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CORRECTIVE ACTION PLAN (CP-12)

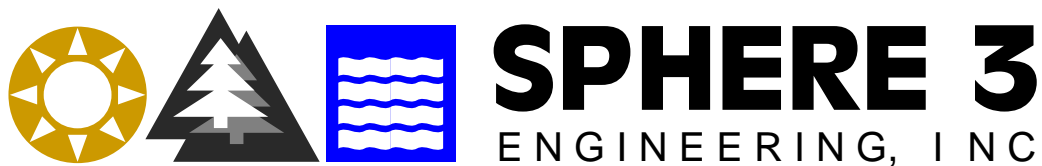
**Krish-Sai, LLC
Stop n Shop Shell
ADEM Facility ID: 24381-029-014792
UST Incident Number: UST15-08-03
1945 Almon Street
Heflin, Alabama 36264
(Cleburne County)**

March 15, 2021

**Prepared for:
Krish-Sai, LLC
21 Teal Drive
Oxford, Alabama 36203**

**Prepared by:
SPHERE 3 ENGINEERING, INC
(Alabama General Contractor #49971)
3433 Sierra Drive
Hoover, Alabama 35216
Phone: (205) 403-3317**

SPHERE 3 File: KS.SSS.12



CERTIFICATION PAGE

I certify under penalty of law that this Corrective Action Plan and all specifications, and 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.



Signature

Greg Hoagland, P.E.



21581

Registration Number

March 15, 2021

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UST RELEASE FACT SHEET

GENERAL INFORMATION:

SITE NAME: Stop n Shop Shell

ADDRESS: 1945 Almon Street; Heflin, Cleburne County, AL

FACILITY I.D. NO.: 24381-029-014792

UST INCIDENT NO.: UST15-08-03

RESULTS OF EXPOSURE ASSESSMENT:

- How many private drinking water wells are located within 1,000 feet of site? **One**
- How many public water supply wells are located within 1 mile of site? **None**
- 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? **No**
- Have vapors or contaminated groundwater posed a threat to the public? **No**
- Are any underground utilities impacted by the release? **No**
- Have surface waters been impacted by the release? **No**
- Is there an imminent threat of contamination of surface waters? **No**
- What is the type of surrounding population? **Commercial/Residential**

CONTAMINATION DESCRIPTION:

Type of contamination at site: Gasoline Diesel Waste Oil
 Kerosene Other:

Free product present in wells? Yes No

Max. benzene/MTBE/naphthalene concentrations measured in soils:
0.098 mg/kg benzene / 0.106 mg/kg MTBE / 0.122 mg/kg naphthalene

Max. benzene/MTBE/naphthalene concentrations measured in groundwater:
3.140 mg/L benzene / 4.540 mg/L MTBE / 0.409 mg/L naphthalene

ADEM 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: Stop n Shop Shell
 SITE ADDRESS: 1945 Almon Street
Heflin (Cleburne County) Alabama 36264
 FACILITY I.D. NO.: 24381-029-014792
 UST INCIDENT NO.: UST15-08-03
 OWNER NAME: Krish-Sai, LLC
 OWNER ADDRESS: 21 Teal Drive; Oxford, Alabama 36203
 NAME & ADDRESS OF PERSON COMPLETING THIS FORM: Greg Hoagland, P.E.
SPHERE 3 Engineering, Inc.
3433 Sierra Drive; Hoover, Alabama 35216

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.	<input type="checkbox"/>	<input checked="" type="checkbox"/>
A.2	Vapor concentrations at or approaching explosive levels are present in subsurface utility system(s), but no buildings or residences are impacted.	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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.	<input type="checkbox"/>	<input checked="" type="checkbox"/>
B.2	An active domestic water supply well, domestic water supply line or domestic surface water intake is impacted or immediately threatened.	<input type="checkbox"/>	<input checked="" type="checkbox"/>
B.3	The release is located within a designated Wellhead Protection Area I.	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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.	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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.	<input type="checkbox"/>	<input checked="" type="checkbox"/>

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.	<input type="checkbox"/>	<input checked="" type="checkbox"/>
D.2	A non-potable water supply well is impacted or immediately threatened.	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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.	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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.	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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.	<input type="checkbox"/>	<input checked="" type="checkbox"/>
F.2	Groundwater is impacted and a domestic well is located within 1,000 feet of the site.	<input checked="" type="checkbox"/>	<input type="checkbox"/>
F.3	Contaminated soils and/or groundwater are located within designated Wellhead Protection Areas (Areas II or III).	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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.	<input type="checkbox"/>	<input checked="" type="checkbox"/>
CLASS 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.	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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.	<input type="checkbox"/>	<input checked="" type="checkbox"/>

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
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Corrective Action Plan Certification

This Corrective Action Plan (CAP) has been developed under the guidance of and certified by Mr. Greg Hoagland, P.E., Alabama Professional Engineer #21581. The CAP certification page is presented at the beginning of this report.

INTRODUCTION

Executive Summary

As requested by the Alabama Department of Environmental Management (ADEM), this CAP has been completed for the facility known as Stop n Shop Shell, located at 1945 Almon Street in Heflin, Alabama (see Figure 2). The subject facility has been impacted with a release of unleaded gasoline as identified below:

Facility I.D.: 24381-029-014792 Incident No.: UST15-08-03

CAP Objectives

The objective of the CAP is to assess that the dissolved Chemicals of Concern (COCs) concentrations and free product, which characterize the subsurface plume at the facility, are being reduced and recovered by remediation by natural attenuation (RNA) supplemented with Mobile-Enhanced Multiphase Extraction (MEME) events.

Based on historical data for the site, RNA supplemented with MEMEs appears to be a viable and economical method of corrective action (CA). SPHERE 3 prepared an Alabama Risk-Based Corrective Action (ARBCA) Tier 1 and Tier 2 Evaluation report, dated December 29, 2020, to establish Site-Specific Target Levels (SSTLs) for COCs concentrations in soil and groundwater at the site. The ARBCA Tier 1 and Tier 2 Evaluation report was approved by ADEM in a letter dated February 8, 2021. SSTLs calculated using the ARBCA Tier 2 program are included in the soil and groundwater analytical data summary tables in this report. MEMEs will provide physical removal of the dissolved COCs and free product (if present) at or near the incident source, while RNA will be used to monitor the natural reduction of dissolved COCs through degradation and possibly microbial consumption. The CA would be considered complete upon the confirmation of the reduction of dissolved COCs concentrations, through groundwater monitoring, to meet the SSTLs established by the ARBCA Tier 2 evaluation.

SUMMARY OF PREVIOUSLY CONDUCTED SITE ACTIVITIES

Site Location and Description

The subject facility is located in the northwest $\frac{1}{4}$ of Section 21, Township 16 South, Range 10 East and at 33°22'36.45" North Latitude and 87°05'31.85" West Longitude (Figure 1). The physical address of the facility is 1945 Almon Street, Heflin, Cleburne County, Alabama.

The facility property is currently improved with a convenience store, retailing gasoline motor fuels and sundry items. The facility is surrounded by commercial properties. According to the ADEM Underground Storage Tank (UST) Site Classification System Checklist, the facility has a ranking of F.2.

Description of Release

SPHERE 3 Engineering, Inc. (SPHERE 3) was contracted by Krish-Sai, LLC to provide Response Action Contractor services for their UST facility known as Stop n Shop Shell in Heflin, Alabama. No discrepancies or irregularities were noted during operation of the UST system and the volume of the release is unknown.

Geologic and Hydrogeological Setting

The subject site is located in the Northern Piedmont District of the Piedmont Upland Section in Cleburne County. The district consists of extremely dissected (eroded) uplands developed on metamorphosed sedimentary and igneous rock units. The land surface ranges from 1,100 feet in the north of the county to about 500 feet to the south. Talladega Mountain forms a prominent northeast-southwest trending ridge through this vicinity and includes Cheaha Mountain (the highest point in Alabama at 2,407 feet). Drainage is primarily toward the south into the Tallapoosa river watershed and to the southwest into the Coosa River watershed (Kidd, 1989).

The structure of the Piedmont Uplands is characterized by northeast-southwest trending valleys and ridges which are cut and reshaped by faults and stream activity. The faults include the Carr Mill fault and the Whitestone fault, both located to the south of the target property. The geology is formed from ancient activity along large thrust-fault ramps which extend from the Brevard fault zone in the Southern Piedmont to the southeast. The site is underlain by a thick sequence of residuum and weathered metamorphic and igneous rock units. The target property is immediately underlain by the Talladega Slate. The section is bound on the northwest by the Weisner Ridge and Coosa Valley (Alabama Valley and Ridge) sections, and on the southeast by the Southern Piedmont and Fall Line Hills sections. Each section is separated from the other by large fault lines. To the north is the Talladega thrust fault. The Talladega Slate is characterized as a Greenschist metasedimentary rock domain.

The Talladega Slate forms a complex of low-rank metamorphosed sediments in a continuous belt which ranges from 8 to 22 miles wide and strikes northeastward. The unit consists of slate and phyllite which also contains some marble, dolomite and quartzite. The phyllites are mainly schistose and comprised of 50% quartz. The foliations in the rocks generally dip toward the southeast at high (30-60 degree) angles. The saprolite which overlies the formation ranges from 20 to 35 feet in thickness.

None of the igneous or metamorphic rock units in this vicinity are tapped by public water supply wells. The units have relatively low yields.

Area Water Wells and Other Potential Environmental Receptors

The subject property is located at 1945 Almon Street (Alabama Highway 9) at its intersection with Interstate I-20 (Exit 199) in Heflin (Cleburne County), Alabama. The interchange area is comprised of generally commercial land use surrounded by wooded tracts. Across Interstate I-20 to the south are undeveloped wooded tracts of land, the Damn Yankees Bar & Grill, an active Chevron C-store and a vacant gas station. The facility property is bound on the east by a gravel parking surface, a motel (America's Best Value Inn) and wooded land. Across Almon Street (Highway 9) to the west are the Buster Miles Ford and Buster Miles Chevrolet automotive dealerships, as well as wooded tracts and the distant agricultural land. To the northwest is a McDonald's fast-food restaurant. North of the property are the Vallarta Grill and a Hardee's fast-food restaurant and additional wooded tracts. There were no schools, daycares, or churches observed in this immediate vicinity of the target property. See Figure 2.

Although the initial inventory of private water supply wells revealed no private water supply wells, a subsequent confirmation inventory revealed one water well (PRW-1), formerly used for domestic water supply, located approximately 750 feet north of the facility. Water well PRW-1 is owned by Mr. Wilmer Glasgow, and is located approximately 750 feet north of the site. According to records obtained from the Geological Survey of Alabama, this well is approximately 172 feet deep, and is constructed with 6-inch diameter steel casing to a depth of approximately 86 feet below ground surface (open hole below the cased interval). The well currently is not used. See Figure 2.

The area surrounding the facility is supplied with water by the Heflin Water Board. Municipal water has been available to the target property since its development in 1988.

An inventory of public water supply wells revealed that there are no public water supply wells located within a one mile radius of the facility property. The inventory consisted of a telephone interview with the Heflin Water Board. The local water provider does not use public supply wells. The primary source for drinking water is the reservoir located on Cahulga Creek. The reservoir is located two miles to the north-northwest of the property. The target property is not located within the surface water protection area for that water supply. There are no surface water intakes or filtration facilities located within a one-mile radius of the subject property.

Underground utilities identified on site include a potable water main located beneath the frontage road which bounds the south end of the property. The water line traverses toward the east and onto the motel property. Also present is a natural gas main located on that same side of the property and traverses in near proximity to the UST hold. The property is serviced by a municipal sanitary sewer which features a lift station near this site. There are no known underground telecommunications (fiber optic/coaxial cable) utility lines. A network of subsurface culverts and open drainages are present along both the Highway 9 and frontage roads and are associated with diversion of storm water toward the south and west. Electrical lines are located overhead.

Compilation of Previously Conducted Site Remediation Activities

To date, CA activities conducted as a result of the incident generally include: soil and groundwater sampling activities associated with the Preliminary Investigation, Secondary Investigation, and Additional Monitor Well Installation activities implemented to define the source area and extents of the subsurface COCs, and interim groundwater monitoring events conducted on January 17, 2019, December 30, 2019, February 28, 2020, June 19, 2020, September 10, 2020, and December 18, 2020.

Compilation of Free Product Data from Site Investigations

A measurable thickness of free product has not been detected to date in any of the incident monitor wells. Historical monitor well gauging worksheets are provided as Appendix A.

Compilation of Soil Data from Site Investigations

As part of the incident investigative activities, a total of 24 soil samples were submitted for laboratory analysis. Each soil sample was analyzed for COCs benzene, toluene, ethylbenzene and xylenes (BTEX), methyl tert-butyl ether (MTBE), and naphthalene using Environmental Protection Agency (EPA) method 8260B. A summary of the results of the soil analyses is presented in Table 1 and is depicted on Figure 5. Copies of the historical soil laboratory analytical reports are presented as Appendix B.

Table 1 STOP n SHOP SHELL COCs IN SOILS ANALYTICAL SUMMARY							
BORING	DEPT H (feet)	BENZENE (mg/kg)	TOLUENE (mg/kg)	ETHYL-BENZENE (mg/kg)	TOTAL XYLENES (mg/kg)	MTBE (mg/kg)	NAPH-THALENE (mg/kg)
SB1	20	<0.005	<0.005	<0.005	<0.015	0.063	<0.005
	25	<0.005	<0.005	<0.005	<0.015	0.088	<0.005
SB2	20	<0.005	<0.005	<0.005	<0.015	0.007	<0.005
	25	0.020	0.018	0.005	0.056	0.033	<0.005
SB3	20	<0.005	<0.005	<0.005	<0.015	<0.005	<0.005
	25	<0.005	<0.005	<0.005	<0.015	<0.005	<0.005
SB4	20	<0.005	<0.005	<0.005	<0.015	<0.005	<0.005
	25	<0.005	<0.005	<0.005	<0.015	<0.005	<0.005
SB5	15	<0.005	<0.005	<0.005	<0.015	<0.005	<0.005
	20	<0.005	<0.005	<0.005	<0.015	<0.005	<0.005
SB6	15	<0.005	<0.005	<0.005	<0.015	<0.005	<0.005
	20	<0.005	<0.005	<0.005	<0.015	<0.005	<0.005
SB7	20	<0.005	<0.005	<0.005	<0.015	0.007	<0.005
	25	0.098	0.097	0.025	0.303	0.089	0.122
SB8	20	<0.005	<0.005	<0.005	<0.015	<0.005	<0.005
	25	<0.005	<0.005	<0.005	<0.015	<0.005	<0.005

Table 1 - Concluded STOP n SHOP SHELL COCs IN SOILS ANALYTICAL SUMMARY							
BORING	DEPT H (feet)	BENZENE (mg/kg)	TOLUENE (mg/kg)	ETHYL- BENZENE (mg/kg)	TOTAL XYLENES (mg/kg)	MTBE (mg/kg)	NAPH- THALENE (mg/kg)
SB9	15	0.011	<0.005	<0.005	<0.015	0.106	<0.005
	20	0.010	<0.005	<0.005	0.020	0.016	<0.005
SB10	15	<0.005	<0.005	<0.005	<0.015	<0.005	<0.025
	20	<0.005	<0.005	<0.005	<0.015	<0.005	<0.025
SB11	15	<0.005	<0.005	<0.005	<0.015	<0.005	<0.025
	20	<0.005	<0.005	<0.005	<0.015	<0.005	<0.025
DW	20	<0.005	<0.005	<0.005	<0.015	0.022	<0.005
	25	<0.005	<0.005	<0.005	<0.015	0.077	<0.005
GRP SSTLs		7.580	637.000	281.000	346.000	13.800	265.000
Notes: mg/kg – milligrams per kilogram GRP SSTLs – Site-Specific Target Levels protective of the Groundwater Resource Protection Area, as calculated using the ARBCA Tier 2 Program							

SPHERE 3 prepared an ARBCA Tier 1 and Tier 2 Evaluation report, dated December 29, 2020, in which SSTLs for COCs concentrations in soil and groundwater were calculated using the Tier 2 program. The ARBCA evaluation was approved by ADEM in a letter dated February 8, 2021. SSTLs for COCs in soil are included in Table 1. As shown in this table, COCs concentrations did not exceed applicable SSTLs in any of the soil samples collected at the site to date.

Compilation of Groundwater Data

As shown on Figure 4, the facility's current monitor well network consists of 11 Type II monitor wells (MW-1 through MW-11) and one Type III monitor well (MW-DW1). The most recent comprehensive water level gauging event was conducted at the site on December 18, 2020. Free product was not detected in any monitor well. Depths to groundwater as measured in the Type II monitor wells ranged from 17.98 feet below the top of well casing (btoc) in monitor well MW-11 to 23.79 feet btoc in monitor well MW-6. Groundwater elevations as measured in the Type II monitor wells ranged from 874.31 feet above mean sea level (amsl) in monitor well MW-6 to 877.20 feet amsl in monitor well MW-8. The depth to water in Type III monitor well MW-DW1 was 22.65 feet btoc, and the corresponding groundwater elevation was 876.00 feet amsl. Interpretation of these data indicates a predominant groundwater flow direction to the southeast, under an average hydraulic gradient of approximately 1.6 feet per 100 feet. Groundwater elevation data collected on December 18, 2020 are illustrated on Figure 6. Historical monitor well gauging worksheets are provided as Appendix A.

To monitor the dissolved plume, groundwater samples have been collected from each monitor well as part of the various phases of investigative activities. Copies of the historical groundwater laboratory analytical reports are presented as Appendix C. A historical summary of dissolved

COCs data is presented in Appendix D.

As part of the ARBCA Tier 2 evaluation for the site, SSTLs for groundwater protective of the GRP area were calculated for each well. Applicable SSTLs are included in the historical groundwater analytical data summary in Appendix D. As shown in this summary, dissolved benzene and MTBE concentrations in groundwater samples collected from monitor well MW-7 exceeded applicable SSTLs during the most recent sampling event of December 18, 2020.

The interpreted configuration of the dissolved COCs plume during the groundwater sampling event of December 18, 2020 is illustrated on Figure 7.

Summary of the ARBCA Evaluation as Compared to Current Data

SSTLs for soil and groundwater were generated for the facility through a Tier 2 ARBCA evaluation prepared by SPHERE 3, dated December 29, 2020. The ARBCA evaluation was approved by ADEM in a letter dated February 8, 2021. The results of the Tier 2 evaluation indicated that COCs concentrations did not exceed applicable SSTLs in any of the soil samples collected at the site to date. The SSTLs protective of the GRP for soils are the most stringent of the Tier 2 target levels, including those generated for any reasonably completed human exposure pathways.

Historical groundwater analytical data for the site are summarized in Appendix D. This historical summary also includes the ARBCA Tier 2 dissolved SSTLs protective of the GRP area. As shown in this summary, dissolved benzene and MTBE concentrations in groundwater samples collected from monitor well MW-7 exceeded applicable SSTLs during the most recent sampling event of December 18, 2020.

Concentration and Distribution of Chemicals of Concern Exceeding SSTLs

The results of the Tier 2 evaluation indicated that COCs concentrations did not exceed applicable SSTLs in any of the soil samples collected at the site to date.

The most recently measured dissolved benzene and MTBE concentrations in groundwater samples collected from monitor well MW-7 exceeded applicable SSTLs.

CORRECTIVE ACTION PLAN

Source Area Remediation

The source area generally appears to be located in the vicinity of monitor well MW-7. The initial objective of source area remediation will be to recover residual free product (if present), and groundwater impacted by COCs at concentrations exceeding applicable SSTLs. As previously mentioned in this report, measurable free product has not been detected to date in any of the incident monitor wells.

Because the source area has a core of relatively small size, as generally defined by Type II monitor wells MW-7 and MW-2, quarterly MEME events are proposed to remove the

groundwater from the source area. Each MEME event will have a duration of 8 hours and will target the source area.

Existing 2-inch diameter Type II monitor wells MW-2 and MW-7 will be over-drilled and completed as 4-inch diameter recovery wells to be utilized as extraction points during the MEME events. These two existing wells will be over-drilled using 10.25-inch outside diameter hollow-stem auger drilling equipment. Each boring will be terminated within unconsolidated soils, at an approximate depth of 30 feet below ground surface (bgs). The recovery wells subsequently will be constructed with 4-inch diameter schedule 40 polyvinyl chloride (PVC) materials. The construction of each well will include 15 feet of 0.01-inch slotted well screen. A graded sand pack will be emplaced in the well annulus from the bottom of each well to approximately two feet above the top of the well screen. This sand pack will be followed by a minimum of one foot of bentonite seal, and grout to near the ground surface. The surface completion for each of the proposed wells will include a 12-inch diameter steel manhole cover embedded within a 2-foot x 2-foot square concrete pad, poured and finished to match the existing land grade. A cross-sectional diagram of a typical 4-inch diameter Type II monitor well is presented as Appendix E.

Since the two proposed recovery wells will be installed within existing boreholes, soil samples will not be collected during advancement of the borings.

Each proposed well will be allowed to equilibrate prior to development. To develop each new well, SPHERE 3 personnel will attempt to purge an equivalent of four well volumes of groundwater from each well using new, single-use disposal bailers. Actual purge volumes will depend upon the groundwater recharge rates at the time of development.

All waste soils generated as part of the proposed well installation activities will be temporarily stored in a lined roll-off box container. One soil sample will be collected from the cuttings, and will be submitted for total lead analysis using EPA Method 6020B. SPHERE 3 will prepare and submit a waste profile to the ADEM Land Division for review. Upon receipt of the waste disposal approval letter from ADEM, the waste soils will be picked up, transported, and disposed at the approved disposal facility.

RNA is recommended for the dissolved plume associated with this incident because dissolved COCs concentrations at the facility are anticipated not to exceed SSTLs for any reasonably completed human exposure pathway. Consequently, the objective of the CAP will be to reduce the dissolved COCs plume concentrations to levels below the calculated SSTLs protective of the GRP area through a natural degradation process.

To confirm the process of natural degradation of the dissolved COCs, a quarterly groundwater monitoring program will be implemented. Groundwater monitoring will be performed to measure the success of the MEME events and to confirm that the dissolved COCs concentrations are decreasing to levels below the applicable SSTLs.

Prior to each groundwater re-sampling event, groundwater levels in the 12 existing monitor wells (MW-1 through MW-11, and MW-DW1) will be gauged with an oil/water interface probe.

The first three quarterly sampling events following CAP approval will be conducted as “selected well” sampling events. During each of these events, groundwater samples will be collected from nine selected wells, including monitor wells MW-1, MW-2, MW-4, MW-6, MW-7, MW-9, MW-10, MW-11, and MW-DW1. The fourth quarterly sampling event following CAP approval will be conducted as a comprehensive sampling event, with samples to be collected from all 12 incident monitor wells (MW-1 through MW-11, and MW-DW1). Prior to sampling, each well to be sampled will be purged of approximately three well volumes or until dry and allowed to recharge. Each of the samples will be submitted for laboratory analysis of BTEX, MTBE, and naphthalene using EPA method 8260B.

Groundwater purging and sampling will be conducted with single-use, disposable, PVC bailers and nylon rope. SPHERE 3 estimates that approximately 30 gallons of purge liquids will be generated as a result of the purging activities associated with each of the “selected well” sampling events. An estimated 40 gallons of purge liquids will be generated during the comprehensive sampling event. All purge liquids, consisting of petroleum-contact water (PCW) and residual free product (if present), will be temporarily stored on-site within a 275-gallon tote. Liquids in the tote will be evacuated and disposed as part of the subsequent MEME event.

To document the findings of each re-sampling event, an ADEM formatted MEME-Supplemented Natural Attenuation Monitoring Report (NAMR), along with the necessary figures and tables will be prepared and submitted within one month of each re-sampling event.

Estimated Duration of Clean-up

The estimated time (or duration) of clean-up has been based solely on experience. The duration is estimated as five years. To estimate the duration, SPHERE 3 assumes:

- no more than 12 quarterly MEME events will be required to significantly reduce the magnitude of the source area dissolved COCs, and;
- all dissolved COCs concentrations will be stable at or below their respective SSTL within 60 months of CAP implementation.

If, after 60 months of CAP implementation, further Corrective Action is required, an amended CAP may be submitted to propose more aggressive techniques to expedite closure.

QUALITY ASSURANCE/QUALITY CONTROL PLAN

Air Sampling

Air samples are collected utilizing a “Pulse Pump” (air sampling) pump. The pump is primed, prior to collection of each sample, to displace any trapped air or gases with the targeted air make-up. The air is drawn in and exits through polyethylene tubing. The sample is stored in a Tedlar[®] air/gas sampling bag. The pump is also used to extract air/gases from a vacuum and drive them into a field screening instrument. The air sample collection and screening protocols are described below.

Air Screening

Air screening is conducted to provide a field indication of the levels of hydrocarbon gases in vapor phase. The air/gases are screened with a Photoionization Detector (PID) equipped with a methane filter. As stated above, the air/gases are driven into the PID with the air sampling pump. The samples are immediately screened at ambient conditions and the data recorded onto a headspace analysis worksheet.

The field screening test form contains the following information:

1. The project name (client and location);
2. Table number;
3. Personnel collecting the samples;
4. Field screening instrument used and I.D. number;
5. Calibration information;
6. Description of field screening method;
7. Sample identification information; and
8. Field screening data including time collected, time screened, ambient temperature, and field screening reading.

Air Sampling Protocols

Each air sample is submitted for laboratory analysis of BTEX, MTBE and TPH (GRO) by EPA method 18. The air samples are transferred, along with an ample supply of ice, in a cooler to an analytical laboratory following appropriate preservation and chain-of-custody protocols. Preservation protocols are not required for BTEX, MTBE and TPH analysis of air samples.

Soil Sampling

Soil samples are collected from all soil exploration borings following one of the following ASTM Standard Methods: D-1452 (Practice for Soil Investigation and Sampling by Auger Borings); D-1586 (Method for Penetration Test and Split -Barrel Sampling of Soils); or D-1587 (Practice for Thin-Walled Tube Sampling of Soils) (Note: samples collected from the upper 5 feet of each boring are collected with hand auger equipment). Soil samples are typically collected on either a continuous basis or on five-foot centers (i.e. samples intervals 3'-5', 8'-10', 13'-15', etc.). Each soil sample is divided into two portions. One portion is prepared for field screening and one portion is prepared for analytical testing. The soil sample collection and screening protocols are described below.

Soil Screening

Soil screening is conducted to provide a field indication of the relative levels of soil constituent concentrations. In the event that the boring depth is dependent upon the results of the soil screening (vertical extent investigations), the soil samples will be field screened immediately upon collection. Otherwise, the soil samples will be allowed to equilibrate to ambient conditions greater than 60 degrees Fahrenheit for at least one hour prior to soil screening.

