

# Phase I Environmental Site Assessment

Former Wayne's Pinball Palace

167 Chelsea Avenue

Memphis, Shelby County, Tennessee

February 6, 2025 | Terracon Project No. A8247004-3

## Prepared for:

City of Memphis and Shelby County  
Community Redevelopment Agency  
850 North Manassas Street  
Memphis, Tennessee 38107



## Prepared by:

Terracon Consultants, Inc.  
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February 6, 2025

City of Memphis and Shelby County Community Redevelopment Agency  
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Attn: Ms. Emma Turri, Community Builder – Project Manager  
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Re: Phase I Environmental Site Assessment  
Former Wayne's Pinball Palace  
167 Chelsea Avenue  
Memphis, Shelby County, Tennessee  
Terracon Project No. A8247004-3

Dear Ms. Turri:

Terracon Consultants, Inc. (Terracon) is pleased to submit the enclosed Phase I Environmental Site Assessment (ESA) report for the above-referenced subject property (hereinafter known as the 'site'). This assessment was performed in accordance with the Master Services Agreement (MSA) between City of Memphis and Shelby County Community Redevelopment Agency (CRA) and Terracon dated January 9, 2024; Terracon Proposal No. PA8247072, dated October 10, 2024; and the associated MSA Task Order (TO), executed October 18, 2024.

We appreciate the opportunity to be of service to you on this project. If there are any questions regarding this report or if we may be of further assistance, please do not hesitate to contact us.

Sincerely,

**Terracon Consultants, Inc.**



Audrey C. Price  
Senior Staff Geologist

Mark C. Christian, PE  
Environmental Department Manager

Attachments



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## EXECUTIVE SUMMARY

This Phase I Environmental Site Assessment (ESA) was performed in accordance with the Master Services Agreement (MSA) between City of Memphis and Shelby County Community Redevelopment Agency (CRA) and Terracon dated January 9, 2024; Terracon Proposal No. PA8247072, dated October 10, 2024; and the associated MSA Task Order (TO), executed October 18, 2024; and was conducted consistent with the procedures included in ASTM E1527-21, *Standard Practice for Environmental Site Assessments: Phase I Environmental Site Assessment Process*. The ESA was conducted under the supervision or responsible charge of Mark Christian, PE, Environmental Professional. Audrey Price performed the site reconnaissance on November 26, 2024.

### Findings and Opinions

A summary of findings is provided below. It should be recognized that details were not included or fully developed in this section, and the report must be read in its entirety for a comprehensive understanding of the items contained herein.

### Site Description and Use

The site consists of eight contiguous parcels totaling 1.464 acres of vacant land generally located at the southeast corner of North Second Street and Chelsea Avenue in Memphis, Shelby County, Tennessee. The site parcel numbers, addresses, and acreages are listed in the table below for reference. The site is divided into three quadrants by existing public right of ways. The site has no current structures, occupants, or operations.

Parcel Number	Existing Address	Acreage
001055 00002	0 Chelsea Avenue	0.270
001055 00003	165 Chelsea Avenue (aka 167 Chelsea Avenue)	0.246
001055 00009C	0 Keel Avenue	0.180
001055 00012	0 Keel Avenue	0.130
001055 00010	696 N. Second Street	0.202
0001055 00011	710 N. Second Street	0.123
001055 00001	714 N. Second Street	0.060
001055 00004	705 N. Third Street	0.253

## Historical Information

Based on the historical information reviewed as part of this assessment, it appears that the site has been developed since at least 1888. The site appears to have been predominantly occupied by residential dwellings from 1888 until the 1920s/1930s. After that time, the site was occupied by several grocery stores, sundries, restaurants, a shoe repair shop, a church, furniture stores, law offices, liquor stores, **an automotive repair facility, two separate gas stations, a furniture repair shop, and a laundromat.** Previous subsurface investigations conducted for the site (see Section 3.7 of the report text) identified petroleum hydrocarbon, PAHs, and VOC impacts to subsurface media at concentrations exceeding the residential screening levels, which constitutes a REC for the site.

The adjoining properties appear to have been predominantly residential from 1888 until the 1910s. By the 1950s commercial development was more apparent to the south and west. A gas station began operating east of the site in the late 1950s/early 1960s and is discussed in Section 4.1 of the report text.

## Records Review

Selected federal and state environmental regulatory databases as well as responses from state and local regulatory agencies were reviewed. None of the site addresses were identified in the environmental regulatory database report as regulated facilities (i.e., UST facility, RCRA generator, VCP facility, etc.). However, several site addresses were identified on the EDR Historical Auto database, which is a list of potential automotive repair or service station facilities compiled by EDR based on their independent review of historical city directories or other sources. Previous subsurface investigations conducted for the site in association with historical on-site gas stations and automotive repair facilities (see Section 3.7 of the report text) identified petroleum hydrocarbon, PAHs, and VOC impacts to subsurface media at concentrations exceeding the residential screening levels, which constitutes a REC for the site.

The environmental regulatory database report also identified one Superfund Enterprise Management System (SEMS) facility, two SEMS Archive facilities, one Brownfields facility, five leaking underground storage tank (LUST) facilities, one State Hazardous Waste Site (SHWS) facility, 13 Voluntary Cleanup Program (VCP) facilities, and 16 State Remediation Program (SRP) facilities within the specified search radii of the site. Based on their reported regulatory status, distance/topographic position relative to the site, and/or other information obtained by Terracon, provided in the environmental regulatory database report, or obtained from Tennessee Department of Environment and Conservation regulatory records, the off-site identified facilities do not appear to constitute RECs for the site at this time as discussed in Section 4.1 of the report text.



## Site Reconnaissance

The site consists of three quadrants separated by public right of ways. The northeast quadrant consists of vacant grass covered lot and the remnant concrete slab of the former Wayne's Pinball Palace building. Four interior floor drains and approximately 6 square feet of de minimis staining were observed in the remnant concrete slab. The northwest and southwest quadrants consist of vacant grass cover lots. Scattered surficial debris which consisted of bricks, concrete, ceramic tiles, and asphalt was observed along the eastern boundary of the northwest quadrant and in the northeast quadrant of the site. Terracon also observed two pole-mounted transformers along the northern and western boundaries of the site. Based on the site reconnaissance and information provided by the site owner, RECs were not identified in association with the current items or conditions observed.

## Adjoining Properties

The north-adjointing properties consist of Chelsea Avenue followed by the Burkle & Main apartments at 800 N. Second Street and several vacant grassed lots. The east-adjointing properties consists of N. Third Steet followed by the former Ready 2 Roll Auto at 183 Chelsea Avenue and residences along N. Third Street. The south-adjointing properties consist of a vacant lot and residences to the southwest followed by Keel Avenue, residences along Keel, and the Magnolia Terrace apartments located at 669 N. Third Street. The west-adjointing properties consist of N. Second Street followed by a residence and the former Open Arms of Love Apostolic Church at 715 and 708 N. Second Street, respectively and a fenced lot at 130 Keel Avenue. At the time of site reconnaissance, Terracon did not observe facilities, conditions, or land uses indicative of potential RECs on the properties adjoining the site.

## Significant Data Gaps

Significant data gaps (SDGs) were not identified in association with this report.

## Additional Services

Per the agreed scope of services specified in the proposal, Terracon conducted a Tier 1 Vapor Encroachment Screening (VES), in general accordance with the procedures included in ASTM E 2600-22, Standard Guide for Vapor Encroachment Screening on Property Involved in Real Estate Transactions. The purpose of the Tier 1 VES is to evaluate whether a vapor encroachment condition (VEC) may be present at the site. A VEC is defined by ASTM as the "presence or likely presence of chemical(s) of concern (COC) vapors in the subsurface of the target property caused by the release of vapors from contaminated soil or groundwater or both either on or near the target property as identified by the Tier I procedures in the Guide.". As indicated in Section 7.1 of the report text, based on the historical uses of the site, the regulatory records review, and the findings of previous subsurface investigations conducted at the site, VECs have been identified on the site.

## Conclusions

We have performed a Phase I ESA consistent with the procedures included in ASTM Practice E1527-21 for the former Wayne's Pinball Palace site consists of eight contiguous parcels totaling 1.464 acres generally located at the southeast corner of North Second Street and Chelsea Avenue in Memphis, Shelby County, Tennessee, the site. The following recognized environmental conditions (RECs) were identified in connection with the site:

- Based on the historical information reviewed as part of this assessment, the site was previously occupied by an automotive repair facility, two separate gas stations, a furniture repair shop, and a laundromat. Previous subsurface investigations conducted for the site identified petroleum hydrocarbon, PAH, and VOC impact to subsurface media at concentrations exceeding the residential screening levels, which constitutes a REC for the site.

## Recommendations

Based on the scope of services, limitations, and conclusions of this assessment, Terracon did identify RECs in connection with the site. As such, Terracon makes the following recommendations:

- Terracon recommends that a geophysical survey to be conducted in the southwest portion of the site to investigate for the presence of USTs and appurtenant features such as tank pits, product lines, dispenser islands, etc. associated with the former Parco Oil Co. Filling Station (listed at 682 North 2<sup>nd</sup> Street) and former Wilson Ray Filling Station/Refiners Corp. Filling Station (listed at 684 North 2<sup>nd</sup> Street).
- Terracon recommends that the site be enrolled in the Tennessee Department of Environment and Conservation (TDEC) Voluntary Oversight and Assistance Program (VOAP) to pursue regulatory closure through a Brownfields Voluntary Agreement (BVA). To complete the regulatory closure process once the redevelopment plan for the site is determined, the Tennessee Division of Remediation (TDoR) may require additional surface/subsurface investigation to evaluate the risk associated with the soil, groundwater, and soil vapor contamination previously identified on the site.

# 1.0 INTRODUCTION

## 1.1 Site Description

Site Name	Former Wayne’s Pinball Palace
Site Location/Address	167 Chelsea Avenue, Memphis, Shelby County, TN
Land Area	1.464 acres
Site Improvements	Vacant land
Anticipated Future Site Use	Mixed use development
Reason for the ESA	Due Diligence for redevelopment

The location of the site is depicted on Exhibit 1 of Appendix A, which was reproduced from a portion of the Northwest Memphis USGS 7.5-minute series topographic map. The site and adjoining properties are depicted on the Site Diagram, which is included as Exhibit 2 of Appendix A. Acronyms and terms used in this report are described in Appendix F.

## 1.2 Scope of Services

This Phase I ESA was performed in accordance with the Master Services Agreement (MSA) between City of Memphis and Shelby County Community Redevelopment Agency (CRA) and Terracon dated January 9, 2024; Terracon Proposal No. PA8247072, dated October 10, 2024; and the associated MSA Task Order (TO), executed October 18, 2024; and was conducted consistent with the procedures included in ASTM E1527-21, *Standard Practice for Environmental Site Assessments: Phase I Environmental Site Assessment Process*. The purpose of this ESA was to assist the client in developing information to identify RECs in connection with the site as reflected by the scope of this report. Recognized environmental conditions are defined by ASTM E1527-21 as “(1) the presence of hazardous substances or petroleum products in, on, or at the subject property due to a release to the environment; (2) the likely presence of hazardous substances or petroleum products in, on, or at the subject property due to a release or likely release to the environment; or (3) the presence of hazardous substances or petroleum products in, on, or at the subject property under conditions that pose a material threat of a future release to the environment.” A de minimis condition is not a recognized environmental condition.

This purpose was undertaken through user-provided information, a regulatory database review, historical and physical records review, interviews (including local government inquiries, as applicable), and a visual noninvasive reconnaissance of the site and adjoining properties. Limitations, ASTM deviations, and significant data gaps (if identified) are noted in the applicable sections of the report.

### 1.3 Standard of Care

This ESA was performed in accordance with generally accepted practices of this profession, undertaken in similar studies at the same time and in the same geographical area. We have endeavored to meet this standard of care, but may be limited by conditions encountered during performance, a client-driven scope of work, or inability to review information not received by the report date. Where appropriate, these limitations are discussed in the text of the report, and an evaluation of their significance with respect to our findings has been conducted.

Phase I ESAs, such as the one performed at this site, are of limited scope, are noninvasive, and cannot eliminate the potential that hazardous, toxic, or petroleum substances are present or have been released at the site beyond what is identified by the limited scope of this ESA. In conducting the limited scope of services described herein, certain sources of information and public records were not reviewed. It should be recognized that environmental concerns may be documented in public records that were not reviewed. No ESA can wholly eliminate uncertainty regarding the potential for RECs in connection with a property. Performance of this practice is intended to reduce, but not eliminate, uncertainty regarding the potential for RECs. No warranties, express or implied, are intended or made. The limitations herein must be considered when the user of this report formulates opinions as to risks associated with the site or otherwise uses the report for any other purpose. These risks may be further evaluated – but not eliminated – through additional research or assessment. We will, upon request, advise you of additional research or assessment options that may be available and associated costs.

### 1.4 Additional Scope Limitations, ASTM Deviations, and Data Gaps

Based upon the agreed-on scope of services, this ESA did not include subsurface or other invasive assessments, vapor intrusion assessments or indoor air quality assessments (i.e., evaluation of the presence of vapors within a building structure), business environmental risk evaluations, or other services not particularly identified and discussed herein. Credentials of the company (Statement of Qualifications) have not been included in this report but are available upon request. Pertinent documents are referred to in the text of this report, and a separate reference section has not been included. Reasonable attempts were made to obtain information within the scope and time constraints set forth by the client; however, in some instances, the information requested is not, or was not, received by the issuance date of the report. Information obtained for this ESA was received from several sources that we believe to be reliable; nonetheless, the authenticity or reliability of these sources cannot and is not warranted hereunder. This ESA was further limited by the following:

- Historic information was not available back to the first developed use of the site. Historical site use information was described back to 1888 when the site was developed with numerous residential dwellings, a large access driveway, and a

vacant lot. Earlier historic documentation was not readily ascertainable. Based on the early residential use of the site, the lack of historical information prior to 1888 is not considered a significant data gap and is not likely to alter the findings of this ESA.

An evaluation of the significance of limitations and missing information with respect to our findings has been conducted, and where appropriate, significant data gaps are identified and discussed in the text of the report. However, it should be recognized that an evaluation of significant data gaps is based on the information available at the time of report issuance, and an evaluation of information received after the report issuance date may result in an alteration of our conclusions, recommendations, or opinions. We have no obligation to provide information obtained or discovered by us after the issuance date of the report, or to perform any additional services, regardless of whether the information would affect any conclusions, recommendations, or opinions in the report. This disclaimer specifically applies to any information that has not been provided by the client.

This report represents our service to you as of the report date and constitutes our final document; its text may not be altered after final issuance. Findings in this report are based upon the site's current utilization, information derived from the most recent reconnaissance and from other activities described herein; such information is subject to change. Certain indicators of the presence of hazardous substances, petroleum products or PFAS compounds may have been latent, inaccessible, unobservable, or not present during the most recent reconnaissance and may subsequently become observable (such as after site renovation or development). Further, these services are not to be construed as legal interpretation or advice.

## 1.5 Reliance

This ESA report is prepared for the exclusive use and reliance of City of Memphis and County Community Redevelopment Agency (CRA). Use or reliance by any other party is prohibited without the written authorization of City of Memphis and County Community Redevelopment Agency and Terracon Consultants, Inc. (Terracon). Reliance on the ESA by the client and all authorized parties will be subject to the terms, conditions and limitations stated in this ESA report, Terracon's Master Services Agreement with CRA, and Terracon Proposal No. PA8247072, dated October 10, 2024. The limitation of liability defined in the Master Services Agreement (MSA) between Terracon and CRA is the aggregate limit of Terracon's liability to the client and all relying parties.

Continued viability of this report is subject to ASTM E1527-21 Section 4.6. If the ESA will be used by a different user (third party) than the user for whom the ESA was originally prepared, the third party must also satisfy the user's responsibilities in Section 6 of ASTM E1527-21.



## 1.6 Client Provided Information

Prior to site reconnaissance, Emma Turri with CRA was asked to provide the following user questionnaire information as described in ASTM E1527-21 Section 6.

### Client Questionnaire Responses

Client Questionnaire Item	Client Did Not Respond	Client’s Response	
		Yes	No
Specialized Knowledge or Experience that is material to a REC in connection with the site.		X	
Actual Knowledge of Environmental Liens or Activity Use Limitations (AULs) that may encumber the site.	Terracon to perform environmental lien and AUL search		
Actual Knowledge of a Lower Purchase Price because contamination is known or believed to be present at the site.			X
Commonly Known or Reasonably Ascertainable Information that is material to a REC in connection with the site.		X	
Obvious Indicators of Releases at the site.		X	

Ms. Turri provided Terracon with several previous environmental reports for the site. Based on the User Questionnaire responses and Terracon’s review of these previous reports (see Section 3.7 below), RECs have been identified for the site. A copy of the completed User Questionnaire is included in Appendix C.

## 2.0 PHYSICAL SETTING

Physical Setting Information		Source
<b>Topography</b>		
Site Elevation	Approximately 250 feet above mean sea level.	USGS Topographic Map, Northwest Memphis Quadrangle, 1997 (Appendix A)
Topographic Gradient	The topographic gradient and direction of surface runoff is predominantly to the southwest.	
Closest Surface Water	The Wolf River Lagoon is depicted approximately 1,500 feet to the west.	

Physical Setting Information		Source
<b>Soil Characteristics</b>		
Soil Type	Graded land, silty materials (Gr)	Shelby County, Tennessee USDA, Natural Resource Conservation Service Soil Survey issued 1970
Description	This land type consists of areas that have been graded in preparation for subdivisions and for commercial and industrial building. The depth to which these areas have been graded varies from a few inches to 5 feet or more and is most commonly about 3 feet. The slope, after graded is generally between 1 and 5 percent. Grenada, Loring, and Memphis soils were predominant in these areas before grading. The soil material is brown, yellowish brown, and dark brown in color and silty in texture.	
<b>Geology/Hydrogeology</b>		
Formation	Quaternary Loess	Geologic Map of Tennessee (West Sheet) Dated 1966
Description	Clayey and sandy silt, gray to brown, massive. Maximum thickness about 100 feet along bluffs of the Mississippi River; thins eastward.	
Estimated Depth to First Occurrence of Groundwater	Approximately 5 to 15 feet below ground surface.	2015 Phase II performed on-site by EnSafe
*Hydrogeologic Gradient	Not known - may be inferred to be parallel to topographic gradient (primarily to the southwest).	

\* The groundwater flow direction and the depth to shallow, unconfined groundwater, if present, would likely vary depending upon seasonal variations in rainfall and other hydrogeological features. Without the benefit of on-site groundwater monitoring wells surveyed to a datum, groundwater depth and flow direction beneath the site cannot be directly ascertained.

### 3.0 HISTORICAL USE INFORMATION

Terracon reviewed the following historical sources to develop a history of the previous uses of the site and surrounding area, in order to help identify RECs associated with past uses. Copies of selected historical documents are included in Appendix C.

### 3.1 Historical Topographic Maps, Aerial Photographs, and Sanborn Maps

Readily available historical USGS topographic maps, selected historical aerial photographs (at approximately 10-to-15-year intervals) and historical fire insurance maps produced by the Sanborn Map Company were reviewed to evaluate land development and obtain information concerning the history of development on and near the site. Reviewed historical topographic maps, aerial photographs, and Sanborn maps are summarized below.

Historical fire insurance maps produced by the Sanborn Map Company were requested from Environmental Data Resources (EDR), a contract information services company, to evaluate past uses and relevant characteristics of the site and surrounding properties.

- Topographic map: Memphis, Tennessee, published in 1916 (1:62,500)
- Topographic map: Memphis, Tennessee, published in 1925 (1:48,000)
- Topographic map: Memphis, Tennessee, published in 1927 (1:62,500)
- Topographic map: Memphis, Tennessee, published in 1939 (1:62,500)
- Topographic map: Memphis, Tennessee, published in 1940 (1:62,500)
- Topographic map: Memphis, Tennessee, published in 1955 from **1952** aerial photographs (1:62,500)
- Topographic map: Memphis, Tennessee, published in 1960 from **1958** aerial photographs (1:62,500)
- Topographic map: Northwest Memphis, Tennessee, published in 1965 from **1963** aerial photographs (1:24,000)
- Topographic map: Northwest Memphis, Tennessee, published in 1973 (1:24,000)
- Topographic map: Northwest Memphis, Tennessee, published in 1993 from **1990** aerial photographs (1:24,000)
- Topographic map: Northwest Memphis, Tennessee, published in 1997 (1:24,000)
- Topographic map: Northwest Memphis, Tennessee, published in 2013 (1:24,000)
- Topographic map: Northwest Memphis, Tennessee, published in 2016 (1:24,000)
- Topographic map: Northwest Memphis, Tennessee, published in 2019 (1:24,000)
- Topographic map: Northwest Memphis, Tennessee, published in 2022 (1:24,000)
- Aerial photograph: USDA, 1937, 1" = 500'
- Aerial photograph: USDA, 1953, 1" = 500'
- Aerial photograph: USDA, 1958, 1" = 500'
- Aerial photograph: USGS, 1963, 1" = 500'
- Aerial photograph: USDA, 1965, 1" = 500'
- Aerial photograph: USDA, 1971, 1" = 500'
- Aerial photograph: USGS, 1973, 1" = 500'
- Aerial photograph: USDA, 1980, 1" = 500'
- Aerial photograph: NHAP, 1985, 1" = 500'
- Aerial photograph: USGS, 1994, 1" = 500'
- Aerial photograph: USGS/DOQQ, 1997, 1" = 500'
- Aerial photograph: USDA/NAIP, 2007, 1" = 500'
- Aerial photograph: USDA/NAIP, 2010, 1" = 500'

- Aerial photograph: USDA/NAIP, 2014, 1" = 500'
- Aerial photograph: USDA/NAIP, 2018, 1" = 500'
- Sanborn Fire Insurance Maps: **1888, 1897, 1907, 1950, 1952, 1965, and 1969**

### Historical Maps, Aerial Photographs, and Sanborn Maps

Direction	Description
Site	<p>The western portion of the site is developed with numerous residential dwellings, a large access driveway, and vacant lot to the northeast (1888). The western portion of the site is developed with numerous residential dwellings, a large access driveway, and two vacant lots and a residential dwelling in the northeastern corner portion of the site (1897). Developed with an unidentified store in the northwest most corner of the site while the remainder of the site consists of numerous residential dwellings and a large access driveway (1907). Developed with numerous structures across the site (1916 to 1937). The site is developed with numerous residential dwellings, a furniture store in the southwest corner, four unidentified stores in the northwest corner, <b>a furniture repair facility</b> in the west-central portion, and two residential dwellings in the northeast corner (1950 to 1952). Developed with several apparent commercial structures and numerous apparent residences (1953 to 1955). Developed with several apparent commercial stores and numerous residences as well as an <b>apparent gas station</b> on the northeast corner of the site (1958 to 1963).</p> <p>The site is developed with eight stores along North Second Street including a furniture store and <b>furniture repair store</b>, four residential dwellings along Keel Avenue, two apartment buildings along North Third Street, and a <b>filling station</b> in the northeast corner of the site along Chelsea Avenue (1965 to 1973). Developed with several commercial structures, two apartment buildings along North Third Street, and an <b>apparent gas station</b> in the northeast corner of the site along Chelsea Avenue (1980 to 1994). Vacant lot in the northwest corner of the site, three commercial structures to the southwest, two apartment buildings along North Third Street, and a commercial structure in the northeast corner of the site along Chelsea (1997). One commercial structure along North Second Street, two apartment buildings along North Third Street, and a commercial structure in the northeast corner of the site along Chelsea (2007). One commercial structure along North Second Street and a commercial structure in the northeast corner of the site along Chelsea (2010). Vacant grass lots, Lyceum Lane in the central portion of the site, and a commercial structure in the northeast corner of the site along Chelsea (2014 to 2018).</p>

Direction	Description
North	Chelsea Street (Avenue) followed by residential dwellings, cattle sheds, and the J. Schilling Stock Yard (1888 to 1927). Chelsea Avenue followed by residences and Leroy Pope Public School (1937 to 1985). Chelsea Avenue followed by several vacant lots and a school (1994 to 1997). Chelsea Avenue followed by several vacant lots (2007 to 2018).
East	Unmapped (1888). North Third Street followed by residential dwellings (1897 to 1937). North Third Street followed by residential dwellings and two restaurants (1950 to 1953). North Third Street followed by a <b>filling station</b> at the corner of Chelsea Avenue with residential dwellings and two restaurants along North Third Street (1963 to 1965). North Third Street followed by a <b>filling station</b> at the corner of Chelsea Avenue with residential dwellings and a store along North Third Street (1969 to 1973). North Third Street followed by <b>an apparent gas station</b> at the corner of Chelsea Avenue with residential dwellings along North Third Street (1980 to 2018).
South	A vacant lot to the southeast followed by Keel Street (Avenue) and residential dwellings (1888). Residential dwellings to the southeast followed by Keel Street (Avenue) and residential dwellings (1897 to 1907). Residential dwellings to the southeast followed by Keel Avenue and apparent residential or commercial structures (1937 to 1940). Residential dwellings to the southeast followed by Keel Avenue three stores, numerous residential dwellings and an apartment building (1950). Residential dwellings to the southeast followed by Keel Avenue two stores, a popcorn machine factory, numerous residential dwellings and an apartment building (1952 to 1958). Residential dwellings to the southeast followed by Keel Avenue several stores and popcorn machine factory followed by numerous residential dwellings and an apartment building (1958 to 1969). Residential dwellings to the southeast followed by Keel Avenue several commercial structures followed by numerous residences (1971 to 1997). Residential dwellings to the southeast followed by Keel Avenue numerous residences and the existing apartment complex (2007 to 2018).
West	North Second Street followed by several stores and residential dwellings followed by a lumber yard and La Croix's stock yards with numerous cattle sheds (1888 to 1907). North Second Street followed by apparent commercial or residential structures (1916 to 1937). North Second Street followed by apparent commercial or residential structures and a church (1939 to 1940). North Second Street followed by a few residential dwellings, St Mathews Baptist Church, a morgue, and two unidentified stores (1950 to 1958). North Second Street followed by a restaurant, residential dwellings, St. Mathews Baptist Church, a morgue, vacant lots, and a store (1965 to 1969). North Second Street followed by commercial and residential structures included a church (1971 to 2018).



The filling station depicted in the northeast portion of the site was identified as Sholfe & Tomlinson Auto Garage in the historical city directories (see Section 3.2 below) and on the EDR Historical Auto database (see Section 4.1 of this report).

The filling station depicted east of the site was identified as Breathett Service Station in the city directories (see Section 3.2 below) and on the EDR Historical Auto database (see Section 4.1 of this report).

### 3.2 Historical City Directories

The city directories used in this study were made available through EDR and selected years from 1921 through 2020 were reviewed at approximate five-year intervals, if readily available. The site was historically identified as 161 to 167 Chelsea Avenue (odd listings), 703 to 719 North 3<sup>rd</sup> Street (odd listings), 753 North 3<sup>rd</sup> Street, 152 to 158 North 2<sup>nd</sup> Street (even listings), 682 to 718 North 2<sup>nd</sup> Street (even listings), 56 to 58 Keel Avenue (even listings), and 148 to 154 Keel Avenue (even listings). The site was currently identified as 696, 710, and 714 North 2<sup>nd</sup> Street, 165 Chelsea Avenue, and 705 North 3<sup>rd</sup> Street.

#### Historical City Directories

Direction	Description
Site	<p><b>161 Chelsea Avenue:</b> Not listed (1921 to 2020).</p> <p><b>165 Chelsea Avenue:</b> Not listed (1921 to 1926). <b>Sholfe &amp; Tomlinson Auto Garage</b> (1932). Not listed (1938 to 1968). Vacant (1973 to 1992). Not listed (1995 to 2020).</p> <p><b>167 Chelsea Avenue:</b> Not listed (1921 to 1987). <b>Waynes Walter Laundromat</b> (1992). <b>Wayne’s Coin Op.</b> (2000 to 2003). Patton’s Auto Sales (2005). <b>Chelsea Street Coin Operated laundromat</b> and restaurant (2006). Not listed (2010 to 2020).</p> <p><b>703 North 3<sup>rd</sup> Street:</b> Residential (1921 to 1948). Crouch &amp; Co. Contractors (1953). Vacant (1958). Not listed (1963 to 2020).</p> <p><b>705 North 3<sup>rd</sup> Street:</b> Not listed (1921 to 1926). Voyle’s Dentist (1932). Frost Arnett Co. Collections (1953). Apartments (1968 to 1992). Residential (2003 to 2005). Not listed (2006 to 2020).</p> <p><b>707 North 3<sup>rd</sup> Street:</b> Not listed (1921 to 1963). Apartments (1968 to 1992). Residential (2003 to 2006). Not listed (2010 to 2020).</p> <p><b>711 North 3<sup>rd</sup> Street:</b> Residential (1921 to 1948). Anthony McKinnie Eason Architect (1953). Austin Hall Architect (1963). Vacant (1968). Not listed (1973 to 2020).</p> <p><b>719 North 3<sup>rd</sup> Street:</b> Not listed (1921 to 2020). Bickers Lawyer (1968). Not listed (1973 to 2020).</p> <p><b>753 North 3<sup>rd</sup> Street:</b> Not listed (1921 to 2020).</p>

Direction	Description
	<p><b><u>152 to 158 North 2<sup>nd</sup> Street (event listings):</u></b> Not listed (1921 to 2020).</p> <p><b><u>682 North 2<sup>nd</sup> Street:</u></b> Lillian Scheibler (1921). <b>Parco Oil Co. Filling Station</b> (1926). Ezra White (1932). Vacant (1938). Josephine Brooks and Carol McCracken (1943). Perkins Cole Mfg. Co. (1948). Not listed (1953 to 2020).</p> <p><b><u>684 North 2<sup>nd</sup> Street:</u></b> Not listed (1921 to 1926). <b>Producers and Refiners Corp. Filling Station</b> (1932). <b>Wilson Ray Filling Station</b> (1938). Not listed (1943 to 2020).</p> <p><b><u>686 North 2<sup>nd</sup> Street:</u></b> Sami Herman (1921 to 1926). Lazar Morris Dry Goods (1932 to 1943). Friedman Furn. Co. (1948). Orvil Bumgarner and James Hunter (1953). Lazars Liquor Store (1958 to 1987). Pyramid Liquor Store (1992 to 2003). Not listed (2005 to 2020).</p> <p><b><u>696 North 2<sup>nd</sup> Street:</u></b> Not listed (1921 to 1958). No Return (1963). Residential (1968 to 1982). Vacant (1987). No Return (1992). Residential (2003). Not listed (2005 to 2020).</p> <p><b><u>698 North 2<sup>nd</sup> Street:</u></b> Not listed (1921 to 1958). Vacant (1963). Residential (1968 to 1992). Not listed (1995 to 2020).</p> <p><b><u>700 North 2<sup>nd</sup> Street:</u></b> Not listed (1921 to 1948). Friedman Furn. Co. (1953 to 1958). Pinkertons Detective Agency (1963). Gardner Blaylock Lawyers (1968 to 1973). Udelsohn, Turnage, and Blaylock lawyers (1978 to 1982). Vacant (1982 to 1987). Not listed (1992 to 2020).</p> <p><b><u>704 North 2<sup>nd</sup> Street:</u></b> Jamison Virgie and Herrmann Julius (1921). North Side Café (1926). Cater Grain &amp; Seed Co. (1932). Barry Wagerman Shoe Repair (1938). Eagle Furn. Co. (1943). Grace of the Nazarene (1948). Campbells Service Co. (1953). North Memphis Tire Shop (1958). Vacant (1963). Consulting Psychologist and Tucker Claggard Dentist (1968). Vacant (1973 to 1978). Not listed (1982 to 2020).</p> <p><b><u>710 North 2<sup>nd</sup> Street:</u></b> Not listed (1921 to 1926). Douglass Grocery (1932 to 1953). Wood Electric Inc. Contractors (1958 to 1963). Colleys Grocery (1968). Vacant (1973 to 1987). Not listed (1992 to 2020).</p> <p><b><u>714 North 2<sup>nd</sup> Street:</u></b> Douglass Grocery (1921). Sunset Market (1926). Vacant (1932). National Brands Store (1948). Bluff City Sign Co. (1953). Vacant (1958). No Return (1963). Mississippi Valley Plumbing (1968). Church Fair Doing Sundry (1973). Powerhouse Church of God in Christ (1982). New True Vine Missionary Baptist Church (1987 to 1992). Not listed (1995 to 2020).</p> <p><b><u>716 North 2<sup>nd</sup> Street:</u></b> Piggly Wiggly Grocery Store (1921 to 1943). Not listed (1948 to 2020).</p> <p><b><u>718 North 2<sup>nd</sup> Street:</u></b> Schaffer Dry Goods (1921 to 1958). Fullers Salvage Store (1963). Vacant (1968). Tabernacle Church of God in Christ (1973). Vacant (1978). Not listed (1982 to 2020).</p> <p><b><u>56 Keel Avenue:</u></b> Not listed (1921 to 2020).</p>

Direction	Description
	<p><b><u>58 Keel Avenue:</u></b> Not listed (1921 to 2020).  <b><u>148 Keel Avenue:</u></b> Residential (1921 to 1978). Vacant (1982). Not listed (1987 to 2020).  <b><u>150 Keel Avenue:</u></b> Residential (1921 to 1978). Vacant (1982). Not listed (1987 to 2020).  <b><u>152 Keel Avenue:</u></b> Residential (1921 to 1982). Not listed (1987 to 2020).  <b><u>154 Keel Avenue:</u></b> Not listed (1921 to 1938). Residential (1948 to 1982). Not listed (1987 to 2020).</p>
North	<p><b><u>154 Chelsea Avenue:</u></b> Residential (1921 to 1987). Not listed (1992 to 2020).  <b><u>156 Chelsea Avenue:</u></b> Residential (1921 to 1992). Not listed (1995 to 2020).  <b><u>160 Chelsea Avenue:</u></b> Residential (1921 to 1978). <b>Mallory's Body Shop</b> (1982). Not listed (1987 to 2020).  <b><u>164 Chelsea Avenue:</u></b> Residential (1921 to 1963). Not listed (1968 to 2020).  <b><u>166 Chelsea Avenue:</u></b> Residential (1921 to 1963). Not listed (1968 to 2020).  <b><u>794 North 2<sup>nd</sup> Street:</u></b> Residential (1921 to 1948). Galtelli Shoe Repair (1953 to 1958). Walter Hull (1963). Residential (1968 to 1982). Vacant (1987). Not listed (1992 to 2020).  <b><u>796 North 2<sup>nd</sup> Street:</u></b> Residential (1921 to 1982). Not listed (1987 to 2020).  <b><u>800 North 2<sup>nd</sup> Street:</u></b> Residential (1921 to 1963). Wilkinson, Gianotti, Bartusch Lawyers (1968). Caldonia Buchrnon (1973). Gardner and McCrary Lawyer (1978). Memphis Bank and Trust Teller School (1982). Not listed (1987 to 2020).</p>
East	<p><b><u>700 North 3<sup>rd</sup> Street:</u></b> Residential (1921 to 1953). A&amp;B Sundries (1953). Welch Bro Reality Co (1958 to 1968). Vacant (1973). Not listed (1978 to 2020).  <b><u>706 North 3<sup>rd</sup> Street:</u></b> Residential (1921 to 1932). Rosenfield &amp; Borod Lawyers (1938). Residential (1943 to 1958). Gold Freddie Realty Co. (1963). Frost Arnett Collections (1968). Residential (1973 to 1992). Not listed (1995 to 2020).  <b><u>708 North 3<sup>rd</sup> Street:</u></b> Wilhelm P. W. (1921). Vacant (1926). Justis Joseph Dentist (1932). Residential (1938 to 1053). Jones Tom Shoe Repair (1958). <b>Hamilton Oil Co. Wholesale Marketer</b> (1968 to 1978). Vacant (1982 to 1992). Not listed (1995 to 2020).  <b><u>710 North 3<sup>rd</sup> Street:</u></b> Not listed (1921). Residential (1926 to 1948). Jones Dudley Architect (1953). Bailey Walter (1958). Wiggins Lawyer (1963). Residential (1968 to 1992). Not listed (1995 to 2020).</p>



Direction	Description
	<p><b><u>712 North 3<sup>rd</sup> Street:</u></b> Residential (1921 to 1958). James Generator Service and Green &amp; Kay Lawyer (1968). Vacant (173). Bickers Lawyer (1978). Hundley Lawyer (1978). Not listed (1982 to 2020).</p> <p><b><u>716 North 3<sup>rd</sup> Street:</u></b> Residential (1921 to 1953). Jake Green Lawyer (1963). Vacant (1968). Hanrahan Lawyer (1978). Not listed (1982 to 2020).</p> <p><b><u>718 North 3<sup>rd</sup> Street:</u></b> Residential (1921 to 1953). Foncie Jeffcoat Lawyer (1963 to 1968). Vacant (1978). Not listed (1982 to 2020).</p> <p><b><u>720 North 3<sup>rd</sup> Street:</u></b> Residential (1921 to 1926). Community Finance Corp (1932). Vacant (1938). Gordon and Somerville Lawyer (1953 to 1963). Dodd Realty Co (1968). Herring Lawyer (1978). Not listed (1982 to 2020).</p> <p><b><u>722 North 3<sup>rd</sup> Street:</u></b> Residential (1921 to 1926). American Bankers (1932). Vacant (1938). Brown &amp; Bigelow adv novelties (1953 to 1963). Vacant (1968). Not listed (1973 to 2020).</p> <p><b><u>754 to 768 North 3<sup>rd</sup> Street (even listings):</u></b> Not listed (1921 to 2020).</p> <p><b><u>183 Chelsea Avenue:</u></b> Not listed (1921 to 1953). <b>AME Daniels Lion Oil Service Station</b> (1958). <b>Breathett's Service Station</b> (1963 to 2003). Not listed (2005 to 2020).</p>
South	<p><b><u>49 Keel Avenue:</u></b> Vacant (1926). Not listed (1932 to 2020).</p> <p><b><u>66 Keel Avenue:</u></b> Not listed (1921 to 2020).</p> <p><b><u>158 Keel Avenue:</u></b> Residential (1921 to 1978). Vacant (1982). Not listed (1987 to 2014). Residential (2017 to 2020).</p> <p><b><u>160 Keel Avenue:</u></b> Residential (1921 to 1973). Vacant (1982). Not listed (1987 to 2006). Residential (2010 to 2020).</p> <p><b><u>162 Keel Avenue:</u></b> Residential (1921 to 1973). Vacant (1978 to 1982). Not listed (1987 to 2020).</p> <p><b><u>164 Keel Avenue:</u></b> Residential (1921 to 1973). Not listed (1978 to 2020).</p> <p><b><u>166 Keel Avenue:</u></b> Residential (1921 to 2020).</p> <p><b><u>168 Keel Avenue:</u></b> Not listed (1921 to 1926). Callie B Hill Restaurant (1932). Not listed (1938 to 2020).</p> <p><b><u>61 Keel Avenue:</u></b> Not listed (1921 to 2020).</p> <p><b><u>153 Keel Avenue:</u></b> Not listed (1921 to 1948). Vacant (1958). Residential (1963). Vacant (1978 to 1982). Not listed (1987 to 2006). Residential (2010 to 2020).</p> <p><b><u>155 Keel Avenue:</u></b> Not listed (1921). Vacant (1932). Not listed (1938 to 2020).</p> <p><b><u>680 North 2<sup>nd</sup> Street:</u></b> Residential (1921 to 1948). Home Radio Service (1953). Lesch Corp drugs (1958). Vacant (1963). Not listed (1968 to 2020).</p>

Direction	Description
	<p><b>678 North 2<sup>nd</sup> Street:</b> Not listed (1921 to 1948). North Star Café (1953). Mack &amp; Albertas Grill Restaurant (1958). North Star Café (1963). Vacant (1968). <b>Mays Paint &amp; Body Shop</b> (1973 to 2003). Not listed (2005 to 2020).</p> <p><b>736 North 2<sup>nd</sup> Street:</b> Not listed (1921 to 2020).</p>
West	<p><b>679 North 2<sup>nd</sup> Street:</b> Not listed (1921 to 2020).</p> <p><b>685 North 2<sup>nd</sup> Street:</b> Not listed (1921). Scheibler &amp; Son (1926 to 1932). Schelber Grocery (1938 to 1953). Not listed (1958 to 2020).</p> <p><b>687 North 2<sup>nd</sup> Street:</b> Not listed (1921 to 2020). Scheibler &amp; Sons (1921). Lazar Liquors (1943 to 1953). Not listed (1958 to 2020).</p> <p><b>691 North 2<sup>nd</sup> Street:</b> Not listed (1921 to 2020).</p> <p><b>699 North 2<sup>nd</sup> Street:</b> Robt Bass and Loundon Suller (1921). Hayes &amp; Langston Funeral Director (1926 to 1968). Vacant (1973 to 1982). Not listed (1987 to 2020).</p> <p><b>707 North 2<sup>nd</sup> Street:</b> Not listed (1921 to 2020). St. Matthews Baptist Church (1948 to 1978). Ellis Grove Baptist Church (1982 to 1987). Christ Gospel Apostolic Church (1992). Temple of Holiness (2003 to 2006) Not listed (2010 to 2020).</p> <p><b>710 North 2<sup>nd</sup> Street:</b> Not listed (1921 to 1926). Douglass Grocery (1932 to 1953). Wood Electric Contractors (1958 to 1963). Colley’s Grocery (1968). Vacant (1973 to 1987). Not listed (1992 to 2020).</p> <p><b>713 North 2<sup>nd</sup> Street:</b> Residential (1921 to 1963). Not listed (1968 to 2020).</p> <p><b>715 North 2<sup>nd</sup> Street:</b> Not listed (1921 to 1926). Mattle Torry (1932). Not listed (1938 to 1953). Vacant (1958). Bamboo Pub restaurant (1963). Not listed (1968 to 2020).</p> <p><b>717 North 2<sup>nd</sup> Street:</b> Boni &amp; Co (1921). Dora Krueger (1926). North Memphis Casket Co (1932). Fannie Jackson (1968 to 1973). Not listed (1978).</p> <p><b>145 to 167 North 2<sup>nd</sup> Street (odd listings):</b> Not listed (1921 to 2020).</p> <p><b>130 Keel Avenue:</b> Not listed (1921 to 1953). <b>Matthew Blow Pipe Co.</b> sheet metal and pipe manufacturer and <b>Tell Tronics Products Inc.</b> (1958 to 1973). <b>Matthew Blow Pipe Co.</b> sheet metal manufacturer (1978 to 2003). Middle Earth Construction (2006). Not listed (2010 to 2017). Joseph Di Angelus, James Warren, Madeline Dillon, and Kevin Gonzalez (2020).</p>

The Sholfe & Tomlinson Auto Garage (listed at 165 Chelsea Avenue in the northeast portion of the site) was depicted as a filling station on the Sanborn Maps (see Section 3.1 above), but was not identified on the environmental regulatory database report as a regulated facility (i.e., UST, RCRA hazardous waste generator, etc.). The Sholfe & Tomlinson Auto Garage was identified as an EDR Historical Auto facility (which is based on city directory listings) in the environmental regulatory database report (see Section 4.1 of this report). A 2020 Phase II ESA performed by EnSafe (see Section 3.7



below) identified petroleum products and other impact to all subsurface media types (soil, groundwater, and soil gas/vapor), which constitutes a REC for the site.

The Waynes Walter Laundromat, Wayne's Coin Op, and Chelsea Street Coin Operated laundromat (listed at 167 Chelsea Avenue in the northeast portion of the site) were not identified on the environmental regulatory database report as regulated facilities. Terracon reviewed the Tennessee Department of Environment and Conservation (TDEC) – Division of Remediation (DoR) and the Drycleaner Environmental Response Program (DCERP) online data viewer which did not identify the facility. DCERP tracks known dry cleaners that have operated or registered since 1996. Based on this information and the reference in the name as "Coin Operated" it is unknown if drycleaning operations were performed at this location. However, a 2020 Phase II ESA performed by EnSafe (see Section 3.7 below) identified chlorinated solvent impact to subsurface media (soil gas/vapor), which constitutes a REC for the site.

Parco Oil Co. Filling Station (listed at 682 North 2<sup>nd</sup> Street) and Wilson Ray Filling Station/Refiners Corp. Filling Station (listed at 684 North 2<sup>nd</sup> Street) were both located in the southwest portion of the site and were identified on the environmental regulatory database report as EDR Historical Auto facilities (see Section 4.1 of this report). A 2015 Phase II ESA performed by EnSafe (see Section 3.7 below) identified petroleum and other impact to subsurface media in the southwest portion of the site, which constitutes a REC for the site. **At this time, Terracon is unaware of any information or documentation to indicate whether the UST system(s) at 682 and 684 North 2<sup>nd</sup> Street have been closed and removed from the ground.**

The Mallory's Body Shop listed at 160 Chelsea Avenue in 1982 was not identified on the environmental regulatory database report, and there are no regulatory records available to review. Based on the Sanborn maps, this address was located about 60 feet north of the site across Chelsea Avenue. The 1965 and 1969 Sanborn maps depict this address as a dwelling. It appears that the body shop operations were likely limited in nature and duration, and the former Mallory's Body Shop is not considered a REC for the site.

Hamilton Oil Co. listed at 708 North 3<sup>rd</sup> Street between 1968 and 1978 was not identified on the environmental regulatory database report, and there are no regulatory records available to review. Based on the Sanborn maps, this facility was probably located about 70 feet east of the site across North 3<sup>rd</sup> Street. The 1965 and 1969 Sanborn maps depict this address as a dwelling. It appears that the oil management operations (if any) were likely limited in nature and duration, and the former Hamilton Oil Co. is not considered a REC for the site.

The AME Daniels Lion Oil Service and Brethett's Service Station listed at 183 Chelsea Avenue were identified on the environmental regulatory database report as a UST facility and are discussed in Section 4.1 of this report.

The Mays Paint & Body Shop listed at 678 North 2<sup>nd</sup> Street from 1973 to 2003 was not identified on the environmental regulatory database report. The facility was not identified on the Tennessee Department of Environmental Conservation website and

therefore no regulatory records were available to review. Based on the Sanborn maps, this facility was located topographically down-gradient and about 80 feet south of the site across Keel Avenue. The 1965 and 1969 Sanborn maps depict this address as a restaurant on a very small building/lot. It appears that the paint and body shop operations at this address were likely limited in nature, and the former Mays Paint & Body Shop is not considered a REC for the site.

Matthew Blow Pipe Co./Tell Tronics Products Inc. listed at 130 Keel Avenue were identified on the environmental regulatory database report as a RCRA Non-Gen, FINDS, ECHO, VCP, SRP, and VAPOR facility and are discussed in Section 4.1 of this report.

### 3.3 Site Ownership

Based on a review of the Property Record Cards obtained from the Shelby County Assessor website, the site consists of eight parcels (shown below) which total 1.464 acres located on Chelsea Avenue, Keel Avenue, North Second Street, and North Third Street in Memphis, Shelby County, Tennessee. The site parcels are currently owned by the City of Memphis and Shelby County Community Redevelopment Agency (CRA) of Memphis, Tennessee. Copies of the Property Record Cards are provided in Appendix C.

Parcel No.	Address	Acreage	Land Use	Owner
001055 00002	0 Chelsea Avenue	0.270	Vacant Land	CRA
001055 00003	165 Chelsea Avenue	0.246	Store-Retail	CRA
001055 00009C	0 Keel Avenue	0.180	Vacant Land	CRA
001055 00012	0 Keel Avenue	0.130	Vacant Land	CRA
001055 00010	696 N. Second Street	0.202	Vacant Land	CRA
0001055 00011	710 N. Second Street	0.123	Vacant Land	CRA
001055 00001	714 N. Second Street	0.060	Vacant Land	CRA
001055 00004	705 N. Third Street	0.253	Vacant Land	CRA

### 3.4 Title Search

At the direction of the client, a review of title records back to 1980 was included as part of the environmental liens and activity and use limitations (AUL) report described in Section 3.5 below. Based on the EDR lien/AUL report, which includes chain-of-title information, all eight parcels are currently owned by City of Memphis and Shelby County Community Redevelopment Agency. Additional title information for each parcel is shown in the following table.



Parcel Number	Grantee	Date	Grantor
001055 00002	City of Memphis and Shelby County Community Redevelopment Agency	August 2019	MLB-Uptown, LLC
	MLB-Uptown, LLC	September 2005	Martha A. Bell
	Martha A. Bell	November 1991	Walter Lee Wayne
	Walter Lee Wayne	October 1981	John W. Demuth and Sallie W. Demuth
	John W. Demuth and Sallie W. Demuth	August 1978	William H. Demuth
001055 00003	City of Memphis and Shelby County Community Redevelopment Agency	August 2019	MLB-Uptown, LLC
	MLB-Uptown, LLC	August 2018	Memphis Housing Authority
	Memphis Housing Authority	August 2018	Ozeil Gavin and Sophia Gavin
	Ozeil Gavin and Sophia Gavin	August 2008	County of Shelby
	Walter B. Wayne	June 2005	Martha A. Bell
	Walter B. Wayne	October 1981	Everett Lee Mallory Sr.
	Everett Lee Mallory Sr. and Walter Lee Wayne	May 1981	Ray L. White and Dorothy M. White
	Ray L. White and Dorothy M. White	December 1976	Wilemon Brothers, Cecil W. Wilemon, and Dewey F. Wilemon
001055 00009C	City of Memphis and Shelby County Community Redevelopment Agency	August 2019	MLB-Uptown, LLC
	MLB-Uptown, LLC	October 2005	John A. Bruno and Tonia D. Bruno
	John A. Bruno and Tonia D. Bruno	July 1996	Claire Hayes
	Lawrence C. Hayes	June 1981	Mayer P. Lazar
001055 00012	City of Memphis and Shelby County Community Redevelopment Agency	August 2019	MLB-Uptown, LLC

Parcel Number	Grantee	Date	Grantor
	MLB-Uptown, LLC	November 2011	Mayer P. Lazar Credit Shelter Trust
	Freddie Hill and Claiborne H. Ferguson, Trustee	May 2009	Mayer P. Lazar Credit Shelter Trust
	Freddie Hill	January 2003	Mayer P. Lazar Credit Shelter Trust
	Mayer P. Lazar	August 1975	Lee Roland White, Etta Poole and Mary Irene White
001055 00010	City of Memphis and Shelby County Community Redevelopment Agency	August 2019	MLB-Uptown, LLC
	MLB-Uptown, LLC	November 2011	Mayer P. Lazar Credit Shelter Trust
	Mayer P. Lazar Credit Shelter Trust	May 2009	Freddie Hill and Claiborne H. Ferguson, Trustee
	Freddie Hill	January 2003	Mayer P. Lazar, Credit Shelter Trust
	Ruth P. Lazar and Maten H. Lazar, Co-Trustees of the Mayer P. Lazar Credit Shelter Trust	December 2000	Ruth P. Lazar and Maten H. Lazar, Co-Trustees of the Mayer P. Lazar Credit Shelter Trust
	Mayer P. Lazar, Trustee of the Mayer O. Lazar Trust	November 1993	Mayer P. Lazar
	Mayer P. Lazar	December 1960	Ruth Mildred Lazar
0001055 00011	City of Memphis and Shelby County Community Redevelopment Agency	August 2019	MLB-Uptown, LLC
	MLB-Uptown, LLC	September 2011	Arnold Engelberg
	Arnold Engelberg	September 1992	Rose Schaffer Engelbert
	Rose Schaffer Engelbert	August 1951	Louis D. Schaffer
001055 00001	City of Memphis and Shelby County Community Redevelopment Agency	August 2019	MLB-Uptown, LLC



Parcel Number	Grantee	Date	Grantor
	MLB-Uptown, LLC	August 2013	Alan Bredow
	Alan Bredow	September 1986	Fanny Bredow
001055 00004	City of Memphis and Shelby County Community Redevelopment Agency	August 2019	MLB-Uptown, LLC
	MLB-Uptown, LLC	August 2018	Memphis Housing Authority
	MDM Investments of Memphis, LLC	March 2016	Move in Investments, Inc. and MDM Investments of Memphis, LLC
	Move in Investments, Inc. and MDM investments of Memphis, LLC	April 2013	Move in Investments, Inc.
	Move in Investments, Inc.	March 2013	County of Shelby
	KVG, LLP	January 2007	NDSJ Investment Corporation
	NDSJ Investment Corporation	January 2007	Steven Anthony Thomas
	Steven Anthony Thomas	June 2004	Mae F. Cross
	Mae F. Cross	September 2002	J.W. Harris, Jr., D.D.S. Pension Plan
	J.W. Harris, Jr., D.D.S. Pension Plan	August 1997	Ameer X. Flippin dba Zenus International CO.
	Ameer X. Flippin dba Zenus International Co.	May 1995	J.W. Harris, Jr., D.D.S. Pension Plan
	J.W. Harris, Jr., D.D.S. Pension Plan	April 1995	Bruce F. Gray, Jr.
	Bernard H. Williams and Mary Helen Williams	April 1993	John W. Harris, Jr. Trustee for Pension Plan
	John W. Harris, Jr. Trustee for Pension Plan	September 1991	Darrell D. Moore and Carla J. Moore
Darrell D. Moore and Carla J. Moore	July 1990	John W. Harris, Jr. Trustee for Pension Plan	

Parcel Number	Grantee	Date	Grantor
	John W. Harris, Jr. Trustee for Pension Plan	July 1985	Ben Schwartz
	Ben Schwartz Shiley S. Schwartz	January 1982	Henry Samuels, Helen J. Samuels and Ben Schwartz and Shirley S. Schwartz

### 3.5 Environmental Liens and Activity and Use Limitations

At the direction of the client, a review of environmental liens and activity and use limitations (AULs) was included as part of the scope of services and Terracon engaged EDR to perform the lien/AUL review. Based on a review of the EDR lien/AUL reports, environmental liens or AULs were not identified for any of the site parcels. The environmental lien/AUL search report provided by EDR is included in Appendix C.

In addition, the EDR regulatory database report included a review of both Federal and State Engineering Control (EC) and Institutional Control (IC) databases. Based on a review of the database report, the site was not listed on the EC or IC databases.

### 3.6 Interviews Regarding Current and Historical Site Uses

The following individuals were interviewed regarding the current and historical use of the site.

#### Interviews

Interviewer	Name / Email	Title	Date/Time
Audrey Price	Andrew Murray 901-435-6992	Owner / President of the City of Memphis and Shelby County CRA	November 8, 2024

Terracon interviewed Mr. Andrew Murray via e-mail via Emma Turri to obtain additional information about site conditions and potential environmental concerns associated with the site. Mr. Murray informed Terracon that he has been affiliated with the site since City of Memphis and Shelby County Community Redevelopment Agency (CRA) acquired the site in 2019. Mr. Murray stated that the site was vacant with one structure at the time of acquisition. Mr. Murray informed Terracon that the previous reports include information related to historic use or releases of hazardous materials or former or existing USTs, ASTs, septic tanks, or water wells. Mr. Murray was not aware of any historic dump site or buried debris on the property. Mr. Murray was not aware of any historical pits, ponds, or lagoons existing on-site. Mr. Murray indicated that previous

Phase Is and Phase Is have been performed for the site and were provided to Terracon for review. Mr. Murray stated that he was unaware of any current or historical uses of PFAs on-site. Mr. Murray stated that he was unaware of any septic tanks on site. Mr. Murray stated that he is unaware of any previous fires occurring on-site and whether firefighting foams were used on-site. A copy of the owner questionnaire completed by Mr. Murray is provided in Appendix C.

### 3.7 Prior Report Review

Previous environmental or geotechnical reports of environmental significance for the site were requested from the client and site contacts. The following environmental report was provided to Terracon for review, and the summaries of the findings of this report is provided below. This summary is based solely on the information provided in the referenced document and Terracon offers no assessment regarding the quality, completeness, and/or accuracy of the information provided. This information is being considered solely in the context of additional historical information made available for the site. A copy of the client provided environmental report is provided in Appendix G.

**Phase II Environmental Site Assessment, 167 Chelsea Avenue, Memphis, Tennessee, dated January 13, 2011, prepared by Fisher & Arnold Environmental (F & A).**

Terracon was provided a copy of the executive summary of the 2011 Phase II performed at 167 Chelsea Avenue. The Phase II consisted of exploratory backhoe trenching as well as nine direct push technology borings were advance across the site and four borings were converted into temporary groundwater wells. Soil and groundwater samples were analyzed for volatile organic compounds (VOCs), poly-aromatic hydrocarbons (PAHs), and RCRA metals. Backhoe trenching was preformed to investigate the possible presences of USTs and/or associated piping. F & A observed subsurface vent lines and UST sand back fille. The vent lines confirmed the former presence of USTs; however, no USTs were found on the subject property.

F & A recommended that the vent lines should be removed and disposed of according to local, State, and Federal regulations. Additionally, special attention should be paid to the subsurface in the area of soul boring and temporary monitoring well point GP-1. An elevated concentration of xylenes was reported in shallow soil and concentrations of petroleum compounds below screening levels were reported in groundwater do the sampling location. Analytical results combined with field observation and PID readings indicate a historic gasoline release from the former USTs. However, the data suggest that no contaminants have moved from the site with the level that exceed applicable standards. No further assessment is recommended if the future site use is non-residential or is not used as a location for a sensitive receptor (daycare, playground, nursing home, etc.). No Soil in the area of GP-1 or the former UST features should be moved from the property without further testing and documentation. Additionally, institutional controls such as land use restrictions maybe necessary. Additional assurance of no further action can be achieved by review and approval of the data y the



fee-based TDEC Division of Solid Waste – State Remediation Program (SRP). F & A also stated that due to the poor condition of the asbestos containing floor tile and mastic in the building proper removal techniques should be employed to remove the materials and dispose of it in accordance with local and Federal regulations.

**Based on the information provided in this document it appears the USTs and associated piping has been removed from the Sholfe & Tomlinson Auto Garage which was depicted as a gas station on the Sanborn Maps and is described in further detail in Section 4.1 of this report.**

**Phase I Environmental Site Assessment Update, Vacant Building, 696 N. Second Street, Memphis, Tennessee, dated March 1, 2011, prepared by Fisher & Arnold Environmental (F&A).**

The 2011 Phase I ESA update report prepared by F & A was performed for 696 N. Second Street. F & A identified their site as approximately 0.20 acres containing a vacant 2,400 square foot single story building located in the northwest corner of the southwest ¼ of Block 55 in northern downtown Memphis. The 2011 Phase I ESA identified the following Recognized Environmental Condition (REC).

The Old Cummins Diesel facility at 812 N. Main Street is located approximately 220 feet northwest of the subject property. This facility is the same as presented in the 2005 Phase I ESA (Block 55) for Steven's Electric, which operated on or near the western adjacent property, and was identified as a REC. Due to limited information and an interpreted westward flow of potential surface and groundwater contaminants, no further information was recommended to be collected in 2005. However, since that time, this facility has been identified by the USEPA to contain elevated levels of chemicals of concern in soil and soil gas samples taken during a December 2008 site investigation and presented in a February 2009 Investigation Final Report. This site is currently under active investigation by the State of Tennessee to determine the extent of contamination associated with the former Old Cummins Diesel operations. Due to the recently discovered PCR and TCE soil and soil gas contamination; this site appears to present a significant environmental threat to the subject property.

This 2011 Phase I also summarized the findings a June 2005 Phase I ESA completed by F&A on the northern, eastern, and southern adjacent properties. The following RECs were identified in the 2005 ESA. The first REC pertains to the former Baine's Pure Oil that was present on the subject property at 711 N. Third Street (167 Chelsea Avenue), which is the location of the former Wayne's Coin-Op laundromat. The second REC pertains to the former Tom Breathett's filling station located adjacent to the east of the subject property at 183 Chelsea Avenue. The third REC pertains to the Steven's Electric which is located northwest of the subject property at 812 N. Main Street. F&A recommended that a subsurface investigation be performed on the current location of the Wayne's Coin-Op Laundromat, which was the location for the former Baine's Pure Oil, and between the former Tom Breathett's and the subject property to determine if



any contamination is present on the subject property attributable to the Tom Breathett's USTs.

This 2011 Phase I also summarized the findings an October 2007 Phase I ESA completed for 714 North 2<sup>nd</sup> Street and one REC was identified associated with the former gas station at 167 Chelsea Avenue/711 North 3<sup>rd</sup> Street.

In addition, the 2011 Phase I also summarized the findings an August 2008 Phase II completed at 714 North 2<sup>nd</sup> Street. This 2008 Phase II concluded that arsenic concentrations observed do not appear to be a concern to the subject property and no other significant environmental conditions were observed and as a result no further environmental action was recommended.

This 2011 Phase I also summarized the findings a January 2011 Phase II completed at 167 Chelsea Avenue. Based on results of the December 2010 field work including subsurface trenching and soil and groundwater samples collected, F&A recommended that the vent lines associated with the former USTs found on the subject property be removed. Additionally, special attention was recommended in the area of soil boring and temporary monitoring well point GP-1. An elevated concentration of xylenes was reported in shallow soil and concentrations of petroleum compounds below screening levels were reported in groundwater for the sampling location. Field observations and PID readings indicate a historic gasoline release from the former USTs. The relatively low concentrations of petroleum-related compounds in soil and groundwater on the subject property appear to indicate degraded petroleum constituents. Further, the compounds n-butylbenzene, sec-butylbenzene, isopropylbenzene, naphthalene, n-propylbenzene, 1,2,4-trimethylbenzene, and 1,3,5-trimethylbenzene identified in GP-1 are typically found in older gasoline releases. The January 2011 Phase II concluded that no further assessment was recommended on 167 Chelsea site, if the future use is non-residential or is not used as a location for a sensitive receptor (daycare, playground, nursing home, etc.).

**Phase II Environmental Site Assessment, Block 55, N. Second Street & Chelsea Avenue, Memphis, Tennessee, dated April 27, 2011, prepared by Fisher & Arnold Environmental (F & A).**

The 2011 Phase II included soil, groundwater, and soil gas sampling associated with environmental concerns identified during multiple previous Phase I ESAs prepared by F&A since 2005. During this Phase II four direct push technology (DPT) boring were advanced on the subject property neat the onsite building to investigate activities associated with the adjacent REC (Old Cummins Diesel). Four soil samples, four groundwater samples, and three active soil gas and three passive soil gas samples were collected during this assessment. Soil and groundwater samples were analyzed for volatile organic compounds (VOCs) per EPA Method 8260B.

In soil samples benzene and ethylbenzene were detected in each soil sample at concentrations below the EPA Regional Screening Level (RSLs). Toluene and total xylenes were detected below RSLs in one sample collected at 12 feet below ground surface (bgs). No chlorinated hydrocarbons (the compounds associated with the former

Cummins Diesel) were detected above the reporting limits. The results of the groundwater samples collected did not have concentrations of petroleum-related compounds or chlorinated compounds detected above the laboratory reporting limits. As it related to soil gas, tetrachloroethene (PCE) was detected at a concentration of  $370 \mu\text{g}/\text{m}^3$  for SV-3 (located near the center of 696 N. Second Street) and trichloroethene (TCE) was detected concentration of  $4.40 \mu\text{g}/\text{m}^3$  and  $3.8 \mu\text{g}/\text{m}^3$  at SV-1 (located along N. Second Street) and SV-3, respectively, which is above the EPA Generic Screening Levels of  $81 \mu\text{g}/\text{m}^3$  for PCE and  $2.2 \mu\text{g}/\text{m}^3$  for TCE. PCE was detected below the EPA Generic Screening Levels in one of the passive soil gas modules installed along Chelsea Avenue. F&A concluded that based on the results of the March 2011 field work, the 696 N. Second Street property portion of the subject property has been impacted by the identified REC, namely the Old Cummins Diesel.

Terracon recognizes that the calculations and EPA guidance have changed since this 2011 report was issued. For this reason, the laboratory analytical results for the soil vapor samples collected by F&A were compared to the Vapor Intrusion Screening Level (VISL) for residential and industrial sites by Terracon. The VISL is calculated by dividing the EPA RSL for indoor air by the EPA-approved slab attenuation factor (0.03). Based on these calculations TCE was not identified above the residential VISL of  $7.0 \mu\text{g}/\text{m}^3$  for any of the samples collected. PCE was, however, identified above the residential VISL of  $140 \mu\text{g}/\text{m}^3$  but below the industrial VISL of  $6,000 \mu\text{g}/\text{m}^3$  in SV-3. PCE identified in soil vapor at concentrations above the residential VISL constitutes a REC for the site.

**Phase II Environmental Site Assessment/Site Demolition & Removal Report, Block 55, N. Second Street and Chelsea Avenue, Memphis, Tennessee, dated August 14, 2015, prepared by EnSafe.**

The 2015 Phase II report included a file review as it related to the Old Cummins Diesel property, determination of Street Cut Permits which would cover any invasive investigation work in the alley ways, and removal of the basement structure and concrete pile. In addition, the 2015 Phase II included soil, groundwater, and soil gas sampling and eight soil borings were completed and converted into temporary groundwater monitoring wells. Between April 28 and May 5, 2014 the basement was removed at 714 North Second Street. During the removal a second basement, immediately north, and several concrete/brick structures (wall footings) were unearthed as well. These structures were related to previously demolished residential and commercial buildings. EnSafe visually assessed and screened soils and other materials with a photoionization detector (PID) and no areas of soil staining, olfactory evidence of contaminations, or elevated PID readings were observed. Four soil samples were collected and analyzed for VOCs, PAHs, and RCRA metals. Arsenic and total chromium exceeded their residential RSL for the four soil samples collected beneath the basements. However, the detected concentrations do not exceed the literature-based background concentrations. Also, VOC and PAH detections did not exceed their residential RSLs. EnSafe's report indicated that 52 truckloads of clean silty clay were used as backfill material. EnSafe's report indicates that the northern wall of the second basement structure was not removed as it was most likely cause the right-of-way and

sideways along Chelsea Avenue to slough, exposing/damaging any underground utilities in the immediate vicinity.

Groundwater was identified at depths ranging from 5.12 feet to 13.69 feet and it was determined that groundwater flow was generally to the southwest. Results from groundwater sampling found PCE in concentrations of 592 ppb and 178 ppb in two samples which exceeded its MCL. Trichloroethene was identified in concentrations ranging from 288 ppb to 8.3 ppb in three samples which exceeded its MCL. Cis-1,2-dichloroethene was detected in exceedance of its MCL in one sample with a concentration of 1360 ppb. Vinyl chloride and naphthalene were detected in one groundwater sample each above its RSL. Naphthalene does not have an MCL established, and vinyl chloride was below its MCL.

EnSafe's report states that laboratory analysis of soil gas samples identified 12 VOCs exceeding their adjusted RSLs at an attenuation factor (AF) of 0.02. Soil gas sampling results indicated PCE and TCE at two locations (SG06 and SG07). Other VOCs detected included petroleum hydrocarbon compounds (including benzene, toluene, ethylbenzene, and xylenes), halomethanes (including bromomethanes and Freon compounds), and other organics. Although some of these compounds were present at concentrations above their RSLs, the results do not indicate a specific source area. EnSafe concluded that the investigation identified chlorinated solvents in groundwater and soil-gas, although a residual source mass was not identified onsite nor was a pathway identified along sanitary sewer lines. Passive vapor barriers in future buildings and a groundwater use restriction on the properties would likely be required by TDEC for any type of new construction.

Terracon recognizes that the current standard for soil gas is to calculate the VISL by dividing the EPA RSL for indoor air by the EPA approved slab attenuation factor (0.03). Terracon calculated and compared against the new standards, only for the 12 VOCs EnSafe had listed as exceeding their RSLs and found that 10 of the 12 VOCs exceed their residential VISL. The presence of VOCs in groundwater at concentrations above their MCLs and in soil gas at concentrations above their residential VISL constitutes a REC to the site.

**Phase II Environmental Site Assessment, 167 Chelsea Avenue and 705 North Third Street, Memphis, Tennessee, dated September 16, 2020, prepared by EnSafe.**

The 2020 Phase II report prepared by EnSafe identified the site as two parcels totaling 0.5-acres. Various commercial businesses have operated on the 167 Chelsea Avenue property since the early 1930s, including an automotive repair garage, gas station, coin-operated laundry, and arcade/restaurant. The commercial building, known as Wayne's Pinball Palace, was demolished in August 2020. The 705 North Third Street property was residential until 2008. The buildings were subsequently demolished. The 2020 Phase II referenced a separate 2011 Phase II (for 167 Chelsea Avenue) completed by Fisher Arnold. According to a summary by EnSafe, petroleum contamination was detected in soil and groundwater as part of the 2011 Phase II. The report also noted that a historic gasoline release had occurred from the former underground storage tank (UST) at the site. Soil gas samples were not collected on the subject property during the 2011 Phase II assessment.

The 2020 Phase II included the collection and laboratory analysis of soil, groundwater, and soil gas samples. A total of 10 soil borings and four temporary monitoring wells were completed and sampled. The samples were analyzed for Polynuclear Aromatic Hydrocarbons (PAHs), Resource Conservation and Recovery Act (RCRA) 8 Metals, and Extractable Petroleum Hydrocarbons (EPH). A total of eight soil gas samples were collected and analyzed using US EPA Method TO-15 for VOCs.

Based on the soil analytical results, thirty-two VOCs and PAHs were detected. Soil samples SB01, SB03, SB04, SB05, SB08, SB09, and SB10 did not have detections that exceeded residential or industrial RSLs. Naphthalene exceeded its residential RSL in SB02 (4 to 8-foot depth interval). Benzo(a)pyrene exceeded its residential RSL in SB06. Ethylbenzene, 1,2,4-trimethylbenzene, naphthalene, xylene (total), and 2-methylnaphthalene exceeded their respective residential RSLs in SB07. SB07 was the only sample to exceed the ISL for EPH. Seven of the RCRA 8 metals were detected in the soil samples. Arsenic and chromium exceeded either their respective residential or industrial RSLs in all fourteen samples, but, only four samples (SB03, SB04, SB09 at 0 to 4-foot depth, and SB10 at 0 to 4-foot depth) exceeded the Tennessee background level for arsenic and no samples exceeded the Tennessee background level for chromium. Four samples (SB04, SB06, SB07, and SB09) exceeded the Tennessee background level for lead but did not exceed the RSLs for lead.

Based on the groundwater analytical results, a total of fifteen VOCs and PAHs were detected. Naphthalene exceeded its RSL in all groundwater samples. Benzene and ethylbenzene exceeded their respective RSLs in sample MW02. Four of the RCRA 8 metals were detected in the groundwater samples. Arsenic exceeded its RSL and MCL in samples MW01 and MW02 and chromium exceeded its RSL in sample MW04. No groundwater samples exceeded MCLs for VOCs or PAHs or ISLs for EPH.

Based on the soil gas analytical results, all soil gas samples had detections of VOCs. Soil gas samples SG01, SG02, and SG07 did not have detections that exceeded residential or commercial VISLs. Benzene exceeded its residential VISL in samples SG03 and SG04. Naphthalene exceeded its residential and commercial VISL in sample SG04 and its residential VISL in sample SG08. Ethylbenzene, 1,2,4-trimethylbenzene, 1,3,5-trimethylbenzene, and o-xylene exceeded their respective residential and commercial VISLs in sample SG04. PCE exceeded its residential VISL in samples SG05 and SG06.

EnSafe concluded that this Phase II ESA included collection and laboratory analysis of soil, groundwater, and soil gas samples in August 2020 to evaluate the potential for subsurface contamination associated with past operations on the subject property. Petroleum contamination had been reported from a former UST on the 167 Chelsea Avenue property. Laboratory analysis identified the following:

- One or more petroleum-related compounds were identified in soil samples from all borings, with higher concentrations encountered at the two former fuel dispenser islands. Naphthalene exceeded its residential RSL near both fuel dispenser island locations (SB02 and SB07). Ethylbenzene, 1,2,4-trimethylbenzene, naphthalene, xylene (total), and 2-methylnaphthalene exceeded their respective residential RSLs at the western fuel dispenser island location (SB07). SB07 was the only sample to exceed the TN ISL for EPH.
- Benzene and ethylbenzene also exceeded their respective RSL in groundwater at MW02 (eastern fuel dispenser island). Naphthalene exceeded its RSL in all four groundwater samples. Naphthalene exceedances were an order of magnitude higher at MW01 (former UST pit) and MW02 than at MW03 and MW04 (former residential property); indicating that the groundwater plume is likely contained on the subject property.
- Benzene exceeded its residential VISL in soil gas sampled at the western fuel dispenser island location (SG03) and at the eastern fuel dispenser island location (SG04). Ethylbenzene, 1,2,4-trimethylbenzene, 1,3,5-trimethylbenzene, and o-xylene exceeded their respective residential and commercial VISLs in soil gas sampled at the eastern fuel dispenser island location. Naphthalene exceeded its residential VISL in soil gas sampled at SG08 (approximately 50 feet southwest of SG04).
- PCE exceeded its residential VISL in soil gas sampled from under two of the former automotive bays (SG05 and SG06). A pit within the building footprint was noted during the field investigation and the presence of chlorinated solvents was likely related to past automotive maintenance and repair operations.

Based on the findings of the 2020 Phase II ESA completed by EnSafe, the documented presence of PAHs and VOCs in soil and groundwater above their RSLs and MCLs as well as the presence of VOCs soil gas above their residential VISLs constitutes a REC for the site.

## 4.0 RECORDS REVIEW

Regulatory database information was provided by EDR, a contract information services company. The purpose of the records review was to identify RECs in connection with the site. Information in this section is subject to the accuracy of the data provided by the information services company and the date on which the information is updated. The scope herein did not include confirmation of facilities listed as "unmappable" by regulatory databases.

In some of the following subsections, the words up-gradient, cross-gradient, and down-gradient refer to the topographic gradient in relation to the site. As stated previously, the groundwater flow direction and the depth to shallow groundwater, if present, would likely vary depending upon seasonal variations in rainfall and the depth to the soil/bedrock interface. Without the benefit of on-site groundwater monitoring wells surveyed to a datum, groundwater depth and flow direction beneath the site cannot be directly ascertained.

### 4.1 Federal and State/Tribal Databases

Listed below are the facility listings identified on federal and state/tribal databases within the ASTM-required search distances from the approximate site boundaries. Database definition, descriptions, and the database search report are included in Appendix D.

#### Federal Databases

Database	Description	Distance (miles)	Listings
CERCLIS / SEMS	Comprehensive Environmental Response, Compensation, & Liability Information System (CERCLIS) / Superfund Enterprise Management System (SEMS)	0.5	1
CERCLIS NFRAP / SEMS Archive	Comprehensive Environmental Response, Compensation, & Liability Information System No Further Remedial Action Planned	0.5	2
ERNS	Emergency Response Notification System	Site	0
IC / EC	Institutional Control/Engineering Control	Site	0
NPL	National Priorities List	1	0
NPL (Delisted)	National Priorities Delisted List	0.5	0

Database	Description	Distance (miles)	Listings
RCRA CORRACTS/ TSD	RCRA Corrective Action Activity	1	0
RCRA Generators	Resource Conservation and Recovery Act	Site and adjoining properties	0
RCRA Non-CORRACTS/ TSD	RCRA Non-Corrective Action Activity	0.5	0

### State/Tribal Databases

Database	Description	Distance (miles)	Listings
Brownfields	Brownfields Sites	0.5	1
IC/EC	Institutional and/or Engineering Controls Listing	Site	0
LUST	Leaking Underground Storage Tank Sites	0.5	5
SCL	State equivalent CERCLIS Site	0.5	0
SHWS	State Hazardous Waste Site	1	1
SWF/LF	Solid Waste Facilities/Landfills	0.5	0
UST	Underground Storage Tanks	Site and adjoining properties	0
VCP/SRP	Voluntary Cleanup Program/State Remediation Program Sites	0.5	29

In addition to the above ASTM-required listings, Terracon reviewed other federal, state, local, and proprietary databases provided by the database firm. A list of the additional reviewed databases is included in the regulatory database report in Appendix D.

As indicated below, three site addresses were identified on the environmental regulatory database report as EDR Historical Auto facilities. The following table also summarizes the site-specific information provided by the database and/or gathered by Terracon for regulated facilities located within about 450 feet of the site. Facilities are listed in order of proximity to the site. Additional discussion for selected facilities follows the summary table.



### Identified Facilities

Facility Name and Location	Estimates Distance / Direction / Gradient	Database Listings	REC, CREC, or HREC
Sholfe & Tomlinson Auto 165 Chelsea Avenue	Site	Hist Auto	REC, based on discussion below
Wilson Ray Filling Station 684 North 2 <sup>nd</sup> Street	Site	Hist Auto	REC, based on discussion below
Parco Oil Co. Filling Station 682 North 2 <sup>nd</sup> Street	Site	Hist Auto	REC, based on discussion below
Matthews Blow Pipe Co. Inc. 130 Keel Avenue	60 Feet / West / Down gradient	RCRA NonGen, FINDS, ECHO, VCP, SRP, VAPOR	NO, based on discussion below
Breathett's Service Station 183 Chelsea Avenue	70 Feet / East / Up gradient	UST, HIST UST, LUST, Hist Auto	NO, based on discussion below
James Generator Service 712 North 3 <sup>rd</sup> Street	70 Feet / East / Up gradient	Hist Auto	NO, based on discussion below
Ledbetter Packing Co. 675 North 3 <sup>rd</sup> Street	90 Feet / Southeast / Down gradient	UST, HIST UST	NO, based on discussion below
North Side Cleaners 675 North 2 <sup>nd</sup> Street	180 Feet / Southwest / Down gradient	Hist Cleaner	NO, based on discussion below
Laundry Center Self Service 803 North 2 <sup>nd</sup> Street	220 Feet / Northwest / Cross gradient	Hist Cleaner	NO, based on discussion below
Bailey W L DO Cleaner 661 and 673 North 2 <sup>nd</sup> Street	250 Feet / Southwest / Down gradient	Hist Cleaner	NO, based on discussion below
Former Stevens Electric Old Cummins Diesel 812 North Main Street	300 Feet / Northwest / Cross gradient	IC, SRP, VCP, VAPOR, SEMS, PRP	NO, based on discussion below

#### Sholfe & Tomlinson Auto (165 Chelsea Avenue)

According to the environmental regulatory database report, Sholfe & Tomlinson Auto was identified on the EDR Historical Auto database, which is a list of potential automotive repair or service station facilities compiled by EDR based on their independent review of historical city directories or other sources. Based on the listed address, Sholfe & Tomlinson Auto would have existed in the northeast portion of the site. Sholfe & Tomlinson Auto was listed in the city directories as an automobile garage in 1932. Based on the historical information reviewed as part of this assessment, 167 Chelsea Avenue (same parcel) was occupied by a filling station in the 1960s. A 2020 Phase II ESA for this property (see Section 3.7 above) identified petroleum product and/or other VOC impacts to subsurface media at concentrations exceeding the residential screening levels, which constitutes a REC for the site.

#### Wilson Ray Filling Station (684 North 2<sup>nd</sup> Street)

According to the environmental regulatory database report Wilson Ray Filling Station was identified on the EDR Historical Auto database, which is a list of potential automotive repair or service station facilities compiled by EDR based on their independent review of historical city directories or other sources. Wilson Ray Filling Station was listed in the city directories as a gasoline and oil service station in 1938. Based on the listed address, Wilson Ray Filling Station would have existed in the southwest portion of the site. A 2015 Phase II ESA conducted in this area (see Section 3.7 above) identified petroleum product and/or other VOC impacts to subsurface media at concentrations exceeding the residential screening levels, which constitutes a REC for the site.

#### Parco Oil Co. Filling Station (682 North 2<sup>nd</sup> Street)

According to the environmental regulatory database report, Parco Oil Co. Filling Station was identified on the EDR Historical Auto database, which is a list of potential automotive repair or service station facilities compiled by EDR based on their independent review of historical city directories or other sources. Based on the listed address, Parco Oil Co. Filling Station would have existed in the southwest portion of the site. Parco Oil Co. Filling Station was listed in the city directories as a filling station in 1926. A 2015 Phase II ESA conducted in this area (see Section 3.7 above) identified petroleum product and/or other VOC impacts to subsurface media at concentrations exceeding the residential screening levels, which constitutes a REC for the site.

#### Matthew Blow Pipe (130 Keel Avenue)

According to the environmental regulatory database report Matthew Blow Pipe was identified as a RCRA NonGen, FINDS, ECHO, VCP, SRP, VAPOR facility. Terracon reviewed the Tennessee Department of Environment and Conservation (TDEC) – Division of Remediation (DoR) online data viewer which identified the facility has having an open TDEC-DOR case. Terracon contacted TDEC-DOR to obtain regulatory files related to the facility. According to regulatory files obtained from TDEC, Matthew Blow Pipe was entered into the Voluntary Oversight and Assistance Program (VOAP) in March 2023 prior to planned redevelopment.

An e-mail from TDEC-DOR dated June 17, 2023, indicates that the property in question was described in a previous Phase I ESA for 130 Keel and 707 North Second Street, with the presence of an undertaker business from 1950s to potentially at least the 1970s. A Phase I ESA for 130 Keel Avenue indicates that Matthews Blow Pipe performed sheet metal works or metals fabrication at this location from 1958 through 2003. In addition, Tell Tronics Products Inc. was also listed in the city directory information for 130 Keel Avenue. Based on the past historical uses of the site, TDEC believes in addition to VOCs, PAHs, and RCRA metals it may be necessary to sample for formaldehyde (former funeral home services), cyanides (former metal fabrication), and PCBs (former electronics services). In a letter dated August 4, 2024, TDEC-DOR sent approval (with comments) regarding a "revised LSI report" e-mailed on May 13, 2024. Terracon was provided a copy of the original November 9, 2023, LSI Report completed by Fisher & Arnold. A review of the original LSI report found that benzene was identified in one soil vapor sampling location above the Commercial VISL and in groundwater above its EPA MCL. Soil gas concentrations for VOCs did not exceed the TDEC guidance criteria for mitigation in a proposed building. Additional cadmium and benzo(a)pyrene were identified at concentrations above their EPA RSLs in two soil samples collected from a depth of 0 to 2 feet. Based on the findings of the 2023 LSI report and its apparent down-gradient position relative to the site, it appears is unlikely that the historical uses identified at 130 Keel and 707 North Second Street have contributed to the documented on-site contamination, and the former Matthew Blow Pipe does not constitute a REC to the site at this time.

#### Breathett Service Station (183 Chelsea Avenue)

Based on area reconnaissance, the former Breathett Service Station was located approximately 70 feet east and topographically up-gradient relative to the site. According to the environmental regulatory database report, Breathett Service Station was identified on the EDR Historical Auto database with the city directories indicating the gasoline service station operated from 1958 to 1999. According to the environmental regulatory database report, Breathett Service Station formerly operated two 8,000-gallon gasoline USTs which were installed in 1979, last used in 2005, and closed in 2021. According to the regulatory files obtained from TDEC-DUST, analytical results from soil samples collected during the 2021 tank closure did not indicate contamination above the applicable clean up levels. As such, TDEC issued a No Further Action (NFA) letter related to the tank closure on August 30, 2021. Based on its reported regulatory status, the former Breathett Service Station does not constitute a REC for the site.

#### James Generator Service (712 North 3<sup>rd</sup> Street)

According to the environmental regulatory database report James Generator Service was identified on the EDR Historical Auto database, which is a list of potential automotive repair or service station facilities compiled by EDR based on their independent review of historical city directories or other sources. Based on the listed address, James Generator Service would have existed 70 feet east of the site across North Third Street. James Generator Service was listed in the city directories as an automobile repair facility in 1968. The 1965 Sanborn map depicts this address as a dwelling. It appears that the

automotive repair operations conducted at this location (if any) were likely limited in nature and duration, and the former James Generator Service is not considered a REC for the site.

#### Ledbetter Packing Co. (675 North 3rd Street)

According to the environmental regulatory database report, Ledbetter Packing Co. was identified at 675 North 3<sup>rd</sup> Street as a UST facility. According to the environmental regulatory database report, Ledbetter Packing Co. formerly operated one 1,200-gallon UST which was installed in 1969, last used in 1987, and closed in 1994. The environmental regulatory database report does not indicate what product was stored in the UST. According to regulatory files obtained from TDEC-DUST, Ledbetter Packing Co. operated a 2,220-gallon gasoline UST. Analytical results from soil samples collected during the UST closure did not indicate contamination above the applicable clean up levels, and TDEC issued a No Further Action (NFA) letter related to the tank closure on December 9, 1994. Based on its reported regulatory status and apparent down-gradient position relative to the site, the former Ledbetter Packing Co. does not constitute a REC for the site.

#### North Side Cleaners (675 North 2nd Street)

According to the environmental regulatory database report, North Side Cleaners was identified on the EDR Historical Cleaner database, which is a list of potential dry-cleaning facilities compiled by EDR based on their independent review of historical city directories or other sources. According to the EDR report, North Side Cleaners was listed at 675 North Second Street in the historical city directories from 1926 to 1943. According to the Sanborn Maps, this address was 180 feet southwest of the site, which is topographically down-gradient. The EDR report did not identify North Side Cleaners as a regulated facility (i.e., RCRA Generator or registered Drycleaner), and it is not known if drycleaning operations were conducted at the facility. Facilities not identified on the environmental regulatory database report typically operated before the promulgation of current environmental regulations (e.g., USTs, RCRA Generators, Drycleaners, etc.), and have very limited or no information available to review regarding the use of hazardous materials and petroleum products, or potential environmental concerns associated with releases. Terracon reviewed the Tennessee Department of Environment and Conservation (TDEC) – Division of Remediation (DoR) and the Drycleaner Environmental Response Program (DCERP) online data viewer which did not identify 675 North Second Street. DCERP only tracks known dry cleaners that have operated or registered since 1996. Based on its distance and down-gradient position relative to the site, the former North Side Cleaners does not constitute a REC for the site.

#### Laundry Center Self Service (803 North 2<sup>nd</sup> Street)

According to the environmental regulatory database report, Laundry Center Self Service was identified on the EDR Historical Cleaner database, which is a list of potential dry-cleaning facilities compiled by EDR based on their independent review of historical city directories or other sources. According to the EDR report, Laundry Center Self Service was listed at 803 North Second Street in the historical city directories from 1963 to

1978. According to the Sanborn Maps, this address was 220 feet northwest of the site, which is topographically cross-gradient. The EDR report did not identify Laundry Cleaner Self Service as a regulated facility (i.e., RCRA Generator or registered Drycleaner), and it is not known if drycleaning operations were conducted at the facility. Facilities not identified on the environmental regulatory database report typically operated before the promulgation of current environmental regulations (e.g., USTs, RCRA Generators, Drycleaners, etc.), and have very limited or no information available to review regarding the use of hazardous materials and petroleum products, or potential environmental concerns associated with releases. Terracon reviewed the Tennessee Department of Environment and Conservation (TDEC) – Division of Remediation (DoR) and the Drycleaner Environmental Response Program (DCERP) online data viewer which did not identify 803 North Second Street. DCERP only tracks known dry cleaners that have operated or registered since 1996. Based on its distance and topographic position relative to the site, the former Laundry Center Self Service facility does not constitute a REC for the site.

#### Bailey W L DO Cleaner (661 and 673 North 2<sup>nd</sup> Street)

According to the environmental regulatory database report, Bailey W L DO Cleaner was identified on the EDR Historical Cleaner database, which is a list of potential dry-cleaning facilities compiled by EDR based on their independent review of historical city directories or other sources. According to the EDR report, Bailey W L DO Cleaner was listed in the historical city directories from 1921 to 1932. According to the Sanborn Maps, this address was 250 feet southwest of the site, which is topographically down-gradient. The EDR report did not identify Bailey W L DO Cleaner as a regulated facility (i.e., RCRA Generator or registered Drycleaner), and it is not known if drycleaning operations were conducted at the facility. Based on its distance and topographic gradient relative to the site, the former Bailey W L DO Cleaner does not constitute a REC for the site.

#### Former Stevens Electric, Old Cummins Diesel (812 North Main Street)

According to the environmental regulatory Old Cummins Diesel and Former Stevens Electric were identified in Institutional Control (IC), State Remediation Program Sites (SRP), Voluntary Cleanup Program (VCP), VAPOR, Superfund Enterprise Management System (SEMS) databases. Based on information obtained from the Tennessee Department of Environment and Conservation (TDEC) – Division of Remediation (DoR), Cummins Diesel Sales Corporation and its subsidiary, Diesel Recon, formerly operated from approximately 1950 until 1973. The former Stevens Electric Company operated at 812 North Main Street from approximately 1975 until 2005. Cummins Diesel cleaned engine parts with degreasing solvents, which results in releases into subsurface media. Stevens Electric contributed to the documented PCBs, PAHs, and metals contamination due in part to the outdoor storage of electrical equipment and possibly batteries. Subsurface impacts identified at the facility included several chlorinated and non-chlorinated VOCs in subsurface soil, soil gas, and groundwater at the facility. The facility entered into the Voluntary Oversight and Assistance Program (VOAP) in 2019 due to its plan for redevelopment. Based on local knowledge, the Old Cummins Diesel facility's main building and source of VOC/chlorinated solvent impact to groundwater were located approximately 300 feet northwest of the Wayne's Pinball Palace site. In

In addition, the direction of groundwater flow in the impacted shallow aquifer at the Old Cummins Diesel facility is to the southwest, away from Wayne’s Pinball Palace site. Also, significant source removal (impacted soil excavation) was conducted in 2020/2021, and the property has been re-developed into the Burkle & Main apartment complex. Based on this information, the former Old Cummins Diesel facility does not constitute a REC for the Wayne’s Pinball Palace site.

Based on area reconnaissance, the remaining identified facilities are located over 450 feet from the site. Based on their reported regulatory status, distance from the site, topographic position relative to the site, and/or other facility information obtained by Terracon or provided in the environmental regulatory database report, the remaining identified facilities do not appear to constitute RECs for the site at this time.

Unmapped facilities are those that do not contain sufficient address or location information to evaluate the facility listing locations relative to the site. The environmental regulatory database report listed 10 facilities in the unmapped section. Determining the location of unmapped facilities is beyond the scope of this assessment; however, none of the unmapped listings appear to be the site or an adjoining property. These unmapped facilities are listed in the database report in Appendix D.

## 4.2 Local Agency Inquiries

Agency Contacted/ Contact Method	Response
Shelby County Health Department (SCHD) Marshall Brown-Ashford – Office Coordinator Environmental Health Services – Pollution Control Marshall.Ashford@shelbycountyttn.gov	Terracon submitted a Freedom of Information Act (FOIA) request to the Shelby County Health Department (SCHD) on 10-25-24 by e-mail to obtain information about potential environmental concerns associated with the site. At the issuance of this report, a response from the SCHD has not been received from SCHD.
Memphis Fire Department (MFD) Deborah Claxton, Accounting Clerk Fire Prevention Bureau fire.prevention@memphistn.gov	Terracon contacted the Memphis Fire Department (MFD) by e-mail to obtain information about potential environmental concerns or records of hazardous materials releases associated with the site. The MFD informed Terracon that there have been no violations, and no records of hazardous storage spills, releases, or underground tanks associated with the site (eight parcels).
Memphis Shelby County Department of Planning and Development (DPD) <a href="https://gis.shelbycountyttn.gov/zoning/">https://gis.shelbycountyttn.gov/zoning/</a>	DPD website has a link to a Regional GIS (ReGIS) map that includes zoning information. ReGIS website indicates that the site is currently zoned as High Density Residential (HDR).



Agency Contacted/ Contact Method	Response																											
Memphis Shelby County Code Enforcement <a href="https://gis.shelbycountyttn.gov/zoning/">https://gis.shelbycountyttn.gov/zoning/</a>	<p>Code Enforcement informed Terracon that building permit information is available on the Shelby County Assessor of Property website. Information obtained from the Shelby County Assessor of Property website indicates that nine permits have been issued for the site parcels between 1982 and 2020. The website included the permit number and date. Additional information regarding the permits (i.e. amount or reason) was not provided for every permit.</p> <table border="1" data-bbox="760 709 1432 1157"> <thead> <tr> <th>Parcel Number</th> <th>Number of Permits</th> <th>Permit Date Range</th> </tr> </thead> <tbody> <tr> <td>001055 00002</td> <td>3</td> <td>1982 to 1986</td> </tr> <tr> <td>001055 00003</td> <td>2</td> <td>1986 to 2020</td> </tr> <tr> <td>001055 00009C</td> <td>None</td> <td>Not Applicable</td> </tr> <tr> <td>001055 00012</td> <td>None</td> <td>Not Applicable</td> </tr> <tr> <td>001055 00010</td> <td>5</td> <td>1987 to 2013</td> </tr> <tr> <td>0001055 00011</td> <td>None</td> <td>Not Applicable</td> </tr> <tr> <td>001055 00001</td> <td>1</td> <td>1996</td> </tr> <tr> <td>001055 00004</td> <td>1</td> <td>2007</td> </tr> </tbody> </table>	Parcel Number	Number of Permits	Permit Date Range	001055 00002	3	1982 to 1986	001055 00003	2	1986 to 2020	001055 00009C	None	Not Applicable	001055 00012	None	Not Applicable	001055 00010	5	1987 to 2013	0001055 00011	None	Not Applicable	001055 00001	1	1996	001055 00004	1	2007
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001055 00004	1	2007																										

## 5.0 SITE RECONNAISSANCE

### 5.1 General Site Information

Information contained in this section is based on a visual reconnaissance conducted while walking through the site and the accessible interior areas of structures, if any, located on the site. The site and adjoining properties are depicted on the Site Diagram, which is included in Exhibit 2 of Appendix A. Photographic documentation of the site at the time of the visual reconnaissance is provided in Appendix B. Credentials of the individuals planning and conducting the site visit are included in Appendix E.



## General Site Information

Site Reconnaissance	
Field Personnel	Audrey Price
Reconnaissance Date	November 26, 2024
Weather Conditions	55°F, Sunny
Site Contact/Title	Emma Turri / CRA Project Manager
Site Utilities	
Drinking Water	Memphis Light Gas & Water (MLGW)
Wastewater	City of Memphis
Electric	MLGW
Natural Gas	MLGW

### 5.2 Overview of Current Site Occupants

The site consists of eight contiguous parcels totaling 1.464 acres of vacant land generally located at the southeast corner of North Second Street and Chelsea Avenue in Memphis, Shelby County, Tennessee. The site parcel numbers, addresses, and acreages are listed in the table below for reference. The site is divided into three quadrants by existing public right of ways. The site has no current structures, occupants, or operations.

Parcel Number	Existing Address	Acreage
001055 00002	0 Chelsea Avenue	0.270
001055 00003	165 Chelsea Avenue (aka 167 Chelsea Avenue)	0.246
001055 00009C	0 Keel Avenue	0.180
001055 00012	0 Keel Avenue	0.130
001055 00010	696 N. Second Street	0.202
0001055 00011	710 N. Second Street	0.123
001055 00001	714 N. Second Street	0.060
001055 00004	705 N. Third Street	0.253

### 5.3 Overview of Current Site Operations

The site has no current operations.

## 5.4 Site Observations

The following table summarizes site observations and interviews. Affirmative responses (designated by an “X”) are discussed in more detail following the table.

<b>Site Characteristics</b>		
<b>Category</b>	<b>Item or Feature</b>	<b>Observed or Identified</b>
<b>Site Operations, Processes, and Equipment</b>	Emergency generators	
	Elevators	
	Air compressors	
	Hydraulic lifts	
	Dry cleaning	
	Photo processing	
	Ventilation hoods and/or incinerators	
	Waste treatment systems and/or water treatment systems	
	Heating and/or cooling systems	
	Paint booths	
	Sub-grade mechanic pits	
	Wash-down areas or carwashes	
	Pesticide/herbicide production or storage	
	Printing operations	
	Metal finishing (electroplating, chrome plating, galvanizing, etc.)	
	Salvage operations	
<b>Aboveground Chemical or Waste Storage</b>	Aboveground storage tanks	
	Drums, barrels, and/or containers ≥ 5 gallons	
	MSDS or SDS	

Category	Item or Feature	Observed or Identified
Underground Chemical or Waste Storage, Drainage or Collection Systems	Underground storage tanks or ancillary UST equipment	
	Sumps, cisterns, French drains, catch basins, and/or dry wells	
	Grease traps	
	Septic tanks and/or leach fields	
	Oil/water separators, clarifiers, sand traps, triple traps, interceptors	
	Pipeline markers	
	Interior floor drains	X
Electrical Transformers/PCBs	Transformers and/or capacitors	X
	Other equipment	
Releases or Potential Releases	Stressed vegetation	
	Stained soil	
	Stained pavement or similar surface	X
	Leachate and/or waste seeps	
	Trash, debris, and/or other waste materials	
	Dumping or disposal areas	
	Construction/demolition debris and/or dumped fill dirt	X
	Surface water discoloration, odor, sheen, and/or free-floating product	
	Strong, pungent, or noxious odors	
	Exterior pipe discharges and/or other effluent discharges	
Other Notable Site Features	Surface water bodies	
	Quarries or pits	
	Wastewater lagoons	
	Wells	

## Underground Chemical or Waste Storage, Drainage or Collection Systems

### **Interior Floor Drains**

During site reconnaissance, Terracon observed four interior floor drains in the remnant concrete slab for the former Wayne's Pinball Palace building, located in the northeast portion of the site. Evidence of staining, releases, or hazardous material storage was not observed near the floor drains.

### Electrical Transformers/PCBs

#### **Pad or pole mounted transformers and/or capacitors**

During site reconnaissance, Terracon observed two pole-mounted transformers along the northern and western boundaries of the site. Information regarding PCB-content of the transformer fluids was not evident on the transformers. Transformers contain mineral oil which may contain minor amounts of PCB and could be considered "PCB contaminated" (PCB content of 50-499 ppm). Memphis Light Gas and Water (MLGW) maintains responsibility for the transformer, and if the transformer were "PCB contaminated," MLGW is not required to replace the transformer fluids until a release is identified. The transformers appeared to be in good condition and evidence of a release was not observed in the vicinity of the transformers during the site reconnaissance.

### Releases or Potential Releases

#### **Stained pavement or similar surface**

During site reconnaissance, Terracon observed staining on ceramic tile flooring on remnant concrete slab for the former Wayne's Pinball Palace building. The staining was approximately 6 square feet in size and appeared to represent a de minimis condition.

#### **Construction/demolition debris and/or dumped fill dirt**

During site reconnaissance, Terracon observed scattered surficial debris along the eastern boundary of the northwest quadrant of the site and across the northeast quadrant of the site. Based on visual observation (of surface materials only), the debris consisted of bricks, concrete, ceramic tiles, and asphalt. The debris did not appear to be hazardous in nature and evidence of staining, noxious odors, or hazardous waste disposal was not observed in the vicinity of the debris observed during the site reconnaissance.

## 6.0 ADJOINING PROPERTY RECONNAISSANCE

Visual observations of adjoining properties (from site boundaries) are summarized below.

### Adjoining Properties

Direction	Description
North	The north-adjoining properties consist of Chelsea Avenue followed by the Burkle & Main apartments at 800 N. Second Street and several vacant grassed lots.
East	The east-adjoining properties consists of N. Third Steet followed by the former Ready 2 Roll Auto at 183 Chelsea Avenue and residences along N. Third Street.
South	The south-adjoining properties consist of residences to the southwest followed by Keel Avenue, residences along Keel, and the Magnolia Terrace apartments located at 669 N. Third Street.
West	The west-adjoining properties consist of N. Second Street followed by a residence and the former Open Arms of Love Apostolic Church at 715 and 708 N. Second Street, respectively and a vacant fenced lot at 130 Keel Avenue.

At the time of site reconnaissance, Terracon did not observe facilities, conditions, or land uses indicative of potential RECs on the properties adjoining the site.

## 7.0 ADDITIONAL SERVICES

Per the agreed scope of services specified in the proposal, the following additional service (e.g. vapor encroachment screening) was conducted.

### 7.1 ASTM E 2600-22 Vapor Encroachment Screening

Terracon conducted a Tier 1 Vapor Encroachment Screening (VES), in general accordance with the procedures included in ASTM E 2600-22, *Standard Guide for Vapor Encroachment Screening on Property Involved in Real Estate Transactions*. The purpose of the Tier 1 VES is to evaluate whether a vapor encroachment condition (VEC) may be present at the site. A VEC is defined by ASTM as the “presence or likely presence of chemical(s) of concern (COC) vapors in the subsurface of the target property caused by the release of vapors from contaminated soil or groundwater or both either on or near the target property as identified by the Tier I procedures in the *Guide*.”

This purpose was pursued through use of information collected in conjunction with the ESA, including existing/planned use of the site, type of structures located on the site, surrounding property description, user information, historical and physical records review, regulatory database review, manmade or natural conduits, as applicable, and a visual noninvasive reconnaissance of the site and adjoining properties. Limitations, ASTM deviations, and significant gaps (if identified) are evident from reviewing the applicable scope of services and the Phase I report text.

The scope of work for the Tier 1 VES does not include regulatory file reviews (other than those performed as part of the Phase I ESA) or subsurface investigations to evaluate soil, soil gas, or groundwater quality, nor does it evaluate the potential for vapor intrusion into on-site structures or assess indoor air quality.

### 7.1.1 Existing / Planned Use of the Site/Structures

The site consists of eight contiguous parcels totaling 1.464 acres of vacant land generally located at the southeast corner of North Second Street and Chelsea Avenue in Memphis, Shelby County, Tennessee. The site parcel numbers, addresses, and acreages are listed in the table below for reference. The site is divided into three quadrants by existing public right of ways. The site has no current structures, occupants, or operations.

Parcel Number	Existing Address	Acreage
001055 00002	0 Chelsea Avenue	0.270
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001055 00001	714 N. Second Street	0.060
001055 00004	705 N. Third Street	0.253

Future planned uses and redevelopment of the site are unconfirmed but is anticipated to be residential and/or mixed use.

### 7.1.2 Surrounding Area Description

Please refer to Section 6.0.

### 7.1.3 User Specialized Knowledge

Please refer to Section 1.6.

#### 7.1.4 Historical Records

Please refer to Section 3.0. Based on the historical information reviewed as part of the ESA, historical site uses of potential concern include two gas stations, an automotive repair garage, a furniture repair facility, and a laundromat. Based on review of historical records and the findings of previous subsurface investigations conducted at the site (see Sections 3.7), VECs were identified on the site. The known constituents of concern are petroleum hydrocarbons, PAHs, and VOCs.

#### 7.1.5 Regulatory Records

Terracon reviewed the regulatory database (see Section 4.0) for facilities potentially utilizing petroleum hydrocarbons within one-tenth of a mile of the site and facilities potentially using other volatile chemicals of concern within one-third of a mile of the site. Based on Terracon's review of the regulatory records, Terracon identified several potential facilities of concern on the site. Based on Terracon's review of the regulatory records and the findings of previous subsurface investigations conducted at the site (see Sections 3.7), VECs were identified on the site associated with the identified potential facilities of concern.

The known COCs are petroleum hydrocarbons, PAHs, and VOCs associated with the former on-site operations. The regulatory records do not indicate that the COCs have been remediated to the applicable cleanup level for unrestricted land use.

#### 7.1.6 Physical Setting Characteristics

The site is located within the Quaternary Loess, characterized by unconsolidated clayey and sandy silt deposited in the Quaternary period. Shallow soils are identified by the NRCS as graded land, silty material. The depth to groundwater is estimated to be 5 to 15 feet below ground surface, and the direction of ground water flow is estimated to be southwest, towards the Mississippi River.

#### 7.1.7 Natural or Man-made Conduits

The site is located in a densely developed area of the inner city containing several subgrade utilities along the adjacent rights of way. Based on the presence of potential identified vapor sources in the site vicinity, it is likely that man-made conduits, such as utility corridors, could provide a potential path for vapor migration. Natural conduits, such as karst terrain/features, are not known to exist in the site vicinity.

#### 7.1.8 Conclusions

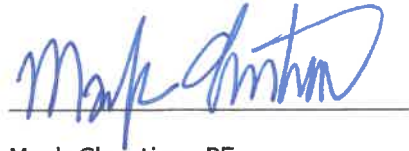
The Tier 1 VES results are summarized herein, and the conclusion from the Tier I screening is presented below.

**Based on the historical uses of the site, the regulatory records review, and the findings of previous subsurface investigations conducted at the site, VECs have been identified on the site.**



## 8.0 DECLARATION

I, Mark Christian, PE, declare that, to the best of my professional knowledge and belief, I meet the definition of Environmental Professional as defined in Section 312.10 of 40 CFR 312; and I have the specific qualifications based on education, training, and experience to assess a property of the nature, history, and setting of the site. I have developed and performed the All Appropriate Inquiries in conformance with the standards and practices set forth in 40 CFR Part 312.



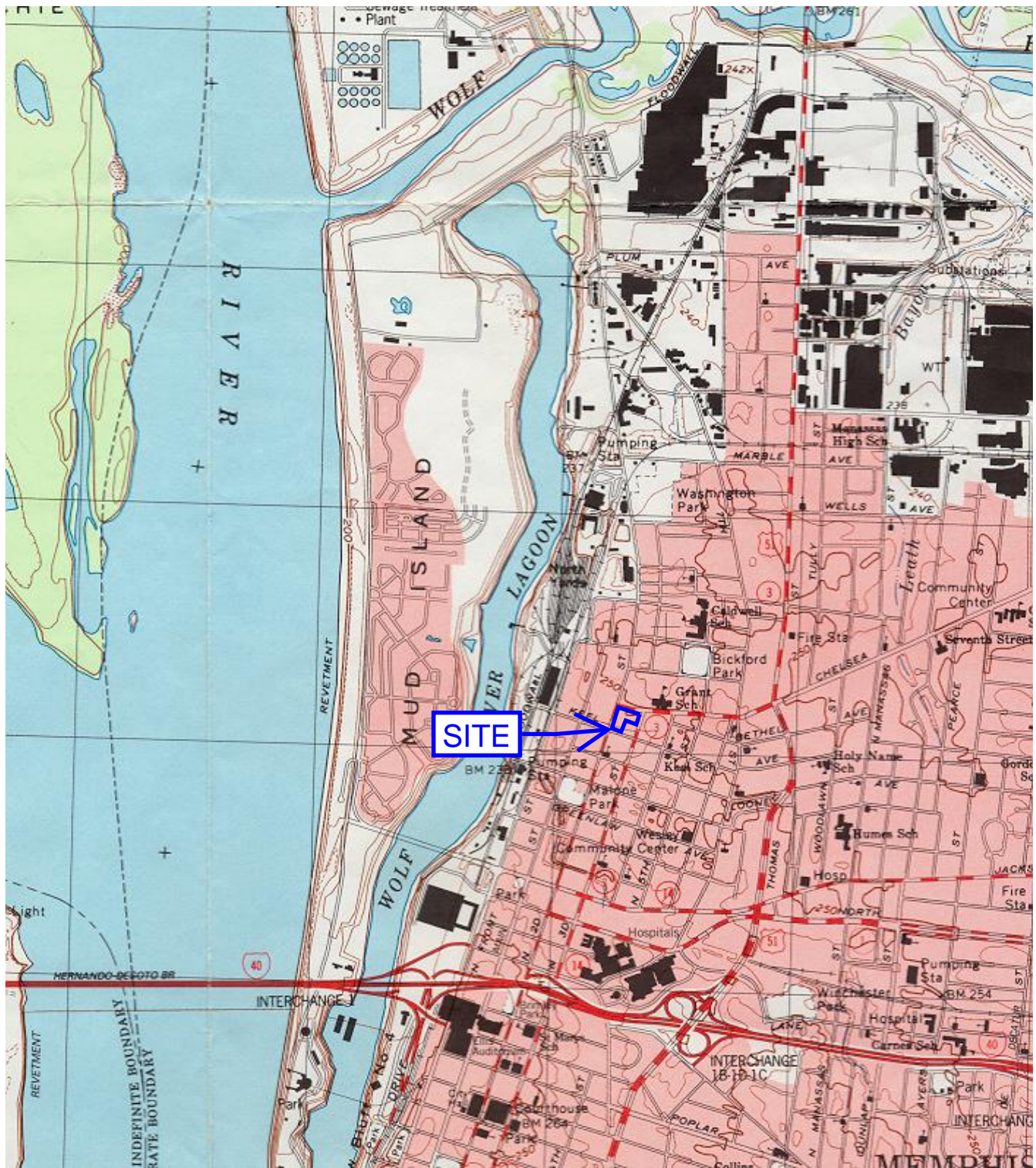
Mark Christian, PE

Environmental Department Manager

**APPENDIX A**

**EXHIBIT 1: TOPOGRAPHIC MAP**

**EXHIBIT 2: SITE DIAGRAM**



Source: USGS 7.5-minute Topographic Quadrangle, Northwest Memphis, Tennessee-Arkansas  
 Dated 1997



**PROJECT**  
 Former Wayne's Pinball Palace  
 167 Chelsea Avenue  
 Memphis, Tennessee  
 Project No. A8247004-3



**EXHIBIT 1**  
 SITE VICINITY MAP  
 Scale: 1" = 2,000'





DIAGRAM IS FOR GENERAL LOCATION ONLY, AND IS NOT INTENDED FOR CONSTRUCTION PURPOSES

AERIAL PHOTOGRAPHY PROVIDED BY MICROSOFT BING MAPS

Project Manager: MCC	Project No. A8247004
Drawn by: ACP	Scale: AS SHOWN
Checked by: NBT	File Name: 7004-3
Approved by: MCC	Date: 10-31-24

**Terracon**

8420 Wolf Lake Dr Ste 115  
Bartlett, TN 38133-7110

**SITE DIAGRAM**

Former Pinball Palace  
167 Chelsea Avenue  
Memphis, TN

Exhibit

**2**

**APPENDIX B**  
**SITE PHOTOGRAPHS**





**Photo #1** Overview of the site from the northeast most corner/block of the site



**Photo #2** Overview of the site from the east most boundary of the site



**Photo #3** Overview of the northeast block of the site from the south



**Photo #4** Overview of the northeast block of the site from the east





**Photo #5** Overview of the northwest block of the site from the northeast



**Photo #6** Overview of the northwest block of the site from the north



**Photo #7** Overview of the northwest block of the site from the northwest



**Photo #8** Overview of the northwest block of the site from the west





**Photo #9** Overview of the northwest block of the site from the southwest



**Photo #10** View from the western boundary of the site looking towards the public right of way that divides the northwest and southwest blocks





**Photo #11** Overview of the northwest block of the site from the south



**Photo #12** Overview of the southwest block of the site from the north





**Photo #13** Overview of the southwest block of the site from the west



**Photo #14** Overview of the southwest block of the site from the southwest





**Photo #15** Overview of the southwest block of the site from the southeast



**Photo #16** Overview of the southwest block of the site from the east



**Photo #17** Overview of the southwest block of the site from the northeast



**Photo #18** View from the eastern boundary of the site looking towards the public right of way that divides the northwest and southwest blocks





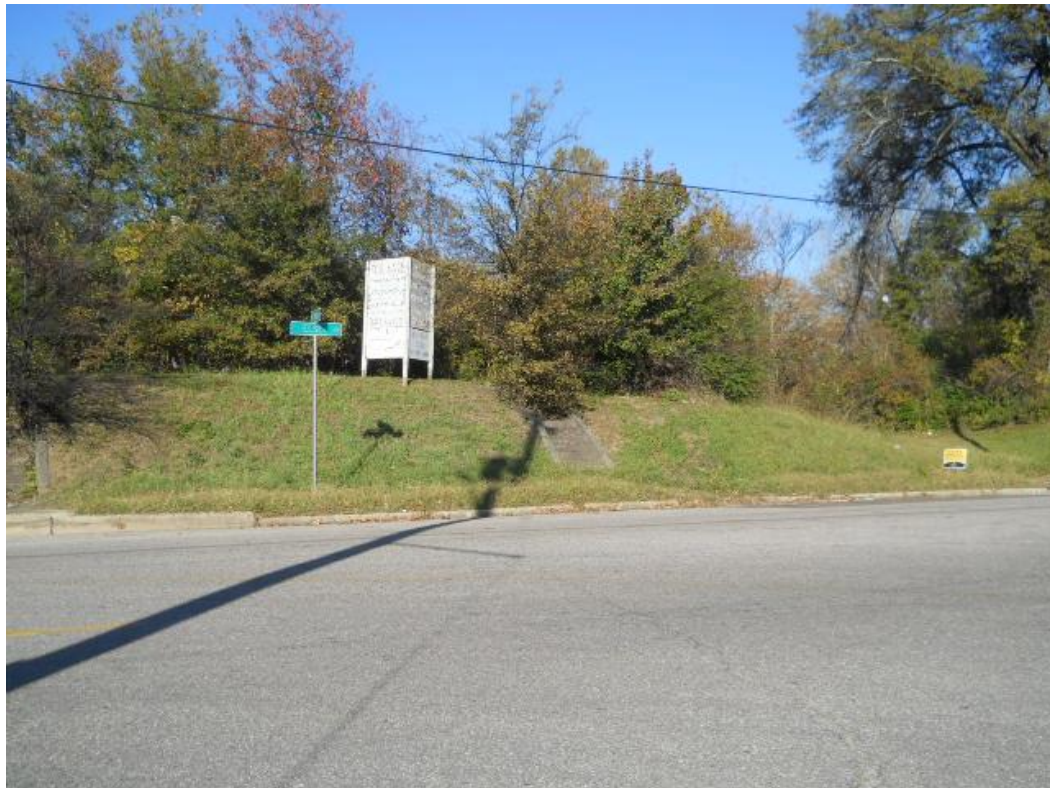
**Photo #19** View looking south along the east adjoining North 3<sup>rd</sup> Street



**Photo #20** View from the site looking east across North 3<sup>rd</sup> Street towards the residence at 712 North 3<sup>rd</sup> Street



**Photo #21** View of former Ready 2 Roll located at 183 North 3<sup>rd</sup> Street



**Photo #22** View from the site looking northeast across the intersection of North 3<sup>rd</sup> Street and Chelsea Avenue towards the vacant lots





**Photo #23** View from the site looking north across Chelsea Avenue towards Burkle & Main located at 800 North 2<sup>nd</sup> Street



**Photo #24** View from the site looking northwest across the intersection of Chelsea Avenue and North 2<sup>nd</sup> Street towards Burkle & Main located at 797 North 2<sup>nd</sup> Street



**Photo #25** View from the site looking west across North 2<sup>nd</sup> Street towards the residence at 715 North 2<sup>nd</sup> Street



**Photo #26** View from the site looking west across North 2<sup>nd</sup> Street towards the former church located at 707 North 2<sup>nd</sup> Street





**Photo #27** View from the site looking west across the intersection of North 2<sup>nd</sup> Street and Keel Avenue towards the vacant 130 Keel Avenue development



**Photo #28** View from the site looking southwest across the intersection of North 2<sup>nd</sup> Street and Keel Avenue towards the vacant 125 Keel Avenue development





**Photo #29** View from the site looking south across Keel Avenue towards south-adjointing residences



**Photo #30** View from the site looking southeast across Keel Avenue towards the Magnolia Terrace Apartments at 669 North 3<sup>rd</sup> Street





**Photo #31** View from the site looking east towards the southeast adjoining residential block, along the northside of Keel Avenue



**Photo #32** View from the site looking east across Lyceum Lane towards the southeast adjoining residential block





**Photo #33** View from the site of looking east along the unnamed public right of way south of the northeast block of the site



**Photo #34** View from the site of looking south towards the residences which area under construction south of the northeast block of the site





**Photo #35** View of concrete foundation and old flooring located on the northeast block of the site where the former Wayne's Pinball Palace existing



**Photo #36** View of de minimis staining on the ceramic flooring





**Photo #37** View of one of four interior floor drains located on the former Wayne's Pinball Palace concrete slab foundation



**Photo #38** View of one of four interior floor drains located on the former Wayne's Pinball Palace concrete slab foundation





**Photo #39** View of two of four interior floor drains located on the former Wayne's Pinball Palace concrete slab foundation



**Photo #40** View of the manhole located inside the former Wayne's Pinball Palace building foundation





**Photo #41** View of a PVC pipe located in the concrete foundation



**Photo #42** View of assorted flooring located below ceramic flooring layer





**Photo #43** View of gravel area east of the former Wayne's Pinball Palace foundation



**Photo #44** View of concrete rubble located just east of the former Wayne's Pinball Palace foundation





**Photo #45** View of a concrete footer associated with a former structure located in the southeast block of the site



**Photo #46** View of a concrete footer associated with a former structure located in the southeast block of the site





**Photo #47** View of concrete debris located in the northeast block of the site



**Photo #48** View of concrete and brick debris located in the northeast block of the site





**Photo #49** View of asphalt debris located in the northeast block of the site



**Photo #50** View of the pole-mounted transformer located along the northern boundary of the site



**Photo #51** View of the pole-mounted transformer located southwestern most corner of the site



**APPENDIX C**

**USER QUESTIONNAIRE AND**

**HISTORICAL DOCUMENTATION**

# ASTM E1527-21 User Questionnaire



<b>Date Completed</b>	10/31/2024		
<b>Person Completing Questionnaire</b>	Name: Emma Turri Company: City of Memphis & Shelby County Community Redevelopment Agency	Phone: 901-435-6992 Email: emma.turri@cramemphis.org	
<b>Site Name</b>	2 <sup>nd</sup> & Chelsea Pinball Palace Site		
<b>Site Address</b>	165 Chelsea Street, Memphis, TN 38107		
<b>Point of Contact for Access</b>	Name: Emma Turri Company: City of Memphis & Shelby County Community Redevelopment Agency	Phone: 901-435-6992 Email: emma.turri@cramemphis.org	
<b>Access Restrictions or Special Site Requirements?</b>	<input checked="" type="checkbox"/> No <input type="checkbox"/> Yes (If yes, please explain)		
<b>Confidentiality Requirements?</b>	<input checked="" type="checkbox"/> No <input type="checkbox"/> Yes (If yes, please explain)		
<b>Current Site Owner</b>	Name: City of Memphis & Shelby County Company: Community Redevelopment Agency	Phone: 901-435-6992 Email: info@cramemphis.org	
<b>Current Site Operator</b>	Name: Vacant land, no current operator or structures Company:	Phone: Email:	
<b>Reasons for ESA (e.g., financing, acquisition, lease, etc.)</b>	Future development planned, site to be issued in published Request for Proposal to interested developers		
<b>Anticipated Future Site Use</b>	Residential, Mixed Use, Multifamily		
<b>Relevant Documents?</b>	Please provide Terracon copies of prior Phase I or II ESAs, Asbestos Surveys, Environmental Permits or Audit documents, Underground Storage Tank documents, Geotechnical Investigations, Site Surveys, Diagrams or Maps, or other relevant reports or documents.		

## ASTM User Questionnaire

To qualify for one of the *Landowner Liability Protections (LLPs)* offered by the Small Business Liability Relief and Brownfields Revitalization Act of 2001 (the "*Brownfields Amendments*"), the user must respond to the following inquiries required by 40 C.F.R. §§ 312.25, 312.28, 312.29, 312.30, and 312.31. These inquiries must also be conducted by EPA Brownfield Assessment and Characterization grantees. The user should provide the following information to the *environmental professional*. Failure to conduct these inquiries could result in a determination that "*all appropriate inquiries*" is not complete.

1) Did a search of land title records (or judicial records where appropriate) identify any environmental liens filed or recorded against the site under federal, tribal, state, or local law (40 CFR 312.25)? See comments below  
 No  Yes (If yes, explain below and send Terracon a copy of the title records or judicial records reviewed.)

2) Did a search of land title records (or judicial records where appropriate) identify any activity and use limitations (AULs), such as engineering controls, land use restrictions, or institutional controls that are in place at the site and/or have been filed or recorded against the site under federal, tribal, state, or local law (40 CFR 312.26)? See comments below  
 No  Yes (If yes, explain below and send Terracon a copy of the title records or judicial records reviewed.)

3) Do you have any specialized knowledge or experience related to the site or nearby properties? For example, are you involved in the same line of business as the current or former occupants of the site or an adjoining property so that you would have specialized knowledge of the chemicals and processes used by this type of business (40 CFR 312-28)?  
 No  Yes (If yes, explain below) See previous environmental reports provided to Terracon

4) Do you have actual knowledge of a lower purchase price because contamination is known or believed to be present at the site (40 CFR 312.29)?  
 No  Yes  Not applicable (If yes or Not applicable, explain below) See comments below

5) Are you aware of commonly known or reasonably ascertainable information about the site that would help the environmental professional to identify conditions indicative of releases or threatened releases (40 CFR 312.30)? For example, (a.) Do you know the past uses of the site? (b.) Do you know of specific chemicals that are present or once were present at the site? (c.) Do you know of spills or other chemical releases that have taken place at the site? (d.) Do you know of any environmental cleanups that have taken place at the site?  
 No  Yes (If yes, explain below) See previous environmental reports provided to Terracon

6) Based on your knowledge and experience related to the site, are there any obvious indicators that point to the presence or likely presence of releases at the site (40 CFR 312.31)?  
 No  Yes (If yes, explain below) See previous environmental reports provided to Terracon

**Comments or explanations:** 1) Failed WTKFWSA  
 2) To be performed by Terracon  
 4) CRA acting in their sovereign capacity, took title via quick claim deed as we act as a receiver in such circumstances as the local redevelopment authority

Please return this form with the signed authorization to proceed.

Proposal No. PA8247072

Former Wayne's Pinball Palace  
167 Chelsea Avenue  
Memphis, TN 38107

Inquiry Number: 7802112.4

October 24, 2024

# EDR Historical Topo Map Report

with QuadMatch™



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



# EDR Historical Topo Map Report

10/24/24

**Site Name:**

Former Wayne's Pinball Palace  
167 Chelsea Avenue  
Memphis, TN 38107  
EDR Inquiry # 7802112.4

**Client Name:**

Terracon, Inc.  
5217 Linbar Drive  
Nashville, TN 37211-1018  
Contact: Audrey Price



EDR Topographic Map Library has been searched by EDR and maps covering the target property location as provided by Terracon, Inc. were identified for the years listed below. EDR's Historical Topo Map Report is designed to assist professionals in evaluating potential liability on a target property resulting from past activities. EDR's Historical Topo Map Report includes a search of a collection of public and private color historical topographic maps, dating back to the late 1800s.

**Search Results:****Coordinates:**

<b>P.O.#</b>	NA	<b>Latitude:</b>	35.163268 35° 9' 48" North
<b>Project:</b>	A8247004-3	<b>Longitude:</b>	-90.043696 -90° 2' 37" West
		<b>UTM Zone:</b>	Zone 15 North
		<b>UTM X Meters:</b>	769271.24
		<b>UTM Y Meters:</b>	3895151.94
		<b>Elevation:</b>	246.79' above sea level

**Maps Provided:**

2022	1960
2019	1955
2016	1940
2013	1939
1997	1927
1993	1925
1973	1916
1965	

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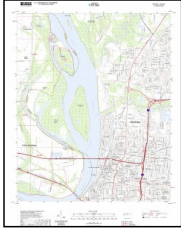
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## ***Topo Sheet Key***

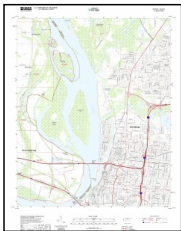
This EDR Topo Map Report is based upon the following USGS topographic map sheets.

### **2022 Source Sheets**



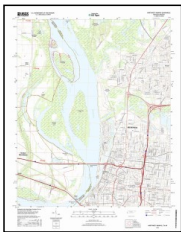
Northwest Memphis  
2022  
7.5-minute, 24000

### **2019 Source Sheets**



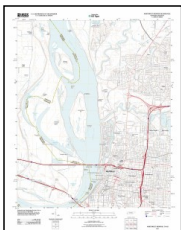
Northwest Memphis  
2019  
7.5-minute, 24000

### **2016 Source Sheets**



Northwest Memphis  
2016  
7.5-minute, 24000

### **2013 Source Sheets**

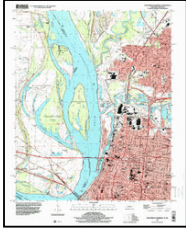


Northwest Memphis  
2013  
7.5-minute, 24000

## **Topo Sheet Key**

This EDR Topo Map Report is based upon the following USGS topographic map sheets.

### **1997 Source Sheets**



Northwest Memphis  
1997  
7.5-minute, 24000  
Aerial Photo Revised 1997

### **1993 Source Sheets**



Northwest Memphis  
1993  
7.5-minute, 24000  
Aerial Photo Revised 1990

### **1973 Source Sheets**



Northwest Memphis  
1973  
7.5-minute, 24000  
Aerial Photo Revised 1973

### **1965 Source Sheets**



Northwest Memphis  
1965  
7.5-minute, 24000  
Aerial Photo Revised 1963



## **Topo Sheet Key**

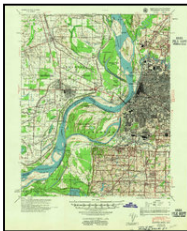
This EDR Topo Map Report is based upon the following USGS topographic map sheets.

### **1960 Source Sheets**



Memphis  
1960  
15-minute, 62500  
Aerial Photo Revised 1958

### **1955 Source Sheets**



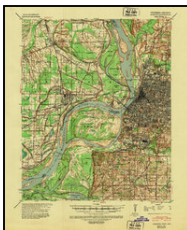
Memphis  
1955  
15-minute, 62500  
Aerial Photo Revised 1952

### **1940 Source Sheets**



MEMPHIS  
1940  
15-minute, 62500

### **1939 Source Sheets**



Memphis  
1939  
15-minute, 62500

## ***Topo Sheet Key***

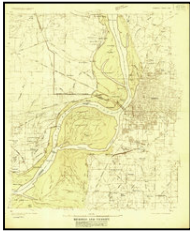
This EDR Topo Map Report is based upon the following USGS topographic map sheets.

### **1927 Source Sheets**



Memphis  
1927  
15-minute, 62500

### **1925 Source Sheets**

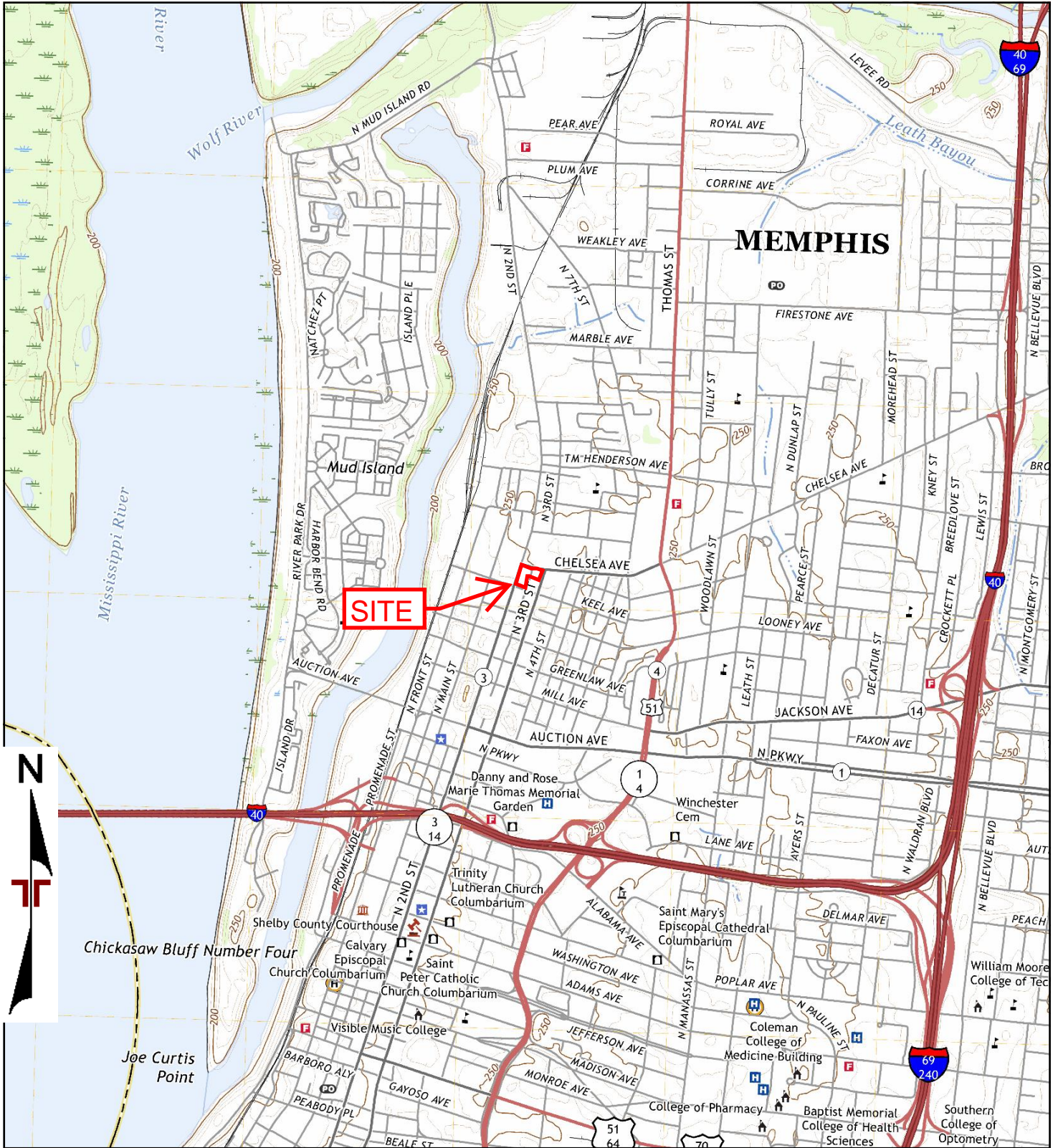


Memphis  
1925  
15-minute, 48000

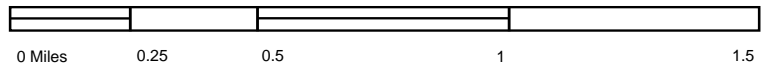
### **1916 Source Sheets**



Memphis  
1916  
15-minute, 62500



TP, Northwest Memphis, 2022, 7.5-minute



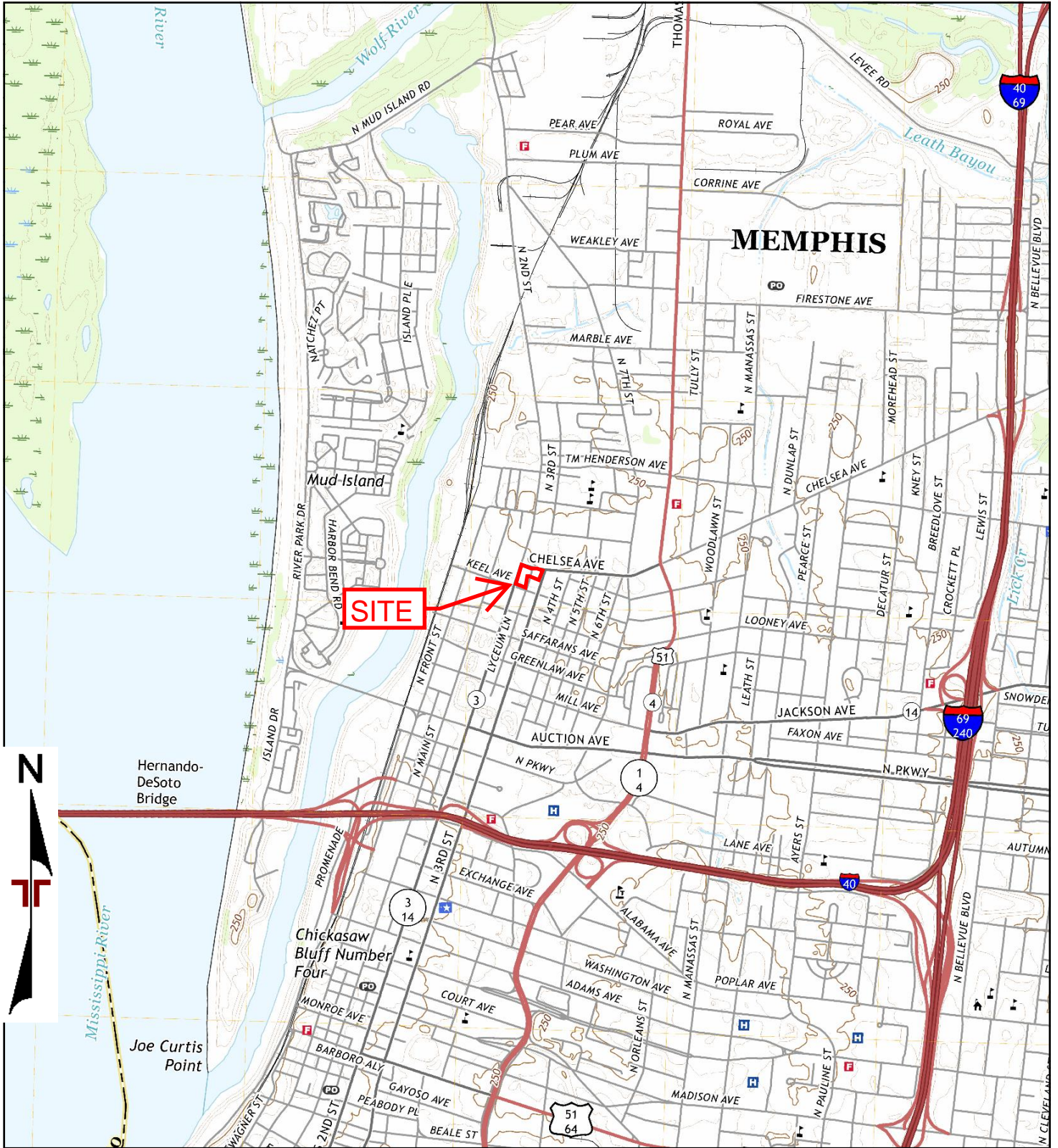
Project Manager:	Project No. A8247004-3
Drawn by:	Scale: As Shown
Checked by:	File Name:
Approved by:	Date: 2022

5217 Linbar Drive  
Nashville, TN 37211-1018

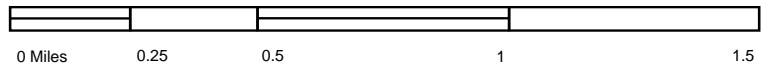
**2022 TOPOGRAPHIC MAP**  
**Former Wayne's Pinball Palace**  
 167 Chelsea Avenue  
 Memphis, TN 38107

Appendix  
  
**C**





TP, Northwest Memphis, 2019, 7.5-minute



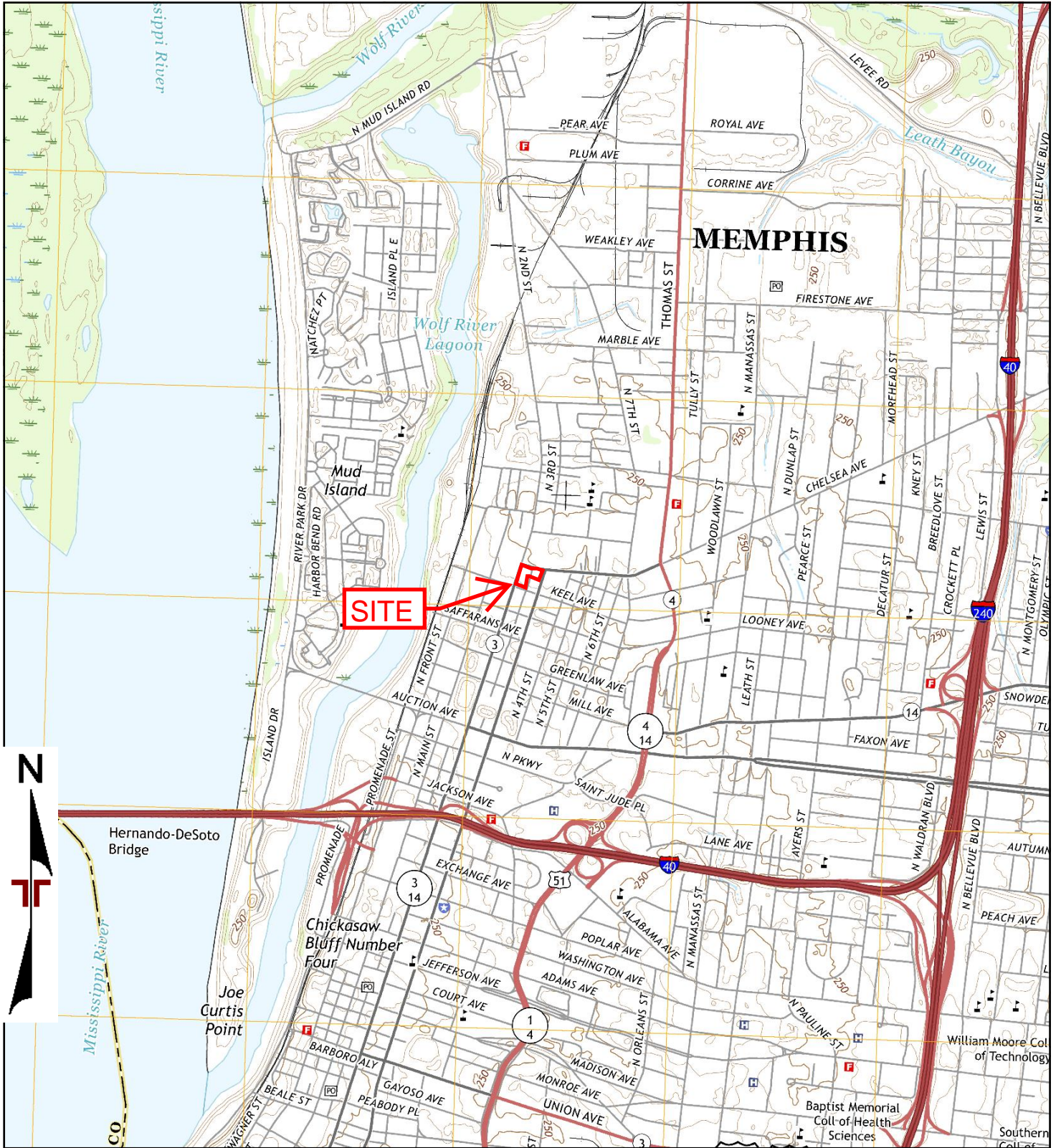
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Drawn by:	Scale: As Shown
Checked by:	File Name:
Approved by:	Date: 2019

5217 Linbar Drive  
Nashville, TN 37211-1018

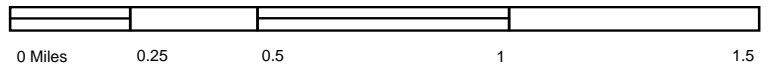
**2019 TOPOGRAPHIC MAP**  
**Former Wayne's Pinball Palace**  
 167 Chelsea Avenue  
 Memphis, TN 38107

Appendix
<b>C</b>





TP, Northwest Memphis, 2016, 7.5-minute



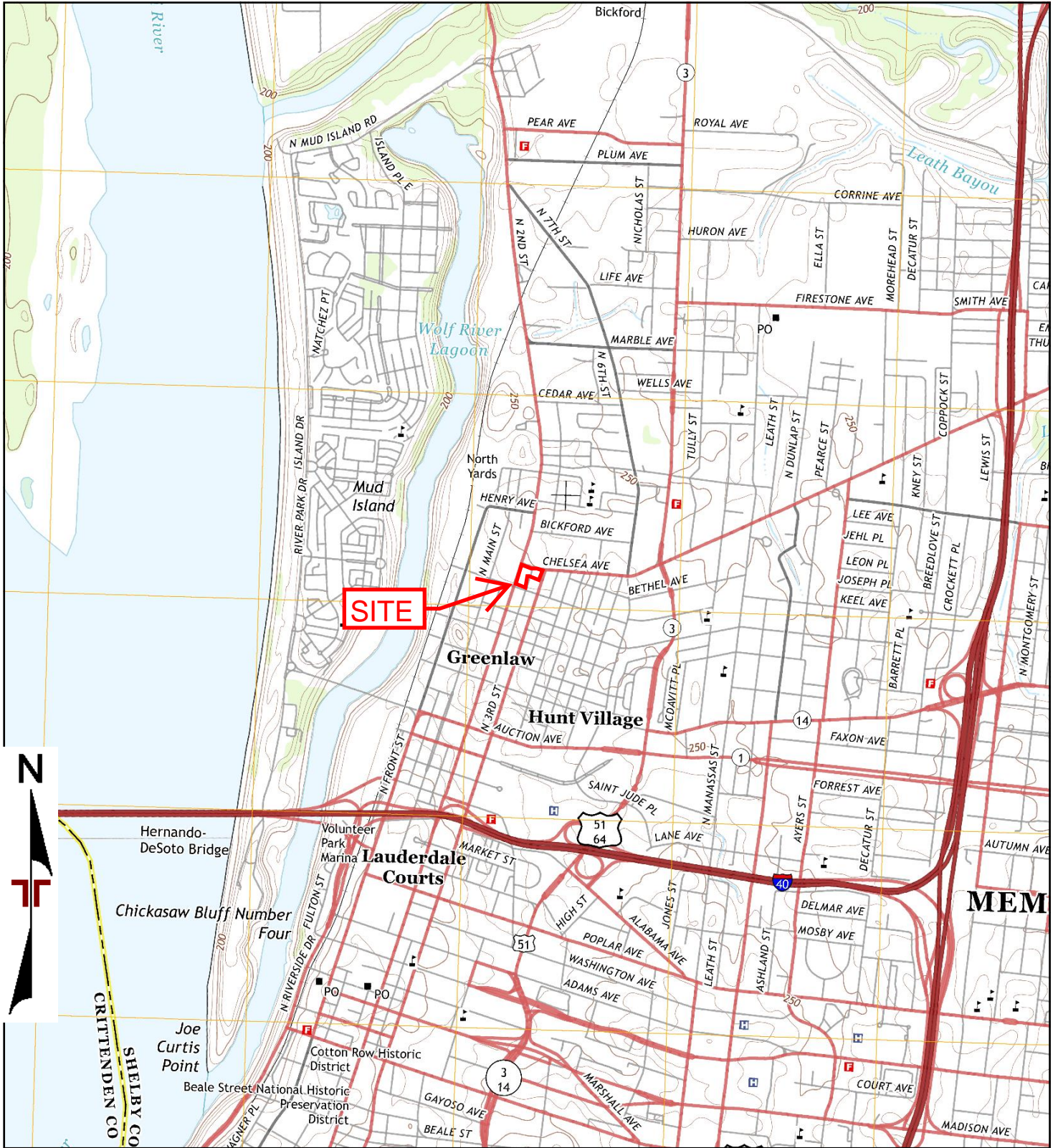
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Drawn by:	Scale: As Shown
Checked by:	File Name:
Approved by:	Date: 2016

5217 Linbar Drive  
Nashville, TN 37211-1018

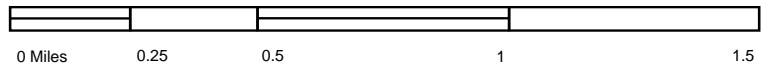
**2016 TOPOGRAPHIC MAP**  
**Former Wayne's Pinball Palace**  
 167 Chelsea Avenue  
 Memphis, TN 38107

Appendix  
  
**C**





TP, Northwest Memphis, 2013, 7.5-minute



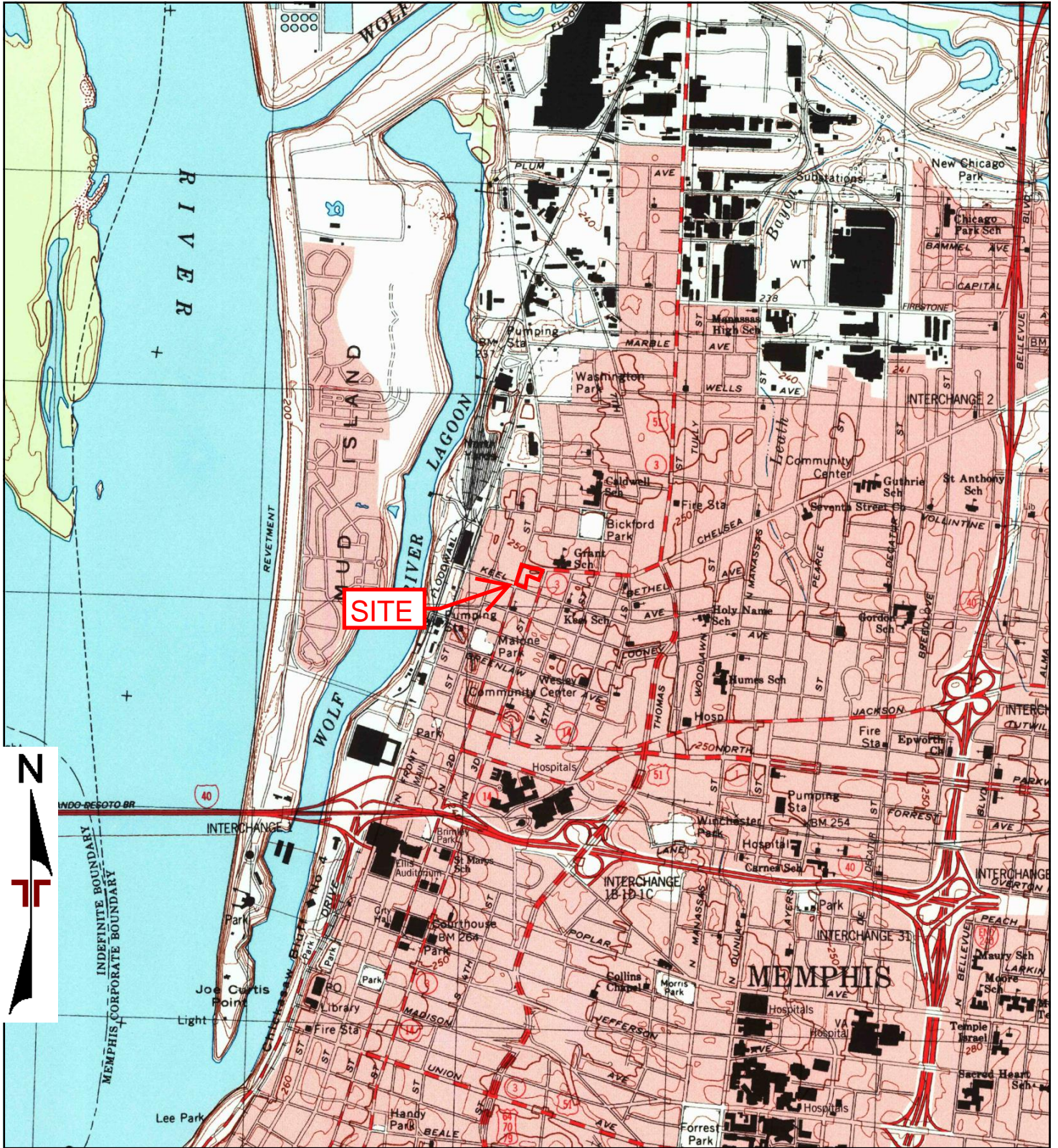
Project Manager:	Project No. A8247004-3
Drawn by:	Scale: As Shown
Checked by:	File Name:
Approved by:	Date: 2013

5217 Linbar Drive  
Nashville, TN 37211-1018

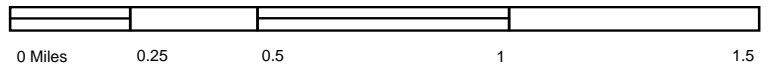
**2013 TOPOGRAPHIC MAP**  
**Former Wayne's Pinball Palace**  
 167 Chelsea Avenue  
 Memphis, TN 38107

Appendix
<b>C</b>






TP, Northwest Memphis, 1997, 7.5-minute



Project Manager:	Project No. A8247004-3
Drawn by:	Scale: As Shown
Checked by:	File Name:
Approved by:	Date: 1997

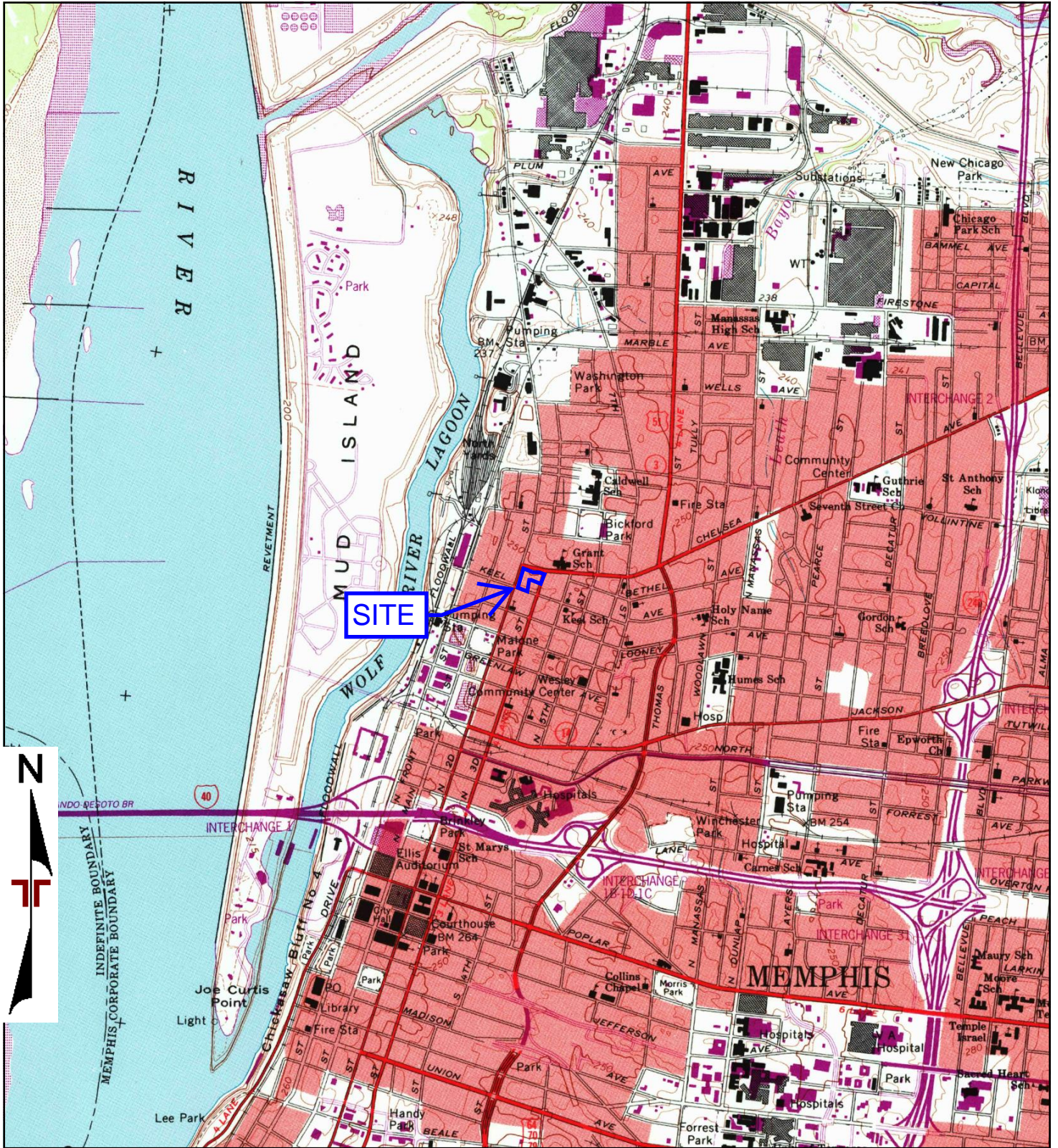


5217 Linbar Drive  
Nashville, TN 37211-1018

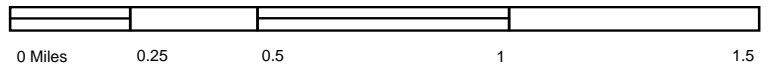
**1997 TOPOGRAPHIC MAP**  
Former Wayne's Pinball Palace  
167 Chelsea Avenue  
Memphis, TN 38107

Appendix
<b>C</b>





TP, Northwest Memphis, 1993, 7.5-minute



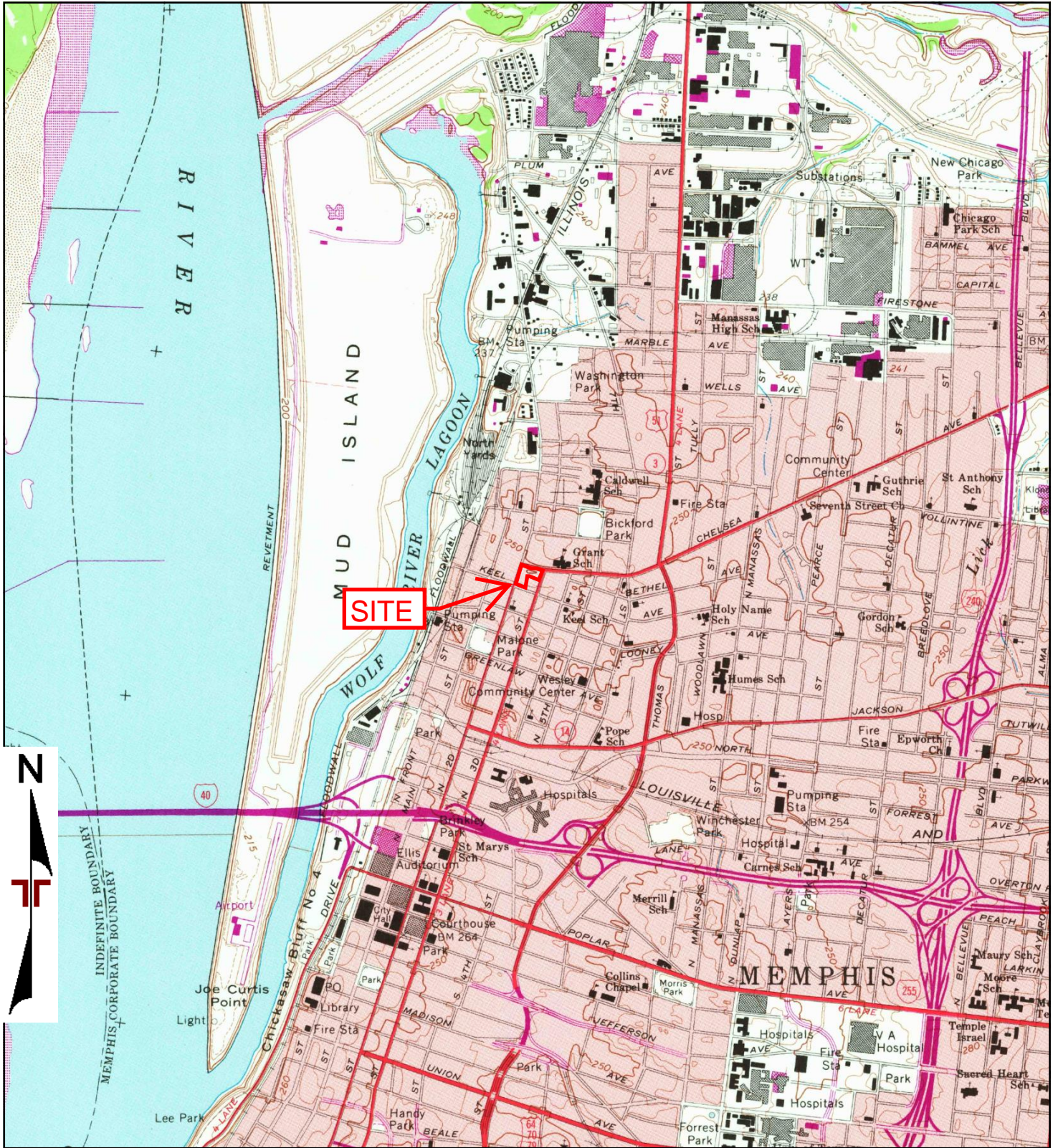
Project Manager:	Project No. A8247004-3
Drawn by:	Scale: As Shown
Checked by:	File Name:
Approved by:	Date: 1993

5217 Linbar Drive  
Nashville, TN 37211-1018

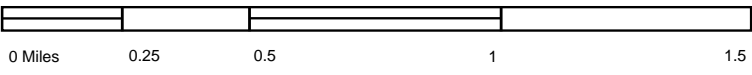
**1993 TOPOGRAPHIC MAP**  
**Former Wayne's Pinball Palace**  
 167 Chelsea Avenue  
 Memphis, TN 38107

Appendix
<b>C</b>





TP, Northwest Memphis, 1973, 7.5-minute



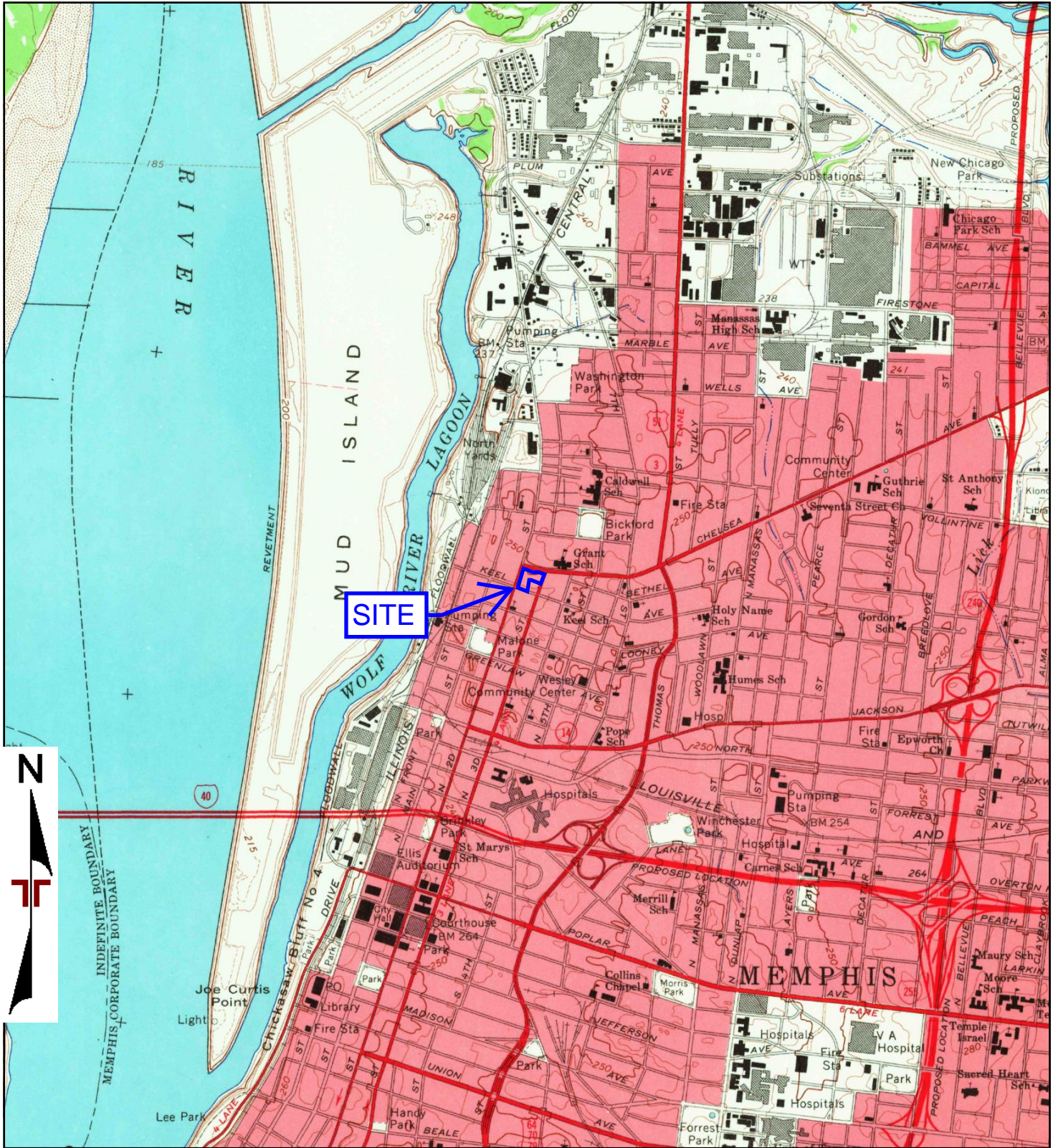
Project Manager:	Project No. A8247004-3
Drawn by:	Scale: As Shown
Checked by:	File Name:
Approved by:	Date: 1973

5217 Linbar Drive  
Nashville, TN 37211-1018

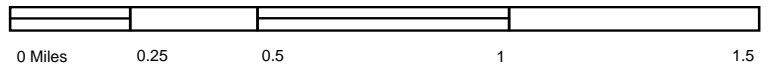
**1973 TOPOGRAPHIC MAP**  
**Former Wayne's Pinball Palace**  
 167 Chelsea Avenue  
 Memphis, TN 38107

Appendix
<b>C</b>






TP, Northwest Memphis, 1965, 7.5-minute



Project Manager:	Project No. A8247004-3
Drawn by:	Scale: As Shown
Checked by:	File Name:
Approved by:	Date: 1965

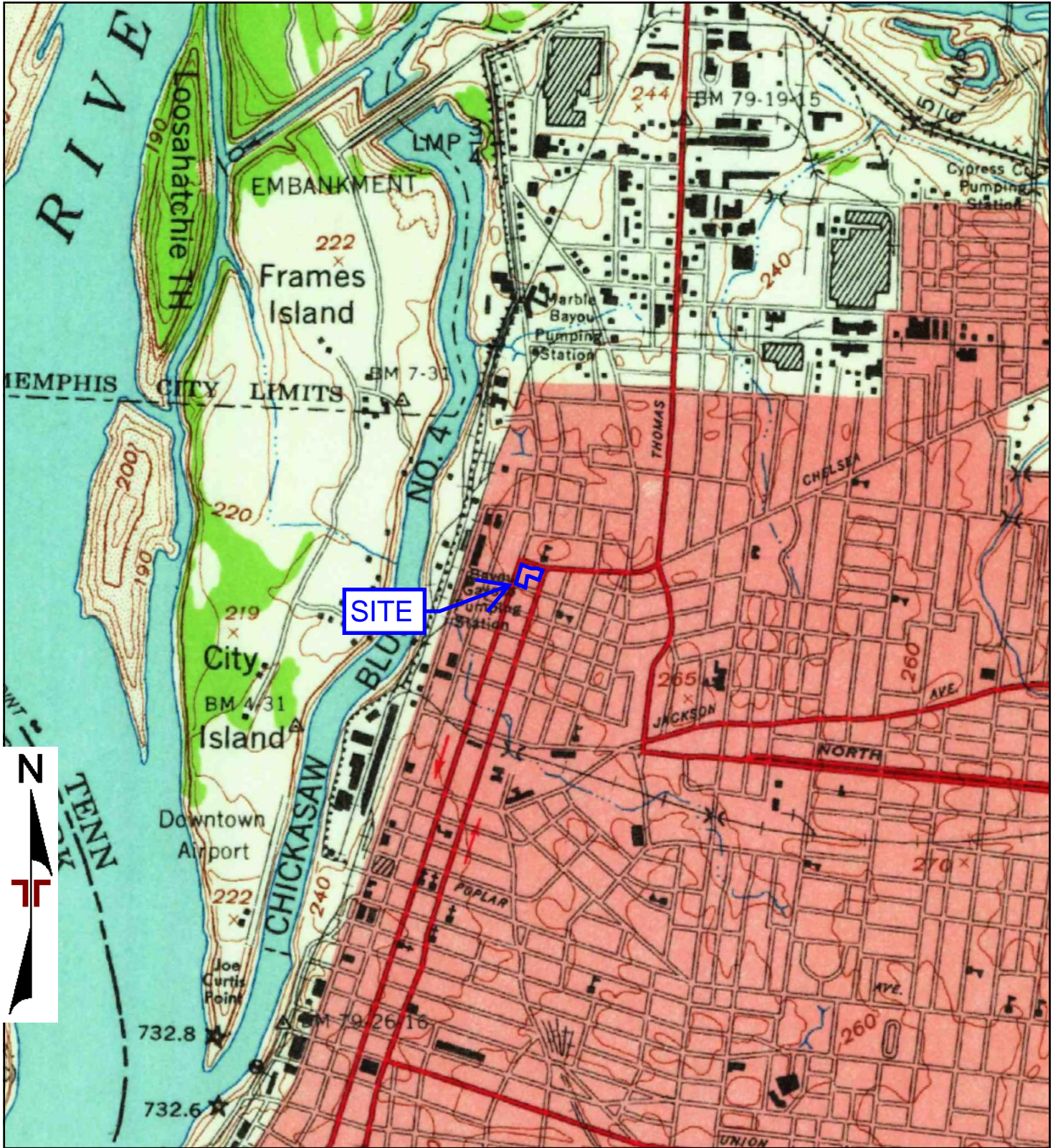


5217 Linbar Drive  
Nashville, TN 37211-1018

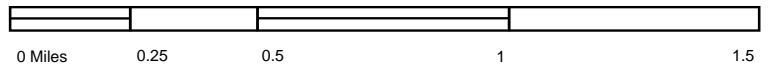
**1965 TOPOGRAPHIC MAP**  
**Former Wayne's Pinball Palace**  
 167 Chelsea Avenue  
 Memphis, TN 38107

Appendix
<b>C</b>






TP, Memphis, 1960, 15-minute



Project Manager:	Project No. A8247004-3
Drawn by:	Scale: As Shown
Checked by:	File Name:
Approved by:	Date: 1960



5217 Linbar Drive  
Nashville, TN 37211-1018

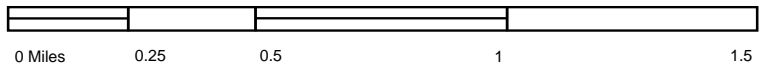
**1960 TOPOGRAPHIC MAP**  
Former Wayne's Pinball Palace  
167 Chelsea Avenue  
Memphis, TN 38107

Appendix
<b>C</b>






TP, Memphis, 1955, 15-minute



Project Manager:	Project No. A8247004-3
Drawn by:	Scale: As Shown
Checked by:	File Name:
Approved by:	Date: 1955



5217 Linbar Drive  
Nashville, TN 37211-1018

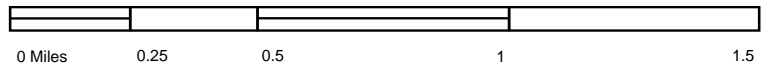
1955 TOPOGRAPHIC MAP  
Former Wayne's Pinball Palace  
167 Chelsea Avenue  
Memphis, TN 38107

Appendix
<b>C</b>






TP, MEMPHIS, 1940, 15-minute



Project Manager:	Project No. A8247004-3
Drawn by:	Scale: As Shown
Checked by:	File Name:
Approved by:	Date: 1940

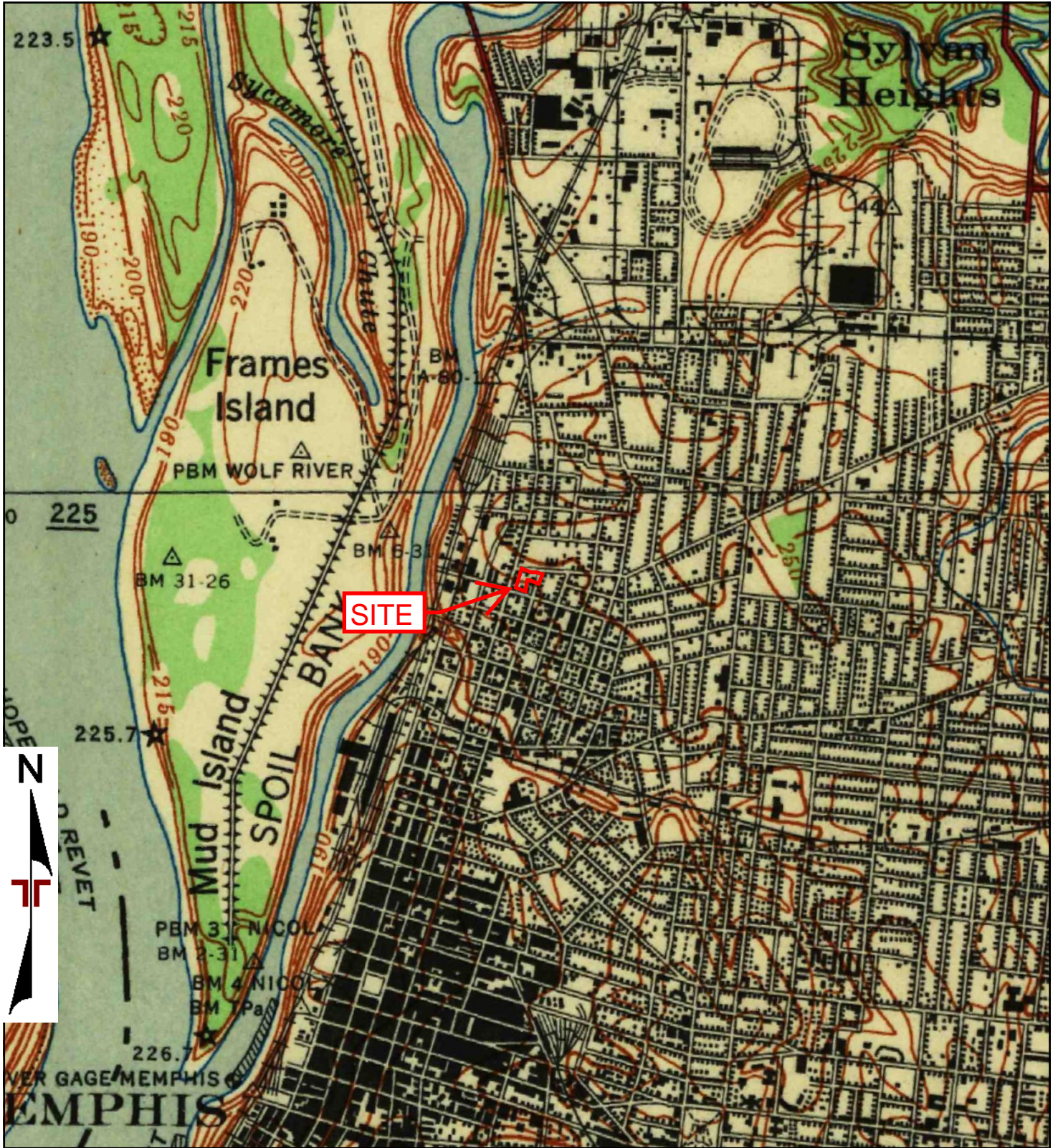


5217 Linbar Drive  
Nashville, TN 37211-1018

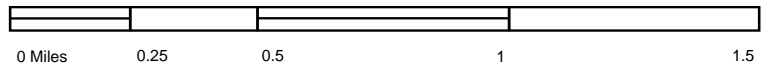
1940 TOPOGRAPHIC MAP  
Former Wayne's Pinball Palace  
167 Chelsea Avenue  
Memphis, TN 38107

Appendix  
**C**






TP, Memphis, 1939, 15-minute



Project Manager:	Project No. A8247004-3
Drawn by:	Scale: As Shown
Checked by:	File Name:
Approved by:	Date: 1939

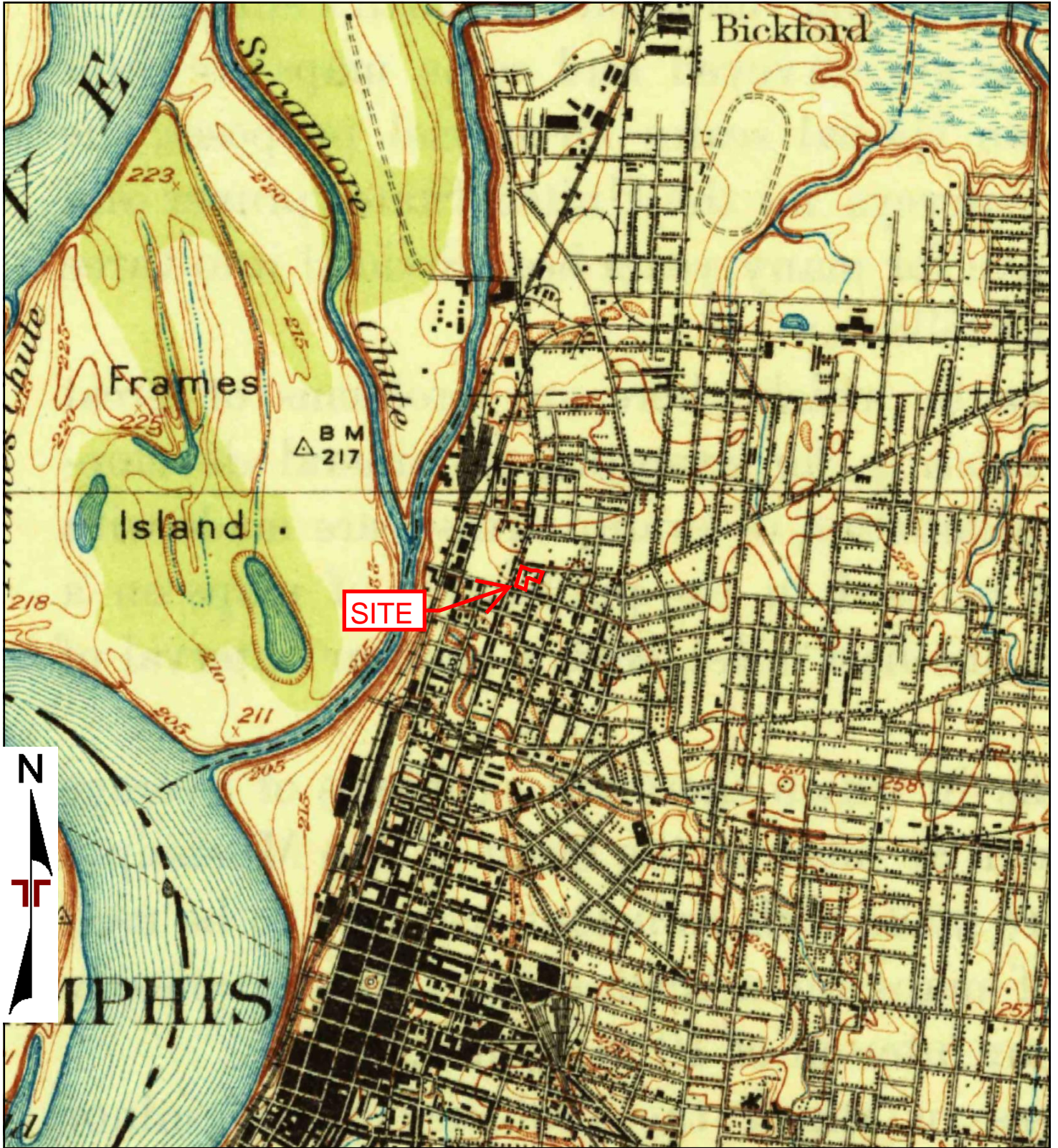


5217 Linbar Drive  
Nashville, TN 37211-1018

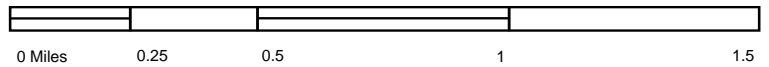
1939 TOPOGRAPHIC MAP  
Former Wayne's Pinball Palace  
167 Chelsea Avenue  
Memphis, TN 38107

Appendix
C






TP, Memphis, 1927, 15-minute



Project Manager:	Project No. A8247004-3
Drawn by:	Scale: As Shown
Checked by:	File Name:
Approved by:	Date: 1927

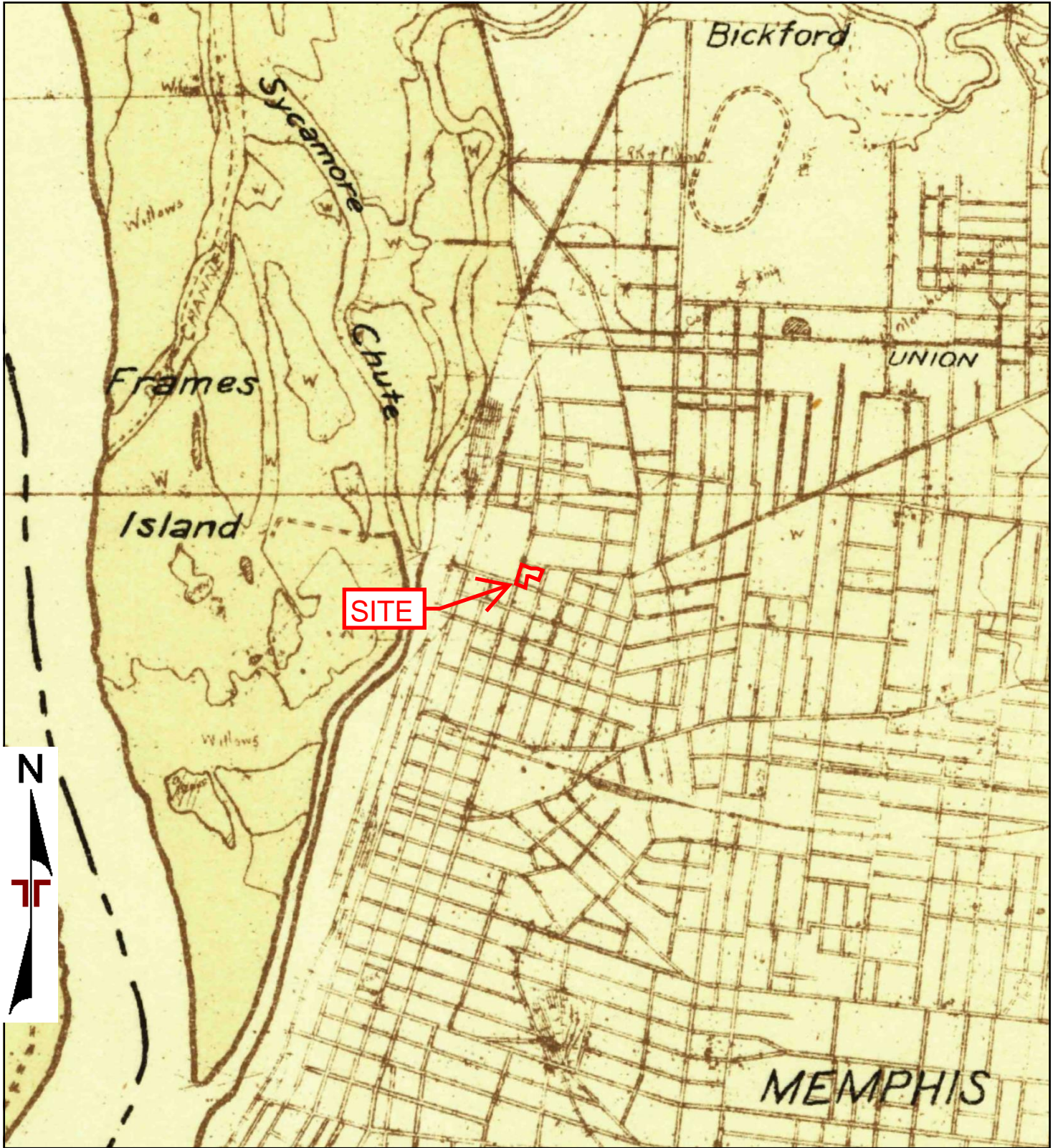


5217 Linbar Drive  
Nashville, TN 37211-1018

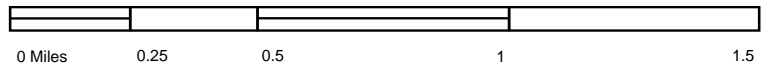
**1927 TOPOGRAPHIC MAP**  
Former Wayne's Pinball Palace  
167 Chelsea Avenue  
Memphis, TN 38107

Appendix
<b>C</b>






TP, Memphis, 1925, 15-minute



Project Manager:	Project No. A8247004-3
Drawn by:	Scale: As Shown
Checked by:	File Name:
Approved by:	Date: 1925



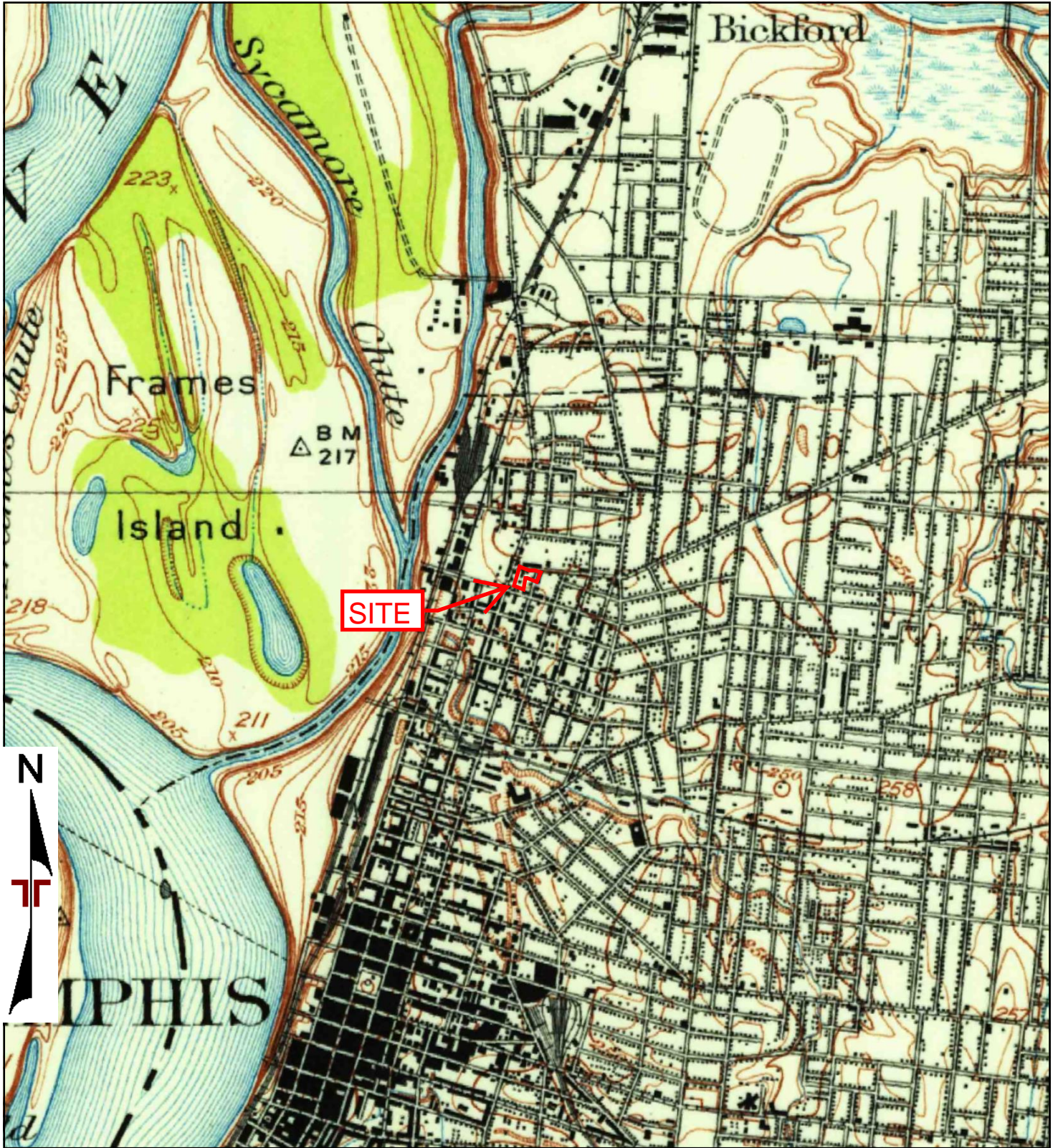
5217 Linbar Drive  
Nashville, TN 37211-1018

1925 TOPOGRAPHIC MAP

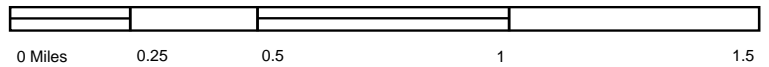
Former Wayne's Pinball Palace  
167 Chelsea Avenue  
Memphis, TN 38107

Appendix
C






TP, Memphis, 1916, 15-minute



Project Manager:	Project No. A8247004-3
Drawn by:	Scale: As Shown
Checked by:	File Name:
Approved by:	Date: 1916



5217 Linbar Drive  
Nashville, TN 37211-1018

1916 TOPOGRAPHIC MAP  
Former Wayne's Pinball Palace  
167 Chelsea Avenue  
Memphis, TN 38107

Appendix
C





**Former Wayne's Pinball Palace**

167 Chelsea Avenue

Memphis, TN 38107

Inquiry Number: 7802112.8

October 24, 2024

# The EDR Aerial Photo Decade Package



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

# EDR Aerial Photo Decade Package

10/24/24

**Site Name:**

Former Wayne's Pinball Palace  
167 Chelsea Avenue  
Memphis, TN 38107  
EDR Inquiry # 7802112.8

**Client Name:**

Terracon, Inc.  
5217 Linbar Drive  
Nashville, TN 37211-1018  
Contact: Audrey Price



Environmental Data Resources, Inc. (EDR) Aerial Photo Decade Package is a screening tool designed to assist environmental professionals in evaluating potential liability on a target property resulting from past activities. EDR's professional researchers provide digitally reproduced historical aerial photographs, and when available, provide one photo per decade.

**Search Results:**

<u>Year</u>	<u>Scale</u>	<u>Details</u>	<u>Source</u>
2018	1"=500'	Flight Year: 2018	USDA/NAIP
2014	1"=500'	Flight Year: 2014	USDA/NAIP
2010	1"=500'	Flight Year: 2010	USDA/NAIP
2007	1"=500'	Flight Year: 2007	USDA/NAIP
1997	1"=500'	Acquisition Date: January 29, 1997	USGS/DOQQ
1994	1"=500'	Flight Date: February 01, 1994	USGS
1985	1"=500'	Flight Date: June 10, 1985	NHAP
1980	1"=500'	Flight Date: November 01, 1980	USDA
1973	1"=500'	Flight Date: March 01, 1973	USGS
1971	1"=500'	Flight Date: November 07, 1971	USDA
1965	1"=500'	Flight Date: September 27, 1965	USDA
1963	1"=500'	Flight Date: March 08, 1963	USGS
1958	1"=500'	Flight Date: January 09, 1958	USDA
1953	1"=500'	Flight Date: October 12, 1953	USDA
1937	1"=500'	Flight Date: October 16, 1937	USDA

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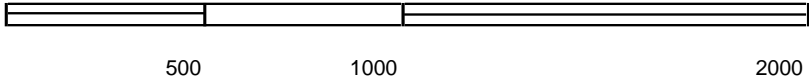
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Project Manager:	Project No: A8247004-3
Drawn By:	Scale: As Shown
Checked By:	File Name:
Approved By:	Date: 2018

5217 Linbar Drive  
Nashville, TN 37211-1018

2018 AERIAL PHOTOGRAPH  
Former Wayne's Pinball Palace  
167 Chelsea Avenue  
Memphis, TN 38107

Appendix
C





0 Feet

500

1000

2000

Project Manager:	Project No: A8247004-3
Drawn By:	Scale: As Shown
Checked By:	File Name:
Approved By:	Date: 2014

5217 Linbar Drive  
Nashville, TN 37211-1018

2014 AERIAL PHOTOGRAPH  
Former Wayne's Pinball Palace  
167 Chelsea Avenue  
Memphis, TN 38107


Appendix  
**C**





0 Feet                      500                      1000                      2000

Project Manager:	Project No: A8247004-3
Drawn By:	Scale: As Shown
Checked By:	File Name:
Approved By:	Date: 2010



5217 Linbar Drive  
Nashville, TN 37211-1018

2010 AERIAL PHOTOGRAPH  
Former Wayne's Pinball Palace  
167 Chelsea Avenue  
Memphis, TN 38107

Appendix
C





0 Feet                      500                      1000                      2000

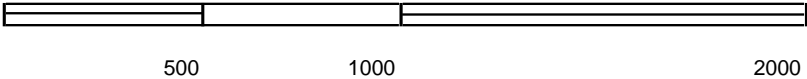
Project Manager:	Project No: A8247004-3
Drawn By:	Scale: As Shown
Checked By:	File Name:
Approved By:	Date: 2007

5217 Linbar Drive  
Nashville, TN 37211-1018

2007 AERIAL PHOTOGRAPH  
Former Wayne's Pinball Palace  
167 Chelsea Avenue  
Memphis, TN 38107

Appendix
C





Project Manager:	Project No: A8247004-3
Drawn By:	Scale: As Shown
Checked By:	File Name:
Approved By:	Date: 1997

5217 Linbar Drive  
Nashville, TN 37211-1018

1997 AERIAL PHOTOGRAPH  
Former Wayne's Pinball Palace  
167 Chelsea Avenue  
Memphis, TN 38107

Appendix
C





**SITE**



0 Feet

500

1000

2000

Project Manager:	Project No: A8247004-3
Drawn By:	Scale: As Shown
Checked By:	File Name:
Approved By:	Date: 1994

5217 Linbar Drive  
Nashville, TN 37211-1018

1994 AERIAL PHOTOGRAPH  
Former Wayne's Pinball Palace  
167 Chelsea Avenue  
Memphis, TN 38107

Appendix  
**C**






**SITE**



0 Feet                      500                      1000                      2000

Project Manager:	Project No: A8247004-3
Drawn By:	Scale: As Shown
Checked By:	File Name:
Approved By:	Date: 1985

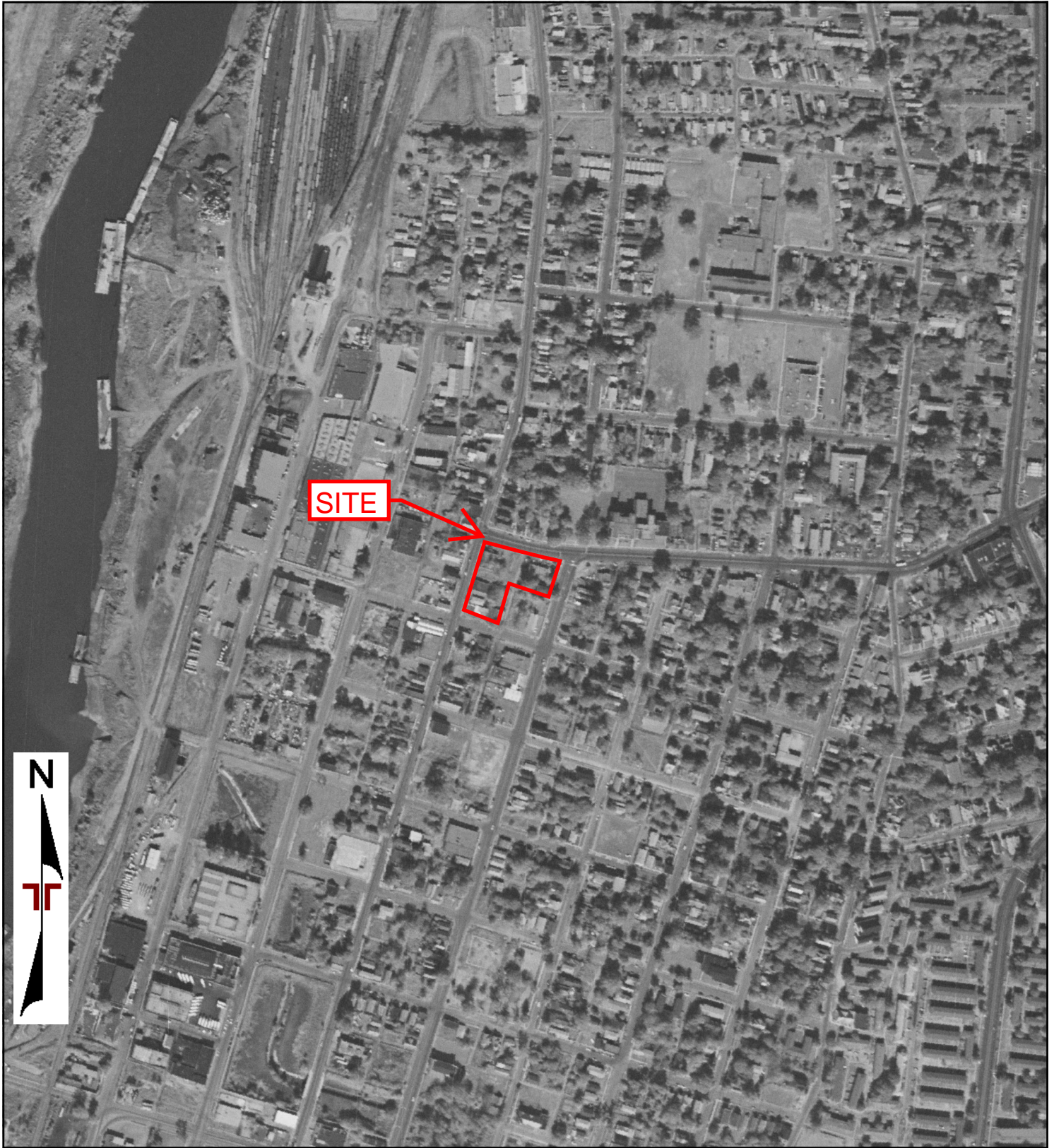


5217 Linbar Drive  
Nashville, TN 37211-1018

1985 AERIAL PHOTOGRAPH  
Former Wayne's Pinball Palace  
167 Chelsea Avenue  
Memphis, TN 38107

Appendix
<b>C</b>






0 Feet

500

1000

2000

Project Manager:	Project No: A8247004-3
Drawn By:	Scale: As Shown
Checked By:	File Name:
Approved By:	Date: 1980



5217 Linbar Drive  
Nashville, TN 37211-1018

1980 AERIAL PHOTOGRAPH  
Former Wayne's Pinball Palace  
167 Chelsea Avenue  
Memphis, TN 38107

Appendix  
  
C






0 Feet

500

1000

2000

Project Manager:	Project No: A8247004-3
Drawn By:	Scale: As Shown
Checked By:	File Name:
Approved By:	Date: 1973

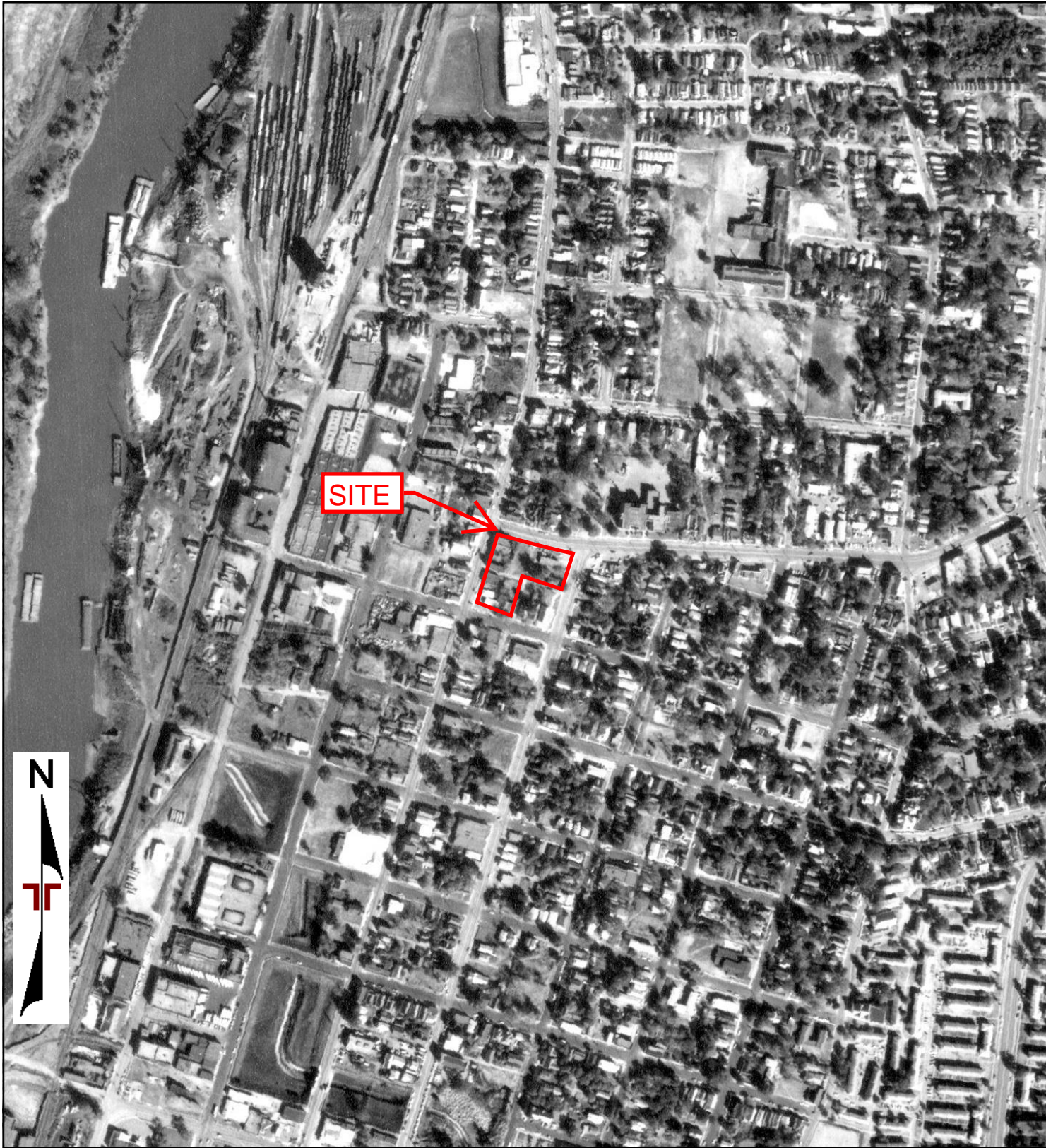


5217 Linbar Drive  
Nashville, TN 37211-1018

1973 AERIAL PHOTOGRAPH  
Former Wayne's Pinball Palace  
167 Chelsea Avenue  
Memphis, TN 38107


Appendix  
  
C





0 Feet 500 1000 2000

Project Manager:	Project No: A8247004-3
Drawn By:	Scale: As Shown
Checked By:	File Name:
Approved By:	Date: 1971

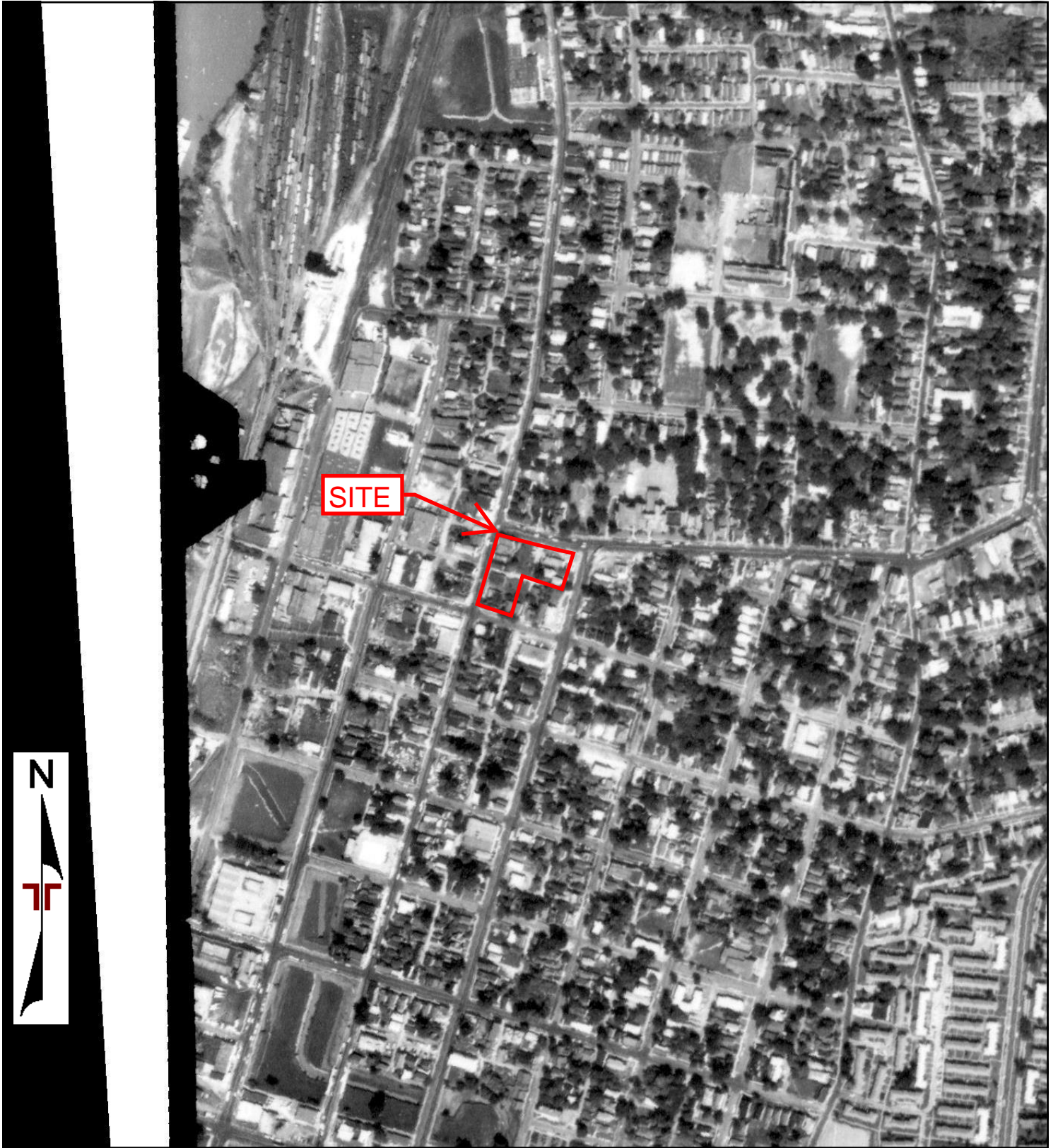


5217 Linbar Drive  
Nashville, TN 37211-1018

1971 AERIAL PHOTOGRAPH  
Former Wayne's Pinball Palace  
167 Chelsea Avenue  
Memphis, TN 38107

Appendix  
  
C






0 Feet

500

1000

2000

Project Manager:	Project No: A8247004-3
Drawn By:	Scale: As Shown
Checked By:	File Name:
Approved By:	Date: 1965

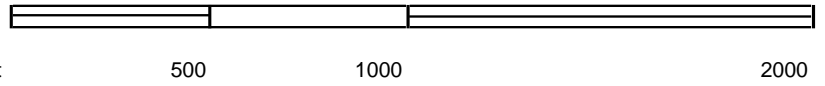
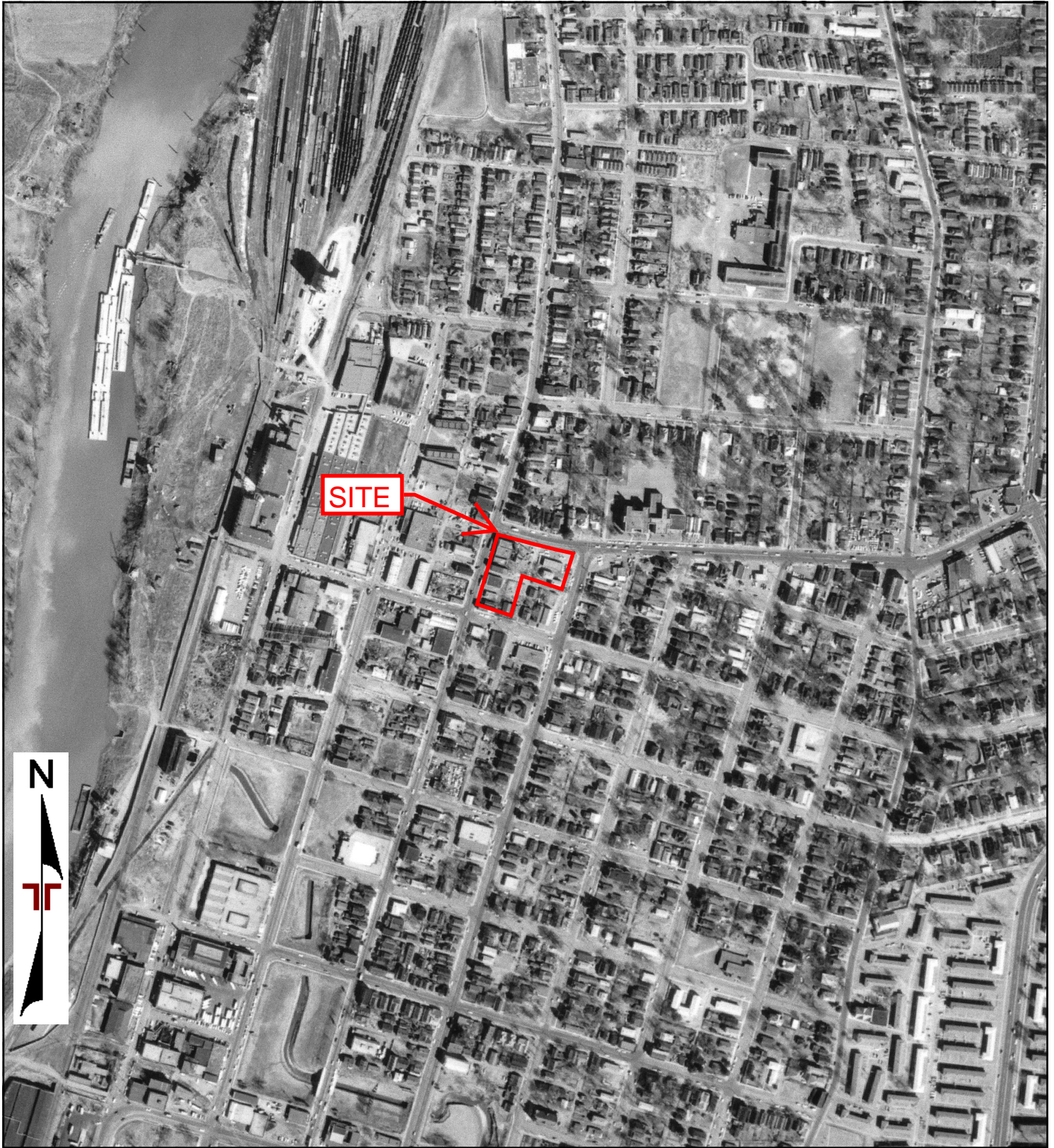


5217 Linbar Drive  
Nashville, TN 37211-1018

1965 AERIAL PHOTOGRAPH  
Former Wayne's Pinball Palace  
167 Chelsea Avenue  
Memphis, TN 38107

Appendix  
  
C





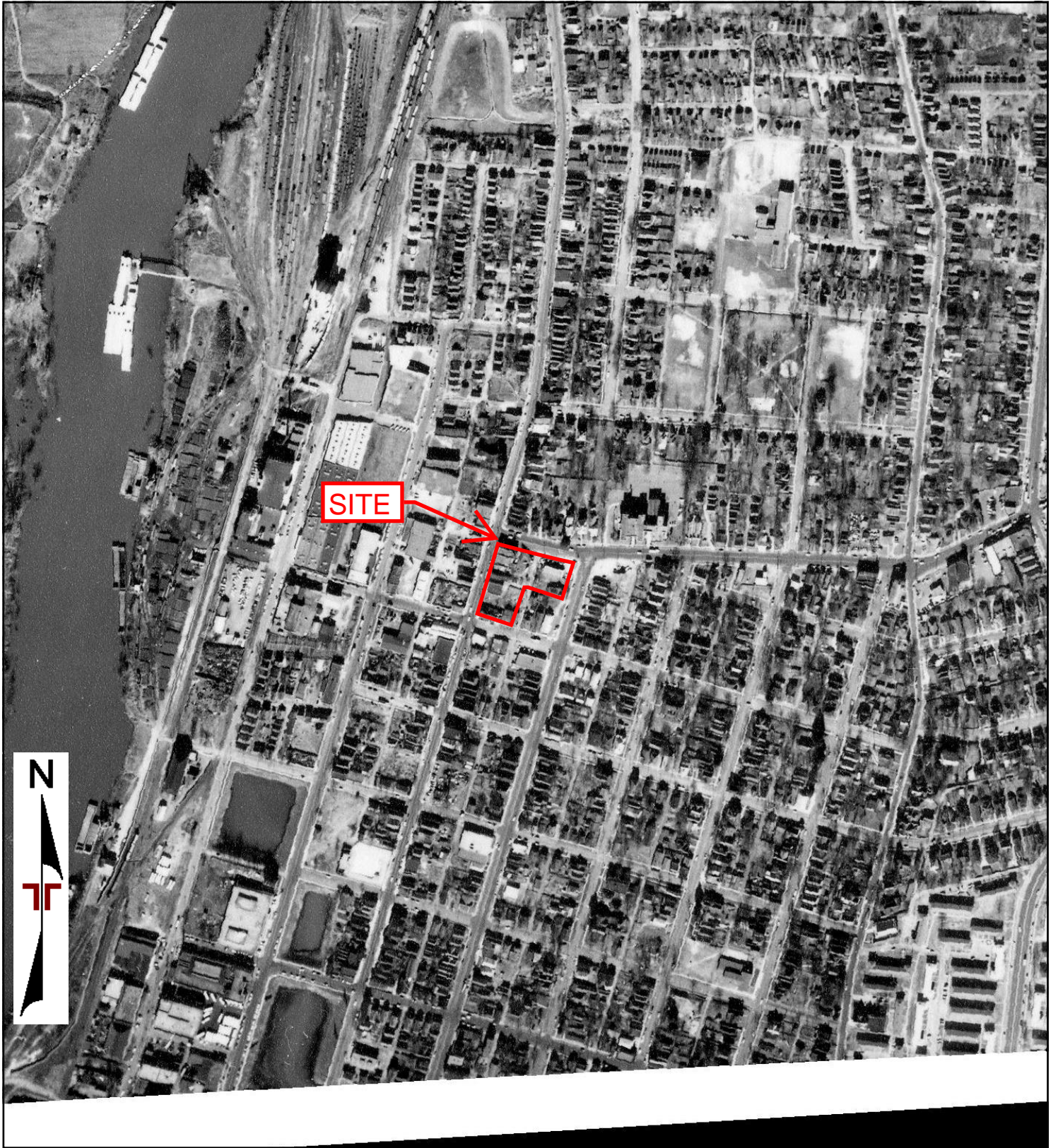
Project Manager:	Project No: A8247004-3
Drawn By:	Scale: As Shown
Checked By:	File Name:
Approved By:	Date: 1963

5217 Linbar Drive  
Nashville, TN 37211-1018

1963 AERIAL PHOTOGRAPH  
Former Wayne's Pinball Palace  
167 Chelsea Avenue  
Memphis, TN 38107


Appendix
C





0 Feet 500 1000 2000

Project Manager:	Project No: A8247004-3
Drawn By:	Scale: As Shown
Checked By:	File Name:
Approved By:	Date: 1958



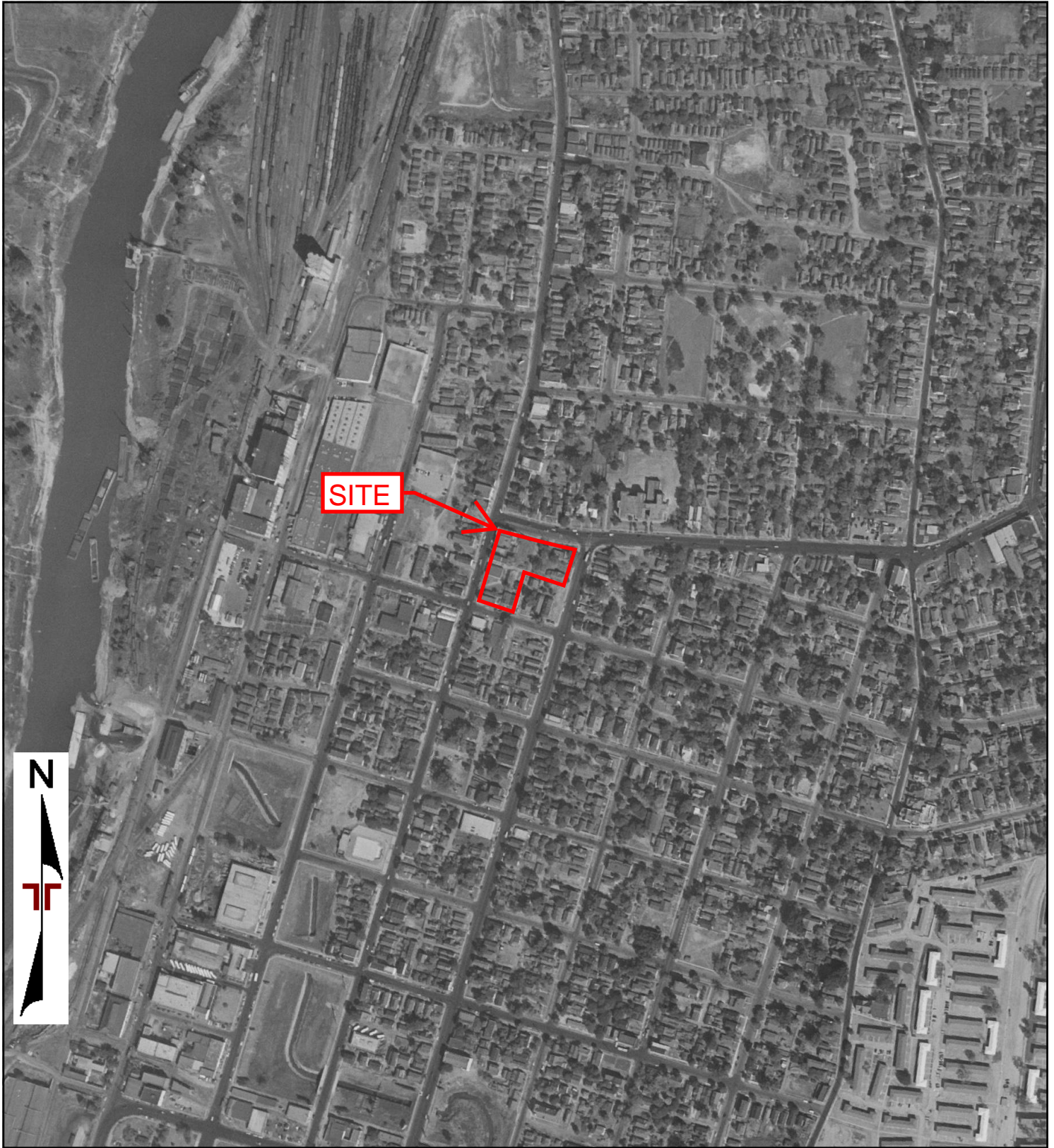
5217 Linbar Drive  
Nashville, TN 37211-1018

1958 AERIAL PHOTOGRAPH

Former Wayne's Pinball Palace  
167 Chelsea Avenue  
Memphis, TN 38107

Appendix
C






0 Feet

500

1000

2000

Project Manager:	Project No: A8247004-3
Drawn By:	Scale: As Shown
Checked By:	File Name:
Approved By:	Date: 1953

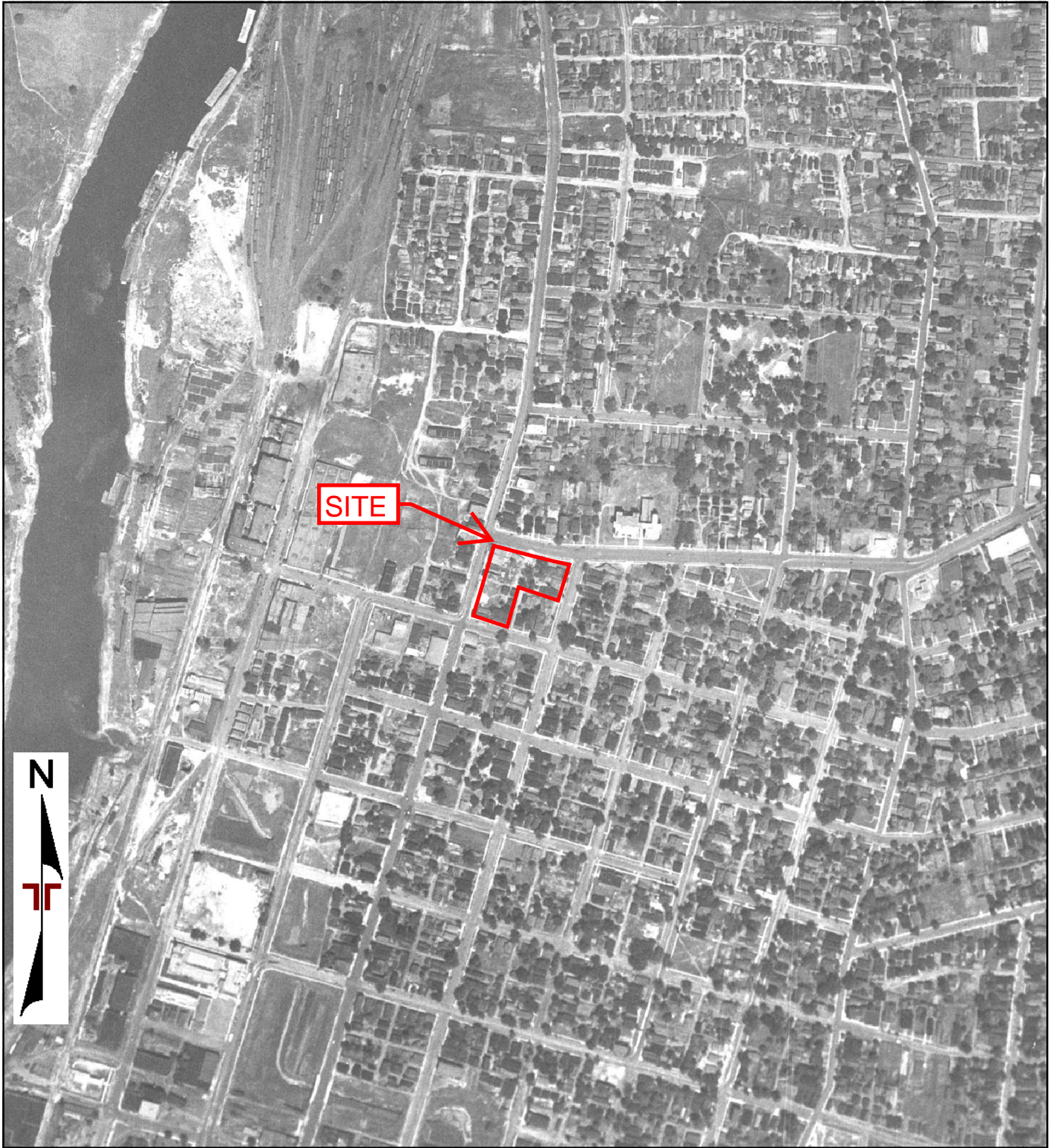


5217 Linbar Drive  
Nashville, TN 37211-1018

1953 AERIAL PHOTOGRAPH  
Former Wayne's Pinball Palace  
167 Chelsea Avenue  
Memphis, TN 38107

Appendix  
  
C






0 Feet

500

1000

2000

Project Manager:	Project No: A8247004-3
Drawn By:	Scale: As Shown
Checked By:	File Name:
Approved By:	Date: 1937



5217 Linbar Drive  
Nashville, TN 37211-1018

1937 AERIAL PHOTOGRAPH

Former Wayne's Pinball Palace  
167 Chelsea Avenue  
Memphis, TN 38107

Appendix
C

Former Wayne's Pinball Palace

167 Chelsea Avenue

Memphis, TN 38107

Inquiry Number: 7802112.3

October 24, 2024

## Certified Sanborn® Map Report



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



# Certified Sanborn® Map Report

10/24/24

**Site Name:**

Former Wayne's Pinball Palace  
167 Chelsea Avenue  
Memphis, TN 38107  
EDR Inquiry # 7802112.3

**Client Name:**

Terracon, Inc.  
5217 Linbar Drive  
Nashville, TN 37211-1018  
Contact: Audrey Price



The Sanborn Library has been searched by EDR and maps covering the target property location as provided by Terracon, Inc. were identified for the years listed below. The Sanborn Library is the largest, most complete collection of fire insurance maps. The collection includes maps from Sanborn, Bromley, Perris & Browne, Hopkins, Barlow, and others. Only Environmental Data Resources Inc. (EDR) is authorized to grant rights for commercial reproduction of maps by the Sanborn Library LLC, the copyright holder for the collection. Results can be authenticated by visiting [www.edrnet.com/sanborn](http://www.edrnet.com/sanborn).

