*	*Well Type:*		*2" Type III*		*Screened Interval in feet below TOC:*			*45.6-50.6*				
05/28/20	3.52	ND	520.87	0.00334	0.00143	<0.001	<0.003	0.00477	0.0101	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00025	<0.00005	<0.00005
07/21/20	7.68	ND	516.71	0.00445	0.00216	<0.001	<0.003	---	0.00894	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.0001	<0.00005	<0.00025	0.0000677	<0.00005
ARBCA GRP Target Levels				0.424	84.8	59.3	175	---	1.7	0.0434	0.0094	0.00162	0.0015	0.0007	0.0008	0.0016	0.206	1.98	1.7	1.0	0.135
ARBCA SP Target Levels				**0.281**	**4.47**	**1.16**	**NA**	**---**	**NA**	**0.0434**	**0.000511**	**0.000511**	**0.000511**	**NA**	**0.000511**	**0.000511**	**0.206**	**1.98**	**15.9**	**NA**	**0.135**
Stream Up-gradient																					
01/03/20	NM	NM	NM	<0.001	<0.001	<0.001	<0.003	---	<0.001	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00025	0.0000518	<0.00005
05/01/20	NM	NM	NM	<0.001	<0.001	<0.001	<0.003	---	<0.001	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00025	<0.00005	<0.00005
07/21/20	NM	NM	NM	<0.001	<0.001	<0.001	<0.003	---	<0.001	<0.00005	0.0000518	<0.00005	0.000125	<0.00005	<0.00005	0.00012	0.00018	<0.00005	<0.00025	<0.00005	0.000135
Stream Protection Target Levels				**0.011**	**0.175**	**0.0453**	**NA**	**---**	**NA**	**7.24**	**0.00002**	**0.0002**	**0.0002**	**NA**	**0.0002**	**0.0002**	**0.0398**	**0.966**	**0.620**	**NA**	**0.724**
Stream Mid-gradient																					
01/03/20	NM	NM	NM	<0.001	<0.001	<0.001	<0.003	---	<0.001	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00025	<0.00005	<0.00005
05/01/20	NM	NM	NM	<0.001	<0.001	<0.001	<0.003	---	<0.001	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00025	<0.00005	<0.00005
07/21/20	NM	NM	NM	<0.001	<0.001	<0.001	<0.003	---	<0.001	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00025	<0.00005	<0.00005
Stream Protection Target Levels				**0.011**	**0.175**	**0.0453**	**NA**	**---**	**NA**	**7.24**	**0.00002**	**0.0002**	**0.0002**	**NA**	**0.0002**	**0.0002**	**0.0398**	**0.966**	**0.620**	**NA**	**0.724**

TABLE 2
SUMMARY OF WELL CONSTRUCTION, GROUNDWATER ELEVATION, & ANALYTICAL RESULTS
LISTERHILL CHEVRON
3800 EAST 2ND STREET, MUSCLE SHOALS, COLBERT COUNTY, ALABAMA
FACILITY I.D. #13706-033-010801; UST INCIDENT #AST19-05-01

DATE	DEPTH TO WATER	FREE PRODUCT	WATER TABLE ELEVATION	BTEX AND MTBE						POLYNUCLEAR AROMATIC HYDROCARBONS											
				BENZENE	TOLUENE	ETHYL-BENZENE	TOTAL XYLENES	TOTAL BTEX	MTBE	ANTHRACENE	BENZO(A) ANTHRACENE	BENZO(A) PYRENE	BENZO(B) FLUORANTHENE	BENZO(G,H,I) PERYLENE	BENZO(K) FLUORANTHENE	CHRYSENE	FLUORANTHENE	FLUORENE	NAPHTHALENE	PHENANTHRENE	PYRENE
	feet below TOC	feet	feet above msl	*Concentrations in mg/L (ppm)*																	
Stream Down-gradient																					
01/03/20	NM	NM	NM	<0.001	<0.001	<0.001	<0.003	---	<0.001	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00025	<0.00005	<0.00005
05/01/20	NM	NM	NM	<0.001	<0.001	<0.001	<0.003	---	<0.001	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00025	<0.00005	<0.00005
07/21/20	NM	NM	NM	<0.001	<0.001	<0.001	<0.003	---	<0.001	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00025	<0.00005	<0.00005
Stream Protection Target Levels				**0.011**	**0.175**	**0.0453**	**NA**	**---**	**NA**	**7.24**	**0.00002**	**0.0002**	**0.0002**	**NA**	**0.0002**	**0.0002**	**0.0398**	**0.966**	**0.620**	**NA**	**0.724**

NOTES:
1. All elevations recorded in feet above Mean Sea Level
2. TOC - Top of Casing; msl - mean sea level; mg/L - milligrams per liter; ppm - parts per million; ND - Non Detect; NS - Not Sampled; NA - Not Applicable; FPH - Free Phase Hydrocarbons
3. ARBCA ISLs - Alabama Risk Based Corrective Action Initial Screening Levels
4. The surface elevation and top of casing data were calibrated based upon the elevation data from Google Earth as collected on July 15, 2019 as 521 feet above msl.
5. 0.453 Highlighted Values Exceed the GRP Target Levels (Down-gradient);
   0.453 Bolded Values Exceed the SP Target Levels (Pond Creek 362-feet)

TABLE 3
SUMMARY OF WELL INTRINSIC PARAMETERS DATA
LISTERHILL CHEVRON
3800 EAST 2ND STREET, MUSCLE SHOALS, COLBERT COUNTY, ALABAMA
FACILITY I.D. #13706-033-010801; UST INCIDENT #AST19-05-01

DATE	STATIC WATER LEVEL feet below TOC	TEMPERATURE Celcius	CONDUCTIVITY mS/cm	DISSOLVED OXYGEN mg/L	pH	ORP mV
MW-1	*Date of Installation:*		*July 1, 2019*	*Size and Type of Well*		*2" Type II*
	TOC Elevation in feet above msl:		*524.62*	*Screened Interval in feet bgs:*		*17.70-20.70*
07/05/19	8.45	21.06	0.396	2.30	5.25	0.1
11/26/19	7.54	18.11	0.299	1.99	5.83	133.0
05/01/20	5.01	17.90	0.285	1.85	6.53	0.330
07/21/20	6.37	19.80	0.271	1.15	6.31	0.300
MW-2	*Date of Installation:*		*July 1, 2019*	*Size and Type of Well*		*2" Type II*
	TOC Elevation in feet above msl:		*521.26*	*Screened Interval in feet bgs:*		*8.03-18.03*
07/05/19	4.83	21.00	0.464	1.19	6.43	-43.8
11/26/19	3.95	20.64	0.405	1.11	6.44	-87.2
05/01/20	2.05	20.00	0.333	1.85	6.50	0.362
07/21/20	3.10	23.50	0.366	0.94	6.72	0.366
MW-3	*Date of Installation:*		*July 1, 2019*	*Size and Type of Well*		*2" Type II*
	TOC Elevation in feet above msl:		*520.06*	*Screened Interval in feet bgs:*		*7.92-17.92*
07/05/19	4.40	22.29	0.320	1.14	6.04	-36.4
11/26/19	3.37	18.70	0.318	2.07	6.34	-37.7
05/01/20	2.26	19.90	0.280	1.72	6.44	0.310
07/21/20	3.02	22.00	0.298	1.04	6.50	0.316
MW-4	*Date of Installation:*		*July 1, 2019*	*Size and Type of Well*		*2" Type II*
	TOC Elevation in feet above msl:		*520.01*	*Screened Interval in feet bgs:*		*7.55-17.55*
07/05/19	4.33	21.00	0.189	2.61	6.12	75.1
11/26/19	2.70	19.15	0.186	1.75	6.19	42.0
05/01/20	1.32	19.60	0.173	1.94	6.41	0.192
07/21/20	2.40	23.50	0.181	0.97	6.25	0.187
MW-5	*Date of Installation:*		*November 19, 2019*	*Size and Type of Well*		*2" Type II*
	TOC Elevation in feet above msl:		*523.45*	*Screened Interval in feet bgs:*		*8.6-18.6*
11/26/19	6.72	18.43	0.312	2.97	6.37	165.1
05/01/20	4.12	17.90	0.161	2.20	6.34	0.195
07/21/20	5.65	22.20	0.214	1.31	7.07	0.227

TABLE 3
SUMMARY OF WELL INTRINSIC PARAMETERS DATA
LISTERHILL CHEVRON
3800 EAST 2ND STREET, MUSCLE SHOALS, COLBERT COUNTY, ALABAMA
FACILITY I.D. #13706-033-010801; UST INCIDENT #AST19-05-01

DATE	STATIC WATER LEVEL feet below TOC	TEMPERATURE Celcius	CONDUCTIVITY mS/cm	DISSOLVED OXYGEN mg/L	pH	ORP mV
MW-6	*Date of Installation:*		*November 19, 2019*	*Size and Type of Well*		*2" Type II*
	TOC Elevation in feet above msl:		*525.52*	*Screened Interval in feet bgs:*		*9.93-19.93*
11/25/19	8.96	20.06	0.276	6.19	6.03	310.9
05/01/20	5.58	18.20	0.329	1.65	6.41	0.378
07/21/20	7.40	22.30	0.246	1.52	6.32	0.257
MW-7	*Date of Installation:*		*November 19, 2019*	*Size and Type of Well*		*2" Type II*
	TOC Elevation in feet above msl:		*524.54*	*Screened Interval in feet bgs:*		*10.02-20.02*
11/25/19	7.66	19.07	0.111	1.83	5.49	298.6
05/01/20	4.87	17.40	0.172	2.09	6.15	0.201
07/21/20	6.24	22.10	0.080	0.98	6.23	0.085
MW-8	*Date of Installation:*		*November 19, 2019*	*Size and Type of Well*		*2" Type II*
	TOC Elevation in feet above msl:		*522.77*	*Screened Interval in feet bgs:*		*8.39-18.39*
11/25/19	5.67	19.61	0.362	4.54	6.23	276.8
05/01/20	3.82	17.80	0.136	1.99	5.89	0.158
07/21/20	4.79	22.80	0.208	1.29	8.90	0.217
MW-9	*Date of Installation:*		*November 20, 2019*	*Size and Type of Well*		*2" Type II*
	TOC Elevation in feet above msl:		*521.90*	*Screened Interval in feet bgs:*		*3.6-13.6*
11/25/19	5.52	19.00	0.236	2.39	5.91	295.7
05/01/20	4.85	21.20	0.198	1.48	6.49	0.213
07/21/20	5.24	22.00	0.261	1.00	8.42	0.275
MW-10	*Date of Installation:*		*January 2-3, 2020*	*Size and Type of Well*		*2" Type III*
	TOC Elevation in feet above msl:		*524.30*	*Screened Interval in feet bgs:*		*39.07-40.57*
05/01/20	*4.40*	*17.3*	*0.328*	*2.44*	*7.78*	*0.386*
07/21/20	*6.27*	*22.1*	*0.412*	*1.08*	*7.13*	*0.119*
MW-11	*Date of Installation:*		*November 20, 2019*	*Size and Type of Well*		2" Type II
	TOC Elevation in feet above msl:		*521.17*	*Screened Interval in feet bgs:*		3.18-13.18
11/25/19	4.17	19.03	0.205	4.13	6.30	307.1
05/01/20	3.51	18.30	0.136	1.67	6.32	0.155
07/21/20	4.32	22.00	0.172	1.28	6.34	0.182

TABLE 3
SUMMARY OF WELL INTRINSIC PARAMETERS DATA
LISTERHILL CHEVRON
3800 EAST 2ND STREET, MUSCLE SHOALS, COLBERT COUNTY, ALABAMA
FACILITY I.D. #13706-033-010801; UST INCIDENT #AST19-05-01

DATE	STATIC WATER LEVEL feet below TOC	TEMPERATURE Celcius	CONDUCTIVITY mS/cm	DISSOLVED OXYGEN mg/L	pH	ORP mV
MW-12	*Date of Installation:*		*May 12-14, 2020*	*Size and Type of Well*		2" Type III
	TOC Elevation in feet above msl:		524.39	*Screened Interval in feet bgs:*		45.6-50.6
05/28/20	3.52	18.90	7.91	2.86	12.72	8.95
07/21/20	7.65	19.80	7.44	1.39	12.37	8.14

NOTES: 1. TOC - Top Of Casing; MSL - Mean Sea Level; ppm - Parts Per Million; NS - Not Sampled; mS/cm - Millisiemens Per Centimeter; NTU - Nephelometric Turbidity Units; IL - Illegible

TABLE 3
SUMMARY OF PURGE WATER VOLUMES, STORAGE, & DISPOSAL INFORMATION
LISTERHILL CHEVRON
3800 EAST 2ND STREET, MUSCLE SHOALS, COLBERT COUNTY, ALABAMA
FACILITY I.D. #13706-033-010801; UST INCIDENT #AST19-05-01

Well Number/ID	Date of Well Purging or Development	Method of Well Purging or Development	Volume Removed gallons
MW-1	07/21/20	Bailer	7.0
MW-2	07/21/20	Bailer	8.0
MW-3	07/21/20	Bailer	8.0
MW-4	07/21/20	Bailer	6.6
MW-5	07/21/20	Bailer	5.0
MW-6	07/21/20	Bailer	7.0
MW-7	07/21/20	Bailer	7.3
MW-8	07/21/20	Bailer	7.0
MW-9	07/21/20	Bailer	4.6
MW-10	07/21/20	Bailer	9.5
MW-11	07/21/20	Bailer	4.6
MW-12	07/21/20	Bailer	7.5
		Total	**82**

Well Development or Purge Water

1.) Temporary storage at this location:		Yes/(No)	
2.) Discharge to sanitary sewer at this location:		Yes/(No)	
3.) Containerized and left on-site to be picked up by:		Yes/(No)	
● MEME vendor name*:	NA	Date picked up*:	NA
● Waste Hauler name*:	PM	Date picked up*:	7/21/2020
4.) Treated on-site using carbon:		Yes/(No)	
5.) Treated on-site through groundwater treatment system:		Yes/(No)	
6.) Final disposal facility name and location*:		Valicor Environmental Services	
Date of delivery to disposal facility*:		7/23/2020	

Additional information should be proveided in the report to provide details, as needed, on the development and purge water management and disposal activities.