The portion of the soil sample collected for field screening is placed in a pint or quart mason type glass jar until the jar is approximately half full. The top of the jar is then sealed with aluminum foil

and a threaded lid ring. The sample is screened by puncturing the aluminum seal with the instrument probe and measuring the headspace of the ambient samples. The instrument currently used by SPHERE 3 is a PID. The PID are calibrated prior to headspace sampling and rechecked upon completion of headspace analysis each day. The PID is calibrated to a benzene standard.

Generally, the soil samples with the highest PID readings collected from the unsaturated zone are selected for analytical testing. If groundwater is not encountered in the boring, two soil samples are analyzed from each boring. Typically, the deepest soil sample and the sample yielding the highest field screening value are selected for analytical testing. Additional soil samples may be selected for analytical testing, depending on site-specific conditions.

Soil Sampling Protocol

All undisturbed soil samples are collected using either split spoon sampler (ASTM D-1586) or a Shelby Tube sampler (ASTM D-1587) (Note: soil samples collected from the upper 3 feet in each boring are collected with hand auger equipment). The sampling is conducted by advancing the borehole to the desired depth using a flight auger or hollow-stem auger. A clean split spoon or Shelby tube sampler is then advanced to the bottom of the hole and hammered or pushed into the soil. The sampler is then retrieved. The split spoon samples are removed by opening the split spoon and removing the sample using a clean stainless steel knife. The Shelby tube samples are removed with a hydraulic extruder. After being removed from the sampler, the sample is then placed on disposable foil-lined sample catchers for classification and analytical preparation. Upon completion of the sample collection, the boring is advanced to the depth of the next sample using the hollow stem or flight augers and the sampling procedure is repeated.

The soil samples selected for analytical testing are cored and weighed using either an En Core or Terra Core extruding device. Upon extrusion, the sample cores are placed within a series of 40 mL vials containing a precisely measured quantity of methanol preservative and submitted for appropriate COCs analysis. Each vial is sealed with a Teflon[®] lined cap. Each vial is labeled, placed in a bubble pack and a "Ziploc" bag, and immediately stored, along with an ample supply of ice, in a cooler. Each sample label includes the site location, sample identification number, name of collector, date and time of collection, and parameter(s) requested (if space permits).

All sample handling is conducted with disposable latex gloves. Between individual samples, all disposable items are discarded and all non-disposable equipment (knives, spatulas, cheese cutters, split spoon samplers and Shelby Tube samplers) are decontaminated utilizing the following procedure:

- 1) Rinse with potable water to remove bulk solids;
- 2) Wash with laboratory-grade detergent and potable water solution;
- 3) Rinse with deionized water;
- 4) Wash with isopropanol; and
- 5) Rinse with deionized water.

The soil samples are transferred, along with an ample supply of ice, in a cooler to an analytical laboratory following appropriate preservation and chain-of-custody protocols. Preservation

protocols for COCs soil samples include maintaining samples temperatures at or below 4 degrees Celsius at all time. Additional preservatives are not necessary for soil samples.

Groundwater Sampling

Groundwater samples are collected approximately 7 to 14 days after monitor well development. Collecting groundwater samples from monitor wells includes the following activities: 1) gauging for the presence of LPH; 2) measurement of static water level; 3) calculation of standing water volume; 4) well purging; 5) sample collection; and 6) equipment cleaning. The results of the sampling activities are recorded on a monitor well sampling record form. The details of these six activities are described in the following sections.

Free Product Measurements

Free product thicknesses (if present) are measured prior to purging and sampling the well with a hydrocarbon/water interface probe. The thickness is measured by lowering the probe slowly into the well until a tone is heard (Note: an intermittent tone indicates the presence of water and a constant tone indicates the presence of free product). The first point, as the probe is lowered into a well, at which a constant tone is first heard, is considered as the top of the free product. The distance from the top of the PVC well casing to the top of the free product is recorded. This distance is confirmed by re-measuring. The probe is then slowly lowered further into the well until an intermittent tone is heard. Upon hearing an intermittent tone, the probe is slowly pulled upward until the constant tone is heard again. This is considered the free product/water table interface. The distance from the top of the PVC casing to the free product/water table interface is recorded. This distance is confirmed by re-measuring.

The free product thickness is determined by calculating the difference between these two distances (Note: the interface probe measures product and water levels to an accuracy of +/- 0.01 feet). If free product is identified by the interface probe, a clear bailer is lowered in the well to collect a sample of the free product for a visual confirmation.

Static Groundwater Elevation Measurements

The static groundwater levels are measured with the hydrocarbon/water interface probe. The measurements are recorded as the distance from the top of the PVC well casing to the point at which an intermittent tone is emitted from the probe. This distance is confirmed by re-measuring. Subsequently, each measurement is converted to an elevation with respect to either an arbitrary elevation of 100 feet established at the site or to mean sea level as determined from the associated USGS topography map.

Calculations of Standing Water Volumes

The standing water volume in each well is calculated as the volume of a cylinder:

$$\text{Volume} = \pi \times \text{diameter}^2 \div 4 \times \text{height},$$

Where the diameter considered is that of the well casing and the height considered is the length of the water column present in the well.

Well Purging

The well purging process is implemented after the static water level is measured and the standing water volume has been calculated. Well purging is generally achieved with an appropriate bailer.

Well purging with a bailer is conducted by attaching new nylon line to the bailer then lowering the bailer in to the well until the bailer is submerged. The bailer is then retrieved from the well in such a manner that the bailer and nylon line does not come into contact with any potential source of hydrocarbon constituents. In order to determine the amount of water removed from the well, the contents of the bailer is poured into a graduated bucket. This procedure is repeated until three well volumes of water are removed or the well is purged dry.

Groundwater Sample Collection

Groundwater samples are collected from monitor wells not containing LPH. The bailer is lowered into the well to a depth where the bailer is completely submerged. The bailer is then retrieved from the well in such a manner that the bailer and nylon line does not come into contact with any potential source of hydrocarbon constituents. The water is then immediately poured slowly into the sample containers.

Each groundwater sample is submitted for laboratory analysis of BTEX, MTBE & naphthalene by method 8260B. The groundwater is poured slowly down the side of the sample vial to avoid aeration. The sample vial is a laboratory grade 40-ml glass vial with a Teflon[®] septum cap. Sample is added until a convex meniscus is formed at the top of vial. A Teflon[®] septum cap is placed and threaded secure on the container. The container is then upended and checked for the presence of trapped air. If air is present, more sample is added and the process repeated until an air-free sample is attained. The preservation of the BTEX, MTBE & naphthalene groundwater samples includes both ice and hydrochloric acid.

Following the collection of groundwater samples, each is labeled, placed in bubble pack and stored, along with an ample supply of ice, in a cooler. Each label includes the site location, sample identification number, name of collector, date and time of collection, and parameter(s) requested (if space permits). The cooler is then sealed and transported overnight to the laboratory follow appropriate chain of custody protocols.

Cleaning of Groundwater Sampling Equipment

All equipment used for sampling is either well dedicated or discarded following the completion of the groundwater sampling activities.

Chain-of-Custody

Sample custody begins with the subcontracted laboratory as sample kits are prepared and submitted to SPHERE 3. Responsibility for sample container materials and preparation lies with the subcontracted laboratory. Sample containers and kits are normally shipped to SPHERE 3 by common carrier. Upon receipt of the kits, SPHERE 3 personnel complete an inventory of its contents to determine adequacy for the sampling program. Sample bottles may be pre-labeled and contain proper preservative. The sample kits are then re-secured until ready for use.

Field sampling operations do not normally involve a transfer of sample custody during the project activities. The samples will remain in the custody of the SPHERE 3 personnel until delivered to the subcontract laboratory or dispatched via common carrier for shipment. In cases where samples leave the control of SPHERE 3, such as shipment to a laboratory by a common carrier (e.g. airfreight), a custody seal(s) will be placed on the shipping container. These seals act as a deterrent against vandalism.

To establish the documentation necessary to trace sample possession from time of collection, a chain-of-custody record will be filled out and will accompany every sample. The record contains the following types of information:

- Sample number;
- Signature of collector;
- Date and time of collection;
- Sample type (e.g., ground water, immiscible layer);
- Identification of well;
- Number of containers;
- Parameters requested for analysis, and;
- Signature of person(s) involved in the chain of possession.

Field and Laboratory Quality Control

SPHERE 3 conducts internal quality control checks of sampling procedures and laboratory analyses. Described below is the field and laboratory QA/QC program.

Field QA/QC Program

Groundwater samples may be warranted by means of a trip blank. A trip blank is a field blank that is transported from the laboratory to the sampling site, handled the same as other samples, then returned to the laboratory for analysis in determining QA/QC of sample handling procedures. The trip blank should be filled with distilled water in the laboratory at a frequency of one (1) per cooler.

The results of the analysis of the blanks will not be used to correct the groundwater data. If constituents are found in the blanks, an attempt to identify the source will be initiated and corrective action, including resampling, will be evaluated.

After completion of each sampling program, the field data package (field logs, calibration records, chain-of-custody forms, etc.) will be reviewed by the project manager for completeness and accuracy. The review will include but are not limited to the following:

- A completeness review of field data contained on water and soil sampling logs;
- A verification that sampler rinsate blanks, field blanks, and trip blanks were properly prepared, identified, and analyzed;
- A check on field analyses for equipment calibration and condition, and;
- A review of chain-of-custody forms for proper completion, signatures of field personnel, and the laboratory sample, custodian, and dates.

Laboratory QA/QC Program

The selection of a contract laboratory is typically based upon several factors including cost; laboratory certification; quality data and reporting; and turn-around time. The most critical factor in the selection of an analytical laboratory is the quality of analysis and reporting.

As an analytical report is received by SPHERE 3, validation of the analytical data package will be reviewed by the project manager. The review will include but not be limited to the following:

- A comparison of the Data Package to the reporting level requirements designed for the project, to ensure completeness;
- A comparison of sampling dates, laboratory extraction dates, and analysis dates to determine if samples were extracted and/or analyzed within the proper holding times;
- A review of analytical methods and required detection limits to verify confirmation with the established parameters, and;
- A review of the laboratory blank(s) to evaluate handling procedures. The preparation techniques and frequencies, and the analytical results (if appropriate) will be considered.

SITE HEALTH AND SAFETY PLAN

The site-specific health and safety plan has been updated to include the activities proposed herein and is presented as Appendix F.

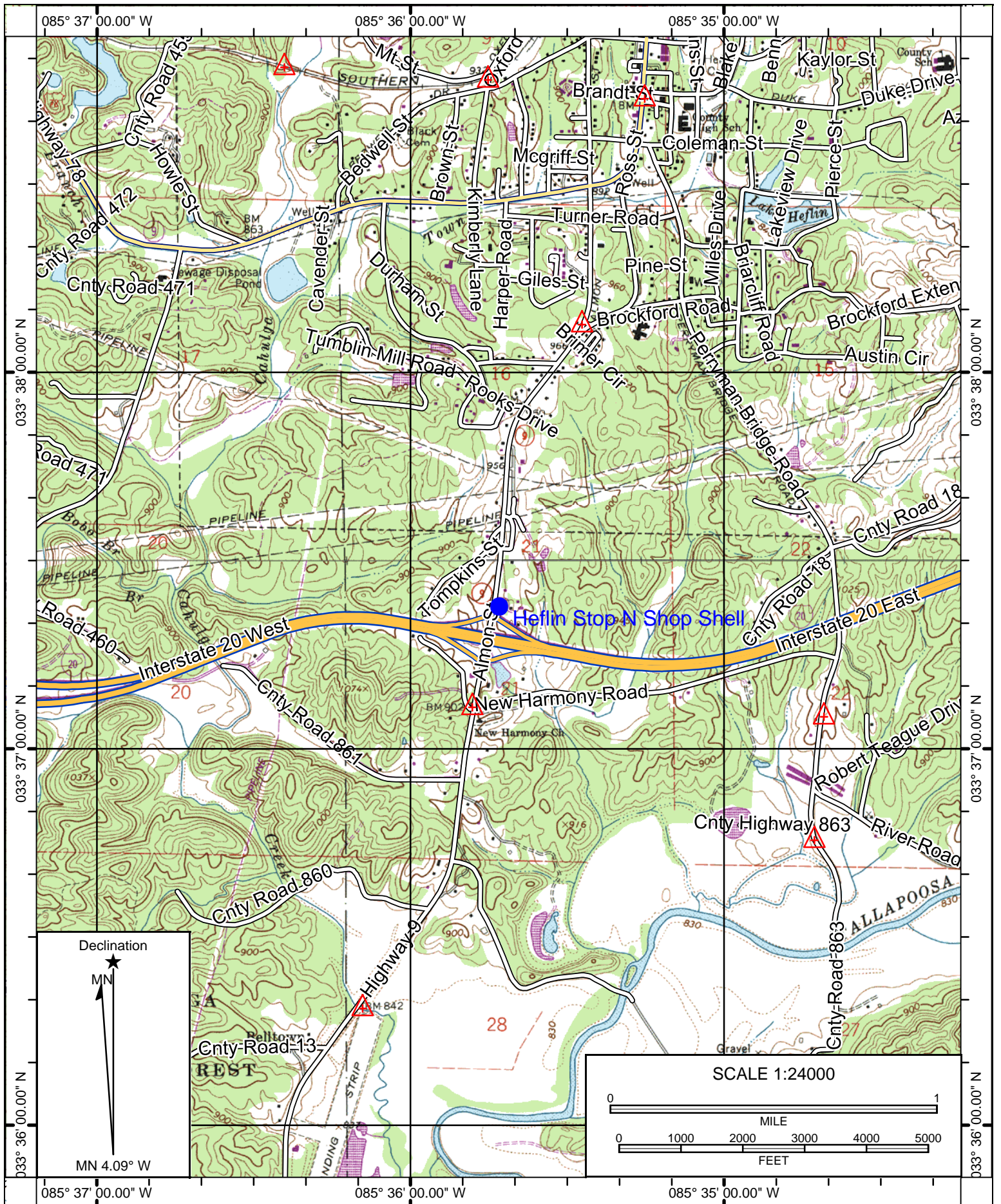
PERSONNEL AND SUBCONTRACTOR QUALIFICATIONS

The activities associated with the CAP were completed by the following SPHERE 3 personnel/subcontractors:

Project Manager:	Greg Hoagland, P.E.
Report Preparation:	Jonathan A. Hunter, P.G. and Greg Hoagland, P.E.
Report Drafting:	Mark Pate
Report Production:	Karen Embry
Report Review:	Greg Hoagland, P.E.

The project was managed and supervised by Greg Hoagland, Professional Engineer. The report was prepared by Mr. Hoagland and Mr. Hunter. Mr. Hunter and Mr. Hoagland have conducted numerous Preliminary and Secondary Investigations, and have prepared numerous CAPs under the Alabama Tank Trust Fund (ATTF).





Name: ROSS MT
 Date: 11/17/15
 Scale: 1 inch = 2,000 ft.

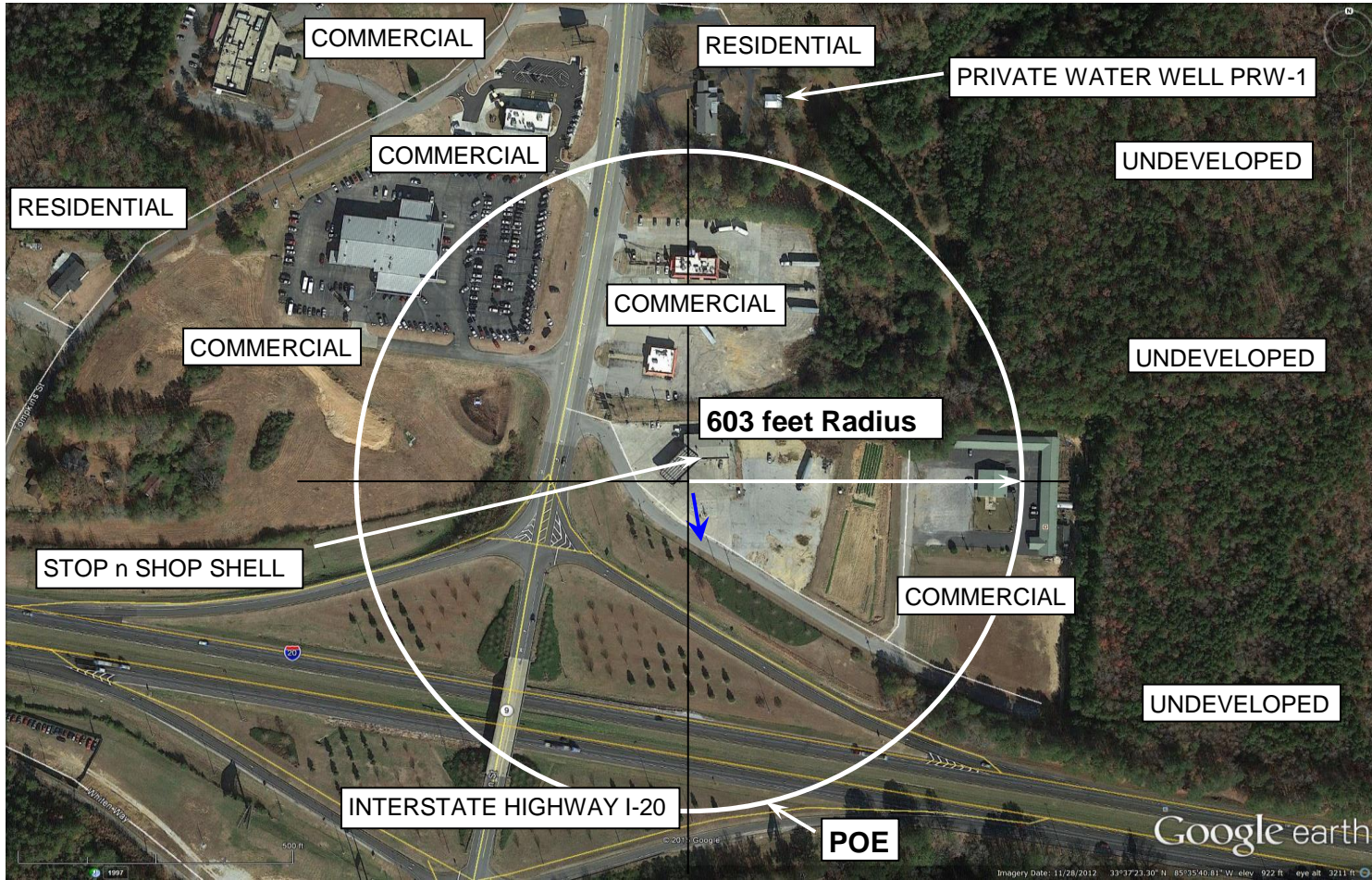
Location: 033° 37' 22.64" N, 085° 35' 43.14" W
 Caption: FIGURE 1; Area Vicinity Map; Stop N Shop Shell (UST15-08-03); Heflin, Alabama

CADD FILE NO.: KS.SSS

CHECKED BY

MEP

DRAWN BY



LEGEND

Source: Google Earth

POE - (Projected) Point of Exposure

← Groundwater Flow Direction

02/06/11	2	Resized to 8.5"x11"	GTD
05/17/05	1	Border Adjustments	JGH
DATE	NO.	REVISION	BY

SPHERE 3
ENGINEERING, INC

KRISH-SAI, LLC
OXFORD, ALABAMA

CORRECTIVE ACTION PLAN
STOP N SHOP SHELL (UST15-08-03)
1945 ALMON STREET
HEFLIN, ALABAMA 36264

POINTS OF EXPOSURE MAP

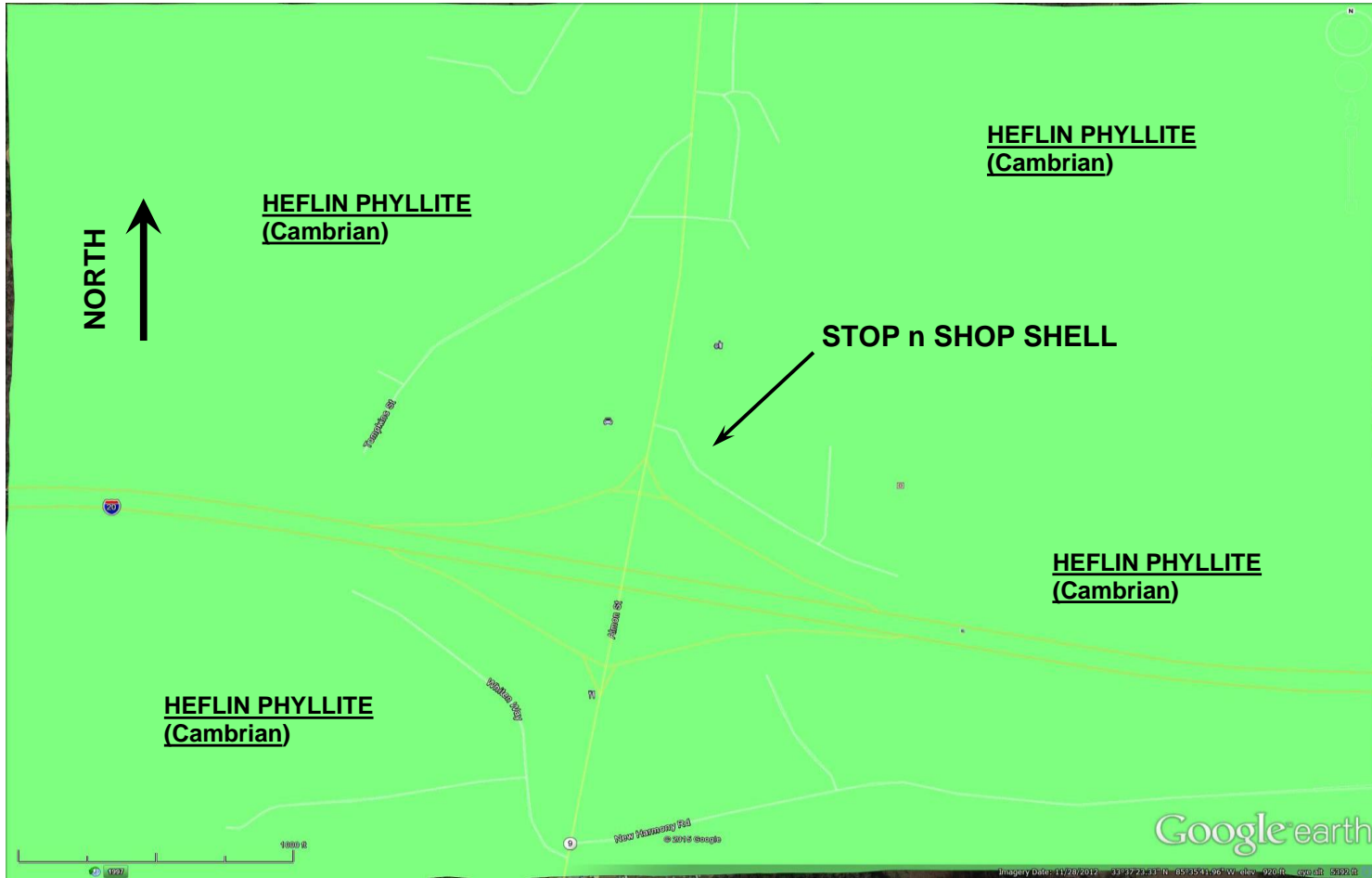
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Figure

CADD FILE NO.: KS.SSS

CHECKED BY

MEP

DRAWN BY



LEGEND

Source: Google Earth

02/06/11	2	Landscaped	GTD
05/17/05	1	Border Adjustments	JGH
DATE	NO.	REVISION	BY

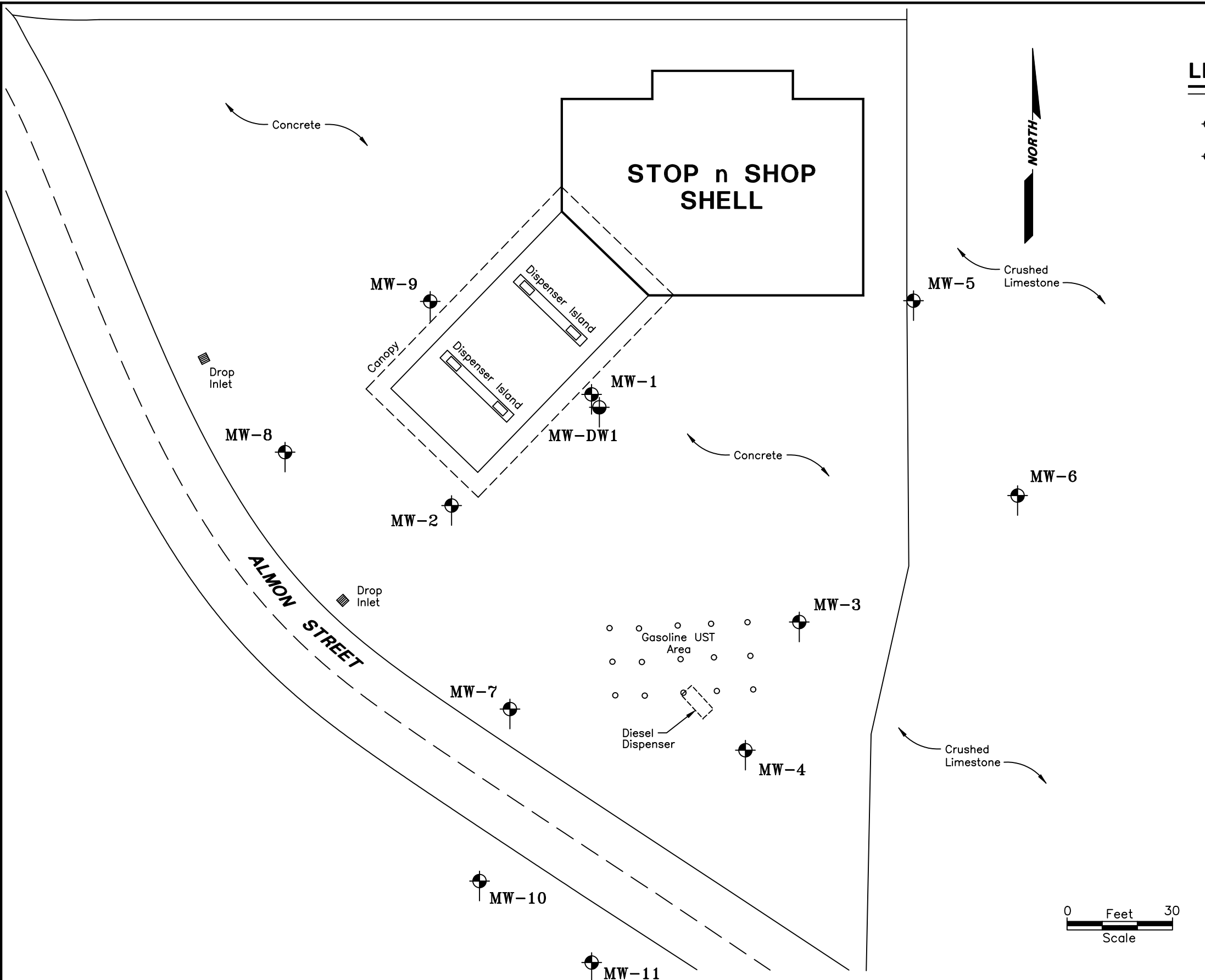
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CORRECTIVE ACTION PLAN
STOP N SHOP SHELL (UST15-08-03)
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SPHERE 3
ENGINEERING, INC