The Sanborn Library is continually enhanced with newly identified map archives. This report accesses all maps in the collection as of the day this report was generated.

### Certified Sanborn Results:

**Certification #** 089C-4B1C-BA59

**PO #** NA

**Project** A8247004-3

**Maps Provided:**

- 1969
- 1965
- 1952
- 1950
- 1907
- 1897
- 1888



Sanborn® Library search results

Certification #: 089C-4B1C-BA59

The Sanborn Library includes more than 1.2 million fire insurance maps from Sanborn, Bromley, Perris & Browne, Hopkins, Barlow and others which track historical property usage in approximately 12,000 American cities and towns. Collections searched:

- Library of Congress
- University Publications of America
- EDR Private Collection

*The Sanborn Library LLC Since 1866™*

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## Sanborn Sheet Key

This Certified Sanborn Map Report is based upon the following Sanborn Fire Insurance map sheets.



### 1969 Source Sheets



Volume 1A, Sheet 65a  
1969



Volume 1A, Sheet 64a  
1969



Volume 1A, Sheet 60a  
1969



Volume 1A, Sheet 61a  
1969

### 1965 Source Sheets



Volume 1A, Sheet 60a  
1965



Volume 1A, Sheet 61a  
1965



Volume 1A, Sheet 64a  
1965



Volume 1A, Sheet 65a  
1965

### 1952 Source Sheets



Volume 1A, Sheet 65a  
1952



Volume 1A, Sheet 64a  
1952



Volume 1A, Sheet 60a  
1952



Volume 1A, Sheet 61a  
1952

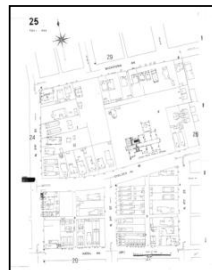
### 1950 Source Sheets



Volume 1, Sheet 21  
1950



Volume 1, Sheet 20  
1950



Volume 1, Sheet 25  
1950



Volume 1, Sheet 24  
1950



## Sanborn Sheet Key

This Certified Sanborn Map Report is based upon the following Sanborn Fire Insurance map sheets.



### 1907 Source Sheets



Volume 1, Sheet 24  
1907



Volume 1, Sheet 25  
1907

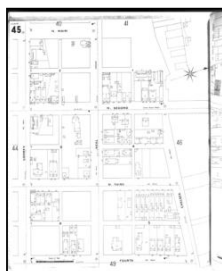


Volume 1, Sheet 20  
1907

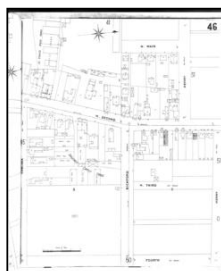


Volume 1, Sheet 21  
1907

### 1897 Source Sheets



Volume 1, Sheet 45  
1897

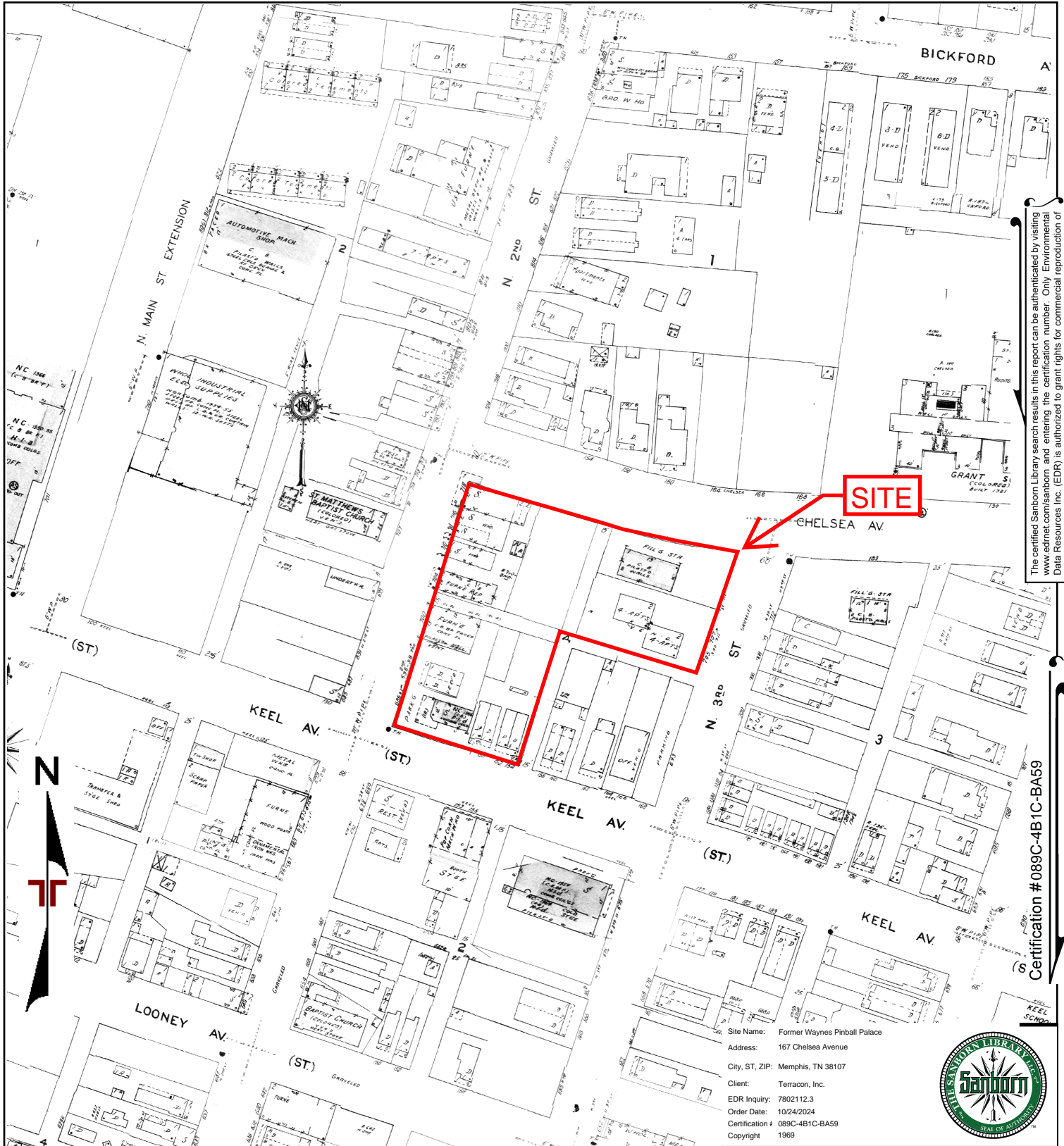


Volume 1, Sheet 46  
1897

### 1888 Source Sheets



Volume 1, Sheet 1  
1888



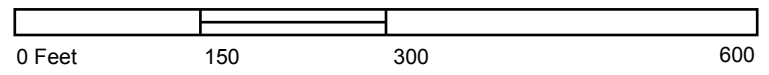
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Certification # 089C-4B1C-BA59

Site Name: Former Waynes Pinball Palace  
 Address: 167 Chelsea Avenue  
 City, ST, ZIP: Memphis, TN 38107  
 Client: Terracon, Inc.  
 EDR Inquiry: 7802112.3  
 Order Date: 10/24/2024  
 Certification #: 089C-4B1C-BA59  
 Copyright: 1969



Volume 1A, Sheet 61a  
 Volume 1A, Sheet 60a  
 Volume 1A, Sheet 64a  
 Volume 1A, Sheet 65a



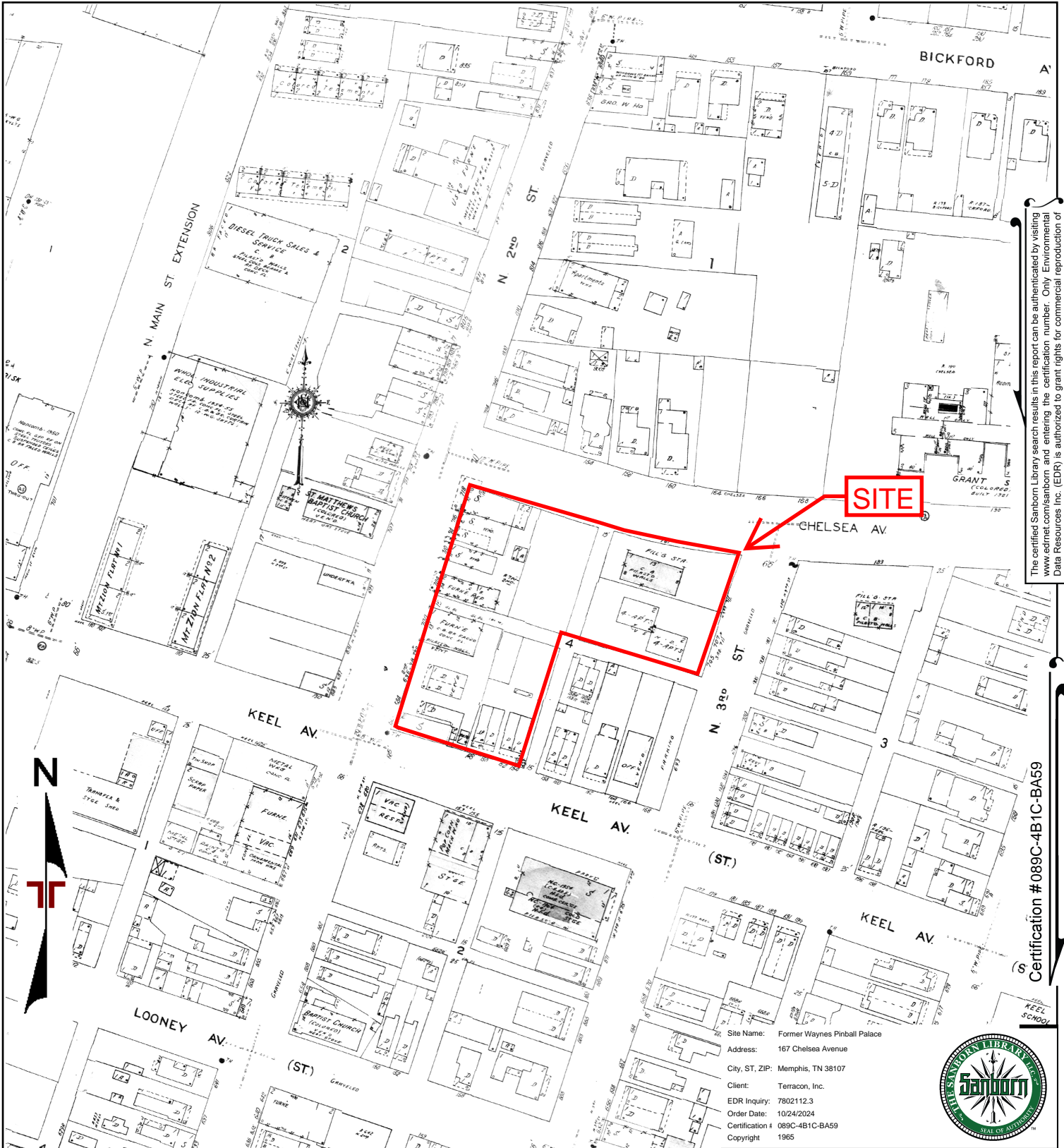
Project Manager:	Project No:
Drawn By:	Scale: As Shown
Checked By:	File Name:
Approved By:	Date: 1969

5217 Linbar Drive  
 Nashville, TN 37211-1018

**1969 SANBORN MAP**  
**Former Wayne's Pinball Palace**  
 167 Chelsea Avenue  
 Memphis, TN 38107

Appendix  
**C**





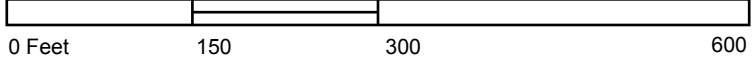
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Certification # 089C-4B1C-BA59

Site Name: Former Waynes Pinball Palace  
 Address: 167 Chelsea Avenue  
 City, ST, ZIP: Memphis, TN 38107  
 Client: Terracon, Inc.  
 EDR Inquiry: 7802112.3  
 Order Date: 10/24/2024  
 Certification #: 089C-4B1C-BA59  
 Copyright: 1965



Volume 1A, Sheet 65a  
 Volume 1A, Sheet 64a  
 Volume 1A, Sheet 61a  
 Volume 1A, Sheet 60a



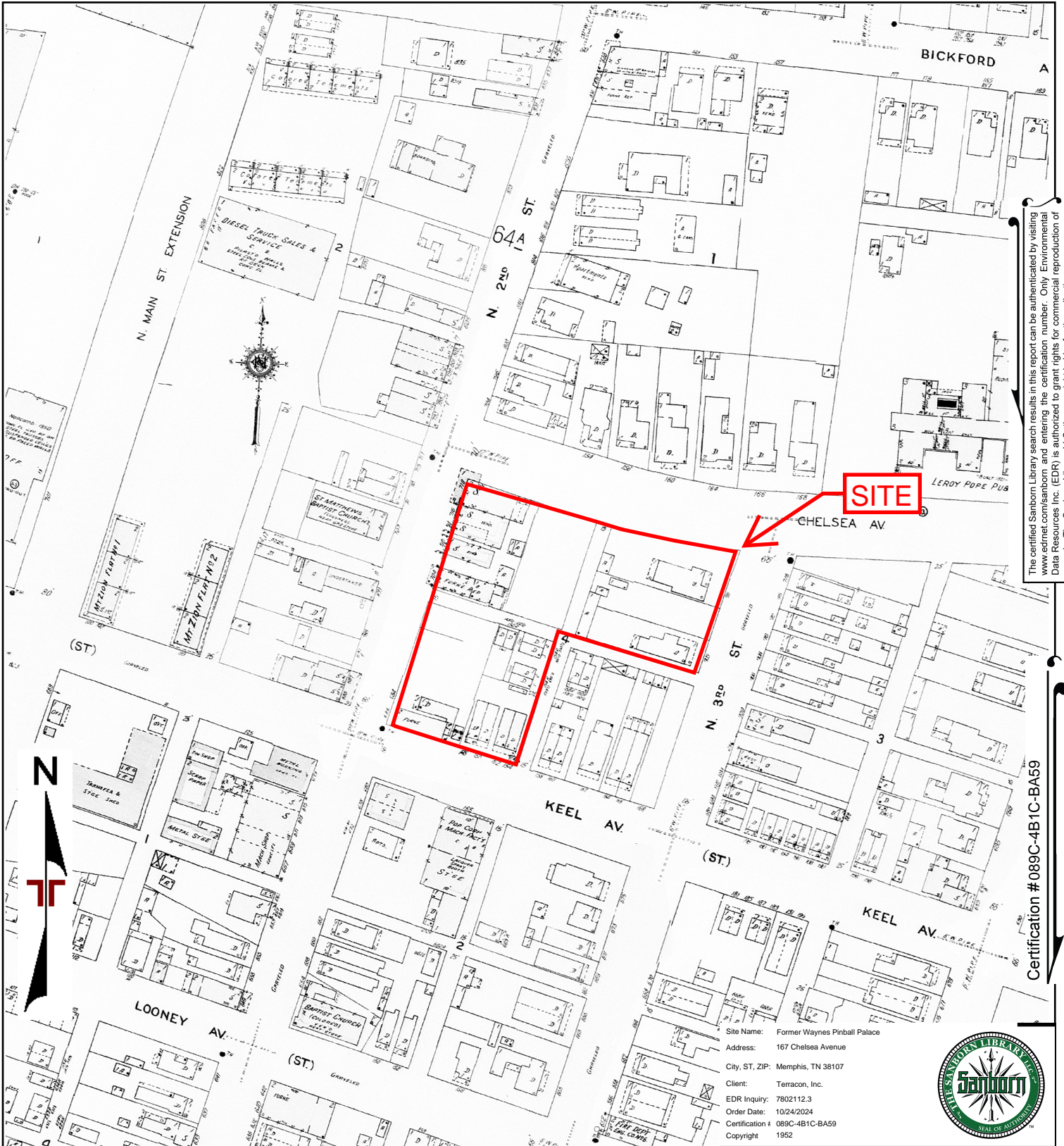
Project Manager:	Project No:
Drawn By:	Scale: As Shown
Checked By:	File Name:
Approved By:	Date: 1965

5217 Linbar Drive  
 Nashville, TN 37211-1018

**1965 SANBORN MAP**  
**Former Wayne's Pinball Palace**  
 167 Chelsea Avenue  
 Memphis, TN 38107

Appendix
<b>C</b>





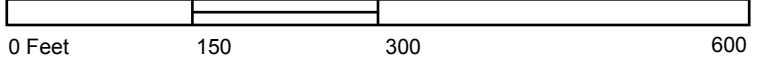
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Certification # 089C-4B1C-BA59

Site Name: Former Waynes Pinball Palace  
 Address: 167 Chelsea Avenue  
 City, ST, ZIP: Memphis, TN 38107  
 Client: Terracon, Inc.  
 EDR Inquiry: 7802112.3  
 Order Date: 10/24/2024  
 Certification #: 089C-4B1C-BA59  
 Copyright: 1952



Volume 1A, Sheet 61a  
 Volume 1A, Sheet 60a  
 Volume 1A, Sheet 64a  
 Volume 1A, Sheet 65a



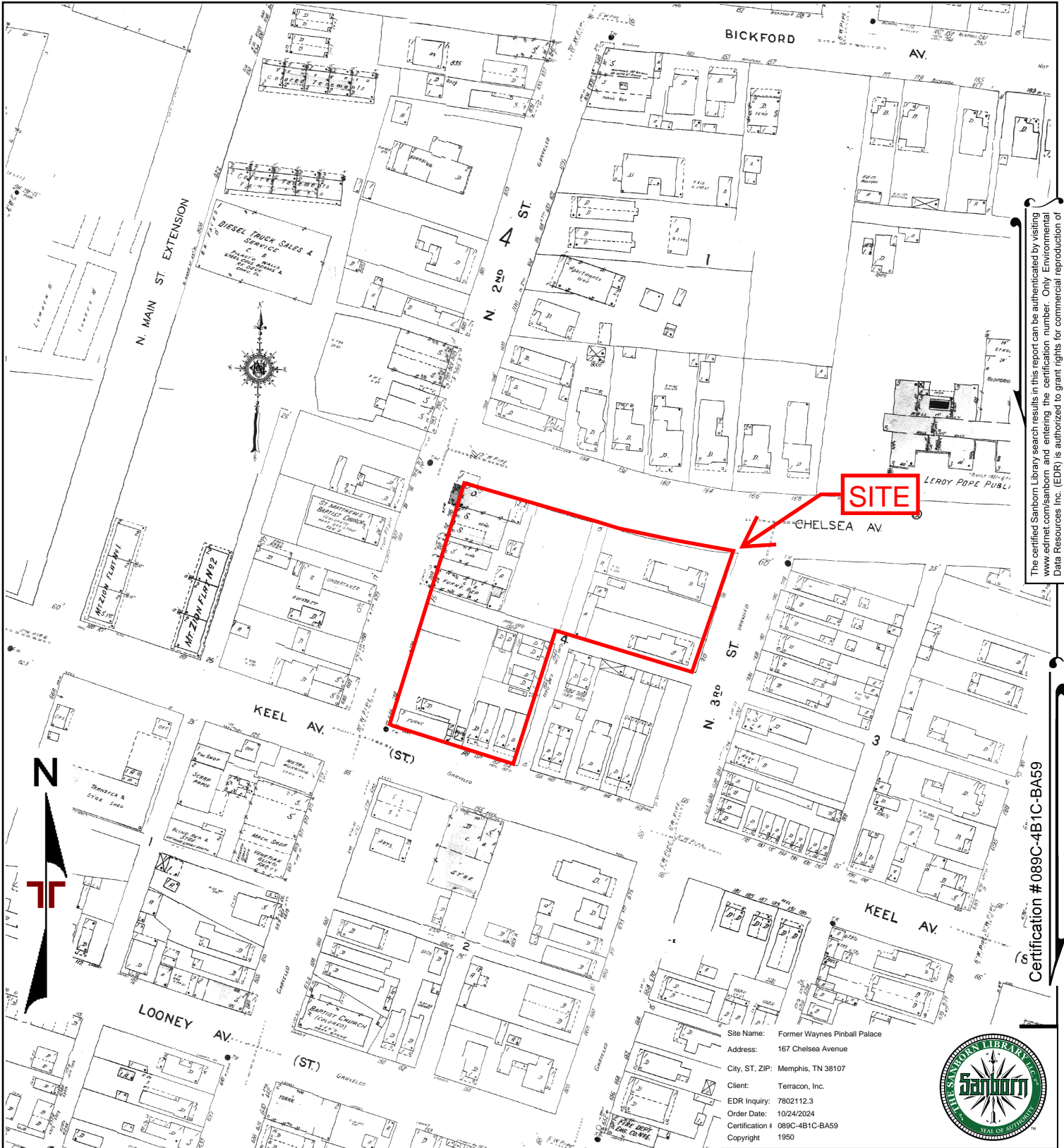
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Drawn By:	Scale: As Shown
Checked By:	File Name:
Approved By:	Date: 1952

5217 Linbar Drive  
 Nashville, TN 37211-1018

**1952 SANBORN MAP**  
**Former Wayne's Pinball Palace**  
 167 Chelsea Avenue  
 Memphis, TN 38107

Appendix
<b>C</b>





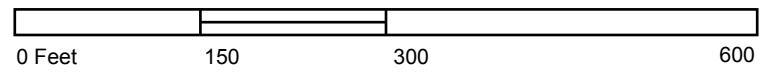
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Certification #089C-4B1C-BA59

Site Name: Former Waynes Pinball Palace  
 Address: 167 Chelsea Avenue  
 City, ST, ZIP: Memphis, TN 38107  
 Client: Terracon, Inc.  
 EDR Inquiry: 7802112.3  
 Order Date: 10/24/2024  
 Certification #: 089C-4B1C-BA59  
 Copyright: 1950



Volume 1, Sheet 24  
 Volume 1, Sheet 25  
 Volume 1, Sheet 20  
 Volume 1, Sheet 21

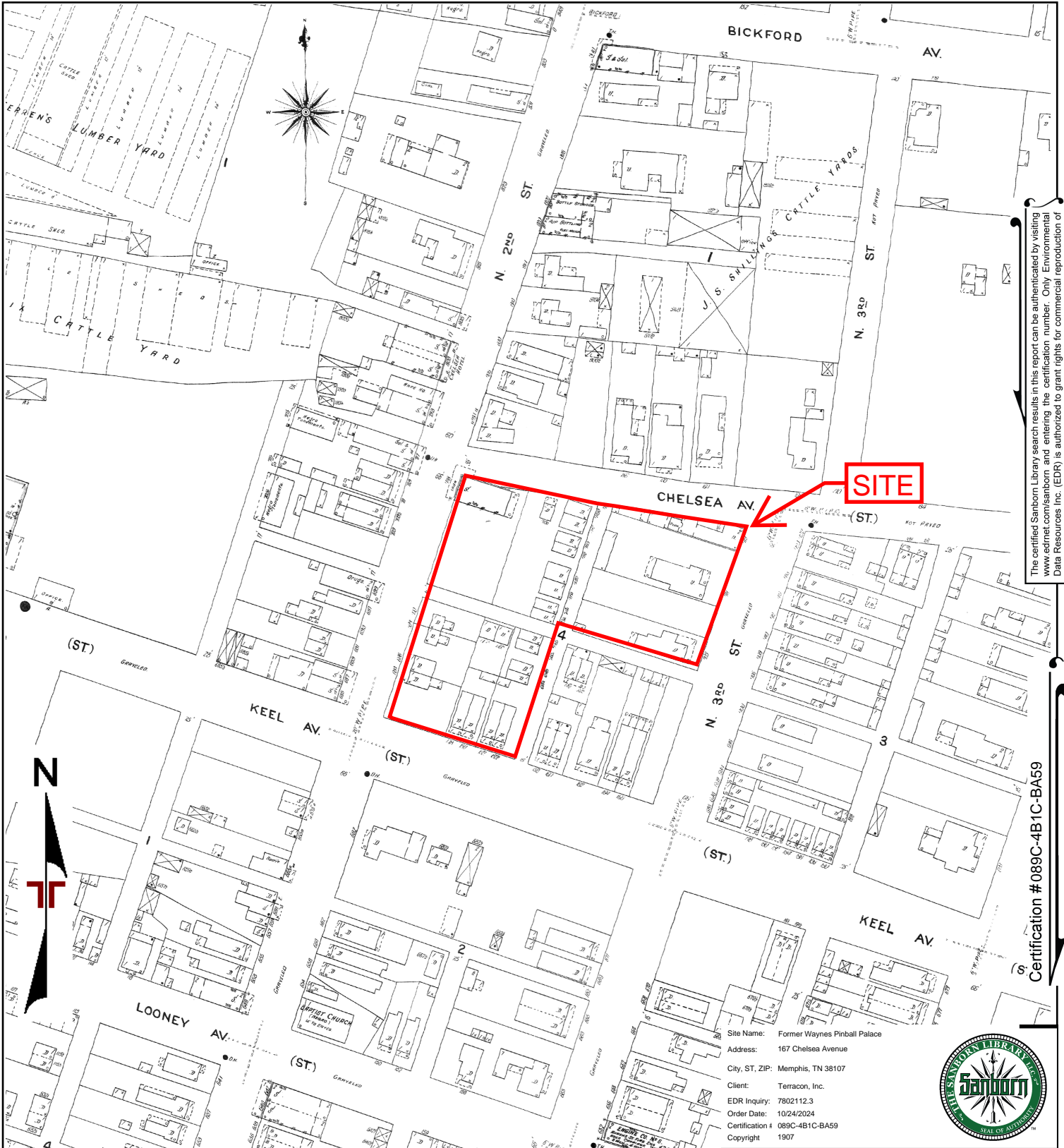


Project Manager:	Project No:
Drawn By:	Scale: As Shown
Checked By:	File Name:
Approved By:	Date: 1950

5217 Linbar Drive  
 Nashville, TN 37211-1018

**1950 SANBORN MAP**  
**Former Wayne's Pinball Palace**  
 167 Chelsea Avenue  
 Memphis, TN 38107

Appendix  
  
**C**



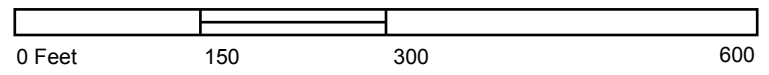
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Site Name: Former Waynes Pinball Palace  
 Address: 167 Chelsea Avenue  
 City, ST, ZIP: Memphis, TN 38107  
 Client: Terracon, Inc.  
 EDR Inquiry: 7802112.3  
 Order Date: 10/24/2024  
 Certification #: 089C-4B1C-BA59  
 Copyright: 1907



Volume 1, Sheet 21  
 Volume 1, Sheet 20  
 Volume 1, Sheet 25  
 Volume 1, Sheet 24



Project Manager:	Project No:
Drawn By:	Scale: As Shown
Checked By:	File Name:
Approved By:	Date: 1907

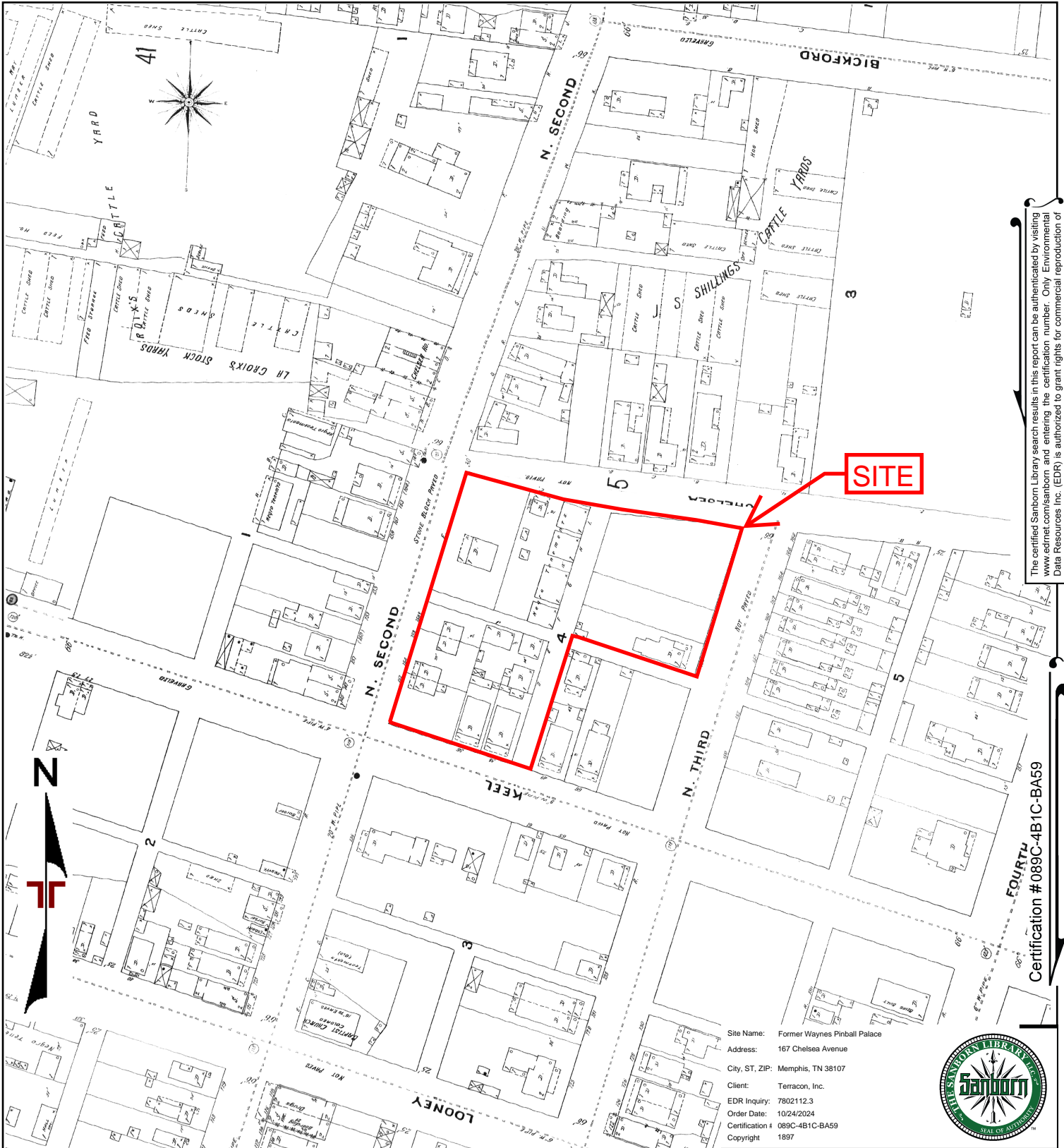


5217 Linbar Drive  
 Nashville, TN 37211-1018

1907 SANBORN MAP  
 Former Wayne's Pinball Palace  
 167 Chelsea Avenue  
 Memphis, TN 38107

Appendix
C





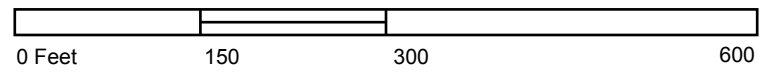
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FOURTH  
Certification #089C-4B1C-BA59


Site Name: Former Waynes Pinball Palace  
 Address: 167 Chelsea Avenue  
 City, ST, ZIP: Memphis, TN 38107  
 Client: Terracon, Inc.  
 EDR Inquiry: 7802112.3  
 Order Date: 10/24/2024  
 Certification #: 089C-4B1C-BA59  
 Copyright: 1897



Volume 1, Sheet 46  
 Volume 1, Sheet 45



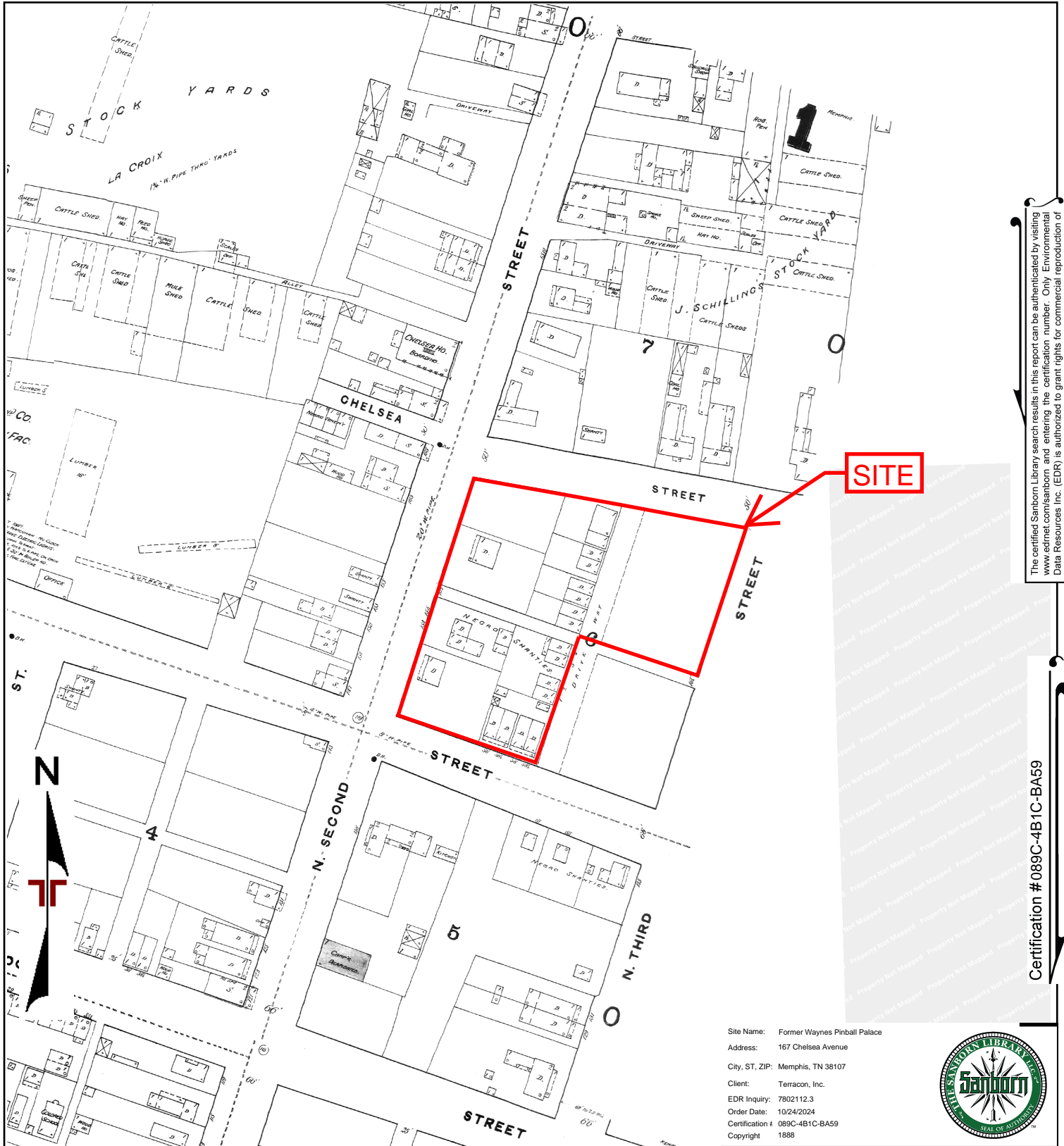
Project Manager:	Project No:
Drawn By:	Scale: As Shown
Checked By:	File Name:
Approved By:	Date: 1897



5217 Linbar Drive  
 Nashville, TN 37211-1018

1897 SANBORN MAP  
 Former Wayne's Pinball Palace  
 167 Chelsea Avenue  
 Memphis, TN 38107

Appendix
C



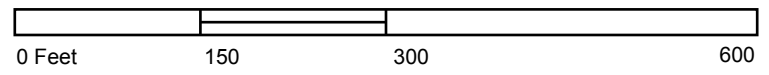
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Certification #089C-4B1C-BA59

Site Name: Former Waynes Pinball Palace  
 Address: 167 Chelsea Avenue  
 City, ST, ZIP: Memphis, TN 38107  
 Client: Terracon, Inc.  
 EDR Inquiry: 7802112.3  
 Order Date: 10/24/2024  
 Certification #: 089C-4B1C-BA59  
 Copyright: 1888



Volume 1, Sheet 1



Project Manager:	Project No:
Drawn By:	Scale: As Shown
Checked By:	File Name:
Approved By:	Date: 1888

5217 Linbar Drive  
Nashville, TN 37211-1018

1888 SANBORN MAP  
 Former Wayne's Pinball Palace  
 167 Chelsea Avenue  
 Memphis, TN 38107

Appendix
C





Willie F. Brooks, Jr.  
Shelby County Register of Deeds

Owner: CITY OF MEMPHIS AND SHELBY COUNTY COMMUNITY REDEVELOPMENT AGENCY

Parcel Address: 0 CHELSEA AVE

Parcel ID: 001055 00002

2024 Appraisal: \$11,800

Tax District: MEMPHIS

Year Built:

Lot Number: 526PTS

Subdivision: GREENLAW

Plat BK & PG: UNKNOWN

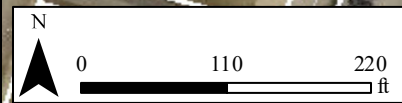
Dimensions: 58.43 X 138.17 IRR

Total Acres: 0.27

Owner Address: PO BOX 70386

MEMPHIS TN

38107 0386



Melvin Burgess  
Assessor Of Property  
Shelby County Government

Property Location and Owner Information

Parcel ID	001055 00002
Property Address	0 CHELSEA AVE
Municipal Jurisdiction	MEMPHIS
Neighborhood Number	00701A80
Tax Map Page	113N
Land Square Footage	11761
Acres	0.27
Lot Dimensions	58.43 X 138.17 IRR
Subdivision Name	GREENLAW
Subdivision Lot Number	526PTS
Plat Book and Page	
Number of Improvements	0
Owner Name	CITY OF MEMPHIS AND SHELBY COUNTY COMMUNITY REDEVELOPMENT AGENCY
Owner Mailing Address	undefined PO BOX 70386
Owner City/State/Zip	MEMPHIS TN 38107



## Appraisal and Assessment Information

Class	EXEMPT
Land Appraisal	\$11,800
Building Appraisal	\$0
Total Appraisal	\$11,800
Total Assessment	\$0
Greenbelt Land Appraisal	\$0
Homesite Land Appraisal	\$0
Homesite Building Appraisal	\$0
Greenbelt Appraisal	\$0
Greenbelt Assessment	\$0

## Improvement/Commercial Details

Stories

Exterior Walls

Land Use - VACANT LAND

Year Built

Total Rooms

Bedrooms

Bathrooms

Half Baths

Heat

Fuel

Heating System

Fireplace Masonry

Fireplace Pre-Fab

Ground Floor Area

Total Living Area

Car Parking



## Other Buildings

Card	Year Built	Length	Width	Area	Type
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Permits

Date of Permit	Amount of Permit	Permit Number	Reason
05/06/1986	\$10,000	150002	
05/06/1986	\$10,000	150082	
11/25/1982	\$1,000	329080	



## Sales

Date of Sale	Sales Price	Deed Number	Instrument Type
08/13/2019	\$0	19082607	QC
06/28/2005	\$12,500	05158108	WD
04/23/1992	\$0	282-10	PC
09/18/1981	\$4,500	S82419	WD
08/29/1978	\$0	214-230	PC
08/05/1972	\$0		DN



Willie F. Brooks, Jr.  
Shelby County Register of Deeds

Owner: CITY OF MEMPHIS AND SHELBY COUNTY COMMUNITY REDEVELOPMENT AGENCY

Parcel Address: 165 CHELSEA

Parcel ID: 001055 00003

2024 Appraisal: \$16,400

Tax District: MEMPHIS

Year Built:

Lot Number: 526 PT65

Subdivision: GREENLAW

Plat BK & PG: UNKNOWN

Dimensions: 82.47/63.1 X 151.3/148.5

Total Acres: 0.246

Owner Address: PO BOX 70386

MEMPHIS TN

38107 0386



Shelby County ITS / ReGIS 180 North Main, Suite 1000, Memphis, TN 38108 email: ReGIS@shelbycountytn.gov  
www.gis.shelbycountytn.gov, ReGIS Shelby County Government



Melvin Burgess  
Assessor Of Property  
Shelby County Government

Property Location and Owner Information

Parcel ID	001055 00003
Property Address	165 CHELSEA
Municipal Jurisdiction	MEMPHIS
Neighborhood Number	00701A80
Tax Map Page	113N
Land Square Footage	10716
Acres	0.246
Lot Dimensions	82.47/63.1 X 151.3/148.5
Subdivision Name	GREENLAW
Subdivision Lot Number	526 PT65
Plat Book and Page	
Number of Improvements	1
Owner Name	CITY OF MEMPHIS AND SHELBY COUNTY COMMUNITY REDEVELOPMENT AGENCY
Owner Mailing Address	undefined PO BOX 70386
Owner City/State/Zip	MEMPHIS TN 38107

## Appraisal and Assessment Information

Class	EXEMPT
Land Appraisal	\$16,100
Building Appraisal	\$300
Total Appraisal	\$16,400
Total Assessment	\$0
Greenbelt Land Appraisal	\$0
Homesite Land Appraisal	\$0
Homesite Building Appraisal	\$0
Greenbelt Appraisal	\$0
Greenbelt Assessment	\$0



## Improvement/Commercial Details

Stories

Exterior Walls

Land Use - STORE-RETAIL

Year Built

Total Rooms

Bedrooms

Bathrooms

Half Baths

Heat

Fuel

Heating System

Fireplace Masonry

Fireplace Pre-Fab

Ground Floor Area

Total Living Area

Car Parking

Other Buildings

Card	Year Built	Length	Width	Area	Type
1	1956			4,000	PAVING CONCRETE AVERAGE
1	1956			4,290	PAVING ASPHALT <75,000 SQ.FT.



Permits

Date of Permit	Amount of Permit	Permit Number	Reason
06/29/2020	\$0	BD010411	DEMO
02/21/1986	\$4,000	52054	

## Sales

Date of Sale	Sales Price	Deed Number	Instrument Type
08/13/2019	\$0	19082607	QC
08/01/2018	\$0	18081298	QC
04/20/2018	\$0	18084807	CC
04/20/2018	\$0	CT-000286	CC
07/11/2008	\$40,000	08114635	QC
03/05/2004	\$24,756	9468-1	CH
06/02/2000	\$0	KF9503	PC
04/23/1992	\$0	282-10	PC
10/08/1981	\$30,700	S82415	QC
04/28/1981	\$61,400	S49321	WD
11/23/1976	\$15,000	L77656	UN



Sketch



Sorry, no sketch available  
for this record



Willie F. Brooks, Jr.  
Shelby County Register of Deeds

Owner: CITY OF MEMPHIS AND SHELBY COUNTY COMMUNITY REDEVELOPMENT AGENCY

Parcel Address: 0 KEEL AVE

Parcel ID: 001055 00009C

2024 Appraisal: \$11,800

Tax District: MEMPHIS

Year Built:

Lot Number: 526&PT61

Subdivision: GREENLAW

Plat BK & PG: UNKNOWN

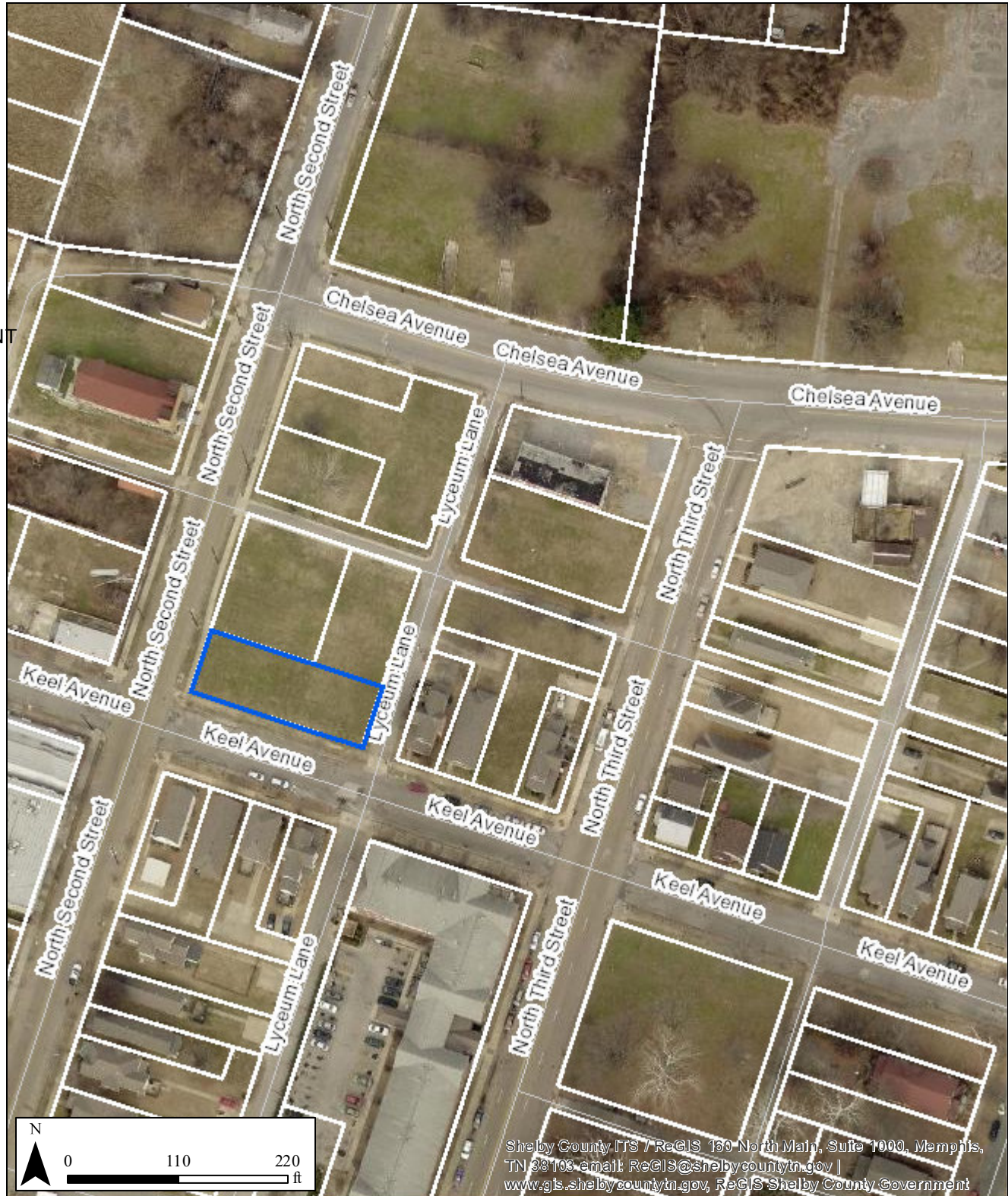
Dimensions: 148.5 X 50.5

Total Acres: 0.18

Owner Address: PO BOX 70386

MEMPHIS TN

38107 0386





Melvin Burgess  
Assessor Of Property  
Shelby County Government

Property Location and Owner Information

Parcel ID	001055 00009C
Property Address	0 KEEL AVE
Municipal Jurisdiction	MEMPHIS
Neighborhood Number	00701A80
Tax Map Page	113N
Land Square Footage	7841
Acres	0.18
Lot Dimensions	148.5 X 50.5
Subdivision Name	GREENLAW
Subdivision Lot Number	526&PT61
Plat Book and Page	
Number of Improvements	0
Owner Name	CITY OF MEMPHIS AND SHELBY COUNTY COMMUNITY REDEVELOPMENT AGENCY
Owner Mailing Address	undefined PO BOX 70386
Owner City/State/Zip	MEMPHIS TN 38107

## Appraisal and Assessment Information

Class	EXEMPT
Land Appraisal	\$11,800
Building Appraisal	\$0
Total Appraisal	\$11,800
Total Assessment	\$0
Greenbelt Land Appraisal	\$0
Homesite Land Appraisal	\$0
Homesite Building Appraisal	\$0
Greenbelt Appraisal	\$0
Greenbelt Assessment	\$0



## Improvement/Commercial Details

Stories

Exterior Walls

Land Use - VACANT LAND

Year Built

Total Rooms

Bedrooms

Bathrooms

Half Baths

Heat

Fuel

Heating System

Fireplace Masonry

Fireplace Pre-Fab

Ground Floor Area

Total Living Area

Car Parking

## Other Buildings

Card	Year Built	Length	Width	Area	Type
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## Permits

Date of Permit	Amount of Permit	Permit Number	Reason
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## Sales

Date of Sale	Sales Price	Deed Number	Instrument Type
08/13/2019	\$0	19082607	QC
10/06/2005	\$65,500	05173310	WD





Willie F. Brooks, Jr.  
Shelby County Register of Deeds

Owner: CITY OF MEMPHIS AND SHELBY COUNTY COMMUNITY REDEVELOPMENT AGENCY

Parcel Address: 0 KEEL AVE

Parcel ID: 001055 00012

2024 Appraisal: \$17,500

Tax District: MEMPHIS

Year Built:

Lot Number: 526PT 61

Subdivision: GREENLAW

Plat BK & PG: UNKNOWN

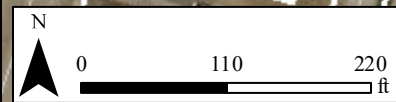
Dimensions: 5703SF 58.5X97.5

Total Acres: 0.13

Owner Address: PO BOX 70386

MEMPHIS TN

38107 0386



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Melvin Burgess  
Assessor Of Property  
Shelby County Government

Property Location and Owner Information

Parcel ID	001055 00012
Property Address	0 KEEL AVE
Municipal Jurisdiction	MEMPHIS
Neighborhood Number	00701A80
Tax Map Page	113N
Land Square Footage	5663
Acres	0.13
Lot Dimensions	5703SF 58.5X97.5
Subdivision Name	GREENLAW
Subdivision Lot Number	526PT 61
Plat Book and Page	
Number of Improvements	0
Owner Name	CITY OF MEMPHIS AND SHELBY COUNTY COMMUNITY REDEVELOPMENT AGENCY
Owner Mailing Address	undefined PO BOX 70386
Owner City/State/Zip	MEMPHIS TN 38107



## Appraisal and Assessment Information

Class	EXEMPT
Land Appraisal	\$17,500
Building Appraisal	\$0
Total Appraisal	\$17,500
Total Assessment	\$0
Greenbelt Land Appraisal	\$0
Homesite Land Appraisal	\$0
Homesite Building Appraisal	\$0
Greenbelt Appraisal	\$0
Greenbelt Assessment	\$0

## Improvement/Commercial Details

Stories

Exterior Walls

Land Use - VACANT LAND

Year Built

Total Rooms

Bedrooms

Bathrooms

Half Baths

Heat

Fuel

Heating System

Fireplace Masonry

Fireplace Pre-Fab

Ground Floor Area

Total Living Area

Car Parking



## Other Buildings

Card	Year Built	Length	Width	Area	Type
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## Permits

Date of Permit	Amount of Permit	Permit Number	Reason
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## Sales

Date of Sale	Sales Price	Deed Number	Instrument Type
08/13/2019	\$0	19082607	QC
11/09/2011	\$10,890	11112083	WD
04/08/2009	\$48,000	09051550	TD
12/09/2002	\$50,000	03001521	WD
08/22/2001		342-541	PC
11/09/1993	\$0	02057964	PC
07/31/1975	\$2,500	K59450	UN



Willie F. Brooks, Jr.  
Shelby County Register of Deeds

Owner: CITY OF MEMPHIS AND SHELBY COUNTY COMMUNITY REDEVELOPMENT AGENCY

Parcel Address: 696 N SECOND

Parcel ID: 001055 00010

2024 Appraisal: \$13,200

Tax District: MEMPHIS

Year Built:

Lot Number: 526PT61

Subdivision: GREENLAW

Plat BK & PG: UNKNOWN

Dimensions: 98 X 90

Total Acres: 0.202

Owner Address: PO BOX 70386

MEMPHIS TN

38107 0386





Melvin Burgess  
Assessor Of Property  
Shelby County Government

Property Location and Owner Information

Parcel ID	001055 00010
Property Address	696 N SECOND
Municipal Jurisdiction	MEMPHIS
Neighborhood Number	00701A80
Tax Map Page	113N
Land Square Footage	8799
Acres	0.202
Lot Dimensions	98 X 90
Subdivision Name	GREENLAW
Subdivision Lot Number	526PT61
Plat Book and Page	
Number of Improvements	0
Owner Name	CITY OF MEMPHIS AND SHELBY COUNTY COMMUNITY REDEVELOPMENT AGENCY
Owner Mailing Address	undefined PO BOX 70386
Owner City/State/Zip	MEMPHIS TN 38107

## Appraisal and Assessment Information

Class	EXEMPT
Land Appraisal	\$13,200
Building Appraisal	\$0
Total Appraisal	\$13,200
Total Assessment	\$0
Greenbelt Land Appraisal	\$0
Homesite Land Appraisal	\$0
Homesite Building Appraisal	\$0
Greenbelt Appraisal	\$0
Greenbelt Assessment	\$0



## Improvement/Commercial Details

Stories

Exterior Walls

Land Use - VACANT LAND

Year Built

Total Rooms

Bedrooms

Bathrooms

Half Baths

Heat

Fuel

Heating System

Fireplace Masonry

Fireplace Pre-Fab

Ground Floor Area

Total Living Area

Car Parking

## Other Buildings

Card	Year Built	Length	Width	Area	Type
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Permits

Date of Permit	Amount of Permit	Permit Number	Reason
08/27/2013	\$0	BD004397	DEM
09/13/2006		B0982814	UO
07/24/1996		B0788748	
07/12/1989	\$8,000	193133	
03/17/1987	\$0	76022	

## Sales

Date of Sale	Sales Price	Deed Number	Instrument Type
08/13/2019	\$0	19082607	QC
11/09/2011	\$10,340	11112087	WD
04/08/2009	\$48,000	09051550	TD
11/16/2006	\$0	9476-3	CH
12/09/2002	\$50,000	03001521	WD
12/07/2000	\$0	KS9005	QC
11/09/1993	\$0	DZ2395	QC
12/01/1960	\$0	F97647	QC





Willie F. Brooks, Jr.  
Shelby County Register of Deeds

Owner: CITY OF MEMPHIS AND SHELBY COUNTY COMMUNITY REDEVELOPMENT AGENCY

Parcel Address: 710 N SECOND ST

Parcel ID: 001055 00011

2024 Appraisal: \$16,700

Tax District: MEMPHIS

Year Built:

Lot Number: 526 PT63

Subdivision: GREENLAW

Plat BK & PG: UNKNOWN

Dimensions: 59.59 X 90

Total Acres: 0.123

Owner Address: PO BOX 70386

MEMPHIS TN

38107 0386



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Melvin Burgess  
Assessor Of Property  
Shelby County Government

Property Location and Owner Information

Parcel ID	001055 00011
Property Address	710 N SECOND ST
Municipal Jurisdiction	MEMPHIS
Neighborhood Number	00701A80
Tax Map Page	113N
Land Square Footage	5358
Acres	0.123
Lot Dimensions	59.59 X 90
Subdivision Name	GREENLAW
Subdivision Lot Number	526 PT63
Plat Book and Page	
Number of Improvements	0
Owner Name	CITY OF MEMPHIS AND SHELBY COUNTY COMMUNITY REDEVELOPMENT AGENCY
Owner Mailing Address	undefined PO BOX 70386
Owner City/State/Zip	MEMPHIS TN 38107

## Appraisal and Assessment Information

Class	EXEMPT
Land Appraisal	\$16,700
Building Appraisal	\$0
Total Appraisal	\$16,700
Total Assessment	\$0
Greenbelt Land Appraisal	\$0
Homesite Land Appraisal	\$0
Homesite Building Appraisal	\$0
Greenbelt Appraisal	\$0
Greenbelt Assessment	\$0



## Improvement/Commercial Details

Stories

Exterior Walls

Land Use - VACANT LAND

Year Built

Total Rooms

Bedrooms

Bathrooms

Half Baths

Heat

Fuel

Heating System

Fireplace Masonry

Fireplace Pre-Fab

Ground Floor Area

Total Living Area

Car Parking

## Other Buildings

Card	Year Built	Length	Width	Area	Type
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## Permits

Date of Permit	Amount of Permit	Permit Number	Reason
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## Sales

Date of Sale	Sales Price	Deed Number	Instrument Type
08/13/2019	\$0	19082607	QC
08/26/2011	\$9,400	11090720	WD
09/28/1945	\$10,500	1982-029	WD



Willie F. Brooks, Jr.  
Shelby County Register of Deeds

Owner: CITY OF MEMPHIS AND SHELBY COUNTY COMMUNITY REDEVELOPMENT AGENCY

Parcel Address: 714 N SECOND ST

Parcel ID: 001055 00001

2024 Appraisal: \$4,500

Tax District: MEMPHIS

Year Built:

Lot Number: 526PT64

Subdivision: GREENLAW

Plat BK & PG: UNKNOWN

Dimensions: 29.25 X 90

Total Acres: 0.06

Owner Address: PO BOX 70386

MEMPHIS TN

38107 0386



Melvin Burgess  
Assessor Of Property  
Shelby County Government

Property Location and Owner Information

Parcel ID	001055 00001
Property Address	714 N SECOND ST
Municipal Jurisdiction	MEMPHIS
Neighborhood Number	00701C01
Tax Map Page	113N
Land Square Footage	2614
Acres	0.06
Lot Dimensions	29.25 X 90
Subdivision Name	GREENLAW
Subdivision Lot Number	526PT64
Plat Book and Page	
Number of Improvements	0
Owner Name	CITY OF MEMPHIS AND SHELBY COUNTY COMMUNITY REDEVELOPMENT AGENCY
Owner Mailing Address	undefined PO BOX 70386
Owner City/State/Zip	MEMPHIS TN 38107



## Appraisal and Assessment Information

Class	EXEMPT
Land Appraisal	\$4,500
Building Appraisal	\$0
Total Appraisal	\$4,500
Total Assessment	\$0
Greenbelt Land Appraisal	\$0
Homesite Land Appraisal	\$0
Homesite Building Appraisal	\$0
Greenbelt Appraisal	\$0
Greenbelt Assessment	\$0

## Improvement/Commercial Details

Stories

Exterior Walls

Land Use - VACANT LAND

Year Built

Total Rooms

Bedrooms

Bathrooms

Half Baths

Heat

Fuel

Heating System

Fireplace Masonry

Fireplace Pre-Fab

Ground Floor Area

Total Living Area

Car Parking

## Other Buildings

Card	Year Built	Length	Width	Area	Type
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Permits

Date of Permit	Amount of Permit	Permit Number	Reason
06/06/1996		B0773893	

## Sales

Date of Sale	Sales Price	Deed Number	Instrument Type
08/13/2019	\$0	19082607	QC
01/02/2019	\$0	252	L
08/26/2011	\$0	13094106	CD
08/01/1986	\$0	Y40023	QC



Willie F. Brooks, Jr.  
Shelby County Register of Deeds

Owner: CITY OF MEMPHIS AND SHELBY COUNTY COMMUNITY REDEVELOPMENT AGENCY

Parcel Address: 705 N THIRD ST

Parcel ID: 001055 00004

2024 Appraisal: \$27,600

Tax District: MEMPHIS

Year Built:

Lot Number: 526 & 66

Subdivision: GREENLAW

Plat BK & PG: UNKNOWN

Dimensions: 74.25 X 148.5

Total Acres: 0.253

Owner Address: PO BOX 70386

MEMPHIS TN

38107 0386



Shelby County ITS / ReGIS 180 North Main, Suite 1000, Memphis, TN 38103 email: ReGIS@shelbycountytn.gov | www.gis.shelbycountytn.gov, ReGIS Shelby County Government



Melvin Burgess  
Assessor Of Property  
Shelby County Government

Property Location and Owner Information

Parcel ID	001055 00004
Property Address	705 N THIRD ST
Municipal Jurisdiction	MEMPHIS
Neighborhood Number	00701A80
Tax Map Page	113N
Land Square Footage	11021
Acres	0.253
Lot Dimensions	74.25 X 148.5
Subdivision Name	GREENLAW
Subdivision Lot Number	526 & 66
Plat Book and Page	
Number of Improvements	0
Owner Name	CITY OF MEMPHIS AND SHELBY COUNTY COMMUNITY REDEVELOPMENT AGENCY
Owner Mailing Address	undefined PO BOX 70386
Owner City/State/Zip	MEMPHIS TN 38107

## Appraisal and Assessment Information

Class	EXEMPT
Land Appraisal	\$27,600
Building Appraisal	\$0
Total Appraisal	\$27,600
Total Assessment	\$0
Greenbelt Land Appraisal	\$0
Homesite Land Appraisal	\$0
Homesite Building Appraisal	\$0
Greenbelt Appraisal	\$0
Greenbelt Assessment	\$0

## Improvement/Commercial Details

Stories

Exterior Walls

Land Use - VACANT LAND

Year Built

Total Rooms

Bedrooms

Bathrooms

Half Baths

Heat

Fuel

Heating System

Fireplace Masonry

Fireplace Pre-Fab

Ground Floor Area

Total Living Area

Car Parking



Other Buildings

Card	Year Built	Length	Width	Area	Type
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Permits

Date of Permit	Amount of Permit	Permit Number	Reason
01/19/2007	\$21,000	B0986556	NCT

## Sales

Date of Sale	Sales Price	Deed Number	Instrument Type
08/13/2019	\$0	19082607	QC
04/25/2018	\$0	18081297	QC
11/17/2017	\$0	CT-000284	CC
03/11/2016	\$0	16023576	QC
03/28/2013	\$0	13040457	QC
03/08/2013	\$4,000	13033390	QC
02/15/2011	\$15,197	9485-3	CH
01/15/2007	\$115,000	07019407	WD
01/12/2007	\$72,000	07013788	WD
05/21/2004	\$80,000	04104905	WD
08/09/2002	\$78,000	02153579	WD
08/09/2002		02134455	WD
05/18/1995	\$0	GU7748	QC
05/18/1995	\$36,000	FB8493	WD
04/12/1995	\$33,000	FA2128	TD
03/11/1993	\$40,000	DL1101	WD
09/10/1991	\$53,201	CK3946	WD
07/21/1990	\$58,500	BU2588	WD
01/11/1985	\$35,000	W14720	WD
01/02/1982	\$0	S98034	QC



**Former Waynes Pinball Place**

167 Chelsea Avenue  
Memphis, TN 38107

Inquiry Number: 7802112.10S  
October 25, 2024

## EDR Environmental Lien and AUL Search 1980



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

## EDR Environmental Lien and AUL Search 1980

The EDR Environmental Lien and AUL Search 1980 report provides results from a search of available land title records for environmental cleanup liens and other activity and use limitations (AULs), such as engineering controls and institutional controls.

A network of professional, trained researchers, following established procedures, uses client supplied address and/or parcel information to:

- search for parcel number and/or legal description
- search for ownership information filed between 1980 and the most current publicly available date
- research official land title documents recorded at jurisdictional agencies such as recorders' offices, registries of deeds, county clerks' offices, etc.
- search for publicly available environmental encumbering instrument(s) filed between 1980 and present
- provide a copy of any environmental encumbrance(s)
- provide a copy of the current deed when available

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

Property Archives, LLC researched and compiled the land title information contained in this EDR Environmental Lien and AUL Search 1980 report on behalf of EDR.



Property Archives

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## EDR Environmental Lien and AUL Search 1980

### TARGET PROPERTY INFORMATION

#### ADDRESS

Former Waynes Pinball Place  
167 Chelsea Avenue  
Memphis, TN, 38107

#### PROPERTY DESCRIPTION

**Parcel ID: 001055 00001**

Current Owner: City of Memphis and Shelby County Community Redevelopment Agency

Legal Description: Being part of Lots 63 and 64 in Country Lot 534.

**Parcel ID: 001055 00002**

Current Owner: City of Memphis and Shelby County Community Redevelopment Agency

Legal Description: Portion of Lots 63 and 64 in Greenlaws Addition.

**Parcel ID: 001055 00003**

Current Owner: City of Memphis and Shelby County Community Redevelopment Agency

Legal Description: Lot 65, Greenlaw Addition.

**Parcel ID: 001055 00004**

Current Owner: City of Memphis and Shelby County Community Redevelopment Agency

Legal Description: Lot 66, Greenlaw Addition.

**Parcel ID: 001055 00009C**

Current Owner: City of Memphis and Shelby County Community Redevelopment Agency

Legal Description: South 50.5 feet of the west 90 feet of Lots 61 and 62, of the W.B. Greenlaw Chelsea Subdivision.

**Parcel ID: 001055 00010**

Current Owner: City of Memphis and Shelby County Community Redevelopment Agency

Legal Description: The North 98 feet to the west 90 feet of lots 61 and 62 of the W.B. Greenlaw Chelsea Subdivision in Country Lot 534.

**Parcel ID: 001055 00011**

Current Owner: City of Memphis and Shelby County Community Redevelopment Agency

Legal Description: The South 55.99 feet of Lot 53, Greenlaws Chelsea Subdivision in C.L. 528

**Parcel ID: 001055 00012**

Current Owner: City of Memphis and Shelby County Community Redevelopment Agency

Legal Description: The East 58.5 feet of Lots 61 and 62 of the E.T. Keel Subdivision in Country Lots 526, 532 and 531



## EDR Environmental Lien and AUL Search 1980

### FINDINGS SUMMARY

The following is a summary of information contained in the report. Additional details may be found in the Findings Detail section.

**Parcel: 001055 00001**

Environmental Lien: Found  Not Found

Other Activity and Use Limitations (AULs): Found  Not Found

HISTORICAL CHAIN of TITLE FROM 1980			
RECORDED	INSTRUMENT	GRANTEE	GRANTOR
August 14, 2019	19082607	City of Memphis and Shelby County Community Redevelopment Agency	MLB-Uptown, LLC
August 02, 2013	13094106	MLB-Uptown, LLC	Alan Bredow
September 22, 1986	Y40023	Alan Bredow	Fanny Bredow

**Parcel: 001055 00002**

Environmental Lien: Found  Not Found

Other Activity and Use Limitations (AULs): Found  Not Found

HISTORICAL CHAIN of TITLE FROM 1980			
RECORDED	INSTRUMENT	GRANTEE	GRANTOR
August 14, 2019	19082607	City of Memphis and Shelby County Community Redevelopment Agency	MLB-Uptown, LLC
September 26, 2005	05158108	MLB-Uptown, LLC	Martha A. Bell
November 06, 1991	282/10	Martha A. Bell	Walter Lee Wayne
October 09, 1981	S82419	Walter Lee Wayne	John W. Demuth and Sallie W. Demuth
August 29, 1978	5085/238	John W. Demuth and Sallie W. Demuth	William H. Demuth

**Parcel: 001055 00003**

Environmental Lien: Found  Not Found

Other Activity and Use Limitations (AULs): Found  Not Found

HISTORICAL CHAIN of TITLE FROM 1980			
RECORDED	INSTRUMENT	GRANTEE	GRANTOR
August 14, 2019	19082607	City of Memphis and Shelby County Community Redevelopment Agency	MLB-Uptown, LLC
August 10, 2018	18081298	MLB-Uptown, LLC	Memphis Housing Authority
August 21, 2018	18084807	Memphis Housing Authority	Ozeil Gavin and Sophia Gavin
August 28, 2008	08114635	Ozeil Gavin and Sophia Gavin	County of Shelby
June 05, 2000	KF9503	Walter B. Wayne	Martha A. Bell
October 09, 1981	S82415	Walter Lee Wayne	Everett Lee Mallory, Sr.
May 19, 1981	S49321	Everett Lee Mallory, Sr. and Walter Lee Wayne	Ray L. White and Dorothy M. White
December 27, 1976	L77656	Ray L. White and Dorothy M. White	Wilemon Brothers, Cecil W. Wilemon and Dewey F. Wilemon

## EDR Environmental Lien and AUL Search 1980

**Parcel: 001055 00004**

Environmental Lien: Found  Not Found

Other Activity and Use Limitations (AULs): Found  Not Found

HISTORICAL CHAIN of TITLE FROM 1980			
RECORDED	INSTRUMENT	GRANTEE	GRANTOR
August 14, 2019	19082607	City of Memphis and Shelby County Community Redevelopment Agency	MLB-Uptown, LLC
August 10, 2018	18081297	MLB-Uptown, LLC	Memphis Housing Authority
March 11, 2016	16023576	MDM Investments of Memphis, LLC	Move in Investments, Inc. and MDM Investments of Memphis, LLC
April 03, 2013	13040457	Move in Investments, Inc. and MDM Investments of Memphis, LLC	Move in Investments, Inc.
March 19, 2013	13033390	Move in Investments, Inc.	County of Shelby
January 30, 2007	07019407	KVG, LLP	NDSJ Investment Corporation
January 22, 2007	07013788	NDSJ Investment Corporation	Steven Anthony Thomas
June 24, 2004	04104905	Steven Anthony Thomas	Mae F. Cross
September 16, 2002	02153579	Mae F. Cross	J.W. Harris, Jr., D.D.S. Pension Plan
August 13, 1997	GU7748	J.W. Harris, Jr., D.D.S. Pension Plan	Ameer X. Flippin dba Zenus International CO.
May 19, 1995	FB8493	Ameer X. Flippin dba Zenus International CO.	J.W. Harris, Jr., D.D.S. Pension Plan
April 12, 1995	FA2128	J.W. Harris, Jr., D.D.S. Pension Plan	Bruce F. Gray, Jr.
April 01, 1993	DL1101	Bernard H. Williams and Mary Helen Williams	John W. Harris, Jr. Trustee for Pension Plan
September 11, 1991	CK3946	John W. Harris, Jr. Trustee for Pension Plan	Darrell D. Moore and Carla J. Moore
July 26, 1990	BU2588	Darrell D. Moore and Carla J. Moore	John W. Harris, Jr., Trustee for Pension Plan
January 15, 1985	WI4720	John W. Harris, Jr., Trustee for Pension Plan	Ben Schwartz
January 04, 1982	S98034	Ben Schwartz and Shiley S. Schwartz	Henry Samuels, Helen J. Samuels and Ben Schwartz and Shirley S. Schwarts

**Parcel: 001055 00009C**

Environmental Lien: Found  Not Found

Other Activity and Use Limitations (AULs): Found  Not Found

HISTORICAL CHAIN of TITLE FROM 1980			
RECORDED	INSTRUMENT	GRANTEE	GRANTOR
August 14, 2019	19082607	City of Memphis and Shelby County Community Redevelopment Agency	MLB-Uptown, LLC
October 20, 2005	05173310	MLB-Uptown, LLC	John A. Bruno and Tonia D. Bruno
July 19, 1996	FZ2888	John A. Bruno and Tonia D. Bruno	Claire Hayes
June 26, 1981	S58748	Lawrence C. Hayes	Mayer P. Lazar

## EDR Environmental Lien and AUL Search 1980

**Parcel: 001055 00010**

Environmental Lien: Found  Not Found

Other Activity and Use Limitations (AULs): Found  Not Found

HISTORICAL CHAIN of TITLE FROM 1980			
RECORDED	INSTRUMENT	GRANTEE	GRANTOR
August 14, 2019	19082607	City of Memphis and Shelby County Community Redevelopment Agency	MLB-Uptown, LLC
November 10, 2011	11112087	MLB-Uptown, LLC	Mayer P. Lazar Credit Shelter Trust
May 04, 2009	09051550	Mayer P. Lazar Credit Shelter Trust	Freddie Hill and Claiborne H. Ferguson, Trustee
January 03, 2003	03001521	Freddie Hill	Mayer P. Lazar, Credit Shelter Trust
December 14, 2000	KS9005	Ruth P. Lazar and Marten H. Lazar, Co-Trustees of the Mayer P. Lazar Credit Shelter Trust	Ruth P. Lazar and Marten H. Lazar, Co-Trustees of the Mayer P. Lazar Credit Shelter Trust
November 15, 1993	DZ2395	Mayer P. Lazar, Trustee of the Mayer P. Lazar Trust	Mayer P. Lazar
December 01, 1960	F97647	Mayer P. Lazar	Ruth Mildred Lazar

**Parcel: 001055 00011**

Environmental Lien: Found  Not Found

Other Activity and Use Limitations (AULs): Found  Not Found

HISTORICAL CHAIN of TITLE FROM 1980			
RECORDED	INSTRUMENT	GRANTEE	GRANTOR
August 14, 2019	19082607	City of Memphis and Shelby County Community Redevelopment Agency	MLB-Uptown, LLC
September 15, 2011	11090720	MLB-Uptown, LLC	Arnold Engelberg
September 10, 1992	B20257	Arnold Engelberg	Rose Schaffer Engelbert
August 09, 1951	63974	Rose Schaffer Engelberg	Louis D. Schaffer

**Parcel: 001055 00012**

Environmental Lien: Found  Not Found

Other Activity and Use Limitations (AULs): Found  Not Found

HISTORICAL CHAIN of TITLE FROM 1980			
RECORDED	INSTRUMENT	GRANTEE	GRANTOR
August 14, 2019	19082607	City of Memphis and Shelby County Community Redevelopment Agency	MLB-Uptown, LLC
November 10, 2011	11112083	MLB-Uptown, LLC	Mayer P. Lazar Credit Shelter Trust
May 04, 2009	09051550	Freddie Hill and Claiborne H. Ferguson, Trustee	Mayer P. Lazar Credit Shelter Trust
January 03, 2003	03001521	Freddie Hill	Mayer P. Lazar Credit Shelter Trust
August 14, 1975	K59450	Mayer P. Lazar	Lee Roland White, Etta Poole and Mary Irene White



## EDR Environmental Lien and AUL Search 1980

### RESEARCH SOURCE(S)

The following research sources were reviewed from January 01, 1980, to October 22, 2024. Based on available information evaluated by the title search professional, the jurisdiction does not require a search of judicial records to identify environmental liens.

Source 1: Shelby County Assessor  
Shelby County, TN

Source 2: Shelby County Register of Deeds  
Shelby County, TN

### FINDINGS DETAIL

**Parcel: 001055 00001**

#### ENVIRONMENTAL LIEN

Environmental Lien: Found  Not Found

#### OTHER ACTIVITY AND USE LIMITATIONS (AULs)

Other AULs: Found  Not Found

#### MISCELLANEOUS DOCUMENTS

None

**Parcel: 001055 00002**

#### ENVIRONMENTAL LIEN

Environmental Lien: Found  Not Found

#### OTHER ACTIVITY AND USE LIMITATIONS (AULs)

Other AULs: Found  Not Found

#### MISCELLANEOUS DOCUMENTS

None

## EDR Environmental Lien and AUL Search 1980

**Parcel: 001055 00003**

### ENVIRONMENTAL LIEN

Environmental Lien: Found  Not Found

### OTHER ACTIVITY AND USE LIMITATIONS (AULs)

Other AULs: Found  Not Found

### MISCELLANEOUS DOCUMENTS

None

**Parcel: 001055 00004**

### ENVIRONMENTAL LIEN

Environmental Lien: Found  Not Found

### OTHER ACTIVITY AND USE LIMITATIONS (AULs)

Other AULs: Found  Not Found

### MISCELLANEOUS DOCUMENTS

None

**Parcel: 001055 00009C**

### ENVIRONMENTAL LIEN

Environmental Lien: Found  Not Found

### OTHER ACTIVITY AND USE LIMITATIONS (AULs)

Other AULs: Found  Not Found

### MISCELLANEOUS DOCUMENTS

None

## EDR Environmental Lien and AUL Search 1980

**Parcel: 001055 00010**

### ENVIRONMENTAL LIEN

Environmental Lien: Found  Not Found

### OTHER ACTIVITY AND USE LIMITATIONS (AULs)

Other AULs: Found  Not Found

### MISCELLANEOUS DOCUMENTS

None

**Parcel: 001055 00011**

### ENVIRONMENTAL LIEN

Environmental Lien: Found  Not Found

### OTHER ACTIVITY AND USE LIMITATIONS (AULs)

Other AULs: Found  Not Found

### MISCELLANEOUS DOCUMENTS

None

**Parcel: 001055 00012**

### ENVIRONMENTAL LIEN

Environmental Lien: Found  Not Found

### OTHER ACTIVITY AND USE LIMITATIONS (AULs)

Other AULs: Found  Not Found

### MISCELLANEOUS DOCUMENTS

None



## EDR Environmental Lien and AUL Search 1980

### HISTORICAL CHAIN OF TITLE FROM 1980

**Parcel ID:** 001055 00001

DEED TYPE:	Quitclaim Deed
GRANTEE:	City of Memphis and Shelby County Community Redevelopment Agency
GRANTOR:	MLB-Uptown, LLC
DATE EXECUTED:	August 13, 2019
DATE RECORDED:	August 14, 2019
INSTRUMENT#:	19082607

DEED TYPE:	Warranty Deed
GRANTEE:	MLB-Uptown, LLC
GRANTOR:	Alan Bredow
DATE EXECUTED:	August 26, 2011
DATE RECORDED:	August 02, 2013
INSTRUMENT#:	13094106

DEED TYPE:	Quitclaim Deed
GRANTEE:	Alan Bredow
GRANTOR:	Fanny Bredow
DATE EXECUTED:	August 01, 1986
DATE RECORDED:	September 22, 1986
INSTRUMENT#:	Y40023

Public records of Shelby County, Tennessee were searched from January 1, 1980 through October 22, 2024 and no other deeds of record vesting title in the subject parcel were located during the period searched.

**Parcel ID:** 001055 00002

DEED TYPE:	Quitclaim Deed
GRANTEE:	City of Memphis and Shelby County Community Redevelopment Agency
GRANTOR:	MLB-Uptown, LLC
DATE EXECUTED:	August 13, 2019
DATE RECORDED:	August 14, 2019
INSTRUMENT#:	19082607

DEED TYPE:	Warranty Deed
GRANTEE:	MLB-Uptown, LLC
GRANTOR:	Martha A. Bell
DATE EXECUTED:	June 28, 2005
DATE RECORDED:	September 26, 2005
INSTRUMENT#:	05158108

## EDR Environmental Lien and AUL Search 1980

DEED TYPE: Last Will and Testament  
GRANTEE: Martha A. Bell  
GRANTOR: Walter Lee Wayne  
DATE EXECUTED: November 06, 1991  
DATE RECORDED: November 06, 1991  
BOOK/PAGE: 282/10

DEED TYPE: Warranty Deed  
GRANTEE: Walter Lee Wayne  
GRANTOR: John W. Demuth and Sallie W. Demuth  
DATE EXECUTED: December 18, 1981  
DATE RECORDED: October 09, 1981  
INSTRUMENT#: S82419

DEED TYPE: Deed  
GRANTEE: John W. Demuth and Sallie W. Demuth  
GRANTOR: William H. Demuth  
DATE EXECUTED: August 29, 1978  
DATE RECORDED: August 29, 1978  
BOOK / PAGE: 5085/238

**Parcel ID:** 001055 00003

DEED TYPE: Quitclaim Deed  
GRANTEE: City of Memphis and Shelby County Community Redevelopment Agency  
GRANTOR: MLB-Uptown, LLC  
DATE EXECUTED: August 13, 2019  
DATE RECORDED: August 14, 2019  
INSTRUMENT#: 19082607

DEED TYPE: Quitclaim Deed  
GRANTEE: MLB-Uptown, LLC  
GRANTOR: Memphis Housing Authority  
DATE EXECUTED: August 01, 2018  
DATE RECORDED: August 10, 2018  
INSTRUMENT#: 18081298

## EDR Environmental Lien and AUL Search 1980

DEED TYPE: Order of Taking  
GRANTEE: Memphis Housing Authority  
GRANTOR: Ozeil Gavin and Sophia Gavin  
DATE EXECUTED: August 21, 2018  
DATE RECORDED: August 21, 2018  
INSTRUMENT#: 18084807

DEED TYPE: Quitclaim Deed  
GRANTEE: Ozeil Gavin and Sophia Gavin  
GRANTOR: County of Shelby  
DATE EXECUTED: June 10, 2008  
DATE RECORDED: August 28, 2008  
INSTRUMENT#: 08114635

DEED TYPE: Quitclaim Deed  
GRANTEE: Walter B. Wayne  
GRANTOR: Martha A. Bell  
DATE EXECUTED: June 02, 2000  
DATE RECORDED: June 05, 2000  
INSTRUMENT#: KF9503

DEED TYPE: Quitclaim Deed  
GRANTEE: Walter Lee Wayne  
GRANTOR: Everett Lee Mallory, Sr.  
DATE EXECUTED: October 08, 1981  
DATE RECORDED: October 09, 1981  
INSTRUMENT#: S82415

DEED TYPE: Deed  
GRANTEE: Everett Lee Mallory, Sr. and Walter Lee Wayne  
GRANTOR: Ray L. White and Dorothy M. White  
DATE EXECUTED: April 28, 1981  
DATE RECORDED: May 19, 1981  
INSTRUMENT#: S49321

DEED TYPE: Warranty Deed  
GRANTEE: Ray L. White and Dorothy M. White  
GRANTOR: Wilemon Brothers, Cecil W. Wilemon and Dewey F. Wilemon  
DATE EXECUTED: November 23, 1976  
DATE RECORDED: December 27, 1976  
INSTRUMENT#: L77656



## EDR Environmental Lien and AUL Search 1980

**Parcel ID:** 001055 00004

DEED TYPE: Quitclaim Deed  
GRANTEE: City of Memphis and Shelby County Community Redevelopment Agency  
GRANTOR: MLB-Uptown, LLC  
DATE EXECUTED: August 13, 2019  
DATE RECORDED: August 14, 2019  
INSTRUMENT#: 19082607

DEED TYPE: Quitclaim Deed  
GRANTEE: MLB-Uptown, LLC  
GRANTOR: Memphis Housing Authority  
DATE EXECUTED: April 25, 2018  
DATE RECORDED: August 10, 2018  
INSTRUMENT#: 18081297

DEED TYPE: Deed  
GRANTEE: MDM Investments of Memphis, LLC  
GRANTOR: Move in Investments, Inc. and MDM Investments of Memphis, LLC  
DATE EXECUTED: March 11, 2016  
DATE RECORDED: March 11, 2016  
INSTRUMENT#: 16023576

DEED TYPE: Quitclaim Deed  
GRANTEE: Move in Investments, Inc. and MDM Investments of Memphis, LLC  
GRANTOR: Move in Investments, Inc.  
DATE EXECUTED: March 28, 2013  
DATE RECORDED: April 03, 2013  
INSTRUMENT#: 13040457

DEED TYPE: Deed  
GRANTEE: Move in Investments, Inc.  
GRANTOR: County of Shelby  
DATE EXECUTED: March 08, 2013  
DATE RECORDED: March 19, 2013  
INSTRUMENT#: 13033390

## EDR Environmental Lien and AUL Search 1980

DEED TYPE: Warranty Deed  
GRANTEE: KVG, LLP  
GRANTOR: NDSJ Investment Corporation  
DATE EXECUTED: January 15, 2007  
DATE RECORDED: January 30, 2007  
INSTRUMENT#: 07019407

DEED TYPE: Warranty Deed  
GRANTEE: NDSJ Investment Corporation  
GRANTOR: Steven Anthony Thomas  
DATE EXECUTED: January 12, 2007  
DATE RECORDED: January 22, 2007  
INSTRUMENT#: 07013788

DEED TYPE: Warranty Deed  
GRANTEE: Steven Anthony Thomas  
GRANTOR: Mae F. Cross  
DATE EXECUTED: May 21, 2004  
DATE RECORDED: June 24, 2004  
INSTRUMENT#: 04104905

DEED TYPE: Warranty Deed  
GRANTEE: Mae F. Cross  
GRANTOR: J.W. Harris, Jr., D.D.S. Pension Plan  
DATE EXECUTED: August 09, 2002  
DATE RECORDED: September 16, 2002  
INSTRUMENT#: 02153579

DEED TYPE: Quitclaim Deed  
GRANTEE: J.W. Harris, Jr., D.D.S. Pension Plan  
GRANTOR: Ameer X. Flippin dba Zenus International CO.  
DATE EXECUTED: May 18, 1995  
DATE RECORDED: August 13, 1997  
INSTRUMENT#: GU7748

DEED TYPE: Warranty Deed  
GRANTEE: Ameer X. Flippin dba Zenus International CO.  
GRANTOR: J.W. Harris, Jr., D.D.S. Pension Plan  
DATE EXECUTED: May 18, 1995  
DATE RECORDED: May 19, 1995  
INSTRUMENT#: FB8493

## EDR Environmental Lien and AUL Search 1980

DEED TYPE: Substitute Trustees Deed  
GRANTEE: J.W. Harris, Jr., D.D.S. Pension Plan  
GRANTOR: Bruce F. Gray, Jr.  
DATE EXECUTED: March 11, 1993  
DATE RECORDED: April 12, 1995  
INSTRUMENT#: FA2128

DEED TYPE: Warranty Deed  
GRANTEE: Bernard H. Williams and Mary Helen Williams  
GRANTOR: John W. Harris, Jr. Trustee for Pension Plan  
DATE EXECUTED: March 11, 1993  
DATE RECORDED: April 01, 1993  
INSTRUMENT#: DL1101

DEED TYPE: Warranty Deed  
GRANTEE: John W. Harris, Jr. Trustee for Pension Plan  
GRANTOR: Darrell D. Moore and Carla J. Moore  
DATE EXECUTED: September 10, 1991  
DATE RECORDED: September 11, 1991  
INSTRUMENT#: CK3946

DEED TYPE: Warranty Deed  
GRANTEE: Darrell D. Moore and Carla J. Moore  
GRANTOR: John W. Harris, Jr., Trustee for Pension Plan  
DATE EXECUTED: July 21, 1990  
DATE RECORDED: July 26, 1990  
INSTRUMENT#: BU2588

DEED TYPE: Deed  
GRANTEE: John W. Harris, Jr., Trustee for Pension Plan  
GRANTOR: Ben Schwartz  
DATE EXECUTED: January 11, 1985  
DATE RECORDED: January 15, 1985  
INSTRUMENT#: WI4720



## EDR Environmental Lien and AUL Search 1980

DEED TYPE: Quitclaim Deed  
GRANTEE: Ben Schwartz and Shiley S. Schwartz  
GRANTOR: Henry Samuels, Helen J. Samuels and Ben Schwartz and Shirley S. Schwarts  
DATE EXECUTED: January 02, 1982  
DATE RECORDED: January 04, 1982  
BOOK / PAGE: S98034

Public records of Shelby County, Tennessee were searched from January 1, 1980 through October 22, 2024 and no other deeds of record vesting title in the subject parcel were located during the period searched.

**Parcel ID:** 001055 00009C

DEED TYPE: Quitclaim Deed  
GRANTEE: City of Memphis and Shelby County Community Redevelopment Agency  
GRANTOR: MLB-Uptown, LLC  
DATE EXECUTED: August 13, 2019  
DATE RECORDED: August 14, 2019  
INSTRUMENT#: 19082607

DEED TYPE: Warranty Deed  
GRANTEE: MLB-Uptown, LLC  
GRANTOR: John A. Bruno and Tonia D. Bruno  
DATE EXECUTED: October 06, 2005  
DATE RECORDED: October 20, 2005  
INSTRUMENT#: 05173310

DEED TYPE: Warranty Deed  
GRANTEE: John A. Bruno and Tonia D. Bruno  
GRANTOR: Claire Hayes  
DATE EXECUTED: July 17, 1996  
DATE RECORDED: July 19, 1996  
INSTRUMENT#: FZ2888

DEED TYPE: Warranty Deed  
GRANTEE: Lawrence C. Hayes  
GRANTOR: Mayer P. Lazar  
DATE EXECUTED: June 25, 1981  
DATE RECORDED: June 26, 1981  
INSTRUMENT#: S58748

Public records of Shelby County, Tennessee were searched from January 1, 1980 through October 22, 2024 and no other deeds of record vesting title in the subject parcel were located during the period searched.

## EDR Environmental Lien and AUL Search 1980

**Parcel ID:** 001055 00010

DEED TYPE: Quitclaim Deed  
GRANTEE: City of Memphis and Shelby County Community Redevelopment Agency  
GRANTOR: MLB-Uptown, LLC  
DATE EXECUTED: August 13, 2019  
DATE RECORDED: August 14, 2019  
INSTRUMENT#: 19082607

DEED TYPE: Warranty Deed  
GRANTEE: MLB-Uptown, LLC  
GRANTOR: Mayer P. Lazar Credit Shelter Trust  
DATE EXECUTED: November 09, 2011  
DATE RECORDED: November 10, 2011  
INSTRUMENT#: 11112087

DEED TYPE: Substitute Trustees Deed  
GRANTEE: Mayer P. Lazar Credit Shelter Trust  
GRANTOR: Freddie Hill and Claiborne H. Ferguson, Trustee  
DATE EXECUTED: April 08, 2009  
DATE RECORDED: May 04, 2009  
INSTRUMENT#: 09051550

DEED TYPE: Warranty Deed  
GRANTEE: Freddie Hill  
GRANTOR: Mayer P. Lazar, Credit Shelter Trust  
DATE EXECUTED: December 09, 2002  
DATE RECORDED: January 03, 2003  
INSTRUMENT#: 03001521

DEED TYPE: Quitclaim Deed  
GRANTEE: Ruth P. Lazar and Marten H. Lazar, Co-Trustees of the Mayer P. Lazar Credit Shelter Trust  
GRANTOR: Ruth P. Lazar and Marten H. Lazar, Co-Trustees of the Mayer P. Lazar Credit Shelter Trust  
DATE EXECUTED: December 07, 2000  
DATE RECORDED: December 14, 2000  
INSTRUMENT#: KS9005

## EDR Environmental Lien and AUL Search 1980

DEED TYPE: Quitclaim Deed  
GRANTEE: Mayer P. Lazar, Trustee of the Mayer P. Lazar Trust  
GRANTOR: Mayer P. Lazar  
DATE EXECUTED: November 09, 1993  
DATE RECORDED: November 15, 1993  
INSTRUMENT#: DZ2395

DEED TYPE: Deed  
GRANTEE: Mayer P. Lazar  
GRANTOR: Ruth Mildred Lazar  
DATE EXECUTED: December 01, 1960  
DATE RECORDED: December 01, 1960  
INSTRUMENT#: F97647

**Parcel ID:** 001055 00011

DEED TYPE: Quitclaim Deed  
GRANTEE: City of Memphis and Shelby County Community Redevelopment Agency  
GRANTOR: MLB-Uptown, LLC  
DATE EXECUTED: August 13, 2019  
DATE RECORDED: August 14, 2019  
INSTRUMENT#: 19082607

DEED TYPE: Warranty Deed  
GRANTEE: MLB-Uptown, LLC  
GRANTOR: Arnold Engelberg  
DATE EXECUTED: August 26, 2011  
DATE RECORDED: September 15, 2011  
INSTRUMENT#: 11090720

DEED TYPE: Last Will and Testament  
GRANTEE: Arnold Engelberg  
GRANTOR: Rose Schaffer Engelbert  
DATE EXECUTED: September 10, 1992  
DATE RECORDED: September 10, 1992  
INSTRUMENT#: B20257



## EDR Environmental Lien and AUL Search 1980

DEED TYPE: Last Will and Testament  
GRANTEE: Rose Schaffer Engelberg  
GRANTOR: Louis D. Schaffer  
DATE EXECUTED: August 09, 1951  
DATE RECORDED: August 09, 1951  
INSTRUMENT#: 63974

**Parcel ID:** 001055 00012

DEED TYPE: Quitclaim Deed  
GRANTEE: City of Memphis and Shelby County Community Redevelopment Agency  
GRANTOR: MLB-Uptown, LLC  
DATE EXECUTED: August 13, 2019  
DATE RECORDED: August 14, 2019  
INSTRUMENT#: 19082607

DEED TYPE: Warranty Deed  
GRANTEE: MLB-Uptown, LLC  
GRANTOR: Mayer P. Lazar Credit Shelter Trust  
DATE EXECUTED: November 09, 2011  
DATE RECORDED: November 10, 2011  
INSTRUMENT#: 11112083

DEED TYPE: Substitute Trustees Deed  
GRANTEE: Freddie Hill and Claiborne H. Ferguson, Trustee  
GRANTOR: Mayer P. Lazar Credit Shelter Trust  
DATE EXECUTED: April 08, 2009  
DATE RECORDED: May 04, 2009  
INSTRUMENT#: 09051550

DEED TYPE: Warranty Deed  
GRANTEE: Freddie Hill  
GRANTOR: Mayer P. Lazar Credit Shelter Trust  
DATE EXECUTED: December 09, 2002  
DATE RECORDED: January 03, 2003  
INSTRUMENT#: 03001521

## EDR Environmental Lien and AUL Search 1980

DEED TYPE:	Warranty Deed
GRANTEE:	Mayer P. Lazar
GRANTOR:	Lee Roland White, Etta Poole and Mary Irene White
DATE EXECUTED:	July 31, 1975
DATE RECORDED:	August 14, 1975
INSTRUMENT#:	K59450

**EDR Environmental Lien and AUL Search 1980**

**CURRENT DEED EXHIBIT(S)**





# Shelby County Tennessee

## *Shelandra Y Ford*

Shelby County Register

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As evidenced by the instrument number shown below, this document has been recorded as a permanent record in the archives of the Office of the Shelby County Register.

19082607

08/14/2019 - 08:58:30 AM

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16 PGS

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LACT 1905455-19082607

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VALUE	0.00
MORTGAGE TAX	0.00
TRANSFER TAX	0.00
RECORDING FEE	80.00
DP FEE	2.00
REGISTER'S FEE	0.00
EFILE FEE	2.00
TOTAL AMOUNT	84.00

---

SHELANDRA Y FORD

REGISTER OF DEEDS SHELBY COUNTY TENNESSEE

This Instrument Prepared by and  
After Recording Return to:  
Monice Hagler, Esquire  
Hagler Law Group, PLLC  
2650 Thousand Oaks Blvd., Ste. 2140  
Memphis, TN 38118  
File Number: MLB-Uptown/CRA

QUIT CLAIM DEED

THIS INDENDURE is made and entered into this 13<sup>th</sup> day of August, 2019, by and between MLB-Uptown, LLC, a Tennessee limited liability company, ("Grantor") and CITY OF MEMPHIS and SHELBY COUNTY COMMUNITY REDEVELOPMENT AGENCY, a Tennessee community development agency ("Grantee").

WITNESSETH:

That for an in consideration of Ten Dollars (\$10.00), cash in hand paid, and other good and valuable consideration, the receipt and sufficiency of all of which is hereby acknowledged, Grantor has quit claimed, bargained and sold and does hereby quit claim, bargain, sell, convey and confirm unto Grantee the following described real estate, situated and being in Memphis, Shelby County, Tennessee:

Exhibit A – Lot Descriptions, Property Addresses, Derivation Clauses and Parcel Nos.”  
attached hereto.

TO HAVE AND TO HOLD the aforesaid real estate, together with all the appurtenances and hereditaments thereunto belonging or in anywise appertaining unto Grantee, its successors and assigns in fee simple forever.

IN WITNESS WHEREOF, Grantor, acting through its duly authorized officer, has executed this indenture this 13<sup>th</sup> day of August, 2019.

MLB-UPTOWN, LLC

By: J. Martin Regan  
Its: President

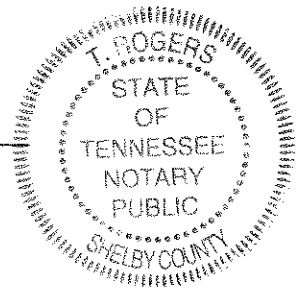
STATE OF TENNESSEE  
COUNTY OF SHELBY

Before me, the undersigned Notary Public of the State and County aforesaid, personally appeared J. Martin Regan, Jr. with whom I am personally acquainted (or proved to me on the basis of satisfactory evidence), and who acknowledged himself to be the President of MLB-UPTOWN, LLC, the within named bargainer, a Tennessee limited liability company, and that he as such President executed the foregoing instrument for the purposes therein contained, by signing the name of the company by himself as such

WITNESS my hand and seal, this 13<sup>th</sup> day of August, 2019.

T. Rogers  
Notary Public:

My commission expires: 5-8-2023



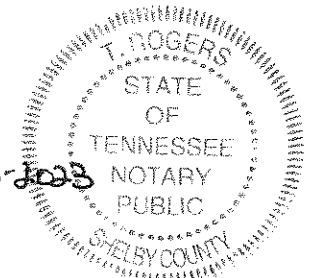
STATE OF TENNESSEE  
COUNTY OF SHELBY

I, or we, hereby swear or affirm that, to the best of affiant's knowledge, information, and belief, the actual consideration for this transfer is - 40 -.

J. Martin Regan  
Affiant

Subscribed and sworn to before me this 13<sup>th</sup> day of August, 2019.

T. Rogers  
Notary Public  
MY COMMISSION EXPIRES: 5-8-2023





Property Addresses:

Exhibit A – Lot Descriptions, Property Addresses, Derivation Clauses & Parcel Nos. attached hereto.

Property Owner's Name: City of Memphis and Shelby County Community Redevelopment Agency  
170 N. Main 6<sup>th</sup> Floor  
Memphis, Tennessee 38103

Name and Address and Person Responsible  
For payment of Real Property Taxes: Exempt

City of Memphis and Shelby County Community Redevelopment Agency  
170 N. Main 6<sup>th</sup> Floor  
Memphis, Tennessee 38103

**Exhibit A**  
**Lot Descriptions, Property Addresses, Derivation Clauses & Parcel Numbers**

**1. 0 North Manassas**

**Parcel No. 027-007-00020**

Part of Lot 13, Brinkley and Snowden Subdivision as shown on plat of record in Plat Book 1, Page 38 in the Register's Office of Shelby County, Tennessee, to which plat reference is hereby made for a more particular description of said property.

Being the same property conveyed to Grantor by Deed at Instrument Number 05088943 dated April 28, 2005 and re-recorded at Instrument Number 09128027 in the Register's Office of Shelby County, Tennessee.

**2. 682 Looney**

**Parcel No. 001-100-00016**

East 25 feet of Lot 91, John Overton Subdivision as shown on plat of record in Plat Book 1, Page 39 in the Register's Office of Shelby County, Tennessee, to which plat reference is hereby made for a more particular description of said property.

Being the same property conveyed to Grantor by Deed at Instrument Number 05088943 dated April 28, 2005 and re-recorded at Instrument Number 09128027 in the Register's Office of Shelby County, Tennessee

**3. 721 Leath**

**Parcel No. 027-016-00008**

Part of Lot 10, Block 2, Leath & Jones Subdivision as shown on plat of record in Plat Book 2, Page 30, in the Register's Office of Shelby County, Tennessee, to which plat reference is hereby made for a more particular description of said property.

Being the same property conveyed to Grantor by Deed at Instrument Number 05088943 dated April 28, 2005 and re-recorded at Instrument Number 09128027 in the Register's Office of Shelby County, Tennessee.

**4. 0 North Fourth**

**Parcel No. 001-073-00011**

South 30 feet of Lot 150, Greenlaw Addition Subdivision as shown on plat of record in Plat Book 3, Page 16, in the Register's Office of Shelby County, Tennessee, to which plat reference is hereby made for a more particular description of said property.

Being the same property conveyed to Grantor by Deed at Instrument Number 06058037 dated April 11, 2006 and recorded in the Register's Office of Shelby County, Tennessee.

**5. 67 N Fifth**

**Parcel No. 001-077-00002C**

Lot 169, Greenlaw Addition Subdivision as shown on plat of record in Plat Book 3, Page 16, in the Register's Office of Shelby County, Tennessee, to which plat reference is hereby made for a more particular description of said property.

Being the same property conveyed to Grantor by Deed at Instrument Number 06058037 dated April 11, 2006 and recorded in the Register's Office of Shelby County, Tennessee.

**6. 248 Saffarans**

**Parcel No. 001-076-00008**

Part of the east 74.25 feet of Lot 176, Greenlaw Chelsea Subdivision as shown on plat of record in Plat Book 3, Page 16, in the Register's Office of Shelby County, Tennessee, to which plat reference is hereby made for a more particular description of said property.

Being the same property conveyed to Grantor by Deed at Instrument Number 06058037 dated April 11, 2006 and recorded in the Register's Office of Shelby County, Tennessee.

**7. 750 Looney**

**Parcel No. 001-101-00020**

Part of Lot 60, John Overton Subdivision as shown on plat of record in Plat Book 1, Page 39, and being more particularly described as follows:

Beginning at a point in the north line of Looney Avenue, said point being 92.0 feet west of the west line of Manassas Street; thence westwardly with said north line at distance of 39.0 feet; thence northwardly a distance of 68.5 feet to a point 22 feet south of the south line of Lot 61, being 124.4 feet west of the west line of Manassas Street; thence eastwardly parallel to the south line of Lot 61 a distance of 37 feet; thence southwardly a distance of 56.70 feet to the point of beginning.

Being the same property conveyed to Grantor by Deed at Instrument Number 04210154 dated December 16, 2004 and recorded in the Register's Office of Shelby County, Tennessee.

**8. 714 Woodlawn**

**Parcel No. 001-102-00017**

Part of Lot 48, John Overton Subdivision as shown on plat of record in Plat Book 1, Page 39, in the Register's Office of Shelby County, Tennessee, to which plat reference is hereby made for a more particular description of said property

Being the same property conveyed to Grantor by Deed at Instrument Number 04210154 dated December 16, 2004 and recorded in the Register's Office of Shelby County, Tennessee.



**9. 0 Looney**

**Parcel No. 001-101-00022**

Part of Lots 60 and 61, John Overton Subdivision as shown on plat of record in Plat Book 1, Page 39, in the Register's Office of Shelby County, Tennessee, to which plat reference is hereby made for a more particular description of said property

Being the same property conveyed to Grantor by Deed at Instrument Number 04210154 dated December 16, 2004 and recorded in the Register's Office of Shelby County, Tennessee.

**10. 188 Keel**

**Parcel No. 001-079-00015**

Part of Lot 109, Greenlaw et al Addition to City of Memphis, as recorded in Shelby County Register 's Office, Plat Book 3, Page 16, and being more particularly described as follows:

Beginning at a point in the north line of Keel Avenue, said point being 119.5 feet eastwardly from the east line of North Third Street; thence eastwardly along said north line a distance of 29.0 feet to a point in the west line of an alley; thence northwardly along said west line a distance of 74.25 feet to the southeast corner of Lot 110; thence westwardly along the line dividing lots 109 and 110 a distance of 29.0 feet; thence southwardly a distance of 74.25 feet to the point of beginning.

Being the same property conveyed to Grantor by Deed at Instrument Number 05072527 dated March 7, 2005 and recorded in the Register's Office of Shelby County, Tennessee.

**11. 0 McDavitt Place**

**Parcel No. 001-105-00023z**

Parcel of land acquired by the Commissioners of Shelby County as described in Chancery Court Cause T.R.D. No. 9456-1, Exhibit #000136, County Tax Sale #53, identified as Ward 001, Block 105, Parcel 00023Z and being a parcel of land located on McDavitt Place, 13.5x99.80, as described in Instrument No. K7-5053, in the Register's Office of Shelby County, Tennessee.

Being the same property conveyed to Grantor by Deed at Instrument Number 05088943 dated April 28, 2005 and re-recorded at Instrument No. 06149348, in the Register's Office of Shelby County, Tennessee.

**12. 0 Greenlaw Avenue**

**Parcel No. 001-074-00011**

Part of Lot 97, Greenlaw et al Addition to Memphis in Country Lot 530, Shelby County, Tennessee and being more particularly described as follows:

Beginning at a point of intersection with the northeast line of Greenlaw Avenue and the southeast line of North Third Street; thence southeastwardly along said northeast line a distance of 52.06 feet (called 51.0 feet); thence northeastwardly parallel with North Third

Street a distance of 74.84 feet (called 74.25 feet) to a point; thence northwestwardly along the line dividing Lots 97 and 98 a distance of 52.06 feet (called 51.0 feet) to a point in the southeast line of North Third Street; thence southwestwardly along said southeast line a distance of 74.84 feet (called 74.25 feet) to the point of beginning.

Being the same property conveyed to Grantor by Deed at Instrument Number 05043539 dated March 7, 2005 and recorded in the Register's Office of Shelby County, Tennessee.

**13. 749 N. Manassas**

**Parcel No. 001-101-00019**

Part of Lot 6, John Overton Subdivision as shown in plat of record in Plat Book 1, Page 39, in the Register's Office of Shelby County, Tennessee, to which plat reference is hereby given for a more particular description of said property.

Being the same property conveyed to Grantor by Deed at Instrument Number 06015998 dated January 26, 2006 and recorded in the Register's Office of Shelby County, Tennessee.

**14. 165 Chelsea**

**Parcel No. 001-055-00003**

Lot 65, Greenlaw Addition Subdivision, as shown on plat of record in Plat Book 3, Page 16, including the strip adjacent on the north, and filed in the Register's Office of Shelby County, Tennessee, to which plat reference is hereby made for a more particular description of said property.

Being the same property conveyed to Grantor by Deed at Instrument Number 18081298 dated August 1, 2018 and recorded in the Register's Office of Shelby County, Tennessee.

**15. 714 N. Second**

**Parcel No. 001-055-00001**

Beginning at a point in the east line of North Second Street, 29.25 feet south of the present south line of Chelsea Avenue; thence south with the east line of North Second Street, 45 feet; thence east 90 feet; thence north parallel with the east line of North Second Street, 45 feet; thence west 90 feet to the point of beginning, being part of Lot 63 and 64 in Country Lot 534, City of Memphis.

Being the same property conveyed to Grantor by Deed at Instrument Number 11090700 dated August 26, 2011 and re-recorded at Instrument Number 13094106, in the Register's Office of Shelby County, Tennessee.

**16. 0 Keel Avenue**

**Parcel No. 001-099-00016**

East 25 feet of Lot 43, W. J. Chase Subdivision as shown on plat of record in Plat Book 3, Page 99, in the Register's Office of Shelby County, Tennessee, to which plat reference is hereby made for a more particular description of said property.

Being the same property conveyed to Grantor by Deed at Instrument Number 05088943 dated April 25, 2005 and re-recorded at Instrument Number 09128027, in the Register's Office of Shelby County, Tennessee.

**17. 325 Mill Avenue**

**Parcel No. 001-091-00008**

Lot 305, County Lot 527, less the west 30 feet thereof, described as beginning at the intersection of the south line of Mill Avenue with the west line of North Seventh Street; thence westwardly with the south line of Mill Avenue 47 feet to a stake 277.5 feet east of the east line of North Sixth Street; thence southwardly parallel to the east line of North Sixth Street 101 feet to a stake in the south line of said Lot 305; thence eastwardly with the south line of Lot 305, 36.3 feet to a stake in the west line of North Seventh Street; thence northwardly with the said west line 91.5 feet to the point of beginning.

Being the same property conveyed to Grantor by Deed at Instrument Number 08078719 dated June 6, 2008 and recorded in the Register's Office of Shelby County, Tennessee.

**18. 599 N Second**

**Parcel No. 001-061-00024**

Lot 14, Section B, Malone Park Subdivision, as shown on plat of record in Plat Book 271, Page 42, in the Register's Office of Shelby County, Tennessee, to which plat reference is hereby made for a more particular description of said property.

Being the same property conveyed to Grantor by Deed at Instrument Number 14100530 dated September 24, 2014 and recorded in the Register's Office of Shelby County, Tennessee.

**19. 0 N Main Street**

**Parcel No. 001-061-00012**

Lot 2, Section B, Malone Park Subdivision, as shown on plat of record in Plat Book 271, Page 42, in the Register's Office of Shelby County, Tennessee, to which plat reference is hereby made for a more particular description of said property.

Being the same property conveyed to Grantor by Deed at Instrument Number 13036840 dated March 22, 2013 and recorded in the Register's Office of Shelby County, Tennessee.

**20. 0 North Second**

**Parcel No. 001-055-00011**

The south 55.99 feet of Lot 53, Greenlaw's Chelsea Subdivision in C.L. 528, and more particularly described as follows:

Beginning at the point of intersection of the north line of Cubbins alley with the east line of Second Street; thence in a northwardly direction along the east line of Second Street and 55.99 feet to a point, the southwest corner of the L. D. Schaffer lot; thence eastwardly along the south line of the L. D. Schaffer lot 90 feet to a point in the west line of L.P. Boyd lot; thence southwardly along the west line of the L.F. Boyd lot 59.55 feet to the north line of



the Cubbins alley; thence westwardly along the north line of said alley 90 feet to the point of beginning.

Being the same property conveyed to Grantor by Deed at Instrument Number 11090720 dated August 26, 2011 and recorded in the Register's Office of Shelby County, Tennessee.

**21. 103 Saffarans**

**Parcel No. 001-061-00017**

Lot 7, Section B, Malone Park Subdivision, as shown on plat of record in Plat Book 271, Page 42, in the Register's Office of Shelby County, Tennessee, to which plat reference is hereby made for a more particular description of said property.

Being the same property conveyed to Grantor by Deed at Instrument Numbers 04125914, 05049879 and 07067352 all recorded in the Register's Office of Shelby County, Tennessee.

**22. 0 Saffarans**

**Parcel No. 001-061-00025**

Lot 15, Section B, Malone Park Subdivision, as shown on plat of record in Plat Book 271, Page 42, in the Register's Office of Shelby County, Tennessee, to which plat reference is hereby made for a more particular description of said property.

Being the same property conveyed to Grantor by Deed at Instrument Number 14100530 dated September 14, 2014 and recorded in the Register's Office of Shelby County, Tennessee.

**23. 593 N Second**

**Parcel No. 001-061-00023**

Lot 13, Section B, Malone Park Subdivision, as shown on plat of record in Plat Book 271, Page 42, in the Register's Office of Shelby County, Tennessee, to which plat reference is hereby made for a more particular description of said property.

Being the same property conveyed to Grantor by Deed at Instrument Number 09128063 dated October 28, 2009 and recorded in the Register's Office of Shelby County, Tennessee.

**24. 608 Main (97 Saffarans)**

**Parcel No. 001-061-00011**

Lot 1, Section B, Malone Park Subdivision, as shown on plat of record in Plat Book 271, Page 42, in the Register's Office of Shelby County, Tennessee, to which plat reference is hereby made for a more particular description of said property.

Being the same property conveyed to Grantor by Deed at Instrument Number 05088943 dated April 28, 2005, re-recorded at Instrument Number 09128027 and re-re-recorded at Instrument 06149348, in the Register's Office of Shelby County, Tennessee.

**25. 643 Looney****Parcel No. 001-096-00009**

Part of Lot 23, John Overton Subdivision as shown on plat of record in Plat Book 1, Page 39, in the Register's Office of Shelby County, Tennessee, to which plat reference is hereby made for a more particular description of said property.

Being the same property conveyed to Grantor by Deed at Instrument Number 06058037 dated April 11, 2006 and recorded in the Register's Office of Shelby County, Tennessee

**26. 0 Danny Thomas****Parcel No. 001-096-A00099**

Lot 99 of Uptown Village Subdivision as shown on plat of record in Plat Book 228, Page 37, in the Register's Office of Shelby County, Tennessee, to which plat reference is hereby made for a more particular description of said property.

Being the same property conveyed to Grantor by Deed at Instrument Number 16113598 dated October 21, 2016 and recorded in the Register's Office of Shelby County, Tennessee.

**27. 645 Jackson****Parcel No. 001-106-00001**

Lots A, B and C, Chancery Court Subdivision of Bender Estate, and being more particularly described as follow:

Beginning at a point in the intersection of the west line of Peyton Street and north line of North Parkway; thence westwardly along the said north line of North Parkway 186.14 feet to the point of intersection with the east line of Thomas Street; thence northwardly along said east line of Thomas Street 64.44 feet to the point of intersection with the south line of Jackson Avenue 159.68 feet to the point of intersection with the said west line of Peyton Street; thence southwardly said west line of Peyton Street 99.60 feet to the point of beginning.

Being the same property conveyed to Grantor by Deed at Instrument Number 06187587 dated October 30, 2006 and recorded in the Register's Office of Shelby County, Tennessee.

**28. 544 Jackson****Parcel No. 001-107-00001**

Beginning at the intersection of the north line of North Parkway (53' from centerline) and the west line of Dunscomb Street (30' ROW); thence 81 degrees 01 minutes 00 seconds west with the north line of said North Parkway, 381.21 feet to a point in the east line of Peyton Street, 125.44 (30' ROW); thence 08 degrees 21 minutes 46 seconds west with the east line of said Peyton Street, 125.44 feet to a point of curvature; thence in a northeasterly direction along a curve to the right having a radius of 25.00 feet, delta angle of 83 degrees 14 minutes 22 seconds, chord = north 33 degrees 15 minutes 25 seconds east - 33.21 feet,

an arc length of 36.32 feet to a point of tangency in the south line of Jackson Avenue (80' ROW); thence north 74 degrees 52 minutes 36 seconds east with the south line of said Jackson Avenue, 358.97 feet to a point of curvature; thence in a southeasterly direction along a curve to the right having a radius of 25.00 feet, delta angle of 105 degrees 26 minutes 44 seconds, chord south 52 degrees 24 minutes 02 seconds east – 39.79 feet, an arc length of 46.01 feet to a point of tangency in the west line of the aforesaid Dunscomb Street; thence south 00 degrees 19 minutes 20 seconds west with the west line of Dunscomb Street, 280.77 feet to the POINT OF BEGINNING and containing 89,088 square feet or 2.045 acres of land.

Being the same property conveyed to Grantor by Deed at Instrument Number 15053055 dated April 28, 2015 and recorded in the Register's Office of Shelby County, Tennessee

And

Being the closure of Peyton Street north of North Parkway in Memphis, Tennessee and being more particularly described as follows:

Commencing at the intersection of the centerline of Thomas Street (ROW Varies) with the centerline of North Parkway (106' ROW); thence S81°01'00" E along the said centerline of North Parkway 233.59 feet to a point; thence N08°59'00"E a distance of 53.00 feet to the POINT OF BEGINNING, said point being in the north line of North Parkway, said point also being the southeast corner of MLB-Uptown, LLC property as recorded in Instrument Number 06187587; thence N8°21'46"W along the east line of the said MLB-Uptown, LLC property a distance of 134.73 feet to a point in the south line of the abandoned Jackson Avenue; thence N74°52'36"E along the said south line a distance of 52.42 feet to a point in the west line of the MLB-Uptown, LLC property as recorded in Instrument Number 15053055; thence along the said west line along a 25.00 foot radius curve to the left of a arc distance of 36.32 feet (chord S33°15'25"W 33.21 feet) to a point; thence S8°21'46"E continuing along said west line a distance of 125.44 feet to a point in the said north line; thence N81°01'00" W along said north line a distance of 31.43 feet to a POINT OF BEGINNING and containing 4,337 square feet, or 0.100 acres.

Being the same property conveyed to Grantor by Deed at Instrument Number 17013934 dated January 27, 2017 and recorded in the Register's Office of Shelby County, Tennessee.

and

Beginning at the intersection of the east line of Thomas Street (60' from centerline) and the north line of former Jackson Avenue, said point also being in the south line of the MLB-Uptown, LLC property as recorded in instrument Number 12054981; thence eastwardly with the north line of said former Jackson Avenue the following calls: along the curve to the left having a radius of 25.00 feet, delta angle of 51 degrees 21 minutes 33 seconds, chord = south 79 degrees 26 minutes 38 seconds east – 21.67 feet, an arc length of 22.41 feet to a point of tangency; north 74 degrees 52 minutes 36 seconds east, 198.92 feet to a point in the south line of Jackson Avenue (44° from centerline); thence eastwardly with the south line



of said Jackson Avenue the following calls; south 80 degrees 15 minutes 03 seconds east, 66.19 feet to a point of curvature; along a curve to the left having a radius of 606.54 feet, delta angle of 18 degrees 12 minutes 33 seconds, chord = south 89 degrees 21 minutes 20 seconds east - 191.96 feet, an arc length of 192.77 feet to a point in the south line of said former Jackson Avenue, said point also being in the north line of the MLB-Uptown, LLC property recorded in instrument Number 15053055; thence south 74 degrees 52 minutes 36 seconds west with the south line of said former Jackson Avenue, 505.39 feet to a point in the east line of Thomas Street, said point also being in the north west corner of the MLB-Uptown property as recorded in Instrument Number 06187587; thence north 10 degrees 07 minutes 55 seconds east with the east line of said Thomas Street, 98.84 feet to the point of beginning and containing 27,223 square feet of land.

Being the same property conveyed to Grantor by Deed at Instrument Number 18094298 dated March 28, 2018 and recorded in the Register's Office of Shelby County, Tennessee.

**29. 275 Henry****Parcel No. 022-027-00002**

Part of Lot 23, in Country Lot 525, Plan of Memphis, more particularly described as follows:

Beginning at a point in the west line of Seventh Street, 46' south of the south line of Henry Avenue, said point of beginning being the southeast corner of the property conveyed to John L Dickerson and wife, Cassie Dickerson, by Warranty Deed recorded under Register's Instrument No. G1 7970, in the Register's Office of Shelby County, Tennessee, thence south along the said west line of Seventh Street, a distance of 46' to a point in the north line of the property conveyed to William H.T. Butler and wife, Carrie A. Butler by Warranty Deed in Book 4817, Page 155, said Register's Office; thence west along the said north line of the Butler property a distance of 215' more or less to the east line of an alley; thence north along the said east line of the alley a distance of 92' to the south line of Henry Avenue; thence east along said south line of Henry Avenue a distance of 65' to the west line of aforescribed property; thence south along said west line of the Dickerson property, and parallel to Seventh Street a distance of 46' to the southwest corner of the said Dickerson property; thence east along the south line of the said Dickerson property a distance of 150' to the point of beginning.

Less and Except:

Beginning at point in the west line of Seventh Street, 46' south of the south line of Henry Avenue, said point of beginning being the southeast corner of the property conveyed to John L. Dickerson and wife Cassie Dickerson, by Warranty Deed recorded under Register's Instrument No. G1 7970, in the Register's Office of Shelby County, Tennessee, thence south along said west line of Seventh Street a distance of 46' to a point in the north line of the property conveyed to William H. T. Butler and wife, Carrie A. Butler by Warranty Deed in Book 4817, Page 155, said Register's Office, thence west along the said north line of the Butler property 150' more or less to a point being the east line of a driveway, thence north

along said east line of the driveway a distance of 46' to the southwest corner of the aforementioned Dickerson property, thence 150' along the south line of the Dickerson property to the point of beginning. Containing 5968 square feet (0.1370) acres more or less.

Being the same property conveyed to Grantor by Deed at Instrument Number 14126440 dated December 15, 2014 and recorded in the Register's Office of Shelby County, Tennessee.

**30. 705 N Third****001-055-00004**

Lot 66, Keel Subdivision of the Greenlaw Addition to the City of Memphis:

Beginning at a point in the west line of North Third Street 165 feet northwardly from the north line of Keel Avenue, said point beginning being in the north line of an alley; thence northwardly with said west line of North Third Street 74.25 feet to a chisel mark in said west line; thence westwardly parallel with the north line of said alley 148.5 feet to the east line of another alley; thence southwardly with the east line of said alley 74.25 feet to the north line of the first mentioned alley; thence eastwardly with the said north line 148.5 feet to the point of beginning.

Being the same property conveyed to Grantor by Deed at Instrument Number 18081297 dated April 25, 2018 and recorded in the Register's Office of Shelby County, Tennessee

**31. 0 Chelsea****001055 00002**

Part of Lots 63 and 64 in Greenlaw's Addition to the plan of City of Memphis, more particularly described as follows:

Beginning at a point in the south line of Chelsea Avenue (72 feet wide) at the northeast corner of the property described in instrument of record in Book 417, Page 33, in the Register's Office of Shelby County, Tennessee, said point being 89.9 feet, more or less, east of the east line of North Second Street; thence eastwardly along the south line of Chelsea Avenue 58.43 feet, more or less, to a point in the west line of an alley (24.75 feet wide); thence southwardly along the west line of said alley 138.17 feet to a point in the north line of an alley (16.5 feet wide); thence westwardly along the north line of said alley 58.5 feet, more or less, to a point in the southeast corner of the property conveyed to Louis D Schaffer by instrument or record in Book 2018, Page 138, in said Register's Office; thence northwardly along the east line of the property conveyed to Schaffer as above described, and continuing northwardly along the east line of the property describe in Book 417, Page 33, in the said Register's Office, a total distance of 136.63 feet to the point of beginning.

Being the same property conveyed to Grantor by Deed at Instrument Number 05158108 dated June 28, 2005 and recorded in the Register's Office of Shelby County, Tennessee.

**32. 0 Keel****001055-00009c**

The South 50.5 feet of the west 90 feet of Lots 61 and 62, of the W. B. Greenlaw Subdivision, in Country Lot 534, of the City of Memphis more particularly described as follows: Beginning at the intersection of the east line of North Second Street with the north line of Keel Avenue; running thence northwardly with the east line of North Second Street 50.5 feet to a stake; thence east and parallel with Keel Avenue 90 feet to a stake; thence south and parallel with North Second Street 50.5 feet to Keel Avenue; thence west along the north line of Keel Ave. 90 feet to the point of beginning.

Being the same property conveyed to Grantor by Deed at Instrument Number 05173310 dated October 6, 2005 and recorded in the Register's Office of Shelby County, Tennessee.

**33. 696 N Second****001055-00010**

The north 98 feet to the west 90 feet of Lots 61 and 62 of the W. B. Greenlaw Chelsea Subdivision I Country Lot 534, City of Memphis, more particularly described as follows:

Beginning at a point in the east line of North Second Street 50.5 feet north of the intersection of the east line of North Second Street with the north line of Keel Avenue; thence northwardly with said east line of North Second Street 98 feet to the south line of an alley; thence eastwardly with the south line of said alley 90 feet to an iron stake, thence southwardly parallel with North Second Street 98 feet to a point; thence westwardly parallel with Keel Avenue 90 feet to North Second, the point of beginning.

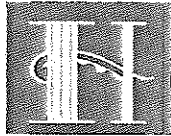
Being the same property conveyed to Grantor by Deed at Instrument Number 11112087 dated November 9, 2011 and recorded in the Register's Office of Shelby County, Tennessee.

**34. 0 Keel****001055-00012**

The east 58.5 feet of Lots 61 and 62 of the E. T. Subdivision in Country Lots 526.532 And 531, being more particularly described as follows: Beginning at the northwest corner of Keel Street and the alley running north and south between Second and Third Streets; thence west 58.5 feet, more or less, to the east line of the Lee Property; thence northwardly parallel with Second Street 148.5 feet to an alley; thence eastwardly along south line of the last mentioned alley 58.5 feet; more or less, to the first named alley; thence south along the west line of said alley 148.5 feet to the point of beginning.



Being the same property conveyed to Grantor by Deed at Instrument Number 11112083 dated November 9, 2011 and recorded in the Register's Office of Shelby County, Tennessee.



THE  
HAGLER  
LAW GROUP, PLLC

ARCHWAY TITLE & ESCROW, LLC

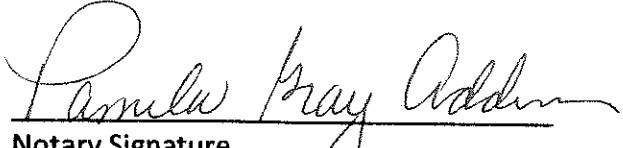
2650 Thousand Oaks Blvd, Suite 2140  
Memphis, Tennessee 38118  
901-290-6620 Office  
901-290-0294 Facsimile  
[monice@haglerlawgroup.com](mailto:monice@haglerlawgroup.com)

I, Monice Moore Hagler, do hereby make oath that I am a licensed attorney and/or the custodian of the electronic version of the attached document tendered for registration herewith and that this is a true and correct copy of the original document executed and authenticated according to law.

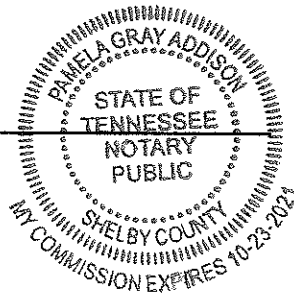
  
\_\_\_\_\_  
Monice Moore Hagler

STATE OF TENNESSEE  
COUNTY OF SHELBY

Personally appeared before me, Pamela Gray Addison, a notary public for this county and state, Monice Moore Hagler, who acknowledges that this certification of an electronic certification of an electronic document is true and correct and whose signature I have witnessed.

  
\_\_\_\_\_  
Notary Signature

MY COMMISSION EXPIRES \_\_\_\_\_  
Notary's Seal (if on paper)





## Owner Questionnaire for Phase I ESA

Name of Interviewee: Andrew Murray

Contact Information: 901-435-6992

Title and/or relationship to the site: President Memphis & Shelby CRA

Questions		Response
1	How long have you been affiliated with the site and in what capacity?	Since acquisition in 2019, as redevelopment authority implementing Uptown Community Plan
2	When did CRA acquire the property?	August 2019
3	What was the condition/use of the property when CRA acquired the site?	Vacant, one structure
4	What has the site been used for historically?	See reports
5	Are you aware of any current or previous Underground Storage Tanks, Aboveground Storage Tanks, septic tanks, heating oil tanks, grease trap, or water wells on the property?	See reports
6	Are you aware of any historic or current use or releases of hazardous materials such as petroleum, pesticides, chemicals, etc.?	See reports
7	Are you aware of any historic dump sites or buried debris on the property?	No, see reports
8	Are you aware of any historic pits, ponds, lagoons, etc. on the property? If so, do you know where they sourced the material that was used to fill it in?	No, see reports
9	Did you have a Phase I ESA (environmental site assessment) performed when you purchased the property? If so, can you provide a copy of the report or tell me the findings (any RECs identified).	Reports provided to Terracon



<p><b>10</b></p>	<p>Are you aware of previous Phase II environmental studies performed on the site? If so, can you provide a copy of the report or tell me the findings/conclusions?</p>	<p>Reports provided to Terracon</p>
<p><b>11</b></p>	<p>Do you have any other historical information?</p>	<p>Past environmental reports, provided to Terracon</p>
	<p>Are you aware of any of the following with regard to the property:</p>	

## PFAS SITE RECON/INTERVIEW ADDENDUM

**Please respond to any question related to your facility.**

QUESTION	RESPONSE
What is the Facility NAICS code?	N/A
Are you aware of any materials containing PFAS being used at the site? If yes, over how many years were PFAS-containing materials utilized?	Unknown
What PFAS are present in the material? Are SDSs available?	Unknown
Is heat applied during any part of the manufacturing process? <ul style="list-style-type: none"> <li>▪ Are Stacks or vents present?</li> <li>▪ What control technologies are used on stacks/vents?</li> </ul>	N/A
Is a septic system present at the site? <ul style="list-style-type: none"> <li>▪ Does it receive industrial/process wastewater?</li> <li>▪ Location of leach field?</li> </ul>	Unknown
What is the water source at the site? Public supply or private well? <ul style="list-style-type: none"> <li>▪ Has the water source ever been tested for PFAS?</li> </ul>	No water, land is vacant.
What air releases may have occurred through handling, management, or processing of PFAS containing materials.	Unknown
How are raw materials handled and stored at the site? <ul style="list-style-type: none"> <li>▪ Any subsurface disposal?</li> <li>▪ Is there an onsite Wastewater treatment plant? How are effluent and sludges handled and disposed?</li> <li>▪ Are Lagoons present?</li> </ul>	N/A
Has a fire ever occurred at the site? When? Where? What was the nature of the fire (i.e., what burned, was it a flammable liquid)? <ul style="list-style-type: none"> <li>▪ Were firefighting foams used to extinguish?</li> </ul>	Unknown
Have firefighting foams ever been stored or otherwise used onsite?	N/A
Have sludge/biosolids been applied at the site or otherwise managed/burned?	Unknown
What are the neighboring property uses? Any adjacent or surrounding properties listed as likely PFAS Facilities?	Residential, Multi-Family, Vacant
Is the site located in an area of known regional contamination?	Not to our knowledge

## Owner Questionnaire for Phase I ESA

Name of Interviewee: \_\_\_\_\_

Contact Information: \_\_\_\_\_

Title and/or relationship to the site: \_\_\_\_\_

Questions		Response
1	How long have you been affiliated with the site and in what capacity?	
2	When did you acquire the property?	
3	What was the condition/use of the property when you acquired the site?	
4	What has the site been used for historically?	
5	Are you aware of any current or previous Underground Storage Tanks, Aboveground Storage Tanks, septic tanks, heating oil tanks, grease trap, or water wells on the property?	
6	Are you aware of any historic or current use or releases of hazardous materials such as petroleum, pesticides, chemicals, etc.?	
7	Are you aware of any historic dump sites or buried debris on the property?	
8	Are you aware of any historic pits, ponds, lagoons, etc. on the property? If so, do you know where they sourced the material that was used to fill it in?	
9	Did you have a Phase I ESA (environmental site assessment) performed when you purchased the property? If so, can you provide a copy of the report or tell me the findings (any RECs identified).	



10	Are you aware of previous Phase II environmental studies performed on the site? If so, can you provide a copy of the report or tell me the findings/conclusions?	
11	Do you have any other historical information?	
12	Are you aware of any of the following with regard to the property: <ul style="list-style-type: none"><li>▪ Pending environmental litigation</li><li>▪ Threatened environmental litigation</li><li>▪ Past environmental litigation</li><li>▪ Notices of possible violations of environmental laws</li><li>▪ Notices of possible liability</li><li>▪ Notices of potential environmental concerns</li></ul>	

SENT TO OWNER

## PFAS SITE RECON/INTERVIEW ADDENDUM

Please respond to any question related to your facility.

QUESTION	RESPONSE
What is the Facility NAICS code?	
Are you aware of any materials containing PFAS being used at the site? If yes, over how many years were PFAS-containing materials utilized?	
What PFAS are present in the material? Are SDSs available?	
Is heat applied during any part of the manufacturing process? <ul style="list-style-type: none"> <li>▪ Are Stacks or vents present?</li> <li>▪ What control technologies are used on stacks/vents?</li> </ul>	
Is a septic system present at the site? <ul style="list-style-type: none"> <li>▪ Does it receive industrial/process wastewater?</li> <li>▪ Location of leach field?</li> </ul>	
What is the water source at the site? Public supply or private well? <ul style="list-style-type: none"> <li>▪ Has the water source ever been tested for PFAS?</li> </ul>	
What air releases may have occurred through handling, management, or processing of PFAS containing materials.	
How are raw materials handled and stored at the site? <ul style="list-style-type: none"> <li>▪ Any subsurface disposal?</li> <li>▪ Is there an onsite Wastewater treatment plant? How are effluent and sludges handled and disposed?</li> <li>▪ Are Lagoons present?</li> </ul>	
Has a fire ever occurred at the site? When? Where? What was the nature of the fire (i.e., what burned, was it a flammable liquid)? <ul style="list-style-type: none"> <li>▪ Were firefighting foams used to extinguish?</li> </ul>	
Have firefighting foams ever been stored or otherwise used onsite?	
Have sludge/biosolids been applied at the site or otherwise managed/burned?	
What are the neighboring property uses? Any adjacent or surrounding properties listed as likely PFAS Facilities?	
Is the site located in an area of known regional contamination?	

**APPENDIX D**  
**ENVIRONMENTAL DATABASE INFORMATION**



**Former Waynes Pinball Palace**

167 Chelsea Avenue  
Memphis, TN 38107

Inquiry Number: 7802112.2s  
October 24, 2024

# The EDR Radius Map™ Report with GeoCheck®



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

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

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MAPPED SITES SUMMARY

Target Property Address:  
167 CHELSEA AVENUE  
MEMPHIS, TN 38107

Click on Map ID to see full detail.

MAP ID	SITE NAME	ADDRESS	DATABASE ACRONYMS	RELATIVE ELEVATION	DIST (ft. & mi.) DIRECTION
A1	SHOLFE & TOMLINSON A	165 CHELSEA AVE	EDR Hist Auto	Higher	1 ft.
B2	A WILSON RAY R FILLI	684 2ND N	EDR Hist Auto	Lower	40, 0.008, SW
B3	PARCO OIL CO FILLG S	682 2ND N	EDR Hist Auto	Lower	40, 0.008, SW
B4	MATTHEWS BLOW PIPE C	130 KEEL AVENUE	RCRA NonGen / NLR, FINDS, ECHO	Lower	111, 0.021, WSW
B5	130 KEEL DEVELOPMENT	130 KEEL AVENUE; 707	VCP, SRP, VAPOR	Lower	111, 0.021, WSW
C6	LNDRY CENTER	803 2ND N	EDR Hist Cleaner	Higher	137, 0.026, NNW
A7	JAMES GENERATOR SERV	712 3RD ST N	EDR Hist Auto	Lower	146, 0.028, ESE
A8	BREATHETT SERVICE ST	183 CHELSEA AVENUE	UST, HIST UST	Lower	151, 0.029, East
A9	BREATHETT SERVICE ST	183 CHELSEA AVENUE	LUST	Lower	151, 0.029, East
A10	BREATHETTA SERVICE S	183 CHELSEA AVE	EDR Hist Auto	Lower	151, 0.029, East
C11	LAUNDRY CENTER SELF	803 2ND ST N	EDR Hist Cleaner	Higher	195, 0.037, NNW
B12	ANORTH SIDE CLEANERS	675 2ND N	EDR Hist Cleaner	Lower	206, 0.039, SW
D13	LEDBETTER PACKING CO	675 NORTH 3RD. ST.	UST	Lower	214, 0.041, SSE
D14	LEDBETTER PACKING CO	675 NORTH 3RD. ST.	HIST UST	Lower	214, 0.041, SSE
B15	BAILEY W L	673 2ND N	EDR Hist Cleaner	Lower	220, 0.042, SW
D16	COMMERCE 66 SERVICE	670 THIRD ST	EDR Hist Auto	Lower	301, 0.057, SSE
17	GENERAL ELECTRIC CO	3565 EDISON RD	RCRA NonGen / NLR	Lower	307, 0.058, West
B18	BAILEY W L DO CLNR	661 2ND N	EDR Hist Cleaner	Lower	309, 0.059, SSW
E19	FORMER STEVENS ELECT	812 NORTH MAIN STREE	INST CONTROL, SRP, VCP, VAPOR	Lower	375, 0.071, NW
E20	ELMINGTON CAPITAL GR	812 NORTH MAIN ST	E MANIFEST	Lower	375, 0.071, NW
E21	OLD CUMMINS DIESEL	812 NORTH MAIN STREE	SEMS, PRP	Lower	375, 0.071, NW
E22	ELMINGTON CAPITAL GR	812 N MAIN ST	E MANIFEST	Lower	375, 0.071, NW
E23	ELMINGTON CAPITAL GR	812 NORTH MAIN STREE	E MANIFEST	Lower	375, 0.071, NW
E24	ELMINGTON CAPITAL MA	812 NORTH MAIN STREE	E MANIFEST	Lower	375, 0.071, NW
E25	OLD CUMMINS DIESEL	812 NORTH MAIN	INST CONTROL, SRP, VCP, VAPOR	Lower	375, 0.071, NW
26	GENERAL ELECTRIC CO	5278 H01	RCRA NonGen / NLR, FINDS	Lower	440, 0.083, WSW
27	A AUTOMAT LNDRY	144 BICKFORD AVE	EDR Hist Cleaner	Higher	618, 0.117, NNE
28	JOES GARAGE	620 2ND N	EDR Hist Auto	Lower	626, 0.119, SSW
F29	AQUASERV INC.		PFAS ECHO	Lower	702, 0.133, West
G30	UPTOWN PROJECT #2 (B	78 LOONEY AVE.	INST CONTROL, SRP, VCP, VAPOR	Lower	722, 0.137, WSW
F31	46 KEEL AVENUE	711 NORTH FRONT STRE	INST CONTROL, SRP, VCP, VAPOR	Lower	839, 0.159, West
G32	MEMPHIS DIESEL ELECT	611 N MAIN ST	RCRA NonGen / NLR, FINDS, ECHO	Lower	885, 0.168, SW
33	DIRECTFX SOLUTIONS I	601 N 3RD ST	E MANIFEST	Lower	891, 0.169, South
34	CONWOOD CORPORATION	844 NORTH FRONT STRE	RCRA NonGen / NLR, FINDS, ECHO	Lower	901, 0.171, NW
F35	CONWOOD CO LP	46 KEEL AVENUE PO BO	UST	Lower	946, 0.179, West
F36	AMERICAN SNUFF PROPE	46 KEEL AVE, 47 KEEL	VCP, SRP, VAPOR	Lower	946, 0.179, West
F37	AMERICAN SNUFF COMPA	46 KEEL AVE	RCRA NonGen / NLR, FINDS, ECHO	Lower	946, 0.179, West
38	CONWOOD CO LP	46 KEEL AVENUE PO BO	HIST UST	Lower	966, 0.183, WNW
39	SAMITIZED STEEL - F.	WEST OF HENRY AVENUE	SWM COMPLAINTS, NPDES	Lower	1183, 0.224, NNW



MAPPED SITES SUMMARY

Target Property Address:  
 167 CHELSEA AVENUE  
 MEMPHIS, TN 38107

Click on Map ID to see full detail.

MAP ID	SITE NAME	ADDRESS	DATABASE ACRONYMS	RELATIVE ELEVATION	DIST (ft. & mi.) DIRECTION
<a href="#">H40</a>	AMERICAN BATTERY ACI	904 N FRONT ST	RCRA NonGen / NLR, FINDS, ECHO	Lower	1209, 0.229, NNW
<a href="#">H41</a>	AMERICAN BATTERY ACI		PFAS ECHO	Lower	1233, 0.234, NNW
<a href="#">I42</a>	LOT C, MALONE PARK	CORNER OF GREENLAW A	INST CONTROL, SRP, VCP	Lower	1256, 0.238, SW
<a href="#">J43</a>	FOX'S QUICK STOP	296 CHELSEA	UST	Higher	1267, 0.240, East
<a href="#">J44</a>	FOX'S QUICK STOP	296 CHELSEA	HIST UST	Higher	1267, 0.240, East
<a href="#">I45</a>	MEMPHIS GAS LIGHT	NORTH FRONT STREET	SRP, VAPOR	Lower	1477, 0.280, SW
<a href="#">I46</a>	MEMPHIS GASLIGHT CO	N FRONT AND MILL AVE	EDR MGP	Lower	1508, 0.286, SW
<a href="#">47</a>	FIVE-OH-SIX(506 NORT	506 NORTH 2ND STREET	SRP, VCP	Lower	1700, 0.322, SSW
<a href="#">K48</a>	SOUTHERN CONTAINER C	615 CHELSEA AVE	SRP	Higher	1726, 0.327, East
<a href="#">K49</a>	SOUTHERN CONTAINER C	605859 T23T31T50	SEMS-ARCHIVE, RCRA NonGen / NLR	Higher	1726, 0.327, East
<a href="#">L50</a>	GREYHOUND MAINTENANC	527 NORTH MAIN	LUST, UST	Lower	1730, 0.328, SW
<a href="#">L51</a>	GREYHOUND LINES INC	527 N MAIN	LUST TRUST, RCRA NonGen / NLR, FINDS, ECHO	Lower	1730, 0.328, SW
<a href="#">52</a>	WOLF RIVER HARBOR -	A.W. WILLIS BRIDGE T	US BROWNFIELDS, FINDS	Lower	1829, 0.346, WNW
<a href="#">K53</a>	EXXON #5-1488	THOMAS STREET & CHEL	LUST TRUST	Higher	1855, 0.351, East
<a href="#">54</a>	#5-1488 CHELSEA EXXO	840 THOMAS/CHELSEA	LUST	Higher	1998, 0.378, East
<a href="#">55</a>	RAAIN, INC.	645 CHELSEA AVE	LUST, LUST TRUST, UST, HIST UST	Higher	2017, 0.382, East
<a href="#">56</a>	AUCTION AVENUE AND N	462 N. 2ND ST	SRP, VCP	Lower	2251, 0.426, SSW
<a href="#">M57</a>	BOSHWIT PROPERTY	184 AUCTION AVENUE	SRP, VCP	Lower	2319, 0.439, South
<a href="#">N58</a>	DOWNTOWN SHELL	464 N. MAIN	LUST	Lower	2345, 0.444, SSW
<a href="#">N59</a>	DOWNTOWN SHELL	464 NORTH MAIN	VCP, SRP, HIST UST	Lower	2345, 0.444, SSW
<a href="#">M60</a>	TRUE-TAGG PAINT CO.	N 3RD ST	SRP	Lower	2386, 0.452, SSW
<a href="#">M61</a>	USED EQUIPMENT EXCHA	442 NORTH 3RD. ST.	INST CONTROL, SRP, VCP, HIST UST	Lower	2452, 0.464, South
<a href="#">M62</a>	TRUE-TA66 PAINT CO.	442 THIRD AVENUE	SEMS-ARCHIVE, RCRA NonGen / NLR	Lower	2452, 0.464, South
<a href="#">63</a>	ESSO SERVICE STATION	278 AUCTION AVENUE	SRP, VCP	Lower	2521, 0.477, SSE
<a href="#">64</a>	OLD OSMOSE CHEMICAL	1172 THOMAS STREET	SHWS, ENG CONTROLS, SRP	Lower	4148, 0.786, NNE

# OVERVIEW MAP - 7802112.2S



Target Property

Sites at elevations higher than or equal to the target property

Sites at elevations lower than the target property

Manufactured Gas Plants

National Priority List Sites

Dept. Defense Sites

Indian Reservations BIA

Power transmission lines

Special Flood Hazard Area (1%)

0.2% Annual Chance Flood Hazard

National Wetland Inventory

State Wetlands

0 1/4 1/2 1 Miles



This report includes Interactive Map Layers to display and/or hide map information. The legend includes only those icons for the default map view.

SITE NAME: Former Waynes Pinball Palace  
 ADDRESS: 167 Chelsea Avenue  
 Memphis TN 38107  
 LAT/LONG: 35.163268 / 90.043696

CLIENT: Terracon, Inc.  
 CONTACT: Audrey Price  
 INQUIRY #: 7802112.2s  
 DATE: October 24, 2024 10:23 am

# DETAIL MAP - 7802112.2S



Target Property

Sites at elevations higher than or equal to the target property

Sites at elevations lower than the target property

Manufactured Gas Plants

Sensitive Receptors

National Priority List Sites

Dept. Defense Sites

Indian Reservations BIA

Power transmission lines

Special Flood Hazard Area (1%)

0.2% Annual Chance Flood Hazard

National Wetland Inventory

State Wetlands



This report includes Interactive Map Layers to display and/or hide map information. The legend includes only those icons for the default map view.

SITE NAME: Former Waynes Pinball Palace  
 ADDRESS: 167 Chelsea Avenue  
 Memphis TN 38107  
 LAT/LONG: 35.163268 / 90.043696

CLIENT: Terracon, Inc.  
 CONTACT: Audrey Price  
 INQUIRY #: 7802112.2s  
 DATE: October 24, 2024 10:24 am



## MAP FINDINGS SUMMARY

Database	Search Distance (Miles)	Target Property	< 1/8	1/8 - 1/4	1/4 - 1/2	1/2 - 1	> 1	Total Plotted
<b>STANDARD ENVIRONMENTAL RECORDS</b>								
<b><i>Lists of Federal NPL (Superfund) sites</i></b>								
NPL	1.000		0	0	0	0	NR	0
Proposed NPL	1.000		0	0	0	0	NR	0
NPL LIENS	1.000		0	0	0	0	NR	0
<b><i>Lists of Federal Delisted NPL sites</i></b>								
Delisted NPL	1.000		0	0	0	0	NR	0
<b><i>Lists of Federal sites subject to CERCLA removals and CERCLA orders</i></b>								
FEDERAL FACILITY	0.500		0	0	0	NR	NR	0
SEMS	0.500		1	0	0	NR	NR	1
<b><i>Lists of Federal CERCLA sites with NFRAP</i></b>								
SEMS-ARCHIVE	0.500		0	0	2	NR	NR	2
<b><i>Lists of Federal RCRA facilities undergoing Corrective Action</i></b>								
CORRACTS	1.000		0	0	0	0	NR	0
<b><i>Lists of Federal RCRA TSD facilities</i></b>								
RCRA-TSDF	0.500		0	0	0	NR	NR	0
<b><i>Lists of Federal RCRA generators</i></b>								
RCRA-LQG	0.250		0	0	NR	NR	NR	0
RCRA-SQG	0.250		0	0	NR	NR	NR	0
RCRA-VSQG	0.250		0	0	NR	NR	NR	0
<b><i>Federal institutional controls / engineering controls registries</i></b>								
LUCIS	0.500		0	0	0	NR	NR	0
US ENG CONTROLS	0.500		0	0	0	NR	NR	0
US INST CONTROLS	0.500		0	0	0	NR	NR	0
<b><i>Federal ERNS list</i></b>								
ERNS	TP		NR	NR	NR	NR	NR	0
<b><i>Lists of state- and tribal (Superfund) equivalent sites</i></b>								
SHWS	1.000		0	0	0	1	NR	1
<b><i>Lists of state and tribal landfills and solid waste disposal facilities</i></b>								
SWF/LF	0.500		0	0	0	NR	NR	0
SWM COMPLAINTS	0.500		0	1	0	NR	NR	1
<b><i>Lists of state and tribal leaking storage tanks</i></b>								
LUST	0.500		1	0	4	NR	NR	5

## MAP FINDINGS SUMMARY

Database	Search Distance (Miles)	Target Property	< 1/8	1/8 - 1/4	1/4 - 1/2	1/2 - 1	> 1	Total Plotted
INDIAN LUST	0.500		0	0	0	NR	NR	0
LUST TRUST	0.500		0	0	3	NR	NR	3
HIST_LUST CO	0.500		0	0	0	NR	NR	0
<b><i>Lists of state and tribal registered storage tanks</i></b>								
FEMA UST	0.250		0	0	NR	NR	NR	0
UST	0.250		2	2	NR	NR	NR	4
AST	0.250		0	0	NR	NR	NR	0
INDIAN UST	0.250		0	0	NR	NR	NR	0
<b><i>State and tribal institutional control / engineering control registries</i></b>								
ENG CONTROLS	0.500		0	0	0	NR	NR	0
INST CONTROL	0.500		2	3	1	NR	NR	6
<b><i>Lists of state and tribal voluntary cleanup sites</i></b>								
INDIAN VCP	0.500		0	0	0	NR	NR	0
VCP	0.500		3	4	6	NR	NR	13
SRP	0.500		3	4	9	NR	NR	16
<b><i>Lists of state and tribal brownfield sites</i></b>								
BROWNFIELDS	0.500		0	0	0	NR	NR	0
<b><u>ADDITIONAL ENVIRONMENTAL RECORDS</u></b>								
<b><i>Local Brownfield lists</i></b>								
US BROWNFIELDS	0.500		0	0	1	NR	NR	1
<b><i>Local Lists of Landfill / Solid Waste Disposal Sites</i></b>								
SWRCY	0.500		0	0	0	NR	NR	0
INDIAN ODI	0.500		0	0	0	NR	NR	0
DEBRIS REGION 9	0.500		0	0	0	NR	NR	0
ODI	0.500		0	0	0	NR	NR	0
IHS OPEN DUMPS	0.500		0	0	0	NR	NR	0
<b><i>Local Lists of Hazardous waste / Contaminated Sites</i></b>								
US HIST CDL	TP		NR	NR	NR	NR	NR	0
CDL	TP		NR	NR	NR	NR	NR	0
PRIORITYCLEANERS	0.500		0	0	0	NR	NR	0
DEL SHWS	1.000		0	0	0	0	NR	0
US CDL	TP		NR	NR	NR	NR	NR	0
<b><i>Local Lists of Registered Storage Tanks</i></b>								
HIST UST	0.250		2	2	NR	NR	NR	4
<b><i>Local Land Records</i></b>								
LIENS	TP		NR	NR	NR	NR	NR	0
LIENS 2	TP		NR	NR	NR	NR	NR	0

## MAP FINDINGS SUMMARY

Database	Search Distance (Miles)	Target Property	< 1/8	1/8 - 1/4	1/4 - 1/2	1/2 - 1	> 1	Total Plotted
<b>Records of Emergency Release Reports</b>								
HMIRS	TP		NR	NR	NR	NR	NR	0
SPILLS	TP		NR	NR	NR	NR	NR	0
<b>Other Ascertainable Records</b>								
RCRA NonGen / NLR	0.250		3	4	NR	NR	NR	7
FUDS	1.000		0	0	0	0	NR	0
DOD	1.000		0	0	0	0	NR	0
SCRD DRYCLEANERS	0.500		0	0	0	NR	NR	0
US FIN ASSUR	TP		NR	NR	NR	NR	NR	0
EPA WATCH LIST	TP		NR	NR	NR	NR	NR	0
2020 COR ACTION	0.250		0	0	NR	NR	NR	0
TSCA	TP		NR	NR	NR	NR	NR	0
TRIS	TP		NR	NR	NR	NR	NR	0
SSTS	TP		NR	NR	NR	NR	NR	0
ROD	1.000		0	0	0	0	NR	0
RMP	TP		NR	NR	NR	NR	NR	0
RAATS	TP		NR	NR	NR	NR	NR	0
PRP	TP		NR	NR	NR	NR	NR	0
PADS	TP		NR	NR	NR	NR	NR	0
ICIS	TP		NR	NR	NR	NR	NR	0
FTTS	TP		NR	NR	NR	NR	NR	0
MLTS	TP		NR	NR	NR	NR	NR	0
COAL ASH DOE	TP		NR	NR	NR	NR	NR	0
COAL ASH EPA	0.500		0	0	0	NR	NR	0
PCB TRANSFORMER	TP		NR	NR	NR	NR	NR	0
RADINFO	TP		NR	NR	NR	NR	NR	0
HIST FTTS	TP		NR	NR	NR	NR	NR	0
DOT OPS	TP		NR	NR	NR	NR	NR	0
CONSENT	1.000		0	0	0	0	NR	0
INDIAN RESERV	1.000		0	0	0	0	NR	0
FUSRAP	1.000		0	0	0	0	NR	0
UMTRA	0.500		0	0	0	NR	NR	0
LEAD SMELTERS	TP		NR	NR	NR	NR	NR	0
US AIRS	TP		NR	NR	NR	NR	NR	0
US MINES	0.250		0	0	NR	NR	NR	0
MINES MRDS	0.250		0	0	NR	NR	NR	0
ABANDONED MINES	0.250		0	0	NR	NR	NR	0
FINDS	TP		NR	NR	NR	NR	NR	0
UXO	1.000		0	0	0	0	NR	0
DOCKET HWC	TP		NR	NR	NR	NR	NR	0
ECHO	TP		NR	NR	NR	NR	NR	0
FUELS PROGRAM	0.250		0	0	NR	NR	NR	0
PFAS NPL	0.250		0	0	NR	NR	NR	0
PFAS FEDERAL SITES	0.250		0	0	NR	NR	NR	0
PFAS TSCA	0.250		0	0	NR	NR	NR	0
PFAS TRIS	0.250		0	0	NR	NR	NR	0
PFAS RCRA MANIFEST	0.250		0	0	NR	NR	NR	0
PFAS ATSDR	0.250		0	0	NR	NR	NR	0
PFAS WQP	0.250		0	0	NR	NR	NR	0







Map ID  
 Direction  
 Distance  
 Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
 EPA ID Number

**MATTHEWS BLOW PIPE CO INC (Continued)**

**1000915482**

Mixed Waste Generator:	No
Transporter Activity:	No
Transfer Facility Activity:	No
Recycler Activity with Storage:	No
Small Quantity On-Site Burner Exemption:	No
Smelting Melting and Refining Furnace Exemption:	No
Underground Injection Control:	No
Off-Site Waste Receipt:	No
Universal Waste Indicator:	No
Universal Waste Destination Facility:	No
Federal Universal Waste:	No
Active Site State-Reg Handler:	---
Hazardous Secondary Material Indicator:	N
2018 GPRC Permit Baseline:	Not on the Baseline
2018 GPRC Renewals Baseline:	Not on the Baseline
202 GPRC Corrective Action Baseline:	No
Subject to Corrective Action Universe:	No
Non-TSDFs Where RCRA CA has Been Imposed Universe:	No
Corrective Action Priority Ranking:	No NCAPS ranking
Environmental Control Indicator:	No
Institutional Control Indicator:	No
Human Exposure Controls Indicator:	N/A
Groundwater Controls Indicator:	N/A
Significant Non-Complier Universe:	No
Unaddressed Significant Non-Complier Universe:	No
Addressed Significant Non-Complier Universe:	No
Significant Non-Complier With a Compliance Schedule Universe:	No
Handler Date of Last Change:	20000902
Recognized Trader-Importer:	No
Recognized Trader-Exporter:	No
Importer of Spent Lead Acid Batteries:	No
Exporter of Spent Lead Acid Batteries:	No
Recycler Activity Without Storage:	No
Manifest Broker:	No
Sub-Part P Indicator:	No

Historic Generators:

Receive Date:	19801119
Handler Name:	MATTHEWS BLOW PIPE CO INC
Federal Waste Generator Description:	Not a generator, verified
State District Owner:	Tn
Large Quantity Handler of Universal Waste:	No
Recognized Trader Importer:	No
Recognized Trader Exporter:	No
Spent Lead Acid Battery Importer:	No
Spent Lead Acid Battery Exporter:	No
Current Record:	Yes

List of NAICS Codes and Descriptions:

NAICS Code:	332322
NAICS Description:	SHEET METAL WORK MANUFACTURING

Facility Has Received Notices of Violations:

Violations:	No Violations Found
-------------	---------------------



Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**MATTHEWS BLOW PIPE CO INC (Continued)**

**1000915482**

Evaluation Action Summary:

Evaluations: No Evaluations Found

FINDS:

Registry ID: 110004960917

Click Here for FRS Facility Detail Report:

Environmental Interest/Information System:

The Resource Conservation and Recovery Act Information System (RCRAInfo) is EPA's comprehensive information system in support of the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. It tracks many types of information about generators, transporters, treaters, storers, and disposers of hazardous waste.

Click this hyperlink while viewing on your computer to access additional FINDS: detail in the EDR Site Report.

ECHO:

Envid: 1000915482  
Registry ID: 110004960917  
DFR URL: <http://echo.epa.gov/detailed-facility-report?fid=110004960917>  
Name: MATTHEWS BLOW PIPE CO INC  
Address: 130 KEEL AVENUE  
City,State,Zip: MEMPHIS, TN 38103

**B5**  
**WSW**  
**< 1/8**  
**0.021 mi.**  
**111 ft.**

**130 KEEL DEVELOPMENT**  
**130 KEEL AVENUE; 707 N 2ND STREET**  
**MEMPHIS, TN**

**Site 4 of 7 in cluster B**

**VCP S129398285**  
**SRP N/A**  
**VAPOR**

**Relative:**  
**Lower**

VCP:

**Actual:**  
**240 ft.**

Name: 130 KEEL DEVELOPMENT  
Address: 130 KEEL AVENUE; 707 N 2ND STREET  
City,State,Zip: MEMPHIS, TN  
Promulgated Date: Not reported  
Facility ID: 79991  
Facility Status: OPEN  
EFO: MEMPHIS  
EPA Facility ID: Not reported  
EPA Registry ID: Not reported  
Latitude: 35.163514  
Longitude: -90.04439  
Acres: 0.91

SRP:

Name: 130 KEEL DEVELOPMENT  
Address: 130 KEEL AVENUE; 707 N 2ND STREET  
City,State,Zip: MEMPHIS, TN  
State Remediation Program Site Number: 79991  
Contaminants Of Concern: METALS  
Active?: OPEN  
Program: VOLUNTARY  
Latitude: 35.163514

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**130 KEEL DEVELOPMENT (Continued)**

**S129398285**

Longitude: -90.04439  
Acres: 0.91  
  
Name: 130 KEEL DEVELOPMENT  
Address: 130 KEEL AVENUE; 707 N 2ND STREET  
City,State,Zip: MEMPHIS, TN  
State Remediation Program Site Number: 79991  
Contaminants Of Concern: PAHS  
Active?: OPEN  
Program: VOLUNTARY  
Latitude: 35.163514  
Longitude: -90.04439  
Acres: 0.91

Name: 130 KEEL DEVELOPMENT  
Address: 130 KEEL AVENUE; 707 N 2ND STREET  
City,State,Zip: MEMPHIS, TN  
State Remediation Program Site Number: 79991  
Contaminants Of Concern: VOCs/SVOCs  
Active?: OPEN  
Program: VOLUNTARY  
Latitude: 35.163514  
Longitude: -90.04439  
Acres: 0.91

VAPOR:

Name: 130 KEEL DEVELOPMENT  
Address: 130 KEEL AVENUE; 707 N 2ND STREET  
City,State,Zip: MEMPHIS, TN  
Site Status: OPEN  
COC Type: VOCs/SVOCs  
COC Media: EXTERIOR SOIL GAS, GROUNDWATER  
Latitude: 35.163514  
Longitude: -90.04439

C6  
NNW  
< 1/8  
0.026 mi.  
137 ft.

**LNDRY CENTER**  
**803 2ND N**  
**MEMPHIS, TN**  
**Site 1 of 2 in cluster C**

**EDR Hist Cleaner 1014151906**  
**N/A**

**Relative:**  
**Higher**

EDR Hist Cleaner

**Actual:**  
**248 ft.**

Year: Name:  
1963 LNDRY CENTER

Type:  
LAUNDRIES-SELF SERVE

MAP FINDINGS

Map ID  
Direction  
Distance  
Elevation

Site

Database(s)

EDR ID Number  
EPA ID Number

**A7**  
**ESE**  
**< 1/8**  
**0.028 mi.**  
**146 ft.**

**JAMES GENERATOR SERVICE**  
**712 3RD ST N**  
**MEMPHIS, TN 38107**

**EDR Hist Auto**    **1014176550**  
**N/A**

**Relative:**  
**Lower**

EDR Hist Auto

**Actual:**  
**245 ft.**

Year:    Name:    Type:  
1968    JAMES GENERATOR SERVICE    AUTOMOBILE REPAIRING

**A8**  
**East**  
**< 1/8**  
**0.029 mi.**  
**151 ft.**

**BREATHETT SERVICE STATION**  
**183 CHELSEA AVENUE**  
**MEMPHIS, TN 38107**

**UST**    **U001316752**  
**HIST UST**    **N/A**

**Site 3 of 5 in cluster A**

**Relative:**  
**Lower**

UST:

**Actual:**  
**247 ft.**

Name:    BREATHETT SERVICE STATION  
Address:    183 CHELSEA AVENUE  
City,State,Zip:    MEMPHIS 38107  
Facility ID:    9792109  
Facility Description:    Gas Station or Truck Stop  
Owner ID:    319412  
Owner Name:    KUSHAL SHAH  
Owner Address:    601 NORTH THIRD ST.  
Owner City,St,Zip:    MEMPHIS, TN 38107

Tank Number:    1  
Tank ID:    53203  
Tank Other Material:    Steel  
Compartment ID:    54009  
Compartment Letter:    A  
Compartment Status:    Permanently Out of Use  
Compartment Capacity:    8000  
Substance Description:    Gasoline  
Date Installed:    JUL-22-1979  
Date Last Used:    MAR-04-2005  
Date Closed:    JUL-08-2021  
Regulated:    Regulated  
Tank Emergency:    Manual Tan  
Overfill Type:    Comercial  
Date Removed From Ground:    JUL-08-2021  
Pipe Material Desc:    Steel

Name:    BREATHETT SERVICE STATION  
Address:    183 CHELSEA AVENUE  
City,State,Zip:    MEMPHIS 38107

Tank Number:    2  
Tank ID:    53204  
Tank Other Material:    Steel  
Compartment ID:    54010  
Compartment Letter:    A  
Compartment Status:    Permanently Out of Use  
Compartment Capacity:    8000  
Substance Description:    Gasoline  
Date Installed:    JUL-22-1979  
Date Last Used:    MAR-04-2005  
Date Closed:    JUL-08-2021

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**BREATHETT SERVICE STATION (Continued)**

**U001316752**

Regulated: Regulated  
Tank Emergency: Manual Tan  
Overfill Type: Comercial  
Date Removed From Ground: JUL-08-2021  
Pipe Material Desc: Rigid Plastic - (NUPI - Western Fiberglass -UPP - Brugg)

**HIST UST:**

Name: TOM BREATHETT  
Address: 183 CHELSEA  
City,State,Zip: MEMPHIS, TN 38107  
Facility ID: 9-792109  
Facility Description: Not Listed  
Owner ID: 9218  
Owner Name: TOM BREATHETT  
Owner Address: P.O. Box 34154  
Owner City,St,Zip: Memphis, TN 38184  
Owner Telephone: (901) 523-9943  
Owner Description: Commercial

Tank ID: 2  
**Tank Status: Currently in Use**  
Tank Capacity: 8000  
Tank Contents: Gasoline  
Tank Material: Steel w/impressed current  
Tank 2ndary Trait: None  
Tank Manual Gauge: False  
Tank Tightness: False  
Tank Inventory Control: True  
Tank ATG: False  
Tank Vapor Monitor: True  
Tank Groundwater Monitor: False  
Tank Double Walled: False  
Tank 2nd Contained: False  
Tank SIR: False  
Overfill Installed: True  
Spill Installed: True  
Cathodic Protection: True  
Date Installed: 07/22/1979  
Tank Leak Detection Listed: False  
Pipe Material: Fiberglass Reinforced Plastic  
Pipe Other Material: Secondary Containment  
Pipe Type: Not Listed  
Pipe Auto Line Leak Detect.: False  
Pipe Leak Detection Listed: False  
Pipe Vapor Monitor: True  
Pipe Groundwater Monitor: False  
Pipe 2nd Contained: False  
Pipe SIR: False  
Pipe Leak Detection Listed: False

Tank ID: 1  
**Tank Status: Currently in Use**  
Tank Capacity: 8000  
Tank Contents: Gasoline  
Tank Material: Steel w/impressed current  
Tank 2ndary Trait: None



Map ID  
 Direction  
 Distance  
 Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
 EPA ID Number

**BREATHETT SERVICE STATION (Continued)**

**U001316752**

Tank Manual Gauge: False  
 Tank Tightness: False  
 Tank Inventory Control: True  
 Tank ATG: False  
 Tank Vapor Monitor: True  
 Tank Groundwater Monitor: False  
 Tank Double Walled: False  
 Tank 2nd Contained: False  
 Tank SIR: False  
 Overfill Installed: True  
 Spill Installed: True  
 Cathodic Protection: True  
 Date Installed: 07/22/1979  
 Tank Leak Detection Listed: False  
 Pipe Material: Steel w/impressed current  
 Pipe Other Material: Cathodically Protected  
 Pipe Type: Not Listed  
 Pipe Auto Line Leak Detect.: False  
 Pipe Leak Detection Listed: False  
 Pipe Vapor Monitor: True  
 Pipe Groundwater Monitor: False  
 Pipe 2nd Contained: False  
 Pipe SIR: False  
 Pipe Leak Detection Listed: False

**A9**  
 East  
 < 1/8  
 0.029 mi.  
 151 ft.

**BREATHETT SERVICE STATION**  
**183 CHELSEA AVENUE**  
**MEMPHIS, TN 38107**

**LUST S127283494**  
**N/A**

**Site 4 of 5 in cluster A**

**Relative:**  
**Lower**  
**Actual:**  
**247 ft.**

**LUST:**  
 Name: BREATHETT SERVICE STATION  
 Address: 183 CHELSEA AVENUE  
 City,State,Zip: MEMPHIS, TN 38107  
 Region: STATE  
 Facility Id: 9792109  
 Current Status: 1a Completed Tank Closure  
 Case Manager: Karim Bouzeid  
 Case Description: Tank Closure  
 Section: FO  
 Site Number: 1

**A10**  
 East  
 < 1/8  
 0.029 mi.  
 151 ft.

**BREATHETTA SERVICE ST**  
**183 CHELSEA AVE**  
**MEMPHIS, TN 38107**

**EDR Hist Auto 1014193258**  
**N/A**

**Site 5 of 5 in cluster A**

**Relative:**  
**Lower**

**EDR Hist Auto**

**Actual:**  
**247 ft.**

Year:	Name:	Type:
1958	AME DONIELS LION OIL SERV	GASOLINE STATIONS
1963	BREATHETTS SERV STA GAS ST	GASOLINE STATIONS
1968	BREATHETTS SERVICE STATION	GASOLINE STATIONS
1969	BREATHETT TOM H	Gasoline Service Stations

Map ID  
 Direction  
 Distance  
 Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
 EPA ID Number

**BREATHETTA SERVICE ST (Continued)**

**1014193258**

1970	BREATHETT TOM H	Gasoline Service Stations
1971	BREATHETT TOM H	Gasoline Service Stations
1972	BREATHETT TOM H	Gasoline Service Stations
1973	BREATHETTS SERVICE STATION	GASOLINE STATIONS
1973	BREATHETT TOM H	Gasoline Service Stations
1974	BREATHETT TOM H	Gasoline Service Stations
1975	BREATHETT TOM H	Gasoline Service Stations
1976	BREATHETT TOM H	Gasoline Service Stations
1977	BREATHETT TOM H	Gasoline Service Stations
1978	BREATHETTA SERVICE ST	GASOLINE STATIONS
1978	BREATHETT TOM H	Gasoline Service Stations
1979	BREATHETT TOM H	Gasoline Service Stations
1980	BREATHETT TOM H	Gasoline Service Stations
1982	BREATHETTS SERVICE STATION	GASOLINE STATIONS
1982	BREATHETT TOM H	Gasoline Service Stations
1983	BREATHETT TOM H	Gasoline Service Stations
1985	BREATHETT TOM H	Gasoline Service Stations
1986	BREATHETT TOM H	Gasoline Service Stations
1987	BREATHETTS SERVICE STATION	GASOLINE STATIONS
1987	BREATHETT TOM H	Gasoline Service Stations
1988	BREATHETT TOM H	Gasoline Service Stations
1989	BREATHETT TOM H	Gasoline Service Stations, NEC
1990	BREATHETT TOM H	Gasoline Service Stations, NEC
1991	BREATHETT TOM H	Gasoline Service Stations, NEC
1992	BREATHETT TOM H	Gasoline Service Stations, NEC
1993	BREATHETT TOM H	Gasoline Service Stations, NEC
1994	BREATHETT TOM H	Gasoline Service Stations, NEC
1995	BREATHETT TOM H	Gasoline Service Stations, NEC
1996	BREATHETT TOM H	Gasoline Service Stations, NEC
1997	BREATHETT TOM H	Gasoline Service Stations, NEC
1998	BREATHETT SERVICE STATION	Gasoline Service Stations, NEC
1999	BREATHETT SERVICE STATION	Gasoline Service Stations, NEC

**C11  
 NNW  
 < 1/8  
 0.037 mi.  
 195 ft.**  
**Relative:  
 Higher**

**LAUNDRY CENTER SELF SERV  
 803 2ND ST N  
 MEMPHIS, TN 38107**  
**Site 2 of 2 in cluster C**

**EDR Hist Cleaner 1014151989  
 N/A**

**Actual:  
 249 ft.**

Year:	Name:	Type:
1968	LAUNDRY CENTER SELF SERV	LAUNDRIES-SELF SERVICE
1973	LAUNDRY CENTER SELF SERV	LAUNDRIES-SELF SERVE
1978	LAUNDRY CENTER SELF SERV	LAUNDRIES-SELF SERVE

**B12  
 SW  
 < 1/8  
 0.039 mi.  
 206 ft.**  
**Relative:  
 Lower**

**ANORTH SIDE CLEANERS  
 675 2ND N  
 MEMPHIS, TN**  
**Site 5 of 7 in cluster B**

**EDR Hist Cleaner 1014144100  
 N/A**

**Actual:  
 236 ft.**

Year:	Name:	Type:
1926	NORTH SIDE CLEANERS	CLOTHES CLEANERS AND PRESSERS

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**ANORTH SIDE CLEANERS (Continued)**

**1014144100**

1932 NORTH SIDE CLEANERS CLOTHES PRESSERS AND CLEANERS  
1938 ANORTH SIDE CLEANERS CLOTHES PRESSERS AND CLEANERS  
1943 A NORTH SIDE CLEANERS CLOTHES PRESSERS AND CLEANERS

**D13**  
**SSE**  
**< 1/8**  
**0.041 mi.**  
**214 ft.**

**LEDBETTER PACKING CO**  
**675 NORTH 3RD. ST.**  
**MEMPHIS, TN 38107**  
**Site 1 of 3 in cluster D**

**UST U004174637**  
**N/A**

**Relative:**  
**Lower**  
**Actual:**  
**237 ft.**

UST:  
Name: LEDBETTER PACKING CO  
Address: 675 NORTH 3RD. ST.  
City,State,Zip: MEMPHIS 38107  
Facility ID: 9792260  
Facility Description: Other or Unknown  
Owner ID: 309277  
Owner Name: EMPIRE PACKING CO  
Owner Address: 675 NORTH 3RD. ST.  
Owner City,St,Zip: MEMPHIS, TN 38187  
  
Tank Number: 1  
Tank ID: 51953  
Tank Other Material: Steel  
Compartment ID: 52724  
Compartment Letter: A  
Compartment Status: Permanently Out of Use  
Compartment Capacity: 1200  
Substance Description: Not Listed  
Date Installed: SEP-19-1969  
Date Last Used: MAY-01-1987  
Date Closed: OCT-03-1994  
Tank Emergency: Tank LD No  
Overfill Type: Private  
Pipe Material Desc: Steel

**D14**  
**SSE**  
**< 1/8**  
**0.041 mi.**  
**214 ft.**

**LEDBETTER PACKING CO**  
**675 NORTH 3RD. ST.**  
**MEMPHIS, TN 38107**  
**Site 2 of 3 in cluster D**

**HIST UST U003618904**  
**N/A**

**Relative:**  
**Lower**  
**Actual:**  
**237 ft.**

HIST UST:  
Name: LEDBETTER PACKING CO  
Address: 675 NORTH 3RD. ST.  
City,State,Zip: MEMPHIS, TN 38107  
Facility ID: 9-792260  
Facility Description: Not Listed  
Owner ID: 3008  
Owner Name: EMPIRE PACKING CO  
Owner Address: 675 North 3rd. St.  
Owner City,St,Zip: Memphis, TN 38187  
Owner Telephone: (901) 525-1461  
Owner Description: Private  
  
Tank ID: 1

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

LEDBETTER PACKING CO (Continued)

U003618904

**Tank Status:** Permanently Out of Use  
Tank Capacity: 1200  
Tank Contents: Not Listed  
Tank Material: Asphalt Coated or Bare Steel  
Tank 2ndary Trait: None  
Tank Manual Gauge: False  
Tank Tightness: False  
Tank Inventory Control: False  
Tank ATG: False  
Tank Vapor Monitor: False  
Tank Groundwater Monitor: False  
Tank Double Walled: False  
Tank 2nd Contained: False  
Tank SIR: False  
Overfill Installed: False  
Spill Installed: False  
Cathodic Protection: False  
Date Installed: 09/19/1969  
Tank Leak Detection Listed: True  
Pipe Material: Galvanized Steel  
Pipe Other Material: None  
Pipe Type: Not Listed  
Pipe Auto Line Leak Detect.: False  
Pipe Leak Detection Listed: False  
Pipe Vapor Monitor: False  
Pipe Groundwater Monitor: False  
Pipe 2nd Contained: False  
Pipe SIR: False  
Pipe Leak Detection Listed: True

B15  
SW  
< 1/8  
0.042 mi.  
220 ft.

BAILEY W L  
673 2ND N  
MEMPHIS, TN

EDR Hist Cleaner 1014144252  
N/A

Site 6 of 7 in cluster B

Relative: EDR Hist Cleaner  
Lower

Actual: 236 ft. Year: 1921 Name: BAILEY W L Type: CLOTHES CLEANERS AND PRESSERS

D16  
SSE  
< 1/8  
0.057 mi.  
301 ft.

COMMERCE 66 SERVICE STATION  
670 THIRD ST  
MEMPHIS, TN 38107

EDR Hist Auto 1021867041  
N/A

Site 3 of 3 in cluster D

Relative: EDR Hist Auto  
Lower

Actual: 238 ft. Year: 1979 Name: COMMERCE 66 SERVICE STATION Type: Gasoline Service Stations



Map ID  
 Direction  
 Distance  
 Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
 EPA ID Number

17  
 West  
 < 1/8  
 0.058 mi.  
 307 ft.

**GENERAL ELECTRIC CO ASD**  
**3565 EDISON RD**  
**MEMPHIS, TN 38118**

**RCRA NonGen / NLR**    **1000212939**  
**TND053788386**

**Relative:**  
**Lower**  
**Actual:**  
**240 ft.**

RCRA Listings:	
Date Form Received by Agency:	20040301
Handler Name:	General Electric Co Asd
Handler Address:	Edison Rd
Handler City,State,Zip:	MEMPHIS, TN 38118
EPA ID:	TND053788386
Contact Name:	PAT PERKINS
Contact Address:	3565 EDISON RD
Contact City,State,Zip:	MEMPHIS, TN 38118
Contact Telephone:	404-452-4892
EPA Region:	04
Land Type:	Other
Federal Waste Generator Description:	Not a generator, verified
State District Owner:	Tn
State District:	106
Mailing Address:	PEACHTREE IND BLVD
Mailing City,State,Zip:	CHAMBLEE, GA 30341
Short-Term Generator Activity:	No
Importer Activity:	No
Mixed Waste Generator:	No
Transporter Activity:	No
Transfer Facility Activity:	No
Recycler Activity with Storage:	No
Small Quantity On-Site Burner Exemption:	No
Smelting Melting and Refining Furnace Exemption:	No
Underground Injection Control:	No
Off-Site Waste Receipt:	No
Universal Waste Indicator:	No
Universal Waste Destination Facility:	No
Federal Universal Waste:	No
Active Site State-Reg Handler:	---
Hazardous Secondary Material Indicator:	N
2018 GPRC Permit Baseline:	Not on the Baseline
2018 GPRC Renewals Baseline:	Not on the Baseline
202 GPRC Corrective Action Baseline:	No
Subject to Corrective Action Universe:	No
Non-TSDFs Where RCRA CA has Been Imposed Universe:	No
Corrective Action Priority Ranking:	No NCAPS ranking
Environmental Control Indicator:	No
Institutional Control Indicator:	No
Human Exposure Controls Indicator:	N/A
Groundwater Controls Indicator:	N/A
Significant Non-Complier Universe:	No
Unaddressed Significant Non-Complier Universe:	No
Addressed Significant Non-Complier Universe:	No
Significant Non-Complier With a Compliance Schedule Universe:	No
Handler Date of Last Change:	20041119
Recognized Trader-Importer:	No
Recognized Trader-Exporter:	No
Importer of Spent Lead Acid Batteries:	No
Exporter of Spent Lead Acid Batteries:	No
Recycler Activity Without Storage:	No
Manifest Broker:	No

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**GENERAL ELECTRIC CO ASD (Continued)**

**1000212939**

Sub-Part P Indicator: No

Historic Generators:

Receive Date: 19950510  
 Handler Name: GENERAL ELECTRIC CO ASD  
 Federal Waste Generator Description: Not a generator, verified  
 State District Owner: Tn  
 Large Quantity Handler of Universal Waste: No  
 Recognized Trader Importer: No  
 Recognized Trader Exporter: No  
 Spent Lead Acid Battery Importer: No  
 Spent Lead Acid Battery Exporter: No  
 Current Record: No

Receive Date: 20040301  
 Handler Name: GENERAL ELECTRIC CO ASD  
 Federal Waste Generator Description: Not a generator, verified  
 State District Owner: Tn  
 Large Quantity Handler of Universal Waste: No  
 Recognized Trader Importer: No  
 Recognized Trader Exporter: No  
 Spent Lead Acid Battery Importer: No  
 Spent Lead Acid Battery Exporter: No  
 Current Record: Yes

List of NAICS Codes and Descriptions:

NAICS Code: 81149  
 NAICS Description: OTHER PERSONAL AND HOUSEHOLD GOODS REPAIR AND MAINTENANCE

Facility Has Received Notices of Violations:

Violations: No Violations Found

Evaluation Action Summary:

Evaluations: No Evaluations Found

**B18**  
**SSW**  
**< 1/8**  
**0.059 mi.**  
**309 ft.**

**BAILEY W L DO CLNR**  
**661 2ND N**  
**MEMPHIS, TN**  
**Site 7 of 7 in cluster B**

**EDR Hist Cleaner 1014150942**  
**N/A**

**Relative:** EDR Hist Cleaner  
**Lower**

**Actual:** Year: Name:  
**235 ft.** 1926 BAILEY W L  
 1932 BAILEY W L DO CLNR

Type:  
 CLOTHES CLEANERS AND PRESSERS  
 CLOTHES PRESSERS AND CLEANERS

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**E19  
NW  
< 1/8  
0.071 mi.  
375 ft.**

**FORMER STEVENS ELECTRIC  
812 NORTH MAIN STREET  
MEMPHIS, TN**

**INST CONTROL  
SRP  
VCP  
VAPOR**

**S123408248  
N/A**

**Relative:  
Lower  
Actual:  
246 ft.**

**INST CONTROL:**  
Name: FORMER STEVENS ELECTRIC  
Address: 812 NORTH MAIN STREET  
City,State,Zip: MEMPHIS, TN  
Facility ID: 79950  
Control Type: Institutional  
Control Description: Land Use Restriction  
Date Recorded: 11\_19\_2019  
Acreage: 4.5  
Facility Id: 79950  
Latitude: 35.164325  
Longitude: -90.044775  
Site Status: Open  
Total Site Acreage: 4.5

**SRP:**  
Name: FORMER STEVENS ELECTRIC  
Address: 812 NORTH MAIN STREET  
City,State,Zip: MEMPHIS, TN  
State Remediation Program Site Number: 79950  
Contaminants Of Concern: METALS  
Active?: OPEN  
Program: VOLUNTARY  
Latitude: 35.164325  
Longitude: -90.044775  
Acres: 4.5

Name: FORMER STEVENS ELECTRIC  
Address: 812 NORTH MAIN STREET  
City,State,Zip: MEMPHIS, TN  
State Remediation Program Site Number: 79950  
Contaminants Of Concern: PAHS  
Active?: OPEN  
Program: VOLUNTARY  
Latitude: 35.164325  
Longitude: -90.044775  
Acres: 4.5

Name: FORMER STEVENS ELECTRIC  
Address: 812 NORTH MAIN STREET  
City,State,Zip: MEMPHIS, TN  
State Remediation Program Site Number: 79950  
Contaminants Of Concern: PCBS  
Active?: OPEN  
Program: VOLUNTARY  
Latitude: 35.164325  
Longitude: -90.044775  
Acres: 4.5

Name: FORMER STEVENS ELECTRIC  
Address: 812 NORTH MAIN STREET  
City,State,Zip: MEMPHIS, TN  
State Remediation Program Site Number: 79950

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**FORMER STEVENS ELECTRIC (Continued)**

**S123408248**

Contaminants Of Concern: VOCs/SVOCs  
Active?: OPEN  
Program: VOLUNTARY  
Latitude: 35.164325  
Longitude: -90.044775  
Acres: 4.5

VCP:

Name: FORMER STEVENS ELECTRIC  
Address: 812 NORTH MAIN STREET  
City,State,Zip: MEMPHIS, TN  
Promulgated Date: Not reported  
Facility ID: 79950  
Facility Status: OPEN  
EFO: MEMPHIS  
EPA Facility ID: Not reported  
EPA Registry ID: Not reported  
Latitude: 35.164325  
Longitude: -90.044775  
Acres: 4.5

VAPOR:

Name: FORMER STEVENS ELECTRIC  
Address: 812 NORTH MAIN STREET  
City,State,Zip: MEMPHIS, TN  
Site Status: OPEN  
COC Type: VOCs/SVOCs  
COC Media: EXTERIOR SOIL GAS, GROUNDWATER, SOIL  
Latitude: 35.164325  
Longitude: -90.044775

**E20  
NW  
< 1/8  
0.071 mi.  
375 ft.**

**ELMINGTON CAPITAL GROUP  
812 NORTH MAIN ST  
MEMPHIS, TN 38107  
Site 2 of 7 in cluster E**

**E MANIFEST 1027904256  
N/A**

**Relative:  
Lower  
Actual:  
246 ft.**

E MANIFEST:  
Manifest Tracking Number: 006451976GBF  
Last Updated Date: 20200326  
Shipped Date: 20200313  
Received Date: 20200316  
Manifest Status: Signed  
Submission Type: DataImage5Copy  
Origin Type: Service  
Generator EPA ID: EXEMPT  
Generator Name: Elmington Capital Group  
Generator Mail Street 1: 812 NORTH MAIN ST  
Generator Mail City: MEMPHIS  
Generator Mail State: TN  
Generator Mail Zip: 38107  
Generator Location Street 1: 812 North Main St  
Generator Location City: Memphis  
Generator Location Zip: 38107  
Generator Location State: TN  
Designated Facility EPA ID: ALD000622464  
Designated Facility Mail Street 2: P.O. BOX 55



Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**ELMINGTON CAPITAL GROUP (Continued)**

**1027904256**

Designated Facility Mail City: EMELLE  
Designated Facility Mail Zip: 35459  
Designated Facility Mail State: AL  
Designated Facility Location Street Number: 36964  
Designated Facility Location Street 1: ALABAMA HWY 17 NORTH  
Designated Facility Location City: EMELLE  
Designated Facility Location Zip: 35459  
Designated Facility Location State: AL  
Designated Facility Contact Company Name: CHEMICAL WASTE MANAGEMENT, INC.  
Manifest Residue Indicator: N  
Rejection Indicator: N

Manifest Tracking Number: 006459470GBF  
Last Updated Date: 20200319  
Shipped Date: 20200303  
Received Date: 20200309  
Manifest Status: Signed  
Submission Type: DataImage5Copy  
Origin Type: Service  
Generator EPA ID: EXEMPT  
Generator Name: Elmington Capital Group  
Generator Mail Street 1: 812 NORTH MAIN ST  
Generator Mail City: MEMPHIS  
Generator Mail State: TN  
Generator Mail Zip: 38107  
Generator Location Street 1: 812 NORTH MAIN ST  
Generator Location City: MEMPHIS  
Generator Location Zip: 38107  
Generator Location State: TN  
Designated Facility EPA ID: ALD000622464  
Designated Facility Mail Street 2: P.O. BOX 55  
Designated Facility Mail City: EMELLE  
Designated Facility Mail Zip: 35459  
Designated Facility Mail State: AL  
Designated Facility Location Street Number: 36964  
Designated Facility Location Street 1: ALABAMA HWY 17 NORTH  
Designated Facility Location City: EMELLE  
Designated Facility Location Zip: 35459  
Designated Facility Location State: AL  
Designated Facility Contact Company Name: CHEMICAL WASTE MANAGEMENT, INC.  
Manifest Residue Indicator: N  
Rejection Indicator: N

**PCB Information:**

Manifest Tracking Number: 006459470GBF  
Waste Line Number: 1  
Article or Container ID: 1  
Date of Removal: 20200303  
Load Type: ArticleInContainer  
Load Type Description: Article in Container  
Waste Type: POLYCHLORINATED BIPHENYLS  
Weight: 13717

**Transporter:**

Manifest Tracking Number: 006459470GBF  
Transporter Line Number: 1

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**ELMINGTON CAPITAL GROUP (Continued)**

**1027904256**

Transporter EPA ID: ALD067138891  
Transporter Name: Robbie D Wood, Inc.

Waste Line:  
Manifest Tracking Number: 006459470GBF  
Waste Line Number: 1  
U.S. DOT Hazardous Indicator: Y  
U.S. DOT ID Number: UN3432  
U.S. DOT Description: Un3432, Polychlorinated Biphenyls Solid, 9, Pg li Tn616507  
Number of Containers: 1  
Container Type Code: CM  
Container Type Description: Metal boxes, cartons, cases (including roll offs)  
Waste Quantity: 13717  
Quantity Unit of Measure Code: K  
Quantity Unit of Measure Description: Kilograms  
Waste Quantity, in Tons: 15.122983  
Acute Waste Quantity, in Tons: 0  
Non-Acute Waste Quantity, in Tons: 15.122983  
Waste Quantity, in Kilograms: 13717  
Acute Waste Quantity, in Kilograms: 0  
Non-Acute Waste Quantity, in Kilograms: 13717  
Management Method Code: H132  
Management Method Description: LANDFILL (WITH PRIOR TREATMENT AND/OR STABILIZATION)  
Waste Residue Indicator: N  
Quantity Discrepancy Indicator: Y  
Waste Type Discrepancy Indicator: N  
EPA Waste Indicator: N

**E21  
NW  
< 1/8  
0.071 mi.  
375 ft.**

**OLD CUMMINS DIESEL  
812 NORTH MAIN STREET  
MEMPHIS, TN 38107**

**SEMS 1011487891  
PRP TNN000410220**

**Site 3 of 7 in cluster E**

**Relative:  
Lower  
Actual:  
246 ft.**

SEMS:  
Site ID: 0410220  
EPA ID: TNN000410220  
Name: OLD CUMMINS DIESEL  
Address: 812 NORTH MAIN STREET  
City,State,Zip: MEMPHIS, TN 38107  
FIPS Code: 47157  
Latitude: 35.163680  
Longitude: -90.045304  
FF: N  
NPL: Not on the NPL  
Non NPL Status: NFRAP-Site does not qualify for the NPL based on existing information

SEMS Detail:  
Region: 04  
Site ID: 0410220  
EPA ID: TNN000410220  
Site Name: OLD CUMMINS DIESEL  
NPL: N  
FF: N  
OU: 00  
Action Code: PA  
Action Name: PA  
SEQ: 1

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**OLD CUMMINS DIESEL (Continued)**

**1011487891**

Start Date: 2008-04-07 04:00:00  
Finish Date: 2008-06-12 05:00:00  
Qual: H  
Current Action Lead: St Perf

Region: 04  
Site ID: 0410220  
EPA ID: TNN000410220  
Site Name: OLD CUMMINS DIESEL  
NPL: N  
FF: N  
OU: 00  
Action Code: HX  
Action Name: PRE-CERC  
SEQ: 1  
Finish Date: 2008-04-07 04:00:00  
Current Action Lead: St Perf

Region: 04  
Site ID: 0410220  
EPA ID: TNN000410220  
Site Name: OLD CUMMINS DIESEL  
NPL: N  
FF: N  
OU: 00  
Action Code: DS  
Action Name: DISCVRY  
SEQ: 1  
Start Date: 2008-04-07 04:00:00  
Finish Date: 2008-04-07 04:00:00  
Current Action Lead: St Perf

Region: 04  
Site ID: 0410220  
EPA ID: TNN000410220  
Site Name: OLD CUMMINS DIESEL  
NPL: N  
FF: N  
OU: 00  
Action Code: SI  
Action Name: SI  
SEQ: 1  
Finish Date: 2009-08-13 05:00:00  
Qual: N  
Current Action Lead: St Perf

PRP:  
PRP Name: CUMMINS, INC.  
CUMMINS, INC.

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**E22**  
**NW**  
**< 1/8**  
**0.071 mi.**  
**375 ft.**

**ELMINGTON CAPITAL GROUP**  
**812 N MAIN ST**  
**MEMPHIS, TN 38107**

**E MANIFEST**    **1027904255**  
**N/A**

**Relative:**  
**Lower**  
**Actual:**  
**246 ft.**

**E MANIFEST:**

Manifest Tracking Number: 006236696GBF  
Last Updated Date: 20200312  
Shipped Date: 20200220  
Received Date: 20200227  
Manifest Status: Signed  
Submission Type: DataImage5Copy  
Origin Type: Service  
Generator EPA ID: EXEMPT  
Generator Name: Elmington Capital Group  
Generator Mail Street 1: 812 N MAIN ST  
Generator Mail City: MEMPHIS  
Generator Mail State: TN  
Generator Mail Zip: 38107  
Generator Location Street 1: 812 N Main St  
Generator Location City: Memphis  
Generator Location Zip: 38107  
Generator Location State: TN  
Designated Facility EPA ID: ALD000622464  
Designated Facility Mail Street 2: P.O. BOX 55  
Designated Facility Mail City: EMELLE  
Designated Facility Mail Zip: 35459  
Designated Facility Mail State: AL  
Designated Facility Location Street Number: 36964  
Designated Facility Location Street 1: ALABAMA HWY 17 NORTH  
Designated Facility Location City: EMELLE  
Designated Facility Location Zip: 35459  
Designated Facility Location State: AL  
Designated Facility Contact Company Name: CHEMICAL WASTE MANAGEMENT, INC.  
Manifest Residue Indicator: N  
Rejection Indicator: N

Manifest Tracking Number: 006236697GBF  
Last Updated Date: 20200312  
Shipped Date: 20200220  
Received Date: 20200228  
Manifest Status: Signed  
Submission Type: DataImage5Copy  
Origin Type: Service  
Generator EPA ID: EXEMPT  
Generator Name: Elmington Capital Group  
Generator Mail Street 1: 812 N MAIN ST  
Generator Mail City: MEMPHIS  
Generator Mail State: TN  
Generator Mail Zip: 38107  
Generator Location Street 1: 812 N Main St  
Generator Location City: Memphis  
Generator Location Zip: 38107  
Generator Location State: TN  
Designated Facility EPA ID: ALD000622464  
Designated Facility Mail Street 2: P.O. BOX 55  
Designated Facility Mail City: EMELLE  
Designated Facility Mail Zip: 35459



Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**ELMINGTON CAPITAL GROUP (Continued)**

**1027904255**

Designated Facility Mail State: AL  
Designated Facility Location Street Number: 36964  
Designated Facility Location Street 1: ALABAMA HWY 17 NORTH  
Designated Facility Location City: EMELLE  
Designated Facility Location Zip: 35459  
Designated Facility Location State: AL  
Designated Facility Contact Company Name: CHEMICAL WASTE MANAGEMENT, INC.  
Manifest Residue Indicator: N  
Rejection Indicator: N

Manifest Tracking Number: 006236698GBF  
Last Updated Date: 20200312  
Shipped Date: 20200220  
Received Date: 20200228  
Manifest Status: Signed  
Submission Type: DataImage5Copy  
Origin Type: Service  
Generator EPA ID: EXEMPT  
Generator Name: Elmington Capital Group  
Generator Mail Street 1: 812 N MAIN ST  
Generator Mail City: MEMPHIS  
Generator Mail State: TN  
Generator Mail Zip: 38107  
Generator Location Street 1: 812 N Main St  
Generator Location City: Memphis  
Generator Location Zip: 38107  
Generator Location State: TN  
Designated Facility EPA ID: ALD000622464  
Designated Facility Mail Street 2: P.O. BOX 55  
Designated Facility Mail City: EMELLE  
Designated Facility Mail Zip: 35459  
Designated Facility Mail State: AL  
Designated Facility Location Street Number: 36964  
Designated Facility Location Street 1: ALABAMA HWY 17 NORTH  
Designated Facility Location City: EMELLE  
Designated Facility Location Zip: 35459  
Designated Facility Location State: AL  
Designated Facility Contact Company Name: CHEMICAL WASTE MANAGEMENT, INC.  
Manifest Residue Indicator: N  
Rejection Indicator: N

Manifest Tracking Number: 006460069GBF  
Last Updated Date: 20200403  
Shipped Date: 20200319  
Received Date: 20200320  
Manifest Status: Signed  
Submission Type: DataImage5Copy  
Origin Type: Service  
Generator EPA ID: EXEMPT  
Generator Name: Elmington Capital Group  
Generator Mail Street 1: 812 N MAIN ST  
Generator Mail City: MEMPHIS  
Generator Mail State: TN  
Generator Mail Zip: 38107  
Generator Location Street 1: 812 N Main St  
Generator Location City: Memphis  
Generator Location Zip: 38107

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**ELMINGTON CAPITAL GROUP (Continued)**

**1027904255**

Generator Location State: TN  
Designated Facility EPA ID: ALD000622464  
Designated Facility Mail Street 2: P.O. BOX 55  
Designated Facility Mail City: EMELLE  
Designated Facility Mail Zip: 35459  
Designated Facility Mail State: AL  
Designated Facility Location Street Number: 36964  
Designated Facility Location Street 1: ALABAMA HWY 17 NORTH  
Designated Facility Location City: EMELLE  
Designated Facility Location Zip: 35459  
Designated Facility Location State: AL  
Designated Facility Contact Company Name: CHEMICAL WASTE MANAGEMENT, INC.  
Manifest Residue Indicator: N  
Rejection Indicator: N

Manifest Tracking Number: 006460072GBF  
Last Updated Date: 20200330  
Shipped Date: 20200318  
Received Date: 20200319  
Manifest Status: Signed  
Submission Type: DataImage5Copy  
Origin Type: Service  
Generator EPA ID: EXEMPT  
Generator Name: Elmington Capital Group  
Generator Mail Street 1: 812 N MAIN ST  
Generator Mail City: MEMPHIS  
Generator Mail State: TN  
Generator Mail Zip: 38107  
Generator Location Street 1: 812 N Main St  
Generator Location City: Memphis  
Generator Location Zip: 38107  
Generator Location State: TN  
Designated Facility EPA ID: ALD000622464  
Designated Facility Mail Street 2: P.O. BOX 55  
Designated Facility Mail City: EMELLE  
Designated Facility Mail Zip: 35459  
Designated Facility Mail State: AL  
Designated Facility Location Street Number: 36964  
Designated Facility Location Street 1: ALABAMA HWY 17 NORTH  
Designated Facility Location City: EMELLE  
Designated Facility Location Zip: 35459  
Designated Facility Location State: AL  
Designated Facility Contact Company Name: CHEMICAL WASTE MANAGEMENT, INC.  
Manifest Residue Indicator: N  
Rejection Indicator: N

Manifest Tracking Number: 006460073GBF  
Last Updated Date: 20200414  
Shipped Date: 20200318  
Received Date: 20200324  
Manifest Status: Signed  
Submission Type: DataImage5Copy  
Origin Type: Service  
Generator EPA ID: EXEMPTON  
Generator Name: Elmington Capital Group  
Generator Mail Street 1: 812 N MAIN ST  
Generator Mail City: MEMPHIS

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**ELMINGTON CAPITAL GROUP (Continued)**

**1027904255**

Generator Mail State: TN  
Generator Mail Zip: 38107  
Generator Location Street 1: 812 N Main St  
Generator Location City: Memphis  
Generator Location Zip: 38107  
Generator Location State: TN  
Designated Facility EPA ID: ALD000622464  
Designated Facility Mail Street 2: P.O. BOX 55  
Designated Facility Mail City: EMELLE  
Designated Facility Mail Zip: 35459  
Designated Facility Mail State: AL  
Designated Facility Location Street Number: 36964  
Designated Facility Location Street 1: 36964 ALABAMA HWY 17  
Designated Facility Location City: EMELLE  
Designated Facility Location Zip: 35459  
Designated Facility Location State: AL  
Designated Facility Contact Company Name: CHEMICAL WASTE MANAGEMENT, INC.  
Manifest Residue Indicator: N  
Rejection Indicator: N

PCB Information:

Manifest Tracking Number: 006460073GBF  
Waste Line Number: 1  
Bulk Identity: TN616607  
Date of Removal: 20200318  
Load Type: BulkWaste  
Load Type Description: Bulk Waste  
Weight: 11775

Transporter:

Manifest Tracking Number: 006460073GBF  
Transporter Line Number: 1  
Transporter EPA ID: ALD067138891  
Transporter Name: Robbie D Wood, Inc.

Waste Line:

Manifest Tracking Number: 006460073GBF  
Waste Line Number: 1  
U.S. DOT Hazardous Indicator: Y  
U.S. DOT ID Number: UN3432  
U.S. DOT Description: Un3432, Polychlorinated Biphenyls Solid, 9, Pg li  
Number of Containers: 1  
Container Type Code: CM  
Container Type Description: Metal boxes, cartons, cases (including roll offs)  
Waste Quantity: 11775  
Quantity Unit of Measure Code: K  
Quantity Unit of Measure Description: Kilograms  
Waste Quantity, in Tons: 12.98193  
Acute Waste Quantity, in Tons: 0  
Non-Acute Waste Quantity, in Tons: 12.98193  
Waste Quantity, in Kilograms: 11775  
Acute Waste Quantity, in Kilograms: 0  
Non-Acute Waste Quantity, in Kilograms: 11775  
Management Method Code: H132  
Management Method Description: LANDFILL (WITH PRIOR TREATMENT AND/OR STABILIZATION)  
Waste Residue Indicator: N

Map ID  
 Direction  
 Distance  
 Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
 EPA ID Number

**ELMINGTON CAPITAL GROUP (Continued)**

**1027904255**

Quantity Discrepancy Indicator: Y  
 Waste Type Discrepancy Indicator: N  
 EPA Waste Indicator: N

**E23  
 NW  
 < 1/8  
 0.071 mi.  
 375 ft.**

**ELMINGTON CAPITAL GROUP  
 812 NORTH MAIN STREET  
 MEMPHIS, TN 38107**

**E MANIFEST 1027904257  
 N/A**

**Site 5 of 7 in cluster E**

**Relative:  
 Lower**

**E MANIFEST:**

**Actual:  
 246 ft.**

Manifest Tracking Number:	006236695GBF
Last Updated Date:	20200309
Shipped Date:	20200219
Received Date:	20200224
Manifest Status:	Signed
Submission Type:	DataImage5Copy
Origin Type:	Service
Generator EPA ID:	EXEMPT
Generator Name:	Elmington Capital Group
Generator Mail Street 1:	812 NORTH MAIN STREET
Generator Mail City:	MEMPHIS
Generator Mail State:	TN
Generator Mail Zip:	38107
Generator Location Street 1:	812 NORTH MAIN STREET
Generator Location City:	MEMPHIS
Generator Location Zip:	38107
Generator Location State:	TN
Designated Facility EPA ID:	ALD000622464
Designated Facility Mail Street 2:	P.O. BOX 55
Designated Facility Mail City:	EMELLE
Designated Facility Mail Zip:	35459
Designated Facility Mail State:	AL
Designated Facility Location Street Number:	36964
Designated Facility Location Street 1:	ALABAMA HWY 17 NORTH
Designated Facility Location City:	EMELLE
Designated Facility Location Zip:	35459
Designated Facility Location State:	AL
Designated Facility Contact Company Name:	CHEMICAL WASTE MANAGEMENT, INC.
Manifest Residue Indicator:	N
Rejection Indicator:	N
Manifest Tracking Number:	006236699GBF
Last Updated Date:	20200305
Shipped Date:	20200219
Received Date:	20200220
Manifest Status:	Signed
Submission Type:	DataImage5Copy
Origin Type:	Service
Generator EPA ID:	EXEMPT
Generator Name:	Elmington Capital Group
Generator Mail Street 1:	812 NORTH MAIN STREET
Generator Mail City:	MEMPHIS
Generator Mail State:	TN
Generator Mail Zip:	38107
Generator Location Street 1:	812 North Main Street
Generator Location City:	Memphis
Generator Location Zip:	38107



Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**ELMINGTON CAPITAL GROUP (Continued)**

**1027904257**

Generator Location State: TN  
Designated Facility EPA ID: ALD000622464  
Designated Facility Mail Street 2: P.O. BOX 55  
Designated Facility Mail City: EMELLE  
Designated Facility Mail Zip: 35459  
Designated Facility Mail State: AL  
Designated Facility Location Street Number: 36964  
Designated Facility Location Street 1: ALABAMA HWY 17 NORTH  
Designated Facility Location City: EMELLE  
Designated Facility Location Zip: 35459  
Designated Facility Location State: AL  
Designated Facility Contact Company Name: CHEMICAL WASTE MANAGEMENT, INC.  
Manifest Residue Indicator: N  
Rejection Indicator: N

Manifest Tracking Number: 006451972GBF  
Last Updated Date: 20200417  
Shipped Date: 20200317  
Received Date: 20200318  
Manifest Status: Signed  
Submission Type: DataImage5Copy  
Origin Type: Service  
Generator EPA ID: EXEMPT  
Generator Name: Elmington Capital Group  
Generator Mail Street 1: 812 NORTH MAIN STREET  
Generator Mail City: MEMPHIS  
Generator Mail State: TN  
Generator Mail Zip: 38107  
Generator Location Street 1: 812 NORTH MAIN STREET  
Generator Location City: MEMPHIS  
Generator Location Zip: 38107  
Generator Location State: TN  
Designated Facility EPA ID: ALD000622464  
Designated Facility Mail Street 2: P.O. BOX 55  
Designated Facility Mail City: EMELLE  
Designated Facility Mail Zip: 35459  
Designated Facility Mail State: AL  
Designated Facility Location Street Number: 36964  
Designated Facility Location Street 1: 36964 ALABAMA HWY 17  
Designated Facility Location City: EMELLE  
Designated Facility Location Zip: 35459  
Designated Facility Location State: AL  
Designated Facility Contact Company Name: CHEMICAL WASTE MANAGEMENT, INC.  
Manifest Residue Indicator: N  
Rejection Indicator: N

Manifest Tracking Number: 006451973GBF  
Last Updated Date: 20200326  
Shipped Date: 20200316  
Received Date: 20200317  
Manifest Status: Signed  
Submission Type: DataImage5Copy  
Origin Type: Service  
Generator EPA ID: EXEMPT  
Generator Name: Elmington Capital Group  
Generator Mail Street 1: 812 NORTH MAIN STREET  
Generator Mail City: MEMPHIS

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**ELMINGTON CAPITAL GROUP (Continued)**

**1027904257**

Generator Mail State: TN  
Generator Mail Zip: 39107  
Generator Location Street 1: 812 NORTH MAIN STREET  
Generator Location City: MEMPHIS  
Generator Location Zip: 39107  
Generator Location State: TN  
Designated Facility EPA ID: ALD000622464  
Designated Facility Mail Street 2: P.O. BOX 55  
Designated Facility Mail City: EMELLE  
Designated Facility Mail Zip: 35459  
Designated Facility Mail State: AL  
Designated Facility Location Street Number: 36964  
Designated Facility Location Street 1: ALABAMA HWY 17 NORTH  
Designated Facility Location City: EMELLE  
Designated Facility Location Zip: 35459  
Designated Facility Location State: AL  
Designated Facility Contact Company Name: CHEMICAL WASTE MANAGEMENT, INC.  
Manifest Residue Indicator: N  
Rejection Indicator: N

Manifest Tracking Number: 006451975GBF  
Last Updated Date: 20200326  
Shipped Date: 20200313  
Received Date: 20200316  
Manifest Status: Signed  
Submission Type: DataImage5Copy  
Origin Type: Service  
Generator EPA ID: EXEMPT  
Generator Name: Elmington Capital Group  
Generator Mail Street 1: 812 NORTH MAIN STREET  
Generator Mail City: MEMPHIS  
Generator Mail State: TN  
Generator Mail Zip: 38107  
Generator Location Street 1: 812 NORTH MAIN STREET  
Generator Location City: MEMPHIS  
Generator Location Zip: 38107  
Generator Location State: TN  
Designated Facility EPA ID: ALD000622464  
Designated Facility Mail Street 2: P.O. BOX 55  
Designated Facility Mail City: EMELLE  
Designated Facility Mail Zip: 35459  
Designated Facility Mail State: AL  
Designated Facility Location Street Number: 36964  
Designated Facility Location Street 1: ALABAMA HWY 17 NORTH  
Designated Facility Location City: EMELLE  
Designated Facility Location Zip: 35459  
Designated Facility Location State: AL  
Designated Facility Contact Company Name: CHEMICAL WASTE MANAGEMENT, INC.  
Manifest Residue Indicator: N  
Rejection Indicator: N

Manifest Tracking Number: 006459471GBF  
Last Updated Date: 20200319  
Shipped Date: 20200303  
Received Date: 20200309  
Manifest Status: Signed  
Submission Type: DataImage5Copy

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**ELMINGTON CAPITAL GROUP (Continued)**

**1027904257**

Origin Type:	Service
Generator EPA ID:	EXEMPT
Generator Name:	Elmington Capital Group
Generator Mail Street 1:	812 NORTH MAIN STREET
Generator Mail City:	MEMPHIS
Generator Mail State:	TN
Generator Mail Zip:	38107
Generator Location Street 1:	812 NORTH MAIN STREET
Generator Location City:	MEMPHIS
Generator Location Zip:	38107
Generator Location State:	TN
Designated Facility EPA ID:	ALD000622464
Designated Facility Mail Street 2:	P.O. BOX 55
Designated Facility Mail City:	EMELLE
Designated Facility Mail Zip:	35459
Designated Facility Mail State:	AL
Designated Facility Location Street Number:	36964
Designated Facility Location Street 1:	ALABAMA HWY 17 NORTH
Designated Facility Location City:	EMELLE
Designated Facility Location Zip:	35459
Designated Facility Location State:	AL
Designated Facility Contact Company Name:	CHEMICAL WASTE MANAGEMENT, INC.
Manifest Residue Indicator:	N
Rejection Indicator:	N
Manifest Tracking Number:	006459478GBF
Last Updated Date:	20200316
Shipped Date:	20200227
Received Date:	20200305
Manifest Status:	Signed
Submission Type:	DataImage5Copy
Origin Type:	Service
Generator EPA ID:	EXEMPT
Generator Name:	Elmington Capital Group
Generator Mail Street 1:	812 NORTH MAIN STREET
Generator Mail City:	MEMPHIS
Generator Mail State:	TN
Generator Mail Zip:	38107
Generator Location Street 1:	812 NORTH MAIN STREET
Generator Location City:	MEMPHIS
Generator Location Zip:	38107
Generator Location State:	TN
Designated Facility EPA ID:	ALD000622464
Designated Facility Mail Street 2:	P.O. BOX 55
Designated Facility Mail City:	EMELLE
Designated Facility Mail Zip:	35459
Designated Facility Mail State:	AL
Designated Facility Location Street Number:	36964
Designated Facility Location Street 1:	ALABAMA HWY 17 NORTH
Designated Facility Location City:	EMELLE
Designated Facility Location Zip:	35459
Designated Facility Location State:	AL
Designated Facility Contact Company Name:	CHEMICAL WASTE MANAGEMENT, INC.
Manifest Residue Indicator:	N
Rejection Indicator:	N
Manifest Tracking Number:	006460068GBF

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**ELMINGTON CAPITAL GROUP (Continued)**

**1027904257**

Last Updated Date: 20200414  
Shipped Date: 20200319  
Received Date: 20200324  
Manifest Status: Signed  
Submission Type: DataImage5Copy  
Origin Type: Service  
Generator EPA ID: EXEMPT  
Generator Name: Elmington Capital Group  
Generator Mail Street 1: 812 NORTH MAIN STREET  
Generator Mail City: MEMPHIS  
Generator Mail State: TN  
Generator Mail Zip: 38107  
Generator Location Street 1: 812 NORTH MAIN STREET  
Generator Location City: MEMPHIS  
Generator Location Zip: 38107  
Generator Location State: TN  
Designated Facility EPA ID: ALD000622464  
Designated Facility Mail Street 2: P.O. BOX 55  
Designated Facility Mail City: EMELLE  
Designated Facility Mail Zip: 35459  
Designated Facility Mail State: AL  
Designated Facility Location Street Number: 36964  
Designated Facility Location Street 1: 36964 ALABAMA HWY 17  
Designated Facility Location City: EMELLE  
Designated Facility Location Zip: 35459  
Designated Facility Location State: AL  
Designated Facility Contact Company Name: CHEMICAL WASTE MANAGEMENT, INC.  
Manifest Residue Indicator: N  
Rejection Indicator: N

**PCB Information:**

Manifest Tracking Number: 006460068GBF  
Waste Line Number: 1  
Article or Container ID: 1  
Date of Removal: 20200319  
Load Type: ArticleInContainer  
Load Type Description: Article in Container  
Waste Type: PCB, SOLD  
Weight: 10269

**Transporter:**

Manifest Tracking Number: 006460068GBF  
Transporter Line Number: 1  
Transporter EPA ID: ALD067138891  
Transporter Name: Robbie D Wood, Inc.