*Invoice and manifest documentation must be included in the associated report and payment request.

TABLE 4
SURROUNDING PROPERTY OWNERS
LISTERHILL CHEVRON
3800 EAST 2ND STREET, MUSCLE SHOALS, COLBERT COUNTY, ALABAMA
FACILITY I.D. #13706-033-010801; UST INCIDENT #AST19-05-01

ID NO. ON MAP	PROPERTY OWNER	CONTACT INFORMATION & PROPERTY LOCATION	DIRECTION FROM SITE	CURRENT USAGE
SITE	O'Steen Oil Company, Inc. Site Address:	P.O. Box 2626 Muscle Shoals, AL 35662 3800 E 2nd Street, Muscle Shoals, AL	SITE	Convenience Store/Gas Station
1	Keith McBrayer Site Address:	190 Roberts Drive Florence, AL 35634 None Listed	NORTHWEST	Commercial
2	Julius Harris Site Address:	3840 East Second Street Muscle Shoals, AL 35661 None Listed	NORTH	Agricultural
3	Lula Farley C/O Ladora Farley Howard Site Address:	6608 Westover Way Mobile, AL 36618 None Listed	NORTHEAST	Agricultural
4	Romell Malone Site Address:	14800 Winthrop Street Detroit, MI 48227 None Listed	NORTHEAST	Agricultural
5	Julius Harris Site Address:	3840 East Second Street Muscle Shoals, AL 35661 Same as Above	EAST	Residential
6	Fowl Weather Properties, LLC C/O Phillip R. Wade Site Address:	1708 Mahan Avenue Russellville, AL 35653 None Listed	SOUTH	Commercial
7	O'Steen Oil Company, Inc. Site Address:	P.O. Box 2626 Muscle Shoals, AL 35662 None Listed	WEST	Commercial

NOTES: Data collected from the Lauderdale County AL GIS website.

TABLE 5
SUMMARY OF WELL SURVEY RESULTS
LISTERHILL CHEVRON
3800 EAST 2ND ST, MUSCLE SHOALS, COLBERT COUNTY, ALABAMA
FACILITY I.D. #13706-033-010801; UST INCIDENT #AST19-05-01

PROPERTY OWNER	CONTACT INFORMATION & PROPERTY LOCATION				SURVEY RESPONSES: WELL(s) ON PROPERTY & DISTANCE IN FEET TO WELL	SURVEY RESPONSES: NO WELL ON PROPERTY	SURVEY RESPONSES: NO CONTACT FROM OWNER	ROAD SIDE SURVEY IDENTIFIED A POTENTIAL WELL
Listerhill Chevron (O'Steen Oil Company) Parcel: 080932001024001	P.O. Box 2626	Muscle Shoals	AL	35661		X		
Property Address:	3800 Second Street	Muscle Shoals	AL	35661				
Parcel: 080932001024000 Property Address:	Not listed					X		
Ballenger, Timothy Parcel: 080932001015000	104 Filter Plant Road	Cordova	AL	35550			X	
Property Address:	Not listed							
Bynum, Rebecca & Edna c/o Tori Bailey Parcel: 080932001006000	1570 Woodmont Drive	Tuscumbia	AL	35674		X		
Property Address:	Not listed							
Carr, Bryan McKight IV Parcel: 0809290004006003	166 Grand Haven Drive	Tuscumbia	AL	35674			X	
Property Address:	108 Bailey Road	Muscle Shoals	AL	35661				
Cody, Jane B & Michael WJ Parcel: 08093200 3012000	P.O. Box 1484	Corrales	NM	87048			X	
Property Address:	Not listed							
Counts, James Daniel & Joan Parcel: 0809320001026000	3855 6th Street	Tuscumbia	AL	35674	1 625 feet to Nearest Corner of Property		X	
Property Address:	Not listed							
Parcel: 0809320001027000 Property Address:	Not listed							
Darrough, Nazarene Parcel: 0809320001020000	3888 East Second Street	Muscle Shoals	AL	35661			X	
Property Address:	Same As Mailing							
Farley, Lula c/o Ladora Farley Howard Parcel: 0809290004008001	6608 Westover Way	Mobile	AL	36618	495			
Property Address:	Not listed							
Ficklin, Gloria B c/o Ronald N. Campbell Parcel: 0809290003016000	P.O. Box 3121	Muscle Shoals	AL	35661			X	
Property Address:	219 Bailey Road							
Fowl Weather Propertyies, LLC c/o Phillip Wade Parcel: 0809320001025000	1708 Mahan Avenue	Russellville	AL	35653			X	
Property Address:	Not listed							
Gavin, Cheryl A & Wayne Edward Appleton & … Parcel: 0809320001005000	6409 Green Forest Drive	Mobile	AL	36618			X	
Property Address:								
Harris, Julius Parcel: 0809290004004001	3840 East Second Street	Muscle Shoals	AL	35661			X	
Property Address:	Not listed							
Parcel: 0809290004008000 Property Address:	Not listed						X	
Parcel: 0809290004009000 Property Address:	3875 Second Street	Muscle Shoals	AL	35661			X	
Parcel: 0809290004012000 Property Address:	2306 Ford Road	Muscle Shoals	AL	35661			X	
Parcel: 0809320001021000 Property Address:	3840 Second Street	Muscle Shoals	AL	35661			X	
Horn, Wallace & Clifford c/oLeonard Horne III Parcel: 0809320001007000	1303 Cantwell Avenue SW	Decatur	AL	35601			X	
Property Address:	Not listed							

TABLE 5
SUMMARY OF WELL SURVEY RESULTS
LISTERHILL CHEVRON
3800 EAST 2ND ST, MUSCLE SHOALS, COLBERT COUNTY, ALABAMA
FACILITY I.D. #13706-033-010801; UST INCIDENT #AST19-05-01

PROPERTY OWNER	CONTACT INFORMATION & PROPERTY LOCATION				SURVEY RESPONSES: WELL(s) ON PROPERTY & DISTANCE IN FEET TO WELL	SURVEY RESPONSES: NO WELL ON PROPERTY	SURVEY RESPONSES: NO CONTACT FROM OWNER	ROAD SIDE SURVEY IDENTIFIED A POTENTIAL WELL
John Barnes LLC Parcel: 0809290004008001 Property Address:	9550 True Drive 3695 Second Street	St. Louis Muscle Shoals	Mo AL	63132 35661			X	
Parcel: 0809290004006002 Property Address:	 Not listed						X	
Johnson Contractors Inc. Parcel: 0809290003015000 Property Address:	P.O. Box 3779 3635 Second Street	Muscle Shoals Muscle Shoals	AL AL	35661 35661			X	
Malone, Romell Parcel: 0809290004008004 Property Address:	14800 Winthrop Street Not listed	Detroit	MI	48227			X	
Martin, Verdell H. & Josephine Harris c/o J. Harris Parcel: 0809290004004000 Property Address:	309 North Nance Street Not listed	Florence	AL	35630			X	
Parcel: 0809290004008.002 Property Address:	 Not listed						X	
McBrayer, Keith W Parcel: 0809290004007000 Property Address:	190 Roberts Drive Lots 65-77 Second St Terrace	Florence	AL	35634			X	
Parcel: 0809290004007001 Property Address:	 Lots 64 & 78-88 Second St Terrace						X	
McGrady, Gary M Parcel: 0809320002002000 Property Address:	3981 Calle De Santo Not listed	Tallahassee	FL	32311		X		
Mt Olivia Missionary Baptist Chruch Parcel: 0809290004011000L Property Address:	3935 East Second Street Same As Mailing	Muscle Shoals	AL	35661		X		
Newsome, Robert Jr. & Others Parcel: 0809320001008000 Property Address:	3880 East Second Street Lots 10-12	Muscle Shoals	AL	35661			X	
Parcel: 0809320001014000 Property Address:	 Lot 23-27						X	
Parcel: 0809320001017000 Property Address:	 Lot 13-20						X	
Parcel: 0809320001018000 Property Address:	 Lot 1-6						X	
Parcel: 0809320001019000 Property Address:	 Same As Mailing						X	X 354
Parkes Property LLC C/O Ty McConnell Parcel: 0809320001023000 Property Address:	240 Alabama Shores 402 Second Street	Muscle Shoals Muscle Shoals	AL AL	35661 35661		X		
Parcel: 0809320002001000 Property Address:	 Not listed					X		
State of Alabama Tax Sale 2018 Parcel: 0809290004005000 Property Address:	50 North Ripley Street, Room 4103 3823 Second Street	Montgomery Muscle Shoals	AL AL	36104 35661			X	
Thompson, Lucille Parcel: 0809320001009000 Property Address:	118 Autumn Circle Apt 102E Not listed	Sheffield	AL	35660		X		
Parcel: 0809320001010000 Property Address:	 Not listed					X		

TABLE 5
SUMMARY OF WELL SURVEY RESULTS
LISTERHILL CHEVRON
3800 EAST 2ND ST, MUSCLE SHOALS, COLBERT COUNTY, ALABAMA
FACILITY I.D. #13706-033-010801; UST INCIDENT #AST19-05-01

PROPERTY OWNER	CONTACT INFORMATION & PROPERTY LOCATION				SURVEY RESPONSES: WELL(s) ON PROPERTY & DISTANCE IN FEET TO WELL	SURVEY RESPONSES: NO WELL ON PROPERTY	SURVEY RESPONSES: NO CONTACT FROM OWNER	ROAD SIDE SURVEY IDENTIFIED A POTENTIAL WELL
Timmons & Watson Properties Parcel: 0809290004006000	122 McKinney Drive	Tuscumbia	AL	35674			X	
Property Address:	108 Bailey Road	Muscle Shoals	AL	35661				
Parcel: 0809290004006004 Property Address:	Not listed						X	
Wise Alloys LLC, ATTN: Megan Moral Parcel: 0809290004013000	4805 Second Street	Muscle Shoals	AL	35661			X	
Property Address:	Not listed							

NOTE: 1. Letter returned by United States Postal Service stamped 'Return to Sender'.
2. Property Owner information in parenthesis is the revised information provided by the returned responses.

TABLE 6
SUMMARY OF PRIVATE WELL INFORMATION
LISTERHILL CHEVRON
3800 EAST 2ND STREET, MUSCLE SHOALS, COLBERT COUNTY, ALABAMA
FACILITY I.D. #13706-033-010801; UST INCIDENT #AST19-05-01

WELL ID	CONTACT INFORMATION		WELL INFORMATION	
0809290004008001 No Address Listed (Utilize Parcel # for Well ID), East Second Street, Muscle Shoals, AL	*Current Owner:*	*Lula Farley C/O Ladora Howard*	*Distance to Well:*	*457 feet*
	Address:	*6608 Westover Way* *Mobile, AL 36618*	*Depth:* *Date Installed:*	*Unknown* *Unknown*
	Phone Number:	*251-402-4008*	Well Use:	Not In Use
	Method of Well/Suspect Well Identification:		Well Survey Completed by Owners Representative	
3880E2ndSt 3880 East Second Street Muscle Shoals, AL	*Current Owner:*	*Robert Newsome & Others*	*Distance to Well:*	*425 feet*
	Address:	*3880 East Second Street* *Muscle Shoals, AL 35661*	*Depth:* *Date Installed:*	*Unknown* *Unknown*
	Phone Number:		Well Use:	Well-house is broken up and pipe is unprotected out of ground.
	Method of Well/Suspect Well Identification:		Road Side Survey	
0809320001026000 No Address Listed (Utilize Parcel # for Well ID), East Second Street, Muscle Shoals, AL	*Current Owner:*	*James and Joan Counts*	*Distance to Northwest Corner of Nearest Property:*	*625 feet*
	Address:	*3855 6th Street* *Muscle Shoals, AL 35661*	*Depth:* *Date Installed:*	*Unknown* *Unknown*
	Phone Number:	*256-381-1927*	Well Use:	Not In Use
	Method of Well/Suspect Well Identification:		Well Survey Completed by Owner	

NOTES: Data collected from Well Survey Resonses and Roadside Survey.

TABLE 7
SUMMARY OF SOIL PHYSICAL PROPERTY ANALYSIS
LISTERHILL CHEVRON
3800 EAST 2ND ST, MUSCLE SHOALS, COLBERT COUNTY, ALABAMA
FACILITY I.D. #13706-033-010801; UST INCIDENT #AST19-05-01

DATE			November 19, 2019	
SAMPLE ID			Shelby Tube Analysis	
			ST-1	ST-2
DEPTH			2-4'	6-8'
PARAMETER	ANALYSIS	UNITS		
Fractional Organic Carbon	ASTM D 2974	g-C/g-soil	0.03	0.03
Average Bulk Dry Density	ASTM D7263	grams/cm^3	1.407	1.449
Percent Moisture	ASTM D2218	%	25.4	27.16
Volumeteric Moisture Content	EM 110-2-1906	cm^3/cm^3	0.358	0.394
Soil Porosity	EM 110-2-1906	cm^3/cm^3	0.469	0.453
Grain Size Distribution	ASTM C117 & C136	Gravel (>Sieve #4)	31.3%	12.8%
		Sand (Sieve 4 to	24.7%	19.3%
		Clay (<Sieve	44.1%	67.8%

Capillary Fringe (calculated see formula below)

$$\frac{0.15}{0.2 \times \text{grain size in cm}} \times \text{grain size distribution \%} =$$

Description	Grain Size	Percent	Calculation
Gravel	0.475 cm	12.8%	0.2
Sand	0.0425 cm	19.3%	3.4
Clay	0.0075 cm	67.8%	67.8
Total Calculated Capillary Fringe Height in Centimeters			**71**

TABLE 1
SUMMARY OF SOIL SAMPLE ANALYTICAL RESULTS
LISTERHILL CHEVRON
3800 EAST 2ND STREET, MUSCLE SHOALS, COLBERT COUNTY, ALABAMA
FACILITY I.D. #13706-033-010801; UST INCIDENT #AST19-05-01