GEOLOGIC MAP **3**
Figure

CADD FILE NO. KS.SSS
 CHECKED BY
 MEP
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LEGEND

-  Soil Exploration Boring/Type II Monitor Well
-  Soil Exploration Boring/Type III Monitor Well

DATE	NO.	REVISION	BY

KRISH-SAI, LLC
 OXFORD, ALABAMA
 Client

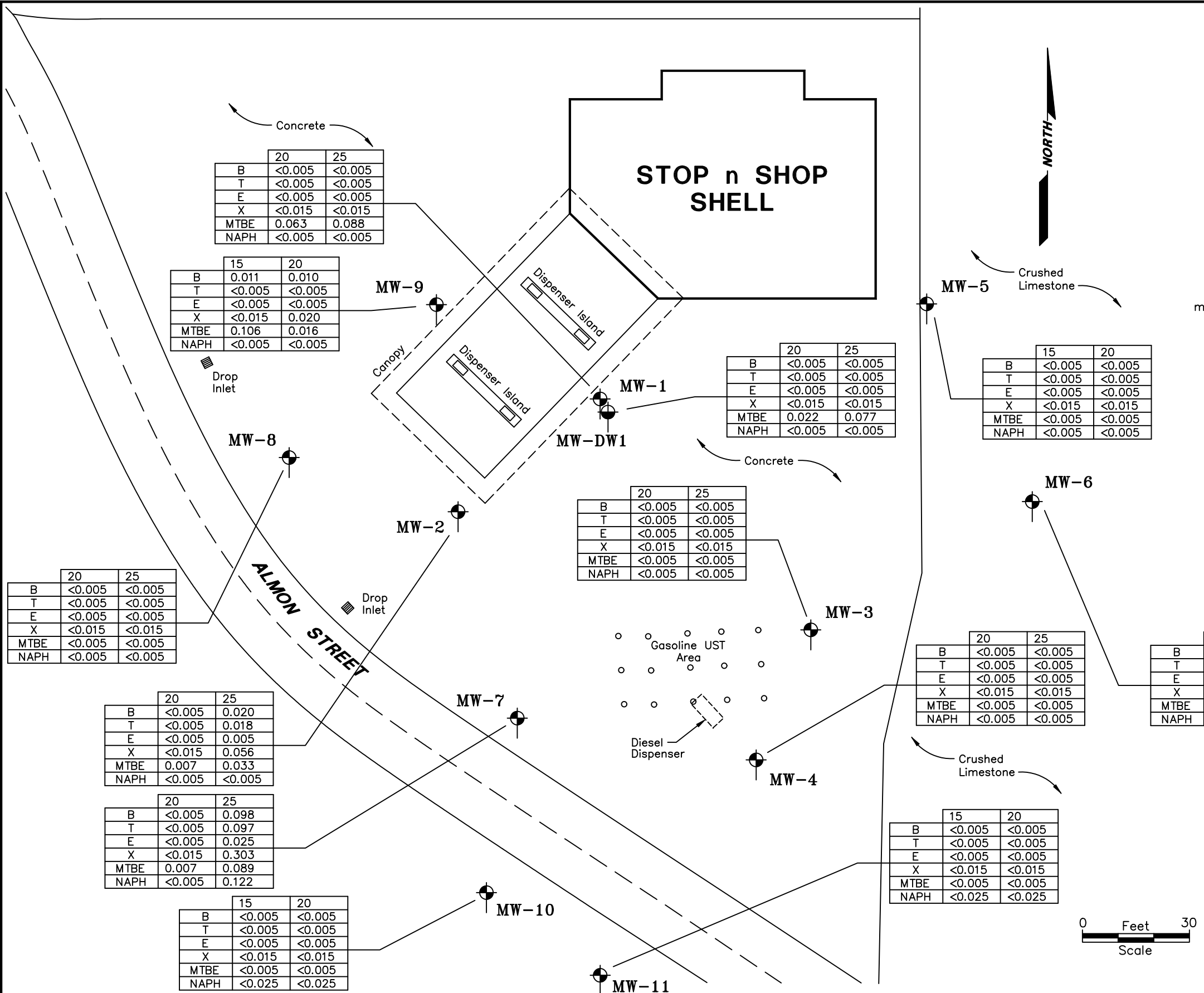
CORRECTIVE ACTION PLAN
 STOP n SHOP SHELL (UST15-08-03)
 1945 ALMON STREET
 HEFLIN, ALABAMA 36264
 Project Title



SITE PLAN

Fig. No. **4**

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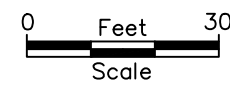


LEGEND

- Soil Exploration Boring/Type II Monitor Well
- Soil Exploration Boring/Type III Monitor Well

Sample Collection Depth (feet bgs)	
B	Benzene Concentration (mg/kg)
T	Toluene Concentration (mg/kg)
E	Ethylbenzene Concentration (mg/kg)
X	Total Xylenes Concentration (mg/kg)
MTBE	Methyl-Tertiary-Butyl-Ether Concentration (mg/kg)
NAPH	Naphthalene Concentration (mg/kg)

mg/kg Milligrams per Kilogram
 bgs Below the Ground Surface



SPHERE 3
 ENGINEERING, INC

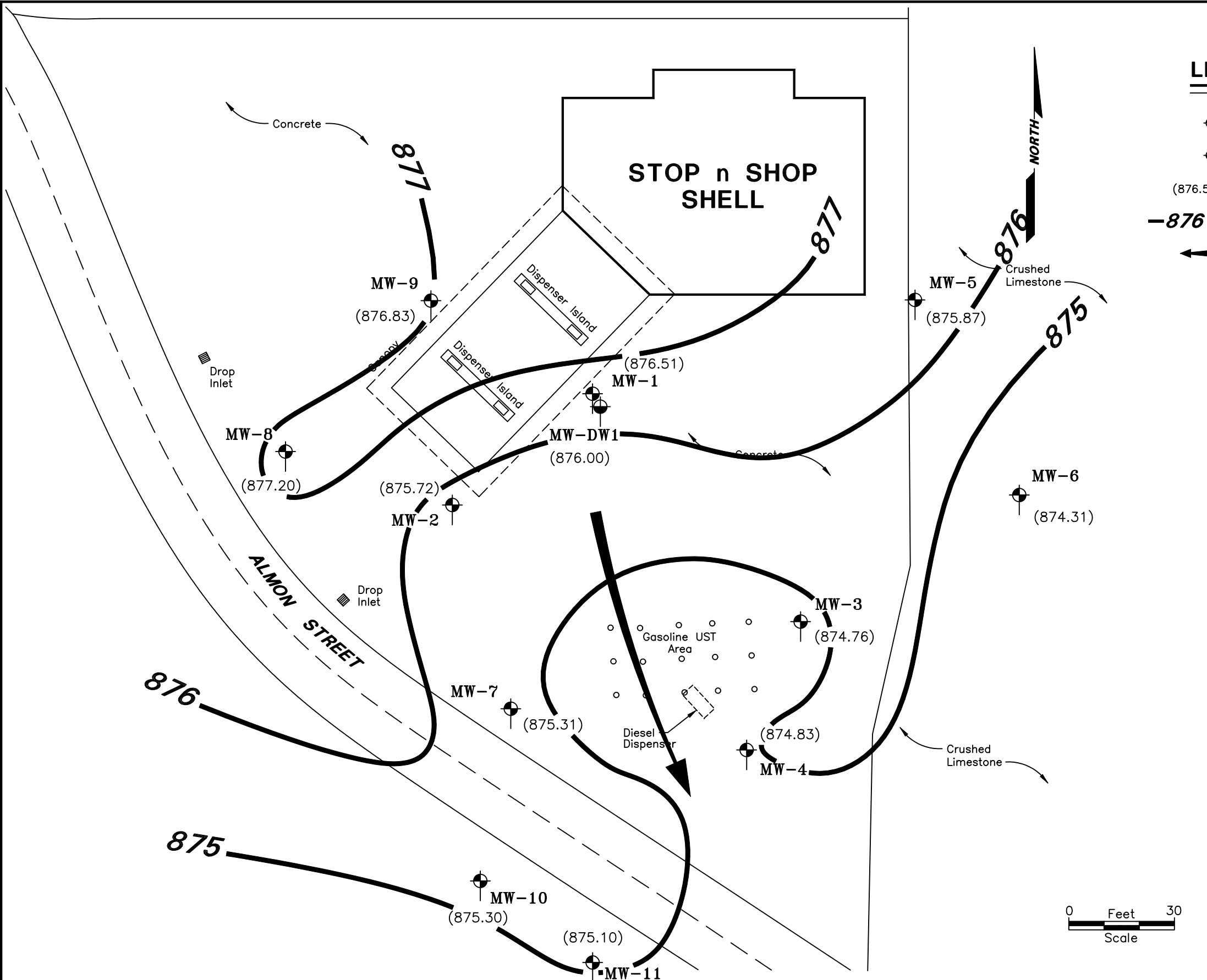
DATE	NO.	REVISION	BY

KRISH-SAI, LLC
 OXFORD, ALABAMA
 Client

CORRECTIVE ACTION PLAN
STOP n SHOP SHELL (UST15-08-03)
 1945 ALMON STREET
 HEFLIN, ALABAMA 36264
 Project Title

CHEMICALS OF CONCERN
IN SOILS CONCENTRATIONS
MAP

CADD FILE NO. KS.SSS
 CHECKED BY
 MEP
 DRAWN BY



LEGEND

- Soil Exploration Boring/Type II Monitor Well
- Soil Exploration Boring/Type III Monitor Well
- (876.51) Potentiometric Surface Elevation (feet a.m.s.l.)
- 876-** Isopotentiometric Surface Elevation Contour (feet a.m.s.l.)
- Groundwater Flow Direction (12/18/2020)

DATE	NO.	REVISION	BY

KRISH-SAI, LLC
 OXFORD, ALABAMA
 Client

CORRECTIVE ACTION PLAN
 STOP n SHOP SHELL (UST15-08-03)
 1945 ALMON STREET
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 Project Title

POTENTIOMETRIC SURFACE ELEVATION MAP
 (12/18/2020)

SPHERE 3
 ENGINEERING, INC

6
 Fig. No.

CADD FILE NO. KS.SSS
 CHECKED BY
 MEP
 DRAWN BY

B	<0.001
T	<0.001
E	<0.001
X	<0.003
MTBE	<0.001
NAPH	<0.005

B	0.709
T	0.014
E	0.005
X	0.083
MTBE	1.160
NAPH	0.009

B	1.710
T	0.034
E	0.242
X	0.730
MTBE	3.900
NAPH	0.069

B	0.007
T	0.152
E	0.570
X	1.810
MTBE	0.009
NAPH	0.274

B	0.036
T	0.003
E	0.002
X	0.015
MTBE	0.005
NAPH	<0.005

B	0.236
T	0.004
E	0.008
X	0.017
MTBE	0.222
NAPH	0.017

B	<0.001
T	<0.001
E	<0.001
X	<0.003
MTBE	<0.001
NAPH	<0.005

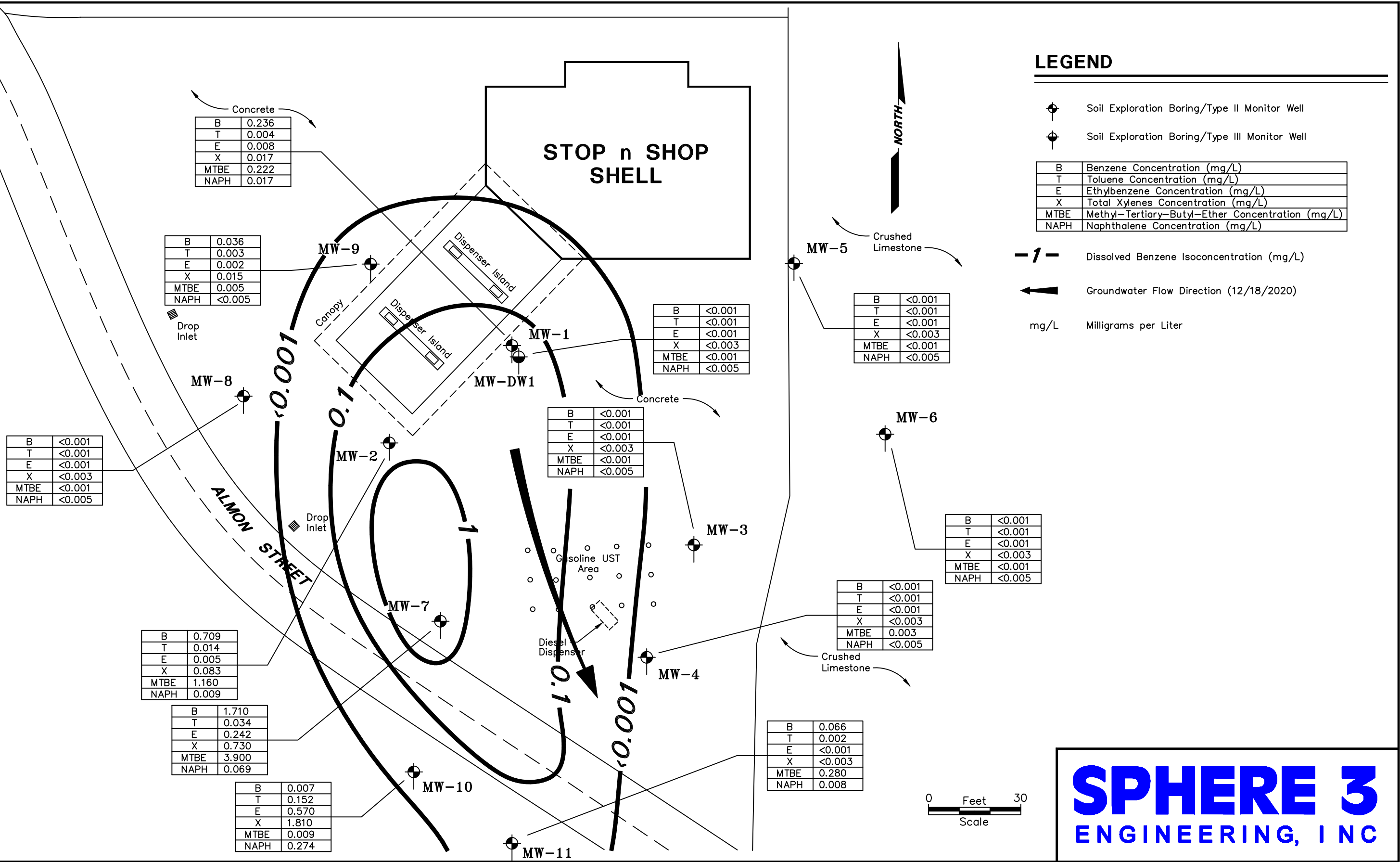
B	<0.001
T	<0.001
E	<0.001
X	<0.003
MTBE	<0.001
NAPH	<0.005

B	<0.001
T	<0.001
E	<0.001
X	<0.003
MTBE	<0.001
NAPH	<0.005

B	<0.001
T	<0.001
E	<0.001
X	<0.003
MTBE	<0.001
NAPH	<0.005

B	<0.001
T	<0.001
E	<0.001
X	<0.003
MTBE	0.003
NAPH	<0.005

B	0.066
T	0.002
E	<0.001
X	<0.003
MTBE	0.280
NAPH	0.008



LEGEND

- Soil Exploration Boring/Type II Monitor Well
- Soil Exploration Boring/Type III Monitor Well

B	Benzene Concentration (mg/L)
T	Toluene Concentration (mg/L)
E	Ethylbenzene Concentration (mg/L)
X	Total Xylenes Concentration (mg/L)
MTBE	Methyl-Tertiary-Butyl-Ether Concentration (mg/L)
NAPH	Naphthalene Concentration (mg/L)

- Dissolved Benzene Isoconcentration (mg/L)
- Groundwater Flow Direction (12/18/2020)
- mg/L Milligrams per Liter

SPHERE 3
 ENGINEERING, INC

DISSOLVED CHEMICALS OF CONCERN CONCENTRATIONS MAP (12/18/2020)

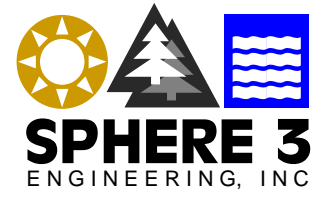
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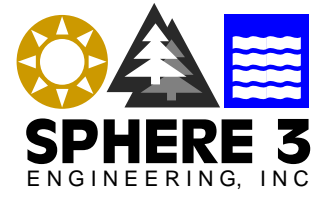
Fig. No.

DATE	NO.	REVISION	BY

KRISH-SAI, LLC
 OXFORD, ALABAMA
 Client

CORRECTIVE ACTION PLAN
STOP n SHOP SHELL (UST15-08-03)
 1945 ALMON STREET
 HEFLIN, ALABAMA 36264
 Project Title





Sutherland

Environmental Company, Inc.

2515 5th Avenue South
Birmingham, AL 35233
205-581-9500



Client:	Sphere 3 Engineering, Inc.	Report Date:	November 3, 2015
Attention:	Mr. Greg Hoagland	Reference #	33906
Address:	3433 Sierra Drive	P.O. #	verbal
	Hoover, AL 35216	Project ID:	Heflin Shell

Sample Matrix:	soil	Analytical	
Date Received:	10/28/15	Analyst:	Hageman/Heard
Date Collected:	10/27/15	Date of Analysis:	11/2/15
Sample Collector:	G. Karstens	Method:	EPA Method 8260B

VOLATILE ORGANICS - BTEX/MTBE/NAPHTHALENE							
	FIELD ID	FIELD ID	FIELD ID	FIELD ID	FIELD ID	FIELD ID	
	SB1 20'	SB1 25'	SB2 20'	SB2 25'	SB3 20'	SB3 25'	
Volatiles	LAB ID	LAB ID	LAB ID	LAB ID	LAB ID	LAB ID	Detection
Organic, ppm	167391	167392	167393	167394	167395	167396	Limit, ppm
Benzene	BDL	BDL	BDL	0.020	BDL	BDL	0.005
Toluene	BDL	BDL	BDL	0.018	BDL	BDL	0.005
Ethylbenzene	BDL	BDL	BDL	0.005	BDL	BDL	0.005
Xylenes, o,m,p	BDL	BDL	BDL	0.056	BDL	BDL	0.015
MTBE	0.063	0.088	0.007	0.033	BDL	BDL	0.005
Naphthalene	BDL	BDL	BDL	BDL	BDL	BDL	0.005
	FIELD ID	FIELD ID					
	SB4 20'	SB4 25'					
Volatiles	LAB ID	LAB ID					Detection
Organic, ppm	167397	167398					Limit, ppm
Benzene	BDL	BDL					0.005
Toluene	BDL	BDL					0.005
Ethylbenzene	BDL	BDL					0.005
Xylenes, o,m,p	BDL	BDL					0.015
MTBE	BDL	BDL					0.005
Naphthalene	BDL	BDL					0.005

BDL = Below Detection Limit
Detection Limit is Practical Quantitation Limit
All results expressed as ppm of analyte

MJH /QAQC

EPA Laboratory ID AL01084

Respectfully submitted,

Kevin Doriety

Kevin Doriety
Analytical Chemist

Sutherland

Environmental Company, Inc.

2515 5th Avenue South
Birmingham, AL 35233
205-581-9500



Client: Sphere 3 Engineering, Inc.	Report Date: November 3, 2015
Attention: Mr. Greg Hoagland	Reference # 33906
Address: 3433 Sierra Drive	P.O. # verbal
Hoover, AL 35216	Project ID: Heflin Shell

Sample Matrix: soil	<u>Analytical</u>
Date Received: 10/28/15	Analyst: R. Currence
Date Collected: 10/27/15	Date of Analysis: 10/29/15
Sample Collector: G. Karstens	Method: <i>EPA Method 418.1 Modified for soils</i>

TOTAL PETROLEUM HYDROCARBONS			
FIELD ID	LAB ID	TPH, PPM	D.L., PPM
Spoil	167399	BDL	10

BDL = Below Detection Limit
D.L. = Detection Limit, Practical
All results expressed as PPM (mg/Kg)

MH / QAQC

EPA Laboratory ID AL01084

Respectfully submitted,

Kevin Doriety
Analytical Chemist

Sutherland Environmental Read and Review Checklist


1. Is the client and the sample collector(s) accurately noted on report?	<input type="checkbox"/> NO	<input checked="" type="checkbox"/> YES	<input type="checkbox"/> NO	<input checked="" type="checkbox"/> YES
2. Do all dates match the COC on the report?	<input type="checkbox"/> NO	<input checked="" type="checkbox"/> YES	<input type="checkbox"/> NO	<input checked="" type="checkbox"/> YES
3. Is the purchase order ID (PO) and project ID accurately noted on report?	<input type="checkbox"/> NO	<input checked="" type="checkbox"/> YES	<input type="checkbox"/> NO	<input checked="" type="checkbox"/> YES
4. Are all methods and method references correct on report?	<input type="checkbox"/> NO	<input checked="" type="checkbox"/> YES	<input type="checkbox"/> NO	<input checked="" type="checkbox"/> YES
5. Do the Field ID(s) and the Lab ID(s) correspond to the COC?	<input type="checkbox"/> NO	<input checked="" type="checkbox"/> YES	<input type="checkbox"/> NO	<input checked="" type="checkbox"/> YES
6. Is the report formatted correctly?	<input type="checkbox"/> NO	<input checked="" type="checkbox"/> YES	<input type="checkbox"/> NO	<input checked="" type="checkbox"/> YES
7. Does the following information on report correspond to the printout information from the analytical instrumentation:				
Sample Matrix	<input type="checkbox"/> NO	<input checked="" type="checkbox"/> YES	<input type="checkbox"/> NO	<input checked="" type="checkbox"/> YES
Analyst	<input type="checkbox"/> NO	<input checked="" type="checkbox"/> YES	<input type="checkbox"/> NO	<input checked="" type="checkbox"/> YES
Analysis Date/Time	<input type="checkbox"/> NO	<input checked="" type="checkbox"/> YES	<input type="checkbox"/> NO	<input checked="" type="checkbox"/> YES
Analyte concentration	<input type="checkbox"/> NO	<input checked="" type="checkbox"/> YES	<input type="checkbox"/> NO	<input checked="" type="checkbox"/> YES
Units	<input type="checkbox"/> NO	<input checked="" type="checkbox"/> YES	<input type="checkbox"/> NO	<input checked="" type="checkbox"/> YES
Dilution Factors/Conversions	<input type="checkbox"/> NO	<input checked="" type="checkbox"/> YES	<input type="checkbox"/> NO	<input checked="" type="checkbox"/> YES
Detection/Reporting/Quant. Limits	<input type="checkbox"/> NO	<input checked="" type="checkbox"/> YES	<input type="checkbox"/> NO	<input checked="" type="checkbox"/> YES
QC Reviewed:		<input checked="" type="checkbox"/> YES		<input type="checkbox"/> YES
Initial:		<u>MJA</u>		<u>AD</u>
PDF: <u>G. Hoopland + G. Karstens</u>				
Notes: _____				
			Invoice # <u>33906</u>	
			<i>Sutherland Environmental Co., Inc.</i>	

Sutherland Environmental Company Inc.

Sample Check-in Form

Date Received: <u>10/28/15</u>	Invoice # <u>33906</u>
Method of Delivery: <u>hand</u>	Client: <u>Sphere 3</u>

1. Did any containers arrive broken?	YES	<input checked="" type="radio"/> NO
* If so, please state field ID with analysis of broken sample(s) _____		
2. Were cooler(s) sealed upon arrival?	<input checked="" type="radio"/> YES	NO NA
3. Were the samples received at the proper temperature (4°C +/- 2°C)?	<input checked="" type="radio"/> YES	NO NA
4. Did a chain of custody accompany the samples?	<input checked="" type="radio"/> YES	NO
* Was it properly filled out?		
	<input checked="" type="radio"/> YES	NO
5. Were correct containers used for the analysis requested?	<input checked="" type="radio"/> YES	NO
6. Were all containers properly preserved?	YES	NO <input checked="" type="radio"/> NA
7. Were all water samples received at the proper pH?	YES	NO <input checked="" type="radio"/> NA
8. If VOA vials were present, was there any head space?	YES	NO <input checked="" type="radio"/> NA
* If so, please state field ID of deficient sample(s): _____		
9. Were all containers properly labeled and match chain of custody?	<input checked="" type="radio"/> YES	NO
10. Did containers arrive within holding time of analysis?	<input checked="" type="radio"/> YES	NO
* If not, please state field ID and analysis of sample(s) out of holding time: _____		
11. Was client informed of any/all deficiencies in sample check-in?	YES	NO <input checked="" type="radio"/> NA
12. Were any samples rejected?	YES	<input checked="" type="radio"/> NO
* If so, please state field ID of rejected sample(s): _____		

Sample Custodian (signed): 

Sutherland

Environmental Company, Inc.

2515 5th Avenue South

BIRMINGHAM, AL 35233

PHONE (205)581-9500 FAX (205)581-9504

E-Mail: suthlab@bellsouth.net

**CHAIN OF CUSTODY
ANALYSIS REQUEST**

SEND REPORT TO:

Invoice # **33906**

Name: **SPRIG HOAGLAND**

Company: **SPRIG'S ENVIRONMENTAL**

Address: **3433 SIDRA DRIVE
HOUSTON, AL 35214**

Phone#: _____ Cell # _____

E-mail: _____

PDF Results: yes no Fax #: _____

Client P.O. # _____

CLIENT: **MOUSA PROPERTIES, INC**

PROJECT: **WELIN STREET**

SAMPLER(S):
(print) **G KARSTENS, P. G.**

DATE DELIVERED: **10/28/15**

LAB ID	FIELD ID	DATE Collected	TIME Collected	SAMPLE DESCRIPTION (matrix)	ANALYSIS REQUESTED / METHOD						Number of sample containers		
					BRX	MTBL	NAPH	TPH					
167391	SB1 20'	10/27	1035	SOIL BORING	✓	✓							1
167392	SB1 25'		1050	}	✓	✓							1
167393	SB2 20'		1330		✓	✓							1
167394	SB2 25'		1350		✓	✓							1
167395	SB3 20'		1130		✓	✓							1
167396	SB3 25'		1145		✓	✓							1
167397	SB4 20'		1220		✓	✓							1
167398	SB4 25'		1240		✓	✓							1
167399	SPOIL		1430		SOIL PILE			✓					

Preservative: (a)HCL, (b)HNO₃, (c)H₂SO₄, (d)NaOH, (e) Na₂S₂O₃, (f) H₃PO₄, (g)Zn Acetate
 Container type: (a) Amber, (g) Glass, (p) Plastic, (v) VOC Vial, (air) air bag
 Preservative: **ON COOL 40C**
 Container: **40Z GLASS**
 Last revised: 5/29/12

Relinquished by Sampler: **G Karstens** Date: **10/28/15** Time: **2:23**
 Received by: _____ Date: _____ Time: _____
 Turn Around Time (please note):
 Standard *RUSH, mark below
 *3-Day *2-Day *Next Day *Same Day

Relinquished by: _____ Date: _____ Time: _____
 Received by: _____ Date: _____ Time: _____
 Signed: _____
 Remarks: **T.F.**

Relinquished by: _____ Date: _____ Time: _____
 Received in Laboratory by: **Chragan** Date: **10/28/15** Time: **2:28**
 Signed: _____
 Refrigerated upon receipt: yes no

Sutherland

Environmental Company, Inc.