**Waste Line:**

Manifest Tracking Number: 006460068GBF  
Waste Line Number: 1  
U.S. DOT Hazardous Indicator: Y  
U.S. DOT ID Number: UN3432  
U.S. DOT Description: UN3432, Polychlorinated Biphenyls Solid, 9, Pg li Tn616607  
Number of Containers: 1  
Container Type Code: CM  
Container Type Description: Metal boxes, cartons, cases (including roll offs)  
Waste Quantity: 10269



Map ID  
 Direction  
 Distance  
 Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
 EPA ID Number

**ELMINGTON CAPITAL GROUP (Continued)**

**1027904257**

Quantity Unit of Measure Code:	K
Quantity Unit of Measure Description:	Kilograms
Waste Quantity, in Tons:	11.321566
Acute Waste Quantity, in Tons:	0
Non-Acute Waste Quantity, in Tons:	11.321566
Waste Quantity, in Kilograms:	10269
Acute Waste Quantity, in Kilograms:	0
Non-Acute Waste Quantity, in Kilograms:	10269
Management Method Code:	H132
Management Method Description:	LANDFILL (WITH PRIOR TREATMENT AND/OR STABILIZATION)
Waste Residue Indicator:	N
Quantity Discrepancy Indicator:	Y
Waste Type Discrepancy Indicator:	N
EPA Waste Indicator:	N

**E24  
 NW  
 < 1/8  
 0.071 mi.  
 375 ft.**

**ELMINGTON CAPITAL MAIN STREET  
 812 NORTH MAIN STREET  
 MEMPHIS, TN 38107**

**E MANIFEST 1027904259  
 N/A**

**Site 6 of 7 in cluster E**

**Relative:  
 Lower  
 Actual:  
 246 ft.**

<b>E MANIFEST:</b>	
Manifest Tracking Number:	006451974GBF
Last Updated Date:	20200417
Shipped Date:	20200316
Received Date:	20200317
Manifest Status:	Signed
Submission Type:	DataImage5Copy
Origin Type:	Service
Generator EPA ID:	EXEMPT
Generator Name:	Elmington Capital Main Street
Generator Mail Street 1:	812 NORTH MAIN STREET
Generator Mail City:	MEMPHIS
Generator Mail State:	TN
Generator Mail Zip:	38107
Generator Location Street 1:	812 NORTH MAIN STREET
Generator Location City:	MEMPHIS
Generator Location Zip:	38107
Generator Location State:	TN
Designated Facility EPA ID:	ALD000622464
Designated Facility Mail Street 2:	P.O. BOX 55
Designated Facility Mail City:	EMELLE
Designated Facility Mail Zip:	35459
Designated Facility Mail State:	AL
Designated Facility Location Street Number:	36964
Designated Facility Location Street 1:	36964 ALABAMA HWY 17
Designated Facility Location City:	EMELLE
Designated Facility Location Zip:	35459
Designated Facility Location State:	AL
Designated Facility Contact Company Name:	CHEMICAL WASTE MANAGEMENT, INC.
Manifest Residue Indicator:	N
Rejection Indicator:	N
 <b>PCB Information:</b>	
Manifest Tracking Number:	006451974GBF
Waste Line Number:	1
Article or Container ID:	1

Map ID  
 Direction  
 Distance  
 Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
 EPA ID Number

**ELMINGTON CAPITAL MAIN STREET (Continued)**

**1027904259**

Date of Removal:	20200316
Load Type:	ArticleInContainer
Load Type Description:	Article in Container
Waste Type:	PCB SOLID
Weight:	9870
Transporter:	
Manifest Tracking Number:	006451974GBF
Transporter Line Number:	1
Transporter EPA ID:	ALD067138891
Transporter Name:	Robbie D Wood, Inc.
Waste Line:	
Manifest Tracking Number:	006451974GBF
Waste Line Number:	1
U.S. DOT Hazardous Indicator:	Y
U.S. DOT ID Number:	UN3432
U.S. DOT Description:	Un3432, Polychlorinated Biphenyls Solid, 9, Pg li Tn616607
Number of Containers:	1
Container Type Code:	CM
Container Type Description:	Metal boxes, cartons, cases (including roll offs)
Waste Quantity:	9870
Quantity Unit of Measure Code:	K
Quantity Unit of Measure Description:	Kilograms
Waste Quantity, in Tons:	10.881668
Acute Waste Quantity, in Tons:	0
Non-Acute Waste Quantity, in Tons:	10.881668
Waste Quantity, in Kilograms:	9870
Acute Waste Quantity, in Kilograms:	0
Non-Acute Waste Quantity, in Kilograms:	9870
Management Method Code:	H132
Management Method Description:	LANDFILL (WITH PRIOR TREATMENT AND/OR STABILIZATION)
Waste Residue Indicator:	N
Quantity Discrepancy Indicator:	Y
Waste Type Discrepancy Indicator:	N
EPA Waste Indicator:	N

**E25  
 NW  
 < 1/8  
 0.071 mi.  
 375 ft.**

**OLD CUMMINS DIESEL  
 812 NORTH MAIN  
 MEMPHIS, TN  
 Site 7 of 7 in cluster E**

**INST CONTROL S110118025  
 SRP N/A  
 VCP  
 VAPOR**

<b>Relative: Lower</b>	INST CONTROL:	
	Name:	OLD CUMMINS DIESEL
	Address:	812 NORTH MAIN
	City,State,Zip:	MEMPHIS, TN
	Facility ID:	79852
	Control Type:	Institutional
	Control Description:	Land Use Restriction
	Date Recorded:	11_19_2019
	Acreage:	2.5
	Facility Id:	79852
	Lattitude:	35.164325
	Longitude:	-90.044775
	Site Status:	Open
	Total Site Acreage:	2.5
<b>Actual: 246 ft.</b>		

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**OLD CUMMINS DIESEL (Continued)**

**S110118025**

SRP:

Name: OLD CUMMINS DIESEL  
Address: 812 NORTH MAIN  
City,State,Zip: MEMPHIS, TN  
EPAID: TNN000410220  
State Remediation Program Site Number: 79852  
Project Manager Initials: Merrie Embry  
Contaminants Of Concern: METALS  
Active?: OPEN  
Program: VOLUNTARY  
Latitude: 35.164325  
Longitude: -90.044775  
Acres: 2.5

Name: OLD CUMMINS DIESEL  
Address: 812 NORTH MAIN  
City,State,Zip: MEMPHIS, TN  
EPAID: TNN000410220  
State Remediation Program Site Number: 79852  
Project Manager Initials: Merrie Embry  
Contaminants Of Concern: PAHS  
Active?: OPEN  
Program: VOLUNTARY  
Latitude: 35.164325  
Longitude: -90.044775  
Acres: 2.5

Name: OLD CUMMINS DIESEL  
Address: 812 NORTH MAIN  
City,State,Zip: MEMPHIS, TN  
EPAID: TNN000410220  
State Remediation Program Site Number: 79852  
Project Manager Initials: Merrie Embry  
Contaminants Of Concern: PCBS  
Active?: OPEN  
Program: VOLUNTARY  
Latitude: 35.164325  
Longitude: -90.044775  
Acres: 2.5

Name: OLD CUMMINS DIESEL  
Address: 812 NORTH MAIN  
City,State,Zip: MEMPHIS, TN  
EPAID: TNN000410220  
State Remediation Program Site Number: 79852  
Project Manager Initials: Merrie Embry  
Contaminants Of Concern: VOCs/SVOCs  
Active?: OPEN  
Program: VOLUNTARY  
Latitude: 35.164325  
Longitude: -90.044775  
Acres: 2.5

VCP:

Name: OLD CUMMINS DIESEL  
Address: 812 NORTH MAIN

Map ID  
 Direction  
 Distance  
 Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
 EPA ID Number

**OLD CUMMINS DIESEL (Continued)**

**S110118025**

City,State,Zip: MEMPHIS, TN  
 Promulgated Date: Not reported  
 Facility ID: 79852  
 Facility Status: OPEN  
 EFO: MEMPHIS  
 EPA Facility ID: TNN000410220  
 EPA Registry ID: 110037285498  
 Latitude: 35.164325  
 Longitude: -90.044775  
 Acres: 2.5

VAPOR:

Name: OLD CUMMINS DIESEL  
 Address: 812 NORTH MAIN  
 City,State,Zip: MEMPHIS, TN  
 Site Status: OPEN  
 COC Type: VOCs/SVOCs  
 COC Media: EXTERIOR SOIL GAS, GROUNDWATER, SOIL  
 Latitude: 35.164325  
 Longitude: -90.044775

**26**  
**WSW**  
**< 1/8**  
**0.083 mi.**  
**440 ft.**

**GENERAL ELECTRIC CO ICES**  
**5278 H01**  
**MEMPHIS, TN 38107**

**RCRA NonGen / NLR** **1000212928**  
**FINDS** **TND000615591**

**Relative:**  
**Lower**  
**Actual:**  
**235 ft.**

RCRA Listings:  
 Date Form Received by Agency: 19801118  
 Handler Name: General Electric Co Ices  
 Handler Address: 5278 H01  
 Handler City,State,Zip: MEMPHIS, TN 38107  
 EPA ID: TND000615591  
 Contact Name: GENERAL ELECTRIC  
 Contact Address: 5278 H01  
 Contact City,State,Zip: MEMPHIS, TN 38107  
 Contact Telephone: 615-555-1212  
 EPA Region: 04  
 Federal Waste Generator Description: Not a generator, verified  
 State District Owner: Tn  
 State District: 106  
 Mailing Address: NORTH MAIN ST  
 Mailing City,State,Zip: MEMPHIS, TN 38107  
 Short-Term Generator Activity: No  
 Importer Activity: No  
 Mixed Waste Generator: No  
 Transporter Activity: No  
 Transfer Facility Activity: No  
 Recycler Activity with Storage: No  
 Small Quantity On-Site Burner Exemption: No  
 Smelting Melting and Refining Furnace Exemption: No  
 Underground Injection Control: No  
 Off-Site Waste Receipt: No  
 Universal Waste Indicator: No  
 Universal Waste Destination Facility: No  
 Federal Universal Waste: No  
 Active Site State-Reg Handler: ---



Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**GENERAL ELECTRIC CO ICES (Continued)**

**1000212928**

Hazardous Secondary Material Indicator:	N
2018 GPRA Permit Baseline:	Not on the Baseline
2018 GPRA Renewals Baseline:	Not on the Baseline
202 GPRA Corrective Action Baseline:	No
Subject to Corrective Action Universe:	No
Non-TSDFs Where RCRA CA has Been Imposed Universe:	No
Corrective Action Priority Ranking:	No NCAPS ranking
Environmental Control Indicator:	No
Institutional Control Indicator:	No
Human Exposure Controls Indicator:	N/A
Groundwater Controls Indicator:	N/A
Significant Non-Complier Universe:	No
Unaddressed Significant Non-Complier Universe:	No
Addressed Significant Non-Complier Universe:	No
Significant Non-Complier With a Compliance Schedule Universe:	No
Handler Date of Last Change:	20000902
Recognized Trader-Importer:	No
Recognized Trader-Exporter:	No
Importer of Spent Lead Acid Batteries:	No
Exporter of Spent Lead Acid Batteries:	No
Recycler Activity Without Storage:	No
Manifest Broker:	No
Sub-Part P Indicator:	No

Historic Generators:

Receive Date:	19801118
Handler Name:	GENERAL ELECTRIC CO ICES
Federal Waste Generator Description:	Not a generator, verified
State District Owner:	Tn
Large Quantity Handler of Universal Waste:	No
Recognized Trader Importer:	No
Recognized Trader Exporter:	No
Spent Lead Acid Battery Importer:	No
Spent Lead Acid Battery Exporter:	No
Current Record:	Yes

List of NAICS Codes and Descriptions:

NAICS Codes:	No NAICS Codes Found
--------------	----------------------

Facility Has Received Notices of Violations:

Violations:	No Violations Found
-------------	---------------------

Evaluation Action Summary:

Evaluations:	No Evaluations Found
--------------	----------------------

FINDS:

Registry ID:	110004968517
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[Click Here for FRS Facility Detail Report:](#)

Environmental Interest/Information System:

The Resource Conservation and Recovery Act Information System (RCRAInfo) is EPA's comprehensive information system in support of the

Map ID  
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 Distance  
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MAP FINDINGS

Site

Database(s)

EDR ID Number  
 EPA ID Number

**GENERAL ELECTRIC CO ICES (Continued)**

**1000212928**

Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. It tracks many types of information about generators, transporters, treaters, storers, and disposers of hazardous waste.

[Click this hyperlink](#) while viewing on your computer to access additional FINDS: detail in the EDR Site Report.

**27**  
**NNE**  
**< 1/8**  
**0.117 mi.**  
**618 ft.**

**A AUTOMAT LNDRY**  
**144 BICKFORD AVE**  
**MEMPHIS, TN**

**EDR Hist Cleaner**    **1014144060**  
**N/A**

**Relative:**  
**Higher**

EDR Hist Cleaner

**Actual:**  
**260 ft.**

Year:	Name:	Type:
1948	A AUTOMAT LNDRY	CLOTHES PRESSERS AND CLEANERS
1948	A AUTOMAT LNDRY	LAUNDRIES-STEAM
1958	AUTOMAT LNDRY & CINS	LAUNDRIES

**28**  
**SSW**  
**< 1/8**  
**0.119 mi.**  
**626 ft.**

**JOES GARAGE**  
**620 2ND N**  
**MEMPHIS, TN**

**EDR Hist Auto**    **1014195681**  
**N/A**

**Relative:**  
**Lower**

EDR Hist Auto

**Actual:**  
**231 ft.**

Year:	Name:	Type:
1953	NUNIS TROY E GAS STA	GASOLINE STATIONS
1958	JOES GARAGE	AUTOMOBILE GARAGES

**F29**  
**West**  
**1/8-1/4**  
**0.133 mi.**  
**702 ft.**

**AQUASERV INC.**  
**MEMPHIS, TN**  
**Site 1 of 5 in cluster F**

**PFAS ECHO**    **1027326478**  
**N/A**

**Relative:**  
**Lower**

PFAS ECHO:

**Actual:**  
**234 ft.**

Name:	Aquaserv Inc.
City,State,Zip:	MEMPHIS, TN
Latitude:	35.16336
Longitude:	-90.04651
Count:	1
County:	SHELBY COUNTY
Status:	Inactive
Region:	04
Industry:	Chemical Mfg
ECHO Facility Report:	<a href="https://echo.epa.gov/detailed-facility-report?fid=110070003969">https://echo.epa.gov/detailed-facility-report?fid=110070003969</a>
Facility Percent Minority:	69.986
Facility Derived Tribes:	-
Facility Population:	2443.52
EPA Programs:	CWA
Federal Facility:	No
Federal Agency:	-

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**AQUASERV INC. (Continued)**

**1027326478**

Facility FIPS Code:	47157
Facility Indian Country Flag:	N
Facility Collection Method:	ADDRESS MATCHING-HOUSE NUMBER
Facility Derived HUC:	08010210
Facility Derived WBD:	080101000703
Facility Derived CD113:	09
Facility Derived CB2010:	471570021001010
Facility Major Flag:	-
Facility Active Flag:	-
Facility Inspection Count:	0
Facility Date Last Inspection:	-
Facility Days Last Inspection:	-
Facility Informal Count:	0
Facility Date Last Informal Action:	10/9/2015
Facility Formal Action Count:	0
Facility Date Last Formal Action:	-
Facility Total Penalties:	0
Facility Penalty Count:	-
Facility Date Last Penalty:	-
Facility Last Penalty AMT:	-
Facility QTRS With NC:	0
Facility Programs With SNC:	0
Facility Compliance Status:	-
Facility SNC Flag:	N
AIR Flag:	N
NPDES Flag:	Y
SDWIS Flag:	N
RCRA Flag:	N
TRI Flag:	N
GHG Flag:	N
AIR IDS:	-
CAA Permit Types:	-
CAA NAICS:	-
CAA SICs:	-
NPDES IDS:	TNR058046
CWA Permit Types:	Non-M
CWA NAICS:	-
CWA SICs:	2869
RCRA IDS:	-
RCRA Permit Types:	-
RCRA NAICS:	-
SDWA IDS:	-
SDWA System Types:	-
SDWA Compliance Status:	-
SDWA SNC Flag:	N
TRI IDS:	-
TRI Releases Transfers:	-
TRI On Site Releases:	-
TRI Off Site Transfers:	-
TRI Reporter:	-
Facility IMP Water Flag:	Y
EJSCREEN Flag US:	Y

EJSCREEN Report:

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

G30  
WSW  
1/8-1/4  
0.137 mi.  
722 ft.

UPTOWN PROJECT #2 (BLOCKS 51/52)  
78 LOONEY AVE.  
MEMPHIS, TN

INST CONTROL S118368013  
SRP N/A  
VCP  
VAPOR

Site 1 of 2 in cluster G

Relative:  
Lower

INST CONTROL:

Actual:  
239 ft.

Name: UPTOWN PROJECT #2 (BLOCKS 51/52)  
Address: 78 LOONEY AVE.  
City,State,Zip: MEMPHIS, TN  
Facility ID: SRS791010  
Control Type: Institutional  
Control Description: Land Use Restriction  
Date Recorded: 10\_19\_2016  
Map: yes  
Parcel: A, B, and C  
Acreage: 3.19  
Facility Id: SRS791010  
Latitude: 35.161956  
Longitude: -90.046396  
Site Status: Closed  
Total Site Acreage: 3.2

SRP:

Name: UPTOWN PROJECT #2 (BLOCKS 51/52)  
Address: 78 LOONEY AVE.  
City,State,Zip: MEMPHIS, TN  
Site Control Number: SRS-2006-1275  
State Remediation Program Site Number: SRS791010  
Field Office: MEMP  
Contaminants Of Concern: METALS  
Active?: CLOSED  
Number Of Days In System: 3149  
Program: VOLUNTARY  
Latitude: 35.161956  
Longitude: -90.046396  
Acres: 3.2

Name: UPTOWN PROJECT #2 (BLOCKS 51/52)  
Address: 78 LOONEY AVE.  
City,State,Zip: MEMPHIS, TN  
Site Control Number: SRS-2006-1275  
State Remediation Program Site Number: SRS791010  
Field Office: MEMP  
Contaminants Of Concern: VOCs/SVOCs  
Active?: CLOSED  
Number Of Days In System: 3149  
Program: VOLUNTARY  
Latitude: 35.161956  
Longitude: -90.046396  
Acres: 3.2

VCP:

Name: UPTOWN PROJECT #2 (BLOCKS 51/52)  
Address: 78 LOONEY AVE.  
City,State,Zip: MEMPHIS, TN  
Promulgated Date: Not reported  
Facility ID: SRS791010



Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**UPTOWN PROJECT #2 (BLOCKS 51/52) (Continued)**

**S118368013**

Facility Status: CLOSED  
EFO: MEMPHIS  
EPA Facility ID: Not reported  
EPA Registry ID: Not reported  
Latitude: 35.161956  
Longitude: -90.046396  
Acres: 3.2

VAPOR:

Name: UPTOWN PROJECT #2 (BLOCKS 51/52)  
Address: 78 LOONEY AVE.  
City,State,Zip: MEMPHIS, TN  
Site Status: CLOSED  
COC Type: VOCs/SVOCs  
COC Media: GROUNDWATER, SOIL  
Latitude: 35.161956  
Longitude: -90.046396

**F31**  
**West**  
**1/8-1/4**  
**0.159 mi.**  
**839 ft.**

**46 KEEL AVENUE**  
**711 NORTH FRONT STREET**  
**MEMPHIS, TN**  
**Site 2 of 5 in cluster F**

**INST CONTROL**  
**SRP**  
**VCP**  
**VAPOR**

**S128170572**  
**N/A**

**Relative:**  
**Lower**  
**Actual:**  
**232 ft.**

INST CONTROL:  
Name: 46 KEEL AVENUE  
Address: 711 NORTH FRONT STREET  
City,State,Zip: MEMPHIS, TN  
Facility ID: 79966  
Control Type: Institutional  
Control Description: Land Use Restriction  
Date Recorded: 04\_08\_2022  
Acreage: 1.93  
Facility Id: 79966  
Latitude: 35.163598  
Longitude: -90.047264  
Site Status: Open  
Total Site Acreage: 1.93

SRP:

Name: 46 KEEL AVENUE  
Address: 711 NORTH FRONT STREET  
City,State,Zip: MEMPHIS, TN  
EPAID: TND987777604  
State Remediation Program Site Number: 79966  
Contaminants Of Concern: METALS  
Active?: OPEN  
Program: VOLUNTARY  
Latitude: 35.163598  
Longitude: -90.047264  
Acres: 1.93

Name: 46 KEEL AVENUE  
Address: 711 NORTH FRONT STREET  
City,State,Zip: MEMPHIS, TN  
EPAID: TND987777604  
State Remediation Program Site Number: 79966

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**46 KEEL AVENUE (Continued)**

**S128170572**

Contaminants Of Concern: PAHS  
Active?: OPEN  
Program: VOLUNTARY  
Latitude: 35.163598  
Longitude: -90.047264  
Acres: 1.93

Name: 46 KEEL AVENUE  
Address: 711 NORTH FRONT STREET  
City,State,Zip: MEMPHIS, TN  
EPAID: TND987777604  
State Remediation Program Site Number: 79966  
Contaminants Of Concern: PESTICIDES & HERBICIDES  
Active?: OPEN  
Program: VOLUNTARY  
Latitude: 35.163598  
Longitude: -90.047264  
Acres: 1.93

Name: 46 KEEL AVENUE  
Address: 711 NORTH FRONT STREET  
City,State,Zip: MEMPHIS, TN  
EPAID: TND987777604  
State Remediation Program Site Number: 79966  
Contaminants Of Concern: VOCs/SVOCs  
Active?: OPEN  
Program: VOLUNTARY  
Latitude: 35.163598  
Longitude: -90.047264  
Acres: 1.93

VCP:

Name: 46 KEEL AVENUE  
Address: 711 NORTH FRONT STREET  
City,State,Zip: MEMPHIS, TN  
Promulgated Date: Not reported  
Facility ID: 79966  
Facility Status: OPEN  
EFO: MEMPHIS  
EPA Facility ID: TND987777604  
EPA Registry ID: 110001857606  
Latitude: 35.163598  
Longitude: -90.047264  
Acres: 1.93

VAPOR:

Name: 46 KEEL AVENUE  
Address: 711 NORTH FRONT STREET  
City,State,Zip: MEMPHIS, TN  
Site Status: OPEN  
COC Type: VOCs/SVOCs  
COC Media: GROUNDWATER, SOIL, SUBSLAB SOIL GAS  
Latitude: 35.163598  
Longitude: -90.047264

Map ID  
 Direction  
 Distance  
 Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
 EPA ID Number

**G32**  
**SW**  
**1/8-1/4**  
**0.168 mi.**  
**885 ft.**

**MEMPHIS DIESEL ELECTRIC**  
**611 N MAIN ST**  
**MEMPHIS, TN 38107**

**Site 2 of 2 in cluster G**

**RCRA NonGen / NLR**  
**FINDS**  
**ECHO**

**1000916757**  
**TND056854094**

**Relative:**  
**Lower**  
**Actual:**  
**229 ft.**

RCRA Listings:	
Date Form Received by Agency:	19801119
Handler Name:	Memphis Diesel Electric
Handler Address:	N Main St
Handler City,State,Zip:	MEMPHIS, TN 38107
EPA ID:	TND056854094
Contact Name:	MEMPHIS DIESEL
Contact Address:	611 N MAIN ST
Contact City,State,Zip:	MEMPHIS, TN 38107
Contact Telephone:	615-555-1212
EPA Region:	04
Federal Waste Generator Description:	Not a generator, verified
State District Owner:	Tn
State District:	106
Mailing Address:	N MAIN ST
Mailing City,State,Zip:	MEMPHIS, TN 38107
Short-Term Generator Activity:	No
Importer Activity:	No
Mixed Waste Generator:	No
Transporter Activity:	No
Transfer Facility Activity:	No
Recycler Activity with Storage:	No
Small Quantity On-Site Burner Exemption:	No
Smelting Melting and Refining Furnace Exemption:	No
Underground Injection Control:	No
Off-Site Waste Receipt:	No
Universal Waste Indicator:	No
Universal Waste Destination Facility:	No
Federal Universal Waste:	No
Active Site State-Reg Handler:	---
Hazardous Secondary Material Indicator:	N
2018 GPRA Permit Baseline:	Not on the Baseline
2018 GPRA Renewals Baseline:	Not on the Baseline
202 GPRA Corrective Action Baseline:	No
Subject to Corrective Action Universe:	No
Non-TSDFs Where RCRA CA has Been Imposed Universe:	No
Corrective Action Priority Ranking:	No NCAPS ranking
Environmental Control Indicator:	No
Institutional Control Indicator:	No
Human Exposure Controls Indicator:	N/A
Groundwater Controls Indicator:	N/A
Significant Non-Complier Universe:	No
Unaddressed Significant Non-Complier Universe:	No
Addressed Significant Non-Complier Universe:	No
Significant Non-Complier With a Compliance Schedule Universe:	No
Handler Date of Last Change:	20000902
Recognized Trader-Importer:	No
Recognized Trader-Exporter:	No
Importer of Spent Lead Acid Batteries:	No
Exporter of Spent Lead Acid Batteries:	No
Recycler Activity Without Storage:	No
Manifest Broker:	No
Sub-Part P Indicator:	No

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**MEMPHIS DIESEL ELECTRIC (Continued)**

**1000916757**

Historic Generators:

Receive Date: 19801119  
Handler Name: MEMPHIS DIESEL ELECTRIC  
Federal Waste Generator Description: Not a generator, verified  
State District Owner: Tn  
Large Quantity Handler of Universal Waste: No  
Recognized Trader Importer: No  
Recognized Trader Exporter: No  
Spent Lead Acid Battery Importer: No  
Spent Lead Acid Battery Exporter: No  
Current Record: Yes

List of NAICS Codes and Descriptions:

NAICS Code: 336322  
NAICS Description: OTHER MOTOR VEHICLE ELECTRICAL AND ELECTRONIC EQUIPMENT MANUFACTURING

Facility Has Received Notices of Violations:

Violations: No Violations Found

Evaluation Action Summary:

Evaluations: No Evaluations Found

FINDS:

Registry ID: 110004969375

[Click Here for FRS Facility Detail Report:](#)

Environmental Interest/Information System:

The Resource Conservation and Recovery Act Information System (RCRAInfo) is EPA's comprehensive information system in support of the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. It tracks many types of information about generators, transporters, treaters, storers, and disposers of hazardous waste.

[Click this hyperlink](#) while viewing on your computer to access additional FINDS: detail in the EDR Site Report.

ECHO:

Envid: 1000916757  
Registry ID: 110004969375  
DFR URL: <http://echo.epa.gov/detailed-facility-report?fid=110004969375>  
Name: MEMPHIS DIESEL ELECTRIC  
Address: 611 N MAIN ST  
City,State,Zip: MEMPHIS, TN 38107



Map ID  
 Direction  
 Distance  
 Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
 EPA ID Number

**33**  
**South**  
**1/8-1/4**  
**0.169 mi.**  
**891 ft.**

**DIRECTFX SOLUTIONS INC**  
**601 N 3RD ST**  
**MEMPHIS, TN 38107**

**E MANIFEST**    **1027817241**  
**N/A**

**Relative:**  
**Lower**  
**Actual:**  
**228 ft.**

**E MANIFEST:**  
 Manifest Tracking Number: 006769866SKS  
 Last Updated Date: 20181227  
 Shipped Date: 20181114  
 Received Date: 20181128  
 Manifest Status: Signed  
 Submission Type: DataImage5Copy  
 Origin Type: Service  
 Generator EPA ID: CESQG  
 Generator Name: Directfx Solutions Inc  
 Generator Mail Street 1: 601 N 3RD ST  
 Generator Mail City: MEMPHIS  
 Generator Mail State: TN  
 Generator Mail Zip: 38107  
 Generator Location Street 1: 601 N 3rd St  
 Generator Location City: Memphis  
 Generator Location Zip: 38107  
 Generator Location State: TN  
 Designated Facility EPA ID: ARD069748192  
 Designated Facility Mail Street 2: 309 American Circle  
 Designated Facility Mail City: El Dorado  
 Designated Facility Mail Zip: 71730  
 Designated Facility Mail State: AR  
 Designated Facility Location Street 1: 309 American Circle  
 Designated Facility Location City: El Dorado  
 Designated Facility Location Zip: 71730  
 Designated Facility Location State: AR  
 Designated Facility Contact Company Name: Clean Harbors El Dorado LLC  
 Manifest Residue Indicator: N  
 Rejection Indicator: N

**Federal Waste:**  
 Manifest Tracking Number: 006769866SKS  
 Waste Line Number: 1  
 Federal Waste Code: D001  
 Federal Waste: IGNITABLE WASTE

**Transporter:**  
 Manifest Tracking Number: 006769866SKS  
 Transporter Line Number: 1  
 Transporter EPA ID: TXR000081205  
 Transporter Name: Safety-Kleen Systems, Inc.  
  
 Manifest Tracking Number: 006769866SKS  
 Transporter Line Number: 2  
 Transporter EPA ID: MAD039322250  
 Transporter Name: Clean Harbors Environmental Services, Inc.  
  
 Manifest Tracking Number: 006769866SKS  
 Transporter Line Number: 3  
 Transporter EPA ID: MAD039322250  
 Transporter Name: Clean Harbors Environmental Services, Inc.

Map ID  
 Direction  
 Distance  
 Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
 EPA ID Number

**DIRECTFX SOLUTIONS INC (Continued)**

**1027817241**

Waste Line:  
 Manifest Tracking Number: 006769866SKS  
 Waste Line Number: 1  
 U.S. DOT Hazardous Indicator: Y  
 U.S. DOT ID Number: UN1993  
 U.S. DOT Description: Un1993, Waste Un1993, Waste Flammable Liquids, N.O.S., (Petroleum Distillates, Isopropanol), 3, Pg li  
  
 Number of Containers: 1  
 Container Type Code: DM  
 Container Type Description: Metal drums, barrels, kegs  
 Waste Quantity: 275  
 Quantity Unit of Measure Code: P  
 Quantity Unit of Measure Description: Pounds  
 Waste Quantity, in Tons: 0.1375  
 Acute Waste Quantity, in Tons: 0  
 Non-Acute Waste Quantity, in Tons: 0.1375  
 Waste Quantity, in Kilograms: 124.71663  
 Acute Waste Quantity, in Kilograms: 0  
 Non-Acute Waste Quantity, in Kilograms: 124.71663  
 Management Method Code: H040  
 Management Method Description: INCINERATION  
 Waste Residue Indicator: N  
 Quantity Discrepancy Indicator: N  
 Waste Type Discrepancy Indicator: N  
 EPA Waste Indicator: Y

**34  
 NW  
 1/8-1/4  
 0.171 mi.  
 901 ft.**

**CONWOOD CORPORATION  
 844 NORTH FRONT STREET  
 MEMPHIS, TN 38101**

**RCRA NonGen / NLR 1000883163  
 FINDS TND007019466  
 ECHO**

**Relative:  
 Lower  
 Actual:  
 240 ft.**

RCRA Listings:  
 Date Form Received by Agency: 19850401  
 Handler Name: Conwood Corporation  
 Handler Address: North Front Street  
 Handler City,State,Zip: MEMPHIS, TN 38101  
 EPA ID: TND007019466  
 Contact Name: E H ARKIN  
 Contact Address: 844 NORTH FRONT STREET  
 Contact City,State,Zip: MEMPHIS, TN 38101  
 Contact Telephone: 901-523-2424  
 EPA Region: 04  
 Federal Waste Generator Description: Not a generator, verified  
 State District Owner: Tn  
 State District: 106  
 Mailing Address: PO BOX 217  
 Mailing City,State,Zip: MEMPHIS, TN 38101  
 Short-Term Generator Activity: No  
 Importer Activity: No  
 Mixed Waste Generator: No  
 Transporter Activity: No  
 Transfer Facility Activity: No  
 Recycler Activity with Storage: No  
 Small Quantity On-Site Burner Exemption: No  
 Smelting Melting and Refining Furnace Exemption: No  
 Underground Injection Control: No

Map ID  
 Direction  
 Distance  
 Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
 EPA ID Number

**CONWOOD CORPORATION (Continued)**

**1000883163**

Off-Site Waste Receipt:	No
Universal Waste Indicator:	No
Universal Waste Destination Facility:	No
Federal Universal Waste:	No
Active Site State-Reg Handler:	---
Hazardous Secondary Material Indicator:	N
2018 GPRA Permit Baseline:	Not on the Baseline
2018 GPRA Renewals Baseline:	Not on the Baseline
202 GPRA Corrective Action Baseline:	No
Subject to Corrective Action Universe:	No
Non-TSDFs Where RCRA CA has Been Imposed Universe:	No
Corrective Action Priority Ranking:	No NCAPS ranking
Environmental Control Indicator:	No
Institutional Control Indicator:	No
Human Exposure Controls Indicator:	N/A
Groundwater Controls Indicator:	N/A
Significant Non-Complier Universe:	No
Unaddressed Significant Non-Complier Universe:	No
Addressed Significant Non-Complier Universe:	No
Significant Non-Complier With a Compliance Schedule Universe:	No
Handler Date of Last Change:	20000902
Recognized Trader-Importer:	No
Recognized Trader-Exporter:	No
Importer of Spent Lead Acid Batteries:	No
Exporter of Spent Lead Acid Batteries:	No
Recycler Activity Without Storage:	No
Manifest Broker:	No
Sub-Part P Indicator:	No

Historic Generators:

Receive Date:	19850401
Handler Name:	CONWOOD CORPORATION
Federal Waste Generator Description:	Not a generator, verified
State District Owner:	Tn
Large Quantity Handler of Universal Waste:	No
Recognized Trader Importer:	No
Recognized Trader Exporter:	No
Spent Lead Acid Battery Importer:	No
Spent Lead Acid Battery Exporter:	No
Current Record:	Yes

List of NAICS Codes and Descriptions:

NAICS Code:	312229
NAICS Description:	OTHER TOBACCO PRODUCT MANUFACTURING

Has the Facility Received Notices of Violations:

Found Violation:	No
------------------	----

Evaluation Action Summary:

Evaluation Date:	19850808
Evaluation Responsible Agency:	State
Found Violation:	No
Evaluation Type Description:	COMPLIANCE EVALUATION INSPECTION
Evaluation Responsible Person Identifier:	TN089

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**CONWOOD CORPORATION (Continued)**

**1000883163**

**FINDS:**

Registry ID: 110004960551

Click Here for FRS Facility Detail Report:

**Environmental Interest/Information System:**

The Resource Conservation and Recovery Act Information System (RCRAInfo) is EPA's comprehensive information system in support of the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. It tracks many types of information about generators, transporters, treaters, storers, and disposers of hazardous waste.

Click this hyperlink while viewing on your computer to access additional FINDS: detail in the EDR Site Report.

**ECHO:**

Envid: 1000883163  
Registry ID: 110004960551  
DFR URL: <http://echo.epa.gov/detailed-facility-report?fid=110004960551>  
Name: CONWOOD CORPORATION  
Address: 844 NORTH FRONT STREET  
City,State,Zip: MEMPHIS, TN 38101

**F35**  
**West**  
**1/8-1/4**  
**0.179 mi.**  
**946 ft.**

**CONWOOD CO LP**  
**46 KEEL AVENUE PO BOX 217**  
**MEMPHIS, TN 38101**  
**Site 3 of 5 in cluster F**

**UST U004173514**  
**N/A**

**Relative:**  
**Lower**  
**Actual:**  
**231 ft.**

**UST:**  
Name: CONWOOD CO LP  
Address: 46 KEEL AVENUE PO BOX 217  
City,State,Zip: MEMPHIS 38101  
Facility ID: 9790212  
Facility Description: Other or Unknown  
Owner ID: 308352  
Owner Name: CONWOOD CO LP  
Owner Address: 46 KEEL AVENUE P.O. BOX 2  
Owner City,St,Zip: MEMPHIS, TN 38101

Tank Number: 2  
Tank ID: 46491  
Tank Other Material: Steel  
Compartment ID: 47210  
Compartment Letter: A  
Compartment Status: Permanently Out of Use  
Compartment Capacity: 6000  
Substance Description: ULS Diesel  
Date Installed: MAR-12-1966  
Date Last Used: NOV-30-1989  
Date Closed: NOV-30-1989  
Tank Emergency: Tank LD No  
Overfill Type: Private  
Pipe Material Desc: Steel



Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**CONWOOD CO LP (Continued)**

**U004173514**

Name: CONWOOD CO LP  
Address: 46 KEEL AVENUE PO BOX 217  
City,State,Zip: MEMPHIS 38101

Tank Number: 3  
Tank ID: 46492  
Tank Other Material: Steel  
Compartment ID: 47211  
Compartment Letter: A  
Compartment Status: Permanently Out of Use  
Compartment Capacity: 1000  
Substance Description: Gasoline  
Date Installed: MAR-12-1966  
Date Last Used: NOV-30-1989  
Date Closed: NOV-30-1989  
Tank Emergency: Tank LD No  
Overfill Type: Private  
Pipe Material Desc: Steel

Name: CONWOOD CO LP  
Address: 46 KEEL AVENUE PO BOX 217  
City,State,Zip: MEMPHIS 38101

Tank Number: 4  
Tank ID: 46493  
Tank Other Material: Tank Construction Material Other or Unknown  
Compartment ID: 47212  
Compartment Letter: A  
Compartment Status: Permanently Out of Use  
Compartment Capacity: 999999  
Substance Description: Not Listed  
Date Installed: JAN-01-1900  
Date Last Used: JAN-01-1979  
Tank Emergency: Tank LD No  
Overfill Type: Private  
Pipe Material Desc: Hazardous Substance

Name: CONWOOD CO LP  
Address: 46 KEEL AVENUE PO BOX 217  
City,State,Zip: MEMPHIS 38101

Tank Number: 5  
Tank ID: 46494  
Tank Other Material: Tank Construction Material Other or Unknown  
Compartment ID: 47213  
Compartment Letter: A  
Compartment Status: Permanently Out of Use  
Compartment Capacity: 999999  
Substance Description: Gasoline  
Date Installed: JAN-01-1900  
Date Last Used: JAN-01-1950  
Date Closed: JAN-01-1970  
Regulated: Unregulated  
Tank Emergency: Tank LD No  
Overfill Type: Private  
Pipe Material Desc: Hazardous Substance

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**F36**      **AMERICAN SNUFF PROPERTIES**  
**West**    **46 KEEL AVE, 47 KEEL AVE, 100 KEEL AVE, 700 N FRONT**  
**1/8-1/4**   **MEMPHIS, TN**  
**0.179 mi.**  
**946 ft.**    **Site 4 of 5 in cluster F**

**VCP**    **S119162198**  
**SRP**    **N/A**  
**VAPOR**

**Relative:**  
**Lower**  
**Actual:**  
**231 ft.**

**VCP:**  
Name:            AMERICAN SNUFF PROPERTIES  
Address:        46 KEEL AVE, 47 KEEL AVE, 100 KEEL AVE, 700 N FRONT  
City,State,Zip: MEMPHIS, TN  
Promulgated Date: Not reported  
Facility ID:     79916  
Facility Status: OPEN  
EFO:            MEMPHIS  
EPA Facility ID: TNR000032391  
EPA Registry ID: 110045562315  
Latitude:        35.163598  
Longitude:      -90.047264  
Acres:           3.35

**SRP:**  
Name:            AMERICAN SNUFF PROPERTIES  
Address:        46 KEEL AVE, 47 KEEL AVE, 100 KEEL AVE, 700 N FRONT  
City,State,Zip: MEMPHIS, TN  
EPAID:           TNR000032391  
State Remediation Program Site Number: 79916  
Contaminants Of Concern: PAHS  
Active?:        OPEN  
Program:        VOLUNTARY  
Latitude:        35.163598  
Longitude:      -90.047264  
Acres:           3.35

Name:            AMERICAN SNUFF PROPERTIES  
Address:        46 KEEL AVE, 47 KEEL AVE, 100 KEEL AVE, 700 N FRONT  
City,State,Zip: MEMPHIS, TN  
EPAID:           TNR000032391  
State Remediation Program Site Number: 79916  
Contaminants Of Concern: VOCs/SVOCs  
Active?:        OPEN  
Program:        VOLUNTARY  
Latitude:        35.163598  
Longitude:      -90.047264  
Acres:           3.35

**VAPOR:**  
Name:            AMERICAN SNUFF PROPERTIES  
Address:        46 KEEL AVE, 47 KEEL AVE, 100 KEEL AVE, 700 N FRONT  
City,State,Zip: MEMPHIS, TN  
Site Status:     OPEN  
COC Type:       VOCs/SVOCs  
COC Media:      EXTERIOR SOIL GAS, GROUNDWATER  
Latitude:        35.163598  
Longitude:      -90.047264

Map ID  
 Direction  
 Distance  
 Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
 EPA ID Number

**F37**  
**West**  
**1/8-1/4**  
**0.179 mi.**  
**946 ft.**

**AMERICAN SNUFF COMPANY, LLC**  
**46 KEEL AVE**  
**MEMPHIS, TN 38107**

**RCRA NonGen / NLR**  
**FINDS**  
**ECHO**

**1004598191**  
**TND98777604**

**Site 5 of 5 in cluster F**

**Relative:**  
**Lower**  
**Actual:**  
**231 ft.**

RCRA Listings:	
Date Form Received by Agency:	20140227
Handler Name:	American Snuff Company, Llc
Handler Address:	Keel Ave
Handler City,State,Zip:	MEMPHIS, TN 38107
EPA ID:	TND98777604
Contact Name:	JAMIE BRIGHT
Contact Address:	TRADESPORT DRIVE
Contact City,State,Zip:	MEMPHIS, TN 37141
Contact Telephone:	901-523-2424
Contact Title:	LEAD MGR EHS
EPA Region:	04
Land Type:	Private
Federal Waste Generator Description:	Not a generator, verified
State District Owner:	Tn
State District:	106
Mailing Address:	TRADESPORT DRIVE
Mailing City,State,Zip:	MEMPHIS, TN 37141
Owner Name:	American Snuff Company, Llc
Owner Type:	Private
Operator Name:	American Snuff Company, Llc
Operator Type:	Private
Short-Term Generator Activity:	No
Importer Activity:	No
Mixed Waste Generator:	No
Transporter Activity:	No
Transfer Facility Activity:	No
Recycler Activity with Storage:	No
Small Quantity On-Site Burner Exemption:	No
Smelting Melting and Refining Furnace Exemption:	No
Underground Injection Control:	No
Off-Site Waste Receipt:	No
Universal Waste Indicator:	No
Universal Waste Destination Facility:	No
Federal Universal Waste:	No
Active Site State-Reg Handler:	---
Hazardous Secondary Material Indicator:	N
2018 GPRA Permit Baseline:	Not on the Baseline
2018 GPRA Renewals Baseline:	Not on the Baseline
202 GPRA Corrective Action Baseline:	No
Subject to Corrective Action Universe:	No
Non-TSDFs Where RCRA CA has Been Imposed Universe:	No
Corrective Action Priority Ranking:	No NCAPS ranking
Environmental Control Indicator:	No
Institutional Control Indicator:	No
Significant Non-Complier Universe:	No
Unaddressed Significant Non-Complier Universe:	No
Addressed Significant Non-Complier Universe:	No
Significant Non-Complier With a Compliance Schedule Universe:	No
Handler Date of Last Change:	20141126
Recognized Trader-Importer:	No
Recognized Trader-Exporter:	No
Importer of Spent Lead Acid Batteries:	No

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**AMERICAN SNUFF COMPANY, LLC (Continued)**

**1004598191**

Exporter of Spent Lead Acid Batteries: No  
Recycler Activity Without Storage: No  
Manifest Broker: No  
Sub-Part P Indicator: No

**Hazardous Waste Summary:**

Waste Code: D001  
Waste Description: Ignitable Waste

Waste Code: F002  
Waste Description: The Following Spent Halogenated Solvents: Tetrachloroethylene, Methylene Chloride, Trichloroethylene, 1,1,1-Trichloroethane, Chlorobenzene, 1,1,2-Trichloro-1,2,2-Trifluoroethane, Ortho-Dichlorobenzene, Trichlorofluoromethane, And 1,1,2, Trichloroethane; All Spent Solvent Mixtures/Blends Containing, Before Use, A Total Of Ten Percent Or More (By Volume) Of One Or More Of The Above Halogenated Solvents Or Those Solvents Listed In F001, F004, And F005; And Still Bottoms From The Recovery Of These Spent Solvents And Spent Solvent Mixtures.

Waste Code: F003  
Waste Description: The Following Spent Nonhalogenated Solvents: Xylene, Acetone, Ethyl Acetate, Ethyl Benzene, Ethyl Ether, Methyl Isobutyl Ketone, N-Butyl Alcohol, Cyclohexanone, And Methanol; All Spent Solvent Mixtures/Blends Containing, Before Use, Only The Above Spent Nonhalogenated Solvents; And All Spent Solvent Mixtures/Blends Containing, Before Use, One Or More Of The Above Nonhalogenated Solvents, And A Total Of Ten Percent Or More (By Volume) Of One Or More Of Those Solvents Listed In F001, F002, F004, And F005; And Still Bottoms From The Recovery Of These Spent Solvents And Spent Solvent Mixtures.

Waste Code: F005  
Waste Description: The Following Spent Nonhalogenated Solvents: Toluene, Methyl Ethyl Ketone, Carbon Disulfide, Isobutanol, Pyridine, Benzene, 2-Ethoxyethanol, And 2-Nitropropane; All Spent Solvent Mixtures/Blends Containing, Before Use, A Total Of Ten Percent Or More (By Volume) Of One Or More Of The Above Nonhalogenated Solvents Or Those Solvents Listed In F001, F002, Or F004; And Still Bottoms From The Recovery Of These Spent Solvents And Spent Solvent Mixtures.

**Handler - Owner Operator:**

Owner/Operator Indicator: PP  
Owner/Operator Name: CONWOOD COMPANY LP  
Legal Status: Private  
Date Became Current: 19850101  
Date Ended Current: 20110715  
Owner/Operator Address: 813 RIDGELAKE BLVD  
Owner/Operator City,State,Zip: MEMPHIS, TN 38120  
Owner/Operator Telephone: 901-523-2424

Owner/Operator Indicator: Owner  
Owner/Operator Name: AMERICAN SNUFF COMPANY, LLC  
Legal Status: Private  
Date Became Current: 20110715



Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**AMERICAN SNUFF COMPANY, LLC (Continued)**

**1004598191**

Owner/Operator Address: 813 RIDGELAKE BLVD  
Owner/Operator City,State,Zip: MEMPHIS, TN 38107  
Owner/Operator Telephone: 901-523-2424

Owner/Operator Indicator: PO  
Owner/Operator Name: CONWOOD COMPANY LP  
Legal Status: Private  
Date Became Current: 19850101  
Date Ended Current: 20110715  
Owner/Operator Address: 813 RIDGELAKE BLVD  
Owner/Operator City,State,Zip: MEMPHIS, TN 38120  
Owner/Operator Telephone: 901-523-2424

Owner/Operator Indicator: Owner  
Owner/Operator Name: CONWOOD COMPANY LP  
Legal Status: Private  
Date Became Current: 19850101  
Owner/Operator Address: 813 RIDGELAKE BLVD  
Owner/Operator City,State,Zip: MEMPHIS, TN 38120  
Owner/Operator Telephone: 901-523-2424

Owner/Operator Indicator: Operator  
Owner/Operator Name: EUGENE CRAIN  
Legal Status: Private  
Date Became Current: 19850101  
Owner/Operator Address: 4813 RIDGELAKE BLVD  
Owner/Operator City,State,Zip: MEMPHIS, TN 38120  
Owner/Operator Telephone: 901-248-1806

Owner/Operator Indicator: Owner  
Owner/Operator Name: CONWOOD COMPANY LP  
Legal Status: Private  
Date Became Current: 19850101  
Owner/Operator Address: 813 RIDGELAKE BLVD  
Owner/Operator City,State,Zip: MEMPHIS, TN 38120  
Owner/Operator Telephone: 901-523-2424

Owner/Operator Indicator: Owner  
Owner/Operator Name: CONWOOD COMPANY LP  
Legal Status: Private  
Date Became Current: 19850101  
Owner/Operator Address: 813 RIDGELAKE BLVD  
Owner/Operator City,State,Zip: MEMPHIS, TN 38120  
Owner/Operator Telephone: 901-523-2424

Owner/Operator Indicator: Operator  
Owner/Operator Name: PHILIP PRICE (PLANT MANAGER)  
Legal Status: Private  
Owner/Operator Address: P O BOX 217  
Owner/Operator City,State,Zip: MEMPHIS, TN 38101  
Owner/Operator Telephone: 901-248-1806

Owner/Operator Indicator: Owner  
Owner/Operator Name: CONWOOD COMPANY  
Legal Status: Private

Owner/Operator Indicator: PP

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**AMERICAN SNUFF COMPANY, LLC (Continued)**

**1004598191**

Owner/Operator Name: CONWOOD COMPANY LP  
Legal Status: Private  
Date Became Current: 19850101  
Date Ended Current: 20110715  
Owner/Operator Address: 813 RIDGELAKE BLVD  
Owner/Operator City,State,Zip: MEMPHIS, TN 38120  
Owner/Operator Telephone: 901-523-2424

Owner/Operator Indicator: Operator  
Owner/Operator Name: CONWOOD COMPANY  
Legal Status: Private

Owner/Operator Indicator: Owner  
Owner/Operator Name: CONWOOD COMPANY LP  
Legal Status: Private  
Owner/Operator Address: 813 RIDGELAKE BLVD  
Owner/Operator City,State,Zip: MEMPHIS, TN 38120  
Owner/Operator Telephone: 901-523-2424

Owner/Operator Indicator: PO  
Owner/Operator Name: CONWOOD COMPANY LP  
Legal Status: Private  
Date Became Current: 19850101  
Date Ended Current: 20110715  
Owner/Operator Address: 813 RIDGELAKE BLVD  
Owner/Operator City,State,Zip: MEMPHIS, TN 38120  
Owner/Operator Telephone: 901-523-2424

Owner/Operator Indicator: Operator  
Owner/Operator Name: AMERICAN SNUFF COMPANY, LLC  
Legal Status: Private  
Date Became Current: 20110715  
Owner/Operator Address: 813 RIDGELAKE BLVD  
Owner/Operator City,State,Zip: MEMPHIS, TN 38107  
Owner/Operator Telephone: 901-523-2424

Owner/Operator Indicator: Operator  
Owner/Operator Name: EUGENE CRAIN  
Legal Status: Private  
Date Became Current: 19850101  
Owner/Operator Address: 4813 RIDGELAKE BLVD  
Owner/Operator City,State,Zip: MEMPHIS, TN 38120  
Owner/Operator Telephone: 901-248-1806

Owner/Operator Indicator: Operator  
Owner/Operator Name: AMERICAN SNUFF COMPANY, LLC  
Legal Status: Private  
Date Became Current: 20110715  
Owner/Operator Address: 813 RIDGELAKE BLVD  
Owner/Operator City,State,Zip: MEMPHIS, TN 38107  
Owner/Operator Telephone: 901-523-2424

Owner/Operator Indicator: Owner  
Owner/Operator Name: AMERICAN SNUFF COMPANY, LLC  
Legal Status: Private  
Date Became Current: 20110715  
Owner/Operator Address: 813 RIDGELAKE BLVD

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**AMERICAN SNUFF COMPANY, LLC (Continued)**

**1004598191**

Owner/Operator City,State,Zip: MEMPHIS, TN 38107  
Owner/Operator Telephone: 901-523-2424

Historic Generators:

Receive Date: 19970227  
Handler Name: CONWOOD COMPANY, L.P.  
Federal Waste Generator Description: Conditionally Exempt Small Quantity Generator  
State District Owner: Tn  
Large Quantity Handler of Universal Waste: No  
Recognized Trader Importer: No  
Recognized Trader Exporter: No  
Spent Lead Acid Battery Importer: No  
Spent Lead Acid Battery Exporter: No  
Current Record: No

Receive Date: 20010228  
Handler Name: CONWOOD COMPANY, L.P.  
Federal Waste Generator Description: Conditionally Exempt Small Quantity Generator  
State District Owner: Tn  
Large Quantity Handler of Universal Waste: No  
Recognized Trader Importer: No  
Recognized Trader Exporter: No  
Spent Lead Acid Battery Importer: No  
Spent Lead Acid Battery Exporter: No  
Current Record: No

Receive Date: 20030310  
Handler Name: CONWOOD COMPANY, L.P.  
Federal Waste Generator Description: Conditionally Exempt Small Quantity Generator  
State District Owner: Tn  
Large Quantity Handler of Universal Waste: No  
Recognized Trader Importer: No  
Recognized Trader Exporter: No  
Spent Lead Acid Battery Importer: No  
Spent Lead Acid Battery Exporter: No  
Current Record: No

Receive Date: 20060223  
Handler Name: CONWOOD COMPANY, L.P.  
Federal Waste Generator Description: Conditionally Exempt Small Quantity Generator  
State District Owner: Tn  
Large Quantity Handler of Universal Waste: No  
Recognized Trader Importer: No  
Recognized Trader Exporter: No  
Spent Lead Acid Battery Importer: No  
Spent Lead Acid Battery Exporter: No  
Current Record: No

Receive Date: 20080220  
Handler Name: CONWOOD COMPANY, L.P.  
Federal Waste Generator Description: Conditionally Exempt Small Quantity Generator  
State District Owner: Tn  
Large Quantity Handler of Universal Waste: No  
Recognized Trader Importer: No  
Recognized Trader Exporter: No  
Spent Lead Acid Battery Importer: No  
Spent Lead Acid Battery Exporter: No

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**AMERICAN SNUFF COMPANY, LLC (Continued)**

**1004598191**

Current Record: No  
  
Receive Date: 20130228  
Handler Name: AMERICAN SNUFF COMPANY, LLC  
Federal Waste Generator Description: Conditionally Exempt Small Quantity Generator  
State District Owner: Tn  
Large Quantity Handler of Universal Waste: No  
Recognized Trader Importer: No  
Recognized Trader Exporter: No  
Spent Lead Acid Battery Importer: No  
Spent Lead Acid Battery Exporter: No  
Current Record: No

Receive Date: 20140227  
Handler Name: AMERICAN SNUFF COMPANY, LLC  
Federal Waste Generator Description: Not a generator, verified  
State District Owner: Tn  
Large Quantity Handler of Universal Waste: No  
Recognized Trader Importer: No  
Recognized Trader Exporter: No  
Spent Lead Acid Battery Importer: No  
Spent Lead Acid Battery Exporter: No  
Current Record: Yes

List of NAICS Codes and Descriptions:

NAICS Code: 312229  
NAICS Description: OTHER TOBACCO PRODUCT MANUFACTURING  
  
NAICS Code: 312230  
NAICS Description: TOBACCO MANUFACTURING

Facility Has Received Notices of Violations:

Violations: No Violations Found

Evaluation Action Summary:

Evaluations: No Evaluations Found

FINDS:

Registry ID: 110001857606

[Click Here for FRS Facility Detail Report:](#)

Environmental Interest/Information System:

ICIS-Air (AIR) AIR is the modernization of the Air Facility System (AFS) into the Integrated Compliance Information System (ICIS). AIR contains enforcement, compliance, and permit data for stationary sources of air pollution regulated by the EPA, State, and Local air pollution agencies.

The Air Facility System (AFS) contains compliance and permit data for stationary sources of air pollution regulated by the EPA, state, and local air pollution agencies.

The Toxic Release Inventory System (TRIS) is a publicly available EPA database reported annually by certain covered industry groups, as well as federal facilities. It contains information about more than 650 toxic chemicals that are being used, manufactured, treated,



Map ID  
 Direction  
 Distance  
 Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
 EPA ID Number

**AMERICAN SNUFF COMPANY, LLC (Continued)**

**1004598191**

transported, or released into the environment, and includes information about waste management and pollution prevention activities.

The Resource Conservation and Recovery Act Information System (RCRAInfo) is EPA's comprehensive information system in support of the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. It tracks many types of information about generators, transporters, treaters, storers, and disposers of hazardous waste.

[Click this hyperlink](#) while viewing on your computer to access additional FINDS: detail in the EDR Site Report.

**ECHO:**

Envid:	1004598191
Registry ID:	110001857606
DFR URL:	<a href="http://echo.epa.gov/detailed-facility-report?fid=110001857606">http://echo.epa.gov/detailed-facility-report?fid=110001857606</a>
Name:	CONWOOD CORPORATION
Address:	46 KEEL AVENUE
City,State,Zip:	MEMPHIS, TN 38107

**38**  
**WNW**  
**1/8-1/4**  
**0.183 mi.**  
**966 ft.**

**CONWOOD CO LP**  
**46 KEEL AVENUE PO BOX 217**  
**MEMPHIS, TN 38101**

**HIST UST**    **U003617888**  
**N/A**

**Relative:**  
**Lower**  
**Actual:**  
**235 ft.**  
**Client Plot**

**HIST UST:**

Name:	CONWOOD CO LP
Address:	46 KEEL AVENUE PO BOX 217
City,State,Zip:	MEMPHIS, TN 38101
Facility ID:	9-790212
Facility Description:	Not Listed
Owner ID:	2167
Owner Name:	CONWOOD CO LP
Owner Address:	46 Keel Avenue P.O. Box 2
Owner City,St,Zip:	Memphis, TN 38101
Owner Telephone:	(901) 523-2424
Owner Description:	Private

Tank ID:	4
<b>Tank Status:</b>	<b>Permanently Out of Use</b>
Tank Capacity:	0
Tank Contents:	Not Listed
Tank Material:	Unknown
Tank 2ndary Trait:	None
Tank Manual Gauge:	False
Tank Tightness:	False
Tank Inventory Control:	False
Tank ATG:	False
Tank Vapor Monitor:	False
Tank Groundwater Monitor:	False
Tank Double Walled:	False
Tank 2nd Contained:	False
Tank SIR:	False
Overfill Installed:	False
Spill Installed:	False
Cathodic Protection:	False

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

CONWOOD CO LP (Continued)

U003617888

Date Installed: //  
Tank Leak Detection Listed: True  
Pipe Material: Unknown  
Pipe Other Material: None  
Pipe Type: Not Listed  
Pipe Auto Line Leak Detect.: False  
Pipe Leak Detection Listed: False  
Pipe Vapor Monitor: False  
Pipe Groundwater Monitor: False  
Pipe 2nd Contained: False  
Pipe SIR: False  
Pipe Leak Detection Listed: True

Tank ID: 3  
**Tank Status: Permanently Out of Use**  
Tank Capacity: 1000  
Tank Contents: Gasoline  
Tank Material: Asphalt Coated or Bare Steel  
Tank 2ndary Trait: None  
Tank Manual Gauge: False  
Tank Tightness: False  
Tank Inventory Control: False  
Tank ATG: False  
Tank Vapor Monitor: False  
Tank Groundwater Monitor: False  
Tank Double Walled: False  
Tank 2nd Contained: False  
Tank SIR: False  
Overfill Installed: False  
Spill Installed: False  
Cathodic Protection: False  
Date Installed: 03/12/1966  
Tank Leak Detection Listed: True  
Pipe Material: Galvanized Steel  
Pipe Other Material: None  
Pipe Type: Not Listed  
Pipe Auto Line Leak Detect.: False  
Pipe Leak Detection Listed: False  
Pipe Vapor Monitor: False  
Pipe Groundwater Monitor: False  
Pipe 2nd Contained: False  
Pipe SIR: False  
Pipe Leak Detection Listed: True

Tank ID: 5  
**Tank Status: Permanently Out of Use**  
Tank Capacity: 0  
Tank Contents: Gasoline  
Tank Material: Unknown  
Tank 2ndary Trait: None  
Tank Manual Gauge: False  
Tank Tightness: False  
Tank Inventory Control: False  
Tank ATG: False  
Tank Vapor Monitor: False

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

CONWOOD CO LP (Continued)

U003617888

Tank Groundwater Monitor: False  
Tank Double Walled: False  
Tank 2nd Contained: False  
Tank SIR: False  
Overfill Installed: False  
Spill Installed: False  
Cathodic Protection: False  
Date Installed: //  
Tank Leak Detection Listed: True  
Pipe Material: Unknown  
Pipe Other Material: None  
Pipe Type: Not Listed  
Pipe Auto Line Leak Detect.: False  
Pipe Leak Detection Listed: False  
Pipe Vapor Monitor: False  
Pipe Groundwater Monitor: False  
Pipe 2nd Contained: False  
Pipe SIR: False  
Pipe Leak Detection Listed: True

Tank ID: 2  
**Tank Status: Permanently Out of Use**  
Tank Capacity: 6000  
Tank Contents: Diesel  
Tank Material: Asphalt Coated or Bare Steel  
Tank 2ndary Trait: None  
Tank Manual Gauge: False  
Tank Tightness: False  
Tank Inventory Control: False  
Tank ATG: False  
Tank Vapor Monitor: False  
Tank Groundwater Monitor: False  
Tank Double Walled: False  
Tank 2nd Contained: False  
Tank SIR: False  
Overfill Installed: False  
Spill Installed: False  
Cathodic Protection: False  
Date Installed: 03/12/1966  
Tank Leak Detection Listed: True  
Pipe Material: Galvanized Steel  
Pipe Other Material: None  
Pipe Type: Not Listed  
Pipe Auto Line Leak Detect.: False  
Pipe Leak Detection Listed: False  
Pipe Vapor Monitor: False  
Pipe Groundwater Monitor: False  
Pipe 2nd Contained: False  
Pipe SIR: False  
Pipe Leak Detection Listed: True

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

39  
NNW  
1/8-1/4  
0.224 mi.  
1183 ft.

**SAMITIZED STEEL - F. PERLMAN & CO., OLD LANDFILL S  
WEST OF HENRY AVENUE AND NORTH FRONT STREET  
MEMPHIS, TN**

**SWM COMPLAINTS S120976960  
NPDES N/A**

**Relative:  
Lower  
Actual:  
238 ft.**

**SWM COMPLAINTS:**

Site ID: 33705  
Name: SAMITIZED STEEL - F. PERLMAN & CO., OLD LANDFILL SITE  
Address: WEST OF HENRY AVENUE AND NORTH FRONT STREET  
City,State,Zip: MEMPHIS, TN  
Complaint Number: 29292  
Division: SWM  
Date Received: JUN-21-2013  
How Received: Phone  
Concerning: Illegal Dumping  
Concerning (other): Digging up hazardous material from old landfill site  
Assigned Date: JUN-21-2013  
EFO: Memphis  
Site Description: Former industrial site  
Site Owner: F. Perlman & Co., Inc.  
Date Investigated: JUN-26-2013  
Status: No Problem Found  
Status Detail: No evidence of medicine bottles. The Ordinance was a collection of old small arms ammunition recovered as part of the non-ferrous metals recovery process. These few cartridges and cases were the total amount found during two years of operation and 100 plu  
Date Completed: JUN-26-2013  
Last Updated: JUL-26-2013  
Last Updated By: BG35162

Site ID: 33705  
Name: SAMITIZED STEEL - F. PERLMAN & CO., OLD LANDFILL SITE  
Address: WEST OF HENRY AVENUE AND NORTH FRONT STREET  
City,State,Zip: MEMPHIS, TN  
Complaint Number: 29215  
Division: SWM  
Date Received: JUN-17-2013  
How Received: Phone  
Concerning: Illegal Dumping  
Concerning (other): F. Perlman & Company: old landfill site  
Assigned Date: JUN-17-2013  
EFO: Memphis  
Site Description: Former industrial site  
Site Owner: F. Perlman & Co., Inc.  
Date Investigated: JUN-17-2013  
Status: No Problem Found  
Date Completed: JUN-17-2013  
Referred To: John Boatright  
Date Referred: JUN-17-2013  
Last Updated: AUG-15-2017  
Last Updated By: BG35024

**NPDES:**

Name: SAMITIZED STEEL - F. PERLMAN & CO., OLD LANDFILL SITE  
Address: WEST OF HENRY AVENUE AND NORTH FRONT STREET  
City,State,Zip: MEMPHIS, TN  
Permit Number: TNR152737  
Permit Type: CGP



Map ID  
 Direction  
 Distance  
 Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
 EPA ID Number

**SAMITIZED STEEL - F. PERLMAN & CO., OLD LANDFILL SITE (Continued)**

**S120976960**

Permitting Action: Inactive  
 Permittee Name: F. Perlman & Co., Inc.  
 EFO Name: Memphis  
 Function1: Engineer  
 Name: President W. Z. (Bill) Baumgartner P.E.  
 Company: W.Z. Baumgartner & Associates, Inc.  
 Address: PO Box 680369  
 City/Zip: Franklin 37068  
 Phone: 595-0025  
 Email: wzb1@aol.com  
 Mailing Addr 2: 1113 Murfreesboro Rd., Suite 310 (37064)  
 Effective: 11/30/2007  
 Rating: N/A  
 NPDES Permit: TNS068276  
 App for Environmental Field Office: 11/07/2007  
 App for NCO: 11/07/2007  
 Activity Description: Former industrial site  
 Receiving Stream: Wolf River Lagoon  
 Site ID: 33705  
 Hydrocode: 08010100  
 Watershed Name: Mississippi

**H40**  
**NNW**  
**1/8-1/4**  
**0.229 mi.**  
**1209 ft.**

**AMERICAN BATTERY ACID CORP**  
**904 N FRONT ST**  
**MEMPHIS, TN 38107**  
**Site 1 of 2 in cluster H**

**RCRA NonGen / NLR** **1000916084**  
**FINDS** **TND041174012**  
**ECHO**

**Relative:**  
**Lower**  
**Actual:**  
**242 ft.**

RCRA Listings:  
 Date Form Received by Agency: 19801119  
 Handler Name: American Battery Acid Corp  
 Handler Address: N Front St  
 Handler City,State,Zip: MEMPHIS, TN 38107  
 EPA ID: TND041174012  
 Contact Name: AMERICAN BATTERY  
 Contact Address: 904 N FRONT ST  
 Contact City,State,Zip: MEMPHIS, TN 38107  
 Contact Telephone: 615-555-1212  
 EPA Region: 04  
 Federal Waste Generator Description: Not a generator, verified  
 State District Owner: Tn  
 State District: 106  
 Mailing Address: N FRONT ST  
 Mailing City,State,Zip: MEMPHIS, TN 38107  
 Short-Term Generator Activity: No  
 Importer Activity: No  
 Mixed Waste Generator: No  
 Transporter Activity: No  
 Transfer Facility Activity: No  
 Recycler Activity with Storage: No  
 Small Quantity On-Site Burner Exemption: No  
 Smelting Melting and Refining Furnace Exemption: No  
 Underground Injection Control: No  
 Off-Site Waste Receipt: No  
 Universal Waste Indicator: No  
 Universal Waste Destination Facility: No  
 Federal Universal Waste: No  
 Active Site State-Reg Handler: ---

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**AMERICAN BATTERY ACID CORP (Continued)**

**1000916084**

Hazardous Secondary Material Indicator:	N
2018 GPRA Permit Baseline:	Not on the Baseline
2018 GPRA Renewals Baseline:	Not on the Baseline
202 GPRA Corrective Action Baseline:	No
Subject to Corrective Action Universe:	No
Non-TSDFs Where RCRA CA has Been Imposed Universe:	No
Corrective Action Priority Ranking:	No NCAPS ranking
Environmental Control Indicator:	No
Institutional Control Indicator:	No
Human Exposure Controls Indicator:	N/A
Groundwater Controls Indicator:	N/A
Significant Non-Complier Universe:	No
Unaddressed Significant Non-Complier Universe:	No
Addressed Significant Non-Complier Universe:	No
Significant Non-Complier With a Compliance Schedule Universe:	No
Handler Date of Last Change:	20000902
Recognized Trader-Importer:	No
Recognized Trader-Exporter:	No
Importer of Spent Lead Acid Batteries:	No
Exporter of Spent Lead Acid Batteries:	No
Recycler Activity Without Storage:	No
Manifest Broker:	No
Sub-Part P Indicator:	No

Historic Generators:

Receive Date:	19801119
Handler Name:	AMERICAN BATTERY ACID CORP
Federal Waste Generator Description:	Not a generator, verified
State District Owner:	Tn
Large Quantity Handler of Universal Waste:	No
Recognized Trader Importer:	No
Recognized Trader Exporter:	No
Spent Lead Acid Battery Importer:	No
Spent Lead Acid Battery Exporter:	No
Current Record:	Yes

List of NAICS Codes and Descriptions:

NAICS Code:	325998
NAICS Description:	ALL OTHER MISCELLANEOUS CHEMICAL PRODUCT AND PREPARATION MANUFACTURING

Facility Has Received Notices of Violations:

Violations:	No Violations Found
-------------	---------------------

Evaluation Action Summary:

Evaluations:	No Evaluations Found
--------------	----------------------

FINDS:

Registry ID:	110004965645
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[Click Here for FRS Facility Detail Report:](#)

Environmental Interest/Information System:

The Resource Conservation and Recovery Act Information System

Map ID  
 Direction  
 Distance  
 Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
 EPA ID Number

**AMERICAN BATTERY ACID CORP (Continued)**

**1000916084**

(RCRAInfo) is EPA's comprehensive information system in support of the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. It tracks many types of information about generators, transporters, treaters, storers, and disposers of hazardous waste.

[Click this hyperlink](#) while viewing on your computer to access additional FINDS: detail in the EDR Site Report.

**ECHO:**

Envid: 1000916084  
 Registry ID: 110004965645  
 DFR URL: <http://echo.epa.gov/detailed-facility-report?fid=110004965645>  
 Name: AMERICAN BATTERY ACID CORP  
 Address: 904 N FRONT ST  
 City,State,Zip: MEMPHIS, TN 38107

**H41  
 NNW  
 1/8-1/4  
 0.234 mi.  
 1233 ft.**

**AMERICAN BATTERY ACID CORP**

**PFAS ECHO 1027324458  
 N/A**

**MEMPHIS, TN**

**Site 2 of 2 in cluster H**

**Relative:  
 Lower  
 Actual:  
 241 ft.**

**PFAS ECHO:**  
 Name: American Battery Acid Corp  
 City,State,Zip: MEMPHIS, TN  
 Latitude: 35.16685  
 Longitude: -90.04521  
 Count: 1  
 County: SHELBY  
 Status: Inactive  
 Region: 04  
 Industry: Chemical Mfg  
 ECHO Facility Report: <https://echo.epa.gov/detailed-facility-report?fid=110004965645>  
 Facility Percent Minority: 70.766  
 Facility Derived Tribes: -  
 Facility Population: 2411.47  
 EPA Programs: RCRA  
 Federal Facility: No  
 Federal Agency: -  
 Facility FIPS Code: 47157  
 Facility Indian Country Flag: N  
 Facility Collection Method: ADDRESS MATCHING-HOUSE NUMBER  
 Facility Derived HUC: 08010210  
 Facility Derived WBD: 080101000703  
 Facility Derived CD113: 09  
 Facility Derived CB2010: 471570002001005  
 Facility Major Flag: -  
 Facility Active Flag: -  
 Facility Inspection Count: 0  
 Facility Date Last Inspection: -  
 Facility Days Last Inspection: -  
 Facility Informal Count: 0  
 Facility Date Last Informal Action: -  
 Facility Formal Action Count: 0  
 Facility Date Last Formal Action: -  
 Facility Total Penalties: 0  
 Facility Penalty Count: -

Map ID  
 Direction  
 Distance  
 Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
 EPA ID Number

**AMERICAN BATTERY ACID CORP (Continued)**

**1027324458**

Facility Date Last Penalty:	-
Facility Last Penalty AMT:	-
Facility QTRS With NC:	0
Facility Programs With SNC:	0
Facility Compliance Status:	No Violation Identified
Facility SNC Flag:	N
AIR Flag:	N
NPDES Flag:	N
SDWIS Flag:	N
RCRA Flag:	Y
TRI Flag:	N
GHG Flag:	N
AIR IDS:	-
CAA Permit Types:	-
CAA NAICS:	-
CAA SICS:	-
NPDES IDS:	-
CWA Permit Types:	-
CWA NAICS:	-
CWA SICS:	-
RCRA IDS:	TND041174012
RCRA Permit Types:	Other
RCRA NAICS:	325998
SDWA IDS:	-
SDWA System Types:	-
SDWA Compliance Status:	-
SDWA SNC Flag:	N
TRI IDS:	-
TRI Releases Transfers:	-
TRI On Site Releases:	-
TRI Off Site Transfers:	-
TRI Reporter:	-
Facility IMP Water Flag:	-
EJSCREEN Flag US:	Y

EJSCREEN Report:

**I42**  
**SW**  
 1/8-1/4  
 0.238 mi.  
 1256 ft.

**LOT C, MALONE PARK**  
**CORNER OF GREENLAW AND NORTH MAIN STREET**  
**MEMPHIS, TN**

**INST CONTROL**    **S116158756**  
**SRP**                **N/A**  
**VCP**

**Site 1 of 3 in cluster I**

**Relative:**  
**Lower**  
**Actual:**  
**210 ft.**

<b>INST CONTROL:</b>	
Name:	LOT C, MALONE PARK
Address:	CORNER OF GREENLAW AND NORTH MAIN STREET
City,State,Zip:	MEMPHIS, TN
Facility ID:	SRS790665
EFO:	SRP
Control Type:	Institutional
Control Description:	Land Use Restriction
Section:	VOAP
Date Recorded:	09_21_2007
Map:	1061
Parcel:	15
Acreage:	0.14
Residential Restriction:	No
Daycare Restriction:	No



Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**LOT C, MALONE PARK (Continued)**

**S116158756**

School Restriction: No  
Church Restriction: No  
Groundwater Restriction: No  
Invasive Activity: No  
Facility Id: SRS790665  
Latitude: 35.160106  
Longitude: -90.046838  
Site Status: Open

**SRP:**

Name: LOT C, MALONE PARK  
Address: CORNER OF GREENLAW AND NORTH MAIN STREET  
City,State,Zip: MEMPHIS, TN  
Site Control Number: SRS-2001-850  
State Remediation Program Site Number: SRS790665  
Field Office: MEMP  
Contaminants Of Concern: METALS  
Active?: OPEN  
Number Of Days In System: 4913  
Program: VOLUNTARY  
Latitude: 35.160106  
Longitude: -90.046838

Name: LOT C, MALONE PARK  
Address: CORNER OF GREENLAW AND NORTH MAIN STREET  
City,State,Zip: MEMPHIS, TN  
Site Control Number: SRS-2001-850  
State Remediation Program Site Number: SRS790665  
Field Office: MEMP  
Contaminants Of Concern: PAHS  
Active?: OPEN  
Number Of Days In System: 4913  
Program: VOLUNTARY  
Latitude: 35.160106  
Longitude: -90.046838

**VCP:**

Name: LOT C, MALONE PARK  
Address: CORNER OF GREENLAW AND NORTH MAIN STREET  
City,State,Zip: MEMPHIS, TN  
Promulgated Date: Not reported  
Facility ID: SRS790665  
Facility Status: OPEN  
EFO: MEMPHIS  
EPA Facility ID: Not reported  
EPA Registry ID: Not reported  
Latitude: 35.160106  
Longitude: -90.046838  
Acres: Not reported

MAP FINDINGS

Map ID  
Direction  
Distance  
Elevation

Site

Database(s)

EDR ID Number  
EPA ID Number

**J43**  
**East**  
**1/8-1/4**  
**0.240 mi.**  
**1267 ft.**

**FOX'S QUICK STOP**  
**296 CHELSEA**  
**MEMPHIS, TN 38107**  
  
**Site 1 of 2 in cluster J**

**UST**    **U004174661**  
**N/A**

**Relative:**  
**Higher**  
  
**Actual:**  
**261 ft.**

UST:  
Name: FOX'S QUICK STOP  
Address: 296 CHELSEA  
City,State,Zip: MEMPHIS 38107  
Facility ID: 9792313  
Facility Description: Gas Station or Truck Stop  
Owner ID: 309346  
Owner Name: JENNY FOX  
Owner Address: 296 CHELSEA  
Owner City,St,Zip: MEMPHIS, TN 38107

Tank Number: 1  
Tank ID: 52202  
Tank Other Material: Steel  
Compartment ID: 52986  
Compartment Letter: A  
Compartment Status: Permanently Out of Use  
Compartment Capacity: 999999  
Substance Description: Gasoline  
Date Installed: MAR-21-1978  
Date Last Used: AUG-01-1992  
Date Closed: JUL-09-1993  
Tank Emergency: Tank LD No  
Overfill Type: Private  
Pipe Material Desc: Hazardous Substance

Name: FOX'S QUICK STOP  
Address: 296 CHELSEA  
City,State,Zip: MEMPHIS 38107

Tank Number: 2  
Tank ID: 52203  
Tank Other Material: Steel  
Compartment ID: 52987  
Compartment Letter: A  
Compartment Status: Permanently Out of Use  
Compartment Capacity: 999999  
Substance Description: Gasoline  
Date Installed: MAR-21-1978  
Date Last Used: AUG-01-1992  
Date Closed: JUL-09-1993  
Tank Emergency: Tank LD No  
Overfill Type: Private  
Pipe Material Desc: Hazardous Substance

Name: FOX'S QUICK STOP  
Address: 296 CHELSEA  
City,State,Zip: MEMPHIS 38107

Tank Number: 3  
Tank ID: 52204  
Tank Other Material: Steel  
Compartment ID: 52988

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**FOX'S QUICK STOP (Continued)**

**U004174661**

Compartment Letter: A  
Compartment Status: Permanently Out of Use  
Compartment Capacity: 999999  
Substance Description: Gasoline  
Date Installed: MAR-21-1978  
Date Last Used: AUG-01-1992  
Date Closed: JUL-09-1993  
Tank Emergency: Tank LD No  
Overfill Type: Private  
Pipe Material Desc: Hazardous Substance

Name: FOX'S QUICK STOP  
Address: 296 CHELSEA  
City,State,Zip: MEMPHIS 38107

Tank Number: 4  
Tank ID: 52205  
Tank Other Material: Steel  
Compartment ID: 52989  
Compartment Letter: A  
Compartment Status: Permanently Out of Use  
Compartment Capacity: 999999  
Substance Description: Gasoline  
Date Installed: MAR-21-1978  
Date Last Used: AUG-01-1992  
Date Closed: JUL-09-1993  
Tank Emergency: Tank LD No  
Overfill Type: Private  
Pipe Material Desc: Hazardous Substance

**J44  
East  
1/8-1/4  
0.240 mi.  
1267 ft.**

**FOX'S QUICK STOP  
296 CHELSEA  
MEMPHIS, TN 38107  
Site 2 of 2 in cluster J**

**HIST UST U003618928  
N/A**

**Relative:  
Higher  
Actual:  
261 ft.**

HIST UST:  
Name: FOX'S QUICK STOP  
Address: 296 CHELSEA  
City,State,Zip: MEMPHIS, TN 38107  
Facility ID: 9-792313  
Facility Description: Commercial  
Owner ID: 10573  
Owner Name: JENNY FOX  
Owner Address: 296 Chelsea  
Owner City,St,Zip: Memphis, TN 38107  
Owner Telephone: (901) 523-1573  
Owner Description: Private  
  
Tank ID: 4  
**Tank Status: Permanently Out of Use**  
Tank Capacity: 0  
Tank Contents: Gasoline  
Tank Material: Asphalt Coated or Bare Steel  
Tank 2ndary Trait: None  
Tank Manual Gauge: False  
Tank Tightness: False  
Tank Inventory Control: False

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**FOX'S QUICK STOP (Continued)**

**U003618928**

Tank ATG: False  
Tank Vapor Monitor: False  
Tank Groundwater Monitor: False  
Tank Double Walled: False  
Tank 2nd Contained: False  
Tank SIR: False  
Overfill Installed: False  
Spill Installed: False  
Cathodic Protection: False  
Date Installed: 03/21/1978  
Tank Leak Detection Listed: True  
Pipe Material: Unknown  
Pipe Other Material: None  
Pipe Type: Not Listed  
Pipe Auto Line Leak Detect.: False  
Pipe Leak Detection Listed: False  
Pipe Vapor Monitor: False  
Pipe Groundwater Monitor: False  
Pipe 2nd Contained: False  
Pipe SIR: False  
Pipe Leak Detection Listed: True

Tank ID: 2  
**Tank Status: Permanently Out of Use**  
Tank Capacity: 0  
Tank Contents: Gasoline  
Tank Material: Asphalt Coated or Bare Steel  
Tank 2ndary Trait: None  
Tank Manual Gauge: False  
Tank Tightness: False  
Tank Inventory Control: False  
Tank ATG: False  
Tank Vapor Monitor: False  
Tank Groundwater Monitor: False  
Tank Double Walled: False  
Tank 2nd Contained: False  
Tank SIR: False  
Overfill Installed: False  
Spill Installed: False  
Cathodic Protection: False  
Date Installed: 03/21/1978  
Tank Leak Detection Listed: True  
Pipe Material: Unknown  
Pipe Other Material: None  
Pipe Type: Not Listed  
Pipe Auto Line Leak Detect.: False  
Pipe Leak Detection Listed: False  
Pipe Vapor Monitor: False  
Pipe Groundwater Monitor: False  
Pipe 2nd Contained: False  
Pipe SIR: False  
Pipe Leak Detection Listed: True

Tank ID: 1  
**Tank Status: Permanently Out of Use**



Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**FOX'S QUICK STOP (Continued)**

**U003618928**

Tank Capacity: 0  
Tank Contents: Gasoline  
Tank Material: Asphalt Coated or Bare Steel  
Tank 2ndary Trait: None  
Tank Manual Gauge: False  
Tank Tightness: False  
Tank Inventory Control: False  
Tank ATG: False  
Tank Vapor Monitor: False  
Tank Groundwater Monitor: False  
Tank Double Walled: False  
Tank 2nd Contained: False  
Tank SIR: False  
Overfill Installed: False  
Spill Installed: False  
Cathodic Protection: False  
Date Installed: 03/21/1978  
Tank Leak Detection Listed: True  
Pipe Material: Unknown  
Pipe Other Material: None  
Pipe Type: Not Listed  
Pipe Auto Line Leak Detect.: False  
Pipe Leak Detection Listed: False  
Pipe Vapor Monitor: False  
Pipe Groundwater Monitor: False  
Pipe 2nd Contained: False  
Pipe SIR: False  
Pipe Leak Detection Listed: True

Tank ID: 3  
**Tank Status: Permanently Out of Use**  
Tank Capacity: 0  
Tank Contents: Gasoline  
Tank Material: Asphalt Coated or Bare Steel  
Tank 2ndary Trait: None  
Tank Manual Gauge: False  
Tank Tightness: False  
Tank Inventory Control: False  
Tank ATG: False  
Tank Vapor Monitor: False  
Tank Groundwater Monitor: False  
Tank Double Walled: False  
Tank 2nd Contained: False  
Tank SIR: False  
Overfill Installed: False  
Spill Installed: False  
Cathodic Protection: False  
Date Installed: 03/21/1978  
Tank Leak Detection Listed: True  
Pipe Material: Unknown  
Pipe Other Material: None  
Pipe Type: Not Listed  
Pipe Auto Line Leak Detect.: False  
Pipe Leak Detection Listed: False  
Pipe Vapor Monitor: False  
Pipe Groundwater Monitor: False

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**FOX'S QUICK STOP (Continued)**

**U003618928**

Pipe 2nd Contained: False  
Pipe SIR: False  
Pipe Leak Detection Listed: True

**I45  
SW  
1/4-1/2  
0.280 mi.  
1477 ft.**

**MEMPHIS GAS LIGHT  
NORTH FRONT STREET  
MEMPHIS, TN**

**SRP S123408699  
VAPOR N/A**

**Site 2 of 3 in cluster I**

**Relative:  
Lower  
Actual:  
223 ft.**

SRP:  
Name: MEMPHIS GAS LIGHT  
Address: NORTH FRONT STREET  
City,State,Zip: MEMPHIS, TN  
State Remediation Program Site Number: 79848  
Contaminants Of Concern: PAHS  
Active?: OPEN  
Program: LIABLE PARTY FUNDED  
Latitude: 35.15956  
Longitude: -90.047184  
Acres: 5.7

Name: MEMPHIS GAS LIGHT  
Address: NORTH FRONT STREET  
City,State,Zip: MEMPHIS, TN  
State Remediation Program Site Number: 79848  
Contaminants Of Concern: VOCs/SVOCs  
Active?: OPEN  
Program: LIABLE PARTY FUNDED  
Latitude: 35.15956  
Longitude: -90.047184  
Acres: 5.7

Name: MEMPHIS GAS LIGHT  
Address: NORTH FRONT STREET  
City,State,Zip: MEMPHIS, TN  
State Remediation Program Site Number: 79848  
Contaminants Of Concern: PAHS  
Active?: OPEN  
Program: STATE (HWRA FUNDED)  
Latitude: 35.15956  
Longitude: -90.047184  
Acres: 5.7

Name: MEMPHIS GAS LIGHT  
Address: NORTH FRONT STREET  
City,State,Zip: MEMPHIS, TN  
State Remediation Program Site Number: 79848  
Contaminants Of Concern: VOCs/SVOCs  
Active?: OPEN  
Program: STATE (HWRA FUNDED)  
Latitude: 35.15956  
Longitude: -90.047184  
Acres: 5.7

VAPOR:  
Name: MEMPHIS GAS LIGHT

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**MEMPHIS GAS LIGHT (Continued)**

**S123408699**

Address: NORTH FRONT STREET  
City,State,Zip: MEMPHIS, TN  
Site Status: OPEN  
COC Type: VOCs/SVOCs  
COC Media: SURFACE WATER  
Latitude: 35.15956  
Longitude: -90.047184

**I46**  
**SW**  
**1/4-1/2**  
**0.286 mi.**  
**1508 ft.**  
**Relative:**  
**Lower**  
**Actual:**  
**222 ft.**

**MEMPHIS GASLIGHT CO**  
**N FRONT AND MILL AVE**  
**MEMPHIS, TN 38105**

**EDR MGP** **1008408783**  
**N/A**

**Site 3 of 3 in cluster I**

**EDR MGP:**

Alternate Name:MEMPHIS CONSOLIDATED GAS AND ELECTRIC. No additional information available

**47**  
**SSW**  
**1/4-1/2**  
**0.322 mi.**  
**1700 ft.**

**FIVE-OH-SIX(506 NORTH 2ND STREET)**  
**506 NORTH 2ND STREET**  
**MEMPHIS, TN**

**SRP** **S117735089**  
**VCP** **N/A**

**Relative:**  
**Lower**  
**Actual:**  
**220 ft.**

**SRP:**

Name: FIVE-OH-SIX(506 NORTH 2ND STREET)  
Address: 506 NORTH 2ND STREET  
City,State,Zip: MEMPHIS, TN  
Site Control Number: SRS-2001-82  
State Remediation Program Site Number: SRS790519  
Field Office: MEMP  
Active?: CLOSED  
Number Of Days In System: 5150  
Program: VOLUNTARY  
Latitude: 35.158174  
Longitude: -90.046143

**VCP:**

Name: FIVE-OH-SIX(506 NORTH 2ND STREET)  
Address: 506 NORTH 2ND STREET  
City,State,Zip: MEMPHIS, TN  
Promulgated Date:Not reported  
Facility ID: SRS790519  
Facility Status: CLOSED  
EFO: MEMPHIS  
EPA Facility ID: Not reported  
EPA Registry ID: Not reported  
Latitude: 35.158174  
Longitude: -90.046143  
Acres: Not reported

MAP FINDINGS

Map ID  
 Direction  
 Distance  
 Elevation

Site

Database(s)

EDR ID Number  
 EPA ID Number

**K48**      **SOUTHERN CONTAINER CORP.**  
**East**      **615 CHELSEA AVE**  
**1/4-1/2**      **MEMPHIS, TN**  
**0.327 mi.**  
**1726 ft.**      **Site 1 of 3 in cluster K**

**SRP**      **S123408945**  
                  **N/A**

**Relative:**      SRP:  
**Higher**      Name:      SOUTHERN CONTAINER CORP.  
                  Address:      615 CHELSEA AVE  
**Actual:**      City,State,Zip:      MEMPHIS, TN  
**257 ft.**      EPAID:      TND099184103  
                  State Remediation Program Site Number: 79584  
                  Active?:      CLOSED  
                  Program:      STATE (HWRA FUNDED)  
                  Latitude:      35.163291  
                  Longitude:      -90.0375  
                  Acres:      0.5

**K49**      **SOUTHERN CONTAINER CORPORATION**  
**East**      **605859 T23T31T50**  
**1/4-1/2**      **MEMPHIS, TN 37000**  
**0.327 mi.**  
**1726 ft.**      **Site 2 of 3 in cluster K**

**SEMS-ARCHIVE**      **1015736603**  
**RCRA NonGen / NLR**      **TND099184103**

**Relative:**      SEMS Archive:  
**Higher**      Site ID:      0403825  
**Actual:**      EPA ID:      TND099184103  
**257 ft.**      Name:      SOUTHERN CONTAINER CORP  
                  Address:      615 CHELSEA AVE  
                  City,State,Zip:      MEMPHIS, TN 38107  
                  Cong District:      09  
                  FIPS Code:      47157  
                  FF:      N  
                  NPL:      Not on the NPL  
                  Non NPL Status:      NFRAP-Site does not qualify for the NPL based on existing information

SEMS Archive Detail:  
 Region:      04  
 Site ID:      0403825  
 EPA ID:      TND099184103  
 Site Name:      SOUTHERN CONTAINER CORP  
 NPL:      N  
 FF:      N  
 OU:      00  
 Action Code:      ES  
 Action Name:      ESI  
 SEQ:      1  
 Start Date:      1993-05-12 04:00:00  
 Finish Date:      1994-05-02 04:00:00  
 Qual:      N  
 Current Action Lead:      EPA Perf

Region:      04  
 Site ID:      0403825  
 EPA ID:      TND099184103  
 Site Name:      SOUTHERN CONTAINER CORP  
 NPL:      N  
 FF:      N  
 OU:      00  
 Action Code:      PA



Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**SOUTHERN CONTAINER CORPORATION (Continued)**

**1015736603**

Action Name: PA  
SEQ: 1  
Finish Date: 1984-08-01 05:00:00  
Qual: L  
Current Action Lead: St Perf

Region: 04  
Site ID: 0403825  
EPA ID: TND099184103  
Site Name: SOUTHERN CONTAINER CORP  
NPL: N  
FF: N  
OU: 00  
Action Code: DS  
Action Name: DISCVRY  
SEQ: 1  
Start Date: 1980-11-01 05:00:00  
Finish Date: 1980-11-01 05:00:00  
Current Action Lead: EPA Perf

Region: 04  
Site ID: 0403825  
EPA ID: TND099184103  
Site Name: SOUTHERN CONTAINER CORP  
NPL: N  
FF: N  
OU: 00  
Action Code: SI  
Action Name: SI  
SEQ: 1  
Finish Date: 1984-08-01 05:00:00  
Qual: H  
Current Action Lead: St Perf

Region: 04  
Site ID: 0403825  
EPA ID: TND099184103  
Site Name: SOUTHERN CONTAINER CORP  
NPL: N  
FF: N  
OU: 00  
Action Code: VS  
Action Name: ARCH SITE  
SEQ: 1  
Finish Date: 1994-05-02 04:00:00  
Current Action Lead: EPA Perf In-Hse

**RCRA Listings:**

Date Form Received by Agency: 19801118  
Handler Name: Southern Container Corporation  
Handler Address: 605859 T23t31t50  
Handler City,State,Zip: MEMPHIS, TN 37000  
EPA ID: TND099184103  
Contact Name: SOUTHERN CONTAINER  
Contact Address: 605859 T23T31T50  
Contact City,State,Zip: MEMPHIS, TN 37000

Map ID  
 Direction  
 Distance  
 Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
 EPA ID Number

**SOUTHERN CONTAINER CORPORATION (Continued)**

**1015736603**

Contact Telephone:	615-555-1212
EPA Region:	04
Federal Waste Generator Description:	Not a generator, verified
State District Owner:	Tn
State District:	106
Mailing Address:	PO BOX 17924 803 MT MORIAH
Mailing City,State,Zip:	MEMPHIS, TN 38119
Short-Term Generator Activity:	No
Importer Activity:	No
Mixed Waste Generator:	No
Transporter Activity:	No
Transfer Facility Activity:	No
Recycler Activity with Storage:	No
Small Quantity On-Site Burner Exemption:	No
Smelting Melting and Refining Furnace Exemption:	No
Underground Injection Control:	No
Off-Site Waste Receipt:	No
Universal Waste Indicator:	No
Universal Waste Destination Facility:	No
Federal Universal Waste:	No
Active Site State-Reg Handler:	---
Hazardous Secondary Material Indicator:	N
2018 GPRA Permit Baseline:	Not on the Baseline
2018 GPRA Renewals Baseline:	Not on the Baseline
202 GPRA Corrective Action Baseline:	No
Subject to Corrective Action Universe:	No
Non-TSDFs Where RCRA CA has Been Imposed Universe:	No
Corrective Action Priority Ranking:	No NCAPS ranking
Environmental Control Indicator:	No
Institutional Control Indicator:	No
Human Exposure Controls Indicator:	N/A
Groundwater Controls Indicator:	N/A
Significant Non-Complier Universe:	No
Unaddressed Significant Non-Complier Universe:	No
Addressed Significant Non-Complier Universe:	No
Significant Non-Complier With a Compliance Schedule Universe:	No
Handler Date of Last Change:	20000902
Recognized Trader-Importer:	No
Recognized Trader-Exporter:	No
Importer of Spent Lead Acid Batteries:	No
Exporter of Spent Lead Acid Batteries:	No
Recycler Activity Without Storage:	No
Manifest Broker:	No
Sub-Part P Indicator:	No

**Historic Generators:**

Receive Date:	19801118
Handler Name:	SOUTHERN CONTAINER CORPORATION
Federal Waste Generator Description:	Not a generator, verified
State District Owner:	Tn
Large Quantity Handler of Universal Waste:	No
Recognized Trader Importer:	No
Recognized Trader Exporter:	No
Spent Lead Acid Battery Importer:	No
Spent Lead Acid Battery Exporter:	No
Current Record:	Yes

Map ID  
 Direction  
 Distance  
 Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
 EPA ID Number

**SOUTHERN CONTAINER CORPORATION (Continued)**

**1015736603**

List of NAICS Codes and Descriptions:

NAICS Codes: No NAICS Codes Found

Facility Has Received Notices of Violations:

Violations: No Violations Found

Evaluation Action Summary:

Evaluations: No Evaluations Found

**L50**  
**SW**  
**1/4-1/2**  
**0.328 mi.**  
**1730 ft.**

**GREYHOUND MAINTENANCE GARAGE**  
**527 NORTH MAIN**  
**MEMPHIS, TN 38105**  
**Site 1 of 2 in cluster L**

**LUST** **U004173614**  
**UST** **N/A**

**Relative:**  
**Lower**  
**Actual:**  
**218 ft.**

**LUST:**  
 Name: GREYHOUND MAINTENANCE GARAGE  
 Address: 527 NORTH MAIN  
 City,State,Zip: MEMPHIS, TN 38105  
 Region: STATE  
 Facility Id: 9790375  
 Current Status: 8 Case Closed  
 Discovery Date: MAR-01-1992  
 How Discovered: 1 At Closure  
 Cause: 7 Unknown  
 Case Manager: Curtis Hopper  
 Section: TECH  
 Company Name: GREYHOUND LINES INC  
 Owner Address: ATT: RITA KRYSINSKI  
 Owner City: DALLAS  
 Owner State: TX  
 Owner Zip Code: 75266  
 Owner Telephone: (214) 698-4674  
 Site Number: 1

Name: GREYHOUND MAINTENANCE GARAGE  
 Address: 527 NORTH MAIN  
 City,State,Zip: MEMPHIS, TN 38105  
 Region: STATE  
 Facility Id: 9790375  
 Current Status: 1a Completed Tank Closure  
 Case Manager: Ghattis El Murr  
 Section: FO  
 Company Name: GREYHOUND LINES INC  
 Owner Address: ATT: RITA KRYSINSKI  
 Owner City: DALLAS  
 Owner State: TX  
 Owner Zip Code: 75266  
 Owner Telephone: (214) 698-4674  
 Site Number: 2

**UST:**  
 Name: GREYHOUND MAINTENANCE GARAGE  
 Address: 527 NORTH MAIN

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**GREYHOUND MAINTENANCE GARAGE (Continued)**

**U004173614**

City,State,Zip: MEMPHIS 38105  
Facility ID: 9790375  
Facility Description: Other or Unknown  
Owner ID: 302154  
Owner Name: GREYHOUND LINES, INC.  
Owner Address: 110 PERIMETER PARK RD STE E  
Owner Address 2: C/O STRATA ENVIRONMENTAL  
Owner City,St,Zip: KNOXVILLE, TN 37922-2200

Tank Number: 1  
Tank ID: 45593  
Tank Other Material: Steel  
Compartment ID: 46306  
Compartment Letter: A  
Compartment Status: Permanently Out of Use  
Compartment Capacity: 10000  
Substance Description: ULS Diesel  
Date Installed: SEP-21-1945  
Date Last Used: NOV-01-1991  
Date Closed: NOV-01-1991  
Overfill Type: Comercial  
Pipe Material Desc: Hazardous Substance

Name: GREYHOUND MAINTENANCE GARAGE  
Address: 527 NORTH MAIN  
City,State,Zip: MEMPHIS 38105

Tank Number: 2  
Tank ID: 45594  
Tank Other Material: Steel  
Compartment ID: 46307  
Compartment Letter: A  
Compartment Status: Permanently Out of Use  
Compartment Capacity: 10000  
Substance Description: ULS Diesel  
Date Installed: SEP-21-1945  
Date Last Used: NOV-01-1991  
Date Closed: NOV-01-1991  
Tank Emergency: Inventory  
Overfill Type: Comercial  
Pipe Material Desc: Hazardous Substance

Name: GREYHOUND MAINTENANCE GARAGE  
Address: 527 NORTH MAIN  
City,State,Zip: MEMPHIS 38105

Tank Number: 3  
Tank ID: 45595  
Tank Other Material: Steel  
Compartment ID: 46308  
Compartment Letter: A  
Compartment Status: Permanently Out of Use  
Compartment Capacity: 10000  
Substance Description: Not Listed  
Date Installed: SEP-21-1945  
Date Last Used: DEC-01-1991  
Date Closed: DEC-01-1991



Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**GREYHOUND MAINTENANCE GARAGE (Continued)**

**U004173614**

Tank Emergency: Inventory  
Overfill Type: Comercial  
Pipe Material Desc: Hazardous Substance  
  
Name: GREYHOUND MAINTENANCE GARAGE  
Address: 527 NORTH MAIN  
City,State,Zip: MEMPHIS 38105

Tank Number: 4  
Tank ID: 45596  
Tank Other Material: Steel  
Compartment ID: 46309  
Compartment Letter: A  
Compartment Status: Permanently Out of Use  
Compartment Capacity: 4000  
Substance Description: Not Listed  
Date Installed: SEP-21-1945  
Date Last Used: DEC-01-1991  
Date Closed: DEC-01-1991  
Tank Emergency: Inventory  
Overfill Type: Comercial  
Pipe Material Desc: Hazardous Substance

Name: GREYHOUND MAINTENANCE GARAGE  
Address: 527 NORTH MAIN  
City,State,Zip: MEMPHIS 38105

Tank Number: 5  
Tank ID: 45597  
Tank Other Material: Steel  
Compartment ID: 46310  
Compartment Letter: A  
Compartment Status: Permanently Out of Use  
Compartment Capacity: 500  
Substance Description: Waste or Used Oil  
Date Installed: SEP-21-1945  
Date Last Used: DEC-31-1991  
Date Closed: DEC-31-1991  
Tank Emergency: Inventory  
Overfill Type: Comercial  
Pipe Material Desc: Hazardous Substance

Name: GREYHOUND MAINTENANCE GARAGE  
Address: 527 NORTH MAIN  
City,State,Zip: MEMPHIS 38105

Tank Number: 6  
Tank ID: 45598  
Tank Other Material: Steel  
Compartment ID: 46311  
Compartment Letter: A  
Compartment Status: Permanently Out of Use  
Compartment Capacity: 10000  
Substance Description: Not Listed  
Date Installed: SEP-21-1945  
Date Last Used: DEC-01-1991  
Date Closed: DEC-01-1991

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**GREYHOUND MAINTENANCE GARAGE (Continued)**

**U004173614**

Tank Emergency: Inventory  
Overfill Type: Comercial  
Pipe Material Desc: Hazardous Substance

Name: GREYHOUND MAINTENANCE GARAGE  
Address: 527 NORTH MAIN  
City,State,Zip: MEMPHIS 38105

Tank Number: 7  
Tank ID: 45599  
Tank Other Material: Steel  
Compartment ID: 46312  
Compartment Letter: A  
Compartment Status: Permanently Out of Use  
Compartment Capacity: 6000  
Substance Description: Not Listed  
Date Installed: SEP-21-1946  
Date Last Used: JUL-01-1982  
Date Closed: JUL-01-1982  
Regulated: Unregulated  
Tank Emergency: Inventory  
Overfill Type: Comercial  
Pipe Material Desc: Hazardous Substance

Name: GREYHOUND MAINTENANCE GARAGE  
Address: 527 NORTH MAIN  
City,State,Zip: MEMPHIS 38105

Tank Number: 8  
Tank ID: 45600  
Tank Other Material: Composite - Steel w/FRP  
Compartment ID: 46313  
Compartment Letter: A  
Compartment Status: Permanently Out of Use  
Compartment Capacity: 12000  
Substance Description: ULS Diesel  
Date Installed: JAN-01-1992  
Date Last Used: FEB-01-1994  
Date Closed: AUG-23-1995  
Tank Emergency: Automatic  
Overfill Type: Comercial  
Pipe Material Desc: Gasoline\_ULSDiesel

Name: GREYHOUND MAINTENANCE GARAGE  
Address: 527 NORTH MAIN  
City,State,Zip: MEMPHIS 38105

Tank Number: 9  
Tank ID: 45601  
Tank Other Material: Composite - Steel w/FRP  
Compartment ID: 46314  
Compartment Letter: A  
Compartment Status: Permanently Out of Use  
Compartment Capacity: 12000  
Substance Description: ULS Diesel  
Date Installed: JAN-01-1992  
Date Last Used: FEB-01-1994

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**GREYHOUND MAINTENANCE GARAGE (Continued)**

**U004173614**

Date Closed: AUG-23-1995  
Tank Emergency: Automatic  
Overfill Type: Comercial  
Pipe Material Desc: Gasoline\_ULSDiesel  
  
Name: GREYHOUND MAINTENANCE GARAGE  
Address: 527 NORTH MAIN  
City,State,Zip: MEMPHIS 38105  
  
Tank Number: 10  
Tank ID: 45602  
Tank Other Material: Composite - Steel w/FRP  
Compartment ID: 46315  
Compartment Letter: A  
Compartment Status: Permanently Out of Use  
Compartment Capacity: 4000  
Substance Description: Not Listed  
Date Installed: JAN-01-1992  
Date Last Used: FEB-01-1994  
Date Closed: AUG-23-1995  
Tank Emergency: Automatic  
Overfill Type: Comercial  
Pipe Material Desc: Gasoline\_ULSDiesel

**L51  
SW  
1/4-1/2  
0.328 mi.  
1730 ft.**

**GREYHOUND LINES INC  
527 N MAIN  
MEMPHIS, TN 38105  
Site 2 of 2 in cluster L**

**LUST TRUST 1000441463  
RCRA NonGen / NLR TND982094740  
FINDS  
ECHO**

**Relative:  
Lower  
Actual:  
218 ft.**

**LUST TRUST:**  
Name: GREYHOUND GARAGE  
Address: 527 N. MAIN ST.  
City,State,Zip: MEMPHIS, TN 38015  
Facility Id: 9790375  
Case Number: 1  
Application Num: 93022  
Deductible: \$10,000.00  
Total Requested: \$97,630.58  
Total Not Eligible: \$19,591.31  
Total Paid: \$68,039.27  
Total Net Pay: \$78,039.27  
**Case Status: Closed**

**RCRA Listings:**

Date Form Received by Agency: 20040304  
Handler Name: Greyhound Lines Inc  
Handler Address: N Main  
Handler City,State,Zip: MEMPHIS, TN 38105  
EPA ID: TND982094740  
Contact Name: RITA FELTON  
Contact Address: 527 N MAIN  
Contact City,State,Zip: MEMPHIS, TN 38105  
Contact Telephone: 214-777-8151  
EPA Region: 04  
Land Type: Other  
Federal Waste Generator Description: Not a generator, verified

Map ID  
 Direction  
 Distance  
 Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
 EPA ID Number

**GREYHOUND LINES INC (Continued)**

**1000441463**

State District Owner:	Tn
State District:	106
Mailing Address:	PO BOX 660362
Mailing City, State, Zip:	DALLAS, TX 75266-0362
Short-Term Generator Activity:	No
Importer Activity:	No
Mixed Waste Generator:	No
Transporter Activity:	No
Transfer Facility Activity:	No
Recycler Activity with Storage:	No
Small Quantity On-Site Burner Exemption:	No
Smelting Melting and Refining Furnace Exemption:	No
Underground Injection Control:	No
Off-Site Waste Receipt:	No
Universal Waste Indicator:	No
Universal Waste Destination Facility:	No
Federal Universal Waste:	No
Active Site State-Reg Handler:	---
Hazardous Secondary Material Indicator:	N
2018 GPRC Permit Baseline:	Not on the Baseline
2018 GPRC Renewals Baseline:	Not on the Baseline
202 GPRC Corrective Action Baseline:	No
Subject to Corrective Action Universe:	No
Non-TSDFs Where RCRA CA has Been Imposed Universe:	No
Corrective Action Priority Ranking:	No NCAPS ranking
Environmental Control Indicator:	No
Institutional Control Indicator:	No
Human Exposure Controls Indicator:	N/A
Groundwater Controls Indicator:	N/A
Significant Non-Complier Universe:	No
Unaddressed Significant Non-Complier Universe:	No
Addressed Significant Non-Complier Universe:	No
Significant Non-Complier With a Compliance Schedule Universe:	No
Handler Date of Last Change:	20041119
Recognized Trader-Importer:	No
Recognized Trader-Exporter:	No
Importer of Spent Lead Acid Batteries:	No
Exporter of Spent Lead Acid Batteries:	No
Recycler Activity Without Storage:	No
Manifest Broker:	No
Sub-Part P Indicator:	No

Historic Generators:

Receive Date:	19960306
Handler Name:	GREYHOUND LINES INC
Federal Waste Generator Description:	Not a generator, verified
State District Owner:	Tn
Large Quantity Handler of Universal Waste:	No
Recognized Trader Importer:	No
Recognized Trader Exporter:	No
Spent Lead Acid Battery Importer:	No
Spent Lead Acid Battery Exporter:	No
Current Record:	No
Receive Date:	20040304
Handler Name:	GREYHOUND LINES INC



Map ID  
 Direction  
 Distance  
 Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
 EPA ID Number

**GREYHOUND LINES INC (Continued)**

**1000441463**

Federal Waste Generator Description:	Not a generator, verified
State District Owner:	Tn
Large Quantity Handler of Universal Waste:	No
Recognized Trader Importer:	No
Recognized Trader Exporter:	No
Spent Lead Acid Battery Importer:	No
Spent Lead Acid Battery Exporter:	No
Current Record:	Yes

List of NAICS Codes and Descriptions:

NAICS Code:	48849
NAICS Description:	OTHER SUPPORT ACTIVITIES FOR ROAD TRANSPORTATION

Facility Has Received Notices of Violations:

Violations:	No Violations Found
-------------	---------------------

Evaluation Action Summary:

Evaluations:	No Evaluations Found
--------------	----------------------

FINDS:

Registry ID:	110004985918
--------------	--------------

[Click Here for FRS Facility Detail Report:](#)

Environmental Interest/Information System:

The Resource Conservation and Recovery Act Information System (RCRAInfo) is EPA's comprehensive information system in support of the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. It tracks many types of information about generators, transporters, treaters, storers, and disposers of hazardous waste.

[Click this hyperlink](#) while viewing on your computer to access additional FINDS: detail in the EDR Site Report.

ECHO:

Envid:	1000441463
Registry ID:	110004985918
DFR URL:	<a href="http://echo.epa.gov/detailed-facility-report?fid=110004985918">http://echo.epa.gov/detailed-facility-report?fid=110004985918</a>
Name:	GREYHOUND LINES INC
Address:	527 N MAIN
City,State,Zip:	MEMPHIS, TN 38105

52  
 WNW  
 1/4-1/2  
 0.346 mi.  
 1829 ft.

**WOLF RIVER HARBOR - CENTRAL SECTION - MIDDLE  
 A.W. WILLIS BRIDGE TO WASHINGTON PARK  
 MEMPHIS, TN 38103**

**US BROWNFIELDS 1016361812  
 FINDS N/A**

**Relative:  
 Lower  
 Actual:  
 190 ft.**

US BROWNFIELDS:	
Name:	WOLF RIVER HARBOR - CENTRAL SECTION - MIDDLE
Address:	A.W. WILLIS BRIDGE TO WASHINGTON PARK
City,State,Zip:	MEMPHIS, TN 38103
Property ID:	138886
Recipient Name:	Memphis-Shelby County
Grant Type:	Hazardous & Petroleum

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**WOLF RIVER HARBOR - CENTRAL SECTION - MIDDLE (Continued)**

**1016361812**

Property Number: Not Applicable  
Parcel Size: 80  
Latitude: 35.164767  
Longitude: -90.049928  
Census Tract: 47157000100  
State or Tribal Voluntary Response Program: Y  
Program Name: BF  
Activity Funded: Phase I ESA  
Assessment Funding: 10000  
Redev. Funding Entity Name: Memphis Landbank Uptown LLC  
Redevelopment Start Date: 2011-03-18 00:00:00  
Cooperative Agreement Number: 95463110  
Ownership Entity: Government  
Cleanup Required: U  
Institutional Controls Required: U  
Indicate whether Engineering Controls are required: U  
Media Affected: Unknown  
Cleanup Completion Doc - NFA Letter Received: N  
Past use industrial acreage: 80  
Cleanup Comp Doc - Letter/Signed Rep Qualified Pro: N  
Future use greenspace acreage: 80  
Radius: 0.5  
Below Poverty Number: 444  
Below Poverty Percent: 16.77  
Meidan Income: 4749  
Meidan Income Number: 808  
Meidan Income Percent: 30.53  
Vacant Housing Number: 105  
Vacant Housing Percent: 7.11  
Unemployed Number: 51  
Unemployed Percent: 1.93

Name: WOLF RIVER HARBOR - CENTRAL SECTION - MIDDLE  
Address: A.W. WILLIS BRIDGE TO WASHINGTON PARK  
City,State,Zip: MEMPHIS, TN 38103  
Property ID: 138886  
Recipient Name: Memphis-Shelby County  
Grant Type: Hazardous & Petroleum  
Property Number: Not Applicable  
Parcel Size: 80  
Latitude: 35.164767  
Longitude: -90.049928  
Census Tract: 47157000100  
State or Tribal Voluntary Response Program: Y  
Program Name: BF  
Activity Funded: Phase I ESA  
Assessment Funding: 1104098  
Redev. Funding Entity Name: Memphis Division of Public Works  
Redevelopment Start Date: 2011-03-18 00:00:00  
Cooperative Agreement Number: 95463110  
Ownership Entity: Government  
Cleanup Required: U  
Institutional Controls Required: U  
Indicate whether Engineering Controls are required: U  
Media Affected: Unknown  
Cleanup Completion Doc - NFA Letter Received: N  
Past use industrial acreage: 80

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**WOLF RIVER HARBOR - CENTRAL SECTION - MIDDLE (Continued)**

**1016361812**

Cleanup Comp Doc - Letter/Signed Rep Qualified Pro: N  
Future use greenspace acreage: 80  
Radius: 0.5  
Below Poverty Number: 444  
Below Poverty Percent: 16.77  
Meidan Income: 4749  
Meidan Income Number: 808  
Meidan Income Percent: 30.53  
Vacant Housing Number: 105  
Vacant Housing Percent: 7.11  
Unemployed Number: 51  
Unemployed Percent: 1.93

Name: WOLF RIVER HARBOR - CENTRAL SECTION - MIDDLE  
Address: A.W. WILLIS BRIDGE TO WASHINGTON PARK  
City,State,Zip: MEMPHIS, TN 38103  
Property ID: 138886  
Recipient Name: Memphis-Shelby County  
Grant Type: Hazardous & Petroleum  
Property Number: Not Applicable  
Parcel Size: 80  
Latitude: 35.164767  
Longitude: -90.049928  
Census Tract: 47157000100  
State or Tribal Voluntary Response Program: Y  
Program Name: BF  
Activity Funded: Phase I ESA  
Assessment Funding: 29200000  
Redev. Funding Entity Name: County Redevelopment Agency  
Redevelopment Start Date: 2011-03-18 00:00:00  
Cooperative Agreement Number: 95463110  
Ownership Entity: Government  
Cleanup Required: U  
Institutional Controls Required: U  
Indicate whether Engineering Controls are required: U  
Media Affected: Unknown  
Cleanup Completion Doc - NFA Letter Received: N  
Past use industrial acreage: 80  
Cleanup Comp Doc - Letter/Signed Rep Qualified Pro: N  
Future use greenspace acreage: 80  
Radius: 0.5  
Below Poverty Number: 444  
Below Poverty Percent: 16.77  
Meidan Income: 4749  
Meidan Income Number: 808  
Meidan Income Percent: 30.53  
Vacant Housing Number: 105  
Vacant Housing Percent: 7.11  
Unemployed Number: 51  
Unemployed Percent: 1.93

Name: WOLF RIVER HARBOR - CENTRAL SECTION - MIDDLE  
Address: A.W. WILLIS BRIDGE TO WASHINGTON PARK  
City,State,Zip: MEMPHIS, TN 38103  
Property ID: 138886  
Recipient Name: Memphis-Shelby County  
Grant Type: Hazardous & Petroleum

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**WOLF RIVER HARBOR - CENTRAL SECTION - MIDDLE (Continued)**

**1016361812**

Property Number: Not Applicable  
Parcel Size: 80  
Latitude: 35.164767  
Longitude: -90.049928  
Census Tract: 47157000100  
State or Tribal Voluntary Response Program: Y  
Program Name: BF  
Activity Funded: Phase I ESA  
Assessment Funding: 200000  
Redev. Funding Entity Name: U.S. Army Corps of Engineers  
Redevelopment Start Date: 2011-03-18 00:00:00  
Cooperative Agreement Number: 95463110  
Ownership Entity: Government  
Cleanup Required: U  
Institutional Controls Required: U  
Indicate whether Engineering Controls are required: U  
Media Affected: Unknown  
Cleanup Completion Doc - NFA Letter Received: N  
Past use industrial acreage: 80  
Cleanup Comp Doc - Letter/Signed Rep Qualified Pro: N  
Future use greenspace acreage: 80  
Radius: 0.5  
Below Poverty Number: 444  
Below Poverty Percent: 16.77  
Meidan Income: 4749  
Meidan Income Number: 808  
Meidan Income Percent: 30.53  
Vacant Housing Number: 105  
Vacant Housing Percent: 7.11  
Unemployed Number: 51  
Unemployed Percent: 1.93

Name: WOLF RIVER HARBOR - CENTRAL SECTION - MIDDLE  
Address: A.W. WILLIS BRIDGE TO WASHINGTON PARK  
City,State,Zip: MEMPHIS, TN 38103  
Property ID: 138886  
Recipient Name: Memphis-Shelby County  
Grant Type: Hazardous & Petroleum  
Property Number: Not Applicable  
Parcel Size: 80  
Latitude: 35.164767  
Longitude: -90.049928  
Census Tract: 47157000100  
State or Tribal Voluntary Response Program: Y  
Program Name: BF  
AA Activity Funded: Phase I ESA  
Activity Funded: Phase I ESA  
Assessment Funding Entity: EPA  
Cooperative Agreement Number: 95463110  
Start Date: 2011-11-18 00:00:00  
Ownership Entity: Government  
Completion Date: 2012-03-08 00:00:00  
Cleanup Required: U  
Institutional Controls Required: U  
Indicate whether Engineering Controls are required: U  
Media Affected: Unknown  
Cleanup Completion Doc - NFA Letter Received: N



Map ID  
 Direction  
 Distance  
 Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
 EPA ID Number

**WOLF RIVER HARBOR - CENTRAL SECTION - MIDDLE (Continued)**

**1016361812**

Past use industrial acreage:	80
Cleanup Comp Doc - Letter/Signed Rep Qualified Pro:	N
Future use greenspace acreage:	80
Radius:	0.5
Below Poverty Number:	444
Below Poverty Percent:	16.77
Meidan Income:	4749
Meidan Income Number:	808
Meidan Income Percent:	30.53
Vacant Housing Number:	105
Vacant Housing Percent:	7.11
Unemployed Number:	51
Unemployed Percent:	1.93

**FINDS:**

Registry ID: 110045010055

[Click Here for FRS Facility Detail Report:](#)

**Environmental Interest/Information System:**

The Assessment, Cleanup and Redevelopment Exchange System (ACRES) stores information reported by EPA Brownfields grant recipients on Brownfields properties assessed or cleaned up with grant funding, as well as information on Targeted Brownfields Assessments (TBA) performed by EPA Regions.

[Click this hyperlink](#) while viewing on your computer to access additional FINDS: detail in the EDR Site Report.

**K53**  
**East**  
**1/4-1/2**  
**0.351 mi.**  
**1855 ft.**

**EXXON #5-1488**  
**THOMAS STREET & CHELSEA**  
**MEMPHIS, TN**  
**Site 3 of 3 in cluster K**

**LUST TRUST**    **U002106412**  
**N/A**

**Relative:**  
**Higher**  
**Actual:**  
**252 ft.**

**LUST TRUST:**

Name:	EXXON #5-1488
Address:	THOMAS STREET & CHELSEA
City,State,Zip:	MEMPHIS, TN
Facility Id:	9791274
Case Number:	1
Application Num:	97017
Deductible:	\$20,000.00
Total Requested:	\$92,569.93
Total Not Eligible:	\$4,753.17
Total Paid:	\$67,816.76
Total Net Pay:	\$87,816.76
<b>Case Status:</b>	<b>Closed</b>

MAP FINDINGS

Map ID			EDR ID Number
Direction			EPA ID Number
Distance			
Elevation	Site	Database(s)	

---

<b>54</b> <b>East</b> <b>1/4-1/2</b> <b>0.378 mi.</b> <b>1998 ft.</b>	<b>#5-1488 CHELSEA EXXON SHOP</b> <b>840 THOMAS/CHELSEA</b> <b>MEMPHIS, TN 38107</b>	<b>LUST</b>	<b>S107465119</b> <b>N/A</b>
---	--	-------------	---------------------------------

<b>Relative:</b> <b>Higher</b>  <b>Actual:</b> <b>251 ft.</b>	<b>LUST:</b> Name: #5-1488 CHELSEA EXXON SHOP Address: 840 THOMAS/CHELSEA City,State,Zip: MEMPHIS, TN 38107 Region: STATE Facility Id: 9791274 Current Status: 8 Case Closed Discovery Date: JUL-21-1993 How Discovered: 3 On-site Impact Cause: 5 Pipe Failure Case Manager: Cindy Patton Case Description: ACTIVE Section: FO Company Name: EXXON COMPANY USA Owner Address: P O BOX 4386 Owner City: Houston Owner State: TX Owner Zip Code: 77210 Owner Telephone: (800) 350-0531 Site Number: 1  Name: #5-1488 CHELSEA EXXON SHOP Address: 840 THOMAS/CHELSEA City,State,Zip: MEMPHIS, TN 38107 Region: STATE Facility Id: 9791274 Current Status: 1a Completed Tank Closure Case Manager: Cindy Patton Case Description: Tank Closure, Case Closed, Active case Section: FO Company Name: EXXON COMPANY U S A Owner Address: P O BOX 4386 Owner City: Houston Owner State: TX Owner Zip Code: 77210 Owner Telephone: (800) 350-0531 Site Number: 2	
---	--	--

<b>55</b> <b>East</b> <b>1/4-1/2</b> <b>0.382 mi.</b> <b>2017 ft.</b>	<b>RAAIN, INC.</b> <b>645 CHELSEA AVE</b> <b>MEMPHIS, TN 38107</b>	<b>LUST</b> <b>LUST TRUST</b> <b>UST</b> <b>HIST UST</b>	<b>U002106621</b> <b>N/A</b>
---	--	---	---------------------------------

<b>Relative:</b> <b>Higher</b>  <b>Actual:</b> <b>252 ft.</b>	<b>LUST:</b> Name: DELTA EXPRESS #3157 Address: 645 CHELSEA City,State,Zip: MEMPHIS, TN 38127 Region: STATE Facility Id: 9791906 Current Status: 8 Case Closed Discovery Date: DEC-06-2000 How Discovered: 7 Environmental Audit Cause: 7 Unknown	
---	--	--

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**RAAIN, INC. (Continued)**

**U002106621**

Case Manager: Cindy Patton  
Section: FO  
Company Name: MAPCO PETROLEUM INC  
Owner Address: 645 Chelsea Avenue  
Owner City: Memphis  
Owner State: TN  
Owner Zip Code: 38107  
Owner Telephone: (901) 575-2305  
Site Number: 1

Name: CHELSEA FOOD AND FUEL  
Address: 645 CHELSEA AVENUE  
City,State,Zip: MEMPHIS, TN 38107  
Region: STATE  
Facility Id: 9791906  
How Discovered: 8 Other  
Case Manager: Jeff Phillips  
Case Description: suspected release - water in tank  
Section: FO  
Company Name: Rahim Kajani  
Owner Address: 645 Chelsea Avenue  
Owner City: Memphis  
Owner State: TN  
Owner Zip Code: 38107  
Owner Telephone: (901) 575-2305  
Site Number: 2

**LUST TRUST:**

Name: WILLIAMS EXPRESS, INC  
Address: 645 CHELSEA (DANNY THOMAS  
City,State,Zip: MEMPHIS, TN 39107  
Facility Id: 9791906  
Case Number: 1  
Application Num: 1073  
Deductible: \$4,383.00  
Total Requested: \$22,712.22  
Total Not Eligible: \$797.28  
Total Paid: \$17,531.94  
Total Net Pay: \$21,914.94  
**Case Status: Closed**

**UST:**

Name: RAAIN, INC.  
Address: 645 CHELSEA AVE  
City,State,Zip: MEMPHIS 38107-2504  
Facility ID: 9791906  
Facility Description: Gas Station or Truck Stop  
Owner ID: 357785  
Owner Name: AMANULLAH DEVJI AKA AMAN DEVJI  
Owner Address: 325 S. BYHALIA RD.  
Owner City,St,Zip: COLLIERVILLE, TN 38017  
  
Tank Number: 1  
Tank ID: 53649  
Tank Other Material: Composite - Steel w/FRP  
Compartment ID: 54474

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**RAAIN, INC. (Continued)**

**U002106621**

Compartment Letter: A  
Compartment Status: Currently in Use  
Compartment Capacity: 10000  
Substance Description: Gasoline  
Date Installed: OCT-24-1988  
Regulated: Regulated  
Tank Emergency: Manual Tan  
Overfill Type: Private  
Pipe Material Desc: Rigid Plastic - (NUPI - Western Fiberglass -UPP - Brugg)

Name: RAAIN, INC.  
Address: 645 CHELSEA AVE  
City,State,Zip: MEMPHIS 38107-2504

Tank Number: 2  
Tank ID: 53650  
Tank Other Material: Composite - Steel w/FRP  
Compartment ID: 54475  
Compartment Letter: A  
Compartment Status: Currently in Use  
Compartment Capacity: 10000  
Substance Description: Gasoline  
Date Installed: OCT-24-1988  
Regulated: Regulated  
Tank Emergency: Manual Tan  
Overfill Type: Private  
Pipe Material Desc: Rigid Plastic - (NUPI - Western Fiberglass -UPP - Brugg)

Name: RAAIN, INC.  
Address: 645 CHELSEA AVE  
City,State,Zip: MEMPHIS 38107-2504

Tank Number: 3  
Tank ID: 53651  
Tank Other Material: Composite - Steel w/FRP  
Compartment ID: 54476  
Compartment Letter: A  
Compartment Status: Currently in Use  
Compartment Capacity: 10000  
Substance Description: ULS Diesel  
Date Installed: OCT-24-1988  
Regulated: Regulated  
Tank Emergency: Manual Tan  
Overfill Type: Private  
Pipe Material Desc: Rigid Plastic - (NUPI - Western Fiberglass -UPP - Brugg)

**HIST UST:**

Name: MAPCO EXPRESS 3157  
Address: 645 CHELSEA (DANNY THOMAS)  
City,State,Zip: MEMPHIS, TN 39107  
Facility ID: 9-791906  
Facility Description: Not Listed  
Owner ID: 157718  
Owner Name: MAPCO EXPRESS INC.  
Owner Address: 830 Crescent Center Drive Suite 300  
Owner City,St,Zip: Franklin, TN 37067  
Owner Telephone: (615) 224-1155



Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**RAAIN, INC. (Continued)**

**U002106621**

Owner Description: Commercial

Tank ID: 3  
**Tank Status: Currently in Use**  
Tank Capacity: 10000  
Tank Contents: Gasoline  
Tank Material: Composite (Steel w/ FRP)  
Tank 2ndary Trait: None  
Tank Manual Gauge: False  
Tank Tightness: True  
Tank Inventory Control: True  
Tank ATG: True  
Tank Vapor Monitor: False  
Tank Groundwater Monitor: False  
Tank Double Walled: False  
Tank 2nd Contained: False  
Tank SIR: False  
Overfill Installed: True  
Spill Installed: True  
Cathodic Protection: True  
Date Installed: 10/24/1988  
Tank Leak Detection Listed: False  
Pipe Material: Fiberglass Reinforced Plastic  
Pipe Other Material: None  
Pipe Type: Pressurized  
Pipe Auto Line Leak Detect.: True  
Pipe Leak Detection Listed: True  
Pipe Vapor Monitor: False  
Pipe Groundwater Monitor: False  
Pipe 2nd Contained: False  
Pipe SIR: False  
Pipe Leak Detection Listed: False

Tank ID: 1  
**Tank Status: Currently in Use**  
Tank Capacity: 10000  
Tank Contents: Gasoline  
Tank Material: Composite (Steel w/ FRP)  
Tank 2ndary Trait: None  
Tank Manual Gauge: False  
Tank Tightness: True  
Tank Inventory Control: True  
Tank ATG: True  
Tank Vapor Monitor: False  
Tank Groundwater Monitor: False  
Tank Double Walled: False  
Tank 2nd Contained: False  
Tank SIR: False  
Overfill Installed: True  
Spill Installed: True  
Cathodic Protection: True  
Date Installed: 10/24/1988  
Tank Leak Detection Listed: False  
Pipe Material: Fiberglass Reinforced Plastic  
Pipe Other Material: None  
Pipe Type: Pressurized

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**RAAIN, INC. (Continued)**

**U002106621**

Pipe Auto Line Leak Detect.: True  
Pipe Leak Detection Listed: True  
Pipe Vapor Monitor: False  
Pipe Groundwater Monitor: False  
Pipe 2nd Contained: False  
Pipe SIR: False  
Pipe Leak Detection Listed: False

Tank ID: 2  
**Tank Status: Currently in Use**  
Tank Capacity: 10000  
Tank Contents: Gasoline  
Tank Material: Composite (Steel w/ FRP)  
Tank 2ndary Trait: None  
Tank Manual Gauge: False  
Tank Tightness: True  
Tank Inventory Control: True  
Tank ATG: True  
Tank Vapor Monitor: False  
Tank Groundwater Monitor: False  
Tank Double Walled: False  
Tank 2nd Contained: False  
Tank SIR: False  
Overfill Installed: True  
Spill Installed: True  
Cathodic Protection: True  
Date Installed: 10/24/1988  
Tank Leak Detection Listed: False  
Pipe Material: Fiberglass Reinforced Plastic  
Pipe Other Material: None  
Pipe Type: Pressurized  
Pipe Auto Line Leak Detect.: True  
Pipe Leak Detection Listed: True  
Pipe Vapor Monitor: False  
Pipe Groundwater Monitor: False  
Pipe 2nd Contained: False  
Pipe SIR: False  
Pipe Leak Detection Listed: False

56  
SSW  
1/4-1/2  
0.426 mi.  
2251 ft.

**AUCTION AVENUE AND NORTH SECOND STREET**  
**462 N. 2ND ST**  
**MEMPHIS, TN**

SRP S117734815  
VCP N/A

**Relative:**  
**Lower**  
**Actual:**  
**216 ft.**

SRP:  
Name: AUCTION AVENUE AND NORTH SECOND STREET  
Address: 462 N. 2ND ST  
City,State,Zip: MEMPHIS, TN  
Site Control Number: SRS-2004-1028  
State Remediation Program Site Number: SRS790817  
Field Office: MEMP  
Active?: CLOSED  
Number Of Days In System: 4130  
Program: VOLUNTARY  
Latitude: 35.157  
Longitude: -90.046608

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**AUCTION AVENUE AND NORTH SECOND STREET (Continued)**

**S117734815**

VCP:

Name: AUCTION AVENUE AND NORTH SECOND STREET  
Address: 462 N. 2ND ST  
City,State,Zip: MEMPHIS, TN  
Promulgated Date: Not reported  
Facility ID: SRS790817  
Facility Status: CLOSED  
EFO: MEMPHIS  
EPA Facility ID: Not reported  
EPA Registry ID: Not reported  
Latitude: 35.157  
Longitude: -90.046608  
Acres: Not reported

**M57**  
**South**  
**1/4-1/2**  
**0.439 mi.**  
**2319 ft.**

**BOSHWIT PROPERTY**  
**184 AUCTION AVENUE**  
**MEMPHIS, TN**

**SRP S117734854**  
**VCP N/A**

**Site 1 of 4 in cluster M**

**Relative:**  
**Lower**  
**Actual:**  
**221 ft.**

SRP:

Name: BOSHWIT PROPERTY  
Address: 184 AUCTION AVENUE  
City,State,Zip: MEMPHIS, TN  
Site Control Number: SRS-2006-1267  
State Remediation Program Site Number: SRS791001  
Field Office: MEMP  
Active?: CLOSED  
Number Of Days In System: 3265  
Program: VOLUNTARY  
Latitude: 35.156416  
Longitude: -90.045068

VCP:

Name: BOSHWIT PROPERTY  
Address: 184 AUCTION AVENUE  
City,State,Zip: MEMPHIS, TN  
Promulgated Date: Not reported  
Facility ID: SRS791001  
Facility Status: CLOSED  
EFO: MEMPHIS  
EPA Facility ID: Not reported  
EPA Registry ID: Not reported  
Latitude: 35.156416  
Longitude: -90.045068  
Acres: Not reported

MAP FINDINGS

Map ID			EDR ID Number
Direction			EPA ID Number
Distance			
Elevation	Site	Database(s)	

<b>N58</b> <b>SSW</b> <b>1/4-1/2</b> <b>0.444 mi.</b> <b>2345 ft.</b>	<b>DOWNTOWN SHELL</b> <b>464 N. MAIN</b> <b>MEMPHIS, TN</b>  <b>Site 1 of 2 in cluster N</b>	<b>LUST</b>	<b>S109143457</b> <b>N/A</b>
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<b>Relative:</b> <b>Lower</b>  <b>Actual:</b> <b>227 ft.</b>	<b>LUST:</b> Name: DOWNTOWN SHELL Address: 464 N. MAIN City,State,Zip: MEMPHIS, TN Region: STATE Facility Id: 9793596 Current Status: 8 Case Closed Discovery Date: MAY-13-2008 How Discovered: 8 Other Case Manager: Karen Prosser Section: FO Priority: Low Site Number: 1	
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<b>N59</b> <b>SSW</b> <b>1/4-1/2</b> <b>0.444 mi.</b> <b>2345 ft.</b>	<b>DOWNTOWN SHELL</b> <b>464 NORTH MAIN</b> <b>MEMPHIS, TN 38105</b>  <b>Site 2 of 2 in cluster N</b>	<b>VCP</b> <b>SRP</b> <b>HIST UST</b>	<b>U003988152</b> <b>N/A</b>
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<b>Relative:</b> <b>Lower</b>  <b>Actual:</b> <b>227 ft.</b>	<b>VCP:</b> Name: 464 NORTH MAIN STREET Address: 464 NORTH MAIN City,State,Zip: MEMPHIS, TN Promulgated Date: Not reported Facility ID: SRS790565 Facility Status: CLOSED EFO: MEMPHIS EPA Facility ID: Not reported EPA Registry ID: Not reported Latitude: 35.157769 Longitude: -90.047705 Acres: Not reported  <b>SRP:</b> Name: 464 NORTH MAIN STREET Address: 464 NORTH MAIN City,State,Zip: MEMPHIS, TN Site Control Number: SRS-2001-370 State Remediation Program Site Number: SRS790565 Field Office: MEMP Active?: CLOSED Number Of Days In System: 5150 Program: VOLUNTARY Latitude: 35.157769 Longitude: -90.047705	
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<b>HIST UST:</b>	Name: DOWNTOWN SHELL Address: 464 NORTH MAIN City,State,Zip: MEMPHIS, TN 38105 Facility ID: 9-793596 Facility Description: Gas Station
------------------	--

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**DOWNTOWN SHELL (Continued)**

**U003988152**

Owner ID: 158502  
Owner Name: Karimi and Aman Investment, dba Downtown Shell  
Owner Address: 348 New Byhalia Road Suite 9  
Owner City,St,Zip: Collierville, TN 38017  
Owner Telephone: (901) 647-5229  
Owner Description: Commercial

Tank ID: 1  
**Tank Status: Currently In Use**  
Tank Capacity: 20000  
Tank Contents: Gasoline/Gasoline  
Tank Material: Composite (Steel w/ FRP)  
Tank 2ndary Trait: None  
Tank Manual Gauge: False  
Tank Tightness: False  
Tank Inventory Control: False  
Tank ATG: True  
Tank Vapor Monitor: False  
Tank Groundwater Monitor: False  
Tank Double Walled: False  
Tank 2nd Contained: False  
Tank SIR: False  
Overfill Installed: True  
Spill Installed: True  
Cathodic Protection: True  
Date Installed: 06/01/2004  
Tank Leak Detection Listed: False  
Pipe Material: Fiberglass Reinforced Plastic  
Pipe Other Material: Double-Walled  
Pipe Type: Pressurized  
Pipe Auto Line Leak Detect.: True  
Pipe Leak Detection Listed: True  
Pipe Vapor Monitor: False  
Pipe Groundwater Monitor: False  
Pipe 2nd Contained: False  
Pipe SIR: False  
Pipe Leak Detection Listed: False

**M60**  
**SSW**  
**1/4-1/2**  
**0.452 mi.**  
**2386 ft.**

**TRUE-TAGG PAINT CO.**  
**N 3RD ST**  
**MEMPHIS, TN**

**Site 2 of 4 in cluster M**

**SRP S123409011**  
**N/A**

**Relative:**  
**Lower**  
**Actual:**  
**221 ft.**

SRP:  
Name: TRUE-TAGG PAINT CO.  
Address: N 3RD ST  
City,State,Zip: MEMPHIS, TN  
EPAID: TND007029010  
State Remediation Program Site Number: 79531  
Active?: CLOSED  
Program: LIABLE PARTY FUNDED  
Latitude: 35.155211  
Longitude: -90.044381



Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**M61**      **USED EQUIPMENT EXCHANGE**  
**South**    **442 NORTH 3RD. ST.**  
**1/4-1/2**    **MEMPHIS, TN 38103**  
**0.464 mi.**  
**2452 ft.**    **Site 3 of 4 in cluster M**

**INST CONTROL**    **U003618267**  
**SRP**                **N/A**  
**VCP**  
**HIST UST**

**Relative:**      INST CONTROL:  
**Lower**            Name:                    USED OFFICE EQUIPMENT/TRUE TAGG  
                      Address:                442 NORTH 3RD ST.  
**Actual:**            City,State,Zip:        MEMPHIS, TN  
**221 ft.**              Facility ID:             SRS790529  
                      EFO:                    SRP  
                      Control Type:         Institutional  
                      Control Description: Land Use Restriction  
                      Section:                VOAP  
                      Date Recorded:        03\_23\_2004  
                      Deed Book:            104000001  
                      Acreage:              0.86  
                      Residential Restriction: No  
                      Daycare Restriction: No  
                      School Restriction: No  
                      Church Restriction: No  
                      Groundwater Restriction: No  
                      Invasive Activity:    No  
                      Facility Id:            SRS790529  
                      Lattitude:             35.155211  
                      Longitude:            -90.044381  
                      Site Status:            Closed

**SRP:**  
Name:                    USED OFFICE EQUIPMENT/TRUE TAGG  
Address:                442 NORTH 3RD ST.  
City,State,Zip:        MEMPHIS, TN  
Site Control Number:    SRS-2001-222  
State Remediation Program Site Number: SRS790529  
Field Office:            MEMP  
Active?:                CLOSED  
Number Of Days In System: 5150  
Program:                VOLUNTARY  
Latitude:                35.155211  
Longitude:              -90.044381

**VCP:**  
Name:                    USED OFFICE EQUIPMENT/TRUE TAGG  
Address:                442 NORTH 3RD ST.  
City,State,Zip:        MEMPHIS, TN  
Promulgated Date:      Not reported  
Facility ID:            SRS790529  
Facility Status:        CLOSED  
EFO:                    MEMPHIS  
EPA Facility ID:        Not reported  
EPA Registry ID:       Not reported  
Latitude:                35.155211  
Longitude:              -90.044381  
Acres:                    Not reported

**HIST UST:**  
Name:                    USED EQUIPMENT EXCHANGE

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**USED EQUIPMENT EXCHANGE (Continued)**

**U003618267**

Address: 442 NORTH 3RD. ST.  
City,State,Zip: MEMPHIS, TN 38103  
Facility ID: 9-790804  
Facility Description: Not Listed  
Owner ID: 1099  
Owner Name: BURK-HALL CO  
Owner Address: 4050 Getwell Road  
Owner City,St,Zip: Memphis, TN 38118  
Owner Telephone: (901) 369-1800  
Owner Description: Private

Tank ID: 4  
**Tank Status: Permanently Out of Use**  
Tank Capacity: 5000  
Tank Contents: Not Listed  
Tank Material: Asphalt Coated or Bare Steel  
Tank 2ndary Trait: None  
Tank Manual Gauge: False  
Tank Tightness: False  
Tank Inventory Control: False  
Tank ATG: False  
Tank Vapor Monitor: False  
Tank Groundwater Monitor: False  
Tank Double Walled: False  
Tank 2nd Contained: False  
Tank SIR: False  
Overfill Installed: False  
Spill Installed: False  
Cathodic Protection: False  
Date Installed: 02/21/1936  
Tank Leak Detection Listed: True  
Pipe Material: Bare Steel  
Pipe Other Material: None  
Pipe Type: Not Listed  
Pipe Auto Line Leak Detect.: False  
Pipe Leak Detection Listed: False  
Pipe Vapor Monitor: False  
Pipe Groundwater Monitor: False  
Pipe 2nd Contained: False  
Pipe SIR: False  
Pipe Leak Detection Listed: True

Tank ID: 2  
**Tank Status: Permanently Out of Use**  
Tank Capacity: 5000  
Tank Contents: Not Listed  
Tank Material: Asphalt Coated or Bare Steel  
Tank 2ndary Trait: None  
Tank Manual Gauge: False  
Tank Tightness: False  
Tank Inventory Control: False  
Tank ATG: False  
Tank Vapor Monitor: False  
Tank Groundwater Monitor: False  
Tank Double Walled: False  
Tank 2nd Contained: False

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**USED EQUIPMENT EXCHANGE (Continued)**

**U003618267**

Tank SIR: False  
Overfill Installed: False  
Spill Installed: False  
Cathodic Protection: False  
Date Installed: 02/21/1936  
Tank Leak Detection Listed: True  
Pipe Material: Bare Steel  
Pipe Other Material: None  
Pipe Type: Not Listed  
Pipe Auto Line Leak Detect.: False  
Pipe Leak Detection Listed: False  
Pipe Vapor Monitor: False  
Pipe Groundwater Monitor: False  
Pipe 2nd Contained: False  
Pipe SIR: False  
Pipe Leak Detection Listed: True

Tank ID: 3  
**Tank Status: Permanently Out of Use**  
Tank Capacity: 5000  
Tank Contents: Not Listed  
Tank Material: Asphalt Coated or Bare Steel  
Tank 2ndary Trait: None  
Tank Manual Gauge: False  
Tank Tightness: False  
Tank Inventory Control: False  
Tank ATG: False  
Tank Vapor Monitor: False  
Tank Groundwater Monitor: False  
Tank Double Walled: False  
Tank 2nd Contained: False  
Tank SIR: False  
Overfill Installed: False  
Spill Installed: False  
Cathodic Protection: False  
Date Installed: 02/21/1936  
Tank Leak Detection Listed: True  
Pipe Material: Bare Steel  
Pipe Other Material: None  
Pipe Type: Not Listed  
Pipe Auto Line Leak Detect.: False  
Pipe Leak Detection Listed: False  
Pipe Vapor Monitor: False  
Pipe Groundwater Monitor: False  
Pipe 2nd Contained: False  
Pipe SIR: False  
Pipe Leak Detection Listed: True

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**M62** TRUE-TA66 PAINT CO.  
**South** 442 THIRD AVENUE  
**1/4-1/2** MEMPHIS, TN 38101  
**0.464 mi.**  
**2452 ft.** Site 4 of 4 in cluster M

**SEMS-ARCHIVE** 1015736520  
**RCRA NonGen / NLR** TND007029010

**Relative:**  
**Lower**  
**Actual:**  
**221 ft.**

SEMS Archive:  
Site ID: 0403635  
EPA ID: TND007029010  
Name: TRUE-TAGG PAINT CO  
Address: 442 N 3RD ST  
City,State,Zip: MEMPHIS, TN 38105  
Cong District: 09  
FIPS Code: 47157  
FF: N  
NPL: Not on the NPL  
Non NPL Status: NFRAP-Site does not qualify for the NPL based on existing information

SEMS Archive Detail:

Region: 04  
Site ID: 0403635  
EPA ID: TND007029010  
Site Name: TRUE-TAGG PAINT CO  
NPL: N  
FF: N  
OU: 00  
Action Code: EA  
Action Name: INT ASSESS  
SEQ: 1  
Start Date: 1994-05-23 04:00:00  
Finish Date: 1994-05-23 04:00:00  
Qual: L  
Current Action Lead: EPA Perf

Region: 04  
Site ID: 0403635  
EPA ID: TND007029010  
Site Name: TRUE-TAGG PAINT CO  
NPL: N  
FF: N  
OU: 00  
Action Code: PA  
Action Name: PA  
SEQ: 1  
Finish Date: 1985-11-18 06:00:00  
Qual: L  
Current Action Lead: St Perf

Region: 04  
Site ID: 0403635  
EPA ID: TND007029010  
Site Name: TRUE-TAGG PAINT CO  
NPL: N  
FF: N  
OU: 00  
Action Code: DS  
Action Name: DISCVRY  
SEQ: 1  
Start Date: 1980-08-01 04:00:00  
Finish Date: 1980-08-01 04:00:00

Map ID  
 Direction  
 Distance  
 Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
 EPA ID Number

**TRUE-TA66 PAINT CO. (Continued)**

**1015736520**

Current Action Lead:	EPA Perf
Region:	04
Site ID:	0403635
EPA ID:	TND007029010
Site Name:	TRUE-TAGG PAINT CO
NPL:	N
FF:	N
OU:	00
Action Code:	SI
Action Name:	SI
SEQ:	1
Finish Date:	1991-10-31 05:00:00
Qual:	N
Current Action Lead:	EPA Perf
Region:	04
Site ID:	0403635
EPA ID:	TND007029010
Site Name:	TRUE-TAGG PAINT CO
NPL:	N
FF:	N
OU:	00
Action Code:	VS
Action Name:	ARCH SITE
SEQ:	1
Finish Date:	1994-05-17 04:00:00
Current Action Lead:	EPA Perf In-Hse

**RCRA Listings:**

Date Form Received by Agency:	19810126
Handler Name:	True-Ta66 Paint Co.
Handler Address:	Third Avenue
Handler City,State,Zip:	MEMPHIS, TN 38101
EPA ID:	TND007029010
Contact Name:	MORRIS JAMES
Contact Address:	442 THIRD AVENUE
Contact City,State,Zip:	MEMPHIS, TN 38101
Contact Telephone:	901-525-2727
EPA Region:	04
Federal Waste Generator Description:	Not a generator, verified
State District Owner:	Tn
State District:	106
Mailing Address:	PO BOX 273
Mailing City,State,Zip:	MEMPHIS, TN 38101
Short-Term Generator Activity:	No
Importer Activity:	No
Mixed Waste Generator:	No
Transporter Activity:	No
Transfer Facility Activity:	No
Recycler Activity with Storage:	No
Small Quantity On-Site Burner Exemption:	No
Smelting Melting and Refining Furnace Exemption:	No
Underground Injection Control:	No
Off-Site Waste Receipt:	No
Universal Waste Indicator:	No



Map ID  
 Direction  
 Distance  
 Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
 EPA ID Number

**TRUE-TA66 PAINT CO. (Continued)**

**1015736520**

Universal Waste Destination Facility:	No
Federal Universal Waste:	No
Active Site State-Reg Handler:	---
Hazardous Secondary Material Indicator:	N
2018 GPRC Permit Baseline:	Not on the Baseline
2018 GPRC Renewals Baseline:	Not on the Baseline
202 GPRC Corrective Action Baseline:	No
Subject to Corrective Action Universe:	No
Non-TSDFs Where RCRA CA has Been Imposed Universe:	No
Corrective Action Priority Ranking:	No NCAPS ranking
Environmental Control Indicator:	No
Institutional Control Indicator:	No
Human Exposure Controls Indicator:	N/A
Groundwater Controls Indicator:	N/A
Significant Non-Complier Universe:	No
Unaddressed Significant Non-Complier Universe:	No
Addressed Significant Non-Complier Universe:	No
Significant Non-Complier With a Compliance Schedule Universe:	No
Handler Date of Last Change:	20000902
Recognized Trader-Importer:	No
Recognized Trader-Exporter:	No
Importer of Spent Lead Acid Batteries:	No
Exporter of Spent Lead Acid Batteries:	No
Recycler Activity Without Storage:	No
Manifest Broker:	No
Sub-Part P Indicator:	No

Historic Generators:

Receive Date:	19810126
Handler Name:	TRUE-TA66 PAINT CO.
Federal Waste Generator Description:	Not a generator, verified
State District Owner:	Tn
Large Quantity Handler of Universal Waste:	No
Recognized Trader Importer:	No
Recognized Trader Exporter:	No
Spent Lead Acid Battery Importer:	No
Spent Lead Acid Battery Exporter:	No
Current Record:	Yes

List of NAICS Codes and Descriptions:

NAICS Code:	32551
NAICS Description:	PAINT AND COATING MANUFACTURING

Has the Facility Received Notices of Violations:

Found Violation:	No
Found Violation:	No

Evaluation Action Summary:

Evaluation Date:	19871109
Evaluation Responsible Agency:	State
Found Violation:	No
Evaluation Type Description:	FOCUSED COMPLIANCE INSPECTION
Evaluation Responsible Person Identifier:	TN023

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**TRUE-TA66 PAINT CO. (Continued)**

**1015736520**

Evaluation Date: 19880106  
Evaluation Responsible Agency: State  
Found Violation: No  
Evaluation Type Description: FOCUSED COMPLIANCE INSPECTION  
Evaluation Responsible Person Identifier: TN023

**63**  
**SSE**  
**1/4-1/2**  
**0.477 mi.**  
**2521 ft.**

**ESSO SERVICE STATION (FORMER)**  
**278 AUCTION AVENUE**  
**MEMPHIS, TN**

**SRP S117735055**  
**VCP N/A**

**Relative:**  
**Lower**  
**Actual:**  
**230 ft.**

**SRP:**  
Name: ESSO SERVICE STATION (FORMER)  
Address: 278 AUCTION AVENUE  
City,State,Zip: MEMPHIS, TN  
Site Control Number: SRS-2005-1197  
State Remediation Program Site Number: SRS790938  
Field Office: MEMP  
Active?: CLOSED  
Number Of Days In System: 3612  
Program: VOLUNTARY  
Latitude: 35.155943  
Longitude: -90.041878

**VCP:**  
Name: ESSO SERVICE STATION (FORMER)  
Address: 278 AUCTION AVENUE  
City,State,Zip: MEMPHIS, TN  
Promulgated Date: Not reported  
Facility ID: SRS790938  
Facility Status: CLOSED  
EFO: MEMPHIS  
EPA Facility ID: Not reported  
EPA Registry ID: Not reported  
Latitude: 35.155943  
Longitude: -90.041878  
Acres: Not reported

**64**  
**NNE**  
**1/2-1**  
**0.786 mi.**  
**4148 ft.**

**OLD OSMOSE CHEMICAL**  
**1172 THOMAS STREET**  
**MEMPHIS, TN**

**SHWS S108470118**  
**ENG CONTROLS N/A**  
**SRP**

**Relative:**  
**Lower**  
**Actual:**  
**237 ft.**

**SHWS:**  
Name: OLD OSMOSE CHEMICAL  
Address: 1172 THOMAS STREET  
City,State,Zip: MEMPHIS, TN  
Facility ID: 79758  
**Status: CLOSED**  
Federal: No  
Promulgated Date: 09/10/2007  
Promulgated List: Y

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**OLD OSMOSE CHEMICAL (Continued)**

**S108470118**

Acres: 1.69  
DOR EFO: MEMPHIS  
Latitude: 35.1731  
Longitude: -90.035832

**ENG CONTROLS:**

Name: OLD OSMOSE CHEMICAL  
Address: 1172 THOMAS STREET  
City,State,Zip: MEMPHIS, TN  
Facility ID: 79758  
EFO: Memphis  
Control Type: Engineering  
Control Description: Engineering  
Section: VOAP  
Date Recorded: 08\_12\_2015  
Parcel: 039043 00013  
Acreage: 1.69  
Facility Id: 79758  
EC Access: Yes  
EC Cap: Yes  
EC Monitor: No  
EC Systems: No  
Latitude: 35.1731  
Longitude: -90.035832  
COC Media: Groundwater; Soil  
COC Type: METALS  
Known COCs: ARSENIC; CHROMIUM; LEAD  
Site Status: Closed  
Total Site Acreage: 1.69

**SRP:**

Name: OLD OSMOSE CHEMICAL  
Address: 1172 THOMAS STREET  
City,State,Zip: MEMPHIS, TN  
EPAID: TND980840474  
State Remediation Program Site Number: 79758  
Contaminants Of Concern: METALS  
Active?: CLOSED  
Program: LIABLE PARTY FUNDED  
Latitude: 35.1731  
Longitude: -90.035832  
Acres: 1.69  
Promulgated Date: 9/10/2007

Count: 10 records.

ORPHAN SUMMARY

City	EDR ID	Site Name	Site Address	Zip	Database(s)
MEMPHIS	S127515177	TEMA INCIDENT #28-2021	SOUTH 3RD STREET N/O MITCHELL		SWM COMPLAINTS
MEMPHIS	S123408930	SITE #26	3RD STREET		SRP
MEMPHIS	S127484394	ALLWASTE ONSITE, LLC DBA ONSITE EN	2605 CHELSEA & 2730 MATHEWS		SWM COMPLAINTS, NPDES
MEMPHIS	S125395706	ST JUDE CHILDREN'S RESEARCH HOSPIT	262 DANNY THOMAS PLACE		SWM COMPLAINTS, SPILLS, NPDES
MEMPHIS	S127023303	TEMA INCIDENT #1398-2020	I-240WB AT MILL BRANCH ROAD		SWM COMPLAINTS
MEMPHIS	S123322369	PERLMAN METAL RECOVERY OPERATION	NEAR HENRY STREET, ON BANK OF		SWM COMPLAINTS
MEMPHIS	S123408592	HUSKY INDUSTRIES	THOMAS ST		SRP
SHELBY COUNTY	S131929541	HEALTH DEPARTMENT 1826 SYCAMORE VI	HEALTH DEPARTMENT 1826 SYCAMOR		SWM COMPLAINTS
SHELBY COUNTY	S130283795	KROGER SHOPPING CENTER - HOUSTON L	KROGER SHOPPING CENTER - HOUST		SWM COMPLAINTS
SHELBY COUNTY	S123322851		SEWANEE & BEACON RD IN BOXTOWN		SWM COMPLAINTS

## GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

St	Acronym	Full Name	Government Agency	Gov Date	Arvl. Date	Active Date
TN	AIRS	Listing of Permitted Sources	Department of Environment & Conservation	04/23/2024	04/24/2024	07/19/2024
TN	AST	Aboveground Storage Tanks	Department of Environment and Conservation	10/01/1999	10/12/1999	11/05/1999
TN	BROWNFIELDS	Superfund VOAP Listing	Department of Environment & Conservation	06/24/2024	06/25/2024	09/17/2024
TN	CDL	Registry of Contaminated Properties	Department of Environment & Conservation	06/01/2024	07/23/2024	10/16/2024
TN	DEL SHWS	Deleted State Hazardous Waste Sites	Department of Environment & Conservation	06/24/2024	06/25/2024	09/17/2024
TN	DRYCLEANERS	Registered Facilities List	Dept. of Environment & Conservation	04/30/2024	07/10/2024	10/01/2024
TN	ENG CONTROLS	Engineering Control Sites	Department of Environment & Conservation	11/07/2023	11/09/2023	02/06/2024
TN	HIST UST	Underground Storage Tank Database	Department of Environment & Conservation	04/30/2024	05/09/2024	08/02/2024
TN	HIST_LUST CO	Leaking Underground Storage Tanks Sites	Department of Environmental Conservation, Col	10/18/1994	10/24/1994	12/30/1994
TN	INST CONTROL	Institutional Control Sites	Department of Environment & Conservation	11/07/2023	11/09/2023	02/06/2024
TN	LEAD CERT	Lead Safe Housing Registry	Department of Environment & Conservation	02/25/2019	02/26/2019	06/13/2019
TN	LIENS	Liens Information	Department of Environment & Conservation	06/24/2024	06/26/2024	09/18/2024
TN	LUST	Fund Eligible Leaking Underground Storage Tank Sites	Department of Environment and Conservation	04/30/2024	05/08/2024	08/02/2024
TN	LUST TRUST	LUST TRUST Fund Database	Department of Environment & Conservation	04/30/2024	05/08/2024	08/02/2024
TN	NPDES	Permitted Facility Listing	Department of Environment & Conservation	05/14/2024	05/15/2024	08/12/2024
TN	PFAS	PFAS Contamination Site Location Listing	Department of Environment & Conservation	09/01/2022	12/19/2022	03/14/2023
TN	PRIORITY CLEANERS	DCERP Remediation Sites Listing	Department of Environment & Conservation	07/09/2024	07/10/2024	10/01/2024
TN	RGA LF	Recovered Government Archive Solid Waste Facilities List	Department of Environment and Conservation		07/01/2013	01/15/2014
TN	RGA LUST	Recovered Government Archive Leaking Underground Storage Tan	Department of Environment and Conservation		07/01/2013	01/03/2014
TN	SHWS	Promulgated Sites	Department of Environment & Conservation	06/24/2024	06/25/2024	09/17/2024
TN	SPILLS	State Spills	Department of Environment & Conservation	01/05/2015	01/06/2015	02/10/2015
TN	SPILS	Statewide Petroleum Incident Logging Section	Department of Environment & Conservation	08/13/2024	08/14/2024	08/19/2024
TN	SRP	State Remediation Program List	Department of Environemtn & Conservation	06/24/2024	06/25/2024	09/17/2024
TN	SWF/LF	Solid Waste Disposal Facilities	Department of Environment and Conservation	06/04/2024	06/05/2024	08/30/2024
TN	SWM COMPLAINTS	Solid Waste Management Complaints	Department of Environment & Conservation	02/21/2024	02/22/2024	05/21/2024
TN	SWRCY	Recycling Facilities Listing	Department of Environment & Conservation	06/04/2024	06/05/2024	08/30/2024
TN	UST	Facility and Tank Report	Department of Environment and Conservation	04/30/2024	05/08/2024	08/02/2024
TN	VAPOR	VOC Sites Listing	Department of Environment & Conservation	06/27/2024	06/27/2024	07/02/2024
TN	VCP	Voluntary Cleanup, Oversight and Assistance Program Sites	Department of Environmental & Conservation	06/24/2024	06/25/2024	09/17/2024
US	2020 COR ACTION	2020 Corrective Action Program List	Environmental Protection Agency	09/30/2017	05/08/2018	07/20/2018
US	ABANDONED MINES	Abandoned Mines	Department of Interior	06/13/2024	06/14/2024	09/04/2024
US	AQUEOUS FOAM NRC	Aqueous Foam Related Incidents Listing	Environmental Protection Agency	07/01/2024	07/01/2024	07/12/2024
US	BIOSOLIDS	ICIS-NPDES Biosolids Facility Data	Environmental Protection Agency	10/13/2024	10/16/2024	10/23/2024
US	BRS	Biennial Reporting System	EPA/NTIS	12/31/2021	03/09/2023	03/20/2023
US	COAL ASH DOE	Steam-Electric Plant Operation Data	Department of Energy	12/31/2022	11/27/2023	02/22/2024
US	COAL ASH EPA	Coal Combustion Residues Surface Impoundments List	Environmental Protection Agency	01/12/2017	03/05/2019	11/11/2019
US	CONSENT	Superfund (CERCLA) Consent Decrees	Department of Justice, Consent Decree Library	06/30/2024	07/08/2024	09/26/2024
US	CORRACTS	Corrective Action Report	EPA	06/03/2024	06/07/2024	06/20/2024
US	DEBRIS REGION 9	Torres Martinez Reservation Illegal Dump Site Locations	EPA, Region 9	01/12/2009	05/07/2009	09/21/2009
US	DOCKET HWC	Hazardous Waste Compliance Docket Listing	Environmental Protection Agency	05/06/2021	05/21/2021	08/11/2021
US	DOD	Department of Defense Sites	USGS	06/07/2021	07/13/2021	03/09/2022
US	DOT OPS	Incident and Accident Data	Department of Transporation, Office of Pipeli	01/02/2020	01/28/2020	04/17/2020
US	Delisted NPL	National Priority List Deletions	EPA	09/25/2024	10/01/2024	10/23/2024
US	E MANIFEST	Hazardous Waste Electronic Manifest System	Environmental Protection Agency	07/24/2023	04/18/2024	06/06/2024
US	ECHO	Enforcement & Compliance History Information	Environmental Protection Agency	06/23/2024	06/28/2024	07/12/2024
US	EDR Hist Auto	EDR Exclusive Historical Auto Stations	EDR, Inc.			
US	EDR Hist Cleaner	EDR Exclusive Historical Cleaners	EDR, Inc.			



## GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

St	Acronym	Full Name	Government Agency	Gov Date	Arvl. Date	Active Date
US	EDR MGP	EDR Proprietary Manufactured Gas Plants	EDR, Inc.			
US	EPA WATCH LIST	EPA Watch List	Environmental Protection Agency	08/30/2013	03/21/2014	06/17/2014
US	ERNS	Emergency Response Notification System	National Response Center, United States Coast	06/11/2024	06/17/2024	09/04/2024
US	FEDERAL FACILITY	Federal Facility Site Information listing	Environmental Protection Agency	06/07/2024	06/25/2024	09/19/2024
US	FEDLAND	Federal and Indian Lands	U.S. Geological Survey	04/02/2018	04/11/2018	11/06/2019
US	FEMA UST	Underground Storage Tank Listing	FEMA	03/15/2024	03/19/2024	06/17/2024
US	FINDS	Facility Index System/Facility Registry System	EPA	08/13/2024	08/20/2024	08/28/2024
US	FTTS	FIFRA/ TSCA Tracking System - FIFRA (Federal Insecticide, Fu	EPA/Office of Prevention, Pesticides and Toxi	04/09/2009	04/16/2009	05/11/2009
US	FTTS INSP	FIFRA/ TSCA Tracking System - FIFRA (Federal Insecticide, Fu	EPA	04/09/2009	04/16/2009	05/11/2009
US	FUDS	Formerly Used Defense Sites	U.S. Army Corps of Engineers	07/31/2024	08/12/2024	10/09/2024
US	FUELS PROGRAM	EPA Fuels Program Registered Listing	EPA	08/13/2024	08/13/2024	10/09/2024
US	FUSRAP	Formerly Utilized Sites Remedial Action Program	Department of Energy	03/03/2023	03/03/2023	06/09/2023
US	HIST FTTS	FIFRA/TSCA Tracking System Administrative Case Listing	Environmental Protection Agency	10/19/2006	03/01/2007	04/10/2007
US	HIST FTTS INSP	FIFRA/TSCA Tracking System Inspection & Enforcement Case Lis	Environmental Protection Agency	10/19/2006	03/01/2007	04/10/2007
US	HMIRS	Hazardous Materials Information Reporting System	U.S. Department of Transportation	06/14/2024	06/17/2024	06/24/2024
US	ICIS	Integrated Compliance Information System	Environmental Protection Agency	11/18/2016	11/23/2016	02/10/2017
US	IHS OPEN DUMPS	Open Dumps on Indian Land	Department of Health & Human Services, Indian	04/01/2014	08/06/2014	01/29/2015
US	INDIAN LUST R1	Leaking Underground Storage Tanks on Indian Land	EPA Region 1	05/07/2024	05/30/2024	08/28/2024
US	INDIAN LUST R10	Leaking Underground Storage Tanks on Indian Land	EPA Region 10	05/07/2024	05/30/2024	08/28/2024
US	INDIAN LUST R4	Leaking Underground Storage Tanks on Indian Land	EPA Region 4	05/07/2024	05/30/2024	08/28/2024
US	INDIAN LUST R5	Leaking Underground Storage Tanks on Indian Land	EPA, Region 5	04/11/2024	05/30/2024	08/28/2024
US	INDIAN LUST R6	Leaking Underground Storage Tanks on Indian Land	EPA Region 6	05/07/2024	05/30/2024	08/28/2024
US	INDIAN LUST R7	Leaking Underground Storage Tanks on Indian Land	EPA Region 7	05/07/2024	05/30/2024	08/28/2024
US	INDIAN LUST R8	Leaking Underground Storage Tanks on Indian Land	EPA Region 8	05/07/2024	05/30/2024	08/28/2024
US	INDIAN LUST R9	Leaking Underground Storage Tanks on Indian Land	Environmental Protection Agency	05/07/2024	05/30/2024	08/28/2024
US	INDIAN ODI	Report on the Status of Open Dumps on Indian Lands	Environmental Protection Agency	12/31/1998	12/03/2007	01/24/2008
US	INDIAN RESERV	Indian Reservations	USGS	12/31/2014	07/14/2015	01/10/2017
US	INDIAN UST R1	Underground Storage Tanks on Indian Land	EPA, Region 1	05/14/2024	05/30/2024	08/28/2024
US	INDIAN UST R10	Underground Storage Tanks on Indian Land	EPA Region 10	05/14/2024	05/30/2024	08/28/2024
US	INDIAN UST R4	Underground Storage Tanks on Indian Land	EPA Region 4	05/14/2024	05/30/2024	08/28/2024
US	INDIAN UST R5	Underground Storage Tanks on Indian Land	EPA Region 5	04/11/2024	05/30/2024	08/28/2024
US	INDIAN UST R6	Underground Storage Tanks on Indian Land	EPA Region 6	05/14/2024	05/30/2024	08/28/2024
US	INDIAN UST R7	Underground Storage Tanks on Indian Land	EPA Region 7	05/14/2024	05/30/2024	08/28/2024
US	INDIAN UST R8	Underground Storage Tanks on Indian Land	EPA Region 8	05/14/2024	05/30/2024	08/28/2024
US	INDIAN UST R9	Underground Storage Tanks on Indian Land	EPA Region 9	05/14/2024	05/30/2024	08/28/2024
US	INDIAN VCP R1	Voluntary Cleanup Priority Listing	EPA, Region 1	07/27/2015	09/29/2015	02/18/2016
US	INDIAN VCP R7	Voluntary Cleanup Priority Lisitng	EPA, Region 7	03/20/2008	04/22/2008	05/19/2008
US	LEAD SMELTER 1	Lead Smelter Sites	Environmental Protection Agency	09/25/2024	10/01/2024	10/23/2024
US	LEAD SMELTER 2	Lead Smelter Sites	American Journal of Public Health	04/05/2001	10/27/2010	12/02/2010
US	LIENS 2	CERCLA Lien Information	Environmental Protection Agency	09/25/2024	10/01/2024	10/23/2024
US	LUCIS	Land Use Control Information System	Department of the Navy	07/15/2024	07/17/2024	10/09/2024
US	MINES MRDS	Mineral Resources Data System	USGS	08/23/2022	11/22/2022	02/28/2023
US	MINES VIOLATIONS	MSHA Violation Assessment Data	DOL, Mine Safety & Health Admi	10/01/2024	10/02/2024	10/09/2024
US	MLTS	Material Licensing Tracking System	Nuclear Regulatory Commission	06/06/2024	06/07/2024	09/04/2024
US	NPL	National Priority List	EPA	09/25/2024	10/01/2024	10/23/2024
US	NPL LIENS	Federal Superfund Liens	EPA	10/15/1991	02/02/1994	03/30/1994
US	ODI	Open Dump Inventory	Environmental Protection Agency	06/30/1985	08/09/2004	09/17/2004

## GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

St	Acronym	Full Name	Government Agency	Gov Date	Arvl. Date	Active Date
US	PADS	PCB Activity Database System	EPA	05/23/2024	07/02/2024	09/26/2024
US	PCB TRANSFORMER	PCB Transformer Registration Database	Environmental Protection Agency	09/13/2019	11/06/2019	02/10/2020
US	PCS	Permit Compliance System	EPA, Office of Water	12/16/2016	01/06/2017	03/10/2017
US	PCS ENF	Enforcement data	EPA	12/31/2014	02/05/2015	03/06/2015
US	PFAS ATSDR	PFAS Contamination Site Location Listing	Department of Health & Human Services	06/24/2020	03/17/2021	11/08/2022
US	PFAS ECHO	Facilities in Industries that May Be Handling PFAS Listing	Environmental Protection Agency	07/01/2024	07/01/2024	07/12/2024
US	PFAS ECHO FIRE TRAIN	Facilities in Industries that May Be Handling PFAS Listing	Environmental Protection Agency	07/01/2024	07/01/2024	07/12/2024
US	PFAS FEDERAL SITES	Federal Sites PFAS Information	Environmental Protection Agency	07/01/2024	07/01/2024	07/12/2024
US	PFAS NPDES	Clean Water Act Discharge Monitoring Information	Environmental Protection Agency	07/01/2024	07/01/2024	07/12/2024
US	PFAS NPL	Superfund Sites with PFAS Detections Information	Environmental Protection Agency	07/01/2024	07/01/2024	07/12/2024
US	PFAS PROJECT	NORTHEASTERN UNIVERSITY PFAS PROJECT	Social Science Environmental Health Research	05/19/2023	04/05/2024	06/06/2024
US	PFAS PT 139 AIRPORT	All Certified Part 139 Airports PFAS Information Listing	Environmental Protection Agency	07/01/2024	07/01/2024	07/12/2024
US	PFAS RCRA MANIFEST	PFAS Transfers Identified In the RCRA Database Listing	Environmental Protection Agency	07/01/2024	07/01/2024	07/12/2024
US	PFAS TRIS	List of PFAS Added to the TRI	Environmental Protection Agency	07/01/2024	07/01/2024	07/12/2024
US	PFAS TSCA	PFAS Manufacture and Imports Information	Environmental Protection Agency	07/01/2024	07/01/2024	07/12/2024
US	PFAS WQP	Ambient Environmental Sampling for PFAS	Environmental Protection Agency	07/01/2024	07/01/2024	07/12/2024
US	PRP	Potentially Responsible Parties	EPA	09/19/2023	10/03/2023	10/19/2023
US	Proposed NPL	Proposed National Priority List Sites	EPA	09/25/2024	10/01/2024	10/23/2024
US	RAATS	RCRA Administrative Action Tracking System	EPA	04/17/1995	07/03/1995	08/07/1995
US	RADINFO	Radiation Information Database	Environmental Protection Agency	07/01/2019	07/01/2019	09/23/2019
US	RCRA NonGen / NLR	RCRA - Non Generators / No Longer Regulated	Environmental Protection Agency	06/03/2024	06/07/2024	06/20/2024
US	RCRA-LQG	RCRA - Large Quantity Generators	Environmental Protection Agency	06/03/2024	06/07/2024	06/20/2024
US	RCRA-SQG	RCRA - Small Quantity Generators	Environmental Protection Agency	06/03/2024	06/07/2024	06/20/2024
US	RCRA-TSDF	RCRA - Treatment, Storage and Disposal	Environmental Protection Agency	06/03/2024	06/07/2024	06/20/2024
US	RCRA-VSQG	RCRA - Very Small Quantity Generators (Formerly Conditionall	Environmental Protection Agency	06/03/2024	06/07/2024	06/20/2024
US	RMP	Risk Management Plans	Environmental Protection Agency	07/12/2024	07/17/2024	10/09/2024
US	ROD	Records Of Decision	EPA	08/27/2024	09/03/2024	09/19/2024
US	SCRD DRYCLEANERS	State Coalition for Remediation of Drycleaners Listing	Environmental Protection Agency	07/30/2021	02/03/2023	02/10/2023
US	SEMS	Superfund Enterprise Management System	EPA	09/25/2024	10/01/2024	10/23/2024
US	SEMS-ARCHIVE	Superfund Enterprise Management System Archive	EPA	09/25/2024	10/01/2024	10/23/2024
US	SSTS	Section 7 Tracking Systems	EPA	07/11/2024	07/11/2024	07/12/2024
US	TRIS	Toxic Chemical Release Inventory System	EPA	12/31/2022	11/13/2023	02/07/2024
US	TSCA	Toxic Substances Control Act	EPA	12/31/2020	06/14/2022	03/24/2023
US	UMTRA	Uranium Mill Tailings Sites	Department of Energy	05/08/2024	08/14/2024	08/28/2024
US	US AIRS (AFS)	Aerometric Information Retrieval System Facility Subsystem (	EPA	10/12/2016	10/26/2016	02/03/2017
US	US AIRS MINOR	Air Facility System Data	EPA	10/12/2016	10/26/2016	02/03/2017
US	US BROWNFIELDS	A Listing of Brownfields Sites	Environmental Protection Agency	06/10/2024	06/11/2024	09/04/2024
US	US CDL	Clandestine Drug Labs	Drug Enforcement Administration	05/20/2024	08/19/2024	10/09/2024
US	US ENG CONTROLS	Engineering Controls Sites List	Environmental Protection Agency	07/24/2024	08/08/2024	08/15/2024
US	US FIN ASSUR	Financial Assurance Information	Environmental Protection Agency	06/10/2024	06/17/2024	09/04/2024
US	US HIST CDL	National Clandestine Laboratory Register	Drug Enforcement Administration	05/20/2024	08/19/2024	10/09/2024
US	US INST CONTROLS	Institutional Controls Sites List	Environmental Protection Agency	07/24/2024	08/08/2024	08/15/2024
US	US MINES	Mines Master Index File	Department of Labor, Mine Safety and Health A	08/06/2024	08/14/2024	08/15/2024
US	US MINES 2	Ferrous and Nonferrous Metal Mines Database Listing	USGS	05/02/2024	08/20/2024	10/09/2024
US	US MINES 3	Active Mines & Mineral Plants Database Listing	USGS	04/14/2011	06/08/2011	09/13/2011
US	UXO	Unexploded Ordnance Sites	Department of Defense	09/06/2023	09/13/2023	12/11/2023

## GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

St	Acronym	Full Name	Government Agency	Gov Date	Arvl. Date	Active Date
CT	CT MANIFEST	Hazardous Waste Manifest Data	Department of Energy & Environmental Protecti	05/05/2024	05/07/2024	08/01/2024
NY	NY MANIFEST	Facility and Manifest Data	Department of Environmental Conservation	12/31/2019	11/30/2023	12/01/2023
PA	PA MANIFEST	Manifest Information	Department of Environmental Protection	06/30/2018	07/19/2019	09/10/2019
RI	RI MANIFEST	Manifest information	Department of Environmental Management	12/31/2020	11/30/2021	02/18/2022
VT	VT MANIFEST	Hazardous Waste Manifest Data	Department of Environmental Conservation	10/28/2019	10/29/2019	01/09/2020
WI	WI MANIFEST	Manifest Information	Department of Natural Resources	05/31/2018	06/19/2019	09/03/2019
US	AHA Hospitals	Sensitive Receptor: AHA Hospitals	American Hospital Association, Inc.			
US	Medical Centers	Sensitive Receptor: Medical Centers	Centers for Medicare & Medicaid Services			
US	Nursing Homes	Sensitive Receptor: Nursing Homes	National Institutes of Health			
US	Public Schools	Sensitive Receptor: Public Schools	National Center for Education Statistics			
US	Private Schools	Sensitive Receptor: Private Schools	National Center for Education Statistics			
TN	Daycare Centers	Sensitive Receptor: Child Care Listing	Department Of Human Services			
US	Flood Zones	100-year and 500-year flood zones	Emergency Management Agency (FEMA)			
US	NWI	National Wetlands Inventory	U.S. Fish and Wildlife Service			
TN	State Wetlands	Wetland Inventory	Department of Environment & Conservation			
US	Topographic Map	Current USGS 7.5 Minute Topographic Map	U.S. Geological Survey			
US	Oil/Gas Pipelines		Endeavor Business Media			
US	Electric Power Transmission Line Data		Endeavor Business Media			

### STREET AND ADDRESS INFORMATION

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## **GEOCHECK<sup>®</sup> - PHYSICAL SETTING SOURCE ADDENDUM**

### **TARGET PROPERTY ADDRESS**

FORMER WAYNES PINBALL PALACE  
167 CHELSEA AVENUE  
MEMPHIS, TN 38107

### **TARGET PROPERTY COORDINATES**

Latitude (North):	35.163268 - 35° 9' 47.76"
Longitude (West):	90.043696 - 90° 2' 37.31"
Universal Tranverse Mercator:	Zone 15
UTM X (Meters):	769277.5
UTM Y (Meters):	3894954.0
Elevation:	248 ft. above sea level

### **USGS TOPOGRAPHIC MAP**

Target Property Map:	50021928 NORTHWEST MEMPHIS, TN
Version Date:	2022

EDR's GeoCheck Physical Setting Source Addendum is provided to assist the environmental professional in forming an opinion about the impact of potential contaminant migration.

Assessment of the impact of contaminant migration generally has two principle investigative components:

1. Groundwater flow direction, and
2. Groundwater flow velocity.

Groundwater flow direction may be impacted by surface topography, hydrology, hydrogeology, characteristics of the soil, and nearby wells. Groundwater flow velocity is generally impacted by the nature of the geologic strata.

# GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

## GROUNDWATER FLOW DIRECTION INFORMATION

Groundwater flow direction for a particular site is best determined by a qualified environmental professional using site-specific well data. If such data is not reasonably ascertainable, it may be necessary to rely on other sources of information, such as surface topographic information, hydrologic information, hydrogeologic data collected on nearby properties, and regional groundwater flow information (from deep aquifers).

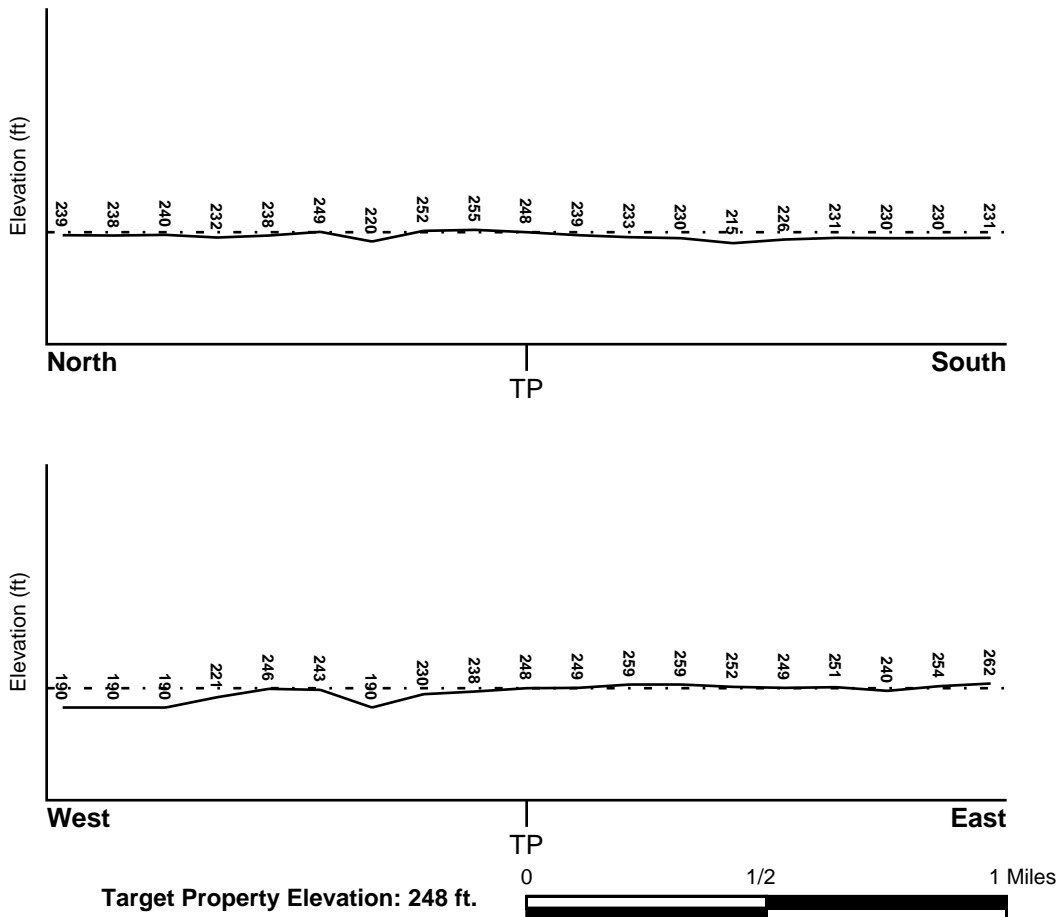
## TOPOGRAPHIC INFORMATION

Surface topography may be indicative of the direction of surficial groundwater flow. This information can be used to assist the environmental professional in forming an opinion about the impact of nearby contaminated properties or, should contamination exist on the target property, what downgradient sites might be impacted.

## TARGET PROPERTY TOPOGRAPHY

General Topographic Gradient: General WSW

## SURROUNDING TOPOGRAPHY: ELEVATION PROFILES



Source: Topography has been determined from the USGS 7.5' Digital Elevation Model and should be evaluated on a relative (not an absolute) basis. Relative elevation information between sites of close proximity should be field verified.



# GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

## HYDROLOGIC INFORMATION

Surface water can act as a hydrologic barrier to groundwater flow. Such hydrologic information can be used to assist the environmental professional in forming an opinion about the impact of nearby contaminated properties or, should contamination exist on the target property, what downgradient sites might be impacted.

Refer to the Physical Setting Source Map following this summary for hydrologic information (major waterways and bodies of water).

## **FEMA FLOOD ZONE**

<u>Flood Plain Panel at Target Property</u>	<u>FEMA Source Type</u>
47157C0270F	FEMA FIRM Flood data
<u>Additional Panels in search area:</u>	<u>FEMA Source Type</u>
Not Reported	

## **NATIONAL WETLAND INVENTORY**

<u>NWI Quad at Target Property</u>	<u>NWI Electronic Data Coverage</u>
NORTHWEST MEMPHIS	YES - refer to the Overview Map and Detail Map

## HYDROGEOLOGIC INFORMATION

Hydrogeologic information obtained by installation of wells on a specific site can often be an indicator of groundwater flow direction in the immediate area. Such hydrogeologic information can be used to assist the environmental professional in forming an opinion about the impact of nearby contaminated properties or, should contamination exist on the target property, what downgradient sites might be impacted.

## **AQUIFLOW®**

Search Radius: 1.000 Mile.

EDR has developed the AQUIFLOW Information System to provide data on the general direction of groundwater flow at specific points. EDR has reviewed reports submitted by environmental professionals to regulatory authorities at select sites and has extracted the date of the report, groundwater flow direction as determined hydrogeologically, and the depth to water table.

<u>MAP ID</u>	<u>LOCATION FROM TP</u>	<u>GENERAL DIRECTION GROUNDWATER FLOW</u>
8	1/4 - 1/2 Mile SSW	NE
C9	1/4 - 1/2 Mile East	VARIES
18	1/2 - 1 Mile SE	SW
1G	1/4 - 1/2 Mile East	VARIES
2G	1/4 - 1/2 Mile SSW	NE
3G	1/2 - 1 Mile SE	SW

For additional site information, refer to Physical Setting Source Map Findings.

## **GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY**

### **GROUNDWATER FLOW VELOCITY INFORMATION**

Groundwater flow velocity information for a particular site is best determined by a qualified environmental professional using site specific geologic and soil strata data. If such data are not reasonably ascertainable, it may be necessary to rely on other sources of information, including geologic age identification, rock stratigraphic unit and soil characteristics data collected on nearby properties and regional soil information. In general, contaminant plumes move more quickly through sandy-gravelly types of soils than silty-clayey types of soils.

### **GEOLOGIC INFORMATION IN GENERAL AREA OF TARGET PROPERTY**

Geologic information can be used by the environmental professional in forming an opinion about the relative speed at which contaminant migration may be occurring.

#### **ROCK STRATIGRAPHIC UNIT**

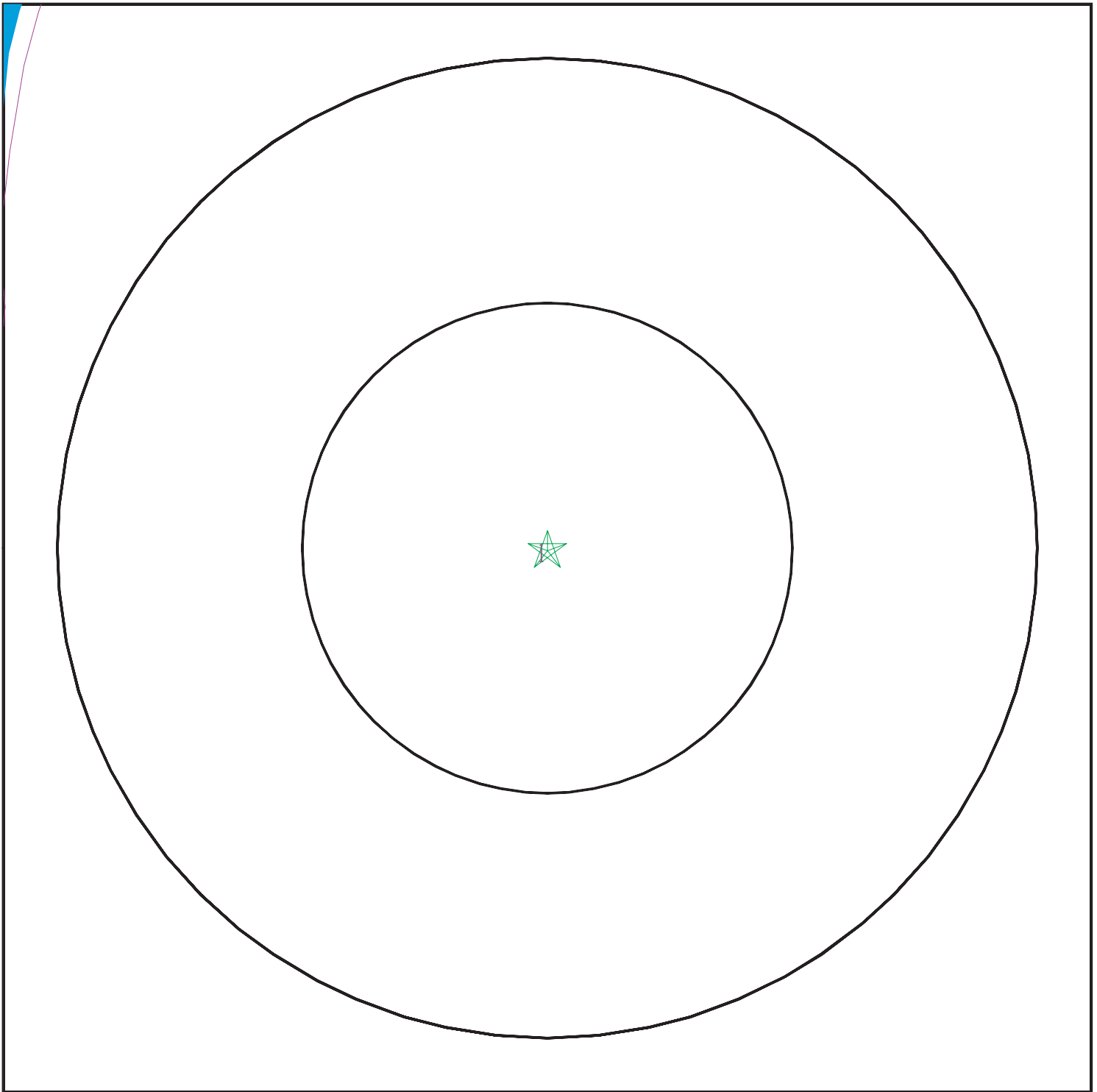
Era: Cenozoic  
System: Tertiary  
Series: Eocene Jackson Group  
Code: Te3 (*decoded above as Era, System & Series*)

#### **GEOLOGIC AGE IDENTIFICATION**

Category: Stratified Sequence

Geologic Age and Rock Stratigraphic Unit Source: P.G. Schruben, R.E. Arndt and W.J. Bawiec, Geology of the Conterminous U.S. at 1:2,500,000 Scale - a digital representation of the 1974 P.B. King and H.M. Beikman Map, USGS Digital Data Series DDS - 11 (1994).

# SSURGO SOIL MAP - 7802112.2s



- ★ Target Property
- ∩ SSURGO Soil
- ∩ Water



SITE NAME: Former Waynes Pinball Palace  
ADDRESS: 167 Chelsea Avenue  
Memphis TN 38107  
LAT/LONG: 35.163268 / 90.043696

CLIENT: Terracon, Inc.  
CONTACT: Audrey Price  
INQUIRY #: 7802112.2s  
DATE: October 24, 2024 10:25 am

# GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

## DOMINANT SOIL COMPOSITION IN GENERAL AREA OF TARGET PROPERTY

The U.S. Department of Agriculture's (USDA) Soil Conservation Service (SCS) leads the National Cooperative Soil Survey (NCSS) and is responsible for collecting, storing, maintaining and distributing soil survey information for privately owned lands in the United States. A soil map in a soil survey is a representation of soil patterns in a landscape. The following information is based on Soil Conservation Service SSURGO data.

### Soil Map ID: 1

Soil Component Name: GRADED LAND (Udorthents)

Soil Surface Texture: silt loam

Hydrologic Group: Class B - Moderate infiltration rates. Deep and moderately deep, moderately well and well drained soils with moderately coarse textures.

Soil Drainage Class: Well drained

Hydric Status: Not hydric

Corrosion Potential - Uncoated Steel: Low

Depth to Bedrock Min: > 0 inches

Depth to Watertable Min: > 0 inches

Soil Layer Information							
Layer	Boundary		Soil Texture Class	Classification		Saturated hydraulic conductivity micro m/sec	Soil Reaction (pH)
	Upper	Lower		AASHTO Group	Unified Soil		
1	0 inches	59 inches	silt loam	Not reported	Not reported	Max: 14 Min: 4	Max: 8.4 Min: 6.1

## LOCAL / REGIONAL WATER AGENCY RECORDS

EDR Local/Regional Water Agency records provide water well information to assist the environmental professional in assessing sources that may impact ground water flow direction, and in forming an opinion about the impact of contaminant migration on nearby drinking water wells.

## WELL SEARCH DISTANCE INFORMATION

<u>DATABASE</u>	<u>SEARCH DISTANCE (miles)</u>
Federal USGS	1.000
Federal FRDS PWS	Nearest PWS within 1 mile
State Database	1.000

# GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

## FEDERAL USGS WELL INFORMATION

MAP ID	WELL ID	LOCATION FROM TP
A2	USGS40001143980	1/8 - 1/4 Mile West
C10	USGS40001143981	1/4 - 1/2 Mile East
D12	USGS40001143953	1/4 - 1/2 Mile South
D13	USGS40001143954	1/4 - 1/2 Mile South
E15	USGS40001143939	1/2 - 1 Mile SSE
E16	USGS40001143938	1/2 - 1 Mile SSE
17	USGS40001143985	1/2 - 1 Mile WNW
F20	USGS40001143951	1/2 - 1 Mile SE
23	USGS40001143976	1/2 - 1 Mile East
F24	USGS40001143946	1/2 - 1 Mile SE
F25	USGS40001143947	1/2 - 1 Mile SE
F26	USGS40001143948	1/2 - 1 Mile SE
G29	USGS40001144030	1/2 - 1 Mile North
H31	USGS40001144019	1/2 - 1 Mile NE
I34	USGS40001143929	1/2 - 1 Mile SE
I35	USGS40001143930	1/2 - 1 Mile SE
J36	USGS40001143969	1/2 - 1 Mile ESE
I37	USGS40001143928	1/2 - 1 Mile SE
J38	USGS40001143968	1/2 - 1 Mile ESE
I39	USGS40001143927	1/2 - 1 Mile SE

## FEDERAL FRDS PUBLIC WATER SUPPLY SYSTEM INFORMATION

MAP ID	WELL ID	LOCATION FROM TP
No PWS System Found		

Note: PWS System location is not always the same as well location.