SAMPLE ID	DEPTH	DATE	BTEX AND MTBE						POLYNUCLEAR AROMATIC HYDROCARBONS											
			BENZENE	TOLUENE	ETHYL BENZENE	TOTAL XYLENES	TOTAL BTEX	MTBE	ANTHRACENE	BENZO(A) ANTHRACENE	BENZO(A) PYRENE	BENZO(B) FLUORANTHENE	BENZO(G,H,I) PERYLENE	BENZO(K) FLUORANTHENE	CHRYSENE	FLUORANTHENE	FLUORENE	NAPHTHALENE	PHENANTHRENE	PYRENE
			Concentrations in mg/Kg or ppm						*Concentrations in mg/Kg or ppm*											
MW-1	9-11	7/1/2019	0.364	0.0157	0.264	0.0831	0.727	0.0186	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006	0.0736	0.401	0.102	0.0122
	19-21		0.252	0.00625	0.00707	0.00918	0.275	0.0246	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006	0.0149	<0.006	<0.006
MW-2	9-11	7/2/2019	0.136	<0.005	0.00423	<0.0065	0.140	0.0539	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006	<0.0125	0.00622	<0.006
	14-16		0.0401	<0.112	<0.056	<0.146	0.0401	0.0479	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006	0.00897	<0.02	0.0157	<0.006
DG	4-6	7/3/2019	0.00513	<0.005	<0.0025	<0.0065	0.00513	**0.0218**	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006	<0.02	<0.006	<0.006
	9-11		0.00111	<0.005	<0.0025	<0.0065	0.00111	0.0034	0.00711	0.00722	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006	0.0105	<0.02	0.0199	<0.006
Proposed ARBCA GRP Target Levels (Down-gradient)			**1.87**	**787**	**787**	**1360**	**---**	**2.17**	**30.6**	**101**	**47.1**	**55.4**	**33.2**	**29.5**	**19.1**	**303**	**458**	**126**	**423**	**275**
Proposed ARBCA GRP Target Levels (Cross-gradient)			**0.579**	**244**	**244**	**1360**	**---**	**0.672**	**30.6**	**101**	**47.1**	**55.4**	**33.2**	**29.5**	**19.1**	**303**	**458**	**39.2**	**423**	**275**
Proposed ARBCA SP Target Levels (Pond Creek-362 feet)			**1.24**	**41.5**	**153**	**NA**	**---**	**NA**	**30.6**	**11.4**	**30.8**	**39.1**	**NA**	**29.5**	**12.6**	**303**	**458**	**1110**	**NA**	**275**
Proposed ARBCA SP Target Levels (Wetlands-108 feet)			**0.151**	**5.05**	**18.7**	**NA**	**---**	**NA**	**30.6**	**1.39**	**3.75**	**4.76**	**NA**	**4.76**	**1.54**	**303**	**458**	**144**	**NA**	**275**
MW-4	4-6	7/3/2019	<0.001	<0.005	<0.0025	<0.0065	---	<0.001	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006	<0.02	<0.006	<0.006
	9-11		<0.001	<0.005	<0.0025	<0.0065	---	<0.001	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006	<0.02	<0.006	<0.006
MW-5	2-4	11/19/2019	<0.001	<0.005	<0.0025	<0.0065	---	<0.001	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006	0.0072	<0.006	0.00983	0.0618	0.0378	0.109
	9-11		<0.001	<0.005	<0.0025	<0.0065	---	<0.001	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006	<0.02	0.00744	<0.006
MW-6	2-4	11/19/2019	<0.001	<0.005	<0.0025	<0.0065	---	<0.001	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006	<0.02	<0.006	<0.006
	9-11		<0.001	<0.005	<0.0025	<0.0065	---	<0.001	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006	<0.02	<0.006	<0.006
MW-7	2-4	11/19/2019	<0.001	<0.005	<0.0025	<0.0065	---	<0.001	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006	<0.02	<0.006	<0.006
	9-11		<0.001	<0.005	<0.0025	<0.0065	---	<0.001	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006	<0.02	<0.006	<0.006
MW-8	1-2	11/19/2019	<0.001	<0.005	<0.0025	<0.0065	---	<0.001	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006	<0.02	0.00681	<0.006
	4-6		<0.001	<0.005	<0.0025	<0.0065	---	<0.001	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006	<0.02	<0.006	<0.006
MW-9	1-2	11/20/2019	<0.001	0.00702	<0.0025	<0.0065	0.00702	<0.001	<0.006	<0.006	<0.006	0.00707	<0.006	<0.006	<0.006	0.00909	<0.006	<0.02	<0.006	0.00715
	4-6		<0.001	0.00616	<0.0025	<0.0065	0.00616	<0.001	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006	<0.02	<0.006	<0.006
ARBCA ISLs			**0.00845**	**3.6**	**3.61**	**62.4**	**---**	**0.00862**	**10.2**	**10.1**	**2.24**	**18.5**	**11.1**	**9.84**	**6.37**	**101**	**153**	**0.579**	**141**	**91.8**

TABLE 1
SUMMARY OF SOIL SAMPLE ANALYTICAL RESULTS
LISTERHILL CHEVRON
3800 EAST 2ND STREET, MUSCLE SHOALS, COLBERT COUNTY, ALABAMA
FACILITY I.D. #13706-033-010801; UST INCIDENT #AST19-05-01

SAMPLE ID	DEPTH	DATE	BTEX AND MTBE						POLYNUCLEAR AROMATIC HYDROCARBONS											
			BENZENE	TOLUENE	ETHYL BENZENE	TOTAL XYLENES	TOTAL BTEX	MTBE	ANTHRACENE	BENZO(A) ANTHRACENE	BENZO(A) PYRENE	BENZO(B) FLUORANTHENE	BENZO(G,H,I) PERYLENE	BENZO(K) FLUORANTHENE	CHRYSENE	FLUORANTHENE	FLUORENE	NAPHTHALENE	PHENANTHRENE	PYRENE
			Concentrations in mg/Kg or ppm						*Concentrations in mg/Kg or ppm*											
SB-10	2-4	11/19/2019	0.288	<0.005	1.47	0.0654	1.82	0.0518	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006	<0.02	<0.006	<0.006
	9-11		***2.63***	0.0553	9.34	6.82	18.85	0.316	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006	<0.02	<0.006	<0.006
MW-10	2-4	1/2/2020	0.034	0.0050	0.841	0.0275	0.908	0.0177	0.0137	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006	0.0194	0.200	0.0322	0.00633
	4-6		***1.43***	<0.04	5.21	0.074	6.71	0.0861	0.037	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006	0.0536	0.636	0.0873	0.0098
Proposed ARBCA GRP Target Levels (Down-gradient)			**1.87**	**787**	**787**	**1360**	**---**	**2.17**	**30.6**	**101**	**47.1**	**55.4**	**33.2**	**29.5**	**19.1**	**303**	**458**	**126**	**423**	**275**
Proposed ARBCA GRP Target Levels (Cross-gradient)			**0.579**	**244**	**244**	**1360**	**---**	**0.672**	**30.6**	**101**	**47.1**	**55.4**	**33.2**	**29.5**	**19.1**	**303**	**458**	**39.2**	**423**	**275**
Proposed ARBCA SP Target Levels (Pond Creek-362 feet)			**1.24**	**41.5**	**153**	**NA**	**---**	**NA**	**30.6**	**11.4**	**30.8**	**39.1**	**NA**	**29.5**	**12.6**	**303**	**458**	**1110**	**NA**	**275**
Proposed ARBCA SP Target Levels (Wetlands-108 feet)			**0.151**	**5.05**	**18.7**	**NA**	**---**	**NA**	**30.6**	**1.39**	**3.75**	**4.76**	**NA**	**4.76**	**1.54**	**303**	**458**	**144**	**NA**	**275**
MW-11	1-2	11/20/2019	<0.001	<0.005	0.0129	<0.0065	0.0129	<0.001	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006	<0.02	<0.006	<0.006
	4-6		<0.001	<0.005	<0.0025	<0.0065	---	<0.001	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006	<0.02	<0.006	<0.006
ARBCA ISLs			**0.00845**	**3.6**	**3.61**	**62.4**	**---**	**0.00862**	**10.2**	**10.1**	**2.24**	**18.5**	**11.1**	**9.84**	**6.37**	**101**	**153**	**0.579**	**141**	**91.8**
MW-12	2-4	4/22/2020	0.270	0.00930	0.00735	<0.0065	0.287	0.0139	<0.0333	<0.0333	<0.0333	<0.0333	<0.0333	<0.0333	<0.0333	<0.0333	<0.0333	<0.0333	<0.0333	<0.0333
	4-5		0.117	<0.005	0.00340	<0.0065	0.120	0.00935	<0.0333	<0.0333	<0.0333	<0.0333	<0.0333	<0.0333	<0.0333	<0.0333	<0.0333	<0.0333	<0.0333	<0.0333
Proposed ARBCA GRP Target Levels (Down-gradient)			**1.87**	**787**	**787**	**1360**	**---**	**2.17**	**30.6**	**101**	**47.1**	**55.4**	**33.2**	**29.5**	**19.1**	**303**	**458**	**126**	**423**	**275**
Proposed ARBCA GRP Target Levels (Cross-gradient)			**0.579**	**244**	**244**	**1360**	**---**	**0.672**	**30.6**	**101**	**47.1**	**55.4**	**33.2**	**29.5**	**19.1**	**303**	**458**	**39.2**	**423**	**275**
Proposed ARBCA SP Target Levels (Pond Creek-362 feet)			**1.24**	**41.5**	**153**	**NA**	**---**	**NA**	**30.6**	**11.4**	**30.8**	**39.1**	**NA**	**29.5**	**12.6**	**303**	**458**	**1110**	**NA**	**275**
Proposed ARBCA SP Target Levels (Wetlands-108 feet)			**0.151**	**5.05**	**18.7**	**NA**	**---**	**NA**	**30.6**	**1.39**	**3.75**	**4.76**	**NA**	**4.76**	**1.54**	**303**	**458**	**144**	**NA**	**275**

NOTES:
1. ID - Identification; mg/kg - millgrams per kilogram; ppm - parts per million
2. ARBCA - Alabama Risk Based Corrective Action, GRP - Groundwater Resource Protection ; SP - Stream Protection; ISL - Initial Screening Levels
3. Highlighted Values Exceed the GRP Target Levels;
   Italizied Values Exceed the GRP Target Levels (Cross-gradient); Bolded Values Exceed the SP Target Levels (Pond Creek 362-feet); and Underlined Values Exceed the SP Target Levels (Wetlands 108-feet).
   Bolded Values Exceed the SP Target Levels (Pond Creek 362-feet); and
   Underlined Values Exceed the SP Target Levels (Wetlands 108-feet).

Appendix B

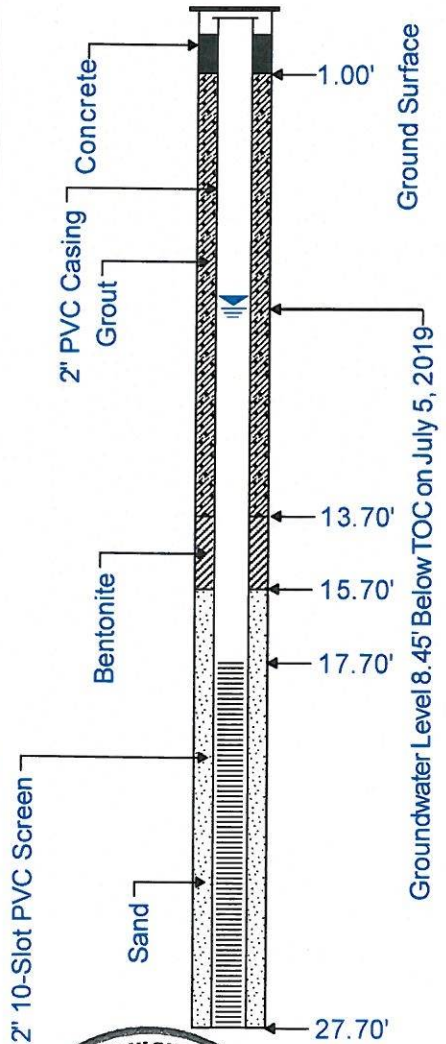
PM ENVIRONMENTAL Environmental & Engineering Services

Well Log: .

Project No.: 70-00816-A 0001
Project Name: Listerhill Chevron
Facility ID#: 13706-033-01081
Logged By: SH

Well No.: MW-1
Date Drilled: 7/1/2019
Drill Rig: CME-75
Sampling Method: PHD/SIS

Depth (ft.)	Description and Comments	Sample # Depth	Blow Counts	FID (ppm)
0	Ground Surface			
0	**CL- (Firm) CLAY (damp)** Brown, minor petroleum odor		-	20.0
2	**CL- (Firm) CLAY (damp)** Brown, moderate petroleum odor		-	25.5
4	**CL- (Stiff) CLAY (damp)** Dark Brown, strong petroleum odor		-	91.2
6			-	-
8				
10	**CL- (Firm) CLAY (damp)** Dark Brown, w/ minor weathered chert gravel, strong petroleum odor	SS-1 9.0 ~ 11.0'	-	209.7
12			-	-
14	**CL- (Firm) CLAY (damp)** Dark Brown, w/ minor weathered chert gravel, strong petroleum odor		-	20.9
16			-	-
18				
20	**CL- (Firm) CLAY (damp)** Dark Brown, w/ minor weathered chert gravel, strong petroleum odor	SS-2 19.0 ~ 21.0'	-	12.7
22			-	-
24	**CL- (Firm) CLAY (wet)** Dark Brown, w/ minor weathered chert gravel, strong petroleum odor		-	12.1
26			-	-
28	**CL- (Firm) CLAY (wet)** Brown		-	6.8
30				



Completion Notes: EOB @ 31' BGS. Hole filled with MW-1

1. The indicated stratification lines are approximate in situ. The transitions between materials may be gradual.
2. Boring backfilled with natural soils unless otherwise noted

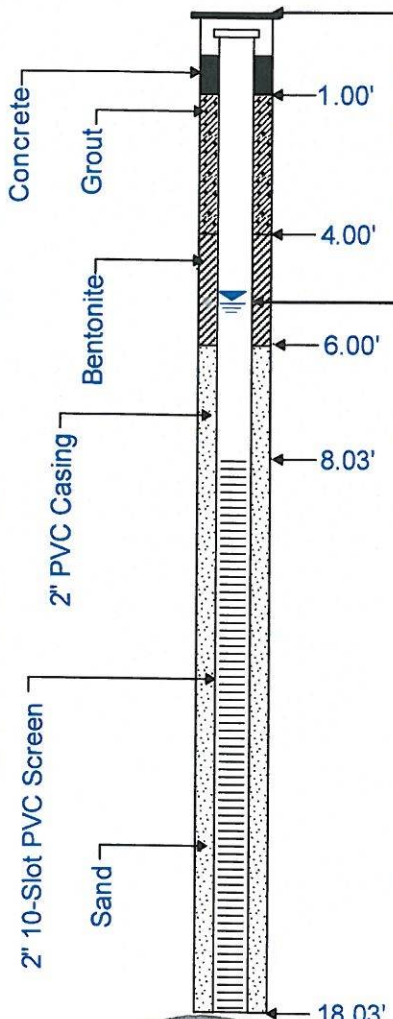
STEVE HICKS, P.G.
ALABAMA LICENSED PROFESSIONAL GEOLOGIST
LIC. 0412

Well Log: .