2515 5th Avenue South
Birmingham, AL 35233
205-581-9500



Client: Sphere 3 Engineering, Inc.	Report Date: April 18, 2016
Attention: Mr. Greg Hoagland	Reference # 34895
Address: 3433 Sierra Drive	P.O. # verbal
Hoover, AL 35216	Project ID: Stop N Shop Shell

Sample Matrix: soil	Analytical
Date Received: 4/12/16	Analyst: Hageman/Heard
Date Collected: 4/8/16 & 4/11/16	Date of Analysis: 4/15-16/16
Sample Collector: G. Karstens	Method: EPA Method 8260B

VOLATILE ORGANICS - BTEX/MTBE/NAPHTHALENE							
	FIELD ID	FIELD ID	FIELD ID	FIELD ID	FIELD ID	FIELD ID	
	HS-SB5	HS-SB5	HS-SB6	HS-SB6	HS-SB7	HS-SB7	
	15'	20'	15'	20'	20'	25'	
Volatile Organic, ppm	LAB ID	LAB ID	LAB ID	LAB ID	LAB ID	LAB ID	Detection Limit, ppm
Benzene	BDL	BDL	BDL	BDL	BDL	0.098	0.005
Toluene	BDL	BDL	BDL	BDL	BDL	0.097	0.005
Ethylbenzene	BDL	BDL	BDL	BDL	BDL	0.025	0.005
Xylenes, o,m,p	BDL	BDL	BDL	BDL	BDL	0.303	0.015
MTBE	BDL	BDL	BDL	BDL	0.007	0.089	0.005
Naphthalene	BDL	BDL	BDL	BDL	BDL	0.122	0.005
	FIELD ID	FIELD ID	FIELD ID	FIELD ID	FIELD ID	FIELD ID	
	HS-SB8	HS-SB8	HS-SB9	HS-SB9	HS-DW	HS-DW	
	20'	25'	15'	20'	20'	25'	
Volatile Organic, ppm	LAB ID	LAB ID	LAB ID	LAB ID	LAB ID	LAB ID	Detection Limit, ppm
Benzene	BDL	BDL	0.011	0.010	BDL	BDL	0.005
Toluene	BDL	BDL	BDL	BDL	BDL	BDL	0.005
Ethylbenzene	BDL	BDL	BDL	BDL	BDL	BDL	0.005
Xylenes, o,m,p	BDL	BDL	BDL	0.020	BDL	BDL	0.015
MTBE	BDL	BDL	0.106	0.016	0.022	0.077	0.005
Naphthalene	BDL	BDL	BDL	BDL	BDL	BDL	0.005

BDL = Below Detection Limit
Detection Limit is Practical Quantitation Limit
All results expressed as ppm of analyte

mw / QAQC

EPA Laboratory ID AL01084

Respectfully submitted,

Kevin Doriety

Kevin Doriety
Analytical Chemist

Sutherland Environmental Read and Review Checklist

1. Is the client and the sample collector(s) accurately noted on report?	<input type="checkbox"/> NO	<input checked="" type="checkbox"/> YES	<input type="checkbox"/> NO	<input checked="" type="checkbox"/> YES
2. Do all dates match the COC on the report?	<input type="checkbox"/> NO	<input checked="" type="checkbox"/> YES	<input type="checkbox"/> NO	<input checked="" type="checkbox"/> YES
3. Is the purchase order ID (PO) and project ID accurately noted on report?	<input type="checkbox"/> NO	<input checked="" type="checkbox"/> YES	<input type="checkbox"/> NO	<input checked="" type="checkbox"/> YES
4. Are all methods and method references correct on report?	<input type="checkbox"/> NO	<input checked="" type="checkbox"/> YES	<input type="checkbox"/> NO	<input checked="" type="checkbox"/> YES
5. Do the Field ID(s) and the Lab ID(s) correspond to the COC?	<input type="checkbox"/> NO	<input checked="" type="checkbox"/> YES	<input type="checkbox"/> NO	<input checked="" type="checkbox"/> YES
6. Is the report formatted correctly?	<input type="checkbox"/> NO	<input checked="" type="checkbox"/> YES	<input type="checkbox"/> NO	<input checked="" type="checkbox"/> YES
7. Does the following information on report correspond to the printout information from the analytical instrumentation:				
Sample Matrix	<input type="checkbox"/> NO	<input checked="" type="checkbox"/> YES	<input type="checkbox"/> NO	<input checked="" type="checkbox"/> YES
Analyst	<input type="checkbox"/> NO	<input checked="" type="checkbox"/> YES	<input type="checkbox"/> NO	<input checked="" type="checkbox"/> YES
Analysis Date/Time	<input type="checkbox"/> NO	<input checked="" type="checkbox"/> YES	<input type="checkbox"/> NO	<input checked="" type="checkbox"/> YES
Analyte concentration	<input type="checkbox"/> NO	<input checked="" type="checkbox"/> YES	<input type="checkbox"/> NO	<input checked="" type="checkbox"/> YES
Units	<input type="checkbox"/> NO	<input checked="" type="checkbox"/> YES	<input type="checkbox"/> NO	<input checked="" type="checkbox"/> YES
Dilution Factors/Conversions	<input type="checkbox"/> NO	<input checked="" type="checkbox"/> YES	<input type="checkbox"/> NO	<input checked="" type="checkbox"/> YES
Detection/Reporting/Quant. Limits	<input type="checkbox"/> NO	<input checked="" type="checkbox"/> YES	<input type="checkbox"/> NO	<input checked="" type="checkbox"/> YES
QC Reviewed:	<input checked="" type="checkbox"/> YES		<input checked="" type="checkbox"/> YES	

Initial*:

MSH KD

* MJH = Michael Heard, KD = Kevin Doriety, MSH = Matt Hageman, KH = Kelly Hester

PDF: G. Hoagland, Karstens

Invoice # 34895

Notes: _____

Sutherland Environmental Co., Inc.

Sutherland Environmental Company Inc.

Sample Check-in Form

Date Received:	<u>4/12/16</u>	Invoice #	<u>34895</u>
Method of Delivery:	<u>hand</u>	Client:	<u>Sphere 3</u>

1. Did any containers arrive broken?	YES	<input checked="" type="checkbox"/> NO
* If so, please state field ID with analysis of broken sample(s) _____		
2. Were cooler(s) sealed upon arrival?	<input checked="" type="checkbox"/> YES	NO NA
3. Were the samples received at the proper temperature (4°C +/- 2°C)?	<input checked="" type="checkbox"/> YES	NO NA
4. Did a chain of custody accompany the samples?	<input checked="" type="checkbox"/> YES	NO
* Was it properly filled out?	<input checked="" type="checkbox"/> YES	NO
5. Were correct containers used for the analysis requested?	<input checked="" type="checkbox"/> YES	NO
6. Were all containers properly preserved?	<input checked="" type="checkbox"/> YES	NO NA
7. Were all water samples received at the proper pH?	<input checked="" type="checkbox"/> YES	NO NA
8. If VOA vials were present, was there any head space?	YES	NO <input checked="" type="checkbox"/> NA
* If so, please state field ID of deficient sample(s): _____		
9. Were all containers properly labeled and match chain of custody?	<input checked="" type="checkbox"/> YES	NO
10. Did containers arrive within holding time of analysis?	<input checked="" type="checkbox"/> YES	NO
* If not, please state field ID and analysis of sample(s) out of holding time: _____		
11. Was client informed of any/all deficiencies in sample check-in?	YES	NO <input checked="" type="checkbox"/> NA
12. Were any samples rejected?	YES	<input checked="" type="checkbox"/> NO
* If so, please state field ID of rejected sample(s): _____		

Sample Custodian (signed): Molly Carr

Sutherland

Environmental Company, Inc.

2515 5th Avenue South

BIRMINGHAM, AL 35233

PHONE (205)581-9500 FAX (205)581-9504

E-Mail: suthlab@bellsouth.net

**CHAIN OF CUSTODY
ANALYSIS REQUEST**

SEND REPORT TO:

Invoice #

34895

Name: GREG HORGAN

Company: SPHERE 3 ENV

Address: 3433 SIEGAL DRIVE

HOOVER, AL 35216

Phone#: Cell #

E-mail:

PDF Results: yes no Fax #:

Client P.O. #

CLIENT: KRISH-SAJ, LLC

PROJECT: STOP N SHOP SHALL

SAMPLER(S): G KASTENS, P.G.

DATE DELIVERED: 4-12-16

ANALYSIS REQUESTED / METHOD

LAB ID	FIELD ID	DATE Collected	TIME Collected	SAMPLE DESCRIPTION (matrix)	BTEX	OTHER	ANALYSIS REQUESTED / METHOD				Number of sample containers	
172148	HS-SBS 15'	4/8	0945	Soil Samples	✓	✓						1
172149	HS SBS 20'	4/8	1005		✓	✓						1
172150	HS SBS 15'	4/8	1040		✓	✓						1
172151	HS SBS 20'	4/8	1050		✓	✓						1
172152	HS SBS 20'	4/8	1135		✓	✓						1
172153	HS SBS 25'	4/8	1145		✓	✓						1
172154	HS SBS 20'	4/11	1000		✓	✓						1
172155	HS SBS 25'	4/11	1020		✓	✓						1
172156	HS SBS 15'	4/11	1100		✓	✓						1
172157	HS SBS 20'	4/11	1120		✓	✓						1
172158	HS DW 20'	4/8	1420	✓	✓						1	
172159	HS DW 25'	4/8	1440	✓	✓						1	

Preservative: (a)HCL, (b)HNO₃, (c)H₂SO₄, (d)NaOH, (e) Na₂S₂O₃, (f) H₃PO₄, (g)Zn Acetate

Preservative: ICE @ 4°C

Container type: (a) Amber, (g) Glass, (p) Plastic, (v) VOC Vial, (air) air bag

Container: 4 02-01/15

Last revised

5/29/12

Relinquished by Sampler: *[Signature]* Date: 4/12/16 Time: 1040
Signed: _____ Received by: _____ Date: _____ Time: _____
Signed: _____

Relinquished by: _____ Date: _____ Time: _____
Signed: _____ Received by: _____ Date: _____ Time: _____
Signed: _____

Relinquished by: _____ Date: _____ Time: _____
Signed: _____ Received in Laboratory by: _____ Date: 4/12/16 Time: 10:55
Signed: *M. Carr*

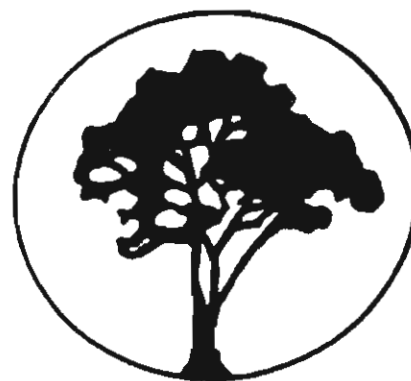
Turn Around Time (please note):
Standard _____ *RUSH, mark below _____
*3-Day *2-Day *Next Day *Same Day

Remarks: T.F.
Refrigerated upon receipt: yes no

Sutherland

Environmental Company, Inc.

2515 5th Avenue South
Birmingham, AL 35233
205-581-9500



Client:	Sphere 3 Engineering, Inc.	Report Date:	May 3, 2016
Attention:	Mr. Greg Hoagland	Reference #	34894
Address:	3433 Sierra Drive	P.O. #	KSSSS.02
	Hoover, AL 35216	Project ID:	Stop N Shop Shell

Sample Matrix:	soil	Analytical	
Date Received:	4/12/16	Analyst:	Kevin Doriety/D. Brown
Date Collected:	4/8/16	Date of Analysis:	4/20/16-5/3/16
Sample Collector:	G. Karstens	Method:	(Listed Below)

PHYSICAL CHARACTERISTICS OF SOIL

Field ID	Lab ID	Gravimetric Moisture Content g-water/ g-soil (1)	Volumetric Moisture Content cc-water/ cc-soil (1a)	Dry Bulk Density pcf (2)	Dry Bulk Density g/cc (2)	Specific Gravity @ 20° C (3)	Porosity cc/cc-soil (4)	Fractional Organic Matter Content g-ash/ g-soil (5)	Fractional Organic Carbon Content g-carbon/ g-soil (6)
ST-1	172146	0.1700	0.2907	107	1.71	2.85	0.3986	0.0116	0.0067
ST-2	172147	0.2670	0.3872	90.5	1.45	2.76	0.4747	0.0125	0.0072

Test Methods/Calculations:

MC = Moisture Content DBD = Dry Bulk Density SG = Specific Gravity

(1) ASTM D2216

(1a) Volumetric MC = Gravimetric MC x DBD (g/cc)

(2) ASTM D2937

(3) ASTM D854

(4) Porosity = $1 - [\text{DBD (g/cc)} / \text{SG (g/cc)}]$


(5) ASTM D2974

(6) Fractional Organic Carbon Content = Fractional Organic Matter Content / 1.724

Method References

ASTM D04.08

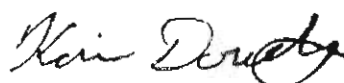
ADEM, 2001, UST ARBCA Guidance Manual (pgs 5-11 - 5-13)

 / QAQC

EPA Laboratory ID AL01084

ADEM #41470

Respectfully submitted,



Kevin Doriety
Analytical Chemist

Sutherland Environmental Read and Review Checklist

1. Is the client and the sample collector(s) accurately noted on report?	<input type="checkbox"/> NO	<input checked="" type="checkbox"/> YES	<input type="checkbox"/> NO	<input checked="" type="checkbox"/> YES
2. Do all dates match the COC on the report?	<input type="checkbox"/> NO	<input checked="" type="checkbox"/> YES	<input type="checkbox"/> NO	<input checked="" type="checkbox"/> YES
3. Is the purchase order ID (PO) and project ID accurately noted on report?	<input type="checkbox"/> NO	<input checked="" type="checkbox"/> YES	<input type="checkbox"/> NO	<input checked="" type="checkbox"/> YES
4. Are all methods and method references correct on report?	<input type="checkbox"/> NO	<input checked="" type="checkbox"/> YES	<input type="checkbox"/> NO	<input checked="" type="checkbox"/> YES
5. Do the Field ID(s) and the Lab ID(s) correspond to the COC?	<input type="checkbox"/> NO	<input checked="" type="checkbox"/> YES	<input type="checkbox"/> NO	<input checked="" type="checkbox"/> YES
6. Is the report formatted correctly?	<input checked="" type="checkbox"/> NO	<input checked="" type="checkbox"/> YES	<input type="checkbox"/> NO	<input checked="" type="checkbox"/> YES
7. Does the following information on report correspond to the printout information from the analytical instrumentation:				
Sample Matrix	<input type="checkbox"/> NO	<input checked="" type="checkbox"/> YES	<input type="checkbox"/> NO	<input checked="" type="checkbox"/> YES
Analyst	<input checked="" type="checkbox"/> NO	<input checked="" type="checkbox"/> YES	<input type="checkbox"/> NO	<input checked="" type="checkbox"/> YES
Analysis Date/Time	<input checked="" type="checkbox"/> NO	<input checked="" type="checkbox"/> YES	<input type="checkbox"/> NO	<input checked="" type="checkbox"/> YES
Analyte concentration	<input type="checkbox"/> NO	<input checked="" type="checkbox"/> YES	<input type="checkbox"/> NO	<input checked="" type="checkbox"/> YES
Units	<input type="checkbox"/> NO	<input checked="" type="checkbox"/> YES	<input type="checkbox"/> NO	<input checked="" type="checkbox"/> YES
Dilution Factors/Conversions	<input type="checkbox"/> NO	<input checked="" type="checkbox"/> YES	<input type="checkbox"/> NO	<input checked="" type="checkbox"/> YES
Detection/Reporting/Quant. Limits	<input type="checkbox"/> NO	<input checked="" type="checkbox"/> YES	<input type="checkbox"/> NO	<input checked="" type="checkbox"/> YES
QC Reviewed:		<input checked="" type="checkbox"/> YES		<input checked="" type="checkbox"/> YES

Initial*:

MJH

KH

* MJH = Michael Heard, KD = Kevin Doriety, MSH = Matt Hageman, KH = Kelly Hester

PDF: G. Hoagland, Karstens

Invoice #

34894

Notes: _____

Sutherland Environmental Co., Inc.

Sutherland Environmental Company Inc.

Sample Check-in Form

Date Received: 4/12/16 **Invoice #** 34894
Method of Delivery: hand **Client:** Sphere 3

1. Did any containers arrive broken? YES NO
* If so, please state field ID with analysis of broken sample(s) _____

2. Were cooler(s) sealed upon arrival? YES NO NA

3. Were the samples received at the proper temperature (4°C +/- 2°C)? YES NO NA

4. Did a chain of custody accompany the samples? YES NO
* Was it properly filled out? YES NO

5. Were correct containers used for the analysis requested? YES NO

6. Were all containers properly preserved? YES NO NA

7. Were all water samples received at the proper pH? YES NO NA

8. If VOA vials were present, was there any head space? YES NO NA
* If so, please state field ID of deficient sample(s): _____

9. Were all containers properly labeled and match chain of custody? YES NO

10. Did containers arrive within holding time of analysis? YES NO
* If not, please state field ID and analysis of sample(s) out of holding time: _____

11. Was client informed of any/all deficiencies in sample check-in? YES NO NA

12. Were any samples rejected? YES NO
* If so, please state field ID of rejected sample(s): _____

Sample Custodian (signed): Molly Carr

Sutherland

Environmental Company, Inc.

2515 5th Avenue South
Birmingham, AL 35233
205-581-9500



Client:	Sphere 3 Engineering, Inc.	Report Date:	April 13, 2016
Attention:	Mr. Greg Hoagland	Reference #	34896
Address:	3433 Sierra Drive	P.O. #	verbal
	Hoover, AL 35216	Project ID:	Stop N Shop Shell

Sample Matrix:	soil	<u>Analytical</u>	
Date Received:	4/12/16	Analyst:	R. Currence
Date Collected:	4/11/16	Date of Analysis:	4/13/16
Sample Collector:	G. Karstens	Method:	<i>EPA Method 418.1 Modified for soils</i>

TOTAL PETROLEUM HYDROCARBONS			
FIELD ID	LAB ID	TPH, PPM	D.L., PPM
HS-SP1	172160	BDL	10

BDL = Below Detection Limit
D.L. = Detection Limit, Practical
All results expressed as PPM (mg/Kg)

MS / QAQC

EPA Laboratory ID AL01084

Respectfully submitted,

Kevin Doriety
Analytical Chemist

Sutherland Environmental Company Inc.

Sample Check-in Form

Date Received:	<u>4/12/16</u>	Invoice #	<u>34896</u>
Method of Delivery:	<u>hand</u>	Client:	<u>Sphere 3</u>

1. Did any containers arrive broken?

YES	<input checked="" type="checkbox"/>
-----	-------------------------------------

* If so, please state field ID with analysis of broken sample(s) _____

2. Were cooler(s) sealed upon arrival?

<input checked="" type="checkbox"/>	NO	NA
-------------------------------------	----	----

3. Were the samples received at the proper temperature (4°C +/- 2°C)?

<input checked="" type="checkbox"/>	NO	NA
-------------------------------------	----	----

4. Did a chain of custody accompany the samples?

<input checked="" type="checkbox"/>	NO
-------------------------------------	----

* Was it properly filled out?

<input checked="" type="checkbox"/>	NO
-------------------------------------	----

5. Were correct containers used for the analysis requested?

<input checked="" type="checkbox"/>	NO
-------------------------------------	----

6. Were all containers properly preserved?

<input checked="" type="checkbox"/>	NO	NA
-------------------------------------	----	----

7. Were all water samples received at the proper pH?

<input checked="" type="checkbox"/>	NO	NA
-------------------------------------	----	----

8. If VOA vials were present, was there any head space?

YES	NO	<input checked="" type="checkbox"/>
-----	----	-------------------------------------

* If so, please state field ID of deficient sample(s): _____

9. Were all containers properly labeled and match chain of custody?

<input checked="" type="checkbox"/>	NO
-------------------------------------	----

10. Did containers arrive within holding time of analysis?

<input checked="" type="checkbox"/>	NO
-------------------------------------	----

* If not, please state field ID and analysis of sample(s) out of holding time: _____

11. Was client informed of any/all deficiencies in sample check-in?

YES	NO	<input checked="" type="checkbox"/>
-----	----	-------------------------------------

12. Were any samples rejected?

YES	<input checked="" type="checkbox"/>
-----	-------------------------------------

* If so, please state field ID of rejected sample(s): _____

Sample Custodian (signed): Molly Carr

Sutherland

Environmental Company, Inc.

2515 5th Avenue South
Birmingham, AL 35233
205-581-9500




Client:	Sphere 3 Engineering, Inc.	Report Date:	January 9, 2019
Attention:	Mr. Greg Hoagland	Reference #	40328
Address:	3433 Sierra Drive	P.O. #	KSSSS.03
	Hoover, AL 35216	Project ID:	Stop n Shop Shell

Sample Matrix:	soil	Analytical	
Date Received:	1/7/19	Analyst:	Hageman/Heard
Date Collected:	1/7/19	Date of Analysis:	1/8-9/19
Sample Collector:	G. Karstens	Method:	EPA Method 8260B

VOLATILE ORGANICS - BTEX/MTBE/NAPHTHALENE						
	FIELD ID	FIELD ID	FIELD ID	FIELD ID		
	SB10 15'	SB10 20'	SB11 15'	SB11 20'		
Volatile Organic, ppm	LAB ID	LAB ID	LAB ID	LAB ID		Detection Limit, ppm
	201417	201418	201419	201420		
Benzene	BDL	BDL	BDL	BDL		0.005
Toluene	BDL	BDL	BDL	BDL		0.005
Ethylbenzene	BDL	BDL	BDL	BDL		0.005
Xylenes, o,m,p	BDL	BDL	BDL	BDL		0.015
MTBE	BDL	BDL	BDL	BDL		0.005
Naphthalene	BDL	BDL	BDL	BDL		0.025

BDL = Below Detection Limit
Detection Limit is Practical Quantitation Limit
All results expressed as ppm of analyte

 / QAQC

EPA Laboratory ID AL01084

Respectfully submitted,



Kevin Doriety
Analytical Chemist

Sutherland Environmental Read and Review Checklist

1. Is the client and the sample collector(s) accurately noted on report?	<input type="checkbox"/> NO	<input checked="" type="checkbox"/> YES	<input type="checkbox"/> NO	<input checked="" type="checkbox"/> YES
2. Do all dates match the COC on the report?	<input type="checkbox"/> NO	<input checked="" type="checkbox"/> YES	<input type="checkbox"/> NO	<input checked="" type="checkbox"/> YES
3. Is the purchase order ID (PO) and project ID accurately noted on report?	<input type="checkbox"/> NO	<input checked="" type="checkbox"/> YES	<input type="checkbox"/> NO	<input checked="" type="checkbox"/> YES
4. Are all methods and method references correct on report?	<input type="checkbox"/> NO	<input checked="" type="checkbox"/> YES	<input type="checkbox"/> NO	<input checked="" type="checkbox"/> YES
5. Do the Field ID(s) and the Lab ID(s) correspond to the COC?	<input type="checkbox"/> NO	<input checked="" type="checkbox"/> YES	<input type="checkbox"/> NO	<input checked="" type="checkbox"/> YES
6. Is the report formatted correctly?	<input type="checkbox"/> NO	<input checked="" type="checkbox"/> YES	<input type="checkbox"/> NO	<input checked="" type="checkbox"/> YES
7. Does the following information on report correspond to the printout information from the analytical instrumentation:				
Sample Matrix	<input type="checkbox"/> NO	<input checked="" type="checkbox"/> YES	<input type="checkbox"/> NO	<input checked="" type="checkbox"/> YES
Analyst	<input type="checkbox"/> NO	<input checked="" type="checkbox"/> YES	<input type="checkbox"/> NO	<input checked="" type="checkbox"/> YES
Analysis Date/Time	<input type="checkbox"/> NO	<input checked="" type="checkbox"/> YES	<input type="checkbox"/> NO	<input checked="" type="checkbox"/> YES
Analyte concentration	<input type="checkbox"/> NO	<input checked="" type="checkbox"/> YES	<input type="checkbox"/> NO	<input checked="" type="checkbox"/> YES
Units	<input type="checkbox"/> NO	<input checked="" type="checkbox"/> YES	<input type="checkbox"/> NO	<input checked="" type="checkbox"/> YES
Dilution Factors/Conversions	<input type="checkbox"/> NO	<input checked="" type="checkbox"/> YES	<input type="checkbox"/> NO	<input checked="" type="checkbox"/> YES
Detection/Reporting/Quant. Limits	<input type="checkbox"/> NO	<input checked="" type="checkbox"/> YES	<input type="checkbox"/> NO	<input checked="" type="checkbox"/> YES
QC Reviewed:	<input checked="" type="checkbox"/> YES		<input checked="" type="checkbox"/> YES	

Initial*:

MJH
KH

* MJH = Michael Heard, KD = Kevin Doriety, MSH = Matt Hageman, KH = Kelly Hester

PDF: Hoagland, Hunter,
Karstens

Invoice # 40328

Notes: _____

Sutherland Environmental Co., Inc.

Sutherland Environmental Company Inc.

Sample Check-in Form

Date Received: 1/7/19 Invoice # 40328
Method of Delivery: hand Client: Sphere 3

1. Did any containers arrive broken?	YES	<input checked="" type="checkbox"/> NO
* If so, please state field ID with analysis of broken sample(s) _____		
2. Were cooler(s) sealed upon arrival?	<input checked="" type="checkbox"/> YES	NO NA
3. Were the samples received at the proper temperature (4°C +/- 2°C)?	<input checked="" type="checkbox"/> YES	NO NA
4. Did a chain of custody accompany the samples?	<input checked="" type="checkbox"/> YES	NO
* Was it properly filled out?		
	<input checked="" type="checkbox"/> YES	NO
5. Were correct containers used for the analysis requested?	<input checked="" type="checkbox"/> YES	NO
6. Were all containers properly preserved?	YES	NO <input checked="" type="checkbox"/> NA
7. Were all water samples received at the proper pH?	YES	NO <input checked="" type="checkbox"/> NA
8. If VOA vials were present, was there any head space?	YES	NO <input checked="" type="checkbox"/> NA
* If so, please state field ID of deficient sample(s): _____		
9. Were all containers properly labeled and match chain of custody?	<input checked="" type="checkbox"/> YES	NO
10. Did containers arrive within holding time of analysis?	<input checked="" type="checkbox"/> YES	NO
* If not, please state field ID and analysis of sample(s) out of holding time: _____		
11. Was client informed of any/all deficiencies in sample check-in?	YES	NO <input checked="" type="checkbox"/> NA
12. Were any samples rejected?	YES	<input checked="" type="checkbox"/> NO
* If so, please state field ID of rejected sample(s): _____		

Sample Custodian (signed): *A. Bragan*

Sutherland

Environmental Company, Inc.