## STATE DATABASE WELL INFORMATION

MAP ID	WELL ID	LOCATION FROM TP
1	TN8000000155510	0 - 1/8 Mile WSW
A3	TN8000000155508	1/8 - 1/4 Mile West
A4	TN8000000155509	1/8 - 1/4 Mile West
B5	TN8000000155315	1/4 - 1/2 Mile NNE
B6	TN8000000155324	1/4 - 1/2 Mile NNE
B7	TN8000000155314	1/4 - 1/2 Mile NNE
D11	TN8000000155544	1/4 - 1/2 Mile South
E14	TN8000000155677	1/2 - 1 Mile SSE
19	TN8000000155671	1/2 - 1 Mile West
F21	TN8000000155982	1/2 - 1 Mile SE
22	TN8000000155318	1/2 - 1 Mile North
G27	TN8000000155317	1/2 - 1 Mile North
G28	TN8000000155316	1/2 - 1 Mile North
H30	TN8000000155361	1/2 - 1 Mile NE
I32	TN8000000155994	1/2 - 1 Mile SE
I33	TN8000000155978	1/2 - 1 Mile SE
40	TN8000000155975	1/2 - 1 Mile SE



# GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

## STATE DATABASE WELL INFORMATION

MAP ID

WELL ID

LOCATION  
FROM TP

## OTHER STATE DATABASE INFORMATION

## STATE OIL/GAS WELL INFORMATION

MAP ID

WELL ID

LOCATION  
FROM TP

1

TNOG12000010055

1/2 - 1 Mile East

# PHYSICAL SETTING SOURCE MAP - 7802112.2s



- County Boundary
- Major Roads
- Contour Lines
- Airports
- Earthquake epicenter, Richter 5 or greater
- Water Wells
- Public Water Supply Wells
- Cluster of Multiple Icons

- Groundwater Flow Direction
- Indeterminate Groundwater Flow at Location
- Groundwater Flow Varies at Location
- Oil, gas or related wells

SITE NAME: Former Waynes Pinball Palace  
 ADDRESS: 167 Chelsea Avenue  
 Memphis TN 38107  
 LAT/LONG: 35.163268 / 90.043696

CLIENT: Terracon, Inc.  
 CONTACT: Audrey Price  
 INQUIRY #: 7802112.2s  
 DATE: October 24, 2024 10:25 am

# GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Map ID  
 Direction  
 Distance  
 Elevation

Database      EDR ID Number

**1**  
**WSW**  
**0 - 1/8 Mile**  
**Lower**

**TN WELLS      TN8000000155510**

Well Number:	15709500	Well Use:	Industrial
Completion Date:	Not Reported	Total Depth (ft):	320
Completion Est Yield (gpm):	0	Casing Type:	Not Reported
Casing Feet Below Ground:	0	License Code:	29
Driller Tag #:	Not Reported	Driller Report ID:	0
Inspection Date:	Not Reported	Inspection Tag #:	0
Completion Static Levels:	84	Finish Type:	Not Reported
Finish From (ft):	0	Finish to (ft):	0
Form Log:	No		

**A2**  
**West**  
**1/8 - 1/4 Mile**  
**Lower**

**FED USGS      USGS40001143980**

Organization ID:	USGS-TN	Organization Name:	USGS Tennessee Water Science Center
Monitor Location:	SH:O-016	Type:	Well
Description:	Not Reported	HUC:	08010100
Drainage Area:	Not Reported	Drainage Area Units:	Not Reported
Contrib Drainage Area:	Not Reported	Contrib Drainage Area Unts:	Not Reported
Aquifer:	Mississippi embayment aquifer system		
Formation Type:	Memphis Sand	Aquifer Type:	Not Reported
Construction Date:	Not Reported	Well Depth:	420
Well Depth Units:	ft	Well Hole Depth:	Not Reported
Well Hole Depth Units:	Not Reported		

**A3**  
**West**  
**1/8 - 1/4 Mile**  
**Lower**

**TN WELLS      TN8000000155508**

Well Number:	15709498	Well Use:	Industrial
Completion Date:	Not Reported	Total Depth (ft):	388
Completion Est Yield (gpm):	0	Casing Type:	Not Reported
Casing Feet Below Ground:	0	License Code:	740
Driller Tag #:	Not Reported	Driller Report ID:	0
Inspection Date:	Not Reported	Inspection Tag #:	0
Completion Static Levels:	33	Finish Type:	Not Reported
Finish From (ft):	0	Finish to (ft):	0
Form Log:	No		

**A4**  
**West**  
**1/8 - 1/4 Mile**  
**Lower**

**TN WELLS      TN8000000155509**

Well Number:	15709499	Well Use:	Industrial
Completion Date:	Not Reported	Total Depth (ft):	420
Completion Est Yield (gpm):	0	Casing Type:	Not Reported

## GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Casing Feet Below Ground:	0	License Code:	29
Driller Tag #:	Not Reported	Driller Report ID:	0
Inspection Date:	Not Reported	Inspection Tag #:	0
Completion Static Levels:	0	Finish Type:	Not Reported
Finish From (ft):	0	Finish to (ft):	0
Form Log:	No		

**B5**  
**NNE**  
**1/4 - 1/2 Mile**  
**Lower**

**TN WELLS    TN8000000155315**

Well Number:	15701491	Well Use:	Industrial
Completion Date:	14-DEC-87	Total Depth (ft):	542
Completion Est Yield (gpm):	1000	Casing Type:	Steel
Casing Feet Below Ground:	439	License Code:	29
Driller Tag #:	Not Reported	Driller Report ID:	448
Inspection Date:	Not Reported	Inspection Tag #:	0
Completion Static Levels:	107	Finish Type:	Screen
Finish From (ft):	448	Finish to (ft):	538
Form Log:	No		

**B6**  
**NNE**  
**1/4 - 1/2 Mile**  
**Lower**

**TN WELLS    TN8000000155324**

Well Number:	20020844	Well Use:	Industrial
Completion Date:	05-MAR-02	Total Depth (ft):	700
Completion Est Yield (gpm):	2200	Casing Type:	Steel
Casing Feet Below Ground:	700	License Code:	728
Driller Tag #:	D0046328	Driller Report ID:	595
Inspection Date:	Not Reported	Inspection Tag #:	0
Completion Static Levels:	77	Finish Type:	Screen
Finish From (ft):	595	Finish to (ft):	595
Form Log:	Yes		

**B7**  
**NNE**  
**1/4 - 1/2 Mile**  
**Lower**

**TN WELLS    TN8000000155314**

Well Number:	15701351	Well Use:	Residential
Completion Date:	09-SEP-85	Total Depth (ft):	335
Completion Est Yield (gpm):	15	Casing Type:	Plastic
Casing Feet Below Ground:	315	License Code:	52
Driller Tag #:	Not Reported	Driller Report ID:	0
Inspection Date:	Not Reported	Inspection Tag #:	0
Completion Static Levels:	20	Finish Type:	Screen
Finish From (ft):	315	Finish to (ft):	335
Form Log:	No		

## GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Map ID  
Direction  
Distance  
Elevation

Database      EDR ID Number

<b>8</b> <b>SSW</b> <b>1/4 - 1/2 Mile</b> <b>Lower</b>	Shallow Water Depth: 5.92 Groundwater Flow: NE Deep Water Depth: 11.75 Average Water Depth: Not Reported Date: 8/1992	<b>AQUIFLOW</b>	<b>17540</b>
---	---	-----------------	--------------

<b>C9</b> <b>East</b> <b>1/4 - 1/2 Mile</b> <b>Higher</b>	Shallow Water Depth: 5.85 Groundwater Flow: VARIES Deep Water Depth: 11.99 Average Water Depth: Not Reported Date: 7/30/98	<b>AQUIFLOW</b>	<b>20564</b>
--	--	-----------------	--------------

<b>C10</b> <b>East</b> <b>1/4 - 1/2 Mile</b> <b>Higher</b>		<b>FED USGS</b>	<b>USGS40001143981</b>
---	--	-----------------	------------------------

Organization ID:	USGS-TN	Organization Name:	USGS Tennessee Water Science Center
Monitor Location:	SH:O-184	Type:	Well
Description:	Not Reported	HUC:	Not Reported
Drainage Area:	Not Reported	Drainage Area Units:	Not Reported
Contrib Drainage Area:	Not Reported	Contrib Drainage Area Units:	Not Reported
Aquifer:	Not Reported	Formation Type:	Not Reported
Aquifer Type:	Not Reported	Construction Date:	Not Reported
Well Depth:	570	Well Depth Units:	ft
Well Hole Depth:	570	Well Hole Depth Units:	ft

<b>D11</b> <b>South</b> <b>1/4 - 1/2 Mile</b> <b>Lower</b>		<b>TN WELLS</b>	<b>TN8000000155544</b>
---	--	-----------------	------------------------

Well Number:	15709681	Well Use:	Test
Completion Date:	Not Reported	Total Depth (ft):	98
Completion Est Yield (gpm):	0	Casing Type:	Not Reported
Casing Feet Below Ground:	0	License Code:	740
Driller Tag #:	Not Reported	Driller Report ID:	230
Inspection Date:	Not Reported	Inspection Tag #:	0
Completion Static Levels:	0	Finish Type:	Not Reported
Finish From (ft):	0	Finish to (ft):	0
Form Log:	No		

<b>D12</b> <b>South</b> <b>1/4 - 1/2 Mile</b> <b>Lower</b>		<b>FED USGS</b>	<b>USGS40001143953</b>
---	--	-----------------	------------------------

Organization ID:	USGS-TN	Organization Name:	USGS Tennessee Water Science Center
Monitor Location:	SH:O-124	Type:	Well
Description:	Not Reported	HUC:	08010100
Drainage Area:	Not Reported	Drainage Area Units:	Not Reported
Contrib Drainage Area:	Not Reported	Contrib Drainage Area Units:	Not Reported
Aquifer:	Mississippi embayment aquifer system		



## GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Formation Type:	Claiborne Group	Aquifer Type:	Confined single aquifer
Construction Date:	19270501	Well Depth:	Not Reported
Well Depth Units:	Not Reported	Well Hole Depth:	Not Reported
Well Hole Depth Units:	Not Reported		

**D13**  
**South**  
**1/4 - 1/2 Mile**  
**Lower**

**FED USGS      USGS40001143954**

Organization ID:	USGS-TN	Organization Name:	USGS Tennessee Water Science Center
Monitor Location:	SH:0-124 DUP	Type:	Well
Description:	Not Reported	HUC:	08010100
Drainage Area:	Not Reported	Drainage Area Units:	Not Reported
Contrib Drainage Area:	Not Reported	Contrib Drainage Area Unts:	Not Reported
Aquifer:	Mississippi embayment aquifer system		
Formation Type:	Not Reported	Aquifer Type:	Not Reported
Construction Date:	Not Reported	Well Depth:	Not Reported
Well Depth Units:	Not Reported	Well Hole Depth:	Not Reported
Well Hole Depth Units:	Not Reported		

**E14**  
**SSE**  
**1/2 - 1 Mile**  
**Lower**

**TN WELLS      TN8000000155677**

Well Number:	15709496	Well Use:	Not Reported
Completion Date:	Not Reported	Total Depth (ft):	396
Completion Est Yield (gpm):	0	Casing Type:	Not Reported
Casing Feet Below Ground:	0	License Code:	740
Driller Tag #:	Not Reported	Driller Report ID:	0
Inspection Date:	Not Reported	Inspection Tag #:	0
Completion Static Levels:	45	Finish Type:	Not Reported
Finish From (ft):	0	Finish to (ft):	0
Form Log:	No		

**E15**  
**SSE**  
**1/2 - 1 Mile**  
**Lower**

**FED USGS      USGS40001143939**

Organization ID:	USGS-TN	Organization Name:	USGS Tennessee Water Science Center
Monitor Location:	SH:O-013	Type:	Well
Description:	Not Reported	HUC:	08010100
Drainage Area:	Not Reported	Drainage Area Units:	Not Reported
Contrib Drainage Area:	Not Reported	Contrib Drainage Area Unts:	Not Reported
Aquifer:	Mississippi embayment aquifer system		
Formation Type:	Memphis Sand	Aquifer Type:	Not Reported
Construction Date:	Not Reported	Well Depth:	396
Well Depth Units:	ft	Well Hole Depth:	Not Reported
Well Hole Depth Units:	Not Reported		

## GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Map ID  
Direction  
Distance  
Elevation

Database      EDR ID Number

**E16**  
**SSE**  
**1/2 - 1 Mile**  
**Lower**

**FED USGS      USGS40001143938**

Organization ID:	USGS-TN	Organization Name:	USGS Tennessee Water Science Center
Monitor Location:	SH:O- 13	Type:	Well
Description:	Not Reported	HUC:	08010100
Drainage Area:	Not Reported	Drainage Area Units:	Not Reported
Contrib Drainage Area:	Not Reported	Contrib Drainage Area Unts:	Not Reported
Aquifer:	Mississippi embayment aquifer system		
Formation Type:	Not Reported	Aquifer Type:	Not Reported
Construction Date:	Not Reported	Well Depth:	Not Reported
Well Depth Units:	Not Reported	Well Hole Depth:	Not Reported
Well Hole Depth Units:	Not Reported		

**17**  
**WNW**  
**1/2 - 1 Mile**  
**Higher**

**FED USGS      USGS40001143985**

Organization ID:	USGS-TN	Organization Name:	USGS Tennessee Water Science Center
Monitor Location:	Sh:O-250	Type:	Well
Description:	Test hole for MLGW Production well lot 41A		
HUC:	08010210	Drainage Area:	Not Reported
Drainage Area Units:	Not Reported	Contrib Drainage Area:	Not Reported
Contrib Drainage Area Unts:	Not Reported		
Aquifer:	Mississippi embayment aquifer system		
Formation Type:	Memphis Sand	Aquifer Type:	Confined single aquifer
Construction Date:	199305	Well Depth:	Not Reported
Well Depth Units:	Not Reported	Well Hole Depth:	1572
Well Hole Depth Units:	ft		

**18**  
**SE**  
**1/2 - 1 Mile**  
**Higher**

**AQUIFLOW      20606**

Shallow Water Depth:	7.38
Groundwater Flow:	SW
Deep Water Depth:	10.91
Average Water Depth:	Not Reported
Date:	11/7/92

**19**  
**West**  
**1/2 - 1 Mile**  
**Lower**

**TN WELLS      TN8000000155671**

Well Number:	20180014	Well Use:	Heat Pump
Completion Date:	04-DEC-17	Total Depth (ft):	30
Completion Est Yield (gpm):	0	Casing Type:	Not Reported
Casing Feet Below Ground:	0	License Code:	894
Driller Tag #:	GEO3760	Driller Report ID:	0
Inspection Date:	Not Reported	Inspection Tag #:	0
Completion Static Levels:	0	Finish Type:	Not Reported
Finish From (ft):	0	Finish to (ft):	0
Form Log:	No		

# GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Map ID  
 Direction  
 Distance  
 Elevation

Database      EDR ID Number

**F20**  
**SE**  
**1/2 - 1 Mile**  
**Higher**

**FED USGS      USGS40001143951**

Organization ID:	USGS-TN	Organization Name:	USGS Tennessee Water Science Center
Monitor Location:	SH:O-204	Type:	Well
Description:	INFORMATION COPIED FROM 1966 FORMS		
HUC:	Not Reported	Drainage Area:	Not Reported
Drainage Area Units:	Not Reported	Contrib Drainage Area:	Not Reported
Contrib Drainage Area Units:	Not Reported	Aquifer:	Not Reported
Formation Type:	Not Reported	Aquifer Type:	Not Reported
Construction Date:	Not Reported	Well Depth:	Not Reported
Well Depth Units:	Not Reported	Well Hole Depth:	510
Well Hole Depth Units:	ft		

**F21**  
**SE**  
**1/2 - 1 Mile**  
**Higher**

**TN WELLS      TN8000000155982**

Well Number:	15709720	Well Use:	Test
Completion Date:	19-JUN-69	Total Depth (ft):	510
Completion Est Yield (gpm):	0	Casing Type:	Not Reported
Casing Feet Below Ground:	0	License Code:	740
Driller Tag #:	Not Reported	Driller Report ID:	0
Inspection Date:	Not Reported	Inspection Tag #:	0
Completion Static Levels:	0	Finish Type:	Not Reported
Finish From (ft):	0	Finish to (ft):	0
Form Log:	No		

**22**  
**North**  
**1/2 - 1 Mile**  
**Lower**

**TN WELLS      TN8000000155318**

Well Number:	15709503	Well Use:	Industrial
Completion Date:	Not Reported	Total Depth (ft):	320
Completion Est Yield (gpm):	0	Casing Type:	Not Reported
Casing Feet Below Ground:	0	License Code:	29
Driller Tag #:	Not Reported	Driller Report ID:	0
Inspection Date:	Not Reported	Inspection Tag #:	0
Completion Static Levels:	74	Finish Type:	Not Reported
Finish From (ft):	0	Finish to (ft):	0
Form Log:	No		

**23**  
**East**  
**1/2 - 1 Mile**  
**Higher**

**FED USGS      USGS40001143976**

Organization ID:	USGS-TN	Organization Name:	USGS Tennessee Water Science Center
Monitor Location:	SH:O-190	Type:	Well
Description:	Not Reported	HUC:	08010210

## GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Drainage Area:	Not Reported	Drainage Area Units:	Not Reported
Contrib Drainage Area:	Not Reported	Contrib Drainage Area Unts:	Not Reported
Aquifer:	Mississippi embayment aquifer system		
Formation Type:	Memphis Sand	Aquifer Type:	Not Reported
Construction Date:	Not Reported	Well Depth:	638
Well Depth Units:	ft	Well Hole Depth:	Not Reported
Well Hole Depth Units:	Not Reported		

**F24  
SE  
1/2 - 1 Mile  
Higher**

**FED USGS    USGS40001143946**

Organization ID:	USGS-TN	Organization Name:	USGS Tennessee Water Science Center
Monitor Location:	Sh:O-179	Type:	Well
Description:	Not Reported	HUC:	08010210
Drainage Area:	Not Reported	Drainage Area Units:	Not Reported
Contrib Drainage Area:	Not Reported	Contrib Drainage Area Unts:	Not Reported
Aquifer:	Mississippi embayment aquifer system		
Formation Type:	Claiborne Group	Aquifer Type:	Confined single aquifer
Construction Date:	Not Reported	Well Depth:	472
Well Depth Units:	ft	Well Hole Depth:	482
Well Hole Depth Units:	ft		

Ground water levels,Number of Measurements:	55	Level reading date:	2005-02-01
Feet below surface:	67.28	Feet to sea level:	Not Reported
Note:	Not Reported		
Level reading date:	2004-12-20	Feet below surface:	68.58
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	2004-11-30	Feet below surface:	68.94
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	2004-10-28	Feet below surface:	69.28
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	2004-09-27	Feet below surface:	69.27
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	2004-09-02	Feet below surface:	68.79
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	2004-07-29	Feet below surface:	67.57
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	2004-06-29	Feet below surface:	67.59
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	2004-05-27	Feet below surface:	67.34
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	2004-04-29	Feet below surface:	67.26
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	2004-03-31	Feet below surface:	67.44
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	2004-03-04	Feet below surface:	67.85

## GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	2004-01-22	Feet below surface:	68.67
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	2003-12-17	Feet below surface:	69.21
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	2003-12-04	Feet below surface:	69.10
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	2003-10-29	Feet below surface:	69.84
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	2003-09-30	Feet below surface:	69.86
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	2003-09-02	Feet below surface:	69.13
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	2003-07-30	Feet below surface:	68.12
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	2003-06-27	Feet below surface:	67.26
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	2003-05-27	Feet below surface:	67.15
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	2003-04-30	Feet below surface:	67.50
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	2003-04-03	Feet below surface:	67.44
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	2003-03-04	Feet below surface:	68.14
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	2003-01-30	Feet below surface:	68.79
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	2002-12-18	Feet below surface:	69.20
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	2002-11-25	Feet below surface:	69.82
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	2002-10-30	Feet below surface:	69.97
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	2002-10-03	Feet below surface:	70.25
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	2002-09-03	Feet below surface:	69.80
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	2002-08-02	Feet below surface:	69.05
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	2002-06-28	Feet below surface:	68.28
Feet to sea level:	Not Reported	Note:	Not Reported



## GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Level reading date:	2002-05-30	Feet below surface:	67.86
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	2002-05-01	Feet below surface:	68.75
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	2002-03-29	Feet below surface:	69.55
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	2002-02-28	Feet below surface:	70.32
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	2002-01-31	Feet below surface:	70.95
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	2002-01-04	Feet below surface:	71.48
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	2001-12-07	Feet below surface:	72.80
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	2001-11-01	Feet below surface:	73.40
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	2001-09-27	Feet below surface:	73.95
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	2001-08-29	Feet below surface:	73.55
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	2001-08-02	Feet below surface:	73.02
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	2001-07-02	Feet below surface:	71.82
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	2001-05-30	Feet below surface:	71.85
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	2001-05-04	Feet below surface:	72.18
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	2001-04-04	Feet below surface:	72.40
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	2001-02-28	Feet below surface:	73.85
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	2001-02-02	Feet below surface:	74.74
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	2001-01-03	Feet below surface:	74.36
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	2000-12-01	Feet below surface:	74.72
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	2000-10-31	Feet below surface:	74.70
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	2000-09-08	Feet below surface:	73.57
Feet to sea level:	Not Reported	Note:	Not Reported

## GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Level reading date:	2000-08-02	Feet below surface:	71.43
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	2000-06-26	Feet below surface:	71.24
Feet to sea level:	Not Reported	Note:	Not Reported

**F25  
SE  
1/2 - 1 Mile  
Higher**

**FED USGS      USGS40001143947**

Organization ID:	USGS-TN	Organization Name:	USGS Tennessee Water Science Center
Monitor Location:	SH:O-179 Observation	Type:	Well
Description:	Not Reported	HUC:	08010210
Drainage Area:	Not Reported	Drainage Area Units:	Not Reported
Contrib Drainage Area:	Not Reported	Contrib Drainage Area Unts:	Not Reported
Aquifer:	Mississippi embayment aquifer system		
Formation Type:	Fort Pillow Sand of Wilcox Group		
Aquifer Type:	Not Reported	Construction Date:	Not Reported
Well Depth:	Not Reported	Well Depth Units:	Not Reported
Well Hole Depth:	Not Reported	Well Hole Depth Units:	Not Reported

**F26  
SE  
1/2 - 1 Mile  
Higher**

**FED USGS      USGS40001143948**

Organization ID:	USGS-TN	Organization Name:	USGS Tennessee Water Science Center
Monitor Location:	SH:O-132	Type:	Well
Description:	Not Reported	HUC:	Not Reported
Drainage Area:	Not Reported	Drainage Area Units:	Not Reported
Contrib Drainage Area:	Not Reported	Contrib Drainage Area Unts:	Not Reported
Aquifer:	Not Reported	Formation Type:	Not Reported
Aquifer Type:	Not Reported	Construction Date:	Not Reported
Well Depth:	1349	Well Depth Units:	ft
Well Hole Depth:	1387	Well Hole Depth Units:	ft

**G27  
North  
1/2 - 1 Mile  
Lower**

**TN WELLS      TN8000000155317**

Well Number:	15709502	Well Use:	Industrial
Completion Date:	Not Reported	Total Depth (ft):	320
Completion Est Yield (gpm):	0	Casing Type:	Not Reported
Casing Feet Below Ground:	0	License Code:	29
Driller Tag #:	Not Reported	Driller Report ID:	0
Inspection Date:	Not Reported	Inspection Tag #:	0
Completion Static Levels:	53	Finish Type:	Not Reported
Finish From (ft):	0	Finish to (ft):	0
Form Log:	No		

# GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Map ID  
Direction  
Distance  
Elevation

Database      EDR ID Number

**G28**  
**North**  
**1/2 - 1 Mile**  
**Lower**

**TN WELLS      TN8000000155316**

Well Number:	15709501	Well Use:	Other
Completion Date:	Not Reported	Total Depth (ft):	300
Completion Est Yield (gpm):	0	Casing Type:	Steel
Casing Feet Below Ground:	0	License Code:	29
Driller Tag #:	Not Reported	Driller Report ID:	0
Inspection Date:	Not Reported	Inspection Tag #:	0
Completion Static Levels:	67	Finish Type:	Not Reported
Finish From (ft):	0	Finish to (ft):	0
Form Log:	No		

**G29**  
**North**  
**1/2 - 1 Mile**  
**Lower**

**FED USGS      USGS40001144030**

Organization ID:	USGS-TN	Organization Name:	USGS Tennessee Water Science Center
Monitor Location:	SH:O-018	Type:	Well
Description:	Not Reported	HUC:	08010210
Drainage Area:	Not Reported	Drainage Area Units:	Not Reported
Contrib Drainage Area:	Not Reported	Contrib Drainage Area Unts:	Not Reported
Aquifer:	Mississippi embayment aquifer system		
Formation Type:	Not Reported	Aquifer Type:	Not Reported
Construction Date:	Not Reported	Well Depth:	Not Reported
Well Depth Units:	Not Reported	Well Hole Depth:	350
Well Hole Depth Units:	ft		

**H30**  
**NE**  
**1/2 - 1 Mile**  
**Lower**

**TN WELLS      TN8000000155361**

Well Number:	15709592	Well Use:	Industrial
Completion Date:	Not Reported	Total Depth (ft):	338
Completion Est Yield (gpm):	0	Casing Type:	Steel
Casing Feet Below Ground:	0	License Code:	740
Driller Tag #:	Not Reported	Driller Report ID:	0
Inspection Date:	Not Reported	Inspection Tag #:	0
Completion Static Levels:	96	Finish Type:	Not Reported
Finish From (ft):	0	Finish to (ft):	0
Form Log:	No		

**H31**  
**NE**  
**1/2 - 1 Mile**  
**Lower**

**FED USGS      USGS40001144019**

Organization ID:	USGS-TN	Organization Name:	USGS Tennessee Water Science Center
Monitor Location:	SH:O-110	Type:	Well
Description:	Not Reported	HUC:	08010210

## GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Drainage Area:	Not Reported	Drainage Area Units:	Not Reported
Contrib Drainage Area:	Not Reported	Contrib Drainage Area Unts:	Not Reported
Aquifer:	Mississippi embayment aquifer system		
Formation Type:	Not Reported	Aquifer Type:	Not Reported
Construction Date:	Not Reported	Well Depth:	333
Well Depth Units:	ft	Well Hole Depth:	Not Reported
Well Hole Depth Units:	Not Reported		

**I32**  
**SE**  
**1/2 - 1 Mile**  
**Higher**

**TN WELLS      TN8000000155994**

Well Number:	20171720	Well Use:	Not Reported
Completion Date:	10-AUG-17	Total Depth (ft):	759
Completion Est Yield (gpm):	0	Casing Type:	Not Reported
Casing Feet Below Ground:	0	License Code:	1024
Driller Tag #:	BA003719	Driller Report ID:	0
Inspection Date:	Not Reported	Inspection Tag #:	0
Completion Static Levels:	112	Finish Type:	Not Reported
Finish From (ft):	0	Finish to (ft):	0
Form Log:	No		

**I33**  
**SE**  
**1/2 - 1 Mile**  
**Higher**

**TN WELLS      TN8000000155978**

Well Number:	15709712	Well Use:	Test
Completion Date:	12-JUN-73	Total Depth (ft):	820
Completion Est Yield (gpm):	0	Casing Type:	Not Reported
Casing Feet Below Ground:	0	License Code:	29
Driller Tag #:	Not Reported	Driller Report ID:	0
Inspection Date:	Not Reported	Inspection Tag #:	0
Completion Static Levels:	0	Finish Type:	Not Reported
Finish From (ft):	0	Finish to (ft):	0
Form Log:	No		

**I34**  
**SE**  
**1/2 - 1 Mile**  
**Higher**

**FED USGS      USGS40001143929**

Organization ID:	USGS-TN	Organization Name:	USGS Tennessee Water Science Center
Monitor Location:	SH:O-220	Type:	Well
Description:	Not Reported	HUC:	08010210
Drainage Area:	Not Reported	Drainage Area Units:	Not Reported
Contrib Drainage Area:	Not Reported	Contrib Drainage Area Unts:	Not Reported
Aquifer:	Mississippi embayment aquifer system		
Formation Type:	Not Reported	Aquifer Type:	Not Reported
Construction Date:	Not Reported	Well Depth:	Not Reported
Well Depth Units:	Not Reported	Well Hole Depth:	Not Reported
Well Hole Depth Units:	Not Reported		

## GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Map ID  
Direction  
Distance  
Elevation

Database      EDR ID Number

**I35**  
**SE**  
**1/2 - 1 Mile**  
**Higher**

**FED USGS      USGS40001143930**

Organization ID:	USGS-TN	Organization Name:	USGS Tennessee Water Science Center
Monitor Location:	SH:O-220 DUP	Type:	Well
Description:	Not Reported	HUC:	Not Reported
Drainage Area:	Not Reported	Drainage Area Units:	Not Reported
Contrib Drainage Area:	Not Reported	Contrib Drainage Area Unts:	Not Reported
Aquifer:	Not Reported	Formation Type:	Not Reported
Aquifer Type:	Not Reported	Construction Date:	Not Reported
Well Depth:	Not Reported	Well Depth Units:	Not Reported
Well Hole Depth:	854	Well Hole Depth Units:	ft

**J36**  
**ESE**  
**1/2 - 1 Mile**  
**Higher**

**FED USGS      USGS40001143969**

Organization ID:	USGS-TN	Organization Name:	USGS Tennessee Water Science Center
Monitor Location:	Sh:O-251	Type:	Well
Description:	Test hole for 46-A	HUC:	Not Reported
Drainage Area:	Not Reported	Drainage Area Units:	Not Reported
Contrib Drainage Area:	Not Reported	Contrib Drainage Area Unts:	Not Reported
Aquifer:	Mississippi embayment aquifer system	Aquifer Type:	Confined single aquifer
Formation Type:	Memphis Sand	Well Depth:	Not Reported
Construction Date:	Not Reported	Well Hole Depth:	1557
Well Depth Units:	Not Reported		
Well Hole Depth Units:	ft		

**I37**  
**SE**  
**1/2 - 1 Mile**  
**Higher**

**FED USGS      USGS40001143928**

Organization ID:	USGS-TN	Organization Name:	USGS Tennessee Water Science Center
Monitor Location:	SH:O-244	Type:	Well
Description:	Not Reported	HUC:	Not Reported
Drainage Area:	Not Reported	Drainage Area Units:	Not Reported
Contrib Drainage Area:	Not Reported	Contrib Drainage Area Unts:	Not Reported
Aquifer:	Other aquifers	Formation Type:	Terrace Deposits
Aquifer Type:	Not Reported	Construction Date:	Not Reported
Well Depth:	93	Well Depth Units:	ft
Well Hole Depth:	107	Well Hole Depth Units:	ft

**J38**  
**ESE**  
**1/2 - 1 Mile**  
**Higher**

**FED USGS      USGS40001143968**

Organization ID:	USGS-TN	Organization Name:	USGS Tennessee Water Science Center
Monitor Location:	SH:O-182	Type:	Well
Description:	Not Reported	HUC:	08010210



## GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Drainage Area:	Not Reported	Drainage Area Units:	Not Reported
Contrib Drainage Area:	Not Reported	Contrib Drainage Area Unts:	Not Reported
Aquifer:	Mississippi embayment aquifer system		
Formation Type:	Memphis Sand	Aquifer Type:	Not Reported
Construction Date:	Not Reported	Well Depth:	Not Reported
Well Depth Units:	Not Reported	Well Hole Depth:	Not Reported
Well Hole Depth Units:	Not Reported		

**I39**  
**SE**  
**1/2 - 1 Mile**  
**Higher**

**FED USGS      USGS40001143927**

Organization ID:	USGS-TN	Organization Name:	USGS Tennessee Water Science Center
Monitor Location:	SH:O-174	Type:	Well
Description:	Not Reported	HUC:	08010210
Drainage Area:	Not Reported	Drainage Area Units:	Not Reported
Contrib Drainage Area:	Not Reported	Contrib Drainage Area Unts:	Not Reported
Aquifer:	Mississippi embayment aquifer system		
Formation Type:	Fort Pillow Sand of Wilcox Group		
Aquifer Type:	Not Reported	Construction Date:	Not Reported
Well Depth:	1398	Well Depth Units:	ft
Well Hole Depth:	Not Reported	Well Hole Depth Units:	Not Reported

**40**  
**SE**  
**1/2 - 1 Mile**  
**Higher**

**TN WELLS      TN8000000155975**

Well Number:	15709675	Well Use:	Test
Completion Date:	08-APR-63	Total Depth (ft):	576
Completion Est Yield (gpm):	0	Casing Type:	Not Reported
Casing Feet Below Ground:	0	License Code:	740
Driller Tag #:	Not Reported	Driller Report ID:	0
Inspection Date:	Not Reported	Inspection Tag #:	0
Completion Static Levels:	0	Finish Type:	Not Reported
Finish From (ft):	0	Finish to (ft):	0
Form Log:	No		

**1G**  
**East**  
**1/4 - 1/2 Mile**  
**Lower**

Shallow Water Depth:	5.85	<b>AQUIFLOW      20564</b>
Groundwater Flow:	VARIES	
Deep Water Depth:	11.99	
Average Water Depth:	Not Reported	
Date:	7/30/98	

**2G**  
**SSW**  
**1/4 - 1/2 Mile**  
**Lower**

Shallow Water Depth:	5.92	<b>AQUIFLOW      17540</b>
Groundwater Flow:	NE	
Deep Water Depth:	11.75	
Average Water Depth:	Not Reported	
Date:	8/1992	

## GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Map ID  
Direction  
Distance  
Elevation

Database

EDR ID Number

**3G**  
**SE**  
**1/2 - 1 Mile**  
**Lower**

Shallow Water Depth: 7.38  
Groundwater Flow: SW  
Deep Water Depth: 10.91  
Average Water Depth: Not Reported  
Date: 11/7/92

**AQUIFLOW**    **20606**

# GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Map ID  
Direction  
Distance

Database EDR ID Number

---

1  
East  
1/2 - 1 Mile

OIL\_GAS TNOG12000010055

**OIL\_GAS:**

Well Name: Memphis Water Department #109  
Permit Date: Not Reported  
Well Type: Not Reported  
Elevation (ft): 238

Permit #: Not Reported  
API #: 157-00006  
Operator: Memphis Water Department  
Formation: Not Reported

# GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS RADON

## AREA RADON INFORMATION

State Database: TN Radon

### Radon Test Results

County	Total Sites	Avg	Max	<4 pCi/L	4-10 pCi/L	10-20 pCi/L	20-50 pCi/L	50-100 pCi/L	>100 pCi/L
SHELBY	31	1.1	2.5	31	0	0	0	0	0

Federal EPA Radon Zone for SHELBY County: 3

- Note: Zone 1 indoor average level > 4 pCi/L.  
 : Zone 2 indoor average level >= 2 pCi/L and <= 4 pCi/L.  
 : Zone 3 indoor average level < 2 pCi/L.

Federal Area Radon Information for Zip Code: 38107

Number of sites tested: 2

Area	Average Activity	% <4 pCi/L	% 4-20 pCi/L	% >20 pCi/L
Living Area - 1st Floor	0.400 pCi/L	100%	0%	0%
Living Area - 2nd Floor	Not Reported	Not Reported	Not Reported	Not Reported
Basement	Not Reported	Not Reported	Not Reported	Not Reported

# PHYSICAL SETTING SOURCE RECORDS SEARCHED

## TOPOGRAPHIC INFORMATION

### USGS 7.5' Digital Elevation Model (DEM)

Source: United States Geologic Survey

EDR acquired the USGS 7.5' Digital Elevation Model in 2002 and updated it in 2006. The 7.5 minute DEM corresponds to the USGS 1:24,000- and 1:25,000-scale topographic quadrangle maps. The DEM provides elevation data with consistent elevation units and projection.

### Current USGS 7.5 Minute Topographic Map

Source: U.S. Geological Survey

## HYDROLOGIC INFORMATION

Flood Zone Data: This data was obtained from the Federal Emergency Management Agency (FEMA). It depicts 100-year and 500-year flood zones as defined by FEMA. It includes the National Flood Hazard Layer (NFHL) which incorporates Flood Insurance Rate Map (FIRM) data and Q3 data from FEMA in areas not covered by NFHL.

Source: FEMA

Telephone: 877-336-2627

Date of Government Version: 2003, 2015

NWI: National Wetlands Inventory. This data, available in select counties across the country, was obtained by EDR in 2002, 2005, 2010 and 2015 from the U.S. Fish and Wildlife Service.

### State Wetlands Data: Wetland Inventory

Source: Department of Environment & Conservation

Telephone: 651-532-0052

## HYDROGEOLOGIC INFORMATION

### AQUIFLOW<sup>R</sup> Information System

Source: EDR proprietary database of groundwater flow information

EDR has developed the AQUIFLOW Information System (AIS) to provide data on the general direction of groundwater flow at specific points. EDR has reviewed reports submitted to regulatory authorities at select sites and has extracted the date of the report, hydrogeologically determined groundwater flow direction and depth to water table information.

## GEOLOGIC INFORMATION

### Geologic Age and Rock Stratigraphic Unit

Source: P.G. Schruben, R.E. Arndt and W.J. Bawiec, Geology of the Conterminous U.S. at 1:2,500,000 Scale - A digital representation of the 1974 P.B. King and H.M. Beikman Map, USGS Digital Data Series DDS - 11 (1994).

### STATSGO: State Soil Geographic Database

Source: Department of Agriculture, Natural Resources Conservation Service (NRCS)

The U.S. Department of Agriculture's (USDA) Natural Resources Conservation Service (NRCS) leads the national Conservation Soil Survey (NCSS) and is responsible for collecting, storing, maintaining and distributing soil survey information for privately owned lands in the United States. A soil map in a soil survey is a representation of soil patterns in a landscape. Soil maps for STATSGO are compiled by generalizing more detailed (SSURGO) soil survey maps.

### SSURGO: Soil Survey Geographic Database

Source: Department of Agriculture, Natural Resources Conservation Service (NRCS)

Telephone: 800-672-5559

SSURGO is the most detailed level of mapping done by the Natural Resources Conservation Service, mapping scales generally range from 1:12,000 to 1:63,360. Field mapping methods using national standards are used to construct the soil maps in the Soil Survey Geographic (SSURGO) database. SSURGO digitizing duplicates the original soil survey maps. This level of mapping is designed for use by landowners, townships and county natural resource planning and management.



# PHYSICAL SETTING SOURCE RECORDS SEARCHED

## LOCAL / REGIONAL WATER AGENCY RECORDS

### FEDERAL WATER WELLS

#### PWS: Public Water Systems

Source: EPA/Office of Drinking Water

Telephone: 202-564-3750

Public Water System data from the Federal Reporting Data System. A PWS is any water system which provides water to at least 25 people for at least 60 days annually. PWSs provide water from wells, rivers and other sources.

#### PWS ENF: Public Water Systems Violation and Enforcement Data

Source: EPA/Office of Drinking Water

Telephone: 202-564-3750

Violation and Enforcement data for Public Water Systems from the Safe Drinking Water Information System (SDWIS) after August 1995. Prior to August 1995, the data came from the Federal Reporting Data System (FRDS).

#### USGS Water Wells: USGS National Water Inventory System (NWIS)

This database contains descriptive information on sites where the USGS collects or has collected data on surface water and/or groundwater. The groundwater data includes information on wells, springs, and other sources of groundwater.

### STATE RECORDS

#### County Water Wells in Tennessee

Source: Department of Environment and Conservation

Telephone: 615-532-0160

Water well locations for the entire state.

#### Oil and Gas Well Database

Department of Environment & Conservation

Telephone: 615-687-7109

A listing of locations of oil and gas well permits issued across the state.

## OTHER STATE DATABASE INFORMATION

### RADON

#### State Database: TN Radon

Source: Department of Environment & Conservation

Telephone: 615-299-9725

Radon Test Results

#### Area Radon Information

Source: USGS

Telephone: 703-356-4020

The National Radon Database has been developed by the U.S. Environmental Protection Agency (USEPA) and is a compilation of the EPA/State Residential Radon Survey and the National Residential Radon Survey. The study covers the years 1986 - 1992. Where necessary data has been supplemented by information collected at private sources such as universities and research institutions.

#### EPA Radon Zones

Source: EPA

Telephone: 703-356-4020

Sections 307 & 309 of IRAA directed EPA to list and identify areas of U.S. with the potential for elevated indoor radon levels.

### OTHER

#### Airport Landing Facilities: Private and public use landing facilities

Source: Federal Aviation Administration, 800-457-6656

#### Epicenters: World earthquake epicenters, Richter 5 or greater

Source: Department of Commerce, National Oceanic and Atmospheric Administration

Earthquake Fault Lines: The fault lines displayed on EDR's Topographic map are digitized quaternary faultlines, prepared in 1975 by the United State Geological Survey

# PHYSICAL SETTING SOURCE RECORDS SEARCHED

## STREET AND ADDRESS INFORMATION

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**APPENDIX E**  
**CREDENTIALS**

# **MARK C. CHRISTIAN, PE**

## **ENVIRONMENTAL DEPARTMENT MANAGER**

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### **PROFESSIONAL EXPERIENCE**

Mr. Christian is the manager of Terracon's Memphis, Tennessee office. His responsibilities include environmental project management and technical oversight. His environmental project experience includes Phase I Environmental Site Assessments (ESAs); Phase II investigations of soil and groundwater contamination; hazardous material surveys (asbestos, lead-based paint, PCBs, mercury vapor equipment, etc.); comprehensive air emission inventories; design and permitting of organic and particulate air pollutant control systems; NPDES permitting of wastewater discharges from industrial, sanitary, and stormwater sources; preparation/certification of SWPPPs and SPCC plans; wetland mitigation planning and design; and the design of specialty processes for the treatment of hazardous wastes.

### **PROJECT EXPERIENCE**

- **Environmental Consulting – Various Mid-South Project Locations**  
Since opening Terracon's Memphis office in 2003, Mr. Christian has been responsible for the successful completion of over 650 Phase I ESAs; approximately 60 soil and groundwater contamination investigations; and almost 70 asbestos, lead-based paint, and hazardous material survey projects located throughout western Tennessee, northern Mississippi, and eastern Arkansas.
- **Groundwater Remediation System Design – Shelby County, Tennessee**  
Project manager for the process design and preparation of construction plans and specifications for a 40,000 gpd groundwater collection and treatment system at a manufacturing facility. The project included 14 groundwater extraction wells, underground and aboveground groundwater collection and transfer piping within full secondary containment, a 1,600-square-foot treatment building, groundwater accumulation tank, air stripper and all associated pumps, piping, ancillary equipment and automated control systems.
- **UST Removal/Replacement – Naval Air Station, Millington, TN**  
Project manager for the preparation of construction plans, specifications and cost estimates for the removal and replacement of thirty underground storage tanks (USTs). Replacement tank systems included double-wall fiberglass USTs and dispensing systems with leak detection, and protected aboveground storage tanks (PASTs) with loading facilities and dispensing systems.
- **Site Investigations for Tennessee Division of Superfund – Various Locations in Tennessee**  
Program and project manager for a Tennessee Division of Superfund contract to investigate and evaluate potential soil and groundwater contamination at numerous sites within Tennessee. Also managed several facility inspection, prioritization investigation, and solvent impact assessment projects for several dry cleaner environmental response program sites.

### **EDUCATION**

*Bachelor of Science, Chemical Engineering, 1981, Christian Brothers College*

### **REGISTRATIONS**

*Professional Engineer: Tennessee, Mississippi, Alabama, Colorado, Pennsylvania, Utah*

### **AFFILIATIONS**

*Tennessee Society of Professional Engineers*

### **WORK HISTORY**

*Terracon, Memphis Office  
Manager, 2003-present*

*MACTEC Engineering &  
Consulting, Environmental  
Group Leader, 2002-2003*

*ETI Corporation, Principal &  
Environmental Engineering  
Manager, 1988-2002*

*EnSafe, Inc., Project Manager,  
1985-1988*

*Ralston Purina – Protein Division,  
Production Coordinator, 1984-  
1985*

*Monsanto Chemical Company,  
Process Engineer, 1981-1984*

**PROJECT EXPERIENCE (continued)**

• **Wetland Mitigation Design – President’s Island, Memphis, TN**

Project manager for the preparation of construction plans and specifications for Memphis and Shelby County Port Commission’s 205-acre wetland mitigation site. The project included the excavation of over 400,000 cubic yards of soil, placement of select backfill materials over 68 acres of created wetlands, installation of 23 monitoring wells, and planting of more than 73,000 wetland specie trees.

• **Chemical Waste Management – Emelle, Alabama**

Project manager for the preparation of two comprehensive renewal applications for the National Pollutant Discharge Elimination System (NPDES) permit for CWM’s 2,500-acre RCRA/TSCA TSDF. The NPDES permit renewal applications covered the discharge of stormwater from fourteen (14) sedimentation basins and three outfall ditches and the discharge of treated sanitary wastewater from a 15,000 gpd packaged sanitary wastewater treatment plant.

• **Air Pollution Control Systems – Sturm-Ruger Plants in New Hampshire and Connecticut**

Project manager for the development, design, specification and installation of dust collection systems for airborne toxic dust emission sources at three firearm manufacturing facilities.

• **Exide Technologies – Bristol, Tennessee**

Prepared comprehensive air emission inventories and construction permit applications for lead, particulate matter and combustion products air emissions for a proposed capacity expansion at lead-acid battery manufacturing facility.

• **Chemical Waste Management – Emelle, Alabama**

Project manager for numerous permitting, design and construction projects for CWM’s commercial hazardous waste treatment, storage and disposal facility. Prepared process designs and RCRA/TSCA and air permit applications for over forty individual waste management units including container storage/processing units; organic and inorganic waste tank farms; waste-derived fuels blending systems; landfill leachate collection/storage systems; and a bulk solids size reduction and continuous stabilization unit.

• **USPCI Clive Incineration Facility – Toole County, Utah**

Project manager for the preparation of process designs and the RCRA Part B permit application for all waste management units supporting USPCI’s \$235 million state-of-the-art hazardous and toxic waste incineration facility located on 320 acres. Incineration support unit designs included a 450,000 gallon waste fuel tank farm; a 130,000 gallon aqueous waste tank farm; a 1,300 cubic yard bulk solid storage building; a 500 cubic yard bulk energetic solids storage building; 3,500 container storage building; an automated container shredding/repackaging system; and all ash removal systems.



# AUDREY C. PRICE

## SENIOR STAFF GEOLOGIST

### PROFESSIONAL EXPERIENCE

Ms. Price is a Senior Staff Geologist in Terracon's Memphis, Tennessee office. Her responsibilities include completing Phase I Environmental Site Assessment (ESA) projects, conducting subsurface investigations of soil, soil vapor, and groundwater at potentially impacted sites, and performing asbestos surveys.

### PROJECT EXPERIENCE

#### • Phase I Environmental Site Assessments

Since joining Terracon's Memphis office in 2018, Ms. Price has been responsible for completing Phase I ESAs for commercial, institutional, and industrial properties in western Tennessee, northern Mississippi, and eastern Arkansas including site reconnaissance, review of historical information, conducting owner/agency interviews, and performing regulatory file reviews.

#### • Subsurface Investigations

Since joining Terracon's Memphis office in 2018, Ms. Price has been responsible for participating in several subsurface investigations to evaluate potential environmental impact is soil vapor, soil, and groundwater in western Tennessee, northern Mississippi, and eastern Arkansas.

#### • Asbestos and Hazardous Building Materials Surveys

Since joining Terracon's Memphis office in 2018, Ms. Price has been responsible for completing asbestos and hazardous building materials surveys and oversight of abatement activities for several projects in western Tennessee, northern Mississippi, and eastern Arkansas.

### TECHNICAL / EDUCATIONAL EXPERIENCE

#### • Geochemical Testing – University of Memphis

While at the University of Memphis Mrs. Price calibrated and operate probes and meters for geochemical testing including, collected geochemical measurements for temperature, pH, dissolved oxygen, turbidity, and specific conductance, collect water samples; raw, filter, and acidified, and completed in-field alkalinity titration and spectroscopic measurement of nitrate.

#### • Sedimentological Analysis – University of Memphis

While at the University of Memphis Mrs. Price oversaw the drilling and collection of sediment and completed physical sediment core descriptions which included; measuring sediment core lengths, calculating recovery percentages, grain size, sediment color, mottling color, lithology, rounding, sorting, presence of carbonates, indicating root traces and bioturbation, and sedimentary structures.

#### • Grain Size Analysis – University of Memphis

While at the University of Memphis Mrs. Price completed coarse grain size analysis using both wet and dry sieving procedures.

#### • Magnetic Susceptibility Measurements – University of Memphis

While at the University of Memphis Mrs. Price performed magnetic susceptibility measurement using a Bartington MS3 meter equipped with a Bartington MS2F surface sensor and Bartsoft v. 4.2.1.1.

### EDUCATION

*Masters of Science, Earth Sciences, Geology, 2019, University of Memphis*

*Graduate Certificate in Geographic Information Systems, Earth Sciences, 2018, University of Memphis*

*Bachelor of Arts, Earth Sciences, Geology, 2015, University of Memphis*

### REGISTRATIONS

*AHERA Asbestos Inspector:*

- Tennessee
- Arkansas
- Mississippi

### QUALIFICATIONS

*40-hour OSHA Hazardous Waste Health and Safety Training, 29 CFR 1910.120*

### WORK HISTORY

*Terracon, Field Geologist, 2018 - present*

*University of Memphis, Graduate Teaching / Research Assistantship, 2015 - 2018*

*Center for Applied Earth Science and Engineering Research, Intern / Water Level Reader, 2015*

- **Clay Minerology Analysis – University of Memphis**

While at the University of Memphis Mrs. Price prepared clay slides using the Millipore method, performed x-ray analysis using a Bruker AXS GMBH x-ray diffractometer, and completed clay peak identification.

- **Sample Collection – University of Memphis**

While at the University of Memphis Mrs. Price collected and prepped fine grain samples for later analysis on a laser particle analyzer machine and collected samples for Optical Stimulated Luminesces (OSL), 14-Carbon, and pollen dating.

- **Stratigraphic Columns – University of Memphis**

While at the University of Memphis Mrs. Price created stratigraphic columns in Adobe Illustrator which included plotting cumulative grain size, recovery percentages, natural gamma, magnetic susceptibility, and clay mineral percentages.

- **Geophysical Data Collection – University of Memphis**

While at the University of Memphis Mrs. Price completed in-field use of a Geometrics StrataVisor NZXP exploration seismic system to save and clear data as well as changes stacks from positive to negative during seismic profile collection.

# NATALIE B. THOMAS

## FIELD GEOLOGIST

### PROFESSIONAL EXPERIENCE

Ms. Thomas is a Field Geologist in Terracon's Memphis, Tennessee office. Her responsibilities include conducting subsurface investigations of soil and groundwater contamination at potentially impacted sites, conducting hazardous materials screenings, and monitoring for methane. She also completes Phase I- Environmental Site Assessment (ESA) projects and associated report writing.

### PROJECT EXPERIENCE

- **Tennessee Valley Authority Groundwater Monitoring Program**  
Member of a highly effective team of more than 40 field and professional staff performing groundwater monitoring services to assist TVA in compliance with EPA and state requirements for coal combustion residuals. The team is responsible for groundwater sampling field activities and reporting, along with well redevelopment and well maintenance and inspection programs.
- **Phase I Environmental Site Investigations – Various Locations**  
Responsible for completing various Environmental Site Investigations throughout western Tennessee and northern Mississippi. Projects have included researching past uses for the project sites and surrounding areas within a half-mile to one-mile radius. Contacting state environmental agencies for files on contamination cases and reviewing the files to determine if further action is warranted. Performing site reconnaissances to observe current operations and conditions, identifying potential Recognized Environmental Conditions for further investigation.
- **Environmental Consulting– Various Mid-South Project Locations**  
Since joining Terracon's Memphis office, Ms. Thomas has been responsible for soil and groundwater contamination investigations located throughout western Tennessee and northern Mississippi.
- **Methane Monitoring – Old Waste Management Landfill**  
Completed methane monitoring on gas and water wells in accordance with state regulations regarding prevention of any potential threat to public health and safety from methane gas production by landfills.

### EDUCATION

*Bachelor of Science, Earth Sciences,  
Environmental Science, 2021,  
Rhodes College*

### QUALIFICATIONS

*40-hour OSHA Hazardous Waste  
Health and Safety Training, 29 CFR  
1910.120*

*Certified Lead Groundwater Sampler*

*First Aid and AED/CPR Certified*

### WORK HISTORY

*Terracon, Field Geologist,  
2023-present*

*Memphis Zoo, Educator, 2021-2023*

*Rhodes College Dept of Biology,  
Research Intern 2019-2021*

*Vanderbilt University, Aspiernaut  
Program, Research Intern,  
Summer 2016*

**APPENDIX F**  
**DESCRIPTION OF TERMS AND ACRONYMS**

## Description of Selected General Terms and Acronyms

Term/Acronym	Description
ACM	<p>Asbestos Containing Material. Asbestos is a naturally occurring mineral, three varieties of which (chrysotile, amosite, crocidolite) have been commonly used as fireproofing or binding agents in construction materials. Exposure to asbestos, as well as ACM, has been documented to cause lung diseases including asbestosis (scarring of the lung), lung cancer and mesothelioma (a cancer of the lung lining).</p> <p>Regulatory agencies have generally defined ACM as a material containing greater than one (1) percent asbestos, however some states (e.g., California) define ACM as materials having 0.1% asbestos. In order to define a homogenous material as non-ACM, a minimum number of samples must be collected from the material dependent upon its type and quantity. Homogenous materials defined as non-ACM must either have 1) no asbestos identified in all of its samples or 2) an identified asbestos concentration below the appropriate regulatory threshold. Asbestos concentrations are generally determined using polarized light microscopy or transmission electron microscopy. Point counting is an analytical method to statistically quantify the percentage of asbestos in a sample. The asbestos component of ACM may either be friable or non-friable. Friable materials, when dry, can be crumbled, pulverized, or reduced to powder by hand pressure and have a higher potential for a fiber release than non-friable ACM. Non-friable ACM are materials that are firmly bound in a matrix by plastic, cement, etc. and, if handled carefully, will not become friable.</p> <p>Federal and state regulations require that either all suspect building materials be presumed ACM or that an asbestos survey be performed prior to renovation, dismantling, demolition, or other activities that may disturb potential ACM. Notifications are required prior to demolition and/or renovation activities that may impact the condition of ACM in a building. ACM removal may be required if the ACM is likely to be disturbed or damaged during the demolition or renovation. Abatement of friable or potentially friable ACM must be performed by a licensed abatement contractor in accordance with state rules and NESHAP. Additionally, OSHA regulations for work classification, worker training and worker protection will apply.</p>
AHERA	Asbestos Hazard Emergency Response Act
AST	Aboveground Storage Tanks. ASTs are generally described as storage tanks less than 10% of which are below ground (i.e., buried). Tanks located in a basement, but not buried, are also considered ASTs. Whether, and the extent to which, an AST is regulated, is determined on a case-by-case basis and depends upon tank size, its contents and the jurisdiction of its location.
BGS	Below Ground Surface
Brownfields	State and/or tribal listing of Brownfield properties addressed by Cooperative Agreement Recipients or Targeted Brownfields Assessments.



## Description of Selected General Terms and Acronyms

Term/Acronym	Description
BTEX	Benzene, Toluene, Ethylbenzene, and Xylenes. BTEX are VOC components found in gasoline and commonly used as analytical indicators of a petroleum hydrocarbon release.
CERCLA	Comprehensive Environmental Response, Compensation and Liability Act (a.k.a. Superfund). CERCLA is the federal act that regulates abandoned or uncontrolled hazardous waste sites. Under this Act, joint and several liability may be imposed on potentially responsible parties for cleanup-related costs.
CERCLIS	Comprehensive Environmental Response, Compensation and Liability Information System. An EPA compilation of sites having suspected or actual releases of hazardous substances to the environment. CERCLIS also contains information on site inspections, preliminary assessments and remediation of hazardous waste sites. These sites are typically reported to EPA by states and municipalities or by third parties pursuant to CERCLA Section 103.
CESQG	Conditionally Exempt Small Quantity Generators
CFR	Code of Federal Regulations
CREC	Controlled Recognized Environmental Condition is defined in ASTM E1527-21 as “a recognized environmental condition resulting from a past release of hazardous substances or petroleum products that has been addressed to the satisfaction of the applicable regulatory authority (for example, as evidenced by the issuance of a no further action letter or equivalent, or meeting risk-based criteria established by regulatory authority) , with hazardous substances or petroleum products allowed to remain in place subject to the implementation of required controls (for example, property use restrictions, activity and use limitations, institutional controls, or engineering controls). A condition considered by the environmental professional to be a controlled recognized environmental condition shall be listed in the findings section of the Phase I Environmental Site Assessment report, and as a recognized environmental condition in the conclusions section of the Phase I Environmental Site Assessment report.”
DOT	U.S. Department of Transportation
EPA	U.S. Environmental Protection Agency
ERNS	Emergency Response Notification System. An EPA-maintained federal database which stores information on notifications of oil discharges and hazardous substance releases in quantities greater than the applicable reportable quantity under CERCLA. ERNS is a cooperative data-sharing effort between EPA, DOT, and the National Response Center.
ESA	Environmental Site Assessment
FRP	Fiberglass Reinforced Plastic

## Description of Selected General Terms and Acronyms

Term/Acronym	Description
Hazardous Substance	As defined under CERCLA, this is (A) any substance designated pursuant to section 1321(b)(2)(A) of Title 33, (B) any element, compound, mixture, solution, or substance designated pursuant to section 9602 of this title; (C) any hazardous waste having characteristics identified under or listed pursuant to section 3001 of the Solid Waste Disposal Act (with some exclusions); (D) any toxic pollutant listed under section 1317(a) of Title 33; (E) any hazardous air pollutant listed under section 112 of the Clean Air Act; and (F) any imminently hazardous chemical substance or mixture with respect to which the EPA Administrator has taken action under section 2606 of Title 15. This term does not include petroleum, including crude oil or any fraction thereof which is not otherwise listed as a hazardous substance under subparagraphs (A) through (F) above, and the term include natural gas, or synthetic gas usable for fuel (or mixtures of natural gas and such synthetic gas).
Hazardous Waste	This is defined as having characteristics identified or listed under section 3001 of the Solid Waste Disposal Act (with some exceptions). RCRA, as amended by the Solid Waste Disposal Act of 1980, defines this term as a "solid waste, or combination of solid wastes, which because of its quantity, concentration, or physical, chemical, or infectious characteristics may (A) cause, or significantly contribute to an increase in mortality or an increase in serious irreversible, or incapacitating reversible illness; or (B) pose a substantial present or potential hazard to human health or the environment when improperly treated, stored, transported, or disposed of, or otherwise managed."
HREC	Historical Recognized Environmental Condition is defined in ASTM E1527-21 as "a past release of any hazardous substances or petroleum products that has occurred in connection with the property and has been addressed to the satisfaction of the applicable regulatory authority or meeting unrestricted residential use criteria established by a regulatory authority, without subjecting the property to any required controls (for example, property use restrictions, activity and use limitations, institutional controls, or engineering controls). Before calling the past release a historical recognized environmental condition, the environmental professional must determine whether the past release is a recognized environmental condition at the time of the Phase I Environmental Site Assessment is conducted (for example, if there has been a change in the regulatory criteria). If the EP considers the past release to be a recognized environmental condition at the time the Phase I ESA is conducted, the condition shall be included in the conclusions section of the report as a recognized environmental condition."
IC/EC	A listing of sites with institutional and/or engineering controls in place. IC include administrative measures, such as groundwater use restrictions, construction restrictions, property use restrictions, and post remediation care requirements intended to prevent exposure to contaminants remaining on site. Deed restrictions are generally required as part of the institutional controls. EC include various forms of caps, building foundations, liners, and treatment methods to create pathway elimination for regulated substances to enter environmental media or effect human health.
ILP	Innocent Landowner/Operator Program

## Description of Selected General Terms and Acronyms

Term/Acronym	Description
LQG	Large Quantity Generators
LUST	Leaking Underground Storage Tank. This is a federal term set forth under RCRA for leaking USTs. Some states also utilize this term.
MCL	Maximum Contaminant Level. This Safe Drinking Water concept (and also used by many states as a ground water cleanup criteria) refers to the limit on drinking water contamination that determines whether a supplier can deliver water from a specific source without treatment.
MSDS	Material Safety Data Sheets. Written/printed forms prepared by chemical manufacturers, importers and employers which identify the physical and chemical traits of hazardous chemicals under OSHA's Hazard Communication Standard.
NESHAP	National Emissions Standard for Hazardous Air Pollutants (Federal Clean Air Act). This part of the Clean Air Act regulates emissions of hazardous air pollutants.
NFRAP	Facilities where there is "No Further Remedial Action Planned," as more particularly described under the Records Review section of this report.
NOV	Notice of Violation. A notice of violation or similar citation issued to an entity, company or individual by a state or federal regulatory body indicating a violation of applicable rule or regulations has been identified.
NPDES	National Pollutant Discharge Elimination System (Clean Water Act). The federal permit system for discharges of polluted water.
NPL	The NPL is the EPA's database of uncontrolled or abandoned hazardous waste facilities that have been listed for priority remedial actions under the Superfund Program.
OSHA	Occupational Safety and Health Administration or Occupational Safety and Health Act
PACM	Presumed Asbestos-Containing Material. A material that is suspected of containing or presumed to contain asbestos but which has not been analyzed to confirm the presence or absence of asbestos.
PCB	Polychlorinated Biphenyl. A halogenated organic compound commonly in the form of a viscous liquid or resin, a flowing yellow oil, or a waxy solid. This compound was historically used as dielectric fluid in electrical equipment (such as electrical transformers and capacitors, electrical ballasts, hydraulic and heat transfer fluids), and for numerous heat and fire sensitive applications. PCB was preferred due to its durability, stability (even at high temperatures), good chemical resistance, low volatility, flammability, and conductivity. PCBs, however, do not break down in the environment and are classified by the EPA as a suspected carcinogen. 1978 regulations, under the Toxic Substances Control Act, prohibit manufacturing of PCB-containing equipment; however, some of this equipment may still be in use today.

## Description of Selected General Terms and Acronyms

Term/Acronym	Description
pCi/L	picoCuries per Liter of Air. Unit of measurement for Radon and similar radioactive materials.
PLM	Polarized Light Microscopy (see ACM section of the report, if included in the scope of services)
PST	Petroleum Storage Tank. An AST or UST that contains a petroleum product.
Radon	A radioactive gas resulting from radioactive decay of naturally-occurring radioactive materials in rocks and soils containing uranium, granite, shale, phosphate, and pitchblende. Radon concentrations are measured in picoCuries per Liter of Air. Exposure to elevated levels of radon creates a risk of lung cancer; this risk generally increases as the level of radon and the duration of exposure increases. Outdoors, radon is diluted to such low concentrations that it usually does not present a health concern. However, radon can accumulate in building basements or similar enclosed spaces to levels that can pose a risk to human health. Indoor radon concentrations depend primarily upon the building's construction, design and the concentration of radon in the underlying soil and ground water. The EPA recommended annual average indoor "action level" concentration for residential structures is 4.0 pCi/l.
RCRA	Resource Conservation and Recovery Act. Federal act regulating solid and hazardous wastes from point of generation to time of disposal ("cradle to grave"). 42 U.S.C. 6901 et seq.
RCRA Generators	The RCRA Generators database, maintained by the EPA, lists facilities that generate hazardous waste as part of their normal business practices. Generators are listed as either large (LQG), small (SQG), or conditionally exempt (CESQG). LQG produce at least 1000 kg/month of non-acutely hazardous waste or 1 kg/month of acutely hazardous waste. SQG produce 100-1000 kg/month of non-acutely hazardous waste. CESQG are those that generate less than 100 kg/month of non-acutely hazardous waste.
RCRA CORRACTS/ TSDs	The USEPA maintains a database of RCRA facilities associated with treatment, storage, and disposal (TSD) of hazardous materials which are undergoing "corrective action". A "corrective action" order is issued when there is a release of hazardous waste or constituents into the environment from a RCRA facility.
RCRA Non-CORRACTS/ TSDs	The RCRA Non-CORRACTS/TSD Database is a compilation by the USEPA of facilities which report storage, transportation, treatment, or disposal of hazardous waste. Unlike the RCRA CORRACTS/TSD database, the RCRA Non-CORRACTS/TSD database does not include RCRA facilities where corrective action is required.
RCRA Violators List	RAATS. RCRA Administrative Actions Taken. RAATS information is now contained in the RCRIS database and includes records of administrative enforcement actions against facilities for noncompliance.
RCRIS	Resource Conservation and Recovery Information System, as defined in the Records Review section of this report.

## Description of Selected General Terms and Acronyms

Term/Acronym	Description
REC	Recognized Environmental Conditions are defined by ASTM E1527-21 as 1) the presence of hazardous substances or petroleum products in, on, or at the subject property due to a release to the environment; (2) the likely presence of hazardous substances or petroleum products in, on, or at the subject property due to a release or likely release to the environment; or (3) the presence of hazardous substances or petroleum products in, on, or at the subject property under conditions that pose a material threat of a future release to the environment. A de minimis condition is not a recognized environmental condition.
SCL	State "CERCLIS" List (see SPL /State Priority List, below).
SPCC	Spill Prevention, Control and Countermeasures. SPCC plans are required under federal law (Clean Water Act and Oil Pollution Act) for any facility storing petroleum in tanks and/or containers of 55-gallons or more that when taken in aggregate exceed 1,320 gallons. SPCC plans are also required for facilities with underground petroleum storage tanks with capacities of over 42,000 gallons. Many states have similar spill prevention programs, which may have additional requirements.
SPL	State Priority List. State list of confirmed sites having contamination in which the state is actively involved in clean up activities or is actively pursuing potentially responsible parties for clean up. Sometimes referred to as a State "CERCLIS" List.
SQG	Small Quantity Generator
SWF/LF	State and/or Tribal database of Solid Waste/Landfill facilities. The database information may include the facility name, class, operation type, area, estimated operational life, and owner.
TPH	Total Petroleum Hydrocarbons
TRI	Toxic Release Inventory. Routine EPA report on releases of toxic chemicals to the environment based upon information submitted by entities subject to reporting under the Emergency Planning and Community Right to Know Act.
TSCA	Toxic Substances Control Act. A federal law regulating manufacture, import, processing and distribution of chemical substances not specifically regulated by other federal laws (such as asbestos, PCBs, lead-based paint and radon). 15 U.S.C 2601 et seq.
USACE	United States Army Corps of Engineers
USC	United States Code
USGS	United States Geological Survey
USNRCS	United States Department of Agriculture-Natural Resource Conservation Service



## Description of Selected General Terms and Acronyms

Term/Acronym	Description
UST	Underground Storage Tank. Most federal and state regulations, as well as ASTM E1527-21, define this as any tank, incl., underground piping connected to the tank, that is or has been used to contain hazardous substances or petroleum products and the volume of which is 10% or more beneath the surface of the ground (i.e., buried).
VCP	State and/or Tribal facilities included as Voluntary Cleanup Program sites.
VOC	Volatile Organic Compound
Wetlands	<p>Areas that are typically saturated with surface or ground water that creates an environment supportive of wetland vegetation (i.e., swamps, marshes, bogs). The <u>Corps of Engineers Wetlands Delineation Manual</u> (Technical Report Y-87-1) defines wetlands as areas inundated or saturated by surface or ground water at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions. For an area to be considered a jurisdictional wetland, it must meet the following criteria: more than 50 percent of the dominant plant species must be categorized as Obligate, Facultative Wetland, or Facultative on lists of plant species that occur in wetlands; the soil must be hydric; and, wetland hydrology must be present.</p> <p>The federal Clean Water Act which regulates “waters of the US,” also regulates wetlands, a program jointly administered by the USACE and the EPA. Waters of the U.S. are defined as: (1) waters used in interstate or foreign commerce, including all waters subject to the ebb and flow of tides; (2) all interstate waters including interstate wetlands; (3) all other waters such as intrastate lakes, rivers, streams (including intermittent streams), mudflats, sandflats, wetlands, sloughs, prairie potholes, wet meadows, playa lakes, or natural ponds, etc., which the use, degradation, or destruction could affect interstate/ foreign commerce; (4) all impoundments of waters otherwise defined as waters of the U. S., (5) tributaries of waters identified in 1 through 4 above; (6) the territorial seas; and (7) wetlands adjacent to waters identified in 1 through 6 above. Only the USACE has the authority to make a final wetlands jurisdictional determination.</p>

**APPENDIX G**  
**PREVIOUS ENVIRONMENTAL REPORTS**

**PHASE II  
ENVIRONMENTAL SITE  
ASSESSMENT**

for

**167 Chelsea Avenue  
Memphis, Tennessee 38105**

**Prepared For:**

**MLB-Uptown, LLC  
700 Adams Avenue  
Memphis, TN 38105**

**Prepared By:**

**Fisher & Arnold Environmental  
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**Date:**

**January 13, 2011**

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## EXECUTIVE SUMMARY

Fisher & Arnold Environmental (F&A), a Division of Fisher & Arnold, Inc., has conducted a Phase II Environmental Site Assessment (ESA) located at 167 Chelsea Avenue in Memphis, Tennessee. The scope of the Phase II ESA included exploratory backhoe trenching and advancing Geoprobe™ direct push technology (DPT) borings for soil and ground water sampling associated with environmental concerns identified during a Phase I ESA prepared by F&A on June 30, 2005. The field work for the Phase II ESA was conducted on December 13-14, 2010.

According to the Phase I ESA, identified environmental conditions are related to an adjacent former gasoline service stations and Baine's Pure Oil service station, which was present on the site from at least 1965-1969. Three metal vent pipes were observed at the southeast corner of one building, strongly suggesting the presence or former presence of underground storage tanks (USTs) or related systems.

During this Phase II ESA, nine Geoprobe™ direct push technology (DPT) borings were advanced across the entire subject property to investigate activities associated with the former service station. Four soil boring locations were converted into temporary ground water sampling points. Thirteen soil samples and four ground water samples were collected during this assessment. Soil and ground water samples were analyzed for some or all of volatile organic compounds (VOCs), poly-aromatic hydrocarbons (PAHs), and RCRA metals.

Additionally, a rubber-tired backhoe was mobilized to the site to investigate the possible presence of USTs and/or associated piping. F&A observed subsurface vent lines and UST sand backfill. The vent lines confirmed the former presence of USTs; however, no USTs were found on the subject property. The temporarily removed soil and fill was replaced in the hole, and the former asphalt and concrete surface was laid loosely on top of the fill near its original location.

A review of the laboratory analytical results for the soil samples analyzed for VOCs indicates that a concentration of xylenes for soil sample GP-1-4 exceeded the TDEC Initial Screening Level (ISL) for UST systems. Ethylbenzene, naphthalene, and several other petroleum related compounds were detected below the respective regulatory screening levels for sample GP-1-4.

A review of the laboratory analytical results for the soil samples analyzed for metals indicates concentrations of arsenic for several soil samples exceed the EPA RSL. However, the elevated concentrations of arsenic are believed to be consistent with background concentrations of arsenic in the local area. Other RCRA metals were detected several magnitudes below the respective regulatory screening levels for the soil samples.

Laboratory analytical results for the ground water samples indicate that no concentrations of VOCs exceed the respective regulatory values. Laboratory analytical results for the ground water samples indicate that no concentrations of PAHs exceed the respective regulatory values. Ground water samples collected from boreholes GP-3 and GP-4 indicated no concentrations above MDLs for

VOCs or PAHs, with the exception of phenanthrene for GP-3.

A review of the laboratory analytical results for the asbestos samples indicates approximately 900 square feet of red floor tiles and the associated black mastic on the west end of the building contain greater than 1% asbestos. Most of the floor tile is in poor condition, indicating it is considered a friable asbestos containing material. Other samples collected from potentially friable materials in the building did not exhibit the presence of asbestos.

Based on results of the December 2010 field work including subsurface trenching and soil and ground water samples collected, F&A recommends that the vent lines associated with the former UST(s) found on the subject property should be removed and disposed of according to local, State, and Federal regulations. Additionally, special attention should be paid to the subsurface in the area of soil boring and temporary monitoring well point GP-1. An elevated concentration of xylenes was reported in shallow soil and concentrations of petroleum compounds below screening levels were reported in ground water for the sampling location.

The analytical results combined with the field observations and PID readings indicate a historic gasoline release from the former USTs. However, the data suggest that no contaminants have moved from the site with levels that exceed applicable standards. The relatively low concentrations of petroleum-related compounds in soil and ground water on the subject property appear to indicate degraded petroleum constituents. Further, the compounds n-butylbenzene, sec-butylbenzene, isopropylbenzene, naphthalene, n-propylbenzene, 1,2,4-trimethylbenzene, and 1,3,5-trimethylbenzene identified in GP-1 are typically found in older gasoline releases.

No further assessment is recommended if the future site use is non-residential or is not used as a location for a sensitive receptor (daycare, playground, nursing, home, etc). No soil in the area of GP-1 or the former UST features should be moved from the property without further testing and documentation. Additionally, institutional controls such as land use restrictions may be necessary. Additional assurance of no further action can be achieved by review and approval of the data by the fee-based TDEC Division of Solid Waste - State Remediation Program (SRP). Alternatively, the soil in the area of soil sample GP-1-4, identified to have a xylenes concentration above regulatory screening levels, could be removed and disposed of according to local, State, and Federal regulations.

Due to the poor condition of the asbestos containing floor tile and mastic in the building proper removal techniques should be employed to remove the material and dispose of it in accordance with local and Federal regulations.



**PHASE I  
ENVIRONMENTAL SITE  
ASSESSMENT UPDATE**

**for**

**Vacant Building  
696 N. Second Street  
Memphis, Tennessee 38107**

**Prepared For:  
MLB-Uptown, LLC  
700 Adams Avenue  
Memphis, Tennessee 38105**

**Prepared By:  
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**Date:  
March 1, 2011**

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## EXECUTIVE SUMMARY

Fisher & Arnold Environmental, a Division of Fisher & Arnold, Inc. (F&A), was retained by MLB-Uptown, LLC. to perform a Phase I Environmental Site Assessment (ESA) Update on the property located at 696 N. Second Street within Block 55. The property is located in northern downtown Memphis, Shelby County, Tennessee.

The purpose of the Phase I ESA was to identify areas of environmental concern and to determine the condition of the property from an environmental standpoint in general accordance with American Society for Testing and Materials (ASTM) standards, Practice E 1527-05. The scope of work and conditions of the agreement has been described within Section 1.2 of the report.

F&A obtained and reviewed a variety of site-specific information and performed a visual inspection of the site. This current report includes a description of the site and addresses pertinent data and observations relating to the environmental condition of the site.

Based on site reconnaissance, interviews and review of available records, F&A identified one Recognized Environmental Condition (REC) associated with the subject property.

The Old Cummins Diesel facility at 812 N. Main Street is located approximately 220 feet northwest of the subject property. This facility is the same address as presented in the 2005 Phase I ESA (Block 55) for Steven's Electric, which operated on or near the western adjacent property, and was identified as a REC. Due to limited information and an interpreted westward flow of potential surface and groundwater contaminants, no further information was recommended to be collected in 2005. However, since that time, this facility has been identified by the USEPA to contain elevated levels of chemicals of concern in soil and soil gas samples taken during a December 2008 site investigation, and presented in a February 2009 Investigation Final Report . This site is currently under active investigation by the State of Tennessee to determine the extent of contamination associated with the former Old Cummins Diesel operation. Due to the recently discovered PCE and TCE soil and soil gas contamination; this site appears to present a significant environmental threat to the subject property.

Additional subsurface information regarding the identified recognized environmental condition is necessary in order to formulate a more detailed opinion regarding the potential presence of environmental contamination.

## **1.0 INTRODUCTION**

### **1.1 Purpose**

The purpose of the Phase I ESA was to identify areas of environmental concern and to determine the condition of the subject property from an environmental standpoint in general accordance with American Society for Testing and Materials (ASTM) standards, Practice E 1527-05. The scope of work and conditions of the agreement are included in Section 1.2 of the report.

In accordance with the outline of E 1527-05, F&A performed a visual inspection of the site and recorded pertinent observations. Other pertinent tasks were included in the collection of information off site. These tasks involved obtaining interviews, a review of aerial photographs, a State and Federal database review, Sanborn Map review and a City Directory review, if available.

The following sections of this report provide descriptions of the site and present observations relating to the environmental condition of the property.

### **1.2 Detailed Scope of Services**

The scope of work for this assessment was in general accordance with the American Society of Testing and Materials (ASTM) Standard Practices for Environmental Site Assessments: Phase I ESA Process (ASTM Designation: E 1527-05). These methodologies are described as representing good commercial and customary practice for conducting an ESA of a property for the purpose of identifying recognized environmental conditions.

The Scope of Work for this project has been included within Appendix A.

### **1.3 Significant Assumptions**

There were no significant assumptions in the performance of this report. This report will focus on environmental threats on the subject property and in the immediate vicinity of the subject property as discovered by the ASTM E 1527-05 process.

### **1.4 Limitations and Exceptions**

The report has been prepared in accordance with generally accepted environmental methodologies referred to in ASTM E 1527-05, and contains all of the limitations inherent in these methodologies. No other



warranties, expressed or implied, are made as to the professional services provided under the terms of our contract, included in this report.

No investigation can wholly eliminate uncertainty regarding the potential for recognized environmental conditions in connection with a property. Consequently, this report in no way expresses any warranty or guarantee with respect to recognized environmental conditions at the Property. However, the standard of care exercised for these professional services was performed in accordance with customary principles and accepted practices in the area of environmental science and engineering and in accordance with the ASTM Practice E1527-05 for conducting Phase I ESAs. In addition, every reasonable effort was made to ensure that the information presented in this report is materially complete and accurate.

The conclusions of this report are based solely upon observations made during this evaluation. F&A's opinions should not be construed as relating to health and safety issues, directly. Should additional information become available, this information should be reviewed by F&A and the conclusions herein modified, as appropriate. In addition, this report should not be construed as verification of compliance by the present owners or operators of the Property with federal, state, or local laws and regulations.

Information provided by Third Parties was used in assessing the Property conditions. The accuracy of the conclusions made from this information is inherently based on the accuracy of the information provided. It must be recognized that the limited scope of services may have precluded recognition of contamination at the Property. The absence of contamination recognition in this report cannot be interpreted as a warranty, expressed or implied, that no contamination exists at the Property, and F&A cannot be held liable for damages if contamination of some type is discovered in the future.

This report should not be considered as a recommendation to purchase, sell, lease, or develop the Property, and the opinions contained herein are not legal opinions. To evaluate the information contained in this report, the reader must understand the limitations associated with this assessment. Specifically, the services included in this project have been performed in accordance with the Scope of Services and the contract negotiated between the Client and F&A with the limitations and exceptions outlined.

In accordance with ASTM guidelines, no report limitations were identified.

## **1.5 Special Terms and Conditions**

The special terms and conditions for this project are presented in the scope of work described in Appendix A.

## **1.6 User Reliance**

Reliance or use of this report by anyone other than MLB – Uptown, LLC, for whom it was prepared, is prohibited. Reliance or use by any third party of the report does not make said party a beneficiary to Fisher & Arnold’s contract with MLB – Uptown, LLC. Any such unauthorized reliance on or use of this report including any of its information or conclusions will be at the third party’s risk. No warranties or representation expressed or implied in this report is made to any third party.

## **2.0 SITE DESCRIPTION**

### **2.1 Location and Legal Description**

The subject property is located at 696 N. Second Street. The property is in the northwest corner of the southwest ¼ of Block 55 in northern downtown Memphis, Tennessee. The subject property is bounded by N. Second Street to the west and the former Cubbins Alley to the north. A site map (Fig. 1) of the subject property is available in Appendix B.

### **2.2 Site and Vicinity General Characteristics**

The subject property is located in the Uptown Development area of downtown Memphis, TN. The area is currently undergoing redevelopment into eco-friendly single family homes and apartments. The subject property includes a vacant building.

### **2.3 Current use of the Property**

The subject property consists of approximately 0.20 acres and contains a 2400 sq. ft. single-story building which is currently vacant.

### **2.4 Descriptions of Structures, Roads, and Other Improvements on the Site**

The subject property contains a 2400 sq. ft. single-story building on the northwestern corner of the parcel. The remaining area is currently covered with grass and contains no distinguishable structures or features.

## 2.5 Current Uses of the Adjoining Properties

<b>North</b>	Vacant
<b>South</b>	Vacant
<b>East</b>	Vacant
<b>West</b>	Vacant Building – 130 Keel Avenue Vacant – 707 N. Second

The following recognized environmental conditions (RECs) were noted from a visual inspection of the adjoining properties:

<b>North</b>	None
<b>South</b>	None
<b>East</b>	None
<b>West</b>	None

## 3.0 USER PROVIDED INFORMATION

The User of the report completed a user responsibility questionnaire which is available for review in Appendix C.

### 3.1 Title Records

Chain-of-title documentation was not provided for this assessment. The most recent deed information was provided by the Shelby County Register's Office website. The following table lists the available information for the subject property. The representative deed is available for review in Appendix C.

Address	Date	Grantor	Grantee
696-700 N. Second St.	05/04/2009	ZISKIND GREG A S TR	MAYER P LAZAR CREDIT SHELTER TRUST
696 N. Second St.	01/03/2003	MAYER P LAZAR CREDIT SHELTER TRUST	HILL FREDDIE
0 Keel Avenue	02/02/1955	COLEMAN GEORGE G	SOUTH MEMPHIS REALTY CO
	04/05/2002	LAZAR MAYER P	LAZAR MAYER P
	08/14/1975	WHITE LEE R ETAL	LAZAR MAYER P

### 3.2 Environmental Liens or Activity and Use Limitations

No environmental liens were reported by the Client. No environmental liens were noted in the most recent deed information associated with the subject property.

### **3.3 Specialized Knowledge**

No specialized knowledge of recognized environmental conditions (RECs) or other potential environmental concerns were reported by the Client.

### **3.4 Commonly Known or Reasonably Ascertainable Information**

The subject property has been developed since at least 1888 as mixed use: residential and commercial.

### **3.5 Valuation Reduction for Environmental Issues**

No property valuation reduction relating to environmental concerns was reported by the Client.

### **3.6 Owner, Property Manager, and Occupant Information**

The subject property is currently owned by the Lazer Mayer P Credit Shelter Trust. Ms. Melody Burrell, real estate agent and a representative associated with the subject property was interviewed concerning the environmental condition of the subject property. The interview is available in Section 6.1.

### **3.7 Reason for Performing Phase I**

The Phase I ESA Update was prepared by F&A at the request of the Client, MLB-Uptown, LLC. This Phase I ESA Update was requested to assist in the evaluation of the subject property's environmental condition.

### **3.8 Prior Environmental Reports**

The subject property has reportedly never been associated with a Phase I ESA or other environmental report. However, the northern, eastern, and southern adjacent properties (Block 55) were previously studied in a Phase I ESA completed by F&A in June 2005. Three following RECS were identified in the findings of the previous report.

- 1) The first REC pertains to the former Baine's Pure Oil that was present on the subject property (Block 55) at 711 N. Third Street (167 Chelsea Avenue), which is the location for the former Wayne's Coin-Op Laundromat.
- 2) The second REC pertains to the former Tom Breathett's (TB) located adjacent to the east of the subject property (Block 55) at 183 Chelsea Avenue.

- 3) The third REC pertains to the Steven's Electric which is located northwest of the subject property (Block 55) at 812 N. Main Street.

F&A recommended that a subsurface investigation be performed on the current location of the Wayne's Coin-Op Laundromat, which was the location for the former Baine's Pure Oil, and between the former Tom Breathett's and the subject property to determine if any contamination is present on the subject property attributable to the Tom Breathett's USTs.

A second Phase I ESA was completed on the subject property (714 N. Second Street) in October 2007. One REC was identified associated with the former gas station at 167 Chelsea Avenue/ 711 N. Third Street, east of the subject property. The report concluded that additional subsurface information regarding the identified recognized environmental condition is necessary in order to formulate a more detailed opinion regarding the potential presence of environmental contamination.

A Phase II ESA was completed on the subject property (714 N. Second Street) in August 2008 to determine if the former nearby UST system has had an environmental impact on the subject property. The report concluded that arsenic concentrations observed during the Phase II do not appear to be a concern to the subject property. No other significant environmental conditions were observed as a result of this report and no further environmental action is recommended.

Further, a Phase II ESA was completed on the property at 167 Chelsea Avenue, approximately 130 feet northeast of the subject property in January 2011. Based on results of the December 2010 field work including subsurface trenching and soil and ground water samples collected, F&A recommended that the vent lines associated with the former UST(s) found on the subject property should be removed. Additionally, special attention was recommended in the area of soil boring and temporary monitoring well point GP-1. An elevated concentration of xylenes was reported in shallow soil and concentrations of petroleum compounds below screening levels were reported in ground water for the sampling location.

The analytical results combined with the field observations and PID readings indicate a historic gasoline release from the former USTs. However, the data suggest that no contaminants have moved from the site with levels that exceed applicable standards. The relatively low concentrations of petroleum-related compounds in soil and ground water on the subject property appear to indicate degraded petroleum constituents. Further, the compounds n-butylbenzene, sec-butylbenzene, isopropylbenzene, naphthalene, n-propylbenzene, 1,2,4-trimethylbenzene, and 1,3,5-trimethylbenzene identified in GP-1 are typically found in older gasoline releases.



No further assessment was recommended on the 167 Chelsea site, if the future site use is non-residential or is not used as a location for a sensitive receptor (daycare, playground, nursing home, etc).

### **3.9 Other**

No other information was provided by the user.

## **4.0 RECORDS REVIEW**

### **4.1 Standard Environmental Record Sources**

A search of available federal and state environmental records was obtained from Environmental Data Resources, Inc. (EDR) in Milford, Connecticut. A copy of this search is provided in Appendix D. The provided search report meets or exceeds the regulatory records search requirements of ASTM E 1527-05.

Due to discrepancies in the location of some facilities in the databases arising from incorrect or incomplete addresses some facilities may be listed as unmappable. Thirty-three (33) sites were reported to be unmappable. These sites are not thought to present a significant risk to the subject property.

A review of the regulatory information from this database search for possible recognized environmental conditions (RECs) within the ASTM minimum search distance is provided in the Federal and State sections below.

#### **4.1.1 Federal Environmental Records**

Four federal database facilities were reported within the required ASTM search distance. The actual Federal databases searched and the distances from the subject property can be reviewed in Appendix D.

#### **CERCLIS- NFRAP**

The **Old Cummins Diesel** facility at 812 N. Main Street is located approximately 200 feet northwest of the subject property. This site was investigated due to identified contamination at the current Cummins Diesel Recon facility which conducted similar activities. This facility was in operation from 1950 until approximately 1967. In December 2008, soil and soil gas sampling was undertaken on this nearby property by the USEPA. In a February 2009 report, soil and soil gas contamination was discovered on this property. The State of Tennessee has indicated that further investigation is forthcoming to determine the extent of the impact

to the property. Excerpts from the USEPA report have been included within Appendix E.

The **Southern Container Corporation** at 1168 Pearce St. is located 1 miles northeast from the subject property. This facility recycled drums from three local industrial plants and individuals. It is reported to be a small quantity generator. There was no file information available after 1983. Due to the distance from the subject property, this facility does not appear to pose a significant environmental threat.

The **True-Tagg Paint Co.** at 442 Third Street is located 0.5 miles south from the subject property. It is reported to be a small quantity generator. Due to the distance from the subject property, this facility does not appear to pose a significant environmental threat.

#### **RCRA-NonGen**

The **Matthew's Blow Pipe Co. Inc.** at 130 Keel Avenue is located on the western adjacent property. The EDR Report indicates that no violations have been found associated with facility. A file review conducted at TDEC revealed no file information for this facility. Due to the lack of file information, no reported violations and Non-Generator status, this facility does not appear to pose a significant environmental threat to the subject property.

#### **4.1.2 State Environmental Records**

Four state database facilities were reported within the required ASTM search distance. These sites are believed to present a very low risk to the subject property and do not merit further evaluation at this time, due to distance from the subject property. The actual State databases searched and the distances from the subject property can be reviewed in Appendix D.

#### **4.2 Additional Environmental Record Sources**

There were no other sources for environmental records that were reviewed for this study.

#### **4.3 Physical Setting Source(s)**

The United States Geological Survey 7.5 Minute Quadrangle Map was reviewed for the subject property and the area immediately surrounding it. The map is dated 1965 and was revised in 1993. No buildings or features are noted on the subject property or the adjacent properties. Several school and churches are located in the vicinity of the subject property. The Wolf

River Lagoon is noted several hundred feet west of the subject property, the Mud Island and the Mississippi River beyond. The subject property appears to be approximately 250 feet above sea level.

A copy of this map is included in Appendix B.

The EDR report indicates that the subject property is not located in the 100-year and 500-year flood zones. However, the determination of flood zones is beyond the scope of this report and should be verified via other engineering studies.

The Physical Setting Source Summary in the Geotcheck section of the EDR Report lists several physical characteristics of the subject property such as: Latitude/Longitude, general ground water flow direction and velocity in the vicinity, gradient and soil information, but has not been physically confirmed for the site.

#### **4.4 Historical Use Information on the Subject Property and Adjoining Properties**

The objective of consulting historical sources is to develop a history of the previous uses or occupancies of the property and surrounding area in order to identify those uses or occupancies that are likely to have led to recognized environmental conditions in connection with the property.

##### **4.4.1 Aerial Photographs**

Historical aerial photographs were reviewed for this report and are included in Appendix F. These photographs have been obtained from the Shelby County Archives Department, in Memphis, Shelby County, Tennessee and on file with F&A.

##### **1938 Aerial Photograph**

The subject property appears to be undeveloped. Several of the adjacent properties are developed. Buildings are located along Second Street and Keel Avenue. Cubbins Alley is noted along the northern property line. The surrounding properties appear to be predominately residential or commercial. A school is located northeast of Chelsea Ave. and Third St.

##### **1959 Aerial Photograph**

The subject property appears to contain two buildings along N. Second Street. The majority of the properties along the exterior of Block 55, along N. Second Street and Keel Avenue, contain buildings. The southern and

northern adjacent properties are developed. The majority of the vicinity is developed.

#### **1965 Aerial Photograph**

The photograph is of poor quality. The subject property and adjacent properties are indistinguishable. An industrial area appears to be located several hundred feet northwest of the subject property.

#### **1971 Aerial Photograph**

A subject property appears to have remained developed with two buildings. The majority of the adjacent properties appear to be developed.

#### **1981 Aerial Photograph**

The subject property has remained developed. Several of the buildings in the vicinity appear to have been demolished.

#### **1990 Aerial Photograph**

The photograph is of poor quality. The subject property appears similar to the previous photograph. The properties in the vicinity have continued to remove buildings.

#### **1999 Aerial Photograph**

The subject property has remained developed with two buildings. The properties in the vicinity have continued to remove buildings.

#### **2004 Aerial Photograph**

The southern building has been removed from the property, although a foundation is visible. The northern building on the subject property has remained. Several of the properties in the vicinity are undeveloped.

#### **2008 Aerial Photo**

The subject property and the adjacent properties appear similar to their current condition. Several of the properties in the vicinity have been redeveloped with residences.

#### **4.4.2 Sanborn Maps**

Sanborn maps were available for this area of Memphis. The Sanborn Maps are available for review in Appendix G.

##### **1888 Sanborn Map**

The subject property contains four dwellings which are noted as 'Shanties'. Dwellings are located along the northern, western, and eastern adjacent properties. The majority of the properties in the vicinity are undeveloped or residential with a few stores.

##### **1897 Sanborn Map**

The subject property contains five dwellings. The adjacent properties contain dwellings. Many dwellings, tenements, and stores are located in the vicinity of the subject property.

##### **1907 Sanborn Map**

The subject property and the adjacent properties have remained residential.

##### **1950 Sanborn Map**

Several of the buildings previously located on the subject property have been removed. Several other buildings in the vicinity have been removed.

##### **1952 Sanborn Map**

The map from 1952 remains similar to the previous map.

##### **1965 Sanborn Map**

A furniture store is located on the northwestern corner of the subject property. A dwelling has remained on the southern portion of the subject property. The majority of the properties in the vicinity are residential or contains stores.

##### **1969 Sanborn Map**

The subject property remains similar to the previous map. The majority of the properties in the vicinity is residential or contains stores.



#### 4.4.3 City Directory Abstract

City directories for the subject property were provided by EDR. The following addresses were businesses reportedly associated with operations on the subject property and adjacent properties. A copy of the City Directory Abstract is available for review in Appendix H.

#### Subject Property

The subject property was listed in the City Directory from 1953 to 2003.

OCCUPANT	YEAR(S)	STREET ADDRESS
NO RETURN	1963	696 N. Second Street
Residential	1968 - 1982	
VACANT	1987	
NO RETURN	1992	
NOT VERIFIED 2 HSES	2003	
FRIEDMAN FURN CO	1953 - 1958	700 N. Second Street
NO RETURN	1963	
GARDNER E BLAYLOCK LWYRS UDELSOHN TURNAGE HESTER VACANT	1968	
Vacant	1973	
UDELSOHN TURNAGE & BLAYLOCK P C Lawyers VACANT	1978 - 1982	
VACANT	1987	
Residential	1968 - 1982	
VACANT	1987	
NO RETURN	1992	
NOT VERIFIED 2 HSES	2003	

#### Adjacent Properties

The adjacent and immediately surrounding properties reviewed in the City Directory Abstract are listed in the following table.

OCCUPANT	YEAR(S)	STREET ADDRESS	
Residential	1921	704 N. Second Street	Northern Adjacent
North Side Cafe	1926		
Carter Grain & Seed Co.	1932		
Shoe Repair	1938		

Eagle Furniture Company	1943		
Church of the Nazarene	1948		
Campbells Service Co Refgrs	1953		
North Memphis Tire Shop	1958		
Vacant	1963		
Consulting Psychologist Dentist	1968		
Vacant	1973 - 1978		
Residential	1921 - 1978	148 Keel Avenue	South
Vacant	1982		
St. Matthews Baptist Church	1948 -1978	707 N. Second Street	Western Adjacent
Ellis Grove Baptist Church	1982 -1987		
Christ Gospel Apostolic Church	1992		
Temple of Holiness Churches	2003 - 2006	130 Keel Avenue	
A Matthews Sales Co Mfrs A Tell Tronics Products Inc. Matthews Blow Pipe Co Pipe Mfrs	1958 - 1973		
Matthews Blow Pipe Co Inc Sht Mtl Wkrs	1978 - 1992		
Matthews Blow Pipe Co Air Pollution Control	2003		
Middle Earth Construction	2006		

## 5.0 SITE RECONNAISSANCE

### 5.1 Methodology and Limiting Conditions

The subject property was inspected by Ms. Sarah Schoefernacker, Project Scientist, on February 15, 2011. The weather during the inspection was sunny and warm. The majority of the subject property was able to be accessed at the time of the site visit.

### 5.2 General Site Setting

At the time of the site reconnaissance, the subject property consisted of an abandoned building. The adjacent properties were mixed use: vacant, residential and commercial.

### 5.3 Exterior Observations

The property contains one building which is surrounded by undeveloped land with grass. The former Cubbins Alley is located along the northern property line. The adjacent properties to the north, east and south are undeveloped. The western adjacent property contains a vacant building.

Some minor disposal was located along the perimeter of the subject property.

The western adjacent property contained miscellaneous outdoor storage. However, the majority of the items appeared to be vehicles and a boat.

A site drawing and site photographs are presented in Appendix B and Appendix I respectively.

#### 5.4 Interior Observations

The building on the subject property appears to have been used for storage of several miscellaneous items. A wood counter and other improvements were observed within the building which appeared to be designed for a bar or restaurant, but have never been used. The building is currently not in use.

#### Site Reconnaissance Summary

A summary of land uses and conditions consistent with ASTM Standard E 1527-05 indicating the likelihood of recognized environmental conditions in connection with the property is provided below. For each of the uses or conditions identified on the property, if any, detailed information is provided along with an opinion about its significance in the analysis of recognized environmental conditions in connection with the subject property.

IDENTIFIED			
YES	NO	UNKNOWN	
	X		Hazardous Substances in Connection with Property Use
	X		Petroleum Products in Connection with Property Use
	X		Aboveground and Underground Hazardous Substance or Petroleum Products Storage Tanks (ASTs/USTs)
	X		Hazardous Substance and Petroleum Product Containers and Unidentified Containers Not in Connection with Property Use
	X		Stains or Corrosion on Interior of Facility
	X		Drains and Sumps
	X		Pools of Liquid and Standing Surface Water-
	X		Pits, Ponds or Lagoons
	X		Stained Soil or Pavement
	X		Stressed Vegetation –
	X		Solid Waste Dumping, Landfills and Suspect Fill Material

IDENTIFIED			
YES	NO	UNKNOWN	
	X		Waste Water Discharges
	X		Wells
	X		Septic or Sewage Tanks
	X		Odors
X			Other Uses or Conditions of Concern – <b>Minor windblown disposal is located along the perimeter of the property. Approximately 5 5-gallon buckets of paint were observed within the building.</b>

A summary of uses and conditions identified on adjoining properties, to the extent that they could be reasonably observed from the subject property, consistent with ASTM Standard E 1527-05 indicating the likelihood of recognized environmental conditions in connection with the subject property is provided below.

IDENTIFIED			
YES	NO	UNKNOWN	
	X		Hazardous Substances in Connection with Property Use
	X		Petroleum Products in Connection with Property Use
	X		Aboveground and Underground Hazardous Substance or Petroleum Products Storage Tanks (ASTs/USTs) –
	X		Hazardous Substance and Petroleum Product Containers and Unidentified Containers Not in Connection with Property Use
	X		Stains or Corrosion on Interior of Facility
	X		Drains and Sumps
	X		Pools of Liquid and Standing Surface Water
	X		Pits, Ponds or Lagoons
	X		Stained Soil or Pavement-
	X		Stressed Vegetation
	X		Solid Waste Dumping, Landfills and Suspect Fill Material
	X		Waste Water Discharges
	X		Wells
	X		Septic or Sewage Tanks
	X		Odors
X			Other Uses or Conditions of Concern - <b>Miscellaneous outdoor storage was observed on the western adjacent property at 130 Keel Avenue.</b>

## 6.0 INTERVIEWS

Interviews are typically conducted with individuals knowledgeable of the subject property. Information obtained from the interview appears in the appropriate sections of this report. The following person was interviewed:

Contact	Function	Employer	Date	Phone
Ms. Melody Burrell	Real Estate Agent	Marx & Bendorf	2-21-11	901-461-4016
Ms. Burrell, a representative of the Owner Mr. Lazer, was contacted concerning the environmental condition of the subject property. Ms. Burrell stated that the subject property has been associated with Mr. Lazar's family for several years. Mr. Lazar inherited the property and did not have a Phase I ESA or environmental study completed at that time. Ms. Burrell stated that the building was possibly a liquor store at some point, but was no aware of any other use of the property.				

## 7.0 FINDINGS

Based on site reconnaissance, interviews and review of available records, F&A identified one Recognized Environmental Condition (REC) associated with the subject property.

The Old Cummins Diesel facility at 812 N. Main Street is located approximately 220 feet northwest of the subject property. This facility is the same address as presented in the 2005 Phase I ESA (Block 55) for Steven's Electric, which operated on or near the western adjacent property, and was identified as a REC. Due to limited information and an interpreted westward flow of potential surface and groundwater contaminants, no further information was recommended to be collected in 2005. However, since that time, this facility has been identified by the USEPA to contain elevated levels of chemicals of concern in soil and soil gas samples taken during a December 2008 site investigation, and presented in a February 2009 Investigation Final Report . This site is currently under active investigation by the State of Tennessee to determine the extent of contamination associated with the former Old Cummins Diesel operation. Due to the recently discovered PCE and TCE soil and soil gas contamination; this site appears to present a significant environmental threat to the subject property.

## 8.0 OPINION

The findings presented appear to be consistent with a careful review of historical information and off-site conditions observed during the site visit.



## 9.0 CONCLUSIONS

Additional subsurface information regarding the identified recognized environmental condition is necessary in order to formulate a more detailed opinion regarding the potential presence of environmental contamination.

## 10.0 ADDITIONAL SERVICES

No additional services beyond the ASTM E 1527-05 Scope of Work were requested for this project. An asbestos survey will be required prior to renovation or demolition of the subject property building.

## 11.0 REFERENCES

- i. 40 CFR 312.21(d)
- ii. American Society for Testing and Materials (ASTM) Standards, Practice E 1527-05
- iii. Phase I ESA. Block 55. North Second Street and Keel Avenue, Memphis, TN 38107. Prepared for Uptown Partnership by F&A. June 2005.
- iv. Phase I ESA. 714 N. Second Street, Memphis, TN. Prepared for the Memphis House Authority by F&A. October 2007.
- v. Phase II ESA. 714 N. Second Street, Memphis, TN. Prepared for Lauderdale-Greenlaw LLC. by F&A. August 2008.
- vi. Phase II ESA. 167 Chelsea Avenue. Memphis, TN. Prepared for MLB-Uptown, LLC. by F&A. January 2011.

## 12.0 SIGNATURE(S) OF ENVIRONMENTAL PROFESSIONAL(S)

Prepared By: Sarah R. Schoefnacker  
Sarah R. Schoefnacker, Project Scientist

I declare that, to the best of my professional knowledge and belief, I meet the definition of *Environmental professional* as defined in §312.10 of 40 CFR 312” and I have the specific qualifications based on education, training and experience to assess a *property* of the nature, history, and setting of the subject *property*. I have developed and performed the all appropriate inquiries in conformance with the standards and practices set for in 40 CFR Part 312 except as noted in section 1.4 of this report.

Reviewed By: Gene M. Bailey  
Gene M. Bailey P.E., Principal

### **13.0 QUALIFICATION(S) OF ENVIRONMENTAL PROFESSIONAL(S)**

Qualifications of the report preparer are located in Appendix J.

### **14.0 APPENDICES**

- A. Agreement and Scope of Work
- B. Figures (Site Drawings)
- C. Supporting Documentation
- D. Regulatory Records Documentation
- E. Tennessee Department of Environment and Conservation (TDEC) File Review
- F. Aerial Photographs
- G. Sanborn Maps
- H. City Directory Abstract
- I. Site Photographs
- J. Qualification(s) of the Environmental Professional

**A. Agreement and Scope of Work**



FISHER &  
ARNOLD, INC.

January 31, 2011

MLB-Uptown, LLC  
700 Adams Avenue  
Memphis, TN 38105

**RE: PROFESSIONAL SERVICE AGREEMENT/PHASE 1 ESA UPDATES  
FOUR UPTOWN PROPERTIES  
(0 KEEL AVENUE, 714 N. SECOND STREET,  
696 N. SECOND STREET, 167 CHELSEA AVENUE)  
MEMPHIS, TENNESSEE**

Dear MLB-Uptown:

Fisher & Arnold Environmental, a division of Fisher & Arnold, Inc. is pleased to submit the following fee proposal to complete a Phase I Environmental Site Assessment (ESA) Update at the above referenced sites.

- Architects
- Engineers
- Environmental Consultants
- Interior Designers
- Landscape Architects
- Planners
- Surveyors

The Phase I ESA Update will be performed in general accordance with American Society for Testing and Materials (ASTM) Standards, Practice E 1527-05 and will include the following scope of work:

**Site History** - Fisher & Arnold will review readily available records concerning the past use of the subject property.

**Environmental Records Review** - Fisher & Arnold will obtain and review Federal and State environmental records regarding the release of regulated substances on the property or in the vicinity of the property. Fisher & Arnold will review records of activities conducted on or near the site which may cause or contribute to a release of regulated substances. Standard environmental record sources and search distances in accordance with Section 7.2.1.1 of ASTM E 1527-05 will be followed.

**Visual Site Inspection** - Fisher & Arnold will conduct a visual inspection of the property and properties adjacent to the subject property including an inspection of any chemical use, storage, treatment and/or disposal practices on the property.

**Report** -- Upon completion of the Phase I Assessment, Fisher & Arnold will submit a report detailing all work performed, areas of potential concern, and recommendations concerning further action at the property, if necessary. Three separate reports will be submitted, based upon ownership of duplicate properties.

**Schedule**- Within 14 days of the notice to proceed, the proposed reports will be completed.

5180 Creaswyn Hills Dr.  
Memphis, TN 38125  
(901) 748-1811  
(888) 583-9724  
fax: (901) 748-3115  
www.fisherarnold.com



MLB-Uptown, LLC  
January 31, 2011  
Page 2

Fisher & Arnold expects that Client will provide, or will otherwise make available, pertinent information that it has or can access regarding current site operations and history. This information would include, but is not limited to, the site location and/or street address, site plan(s) or map(s), a contact person for the site who is knowledgeable of site operations and/or history, and any specialized updated information regarding the site that all parties might have.

A lump sum fee of \$20,000 is proposed for this project.

This cost estimate is also based on the following assumptions:


- A chain of title will not be obtained for the property by Fisher & Arnold. The Client will provide one if available.
- No environmental, lead-based paint, or asbestos sampling will be conducted during the course of the project. If such sampling is determined necessary, additional costs will be proposed as Phase II work.
- Phase I ESA verbal reports are typically based upon the information available at that time, which is subject to change.

We welcome the opportunity to work on this project. Should you have any questions regarding this proposal, please contact me. An abbreviated terms and conditions statement below is followed by a signature of acceptance and authorization. Please sign, date and return this proposal for our files and we can schedule the work at your direction.

Sincerely,

**FISHER & ARNOLD ENVIRONMENTAL**

  
Standley Moore, P.E.  
Vice President

  
Gene M. Bailey, P.E.  
Principal  
(Reviewed By)

SOM/mkg

N:\PROPOSAL\ENVIRONM\GENE\MLB-Uptown 01-31-11.doc





MLB-Uptown, LLC  
January 31, 2011  
Page 3

Terms and Conditions

An invoice will be sent at the completion of the project. Payment is due by the 10<sup>th</sup> of each month. Payment of the fees is not contingent on transaction of the property or closing dates relating to the property. Interest in the amount of 1.5% per month on the outstanding balances (18% per year) will be assessed the contracting party after the payment due date.

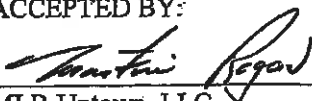
In the event of breach or non-payment, the contracting party agrees to pay reasonable expenses of enforcement including attorney fees and costs. Exclusive venue for enforcement of this agreement shall be in Shelby County, Tennessee.

The obligation to provide further services under the Agreement may be terminated by either party upon written notice in the event of substantial failure by the other party to perform in accordance with the terms hereof through no fault of the terminating party. In the event of termination, Fisher & Arnold, Inc. will be paid for all services rendered to the date of termination.

The fees shown in this proposal are based on the Owner agreeing to limit the Professional's liability for all planning, engineering and analytical services to the Owner due to the Professional's negligent acts, errors or omissions, such that the total aggregate liability of the Professional to all those named shall not exceed the Professional's total fee for services rendered on the project.

This proposal represents the entire understanding between you and us in respect to the "Project" and may only be modified in writing signed by both of us. If this satisfactorily sets forth your understanding of the arrangement between us, please sign the acceptance of this proposed Letter Agreement in the space provided below and return it to us.

ACCEPTED BY:

  
\_\_\_\_\_  
MLB-Uptown, LLC

2-1-2011  
Date

V.P.  
\_\_\_\_\_  
Title

**B. Figures (Site Drawings)**

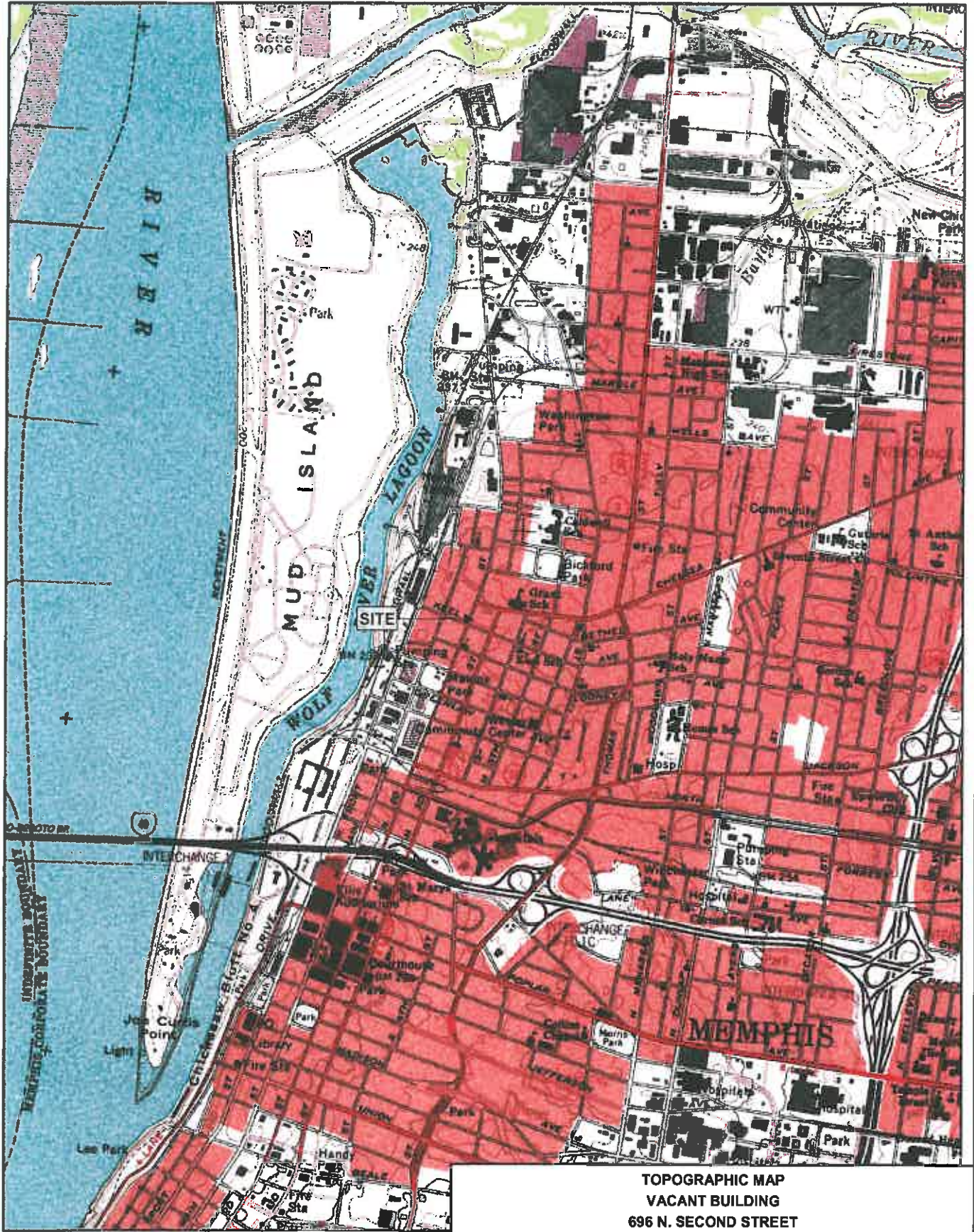


**SITE MAP**  
**VACANT BUILDING**  
**696 N. SECOND STREET**  
**MEMPHIS, TN**



DATE: 1/2011	SOURCE: SHELBY COUNTY ARCHIVES (2008)	FIGURE 1
DRAWN BY:SS	SCALE: 1:1000 JOB NO. G7689	





**TOPOGRAPHIC MAP  
VACANT BUILDING  
696 N. SECOND STREET  
MEMPHIS, TN**



**Fisher & Arnold Environmental**  
 Consulting Engineers & Scientists  
 9180 Crestwyn Hills Drive - Memphis, Tennessee 38125  
 (901) 748-1811 Fax: (901) 748-3115 Web: www.fisherarnold.com



DATE: 1965/1993

SOURCE: NW MEMPHIS, TN USGS  
 TOPOGRAPHIC MAP

FIGURE

DRAWN BY:SS

SCALE: 1:24000

JOB NO. G7689

2

**C. Supporting Documentation**



**Environmental Questionnaire (as suggested for conformance with ASTM E 1527-05)**

Please fax or email the answers to these questions back to Fisher & Arnold Environmental at (901) 748-3115 or [environmental@fisherarnold.com](mailto:environmental@fisherarnold.com).

**(1.) Environmental cleanup liens that are filed or recorded against the site.**

ASTM E 1527-05 states that the user (client) should perform a review of recorded land title records and judicial records for *environmental liens or activity and use limitations* for the site. Please forward the results of the land title record and judicial record review.

NONE THAT WE ARE AWARE OF.

**(2.) Activity and land use limitations that are in place on the site or that have been filed or recorded in a registry.**

Are you aware of any AULs, such as *engineering controls*, land use restrictions or *institutional controls* that are in place at the site and/or have been filed or recorded in a registry federal, tribal, state or local law?

NONE THAT WE ARE AWARE OF.

**(3.) Specialized knowledge or experience of the person seeking to qualify for the LLP.**

As the *user* of this *ESA* do you have any specialized knowledge or experience related to the *property* or nearby properties? For example, are you involved in the same line of business as the current or former *occupants* of the *property* or an adjoining *property* so that you would have specialized knowledge of the chemicals and processes used by this type of business?

NONE.

**(4.) Relationship of the purchase price to the fair market value of the *property* if it were not contaminated.**

Does the purchase price being paid for this *property* reasonably reflect the fair market value of the *property*? If you conclude that there is a difference, have you considered whether the lower purchase price is because contamination is known or believed to be present at the *property*?

UNUSUAL - APPRAISAL TO BE PERFORMED AFTER ENVIRONMENTAL TESTING.

**(5.) Commonly known or reasonably ascertainable information about the *property*.**

Are you aware of commonly known or *reasonably ascertainable* information about the *property* that would help the *environmental professional* to identify conditions indicative of releases or threatened releases? For example, as *user*:

**(a.) Do you know the past uses of the *property*?**

NO

**(b.) Do you know of specific chemicals that are present or once were present at the *property*?**

NO

**(c.) Do you know of spills or other chemical releases that have taken place at the *property*?**

NO

**(d.) Do you know of any environmental cleanups that have taken place at the *property*?**

NO

(6.) The degree of obviousness of the presence or likely presence of contamination at the *property*, and the ability to detect the presence of the contamination by appropriate investigation.

As the *user* of this *ESA*, based on your knowledge and experience related to the *property*, are there any *obvious* indicators that point to the presence or likely presence of contamination at the *property*?

ONE PROPERTY (101 COLUMBIA) IS A FORMER GAS STATION / LANDFILL/LOT

(7.) ASTM E 1527-05 indicates that, "Either the *user* shall make known to the environmental professional the reason why the *user* wants to have the Phase I Environmental Site Assessment performed or, if the *user* does not identify the purpose of the Phase I Environmental Site Assessment, the environmental professional shall assume the purpose is to qualify for an LLP to CERCLA liability and state this in the report."

As the *user* of this *ESA*, what is the reason for conducting the Phase I *ESA*? If this question is unanswered, BCS will assume that the *user's* reason for the *ESA* is to qualify for landowner liability protections to CERCLA liability.

TO ASCERTAIN THE EXTENT (IF ANY) OF ENVIRONMENTAL CONTAMINATION  
IN THE SITE TO ENSURE THE KNOWLEDGE OF CONDITIONS PRIOR TO ACQUISITION.

FURTHER COMMENTS:

Martin Regan  
Printed Name of User U.P.

Sarah E. Schoferacker  
Interview: F&A Personnel

Martin Regan  
Signed Name of User U.P.


2/1/2011  
Date

2/1/2011  
Date



*Tom Leatherwood*  
Shelby County Register

As evidenced by the instrument number shown below, this document has been recorded as a permanent record in the archives of the Office of the Shelby County Register.

	
<b>09051550</b>	
05/04/2009 - 12:43 PM	
3 PDS	
VIRGINIA 648906-9051550	
VALUE	48000.00
MORTGAGE TAX	0.00
TRANSFER TAX	177.60
RECORDING FEE	15.00
DP. FEE	2.00
REGISTER'S FEE	1.00
WALK THRU FEE	0.00
<b>TOTAL AMOUNT</b>	<b>195.60</b>
<b>TOM LEATHERWOOD</b>	
REGISTER OF DEEDS SHELBY COUNTY TENNESSEE	

**SUBSTITUTE TRUSTEE'S DEED**

WHEREAS, by Deed of Trust dated the 9th day of May, 2002 and recorded in the Register's Office of Shelby County, Tennessee, at Instrument 03001522, Freddie Hill, conveyed to Claiborne H. Ferguson, Trustee, the hereinafter described property for the purpose of securing payment of the indebtedness and performance of the obligations therein mentioned and set forth; and

WHEREAS, **Greg A. Ziskind** was appointed Substitute Trustee at Instrument No. 08143511 rerecorded at Instrument No.09002476 of record in the Register's Office of Shelby County, Tennessee; and

WHEREAS, default has been made in the payment of said indebtedness and the performance of said obligations thereby secured to be paid and performed, and the holder of said Deed of Trust requested the undersigned to advertise and sell said property under the terms and provisions of said Deed of Trust; and

WHEREAS, the property was advertised for sale in conformity with the laws of Tennessee and the terms and provisions of said Deed of Trust on March 18, 2009, March 25, 2009 and April 1, 2009 in THE DAILY NEWS, by which advertisement the sale was held at 1 p.m. on the 8<sup>th</sup> day of April, 2009, at the Adams Avenue entrance at the southwest corner of the Courthouse of Shelby County, Tennessee in bar of the equities of redemption, dower, and homestead; and

WHEREAS, at the time and place mentioned in said advertisement, the undersigned offered said property for sale at public outcry to the highest and best bidder for cash, at which sale the **Mayer P. Lazar Credit Shelter Trust** being the highest, best and last bidder, became the purchaser of said property at and for the sum of \$48,000.00; and

WHEREAS, the said purchaser being the owner of the debt for which said property was sold, has complied with the terms of sale by paying into the hands of the undersigned Substitute Trustee the expenses of the sale, the balance of the purchase price being credited on the indebtedness secured by said Deed of Trust;

NOW, THEREFORE, in consideration of the premises and of the payment as aforesaid, of the said sum of money, receipt of which payment is hereby acknowledged, the undersigned **Greg A. Ziskind**, as Substitute Trustee, does hereby grant, bargain, sell and convey unto the **Mayer P. Lazar Credit Shelter Trust**, the real property situated in the County of Shelby, State of Tennessee as described in **Exhibit A** attached hereto

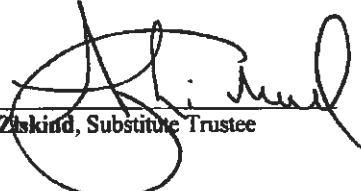
The last recorded transfer deed on the same property was filed of record at Instrument No. **03001521** in the Register's Office of Shelby County, Tennessee.

Street Address: 696-700 N. Second and O Keel  
Tax Parcel ID#'S: 00105500010 and 00105500012

TO HAVE AND TO HOLD the property described above, together with the privileges, appurtenances, and hereditaments thereunto belonging or in any way appertaining unto the said **Mayer P. Lazar Credit Shelter Trust**, its successors and assigns forever, to whom the said, **Greg A. Ziskind**, as Substitute Trustee, warrants the title to the aforesaid property against the lawful claims and demands of all persons claiming by, through or under him, but not further nor otherwise.

IN TESTIMONY WHEREOF, **Greg A. Ziskind**, Substitute Trustee, has hereunto set his hand, this 8th day of April, 2009

\_\_\_\_\_  
**Greg A. Ziskind**, Substitute Trustee

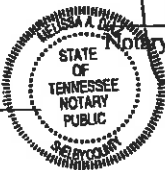


STATE OF TENNESSEE  
COUNTY OF SHELBY

On this 8<sup>th</sup> day of April, 2009, before me, a Notary Public in and for said State and County, duly commissioned and qualified, personally appeared Greg A. Ziskind, Substitute Trustee, to me known to be the person described in and who executed the foregoing instrument, and acknowledged that he executed the same as his free act and deed.

WITNESS my hand and Notarial Seal the day and year above written.

*Melissa A. Dyer*  
\_\_\_\_\_  
Notary Public



My Commission Expires: \_\_\_\_\_

MY COMMISSION EXPIRES:  
July 17, 2012

STATE OF TENNESSEE  
COUNTY OF SHELBY

I hereby swear or affirm that to the best of my knowledge, information and belief, the actual consideration for this transfer or value of the property transferred, whichever is greater, is \$48,000.00, which amount is equal to or greater than the amount which the property transferred would command at a fair and voluntary sale.

*Greg A. Ziskind*  
\_\_\_\_\_  
Affiant

SUBSCRIBED AND SWORN TO BEFORE ME this 8<sup>th</sup> day of April, 2009.

*Melissa A. Dyer*  
\_\_\_\_\_  
Notary Public



My Commission Expires: \_\_\_\_\_

MY COMMISSION EXPIRES:  
July 17, 2012

\*\*\*\*\*

THIS INSTRUMENT PREPARED BY & RETURN TO:

Greg A. Ziskind, Attorney  
8046 Brother Blvd  
Bartlett, Tennessee 38134

Property Address

696-700 N. Second and 0 Keel

Tax Parcel ID#'S: 00105500010 and 00105500012

Mail Tax Notices To and Property Owner:

Martin Lazar, Trustee  
PO BOX 770761  
Memphis, TN 38177



EXHIBIT A

Situated in the City of Memphis, County of Shelby and State of Tennessee

PARCEL I: The north 98 feet of the west 90 feet of Lots 61 and 62 of the U. B. Greenlaw Chelaca Subdivision in Country Lot 514, City of Memphis, more particularly described as follows: BEGINNING at a point in the east line of North Second Street 50.5 feet north of the intersection of the east line of North Second Street with the north line of Keel Avenue; thence northwardly with said east line of North Second Street 98 feet to the south line of an alley; thence eastwardly with the south line of said alley 90 feet to an iron stake; thence southwardly parallel with North Second Street 98 feet to a point; thence westwardly parallel with Keel Avenue 90 feet to North Second Street, the point of beginning. Being the same property conveyed by Warranty Deed in Book 2787, Page 172, Register's Office of Shelby County, Tennessee.

PARCEL II: The east 58.5 feet of Lots 61 and 62 of the E. T. Keel Subdivision in Country Lots 526, 532 and 531, being more particularly described as follows: BEGINNING at the northwest corner of Keel Street and the alley running north and south between Second and Third Streets; thence west 58.5 feet, more or less, to the east line of the Lee Property; thence northwardly parallel with Second Street 148.5 feet to an alley; thence eastwardly along the south line of the last mentioned alley 58.3 feet, more or less, to the first named alley; thence south along the west line of said alley 148.5 feet to the point of beginning. Being the same property conveyed by warranty deed of record as Instrument No. K5 9450 LESS AND EXCEPT that portion conveyed by Warranty Deed at No. AT 3695, all in said Register's Office.

Melody Burrell (real estate agent)

Name Martin H. Lazar Title/How Long OWNER 0 Keel / 696 N. Second	Date 2/21/11 Phone 461-4016
When did they purchase? (Vacant, Agricultural, Developed) Inherited them from family	
Buildings on the property? How old? Square Feet? No / one	
Previous Phase I ESA? By/When? Copy Provided? No ESAs	
Septic or Sewage Tanks (City Sewer or City Water) have access	
Wells- (Irrigation or Monitoring) No	
Hazardous Substances or Petroleum Products in Connection with Property Use- (Waste removed by?/ How often?) No	
Aboveground and Underground Hazardous Substance or Petroleum Products Storage Tanks (ASTs/USTs) - No	
Hazardous Substance and Petroleum Product Containers and Unidentified Containers Not in Connection with Property Use? No	
Solid Waste Dumping, Landfills and Suspect Fill Material? No	
Any known buried waste? No	
Know anything about neighbors, environmentally? Machine shop across the street.	
Transformers- Managed/ Owned by: No	
Utilities: (Gas, Electric, Water, Sewer) MLGW	
Prior Uses/ Owners of the Property- possible liquor store	
Other Uses or Conditions of Concern- No	



**D. Regulatory Records Documentation**

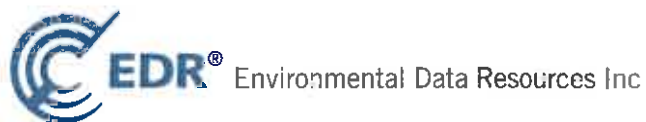
**Block 55 ESAs**

714 N. Second Street  
Memphis, TN 38107

Inquiry Number: 2981456.1s  
February 09, 2011

**The EDR Radius Map™ Report with GeoCheck®**

Prepared using the EDR FieldCheck® System



440 Wheelers Farms Road  
Milford, CT 06461  
Toll Free: 800.352.0050  
[www.edrnet.com](http://www.edrnet.com)



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

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## EXECUTIVE SUMMARY

A search of the environmental records was conducted by Environmental Data Resources, Inc. (EDR). FISHER & ARNOLD INC. used the EDR FieldCheck System to review and/or revise the results of this search, based on independent data verification by FISHER & ARNOLD INC.. The report was designed to assist parties seeking to meet the search requirements of EPA's Standards and Practices for All Appropriate Inquiries (40 CFR Part 312), the ASTM Standard Practice for Environmental Site Assessments (E 1527-05) or custom requirements developed for the evaluation of environmental risk associated with a parcel of real estate.

### TARGET PROPERTY INFORMATION

#### ADDRESS

714 N. SECOND STREET  
MEMPHIS, TN 38107

#### COORDINATES

Latitude (North): 35.163100 - 35° 9' 47.2"  
Longitude (West): 90.043600 - 90° 2' 37.0"  
Universal Tranverse Mercator: Zone 15  
UTM X (Meters): 769286.8  
UTM Y (Meters): 3894935.5  
Elevation: 246 ft. above sea level

#### USGS TOPOGRAPHIC MAP ASSOCIATED WITH TARGET PROPERTY

Target Property Map: 35090-B1 NORTHWEST MEMPHIS, TN  
Most Recent Revision: 1999

### TARGET PROPERTY SEARCH RESULTS

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

### DATABASES WITH NO MAPPED SITES

No sites were identified in following databases.

### STANDARD ENVIRONMENTAL RECORDS

#### ***Federal NPL site list***

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

#### ***Federal Delisted NPL site list***

Delisted NPL..... National Priority List Deletions

#### ***Federal CERCLIS list***

FEDERAL FACILITY..... Federal Facility Site Information listing

## EXECUTIVE SUMMARY

### **Federal RCRA CORRACTS facilities list**

CORRACTS..... Corrective Action Report

### **Federal RCRA non-CORRACTS TSD facilities list**

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

### **Federal RCRA generators list**

RCRA-LQG..... RCRA - Large Quantity Generators

RCRA-SQG..... RCRA - Small Quantity Generators

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

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

US INST CONTROL..... Sites with Institutional Controls

### **Federal ERNS list**

ERNS..... Emergency Response Notification System

### **State- and tribal - equivalent NPL**

SHWS..... List of Inactive Hazardous Substance Sites

### **State and tribal landfill and/or solid waste disposal site lists**

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

### **State and tribal leaking storage tank lists**

LUST\_JO..... Leaking Underground Storage Tanks Sites

HIST\_LUST CO..... Leaking Underground Storage Tanks Sites

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

### **State and tribal registered storage tank lists**

AST..... Aboveground Storage Tanks

INDIAN UST..... Underground Storage Tanks on Indian Land

FEMA UST..... Underground Storage Tank Listing

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

ENG CONTROLS..... Engineering Control Sites

INST CONTROL..... Institutional Control Sites

### **State and tribal voluntary cleanup sites**

INDIAN VCP..... Voluntary Cleanup Priority Listing

### **State and tribal Brownfields sites**

BROWNFIELDS..... Superfund VOAP Listing

# EXECUTIVE SUMMARY

## ADDITIONAL ENVIRONMENTAL RECORDS

### **Local Brownfield lists**

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

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

DEBRIS REGION 9..... Torres Martinez Reservation Illegal Dump Site Locations

ODI..... Open Dump Inventory

INDIAN ODI..... Report on the Status of Open Dumps on Indian Lands

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

US CDL..... Clandestine Drug Labs

DEL SHWS..... Deleted State Hazardous Waste Sites

PRIORITYCLEANERS..... DCERP Remediation Sites Listing

CDL..... Registry of Contaminated Properties

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

### **Local Land Records**

LIENS 2..... CERCLA Lien Information

LUCIS..... Land Use Control Information System

LIENS..... Liens Information

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

HMIRS..... Hazardous Materials Information Reporting System

SPILLS..... State Spills

### **Other Ascertainable Records**

DOT OPS..... Incident and Accident Data

DOD..... Department of Defense Sites

FUDS..... Formerly Used Defense Sites

CONSENT..... Superfund (CERCLA) Consent Decrees

ROD..... Records Of Decision

UMTRA..... Uranium Mill Tailings Sites

MINES..... Mines Master Index File

TRIS..... Toxic Chemical Release Inventory System

TSCA..... Toxic Substances Control Act

FTTS..... FIFRA/ TSCA Tracking System - FIFRA (Federal Insecticide, Fungicide, & Rodenticide Act)/TSCA (Toxic Substances Control Act)

HIST FTTS..... FIFRA/TSCA Tracking System Administrative Case Listing

SSTS..... Section 7 Tracking Systems

ICIS..... Integrated Compliance Information System

PADS..... PCB Activity Database System

MLTS..... Material Licensing Tracking System

RADINFO..... Radiation Information Database

FINDS..... Facility Index System/Facility Registry System

RAATS..... RCRA Administrative Action Tracking System

DRYCLEANERS..... Registered Facilities List

## EXECUTIVE SUMMARY

NPDES.....	Permitted Facility Listing
AIRS.....	Listing of Permitted Sources
INDIAN RESERV.....	Indian Reservations
SCRD DRYCLEANERS.....	State Coalition for Remediation of Drycleaners Listing
COAL ASH EPA.....	Coal Combustion Residues Surface Impoundments List
COAL ASH DOE.....	Steam-Electric Plan Operation Data
PCB TRANSFORMER.....	PCB Transformer Registration Database

### SURROUNDING SITES: SEARCH RESULTS

Surrounding sites were identified in the following databases.

Elevations have been determined from the USGS Digital Elevation Model and should be evaluated on a relative (not an absolute) basis. Relative elevation information between sites of close proximity should be field verified. Sites with an elevation equal to or higher than the target property have been differentiated below from sites with an elevation lower than the target property.

Page numbers and map identification numbers refer to the EDR Radius Map report where detailed data on individual sites can be reviewed.

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

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

### STANDARD ENVIRONMENTAL RECORDS

#### ***Federal CERCLIS list***

CERCLIS: The Comprehensive Environmental Response, Compensation and Liability Information System contains data on potentially hazardous waste sites that have been reported to the USEPA by states, municipalities, private companies and private persons, pursuant to Section 103 of the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA). CERCLIS contains sites which are either proposed to or on the National Priorities List (NPL) and sites which are in the screening and assessment phase for possible inclusion on the NPL.

An online review and analysis by FISHER & ARNOLD INC. of the CERCLIS list, as provided by EDR, and dated 09/30/2010 has revealed that there is 1 CERCLIS site within approximately 0.5 miles of the target property.

<u>Equal/Higher Elevation</u>	<u>Address</u>	<u>Direction / Distance</u>	<u>Map ID</u>	<u>Page</u>
OLD CUMMINS DIESEL	812 NORTH MAIN STREET	NNW 1/8 - 1/4 (0.150 mi.)	B6	12

#### ***Federal CERCLIS NFRAP site List***

CERC-NFRAP: Archived sites are sites that have been removed and archived from the inventory of CERCLIS sites. Archived status indicates that, to the best of EPA's knowledge, assessment at a site has been completed and that EPA has determined no further steps will be taken to list this site on the National Priorities List (NPL), unless information indicates this decision was not appropriate or other considerations require a



## EXECUTIVE SUMMARY

recommendation for listing at a later time. This decision does not necessarily mean that there is no hazard associated with a given site; it only means that, based upon available information, the location is not judged to be a potential NPL site.

An online review and analysis by FISHER & ARNOLD INC. of the CERC-NFRAP list, as provided by EDR, and dated 06/23/2009 has revealed that there are 2 CERC-NFRAP sites within approximately 0.5 miles of the target property.

<u>Equal/Higher Elevation</u>	<u>Address</u>	<u>Direction / Distance</u>	<u>Map ID</u>	<u>Page</u>
<b>SOUTHERN CONTAINER CORPORATION</b>	<b>605859 T23T31T50</b>	<b>E 1/4 - 1/2 (0.402 mi.)</b>	<b>19</b>	<b>35</b>
<u>Lower Elevation</u>	<u>Address</u>	<u>Direction / Distance</u>	<u>Map ID</u>	<u>Page</u>
<b>TRUE-TA86 PAINT CO.</b>	<b>442 THIRD AVENUE</b>	<b>SSW 1/4 - 1/2 (0.481 mi.)</b>	<b>22</b>	<b>43</b>

### ***Federal RCRA generators list***

RCRA-CESQG: RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Conditionally exempt small quantity generators (CESQGs) generate less than 100 kg of hazardous waste, or less than 1 kg of acutely hazardous waste per month.

An online review and analysis by FISHER & ARNOLD INC. of the RCRA-CESQG list, as provided by EDR, and dated 02/17/2010 has revealed that there is 1 RCRA-CESQG site within approximately 0.25 miles of the target property.

<u>Lower Elevation</u>	<u>Address</u>	<u>Direction / Distance</u>	<u>Map ID</u>	<u>Page</u>
<b>CONWOOD CO LLC</b>	<b>46 KEEL AVENUE</b>	<b>W 1/8 - 1/4 (0.191 mi.)</b>	<b>9</b>	<b>14</b>

### ***State and tribal leaking storage tank lists***

LUST: A listing of leaking underground storage tank site locations.

An online review and analysis by FISHER & ARNOLD INC. of the LUST list, as provided by EDR, and dated 09/28/2010 has revealed that there are 4 LUST sites within approximately 0.5 miles of the target property.

<u>Equal/Higher Elevation</u>	<u>Address</u>	<u>Direction / Distance</u>	<u>Map ID</u>	<u>Page</u>
<b>#5-1488 CHELSEA EXXON SHOP</b> Current Status: 1a Completed Tank Closure Current Status: 8 Case Closed	<b>840 THOMAS/CHELSEA</b>	<b>E 1/4 - 1/2 (0.401 mi.)</b>	<b>D18</b>	<b>32</b>
<b>MAPCO EXPRESS #3157</b> Current Status: 8 Case Closed	<b>645 CHELSEA (DANNY THOMAS)</b>	<b>E 1/4 - 1/2 (0.452 mi.)</b>	<b>20</b>	<b>38</b>
<u>Lower Elevation</u>	<u>Address</u>	<u>Direction / Distance</u>	<u>Map ID</u>	<u>Page</u>
<b>GREYHOUND MAINTENANCE GARAGE</b> Current Status: 1a Completed Tank Closure Current Status: 8 Case Closed	<b>527 NORTH MAIN</b>	<b>SW 1/4 - 1/2 (0.372 mi.)</b>	<b>C15</b>	<b>21</b>

## EXECUTIVE SUMMARY

<u>Lower Elevation</u>	<u>Address</u>	<u>Direction / Distance</u>	<u>Map ID</u>	<u>Page</u>
DOWNTOWN SHELL Current Status: 8 Case Closed	464 N. MAIN	SSW 1/4 - 1/2 (0.476 mi.)	21	42

LUST TRUST: This list contains information on sites that had accidental releases of petroleum and are eligible for reimbursement from the TN Petroleum UST Fund.

An online review and analysis by FISHER & ARNOLD INC. of the LUST TRUST list, as provided by EDR, and dated 09/28/2010 has revealed that there are 3 LUST TRUST sites within approximately 0.5 miles of the target property.

<u>Equal/Higher Elevation</u>	<u>Address</u>	<u>Direction / Distance</u>	<u>Map ID</u>	<u>Page</u>
EXXON #5-1488	THOMAS STREET & CHELSEA	1/4 - 1/2 (0.393 mi.)	D17	32
MAPCO EXPRESS #3157	645 CHELSEA (DANNY THOMAS)	1/4 - 1/2 (0.452 mi.)	20	38
<u>Lower Elevation</u>	<u>Address</u>	<u>Direction / Distance</u>	<u>Map ID</u>	<u>Page</u>
GREYHOUND LINES INC	527 N MAIN	SW 1/4 - 1/2 (0.372 mi.)	C16	31

### **State and tribal registered storage tank lists**

UST: The Underground Storage Tank database contains registered USTs. USTs are regulated under Subtitle I of the Resource Conservation and Recovery Act (RCRA). The data come from the Department of Environment & Conservation's Facility and Tank Report.

An online review and analysis by FISHER & ARNOLD INC. of the UST list, as provided by EDR, and dated 09/28/2010 has revealed that there is 1 UST site within approximately 0.25 miles of the target property.

<u>Equal/Higher Elevation</u>	<u>Address</u>	<u>Direction / Distance</u>	<u>Map ID</u>	<u>Page</u>
BREATHETT SERVICE STATION	183 CHELSEA	ENE 0 - 1/8 (0.080 mi.)	5	10

### **State and tribal voluntary cleanup sites**

VCP: The Voluntary Cleanup Oversight and Assistance Program (VOAP) offers people the opportunity to work proactively with state government to address necessary cleanup of a property to return it to productive use. In return for their efforts, participants can receive a No Further Action letter and a release of liability for areas where investigation and cleanup is conducted. The program is open to everyone with an interest in addressing contamination at a site.

An online review and analysis by FISHER & ARNOLD INC. of the VCP list, as provided by EDR, and dated 10/11/2010 has revealed that there is 1 VCP site within approximately 0.5 miles of the target property.

<u>Equal/Higher Elevation</u>	<u>Address</u>	<u>Direction / Distance</u>	<u>Map ID</u>	<u>Page</u>
OLD CUMMINS DIESEL	812 NORTH MAIN	NNW 1/8 - 1/4 (0.154 mi.)	B7	13

## EXECUTIVE SUMMARY

### ADDITIONAL ENVIRONMENTAL RECORDS

#### **Local Lists of Registered Storage Tanks**

HIST UST: This database is no longer updated by the agency. It contains records and detail fields that the current UST database does not.

An online review and analysis by FISHER & ARNOLD INC. of the HIST UST list, as provided by EDR, and dated 09/28/2010 has revealed that there are 2 HIST UST sites within approximately 0.25 miles of the target property.

<u>Equal/Higher Elevation</u>	<u>Address</u>	<u>Direction / Distance</u>	<u>Map ID</u>	<u>Page</u>
<b>BREATHETT SERVICE STATION</b>	<b>183 CHELSEA</b>	<b>ENE 0 - 1/8 (0.080 mi.)</b>	<b>5</b>	<b>10</b>
<u>Lower Elevation</u>	<u>Address</u>	<u>Direction / Distance</u>	<u>Map ID</u>	<u>Page</u>
LEDBETTER PACKING CO	675 NORTH 3RD. ST.	SSE 0 - 1/8 (0.066 mi.)	3	8

#### **Other Ascertainable Records**

RCRA-NonGen: RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Non-Generators do not presently generate hazardous waste.

An online review and analysis by FISHER & ARNOLD INC. of the RCRA-NonGen list, as provided by EDR, and dated 02/17/2010 has revealed that there are 6 RCRA-NonGen sites within approximately 0.25 miles of the target property.

<u>Equal/Higher Elevation</u>	<u>Address</u>	<u>Direction / Distance</u>	<u>Map ID</u>	<u>Page</u>
<b>DOUBLE R MUSIC CORP</b>	<b>268. N S01T06 Y Y</b>	<b>E 1/8 - 1/4 (0.240 mi.)</b>	<b>13</b>	<b>20</b>
<u>Lower Elevation</u>	<u>Address</u>	<u>Direction / Distance</u>	<u>Map ID</u>	<u>Page</u>
<b>MATTHEWS BLOW PIPE CO INC</b>	<b>130 KEEL AVENUE</b>	<b>W 0 - 1/8 (0.068 mi.)</b>	<b>4</b>	<b>9</b>
<b>DIAMOND PRINTING CO</b>	<b>991. N S01T31D81 Y Y</b>	<b>S 1/8 - 1/4 (0.171 mi.)</b>	<b>8</b>	<b>13</b>
<b>MEMPHIS DIESEL ELECTRIC</b>	<b>611 N MAIN ST</b>	<b>SW 1/8 - 1/4 (0.196 mi.)</b>	<b>10</b>	<b>17</b>
<b>CONWOOD CORPORATION</b>	<b>844 NORTH.FRONT STREET</b>	<b>NW 1/8 - 1/4 (0.211 mi.)</b>	<b>11</b>	<b>18</b>
<b>AMERICAN BATTERY ACID CORP</b>	<b>904 N FRONT ST</b>	<b>NNW 1/8 - 1/4 (0.236 mi.)</b>	<b>12</b>	<b>19</b>

### EDR PROPRIETARY RECORDS

#### **EDR Proprietary Records**

Manufactured Gas Plants: The EDR Proprietary Manufactured Gas Plant Database includes records of coal gas plants (manufactured gas plants) compiled by EDR's researchers. Manufactured gas sites were used in the United States

## EXECUTIVE SUMMARY

from the 1800's to 1950's to produce a gas that could be distributed and used as fuel. These plants used whale oil, rosin, coal, or a mixture of coal, oil, and water that also produced a significant amount of waste. Many of the byproducts of the gas production, such as coal tar (oily waste containing volatile and non-volatile chemicals), sludges, oils and other compounds are potentially hazardous to human health and the environment. The byproduct from this process was frequently disposed of directly at the plant site and can remain or spread slowly, serving as a continuous source of soil and groundwater contamination.

An online review and analysis by FISHER & ARNOLD INC. of the Manufactured Gas Plants list, as provided by EDR, has revealed that there is 1 Manufactured Gas Plants site within approximately 1 mile of the target property.

<u>Lower Elevation</u>	<u>Address</u>	<u>Direction / Distance</u>	<u>Map ID</u>	<u>Page</u>
MEMPHIS GASLIGHT CO	N FRONT AND MILL AVE	SW 1/4 - 1/2 (0.323 mi.)	14	21

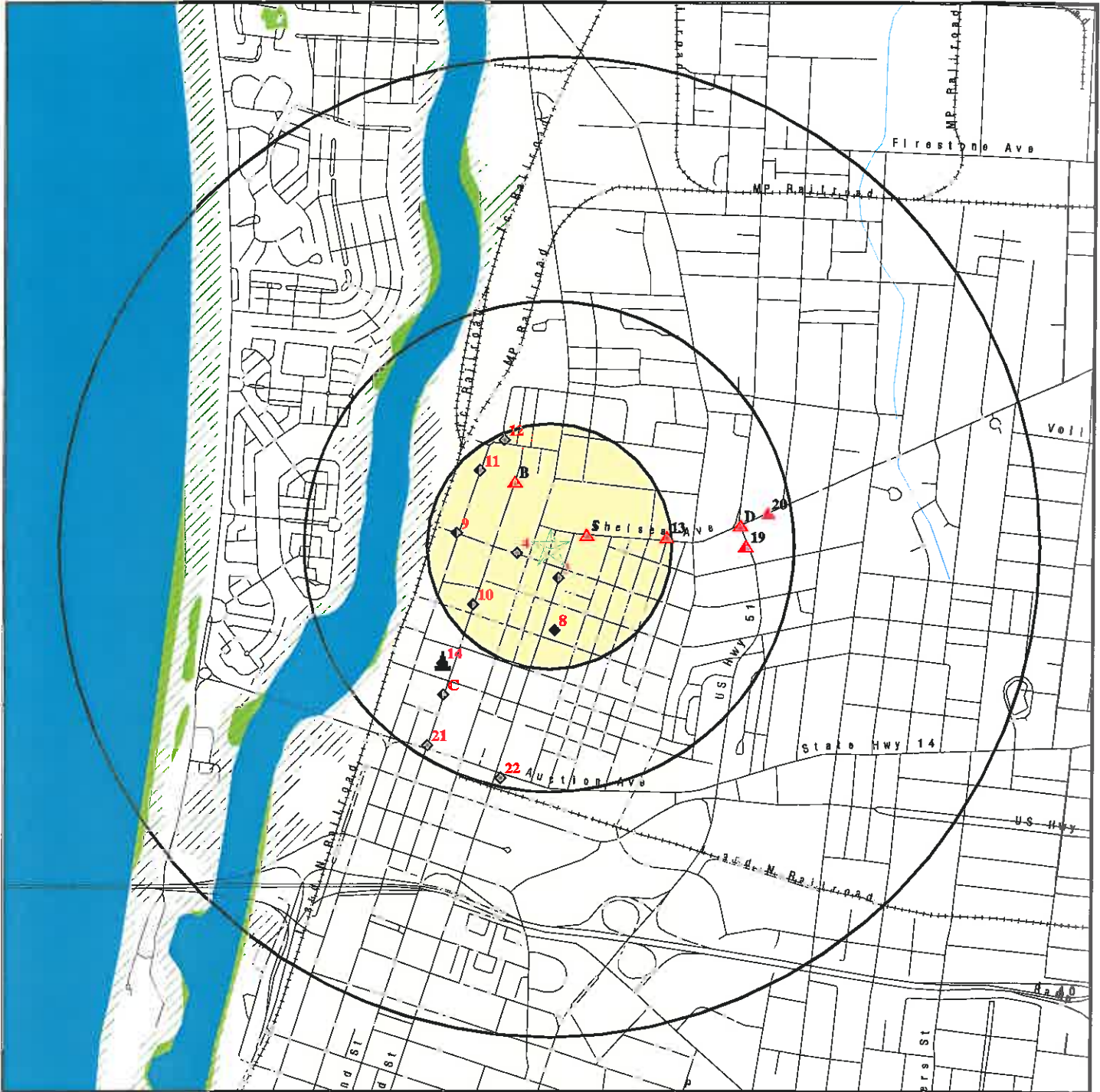
## EXECUTIVE SUMMARY

Due to poor or inadequate address information, the following sites were not mapped. Count: 33 records.

<u>Site Name</u>	<u>Database(s)</u>
CYPRESS CREEK	CERC-NFRAP, SHWS
NORTH 2ND STREET INCINERATOR	SWF/LF
BELLEVUE TRANSFER STATION	SWF/LF
BELLEVUE TIRE SHREDDER	SWF/LF
BFI SOUTH SHELBY LANDFILL	SWF/LF
BFI RECYCLING	SWF/LF
BLAYLOCK BROWN CONSTRUCTION, INC.	SWF/LF
BLAYLOCK & BROWN CONSTRUCTION	SWF/LF
COLD SPRINGS MEMPHIS	SWF/LF
COLLIERVILLE TRANSFER STATION	SWF/LF
DEMOCRAT RD TRANSFER STA	SWF/LF
DOMERMUTH ENVIRONMENTAL SERVICES LLC	SWF/LF
EARTH COMPLEX CITY OF MEMPHIS	SWF/LF
EATON-MOERY ENVIRONMENTAL SERVICES, INC.	SWF/LF
ENSLEY BERM ASH LANDFILL	SWF/LF
FIRST MOOREHEAD INVESTMT	SWF/LF
FOUR F CORPORATION	SWF/LF
FRAYSER BUSINESS CENTER DEMOLITION LANDFILL	SWF/LF
MID SOUTH REG BLOOD INCIN	SWF/LF
PEAR STREET TRANSFER STATION	SWF/LF
SCOTT STREET TRANSFER STATION	SWF/LF
SOUTH SHELBY LANDFILL SOLIDIFICATION FACILITY	SWF/LF
SHELBY CO. MILLINGTON LF	SWF/LF
NORTH SHELBY CLASS III LANDFILL	SWF/LF
SOUTHERN HYDROCARBON INC	SWF/LF
WASTE MANAGEMENT OF TENNESSEE TRANSFER STATION	SWF/LF
UT MEDICAL GROUP	LUST
SALVATION ARMY	LUST
MORGAN PROPERTIES LLC.	LUST
PEABODY PLACE DEVELOPMENT	LUST
MEMPHIS PATHOLOGY LABORATORY LLC	RCRA-NonGen
LEVEE AUTO PARTS & SALVAGE	RCRA-NonGen
MOTIVA FACILITY # 143083	LUST TRUST



# OVERVIEW MAP - 2981456.1s



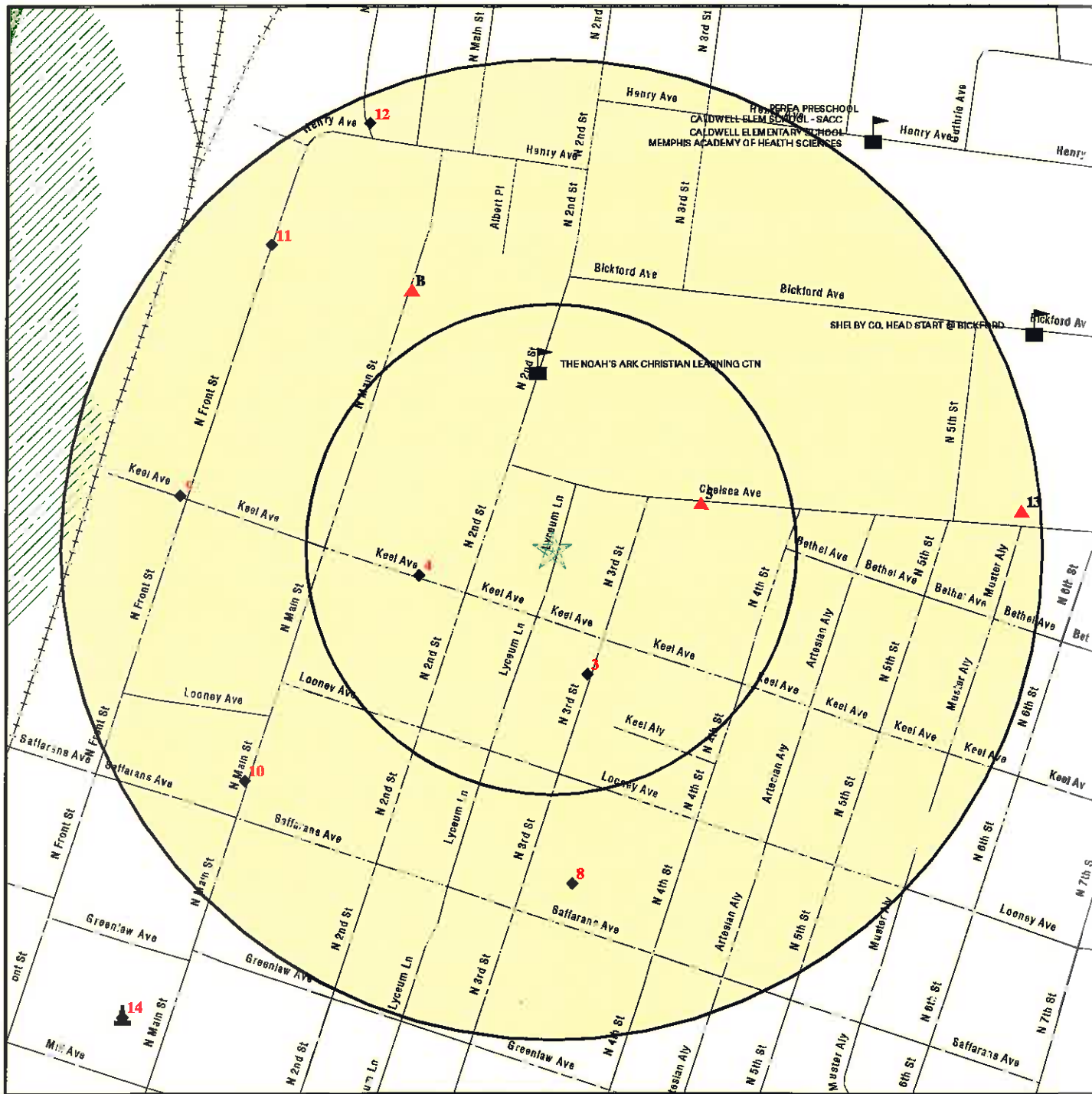
- ★ Target Property
- ▲ Sites at elevations higher than or equal to the target property
- ◆ Sites at elevations lower than the target property
- ▲ Manufactured Gas Plants
- National Priority List Sites
- Dept. Defense Sites

- Indian Reservations BIA
- Oil & Gas pipelines
- 100-year flood zone
- 500-year flood zone
- National Wetland Inventory
- State Wetlands

SITE NAME: Block 55 ESAs  
 ADDRESS: 714 N. Second Street  
 Memphis TN 38107  
 LAT/LONG: 35.1631 / 90.0436

CLIENT: Fisher & Arnold Inc.  
 CONTACT: Sarah Schoefmacker  
 INQUIRY #: 2981456.1s  
 DATE: February 09, 2011 2:40 pm

# DETAIL MAP - 2981456.1s



- Target Property
- Sites at elevations higher than or equal to the target property
- Sites at elevations lower than the target property
- Manufactured Gas Plants
- Sensitive Receptors
- National Priority List Sites
- Dept. Defense Sites

- Indian Reservations BIA
- Oil & Gas pipelines
- 100-year flood zone
- 500-year flood zone
- National Wetland Inventory
- State Wetlands

**SITE NAME:** Block 55 ESAs  
**ADDRESS:** 714 N. Second Street  
 Memphis TN 38107  
**LAT/LONG:** 35.1631 / 90.0436

**CLIENT:** Fisher & Arnold Inc.  
**CONTACT:** Sarah Schoefnacker  
**INQUIRY #:** 2981456.1s  
**DATE:** February 09, 2011 2:40 pm

## MAP FINDINGS SUMMARY

<u>Database</u>	<u>Target Property</u>	<u>Search Distance (Miles)</u>	<u>&lt; 1/8</u>	<u>1/8 - 1/4</u>	<u>1/4 - 1/2</u>	<u>1/2 - 1</u>	<u>&gt; 1</u>	<u>Total Plotted</u>
<b><u>STANDARD ENVIRONMENTAL RECORDS</u></b>								
<b><i>Federal NPL site list</i></b>								
NPL		1.000	0	0	0	0	NR	0
Proposed NPL		1.000	0	0	0	0	NR	0
NPL LIENS		TP	NR	NR	NR	NR	NR	0
<b><i>Federal Delisted NPL site list</i></b>								
Delisted NPL		1.000	0	0	0	0	NR	0
<b><i>Federal CERCLIS list</i></b>								
CERCLIS		0.500	0	1	0	NR	NR	1
FEDERAL FACILITY		1.000	0	0	0	0	NR	0
<b><i>Federal CERCLIS NFRAP site List</i></b>								
CERC-NFRAP		0.500	0	0	2	NR	NR	2
<b><i>Federal RCRA CORRACTS facilities list</i></b>								
CORRACTS		1.000	0	0	0	0	NR	0
<b><i>Federal RCRA non-CORRACTS TSD facilities list</i></b>								
RCRA-TSDF		0.500	0	0	0	NR	NR	0
<b><i>Federal RCRA generators list</i></b>								
RCRA-LQG		0.250	0	0	NR	NR	NR	0
RCRA-SQG		0.250	0	0	NR	NR	NR	0
RCRA-CESQG		0.250	0	1	NR	NR	NR	1
<b><i>Federal institutional controls / engineering controls registries</i></b>								
US ENG CONTROLS		0.500	0	0	0	NR	NR	0
US INST CONTROL		0.500	0	0	0	NR	NR	0
<b><i>Federal ERNS list</i></b>								
ERNS		TP	NR	NR	NR	NR	NR	0
<b><i>State- and tribal - equivalent NPL</i></b>								
SHWS		1.000	0	0	0	0	NR	0
<b><i>State and tribal landfill and/or solid waste disposal site lists</i></b>								
SWF/LF		0.500	0	0	0	NR	NR	0
<b><i>State and tribal leaking storage tank lists</i></b>								
LUST		0.500	0	0	4	NR	NR	4
LUST TRUST		0.500	0	0	3	NR	NR	3
LUST_JO		0.500	0	0	0	NR	NR	0
HIST_LUST CO		0.500	0	0	0	NR	NR	0
INDIAN LUST		0.500	0	0	0	NR	NR	0

## MAP FINDINGS SUMMARY

Database	Target Property	Search Distance (Miles)	< 1/8	1/8 - 1/4	1/4 - 1/2	1/2 - 1	> 1	Total Plotted
<b><i>State and tribal registered storage tank lists</i></b>								
UST		0.250	1	0	NR	NR	NR	1
AST		0.250	0	0	NR	NR	NR	0
INDIAN UST		0.250	0	0	NR	NR	NR	0
FEMA UST		0.250	0	0	NR	NR	NR	0
<b><i>State and tribal institutional control / engineering control registries</i></b>								
ENG CONTROLS		0.500	0	0	0	NR	NR	0
INST CONTROL		0.500	0	0	0	NR	NR	0
<b><i>State and tribal voluntary cleanup sites</i></b>								
VCP		0.500	0	1	0	NR	NR	1
INDIAN VCP		0.500	0	0	0	NR	NR	0
<b><i>State and tribal Brownfields sites</i></b>								
BROWNFIELDS		0.500	0	0	0	NR	NR	0
<b><u>ADDITIONAL ENVIRONMENTAL RECORDS</u></b>								
<b><i>Local Brownfield lists</i></b>								
US BROWNFIELDS		0.500	0	0	0	NR	NR	0
<b><i>Local Lists of Landfill / Solid Waste Disposal Sites</i></b>								
DEBRIS REGION 9		0.500	0	0	0	NR	NR	0
ODI		0.500	0	0	0	NR	NR	0
INDIAN ODI		0.500	0	0	0	NR	NR	0
<b><i>Local Lists of Hazardous waste / Contaminated Sites</i></b>								
US CDL		TP	NR	NR	NR	NR	NR	0
DEL SHWS		1.000	0	0	0	0	NR	0
PRIORITYCLEANERS		0.500	0	0	0	NR	NR	0
CDL		TP	NR	NR	NR	NR	NR	0
US HIST CDL		TP	NR	NR	NR	NR	NR	0
<b><i>Local Lists of Registered Storage Tanks</i></b>								
HIST UST		0.250	2	0	NR	NR	NR	2
<b><i>Local Land Records</i></b>								
LIENS 2		TP	NR	NR	NR	NR	NR	0
LUCIS		0.500	0	0	0	NR	NR	0
LIENS		TP	NR	NR	NR	NR	NR	0
<b><i>Records of Emergency Release Reports</i></b>								
HMIRS		TP	NR	NR	NR	NR	NR	0
SPILLS		TP	NR	NR	NR	NR	NR	0
<b><i>Other Ascertainable Records</i></b>								
RCRA-NonGen		0.250	1	5	NR	NR	NR	6

## MAP FINDINGS SUMMARY

<u>Database</u>	<u>Target Property</u>	<u>Search Distance (Miles)</u>	<u>&lt; 1/8</u>	<u>1/8 - 1/4</u>	<u>1/4 - 1/2</u>	<u>1/2 - 1</u>	<u>&gt; 1</u>	<u>Total Plotted</u>
DOT OPS		TP	NR	NR	NR	NR	NR	0
DOD		1.000	0	0	0	0	NR	0
FUDS		1.000	0	0	0	0	NR	0
CONSENT		1.000	0	0	0	0	NR	0
ROD		1.000	0	0	0	0	NR	0
UMTRA		0.500	0	0	0	NR	NR	0
MINES		0.250	0	0	NR	NR	NR	0
TRIS		TP	NR	NR	NR	NR	NR	0
TSCA		TP	NR	NR	NR	NR	NR	0
FTTS		TP	NR	NR	NR	NR	NR	0
HIST FTTS		TP	NR	NR	NR	NR	NR	0
SSTS		TP	NR	NR	NR	NR	NR	0
ICIS		TP	NR	NR	NR	NR	NR	0
PADS		TP	NR	NR	NR	NR	NR	0
MLTS		TP	NR	NR	NR	NR	NR	0
RADINFO		TP	NR	NR	NR	NR	NR	0
FINDS		TP	NR	NR	NR	NR	NR	0
RAATS		TP	NR	NR	NR	NR	NR	0
DRYCLEANERS		0.250	0	0	NR	NR	NR	0
NPDES		TP	NR	NR	NR	NR	NR	0
AIRS		TP	NR	NR	NR	NR	NR	0
INDIAN RESERV		1.000	0	0	0	0	NR	0
SCRD DRYCLEANERS		0.500	0	0	0	NR	NR	0
COAL ASH EPA		0.500	0	0	0	NR	NR	0
COAL ASH DOE		TP	NR	NR	NR	NR	NR	0
PCB TRANSFORMER		TP	NR	NR	NR	NR	NR	0

### EDR PROPRIETARY RECORDS

#### *EDR Proprietary Records*

Manufactured Gas Plants	1.000	0	0	1	0	NR	1
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#### NOTES:

TP = Target Property

NR = Not Requested at this Search Distance

Sites may be listed in more than one database



MAP FINDINGS

Map ID  
Direction  
Distance  
Elevation

Site

Database(s)

EDR ID Number  
EPA ID Number

**A1**      **GENERAL ELECTRIC CO ASD**  
**SE**      **3565 EDISON RD**  
**> 1**      **MEMPHIS, TN 38118**  
**11.254 mi.**  
**59419 ft.**    **Site 1 of 2 in cluster A**

**RCRA-NonGen**    **1000212939**  
**TND053788386**

**Relative:**  
**Lower**

RCRA-NonGen:

Date form received by agency: 03/01/2004

Facility name:            GENERAL ELECTRIC CO ASD

Facility address:        3565 EDISON RD  
MEMPHIS, TN 38118

EPA ID:                    TND053788386

Mailing address:        PEACHTREE IND BLVD  
CHAMBLEE, GA 30341

Contact:                   PAT PERKINS

Contact address:        3565 EDISON RD  
MEMPHIS, TN 38118

Contact country:        US

Contact telephone:     (404) 452-4892

Contact email:           Not reported

EPA Region:              04

Classification:          Non-Generator

Description:              Handler: Non-Generators do not presently generate hazardous waste

**Handler Activities Summary:**

U.S. importer of hazardous waste:    No  
Mixed waste (haz. and radioactive):    No  
Recycler of hazardous waste:            No  
Transporter of hazardous waste:        No  
Treater, storer or disposer of HW:      No  
Underground injection activity:        No  
On-site burner exemption:                No  
Furnace exemption:                        No  
Used oil fuel burner:                        No  
Used oil processor:                         No  
User oil refiner:                             No  
Used oil fuel marketer to burner:        No  
Used oil Specification marketer:        No  
Used oil transfer facility:                 No  
Used oil transporter:                        No  
Off-site waste receiver:                    Commercial status unknown

**Historical Generators:**

Date form received by agency: 05/10/1995  
Facility name:            GENERAL ELECTRIC CO ASD  
Classification:            Not a generator, verified

Violation Status:        No violations found

**A2**      **GENERAL ELECTRIC CO ASD**  
**SE**      **3565 EDISON RD**  
**> 1**      **MEMPHIS, TN 38118**  
**11.254 mi.**  
**59419 ft.**    **Site 2 of 2 in cluster A**

**RCRA-NonGen**    **1000212928**  
**FINDS**            **TND000615591**

**Relative:**  
**Lower**

RCRA-NonGen:

Date form received by agency: 11/18/1980

Facility name:            GENERAL ELECTRIC CO ICES

Facility address:        5278 H01  
MEMPHIS, TN 38107

**Actual:**  
**0 ft.**

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

EDR ID Number  
EPA ID Number

Site Database(s)

GENERAL ELECTRIC CO ASD (Continued)

1000212928

EPA ID: TND000615591  
Mailing address: NORTH MAIN ST  
MEMPHIS, TN 38107  
Contact: GENERAL ELECTRIC  
Contact address: 5278 H01  
MEMPHIS, TN 38107  
Contact country: US  
Contact telephone: (615) 555-1212  
Contact email: Not reported  
EPA Region: 04  
Classification: Non-Generator  
Description: Handler: Non-Generators do not presently generate hazardous waste

Handler Activities Summary:

U.S. importer of hazardous waste: No  
Mixed waste (haz. and radioactive): Unknown  
Recycler of hazardous waste: No  
Transporter of hazardous waste: No  
Treater, storer or disposer of HW: No  
Underground injection activity: No  
On-site burner exemption: No  
Furnace exemption: No  
Used oil fuel burner: No  
Used oil processor: No  
User oil refiner: No  
Used oil fuel marketer to burner: No  
Used oil Specification marketer: No  
Used oil transfer facility: No  
Used oil transporter: No  
Off-site waste receiver: Verified to be non-commercial

Violation Status: No violations found

FINDS:

Registry ID: 110004968517

Environmental Interest/Information System

RCRAInfo is a national information system that supports the Resource Conservation and Recovery Act (RCRA) program through the tracking of events and activities related to facilities that generate, transport, and treat, store, or dispose of hazardous waste. RCRAInfo allows RCRA program staff to track the notification, permit, compliance, and corrective action activities required under RCRA.

3  
SSE  
< 1/8  
0.066 mi.  
349 ft.

LEDBETTER PACKING CO  
675 NORTH 3RD. ST.  
MEMPHIS, TN 38107

HIST UST U003618904  
N/A

Relative:  
Lower

HIST UST:  
Owner ID: 3008  
Owner Name: EMPIRE PACKING CO  
Owner Address: 675 North 3rd. St.  
Owner City,St,Zip: Memphis, TN 38187  
Owner Telephone: (901) 525-1461

Actual:  
238 ft.

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

LEDBETTER PACKING CO (Continued)

U003618904

Owner Description: Private  
Facility ID: 9-792260  
Facility Description: Not Listed  
Tank ID: 1  
Tank Status: **Permanently Out of Use**  
Tank Capacity: 1200  
Tank Contents: Not Listed  
Tank Material: Asphalt Coated or Bare Steel  
Tank 2ndary Trait: None  
Tank Manual Gauge: False  
Tank Tightness: False  
Tank Inventory Control: False  
Tank ATG: False  
Tank Vapor Monitor: False  
Tank Groundwater Monitor: False  
Tank Double Walled: False  
Tank 2nd Contained: False  
Tank SIR: False  
Overfill Installed: False  
Spill Installed: False  
Cathodic Protection: False  
Date Installed: 09/19/1969  
Tank Leak Detection Listed: True  
Pipe Material: Galvanized Steel  
Pipe Other Material: None  
Pipe Type: Not Listed  
Pipe Auto Line Leak Detect.: False  
Pipe Leak Detection Listed: False  
Pipe Vapor Monitor: False  
Pipe Groundwater Monitor: False  
Pipe Dbl Walled: Not reported  
Pipe 2nd Contained: False  
Pipe SIR: False  
Pipe Leak Detection Listed: True

4  
West  
< 1/8  
0.068 mi.  
361 ft.

**MATTHEWS BLOW PIPE CO INC**  
130 KEEL AVENUE  
MEMPHIS, TN 38103

RCRA-NonGen 1000915482  
FINDS TND007022882

Relative:  
Lower

Actual:  
239 ft.

RCRA-NonGen:  
Date form received by agency: 11/19/1980  
Facility name: MATTHEWS BLOW PIPE CO INC  
Facility address: 130 KEEL AVENUE  
MEMPHIS, TN 38103  
EPA ID: TND007022882  
Mailing address: KEEL AVE  
MEMPHIS, TN 38103  
Contact: MATTHEWS BLOW  
Contact address: 130 KEEL AVENUE  
MEMPHIS, TN 38103  
Contact country: US  
Contact telephone: (615) 555-1212  
Contact email: Not reported  
EPA Region: 04  
Classification: Non-Generator  
Description: Handler: Non-Generators do not presently generate hazardous waste

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**MATTHEWS BLOW PIPE CO INC (Continued)**

**1000915482**

**Handler Activities Summary:**

U.S. importer of hazardous waste: No  
Mixed waste (haz. and radioactive): Unknown  
Recycler of hazardous waste: No  
Transporter of hazardous waste: No  
Treater, storer or disposer of HW: No  
Underground injection activity: No  
On-site burner exemption: No  
Furnace exemption: No  
Used oil fuel burner: No  
Used oil processor: No  
User oil refiner: No  
Used oil fuel marketer to burner: No  
Used oil Specification marketer: No  
Used oil transfer facility: No  
Used oil transporter: No  
Off-site waste receiver: Verified to be non-commercial

Violation Status: No violations found

**FINDS:**

Registry ID: 110004960917

**Environmental Interest/Information System**

RCRAInfo is a national information system that supports the Resource Conservation and Recovery Act (RCRA) program through the tracking of events and activities related to facilities that generate, transport, and treat, store, or dispose of hazardous waste. RCRAInfo allows RCRA program staff to track the notification, permit, compliance, and corrective action activities required under RCRA.

**5**  
**ENE**  
**< 1/8**  
**0.080 mi.**  
**422 ft.**

**BREATHETT SERVICE STATION**  
**183 CHELSEA**  
**MEMPHIS, TN 38107**

**UST U001316752**  
**HIST UST N/A**

**Relative:**  
**Higher**

**UST:**

Facility ID: 9792109  
Location Description: Gas Station  
Owner ID: 319412  
Owner Name: Kushal Shah  
Owner Address: 1281 Island Place East  
Owner Address 2: Not reported  
Owner City,St,Zip: Memphis, TN 38103  
Owner Description: Commercial  
Total: 2  
Currently In Use: Not reported  
Perm Out of Service: Not reported  
Temp of Service: 2

**Actual:**  
**249 ft.**

**HIST UST:**

Owner ID: 9218  
Owner Name: TOM BREATHETT  
Owner Address: P.O. Box 34154

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s) EDR ID Number  
EPA ID Number

**BREATHETT SERVICE STATION (Continued)**

U001316752

Owner City,St,Zip: Memphis, TN 38184  
Owner Telephone: (901) 523-9943  
Owner Description: Commercial  
Facility ID: 9-792109  
Facility Description: Not Listed  
Tank ID: 1  
**Tank Status: Currently in Use**  
Tank Capacity: 8000  
Tank Contents: Gasoline  
Tank Material: Steel w/impressed current  
Tank 2ndary Trait: None  
Tank Manual Gauge: False  
Tank Tightness: False  
Tank Inventory Control: True  
Tank ATG: False  
Tank Vapor Monitor: True  
Tank Groundwater Monitor: False  
Tank Double Walled: False  
Tank 2nd Contained: False  
Tank SIR: False  
Overfill Installed: True  
Spill Installed: True  
Cathodic Protection: True  
Date Installed: 07/22/1979  
Tank Leak Detection Listed: False  
Pipe Material: Steel w/impressed current  
Pipe Other Material: Cathodically Protected  
Pipe Type: Not Listed  
Pipe Auto Line Leak Detect.: False  
Pipe Leak Detection Listed: False  
Pipe Vapor Monitor: True  
Pipe Groundwater Monitor: False  
Pipe DbI Walled: Not reported  
Pipe 2nd Contained: False  
Pipe SIR: False  
Pipe Leak Detection Listed: False

Owner ID: 9218  
Owner Name: TOM BREATHETT  
Owner Address: P.O. Box 34154  
Owner City,St,Zip: Memphis, TN 38184  
Owner Telephone: (901) 523-9943  
Owner Description: Commercial  
Facility ID: 9-792109  
Facility Description: Not Listed  
Tank ID: 2  
**Tank Status: Currently in Use**  
Tank Capacity: 8000  
Tank Contents: Gasoline  
Tank Material: Steel w/impressed current  
Tank 2ndary Trait: None  
Tank Manual Gauge: False  
Tank Tightness: False  
Tank Inventory Control: True  
Tank ATG: False  
Tank Vapor Monitor: True  
Tank Groundwater Monitor: False

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**BREATHETT SERVICE STATION (Continued)**

**U001316752**

Tank Double Walled: False  
Tank 2nd Contained: False  
Tank SIR: False  
Overfill Installed: True  
Spill Installed: True  
Cathodic Protection: True  
Date Installed: 07/22/1979  
Tank Leak Detection Listed: False  
Pipe Material: Fiberglass Reinforced Plastic  
Pipe Other Material: Secondary Containment  
Pipe Type: Not Listed  
Pipe Auto Line Leak Detect.: False  
Pipe Leak Detection Listed: False  
Pipe Vapor Monitor: True  
Pipe Groundwater Monitor: False  
Pipe Dbl Walled: Not reported  
Pipe 2nd Contained: False  
Pipe SIR: False  
Pipe Leak Detection Listed: False

**B6  
NNW  
1/8-1/4  
0.150 mi.  
793 ft.**

**OLD CUMMINS DIESEL  
812 NORTH MAIN STREET  
MEMPHIS, TN 38107**

**CERCLIS 1011487891  
TNN000410220**

**Site 1 of 2 in cluster B**

**Relative:  
Higher**

**CERCLIS:**  
Site ID: 0410220  
Federal Facility: Not a Federal Facility  
NPL Status: Not on the NPL  
Non NPL Status: NFRAP-Site does not qualify for the NPL based on existing information

**Actual:  
248 ft.**

**CERCLIS Site Contact Name(s):**

Contact Name: Wanda Jennings  
Contact Tel: (404) 562-8682  
Contact Title: Site Assessment Manager (SAM)  
  
Contact Name: John Nolen  
Contact Tel: (404) 562-8750  
Contact Title: Site Assessment Manager (SAM)

Site Description: This site, located in Memphis Tn consists of 2.5 acres in size once operated as a diesel recon facility for 23 years and then as an electric company for the next 25 years.

**CERCLIS Assessment History:**

Action: DISCOVERY  
Date Started: Not reported  
Date Completed: 04/07/08  
Priority Level: Not reported

Action: PRE-CERCLIS SCREENING  
Date Started: Not reported  
Date Completed: 04/07/08  
Priority Level: Not reported

Action: PRELIMINARY ASSESSMENT  
Date Started: 04/07/08



Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

EDR ID Number  
EPA ID Number

Site Database(s)

OLD CUMMINS DIESEL (Continued)

1011487891

Date Completed: 06/12/08  
Priority Level: Higher priority for further assessment  
  
Action: SITE INSPECTION  
Date Started: Not reported  
Date Completed: 08/13/09  
Priority Level: NFRAP-Site does not qualify for the NPL based on existing information

B7  
NNW  
1/8-1/4  
0.154 mi.  
811 ft.

OLD CUMMINS DIESEL  
812 NORTH MAIN  
MEMPHIS, TN

VCP S110118025  
N/A

Relative:  
Higher

Site 2 of 2 in cluster B  
VCP:  
Facility ID: 79852  
Facility Status: in the Voluntary Program

Actual:  
248 ft.

8  
South  
1/8-1/4  
0.171 mi.  
901 ft.

DIAMOND PRINTING CO  
991. N S01T31D81 Y Y Y  
MEMPHIS, TN 38107

RCRA-NonGen 1000915572  
FINDS TND007033244

Relative:  
Lower

RCRA-NonGen:  
Date form received by agency: 11/19/1980  
Facility name: DIAMOND PRINTING CO  
Facility address: 991. N S01T31D81 Y Y Y  
MEMPHIS, TN 38107  
EPA ID: TND007033244  
Mailing address: N THIRD ST  
MEMPHIS, TN 38107  
Contact: DIAMOND PRINTING  
Contact address: 991. N S01T31D81 Y Y Y  
MEMPHIS, TN 38107  
Contact country: US  
Contact telephone: (615) 555-1212  
Contact email: Not reported  
EPA Region: 04  
Classification: Non-Generator  
Description: Handler: Non-Generators do not presently generate hazardous waste

Actual:  
240 ft.

Handler Activities Summary:

U.S. importer of hazardous waste: No  
Mixed waste (haz. and radioactive): Unknown  
Recycler of hazardous waste: No  
Transporter of hazardous waste: No  
Treater, storer or disposer of HW: No  
Underground injection activity: No  
On-site burner exemption: No  
Furnace exemption: No  
Used oil fuel burner: No  
Used oil processor: No  
Used oil refiner: No  
Used oil fuel marketer to burner: No

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

DIAMOND PRINTING CO (Continued)

1000915572

Used oil Specification marketer: No  
Used oil transfer facility: No  
Used oil transporter: No  
Off-site waste receiver: Verified to be non-commercial

Violation Status: No violations found

FINDS:

Registry ID: 110007851119

Environmental Interest/Information System

RCRAInfo is a national information system that supports the Resource Conservation and Recovery Act (RCRA) program through the tracking of events and activities related to facilities that generate, transport, and treat, store, or dispose of hazardous waste. RCRAInfo allows RCRA program staff to track the notification, permit, compliance, and corrective action activities required under RCRA.

9  
West  
1/8-1/4  
0.191 mi.  
1010 ft.

CONWOOD CO LLC  
46 KEEL AVENUE  
MEMPHIS, TN 38107

RCRA-CESQG 1004598191  
FINDS TND98777604

Relative:  
Lower

RCRA-CESQG:

Actual:  
231 ft.

Date form received by agency: 02/20/2008  
Facility name: CONWOOD COMPANY, L.P.  
Facility address: 46 KEEL AVE  
MEMPHIS, TN 38107  
EPA ID: TND98777604  
Mailing address: PO BOX 217  
MEMPHIS, TN 38101  
Contact: JOHN BUNCH  
Contact address: KEEL AVE  
MEMPHIS, TN 38107  
Contact country: US  
Contact telephone: (901) 523-2424  
Contact email: BUNCHJ@CWDB.COM  
EPA Region: 04  
Classification: Conditionally Exempt Small Quantity Generator  
Description: Handler: generates 100 kg or less of hazardous waste per calendar month, and accumulates 1000 kg or less of hazardous waste at any time; or generates 1 kg or less of acutely hazardous waste per calendar month, and accumulates at any time: 1 kg or less of acutely hazardous waste; or 100 kg or less of any residue or contaminated soil, waste or other debris resulting from the cleanup of a spill, into or on any land or water, of acutely hazardous waste; or generates 100 kg or less of any residue or contaminated soil, waste or other debris resulting from the cleanup of a spill, into or on any land or water, of acutely hazardous waste during any calendar month, and accumulates at any time: 1 kg or less of acutely hazardous waste; or 100 kg or less of any residue or contaminated soil, waste or other debris resulting from the cleanup of a spill, into or on any land or water, of acutely hazardous waste

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s) EDR ID Number  
EPA ID Number

CONWOOD CO LLC (Continued)

1004598191

Owner/Operator Summary:

Owner/operator name: EUGENE CRAIN  
Owner/operator address: 4813 RIDGELAKE BLVD  
MEMPHIS, TN 38120  
Owner/operator country: US  
Owner/operator telephone: (901) 248-1806  
Legal status: Private  
Owner/Operator Type: Operator  
Owner/Op start date: 01/01/1985  
Owner/Op end date: Not reported

Owner/operator name: CONWOOD COMPANY LP  
Owner/operator address: RIDGELAKE BLVD  
MEMPHIS, TN 38120  
Owner/operator country: Not reported  
Owner/operator telephone: (901) 523-2424  
Legal status: Private  
Owner/Operator Type: Owner  
Owner/Op start date: 01/01/1985  
Owner/Op end date: Not reported

Handler Activities Summary:

U.S. importer of hazardous waste: No  
Mixed waste (haz. and radioactive): No  
Recycler of hazardous waste: No  
Transporter of hazardous waste: No  
Treater, storer or disposer of HW: No  
Underground injection activity: No  
On-site burner exemption: No  
Furnace exemption: No  
Used oil fuel burner: No  
Used oil processor: No  
User oil refiner: No  
Used oil fuel marketer to burner: No  
Used oil Specification marketer: No  
Used oil transfer facility: No  
Used oil transporter: No  
Off-site waste receiver: Commercial status unknown

Historical Generators:

Date form received by agency: 02/23/2006  
Facility name: CONWOOD COMPANY, L.P.  
Classification: Conditionally Exempt Small Quantity Generator

Date form received by agency: 03/10/2003  
Facility name: CONWOOD COMPANY, L.P.  
Classification: Conditionally Exempt Small Quantity Generator

Date form received by agency: 02/28/2001  
Facility name: CONWOOD COMPANY, L.P.  
Classification: Conditionally Exempt Small Quantity Generator

Date form received by agency: 02/27/1997  
Facility name: CONWOOD COMPANY, L.P.  
Classification: Conditionally Exempt Small Quantity Generator

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

CONWOOD CO LLC (Continued)

1004598191

Hazardous Waste Summary:

Waste code: D001  
Waste name: IGNITABLE HAZARDOUS WASTES ARE THOSE WASTES WHICH HAVE A FLASHPOINT OF LESS THAN 140 DEGREES FAHRENHEIT AS DETERMINED BY A PENSKEY-MARTENS CLOSED CUP FLASH POINT TESTER. ANOTHER METHOD OF DETERMINING THE FLASH POINT OF A WASTE IS TO REVIEW THE MATERIAL SAFETY DATA SHEET, WHICH CAN BE OBTAINED FROM THE MANUFACTURER OR DISTRIBUTOR OF THE MATERIAL. LACQUER THINNER IS AN EXAMPLE OF A COMMONLY USED SOLVENT WHICH WOULD BE CONSIDERED AS IGNITABLE HAZARDOUS WASTE.

Waste code: F002  
Waste name: THE FOLLOWING SPENT HALOGENATED SOLVENTS: TETRACHLOROETHYLENE, METHYLENE CHLORIDE, TRICHLOROETHYLENE, 1,1,1-TRICHLOROETHANE, CHLOROBENZENE, 1,1,2-TRICHLORO-1,2,2-TRIFLUOROETHANE, ORTHO-DICHLOROBENZENE, TRICHLOROFLUOROMETHANE, AND 1,1,2-TRICHLOROETHANE; ALL SPENT SOLVENT MIXTURES/BLENDS CONTAINING, BEFORE USE, A TOTAL OF TEN PERCENT OR MORE (BY VOLUME) OF ONE OR MORE OF THE ABOVE HALOGENATED SOLVENTS OR THOSE LISTED IN F001, F004, OR F005, AND STILL BOTTOMS FROM THE RECOVERY OF THESE SPENT SOLVENTS AND SPENT SOLVENT MIXTURES.

Waste code: F003  
Waste name: THE FOLLOWING SPENT NON-HALOGENATED SOLVENTS: XYLENE, ACETONE, ETHYL ACETATE, ETHYL BENZENE, ETHYL ETHER, METHYL ISOBUTYL KETONE, N-BUTYL ALCOHOL, CYCLOHEXANONE, AND METHANOL; ALL SPENT SOLVENT MIXTURES/BLENDS CONTAINING, BEFORE USE, ONLY THE ABOVE SPENT NON-HALOGENATED SOLVENTS; AND ALL SPENT SOLVENT MIXTURES/BLENDS CONTAINING, BEFORE USE, ONE OR MORE OF THE ABOVE NON-HALOGENATED SOLVENTS, AND, A TOTAL OF TEN PERCENT OR MORE (BY VOLUME) OF ONE OR MORE OF THOSE SOLVENTS LISTED IN F001, F002, F004, AND F005, AND STILL BOTTOMS FROM THE RECOVERY OF THESE SPENT SOLVENTS AND SPENT SOLVENT MIXTURES.

Waste code: F005  
Waste name: THE FOLLOWING SPENT NON-HALOGENATED SOLVENTS: TOLUENE, METHYL ETHYL KETONE, CARBON DISULFIDE, ISOBUTANOL, PYRIDINE, BENZENE, 2-ETHOXYETHANOL, AND 2-NITROPROPANE; ALL SPENT SOLVENT MIXTURES/BLENDS CONTAINING, BEFORE USE, A TOTAL OF TEN PERCENT OR MORE (BY VOLUME) OF ONE OR MORE OF THE ABOVE NON-HALOGENATED SOLVENTS OR THOSE SOLVENTS LISTED IN F001, F002, OR F004; AND STILL BOTTOMS FROM THE RECOVERY OF THESE SPENT SOLVENTS AND SPENT SOLVENT MIXTURES.

Violation Status: No violations found

FINDS:

Registry ID: 110001857606

Environmental Interest/Information System

AFS (Aerometric Information Retrieval System (AIRS) Facility Subsystem) replaces the former Compliance Data System (CDS), the National Emission Data System (NEDS), and the Storage and Retrieval of Aerometric Data (SAROAD). AIRS is the national repository for information concerning airborne pollution in the United States. AFS is used to track emissions and compliance data from industrial plants. AFS data are utilized by states to prepare State Implementation Plans to comply with regulatory programs and by EPA as an input for the

Map ID  
 Direction  
 Distance  
 Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
 EPA ID Number

**CONWOOD CO LLC (Continued)**

**1004598191**

estimation of total national emissions. AFS is undergoing a major redesign to support facility operating permits required under Title V of the Clean Air Act.

The NEI (National Emissions Inventory) database contains information on stationary and mobile sources that emit criteria air pollutants and their precursors, as well as hazardous air pollutants (HAPs).

US EPA TRIS (Toxics Release Inventory System) contains information from facilities on the amounts of over 300 listed toxic chemicals that these facilities release directly to air, water, land, or that are transported off-site.

RCRAInfo is a national information system that supports the Resource Conservation and Recovery Act (RCRA) program through the tracking of events and activities related to facilities that generate, transport, and treat, store, or dispose of hazardous waste. RCRAInfo allows RCRA program staff to track the notification, permit, compliance, and corrective action activities required under RCRA.

**10**  
**SW**  
**1/8-1/4**  
**0.196 mi.**  
**1034 ft.**

**MEMPHIS DIESEL ELECTRIC**  
**611 N MAIN ST**  
**MEMPHIS, TN 38107**

**RCRA-NonGen** **1000916757**  
**FINDS** **TND056854094**

**Relative:**  
**Lower**

**RCRA-NonGen:**

Date form received by agency: 11/19/1980  
 Facility name: MEMPHIS DIESEL ELECTRIC  
 Facility address: 611 N MAIN ST  
 MEMPHIS, TN 38107  
 EPA ID: TND056854094  
 Mailing address: N MAIN ST  
 MEMPHIS, TN 38107  
 Contact: MEMPHIS DIESEL  
 Contact address: 611 N MAIN ST  
 MEMPHIS, TN 38107  
 Contact country: US  
 Contact telephone: (615) 555-1212  
 Contact email: Not reported  
 EPA Region: 04  
 Classification: Non-Generator  
 Description: Handler: Non-Generators do not presently generate hazardous waste

**Actual:**  
**230 ft.**

**Handler Activities Summary:**

U.S. importer of hazardous waste: No  
 Mixed waste (haz. and radioactive): Unknown  
 Recycler of hazardous waste: No  
 Transporter of hazardous waste: No  
 Treater, storer or disposer of HW: No  
 Underground injection activity: No  
 On-site burner exemption: No  
 Furnace exemption: No  
 Used oil fuel burner: No  
 Used oil processor: No  
 User oil refiner: No

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**MEMPHIS DIESEL ELECTRIC (Continued)**

1000916757

Used oil fuel marketer to burner: No  
Used oil Specification marketer: No  
Used oil transfer facility: No  
Used oil transporter: No  
Off-site waste receiver: Verified to be non-commercial

Violation Status: No violations found

**FINDS:**

Registry ID: 110004969375

**Environmental Interest/Information System**

RCRAInfo is a national information system that supports the Resource Conservation and Recovery Act (RCRA) program through the tracking of events and activities related to facilities that generate, transport, and treat, store, or dispose of hazardous waste. RCRAInfo allows RCRA program staff to track the notification, permit, compliance, and corrective action activities required under RCRA.

11  
NW  
1/8-1/4  
0.211 mi.  
1115 ft.

**CONWOOD CORPORATION**  
844 NORTH FRONT STREET  
MEMPHIS, TN 38101

RCRA-NonGen 1000883163  
FINDS TND007019466

**Relative:**  
Lower

**Actual:**  
239 ft.

**RCRA-NonGen:**

Date form received by agency: 04/01/1985  
Facility name: CONWOOD CORPORATION  
Facility address: 844 NORTH FRONT STREET  
MEMPHIS, TN 38101  
EPA ID: TND007019466  
Mailing address: PO BOX 217  
MEMPHIS, TN 38101  
Contact: E H ARKIN  
Contact address: 844 NORTH FRONT STREET  
MEMPHIS, TN 38101  
Contact country: US  
Contact telephone: (901) 523-2424  
Contact email: Not reported  
EPA Region: 04  
Land type: Facility is not located on Indian land. Additional information is not known.  
Classification: Non-Generator  
Description: Handler: Non-Generators do not presently generate hazardous waste

**Handler Activities Summary:**

U.S. importer of hazardous waste: No  
Mixed waste (haz. and radioactive): Unknown  
Recycler of hazardous waste: No  
Transporter of hazardous waste: No  
Treater, storer or disposer of HW: No  
Underground injection activity: No  
On-site burner exemption: No  
Furnace exemption: No  
Used oil fuel burner: No  
Used oil processor: No  
User oil refiner: No



Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**CONWOOD CORPORATION (Continued)**

**1000883163**

Used oil fuel marketer to burner: No  
Used oil Specification marketer: No  
Used oil transfer facility: No  
Used oil transporter: No  
Off-site waste receiver: Verified to be non-commercial

Violation Status: No violations found

**Evaluation Action Summary:**

Evaluation date: 08/08/1985  
Evaluation: COMPLIANCE EVALUATION INSPECTION ON-SITE  
Area of violation: Not reported  
Date achieved compliance: Not reported  
Evaluation lead agency: State

**FINDS:**

Registry ID: 110004960551

**Environmental Interest/Information System**

RCRAInfo is a national information system that supports the Resource Conservation and Recovery Act (RCRA) program through the tracking of events and activities related to facilities that generate, transport, and treat, store, or dispose of hazardous waste. RCRAInfo allows RCRA program staff to track the notification, permit, compliance, and corrective action activities required under RCRA.

12  
NNW  
1/8-1/4  
0.236 mi.  
1248 ft.

**AMERICAN BATTERY ACID CORP**  
904 N FRONT ST  
MEMPHIS, TN 38107

RCRA-NonGen 1000916084  
FINDS TND041174012

**Relative:**  
**Lower**

**RCRA-NonGen:**

**Actual:**  
**244 ft.**

Date form received by agency: 11/19/1980  
Facility name: AMERICAN BATTERY ACID CORP  
Facility address: 904 N FRONT ST  
MEMPHIS, TN 38107  
EPA ID: TND041174012  
Mailing address: N FRONT ST  
MEMPHIS, TN 38107  
Contact: AMERICAN BATTERY  
Contact address: 904 N FRONT ST  
MEMPHIS, TN 38107  
Contact country: US  
Contact telephone: (615) 555-1212  
Contact email: Not reported  
EPA Region: 04  
Classification: Non-Generator  
Description: Handler: Non-Generators do not presently generate hazardous waste

**Handler Activities Summary:**

U.S. importer of hazardous waste: No  
Mixed waste (haz. and radioactive): Unknown  
Recycler of hazardous waste: No  
Transporter of hazardous waste: No

Map ID  
 Direction  
 Distance  
 Elevation

MAP FINDINGS

Site

Database(s) EDR ID Number  
 EPA ID Number

**AMERICAN BATTERY ACID CORP (Continued)**

1000916084

Treater, storer or disposer of HW: No  
 Underground injection activity: No  
 On-site burner exemption: No  
 Furnace exemption: No  
 Used oil fuel burner: No  
 Used oil processor: No  
 Used oil refiner: No  
 Used oil fuel marketer to burner: No  
 Used oil Specification marketer: No  
 Used oil transfer facility: No  
 Used oil transporter: No  
 Off-site waste receiver: Verified to be non-commercial

Violation Status: No violations found

**FINDS:**

Registry ID: 110004965645

**Environmental Interest/Information System**

RCRAInfo is a national information system that supports the Resource Conservation and Recovery Act (RCRA) program through the tracking of events and activities related to facilities that generate, transport, and treat, store, or dispose of hazardous waste. RCRAInfo allows RCRA program staff to track the notification, permit, compliance, and corrective action activities required under RCRA.

13  
 East  
 1/8-1/4  
 0.240 mi.  
 1268 ft.

**DOUBLE R MUSIC CORP**  
 268. N S01T06 Y Y Y  
 MEMPHIS, TN 38107

RCRA-NonGen 1000917539  
 FINDS TND067716308

**Relative:  
 Higher**

**RCRA-NonGen:**

Date form received by agency: 11/19/1980  
 Facility name: DOUBLE R MUSIC CORP  
 Facility address: 268. N S01T06 Y Y Y  
 MEMPHIS, TN 38107  
 EPA ID: TND067716308  
 Mailing address: CHELSEA  
 MEMPHIS, TN 38107  
 Contact: DOUBLE R MUSIC  
 Contact address: 268. N S01T06 Y Y Y  
 MEMPHIS, TN 38107  
 Contact country: US  
 Contact telephone: (615) 555-1212  
 Contact email: Not reported  
 EPA Region: 04  
 Classification: Non-Generator  
 Description: Handler: Non-Generators do not presently generate hazardous waste

**Actual:  
 260 ft.**

**Handler Activities Summary:**

U.S. importer of hazardous waste: No  
 Mixed waste (haz. and radioactive): Unknown  
 Recycler of hazardous waste: No  
 Transporter of hazardous waste: No  
 Treater, storer or disposer of HW: No

Map ID  
 Direction  
 Distance  
 Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
 EPA ID Number

**DOUBLE R MUSIC CORP (Continued)**

**1000917539**

Underground injection activity: No  
 On-site burner exemption: No  
 Furnace exemption: No  
 Used oil fuel burner: No  
 Used oil processor: No  
 User oil refiner: No  
 Used oil fuel marketer to burner: No  
 Used oil Specification marketer: No  
 Used oil transfer facility: No  
 Used oil transporter: No  
 Off-site waste receiver: Verified to be non-commercial

Violation Status: No violations found

**FINDS:**

Registry ID: 110007863384

**Environmental Interest/Information System**

RCRAInfo is a national information system that supports the Resource Conservation and Recovery Act (RCRA) program through the tracking of events and activities related to facilities that generate, transport, and treat, store, or dispose of hazardous waste. RCRAInfo allows RCRA program staff to track the notification, permit, compliance, and corrective action activities required under RCRA.

**14**  
**SW**  
**1/4-1/2**  
**0.323 mi.**  
**1706 ft.**

**MEMPHIS GASLIGHT CO**  
**N FRONT AND MILL AVE**  
**MEMPHIS, TN 38105**

**Manufactured Gas Plants** **1008408783**  
**N/A**

**Relative:**  
**Lower**

**Manufactured Gas Plants:**

Alternate Name: MEMPHIS CONSOLIDATED GAS AND ELECTRIC. No additional information available

**Actual:**  
**222 ft.**

**C15**  
**SW**  
**1/4-1/2**  
**0.372 mi.**  
**1963 ft.**

**GREYHOUND MAINTENANCE GARAGE**  
**527 NORTH MAIN**  
**MEMPHIS, TN 38105**

**LUST** **U003617975**  
**HIST UST** **N/A**

**Site 1 of 2 in cluster C**

**Relative:**  
**Lower**

**LUST:**

Region: STATE  
 Region Number: 9  
 Facility Id: 9790375  
 Current Status: 1a Completed Tank Closure  
 Product Released: Not reported  
 Discovery Date: Not reported  
 How Discovered: Not reported  
 Cause: Not reported  
 Case Number: 2  
 Case Manager: GEM  
 Case Description: Not reported  
 Section: FO  
 Priority: Not reported  
 GW Class: Unknown

**Actual:**  
**216 ft.**

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s) EDR ID Number  
EPA ID Number

**GREYHOUND MAINTENANCE GARAGE (Continued)**

**U003617975**

Soil Perm:	Unknown
Ground Water Benzene:	Not reported
Ground Water TPH:	Not reported
Soil Benzene:	Not reported
Soil TPH:	Not reported
Private Water Supply:	No
Public Water Supply:	No
Spring:	No
Petroleum Vapors in Building:	No
Petroleum Vapors in Utilities:	No
OffSite Contamination:	No
Soil Contamination:	No
Ground Water Contamination:	No
Free Product:	No
Free Product In Utilities:	No
Private Water Supply OK:	No
Public Water Supply OK:	No
Spring OK:	No
Petroleum Vapors in Building OK:	No
Petroleum Vapors in Utilities OK:	No
Off Site Contamination OK:	No
Soil Contamination OK:	No
Ground Water Contamination OK:	No
Free Product OK:	No
Free Product in Utilities OK:	No
Consultant ID:	Not reported
Consultant Name:	Not reported
Consultant Contact:	Not reported
Consultant Contact Title:	Not reported
Consultant Contact First Name:	Not reported
Consultant Contact Last Name:	Not reported
Consultant Contact Address2:	Not reported
Consultant City:	Not reported
Consultant State:	Not reported
Consultant Telephone:	Not reported
Owner ID:	3848
Owner Name:	GREYHOUND LINES INC
Owner Contact:	Not reported
Owner Contact Title:	Not reported
Owner Contact First Name:	Not reported
Owner Contact Last Name:	Not reported
Owner Address:	ATT: RITA KRYSINSKI
Owner City:	DALLAS
Owner State:	TX
Owner Zip Code:	75266
Owner Telephone:	(214) 698-4674
Region:	STATE
Region Number:	9
Facility Id:	9790375
Current Status:	8 Case Closed
Product Released:	Not reported
Discovery Date:	3/1/1992
How Discovered:	1 At Closure
Cause:	7 Unknown
Case Number:	1
Case Manager:	CCH

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s) EDR ID Number  
EPA ID Number

**GREYHOUND MAINTENANCE GARAGE (Continued)**

**U003617975**

Case Description: Not reported  
Section: TECH  
Priority: Not reported  
GW Class: 2 Non-Drinking Water  
Soil Perm: 1 > 10-4 cm/sec  
Ground Water Benzene: Not reported  
Ground Water TPH: Not reported  
Soil Benzene: Not reported  
Soil TPH: Not reported  
Private Water Supply: No  
Public Water Supply: No  
Spring: No  
Petroleum Vapors in Building: No  
Petroleum Vapors in Utilities: No  
OffSite Contamination: No  
Soil Contamination: Yes  
Ground Water Contamination: Yes  
Free Product: No  
Free Product In Utilities: No  
Private Water Supply OK: No  
Public Water Supply OK: No  
Spring OK: No  
Petroleum Vapors in Building OK: No  
Petroleum Vapors in Utilities OK: No  
Off Site Contamination OK: No  
Soil Contamination OK: No  
Ground Water Contamination OK: No  
Free Product OK: No  
Free Product in Utilities OK: No  
Consultant ID: Not reported  
Consultant Name: Not reported  
Consultant Contact: Not reported  
Consultant Contact Title: Not reported  
Consultant Contact First Name: Not reported  
Consultant Contact Last Name: Not reported  
Consultant Contact Address2: Not reported  
Consultant City: Not reported  
Consultant State: Not reported  
Consultant Telephone: Not reported  
Owner ID: 3848  
Owner Name: GREYHOUND LINES INC  
Owner Contact: Not reported  
Owner Contact Title: Not reported  
Owner Contact First Name: Not reported  
Owner Contact Last Name: Not reported  
Owner Address: ATT: RITA KRYSINSKI  
Owner City: DALLAS  
Owner State: TX  
Owner Zip Code: 75266  
Owner Telephone: (214) 698-4674

**HIST UST:**

Owner ID: 3848  
Owner Name: GREYHOUND LINES INC  
Owner Address: P. O. Box 660362  
Owner City,St,Zip: Dallas, TX 75201  
Owner Telephone: (214) 849-8411

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s) EDR ID Number  
EPA ID Number

**GREYHOUND MAINTENANCE GARAGE (Continued)**

U003617975

Owner Description: Commercial  
Facility ID: 9-790375  
Facility Description: Other  
Tank ID: 6  
**Tank Status: Permanently Out of Use**  
Tank Capacity: 10000  
Tank Contents: Not Listed  
Tank Material: Asphalt Coated or Bare Steel  
Tank 2ndary Trait: None  
Tank Manual Gauge: False  
Tank Tightness: False  
Tank Inventory Control: True  
Tank ATG: False  
Tank Vapor Monitor: False  
Tank Groundwater Monitor: False  
Tank Double Walled: False  
Tank 2nd Contained: False  
Tank SIR: False  
Overfill Installed: False  
Spill Installed: False  
Cathodic Protection: False  
Date Installed: 09/21/1945  
Tank Leak Detection Listed: False  
Pipe Material: Unknown  
Pipe Other Material: None  
Pipe Type: Not Listed  
Pipe Auto Line Leak Detect.: True  
Pipe Leak Detection Listed: True  
Pipe Vapor Monitor: False  
Pipe Groundwater Monitor: False  
Pipe Dbl Walled: Not reported  
Pipe 2nd Contained: False  
Pipe SIR: False  
Pipe Leak Detection Listed: False

Owner ID: 3848  
Owner Name: GREYHOUND LINES INC  
Owner Address: P. O. Box 660362  
Owner City,St,Zip: Dailas, TX 75201  
Owner Telephone: (214) 849-8411  
Owner Description: Commercial  
Facility ID: 9-790375  
Facility Description: Other  
Tank ID: 9  
**Tank Status: Permanently Out of Use**  
Tank Capacity: 12000  
Tank Contents: Diesel  
Tank Material: Composite (Steel w/ FRP)  
Tank 2ndary Trait: Double-Walled  
Tank Manual Gauge: True  
Tank Tightness: False  
Tank Inventory Control: True  
Tank ATG: True  
Tank Vapor Monitor: False  
Tank Groundwater Monitor: True  
Tank Double Walled: True  
Tank 2nd Contained: False



Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

GREYHOUND MAINTENANCE GARAGE (Continued)

U003617975

Tank ATG: False  
Tank Vapor Monitor: False  
Tank Groundwater Monitor: False  
Tank Double Walled: False  
Tank 2nd Contained: False  
Tank SIR: False  
Overfill Installed: False  
Spill Installed: False  
Cathodic Protection: False  
Date Installed: 09/21/1945  
Tank Leak Detection Listed: False  
Pipe Material: Unknown  
Pipe Other Material: None  
Pipe Type: Not Listed  
Pipe Auto Line Leak Detect.: True  
Pipe Leak Detection Listed: True  
Pipe Vapor Monitor: False  
Pipe Groundwater Monitor: False  
Pipe Dbl Walled: Not reported  
Pipe 2nd Contained: False  
Pipe SIR: False  
Pipe Leak Detection Listed: False

Owner ID: 3848  
Owner Name: GREYHOUND LINES INC  
Owner Address: P. O. Box 660362  
Owner City,St,Zip: Dallas, TX 75201  
Owner Telephone: (214) 849-8411  
Owner Description: Commercial  
Facility ID: 9-790375  
Facility Description: Other  
Tank ID: 8  
**Tank Status: Permanently Out of Use**  
Tank Capacity: 12000  
Tank Contents: Diesel  
Tank Material: Composite (Steel w/ FRP)  
Tank 2ndary Trait: Double-Walled  
Tank Manual Gauge: True  
Tank Tightness: False  
Tank Inventory Control: True  
Tank ATG: True  
Tank Vapor Monitor: False  
Tank Groundwater Monitor: True  
Tank Double Walled: True  
Tank 2nd Contained: True  
Tank SIR: False  
Overfill Installed: True  
Spill Installed: True  
Cathodic Protection: False  
Date Installed: 01/01/1992  
Tank Leak Detection Listed: False  
Pipe Material: Other  
Pipe Other Material: Double-Walled  
Pipe Type: Pressurized  
Pipe Auto Line Leak Detect.: True  
Pipe Leak Detection Listed: True  
Pipe Vapor Monitor: False

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s) EDR ID Number  
EPA ID Number

GREYHOUND MAINTENANCE GARAGE (Continued)

U003617975

Pipe Groundwater Monitor: False  
Pipe Dbl Walled: Not reported  
Pipe 2nd Contained: False  
Pipe SIR: False  
Pipe Leak Detection Listed: False

Owner ID: 3848  
Owner Name: GREYHOUND LINES INC  
Owner Address: P. O. Box 660362  
Owner City,St,Zip: Dallas, TX 75201  
Owner Telephone: (214) 849-8411  
Owner Description: Commercial  
Facility ID: 9-790375  
Facility Description: Other  
Tank ID: 7  
**Tank Status: Permanently Out of Use**  
Tank Capacity: 6000  
Tank Contents: Not Listed  
Tank Material: Asphalt Coated or Bare Steel  
Tank 2ndary Trait: None  
Tank Manual Gauge: False  
Tank Tightness: False  
Tank Inventory Control: True  
Tank ATG: False  
Tank Vapor Monitor: False  
Tank Groundwater Monitor: False  
Tank Double Walled: False  
Tank 2nd Contained: False  
Tank SIR: False  
Overfill Installed: False  
Spill Installed: False  
Cathodic Protection: False  
Date Installed: 09/21/1946  
Tank Leak Detection Listed: False  
Pipe Material: Unknown  
Pipe Other Material: None  
Pipe Type: Not Listed  
Pipe Auto Line Leak Detect.: True  
Pipe Leak Detection Listed: True  
Pipe Vapor Monitor: False  
Pipe Groundwater Monitor: False  
Pipe Dbl Walled: Not reported  
Pipe 2nd Contained: False  
Pipe SIR: False  
Pipe Leak Detection Listed: False

Owner ID: 3848  
Owner Name: GREYHOUND LINES INC  
Owner Address: P. O. Box 660362  
Owner City,St,Zip: Dallas, TX 75201  
Owner Telephone: (214) 849-8411  
Owner Description: Commercial  
Facility ID: 9-790375  
Facility Description: Other  
Tank ID: 1  
**Tank Status: Permanently Out of Use**  
Tank Capacity: 10000

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s) EDR ID Number  
EPA ID Number

GREYHOUND MAINTENANCE GARAGE (Continued)

U003617975

Tank Contents: Diesel  
Tank Material: Asphalt Coated or Bare Steel  
Tank 2ndary Trait: None  
Tank Manual Gauge: False  
Tank Tightness: False  
Tank Inventory Control: False  
Tank ATG: False  
Tank Vapor Monitor: False  
Tank Groundwater Monitor: False  
Tank Double Walled: False  
Tank 2nd Contained: False  
Tank SIR: False  
Overfill Installed: False  
Spill Installed: False  
Cathodic Protection: False  
Date Installed: 09/21/1945  
Tank Leak Detection Listed: False  
Pipe Material: Unknown  
Pipe Other Material: None  
Pipe Type: Not Listed  
Pipe Auto Line Leak Detect.: True  
Pipe Leak Detection Listed: True  
Pipe Vapor Monitor: False  
Pipe Groundwater Monitor: False  
Pipe Dbl Walled: Not reported  
Pipe 2nd Contained: False  
Pipe SIR: False  
Pipe Leak Detection Listed: False

Owner ID: 3848  
Owner Name: GREYHOUND LINES INC  
Owner Address: P. O. Box 660362  
Owner City,St,Zip: Dallas, TX 75201  
Owner Telephone: (214) 849-8411  
Owner Description: Commercial  
Facility ID: 9-790375  
Facility Description: Other  
Tank ID: 3  
**Tank Status: Permanently Out of Use**  
Tank Capacity: 10000  
Tank Contents: Not Listed  
Tank Material: Asphalt Coated or Bare Steel  
Tank 2ndary Trait: None  
Tank Manual Gauge: False  
Tank Tightness: False  
Tank Inventory Control: True  
Tank ATG: False  
Tank Vapor Monitor: False  
Tank Groundwater Monitor: False  
Tank Double Walled: False  
Tank 2nd Contained: False  
Tank SIR: False  
Overfill Installed: False  
Spill Installed: False  
Cathodic Protection: False  
Date Installed: 09/21/1945  
Tank Leak Detection Listed: False

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s) EDR ID Number  
EPA ID Number

**GREYHOUND MAINTENANCE GARAGE (Continued)**

**U003617975**

Pipe Material: Unknown  
Pipe Other Material: None  
Pipe Type: Not Listed  
Pipe Auto Line Leak Detect.: True  
Pipe Leak Detection Listed: True  
Pipe Vapor Monitor: False  
Pipe Groundwater Monitor: False  
Pipe Dbl Walled: Not reported  
Pipe 2nd Contained: False  
Pipe SIR: False  
Pipe Leak Detection Listed: False

Owner ID: 3848  
Owner Name: GREYHOUND LINES INC  
Owner Address: P. O. Box 660362  
Owner City,St,Zip: Dallas, TX 75201  
Owner Telephone: (214) 849-8411  
Owner Description: Commercial  
Facility ID: 9-790375  
Facility Description: Other  
Tank ID: 4  
**Tank Status: Permanently Out of Use**  
Tank Capacity: 4000  
Tank Contents: Not Listed  
Tank Material: Asphalt Coated or Bare Steel  
Tank 2ndary Trait: None  
Tank Manual Gauge: False  
Tank Tightness: False  
Tank Inventory Control: True  
Tank ATG: False  
Tank Vapor Monitor: False  
Tank Groundwater Monitor: False  
Tank Double Walled: False  
Tank 2nd Contained: False  
Tank SIR: False  
Overfill Installed: False  
Spill Installed: False  
Cathodic Protection: False  
Date Installed: 09/21/1945  
Tank Leak Detection Listed: False  
Pipe Material: Unknown  
Pipe Other Material: None  
Pipe Type: Not Listed  
Pipe Auto Line Leak Detect.: True  
Pipe Leak Detection Listed: True  
Pipe Vapor Monitor: False  
Pipe Groundwater Monitor: False  
Pipe Dbl Walled: Not reported  
Pipe 2nd Contained: False  
Pipe SIR: False  
Pipe Leak Detection Listed: False

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

C16  
SW  
1/4-1/2  
0.372 mi.  
1963 ft.

GREYHOUND LINES INC  
527 N MAIN  
MEMPHIS, TN 38105

RCRA-NonGen  
FINDS  
LUST TRUST

1000441463  
TND982094740

Site 2 of 2 in cluster C

Relative:  
Lower

RCRA-NonGen:

Date form received by agency: 03/04/2004

Facility name: GREYHOUND LINES INC

Facility address: 527 N MAIN

MEMPHIS, TN 38105

EPA ID: TND982094740

Mailing address: PO BOX 660362

DALLAS, TX 752660362

Contact: RITA FELTON

Contact address: 527 N MAIN

MEMPHIS, TN 38105

Contact country: US

Contact telephone: (214) 777-8151

Contact email: Not reported

EPA Region: 04

Classification: Non-Generator

Description: Handler: Non-Generators do not presently generate hazardous waste

Actual:  
216 ft.

Handler Activities Summary:

U.S. importer of hazardous waste: No  
Mixed waste (haz. and radioactive): No  
Recycler of hazardous waste: No  
Transporter of hazardous waste: No  
Treater, storer or disposer of HW: No  
Underground injection activity: No  
On-site burner exemption: No  
Furnace exemption: No  
Used oil fuel burner: No  
Used oil processor: No  
User oil refiner: No  
Used oil fuel marketer to burner: No  
Used oil Specification marketer: No  
Used oil transfer facility: No  
Used oil transporter: No  
Off-site waste receiver: Commercial status unknown

Historical Generators:

Date form received by agency: 03/06/1996

Facility name: GREYHOUND LINES INC

Classification: Not a generator, verified

Violation Status: No violations found

FINDS:

Registry ID: 110004985918

Environmental Interest/Information System

RCRAInfo is a national information system that supports the Resource Conservation and Recovery Act (RCRA) program through the tracking of events and activities related to facilities that generate, transport, and treat, store, or dispose of hazardous waste. RCRAInfo allows RCRA program staff to track the notification, permit, compliance, and

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

GREYHOUND LINES INC (Continued)

1000441463

corrective action activities required under RCRA.

LUST TRUST:

Facility Id: 9790375  
Case Number: 1  
Application Num: 93022  
Tank Owner: GREYHOUND LINES, INC.  
Owner Id: 3848  
Deductible: 10000  
Applied Requested: Not reported  
Applied Not Eligible: Not reported  
Applied Net Pay: Not reported  
Applied Deductible: Not reported  
Applied Payment: Not reported  
Total Requested: 97630.58  
Total Not Eligible: 19591.31  
Total Paid: 68039.27  
Total Net Pay: 78039.27  
Facility Status: CLOSED

D17  
East  
1/4-1/2  
0.393 mi.  
2075 ft.

EXXON #5-1488  
THOMAS STREET & CHELSEA  
MEMPHIS, TN

LUST TRUST U002106412  
N/A

Site 1 of 2 in cluster D

Relative:  
Higher

LUST TRUST:

Facility Id: 9791274  
Case Number: 1  
Application Num: 97017  
Tank Owner: EXXON COMPANY USA  
Owner Id: 15621  
Deductible: 20000  
Applied Requested: Not reported  
Applied Not Eligible: Not reported  
Applied Net Pay: Not reported  
Applied Deductible: Not reported  
Applied Payment: Not reported  
Total Requested: 92569.93  
Total Not Eligible: 4753.17  
Total Paid: 67816.76  
Total Net Pay: 87816.76  
Facility Status: CLOSED

Actual:  
252 ft.

D18  
East  
1/4-1/2  
0.401 mi.  
2119 ft.

#5-1488 CHELSEA EXXON SHOP  
840 THOMAS/CHELSEA  
MEMPHIS, TN 38107

LUST S107465119  
N/A

Site 2 of 2 in cluster D

Relative:  
Higher

LUST:

Region: STATE  
Region Number: 9  
Facility Id: 9791274  
Current Status: 1a Completed Tank Closure

Actual:  
252 ft.



Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s) EDR ID Number  
EPA ID Number

#5-1488 CHELSEA EXXON SHOP (Continued)

S107465119

Product Released: Not reported  
Discovery Date: Not reported  
How Discovered: Not reported  
Cause: Not reported  
Case Number: 2  
Case Manager: CJP  
Case Description: Tank Closure, Case Closed, Active case  
Section: fo  
Priority: Not reported  
GW Class: Unknown  
Soil Perm: Unknown  
Ground Water Benzene: Not reported  
Ground Water TPH: Not reported  
Soil Benzene: Not reported  
Soil TPH: Not reported  
Private Water Supply: No  
Public Water Supply: No  
Spring: No  
Petroleum Vapors in Building: No  
Petroleum Vapors in Utilities: No  
OffSite Contamination: No  
Soil Contamination: No  
Ground Water Contamination: No  
Free Product: No  
Free Product In Utilities: No  
Private Water Supply OK: No  
Public Water Supply OK: No  
Spring OK: No  
Petroleum Vapors in Building OK: No  
Petroleum Vapors in Utilities OK: No  
Off Site Contamination OK: No  
Soil Contamination OK: No  
Ground Water Contamination OK: No  
Free Product OK: No  
Free Product in Utilities OK: No  
Consultant ID: Not reported  
Consultant Name: Not reported  
Consultant Contact: Not reported  
Consultant Contact Title: Not reported  
Consultant Contact First Name: Not reported  
Consultant Contact Last Name: Not reported  
Consultant Contact Address2: Not reported  
Consultant City: Not reported  
Consultant State: Not reported  
Consultant Telephone: Not reported  
Owner ID: 13387  
Owner Name: EXXON COMPANY U S A  
Owner Contact: Not reported  
Owner Contact Title: Not reported  
Owner Contact First Name: Not reported  
Owner Contact Last Name: Not reported  
Owner Address: P O BOX 4386  
Owner City: Houston  
Owner State: TX  
Owner Zip Code: 77210  
Owner Telephone: (800) 350-0531

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s) EDR ID Number  
EPA ID Number

#5-1488 CHELSEA EXXON SHOP (Continued)

S107465119

Region: STATE  
Region Number: 9  
Facility Id: 9791274  
Current Status: 8 Case Closed  
Product Released: Not reported  
Discovery Date: 7/21/1993  
How Discovered: 3 On-site Impact  
Cause: 5 Pipe Failure  
Case Number: 1  
Case Manager: CJP  
Case Description: ACTIVE  
Section: FO  
Priority: Medium  
GW Class: 2 Non-Drinking Water  
Soil Perm: 2 10-4 to 10-6 cm/sec  
Ground Water Benzene: Not reported  
Ground Water TPH: Not reported  
Soil Benzene: Not reported  
Soil TPH: Not reported  
Private Water Supply: No  
Public Water Supply: No  
Spring: No  
Petroleum Vapors in Building: No  
Petroleum Vapors in Utilities: No  
OffSite Contamination: No  
Soil Contamination: Yes  
Ground Water Contamination: Yes  
Free Product: Yes  
Free Product In Utilities: No  
Private Water Supply OK: No  
Public Water Supply OK: No  
Spring OK: No  
Petroleum Vapors in Building OK: No  
Petroleum Vapors in Utilities OK: No  
Off Site Contamination OK: No  
Soil Contamination OK: No  
Ground Water Contamination OK: No  
Free Product OK: Yes  
Free Product in Utilities OK: No  
Consultant ID: c0105  
Consultant Name: Applied Earth Sciences, Inc.  
Consultant Contact: Frank A. DeLuca  
Consultant Contact Title: Not reported  
Consultant Contact First Name: Not reported  
Consultant Contact Last Name: Not reported  
Consultant Contact Address2: Not reported  
Consultant City: Bartlett  
Consultant State: TN  
Consultant Telephone: 901-373-5441  
Owner ID: 3144  
Owner Name: EXXON COMPANY USA  
Owner Contact: Not reported  
Owner Contact Title: Not reported  
Owner Contact First Name: Not reported  
Owner Contact Last Name: Not reported  
Owner Address: P O BOX 4386  
Owner City: HOUSTON

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s) EDR ID Number  
EPA ID Number

#5-1488 CHELSEA EXXON SHOP (Continued)

S107465119

Owner State: TX  
Owner Zip Code: 77210-4386  
Owner Telephone: (901) 762-4239

19  
East  
1/4-1/2  
0.402 mi.  
2124 ft.

SOUTHERN CONTAINER CORPORATION  
605859 T23T31T50  
MEMPHIS, TN 37000

CERC-NFRAP 1000883374  
RCRA-NonGen TND099184103  
FINDS

Relative:  
Higher

CERC-NFRAP:  
Site ID: 0403825  
Federal Facility: Not a Federal Facility  
NPL Status: Not on the NPL  
Non NPL Status: NFRAP

Actual:  
256 ft.

CERCLIS-NFRAP Site Contact Name(s):

Contact Title: RPM  
Contact Name: Barbara Alfano  
Contact Tel: (404) 562-8923

Contact Title: Not reported  
Contact Name: Donna Bledsoe  
Contact Tel: (404) 562-8778

Contact Title: RPM  
Contact Name: Randy Bryant  
Contact Tel: (404) 562-8794

Contact Title: Not reported  
Contact Name: Richard Campbell  
Contact Tel: (404) 562-8825

Contact Title: RPM  
Contact Name: Loftin Carr  
Contact Tel: (404) 562-8804

Contact Title: RPM  
Contact Name: Randall Chaffins  
Contact Tel: (404) 562-8910

Contact Title: RPM  
Contact Name: Tony DeAngelo  
Contact Tel: (404) 562-8826

Contact Title: NPL Coordinator  
Contact Name: Cindy Gurley  
Contact Tel: (404) 562-8817

Contact Title: RPM  
Contact Name: Ralph Howard  
Contact Tel: (404) 562-8829

Contact Title: Not reported  
Contact Name: Felicia Jackson  
Contact Tel: (404) 562-8894

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Database(s) EDR ID Number  
EPA ID Number

SOUTHERN CONTAINER CORPORATION (Continued)

1000883374

Contact Title: RPM  
Contact Name: William Joyner  
Contact Tel: (404) 562-8795

Contact Title: RPM  
Contact Name: John Nolen  
Contact Tel: (404) 562-8750

Contact Title: RPM  
Contact Name: Mike Norman  
Contact Tel: (404) 562-8792

Contact Title: Not reported  
Contact Name: Beth Walden  
Contact Tel: (404) 562-8814

Contact Title: Not reported  
Contact Name: Donna Webster  
Contact Tel: (404) 562-8870

Contact Title: RPM  
Contact Name: Robert West  
Contact Tel: (404) 562-8806

Contact Title: RPM  
Contact Name: Nestor Young  
Contact Tel: (404) 562-8812

CERCLIS-NFRAP Site Alias Name(s):

Alias Name: SOUTHERN CONTAINER CORP  
Alias Address: Not reported  
SHELBY, TN

CERCLIS-NFRAP Assessment History:

Action: DISCOVERY  
Date Started: Not reported  
Date Completed: 11/01/1980  
Priority Level: Not reported

Action: SITE INSPECTION  
Date Started: Not reported  
Date Completed: 08/01/1984  
Priority Level: Higher priority for further assessment

Action: PRELIMINARY ASSESSMENT  
Date Started: Not reported  
Date Completed: 08/01/1984  
Priority Level: Low priority for further assessment

Action: SH  
Date Started: Not reported  
Date Completed: 05/24/1993  
Priority Level: Not reported

Action: ARCHIVE SITE  
Date Started: Not reported

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**SOUTHERN CONTAINER CORPORATION (Continued)**

**1000883374**

Date Completed: 05/02/1994  
Priority Level: Not reported  
  
Action: EXPANDED SITE INSPECTION  
Date Started: 05/12/1993  
Date Completed: 05/02/1994  
Priority Level: NFRAP: No further Remedial Action planned

**RCRA-NonGen:**

Date form received by agency: 11/18/1980  
Facility name: SOUTHERN CONTAINER CORPORATION  
Facility address: 605859 T23T31T50  
MEMPHIS, TN 37000  
EPA ID: TND099184103  
Mailing address: PO BOX 17924 803 MT MORIAH  
MEMPHIS, TN 38119  
Contact: SOUTHERN CONTAINER  
Contact address: 605859 T23T31T50  
MEMPHIS, TN 37000  
Contact country: US  
Contact telephone: (615) 555-1212  
Contact email: Not reported  
EPA Region: 04  
Classification: Non-Generator  
Description: Handler: Non-Generators do not presently generate hazardous waste

**Handler Activities Summary:**

U.S. importer of hazardous waste: No  
Mixed waste (haz. and radioactive): Unknown  
Recycler of hazardous waste: No  
Transporter of hazardous waste: No  
Treater, storer or disposer of HW: No  
Underground injection activity: No  
On-site burner exemption: No  
Furnace exemption: No  
Used oil fuel burner: No  
Used oil processor: No  
Used oil refiner: No  
Used oil fuel marketer to burner: No  
Used oil Specification marketer: No  
Used oil transfer facility: No  
Used oil transporter: No  
Off-site waste receiver: Verified to be non-commercial

Violation Status: No violations found

**FINDS:**

Registry ID: 110008119990

**Environmental Interest/Information System**

RCRAInfo is a national information system that supports the Resource Conservation and Recovery Act (RCRA) program through the tracking of events and activities related to facilities that generate, transport, and treat, store, or dispose of hazardous waste. RCRAInfo allows RCRA program staff to track the notification, permit, compliance, and corrective action activities required under RCRA.

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

20  
East  
1/4-1/2  
0.452 mi.  
2387 ft.

MAPCO EXPRESS #3157  
645 CHELSEA (DANNY THOMAS)  
MEMPHIS, TN 38127

LUST  
LUST TRUST  
UST  
HIST UST  
U002106621  
N/A

Relative:  
Higher

Actual:  
250 ft.