Project No.: 70-00816-A 0001
Project Name: Listerhill Chevron
Facility ID#: 13706-033-01081
Logged By: SH

Well No.: MW-2
Date Drilled: 7/1/2019
Drill Rig: CME-75
Sampling Method: PHD/SIS

Depth (ft.)	Description and Comments	Sample # Depth	Blow Counts	FID (ppm)
0	Ground Surface			
0	**CL- (Firm) CLAY (damp)** Yellowish-orange & Light Brown		-	0.5
2			-	0.7
4	**CL- (Firm) CLAY (damp)** Light Brown, w/ minor gray, minor weathered chert gravel		-	0.5
6			-	-
8				
10	**CL- (Firm) CLAY (damp)** Dark Brown, moderate petroleum odor	SS-1 9.0 ~ 11.0'	-	20.7
12			-	-
14	**CL- (Firm) CLAY (damp)** Dark Brown, w/ minor gray, highly weathered chert gravel, moderate petroleum odor (wet at 15.8' BGS)	SS-2 14.0 ~ 16.0'	-	110
16			-	-
18	**CL- (Firm) CLAY (wet)** Dark Brown, w/ minor gray, highly weathered chert gravel, moderate petroleum odor		-	21.1
20				



Completion Notes: EOB @ 20' BGS. Hole filled with MW-3

1. The indicated stratification lines are approximate in situ. The transitions between materials may be gradual.
2. Boring backfilled with natural soils unless otherwise noted

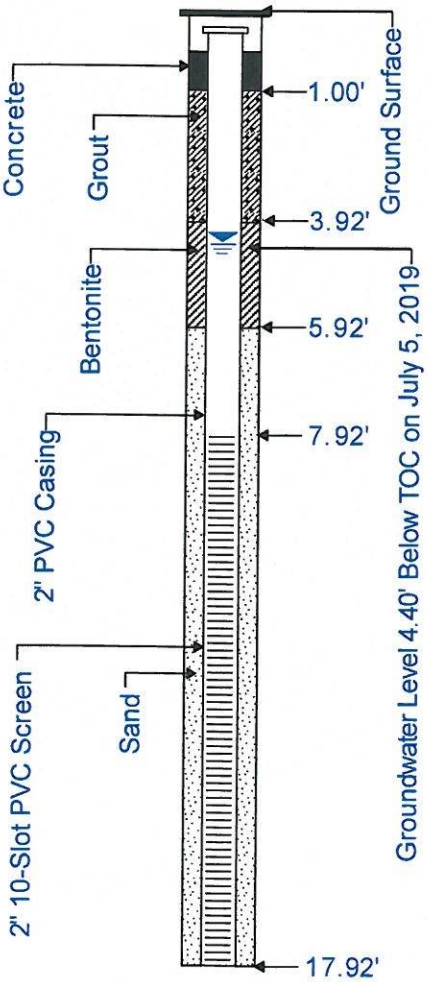
STEVE HICKS, P.G.
ALABAMA LICENSED PROFESSIONAL GEOLOGIST
LIC: 0412

Well Log: .

Project No.: 70-00816-A 0001
Project Name: Listerhill Chevron
Facility ID#: 13706-033-01081
Logged By: SH

Well No.: MW-3
Date Drilled: 7/1/2019
Drill Rig: CME-75
Sampling Method: PHD/SIS

Depth (ft.)	Description and Comments	Sample # Depth	Blow Counts	FID (ppm)
0	Ground Surface			
	CL- (Firm) CLAY (damp) Yellowish-Orange & Light Brown, w/ minor chert fragments		-	0.9
2			-	1.9
4		SS-1 4.0 ~ 6.0'	-	19.1
6			-	-
8	**CL- (Firm) CLAY (damp)** Yellowish-Orange, Light Brown & Brick Red, w/ weathered chert gravel at 10.5'-10.7' BGS	SS-2 9.0 ~ 11.0'	-	94.7
10			-	-
12	**CL- (Firm) CLAY (damp)** Dark Brown, w/ highly weathered chert gravel		-	11.1
14	**CL- (Firm) CLAY (wet)** Dark Brown, w/ highly weathered chert gravel		-	-
16			-	10.1
18	**CL- (Firm) CLAY (wet)** Dark Brown, w/ highly weathered chert gravel			
20				



Completion Notes: EOB @ 21' BGS. Hole filled with MW-3

1. The indicated stratification lines are approximate in situ. The transitions between materials may be gradual.
2. Boring backfilled with natural soils unless otherwise noted

STEVE HICKS, P.G.
ALABAMA LICENSED PROFESSIONAL GEOLOGIST
LIC: 0412

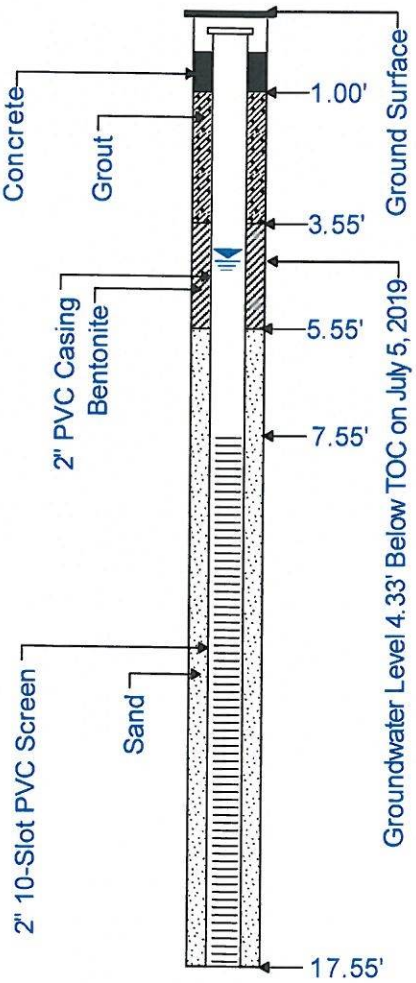
Sheet: 1 of 1

Well Log: .

Project No.: 70-00816-A 0001
Project Name: Listerhill Chevron
Facility ID#: 13706-033-01081
Logged By: SH

Well No.: MW-4
Date Drilled: 7/1/2019
Drill Rig: CME-75
Sampling Method: PHD/SIS

Depth (ft.)	Description and Comments	Sample # Depth	Blow Counts	FID (ppm)
0	Ground Surface			
	CL- (Firm) CLAY (damp) Light Brown, Yellowish-Orange		-	1.9
2			-	1.8
4	**CL- (Firm) CLAY (damp)** Light Brown w/ minor gray, minor weathered chert gravel	SS-1 4.0 ~ 6.0'	-	3.6
6			-	-
8				
10	**CL- (Firm) CLAY (damp)** Brown w/ minor gray, minor weathered chert gravel	SS-2 9.0 ~ 11.0'	-	100.8
12			-	-
14	**CL- (Firm) CLAY (damp)** Brown w/ minor gray, minor weathered chert gravel		-	10.5
16	**CL- (Firm) CLAY (wet)** Brown w/ minor gray, minor weathered chert gravel		-	-
18				
20	**CL- (Firm) CLAY (moist)** Brown w/ minor gray, minor weathered chert gravel		-	7.0



Completion Notes: EOB @ 21' BGS. Hole filled with MW-4

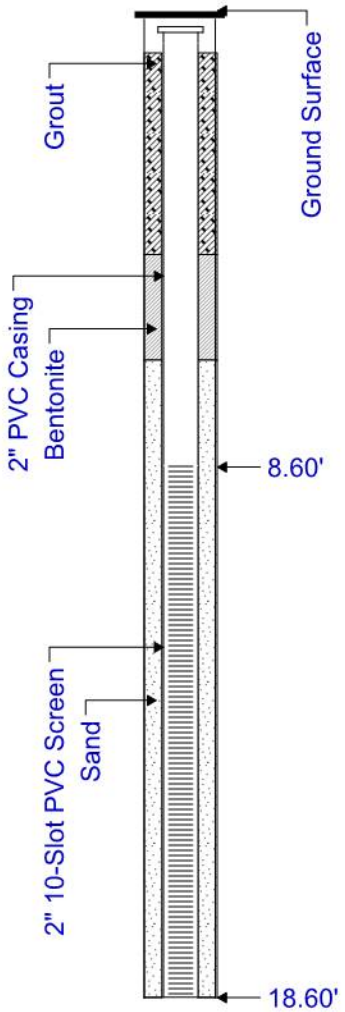
1. The indicated stratification lines are approximate in situ. The transitions between materials may be gradual.
2. Boring backfilled with natural soils unless otherwise noted

STEVE HICKS, P.G. ALABAMA LICENSED PROFESSIONAL GEOLOGIST LIC. 0412

Well Log .

Project No.: 70-816-A-002
Well No.: MW-5
Project Name: Listerhill Chevron
Date Drilled: 11/19/2019
Facility ID#: 13706-033-01081
Drill Rig: CME-75
Logged By: SH
Sampling Method: PHD/SSS

Depth (ft.)	Description and Comments	Sample	Blow Counts	PID (ppm)
0	Ground Surface			
0	***CL- (Firm) CLAY (damp)*** Brown			0.0
2		SS-1 2.0 - 4.0'		0.0
4				0.0
6				
8				
10	***CL- (Firm) CLAY (damp)*** Brown, with moderate weathered White to Light Gray chert gravel	SS-2 9.0 - 11.0'		21.7
12				
14	***CL- (Firm) CLAY (wet)*** Brown, with moderate weathered chert and white to light gray gravel			65.0
16				
18				
20	***CL- (Firm) CLAY (damp)*** Light Brown to Yellowish Orange			15.1
22				



Completion Notes: EOB @ 21' bgs.

1. The indicated stratification lines are approximate in situ. The transitions between materials may be gradual.
2. Boring backfilled with natural soils unless otherwise noted.

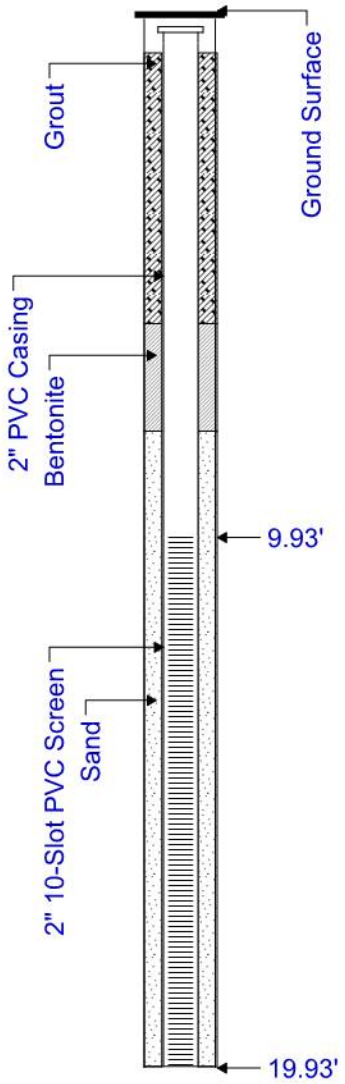
Sheet: 1 of 1

Well Log .

Project No.: 70-816-A-002
Well No.: MW-6
Project Name: Listerhill Chevron
Date Drilled: 11/19/2019
Facility ID#: 13706-033-01081
Drill Rig: CME-75
Logged By: SH
Sampling Method: PHD/SSS

Depth (ft.)	Description and Comments	Sample	Blow Counts	PID (ppm)
0	Ground Surface			
0	***CL- (Firm) CLAY (damp)*** Brown			15.1
2		SS-1 2.0 - 4.0'		30.2
4	***CL- (Firm) CLAY (damp)*** Brown, with minor weathered White to Light Gray chert gravel			29.1
6				
8				
10	***CL- (Firm) CLAY (damp)*** Brown	SS-2 9.0 - 11.0'		25.4
12				
14	***CL- (Firm) CLAY (damp)*** Brown			18.6
16				
18				
20	***CL- (Firm) CLAY (damp)*** Brown, with minor weathered White to Light Gray chert gravel			20.6
22				

Groundwater Well Completion Details



Completion Notes: EOB @ 21' bgs.

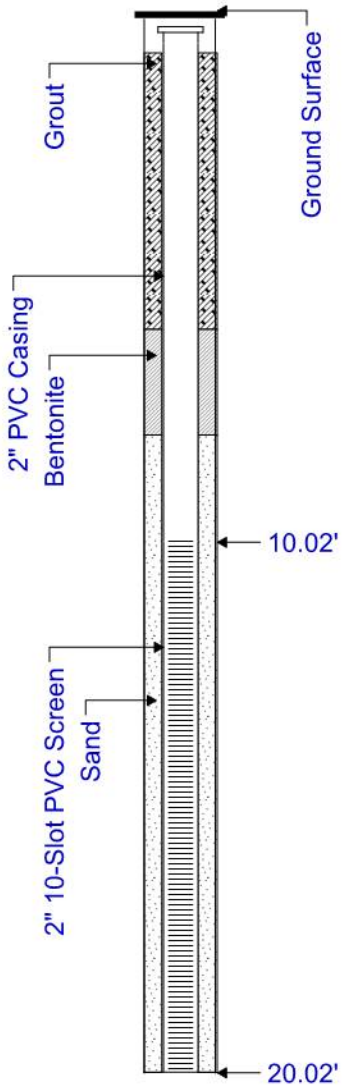
1. The indicated stratification lines are approximate in situ. The transitions between materials may be gradual.
2. Boring backfilled with natural soils unless otherwise noted.