2515 5th Avenue South
Birmingham, AL 35233
205-581-9500



Client:	Sphere 3 Engineering, Inc.	Report Date:	January 10, 2019
Attention:	Mr. Greg Hoagland	Reference #	40327
Address:	3433 Sierra Drive	P.O. #	KSSSS.03
	Hoover, AL 35216	Project ID:	Stop n Shop Shell

Sample Matrix:	soil	Analytical	
Date Received:	1/7/19	Analyst:	M. Hageman
Date Collected:	1/7/19	Date of Analysis:	1/10/19
Sample Collector:	G. Karstens	Method:	EPA Method 6010B

METALLIC ANALYTES							
	FIELD ID						
	SOIL COMP-1						
Analyte, mg/Kg as Total	LAB ID						Detection Limit, mg/Kg
Lead	3.3						1.0

BDL = Below Detection Limit
Detection Limit is Reporting Limit
All results expressed as PPM of total analyte

MA / QAQC

EPA Laboratory ID AL01084

Respectfully submitted,

Kevin Doriety
Analytical Chemist

Sutherland Environmental Read and Review Checklist

1. Is the client and the sample collector(s) accurately noted on report?	<input type="checkbox"/> NO	<input checked="" type="checkbox"/> YES	<input type="checkbox"/> NO	<input checked="" type="checkbox"/> YES
2. Do all dates match the COC on the report?	<input type="checkbox"/> NO	<input checked="" type="checkbox"/> YES	<input type="checkbox"/> NO	<input checked="" type="checkbox"/> YES
3. Is the purchase order ID (PO) and project ID accurately noted on report?	<input type="checkbox"/> NO	<input checked="" type="checkbox"/> YES	<input type="checkbox"/> NO	<input checked="" type="checkbox"/> YES
4. Are all methods and method references correct on report?	<input type="checkbox"/> NO	<input checked="" type="checkbox"/> YES	<input type="checkbox"/> NO	<input checked="" type="checkbox"/> YES
5. Do the Field ID(s) and the Lab ID(s) correspond to the COC?	<input type="checkbox"/> NO	<input checked="" type="checkbox"/> YES	<input type="checkbox"/> NO	<input checked="" type="checkbox"/> YES
6. Is the report formatted correctly?	<input type="checkbox"/> NO	<input checked="" type="checkbox"/> YES	<input type="checkbox"/> NO	<input checked="" type="checkbox"/> YES
7. Does the following information on report correspond to the printout information from the analytical instrumentation:				
Sample Matrix	<input type="checkbox"/> NO	<input checked="" type="checkbox"/> YES	<input type="checkbox"/> NO	<input checked="" type="checkbox"/> YES
Analyst	<input type="checkbox"/> NO	<input checked="" type="checkbox"/> YES	<input type="checkbox"/> NO	<input checked="" type="checkbox"/> YES
Analysis Date/Time	<input type="checkbox"/> NO	<input checked="" type="checkbox"/> YES	<input type="checkbox"/> NO	<input checked="" type="checkbox"/> YES
Analyte concentration	<input type="checkbox"/> NO	<input checked="" type="checkbox"/> YES	<input type="checkbox"/> NO	<input checked="" type="checkbox"/> YES
Units	<input type="checkbox"/> NO	<input checked="" type="checkbox"/> YES	<input type="checkbox"/> NO	<input checked="" type="checkbox"/> YES
Dilution Factors/Conversions	<input type="checkbox"/> NO	<input checked="" type="checkbox"/> YES	<input type="checkbox"/> NO	<input checked="" type="checkbox"/> YES
Detection/Reporting/Quant. Limits	<input type="checkbox"/> NO	<input checked="" type="checkbox"/> YES	<input type="checkbox"/> NO	<input checked="" type="checkbox"/> YES
QC Reviewed:		<input checked="" type="checkbox"/> YES		<input checked="" type="checkbox"/> YES

Initial*:

MJH

KH

* MJH = Michael Heard, KD = Kevin Doriety, MSH = Matt Hageman, KH = Kelly Hester

PDF: Hoagland, Hunter,
Karstens

Invoice # 40327

Notes: Due 1/10

Sutherland Environmental Co., Inc.

Sutherland Environmental Company Inc.

Sample Check-in Form

Date Received: 1/7/19 **Invoice #** 40327
Method of Delivery: hand **Client:** Sphere 3

1. Did any containers arrive broken? YES NO
* If so, please state field ID with analysis of broken sample(s) _____

2. Were cooler(s) sealed upon arrival? YES NO NA

3. Were the samples received at the proper temperature (4°C +/- 2°C)? YES NO NA

4. Did a chain of custody accompany the samples? YES NO
* Was it properly filled out? YES NO

5. Were correct containers used for the analysis requested? YES NO

6. Were all containers properly preserved? YES NO NA

7. Were all water samples received at the proper pH? YES NO NA

8. If VOA vials were present, was there any head space? YES NO NA
* If so, please state field ID of deficient sample(s): _____

9. Were all containers properly labeled and match chain of custody? YES NO

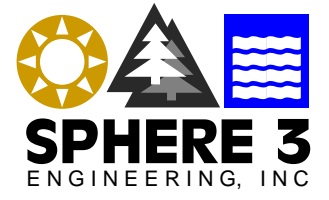
10. Did containers arrive within holding time of analysis? YES NO
* If not, please state field ID and analysis of sample(s) out of holding time: _____

11. Was client informed of any/all deficiencies in sample check-in? YES NO NA

12. Were any samples rejected? YES NO
* If so, please state field ID of rejected sample(s): _____

Sample Custodian (signed):

A. Bragan



Sutherland

Environmental Company, Inc.

2515 5th Avenue South
Birmingham, AL 35233
205-581-9500

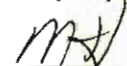


Client:	Sphere 3 Engineering, Inc.	Report Date:	November 11, 2015
Attention:	Mr. Greg Hoagland	Reference #	33965
Address:	3433 Sierra Drive	P.O. #	KSSSS.01
	Hoover, AL 35216	Project ID:	Stop and Shop Shell

Sample Matrix:	water	<u>Analytical</u>	
Date Received:	11/6/15	Analyst:	Hageman/Heard
Date Collected:	11/4/15	Date of Analysis:	11/9-10/15
Sample Collector:	Tres Bond	Method:	EPA Method 8260B

VOLATILE ORGANICS - BTEX/MTBE/NAPHTHALENE							
	FIELD ID	FIELD ID	FIELD ID	FIELD ID	FIELD ID		
	MW-1	MW-2	MW-3	MW-4	DUP-1		
Volatile Organic, mg/L	LAB ID	LAB ID	LAB ID	LAB ID	LAB ID		Detection Limit, ppm
Benzene	0.892	0.631	0.002	BDL	0.002		0.001
Toluene	0.004	0.046	BDL	BDL	BDL		0.001
Ethylbenzene	0.002	0.018	BDL	BDL	BDL		0.001
Xylenes, o,m,p	0.184	0.413	0.005	BDL	0.006		0.003
MTBE	0.830	0.190	0.001	0.012	0.001		0.001
Naphthalene	0.053	BDL	BDL	BDL	BDL		0.005

BDL = Below Detection Limit, Method
Detection Limit is Method Detection Limit
All results expressed as ppm (mg/L) of analyte
Samples preserved with HCL and refrigerated at 4 degrees C

 / QAQC

EPA Laboratory ID AL01084

Respectfully submitted,



Kevin Doriety
Analytical Chemist

Sutherland Environmental Read and Review Checklist

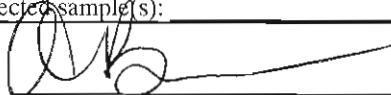
1. Is the client and the sample collector(s) accurately noted on report?	<input type="checkbox"/> NO	<input checked="" type="checkbox"/> YES	<input type="checkbox"/> NO	<input checked="" type="checkbox"/> YES
2. Do all dates match the COC on the report?	<input type="checkbox"/> NO	<input checked="" type="checkbox"/> YES	<input type="checkbox"/> NO	<input checked="" type="checkbox"/> YES
3. Is the purchase order ID (PO) and project ID accurately noted on report?	<input type="checkbox"/> NO	<input checked="" type="checkbox"/> YES	<input type="checkbox"/> NO	<input checked="" type="checkbox"/> YES
4. Are all methods and method references correct on report?	<input type="checkbox"/> NO	<input checked="" type="checkbox"/> YES	<input type="checkbox"/> NO	<input checked="" type="checkbox"/> YES
5. Do the Field ID(s) and the Lab ID(s) correspond to the COC?	<input type="checkbox"/> NO	<input checked="" type="checkbox"/> YES	<input type="checkbox"/> NO	<input checked="" type="checkbox"/> YES
6. Is the report formatted correctly?	<input type="checkbox"/> NO	<input checked="" type="checkbox"/> YES	<input type="checkbox"/> NO	<input checked="" type="checkbox"/> YES
7. Does the following information on report correspond to the printout information from the analytical instrumentation:				
Sample Matrix	<input type="checkbox"/> NO	<input checked="" type="checkbox"/> YES	<input type="checkbox"/> NO	<input checked="" type="checkbox"/> YES
Analyst	<input type="checkbox"/> NO	<input checked="" type="checkbox"/> YES	<input type="checkbox"/> NO	<input checked="" type="checkbox"/> YES
Analysis Date/Time	<input type="checkbox"/> NO	<input checked="" type="checkbox"/> YES	<input type="checkbox"/> NO	<input checked="" type="checkbox"/> YES
Analyte concentration	<input type="checkbox"/> NO	<input checked="" type="checkbox"/> YES	<input type="checkbox"/> NO	<input checked="" type="checkbox"/> YES
Units	<input type="checkbox"/> NO	<input checked="" type="checkbox"/> YES	<input type="checkbox"/> NO	<input checked="" type="checkbox"/> YES
Dilution Factors/Conversions	<input type="checkbox"/> NO	<input checked="" type="checkbox"/> YES	<input type="checkbox"/> NO	<input checked="" type="checkbox"/> YES
Detection/Reporting/Quant. Limits	<input type="checkbox"/> NO	<input checked="" type="checkbox"/> YES	<input type="checkbox"/> NO	<input checked="" type="checkbox"/> YES
QC Reviewed:		<input checked="" type="checkbox"/> YES		<input checked="" type="checkbox"/> YES
Initial:		<u> MH </u>		<u> KD </u>
PDF:	<u> G HUAGLAND </u>			
Notes:		<u> 33905 </u>		
	<i>Sutherland Environmental Co., Inc.</i>			

Sutherland Environmental Company Inc.

Sample Check-in Form

Date Received: <u>11/6/15</u>	Invoice # <u>33965</u>
Method of Delivery: <u>hand</u>	Client: <u>Sphere 3</u>

1. Did any containers arrive broken?	YES	<input checked="" type="radio"/> NO	
* If so, please state field ID with analysis of broken sample(s) _____			
2. Were cooler(s) sealed upon arrival?	<input checked="" type="radio"/> YES	NO	NA
3. Were the samples received at the proper temperature (4°C +/- 2°C)?	<input checked="" type="radio"/> YES	NO	NA
4. Did a chain of custody accompany the samples?	<input checked="" type="radio"/> YES	NO	
* Was it properly filled out?	<input checked="" type="radio"/> YES	NO	
5. Were correct containers used for the analysis requested?	<input checked="" type="radio"/> YES	NO	
6. Were all containers properly preserved?	<input checked="" type="radio"/> YES	NO	NA
7. Were all water samples received at the proper pH?	<input checked="" type="radio"/> YES	NO	NA
8. If VOA vials were present, was there any head space?	YES	<input checked="" type="radio"/> NO	NA
* If so, please state field ID of deficient sample(s): _____			
9. Were all containers properly labeled and match chain of custody?	<input checked="" type="radio"/> YES	NO	
10. Did containers arrive within holding time of analysis?	<input checked="" type="radio"/> YES	NO	
* If not, please state field ID and analysis of sample(s) out of holding time: _____			
11. Was client informed of any/all deficiencies in sample check-in?	YES	NO	<input checked="" type="radio"/> NA
12. Were any samples rejected?	YES	<input checked="" type="radio"/> NO	
* If so, please state field ID of rejected sample(s): _____			

Sample Custodian (signed): 

Sutherland

Environmental Company, Inc.

2515 5th Avenue South
Birmingham, AL 35233
205-581-9500



Client: Sphere 3 Engineering, Inc.	Report Date: May 3, 2016
Attention: Mr. Greg Hoagland	Reference # 34983
Address: 3433 Sierra Drive	P.O. # KSSSS.02
Hoover, AL 35216	Project ID: Stop and Shop Shell

Sample Matrix: water	Analytical
Date Received: 4/28/16	Analyst: Hageman/Heard
Date Collected: 4/27/16	Date of Analysis: 4/30/16-5/2/16
Sample Collector: TB/JJ	Method: EPA Method 8260B

VOLATILE ORGANICS - BTEX/MTBE/NAPHTHALENE							
	FIELD ID	FIELD ID	FIELD ID	FIELD ID	FIELD ID	FIELD ID	
	MW-1	MW-2	MW-3	MW-4	MW-5	MW-6	
Volatile Organic, mg/L	LAB ID	LAB ID	LAB ID	LAB ID	LAB ID	LAB ID	Detection Limit, ppm
	172615	172616	172617	172618	172619	172620	
Benzene	0.625	3.140	BDL	0.006	0.007	0.001	0.001
Toluene	0.007	0.057	BDL	0.004	0.004	0.001	0.001
Ethylbenzene	0.005	0.164	BDL	BDL	BDL	BDL	0.001
Xylenes, o,m,p	0.121	3.230	BDL	0.011	0.008	0.003	0.003
MTBE	0.463	4.540	BDL	0.012	0.005	BDL	0.001
Naphthalene	0.018	0.091	BDL	BDL	BDL	BDL	0.005
	FIELD ID	FIELD ID	FIELD ID	FIELD ID	FIELD ID		
	MW-7	MW-8	MW-9	MW-DW1	DUP-1		
Volatile Organic, mg/L	LAB ID	LAB ID	LAB ID	LAB ID	LAB ID		Detection Limit, ppm
	172621	172622	172623	172624	172625		
Benzene	3.120	BDL	0.045	0.018	0.043		0.001
Toluene	2.550	BDL	0.022	0.004	0.021		0.001
Ethylbenzene	0.590	BDL	0.005	0.001	0.004		0.001
Xylenes, o,m,p	4.580	BDL	0.033	0.016	0.030		0.003
MTBE	2.700	BDL	0.006	0.023	0.005		0.001
Naphthalene	0.409	BDL	BDL	BDL	BDL		0.005

Result is above method detection limit and below reporting limit

BDL = Below Detection Limit, Method

Detection Limit is Method Detection Limit

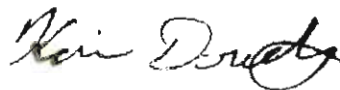
All results expressed as ppm (mg/L) of analyte

Samples preserved with HCL and refrigerated at 4 degrees C

 / QAQC

EPA Laboratory ID AL01084

Respectfully submitted,



Kevin Doriety
Analytical Chemist

Sutherland Environmental Read and Review Checklist

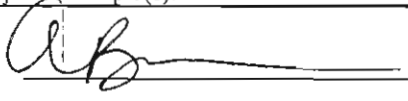
1. Is the client and the sample collector(s) accurately noted on report?	<input type="checkbox"/> NO	<input checked="" type="checkbox"/> YES	<input type="checkbox"/> NO	<input checked="" type="checkbox"/> YES
2. Do all dates match the COC on the report?	<input type="checkbox"/> NO	<input checked="" type="checkbox"/> YES	<input type="checkbox"/> NO	<input checked="" type="checkbox"/> YES
3. Is the purchase order ID (PO) and project ID accurately noted on report?	<input type="checkbox"/> NO	<input checked="" type="checkbox"/> YES	<input type="checkbox"/> NO	<input checked="" type="checkbox"/> YES
4. Are all methods and method references correct on report?	<input type="checkbox"/> NO	<input checked="" type="checkbox"/> YES	<input type="checkbox"/> NO	<input checked="" type="checkbox"/> YES
5. Do the Field ID(s) and the Lab ID(s) correspond to the COC?	<input type="checkbox"/> NO	<input checked="" type="checkbox"/> YES	<input type="checkbox"/> NO	<input checked="" type="checkbox"/> YES
6. Is the report formatted correctly?	<input type="checkbox"/> NO	<input checked="" type="checkbox"/> YES	<input type="checkbox"/> NO	<input checked="" type="checkbox"/> YES
7. Does the following information on report correspond to the printout information from the analytical instrumentation:				
Sample Matrix	<input type="checkbox"/> NO	<input checked="" type="checkbox"/> YES	<input type="checkbox"/> NO	<input checked="" type="checkbox"/> YES
Analyst	<input type="checkbox"/> NO	<input checked="" type="checkbox"/> YES	<input type="checkbox"/> NO	<input checked="" type="checkbox"/> YES
Analysis Date/Time	<input type="checkbox"/> NO	<input checked="" type="checkbox"/> YES	<input type="checkbox"/> NO	<input checked="" type="checkbox"/> YES
Analyte concentration	<input type="checkbox"/> NO	<input checked="" type="checkbox"/> YES	<input type="checkbox"/> NO	<input checked="" type="checkbox"/> YES
Units	<input type="checkbox"/> NO	<input checked="" type="checkbox"/> YES	<input type="checkbox"/> NO	<input checked="" type="checkbox"/> YES
Dilution Factors/Conversions	<input type="checkbox"/> NO	<input checked="" type="checkbox"/> YES	<input type="checkbox"/> NO	<input checked="" type="checkbox"/> YES
Detection/Reporting/Quant. Limits	<input type="checkbox"/> NO	<input checked="" type="checkbox"/> YES	<input type="checkbox"/> NO	<input checked="" type="checkbox"/> YES
QC Reviewed:		<input checked="" type="checkbox"/> YES		<input checked="" type="checkbox"/> YES
Initial*:		<u> MJH </u>		<u> KH </u>
		* MJH = Michael Heard, KD = Kevin Doriety, MSH = Matt Hageman, KH = Kelly Hester		
PDF: <u> G. Hoagland </u>				<u> 34983 </u>
Notes: _____				Sutherland Environmental Co., Inc.

Sutherland Environmental Company Inc.

Sample Check-in Form

Date Received: <u>4/28/16</u>	Invoice # <u>34983</u>
Method of Delivery: <u>hand</u>	Client: <u>Sphere 3</u>

1. Did any containers arrive broken?	YES	NO		
* If so, please state field ID with analysis of broken sample(s) _____				
2. Were cooler(s) sealed upon arrival?	YES	NO	NA	
3. Were the samples received at the proper temperature (4°C +/- 2°C)?	YES	NO	NA	
4. Did a chain of custody accompany the samples?	YES	NO		
* Was it properly filled out?			YES	NO
5. Were correct containers used for the analysis requested?	YES	NO		
6. Were all containers properly preserved?	YES	NO	NA	
7. Were all water samples received at the proper pH?	YES	NO	NA	
8. If VOA vials were present, was there any head space?	YES	NO	NA	
* If so, please state field ID of deficient sample(s): _____				
9. Were all containers properly labeled and match chain of custody?	YES	NO		
10. Did containers arrive within holding time of analysis?	YES	NO		
* If no, please state field ID and analysis of sample(s) out of holding time: _____				
11. Was client informed of any/all deficiencies in sample check-in?	YES	NO	NA	
12. Were any samples rejected?	YES	NO		
* If so, please state field ID of rejected sample(s): _____				

Sample Custodian (signed): 

Sutherland

Environmental Company, Inc.

2515 5th Avenue South
Birmingham, AL 35233
205-581-9500



Client:	Sphere 3 Engineering, Inc.	Report Date:	January 25, 2019
Attention:	Mr. Greg Hoagland	Reference #	40385
Address:	3433 Sierra Drive	P.O. #	KSSSS.03
	Hoover, AL 35216	Project ID:	Stop n Shop Shell

Sample Matrix:	water	Analytical	
Date Received:	1/18/19	Analyst:	Hageman/Heard
Date Collected:	1/17/19	Date of Analysis:	1/23-24/19
Sample Collector:	J. Johnson	Method:	EPA Method 8260B

VOLATILE ORGANICS - BTEX/MTBE/NAPHTHALENE							
	FIELD ID	FIELD ID	FIELD ID	FIELD ID	FIELD ID	FIELD ID	
	MW-1	MW-2	MW-3	MW-4	MW-5	MW-6	
Volatile Organic, mg/L	LAB ID	LAB ID	LAB ID	LAB ID	LAB ID	LAB ID	Detection Limit, ppm
	201782	201783	201784	201785	201786	201787	
Benzene	1.240	0.620	BDL	BDL	BDL	BDL	0.001
Toluene	0.017	0.021	BDL	BDL	BDL	BDL	0.001
Ethylbenzene	0.018	0.004	BDL	BDL	BDL	BDL	0.001
Xylenes, o,m,p	0.061	0.150	BDL	BDL	BDL	BDL	0.003
MTBE	2.550	0.479	BDL	0.009	BDL	BDL	0.001
Naphthalene	0.102	BDL	BDL	BDL	BDL	BDL	0.005
	FIELD ID	FIELD ID	FIELD ID	FIELD ID	FIELD ID	FIELD ID	
	MW-7	MW-8	MW-9	MW-10	MW-11	MW-DW1	
Volatile Organic, mg/L	LAB ID	LAB ID	LAB ID	LAB ID	LAB ID	LAB ID	Detection Limit, ppm
	201788	201789	201790	201791	201792	201793	
Benzene	2.670	BDL	0.021	0.008	0.009	0.003	0.001
Toluene	0.058	BDL	0.005	0.108	BDL	BDL	0.001
Ethylbenzene	0.162	BDL	0.002	0.410	BDL	BDL	0.001
Xylenes, o,m,p	0.885	BDL	0.016	2.910	BDL	BDL	0.003
MTBE	3.720	BDL	0.005	BDL	0.044	0.007	0.001
Naphthalene	0.037	BDL	BDL	0.153	BDL	BDL	0.005

Result is above method detection limit and below reporting limit

BDL = Below Detection Limit, Method

Detection Limit is Method Detection Limit

All results expressed as ppm (mg/L) of analyte

Samples preserved with HCL and refrigerated at 4 degrees C

Sutherland

Environmental Company, Inc.

2515 5th Avenue South
Birmingham, AL 35233
205-581-9500



Client:	Sphere 3 Engineering, Inc.	Report Date:	January 25, 2019
Attention:	Mr. Greg Hoagland	Reference #	40385
Address:	3433 Sierra Drive	P.O. #	KSSSS.03
	Hoover, AL 35216	Project ID:	Stop n Shop Shell

Sample Matrix:	water	Analytical	
Date Received:	1/18/19	Analyst:	Hageman/Heard
Date Collected:	1/17/19	Date of Analysis:	1/24/19
Sample Collector:	J. Johnson	Method:	EPA Method 8260B

VOLATILE ORGANICS - BTEX/MTBE/NAPHTHALENE						
	FIELD ID					
	DUP-1					
Volatile Organic, mg/L	LAB ID					Detection Limit, ppm
	201794					
Benzene	BDL					0.001
Toluene	BDL					0.001
Ethylbenzene	BDL					0.001
Xylenes, o,m,p	BDL					0.003
MTBE	BDL					0.001
Naphthalene	BDL					0.005

BDL = Below Detection Limit, Method
Detection Limit is Method Detection Limit
All results expressed as ppm (mg/L) of analyte
Samples preserved with HCL and refrigerated at 4 degrees C

 / QAQC

EPA Laboratory ID AL01084

Respectfully submitted,



Kevin Doriety
Analytical Chemist

Sutherland Environmental Read and Review Checklist

1. Is the client and the sample collector(s) accurately noted on report?	<input type="checkbox"/> NO	<input checked="" type="checkbox"/> YES	<input type="checkbox"/> NO	<input checked="" type="checkbox"/> YES
2. Do all dates match the COC on the report?	<input type="checkbox"/> NO	<input checked="" type="checkbox"/> YES	<input type="checkbox"/> NO	<input checked="" type="checkbox"/> YES
3. Is the purchase order ID (PO) and project ID accurately noted on report?	<input type="checkbox"/> NO	<input checked="" type="checkbox"/> YES	<input type="checkbox"/> NO	<input checked="" type="checkbox"/> YES
4. Are all methods and method references correct on report?	<input type="checkbox"/> NO	<input checked="" type="checkbox"/> YES	<input type="checkbox"/> NO	<input checked="" type="checkbox"/> YES
5. Do the Field ID(s) and the Lab ID(s) correspond to the COC?	<input type="checkbox"/> NO	<input checked="" type="checkbox"/> YES	<input type="checkbox"/> NO	<input checked="" type="checkbox"/> YES
6. Is the report formatted correctly?	<input type="checkbox"/> NO	<input checked="" type="checkbox"/> YES	<input type="checkbox"/> NO	<input checked="" type="checkbox"/> YES
7. Does the following information on report correspond to the printout information from the analytical instrumentation:				
Sample Matrix	<input type="checkbox"/> NO	<input checked="" type="checkbox"/> YES	<input type="checkbox"/> NO	<input checked="" type="checkbox"/> YES
Analyst	<input type="checkbox"/> NO	<input checked="" type="checkbox"/> YES	<input type="checkbox"/> NO	<input checked="" type="checkbox"/> YES
Analysis Date/Time	<input type="checkbox"/> NO	<input checked="" type="checkbox"/> YES	<input type="checkbox"/> NO	<input checked="" type="checkbox"/> YES
Analyte concentration	<input type="checkbox"/> NO	<input checked="" type="checkbox"/> YES	<input type="checkbox"/> NO	<input checked="" type="checkbox"/> YES
Units	<input type="checkbox"/> NO	<input checked="" type="checkbox"/> YES	<input type="checkbox"/> NO	<input checked="" type="checkbox"/> YES
Dilution Factors/Conversions	<input type="checkbox"/> NO	<input checked="" type="checkbox"/> YES	<input type="checkbox"/> NO	<input checked="" type="checkbox"/> YES
Detection/Reporting/Quant. Limits	<input type="checkbox"/> NO	<input checked="" type="checkbox"/> YES	<input type="checkbox"/> NO	<input checked="" type="checkbox"/> YES
QC Reviewed:	<input checked="" type="checkbox"/> YES		<input checked="" type="checkbox"/> YES	
Initial*:	<u> MJH </u>		<u> KH </u>	
* MJH = Michael Heard, KD = Kevin Doriety, MSH = Matt Hageman, KH = Kelly Hester				
PDF: <u>Hoagland, Hunter</u>	Invoice # <u>40385</u>			
Notes: _____	<i>Sutherland Environmental Co., Inc.</i>			

Sutherland Environmental Company Inc.