LUST:  
Region: STATE  
Region Number: 9  
Facility Id: 9791906  
Current Status: 8 Case Closed  
Product Released: Not reported  
Discovery Date: 12/6/2000  
How Discovered: 7 Environmental Audit  
Cause: 7 Unknown  
Case Number: 1  
Case Manager: CJP  
Case Description: Not reported  
Section: FO  
Priority: Not reported  
GW Class: Unknown  
Soil Perm: Unknown  
Ground Water Benzene: Not reported  
Ground Water TPH: Not reported  
Soil Benzene: Not reported  
Soil TPH: Not reported  
Private Water Supply: No  
Public Water Supply: No  
Spring: No  
Petroleum Vapors in Building: No  
Petroleum Vapors in Utilities: No  
OffSite Contamination: No  
Soil Contamination: Yes  
Ground Water Contamination: No  
Free Product: No  
Free Product In Utilities: No  
Private Water Supply OK: No  
Public Water Supply OK: No  
Spring OK: No  
Petroleum Vapors in Building OK: No  
Petroleum Vapors in Utilities OK: No  
Off Site Contamination OK: No  
Soil Contamination OK: Yes  
Ground Water Contamination OK: No  
Free Product OK: No  
Free Product in Utilities OK: No  
Consultant ID: C0245  
Consultant Name: SEMS, Inc.  
Consultant Contact: Mark L. Morgan  
Consultant Contact Title: Not reported  
Consultant Contact First Name: Not reported  
Consultant Contact Last Name: Not reported  
Consultant Contact Address2: Not reported  
Consultant City: Baton Rouge  
Consultant State: LA  
Consultant Telephone: 225-924-2002  
Owner ID: 14523  
Owner Name: MAPCO PETROLEUM INC  
Owner Contact: Not reported



Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

MAPCO EXPRESS #3157 (Continued)

U002106621

Owner Contact Title: Not reported  
Owner Contact First Name: Not reported  
Owner Contact Last Name: Not reported  
Owner Address: ATTN: DEBRA TORRENTO 1101 KERMI  
Owner City: Nashville  
Owner State: TN  
Owner Zip Code: 37217  
Owner Telephone: (615) 346-3124

LUST TRUST:

Facility Id: 9791906  
Case Number: 1  
Application Num: 01073  
Tank Owner: WILLIAMS EXPRESS INC  
Owner Id: 14523  
Deductible: 4382.996  
Applied Requested: Not reported  
Applied Not Eligible: Not reported  
Applied Net Pay: Not reported  
Applied Deductible: Not reported  
Applied Payment: Not reported  
Total Requested: 22712.22  
Total Not Eligible: 797.28  
Total Paid: 17531.944  
Total Net Pay: 21914.94  
Facility Status: CLOSED

UST:

Facility ID: 9791906  
Location Description: Gas Station  
Owner ID: 301470  
Owner Name: Mapco Express, Inc.  
Owner Address: 7102 Commerce Way  
Owner Address 2: Not reported  
Owner City,St,Zip: Brentwood, TN 37027  
Owner Description: Commercial  
Total: 3  
Currently In Use: 2  
Perm Out of Service: Not reported  
Temp of Service: 1

HIST UST:

Owner ID: 157718  
Owner Name: MAPCO EXPRESS INC.  
Owner Address: 830 Crescent Center Drive Suite 300  
Owner City,St,Zip: Franklin, TN 37067  
Owner Telephone: (615) 224-1155  
Owner Description: Commercial  
Facility ID: 9-791906  
Facility Description: Not Listed  
Tank ID: 2  
Tank Status: Currently in Use  
Tank Capacity: 10000  
Tank Contents: Gasoline  
Tank Material: Composite (Steel w/ FRP)  
Tank 2ndary Trait: None

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)  
EDR ID Number  
EPA ID Number

MAPCO EXPRESS #3157 (Continued)

U002106621

Tank Manual Gauge: False  
Tank Tightness: True  
Tank Inventory Control: True  
Tank ATG: True  
Tank Vapor Monitor: False  
Tank Groundwater Monitor: False  
Tank Double Walled: False  
Tank 2nd Contained: False  
Tank SIR: False  
Overfill Installed: True  
Spill Installed: True  
Cathodic Protection: True  
Date Installed: 10/24/1988  
Tank Leak Detection Listed: False  
Pipe Material: Fiberglass Reinforced Plastic  
Pipe Other Material: None  
Pipe Type: Pressurized  
Pipe Auto Line Leak Detect.: True  
Pipe Leak Detection Listed: True  
Pipe Vapor Monitor: False  
Pipe Groundwater Monitor: False  
Pipe Dbl Walled: Not reported  
Pipe 2nd Contained: False  
Pipe SIR: False  
Pipe Leak Detection Listed: False

Owner ID: 157718  
Owner Name: MAPCO EXPRESS INC.  
Owner Address: 830 Crescent Center Drive Suite 300  
Owner City,St,Zip: Franklin, TN 37067  
Owner Telephone: (615) 224-1155  
Owner Description: Commercial  
Facility ID: 9-791906  
Facility Description: Not Listed  
Tank ID: 1  
**Tank Status: Currently in Use**  
Tank Capacity: 10000  
Tank Contents: Gasoline  
Tank Material: Composite (Steel w/ FRP)  
Tank 2ndary Trait: None  
Tank Manual Gauge: False  
Tank Tightness: True  
Tank Inventory Control: True  
Tank ATG: True  
Tank Vapor Monitor: False  
Tank Groundwater Monitor: False  
Tank Double Walled: False  
Tank 2nd Contained: False  
Tank SIR: False  
Overfill Installed: True  
Spill Installed: True  
Cathodic Protection: True  
Date Installed: 10/24/1988  
Tank Leak Detection Listed: False  
Pipe Material: Fiberglass Reinforced Plastic  
Pipe Other Material: None  
Pipe Type: Pressurized

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)  
EPA ID Number

MAPCO EXPRESS #3157 (Continued)

U002106621

Pipe Auto Line Leak Detect.: True  
Pipe Leak Detection Listed: True  
Pipe Vapor Monitor: False  
Pipe Groundwater Monitor: False  
Pipe Dbl Walled: Not reported  
Pipe 2nd Contained: False  
Pipe SIR: False  
Pipe Leak Detection Listed: False

Owner ID: 157718  
Owner Name: MAPCO EXPRESS INC.  
Owner Address: 830 Crescent Center Drive Suite 300  
Owner City,St,Zip: Franklin, TN 37067  
Owner Telephone: (615) 224-1155  
Owner Description: Commercial  
Facility ID: 9-791906  
Facility Description: Not Listed  
Tank ID: 3  
**Tank Status: Currently in Use**  
Tank Capacity: 10000  
Tank Contents: Gasoline  
Tank Material: Composite (Steel w/ FRP)  
Tank 2ndary Trait: None  
Tank Manual Gauge: False  
Tank Tightness: True  
Tank Inventory Control: True  
Tank ATG: True  
Tank Vapor Monitor: False  
Tank Groundwater Monitor: False  
Tank Double Walled: False  
Tank 2nd Contained: False  
Tank SIR: False  
Overfill Installed: True  
Spill Installed: True  
Cathodic Protection: True  
Date Installed: 10/24/1988  
Tank Leak Detection Listed: False  
Pipe Material: Fiberglass Reinforced Plastic  
Pipe Other Material: None  
Pipe Type: Pressurized  
Pipe Auto Line Leak Detect.: True  
Pipe Leak Detection Listed: True  
Pipe Vapor Monitor: False  
Pipe Groundwater Monitor: False  
Pipe Dbl Walled: Not reported  
Pipe 2nd Contained: False  
Pipe SIR: False  
Pipe Leak Detection Listed: False

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s) EDR ID Number  
EPA ID Number

21  
SSW  
1/4-1/2  
0.476 mi.  
2511 ft.

DOWNTOWN SHELL  
464 N. MAIN  
MEMPHIS, TN

LUST S109143457  
N/A

Relative:  
Lower

LUST:

Actual:  
226 ft.

Region: STATE  
Region Number: 9  
Facility Id: 9793596  
Current Status: 8 Case Closed  
Product Released: Not reported  
Discovery Date: 5/13/2008  
How Discovered: 8 Other  
Cause: Not reported  
Case Number: 1  
Case Manager: KLP  
Case Description: Not reported  
Section: FO  
Priority: Low  
GW Class: Unknown  
Soil Perm: Unknown  
Ground Water Benzene: Not reported  
Ground Water TPH: Not reported  
Soil Benzene: Not reported  
Soil TPH: Not reported  
Private Water Supply: No  
Public Water Supply: No  
Spring: No  
Petroleum Vapors in Building: No  
Petroleum Vapors in Utilities: No  
OffSite Contamination: No  
Soil Contamination: No  
Ground Water Contamination: No  
Free Product: No  
Free Product In Utilities: No  
Private Water Supply OK: No  
Public Water Supply OK: No  
Spring OK: No  
Petroleum Vapors in Building OK: No  
Petroleum Vapors in Utilities OK: No  
Off Site Contamination OK: No  
Soil Contamination OK: No  
Ground Water Contamination OK: No  
Free Product OK: No  
Free Product in Utilities OK: No  
Consultant ID: Not reported  
Consultant Name: Not reported  
Consultant Contact: Not reported  
Consultant Contact Title: Not reported  
Consultant Contact First Name: Not reported  
Consultant Contact Last Name: Not reported  
Consultant Contact Address2: Not reported  
Consultant City: Not reported  
Consultant State: Not reported  
Consultant Telephone: Not reported  
Owner ID: Not reported  
Owner Name: Not reported  
Owner Contact: Not reported

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**DOWNTOWN SHELL (Continued)**

**S109143457**

Owner Contact Title: Not reported  
Owner Contact First Name: Not reported  
Owner Contact Last Name: Not reported  
Owner Address: Not reported  
Owner City: Not reported  
Owner State: Not reported  
Owner Zip Code: Not reported  
Owner Telephone: Not reported

**22**  
**SSW**  
**1/4-1/2**  
**0.481 mi.**  
**2542 ft.**

**TRUE-TA66 PAINT CO.**  
**442 THIRD AVENUE**  
**MEMPHIS, TN 38101**

**CERC-NFRAP 1000883172**  
**RCRA-NonGen TND007029010**  
**FINDS**

**Relative:**  
**Lower**

**CERC-NFRAP:**  
Site ID: 0403635  
Federal Facility: Not a Federal Facility  
NPL Status: Not on the NPL  
Non NPL Status: NFRAP

**Actual:**  
**222 ft.**

**CERCLIS-NFRAP Site Contact Name(s):**

Contact Title: RPM  
Contact Name: Barbara Alfano  
Contact Tel: (404) 562-8923

Contact Title: Not reported  
Contact Name: Donna Bledsoe  
Contact Tel: (404) 562-8778

Contact Title: RPM  
Contact Name: Randy Bryant  
Contact Tel: (404) 562-8794

Contact Title: Not reported  
Contact Name: Richard Campbell  
Contact Tel: (404) 562-8825

Contact Title: RPM  
Contact Name: Loftin Carr  
Contact Tel: (404) 562-8804

Contact Title: RPM  
Contact Name: Randall Chaffins  
Contact Tel: (404) 562-8910

Contact Title: RPM  
Contact Name: Tony DeAngelo  
Contact Tel: (404) 562-8826

Contact Title: NPL Coordinator  
Contact Name: Cindy Gurley  
Contact Tel: (404) 562-8817

Contact Title: RPM  
Contact Name: Ralph Howard  
Contact Tel: (404) 562-8829

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**TRUE-TA66 PAINT CO. (Continued)**

**1000883172**

Contact Title: Not reported  
Contact Name: Felicia Jackson  
Contact Tel: (404) 562-8894

Contact Title: RPM  
Contact Name: William Joyner  
Contact Tel: (404) 562-8795

Contact Title: RPM  
Contact Name: John Nolen  
Contact Tel: (404) 562-8750

Contact Title: RPM  
Contact Name: Mike Norman  
Contact Tel: (404) 562-8792

Contact Title: Not reported  
Contact Name: Beth Walden  
Contact Tel: (404) 562-8814

Contact Title: Not reported  
Contact Name: Donna Webster  
Contact Tel: (404) 562-8870

Contact Title: RPM  
Contact Name: Robert West  
Contact Tel: (404) 562-8806

Contact Title: RPM  
Contact Name: Nestor Young  
Contact Tel: (404) 562-8812

**CERCLIS-NFRAP Site Alias Name(s):**

Alias Name: TRUE-TAGG PAINT CO  
Alias Address: Not reported  
SHELBY, TN

**CERCLIS-NFRAP Assessment History:**

Action: DISCOVERY  
Date Started: Not reported  
Date Completed: 08/01/1980  
Priority Level: Not reported

Action: PRELIMINARY ASSESSMENT  
Date Started: Not reported  
Date Completed: 11/18/1985  
Priority Level: Low priority for further assessment

Action: SITE INSPECTION  
Date Started: Not reported  
Date Completed: 10/31/1991  
Priority Level: NFRAP: No further Remedial Action planned

Action: SH  
Date Started: 11/27/1991  
Date Completed: 05/17/1994



Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**TRUE-TA66 PAINT CO. (Continued)**

**1000883172**

Priority Level: Not reported

Action: ARCHIVE SITE  
Date Started: Not reported  
Date Completed: 05/17/1994  
Priority Level: Not reported

Action: INTEGRATED ASSESSMENT  
Date Started: 05/23/1994  
Date Completed: 05/23/1994  
Priority Level: Low priority for further assessment

**RCRA-NonGen:**

Date form received by agency: 01/26/1981  
Facility name: TRUE-TA66 PAINT CO.  
Facility address: 442 THIRD AVENUE  
MEMPHIS, TN 38101  
EPA ID: TND007029010  
Mailing address: PO BOX 273  
MEMPHIS, TN 38101  
Contact: MORRIS JAMES  
Contact address: 442 THIRD AVENUE  
MEMPHIS, TN 38101  
Contact country: US  
Contact telephone: (901) 525-2727  
Contact email: Not reported  
EPA Region: 04  
Land type: Facility is not located on Indian land. Additional information is not known.  
Classification: Non-Generator  
Description: Handler: Non-Generators do not presently generate hazardous waste

**Handler Activities Summary:**

U.S. importer of hazardous waste: No  
Mixed waste (haz. and radioactive): Unknown  
Recycler of hazardous waste: No  
Transporter of hazardous waste: No  
Treater, storer or disposer of HW: No  
Underground injection activity: No  
On-site burner exemption: No  
Furnace exemption: No  
Used oil fuel burner: No  
Used oil processor: No  
Used oil refiner: No  
Used oil fuel marketer to burner: No  
Used oil Specification marketer: No  
Used oil transfer facility: No  
Used oil transporter: No  
Off-site waste receiver: Verified to be non-commercial

Violation Status: No violations found

**Evaluation Action Summary:**

Evaluation date: 01/06/1988  
Evaluation: FOCUSED COMPLIANCE INSPECTION  
Area of violation: Not reported  
Date achieved compliance: Not reported

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**TRUE-TA66 PAINT CO. (Continued)**

**1000883172**

Evaluation lead agency: State

Evaluation date: 11/09/1987

Evaluation: FOCUSED COMPLIANCE INSPECTION

Area of violation: Not reported

Date achieved compliance: Not reported

Evaluation lead agency: State

**FINDS:**

Registry ID: 110004961239

**Environmental Interest/Information System**

RCRAInfo is a national information system that supports the Resource Conservation and Recovery Act (RCRA) program through the tracking of events and activities related to facilities that generate, transport, and treat, store, or dispose of hazardous waste. RCRAInfo allows RCRA program staff to track the notification, permit, compliance, and corrective action activities required under RCRA.

Count: 33 records

ORPHAN SUMMARY

City	EDR ID	Site Name	Site Address	Zip	Database(s)
MEMPHIS	S108147596	MOTIVA FACILITY # 143083	408 HWY 57		LUST TRUST
MEMPHIS	S107465053	UT MEDICAL GROUP	BEHAVIORAL HEALTH CENTER INC 1	38105	LUST
MEMPHIS	S107465410	SALVATION ARMY	130 W DANNY THOMAS BLVD	38103	LUST
MEMPHIS	S107465244	MORGAN PROPERTIES LLC.	50 NORTH FRONT ST. SUITE 920	38103	LUST
MEMPHIS	1007209710	MEMPHIS PATHOLOGY LABORATORY LLC	22 N PAULINE 3RD FL-TOXICOLOGY	38105	RCRA-NonGen
MEMPHIS	S107465504	PEABODY PLACE DEVELOPMENT	SECOND AND GAYOSA		LUST
MEMPHIS	1009218532	LEVEE AUTO PARTS & SALVAGE	1336 N SECOND ST		RCRA-NonGen
MEMPHIS	1000356508	CYPRESS CREEK	N WATKINS ST.	38107	CERC-NFRAP, SHWS
SHELBY COUNTY	S103932423	NORTH 2ND STREET INCINERATOR	NORTH 2ND STREET INCINERATOR		SWF/LF
SHELBY COUNTY	S108635598	BELLEVEUE TRANSFER STATION	BELLEVEUE TRANSFER STATION		SWF/LF
SHELBY COUNTY	S105550716	BELLEVEUE TIRE SHREDDER	BELLEVEUE TIRE SHREDDER		SWF/LF
SHELBY COUNTY	S108171133	BFI SOUTH SHELBY LANDFILL	BFI SOUTH SHELBY LANDFILL		SWF/LF
SHELBY COUNTY	S108171122	BFI RECYCLING	BFI RECYCLING		SWF/LF
SHELBY COUNTY	S108635528	BLAYLOCK BROWN CONSTRUCTION, INC.	BLAYLOCK BROWN CONSTRUCTION, INC.		SWF/LF
SHELBY COUNTY	S105550246	BLAYLOCK & BROWN CONSTRUCTION	BLAYLOCK & BROWN CONSTRUCTION		SWF/LF
SHELBY COUNTY	S107030895	COLD SPRINGS MEMPHIS	COLD SPRINGS MEMPHIS		SWF/LF
SHELBY COUNTY	S108635599	COLLIERVILLE TRANSFER STATION	COLLIERVILLE TRANSFER STATION		SWF/LF
SHELBY COUNTY	S108635601	DEMOCRAT RD TRANSFER STA	DEMOCRAT RD TRANSFER STA		SWF/LF
SHELBY COUNTY	S107031219	DOMERMUTH ENVIRONMENTAL SERVICES LLC	DOMERMUTH ENVIRONMENTAL SERVICES LLC		SWF/LF
SHELBY COUNTY	S107030903	EARTH COMPLEX CITY OF MEMPHIS	EARTH COMPLEX CITY OF MEMPHIS		SWF/LF
SHELBY COUNTY	S108635606	EATON-MOERY ENVIRONMENTAL SERVICES, INC.	EATON-MOERY ENVIRONMENTAL SERVICES, INC.		SWF/LF
SHELBY COUNTY	S108468544	ENSLEY BERM ASH LANDFILL	ENSLEY BERM ASH LANDFILL		SWF/LF
SHELBY COUNTY	S107031130	FIRST MOOREHEAD INVESTMT	FIRST MOOREHEAD INVESTMT		SWF/LF
SHELBY COUNTY	S108468545	FOUR F CORPORATION	FOUR F CORPORATION		SWF/LF
SHELBY COUNTY	S109837279	FRAYSER BUSINESS CENTER DEMOLITION LANDFILL	FRAYSER BUSINESS CENTER DEMOLITION LANDFILL		SWF/LF
SHELBY COUNTY	S107030820	MID SOUTH REG BLOOD INCIN	MID SOUTH REG BLOOD INCIN		SWF/LF
SHELBY COUNTY	S109837276	PEAR STREET TRANSFER STATION	PEAR STREET TRANSFER STATION		SWF/LF
SHELBY COUNTY	S108635602	SCOTT STREET TRANSFER STATION	SCOTT STREET TRANSFER STATION		SWF/LF
SHELBY COUNTY	S110300463	SOUTH SHELBY LANDFILL SOLIDIFICATION FACILITY	SOUTH SHELBY LANDFILL SOLIDIFICATION FACILITY		SWF/LF
SHELBY COUNTY	S107031007	SHELBY CO. MILLINGTON LF	SHELBY CO. MILLINGTON LF		SWF/LF
SHELBY COUNTY	S109837278	NORTH SHELBY CLASS III LANDFILL	NORTH SHELBY CLASS III LANDFILL		SWF/LF
SHELBY COUNTY	S107030862	SOUTHERN HYDROCARBON INC	SOUTHERN HYDROCARBON INC		SWF/LF
SHELBY COUNTY	S108635603	WASTE MANAGEMENT OF TENNESSEE TRANSFER STATION	WASTE MANAGEMENT OF TENNESSEE TRANSFER STATION		SWF/LF

# GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

To maintain currency of the following federal and state databases, EDR contacts the appropriate governmental agency on a monthly or quarterly basis, as required.

**Number of Days to Update:** Provides confirmation that EDR is reporting records that have been updated within 90 days from the date the government agency made the information available to the public.

## STANDARD ENVIRONMENTAL RECORDS

### *Federal NPL site list*

#### NPL: National Priority List

National Priorities List (Superfund). The NPL is a subset of CERCLIS and identifies over 1,200 sites for priority cleanup under the Superfund Program. NPL sites may encompass relatively large areas. As such, EDR provides polygon coverage for over 1,000 NPL site boundaries produced by EPA's Environmental Photographic Interpretation Center (EPIC) and regional EPA offices.

Date of Government Version: 12/31/2010	Source: EPA
Date Data Arrived at EDR: 01/13/2011	Telephone: N/A
Date Made Active in Reports: 01/28/2011	Last EDR Contact: 01/13/2011
Number of Days to Update: 15	Next Scheduled EDR Contact: 04/25/2011
	Data Release Frequency: Quarterly

#### NPL Site Boundaries

##### Sources:

EPA's Environmental Photographic Interpretation Center (EPIC)  
Telephone: 202-564-7333

EPA Region 1  
Telephone 617-918-1143

EPA Region 3  
Telephone 215-814-5418

EPA Region 4  
Telephone 404-562-8033

EPA Region 5  
Telephone 312-886-6686

EPA Region 10  
Telephone 206-553-8665

EPA Region 6  
Telephone: 214-655-6659

EPA Region 7  
Telephone: 913-551-7247

EPA Region 8  
Telephone: 303-312-6774

EPA Region 9  
Telephone: 415-947-4246

#### Proposed NPL: Proposed National Priority List Sites

A site that has been proposed for listing on the National Priorities List through the issuance of a proposed rule in the Federal Register. EPA then accepts public comments on the site, responds to the comments, and places on the NPL those sites that continue to meet the requirements for listing.

Date of Government Version: 12/31/2010	Source: EPA
Date Data Arrived at EDR: 01/13/2011	Telephone: N/A
Date Made Active in Reports: 01/28/2011	Last EDR Contact: 01/13/2011
Number of Days to Update: 15	Next Scheduled EDR Contact: 04/25/2011
	Data Release Frequency: Quarterly

#### NPL LIENS: Federal Superfund Liens

Federal Superfund Liens. Under the authority granted the USEPA by CERCLA of 1980, the USEPA has the authority to file liens against real property in order to recover remedial action expenditures or when the property owner received notification of potential liability. USEPA compiles a listing of filed notices of Superfund Liens.

Date of Government Version: 10/15/1991	Source: EPA
Date Data Arrived at EDR: 02/02/1994	Telephone: 202-564-4267
Date Made Active in Reports: 03/30/1994	Last EDR Contact: 11/22/2010
Number of Days to Update: 56	Next Scheduled EDR Contact: 02/28/2011
	Data Release Frequency: No Update Planned

# GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

## ***Federal Delisted NPL site list***

### **DELISTED NPL: National Priority List Deletions**

The National Oil and Hazardous Substances Pollution Contingency Plan (NCP) establishes the criteria that the EPA uses to delete sites from the NPL. In accordance with 40 CFR 300.425.(e), sites may be deleted from the NPL where no further response is appropriate.

Date of Government Version: 12/31/2010	Source: EPA
Date Data Arrived at EDR: 01/13/2011	Telephone: N/A
Date Made Active in Reports: 01/28/2011	Last EDR Contact: 01/13/2011
Number of Days to Update: 15	Next Scheduled EDR Contact: 04/25/2011
	Data Release Frequency: Quarterly

## ***Federal CERCLIS list***

### **CERCLIS: Comprehensive Environmental Response, Compensation, and Liability Information System**

CERCLIS contains data on potentially hazardous waste sites that have been reported to the USEPA by states, municipalities, private companies and private persons, pursuant to Section 103 of the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA). CERCLIS contains sites which are either proposed to or on the National Priorities List (NPL) and sites which are in the screening and assessment phase for possible inclusion on the NPL.

Date of Government Version: 09/30/2010	Source: EPA
Date Data Arrived at EDR: 10/01/2010	Telephone: 703-412-9810
Date Made Active in Reports: 01/28/2011	Last EDR Contact: 12/30/2010
Number of Days to Update: 119	Next Scheduled EDR Contact: 04/11/2011
	Data Release Frequency: Quarterly

### **FEDERAL FACILITY: Federal Facility Site Information listing**

A listing of National Priority List (NPL) and Base Realignment and Closure (BRAC) sites found in the Comprehensive Environmental Response, Compensation and Liability Information System (CERCLIS) Database where EPA's Federal Facilities Restoration and Reuse Office is involved in cleanup activities.

Date of Government Version: 06/23/2009	Source: Environmental Protection Agency
Date Data Arrived at EDR: 01/15/2010	Telephone: 703-603-8704
Date Made Active in Reports: 02/10/2010	Last EDR Contact: 01/11/2011
Number of Days to Update: 26	Next Scheduled EDR Contact: 04/25/2011
	Data Release Frequency: Varies

## ***Federal CERCLIS NFRAP site List***

### **CERCLIS-NFRAP: CERCLIS No Further Remedial Action Planned**

Archived sites are sites that have been removed and archived from the inventory of CERCLIS sites. Archived status indicates that, to the best of EPA's knowledge, assessment at a site has been completed and that EPA has determined no further steps will be taken to list this site on the National Priorities List (NPL), unless information indicates this decision was not appropriate or other considerations require a recommendation for listing at a later time. This decision does not necessarily mean that there is no hazard associated with a given site; it only means that, based upon available information, the location is not judged to be a potential NPL site.

Date of Government Version: 06/23/2009	Source: EPA
Date Data Arrived at EDR: 09/02/2009	Telephone: 703-412-9810
Date Made Active in Reports: 09/21/2009	Last EDR Contact: 12/01/2010
Number of Days to Update: 19	Next Scheduled EDR Contact: 03/14/2011
	Data Release Frequency: Quarterly

## ***Federal RCRA CORRACTS facilities list***

### **CORRACTS: Corrective Action Report**

CORRACTS identifies hazardous waste handlers with RCRA corrective action activity.

## GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

Date of Government Version: 05/25/2010  
Date Data Arrived at EDR: 06/02/2010  
Date Made Active in Reports: 10/04/2010  
Number of Days to Update: 124

Source: EPA  
Telephone: 800-424-9346  
Last EDR Contact: 11/22/2010  
Next Scheduled EDR Contact: 02/28/2011  
Data Release Frequency: Quarterly

### ***Federal RCRA non-CORRACTS TSD facilities list***

#### **RCRA-TSDF: RCRA - Treatment, Storage and Disposal**

RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Transporters are individuals or entities that move hazardous waste from the generator offsite to a facility that can recycle, treat, store, or dispose of the waste. TSDFs treat, store, or dispose of the waste.

Date of Government Version: 02/17/2010  
Date Data Arrived at EDR: 02/19/2010  
Date Made Active in Reports: 05/17/2010  
Number of Days to Update: 87

Source: Environmental Protection Agency  
Telephone: (404) 562-8651  
Last EDR Contact: 01/06/2011  
Next Scheduled EDR Contact: 04/18/2011  
Data Release Frequency: Quarterly

### ***Federal RCRA generators list***

#### **RCRA-LQG: RCRA - Large Quantity Generators**

RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Large quantity generators (LQGs) generate over 1,000 kilograms (kg) of hazardous waste, or over 1 kg of acutely hazardous waste per month.

Date of Government Version: 02/17/2010  
Date Data Arrived at EDR: 02/19/2010  
Date Made Active in Reports: 05/17/2010  
Number of Days to Update: 87

Source: Environmental Protection Agency  
Telephone: (404) 562-8651  
Last EDR Contact: 01/06/2011  
Next Scheduled EDR Contact: 04/18/2011  
Data Release Frequency: Quarterly

#### **RCRA-SQG: RCRA - Small Quantity Generators**

RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Small quantity generators (SQGs) generate between 100 kg and 1,000 kg of hazardous waste per month.

Date of Government Version: 02/17/2010  
Date Data Arrived at EDR: 02/19/2010  
Date Made Active in Reports: 05/17/2010  
Number of Days to Update: 87

Source: Environmental Protection Agency  
Telephone: (404) 562-8651  
Last EDR Contact: 01/06/2011  
Next Scheduled EDR Contact: 04/18/2011  
Data Release Frequency: Quarterly

#### **RCRA-CESQG: RCRA - Conditionally Exempt Small Quantity Generators**

RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Conditionally exempt small quantity generators (CESQGs) generate less than 100 kg of hazardous waste, or less than 1 kg of acutely hazardous waste per month.

Date of Government Version: 02/17/2010  
Date Data Arrived at EDR: 02/19/2010  
Date Made Active in Reports: 05/17/2010  
Number of Days to Update: 87

Source: Environmental Protection Agency  
Telephone: (404) 562-8651  
Last EDR Contact: 01/06/2011  
Next Scheduled EDR Contact: 04/18/2011  
Data Release Frequency: Varies



# GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

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

### **US ENG CONTROLS: Engineering Controls Sites List**

A listing of sites with engineering controls in place. Engineering controls include various forms of caps, building foundations, liners, and treatment methods to create pathway elimination for regulated substances to enter environmental media or effect human health.

Date of Government Version: 01/05/2011	Source: Environmental Protection Agency
Date Data Arrived at EDR: 01/14/2011	Telephone: 703-603-0695
Date Made Active in Reports: 01/28/2011	Last EDR Contact: 12/10/2010
Number of Days to Update: 14	Next Scheduled EDR Contact: 03/28/2011
	Data Release Frequency: Varies

### **US INST CONTROL: Sites with Institutional Controls**

A listing of sites with institutional controls in place. Institutional controls include administrative measures, such as groundwater use restrictions, construction restrictions, property use restrictions, and post remediation care requirements intended to prevent exposure to contaminants remaining on site. Deed restrictions are generally required as part of the institutional controls.

Date of Government Version: 01/05/2011	Source: Environmental Protection Agency
Date Data Arrived at EDR: 01/14/2011	Telephone: 703-603-0695
Date Made Active in Reports: 01/28/2011	Last EDR Contact: 12/10/2010
Number of Days to Update: 14	Next Scheduled EDR Contact: 03/28/2011
	Data Release Frequency: Varies

## ***Federal ERNS list***

### **ERNS: Emergency Response Notification System**

Emergency Response Notification System. ERNS records and stores information on reported releases of oil and hazardous substances.

Date of Government Version: 07/09/2010	Source: National Response Center, United States Coast Guard
Date Data Arrived at EDR: 07/09/2010	Telephone: 202-267-2180
Date Made Active in Reports: 08/17/2010	Last EDR Contact: 01/07/2011
Number of Days to Update: 39	Next Scheduled EDR Contact: 04/18/2011
	Data Release Frequency: Annually

## ***State- and tribal - equivalent NPL***

### **SHWS: Promulgated Sites**

"Inactive hazardous substance sites that constitute an imminent, substantial danger" is an inactive hazardous substance site where there is a threat of danger to the public health, safety, or environment which is both real and presently existing. Such situations may include, but are not limited to one or more of the following: an immediate action is necessary to minimize an ongoing threat to the public health or pollution of the environment, an inactive hazardous substance site where there is an active release, where direct access to the hazardous substance is not controlled, or where incompatible hazardous substances are found in close proximity. Also known as Promulgated Sites List.

Date of Government Version: 04/28/2009	Source: Department of Environment & Conservation
Date Data Arrived at EDR: 05/06/2009	Telephone: 615-532-0900
Date Made Active in Reports: 05/29/2009	Last EDR Contact: 01/10/2011
Number of Days to Update: 23	Next Scheduled EDR Contact: 04/25/2011
	Data Release Frequency: Semi-Annually

## ***State and tribal landfill and/or solid waste disposal site lists***

### **SWF/LF: Solid Waste Disposal Facilities**

Solid Waste Facilities/Landfill Sites. SWF/LF type records typically contain an inventory of solid waste disposal facilities or landfills in a particular state. Depending on the state, these may be active or inactive facilities or open dumps that failed to meet RCRA Subtitle D Section 4004 criteria for solid waste landfills or disposal sites.

## GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

Date of Government Version: 04/21/2010  
Date Data Arrived at EDR: 04/22/2010  
Date Made Active in Reports: 06/09/2010  
Number of Days to Update: 48

Source: Department of Environment and Conservation  
Telephone: 615-532-0804  
Last EDR Contact: 01/17/2011  
Next Scheduled EDR Contact: 04/04/2011  
Data Release Frequency: Annually

### **State and tribal leaking storage tank lists**

#### **LUST: Fund Eligible Leaking Underground Storage Tank Sites**

A listing of leaking underground storage tank site locations.

Date of Government Version: 09/28/2010  
Date Data Arrived at EDR: 09/30/2010  
Date Made Active in Reports: 12/17/2010  
Number of Days to Update: 78

Source: Department of Environment and Conservation  
Telephone: 615-532-0945  
Last EDR Contact: 12/20/2010  
Next Scheduled EDR Contact: 03/07/2011  
Data Release Frequency: Quarterly

#### **LUST\_JO: Leaking Underground Storage Tanks Sites**

Leaking UST sites in Carter, Greene, Hancock, Hawkins, Johnson, Sullivan, Unicoi and Washington counties.

Date of Government Version: 08/02/2005  
Date Data Arrived at EDR: 08/03/2005  
Date Made Active in Reports: 09/07/2005  
Number of Days to Update: 35

Source: Department of Environmental Conservation, Johnson City Field Office  
Telephone: 423-854-5441  
Last EDR Contact: 06/29/2009  
Next Scheduled EDR Contact: 09/28/2009  
Data Release Frequency: Varies

#### **LUST TRUST: LUST TRUST Fund Database**

This list contains information on sites that had accidental releases of petroleum and are eligible for reimbursement from the TN Petroleum UST Fund.

Date of Government Version: 09/28/2010  
Date Data Arrived at EDR: 09/30/2010  
Date Made Active in Reports: 12/17/2010  
Number of Days to Update: 78

Source: Department of Environment & Conservation  
Telephone: 615-532-0971  
Last EDR Contact: 12/20/2010  
Next Scheduled EDR Contact: 03/07/2011  
Data Release Frequency: Varies

#### **HIST\_LUST CO: Leaking Underground Storage Tanks Sites**

A listing of leaking underground storage tank site locations from the Columbia Field Office. The listing is no longer updated.

Date of Government Version: 10/18/1994  
Date Data Arrived at EDR: 10/24/1994  
Date Made Active in Reports: 12/30/1994  
Number of Days to Update: 67

Source: Department of Environmental Conservation, Columbia Field Office  
Telephone: 931-380-3371  
Last EDR Contact: 06/29/2009  
Next Scheduled EDR Contact: 09/28/2009  
Data Release Frequency: No Update Planned

#### **INDIAN LUST R6: Leaking Underground Storage Tanks on Indian Land**

LUSTs on Indian land in New Mexico and Oklahoma.

Date of Government Version: 11/04/2010  
Date Data Arrived at EDR: 11/05/2010  
Date Made Active in Reports: 01/28/2011  
Number of Days to Update: 84

Source: EPA Region 6  
Telephone: 214-665-6597  
Last EDR Contact: 01/31/2011  
Next Scheduled EDR Contact: 05/16/2011  
Data Release Frequency: Varies

#### **INDIAN LUST R4: Leaking Underground Storage Tanks on Indian Land**

LUSTs on Indian land in Florida, Mississippi and North Carolina.

Date of Government Version: 08/27/2010  
Date Data Arrived at EDR: 08/30/2010  
Date Made Active in Reports: 10/04/2010  
Number of Days to Update: 35

Source: EPA Region 4  
Telephone: 404-562-8677  
Last EDR Contact: 01/31/2011  
Next Scheduled EDR Contact: 05/16/2011  
Data Release Frequency: Semi-Annually

## GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

### INDIAN LUST R8: Leaking Underground Storage Tanks on Indian Land

LUSTs on Indian land in Colorado, Montana, North Dakota, South Dakota, Utah and Wyoming.

Date of Government Version: 11/16/2010	Source: EPA Region 8
Date Data Arrived at EDR: 11/19/2010	Telephone: 303-312-6271
Date Made Active in Reports: 01/28/2011	Last EDR Contact: 01/31/2011
Number of Days to Update: 70	Next Scheduled EDR Contact: 05/16/2011
	Data Release Frequency: Quarterly

### INDIAN LUST R7: Leaking Underground Storage Tanks on Indian Land

LUSTs on Indian land in Iowa, Kansas, and Nebraska

Date of Government Version: 11/04/2009	Source: EPA Region 7
Date Data Arrived at EDR: 05/04/2010	Telephone: 913-551-7003
Date Made Active in Reports: 07/07/2010	Last EDR Contact: 05/04/2010
Number of Days to Update: 64	Next Scheduled EDR Contact: 05/16/2011
	Data Release Frequency: Varies

### INDIAN LUST R9: Leaking Underground Storage Tanks on Indian Land

LUSTs on Indian land in Arizona, California, New Mexico and Nevada

Date of Government Version: 11/19/2010	Source: Environmental Protection Agency
Date Data Arrived at EDR: 11/19/2010	Telephone: 415-972-3372
Date Made Active in Reports: 01/28/2011	Last EDR Contact: 01/31/2011
Number of Days to Update: 70	Next Scheduled EDR Contact: 05/16/2011
	Data Release Frequency: Quarterly

### INDIAN LUST R1: Leaking Underground Storage Tanks on Indian Land

A listing of leaking underground storage tank locations on Indian Land.

Date of Government Version: 09/01/2010	Source: EPA Region 1
Date Data Arrived at EDR: 11/05/2010	Telephone: 617-918-1313
Date Made Active in Reports: 01/28/2011	Last EDR Contact: 02/03/2011
Number of Days to Update: 84	Next Scheduled EDR Contact: 05/16/2011
	Data Release Frequency: Varies

### INDIAN LUST R10: Leaking Underground Storage Tanks on Indian Land

LUSTs on Indian land in Alaska, Idaho, Oregon and Washington.

Date of Government Version: 11/12/2010	Source: EPA Region 10
Date Data Arrived at EDR: 11/12/2010	Telephone: 206-553-2857
Date Made Active in Reports: 01/28/2011	Last EDR Contact: 01/31/2011
Number of Days to Update: 77	Next Scheduled EDR Contact: 05/16/2011
	Data Release Frequency: Quarterly

### **State and tribal registered storage tank lists**

#### UST: Facility and Tank Report

Registered Underground Storage Tanks. UST's are regulated under Subtitle I of the Resource Conservation and Recovery Act (RCRA) and must be registered with the state department responsible for administering the UST program. Available information varies by state program.

Date of Government Version: 09/28/2010	Source: Department of Environment and Conservation
Date Data Arrived at EDR: 09/30/2010	Telephone: 615-532-0945
Date Made Active in Reports: 12/08/2010	Last EDR Contact: 12/20/2010
Number of Days to Update: 69	Next Scheduled EDR Contact: 03/07/2011
	Data Release Frequency: Quarterly

#### AST: Aboveground Storage Tanks

Registered Aboveground Storage Tanks.

## GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

Date of Government Version: 10/01/1999  
Date Data Arrived at EDR: 10/12/1999  
Date Made Active in Reports: 11/05/1999  
Number of Days to Update: 24

Source: Department of Environment and Conservation  
Telephone: 615-532-0965  
Last EDR Contact: 01/31/2011  
Next Scheduled EDR Contact: 05/16/2011  
Data Release Frequency: No Update Planned

### INDIAN UST R5: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 5 (Michigan, Minnesota and Wisconsin and Tribal Nations).

Date of Government Version: 02/11/2010  
Date Data Arrived at EDR: 02/11/2010  
Date Made Active in Reports: 04/12/2010  
Number of Days to Update: 60

Source: EPA Region 5  
Telephone: 312-886-6136  
Last EDR Contact: 01/31/2011  
Next Scheduled EDR Contact: 05/16/2011  
Data Release Frequency: Varies

### INDIAN UST R6: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 6 (Louisiana, Arkansas, Oklahoma, New Mexico, Texas and 65 Tribes).

Date of Government Version: 11/10/2010  
Date Data Arrived at EDR: 12/01/2010  
Date Made Active in Reports: 01/28/2011  
Number of Days to Update: 58

Source: EPA Region 6  
Telephone: 214-665-7591  
Last EDR Contact: 01/31/2011  
Next Scheduled EDR Contact: 05/16/2011  
Data Release Frequency: Semi-Annually

### INDIAN UST R10: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 10 (Alaska, Idaho, Oregon, Washington, and Tribal Nations).

Date of Government Version: 11/12/2010  
Date Data Arrived at EDR: 11/12/2010  
Date Made Active in Reports: 01/28/2011  
Number of Days to Update: 77

Source: EPA Region 10  
Telephone: 206-553-2857  
Last EDR Contact: 01/31/2011  
Next Scheduled EDR Contact: 05/16/2011  
Data Release Frequency: Quarterly

### INDIAN UST R4: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 4 (Alabama, Florida, Georgia, Kentucky, Mississippi, North Carolina, South Carolina, Tennessee and Tribal Nations).

Date of Government Version: 08/27/2010  
Date Data Arrived at EDR: 08/30/2010  
Date Made Active in Reports: 10/04/2010  
Number of Days to Update: 35

Source: EPA Region 4  
Telephone: 404-562-9424  
Last EDR Contact: 01/31/2011  
Next Scheduled EDR Contact: 05/16/2011  
Data Release Frequency: Semi-Annually

### INDIAN UST R1: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 1 (Connecticut, Maine, Massachusetts, New Hampshire, Rhode Island, Vermont and ten Tribal Nations).

Date of Government Version: 09/01/2010  
Date Data Arrived at EDR: 11/05/2010  
Date Made Active in Reports: 01/28/2011  
Number of Days to Update: 84

Source: EPA, Region 1  
Telephone: 617-918-1313  
Last EDR Contact: 02/03/2011  
Next Scheduled EDR Contact: 05/16/2011  
Data Release Frequency: Varies

### INDIAN UST R8: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 8 (Colorado, Montana, North Dakota, South Dakota, Utah, Wyoming and 27 Tribal Nations).

## GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

Date of Government Version: 11/16/2010  
Date Data Arrived at EDR: 11/19/2010  
Date Made Active in Reports: 01/28/2011  
Number of Days to Update: 70

Source: EPA Region 8  
Telephone: 303-312-6137  
Last EDR Contact: 01/31/2011  
Next Scheduled EDR Contact: 05/16/2011  
Data Release Frequency: Quarterly

### INDIAN UST R9: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 9 (Arizona, California, Hawaii, Nevada, the Pacific Islands, and Tribal Nations).

Date of Government Version: 11/19/2010  
Date Data Arrived at EDR: 11/19/2010  
Date Made Active in Reports: 01/28/2011  
Number of Days to Update: 70

Source: EPA Region 9  
Telephone: 415-972-3368  
Last EDR Contact: 01/31/2011  
Next Scheduled EDR Contact: 05/16/2011  
Data Release Frequency: Quarterly

### INDIAN UST R7: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 7 (Iowa, Kansas, Missouri, Nebraska, and 9 Tribal Nations).

Date of Government Version: 11/01/2010  
Date Data Arrived at EDR: 12/02/2010  
Date Made Active in Reports: 01/28/2011  
Number of Days to Update: 57

Source: EPA Region 7  
Telephone: 913-551-7003  
Last EDR Contact: 02/03/2011  
Next Scheduled EDR Contact: 05/16/2011  
Data Release Frequency: Varies

### FEMA UST: Underground Storage Tank Listing

A listing of all FEMA owned underground storage tanks.

Date of Government Version: 01/01/2010  
Date Data Arrived at EDR: 02/16/2010  
Date Made Active in Reports: 04/12/2010  
Number of Days to Update: 55

Source: FEMA  
Telephone: 202-646-5797  
Last EDR Contact: 01/17/2011  
Next Scheduled EDR Contact: 05/02/2011  
Data Release Frequency: Varies

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

#### ENG CONTROLS: Engineering Control Sites

Sites that have engineering controls.

Date of Government Version: 09/28/2010  
Date Data Arrived at EDR: 11/24/2010  
Date Made Active in Reports: 12/17/2010  
Number of Days to Update: 23

Source: Department of Environment & Conservation  
Telephone: 615-532-0900  
Last EDR Contact: 11/22/2010  
Next Scheduled EDR Contact: 03/07/2011  
Data Release Frequency: Varies

#### INST CONTROL: Institutional Control Sites

Sites that have institutional controls.

Date of Government Version: 09/28/2010  
Date Data Arrived at EDR: 11/24/2010  
Date Made Active in Reports: 12/17/2010  
Number of Days to Update: 23

Source: Department of Environment & Conservation  
Telephone: 615-532-0900  
Last EDR Contact: 11/22/2010  
Next Scheduled EDR Contact: 03/07/2011  
Data Release Frequency: Varies

### ***State and tribal voluntary cleanup sites***

#### INDIAN VCP R7: Voluntary Cleanup Priority Listing

A listing of voluntary cleanup priority sites located on Indian Land located in Region 7.

## GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

Date of Government Version: 03/20/2008  
Date Data Arrived at EDR: 04/22/2008  
Date Made Active in Reports: 05/19/2008  
Number of Days to Update: 27

Source: EPA, Region 7  
Telephone: 913-551-7365  
Last EDR Contact: 04/20/2009  
Next Scheduled EDR Contact: 07/20/2009  
Data Release Frequency: Varies

### INDIAN VCP R1: Voluntary Cleanup Priority Listing

A listing of voluntary cleanup priority sites located on Indian Land located in Region 1.

Date of Government Version: 04/02/2008  
Date Data Arrived at EDR: 04/22/2008  
Date Made Active in Reports: 05/19/2008  
Number of Days to Update: 27

Source: EPA, Region 1  
Telephone: 617-918-1102  
Last EDR Contact: 01/05/2010  
Next Scheduled EDR Contact: 04/18/2011  
Data Release Frequency: Varies

### VCP: Voluntary Cleanup, Oversight and Assistance Program Sites

The Voluntary Cleanup Oversight and Assistance Program (VOAP) offers people the opportunity to work proactively with state government to address necessary cleanup of a property to return it to productive use. In return for their efforts, participants can receive a No Further Action letter and a release of liability for areas where investigation and cleanup is conducted. The program is open to everyone with an interest in addressing contamination at a site.

Date of Government Version: 10/11/2010  
Date Data Arrived at EDR: 10/12/2010  
Date Made Active in Reports: 12/17/2010  
Number of Days to Update: 66

Source: Department of Environmental & Conservation  
Telephone: 615-532-0912  
Last EDR Contact: 01/10/2011  
Next Scheduled EDR Contact: 04/25/2011  
Data Release Frequency: Varies

### *State and tribal Brownfields sites*

#### BROWNFIELDS: Superfund VOAP Listing

Brownfields sites included on the Superfund Voluntary Cleanup, Oversight & Assistance Program listing.

Date of Government Version: 10/12/2010  
Date Data Arrived at EDR: 10/12/2010  
Date Made Active in Reports: 12/17/2010  
Number of Days to Update: 66

Source: Department of Environment & Conservation  
Telephone: 615-532-0912  
Last EDR Contact: 01/10/2011  
Next Scheduled EDR Contact: 04/25/2011  
Data Release Frequency: Varies

### ADDITIONAL ENVIRONMENTAL RECORDS

#### *Local Brownfield lists*

#### US BROWNFIELDS: A Listing of Brownfields Sites

Included in the listing are brownfields properties addresses by Cooperative Agreement Recipients and brownfields properties addressed by Targeted Brownfields Assessments. Targeted Brownfields Assessments-EPA's Targeted Brownfields Assessments (TBA) program is designed to help states, tribes, and municipalities--especially those without EPA Brownfields Assessment Demonstration Pilots--minimize the uncertainties of contamination often associated with brownfields. Under the TBA program, EPA provides funding and/or technical assistance for environmental assessments at brownfields sites throughout the country. Targeted Brownfields Assessments supplement and work with other efforts under EPA's Brownfields Initiative to promote cleanup and redevelopment of brownfields. Cooperative Agreement Recipients-States, political subdivisions, territories, and Indian tribes become Brownfields Cleanup Revolving Loan Fund (BCRLF) cooperative agreement recipients when they enter into BCRLF cooperative agreements with the U.S. EPA. EPA selects BCRLF cooperative agreement recipients based on a proposal and application process. BCRLF cooperative agreement recipients must use EPA funds provided through BCRLF cooperative agreement for specified brownfields-related cleanup activities.

Date of Government Version: 06/24/2010  
Date Data Arrived at EDR: 06/25/2010  
Date Made Active in Reports: 08/17/2010  
Number of Days to Update: 53

Source: Environmental Protection Agency  
Telephone: 202-566-2777  
Last EDR Contact: 12/30/2010  
Next Scheduled EDR Contact: 04/11/2011  
Data Release Frequency: Semi-Annually



## GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

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

#### **DEBRIS REGION 9: Torres Martinez Reservation Illegal Dump Site Locations**

A listing of illegal dump sites location on the Torres Martinez Indian Reservation located in eastern Riverside County and northern Imperial County, California.

Date of Government Version: 01/12/2009	Source: EPA, Region 9
Date Data Arrived at EDR: 05/07/2009	Telephone: 415-947-4219
Date Made Active in Reports: 09/21/2009	Last EDR Contact: 12/22/2010
Number of Days to Update: 137	Next Scheduled EDR Contact: 04/11/2011
	Data Release Frequency: No Update Planned

#### **ODI: Open Dump Inventory**

An open dump is defined as a disposal facility that does not comply with one or more of the Part 257 or Part 258 Subtitle D Criteria.

Date of Government Version: 06/30/1985	Source: Environmental Protection Agency
Date Data Arrived at EDR: 08/09/2004	Telephone: 800-424-9346
Date Made Active in Reports: 09/17/2004	Last EDR Contact: 06/09/2004
Number of Days to Update: 39	Next Scheduled EDR Contact: N/A
	Data Release Frequency: No Update Planned

#### **INDIAN ODI: Report on the Status of Open Dumps on Indian Lands**

Location of open dumps on Indian land.

Date of Government Version: 12/31/1998	Source: Environmental Protection Agency
Date Data Arrived at EDR: 12/03/2007	Telephone: 703-308-8245
Date Made Active in Reports: 01/24/2008	Last EDR Contact: 02/08/2011
Number of Days to Update: 52	Next Scheduled EDR Contact: 05/23/2011
	Data Release Frequency: Varies

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

#### **US CDL: Clandestine Drug Labs**

A listing of clandestine drug lab locations. The U.S. Department of Justice ("the Department") provides this web site as a public service. It contains addresses of some locations where law enforcement agencies reported they found chemicals or other items that indicated the presence of either clandestine drug laboratories or dumpsites. In most cases, the source of the entries is not the Department, and the Department has not verified the entry and does not guarantee its accuracy. Members of the public must verify the accuracy of all entries by, for example, contacting local law enforcement and local health departments.

Date of Government Version: 05/07/2010	Source: Drug Enforcement Administration
Date Data Arrived at EDR: 06/18/2010	Telephone: 202-307-1000
Date Made Active in Reports: 08/17/2010	Last EDR Contact: 12/08/2010
Number of Days to Update: 60	Next Scheduled EDR Contact: 03/21/2011
	Data Release Frequency: Quarterly

#### **DEL SHWS: Deleted State Hazardous Waste Sites**

A listing of sites removed from the Promulgated Sites Listing.

Date of Government Version: 04/19/2010	Source: Department of Environment & Conservation
Date Data Arrived at EDR: 04/19/2010	Telephone: 615-532-0900
Date Made Active in Reports: 06/09/2010	Last EDR Contact: 01/10/2011
Number of Days to Update: 51	Next Scheduled EDR Contact: 04/25/2011
	Data Release Frequency: Varies

#### **PRIORITY CLEANERS: DCERP Remediation Sites Listing**

Drycleaner Environmental Response Program remediation sites.

## GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

Date of Government Version: 05/03/2010  
Date Data Arrived at EDR: 05/04/2010  
Date Made Active in Reports: 06/09/2010  
Number of Days to Update: 36

Source: Department of Environment & Conservation  
Telephone: 615-253-3876  
Last EDR Contact: 01/25/2011  
Next Scheduled EDR Contact: 05/09/2011  
Data Release Frequency: Varies

### CDL: Registry of Contaminated Properties

Pursuant to TCA 68212509 the following properties have been quarantined because of methamphetamine production, but have not been cleaned and certified within the 60day time frame allotted by the statute. These properties are hereby registered by the Tennessee Department of Environment and Conservation as unremediated methamphetamine sites. This is not a comprehensive list of quarantined properties. These are properties that TDEC has been notified as being quarantined, but have not been cleaned within the 60 day grace period. Other properties where methamphetamine production residues are a concern may not have been quarantined, may not have been reported to TDEC, or may not have passed the 60day grace

Date of Government Version: 06/21/2010  
Date Data Arrived at EDR: 09/14/2010  
Date Made Active in Reports: 09/30/2010  
Number of Days to Update: 16

Source: Department of Environment & Conservation  
Telephone: 615-532-0900  
Last EDR Contact: 02/08/2011  
Next Scheduled EDR Contact: 05/23/2011  
Data Release Frequency: Varies

### US HIST CDL: National Clandestine Laboratory Register

A listing of clandestine drug lab locations. The U.S. Department of Justice ("the Department") provides this web site as a public service. It contains addresses of some locations where law enforcement agencies reported they found chemicals or other items that indicated the presence of either clandestine drug laboratories or dumpsites. In most cases, the source of the entries is not the Department, and the Department has not verified the entry and does not guarantee its accuracy. Members of the public must verify the accuracy of all entries by, for example, contacting local law enforcement and local health departments.

Date of Government Version: 09/01/2007  
Date Data Arrived at EDR: 11/19/2008  
Date Made Active in Reports: 03/30/2009  
Number of Days to Update: 131

Source: Drug Enforcement Administration  
Telephone: 202-307-1000  
Last EDR Contact: 03/23/2009  
Next Scheduled EDR Contact: 06/22/2009  
Data Release Frequency: No Update Planned

### Local Lists of Registered Storage Tanks

#### HIST UST: Underground Storage Tank Database

This database is no longer updated by the agency. It contains records and detail fields that the current UST database does not.

Date of Government Version: 09/28/2010  
Date Data Arrived at EDR: 09/30/2010  
Date Made Active in Reports: 12/17/2010  
Number of Days to Update: 78

Source: Department of Environment & Conservation  
Telephone: 615-532-0945  
Last EDR Contact: 12/20/2010  
Next Scheduled EDR Contact: 03/07/2011  
Data Release Frequency: No Update Planned

### Local Land Records

#### LIENS 2: CERCLA Lien Information

A Federal CERCLA ("Superfund") lien can exist by operation of law at any site or property at which EPA has spent Superfund monies. These monies are spent to investigate and address releases and threatened releases of contamination. CERCLIS provides information as to the identity of these sites and properties.

Date of Government Version: 05/06/2010  
Date Data Arrived at EDR: 05/11/2010  
Date Made Active in Reports: 08/09/2010  
Number of Days to Update: 90

Source: Environmental Protection Agency  
Telephone: 202-564-6023  
Last EDR Contact: 01/31/2011  
Next Scheduled EDR Contact: 05/16/2011  
Data Release Frequency: Varies

## GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

### LUCIS: Land Use Control Information System

LUCIS contains records of land use control information pertaining to the former Navy Base Realignment and Closure properties.

Date of Government Version: 12/09/2005  
Date Data Arrived at EDR: 12/11/2006  
Date Made Active in Reports: 01/11/2007  
Number of Days to Update: 31

Source: Department of the Navy  
Telephone: 843-820-7326  
Last EDR Contact: 11/22/2010  
Next Scheduled EDR Contact: 03/07/2011  
Data Release Frequency: Varies

### LIENS: Liens Information

A listing of sites with environmental liens information.

Date of Government Version: 05/17/2010  
Date Data Arrived at EDR: 05/19/2010  
Date Made Active in Reports: 06/09/2010  
Number of Days to Update: 21

Source: Department of Environment & Conservation  
Telephone: 615-532-0900  
Last EDR Contact: 01/10/2011  
Next Scheduled EDR Contact: 04/25/2011  
Data Release Frequency: Varies

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

#### HMIRS: Hazardous Materials Information Reporting System

Hazardous Materials Incident Report System. HMIRS contains hazardous material spill incidents reported to DOT.

Date of Government Version: 04/06/2010  
Date Data Arrived at EDR: 04/07/2010  
Date Made Active in Reports: 05/27/2010  
Number of Days to Update: 50

Source: U.S. Department of Transportation  
Telephone: 202-366-4555  
Last EDR Contact: 01/05/2011  
Next Scheduled EDR Contact: 04/18/2011  
Data Release Frequency: Annually

#### SPILLS: State Spills

A listing of spills locations.

Date of Government Version: 10/11/2010  
Date Data Arrived at EDR: 10/12/2010  
Date Made Active in Reports: 12/17/2010  
Number of Days to Update: 66

Source: Department of Environment & Conservation  
Telephone: 615-532-0109  
Last EDR Contact: 01/10/2011  
Next Scheduled EDR Contact: 04/25/2011  
Data Release Frequency: Varies

### **Other Ascertainable Records**

#### RCRA-NonGen: RCRA - Non Generators

RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Non-Generators do not presently generate hazardous waste.

Date of Government Version: 02/17/2010  
Date Data Arrived at EDR: 02/19/2010  
Date Made Active in Reports: 05/17/2010  
Number of Days to Update: 87

Source: Environmental Protection Agency  
Telephone: (404) 562-8651  
Last EDR Contact: 01/06/2011  
Next Scheduled EDR Contact: 04/18/2011  
Data Release Frequency: Varies

#### DOT OPS: Incident and Accident Data

Department of Transportation, Office of Pipeline Safety Incident and Accident data.

Date of Government Version: 01/12/2010  
Date Data Arrived at EDR: 02/09/2010  
Date Made Active in Reports: 04/12/2010  
Number of Days to Update: 62

Source: Department of Transportation, Office of Pipeline Safety  
Telephone: 202-366-4595  
Last EDR Contact: 11/09/2010  
Next Scheduled EDR Contact: 02/21/2011  
Data Release Frequency: Varies

## GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

### DOD: Department of Defense Sites

This data set consists of federally owned or administered lands, administered by the Department of Defense, that have any area equal to or greater than 640 acres of the United States, Puerto Rico, and the U.S. Virgin Islands.

Date of Government Version: 12/31/2005	Source: USGS
Date Data Arrived at EDR: 11/10/2006	Telephone: 703-692-8801
Date Made Active in Reports: 01/11/2007	Last EDR Contact: 01/21/2011
Number of Days to Update: 62	Next Scheduled EDR Contact: 05/02/2011
	Data Release Frequency: Semi-Annually

### FUDS: Formerly Used Defense Sites

The listing includes locations of Formerly Used Defense Sites properties where the US Army Corps of Engineers is actively working or will take necessary cleanup actions.

Date of Government Version: 12/31/2009	Source: U.S. Army Corps of Engineers
Date Data Arrived at EDR: 08/12/2010	Telephone: 202-528-4285
Date Made Active in Reports: 12/02/2010	Last EDR Contact: 12/13/2010
Number of Days to Update: 112	Next Scheduled EDR Contact: 03/28/2011
	Data Release Frequency: Varies

### CONSENT: Superfund (CERCLA) Consent Decrees

Major legal settlements that establish responsibility and standards for cleanup at NPL (Superfund) sites. Released periodically by United States District Courts after settlement by parties to litigation matters.

Date of Government Version: 10/01/2010	Source: Department of Justice, Consent Decree Library
Date Data Arrived at EDR: 10/29/2010	Telephone: Varies
Date Made Active in Reports: 01/28/2011	Last EDR Contact: 01/03/2011
Number of Days to Update: 91	Next Scheduled EDR Contact: 04/18/2011
	Data Release Frequency: Varies

### ROD: Records Of Decision

Record of Decision. ROD documents mandate a permanent remedy at an NPL (Superfund) site containing technical and health information to aid in the cleanup.

Date of Government Version: 06/01/2010	Source: EPA
Date Data Arrived at EDR: 06/16/2010	Telephone: 703-416-0223
Date Made Active in Reports: 08/17/2010	Last EDR Contact: 02/03/2011
Number of Days to Update: 62	Next Scheduled EDR Contact: 03/28/2011
	Data Release Frequency: Annually

### UMTRA: Uranium Mill Tailings Sites

Uranium ore was mined by private companies for federal government use in national defense programs. When the mills shut down, large piles of the sand-like material (mill tailings) remain after uranium has been extracted from the ore. Levels of human exposure to radioactive materials from the piles are low; however, in some cases tailings were used as construction materials before the potential health hazards of the tailings were recognized.

Date of Government Version: 09/14/2010	Source: Department of Energy
Date Data Arrived at EDR: 10/21/2010	Telephone: 505-845-0011
Date Made Active in Reports: 01/28/2011	Last EDR Contact: 11/29/2010
Number of Days to Update: 99	Next Scheduled EDR Contact: 03/14/2011
	Data Release Frequency: Varies

### MINES: Mines Master Index File

Contains all mine identification numbers issued for mines active or opened since 1971. The data also includes violation information.

Date of Government Version: 08/04/2010	Source: Department of Labor, Mine Safety and Health Administration
Date Data Arrived at EDR: 09/09/2010	Telephone: 303-231-5959
Date Made Active in Reports: 12/02/2010	Last EDR Contact: 12/29/2010
Number of Days to Update: 84	Next Scheduled EDR Contact: 03/21/2011
	Data Release Frequency: Semi-Annually

## GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

### TRIS: Toxic Chemical Release Inventory System

Toxic Release Inventory System. TRIS identifies facilities which release toxic chemicals to the air, water and land in reportable quantities under SARA Title III Section 313.

Date of Government Version: 12/31/2008	Source: EPA
Date Data Arrived at EDR: 01/13/2010	Telephone: 202-566-0250
Date Made Active in Reports: 02/18/2010	Last EDR Contact: 12/17/2010
Number of Days to Update: 36	Next Scheduled EDR Contact: 03/14/2011
	Data Release Frequency: Annually

### TSCA: Toxic Substances Control Act

Toxic Substances Control Act. TSCA identifies manufacturers and importers of chemical substances included on the TSCA Chemical Substance Inventory list. It includes data on the production volume of these substances by plant site.

Date of Government Version: 12/31/2006	Source: EPA
Date Data Arrived at EDR: 09/29/2010	Telephone: 202-260-5521
Date Made Active in Reports: 12/02/2010	Last EDR Contact: 12/29/2010
Number of Days to Update: 64	Next Scheduled EDR Contact: 04/11/2011
	Data Release Frequency: Every 4 Years

### FTTS: FIFRA/ TSCA Tracking System - FIFRA (Federal Insecticide, Fungicide, & Rodenticide Act)/TSCA (Toxic Substances Control Act)

FTTS tracks administrative cases and pesticide enforcement actions and compliance activities related to FIFRA, TSCA and EPCRA (Emergency Planning and Community Right-to-Know Act). To maintain currency, EDR contacts the Agency on a quarterly basis.

Date of Government Version: 04/09/2009	Source: EPA/Office of Prevention, Pesticides and Toxic Substances
Date Data Arrived at EDR: 04/16/2009	Telephone: 202-566-1667
Date Made Active in Reports: 05/11/2009	Last EDR Contact: 11/29/2010
Number of Days to Update: 25	Next Scheduled EDR Contact: 03/14/2011
	Data Release Frequency: Quarterly

### FTTS INSP: FIFRA/ TSCA Tracking System - FIFRA (Federal Insecticide, Fungicide, & Rodenticide Act)/TSCA (Toxic Substances Control Act) A listing of FIFRA/TSCA Tracking System (FTTS) inspections and enforcements.

Date of Government Version: 04/09/2009	Source: EPA
Date Data Arrived at EDR: 04/16/2009	Telephone: 202-566-1667
Date Made Active in Reports: 05/11/2009	Last EDR Contact: 11/29/2010
Number of Days to Update: 25	Next Scheduled EDR Contact: 03/14/2011
	Data Release Frequency: Quarterly

### HIST FTTS: FIFRA/TSCA Tracking System Administrative Case Listing

A complete administrative case listing from the FIFRA/TSCA Tracking System (FTTS) for all ten EPA regions. The information was obtained from the National Compliance Database (NCDB). NCDB supports the implementation of FIFRA (Federal Insecticide, Fungicide, and Rodenticide Act) and TSCA (Toxic Substances Control Act). Some EPA regions are now closing out records. Because of that, and the fact that some EPA regions are not providing EPA Headquarters with updated records, it was decided to create a HIST FTTS database. It included records that may not be included in the newer FTTS database updates. This database is no longer updated.

Date of Government Version: 10/19/2006	Source: Environmental Protection Agency
Date Data Arrived at EDR: 03/01/2007	Telephone: 202-564-2501
Date Made Active in Reports: 04/10/2007	Last EDR Contact: 12/17/2007
Number of Days to Update: 40	Next Scheduled EDR Contact: 03/17/2008
	Data Release Frequency: No Update Planned

### HIST FTTS INSP: FIFRA/TSCA Tracking System Inspection & Enforcement Case Listing

A complete inspection and enforcement case listing from the FIFRA/TSCA Tracking System (FTTS) for all ten EPA regions. The information was obtained from the National Compliance Database (NCDB). NCDB supports the implementation of FIFRA (Federal Insecticide, Fungicide, and Rodenticide Act) and TSCA (Toxic Substances Control Act). Some EPA regions are now closing out records. Because of that, and the fact that some EPA regions are not providing EPA Headquarters with updated records, it was decided to create a HIST FTTS database. It included records that may not be included in the newer FTTS database updates. This database is no longer updated.

## GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

Date of Government Version: 10/19/2006  
Date Data Arrived at EDR: 03/01/2007  
Date Made Active in Reports: 04/10/2007  
Number of Days to Update: 40

Source: Environmental Protection Agency  
Telephone: 202-564-2501  
Last EDR Contact: 12/17/2008  
Next Scheduled EDR Contact: 03/17/2008  
Data Release Frequency: No Update Planned

### SSTS: Section 7 Tracking Systems

Section 7 of the Federal Insecticide, Fungicide and Rodenticide Act, as amended (92 Stat. 829) requires all registered pesticide-producing establishments to submit a report to the Environmental Protection Agency by March 1st each year. Each establishment must report the types and amounts of pesticides, active ingredients and devices being produced, and those having been produced and sold or distributed in the past year.

Date of Government Version: 12/31/2008  
Date Data Arrived at EDR: 01/06/2010  
Date Made Active in Reports: 02/10/2010  
Number of Days to Update: 35

Source: EPA  
Telephone: 202-564-4203  
Last EDR Contact: 01/31/2011  
Next Scheduled EDR Contact: 05/16/2011  
Data Release Frequency: Annually

### ICIS: Integrated Compliance Information System

The Integrated Compliance Information System (ICIS) supports the information needs of the national enforcement and compliance program as well as the unique needs of the National Pollutant Discharge Elimination System (NPDES) program.

Date of Government Version: 04/24/2010  
Date Data Arrived at EDR: 04/29/2010  
Date Made Active in Reports: 05/17/2010  
Number of Days to Update: 18

Source: Environmental Protection Agency  
Telephone: 202-564-5088  
Last EDR Contact: 12/23/2010  
Next Scheduled EDR Contact: 04/11/2011  
Data Release Frequency: Quarterly

### PADS: PCB Activity Database System

PCB Activity Database. PADS identifies generators, transporters, commercial storers and/or brokers and disposers of PCB's who are required to notify the EPA of such activities.

Date of Government Version: 02/01/2010  
Date Data Arrived at EDR: 04/22/2010  
Date Made Active in Reports: 08/09/2010  
Number of Days to Update: 109

Source: EPA  
Telephone: 202-566-0500  
Last EDR Contact: 01/21/2011  
Next Scheduled EDR Contact: 05/02/2011  
Data Release Frequency: Annually

### MLTS: Material Licensing Tracking System

MLTS is maintained by the Nuclear Regulatory Commission and contains a list of approximately 8,100 sites which possess or use radioactive materials and which are subject to NRC licensing requirements. To maintain currency, EDR contacts the Agency on a quarterly basis.

Date of Government Version: 03/18/2010  
Date Data Arrived at EDR: 04/06/2010  
Date Made Active in Reports: 05/27/2010  
Number of Days to Update: 51

Source: Nuclear Regulatory Commission  
Telephone: 301-415-7169  
Last EDR Contact: 12/13/2010  
Next Scheduled EDR Contact: 03/28/2011  
Data Release Frequency: Quarterly

### RADINFO: Radiation Information Database

The Radiation Information Database (RADINFO) contains information about facilities that are regulated by U.S. Environmental Protection Agency (EPA) regulations for radiation and radioactivity.

Date of Government Version: 07/13/2010  
Date Data Arrived at EDR: 07/14/2010  
Date Made Active in Reports: 08/09/2010  
Number of Days to Update: 26

Source: Environmental Protection Agency  
Telephone: 202-343-9775  
Last EDR Contact: 01/13/2011  
Next Scheduled EDR Contact: 04/25/2011  
Data Release Frequency: Quarterly



## GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

### FINDS: Facility Index System/Facility Registry System

Facility Index System. FINDS contains both facility information and 'pointers' to other sources that contain more detail. EDR includes the following FINDS databases in this report: PCS (Permit Compliance System), AIRS (Aerometric Information Retrieval System), DOCKET (Enforcement Docket used to manage and track information on civil judicial enforcement cases for all environmental statutes), FURS (Federal Underground Injection Control), C-DOCKET (Criminal Docket System used to track criminal enforcement actions for all environmental statutes), FFIS (Federal Facilities Information System), STATE (State Environmental Laws and Statutes), and PADS (PCB Activity Data System).

Date of Government Version: 04/14/2010	Source: EPA
Date Data Arrived at EDR: 04/16/2010	Telephone: (404) 562-9900
Date Made Active in Reports: 05/27/2010	Last EDR Contact: 12/10/2010
Number of Days to Update: 41	Next Scheduled EDR Contact: 03/28/2011
	Data Release Frequency: Quarterly

### RAATS: RCRA Administrative Action Tracking System

RCRA Administration Action Tracking System. RAATS contains records based on enforcement actions issued under RCRA pertaining to major violators and includes administrative and civil actions brought by the EPA. For administration actions after September 30, 1995, data entry in the RAATS database was discontinued. EPA will retain a copy of the database for historical records. It was necessary to terminate RAATS because a decrease in agency resources made it impossible to continue to update the information contained in the database.

Date of Government Version: 04/17/1995	Source: EPA
Date Data Arrived at EDR: 07/03/1995	Telephone: 202-564-4104
Date Made Active in Reports: 08/07/1995	Last EDR Contact: 06/02/2008
Number of Days to Update: 35	Next Scheduled EDR Contact: 09/01/2008
	Data Release Frequency: No Update Planned

### BRS: Biennial Reporting System

The Biennial Reporting System is a national system administered by the EPA that collects data on the generation and management of hazardous waste. BRS captures detailed data from two groups: Large Quantity Generators (LQG) and Treatment, Storage, and Disposal Facilities.

Date of Government Version: 12/31/2007	Source: EPA/NTIS
Date Data Arrived at EDR: 02/25/2010	Telephone: 800-424-9346
Date Made Active in Reports: 05/12/2010	Last EDR Contact: 11/30/2010
Number of Days to Update: 76	Next Scheduled EDR Contact: 03/07/2011
	Data Release Frequency: Biennially

### DRYCLEANERS: Registered Facilities List

A list of all active registered drycleaner facilities. There may be some inactive facilities included.

Date of Government Version: 08/01/2010	Source: Dept. of Environment & Conservation
Date Data Arrived at EDR: 10/27/2010	Telephone: 615-532-0900
Date Made Active in Reports: 12/17/2010	Last EDR Contact: 01/28/2011
Number of Days to Update: 51	Next Scheduled EDR Contact: 05/09/2011
	Data Release Frequency: Annually

### NPDES: Permitted Facility Listing

A listing of permitted wastewater facilities.

Date of Government Version: 06/01/2006	Source: Department of Environment & Conservation
Date Data Arrived at EDR: 06/08/2006	Telephone: 615-253-2245
Date Made Active in Reports: 07/26/2006	Last EDR Contact: 11/29/2010
Number of Days to Update: 48	Next Scheduled EDR Contact: 03/14/2011
	Data Release Frequency: Varies

### AIRS: Listing of Permitted Sources

A listing of permitted sources issued by the Division of Air Pollution Control.

## GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

Date of Government Version: 08/23/2010  
Date Data Arrived at EDR: 08/23/2010  
Date Made Active in Reports: 09/30/2010  
Number of Days to Update: 38

Source: Department of Environment & Conservation  
Telephone: 615-532-0545  
Last EDR Contact: 02/07/2011  
Next Scheduled EDR Contact: 05/23/2011  
Data Release Frequency: Varies

### INDIAN RESERV: Indian Reservations

This map layer portrays Indian administered lands of the United States that have any area equal to or greater than 640 acres.

Date of Government Version: 12/31/2005  
Date Data Arrived at EDR: 12/08/2006  
Date Made Active in Reports: 01/11/2007  
Number of Days to Update: 34

Source: USGS  
Telephone: 202-208-3710  
Last EDR Contact: 01/21/2011  
Next Scheduled EDR Contact: 05/02/2011  
Data Release Frequency: Semi-Annually

### SCRD DRYCLEANERS: State Coalition for Remediation of Drycleaners Listing

The State Coalition for Remediation of Drycleaners was established in 1998, with support from the U.S. EPA Office of Superfund Remediation and Technology Innovation. It is comprised of representatives of states with established drycleaner remediation programs. Currently the member states are Alabama, Connecticut, Florida, Illinois, Kansas, Minnesota, Missouri, North Carolina, Oregon, South Carolina, Tennessee, Texas, and Wisconsin.

Date of Government Version: 08/31/2010  
Date Data Arrived at EDR: 09/01/2010  
Date Made Active in Reports: 12/02/2010  
Number of Days to Update: 92

Source: Environmental Protection Agency  
Telephone: 615-532-8599  
Last EDR Contact: 02/07/2011  
Next Scheduled EDR Contact: 05/09/2011  
Data Release Frequency: Varies

### COAL ASH DOE: Sleam-Electric Plan Operation Data

A listing of power plants that store ash in surface ponds.

Date of Government Version: 12/31/2005  
Date Data Arrived at EDR: 08/07/2009  
Date Made Active in Reports: 10/22/2009  
Number of Days to Update: 76

Source: Department of Energy  
Telephone: 202-586-8719  
Last EDR Contact: 01/18/2011  
Next Scheduled EDR Contact: 05/02/2011  
Data Release Frequency: Varies

### PCB TRANSFORMER: PCB Transformer Registration Database

The database of PCB transformer registrations that includes all PCB registration submittals.

Date of Government Version: 01/01/2008  
Date Data Arrived at EDR: 02/18/2009  
Date Made Active in Reports: 05/29/2009  
Number of Days to Update: 100

Source: Environmental Protection Agency  
Telephone: 202-566-0517  
Last EDR Contact: 02/04/2011  
Next Scheduled EDR Contact: 05/16/2011  
Data Release Frequency: Varies

### FEDLAND: Federal and Indian Lands

Federally and Indian administered lands of the United States. Lands included are administered by: Army Corps of Engineers, Bureau of Reclamation, National Wild and Scenic River, National Wildlife Refuge, Public Domain Land, Wilderness, Wilderness Study Area, Wildlife Management Area, Bureau of Indian Affairs, Bureau of Land Management, Department of Justice, Forest Service, Fish and Wildlife Service, National Park Service.

Date of Government Version: 12/31/2005  
Date Data Arrived at EDR: 02/06/2006  
Date Made Active in Reports: 01/11/2007  
Number of Days to Update: 339

Source: U.S. Geological Survey  
Telephone: 888-275-8747  
Last EDR Contact: 01/21/2011  
Next Scheduled EDR Contact: 05/02/2011  
Data Release Frequency: N/A

### COAL ASH EPA: Coal Combustion Residues Surface Impoundments List

A listing of coal combustion residues surface impoundments with high hazard potential ratings.

## GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

Date of Government Version: 11/09/2009  
Date Data Arrived at EDR: 12/18/2009  
Date Made Active in Reports: 02/10/2010  
Number of Days to Update: 54

Source: Environmental Protection Agency  
Telephone: N/A  
Last EDR Contact: 12/21/2010  
Next Scheduled EDR Contact: 03/28/2011  
Data Release Frequency: Varies

### EDR PROPRIETARY RECORDS

#### *EDR Proprietary Records*

##### Manufactured Gas Plants: EDR Proprietary Manufactured Gas Plants

The EDR Proprietary Manufactured Gas Plant Database includes records of coal gas plants (manufactured gas plants) compiled by EDR's researchers. Manufactured gas sites were used in the United States from the 1800's to 1950's to produce a gas that could be distributed and used as fuel. These plants used whale oil, rosin, coal, or a mixture of coal, oil, and water that also produced a significant amount of waste. Many of the byproducts of the gas production, such as coal tar (oily waste containing volatile and non-volatile chemicals), sludges, oils and other compounds are potentially hazardous to human health and the environment. The byproduct from this process was frequently disposed of directly at the plant site and can remain or spread slowly, serving as a continuous source of soil and groundwater contamination.

Date of Government Version: N/A  
Date Data Arrived at EDR: N/A  
Date Made Active in Reports: N/A  
Number of Days to Update: N/A

Source: EDR, Inc.  
Telephone: N/A  
Last EDR Contact: N/A  
Next Scheduled EDR Contact: N/A  
Data Release Frequency: No Update Planned

### OTHER DATABASE(S)

Depending on the geographic area covered by this report, the data provided in these specialty databases may or may not be complete. For example, the existence of wetlands information data in a specific report does not mean that all wetlands in the area covered by the report are included. Moreover, the absence of any reported wetlands information does not necessarily mean that wetlands do not exist in the area covered by the report.

##### CT MANIFEST: Hazardous Waste Manifest Data

Facility and manifest data. Manifest is a document that lists and tracks hazardous waste from the generator through transporters to a tsd facility.

Date of Government Version: 12/31/2007  
Date Data Arrived at EDR: 08/26/2009  
Date Made Active in Reports: 09/11/2009  
Number of Days to Update: 16

Source: Department of Environmental Protection  
Telephone: 860-424-3375  
Last EDR Contact: 12/01/2010  
Next Scheduled EDR Contact: 03/07/2011  
Data Release Frequency: Annually

##### NY MANIFEST: Facility and Manifest Data

Manifest is a document that lists and tracks hazardous waste from the generator through transporters to a TSD facility.

Date of Government Version: 10/28/2010  
Date Data Arrived at EDR: 11/09/2010  
Date Made Active in Reports: 12/17/2010  
Number of Days to Update: 38

Source: Department of Environmental Conservation  
Telephone: 518-402-8651  
Last EDR Contact: 02/09/2011  
Next Scheduled EDR Contact: 05/23/2011  
Data Release Frequency: Annually

##### PA MANIFEST: Manifest Information

Hazardous waste manifest information.

Date of Government Version: 12/31/2008  
Date Data Arrived at EDR: 12/01/2009  
Date Made Active in Reports: 12/14/2009  
Number of Days to Update: 13

Source: Department of Environmental Protection  
Telephone: 717-783-8990  
Last EDR Contact: 11/22/2010  
Next Scheduled EDR Contact: 03/07/2011  
Data Release Frequency: Annually

## GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

### RI MANIFEST: Manifest information

#### Hazardous waste manifest information

Date of Government Version: 12/31/2009  
Date Data Arrived at EDR: 07/19/2010  
Date Made Active in Reports: 08/26/2010  
Number of Days to Update: 38

Source: Department of Environmental Management  
Telephone: 401-222-2797  
Last EDR Contact: 11/29/2010  
Next Scheduled EDR Contact: 03/14/2011  
Data Release Frequency: Annually

### VT MANIFEST: Hazardous Waste Manifest Data

#### Hazardous waste manifest information.

Date of Government Version: 03/29/2010  
Date Data Arrived at EDR: 05/14/2010  
Date Made Active in Reports: 06/22/2010  
Number of Days to Update: 39

Source: Department of Environmental Conservation  
Telephone: 802-241-3443  
Last EDR Contact: 01/24/2011  
Next Scheduled EDR Contact: 05/09/2011  
Data Release Frequency: Annually

### WI MANIFEST: Manifest Information

#### Hazardous waste manifest information.

Date of Government Version: 12/31/2009  
Date Data Arrived at EDR: 07/06/2010  
Date Made Active in Reports: 07/26/2010  
Number of Days to Update: 20

Source: Department of Natural Resources  
Telephone: N/A  
Last EDR Contact: 12/16/2010  
Next Scheduled EDR Contact: 04/04/2011  
Data Release Frequency: Annually

**Oil/Gas Pipelines:** This data was obtained by EDR from the USGS in 1994. It is referred to by USGS as GeoData Digital Line Graphs from 1:100,000-Scale Maps. It was extracted from the transportation category including some oil, but primarily gas pipelines.

### Electric Power Transmission Line Data

Source: Rextag Strategies Corp.  
Telephone: (281) 769-2247

U.S. Electric Transmission and Power Plants Systems Digital GIS Data

**Sensitive Receptors:** There are individuals deemed sensitive receptors due to their fragile immune systems and special sensitivity to environmental discharges. These sensitive receptors typically include the elderly, the sick, and children. While the location of all sensitive receptors cannot be determined, EDR indicates those buildings and facilities - schools, daycares, hospitals, medical centers, and nursing homes - where individuals who are sensitive receptors are likely to be located.

### AHA Hospitals:

Source: American Hospital Association, Inc.  
Telephone: 312-280-5991

The database includes a listing of hospitals based on the American Hospital Association's annual survey of hospitals.

### Medical Centers: Provider of Services Listing

Source: Centers for Medicare & Medicaid Services  
Telephone: 410-786-3000

A listing of hospitals with Medicare provider number, produced by Centers of Medicare & Medicaid Services, a federal agency within the U.S. Department of Health and Human Services.

### Nursing Homes

Source: National Institutes of Health  
Telephone: 301-594-6248

Information on Medicare and Medicaid certified nursing homes in the United States.

### Public Schools

Source: National Center for Education Statistics  
Telephone: 202-502-7300

The National Center for Education Statistics' primary database on elementary and secondary public education in the United States. It is a comprehensive, annual, national statistical database of all public elementary and secondary schools and school districts, which contains data that are comparable across all states.

### Private Schools

Source: National Center for Education Statistics  
Telephone: 202-502-7300

The National Center for Education Statistics' primary database on private school locations in the United States.

## GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

Daycare Centers: Child Care Listing  
Source: Department Of Human Services  
Telephone: 615-313-4778

Flood Zone Data: This data, available in select counties across the country, was obtained by EDR in 2003 & 2009 from the Federal Emergency Management Agency (FEMA). Data depicts 100-year and 500-year flood zones as defined by FEMA.

NWI: National Wetlands Inventory. This data, available in select counties across the country, was obtained by EDR in 2002 and 2005 from the U.S. Fish and Wildlife Service.

State Wetlands Data: Wetlands Inventory  
Source: Tennessee Spatial Data Server  
Telephone: 931-528-6481

Tennessee LUST TDEC: In 1998 EDR reviewed technical reports, phase II reports and phase II report equivalents held by the Tennessee Department of Environment and Conservation and recorded data on leaking underground storage tanks in Davidson, Knox, and Shelby counties.

### **STREET AND ADDRESS INFORMATION**

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## GEOCHECK<sup>®</sup> - PHYSICAL SETTING SOURCE ADDENDUM

### TARGET PROPERTY ADDRESS

BLOCK 55 ESAS  
714 N. SECOND STREET  
MEMPHIS, TN 38107

### TARGET PROPERTY COORDINATES

Latitude (North):	35.16310 - 35° 9' 47.2"
Longitude (West):	90.0436 - 90° 2' 37.0"
Universal Tranverse Mercator:	Zone 15
UTM X (Meters):	769286.8
UTM Y (Meters):	3894935.5
Elevation:	246 ft. above sea level

### USGS TOPOGRAPHIC MAP

Target Property Map:	35090-B1 NORTHWEST MEMPHIS, TN
Most Recent Revision:	1999

EDR's GeoCheck Physical Setting Source Addendum is provided to assist the environmental professional in forming an opinion about the impact of potential contaminant migration.

Assessment of the impact of contaminant migration generally has two principle investigative components:

1. Groundwater flow direction, and
2. Groundwater flow velocity.

Groundwater flow direction may be impacted by surface topography, hydrology, hydrogeology, characteristics of the soil, and nearby wells. Groundwater flow velocity is generally impacted by the nature of the geologic strata.



# GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

## GROUNDWATER FLOW DIRECTION INFORMATION

Groundwater flow direction for a particular site is best determined by a qualified environmental professional using site-specific well data. If such data is not reasonably ascertainable, it may be necessary to rely on other sources of information, such as surface topographic information, hydrologic information, hydrogeologic data collected on nearby properties, and regional groundwater flow information (from deep aquifers).

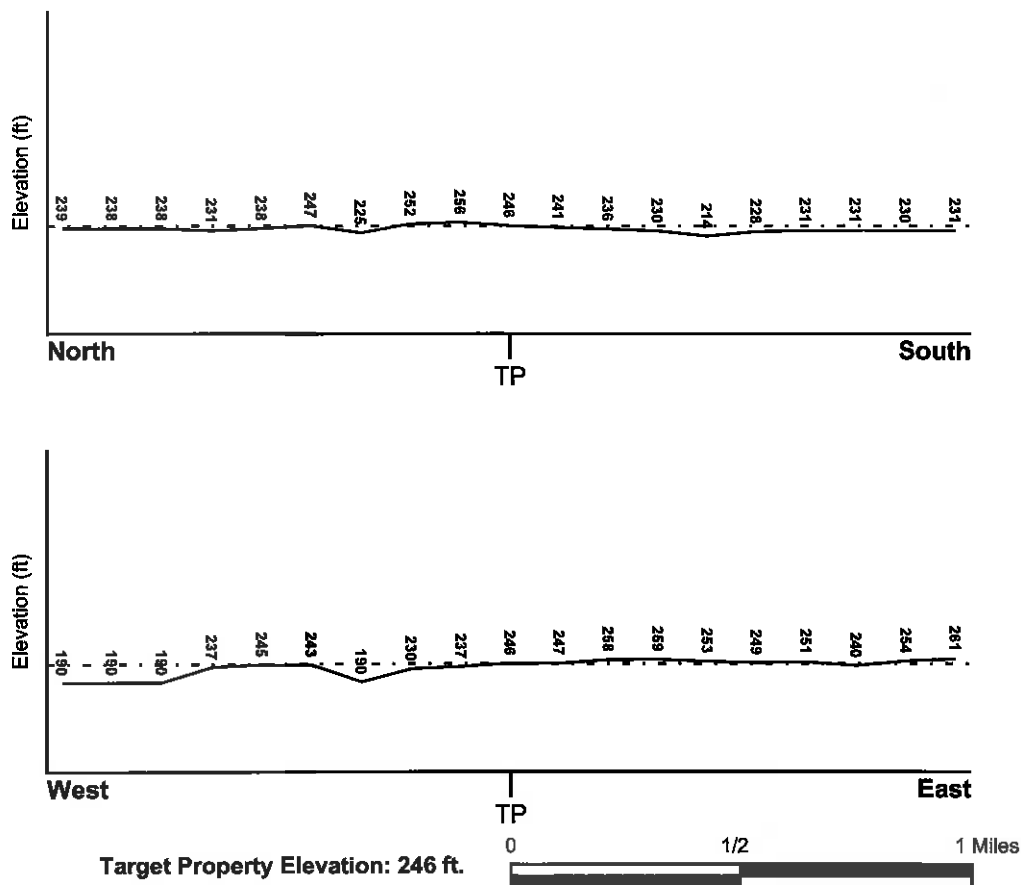
## TOPOGRAPHIC INFORMATION

Surface topography may be indicative of the direction of surficial groundwater flow. This information can be used to assist the environmental professional in forming an opinion about the impact of nearby contaminated properties or, should contamination exist on the target property, what downgradient sites might be impacted.

## TARGET PROPERTY TOPOGRAPHY

General Topographic Gradient: General WSW

## SURROUNDING TOPOGRAPHY: ELEVATION PROFILES



Source: Topography has been determined from the USGS 7.5' Digital Elevation Model and should be evaluated on a relative (not an absolute) basis. Relative elevation information between sites of close proximity should be field verified.

## GEOCHECK<sup>®</sup> - PHYSICAL SETTING SOURCE SUMMARY

### HYDROLOGIC INFORMATION

Surface water can act as a hydrologic barrier to groundwater flow. Such hydrologic information can be used to assist the environmental professional in forming an opinion about the impact of nearby contaminated properties or, should contamination exist on the target property, what downgradient sites might be impacted.

Refer to the Physical Setting Source Map following this summary for hydrologic information (major waterways and bodies of water).

### FEMA FLOOD ZONE

<u>Target Property County</u> SHELBY, TN	<u>FEMA Flood Electronic Data</u> YES - refer to the Overview Map and Detail Map
Flood Plain Panel at Target Property:	47157C - FEMA DFIRM Flood data
Additional Panels in search area:	Not Reported

### NATIONAL WETLAND INVENTORY

<u>NWI Quad at Target Property</u> NORTHWEST MEMPHIS	<u>NWI Electronic Data Coverage</u> YES - refer to the Overview Map and Detail Map
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### HYDROGEOLOGIC INFORMATION

Hydrogeologic information obtained by installation of wells on a specific site can often be an indicator of groundwater flow direction in the immediate area. Such hydrogeologic information can be used to assist the environmental professional in forming an opinion about the impact of nearby contaminated properties or, should contamination exist on the target property, what downgradient sites might be impacted.

### AQUIFLOW<sup>®</sup>

Search Radius: 1.000 Mile.

EDR has developed the AQUIFLOW Information System to provide data on the general direction of groundwater flow at specific points. EDR has reviewed reports submitted by environmental professionals to regulatory authorities at select sites and has extracted the date of the report, groundwater flow direction as determined hydrogeologically, and the depth to water table.

<u>MAP ID</u>	<u>LOCATION FROM TP</u>	<u>GENERAL DIRECTION GROUNDWATER FLOW</u>
8	1/4 - 1/2 Mile SW	NE
C9	1/4 - 1/2 Mile East	VARIABLE
18	1/2 - 1 Mile SE	SW

For additional site information, refer to Physical Setting Source Map Findings.

## GEOCHECK<sup>®</sup> - PHYSICAL SETTING SOURCE SUMMARY

### GROUNDWATER FLOW VELOCITY INFORMATION

Groundwater flow velocity information for a particular site is best determined by a qualified environmental professional using site specific geologic and soil strata data. If such data are not reasonably ascertainable, it may be necessary to rely on other sources of information, including geologic age identification, rock stratigraphic unit and soil characteristics data collected on nearby properties and regional soil information. In general, contaminant plumes move more quickly through sandy-gravelly types of soils than silty-clayey types of soils.

### GEOLOGIC INFORMATION IN GENERAL AREA OF TARGET PROPERTY

Geologic information can be used by the environmental professional in forming an opinion about the relative speed at which contaminant migration may be occurring.

#### **ROCK STRATIGRAPHIC UNIT**

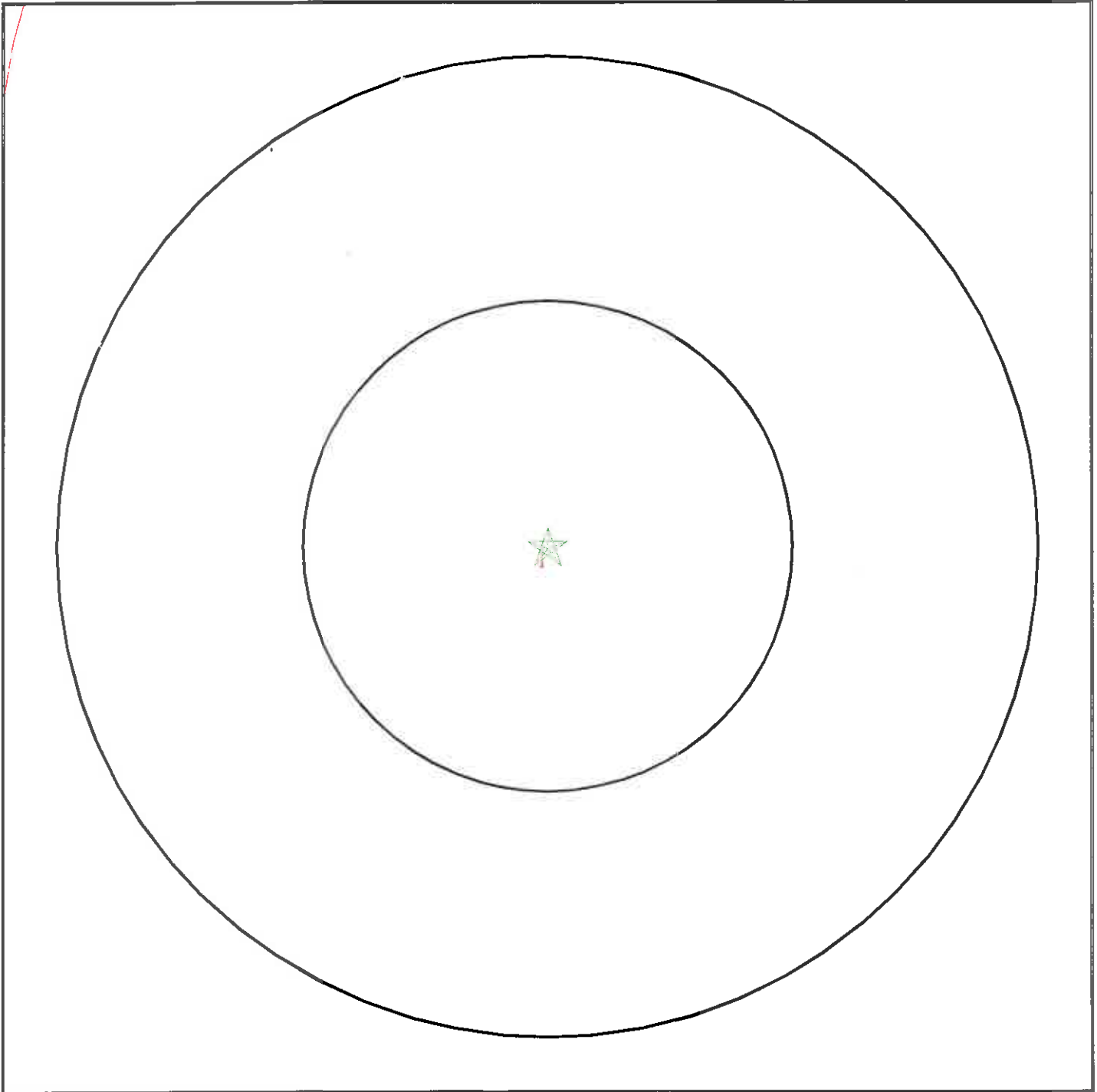
Era: Cenozoic  
System: Tertiary  
Series: Eocene Jackson Group  
Code: Te3 *(decoded above as Era, System & Series)*

#### **GEOLOGIC AGE IDENTIFICATION**

Category: Stratified Sequence

Geologic Age and Rock Stratigraphic Unit Source: P.G. Schruben, R.E. Arndt and W.J. Bawiec, Geology of the Conterminous U.S. at 1:2,500,000 Scale - a digital representation of the 1974 P.B. King and H.M. Beikman Map, USGS Digital Data Series DDS - 11 (1994).

# SSURGO SOIL MAP - 2981456.1s



- ★ Target Property
- △ SSURGO Soil
- △ Water



<b>SITE NAME:</b> Block 55 ESAs	<b>CLIENT:</b> Fisher & Arnold Inc.
<b>ADDRESS:</b> 714 N. Second Street	<b>CONTACT:</b> Sarah Schoefernacker
Memphis TN 38107	<b>INQUIRY #:</b> 2981456.1s
<b>LAT/LONG:</b> 35.1631 / 90.0436	<b>DATE:</b> February 09, 2011 2:40 pm

## GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

### DOMINANT SOIL COMPOSITION IN GENERAL AREA OF TARGET PROPERTY

The U.S. Department of Agriculture's (USDA) Soil Conservation Service (SCS) leads the National Cooperative Soil Survey (NCSS) and is responsible for collecting, storing, maintaining and distributing soil survey information for privately owned lands in the United States. A soil map in a soil survey is a representation of soil patterns in a landscape. The following information is based on Soil Conservation Service SSURGO data.

#### Soil Map ID: 1

Soil Component Name: GRADED LAND (Udorthents)

Soil Surface Texture: silt loam

Hydrologic Group: Class B - Moderate infiltration rates. Deep and moderately deep, moderately well and well drained soils with moderately coarse textures.

Soil Drainage Class: Well drained

Hydric Status: Not hydric

Corrosion Potential - Uncoated Steel: Low

Depth to Bedrock Min: > 0 inches

Depth to Watertable Min: > 0 inches

Soil Layer Information							
Layer	Boundary		Soil Texture Class	Classification		Saturated hydraulic conductivity micro m/sec	Soil Reaction (pH)
	Upper	Lower		AASHTO Group	Unified Soil		
1	0 inches	59 inches	silt loam	Not reported	Not reported	Max: 14 Min: 4	Max: 8.4 Min: 6.1

### LOCAL / REGIONAL WATER AGENCY RECORDS

EDR Local/Regional Water Agency records provide water well information to assist the environmental professional in assessing sources that may impact ground water flow direction, and in forming an opinion about the impact of contaminant migration on nearby drinking water wells.

### WELL SEARCH DISTANCE INFORMATION

<u>DATABASE</u>	<u>SEARCH DISTANCE (miles)</u>
Federal USGS	1.000
Federal FRDS PWS	Nearest PWS within 1 mile
State Database	1.000

## GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

### FEDERAL USGS WELL INFORMATION

MAP ID	WELL ID	LOCATION FROM TP
A3	USGS2474902	1/8 - 1/4 Mile West
C11	USGS2474907	1/4 - 1/2 Mile East
D12	USGS2475043	1/4 - 1/2 Mile South
D13	USGS2475042	1/4 - 1/2 Mile South
E15	USGS2475017	1/2 - 1 Mile SSE
E16	USGS2475018	1/2 - 1 Mile SSE
17	USGS2474935	1/2 - 1 Mile WNW
F20	USGS2475037	1/2 - 1 Mile SE
F24	USGS2475034	1/2 - 1 Mile SE
F25	USGS2475033	1/2 - 1 Mile SE
F26	USGS2475032	1/2 - 1 Mile SE
G28	USGS2474874	1/2 - 1 Mile East
H33	USGS2474833	1/2 - 1 Mile North
I36	USGS2474803	1/2 - 1 Mile NE
J38	USGS2474995	1/2 - 1 Mile SE
J39	USGS2474996	1/2 - 1 Mile SE
K43	USGS2474853	1/2 - 1 Mile ESE
J46	USGS2474994	1/2 - 1 Mile SE
K49	USGS2474850	1/2 - 1 Mile ESE
J50	USGS2474993	1/2 - 1 Mile SE

### FEDERAL FRDS PUBLIC WATER SUPPLY SYSTEM INFORMATION

MAP ID	WELL ID	LOCATION FROM TP
No PWS System Found		

Note: PWS System location is not always the same as well location.

### STATE DATABASE WELL INFORMATION

MAP ID	WELL ID	LOCATION FROM TP
1	TN5000000002316	0 - 1/8 Mile West
2	TN5000000002303	0 - 1/8 Mile South
A4	TN5000000002315	1/8 - 1/4 Mile West
A5	TN5000000002313	1/8 - 1/4 Mile West
B6	TN5000000002338	1/4 - 1/2 Mile NNE
B7	TN5000000002339	1/4 - 1/2 Mile NNE
D10	TN5000000002246	1/4 - 1/2 Mile South
E14	TN5000000002226	1/2 - 1 Mile SSE
F19	TN5000000002238	1/2 - 1 Mile SE
F21	TN5000000002240	1/2 - 1 Mile SE
F22	TN5000000002239	1/2 - 1 Mile SE
G23	TN5000000002306	1/2 - 1 Mile East
27	TN5000000002178	1/2 - 1 Mile SE
29	TN5000000002587	1/2 - 1 Mile North
G30	TN5000000002311	1/2 - 1 Mile East
H31	TN5000000002594	1/2 - 1 Mile North
H32	TN5000000002593	1/2 - 1 Mile North

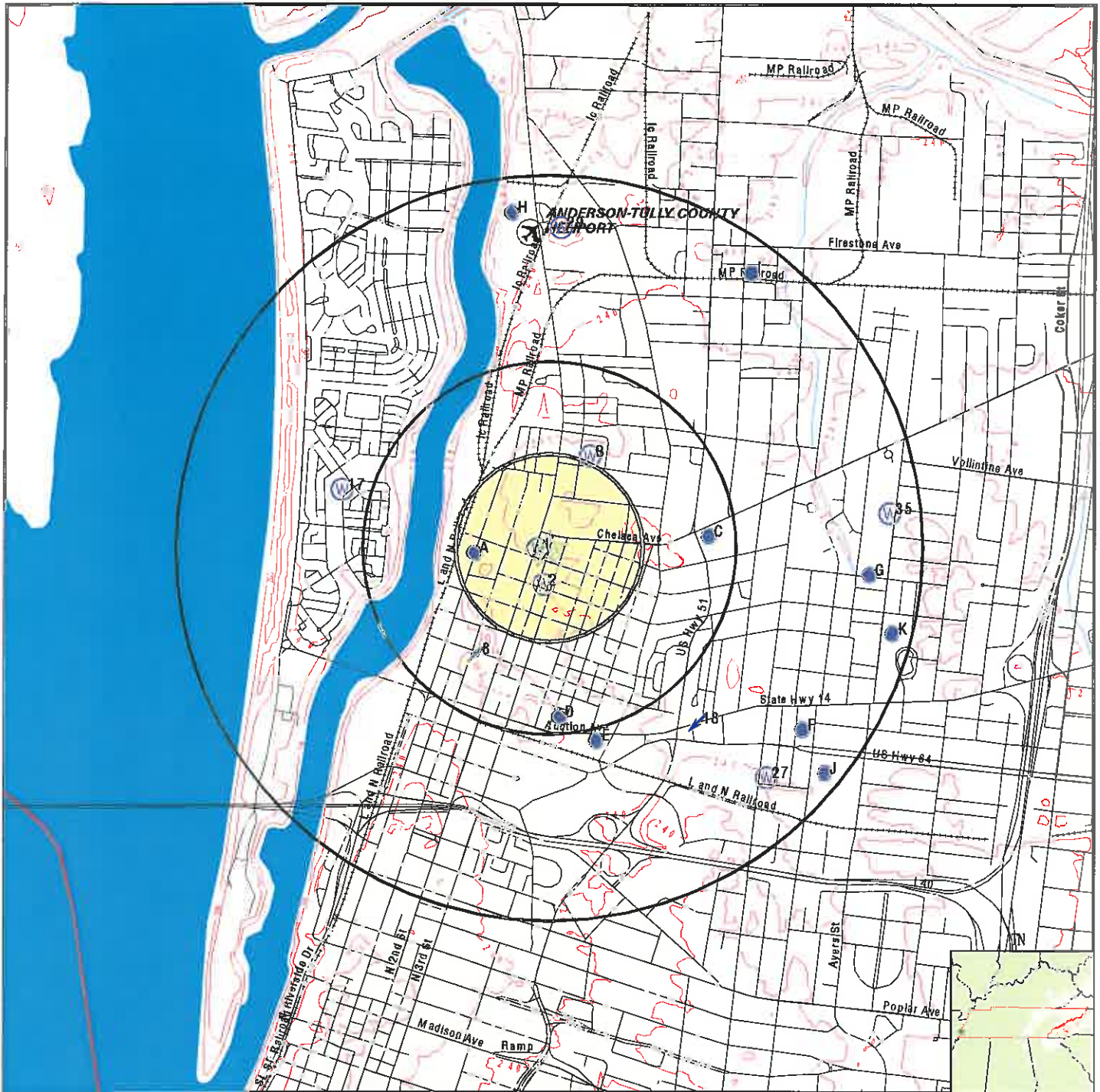


## GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

### STATE DATABASE WELL INFORMATION

MAP ID	WELL ID	LOCATION FROM TP
J34	TN5000000002562	1/2 - 1 Mile NE
35	TN5000000002329	1/2 - 1 Mile East
J37	TN5000000002196	1/2 - 1 Mile SE
J40	TN5000000002205	1/2 - 1 Mile SE
K41	TN5000000002286	1/2 - 1 Mile ESE
K42	TN5000000002287	1/2 - 1 Mile ESE
J44	TN5000000002179	1/2 - 1 Mile SE
J45	TN5000000002206	1/2 - 1 Mile SE
J47	TN5000000002197	1/2 - 1 Mile SE
J48	TN5000000002163	1/2 - 1 Mile SE
J51	TN5000000002164	1/2 - 1 Mile SE
J52	TN5000000002165	1/2 - 1 Mile SE

# PHYSICAL SETTING SOURCE MAP - 2981456.1s



- County Boundary
- Major Roads
- Contour Lines
- Airports
- Earthquake epicenter, Richter 5 or greater
- Water Wells
- Public Water Supply Wells
- Cluster of Multiple Icons

- Groundwater Flow Direction
- Indeterminate Groundwater Flow at Location
- Groundwater Flow Varies at Location

**SITE NAME:** Block 55 ESAs  
**ADDRESS:** 714 N. Second Street  
 Memphis TN 38107  
**LAT/LONG:** 35.1631 / 90.0436

**CLIENT:** Fisher & Arnold Inc.  
**CONTACT:** Sarah Schoefernacker  
**INQUIRY #:** 2981456.1s  
**DATE:** February 09, 2011 2:40 pm

## GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Map ID  
Direction  
Distance  
Elevation

Database      EDR ID Number

**1**  
**West**  
**0 - 1/8 Mile**  
**Lower**      **TN WELLS**      **TN500000002316**

County nam:	SHELBY	Well numbr:	15709500
Owner name:	AM SNUFF SH 0-170-17	Addr line1:	Not Reported
License co:	Not Reported	Cmpltn dat:	Not Reported
Latitude:	350947	Cmpltn tot:	Not Reported
Cmpltn est:	Not Reported	Quad numbr:	0404NE8
Driller ta:	Not Reported	Longitude:	900239
Accuracy:	S	Casing fee:	Not Reported
Wbzs:	Not Reported	Descriptio:	Industrial
Site id:	TN500000002316		

**2**  
**South**  
**0 - 1/8 Mile**  
**Lower**      **TN WELLS**      **TN500000002303**

County nam:	SHELBY	Well numbr:	15709680
Owner name:	MEMPHIS LG & W SH:O-182	Addr line1:	Not Reported
License co:	Not Reported	Cmpltn dat:	Not Reported
Latitude:	350942	Cmpltn tot:	Not Reported
Cmpltn est:	Not Reported	Quad numbr:	0404NE9
Driller ta:	Not Reported	Longitude:	900238
Accuracy:	S	Casing fee:	Not Reported
Wbzs:	Not Reported	Descriptio:	Municipal
Site id:	TN500000002303		

**A3**  
**West**  
**1/8 - 1/4 Mile**  
**Lower**      **FED USGS**      **USGS2474902**

Agency cd:	USGS	Site no:	350946090024901
Site name:	SH:O- 16 AMER SNUFF CO	EDR Site id:	USGS2474902
Latitude:	350946	Dec lat:	35.16286738
Longitude:	0900249	Coor meth:	M
Dec lon:	-90.04703548	Latlong datum:	NAD27
Coor accr:	U	District:	47
Dec latlong datum:	NAD83	County:	157
State:	47	Land net:	Not Reported
Country:	US	Map scale:	Not Reported
Location map:	Not Reported		
Altitude:	Not Reported		
Altitude method:	Not Reported		
Altitude accuracy:	Not Reported		
Altitude datum:	Not Reported		
Hydrologic:	Lower MississippiMemphis. Arkansas, Kentucky, Mississippi, Missouri, and Tennessee. Area = 1110 sq.mi.		
Topographic:	Not Reported		
Site type:	Ground-water other than Spring	Date construction:	Not Reported
Date inventoried:	Not Reported	Mean greenwich time offset:	CST

## GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Local standard time flag:	Y		
Type of ground water site:	Single well, other than collector or Ranney type		
Aquifer Type:	Not Reported		
Aquifer:	MEMPHIS SAND		
Well depth:	420	Hole depth:	Not Reported
Source of depth data:	Not Reported		
Project number:	Not Reported		
Real time data flag:	0	Daily flow data begin date:	0000-00-00
Daily flow data end date:	0000-00-00	Daily flow data count:	0
Peak flow data begin date:	0000-00-00	Peak flow data end date:	0000-00-00
Peak flow data count:	0	Water quality data begin date:	1930-08-23
Water quality data end date:	1930-08-23	Water quality data count:	1
Ground water data begin date:	0000-00-00	Ground water data end date:	0000-00-00
Ground water data count:	0		

Ground-water levels, Number of Measurements: 0

**A4**  
**West**  
**1/8 - 1/4 Mile**  
**Lower**  
**TN WELLS**    **TN5000000002315**

County nam:	SHELBY	Well numbr:	15709498
Owner name:	AM SNUFF SH 0-150-15	Addr line1:	Not Reported
License co:	Not Reported	Cmpltn dat:	Not Reported
Latitude:	350947	Cmpltn tot:	Not Reported
Cmpltn est:	Not Reported	Quad numbr:	0404NE8
Driller ta:	Not Reported	Longitude:	900250
Accuracy:	S	Casing fee:	Not Reported
Wbz:	Not Reported	Descriptio:	Industrial
Site id:	TN5000000002315		

**A5**  
**West**  
**1/8 - 1/4 Mile**  
**Lower**  
**TN WELLS**    **TN5000000002313**

County nam:	SHELBY	Well numbr:	15709499
Owner name:	AM SNUFF SH 0-160-16	Addr line1:	Not Reported
License co:	Not Reported	Cmpltn dat:	Not Reported
Latitude:	350946	Cmpltn tot:	Not Reported
Cmpltn est:	Not Reported	Quad numbr:	0404NE8
Driller ta:	Not Reported	Longitude:	900250
Accuracy:	S	Casing fee:	Not Reported
Wbz:	Not Reported	Descriptio:	Industrial
Site id:	TN5000000002313		

**B6**  
**NNE**  
**1/4 - 1/2 Mile**  
**Lower**  
**TN WELLS**    **TN5000000002338**

## GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

County nam:	SHELBY	Well numbr:	15700082
Owner name:	BARRETT, PH	Addr line1:	HWY 14
License co:	Not Reported	Cmpltn dat:	01/15/64 12:00:00 A
Latitude:	351000	Cmpltn tot:	Not Reported
Cmpltn est:	Not Reported	Quad numbr:	0403SE6
Driller ta:	Not Reported	Longitude:	900230
Accuracy:	T	Casing fee:	Not Reported
Wbz:	Not Reported	Descriptio:	Residential
Site id:	TN5000000002338		

**B7**  
**NNE**  
**1/4 - 1/2 Mile**  
**Lower**

**TN WELLS      TN5000000002339**

County nam:	SHELBY	Well numbr:	15701491
Owner name:	KIMBERLY CLARK	Addr line1:	400 MAHANNAH AV
License co:	Not Reported	Cmpltn dat:	12/14/87 12:00:00 A
Latitude:	351000	Cmpltn tot:	Not Reported
Cmpltn est:	Not Reported	Quad numbr:	0404NE5
Driller ta:	Not Reported	Longitude:	900230
Accuracy:	Not Reported	Casing fee:	Not Reported
Wbz:	Not Reported	Descriptio:	Industrial
Site id:	TN5000000002339		

**8**  
**SW**  
**1/4 - 1/2 Mile**  
**Lower**

Shallow Water Depth:	5.92	<b>AQUIFLOW</b>	<b>17540</b>
Groundwater Flow:	NE		
Deep Water Depth:	11.75		
Average Water Depth:	Not Reported		
Date:	8/1992		

**C9**  
**East**  
**1/4 - 1/2 Mile**  
**Higher**

Shallow Water Depth:	5.85	<b>AQUIFLOW</b>	<b>20564</b>
Groundwater Flow:	VARIABLE		
Deep Water Depth:	11.99		
Average Water Depth:	Not Reported		
Date:	7/30/98		

**D10**  
**South**  
**1/4 - 1/2 Mile**  
**Lower**

**TN WELLS      TN5000000002246**

County nam:	SHELBY	Well numbr:	15709681
Owner name:	MEMPHIS LG & W SH:O-124	Addr line1:	Not Reported
License co:	Not Reported	Cmpltn dat:	Not Reported
Latitude:	350924	Cmpltn tot:	Not Reported
Cmpltn est:	Not Reported	Quad numbr:	0404NE8
Driller ta:	Not Reported	Longitude:	900235
Accuracy:	S	Casing fee:	Not Reported
Wbz:	Not Reported	Descriptio:	Test
Site id:	TN5000000002246		

## GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Map ID  
 Direction  
 Distance  
 Elevation

Database      EDR ID Number

**C11**  
**East**  
**1/4 - 1/2 Mile**  
**Higher**

**FED USGS      USGS2474907**

Agency cd:	USGS	Site no:	350948090020801
Site name:	SH:O-184		
Latitude:	350948	EDR Site id:	USGS2474907
Longitude:	0900208	Dec lat:	35.16342285
Dec lon:	-90.03564631	Coor meth:	M
Coor accr:	S	Latlong datum:	NAD27
Dec latlong datum:	NAD83	District:	47
State:	47	County:	157
Country:	US	Land net:	Not Reported
Location map:	Not Reported	Map scale:	Not Reported
Altitude:	251.2		
Altitude method:	Level or other surveying method		
Altitude accuracy:	.1		
Altitude datum:	National Geodetic Vertical Datum of 1929		
Hydrologic:	Not Reported		
Topographic:	Not Reported		
Site type:	Ground-water other than Spring	Date construction:	Not Reported
Date inventoried:	Not Reported	Mean greenwich time offset:	CST
Local standard time flag:	Y		
Type of ground water site:	Single well, other than collector or Ranney type		
Aquifer Type:	Not Reported		
Aquifer:	Not Reported		
Well depth:	570	Hole depth:	570
Source of depth data:	Not Reported		
Project number:	Not Reported		
Real time data flag:	Not Reported		
Daily flow data end date:	Not Reported		
Peak flow data begin date:	Not Reported		
Peak flow data count:	Not Reported		
Water quality data end date:	Not Reported		
Water quality data count:	Not Reported		
Ground water data begin date:	Not Reported		
Ground water data count:	Not Reported		

Ground-water levels, Number of Measurements: 0

**D12**  
**South**  
**1/4 - 1/2 Mile**  
**Lower**

**FED USGS      USGS2475043**

Agency cd:	USGS	Site no:	350923090023501
Site name:	SH:O-124		
Latitude:	350923	EDR Site id:	USGS2475043
Longitude:	0900235	Dec lat:	35.15647859
Dec lon:	-90.04314653	Coor meth:	M
Coor accr:	U	Latlong datum:	NAD27
Dec latlong datum:	NAD83	District:	47
State:	47	County:	157
Country:	US	Land net:	Not Reported
Location map:	Not Reported	Map scale:	Not Reported



## GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Altitude:	Not Reported		
Altitude method:	Not Reported		
Altitude accuracy:	Not Reported		
Altitude datum:	Not Reported		
Hydrologic:	Lower MississippiMemphis. Arkansas, Kentucky, Mississippi, Missouri, and Tennessee. Area = 1110 sq.mi.		
Topographic:	Not Reported		
Site type:	Ground-water other than Spring	Date construction:	Not Reported
Date inventoried:	Not Reported	Mean greenwich time offset:	CST
Local standard time flag:	Y		
Type of ground water site:	Single well, other than collector or Ranney type		
Aquifer Type:	Not Reported		
Aquifer:	Not Reported		
Well depth:	Not Reported	Hole depth:	Not Reported
Source of depth data:	Not Reported		
Project number:	Not Reported		
Real time data flag:	Not Reported	Daily flow data begin date:	Not Reported
Daily flow data end date:	Not Reported	Daily flow data count:	Not Reported
Peak flow data begin date:	Not Reported	Peak flow data end date:	Not Reported
Peak flow data count:	Not Reported	Water quality data begin date:	Not Reported
Water quality data end date:	Not Reported	Water quality data count:	Not Reported
Ground water data begin date:	Not Reported	Ground water data end date:	Not Reported
Ground water data count:	Not Reported		

Ground-water levels, Number of Measurements: 0

**D13**  
**South**  
**1/4 - 1/2 Mile**  
**Lower**

**FED USGS USGS2475042**

Agency cd:	USGS	Site no:	350923090023500
Site name:	SH:O-124	EDR Site id:	USGS2475042
Latitude:	350923	Dec lat:	35.15647859
Longitude:	0900235	Coor meth:	M
Dec lon:	-90.04314653	Latlong datum:	NAD27
Coor accr:	S	District:	47
Dec latlong datum:	NAD83	County:	157
State:	47	Land net:	Not Reported
Country:	US	Map scale:	Not Reported
Location map:	NORTHWEST MEMPHIS		
Altitude:	Not Reported		
Altitude method:	Not Reported		
Altitude accuracy:	Not Reported		
Altitude datum:	Not Reported		
Hydrologic:	Lower MississippiMemphis. Arkansas, Kentucky, Mississippi, Missouri, and Tennessee. Area = 1110 sq.mi.		
Topographic:	Not Reported		
Site type:	Ground-water other than Spring	Date construction:	19270501
Date inventoried:	Not Reported	Mean greenwich time offset:	CST
Local standard time flag:	Y		
Type of ground water site:	Single well, other than collector or Ranney type		
Aquifer Type:	Confined single aquifer		
Aquifer:	CLAIBORNE GROUP		
Well depth:	Not Reported	Hole depth:	Not Reported
Source of depth data:	Not Reported		
Project number:	Not Reported		
Real time data flag:	Not Reported	Daily flow data begin date:	Not Reported
Daily flow data end date:	Not Reported	Daily flow data count:	Not Reported
Peak flow data begin date:	Not Reported	Peak flow data end date:	Not Reported

## GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Peak flow data count: Not Reported  
 Water quality data end date: Not Reported  
 Ground water data begin date: Not Reported  
 Ground water data count: Not Reported

Water quality data begin date: Not Reported  
 Water quality data count: Not Reported  
 Ground water data end date: Not Reported

Ground-water levels, Number of Measurements: 0

**E14**  
**SSE**  
 1/2 - 1 Mile  
 Lower

**TN WELLS      TN500000002226**

County nam:	SHELBY	Well numbr:	15709496
Owner name:	BANNON ICE SHS0-1313	Addr line1:	Not Reported
License co:	Not Reported	Cmpltn dat:	Not Reported
Latitude:	350920	Cmpitn tot:	Not Reported
Cmpltn est:	Not Reported	Quad numbr:	0404NE9
Driller ta:	Not Reported	Longitude:	900230
Accuracy:	S	Casing fee:	Not Reported
Wbz:	Not Reported	Descriptio:	Not Reported
Site id:	TN500000002226		

**E15**  
**SSE**  
 1/2 - 1 Mile  
 Lower

**FED USGS      USGS2475017**

Agency cd:	USGS	Site no:	350920090022800
Site name:	SH:O- 13	EDR Site id:	USGS2475017
Latitude:	350920	Dec lat:	35.15564526
Longitude:	0900228	Coor meth:	M
Dec lon:	-90.04120205	Latlong datum:	NAD27
Coor accr:	U	District:	47
Dec latlong datum:	NAD83	County:	157
State:	47	Land net:	Not Reported
Country:	US	Map scale:	Not Reported
Location map:	Not Reported		
Altitude:	Not Reported		
Altitude method:	Not Reported		
Altitude accuracy:	Not Reported		
Altitude datum:	Not Reported		
Hydrologic:	Lower MississippiMemphis. Arkansas, Kentucky, Mississippi, Missouri, and Tennessee. Area = 1110 sq.mi.		
Topographic:	Not Reported		
Site type:	Ground-water other than Spring	Date construction:	Not Reported
Date inventoried:	Not Reported	Mean greenwich time offset:	CST
Local standard time flag:	Y		
Type of ground water site:	Single well, other than collector or Ranney type		
Aquifer Type:	Not Reported		
Aquifer:	Not Reported		
Well depth:	Not Reported	Hole depth:	Not Reported
Source of depth data:	Not Reported		
Project number:	Not Reported		
Real time data flag:	Not Reported	Daily flow data begin date:	Not Reported
Daily flow data end date:	Not Reported	Daily flow data count:	Not Reported
Peak flow data begin date:	Not Reported	Peak flow data end date:	Not Reported
Peak flow data count:	Not Reported	Water quality data begin date:	Not Reported
Water quality data end date:	Not Reported	Water quality data count:	Not Reported
Ground water data begin date:	Not Reported	Ground water data end date:	Not Reported
Ground water data count:	Not Reported		

Ground-water levels, Number of Measurements: 0

## GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Map ID  
Direction  
Distance  
Elevation

Database EDR ID Number

**E16**  
**SSE**  
**1/2 - 1 Mile**  
**Lower**

**FED USGS USGS2475018**

Agency cd:	USGS	Site no:	350920090022801
Site name:	SH:O- 13 BANNON COAL&ICE		
Latitude:	350920	EDR Site id:	USGS2475018
Longitude:	0900228	Dec lat:	35.15564526
Dec lon:	-90.04120205	Coor meth:	M
Coor accr:	U	Latlong datum:	NAD27
Dec latlong datum:	NAD83	District:	47
State:	47	County:	157
Country:	US	Land net:	Not Reported
Location map:	Not Reported	Map scale:	Not Reported
Altitude:	Not Reported		
Altitude method:	Not Reported		
Altitude accuracy:	Not Reported		
Altitude datum:	Not Reported		
Hydrologic:	Lower MississippiMemphis. Arkansas, Kentucky, Mississippi, Missouri, and Tennessee. Area = 1110 sq.mi.		
Topographic:	Not Reported		
Site type:	Ground-water other than Spring	Date construction:	Not Reported
Date inventoried:	Not Reported	Mean greenwich time offset:	CST
Local standard time flag:	Y		
Type of ground water site:	Single well, other than collector or Ranney type		
Aquifer Type:	Not Reported		
Aquifer:	MEMPHIS SAND		
Well depth:	396	Hole depth:	Not Reported
Source of depth data:	Not Reported		
Project number:	Not Reported		
Real time data flag:	0	Daily flow data begin date:	0000-00-00
Daily flow data end date:	0000-00-00	Daily flow data count:	0
Peak flow data begin date:	0000-00-00	Peak flow data end date:	0000-00-00
Peak flow data count:	0	Water quality data begin date:	1930-08-23
Water quality data end date:	1930-08-23	Water quality data count:	1
Ground water data begin date:	0000-00-00	Ground water data end date:	0000-00-00
Ground water data count:	0		

Ground-water levels, Number of Measurements: 0

**17**  
**WNW**  
**1/2 - 1 Mile**  
**Higher**

**FED USGS USGS2474935**

Agency cd:	USGS	Site no:	350955090031201
Site name:	Sh:O-250		
Latitude:	350955	EDR Site id:	USGS2474935
Longitude:	0900312	Dec lat:	35.16536736
Dec lon:	-90.05342451	Coor meth:	M
Coor accr:	S	Latlong datum:	NAD27
Dec latlong datum:	NAD83	District:	47
State:	47	County:	157
Country:	US	Land net:	Not Reported
Location map:	NORTHWEST MEMPHIS	Map scale:	24000

## GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Altitude: 245  
 Altitude method: Interpolated from topographic map  
 Altitude accuracy: 5  
 Altitude datum: National Geodetic Vertical Datum of 1929  
 Hydrologic: Wolf, Mississippi, Tennessee. Area = 813 sq.mi.  
 Topographic: Not Reported  
 Site type: Ground-water other than Spring Date construction: 199305  
 Date inventoried: 19930521 Mean greenwich time offset: CST  
 Local standard time flag: Y  
 Type of ground water site: Single well, other than collector or Ranney type  
 Aquifer Type: Confined single aquifer  
 Aquifer: MEMPHIS SAND  
 Well depth: Not Reported Hole depth: 1572  
 Source of depth data: driller  
 Project number: tn00200  
 Real time data flag: Not Reported Daily flow data begin date: Not Reported  
 Daily flow data end date: Not Reported Daily flow data count: Not Reported  
 Peak flow data begin date: Not Reported Peak flow data end date: Not Reported  
 Peak flow data count: Not Reported Water quality data begin date: Not Reported  
 Water quality data end date: Not Reported Water quality data count: Not Reported  
 Ground water data begin date: Not Reported Ground water data end date: Not Reported  
 Ground water data count: Not Reported

Ground-water levels, Number of Measurements: 0

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<b>F18</b> <b>SE</b> <b>1/2 - 1 Mile</b> <b>Higher</b>	Shallow Water Depth: 7.38		
	Groundwater Flow: SW	<b>AQUIFLOW</b>	<b>20606</b>
	Deep Water Depth: 10.91		
	Average Water Depth: Not Reported		
	Date: 11/7/92		

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<b>F19</b> <b>SE</b> <b>1/2 - 1 Mile</b> <b>Higher</b>		<b>TN WELLS</b>	<b>TN5000000002238</b>
County nam:	SHELBY	Well numbr:	15709658
Owner name:	MEMPHIS LG & W SH:O-179	Addr line1:	Not Reported
License co:	Not Reported	Cmpltn dat:	Not Reported
Latitude:	350922	Cmpltn tot:	Not Reported
Cmpltn est:	Not Reported	Quad numbr:	0404NE9
Driller ta:	Not Reported	Longitude:	900155
Accuracy:	S	Casing fee:	Not Reported
Wbz:	Not Reported	Descriptio:	Municipal
Site id:	TN5000000002238		

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<b>F20</b> <b>SE</b> <b>1/2 - 1 Mile</b> <b>Higher</b>		<b>FED USGS</b>	<b>USGS2475037</b>
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## GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Agency cd:	USGS	Site no:	350922090015401
Site name:	SH:O-204	EDR Site id:	USGS2475037
Latitude:	350922	Dec lat:	35.15620075
Longitude:	0900154	Coor meth:	M
Dec lon:	-90.03175737	Latlong datum:	NAD27
Coor accr:	U	District:	47
Dec latlong datum:	NAD83	County:	157
State:	47	Land net:	Not Reported
Country:	US	Map scale:	Not Reported
Location map:	NW MEMPHIS 7 1/2		
Altitude:	257		
Altitude method:	Unknown		
Altitude accuracy:	Not Reported		
Altitude datum:	National Geodetic Vertical Datum of 1929		
Hydrologic:	Not Reported		
Topographic:	Not Reported		
Site type:	Ground-water other than Spring	Date construction:	Not Reported
Date inventoried:	Not Reported	Mean greenwich time offset:	CST
Local standard time flag:	Y		
Type of ground water site:	Single well, other than collector or Ranney type		
Aquifer Type:	Not Reported		
Aquifer:	Not Reported		
Well depth:	Not Reported	Hole depth:	510
Source of depth data:	Not Reported		
Project number:	Not Reported		
Real time data flag:	Not Reported	Daily flow data begin date:	Not Reported
Daily flow data end date:	Not Reported	Daily flow data count:	Not Reported
Peak flow data begin date:	Not Reported	Peak flow data end date:	Not Reported
Peak flow data count:	Not Reported	Water quality data begin date:	Not Reported
Water quality data end date:	Not Reported	Water quality data count:	Not Reported
Ground water data begin date:	Not Reported	Ground water data end date:	Not Reported
Ground water data count:	Not Reported		

Ground-water levels, Number of Measurements: 0

**F21**  
**SE**  
 1/2 - 1 Mile  
 Higher

**TN WELLS      TN500000002240**

County nam:	SHELBY	Well numbr:	15709720
Owner name:	MEMPHIS LG & W SH:O-204	Addr line1:	Not Reported
License co:	Not Reported	Cmpltn dat:	06/19/69 12:00:00 A
Latitude:	350922	Cmpltn tot:	Not Reported
Cmpltn est:	Not Reported	Quad numbr:	0404NE9
Driller ta:	Not Reported	Longitude:	900154
Accuracy:	S	Casing fee:	Not Reported
Wbz:	Not Reported	Descriptio:	Test
Site id:	TN500000002240		

**F22**  
**SE**  
 1/2 - 1 Mile  
 Higher

**TN WELLS      TN500000002239**

## GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

County nam:	SHELBY	Well numbr:	15709612
Owner name:	MEMPHIS LG & W SH:O-132	Addr line1:	Not Reported
License co:	Not Reported	Cmpltn dat:	Not Reported
Latitude:	350922	Cmpltn tot:	Not Reported
Cmpltn est:	Not Reported	Quad numbr:	0404NE9
Driller ta:	Not Reported	Longitude:	900154
Accuracy:	S	Casing fee:	Not Reported
Wbz:	Not Reported	Descriptio:	Municipal
Site id:	TN5000000002239		

**G23**  
**East**  
**1/2 - 1 Mile**  
**Higher**

**TN WELLS      TN5000000002306**

County nam:	SHELBY	Well numbr:	15709668
Owner name:	MEMPHIS LG & W SH:O-190	Addr line1:	Not Reported
License co:	Not Reported	Cmpltn dat:	04/05/48 12:00:00 A
Latitude:	350943	Cmpltn tot:	Not Reported
Cmpltn est:	Not Reported	Quad numbr:	0404NE9
Driller ta:	Not Reported	Longitude:	900144
Accuracy:	S	Casing fee:	Not Reported
Wbz:	Not Reported	Descriptio:	Municipal
Site id:	TN5000000002306		

**F24**  
**SE**  
**1/2 - 1 Mile**  
**Higher**

**FED USGS      USGS2475034**

Agency cd:	USGS	Site no:	350921090015302
Site name:	SH:O-132 MLGW	EDR Site id:	USGS2475034
Latitude:	350921	Dec lat:	35.15592297
Longitude:	0900153	Coor meth:	M
Dec lon:	-90.03147959	Latlong datum:	NAD27
Coor accr:	S	District:	47
Dec latlong datum:	NAD83	County:	157
State:	47	Land net:	Not Reported
Country:	US	Map scale:	Not Reported
Location map:	Not Reported		
Altitude:	256		
Altitude method:	Interpolated from topographic map		
Altitude accuracy:	5		
Altitude datum:	National Geodetic Vertical Datum of 1929		
Hydrologic:	Not Reported		
Topographic:	Not Reported		
Site type:	Ground-water other than Spring	Date construction:	Not Reported
Date inventoried:	Not Reported	Mean greenwich time offset:	CST
Local standard time flag:	Y		
Type of ground water site:	Single well, other than collector or Ranney type		
Aquifer Type:	Not Reported		
Aquifer:	Not Reported		
Well depth:	1349	Hole depth:	1387
Source of depth data:	Not Reported		
Project number:	Not Reported		
Real time data flag:	Not Reported	Daily flow data begin date:	Not Reported
Daily flow data end date:	Not Reported	Daily flow data count:	Not Reported
Peak flow data begin date:	Not Reported	Peak flow data end date:	Not Reported



## GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Peak flow data count: Not Reported  
 Water quality data end date: Not Reported  
 Ground water data begin date: Not Reported  
 Ground water data count: Not Reported

Water quality data begin date: Not Reported  
 Water quality data count: Not Reported  
 Ground water data end date: Not Reported

Ground-water levels, Number of Measurements: 0

**F25**  
**SE**  
**1/2 - 1 Mile**  
**Higher**

**FED USGS USGS2475033**

Agency cd:	USGS	Site no:	350921090015301
Site name:	SH:O-179	EDR Site id:	USGS2475033
Latitude:	350921	Dec lat:	35.15592297
Longitude:	0900153	Coor meth:	M
Dec lon:	-90.03147959	Latlong datum:	NAD27
Coor accr:	U	District:	47
Dec latlong datum:	NAD83	County:	157
State:	47	Land net:	Not Reported
Country:	US	Map scale:	Not Reported
Location map:	Not Reported		
Altitude:	Not Reported		
Altitude method:	Not Reported		
Altitude accuracy:	Not Reported		
Altitude datum:	Not Reported		
Hydrologic:	Wolf, Mississippi, Tennessee. Area = 813 sq.mi.		
Topographic:	Not Reported		
Site type:	Ground-water other than Spring	Date construction:	Not Reported
Date inventoried:	Not Reported	Mean greenwich time offset:	CST
Local standard time flag:	Y		
Type of ground water site:	Single well, other than collector or Ranney type		
Aquifer Type:	Not Reported		
Aquifer:	FORT PILLOW SAND		
Well depth:	Not Reported	Hole depth:	Not Reported
Source of depth data:	Not Reported		
Project number:	Not Reported		
Real time data flag:	0		
Daily flow data end date:	0000-00-00	Daily flow data begin date:	0000-00-00
Daily flow data count:	0		
Peak flow data begin date:	0000-00-00	Peak flow data end date:	0000-00-00
Peak flow data count:	0		
Water quality data end date:	1947-04-29	Water quality data begin date:	1925-05-09
Water quality data count:	2		
Ground water data begin date:	0000-00-00	Ground water data end date:	0000-00-00
Ground water data count:	0		

Ground-water levels, Number of Measurements: 0

**F26**  
**SE**  
**1/2 - 1 Mile**  
**Higher**

**FED USGS USGS2475032**

## GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Agency cd:	USGS	Site no:	350921090015300
Site name:	SH:O-179 MALLORY, MEMPHIS, TN		
Latitude:	350921	EDR Site id:	USGS2475032
Longitude:	0900153	Dec lat:	35.15592297
Dec lon:	-90.03147959	Coor meth:	M
Coor accr:	S	Latlong datum:	NAD27
Dec latlong datum:	NAD83	District:	47
State:	47	County:	157
Country:	US	Land net:	Not Reported
Location map:	NORTHWEST MEMPHIS	Map scale:	24000
Altitude:	256.7		
Altitude method:	Level or other surveying method		
Altitude accuracy:	1		
Altitude datum:	National Geodetic Vertical Datum of 1929		
Hydrologic:	Wolf, Mississippi, Tennessee. Area = 813 sq.mi.		
Topographic:	Not Reported		
Site type:	Ground-water other than Spring	Date construction:	Not Reported
Date inventoried:	Not Reported	Mean greenwich time offset:	CST
Local standard time flag:	Y		
Type of ground water site:	Single well, other than collector or Ranney type		
Aquifer Type:	Confined single aquifer		
Aquifer:	CLAIBORNE GROUP		
Well depth:	472	Hole depth:	482
Source of depth data:	reporting agency (generally USGS)		
Project number:	Not Reported		
Real time data flag:	0	Daily flow data begin date:	0000-00-00
Daily flow data end date:	0000-00-00	Daily flow data count:	0
Peak flow data begin date:	0000-00-00	Peak flow data end date:	0000-00-00
Peak flow data count:	0	Water quality data begin date:	0000-00-00
Water quality data end date:	0000-00-00	Water quality data count:	0
Ground water data begin date:	2000-06-26	Ground water data end date:	2005-02-01
Ground water data count:	55		

Ground-water levels, Number of Measurements: 55

Date	Feet below Surface	Feet to Sealevel	Date	Feet below Surface	Feet to Sealevel
2005-02-01	67.28		2004-12-20	68.58	
2004-11-30	68.94		2004-10-28	69.28	
2004-09-27	69.27		2004-09-02	68.79	
2004-07-29	67.57		2004-06-29	67.59	
2004-05-27	67.34		2004-04-29	67.26	
2004-03-31	67.44		2004-03-04	67.85	
2004-01-22	68.67		2003-12-17	69.21	
2003-12-04	69.10		2003-10-29	69.84	
2003-09-30	69.86		2003-09-02	69.13	
2003-07-30	68.12		2003-06-27	67.26	
2003-05-27	67.15		2003-04-30	67.50	
2003-04-03	67.44		2003-03-04	68.14	
2003-01-30	68.79		2002-12-18	69.20	
2002-11-25	69.82		2002-10-30	69.97	
2002-10-03	70.25		2002-09-03	69.80	
2002-08-02	69.05		2002-06-28	68.28	
2002-05-30	67.86		2002-05-01	68.75	
2002-03-29	69.55		2002-02-28	70.32	
2002-01-31	70.95		2002-01-04	71.48	
2001-12-07	72.80		2001-11-01	73.40	
2001-09-27	73.95		2001-08-29	73.55	
2001-08-02	73.02		2001-07-02	71.82	

## GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Ground-water levels, continued.

Date	Feet below Surface	Feet to Sealevel	Date	Feet below Surface	Feet to Sealevel
2001-05-30	71.85		2001-05-04	72.18	
2001-04-04	72.40		2001-02-28	73.85	
2001-02-02	74.74		2001-01-03	74.36	
2000-12-01	74.72		2000-10-31	74.70	
2000-09-08	73.57		2000-08-02	71.43	
2000-06-26	71.24				

**27**  
**SE**  
**1/2 - 1 Mile**  
**Lower**

**TN WELLS TN500000002178**

County nam:	SHELBY	Well numbr:	15701028
Owner name:	MEMPHIS LG & W	Addr line1:	1043 N. PARKWAY
License co:	Not Reported	Cmpltn dat:	10/10/73 12:00:00 A
Latitude:	350915	Cmpltn tot:	Not Reported
Cmpltn est:	Not Reported	Quad numbr:	0404NE9
Driller ta:	Not Reported	Longitude:	900200
Accuracy:	T	Casing fee:	Not Reported
Wbzs:	Not Reported	Descriptio:	Municipal
Site id:	TN500000002178		

**G28**  
**East**  
**1/2 - 1 Mile**  
**Higher**

**FED USGS USGS2474874**

Agency cd:	USGS	Site no:	350942090014301
Site name:	SH:O-190 MLGW-MALLORY	EDR Site id:	USGS2474874
Latitude:	350942	Dec lat:	35.16175618
Longitude:	0900143	Coor meth:	M
Dec lon:	-90.02870171	Latlong datum:	NAD27
Coor accr:	U	District:	47
Dec latlong datum:	NAD83	County:	157
State:	47	Land net:	Not Reported
Country:	US	Map scale:	Not Reported
Location map:	Not Reported		
Altitude:	250.00		
Altitude method:	Unknown		
Altitude accuracy:	Not Reported		
Altitude datum:	National Geodetic Vertical Datum of 1929		
Hydrologic:	Wolf, Mississippi, Tennessee. Area = 813 sq.mi.		
Topographic:	Not Reported		
Site type:	Ground-water other than Spring	Date construction:	Not Reported
Date inventoried:	Not Reported	Mean greenwich time offset:	CST
Local standard time flag:	Y		
Type of ground water site:	Single well, other than collector or Ranney type		
Aquifer Type:	Not Reported		
Aquifer:	MEMPHIS SAND		
Well depth:	638	Hole depth:	Not Reported
Source of depth data:	Not Reported		
Project number:	Not Reported		
Real time data flag:	0	Daily flow data begin date:	0000-00-00
Daily flow data end date:	0000-00-00	Daily flow data count:	0
Peak flow data begin date:	0000-00-00	Peak flow data end date:	0000-00-00

## GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Peak flow data count: 0  
 Water quality data end date: 1951-04-02  
 Ground water data begin date: 0000-00-00  
 Ground water data count: 0

Water quality data begin date: 1930-08-22  
 Water quality data count: 2  
 Ground water data end date: 0000-00-00

Ground-water levels, Number of Measurements: 0

**29**  
**North**  
**1/2 - 1 Mile**  
**Lower**

**TN WELLS      TN5000000002587**

County nam:	SHELBY	Well numbr:	15709503
Owner name:	ANDERSONTTULLSS, H0020	Addr line1:	Not Reported
License co:	Not Reported	Cmpltn dat:	Not Reported
Latitude:	351032	Cmpltn tot:	Not Reported
Cmpltn est:	Not Reported	Quad numbr:	0404NE5
Driller ta:	Not Reported	Longitude:	900235
Accuracy:	<b>S</b>	Casing fee:	Not Reported
Wbz:	Not Reported	Descriptio:	Industrial
Site id:	TN5000000002587		

**G30**  
**East**  
**1/2 - 1 Mile**  
**Higher**

**TN WELLS      TN5000000002311**

County nam:	SHELBY	Well numbr:	15709661
Owner name:	MEMPHIS LG & W SH:O-183	Addr line1:	Not Reported
License co:	Not Reported	Cmpltn dat:	Not Reported
Latitude:	350945	Cmpltn tot:	Not Reported
Cmpltn est:	Not Reported	Quad numbr:	0404NE9
Driller ta:	Not Reported	Longitude:	900140
Accuracy:	<b>S</b>	Casing fee:	Not Reported
Wbz:	Not Reported	Descriptio:	Municipal
Site id:	TN5000000002311		

**H31**  
**North**  
**1/2 - 1 Mile**  
**Lower**

**TN WELLS      TN5000000002594**

County nam:	SHELBY	Well numbr:	15709502
Owner name:	ANDERSN TULL SH:0-19	Addr line1:	Not Reported
License co:	Not Reported	Cmpltn dat:	Not Reported
Latitude:	351034	Cmpltn tot:	Not Reported
Cmpltn est:	Not Reported	Quad numbr:	0404NE5
Driller ta:	Not Reported	Longitude:	900243
Accuracy:	<b>S</b>	Casing fee:	Not Reported
Wbz:	Not Reported	Descriptio:	Industrial
Site id:	TN5000000002594		

**H32**  
**North**  
**1/2 - 1 Mile**  
**Lower**

**TN WELLS      TN5000000002593**

## GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

County nam:	SHELBY	Well numbr:	15709501
Owner name:	ANDERSON TUL SH:0-18	Addr line1:	Not Reported
License co:	Not Reported	Cmpltn dat:	Not Reported
Latitude:	351034	Cmpltn tot:	Not Reported
Cmpltn est:	Not Reported	Quad numbr:	0404NE5
Driller ta:	Not Reported	Longitude:	900244
Accuracy:	S	Casing fee:	Not Reported
Wbz:	Not Reported	Descriptio:	Other
Site id:	TN5000000002593		

**H33**  
**North**  
**1/2 - 1 Mile**  
**Lower**

**FED USGS      USGS2474833**

Agency cd:	USGS	Site no:	351033090024000
Site name:	SH:O- 18 ANDERSON-TULLY		
Latitude:	351034	EDR Site id:	USGS2474833
Longitude:	0900243	Dec lat:	35.17620043
Dec lon:	-90.0453687	Coor meth:	M
Coor accr:	S	Latlong datum:	NAD27
Dec latlong datum:	NAD83	District:	47
State:	47	County:	157
Country:	US	Land net:	Not Reported
Location map:	Not Reported	Map scale:	Not Reported
Altitude:	235		
Altitude method:	Interpolated from topographic map		
Altitude accuracy:	5		
Altitude datum:	National Geodetic Vertical Datum of 1929		
Hydrologic:	Wolf, Mississippi, Tennessee. Area = 813 sq.mi.		
Topographic:	Not Reported		
Site type:	Ground-water other than Spring	Date construction:	Not Reported
Date inventoried:	Not Reported	Mean greenwich time offset:	CST
Local standard time flag:	Y		
Type of ground water site:	Single well, other than collector or Ranney type		
Aquifer Type:	Not Reported		
Aquifer:	Not Reported		
Well depth:	Not Reported	Hole depth:	350
Source of depth data:	Not Reported		
Project number:	Not Reported		
Real time data flag:	Not Reported	Daily flow data begin date:	Not Reported
Daily flow data end date:	Not Reported	Daily flow data count:	Not Reported
Peak flow data begin date:	Not Reported	Peak flow data end date:	Not Reported
Peak flow data count:	Not Reported	Water quality data begin date:	Not Reported
Water quality data end date:	Not Reported	Water quality data count:	Not Reported
Ground water data begin date:	Not Reported	Ground water data end date:	Not Reported
Ground water data count:	Not Reported		

Ground-water levels, Number of Measurements: 0

**I34**  
**NE**  
**1/2 - 1 Mile**  
**Lower**

**TN WELLS      TN5000000002562**

## GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

County nam:	SHELBY	Well numbr:	15709592
Owner name:	NATL CYLIND SH:0-110	Addr line1:	Not Reported
License co:	Not Reported	Cmpltn dat:	Not Reported
Latitude:	351025	Cmpltn tot:	Not Reported
Cmpltn est:	Not Reported	Quad numbr:	0404NE6
Driller ta:	Not Reported	Longitude:	900202
Accuracy:	S	Casing fee:	Not Reported
Wbz:	Not Reported	Descriptio:	Industrial
Site id:	TN5000000002562		

**35**  
**East**  
**1/2 - 1 Mile**  
**Higher**

**TN WELLS      TN5000000002329**

County nam:	SHELBY	Well numbr:	15709662
Owner name:	MEMPHIS LG & W SH:O-184	Addr line1:	Not Reported
License co:	Not Reported	Cmpltn dat:	03/15/44 12:00:00 A
Latitude:	350952	Cmpltn tot:	Not Reported
Cmpltn est:	Not Reported	Quad numbr:	0404NE9
Driller ta:	Not Reported	Longitude:	900139
Accuracy:	S	Casing fee:	Not Reported
Wbz:	Not Reported	Descriptio:	Municipal
Site id:	TN5000000002329		

**136**  
**NE**  
**1/2 - 1 Mile**  
**Lower**

**FED USGS      USGS2474803**

Agency cd:	USGS	Site no:	351026090020300
Site name:	SH:O-110		
Latitude:	351026	EDR Site id:	USGS2474803
Longitude:	0900203	Dec lat:	35.17397819
Dec lon:	-90.03425732	Coor meth:	M
Coor accr:	S	Latlong datum:	NAD27
Dec latlong datum:	NAD83	District:	47
State:	47	County:	157
Country:	US	Land net:	Not Reported
Location map:	Not Reported	Map scale:	Not Reported
Altitude:	238		
Altitude method:	Interpolated from topographic map		
Altitude accuracy:	5		
Altitude datum:	National Geodetic Vertical Datum of 1929		
Hydrologic:	Wolf, Mississippi, Tennessee. Area = 813 sq.mi.		
Topographic:	Not Reported		
Site type:	Ground-water other than Spring	Date construction:	Not Reported
Date inventoried:	Not Reported	Mean greenwich time offset:	CST
Local standard time flag:	Y		
Type of ground water site:	Single well, other than collector or Ranney type		
Aquifer Type:	Not Reported		
Aquifer:	Not Reported		
Well depth:	333	Hole depth:	Not Reported
Source of depth data:	Not Reported		
Project number:	Not Reported		
Real time data flag:	Not Reported	Daily flow data begin date:	Not Reported
Daily flow data end date:	Not Reported	Daily flow data count:	Not Reported
Peak flow data begin date:	Not Reported	Peak flow data end date:	Not Reported



## GEOCHECK<sup>®</sup> - PHYSICAL SETTING SOURCE MAP FINDINGS

Peak flow data count: Not Reported  
 Water quality data end date: Not Reported  
 Ground water data begin date: Not Reported  
 Ground water data count: Not Reported

Water quality data begin date: Not Reported  
 Water quality data count: Not Reported  
 Ground water data end date: Not Reported

Ground-water levels, Number of Measurements: 0

**J37**  
**SE**  
 1/2 - 1 Mile  
 Higher

**TN WELLS      TN5000000002196**

County nam:	SHELBY	Well numbr:	15709712
Owner name:	MEMPHIS LG & W SH:O-220	Addr liine1:	Not Reported
License co:	Not Reported	Cmpltn dat:	06/12/73 12:00:00 A
Latitude:	350916	Cmpltn tot:	Not Reported
Cmpltn est:	Not Reported	Quad numbr:	0404NE9
Driller ta:	Not Reported	Longitude:	900152
Accuracy:	S	Casing fee:	Not Reported
Wbz:	Not Reported	Descriptio:	Test
Site id:	TN5000000002196		

**J38**  
**SE**  
 1/2 - 1 Mile  
 Higher

**FED USGS      USGS2474995**

Agency cd:	USGS	Site no:	350916090015100
Site name:	SH:O-220	EDR Site id:	USGS2474995
Latitude:	350916	Dec lat:	35.15453411
Longitude:	0900151	Coor meth:	M
Dec lon:	-90.03092403	Latlong datum:	NAD27
Coor accr:	U	District:	47
Dec latlong datum:	NAD83	County:	157
State:	47	Land net:	Not Reported
Country:	US	Map scale:	Not Reported
Location map:	Not Reported		
Altitude:	Not Reported		
Altitude method:	Not Reported		
Altitude accuracy:	Not Reported		
Altitude datum:	Not Reported		
Hydrologic:	Wolf. Mississippi, Tennessee. Area = 813 sq.mi.		
Topographic:	Not Reported		
Site type:	Ground-water other than Spring	Date construction:	Not Reported
Date inventoried:	Not Reported	Mean greenwich time offset:	CST
Local standard time flag:	Y		
Type of ground water site:	Single well, other than collector or Ranney type		
Aquifer Type:	Not Reported		
Aquifer:	Not Reported		
Well depth:	Not Reported	Hole depth:	Not Reported
Source of depth data:	Not Reported		
Project number:	Not Reported		
Real time data flag:	Not Reported	Daily flow data begin date:	Not Reported
Daily flow data end date:	Not Reported	Daily flow data count:	Not Reported
Peak flow data begin date:	Not Reported	Peak flow data end date:	Not Reported
Peak flow data count:	Not Reported	Water quality data begin date:	Not Reported
Water quality data end date:	Not Reported	Water quality data count:	Not Reported
Ground water data begin date:	Not Reported	Ground water data end date:	Not Reported
Ground water data count:	Not Reported		

Ground-water levels, Number of Measurements: 0

## GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Map ID  
Direction  
Distance  
Elevation

Database      EDR ID Number

**J39**  
**SE**  
**1/2 - 1 Mile**  
**Higher**

**FED USGS      USGS2474996**

Agency cd:	USGS	Site no:	350916090015101
Site name:	SH:O-220 MLGW Parkway	EDR Site id:	USGS2474996
Latitude:	350916	Dec lat:	35.15453411
Longitude:	0900151	Coor meth:	M
Dec lon:	-90.03092403	Latlong datum:	NAD27
Coor accr:	S	District:	47
Dec latlong datum:	NAD83	County:	157
State:	47	Land net:	Not Reported
Country:	US	Map scale:	Not Reported
Location map:	Not Reported		
Altitude:	253		
Altitude method:	Interpolated from topographic map		
Altitude accuracy:	5		
Altitude datum:	National Geodetic Vertical Datum of 1929		
Hydrologic:	Not Reported		
Topographic:	Not Reported		
Site type:	Ground-water other than Spring	Date construction:	Not Reported
Date inventoried:	Not Reported	Mean greenwich time offset:	CST
Local standard time flag:	Y		
Type of ground water site:	Single well, other than collector or Ranney type		
Aquifer Type:	Not Reported		
Aquifer:	Not Reported		
Well depth:	Not Reported	Hole depth:	854
Source of depth data:	Not Reported		
Project number:	Not Reported		
Real time data flag:	Not Reported	Daily flow data begin date:	Not Reported
Daily flow data end date:	Not Reported	Daily flow data count:	Not Reported
Peak flow data begin date:	Not Reported	Peak flow data end date:	Not Reported
Peak flow data count:	Not Reported	Water quality data begin date:	Not Reported
Water quality data end date:	Not Reported	Water quality data count:	Not Reported
Ground water data begin date:	Not Reported	Ground water data end date:	Not Reported
Ground water data count:	Not Reported		

Ground-water levels, Number of Measurements: 0

**J40**  
**SE**  
**1/2 - 1 Mile**  
**Higher**

**TN WELLS      TN500000002205**

County nam:	SHELBY	Well numbr:	15709610
Owner name:	MEMPHIS LG & W SH:O-130	Addr line1:	Not Reported
License co:	Not Reported	Cmpltn dat:	Not Reported
Latitude:	350917	Cmpltn tot:	Not Reported
Cmpltn est:	Not Reported	Quad numbr:	0404NE9
Driller ta:	Not Reported	Longitude:	900150
Accuracy:	S	Casing fee:	Not Reported
Wbz:	Not Reported	Descriptio:	Municipal
Site id:	TN500000002205		

## GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Map ID  
Direction  
Distance  
Elevation

**K41**  
**ESE**  
**1/2 - 1 Mile**  
**Higher**

Database      EDR ID Number

**TN WELLS      TN5000000002286**

County nam:	SHELBY	Well numbr:	15709667
Owner name:	MEMPHIS LG & W SH:O-189	Addr line1:	Not Reported
License co:	Not Reported	Cmpltn dat:	04/16/48 12:00:00 A
Latitude:	350935	Cmpltn tot:	Not Reported
Cmpltn est:	Not Reported	Quad numbr:	0404NE9
Driller ta:	Not Reported	Longitude:	900139
Accuracy:	S	Casing fee:	Not Reported
Wbz:	Not Reported	Descriptio:	Municipal
Site id:	TN5000000002286		

**K42**  
**ESE**  
**1/2 - 1 Mile**  
**Higher**

**TN WELLS      TN5000000002287**

County nam:	SHELBY	Well numbr:	20041112
Owner name:	MEMPHIS LIGHT, GAS AND WATER	Addr line1:	720 AYERS STREET
License co:	Not Reported	Cmpltn dat:	04/01/04 12:00:00 A
Latitude:	350935	Cmpltn tot:	Not Reported
Cmpltn est:	Not Reported	Quad numbr:	0404NE9
Driller ta:	D0066954	Longitude:	900139
Accuracy:	Not Reported	Casing fee:	Not Reported
Wbz:	Not Reported	Descriptio:	Municipal
Site id:	TN5000000002287		

**K43**  
**ESE**  
**1/2 - 1 Mile**  
**Higher**

**FED USGS      USGS2474853**

Agency cd:	USGS	Site no:	350936090013901
Site name:	Sh:O-251 MLGW 46A	EDR Site id:	USGS2474853
Latitude:	350935.6	Dec lat:	35.15988889
Longitude:	0900138.7	Coor meth:	G
Dec lon:	-90.02741667	Latlong datum:	NAD83
Coor accr:	5	District:	47
Dec latlong datum:	NAD83	County:	157
State:	47	Land net:	Not Reported
Country:	US	Map scale:	24000
Location map:	Northwest Memphis		
Altitude:	251		
Altitude method:	Interpolated from topographic map		
Altitude accuracy:	5		
Altitude datum:	National Geodetic Vertical Datum of 1929		
Hydrologic:	Not Reported		
Topographic:	Flat surface		
Site type:	Ground-water other than Spring	Date construction:	Not Reported
Date inventoried:	20040214	Mean greenwich time offset:	CST

## GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Local standard time flag:	Y		
Type of ground water site:	Single well, other than collector or Ranney type		
Aquifer Type:	Confined single aquifer		
Aquifer:	MEMPHIS SAND		
Well depth:	Not Reported	Hole depth:	1557
Source of depth data:	driller		
Project number:	Not Reported		
Real time data flag:	Not Reported	Daily flow data begin date:	Not Reported
Daily flow data end date:	Not Reported	Daily flow data count:	Not Reported
Peak flow data begin date:	Not Reported	Peak flow data end date:	Not Reported
Peak flow data count:	Not Reported	Water quality data begin date:	Not Reported
Water quality data end date:	Not Reported	Water quality data count:	Not Reported
Ground water data begin date:	Not Reported	Ground water data end date:	Not Reported
Ground water data count:	Not Reported		

Ground-water levels, Number of Measurements: 0

**J44**  
SE  
1/2 - 1 Mile  
Higher

TN WELLS      TN500000002179

County nam:	SHELBY	Well numbr:	15709650
Owner name:	MEMPHIS LG & W SH:O-171	Addr line1:	Not Reported
License co:	Not Reported	Cmpltn dat:	Not Reported
Latitude:	350915	Cmpltn tot:	Not Reported
Cmpltn est:	Not Reported	Quad numbr:	0404NE9
Driller ta:	Not Reported	Longitude:	900151
Accuracy:	S	Casing fee:	Not Reported
Wbz:	Not Reported	Descriptio:	Municipal
Site id:	TN500000002179		

**J45**  
SE  
1/2 - 1 Mile  
Higher

TN WELLS      TN500000002206

County nam:	SHELBY	Well numbr:	15709611
Owner name:	MEMPHIS LG & W SH:O-131	Addr line1:	Not Reported
License co:	Not Reported	Cmpltn dat:	Not Reported
Latitude:	350917	Cmpltn tot:	Not Reported
Cmpltn est:	Not Reported	Quad numbr:	0404NE9
Driller ta:	Not Reported	Longitude:	900149
Accuracy:	S	Casing fee:	Not Reported
Wbz:	Not Reported	Descriptio:	Municipal
Site id:	TN500000002206		

**J46**  
SE  
1/2 - 1 Mile  
Higher

FED USGS      USGS2474994

## GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Agency cd:	USGS	Site no:	350916090014901
Site name:	SH:O-244	EDR Site id:	USGS2474994
Latitude:	350916	Dec lat:	35.15453411
Longitude:	0900149	Coor meth:	M
Dec lon:	-90.03036846	Latlong datum:	NAD27
Coor accr:	S	District:	47
Dec latlong datum:	NAD83	County:	157
State:	47	Land net:	7 S T R
Country:	US	Map scale:	24000
Location map:	NORTHWEST MEMPHIS		
Altitude:	252.0		
Altitude method:	Interpolated from topographic map		
Altitude accuracy:	5		
Altitude datum:	National Geodetic Vertical Datum of 1929		
Hydrologic:	Not Reported		
Topographic:	Flat surface		
Site type:	Ground-water other than Spring	Date construction:	Not Reported
Date inventoried:	Not Reported	Mean greenwich time offset:	CST
Local standard time flag:	Y		
Type of ground water site:	Single well, other than collector or Ranney type		
Aquifer Type:	Not Reported		
Aquifer:	TERRACE (AND SURFICIAL) DEPOSITS		
Well depth:	93.0	Hole depth:	107
Source of depth data:	Not Reported		
Project number:	Not Reported		
Real time data flag:	Not Reported		
Daily flow data end date:	Not Reported		
Peak flow data begin date:	Not Reported		
Peak flow data count:	Not Reported		
Water quality data end date:	Not Reported		
Ground water data begin date:	Not Reported		
Ground water data count:	Not Reported		

Ground-water levels, Number of Measurements: 0

**J47**  
**SE**  
**1/2 - 1 Mile**  
**Higher**

**TN WELLS      TN5000000002197**

County nam:	SHELBY	Well numbr:	15709653
Owner name:	MEMPHIS LG & W SH:O-174	Addr line1:	Not Reported
License co:	Not Reported	Cmpltn dat:	Not Reported
Latitude:	350916	Cmpltn tot:	Not Reported
Cmpltn est:	Not Reported	Quad numbr:	0404NE9
Driller ta:	Not Reported	Longitude:	900149
Accuracy:	S	Casing fee:	Not Reported
Wbz:	Not Reported	Descriptio:	Municipal
Site id:	TN5000000002197		

**J48**  
**SE**  
**1/2 - 1 Mile**  
**Higher**

**TN WELLS      TN5000000002163**

## GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

County nam:	SHELBY	Well numbr:	15709649
Owner name:	MEMPHIS LG & W SH:O-170	Addr line1:	Not Reported
License co:	Not Reported	Cmpltn dat:	Not Reported
Latitude:	350914	Cmpltn tot:	Not Reported
Cmpltn est:	Not Reported	Quad numbr:	0404NE9
Driller ta:	Not Reported	Longitude:	900151
Accuracy:	S	Casing fee:	Not Reported
Wbz:	Not Reported	Descriptio:	Municipal
Site id:	TN5000000002163		

**K49  
ESE  
1/2 - 1 Mile  
Higher**

**FED USGS      USGS2474850**

Agency cd:	USGS	Site no:	350935090013701
Site name:	SH:O-182		
Latitude:	350935	EDR Site id:	USGS2474850
Longitude:	0900137	Dec lat:	35.15981176
Dec lon:	-90.02703501	Coor meth:	M
Coor accr:	S	Latlong datum:	NAD27
Dec latlong datum:	NAD83	District:	47
State:	47	County:	157
Country:	US	Land net:	Not Reported
Location map:	NORTHWEST MEMPHIS	Map scale:	Not Reported
Altitude:	Not Reported		
Altitude method:	Not Reported		
Altitude accuracy:	Not Reported		
Altitude datum:	Not Reported		
Hydrologic:	Wolf. Mississippi, Tennessee. Area = 813 sq.mi.		
Topographic:	Not Reported		
Site type:	Ground-water other than Spring	Date construction:	Not Reported
Date inventoried:	Not Reported	Mean greenwich time offset:	CST
Local standard time flag:	Y		
Type of ground water site:	Single well, other than collector or Ranney type		
Aquifer Type:	Not Reported		
Aquifer:	MEMPHIS SAND		
Well depth:	Not Reported	Hole depth:	Not Reported
Source of depth data:	Not Reported		
Project number:	Not Reported		
Real time data flag:	0	Daily flow data begin date:	0000-00-00
Daily flow data end date:	0000-00-00	Daily flow data count:	0
Peak flow data begin date:	0000-00-00	Peak flow data end date:	0000-00-00
Peak flow data count:	0	Water quality data begin date:	1945-04-30
Water quality data end date:	1979-09-17	Water quality data count:	8
Ground water data begin date:	0000-00-00	Ground water data end date:	0000-00-00
Ground water data count:	0		

Ground-water levels, Number of Measurements: 0

**J50  
SE  
1/2 - 1 Mile  
Higher**

**FED USGS      USGS2474993**



## GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

County nam:	SHELBY	Well numbr:	15709648
Owner name:	MEMPHIS LG & W SH:O-169	Addr line1:	Not Reported
License co:	Not Reported	Cmpltn dat:	05/06/42 12:00:00 A
Latitude:	350914	Cmpltn tot:	Not Reported
Cmpltn est:	Not Reported	Quad numbr:	0404NE9
Driller ta:	Not Reported	Longitude:	900148
Accuracy:	S	Casing fee:	Not Reported
Wbz:	Not Reported	Descriptio:	Municipal
Site id:	TN5000000002165		

# PHYSICAL SETTING SOURCE RECORDS SEARCHED

## LOCAL / REGIONAL WATER AGENCY RECORDS

### FEDERAL WATER WELLS

#### PWS: Public Water Systems

Source: EPA/Office of Drinking Water

Telephone: 202-564-3750

Public Water System data from the Federal Reporting Data System. A PWS is any water system which provides water to at least 25 people for at least 60 days annually. PWSs provide water from wells, rivers and other sources.

#### PWS ENF: Public Water Systems Violation and Enforcement Data

Source: EPA/Office of Drinking Water

Telephone: 202-564-3750

Violation and Enforcement data for Public Water Systems from the Safe Drinking Water Information System (SDWIS) after August 1995. Prior to August 1995, the data came from the Federal Reporting Data System (FRDS).

#### USGS Water Wells: USGS National Water Inventory System (NWIS)

This database contains descriptive information on sites where the USGS collects or has collected data on surface water and/or groundwater. The groundwater data includes information on wells, springs, and other sources of groundwater.

### STATE RECORDS

#### County Water Wells in Tennessee

Source: Department of Environment and Conservation

Telephone: 615-532-0191

Water well locations in the following counties - Anderson, Blount, Bradley, Coffee, Cumberland, Davidson, Dickson, Hamilton, Hamblen, Jefferson, Knox, Loudon, Montgomery, Maury, Madison, Putman, Robertson, Rutherford, Shelby, Sevier, Sumner, Sullivan, Washington, Wilson, Williamson.

## OTHER STATE DATABASE INFORMATION

### RADON

#### State Database: TN Radon

Source: Department of Environment & Conservation

Telephone: 615-299-9725

Radon Test Results

#### Area Radon Information

Source: USGS

Telephone: 703-356-4020

The National Radon Database has been developed by the U.S. Environmental Protection Agency (USEPA) and is a compilation of the EPA/State Residential Radon Survey and the National Residential Radon Survey. The study covers the years 1986 - 1992. Where necessary data has been supplemented by information collected at private sources such as universities and research institutions.

#### EPA Radon Zones

Source: EPA

Telephone: 703-356-4020

Sections 307 & 309 of IRAA directed EPA to list and identify areas of U.S. with the potential for elevated indoor radon levels.

### OTHER

#### Airport Landing Facilities: Private and public use landing facilities

Source: Federal Aviation Administration, 800-457-6656

#### Epicenters: World earthquake epicenters, Richter 5 or greater

Source: Department of Commerce, National Oceanic and Atmospheric Administration

## PHYSICAL SETTING SOURCE RECORDS SEARCHED

### STREET AND ADDRESS INFORMATION

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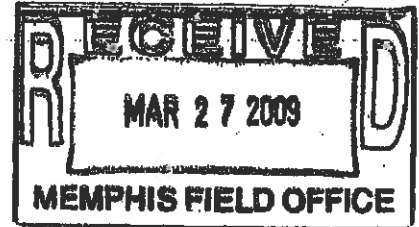
**E. Tennessee Department of Environment and  
Conservation (TDEC) File Review**



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY  
REGION 4

Science and Ecosystem Support Division  
Enforcement and Investigations Branch  
980 College Station Road  
Athens, Georgia 30605-2720

February 17, 2009



4SESD-EIB

MEMORANDUM

**SUBJECT:** Final Report for Old Cummins Diesel Study  
Memphis, Shelby County, Tennessee  
SESD Project No. 09-0090

**FROM:** Tim Slagle, Environmental Scientist  
Superfund and Air Section

**THRU:** Mike Bowden, Chief  
Superfund and Air Section

**TO:** John Nolen, Remedial Project Manager  
Superfund Division

Attached is the investigation report for the Old Cummins Diesel Site in Memphis, Tennessee. The sampling investigation was conducted December 9-12, 2008.

Included in the report are the summary tables of the volatile organic compound (VOC) analytical results for the soil and soil gas samples collected (Tables 4 to 9b), the site sampling location maps (Appendix A), and selected photographs of the study (Appendix B). In addition, the SESD Laboratory analytical datasheets are attached as (Appendix C). If you have any questions, please give me a call at 355-8741.

Attachment

cc: Archie Lee

**United States Environmental Protection Agency  
Region 4**

Science and Ecosystem Support Division  
980 College Station Road  
Athens, Georgia 30605-2720



---

**Report**

**Old Cummins Diesel Site**

**Memphis, Shelby County, Tennessee**

**Date of Study: December 10-12, 2008**

**SESD Project Identification Number: 00-0090**

---

**Requestor: John Nolen**  
Superfund Division  
USEPA  
61 Forsyth St. SW  
Atlanta, Georgia 30303-8960

**SESD Project Leader: Tim Slagle**  
Enforcement and Investigations Branch  
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980 College Station Road  
Athens, Georgia 30605-2720



**United States Environmental Protection Agency  
Region 4**

Science and Ecosystem Support Division  
980 College Station Road  
Athens, Georgia 30605-2720



---

**Report**

**Old Cummins Diesel Site**

**Memphis, Shelby County, Tennessee**

**Date of Study: December 10-12, 2008**

**SESD Project Identification Number: 00-0090**

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**Requestor: John Nolen**  
Superfund Division  
USEPA  
61 Forsyth St. SW  
Atlanta, Georgia 30303-8960

**SESD Project Leader: Tim Slagle**  
Enforcement and Investigations Branch  
USEPA  
980 College Station Road  
Athens, Georgia 30605-2720

**Title and Approval Sheet**

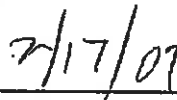
Title: Report, Old Cummins Diesel Site,  
Memphis, Shelby County, Tennessee

Document Type: Investigation Final Report

**Approving Official:**



Mike Bowden, Chief  
Air and Superfund Section  
Enforcement and Investigations Branch

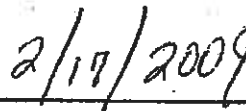


Date

**SESD Project Leader:**



Tim Slagle, Regional Expert  
Air and Superfund Section  
Enforcement and Investigations Branch



Date

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**OLD CUMMINS DIESEL SITE  
SOIL AND SOIL GAS STUDY**

**Memphis, Tennessee  
December 10-12, 2008**

**SESD Project # 09-0090**

**INTRODUCTION**

On December 10-12, 2008, Tim Slagle, Marty Allen and Mike Crowe, Region 4, Science and Ecosystem Support Division (SESD), along with ILS support staff, collected soil and soil gas samples at the Old Cummins Diesel Site in Memphis Tennessee. SESD was responsible for collecting surface soil, sub-surface soil and soil gas samples for volatile organic compound (VOC) analysis. The investigation was requested by John Nolen, Remedial Project Manager, EPA Region 4, Superfund Branch.

**SITE BACKGROUND**

The Old Cummins Diesel site is located at 812 North Main Street in Memphis, Shelby County, Tennessee (Figure 1). The coordinates for the location of the former Cummins Diesel/Stevens Electric building are North 35° 09' 51.5" latitude and West 90° 02' 41.0" longitude.

The land use surrounding the site is a mixture of industrial and commercial warehousing and residential neighborhoods. North Main Street, industrial warehouses, and a parking lot for City of Memphis employees border the site to the west. An engine cleaning chemicals manufacturing company, a commercial fast food establishment, and a church border the site to the south. Economy apartments, a daycare center, and North Second Street border the site to the east. Economy apartments and industrial warehouses border the site to the north.

The site is currently zoned industrial; however, the current owner, Greenmark LLC, purchased the property with the intent of redeveloping it for residential reuse. The site currently stands vacant and is completely surrounded by a combination of chain-link and sheet metal fencing with a locked gate. When the site was originally proposed for investigation, the boundary of the site was strictly associated with 812 North Main Street and the 0.9 acres this property encompasses. However, upon review of past operational activities at the surrounding property previously owned by Stevens Electric Company and currently owned by Greenmark LLC, the site boundaries were expanded to include approximately 1.6 additional acres of property. The site now encompasses approximately 2.5 acres.

Storm water run-off flows southwest from the site and appears to enter a storm sewer just north of the intersection of North Main Street and Saffarans. From there, storm water likely enters an aqueduct at North Main and Greenlaw that subsequently discharges to the Wolf River Harbor.

## Regional Geology and Hydrogeology

The site is located in Memphis, Shelby County, Tennessee, which is situated along the Mississippi River valley in the southwestern corner of the state. Shelby County occupies an area of 480,640 acres [751 square miles ( $\text{mi}^2$ )], and has an average altitude of 300 feet above mean sea level (amsl), with the highest altitude at 400 ft amsl in the southeastern edge of the county. The westernmost 10 percent of the county is on the Mississippi River flood plain, which ranges between 185 to 230 feet amsl. The rest of the county is gently rolling to hilly and is dissected to various degrees by creeks and rivers (Ref. 3).

All of the Memphis-Shelby County area is located within the Gulf Coastal Plain physiographic province, consisting primarily of unconsolidated sand and gravel materials. The Memphis area is located along the axis of the Mississippi embayment syncline, a trough-like stratified sedimentary basin. The axis of this embayment plunges southward at a rate of approximately 10 feet per mile, and generally represents the present course of the Mississippi River. The topography in the area is moderately to gently rolling. The site is underlain in descending stratigraphic order by recent loess, alluvium and terrace deposits, the Jackson Formation, the Claiborne Group, and the Wilcox Group (Ref. 3).

A significant characteristic of regional geology is the presence of a surface layer of angular silt known as loess. This wind deposited material, which was blown into this region from the west and northwest, is believed to have originated as silt in outwash plains of the melting glaciers to the north. The loess deposits are thickest along the Mississippi River bluffs (65 to 70 feet) and gradually thin eastward, covering half of West Tennessee. A characteristic of loess is that the angular shaped silt material, composed largely of quartz, can remain almost vertical in surface exposures, thus resisting extensive erosion. This silt material acts as substrate or bedrock material on which much of the soil profile is formed in the Memphis area (Ref. 3).

The soil associations within the vicinity of the site are primarily of graded land, composed of silty materials. This land type consists of areas that have been graded in preparation for subdivisions and for commercial and industrial building. The depth to which these areas have been graded varies from a few inches to 5 feet or more and is most commonly about 3 feet. The slope, after grading, is generally between 1 and 5 percent. Grenada, Loring, and Memphis soils were predominant in these areas before grading. In most areas, the original soil profiles have been disturbed to such an extent that they no longer can be identified. The soil material is brown, yellowish brown, and dark brown in color and silty in texture. Permeability usually ranges between 0.63 and 2.0 inches per hour (Ref. 3).

The fluvial aquifer is composed of alluvium and terrace deposits, with recharge to the aquifer occurring primarily by the infiltration of precipitation. Water levels in the fluvial aquifer are generally highest in the winter and spring and lowest in the summer and fall. The Jackson Formation and the upper portion of the Claiborne Group comprise the Jackson-upper Claiborne confining unit, which partially confines the Memphis Sand aquifer in the site vicinity. The confining unit is considered to be the interval of sediments between the base of the fluvial aquifer and the top of the first prominent sand of the Memphis Sand aquifer (Ref. 3).



The Jackson Formation underlies the terrace deposits and is primarily composed of dark gray to greenish gray, dark blue or dark brown clay. The formation is generally carbonaceous and contains silt and lignite as well as very fine quartz sand along the bedding planes. The Jackson Formation overlies and partially confines the Claiborne Group, which contains the Memphis Sand, also referred to as the "500-foot" sand (Ref. 3).

The Claiborne Group, represented in the Memphis area by the "500-foot" sand, has been divided into two different portions lithologically. Clay beds as much as 150 feet thick in some areas separate the portions. Electrical logs and drillers' logs of wells in the area show that the lower portion varies greatly in thickness and contains a greater number of clay beds that are thicker and more extensive than those in the upper portion. The Claiborne Group is considered to be a single hydrologic unit because even the thickest clay beds in the Claiborne Group are not continuous, and no particular bed can be considered a hydrologic boundary between the upper and the lower portions. The Claiborne Group is characterized by medium to coarse-grained sand in the upper portion, with fine to medium grained sand in the lower portion (Ref. 3).

The Memphis Sand is a historically artesian aquifer confined between the Jackson-upper Claiborne unit and the Flour Island confining unit. The Memphis Sand supplies approximately 95 percent of the municipal and industrial water in the Memphis area. The Memphis Sand aquifer is approximately 750 feet thick in the vicinity of the site and the top of the aquifer occurs at a depth approximately 140 feet below land surface (bls). Heavy pumping has reduced artesian conditions in areas around local well fields (Ref. 3).

### Site Operations

According to available file material, a review of the R.L. Polk City Directories indicated that Cummins Diesel Sales Corp. was located at 812 North Main Street from 1950 until approximately 1967. It operated as both a sales and service facility for all Cummins diesel engines. In 1968, Cummins Recon (engine reconditioning) was specifically listed at 812 North Main Street and it operated as a diesel engine reconditioning facility until 1973 as Diesel Recon. Diesel Recon, a subsidiary of Cummins Engine Company was also listed at 710 North Main Street in 1973. It is believed that this expansion consisted of a small parcel of property between 812 and 708 North Main Street. A review of the historical aerial photographs from 1965 and 1971 indicated a brick-faced building at the approximate location of 812 North Main Street. Cummins ceased operations at the 812 North Main Street location in approximately 1974.

Stevens Electric operated at the site from 1975 to 2005. The company performed industrial fork lift battery repair, electric motor rebuilding and repair, and systems and process control design activities at the site property. The battery repair activities produced two waste streams: lead battery cells and battery acid. According to available file material, lead cells were disposed off-site at a company known as MSR at Florida Street and Mallory Avenue in Memphis, while battery acid was washed down the drains in the washroom. Sandblasting activities using Black Beauty coal slag occurred at Stevens Electric for the refurbishment of electric control panels and boxes. According to information obtained from TDEC, Division of Radiological Health (DRH), coal slag from the Allen steam plant may contain low levels of

radiation in the form of naturally occurring radioactive materials (NORM), including Potassium 40, Lead 212 and 214, Bismuth 214, Thallium 208, and Actinium 228. Parts cleaning operations conducted at Stevens Electric included the use of Varsol, a petroleum distillate.

Stevens Investment & Realty (Ronald W. Stevens, authorized signatory) conveyed the site property (and additional, non-site related parcels) to TJAR, Inc. in October 2005. TJAR, Inc. conveyed the site property to Greenmark LLC in December of 2005 and Greenmark LLC is the current site owner.

Volatile organic compounds (VOCs) are contaminants of potential concern for subsurface soil and groundwater at the Old Cummins Diesel site due to the significant VOC contamination identified at the Cummins Diesel Recon facility on Pershing Avenue, and that similar activities have been performed at the Old Diesel Cummins facility on 812 North Main Street. In addition, lead, mercury, and polychlorinated biphenyls (PCBs) are contaminants of potential concern in the soil and groundwater at the site due to battery repair activities and transformer storage at Stevens Electric. Finally, low levels of radiation in the form of NORM are also contaminants of potential concern for site soil due to the Black Beauty abrasive used at Stevens Electric.

## **STUDY DESIGN**

The study was designed to assess the concentrations of VOCs within 20 feet of the soil surface. The data collected will be used to help determine if VOCs in the soil are migrating through the soil, posing a health threat to residents living near the Old Cummins Diesel site.

## **SITING OBJECTIVES**

The on-site sampling locations were selected within the fenced area of the Old Cummins Diesel site. In addition, a background sampling location (OCD-001) was located approximately 200 feet east of the site at 826 North Second Street. The sampling locations were selected by Tim Slagle, EPA, and Merrie Embry, Tennessee Department of Environment and Conservation (TDEC).

Nine soil sampling sites were selected for sampling. These locations are described in Table 2 and designated by a yellow circle on the site maps contained in Appendix A. At each of the locations a surface soil sample was collected. In addition, sub-surface Macrocore<sup>®</sup> samples were collected to a maximum depth of 24 feet below grade level (BGL).

Eight soil gas sampling locations were selected for sampling. These locations are described in Table 3 and designated by a green square on the site maps contained in Appendix A. The soil gas samples were collected over a period of approximately 60 minutes. A split-sample (OCD008SGS) was collected during the same time interval as OCD008SGS for quality assurance purposes. Both samples were collected thru the same PRT sampling point then "split" into separate sampling canisters.

## INVESTIGATION METHODOLOGY

### Sample Collection

SESD was responsible for collecting VOC surface soil, sub-surface soil and soil gas samples. SESD retained the custody of the VOC soil gas samples, and shipped the En Core® VOC soil samples to the SESD laboratory daily, as required.

All samples were collected and handled in accordance with the EPA Region 4 *SESD Field Branches Quality System and Technical Procedures*. The following specific procedures were used during sample collection for all direct field measurements and sampling activities:

#### Measurement Procedures

SESDPROC-110-R2	Global Positioning System
SESDPROC-300-R1	Soil Sampling
SESDPROC-307-R1	Soil Gas Sampling
SESDPROC-205-R1	Field Equipment Cleaning and Decontamination
SESDPROC-209-R1	Packing, Marking, Labeling & Shipping of Environmental & Waste Samples
SESDGUID-101-R0	Design and Installation of Monitoring Wells

### Soil Sampling

SESD provided a truck mounted Geoprobe® for collecting Macrocore® samples. The Macrocore® samples were collected up to a maximum depth of 24 feet BGL. Macrocore® samples were collected from 8 on-site locations plus 1 off site background location. The background sample was collected at 826 North Second Street. The depth of the subsurface soil background sample was similar to that of the on site subsurface soil sample collected at sampling station OCD-008. SESD collected surface (0-6 inches) from the ground surface and sub-surface soil samples from the cores for VOC laboratory analysis using En Core® samplers.

SESD collected Macrocore® samples from 0 to 20 feet BGL at the background location and capped the 5 individual 4 foot core sections. The VOC En Core® sub-surface soil sample was collected from the background location (OCD001) Macrocore® sample at the corresponding depth at which the on-site OCD-08 Macrocore® VOC En Core® sample was collected. Previous sampling indicated OCD-08 as having the highest concentration of VOCs. After, the Macrocore® sample was collected; START screened the cores using field PID/FID instrumentation to determine the depth of highest VOC contamination. This depth of highest VOC concentration was used as a guide to determine the relative depth that the remaining Macrocore® sampling locations were advanced to.

As SESD continued with Macrocore® sampling at the remaining OCD locations, START screened and logged the cores and advised SESD where to collect the En Core® VOC samples from the remaining cores.

After the Macrocore® sampling was completed, SESD commenced with returning the cores to their corresponding holes and sealing the remaining voids using bentonite pellets and/or bentonite slurry.

### **Soil Gas Sampling**

After the Macrocore® sampling was completed at all locations, SESD installed post-run-tubing (PRT) soil gas sampling apparatus a minimum of six feet away from the Macrocore® hole for soil gas sample collection.

The soil gas sampling was accomplished using a truck-mounted Geoprobe® that was maneuvered to the sampling location. A sampling rod was hydraulically pushed into the soil to the prescribed sampling depth of 5 feet BGL. The expendable point was knocked free from the sampling rod. Then the sampling rod was withdrawn to 4 feet BGL, leaving a void in the subsurface soil at the end of the sampling rod 1 foot long and 1.25 inches in diameter.

Inside the sampling rod the expendable point was knocked free from the sampling rod, leaving a path to sample the soil gas from the void created. A 0.25 inch Teflon® sampling tube with an attached threaded fitting was pushed thru the sampling rod and threaded into the inside end of the rod that is located just above where the void was created.

Next, a TVA 1000® PID/FID (photo ionization detector/flame ionization detector) was connected to the free end of the 0.25 inch sampling tube to screen for high concentrations of VOCs for several minutes. This action also purged the sampling apparatus of any ambient air.

After the purging process a soil gas sampling apparatus with a limiting orifice designed to control the sampling interval to approximately 60 minutes was connected to the free end of the Teflon® sampling tube. An evacuated six-liter Summa® electro-polished stainless steel canister was connected and the VOC composite soil gas sample collected.

The split samples were collected at the same time and through a common 0.25 inch sampling tube. This was accomplished by installing a "tee" at the free end of the sample tube and splitting the flow of soil gas through 2 separate limiting orifices and into 2 separate evacuated six-liter Summa® electro polished stainless steel canisters.

### **ANALYTICAL PLAN**

Samples for this investigation were analyzed in accordance with the *SESD Analytical Support Branch Laboratory Operations and Quality Assurance Manual, February 2008*. The VOC soil gas samples were analyzed by the SESD laboratory using the SESD modified TO-15 method. An Entech® autosampler and concentrator interfaced to a Hewlett-Packard® gas chromatograph and mass spectrometer were used to analyze the samples. Table 1 contains the SESD Target VOC Analytes, which are VOCs for which a standard was generated.

## RESULTS

The soil sampling locations are described in Table 2 and the Soil Gas Sampling Stations are described in Table 3. The summary tables of the Volatile Organic Compound (VOC) analytical results for the soil and soil gas samples collected at the Old Cummins Diesel Site located in Memphis, Tennessee are contained in Tables 4 to 9B. Maps of the study area are provided in Appendix A. Selected photographs of the study are contained in Appendix B. The SESD Laboratory Reporting Sheets are contained in Appendix C.

The VOC results from the analysis of the soil samples collected during the study are summarized in Tables 4 to 7. Sample names ending with a matrix code of "SF" are surface soil samples. Sample names ending with a matrix code of "SB" are sub-surface Macrocore<sup>®</sup> samples. A subsequent "D" designates a duplicate sample. The upper portion of Tables 4 to 7, contain the analytical results for the Target VOC analytes, Table 1 contains a list of the SESD VOC Target Analytes. A Target VOC Analyte is identified based on a match with the instrument software's mass spectral library, and a calibration standard has been analyzed to confirm the compound's identification and the concentration reported. The lower portions of these tables contain the results for the Tentatively Identified Compounds (TICs) from the analysis of the samples collected during the study. A Tentatively Identified Compound is an analyte identified based on a match with the instrument software's mass spectral library. A calibration standard has not been analyzed to confirm the compound's identification or the estimated concentration reported.

The VOC results from the analysis of the soil gas samples collected during the study are summarized in Tables 8a to 9b. Tables ending with an "a" are the analytical results for the Target VOC Analytes. Tables ending with a "b" are the analytical results for the Tentatively Identified Compounds (TICs) analytes. The soil gas sample names end with a matrix code of "SG". A subsequent "S" designates a split sample.

Soil samples collected on December 11, 2009 (Table 2) were delayed in shipment to the laboratory due to the overnight carrier. The VOC results are flagged with "H-4" described below. In addition, several of the analytical results are followed by "Data Qualifiers" which are summarized on page 4 of the SESD Laboratory Reporting Sheets contained in Appendix C and below:

- O Abbreviation for other flags – refer to laboratory analytical data sheets
- U The analyte was not detected at or above the reporting limit.
- B-2 Reporting level elevated due to trace amounts of analyte present in the method blank.
- D-2 Due to Matrix Interference, the sample cannot be accurately quantified. The reported result is qualitative.
- D-4 MRL elevated due to interferences.
- H-1 Recommended holding exceeded.
- H-4 Holding time expired to receipt by laboratory.
- J The identification of the analyte is acceptable; the reported value is an estimate.
- NJ Presumptive evidence that analyte is present; reported as a tentative identification with an estimated value.

- Q-2 Result greater than Minimum Detection Limit (MDL) but less than Minimum Reporting Limit (MRL).
- QC-1 Analyte concentration low in continuing calibration verification standard
- QC-4 Result greater than highest point on calibration curve
- QS-5 Surrogate recovery is higher than established control limits.

The highest concentrations of the VOC Target Analytes were found in the sub-surface soil and soil gas samples collected at sampling stations OCD-008 and OCD-017. These analytes are highlighted in yellow throughout the summary tables.

**SOIL SAMPLES**

**OCD008 Sub Surface Soil; 19.5 to 21.5 feet BGS**

VOC	OCD008SB	OCD008SBDuplicate
1,1-Dichloroethene	110 ug/kg	130 ug/kg
cis-1,2-Dichloroethene	1600 ug/kg	1600 ug/kg
Trichloroethene	56000 ug/kg	59000 ug/kg

**OCD008 Surface Soil; 0 to 6 inches BGS**

VOC	OCD008SF	OCD008SFDuplicate
cis-1,2-Dichloroethene	11 ug/kg	9.6 ug/kg
Trichloroethene	32 ug/kg	31 ug/kg

**OCD009 Sub Surface Soil; 19.0 to 20.0 feet BGS**

VOC	OCD009SB
cis-1,2-Dichloroethene	38 ug/kg

**OCD017 Sub Surface Soil; 3.5 to 4.5 feet BGS**

VOC	OCD017SB
cis-1,2-Dichloroethene	2900 ug/kg
Methyl isobutyl Ketone	560 ug/kg
Tetrachloroethene	2000 ug/kg
Trichloroethene	52000 ug/kg

**OCD017 Surface Soil; 0 to 6 inches BGS**

VOC	OCD017SF
Trichloroethene	17 ug/kg



**SOIL GAS SAMPLES****OCD008 Soil Gas; 4 to 5 feet BGS**

VOC	OCD008SG	OCD008SGDuplicate
1,1,1-Trichloroethane	1000 ug/m3	950 ug/m3
1,1-Dichloroethane	2000 ug/m3	1900 ug/m3
1,1-Dichloroethene	2300 ug/m3	2100 ug/m3
Chloroform	200 ug/m3	210 ug/m3
cis-1,2-Dichloroethene	55000 ug/m3	53000 ug/m3
Tetrachloroethene	18000 ug/m3	18000 ug/m3
Trichloroethene	1200000 ug/m3	1200000 ug/m3

**QUALITY ASSURANCE**

All of the canisters and sampling devices were checked for contamination before use.

Duplicate and split-sample results collected at monitoring sites were very similar, confirming the method precision was good. The locations of these samples are;

A surface soil duplicate sample (OCD008SFD) was collected from the same sampling location and depth (0 to 6 inches) as OCD008SF. Both samples were collected thru a single PRT implant at sample station OCD008.

A sub-surface soil duplicate sample (OCD008SBD) was collected from the same Macrocore<sup>®</sup> location and depth (19.5 to 21.5 feet) as OCD008SB. Both samples were collected from the same core sample.

A soil gas split-sample (OCD008SGS) was collected during the same time interval as OCD008SG. Both samples were collected thru a single PRT implant at sample station OCD008.

Analysis of the soil trip blank QA01TS, used for En Core<sup>®</sup> sampling, showed 3.1 ug/kg of Methyl Ethyl Ketone and 0.79 ug/kg of Methyl Isobutyl Ketone.

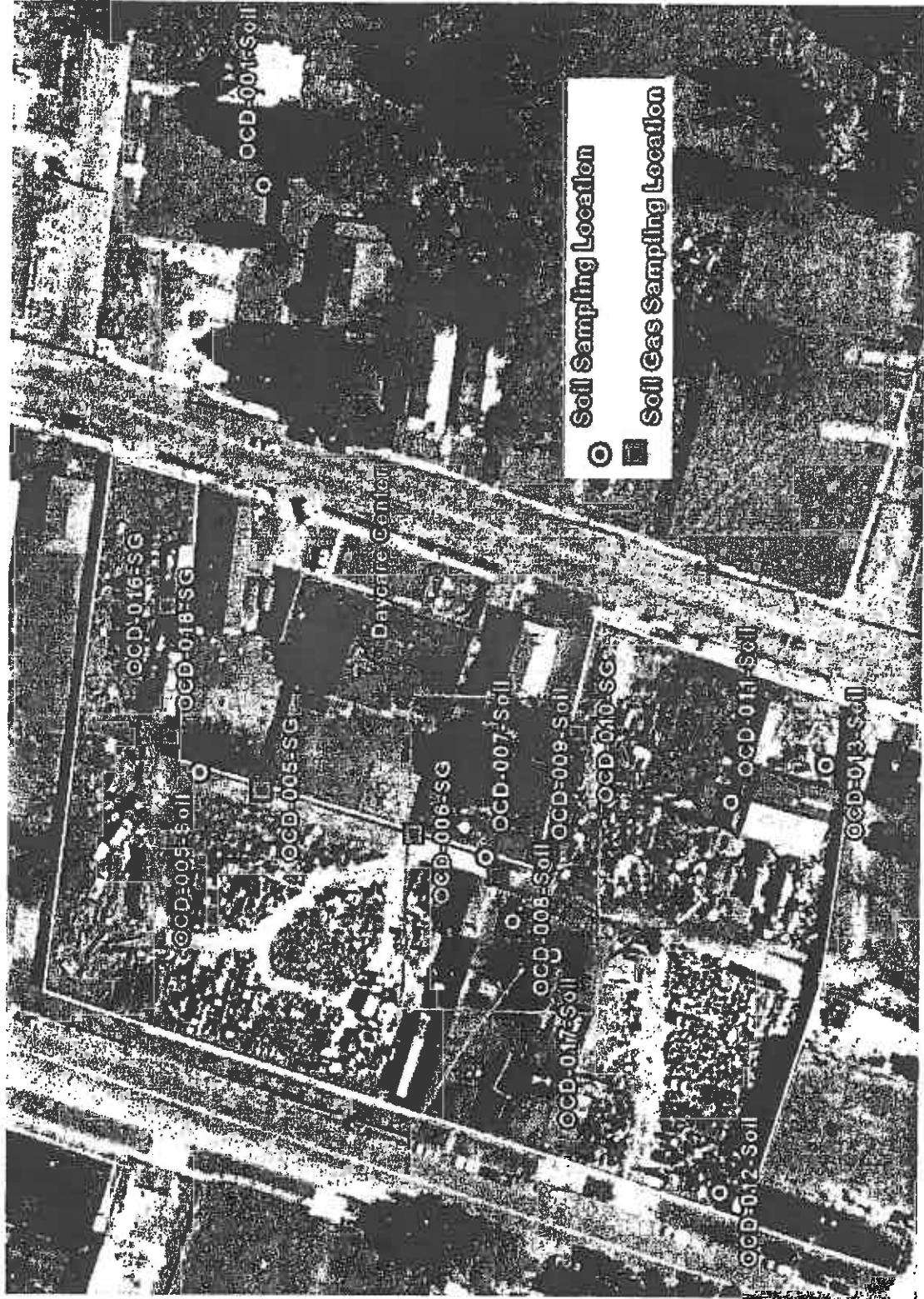
Analysis of the soil trip blank QA02TS, used for En Core<sup>®</sup> sampling, showed 1.1 ug/kg of Methyl Ethyl Ketone.

A field blank canister was evacuated and transported to the field, but not exposed, to check the possibility of contamination of the samples during transport and storage. Analysis of the field blank canister showed only a trace amount of Benzene at 0.19 ug/m3.

**REFERENCES**

1. T N & Associates, Inc. (TN&A). Quality Assurance Program Plan / Site Sampling Plan, Old Cummins Diesel Site, Memphis, Shelby County, Tennessee, Revision 3. October 2008.
2. U.S. Environmental Protection Agency (EPA), Science and Ecosystem Support Division (SESD), Region 4. Quality Assurance Project Plan (QAPP); Old Cummings Diesel Site; SESD Project # 09-0090. November 26, 2008
3. Tennessee Department of Environment and Conservation. Prescreening Investigation Report. Old Cummins Diesel, 812 North Main Street. Memphis, Shelby County, Tennessee, Division of Remediation ID #79-852. March 4, 2008.

MAP 1: Old Cummins Diesel Site, Soil and soil Gas Sampling Stations



F. **Aerial Photographs**





AERIAL PHOTOGRAPH  
 VACANT BUILDING  
 696 N. SECOND STREET  
 MEMPHIS, TN



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DATE: 1938

SOURCE: SHELBY COUNTY  
 ARCHIVES

FIGURE

DRAWN BY:SS

SCALE: N.T.S.

JOB NO. G7689





SITE

AERIAL PHOTOGRAPH  
 VACANT BUILDING  
 696 N. SECOND STREET  
 MEMPHIS, TN



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DATE: 1959

SOURCE: SHELBY COUNTY  
 ARCHIVES

FIGURE

DRAWN BY:SS

SCALE: N.T.S.

JOB NO. G7689





SITE

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DATE: 1965	SOURCE: SHELBY COUNTY ARCHIVES	FIGURE
DRAWN BY:SS	SCALE: N.T.S. JOB NO. G7689	



**AERIAL PHOTOGRAPH  
 VACANT BUILDING  
 696 N. SECOND STREET  
 MEMPHIS, TN**



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DATE: 1971

DRAWN BY:SS

SOURCE: SHELBY COUNTY  
 ARCHIVES

SCALE: N.T.S.

JOB NO. G7689

FIGURE





AERIAL PHOTOGRAPH  
 VACANT BUILDING  
 696 N. SECOND STREET  
 MEMPHIS, TN



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ANA

DATE: 1981

SOURCE: SHELBY COUNTY  
 ARCHIVES

FIGURE

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JOB NO. G7689





SITE

AERIAL PHOTOGRAPH  
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DATE: 1990

SOURCE: SHELBY COUNTY  
 ARCHIVES

FIGURE

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SCALE: N.T.S.

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SITE

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DATE: 1999

SOURCE: SHELBY COUNTY  
 ARCHIVES

FIGURE

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SCALE: 1:1000

JOB NO. G7689





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 696 N. SECOND STREET  
 MEMPHIS, TN**

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DATE: 2004  
 DRAWN BY: SS

SOURCE: SHELBY COUNTY  
 ARCHIVES  
 SCALE: 1:1000

JOB NO. G7689

FIGURE





**AERIAL PHOTOGRAPH  
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 696 N. SECOND STREET  
 MEMPHIS, TN**



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DATE: 2008

SOURCE: SHELBY COUNTY  
 ARCHIVES

FIGURE

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SCALE: 1:1000

JOB NO. G7689

**G. Sanborn Maps**

# Certified Sanborn® Map Report



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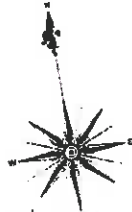
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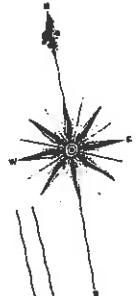
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Site Name: Schaeffer Estate  
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 City, ST, ZIP: Memphis TN 38107  
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21

22

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45

N. MAIN

41

44

LOONEY

N. SECOND

KEEL

46

N. THIRD

CHELSEA

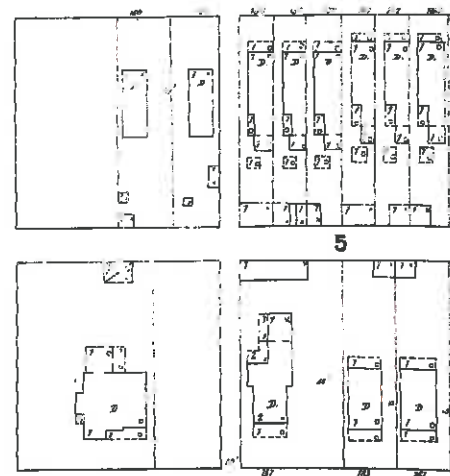
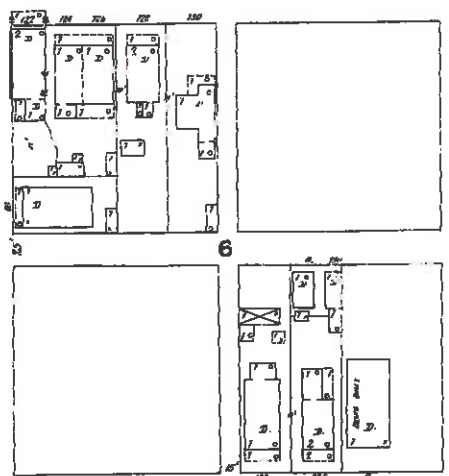
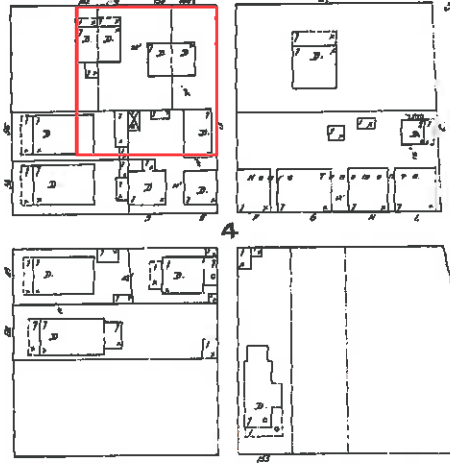
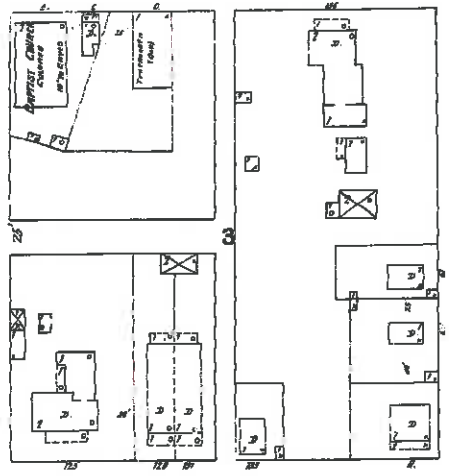
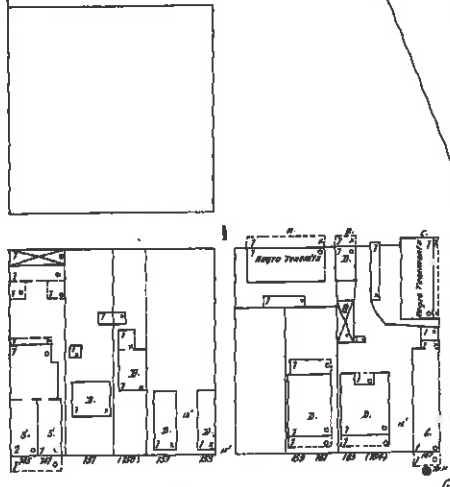
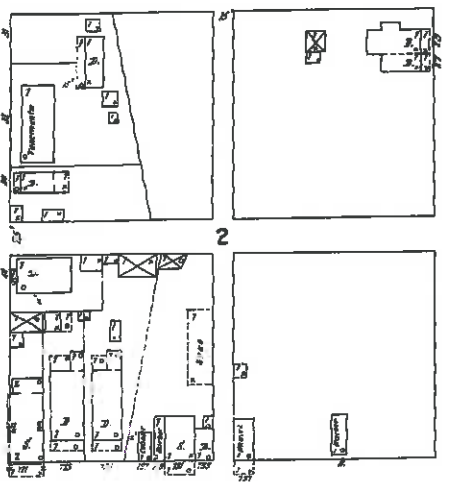
49

FOURTH

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H. City Directory Abstract





**EDR**® Environmental  
Data Resources Inc

**The EDR-City Directory**  
*Abstract*

**Schaeffer Estate**  
714 N. Second St  
Memphis, TN 38107

**Inquiry Number: 2022038.16**

**Thursday, September 06, 2007**

**The Standard in  
Environmental Risk  
Information**

440 Wheelers Farms Road  
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## EDR City Directory Abstract

Environmental Data Resources, Inc.'s (EDR) City Directory Abstract is a screening report designed to assist environmental professionals in evaluating potential liability on a target property resulting from past activities. EDR's City Directory Abstract includes a search and abstract of available city directory data. For each address, the directory lists the name of the corresponding occupant at five year intervals.

***Thank you for your business.***

Please contact EDR at 1-800-352-0050  
with any questions or comments.

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## **SUMMARY**

- ***City Directories:***

Business directories including city, cross reference and telephone directories were reviewed, if available, at approximately five year intervals for the years spanning 1921 through 2006. (These years are not necessarily inclusive.) A summary of the information obtained is provided in the text of this report.

This report compiles information by geocoding the subject properties (that is, plotting the latitude and longitude for such subject properties and obtaining data concerning properties within 1/8th of a mile of the subject properties). There is no warranty or guarantee that geocoding will report or list all properties within the specified radius of the subject properties and any such warranty or guarantee is expressly disclaimed. Accordingly, some properties within the aforementioned radius and the information concerning those properties may not be referenced in this report.

**Date EDR Searched Historical Sources: September 6, 2007**

**Target Property:**  
 714 N. Second St  
 Memphis, TN 38107

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1921	<b>**2ND N**</b> DOUGLAS GEO (714)	R.L. Polk Co.
1926	<b>**2ND N**</b> SUNSET MARKET NO (714)	R.L. Polk Co., of Memphis
1932	<b>**2ND N**</b> VACANT (714)	R.L. Polk Co., of Memphis, Publishers
1938	Address Not Listed in Research Source	R.L. Polk Co., Publishers
1943	Address Not Listed in Research Source	R.L. Polk Co., Publishers
1948	<b>**2ND N**</b> NATL BRANDS STORES (714) SECOND N CONTD (714)	R.L. Polk Co., Publishers
1953	<b>**2ND N**</b> BLUFF CITY SIGN CO (714)	R.L. Polk Co., Publishers
1958	<b>**2ND N**</b> VACANT (714)	R.L. Polk Co., Publishers
1963	<b>**2ND N**</b> NO RETURN (714)	R.L. Polk Co., Publishers
1968	<b>**2ND ST N**</b> HTG & AIR CONDITIONING CONTRS (714) MISSISSIPPI VALLEY PLUMB (714)	R.L. Polk Co., Publishers
1973	<b>**2ND ST N**</b> CHURCH FAIR DOING SUNDRY (714)	R.L. Polk Co., Publishers
1978	Address Not Listed in Research Source	R.L. Polk Co., Publishers
1982	<b>**2ND ST N**</b> POW HOUSE CHURCH OF GOD IN CHRIST (714)	R.L. Polk Co., Publishers
1987	<b>**2ND ST N**</b> NEW TRUE VINE MISSIONARY BAPT CH (714)	R.L. Polk Co., Publishers
1992	<b>**2ND ST N**</b> NEW TRUE VINE MISSIONARY BAPTIST CHURCH (714)	R. L. Polk Co.

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1997	Address Not Listed in Research Source	R. L. Polk Co., Publishers
2003	Address Not Listed in Research Source	Polk City Directory
2006	Address Not Listed in Research Source	Polk City Directory

## Adjoining Properties

### SURROUNDING

Multiple Addresses  
Memphis, TN 38107

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1921	<b>**3RD N**</b> THOMPSON AARON (635) SCHLOSSER JACOB (636) DAVIS WM (637) MC DONALD ROBT (640) GOODRICH BROS (642) ENGINE CO NO (652) M F D PUMPER (652) HOUSTON J T (655) COOKE H L (656) MC KNETH W H (658) LITTLEJOHN J C MRS (662) GRASHOT W L (664) KEHOE MAGGIE MRS (665) DAVIS ARTHUR (668) FIELDS BETTIE (669) VACANT (669) COLLIER SUSIE (670) COOPER W J (671) BODKINS ARTHUR (688) WATKINS WM (690) LEE JAS (692) SALES NASH (694) COBB MYRTLE (696) HOWARD REBECCA (700) KYLE J T (703) GOODRICH J V (706) MCLLVAIN E A (706) WILHELM P W (708) POOR G D (710)	R.L. Polk Co.

**Year Uses**

**Source**

1921 (continued)

COUSINS W H (711)  
DILLON W F (711)  
MC DERMOTT C C (712)  
WILLIS J E (716)  
GRASHOT G W (718)  
MEYERS JAS (720)  
RICE DEWEY (722)

**\*\*CHELSEA ALY\*\***

R.L. Polk Co.

37 HOLDERMAN J E (7)  
KUSS RICHD (154)  
JONES G C (156)  
HOROZE W F (160)  
JACKSON J C (160)  
KRESSENBERRY C E MRS (160)  
FUCHS ANAISE MISS (164)  
FUTRIS ARIA (166)  
GEORGE ANGELO (166)  
N THIRD (168)  
SCHNLEIDER C D (168)  
MURPHY J P (188)  
PALMER FLORENCE MRS (189)  
LEROY POPE SCHOOL (190)  
MC CULLEY E D (191)  
N FOURTH (191)

**\*\*KEEL AVE\*\***

R.L. Polk Co.

THORNTON MORGAN (148)  
SHAW LUCINDA (150)  
AMERSON HENRY (152)  
BROWN EDGAR (158)  
FORD FANNIE MRS (158)  
HALL TERESA MRS (160)  
MORRIS MURPHY (160)  
LUIANTHY LEE (162)  
CHAMBERS T B (164)  
MC DUGLE L H (166)  
N THIRD (166)  
SMITH EMMA MRS (166)  
DUNLAP DAVID (178)  
ANDERSON EDWD (180)  
HALL O D (182)  
WAYNE LULA (186)  
EDWARDS HENRY (188)



**Year Uses**

1921 (continued)

**Source**

**\*\*LOONEY AVE\*\***

R.L. Polk Co.

PREWITT GRANT (102)  
WILLIAMS ANDW (103)  
HOWSE ADDIE (104)  
SCOTT JOS (105)  
RANDLE CHAS (106)  
PICETT E M (107)  
ALLEN JOHN (108)  
COOK LULA (109)  
FULTON JULIA (110)  
CLARK EMMA (111)  
HOLMES MOLLIE (111)  
DICKSON ADA (112)  
EZELL ROSA (113)  
GAINS BETTY (114)  
BURNETT ENA (115)  
UPCHURCH JAS (115)  
HENRY W W (118)  
KUHN JENNIE MRS (118)  
N SECOND (118)  
ALLEN THOS (150)  
ESSARY J E (152)

**\*\*MAIN N\*\***

R.L. Polk Co.

WHITE JESSE (636)  
KING R D (638)  
UJPCHURCH JAS (638)  
NOLAND EDWDT (642)  
HARRIS HATTIE (644)  
TRI STATE IRON WORKS (649)  
PERNELL LINA (652)  
GIVEN AL (654)  
KNIGHT DORA (654)

**\*\*2ND N\*\***

R.L. Polk Co.