Well Log .

Project No.: 70-816-A-002
Well No.: MW-7
Project Name: Listerhill Chevron
Date Drilled: 11/19/2019
Facility ID#: 13706-033-01081
Drill Rig: CME-75
Logged By: SH
Sampling Method: PHD/SSS

Depth (ft.)	Description and Comments	Sample	Blow Counts	PID (ppm)
0	Ground Surface			
0	**CL- (Firm) CLAY (damp)** Brown, with minor chert gravel			0.0
2		SS-1 2.0 - 4.0'		8.1
4	**CL- (Firm) CLAY (damp)** Brown, with weathered White chert gravel			2.0
6				
8				
10	**CL- (Firm) CLAY (damp)** Brown, with weathered White chert gravel	SS-2 9.0 - 11.0'		16.3
12				
14	**CL- (Firm) CLAY (damp)** Brown, with weathered White chert gravel			36.4
16				
18				
20	**CL- (Firm) CLAY (damp)** Brown, with weathered White chert gravel			42.3
22				

Groundwater Well Completion Details



Completion Notes: EOB @ 21' bgs.

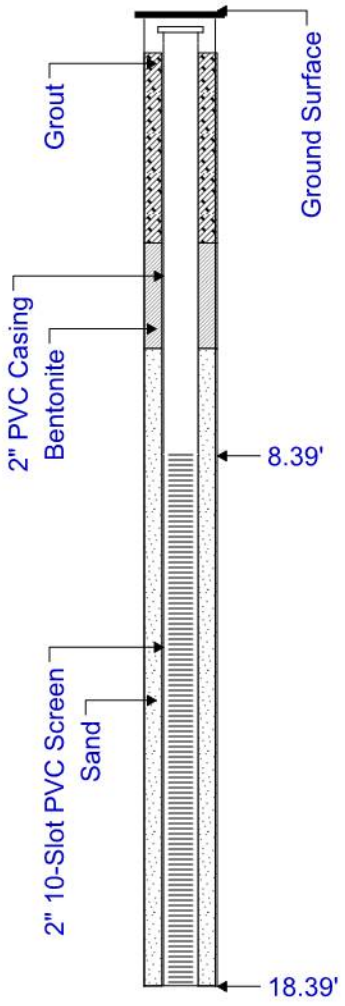
1. The indicated stratification lines are approximate in situ. The transitions between materials may be gradual.
2. Boring backfilled with natural soils unless otherwise noted.

Well Log .

Project No.: 70-816-A-002
Well No.: MW-8
Project Name: Listerhill Chevron
Date Drilled: 11/19/2019
Facility ID#: 13706-033-01081
Drill Rig: CME-75
Logged By: SH
Sampling Method: PHD/SSS

Depth (ft.)	Description and Comments	Sample	Blow Counts	PID (ppm)
0	Ground Surface			
0	**CL- (Soft) CLAY (damp)** Brown	SS-1 1.0 - 2.0'		0.0
2	**SHELBY TUBE (ST-1)**			
4	**CL- (Soft) CLAY (damp)** Brown	SS-2 4.0 - 6.0'		0.0
6	**SHELBY TUBE (ST-2)**			
8				
10	**CL- (Firm) CLAY (damp)** Brown, with weathered White and Light Gray chert gravel			0.0
12				
14	**CL- (Firm) CLAY (damp)** Brown, with weathered White and Light Gray chert gravel			0.0
16				
18				
20	**CL- (Firm) CLAY (damp)** Brown, with weathered White and Light Gray chert gravel			0.0
22				

Groundwater Well Completion Details



Completion Notes: EOB @ 21' bgs.

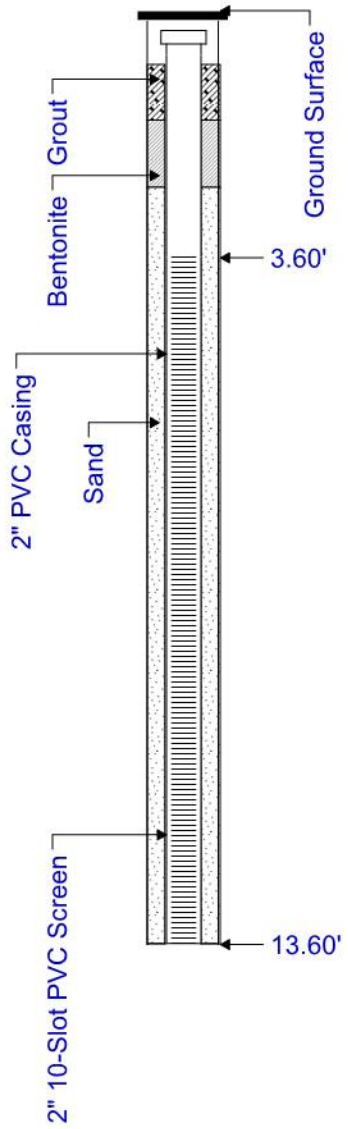
1. The indicated stratification lines are approximate in situ. The transitions between materials may be gradual.
2. Boring backfilled with natural soils unless otherwise noted.

Well Log .

Project No.: 70-816-A-002
Well No.: MW-9
Project Name: Listerhill Chevron
Date Drilled: 11/20/2019
Facility ID#: 13706-033-01081
Drill Rig: CME-75
Logged By: SH
Sampling Method: PHD/SSS

Depth (ft.)	Description and Comments	Sample	Blow Counts	PID (ppm)
0	Ground Surface			
	GRASS			
	CL- (Soft) CLAY (damp) Brown, fill (berm)	SS-1 1.0 - 2.0'		159.8
2	**CL- (Soft) CLAY (damp)** Brown, fill (berm)			86.8
4	**CL- (Soft) CLAY (damp)** Brown, weathered Yellow to Orange and White and Cream cher gravel	SS-2 4.0 - 6.0'		74.5
6				
8				
	CL- (Firm) CLAY (damp) Brown and Yellowish Orange, with weathered chert gravel (strong OPO 10-11' bgs)			2,681.1
12				
14	**CL- (Firm) CLAY (damp)** Brown and Yellowish Orange, abundant weathered White and Light Gray chert gravel (moderate OPO)			2,557.8
16				

Groundwater Well Completion Details



Completion Notes: EOB @ 16' bgs.

1. The indicated stratification lines are approximate in situ. The transitions between materials may be gradual.
2. Boring backfilled with natural soils unless otherwise noted.

Well Log .

Project No.: 70-816-A-002
Well No.: MW-10
Project Name: Listerhill Chevron
Date Drilled: 11/19/2019
Facility ID#: 13706-033-01081
Drill Rig: CME-75
Logged By: SH
Sampling Method: PHD/SSS

Depth (ft.)	Description and Comments	Sample	Blow Counts	PID (ppm)	Groundwater Well Completion Details
0	Ground Surface				NO CASING OR WELL INSTALLED
0	***CL- (Firm) CLAY (damp)*** Brown (moderate OPO)		-	478.2	
2	***CL- (Firm) CLAY (damp)*** Brown (strong OPO)	SS-1 2.0 - 4.0'	-	595.4	
4	***CL- (Firm) CLAY (damp)*** Brown, with minor weathered White to Light Gray chert gravel		-	217.1	
6					
8					
10	***CL- (Firm) CLAY (damp)*** Brown, with abundant weathered Light Gray chert gravel (strong OPO)	SS-2 9.0 - 11.0'	-	1,687.1	
12					
14	***CL- (Firm) CLAY (damp)*** Brown, with abundant weathered Light Gray chert gravel (strong OPO)		-	1,307	
16					
18					
20	***CL- (Firm) CLAY (damp)*** Brown, weathered White to Light Gray chert gravel (strong OPO)		-	307.2	
22					
24	***CL- (Firm) CLAY (damp)*** Brown (moderate OPO)		-	11.5	
26					
28					
30	***CL- (Stiff) CLAY (damp)*** Brown, with weathered Light Gray chert gravel (moderate OPO)		-	42.4	
32					
34					
36	***CL- (Stiff) CLAY (damp)*** Brown, with weathered Light Gray chert gravel		-	23.5	
38					

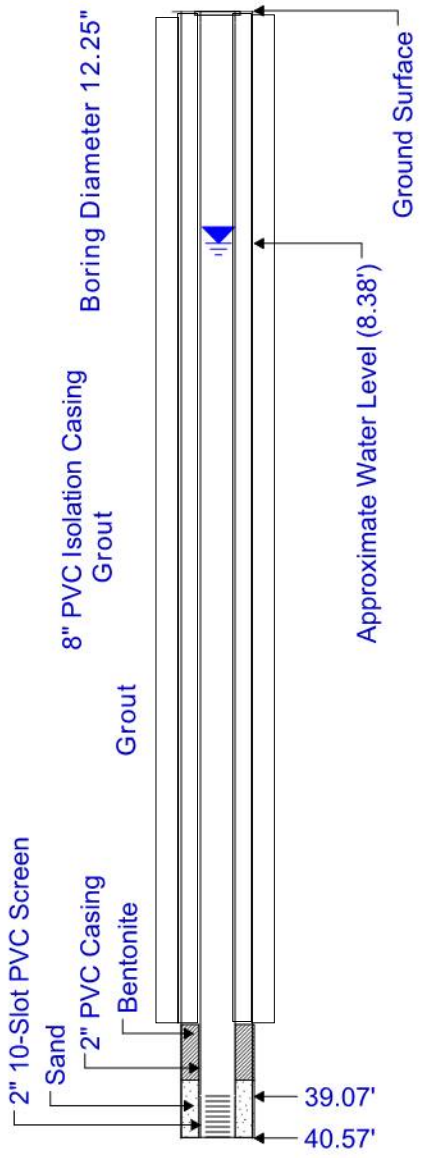
Completion Notes: EOB @ 37' bgs.

1. The indicated stratification lines are approximate in situ. The transitions between materials may be gradual.
2. Boring backfilled with natural soils unless otherwise noted.

Well Log .

Project No.: 70-816-A-002
Well No.: MW-10A
Project Name: Listerhill Chevron
Date Drilled: 1/2/2020
Facility ID#: 13706-033-01081
Drill Rig: CME-75
Logged By: SH
Sampling Method: SSS

Depth (ft.)	Description and Comments	Sample	Blow Counts	PID (ppm)
0	Ground Surface			
0	**CL- (Firm) CLAY (damp)** Brown (strong OPO)		-	151
2		SS-1 2.0 - 4.0'	-	281.3
4	**CL- (Firm) CLAY (damp)** Brown, with minor weathered White chert gravel (strong OPO)	SS-2 4.0 - 6.0'	-	370.8
8				
10	**CL- (Firm) CLAY (damp)** Brown, with abundant weathered white chert gravel		-	244.4
12				
14	**CL- (Firm) CLAY (damp)** Brown, with abundant weathered White chert gravel (strong OPO)		-	261.3
18				
20	**CL- (Firm) CLAY (damp)** Brown, weathered White chert gravel (strong OPO)		-	92.4
22				
24	**CL- (Firm) CLAY (damp)** Brown, with abundant weathered White chert gravel (moderate OPO)		-	57.4
28				
30	**CL- (Stiff) CLAY (damp)** Brown, with abundant weathered White chert gravel		-	7.2
32				
34	**CL- (Stiff) CLAY (damp)** Brown, with weathered White chert gravel		-	1.8
38				
40	**SC/ML (Soft) Clayey Sand (wet)** Ligt Brown, fossiliferous Medium gray			
42				



Completion Notes: EOB @ 40.8' bgs. Auger refusal @ 40' 8" Could not get past hard rock

1. The indicated stratification lines are approximate in situ. The transitions between materials may be gradual.
2. Boring backfilled with natural soils unless otherwise noted.

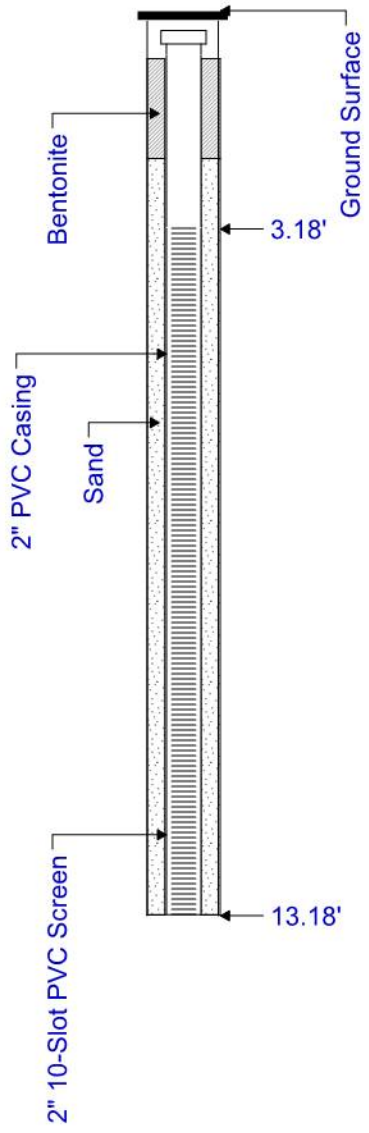
Sheet: 1 of 1

Well Log .

Project No.: 70-816-A-002
Project Name: Listerhill Chevron
Facility ID#: 13706-033-01081
Logged By: SH

Well No.: MW-11
Date Drilled: 11/20/2019
Drill Rig: CME-75
Sampling Method: PHD/SSS

SUBSURFACE PROFILE			SAMPLE			
Depth (ft.)		Description and Comments		Blow Counts	PID (ppm)	Groundwater Well Completion Details
0		Ground Surface				
		GRASS				
		CL- (Firm) CLAY (damp) Brown	SS-1 1.0 - 2.0'		0.0	
2		***CL- (Firm) CLAY (damp)*** Brown, with weathered White chert gravel			0.0	
4			SS-2 4.0 - 6.0'		0.0	
6						
8						
		CL- (Firm) CLAY (damp) Brown, with weathered White chert gravel			0.0	
10						
12						
14		***CL- (Stiff) CLAY (damp)*** Brown, with minor weathered White chert gravel			0.0	
16						



Completion Notes: EOB @ 16' bgs.