Sample Check-in Form

Date Received: <u>1/18/19</u>	Invoice # <u>40385</u>
Method of Delivery: <u>hand</u>	Client: <u>Sphere 3</u>

1. Did any containers arrive broken?	<input type="checkbox"/> YES	<input checked="" type="checkbox"/> NO	
* If so, please state field ID with analysis of broken sample(s) _____			
2. Were cooler(s) sealed upon arrival?	<input checked="" type="checkbox"/> YES	<input type="checkbox"/> NO	<input type="checkbox"/> NA
3. Were the samples received at the proper temperature (4°C +/- 2°C)?	<input checked="" type="checkbox"/> YES	<input type="checkbox"/> NO	<input type="checkbox"/> NA
4. Did a chain of custody accompany the samples?	<input checked="" type="checkbox"/> YES	<input type="checkbox"/> NO	
* Was it properly filled out?	<input checked="" type="checkbox"/> YES	<input type="checkbox"/> NO	
5. Were correct containers used for the analysis requested?	<input checked="" type="checkbox"/> YES	<input type="checkbox"/> NO	
6. Were all containers properly preserved?	<input checked="" type="checkbox"/> YES	<input type="checkbox"/> NO	<input type="checkbox"/> NA
7. Were all water samples received at the proper pH?	<input checked="" type="checkbox"/> YES	<input type="checkbox"/> NO	<input type="checkbox"/> NA
8. If VOA vials were present, was there any head space?	<input type="checkbox"/> YES	<input checked="" type="checkbox"/> NO	<input type="checkbox"/> NA
* If so, please state field ID of deficient sample(s): _____			
9. Were all containers properly labeled and match chain of custody?	<input checked="" type="checkbox"/> YES	<input type="checkbox"/> NO	
10. Did containers arrive within holding time of analysis?	<input checked="" type="checkbox"/> YES	<input type="checkbox"/> NO	
* If not, please state field ID and analysis of sample(s) out of holding time: _____			
11. Was client informed of any/all deficiencies in sample check-in?	<input type="checkbox"/> YES	<input type="checkbox"/> NO	<input checked="" type="checkbox"/> NA
12. Were any samples rejected?	<input type="checkbox"/> YES	<input checked="" type="checkbox"/> NO	
* If so, please state field ID of rejected sample(s): _____			

Sample Custodian (signed): A. Bragan

Sutherland

Environmental Company, Inc.

2515 5th Avenue South
Birmingham, AL 35233
205-581-9500



Client:	Sphere 3 Engineering, Inc.	Report Date:	January 2, 2020
Attention:	Mr. Greg Hoagland	Reference #	42177
Address:	3433 Sierra Drive	P.O. #	KSSSS.04
	Hoover, AL 35216	Project ID:	Stop n Shop Shell

Sample Matrix:	water	Analytical	
Date Received:	12/31/19	Analyst:	Hageman/Heard
Date Collected:	12/30/19	Date of Analysis:	12/31/19-1/1/20
Sample Collector:	T. Bond/J. Johnson	Method:	EPA Method 8260B

VOLATILE ORGANICS - BTEX/MTBE/NAPHTHALENE							
	FIELD ID	FIELD ID	FIELD ID	FIELD ID	FIELD ID	FIELD ID	
	MW-1	MW-2	MW-3	MW-4	MW-5	MW-6	
Volatile Organic, mg/L	LAB ID	LAB ID	LAB ID	LAB ID	LAB ID	LAB ID	Detection Limit, ppm
	210707	210708	210709	210710	210711	210712	
Benzene	0.884	0.335	0.002	BDL	BDL	BDL	0.001
Toluene	0.003	0.010	BDL	BDL	BDL	BDL	0.001
Ethylbenzene	0.003	0.003	BDL	BDL	BDL	BDL	0.001
Xylenes, o,m,p	0.045	0.070	BDL	BDL	BDL	BDL	0.003
MTBE	2.290	0.377	0.008	0.005	BDL	BDL	0.001
Naphthalene	0.054	BDL	BDL	BDL	BDL	BDL	0.005
	FIELD ID	FIELD ID	FIELD ID	FIELD ID	FIELD ID	FIELD ID	
	MW-7	MW-8	MW-9	MW-10	MW-11	MW-DW1	
Volatile Organic, mg/L	LAB ID	LAB ID	LAB ID	LAB ID	LAB ID	LAB ID	Detection Limit, ppm
	210713	210714	210715	210716	210717	210718	
Benzene	1.060	BDL	0.020	0.004	0.027	0.003	0.001
Toluene	0.007	BDL	0.004	0.102	BDL	BDL	0.001
Ethylbenzene	0.045	BDL	0.002	0.270	BDL	BDL	0.001
Xylenes, o,m,p	0.084	BDL	0.018	1.630	BDL	BDL	0.003
MTBE	3.680	BDL	0.003	0.002	0.200	0.004	0.001
Naphthalene	0.018	BDL	BDL	0.161	BDL	BDL	0.005

Result is above method detection limit and below reporting limit

BDL = Below Detection Limit, Method

Detection Limit is Method Detection Limit

All results expressed as ppm (mg/L) of analyte

Samples preserved with HCL and refrigerated at 4 degrees C

Sutherland

Environmental Company, Inc.

2515 5th Avenue South
Birmingham, AL 35233
205-581-9500



Client:	Sphere 3 Engineering, Inc.	Report Date:	January 2, 2020
Attention:	Mr. Greg Hoagland	Reference #	42177
Address:	3433 Sierra Drive Hoover, AL 35216	P.O. #	KSSSS.04
		Project ID:	Stop n Shop Shell

Sample Matrix:	water	Analytical	
Date Received:	12/31/19	Analyst:	Hageman/Heard
Date Collected:	12/30/19	Date of Analysis:	1/1/20
Sample Collector:	T. Bond/J. Johnson	Method:	EPA Method 8260B

VOLATILE ORGANICS - BTEX/MTBE/NAPHTHALENE						
	FIELD ID					
	DUP-1					
Volatile Organic, mg/L	LAB ID					Detection Limit, ppm
	210719					
Benzene	BDL					0.001
Toluene	BDL					0.001
Ethylbenzene	BDL					0.001
Xylenes, o,m,p	BDL					0.003
MTBE	BDL					0.001
Naphthalene	BDL					0.005

BDL = Below Detection Limit, Method
Detection Limit is Method Detection Limit
All results expressed as ppm (mg/L) of analyte
Samples preserved with HCL and refrigerated at 4 degrees C

MH / QAQC

EPA Laboratory ID AL01084

Respectfully submitted,

Kevin Doriety
Analytical Chemist

Sutherland Environmental Read and Review Checklist

- | | | | | |
|---|-----------------------------|---|-----------------------------|---|
| 1. Is the client and the sample collector(s) accurately noted on report? | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> YES |
| 2. Do all dates match the COC on the report? | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> YES |
| 3. Is the purchase order ID (PO) and project ID accurately noted on report? | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> YES |
| 4. Are all methods and method references correct on report? | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> YES |
| 5. Do the Field ID(s) and the Lab ID(s) correspond to the COC? | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> YES |
| 6. Is the report formatted correctly? | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> YES |
| 7. Does the following information on report correspond to the printout information from the analytical instrumentation: | | | | |

- | | | | | |
|-----------------------------------|--|---|--|---|
| Sample Matrix | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> YES |
| Analyst | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> YES |
| Analysis Date/Time | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> YES |
| Analyte concentration | <input checked="" type="checkbox"/> NO | <input type="checkbox"/> YES | <input checked="" type="checkbox"/> NO | <input type="checkbox"/> YES |
| Units | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> YES |
| Dilution Factors/Conversions | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> YES |
| Detection/Reporting/Quant. Limits | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> YES |
| QC Reviewed: | | <input checked="" type="checkbox"/> YES | | <input checked="" type="checkbox"/> YES |

Initial*:

MJH
KH

* MJH = Michael Heard, KD = Kevin Doriety, MSH = Matt Hageman, KH = Kelly Hester

PDF: Hoagland, Hunter

Invoice # 42177

Notes: _____

Sutherland Environmental Co., Inc.

Sutherland Environmental Company Inc.

Sample Check-in Form

Date Received: <u>12/31/19</u>	Invoice # <u>42177</u>
Method of Delivery: <u>hand</u>	Client: <u>Sphere 3</u>

1. Did any containers arrive broken?	YES	<input checked="" type="checkbox"/> NO
* If so, please state field ID with analysis of broken sample(s) _____		
2. Were cooler(s) sealed upon arrival?	<input checked="" type="checkbox"/> YES	NO NA
3. Were the samples received at the proper temperature (4°C +/- 2°C)?	<input checked="" type="checkbox"/> YES	NO NA
4. Did a chain of custody accompany the samples?	<input checked="" type="checkbox"/> YES	NO
* Was it properly filled out?		
	<input checked="" type="checkbox"/> YES	NO
5. Were correct containers used for the analysis requested?	<input checked="" type="checkbox"/> YES	NO
6. Were all containers properly preserved?	<input checked="" type="checkbox"/> YES	NO NA
7. Were all water samples received at the proper pH?	<input checked="" type="checkbox"/> YES	NO NA
8. If VOA vials were present, was there any head space?	YES	<input checked="" type="checkbox"/> NO NA
* If so, please state field ID of deficient sample(s): _____		
9. Were all containers properly labeled and match chain of custody?	<input checked="" type="checkbox"/> YES	NO
10. Did containers arrive within holding time of analysis?	<input checked="" type="checkbox"/> YES	NO
* If not, please state field ID and analysis of sample(s) out of holding time: _____		
11. Was client informed of any/all deficiencies in sample check-in?	YES	NO <input checked="" type="checkbox"/> NA
12. Were any samples rejected?	YES	<input checked="" type="checkbox"/> NO
* If so, please state field ID of rejected sample(s): _____		

Sample Custodian (signed): M. Carr

Sutherland

Environmental Company, Inc.

2515 5th Avenue South
Birmingham, AL 35233
205-581-9500



Client: Sphere 3 Engineering, Inc.	Report Date: March 6, 2020
Attention: Mr. Greg Hoagland	Reference #: 42553
Address: 3433 Sierra Drive	P.O. #: KSSSS.05
Hoover, AL 35216	Project ID: Stop n Shop Shell

Sample Matrix: water	Analytical
Date Received: 3/2/20	Analyst: Hageman/Heard
Date Collected: 2/28/20	Date of Analysis: 3/5/20
Sample Collector: TB/JJ	Method: EPA Method 8260B

VOLATILE ORGANICS - BTEX/MTBE/NAPHTHALENE							
	FIELD ID	FIELD ID	FIELD ID	FIELD ID	FIELD ID	FIELD ID	
	MW-1	MW-2	MW-3	MW-4	MW-5	MW-6	
Volatile Organic, mg/L	LAB ID	LAB ID	LAB ID	LAB ID	LAB ID	LAB ID	Detection Limit, ppm
	212460	212461	212462	212463	212464	212465	
Benzene	0.580	0.323	BDL	BDL	BDL	BDL	0.001
Toluene	0.014	0.007	BDL	BDL	BDL	BDL	0.001
Ethylbenzene	0.017	0.002	BDL	BDL	BDL	0.002	0.001
Xylenes, o,m,p	0.051	0.056	BDL	0.003	BDL	0.012	0.003
MTBE	0.595	0.370	BDL	0.006	BDL	BDL	0.001
Naphthalene	0.015	BDL	BDL	BDL	BDL	BDL	0.005
	FIELD ID	FIELD ID	FIELD ID	FIELD ID	FIELD ID	FIELD ID	
	MW-7	MW-8	MW-9	MW-10	MW-11	MW-DW1	
Volatile Organic, mg/L	LAB ID	LAB ID	LAB ID	LAB ID	LAB ID	LAB ID	Detection Limit, ppm
	212466	212467	212468	212469	212470	212471	
Benzene	1.220	BDL	0.061	0.008	0.002	0.002	0.001
Toluene	0.090	BDL	0.013	0.138	BDL	BDL	0.001
Ethylbenzene	0.394	BDL	0.005	0.494	0.001	BDL	0.001
Xylenes, o,m,p	1.960	BDL	0.033	2.330	0.006	BDL	0.003
MTBE	2.820	BDL	0.007	BDL	0.005	0.003	0.001
Naphthalene	0.065	BDL	BDL	0.108	BDL	BDL	0.005

Result is above method detection limit and below reporting limit

BDL = Below Detection Limit, Method

Detection Limit is Method Detection Limit

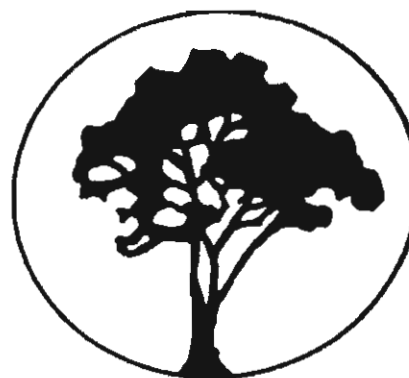
All results expressed as ppm (mg/L) of analyte

Samples preserved with HCL and refrigerated at 4 degrees C

Sutherland

Environmental Company, Inc.

2515 5th Avenue South
Birmingham, AL 35233
205-581-9500



Client:	Sphere 3 Engineering, Inc.	Report Date:	March 6, 2020
Attention:	Mr. Greg Hoagland	Reference #	42553
Address:	3433 Sierra Drive	P.O. #	KSSSS.05
	Hoover, AL 35216	Project ID:	Stop n Shop Shell

Sample Matrix:	water	Analytical	
Date Received:	3/2/20	Analyst:	Hageman/Heard
Date Collected:	2/28/20	Date of Analysis:	3/5/20
Sample Collector:	TB/JJ	Method:	EPA Method 8260B

VOLATILE ORGANICS - BTEX/MTBE/NAPHTHALENE						
	FIELD ID	FIELD ID				
	PRW-1	DUP-1				
Volatile Organic, mg/L	LAB ID	LAB ID				Detection Limit, ppm
Benzene	BDL	0.328				0.001
Toluene	BDL	0.006				0.001
Ethylbenzene	BDL	0.002				0.001
Xylenes, o,m,p	BDL	0.052				0.003
MTBE	BDL	0.382				0.001
Naphthalene	BDL	BDL				0.005

Result is above method detection limit and below reporting limit

BDL = Below Detection Limit, Method

Detection Limit is Method Detection Limit

All results expressed as ppm (mg/L) of analyte

Samples preserved with HCL and refrigerated at 4 degrees C

MH /QAQC

EPA Laboratory ID AL01084

Respectfully submitted,

Kevin Doriety
Analytical Chemist

Sutherland Environmental Read and Review Checklist

1. Is the client and the sample collector(s) accurately noted on report?	<input type="checkbox"/> NO	<input checked="" type="checkbox"/> YES	<input type="checkbox"/> NO	<input checked="" type="checkbox"/> YES
2. Do all dates match the COC on the report?	<input checked="" type="checkbox"/> NO	<input type="checkbox"/> YES	<input checked="" type="checkbox"/> NO	<input type="checkbox"/> YES
3. Is the purchase order ID (PO) and project ID accurately noted on report?	<input type="checkbox"/> NO	<input checked="" type="checkbox"/> YES	<input type="checkbox"/> NO	<input checked="" type="checkbox"/> YES
4. Are all methods and method references correct on report?	<input type="checkbox"/> NO	<input checked="" type="checkbox"/> YES	<input type="checkbox"/> NO	<input checked="" type="checkbox"/> YES
5. Do the Field ID(s) and the Lab ID(s) correspond to the COC?	<input type="checkbox"/> NO	<input checked="" type="checkbox"/> YES	<input type="checkbox"/> NO	<input checked="" type="checkbox"/> YES
6. Is the report formatted correctly?	<input type="checkbox"/> NO	<input checked="" type="checkbox"/> YES	<input type="checkbox"/> NO	<input checked="" type="checkbox"/> YES
7. Does the following information on report correspond to the printout information from the analytical instrumentation:				
Sample Matrix	<input type="checkbox"/> NO	<input checked="" type="checkbox"/> YES	<input type="checkbox"/> NO	<input checked="" type="checkbox"/> YES
Analyst	<input type="checkbox"/> NO	<input checked="" type="checkbox"/> YES	<input type="checkbox"/> NO	<input checked="" type="checkbox"/> YES
Analysis Date/Time	<input type="checkbox"/> NO	<input checked="" type="checkbox"/> YES	<input type="checkbox"/> NO	<input checked="" type="checkbox"/> YES
Analyte concentration	<input type="checkbox"/> NO	<input checked="" type="checkbox"/> YES	<input type="checkbox"/> NO	<input checked="" type="checkbox"/> YES
Units	<input type="checkbox"/> NO	<input checked="" type="checkbox"/> YES	<input type="checkbox"/> NO	<input checked="" type="checkbox"/> YES
Dilution Factors/Conversions	<input type="checkbox"/> NO	<input checked="" type="checkbox"/> YES	<input type="checkbox"/> NO	<input checked="" type="checkbox"/> YES
Detection/Reporting/Quant. Limits	<input type="checkbox"/> NO	<input checked="" type="checkbox"/> YES	<input type="checkbox"/> NO	<input checked="" type="checkbox"/> YES
QC Reviewed:		<input checked="" type="checkbox"/> YES		<input checked="" type="checkbox"/> YES

Initial*:

MJH

KH

* MJH = Michael Heard, KD = Kevin Doriety, MSH = Matt Hageman, KH = Kelly Hester

PDF: Hoagland, Hunter,
 Notes: PDF: Karstens (see coc)

Invoice # 42553
 Sutherland Environmental Co., Inc.

Sutherland Environmental Company Inc.

Sample Check-in Form

Date Received: <u>3/2/20</u>	Invoice # <u>42553</u>
Method of Delivery: <u>hand</u>	Client: <u>Sphere 3</u>

1. Did any containers arrive broken?	<input type="checkbox"/> YES	<input checked="" type="checkbox"/> NO	
* If so, please state field ID with analysis of broken sample(s) _____			
2. Were cooler(s) sealed upon arrival?	<input checked="" type="checkbox"/> YES	<input type="checkbox"/> NO	<input type="checkbox"/> NA
3. Were the samples received at the proper temperature (4°C +/- 2°C)?	<input checked="" type="checkbox"/> YES	<input type="checkbox"/> NO	<input type="checkbox"/> NA
4. Did a chain of custody accompany the samples?	<input checked="" type="checkbox"/> YES	<input type="checkbox"/> NO	
* Was it properly filled out?	<input checked="" type="checkbox"/> YES	<input type="checkbox"/> NO	
5. Were correct containers used for the analysis requested?	<input checked="" type="checkbox"/> YES	<input type="checkbox"/> NO	
6. Were all containers properly preserved?	<input checked="" type="checkbox"/> YES	<input type="checkbox"/> NO	<input type="checkbox"/> NA
7. Were all water samples received at the proper pH?	<input checked="" type="checkbox"/> YES	<input type="checkbox"/> NO	<input type="checkbox"/> NA
8. If VOA vials were present, was there any head space?	<input type="checkbox"/> YES	<input checked="" type="checkbox"/> NO	<input type="checkbox"/> NA
* If so, please state field ID of deficient sample(s): _____			
9. Were all containers properly labeled and match chain of custody?	<input checked="" type="checkbox"/> YES	<input type="checkbox"/> NO	
10. Did containers arrive within holding time of analysis?	<input checked="" type="checkbox"/> YES	<input type="checkbox"/> NO	
* If not, please state field ID and analysis of sample(s) out of holding time: _____			
11. Was client informed of any/all deficiencies in sample check-in?	<input type="checkbox"/> YES	<input type="checkbox"/> NO	<input checked="" type="checkbox"/> NA
12. Were any samples rejected?	<input type="checkbox"/> YES	<input checked="" type="checkbox"/> NO	
* If so, please state field ID of rejected sample(s): _____			

Sample Custodian (signed): A Boragan

Sutherland

Environmental Company, Inc.

2515 5th Avenue South
Birmingham, AL 35233
205-581-9500



Client:	Sphere 3 Engineering, Inc.	Report Date:	June 30, 2020
Attention:	Mr. Greg Hoagland	Reference #	43252
Address:	3433 Sierra Drive	P.O. #	KSSSS.06
	Hoover, AL 35216	Project ID:	Stop n Shop Shell

Sample Matrix:	water	Analytical	
Date Received:	6/25/20	Analyst:	Hageman/Heard
Date Collected:	6/19/20	Date of Analysis:	6/27-30/20
Sample Collector:	G. Karstens	Method:	EPA Method 8260B

VOLATILE ORGANICS - BTEX/MTBE/NAPHTHALENE							
	FIELD ID	FIELD ID	FIELD ID	FIELD ID	FIELD ID	FIELD ID	
	MW-1	MW-2	MW-3	MW-4	MW-5	MW-6	
Volatile Organic, mg/L	LAB ID	LAB ID	LAB ID	LAB ID	LAB ID	LAB ID	Detection Limit, ppm
	216247	216248	216249	216250	216251	216252	
Benzene	0.234	2.300	BDL	BDL	BDL	BDL	0.001
Toluene	BDL	0.053	BDL	BDL	BDL	BDL	0.001
Ethylbenzene	0.005	0.220	BDL	BDL	BDL	BDL	0.001
Xylenes, o,m,p	0.012	1.360	BDL	BDL	BDL	BDL	0.003
MTBE	0.268	5.520	BDL	0.004	BDL	BDL	0.001
Naphthalene	0.038	0.121	BDL	BDL	BDL	BDL	0.005
	FIELD ID	FIELD ID	FIELD ID	FIELD ID	FIELD ID	FIELD ID	
	MW-7	MW-8	MW-9	MW-10	MW-11	MW-DWI	
Volatile Organic, mg/L	LAB ID	LAB ID	LAB ID	LAB ID	LAB ID	LAB ID	Detection Limit, ppm
	216253	216254	216255	216256	216257	216258	
Benzene	1.390	BDL	0.016	0.009	0.044	BDL	0.001
Toluene	0.060	BDL	BDL	0.104	0.001	BDL	0.001
Ethylbenzene	0.225	BDL	BDL	0.524	BDL	BDL	0.001
Xylenes, o,m,p	0.896	BDL	0.005	2.140	BDL	BDL	0.003
MTBE	2.910	BDL	0.004	0.003	0.165	0.001	0.001
Naphthalene	0.006	BDL	BDL	0.273	0.013	BDL	0.005

Result is above method detection limit and below reporting limit

BDL = Below Detection Limit, Method

Detection Limit is Method Detection Limit

All results expressed as ppm (mg/L) of analyte

Samples preserved with HCL and refrigerated at 4 degrees C

Sutherland

Environmental Company, Inc.

2515 5th Avenue South
Birmingham, AL 35233
205-581-9500

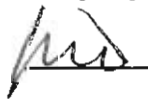


Client:	Sphere 3 Engineering, Inc.	Report Date:	June 30, 2020
Attention:	Mr. Greg Hoagland	Reference #	43252
Address:	3433 Sierra Drive	P.O. #	KSSSS.06
	Hoover, AL 35216	Project ID:	Stop n Shop Shell

Sample Matrix:	water	Analytical	
Date Received:	6/25/20	Analyst:	Hageman/Heard
Date Collected:	6/19/20	Date of Analysis:	6/28-30/20
Sample Collector:	G. Karstens	Method:	EPA Method 8260B

VOLATILE ORGANICS - BTEX/MTBE/NAPHTHALENE						
	FIELD ID					
	DUP-1					
Volatile Organic, mg/L	LAB ID					Detection Limit, ppm
	216259					
Benzene	2.400					0.001
Toluene	0.053					0.001
Ethylbenzene	0.228					0.001
Xylenes, o,m,p	1.380					0.003
MTBE	5.560					0.001
Naphthalene	0.116					0.005

BDL = Below Detection Limit, Method
Detection Limit is Method Detection Limit
All results expressed as ppm (mg/L) of analyte
Samples preserved with HCL and refrigerated at 4 degrees C

 /QAQC

EPA Laboratory ID AL01084

Respectfully submitted,



Kevin Doriety
Analytical Chemist

Sutherland Environmental Read and Review Checklist

1. Is the client and the sample collector(s) accurately noted on report?	<input type="checkbox"/> NO	<input checked="" type="checkbox"/> YES	<input type="checkbox"/> NO	<input checked="" type="checkbox"/> YES
2. Do all dates match the COC on the report?	<input type="checkbox"/> NO	<input checked="" type="checkbox"/> YES	<input type="checkbox"/> NO	<input checked="" type="checkbox"/> YES
3. Is the purchase order ID (PO) and project ID accurately noted on report?	<input type="checkbox"/> NO	<input checked="" type="checkbox"/> YES	<input type="checkbox"/> NO	<input checked="" type="checkbox"/> YES
4. Are all methods and method references correct on report?	<input type="checkbox"/> NO	<input checked="" type="checkbox"/> YES	<input type="checkbox"/> NO	<input checked="" type="checkbox"/> YES
5. Do the Field ID(s) and the Lab ID(s) correspond to the COC?	<input checked="" type="checkbox"/> NO	<input type="checkbox"/> YES	<input checked="" type="checkbox"/> NO	<input checked="" type="checkbox"/> YES
6. Is the report formatted correctly?	<input type="checkbox"/> NO	<input checked="" type="checkbox"/> YES	<input type="checkbox"/> NO	<input checked="" type="checkbox"/> YES
7. Does the following information on report correspond to the printout information from the analytical instrumentation:				
Sample Matrix	<input type="checkbox"/> NO	<input checked="" type="checkbox"/> YES	<input type="checkbox"/> NO	<input checked="" type="checkbox"/> YES
Analyst	<input type="checkbox"/> NO	<input checked="" type="checkbox"/> YES	<input type="checkbox"/> NO	<input checked="" type="checkbox"/> YES
Analysis Date/Time	<input type="checkbox"/> NO	<input checked="" type="checkbox"/> YES	<input type="checkbox"/> NO	<input checked="" type="checkbox"/> YES
Analyte concentration	<input type="checkbox"/> NO	<input checked="" type="checkbox"/> YES	<input type="checkbox"/> NO	<input checked="" type="checkbox"/> YES
Units	<input type="checkbox"/> NO	<input checked="" type="checkbox"/> YES	<input type="checkbox"/> NO	<input checked="" type="checkbox"/> YES
Dilution Factors/Conversions	<input type="checkbox"/> NO	<input checked="" type="checkbox"/> YES	<input type="checkbox"/> NO	<input checked="" type="checkbox"/> YES
Detection/Reporting/Quant. Limits	<input type="checkbox"/> NO	<input checked="" type="checkbox"/> YES	<input type="checkbox"/> NO	<input checked="" type="checkbox"/> YES
QC Reviewed:	<input checked="" type="checkbox"/> YES		<input checked="" type="checkbox"/> YES	

Initial*:

MJH

KH

* MJH = Michael Heard, KD = Kevin Doriety, MSH = Matt Hageman, KH = Kelly Hester

PDF: Hoagland, Hunter,
Karstens

Invoice # 43252

Notes: _____

Sutherland Environmental Co., Inc.