WARD N J MRS (628)  
BELL GILBT (629)  
BRIGGS S A (632)  
BROWN J H (633)  
GIPSON MACK (636)  
PARKER J C (637)  
MC GILL LOUISE MRS (638)  
HOROWITZ JACOB (640)  
D FL BEALL J W (640)

**Year   Uses**

**Source**

1921 (continued)

CHURCH (641)  
DAVIS L M (641)  
COR PILGRIM REST BAPT (641)  
BOWERS MR STORES INC (649)  
D FL MC DANIEL C L (649)  
NIX W M (653)  
BARKSDALE WM (654)  
CULLIGAN M J MISS (655)  
SKIPWORTH R M (658)  
GANNON R T (660)  
FLY JOHN (661)  
HUNT GREEN (661)  
BOYD EDWD (662)  
HIGHLAND G W (662)  
JONES BETTY (665)  
BROWN PINCKNEY (671)  
BAILEY W L (673)  
SCHEIBLER LILLIAN MISS (682)  
HERMAN SAML (686)  
SCHEIBLER A E & SON (687)  
SMITH ABBIE (693)  
BASS ROBT (699)  
SULLNER LOUNDON (699)  
HERRMANN JULIUS (704)  
JAMISON VIRGIE (704)  
HENRY J G (709)  
TATT DOVIE MRS (709)  
PARISH EDWD (711)  
KING ARCHIE (713)  
PIGGLY WIGGLY CORP (716)  
BONI & CO (717)  
SCHAFFER L D (718)  
COUSINS & SCHNEIDER (793)  
GEARY ARTHUR (794)  
CLARK E M (796)  
BRYANT E B MRS (799)  
MEANS CHARLOTTE MRS (799)  
PIERCE HARVEY (799)  
TIMS N C (799)  
ADAMS J C (800)  
ALVERSON J F (803)  
PARKS W A (805)  
JACKSON S H (810)

**Year   Uses**

**Source**

1921 (continued)

ELLIS C W (813)  
ELLIS J A (813)  
DISTELHURST A EDGAR (814)  
HUSBANDS MELVIN (814)  
RENSTRUM A J (814)  
D FL FLEMING W A (814)  
TOMLINSON T A (815)  
JUMP OTIS (823)  
LAWLESS JOHN (826)  
NATT ISAAC (831)  
BONE C C (834)  
GRASHOT J F (835)

1926 **\*\*3RD N\*\***

R.L. Polk Co., of Memphis

HICKS REBECCA (635)  
KEPLER ALEX (636)  
REDDICK NANCY (637)  
SWEAT H M (640)  
GENTRY OLIVER (642)  
M F D PUMPER (652)  
HOUSTON J T (655)  
HOLT JOHN (656)  
NEWTON W M (658)  
GRASHOT W L (662)  
GALA J F (664)  
KEHOE J A (665)  
KEHOE MARGT MRS (665)  
669 OWENBERG BERNARD (668)  
DAVIS ARTH (668)  
GREEN NETTIE (668)  
JOHNSON SUSIE (670)  
VAUGHN CECIL (671)  
BACON A L (673)  
SLATE M B (675)  
BROOKS JOHN (688)  
WATKINIS WM (690)  
LEE JAA (692)  
SALES WASH (694)  
COBBS MOSES (696)  
MOORE WM (700)  
VACANT (702)  
KYLE J T (703)  
HOLLEY JAS (706)  
VACANT (708)

**Year   Uses**

**Source**

1926 (continued)

BRADY IRA (710)  
MCLNETT WM (711)  
MC DERMOTT C C (712)  
JOYNER FRANK (716)  
AUSTEIN MOLLIE MRS (718)  
MAROON ADOLPH (720)  
RILEY FRANK (722)  
HALL R L (724)  
HANSON WORDEN CO (724)  
HUDSON C O DR (725)  
MUSGRAVE G W DR (725)  
VACANT (728)  
WHITE WAY CHEMICAL CO (802)  
VACANT (804)  
ASSOCIATED GENI CONTRS (806)  
OWEN W C & CO (808)  
SUTTON H S (808)  
COMBUSTION EQUIPMENT CO (810)  
WALSH & WEIDNER BOILER CO (810)  
HILLER REALTY CO (812)  
ACME BRICK CO (814)  
ATLANTIC LIFE INS CO (816)  
RAGSDALE F V CO THE (818)  
MC GUIRE H A & CO (820)  
COTTON STATES LIFE INS (822)  
LESTER W C (826)  
LINCOLN UNDERWRITERS CO (827)  
VACANT (832)

**\*\*CHELSEA AVE\*\***

EVERETT A V (40)  
KUSS RICHD (154)  
TOMLINSON THEO A (156)  
VACANT (159)  
VACANT (160)  
FUCHS V A (164)  
SCHNEIDER C D (166)  
MC FARLAND J H (168)  
N THIRD (168)  
MURPHY J P (188)  
PALMER FLORENCE MRS (189)  
LEROY POPE SCHOOL (190)  
HOLDEN MORGAN (191)  
N FOURTH (191)

R.L. Polk Co., of Memphis

**Year   Uses**

1926 (continued)

**\*\*KEEL AVE\*\***

APARTMENTS (100)  
BATES MATTHEW (100)  
CURTIS DELLA (100)  
FRANKLIN WM (100)  
HARRIS HILARY (100)  
HENRY ANNIE B (100)  
N MAIN (100)  
N SECOND (100)  
SCRUGGS JAS (100)  
THOMAS MACK (100)  
VACANT (100)  
VACANT (100)  
VACANT (100)  
VACANT (100)  
VACANT (100)  
VACANT (100)  
VACANT (100)  
VACANT (100)  
VACANT (100)  
WILLIAMS JOSH (100)  
THORNTON MORGAN (148)  
GARRETT AMOS (150)  
GUESS EMMA (152)  
JENKINS SARAH (152)  
CHAMBERS LE ROY (158)  
FIELDS J A (158)  
PERRY W T (160)  
QUIANTHY LEE (162)  
HODGES WALTER (164)  
LOVETT THOS (166)  
N THIRD (166)  
DUNLAP DAVID (178)  
BATTLES PRESTON (180)  
CAMPBELL MELVIN (181)  
HICKS GEO (182)  
TRUEHART IDA (184)  
CORNELIUS EDW (186)  
FLEMING GIEO W (187)  
EDWARDS HENRY (188)  
VACANT (189)

**\*\*LOONEY AVE\*\***

NELSON THOS (102)  
TYLER MARY (103)

**Source**

R.L. Polk Co., of Memphis

R.L. Polk Co., of Memphis

**Year   Uses**

**Source**

1926 (continued)

SPAIN WM (104)  
VACANT (105)  
RANGLES CHAS (106)  
JOHNSON RICHD (107)  
ALLEN MARINDA (108)  
COOK LULA (109)  
FULTON ROBT (110)  
JOHNSON JENNIE (111)  
DENT JOHN (112)  
KEE LAWRENCE (113)  
CHOCOLATE MATTLE (115)  
UPCHURCH JAS (115)  
N SOND (118)  
QUIGLEY WM W (118)  
TYSER EMMETT (118)  
HILL LOUISE (150)  
ALLEN THOS (152)

**\*\*MAIN N\*\***

R.L. Polk Co., of Memphis

BANK WM (636)  
HOLMON EDW (638)  
WALTERS MARY (638)  
BURNS SARAH (642)  
COX WM (644)  
TRI STATE IRON WORKS (649)  
PERNELL LINA (652)  
KNIGHT DORA (654)  
GIVEN AL (655)  
TRI STATE IRON WORKS (655)  
KAPLAN MAX DR (701)  
SPINGARN M G DR (701)  
VACANT (707)  
MEM METAL SCREEN CO (708)  
GOLDBERGER H I (710)  
COHN ABE (712)  
LEVE B G (712)  
TERRAZZANO L A (712)  
CENTRAL LIFE ASSUR SOC (718)  
TRUSCON STEEL CO (801)

**\*\*2ND N\*\***

R.L. Polk Co., of Memphis

PARKER J C (628)  
ROSER MERRILL (628)  
WOODBURY JOHN (629)  
WOODS FREEMAN (629)



**Year   Uses**

**Source**

1926 (continued)

BRIGGS S A (632)  
BROWN J H (633)  
AYRES J (636)  
MORRISON P T (637)  
TYSER ALBERT (638)  
BEALL J W (640)  
SAWYER C M (641)  
HOROWITZ JACOB (642)  
COR PILGRIMS REST BAPT CH (642)  
ARROW FOOD STORES NO (649)  
D FL ALVERSON J F (649)  
GANNON R T (653)  
TAYLOR NONA (654)  
CULLIGAN M J MISS (655)  
OWEN A B (658)  
HARRISON OLIVER (660)  
BAILEY W L (661)  
VACANT (662)  
WHITE REDA (662)  
BENOVITZ S L (665)  
HERNANDO GRAIN WAREHOUSE (667)  
DAWN DOUGHNUT CO (669)  
VACANT (671)  
ALVERSON J F (673)  
NORTH SIDE CLEANERS (675)  
PARCO OIL CO FILLG STA NO (682)  
SCHEIBLER A E & SON (685)  
HERMAN SAMI (686)  
SMITH ABBIE (693)  
HAYES & LANGSTON (699)  
SULLNER SALLIE (699)  
GRIFFIN HENRY (704)  
NORTH SIDE CAFE (704)  
HENRY J G (709)  
BERRYHILL OLIVER (711)  
OWENS EDW (713)  
PIGGLY WIGGLY STORES INC (716)  
ALLEN JOS (717)  
KRUEGER DORA MRS (717)  
SCHAFFER L D (718)  
WILLIAMS BIRD (718)  
SCHEIDER H J (793)  
GEARY ARTH (794)

**Year   Uses**

**Source**

1926 (continued)

TOMLINSON G L (796)  
ABEL A A (799)  
DICKEY G L (800)  
VACANT (803)  
PARKS EDNA (805)  
SCHNEIDER H J (810)  
MC COMMON JOSIE MRS (813)  
GIFFORD G W (814)  
RENSTRUM A J (814)  
PARKS A J (815)  
CHANDLER T G (823)  
JUMP JAS (823)  
WARNER C M (823)  
LAWLESS JOHN (826)  
NATT ISAAC (831)  
DATES MATTHEW (835)  
VACANT (836)

1932 **\*\*3RD N\*\***

R.L. Polk Co., of Memphis, Publishers

VACANT (635)  
DUFFY JAS J (636)  
ANDERSON COY (637)  
WRIGHT EMMA MRS (640)  
AVANZI JOHN (642)  
RED FRONT GROCERY (642)  
M F D PUMPER (652)  
2ND FL PRESCOTT THOS H (655)  
HILL JOHN W (655)  
RICHARDSON FRANK M (655)  
VACANT (656)  
HOLT JOHN (658)  
SMITH W R (662)  
PERRY O E (664)  
KEHOE J A (665)  
KEHOE MARGT MRS (665)  
VACANT (668)  
REAR MC KENNEY LETHA MRS (668)  
BRICE EARL E (669)  
REAR VACANT (669)  
JOHNSON SUSIE A MRS (670)  
REAR VACANT (670)  
CARPENTER CLIFF B (671)  
HOWARD WALTER (673)  
CAVETT GEO L (675)

**Year   Uses**

**Source**

1932 (continued)

GOODRICH RUSSELL (675)  
BROOKS JOHN (688)  
RIDLEY THOS (690)  
LEE JAS (692)  
GAGE WM (694)  
COBB MOSES (696)  
MACON WM (700)  
RAMEY ROBT H DENTIST (701)  
COLES MERRICK A DENTIST (702)  
MOOSE L A DENTIST (702)  
KYLE J T (703)  
BOROD MARX J LAWYER (704)  
ROSENFELD WM B LAWYER (704)  
VOYLES E P DENTIST (705)  
CRUMP E M (706)  
VACANT (707)  
CHORD D W (708)  
JUSTIS JOS B DENTIST (708)  
HUGHES JAS H (710)  
CURTIS THOS W (711)  
MC DERMOTT C C (712)  
VACANT (712)  
HOLMES H J & CO REAL EST (713)  
ASSN VALLEY D V (714)  
INDEPENDENT LIFE INS CO (714)  
NATI COTTONSEED PRODUCTS (714)  
NATI COTTONSEED PRODUCTS (714)  
YOON A C (716)  
STAFFORD L C WHOL TOB (718)  
STRUNK JEWEL MRS (718)  
CUMUNITY FINANCE CORP (720)  
VACANT (720)  
WILSON JOHN E (720)  
AMER BANKERS INS CO (722)  
LINCOLN UNDERWRITERS CO (722)  
TACKER MARIE MRS (722)  
NOEL JEAN CO TOILET GDS (724)  
CONNORS STEEL CO (725)  
GENL OFFICE EQUIPMENT CO (725)  
UNDERWOOD TYPEWRITER (725)  
BOVAY H E OFFICE (726)  
BRIDGE CO (726)  
CAIRO BRIDGE & TERMINAL (726)

**Year   Uses**

**Source**

1932 (continued)

GEORGE COUNTY BRIDGE CO (726)  
HOLLY BLUFF BRIDGE CO (726)  
RUTSCHMAN JOS C JR LAWYER (726)  
VLCKSBURG BRIDGE & TER (726)  
WHITE & BLACK RIVERS (726)  
MINAL CO (726)  
TENNESSEE DISTRIBUTING CO (727)  
VACANT (727)  
LAZAROV & GRUBER REAL EST (728)  
VACANT (728)  
CARNATION CO FOOD PRODUCTS (729)  
BRANHAM J M CO ADV AGTS (730)  
BOYD MARION S LAWYER (731)  
COSTEN SAM C LAWYER (731)  
CRABTREE & CRABTREE (731)  
GIANOTTI FRANK B JR LAWYER (731)  
LAWYERS (731)  
VACANT (732)  
UNITED SECURITIES CO (736)  
GREEN SAM DENTIST (740)  
WEISS HENRY DENTIST (740)  
ALLEN COR D THE MFRS AUTO (741)  
SAUNDERS CLARENCE CO (741)  
THE OFFICE (741)  
ACCESSORIES (741)  
CHARIS OF MEMPHIS CORSETS (802)  
GUARANTEE MUTUAL LIFE INS (804)  
GUST ROBT P CO MFRS AGTS (804)  
WEIR C R & CO INS (804)  
LIBERTY GLASS CO (806)  
PORTER JERRY M GLASSWARE (806)  
BRIGHAM CHAS D INS (808)  
HINE BARNETT R & CO INS (808)  
MID SOUTH INS OFFICE (808)  
MOTOR CITY AGENCY INC INS (808)  
SANFORD GEO A INS (808)  
UNIVERSAL CREDLT CO AUTO (808)  
WINTON & CO INS (808)  
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RAGSDALE F V CO THE GENI (818)  
CONTRS (818)  
AMERICAN LEGION MESS KIT (820)  
NEWSPAPER (820)  
VACANT (822)  
COIMOPOLITAN LIFE INS (824)  
GENERAL FOODS SALES CO (827)  
LARKIN JOHN C INS (828)  
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DOTSON JAS (100)  
FLEMINGS THOS (100)  
HAYDEN JAS (100)  
HELM MARY MRS (100)  
JONES ROBT (100)  
JONES WM (100)  
LEWIS WM (100)  
MT ZION APARTMENTS (100)  
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ROBERTS JANIE (100)  
ROBINSON BOSIE MRS (100)  
SMITH ANNA B MRS (100)  
SMITH RUBY MRS (100)

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COLE WM (110)  
CRAWFORD PERKINS (110)  
CUNNINGHAM HENRY (110)  
GATEWOOD THOS (110)  
GREEN LAURA (110)  
HUSTON GEO (110)  
JONES GENEVA MRS (110)  
JONES ROBT (110)  
JONES WM (110)  
MILTON BENJ (110)  
ROBERTSON JOHN (110)  
ROOTES APARTMENTS (110)  
ROWLIN LOUIS (110)  
THOMPSON JAS (110)  
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TRI STATE IRON WORKS (677)  
STANDARD DRY KILN CO (701)  
STONE IRVIN O MIRS AGT (701)  
LYON CARTER B CONTR (702)  
WILSON OFFICE EQUIPMENT CO (703)  
ANDREWS B ARMISTEAD INS (704)  
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TEM REAL EST (705)

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VALLEY RAYMOND O LAWYER (714)  
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VADEN B N LAWYER (716)  
CRAWLEY D B LAWYER (718)  
CRAWLEY D B LAWYER (718)  
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8TH AND 9TH F BS COLUMBIAN MUTUAL (724)  
BRODE & COHN LAWYERS (724)  
LIFE INS CO (724)  
THROGMORTON C A LAWYER (724)  
WARREN CLARENICE S LAWYER (724)

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VACANT (632)  
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HOROWITZ JACOB DRY GDS (642)  
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GLAZE ROBT J (662)  
REAR WHITE RITA MRS (662)  
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MEM GOODWILL INDUSTRIES (669)  
NORTH SIDE CLEANERS (675)  
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WHITE EZRA F (682)  
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PRODUCERS & REFINERS CORP (684)  
SCHEIBLER A E & SON (685)  
LAZAR MORRIS DRY GDS (686)  
SMITH ABBIE MRS (693)  
HAYES & LANGSTON UNDTKRS (699)  
REAR SULLNER LONDON (699)  
CARTER GRAIN & SEED CO (704)  
BISHOP G T (709)  
HENRY JOHN G (709)  
REAR ROBINSON MARY L MRS (709)  
DOUGLASS GEO GRO (710)  
VACANT (711)  
WILLIAMS WM W (713)  
TORRY MATTLE MRS (715)  
PIGGLY WIGGLY STORES NO (716)  
NORTIH MEM CASKET CO (717)  
REAR ALLEN JOS (717)  
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FEGER GEO FISH (793)  
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VACANT (795)  
DEMERY W B (796)  
SIGWALT GODFREY HDW (801)  
ADAMS JAS C (803)  
SICCO J L BARBER (803)  
PARKS W A (805)  
SIGWALT GODFRIED (810)  
LEADERS ROBT (813)  
GIFFORD G W (814)  
RENSTRUM A G (814)  
VACANT (815)  
ALLISON EDW L (816)  
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	VACANT (637)	
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	AAVANZI JOHN RESTR (642)	
	WHITE W CLYDE (642)	
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	BRYANT KATHLEEN MRS (655)	
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	SAYLES BERT (656)	
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	MARTZ ELBERT B (669)	
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	AJOHNSON SUSIE A MRS (670)	
	BENNETT ERNEST (670)	
	RUSSELL JAS (671)	
	TUCKER IRVING R (673)	
	DUBLIN OLIVER W (675)	
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	ACOLE MERRICK A DENTIST (702)	
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MITCHELL GUS V (710)  
VACANT (710)  
AMC QUEEN OTIS (711)  
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A GILBERTSON H J CO INC (712)  
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ASTANDARD LIFE INS CO OF (714)  
THE SOUTH (714)  
CURTIS GEO (716)  
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A PERRY GEO (718)  
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APUBLISHERS GUILD INC (725)  
JENKINS PEST CONTROL CO (728)  
KING JOS B REAL EST (728)  
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AHOCKING GLASS CO (806)  
BOY SCOUTS OF AM REGION (808)  
APADGET JAS A LAWYER (810)  
MARTIN DUNCAN LAWYER (810)  
FEDERAL LIFE & CASUALTY INS (812)  
REFRIGERATOR PRODUCTS CO (812)  
VACANT (814)  
A RAGSDALE F V CO THE GENI (818)  
CONTRS (818)  
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A COSMOPOLITAN LIFE INS (822)  
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CROMWELL JAS T (154)  
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**\*\*KEEL AVE\*\***

R.L. Polk Co., Publishers

ADAMS NELLIE (100)

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HENDRIX ROBT (100)  
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HURD LOUIS (100)  
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MT ZION APTS (100)  
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SMITH ELIJAH RESTR (100)  
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BOWERS CORNELIA (110)  
BROWN AUBREY (110)  
CUNNINGHAM PEARL (110)  
DURHAM WM (110)  
FISHER SAMI (110)  
FLETCHER WALTER (110)  
JOHNSON ROBT (110)  
JONES ROBT (110)  
KIRK LEROY (110)  
LEATHERWOOD NATHANIEL (110)  
MAYES EMMETT (110)  
MINOR GEO (110)  
NORMENT CALVIN (110)  
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LOVE EDW (632)  
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ABRIGGS SAM I A (637)  
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BUMGARNER ASA D (653)  
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KING JAS (657)  
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SMITH WM (661)  
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WHITE RITA MRS (662)  
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VACANT (682)  
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A HAYES & LANGSTON FUNERAL (699)  
D FL SECURITY MUTUAL BURIAL (699)  
DIRECTORS (699)  
AWAGERMAN BARRY SHOE REPR (704)  
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JORDAN RAY B (669)  
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PINNER JAS E (671)  
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BAILEY ANNA (100)

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FISHER HARRISON (100)

FOSTER ALONZO J (100)

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JACKSON ELLIS (100)

JONES CLAYTON (100)

MACKLIN MARGT (100)

MAYS EMMETT (100)

MILLER JOHN (100)

MT ZION APTS (100)

NORFLEET HENRY (100)

WARE MOSETTA (100)

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WALTON ISAIALH (668)  
TRI STATE IRON WORKS (677)

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PIPPIN FRAWLEY E CONFR (628)  
KRIEGER ARTH RESTR (629)  
MC NAIR MAURICE (629)  
PERRY THOS (629)  
HORTON THURSDAY (632)  
HURD ANNA MRS (633)  
MC CLETCHIE BEVERLY (636)  
B BRIGGS SAML A (637)  
HELEMS WM (638)  
HARP NEVILLE (640)  
JAMES JOHN (641)  
HOROWITZ ANNIE MRS DRY (642)  
COR PILGRIMS REST BAPTIST CH (642)  
P RINCIPI ERNEST GRO (649)  
VACANT (649)  
BUMGARNER ASA D (653)  
WARD ELMER (654)  
HOWELL ALLEN (655)  
KING JAS (657)  
CURTIS GEO (658)  
STRIETER ANNIE (659)  
CARSON JAS B (660)  
MARTIN CHAS (661)  
WILSON RESSIE M (661)  
BERRYHILL PEARL MRS (662)  
WHITE RITA (662)  
MEM GOODWILL INDUSTRIES (667)  
A NORTH SIDE CLEANERS (675)  
JOHNSON NICHOLAS (680)  
LEWIS EDW J (680)  
SLATE HERBERT R (680)

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MC CRACKEN CAROL E (682)  
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ALAZAR MORRIS DRY GDS (686)  
LAZAR MAYER P LIQUORS (687)  
SMITH EVALINE (693)  
HAYES & LANGSTON FUNERAL (699)  
LANGSTON MILTON L (699)  
SULLNER LONDON (699)  
D FL SECURITY MUTUAL BURIAL ASSN (699)  
DIRECTORS (699)  
EAGLE FURN CO (704)  
WAGERMAN SARAH MRS (704)  
ALLEN VAIDEN (709)  
PINKINS A D (709)  
DOUGLASS GEO GRO (710)  
WILSON PERCY BARBER (711)  
WASHINGTON MORGAN (713)  
PIGGLY WIGGLY STORES BR (716)  
SCHAFFER LOUIS D DRY GDS (718)  
AWISE FRED (794)  
KAIP NICHOLAS SHOE REPR (795)  
ARMSTRONG JOS P (796)  
GOODWIN ALBERT O 2D HD FURN (799)  
CARVER GEO L (800)  
ABRUSSEAU GEO (801)  
BUCHANAN MARTIN E (801)  
OSBORN ALMA MRS (801)  
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RUSHING APARTMENTS (801)  
RUSHING NENA M MRS MGR (801)  
SMITH ANNA MRS (801)  
STEWART JOHN (801)  
STREET CONTIINUED (801)  
WALCHAK FRANK (801)  
GRAVES JAS R (803)  
RAGSDALE & WILLIAMS BARBERS (803)  
BROOKS EDITH MRS (805)  
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SCOTT SELDON M (810)  
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LAMMEY C HUNTER (818)  
ADOUGHERTY RUBY MRS (820)  
JOHNSON DEWEY (822)  
HILL JOHN J (823)  
A CHANDLER RUTH J MRS (823)  
ALAWLESS REBECCA MRS (826)  
ANATT ISAAC SHOE REPR (831)  
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MATHEWS WM A (636)  
BAXTER OSCAR (637)  
WESTLIN MAYNARD C (638)  
ROACH PHILTP H (640)  
GUY BEULAH (641)  
PIERCE BERNICE MRS (642)  
VARIETY STORE (642)  
MFD PUMPER STA NO (652)  
GILBERT MAUD M (655)  
GRIFFIN JAS E (655)  
MOORE THOS W (656)  
STOCKS BENJ D (656)  
ABE ULL MINNIE MRS (658)  
ABELL GEO L (662)  
WALLACE FRANCIS (664)  
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APPAUL IDA (668)  
HOOPER HUGH E (669)  
L ROBINSON JOS (670)  
BRAY JOS J (671)  
ADUGGANS VAN B (673)  
A GREEN HOWARD (675)  
MC DOWELL MARY (688)  
MATTHEWS EARL (690)  
LHIGGINS WM (692)  
A TAYLOR BLANCHE MRS (694)  
ALLEN FRANK (696)  
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LANDERMAN WM F (703)  
JONES JOS (706)  
CARTER BENJ A F (708)  
SANDERS OTIS (710)  
A KINNEY HARRY (711)  
BOLDING CHALMUS E (712)  
GATES MERCER (716)  
C SMITH FLOYD A (718)  
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CROMWELL JAS T (154)  
WILHELM MAUDE M MRS (156)  
AMC BRIDE WESLEY A (160)  
A KIRSCH MOSES (164)  
AMANLEY EDNA M MRS (166)  
SCHNEIDER NANNIE MRS (168)  
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A POPE LEROY SCHOOL (190)  
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FISHER HARRISON (100)  
FOSTER ALONZO J (100)  
GARRETT AARON (100)  
HOPKINS AMOS (100)  
HULL EDW (100)  
JACKSON JAS (100)  
JACKSON JOHN (100)  
JONES WILLIE (100)  
MAYS EMMETT (100)  
MEEKS BUSTER (100)  
MILLER JOHN (100)  
MT ZION APARTMENTS (100)  
POWELL JAS (100)  
STREET CONTINUED (100)  
TAYLOR SHINE (100)  
WARE MOSETTA MRS (100)  
WILLIAMS ERMA RESTR (100)  
ALOCKHART HATTIE MRS (110)  
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ALEXANDER ALICE (110)  
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HAYES EDGAR (110)  
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JACKSON MILTON (110)  
JONES ROBT (110)  
OATES JOHN (110)  
PAYNE WM (110)  
PEOPLES EFFIE MRS (110)  
REESE MAMIE MRS (110)  
ROOTES APARTMENTS (110)  
SHELTON WM (110)  
SMITH BEATRICE MRS (110)  
SMITH ROBT (110)  
WILLIAMS NELLIE MRS (110)  
WRIGHT ANNIE (110)  
MATTHEWS BLOW PIPE (125)  
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GRAHAM WM (638)  
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THREADKELD MARY MRS (644)  
THOMAS DESMOND (652)  
MEEKS EMMETT (654)  
NORTH MEM TRANS (668)  
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MC NAIR MAURICE (629)  
YENRAC FRANK (631)  
HORTON TIURSDAY (632)  
THOMPSON WM S (633)  
MC CLETCHIE BEVERLY (636)  
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HUFF JOHN W (641)  
MOSS FURN CO (642)  
CERTIFIED MKT NO (649)  
FERGUSON BOBBIE MRS (653)  
WARD ELMER (654)  
HOWELL ALLEN G (655)  
DAVIS WM RB (658)  
HOOKS HENRY A (659)  
SANDERS LONNIE G (660)  
SAVAGE LEVI (661)  
CURTIS GEO W (662)  
WHITE RITA MRS (662)  
THURMAN ALBERT (663)  
GOODWILL INDUSTRIES (667)  
NO RETURN (670)  
JOHNSON NICHOLAS (680)  
MOORE ROSA MRS (680)  
CASTLEBERRY M ELLIS (682)  
PERKINS COLE MFG CO (682)  
SEHEIBLER JOHN GRO (685)  
FRIEDMAN FURN CO (686)  
LAZAR MAYER P LIQUORS (687)  
LAZAR MAYER P (688)  
SMITH EVALINE MRS (693)  
HAYES & LANGSTON (699)  
SECURITY MUT BURIAL (699)  
SULLNER LONDON (699)  
FUNERAL DIRECTORS (699)  
GRACE OH OF THE (704)  
NAZARENE (704)  
WAGERMAN SARAH MRS (704)  
ST MATTHEWS BAPT CH (707)  
DOUGLASS GEO J GRO (710)  
ALLEN VATION (711)  
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COLEMAN HENRY K (801)  
NOL DOROTHY (801)  
OSBORNE ALMA (801)  
PARKER JOHN E (801)  
RUSHING APTS (801)  
STREET CONTINUED (801)  
WEBB GUY F (801)  
A SMITH VIANNA (801)  
AHODGES MARY BARBER (803)  
HENDRICKS WM (805)  
SCOTT SELDON M (810)  
CRAIG MARGIE E (813)  
RENSTRUM ANDREW G (814)  
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FULCHER JESSE H (816)  
OGDEN CECIL (818)  
HILL JOS N (820)  
ARICHARDS GRACE MRS (822)  
AHILL JOHN J (823)  
A CHANDLER RUTH J MRS (823)  
LAWLESS JOHN J (826)  
REED ORLANDO (831)  
VACANT (831)  
WILLIAMS GLENN (835)  
ATODD BERT G 2D HD (836)  
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MATTHEWS WM A (636)  
HARRIS ANDREW (637)  
VACANT (637)  
HOME BUILDERS ASSN OF MFS (640)  
VACANT (640)  
GREENHAW & RUSH INC (641)  
GUY BEULAH (641)  
KEENS SUNDRIES (642)  
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GILBERT MAUD M (655)  
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MASSEY MANFORD E (658)  
BELL GEO L (662)  
PARKER NAT W (664)  
MULLIGAN THOS F (665)  
BECK PAUL S (667)  
PAUL IDA (668)  
COX LARRY R Q (669)  
NO RETURN (670)  
BRAY JOS J GENL MDSE (671)  
TONSMAN JOHN H (673)  
PITTMAN DAVID (675)  
MC IDO ELL MARY L (688)  
MATTHEWS EARL (690)  
HIGGINS WM (692)  
TAVLOR BLANCHE MRS (694)  
DELTA GRILL RESTR (698)  
A & B SUNDRIES (700)  
CATHCART MARTIN K (700)  
AAM FIDELITY & CASUALTY CO (701)  
MARKEL SERV INS ADJUSTERS (701)  
COLES MERRICK A DENTIST (702)  
MOOSE LAWRENCE A DENIST (702)  
CROUCH ROBT C & CO (703)  
JORDON TOM E (703)  
CONTRS (703)  
FROST ARNETT CO COLLEC (705)  
TIONS (705)  
CAMPBELL WILLIE F (706)  
CHAPMAN CHEMICAL CO (707)  
ELLIS THOS (708)  
JONES DUDLEY E ARCHT (710)  
SANDERS JOHN C (710)  
CO ARCHTS (711)  
EASON ANTHONY MC KINNIE (711)  
KINNEY HARRY (711)  
BOLDING CHALMUS E (712)  
PET MILK CO (713)  
BENEFIELD ELVIE (716)  
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SOMERVILL CHAS E LAWYER (720)  
BROWN & BIGELOW ADV (722)  
RIEHERT BRUCE C CO INS ADJ (724)  
INS CO (725)  
SMITH EUZELIA W MRS (725)  
SMITH VERNON H ENG (725)  
SPRINGFIELD FIRE & MARINE (725)  
BROWN & WILLIAMS TOBACCO (726)  
PARRISH BOBT L DENTIST (726)  
HURSTON JOSEPH E MFRS (727)  
YORK CORP (727)  
LWYER & NOTARY PUBLIC (730)  
MARTIN RUBY T MRS (730)  
VACANT (732)  
SWLFT & CO MEAT PKRS (735)  
CROWELL COLLIER READER SERV (738)  
SUBSCRIPTION SERV (738)  
GREEN SAM DENTIST (739)  
UNIVERSAL CIT CREDIT CORP (741)  
GALELLA JOHN IWYR (800)  
GEMLGNANI ARTH J IWYR (800)  
HURT BENNET H LWYR (800)  
RUSSWOOD DENTAL LABY (802)  
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STANLEY HOME PRODS INC (804)  
NATIONAL LUMBER EXPORTERS (805)  
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ADELSON MAURICE B III INS (806)  
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BOND WM W JR ARCHT (814)  
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RATCLIFF HAROLD I LWYER (814)  
JOHNSON & SCOTT MFRS AGTS (816)  
BURABLE BLDG MATIS CONST (818)  
TAGG JOE JR INS (818)  
JONES S K CONSTRUCTION CO (819)  
CONREUR MAURICE C OPTOM (820)  
FLANAGAN & CO REAL EST (820)  
ANSERPHONE (821)  
WINN ENGINEERING CO (821)  
SONOTONE OF MFS HEARING (823)  
COSMOPOLITAN LIFE INS CO (826)  
THOMPSON ORAN H REAL EST (826)  
BR OFC (826)  
EQUIPMENT ENGINEERING (827)  
FRANKLIN LIFE INS CO (827)  
LAUSLEY EDWIN P & CO MFRS (828)  
MELSER JOHN G ACCT (828)  
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STRUCTURAL WATERPROOFING CO (828)  
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ANCHOR HOCKING GLASS CORP (830)  
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FOSSETT MILLIGAN C DENTIST (832)  
GURLEY JOHN R CO INS (837)  
SECURITY INS AGCY (837)  
MC DONNELL LEWIS INS AGCY (838)  
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QUONG CHEW WING (1)  
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AMURRAY CUBE (110)  
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CUNNINGHAM PEARL MRS (110)  
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HAYES CHARLINE MRS (110)  
HENDRICK ROBT (110)  
JACKSON MILTON (110)  
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OATES JOHN (110)  
PAYNE WILLIE (110)  
PEOPLES EFFIE MRS (110)  
ROOTES APARTMENTS (110)  
SANDERS GARY MRS (110)  
SMITH BEATRICE MRS (110)  
SMLTHI ROBT (110)  
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WILLIAMNS NELLIE MRS (110)  
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- THORNTON MOSE (103)
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- GRAHAM WM (638)
- REAR STARK ELLIS (638)
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LYON CARTER B CONTR (702)  
LWILSON EUG D MFRS AGT (703)  
JOHNSON ERNEST & CO ACCT (704)  
WILSON RALPH R ARCHT (705)  
HERRING M O IWYR (706)  
LONGWELL HOSEA Z MFRS AGT (707)  
WEST CLYDE P IWYR (708)  
VALLEY RAYMOND O LAWYER (710)  
MENDLE PRINTING CO (712)  
METAL GOODS CORP (713)  
COLUMBIAN MUTUAL LIFE (714)  
SECRETARIAL SERVICE FOR (714)  
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LA CLEDE STEEL CO (722)  
AYCOCK JOHN K LWYR (725)  
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GWINN WALKER W IWYR (725)  
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GOINS DAISY MRS GRO (628)  
MC NAIR MAURICE M (629)  
REAR KELLY PERCY M (629)  
HORTON SIDNEY (632)  
HOWELL ALLEN G (633)  
MC CLETCHIE BLANCHE MRS (636)  
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REAR WALKER MAYBELL MRS (661)  
SAVAGE LEVI (662)  
REAR WHITE RITA MRS (662)  
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DOLLER THEO M MACH (667)  
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SLAYTON NEIL B (670)  
BROWNLNG & WARREN USED (672)  
HUTCHINS LILLIE V MRS (672)  
WARREN WALTER F (672)  
VACANT (675)  
NORTH STAR CAFE (678)  
HOME RADIO SERVICE (680)  
SCHEIBLER JOHN GRO (685)  
BUMGARNER ORVIL (686)  
HUNTER JAMES (686)  
NO RETURN (686)  
LAZAR MAYER P LIQUORS (687)  
LAZAR MORRIS (688)  
KEYS FLORENCE MRS (693)  
HAYES & LANGSTON FUNERAL (699)  
LANGSTON MILTON L (699)  
DIRECTORS (699)  
REAR WASHINGTON MORGAN (699)  
FRIEDMAN FURN CO (700)  
CAMPBELLS SERVICE CO REFGRS (704)  
WAGERMAN SARAH MRS (704)  
ST MATTHEWS BAPT CH (707)  
LDOUGLASS ISABEL W MRS GRO (710)  
ANDERSON LIZA MRS (711)  
KELLY FANNIE MRS (713)  
MC GROOM LESLIE E (718)  
SCHAFFER DEPT STORE DRY GDS (718)  
VACANT (793)  
BRAMLETT WM A (794)  
GALTELLI HENRY SHOE REPR (794)

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1953 (continued)

PRETTI TONY SHOE REPR (795)  
BIRMINGHAM HENRY C (796)  
DOBBINS LOYD W GRO (799)  
VACANT (800)  
BUCHANAN WILLIE MRS (801)  
CRAVEN JAMES (801)  
DOBBINS KENNETH A (801)  
PARKER JOHN E (801)  
WESTER ROBT (801)  
BRANUM WM L (803)  
NICK KNACK SHOP SUNDRIES (805)  
PIKE FAY (805)  
BROWN HERBERT W (810)  
VACANT (813)  
BENSTRUM MARY C (814)  
GEAN WARREN E (815)  
TOWNSEND ARTH S (818)  
VACANT (820)  
HUGHES EDW (822)  
CHANDLER RUTH J MRS (823)  
HILL JOHN J (823)  
LAWLESS FRED J (826)  
NATT ISAAC SHOE REPR (831)  
NORTHCUT FRANK PR (831)  
REAR REED ORLANDA (831)  
CROSBY BIRDIE W MRS (835)  
OZARK EGG CO (836)  
SLATE ROBT C (837)

1958 **\*\*3RD N\*\***

R.L. Polk Co., Publishers

AUTRY GEO (635)  
AWASH HEZEKIAH (636)  
HENNING GEO (637)  
GUY BEULAH MRS (641)  
RESTR (641)  
VACANT (642)  
ATRL STATE MEAT CO (652)  
EVANS THELMA (655)  
VACANT (656)  
CLARK ARTIE (658)  
WILLIAMNS LESLIE (662)  
APARKER NAT W (664)  
VACANT (665)  
VACANT (667)

**Year   Uses**

**Source**

1958 (continued)

MALARROW MARY L (668)  
AI MACLIN JOHN (669)  
ACURTIS SILAS (670)  
LBRAY JOS J P (671)  
ALL ANS SUPER MKLT GRO (675)  
A MC DOWELL MARY L (688)  
KING JOHNNIE JR (690)  
AHIGGINS MATTIE MIRS (692)  
A DOUGLAS GEO R MFRS AGT (693)  
HOSHALL MACHINERY CO (693)  
TAYLOR BLANCHE MRS (694)  
A 1ELTA GRILL RESTR (698)  
REARA LACKEX VICTOR (698)  
WELCH BROS RIEALTY CO REAL (700)  
REAR VACANT (700)  
VACANT (703)  
BOBO LILLIE M MARS (706)  
AJONES TOM SHOE REPRS (708)  
AB 141AILEV WALTER (710)  
JONES BOBBY J (712)

**\*\*CHELSEA AVE\*\***

R.L. Polk Co., Publishers

AFITZGERALD B J (154)  
A APPLING JOHN M (156)  
AMC BRIDE WESLEY A (160)  
JACKSON DURKEE (164)  
A HAMILTON SIDNEY G (166)  
A MANLEY EDNA MRS (166)  
CSCHNEIDER NANNIE E MRS (178)  
AME DONIELS LION OIL SERV (183)  
APOPE LEROY SCHOL (190)  
REARA PENNINGTON B (190)

**\*\*KEEL AVE\*\***

R.L. Polk Co., Publishers

BAKER ODIS (100)  
DUNN MOSE (100)  
FRANKLIN ISAAC (100)  
GRAHAM JAMES (100)  
HEMPHILL ROOSEVELT (100)  
HULL EDW (100)  
JACKSON JIMMIE S MRS (100)  
LBEATRICES PLACE RESTR (100)  
MAYS EMMETT (100)  
MILLER JOHN (100)  
MT ZION APARTMENTS (100)

**Year   Uses**

**Source**

1958 (continued)

POWELL JAS (100)  
SCOTT ROBT (100)  
THORNTON PEARLINE (100)  
VACANT (100)  
WILLIAMS JAMES (100)  
!SMITLH ROBT (110)  
AFREEMAN JAS (110)  
ALSTON GEO (110)  
ANDERSON EVELYN (110)  
BEARD IDA MRS (110)  
BRYANT HERMAN (110)  
CANNON THEO (110)  
CARRINGTON EDDIE (110)  
COATNEY ANNIE B (110)  
CUNNINGHAM PEARL MRS (110)  
DOTSON ALICE MRS (110)  
GREEN JAMES (110)  
PEOPLES EFFIE MRS (110)  
PHILLIPS TONY (110)  
ROOTES APARTMENTS (110)  
SMITH WARREN (110)  
A ROY TIMOTHY (110)  
IA OATES JOHN (110)  
STRAN STEEL CONTRS (113)  
MATTHEWS BLOW PIPE CO INC (125)  
AMATTHLEWS SALES CO MFRS (130)  
ATELL TRONICS PRODUCTS INC (130)  
A MATTHEWS BLOW PIPE CO (130)  
PIPE MFRS (130)  
BRADDOCK HUGH (149)  
GALE BEULAH (150)  
REAR BISHOP ROBT J (150)  
COOK MOODY (152)  
VACANT (153)  
A POOLE ETTA MRS (154)  
A MURPHY EDW C (158)  
REAR KELLEY CORNELIA MRS (158)  
A MOODY MARY C MRS (160)  
REAR HUNTER RENA MRS (160)  
A CRUMP ALICE MRS (162)  
BOYD WM H (178)  
STEWART CORNELIUS MRS (180)  
MC GEE ALLEN M (182)



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1958 (continued)

ITESON WILLIE B (183)  
CODY NONA L MRS (184)  
LEWIS E DOROTHY MRS (185)  
A ALLEN JOHN (186)  
A LOCKHART HATTIE (187)  
HORTON HENRY (188)  
B ROOM RUFUS J (189)

**\*\*LOONEY AVE\*\***

R.L. Polk Co., Publishers

NO RETURN (100)  
DUCKWORTH ELLA MRS (102)  
WASHINGTON MARY MRS (104)  
SMITH ANNIE (106)  
WILLIAMS ROBT (108)  
HOUSTON ANNIE MRS (110)  
MOORE BLANCHE MRS (112)  
PENELTON THOS JR (118)  
BOWLES R T (120)  
SMITH WM (150)  
BOYD ANANIAS (152)

**\*\*MAIN N\*\***

R.L. Polk Co., Publishers

A MFS TOMATO CORP PRODUCE (639)  
RUSSELL JESSIE MRS (652)  
A WILLIAMS CLEVE (654)  
AMECHANICAL CONTRACTORS INC (668)  
NORTH MFS TRANSFER CO (668)  
BLDRS (668)  
TRUCKING (668)  
TRT STATE IRON WORKS (677)  
AAM SNUFF CO (701)  
INDUSTRIAL ELEC & SUP CO (710)

**\*\*2ND N\*\***

R.L. Polk Co., Publishers

COMPTON MEDFORD GRO (628)  
AALENES GRILL RESTR (629)  
REAR AHARRIS JOE D (629)  
REARA CHILDRESS BLOSS (629)  
VACANT (632)  
GARDNER JOHN A (633)  
REAR HURDLE PERRIN W (633)  
A KRUSO BLANCHE (636)  
AWARFORDS FLORAL SHOP (637)  
WARFORD JESSE W REV (637)  
HELEMS CORA MRS (638)

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1958 (continued)

POINDEXTER EUG (641)  
WILLIS E E FURN CO (642)  
ACERTIFIED MARKET NO 2 GROS (649)  
PRINCIPI ERNEST (649)  
APILGRIM REST BAPT CHURCH (652)  
A CHURCH MARY G MRS (653)  
ANDREWS HENRY CO (655)  
KELLY HATTIE MRS (658)  
HOOKS HENRY A (659)  
VACANT (660)  
A CASHAW PETER (661)  
REAR BEST WILLIE (661)  
VACANT (662)  
VACANT (663)  
WORKS (665)  
A BUILDERS ORNAMENTAL IRON (665)  
A HIGH HARRY O SHT MTL (667)  
ABRANCH ARTH (670)  
BROWNING & WARREN USED (672)  
WARREN WALTER F (672)  
A MFS GOODWILL INDUSTRIES (673)  
A MACK & ALBERTAS GRILL RESTR (678)  
LESCH CORP DRUGS (680)  
LAZARS LIQUOR STORE (686)  
A HAYES & LANGSTON FUNERAL (699)  
A LANGSTON MILTON L (699)  
DIRECTORS (699)  
AFRIEDMAN FURN CO (700)  
ADAVIS JIMMIE (704)  
NORTH MEMPHIS TIRE SHOP (704)  
ST MATTHEWVS BAPT CH (707)  
WOOD ELECTRIC INC CONTRS (710)  
A ANDERSON LIZA MRS (711)  
JACKSON JIM REV (713)  
VACANT (715)  
HORTON CARLTON (718)  
SCHAFFER DEPT STORE DRY GDS (718)  
ALWIGGINX GRILL RESTR (793)  
ABRAMLETT WM A (794)  
GOOKIN SHOE SHOP SHOE REPR (795)  
DAY HARRY C (796)  
ADOBBINS GROCERY (799)  
AMILLER WM A (800)

**Year Uses**

**Source**

1958 (continued)

ALDRIDGE ESTELLA MRS (801)  
APARTMENTS (801)  
VACANT (801)  
VACANT (801)  
VACANT (801)  
VACANT (801)  
VACANT (801)  
VACANT (801)  
VACANT (801)  
VACANT (803)  
REED JACK M (805)  
SCROGGINS BOB (810)  
ABAKER ESTELLE M (814)  
ADAY FRANK (814)  
RENSTRUM MARY C (814)  
LE CROY J F (816)  
AGRIFFIN WM L (818)  
FLOYD MATTIE M (820)  
AWIGGINS OCIE C MRS (822)  
A WILLIAMS ETTA MRS (823)  
ALAWLESS FRED J (826)  
VACANT (827)  
VACANT (831)  
REAR TOWERS ALF (831)  
AWAMMACK LUCIAN H (835)  
REAR KING SAM (835)  
AI OZARK EGG CO (836)  
A SLATE ROBT C (837)

1963 **\*\*3RD N\*\***

R.L. Polk Co., Publishers

CRABTREE MORGAN MC KNIGHT & MERRILL LWYRS (638)  
GREENHAW & RUSH INC ADV (641)  
HARTFORD ACCIDENT & INDEMNITY CO CLAIMS OFC (701)  
NO RETURN (702)  
CANADA LIFE ASSURANCE CO INS (704)  
FROST ARNETT CO COLLNS (704)  
UNITED INNS INC (704)  
GOLD FREDDIE RITY CO (706)  
HAMILTON OIL CO WHOL (707)  
VACANT (710)  
WIGGINS R CONNOR JR LWYR (710)  
HALL AUSTIN K ARCHT (711)  
CALHOUN & PHELAN LWYRS (714)  
JEFFERSON STAND LIFE INS CO (714)

**Year Uses**

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1963 (continued)

GREEN JAKE LWYR (716)  
JEFFCOAT FONCIE W LWYR (718)  
LINDSEY WAYNE H LWYR (720)  
SOMERVILL CHAS E LWYR (720)  
BRADFORD J C & CO STGE (722)  
BROWN & BIGELOW ADV NOVELTIES (722)  
A L EMPLOYMENT SERV (724)  
HERRING KAY & CLEMONS LWYRS (725)  
MASSACHUSETTS MUTUAL LIFE INS CO (727)  
MARTIN RUBY T MRS LWYR (730)  
REID SHUYLER SLS CO MFRS AGT (732)  
GREEN SAM DENTIST (740)  
NOBLE DURY & ASSOC INC ADV (741)  
GEMIGNANI ARTH J LWYR (800)  
PIEROTTI HORACE O LWYR (800)  
SNELLING & SNELLING EMP AGCY (802)  
TEXAS & PACIFIC RY CO (804)  
NATI LBR EXPORTERS ASSN (805)  
SOUTHERN HARDWOOD PRODUCERS INC (805)  
SOCIAL SECURITY ADMN CLASS RM (806)  
ADAMS HUGH M REAL EST (808)  
BARRENTINE EMMETTE S REAL EST (808)  
FOGELMAN LOUIS INS AGCY (808)  
FOGELMAN LOUIS REALTY CO (808)  
HORN ABR E LWYR (810)  
NATI OAK FLOORING MFRS ASSN (814)  
VACANT (816)  
CENTRAL OF GA RY TRAFFIC DEPT (818)  
VACANT (820)  
GANNON & LEHMAN LWYRS (821)  
GUIDI MARY LWYR (821)  
WESTERN PACIFIC RR (822)  
DANN ALEX W JR (823)  
APEX EMP AGCY (826)  
GROCER S PERSONNEL EMP AGCY (826)  
TATE ADDISON L ACCT (826)  
THOMPSON ORAN H REAL EST (826)  
EQUIP ENGINEERING CO (827)  
FRANKLIN LIFE INS CO (827)  
LAWLEY EDWIN P & CO MFRS AGT (828)  
MFS SECRETARIAL SERV (828)  
PHOENIX OF HARTFORD INS (829)  
WILLMARK SERV SYS ANALYSTS (830)

**Year Uses**

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1963 (continued)

CONN MUT LIFE INS CO (831)  
VACANT (832)  
EDMONDSON INEZ CT REPORTER (838)  
OTWELL MARTEST CT REPORTER (838)  
ROBINSON JOHNSON INC REAL EST (839)  
GAYLORD CONTAINER DIV CROWN (841)  
WESTERN WAXIDE DIV CROWN ZELLER (841)  
ZELLERBACH CORP BOX MFRS (841)  
BACH CORP LABEL MFRS (841)

**\*\*CHELSEA AVE\*\***

R.L. Polk Co., Publishers

TH INTERSECTS (7)  
Q (9)  
TAYLOR DAVE (154)  
LINZY FANNY MRS (156)  
DOGLAS MENERVIE L MRS (160)  
CHALMER MELACHI (164)  
FOSTER BESSIE MRS (164)  
COOPER LEANNA MRS BROWN OLLIE MRS (166)  
PERRY MARY L MRS (166)  
VACANT (168)  
Z CONTINENTAL CONVEYOR & EQUIP CO (172)  
BREATHETTS SERV STA GAS ST (183)  
GRANT SCHOOL (190)  
JONES CEVELL (190)

**\*\*KEEL AVE\*\***

R.L. Polk Co., Publishers

CHALMER MINNIE (100)  
DUNN MOSE (100)  
GIBSON INEZ MRS (100)  
GREEN KATH (100)  
HOOPER MC KINLEY (100)  
KATES JOHN C (100)  
LANDERS HELEN MRS (100)  
MT ZION APTS (100)  
PATTERSON JAS (100)  
SCRUGGS MARTHA T (100)  
VACANT (100)  
VACANT (100)  
VACANT (100)  
VACANT (100)  
VACANT (100)  
VACANT (100)  
WILLIAMS PRINCESS (100)  
VACANT (113)

**Year Uses**

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1963 (continued)

MATTHEWS BLOW PIPE CO INC YARD (125)  
MATTHEWS BLOW PIPE CO INC SHT MNTL WKRS (130)  
MATTHEWS SLS CO MFRS AGT (130)  
TELL TRONICS PRODUCTS INC PIPE RAFRAS (130)  
NO RETURN (148)  
MORRIS ROBT L (150)  
TYGER ROY (152)  
BIBLE ERCEL MRS (153)  
POOLE ETTA MRS (154)  
BRADLEY WM T (156)  
KELLEY CORNELIA MRS (158)  
WILLIAMS DOROTHY (158)  
HUNTER RENA MRS (160)  
MOODY MARY E MRS (160)  
HOPKINS ERNEST (162)  
BOYD WM H (178)  
FOLEY ROBT (179)  
JACKSON JOHNNIE L (180)  
KIRBY RUBY MRS (181)  
HARDY LINNIE MRS (182)  
JOHNSON ROBT (183)  
NORTON KATH (184)  
HILL LILLIAN MRS (185)  
HILTON MAE B MRS (186)  
SCYMORE JOHN H (187)  
HICKS PEARL MRS (189)

**\*\*LOONEY AVE\*\***

R.L. Polk Co., Publishers

NEW ST PAUL MISSIONARY BAPT CH (100)  
NO RETURN (102)  
ANDERSON EVA J MRS (104)  
SMITH ANNIE M MRS (106)  
BEAN PAUL (108)  
STRONG LOUIS N (110)  
STARKE ELIAS (112)  
BILLINGS JOSEPH (118)  
WALLS SAM (120)  
SMITH WM (150)  
BOYD ANANIAS (152)

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R.L. Polk Co., Publishers

QUALITY LINEN SERV (639)  
ARDER CLAUDE (652)  
NO RETURN (654)  
MFS TRANSFER & STGE CO (668)

**Year Uses**

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1963 (continued)

TRI STATE IRON WORKS (677)  
AMERICAN SNUFF CO (701)  
GORDON WM O LWYR (701)  
LYON CARTER B OFC (702)  
SOUTHERN FARM BUR CASUALTY INS CO CLAIMS OFC (703)  
CUTLER HAMMER INC ELEC EQUIP (704)  
AM FIRE & CASUALTY INC INS (705)  
NEWMAN VIRGINIA M MRS LWYR (706)  
CHEROKEE INS CO (707)  
WEST CLYDE P LWYR (708)  
INDUSTRIAL ELEC & SUP CO INC MTR (710)  
VALLEY RAYMOND O LWYR (710)  
COHN S L & CO REAL EST (713)  
SECRETARIAL SERV FOR COLUMBIAN MUTUAL TOWER (714)  
COLUMBIAN MUT LIFE L&W LIBRARY (716)  
JACKSON LOUISE CT REPORTER (722)  
PATTERSON HAM LWYR (724)  
AYCOCK JOHN K LWYR (725)  
CRAWLEY A DAVID LWYR (725)  
GWINN W WALKER LWYR (725)  
OWENS DON G LWYR (801)

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R.L. Polk Co., Publishers

NO RETURN (628)  
MC NAIR MAURICE M (629)  
REAR VACANT (629)  
HORTON SYDNEY (632)  
JONES WILLIE (633)  
NO RETURN (633)  
CRUTISON JASPER JR (636)  
WARFORD JESSE W REV (637)  
WARFORDS FLORAL SHOP (637)  
GARDNER JOHN (638)  
HARLSTON WILLIE REV (641)  
WILLIS E E FURN CO (642)  
HILLS CERTIFIED MKT (649)  
PILGRIM REST BAPT CH (652)  
CHURCH MARY G MRS (653)  
HALL GUY (653)  
PRICE TOM (655)  
WILLIAMS MARY (658)  
HOOKS HENRYA (659)  
WILLIS EARLINE MRS (660)  
MALLORY MARY MRS (661)



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1963 (continued)

WARD FRANK (661)  
VACANT (662)  
A GS SHOE SHINE PARLOR (663)  
THORNTON A G (663)  
HIGH HARRY O SHT MTL WKR (665)  
KILLION JAMES (670)  
VACANT (671)  
WARREN LENA MRS (672)  
MFS GOODWILL INDUSTRIES INC (673)  
NORTH STAR CAFE (678)  
VACANT (680)  
HENDRIX ROBT (686)  
LAZARS LIQUOR STORE (686)  
LAZAR LILLIAN (688)  
NO RETURN (696)  
VACANT (698)  
HAYES & LANGSTON FUNERAL DIRECTORS (699)  
HAYES EDW F (699)  
NO RETURN (700)  
PINKERTONS NATI DETECTIVE AGCY INC (700)  
VACANT (704)  
ST MATTHEWS BAPT CH (707)  
WOOD ELEC INC CONTRS (710)  
ANDERSON ELIZA MRS (711)  
JACKSON JIM REV (713)  
BAMBOO PUB RESTR (715)  
FULLERS SALVAGE STORE DEPT STORE (718)  
NO RETURN (718)  
MISS VALLEY NET CO (793)  
HULL WALTER (794)  
BROOKS MOSES F (796)  
DOBBINS GRO (799)  
NEELY WILEY (800)  
APARTMENTS (801)  
BARNETT LEONARD (801)  
DILCE ANNIE L (801)  
HARRIS LUTHER (801)  
LOVE WILL (801)  
MORRIS SAM (801)  
NO RETURN (801)  
VACANT (801)  
WILLIS MINNIE MRS (801)  
HOME LIFE INS CO OF AM (803)

**Year   Uses**

**Source**

1963 (continued)

LNDRY CENTER (803)  
SECOND STREET FRAME & UPHOL SHOP (804)  
REED JACK M (805)  
HAYES EDW F (810)  
TAYLOR JOE J (810)  
FRANKLIN ISAAC (811)  
SMITH LOYS (811)  
WATSON GRANVILLE W (811)  
CRAWLEY ERNEST (814)  
MC GEE CORINE MRS (816)  
SIMELTON TROY (818)  
LINCOLN THOS J JR (820)  
LEE ABEN (822)  
USED EQUIP EXCH OFC EQUIP (823)  
WRIGHT WILFORD (823)  
COMPTON KATH L MRS (826)  
WYNNE LIZZIE B MRS (831)  
MITCHELL JOHN R REAR PICKENS BETTY MRS (835)  
OZARK EGG CO (836)  
KIMMONS NAPOLEON (837)  
MC CLENDON CLAUDE (837)

1968 **\*\*N MAIN ST\*\***

R.L. Polk Co., Publishers

UNIVERSAL TRUCK BUMPERS INC MFRS (639)  
T C M CRAWLER PARTS TRACTOR PARTS (668)  
TRI STATE IRON WORKS STEEL FABRICATORS (677)  
CONWOOD CORP (701)  
HOT SHOT QUALITY PRODUCTS INSECTICIDES MFRS (701)  
INDUSTRIAL ELECTRIC T (710)  
SUPPLY CO INC MTR REPR (710)  
AMERICAN SNUFF DIV CONWOOD CORP OFCI (711)  
INS CO UNDERWRITING DEPT (801)  
LINCOLN AMERICAN LIFE (801)

**\*\*3RD ST N\*\***

R.L. Polk Co., Publishers

VACANT (635)  
GRAY HENRY (636)  
VACANT (637)  
VACANT (638)  
VACANT (641)  
VACANT (641)  
SERVICE EMP AGCY (645)  
WHIPPLF LEE PERSONNEL (645)  
CENTRAL MEAT CO (652)  
REED PATSY MRS (662)

**Year   Uses**

**Source**

1968 (continued)

VACANT (664)  
JACKSON BEULAH MRS (665)  
WARD GEO (667)  
BUCHANNA CALDONIA (668)  
NO RETURN (669)  
JAMES OLIVER (670)  
FOSTER JOE (671)  
LEDBETTER MEAT CO WHOL (675)  
HILTON MABEL MRS (688)  
BROWN HATTIE MRS (690)  
MORRIS JOHN (692)  
HOSHALL MACHINERY CO (693)  
TORKELL E E & ASSOCIATES MFRS AGT (693)  
HENDERSON SADERIA MRS (694)  
VACANT (698)  
WELCH BROS REALTY CO REAL EST (700)  
LEAKE SHAPIRO PERSONNEL (701)  
SERVICE INC EMP AGCY (701)  
VACANT (704)  
APARTMENTS (705)  
COLEMAN MELVIN (705)  
HARRIS BESSIE MRS (705)  
HIGGINS MATTIE MRS (705)  
WATKINS TOM (705)  
DAVIS ANNIE M MRS (706)  
FROST ARNETT CO COLLECTIONS (706)  
ALEXANDRIA WM C (707)  
APARTMENTS (707)  
I STEWART CANARY (707)  
MC GEE FLORENCE (707)  
VACANT (707)  
HAMILTON OIL CO WHOL MARKETER (708)  
VANCE WILLIE M (708)  
THOMAS JAMES (710)  
VACANT (710)  
VACANT (710)  
VACANT (711)  
GREEN JAKE LWYR (712)  
JAMES GENERATOR SERVICE (712)  
KAY SAUL LWYR (712)  
VACANT (714)  
VACANT (715)  
VACANT (716)

Year Uses

Source

1968 (continued)

VACANT (717)  
DERMON BUIL DING (718)  
EMPLOYEES FEDERAL CREDIT UNION (718)  
JEFFCOAT FONCIE W LWYR (718)  
LAWRENCE JAMES A LWYR (718)  
BICKERS ROST V LWYR (719)  
DODD C V REALTY CO (720)  
VACANT (720)  
VACANT (722)  
VACANT (722)  
CAMPBELL JOHN T LWYR (724)  
SOMERVILL CHARLES E LWYR (724)  
HERRING & PEPPER LWYRS (726)  
ANDREWS ROBT W LWYR (727)  
BUFORD THOS A LWYRS (727)  
VACANT (727)  
VACANT (730)  
CARRUTHERS EWING INS (740)  
VACANT (741)  
GEMIGNANI ARTH J LWYR (800)  
PIEROTTI HORACE O LWYR (800)  
VACANT (802)  
VACANT (803)  
VACANT (804)  
EXPORTERS ASSOCIATION (805)  
LUMBER MANUFACTURERS ASSN (805)  
NATIONAL LUMBER (805)  
SOUTHERN HARDWOOD (805)  
WATSON CHARLES L LWYR (806)  
ARRENTINE EMMETTE S REAL EST (808)  
FOGELMAN LOUIS (808)  
FOGELMAN LOUIS REALTY CO (808)  
INSURANCE AGENCY (808)  
VACANT (809)  
HORN A & R E LWYR (810)  
VACANT (812)  
MANUFACTURERS ASSN (814)  
NATIONAL OAK FLOORING (814)  
VACANT (814)  
VACANT (816)  
MOOSE LAWRENCE A DENTIST (818)  
VACANT (818)  
MUTUAL OF NEW YORK INSURANCE CO (820)

**Year   Uses**

**Source**

1968 (continued)

SAUNDERS EMPLOYMENT CENTER (820)  
LEHMAN HENRY H LWYR (821)  
VACANT (822)  
VACANT (824)  
VACANT (824)  
APEX EMPLOYMENT AGENCY (826)  
GROCERS PERSONNEL EMP AGCY (826)  
THOMPSON ORAN H REAL EST (826)  
FRANKLIN LIFE INSURANCE CO (827)  
VACANT (827)  
MEMPHIS LIFE (828)  
MEMPHIS SECRETARIAL SERVICE (828)  
UNDERWRITERS ASSN (828)  
UNITED FARM AGENCY REAL EST (828)  
VACANT (828)  
COMMUNICATIONS WORKERS (830)  
OF AMERICA LOCAL (830)  
VACANT (831)  
VACANT (832)  
NORFOLK & WESTERN (837)  
RAILWAY CO FRT SLS (837)  
JOHNSON DAVID V INC REAL EST (839)  
CROWN ZELLERBACH CORP BOX MFRS (842)  
GAYLORD CONTAINER DIV (842)

**\*\*CHELSEA AVE\*\***

R.L. Polk Co., Publishers

VACANT (154)  
FOSTER BESSIE MRS (156)  
HOLMES MATTIE (160)  
BREATHETTS SERVICE STATION (183)  
GRANT SCHOOL (190)

**\*\*KEEL AVE\*\***

R.L. Polk Co., Publishers

MOUNT ZION APARTMENTS (100)  
VACANT (100)  
VACANT (100)  
VACANT (100)  
VACANT (100)  
VACANT (100)  
VACANT (100)  
VACANT (100)  
QOOTES APARTMENTS (110)  
VACANT (110)  
VACANT (110)  
VACANT (110)  
VACANT (110)

**Year Uses**

**Source**

1968 (continued)

VACANT (110)  
VACANT (110)  
VACANT (110)  
VACANT (110)  
VACANT (110)  
VACANT (113)  
MATTHEWS BLOW PIPE CO INC (125)  
YARD (125)  
MATTHEWS BLOW PIPE CO INC SHT MTL WKRS (130)  
MATTHEWS SALES CO MFRS AGT (130)  
TELL TRONICS PRODUCTS INC ELECTRONIC EQUIP (130)  
DEBOW LEE R (148)  
CARROLL VELMA MRS (150)  
YGER ROY (152)  
DAVIS ARTH J (154)  
POOLE ETTA MRS (154)  
LOCKHART HATTIE (158)  
MOODY MARY E MRS (160)  
HOPKINS ROSIE MRS (162)  
BOYD WM H (178)  
HESTER AMOS (179)  
KILLION RACHEAL MRS (180)  
ANDERSON WILLIE (181)  
MILLER LULA MRS (182)  
NO RETURN (183)  
RREAY LILLIE MRS (183)  
GREEN KATH MRS (184)  
RAY JOHNNIE (185)  
WILLIAMS DOROTHY (186)  
SEYMOUR JOHN H (187)  
PENN NEWMAN (188)  
BALDRIDGE CHARLES (189)

**\*\*LOONEY AVE\*\***

R.L. Polk Co., Publishers

ANDERSON EVA J MRS (104)  
AUSTIN GEO P (106)  
SHARP MARIE (108)  
STRONG LOUIS (110)  
STARKS ELIAS (112)  
STATEN JANIE MRS (117)  
FULTON ELIZ MRS (120)  
SMITH WM (150)  
HURST CALLIE (152)

**\*\*2ND ST N\*\***

R.L. Polk Co., Publishers

**Year   Uses**

**Source**

1968 (continued)

VACANT (628)  
ESTERS CAFE (629)  
REAR VACANT (629)  
MONROE ESTER MRS (631)  
HORTON SYDNEY (632)  
JONES WILLIE (633)  
REAR BELL WESLEY (633)  
SANDOWN INC WHOL JWLRS (635)  
MALLORY NORLEAN (636)  
WARFORD JESSE W REV S (637)  
WARFORDS FLORAL SHOP (637)  
GARDNER JOHN (638)  
VACANT (641)  
WILLIS E E FURNITURE CO (642)  
VACANT (649)  
PILGRIM REST BAPTIST CHURCH (652)  
CHURCH MARY G MRS (653)  
CHALMERS MINNIE (655)  
NO RETURN (658)  
VACANT (660)  
VACANT (662)  
VACANT (663)  
HIGH HARRY O SHR MTL WKR (665)  
COLEMAN OLA M MRS (672)  
STEIN BRETT B LWYR (673)  
KELLY T HAYNES FURNITURE CO (675)  
VACANT (678)  
LAZARS LIQUOR STORE (686)  
HALL DAVE (696)  
JOHNSON EDW (698)  
HAYES & LANGSTON FUNERAL DIRS (699)  
HAYES EDW F (699)  
GARDNER E BLAYLOCK LWYRS (700)  
UDELSON TURNAGE HESTER (700)  
VACANT (700)  
HATHORN 6 ROBINSON INS (701)  
VACANT (701)  
BEATY HENRY M JR LWYR (703)  
ADOINGTON MILTON C (704)  
CONSULTING PSYCHOLOGIST (704)  
TUCKER CLAGGARD G DENTIST (704)  
VACANT (704)  
VACANT (704)



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1968 (continued)

CHURCH (707)  
SAINT MATTHEWS BAPTIST (707)  
COLLEYS GROCERY GRO (710)  
COOLEY JOSEPHINE (710)  
ANDERSON ELIZA MRS (711)  
JACKSON FANNIE MRS (713)  
J & W GRILL RESTR (715)  
JAMES J W (715)  
VACANT (718)  
MEMPHIS OPTICAL DISPENSARY (720)  
HAYS JEWELERS INC WHOL (728)  
VACANT (730)  
COOK HARLAN H ACCT (733)  
DISPENSARY WORK RM (734)  
MEMPHIS OPTICAL (734)  
MISSISSIPPI VALLEY NET CO (793)  
PROWELL JOE (794)  
JACKSON J B (796)  
BARTUSCH E BRADY LWYR (800)  
DAVIS ELCO (800)  
GIANOTTI FRANK B JR LWYR (800)  
WILKINSON GROSVENOR V STINSON LWYRS (800)  
APARTMENTS (801)  
CRISTIL POSNER S PEELER LWYRS (801)  
JOHNSON JO A MRS (801)  
JONES THEDOIS (801)  
MENDELSON PHILLIP I LWYR (801)  
MORRIS SAM (801)  
STAPLES D W (801)  
VACANT (801)  
VACANT (801)  
VACANT (801)  
WASHINGTON WILLIE L (801)  
VACANT (802)  
LAUNDRY CENTER SELF SERV (803)  
ASSOCIATES COML ARTISTS (804)  
HALLMAN VAN (804)  
SPEED FERGUSON INC INV SECURITIES (804)  
ALLEN OLEY MRS (805)  
DELTA EMPLOYMENT AGENCY (805)  
CANADIAN NATIONAL RAILWAYS (806)  
GRAND TRUNK RAILWAY SYSTEM (806)  
VACANT (808)

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1968 (continued)

TAYLOR JOE J (810)  
FRANKLIN ISAAC (811)  
PIPHER BORBA OLIPHANT JOHN (811)  
ROGERS SOLOMON (811)  
BOWLIN ROBT L MED (812)  
CRAWLEY ERNEST (814)  
EXCHANGE BUILDING BARBER SHOP (814)  
BEARMAN V BEARMAN LWYRS (816)  
MC GEE CORINE MRS (816)  
SCAPMOUTSOS MANUEL P LWYR (816)  
SIMELTON TROY (818)  
LINCOLN GLADYS MRS (820)  
CHICAGO ROCK ISLAND V (822)  
LEE ABEN (822)  
PACIFIC RAILROAD CO (822)  
USED EQUIPMENT EXCHANGE (823)  
VACANT RMS (824)  
COMPTON KATH L MRS (826)  
VACANT (831)  
VACANT (831)  
BREWSTER WILLIE MRS (835)  
REAR NO RETURN (835)  
OZARK EGG CO (836)  
MC CLENDON CLAUDE (837)  
REAR KIMMONS NAPOLEON (837)

**\*\*2ND ST S\*\***

R.L. Polk Co., Publishers

VACANT (801)  
OFCS (802)  
SNELLING & SNELLING (802)  
VACANT (803)  
SNELLING 6& SNELLING CONSULTANTS (804)

1973

**\*\*N MAIN ST\*\***

R.L. Polk Co., Publishers

UNIVERSAL TRUCK BUMPERS INC MFRS (639)  
A A A AUTO SALVAGE AUTO PARTS NEW (668)  
TRI STATE IRON WORKS INC STEEL (677)  
FABRICATORS (677)  
CONWOOD CORP SNUFF MNFRA (701)  
HOT SHOT QUALITY PRODUCTS INC (701)  
INSECTICIDES MNFRA (701)  
GENERAL ELECTRIC APPARATUS SERV SHOP (708)  
DIESEL RECON ADDN RMN (710)

**\*\*3RD ST N\*\***

R.L. Polk Co., Publishers

**Year Uses**

**Source**

1973 (continued)

UNDER CONSTN (636)  
CENTRAL MEAT CO (652)  
WADE NELSON (662)  
VACANT (665)  
VACANT (667)  
SHARP MARIE MRS (668)  
MORTON ODESSA S (670)  
LEDBETTER MEAT CO WHOL (675)  
POWELL ROSIA J MRS (688)  
FONDREN JOHNNIE (692)  
VACANT (693)  
VACANT (700)  
APARTMENTS (705)  
BROWN ROSE M MRS (705)  
FERGUSON ODIS (705)  
HARRIS BESSIE A MRS (705)  
SAVAGE CALLIE (705)  
DYSON SARAH MRS (706)  
ALEXANDER WM C (707)  
APARTMENTS (707)  
BROWN ESSIE MRS (707)  
ELLIS ETHEL (707)  
MOSBY MARY (707)  
WILLIAMS JOE L (708)  
THOMAS GEO (710)  
VACANT (712)

**\*\*CHELSEA AVE\*\***

R.L. Polk Co., Publishers

BELL SAMI L (154)  
COMMANDER CLEVELAND (156)  
HOLMES MATTIE MRS (160)  
VACANT (165)  
BREATHETTS SERVICE STATION (183)  
GRANT SCHOOL (190)

**\*\*KEEL AVE\*\***

R.L. Polk Co., Publishers

MATTHEWS BLOW PIPE CO INC YARD (125)  
MATTHEWS BLOW PIPE CO INC SHT MTL (130)  
MATTHEWS SALES CO MFRS AGT (130)  
TELL TRONICS PRODUCTS INC ELECTRONIC (130)  
EQUIP (130)  
HARR PAUL (148)  
BROWN DOVIE (150)  
WILKERSON EULA M (152)  
LOCKHART HATTIE (158)

**Year Uses**

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1973 (continued)

MOODY MARY C MRS (160)  
WINDHAM CURTIS (162)  
POOLE ETTA MRS (164)  
HESTER AMOS (179)  
DAVIS ROBT E (180)  
ANDERSON WILLHE (181)  
BRAY LILLHE MRS (183)  
VACANT (184)  
RAY JOHNNIE (185)  
SEYMOUR JOHN H (187)  
HAYTHORN THOS (188)  
BALDRIDGE CHARLE (189)

**\*\*LOONEY AVE\*\***

R.L. Polk Co., Publishers

GORDAN BOBBIE P (118)  
ULLOYD ANNA MRS (120)  
FIELDS WILLIE MAE (150)

**\*\*2ND ST N\*\***

R.L. Polk Co., Publishers

VACANT (628)  
ESTERS CAFE (629)  
REAR VACANT (629)  
MURRAY ESTER MRS (631)  
FULTON MAGNOLIA MRS (632)  
REAR VACANT (633)  
WALKER ALBERTA MRS (633)  
CHALMERS MINNIE MRS (636)  
WARFORD JESSE W REV (637)  
WARFORDS FLORAL SHOP (637)  
BOWEN GEO R (638)  
ALLIED RECORDING STUDIOS (642)  
VACANT (649)  
PILGRIM REST BAPTIST CHURCH (652)  
CHURCH MARY G MRS (653)  
BEARD IDA MRS (655)  
SAWYER LEVI (658)  
WALLACE LEVI (659)  
MORROW ROBT (660)  
HIGH HARRY O SHT MTL WKR (665)  
COLEMAN ORA M MRS (672)  
KELLY & HAYNES FURNITURE CO (675)  
MAYS PAINT & BODY SHOP (678)  
LAZARS LIQUOR STORE (686)  
PAYNE OSA (696)  
VACANT (698)

**Year   Uses**

**Source**

1973 (continued)

- VACANT (699)
- VACANT (700)
- A VACANT (704)
- VACANT (704)
- SAINT MATTHEWS BAPTIST CHURCH (707)
- VACANT (710)
- JACKSON FANNIE MRS (713)
- FIFTY ONE GRILL RESTR (715)
- MISTER T B REV (718)
- TABERNACLE CHURCH OF GOD IN CHRIST (718)
- MISSISSIPPI VALLEY NET CO (793)
- PROWELL JOE (794)
- MORRIS DAN (796)
- BUCHANON CALDONIA (800)
- APARTMENTS (801)
- HARRIS Q T (801)
- MORRIS SAM (801)
- SIMPSON L C (801)
- STAPLES D W (801)
- STOKES EDDIE (801)
- VACANT (801)
- VACANT (801)
- VACANT (801)
- LAUNDRY CENTER SELF SERV (803)
- ALLEN OLEY MRS (805)
- BROWN MORRIS (810)
- APARTMENTS (811)
- HARDY KATH (811)
- JAMES DOROTHY MRS (811)
- LEWIS TROY W (811)
- PAYNE EDW (811)
- VACANT (811)
- WATSON MARGIE L MRS (811)
- WILLIAMS LEE (811)
- KING LAURA MRS (814)
- MC GEE CORMNE MRS (816)
- SIMELTON TROY (818)
- MONTGOMERY A D (820)
- LEE ABEN (822)
- WARFORD JESSE W REV (822)
- USED EQUIPMENT EXCHANGE OFC (823)
- COMPTON KATH L MRS (826)
- VACANT (831)

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1973	(continued)	
	BREWSTER WILLIE MRS (835)	
	REAR WILLIAMS WILLIE M (835)	
	OZARK EGG CO (836)	
	PIRTLE DORSE (837)	
	REAR VACANT (837)	
1978	<b>**N MAIN ST**</b>	R.L. Polk Co., Publishers
	VACANT (639)	
	CONCRETE POLES INC SIDE ENTRANCE (677)	
	MEMPHIS AREA TRANSIT AUTHORITY EXEC OFC (701)	
	GENERAL ELECTRIC APPARATUS SERV SHOP (708)	
	<b>**3RD ST N**</b>	R.L. Polk Co., Publishers
	WMIDHAM CURTIS (636)	
	SHARP & PORTER IWYR (640)	
	VACANT (641)	
	VACANT (652)	
	BOWEN GEO R (662)	
	LEDBETTER MEAT CO WHOL (675)	
	GARRETT JACK (688)	
	FONDREN JOHNNIE (692)	
	HOLY CHAPEL BAPTST CHURCH (693)	
	VACANT (704)	
	APARTMENTS (705)	
	COOK FRANCE (705)	
	MOORE MILDRED R (705)	
	PENN NEWMAN (705)	
	SAVAGE CALLE (705)	
	LEE ABON (706)	
	(706)	
	APARTMENTA (707)	
	BROWN ERIE MRS (707)	
	HOLMES LERETH (707)	
	MC CRACKEN BESIE (707)	
	MILLER FLORENCE M MRS (707)	
	HAMILTON OIL CO WHOL MARKETER (708)	
	KENNEDY MAGUENTE (708)	
	TERRELL KAOW (710)	
	VACANT (710)	
	VACANT (710)	
	BICKERS ROBT V IWYR (712)	
	HUNDLEY JOHN E IWYR (712)	
	BICKER & HUNDLEY ADDN SP (714)	
	HANRAHAN DANL G IWYR (716)	
	VACANT (718)	

**Year   Uses**

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1978 (continued)

HERRING GEO D IWYR (720)  
VACANT (726)  
VACANT (727)  
VACANT (727)  
CENTRAL SOUTH REALTY CO (730)  
MEMPHIS SECRETARIAL SERV (730)  
VACANT (730)  
VACANT (732)  
VACANT (740)  
VACANT (741)  
GEMIGNANI ARTH J LWYR (800)  
VACANT (802)  
VACANT (803)  
NATIONAL OAK FLOORING MFG AMN (804)  
VACANT (804)  
NATIONAL LUMBER EXPORTER AOI (805)  
JONES JEFFREY H IWYR (806)  
MANUFACTURE ASN (806)  
PATTERSON HAM IWYR (806)  
ROBERTS ABE L IWYR (806)  
SOUTHERN HARDWOOD LUMBER (806)  
WILLIAMS THOS D LWYR (806)  
VACANT (807)  
VACANT (808)  
VACANT (809)  
VACANT (810)  
IRION JAM E LWYR (812)  
VACANT (814)  
VACANT (814)  
VACANT (816)  
MOOAE LAWRENCE A DENTIST (818)  
VACANT (818)  
VACANT (820)  
VACANT (820)  
WATSON CHARLES L IWYR (821)  
ADLER & HACKEL IWYR (824)  
BLOUNT WILLIAM R JR IWYR (824)  
BUSBY RICH D G IWYR (824)  
VACANT (826)  
DONALD JOHN A IWYR (827)  
VACANT (827)  
VACANT (828)  
VACANT (828)



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1978 (continued)

VACANT (830)  
VACANT (831)  
VACANT (832)  
NORFOLK & WESTERN RAILWAY CO FRT ST (837)  
VACANT (839)  
ROLLINM SERVICE BLDG MTCE (841)  
(842)  
VACANT (845)

**\*\*CHELSEA AVE\*\***

R.L. Polk Co., Publishers

MASON DEBORAH (1)  
BELL SAMI L (154)  
LGGINA JOHN (156)  
HOLMES MATTIE MRS (160)  
VACANT (165)  
BREATHETTA SERVICE ST (183)  
GRANT ELEMENTARY S (190)

**\*\*KEEL AVE\*\***

R.L. Polk Co., Publishers

MATTHEWS BLOW PIPE CO INC YARD (125)  
MATTHEWS BLOW PIPE CO INC SHT MTL WKRS (130)  
HARR PAUL (148)  
BROWN DOVIE (150)  
PARKER LUCILLE (152)  
VACANT (153)  
WILKERSON UIG (154)  
MAYS WILHIE (156)  
LOCKHART HATTIE MRS (158)  
VACANT (162)  
WILH BAMS DOROTHY M (179)  
DAVIS ROBT E (180)  
ANDERSON WILHE (181)  
VACANT (183)  
CARTER LARRY M (184)  
VACANT (185)  
SEYMOURE JOHN H (187)  
HAYTHORN THOS (188)  
BALDNDGE CHARLIE (189)

**\*\*LOONEY AVE\*\***

R.L. Polk Co., Publishers

VACANT (118)  
VACANT (120)  
FRAZIER DELONS (150)  
JONES LILLIAN (152)

**\*\*2ND ST N\*\***

R.L. Polk Co., Publishers

**Year   Uses**

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1978 (continued)

REAR VACANT (629)  
WEAVERS GRILL RESTR (629)  
TRUEHEART ROY (631)  
SHERROD RICHD (633)  
WILHAMA JOE (633)  
WARFORD JESSE W REV (637)  
WARFORDS FLORAL SHOP (637)  
ALHED RECORDING STUDIO ADDN SP (640)  
ALLIED RECORDING STUDIO (642)  
B R D PRODUCTIONS TALENT BOOKING AGTS (642)  
MEMPHIS ARTIST ATTRACTIONS BOOKING AGT (642)  
CHAMBERS REPAIR SERVICE REFGR & WASH MACH REPR  
(649)  
FIELDS ARTH (649)  
PILGRIM REST BAPTIST CHURCH (652)  
CHURCH MARY G MRS (653)  
BEARD IDA MRS (655)  
YOUNG SAML (658)  
WALLACE LEVI (659)  
MORROW ROBT L (660)  
COLEMAN ORA M MRS (665)  
KELLEY & HAYNES FURNITURE CO WHSE (665)  
VACANT (665)  
KELLEY & HAYNES FURNITURE CO (675)  
MAYS PAINT & BODY SHOP (678)  
LAZARS LIQUOR STORE (686)  
WHITEHEAD LUTHER (696)  
FRANKHN ETTA M (698)  
VACANT (699)  
UDELSONH TURNAGE & BLAYLOCK P C IWYRS (700)  
VACANT (700)  
ASHFORD MERCER & MOORE IWYNR (701)  
GWMNN W WALKER IWYR (701)  
VACANT (703)  
VACANT (704)  
SAINT MATTHEWS BAPTIST CHURCH (707)  
VACANT (710)  
VACANT (711)  
BERNICES LOUNGE RESTR (715)  
VACANT (718)  
MISIIPPI VALLEY NET CO (793)  
JONES CHARLES (794)  
MOMS VICTORIA A MRS (796)

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1978 (continued)

FORD MARY (800)  
GARDNER HESTER & MC CRARY IWYNR (800)  
ADDINGTON MILTON C CONSULTING PSYCHOL (801)  
APARTMENTS (801)  
VACANT (801)  
INC ARCHT (803)  
LAUNDRY CENTER SELF SERV (803)  
THOMASON GEORGE A & ASSOCIATES (803)  
ALLEN OLA MRS (805)  
DICKSON RICHD V (810)  
APARTMENTS (811)  
ARCHIBLE BUFORD L (811)  
HERNDON JOHNNIE R (811)  
JAMES DOROTHY MRS (811)  
JOHNAON SYDNEY (811)  
VACANT (811)  
VACANT WATSON MARGIE L MRS (811)  
CHURCHS BOARDING HOUSE (814)  
VACANT (816)  
SMUNELTON TROY (818)  
BUTLER DOROTHY MRS (820)  
VACANT (822)  
USED EQUIPMENT EXCHANGE OFC (823)  
BREWSTER WILHIE MRS (835)  
REAR VACANT (835)  
COMPTON KATH (836)  
HARRM LILLIE D MRS (837)

1982 **\*\*N MAIN ST\*\***

R.L. Polk Co., Publishers

STEVENS ELEC CO STGE (639)  
CONCRETE POLES INC SIDE ENTRANCE (677)  
CITY BEAUTIFUL COMN (701)  
CITY OF MEMPHIS SURVEY DEPT (701)  
CITY OF MEMPHIS RESOURCE (701)  
MEMPHIS AREA TRANSIT AUTHORITY EXEC OFC (701)  
MEMPHIS MUNICIPAL EMPLOYEES CREDIT UNION (701)  
MANAGEMENT BUREAU (701)  
GENERAL ELECTRIC INSTRUMENT SHOP COMMUNICATION  
EQUIP SERV (708)

**\*\*3RD ST N\*\***

R.L. Polk Co., Publishers

WINDHAM CURTIS (636)  
ANALCHAM LABORTORIES INC (652)  
BIGGS EDW D (652)  
LEDBETTER MEAT CO WHOL (675)

**Year   Uses**

**Source**

1982 (continued)

GARRETT JACK (688)  
FONDREN JOHNNIE (692)  
HOLH CHAPEL BAPTIST CHURCH (693)  
APARTMENTS (705)  
COOK FRANCES (705)  
GREENE ELV (705)  
SAVAGE CALHLIE (705)  
WILLIAMS VELMA LEE (705)  
MABON LAURA B (706)  
APARTMENTS (707)  
BROWN ESSIE MRS (707)  
HOLMES LORETH (707)  
MARSHALL AMELIA M (707)  
MC CRACKEN BESSIE (707)  
VACANT (708)  
VACANT (710)  
ARMSTRONG HOMER L IWYR (802)  
B & L PRODUCTIONS INC ENTERTAINER PRODUCTIONS (802)  
BALLHN & BALHLIN P C IWYR (802)  
BRACKSTONE FERNAND D IWYR (802)  
BROOKS & BROOKS IWYRS (802)  
BUDGET RENT A CAR (802)  
BUGG COLDEN S DENTIST (802)  
CANNON CANALE & GREGORY IWYRS (802)  
CENTRAL SOUTH REALTN CO (802)  
CENTURY 21 GREATER REAL EST (802)  
CLIFTON BILL C LWVR (802)  
CLIFTON CLARENCE E IWVR (802)  
CNSHP PHILIP & ABNEY IWYRS (802)  
COMMERCE UNION BANK OF MEMPHIS (802)  
CRAW LE PADGETT WHITWORTH & DONOHUE LWYR (802)  
DOW JONES & CO (802)  
ECON DEVELOPMENT INC FED FUNDING ORGANIZATION (802)  
FISHER CLARENCE H ARCHT (802)  
FONTANA LEE J IWYR (802)  
FOSTER RICHD W IWYR (802)  
FROST ARNETT CO COLLECTIONS (802)  
GAITHER CLIFFORD DENTIST (802)  
GALLOWAY PHILLP H JR LWVR (802)  
GEMIGNANI ARTH J IWYR (802)  
GOLDSB R ROLLIN RE (802)  
GUIDI MARC IWVR (802)  
HALLMAN STEVEN R IWYR (802)

**Year   Uses**

**Source**

1982 (continued)

HALLMAN STEVEN R IWYR (802)  
HALLMAN STEVEN R IWYR (802)  
HEDGES POSEY G JR DENTIST (802)  
HINSON LEE LWVR (802)  
HYATT HUGH K DENTIST (802)  
INTERCALL (802)  
JAMIESON W RAY LWVR (802)  
KLEPPER & KLEPPER LWVRS (802)  
KUHN KUHN & KUHN P C LWVR (802)  
LAW BRUCE IWYR (802)  
LEADER FEDERAL HUMAN RESEARCH DIR (802)  
LEXINGTON ANDREWS INC MFRS REP (802)  
LOAN ADMNN (802)  
LOBB LOBB SA ANNETTE THE SNACK BAR (802)  
LOBB STERICK JEWELER & GIFT SHOP INC (802)  
LOBBY AMERICAN & INTERNATIONAL TRAVEL SERVICE INC  
(802)  
M G T BARTENDING SERVICES (802)  
MARKLE PHILIP MED (802)  
MEMPHIS HERNTAGE HISTORNC PRESERVATION (802)  
MEMPHIS SECRETARIAL SER (802)  
MERMLL GILLILAND WILSON & RUSSELL IWYRS (802)  
MID AMERNCA TRADE EXCHANGE BARTERS (802)  
NATIONAL LUMBER EXPORTERS ASSOCIATION (802)  
NATIONAL OAK FLOORNNG MFG ASSN (802)  
NATIONWIDE COLLECTION CORP (802)  
NELSON JACK IWYR (802)  
NEW MIEMPHIS DEVELOPMENT CORP (802)  
NICHOLSON HACKEL & NICHOLSON IWVRS (802)  
NO RETURN (802)  
NORFOLK & WESTERN RAILWAY CO FRT ST (802)  
NORWOOD MANAGEMENT CO INC (802)  
PAUL KOELZ WILSON AND WHITE IWVYRS (802)  
PIPKIN A E & SONS INS (802)  
STERICIK BUILDING (802)  
SCHAFFER BEN DENTIST (802)  
SHARP WM E JR IWYR (802)  
SHIELDS R CHARDSON NORWOOD & RICHARDSON LAW  
OFFICE (802)  
SLA IN CLYDE P OFC BLDG MTCE (802)  
SOUTHERN HARDWOOD LUMBER MANUFACTURERS ASSN  
(802)  
STENRICK BUILDING CORP (802)  
STERICK BARBER SHOP (802)



**Year   Uses**

**Source**

1982 (continued)

VACANT (802)

VACANT (802)

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VACANT (802)

VACANT RMS 510 512T (802)

WALLACE REED CUSTOM SHIRTS (802)

WILKES MC CULLOUGH & TAVLOR IWYR (802)

TH FL CAYWOOD DAVID E IWYR (802)

TH FL CROW BEHLLES & SCHLEDWITZ IWYR (802)



**Year Uses**

**Source**

1982 (continued)

TH FL LENOW NATE T JR PRIVATE INVESTIGATOR (802)

TH FL PICARD MILTON C IWYR (802)

TH FL UNITED STATES NAVY RECRUITING DIST (802)

TH FL VACANT (802)

THFL VACANT (802)

**\*\*CHELSEA AVE\*\***

R.L. Polk Co., Publishers

BELL SAM I L (154)

LIGGINS JOHN (156)

MALLOR S BODY SHOP (160)

VACANT (165)

BREATHETTS SERVICE STATION (183)

GRANT ELEMENTARY SCHOOL (190)

**\*\*KEEL AVE\*\***

R.L. Polk Co., Publishers

MATTHEWS BLOW PIPE CO INC YARD (125)

MATTHEWS BLOW PIPE CO INC SHT MTL WKRS (130)

VACANT (148)

VACANT (150)

THOMAS WM (152)

VACANT (153)

COVMNGTON CAROLYN (154)

VACANT (156)

VACANT (158)

VACANT (160)

VACANT (162)

WILLIAMS DOROTHY M (179)

LARR LINDA C (180)

ANDERSON WILLIE (181)

VACANT (183)

CARTER LARRY M (184)

VACANT (185)

SEYMOURE JOHN H (187)

HAYTHORN THOS (188)

BALDRINDGE CEBELL (189)

**\*\*LOONEY AVE\*\***

R.L. Polk Co., Publishers

JONES LEE B MRS (120)

VACANT (150)

VACANT (152)

**\*\*2ND ST N\*\***

R.L. Polk Co., Publishers

REAR JEFFERSON ED L (629)

WILSONS GRILL RESTR (629)

TRUEHEART RO (631)

JONES LACEX (633)

**Year   Uses**

**Source**

1982 (continued)

WILLIAMS JOE (633)  
WARFORD JESSE W REV (637)  
WARFORDS FLORAL SHOP (637)  
VACANT (640)  
A R C PRODUCTIONS (642)  
ALLIED RECORDING COMPLEX CORP RECORDING STUDIO  
(642)  
CHAMBERS REPAIR SERVICE REFR & WASH MACH (649)  
PILGRIM REST BAPTIST CHURCH (652)  
CHURCH MARV G MRS (653)  
BEARD IDA MRS (655)  
WILLIAMS SHIRLEV (656)  
VACANT (658)  
WALLACE LEVI (659)  
MORROW ROBT L (660)  
COLEMAN ORA M MRS (665)  
LAIRD C A (665)  
MALLORY JARRETT (665)  
VACANT (665)  
VACANT (665)  
VACANT (675)  
MAYS PAINT & BOD SHOP (678)  
LAZARS LIQUOR STORE (686)  
WHITEHEAD LUTHER (696)  
FRANKLIN ETTA M (698)  
VACANT (699)  
UDELSOHN TURNAGE & BLAYLOCK P C IWYRS (700)  
VACANT (700)  
ASHFORD MERCER & MOORE IWYRS (701)  
GWINN W WALKER IWYR (701)  
ELLIS GROVE PBAPTIST CHURCH (707)  
VACANT (710)  
SWEET CHARLOTTE'S LOUNGE (715)  
MISSISSIPPI VALLE NET CO (793)  
NELSON RUTH L (794)  
NASH VICTORNA A MRS (796)  
CATES GEORGIA (800)  
MEMPHIS BANK AND TRUST TELLER (800)  
SCHOOL (800)  
BEATY HENRY M IWYR (801)  
THOMASON GEORGE A & ASSOCIATES INC ARCHT (803)  
VACANT (803)  
GILLPIN ONTA (805)

**Year Uses**

**Source**

1982 (continued)

VACANT (810)  
APARTMENTS (811)  
BOWEN JEANNETTE (811)  
JAMES DOROTHS M MRS (811)  
JONES LLLIAN (811)  
JONES MILDRED (811)  
KNAPP CHAS (811)  
SHELBY EFFIE H (811)  
WATSON MARGIE L MRS (811)  
VACANT (814)  
BRUCE DORNS L (816)  
SIMELTON TROY (818)  
BUTLER DOROTH M MRS (820)  
KETCHUM ED (822)  
USED EQUIPMENT EXCHANGE OFC (823)  
VACANT (826)  
RAUD WALT (835)  
DAVIS CHARLES (837)

1987 **\*\*N MAIN ST\*\***

R.L. Polk Co., Publishers

SUPERIOR METAL CRAFT SIDE ENT (677)  
VACANT (701)  
U S CORPS OF ENG SURVEY BR (761)  
U S CORPS OF ENGS SURVEY BR ADDL SPACE (763)  
U S CORPS OF ENG OFC (767)  
U S CORP OF ENG RELOCATIONS BR ENG DIV (769)  
U S CORP OF ENG SAFETY OFC (777)  
COUNTY ATTORNEY (801)  
KELLEY MAURICE (801)  
STATE DEPT OF HUMAN SERV ADDL (801)

**\*\*3RD ST N\*\***

R.L. Polk Co., Publishers

LINCOLN GLASS CO (635)  
WINDHAM CURTIS (636)  
HOKE ASA H & ASSOC IWYR (641)  
VACANT (641)  
VACANT RMS (644)  
BIGGS CORP THE LABYS (652)  
BIGGS EDW D (652)  
LEDBETTER MEAT CO WHOL (675)  
POWELL LIZZIE (688)  
FONDREN JOHNNIE (692)  
HOLY CHAPEL BAPTIST CHURCH (693)  
APARTMENTS (705)  
COOK FRANCES MRS (705)

**Year Uses**

**Source**

1987 (continued)

HIGGS DOROTHY (705)  
OSBOE RICKY (705)  
SAVAGE CALLIE MRS (705)  
VACANT (706)  
APARTMENTS (707)  
BROWN ESSIE W MRS (707)  
HOLMES LORETH (707)  
SHORT MAMMIE MRS (707)  
WILLIAMS VELM (707)  
VACANT (708)  
WEST KALLIE MAE (710)  
FONTANA LEE J IWYR (730)  
GALLOWAY PHILIP H JR IWYR (730)  
VACANT RMS (739)  
VACANT (744)  
GEMIGNANI ARTH J IWYR (800)  
MANUFACTURING ASSN ORGANIZATIONS BUSN (804)  
NATIONAL OAK FLOORING (804)  
HARDWOOD MANUFACTURERES ASSN (805)  
SOUTHERN CYPRESS MANUFACTURING ASSN (805)  
VACANT (810)  
VACANT (814)  
VACANT (818)  
VACANT (820)  
CANTRELL FRANK S LWYR (824)  
LIGON W MICHL LWYR (824)  
VACANT RMS (827)

**\*\*CHELSEA AVE\*\***

R.L. Polk Co., Publishers

U 79 JOHNSON FREDDIE (1)  
:30 HUBBARD NORTH MFS HDW & FURN (24)  
ADDN SP (24)  
BELL HATTIE B MRS (154)  
VACANT (156)  
VACANT (165)  
BREATHETTS SERVICE STATION (183)  
GRANT ELEMENTARY SCHOOL (190)

**\*\*KEEL AVE\*\***

R.L. Polk Co., Publishers

MATTHEWS BLOW PIPE CO INC YARD (125)  
MATTHEWS BLOW PIPE CO INC SHT MTL WKRS (130)  
WILLIAMS DOROTHY M (179)  
FISHER LINCOLN (180)  
ANDERSON WILLIE (181)  
RAY LILLIAN MRS (183)

**Year Uses**

**Source**

1992 (continued)

JOHNSON OFFIE (705)  
SAVAGE COLLIE (705)  
HANDY GERALDINE D (706)  
VACANT 2 HSES (706)  
APARTMENTS (707)  
BROWN ESSIE W (707)  
HOLMES LORETH (707)  
SHORT MAMMIE (707)  
WILSON MAMIE (707)  
VACANT (708)  
PORTERFIELD ELFRICI (710)  
WESTKALLIE MAE (710)

**\*\*CHELSEA AVE\*\***

R. L. Polk Co.

CLEEVE COMANDRO (156)  
VACANT (165)  
BREATHETTS SERVICE STATION (183)  
GRANT ELEMENTARY SCHOOL (190)

**\*\*KEEL AVE\*\***

R. L. Polk Co.

MATTHEWS BLOW PIPE CO INC YARD (125)  
MATTHEWS BLOW PIPE CO INC SHT MTL WKRS (130)  
THOMAS ALEVERT (179)  
VACANT (180)  
ANDERSON WILLIE (181)  
BUTLER THEO (183)  
CARTER LARRY M (184)  
VACANT (185)  
SEYMOURE MARY (187)  
CHILDRESS CLIFFORD (188)  
BALDRIDGE CEBELL (189)

**\*\*LOONEY AVE\*\***

R. L. Polk Co.

VACANT (120)

**\*\*2ND ST N\*\***

R. L. Polk Co.

NICKS INN RESTR (629)  
REAR DAVIS ALBERT (629)  
NO RETURN (631)  
VACANT 2 HSES (633)  
NO RETURN (637)  
VACANT 2 HSES (640)  
CHAMBERS REPAIR SERVICE REFGR & WASH MACH (649)  
PILGRIM REST BAPTIST CHURCH (652)  
NO RETURN (653)  
LONDON ANNIE (655)

**Year   Uses**

**Source**

1992 (continued)

NO RETURN (658)  
WALLACE VERA (659)  
MORROW ROBT L (660)  
VACANT 2 HSES (673)  
MAYS PAINT & BODY SHOP (678)  
PYRAMID LIQUOR STORE (686)  
NO RETURN (696)  
FRANKLIN ETTA M (698)  
CHRIST GOSPEL APOSTOLIC CHURCH (707)  
VACANT (715)  
VACANT 5 HSES (793)  
APARTMENTS (811)  
HEARD HATTIE (811)  
JAMES DOROTHY M (811)  
LESTER LOXORA (811)  
LITTLE ALBERT (811)  
SANDER DANELL (811)  
SHELBY EFFIE H (811)  
WATSON MARGIE (811)  
SIMELTON TROY (818)  
BUTLER DOROTHY M (820)  
KETCHUM ED (822)  
VACANT (823)  
SHORTY HELEN (826)  
VACANT (835)  
DAVIS CHARLES (836)  
NO RETURN (837)

1997 **\*\*2ND AVE N\*\***

R. L. Polk Co., Publishers

POARCH CHRISTOPHER L (628)  
LEWISBURG GROCERY GROCERY STORES (635)  
NOT VERIFIED (638)  
PRESLEY OLIVER W & SUSIE (644)  
HICKMAN RICHARD D (650)  
HICKMAN RUTHANNE A (650)  
HARRIS LEEROY R & MARY (658)  
BRYANT ROBERT E (662)  
HARGROVE VAN B (664)  
COX PAMELA D (709)  
CROSS VIRGIE L (711)  
SECOND AVENUE CHURCH OF CHRIST RELIGIOUS ORGS (720)  
NOT VERIFIED (723)  
EVANS HAROLD (725)  
TAYLOR ERA (733)

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1997	(continued) OWENS MAMIE (735) MCLEAN KATHERINE (800) THOMISON ANNIA R (802) THOMISON MELVIN L (802) NOT VERIFIED 5 HSES (803) NOT VERIFIED 5 HSES (817)	
2003	<b><u>**N 3RD ST**</u></b> L 1 NCOLN GLASS CO GLASS (635) BURR CHARLIE (652) LEONARD MEAT CO MEAT RETAIL (675) FONDREN ANNIE N FO (692) HOLY CHAPEL MB CHURCH CHURCHES (693) 0 GOODMAN MARION D (705) CROSS MAE (705) NOT VERIFIED (705) NOT VERIFIED 3 APTS (705) 3 NOT VERIFIED 2 APTS (707) HARRIS JI (707)	Polk City Directory
	<b><u>**N MAIN ST**</u></b> YARBROUGH CABLE SVC SERV BUREAUS (677) COMMUNITY GOVERNMENT OFFICES (701) DEVELOP GOVERNMENT OFFICES E (701) DEVELOPMENT CITY GOVERNMENT (701) HOUSING & REHAB PROGRAM GOVERNMENT OFFICES (701) HOUSING AND COMMUNITY (701) IMPROVEMENT GOVERNMENT OFFICES (701) MEMPHIS ECONOMIC (701) MEMPHIS HOUSING (701) MEMPHIS HOUSING (701) MEMPHIS HOUSING & COMM DEV GOVERNMENT OFFICES (701) CORP CHEMICALS MFRS (710) INTERNATIONAL CHEMICAL (710)	Polk City Directory
	<b><u>**CHELSEA AVE**</u></b> WAYNES COIN OP LAUNDRIES SELF SERV (167) TOM BREATHE 7 SVC STATION (183) SERV STATIONS GASOLINE & OIL (183)	Polk City Directory
	<b><u>**KEEL AVE**</u></b> MATTHEWS BLOW PIPE CO AIR POLLUTION CONTROL (130) THOMAS ALFORD EII (179) NOT VERIFIED (180) 0D WAMBLER CHARLIE (181)	Polk City Directory



<u>Year</u>	<u>Uses</u>	<u>Source</u>
2003	(continued)	
	187 NOT VERIFIED 3 HSES (184)	
	+ N 4TH STINTERSECTS (188)	
	LITTLE ALBERT HS (188)	
	<b>**MAIN ST**</b>	Polk City Directory
	VALVOLINE INSTANT OIL CHANGE AUTO LUBRICATION SERV (758)	
	TIM HOGANS ABBEY CARPET FLOOR MATERIALS (776)	
	<b>**N 2ND ST**</b>	Polk City Directory
	NOT VERIFIED (653)	
	JOHNSON A L (655)	
	WALLACE VERA F & LEVI F (659)	
	MORROW ROBERT L 2 A (660)	
	+ KEEL AVEINTERSECTS (678)	
	MAYS PAINT & BODY SHOP AUTO RPR&SERV (678)	
	PYRAMID LIQUORS LIQUORS RETAIL (686)	
	698 NOT VERIFIED 2 HSES (696)	
	TEMPLE OF HOLINESS CHURCHES (707)	
	7 NOT VERIFIED 7 APTS (811)	
	BOSWELL EARNEST (811)	
	BOYLAND TARSHA M O (816)	
	SIMELTON TROY SR (818)	
	MC KINELY FLENARD E (820)	
	NOT VERIFIED (822)	
	LEARNING CHILD CARE SERV (823)	
	NEW EL BETHEL CHURCH CHURCHES (823)	
	NOAHS ARK CHRISTIAN (823)	
	SLAVE HAVEN UNDERGROUND RR MUSEUMS (826)	
	637 NOT VERIFIED 2 HSES (829)	
	(829)	
2006	<b>**N 3RD ST**</b>	Polk City Directory
	LINCOLN GLASS CO MIRRORS (635)	
	+ KEEL AVEINTERSECTS (636)	
	BRANCH C 1N (636)	
	NO CURRENT LISTING (688)	
	CHALMERS JANICE M LA (692)	
	HOLY CHAPEL MB CHURCH (693)	
	CHURCHES (693)	
	706 NO CURRENT LISTING 2 HSES (705)	
	MOORE T (707)	
	<b>**N MAIN ST**</b>	Polk City Directory
	YARBROUGH CABLE TESTING (677)	
	WIRE ROPE (677)	

**Year Uses**

**Source**

2006 (continued)

DEVELOP GOVERNMENT OFFICES (701)  
DEVELOPMENT CITY GOVERNMENT (701)  
HOUSING & COMMUNITY (701)  
HOUSING & REHAB PROGRAM (701)  
IMPROVEMENT GOVERNMENT (701)  
MEMPHIS ECONOMIC (701)  
MEMPHIS HOUSING (701)  
MEMPHIS HOUSING & COMM DEV (701)  
MEMPHIS PUBLIC IMPROVEMENT (701)  
WARFORD EDMUND D (701)  
GOVERNMENT OFFICES (701)  
GOVERNMENT OFFICES (701)  
GOVERNMENT OFFICES (701)  
OFFICES (701)  
CORP SPECIALTY CING PISHNG/SANITATI (710)  
INTERNATIONAL CHEMICAL (710)

**\*\*CHELSEA AVE\*\***

Polk City Directory

CHELSEA STREET COIN OP (167)  
RESTAURANTS (167)

**\*\*KEEL AVE\*\***

Polk City Directory

ECKEL PETER K O (130)  
KEELAVE CONTD (130)  
MIDDLE EARTH CONSTRUCTION (130)  
NO CURRENT LISTING (180)  
WAMBLER CHARLIE Q (181)  
CD CARTER LARRY M & MARY D A (184)  
E D JACKSON DONALD A (188)

**\*\*MAIN ST\*\***

Polk City Directory

WILLIAMS OSSIE F L (669)  
MILLER CEVELL (679)  
MILLER IVORY (679)  
MAJINST CONTD (758)  
VALVOLINE INSTANT OIL CHANGE (758)  
AUTO LUBRICATION SERV (758)  
DALTON GEORGIA CARPET (770)  
OUTLET CARPET & RUG DIRS NEW (770)

**\*\*N 2ND ST\*\***

Polk City Directory

D LEWIS TERRY (634)  
ALEXANDRE MICHELLE (639)  
NO CURRENT LISTING (653)  
JOHNSON ADA L (655)  
WALLACE VERA F & LEVI M (659)

**Year   Uses**

**Source**

2006 (continued)

MORROW ROBERT L I (660)  
TEMPLE OF HOLINESS CHURCHES (707)  
D MOORE DIANNE (811)  
MOORE CHARISMA (811)  
SHORT MAKEASHA L (811)  
818 NO CURRENT LISTING 2 HSES (816)  
MC KINLEY NICOLE (820)  
MC KINLEY SLENARD R (820)  
NO CURRENT LISTING (822)  
LEARNING CHILD CARE SERV (823)  
NOAHS ARK CHRISTIAN (823)  
RR MUSEUMS (826)  
SLAVE HAVEN UNDERGROUND (826)

I. Site Photographs



**Photo 1: Typical view of the building on the subject property.**



**Photo 2: Typical view of the interior of the subject property building.**



**Photo 3: Another view of the interior of the building.**



**Photo 4: Typical view of paint storage on the subject property.**





**Photo 5: Typical view of the exterior of the subject property facing west.**



**Photo 6: Typical view of the southern portion of the subject property facing east.**



**J. Qualification(s) of the Environmental Professional**

### **Sarah Rehkopf Schoefernacker**

#### **Project Scientist**

#### **Education**

Western Kentucky University  
Master of Science, Geoscience (Current)  
University of Memphis  
Bachelor of Arts, Geography, 2003

#### **Active Registrations**

OSHA - 40 Hour Hazardous Waste Operations Worker  
TNEPSC Inspector Certification

#### **Affiliations**

Association of American Geographers

#### **Professional Experience**

Ms. Schoefernacker has over two (2) years of environmental experience with a background that covers five (5) states in the southeast. She has acted as Project Scientist conducting over sixty (60) Phase I ESAs.

As Project Scientist, Ms. Schoefernacker has been responsible for conducting Phase I ESAs for City and County Governments, banks, developers, and private business owners. The Phase I ESAs have included agricultural, industrial, commercial and residential properties. Ms. Schoefernacker also has sampled storm water at facilities in the Memphis Area.

Ms. Schoefernacker has assisted in other environmental projects including, Phase II ESA fieldwork, groundwater sampling, SPCCs Plans, Phase II Storm Water Annual Reports, and the oversight of Bio-enhancement in-situ remediation projects.

Ms. Schoefernacker's previous work most recently includes the position of Graduate Assistant at Western Kentucky University where she assisted in research for the Green River Project. She was responsible for tasks including sieving sediments, installing hydrolabs, collecting and analyzing data from the field, and general maintenance of equipment.

Ms. Schoefernacker's gained valuable experience in the position of Research Assistant at The University of Memphis where she performed data entry and analysis of hydrologic data from the Mississippi River stage recorders. She gained further experience at Weaver & Associates, LLC, an archaeological/historical studies firm, where her field duties included excavating, screening, and surveying various project areas and her lab duties included cleaning, cataloging, and labeling of artifacts. She also assisted with report production.

#### **Phase I ESA Experience**

Ms. Schoefernacker has developed Environmental Site experience utilizing the ASTM 1527-05 Standard at the following clients, among others:

- **Urban Revitalization Projects** (Downtown Memphis, TN)
- **Church Campus and Facility** (Cordova, TN)
- **Truck Sales and Maintenance Facility** (West Memphis, AR and Jonesboro, AR)

- **Manufacturing, Electroplating and Painting of Automotive Parts Facility** (Newbern, TN and Bowling Green, KY)
- **Agricultural Properties** (Memphis, TN, Collierville, TN, Forrest City, AR, and Tunica, MS)
- **Retail Gasoline and Diesel Distribution Facilities** (Memphis, TN, Milan, TN)
- **Shopping Centers** (Memphis, TN)

### Phase II ESA Experience

Ms. Schoefernacker has developed subsurface investigation experience assisting at the following sites, among others:

- **Agricultural Land associated with Land Farming of Industrial and Municipal Waste** (Covington, TN)
- **Retail Gasoline Distribution Facility** (Memphis, TN)

### DNAPL Experience

Ms. Schoefernacker has sampling experience at the following sites, among others:

- **Current and Former Drycleaning Facilities** (Memphis, TN)
- **Brownfields Site** (Jackson, TN)

### Publications

- Rehkopf, S., 2006, **Geomorphological effects downstream of the Green River Lake Dam, Green River**, South Central Kentucky. Sigma Xi. Bowling Green, KY.
- Rehkopf, S., 2006, **Geomorphological effects downstream of the Green River Lake Dam, Green River**, South Central Kentucky. AAG Annual Convention. Chicago, IL.
- Rehkopf, S. and All, J., 2005, **Evaluating Geomorphological Effects of Dams on the Green River in South Central Kentucky Using Aerial Photography**. Kentucky Academy of Science. Lexington, KY.

**Gene Bailey, P.E.**  
**Principal, Environmental**

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**Education**

Christian Brothers University  
Bachelor of Science, Civil Engineering, 1985

**Active Registration**

Professional Engineer – Tennessee, Mississippi, Arkansas, Florida, Alabama, Georgia, Kentucky, Texas, Oregon  
State of Mississippi Brownfields Consultant (Professional Engineer)  
State of Tennessee Drycleaner Corrective Action Contractor  
Certified 40 Hours OSHA and 8 Hour Supervisor of Hazardous Waste Operations and Emergency Response  
Certified Asbestos Project Designer  
American Red Cross First Aid, Community CPR, and Safety  
State of Texas LPST Project Manager (#156)

**Professional Experience**

Mr. Bailey has more than 18 years engineering experience with a background that spans a wide range of issues and activities. His responsibilities have included administrative and technical assignments for multi-disciplinary projects involving assessment, design, implementation, and contract management.

His background has included projects with public and private sector. This work has required excellent technical and communication skills with agencies including numerous local and state environmental and health departments and federal agencies to include at least two regions with the United States Environmental Protection Agency.

His environmental work has included multi-task assignments in the areas of Site Assessments, Underground Storage Tank Management, Asbestos Management, Site Investigations under RCRA and CERCLA, and compliance projects mandated by RCRA, OSHA and the Clean Water Act.

His RCRA/CERCLA projects have included sites contaminated with PCBs, Lead, and Mercury. In addition, he has developed EPA approved Response Action Plans, Spill Prevention Control and Countermeasure Plans and Stormwater Pollution Prevention Plans.

Mr. Bailey has performed air related services which included air emissions inventories, identification of process related fugitive emissions and point source emission locations.

Mr. Bailey has conducted Phase I and Phase II Environmental Site Assessments for lending institutions, the Tennessee Dept. of Transportation and the Mississippi Dept. of Transportation. The assessments conducted for the highway departments have included several commercial and industrial properties along highway widening projects. He also has a broad background in UST/Hydrocarbon Assessment projects and remediating sites contaminated by past petroleum releases.

Mr. Bailey has conducted numerous site investigations and is extremely knowledgeable and well versed in site cleanup procedures. He has served as project manager on various hazardous waste assessment projects including groundwater contamination delineation

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## Key Personnel (Continued)

and remediation design. Responsibilities have included the implementation of State approved work plans and sampling plans, installation of monitoring wells, classification of subsurface soils, development of schematics, groundwater flow and contamination isopleths.

Mr. Bailey oversees all projects performed by the environmental staff and is responsible for reviewing all documents prepared by the environmental staff. A brief overview of Mr. Bailey's project experience includes:

### **Tennessee Air National Guard, Memphis International Airport - Memphis, Tennessee**

As Project Manager, prepared specifications and plans for removal of sixteen Underground Storage Tanks (USTs) and various oil/water separators. Responsibilities included negotiating modifications as the prime contractor A/E contract with the government. Services included full-time inspection during construction, environmental permitting and sampling.

### **Midwest Steel Corporation - Nitro, West Virginia**

Project Manager for a Superfund investigation and remediation of a steel recycling and manufacturing facility. Site was contaminated with PCB, lead and mercury. Project duties included implementation of the EPA approved Response Action Plan. Investigation strategy includes screening soils with immunoassay field kits for laboratory confirmation of PCB contamination.

### **Magnetek Corporation - Various Sites, Nationwide**

Responsible for site visits to characterize and analyze facilities for development of individual stormwater permit applications under EPA/NPDES guidelines. Tasks included drainage basin flow calculations, analysis of plant operations and how they may relate to the stormwater permit process, stormwater collection activity, and individual plant communications. Several plants were successfully exempted from regulations by design of strategic management practices. States visited and programs followed included Pennsylvania, Virginia, New Jersey and Texas.

### **UNR Corporation - Pearland, Texas**

Project Engineer for a facility formerly containing a battery smelting operation. Following several independent attempts to excavate and dispose obvious areas of contamination, the site was entered into Texas Natural Resources Conservation Commission (TNRCC) Voluntary Cleanup Program. As Project Engineer, met with TNRCC and prepared a Response Action Plan following TNRCC's Guidance for Initiating and Reporting Response Actions Conducted Under TNRCC's Voluntary Cleanup Program. The submittal of a Response Action Site Investigation Report of Soils and Groundwater was coupled with a risk assessment entitled, "Conceptual Exposure Assessment Model", in order to derive cleanup levels for approved remedial actions at the site.

### **Memphis/Shelby County Airport Authority - Memphis, Tennessee**

Project Engineer, Brooks Petroleum site assessment. The airport was responsible in remediating a site contaminated by past petroleum releases. The project involved adding approximately five monitoring wells to three existing wells. Duties included preparation of the assessment report adhering to Tennessee Department of Environment and Conservation guidelines. Project design later included shallow tray aeration for volatilization of benzene, xylene, toluene and ethyl benzene contaminants.

**PHASE II  
ENVIRONMENTAL SITE  
ASSESSMENT**

for

**BLOCK 55  
N. SECOND STREET & CHELSEA AVENUE  
MEMPHIS, TN 38107**

**Prepared For:**

**MLB-Uptown, LLC  
700 Adams Avenue  
Memphis, TN 38105**

**Prepared By:**

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**Date:  
April 27, 2011**

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**Prepared By  
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*Gene Bailey*

**Reviewed By  
Gene M. Bailey, P.E**

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## EXECUTIVE SUMMARY

Fisher & Arnold Environmental (F&A), a Division of Fisher & Arnold, Inc., has conducted a Phase II Environmental Site Assessment (ESA) located on a portion of Block 55 at Chelsea Avenue and N. Second Street in downtown Memphis, Tennessee. The scope of the Phase II ESA included advancing Geoprobe™ direct push technology (DPT) borings, temporary ground water sampling points, and soil gas sampling associated with environmental concerns identified during multiple previous Phase I ESAs prepared by F&A since 2005. The field work for the Phase II ESA was conducted on March 22 & 25, 2011.

According to the most recent Phase I ESA (2011), one recognized environmental condition (REC) is related to the Old Cummins Diesel facility at 812 N. Main Street, immediately northwest of the subject property. The facility has been recently identified by the USEPA to contain elevated levels of chlorinated hydrocarbons in soil and soil gas samples taken during a December 2008 site investigation.

During this Phase II ESA, three Geoprobe™ direct push technology (DPT) borings were advanced on the subject property near the onsite building to investigate activities associated with the adjacent REC. Four soil boring locations were converted into temporary ground water sampling points. Active and passive soil gas sampling points were installed across the subject properties. Four soil samples, four ground water samples, three active soil gas, and three passive soil gas samples were collected during this assessment. Soil and ground water samples were analyzed for volatile organic compounds (VOCs) per EPA Method 8260B.

A review of the laboratory analytical results for the soil samples indicates petroleum-related compounds benzene and ethylbenzene were detected in each soil sample at low concentrations below the EPA Regional Screening Levels (RSLs). Petroleum-related compounds toluene and total xylenes concentrations were detected below EPA RSLs for the soil sample collected from GP-2 at 12 ft bgs. No chlorinated hydrocarbons (the compounds associated with the former Cummins Diesel) were detected above laboratory reporting limits for any soil sample collected. The EPA RSLs for residential soil, the most conservative look-up value, are provided for comparison of the soil data.

A review of the laboratory analytical results for the ground water samples indicates no ground water sample collected was reported to have concentrations of petroleum-related compounds or chlorinated compounds detected over the laboratory reporting limits.

A review of the laboratory analytical results for the soil gas samples indicates PCE was detected above the EPA screening level for sample SV-3 located near the center of the 696 N. Second St. portion of subject property and TCE was detected above the EPA screening level for samples from SV-1 (located along N. Second Street) and SV-3. PCE was detected below the EPA generic screening level in one of three passive soil gas modules installed on the site located along Chelsea Avenue. The EPA Generic Screening Levels for shallow soil gas concentrations corresponding to target risk-based concentrations for indoor air in residential settings where the soil gas to indoor air

attenuation factor =0.1 are provided .

Based on results of the March 2011 field work, the 696 N. Second St. portion of the subject property have been impacted by the identified REC, namely the Old Cummins Diesel.

No further assessment may be recommended if the future site use is non-residential or if the site is not used as a location for a sensitive receptor (daycare, playground, nursing home, etc). Further coordination with the ongoing EPA investigation at the former Old Cummins Diesel is recommended to be completed in the future to gather the newest information regarding the documented nearby soil and soil gas contamination. Institutional controls such as land use restrictions may be necessary. Additional assurance of no further action and limitation of potential environmental liability can be achieved by review and approval of the data by the fee-based TDEC Brownfield Program.

## **1.0 INTRODUCTION**

Fisher & Arnold Environmental (F&A), a Division of Fisher & Arnold, Inc., was retained by MLB-Uptown, LLC to conduct a Phase II Environmental Site Assessment (ESA) on several formerly developed properties located on Block 55 near the intersection of Chelsea Avenue and N. Second Street in downtown Memphis, Shelby County, Tennessee (see Figure 1- Topographic Map).

### **1.1 Site Description**

The subject properties are located at 714 N. Second Street, 696 N. Second Street, and 0 Keel Avenue in the Uptown Development area of downtown Memphis, TN. The area is currently undergoing redevelopment into eco-friendly single family homes and apartments. A subject property, 696 N. Second Street, includes an approximate 2400 sq. ft. vacant building. The remainder of the properties is vacant and is covered with vegetation, asphalt, and concrete surrounded by sidewalks and an alley.

During the Phase II ESAs by F&A conducted in 2008 and 2011 at 714 N. Second Street, a former basement was discovered along Chelsea Ave. and an open sump was located on the west side along Second Street. Debris was observed to have been used to backfill a former basement, and an approximately 4-inch layer of construction demolition debris was located in the shallow subsurface. Underground utilities including water, natural gas, storm sewer, and sanitary sewer traverse the subject properties.

### **1.2 Limiting Conditions**

No investigation can wholly eliminate uncertainty regarding the potential for recognized environmental conditions in connection with a property. However, the standard of care exercised for these professional services was performed in accordance with customary principles and accepted practices in the area of environmental science and engineering. In addition, every reasonable effort was made to ensure that the information presented in this report is materially complete and accurate.

This assessment presents Fisher & Arnold's professional interpretation and judgment of the existing site conditions based on the information gathered. Professional judgments expressed herein are based on currently available facts within the limits of the mutually agreed to scope of work, budget, and schedule, which are not intended to be exhaustive in scope. Fisher & Arnold accepts no liability for hidden or unknown conditions. Fisher & Arnold's work was performed in accordance with generally accepted environmental investigative procedures. It is Fisher & Arnold's

specific intent that the conclusions and recommendations presented herein be used as guidance and not necessarily as a firm course of action, except where explicitly stated as such. We make no warranties, expressed or implied, including without limitation, warranties as to marketability or fitness for a particular purpose. The absence of contamination recognition in this report cannot be interpreted as a warranty, expressed or implied, that no contamination exists at the Property, and F&A cannot be held liable for damages if contamination of some type is discovered in the future. The information provided in this report is not to be construed as legal advice.

### **1.3 User Reliance**

Reliance or use of this report by anyone other than MLB-Uptown, LLC, for whom it was prepared, is prohibited. Reliance or use by any third party of the report does not make said party a beneficiary to Fisher & Arnold's contract with MLB-Uptown, LLC. Any such unauthorized reliance on or use of this report including any of its information or conclusions will be at the third party's risk. No warranties or representation expressed or implied in this report are made to any third party.

## **2.0 SITE HISTORY**

### **2.1 Phase I ESAs**

A Phase I ESA dated June 30, 2005 was prepared by F&A for most of the city block (Block 55) including the subject properties. Based on site reconnaissance, interviews and review of available records, F&A identified three recognized environmental conditions (REC) associated with Block 55. The first REC pertained to the former Baine's Pure Oil that was present on the subject property at 711 N. Third Street and 167 Chelsea Avenue, which is the current location for the Wayne's Coin-Op Laundromat building. The second REC pertained to the former Tom Breathett's located adjacent to the east of the subject properties at 183 Chelsea Avenue, which currently has two 8,000-gallon underground storage tanks (USTs) on the subject property that were installed in 1979. These RECs were addressed for the property located at 167 Chelsea Avenue during F&A's Phase II ESA dated January 13, 2011 and for the property located at 714 N. Second Street during F&A's Phase II ESA dated August 18, 2008. The third REC pertained to the Steven's Electric, which is located northwest of the subject properties at 812 N. Main Street. Surface water drainage from the REC site appears to flow southwest and away from the subject properties. In 2005, it was determined that the site did not appear to be a significant environmental threat to the subject property.

A Phase I ESA dated October 25, 2007 was prepared by F&A for the property located at 714 N. Second Street. Based on site reconnaissance, interviews and review of

available records, F&A identified one recognized environmental condition. The REC pertained to the former gas station at 167 Chelsea Ave/ 711 N. Third St., east of the subject property. F&A recommended that subsurface investigation be performed to determine if any contamination from the former Baine's Pure Oil are present on the subject property.

A Phase I ESA Update dated March 1, 2011 was prepared by F&A for the properties located at 696 N. Second Street, 714 N. Second Street, and 0 Keel Avenue. F&A identified one Recognized Environmental Condition (REC) associated with these subject properties.

The REC is the Old Cummins Diesel facility located at 812 N. Main Street, approximately 220 feet northwest of the subject property. This facility has the same address as Steven's Electric, presented in the 2005 Phase I ESA (Block 55). Due to limited information and an interpreted westward flow of potential surface and groundwater contaminants, no further information was recommended to be collected in 2005. However, since that time, this facility has been identified by the USEPA to contain elevated levels of chemicals of concern (PCE and TCE) in soil and soil gas samples taken during a December 2008 site investigation, and presented in a February 2009 Investigation Final Report . This site is currently under active investigation by the USEPA and the State of Tennessee to determine the extent of contamination associated with the former Old Cummins Diesel operation. This site appears to present a significant environmental threat to the subject property.

Further subsurface information was recommended in order to evaluate the potential presence of soil, ground water, or soil gas impairment on the subject property due to the former Old Cummins Diesel. The following report will discuss that effort.

## **2.2 Phase II ESAs**

F&A performed a Phase II ESA dated August 18, 2008 for a portion of the subject property located at 714 N. Second Street. Field activities included sampling and logging soil borings at three locations on the subject property. Two ground water samples were collected to determine if a release from the former UST system at 167 Chelsea Avenue had migrated from the eastern adjacent property to the subject property. Laboratory analytical results for ground water samples collected from boring locations GP-1 and GP-2 indicated that no TDEC-UST contaminants of concern exceeded the regulatory clean-up levels (see Figure 2 and Table 2). No samples were collected from GP-3. Low levels of metals were detected in two shallow soil samples. Arsenic concentrations were detected above regulatory screening levels, however the arsenic concentrations were within a range of naturally occurring background levels in the Memphis, TN area. No further environmental

action was recommended for the site.

F&A completed a Phase II ESA dated January 13, 2011 for the property located at 167 Chelsea Avenue. Based on results of the fieldwork, F&A recommended that the vent lines associated with the former UST(s) found on the subject property should be removed and disposed of offsite. The assessment indicated a historic gasoline release from the former USTs was confined to this site. No further assessment was recommended if the future site use was non-residential or was not used as a location for a sensitive receptor, and no soil in the area of the former UST features was moved from the property without further testing and documentation.

### **3.0 ESA SAMPLING METHODOLOGY AND FIELD ACTIVITIES**

The following explanation of work was completed in general accordance with the professional service agreement dated March 9, 2011, which included the Phase II ESA scope of work. A copy of this agreement is provided in Appendix A.

#### **3.1 Geoprobe™ Sampling Methodology**

On March 22, 2011, F&A and its subcontractor, Tri-State Testing Services, advanced four direct-push technology (DPT) borings on the subject property (see Figure 2- Soil Boring Location Map). Geoprobe™ equipment including disposable acetate sampling sleeves was used to evaluate subsurface conditions. The locations were selected based on the REC determined in the previous Phase I ESAs and the previous subsurface work completed for the properties (see Figure 2). The DPT borings were labeled as GP-1 through GP-4 in the order that they were completed in the field (see Appendix B for DPT boring logs).

As each DPT boring was advanced, soil was logged by an F&A Geologist and representative soil samples of known depths were inspected for contaminant impact using visual and olfactory observations. Soil samples were also screened with a photoionization detector (PID) for total volatile organics.

#### **3.2 Soil Sampling Procedures**

Field notes, borehole logging information, observations were recorded in a bound field book. As each DPT boring was advanced, soil was continuously recovered using a Geoprobe™ hydraulic sampler. The sampler is a hollow steel sampling tool, which can be hydraulically pushed into the soil in sequentially deeper 4-ft intervals. Dedicated 2-inch diameter acetate sleeves are placed into the sampler prior to being advanced every 4 feet. Nitrile gloves were worn to handle each core sample recovered from the sampling tool. After collection, the acetate sleeves are opened to



expose the soil and a representative portion of soil core was transferred into a sealable polyvinyl bag for PID screening.

The head space of each sample placed in the polyvinyl bags was evaluated with the PID equipped with a 10.6 eV lamp. The PID measures total organic vapor emitted from the soil samples in the field. The general protocol for these measurements is to place the sample in the polyvinyl bag, seal the bag, allow the vapors from the sample to equilibrate with the air inside the bag for approximately 10 minutes, and make a measurement of the headspace in the bag with the PID. Encountered soil, with no field indication of organic impacts was also screened using the PID without bagging samples. PID measurements above background levels (typical background assumed as less than 5 parts per million), indicate some organic influences in the soil sample. Typically, comparison of PID measurements from samples collected during a field event provides a general indication of the vertical and areal distribution of volatile organics at a site and can be used to prioritize the selection of samples for further analysis in a laboratory.

Soil samples were collected from selected intervals in each DPT boring using soil sample methods based on EPA Region 4's Field Branches Quality System and Technical Procedures dated 2008. Grab soil samples were collected using EPA method 5035 and placed in the designated VOA vials and glass jars, filled to capacity leaving little, if any, head space. Terra Core sample kits were provided by the laboratory for VOC sample collection. The soil sample jars were sealed with Teflon-lined lids, labeled with a unique sample identification number, and placed on ice in a cooler. In all sampling situations, nitrile gloves were used to handle soil samples and were changed between sampling locations. Pertinent sampling information, such as sample ID and time of collection, was recorded in the bound project field book and then logged on a chain of custody form. Soil samples were identified by the DPT boring number and the corresponding depth. All representative soil samples were collected from the top of the named foot interval to the bottom, i.e. 4 to 5 feet bgs. Each DPT boring was backfilled with bentonite clay from the bottom of the hole to the surface. The surface of the borehole was completed as it existed before disturbance.

Soil samples were analyzed for volatile organic compounds (VOCs) using EPA Method 8260B. All samples were transported under chain-of-custody documentation from time of collection by F&A until delivery by overnight carrier to the Environmental Science Corporation (ESC) laboratory in Mt. Juliet, TN.

### **3.3 Surface and Subsurface Conditions**

Based on the conditions encountered during the advancement of four DPT borings,

the subsurface at the site generally consists of silt and clayey silt to approximately 16 feet below ground surface (ft bgs), the maximum depth investigated (see Appendix D for the boring logs). A shallow perched ground water zone was encountered in the soil borings at approximately 4-10 and 12-14 ft bgs on the site (see Appendix D). Ground water was sampled from the screened interval of 6-16 ft bgs in soil borings GP-1 through GP-4. The soil observed on the site showed no indication of hydrocarbon impacts.

### **3.4 Ground Water Sampling Procedures**

Grab ground water samples were collected from four DPT borings (GP-1 - GP-4). Subsequent to the advancement of the DPT boring to the appropriate depth for soil screening and sampling, temporary monitoring well materials including a 10 section of slotted screen were inserted into the boreholes to a depth of approximately 16 ft-bgs. New polyethylene tubing was inserted into the screen to the bottom of the temporary well. Subsequently, a check valve was attached to the end of the tubing and used to lift the ground water to the surface for sample collection. Although an attempt was made at each boring to allow the sediment in the ground water to lessen, the samples were slightly turbid except for GP-4, which was mostly clear. The ground water samples were collected in appropriate containers provided by ESC and kept on ice under chain of custody documentation until delivery to the laboratory.

Disposable nitrile gloves were worn during ground water sampling and were discarded between boring locations. Pertinent sampling information, such as sample ID and time of collection was recorded in the bound project field book, as each boring was sampled. The samples were transported on ice to ESC by overnight carrier for analysis of the parameters shown above. Chain of custody was maintained during the time the samples were collected through shipment to the time when logged into the laboratory. Each ground water sample was analyzed for VOCs (EPA Method 8260B).

## **4.0 LABORATORY ANALYTICAL RESULTS**

### **4.1 Soil Analytical Results**

A total of 4 soil samples were collected from the soil borings to assess the potential impact from the former Cummins Diesel operations (northwest adjacent property). Table 1 summarizes the analytical results for the soil samples collected. Petroleum-related compounds benzene and ethylbenzene were detected in each soil sample at low concentrations below the EPA Regional Screening Levels (RSLs). Petroleum-related compounds toluene and total xylenes concentrations were detected below EPA RSLs for the soil sample collected from GP-2 at 12 ft bgs. The EPA RSLs for

residential soil, the most conservative look-up value, are shown on Table 1 for comparison of the data.

No chlorinated hydrocarbons (the compounds associated with the former Cummins Diesel) were detected above laboratory reporting limits for any soil sample (see Table 1). The full laboratory report can be reviewed in Appendix C.

#### **4.2 Ground Water Analytical Results**

A total of 4 ground water samples were collected from the soil borings located on the subject property. Table 2 summarizes the ground water analytical results for the ground water samples collected. No ground water sample collected was reported to have concentrations of petroleum-related compounds or chlorinated compounds detected over the laboratory reporting limits. The EPA Maximum Contaminant Levels (MCLs) for drinking water are the screening values provided on the table for comparison. The full laboratory report can be reviewed in Appendix C.

### **5.0 SOIL GAS SAMPLING**

#### **5.1 Sampling Locations and Procedures**

As identified in the Phase I ESA update dated March 1, 2011, the former Old Cummins Diesel is currently being investigated by the EPA. Chlorinated hydrocarbon compounds have been identified in the subsurface on that property. The purpose of the soil gas sampling was to determine if vapors from the former Old Cummins Diesel operations have migrated to the overlying vadose zone beneath the subject property. Three active soil gas sampling locations (SV-1 through SV-3) and three passive soil gas sampling locations (#660508, 660510, and 660511) were chosen on the subject properties near the current building and near the northwest corner to investigate the presence of potential contaminants in soil gas (see Figure 2).

##### **5.1.1 Active Soil Gas Sampling**

TDEC DUST, Technical Guidance Document -018 was followed during the soil gas sampling activities conducted on March 22, 2011. At each sampling location, the Geoprobe® was driven to a depth of 3 ft bgs. A sampling train, consisting of ¼ inch nylon tubing, quick connect fittings, a purge system, a regulator, and a Summa® canister was constructed for each sampling location. To ensure a vacuum tight system, a vacuum test was performed at each location after purging three system volumes. All locations passed the vacuum test after two minutes.

Three 400 mL Mini-Summa® canisters and a regulator equipped with a pressure gauge were supplied by ESC in Mt. Juliet, TN. Mini-Summa® canisters were immediately returned to ESC for analysis of petroleum compounds chlorinated compounds [(Tetrachloroethene (PCE), trichloroethene (TCE), cis 1,2-dichloroethene (DCE), trans 1,2-DCE, and vinyl chloride] using EPA Method TO-15.

### **5.1.2 Passive Soil Gas Sampling**

On March 25, 2011, Gore-Sorber® modules were installed as shown in Figure 2 and as described in the following. Each soil gas module was in an approximate 1.5-inch diameter borehole driven to a depth of 2 feet to 3 feet below ground surface (bgs), as recommended by the vendor using a slide hammer bar (see Figure 2- Sampling Location Map). The module was opened, inserted into the boring and pushed to depth. Following installation, the borehole was plugged with a provided cork and tapped flush with the surface grade.

Each passive soil gas module is equipped with an attached nylon cord and a cork to facilitate retrieval. Modules remained in-situ for 7 full days, from March 25 to April 1, 2011. On April 1, 2011, each module was removed from the borehole and placed in its designated container for shipment to the analytical laboratory at W. L. Gore & Associated, Inc. (Gore) in Elkton, Maryland. All boreholes were backfilled with native soil from the total depth to the surface. The modules installed at the site were numbered 660508 to 660511. Module 660509 was designated as a trip blank and remained unopened in the laboratory provided carry case until delivery at the laboratory.

All samples were analyzed for volatile organic compounds (VOCs) in accordance with Gore™ Chlorinated Compounds method A10 (modified EPA Method 8260/8270). The compounds of concern, PCE, TCE, cis-1,2-DCE, trans-1,2-DCE, 1,1 DCE, vinyl chloride are shown on Table 3.

## **5.2 Soil Gas Laboratory Analytical Results**

PCE and TCE were detected above laboratory reporting limits in active soil gas samples SV-1 and SV-3 (see Table 3). PCE was detected above the EPA screening level for sample SV-3 located near the center of the subject property. TCE was detected above the EPA screening level for samples from SV-1 (located along N. Second Street) and SV-3 (see Figure 2 for the sample locations). The EPA Generic Screening Levels for shallow soil gas concentrations corresponding to target risk-

based concentrations for indoor air in residential settings where the soil gas to indoor air attenuation factor =0.1 are provided in Table 3. A full laboratory report is located in Appendix C.

PCE was detected in one of three passive soil gas modules installed on the site (see Table 3). The concentration of PCE was reported below the EPA generic screening level. Low concentrations of total petroleum hydrocarbons (TPH) were detected in two soil gas modules (see Table 3). The low TPH concentrations would most likely be attributed to old asphalt pavement or construction debris in the shallow subsurface. A full laboratory report is located in Appendix C.

## 6.0 CONCLUSIONS

During field activities, four soil borings were advanced for the collection of soil and ground water samples. A review of the laboratory analytical results for the soil samples indicates that soil samples collected were reported to have low concentrations of petroleum-related compounds (benzene, toluene, ethylbenzene, and xylenes) detected over the laboratory reporting limits but below the EPA RSLs. No chlorinated hydrocarbons were detected above reporting limits for any soil sample.

A review of the laboratory analytical results for the ground water samples indicates that no ground water samples collected were reported to have concentrations of petroleum-related compounds or chlorinated compounds detected over the laboratory reporting limits.

PCE was detected above the EPA screening level for sample SV-3 located near the center of the 696 N. Second St portion of the subject property. TCE was detected above the EPA screening level in samples from SV-1 (located along N. Second Street) and SV-3 (see Figure 2 for the sample locations). PCE was detected below the EPA generic screening level in one of three passive soil gas modules installed on the site. Low concentrations of total petroleum hydrocarbons (TPH) were detected in two soil gas modules likely attributed to old asphalt or buried construction debris.

During field activities at 714 N. Second Street in 2008 and 2011, a former basement was discovered along Chelsea Ave. and an open sump was located on the west side along Second Street. Debris was observed to have been used to backfill a former basement, and an approximately 4-inch layer of construction demolition debris was located in the shallow subsurface. The voids and construction debris could create a hazard during development of the property.

## 7.0 RECOMMENDATIONS

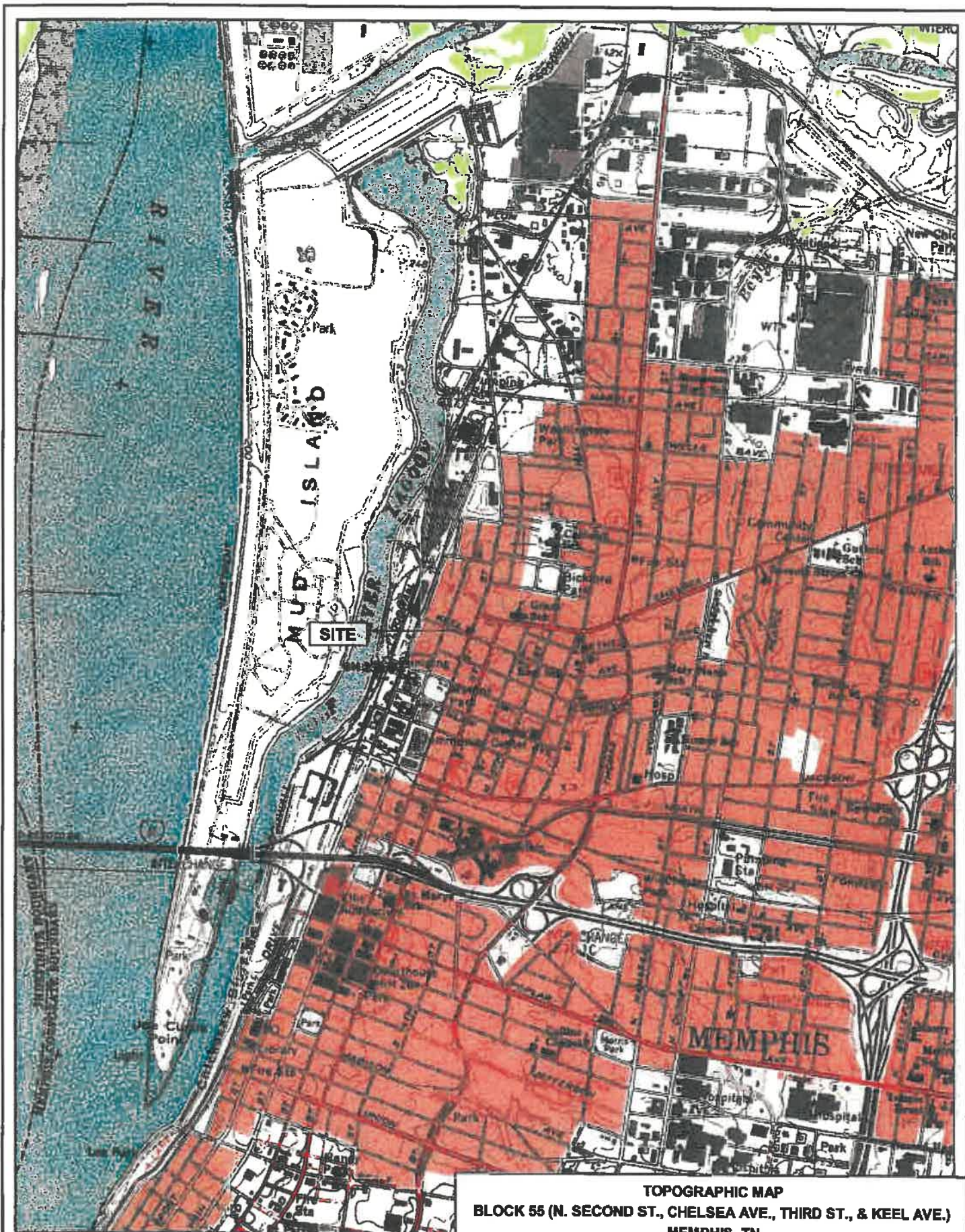
Based on results of the March 2011 field work, the 696 N. Second St. portion of the subject

property have been impacted by the identified REC, namely the Old Cummins Diesel.

No further assessment may be recommended if the future site use is non-residential or if the site is not used as a location for a sensitive receptor (daycare, playground, nursing home, etc).

Further coordination with the ongoing EPA investigation at the former Old Cummins Diesel is recommended to be completed in the future to gather the newest information regarding the documented nearby soil and soil gas contamination. Institutional controls such as land use restrictions may be necessary. Additional assurance of no further action and limitation of potential environmental liability can be achieved by review and approval of the data by the fee-based TDEC Brownfield Program.





**TOPOGRAPHIC MAP**  
**BLOCK 55 (N. SECOND ST., CHELSEA AVE., THIRD ST., & KEEL AVE.)**  
**MEMPHIS, TN**

DATE: 1965/1993	SOURCE: NW MEMPHIS, TN USGS TOPOGRAPHIC MAP		FIGURE 1
DRAWN BY:	SCALE: 1:24000	JOB NO. G7689.1	



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**TABLE 1  
SUMMARY OF SOIL ANALYTICAL RESULTS  
BLOCK 55-N. SECOND STREET  
MEMPHIS, TN 38107**

Sample ID	Depth (ft bgs)	Sample Date	EPA Method 8260B (mg/kg)													
			Benzene	Toluene	Ethylbenzene	Xylenes	MTBE	Naphthalene	PCE	TCE	cis 1,2 DCE	1,1 DCE	Vinyl Chloride			
GP-1-12	12-13	3/22/2011	0.0020	<0.0050	0.0010	<0.0030	<0.0010	<0.0050	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
GP-2-12	12-13	3/22/2011	0.0024	0.0059	0.0019	0.0038	<0.0010	<0.0050	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
GP-3-12	12-13	3/22/2011	0.0019	<0.0050	0.0012	<0.0030	<0.0010	<0.0050	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
GP-4-16	16-17	3/22/2011	0.0021	<0.0050	0.0010	<0.0030	<0.0010	<0.0050	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
<b>EPA Regional Screening Levels (RSLs)</b>			<b>1.1</b>	<b>5,000</b>	<b>5.4</b>	<b>630</b>	<b>43</b>	<b>3.6</b>	<b>0.55</b>	<b>2.8</b>	<b>160</b>	<b>240</b>	<b>0.06</b>			

Notes:

**Bold-Exceeds regulatory level**

**RSLs-EPA Regional Screening Level Summary Table (November 2010) for Residential Soil in mg/kg**



**TABLE 2**  
**SUMMARY OF GROUND WATER ANALYTICAL RESULTS**  
**BLOCK 55-N. SECOND STREET**  
**MEMPHIS, TN 38107**

Sample ID	Sample Date	PCE	TCE	cis 1,2 DCE	trans 1,2 DCE	1,1 DCE	Vinyl Chloride
		EPA Method 8260B (mg/l)					
GP-1	3/22/2011	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
GP-2	3/22/2011	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
GP-3	3/22/2011	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
GP-4	3/22/2011	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
GP-1 Water*	7/31/2008	NA	<0.0010	<0.0010	<0.0010	<0.0010	NA
GP-2 Water*	7/31/2008	NA	<0.0010	<0.0010	<0.0010	<0.0010	NA
<b>EPA MCLs</b>		<b>0.005</b>	<b>0.005</b>	<b>0.07</b>	<b>0.1</b>	<b>0.007</b>	<b>0.002</b>

Notes:

**Bold-Exceeds regulatory level**

EPA MCLs: EPA Maximum Contaminant Levels

NSA- No Standard Available

NA-Not Analyzed

\*Previously sampled in 2008 at 714 N. Second Street. ESC interpreted previous analytical lab report to report the chlorinated compounds shown above (see Appendix C).



**TABLE 3**  
**SUMMARY OF SOIL GAS ANALYTICAL RESULTS**  
**BLOCK 55- N. SECOND STREET**  
**MEMPHIS, TN 38107**

Sample ID	Sample Type	Sample Date	Sample Depth (ft bgs)	EPA Method TO-15 (µg/m <sup>3</sup> )			GORE Methods (A1 and A10) (µg/m <sup>3</sup> )			TPH					
				PCE	TCE	cis 1,2 DCE	trans 1,2 DCE	Vinyl Chloride	PCE		TCE	cis 1,2 DCE	trans 1,2 DCE	Vinyl Chloride	
SV-1	Active	3/22/2011	3	6.80	4.40	<1.6	<1.6	<1.0	NA	NA	NA	NA	NA	NA	8015D
SV-2	Active	3/22/2011	3	<2.7	<2.1	<1.6	<1.6	<1.0	NA	NA	NA	NA	NA	NA	NA
SV-3	Active	3/22/2011	3	370	3.8	<1.6	<1.6	<1.0	NA	NA	NA	NA	NA	NA	NA
660508	Passive	3/25/11-4/1/11	3	NA	NA	NA	NA	NA	ND	ND	ND	ND	ND	ND	6.17
660509	Passive	trip blank	-	NA	NA	NA	NA	NA	ND	ND	ND	ND	ND	ND	ND
660510	Passive	3/25/11-4/1/11	3	NA	NA	NA	NA	NA	1.41	ND	ND	ND	ND	ND	7.98
660511	Passive	3/25/11-4/1/11	3	NA	NA	NA	NA	NA	ND	ND	ND	ND	ND	ND	ND
<b>EPA Generic Screening Levels (10<sup>-5</sup>)</b>				<b>81</b>	<b>2.2</b>	<b>350</b>	<b>700</b>	<b>28</b>	<b>81</b>	<b>2.2</b>	<b>350</b>	<b>700</b>	<b>28</b>	<b>28</b>	<b>NSA</b>

**Notes:**

Gore Surveys has estimated the concentrations using standard soil moisture (0.45) and porosity numbers (0.48) for a silty clay and known mass contaminant results (µg). EPA Generic Screening Levels (10<sup>-5</sup>)-Generic shallow soil gas concentrations corresponding to target risk-based concentrations for indoor air in residential settings where the soil gas to indoor air attenuation factor =0.1.

Screening levels are referenced from EPA OSWER Draft Guidance for Evaluating the Vapor Intrusion to Indoor Air Pathway from Ground Water and Soils, Nov. 2002.

**Bold**-Exceeds regulatory screening level

**NSA**- No Standard Available; **NA**: Not Analyzed; **ND**-not detected, compound was not detected at any level

**BDL**- below detection limit; compound was observed at level below the MDL

**NA**-Not Analyzed

## **APPENDICES**

**APPENDIX A**  
**AGREEMENT AND SCOPE OF WORK**



**FISHER &  
ARNOLD, INC.**

March 9, 2011

MLB-Uptown, LLC  
700 Adams Avenue  
Memphis, TN 38105

**RE: PHASE II ESA PROPOSAL  
BLOCK 55 - UPTOWN  
MEMPHIS, TN**

To Whom It May Concern:

Fisher & Arnold Environmental (F&A), a division of Fisher & Arnold, Inc. is pleased to submit the following cost estimate to complete a Phase II ESA for the above referenced site. The Phase I Environmental Assessment completed for the property by F&A (March 1, 2011) identified one current Recognized Environmental Condition (REC) associated with the subject property. This condition relates to the former Cummins Diesel operation northwest of the subject property.

F&A has developed the following scope of work to address these conditions to determine if the subject property has been impacted:

**1.0 SOIL BORING INSTALLATION**

F&A will mobilize a drilling sub-contractor to the site to advance a minimum of four shallow soil borings for the collection of soil and ground water samples for laboratory analysis. Soil borings will be installed near the northern/northwestern property line, in the direction of the identified conditions.

Based on previous experience that F&A has developed in this area, a hydraulic push rig should be able to complete the objectives of the data collection at the site.

**2.0 SAMPLING/LABORATORY ANALYSIS**

Continuous soil samples will be collected from ground surface to boring termination depth and selected intervals will be screened in the field for volatile organic compounds (VOCs) in headspace, utilizing a photo-ionization detector (PID). Selected soil samples from the group of soil borings will be submitted to a certified laboratory for analysis. Due to the potential for ground water impact beneath the subject property, temporary wells will be installed within selected soil borings where ground water is encountered for collection of ground water samples.

Samples will be analyzed for Volatile Organic Compounds (VOCs) EPA Method 8260B to capture analytical methods reflective of the identified condition.

**3.0 SOIL GAS SAMPLING**

Due to the proximity of the subject property to former Cummins Diesel site and current TDEC project, the potential for soil gas intrusion onto the subject property from this condition will be evaluated. While the soil and ground water sampling will help identify if contamination has migrated onto the property, soil gas vapors from contamination may also extend beyond the

- Architects
- Engineers
- Environmental Consultants
- Interior Designers
- Landscape Architects
- Planners
- Surveyors

9180 Crestwyn Hills Dr.  
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MLB-Uptown, LLC  
March 9, 2011  
Page 2

soil or ground water plumes by following preferential pathways in the subsurface. In order to assess the potential for vapor intrusion, F&A proposes to collect three active soil gas samples in accordance with the TDEC DUST Technical Guidance Document (TGD)-018 Requirements for Conducting Soil Gas Surveys. Soil gas sample will be analyzed for a Volatile Organic Compounds (VOCs) per method TO-15.

#### 4.0 REPORTING

Findings from the site assessment will be submitted in a Phase II Environmental Site Assessment report. The report will present laboratory findings in a tabular format, and will include laboratory reports, geologic boring logs, and a figure identifying soil-boring and soil gas sample locations.

#### 5.0 COSTS

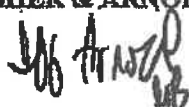
F&A proposes to complete the proposed scope of work for a lump-sum budget of \$ . The Phase II can be completed within three weeks of receipt of the authorization to proceed, pending drilling subcontractor availability.


Although Fisher & Arnold believes that the cost estimate is adequate for this level of work, subsurface conditions are unknown and could affect the effort to collect soil and ground water samples. Fisher & Arnold will communicate closely with Suntrust Bank to discuss any changes to the scope of work as they occur, if any.

We welcome the opportunity to work on this project. Please do not hesitate to call me at 888-583-9724 should you have any questions or require additional information. An abbreviated terms and conditions statement below is followed by a signature of acceptance and authorization. Please sign, date and return this proposal for our files and we can schedule the work at your direction.

Sincerely,

**FISHER & ARNOLD ENVIRONMENTAL**

  
Jeff L. Arnold P.E.  
President

  
Gene M. Bailey, P.E.  
Principal  
(Reviewed by)

JLA/mkg





MLB-Uptown, LLC  
March 9, 2011  
Page 3

Terms and Conditions

An invoice will be sent at the completion of the project. Payment is due by the 10<sup>th</sup> of each month. Payment of the fees is not contingent on transaction of the property or closing dates relating to the property. Interest in the amount of 1.5% per month on the outstanding balances (18% per year) will be assessed the contracting party after the payment due date.

In the event of breach or non-payment, the contracting party agrees to pay reasonable expenses of enforcement including attorney fees and costs. Exclusive venue for enforcement of this agreement shall be in Shelby County, Tennessee.

The obligation to provide further services under the Agreement may be terminated by either party upon written notice in the event of substantial failure by the other party to perform in accordance with the terms hereof through no fault of the terminating party. In the event of termination, Fisher & Arnold, Inc. will be paid for all services rendered to the date of termination.

The fees shown in this proposal are based on the Owner agreeing to limit the Professional's liability for all planning, engineering and analytical services to the Owner due to the Professional's negligent acts, errors or omissions, such that the total aggregate liability of the Professional to all those named shall not exceed the Professional's total fee for services rendered on the project.

This proposal represents the entire understanding between you and us in respect to the "Project" and may only be modified in writing signed by both of us. If this satisfactorily sets forth your understanding of the arrangement between us, please sign the acceptance of this proposed Letter Agreement in the space provided below and return it to us.

ACCEPTED BY:

Martin Regan  
MLB-Uptown, LLC

3.15.2011  
Date

Vice President  
Title

**APPENDIX B**  
**DPT BORING LOGS**

FACILITY NAME <b>696 N. SECOND STREET, MEMPHIS, TN</b>		FAC ID#	WELL# &/OR BORING <b>GP-1</b>	PG 1 OF 1
---	--	---------	----------------------------------	-----------





START DATE & TIME <b>March 22, 2011</b>	
COMP DATE & TIME <b>March 22, 2011</b>	
LOGGED BY: <b>E. Wiggins, P.G. TN#5266</b>	
DRILLER: <b>Tri-State Testing Services</b>	
DRILLING METHOD <b>Geoprobe</b>	
ELEV (MSL):	T.D. (MSL):







COMMENTS:  
**Located in front of the door to the building at 696 N. Second St. Perched ground water zones at 4-10 ft bgs and 12-14. Ground water sample collected.**

MSL	Completion Diagram	Water Level	Penetration Rate	Depth	Graphic Lithology	OVD	Samples & Cores			Description (Color, Texture, Structure, etc.)
							Type	Int/Rec	Anal	

						0.0				concrete
						0.0				SILT: lt brown, soft, moist, no odor. mottled
				5		0.0				CLAYBY SILT: lt. brown, very soft, v. moist, no odor
						0.0				
				10		0.0				SILT: grey & brown. mottled, moist, soft, no odor
		▽				0.0			X	wet
				15		0.0				
						0.0				No hydrocarbon indication.
				20						
				25						
				30						

FACILITY NAME <b>696 N. SECOND STREET, MEMPHIS, TN</b>				FAC ID#		WELL# B/OR BORING <b>GP-2</b>		PG 1 OF 1			
LOCATION MAP: 			START DATE & TIME <b>March 22, 2011</b>								
			COMP DATE & TIME <b>March 22, 2011</b>								
			LOGGED BY: <b>E. Wiggins, P.G. TN#5266</b>								
			DRILLER: <b>Tri-State Testing Services</b>								
			DRILLING METHOD <b>Geoprobe</b>								
			ELEV (MSL):		T.D. (MSL):						
			COMMENTS: <b>Located at the NW corner of 696 N. Second Street. Perched ground water zones at 4-10 ft bgs and 12-14. Ground water sample collected.</b>								
MSL	Completion Diagram		Water Level	Penetration Rate	Depth	Graphic Lithology	OVD	Samples & Cores			Description (Color, Texture, Structure, etc.)
	Borehole Diameter: 2"							Type	Int/Rec	Anal	
					5		0.0				grass SILT: brown & gray soft, moist, no odor
							0.0				CLAYEY SILT: brown & gray, v. soft, v. moist, no odor
			▽		10		0.0				
					15		0.0			X	SILT: grey & brown, mottled, moist, soft, no odor Wet @ 12
					20		0.0				No hydrocarbon indication.
					25						
					30						

FACILITY NAME <b>696 N. SECOND STREET, MEMPHIS, TN</b>						FAC ID#		WELL # &/OR BORING <b>GP-3</b>		PG 1 OF 1			
LOCATION MAP: 			START DATE & TIME <b>March 22, 2011</b>										
			COMP DATE & TIME <b>March 22, 2011</b>										
			LOGGED BY: <b>E. Wiggins, P.G. TN#5266</b>										
			DRILLER: <b>Tri-State Testing Services</b>										
			DRILLING METHOD <b>Geoprobe</b>										
			ELEV (MSL):		T.D. (MSL):								
			COMMENTS: <b>Located at the NW corner of 696 N. Second Street. Perched ground water zones at 4-10 ft bgs and 12-14. Ground water sample collected.</b>										
MSL	Completion Diagram		Water Level	Penetration Rate	Depth	Graphic Lithology	OVD	Samples & Cores			Description (Color, Texture, Structure, etc.)		
	Borehole Diameter: 2"							Type	Int/Rec	Anal			
	[REDACTED]				5		0.0				grass SILT: lt. brown, soft, moist, no odor		
								0.0				CLAYEY SILT: brown & gray, v. soft, v. moist, no odor	
							10		0.0				SILT: brown & orange, mottled, v. moist, soft, no odor
					▽				0.0			X	Wet
							15		0.0				
							20		0.0				No hydrocarbon indication.
							25						
					30								

FACILITY NAME <b>696 N. SECOND STREET, MEMPHIS, TN</b>						FAC ID#		WELL# &/OR BORING <b>GP-4</b>		PG 1 OF <b>1</b>			
LOCATION MAP: 			START DATE & TIME <b>March 22, 2011</b>										
			COMP DATE & TIME <b>March 22, 2011</b>										
			LOGGED BY: <b>E. Wiggins, P.G. TN#5266</b>										
			DRILLER: <b>Tri-State Testing Services</b>										
			DRILLING METHOD <b>Geoprobe</b>										
			ELEV (MSL):		T.D. (MSL):								
COMMENTS: <b>Located at the NW corner of 696 N. Second Street. Perched ground water zones at 4-10 ft bgs and 12-14. Ground water sample collected.</b>													
MSL	Completion Diagram		Water Level	Penetration Rate	Depth	Graphic Lithology	OVD	Samples & Cores			Description (Color, Texture, Structure, etc.)		
	Borehole Diameter: 2"							Type	Int/Rec	Anal			
	[REDACTED]				5		0.0				grass CLAYEY SILT: lt. brown, soft, moist, no odor, mottled Wet		
						10		0.0				SILT: lt. brown, soft, v. moist-wet, no odor  Moist, soft	
				▽			15		0.0				
							20		0.0			X	
							25						
							30						

**APPENDIX C**

**LABORATORY ANALYTICAL REPORTS**





12065 Lebanon Rd.  
Mt. Juliet, TN 37122  
(615) 758-5858  
1-800-767-5859  
Fax (615) 758-5859

Tax I.D. 62-0814289

Est. 1970

Ms. Emily Wiggins  
Fisher & Arnold Environmental  
5180 Crestwyn Hills Dr.  
Memphis, TN 38125

### Report Summary

Tuesday April 26, 2011

Report Number: L507629

Samples Received: 03/23/11

Client Project: G7689.1

Description: 696 N. 2ND STREET

The analytical results in this report are based upon information supplied by you, the client, and are for your exclusive use. If you have any questions regarding this data package, please do not hesitate to call.

Entire Report Reviewed By:

Tom Mellette , BSC Representative

#### Laboratory Certification Numbers

A2LA - 1461-01, AIHA - 100789, AL - 40660, CA - I-2327, CT - PH-0197, FL - B87487  
GA - 923, IN - C-TN-01, KY - 90010, KYUST - 0016, NC - ENV375/DW21704, ND - R-140  
NJ - TN002, NJ NELAP - TN002, SC - 84004, TN - 2006, VA - 00109, WV - 233  
AZ - 0612, MN - 047-999-395, NY - 11742, WI - 998093910, NV - TN000032008A,  
TX - T104704245, OK-9915

Accreditation is only applicable to the test methods specified on each scope of accreditation held by ESC Lab Sciences.

Note: The use of the preparatory EPA method 3511 is not approved or endorsed by the CA ELAP.

This report may not be reproduced, except in full, without written approval from ESC Lab Sciences. Where applicable, sampling conducted by ESC is performed per guidance provided in laboratory standard operating procedures: 060302, 060303, and 060304.



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 1-800-767-5859  
 Fax (615) 758-5859

Tax I.D. 62-0814289

Est. 1970

REPORT OF ANALYSIS

April 26, 2011

Ms. Emily Wiggins  
 Fisher & Arnold Environmental  
 9180 Crestwyn Hills Dr.  
 Memphis, TN 38125

ESC Sample # : L507629-01

Date Received : March 23, 2011  
 Description : 696 N. 2ND STREET

Site ID :

Sample ID : GP-1

Project # : G7689.1

Collected By : E Wiggins  
 Collection Date : 03/22/11 09:45

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
Volatile Organics						
Acetone	BDL	0.050	mg/l	8260B	03/24/11	1
Acrolein	BDL	0.050	mg/l	8260B	03/24/11	1
Acrylonitrile	BDL	0.010	mg/l	8260B	03/24/11	1
Benzene	BDL	0.0010	mg/l	8260B	03/24/11	1
Bromobenzene	BDL	0.0010	mg/l	8260B	03/24/11	1
Bromodichloromethane	BDL	0.0010	mg/l	8260B	03/24/11	1
Bromoform	BDL	0.0010	mg/l	8260B	03/24/11	1
Bromomethane	BDL	0.0050	mg/l	8260B	03/24/11	1
n-Butylbenzene	BDL	0.0010	mg/l	8260B	03/24/11	1
sec-Butylbenzene	BDL	0.0010	mg/l	8260B	03/24/11	1
tert-Butylbenzene	BDL	0.0010	mg/l	8260B	03/24/11	1
Carbon tetrachloride	BDL	0.0010	mg/l	8260B	03/24/11	1
Chlorobenzene	BDL	0.0010	mg/l	8260B	03/24/11	1
Chlorodibromomethane	BDL	0.0010	mg/l	8260B	03/24/11	1
Chloroethane	BDL	0.0050	mg/l	8260B	03/24/11	1
2-Chloroethyl vinyl ether	BDL	0.050	mg/l	8260B	03/24/11	1
Chloroform	BDL	0.0050	mg/l	8260B	03/24/11	1
Chloromethane	BDL	0.0025	mg/l	8260B	03/24/11	1
2-Chlorotoluene	BDL	0.0010	mg/l	8260B	03/24/11	1
4-Chlorotoluene	BDL	0.0010	mg/l	8260B	03/24/11	1
1,2-Dibromo-3-Chloropropane	BDL	0.0050	mg/l	8260B	03/24/11	1
1,2-Dibromoethane	BDL	0.0010	mg/l	8260B	03/24/11	1
Dibromomethane	BDL	0.0010	mg/l	8260B	03/24/11	1
1,2-Dichlorobenzene	BDL	0.0010	mg/l	8260B	03/24/11	1
1,3-Dichlorobenzene	BDL	0.0010	mg/l	8260B	03/24/11	1
1,4-Dichlorobenzene	BDL	0.0010	mg/l	8260B	03/24/11	1
Dichlorodifluoromethane	BDL	0.0050	mg/l	8260B	03/24/11	1
1,1-Dichloroethane	BDL	0.0010	mg/l	8260B	03/24/11	1
1,2-Dichloroethane	BDL	0.0010	mg/l	8260B	03/24/11	1
1,1-Dichloroethane	BDL	0.0010	mg/l	8260B	03/24/11	1
cis-1,2-Dichloroethene	BDL	0.0010	mg/l	8260B	03/24/11	1
trans-1,2-Dichloroethene	BDL	0.0010	mg/l	8260B	03/24/11	1
1,2-Dichloropropane	BDL	0.0010	mg/l	8260B	03/24/11	1
1,1-Dichloropropene	BDL	0.0010	mg/l	8260B	03/24/11	1
1,3-Dichloropropene	BDL	0.0010	mg/l	8260B	03/24/11	1
cis-1,3-Dichloropropene	BDL	0.0010	mg/l	8260B	03/24/11	1
trans-1,3-Dichloropropene	BDL	0.0010	mg/l	8260B	03/24/11	1
2,2-Dichloropropane	BDL	0.0010	mg/l	8260B	03/24/11	1
Di-isopropyl ether	BDL	0.0010	mg/l	8260B	03/24/11	1
Ethylbenzene	BDL	0.0010	mg/l	8260B	03/24/11	1
Hexachloro-1,3-butadiene	BDL	0.0010	mg/l	8260B	03/24/11	1
Isopropylbenzene	BDL	0.0010	mg/l	8260B	03/24/11	1
p-Isopropyltoluene	BDL	0.0010	mg/l	8260B	03/24/11	1

BDL - Below Detection Limit  
 Det. Limit - Practical Quantitation Limit(PQL)



YOUR LAB OF CHOICE

12065 Lebanon Rd.  
 Mt. Juliet, TN 37122  
 (615) 758-5858  
 1-800-767-5859  
 Fax (615) 758-5859

Tax I.D. 62-0814289

Est. 1970

REPORT OF ANALYSIS

Ms. Emily Wiggins  
 Fisher & Arnold Environmental  
 2180 Crestwyn Hills Dr.  
 Memphis, TN 38125

April 26, 2011

Date Received : March 23, 2011  
 Description : 696 N. 2ND STREET  
 Sample ID : GP-1  
 Collected By : E Wiggins  
 Collection Date : 03/22/11 09:45

ESC Sample # : L507629-01

Site ID :

Project # : G7689.1

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
2-Butanone (MEK)	BDL	0.010	mg/l	8260B	03/24/11	1
Methylene Chloride	BDL	0.0050	mg/l	8260B	03/24/11	1
4-Methyl-2-pentanone (MIBK)	BDL	0.010	mg/l	8260B	03/24/11	1
Methyl tert-butyl ether	BDL	0.0010	mg/l	8260B	03/24/11	1
Naphthalene	BDL	0.0050	mg/l	8260B	03/24/11	1
n-Propylbenzene	BDL	0.0010	mg/l	8260B	03/24/11	1
Styrene	BDL	0.0010	mg/l	8260B	03/24/11	1
1,1,1,2-Tetrachloroethane	BDL	0.0010	mg/l	8260B	03/24/11	1
1,1,2,2-Tetrachloroethane	BDL	0.0010	mg/l	8260B	03/24/11	1
1,1,2-Trichloro-1,2,2-trifluoro	BDL	0.0010	mg/l	8260B	03/24/11	1
Tetrachloroethene	BDL	0.0010	mg/l	8260B	03/24/11	1
Toluene	BDL	0.0050	mg/l	8260B	03/24/11	1
1,2,3-Trichlorobenzene	BDL	0.0010	mg/l	8260B	03/24/11	1
1,2,4-Trichlorobenzene	BDL	0.0010	mg/l	8260B	03/24/11	1
1,1,1-Trichloroethane	BDL	0.0010	mg/l	8260B	03/24/11	1
1,1,2-Trichloroethane	BDL	0.0010	mg/l	8260B	03/24/11	1
Trichloroethene	BDL	0.0010	mg/l	8260B	03/24/11	1
Trichlorofluoromethane	BDL	0.0050	mg/l	8260B	03/24/11	1
1,2,3-Trichloropropane	BDL	0.0025	mg/l	8260B	03/24/11	1
1,2,4-Trimethylbenzene	BDL	0.0010	mg/l	8260B	03/24/11	1
1,2,3-Trimethylbenzene	BDL	0.0010	mg/l	8260B	03/24/11	1
1,3,5-Trimethylbenzene	BDL	0.0010	mg/l	8260B	03/24/11	1
Vinyl chloride	BDL	0.0010	mg/l	8260B	03/24/11	1
Xylenes, Total	BDL	0.0030	mg/l	8260B	03/24/11	1
Surrogate Recovery						
Toluene-d8	101.		% Rec.	8260B	03/24/11	1
Dibromofluoromethane	103.		% Rec.	8260B	03/24/11	1
4-Bromofluorobenzene	101.		% Rec.	8260B	03/24/11	1

BDL - Below Detection Limit

Det. Limit - Practical Quantitation Limit (PQL)

Note:

The reported analytical results relate only to the sample submitted.

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Est. 1970

REPORT OF ANALYSIS

Ms. Emily Wiggins  
Fisher & Arnold Environmental  
9180 Crestwyn Hills Dr.  
Memphis, TN 38125

April 26, 2011

Date Received : March 23, 2011  
Description : 696 N. 2ND STREET  
Sample ID : GP-2  
Collected By : E Wiggins  
Collection Date : 03/22/11 12:10

ESC Sample # : L507629-02

Site ID :

Project # : G7689.1

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
<b>Volatile Organics</b>						
Acetone	BDL	0.050	mg/l	8260B	03/24/11	1
Acrolein	BDL	0.050	mg/l	8260B	03/24/11	1
Acrylonitrile	BDL	0.010	mg/l	8260B	03/24/11	1
Benzene	BDL	0.0010	mg/l	8260B	03/24/11	1
Bromobenzene	BDL	0.0010	mg/l	8260B	03/24/11	1
Bromodichloromethane	BDL	0.0010	mg/l	8260B	03/24/11	1
Bromoform	BDL	0.0010	mg/l	8260B	03/24/11	1
Bromomethane	BDL	0.0050	mg/l	8260B	03/24/11	1
n-Butylbenzene	BDL	0.0010	mg/l	8260B	03/24/11	1
sec-Butylbenzene	BDL	0.0010	mg/l	8260B	03/24/11	1
tert-Butylbenzene	BDL	0.0010	mg/l	8260B	03/24/11	1
Carbon tetrachloride	BDL	0.0010	mg/l	8260B	03/24/11	1
Chlorobenzene	BDL	0.0010	mg/l	8260B	03/24/11	1
Chlorodibromomethane	BDL	0.0010	mg/l	8260B	03/24/11	1
Chloroethane	BDL	0.0050	mg/l	8260B	03/24/11	1
2-Chloroethyl vinyl ether	BDL	0.050	mg/l	8260B	03/24/11	1
Chloroform	BDL	0.0050	mg/l	8260B	03/24/11	1
Chloromethane	BDL	0.0025	mg/l	8260B	03/24/11	1
2-Chlorotoluene	BDL	0.0010	mg/l	8260B	03/24/11	1
4-Chlorotoluene	BDL	0.0010	mg/l	8260B	03/24/11	1
1,2-Dibromo-3-Chloropropane	BDL	0.0050	mg/l	8260B	03/24/11	1
1,2-Dibromoethane	BDL	0.0010	mg/l	8260B	03/24/11	1
Dibromomethane	BDL	0.0010	mg/l	8260B	03/24/11	1
1,2-Dichlorobenzene	BDL	0.0010	mg/l	8260B	03/24/11	1
1,3-Dichlorobenzene	BDL	0.0010	mg/l	8260B	03/24/11	1
1,4-Dichlorobenzene	BDL	0.0010	mg/l	8260B	03/24/11	1
Dichlorodifluoromethane	BDL	0.0050	mg/l	8260B	03/24/11	1
1,1-Dichloroethane	BDL	0.0010	mg/l	8260B	03/24/11	1
1,2-Dichloroethane	BDL	0.0010	mg/l	8260B	03/24/11	1
1,1-Dichloroethene	BDL	0.0010	mg/l	8260B	03/24/11	1
cis-1,2-Dichloroethene	BDL	0.0010	mg/l	8260B	03/24/11	1
trans-1,2-Dichloroethene	BDL	0.0010	mg/l	8260B	03/24/11	1
1,2-Dichloropropane	BDL	0.0010	mg/l	8260B	03/24/11	1
1,1-Dichloropropene	BDL	0.0010	mg/l	8260B	03/24/11	1
1,3-Dichloropropene	BDL	0.0010	mg/l	8260B	03/24/11	1
cis-1,3-Dichloropropene	BDL	0.0010	mg/l	8260B	03/24/11	1
trans-1,3-Dichloropropene	BDL	0.0010	mg/l	8260B	03/24/11	1
2,2-Dichloropropane	BDL	0.0010	mg/l	8260B	03/24/11	1
Di-isopropyl ether	BDL	0.0010	mg/l	8260B	03/24/11	1
Ethylbenzene	BDL	0.0010	mg/l	8260B	03/24/11	1
Hexachloro-1,3-butadiene	BDL	0.0010	mg/l	8260B	03/24/11	1
Isopropylbenzene	BDL	0.0010	mg/l	8260B	03/24/11	1
p-Isopropyltoluene	BDL	0.0010	mg/l	8260B	03/24/11	1

BDL - Below Detection Limit  
Det. Limit - Practical Quantitation Limit (PQL)



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Est. 1970

REPORT OF ANALYSIS

Ms. Emily Wiggins  
Fisher & Arnold Environmental  
9180 Crestwyn Hills Dr.  
Memphis, TN 38125

April 26, 2011

Date Received : March 23, 2011  
Description : 696 N. 2ND STREET  
Sample ID : GP-2  
Collected By : E Wiggins  
Collection Date : 03/22/11 12:10

ESC Sample # : L507629-02

Site ID :

Project # : G7689.1

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
2-Butanone (MEK)	BDL	0.010	mg/l	8260B	03/24/11	1
Methylene Chloride	BDL	0.0050	mg/l	8260B	03/24/11	1
4-Methyl-2-pentanone (MIBK)	BDL	0.010	mg/l	8260B	03/24/11	1
Methyl tert-butyl ether	BDL	0.0010	mg/l	8260B	03/24/11	1
Naphthalene	BDL	0.0050	mg/l	8260B	03/24/11	1
n-Propylbenzene	BDL	0.0010	mg/l	8260B	03/24/11	1
Styrene	BDL	0.0010	mg/l	8260B	02/24/11	1
1,1,1,2-Tetrachloroethane	BDL	0.0010	mg/l	8260B	03/24/11	1
1,1,2,2-Tetrachloroethane	BDL	0.0010	mg/l	8260B	03/24/11	1
1,1,2-Trichloro-1,2,2-trifluoro	BDL	0.0010	mg/l	8260B	03/24/11	1
Tetrachloroethene	BDL	0.0010	mg/l	8260B	03/24/11	1
Toluene	BDL	0.0050	mg/l	8260B	03/24/11	1
1,2,3-Trichlorobenzene	BDL	0.0010	mg/l	8260B	03/24/11	1
1,2,4-Trichlorobenzene	BDL	0.0010	mg/l	8260B	03/24/11	1
1,1,1-Trichloroethane	BDL	0.0010	mg/l	8260B	03/24/11	1
1,1,2-Trichloroethane	BDL	0.0010	mg/l	8260B	03/24/11	1
Trichloroethene	BDL	0.0010	mg/l	8260B	03/24/11	1
Trichlorofluoromethane	BDL	0.0050	mg/l	8260B	03/24/11	1
1,2,3-Trichloropropane	BDL	0.0025	mg/l	8260B	03/24/11	1
1,2,4-Trimethylbenzene	BDL	0.0010	mg/l	8260B	03/24/11	1
1,2,3-Trimethylbenzene	BDL	0.0010	mg/l	8260B	03/24/11	1
1,3,5-Trimethylbenzene	BDL	0.0010	mg/l	8260B	03/24/11	1
Vinyl chloride	BDL	0.0010	mg/l	8260B	03/24/11	1
Xylenes, Total	BDL	0.0030	mg/l	8260B	03/24/11	1
Surrogate Recovery						
Toluene-d8	100.		% Rec.	8260B	03/24/11	1
Dibromofluoromethane	105.		% Rec.	8260B	03/24/11	1
4-Bromofluorobenzene	99.7		% Rec.	8260B	03/24/11	1

BDL - Below Detection Limit

Det. Limit - Practical Quantitation Limit(PQL)

Note:

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REPORT OF ANALYSIS

April 26, 2011

Ms. Emily Wiggins  
Fisher & Arnold Environmental  
9180 Crestwyn Hills Dr.  
Memphis, TN 38125

ESC Sample # : L507629-03

Date Received : March 23, 2011  
Description : 696 N. 2ND STREET

Site ID :

Sample ID : GP-3

Project # : G7689.1

Collected By : E Wiggins  
Collection Date : 03/22/11 14:50

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
<b>Volatile Organics</b>						
Acetone	BDL	0.050	mg/l	8260B	03/24/11	1
Acrolein	BDL	0.050	mg/l	8260B	03/24/11	1
Acrylonitrile	BDL	0.010	mg/l	8260B	03/24/11	1
Benzene	BDL	0.0010	mg/l	8260B	03/24/11	1
Bromobenzene	BDL	0.0010	mg/l	8260B	03/24/11	1
Bromodichloromethane	BDL	0.0010	mg/l	8260B	03/24/11	1
Bromoform	BDL	0.0010	mg/l	8260B	03/24/11	1
Bromomethane	BDL	0.0050	mg/l	8260B	03/24/11	1
n-Butylbenzene	BDL	0.0010	mg/l	8260B	03/24/11	1
sec-Butylbenzene	BDL	0.0010	mg/l	8260B	03/24/11	1
tert-Butylbenzene	BDL	0.0010	mg/l	8260B	03/24/11	1
Carbon tetrachloride	BDL	0.0010	mg/l	8260B	03/24/11	1
Chlorobenzene	BDL	0.0010	mg/l	8260B	03/24/11	1
Chlorodibromomethane	BDL	0.0010	mg/l	8260B	03/24/11	1
Chloroethane	BDL	0.0050	mg/l	8260B	03/24/11	1
2-Chloroethyl vinyl ether	BDL	0.050	mg/l	8260B	03/24/11	1
Chloroform	BDL	0.0050	mg/l	8260B	03/24/11	1
Chloromethane	BDL	0.0025	mg/l	8260B	03/24/11	1
2-Chlorotoluene	BDL	0.0010	mg/l	8260B	03/24/11	1
4-Chlorotoluene	BDL	0.0010	mg/l	8260B	03/24/11	1
1,2-Dibromo-3-Chloropropane	BDL	0.0050	mg/l	8260B	03/24/11	1
1,2-Dibromoethane	BDL	0.0010	mg/l	8260B	03/24/11	1
Dibromomethane	BDL	0.0010	mg/l	8260B	03/24/11	1
1,2-Dichlorobenzene	BDL	0.0010	mg/l	8260B	03/24/11	1
1,3-Dichlorobenzene	BDL	0.0010	mg/l	8260B	03/24/11	1
1,4-Dichlorobenzene	BDL	0.0010	mg/l	8260B	03/24/11	1
Dichlorodifluoromethane	BDL	0.0050	mg/l	8260B	03/24/11	1
1,1-Dichloroethane	BDL	0.0010	mg/l	8260B	03/24/11	1
1,2-Dichloroethane	BDL	0.0010	mg/l	8260B	03/24/11	1
1,1-Dichloroethene	BDL	0.0010	mg/l	8260B	03/24/11	1
cis-1,2-Dichloroethene	BDL	0.0010	mg/l	8260B	03/24/11	1
trans-1,2-Dichloroethene	BDL	0.0010	mg/l	8260B	03/24/11	1
1,2-Dichloropropane	BDL	0.0010	mg/l	8260B	03/24/11	1
1,1-Dichloropropene	BDL	0.0010	mg/l	8260B	03/24/11	1
1,3-Dichloropropene	BDL	0.0010	mg/l	8260B	03/24/11	1
cis-1,3-Dichloropropene	BDL	0.0010	mg/l	8260B	03/24/11	1
trans-1,3-Dichloropropene	BDL	0.0010	mg/l	8260B	03/24/11	1
2,2-Dichloropropane	BDL	0.0010	mg/l	8260B	03/24/11	1
Di-isopropyl ether	BDL	0.0010	mg/l	8260B	03/24/11	1
Ethylbenzene	BDL	0.0010	mg/l	8260B	03/24/11	1
Hexachloro-1,3-butadiene	BDL	0.0010	mg/l	8260B	03/24/11	1
Isopropylbenzene	BDL	0.0010	mg/l	8260B	03/24/11	1
p-Isopropyltoluene	BDL	0.0010	mg/l	8260B	03/24/11	1

BDL - Below Detection Limit  
Det. Limit - Practical Quantitation Limit(PQL)



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REPORT OF ANALYSIS

Ms. Emily Wiggins  
 Fisher & Arnold Environmental  
 9180 Crestwyn Hills Dr.  
 Memphis, TN 38125

April 26, 2011

Date Received : March 23, 2011  
 Description : 696 N. 2ND STREET  
 Sample ID : GP-3  
 Collected By : E Wiggins  
 Collection Date : 03/22/11 14:50

ESC Sample # : LS07629-03

Site ID :

Project # : G7689.1

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
2-Butanone (MEK)	BDL	0.010	mg/l	8260B	03/24/11	1
Methylene Chloride	BDL	0.0050	mg/l	8260B	03/24/11	1
4-Methyl-2-pentanone (MIBK)	BDL	0.010	mg/l	8260B	03/24/11	1
Methyl tert-butyl ether	BDL	0.0010	mg/l	8260B	03/24/11	1
Naphthalene	BDL	0.0050	mg/l	8260B	03/24/11	1
n-Propylbenzene	BDL	0.0010	mg/l	8260B	03/24/11	1
Styrene	BDL	0.0010	mg/l	8260B	03/24/11	1
1,1,1,2-Tetrachloroethane	BDL	0.0010	mg/l	8260B	03/24/11	1
1,1,2,2-Tetrachloroethane	BDL	0.0010	mg/l	8260B	03/24/11	1
1,1,2-Trichloro-1,2,2-trifluoro	BDL	0.0010	mg/l	8260B	03/24/11	1
Tetrachloroethene	BDL	0.0010	mg/l	8260B	03/24/11	1
Toluene	BDL	0.0050	mg/l	8260B	03/24/11	1
1,2,3-Trichlorobenzene	BDL	0.0010	mg/l	8260B	03/24/11	1
1,2,4-Trichlorobenzene	BDL	0.0010	mg/l	8260B	03/24/11	1
1,1,1-Trichloroethane	BDL	0.0010	mg/l	8260B	03/24/11	1
1,1,2-Trichloroethane	BDL	0.0010	mg/l	8260B	03/24/11	1
Trichloroethene	BDL	0.0010	mg/l	8260B	02/24/11	1
Trichlorofluoromethane	BDL	0.0050	mg/l	8260B	03/24/11	1
1,2,3-Trichloropropane	BDL	0.0025	mg/l	8260B	03/24/11	1
1,2,4-Trimethylbenzene	BDL	0.0010	mg/l	8260B	03/24/11	1
1,2,3-Trimethylbenzene	BDL	0.0010	mg/l	8260B	03/24/11	1
1,3,5-Trimethylbenzene	BDL	0.0010	mg/l	8260B	03/24/11	1
Vinyl chloride	BDL	0.0010	mg/l	8260B	03/24/11	1
Xylenes, Total	BDL	0.0030	mg/l	8260B	03/24/11	1
Surrogate Recovery						
Toluene-d8	101.		% Rec.	8260B	03/24/11	1
Dibromofluoromethane	104.		% Rec.	8260B	03/24/11	1
4-Bromofluorobenzene	97.5		% Rec.	8260B	03/24/11	1

BDL - Below Detection Limit

Det. Limit - Practical Quantitation Limit (PQL)

Note:

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REPORT OF ANALYSIS

April 26, 2011

Ms. Emily Wiggins  
 Fisher & Arnold Environmental  
 9180 Crestway Hills Dr.  
 Memphis, TN 38125

ESC Sample # : I507629-04

Date Received : March 23, 2011  
 Description : 696 N. 2ND STREET

Site ID :

Sample ID : GP-4

Project # : G7689.1

Collected By : E Wiggins  
 Collection Date : 03/22/11 14:45

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
Volatile Organics						
Acetone	BDL	0.050	mg/l	8260B	03/24/11	1
Acrolein	BDL	0.050	mg/l	8260B	03/24/11	1
Acrylonitrile	BDL	0.010	mg/l	8260B	03/24/11	1
Benzene	BDL	0.0010	mg/l	8260B	03/24/11	1
Bromobenzene	BDL	0.0010	mg/l	8260B	03/24/11	1
Bromodichloromethane	BDL	0.0010	mg/l	8260B	03/24/11	1
Bromoform	BDL	0.0010	mg/l	8260B	03/24/11	1
Bromomethane	BDL	0.0050	mg/l	8260B	03/24/11	1
n-Butylbenzene	BDL	0.0010	mg/l	8260B	03/24/11	1
sec-Butylbenzene	BDL	0.0010	mg/l	8260B	03/24/11	1
tert-Butylbenzene	BDL	0.0010	mg/l	8260B	03/24/11	1
Carbon tetrachloride	BDL	0.0010	mg/l	8260B	03/24/11	1
Chlorobenzene	BDL	0.0010	mg/l	8260B	03/24/11	1
Chlorodibromomethane	BDL	0.0010	mg/l	8260B	03/24/11	1
Chloroethane	BDL	0.0050	mg/l	8260B	03/24/11	1
2-Chloroethyl vinyl ether	BDL	0.050	mg/l	8260B	03/24/11	1
Chloroform	BDL	0.0050	mg/l	8260B	03/24/11	1
Chloromethane	BDL	0.0025	mg/l	8260B	03/24/11	1
2-Chlorotoluene	BDL	0.0010	mg/l	8260B	03/24/11	1
4-Chlorotoluene	BDL	0.0010	mg/l	8260B	03/24/11	1
1,2-Dibromo-3-Chloropropane	BDL	0.0050	mg/l	8260B	03/24/11	1
1,2-Dibromoethane	BDL	0.0010	mg/l	8260B	03/24/11	1
Dibromomethane	BDL	0.0010	mg/l	8260B	03/24/11	1
1,2-Dichlorobenzene	BDL	0.0010	mg/l	8260B	03/24/11	1
1,3-Dichlorobenzene	BDL	0.0010	mg/l	8260B	03/24/11	1
1,4-Dichlorobenzene	BDL	0.0010	mg/l	8260B	03/24/11	1
Dichlorodifluoromethane	BDL	0.0050	mg/l	8260B	03/24/11	1
1,1-Dichloroethane	BDL	0.0010	mg/l	8260B	03/24/11	1
1,2-Dichloroethane	BDL	0.0010	mg/l	8260B	03/24/11	1
1,1-Dichloroethene	BDL	0.0010	mg/l	8260B	03/24/11	1
cis-1,2-Dichloroethene	BDL	0.0010	mg/l	8260B	03/24/11	1
trans-1,2-Dichloroethene	BDL	0.0010	mg/l	8260B	03/24/11	1
1,2-Dichloropropane	BDL	0.0010	mg/l	8260B	03/24/11	1
1,1-Dichloropropene	BDL	0.0010	mg/l	8260B	03/24/11	1
1,3-Dichloropropene	BDL	0.0010	mg/l	8260B	03/24/11	1
cis-1,3-Dichloropropene	BDL	0.0010	mg/l	8260B	03/24/11	1
trans-1,3-Dichloropropene	BDL	0.0010	mg/l	8260B	03/24/11	1
2,2-Dichloropropane	BDL	0.0010	mg/l	8260B	03/24/11	1
Di-isopropyl ether	BDL	0.0010	mg/l	8260B	03/24/11	1
Ethylbenzene	BDL	0.0010	mg/l	8260B	03/24/11	1
Hexachloro-1,3-butadiene	BDL	0.0010	mg/l	8260B	03/24/11	1
Isopropylbenzene	BDL	0.0010	mg/l	8260B	03/24/11	1
p-Isopropyltoluene	BDL	0.0010	mg/l	8260B	03/24/11	1

BDL - Below Detection Limit  
 Det. Limit - Practical Quantitation Limit (PQL)



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REPORT OF ANALYSIS

April 26, 2011

Ms. Emily Wiggins  
 Fisher & Arnold Environmental  
 9180 Crestwyn Hills Dr.  
 Memphis, TN 38125

Date Received : March 23, 2011  
 Description : 696 N. 2ND STREET  
 Sample ID : GP-4  
 Collected By : E Wiggins  
 Collection Date : 03/22/11 14:45

ESC Sample # : L507629-04

Site ID :

Project # : G7689.1

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
2-Butanone (MEK)	BDL	0.010	mg/l	8260B	03/24/11	1
Methylene Chloride	BDL	0.0050	mg/l	8260B	03/24/11	1
4-Methyl-2-pentanone (MIBK)	BDL	0.010	mg/l	8260B	03/24/11	1
Methyl tert-butyl ether	BDL	0.0010	mg/l	8260B	03/24/11	1
Naphthalene	BDL	0.0050	mg/l	8260B	03/24/11	1
n-Propylbenzene	BDL	0.0010	mg/l	8260B	03/24/11	1
Styrene	BDL	0.0010	mg/l	8260B	03/24/11	1
1,1,1,2-Tetrachloroethane	BDL	0.0010	mg/l	8260B	03/24/11	1
1,1,2,2-Tetrachloroethane	BDL	0.0010	mg/l	8260B	03/24/11	1
1,1,2-Trichloro-1,2,2-trifluoro	BDL	0.0010	mg/l	8260B	03/24/11	1
Tetrachloroethene	BDL	0.0010	mg/l	8260B	03/24/11	1
Toluene	BDL	0.0050	mg/l	8260B	03/24/11	1
1,2,3-Trichlorobenzene	BDL	0.0010	mg/l	8260B	03/24/11	1
1,2,4-Trichlorobenzene	BDL	0.0010	mg/l	8260B	03/24/11	1
1,1,1-Trichloroethane	BDL	0.0010	mg/l	8260B	03/24/11	1
1,1,2-Trichloroethane	BDL	0.0010	mg/l	8260B	03/24/11	1
Trichloroethene	BDL	0.0010	mg/l	8260B	03/24/11	1
Trichlorofluoromethane	BDL	0.0050	mg/l	8260B	03/24/11	1
1,2,3-Trichloropropane	BDL	0.0025	mg/l	8260B	03/24/11	1
1,2,4-Trimethylbenzene	BDL	0.0010	mg/l	8260B	03/24/11	1
1,2,3-Trimethylbenzene	BDL	0.0010	mg/l	8260B	03/24/11	1
1,3,5-Trimethylbenzene	BDL	0.0010	mg/l	8260B	03/24/11	1
Vinyl chloride	BDL	0.0010	mg/l	8260B	03/24/11	1
Xylenes, Total	BDL	0.0030	mg/l	8260B	03/24/11	1
Surrogate Recovery						
Toluene-d8	103.		† Rec.	8260B	03/24/11	1
Dibromofluoromethane	99.1		‡ Rec.	8260B	03/24/11	1
4-Bromofluorobenzene	99.7		§ Rec.	8260B	03/24/11	1

BDL - Below Detection Limit  
 Det. Limit - Practical Quantitation Limit (PQL)  
 Note:  
 The reported analytical results relate only to the sample submitted.  
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 Reported: 03/30/11 13:03 Revised: 04/26/11 22:05



12065 Lebanon Rd.  
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 (615) 758-5858  
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Tax I.D. 62-0814289

Est. 1970

REPORT OF ANALYSIS

April 26, 2011

Ms. Emily Wiggins  
 Fisher & Arnold Environmental  
 9180 Crestwyn Hills Dr.  
 Memphis, TN 38125

Date Received : March 23, 2011  
 Description : 696 N. 2ND STREET  
 Sample ID : GP-1-12  
 Collected By : E Wiggins  
 Collection Date : 03/22/11 09:35

ESC Sample # : L507629-05

Site ID :

Project # : G7689.1

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
Total Solids	78.		%	2540G	03/30/11	1
<b>Volatile Organics</b>						
Acetone	BDL	0.050	mg/kg	8260B	03/25/11	1
Acrylonitrile	BDL	0.010	mg/kg	8260B	03/25/11	1
Benzene	0.0020	0.0010	mg/kg	8260B	03/25/11	1
Bromobenzene	BDL	0.0010	mg/kg	8260B	03/25/11	1
Bromodichloromethane	BDL	0.0010	mg/kg	8260B	03/25/11	1
Bromoform	BDL	0.0010	mg/kg	8260B	03/25/11	1
Bromomethane	BDL	0.0050	mg/kg	8260B	03/25/11	1
n-Butylbenzene	BDL	0.0010	mg/kg	8260B	03/25/11	1
sec-Butylbenzene	BDL	0.0010	mg/kg	8260B	03/25/11	1
tert-Butylbenzene	BDL	0.0010	mg/kg	8260B	03/25/11	1
Carbon tetrachloride	BDL	0.0010	mg/kg	8260B	03/25/11	1
Chlorobenzene	BDL	0.0010	mg/kg	8260B	03/25/11	1
Chlorodibromomethane	BDL	0.0010	mg/kg	8260B	03/25/11	1
Chloroethane	BDL	0.0050	mg/kg	8260B	03/25/11	1
2-Chloroethyl vinyl ether	BDL	0.050	mg/kg	8260B	03/25/11	1
Chloroform	BDL	0.0050	mg/kg	8260B	03/25/11	1
Chloromethane	BDL	0.0025	mg/kg	8260B	03/25/11	1
2-Chlorotoluene	BDL	0.0010	mg/kg	8260B	03/25/11	1
4-Chlorotoluene	BDL	0.0010	mg/kg	8260B	03/25/11	1
1,2-Dibromo-3-Chloropropane	BDL	0.0050	mg/kg	8260B	03/25/11	1
1,2-Dibromoethane	BDL	0.0010	mg/kg	8260B	03/25/11	1
Dibromomethane	BDL	0.0010	mg/kg	8260B	03/25/11	1
1,2-Dichlorobenzene	BDL	0.0010	mg/kg	8260B	03/25/11	1
1,3-Dichlorobenzene	BDL	0.0010	mg/kg	8260B	03/25/11	1
1,4-Dichlorobenzene	BDL	0.0010	mg/kg	8260B	03/25/11	1
Dichlorodifluoromethane	BDL	0.0050	mg/kg	8260B	03/25/11	1
1,1-Dichloroethane	BDL	0.0010	mg/kg	8260B	03/25/11	1
1,2-Dichloroethane	BDL	0.0010	mg/kg	8260B	03/25/11	1
1,1-Dichloroethene	BDL	0.0010	mg/kg	8260B	03/25/11	1
cis-1,2-Dichloroethene	BDL	0.0010	mg/kg	8260B	03/25/11	1
trans-1,2-Dichloroethene	BDL	0.0010	mg/kg	8260B	03/25/11	1
1,2-Dichloropropane	BDL	0.0010	mg/kg	8260B	03/25/11	1
1,1-Dichloropropene	BDL	0.0010	mg/kg	8260B	03/25/11	1
1,3-Dichloropropane	BDL	0.0010	mg/kg	8260B	03/25/11	1
cis-1,3-Dichloropropene	BDL	0.0010	mg/kg	8260B	03/25/11	1
trans-1,3-Dichloropropene	BDL	0.0010	mg/kg	8260B	03/25/11	1
2,2-Dichloropropane	BDL	0.0010	mg/kg	8260B	03/25/11	1
Di-isopropyl ether	BDL	0.0010	mg/kg	8260B	03/25/11	1
Ethylbenzene	0.0010	0.0010	mg/kg	8260B	03/25/11	1
Hexachloro-1,3-butadiene	BDL	0.0010	mg/kg	8260B	03/25/11	1
Isopropylbenzene	BDL	0.0010	mg/kg	8260B	03/25/11	1

BDL - Below Detection Limit  
 Det. Limit - Practical Quantitation Limit (PQL)



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Tax I.D. #2-0814280

Est. 1970

REPORT OF ANALYSIS

April 26, 2011

Ms. Emily Wiggins  
 Fisher & Arnold Environmental  
 9180 Crestwyn Hills Dr.  
 Memphis, TN 38125

Date Received : March 23, 2011  
 Description : 696 N. 2ND STREET  
 Sample ID : GP-1-12  
 Collected By : E Wiggins  
 Collection Date : 03/22/11 09:35

ESC Sample # : L507629-05

Site ID :

Project # : G7689.1

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
p-Isopropyltoluene	BDL	0.0010	mg/kg	8260B	03/25/11	1
2-Butanone (MEK)	BDL	0.010	mg/kg	8260B	03/25/11	1
Methylene Chloride	BDL	0.0050	mg/kg	8260B	03/25/11	1
4-Methyl-2-pentanone (MIBK)	BDL	0.010	mg/kg	8260B	03/25/11	1
Methyl tert-butyl ether	BDL	0.0010	mg/kg	8260B	03/25/11	1
Naphthalene	BDL	0.0050	mg/kg	8260B	03/25/11	1
n-Propylbenzene	BDL	0.0010	mg/kg	8260B	03/25/11	1
Styrene	BDL	0.0010	mg/kg	8260B	03/25/11	1
1,1,1,2-Tetrachloroethane	BDL	0.0010	mg/kg	8260B	03/25/11	1
1,1,2,2-Tetrachloroethane	BDL	0.0010	mg/kg	8260B	03/25/11	1
1,1,2-Trichloro-1,2,2-trifluoro	BDL	0.0010	mg/kg	8260B	03/25/11	1
Tetrachloroethane	BDL	0.0010	mg/kg	8260B	03/25/11	1
Toluene	BDL	0.0050	mg/kg	8260B	03/25/11	1
1,2,3-Trichlorobenzene	BDL	0.0010	mg/kg	8260B	03/25/11	1
1,2,4-Trichlorobenzene	BDL	0.0010	mg/kg	8260B	03/25/11	1
1,1,1-Trichloroethane	BDL	0.0010	mg/kg	8260B	03/25/11	1
1,1,2-Trichloroethane	BDL	0.0010	mg/kg	8260B	03/25/11	1
Trichloroethene	BDL	0.0010	mg/kg	8260B	03/25/11	1
Trichlorofluoromethane	BDL	0.0050	mg/kg	8260B	03/25/11	1
1,2,3-Trichloropropane	BDL	0.0025	mg/kg	8260B	03/25/11	1
1,2,4-Trimethylbenzene	BDL	0.0010	mg/kg	8260B	03/25/11	1
1,2,3-Trimethylbenzene	BDL	0.0010	mg/kg	8260B	03/25/11	1
1,3,5-Trimethylbenzene	BDL	0.0010	mg/kg	8260B	03/25/11	1
Vinyl chloride	BDL	0.0010	mg/kg	8260B	03/25/11	1
Xylenes, Total	BDL	0.0030	mg/kg	8260B	03/25/11	1
Surrogate Recovery						
Toluene-d8	100.		% Rec.	8260B	03/25/11	1
Dibromofluoromethane	105.		% Rec.	8260B	03/25/11	1
4-Bromofluorobenzene	95.9		% Rec.	8260B	03/25/11	1

BDL - Below Detection Limit

Det. Limit - Practical Quantitation Limit(PQL)

Note:

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Reported: 03/30/11 13:03 Revised: 04/26/11 22:05



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REPORT OF ANALYSIS

April 26, 2011

Ms. Emily Wiggins  
Fisher & Arnold Environmental  
9180 Crestwyn Hills Dr.  
Memphis, TN 38125

Date Received : March 23, 2011  
Description : 696 N. 2ND STREET  
Sample ID : GP-2-12  
Collected By : E Wiggins  
Collection Date : 03/22/11 12:00

ESC Sample # : L507629-06

Site ID :

Project # : G7609.1

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
Total Solids	77.		%	2540G	03/30/11	1
Volatile Organics						
Acetone	BDL	0.050	mg/kg	8260B	03/25/11	1
Acrylonitrile	BDL	0.010	mg/kg	8260B	03/25/11	1
Benzene	0.0024	0.0010	mg/kg	8260B	03/25/11	1
Bromobenzene	BDL	0.0010	mg/kg	8260B	03/25/11	1
Bromodichloromethane	BDL	0.0010	mg/kg	8260B	03/25/11	1
Bromoform	BDL	0.0010	mg/kg	8260B	03/25/11	1
Bromomethane	BDL	0.0050	mg/kg	8260B	03/25/11	1
n-Butylbenzene	BDL	0.0010	mg/kg	8260B	03/25/11	1
sec-Butylbenzene	BDL	0.0010	mg/kg	8260B	03/25/11	1
tert-Butylbenzene	BDL	0.0010	mg/kg	8260B	03/25/11	1
Carbon tetrachloride	BDL	0.0010	mg/kg	8260B	03/25/11	1
Chlorobenzene	BDL	0.0010	mg/kg	8260B	03/25/11	1
Chlorodibromomethane	BDL	0.0010	mg/kg	8260B	03/25/11	1
Chloroethane	BDL	0.0050	mg/kg	8260B	03/25/11	1
2-Chloroethyl vinyl ether	BDL	0.050	mg/kg	8260B	03/25/11	1
Chloroform	BDL	0.0050	mg/kg	8260B	03/25/11	1
Chloromethane	BDL	0.0025	mg/kg	8260B	03/25/11	1
2-Chlorotoluene	BDL	0.0010	mg/kg	8260B	03/25/11	1
4-Chlorotoluene	BDL	0.0010	mg/kg	8260B	03/25/11	1
1,2-Dibromo-3-Chloropropane	BDL	0.0050	mg/kg	8260B	03/25/11	1
1,2-Dibromoethane	BDL	0.0010	mg/kg	8260B	03/25/11	1
Dibromomethane	BDL	0.0010	mg/kg	8260B	03/25/11	1
1,2-Dichlorobenzene	BDL	0.0010	mg/kg	8260B	03/25/11	1
1,3-Dichlorobenzene	BDL	0.0010	mg/kg	8260B	03/25/11	1
1,4-Dichlorobenzene	BDL	0.0010	mg/kg	8260B	03/25/11	1
Dichlorodifluoromethane	BDL	0.0050	mg/kg	8260B	03/25/11	1
1,1-Dichloroethane	BDL	0.0010	mg/kg	8260B	03/25/11	1
1,2-Dichloroethane	BDL	0.0010	mg/kg	8260B	03/25/11	1
1,1-Dichloroethene	BDL	0.0010	mg/kg	8260B	03/25/11	1
cis-1,2-Dichloroethene	BDL	0.0010	mg/kg	8260B	03/25/11	1
trans-1,2-Dichloroethene	BDL	0.0010	mg/kg	8260B	03/25/11	1
1,2-Dichloropropane	BDL	0.0010	mg/kg	8260B	03/25/11	1
1,1-Dichloropropene	BDL	0.0010	mg/kg	8260B	03/25/11	1
1,3-Dichloropropane	BDL	0.0010	mg/kg	8260B	03/25/11	1
cis-1,3-Dichloropropene	BDL	0.0010	mg/kg	8260B	03/25/11	1
trans-1,3-Dichloropropene	BDL	0.0010	mg/kg	8260B	03/25/11	1
2,2-Dichloropropane	BDL	0.0010	mg/kg	8260B	03/25/11	1
Di-isopropyl ether	BDL	0.0010	mg/kg	8260B	03/25/11	1
Ethylbenzene	0.0019	0.0010	mg/kg	8260B	03/25/11	1
Hexachloro-1,3-butadiene	BDL	0.0010	mg/kg	8260B	03/25/11	1
Isopropylbenzene	BDL	0.0010	mg/kg	8260B	03/25/11	1

BDL - Below Detection Limit  
Det. Limit - Practical Quantitation Limit (PQL)



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REPORT OF ANALYSIS

April 26, 2011

Ms. Emily Wiggins  
 Fisher & Arnold Environmental  
 910 Crestwyn Hills Dr.  
 Memphis, TN 38125

Date Received : March 23, 2011  
 Description : 696 N. 2ND STREET  
 Sample ID : GP-2-12  
 Collected By : E Wiggins  
 Collection Date : 03/22/11 12:00

ESC Sample # : L507629-06

Site ID :

Project # : G7689.1

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
p-Isopropyltoluene	BDL	0.0010	mg/kg	8260B	03/25/11	1
2-Butanone (MEK)	BDL	0.010	mg/kg	8260B	03/25/11	1
Methylene Chloride	BDL	0.0050	mg/kg	8260B	03/25/11	1
4-Methyl-2-pentanone (MIBK)	BDL	0.010	mg/kg	8260B	03/25/11	1
Methyl tert-butyl ether	BDL	0.0010	mg/kg	8260B	03/25/11	1
Naphthalene	BDL	0.0050	mg/kg	8260B	03/25/11	1
n-Propylbenzene	BDL	0.0010	mg/kg	8260B	03/25/11	1
Styrene	BDL	0.0010	mg/kg	8260B	03/25/11	1
1,1,1,2-Tetrachloroethane	BDL	0.0010	mg/kg	8260B	03/25/11	1
1,1,2,2-Tetrachloroethane	BDL	0.0010	mg/kg	8260B	03/25/11	1
1,1,2-Trichloro-1,2,2-trifluoro	BDL	0.0010	mg/kg	8260B	03/25/11	1
Tetrachloroethene	BDL	0.0010	mg/kg	8260B	03/25/11	1
Toluene	0.0059	0.0050	mg/kg	8260B	03/25/11	1
1,2,3-Trichlorobenzene	BDL	0.0010	mg/kg	8260B	03/25/11	1
1,2,4-Trichlorobenzene	BDL	0.0010	mg/kg	8260B	03/25/11	1
1,1,1-Trichloroethane	BDL	0.0010	mg/kg	8260B	03/25/11	1
1,1,2-Trichloroethane	BDL	0.0010	mg/kg	8260B	03/25/11	1
Trichloroethene	BDL	0.0010	mg/kg	8260B	03/25/11	1
Trichlorofluoromethane	BDL	0.0050	mg/kg	8260B	03/25/11	1
1,2,3-Trichloropropane	BDL	0.0025	mg/kg	8260B	03/25/11	1
1,2,4-Trimethylbenzene	0.0012	0.0010	mg/kg	8260B	03/25/11	1
1,2,3-Trimethylbenzene	BDL	0.0010	mg/kg	8260B	03/25/11	1
1,3,5-Trimethylbenzene	BDL	0.0010	mg/kg	8260B	03/25/11	1
Vinyl chloride	BDL	0.0010	mg/kg	8260B	03/25/11	1
Xylenes, Total	0.0038	0.0030	mg/kg	8260B	03/25/11	1
Surrogate Recovery						
Toluene-d8	100.		% Rec.	8260B	03/25/11	1
Dibromofluoromethane	106.		% Rec.	8260B	03/25/11	1
4-Bromofluorobenzene	93.8		% Rec.	8260B	03/25/11	1

BDL - Below Detection Limit

Det. Limit - Practical Quantitation Limit (PQL)

Note:

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Reported: 03/30/11 13:03 Revised: 04/26/11 22:05



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REPORT OF ANALYSIS

April 26, 2011

Ms. Emily Wiggins  
 Fisher & Arnold Environmental  
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 Memphis, TN 38125

Date Received : March 23, 2011  
 Description : 696 N. 2ND STREET  
 Sample ID : GP-3-12  
 Collected By : E Wiggins  
 Collection Date : 03/22/11 14:30

ESC Sample # : L507629-07

Site ID :

Project # : G7639.1

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
Total Solids	77.		%	2540G	03/30/11	1
Volatile Organics						
Acetone	BDL	0.050	mg/kg	8260B	03/25/11	1
Acrylonitrile	BDL	0.010	mg/kg	8260B	03/25/11	1
Benzene	0.0019	0.0010	mg/kg	8260B	03/25/11	1
Bromobenzene	BDL	0.0010	mg/kg	8260B	03/25/11	1
Bromodichloromethane	BDL	0.0010	mg/kg	8260B	03/25/11	1
Bromoform	BDL	0.0010	mg/kg	8260B	03/25/11	1
Bromomethane	BDL	0.0050	mg/kg	8260B	03/25/11	1
n-Butylbenzene	BDL	0.0010	mg/kg	8260B	03/25/11	1
sec-Butylbenzene	BDL	0.0010	mg/kg	8260B	03/25/11	1
tert-Butylbenzene	BDL	0.0010	mg/kg	8260B	03/25/11	1
Carbon tetrachloride	BDL	0.0010	mg/kg	8260B	03/25/11	1
Chlorobenzene	BDL	0.0010	mg/kg	8260B	03/25/11	1
Chlorodibromomethane	BDL	0.0010	mg/kg	8260B	03/25/11	1
Chloroethane	BDL	0.0050	mg/kg	8260B	03/25/11	1
2-Chloroethyl vinyl ether	BDL	0.050	mg/kg	8260B	03/25/11	1
Chloroform	BDL	0.0050	mg/kg	8260B	03/25/11	1
Chloromethane	BDL	0.0025	mg/kg	8260B	03/25/11	1
2-Chlorotoluene	BDL	0.0010	mg/kg	8260B	03/25/11	1
4-Chlorotoluene	BDL	0.0010	mg/kg	8260B	03/25/11	1
1,2-Dibromo-3-Chloropropane	BDL	0.0050	mg/kg	8260B	03/25/11	1
1,2-Dibromoethane	BDL	0.0010	mg/kg	8260B	03/25/11	1
Dibromomethane	BDL	0.0010	mg/kg	8260B	03/25/11	1
1,2-Dichlorobenzene	BDL	0.0010	mg/kg	8260B	03/25/11	1
1,3-Dichlorobenzene	BDL	0.0010	mg/kg	8260B	03/25/11	1
1,4-Dichlorobenzene	BDL	0.0010	mg/kg	8260B	03/25/11	1
Dichlorodifluoromethane	BDL	0.0050	mg/kg	8260B	03/25/11	1
1,1-Dichloroethane	BDL	0.0010	mg/kg	8260B	03/25/11	1
1,2-Dichloroethane	BDL	0.0010	mg/kg	8260B	03/25/11	1
1,1-Dichloroethene	BDL	0.0010	mg/kg	8260B	03/25/11	1
cis-1,2-Dichloroethene	BDL	0.0010	mg/kg	8260B	03/25/11	1
trans-1,2-Dichloroethene	BDL	0.0010	mg/kg	8260B	03/25/11	1
1,2-Dichloropropane	BDL	0.0010	mg/kg	8260B	03/25/11	1
1,1-Dichloropropene	BDL	0.0010	mg/kg	8260B	03/25/11	1
1,3-Dichloropropane	BDL	0.0010	mg/kg	8260B	03/25/11	1
cis-1,3-Dichloropropene	BDL	0.0010	mg/kg	8260B	03/25/11	1
trans-1,3-Dichloropropene	BDL	0.0010	mg/kg	8260B	03/25/11	1
2,2-Dichloropropane	BDL	0.0010	mg/kg	8260B	03/25/11	1
Di-isopropyl ether	BDL	0.0010	mg/kg	8260B	03/25/11	1
Ethylbenzene	0.0012	0.0010	mg/kg	8260B	03/25/11	1
Hexachloro-1,3-butadiene	BDL	0.0010	mg/kg	8260B	03/25/11	1
Isopropylbenzene	BDL	0.0010	mg/kg	8260B	03/25/11	1

BDL - Below Detection Limit  
 Det. Limit - Practical Quantitation Limit (PQL)





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Est. 1970

REPORT OF ANALYSIS

April 26, 2011

Ms. Emily Wiggins  
 Fisher & Arnold Environmental  
 9180 Crestwyn Hills Dr.  
 Memphis, TN 38125

Date Received : March 23, 2011  
 Description : 696 N. 2ND STREET  
 Sample ID : GP-3-12  
 Collected By : E Wiggins  
 Collection Date : 03/22/11 14:30

ESC Sample # : L507629-07

Site ID :

Project # : G7685.1

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
p-Isopropyltoluene	BDL	0.0010	mg/kg	8260B	03/25/11	1
2-Butanone (MEK)	BDL	0.010	mg/kg	8260B	03/25/11	1
Methylene Chloride	BDL	0.0050	mg/kg	8260B	03/25/11	1
4-Methyl-2-pentanone (MIBK)	BDL	0.010	mg/kg	8260B	03/25/11	1
Methyl tert-butyl ether	BDL	0.0010	mg/kg	8260B	03/25/11	1
Naphthalene	BDL	0.0050	mg/kg	8260B	03/25/11	1
n-Propylbenzene	BDL	0.0010	mg/kg	8260B	03/25/11	1
Styrene	BDL	0.0010	mg/kg	8260B	03/25/11	1
1,1,1,2-Tetrachloroethane	BDL	0.0010	mg/kg	8260B	03/25/11	1
1,1,2,2-Tetrachloroethane	BDL	0.0010	mg/kg	8260B	03/25/11	1
1,1,2-Trichloro-1,2,2-trifluoro	BDL	0.0010	mg/kg	8260B	03/25/11	1
Tetrachloroethene	BDL	0.0010	mg/kg	8260B	03/25/11	1
Toluene	BDL	0.0050	mg/kg	8260B	03/25/11	1
1,2,3-Trichlorobenzene	BDL	0.0010	mg/kg	8260B	03/25/11	1
1,2,4-Trichlorobenzene	BDL	0.0010	mg/kg	8260B	03/25/11	1
1,1,1-Trichloroethane	BDL	0.0010	mg/kg	8260B	03/25/11	1
1,1,2-Trichloroethane	BDL	0.0010	mg/kg	8260B	03/25/11	1
Trichloroethene	BDL	0.0010	mg/kg	8260B	03/25/11	1
Trichlorofluoromethane	BDL	0.0050	mg/kg	8260B	03/25/11	1
1,2,3-Trichloropropane	BDL	0.0025	mg/kg	8260B	03/25/11	1
1,2,4-Trimethylbenzene	BDL	0.0010	mg/kg	8260B	03/25/11	1
1,2,3-Trimethylbenzene	BDL	0.0010	mg/kg	8260B	03/25/11	1
1,3,5-Trimethylbenzene	BDL	0.0010	mg/kg	8260B	03/25/11	1
Vinyl chloride	BDL	0.0010	mg/kg	8260B	03/25/11	1
Xylenes, Total	BDL	0.0030	mg/kg	8260B	03/25/11	1
Surrogate Recovery						
Toluene-d8	100.		‡ Rec.	8260B	03/25/11	1
Dibromofluoromethane	108.		‡ Rec.	8260B	03/25/11	1
4-Bromofluorobenzene	94.1		‡ Rec.	8260B	03/25/11	1

BDL - Below Detection Limit

Det. Limit - Practical Quantitation Limit (PQL)

Note:

The reported analytical results relate only to the sample submitted.