1. The indicated stratification lines are approximate in situ. The transitions between materials may be gradual.
2. Boring backfilled with natural soils unless otherwise noted.

Boring Log .

Project No.: 70-00816-A-009 ***Boring No.:*** SB-12

Project Name: Listerhill Chevron ***Date Drilled:*** 4-22-2020

Facility ID#: 13706-033-010801 ***Drill Rig:*** Geoprobe 7822 DT

Logged By: SH ***Sampling Method:*** DPT

PM ENVIRONMENTAL

SUBSURFACE PROFILE			SAMPLE			
Depth (ft.)		Description and Comments	Sample # Depth	Blow Counts	PID (ppm)	No Well Installed
0		Ground Surface				
0		***Fill -CL- (Stiff) CLAY (damp)*** Brown		-	14.7	
2		***CL- (Stiff) CLAY (damp)*** Brown, weathered chert gravel	SS-1 2.0 ~ 4.0'	-	24.5	
4			SS-2 4.0 ~ 5.0'	-	20.7	
4		***CL- (Stiff) CLAY (wet)*** Brown, weathered chert gravel		-	121.1	
6		***CL- (Firm) CLAY (damp)*** Brown, weathered chert gravel		-	22.5	
8				-	75.8	
10		***CL- (Firm) CLAY (wet)*** Light brown, weathered chert gravel, white, strong opo		-	168.4	
12				-	306.5	
14		***CL- (Firm) CLAY (wet)*** Light brown, weathered chert gravel, white		-	148.4	
16				-	91.0	
18		***CL- (Stiff) CLAY (damp)*** Light brown		-	31.0	
20		***CL- (Firm) CLAY (wet)*** Light brown, weathered chert gravel, white		-	84.7	
20		***CL- (Firm) CLAY (damp)*** Light brown		-	263.1	
22				-	127.3	
24				-	25.6	
26				-	37.5	
28				-	13.5	
30				-	1.7	
32				-	21.9	
34				-	1.7	
36				-	0.0	
38				-	9.5	
40				-	0.0	

STEVE HICKS, P.G. ALABAMA LICENSED PROFESSIONAL GEOLOGIST LIC. 0412

Completion Notes: EOB @ 38.7' Refusal

1. The indicated stratification lines are approximate in situ. The transitions between materials may be gradual.
2. Boring backfilled with natural soils unless otherwise noted.

Well Log .

Project No.: 70-00816-A-009
Well No.: MW-12
Project Name: Listerhill Chevron
Date Drilled: 5/12/2020 & 5/14/2020
Facility ID#: 13706-033-010801
Drill Rig: CME-75
Logged By: SEE
Sampling Method: N/A

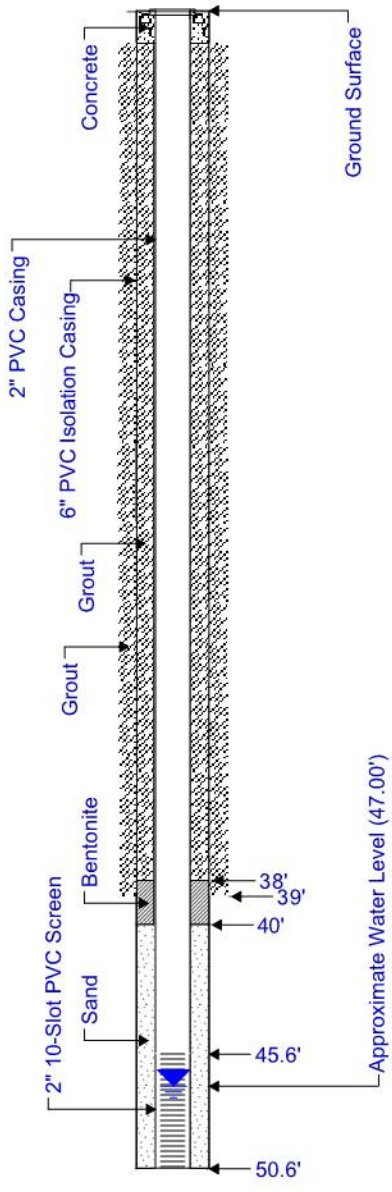
SUBSURFACE PROFILE

Depth (ft.)	Description and Comments
0	Ground Surface
0	**GRAVEL**
2	**CL-Clay** with gravel
38	**REFUSAL** Auger refusal - Bedrock
40	**BEDROCK** About 1' into bedorck
42	**VOID IN BEDROCK**
44	**LIMESTONE** Limestone extend boring to 50.6'
50	

SAMPLE

Sample # Depth	Blow Counts	PID (ppm)

Groundwater Well Completion Details



Completion Notes: EOB @ 50.6'

1. The indicated stratification lines are approximate in situ. The transitions between materials may be gradual.
2. Boring backfilled with natural soils unless otherwise noted

Appendix C

PM ENVIRONMENTAL Environmental & Engineering Services

SITE SPECIFIC TARGET LEVELS FOR GROUNDWATER
MAPCO DELTA EXPRESS#5215
2000 HELTON DRIVE, FLORENCE, LAUDERDALE COUNTY, ALABAMA
FACILITY ID. #15420-077-017247; UST INCIDENT #UST18-04-03

MW ID	COC	SSTL Inhalation of vapors from GW indoors	SSTL Inhalation of vapors from GW outdoors	SSTL GW Resource Protection	SSTL Stream Protection	SSTL for Target Well
MW-1, MW-2, MW-3, MW-10, & MW-12	Benzene	14.3	589	0.424	0.281	0.281
	Toluene	526	526	84.8	4.47	4.47
	Ethylbenzene	169	169	59.3	11.6	11.6
	Xylenes	175	175	175	NA	175
	MTBE	48,000	48,000	1.7	NA	1.7
	Anthracene	0.0424	0.0424	0.0424	0.0424	0.0424
	Benzo(a)anthracene	0.0094	0.0094	0.0094	0.000511	0.000511
	Benzo(a)pyrene	0.00162	0.00162	0.00162	0.000511	0.000511
	Benzo(b)fluoranthene	0.0015	0.0015	0.0015	0.000511	0.000511
	Benzo(g,h,i)perylene	0.0007	0.0007	0.0007	NA	0.0007
	Benzo(k)fluoranthene	0.0008	0.0008	0.0008	0.000511	0.000511
	Chrysene	0.0016	0.0016	0.0016	0.000511	0.000511
	Fluoranthene	0.206	0.206	0.206	0.206	0.206
	Dluorene	1.98	1.98	1.98	1.98	1.98
	Naphthalenen	31	31	31	15.9	15.9
	Phenanthrene	1	1	1	NA	1
	Pyrene	0.135	0.135	0.135	0.135	0.135
MW-4	Benzene	14.3	589	0.424	0.281	0.281
	Toluene	526	526	84.8	4.47	4.47
	Ethylbenzene	169	169	59.3	11.6	11.6
	Xylenes	175	175	175	NA	175
	MTBE	48,000	48,000	1.7	NA	1.7
	Anthracene	0.0424	0.0424	0.0424	0.0424	0.0424
	Benzo(a)anthracene	0.0094	0.0094	0.0094	0.000511	0.000511
	Benzo(a)pyrene	0.00162	0.00162	0.00162	0.000511	0.000511
	Benzo(b)fluoranthene	0.0015	0.0015	0.0015	0.000511	0.000511
	Benzo(g,h,i)perylene	0.0007	0.0007	0.0007	NA	0.0007
	Benzo(k)fluoranthene	0.0008	0.0008	0.0008	0.000511	0.000511
	Chrysene	0.0016	0.0016	0.0016	0.000511	0.000511
	Fluoranthene	0.206	0.206	0.206	0.206	0.206
	Dluorene	1.98	1.98	1.98	1.98	1.98
	Naphthalenen	31	31	31	15.9	15.9
	Phenanthrene	1	1	1	NA	1
	Pyrene	0.135	0.135	0.135	0.135	0.135

SITE SPECIFIC TARGET LEVELS FOR GROUNDWATER
MAPCO DELTA EXPRESS#5215
2000 HELTON DRIVE, FLORENCE, LAUDERDALE COUNTY, ALABAMA
FACILITY ID. #15420-077-017247; UST INCIDENT #UST18-04-03

MW ID	COC	SSTL Inhalation of vapors from GW indoors	SSTL Inhalation of vapors from GW outdoors	SSTL GW Resource Protection	SSTL Stream Protection	SSTL for Target Well
MW-5	Benzene	14.3	589	0.424	0.281	0.281
	Toluene	526	526	84.8	4.47	4.47
	Ethylbenzene	169	169	59.3	11.6	11.6
	Xylenes	175	175	175	NA	175
	MTBE	48,000	48,000	1.7	NA	1.7
	Anthracene	0.0424	0.0424	0.0424	0.0424	0.0424
	Benzo(a)anthracene	0.0094	0.0094	0.0094	0.000511	0.000511
	Benzo(a)pyrene	0.00162	0.00162	0.00162	0.000511	0.000511
	Benzo(b)fluoranthene	0.0015	0.0015	0.0015	0.000511	0.000511
	Benzo(g,h,i)perylene	0.0007	0.0007	0.0007	NA	0.0007
	Benzo(k)fluoranthene	0.0008	0.0008	0.0008	0.000511	0.000511
	Chrysene	0.0016	0.0016	0.0016	0.000511	0.000511
	Fluoranthene	0.206	0.206	0.206	0.206	0.206
	Dluorene	1.98	1.98	1.98	1.98	1.98
	Naphthalenen	31	31	31	15.9	15.9
	Phenanthrene	1	1	1	NA	1
	Pyrene	0.135	0.135	0.135	0.135	0.135
MW-6 & MW-8	Benzene	14.3	589	0.424	0.281	0.281
	Toluene	526	526	84.8	4.47	4.47
	Ethylbenzene	169	169	59.3	11.6	11.6
	Xylenes	175	175	175	NA	175
	MTBE	48,000	48,000	1.7	NA	1.7
	Anthracene	0.0424	0.0424	0.0424	0.0424	0.0424
	Benzo(a)anthracene	0.0094	0.0094	0.0094	0.000511	0.000511
	Benzo(a)pyrene	0.00162	0.00162	0.00162	0.000511	0.000511
	Benzo(b)fluoranthene	0.0015	0.0015	0.0015	0.000511	0.000511
	Benzo(g,h,i)perylene	0.0007	0.0007	0.0007	NA	0.0007
	Benzo(k)fluoranthene	0.0008	0.0008	0.0008	0.000511	0.000511
	Chrysene	0.0016	0.0016	0.0016	0.000511	0.000511
	Fluoranthene	0.206	0.206	0.206	0.206	0.206
	Dluorene	1.98	1.98	1.98	1.98	1.98
	Naphthalenen	31	31	31	15.9	15.9
	Phenanthrene	1	1	1	NA	1
	Pyrene	0.135	0.135	0.135	0.135	0.135

SITE SPECIFIC TARGET LEVELS FOR GROUNDWATER
MAPCO DELTA EXPRESS#5215
2000 HELTON DRIVE, FLORENCE, LAUDERDALE COUNTY, ALABAMA
FACILITY ID. #15420-077-017247; UST INCIDENT #UST18-04-03

MW ID	COC	SSTL Inhalation of vapors from GW indoors	SSTL Inhalation of vapors from GW outdoors	SSTL GW Resource Protection	SSTL Stream Protection	SSTL for Target Well
MW-7	Benzene	14.3	589	0.424	0.281	0.281
	Toluene	526	526	84.8	4.47	4.47
	Ethylbenzene	169	169	59.3	11.6	11.6
	Xylenes	175	175	175	NA	175
	MTBE	48,000	48,000	1.7	NA	1.7
	Anthracene	0.0424	0.0424	0.0424	0.0424	0.0424
	Benzo(a)anthracene	0.0094	0.0094	0.0094	0.000511	0.000511
	Benzo(a)pyrene	0.00162	0.00162	0.00162	0.000511	0.000511
	Benzo(b)fluoranthene	0.0015	0.0015	0.0015	0.000511	0.000511
	Benzo(g,h,i)perylene	0.0007	0.0007	0.0007	NA	0.0007
	Benzo(k)fluoranthene	0.0008	0.0008	0.0008	0.000511	0.000511
	Chrysene	0.0016	0.0016	0.0016	0.000511	0.000511
	Fluoranthene	0.206	0.206	0.206	0.206	0.206
	Dluorene	1.98	1.98	1.98	1.98	1.98
	Naphthalenen	31	31	31	15.9	15.9
	Phenanthrene	1	1	1	NA	1
	Pyrene	0.135	0.135	0.135	0.135	0.135
MW-9	Benzene	14.3	589	0.424	0.281	0.281
	Toluene	526	526	84.8	4.47	4.47
	Ethylbenzene	169	169	59.3	11.6	11.6
	Xylenes	175	175	175	NA	175
	MTBE	48,000	48,000	1.7	NA	1.7
	Anthracene	0.0424	0.0424	0.0424	0.0424	0.0424
	Benzo(a)anthracene	0.0094	0.0094	0.0094	0.000511	0.000511
	Benzo(a)pyrene	0.00162	0.00162	0.00162	0.000511	0.000511
	Benzo(b)fluoranthene	0.0015	0.0015	0.0015	0.000511	0.000511
	Benzo(g,h,i)perylene	0.0007	0.0007	0.0007	NA	0.0007
	Benzo(k)fluoranthene	0.0008	0.0008	0.0008	0.000511	0.000511
	Chrysene	0.0016	0.0016	0.0016	0.000511	0.000511
	Fluoranthene	0.206	0.206	0.206	0.206	0.206
	Dluorene	1.98	1.98	1.98	1.98	1.98
	Naphthalenen	31	31	31	15.9	15.9
	Phenanthrene	1	1	1	NA	1
	Pyrene	0.135	0.135	0.135	0.135	0.135

SITE SPECIFIC TARGET LEVELS FOR GROUNDWATER
MAPCO DELTA EXPRESS#5215
2000 HELTON DRIVE, FLORENCE, LAUDERDALE COUNTY, ALABAMA
FACILITY ID. #15420-077-017247; UST INCIDENT #UST18-04-03