Sutherland Environmental Company Inc.

Sample Check-in Form

Date Received: 6/25/20 **Invoice #** 43252
Method of Delivery: Hand **Client:** Sphere 3

1. Did any containers arrive broken?

YES	NO
-----	----

* If so, please state field ID with analysis of broken sample(s) _____

2. Were cooler(s) sealed upon arrival?

YES	NO	NA
-----	----	----

3. Were the samples received at the proper temperature (4°C +/- 2°C)?

YES	NO	NA
-----	----	----

4. Did a chain of custody accompany the samples?

YES	NO
-----	----

* Was it properly filled out?

YES	NO
-----	----

5. Were correct containers used for the analysis requested?

YES	NO
-----	----

6. Were all containers properly preserved?

YES	NO	NA
-----	----	----

7. Were all water samples received at the proper pH?

YES	NO	NA
-----	----	----

8. If VOA vials were present, was there any head space?

YES	NO	NA
-----	----	----

* If so, please state field ID of deficient sample(s): _____

9. Were all containers properly labeled and match chain of custody?

YES	NO
-----	----

10. Did containers arrive within holding time of analysis?

YES	NO
-----	----

* If not, please state field ID and analysis of sample(s) out of holding time: _____

11. Was client informed of any/all deficiencies in sample check-in?

YES	NO	NA
-----	----	----

12. Were any samples rejected?

YES	NO
-----	----

* If so, please state field ID of rejected sample(s): _____

Sample Custodian (signed): _____

Sutherland

Environmental Company, Inc.

2515 5th Avenue South
Birmingham, AL 35233
205-581-9500



Client:	Sphere 3 Engineering, Inc.	Report Date:	September 23, 2020
Attention:	Mr. Greg Hoagland	Reference #	43706
Address:	3433 Sierra Drive	P.O. #	KSSSS.08
	Hoover, AL 35216	Project ID:	Stop n Shop Shell

Sample Matrix:	water	Analytical	
Date Received:	9/18/20	Analyst:	Hageman/Heard
Date Collected:	9/10/20	Date of Analysis:	9/18-22/20
Sample Collector:	G. Karstens	Method:	EPA Method 8260B

VOLATILE ORGANICS - BTEX/MTBE/NAPHTHALENE							
	FIELD ID	FIELD ID	FIELD ID	FIELD ID	FIELD ID	FIELD ID	
	MW-1	MW-2	MW-3	MW-4	MW-5	MW-6	
Volatile Organic, mg/L	LAB ID	LAB ID	LAB ID	LAB ID	LAB ID	LAB ID	Detection Limit, ppm
	219054	219055	219056	219057	219058	219059	
Benzene	0.159	1.270	BDL	BDL	BDL	BDL	0.001
Toluene	BDL	0.059	BDL	BDL	BDL	BDL	0.001
Ethylbenzene	BDL	0.035	BDL	BDL	BDL	BDL	0.001
Xylenes, o,m,p	0.009	0.360	BDL	BDL	BDL	BDL	0.003
MTBE	0.138	2.260	BDL	0.003	BDL	BDL	0.001
Naphthalene	0.011	0.022	BDL	BDL	BDL	BDL	0.005
	FIELD ID	FIELD ID	FIELD ID	FIELD ID	FIELD ID	FIELD ID	
	MW-7	MW-8	MW-9	MW-10	MW-11	MW-DW1	
Volatile Organic, mg/L	LAB ID	LAB ID	LAB ID	LAB ID	LAB ID	LAB ID	Detection Limit, ppm
	219060	219061	219062	219063	219064	219065	
Benzene	1.700	BDL	0.015	0.022	0.056	BDL	0.001
Toluene	0.082	BDL	0.002	0.145	0.001	BDL	0.001
Ethylbenzene	0.318	BDL	BDL	0.535	BDL	BDL	0.001
Xylenes, o,m,p	1.160	BDL	0.007	2.020	BDL	BDL	0.003
MTBE	4.420	BDL	0.004	0.033	0.418	BDL	0.001
Naphthalene	0.122	BDL	BDL	0.278	0.008	BDL	0.005

Result is above method detection limit and below reporting limit

BDL = Below Detection Limit, Method

Detection Limit is Method Detection Limit

All results expressed as ppm (mg/L) of analyte

Samples preserved with HCL and refrigerated at 4 degrees C

Sutherland

Environmental Company, Inc.

2515 5th Avenue South
Birmingham, AL 35233
205-581-9500



Client:	Sphere 3 Engineering, Inc.	Report Date:	September 23, 2020
Attention:	Mr. Greg Hoagland	Reference #	43706
Address:	3433 Sierra Drive	P.O. #	KSSSS.08
	Hoover, AL 35216	Project ID:	Stop n Shop Shell

Sample Matrix:	water	<u>Analytical</u>	
Date Received:	9/18/20	Analyst:	Hageman/Heard
Date Collected:	9/10/20	Date of Analysis:	9/19/20
Sample Collector:	G. Karstens	Method:	EPA Method 8260B

VOLATILE ORGANICS - BTEX/MTBE/NAPHTHALENE						
	FIELD ID					
	DUP-1					
Volatiles Organic, mg/L	LAB ID					Detection Limit, ppm
Benzene	0.022					0.001
Toluene	0.137					0.001
Ethylbenzene	0.515					0.001
Xylenes, o,m,p	1.970					0.003
MTBE	0.034					0.001
Naphthalene	0.283					0.005

BDL = Below Detection Limit, Method
Detection Limit is Method Detection Limit
All results expressed as ppm (mg/L) of analyte
Samples preserved with HCL and refrigerated at 4 degrees C

MH / QAQC

EPA Laboratory ID AL01084

Respectfully submitted,

Kevin Doriety
Analytical Chemist

Sutherland

Environmental Company, Inc.

2515 5th Avenue South
Birmingham, AL 35233
205-581-9500



Case Narrative

Laboratory Reference #: 43706

All client ID's, parameters, field ID's, lab ID's and analytical methods are noted in report.
All parameters, including preparation and analysis, were performed using acceptable methodology.
All samples were received in good condition unless noted in the sample check-in sheet.
All samples were prepared, incubated and analyzed within hold time unless noted.
Sample(s) were diluted to within standard curve parameters when necessary.
All QC samples/MS Tune/surrogate recoveries for applicable methods were within acceptable range unless noted.

Occurrence(s) affecting sample integrity or data quality:

No occurrences were observed during analysis that may have impacted sample integrity or data quality.

Method References

SM: Standard Methods 21st edition (2005), **H:** Referenced Hach Methods compatible

E: EPA Methods for Chemical Analysis of water & wastes (1983)

Revisions (DW): SM3113B 21st ed (2005); 200.7, rev.4.4 (1994); 245.1 rev.3.0 (1994); 524.2 rev.4.1 (1995)

SW: SW 846 Test Methods 3rd edition (1997)

Common Abbreviations

QA/QC = Quality Assurance / Quality Control

GW = groundwater, WW = wastewater, DW = drinking water, SS = soil sample, A = air sample, SO = solid, SL = sludge
ug/L, ug/Kg, ppb = parts per billion

mg/L, mg/Kg, ppm = parts per million

D.L. = Detection Limit, Method (unless otherwise noted)

BDL = Below Detection Limit, Method (unless otherwise noted)

MDL = Method Detection Limit, minimum calibration standard unless otherwise noted

RL = Reporting Limit

PQL = Practical Quantitation Limit

NA = Not Available

ND = None Detected

TNTC = Too Numerous to Count

* Sample was above method detection limit and below reporting limit (water/liquid).

* Sample was above practical quantitation limit and below reporting limit (soil/solid).

Respectfully submitted,

QA/QC Verified

Kevin Doriety
Analytical Chemist

EPA Laboratory ID AL01084, ADEM #41470

Sutherland

Environmental Company, Inc.

2515 5th Avenue South
Birmingham, AL 35233
205-581-9500



Client:	Sphere 3 Engineering, Inc.	Report Date:	September 24, 2020
Attention:	Mr. Greg Hoagland	Reference #	43706
Address:	3433 Sierra Drive	P.O. #	KSSSS.08
	Hoover, AL 35216	Project ID:	Stop n Shop Shell

Sample Matrix:	drinking water	Analytical	
Date Received:	9/18/20	Analyst:	Hageman/Heard
Date Collected:	9/10/20	Date of Analysis:	9/23/20
Sample Collector:	G. Karstens	Method:	EPA Method 524.2

VOLATILE ORGANIC COMPOUNDS

	FIELD ID			Minimum Calibration Standard PPM	Method Detection Limit PPM
VOLATILE ORGANIC COMPOUNDS, PPM	PRW-1				
	LAB ID				
	219066				
Benzene	BDL			0.00100	0.00029
Bromobenzene	BDL			0.00100	0.00030
Bromochloromethane	BDL			0.00100	0.00024
Bromodichloromethane	BDL			0.00100	0.00031
Bromoform	BDL			0.00100	0.00030
Bromomethane	BDL			0.00100	0.00052
n-Butylbenzene	BDL			0.00100	0.00046
sec-Butylbenzene	BDL			0.00100	0.00029
tert-Butylbenzene	BDL			0.00100	0.00036
Carbon Tetrachloride	BDL			0.00100	0.00031
Chlorobenzene	BDL			0.00100	0.00027
Chloroethane	BDL			0.00100	0.00045
Chloromethane	BDL			0.00100	0.00034
Chloroform	BDL			0.00100	0.00038
2-Chlorotoluene	BDL			0.00100	0.00035
4-Chlorotoluene	BDL			0.00100	0.00032
Dibromochloromethane	BDL			0.00100	0.00083
1,2-Dibromo-3-Chloropropane	BDL			0.00100	0.00080
1,2-Dibromoethane	BDL			0.00100	0.00026
Dibromomethane	BDL			0.00100	0.00026
1,2-Dichlorobenzene	BDL			0.00100	0.00027
1,3-Dichlorobenzene	BDL			0.00100	0.00031
1,4-Dichlorobenzene	BDL			0.00100	0.00035
Dichlorodifluoromethane	BDL			0.00100	0.00043
1,1-Dichloroethane	BDL			0.00100	0.00026
1,2-Dichloroethane	BDL			0.00100	0.00037
1,1-Dichloroethene	BDL			0.00100	0.00024
cis-1,2-Dichloroethene	BDL			0.00100	0.00026
trans-1,2-Dichloroethene	BDL			0.00100	0.00024

Compound List Continued next page

Sutherland

Environmental Company, Inc.

2515 5th Avenue South
Birmingham, AL 35233
205-581-9500



Client:	Sphere 3 Engineering, Inc.	Report Date:	September 24, 2020
Attention:	Mr. Greg Hoagland	Reference #	43706
Address:	3433 Sierra Drive	P.O. #	KSSSS.08
	Hoover, AL 35216	Project ID:	Stop n Shop Shell

Sample Matrix:	drinking water	Analytical	
Date Received:	9/18/20	Analyst:	Hageman/Heard
Date Collected:	9/10/20	Date of Analysis:	9/23/20
Sample Collector:	G. Karstens	Method:	EPA Method 524.2

VOLATILE ORGANIC COMPOUNDS

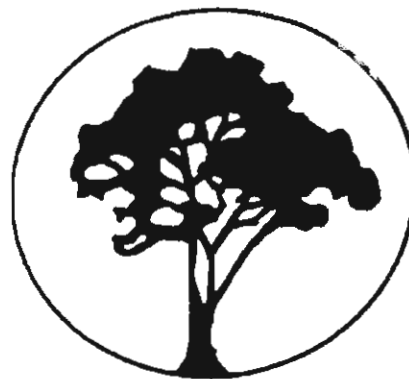
	FIELD ID			Minimum Calibration Standard PPM	Method Detection Limit PPM
VOLATILE ORGANIC COMPOUNDS, PPM	PRW-1				
	LAB ID				
	219066				
1,2-Dichloropropane	BDL			0.00100	0.00030
1,3- Dichloropropane	BDL			0.00100	0.00023
2,2-Dichloropropane	BDL			0.00100	0.00036
1,1-Dichloropropene	BDL			0.00100	0.00025
cis-1,3-Dichloropropene	BDL			0.00100	0.00027
trans-1,3-Dichloropropene	BDL			0.00100	0.00028
Ethylbenzene	BDL			0.00100	0.00032
Hexachlorobutadiene	BDL			0.00200	0.00080
Isopropylbenzene	BDL			0.00100	0.00045
4-Isopropyltoluene	BDL			0.00100	0.00031
Methylene Chloride	BDL			0.00100	0.00031
Methyl-t-butyl Ether (MTBE)	BDL			0.00100	0.00025
Naphthalene	BDL			0.00100	0.00062
n-Propylbenzene	BDL			0.00100	0.00032
Styrene	BDL			0.00100	0.00034
1,1,1,2-Tetrachloroethane	BDL			0.00100	0.00026
1,1,2,2-Tetrachloroethane	BDL			0.00100	0.00028
Tetrachloroethene	BDL			0.00100	0.00037
Toluene	BDL			0.00100	0.00035
1,2,3-Trichlorobenzene	BDL			0.00100	0.00059
1,2,4-Trichlorobenzene	BDL			0.00100	0.00054
1,1,1-Trichloroethane	BDL			0.00100	0.00027
1,1,2-Trichloroethane	BDL			0.00100	0.00033
Trichloroethene	BDL			0.00100	0.00029
Trichlorofluoromethane	BDL			0.00100	0.00040
1,2,3-Trichloropropane	BDL			0.00100	0.00030
1,2,4-Trimethylbenzene	BDL			0.00100	0.00027
1,3,5-Trimethylbenzene	BDL			0.00100	0.00031
Vinyl Chloride	BDL			0.00100	0.00028
Xylenes, o,m,p	BDL			0.00300	0.00091

Compound List Continued next page

Sutherland

Environmental Company, Inc.

2515 5th Avenue South
Birmingham, AL 35233
205-581-9500



Client:	Sphere 3 Engineering, Inc.	Report Date:	September 24, 2020
Attention:	Mr. Greg Hoagland	Reference #	43706
Address:	3433 Sierra Drive	P.O. #	KSSSS.08
	Hoover, AL 35216	Project ID:	Stop n Shop Shell

Sample Matrix:	drinking water	Analytical	
Date Received:	9/18/20	Analyst:	Hageman/Heard
Date Collected:	9/10/20	Date of Analysis:	9/23/20
Sample Collector:	G. Karstens	Method:	EPA Method 524.2

VOLATILE ORGANIC COMPOUNDS

	FIELD ID			Minimum Calibration Standard PPM	Method Detection Limit PPM
VOLATILE ORGANIC COMPOUNDS, PPM	PRW-1				
	LAB ID				
	219066				
Acetone	BDL			0.00100	0.00048
Acrylonitrile	BDL			0.00100	0.00044
Allyl Chloride	BDL			0.00100	0.00030
2-Butanone (MEK)	BDL			0.00100	0.00050
Carbon Disulfide	BDL			0.00100	0.00034
Chloroacetonitrile	BDL			0.00100	0.00036
1-Chlorobutane	BDL			0.00100	0.00040
1,1-Dichloropropanone	BDL			0.00100	0.00075
Diethyl Ether	BDL			0.00100	0.00029
Ethyl Methacrylate	BDL			0.00100	0.00042
Hexachloroethane	BDL			0.00100	0.00029
2-Hexanone	BDL			0.00100	0.00040
Methacrylonitrile	BDL			0.00100	0.00052
Methylacrylate	BDL			0.00100	0.00026
Methyl Iodide	BDL			0.00100	0.00074
Methyl Methacrylate	BDL			0.00100	0.00030
4-Methyl-2-Pentanone (MIBK)	BDL			0.00100	0.00039
Pentachloroethane	BDL			0.00100	0.00033
Propionitrile	BDL			0.00100	0.00053
Tetrahydrofuran	BDL			0.00100	0.00056

Reporting Limit (RL) is minimum calibration standard, unless otherwise noted

BDL = Below Detection Limit, Method

MDL is calculated MDL

All results expressed as PPM (mg/L)

MJ / QAQC

Respectfully submitted,

EPA Laboratory ID AL01084

Reference: EPA Method 524.2 Revision 4.1 (1995)

Kevin Doriety

Analytical Chemist

Sutherland Environmental Company Inc.

Sample Check-in Form

Date Received: <u>9/18/20</u>	Invoice # <u>43706</u>
Method of Delivery: <u>Hand</u>	Client: <u>Sphere 3</u>

1. Did any containers arrive broken?	YES	<input checked="" type="checkbox"/> NO
* If so, please state field ID with analysis of broken sample(s) _____		
2. Were cooler(s) sealed upon arrival?	<input checked="" type="checkbox"/> YES	NO NA
3. Were the samples received at the proper temperature (4°C +/- 2°C)?	<input checked="" type="checkbox"/> YES	NO NA
4. Did a chain of custody accompany the samples?	<input checked="" type="checkbox"/> YES	NO
* Was it properly filled out?		
	<input checked="" type="checkbox"/> YES	NO
5. Were correct containers used for the analysis requested?	<input checked="" type="checkbox"/> YES	NO
6. Were all containers properly preserved?	<input checked="" type="checkbox"/> YES	NO NA
7. Were all water samples received at the proper pH?	<input checked="" type="checkbox"/> YES	NO NA
8. If VOA vials were present, was there any head space?	YES	<input checked="" type="checkbox"/> NO NA
* If so, please state field ID of deficient sample(s): _____		
9. Were all containers properly labeled and match chain of custody?	<input checked="" type="checkbox"/> YES	NO
10. Did containers arrive within holding time of analysis?	<input checked="" type="checkbox"/> YES	NO
* If not, please state field ID and analysis of sample(s) out of holding time: _____		
11. Was client informed of any/all deficiencies in sample check-in?	YES	NO <input checked="" type="checkbox"/> NA
12. Were any samples rejected?	YES	<input checked="" type="checkbox"/> NO
* If so, please state field ID of rejected sample(s): _____		

Sample Custodian (signed):



Sutherland Environmental Read and Review Checklist

1. Is the client and the sample collector(s) accurately noted on report?	<input type="checkbox"/> NO	<input checked="" type="checkbox"/> YES	<input type="checkbox"/> NO	<input checked="" type="checkbox"/> YES
2. Do all dates match the COC on the report?	<input type="checkbox"/> NO	<input checked="" type="checkbox"/> YES	<input type="checkbox"/> NO	<input checked="" type="checkbox"/> YES
3. Is the purchase order ID (PO) and project ID accurately noted on report?	<input type="checkbox"/> NO	<input checked="" type="checkbox"/> YES	<input type="checkbox"/> NO	<input checked="" type="checkbox"/> YES
4. Are all methods and method references correct on report?	<input type="checkbox"/> NO	<input checked="" type="checkbox"/> YES	<input type="checkbox"/> NO	<input checked="" type="checkbox"/> YES
5. Do the Field ID(s) and the Lab ID(s) correspond to the COC?	<input checked="" type="checkbox"/> NO	<input type="checkbox"/> YES	<input checked="" type="checkbox"/> NO	<input type="checkbox"/> YES
6. Is the report formatted correctly?	<input checked="" type="checkbox"/> NO	<input checked="" type="checkbox"/> YES	<input checked="" type="checkbox"/> NO	<input type="checkbox"/> YES
7. Does the following information on report correspond to the printout information from the analytical instrumentation:				
Sample Matrix	<input type="checkbox"/> NO	<input checked="" type="checkbox"/> YES	<input type="checkbox"/> NO	<input checked="" type="checkbox"/> YES
Analyst	<input type="checkbox"/> NO	<input checked="" type="checkbox"/> YES	<input type="checkbox"/> NO	<input checked="" type="checkbox"/> YES
Analysis Date/Time	<input type="checkbox"/> NO	<input checked="" type="checkbox"/> YES	<input type="checkbox"/> NO	<input checked="" type="checkbox"/> YES
Analyte concentration	<input type="checkbox"/> NO	<input checked="" type="checkbox"/> YES	<input type="checkbox"/> NO	<input checked="" type="checkbox"/> YES
Units	<input type="checkbox"/> NO	<input checked="" type="checkbox"/> YES	<input type="checkbox"/> NO	<input checked="" type="checkbox"/> YES
Dilution Factors/Conversions	<input type="checkbox"/> NO	<input checked="" type="checkbox"/> YES	<input type="checkbox"/> NO	<input checked="" type="checkbox"/> YES
Detection/Reporting/Quant. Limits	<input type="checkbox"/> NO	<input checked="" type="checkbox"/> YES	<input type="checkbox"/> NO	<input checked="" type="checkbox"/> YES
QC Reviewed:		<input checked="" type="checkbox"/> YES		<input checked="" type="checkbox"/> YES

OK
MJH

Initial*:

MJH KH

* MJH = Michael Heard, KD = Kevin Doriety, MSH = Matt Hageman, KH = Kelly Hester

PDF: Hoagland, Hunter

Invoice # 43706

Notes: _____

Sutherland Environmental Co., Inc.

Sutherland Environmental Read and Review Checklist

1. Is the client and the sample collector(s) accurately noted on report?	<input type="checkbox"/> NO	<input checked="" type="checkbox"/> YES	<input type="checkbox"/> NO	<input checked="" type="checkbox"/> YES
2. Do all dates match the COC on the report?	<input type="checkbox"/> NO	<input checked="" type="checkbox"/> YES	<input type="checkbox"/> NO	<input checked="" type="checkbox"/> YES
3. Is the purchase order ID (PO) and project ID accurately noted on report?	<input type="checkbox"/> NO	<input checked="" type="checkbox"/> YES	<input type="checkbox"/> NO	<input checked="" type="checkbox"/> YES
4. Are all methods and method references correct on report?	<input type="checkbox"/> NO	<input checked="" type="checkbox"/> YES	<input type="checkbox"/> NO	<input checked="" type="checkbox"/> YES
5. Do the Field ID(s) and the Lab ID(s) correspond to the COC?	<input type="checkbox"/> NO	<input checked="" type="checkbox"/> YES	<input type="checkbox"/> NO	<input checked="" type="checkbox"/> YES
6. Is the report formatted correctly?	<input type="checkbox"/> NO	<input checked="" type="checkbox"/> YES	<input type="checkbox"/> NO	<input checked="" type="checkbox"/> YES
7. Does the following information on report correspond to the printout information from the analytical instrumentation:				
Sample Matrix	<input type="checkbox"/> NO	<input checked="" type="checkbox"/> YES	<input type="checkbox"/> NO	<input checked="" type="checkbox"/> YES
Analyst	<input type="checkbox"/> NO	<input checked="" type="checkbox"/> YES	<input type="checkbox"/> NO	<input checked="" type="checkbox"/> YES
Analysis Date/Time	<input type="checkbox"/> NO	<input checked="" type="checkbox"/> YES	<input type="checkbox"/> NO	<input checked="" type="checkbox"/> YES
Analyte concentration	<input type="checkbox"/> NO	<input checked="" type="checkbox"/> YES	<input type="checkbox"/> NO	<input checked="" type="checkbox"/> YES
Units	<input type="checkbox"/> NO	<input checked="" type="checkbox"/> YES	<input type="checkbox"/> NO	<input checked="" type="checkbox"/> YES
Dilution Factors/Conversions	<input type="checkbox"/> NO	<input checked="" type="checkbox"/> YES	<input type="checkbox"/> NO	<input checked="" type="checkbox"/> YES
Detection/Reporting/Quant. Limits	<input type="checkbox"/> NO	<input checked="" type="checkbox"/> YES	<input type="checkbox"/> NO	<input checked="" type="checkbox"/> YES
QC Reviewed:		<input checked="" type="checkbox"/> YES		<input checked="" type="checkbox"/> YES

Initial*:

MJH

KD

* MJH = Michael Heard, KD = Kevin Doriety, MSH = Matt Hageman, KH = Kelly Hester

PDF: Hoagland, Hunter
 Notes: DW Sample added

Invoice # 43706
 Sutherland Environmental Co., Inc.

Sutherland

Environmental Company, Inc.

2515 5th Avenue South
Birmingham, AL 35233
205-581-9500



Client:	Sphere 3 Engineering, Inc.	Report Date:	December 29, 2020
Attention:	Mr. Greg Hoagland	Reference #	44276
Address:	3433 Sierra Drive	P.O. #	KSSSS.09
	Hoover, AL 35216	Project ID:	Stop n Shop Shell

Sample Matrix:	water	Analytical	
Date Received:	12/23/20	Analyst:	Hageman/Heard
Date Collected:	12/18/20	Date of Analysis:	12/27-29/20
Sample Collector:	G. Karstens	Method:	EPA Method 8260B

VOLATILE ORGANICS - BTEX/MTBE/NAPHTHALENE							
	FIELD ID	FIELD ID	FIELD ID	FIELD ID	FIELD ID	FIELD ID	
	MW-1	MW-2	MW-3	MW-4	MW-5	MW-6	
Volatile Organic, mg/L	LAB ID	LAB ID	LAB ID	LAB ID	LAB ID	LAB ID	Detection Limit, ppm
	222143	222144	222145	222146	222147	222148	
Benzene	0.236	0.709	BDL	BDL	BDL	BDL	0.001
Toluene	0.004	0.014	BDL	BDL	BDL	BDL	0.001
Ethylbenzene	0.008	0.005	BDL	BDL	BDL	BDL	0.001
Xylenes, o,m,p	0.017	0.083	BDL	BDL	BDL	BDL	0.003
MTBE	0.222	1.160	BDL	0.003	BDL	BDL	0.001
Naphthalene	0.017	0.009	BDL	BDL	BDL	BDL	0.005
	FIELD ID	FIELD ID	FIELD ID	FIELD ID	FIELD ID	FIELD ID	
	MW-7	MW-8	MW-9	MW-10	MW-11	MW-DW1	
Volatile Organic, mg/L	LAB ID	LAB ID	LAB ID	LAB ID	LAB ID	LAB ID	Detection Limit, ppm
	222149	222150	222151	222152	222153	222154	
Benzene	1.710	BDL	0.036	0.007	0.066	BDL	0.001
Toluene	0.034	BDL	0.003	0.152	0.002	BDL	0.001
Ethylbenzene	0.242	BDL	0.002	0.570	BDL	BDL	0.001
Xylenes, o,m,p	0.730	BDL	0.015	1.810	BDL	BDL	0.003
MTBE	3.900	BDL	0.005	0.009	0.280	BDL	0.001
Naphthalene	0.069	BDL	BDL	0.274	0.008	BDL	0.005

Result is above method detection limit and below reporting limit

BDL = Below Detection Limit, Method

Detection Limit is Method Detection Limit

All results expressed as ppm (mg/L) of analyte

Samples preserved with HCL and refrigerated at 4 degrees C

Sutherland

Environmental Company, Inc.