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Reported: 03/30/11 13:03 Revised: 04/26/11 22:05



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REPORT OF ANALYSIS

April 26, 2011

Ms. Emily Wiggins  
 Fisher & Arnold Environmental  
 9160 Crestwyn Hills Dr.  
 Memphis, TN 38125

Date Received : March 23, 2011  
 Description : 696 N. 2ND STREET  
 Sample ID : GP-4-16  
 Collected By : E Wiggins  
 Collection Date : 03/22/11 13:45

ESC Sample # : L507629-08

Site ID :

Project # : G7689.1

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
Total Solids	79.		%	2540G	03/30/11	1
<b>Volatile Organics</b>						
Acetone	BDL	0.050	mg/kg	8260B	03/25/11	1
Acrylonitrile	BDL	0.010	mg/kg	8260B	03/25/11	1
Benzene	0.0021	0.0010	mg/kg	8260B	03/25/11	1
Bromobenzene	BDL	0.0010	mg/kg	8260B	03/25/11	1
Bromodichloromethane	BDL	0.0010	mg/kg	8260B	03/25/11	1
Bromoform	BDL	0.0010	mg/kg	8260B	03/25/11	1
Bromomethane	BDL	0.0050	mg/kg	8260B	03/25/11	1
n-Butylbenzene	BDL	0.0010	mg/kg	8260B	03/25/11	1
sec-Butylbenzene	BDL	0.0010	mg/kg	8260B	03/25/11	1
tert-Butylbenzene	BDL	0.0010	mg/kg	8260B	03/25/11	1
Carbon tetrachloride	BDL	0.0010	mg/kg	8260B	03/25/11	1
Chlorobenzene	BDL	0.0010	mg/kg	8260B	03/25/11	1
Chlorodibromomethane	BDL	0.0010	mg/kg	8260B	03/25/11	1
Chloroethane	BDL	0.0050	mg/kg	8260B	03/25/11	1
2-Chloroethyl vinyl ether	BDL	0.050	mg/kg	8260B	03/25/11	1
Chloroform	BDL	0.0050	mg/kg	8260B	03/25/11	1
Chloromethane	BDL	0.0025	mg/kg	8260B	03/25/11	1
2-Chlorotoluene	BDL	0.0010	mg/kg	8260B	03/25/11	1
4-Chlorotoluene	BDL	0.0010	mg/kg	8260B	03/25/11	1
1,2-Dibromo-3-Chloropropane	BDL	0.0050	mg/kg	8260B	03/25/11	1
1,2-Dibromoethane	BDL	0.0010	mg/kg	8260B	03/25/11	1
Dibromomethane	BDL	0.0010	mg/kg	8260B	03/25/11	1
1,2-Dichlorobenzene	BDL	0.0010	mg/kg	8260B	03/25/11	1
1,3-Dichlorobenzene	BDL	0.0010	mg/kg	8260B	03/25/11	1
1,4-Dichlorobenzene	BDL	0.0010	mg/kg	8260B	03/25/11	1
Dichlorodifluoromethane	BDL	0.0050	mg/kg	8260B	03/25/11	1
1,1-Dichloroethane	BDL	0.0010	mg/kg	8260B	03/25/11	1
1,2-Dichloroethane	BDL	0.0010	mg/kg	8260B	03/25/11	1
1,1-Dichloroethene	BDL	0.0010	mg/kg	8260B	03/25/11	1
cis-1,2-Dichloroethene	BDL	0.0010	mg/kg	8260B	03/25/11	1
trans-1,2-Dichloroethene	BDL	0.0010	mg/kg	8260B	03/25/11	1
1,2-Dichloropropane	BDL	0.0010	mg/kg	8260B	03/25/11	1
1,1-Dichloropropene	BDL	0.0010	mg/kg	8260B	03/25/11	1
1,3-Dichloropropane	BDL	0.0010	mg/kg	8260B	03/25/11	1
cis-1,3-Dichloropropene	BDL	0.0010	mg/kg	8260B	03/25/11	1
trans-1,3-Dichloropropene	BDL	0.0010	mg/kg	8260B	03/25/11	1
2,2-Dichloropropane	BDL	0.0010	mg/kg	8260B	03/25/11	1
Di-isopropyl ether	BDL	0.0010	mg/kg	8260B	03/25/11	1
Ethylbenzene	0.0010	0.0010	mg/kg	8260B	03/25/11	1
Hexachloro-1,3-butadiene	BDL	0.0010	mg/kg	8260B	03/25/11	1
Isopropylbenzene	BDL	0.0010	mg/kg	8260B	03/25/11	1

BDL - Below Detection Limit  
 Det. Limit - Practical Quantitation Limit (PQL)



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REPORT OF ANALYSIS

April 26, 2011

Ms. Emily Wiggins  
 Fisher & Arnold Environmental  
 9180 Crestwyn Hills Dr.  
 Memphis, TN 38125

Date Received : March 23, 2011  
 Description : 696 N. 2ND STREET  
 Sample ID : GP-4-16  
 Collected By : E Wiggins  
 Collection Date : 03/22/11 13:45

ESC Sample # : L507629-08

Site ID :

Project # : G7689.1

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
p-Isopropyltoluene	BDL	0.0010	mg/kg	8260B	03/25/11	1
2-Butanone (MEK)	BDL	0.010	mg/kg	8260B	03/25/11	1
Methylene Chloride	BDL	0.0050	mg/kg	8260B	03/25/11	1
4-Methyl-2-pentanone (MIBK)	BDL	0.010	mg/kg	8260B	03/25/11	1
Methyl tert-butyl ether	BDL	0.0010	mg/kg	8260B	03/25/11	1
Naphthalene	BDL	0.0050	mg/kg	8260B	03/25/11	1
n-Propylbenzene	BDL	0.0010	mg/kg	8260B	03/25/11	1
Styrene	BDL	0.0010	mg/kg	8260B	03/25/11	1
1,1,1,2-Tetrachloroethane	BDL	0.0010	mg/kg	8260B	03/25/11	1
1,1,2,2-Tetrachloroethane	BDL	0.0010	mg/kg	8260B	03/25/11	1
1,1,2-Trichloro-1,2,2-trifluoro	BDL	0.0010	mg/kg	8260B	03/25/11	1
Tetrachloroethene	BDL	0.0010	mg/kg	8260B	03/25/11	1
Toluene	BDL	0.0050	mg/kg	8260B	03/25/11	1
1,2,3-Trichlorobenzene	BDL	0.0010	mg/kg	8260B	03/25/11	1
1,2,4-Trichlorobenzene	BDL	0.0010	mg/kg	8260B	03/25/11	1
1,1,1-Trichloroethane	BDL	0.0010	mg/kg	8260B	03/25/11	1
1,1,2-Trichloroethane	BDL	0.0010	mg/kg	8260B	03/25/11	1
Trichloroethene	BDL	0.0010	mg/kg	8260B	03/25/11	1
Trichlorofluoromethane	BDL	0.0050	mg/kg	8260B	03/25/11	1
1,2,3-Trichloropropane	BDL	0.0025	mg/kg	8260B	03/25/11	1
1,2,4-Trimethylbenzene	BDL	0.0010	mg/kg	8260B	03/25/11	1
1,2,3-Trimethylbenzene	BDL	0.0010	mg/kg	8260B	03/25/11	1
1,3,5-Trimethylbenzene	BDL	0.0010	mg/kg	8260B	03/25/11	1
Vinyl chloride	BDL	0.0010	mg/kg	8260B	03/25/11	1
Xylenes, Total	BDL	0.0030	mg/kg	8260B	03/25/11	1
Surrogate Recovery						
Toluene-d8	101.		% Rec.	8260B	03/25/11	1
Dibromofluoromethane	110.		% Rec.	8260B	03/25/11	1
4-Bromofluorobenzene	92.2		% Rec.	8260B	03/25/11	1

BDL - Below Detection Limit

Det. Limit - Practical Quantitation Limit (PQL)

Note:

The reported analytical results relate only to the sample submitted.

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Reported: 03/30/11 13:03 Revised: 04/26/11 22:05

Attachment A  
List of Analytes with QC Qualifiers

Sample Number	Work Group	Sample Type	Analyte	Run ID	Qualifier			
L507629-01	WG527537	SAMP	Acetone	R1624429	J3			
			Acrolein	R1624429	J3			
			Bromomethane	R1624429	J3			
			Chloromethane	R1624429	J3			
			1,3-Dichlorobenzene	R1624429	J3			
			1,1-Dichloroethene	R1624429	J3			
			trans-1,2-Dichloroethene	R1624429	J3			
			2-Butanone (MEK)	R1624429	J3			
			4-Methyl-2-pentanone (MIBK)	R1624429	J3			
			Methyl tert-butyl ether	R1624429	J3			
			1,1,1-Trichloroethane	R1624429	J3			
			Vinyl chloride	R1624429	J3			
			L507629-02	WG527537	SAMP	Acetone	R1624429	J3
						Acrolein	R1624429	J3
Bromomethane	R1624429	J3						
Chloromethane	R1624429	J3						
1,3-Dichlorobenzene	R1624429	J3						
1,1-Dichloroethene	R1624429	J3						
trans-1,2-Dichloroethene	R1624429	J3						
2-Butanone (MEK)	R1624429	J3						
4-Methyl-2-pentanone (MIBK)	R1624429	J3						
Methyl tert-butyl ether	R1624429	J3						
1,1,1-Trichloroethane	R1624429	J3						
Vinyl chloride	R1624429	J3						
L507629-03	WG527537	SAMP				Acetone	R1624429	J3
						Acrolein	R1624429	J3
			Bromomethane	R1624429	J3			
			Chloromethane	R1624429	J3			
			1,3-Dichlorobenzene	R1624429	J3			
			1,1-Dichloroethene	R1624429	J3			
			trans-1,2-Dichloroethene	R1624429	J3			
			2-Butanone (MEK)	R1624429	J3			
			4-Methyl-2-pentanone (MIBK)	R1624429	J3			
			Methyl tert-butyl ether	R1624429	J3			
			1,1,1-Trichloroethane	R1624429	J3			
			Vinyl chloride	R1624429	J3			
			L507629-04	WG527537	SAMP	Acetone	R1624429	J3
						Acrolein	R1624429	J3
Bromomethane	R1624429	J3						
Chloromethane	R1624429	J3						
1,3-Dichlorobenzene	R1624429	J3						
1,1-Dichloroethene	R1624429	J3						
trans-1,2-Dichloroethene	R1624429	J3						
2-Butanone (MEK)	R1624429	J3						
4-Methyl-2-pentanone (MIBK)	R1624429	J3						
Methyl tert-butyl ether	R1624429	J3						
1,1,1-Trichloroethane	R1624429	J3						
Vinyl chloride	R1624429	J3						
L507629-05	WG527744	SAMP				Acrylonitrile	R1624793	J4
						Acrylonitrile	R1624793	J4
			Acrylonitrile	R1624793	J4			
			Acrylonitrile	R1624793	J4			
			Acrylonitrile	R1624793	J4			
			Acrylonitrile	R1624793	J4			
			Acrylonitrile	R1624793	J4			
			Acrylonitrile	R1624793	J4			

Attachment B  
Explanation of QC Qualifier Codes

Qualifier	Meaning
J3	The associated batch QC was outside the established quality control range for precision.
J4	The associated batch QC was outside the established quality control range for accuracy.

Qualifier Report Information

ESC utilizes sample and result qualifiers as set forth by the EPA Contract Laboratory Program and as required by most certifying bodies including NELAP. In addition to the EPA qualifiers adopted by ESC, we have implemented ESC qualifiers to provide more information pertaining to our analytical results. Each qualifier is designated in the qualifier explanation as either EPA or ESC. Data qualifiers are intended to provide the ESC client with more detailed information concerning the potential bias of reported data. Because of the wide range of constituents and variety of matrices incorporated by most EPA methods, it is common for some compounds to fall outside of established ranges. These exceptions are evaluated and all reported data is valid and useable "unless qualified as 'R' (Rejected)."

Definitions

- Accuracy** - The relationship of the observed value of a known sample to the true value of a known sample. Represented by percent recovery and relevant to samples such as: control samples, matrix spike recoveries, surrogate recoveries, etc.
- Precision** - The agreement between a set of samples or between duplicate samples. Relates to how close together the results are and is represented by Relative Percent Difference.
- Surrogate** - Organic compounds that are similar in chemical composition, extraction, and chromatography to analytes of interest. The surrogates are used to determine the probable response of the group of analytes that are chemically related to the surrogate compound. Surrogates are added to the sample and carried through all stages of preparation and analyses.
- TIC** - Tentatively Identified Compound: Compounds detected in samples that are not target compounds, internal standards, system monitoring compounds, or surrogates.



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Fax: (615) 758-5859  
D177

Acetum: FISHENVY (lab use only)  
Telephone/Facsimile: 728804/358261  
Order #: 3-16-11  
shipped via: FedEx Ground

Remarks/Contaminant: Sample # (lab only)  
L507629-01  
02  
03  
04  
05  
06  
07  
08

Analysis/Container/Preservative

TS 20zClr-NoPres	V8260 40mlNH904/SYM/OH	V8260 40mlAmb-HCl	VOC Screen 20zClr-NoPres
------------------	------------------------	-------------------	--------------------------

Billing Information:

Gene Bailey  
9180 Crestwyn Hills Dr.  
Memphis, TN 38125

Report to: Ms. Emily Wiggins  
Email: ewiggins@fisherarnold.com

City/State Collected: Memphis, TN  
Lab Project #: FISHENVY-G7689  
P.O.#:

Rush? (Lab MUST Be Notified)  
Same Day ..... 200%  
Next Day ..... 100%  
Two Day ..... 50%  
Three Day ..... 25%

Sample ID	Comp/Grab	Matrix	Depth	Date	Time	No. of Cntrs
GP-1	G	GW	—	3/22/11	0945	2
GP-2		GW	—		1210	2
GP-3		GW	—		1450	2
GP-4		GW	—		1445	2
GP-1-12		SS	12		0935	5
GP-2-12		SS	12		1200	5
GP-3-12		SS	12		1430	5
GP-4-16		SS	16		1345	5

Matrix: SS - Soil GW - Groundwater WW - Wastewater DW - Drinking Water OT - Other

Remarks:

pH \_\_\_\_\_ Temp \_\_\_\_\_

Flow \_\_\_\_\_ Other \_\_\_\_\_

4355 9317 4321

Relinquished by (Signature): <i>E. Wiggins</i>	Date: 3/22/11	Time: 1730	Received by (Signature): <i>[Signature]</i>	Date: 3/23/11	Time: 0830
Relinquished by (Signature): <i>[Signature]</i>	Date:	Time:	Received by (Signature): <i>[Signature]</i>	Date:	Time:
Relinquished by (Signature): <i>[Signature]</i>	Date:	Time:	Received by (Signature): <i>[Signature]</i>	Date:	Time:

Samples returned via:  UPS  FedEx  Courier  
 Date: 3/28/11  
 Time: 3/23/11 0830



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Est. 1970

Ms. Emily Wiggins  
Fisher & Arnold Environmental  
9180 Crestwyn Hills Dr.  
Memphis, TN 38125

**Report Summary**  
Friday March 25, 2011  
Report Number: L507526  
Samples Received: 03/23/11  
Client Project: G7689.1  
Description: 696 N. 2ND STREET

The analytical results in this report are based upon information supplied by you, the client, and are for your exclusive use. If you have any questions regarding this data package, please do not hesitate to call.

Entire Report Reviewed By:

Tom Mellette, ESC Representative

**Laboratory Certification Numbers**

AZLA - 1461-01, AIHA - 100789, AL - 40660, CA - I-2327, CT - PH-0197, FL - E87487  
GA - 923, IN - C-TN-01, KY - 90010, KYUST - 0016, NC - ENV375/DW21704, ND - R-140  
NJ - TN002, NJ NELAP - TN002, SC - 84004, TN - 2006, VA - 00109, WV - 233  
AZ - 0612, MN - 047-999-395, NY - 11742, WI - 998093910, NV - TN000032008A,  
TX - T104704245, OK-9915

Accreditation is only applicable to the test methods specified on each scope of accreditation held by ESC Lab Sciences.

Note: The use of the preparatory EPA Method 3511 is not approved or endorsed by the CA ELAP.

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Tax I.D. 62-0314289  
 Est. 1970

REPORT OF ANALYSIS

Ms. Emily Wiggins  
 Fisher & Arnold Environmental  
 9180 Crestwyn Hills Dr.  
 Memphis, TN 38125

March 25, 2011

Date Received : March 23, 2011  
 Description : 696 N. 2ND STREET  
 Sample ID : S<sup>V</sup>-1  
 Collected By : E. Wiggins  
 Collection Date : 03/22/11 10:55

ESC Sample # : L507526-01  
 Site ID :  
 Project # : G7689.1

Parameter	Cas#	Mol Wght	RDL1	RDL2	ppbv	ug/m3	Method	Date	Dil.
Volatile Organics									
cis-1,2-Dichloroethene	156-59-2	96.9	0.400	1.60	< 0.40	< 1.6	TO-15	03/24/11	2
trans-1,2-Dichloroethene	156-60-5	96.9	0.400	1.60	< 0.40	< 1.6	TO-15	03/24/11	2
Tetrachloroethylene	127-18-4	166	0.400	2.70	1.0	6.8	TO-15	03/24/11	2
Trichloroethylene	79-01-6	131	0.400	2.10	0.83	4.4	TO-15	03/24/11	2
Vinyl chloride	75-01-4	62.5	0.400	1.00	< 0.40	< 1.0	TO-15	03/24/11	2

RDL1 = ppbv , RDL2 = ug/m3

Note:

Units are based on (STP) - Standard Temperature and Pressure

The reported analytical results relate only to the sample submitted.

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Reported: 03/25/11 15:32 Printed: 03/25/11 15:32



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Tax I.D. 02-0814289  
 Est. 1970

REPORT OF ANALYSIS

Ms. Emily Wiggins  
 Fisher & Arnold Environmental  
 9180 Crestwyn Hills Dr.  
 Memphis, TN 38125

March 25, 2011

Date Received : March 23, 2011  
 Description : 696 N. 2ND STREET  
 Sample ID : SV-2  
 Collected By : E. Wiggins  
 Collection Date : 03/22/11 15:15

ESC Sample # : L507526-02  
 Site ID :  
 Project # : G7689.1

Parameter	Cas#	Vol Wght	RDL1	RDL2	ppbv	ug/m3	Method	Date	Dil.
Volatile Organics									
cis-1,2-Dichloroethene	156-59-2	96.9	0.400	1.60	< 0.40	< 1.6	TO-15	03/24/11	2
trans-1,2-Dichloroethene	156-60-5	96.9	0.400	1.60	< 0.40	< 1.6	TO-15	03/24/11	2
Tetrachloroethylene	127-18-4	166	0.400	2.70	< 0.40	< 2.7	TO-15	03/24/11	2
Trichloroethylene	79-01-6	131	0.400	2.10	< 0.40	< 2.1	TO-15	03/24/11	2
Vinyl chloride	75-01-4	62.5	0.400	1.00	< 0.40	< 1.0	TO-15	03/24/11	2

RDL1 = ppbv , RDL2 = ug/m3

Note:

Units are based on (STP) - Standard Temperature and Pressure

The reported analytical results relate only to the sample submitted.

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 Est. 1970

REPORT OF ANALYSIS

Ms. Emily Wiggins  
 Fisher & Arnold Environmental  
 9180 Crestwyn Hills Dr.  
 Memphis, TN 38125

March 25, 2011

Date Received : March 23, 2011  
 Description : 696 N. 2ND STREET  
 Sample ID : SY-3  
 Collected By : E. Wiggins  
 Collection Date : 03/22/11 16:15

ESC Sample # : L507526-03  
 Site ID :  
 Project # : G7689.1

Parameter	Cas#	Mol Wght	RDL1	RDL2	ppbv	ug/m3	Method	Date	Dil.
Volatile Organics									
cis-1,2-Dichloroethene	156-59-2	96.9	0.400	1.60	< 0.40	< 1.6	TO-15	03/24/11	2
trans-1,2-Dichloroethene	156-60-5	96.9	0.400	1.60	< 0.40	< 1.6	TO-15	03/24/11	2
Tetrachloroethylene	127-18-4	166	0.400	2.70	54.	370	TO-15	03/24/11	2
Trichloroethylene	79-01-6	131	0.400	2.10	0.71	3.8	TO-15	03/24/11	2
Vinyl chloride	75-01-4	62.5	0.400	1.00	< 0.40	< 1.0	TO-15	03/24/11	2

RDL1 = ppbv , RDL2 = ug/m3

Note:

Units are based on (STP) - Standard Temperature and Pressure  
 The reported analytical results relate only to the sample submitted.  
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Reported: 03/25/11 15:32 Printed: 03/25/11 15:32

Attachment A  
List of Analytes with QC Qualifiers

Sample Number	Work Group	Sample Type	Analyte	Run ID	Qualifier
L507526-03	WG527600	SAMP	Tetrachloroethylene	R1624749	E

Attachment B  
Explanation of QC Qualifier Codes

Qualifier	Meaning
E	GTL (EPA) - Greater than upper calibration limit: Actual value is known to be greater than the upper calibration range.

Qualifier Report Information

ESC utilizes sample and result qualifiers as set forth by the EPA Contract Laboratory Program and as required by most certifying bodies including NELAC. In addition to the EPA qualifiers adopted by ESC, we have implemented ESC qualifiers to provide more information pertaining to our analytical results. Each qualifier is designated in the qualifier explanation as either EPA or ESC. Data qualifiers are intended to provide the ESC client with more detailed information concerning the potential bias of reported data. Because of the wide range of constituents and variety of matrices incorporated by most EPA methods, it is common for some compounds to fall outside of established ranges. These exceptions are evaluated and all reported data is valid and useable "unless qualified as 'R' (Rejected)."

Definitions

- Accuracy** - The relationship of the observed value of a known sample to the true value of a known sample. Represented by percent recovery and relevant to samples such as: control samples, matrix spike recoveries, surrogate recoveries, etc.
- Precision** - The agreement between a set of samples or between duplicate samples. Relates to how close together the results are and is represented by Relative Percent Difference.
- Surrogate** - Organic compounds that are similar in chemical composition, extraction, and chromatography to analytes of interest. The surrogates are used to determine the probable response of the group of analytes that are chemically related to the surrogate compound. Surrogates are added to the sample and carried through all stages of preparation and analyses.
- TIC** - Tentatively Identified Compound: Compounds detected in samples that are not target compounds, internal standards, system monitoring compounds, or surrogates.

Summary of Remarks For Samples Printed  
03/25/11 at 15:32:46

TSR Signing Reports: 690  
R5 - Desired TAT

Sample: L507526-01 Account: FISHEMV Received: 03/23/11 08:30 Due Date: 03/30/11 00:00 RPT Date: 03/25/11 15:32

Sample: L507526-02 Account: FISHEMV Received: 03/23/11 08:30 Due Date: 03/30/11 00:00 RPT Date: 03/25/11 15:32

Sample: L507526-03 Account: FISHEMV Received: 03/23/11 08:30 Due Date: 03/30/11 00:00 RPT Date: 03/25/11 15:32

# Fisher & Arnold Environmental

9180 Crestwyn Hills Dr.  
Memphis, TN 38125

Gene Bailey  
9180 Crestwyn Hills Dr.  
Memphis, TN 38125

Report to: Ms. Emily Wiggins

Email:

ewiggins@fisherarnold.com

Project Description: 696 N. 2ND STREET

City/State Collected: Memphis, TN

Phone: (901) 748-1811  
FAX: (901) 748-3115

Lab Project #  
FISHENV-G7689

Collected by (print): E. Wiggins

Site/Facility ID#:

P.O.#:

Collected by (signature): *E. Wiggins*

Rush? (Lab MUST Be Notified)

Same Day ..... 200%  
Next Day ..... 100%  
Two Day ..... 50%  
Three Day ..... 25%

Date Results Needed

Email? \_\_\_ No \_\_\_ Yes  
FAX? \_\_\_ No \_\_\_ Yes

Sample ID

Comp/Grab

Matrix\*

Depth

Date

Time

No. of Conts

Sample ID	Comp/Grab	Matrix*	Depth	Date	Time	No. of Conts
SV-1	G	SS	B	3/22/11	1055	1
SV-2	↓	Air	B	↓	1515	1
SV-3	↓	Air	B	↓	1615	1

\*Matrix: SS - Soil GW - Groundwater WW - Wastewater DW - Drinking Water OT - Other

Remarks: unsure of vacuum on SV-1

pH \_\_\_\_\_ Temp \_\_\_\_\_  
Flow \_\_\_\_\_ Other \_\_\_\_\_

Analysis/Container/Preservative

Chain of Custody  
Page 2 of 2



12065 Lebanon Road  
Memphis, TN 37122

Phone: (800) 767-5859  
Phone: (915) 758-5858  
Fax: (915) 758-5859

1507526

Alcohol: FISHENV (lab use only)  
Template/Protocol: T28804/P350261  
Order #: 3-16-11  
Shipper: FedEx Ground

Remarks/Contaminant Sample # (lab only)

01 unsure if sample was collected  
02 very little if any sample  
03

TS 20ZCr-NoPres X  
V8260 40ml/NaHSO4/Syr/MeOH X  
V8260 40ml/mb-HCl X  
VOC Screen 20ZCr-NoPres X

TS-15 Summa (PCE, TCE, cis, trans, 1,1,1,2,2,2, VC)

43559317432

Samples returned via:  UPS  FedEx  Courier

Temp: Amb 3  
Date: 3/22/11 08:30

Received by (Signature): *Matthew Arnold*  
Date: 3/22/11 1615  
Time: \_\_\_\_\_

Received by (Signature): \_\_\_\_\_  
Date: \_\_\_\_\_  
Time: \_\_\_\_\_

Received for lab by (Signature): \_\_\_\_\_  
Date: \_\_\_\_\_  
Time: \_\_\_\_\_

Condition: *RK*  
COC: Initial Intact:  Y  N  NA  
pH Checked:  NCF





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Keith Yarrow  
Fisher & Arnold Environmental  
9180 Crestwyn Hills Dr.  
Memphis, TN 38125

**Report Summary**  
Wednesday February 23, 2011  
Report Number: L357994  
Samples Received: 08/02/08  
Client Project: G6982  
Description: 714 N. Second St.

The analytical results in this report are based upon information supplied by you, the client, and are for your exclusive use. If you have any questions regarding this data package, please do not hesitate to call.

Entire Report Reviewed By:

  
Tom Mellette, ESC Representative

**Laboratory Certification Numbers**

A2LA - 1461-01, AIHA - 100789, AL - 40660, CA - I-2327, CT - PH-0197, FL - E87487  
GA - 923, IN - C-TN-01, KY - 90010, KYUST - 0016, NC - ENV375/DW21704, ND - R-140  
NJ - TN002, NJ NELAP - TN002, SC - 84004, TN - 2006, VA - 00109, WV - 233  
AZ - 0612, MN - 047-999-395, NY - 11742, WI - 998093910, NV - TN000032008A,  
TX - T104704245, OK-9915

Accreditation is only applicable to the test methods specified on each scope of accreditation held by ESC Lab Sciences.

Note: The use of the preparatory EPA Method 3511 is not approved or endorsed by the CA ELAP.

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REPORT OF ANALYSIS

February 23, 2011

Keith Yarrow  
 Fisher & Arnold Environmental  
 9180 Crestwyn Hills Dr.  
 Memphis, TN 38125

Date Received : August 02, 2008  
 Description : 714 N. Second St.  
 Sample ID : GP-1 WATER  
 Collected By : KY  
 Collection Date : 07/31/08 11:00

ESC Sample # : L357994-01

Site ID :

Project # : G6982

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
Benzene	BDL	0.0010	mg/l	8260B	08/03/08	1
Toluene	BDL	0.0050	mg/l	8260B	08/03/08	1
Ethylbenzene	BDL	0.0010	mg/l	8260B	08/03/08	1
Total Xylenes	BDL	0.0030	mg/l	8260B	08/03/08	1
Methyl tert-butyl ether	0.0021	0.0010	mg/l	8260B	08/03/08	1
Naphthalene	BDL	0.0050	mg/l	8260B	08/03/08	1
Surrogate Recovery						
Toluene-d8	96.4		% Rec.	8260B	08/03/08	1
Dibromofluoromethane	86.5		% Rec.	8260B	08/03/08	1
4-Bromofluorobenzene	100.		% Rec.	8260B	08/03/08	1

BDL - Below Detection Limit

Det. Limit - Practical Quantitation Limit (PQL)

Note:

The reported analytical results relate only to the sample submitted.

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Reported: 08/12/08 15:51 Revised: 02/23/11 10:33  
 L357994-01 (V8260BTEXMN) - TCE and DCE BDL at .001 mg/L



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REPORT OF ANALYSIS

February 23, 2011

Keith Yarrow  
 Fisher & Arnold Environmental  
 9180 Crestwyn Hills Dr.  
 Memphis, TN 38125

Date Received : August 02, 2008  
 Description : 714 N. Second St.  
 Sample ID : GP-2 WATER  
 Collected By : KY  
 Collection Date : 07/31/08 14:08

ESC Sample # : L357994-02

Site ID :

Project # : G6982

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
Benzene	BDL	0.0010	mg/l	8260B	08/04/08	1
Toluene	BDL	0.0050	mg/l	8260B	08/04/08	1
Ethylbenzene	BDL	0.0010	mg/l	8260B	08/04/08	1
Total Xylenes	BDL	0.0030	mg/l	8260B	08/04/08	1
Methyl tert-butyl ether	BDL	0.0010	mg/l	8260B	08/04/08	1
Naphthalene	BDL	0.0050	mg/l	8260B	08/04/08	1
Surrogate Recovery						
Toluene-d8	96.1		‡ Rec.	8260B	08/04/08	1
Dibromofluoromethane	113.		‡ Rec.	8260B	08/04/08	1
4-Bromofluorobenzene	88.9		‡ Rec.	8260B	08/04/08	1

BDL - Below Detection Limit

Det. Limit - Practical Quantitation Limit(PQL)

Note:

The reported analytical results relate only to the sample submitted.

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Reported: 08/12/08 15:51 Revised: 02/23/11 10:33  
 L357994-02 (V8260BTEXMN) - TCE and DCE BDL at .001 mg/L



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REPORT OF ANALYSIS

February 23, 2011

Keith Yarrow  
 Fisher & Arnold Environmental  
 9180 Crestwyn Hills Dr.  
 Memphis, TN 38125

Date Received : August 02, 2008  
 Description : 714 N. Second St.  
 Sample ID : GP-1 SOIL 1.5 FT  
 Collected By : KY  
 Collection Date : 07/31/08 08:32

ESC Sample # : L357994-03

Site ID :

Project # : G6982

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
Mercury	0.030	0.020	mg/kg	7471	08/08/08	1
Arsenic	8.9	5.0	mg/kg	6010B	08/07/08	5
Barium	97.	1.2	mg/kg	6010B	08/07/08	5
Cadmium	BDL	1.2	mg/kg	6010B	08/07/08	5
Chromium	11.	2.5	mg/kg	6010B	08/07/08	5
Lead	11.	1.2	mg/kg	6010B	08/07/08	5
Selenium	BDL	5.0	mg/kg	6010B	08/07/08	5
Silver	BDL	2.5	mg/kg	6010B	08/07/08	5

BDL - Below Detection Limit

Det. Limit - Practical Quantitation Limit (PQL)

Note:

The reported analytical results relate only to the sample submitted.

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Reported: 08/12/08 15:51 Revised: 02/23/11 10:33



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REPORT OF ANALYSIS

February 23, 2011

Keith Yarrow  
 Fisher & Arnold Environmental  
 9180 Crestwyn Hills Dr.  
 Memphis, TN 38125

Date Received : August 02, 2008  
 Description : 714 N. Second St.  
 Sample ID : GP-2 SOIL 1.5 FT  
 Collected By : KY  
 Collection Date : 07/31/08 12:03

ESC Sample # : L357994-04

Site ID :

Project # : G6982

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
Mercury	0.028	0.020	mg/kg	7471	08/11/08	1
Arsenic	8.3	5.0	mg/kg	6010B	08/06/08	5
Barium	110	1.2	mg/kg	6010B	08/06/08	5
Cadmium	BDL	1.2	mg/kg	6010B	08/06/08	5
Chromium	12.	2.5	mg/kg	6010B	08/06/08	5
Lead	13.	1.2	mg/kg	6010B	08/06/08	5
Selenium	BDL	5.0	mg/kg	6010B	08/06/08	5
Silver	BDL	2.5	mg/kg	6010B	08/06/08	5

BDL - Below Detection Limit

Det. Limit - Practical Quantitation Limit(PQL)

Note:

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REPORT OF ANALYSIS

February 23, 2011

Keith Yarrow  
 Fisher & Arnold Environmental  
 9180 Crestwyn Hills Dr.  
 Memphis, TN 38125

Date Received : August 02, 2008  
 Description : 714 N. Second St.  
 Sample ID : GP-3 SOIL 9 FT  
 Collected By : KY  
 Collection Date : 07/31/08 14:50

ESC Sample # : L357994-05  
 Site ID :  
 Project # : G6982

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
Mercury	0.022	0.020	mg/kg	7471	08/11/08	1
Arsenic	2.4	1.0	mg/kg	6010B	08/07/08	1
Barium	26.	0.25	mg/kg	6010B	08/07/08	1
Cadmium	BDL	0.25	mg/kg	6010B	08/07/08	1
Chromium	9.1	0.50	mg/kg	6010B	08/07/08	1
Lead	4.0	0.25	mg/kg	6010B	08/07/08	1
Selenium	BDL	1.0	mg/kg	6010B	08/07/08	1
Silver	BDL	0.50	mg/kg	6010B	08/07/08	1

BDL - Below Detection Limit

Det. Limit - Practical Quantitation Limit (PQL)

Note:

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Reported: 08/12/08 15:51 Revised: 02/23/11 10:33

Attachment A  
List of Analytes with QC Qualifiers

Sample Number	Work Group	Sample Type	Analyte	Run ID	Qualifier
L357994-03	WG375849	SAMP	Cadmium	R438524	O
	WG375849	SAMP	Selenium	R438524	O
	WG375849	SAMP	Silver	R438524	O
L357994-04	WG375849	SAMP	Barium	R438524	J5
	WG375849	SAMP	Cadmium	R438524	O
	WG375849	SAMP	Lead	R438524	J5
	WG375849	SAMP	Selenium	R438524	O
	WG375849	SAMP	Silver	R438524	O



Attachment B  
Explanation of QC Qualifier Codes

Qualifier	Meaning
J5	The sample matrix interfered with the ability to make any accurate determination; spike value is high
O	(ESC) Sample diluted due to matrix interferences that impaired the ability to make an accurate analytical determination. The detection limit is elevated in order to reflect the necessary dilution.

Qualifier Report Information

ESC utilizes sample and result qualifiers as set forth by the EPA Contract Laboratory Program and as required by most certifying bodies including NELAP. In addition to the EPA qualifiers adopted by ESC, we have implemented ESC qualifiers to provide more information pertaining to our analytical results. Each qualifier is designated in the qualifier explanation as either EPA or ESC. Data qualifiers are intended to provide the ESC client with more detailed information concerning the potential bias of reported data. Because of the wide range of constituents and variety of matrices incorporated by most EPA methods, it is common for some compounds to fall outside of established ranges. These exceptions are evaluated and all reported data is valid and useable "unless qualified as 'R' (Rejected)."

Definitions

- Accuracy** - The relationship of the observed value of a known sample to the true value of a known sample. Represented by percent recovery and relevant to samples such as: control samples, matrix spike recoveries, surrogate recoveries, etc.
- Precision** - The agreement between a set of samples or between duplicate samples. Relates to how close together the results are and is represented by Relative Percent Difference.
- Surrogate** - Organic compounds that are similar in chemical composition, extraction, and chromatography to analytes of interest. The surrogates are used to determine the probable response of the group of analytes that are chemically related to the surrogate compound. Surrogates are added to the sample and carried through all stages of preparation and analyses.
- TIC** - Tentatively Identified Compound: Compounds detected in samples that are not target compounds, internal standards, system monitoring compounds, or surrogates.



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---

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August 14, 2015

Mr. Martin Regan  
MLB Uptown LLC  
Thomason Hendrix Harvey Johnson & Mitchell  
One Commerce Square, Suite 2900  
Memphis, Tennessee 38103

**RE: Phase II Environmental Site Assessment/Site Demolition & Removal Report  
North Second Street and Chelsea Avenue  
Memphis, Tennessee**

Dear Mr. Regan:

EnSafe Inc. (EnSafe) is pleased to provide this Phase II Environmental Site Assessment (ESA)/Site Demolition & Removal Report for the properties at the southeast corner of the intersection of North Second Street and Chelsea Avenue in Memphis, Tennessee. The subject property includes the following addresses:

- 714 North Second Street (Parcel 001055-00001)
- 704 North Second Street (Parcel 001055-00011)
- 696 North Second Street (Parcel 001055-00010)
- 148 Keel Avenue (Parcel 001055-00010)
- 0 Keel Avenue (Parcel 001055-00012)
- 0 Chelsea Avenue (Parcel 001055-00002)

The two properties at 165 Chelsea Avenue and at Cubbins Alley/Lyceum Lane, which bisect the block, and public alleys were not included in this Phase II ESA/Removal Report. The site was initially assessed as a vacant property; however, a basement structure was found at 714 North Second Street. The basement was accessible by a hole in the concrete surface slab from North Second Street. Debris and other materials were visible inside the basement; however the entire basement could not be visually assessed. Along with the basement, a pile of concrete rubble was located nearby.

## **1.0 PREVIOUS INVESTIGATIONS AND RESULTS**

The following investigations were previously completed for the properties listed above, and the resulting reports reviewed:

- 2011 Phase I ESA for 167 Chelsea Avenue — Fisher & Arnold
- 2011 Phase I ESA Update for 714 North Second Street — Fisher & Arnold
- 2011 Phase II ESA for 167 Chelsea Avenue — Fisher & Arnold
- 2011 Phase I ESA for 0 Keel Avenue — Fisher & Arnold
- 2011 Phase I ESA for 696 North Second Street — Fisher & Arnold
- 2011 Phase II ESA for Block 55, North Second Street and Chelsea Avenue — Fisher & Arnold

From the previously submitted reports, tetrachloroethene (PCE) and trichloroethene (TCE) were detected in active soil gas near the sanitary sewer line along Cubbins Alley during the Phase II ESA fieldwork of Block 55, which was previously completed by Fisher & Arnold (2011). However, PCE and TCE were not detected in soil or passive soil gas samples collected on the subject property. The Old Cummins Diesel property at 812 North Main Street (west northwest of the property) was indicated as a possible source for the soil gas contamination.

### **Additional Historical Information**

Review of additional historical information (Table 1) indicated that the property at 704 North Second Street was previously used for furniture repair (1950, 1952, and 1964). Solvents may have possibly been used for paint stripping. In addition, the structure currently behind the Temple of Holiness Apostolic Church at 707 North Second Street (approximately 1,000 feet west of the subject property) had signs affixed indicating use as “2<sup>nd</sup> Street Cleaners”. The openings of the building (possible historic louvered vents) appeared to be typical of a dry cleaning operation. The dry cleaning operation was not identified in any historical research provided in the Fisher & Arnold Phase I ESA reports. The building was expected to be connected to the sanitary sewer line that runs along Cubbins Alley on the subject property.

Other properties identified during the initial site visit where chlorinated solvent use may have occurred include Interchem at 710 North Main Street. Interchem reportedly manufactures engine cleaners and is also located along the sanitary sewer line along Cubbins Alley on the subject property. Other sites identified in city directories and Sanborn map review adjoining the southern property boundary south of Keel Avenue were Parco Oil Company Filling Station at 682 North Second Street in 1926, Producers and Refiners Corp Filling Station (1932) and

Table 1 Site History North Second Street and Chelsea Avenue — Memphis, Tennessee																					
City Directory Year																					
North Second Street Address	1897	1907	1921	1926	1932	1938	1943	1948	1950	1952	1953	1958	1963	1964	1968	1969	1973	1978	1982	1987	1992
<b>Keel Intersects</b>																					
686-692	Vacant	Vacant	Residential	Residential	Lazar Morris Dry Goods	Lazar Morris Dry Goods	Lazar Morris Dry Goods	Friedman Furniture Co.	Furniture	Furniture	Friedman Furniture Co.	Lazar's Liquor Store	Lazar's Liquor Store/Residential	Shop	Lazar's Liquor Store		Lazar's Liquor Store	Lazar's Liquor Store	Lazar's Liquor Store	Lazar's Liquor Store	Pyramid Liquor Store
696	Vacant	Residential	Not Listed	Not Listed	Not Listed	Not Listed	Not Listed	Not Listed	Residential	Residential	Not Listed	Not Listed	Not Listed	Residential	Not Listed	Residential	Residential	Residential	Residential	Vacant	Vacant
698	Vacant	Residential	Not Listed	Not Listed	Not Listed	Not Listed	Not Listed	Not Listed	Vacant	Vacant	Not Listed	Not Listed	Not Listed	Residential	Residential	Residential	Vacant	Residential	Residential	Vacant	Residential
700	Residential	Residential	Not Listed	Not Listed	Not Listed	Not Listed	Not Listed	Not Listed	Vacant	Vacant	Not Listed	Friedman Furniture Co.	No Return	Furniture	Vacant	Furniture	Vacant	Vacant	Vacant	Vacant	Not Listed
<b>Cubbins Alley Intersects</b>																					
704	Residential	Residential	Residential	North Side Café	Carter Grain & Seed	Harry Wagerman Shoe Repair	Eagle Furniture Co/Residential	Residential	Furniture Repair	Furniture Repair	Grace Church of the Nazarene	North Memphis Tire Shop/Residential	Vacant	Furniture Repair	Vacant	Furniture Repair	Vacant	Not Listed	Not Listed	Not Listed	Not Listed
710	Residential	Vacant	Not Listed	Not Listed	Geo Davis Grocery	Geo Davis Grocery	Geo Douglass Grocery	Geo Douglass Grocery	Shop	Shop	Geo Douglass Grocery	Wood Electric Inc. contractors	Wood Electric Inc. contractors	Shop	Cooley's Grocery Store/Residential	Shop	Vacant	Vacant	Vacant	Vacant	Not Listed
714	Vacant	Vacant	Residential	Sunset Market	Vacant	Not Listed	Not Listed	National Brands Store	Shop	Shop	Bluff City Sign Co.	Vacant	No return	Shop	MS Valley Plumbing, Heating and Air Conditioning	Shop	Church Fair Doing Sundry	Not Listed	Pow House Church of God in Christ	New True Vine Missionary Baptist Church	New True Vine Missionary Baptist Church
716	Residential	Vacant	Piggly Wiggly	Piggly Wiggly	Piggly Wiggly Store #33	Piggly Wiggly Store #33	Piggly Wiggly Store #33	Not Listed	Shop	Shop	Not Listed	Not Listed	Not Listed	Shop	Not Listed	Shop	Not Listed	Not Listed	Not Listed	Vacant	Not Listed
718	Vacant	Shop	Residential	Residential	L. D. Schaffer Dry Goods	L. D. Schaffer Dry Goods	L. D. Schaffer Dry Goods	L. D. Schaffer Dry Goods	Residential	Shop	L. D. Schaffer Dry Goods	L. D. Schaffer Dry Goods	L. D. Schaffer Dry Goods	Shop	Vacant	Shop	Tabernacle Church of God in Christ	Vacant	Not Listed	Not Listed	Not Listed
<b>Chelsea Intersects</b>																					

**Note:**

1. Street intersections are listed above for clarity. Properties north of the Chelsea Avenue/North Second Street intersection are not listed.

Ray R. Wilson Filling Station (1938) at 684 North Second Street, and North Side Cleaners at 675 North Second Street (1924 to 1953).

EnSafe also interviewed Ms. Merrie Embry of Tennessee Department of Environment and Conservation (TDEC) Division of Remediation (DoR) on the findings of the Old Cummins Diesel investigations. Ms. Embry indicated that investigation was conducted for the presence of soil gas associated with the sanitary sewer line. Ms. Embry indicated that chlorinated solvents were identified only on the Old Cummins Diesel property. No offsite contamination was detected.

Based on the findings of the previous Phase II investigations and the historical research, EnSafe developed and completed the investigation reported below. The soil, groundwater and soil gas sampling locations are shown on Figure 1.

## **2.0 FIELD INVESTIGATION PREPARATION**

The following tasks were completed in preparation to the beginning of the field investigation activities.

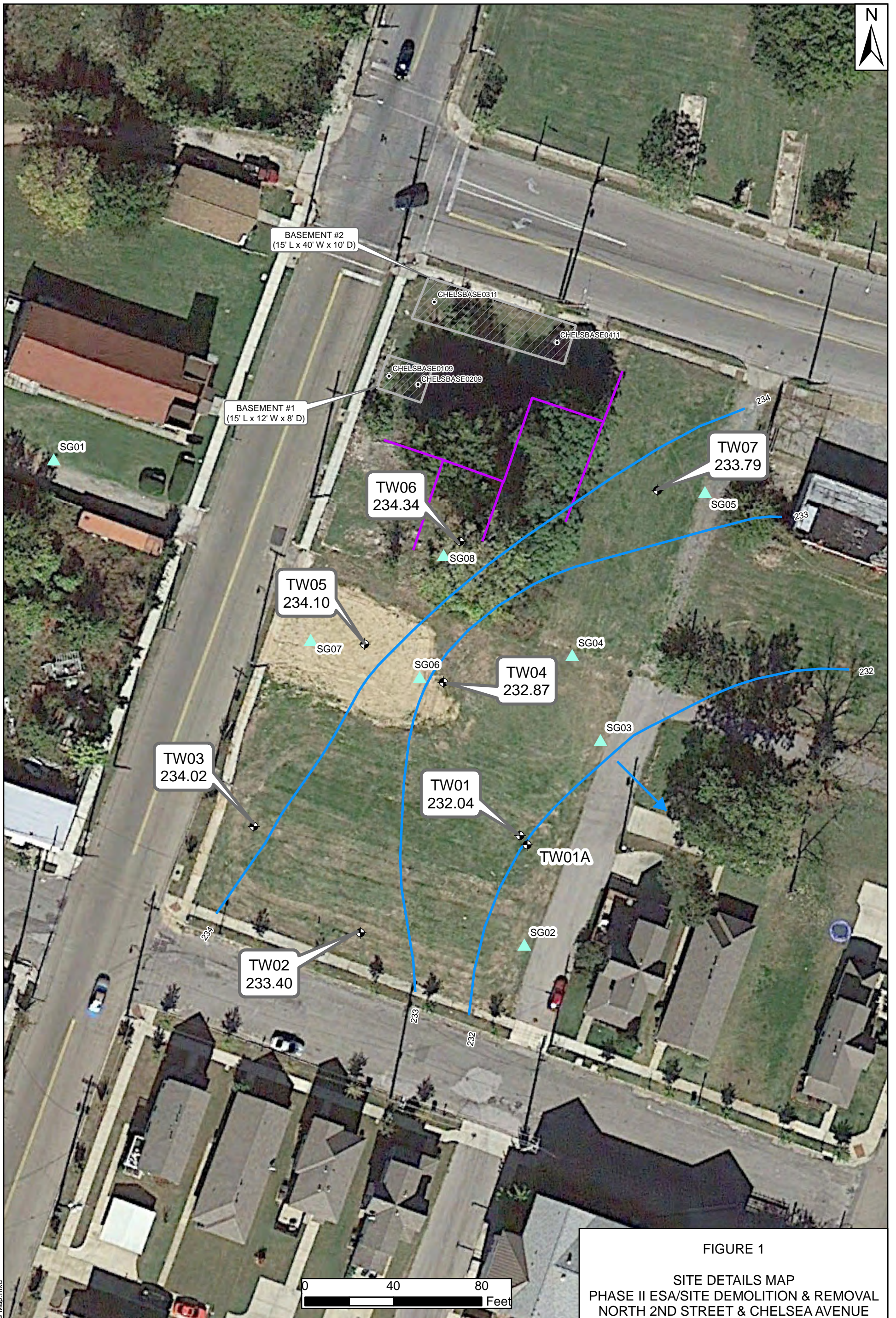
- *File Review* — EnSafe reviewed the files for the Old Cummins Diesel property to verify where sampling was conducted and the analytical results.
- *Street Cut Permit* — Before sampling, EnSafe determined that an existing Street Cut Permit (originated from the developer/property owner) from the City of Memphis for improvements on the existing alley ways would cover any invasive investigation work by EnSafe in the alley ways.

Following the site visit, a removal of the basement structure and concrete pile was planned and completed in order to clear the site for future development. Also, the investigation could be completed across the site much more effectively after the basement was removed.

### **Basement Removal**

EnSafe and a subcontractor removed the basement during the weeks of April 28 and May 5, 2014 at 714 North Second Street. EnSafe performed oversight and Chandler Demolition Company, Inc. (Chandler) of Memphis, Tennessee, under contract to EnSafe, performed the excavation and removal. During the removal of the basement, a second basement (immediately north of the original basement) and several concrete/brick structures were unearthed as well. These additional structures appeared to be the wall footings





X:\Chelsea\_Secord\Site Details Map.mxd

**Legend**

- Temporary Monitoring Well/Boring (TW05)
- Soil Gas Locations (SG05)
- Basement Soil Sample Location
- 234.02 Groundwater Elevation (ft msl)
- Groundwater Contour
- Groundwater Direction Flow
- Previous Building Foundation (Removed)
- Basement Location (Removed)

**Notes:**

1. C.I. = 1 Foot
2. Contour Interval in feet above North American Vertical Datum
3. TW01A utilized for soil sampling, no temporary well installed
4. North side of Basement #2 left in place to prevent sidewalk sloughing
5. Several trees removed from site to aid in basement removal
6. Unknown buried building foundations may still exist onsite

**FIGURE 1**  
**SITE DETAILS MAP**  
**PHASE II ESA/SITE DEMOLITION & REMOVAL**  
**NORTH 2ND STREET & CHELSEA AVENUE**  
**MEMPHIS, TENNESSEE**

REQUESTED BY: A. HARRIS
DRAWN BY: kburnum
DATE: 8/12/2015
PROJECT NO: 0888815441

1-800-588-7962  
WWW.ENSAFE.COM



from several previously-demolished residential and commercial buildings, where the subsurface structure still remained onsite. Selected site photographs are included in the Photographic Log, as Appendix A. Once the excavation and subsequent removal of the construction and demolition (C&D) debris was accomplished, EnSafe visually assessed and screened soil and other select materials, which was beneath the structures, with a photoionization detector (PID). The former basements were measured to be 15-feet x 12-feet x 8-feet and 15-feet x 40-feet x 10-feet by length (north to south)/width (east to west)/height, respectively. No areas of soil staining, olfactory evidence of contamination, or elevated PID readings were observed.

A total of four soil samples (two beneath each basement structure) were collected for volatile organic compounds (VOCs), polynuclear aromatic hydrocarbons (PAHs), and Resource Conservation and Recovery Act (RCRA) 8 metals. The detected concentrations in soil are summarized in Table 2, and the laboratory data are included in Appendix B. Detected concentrations were compared to their United States Environmental Protection Agency (U.S. EPA) Regional Screening Level for residential land use, and literature-based reference concentrations. Analytical results, RSLs and reference concentrations are summarized in Table 2 and the laboratory data are included in Appendix B. Arsenic and total chromium exceeded their residential RSL for the four soil samples collected beneath the basements. However, the detected concentrations do not exceed the literature-based background concentrations. Also, VOC and PAH detections did not exceed their residential RSLs.

The removed C&D debris was transported to the Chandler landfill in Memphis, Tennessee. Forty-Six truckloads ("end" dump trucks) of C&D debris and six loads of trees/brush (52 total loads) were removed from the site. Once removed, the remaining excavations were backfilled to grade with clean silty clay backfill material (52 truckloads total), which were also transported to the site by Chandler end dump trucks. The backfill was placed in lifts and tamped with the excavator bucket to combat settlement, then a mixture of seed, fertilizer, and straw was applied for erosion control. The basement and soil sampling locations are shown on Figure 1.

All C&D debris onsite was removed to the maximum extent possible; however, additional subsurface structures may still remain onsite. The northern wall of the second basement structure was not removed from the site, as removal would most likely cause the right-of-way and sidewalk along Chelsea Avenue to slough, exposing/damaging any underground utilities in the immediate vicinity. The remaining structures will most likely need to be unearthed/removed during future construction, if encountered.



**Table 2**  
**May 2014 Soil Sampling Results**  
**North Second Street and Chelsea Avenue, Memphis, Tennessee**

	RSL Residential Soil (mg/kg)	Literature Based Background Concentrations	TW01 12-16 feet	TW01 28-32 feet	TW02 4-8 feet	TW02 16-20 feet	TW03 8-12 feet	TW03 12-16 feet	TW04 6-8 feet	TW04 10-12 feet	TW05 2-4 feet	TW05 6-8 feet	TW06 6-8 feet
<b>Metals</b>													
Arsenic	0.61	10 - 22 (f)	<b>3.79</b>	<b>1.58</b>	<b>8.02</b>	<b>1.87</b>	<b>9.95</b>	<b>9.30</b>	<b>8.27</b>	<b>22.00</b>	<b>10.6</b>	<b>10.4</b>	<b>7.62</b>
Barium	15000.00	144	30.1	73.7	189	35.6	79.0	575	102	83.7	110	114	67.2
Cadmium	70.00	1	0.207	0.0849 J	0.782	0.157	0.501	0.940	0.267	0.470	0.480	0.503	0.264
Chromium	0.29	20	<b>11.6</b>	<b>16.8</b>	<b>11.5</b>	<b>11.4</b>	<b>13.1</b>	<b>11.3</b>	<b>14.4</b>	<b>10.8</b>	<b>13.9</b>	<b>13.7</b>	<b>11.2</b>
Lead	13.00	45	5.92	6.91	7.65	3.95	9.14	5.99	8.94	7.27	12.0	11.6	8.06
Silver	390.00	1.2	<0.0347	<0.0338	0.189 J	0.0362 J	<0.0364	1.00	<0.0356	<0.0354	<0.0344	<0.0355	<0.0343
Mercury	23.00	0.18	0.00615 J	0.00579 J	0.0169 J	0.00572 J	0.00424 J	0.00724 J	0.0190	0.00949 J	0.0220	0.0180	0.0105 J
<b>Volatile Organic Compounds</b>													
Carbon Disulfide	820.00	NA	<0.0005	0.0008 JB	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	0.0009 JB	<0.0005
2-Chlorotoluene	1600.00	NA	<0.0002	<0.0002	0.0006 J	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
1,1-Dichloroethane	3.30	NA	0.0004 J	<0.0004	<0.0004	<0.0004	<0.0004	<0.0004	<0.0004	<0.0004	<0.0004	<0.0004	<0.0004
cis,-1,2-Dichloroethene	160.00	NA	0.350	<0.0007	<0.0007	<0.0007	<0.0007	<0.0007	<0.0007	0.0017 J	0.0012 J	<0.0007	<0.0007
trans-1,2-Dichloroethene	150.00	NA	0.0037	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
1,2-Dichloroethene (Total)	700.00	NA	0.354	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	0.0017	0.0012	<0.0005	<0.0005
Ethylbenzene	5.40	NA	<0.0007	<0.0006	0.0009 J	<0.0007	0.0023 J	0.0007 J	0.0015 J	<0.0007	<0.0007	<0.0007	<0.0007
Hexachlorobutadiene	6.20	NA	<0.0010	<0.0010	0.0011 J	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
n-Propylbenzene	3400.00	NA	<0.0003	<0.0003	0.0005 J	<0.0003	0.0004 J	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003
Tetrachloroethene	22.00	NA	1.30	<0.0019	<0.0021	<0.0020	0.0025 J	0.0055	0.0025 J	0.0670	0.0056	<0.0020	<0.0020
Trichloroethene	0.91	NA	0.142	<0.0016	<0.0017	<0.0016	<0.0018	<0.0017	<0.0017	0.0042	0.0042	<0.0017	<0.0017
1,2,4-Trimethylbenzene	62.00	NA	<0.0008	0.0016 J	0.0017 J	<0.0008	0.0021 J	0.0015 J	0.0016 J	0.0016 J	<0.0008	0.0017 J	0.0012 J
1,3,5-Trimethylbenzene	780.00	NA	<0.0004	0.0005 J	0.0009 J	<0.0004	0.0007 J	0.0005 J	0.0005 J	0.0004 J	<0.0004	0.0005 J	0.0005 J
o-Xylene	690.00	NA	<0.0010	<0.0009	0.0011 J	<0.0010	0.0014 J	0.0013 J	<0.0010	0.0014 J	<0.0010	0.0011 J	<0.0010
m,p-Xylene	590.00	NA	<0.0009	0.0020 J	0.0031 J	<0.0009	0.0028 J	0.0033 J	0.0019 J	0.0028 J	0.0013 J	0.0021 J	0.0015 J
Xylene (Total)	630.00	NA	<0.0009	0.0020	0.0043	<0.0009	0.0042	0.0047	0.0019	0.0043	0.0013	0.0032	0.0015
<b>Semivolatile Organic Compounds</b>													
Acenaphthene	3400.00	NA	<0.000111	<0.000108	0.00340	<0.000109	<0.000116	<0.000111	<0.000113	<0.000113	<0.000110	<0.000113	<0.000109
Acenaphthylene	3400.00	NA	<0.000065	<0.000063	0.00291	<0.000063	0.000445 J	<0.000065	<0.000066	<0.000066	<0.000064	<0.000066	<0.000064
Anthracene	17000.00	NA	<0.000271	<0.000264	0.00457	<0.000265	<0.000284	<0.000270	0.00137	<0.000276	<0.000268	<0.000276	<0.000267
Benzo(a)anthracene	0.15	NA	<0.000728	<0.000709	0.00580	<0.000714	<0.000764	<0.000727	0.00406	<0.000742	<0.000721	<0.000744	<0.000718
Benzo(a)pyrene	0.02	NA	<0.000689	<0.000671	0.00409	<0.000675	<0.000722	<0.000688	0.00170	<0.000701	<0.000682	<0.000703	<0.000679
Benzo(b)fluoranthene	0.15	NA	0.000694 J	<0.000339	0.00541	0.000611 J	0.000789 J	0.000500 J	0.00298	<0.000355	0.00147	<0.000356	0.000639 J
Benzo(g,h,i)perylene	NS	NA	0.000662 J	<0.000260	0.00729	0.000414 J	0.000844 J	0.000480 J	0.00130	<0.000272	0.000831 J	<0.000272	<0.000263
Benzo(k)fluoranthene	1.50	NA	<0.000245	<0.000239	0.00495	<0.000240	0.000638 J	<0.000245	0.00136	<0.000250	0.000877	<0.000250	0.000418 J
Chrysene	15.00	NA	0.000561 J	<0.000388	0.00494	<0.000390	0.000510 J	<0.000398	0.00297	<0.000406	0.000716 J	<0.000407	<0.000393
Dibenz(a,h)anthracene	0.02	NA	<0.000364	<0.000354	0.00359	<0.000357	0.000689 J	<0.000363	<0.000373	<0.000371	0.000653 J	<0.000372	<0.000359
Fluoranthene	2300.00	NA	<0.000235	<0.000229	0.00826	<0.000230	0.000463 J	<0.000234	0.00770	<0.000239	0.000431 J	<0.000240	<0.000232
Fluorene	2300.00	NA	<0.000237	<0.000231	0.00341	0.000417 J	<0.000249	<0.000237	0.000445 J	<0.000242	<0.000235	<0.000252	<0.000234
Indeno(1,2,3-cd)pyrene	0.15	NA	<0.000281	<0.000273	0.00471	<0.000275	0.000668 J	<0.000280	0.00113	<0.000286	0.00116	<0.000287	<0.000277
2-Methylnaphthalene	230.00	NA	0.000562 J	<0.000146	0.00254	0.000454 J	<0.000158	<0.000150	<0.000154	<0.000153	<0.000149	<0.000154	<0.000148
Naphthalene	3.60	NA	0.000749 J	0.000724 J	0.00243	0.000708 J	0.000742 J	<0.000238	0.000441 J	0.000660 J	<0.000236	<0.000244	<0.000235
Phenanthrene	NS	NA	0.000679 J	<0.000590	0.00851	<0.000593	<0.000635	<0.000605	0.00478	<0.000617	<0.000600	<0.000618	<0.000597
Pyrene	1700.00	NA	0.000421 J	<0.000237	0.00825	<0.000239	0.000455 J	<0.000243	0.00562	<0.000248	0.000421 J	<0.000249	<0.000240

**Notes:**  
 J = Estimated value  
 B = Analyte detected in blank  
 MDL Reported for not detected results  
 USEPA RSLs are from the Traditional Table Residential RSLs  
 NS = No standard established  
 — Regional Screening Level; target lifetime cancer risk 10E-6 and hazard index of 1; May 2014, U.S. Environmental Protection Agency, <http://www.epa.gov/region9/superfund/prg/>  
 exceeds the reference concentrations for metals from *Hazardous Trace Elements in Tennessee Soils and Other Regolith, Tennessee Department of Environment and Conservation Division of Geology, Report of Investigations No. 49, 2001 or the Shelby County specific reference*  
 NA = Not applicable  
 RSL exceedances are shown in **bold**

Table 2 May 2014 Soil Sampling Results North Second Street and Chelsea Avenue, Memphis								
	RSL Residential Soil (mg/kg)	TW06 10-12 feet	TW07 14-16 feet	TW07 18-20 feet	BASEMENT 01 9 feet	BASEMENT 02 9 feet	BASEMENT 03 11 feet	BASEMENT 04 11 feet
<b>Metals</b>								
Arsenic	0.61	<b>8.63</b>	<b>2.46</b>	<b>1.65</b>	<b>1.85</b>	<b>1.58</b>	<b>3.07</b>	<b>4.16</b>
Barium	15000.00	375	56.3	97.5	254	101	41.2	43.0
Cadmium	70.00	1.13	0.236	0.0426 J	0.668	0.383	0.103 J	0.0309 J
Chromium	0.29	<b>10.2</b>	<b>38.2</b>	<b>15.7</b>	<b>11.1</b>	<b>10.8</b>	<b>12.2</b>	<b>16.4</b>
Lead	13.00	6.06	6.12	7.94	6.89	6.16	3.74	4.13
Silver	390.00	<0.0346	<0.0348	<0.0338	0.487	0.113 J	<0.0338	<0.0342
Mercury	23.00	0.00741 J	0.0138 J	0.0225	0.0134 J	0.0169	0.0322 B	0.0181 B
<b>Volatile Organic Compounds</b>								
Carbon Disulfide	820.00	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
2-Chlorotoluene	1600.00	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
1,1-Dichloroethane	3.30	<0.0004	<0.0004	<0.0004	<0.0004	<0.0004	<0.0004	<0.0004
cis,-1,2-Dichloroethene	160.00	<0.0007	<0.0007	<0.0007	<0.0007	<0.0007	<0.0007	<0.0007
trans-1,2-Dichloroethene	150.00	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
1,2-Dichloroethene (Total)	700.00	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
Ethylbenzene	5.40	<0.0007	<0.0007	<0.0006	<0.0007	0.0023 J	<0.0006	<0.0007
Hexachlorobutadiene	6.20	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
n-Propylbenzene	3400.00	<0.0003	<0.0003	<0.0003	<0.0003	0.0008 J	<0.0003	<0.0003
Tetrachloroethene	22.00	<0.0020	<0.0020	<0.0019	<0.0020	<0.0020	<0.0019	<0.0020
Trichloroethene	0.91	<0.0017	<0.0017	0.0120	<0.0017	<0.0017	<0.0016	<0.0016
1,2,4-Trimethylbenzene	62.00	<0.0008	<0.0008	0.0014 J	0.0009 J	<0.0018	<0.0018	<0.0008
1,3,5-Trimethylbenzene	780.00	<0.0004	<0.0004	<0.0004	0.0005 J	0.0011 J	<0.0004	<0.0004
o-Xylene	690.00	<0.0010	<0.0010	0.0010 J	<0.0010	0.0028	<0.0009	<0.0010
m,p-Xylene	590.00	0.0012 J	<0.0009	0.0021 J	0.0024 J	0.0076	<0.0009	<0.0009
Xylene (Total)	630.00	0.0012	<0.0009	0.0031	0.0024	0.0105	<0.0009	<0.0009
<b>Semivolatile Organic Compounds</b>								
Acenaphthene	3400.00	<0.000110	<0.000111	<0.000108	<0.000111	<0.000109	<0.000108	<0.000109
Acenaphthylene	3400.00	<0.000064	<0.000065	<0.000063	<0.000065	<0.000064	<0.000063	<0.000064
Anthracene	17000.00	<0.000269	<0.000271	<0.000263	<0.000272	<0.000267	<0.000263	<0.000266
Benzo(a)anthracene	0.15	<0.000725	<0.000730	<0.000708	<0.000731	<0.000719	<0.000708	<0.000716
Benzo(a)pyrene	0.02	<0.000685	<0.000691	<0.000670	<0.000691	<0.000680	<0.000670	<0.000677
Benzo(b)fluoranthene	0.15	<0.000347	<0.000350	<0.000339	<0.000350	<0.000344	<0.000339	<0.000343
Benzo(g,h,i)perylene	NS	0.000617 J	<0.000267	0.000465 J	<0.000268	<0.000263	<0.000259	<0.000262
Benzo(k)fluoranthene	1.50	<0.000244	<0.000246	<0.000238	<0.000246	<0.000242	<0.000238	<0.000241
Chrysene	15.00	<0.000396	<0.000400	<0.000388	<0.000400	<0.000393	<0.000388	<0.000392
Dibenz(a,h)anthracene	0.02	<0.000362	<0.000365	<0.000354	<0.000365	<0.000359	<0.000354	<0.000358
Fluoranthene	2300.00	<0.000234	<0.000235	<0.000228	<0.000236	<0.000232	<0.000228	<0.000231
Fluorene	2300.00	<0.000236	<0.000238	<0.000231	<0.000238	<0.000234	<0.000231	<0.000233
Indeno(1,2,3-cd)pyrene	0.15	<0.000279	<0.000282	<0.000273	<0.000282	<0.000277	<0.000273	<0.000276
2-Methylnaphthalene	230.00	<0.000150	<0.000151	<0.000146	<0.000151	<0.000148	<0.000146	<0.000148
Naphthalene	3.60	<0.000237	<0.000239	<0.000232	<0.000240	<0.000236	<0.000232	<0.000235
Phenanthrene	NS	<0.000603	<0.000607	<0.000589	<0.000608	<0.000598	<0.000589	<0.000596
Pyrene	1700.00	<0.000243	<0.000244	<0.000237	<0.000245	<0.000241	<0.000237	<0.000240

**Notes:**  
 J = Estimated value  
 B = Analyte detected in blank  
 MDL Reported for not detected results  
 USEPA RSLs are from the Traditional Table Residential RS  
 NS = No standard established  
 — Regional Screening Level; target lifetime cancer risk 10  
 exceeds the reference concentrations for metals from *Haz*  
 NA = Not applicable  
 RSL exceedances are shown in **bold**

### **3.0 PHASE II INVESTIGATION APPROACH AND SAMPLING**

A multi-media sampling approach was developed for the investigation, which included soil, groundwater, and soil gas (vapor). This approach was developed given the potential for migration of VOCs in soil gas from offsite solvent sources, and the potential for impacts of VOCs to shallow perched groundwater (within the groundwater bearing zone in the shallow silty clay loess layer). The sampling methods, procedures, and sampling activities for each of the target media are presented in the following sections.

#### **3.1 Soil and Groundwater Investigation**

On May 15 and 16, 2014, a total of eight soil borings were completed, and then completed as temporary groundwater monitoring wells across the subject property using direct push technology (DPT) equipment and methods as operated by McCray Drilling, LLC of Memphis, Tennessee. The first boring (TW01A) was completed to a depth of 36 feet below ground surface (bgs) and a temporary well was installed in the borehole. This boring served as a deep stratigraphic test boring and eventually confirmed a primary water-bearing zone between eight to 20 feet bgs, and a second sand-bearing zone (which was dry) below 32 feet bgs. Given the shallow depth of the water-bearing zone and possible interconnection between zones, a second shallower well (TW01), set at 20 feet bgs, was completed within a few lateral feet of TW01A. An additional six borings were advanced, then completed as temporary wells at other areas across the property (Figure 1) and set to depths of 20 feet bgs. The boring and well logs for these temporary wells are included in Appendix C. Based on subsequent analysis of boring/well spacing and potential sources, the number of borings actually sampled for soil and groundwater (TW01A was excluded) was limited to seven total borings/wells.

##### **3.1.1 Soil Boring Advancement and Soil Sampling**

In each boring, soil was collected continuously to the base of the shallow water-bearing zone. The collected soil was described for lithology, and screened with a PID. Two soil samples were retrieved for analysis at intervals of either two or four feet from the screened soil in each boring based on the PID reading results. The samples were then submitted to Environmental Testing and Consulting Inc. (ETC) of Memphis, Tennessee under proper chain of custody procedures for laboratory analysis of VOCs by EPA Method 8260B, PAHs by EPA Method 8270C, and RCRA 8 metals by EPA Method 6010B/7470. Detected concentrations, RSLs and reference concentrations are summarized in Table 2 and the laboratory data are included in Appendix B. Arsenic and total chromium exceeded their residential RSL in all soil samples collected. However, the detected concentrations do not exceed the literature-based background concentrations. Also, VOC and PAH detections did not exceed their residential RSLs.

### 3.1.2 Monitoring Well Completion and Groundwater Sampling

After each of the borings was advanced into the saturated zone, a temporary monitoring well was installed in the boring. The temporary wells consisted of 0.75-inch diameter schedule 40 polyvinyl chloride (PVC) pre-packed well screens, 10 feet in length, and connected to ground surface by 1-inch PVC well casing. The wells were surveyed by Allen & Hoshall, Inc. of Memphis, Tennessee, a TN-registered land surveyor. The well survey information is provided in Appendix D and is summarized in Table 3. Groundwater elevations were collected, and groundwater flow was generally to the southwest direction. The potentiometric contour lines and groundwater flow direction are shown on Figure 1.

Table 3 Groundwater Elevations North Second Street and Chelsea Avenue, Memphis, Tennessee							
	TW01	TW02	TW03	TW04	TW05	TW06	TW07
Top of Casing (ft msl)	240.99	239.08	239.14	241.91	241.02	243.73	247.48
Depth to Groundwater (ft btoc)	8.95	5.68	5.12	9.04	6.92	9.39	13.69
Groundwater Elevation (ft msl)	232.04	233.40	234.02	232.87	234.10	234.34	233.79

**Notes:**

- ft msl = feet above mean sea level
- ft btoc = feet below top of casing

Upon completion, the wells were purged to reduce turbidity in the well water and improve sample quality. The amount of water purged varied due to the poor productivity of the water-bearing zone. Volumes that were purged ranged from less than one to a maximum of two liters. Each well was only capable of producing these small quantities of water before going dry. Once purged, the well was allowed to equilibrate for a 12-24 hour period prior to sampling. Turbidity readings were collected during purging and ranged between 8.60-16.20 nephelometric turbidity units (NTUs). Groundwater samples were collected using a peristaltic pump and disposable dedicated polyethylene tubing. All of the groundwater samples were submitted to ETC for laboratory analysis of VOCs, PAHs and RCRA 8 metals, with an additional trip blank for quality control purposes.

The samples were packaged, labeled, and thermally preserved for transport under strict chain-of-custody procedures to the laboratory. The laboratory has reported the analytical results at level 2 data quality, and this was accomplished with a 10-14 day turn-around time. Detected concentrations in groundwater are summarized on Table 4, and the laboratory results are included in Appendix B. Detected concentrations were compared to their USEPA Regional



Screening Level for groundwater and maximum contaminant levels (MCLs). PCE was detected in five of the seven groundwater samples and exceeded its MCL in two samples. TCE was detected and exceeded its MCL in three of the seven groundwater samples. Cis-1,2-dichloroethene was detected in four groundwater samples and exceeded its MCL in one sample. Vinyl chloride and naphthalene were detected in one groundwater sample each above its RSL. Naphthalene does not have an MCL established and vinyl chloride was below its MCL.

Upon receipt of the analytical results, the closure of the temporary monitoring wells was arranged, and the wells were closed on May 29, 2014 by McCray Drilling, LLC. During closure, the borings were backfilled with bentonite pellets. Investigation-derived waste (water and soil) was containerized in two 55-gallon drums. Disposal of both drums was accomplished by Waste Management, Inc. (WM), and the drums of water/soil were transported to the WM Tunica County Landfill in Robinsonville, Mississippi on October 23, 2014. The drums were characterized as special non-hazardous waste. The disposal documents are included as Appendix E.

### **3.2 Vapor Intrusion Assessment — Soil Gas Sampling and Analysis**

Samples were collected from soil gas at the subject property on May 22, 2014 by EnSafe personnel utilizing McCray Drilling, LLC to assess the potential for vapor exposure from petroleum hydrocarbon and solvent related contaminants detected in soil and groundwater onsite. VOCs in soil and groundwater typically off-gas vapors that migrate through the pore spaces and fractures in the soil and along conduits such as underground utilities and building footers. Vapors reaching the surface may intrude into structures potentially exposing occupants to these vapors.

#### **3.2.1 Soil Gas Sampling Equipment Installation**

Eight soil gas samples were collected using direct push technology (DPT) utilizing the Post Run Tubing (PRT) system developed by Geoprobe®. The drill string consists of an expendable stainless steel tip, a carbon steel drill rod fitted with an internal intake port at the down-hole end. The expendable stainless steel tip was attached to the drill rod and the drill string was advanced to approximately 4 feet bgs. Once the desired depth was achieved, the drill string was

**Table 4**  
**May 2014 Groundwater Sampling Results**  
**North Second Street and Chelsea Avenue, Memphis, Tennessee**

	RSL Tap Water	MCL	TW01	TW02	TW03	TW04	TW05	TW06	TW07
<b>Metals</b>									
Barium	2900	2000	139	104	142	151	153	160	119
Chromium	0.03	NS	<b>12</b>	<1	<b>1 J</b>	<b>1 J</b>	<b>2 J</b>	<b>1 J</b>	<b>1 J</b>
Mercury	4.30	2	0.11 J	<0.05	<0.05	0.05 J	0.07 J	0.05 J	<0.05
<b>Volatile Organic Compounds</b>									
Acetone	12000	NS	<1.19	23.9	12.0 J	10.4 J	6.83 J	<1.19	10.4 J
Benzene	0.39	5	0.34 J	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04
Carbon Disulfide	720	NS	0.16 JB	0.21 JB	0.19 JB	0.41 JB	0.23 JB	0.16 JB	0.17 JB
1,1-Dichloroethane	2.40	NS	2.15	<0.11	<0.11	<0.11	<0.11	<0.11	<0.11
1,1-Dichloroethene	260	7	2.07	<0.07	<0.07	<0.07	<0.07	<0.07	<0.07
cis,-1,2-Dichloroethene	28	70	<b>1360</b>	1.49	<0.07	14.6	3.76	<0.07	<0.07
trans-1,2-Dichloroethene	86	100	12.5	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
1,2-Dichloroethene (Total)	130	NS	<b>1370</b>	1.49	<0.05	14.6	3.76	<0.05	<0.05
Iodomethane	NS	NS	0.45 JB	0.49 JB	<0.07	0.50 JB	<0.07	0.35 JB	<0.07
Napthalene	0.14	NS	<0.54	<0.54	<b>0.66 J</b>	<0.54	<0.54	<0.54	<0.54
Tetrachloroethene	9.70	5	<b>592</b>	<0.07	0.45 J	<b>178</b>	3.85	0.45 J	<0.07
Trichloroethene	0.44	5	<b>288</b>	<0.08	<0.08	<b>21.9</b>	<b>8.3</b>	<0.08	<0.08
Vinyl Chloride	0.02	2	<b>0.49 J</b>	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04
o-Xylene	190	NS	0.19 J	<0.07	<0.07	<0.07	<0.07	<0.07	<0.07
Xylene (total)	190	10000	0.1	<0.07	<0.07	<0.07	<0.07	<0.07	<0.07
<b>Semivolatile Organic Compounds</b>									
Anthracene	1300	NS	0.092	0.042	0.024	0.024	0.022	0.018 J	0.018 J
Fluoranthene	630	NS	<0.010	<0.010	0.010 J	0.011 J	<0.010	0.012 J	<0.010

<b>Table 4</b>									
<b>May 2014 Groundwater Sampling Results</b>									
<b>North Second Street and Chelsea Avenue, Memphis, Tennessee</b>									
	<b>RSL Tap Water</b>	<b>MCL</b>	<b>TW01</b>	<b>TW02</b>	<b>TW03</b>	<b>TW04</b>	<b>TW05</b>	<b>TW06</b>	<b>TW07</b>
Fluorene	220	NS	0.034	0.031	0.019 J	0.024	0.026	0.031	0.02
2-Methylnaphthalene	27	NS	0.054 B	0.058 B	0.042 B	0.057 B	0.071 B	0.059 B	0.055 B
Naphthalene	0.14	NS	0.101 B	0.138 B	0.108 B	<b>0.21</b>	<b>0.225</b>	0.132 B	<b>0.170 B</b>
Phenanthrene	NS	NS	0.068 B	0.082 B	0.040 B	0.060 B	0.071 B	0.073 B	0.044 B

**Notes:**

All results are in micrograms per liter (µg/L) or parts per billion (ppb).

J = Estimated value

B = Analyte detected in blank

<1.19 = parameter was not detected at or above the detection limit

— = Regional Screening Level; target lifetime cancer risk 10E-6 and hazard index of 1; May 2014, U.S. Environmental Protection Agency, <http://www.epa.gov/region9/superfund/prg/>

**Bold indicates an exceedance of the RSL**

**Red indicates an exceedance of the MCL**

NS = no RSL or MCL established



retracted approximately 3 to 4 inches to create a void between the lead rod port opening and the expendable tip. A dedicated section of food-grade quarter-inch diameter nylon tubing connected to a threaded adaptor was inserted through the drill rod annulus and securely threaded onto the port head. The soil gas sample was drawn to the surface through the port and sample tubing described by the procedure listed below.

### **3.2.2 Soil Gas Sampling Procedures**

Soil gas samples were collected into 1 liter Summa canisters supplied by Eurofins-Air Toxics laboratory of Folsom, California. Summa canisters and soil gas manifolds were individually certified clean by Eurofins to ensure the highest quality results. The initial vacuum pressure in inches-mercury (in-Hg) was measured using a calibrated master vacuum gauge. The soil gas manifolds were installed on the canisters by mating the certified manifold and canisters based on the laboratory identification tags. Soil gas manifolds are configured with an intake, a flow restrictor calibrated to a flow rate of less than 0.2 Liters per minute, inline vacuum gauges both pre and post flow restrictor, connector for the sample canister, and a connector for the purge apparatus including an inline valve. Purging was conducted utilizing the following sequence:

- Open valve on the Geoprobe vacuum system
- Open the purge valve on the soil gas manifold
- Allow the system to purge three to five times the volume of the quarter-inch nylon tubing and soil gas manifold
- Close the purge valve on the soil gas manifold
- Close valve on the Geoprobe vacuum system

Once the manifold purge valve was verified closed, the valve on the Summa sample canister was opened and sample collection began. Sampling continued until the inline post-flow restrictor vacuum gauge indicated a vacuum pressure below -5 in-Hg at which time the valve to the Summa sample canister was closed and the sample time noted. The down-hole sample tubing was disconnected from the soil gas manifold and the manifold was disconnected from the Summa canister. The post sampling vacuum pressure was verified using the calibrated master vacuum gauge and the pressure was recorded on the chain-of-custody along with the sampling time, date, and requested analysis. All Summa canisters, manifolds, and the

chain-of-custody form were packaged in the shipping container and shipped via over courier to Eurofins. All samples were analyzed by United States Environmental Protection Agency (U.S. EPA) method Toxic Organic 15 (TO-15) low level.

### **3.2.3 Soil Gas Sampling Results**

Table 5 presents the soil gas sampling summary results which were assessed against the May 2014 U.S. EPA Ambient Air Regional Screening Levels (RSLs) at a target lifetime cancer risk of  $1 \times 10^{-6}$  and a hazard index of 0.1 and modified with an attenuation factor (AF) of 0.02. The complete laboratory results for the soil gas sampling is included in Appendix F. The attenuation factor is based on the recommendation of the Tennessee Department of Environment and Conservation (TDEC) for similar projects and represents the ratio of the indoor air concentration measured in a building to the vapor concentration measured in the soil gas.

Laboratory analysis identified 12 VOCs exceeding their adjusted RSLs at an AF of 0.02 (Table 5). Two locations (SG06 and SG07) had detections of PCE and TCE at concentrations indicating a potential source area for chlorinated solvents. Neither PCE nor TCE were detected at the other sample locations.

Other VOCs detected include petroleum hydrocarbon compounds (including benzene, toluene, ethylbenzene, and xylenes), halomethanes (including bromomethanes and Freon compounds), and other organics. Although some of these compounds were present at concentrations above their RSLs, the results do not indicate a specific source area.

Cas No.	Parameter	Residential RSL Adjusted HI-0.1 and AF=0.02	Industrial RSL Adjusted HI-0.1 and AF=0.02	MLBCHLSG01 5/22/2014	MLBCHLSG02 5/22/2014	MLBCHLSG03 5/22/2014	MLBCHLSG04 5/22/2014	MLBCHLSG05 5/22/2014	MLBCHLSG06 5/22/2014	MLBCHLSG07 5/22/2014	MLBCHLSG08 5/22/2014
71-55-6	1,1,1-Trichloroethane	26000	110000	2.3 U	1.3 U	1.1 U	1.2 U	1.2 U	13 J	300 U	1.1 U
75-34-3	1,1-Dichloroethane	90	385	1.7 U	0.94 U	0.85 U	0.86 U	0.91 U	7.2 J	220 U	0.84 U
120-82-1	1,2,4-Trichlorobenzene	10.5	44	16 U	3.8 J	1.9 J	0.72 J	1.6 J	350 U	1600 U	7.7 U
95-63-6	1,2,4-Trimethylbenzene	36.5	155	41 a	22	4.2	5.1	4.1	7.6 J	270 U	0.86 J
106-93-4	1,2-Dibromoethane (EDB)	0.235	1	3.3 U	0.74 J a	1.6 U	1.6 U	1.7 U	90 U	420 U	1.6 U
95-50-1	1,2-Dichlorobenzene	1050	4400	4.2	1.5	2.3	2.2	1.9	71 U	330 U	1.2 U
107-06-2	1,2-Dichloroethane	5.5	23.5	1.7 U	0.32 J	0.85 U	0.34 J	0.91 U	6.3 J a	220 U	0.84 U
108-67-8	1,3,5-Trimethylbenzene	NA	NA	11	7.5	2.3	2.1	2.1	58 U	270 U	1 U
106-99-0	1,3-Butadiene	4.7	20.5	72 ab	12 a	18 a	14 a	10 a	110 ab	120 U	1.2
541-73-1	1,3-Dichlorobenzene	NA	NA	9.4	0.37 J	4.6	4.4	4.2	7.6 J	330 U	0.37 J
106-46-7	1,4-Dichlorobenzene	13	55	22 a	7	11	10	10	16 J a	330 U	0.91 J
123-91-1	1,4-Dioxane	28	125	1.5 U	0.84 U	1.2	0.77 U	0.56 J	170 U	780 U	0.75 U
78-93-3	2-Butanone (Methyl Ethyl Ketone)	26000	110000	110	40	50	40	36	130 J	640 U	13
591-78-6	2-Hexanone	155	650	16	6.9	6.2	4.4	5.5	190 U	890 U	4.3 U
67-63-0	2-Propanol	36500	155000	59	270 E	41	21	19	34 J	540 U	6
622-96-8	4-Ethyltoluene	NA	NA	29	16	3	3.3	3	58 U	270 U	0.64 J
108-10-1	4-Methyl-2-pentanone	15500	65000	7.1	2.2	2.4	1.7	3.1	48 U	220 U	0.34 J
67-64-1	Acetone	160000	700000	300	96	130	78	84	500	310 J	25
100-44-7	alpha-Chlorotoluene	2.85	12.5	2.2 U	1 J	0.39 J	0.52 J	0.62 J	61 U	280 U	1.1 U
71-43-2	Benzene	18	80	92 ab	25 a	58 a	70 a	48 a	220 ab	89 J ab	26 a
75-27-4	Bromodichloromethane	3.8	16.5	2.8 U	1.6 U	1.4 U	1.4 U	1.5 U	26 J ab	360 U	1.4 U
74-83-9	Bromomethane	26	110	4.1 J	4.5 U	4.1 U	1.2 J	4.4 U	460 U	2100 U	4 U
75-15-0	Carbon Disulfide	3650	15500	22	12	14	15	5.1	32 J	680 U	2.3 J
56-23-5	Carbon Tetrachloride	23.5	100	2.7 UJ	1.4 U	1.3 U	1.3 U	0.25 J	74 U	340 U	0.65 J
108-90-7	Chlorobenzene	260	1100	3.4	1.6	1.6	1.4	1.9	54 U	250 U	0.32 J
75-00-3	Chloroethane	50000	220000	5.6 U	3.1 U	1.2 J	1.4 J	3 U	120 U	580 U	2.7 U
67-66-3	Chloroform	6	26.5	2.1 U	0.78 J	1 U	1 U	0.43 J	11 J a	270 U	1 U
74-87-3	Chloromethane	470	1950	4.8	0.77 J	4.1	6.2	0.66 J	100 J	1100 U	1.5 J
156-59-2	cis-1,2-Dichloroethene	NA	NA	1.7 U	0.92 U	0.83 U	0.84 U	0.9 U	300	220 U	0.82 U
98-82-8	Cumene	2100	9000	2.6	1.7	0.77 J	0.76 J	0.89 J	58 U	270 U	1 U
110-82-7	Cyclohexane	31500	130000	46	53	13	18	14	11 J	190 U	0.76
124-48-1	Dibromochloromethane	5	22.5	3.6 U	2 U	1.8 U	1.8 U	1.9 U	29 J ab	460 U	1.8 U
64-17-5	Ethanol	NA	NA	120	36	58	46	43	81 J	410 U	17
100-41-4	Ethyl Benzene	55	245	17	12	3.4	4	2.8	11 J	240 U	0.39 J
75-69-4	Freon 11	3650	15500	1.3 J	1.6	2	3.1	1.6	9 J	310 U	1.6
76-13-1	Freon 113	155000	650000	0.79 J	1.8 U	1 J	0.89 J	1.7 U	90 U	420 U	1.6 U
75-71-8	Freon 12	500	2200	1 J	3.3	3	1 U	2.7	58 U	270 U	2.8
142-82-5	Heptane	NA	NA	87	51	20	23	23	42 J	220 U	1.5
87-68-3	Hexachlorobutadiene	6.5	28	23 U	2.3 J	1.7 J	11 U	0.74 J	500 U	2300 U	11 U

Table 5 May 2014 Soil Gas Sampling Results North Second Street and Chelsea Avenue, Memphis, Tennessee											
Cas No.	Parameter	Residential RSL Adjusted HI-0.1 and AF=0.02	Industrial RSL Adjusted HI-0.1 and AF=0.02	MLBCHLSG01 5/22/2014	MLBCHLSG02 5/22/2014	MLBCHLSG03 5/22/2014	MLBCHLSG04 5/22/2014	MLBCHLSG05 5/22/2014	MLBCHLSG06 5/22/2014	MLBCHLSG07 5/22/2014	MLBCHLSG08 5/22/2014
110-54-3	Hexane	3650	15500	160	81	34	34	24	56	190 U	1.6
106-42-3	m,p-Xylene	500	2200	67	44	7.5	9	8.1	21 J	240 U	1.7
1634-04-4	Methyl tert-butyl ether	550	2350	1.5 U	0.84 U	0.76 U	0.21 J	0.11 J	42 U	200 U	0.26 J
75-09-2	Methylene Chloride	3150	13000	3 U	1.6 U	1.4 U	1.5 U	1.6 U	410 U	1900 U	0.62 J
95-47-6	o-Xylene	500	2200	44	16	9	8.9	8.3	16 J	240 U	1.7
103-65-1	Propylbenzene	5000	22000	55	36	22	19	21	30 J	270 U	2.3
100-42-5	Styrene	5000	22000	5.1	1.7	1.2	1	1.2	50 U	230 U	0.88 U
127-18-4	Tetrachloroethene	210	900	0.77 J	9.2	6.6	7.4	4.1	<b>17000 ab</b>	<b>70000 ab</b>	1.4 U
109-99-9	Tetrahydrofuran	NA	NA	2.6 J	2.3 J	2.2 J	1.5 J	1.3 J	15 J	160 U	1.6 J
108-88-3	Toluene	26000	110000	180	68	43	43	37	100	140 J	7.9
156-60-5	trans-1,2-Dichloroethene	NA	NA	1.7 U	0.92 U	0.83 U	0.84 U	0.9 U	12 J	220 U	0.82 U
10061-02-6	trans-1,3-Dichloropropene	NA	NA	1.9 U	0.26 J	0.23 J	0.97 U	1 U	53 U	250 U	0.94 U
79-01-6	Trichloroethene	10.5	44	2.3 U	1.2 U	1.1 U	1.1 U	1.2 U	<b>770 ab</b>	<b>9600 ab</b>	1.1 U
75-01-4	Vinyl Chloride	8.5	140	1.4	0.59 U	0.54 U	0.54 U	0.58 U	<b>8.8 J a</b>	140 U	0.53 U

**Notes:**

µg/m3 = All units micrograms per cubic meter

RSL = Regional Screening Level; target lifetime cancer risk 10E-6 and hazard index of 0.1; May 2014, U.S. Environmental Protection Agency, <http://www.epa.gov/region9/superfund/prg/>

**a** = Result exceeds Residential RSL

**b** = Result exceeds Industrial RSL

J = Data qualifier for estimated value

U = Data qualifier for non-detected value

AF = Attenuation Factor (value of 0.02 based on recommendations by the Tennessee State Risk Assessor on similar projects)

HI = Hazard Index

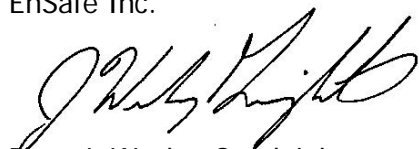
#### 4.0 CONCLUSIONS

This investigation identified chlorinated solvents in groundwater and soil-gas, although a residual source mass was not identified onsite nor was a pathway identified along sanitary sewer lines. Passive vapor barriers in future buildings and a groundwater use restriction on the properties would likely be required by TDEC for any type of new construction.

EnSafe sincerely appreciates the opportunity to complete this investigation and provide this report. If you have any questions regarding this report, please call Wesley Goodnight or me at 901-372-7962.

Sincerely,

EnSafe Inc.



By: J. Wesley Goodnight  
Project Manager, Engineering Services



Allison Harris  
Project Manager

**Appendix A**  
**Photographic Log**



**Appendix A Photographic Log  
Phase II ESA/Site Demolition & Removal Report  
North Second Street and Chelsea Avenue  
Memphis, Tennessee**



**Photo 1:** Initial clearing of underground concrete structures.



**Photo 2:** Initial surface clearing of topsoil above Basement #1.



**Appendix A Photographic Log  
Phase II ESA/Site Demolition & Removal Report  
North Second Street and Chelsea Avenue  
Memphis, Tennessee**



**Photo 3:** Removal of top of Basement#1.



**Photo 4:** View of all delirious materials still inside Basement #1.



**Appendix A Photographic Log  
Phase II ESA/Site Demolition & Removal Report  
North Second Street and Chelsea Avenue  
Memphis, Tennessee**



**Photo 5:** Basement#1 is cleared before removal of walls and floor.



**Photo 6:** Removal of debris from Basement #2. Hot water tank is pictured here.



**Appendix A Photographic Log  
Phase II ESA/Site Demolition & Removal Report  
North Second Street and Chelsea Avenue  
Memphis, Tennessee**



**Photo 7:** Continued debris removal from Basement #2.



**Photo 8:** Continued debris removal from Basement #2.



Appendix A Photographic Log  
Phase II ESA/Site Demolition & Removal Report  
North Second Street and Chelsea Avenue  
Memphis, Tennessee



**Photo 9:** Continued debris removal from Basement #2.



**Photo 10:** Final debris removal from Basement #2. Brick foundation wall pictured remains onsite, to ensure right-of-way is not damaged.



**Appendix A Photographic Log  
Phase II ESA/Site Demolition & Removal Report  
North Second Street and Chelsea Avenue  
Memphis, Tennessee**



**Photo 11:** Stockpiled concrete debris from foundations that were previously onsite.



**Photo 12:** Loading of C&D debris (trees) before transport to the landfill.



**Appendix A Photographic Log  
Phase II ESA/Site Demolition & Removal Report  
North Second Street and Chelsea Avenue  
Memphis, Tennessee**



**Photo 13:** Initial backfill of removal areas with silty clay.



**Photo 14:** Final grading and backfill of basement removal areas with silt clay.

**Appendix B**  
**Laboratory Reports**



5/8/2014

Ensafe  
Mr. Wes Goodnight  
5724 Summer Tree Drive  
Memphis, TN, 38134

Ref: Analytical Testing  
ETC Report Number: 14-122-0245  
Client Project Description: Basement Removal - 2nd and Chelsea  
Memphis, TN  
Project No. 0888815441  
Project Number: Basement Removal - 2nd and Chelsea

Dear Mr. Wes Goodnight:

Environmental Testing and Consulting, Inc. received sample(s) on 5/2/2014 for the analyses presented in the following report.

The above referenced project has been analyzed per your instructions. The analyses were performed in accordance with the applicable analytical method.

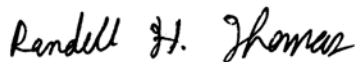
The analytical data has been validated using standard quality control measures performed as required by the analytical method. Quality Assurance, method validations, instrumentation maintenance and calibration for all parameters (NELAP and non-NELAP) were performed in accordance with guidelines established by the USEPA (including 40 CFR 136 Method Update Rule May 2012) and NELAC unless otherwise indicated. Any parameter for which the laboratory is not officially NELAP accredited is indicated by a '-' symbol. These are not included in the scope because NELAP accreditation is either not available or has not been applied for. Additional certifications may be held/are available for parameters, where NELAP accreditation is not required or applicable. A full list of certifications is available upon request.

Per EPA Methods Update Rule (May 2012), all methods from Standard Methods for the Examination of Water and Wastewater are reported to include the year of approval.

The results are shown on the attached Report of Analysis(s). Results for solid matrices are reported on an as-received basis unless otherwise indicated. This report shall not be reproduced except in full and relates only to the samples included in this report.

Please do not hesitate to contact me or client services if you have any questions or need additional information.

Sincerely,



Randy Thomas  
Project Manager

*Laboratory's liability in any claim relating to analyses performed shall be limited to, at laboratory's option, repeating the analysis in question at laboratory's expense, or the refund of the charges paid for performance of said analysis.*

Alabama #40750	Louisiana #04015	VA NELAP #460181	Texas #T104704180-11-6	Arkansas #88-0650
Mississippi	California #2904	NC #415	Oklahoma #9311	Virginia #00106
Kentucky #90047	Tennessee #TN02027	EPA #TN00012	Kentucky UST #41	Kansas #E-10396





Sample Summary Table

Report Number: 14-122-0245
Client Project Description: Basement Removal - 2nd and Chelsea Memphis, TN Project No. 0888815441

Table with 7 columns: Lab No, Client Sample ID, Matrix, Date Collected, Date Received, Method, Lab ID. Contains 12 rows of sample data.



03180

Ensafe  
Mr. Wes Goodnight  
5724 Summer Tree Drive  
Memphis, TN 38134

Project ID :  
Project : Basement Removal - 2nd and Chelsea  
Information : Memphis, TN  
Project No. 0888815441

Report Date : 05/08/2014  
Received : 5/2/2014

Report Number : **14-122-0245**

### REPORT OF ANALYSIS

Lab No : **97802**  
Sample ID : **CHELBASE0109**

Matrix: **Solids**  
Sampled: **5/1/2014 14:55**

Test	Results	Units	MDL	MQL	DF	Date / Time Analyzed	By	Analytical Method
% Moisture	<b>22.1</b>	%	0	0.100	1	05/02/14 14:16	ALP	2540G-2011
Total Arsenic	<b>1.85</b>	mg/Kg - dry	0.911	0.641	1	05/06/14 19:38	BKN	6010B
Total Barium	<b>254</b>	mg/Kg - dry	0.074	0.641	1	05/06/14 19:38	BKN	6010B
Total Cadmium	<b>0.668</b>	mg/Kg - dry	0.0195	0.128	1	05/06/14 19:38	BKN	6010B
Total Chromium	<b>11.1</b>	mg/Kg - dry	0.043	0.320	1	05/06/14 19:38	BKN	6010B
Total Lead	<b>6.89</b>	mg/Kg - dry	0.183	0.385	1	05/06/14 19:38	BKN	6010B
Total Mercury	<b>0.0134 J</b>	mg/Kg - dry	0.00337	0.0171	1	05/06/14 11:39	JRS	7471A
Total Selenium	<6.56	mg/Kg - dry	6.56	12.8	10	05/07/14 15:00	BKN	6010B
Total Silver	<b>0.487</b>	mg/Kg - dry	0.0349	0.321	1	05/06/14 19:38	BKN	6010B

Qualifiers/ Definitions	*	Outside QC limit	B	Analyte detected in blank
	DF	Dilution Factor	J	Estimated value
	MQL	Method Quantitation Limit		

03180

Ensafe  
Mr. Wes Goodnight  
5724 Summer Tree Drive  
Memphis, TN 38134

Project ID :  
Project : Basement Removal - 2nd and Chelsea  
Information : Memphis, TN  
Project No. 0888815441

Report Date : 05/08/2014  
Received : 5/2/2014

Report Number : **14-122-0245**

**REPORT OF ANALYSIS**

Lab No : **97802**

Matrix: **Solids**

Sample ID : **CHELSEBASE0109**

Sampled: **5/1/2014 14:55**

**Analytical Method:** 8260B

**Prep Method:** 5030A

**Prep Batch(es):** L198380

**Date/Time Prepped:** 5/7/2014 08:00:00

Test	Results	Units	MDL	MQL	DF	Date / Time Analyzed	By	Analytical Batch
Acetone	<0.0059	mg/Kg - dry	0.0059	0.0513	1	05/07/14 14:28	ACS	L198395
Acetonitrile	<0.0164	mg/Kg - dry	0.0164	0.128	1	05/07/14 14:28	ACS	L198395
Acrolein	<0.0129	mg/Kg - dry	0.0129	0.0513	1	05/07/14 14:28	ACS	L198395
Acrylonitrile	<0.0103	mg/Kg - dry	0.0103	0.0513	1	05/07/14 14:28	ACS	L198395
Benzene	<0.0011	mg/Kg - dry	0.0011	0.0025	1	05/07/14 14:28	ACS	L198395
Bromobenzene	<0.0012	mg/Kg - dry	0.0012	0.0025	1	05/07/14 14:28	ACS	L198395
Bromochloromethane	<0.0009	mg/Kg - dry	0.0009	0.0025	1	05/07/14 14:28	ACS	L198395
Bromodichloromethane	<0.0005	mg/Kg - dry	0.0005	0.0025	1	05/07/14 14:28	ACS	L198395
Bromoform	<0.0008	mg/Kg - dry	0.0008	0.0025	1	05/07/14 14:28	ACS	L198395
Bromomethane	<0.0015	mg/Kg - dry	0.0015	0.0025	1	05/07/14 14:28	ACS	L198395
Methyl Ethyl Ketone (MEK)	<0.0079	mg/Kg - dry	0.0079	0.0513	1	05/07/14 14:28	ACS	L198395
n-Butylbenzene	<0.0009	mg/Kg - dry	0.0009	0.0025	1	05/07/14 14:28	ACS	L198395
sec-Butyl benzene	<0.0004	mg/Kg - dry	0.0004	0.0025	1	05/07/14 14:28	ACS	L198395
tert-Butyl benzene	<0.0018	mg/Kg - dry	0.0018	0.0025	1	05/07/14 14:28	ACS	L198395
Carbon Disulfide	<0.0005	mg/Kg - dry	0.0005	0.0025	1	05/07/14 14:28	ACS	L198395
Carbon Tetrachloride	<0.0007	mg/Kg - dry	0.0007	0.0025	1	05/07/14 14:28	ACS	L198395
Chlorobenzene	<0.0010	mg/Kg - dry	0.0010	0.0025	1	05/07/14 14:28	ACS	L198395
Chlorodibromomethane	<0.0011	mg/Kg - dry	0.0011	0.0025	1	05/07/14 14:28	ACS	L198395
Chloroethane	<0.0005	mg/Kg - dry	0.0005	0.0025	1	05/07/14 14:28	ACS	L198395
2-Chloroethylvinyl Ether	<0.0025	mg/Kg - dry	0.0025	0.0025	1	05/07/14 14:28	ACS	L198395
Chloroform	<0.0005	mg/Kg - dry	0.0005	0.0025	1	05/07/14 14:28	ACS	L198395
Chloromethane	<0.0010	mg/Kg - dry	0.0010	0.0025	1	05/07/14 14:28	ACS	L198395

Qualifiers/Definitions				
*	Outside QC limit		B	Analyte detected in blank
DF	Dilution Factor		I	Recovery out of range
J	Estimated value		MQL	Method Quantitation Limit

03180

Ensafe  
Mr. Wes Goodnight  
5724 Summer Tree Drive  
Memphis, TN 38134

Project ID :  
Project : Basement Removal - 2nd and Chelsea  
Information : Memphis, TN  
Project No. 0888815441

Report Date : 05/08/2014  
Received : 5/2/2014

Report Number : **14-122-0245**

**REPORT OF ANALYSIS**

Lab No : **97802**

Matrix: **Solids**

Sample ID : **CHELSEBASE0109**

Sampled: **5/1/2014 14:55**

**Analytical Method:** 8260B

**Prep Method:** 5030A

**Prep Batch(es):** L198380

**Date/Time Prepped:** 5/7/2014 08:00:00

Test	Results	Units	MDL	MQL	DF	Date / Time Analyzed	By	Analytical Batch
2-Chlorotoluene	<0.0002	mg/Kg - dry	0.0002	0.0025	1	05/07/14 14:28	ACS	L198395
4-Chlorotoluene	<0.0010	mg/Kg - dry	0.0010	0.0025	1	05/07/14 14:28	ACS	L198395
1,2-Dibromo-3-Chloropropane	<0.0065	mg/Kg - dry	0.0065	0.0128	1	05/07/14 14:28	ACS	L198395
1,2-Dibromoethane	<0.0015	mg/Kg - dry	0.0015	0.0025	1	05/07/14 14:28	ACS	L198395
Dibromomethane	<0.0015	mg/Kg - dry	0.0015	0.0025	1	05/07/14 14:28	ACS	L198395
1,2-Dichlorobenzene	<0.0012	mg/Kg - dry	0.0012	0.0025	1	05/07/14 14:28	ACS	L198395
1,3-Dichlorobenzene	<0.0010	mg/Kg - dry	0.0010	0.0025	1	05/07/14 14:28	ACS	L198395
1,4-Dichlorobenzene	<0.0010	mg/Kg - dry	0.0010	0.0025	1	05/07/14 14:28	ACS	L198395
Dichlorodifluoromethane	<0.0007	mg/Kg - dry	0.0007	0.0025	1	05/07/14 14:28	ACS	L198395
1,1-Dichloroethane	<0.0004	mg/Kg - dry	0.0004	0.0025	1	05/07/14 14:28	ACS	L198395
1,2-Dichloroethane	<0.0013	mg/Kg - dry	0.0013	0.0025	1	05/07/14 14:28	ACS	L198395
1,1-Dichloroethene	<0.0006	mg/Kg - dry	0.0006	0.0025	1	05/07/14 14:28	ACS	L198395
cis-1,2-Dichloroethene	<0.0007	mg/Kg - dry	0.0007	0.0025	1	05/07/14 14:28	ACS	L198395
trans-1,2-Dichloroethene	<0.0005	mg/Kg - dry	0.0005	0.0025	1	05/07/14 14:28	ACS	L198395
1,2-Dichloroethene (Total)	<0.0005	mg/Kg - dry	0.0005	0.0025	1	05/07/14 14:28		L198395
1,2-Dichloropropane	<0.0014	mg/Kg - dry	0.0014	0.0025	1	05/07/14 14:28	ACS	L198395
1,3-Dichloropropane	<0.0015	mg/Kg - dry	0.0015	0.0025	1	05/07/14 14:28	ACS	L198395
2,2-Dichloropropane	<0.0009	mg/Kg - dry	0.0009	0.0025	1	05/07/14 14:28	ACS	L198395
1,1-Dichloropropene	<0.0012	mg/Kg - dry	0.0012	0.0025	1	05/07/14 14:28	ACS	L198395
cis-1,3-Dichloropropene	<0.0007	mg/Kg - dry	0.0007	0.0025	1	05/07/14 14:28	ACS	L198395
trans-1,3-Dichloropropene	<0.0012	mg/Kg - dry	0.0012	0.0025	1	05/07/14 14:28	ACS	L198395
Ethyl Acetate	<0.0020	mg/Kg - dry	0.0020	0.0513	1	05/07/14 14:28	ACS	L198395

**Qualifiers/  
Definitions**

*	Outside QC limit	B	Analyte detected in blank
DF	Dilution Factor	I	Recovery out of range
J	Estimated value	MQL	Method Quantitation Limit



03180

Ensafe  
Mr. Wes Goodnight  
5724 Summer Tree Drive  
Memphis, TN 38134

Project ID :  
Project Basement Removal - 2nd and Chelsea  
Information : Memphis, TN  
Project No. 0888815441

Report Date : 05/08/2014  
Received : 5/2/2014

Report Number : 14-122-0245

### REPORT OF ANALYSIS

Lab No : 97802  
Sample ID : CHELSBASE0109

Matrix: Solids  
Sampled: 5/1/2014 14:55

Analytical Method: 8260B

Prep Method: 5030A

Prep Batch(es): L198380

Date/Time Prepped: 5/7/2014 08:00:00

Test	Results	Units	MDL	MQL	DF	Date / Time Analyzed	By	Analytical Batch
Ethylbenzene	<0.0007	mg/Kg - dry	0.0007	0.0025	1	05/07/14 14:28	ACS	L198395
Hexachlorobutadiene	<0.0010	mg/Kg - dry	0.0010	0.0025	1	05/07/14 14:28	ACS	L198395
2-Hexanone	<0.0025	mg/Kg - dry	0.0025	0.0128	1	05/07/14 14:28	ACS	L198395
Iodomethane	<0.0012	mg/Kg - dry	0.0012	0.0128	1	05/07/14 14:28	ACS	L198395
Isopropylbenzene	<0.0004	mg/Kg - dry	0.0004	0.0025	1	05/07/14 14:28	ACS	L198395
4-Isopropyl toluene	<0.0006	mg/Kg - dry	0.0006	0.0025	1	05/07/14 14:28	ACS	L198395
Methyl tert-butyl ether (MTBE)	<0.0005	mg/Kg - dry	0.0005	0.0025	1	05/07/14 14:28	ACS	L198395
4-Methyl-2-Pentanone	<0.0037	mg/Kg - dry	0.0037	0.0128	1	05/07/14 14:28	ACS	L198395
Methylene Chloride	<0.0020	mg/Kg - dry	0.0020	0.0128	1	05/07/14 14:28	ACS	L198395
Naphthalene	<0.0040	mg/Kg - dry	0.0040	0.0128	1	05/07/14 14:28	ACS	L198395
n-Propylbenzene	<0.0003	mg/Kg - dry	0.0003	0.0025	1	05/07/14 14:28	ACS	L198395
Styrene	<0.0004	mg/Kg - dry	0.0004	0.0025	1	05/07/14 14:28	ACS	L198395
1,1,1,2-Tetrachloroethane	<0.0006	mg/Kg - dry	0.0006	0.0025	1	05/07/14 14:28	ACS	L198395
1,1,2,2-Tetrachloroethane	<0.0007	mg/Kg - dry	0.0007	0.0025	1	05/07/14 14:28	ACS	L198395
Tetrachloroethene	<0.0020	mg/Kg - dry	0.0020	0.0025	1	05/07/14 14:28	ACS	L198395
Toluene	<0.0032	mg/Kg - dry	0.0032	0.0128	1	05/07/14 14:28	ACS	L198395
1,2,3-Trichlorobenzene	<0.0013	mg/Kg - dry	0.0013	0.0025	1	05/07/14 14:28	ACS	L198395
1,2,4-Trichlorobenzene	<0.0019	mg/Kg - dry	0.0019	0.0025	1	05/07/14 14:28	ACS	L198395
1,1,1-Trichloroethane	<0.0011	mg/Kg - dry	0.0011	0.0025	1	05/07/14 14:28	ACS	L198395
1,1,2-Trichloroethane	<0.0022	mg/Kg - dry	0.0022	0.0025	1	05/07/14 14:28	ACS	L198395
Trichloroethene	<0.0017	mg/Kg - dry	0.0017	0.0025	1	05/07/14 14:28	ACS	L198395
Trichlorofluoromethane	<0.0010	mg/Kg - dry	0.0010	0.0025	1	05/07/14 14:28	ACS	L198395

Qualifiers/Definitions				
*	Outside QC limit		B	Analyte detected in blank
DF	Dilution Factor		I	Recovery out of range
J	Estimated value		MQL	Method Quantitation Limit

03180

Ensafe  
Mr. Wes Goodnight  
5724 Summer Tree Drive  
Memphis, TN 38134

Project ID :  
Project : Basement Removal - 2nd and Chelsea  
Information : Memphis, TN  
Project No. 0888815441

Report Date : 05/08/2014  
Received : 5/2/2014

Report Number : **14-122-0245**

**REPORT OF ANALYSIS**

Lab No : **97802**

Matrix: **Solids**

Sample ID : **CHELSEBASE0109**

Sampled: **5/1/2014 14:55**

**Analytical Method:** 8260B

**Prep Method:** 5030A

**Prep Batch(es):** L198380

**Date/Time Prepped:** 5/7/2014 08:00:00

Test	Results	Units	MDL	MQL	DF	Date / Time Analyzed	By	Analytical Batch
1,2,3-Trichloropropane	<0.0013	mg/Kg - dry	0.0013	0.0025	1	05/07/14 14:28	ACS	L198395
1,2,4-Trimethylbenzene	<b>0.0009 J</b>	mg/Kg - dry	0.0008	0.0025	1	05/07/14 14:28	ACS	L198395
1,3,5-Trimethylbenzene	<b>0.0005 J</b>	mg/Kg - dry	0.0004	0.0025	1	05/07/14 14:28	ACS	L198395
Vinyl Acetate	<0.0034	mg/Kg - dry	0.0034	0.0513	1	05/07/14 14:28	ACS	L198395
Vinyl Chloride	<0.0008	mg/Kg - dry	0.0008	0.0025	1	05/07/14 14:28	ACS	L198395
o-Xylene	<0.0010	mg/Kg - dry	0.0010	0.0025	1	05/07/14 14:28	ACS	L198395
m,p-Xylene	<b>0.0024 J</b>	mg/Kg - dry	0.0009	0.0051	1	05/07/14 14:28	ACS	L198395
Xylene (Total)	<b>0.0024</b>	mg/Kg - dry	0.0009	0.0051	1	05/07/14 14:28		L198395
Surrogate: 4-Bromofluorobenzene	94.8		Limits: 60-130%		1	05/07/14 14:28	ACS	L198395
Surrogate: 1,2-Dichloroethane - d4	122		Limits: 60-132%		1	05/07/14 14:28	ACS	L198395
Surrogate: Toluene-d8	86.2		Limits: 70-122%		1	05/07/14 14:28	ACS	L198395

**Analytical Method:** 8270C SIM

**Prep Method:** 3546

**Prep Batch(es):** L198049

**Date/Time Prepped:** 5/5/2014 08:30:00

Test	Results	Units	MDL	MQL	DF	Date / Time Analyzed	By	Analytical Batch
Acenaphthene	<0.000111	mg/Kg - dry	0.000111	0.000847	1	05/05/14 13:58	NFP	L198132
Acenaphthylene	<0.000065	mg/Kg - dry	0.000065	0.000847	1	05/05/14 13:58	NFP	L198132
Anthracene	<0.000272	mg/Kg - dry	0.000272	0.000847	1	05/05/14 13:58	NFP	L198132
Benzo(a)anthracene	<0.000731	mg/Kg - dry	0.000731	0.000847	1	05/05/14 13:58	NFP	L198132
Benzo(a)pyrene	<0.000691	mg/Kg - dry	0.000691	0.000847	1	05/05/14 13:58	NFP	L198132
Benzo(b)fluoranthene	<0.000350	mg/Kg - dry	0.000350	0.000847	1	05/05/14 13:58	NFP	L198132
Benzo(g,h,i)perylene	<0.000268	mg/Kg - dry	0.000268	0.000847	1	05/05/14 13:58	NFP	L198132

Qualifiers/Definitions				
*	Outside QC limit		B	Analyte detected in blank
DF	Dilution Factor		I	Recovery out of range
J	Estimated value		MQL	Method Quantitation Limit





03180

Ensafe  
Mr. Wes Goodnight  
5724 Summer Tree Drive  
Memphis, TN 38134

Project ID :  
Project : Basement Removal - 2nd and Chelsea  
Information : Memphis, TN  
Project No. 0888815441

Report Date : 05/08/2014  
Received : 5/2/2014

Report Number : 14-122-0245

### REPORT OF ANALYSIS

Lab No : 97802

Matrix: Solids

Sample ID : CHELSBASE0109

Sampled: 5/1/2014 14:55

Analytical Method: 8270C SIM

Prep Method: 3546

Prep Batch(es): L198049

Date/Time Prepped: 5/5/2014 08:30:00

Test	Results	Units	MDL	MQL	DF	Date / Time Analyzed	By	Analytical Batch
Benzo(k)fluoranthene	<0.000246	mg/Kg - dry	0.000246	0.000847	1	05/05/14 13:58	NFP	L198132
Chrysene	<0.000400	mg/Kg - dry	0.000400	0.000847	1	05/05/14 13:58	NFP	L198132
Dibenz(a,h)anthracene	<0.000365	mg/Kg - dry	0.000365	0.000847	1	05/05/14 13:58	NFP	L198132
Fluoranthene	<0.000236	mg/Kg - dry	0.000236	0.000847	1	05/05/14 13:58	NFP	L198132
Fluorene	<0.000238	mg/Kg - dry	0.000238	0.000847	1	05/05/14 13:58	NFP	L198132
Indeno(1,2,3-cd)pyrene	<0.000282	mg/Kg - dry	0.000282	0.000847	1	05/05/14 13:58	NFP	L198132
2-Methylnaphthalene	<0.000151	mg/Kg - dry	0.000151	0.000847	1	05/05/14 13:58	NFP	L198132
Naphthalene	<0.000240	mg/Kg - dry	0.000240	0.000847	1	05/05/14 13:58	NFP	L198132
Phenanthrene	<0.000608	mg/Kg - dry	0.000608	0.000847	1	05/05/14 13:58	NFP	L198132
Pyrene	<0.000245	mg/Kg - dry	0.000245	0.000847	1	05/05/14 13:58	NFP	L198132
Surrogate: 2-Fluorobiphenyl	58.7		Limits: 33-115%		1	05/05/14 13:58	NFP	L198132
Surrogate: Nitrobenzene-d5	59.0		Limits: 29-110%		1	05/05/14 13:58	NFP	L198132
Surrogate: 4-Terphenyl-d14	63.3		Limits: 33-122%		1	05/05/14 13:58	NFP	L198132

Qualifiers/Definitions				
*	Outside QC limit	B	Analyte detected in blank	
DF	Dilution Factor	I	Recovery out of range	
J	Estimated value	MQL	Method Quantitation Limit	



03180

Ensafe  
Mr. Wes Goodnight  
5724 Summer Tree Drive  
Memphis, TN 38134

Project ID :  
Project : Basement Removal - 2nd and Chelsea  
Information : Memphis, TN  
Project No. 0888815441

Report Date : 05/08/2014  
Received : 5/2/2014

Report Number : **14-122-0245**

### REPORT OF ANALYSIS

Lab No : **97803**  
Sample ID : **CHELSEBASE0209**

Matrix: **Solids**  
Sampled: **5/1/2014 15:05**

Test	Results	Units	MDL	MQL	DF	Date / Time Analyzed	By	Analytical Method
% Moisture	<b>20.8</b>	%	0	0.100	1	05/02/14 14:16	ALP	2540G-2011
Total Arsenic	<b>1.58</b>	mg/Kg - dry	0.896	0.631	1	05/06/14 19:42	BKN	6010B
Total Barium	<b>101</b>	mg/Kg - dry	0.073	0.631	1	05/06/14 19:42	BKN	6010B
Total Cadmium	<b>0.383</b>	mg/Kg - dry	0.0191	0.126	1	05/06/14 19:42	BKN	6010B
Total Chromium	<b>10.8</b>	mg/Kg - dry	0.042	0.315	1	05/06/14 19:42	BKN	6010B
Total Lead	<b>6.16</b>	mg/Kg - dry	0.180	0.378	1	05/06/14 19:42	BKN	6010B
Total Mercury	<b>0.0169</b>	mg/Kg - dry	0.00332	0.0168	1	05/06/14 11:41	JRS	7471A
Total Selenium	<6.45	mg/Kg - dry	6.45	12.6	10	05/07/14 15:04	BKN	6010B
Total Silver	<b>0.113 J</b>	mg/Kg - dry	0.0343	0.316	1	05/06/14 19:42	BKN	6010B

Qualifiers/ Definitions	*	Outside QC limit	B	Analyte detected in blank
	DF	Dilution Factor	J	Estimated value
	MQL	Method Quantitation Limit		

03180

Ensafe

Mr. Wes Goodnight

5724 Summer Tree Drive

Memphis, TN 38134

Project ID :

Project Basement Removal - 2nd and Chelsea

Information : Memphis, TN

Project No. 0888815441

Report Date : 05/08/2014

Received : 5/2/2014

Report Number : **14-122-0245**

**REPORT OF ANALYSIS**

Lab No : **97803**

Matrix: **Solids**

Sample ID : **CHELSEBASE0209**

Sampled: **5/1/2014 15:05**

**Analytical Method:** 8260B

**Prep Method:** 5030A

**Prep Batch(es):** L198380

**Date/Time Prepped:** 5/7/2014 08:00:00

Test	Results	Units	MDL	MQL	DF	Date / Time Analyzed	By	Analytical Batch
Acetone	<0.0058	mg/Kg - dry	0.0058	0.0506	1	05/07/14 12:09	ACS	L198395
Acetonitrile	<0.0161	mg/Kg - dry	0.0161	0.126	1	05/07/14 12:09	ACS	L198395
Acrolein	<0.0127	mg/Kg - dry	0.0127	0.0506	1	05/07/14 12:09	ACS	L198395
Acrylonitrile	<0.0102	mg/Kg - dry	0.0102	0.0506	1	05/07/14 12:09	ACS	L198395
Benzene	<0.0011	mg/Kg - dry	0.0011	0.0025	1	05/07/14 12:09	ACS	L198395
Bromobenzene	<0.0011	mg/Kg - dry	0.0011	0.0025	1	05/07/14 12:09	ACS	L198395
Bromochloromethane	<0.0009	mg/Kg - dry	0.0009	0.0025	1	05/07/14 12:09	ACS	L198395
Bromodichloromethane	<0.0005	mg/Kg - dry	0.0005	0.0025	1	05/07/14 12:09	ACS	L198395
Bromoform	<0.0008	mg/Kg - dry	0.0008	0.0025	1	05/07/14 12:09	ACS	L198395
Bromomethane	<0.0015	mg/Kg - dry	0.0015	0.0025	1	05/07/14 12:09	ACS	L198395
Methyl Ethyl Ketone (MEK)	<0.0078	mg/Kg - dry	0.0078	0.0506	1	05/07/14 12:09	ACS	L198395
n-Butylbenzene	<0.0009	mg/Kg - dry	0.0009	0.0025	1	05/07/14 12:09	ACS	L198395
sec-Butyl benzene	<0.0004	mg/Kg - dry	0.0004	0.0025	1	05/07/14 12:09	ACS	L198395
tert-Butyl benzene	<0.0018	mg/Kg - dry	0.0018	0.0025	1	05/07/14 12:09	ACS	L198395
Carbon Disulfide	<0.0005	mg/Kg - dry	0.0005	0.0025	1	05/07/14 12:09	ACS	L198395
Carbon Tetrachloride	<0.0007	mg/Kg - dry	0.0007	0.0025	1	05/07/14 12:09	ACS	L198395
Chlorobenzene	<0.0010	mg/Kg - dry	0.0010	0.0025	1	05/07/14 12:09	ACS	L198395
Chlorodibromomethane	<0.0011	mg/Kg - dry	0.0011	0.0025	1	05/07/14 12:09	ACS	L198395
Chloroethane	<0.0004	mg/Kg - dry	0.0004	0.0025	1	05/07/14 12:09	ACS	L198395
2-Chloroethylvinyl Ether	<0.0025	mg/Kg - dry	0.0025	0.0025	1	05/07/14 12:09	ACS	L198395
Chloroform	<0.0005	mg/Kg - dry	0.0005	0.0025	1	05/07/14 12:09	ACS	L198395
Chloromethane	<0.0010	mg/Kg - dry	0.0010	0.0025	1	05/07/14 12:09	ACS	L198395

**Qualifiers/Definitions**

*	Outside QC limit
DF	Dilution Factor
J	Estimated value

B	Analyte detected in blank
I	Recovery out of range
MQL	Method Quantitation Limit

03180

Ensafe  
Mr. Wes Goodnight  
5724 Summer Tree Drive  
Memphis, TN 38134

Project ID :  
Project : Basement Removal - 2nd and Chelsea  
Information : Memphis, TN  
Project No. 0888815441

Report Date : 05/08/2014  
Received : 5/2/2014

Report Number : **14-122-0245**

**REPORT OF ANALYSIS**

Lab No : **97803**

Matrix: **Solids**

Sample ID : **CHELSEBASE0209**

Sampled: **5/1/2014 15:05**

**Analytical Method:** 8260B

**Prep Method:** 5030A

**Prep Batch(es):** L198380

**Date/Time Prepped:** 5/7/2014 08:00:00

Test	Results	Units	MDL	MQL	DF	Date / Time Analyzed	By	Analytical Batch
2-Chlorotoluene	<0.0002	mg/Kg - dry	0.0002	0.0025	1	05/07/14 12:09	ACS	L198395
4-Chlorotoluene	<0.0010	mg/Kg - dry	0.0010	0.0025	1	05/07/14 12:09	ACS	L198395
1,2-Dibromo-3-Chloropropane	<0.0064	mg/Kg - dry	0.0064	0.0126	1	05/07/14 12:09	ACS	L198395
1,2-Dibromoethane	<0.0014	mg/Kg - dry	0.0014	0.0025	1	05/07/14 12:09	ACS	L198395
Dibromomethane	<0.0014	mg/Kg - dry	0.0014	0.0025	1	05/07/14 12:09	ACS	L198395
1,2-Dichlorobenzene	<0.0012	mg/Kg - dry	0.0012	0.0025	1	05/07/14 12:09	ACS	L198395
1,3-Dichlorobenzene	<0.0010	mg/Kg - dry	0.0010	0.0025	1	05/07/14 12:09	ACS	L198395
1,4-Dichlorobenzene	<0.0010	mg/Kg - dry	0.0010	0.0025	1	05/07/14 12:09	ACS	L198395
Dichlorodifluoromethane	<0.0007	mg/Kg - dry	0.0007	0.0025	1	05/07/14 12:09	ACS	L198395
1,1-Dichloroethane	<0.0004	mg/Kg - dry	0.0004	0.0025	1	05/07/14 12:09	ACS	L198395
1,2-Dichloroethane	<0.0013	mg/Kg - dry	0.0013	0.0025	1	05/07/14 12:09	ACS	L198395
1,1-Dichloroethene	<0.0006	mg/Kg - dry	0.0006	0.0025	1	05/07/14 12:09	ACS	L198395
cis-1,2-Dichloroethene	<0.0007	mg/Kg - dry	0.0007	0.0025	1	05/07/14 12:09	ACS	L198395
trans-1,2-Dichloroethene	<0.0005	mg/Kg - dry	0.0005	0.0025	1	05/07/14 12:09	ACS	L198395
1,2-Dichloroethene (Total)	<0.0005	mg/Kg - dry	0.0005	0.0025	1	05/07/14 12:09		L198395
1,2-Dichloropropane	<0.0014	mg/Kg - dry	0.0014	0.0025	1	05/07/14 12:09	ACS	L198395
1,3-Dichloropropane	<0.0014	mg/Kg - dry	0.0014	0.0025	1	05/07/14 12:09	ACS	L198395
2,2-Dichloropropane	<0.0009	mg/Kg - dry	0.0009	0.0025	1	05/07/14 12:09	ACS	L198395
1,1-Dichloropropene	<0.0012	mg/Kg - dry	0.0012	0.0025	1	05/07/14 12:09	ACS	L198395
cis-1,3-Dichloropropene	<0.0007	mg/Kg - dry	0.0007	0.0025	1	05/07/14 12:09	ACS	L198395
trans-1,3-Dichloropropene	<0.0012	mg/Kg - dry	0.0012	0.0025	1	05/07/14 12:09	ACS	L198395
Ethyl Acetate	<0.0020	mg/Kg - dry	0.0020	0.0506	1	05/07/14 12:09	ACS	L198395

**Qualifiers/  
Definitions**

*	Outside QC limit	B	Analyte detected in blank
DF	Dilution Factor	I	Recovery out of range
J	Estimated value	MQL	Method Quantitation Limit

03180

Ensafe  
Mr. Wes Goodnight  
5724 Summer Tree Drive  
Memphis, TN 38134

Project ID :  
Project : Basement Removal - 2nd and Chelsea  
Information : Memphis, TN  
Project No. 0888815441

Report Date : 05/08/2014  
Received : 5/2/2014

Report Number : **14-122-0245**

**REPORT OF ANALYSIS**

Lab No : **97803**

Matrix: **Solids**

Sample ID : **CHELSEBASE0209**

Sampled: **5/1/2014 15:05**

**Analytical Method:** 8260B

**Prep Method:** 5030A

**Prep Batch(es):** L198380

**Date/Time Prepped:** 5/7/2014 08:00:00

Test	Results	Units	MDL	MQL	DF	Date / Time Analyzed	By	Analytical Batch
Ethylbenzene	<b>0.0023 J</b>	mg/Kg - dry	0.0007	0.0025	1	05/07/14 12:09	ACS	L198395
Hexachlorobutadiene	<0.0010	mg/Kg - dry	0.0010	0.0025	1	05/07/14 12:09	ACS	L198395
2-Hexanone	<0.0025	mg/Kg - dry	0.0025	0.0126	1	05/07/14 12:09	ACS	L198395
Iodomethane	<0.0012	mg/Kg - dry	0.0012	0.0126	1	05/07/14 12:09	ACS	L198395
Isopropylbenzene	<0.0004	mg/Kg - dry	0.0004	0.0025	1	05/07/14 12:09	ACS	L198395
4-Isopropyl toluene	<0.0006	mg/Kg - dry	0.0006	0.0025	1	05/07/14 12:09	ACS	L198395
Methyl tert-butyl ether (MTBE)	<0.0005	mg/Kg - dry	0.0005	0.0025	1	05/07/14 12:09	ACS	L198395
4-Methyl-2-Pentanone	<0.0037	mg/Kg - dry	0.0037	0.0126	1	05/07/14 12:09	ACS	L198395
Methylene Chloride	<0.0020	mg/Kg - dry	0.0020	0.0126	1	05/07/14 12:09	ACS	L198395
Naphthalene	<0.0040	mg/Kg - dry	0.0040	0.0126	1	05/07/14 12:09	ACS	L198395
n-Propylbenzene	<b>0.0008 J</b>	mg/Kg - dry	0.0003	0.0025	1	05/07/14 12:09	ACS	L198395
Styrene	<0.0004	mg/Kg - dry	0.0004	0.0025	1	05/07/14 12:09	ACS	L198395
1,1,1,2-Tetrachloroethane	<0.0006	mg/Kg - dry	0.0006	0.0025	1	05/07/14 12:09	ACS	L198395
1,1,2,2-Tetrachloroethane	<0.0007	mg/Kg - dry	0.0007	0.0025	1	05/07/14 12:09	ACS	L198395
Tetrachloroethene	<0.0020	mg/Kg - dry	0.0020	0.0025	1	05/07/14 12:09	ACS	L198395
Toluene	<b>0.0045 J</b>	mg/Kg - dry	0.0032	0.0126	1	05/07/14 12:09	ACS	L198395
1,2,3-Trichlorobenzene	<0.0013	mg/Kg - dry	0.0013	0.0025	1	05/07/14 12:09	ACS	L198395
1,2,4-Trichlorobenzene	<0.0018	mg/Kg - dry	0.0018	0.0025	1	05/07/14 12:09	ACS	L198395
1,1,1-Trichloroethane	<0.0010	mg/Kg - dry	0.0010	0.0025	1	05/07/14 12:09	ACS	L198395
1,1,2-Trichloroethane	<0.0021	mg/Kg - dry	0.0021	0.0025	1	05/07/14 12:09	ACS	L198395
Trichloroethene	<0.0017	mg/Kg - dry	0.0017	0.0025	1	05/07/14 12:09	ACS	L198395
Trichlorofluoromethane	<0.0010	mg/Kg - dry	0.0010	0.0025	1	05/07/14 12:09	ACS	L198395

**Qualifiers/  
Definitions**

*	Outside QC limit	B	Analyte detected in blank
DF	Dilution Factor	I	Recovery out of range
J	Estimated value	MQL	Method Quantitation Limit

03180

Ensafe  
Mr. Wes Goodnight  
5724 Summer Tree Drive  
Memphis, TN 38134

Project ID :  
Project : Basement Removal - 2nd and Chelsea  
Information : Memphis, TN  
Project No. 0888815441

Report Date : 05/08/2014  
Received : 5/2/2014

Report Number : **14-122-0245**

**REPORT OF ANALYSIS**

Lab No : **97803**

Matrix: **Solids**

Sample ID : **CHELSEBASE0209**

Sampled: **5/1/2014 15:05**

**Analytical Method:** 8260B

**Prep Method:** 5030A

**Prep Batch(es):** L198380

**Date/Time Prepped:** 5/7/2014 08:00:00

Test	Results	Units	MDL	MQL	DF	Date / Time Analyzed	By	Analytical Batch
1,2,3-Trichloropropane	<0.0013	mg/Kg - dry	0.0013	0.0025	1	05/07/14 12:09	ACS	L198395
1,2,4-Trimethylbenzene	<b>0.0035</b>	mg/Kg - dry	0.0008	0.0025	1	05/07/14 12:09	ACS	L198395
1,3,5-Trimethylbenzene	<b>0.0011 J</b>	mg/Kg - dry	0.0004	0.0025	1	05/07/14 12:09	ACS	L198395
Vinyl Acetate	<0.0033	mg/Kg - dry	0.0033	0.0506	1	05/07/14 12:09	ACS	L198395
Vinyl Chloride	<0.0008	mg/Kg - dry	0.0008	0.0025	1	05/07/14 12:09	ACS	L198395
o-Xylene	<b>0.0028</b>	mg/Kg - dry	0.0010	0.0025	1	05/07/14 12:09	ACS	L198395
m,p-Xylene	<b>0.0076</b>	mg/Kg - dry	0.0009	0.0050	1	05/07/14 12:09	ACS	L198395
Xylene (Total)	<b>0.0105</b>	mg/Kg - dry	0.0009	0.0050	1	05/07/14 12:09		L198395
Surrogate: 4-Bromofluorobenzene	91.4		Limits: 60-130%		1	05/07/14 12:09	ACS	L198395
Surrogate: 1,2-Dichloroethane - d4	107		Limits: 60-132%		1	05/07/14 12:09	ACS	L198395
Surrogate: Toluene-d8	98.5		Limits: 70-122%		1	05/07/14 12:09	ACS	L198395

**Analytical Method:** 8270C SIM

**Prep Method:** 3546

**Prep Batch(es):** L198049

**Date/Time Prepped:** 5/5/2014 08:30:00

Test	Results	Units	MDL	MQL	DF	Date / Time Analyzed	By	Analytical Batch
Acenaphthene	<0.000109	mg/Kg - dry	0.000109	0.000833	1	05/05/14 14:29	NFP	L198132
Acenaphthylene	<0.000064	mg/Kg - dry	0.000064	0.000833	1	05/05/14 14:29	NFP	L198132
Anthracene	<0.000267	mg/Kg - dry	0.000267	0.000833	1	05/05/14 14:29	NFP	L198132
Benzo(a)anthracene	<0.000719	mg/Kg - dry	0.000719	0.000833	1	05/05/14 14:29	NFP	L198132
Benzo(a)pyrene	<0.000680	mg/Kg - dry	0.000680	0.000833	1	05/05/14 14:29	NFP	L198132
Benzo(b)fluoranthene	<0.000344	mg/Kg - dry	0.000344	0.000833	1	05/05/14 14:29	NFP	L198132
Benzo(g,h,i)perylene	<0.000263	mg/Kg - dry	0.000263	0.000833	1	05/05/14 14:29	NFP	L198132

Qualifiers/Definitions				
*	Outside QC limit		B	Analyte detected in blank
DF	Dilution Factor		I	Recovery out of range
J	Estimated value		MQL	Method Quantitation Limit

03180

Ensafe  
Mr. Wes Goodnight  
5724 Summer Tree Drive  
Memphis, TN 38134

Project ID :  
Project : Basement Removal - 2nd and Chelsea  
Information : Memphis, TN  
Project No. 0888815441

Report Date : 05/08/2014  
Received : 5/2/2014

Report Number : **14-122-0245**

**REPORT OF ANALYSIS**

Lab No : **97803**

Matrix: **Solids**

Sample ID : **CHELSEBASE0209**

Sampled: **5/1/2014 15:05**

**Analytical Method:** 8270C SIM

**Prep Method:** 3546

**Prep Batch(es):** L198049

**Date/Time Prepped:** 5/5/2014 08:30:00

Test	Results	Units	MDL	MQL	DF	Date / Time Analyzed	By	Analytical Batch
Benzo(k)fluoranthene	<0.000242	mg/Kg - dry	0.000242	0.000833	1	05/05/14 14:29	NFP	L198132
Chrysene	<0.000393	mg/Kg - dry	0.000393	0.000833	1	05/05/14 14:29	NFP	L198132
Dibenz(a,h)anthracene	<0.000359	mg/Kg - dry	0.000359	0.000833	1	05/05/14 14:29	NFP	L198132
Fluoranthene	<0.000232	mg/Kg - dry	0.000232	0.000833	1	05/05/14 14:29	NFP	L198132
Fluorene	<0.000234	mg/Kg - dry	0.000234	0.000833	1	05/05/14 14:29	NFP	L198132
Indeno(1,2,3-cd)pyrene	<0.000277	mg/Kg - dry	0.000277	0.000833	1	05/05/14 14:29	NFP	L198132
2-Methylnaphthalene	<0.000148	mg/Kg - dry	0.000148	0.000833	1	05/05/14 14:29	NFP	L198132
Naphthalene	<0.000236	mg/Kg - dry	0.000236	0.000833	1	05/05/14 14:29	NFP	L198132
Phenanthrene	<0.000598	mg/Kg - dry	0.000598	0.000833	1	05/05/14 14:29	NFP	L198132
Pyrene	<0.000241	mg/Kg - dry	0.000241	0.000833	1	05/05/14 14:29	NFP	L198132
Surrogate: 2-Fluorobiphenyl	66.8		Limits: 33-115%		1	05/05/14 14:29	NFP	L198132
Surrogate: Nitrobenzene-d5	68.0		Limits: 29-110%		1	05/05/14 14:29	NFP	L198132
Surrogate: 4-Terphenyl-d14	74.4		Limits: 33-122%		1	05/05/14 14:29	NFP	L198132

Qualifiers/Definitions	*	Outside QC limit	B	Analyte detected in blank
	DF	Dilution Factor	I	Recovery out of range





QC Report

Client ID Ensafe
Project Description Basement Removal - 2nd and Chelsea
Report No 14-122-0245

Analytical Method: 2540G-2011

Batch: L197990

Duplicate - L 97803-DUP

QC Measurement: RPD

DateTime Analyzed: 05/02/2014 02:16 PM

Table with 7 columns: Test Description, QC Result, Criteria, DUP Result, Sample Conc., MDL, Dilution. Row 1: % Moisture, 0.4 %, <15.0, 20.7 %, 20.8, 0.000, 1

**QC Report**

Client ID                   **Ensafe**  
 Project Description       Basement Removal - 2nd and Chelsea  
 Report No                 14-122-0245

**Analytical Method: 6010B**

**Batch: L198361**

**Prep Method: 3050B**

**Batch: L198224 5-6-14 10:50**

**Lab Reagent Blank - LRB-L198224**

**QC Measurement:    Limit**

**DateTime Analyzed: 05/06/2014 07:34 PM**

<u>Test Description</u>	<u>LRB Result</u>	<u>MDL</u>	<u>MQL</u>	<u>Dilution</u>
Total Arsenic	<0.710 mg/Kg	0.710	0.500	1
Total Barium	<0.058 mg/Kg	0.058	0.500	1
Total Cadmium	<0.0152 mg/Kg	0.0152	0.100	1
Total Chromium	<0.034 mg/Kg	0.034	0.250	1
Total Lead	<0.143 mg/Kg	0.143	0.300	1
Total Silver	<0.0272 mg/Kg	0.0272	0.250	1

**Laboratory Control Sample - LCS-L198224**

**QC Measurement:    % Recovery**

**DateTime Analyzed: 05/06/2014 07:31 PM**

<u>Test Description</u>	<u>QC Result</u>	<u>Criteria</u>	<u>LCS Result</u>	<u>LCS Conc.</u>	<u>MDL</u>	<u>Dilution</u>
Total Arsenic	103 %	80-120%	5.16 mg/Kg	5.00	0.710	1
Total Barium	108 %	80-120%	53.9 mg/Kg	50.0	0.058	1
Total Cadmium	106 %	80-120%	5.32 mg/Kg	5.00	0.0152	1
Total Chromium	109 %	80-120%	54.7 mg/Kg	50.0	0.034	1
Total Lead	109 %	80-120%	5.45 mg/Kg	5.00	0.143	1
Total Silver	106 %	80-120%	5.29 mg/Kg	5.00	0.0272	1

**Matrix Spike - L 97636-MS-L198224**

**QC Measurement:    % Recovery**

**DateTime Analyzed: 05/06/2014 09:33 PM**

<u>Test Description</u>	<u>QC Result</u>	<u>Criteria</u>	<u>MS Result</u>	<u>MS Conc.</u>	<u>Sample Conc.</u>	<u>MDL</u>	<u>Dilution</u>
Total Arsenic	102 %	75-125%	4.96 mg/Kg	4.88	< 0.710	0.710	1
Total Barium	102 %	75-125%	59.6 mg/Kg	48.8	9.78	0.058	1
Total Cadmium	98.9 %	75-125%	4.83 mg/Kg	4.88	< 0.0152	0.0152	1
Total Chromium	107 %	75-125%	53.3 mg/Kg	48.8	1.14	0.034	1
Total Lead	103 %	75-125%	5.82 mg/Kg	4.88	0.788	0.143	1
Total Silver	105 %	75-125%	5.11 mg/Kg	4.88	< 0.0272	0.0272	1

**QC Report**

Client ID **Ensafe**  
 Project Description **Basement Removal - 2nd and Chelsea**  
 Report No **14-122-0245**

**Analytical Method: 6010B**

**Batch: L198361**

**Prep Method: 3050B**

**Batch: L198224 5-6-14 10:50**

**Matrix Spike Duplicate - L 97636-MSD-L198224**

**QC Measurement: % Recovery**

**DateTime Analyzed: 05/06/2014 09:37 PM**

Test Description	QC Result	Criteria	MSD Result	MSD Conc.	Sample Conc.	MDL	Dilution
Total Arsenic	102 %	75-125%	5.00 mg/Kg	4.90	< 0.710	0.710	1
Total Barium	102 %	75-125%	59.7 mg/Kg	49.0	9.78	0.058	1
Total Cadmium	99.6 %	75-125%	4.88 mg/Kg	4.90	< 0.0152	0.0152	1
Total Chromium	106 %	75-125%	53.2 mg/Kg	49.0	1.14	0.034	1
Total Lead	105 %	75-125%	5.91 mg/Kg	4.90	0.788	0.143	1
Total Silver	103 %	75-125%	5.04 mg/Kg	4.90	< 0.0272	0.0272	1

**Matrix Spike Duplicate - L 97636-MSD-L198224**

**QC Measurement: RPD**

**DateTime Analyzed: 05/06/2014 09:37 PM**

Test Description	QC Result	Criteria	MSD Result	MSD Conc.	Sample Conc.	MDL	Dilution
Total Arsenic	0.8 %	<20.0	5.00 mg/Kg		4.96	0.710	1
Total Barium	0.1 %	<20.0	59.7 mg/Kg		59.6	0.058	1
Total Cadmium	1.0 %	<20.0	4.88 mg/Kg		4.83	0.0152	1
Total Chromium	0.1 %	<20.0	53.2 mg/Kg		53.3	0.034	1
Total Lead	1.5 %	<20.0	5.91 mg/Kg		5.82	0.143	1
Total Silver	1.3 %	<20.0	5.04 mg/Kg		5.11	0.0272	1

**QC Report**

Client ID                   **Ensafe**  
 Project Description       Basement Removal - 2nd and Chelsea  
 Report No                 14-122-0245

**Analytical Method: 7471A**

**Batch: L198260**

**Prep Method: 7471A**

**Batch: L198159   05/06/14 07:00**

**Lab Reagent Blank - LRB-L198159**

**QC Measurement:   Limit**

**DateTime Analyzed: 05/06/2014 11:24 AM**

<u>Test Description</u>	<u>LRB Result</u>	<u>MDL</u>	<u>MQL</u>	<u>Dilution</u>
Total Mercury	<0.00263 mg/Kg	0.00263	0.0133	1

**Laboratory Control Sample - LCS-L198159**

**QC Measurement:   % Recovery**

**DateTime Analyzed: 05/06/2014 11:26 AM**

<u>Test Description</u>	<u>QC Result</u>	<u>Criteria</u>	<u>LCS Result</u>	<u>LCS Conc.</u>	<u>MDL</u>	<u>Dilution</u>
Total Mercury	107 %	80-120%	0.357 mg/Kg	0.333	0.00263	1

**Matrix Spike - L 97927-MS-L198159**

**QC Measurement:   % Recovery**

**DateTime Analyzed: 05/06/2014 11:30 AM**

<u>Test Description</u>	<u>QC Result</u>	<u>Criteria</u>	<u>MS Result</u>	<u>MS Conc.</u>	<u>Sample Conc.</u>	<u>MDL</u>	<u>Dilution</u>
Total Mercury	107 %	80-120%	0.355 mg/Kg	0.314	0.0205	0.00263	1

**Matrix Spike Duplicate - L 97927-MSD-L198159**

**QC Measurement:   % Recovery**

**DateTime Analyzed: 05/06/2014 11:32 AM**

<u>Test Description</u>	<u>QC Result</u>	<u>Criteria</u>	<u>MSD Result</u>	<u>MSD Conc.</u>	<u>Sample Conc.</u>	<u>MDL</u>	<u>Dilution</u>
Total Mercury	109 %	80-120%	0.336 mg/Kg	0.290	0.0205	0.00263	1

**Matrix Spike Duplicate - L 97927-MSD-L198159**

**QC Measurement:   RPD**

**DateTime Analyzed: 05/06/2014 11:32 AM**

<u>Test Description</u>	<u>QC Result</u>	<u>Criteria</u>	<u>MSD Result</u>	<u>MSD Conc.</u>	<u>Sample Conc.</u>	<u>MDL</u>	<u>Dilution</u>
Total Mercury	5.4 %	<20.0	0.336 mg/Kg		0.355	0.00263	1

## QC Report

Client ID                   **Ensafe**  
 Project Description       Basement Removal - 2nd and Chelsea  
 Report No                 14-122-0245

**Analytical Method: 8260B**

**Batch: L198395**

**Prep Method: 5030A**

**Batch: L198380   5/7/14 8:00**

**Lab Reagent Blank - LRB-L198380**

**QC Measurement:   Limit**

**DateTime Analyzed: 05/07/2014 11:13 AM**

Test Description	LRB Result	Qualifier	MDL	SQL	Dilution
Acetone	0.0116 mg/Kg	J	0.0046	0.0400	1
Acetonitrile	<0.0128 mg/Kg		0.0128	0.100	1
Acrolein	<0.0101 mg/Kg		0.0101	0.0400	1
Acrylonitrile	<0.0080 mg/Kg		0.0080	0.0400	1
Benzene	<0.0008 mg/Kg		0.0008	0.0020	1
Bromobenzene	<0.0009 mg/Kg		0.0009	0.0020	1
Bromochloromethane	<0.0007 mg/Kg		0.0007	0.0020	1
Bromodichloromethane	<0.0004 mg/Kg		0.0004	0.0020	1
Bromoform	<0.0006 mg/Kg		0.0006	0.0020	1
Bromomethane	<0.0012 mg/Kg		0.0012	0.0020	1
Methyl Ethyl Ketone (MEK)	<0.0061 mg/Kg		0.0061	0.0400	1
n-Butylbenzene	<0.0007 mg/Kg		0.0007	0.0020	1
sec-Butyl benzene	<0.0003 mg/Kg		0.0003	0.0020	1
tert-Butyl benzene	<0.0014 mg/Kg		0.0014	0.0020	1
Carbon Disulfide	<0.0004 mg/Kg		0.0004	0.0020	1
Carbon Tetrachloride	<0.0005 mg/Kg		0.0005	0.0020	1
Chlorobenzene	<0.0008 mg/Kg		0.0008	0.0020	1
Chlorodibromomethane	<0.0009 mg/Kg		0.0009	0.0020	1
Chloroethane	<0.0003 mg/Kg		0.0003	0.0020	1
2-Chloroethylvinyl Ether	<0.0020 mg/Kg		0.0020	0.0020	1
Chloroform	<0.0004 mg/Kg		0.0004	0.0020	1
Chloromethane	<0.0007 mg/Kg		0.0007	0.0020	1
2-Chlorotoluene	<0.0002 mg/Kg		0.0002	0.0020	1
4-Chlorotoluene	<0.0008 mg/Kg		0.0008	0.0020	1
1,2-Dibromo-3-Chloropropane	<0.0050 mg/Kg		0.0050	0.0100	1
1,2-Dibromoethane	<0.0011 mg/Kg		0.0011	0.0020	1
Dibromomethane	<0.0011 mg/Kg		0.0011	0.0020	1
1,2-Dichlorobenzene	<0.0010 mg/Kg		0.0010	0.0020	1
1,3-Dichlorobenzene	<0.0008 mg/Kg		0.0008	0.0020	1

**QC Report**

Client ID                   **Ensafe**  
Project Description       Basement Removal - 2nd and Chelsea  
Report No                   14-122-0245

**Analytical Method: 8260B**

**Batch: L198395**

**Prep Method: 5030A**

**Batch: L198380   5/7/14 8:00**

**Lab Reagent Blank - LRB-L198380**

**QC Measurement:   Limit**

**DateTime Analyzed: 05/07/2014 11:13 AM**

<b>Test Description</b>	<b>LRB Result</b>	<b>Qualifier</b>	<b>MDL</b>	<b>SQL</b>	<b>Dilution</b>
1,4-Dichlorobenzene	<0.0007 mg/Kg		0.0007	0.0020	1
Dichlorodifluoromethane	<0.0005 mg/Kg		0.0005	0.0020	1
1,1-Dichloroethane	<0.0003 mg/Kg		0.0003	0.0020	1
1,2-Dichloroethane	<0.0010 mg/Kg		0.0010	0.0020	1
1,1-Dichloroethene	<0.0004 mg/Kg		0.0004	0.0020	1
cis-1,2-Dichloroethene	<0.0005 mg/Kg		0.0005	0.0020	1
trans-1,2-Dichloroethene	<0.0004 mg/Kg		0.0004	0.0020	1
1,2-Dichloropropane	<0.0011 mg/Kg		0.0011	0.0020	1
1,3-Dichloropropane	<0.0011 mg/Kg		0.0011	0.0020	1
2,2-Dichloropropane	<0.0007 mg/Kg		0.0007	0.0020	1
1,1-Dichloropropene	<0.0009 mg/Kg		0.0009	0.0020	1
cis-1,3-Dichloropropene	<0.0006 mg/Kg		0.0006	0.0020	1
trans-1,3-Dichloropropene	<0.0009 mg/Kg		0.0009	0.0020	1
Ethyl Acetate	<0.0016 mg/Kg		0.0016	0.0400	1
Ethylbenzene	<0.0005 mg/Kg		0.0005	0.0020	1
Hexachlorobutadiene	0.0012 mg/Kg	J	0.0008	0.0020	1
2-Hexanone	<0.0019 mg/Kg		0.0019	0.0100	1
Iodomethane	<0.0009 mg/Kg		0.0009	0.0100	1
Isopropylbenzene	<0.0003 mg/Kg		0.0003	0.0020	1
4-Isopropyl toluene	<0.0005 mg/Kg		0.0005	0.0020	1
Methyl tert-butyl ether (MTBE)	<0.0004 mg/Kg		0.0004	0.0020	1
4-Methyl-2-Pentanone	<0.0029 mg/Kg		0.0029	0.0100	1
Methylene Chloride	0.0024 mg/Kg	J	0.0015	0.0100	1
Naphthalene	0.0033 mg/Kg	J	0.0031	0.0100	1
n-Propylbenzene	<0.0002 mg/Kg		0.0002	0.0020	1
Styrene	<0.0003 mg/Kg		0.0003	0.0020	1
1,1,1,2-Tetrachloroethane	<0.0005 mg/Kg		0.0005	0.0020	1
1,1,2,2-Tetrachloroethane	<0.0006 mg/Kg		0.0006	0.0020	1
Tetrachloroethene	<0.0016 mg/Kg		0.0016	0.0020	1

**QC Report**

Client ID                   **Ensafe**  
Project Description       Basement Removal - 2nd and Chelsea  
Report No                   14-122-0245

**Analytical Method: 8260B**

**Batch: L198395**

**Prep Method: 5030A**

**Batch: L198380   5/7/14 8:00**

**Lab Reagent Blank - LRB-L198380**

**QC Measurement:   Limit**

**DateTime Analyzed: 05/07/2014 11:13 AM**

<b>Test Description</b>	<b>LRB Result</b>	<b>Qualifier</b>	<b>MDL</b>	<b>SQL</b>	<b>Dilution</b>
Toluene	<0.0025 mg/Kg		0.0025	0.0100	1
1,2,3-Trichlorobenzene	<0.0010 mg/Kg		0.0010	0.0020	1
1,2,4-Trichlorobenzene	<0.0014 mg/Kg		0.0014	0.0020	1
1,1,1-Trichloroethane	<0.0008 mg/Kg		0.0008	0.0020	1
1,1,2-Trichloroethane	<0.0017 mg/Kg		0.0017	0.0020	1
Trichloroethene	<0.0013 mg/Kg		0.0013	0.0020	1
Trichlorofluoromethane	<0.0008 mg/Kg		0.0008	0.0020	1
1,2,3-Trichloropropane	<0.0010 mg/Kg		0.0010	0.0020	1
1,2,4-Trimethylbenzene	<0.0006 mg/Kg		0.0006	0.0020	1
1,3,5-Trimethylbenzene	<0.0003 mg/Kg		0.0003	0.0020	1
Vinyl Acetate	<0.0026 mg/Kg		0.0026	0.0400	1
Vinyl Chloride	<0.0006 mg/Kg		0.0006	0.0020	1
o-Xylene	<0.0008 mg/Kg		0.0008	0.0020	1
m,p-Xylene	<0.0007 mg/Kg		0.0007	0.0040	1

**Surrogate Recovery:**

4-Bromofluorobenzene	87.0	0.0870 mg/Kg	0.100		1
1,2-Dichloroethane - d4	90.3	0.0903 mg/Kg	0.100		1
Toluene-d8	82.6	0.0826 mg/Kg	0.100		1

**Laboratory Control Sample - LCS-L198380**

**QC Measurement:   % Recovery**

**DateTime Analyzed: 05/07/2014 09:41 AM**

<b>Test Description</b>	<b>QC Result</b>	<b>Criteria</b>	<b>LCS Result</b>	<b>LCS Conc.</b>	<b>MDL</b>	<b>Dilution</b>
Acetone	138 %	40-140%	0.275 mg/Kg	0.200	0.0046	1
Acetonitrile	112 %	40-140%	2.24 mg/Kg	2.00	0.0128	1
Acrolein	79.5 %	40-140%	0.159 mg/Kg	0.200	0.0101	1
Acrylonitrile	109 %	40-140%	0.218 mg/Kg	0.200	0.0080	1
Benzene	99.5 %	80-120%	0.199 mg/Kg	0.200	0.0008	1
Bromobenzene	96.0 %	75-125%	0.192 mg/Kg	0.200	0.0009	1



## QC Report

Client ID                   **Ensafe**  
 Project Description       Basement Removal - 2nd and Chelsea  
 Report No                   14-122-0245

**Analytical Method: 8260B**

**Batch: L198395**

**Prep Method: 5030A**

**Batch: L198380 5/7/14 8:00**

**Laboratory Control Sample - LCS-L198380**

**QC Measurement:    % Recovery**

**DateTime Analyzed: 05/07/2014 09:41 AM**

Test Description	QC Result	Criteria	LCS Result	LCS Conc.	MDL	Dilution
Bromochloromethane	117 %	65-130%	0.234 mg/Kg	0.200	0.0007	1
Bromodichloromethane	109 %	75-120%	0.217 mg/Kg	0.200	0.0004	1
Bromoform	107 %	70-130%	0.213 mg/Kg	0.200	0.0006	1
Bromomethane	77.5 %	40-140%	0.155 mg/Kg	0.200	0.0012	1
Methyl Ethyl Ketone (MEK)	133 %	40-140%	0.266 mg/Kg	0.200	0.0061	1
n-Butylbenzene	104 %	70-135%	0.208 mg/Kg	0.200	0.0007	1
sec-Butyl benzene	106 %	70-125%	0.211 mg/Kg	0.200	0.0003	1
tert-Butyl benzene	105 %	70-130%	0.209 mg/Kg	0.200	0.0014	1
Carbon Disulfide	91.5 %	40-140%	0.183 mg/Kg	0.200	0.0004	1
Carbon Tetrachloride	121 %	65-140%	0.241 mg/Kg	0.200	0.0005	1
Chlorobenzene	101 %	80-120%	0.201 mg/Kg	0.200	0.0008	1
Chlorodibromomethane	98.5 %	75-120%	0.197 mg/Kg	0.200	0.0009	1
Chloroethane	114 %	60-135%	0.227 mg/Kg	0.200	0.0003	1
2-Chloroethylvinyl Ether	114 %	40-140%	0.228 mg/Kg	0.200	0.0020	1
Chloroform	113 %	80-120%	0.225 mg/Kg	0.200	0.0004	1
Chloromethane	119 %	40-125%	0.238 mg/Kg	0.200	0.0007	1
2-Chlorotoluene	97.0 %	75-125%	0.194 mg/Kg	0.200	0.0002	1
4-Chlorotoluene	96.5 %	75-130%	0.193 mg/Kg	0.200	0.0008	1
1,2-Dibromo-3-Chloropropane	91.0 %	50-130%	0.182 mg/Kg	0.200	0.0050	1
1,2-Dibromoethane	101 %	80-120%	0.202 mg/Kg	0.200	0.0011	1
Dibromomethane	105 %	75-125%	0.209 mg/Kg	0.200	0.0011	1
1,2-Dichlorobenzene	91.5 %	70-120%	0.183 mg/Kg	0.200	0.0010	1
1,3-Dichlorobenzene	110 %	75-125%	0.220 mg/Kg	0.200	0.0008	1
1,4-Dichlorobenzene	93.0 %	75-125%	0.186 mg/Kg	0.200	0.0007	1
Dichlorodifluoromethane	90.5 %	40-140%	0.181 mg/Kg	0.200	0.0005	1
1,1-Dichloroethane	107 %	70-135%	0.214 mg/Kg	0.200	0.0003	1
1,2-Dichloroethane	123 %	70-130%	0.245 mg/Kg	0.200	0.0010	1
1,1-Dichloroethene	89.0 %	80-120%	0.178 mg/Kg	0.200	0.0004	1
cis-1,2-Dichloroethene	120 %	70-125%	0.239 mg/Kg	0.200	0.0005	1

**QC Report**

Client ID                   **Ensafe**  
 Project Description       Basement Removal - 2nd and Chelsea  
 Report No                   14-122-0245

**Analytical Method: 8260B**

**Batch: L198395**

**Prep Method: 5030A**

**Batch: L198380   5/7/14 8:00**

**Laboratory Control Sample - LCS-L198380**

**QC Measurement:   % Recovery**

**DateTime Analyzed: 05/07/2014 09:41 AM**

Test Description	QC Result	Criteria	LCS Result	LCS Conc.	MDL	Dilution
trans-1,2-Dichloroethene	95.0 %	60-140%	0.190 mg/Kg	0.200	0.0004	1
1,2-Dichloropropane	116 %	80-120%	0.231 mg/Kg	0.200	0.0011	1
1,3-Dichloropropane	119 %	75-125%	0.238 mg/Kg	0.200	0.0011	1
2,2-Dichloropropane	122 %	70-135%	0.243 mg/Kg	0.200	0.0007	1
1,1-Dichloropropene	119 %	75-130%	0.238 mg/Kg	0.200	0.0009	1
cis-1,3-Dichloropropene	122 %	70-130%	0.244 mg/Kg	0.200	0.0006	1
trans-1,3-Dichloropropene	120 %	55-140%	0.239 mg/Kg	0.200	0.0009	1
Ethyl Acetate	104 %	40-125%	0.208 mg/Kg	0.200	0.0016	1
Ethylbenzene	93.5 %	80-120%	0.187 mg/Kg	0.200	0.0005	1
Hexachlorobutadiene	98.0 %	50-140%	0.196 mg/Kg	0.200	0.0008	1
2-Hexanone	117 %	55-130%	0.234 mg/Kg	0.200	0.0019	1
Iodomethane	102 %	40-125%	0.204 mg/Kg	0.200	0.0009	1
Isopropylbenzene	99.5 %	75-125%	0.199 mg/Kg	0.200	0.0003	1
4-Isopropyl toluene	110 %	75-130%	0.220 mg/Kg	0.200	0.0005	1
Methyl tert-butyl ether (MTBE)	105 %	65-125%	0.209 mg/Kg	0.200	0.0004	1
4-Methyl-2-Pentanone	116 %	60-135%	0.231 mg/Kg	0.200	0.0029	1
Methylene Chloride	110 %	55-140%	0.220 mg/Kg	0.200	0.0015	1
Naphthalene	96.5 %	55-140%	0.193 mg/Kg	0.200	0.0031	1
n-Propylbenzene	103 %	70-130%	0.205 mg/Kg	0.200	0.0002	1
Styrene	110 %	65-135%	0.219 mg/Kg	0.200	0.0003	1
1,1,1,2-Tetrachloroethane	90.5 %	70-130%	0.181 mg/Kg	0.200	0.0005	1
1,1,1,2,2-Tetrachloroethane	96.0 %	65-130%	0.192 mg/Kg	0.200	0.0006	1
Tetrachloroethene	122 %	60-145%	0.243 mg/Kg	0.200	0.0016	1
Toluene	116 %	80-120%	0.231 mg/Kg	0.200	0.0025	1
1,2,3-Trichlorobenzene	111 %	55-140%	0.221 mg/Kg	0.200	0.0010	1
1,2,4-Trichlorobenzene	104 %	65-135%	0.207 mg/Kg	0.200	0.0014	1
1,1,1-Trichloroethane	117 %	65-130%	0.233 mg/Kg	0.200	0.0008	1
1,1,2-Trichloroethane	108 %	75-125%	0.216 mg/Kg	0.200	0.0017	1
Trichloroethene	108 %	70-125%	0.216 mg/Kg	0.200	0.0013	1

**QC Report**

Client ID                   **Ensafe**  
Project Description       Basement Removal - 2nd and Chelsea  
Report No                   14-122-0245

**Analytical Method: 8260B**

**Batch: L198395**

**Prep Method: 5030A**

**Batch: L198380 5/7/14 8:00**

**Laboratory Control Sample - LCS-L198380**

**QC Measurement:    % Recovery**

**DateTime Analyzed: 05/07/2014 09:41 AM**

Test Description	QC Result	Criteria	LCS Result	LCS Conc.	MDL	Dilution
Trichlorofluoromethane	107 %	45-150%	0.214 mg/Kg	0.200	0.0008	1
1,2,3-Trichloropropane	102 %	75-125%	0.204 mg/Kg	0.200	0.0010	1
1,2,4-Trimethylbenzene	101 %	75-130%	0.201 mg/Kg	0.200	0.0006	1
1,3,5-Trimethylbenzene	97.5 %	75-130%	0.195 mg/Kg	0.200	0.0003	1
Vinyl Acetate	121 %	40-125%	0.242 mg/Kg	0.200	0.0026	1
Vinyl Chloride	118 %	80-120%	0.236 mg/Kg	0.200	0.0006	1
o-Xylene	99.5 %	75-130%	0.199 mg/Kg	0.200	0.0008	1
m,p-Xylene	97.2 %	75-130%	0.389 mg/Kg	0.400	0.0007	1
<b>Surrogate Recovery:</b>						
4-Bromofluorobenzene	87.1 %	60-130%	0.0871 mg/Kg	0.100		1
1,2-Dichloroethane - d4	104 %	60-132%	0.104 mg/Kg	0.100		1
Toluene-d8	96.0 %	70-122%	0.0960 mg/Kg	0.100		1

**Matrix Spike - L 97803-MS-L198380**

**QC Measurement:    % Recovery**

**DateTime Analyzed: 05/07/2014 05:44 PM**

Test Description	QC Result	Criteria	MS Result	MS Conc.	Sample Conc.	MDL	Dilution
Acetone	100 %	40-140%	0.185 mg/Kg	0.185	<0.0046	0.0046	1
Acetonitrile	81.0 %	40-140%	1.50 mg/Kg	1.85	<0.0128	0.0128	1
Acrolein	65.4 %	40-140%	0.121 mg/Kg	0.185	<0.0101	0.0101	1
Acrylonitrile	85.4 %	40-140%	0.158 mg/Kg	0.185	<0.0080	0.0080	1
Benzene	79.4 % *	80-120%	0.147 mg/Kg	0.185	<0.0008	0.0008	1
Bromobenzene	93.5 %	75-125%	0.173 mg/Kg	0.185	<0.0009	0.0009	1
Bromochloromethane	90.8 %	65-130%	0.168 mg/Kg	0.185	<0.0007	0.0007	1
Bromodichloromethane	100 %	75-120%	0.185 mg/Kg	0.185	<0.0004	0.0004	1
Bromoform	81.6 %	70-130%	0.151 mg/Kg	0.185	<0.0006	0.0006	1
Bromomethane	81.0 %	40-140%	0.150 mg/Kg	0.185	<0.0012	0.0012	1
Methyl Ethyl Ketone (MEK)	100 %	40-140%	0.185 mg/Kg	0.185	<0.0061	0.0061	1
n-Butylbenzene	82.1 %	70-135%	0.152 mg/Kg	0.185	<0.0007	0.0007	1

\* QC Fail

**QC Report**

Client ID                   **Ensafe**  
Project Description       Basement Removal - 2nd and Chelsea  
Report No                   14-122-0245

**Analytical Method: 8260B**

**Batch: L198395**

**Prep Method: 5030A**

**Batch: L198380 5/7/14 8:00**

**Matrix Spike - L 97803-MS-L198380**

**QC Measurement:    % Recovery**

**DateTime Analyzed: 05/07/2014 05:44 PM**

Test Description	QC Result	Criteria	MS Result	MS Conc.	Sample Conc.	MDL	Dilution
sec-Butyl benzene	84.8 %	70-125%	0.157 mg/Kg	0.185	<0.0003	0.0003	1
tert-Butyl benzene	80.5 %	70-130%	0.149 mg/Kg	0.185	<0.0014	0.0014	1
Carbon Disulfide	58.9 %	40-140%	0.109 mg/Kg	0.185	<0.0004	0.0004	1
Carbon Tetrachloride	81.0 %	65-140%	0.150 mg/Kg	0.185	<0.0005	0.0005	1
Chlorobenzene	89.7 %	80-120%	0.166 mg/Kg	0.185	<0.0008	0.0008	1
Chlorodibromomethane	92.9 %	75-120%	0.172 mg/Kg	0.185	<0.0009	0.0009	1
Chloroethane	92.9 %	60-135%	0.172 mg/Kg	0.185	<0.0003	0.0003	1
2-Chloroethylvinyl Ether	114 %	40-140%	0.210 mg/Kg	0.185	<0.0020	0.0020	1
Chloroform	78.3 % *	80-120%	0.145 mg/Kg	0.185	<0.0004	0.0004	1
Chloromethane	84.3 %	40-125%	0.156 mg/Kg	0.185	<0.0007	0.0007	1
2-Chlorotoluene	91.3 %	75-125%	0.169 mg/Kg	0.185	<0.0002	0.0002	1
4-Chlorotoluene	90.8 %	75-130%	0.168 mg/Kg	0.185	<0.0008	0.0008	1
1,2-Dibromo-3-Chloropropane	80.5 %	50-130%	0.149 mg/Kg	0.185	<0.0050	0.0050	1
1,2-Dibromoethane	100 %	80-120%	0.185 mg/Kg	0.185	<0.0011	0.0011	1
Dibromomethane	92.9 %	75-125%	0.172 mg/Kg	0.185	<0.0011	0.0011	1
1,2-Dichlorobenzene	82.1 %	70-120%	0.152 mg/Kg	0.185	<0.0010	0.0010	1
1,3-Dichlorobenzene	89.1 %	75-125%	0.165 mg/Kg	0.185	<0.0008	0.0008	1
1,4-Dichlorobenzene	87.0 %	75-125%	0.161 mg/Kg	0.185	<0.0007	0.0007	1
Dichlorodifluoromethane	58.3 %	40-140%	0.108 mg/Kg	0.185	<0.0005	0.0005	1
1,1-Dichloroethane	88.6 %	70-135%	0.164 mg/Kg	0.185	<0.0003	0.0003	1
1,2-Dichloroethane	88.1 %	70-130%	0.163 mg/Kg	0.185	<0.0010	0.0010	1
1,1-Dichloroethene	65.9 % *	80-120%	0.122 mg/Kg	0.185	<0.0004	0.0004	1
cis-1,2-Dichloroethene	77.8 %	70-125%	0.144 mg/Kg	0.185	<0.0005	0.0005	1
trans-1,2-Dichloroethene	74.5 %	60-140%	0.138 mg/Kg	0.185	<0.0004	0.0004	1
1,2-Dichloropropane	106 %	80-120%	0.196 mg/Kg	0.185	<0.0011	0.0011	1
1,3-Dichloropropane	89.7 %	75-125%	0.166 mg/Kg	0.185	<0.0011	0.0011	1
2,2-Dichloropropane	84.8 %	70-135%	0.157 mg/Kg	0.185	<0.0007	0.0007	1
1,1-Dichloropropene	85.4 %	75-130%	0.158 mg/Kg	0.185	<0.0009	0.0009	1
cis-1,3-Dichloropropene	100 %	70-130%	0.185 mg/Kg	0.185	<0.0006	0.0006	1

\* QC Fail

**QC Report**

Client ID **Ensafe**  
 Project Description **Basement Removal - 2nd and Chelsea**  
 Report No **14-122-0245**

**Analytical Method: 8260B**

**Batch: L198395**

**Prep Method: 5030A**

**Batch: L198380 5/7/14 8:00**

**Matrix Spike - L 97803-MS-L198380**

**QC Measurement: % Recovery**

**DateTime Analyzed: 05/07/2014 05:44 PM**

Test Description	QC Result	Criteria	MS Result	MS Conc.	Sample Conc.	MDL	Dilution
trans-1,3-Dichloropropene	90.2 %	55-140%	0.167 mg/Kg	0.185	<0.0009	0.0009	1
Ethyl Acetate	97.8 %	40-125%	0.181 mg/Kg	0.185	<0.0016	0.0016	1
Ethylbenzene	86.4 %	80-120%	0.160 mg/Kg	0.185	<0.0005	0.0005	1
Hexachlorobutadiene	82.1 %	50-140%	0.152 mg/Kg	0.185	<0.0008	0.0008	1
2-Hexanone	94.0 %	55-130%	0.174 mg/Kg	0.185	<0.0019	0.0019	1
Iodomethane	73.5 %	40-125%	0.136 mg/Kg	0.185	<0.0009	0.0009	1
Isopropylbenzene	88.6 %	75-125%	0.164 mg/Kg	0.185	<0.0003	0.0003	1
4-Isopropyl toluene	89.7 %	75-130%	0.166 mg/Kg	0.185	<0.0005	0.0005	1
Methyl tert-butyl ether (MTBE)	84.3 %	65-125%	0.156 mg/Kg	0.185	<0.0004	0.0004	1
4-Methyl-2-Pentanone	97.2 %	60-135%	0.180 mg/Kg	0.185	<0.0029	0.0029	1
Methylene Chloride	72.9 %	55-140%	0.135 mg/Kg	0.185	<0.0015	0.0015	1
Naphthalene	64.8 %	55-140%	0.120 mg/Kg	0.185	<0.0031	0.0031	1
n-Propylbenzene	85.4 %	70-130%	0.158 mg/Kg	0.185	<0.0002	0.0002	1
Styrene	84.8 %	65-135%	0.157 mg/Kg	0.185	<0.0003	0.0003	1
1,1,1,2-Tetrachloroethane	94.5 %	70-130%	0.175 mg/Kg	0.185	<0.0005	0.0005	1
1,1,1,2-Tetrachloroethane	81.0 %	65-130%	0.150 mg/Kg	0.185	<0.0006	0.0006	1
Tetrachloroethene	103 %	60-145%	0.191 mg/Kg	0.185	<0.0016	0.0016	1
Toluene	93.5 %	80-120%	0.173 mg/Kg	0.185	<0.0025	0.0025	1
1,2,3-Trichlorobenzene	76.2 %	55-140%	0.141 mg/Kg	0.185	<0.0010	0.0010	1
1,2,4-Trichlorobenzene	81.6 %	65-135%	0.151 mg/Kg	0.185	<0.0014	0.0014	1
1,1,1-Trichloroethane	79.4 %	65-130%	0.147 mg/Kg	0.185	<0.0008	0.0008	1
1,1,2-Trichloroethane	90.8 %	75-125%	0.168 mg/Kg	0.185	<0.0017	0.0017	1
Trichloroethene	91.8 %	70-125%	0.170 mg/Kg	0.185	<0.0013	0.0013	1
Trichlorofluoromethane	86.4 %	45-150%	0.160 mg/Kg	0.185	<0.0008	0.0008	1
1,2,3-Trichloropropane	89.7 %	75-125%	0.166 mg/Kg	0.185	<0.0010	0.0010	1
1,2,4-Trimethylbenzene	77.9 %	75-130%	0.147 mg/Kg	0.185	0.0027	0.0006	1
1,3,5-Trimethylbenzene	84.8 %	75-130%	0.157 mg/Kg	0.185	<0.0003	0.0003	1
Vinyl Acetate	96.7 %	40-125%	0.179 mg/Kg	0.185	<0.0026	0.0026	1
Vinyl Chloride	88.1 %	80-120%	0.163 mg/Kg	0.185	<0.0006	0.0006	1

**QC Report**

Client ID                   **Ensafe**  
 Project Description       Basement Removal - 2nd and Chelsea  
 Report No                   14-122-0245

**Analytical Method: 8260B**

**Batch: L198395**

**Prep Method: 5030A**

**Batch: L198380 5/7/14 8:00**

**Matrix Spike - L 97803-MS-L198380**

**QC Measurement:    % Recovery**

**DateTime Analyzed: 05/07/2014 05:44 PM**

Test Description	QC Result	Criteria	MS Result	MS Conc.	Sample Conc.	MDL	Dilution
o-Xylene	80.3 %	75-130%	0.151 mg/Kg	0.185	0.0022	0.0008	1
m,p-Xylene	86.7 %	75-130%	0.327 mg/Kg	0.370	0.0060	0.0007	1
<b>Surrogate Recovery:</b>							
4-Bromofluorobenzene	88.5 %	60-130%	0.0885 mg/Kg	0.100			1
1,2-Dichloroethane - d4	90.0 %	60-132%	0.0900 mg/Kg	0.100			1
Toluene-d8	94.3 %	70-122%	0.0943 mg/Kg	0.100			1

**Matrix Spike Duplicate - L 97803-MSD-L198380**

**QC Measurement:    % Recovery**

**DateTime Analyzed: 05/07/2014 06:12 PM**

Test Description	QC Result	Criteria	MSD Result	MSD Conc.	Sample Conc.	MDL	Dilution
Acetone	100 %	40-140%	0.190 mg/Kg	0.190	<0.0046	0.0046	1
Acetonitrile	55.7 %	40-140%	1.06 mg/Kg	1.90	<0.0128	0.0128	1
Acrolein	77.3 %	40-140%	0.147 mg/Kg	0.190	<0.0101	0.0101	1
Acrylonitrile	114 %	40-140%	0.217 mg/Kg	0.190	<0.0080	0.0080	1
Benzene	66.8 % *	80-120%	0.127 mg/Kg	0.190	<0.0008	0.0008	1
Bromobenzene	76.8 %	75-125%	0.146 mg/Kg	0.190	<0.0009	0.0009	1
Bromochloromethane	106 %	65-130%	0.201 mg/Kg	0.190	<0.0007	0.0007	1
Bromodichloromethane	88.4 %	75-120%	0.168 mg/Kg	0.190	<0.0004	0.0004	1
Bromoform	79.4 %	70-130%	0.151 mg/Kg	0.190	<0.0006	0.0006	1
Bromomethane	97.3 %	40-140%	0.185 mg/Kg	0.190	<0.0012	0.0012	1
Methyl Ethyl Ketone (MEK)	104 %	40-140%	0.198 mg/Kg	0.190	<0.0061	0.0061	1
n-Butylbenzene	54.7 % *	70-135%	0.104 mg/Kg	0.190	<0.0007	0.0007	1
sec-Butyl benzene	45.5 % *	70-125%	0.0865 mg/Kg	0.190	<0.0003	0.0003	1
tert-Butyl benzene	49.3 % *	70-130%	0.0937 mg/Kg	0.190	<0.0014	0.0014	1
Carbon Disulfide	37.2 % *	40-140%	0.0707 mg/Kg	0.190	<0.0004	0.0004	1
Carbon Tetrachloride	46.4 % *	65-140%	0.0883 mg/Kg	0.190	<0.0005	0.0005	1
Chlorobenzene	67.8 % *	80-120%	0.129 mg/Kg	0.190	<0.0008	0.0008	1
Chlorodibromomethane	81.5 %	75-120%	0.155 mg/Kg	0.190	<0.0009	0.0009	1

\* QC Fail

**QC Report**

Client ID                   **Ensafe**  
Project Description       Basement Removal - 2nd and Chelsea  
Report No                   14-122-0245

**Analytical Method: 8260B**

**Batch: L198395**

**Prep Method: 5030A**

**Batch: L198380   5/7/14 8:00**

**Matrix Spike Duplicate - L 97803-MSD-L198380**

**QC Measurement:   % Recovery**

**DateTime Analyzed: 05/07/2014 06:12 PM**

Test Description	QC Result	Criteria	MSD Result	MSD Conc.	Sample Conc.	MDL	Dilution
Chloroethane	64.2 %	60-135%	0.122 mg/Kg	0.190	<0.0003	0.0003	1
2-Chloroethylvinyl Ether	90.5 %	40-140%	0.172 mg/Kg	0.190	<0.0020	0.0020	1
Chloroform	77.3 % *	80-120%	0.147 mg/Kg	0.190	<0.0004	0.0004	1
Chloromethane	64.7 %	40-125%	0.123 mg/Kg	0.190	<0.0007	0.0007	1
2-Chlorotoluene	61.5 % *	75-125%	0.117 mg/Kg	0.190	<0.0002	0.0002	1
4-Chlorotoluene	61.0 % *	75-130%	0.116 mg/Kg	0.190	<0.0008	0.0008	1
1,2-Dibromo-3-Chloropropane	68.4 %	50-130%	0.130 mg/Kg	0.190	<0.0050	0.0050	1
1,2-Dibromoethane	93.1 %	80-120%	0.177 mg/Kg	0.190	<0.0011	0.0011	1
Dibromomethane	103 %	75-125%	0.196 mg/Kg	0.190	<0.0011	0.0011	1
1,2-Dichlorobenzene	71.5 %	70-120%	0.136 mg/Kg	0.190	<0.0010	0.0010	1
1,3-Dichlorobenzene	78.4 %	75-125%	0.149 mg/Kg	0.190	<0.0008	0.0008	1
1,4-Dichlorobenzene	69.4 % *	75-125%	0.132 mg/Kg	0.190	<0.0007	0.0007	1
Dichlorodifluoromethane	27.1 % *	40-140%	0.0515 mg/Kg	0.190	<0.0005	0.0005	1
1,1-Dichloroethane	76.3 %	70-135%	0.145 mg/Kg	0.190	<0.0003	0.0003	1
1,2-Dichloroethane	101 %	70-130%	0.192 mg/Kg	0.190	<0.0010	0.0010	1
1,1-Dichloroethene	42.1 % *	80-120%	0.0800 mg/Kg	0.190	<0.0004	0.0004	1
cis-1,2-Dichloroethene	72.1 %	70-125%	0.137 mg/Kg	0.190	<0.0005	0.0005	1
trans-1,2-Dichloroethene	64.2 %	60-140%	0.122 mg/Kg	0.190	<0.0004	0.0004	1
1,2-Dichloropropane	91.0 %	80-120%	0.173 mg/Kg	0.190	<0.0011	0.0011	1
1,3-Dichloropropane	85.7 %	75-125%	0.163 mg/Kg	0.190	<0.0011	0.0011	1
2,2-Dichloropropane	49.4 % *	70-135%	0.0940 mg/Kg	0.190	<0.0007	0.0007	1
1,1-Dichloropropene	53.1 % *	75-130%	0.101 mg/Kg	0.190	<0.0009	0.0009	1
cis-1,3-Dichloropropene	81.0 %	70-130%	0.154 mg/Kg	0.190	<0.0006	0.0006	1
trans-1,3-Dichloropropene	86.8 %	55-140%	0.165 mg/Kg	0.190	<0.0009	0.0009	1
Ethyl Acetate	97.8 %	40-125%	0.186 mg/Kg	0.190	<0.0016	0.0016	1
Ethylbenzene	53.6 % *	80-120%	0.102 mg/Kg	0.190	<0.0005	0.0005	1
Hexachlorobutadiene	49.8 % *	50-140%	0.0948 mg/Kg	0.190	<0.0008	0.0008	1
2-Hexanone	105 %	55-130%	0.199 mg/Kg	0.190	<0.0019	0.0019	1
Iodomethane	44.4 %	40-125%	0.0844 mg/Kg	0.190	<0.0009	0.0009	1

\* QC Fail



## QC Report

Client ID **Ensafe**  
 Project Description **Basement Removal - 2nd and Chelsea**  
 Report No **14-122-0245**

**Analytical Method: 8260B**

**Batch: L198395**

**Prep Method: 5030A**

**Batch: L198380 5/7/14 8:00**

**Matrix Spike Duplicate - L 97803-MSD-L198380**

**QC Measurement: % Recovery**

**DateTime Analyzed: 05/07/2014 06:12 PM**

Test Description	QC Result	Criteria	MSD Result	MSD Conc.	Sample Conc.	MDL	Dilution
Isopropylbenzene	51.1 % *	75-125%	0.0971 mg/Kg	0.190	<0.0003	0.0003	1
4-Isopropyl toluene	50.4 % *	75-130%	0.0958 mg/Kg	0.190	<0.0005	0.0005	1
Methyl tert-butyl ether (MTBE)	92.1 %	65-125%	0.175 mg/Kg	0.190	<0.0004	0.0004	1
4-Methyl-2-Pentanone	103 %	60-135%	0.195 mg/Kg	0.190	<0.0029	0.0029	1
Methylene Chloride	83.1 %	55-140%	0.158 mg/Kg	0.190	<0.0015	0.0015	1
Naphthalene	53.1 % *	55-140%	0.101 mg/Kg	0.190	<0.0031	0.0031	1
n-Propylbenzene	55.2 % *	70-130%	0.105 mg/Kg	0.190	<0.0002	0.0002	1
Styrene	56.3 % *	65-135%	0.107 mg/Kg	0.190	<0.0003	0.0003	1
1,1,1,2-Tetrachloroethane	78.4 %	70-130%	0.149 mg/Kg	0.190	<0.0005	0.0005	1
1,1,1,2-Tetrachloroethane	81.5 %	65-130%	0.155 mg/Kg	0.190	<0.0006	0.0006	1
Tetrachloroethene	59.4 % *	60-145%	0.113 mg/Kg	0.190	<0.0016	0.0016	1
Toluene	65.7 % *	80-120%	0.125 mg/Kg	0.190	<0.0025	0.0025	1
1,2,3-Trichlorobenzene	46.3 % *	55-140%	0.0880 mg/Kg	0.190	<0.0010	0.0010	1
1,2,4-Trichlorobenzene	66.8 %	65-135%	0.127 mg/Kg	0.190	<0.0014	0.0014	1
1,1,1-Trichloroethane	53.1 % *	65-130%	0.101 mg/Kg	0.190	<0.0008	0.0008	1
1,1,2-Trichloroethane	97.8 %	75-125%	0.186 mg/Kg	0.190	<0.0017	0.0017	1
Trichloroethene	63.1 % *	70-125%	0.120 mg/Kg	0.190	<0.0013	0.0013	1
Trichlorofluoromethane	47.8 %	45-150%	0.0909 mg/Kg	0.190	<0.0008	0.0008	1
1,2,3-Trichloropropane	85.2 %	75-125%	0.162 mg/Kg	0.190	<0.0010	0.0010	1
1,2,4-Trimethylbenzene	62.2 % *	75-130%	0.121 mg/Kg	0.190	0.0027	0.0006	1
1,3,5-Trimethylbenzene	58.9 % *	75-130%	0.112 mg/Kg	0.190	<0.0003	0.0003	1
Vinyl Acetate	105 %	40-125%	0.200 mg/Kg	0.190	<0.0026	0.0026	1
Vinyl Chloride	45.2 % *	80-120%	0.0859 mg/Kg	0.190	<0.0006	0.0006	1
o-Xylene	54.5 % *	75-130%	0.106 mg/Kg	0.190	0.0022	0.0008	1
m,p-Xylene	56.6 % *	75-130%	0.222 mg/Kg	0.381	0.0060	0.0007	1

**Surrogate Recovery:**

4-Bromofluorobenzene	77.8 %	60-130%	0.0778 mg/Kg	0.100			1
1,2-Dichloroethane - d4	117 %	60-132%	0.117 mg/Kg	0.100			1
Toluene-d8	82.3 %	70-122%	0.0823 mg/Kg	0.100			1

\* QC Fail

**QC Report**

Client ID                   **Ensafe**  
Project Description       Basement Removal - 2nd and Chelsea  
Report No                   14-122-0245

**Analytical Method: 8260B**

**Batch: L198395**

**Prep Method: 5030A**

**Batch: L198380 5/7/14 8:00**

**Matrix Spike Duplicate - L 97803-MSD-L198380**

**QC Measurement: RPD**

**DateTime Analyzed: 05/07/2014 06:12 PM**

Test Description	QC Result	Criteria	MSD Result	MSD Conc.	Sample Conc.	MDL	Dilution
Acetone	2.6 %	< 30	0.190 mg/Kg		0.185	0.0046	1
Acetonitrile	34.3 % *	< 30	1.06 mg/Kg		1.50	0.0128	1
Acrolein	19.4 %	< 30	0.147 mg/Kg		0.121	0.0101	1
Acrylonitrile	31.4 % *	< 30	0.217 mg/Kg		0.158	0.0080	1
Benzene	14.5 %	< 30	0.127 mg/Kg		0.147	0.0008	1
Bromobenzene	16.9 %	< 30	0.146 mg/Kg		0.173	0.0009	1
Bromochloromethane	17.8 %	< 30	0.201 mg/Kg		0.168	0.0007	1
Bromodichloromethane	9.6 %	< 30	0.168 mg/Kg		0.185	0.0004	1
Bromoform	0.0 %	< 30	0.151 mg/Kg		0.151	0.0006	1
Bromomethane	20.8 %	< 30	0.185 mg/Kg		0.150	0.0012	1
Methyl Ethyl Ketone (MEK)	6.7 %	< 30	0.198 mg/Kg		0.185	0.0061	1
n-Butylbenzene	37.5 % *	< 30	0.104 mg/Kg		0.152	0.0007	1
sec-Butyl benzene	57.9 % *	< 30	0.0865 mg/Kg		0.157	0.0003	1
tert-Butyl benzene	45.5 % *	< 30	0.0937 mg/Kg		0.149	0.0014	1
Carbon Disulfide	42.6 % *	< 30	0.0707 mg/Kg		0.109	0.0004	1
Carbon Tetrachloride	51.7 % *	< 30	0.0883 mg/Kg		0.150	0.0005	1
Chlorobenzene	25.0 %	< 30	0.129 mg/Kg		0.166	0.0008	1
Chlorodibromomethane	10.3 %	< 30	0.155 mg/Kg		0.172	0.0009	1
Chloroethane	34.0 % *	< 30	0.122 mg/Kg		0.172	0.0003	1
2-Chloroethylvinyl Ether	19.8 %	< 30	0.172 mg/Kg		0.210	0.0020	1
Chloroform	1.3 %	< 30	0.147 mg/Kg		0.145	0.0004	1
Chloromethane	23.6 %	< 30	0.123 mg/Kg		0.156	0.0007	1
2-Chlorotoluene	36.3 % *	< 30	0.117 mg/Kg		0.169	0.0002	1
4-Chlorotoluene	36.6 % *	< 30	0.116 mg/Kg		0.168	0.0008	1
1,2-Dibromo-3-Chloropropane	13.6 %	< 30	0.130 mg/Kg		0.149	0.0050	1
1,2-Dibromoethane	4.4 %	< 30	0.177 mg/Kg		0.185	0.0011	1
Dibromomethane	13.0 %	< 30	0.196 mg/Kg		0.172	0.0011	1
1,2-Dichlorobenzene	11.1 %	< 30	0.136 mg/Kg		0.152	0.0010	1
1,3-Dichlorobenzene	10.1 %	< 30	0.149 mg/Kg		0.165	0.0008	1

\* **QC Fail**

**QC Report**

Client ID                   **Ensafe**  
Project Description       Basement Removal - 2nd and Chelsea  
Report No                   14-122-0245

**Analytical Method: 8260B**

**Batch: L198395**

**Prep Method: 5030A**

**Batch: L198380 5/7/14 8:00**

**Matrix Spike Duplicate - L 97803-MSD-L198380**

**QC Measurement: RPD**

**DateTime Analyzed: 05/07/2014 06:12 PM**

Test Description	QC Result	Criteria	MSD Result	MSD Conc.	Sample Conc.	MDL	Dilution
1,4-Dichlorobenzene	19.7 %	< 30	0.132 mg/Kg		0.161	0.0007	1
Dichlorodifluoromethane	70.8 % *	< 30	0.0515 mg/Kg		0.108	0.0005	1
1,1-Dichloroethane	12.2 %	< 30	0.145 mg/Kg		0.164	0.0003	1
1,2-Dichloroethane	16.3 %	< 30	0.192 mg/Kg		0.163	0.0010	1
1,1-Dichloroethene	41.5 % *	< 30	0.0800 mg/Kg		0.122	0.0004	1
cis-1,2-Dichloroethene	4.9 %	< 30	0.137 mg/Kg		0.144	0.0005	1
trans-1,2-Dichloroethene	12.3 %	< 30	0.122 mg/Kg		0.138	0.0004	1
1,2-Dichloropropane	12.4 %	< 30	0.173 mg/Kg		0.196	0.0011	1
1,3-Dichloropropane	1.8 %	< 30	0.163 mg/Kg		0.166	0.0011	1
2,2-Dichloropropane	50.1 % *	< 30	0.0940 mg/Kg		0.157	0.0007	1
1,1-Dichloropropene	44.0 % *	< 30	0.101 mg/Kg		0.158	0.0009	1
cis-1,3-Dichloropropene	18.2 %	< 30	0.154 mg/Kg		0.185	0.0006	1
trans-1,3-Dichloropropene	1.2 %	< 30	0.165 mg/Kg		0.167	0.0009	1
Ethyl Acetate	2.7 %	< 30	0.186 mg/Kg		0.181	0.0016	1
Ethylbenzene	44.2 % *	< 30	0.102 mg/Kg		0.160	0.0005	1
Hexachlorobutadiene	46.3 % *	< 30	0.0948 mg/Kg		0.152	0.0008	1
2-Hexanone	13.4 %	< 30	0.199 mg/Kg		0.174	0.0019	1
Iodomethane	46.8 % *	< 30	0.0844 mg/Kg		0.136	0.0009	1
Isopropylbenzene	51.2 % *	< 30	0.0971 mg/Kg		0.164	0.0003	1
4-Isopropyl toluene	53.6 % *	< 30	0.0958 mg/Kg		0.166	0.0005	1
Methyl tert-butyl ether (MTBE)	11.4 %	< 30	0.175 mg/Kg		0.156	0.0004	1
4-Methyl-2-Pentanone	8.0 %	< 30	0.195 mg/Kg		0.180	0.0029	1
Methylene Chloride	15.6 %	< 30	0.158 mg/Kg		0.135	0.0015	1
Naphthalene	17.1 %	< 30	0.101 mg/Kg		0.120	0.0031	1
n-Propylbenzene	40.3 % *	< 30	0.105 mg/Kg		0.158	0.0002	1
Styrene	37.8 % *	< 30	0.107 mg/Kg		0.157	0.0003	1
1,1,1,2-Tetrachloroethane	16.0 %	< 30	0.149 mg/Kg		0.175	0.0005	1
1,1,1,2,2-Tetrachloroethane	3.2 %	< 30	0.155 mg/Kg		0.150	0.0006	1
Tetrachloroethene	51.3 % *	< 30	0.113 mg/Kg		0.191	0.0016	1

\* QC Fail

**QC Report**

Client ID                   **Ensafe**  
 Project Description       Basement Removal - 2nd and Chelsea  
 Report No                   14-122-0245

**Analytical Method: 8260B**

**Batch: L198395**

**Prep Method: 5030A**

**Batch: L198380 5/7/14 8:00**

**Matrix Spike Duplicate - L 97803-MSD-L198380**

**QC Measurement: RPD**

**DateTime Analyzed: 05/07/2014 06:12 PM**

Test Description	QC Result	Criteria	MSD Result	MSD Conc.	Sample Conc.	MDL	Dilution
Toluene	32.2 % *	< 30	0.125 mg/Kg		0.173	0.0025	1
1,2,3-Trichlorobenzene	46.2 % *	< 30	0.0880 mg/Kg		0.141	0.0010	1
1,2,4-Trichlorobenzene	17.2 %	< 30	0.127 mg/Kg		0.151	0.0014	1
1,1,1-Trichloroethane	37.0 % *	< 30	0.101 mg/Kg		0.147	0.0008	1
1,1,2-Trichloroethane	10.1 %	< 30	0.186 mg/Kg		0.168	0.0017	1
Trichloroethene	34.4 % *	< 30	0.120 mg/Kg		0.170	0.0013	1
Trichlorofluoromethane	55.0 % *	< 30	0.0909 mg/Kg		0.160	0.0008	1
1,2,3-Trichloropropane	2.4 %	< 30	0.162 mg/Kg		0.166	0.0010	1
1,2,4-Trimethylbenzene	19.4 %	< 30	0.121 mg/Kg		0.147	0.0006	1
1,3,5-Trimethylbenzene	33.4 % *	< 30	0.112 mg/Kg		0.157	0.0003	1
Vinyl Acetate	11.0 %	< 30	0.200 mg/Kg		0.179	0.0026	1
Vinyl Chloride	61.9 % *	< 30	0.0859 mg/Kg		0.163	0.0006	1
o-Xylene	35.0 % *	< 30	0.106 mg/Kg		0.151	0.0008	1
m,p-Xylene	38.2 % *	< 30	0.222 mg/Kg		0.327	0.0007	1

\* QC Fail

**QC Report**

Client ID                   **Ensafe**  
 Project Description       Basement Removal - 2nd and Chelsea  
 Report No                   14-122-0245

**Analytical Method: 8270C SIM**

**Batch: L198132**

**Prep Method: 3546**

**Batch: L198049   5/5/2014 8:30**

**Lab Reagent Blank - LRB-L198049**

**QC Measurement:   Limit**

**DateTime Analyzed: 05/05/2014 12:57 PM**

<b>Test Description</b>	<b>LRB Result</b>	<b>MDL</b>	<b>MQL</b>	<b>Dilution</b>
Acenaphthene	<0.000087 mg/Kg	0.000087	0.000660	1
Acenaphthylene	<0.000051 mg/Kg	0.000051	0.000660	1
Anthracene	<0.000212 mg/Kg	0.000212	0.000660	1
Benzo(a)anthracene	<0.000570 mg/Kg	0.000570	0.000660	1
Benzo(a)pyrene	<0.000539 mg/Kg	0.000539	0.000660	1
Benzo(b)fluoranthene	<0.000273 mg/Kg	0.000273	0.000660	1
Benzo(g,h,i)perylene	<0.000209 mg/Kg	0.000209	0.000660	1
Benzo(k)fluoranthene	<0.000192 mg/Kg	0.000192	0.000660	1
Chrysene	<0.000312 mg/Kg	0.000312	0.000660	1
Dibenz(a,h)anthracene	<0.000285 mg/Kg	0.000285	0.000660	1
Fluoranthene	<0.000184 mg/Kg	0.000184	0.000660	1
Fluorene	<0.000186 mg/Kg	0.000186	0.000660	1
Indeno(1,2,3-cd)pyrene	<0.000220 mg/Kg	0.000220	0.000660	1
2-Methylnaphthalene	<0.000118 mg/Kg	0.000118	0.000660	1
Naphthalene	<0.000187 mg/Kg	0.000187	0.000660	1
Phenanthrene	<0.000474 mg/Kg	0.000474	0.000660	1
Pyrene	<0.000191 mg/Kg	0.000191	0.000660	1

**Surrogate Recovery:**

2-Fluorobiphenyl	68.7	0.229 mg/Kg	0.333	1
Nitrobenzene-d5	74.4	0.248 mg/Kg	0.333	1
4-Terphenyl-d14	83.1	0.277 mg/Kg	0.333	1

**Laboratory Control Sample - LCS-L198049**

**QC Measurement:   % Recovery**

**DateTime Analyzed: 05/05/2014 01:28 PM**

<b>Test Description</b>	<b>QC Result</b>	<b>Criteria</b>	<b>LCS Result</b>	<b>LCS Conc.</b>	<b>MDL</b>	<b>Dilution</b>
Acenaphthene	64.6 %	40-120%	0.108 mg/Kg	0.167	0.000087	1
Acenaphthylene	63.4 %	40-120%	0.106 mg/Kg	0.167	0.000051	1
Anthracene	71.2 %	40-120%	0.119 mg/Kg	0.167	0.000212	1

**QC Report**

Client ID **Ensafe**  
Project Description **Basement Removal - 2nd and Chelsea**  
Report No **14-122-0245**

**Analytical Method: 8270C SIM**

**Batch: L198132**

**Prep Method: 3546**

**Batch: L198049 5/5/2014 8:30**

**Laboratory Control Sample - LCS-L198049**

**QC Measurement: % Recovery**

**DateTime Analyzed: 05/05/2014 01:28 PM**

Test Description	QC Result	Criteria	LCS Result	LCS Conc.	MDL	Dilution
Benzo(a)anthracene	71.8 %	40-120%	0.120 mg/Kg	0.167	0.000570	1
Benzo(a)pyrene	71.2 %	40-120%	0.119 mg/Kg	0.167	0.000539	1
Benzo(b)fluoranthene	67.0 %	40-120%	0.112 mg/Kg	0.167	0.000273	1
Benzo(g,h,i)perylene	79.0 %	40-120%	0.132 mg/Kg	0.167	0.000209	1
Benzo(k)fluoranthene	74.2 %	40-120%	0.124 mg/Kg	0.167	0.000192	1
Chrysene	67.6 %	40-120%	0.113 mg/Kg	0.167	0.000312	1
Dibenz(a,h)anthracene	78.4 %	40-120%	0.131 mg/Kg	0.167	0.000285	1
Fluoranthene	84.4 %	40-120%	0.141 mg/Kg	0.167	0.000184	1
Fluorene	67.0 %	40-120%	0.112 mg/Kg	0.167	0.000186	1
Indeno(1,2,3-cd)pyrene	79.6 %	40-120%	0.133 mg/Kg	0.167	0.000220	1
2-Methylnaphthalene	73.0 %	40-120%	0.122 mg/Kg	0.167	0.000118	1
Naphthalene	76.0 %	40-120%	0.127 mg/Kg	0.167	0.000187	1
Phenanthrene	73.0 %	40-120%	0.122 mg/Kg	0.167	0.000474	1
Pyrene	68.8 %	40-120%	0.115 mg/Kg	0.167	0.000191	1

**Surrogate Recovery:**

2-Fluorobiphenyl	66.3 %	33-115%	0.221 mg/Kg	0.333		1
Nitrobenzene-d5	66.0 %	29-110%	0.220 mg/Kg	0.333		1
4-Terphenyl-d14	66.9 %	33-122%	0.223 mg/Kg	0.333		1

**Matrix Spike - L 97802-MS-L198049**

**QC Measurement: % Recovery**

**DateTime Analyzed: 05/05/2014 03:00 PM**

Test Description	QC Result	Criteria	MS Result	MS Conc.	Sample Conc.	MDL	Dilution
Acenaphthene	77.9 %	40-120%	0.127 mg/Kg	0.163	<0.000087	0.000087	1
Acenaphthylene	73.6 %	40-120%	0.120 mg/Kg	0.163	<0.000051	0.000051	1
Anthracene	74.8 %	40-120%	0.122 mg/Kg	0.163	<0.000212	0.000212	1
Benzo(a)anthracene	72.3 %	40-120%	0.118 mg/Kg	0.163	<0.000570	0.000570	1
Benzo(a)pyrene	74.2 %	40-120%	0.121 mg/Kg	0.163	<0.000539	0.000539	1
Benzo(b)fluoranthene	74.8 %	40-120%	0.122 mg/Kg	0.163	<0.000273	0.000273	1

**QC Report**

Client ID                   **Ensafe**  
Project Description       Basement Removal - 2nd and Chelsea  
Report No                   14-122-0245

**Analytical Method: 8270C SIM**

**Batch: L198132**

**Prep Method: 3546**

**Batch: L198049   5/5/2014 8:30**

**Matrix Spike - L 97802-MS-L198049**

**QC Measurement:   % Recovery**

**DateTime Analyzed: 05/05/2014 03:00 PM**

Test Description	QC Result	Criteria	MS Result	MS Conc.	Sample Conc.	MDL	Dilution
Benzo(g,h,i)perylene	77.9 %	40-120%	0.127 mg/Kg	0.163	<0.000209	0.000209	1
Benzo(k)fluoranthene	74.8 %	40-120%	0.122 mg/Kg	0.163	<0.000192	0.000192	1
Chrysene	76.6 %	40-120%	0.125 mg/Kg	0.163	<0.000312	0.000312	1
Dibenz(a,h)anthracene	80.3 %	40-120%	0.131 mg/Kg	0.163	<0.000285	0.000285	1
Fluoranthene	74.2 %	40-120%	0.121 mg/Kg	0.163	<0.000184	0.000184	1
Fluorene	73.0 %	40-120%	0.119 mg/Kg	0.163	<0.000186	0.000186	1
Indeno(1,2,3-cd)pyrene	79.7 %	40-120%	0.130 mg/Kg	0.163	<0.000220	0.000220	1
2-Methylnaphthalene	66.2 %	40-120%	0.108 mg/Kg	0.163	<0.000118	0.000118	1
Naphthalene	73.0 %	40-120%	0.119 mg/Kg	0.163	<0.000187	0.000187	1
Phenanthrene	74.8 %	40-120%	0.122 mg/Kg	0.163	<0.000474	0.000474	1
Pyrene	79.7 %	40-120%	0.130 mg/Kg	0.163	<0.000191	0.000191	1
<b>Surrogate Recovery:</b>							
2-Fluorobiphenyl	71.6 %	33-115%	0.238 mg/Kg	0.332			1
Nitrobenzene-d5	72.2 %	29-110%	0.240 mg/Kg	0.332			1
4-Terphenyl-d14	76.5 %	33-122%	0.254 mg/Kg	0.332			1

**Matrix Spike Duplicate - L 97802-MSD-L198049**

**QC Measurement:   % Recovery**

**DateTime Analyzed: 05/05/2014 03:30 PM**

Test Description	QC Result	Criteria	MSD Result	MSD Conc.	Sample Conc.	MDL	Dilution
Acenaphthene	73.6 %	40-120%	0.120 mg/Kg	0.163	<0.000087	0.000087	1
Acenaphthylene	69.3 %	40-120%	0.113 mg/Kg	0.163	<0.000051	0.000051	1
Anthracene	72.3 %	40-120%	0.118 mg/Kg	0.163	<0.000212	0.000212	1
Benzo(a)anthracene	76.0 %	40-120%	0.124 mg/Kg	0.163	<0.000570	0.000570	1
Benzo(a)pyrene	73.0 %	40-120%	0.119 mg/Kg	0.163	<0.000539	0.000539	1
Benzo(b)fluoranthene	76.6 %	40-120%	0.125 mg/Kg	0.163	<0.000273	0.000273	1
Benzo(g,h,i)perylene	72.3 %	40-120%	0.118 mg/Kg	0.163	<0.000209	0.000209	1
Benzo(k)fluoranthene	73.6 %	40-120%	0.120 mg/Kg	0.163	<0.000192	0.000192	1
Chrysene	75.4 %	40-120%	0.123 mg/Kg	0.163	<0.000312	0.000312	1



**QC Report**

Client ID                   **Ensafe**  
 Project Description       Basement Removal - 2nd and Chelsea  
 Report No                   14-122-0245

**Analytical Method: 8270C SIM**

**Batch: L198132**

**Prep Method: 3546**

**Batch: L198049   5/5/2014 8:30**

**Matrix Spike Duplicate - L 97802-MSD-L198049**

**QC Measurement:   % Recovery**

**DateTime Analyzed: 05/05/2014 03:30 PM**

Test Description	QC Result	Criteria	MSD Result	MSD Conc.	Sample Conc.	MDL	Dilution
Dibenz(a,h)anthracene	77.9 %	40-120%	0.127 mg/Kg	0.163	<0.000285	0.000285	1
Fluoranthene	84.0 %	40-120%	0.137 mg/Kg	0.163	<0.000184	0.000184	1
Fluorene	73.6 %	40-120%	0.120 mg/Kg	0.163	<0.000186	0.000186	1
Indeno(1,2,3-cd)pyrene	73.0 %	40-120%	0.119 mg/Kg	0.163	<0.000220	0.000220	1
2-Methylnaphthalene	66.8 %	40-120%	0.109 mg/Kg	0.163	<0.000118	0.000118	1
Naphthalene	71.1 %	40-120%	0.116 mg/Kg	0.163	<0.000187	0.000187	1
Phenanthrene	73.6 %	40-120%	0.120 mg/Kg	0.163	<0.000474	0.000474	1
Pyrene	82.8 %	40-120%	0.135 mg/Kg	0.163	<0.000191	0.000191	1

**Surrogate Recovery:**

2-Fluorobiphenyl	74.3 %	33-115%	0.247 mg/Kg	0.332			1
Nitrobenzene-d5	72.2 %	29-110%	0.240 mg/Kg	0.332			1
4-Terphenyl-d14	78.6 %	33-122%	0.261 mg/Kg	0.332			1

**Matrix Spike Duplicate - L 97802-MSD-L198049**

**QC Measurement:   RPD**

**DateTime Analyzed: 05/05/2014 03:30 PM**

Test Description	QC Result	Criteria	MSD Result	MSD Conc.	Sample Conc.	MDL	Dilution
Acenaphthene	5.6 %	< 30	0.120 mg/Kg		0.127	0.000087	1
Acenaphthylene	6.0 %	< 30	0.113 mg/Kg		0.120	0.000051	1
Anthracene	3.3 %	< 30	0.118 mg/Kg		0.122	0.000212	1
Benzo(a)anthracene	4.9 %	< 30	0.124 mg/Kg		0.118	0.000570	1
Benzo(a)pyrene	1.6 %	< 30	0.119 mg/Kg		0.121	0.000539	1
Benzo(b)fluoranthene	2.4 %	< 30	0.125 mg/Kg		0.122	0.000273	1
Benzo(g,h,i)perylene	7.3 %	< 30	0.118 mg/Kg		0.127	0.000209	1
Benzo(k)fluoranthene	1.6 %	< 30	0.120 mg/Kg		0.122	0.000192	1
Chrysene	1.6 %	< 30	0.123 mg/Kg		0.125	0.000312	1
Dibenz(a,h)anthracene	3.1 %	< 30	0.127 mg/Kg		0.131	0.000285	1
Fluoranthene	12.4 %	< 30	0.137 mg/Kg		0.121	0.000184	1
Fluorene	0.8 %	< 30	0.120 mg/Kg		0.119	0.000186	1
Indeno(1,2,3-cd)pyrene	8.8 %	< 30	0.119 mg/Kg		0.130	0.000220	1

**QC Report**

Client ID                   **Ensafe**  
 Project Description       Basement Removal - 2nd and Chelsea  
 Report No                   14-122-0245

**Analytical Method: 8270C SIM**

**Batch: L198132**

**Prep Method: 3546**

**Batch: L198049   5/5/2014 8:30**

**Matrix Spike Duplicate - L 97802-MSD-L198049**

**QC Measurement:   RPD**

**DateTime Analyzed: 05/05/2014 03:30 PM**

<b>Test Description</b>	<b>QC Result</b>	<b>Criteria</b>	<b>MSD Result</b>	<b>MSD Conc.</b>	<b>Sample Conc.</b>	<b>MDL</b>	<b>Dilution</b>
2-Methylnaphthalene	0.9 %	< 30	0.109 mg/Kg		0.108	0.000118	1
Naphthalene	2.5 %	< 30	0.116 mg/Kg		0.119	0.000187	1
Phenanthrene	1.6 %	< 30	0.120 mg/Kg		0.122	0.000474	1
Pyrene	3.7 %	< 30	0.135 mg/Kg		0.130	0.000191	1

**Cooler Receipt Form**

Customer Number: **03180**

Customer Name: **Ensafe**

Report Number: **14-122-0245**

**Shipping Method**

Fed Ex       US Postal       Lab       Other :   
 UPS       Client       Courier      Thermometer ID: #2

Shipping container/cooler uncompromised?	<input checked="" type="radio"/> Yes	<input type="radio"/> No	
Custody seals intact on shipping container/cooler?	<input type="radio"/> Yes	<input type="radio"/> No	<input checked="" type="radio"/> Not Required
Custody seals intact on sample bottles?	<input type="radio"/> Yes	<input type="radio"/> No	<input checked="" type="radio"/> Not Required
Chain of Custody (COC) present?	<input checked="" type="radio"/> Yes	<input type="radio"/> No	
COC agrees with sample label(s)?	<input checked="" type="radio"/> Yes	<input type="radio"/> No	
COC properly completed	<input checked="" type="radio"/> Yes	<input type="radio"/> No	
Samples in proper containers?	<input checked="" type="radio"/> Yes	<input type="radio"/> No	
Sample containers intact?	<input checked="" type="radio"/> Yes	<input type="radio"/> No	
Sufficient sample volume for indicated test(s)?	<input checked="" type="radio"/> Yes	<input type="radio"/> No	
All samples received within holding time?	<input checked="" type="radio"/> Yes	<input type="radio"/> No	
Cooler temperature in compliance?	<input checked="" type="radio"/> Yes	<input type="radio"/> No	
Cooler/Samples arrived at the laboratory on ice. Samples were considered acceptable as cooling process had begun.	<input checked="" type="radio"/> Yes	<input type="radio"/> No	
Water - Sample containers properly preserved	<input type="radio"/> Yes	<input type="radio"/> No	<input checked="" type="radio"/> N/A
Water - VOA vials free of headspace	<input type="radio"/> Yes	<input type="radio"/> No	<input checked="" type="radio"/> N/A
Trip Blanks received with VOAs	<input type="radio"/> Yes	<input type="radio"/> No	<input checked="" type="radio"/> N/A
Soil VOA method 5035 – compliance criteria met	<input type="radio"/> Yes	<input type="radio"/> No	<input checked="" type="radio"/> N/A
<input type="checkbox"/> High concentration container (48 hr)	<input type="checkbox"/> Low concentration EnCore samplers (48 hr)		
<input type="checkbox"/> High concentration pre-weighed (methanol -14 d)	<input type="checkbox"/> Low conc pre-weighed vials (Sod Bis -14 d)		
Special precautions or instructions included?	<input type="radio"/> Yes	<input checked="" type="radio"/> No	

Comments:

Any regulatory non-compliance issues will be recorded on non-compliance report.

Signature:

Date & Time:

14-122-0245  
03180  
05-02-2014  
11:57:11

Ensafe  
Basement Removal - 2nd and Chelsea

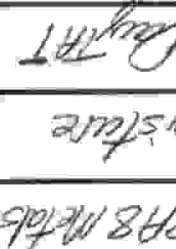
Client Name: **En Safe Inc.**  
Client Project Manager/Contact: **Alesley Goodnight / Allison Harris**  
Phone #: **901-378-7662**

Project Site Location: **Basement Removal, 2nd & Chelsea, Memphis, TN**  
Project Number: **088885441**  
FID #: **N/A**

Project/Event: **Single Daily Weekly Monthly Quarterly Semi-Annual**  
Purchase Order Number: **Ensafe MSA**  
Method of Shipment: **Drop off**  
email Address: **wgoodnight@ensafe.com / aharris@ensafe.com**

RUSH - Additional charges apply.  
The following require a Statement of Work  
 Special Report Requirements  
 Special Detection Limit(s)  
 Special Method Requirements

NPDES   
Wastewater   
UST   
Other Program  **N/A**



Environmental Testing & Consulting, Inc.  
2790 Whitten Road  
Memphis, TN 38133  
(901) 213-2400 (phone)  
(901) 213-2440 (fax)  
www.etomemphis.com

Required Analysis:

Date:	Time:	Sample Identification:	Number of Containers	Matrix	(G)rab or (C)omposite	VOCs (Total)	PAHs	RCRA Metals	Moisture	5-Day TAT
5/1/14	1455	CHELSBASE0109	2	Soil G	✓	✓	✓	✓	✓	✓
5/1/14	1505	CHELSBASE0209	2	Soil G	✓	✓	✓	✓	✓	✓

Client Remarks/Comments: **5-Day TAT, No Odor**

Sampled by (Name/Affiliation) (Print): **Sweatley Goodnight / Ensafe**  
Relinquished by: (SIGNATURE) [Signature]

Relinquished by: (SIGNATURE) [Signature]  
Relinquished by: (SIGNATURE) [Signature]  
Relinquished by: (SIGNATURE) [Signature]

Received by: (SIGNATURE) [Signature] 5/1/14 1750  
Received by: (SIGNATURE) [Signature] 5/2/14 0830  
Received by: (SIGNATURE) [Signature] 5/2/14 8:27

Matrix:  W - Wastewater,  GW - Groundwater,  DW - Drinking Water,  S - Soil,  O - Oil,  L - Non aqueous liquid  
Other:

For Laboratory Use Only  
Cooler Temp: **BK**  
Lab Comments: **1.1°C T2**

5/13/2014

Ensafe  
Mr. Wes Goodnight  
5724 Summer Tree Drive  
Memphis, TN, 38134

Ref: Analytical Testing  
ETC Report Number: 14-127-0261  
Client Project Description: Basement Removal - 2nd and Chelsea  
Memphis, TN  
Project No. 0888815441  
Project Number: Basement Removal - 2nd and Chelsea

Dear Mr. Wes Goodnight:

Environmental Testing and Consulting, Inc. received sample(s) on 5/7/2014 for the analyses presented in the following report.