MW ID	COC	SSTL Inhalation of vapors from GW indoors	SSTL Inhalation of vapors from GW outdoors	SSTL GW Resource Protection	SSTL Stream Protection	SSTL for Target Well
MW-11	Benzene	14.3	589	0.424	0.281	0.281
	Toluene	526	526	84.8	4.47	4.47
	Ethylbenzene	169	169	59.3	11.6	11.6
	Xylenes	175	175	175	NA	175
	MTBE	48,000	48,000	1.7	NA	1.7
	Anthracene	0.0424	0.0424	0.0424	0.0424	0.0424
	Benzo(a)anthracene	0.0094	0.0094	0.0094	0.000511	0.000511
	Benzo(a)pyrene	0.00162	0.00162	0.00162	0.000511	0.000511
	Benzo(b)fluoranthene	0.0015	0.0015	0.0015	0.000511	0.000511
	Benzo(g,h,i)perylene	0.0007	0.0007	0.0007	NA	0.0007
	Benzo(k)fluoranthene	0.0008	0.0008	0.0008	0.000511	0.000511
	Chrysene	0.0016	0.0016	0.0016	0.000511	0.000511
	Fluoranthene	0.206	0.206	0.206	0.206	0.206
	Dluorene	1.98	1.98	1.98	1.98	1.98
	Naphthalenen	31	31	31	15.9	15.9
	Phenanthrene	1	1	1	NA	1
	Pyrene	0.135	0.135	0.135	0.135	0.135

SITE SPECIFIC TARGET LEVELS FOR SOIL
MAPCO DELTA EXPRESS#5216
2291 FLORENCE BLVD, FLORENCE, LAUDERDALE COUNTY, ALABAMA
FACILITY ID. #15420-077-017261; UST INCIDENT #UST15-03-03

MW ID	COC	SSTL Inhalation of vapors from soil indoors	SSTL Inhalation of vapors from soil outdoors	SSTL Soil Concentrations Protective of GW at the POE	SSTL Soil Concentrations Protective of a Stream	SSTL for Target Well
		mg/kg (ppm)				
MW-1, MW-2, MW-3, MW-10, & MW-12	Benzene	26.1	240	2.00	1.33	1.33
	Toluene	235	235	844	44.6	44.6
	Ethylbenzene	108	108	845	165	108
	Xylenes	136	136	1,360	NA	136
	MTBE	2,960	2,960	2.33	NA	2.33
	Anthracene	3.6	3.6	30.6	30.6	3.60
	Benzo(a)anthracene	101	101	101	12.2	12.2
	Benzo(a)pyrene	47.1	47.1	47.1	33.1	33.1
	Benzo(b)fluoranthene	55.4	55.4	55.4	42	42.0
	Benzo(g,h,i)perylene	33.2	33.2	33.2	NA	33.2
	Benzo(k)fluoranthene	29.5	29.5	29.5	29.5	29.5
	Chrysene	19.1	19.1	19.1	13.6	13.6
	Fluoranthene	303	303	303	303	303
	Dluorene	458	458	458	458	458
	Naphthalenen	1,110	1,110	136	1,110	136
	Phenanthrene	423	423	423	NA	423
	Pyrene	275	275	275	275	275
MW-4, MW-5, MW-6, MW-7, MW-8, MW-9, & MW-11	Benzene	26.1	240	2.00	1.33	1.33
	Toluene	235	235	844	44.6	44.6
	Ethylbenzene	108	108	845	165	108
	Xylenes	136	136	1,360	NA	136
	MTBE	2,960	2,960	2.33	NA	2.33
	Anthracene	3.6	3.6	30.6	30.6	3.60
	Benzo(a)anthracene	101	101	101	12.2	12.2
	Benzo(a)pyrene	47.1	47.1	47.1	33.1	33.1
	Benzo(b)fluoranthene	55.4	55.4	55.4	42	42.0
	Benzo(g,h,i)perylene	33.2	33.2	33.2	NA	33.2
	Benzo(k)fluoranthene	29.5	29.5	29.5	29.5	29.5
	Chrysene	19.1	19.1	19.1	13.6	13.6
	Fluoranthene	303	303	303	303	303
	Dluorene	458	458	458	458	458
	Naphthalenen	1,110	1,110	136	1,110	136
	Phenanthrene	423	423	423	NA	423
	Pyrene	275	275	275	275	275

Appendix D

PM ENVIRONMENTAL Environmental & Engineering Services

227 Sandy Springs Place
Suite D-122
Atlanta, Georgia 30328-5918
Phone 404 256 0667
Fax 404 256 0668

October 29, 2019

Suzanne Evans
PM Environmental, Inc.
4050 Helton Drive, Suite 111
Florence, AL 35630

Subject:
8-Hour Multi-Phase Extraction Event
Pilot Test, 2000 Helton Drive, Florence, AL
Brown Remediation, Inc. Proposal No. 102919-8

Dear Ms. Evans:

Brown Remediation, Inc. is pleased to provide you with our Multi-Phase Extraction (MPE) service at the above-referenced facility. During the 8-hour MPE event, we will record monitoring well fluid levels, vacuum influence, vacuum pressures, vapor flow rates, extracted vapor concentrations, and total volume of recovered liquids. Brown Remediation will generate and submit a progress status report for the event.

Following is a breakdown of costs for these services:

One 8-Hour MPE Event	Including report	$3,000.00
Petroleum Contact Water Transportation	Local rate – flat fee*	$450.00
Petroleum Contact Water Disposal	Est. 1,000 gallons at $0.25/gallon*	$250.00
	Total Lump Sum Estimate:	**$3,700.00**

*This estimate is based on approximate quantities. Actual costs incurred for transportation and disposal of petroleum contact water will be billed.

All work will be performed pursuant to the attached terms and conditions. Any additional work authorized by PM Environmental, Inc. will be performed based on a mutually agreed-upon fee.

We appreciate the opportunity to provide you with these services. If this proposal meets with your approval, please fax us a signed copy at 404-256-0668. Please do not hesitate to call if you have any questions.

Sincerely,

Brown Remediation, Inc.

Thomas Brown

Director of Operations

Accepted by:

Signature: _____

Print Name: _____

Date: _____

TERMS AND CONDITIONS

1. Changes in the Work. At any time after execution of this agreement, PM Environmental, Inc. (Client) may request changes to Brown Remediation, Inc. services consisting of additions, deletions, and revisions to the general scope of services being performed by Brown Remediation, Inc. under this agreement. Whenever a change in the scope and/or time for performance of services occurs, or if Client has notified Brown Remediation, Inc. of a change, Brown Remediation, Inc. shall submit to Client an estimate of the changes in cost and/or schedule, with supporting calculations and pricing. Pricing shall be in accordance with the pricing of this agreement.

2. Termination of Agreement. Either party may terminate this agreement without cause and/or for convenience after giving five (5) days' written notice to the other party. However, Brown Remediation, Inc. shall not have the right to terminate this agreement, without cause, prior to completion by Brown Remediation, Inc. of all services required under the agreement. In the event Client terminates Brown Remediation, Inc.'s services without cause and/or for Client's convenience, Client shall be liable to promptly pay Brown Remediation, Inc. for all work performed through the date of termination; all Brown Remediation, Inc. expenses directly attributable to the termination, including fair and reasonable sums for overhead and profit for work performed; and costs incurred by Brown Remediation, Inc. in terminating any contracts entered into in connection with the performance of its services.

3. Use of Documents. It is understood and agreed that all documents prepared pursuant to this agreement are the product of professional services intended for one-time use for the project that is the subject of this agreement. Such documents are and shall remain the property of Brown Remediation, Inc., and they are not intended or represented to be suitable for reuse by Client or others on extensions of the project or on any other project. With Brown Remediation, Inc. consent, Client may retain copies for information and reference in connection with the occupancy and use of the project. In the event project documents provided to Client in machine-readable form are so converted, or in the event of any reuse without written verification or adaptation by Brown Remediation, Inc. for the specific purposes intended, the Client agrees to assume all risks associated therewith and to the fullest extent permitted by law, to hold harmless and indemnify Brown Remediation, Inc. from and against all claims, liabilities, losses, damages, and costs. Any written verification or adaptation authorized or performed by Brown Remediation, Inc. will entitle Brown Remediation, Inc. to additional compensation at rates to be agreed upon by Brown Remediation, Inc. and Client.

The parties shall at all times remain entirely responsible for the results and consequences of their sole negligence and agree to indemnify and hold harmless the other party from and against any and all claims, losses, damages, costs, and expenses, including attorney's fees, which may arise or result from such sole negligence. For any services provided by Brown Remediation, Inc. involving or relating to hazardous or non-hazardous waste elements, Client agrees to indemnify and hold harmless Brown Remediation, Inc. and its consultants, agents, and employees from and against all claims, damages, losses, and expenses, direct and indirect, or consequential damages, including but not limited to fees and charges of attorneys and court and arbitration costs, arising out of or resulting from the performance of the work by Brown Remediation, Inc., or claims against Brown Remediation, Inc. arising from the work of others, related to hazardous or non-hazardous waste.

4. Limitation of Liability. The total liability, in the aggregate, of Brown Remediation, Inc. and its directors, officers, or employees, and any of them, to Client or anyone claiming by, under or through Client for any and all injuries, claims, losses, expenses, and damages whatsoever arising out of or in any way related to Brown Remediation, Inc. services, shall be limited to the total fees paid to Brown Remediation, Inc. under this agreement. In no event, however, shall any liability to Client exceed the amount of applicable insurance that Brown Remediation, Inc. has procured for services under this agreement. Brown Remediation, Inc. agrees to correct, at its own expense, any services provided that do not conform to the standard of care hereunder for a period of one year following the completion of services. No other guarantee or warranty, express or implied, is intended by this agreement. Client and Brown Remediation, Inc. waive incidental, indirect, or consequential damages, lost revenues or profits from claims, disputes or other matters in question arising out of or relating to this agreement, whether such claims arise from negligence, breach of contract, or strict liability.

5. Payment Terms. Brown Remediation, Inc. shall invoice Client for services in accordance with Brown Remediation, Inc. standard invoicing practices. Invoices are due and payable on receipt and should be remitted by check or wire transfer of immediately available funds. If Client fails to make any payment due Brown Remediation, Inc. for services and expenses within sixty (60) days after date of invoice, the amounts due Brown Remediation, Inc. will be increased at the rate of 2.5% from accounts not paid within sixty (60) days.

If Client reasonably objects to any portion of an invoice, Client shall provide written notification to Brown Remediation, Inc. of Client's objection and the basis for such objection within fifteen (15) days of the date of receipt of the invoice. Client shall not offset amounts due Brown Remediation, Inc. under this agreement for any credit or disputes arising under a different agreement. Client shall waive any objections to Brown Remediation, Inc.'s invoice if it fails to timely provide such written notice to Brown Remediation, Inc. In the event of litigation or other proceeding to enforce performance of this agreement or any payment obligation under this agreement, the prevailing party shall be entitled to recover from the other party attorneys' fees and costs as may be reasonably incurred by reason of the litigation.

PM ENVIRONMENTAL
Risk Well Managed

Murfreesboro
1509 Sarah Court
Murfreesboro, TN 37129
f: 877.884.6775
t: 615.866.4115

Decatur
717 Highway 67 South
Suite 26
Decatur, AL 35603
f: 877.884.6775
t: 256.353.6222

Date: 09/14/2020
REF No: Listerhill

Location: **Listerhill Chevron**
3800 East 2nd Street
Muscle Shoals, Colbert County, Alabama

Description:
PM Environmental, Inc. (PM) will perform an 8-hour High Vacuum Extraction (HVE) Event at the above referenced facility. PM technician(s) will mobilize to the site to perform the HVE Event the system utilizes a 40-horse power (hp) liquid ring pump to create a vacuum on the proposed extraction wells. The PM will collect concentrations readings from the influent line, pre-carbon air treatment concentrations, post-carbon air treatment concentrations, and effluent air concentrations readings at regular intervals with a photoionization detector. Effluent water meter readings for purge water removal and vacuum readings for each well will be recorded at regular intervals. A copy of the ADEM MEME vendor approval letter dated May 3, 2018 is attached.

Item:	Quantity	Unit	Price	Total
8-hour MEME event	1.00	Each	$5,000.00	$3,000.00
Transportation of gasoline mixture	175	Miles	$1.15	$201.25
Gasoline recycling/disposal *if more than 500 gallons are transported	250	Gallons	$0.2345	~~$57.75~~
Minimum Disposal Cost (set by Disposal Facility)	1.00	Each	131.33	131.33
Bid Total:				**$3,332.58**

Invoices will reflect actual work performed, disposal cost, and mileage to actual disposal facility.

Sincerely,
PM Environmental, Inc.

Suzanne Evans, P.G.
Project Manager

Appendix E

PM ENVIRONMENTAL Environmental & Engineering Services

This site-specific Health and Safety Plan (HASP) documentation is designed to assist PM personnel with providing for a safe work environment and is intended to be a site-specific reference and supplement to PM's internal Health and Safety Program and accompanying Health and Safety Plan Manual. A map of the work site is included as Attachment A, and hospital route map included as Attachment B.

SITE EMERGENCY FORM

Scope Of Work: *Soil Borings, Monitoring Well Installation, Soil Sampling, Well Development, MEME Events, and Groundwater Monitoring*

Contaminants of Concern (COCs): Gasoline and Diesel Fuel.

See Attachment C for data sheets of contaminants of concern

Air Monitoring Required: Yes – PID equipped with 10.6 eV lamp. Air monitoring levels will be recorded on a 15-minute, hourly, or other basis. Air monitoring thresholds based on naphthalene.

Minimum Level of Protection: (0.0 to 10.0 ppm) Level-D PPE (Steel-toed Boots, Nitrile Gloves, Hard Hat, and Safety Glasses, High Visibility/Reflective Vests**)**

Alternate Levels of Protection: None Allowed – work activities permitted under Level-D PPE conditions only.

At sustained ambient air PID readings exceeding 10.0 ppm (10 minutes or more), stop work, clear work area of personnel, and allow area to ventilate, work space must remain below 10.0 ppm for 15 minutes following work stoppage prior to resuming work. If levels continue to exceed 10.0 ppm, all work will stop.