2515 5th Avenue South
Birmingham, AL 35233
205-581-9500



Client:	Sphere 3 Engineering, Inc.	Report Date:	December 29, 2020
Attention:	Mr. Greg Hoagland	Reference #	44276
Address:	3433 Sierra Drive	P.O. #	KSSSS.09
	Hoover, AL 35216	Project ID:	Stop n Shop Shell

Sample Matrix:	water	<u>Analytical</u>	
Date Received:	12/23/20	Analyst:	Hageman/Heard
Date Collected:	12/18/20	Date of Analysis:	12/28/20
Sample Collector:	G. Karstens	Method:	EPA Method 8260B

VOLATILE ORGANICS - BTEX/MTBE/NAPHTHALENE						
	FIELD ID					
	DUP-1					
Volatile Organic, mg/L	LAB ID					Detection Limit, ppm
	222155					
Benzene	0.007					0.001
Toluene	0.151					0.001
Ethylbenzene	0.574					0.001
Xylenes, o,m,p	1.820					0.003
MTBE	0.010					0.001
Naphthalene	0.261					0.005

Result is above method detection limit and below reporting limit

BDL = Below Detection Limit, Method

Detection Limit is Method Detection Limit

All results expressed as ppm (mg/L) of analyte

Samples preserved with HCL and refrigerated at 4 degrees C

MH /QAQC

EPA Laboratory ID AL01084

Respectfully submitted,

Kevin Doriety
Analytical Chemist

Sutherland Environmental Read and Review Checklist

1. Is the client and the sample collector(s) accurately noted on report?	<input type="checkbox"/> NO	<input checked="" type="checkbox"/> YES	<input type="checkbox"/> NO	<input checked="" type="checkbox"/> YES
2. Do all dates match the COC on the report?	<input type="checkbox"/> NO	<input checked="" type="checkbox"/> YES	<input type="checkbox"/> NO	<input checked="" type="checkbox"/> YES
3. Is the purchase order ID (PO) and project ID accurately noted on report?	<input type="checkbox"/> NO	<input checked="" type="checkbox"/> YES	<input type="checkbox"/> NO	<input checked="" type="checkbox"/> YES
4. Are all methods and method references correct on report?	<input type="checkbox"/> NO	<input checked="" type="checkbox"/> YES	<input type="checkbox"/> NO	<input checked="" type="checkbox"/> YES
5. Do the Field ID(s) and the Lab ID(s) correspond to the COC?	<input type="checkbox"/> NO	<input checked="" type="checkbox"/> YES	<input type="checkbox"/> NO	<input checked="" type="checkbox"/> YES
6. Is the report formatted correctly?	<input type="checkbox"/> NO	<input checked="" type="checkbox"/> YES	<input type="checkbox"/> NO	<input checked="" type="checkbox"/> YES
7. Does the following information on report correspond to the printout information from the analytical instrumentation:				
Sample Matrix	<input type="checkbox"/> NO	<input checked="" type="checkbox"/> YES	<input type="checkbox"/> NO	<input checked="" type="checkbox"/> YES
Analyst	<input type="checkbox"/> NO	<input checked="" type="checkbox"/> YES	<input type="checkbox"/> NO	<input checked="" type="checkbox"/> YES
Analysis Date/Time	<input type="checkbox"/> NO	<input checked="" type="checkbox"/> YES	<input type="checkbox"/> NO	<input checked="" type="checkbox"/> YES
Analyte concentration	<input type="checkbox"/> NO	<input checked="" type="checkbox"/> YES	<input type="checkbox"/> NO	<input checked="" type="checkbox"/> YES
Units	<input type="checkbox"/> NO	<input checked="" type="checkbox"/> YES	<input type="checkbox"/> NO	<input checked="" type="checkbox"/> YES
Dilution Factors/Conversions	<input type="checkbox"/> NO	<input checked="" type="checkbox"/> YES	<input type="checkbox"/> NO	<input checked="" type="checkbox"/> YES
Detection/Reporting/Quant. Limits	<input type="checkbox"/> NO	<input checked="" type="checkbox"/> YES	<input type="checkbox"/> NO	<input checked="" type="checkbox"/> YES
QC Reviewed:	<input checked="" type="checkbox"/> YES		<input checked="" type="checkbox"/> YES	

Initial*:

MJH

KH

* MJH = Michael Heard, KD = Kevin Doriety, MSH = Matt Hageman, KH = Kelly Hester

PDF: Hoagland, Hunter

Invoice #

44270

Notes: _____

Sutherland Environmental Co., Inc.

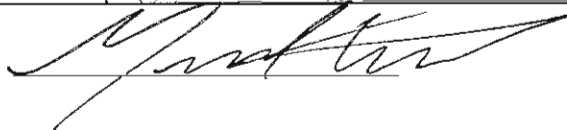
Sutherland Environmental Company Inc.

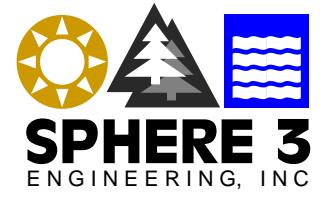
Sample Check-in Form

Date Received: <u>12/23/20</u>	Invoice # <u>44276</u>
Method of Delivery: <u>Hand</u>	Client: <u>Sphere 3</u>

1. Did any containers arrive broken?	YES	<input checked="" type="checkbox"/> NO
* If so, please state field ID with analysis of broken sample(s) _____		
2. Were cooler(s) sealed upon arrival?	<input checked="" type="checkbox"/> YES	NO NA
3. Were the samples received at the proper teamperature (4°C +/- 2°C)?	<input checked="" type="checkbox"/> YES	NO NA
4. Did a chain of custody accompany the samples?	<input checked="" type="checkbox"/> YES	NO
* Was it properly filled out?	<input checked="" type="checkbox"/> YES	NO
5. Were correct containers used for the analysis requested?	<input checked="" type="checkbox"/> YES	NO
6. Were all containers properly preserved?	<input checked="" type="checkbox"/> YES	NO NA
7. Were all water samples received at the proper pH?	<input checked="" type="checkbox"/> YES	NO NA
8. If VOA vials were present, was there any head space?	YES	<input checked="" type="checkbox"/> NO NA
* If so, please state field ID of deficient sample(s): _____		
9. Were all containers properly labeled and match chain of custody?	<input checked="" type="checkbox"/> YES	NO
10. Did containers arrive within holding time of analysis?	<input checked="" type="checkbox"/> YES	NO
* If not, please state field ID and analysis of sample(s) out of holding time: _____		
11. Was client informed of any/all deficiencies in sample check-in?	YES	NO <input checked="" type="checkbox"/> NA
12. Were any samples rejected?	YES	<input checked="" type="checkbox"/> NO
* If so, please state field ID of rejected sample(s): _____		

Sample Custodian (signed):





**HISTORICAL DISSOLVED COC ANALYTICAL SUMMARY
STOP n SHOP SHELL (UST15-08-03)**

MONITOR WELL	DATE	BENZENE (mg/L)	TOLUENE (mg/L)	ETHYL-BENZENE (mg/L)	TOTAL XYLENES (mg/L)	MTBE (mg/L)	NAPHTHALENE (mg/L)
MW-1	11/4/2015	0.892	0.004	0.002	0.184	0.830	0.053
	4/27/2016	0.625	0.007	0.005	0.121	0.463	0.018
	1/17/2019	1.240	0.017	0.018	0.061	2.550	0.102
	12/30/2019	0.884	0.003	0.003	0.045	2.290	0.054
	2/28/2020	0.580	0.014	0.017	0.051	0.595	0.015
	6/19/2020	0.234	<0.001	0.005	0.012	0.268	0.038
	9/10/2020	0.159	<0.001	<0.001	0.009	0.138	0.011
	12/18/2020	0.236	0.004	0.008	0.017	0.222	0.017
SSTLs GRP		2.240	448.000	169.000	175.000	8.960	8.960
MW-2*	11/4/2015	0.631	0.046	0.018	0.413	0.190	<0.005
	4/27/2016	3.140	0.057	0.164	3.230	4.540	0.091
	1/17/2019	0.620	0.021	0.004	0.150	0.479	<0.005
	12/30/2019	0.335	0.010	0.003	0.070	0.377	<0.005
	2/28/2020	0.323	0.007	0.002	0.056	0.370	<0.005
	DUP-1	0.328	0.006	0.002	0.052	0.382	<0.005
	6/19/2020	2.300	0.053	0.220	1.360	5.520	0.121
	DUP-1	2.400	0.053	0.228	1.380	5.560	0.116
	9/10/2020	1.270	0.059	0.035	0.360	2.260	0.022
	12/18/2020	0.709	0.014	0.005	0.083	1.160	0.009
SSTLs GRP		2.250	450.000	169.000	175.000	9.010	9.010
MW-3	11/4/2015	0.002	<0.001	<0.001	0.005	0.001	<0.005
	DUP-1	0.002	<0.001	<0.001	0.006	0.001	<0.005
	4/27/2016	<0.001	<0.001	<0.001	<0.003	<0.001	<0.005
	1/17/2019	<0.001	<0.001	<0.001	<0.003	<0.001	<0.005
	DUP-1	<0.001	<0.001	<0.001	<0.003	<0.001	<0.005
	12/30/2019	0.002	<0.001	<0.001	<0.003	0.008	<0.005
	2/28/2020	<0.001	<0.001	<0.001	<0.003	<0.001	<0.005
	6/19/2020	<0.001	<0.001	<0.001	<0.003	<0.001	<0.005
	9/10/2020	<0.001	<0.001	<0.001	<0.003	<0.001	<0.005
12/18/2020	<0.001	<0.001	<0.001	<0.003	<0.001	<0.005	
SSTLs GRP		1.250	251.000	169.000	175.000	5.010	5.010
MW-4	11/4/2015	<0.001	<0.001	<0.001	<0.003	0.012	<0.005
	4/27/2016	0.006	0.004	<0.001	0.011	0.012	<0.005
	1/17/2019	<0.001	<0.001	<0.001	<0.003	0.009	<0.005
	12/30/2019	<0.001	<0.001	<0.001	<0.003	0.005	<0.005
	2/28/2020	<0.001	<0.001	<0.001	0.003	0.006	<0.005
	6/19/2020	<0.001	<0.001	<0.001	<0.003	0.004	<0.005
	9/10/2020	<0.001	<0.001	<0.001	<0.003	0.003	<0.005
	12/18/2020	<0.001	<0.001	<0.001	<0.003	0.003	<0.005
SSTLs GRP		0.753	151.000	105.000	175.000	3.010	3.010
MW-5	4/27/2016	0.007	0.004	<0.001	0.008	0.005	<0.005
	1/17/2019	<0.001	<0.001	<0.001	<0.003	<0.001	<0.005
	12/30/2019	<0.001	<0.001	<0.001	<0.003	<0.001	<0.005
	2/28/2020	<0.001	<0.001	<0.001	<0.003	<0.001	<0.005
	6/19/2020	<0.001	<0.001	<0.001	<0.003	<0.001	<0.005
	9/10/2020	<0.001	<0.001	<0.001	<0.003	<0.001	<0.005
12/18/2020	<0.001	<0.001	<0.001	<0.003	<0.001	<0.005	
SSTLs GRP		0.205	41.000	28.700	175.000	0.820	0.820

HISTORICAL DISSOLVED COC ANALYTICAL SUMMARY - Continued
STOP n SHOP SHELL (UST15-08-03)

MONITOR WELL	DATE	BENZENE (mg/L)	TOLUENE (mg/L)	ETHYL-BENZENE (mg/L)	TOTAL XYLENES (mg/L)	MTBE (mg/L)	NAPHTHALENE (mg/L)
MW-6	4/27/2016	0.001	0.001	<0.001	0.003	<0.001	<0.005
	1/17/2019	<0.001	<0.001	<0.001	<0.003	<0.001	<0.005
	12/30/2019	<0.001	<0.001	<0.001	<0.003	<0.001	<0.005
	DUP-1	<0.001	<0.001	<0.001	<0.003	<0.001	<0.005
	2/28/2020	<0.001	<0.001	0.002	0.012	<0.001	<0.005
	6/19/2020	<0.001	<0.001	<0.001	<0.003	<0.001	<0.005
	9/10/2020	<0.001	<0.001	<0.001	<0.003	<0.001	<0.005
	12/18/2020	<0.001	<0.001	<0.001	<0.003	<0.001	<0.005
SSTLs GRP		0.197	39.400	27.600	175.000	0.787	0.787
MW-7	4/27/2016	3.120	2.550	0.590	4.580	2.700	0.409
	1/17/2019	2.670	0.058	0.162	0.885	3.720	0.037
	12/30/2019	1.060	0.007	0.045	0.084	3.680	0.018
	2/28/2020	1.220	0.090	0.394	1.960	2.820	0.065
	6/19/2020	1.390	0.060	0.225	0.896	2.910	0.006
	9/10/2020	1.700	0.082	0.318	1.160	4.420	0.122
	12/18/2020	1.710	0.034	0.242	0.730	3.900	0.069
	SSTLs GRP		0.437	87.400	61.200	175.000	1.750
MW-8	4/27/2016	<0.001	<0.001	<0.001	<0.003	<0.001	<0.005
	1/17/2019	<0.001	<0.001	<0.001	<0.003	<0.001	<0.005
	12/30/2019	<0.001	<0.001	<0.001	<0.003	<0.001	<0.005
	2/28/2020	<0.001	<0.001	<0.001	<0.003	<0.001	<0.005
	6/19/2020	<0.001	<0.001	<0.001	<0.003	<0.001	<0.005
	9/10/2020	<0.001	<0.001	<0.001	<0.003	<0.001	<0.005
	12/18/2020	<0.001	<0.001	<0.001	<0.003	<0.001	<0.005
	SSTLs GRP		0.534	107.000	74.800	175.000	2.140
MW-9	4/27/2016	0.045	0.022	0.005	0.033	0.006	<0.005
	DUP-1	0.043	0.021	0.004	0.030	0.005	<0.005
	1/17/2019	0.021	0.005	0.002	0.016	0.005	<0.005
	12/30/2019	0.020	0.004	0.002	0.018	0.003	<0.005
	2/28/2020	0.061	0.013	0.005	0.033	0.007	<0.005
	6/19/2020	0.016	<0.001	<0.001	0.005	0.004	<0.005
	9/10/2020	0.015	0.002	<0.001	0.007	0.004	<0.005
	12/18/2020	0.036	0.003	0.002	0.015	0.005	<0.005
SSTLs GRP		1.810	362.000	169.000	175.000	7.240	7.240
MW-10	1/17/2019	0.008	0.108	0.410	2.910	<0.001	0.153
	12/30/2019	0.004	0.102	0.270	1.630	0.002	0.161
	2/28/2020	0.008	0.138	0.494	2.330	<0.001	0.108
	6/19/2020	0.009	0.104	0.524	2.140	0.003	0.273
	9/10/2020	0.022	0.145	0.535	2.020	0.033	0.278
	DUP-1	0.022	0.137	0.515	1.970	0.034	0.283
	12/18/2020	0.007	0.152	0.570	1.810	0.009	0.274
	DUP-1	0.007	0.151	0.574	1.820	0.010	0.261
SSTLs GRP		0.172	34.400	24.100	175.000	0.688	0.688
MW-11	1/17/2019	0.009	<0.001	<0.001	<0.003	0.044	<0.005
	12/30/2019	0.027	<0.001	<0.001	<0.003	0.200	<0.005
	2/28/2020	0.002	<0.001	0.001	0.006	0.005	<0.005
	6/19/2020	0.044	0.001	<0.001	<0.003	0.165	0.013
	9/10/2020	0.056	0.001	<0.001	<0.003	0.418	0.008
	12/18/2020	0.066	0.002	<0.001	<0.003	0.280	0.008
SSTLs GRP		0.157	31.400	22.000	175.000	0.628	0.628

**HISTORICAL DISSOLVED COC ANALYTICAL SUMMARY - Concluded
STOP n SHOP SHELL (UST15-08-03)**

MONITOR WELL	DATE	BENZENE (mg/L)	TOLUENE (mg/L)	ETHYL-BENZENE (mg/L)	TOTAL XYLENES (mg/L)	MTBE (mg/L)	NAPHTHALENE (mg/L)
MW-DW1	4/27/2016	0.018	0.004	0.001	0.016	0.023	<0.005
	1/17/2019	0.003	<0.001	<0.001	<0.003	0.007	<0.005
	12/30/2019	0.003	<0.001	<0.001	<0.003	0.004	<0.005
	2/28/2020	0.002	<0.001	<0.001	<0.003	0.003	<0.005
	6/19/2020	<0.001	<0.001	<0.001	<0.003	0.001	<0.005
	9/10/2020	<0.001	<0.001	<0.001	<0.003	<0.001	<0.005
	12/18/2020	<0.001	<0.001	<0.001	<0.003	<0.001	<0.005
	SSTLs GRP		2.080	415.000	169.000	175.000	8.300
PRW-1	2/28/2020	<0.001	<0.001	<0.001	<0.003	<0.001	<0.005
	9/10/2020	<0.00029	<0.00035	<0.00032	<0.00091	<0.00025	<0.00062

Note:

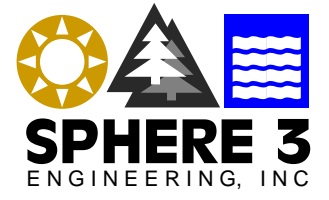
* - source well

mg/L – milligrams per liter

NA – Not Analyzed

SSTLs GRP – Site Specific Target Level protective of the Groundwater Resource Protection area

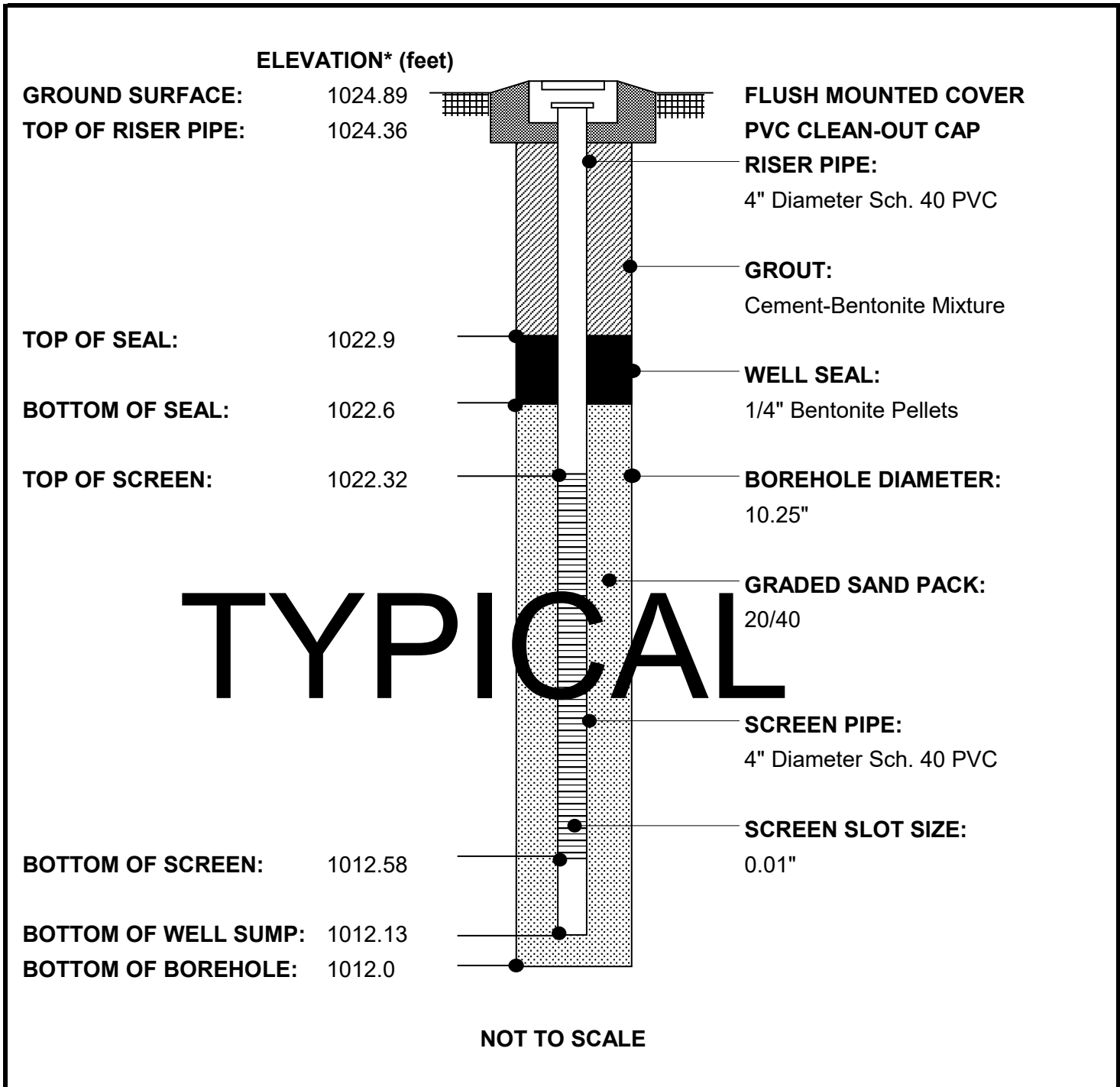
Concentrations highlighted in **bold** type exceed applicable SSTLs.



MW-5

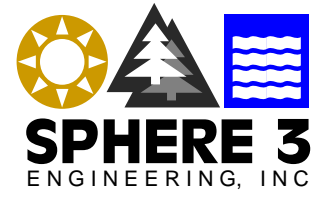
CLIENT: Joe Smith Oil Company
LOCATION: Joe's UST Facility
 1234 Main Street
 Anytown, Alabama

Project No.: ABC.XYZ.02
Top of Riser Elevation: 1024.36 feet
Ground Surface Elevation: 1024.89 feet
Screened Interval: 1022.32-1012.58 ft.
Date Installed: 01/04/21



REMARK: Monitor well constructed in soil boring B-5

*-Elevations are referenced to: mean sea level of 1025.00 feet.



SITE DESCRIPTION:

Located in Heflin, Alabama, the site and contiguous properties are of commercial and residential designation. The facility property is improved with an active convenience store, retailing sundry items and motor fuels. Refer to attached area map showing location.

PLANNED SITE ACTIVITIES:

1. Recovery well installation;
2. MEME events, and;
3. Groundwater sampling.

KNOWN CHEMICAL HAZARDS:

<u>Component</u>	<u>Location</u>	<u>Media</u>	<u>TWA TLV*</u>	<u>TLV STEL**</u>
Petroleum Distillates	All Site	SWA	400 ppm	--
Gasoline	All Site	SWA	300 ppm	500 ppm
Benzene	All Site	SWA	0.1 ppm	5 ppm
Toluene	All Site	SWA	100 ppm	150 ppm
Xylenes	All Site	SWA	100 ppm	150 ppm
Ethylbenzene	All Site	SWA	100 ppm	125 ppm

Notes:

Values per American Conference of Government Industrial Hygienists (ACGIH) or, 20 CFR Part 1910 (OSHA) whichever is most stringent.

S - soil; W - water; A - air

* The Threshold Limit Value (TLV) is the time weighted average concentration for a normal eight-hour day and forty-hour work week, to which all workers may be repeatedly exposed, day after day, without adverse effect.

** The Short-Term Exposure Limit (STEL) is the concentration at which workers can be exposed continuously for a short period of time. Exposures at the STEL should not be longer than 15 minutes and should not be repeated more than four times in an eight-hour period. There should be at least one hour between each 15 minute exposure at the STEL.

OTHER SUSPECTED CHEMICAL HAZARDS:

No other known. If encountered or suspected, contact Office Safety Manager.

CONCENTRATION MEASUREMENT METHODS:

<u>Activity</u>	<u>Location</u>	<u>Detector*</u>	<u>Survey Method**</u>
Air/Gases Sampling	All Site	PID & LEL	Work area breathing zone
Borehole Installation and Sampling	All Site	PID	Work area breathing zone
Groundwater Sampling	Specific	PID	Sources

Notes:

PID - Photoionization Detector.

* Instruments to be calibrated daily.

** Readings to be taken at a minimum of one per hour and more frequently in more contaminated areas or during critical activities.

ACTION LEVELS:

<u>Activity</u>	<u>Location</u>	<u>Action Level</u>	<u>Precaution</u>
All On-Site	All Site	>50 ppm	Cease activities until levels decrease

POTENTIAL PHYSICAL HAZARDS:

1. Overhead electric lines.
2. Underground electric and natural gas lines, gasoline product transfer lines, etc.
(Note: all known utility line locations will be marked by a line-locating company prior to initiating the site activities).
3. Falling objects from the drilling rig (i.e. augers, drill rods, slide hammer, etc.).
4. Potential for explosive conditions.

REQUIRED HEALTH AND SAFETY APPAREL AND PROCEDURES:

All project activities will be conducted under OSHA Health & Safety Level D. Protective equipment will include:

1. Hard hat;
2. Safety glasses;
3. Steel toe safety boots;
4. Orange Safety Vest with Reflective Tape;
5. Sleeved shirt, long pants (coveralls optional), and;
6. Latex and/or nitrile gloves, if phase material encountered (Tyvek Suits optional).

Smoking is prohibited at the worksite and throughout the facility property. Explosion proof or intrinsically safe equipment must be used in areas designated as hazardous (potentially explosive). At least one class ABC fire extinguisher will be placed in a safe area, accessible to site activities. Access to the work area will be restricted except to essential personnel. A safe distance will be maintained between the work area and public roads and appropriate traffic control will be implemented.

CONTINGENCY PLANS:

If the vapor levels in the general work area are found to meet or exceed any of the action levels, then work will be discontinued and the work site evacuated as directed by the Project Manager (SPHERE 3 representative). The work area periphery will be monitored by the On-Site Manager and work will resume when vapor levels drop below the action levels. If vapor levels continue to meet or exceed action levels, work will cease and the work site will be secured and evaluated. Work shall not continue until the Site Safety Plan is appropriately revised to meet the new conditions.

Should persistent safety hazards, accident or fire occur, take appropriate immediate action if required (i.e., extinguish the fire, give first aid, etc.) and contact emergency personnel immediately, and then contact appropriate SPHERE 3 Safety personnel.

This plan does not override any existing client or site-specific safety plan. All subcontractors used on these projects are required to submit safety plans applicable to their prescribed activities.

EMERGENCY CONTACTS AND PROCEDURES:

Should any situation or unplanned occurrence require outside or support services, the appropriate contact from the following list should be made.

In Case of Emergency, Dial 911, other contacts listed below:

<u>Agency</u>	<u>Person to Contact</u>	<u>Telephone</u>
Fire & Rescue	Emergency Dispatcher	911
Police:	Emergency Dispatcher	911
Underground Utilities	Receptionist	1-800-292-8525
SPHERE 3 Project Manager	Greg Hoagland	(205) 403-3317
	Cell	(205) 288-4896