Hazard Determination (Refer to Page 5 for Additional Hazard Analysis Information):

Serious_____ Moderate_____ Low _X___

Do not endanger your own life. Survey the situation before taking any action.

PM Office Telephone:	800-313-2966, 256-476-6252, 256-476-6251
Site Location Address:	3800 East 2nd Street, Muscle Shoals, Alabama
Telephone Located at:	Use PM Employee Cell Phones

EMERGENCY PHONE NUMBERS
CONTACT PROJECT MANAGER (PM) OR HEALTH AND SAFETY MANAGER

Ambulance	911
Fire	911
Police	911
Hospital Name	North Alabama Medical Center 1701 Veterans Drive
Hospital Phone Number	256-768-8999 (Hospital Route Map Included in Attachment B)
Field Project Manager/ Site Safety Officer	Varies
Project and Health and Safety Manager	Suzanne Evans, John Hargraves Refer to PM office telephone number above
Client Contact	Sara Beth Wilcox (205) 612-1950
State Agency	ADEM (Emil Johnson): 1-334-270-5653

UTILITY MARKER EMERGENCY TELEPHONE NUMBERS

Utility	Color Code	Telephone Number
Water (*city*) Gas (Consumers) Electric (DTE) Telephone/Cable Sewer (*city*)	Blue Yellow Red Orange Green	
Alabama One Call Telephone Number: 800-292-8525		

EMERGENCY FIRST AID

Ingestion:	DO NOT INDUCE VOMITING. Call Poison Control (1-800-222-1222) - follow instructions. Administer cardiopulmonary resuscitation (CPR), if necessary. Seek medical attention.
Inhalation:	Remove person from contaminated environment. Administer CPR if necessary. Seek medical attention. DO NOT ENTER A CONFINED SPACE TO RESCUE SOMEONE WHO HAS BEEN OVERCOME UNLESS PROPERLY EQUIPPED AND A STANDBY PERSON IS PRESENT.
Skin Contact:	Brush off dry material, remove wet or contaminated clothing. Flush skin thoroughly with water. Seek medical attention if irritation persists.
Eye Contact:	Flush eyes with water for 15~minutes. Seek medical attention.
Exposure	Headache, dizziness, nausea, drowsiness, irritation of eyes, nose, throat, Symptoms: breathing difficulties.
Contingency Plan:	Report incident to PM and Health and Safety Manager (HSM) after emergency procedures have been implemented.

RESPONDER MUST HAVE A CURRENT CERTIFICATE TO ADMINISTER FIRST AID OR CPR

1. Survey the situation. Do not endanger your own life. DO NOT ENTER A CONFINED SPACE TO RESCUE SOMEONE WHO HAS BEEN OVERCOME UNLESS PROPERLY EQUIPPED AND TRAINED. ENSURE ALL PROTOCOLS ARE FOLLOWED INCLUDING THAT A STANDBY PERSON IS PRESENT.

2. Call 911 (if available) or the fire department **IMMEDIATELY**. Explain the physical injury, chemical exposure, fire, or release.

3. Decontaminate the victim without delaying life-saving procedures.

4. If the victim's condition appears to be noncritical, but seems to be more severe than minor cuts, he/she should be transported to the nearest hospital by trained Emergency Medical Services (EMS) personnel: let the doctor assume the responsibility for determining the severity of the injury. If the condition is obviously serious, EMS must transport the victim.

5. Notify the PM and the HSM.

EMERGENCY FIRST AID PROCEDURES	
To Stop Bleeding	**CPR**
1. Give medical statement.	1. Give medical statement.
2. Assure airway, breathing, circulation.	2. Arousal: Check for consciousness.
3. Use **DIRECT PRESSURE** over the wound with clean dressing or your hand (use non-permeable gloves). Direct pressure will control most bleeding.	3. Open airway with chin-lift.
4. Bleeding from an artery or several injury sites may require **DIRECT PRESSURE** on a **PRESSURE POINT**. Use pressure points for 30 to 60 seconds to help control severe bleeding.	4. Look. listen, and feel for breathing.
5. Continue primary care and seek medical aid as needed.	5. If breathing is absent, give 2 slow, full rescue breaths.
	6. Check the pulse for 5 to 10 seconds.
	7. If pulse is present, continue rescue breathing: **1 breath every 5 seconds**.
	8. If pulse is absent, initiate CPR; 15~compressions for each two breaths.

THIS SPACE INTENTIONALLY LEFT BLANK

Hazard Analysis Matrix

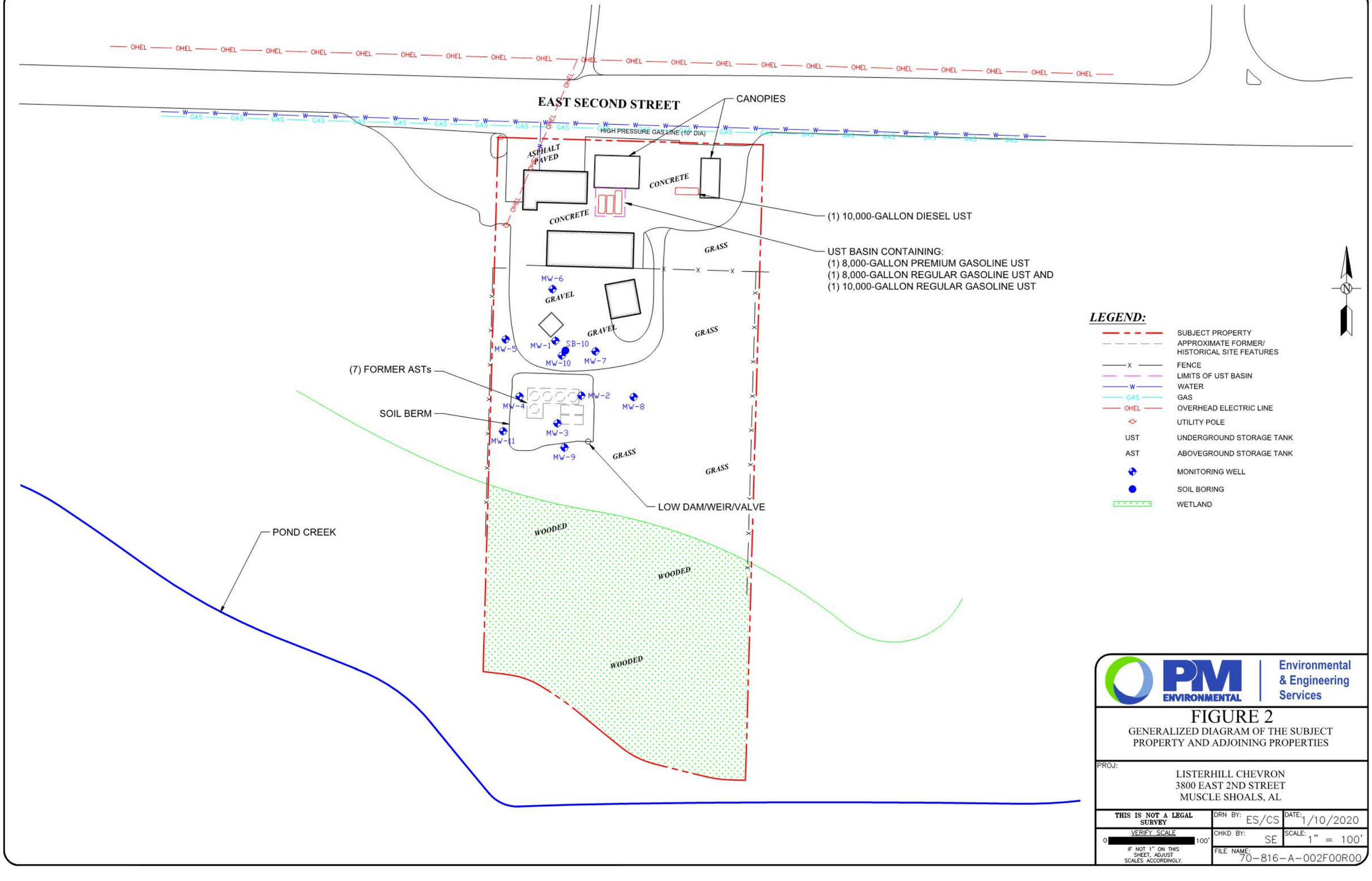
Hazards	Tasks					
	Drilling Boring Auguring	**Soil Sampling**	**Water Sampling**	**Geophysical Investigation**	**Excavation Oversight**	**Building Materials**
Contaminants of Concern Exposure	X	X	X			
OSHA Chemicals Exposure						
Mechanical Equipment/ Construction	X	X				
Electrical						
Fire and Explosion						
Heat/Cold Stress	X	X	X			
Vehicular Traffic	X	X	X			
Pedestrian Traffic						
Overhead Utilities		X				
Underground Utilities	X	X				
Noise	X	X				
Confined Space Entry (CSE)						
Trip/Fall Hazard	X	X	X			
Snakes/ Spiders/ Insects						

AGREEMENT AND ACKNOWLEDGEMENT SHEET

PM personnel have the authority to stop field activities at this site if any activity is not performed in accordance with the requirements of the HASP. All PM project personnel, subcontractor personnel, and visitors are required to sign the Agreement and Acknowledgement Sheet **prior** to conducting field activities at this site.

AGREEMENT AND ACKNOWLEDGEMENT STATEMENT	
1. I have read and fully understand the HASP and my responsibilities. **2. I agree to abide by the provisions of the HASP.**	
Name	Signature
Company	Date
Name	Signature
Company	Date
Name	Signature
Company	Date
Name	Signature
Company	Date
Name	Signature
Company	Date

HASP
Attachment A
Map of Work Area and Summary of Contaminated Media
(If Known)



PM ENVIRONMENTAL | Environmental & Engineering Services

FIGURE 2

GENERALIZED DIAGRAM OF THE SUBJECT PROPERTY AND ADJOINING PROPERTIES

PROJ:

LISTERHILL CHEVRON
3800 EAST 2ND STREET
MUSCLE SHOALS, AL

THIS IS NOT A LEGAL SURVEY	DRN BY: ES/CS	DATE: 1/10/2020
VERIFY SCALE 0 — 100' IF NOT 1" ON THIS SHEET, ADJUST SCALES ACCORDINGLY.	CHKD BY: SE	SCALE: 1" = 100'
	FILE NAME: 70-816-A-002F00R00	

HASP
Attachment B

Hospital Route Map

YOUR TRIP TO:

1701 Veterans Dr, Florence, AL, 35630

8 MIN | 5.3 MI

Est. fuel cost: $0.48

Trip time based on traffic conditions as of 8:56 AM on June 24, 2019. Current Traffic: Moderate

1. Start out going **west** on Alma St toward Bailey Rd.

Then 0.16 miles — 0.16 total miles

2. Turn **left** onto Bailey Rd.

Then 0.26 miles — 0.42 total miles

3. Turn **right** onto 2nd St/AL-184.

Then 1.46 miles — 1.88 total miles

4. Turn **right** onto N Wilson Dam Rd/AL-133/AL-157. Continue to follow AL-133/AL-157.

AL-133 is 0.1 miles past Detroit Ave.

If you reach Alabama you've gone about 0.1 miles too far.

Then 3.21 miles — 5.09 total miles

5. Turn **right** onto Ironside St/AL-133.

Then 0.15 miles — 5.24 total miles

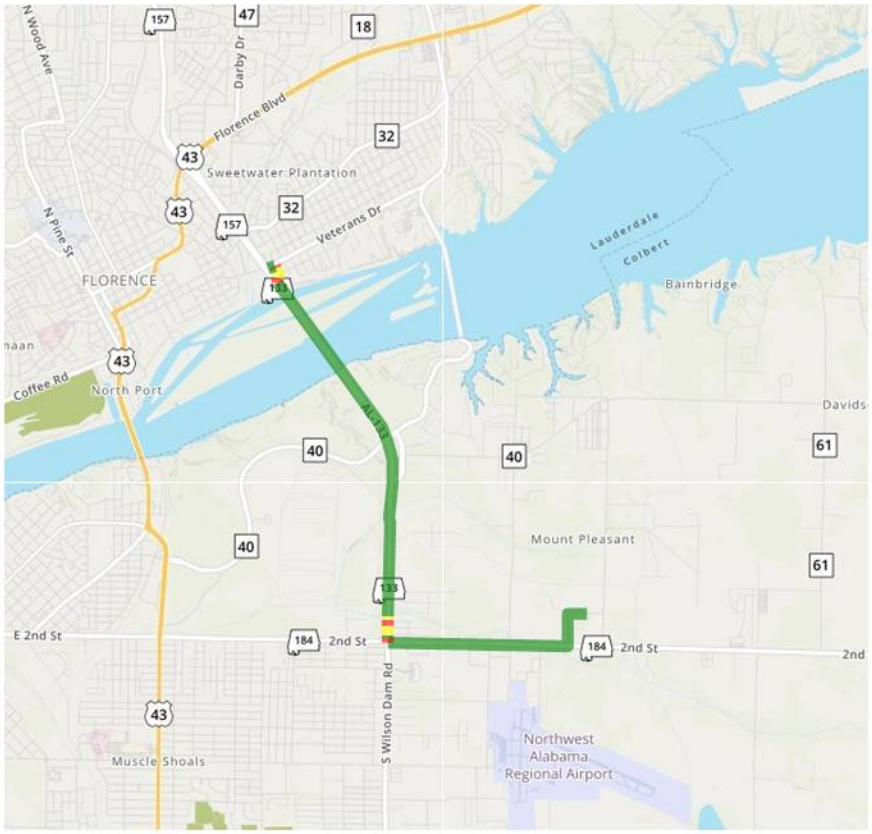
6. Turn **left** onto Veterans Dr.

If you are on Cole Ave and reach Industry St you've gone about 0.1 miles too far.

Then 0.08 miles — 5.32 total miles

7. 1701 Veterans Dr, Florence, AL 35630, 1701 VETERANS DR is on the **right**.

If you reach Commerce St you've gone about 0.1 miles too far.



HASP
Attachment C

Data Sheets for Contaminants of Concern
(Note: MSDS Sheets for field-use chemicals are located in the MSDS folders on each field vehicle)

ONE CALL
Attachment D