The above referenced project has been analyzed per your instructions. The analyses were performed in accordance with the applicable analytical method.

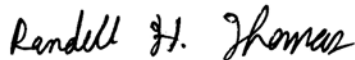
The analytical data has been validated using standard quality control measures performed as required by the analytical method. Quality Assurance, method validations, instrumentation maintenance and calibration for all parameters (NELAP and non-NELAP) were performed in accordance with guidelines established by the USEPA (including 40 CFR 136 Method Update Rule May 2012) and NELAC unless otherwise indicated. Any parameter for which the laboratory is not officially NELAP accredited is indicated by a '-' symbol. These are not included in the scope because NELAP accreditation is either not available or has not been applied for. Additional certifications may be held/are available for parameters, where NELAP accreditation is not required or applicable. A full list of certifications is available upon request.

Per EPA Methods Update Rule (May 2012), all methods from Standard Methods for the Examination of Water and Wastewater are reported to include the year of approval.

The results are shown on the attached Report of Analysis(s). Results for solid matrices are reported on an as-received basis unless otherwise indicated. This report shall not be reproduced except in full and relates only to the samples included in this report.

Please do not hesitate to contact me or client services if you have any questions or need additional information.

Sincerely,



Randy Thomas  
Project Manager

*Laboratory's liability in any claim relating to analyses performed shall be limited to, at laboratory's option, repeating the analysis in question at laboratory's expense, or the refund of the charges paid for performance of said analysis.*

Alabama #40750	Louisiana #04015	VA NELAP #460181	Texas #T104704180-11-6	Arkansas #88-0650
Mississippi	California #2904	NC #415	Oklahoma #9311	Virginia #00106
Kentucky #90047	Tennessee #TN02027	EPA #TN00012	Kentucky UST #41	Kansas #E-10396





Sample Summary Table

Report Number: 14-127-0261
Client Project Description: Basement Removal - 2nd and Chelsea Memphis, TN Project No. 0888815441

Table with 7 columns: Lab No, Client Sample ID, Matrix, Date Collected, Date Received, Method, Lab ID. Contains 12 rows of sample data.



03180

Ensafe  
Mr. Wes Goodnight  
5724 Summer Tree Drive  
Memphis, TN 38134

Project ID :  
Project : Basement Removal - 2nd and Chelsea  
Information : Memphis, TN  
Project No. 0888815441

Report Date : 05/13/2014  
Received : 5/7/2014

Report Number : **14-127-0261**

**REPORT OF ANALYSIS**

Lab No : **98607**

Matrix: **Solids**

Sample ID : **CHELSEBASE0311**

Sampled: **5/6/2014 15:45**

Test	Results	Units	MDL	MQL	DF	Date / Time Analyzed	By	Analytical Method
% Moisture	<b>19.6</b>	%	0	0.100	1	05/08/14 07:34	ALP	2540G-2011
Total Arsenic	<b>3.07</b>	mg/Kg - dry	0.883	1.24	1	05/08/14 18:23	BKN	6010B
Total Barium	<b>41.2</b>	mg/Kg - dry	0.072	0.621	1	05/08/14 18:23	BKN	6010B
Total Cadmium	<b>0.103 J</b>	mg/Kg - dry	0.0189	0.124	1	05/08/14 18:23	BKN	6010B
Total Chromium	<b>12.2</b>	mg/Kg - dry	0.042	0.310	1	05/08/14 18:23	BKN	6010B
Total Lead	<b>3.74</b>	mg/Kg - dry	0.177	0.373	1	05/08/14 18:23	BKN	6010B
Total Mercury	<b>0.0322 B</b>	mg/Kg - dry	0.00327	0.0165	1	05/08/14 13:48	JRS	7471A
Total Selenium	<b>1.07 J</b>	mg/Kg - dry	0.634	1.24	1	05/09/14 16:46	BKN	6010B
Total Silver	<0.0338	mg/Kg - dry	0.0338	0.311	1	05/08/14 18:23	BKN	6010B

**Qualifiers/  
Definitions**

*	Outside QC limit	B	Analyte detected in blank
DF	Dilution Factor	J	Estimated value
MQL	Method Quantitation Limit		



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Report Date : 05/13/2014  
Received : 5/7/2014

Report Number : **14-127-0261**

**REPORT OF ANALYSIS**

Lab No : **98607**

Matrix: **Solids**

Sample ID : **CHELSEBASE0311**

Sampled: **5/6/2014 15:45**

**Analytical Method:** 8260B

**Prep Method:** 5030A

**Prep Batch(es):** L198600

**Date/Time Prepped:** 5/8/2014 08:00:00

Test	Results	Units	MDL	MQL	DF	Date / Time Analyzed	By	Analytical Batch
Acetone	<0.0057	mg/Kg - dry	0.0057	0.0497	1	05/08/14 16:17	ACS	L198602
Acetonitrile	<0.0159	mg/Kg - dry	0.0159	0.124	1	05/08/14 16:17	ACS	L198602
Acrolein	<0.0125	mg/Kg - dry	0.0125	0.0497	1	05/08/14 16:17	ACS	L198602
Acrylonitrile	<0.0100	mg/Kg - dry	0.0100	0.0497	1	05/08/14 16:17	ACS	L198602
Benzene	<0.0011	mg/Kg - dry	0.0011	0.0024	1	05/08/14 16:17	ACS	L198602
Bromobenzene	<0.0011	mg/Kg - dry	0.0011	0.0024	1	05/08/14 16:17	ACS	L198602
Bromochloromethane	<0.0009	mg/Kg - dry	0.0009	0.0024	1	05/08/14 16:17	ACS	L198602
Bromodichloromethane	<0.0005	mg/Kg - dry	0.0005	0.0024	1	05/08/14 16:17	ACS	L198602
Bromoform	<0.0008	mg/Kg - dry	0.0008	0.0024	1	05/08/14 16:17	ACS	L198602
Bromomethane	<0.0015	mg/Kg - dry	0.0015	0.0024	1	05/08/14 16:17	ACS	L198602
Methyl Ethyl Ketone (MEK)	<0.0076	mg/Kg - dry	0.0076	0.0497	1	05/08/14 16:17	ACS	L198602
n-Butylbenzene	<0.0009	mg/Kg - dry	0.0009	0.0024	1	05/08/14 16:17	ACS	L198602
sec-Butyl benzene	<0.0004	mg/Kg - dry	0.0004	0.0024	1	05/08/14 16:17	ACS	L198602
tert-Butyl benzene	<0.0017	mg/Kg - dry	0.0017	0.0024	1	05/08/14 16:17	ACS	L198602
Carbon Disulfide	<0.0005	mg/Kg - dry	0.0005	0.0024	1	05/08/14 16:17	ACS	L198602
Carbon Tetrachloride	<0.0006	mg/Kg - dry	0.0006	0.0024	1	05/08/14 16:17	ACS	L198602
Chlorobenzene	<0.0010	mg/Kg - dry	0.0010	0.0024	1	05/08/14 16:17	ACS	L198602
Chlorodibromomethane	<0.0011	mg/Kg - dry	0.0011	0.0024	1	05/08/14 16:17	ACS	L198602
Chloroethane	<0.0004	mg/Kg - dry	0.0004	0.0024	1	05/08/14 16:17	ACS	L198602
2-Chloroethylvinyl Ether	<0.0024	mg/Kg - dry	0.0024	0.0024	1	05/08/14 16:17	ACS	L198602
Chloroform	<0.0005	mg/Kg - dry	0.0005	0.0024	1	05/08/14 16:17	ACS	L198602
Chloromethane	<0.0009	mg/Kg - dry	0.0009	0.0024	1	05/08/14 16:17	ACS	L198602

**Qualifiers/  
Definitions**

*	Outside QC limit	B	Analyte detected in blank
DF	Dilution Factor	I	Recovery out of range
J	Estimated value	MQL	Method Quantitation Limit

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Ensafe  
Mr. Wes Goodnight  
5724 Summer Tree Drive  
Memphis, TN 38134

Project ID :  
Project : Basement Removal - 2nd and Chelsea  
Information : Memphis, TN  
Project No. 0888815441

Report Date : 05/13/2014  
Received : 5/7/2014

Report Number : **14-127-0261**

**REPORT OF ANALYSIS**

Lab No : **98607**

Matrix: **Solids**

Sample ID : **CHELSEBASE0311**

Sampled: **5/6/2014 15:45**

**Analytical Method:** 8260B

**Prep Method:** 5030A

**Prep Batch(es):** L198600

**Date/Time Prepped:** 5/8/2014 08:00:00

Test	Results	Units	MDL	MQL	DF	Date / Time Analyzed	By	Analytical Batch
2-Chlorotoluene	<0.0002	mg/Kg - dry	0.0002	0.0024	1	05/08/14 16:17	ACS	L198602
4-Chlorotoluene	<0.0010	mg/Kg - dry	0.0010	0.0024	1	05/08/14 16:17	ACS	L198602
1,2-Dibromo-3-Chloropropane	<0.0063	mg/Kg - dry	0.0063	0.0124	1	05/08/14 16:17	ACS	L198602
1,2-Dibromoethane	<0.0014	mg/Kg - dry	0.0014	0.0024	1	05/08/14 16:17	ACS	L198602
Dibromomethane	<0.0014	mg/Kg - dry	0.0014	0.0024	1	05/08/14 16:17	ACS	L198602
1,2-Dichlorobenzene	<0.0012	mg/Kg - dry	0.0012	0.0024	1	05/08/14 16:17	ACS	L198602
1,3-Dichlorobenzene	<0.0010	mg/Kg - dry	0.0010	0.0024	1	05/08/14 16:17	ACS	L198602
1,4-Dichlorobenzene	<0.0009	mg/Kg - dry	0.0009	0.0024	1	05/08/14 16:17	ACS	L198602
Dichlorodifluoromethane	<0.0007	mg/Kg - dry	0.0007	0.0024	1	05/08/14 16:17	ACS	L198602
1,1-Dichloroethane	<0.0004	mg/Kg - dry	0.0004	0.0024	1	05/08/14 16:17	ACS	L198602
1,2-Dichloroethane	<0.0012	mg/Kg - dry	0.0012	0.0024	1	05/08/14 16:17	ACS	L198602
1,1-Dichloroethene	<0.0006	mg/Kg - dry	0.0006	0.0024	1	05/08/14 16:17	ACS	L198602
cis-1,2-Dichloroethene	<0.0007	mg/Kg - dry	0.0007	0.0024	1	05/08/14 16:17	ACS	L198602
trans-1,2-Dichloroethene	<0.0005	mg/Kg - dry	0.0005	0.0024	1	05/08/14 16:17	ACS	L198602
1,2-Dichloroethene (Total)	<0.0005	mg/Kg - dry	0.0005	0.0024	1	05/08/14 16:17		
1,2-Dichloropropane	<0.0014	mg/Kg - dry	0.0014	0.0024	1	05/08/14 16:17	ACS	L198602
1,3-Dichloropropane	<0.0014	mg/Kg - dry	0.0014	0.0024	1	05/08/14 16:17	ACS	L198602
2,2-Dichloropropane	<0.0009	mg/Kg - dry	0.0009	0.0024	1	05/08/14 16:17	ACS	L198602
1,1-Dichloropropene	<0.0011	mg/Kg - dry	0.0011	0.0024	1	05/08/14 16:17	ACS	L198602
cis-1,3-Dichloropropene	<0.0007	mg/Kg - dry	0.0007	0.0024	1	05/08/14 16:17	ACS	L198602
trans-1,3-Dichloropropene	<0.0012	mg/Kg - dry	0.0012	0.0024	1	05/08/14 16:17	ACS	L198602
Ethyl Acetate	<0.0020	mg/Kg - dry	0.0020	0.0497	1	05/08/14 16:17	ACS	L198602

**Qualifiers/  
Definitions**

*	Outside QC limit	B	Analyte detected in blank
DF	Dilution Factor	I	Recovery out of range
J	Estimated value	MQL	Method Quantitation Limit

03180

Ensafe  
Mr. Wes Goodnight  
5724 Summer Tree Drive  
Memphis, TN 38134

Project ID :  
Project : Basement Removal - 2nd and Chelsea  
Information : Memphis, TN  
Project No. 0888815441

Report Date : 05/13/2014  
Received : 5/7/2014

Report Number : 14-127-0261

**REPORT OF ANALYSIS**

Lab No : 98607

Matrix: Solids

Sample ID : CHELSBASE0311

Sampled: 5/6/2014 15:45

Analytical Method: 8260B

Prep Method: 5030A

Prep Batch(es): L198600

Date/Time Prepped: 5/8/2014 08:00:00

Test	Results	Units	MDL	MQL	DF	Date / Time Analyzed	By	Analytical Batch
Ethylbenzene	<0.0006	mg/Kg - dry	0.0006	0.0024	1	05/08/14 16:17	ACS	L198602
Hexachlorobutadiene	<0.0010	mg/Kg - dry	0.0010	0.0024	1	05/08/14 16:17	ACS	L198602
2-Hexanone	<0.0024	mg/Kg - dry	0.0024	0.0124	1	05/08/14 16:17	ACS	L198602
Iodomethane	<0.0012	mg/Kg - dry	0.0012	0.0124	1	05/08/14 16:17	ACS	L198602
Isopropylbenzene	<0.0004	mg/Kg - dry	0.0004	0.0024	1	05/08/14 16:17	ACS	L198602
4-Isopropyl toluene	<0.0006	mg/Kg - dry	0.0006	0.0024	1	05/08/14 16:17	ACS	L198602
Methyl tert-butyl ether (MTBE)	<0.0005	mg/Kg - dry	0.0005	0.0024	1	05/08/14 16:17	ACS	L198602
4-Methyl-2-Pentanone	<0.0036	mg/Kg - dry	0.0036	0.0124	1	05/08/14 16:17	ACS	L198602
Methylene Chloride	<b>0.0046 JB</b>	mg/Kg - dry	0.0019	0.0124	1	05/08/14 16:17	ACS	L198602
Naphthalene	<0.0039	mg/Kg - dry	0.0039	0.0124	1	05/08/14 16:17	ACS	L198602
n-Propylbenzene	<0.0003	mg/Kg - dry	0.0003	0.0024	1	05/08/14 16:17	ACS	L198602
Styrene	<0.0004	mg/Kg - dry	0.0004	0.0024	1	05/08/14 16:17	ACS	L198602
1,1,1,2-Tetrachloroethane	<0.0006	mg/Kg - dry	0.0006	0.0024	1	05/08/14 16:17	ACS	L198602
1,1,2,2-Tetrachloroethane	<0.0007	mg/Kg - dry	0.0007	0.0024	1	05/08/14 16:17	ACS	L198602
Tetrachloroethene	<0.0019	mg/Kg - dry	0.0019	0.0024	1	05/08/14 16:17	ACS	L198602
Toluene	<0.0031	mg/Kg - dry	0.0031	0.0124	1	05/08/14 16:17	ACS	L198602
1,2,3-Trichlorobenzene	<0.0013	mg/Kg - dry	0.0013	0.0024	1	05/08/14 16:17	ACS	L198602
1,2,4-Trichlorobenzene	<0.0018	mg/Kg - dry	0.0018	0.0024	1	05/08/14 16:17	ACS	L198602
1,1,1-Trichloroethane	<0.0010	mg/Kg - dry	0.0010	0.0024	1	05/08/14 16:17	ACS	L198602
1,1,2-Trichloroethane	<0.0021	mg/Kg - dry	0.0021	0.0024	1	05/08/14 16:17	ACS	L198602
Trichloroethene	<0.0016	mg/Kg - dry	0.0016	0.0024	1	05/08/14 16:17	ACS	L198602
Trichlorofluoromethane	<0.0009	mg/Kg - dry	0.0009	0.0024	1	05/08/14 16:17	ACS	L198602

Qualifiers/Definitions				
*	Outside QC limit	B	Analyte detected in blank	
DF	Dilution Factor	I	Recovery out of range	
J	Estimated value	MQL	Method Quantitation Limit	

03180

Ensafe  
Mr. Wes Goodnight  
5724 Summer Tree Drive  
Memphis, TN 38134

Project ID :  
Project : Basement Removal - 2nd and Chelsea  
Information : Memphis, TN  
Project No. 0888815441

Report Date : 05/13/2014  
Received : 5/7/2014

Report Number : **14-127-0261**

**REPORT OF ANALYSIS**

Lab No : **98607**

Matrix: **Solids**

Sample ID : **CHELSEBASE0311**

Sampled: **5/6/2014 15:45**

**Analytical Method:** 8260B

**Prep Method:** 5030A

**Prep Batch(es):** L198600

**Date/Time Prepped:** 5/8/2014 08:00:00

Test	Results	Units	MDL	MQL	DF	Date / Time Analyzed	By	Analytical Batch
1,2,3-Trichloropropane	<0.0013	mg/Kg - dry	0.0013	0.0024	1	05/08/14 16:17	ACS	L198602
1,2,4-Trimethylbenzene	<0.0008	mg/Kg - dry	0.0008	0.0024	1	05/08/14 16:17	ACS	L198602
1,3,5-Trimethylbenzene	<0.0004	mg/Kg - dry	0.0004	0.0024	1	05/08/14 16:17	ACS	L198602
Vinyl Acetate	<0.0032	mg/Kg - dry	0.0032	0.0497	1	05/08/14 16:17	ACS	L198602
Vinyl Chloride	<0.0007	mg/Kg - dry	0.0007	0.0024	1	05/08/14 16:17	ACS	L198602
o-Xylene	<0.0009	mg/Kg - dry	0.0009	0.0024	1	05/08/14 16:17	ACS	L198602
m,p-Xylene	<0.0009	mg/Kg - dry	0.0009	0.0049	1	05/08/14 16:17	ACS	L198602
Xylene (Total)	<0.0009	mg/Kg - dry	0.0009	0.0049	1	05/08/14 16:17		
Surrogate: 4-Bromofluorobenzene	91.2		Limits: 60-130%		1	05/08/14 16:17	ACS	L198602
Surrogate: 1,2-Dichloroethane - d4	106		Limits: 60-132%		1	05/08/14 16:17	ACS	L198602
Surrogate: Toluene-d8	86.9		Limits: 70-122%		1	05/08/14 16:17	ACS	L198602

**Analytical Method:** 8270C SIM

**Prep Method:** 3546

**Prep Batch(es):** L198604

**Date/Time Prepped:** 5/9/2014 09:15:00

Test	Results	Units	MDL	MQL	DF	Date / Time Analyzed	By	Analytical Batch
Acenaphthene	<0.000108	mg/Kg - dry	0.000108	0.000820	1	05/09/14 13:54	NFP	L198686
Acenaphthylene	<0.000063	mg/Kg - dry	0.000063	0.000820	1	05/09/14 13:54	NFP	L198686
Anthracene	<0.000263	mg/Kg - dry	0.000263	0.000820	1	05/09/14 13:54	NFP	L198686
Benzo(a)anthracene	<0.000708	mg/Kg - dry	0.000708	0.000820	1	05/09/14 13:54	NFP	L198686
Benzo(a)pyrene	<0.000670	mg/Kg - dry	0.000670	0.000820	1	05/09/14 13:54	NFP	L198686
Benzo(b)fluoranthene	<0.000339	mg/Kg - dry	0.000339	0.000820	1	05/09/14 13:54	NFP	L198686
Benzo(g,h,i)perylene	<0.000259	mg/Kg - dry	0.000259	0.000820	1	05/09/14 13:54	NFP	L198686

Qualifiers/Definitions				
*	Outside QC limit		B	Analyte detected in blank
DF	Dilution Factor		I	Recovery out of range
J	Estimated value		MQL	Method Quantitation Limit

03180

Ensafe  
Mr. Wes Goodnight  
5724 Summer Tree Drive  
Memphis, TN 38134

Project ID :  
Project : Basement Removal - 2nd and Chelsea  
Information : Memphis, TN  
Project No. 0888815441

Report Date : 05/13/2014  
Received : 5/7/2014

Report Number : **14-127-0261**

**REPORT OF ANALYSIS**

Lab No : **98607**

Matrix: **Solids**

Sample ID : **CHELSEBASE0311**

Sampled: **5/6/2014 15:45**

**Analytical Method:** 8270C SIM

**Prep Method:** 3546

**Prep Batch(es):** L198604

**Date/Time Prepped:** 5/9/2014 09:15:00

Test	Results	Units	MDL	MQL	DF	Date / Time Analyzed	By	Analytical Batch
Benzo(k)fluoranthene	<0.000238	mg/Kg - dry	0.000238	0.000820	1	05/09/14 13:54	NFP	L198686
Chrysene	<0.000388	mg/Kg - dry	0.000388	0.000820	1	05/09/14 13:54	NFP	L198686
Dibenz(a,h)anthracene	<0.000354	mg/Kg - dry	0.000354	0.000820	1	05/09/14 13:54	NFP	L198686
Fluoranthene	<0.000228	mg/Kg - dry	0.000228	0.000820	1	05/09/14 13:54	NFP	L198686
Fluorene	<0.000231	mg/Kg - dry	0.000231	0.000820	1	05/09/14 13:54	NFP	L198686
Indeno(1,2,3-cd)pyrene	<0.000273	mg/Kg - dry	0.000273	0.000820	1	05/09/14 13:54	NFP	L198686
2-Methylnaphthalene	<0.000146	mg/Kg - dry	0.000146	0.000820	1	05/09/14 13:54	NFP	L198686
Naphthalene	<0.000232	mg/Kg - dry	0.000232	0.000820	1	05/09/14 13:54	NFP	L198686
Phenanthrene	<0.000589	mg/Kg - dry	0.000589	0.000820	1	05/09/14 13:54	NFP	L198686
Pyrene	<0.000237	mg/Kg - dry	0.000237	0.000820	1	05/09/14 13:54	NFP	L198686
Surrogate: 2-Fluorobiphenyl	57.9		Limits: 33-115%		1	05/09/14 13:54	NFP	L198686
Surrogate: Nitrobenzene-d5	58.8		Limits: 29-110%		1	05/09/14 13:54	NFP	L198686
Surrogate: 4-Terphenyl-d14	66.2		Limits: 33-122%		1	05/09/14 13:54	NFP	L198686

**Qualifiers/  
Definitions**

*	Outside QC limit	B	Analyte detected in blank
DF	Dilution Factor	I	Recovery out of range
J	Estimated value	MQL	Method Quantitation Limit



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Project ID :  
Project : Basement Removal - 2nd and Chelsea  
Information : Memphis, TN  
Project No. 0888815441

Report Date : 05/13/2014  
Received : 5/7/2014

Report Number : **14-127-0261**

**REPORT OF ANALYSIS**

Lab No : **98608**

Matrix: **Solids**

Sample ID : **CHELSEBASE0411**

Sampled: **5/6/2014 15:55**

Test	Results	Units	MDL	MQL	DF	Date / Time Analyzed	By	Analytical Method
% Moisture	<b>20.5</b>	%	0	0.100	1	05/08/14 07:34	ALP	2540G-2011
Total Arsenic	<b>4.16</b>	mg/Kg - dry	0.893	1.26	1	05/08/14 18:27	BKN	6010B
Total Barium	<b>43.0</b>	mg/Kg - dry	0.072	0.628	1	05/08/14 18:27	BKN	6010B
Total Cadmium	<b>0.0309 J</b>	mg/Kg - dry	0.0191	0.126	1	05/08/14 18:27	BKN	6010B
Total Chromium	<b>16.4</b>	mg/Kg - dry	0.042	0.314	1	05/08/14 18:27	BKN	6010B
Total Lead	<b>4.13</b>	mg/Kg - dry	0.179	0.377	1	05/08/14 18:27	BKN	6010B
Total Mercury	<b>0.0181 B</b>	mg/Kg - dry	0.00330	0.0167	1	05/08/14 13:50	JRS	7471A
Total Selenium	<b>1.61</b>	mg/Kg - dry	0.641	1.26	1	05/09/14 16:50	BKN	6010B
Total Silver	<0.0342	mg/Kg - dry	0.0342	0.314	1	05/08/14 18:27	BKN	6010B

**Qualifiers/  
Definitions**

*	Outside QC limit	B	Analyte detected in blank
DF	Dilution Factor	J	Estimated value
MQL	Method Quantitation Limit		

03180

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Project ID :  
Project : Basement Removal - 2nd and Chelsea  
Information : Memphis, TN  
Project No. 0888815441

Report Date : 05/13/2014  
Received : 5/7/2014

Report Number : **14-127-0261**

**REPORT OF ANALYSIS**

Lab No : **98608**

Matrix: **Solids**

Sample ID : **CHELBASE0411**

Sampled: **5/6/2014 15:55**

**Analytical Method:** 8260B

**Prep Method:** 5030A

**Prep Batch(es):** L198380

**Date/Time Prepped:** 5/7/2014 08:00:00

Test	Results	Units	MDL	MQL	DF	Date / Time Analyzed	By	Analytical Batch
Acetone	<0.0058	mg/Kg - dry	0.0058	0.0503	1	05/07/14 17:16	ACS	L198395
Acetonitrile	<0.0161	mg/Kg - dry	0.0161	0.126	1	05/07/14 17:16	ACS	L198395
Acrolein	<0.0127	mg/Kg - dry	0.0127	0.0503	1	05/07/14 17:16	ACS	L198395
Acrylonitrile	<0.0101	mg/Kg - dry	0.0101	0.0503	1	05/07/14 17:16	ACS	L198395
Benzene	<0.0011	mg/Kg - dry	0.0011	0.0025	1	05/07/14 17:16	ACS	L198395
Bromobenzene	<0.0011	mg/Kg - dry	0.0011	0.0025	1	05/07/14 17:16	ACS	L198395
Bromochloromethane	<0.0009	mg/Kg - dry	0.0009	0.0025	1	05/07/14 17:16	ACS	L198395
Bromodichloromethane	<0.0005	mg/Kg - dry	0.0005	0.0025	1	05/07/14 17:16	ACS	L198395
Bromoform	<0.0008	mg/Kg - dry	0.0008	0.0025	1	05/07/14 17:16	ACS	L198395
Bromomethane	<0.0015	mg/Kg - dry	0.0015	0.0025	1	05/07/14 17:16	ACS	L198395
Methyl Ethyl Ketone (MEK)	<0.0077	mg/Kg - dry	0.0077	0.0503	1	05/07/14 17:16	ACS	L198395
n-Butylbenzene	<0.0009	mg/Kg - dry	0.0009	0.0025	1	05/07/14 17:16	ACS	L198395
sec-Butyl benzene	<0.0004	mg/Kg - dry	0.0004	0.0025	1	05/07/14 17:16	ACS	L198395
tert-Butyl benzene	<0.0017	mg/Kg - dry	0.0017	0.0025	1	05/07/14 17:16	ACS	L198395
Carbon Disulfide	<0.0005	mg/Kg - dry	0.0005	0.0025	1	05/07/14 17:16	ACS	L198395
Carbon Tetrachloride	<0.0007	mg/Kg - dry	0.0007	0.0025	1	05/07/14 17:16	ACS	L198395
Chlorobenzene	<0.0010	mg/Kg - dry	0.0010	0.0025	1	05/07/14 17:16	ACS	L198395
Chlorodibromomethane	<0.0011	mg/Kg - dry	0.0011	0.0025	1	05/07/14 17:16	ACS	L198395
Chloroethane	<0.0004	mg/Kg - dry	0.0004	0.0025	1	05/07/14 17:16	ACS	L198395
2-Chloroethylvinyl Ether	<0.0025	mg/Kg - dry	0.0025	0.0025	1	05/07/14 17:16	ACS	L198395
Chloroform	<0.0005	mg/Kg - dry	0.0005	0.0025	1	05/07/14 17:16	ACS	L198395
Chloromethane	<0.0010	mg/Kg - dry	0.0010	0.0025	1	05/07/14 17:16	ACS	L198395

**Qualifiers/  
Definitions**

*	Outside QC limit	B	Analyte detected in blank
DF	Dilution Factor	I	Recovery out of range
J	Estimated value	MQL	Method Quantitation Limit



03180

Ensafe  
Mr. Wes Goodnight  
5724 Summer Tree Drive  
Memphis, TN 38134

Project ID :  
Project : Basement Removal - 2nd and Chelsea  
Information : Memphis, TN  
Project No. 0888815441

Report Date : 05/13/2014  
Received : 5/7/2014

Report Number : **14-127-0261**

**REPORT OF ANALYSIS**

Lab No : **98608**

Matrix: **Solids**

Sample ID : **CHELSEBASE0411**

Sampled: **5/6/2014 15:55**

**Analytical Method:** 8260B

**Prep Method:** 5030A

**Prep Batch(es):** L198380

**Date/Time Prepped:** 5/7/2014 08:00:00

Test	Results	Units	MDL	MQL	DF	Date / Time Analyzed	By	Analytical Batch
2-Chlorotoluene	<0.0002	mg/Kg - dry	0.0002	0.0025	1	05/07/14 17:16	ACS	L198395
4-Chlorotoluene	<0.0010	mg/Kg - dry	0.0010	0.0025	1	05/07/14 17:16	ACS	L198395
1,2-Dibromo-3-Chloropropane	<0.0064	mg/Kg - dry	0.0064	0.0125	1	05/07/14 17:16	ACS	L198395
1,2-Dibromoethane	<0.0014	mg/Kg - dry	0.0014	0.0025	1	05/07/14 17:16	ACS	L198395
Dibromomethane	<0.0014	mg/Kg - dry	0.0014	0.0025	1	05/07/14 17:16	ACS	L198395
1,2-Dichlorobenzene	<0.0012	mg/Kg - dry	0.0012	0.0025	1	05/07/14 17:16	ACS	L198395
1,3-Dichlorobenzene	<0.0010	mg/Kg - dry	0.0010	0.0025	1	05/07/14 17:16	ACS	L198395
1,4-Dichlorobenzene	<0.0010	mg/Kg - dry	0.0010	0.0025	1	05/07/14 17:16	ACS	L198395
Dichlorodifluoromethane	<0.0007	mg/Kg - dry	0.0007	0.0025	1	05/07/14 17:16	ACS	L198395
1,1-Dichloroethane	<0.0004	mg/Kg - dry	0.0004	0.0025	1	05/07/14 17:16	ACS	L198395
1,2-Dichloroethane	<0.0012	mg/Kg - dry	0.0012	0.0025	1	05/07/14 17:16	ACS	L198395
1,1-Dichloroethene	<0.0006	mg/Kg - dry	0.0006	0.0025	1	05/07/14 17:16	ACS	L198395
cis-1,2-Dichloroethene	<0.0007	mg/Kg - dry	0.0007	0.0025	1	05/07/14 17:16	ACS	L198395
trans-1,2-Dichloroethene	<0.0005	mg/Kg - dry	0.0005	0.0025	1	05/07/14 17:16	ACS	L198395
1,2-Dichloroethene (Total)	<0.0005	mg/Kg - dry	0.0005	0.0025	1	05/07/14 17:16		L198395
1,2-Dichloropropane	<0.0014	mg/Kg - dry	0.0014	0.0025	1	05/07/14 17:16	ACS	L198395
1,3-Dichloropropane	<0.0014	mg/Kg - dry	0.0014	0.0025	1	05/07/14 17:16	ACS	L198395
2,2-Dichloropropane	<0.0009	mg/Kg - dry	0.0009	0.0025	1	05/07/14 17:16	ACS	L198395
1,1-Dichloropropene	<0.0012	mg/Kg - dry	0.0012	0.0025	1	05/07/14 17:16	ACS	L198395
cis-1,3-Dichloropropene	<0.0007	mg/Kg - dry	0.0007	0.0025	1	05/07/14 17:16	ACS	L198395
trans-1,3-Dichloropropene	<0.0012	mg/Kg - dry	0.0012	0.0025	1	05/07/14 17:16	ACS	L198395
Ethyl Acetate	<0.0020	mg/Kg - dry	0.0020	0.0503	1	05/07/14 17:16	ACS	L198395

**Qualifiers/  
Definitions**

*	Outside QC limit	B	Analyte detected in blank
DF	Dilution Factor	I	Recovery out of range
J	Estimated value	MQL	Method Quantitation Limit

03180

Ensafe  
Mr. Wes Goodnight  
5724 Summer Tree Drive  
Memphis, TN 38134

Project ID :  
Project : Basement Removal - 2nd and Chelsea  
Information : Memphis, TN  
Project No. 0888815441

Report Date : 05/13/2014  
Received : 5/7/2014

Report Number : **14-127-0261**

**REPORT OF ANALYSIS**

Lab No : **98608**

Matrix: **Solids**

Sample ID : **CHELSEBASE0411**

Sampled: **5/6/2014 15:55**

**Analytical Method:** 8260B

**Prep Method:** 5030A

**Prep Batch(es):** L198380

**Date/Time Prepped:** 5/7/2014 08:00:00

Test	Results	Units	MDL	MQL	DF	Date / Time Analyzed	By	Analytical Batch
Ethylbenzene	<0.0007	mg/Kg - dry	0.0007	0.0025	1	05/07/14 17:16	ACS	L198395
Hexachlorobutadiene	<0.0010	mg/Kg - dry	0.0010	0.0025	1	05/07/14 17:16	ACS	L198395
2-Hexanone	<0.0025	mg/Kg - dry	0.0025	0.0125	1	05/07/14 17:16	ACS	L198395
Iodomethane	<0.0012	mg/Kg - dry	0.0012	0.0125	1	05/07/14 17:16	ACS	L198395
Isopropylbenzene	<0.0004	mg/Kg - dry	0.0004	0.0025	1	05/07/14 17:16	ACS	L198395
4-Isopropyl toluene	<0.0006	mg/Kg - dry	0.0006	0.0025	1	05/07/14 17:16	ACS	L198395
Methyl tert-butyl ether (MTBE)	<0.0005	mg/Kg - dry	0.0005	0.0025	1	05/07/14 17:16	ACS	L198395
4-Methyl-2-Pentanone	<0.0036	mg/Kg - dry	0.0036	0.0125	1	05/07/14 17:16	ACS	L198395
Methylene Chloride	<0.0019	mg/Kg - dry	0.0019	0.0125	1	05/07/14 17:16	ACS	L198395
Naphthalene	<0.0039	mg/Kg - dry	0.0039	0.0125	1	05/07/14 17:16	ACS	L198395
n-Propylbenzene	<0.0003	mg/Kg - dry	0.0003	0.0025	1	05/07/14 17:16	ACS	L198395
Styrene	<0.0004	mg/Kg - dry	0.0004	0.0025	1	05/07/14 17:16	ACS	L198395
1,1,1,2-Tetrachloroethane	<0.0006	mg/Kg - dry	0.0006	0.0025	1	05/07/14 17:16	ACS	L198395
1,1,2,2-Tetrachloroethane	<0.0007	mg/Kg - dry	0.0007	0.0025	1	05/07/14 17:16	ACS	L198395
Tetrachloroethene	<0.0020	mg/Kg - dry	0.0020	0.0025	1	05/07/14 17:16	ACS	L198395
Toluene	<0.0031	mg/Kg - dry	0.0031	0.0125	1	05/07/14 17:16	ACS	L198395
1,2,3-Trichlorobenzene	<0.0013	mg/Kg - dry	0.0013	0.0025	1	05/07/14 17:16	ACS	L198395
1,2,4-Trichlorobenzene	<0.0018	mg/Kg - dry	0.0018	0.0025	1	05/07/14 17:16	ACS	L198395
1,1,1-Trichloroethane	<0.0010	mg/Kg - dry	0.0010	0.0025	1	05/07/14 17:16	ACS	L198395
1,1,2-Trichloroethane	<0.0021	mg/Kg - dry	0.0021	0.0025	1	05/07/14 17:16	ACS	L198395
Trichloroethene	<0.0016	mg/Kg - dry	0.0016	0.0025	1	05/07/14 17:16	ACS	L198395
Trichlorofluoromethane	<0.0010	mg/Kg - dry	0.0010	0.0025	1	05/07/14 17:16	ACS	L198395

Qualifiers/Definitions				
*	Outside QC limit		B	Analyte detected in blank
DF	Dilution Factor		I	Recovery out of range
J	Estimated value		MQL	Method Quantitation Limit

03180

Ensafe  
Mr. Wes Goodnight  
5724 Summer Tree Drive  
Memphis, TN 38134

Project ID :  
Project : Basement Removal - 2nd and Chelsea  
Information : Memphis, TN  
Project No. 0888815441

Report Date : 05/13/2014  
Received : 5/7/2014

Report Number : **14-127-0261**

**REPORT OF ANALYSIS**

Lab No : **98608**

Matrix: **Solids**

Sample ID : **CHELSEBASE0411**

Sampled: **5/6/2014 15:55**

**Analytical Method:** 8260B

**Prep Method:** 5030A

**Prep Batch(es):** L198380

**Date/Time Prepped:** 5/7/2014 08:00:00

Test	Results	Units	MDL	MQL	DF	Date / Time Analyzed	By	Analytical Batch
1,2,3-Trichloropropane	<0.0013	mg/Kg - dry	0.0013	0.0025	1	05/07/14 17:16	ACS	L198395
1,2,4-Trimethylbenzene	<0.0008	mg/Kg - dry	0.0008	0.0025	1	05/07/14 17:16	ACS	L198395
1,3,5-Trimethylbenzene	<0.0004	mg/Kg - dry	0.0004	0.0025	1	05/07/14 17:16	ACS	L198395
Vinyl Acetate	<0.0033	mg/Kg - dry	0.0033	0.0503	1	05/07/14 17:16	ACS	L198395
Vinyl Chloride	<0.0008	mg/Kg - dry	0.0008	0.0025	1	05/07/14 17:16	ACS	L198395
o-Xylene	<0.0010	mg/Kg - dry	0.0010	0.0025	1	05/07/14 17:16	ACS	L198395
m,p-Xylene	<0.0009	mg/Kg - dry	0.0009	0.0050	1	05/07/14 17:16	ACS	L198395
Xylene (Total)	<0.0009	mg/Kg - dry	0.0009	0.0050	1	05/07/14 17:16		L198395
Surrogate: 4-Bromofluorobenzene	95.1		Limits: 60-130%		1	05/07/14 17:16	ACS	L198395
Surrogate: 1,2-Dichloroethane - d4	110		Limits: 60-132%		1	05/07/14 17:16	ACS	L198395
Surrogate: Toluene-d8	96.8		Limits: 70-122%		1	05/07/14 17:16	ACS	L198395

**Analytical Method:** 8270C SIM

**Prep Method:** 3546

**Prep Batch(es):** L198604

**Date/Time Prepped:** 5/9/2014 09:15:00

Test	Results	Units	MDL	MQL	DF	Date / Time Analyzed	By	Analytical Batch
Acenaphthene	<0.000109	mg/Kg - dry	0.000109	0.000830	1	05/09/14 14:25	NFP	L198686
Acenaphthylene	<0.000064	mg/Kg - dry	0.000064	0.000830	1	05/09/14 14:25	NFP	L198686
Anthracene	<0.000266	mg/Kg - dry	0.000266	0.000830	1	05/09/14 14:25	NFP	L198686
Benzo(a)anthracene	<0.000716	mg/Kg - dry	0.000716	0.000830	1	05/09/14 14:25	NFP	L198686
Benzo(a)pyrene	<0.000677	mg/Kg - dry	0.000677	0.000830	1	05/09/14 14:25	NFP	L198686
Benzo(b)fluoranthene	<0.000343	mg/Kg - dry	0.000343	0.000830	1	05/09/14 14:25	NFP	L198686
Benzo(g,h,i)perylene	<0.000262	mg/Kg - dry	0.000262	0.000830	1	05/09/14 14:25	NFP	L198686

Qualifiers/Definitions				
*	Outside QC limit		B	Analyte detected in blank
DF	Dilution Factor		I	Recovery out of range
J	Estimated value		MQL	Method Quantitation Limit

03180

Ensafe  
Mr. Wes Goodnight  
5724 Summer Tree Drive  
Memphis, TN 38134

Project ID :  
Project : Basement Removal - 2nd and Chelsea  
Information : Memphis, TN  
Project No. 0888815441

Report Date : 05/13/2014  
Received : 5/7/2014

Report Number : **14-127-0261**

**REPORT OF ANALYSIS**

Lab No : **98608**

Matrix: **Solids**

Sample ID : **CHELSEBASE0411**

Sampled: **5/6/2014 15:55**

**Analytical Method:** 8270C SIM

**Prep Method:** 3546

**Prep Batch(es):** L198604

**Date/Time Prepped:** 5/9/2014 09:15:00

Test	Results	Units	MDL	MQL	DF	Date / Time Analyzed	By	Analytical Batch
Benzo(k)fluoranthene	<0.000241	mg/Kg - dry	0.000241	0.000830	1	05/09/14 14:25	NFP	L198686
Chrysene	<0.000392	mg/Kg - dry	0.000392	0.000830	1	05/09/14 14:25	NFP	L198686
Dibenz(a,h)anthracene	<0.000358	mg/Kg - dry	0.000358	0.000830	1	05/09/14 14:25	NFP	L198686
Fluoranthene	<0.000231	mg/Kg - dry	0.000231	0.000830	1	05/09/14 14:25	NFP	L198686
Fluorene	<0.000233	mg/Kg - dry	0.000233	0.000830	1	05/09/14 14:25	NFP	L198686
Indeno(1,2,3-cd)pyrene	<0.000276	mg/Kg - dry	0.000276	0.000830	1	05/09/14 14:25	NFP	L198686
2-Methylnaphthalene	<0.000148	mg/Kg - dry	0.000148	0.000830	1	05/09/14 14:25	NFP	L198686
Naphthalene	<0.000235	mg/Kg - dry	0.000235	0.000830	1	05/09/14 14:25	NFP	L198686
Phenanthrene	<0.000596	mg/Kg - dry	0.000596	0.000830	1	05/09/14 14:25	NFP	L198686
Pyrene	<0.000240	mg/Kg - dry	0.000240	0.000830	1	05/09/14 14:25	NFP	L198686
Surrogate: 2-Fluorobiphenyl	57.4		Limits: 33-115%		1	05/09/14 14:25	NFP	L198686
Surrogate: Nitrobenzene-d5	55.6		Limits: 29-110%		1	05/09/14 14:25	NFP	L198686
Surrogate: 4-Terphenyl-d14	58.1		Limits: 33-122%		1	05/09/14 14:25	NFP	L198686

**Qualifiers/  
Definitions**

*	Outside QC limit	B	Analyte detected in blank
DF	Dilution Factor	I	Recovery out of range



QC Report

Client ID Ensafe
Project Description Basement Removal - 2nd and Chelsea
Report No 14-127-0261

Analytical Method: 2540G-2011

Batch: L198428

Duplicate - L 98733-DUP

QC Measurement: RPD

DateTime Analyzed: 05/08/2014 07:34 AM

Table with 7 columns: Test Description, QC Result, Criteria, DUP Result, Sample Conc., MDL, Dilution. Row 1: % Moisture, 0.0 %, <15.0, 95.5 %, 95.5, 0.000, 1

**QC Report**

Client ID                   **Ensafe**  
 Project Description       Basement Removal - 2nd and Chelsea  
 Report No                 14-127-0261

**Analytical Method: 6010B**

**Batch: L198548**

**Prep Method: 3050B**

**Batch: L198435   5/8/14 8:15**

**Lab Reagent Blank - LRB-L198435**

**QC Measurement:   Limit**

**DateTime Analyzed: 05/08/2014 01:25 PM**

Test Description	LRB Result	MDL	SQL	Dilution
Total Arsenic	<0.710 mg/Kg	0.710	1.00	1
Total Barium	<0.058 mg/Kg	0.058	0.500	1
Total Cadmium	<0.0152 mg/Kg	0.0152	0.100	1
Total Chromium	<0.034 mg/Kg	0.034	0.250	1
Total Lead	<0.143 mg/Kg	0.143	0.300	1
Total Silver	<0.0272 mg/Kg	0.0272	0.250	1

**Laboratory Control Sample - LCS-L198435**

**QC Measurement:   % Recovery**

**DateTime Analyzed: 05/08/2014 01:21 PM**

Test Description	QC Result	Criteria	LCS Result	LCS Conc.	MDL	Dilution
Total Arsenic	99.4 %	80-120%	4.97 mg/Kg	5.00	0.710	1
Total Barium	105 %	80-120%	52.7 mg/Kg	50.0	0.058	1
Total Cadmium	105 %	80-120%	5.26 mg/Kg	5.00	0.0152	1
Total Chromium	110 %	80-120%	55.2 mg/Kg	50.0	0.034	1
Total Lead	112 %	80-120%	5.62 mg/Kg	5.00	0.143	1
Total Silver	108 %	80-120%	5.40 mg/Kg	5.00	0.0272	1

**Matrix Spike - P 97044-MS-L198435**

**QC Measurement:   % Recovery**

**DateTime Analyzed: 05/08/2014 06:53 PM**

Test Description	QC Result	Criteria	MS Result	MS Conc.	Sample Conc.	MDL	Dilution
Total Arsenic	85.1 %	75-125%	6.01 mg/Kg	4.66	2.04	0.710	1
Total Barium	79.7 %	75-125%	81.5 mg/Kg	46.6	44.3	0.058	1
Total Cadmium	85.9 %	75-125%	4.01 mg/Kg	4.66	< 0.0152	0.0152	1
Total Chromium	86.6 %	75-125%	55.6 mg/Kg	46.6	15.2	0.034	1
Total Lead	94.7 %	75-125%	9.72 mg/Kg	4.66	5.30	0.143	1
Total Silver	84.0 %	75-125%	3.92 mg/Kg	4.66	< 0.0272	0.0272	1

**QC Report**

Client ID                   **Ensafe**  
 Project Description       Basement Removal - 2nd and Chelsea  
 Report No                   14-127-0261

**Analytical Method: 6010B**

**Batch: L198548**

**Prep Method: 3050B**

**Batch: L198435   5/8/14 8:15**

**Matrix Spike Duplicate - P 97044-MSD-L198435**

**QC Measurement:   % Recovery**

**DateTime Analyzed: 05/08/2014 06:57 PM**

Test Description	QC Result	Criteria	MSD Result	MSD Conc.	Sample Conc.	MDL	Dilution
Total Arsenic	83.9 %	75-125%	6.14 mg/Kg	4.88	2.04	0.710	1
Total Barium	70.8 % *	75-125%	78.9 mg/Kg	48.8	44.3	0.058	1
Total Cadmium	86.0 %	75-125%	4.20 mg/Kg	4.88	< 0.0152	0.0152	1
Total Chromium	84.1 %	75-125%	56.3 mg/Kg	48.8	15.2	0.034	1
Total Lead	86.0 %	75-125%	9.50 mg/Kg	4.88	5.30	0.143	1
Total Silver	84.5 %	75-125%	4.13 mg/Kg	4.88	< 0.0272	0.0272	1

**Matrix Spike Duplicate - P 97044-MSD-L198435**

**QC Measurement:   RPD**

**DateTime Analyzed: 05/08/2014 06:57 PM**

Test Description	QC Result	Criteria	MSD Result	MSD Conc.	Sample Conc.	MDL	Dilution
Total Arsenic	2.1 %	<20.0	6.14 mg/Kg		6.01	0.710	1
Total Barium	3.2 %	<20.0	78.9 mg/Kg		81.5	0.058	1
Total Cadmium	4.6 %	<20.0	4.20 mg/Kg		4.01	0.0152	1
Total Chromium	1.2 %	<20.0	56.3 mg/Kg		55.6	0.034	1
Total Lead	2.2 %	<20.0	9.50 mg/Kg		9.72	0.143	1
Total Silver	5.2 %	<20.0	4.13 mg/Kg		3.92	0.0272	1

\* QC Fail



**QC Report**

Client ID **Ensafe**  
 Project Description Basement Removal - 2nd and Chelsea  
 Report No 14-127-0261

**Analytical Method: 6010B**

**Batch: L198699**

**Prep Method: 3050B**

**Batch: L198435 5/8/14 8:15**

**Matrix Spike - P 97044-MS-L198435**

**QC Measurement: % Recovery**

**DateTime Analyzed: 05/09/2014 08:52 PM**

Test Description	QC Result	Criteria	MS Result	MS Conc.	Sample Conc.	MDL	Dilution
Total Selenium	0.0 % *	75-125%	<5.11 mg/Kg	4.66	< 5.11	5.11	10

**Matrix Spike Duplicate - P 97044-MSD-L198435**

**QC Measurement: % Recovery**

**DateTime Analyzed: 05/09/2014 08:56 PM**

Test Description	QC Result	Criteria	MSD Result	MSD Conc.	Sample Conc.	MDL	Dilution
Total Selenium	0.0 % *	75-125%	<5.11 mg/Kg	4.88	< 5.11	5.11	10

**Matrix Spike Duplicate - P 97044-MSD-L198435**

**QC Measurement: RPD**

**DateTime Analyzed: 05/09/2014 08:56 PM**

Test Description	QC Result	Criteria	MSD Result	MSD Conc.	Sample Conc.	MDL	Dilution
Total Selenium	0.0 %	75-125%	<5.11 mg/Kg	4.88	< 5.11	5.11	10

\* QC Fail

**QC Report**

Client ID                   **Ensafe**  
 Project Description       Basement Removal - 2nd and Chelsea  
 Report No                   14-127-0261

**Analytical Method: 7471A**

**Batch: L198540**

**Prep Method: 7471A**

**Batch: L198436   05/08/14 08:30**

**Lab Reagent Blank - LRB-L198436**

**QC Measurement:   Limit**

**DateTime Analyzed: 05/08/2014 01:27 PM**

<u>Test Description</u>	<u>LRB Result</u>	<u>Qualifier</u>	<u>MDL</u>	<u>MQL</u>	<u>Dilution</u>
Total Mercury	0.00380 mg/Kg	J	0.00263	0.0133	1

**Laboratory Control Sample - LCS-L198436**

**QC Measurement:   % Recovery**

**DateTime Analyzed: 05/08/2014 01:29 PM**

<u>Test Description</u>	<u>QC Result</u>	<u>Criteria</u>	<u>LCS Result</u>	<u>LCS Conc.</u>	<u>MDL</u>	<u>Dilution</u>
Total Mercury	105 %	80-120%	0.349 mg/Kg	0.333	0.00263	1

**Matrix Spike - L 98609-MS-L198436**

**QC Measurement:   % Recovery**

**DateTime Analyzed: 05/08/2014 01:37 PM**

<u>Test Description</u>	<u>QC Result</u>	<u>Criteria</u>	<u>MS Result</u>	<u>MS Conc.</u>	<u>Sample Conc.</u>	<u>MDL</u>	<u>Dilution</u>
Total Mercury	103 %	80-120%	0.330 mg/Kg	0.306	0.0146	0.00263	1

**Matrix Spike Duplicate - L 98609-MSD-L198436**

**QC Measurement:   % Recovery**

**DateTime Analyzed: 05/08/2014 01:38 PM**

<u>Test Description</u>	<u>QC Result</u>	<u>Criteria</u>	<u>MSD Result</u>	<u>MSD Conc.</u>	<u>Sample Conc.</u>	<u>MDL</u>	<u>Dilution</u>
Total Mercury	98.9 %	80-120%	0.343 mg/Kg	0.332	0.0146	0.00263	1

**Matrix Spike Duplicate - L 98609-MSD-L198436**

**QC Measurement:   RPD**

**DateTime Analyzed: 05/08/2014 01:38 PM**

<u>Test Description</u>	<u>QC Result</u>	<u>Criteria</u>	<u>MSD Result</u>	<u>MSD Conc.</u>	<u>Sample Conc.</u>	<u>MDL</u>	<u>Dilution</u>
Total Mercury	3.8 %	<20.0	0.343 mg/Kg		0.330	0.00263	1

**QC Report**

Client ID                   **Ensafe**  
 Project Description       Basement Removal - 2nd and Chelsea  
 Report No                 14-127-0261

**Analytical Method: 8260B**

**Batch: L198395**

**Prep Method: 5030A**

**Batch: L198380 5/7/14 8:00**

**Lab Reagent Blank - LRB-L198380**

**QC Measurement: Limit**

**DateTime Analyzed: 05/07/2014 11:13 AM**

<b>Test Description</b>	<b>LRB Result</b>	<b>Qualifier</b>	<b>MDL</b>	<b>MLQ</b>	<b>Dilution</b>
Acetone	0.0116 mg/Kg	J	0.0046	0.0400	1
Acetonitrile	<0.0128 mg/Kg		0.0128	0.100	1
Acrolein	<0.0101 mg/Kg		0.0101	0.0400	1
Acrylonitrile	<0.0080 mg/Kg		0.0080	0.0400	1
Benzene	<0.0008 mg/Kg		0.0008	0.0020	1
Bromobenzene	<0.0009 mg/Kg		0.0009	0.0020	1
Bromochloromethane	<0.0007 mg/Kg		0.0007	0.0020	1
Bromodichloromethane	<0.0004 mg/Kg		0.0004	0.0020	1
Bromoform	<0.0006 mg/Kg		0.0006	0.0020	1
Bromomethane	<0.0012 mg/Kg		0.0012	0.0020	1
Methyl Ethyl Ketone (MEK)	<0.0061 mg/Kg		0.0061	0.0400	1
n-Butylbenzene	<0.0007 mg/Kg		0.0007	0.0020	1
sec-Butyl benzene	<0.0003 mg/Kg		0.0003	0.0020	1
tert-Butyl benzene	<0.0014 mg/Kg		0.0014	0.0020	1
Carbon Disulfide	<0.0004 mg/Kg		0.0004	0.0020	1
Carbon Tetrachloride	<0.0005 mg/Kg		0.0005	0.0020	1
Chlorobenzene	<0.0008 mg/Kg		0.0008	0.0020	1
Chlorodibromomethane	<0.0009 mg/Kg		0.0009	0.0020	1
Chloroethane	<0.0003 mg/Kg		0.0003	0.0020	1
2-Chloroethylvinyl Ether	<0.0020 mg/Kg		0.0020	0.0020	1
Chloroform	<0.0004 mg/Kg		0.0004	0.0020	1
Chloromethane	<0.0007 mg/Kg		0.0007	0.0020	1
2-Chlorotoluene	<0.0002 mg/Kg		0.0002	0.0020	1
4-Chlorotoluene	<0.0008 mg/Kg		0.0008	0.0020	1
1,2-Dibromo-3-Chloropropane	<0.0050 mg/Kg		0.0050	0.0100	1
1,2-Dibromoethane	<0.0011 mg/Kg		0.0011	0.0020	1
Dibromomethane	<0.0011 mg/Kg		0.0011	0.0020	1
1,2-Dichlorobenzene	<0.0010 mg/Kg		0.0010	0.0020	1
1,3-Dichlorobenzene	<0.0008 mg/Kg		0.0008	0.0020	1

**QC Report**

Client ID                   **Ensafe**  
 Project Description       Basement Removal - 2nd and Chelsea  
 Report No                 14-127-0261

**Analytical Method: 8260B**

**Batch: L198395**

**Prep Method: 5030A**

**Batch: L198380 5/7/14 8:00**

**Lab Reagent Blank - LRB-L198380**

**QC Measurement: Limit**

**DateTime Analyzed: 05/07/2014 11:13 AM**

<b>Test Description</b>	<b>LRB Result</b>	<b>Qualifier</b>	<b>MDL</b>	<b>SQL</b>	<b>Dilution</b>
1,4-Dichlorobenzene	<0.0007 mg/Kg		0.0007	0.0020	1
Dichlorodifluoromethane	<0.0005 mg/Kg		0.0005	0.0020	1
1,1-Dichloroethane	<0.0003 mg/Kg		0.0003	0.0020	1
1,2-Dichloroethane	<0.0010 mg/Kg		0.0010	0.0020	1
1,1-Dichloroethene	<0.0004 mg/Kg		0.0004	0.0020	1
cis-1,2-Dichloroethene	<0.0005 mg/Kg		0.0005	0.0020	1
trans-1,2-Dichloroethene	<0.0004 mg/Kg		0.0004	0.0020	1
1,2-Dichloropropane	<0.0011 mg/Kg		0.0011	0.0020	1
1,3-Dichloropropane	<0.0011 mg/Kg		0.0011	0.0020	1
2,2-Dichloropropane	<0.0007 mg/Kg		0.0007	0.0020	1
1,1-Dichloropropene	<0.0009 mg/Kg		0.0009	0.0020	1
cis-1,3-Dichloropropene	<0.0006 mg/Kg		0.0006	0.0020	1
trans-1,3-Dichloropropene	<0.0009 mg/Kg		0.0009	0.0020	1
Ethyl Acetate	<0.0016 mg/Kg		0.0016	0.0400	1
Ethylbenzene	<0.0005 mg/Kg		0.0005	0.0020	1
Hexachlorobutadiene	0.0012 mg/Kg	J	0.0008	0.0020	1
2-Hexanone	<0.0019 mg/Kg		0.0019	0.0100	1
Iodomethane	<0.0009 mg/Kg		0.0009	0.0100	1
Isopropylbenzene	<0.0003 mg/Kg		0.0003	0.0020	1
4-Isopropyl toluene	<0.0005 mg/Kg		0.0005	0.0020	1
Methyl tert-butyl ether (MTBE)	<0.0004 mg/Kg		0.0004	0.0020	1
4-Methyl-2-Pentanone	<0.0029 mg/Kg		0.0029	0.0100	1
Methylene Chloride	0.0024 mg/Kg	J	0.0015	0.0100	1
Naphthalene	0.0033 mg/Kg	J	0.0031	0.0100	1
n-Propylbenzene	<0.0002 mg/Kg		0.0002	0.0020	1
Styrene	<0.0003 mg/Kg		0.0003	0.0020	1
1,1,1,2-Tetrachloroethane	<0.0005 mg/Kg		0.0005	0.0020	1
1,1,2,2-Tetrachloroethane	<0.0006 mg/Kg		0.0006	0.0020	1
Tetrachloroethene	<0.0016 mg/Kg		0.0016	0.0020	1

**QC Report**

Client ID                   **Ensafe**  
Project Description       Basement Removal - 2nd and Chelsea  
Report No                   14-127-0261

**Analytical Method: 8260B**

**Batch: L198395**

**Prep Method: 5030A**

**Batch: L198380   5/7/14 8:00**

**Lab Reagent Blank - LRB-L198380**

**QC Measurement:   Limit**

**DateTime Analyzed: 05/07/2014 11:13 AM**

<b>Test Description</b>	<b>LRB Result</b>	<b>Qualifier</b>	<b>MDL</b>	<b>SQL</b>	<b>Dilution</b>
Toluene	<0.0025 mg/Kg		0.0025	0.0100	1
1,2,3-Trichlorobenzene	<0.0010 mg/Kg		0.0010	0.0020	1
1,2,4-Trichlorobenzene	<0.0014 mg/Kg		0.0014	0.0020	1
1,1,1-Trichloroethane	<0.0008 mg/Kg		0.0008	0.0020	1
1,1,2-Trichloroethane	<0.0017 mg/Kg		0.0017	0.0020	1
Trichloroethene	<0.0013 mg/Kg		0.0013	0.0020	1
Trichlorofluoromethane	<0.0008 mg/Kg		0.0008	0.0020	1
1,2,3-Trichloropropane	<0.0010 mg/Kg		0.0010	0.0020	1
1,2,4-Trimethylbenzene	<0.0006 mg/Kg		0.0006	0.0020	1
1,3,5-Trimethylbenzene	<0.0003 mg/Kg		0.0003	0.0020	1
Vinyl Acetate	<0.0026 mg/Kg		0.0026	0.0400	1
Vinyl Chloride	<0.0006 mg/Kg		0.0006	0.0020	1
o-Xylene	<0.0008 mg/Kg		0.0008	0.0020	1
m,p-Xylene	<0.0007 mg/Kg		0.0007	0.0040	1

**Surrogate Recovery:**

4-Bromofluorobenzene	87.0	0.0870 mg/Kg	0.100		1
1,2-Dichloroethane - d4	90.3	0.0903 mg/Kg	0.100		1
Toluene-d8	82.6	0.0826 mg/Kg	0.100		1

**Laboratory Control Sample - LCS-L198380**

**QC Measurement:   % Recovery**

**DateTime Analyzed: 05/07/2014 09:41 AM**

<b>Test Description</b>	<b>QC Result</b>	<b>Criteria</b>	<b>LCS Result</b>	<b>LCS Conc.</b>	<b>MDL</b>	<b>Dilution</b>
Acetone	138 %	40-140%	0.275 mg/Kg	0.200	0.0046	1
Acetonitrile	112 %	40-140%	2.24 mg/Kg	2.00	0.0128	1
Acrolein	79.5 %	40-140%	0.159 mg/Kg	0.200	0.0101	1
Acrylonitrile	109 %	40-140%	0.218 mg/Kg	0.200	0.0080	1
Benzene	99.5 %	80-120%	0.199 mg/Kg	0.200	0.0008	1
Bromobenzene	96.0 %	75-125%	0.192 mg/Kg	0.200	0.0009	1

**QC Report**

Client ID                   **Ensafe**  
 Project Description       Basement Removal - 2nd and Chelsea  
 Report No                 14-127-0261

**Analytical Method: 8260B**

**Batch: L198395**

**Prep Method: 5030A**

**Batch: L198380 5/7/14 8:00**

**Laboratory Control Sample - LCS-L198380**

**QC Measurement:    % Recovery**

**DateTime Analyzed: 05/07/2014 09:41 AM**

Test Description	QC Result	Criteria	LCS Result	LCS Conc.	MDL	Dilution
Bromochloromethane	117 %	65-130%	0.234 mg/Kg	0.200	0.0007	1
Bromodichloromethane	109 %	75-120%	0.217 mg/Kg	0.200	0.0004	1
Bromoform	107 %	70-130%	0.213 mg/Kg	0.200	0.0006	1
Bromomethane	77.5 %	40-140%	0.155 mg/Kg	0.200	0.0012	1
Methyl Ethyl Ketone (MEK)	133 %	40-140%	0.266 mg/Kg	0.200	0.0061	1
n-Butylbenzene	104 %	70-135%	0.208 mg/Kg	0.200	0.0007	1
sec-Butyl benzene	106 %	70-125%	0.211 mg/Kg	0.200	0.0003	1
tert-Butyl benzene	105 %	70-130%	0.209 mg/Kg	0.200	0.0014	1
Carbon Disulfide	91.5 %	40-140%	0.183 mg/Kg	0.200	0.0004	1
Carbon Tetrachloride	121 %	65-140%	0.241 mg/Kg	0.200	0.0005	1
Chlorobenzene	101 %	80-120%	0.201 mg/Kg	0.200	0.0008	1
Chlorodibromomethane	98.5 %	75-120%	0.197 mg/Kg	0.200	0.0009	1
Chloroethane	114 %	60-135%	0.227 mg/Kg	0.200	0.0003	1
2-Chloroethylvinyl Ether	114 %	40-140%	0.228 mg/Kg	0.200	0.0020	1
Chloroform	113 %	80-120%	0.225 mg/Kg	0.200	0.0004	1
Chloromethane	119 %	40-125%	0.238 mg/Kg	0.200	0.0007	1
2-Chlorotoluene	97.0 %	75-125%	0.194 mg/Kg	0.200	0.0002	1
4-Chlorotoluene	96.5 %	75-130%	0.193 mg/Kg	0.200	0.0008	1
1,2-Dibromo-3-Chloropropane	91.0 %	50-130%	0.182 mg/Kg	0.200	0.0050	1
1,2-Dibromoethane	101 %	80-120%	0.202 mg/Kg	0.200	0.0011	1
Dibromomethane	105 %	75-125%	0.209 mg/Kg	0.200	0.0011	1
1,2-Dichlorobenzene	91.5 %	70-120%	0.183 mg/Kg	0.200	0.0010	1
1,3-Dichlorobenzene	110 %	75-125%	0.220 mg/Kg	0.200	0.0008	1
1,4-Dichlorobenzene	93.0 %	75-125%	0.186 mg/Kg	0.200	0.0007	1
Dichlorodifluoromethane	90.5 %	40-140%	0.181 mg/Kg	0.200	0.0005	1
1,1-Dichloroethane	107 %	70-135%	0.214 mg/Kg	0.200	0.0003	1
1,2-Dichloroethane	123 %	70-130%	0.245 mg/Kg	0.200	0.0010	1
1,1-Dichloroethene	89.0 %	80-120%	0.178 mg/Kg	0.200	0.0004	1
cis-1,2-Dichloroethene	120 %	70-125%	0.239 mg/Kg	0.200	0.0005	1

**QC Report**

Client ID                   **Ensafe**  
 Project Description       Basement Removal - 2nd and Chelsea  
 Report No                 14-127-0261

**Analytical Method: 8260B**

**Batch: L198395**

**Prep Method: 5030A**

**Batch: L198380 5/7/14 8:00**

**Laboratory Control Sample - LCS-L198380**

**QC Measurement:    % Recovery**

**DateTime Analyzed: 05/07/2014 09:41 AM**

Test Description	QC Result	Criteria	LCS Result	LCS Conc.	MDL	Dilution
trans-1,2-Dichloroethene	95.0 %	60-140%	0.190 mg/Kg	0.200	0.0004	1
1,2-Dichloropropane	116 %	80-120%	0.231 mg/Kg	0.200	0.0011	1
1,3-Dichloropropane	119 %	75-125%	0.238 mg/Kg	0.200	0.0011	1
2,2-Dichloropropane	122 %	70-135%	0.243 mg/Kg	0.200	0.0007	1
1,1-Dichloropropene	119 %	75-130%	0.238 mg/Kg	0.200	0.0009	1
cis-1,3-Dichloropropene	122 %	70-130%	0.244 mg/Kg	0.200	0.0006	1
trans-1,3-Dichloropropene	120 %	55-140%	0.239 mg/Kg	0.200	0.0009	1
Ethyl Acetate	104 %	40-125%	0.208 mg/Kg	0.200	0.0016	1
Ethylbenzene	93.5 %	80-120%	0.187 mg/Kg	0.200	0.0005	1
Hexachlorobutadiene	98.0 %	50-140%	0.196 mg/Kg	0.200	0.0008	1
2-Hexanone	117 %	55-130%	0.234 mg/Kg	0.200	0.0019	1
Iodomethane	102 %	40-125%	0.204 mg/Kg	0.200	0.0009	1
Isopropylbenzene	99.5 %	75-125%	0.199 mg/Kg	0.200	0.0003	1
4-Isopropyl toluene	110 %	75-130%	0.220 mg/Kg	0.200	0.0005	1
Methyl tert-butyl ether (MTBE)	105 %	65-125%	0.209 mg/Kg	0.200	0.0004	1
4-Methyl-2-Pentanone	116 %	60-135%	0.231 mg/Kg	0.200	0.0029	1
Methylene Chloride	110 %	55-140%	0.220 mg/Kg	0.200	0.0015	1
Naphthalene	96.5 %	55-140%	0.193 mg/Kg	0.200	0.0031	1
n-Propylbenzene	103 %	70-130%	0.205 mg/Kg	0.200	0.0002	1
Styrene	110 %	65-135%	0.219 mg/Kg	0.200	0.0003	1
1,1,1,2-Tetrachloroethane	90.5 %	70-130%	0.181 mg/Kg	0.200	0.0005	1
1,1,1,2,2-Tetrachloroethane	96.0 %	65-130%	0.192 mg/Kg	0.200	0.0006	1
Tetrachloroethene	122 %	60-145%	0.243 mg/Kg	0.200	0.0016	1
Toluene	116 %	80-120%	0.231 mg/Kg	0.200	0.0025	1
1,2,3-Trichlorobenzene	111 %	55-140%	0.221 mg/Kg	0.200	0.0010	1
1,2,4-Trichlorobenzene	104 %	65-135%	0.207 mg/Kg	0.200	0.0014	1
1,1,1-Trichloroethane	117 %	65-130%	0.233 mg/Kg	0.200	0.0008	1
1,1,2-Trichloroethane	108 %	75-125%	0.216 mg/Kg	0.200	0.0017	1
Trichloroethene	108 %	70-125%	0.216 mg/Kg	0.200	0.0013	1



**QC Report**

Client ID                   **Ensafe**  
Project Description       Basement Removal - 2nd and Chelsea  
Report No                   14-127-0261

**Analytical Method: 8260B**

**Batch: L198395**

**Prep Method: 5030A**

**Batch: L198380 5/7/14 8:00**

**Laboratory Control Sample - LCS-L198380**

**QC Measurement:    % Recovery**

**DateTime Analyzed: 05/07/2014 09:41 AM**

Test Description	QC Result	Criteria	LCS Result	LCS Conc.	MDL	Dilution
Trichlorofluoromethane	107 %	45-150%	0.214 mg/Kg	0.200	0.0008	1
1,2,3-Trichloropropane	102 %	75-125%	0.204 mg/Kg	0.200	0.0010	1
1,2,4-Trimethylbenzene	101 %	75-130%	0.201 mg/Kg	0.200	0.0006	1
1,3,5-Trimethylbenzene	97.5 %	75-130%	0.195 mg/Kg	0.200	0.0003	1
Vinyl Acetate	121 %	40-125%	0.242 mg/Kg	0.200	0.0026	1
Vinyl Chloride	118 %	80-120%	0.236 mg/Kg	0.200	0.0006	1
o-Xylene	99.5 %	75-130%	0.199 mg/Kg	0.200	0.0008	1
m,p-Xylene	97.2 %	75-130%	0.389 mg/Kg	0.400	0.0007	1
<b>Surrogate Recovery:</b>						
4-Bromofluorobenzene	87.1 %	60-130%	0.0871 mg/Kg	0.100		1
1,2-Dichloroethane - d4	104 %	60-132%	0.104 mg/Kg	0.100		1
Toluene-d8	96.0 %	70-122%	0.0960 mg/Kg	0.100		1

**Matrix Spike - L 97803-MS-L198380**

**QC Measurement:    % Recovery**

**DateTime Analyzed: 05/07/2014 05:44 PM**

Test Description	QC Result	Criteria	MS Result	MS Conc.	Sample Conc.	MDL	Dilution
Acetone	100 %	40-140%	0.185 mg/Kg	0.185	<0.0046	0.0046	1
Acetonitrile	81.0 %	40-140%	1.50 mg/Kg	1.85	<0.0128	0.0128	1
Acrolein	65.4 %	40-140%	0.121 mg/Kg	0.185	<0.0101	0.0101	1
Acrylonitrile	85.4 %	40-140%	0.158 mg/Kg	0.185	<0.0080	0.0080	1
Benzene	79.4 % *	80-120%	0.147 mg/Kg	0.185	<0.0008	0.0008	1
Bromobenzene	93.5 %	75-125%	0.173 mg/Kg	0.185	<0.0009	0.0009	1
Bromochloromethane	90.8 %	65-130%	0.168 mg/Kg	0.185	<0.0007	0.0007	1
Bromodichloromethane	100 %	75-120%	0.185 mg/Kg	0.185	<0.0004	0.0004	1
Bromoform	81.6 %	70-130%	0.151 mg/Kg	0.185	<0.0006	0.0006	1
Bromomethane	81.0 %	40-140%	0.150 mg/Kg	0.185	<0.0012	0.0012	1
Methyl Ethyl Ketone (MEK)	100 %	40-140%	0.185 mg/Kg	0.185	<0.0061	0.0061	1
n-Butylbenzene	82.1 %	70-135%	0.152 mg/Kg	0.185	<0.0007	0.0007	1

\* QC Fail

**QC Report**

Client ID                   **Ensafe**  
Project Description       Basement Removal - 2nd and Chelsea  
Report No                   14-127-0261

**Analytical Method: 8260B**

**Batch: L198395**

**Prep Method: 5030A**

**Batch: L198380 5/7/14 8:00**

**Matrix Spike - L 97803-MS-L198380**

**QC Measurement:    % Recovery**

**DateTime Analyzed: 05/07/2014 05:44 PM**

Test Description	QC Result	Criteria	MS Result	MS Conc.	Sample Conc.	MDL	Dilution
sec-Butyl benzene	84.8 %	70-125%	0.157 mg/Kg	0.185	<0.0003	0.0003	1
tert-Butyl benzene	80.5 %	70-130%	0.149 mg/Kg	0.185	<0.0014	0.0014	1
Carbon Disulfide	58.9 %	40-140%	0.109 mg/Kg	0.185	<0.0004	0.0004	1
Carbon Tetrachloride	81.0 %	65-140%	0.150 mg/Kg	0.185	<0.0005	0.0005	1
Chlorobenzene	89.7 %	80-120%	0.166 mg/Kg	0.185	<0.0008	0.0008	1
Chlorodibromomethane	92.9 %	75-120%	0.172 mg/Kg	0.185	<0.0009	0.0009	1
Chloroethane	92.9 %	60-135%	0.172 mg/Kg	0.185	<0.0003	0.0003	1
2-Chloroethylvinyl Ether	114 %	40-140%	0.210 mg/Kg	0.185	<0.0020	0.0020	1
Chloroform	78.3 % *	80-120%	0.145 mg/Kg	0.185	<0.0004	0.0004	1
Chloromethane	84.3 %	40-125%	0.156 mg/Kg	0.185	<0.0007	0.0007	1
2-Chlorotoluene	91.3 %	75-125%	0.169 mg/Kg	0.185	<0.0002	0.0002	1
4-Chlorotoluene	90.8 %	75-130%	0.168 mg/Kg	0.185	<0.0008	0.0008	1
1,2-Dibromo-3-Chloropropane	80.5 %	50-130%	0.149 mg/Kg	0.185	<0.0050	0.0050	1
1,2-Dibromoethane	100 %	80-120%	0.185 mg/Kg	0.185	<0.0011	0.0011	1
Dibromomethane	92.9 %	75-125%	0.172 mg/Kg	0.185	<0.0011	0.0011	1
1,2-Dichlorobenzene	82.1 %	70-120%	0.152 mg/Kg	0.185	<0.0010	0.0010	1
1,3-Dichlorobenzene	89.1 %	75-125%	0.165 mg/Kg	0.185	<0.0008	0.0008	1
1,4-Dichlorobenzene	87.0 %	75-125%	0.161 mg/Kg	0.185	<0.0007	0.0007	1
Dichlorodifluoromethane	58.3 %	40-140%	0.108 mg/Kg	0.185	<0.0005	0.0005	1
1,1-Dichloroethane	88.6 %	70-135%	0.164 mg/Kg	0.185	<0.0003	0.0003	1
1,2-Dichloroethane	88.1 %	70-130%	0.163 mg/Kg	0.185	<0.0010	0.0010	1
1,1-Dichloroethene	65.9 % *	80-120%	0.122 mg/Kg	0.185	<0.0004	0.0004	1
cis-1,2-Dichloroethene	77.8 %	70-125%	0.144 mg/Kg	0.185	<0.0005	0.0005	1
trans-1,2-Dichloroethene	74.5 %	60-140%	0.138 mg/Kg	0.185	<0.0004	0.0004	1
1,2-Dichloropropane	106 %	80-120%	0.196 mg/Kg	0.185	<0.0011	0.0011	1
1,3-Dichloropropane	89.7 %	75-125%	0.166 mg/Kg	0.185	<0.0011	0.0011	1
2,2-Dichloropropane	84.8 %	70-135%	0.157 mg/Kg	0.185	<0.0007	0.0007	1
1,1-Dichloropropene	85.4 %	75-130%	0.158 mg/Kg	0.185	<0.0009	0.0009	1
cis-1,3-Dichloropropene	100 %	70-130%	0.185 mg/Kg	0.185	<0.0006	0.0006	1

\* QC Fail

**QC Report**

Client ID **Ensafe**  
 Project Description **Basement Removal - 2nd and Chelsea**  
 Report No **14-127-0261**

**Analytical Method: 8260B**

**Batch: L198395**

**Prep Method: 5030A**

**Batch: L198380 5/7/14 8:00**

**Matrix Spike - L 97803-MS-L198380**

**QC Measurement: % Recovery**

**DateTime Analyzed: 05/07/2014 05:44 PM**

Test Description	QC Result	Criteria	MS Result	MS Conc.	Sample Conc.	MDL	Dilution
trans-1,3-Dichloropropene	90.2 %	55-140%	0.167 mg/Kg	0.185	<0.0009	0.0009	1
Ethyl Acetate	97.8 %	40-125%	0.181 mg/Kg	0.185	<0.0016	0.0016	1
Ethylbenzene	86.4 %	80-120%	0.160 mg/Kg	0.185	<0.0005	0.0005	1
Hexachlorobutadiene	82.1 %	50-140%	0.152 mg/Kg	0.185	<0.0008	0.0008	1
2-Hexanone	94.0 %	55-130%	0.174 mg/Kg	0.185	<0.0019	0.0019	1
Iodomethane	73.5 %	40-125%	0.136 mg/Kg	0.185	<0.0009	0.0009	1
Isopropylbenzene	88.6 %	75-125%	0.164 mg/Kg	0.185	<0.0003	0.0003	1
4-Isopropyl toluene	89.7 %	75-130%	0.166 mg/Kg	0.185	<0.0005	0.0005	1
Methyl tert-butyl ether (MTBE)	84.3 %	65-125%	0.156 mg/Kg	0.185	<0.0004	0.0004	1
4-Methyl-2-Pentanone	97.2 %	60-135%	0.180 mg/Kg	0.185	<0.0029	0.0029	1
Methylene Chloride	72.9 %	55-140%	0.135 mg/Kg	0.185	<0.0015	0.0015	1
Naphthalene	64.8 %	55-140%	0.120 mg/Kg	0.185	<0.0031	0.0031	1
n-Propylbenzene	85.4 %	70-130%	0.158 mg/Kg	0.185	<0.0002	0.0002	1
Styrene	84.8 %	65-135%	0.157 mg/Kg	0.185	<0.0003	0.0003	1
1,1,1,2-Tetrachloroethane	94.5 %	70-130%	0.175 mg/Kg	0.185	<0.0005	0.0005	1
1,1,1,2-Tetrachloroethane	81.0 %	65-130%	0.150 mg/Kg	0.185	<0.0006	0.0006	1
Tetrachloroethene	103 %	60-145%	0.191 mg/Kg	0.185	<0.0016	0.0016	1
Toluene	93.5 %	80-120%	0.173 mg/Kg	0.185	<0.0025	0.0025	1
1,2,3-Trichlorobenzene	76.2 %	55-140%	0.141 mg/Kg	0.185	<0.0010	0.0010	1
1,2,4-Trichlorobenzene	81.6 %	65-135%	0.151 mg/Kg	0.185	<0.0014	0.0014	1
1,1,1-Trichloroethane	79.4 %	65-130%	0.147 mg/Kg	0.185	<0.0008	0.0008	1
1,1,2-Trichloroethane	90.8 %	75-125%	0.168 mg/Kg	0.185	<0.0017	0.0017	1
Trichloroethene	91.8 %	70-125%	0.170 mg/Kg	0.185	<0.0013	0.0013	1
Trichlorofluoromethane	86.4 %	45-150%	0.160 mg/Kg	0.185	<0.0008	0.0008	1
1,2,3-Trichloropropane	89.7 %	75-125%	0.166 mg/Kg	0.185	<0.0010	0.0010	1
1,2,4-Trimethylbenzene	77.9 %	75-130%	0.147 mg/Kg	0.185	0.0027	0.0006	1
1,3,5-Trimethylbenzene	84.8 %	75-130%	0.157 mg/Kg	0.185	<0.0003	0.0003	1
Vinyl Acetate	96.7 %	40-125%	0.179 mg/Kg	0.185	<0.0026	0.0026	1
Vinyl Chloride	88.1 %	80-120%	0.163 mg/Kg	0.185	<0.0006	0.0006	1

**QC Report**

Client ID                   **Ensafe**  
 Project Description       Basement Removal - 2nd and Chelsea  
 Report No                   14-127-0261

**Analytical Method: 8260B**

**Batch: L198395**

**Prep Method: 5030A**

**Batch: L198380 5/7/14 8:00**

**Matrix Spike - L 97803-MS-L198380**

**QC Measurement:    % Recovery**

**DateTime Analyzed: 05/07/2014 05:44 PM**

Test Description	QC Result	Criteria	MS Result	MS Conc.	Sample Conc.	MDL	Dilution
o-Xylene	80.3 %	75-130%	0.151 mg/Kg	0.185	0.0022	0.0008	1
m,p-Xylene	86.7 %	75-130%	0.327 mg/Kg	0.370	0.0060	0.0007	1
<b>Surrogate Recovery:</b>							
4-Bromofluorobenzene	88.5 %	60-130%	0.0885 mg/Kg	0.100			1
1,2-Dichloroethane - d4	90.0 %	60-132%	0.0900 mg/Kg	0.100			1
Toluene-d8	94.3 %	70-122%	0.0943 mg/Kg	0.100			1

**Matrix Spike Duplicate - L 97803-MSD-L198380**

**QC Measurement:    % Recovery**

**DateTime Analyzed: 05/07/2014 06:12 PM**

Test Description	QC Result	Criteria	MSD Result	MSD Conc.	Sample Conc.	MDL	Dilution
Acetone	100 %	40-140%	0.190 mg/Kg	0.190	<0.0046	0.0046	1
Acetonitrile	55.7 %	40-140%	1.06 mg/Kg	1.90	<0.0128	0.0128	1
Acrolein	77.3 %	40-140%	0.147 mg/Kg	0.190	<0.0101	0.0101	1
Acrylonitrile	114 %	40-140%	0.217 mg/Kg	0.190	<0.0080	0.0080	1
Benzene	66.8 % *	80-120%	0.127 mg/Kg	0.190	<0.0008	0.0008	1
Bromobenzene	76.8 %	75-125%	0.146 mg/Kg	0.190	<0.0009	0.0009	1
Bromochloromethane	106 %	65-130%	0.201 mg/Kg	0.190	<0.0007	0.0007	1
Bromodichloromethane	88.4 %	75-120%	0.168 mg/Kg	0.190	<0.0004	0.0004	1
Bromoform	79.4 %	70-130%	0.151 mg/Kg	0.190	<0.0006	0.0006	1
Bromomethane	97.3 %	40-140%	0.185 mg/Kg	0.190	<0.0012	0.0012	1
Methyl Ethyl Ketone (MEK)	104 %	40-140%	0.198 mg/Kg	0.190	<0.0061	0.0061	1
n-Butylbenzene	54.7 % *	70-135%	0.104 mg/Kg	0.190	<0.0007	0.0007	1
sec-Butyl benzene	45.5 % *	70-125%	0.0865 mg/Kg	0.190	<0.0003	0.0003	1
tert-Butyl benzene	49.3 % *	70-130%	0.0937 mg/Kg	0.190	<0.0014	0.0014	1
Carbon Disulfide	37.2 % *	40-140%	0.0707 mg/Kg	0.190	<0.0004	0.0004	1
Carbon Tetrachloride	46.4 % *	65-140%	0.0883 mg/Kg	0.190	<0.0005	0.0005	1
Chlorobenzene	67.8 % *	80-120%	0.129 mg/Kg	0.190	<0.0008	0.0008	1
Chlorodibromomethane	81.5 %	75-120%	0.155 mg/Kg	0.190	<0.0009	0.0009	1

\* QC Fail

**QC Report**

Client ID                   **Ensafe**  
Project Description       Basement Removal - 2nd and Chelsea  
Report No                   14-127-0261

**Analytical Method: 8260B**

**Batch: L198395**

**Prep Method: 5030A**

**Batch: L198380 5/7/14 8:00**

**Matrix Spike Duplicate - L 97803-MSD-L198380**

**QC Measurement:    % Recovery**

**DateTime Analyzed: 05/07/2014 06:12 PM**

Test Description	QC Result	Criteria	MSD Result	MSD Conc.	Sample Conc.	MDL	Dilution
Chloroethane	64.2 %	60-135%	0.122 mg/Kg	0.190	<0.0003	0.0003	1
2-Chloroethylvinyl Ether	90.5 %	40-140%	0.172 mg/Kg	0.190	<0.0020	0.0020	1
Chloroform	77.3 % *	80-120%	0.147 mg/Kg	0.190	<0.0004	0.0004	1
Chloromethane	64.7 %	40-125%	0.123 mg/Kg	0.190	<0.0007	0.0007	1
2-Chlorotoluene	61.5 % *	75-125%	0.117 mg/Kg	0.190	<0.0002	0.0002	1
4-Chlorotoluene	61.0 % *	75-130%	0.116 mg/Kg	0.190	<0.0008	0.0008	1
1,2-Dibromo-3-Chloropropane	68.4 %	50-130%	0.130 mg/Kg	0.190	<0.0050	0.0050	1
1,2-Dibromoethane	93.1 %	80-120%	0.177 mg/Kg	0.190	<0.0011	0.0011	1
Dibromomethane	103 %	75-125%	0.196 mg/Kg	0.190	<0.0011	0.0011	1
1,2-Dichlorobenzene	71.5 %	70-120%	0.136 mg/Kg	0.190	<0.0010	0.0010	1
1,3-Dichlorobenzene	78.4 %	75-125%	0.149 mg/Kg	0.190	<0.0008	0.0008	1
1,4-Dichlorobenzene	69.4 % *	75-125%	0.132 mg/Kg	0.190	<0.0007	0.0007	1
Dichlorodifluoromethane	27.1 % *	40-140%	0.0515 mg/Kg	0.190	<0.0005	0.0005	1
1,1-Dichloroethane	76.3 %	70-135%	0.145 mg/Kg	0.190	<0.0003	0.0003	1
1,2-Dichloroethane	101 %	70-130%	0.192 mg/Kg	0.190	<0.0010	0.0010	1
1,1-Dichloroethene	42.1 % *	80-120%	0.0800 mg/Kg	0.190	<0.0004	0.0004	1
cis-1,2-Dichloroethene	72.1 %	70-125%	0.137 mg/Kg	0.190	<0.0005	0.0005	1
trans-1,2-Dichloroethene	64.2 %	60-140%	0.122 mg/Kg	0.190	<0.0004	0.0004	1
1,2-Dichloropropane	91.0 %	80-120%	0.173 mg/Kg	0.190	<0.0011	0.0011	1
1,3-Dichloropropane	85.7 %	75-125%	0.163 mg/Kg	0.190	<0.0011	0.0011	1
2,2-Dichloropropane	49.4 % *	70-135%	0.0940 mg/Kg	0.190	<0.0007	0.0007	1
1,1-Dichloropropene	53.1 % *	75-130%	0.101 mg/Kg	0.190	<0.0009	0.0009	1
cis-1,3-Dichloropropene	81.0 %	70-130%	0.154 mg/Kg	0.190	<0.0006	0.0006	1
trans-1,3-Dichloropropene	86.8 %	55-140%	0.165 mg/Kg	0.190	<0.0009	0.0009	1
Ethyl Acetate	97.8 %	40-125%	0.186 mg/Kg	0.190	<0.0016	0.0016	1
Ethylbenzene	53.6 % *	80-120%	0.102 mg/Kg	0.190	<0.0005	0.0005	1
Hexachlorobutadiene	49.8 % *	50-140%	0.0948 mg/Kg	0.190	<0.0008	0.0008	1
2-Hexanone	105 %	55-130%	0.199 mg/Kg	0.190	<0.0019	0.0019	1
Iodomethane	44.4 %	40-125%	0.0844 mg/Kg	0.190	<0.0009	0.0009	1

\* QC Fail

### QC Report

Client ID                   **Ensafe**  
 Project Description       Basement Removal - 2nd and Chelsea  
 Report No                 14-127-0261

**Analytical Method: 8260B**

**Batch: L198395**

**Prep Method: 5030A**

**Batch: L198380 5/7/14 8:00**

**Matrix Spike Duplicate - L 97803-MSD-L198380**

**QC Measurement:    % Recovery**

**DateTime Analyzed: 05/07/2014 06:12 PM**

Test Description	QC Result	Criteria	MSD Result	MSD Conc.	Sample Conc.	MDL	Dilution
Isopropylbenzene	51.1 % *	75-125%	0.0971 mg/Kg	0.190	<0.0003	0.0003	1
4-Isopropyl toluene	50.4 % *	75-130%	0.0958 mg/Kg	0.190	<0.0005	0.0005	1
Methyl tert-butyl ether (MTBE)	92.1 %	65-125%	0.175 mg/Kg	0.190	<0.0004	0.0004	1
4-Methyl-2-Pentanone	103 %	60-135%	0.195 mg/Kg	0.190	<0.0029	0.0029	1
Methylene Chloride	83.1 %	55-140%	0.158 mg/Kg	0.190	<0.0015	0.0015	1
Naphthalene	53.1 % *	55-140%	0.101 mg/Kg	0.190	<0.0031	0.0031	1
n-Propylbenzene	55.2 % *	70-130%	0.105 mg/Kg	0.190	<0.0002	0.0002	1
Styrene	56.3 % *	65-135%	0.107 mg/Kg	0.190	<0.0003	0.0003	1
1,1,1,2-Tetrachloroethane	78.4 %	70-130%	0.149 mg/Kg	0.190	<0.0005	0.0005	1
1,1,1,2-Tetrachloroethane	81.5 %	65-130%	0.155 mg/Kg	0.190	<0.0006	0.0006	1
Tetrachloroethene	59.4 % *	60-145%	0.113 mg/Kg	0.190	<0.0016	0.0016	1
Toluene	65.7 % *	80-120%	0.125 mg/Kg	0.190	<0.0025	0.0025	1
1,2,3-Trichlorobenzene	46.3 % *	55-140%	0.0880 mg/Kg	0.190	<0.0010	0.0010	1
1,2,4-Trichlorobenzene	66.8 %	65-135%	0.127 mg/Kg	0.190	<0.0014	0.0014	1
1,1,1-Trichloroethane	53.1 % *	65-130%	0.101 mg/Kg	0.190	<0.0008	0.0008	1
1,1,2-Trichloroethane	97.8 %	75-125%	0.186 mg/Kg	0.190	<0.0017	0.0017	1
Trichloroethene	63.1 % *	70-125%	0.120 mg/Kg	0.190	<0.0013	0.0013	1
Trichlorofluoromethane	47.8 %	45-150%	0.0909 mg/Kg	0.190	<0.0008	0.0008	1
1,2,3-Trichloropropane	85.2 %	75-125%	0.162 mg/Kg	0.190	<0.0010	0.0010	1
1,2,4-Trimethylbenzene	62.2 % *	75-130%	0.121 mg/Kg	0.190	0.0027	0.0006	1
1,3,5-Trimethylbenzene	58.9 % *	75-130%	0.112 mg/Kg	0.190	<0.0003	0.0003	1
Vinyl Acetate	105 %	40-125%	0.200 mg/Kg	0.190	<0.0026	0.0026	1
Vinyl Chloride	45.2 % *	80-120%	0.0859 mg/Kg	0.190	<0.0006	0.0006	1
o-Xylene	54.5 % *	75-130%	0.106 mg/Kg	0.190	0.0022	0.0008	1
m,p-Xylene	56.6 % *	75-130%	0.222 mg/Kg	0.381	0.0060	0.0007	1

**Surrogate Recovery:**

4-Bromofluorobenzene	77.8 %	60-130%	0.0778 mg/Kg	0.100			1
1,2-Dichloroethane - d4	117 %	60-132%	0.117 mg/Kg	0.100			1
Toluene-d8	82.3 %	70-122%	0.0823 mg/Kg	0.100			1

\* QC Fail

**QC Report**

Client ID                   **Ensafe**  
Project Description       Basement Removal - 2nd and Chelsea  
Report No                   14-127-0261

**Analytical Method: 8260B**

**Batch: L198395**

**Prep Method: 5030A**

**Batch: L198380 5/7/14 8:00**

**Matrix Spike Duplicate - L 97803-MSD-L198380**

**QC Measurement: RPD**

**DateTime Analyzed: 05/07/2014 06:12 PM**

Test Description	QC Result	Criteria	MSD Result	MSD Conc.	Sample Conc.	MDL	Dilution
Acetone	2.6 %	< 30	0.190 mg/Kg		0.185	0.0046	1
Acetonitrile	34.3 % *	< 30	1.06 mg/Kg		1.50	0.0128	1
Acrolein	19.4 %	< 30	0.147 mg/Kg		0.121	0.0101	1
Acrylonitrile	31.4 % *	< 30	0.217 mg/Kg		0.158	0.0080	1
Benzene	14.5 %	< 30	0.127 mg/Kg		0.147	0.0008	1
Bromobenzene	16.9 %	< 30	0.146 mg/Kg		0.173	0.0009	1
Bromochloromethane	17.8 %	< 30	0.201 mg/Kg		0.168	0.0007	1
Bromodichloromethane	9.6 %	< 30	0.168 mg/Kg		0.185	0.0004	1
Bromoform	0.0 %	< 30	0.151 mg/Kg		0.151	0.0006	1
Bromomethane	20.8 %	< 30	0.185 mg/Kg		0.150	0.0012	1
Methyl Ethyl Ketone (MEK)	6.7 %	< 30	0.198 mg/Kg		0.185	0.0061	1
n-Butylbenzene	37.5 % *	< 30	0.104 mg/Kg		0.152	0.0007	1
sec-Butyl benzene	57.9 % *	< 30	0.0865 mg/Kg		0.157	0.0003	1
tert-Butyl benzene	45.5 % *	< 30	0.0937 mg/Kg		0.149	0.0014	1
Carbon Disulfide	42.6 % *	< 30	0.0707 mg/Kg		0.109	0.0004	1
Carbon Tetrachloride	51.7 % *	< 30	0.0883 mg/Kg		0.150	0.0005	1
Chlorobenzene	25.0 %	< 30	0.129 mg/Kg		0.166	0.0008	1
Chlorodibromomethane	10.3 %	< 30	0.155 mg/Kg		0.172	0.0009	1
Chloroethane	34.0 % *	< 30	0.122 mg/Kg		0.172	0.0003	1
2-Chloroethylvinyl Ether	19.8 %	< 30	0.172 mg/Kg		0.210	0.0020	1
Chloroform	1.3 %	< 30	0.147 mg/Kg		0.145	0.0004	1
Chloromethane	23.6 %	< 30	0.123 mg/Kg		0.156	0.0007	1
2-Chlorotoluene	36.3 % *	< 30	0.117 mg/Kg		0.169	0.0002	1
4-Chlorotoluene	36.6 % *	< 30	0.116 mg/Kg		0.168	0.0008	1
1,2-Dibromo-3-Chloropropane	13.6 %	< 30	0.130 mg/Kg		0.149	0.0050	1
1,2-Dibromoethane	4.4 %	< 30	0.177 mg/Kg		0.185	0.0011	1
Dibromomethane	13.0 %	< 30	0.196 mg/Kg		0.172	0.0011	1
1,2-Dichlorobenzene	11.1 %	< 30	0.136 mg/Kg		0.152	0.0010	1
1,3-Dichlorobenzene	10.1 %	< 30	0.149 mg/Kg		0.165	0.0008	1

\* **QC Fail**



### QC Report

Client ID                   **Ensafe**  
 Project Description       Basement Removal - 2nd and Chelsea  
 Report No                 14-127-0261

**Analytical Method: 8260B**

**Batch: L198395**

**Prep Method: 5030A**

**Batch: L198380 5/7/14 8:00**

**Matrix Spike Duplicate - L 97803-MSD-L198380**

**QC Measurement: RPD**

**DateTime Analyzed: 05/07/2014 06:12 PM**

Test Description	QC Result	Criteria	MSD Result	MSD Conc.	Sample Conc.	MDL	Dilution
1,4-Dichlorobenzene	19.7 %	< 30	0.132 mg/Kg		0.161	0.0007	1
Dichlorodifluoromethane	70.8 % *	< 30	0.0515 mg/Kg		0.108	0.0005	1
1,1-Dichloroethane	12.2 %	< 30	0.145 mg/Kg		0.164	0.0003	1
1,2-Dichloroethane	16.3 %	< 30	0.192 mg/Kg		0.163	0.0010	1
1,1-Dichloroethene	41.5 % *	< 30	0.0800 mg/Kg		0.122	0.0004	1
cis-1,2-Dichloroethene	4.9 %	< 30	0.137 mg/Kg		0.144	0.0005	1
trans-1,2-Dichloroethene	12.3 %	< 30	0.122 mg/Kg		0.138	0.0004	1
1,2-Dichloropropane	12.4 %	< 30	0.173 mg/Kg		0.196	0.0011	1
1,3-Dichloropropane	1.8 %	< 30	0.163 mg/Kg		0.166	0.0011	1
2,2-Dichloropropane	50.1 % *	< 30	0.0940 mg/Kg		0.157	0.0007	1
1,1-Dichloropropene	44.0 % *	< 30	0.101 mg/Kg		0.158	0.0009	1
cis-1,3-Dichloropropene	18.2 %	< 30	0.154 mg/Kg		0.185	0.0006	1
trans-1,3-Dichloropropene	1.2 %	< 30	0.165 mg/Kg		0.167	0.0009	1
Ethyl Acetate	2.7 %	< 30	0.186 mg/Kg		0.181	0.0016	1
Ethylbenzene	44.2 % *	< 30	0.102 mg/Kg		0.160	0.0005	1
Hexachlorobutadiene	46.3 % *	< 30	0.0948 mg/Kg		0.152	0.0008	1
2-Hexanone	13.4 %	< 30	0.199 mg/Kg		0.174	0.0019	1
Iodomethane	46.8 % *	< 30	0.0844 mg/Kg		0.136	0.0009	1
Isopropylbenzene	51.2 % *	< 30	0.0971 mg/Kg		0.164	0.0003	1
4-Isopropyl toluene	53.6 % *	< 30	0.0958 mg/Kg		0.166	0.0005	1
Methyl tert-butyl ether (MTBE)	11.4 %	< 30	0.175 mg/Kg		0.156	0.0004	1
4-Methyl-2-Pentanone	8.0 %	< 30	0.195 mg/Kg		0.180	0.0029	1
Methylene Chloride	15.6 %	< 30	0.158 mg/Kg		0.135	0.0015	1
Naphthalene	17.1 %	< 30	0.101 mg/Kg		0.120	0.0031	1
n-Propylbenzene	40.3 % *	< 30	0.105 mg/Kg		0.158	0.0002	1
Styrene	37.8 % *	< 30	0.107 mg/Kg		0.157	0.0003	1
1,1,1,2-Tetrachloroethane	16.0 %	< 30	0.149 mg/Kg		0.175	0.0005	1
1,1,1,2,2-Tetrachloroethane	3.2 %	< 30	0.155 mg/Kg		0.150	0.0006	1
Tetrachloroethene	51.3 % *	< 30	0.113 mg/Kg		0.191	0.0016	1

\* QC Fail

**QC Report**

Client ID                   **Ensafe**  
 Project Description       Basement Removal - 2nd and Chelsea  
 Report No                   14-127-0261

**Analytical Method: 8260B**

**Batch: L198395**

**Prep Method: 5030A**

**Batch: L198380 5/7/14 8:00**

**Matrix Spike Duplicate - L 97803-MSD-L198380**

**QC Measurement: RPD**

**DateTime Analyzed: 05/07/2014 06:12 PM**

Test Description	QC Result	Criteria	MSD Result	MSD Conc.	Sample Conc.	MDL	Dilution
Toluene	32.2 % *	< 30	0.125 mg/Kg		0.173	0.0025	1
1,2,3-Trichlorobenzene	46.2 % *	< 30	0.0880 mg/Kg		0.141	0.0010	1
1,2,4-Trichlorobenzene	17.2 %	< 30	0.127 mg/Kg		0.151	0.0014	1
1,1,1-Trichloroethane	37.0 % *	< 30	0.101 mg/Kg		0.147	0.0008	1
1,1,2-Trichloroethane	10.1 %	< 30	0.186 mg/Kg		0.168	0.0017	1
Trichloroethene	34.4 % *	< 30	0.120 mg/Kg		0.170	0.0013	1
Trichlorofluoromethane	55.0 % *	< 30	0.0909 mg/Kg		0.160	0.0008	1
1,2,3-Trichloropropane	2.4 %	< 30	0.162 mg/Kg		0.166	0.0010	1
1,2,4-Trimethylbenzene	19.4 %	< 30	0.121 mg/Kg		0.147	0.0006	1
1,3,5-Trimethylbenzene	33.4 % *	< 30	0.112 mg/Kg		0.157	0.0003	1
Vinyl Acetate	11.0 %	< 30	0.200 mg/Kg		0.179	0.0026	1
Vinyl Chloride	61.9 % *	< 30	0.0859 mg/Kg		0.163	0.0006	1
o-Xylene	35.0 % *	< 30	0.106 mg/Kg		0.151	0.0008	1
m,p-Xylene	38.2 % *	< 30	0.222 mg/Kg		0.327	0.0007	1

\* QC Fail

**QC Report**

Client ID                   **Ensafe**  
 Project Description       Basement Removal - 2nd and Chelsea  
 Report No                 14-127-0261

**Analytical Method: 8260B**

**Batch: L198602**

**Prep Method: 5030A**

**Batch: L198600 5/8/14 8:00**

**Lab Reagent Blank - LRB-L198600**

**QC Measurement: Limit**

**DateTime Analyzed: 05/08/2014 02:25 PM**

Test Description	LRB Result	Qualifier	MDL	SQL	Dilution
Acetone	0.0115 mg/Kg	J	0.0046	0.0400	1
Acetonitrile	<0.0128 mg/Kg		0.0128	0.100	1
Acrolein	<0.0101 mg/Kg		0.0101	0.0400	1
Acrylonitrile	<0.0080 mg/Kg		0.0080	0.0400	1
Benzene	<0.0008 mg/Kg		0.0008	0.0020	1
Bromobenzene	<0.0009 mg/Kg		0.0009	0.0020	1
Bromochloromethane	<0.0007 mg/Kg		0.0007	0.0020	1
Bromodichloromethane	<0.0004 mg/Kg		0.0004	0.0020	1
Bromoform	<0.0006 mg/Kg		0.0006	0.0020	1
Bromomethane	<0.0012 mg/Kg		0.0012	0.0020	1
Methyl Ethyl Ketone (MEK)	<0.0061 mg/Kg		0.0061	0.0400	1
n-Butylbenzene	<0.0007 mg/Kg		0.0007	0.0020	1
sec-Butyl benzene	<0.0003 mg/Kg		0.0003	0.0020	1
tert-Butyl benzene	<0.0014 mg/Kg		0.0014	0.0020	1
Carbon Disulfide	<0.0004 mg/Kg		0.0004	0.0020	1
Carbon Tetrachloride	<0.0005 mg/Kg		0.0005	0.0020	1
Chlorobenzene	<0.0008 mg/Kg		0.0008	0.0020	1
Chlorodibromomethane	<0.0009 mg/Kg		0.0009	0.0020	1
Chloroethane	<0.0003 mg/Kg		0.0003	0.0020	1
2-Chloroethylvinyl Ether	<0.0020 mg/Kg		0.0020	0.0020	1
Chloroform	<0.0004 mg/Kg		0.0004	0.0020	1
Chloromethane	<0.0007 mg/Kg		0.0007	0.0020	1
2-Chlorotoluene	<0.0002 mg/Kg		0.0002	0.0020	1
4-Chlorotoluene	<0.0008 mg/Kg		0.0008	0.0020	1
1,2-Dibromo-3-Chloropropane	<0.0050 mg/Kg		0.0050	0.0100	1
1,2-Dibromoethane	<0.0011 mg/Kg		0.0011	0.0020	1
Dibromomethane	<0.0011 mg/Kg		0.0011	0.0020	1
1,2-Dichlorobenzene	<0.0010 mg/Kg		0.0010	0.0020	1
1,3-Dichlorobenzene	<0.0008 mg/Kg		0.0008	0.0020	1

**QC Report**

Client ID                   **Ensafe**  
Project Description       Basement Removal - 2nd and Chelsea  
Report No                   14-127-0261

**Analytical Method: 8260B**

**Batch: L198602**

**Prep Method: 5030A**

**Batch: L198600 5/8/14 8:00**

**Lab Reagent Blank - LRB-L198600**

**QC Measurement:    Limit**

**DateTime Analyzed: 05/08/2014 02:25 PM**

<b>Test Description</b>	<b>LRB Result</b>	<b>Qualifier</b>	<b>MDL</b>	<b>SQL</b>	<b>Dilution</b>
1,4-Dichlorobenzene	<0.0007 mg/Kg		0.0007	0.0020	1
Dichlorodifluoromethane	<0.0005 mg/Kg		0.0005	0.0020	1
1,1-Dichloroethane	<0.0003 mg/Kg		0.0003	0.0020	1
1,2-Dichloroethane	<0.0010 mg/Kg		0.0010	0.0020	1
1,1-Dichloroethene	<0.0004 mg/Kg		0.0004	0.0020	1
cis-1,2-Dichloroethene	<0.0005 mg/Kg		0.0005	0.0020	1
trans-1,2-Dichloroethene	<0.0004 mg/Kg		0.0004	0.0020	1
1,2-Dichloropropane	<0.0011 mg/Kg		0.0011	0.0020	1
1,3-Dichloropropane	<0.0011 mg/Kg		0.0011	0.0020	1
2,2-Dichloropropane	<0.0007 mg/Kg		0.0007	0.0020	1
1,1-Dichloropropene	<0.0009 mg/Kg		0.0009	0.0020	1
cis-1,3-Dichloropropene	<0.0006 mg/Kg		0.0006	0.0020	1
trans-1,3-Dichloropropene	<0.0009 mg/Kg		0.0009	0.0020	1
Ethyl Acetate	<0.0016 mg/Kg		0.0016	0.0400	1
Ethylbenzene	<0.0005 mg/Kg		0.0005	0.0020	1
Hexachlorobutadiene	<0.0008 mg/Kg		0.0008	0.0020	1
2-Hexanone	<0.0019 mg/Kg		0.0019	0.0100	1
Iodomethane	<0.0009 mg/Kg		0.0009	0.0100	1
Isopropylbenzene	<0.0003 mg/Kg		0.0003	0.0020	1
4-Isopropyl toluene	<0.0005 mg/Kg		0.0005	0.0020	1
Methyl tert-butyl ether (MTBE)	<0.0004 mg/Kg		0.0004	0.0020	1
4-Methyl-2-Pentanone	<0.0029 mg/Kg		0.0029	0.0100	1
Methylene Chloride	0.0062 mg/Kg	J	0.0015	0.0100	1
Naphthalene	<0.0031 mg/Kg		0.0031	0.0100	1
n-Propylbenzene	<0.0002 mg/Kg		0.0002	0.0020	1
Styrene	<0.0003 mg/Kg		0.0003	0.0020	1
1,1,1,2-Tetrachloroethane	<0.0005 mg/Kg		0.0005	0.0020	1
1,1,2,2-Tetrachloroethane	<0.0006 mg/Kg		0.0006	0.0020	1
Tetrachloroethene	<0.0016 mg/Kg		0.0016	0.0020	1

**QC Report**

Client ID                   **Ensafe**  
Project Description       Basement Removal - 2nd and Chelsea  
Report No                   14-127-0261

**Analytical Method: 8260B**

**Batch: L198602**

**Prep Method: 5030A**

**Batch: L198600 5/8/14 8:00**

**Lab Reagent Blank - LRB-L198600**

**QC Measurement: Limit**

**DateTime Analyzed: 05/08/2014 02:25 PM**

Test Description	LRB Result	Qualifier	MDL	MLQ	Dilution
Toluene	<0.0025 mg/Kg		0.0025	0.0100	1
1,2,3-Trichlorobenzene	<0.0010 mg/Kg		0.0010	0.0020	1
1,2,4-Trichlorobenzene	<0.0014 mg/Kg		0.0014	0.0020	1
1,1,1-Trichloroethane	<0.0008 mg/Kg		0.0008	0.0020	1
1,1,2-Trichloroethane	<0.0017 mg/Kg		0.0017	0.0020	1
Trichloroethene	<0.0013 mg/Kg		0.0013	0.0020	1
Trichlorofluoromethane	<0.0008 mg/Kg		0.0008	0.0020	1
1,2,3-Trichloropropane	<0.0010 mg/Kg		0.0010	0.0020	1
1,2,4-Trimethylbenzene	<0.0006 mg/Kg		0.0006	0.0020	1
1,3,5-Trimethylbenzene	<0.0003 mg/Kg		0.0003	0.0020	1
Vinyl Acetate	<0.0026 mg/Kg		0.0026	0.0400	1
Vinyl Chloride	<0.0006 mg/Kg		0.0006	0.0020	1
o-Xylene	<0.0008 mg/Kg		0.0008	0.0020	1
m,p-Xylene	<0.0007 mg/Kg		0.0007	0.0040	1

**Surrogate Recovery:**

4-Bromofluorobenzene	95.7	0.0957 mg/Kg	0.100		1
1,2-Dichloroethane - d4	117	0.117 mg/Kg	0.100		1
Toluene-d8	112	0.112 mg/Kg	0.100		1

**Laboratory Control Sample - LCS-L198600**

**QC Measurement: % Recovery**

**DateTime Analyzed: 05/08/2014 10:58 AM**

Test Description	QC Result	Criteria	LCS Result	LCS Conc.	MDL	Dilution
Acetone	131 %	40-140%	0.261 mg/Kg	0.200	0.0046	1
Acetonitrile	99.0 %	40-140%	1.98 mg/Kg	2.00	0.0128	1
Acrolein	70.5 %	40-140%	0.141 mg/Kg	0.200	0.0101	1
Acrylonitrile	109 %	40-140%	0.217 mg/Kg	0.200	0.0080	1
Benzene	111 %	80-120%	0.222 mg/Kg	0.200	0.0008	1
Bromobenzene	91.0 %	75-125%	0.182 mg/Kg	0.200	0.0009	1

## QC Report

Client ID                   **Ensafe**  
 Project Description       Basement Removal - 2nd and Chelsea  
 Report No                 14-127-0261

**Analytical Method: 8260B**

**Batch: L198602**

**Prep Method: 5030A**

**Batch: L198600 5/8/14 8:00**

**Laboratory Control Sample - LCS-L198600**

**QC Measurement:    % Recovery**

**DateTime Analyzed: 05/08/2014 10:58 AM**

Test Description	QC Result	Criteria	LCS Result	LCS Conc.	MDL	Dilution
Bromochloromethane	121 %	65-130%	0.242 mg/Kg	0.200	0.0007	1
Bromodichloromethane	106 %	75-120%	0.211 mg/Kg	0.200	0.0004	1
Bromoform	96.5 %	70-130%	0.193 mg/Kg	0.200	0.0006	1
Bromomethane	75.0 %	40-140%	0.150 mg/Kg	0.200	0.0012	1
Methyl Ethyl Ketone (MEK)	125 %	40-140%	0.250 mg/Kg	0.200	0.0061	1
n-Butylbenzene	106 %	70-135%	0.211 mg/Kg	0.200	0.0007	1
sec-Butyl benzene	103 %	70-125%	0.205 mg/Kg	0.200	0.0003	1
tert-Butyl benzene	94.0 %	70-130%	0.188 mg/Kg	0.200	0.0014	1
Carbon Disulfide	79.0 %	40-140%	0.158 mg/Kg	0.200	0.0004	1
Carbon Tetrachloride	116 %	65-140%	0.232 mg/Kg	0.200	0.0005	1
Chlorobenzene	96.5 %	80-120%	0.193 mg/Kg	0.200	0.0008	1
Chlorodibromomethane	121 % *	75-120%	0.242 mg/Kg	0.200	0.0009	1
Chloroethane	119 %	60-135%	0.237 mg/Kg	0.200	0.0003	1
2-Chloroethylvinyl Ether	120 %	40-140%	0.239 mg/Kg	0.200	0.0020	1
Chloroform	100 %	80-120%	0.200 mg/Kg	0.200	0.0004	1
Chloromethane	117 %	40-125%	0.234 mg/Kg	0.200	0.0007	1
2-Chlorotoluene	97.5 %	75-125%	0.195 mg/Kg	0.200	0.0002	1
4-Chlorotoluene	96.0 %	75-130%	0.192 mg/Kg	0.200	0.0008	1
1,2-Dibromo-3-Chloropropane	90.5 %	50-130%	0.181 mg/Kg	0.200	0.0050	1
1,2-Dibromoethane	125 % *	80-120%	0.249 mg/Kg	0.200	0.0011	1
Dibromomethane	108 %	75-125%	0.215 mg/Kg	0.200	0.0011	1
1,2-Dichlorobenzene	92.5 %	70-120%	0.185 mg/Kg	0.200	0.0010	1
1,3-Dichlorobenzene	112 %	75-125%	0.223 mg/Kg	0.200	0.0008	1
1,4-Dichlorobenzene	96.5 %	75-125%	0.193 mg/Kg	0.200	0.0007	1
Dichlorodifluoromethane	85.5 %	40-140%	0.171 mg/Kg	0.200	0.0005	1
1,1-Dichloroethane	111 %	70-135%	0.222 mg/Kg	0.200	0.0003	1
1,2-Dichloroethane	112 %	70-130%	0.224 mg/Kg	0.200	0.0010	1
1,1-Dichloroethene	80.5 %	80-120%	0.161 mg/Kg	0.200	0.0004	1
cis-1,2-Dichloroethene	114 %	70-125%	0.227 mg/Kg	0.200	0.0005	1

\* QC Fail

**QC Report**

Client ID                   **Ensafe**  
 Project Description       Basement Removal - 2nd and Chelsea  
 Report No                 14-127-0261

**Analytical Method: 8260B**

**Batch: L198602**

**Prep Method: 5030A**

**Batch: L198600   5/8/14 8:00**

**Laboratory Control Sample - LCS-L198600**

**QC Measurement:   % Recovery**

**DateTime Analyzed: 05/08/2014 10:58 AM**

Test Description	QC Result	Criteria	LCS Result	LCS Conc.	MDL	Dilution
trans-1,2-Dichloroethene	92.0 %	60-140%	0.184 mg/Kg	0.200	0.0004	1
1,2-Dichloropropane	116 %	80-120%	0.231 mg/Kg	0.200	0.0011	1
1,3-Dichloropropane	116 %	75-125%	0.232 mg/Kg	0.200	0.0011	1
2,2-Dichloropropane	117 %	70-135%	0.233 mg/Kg	0.200	0.0007	1
1,1-Dichloropropene	124 %	75-130%	0.247 mg/Kg	0.200	0.0009	1
cis-1,3-Dichloropropene	123 %	70-130%	0.245 mg/Kg	0.200	0.0006	1
trans-1,3-Dichloropropene	116 %	55-140%	0.231 mg/Kg	0.200	0.0009	1
Ethyl Acetate	113 %	40-125%	0.225 mg/Kg	0.200	0.0016	1
Ethylbenzene	91.0 %	80-120%	0.182 mg/Kg	0.200	0.0005	1
Hexachlorobutadiene	104 %	50-140%	0.207 mg/Kg	0.200	0.0008	1
2-Hexanone	104 %	55-130%	0.208 mg/Kg	0.200	0.0019	1
Iodomethane	107 %	40-125%	0.214 mg/Kg	0.200	0.0009	1
Isopropylbenzene	99.5 %	75-125%	0.199 mg/Kg	0.200	0.0003	1
4-Isopropyl toluene	105 %	75-130%	0.209 mg/Kg	0.200	0.0005	1
Methyl tert-butyl ether (MTBE)	106 %	65-125%	0.211 mg/Kg	0.200	0.0004	1
4-Methyl-2-Pentanone	117 %	60-135%	0.234 mg/Kg	0.200	0.0029	1
Methylene Chloride	96.5 %	55-140%	0.193 mg/Kg	0.200	0.0015	1
Naphthalene	92.5 %	55-140%	0.185 mg/Kg	0.200	0.0031	1
n-Propylbenzene	104 %	70-130%	0.208 mg/Kg	0.200	0.0002	1
Styrene	103 %	65-135%	0.205 mg/Kg	0.200	0.0003	1
1,1,1,2-Tetrachloroethane	97.5 %	70-130%	0.195 mg/Kg	0.200	0.0005	1
1,1,1,2,2-Tetrachloroethane	96.5 %	65-130%	0.193 mg/Kg	0.200	0.0006	1
Tetrachloroethene	116 %	60-145%	0.232 mg/Kg	0.200	0.0016	1
Toluene	109 %	80-120%	0.217 mg/Kg	0.200	0.0025	1
1,2,3-Trichlorobenzene	109 %	55-140%	0.218 mg/Kg	0.200	0.0010	1
1,2,4-Trichlorobenzene	115 %	65-135%	0.230 mg/Kg	0.200	0.0014	1
1,1,1-Trichloroethane	110 %	65-130%	0.220 mg/Kg	0.200	0.0008	1
1,1,2-Trichloroethane	115 %	75-125%	0.229 mg/Kg	0.200	0.0017	1
Trichloroethene	110 %	70-125%	0.219 mg/Kg	0.200	0.0013	1



**QC Report**

Client ID                   **Ensafe**  
Project Description       Basement Removal - 2nd and Chelsea  
Report No                   14-127-0261

**Analytical Method: 8260B**

**Batch: L198602**

**Prep Method: 5030A**

**Batch: L198600 5/8/14 8:00**

**Laboratory Control Sample - LCS-L198600**

**QC Measurement:    % Recovery**

**DateTime Analyzed: 05/08/2014 10:58 AM**

Test Description	QC Result	Criteria	LCS Result	LCS Conc.	MDL	Dilution
Trichlorofluoromethane	109 %	45-150%	0.217 mg/Kg	0.200	0.0008	1
1,2,3-Trichloropropane	102 %	75-125%	0.203 mg/Kg	0.200	0.0010	1
1,2,4-Trimethylbenzene	94.5 %	75-130%	0.189 mg/Kg	0.200	0.0006	1
1,3,5-Trimethylbenzene	92.0 %	75-130%	0.184 mg/Kg	0.200	0.0003	1
Vinyl Acetate	135 % *	40-125%	0.270 mg/Kg	0.200	0.0026	1
Vinyl Chloride	108 %	80-120%	0.216 mg/Kg	0.200	0.0006	1
o-Xylene	92.5 %	75-130%	0.185 mg/Kg	0.200	0.0008	1
m,p-Xylene	88.5 %	75-130%	0.354 mg/Kg	0.400	0.0007	1
<b>Surrogate Recovery:</b>						
4-Bromofluorobenzene	85.8 %	60-130%	0.0858 mg/Kg	0.100		1
1,2-Dichloroethane - d4	97.2 %	60-132%	0.0972 mg/Kg	0.100		1
Toluene-d8	95.3 %	70-122%	0.0953 mg/Kg	0.100		1

**Matrix Spike - L 98897-MS-L198600**

**QC Measurement:    % Recovery**

**DateTime Analyzed: 05/08/2014 06:36 PM**

Test Description	QC Result	Criteria	MS Result	MS Conc.	Sample Conc.	MDL	Dilution
Acetone	140 %	40-140%	0.264 mg/Kg	0.189	<0.0046	0.0046	1
Acetonitrile	103 %	40-140%	1.95 mg/Kg	1.89	<0.0128	0.0128	1
Acrolein	59.7 %	40-140%	0.113 mg/Kg	0.189	<0.0101	0.0101	1
Acrylonitrile	106 %	40-140%	0.200 mg/Kg	0.189	<0.0080	0.0080	1
Benzene	90.4 %	80-120%	0.171 mg/Kg	0.189	<0.0008	0.0008	1
Bromobenzene	84.1 %	75-125%	0.159 mg/Kg	0.189	<0.0009	0.0009	1
Bromochloromethane	117 %	65-130%	0.222 mg/Kg	0.189	<0.0007	0.0007	1
Bromodichloromethane	101 %	75-120%	0.190 mg/Kg	0.189	<0.0004	0.0004	1
Bromoform	88.3 %	70-130%	0.167 mg/Kg	0.189	<0.0006	0.0006	1
Bromomethane	83.5 %	40-140%	0.158 mg/Kg	0.189	<0.0012	0.0012	1
Methyl Ethyl Ketone (MEK)	139 %	40-140%	0.263 mg/Kg	0.189	<0.0061	0.0061	1
n-Butylbenzene	73.0 %	70-135%	0.138 mg/Kg	0.189	<0.0007	0.0007	1

\* QC Fail

**QC Report**

Client ID **Ensafe**  
 Project Description **Basement Removal - 2nd and Chelsea**  
 Report No **14-127-0261**

**Analytical Method: 8260B**

**Batch: L198602**

**Prep Method: 5030A**

**Batch: L198600 5/8/14 8:00**

**Matrix Spike - L 98897-MS-L198600**

**QC Measurement: % Recovery**

**DateTime Analyzed: 05/08/2014 06:36 PM**

Test Description	QC Result	Criteria	MS Result	MS Conc.	Sample Conc.	MDL	Dilution
sec-Butyl benzene	82.0 %	70-125%	0.155 mg/Kg	0.189	<0.0003	0.0003	1
tert-Butyl benzene	83.5 %	70-130%	0.158 mg/Kg	0.189	<0.0014	0.0014	1
Carbon Disulfide	86.2 %	40-140%	0.163 mg/Kg	0.189	<0.0004	0.0004	1
Carbon Tetrachloride	89.9 %	65-140%	0.170 mg/Kg	0.189	<0.0005	0.0005	1
Chlorobenzene	81.4 %	80-120%	0.154 mg/Kg	0.189	<0.0008	0.0008	1
Chlorodibromomethane	104 %	75-120%	0.196 mg/Kg	0.189	<0.0009	0.0009	1
Chloroethane	97.3 %	60-135%	0.184 mg/Kg	0.189	<0.0003	0.0003	1
2-Chloroethylvinyl Ether	125 %	40-140%	0.236 mg/Kg	0.189	<0.0020	0.0020	1
Chloroform	95.2 %	80-120%	0.180 mg/Kg	0.189	<0.0004	0.0004	1
Chloromethane	84.1 %	40-125%	0.159 mg/Kg	0.189	<0.0007	0.0007	1
2-Chlorotoluene	76.7 %	75-125%	0.145 mg/Kg	0.189	<0.0002	0.0002	1
4-Chlorotoluene	76.7 %	75-130%	0.145 mg/Kg	0.189	<0.0008	0.0008	1
1,2-Dibromo-3-Chloropropane	84.1 %	50-130%	0.159 mg/Kg	0.189	<0.0050	0.0050	1
1,2-Dibromoethane	115 %	80-120%	0.218 mg/Kg	0.189	<0.0011	0.0011	1
Dibromomethane	108 %	75-125%	0.204 mg/Kg	0.189	<0.0011	0.0011	1
1,2-Dichlorobenzene	76.7 %	70-120%	0.145 mg/Kg	0.189	<0.0010	0.0010	1
1,3-Dichlorobenzene	87.3 %	75-125%	0.165 mg/Kg	0.189	<0.0008	0.0008	1
1,4-Dichlorobenzene	82.0 %	75-125%	0.155 mg/Kg	0.189	<0.0007	0.0007	1
Dichlorodifluoromethane	52.5 %	40-140%	0.0994 mg/Kg	0.189	<0.0005	0.0005	1
1,1-Dichloroethane	95.7 %	70-135%	0.181 mg/Kg	0.189	<0.0003	0.0003	1
1,2-Dichloroethane	107 %	70-130%	0.202 mg/Kg	0.189	<0.0010	0.0010	1
1,1-Dichloroethene	84.6 %	80-120%	0.160 mg/Kg	0.189	<0.0004	0.0004	1
cis-1,2-Dichloroethene	96.8 %	70-125%	0.183 mg/Kg	0.189	<0.0005	0.0005	1
trans-1,2-Dichloroethene	91.0 %	60-140%	0.172 mg/Kg	0.189	<0.0004	0.0004	1
1,2-Dichloropropane	104 %	80-120%	0.197 mg/Kg	0.189	<0.0011	0.0011	1
1,3-Dichloropropane	101 %	75-125%	0.190 mg/Kg	0.189	<0.0011	0.0011	1
2,2-Dichloropropane	93.6 %	70-135%	0.177 mg/Kg	0.189	<0.0007	0.0007	1
1,1-Dichloropropene	95.7 %	75-130%	0.181 mg/Kg	0.189	<0.0009	0.0009	1
cis-1,3-Dichloropropene	109 %	70-130%	0.206 mg/Kg	0.189	<0.0006	0.0006	1

## QC Report

Client ID                   **Ensafe**  
 Project Description       Basement Removal - 2nd and Chelsea  
 Report No                   14-127-0261

**Analytical Method: 8260B**

**Batch: L198602**

**Prep Method: 5030A**

**Batch: L198600 5/8/14 8:00**

**Matrix Spike - L 98897-MS-L198600**

**QC Measurement:    % Recovery**

**DateTime Analyzed: 05/08/2014 06:36 PM**

Test Description	QC Result	Criteria	MS Result	MS Conc.	Sample Conc.	MDL	Dilution
trans-1,3-Dichloropropene	94.1 %	55-140%	0.178 mg/Kg	0.189	<0.0009	0.0009	1
Ethyl Acetate	31.3 % *	40-125%	0.0593 mg/Kg	0.189	<0.0016	0.0016	1
Ethylbenzene	75.6 % *	80-120%	0.143 mg/Kg	0.189	<0.0005	0.0005	1
Hexachlorobutadiene	80.4 %	50-140%	0.152 mg/Kg	0.189	<0.0008	0.0008	1
2-Hexanone	130 %	55-130%	0.245 mg/Kg	0.189	<0.0019	0.0019	1
Iodomethane	92.0 %	40-125%	0.174 mg/Kg	0.189	<0.0009	0.0009	1
Isopropylbenzene	75.1 %	75-125%	0.142 mg/Kg	0.189	<0.0003	0.0003	1
4-Isopropyl toluene	82.5 %	75-130%	0.156 mg/Kg	0.189	<0.0005	0.0005	1
Methyl tert-butyl ether (MTBE)	115 %	65-125%	0.217 mg/Kg	0.189	<0.0004	0.0004	1
4-Methyl-2-Pentanone	110 %	60-135%	0.208 mg/Kg	0.189	<0.0029	0.0029	1
Methylene Chloride	93.1 %	55-140%	0.176 mg/Kg	0.189	<0.0015	0.0015	1
Naphthalene	77.7 %	55-140%	0.147 mg/Kg	0.189	<0.0031	0.0031	1
n-Propylbenzene	77.7 %	70-130%	0.147 mg/Kg	0.189	<0.0002	0.0002	1
Styrene	77.7 %	65-135%	0.147 mg/Kg	0.189	<0.0003	0.0003	1
1,1,1,2-Tetrachloroethane	86.2 %	70-130%	0.163 mg/Kg	0.189	<0.0005	0.0005	1
1,1,1,2-Tetrachloroethane	2.6 % *	65-130%	0.0050 mg/Kg	0.189	<0.0006	0.0006	1
Tetrachloroethene	99.4 %	60-145%	0.188 mg/Kg	0.189	<0.0016	0.0016	1
Toluene	83.5 %	80-120%	0.158 mg/Kg	0.189	<0.0025	0.0025	1
1,2,3-Trichlorobenzene	80.4 %	55-140%	0.152 mg/Kg	0.189	<0.0010	0.0010	1
1,2,4-Trichlorobenzene	76.7 %	65-135%	0.145 mg/Kg	0.189	<0.0014	0.0014	1
1,1,1-Trichloroethane	91.5 %	65-130%	0.173 mg/Kg	0.189	<0.0008	0.0008	1
1,1,2-Trichloroethane	106 %	75-125%	0.201 mg/Kg	0.189	<0.0017	0.0017	1
Trichloroethene	171 % *	70-125%	0.324 mg/Kg	0.189	<0.0013	0.0013	1
Trichlorofluoromethane	80.9 %	45-150%	0.153 mg/Kg	0.189	<0.0008	0.0008	1
1,2,3-Trichloropropane	95.7 %	75-125%	0.181 mg/Kg	0.189	<0.0010	0.0010	1
1,2,4-Trimethylbenzene	83.0 %	75-130%	0.157 mg/Kg	0.189	<0.0006	0.0006	1
1,3,5-Trimethylbenzene	86.2 %	75-130%	0.163 mg/Kg	0.189	<0.0003	0.0003	1
Vinyl Acetate	86.7 %	40-125%	0.164 mg/Kg	0.189	<0.0026	0.0026	1
Vinyl Chloride	92.5 %	80-120%	0.175 mg/Kg	0.189	<0.0006	0.0006	1

\* QC Fail

**QC Report**

Client ID                   **Ensafe**  
 Project Description       Basement Removal - 2nd and Chelsea  
 Report No                   14-127-0261

**Analytical Method: 8260B**

**Batch: L198602**

**Prep Method: 5030A**

**Batch: L198600 5/8/14 8:00**

**Matrix Spike - L 98897-MS-L198600**

**QC Measurement:    % Recovery**

**DateTime Analyzed: 05/08/2014 06:36 PM**

Test Description	QC Result	Criteria	MS Result	MS Conc.	Sample Conc.	MDL	Dilution
o-Xylene	74.6 % *	75-130%	0.141 mg/Kg	0.189	<0.0008	0.0008	1
m,p-Xylene	72.4 % *	75-130%	0.274 mg/Kg	0.378	<0.0007	0.0007	1
<b>Surrogate Recovery:</b>							
4-Bromofluorobenzene	79.1 %	60-130%	0.0791 mg/Kg	0.100			1
1,2-Dichloroethane - d4	98.8 %	60-132%	0.0988 mg/Kg	0.100			1
Toluene-d8	90.4 %	70-122%	0.0904 mg/Kg	0.100			1

**Matrix Spike Duplicate - L 98897-MSD-L198600**

**QC Measurement:    % Recovery**

**DateTime Analyzed: 05/08/2014 07:04 PM**

Test Description	QC Result	Criteria	MSD Result	MSD Conc.	Sample Conc.	MDL	Dilution
Acetone	151 % *	40-140%	0.273 mg/Kg	0.181	<0.0046	0.0046	1
Acetonitrile	65.1 %	40-140%	1.18 mg/Kg	1.81	<0.0128	0.0128	1
Acrolein	86.1 %	40-140%	0.156 mg/Kg	0.181	<0.0101	0.0101	1
Acrylonitrile	134 %	40-140%	0.243 mg/Kg	0.181	<0.0080	0.0080	1
Benzene	69.6 % *	80-120%	0.126 mg/Kg	0.181	<0.0008	0.0008	1
Bromobenzene	73.4 % *	75-125%	0.133 mg/Kg	0.181	<0.0009	0.0009	1
Bromochloromethane	134 % *	65-130%	0.243 mg/Kg	0.181	<0.0007	0.0007	1
Bromodichloromethane	82.8 %	75-120%	0.150 mg/Kg	0.181	<0.0004	0.0004	1
Bromoform	85.0 %	70-130%	0.154 mg/Kg	0.181	<0.0006	0.0006	1
Bromomethane	107 %	40-140%	0.193 mg/Kg	0.181	<0.0012	0.0012	1
Methyl Ethyl Ketone (MEK)	158 % *	40-140%	0.286 mg/Kg	0.181	<0.0061	0.0061	1
n-Butylbenzene	53.9 % *	70-135%	0.0976 mg/Kg	0.181	<0.0007	0.0007	1
sec-Butyl benzene	47.4 % *	70-125%	0.0858 mg/Kg	0.181	<0.0003	0.0003	1
tert-Butyl benzene	49.0 % *	70-130%	0.0888 mg/Kg	0.181	<0.0014	0.0014	1
Carbon Disulfide	52.8 %	40-140%	0.0956 mg/Kg	0.181	<0.0004	0.0004	1
Carbon Tetrachloride	38.5 % *	65-140%	0.0697 mg/Kg	0.181	<0.0005	0.0005	1
Chlorobenzene	64.6 % *	80-120%	0.117 mg/Kg	0.181	<0.0008	0.0008	1
Chlorodibromomethane	98.3 %	75-120%	0.178 mg/Kg	0.181	<0.0009	0.0009	1

\* QC Fail

**QC Report**

Client ID                   **Ensafe**  
Project Description       Basement Removal - 2nd and Chelsea  
Report No                   14-127-0261

**Analytical Method: 8260B**

**Batch: L198602**

**Prep Method: 5030A**

**Batch: L198600 5/8/14 8:00**

**Matrix Spike Duplicate - L 98897-MSD-L198600**

**QC Measurement:    % Recovery**

**DateTime Analyzed: 05/08/2014 07:04 PM**

Test Description	QC Result	Criteria	MSD Result	MSD Conc.	Sample Conc.	MDL	Dilution
Chloroethane	50.5 % *	60-135%	0.0915 mg/Kg	0.181	<0.0003	0.0003	1
2-Chloroethylvinyl Ether	108 %	40-140%	0.195 mg/Kg	0.181	<0.0020	0.0020	1
Chloroform	78.4 % *	80-120%	0.142 mg/Kg	0.181	<0.0004	0.0004	1
Chloromethane	64.0 %	40-125%	0.116 mg/Kg	0.181	<0.0007	0.0007	1
2-Chlorotoluene	58.5 % *	75-125%	0.106 mg/Kg	0.181	<0.0002	0.0002	1
4-Chlorotoluene	67.9 % *	75-130%	0.123 mg/Kg	0.181	<0.0008	0.0008	1
1,2-Dibromo-3-Chloropropane	70.7 %	50-130%	0.128 mg/Kg	0.181	<0.0050	0.0050	1
1,2-Dibromoethane	104 %	80-120%	0.188 mg/Kg	0.181	<0.0011	0.0011	1
Dibromomethane	107 %	75-125%	0.194 mg/Kg	0.181	<0.0011	0.0011	1
1,2-Dichlorobenzene	77.9 %	70-120%	0.141 mg/Kg	0.181	<0.0010	0.0010	1
1,3-Dichlorobenzene	81.2 %	75-125%	0.147 mg/Kg	0.181	<0.0008	0.0008	1
1,4-Dichlorobenzene	71.2 % *	75-125%	0.129 mg/Kg	0.181	<0.0007	0.0007	1
Dichlorodifluoromethane	28.7 % *	40-140%	0.0521 mg/Kg	0.181	<0.0005	0.0005	1
1,1-Dichloroethane	81.7 %	70-135%	0.148 mg/Kg	0.181	<0.0003	0.0003	1
1,2-Dichloroethane	107 %	70-130%	0.194 mg/Kg	0.181	<0.0010	0.0010	1
1,1-Dichloroethene	55.2 % *	80-120%	0.100 mg/Kg	0.181	<0.0004	0.0004	1
cis-1,2-Dichloroethene	78.4 %	70-125%	0.142 mg/Kg	0.181	<0.0005	0.0005	1
trans-1,2-Dichloroethene	64.0 %	60-140%	0.116 mg/Kg	0.181	<0.0004	0.0004	1
1,2-Dichloropropane	82.8 %	80-120%	0.150 mg/Kg	0.181	<0.0011	0.0011	1
1,3-Dichloropropane	96.1 %	75-125%	0.174 mg/Kg	0.181	<0.0011	0.0011	1
2,2-Dichloropropane	43.3 % *	70-135%	0.0785 mg/Kg	0.181	<0.0007	0.0007	1
1,1-Dichloropropene	50.1 % *	75-130%	0.0907 mg/Kg	0.181	<0.0009	0.0009	1
cis-1,3-Dichloropropene	77.9 %	70-130%	0.141 mg/Kg	0.181	<0.0006	0.0006	1
trans-1,3-Dichloropropene	84.5 %	55-140%	0.153 mg/Kg	0.181	<0.0009	0.0009	1
Ethyl Acetate	81.2 %	40-125%	0.147 mg/Kg	0.181	<0.0016	0.0016	1
Ethylbenzene	52.5 % *	80-120%	0.0952 mg/Kg	0.181	<0.0005	0.0005	1
Hexachlorobutadiene	44.1 % *	50-140%	0.0799 mg/Kg	0.181	<0.0008	0.0008	1
2-Hexanone	164 % *	55-130%	0.297 mg/Kg	0.181	<0.0019	0.0019	1
Iodomethane	53.4 %	40-125%	0.0968 mg/Kg	0.181	<0.0009	0.0009	1

\* QC Fail

**QC Report**

Client ID                   **Ensafe**  
Project Description       Basement Removal - 2nd and Chelsea  
Report No                   14-127-0261

**Analytical Method: 8260B**

**Batch: L198602**

**Prep Method: 5030A**

**Batch: L198600 5/8/14 8:00**

**Matrix Spike Duplicate - L 98897-MSD-L198600**

**QC Measurement:    % Recovery**

**DateTime Analyzed: 05/08/2014 07:04 PM**

Test Description	QC Result	Criteria	MSD Result	MSD Conc.	Sample Conc.	MDL	Dilution
Isopropylbenzene	48.6 % *	75-125%	0.0881 mg/Kg	0.181	<0.0003	0.0003	1
4-Isopropyl toluene	49.3 % *	75-130%	0.0894 mg/Kg	0.181	<0.0005	0.0005	1
Methyl tert-butyl ether (MTBE)	98.3 %	65-125%	0.178 mg/Kg	0.181	<0.0004	0.0004	1
4-Methyl-2-Pentanone	130 %	60-135%	0.235 mg/Kg	0.181	<0.0029	0.0029	1
Methylene Chloride	87.8 %	55-140%	0.159 mg/Kg	0.181	<0.0015	0.0015	1
Naphthalene	42.7 % *	55-140%	0.0774 mg/Kg	0.181	<0.0031	0.0031	1
n-Propylbenzene	53.5 % *	70-130%	0.0969 mg/Kg	0.181	<0.0002	0.0002	1
Styrene	64.0 % *	65-135%	0.116 mg/Kg	0.181	<0.0003	0.0003	1
1,1,1,2-Tetrachloroethane	71.8 %	70-130%	0.130 mg/Kg	0.181	<0.0005	0.0005	1
1,1,2,2-Tetrachloroethane	7.0 % *	65-130%	0.0127 mg/Kg	0.181	<0.0006	0.0006	1
Tetrachloroethene	53.1 % *	60-145%	0.0962 mg/Kg	0.181	<0.0016	0.0016	1
Toluene	64.6 % *	80-120%	0.117 mg/Kg	0.181	<0.0025	0.0025	1
1,2,3-Trichlorobenzene	34.1 % *	55-140%	0.0618 mg/Kg	0.181	<0.0010	0.0010	1
1,2,4-Trichlorobenzene	57.4 % *	65-135%	0.104 mg/Kg	0.181	<0.0014	0.0014	1
1,1,1-Trichloroethane	55.2 % *	65-130%	0.100 mg/Kg	0.181	<0.0008	0.0008	1
1,1,2-Trichloroethane	101 %	75-125%	0.183 mg/Kg	0.181	<0.0017	0.0017	1
Trichloroethene	110 %	70-125%	0.200 mg/Kg	0.181	<0.0013	0.0013	1
Trichlorofluoromethane	50.5 %	45-150%	0.0915 mg/Kg	0.181	<0.0008	0.0008	1
1,2,3-Trichloropropane	93.3 %	75-125%	0.169 mg/Kg	0.181	<0.0010	0.0010	1
1,2,4-Trimethylbenzene	58.5 % *	75-130%	0.106 mg/Kg	0.181	<0.0006	0.0006	1
1,3,5-Trimethylbenzene	58.0 % *	75-130%	0.105 mg/Kg	0.181	<0.0003	0.0003	1
Vinyl Acetate	85.0 %	40-125%	0.154 mg/Kg	0.181	<0.0026	0.0026	1
Vinyl Chloride	49.6 % *	80-120%	0.0899 mg/Kg	0.181	<0.0006	0.0006	1
o-Xylene	57.4 % *	75-130%	0.104 mg/Kg	0.181	<0.0008	0.0008	1
m,p-Xylene	57.5 % *	75-130%	0.209 mg/Kg	0.363	<0.0007	0.0007	1

**Surrogate Recovery:**

4-Bromofluorobenzene	81.2 %	60-130%	0.0812 mg/Kg	0.100			1
1,2-Dichloroethane - d4	131 %	60-132%	0.131 mg/Kg	0.100			1
Toluene-d8	75.8 %	70-122%	0.0758 mg/Kg	0.100			1

\* **QC Fail**

**QC Report**

Client ID **Ensafe**  
Project Description **Basement Removal - 2nd and Chelsea**  
Report No **14-127-0261**

**Analytical Method: 8260B**

**Batch: L198602**

**Prep Method: 5030A**

**Batch: L198600 5/8/14 8:00**

**Matrix Spike Duplicate - L 98897-MSD-L198600**

**QC Measurement: RPD**

**DateTime Analyzed: 05/08/2014 07:04 PM**

Test Description	QC Result	Criteria	MSD Result	MSD Conc.	Sample Conc.	MDL	Dilution
Acetone	3.3 %	< 30	0.273 mg/Kg		0.264	0.0046	1
Acetonitrile	49.2 % *	< 30	1.18 mg/Kg		1.95	0.0128	1
Acrolein	31.9 % *	< 30	0.156 mg/Kg		0.113	0.0101	1
Acrylonitrile	19.4 %	< 30	0.243 mg/Kg		0.200	0.0080	1
Benzene	30.3 % *	< 30	0.126 mg/Kg		0.171	0.0008	1
Bromobenzene	17.8 %	< 30	0.133 mg/Kg		0.159	0.0009	1
Bromochloromethane	9.0 %	< 30	0.243 mg/Kg		0.222	0.0007	1
Bromodichloromethane	23.5 %	< 30	0.150 mg/Kg		0.190	0.0004	1
Bromoform	8.0 %	< 30	0.154 mg/Kg		0.167	0.0006	1
Bromomethane	19.9 %	< 30	0.193 mg/Kg		0.158	0.0012	1
Methyl Ethyl Ketone (MEK)	8.3 %	< 30	0.286 mg/Kg		0.263	0.0061	1
n-Butylbenzene	34.2 % *	< 30	0.0976 mg/Kg		0.138	0.0007	1
sec-Butyl benzene	57.4 % *	< 30	0.0858 mg/Kg		0.155	0.0003	1
tert-Butyl benzene	56.0 % *	< 30	0.0888 mg/Kg		0.158	0.0014	1
Carbon Disulfide	52.1 % *	< 30	0.0956 mg/Kg		0.163	0.0004	1
Carbon Tetrachloride	83.6 % *	< 30	0.0697 mg/Kg		0.170	0.0005	1
Chlorobenzene	27.3 %	< 30	0.117 mg/Kg		0.154	0.0008	1
Chlorodibromomethane	9.6 %	< 30	0.178 mg/Kg		0.196	0.0009	1
Chloroethane	67.1 % *	< 30	0.0915 mg/Kg		0.184	0.0003	1
2-Chloroethylvinyl Ether	19.0 %	< 30	0.195 mg/Kg		0.236	0.0020	1
Chloroform	23.6 %	< 30	0.142 mg/Kg		0.180	0.0004	1
Chloromethane	31.2 % *	< 30	0.116 mg/Kg		0.159	0.0007	1
2-Chlorotoluene	31.0 % *	< 30	0.106 mg/Kg		0.145	0.0002	1
4-Chlorotoluene	16.4 %	< 30	0.123 mg/Kg		0.145	0.0008	1
1,2-Dibromo-3-Chloropropane	21.6 %	< 30	0.128 mg/Kg		0.159	0.0050	1
1,2-Dibromoethane	14.7 %	< 30	0.188 mg/Kg		0.218	0.0011	1
Dibromomethane	5.0 %	< 30	0.194 mg/Kg		0.204	0.0011	1
1,2-Dichlorobenzene	2.7 %	< 30	0.141 mg/Kg		0.145	0.0010	1
1,3-Dichlorobenzene	11.5 %	< 30	0.147 mg/Kg		0.165	0.0008	1

\* **QC Fail**



### QC Report

Client ID                   **Ensafe**  
 Project Description       Basement Removal - 2nd and Chelsea  
 Report No                 14-127-0261

**Analytical Method: 8260B**

**Batch: L198602**

**Prep Method: 5030A**

**Batch: L198600 5/8/14 8:00**

**Matrix Spike Duplicate - L 98897-MSD-L198600**

**QC Measurement: RPD**

**DateTime Analyzed: 05/08/2014 07:04 PM**

Test Description	QC Result	Criteria	MSD Result	MSD Conc.	Sample Conc.	MDL	Dilution
1,4-Dichlorobenzene	18.3 %	< 30	0.129 mg/Kg		0.155	0.0007	1
Dichlorodifluoromethane	62.4 % *	< 30	0.0521 mg/Kg		0.0994	0.0005	1
1,1-Dichloroethane	20.0 %	< 30	0.148 mg/Kg		0.181	0.0003	1
1,2-Dichloroethane	4.0 %	< 30	0.194 mg/Kg		0.202	0.0010	1
1,1-Dichloroethene	46.1 % *	< 30	0.100 mg/Kg		0.160	0.0004	1
cis-1,2-Dichloroethene	25.2 %	< 30	0.142 mg/Kg		0.183	0.0005	1
trans-1,2-Dichloroethene	38.8 % *	< 30	0.116 mg/Kg		0.172	0.0004	1
1,2-Dichloropropane	27.0 %	< 30	0.150 mg/Kg		0.197	0.0011	1
1,3-Dichloropropane	8.7 %	< 30	0.174 mg/Kg		0.190	0.0011	1
2,2-Dichloropropane	77.1 % *	< 30	0.0785 mg/Kg		0.177	0.0007	1
1,1-Dichloropropene	66.4 % *	< 30	0.0907 mg/Kg		0.181	0.0009	1
cis-1,3-Dichloropropene	37.4 % *	< 30	0.141 mg/Kg		0.206	0.0006	1
trans-1,3-Dichloropropene	15.1 %	< 30	0.153 mg/Kg		0.178	0.0009	1
Ethyl Acetate	85.0 % *	< 30	0.147 mg/Kg		0.0593	0.0016	1
Ethylbenzene	40.1 % *	< 30	0.0952 mg/Kg		0.143	0.0005	1
Hexachlorobutadiene	62.1 % *	< 30	0.0799 mg/Kg		0.152	0.0008	1
2-Hexanone	19.1 %	< 30	0.297 mg/Kg		0.245	0.0019	1
Iodomethane	57.0 % *	< 30	0.0968 mg/Kg		0.174	0.0009	1
Isopropylbenzene	46.8 % *	< 30	0.0881 mg/Kg		0.142	0.0003	1
4-Isopropyl toluene	54.2 % *	< 30	0.0894 mg/Kg		0.156	0.0005	1
Methyl tert-butyl ether (MTBE)	19.7 %	< 30	0.178 mg/Kg		0.217	0.0004	1
4-Methyl-2-Pentanone	12.1 %	< 30	0.235 mg/Kg		0.208	0.0029	1
Methylene Chloride	10.1 %	< 30	0.159 mg/Kg		0.176	0.0015	1
Naphthalene	62.0 % *	< 30	0.0774 mg/Kg		0.147	0.0031	1
n-Propylbenzene	41.0 % *	< 30	0.0969 mg/Kg		0.147	0.0002	1
Styrene	23.5 %	< 30	0.116 mg/Kg		0.147	0.0003	1
1,1,1,2-Tetrachloroethane	22.5 %	< 30	0.130 mg/Kg		0.163	0.0005	1
1,1,1,2,2-Tetrachloroethane	85.7 % *	< 30	0.0127 mg/Kg		0.0050	0.0006	1
Tetrachloroethene	64.6 % *	< 30	0.0962 mg/Kg		0.188	0.0016	1

\* QC Fail

**QC Report**

Client ID                   **Ensafe**  
 Project Description       Basement Removal - 2nd and Chelsea  
 Report No                   14-127-0261

**Analytical Method: 8260B**

**Batch: L198602**

**Prep Method: 5030A**

**Batch: L198600 5/8/14 8:00**

**Matrix Spike Duplicate - L 98897-MSD-L198600**

**QC Measurement: RPD**

**DateTime Analyzed: 05/08/2014 07:04 PM**

Test Description	QC Result	Criteria	MSD Result	MSD Conc.	Sample Conc.	MDL	Dilution
Toluene	29.8 %	< 30	0.117 mg/Kg		0.158	0.0025	1
1,2,3-Trichlorobenzene	84.3 % *	< 30	0.0618 mg/Kg		0.152	0.0010	1
1,2,4-Trichlorobenzene	32.9 % *	< 30	0.104 mg/Kg		0.145	0.0014	1
1,1,1-Trichloroethane	53.4 % *	< 30	0.100 mg/Kg		0.173	0.0008	1
1,1,2-Trichloroethane	9.3 %	< 30	0.183 mg/Kg		0.201	0.0017	1
Trichloroethene	47.3 % *	< 30	0.200 mg/Kg		0.324	0.0013	1
Trichlorofluoromethane	50.3 % *	< 30	0.0915 mg/Kg		0.153	0.0008	1
1,2,3-Trichloropropane	6.8 %	< 30	0.169 mg/Kg		0.181	0.0010	1
1,2,4-Trimethylbenzene	38.7 % *	< 30	0.106 mg/Kg		0.157	0.0006	1
1,3,5-Trimethylbenzene	43.2 % *	< 30	0.105 mg/Kg		0.163	0.0003	1
Vinyl Acetate	6.2 %	< 30	0.154 mg/Kg		0.164	0.0026	1
Vinyl Chloride	64.2 % *	< 30	0.0899 mg/Kg		0.175	0.0006	1
o-Xylene	30.2 % *	< 30	0.104 mg/Kg		0.141	0.0008	1
m,p-Xylene	26.9 %	< 30	0.209 mg/Kg		0.274	0.0007	1

\* QC Fail

**QC Report**

Client ID                   **Ensafe**  
 Project Description       Basement Removal - 2nd and Chelsea  
 Report No                   14-127-0261

**Analytical Method: 8270C SIM**

**Batch: L198686**

**Prep Method: 3546**

**Batch: L198604   5/9/2014 9:15**

**Lab Reagent Blank - LRB-L198604**

**QC Measurement:   Limit**

**DateTime Analyzed: 05/09/2014 01:24 PM**

<u>Test Description</u>	<u>LRB Result</u>	<u>MDL</u>	<u>MQL</u>	<u>Dilution</u>
Acenaphthene	<0.000087 mg/Kg	0.000087	0.000660	1
Acenaphthylene	<0.000051 mg/Kg	0.000051	0.000660	1
Anthracene	<0.000212 mg/Kg	0.000212	0.000660	1
Benzo(a)anthracene	<0.000570 mg/Kg	0.000570	0.000660	1
Benzo(a)pyrene	<0.000539 mg/Kg	0.000539	0.000660	1
Benzo(b)fluoranthene	<0.000273 mg/Kg	0.000273	0.000660	1
Benzo(g,h,i)perylene	<0.000209 mg/Kg	0.000209	0.000660	1
Benzo(k)fluoranthene	<0.000192 mg/Kg	0.000192	0.000660	1
Chrysene	<0.000312 mg/Kg	0.000312	0.000660	1
Dibenz(a,h)anthracene	<0.000285 mg/Kg	0.000285	0.000660	1
Fluoranthene	<0.000184 mg/Kg	0.000184	0.000660	1
Fluorene	<0.000186 mg/Kg	0.000186	0.000660	1
Indeno(1,2,3-cd)pyrene	<0.000220 mg/Kg	0.000220	0.000660	1
2-Methylnaphthalene	<0.000118 mg/Kg	0.000118	0.000660	1
Naphthalene	<0.000187 mg/Kg	0.000187	0.000660	1
Phenanthrene	<0.000474 mg/Kg	0.000474	0.000660	1
Pyrene	<0.000191 mg/Kg	0.000191	0.000660	1

**Surrogate Recovery:**

2-Fluorobiphenyl	74.1	0.247 mg/Kg	0.333	1
Nitrobenzene-d5	68.7	0.229 mg/Kg	0.333	1
4-Terphenyl-d14	91.8	0.306 mg/Kg	0.333	1

**Laboratory Control Sample - LCS-L198604**

**QC Measurement:   % Recovery**

**DateTime Analyzed: 05/09/2014 12:53 PM**

<u>Test Description</u>	<u>QC Result</u>	<u>Criteria</u>	<u>LCS Result</u>	<u>LCS Conc.</u>	<u>MDL</u>	<u>Dilution</u>
Acenaphthene	65.8 %	40-120%	0.110 mg/Kg	0.167	0.000087	1
Acenaphthylene	59.8 %	40-120%	0.100 mg/Kg	0.167	0.000051	1
Anthracene	59.8 %	40-120%	0.100 mg/Kg	0.167	0.000212	1

## QC Report

Client ID **Ensafe**  
 Project Description **Basement Removal - 2nd and Chelsea**  
 Report No **14-127-0261**

**Analytical Method: 8270C SIM**

**Batch: L198686**

**Prep Method: 3546**

**Batch: L198604 5/9/2014 9:15**

**Laboratory Control Sample - LCS-L198604**

**QC Measurement: % Recovery**

**DateTime Analyzed: 05/09/2014 12:53 PM**

Test Description	QC Result	Criteria	LCS Result	LCS Conc.	MDL	Dilution
Benzo(a)anthracene	68.8 %	40-120%	0.115 mg/Kg	0.167	0.000570	1
Benzo(a)pyrene	68.2 %	40-120%	0.114 mg/Kg	0.167	0.000539	1
Benzo(b)fluoranthene	65.2 %	40-120%	0.109 mg/Kg	0.167	0.000273	1
Benzo(g,h,i)perylene	70.0 %	40-120%	0.117 mg/Kg	0.167	0.000209	1
Benzo(k)fluoranthene	72.4 %	40-120%	0.121 mg/Kg	0.167	0.000192	1
Chrysene	61.0 %	40-120%	0.102 mg/Kg	0.167	0.000312	1
Dibenz(a,h)anthracene	65.8 %	40-120%	0.110 mg/Kg	0.167	0.000285	1
Fluoranthene	65.2 %	40-120%	0.109 mg/Kg	0.167	0.000184	1
Fluorene	63.4 %	40-120%	0.106 mg/Kg	0.167	0.000186	1
Indeno(1,2,3-cd)pyrene	65.2 %	40-120%	0.109 mg/Kg	0.167	0.000220	1
2-Methylnaphthalene	60.4 %	40-120%	0.101 mg/Kg	0.167	0.000118	1
Naphthalene	64.0 %	40-120%	0.107 mg/Kg	0.167	0.000187	1
Phenanthrene	64.0 %	40-120%	0.107 mg/Kg	0.167	0.000474	1
Pyrene	68.8 %	40-120%	0.115 mg/Kg	0.167	0.000191	1

**Surrogate Recovery:**

2-Fluorobiphenyl	65.7 %	33-115%	0.219 mg/Kg	0.333		1
Nitrobenzene-d5	63.6 %	29-110%	0.212 mg/Kg	0.333		1
4-Terphenyl-d14	69.9 %	33-122%	0.233 mg/Kg	0.333		1

**Matrix Spike - L 98608-MS-L198604**

**QC Measurement: % Recovery**

**DateTime Analyzed: 05/09/2014 02:56 PM**

Test Description	QC Result	Criteria	MS Result	MS Conc.	Sample Conc.	MDL	Dilution
Acenaphthene	64.8 %	40-120%	0.107 mg/Kg	0.165	<0.000087	0.000087	1
Acenaphthylene	58.0 %	40-120%	0.0957 mg/Kg	0.165	<0.000051	0.000051	1
Anthracene	63.6 %	40-120%	0.105 mg/Kg	0.165	<0.000212	0.000212	1
Benzo(a)anthracene	63.6 %	40-120%	0.105 mg/Kg	0.165	<0.000570	0.000570	1
Benzo(a)pyrene	64.2 %	40-120%	0.106 mg/Kg	0.165	<0.000539	0.000539	1
Benzo(b)fluoranthene	58.4 %	40-120%	0.0964 mg/Kg	0.165	<0.000273	0.000273	1

**QC Report**

Client ID **Ensafe**  
Project Description **Basement Removal - 2nd and Chelsea**  
Report No **14-127-0261**

**Analytical Method: 8270C SIM**

**Batch: L198686**

**Prep Method: 3546**

**Batch: L198604 5/9/2014 9:15**

**Matrix Spike - L 98608-MS-L198604**

**QC Measurement: % Recovery**

**DateTime Analyzed: 05/09/2014 02:56 PM**

Test Description	QC Result	Criteria	MS Result	MS Conc.	Sample Conc.	MDL	Dilution
Benzo(g,h,i)perylene	64.8 %	40-120%	0.107 mg/Kg	0.165	<0.000209	0.000209	1
Benzo(k)fluoranthene	61.8 %	40-120%	0.102 mg/Kg	0.165	<0.000192	0.000192	1
Chrysene	64.2 %	40-120%	0.106 mg/Kg	0.165	<0.000312	0.000312	1
Dibenz(a,h)anthracene	62.4 %	40-120%	0.103 mg/Kg	0.165	<0.000285	0.000285	1
Fluoranthene	66.0 %	40-120%	0.109 mg/Kg	0.165	<0.000184	0.000184	1
Fluorene	64.2 %	40-120%	0.106 mg/Kg	0.165	<0.000186	0.000186	1
Indeno(1,2,3-cd)pyrene	65.4 %	40-120%	0.108 mg/Kg	0.165	<0.000220	0.000220	1
2-Methylnaphthalene	58.6 %	40-120%	0.0968 mg/Kg	0.165	<0.000118	0.000118	1
Naphthalene	61.2 %	40-120%	0.101 mg/Kg	0.165	<0.000187	0.000187	1
Phenanthrene	62.4 %	40-120%	0.103 mg/Kg	0.165	<0.000474	0.000474	1
Pyrene	54.4 %	40-120%	0.0899 mg/Kg	0.165	<0.000191	0.000191	1
<b>Surrogate Recovery:</b>							
2-Fluorobiphenyl	58.9 %	33-115%	0.194 mg/Kg	0.329			1
Nitrobenzene-d5	57.7 %	29-110%	0.190 mg/Kg	0.329			1
4-Terphenyl-d14	63.5 %	33-122%	0.209 mg/Kg	0.329			1

**Matrix Spike Duplicate - L 98608-MSD-L198604**

**QC Measurement: % Recovery**

**DateTime Analyzed: 05/09/2014 03:27 PM**

Test Description	QC Result	Criteria	MSD Result	MSD Conc.	Sample Conc.	MDL	Dilution
Acenaphthene	68.4 %	40-120%	0.113 mg/Kg	0.165	<0.000087	0.000087	1
Acenaphthylene	71.5 %	40-120%	0.118 mg/Kg	0.165	<0.000051	0.000051	1
Anthracene	70.3 %	40-120%	0.116 mg/Kg	0.165	<0.000212	0.000212	1
Benzo(a)anthracene	78.1 %	40-120%	0.129 mg/Kg	0.165	<0.000570	0.000570	1
Benzo(a)pyrene	72.1 %	40-120%	0.119 mg/Kg	0.165	<0.000539	0.000539	1
Benzo(b)fluoranthene	67.2 %	40-120%	0.111 mg/Kg	0.165	<0.000273	0.000273	1
Benzo(g,h,i)perylene	73.3 %	40-120%	0.121 mg/Kg	0.165	<0.000209	0.000209	1
Benzo(k)fluoranthene	69.6 %	40-120%	0.115 mg/Kg	0.165	<0.000192	0.000192	1
Chrysene	73.9 %	40-120%	0.122 mg/Kg	0.165	<0.000312	0.000312	1

**QC Report**

Client ID                   **Ensafe**  
Project Description       Basement Removal - 2nd and Chelsea  
Report No                   14-127-0261

**Analytical Method: 8270C SIM**

**Batch: L198686**

**Prep Method: 3546**

**Batch: L198604   5/9/2014 9:15**

**Matrix Spike Duplicate - L 98608-MSD-L198604**

**QC Measurement:   % Recovery**

**DateTime Analyzed: 05/09/2014 03:27 PM**

Test Description	QC Result	Criteria	MSD Result	MSD Conc.	Sample Conc.	MDL	Dilution
Dibenz(a,h)anthracene	68.4 %	40-120%	0.113 mg/Kg	0.165	<0.000285	0.000285	1
Fluoranthene	81.2 %	40-120%	0.134 mg/Kg	0.165	<0.000184	0.000184	1
Fluorene	67.8 %	40-120%	0.112 mg/Kg	0.165	<0.000186	0.000186	1
Indeno(1,2,3-cd)pyrene	73.3 %	40-120%	0.121 mg/Kg	0.165	<0.000220	0.000220	1
2-Methylnaphthalene	66.0 %	40-120%	0.109 mg/Kg	0.165	<0.000118	0.000118	1
Naphthalene	70.3 %	40-120%	0.116 mg/Kg	0.165	<0.000187	0.000187	1
Phenanthrene	78.1 %	40-120%	0.129 mg/Kg	0.165	<0.000474	0.000474	1
Pyrene	59.6 %	40-120%	0.0985 mg/Kg	0.165	<0.000191	0.000191	1

**Surrogate Recovery:**

2-Fluorobiphenyl	72.9 %	33-115%	0.240 mg/Kg	0.329			1
Nitrobenzene-d5	67.1 %	29-110%	0.221 mg/Kg	0.329			1
4-Terphenyl-d14	70.8 %	33-122%	0.233 mg/Kg	0.329			1

**Matrix Spike Duplicate - L 98608-MSD-L198604**

**QC Measurement:   RPD**

**DateTime Analyzed: 05/09/2014 03:27 PM**

Test Description	QC Result	Criteria	MSD Result	MSD Conc.	Sample Conc.	MDL	Dilution
Acenaphthene	5.4 %	< 30	0.113 mg/Kg		0.107	0.000087	1
Acenaphthylene	20.8 %	< 30	0.118 mg/Kg		0.0957	0.000051	1
Anthracene	9.9 %	< 30	0.116 mg/Kg		0.105	0.000212	1
Benzo(a)anthracene	20.5 %	< 30	0.129 mg/Kg		0.105	0.000570	1
Benzo(a)pyrene	11.5 %	< 30	0.119 mg/Kg		0.106	0.000539	1
Benzo(b)fluoranthene	14.0 %	< 30	0.111 mg/Kg		0.0964	0.000273	1
Benzo(g,h,i)perylene	12.2 %	< 30	0.121 mg/Kg		0.107	0.000209	1
Benzo(k)fluoranthene	11.9 %	< 30	0.115 mg/Kg		0.102	0.000192	1
Chrysene	14.0 %	< 30	0.122 mg/Kg		0.106	0.000312	1
Dibenz(a,h)anthracene	9.2 %	< 30	0.113 mg/Kg		0.103	0.000285	1
Fluoranthene	20.5 %	< 30	0.134 mg/Kg		0.109	0.000184	1
Fluorene	5.5 %	< 30	0.112 mg/Kg		0.106	0.000186	1
Indeno(1,2,3-cd)pyrene	11.3 %	< 30	0.121 mg/Kg		0.108	0.000220	1

**QC Report**

Client ID                   **Ensafe**  
 Project Description       Basement Removal - 2nd and Chelsea  
 Report No                   14-127-0261

**Analytical Method: 8270C SIM**

**Batch: L198686**

**Prep Method: 3546**

**Batch: L198604   5/9/2014 9:15**

**Matrix Spike Duplicate - L 98608-MSD-L198604**

**QC Measurement:   RPD**

**DateTime Analyzed: 05/09/2014 03:27 PM**

<b>Test Description</b>	<b>QC Result</b>	<b>Criteria</b>	<b>MSD Result</b>	<b>MSD Conc.</b>	<b>Sample Conc.</b>	<b>MDL</b>	<b>Dilution</b>
2-Methylnaphthalene	11.8 %	< 30	0.109 mg/Kg		0.0968	0.000118	1
Naphthalene	13.8 %	< 30	0.116 mg/Kg		0.101	0.000187	1
Phenanthrene	22.4 %	< 30	0.129 mg/Kg		0.103	0.000474	1
Pyrene	9.1 %	< 30	0.0985 mg/Kg		0.0899	0.000191	1



**Cooler Receipt Form**

Customer Number: **03180**

Customer Name: **Ensafe**

Report Number: **14-127-0261**

**Shipping Method**

Fed Ex       US Postal       Lab       Other :   
 UPS       Client       Courier      Thermometer ID: #2

Shipping container/cooler uncompromised?	<input checked="" type="radio"/> Yes	<input type="radio"/> No	
Custody seals intact on shipping container/cooler?	<input type="radio"/> Yes	<input type="radio"/> No	<input checked="" type="radio"/> Not Required
Custody seals intact on sample bottles?	<input type="radio"/> Yes	<input type="radio"/> No	<input checked="" type="radio"/> Not Required
Chain of Custody (COC) present?	<input checked="" type="radio"/> Yes	<input type="radio"/> No	
COC agrees with sample label(s)?	<input checked="" type="radio"/> Yes	<input type="radio"/> No	
COC properly completed	<input checked="" type="radio"/> Yes	<input type="radio"/> No	
Samples in proper containers?	<input checked="" type="radio"/> Yes	<input type="radio"/> No	
Sample containers intact?	<input checked="" type="radio"/> Yes	<input type="radio"/> No	
Sufficient sample volume for indicated test(s)?	<input checked="" type="radio"/> Yes	<input type="radio"/> No	
All samples received within holding time?	<input checked="" type="radio"/> Yes	<input type="radio"/> No	
Cooler temperature in compliance?	<input checked="" type="radio"/> Yes	<input type="radio"/> No	
Cooler/Samples arrived at the laboratory on ice. Samples were considered acceptable as cooling process had begun.	<input checked="" type="radio"/> Yes	<input type="radio"/> No	
Water - Sample containers properly preserved	<input type="radio"/> Yes	<input type="radio"/> No	<input checked="" type="radio"/> N/A
Water - VOA vials free of headspace	<input type="radio"/> Yes	<input type="radio"/> No	<input checked="" type="radio"/> N/A
Trip Blanks received with VOAs	<input type="radio"/> Yes	<input type="radio"/> No	<input checked="" type="radio"/> N/A
Soil VOA method 5035 – compliance criteria met	<input type="radio"/> Yes	<input type="radio"/> No	<input checked="" type="radio"/> N/A
<input type="checkbox"/> High concentration container (48 hr)	<input type="checkbox"/> Low concentration EnCore samplers (48 hr)		
<input type="checkbox"/> High concentration pre-weighed (methanol -14 d)	<input type="checkbox"/> Low conc pre-weighed vials (Sod Bis -14 d)		
Special precautions or instructions included?	<input type="radio"/> Yes	<input checked="" type="radio"/> No	

Comments:

Any regulatory non-compliance issues will be recorded on non-compliance report.

Signature:

Date & Time:

**Environmental Testing & Consulting, Inc. Chain of Custody** Page 1 of 1

14-127-0261  
03180  
05-07-2014  
12:01:22



Ensafe  
Basement Removal - 2nd and Chelsea

Client Name

Client Project Manager/Contact

Phone #

En Side Inc.

Wesley Goodright  
Allison Harris

901-372-7962

Project Site Location

Project Number

FID #

email Address  
purchase Order Number

204 Chelsea Basement Demo, Memphis, TN  
0888815441  
N/A

Method of Shipment

En Side MSA

Drop off

RUSH - Additional charges apply.  
The following require a Statement of Work  
 Special Report Requirements  
 Special Detection Limit(s)  
 Special Method Requirements

NPDES  
Wastewater  
UST  
Other Program

N/A

**Required Analysis:**

Environmental Testing & Consulting, Inc.  
2790 Whitten Road  
Memphis, TN 38133  
(901) 213-2400 (phone)  
(901) 213-2440 (fax)  
www.etcmemphis.com



Moisture  
VOCs  
PCHS  
PCPA & Metals

5-Day TAT

Required Analysis:

Matrix

Number of Containers

Sample Identification:

Date: Time:

5/6/14 1545 CHELSBASE0311

5/6/14 1555 CHELSBASE0411

2 Soil G

2 Soil G

Matrix  
VW - Wastewater GW - Groundwater DW - Drinking Water S - Soil O - Oil L - Non aqueous liquid  
Other:

For Laboratory Use Only  
Cooler Temp  
Lab Comments

PK  
1.2C TO

Relinquished by: (SIGNATURE)  
Relinquished by: (SIGNATURE)  
Relinquished by: (SIGNATURE)

Sampled by (Name/Affiliation): (Print)  
J. Wesley Goodright/Enside

Client Remarks/Comments  
5-Day TAT Requested

Date Time  
5/7/14 0830  
5/7/14 1150

Received by: (SIGNATURE)  
Received by: (SIGNATURE)  
Received by: (SIGNATURE)

5/7/14 0830  
5/7/14 1150  
5/7/14 1150

5/21/2014

Ensafe  
Mr. Dave Fuehrer  
5724 Summer Tree Drive  
Memphis, TN, 38134

Ref: Analytical Testing  
ETC Report Number: 14-135-0223  
Client Project Description: 714 N. Second St.  
Memphis, TN  
Project Number: 714 N. Second St. - Memphis

Dear Mr. Dave Fuehrer:

Environmental Testing and Consulting, Inc. received sample(s) on 5/15/2014 for the analyses presented in the following report.

The above referenced project has been analyzed per your instructions. The analyses were performed in accordance with the applicable analytical method.

The analytical data has been validated using standard quality control measures performed as required by the analytical method. Quality Assurance, method validations, instrumentation maintenance and calibration for all parameters (NELAP and non-NELAP) were performed in accordance with guidelines established by the USEPA (including 40 CFR 136 Method Update Rule May 2012) and NELAC unless otherwise indicated. Any parameter for which the laboratory is not officially NELAP accredited is indicated by a '-' symbol. These are not included in the scope because NELAP accreditation is either not available or has not been applied for. Additional certifications may be held/are available for parameters, where NELAP accreditation is not required or applicable. A full list of certifications is available upon request.

Per EPA Methods Update Rule (May 2012), all methods from Standard Methods for the Examination of Water and Wastewater are reported to include the year of approval.

The results are shown on the attached Report of Analysis(s). Results for solid matrices are reported on an as-received basis unless otherwise indicated. This report shall not be reproduced except in full and relates only to the samples included in this report.

Please do not hesitate to contact me or client services if you have any questions or need additional information.

Sincerely,



Andy Parrish  
Project Manager

*Laboratory's liability in any claim relating to analyses performed shall be limited to, at laboratory's option, repeating the analysis in question at laboratory's expense, or the refund of the charges paid for performance of said analysis.*

Alabama #40750	Louisiana #04015	VA NELAP #460181	Texas #T104704180-11-6	Arkansas #88-0650
Mississippi	California #2904	NC #415	Oklahoma #9311	Virginia #00106
Kentucky #90047	Tennessee #TN02027	EPA #TN00012	Kentucky UST #41	Kansas #E-10396



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Client: Ensafe

**CASE NARRATIVE**

Project: 714 N. Second St.

Lab Report Number: 14-135-0223

Date: 5/20/2014

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**Metals Analysis Method SW-6010B**

Sample 89766 (MLBSTW0316)

Analyte: Ba

QC Batch No: L199471

MS/MSD Recovery failed, DT confirmed matrix interference

**Volatile Organic Compounds - GC/MS Method SW-8260B**

Sample 89762 (MLBSTW0132)

Analyte: 1,2-Dichloroethane-d4

QC Batch No: L199552

Surrogate(s) exhibited a high bias in this project sample where no target analytes were detected. The high recovery(s) had no impact on the data. Batch QC samples (method blank and laboratory control samples) all showed surrogates within QC limits.

## Sample Summary Table

**Report Number:** 14-135-0223

**Client Project Description:** 714 N. Second St.  
Memphis, TN

Lab No	Client Sample ID	Matrix	Date Collected	Date Received	Method	Lab ID
89761	MLBSTW0116	Solids	05/14/2014 11:45	05/15/2014	2540G-2011	ETC
89761	MLBSTW0116	Solids	05/14/2014 11:45	05/15/2014	6010B	ETC
89761	MLBSTW0116	Solids	05/14/2014 11:45	05/15/2014	7471A	ETC
89761	MLBSTW0116	Solids	05/14/2014 11:45	05/15/2014	8260B	ETC
89761	MLBSTW0116	Solids	05/14/2014 11:45	05/15/2014	8270C SIM	ETC
89762	MLBSTW0132	Solids	05/14/2014 11:50	05/15/2014	2540G-2011	ETC
89762	MLBSTW0132	Solids	05/14/2014 11:50	05/15/2014	6010B	ETC
89762	MLBSTW0132	Solids	05/14/2014 11:50	05/15/2014	7471A	ETC
89762	MLBSTW0132	Solids	05/14/2014 11:50	05/15/2014	8260B	ETC
89762	MLBSTW0132	Solids	05/14/2014 11:50	05/15/2014	8270C SIM	ETC
89763	MLBSTW0208	Solids	05/14/2014 14:05	05/15/2014	2540G-2011	ETC
89763	MLBSTW0208	Solids	05/14/2014 14:05	05/15/2014	6010B	ETC
89763	MLBSTW0208	Solids	05/14/2014 14:05	05/15/2014	7471A	ETC
89763	MLBSTW0208	Solids	05/14/2014 14:05	05/15/2014	8260B	ETC
89763	MLBSTW0208	Solids	05/14/2014 14:05	05/15/2014	8270C SIM	ETC
89764	MLBSTW0220	Solids	05/14/2014 14:15	05/15/2014	2540G-2011	ETC
89764	MLBSTW0220	Solids	05/14/2014 14:15	05/15/2014	6010B	ETC
89764	MLBSTW0220	Solids	05/14/2014 14:15	05/15/2014	7471A	ETC
89764	MLBSTW0220	Solids	05/14/2014 14:15	05/15/2014	8260B	ETC
89764	MLBSTW0220	Solids	05/14/2014 14:15	05/15/2014	8270C SIM	ETC
89765	MLBSTW0312	Solids	05/14/2014 15:20	05/15/2014	2540G-2011	ETC
89765	MLBSTW0312	Solids	05/14/2014 15:20	05/15/2014	6010B	ETC
89765	MLBSTW0312	Solids	05/14/2014 15:20	05/15/2014	7471A	ETC
89765	MLBSTW0312	Solids	05/14/2014 15:20	05/15/2014	8260B	ETC
89765	MLBSTW0312	Solids	05/14/2014 15:20	05/15/2014	8270C SIM	ETC
89766	MLBSTW0316	Solids	05/14/2014 15:25	05/15/2014	2540G-2011	ETC



Sample Summary Table

Report Number: 14-135-0223
Client Project Description: 714 N. Second St. Memphis, TN

Table with 7 columns: Lab No, Client Sample ID, Matrix, Date Collected, Date Received, Method, Lab ID. Contains 4 rows of sample data.



03180

Ensafe  
Mr. Dave Fuehrer  
5724 Summer Tree Drive  
Memphis, TN 38134

Project ID :  
Project 714 N. Second St.  
Information : Memphis, TN

Report Date : 05/21/2014  
Received : 5/15/2014

Report Number : **14-135-0223**

### REPORT OF ANALYSIS

Lab No : **89761**  
Sample ID : **MLBSTW0116**

Matrix: **Solids**  
Sampled: **5/14/2014 11:45**

Test	Results	Units	MDL	MQL	DF	Date / Time Analyzed	By	Analytical Method
% Moisture	<b>21.8</b>	%	0	0.100	1	05/16/14 08:25	ALP	2540G-2011
Total Arsenic	<b>3.79</b>	mg/Kg - dry	0.907	1.28	1	05/16/14 18:26	BKN	6010B
Total Barium	<b>30.1</b>	mg/Kg - dry	0.074	0.639	1	05/16/14 18:26	BKN	6010B
Total Cadmium	<b>0.207</b>	mg/Kg - dry	0.0194	0.128	1	05/16/14 18:26	BKN	6010B
Total Chromium	<b>11.6</b>	mg/Kg - dry	0.043	0.319	1	05/16/14 18:26	BKN	6010B
Total Lead	<b>5.92</b>	mg/Kg - dry	0.182	0.383	1	05/16/14 18:26	BKN	6010B
Total Mercury	<b>0.00615 J</b>	mg/Kg - dry	0.00336	0.0170	1	05/20/14 14:07	JRS	7471A
Total Selenium	<0.652	mg/Kg - dry	0.652	1.28	1	05/16/14 18:26	BKN	6010B
Total Silver	<0.0347	mg/Kg - dry	0.0347	0.320	1	05/16/14 18:26	BKN	6010B

Qualifiers/ Definitions	*	Outside QC limit	B	Analyte detected in blank
	DF	Dilution Factor	J	Estimated value
	MQL	Method Quantitation Limit		



03180

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Mr. Dave Fuehrer  
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Memphis, TN 38134

Project ID :  
Project 714 N. Second St.  
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Report Date : 05/21/2014  
Received : 5/15/2014

Report Number : **14-135-0223**

**REPORT OF ANALYSIS**

Lab No : **89761**  
Sample ID : **MLBSTW0116**

Matrix: **Solids**  
Sampled: **5/14/2014 11:45**

**Analytical Method:** 8260B

**Prep Method:** 5030A

**Prep Batch(es):** L199392

**Date/Time Prepped:** 5/16/2014 08:00:00

Test	Results	Units	MDL	ML	DF	Date / Time Analyzed	By	Analytical Batch
Acetone	<0.0059	mg/Kg - dry	0.0059	0.0511	1	05/16/14 16:48	ACS	L199393
Acetonitrile	<0.0163	mg/Kg - dry	0.0163	0.128	1	05/16/14 16:48	ACS	L199393
Acrolein	<0.0129	mg/Kg - dry	0.0129	0.0511	1	05/16/14 16:48	ACS	L199393
Acrylonitrile	<0.0103	mg/Kg - dry	0.0103	0.0511	1	05/16/14 16:48	ACS	L199393
Benzene	<0.0011	mg/Kg - dry	0.0011	0.0025	1	05/16/14 16:48	ACS	L199393
Bromobenzene	<0.0012	mg/Kg - dry	0.0012	0.0025	1	05/16/14 16:48	ACS	L199393
Bromochloromethane	<0.0009	mg/Kg - dry	0.0009	0.0025	1	05/16/14 16:48	ACS	L199393
Bromodichloromethane	<0.0005	mg/Kg - dry	0.0005	0.0025	1	05/16/14 16:48	ACS	L199393
Bromoform	<0.0008	mg/Kg - dry	0.0008	0.0025	1	05/16/14 16:48	ACS	L199393
Bromomethane	<0.0015	mg/Kg - dry	0.0015	0.0025	1	05/16/14 16:48	ACS	L199393
Methyl Ethyl Ketone (MEK)	<0.0079	mg/Kg - dry	0.0079	0.0511	1	05/16/14 16:48	ACS	L199393
n-Butylbenzene	<0.0009	mg/Kg - dry	0.0009	0.0025	1	05/16/14 16:48	ACS	L199393
sec-Butyl benzene	<0.0004	mg/Kg - dry	0.0004	0.0025	1	05/16/14 16:48	ACS	L199393
tert-Butyl benzene	<0.0018	mg/Kg - dry	0.0018	0.0025	1	05/16/14 16:48	ACS	L199393
Carbon Disulfide	<0.0005	mg/Kg - dry	0.0005	0.0025	1	05/16/14 16:48	ACS	L199393
Carbon Tetrachloride	<0.0007	mg/Kg - dry	0.0007	0.0025	1	05/16/14 16:48	ACS	L199393
Chlorobenzene	<0.0010	mg/Kg - dry	0.0010	0.0025	1	05/16/14 16:48	ACS	L199393
Chlorodibromomethane	<0.0011	mg/Kg - dry	0.0011	0.0025	1	05/16/14 16:48	ACS	L199393
Chloroethane	<0.0005	mg/Kg - dry	0.0005	0.0025	1	05/16/14 16:48	ACS	L199393
2-Chloroethylvinyl Ether	<0.0025	mg/Kg - dry	0.0025	0.0025	1	05/16/14 16:48	ACS	L199393
Chloroform	<0.0005	mg/Kg - dry	0.0005	0.0025	1	05/16/14 16:48	ACS	L199393
Chloromethane	<0.0010	mg/Kg - dry	0.0010	0.0025	1	05/16/14 16:48	ACS	L199393

Qualifiers/Definitions	*	Outside QC limit	B	Analyte detected in blank
	DF	Dilution Factor	J	Estimated value
	ML	Method Quantitation Limit		

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Mr. Dave Fuehrer  
5724 Summer Tree Drive  
Memphis, TN 38134

Project ID :  
Project 714 N. Second St.  
Information : Memphis, TN

Report Date : 05/21/2014  
Received : 5/15/2014

Report Number : **14-135-0223**

**REPORT OF ANALYSIS**

Lab No : **89761**  
Sample ID : **MLBSTW0116**

Matrix: **Solids**  
Sampled: **5/14/2014 11:45**

**Analytical Method:** 8260B

**Prep Method:** 5030A

**Prep Batch(es):** L199392

**Date/Time Prepped:** 5/16/2014 08:00:00

Test	Results	Units	MDL	ML	DF	Date / Time Analyzed	By	Analytical Batch
2-Chlorotoluene	<0.0002	mg/Kg - dry	0.0002	0.0025	1	05/16/14 16:48	ACS	L199393
4-Chlorotoluene	<0.0010	mg/Kg - dry	0.0010	0.0025	1	05/16/14 16:48	ACS	L199393
1,2-Dibromo-3-Chloropropane	<0.0065	mg/Kg - dry	0.0065	0.0127	1	05/16/14 16:48	ACS	L199393
1,2-Dibromoethane	<0.0014	mg/Kg - dry	0.0014	0.0025	1	05/16/14 16:48	ACS	L199393
Dibromomethane	<0.0014	mg/Kg - dry	0.0014	0.0025	1	05/16/14 16:48	ACS	L199393
1,2-Dichlorobenzene	<0.0012	mg/Kg - dry	0.0012	0.0025	1	05/16/14 16:48	ACS	L199393
1,3-Dichlorobenzene	<0.0010	mg/Kg - dry	0.0010	0.0025	1	05/16/14 16:48	ACS	L199393
1,4-Dichlorobenzene	<0.0010	mg/Kg - dry	0.0010	0.0025	1	05/16/14 16:48	ACS	L199393
Dichlorodifluoromethane	<0.0007	mg/Kg - dry	0.0007	0.0025	1	05/16/14 16:48	ACS	L199393
1,1-Dichloroethane	<b>0.0004 J</b>	mg/Kg - dry	0.0004	0.0025	1	05/16/14 16:48	ACS	L199393
1,2-Dichloroethane	<0.0013	mg/Kg - dry	0.0013	0.0025	1	05/16/14 16:48	ACS	L199393
1,1-Dichloroethene	<0.0006	mg/Kg - dry	0.0006	0.0025	1	05/16/14 16:48	ACS	L199393
cis-1,2-Dichloroethene	<b>0.350</b>	mg/Kg - dry	0.0007	0.0025	1	05/16/14 16:48	ACS	L199393
trans-1,2-Dichloroethene	<b>0.0037</b>	mg/Kg - dry	0.0005	0.0025	1	05/16/14 16:48	ACS	L199393
1,2-Dichloroethene (Total)	<b>0.354</b>	mg/Kg - dry	0.0005	0.0025	1	05/16/14 16:48		L199393
1,2-Dichloropropane	<0.0014	mg/Kg - dry	0.0014	0.0025	1	05/16/14 16:48	ACS	L199393
1,3-Dichloropropane	<0.0014	mg/Kg - dry	0.0014	0.0025	1	05/16/14 16:48	ACS	L199393
2,2-Dichloropropane	<0.0009	mg/Kg - dry	0.0009	0.0025	1	05/16/14 16:48	ACS	L199393
1,1-Dichloropropene	<0.0012	mg/Kg - dry	0.0012	0.0025	1	05/16/14 16:48	ACS	L199393
cis-1,3-Dichloropropene	<0.0007	mg/Kg - dry	0.0007	0.0025	1	05/16/14 16:48	ACS	L199393
trans-1,3-Dichloropropene	<0.0012	mg/Kg - dry	0.0012	0.0025	1	05/16/14 16:48	ACS	L199393
Ethyl Acetate	<0.0020	mg/Kg - dry	0.0020	0.0511	1	05/16/14 16:48	ACS	L199393

Qualifiers/Definitions	*	Outside QC limit	B	Analyte detected in blank
	DF	Dilution Factor	J	Estimated value
	ML	Method Quantitation Limit		

03180

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Mr. Dave Fuehrer  
5724 Summer Tree Drive  
Memphis, TN 38134

Project ID :  
Project 714 N. Second St.  
Information : Memphis, TN

Report Date : 05/21/2014  
Received : 5/15/2014

Report Number : **14-135-0223**

**REPORT OF ANALYSIS**

Lab No : **89761**

Matrix: **Solids**

Sample ID : **MLBSTW0116**

Sampled: **5/14/2014 11:45**

**Analytical Method:** 8260B

**Prep Method:** 5030A

**Prep Batch(es):** L199392

**Date/Time Prepped:** 5/16/2014 08:00:00

Test	Results	Units	MDL	ML	DF	Date / Time Analyzed	By	Analytical Batch
Ethylbenzene	<0.0007	mg/Kg - dry	0.0007	0.0025	1	05/16/14 16:48	ACS	L199393
Hexachlorobutadiene	<0.0010	mg/Kg - dry	0.0010	0.0025	1	05/16/14 16:48	ACS	L199393
2-Hexanone	<0.0025	mg/Kg - dry	0.0025	0.0127	1	05/16/14 16:48	ACS	L199393
Iodomethane	<0.0012	mg/Kg - dry	0.0012	0.0127	1	05/16/14 16:48	ACS	L199393
Isopropylbenzene	<0.0004	mg/Kg - dry	0.0004	0.0025	1	05/16/14 16:48	ACS	L199393
4-Isopropyl toluene	<0.0006	mg/Kg - dry	0.0006	0.0025	1	05/16/14 16:48	ACS	L199393
Methyl tert-butyl ether (MTBE)	<0.0005	mg/Kg - dry	0.0005	0.0025	1	05/16/14 16:48	ACS	L199393
4-Methyl-2-Pentanone	<0.0037	mg/Kg - dry	0.0037	0.0127	1	05/16/14 16:48	ACS	L199393
Methylene Chloride	<0.0020	mg/Kg - dry	0.0020	0.0127	1	05/16/14 16:48	ACS	L199393
Naphthalene	<0.0040	mg/Kg - dry	0.0040	0.0127	1	05/16/14 16:48	ACS	L199393
n-Propylbenzene	<0.0003	mg/Kg - dry	0.0003	0.0025	1	05/16/14 16:48	ACS	L199393
Styrene	<0.0004	mg/Kg - dry	0.0004	0.0025	1	05/16/14 16:48	ACS	L199393
1,1,1,2-Tetrachloroethane	<0.0006	mg/Kg - dry	0.0006	0.0025	1	05/16/14 16:48	ACS	L199393
1,1,2,2-Tetrachloroethane	<0.0007	mg/Kg - dry	0.0007	0.0025	1	05/16/14 16:48	ACS	L199393
Tetrachloroethene	<b>1.30</b>	mg/Kg - dry	0.0098	0.0124	1	05/19/14 12:58	SEB	L199552
Toluene	<0.0032	mg/Kg - dry	0.0032	0.0127	1	05/16/14 16:48	ACS	L199393
1,2,3-Trichlorobenzene	<0.0013	mg/Kg - dry	0.0013	0.0025	1	05/16/14 16:48	ACS	L199393
1,2,4-Trichlorobenzene	<0.0019	mg/Kg - dry	0.0019	0.0025	1	05/16/14 16:48	ACS	L199393
1,1,1-Trichloroethane	<0.0010	mg/Kg - dry	0.0010	0.0025	1	05/16/14 16:48	ACS	L199393
1,1,2-Trichloroethane	<0.0022	mg/Kg - dry	0.0022	0.0025	1	05/16/14 16:48	ACS	L199393
Trichloroethene	<b>0.142</b>	mg/Kg - dry	0.0017	0.0025	1	05/16/14 16:48	ACS	L199393
Trichlorofluoromethane	<0.0010	mg/Kg - dry	0.0010	0.0025	1	05/16/14 16:48	ACS	L199393

Qualifiers/Definitions	*	Outside QC limit	B	Analyte detected in blank
	DF	Dilution Factor	J	Estimated value
	ML	Method Quantitation Limit		

03180

Ensafe  
Mr. Dave Fuehrer  
5724 Summer Tree Drive  
Memphis, TN 38134

Project ID :  
Project 714 N. Second St.  
Information : Memphis, TN

Report Date : 05/21/2014  
Received : 5/15/2014

Report Number : **14-135-0223**

**REPORT OF ANALYSIS**

Lab No : **89761**

Matrix: **Solids**

Sample ID : **MLBSTW0116**

Sampled: **5/14/2014 11:45**

**Analytical Method:** 8260B

**Prep Method:** 5030A

**Prep Batch(es):** L199392

**Date/Time Prepped:** 5/16/2014 08:00:00

Test	Results	Units	MDL	ML	DF	Date / Time Analyzed	By	Analytical Batch
1,2,3-Trichloropropane	<0.0013	mg/Kg - dry	0.0013	0.0025	1	05/16/14 16:48	ACS	L199393
1,2,4-Trimethylbenzene	<0.0008	mg/Kg - dry	0.0008	0.0025	1	05/16/14 16:48	ACS	L199393
1,3,5-Trimethylbenzene	<0.0004	mg/Kg - dry	0.0004	0.0025	1	05/16/14 16:48	ACS	L199393
Vinyl Acetate	<0.0033	mg/Kg - dry	0.0033	0.0511	1	05/16/14 16:48	ACS	L199393
Vinyl Chloride	<0.0008	mg/Kg - dry	0.0008	0.0025	1	05/16/14 16:48	ACS	L199393
o-Xylene	<0.0010	mg/Kg - dry	0.0010	0.0025	1	05/16/14 16:48	ACS	L199393
m,p-Xylene	<0.0009	mg/Kg - dry	0.0009	0.0051	1	05/16/14 16:48	ACS	L199393
Xylene (Total)	<0.0009	mg/Kg - dry	0.0009	0.0051	1	05/16/14 16:48		L199393
Surrogate: 4-Bromofluorobenzene	122		Limits: 60-130%		1	05/16/14 16:48	ACS	L199393
Surrogate: 4-Bromofluorobenzene	107		Limits: 60-130%		1	05/19/14 12:58	SEB	L199552
Surrogate: 1,2-Dichloroethane - d4	126		Limits: 60-132%		1	05/19/14 12:58	SEB	L199552
Surrogate: 1,2-Dichloroethane - d4	98.0		Limits: 60-132%		1	05/16/14 16:48	ACS	L199393
Surrogate: Toluene-d8	97.9		Limits: 70-122%		1	05/19/14 12:58	SEB	L199552
Surrogate: Toluene-d8	94.0		Limits: 70-122%		1	05/16/14 16:48	ACS	L199393

**Analytical Method:** 8270C SIM

**Prep Method:** 3546

**Prep Batch(es):** L199302

**Date/Time Prepped:** 5/16/2014 09:00:00

Test	Results	Units	MDL	ML	DF	Date / Time Analyzed	By	Analytical Batch
Acenaphthene	<0.000111	mg/Kg - dry	0.000111	0.000843	1	05/16/14 20:05	BMP	L199485
Acenaphthylene	<0.000065	mg/Kg - dry	0.000065	0.000843	1	05/16/14 20:05	BMP	L199485
Anthracene	<0.000271	mg/Kg - dry	0.000271	0.000843	1	05/16/14 20:05	BMP	L199485
Benzo(a)anthracene	<0.000728	mg/Kg - dry	0.000728	0.000843	1	05/16/14 20:05	BMP	L199485

**Qualifiers/Definitions**

*	Outside QC limit	B	Analyte detected in blank
DF	Dilution Factor	J	Estimated value
MQL	Method Quantitation Limit		

03180

Ensafe  
Mr. Dave Fuehrer  
5724 Summer Tree Drive  
Memphis, TN 38134

Project ID :  
Project 714 N. Second St.  
Information : Memphis, TN

Report Date : 05/21/2014  
Received : 5/15/2014

Report Number : **14-135-0223**

**REPORT OF ANALYSIS**

Lab No : **89761**

Matrix: **Solids**

Sample ID : **MLBSTW0116**

Sampled: **5/14/2014 11:45**

**Analytical Method:** 8270C SIM

**Prep Method:** 3546

**Prep Batch(es):** L199302

**Date/Time Prepped:** 5/16/2014 09:00:00

Test	Results	Units	MDL	ML	DF	Date / Time Analyzed	By	Analytical Batch
Benzo(a)pyrene	<0.000689	mg/Kg - dry	0.000689	0.000843	1	05/16/14 20:05	BMP	L199485
Benzo(b)fluoranthene	<b>0.000694 J</b>	mg/Kg - dry	0.000349	0.000843	1	05/16/14 20:05	BMP	L199485
Benzo(g,h,i)perylene	<b>0.000662 J</b>	mg/Kg - dry	0.000267	0.000843	1	05/16/14 20:05	BMP	L199485
Benzo(k)fluoranthene	<0.000245	mg/Kg - dry	0.000245	0.000843	1	05/16/14 20:05	BMP	L199485
Chrysene	<b>0.000561 J</b>	mg/Kg - dry	0.000398	0.000843	1	05/16/14 20:05	BMP	L199485
Dibenz(a,h)anthracene	<0.000364	mg/Kg - dry	0.000364	0.000843	1	05/16/14 20:05	BMP	L199485
Fluoranthene	<0.000235	mg/Kg - dry	0.000235	0.000843	1	05/16/14 20:05	BMP	L199485
Fluorene	<0.000237	mg/Kg - dry	0.000237	0.000843	1	05/16/14 20:05	BMP	L199485
Indeno(1,2,3-cd)pyrene	<0.000281	mg/Kg - dry	0.000281	0.000843	1	05/16/14 20:05	BMP	L199485
2-Methylnaphthalene	<b>0.000562 J</b>	mg/Kg - dry	0.000150	0.000843	1	05/16/14 20:05	BMP	L199485
Naphthalene	<b>0.000749 J</b>	mg/Kg - dry	0.000239	0.000843	1	05/16/14 20:05	BMP	L199485
Phenanthrene	<b>0.000679 J</b>	mg/Kg - dry	0.000606	0.000843	1	05/16/14 20:05	BMP	L199485
Pyrene	<b>0.000421 J</b>	mg/Kg - dry	0.000244	0.000843	1	05/16/14 20:05	BMP	L199485
Surrogate: 2-Fluorobiphenyl	58.0		Limits: 33-115%		1	05/16/14 20:05	BMP	L199485
Surrogate: Nitrobenzene-d5	65.3		Limits: 29-110%		1	05/16/14 20:05	BMP	L199485
Surrogate: 4-Terphenyl-d14	63.5		Limits: 33-122%		1	05/16/14 20:05	BMP	L199485

**Qualifiers/Definitions**

*	Outside QC limit	B	Analyte detected in blank
DF	Dilution Factor	J	Estimated value
ML	Method Quantitation Limit		



03180

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Report Date : 05/21/2014  
Received : 5/15/2014

Report Number : **14-135-0223**

### REPORT OF ANALYSIS

Lab No : **89762**  
Sample ID : **MLBSTW0132**

Matrix: **Solids**  
Sampled: **5/14/2014 11:50**

Test	Results	Units	MDL	MQL	DF	Date / Time Analyzed	By	Analytical Method
% Moisture	<b>19.7</b>	%	0	0.100	1	05/16/14 08:25	ALP	2540G-2011
Total Arsenic	<b>1.58</b>	mg/Kg - dry	0.884	1.25	1	05/16/14 18:30	BKN	6010B
Total Barium	<b>73.7</b>	mg/Kg - dry	0.072	0.622	1	05/16/14 18:30	BKN	6010B
Total Cadmium	<b>0.0849 J</b>	mg/Kg - dry	0.0189	0.125	1	05/16/14 18:30	BKN	6010B
Total Chromium	<b>16.8</b>	mg/Kg - dry	0.042	0.311	1	05/16/14 18:30	BKN	6010B
Total Lead	<b>6.91</b>	mg/Kg - dry	0.178	0.373	1	05/16/14 18:30	BKN	6010B
Total Mercury	<b>0.00579 J</b>	mg/Kg - dry	0.00327	0.0166	1	05/20/14 14:09	JRS	7471A
Total Selenium	<0.635	mg/Kg - dry	0.635	1.25	1	05/16/14 18:30	BKN	6010B
Total Silver	<0.0338	mg/Kg - dry	0.0338	0.311	1	05/16/14 18:30	BKN	6010B

#### Qualifiers/Definitions

*	Outside QC limit	B	Analyte detected in blank
DF	Dilution Factor	J	Estimated value
MQL	Method Quantitation Limit		

03180

Ensafe

Mr. Dave Fuehrer

5724 Summer Tree Drive

Memphis, TN 38134

Project ID :

Project 714 N. Second St.

Information : Memphis, TN

Report Date : 05/21/2014

Received : 5/15/2014

Report Number : **14-135-0223**

**REPORT OF ANALYSIS**

Lab No : **89762**

Matrix: **Solids**

Sample ID : **MLBSTW0132**

Sampled: **5/14/2014 11:50**

**Analytical Method:** 8260B

**Prep Method:** 5030A

**Prep Batch(es):** L199550

**Date/Time Prepped:** 5/19/2014 09:30:00

Test	Results	Units	MDL	ML	DF	Date / Time Analyzed	By	Analytical Batch
Acetone	<0.0057	mg/Kg - dry	0.0057	0.0498	1	05/19/14 13:19	SEB	L199552
Acetonitrile	<0.0159	mg/Kg - dry	0.0159	0.125	1	05/19/14 13:19	SEB	L199552
Acrolein	<0.0125	mg/Kg - dry	0.0125	0.0498	1	05/19/14 13:19	SEB	L199552
Acrylonitrile	<0.0100	mg/Kg - dry	0.0100	0.0498	1	05/19/14 13:19	SEB	L199552
Benzene	<0.0011	mg/Kg - dry	0.0011	0.0024	1	05/19/14 13:19	SEB	L199552
Bromobenzene	<0.0011	mg/Kg - dry	0.0011	0.0024	1	05/19/14 13:19	SEB	L199552
Bromochloromethane	<0.0009	mg/Kg - dry	0.0009	0.0024	1	05/19/14 13:19	SEB	L199552
Bromodichloromethane	<0.0005	mg/Kg - dry	0.0005	0.0024	1	05/19/14 13:19	SEB	L199552
Bromoform	<0.0008	mg/Kg - dry	0.0008	0.0024	1	05/19/14 13:19	SEB	L199552
Bromomethane	<0.0015	mg/Kg - dry	0.0015	0.0024	1	05/19/14 13:19	SEB	L199552
Methyl Ethyl Ketone (MEK)	<0.0076	mg/Kg - dry	0.0076	0.0498	1	05/19/14 13:19	SEB	L199552
n-Butylbenzene	<0.0009	mg/Kg - dry	0.0009	0.0024	1	05/19/14 13:19	SEB	L199552
sec-Butyl benzene	<0.0004	mg/Kg - dry	0.0004	0.0024	1	05/19/14 13:19	SEB	L199552
tert-Butyl benzene	<0.0017	mg/Kg - dry	0.0017	0.0024	1	05/19/14 13:19	SEB	L199552
Carbon Disulfide	<b>0.0008 JB</b>	mg/Kg - dry	0.0005	0.0024	1	05/19/14 13:19	SEB	L199552
Carbon Tetrachloride	<0.0006	mg/Kg - dry	0.0006	0.0024	1	05/19/14 13:19	SEB	L199552
Chlorobenzene	<0.0010	mg/Kg - dry	0.0010	0.0024	1	05/19/14 13:19	SEB	L199552
Chlorodibromomethane	<0.0011	mg/Kg - dry	0.0011	0.0024	1	05/19/14 13:19	SEB	L199552
Chloroethane	<0.0004	mg/Kg - dry	0.0004	0.0024	1	05/19/14 13:19	SEB	L199552
2-Chloroethylvinyl Ether	<0.0024	mg/Kg - dry	0.0024	0.0024	1	05/19/14 13:19	SEB	L199552
Chloroform	<0.0005	mg/Kg - dry	0.0005	0.0024	1	05/19/14 13:19	SEB	L199552
Chloromethane	<0.0009	mg/Kg - dry	0.0009	0.0024	1	05/19/14 13:19	SEB	L199552

**Qualifiers/  
Definitions**

*	Outside QC limit	B	Analyte detected in blank
DF	Dilution Factor	J	Estimated value
ML	Method Quantitation Limit		



03180

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Project ID :  
Project 714 N. Second St.  
Information : Memphis, TN

Report Date : 05/21/2014  
Received : 5/15/2014

Report Number : **14-135-0223**

**REPORT OF ANALYSIS**

Lab No : **89762**

Matrix: **Solids**

Sample ID : **MLBSTW0132**

Sampled: **5/14/2014 11:50**

**Analytical Method:** 8260B

**Prep Method:** 5030A

**Prep Batch(es):** L199550

**Date/Time Prepped:** 5/19/2014 09:30:00

Test	Results	Units	MDL	ML	DF	Date / Time Analyzed	By	Analytical Batch
2-Chlorotoluene	<0.0002	mg/Kg - dry	0.0002	0.0024	1	05/19/14 13:19	SEB	L199552
4-Chlorotoluene	<0.0010	mg/Kg - dry	0.0010	0.0024	1	05/19/14 13:19	SEB	L199552
1,2-Dibromo-3-Chloropropane	<0.0063	mg/Kg - dry	0.0063	0.0124	1	05/19/14 13:19	SEB	L199552
1,2-Dibromoethane	<0.0014	mg/Kg - dry	0.0014	0.0024	1	05/19/14 13:19	SEB	L199552
Dibromomethane	<0.0014	mg/Kg - dry	0.0014	0.0024	1	05/19/14 13:19	SEB	L199552
1,2-Dichlorobenzene	<0.0012	mg/Kg - dry	0.0012	0.0024	1	05/19/14 13:19	SEB	L199552
1,3-Dichlorobenzene	<0.0010	mg/Kg - dry	0.0010	0.0024	1	05/19/14 13:19	SEB	L199552
1,4-Dichlorobenzene	<0.0009	mg/Kg - dry	0.0009	0.0024	1	05/19/14 13:19	SEB	L199552
Dichlorodifluoromethane	<0.0007	mg/Kg - dry	0.0007	0.0024	1	05/19/14 13:19	SEB	L199552
1,1-Dichloroethane	<0.0004	mg/Kg - dry	0.0004	0.0024	1	05/19/14 13:19	SEB	L199552
1,2-Dichloroethane	<0.0012	mg/Kg - dry	0.0012	0.0024	1	05/19/14 13:19	SEB	L199552
1,1-Dichloroethene	<0.0006	mg/Kg - dry	0.0006	0.0024	1	05/19/14 13:19	SEB	L199552
cis-1,2-Dichloroethene	<0.0007	mg/Kg - dry	0.0007	0.0024	1	05/19/14 13:19	SEB	L199552
trans-1,2-Dichloroethene	<0.0005	mg/Kg - dry	0.0005	0.0024	1	05/19/14 13:19	SEB	L199552
1,2-Dichloroethene (Total)	<0.0005	mg/Kg - dry	0.0005	0.0024	1	05/19/14 13:19		L199552
1,2-Dichloropropane	<0.0014	mg/Kg - dry	0.0014	0.0024	1	05/19/14 13:19	SEB	L199552
1,3-Dichloropropane	<0.0014	mg/Kg - dry	0.0014	0.0024	1	05/19/14 13:19	SEB	L199552
2,2-Dichloropropane	<0.0009	mg/Kg - dry	0.0009	0.0024	1	05/19/14 13:19	SEB	L199552
1,1-Dichloropropene	<0.0012	mg/Kg - dry	0.0012	0.0024	1	05/19/14 13:19	SEB	L199552
cis-1,3-Dichloropropene	<0.0007	mg/Kg - dry	0.0007	0.0024	1	05/19/14 13:19	SEB	L199552
trans-1,3-Dichloropropene	<0.0012	mg/Kg - dry	0.0012	0.0024	1	05/19/14 13:19	SEB	L199552
Ethyl Acetate	<0.0020	mg/Kg - dry	0.0020	0.0498	1	05/19/14 13:19	SEB	L199552

**Qualifiers/  
Definitions**

*	Outside QC limit	B	Analyte detected in blank
DF	Dilution Factor	J	Estimated value
ML	Method Quantitation Limit		

03180

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Project ID :

Project 714 N. Second St.

Information : Memphis, TN

Report Date : 05/21/2014

Received : 5/15/2014

Report Number : **14-135-0223**

**REPORT OF ANALYSIS**

Lab No : **89762**

Sample ID : **MLBSTW0132**

Matrix: **Solids**

Sampled: **5/14/2014 11:50**

**Analytical Method:** 8260B

**Prep Method:** 5030A

**Prep Batch(es):** L199550

**Date/Time Prepped:** 5/19/2014 09:30:00

Test	Results	Units	MDL	ML	DF	Date / Time Analyzed	By	Analytical Batch
Ethylbenzene	<0.0006	mg/Kg - dry	0.0006	0.0024	1	05/19/14 13:19	SEB	L199552
Hexachlorobutadiene	<0.0010	mg/Kg - dry	0.0010	0.0024	1	05/19/14 13:19	SEB	L199552
2-Hexanone	<0.0024	mg/Kg - dry	0.0024	0.0124	1	05/19/14 13:19	SEB	L199552
Iodomethane	<0.0012	mg/Kg - dry	0.0012	0.0124	1	05/19/14 13:19	SEB	L199552
Isopropylbenzene	<0.0004	mg/Kg - dry	0.0004	0.0024	1	05/19/14 13:19	SEB	L199552
4-Isopropyl toluene	<0.0006	mg/Kg - dry	0.0006	0.0024	1	05/19/14 13:19	SEB	L199552
Methyl tert-butyl ether (MTBE)	<0.0005	mg/Kg - dry	0.0005	0.0024	1	05/19/14 13:19	SEB	L199552
4-Methyl-2-Pentanone	<0.0036	mg/Kg - dry	0.0036	0.0124	1	05/19/14 13:19	SEB	L199552
Methylene Chloride	<0.0019	mg/Kg - dry	0.0019	0.0124	1	05/19/14 13:19	SEB	L199552
Naphthalene	<0.0039	mg/Kg - dry	0.0039	0.0124	1	05/19/14 13:19	SEB	L199552
n-Propylbenzene	<0.0003	mg/Kg - dry	0.0003	0.0024	1	05/19/14 13:19	SEB	L199552
Styrene	<0.0004	mg/Kg - dry	0.0004	0.0024	1	05/19/14 13:19	SEB	L199552
1,1,1,2-Tetrachloroethane	<0.0006	mg/Kg - dry	0.0006	0.0024	1	05/19/14 13:19	SEB	L199552
1,1,2,2-Tetrachloroethane	<0.0007	mg/Kg - dry	0.0007	0.0024	1	05/19/14 13:19	SEB	L199552
Tetrachloroethene	<0.0019	mg/Kg - dry	0.0019	0.0024	1	05/19/14 13:19	SEB	L199552
Toluene	<0.0031	mg/Kg - dry	0.0031	0.0124	1	05/19/14 13:19	SEB	L199552
1,2,3-Trichlorobenzene	<0.0013	mg/Kg - dry	0.0013	0.0024	1	05/19/14 13:19	SEB	L199552
1,2,4-Trichlorobenzene	<0.0018	mg/Kg - dry	0.0018	0.0024	1	05/19/14 13:19	SEB	L199552
1,1,1-Trichloroethane	<0.0010	mg/Kg - dry	0.0010	0.0024	1	05/19/14 13:19	SEB	L199552
1,1,2-Trichloroethane	<0.0021	mg/Kg - dry	0.0021	0.0024	1	05/19/14 13:19	SEB	L199552
Trichloroethene	<0.0016	mg/Kg - dry	0.0016	0.0024	1	05/19/14 13:19	SEB	L199552
Trichlorofluoromethane	<0.0009	mg/Kg - dry	0.0009	0.0024	1	05/19/14 13:19	SEB	L199552

**Qualifiers/  
Definitions**

*	Outside QC limit	B	Analyte detected in blank
DF	Dilution Factor	J	Estimated value
ML	Method Quantitation Limit		

03180

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Project ID :  
Project 714 N. Second St.  
Information : Memphis, TN

Report Date : 05/21/2014  
Received : 5/15/2014

Report Number : **14-135-0223**

**REPORT OF ANALYSIS**

Lab No : **89762**  
Sample ID : **MLBSTW0132**

Matrix: **Solids**  
Sampled: **5/14/2014 11:50**

**Analytical Method:** 8260B

**Prep Method:** 5030A

**Prep Batch(es):** L199550

**Date/Time Prepped:** 5/19/2014 09:30:00

Test	Results	Units	MDL	ML	DF	Date / Time Analyzed	By	Analytical Batch
1,2,3-Trichloropropane	<0.0013	mg/Kg - dry	0.0013	0.0024	1	05/19/14 13:19	SEB	L199552
1,2,4-Trimethylbenzene	<b>0.0016 J</b>	mg/Kg - dry	0.0008	0.0024	1	05/19/14 13:19	SEB	L199552
1,3,5-Trimethylbenzene	<b>0.0005 J</b>	mg/Kg - dry	0.0004	0.0024	1	05/19/14 13:19	SEB	L199552
Vinyl Acetate	<0.0033	mg/Kg - dry	0.0033	0.0498	1	05/19/14 13:19	SEB	L199552
Vinyl Chloride	<0.0008	mg/Kg - dry	0.0008	0.0024	1	05/19/14 13:19	SEB	L199552
o-Xylene	<0.0009	mg/Kg - dry	0.0009	0.0024	1	05/19/14 13:19	SEB	L199552
m,p-Xylene	<b>0.0020 J</b>	mg/Kg - dry	0.0009	0.0049	1	05/19/14 13:19	SEB	L199552
Xylene (Total)	<b>0.0020</b>	mg/Kg - dry	0.0009	0.0049	1	05/19/14 13:19		L199552
Surrogate: 4-Bromofluorobenzene	104		Limits: 60-130%		1	05/19/14 13:19	SEB	L199552
Surrogate: 1,2-Dichloroethane - d4	<b>133 *</b>		Limits: 60-132%		1	05/19/14 13:19	SEB	L199552
Surrogate: Toluene-d8	97.7		Limits: 70-122%		1	05/19/14 13:19	SEB	L199552

**Analytical Method:** 8270C SIM

**Prep Method:** 3546

**Prep Batch(es):** L199302

**Date/Time Prepped:** 5/16/2014 09:00:00

Test	Results	Units	MDL	ML	DF	Date / Time Analyzed	By	Analytical Batch
Acenaphthene	<0.000108	mg/Kg - dry	0.000108	0.000821	1	05/16/14 20:36	BMP	L199485
Acenaphthylene	<0.000063	mg/Kg - dry	0.000063	0.000821	1	05/16/14 20:36	BMP	L199485
Anthracene	<0.000264	mg/Kg - dry	0.000264	0.000821	1	05/16/14 20:36	BMP	L199485
Benzo(a)anthracene	<0.000709	mg/Kg - dry	0.000709	0.000821	1	05/16/14 20:36	BMP	L199485
Benzo(a)pyrene	<0.000671	mg/Kg - dry	0.000671	0.000821	1	05/16/14 20:36	BMP	L199485
Benzo(b)fluoranthene	<0.000339	mg/Kg - dry	0.000339	0.000821	1	05/16/14 20:36	BMP	L199485
Benzo(g,h,i)perylene	<0.000260	mg/Kg - dry	0.000260	0.000821	1	05/16/14 20:36	BMP	L199485

Qualifiers/Definitions				
*	Outside QC limit		B	Analyte detected in blank
DF	Dilution Factor		J	Estimated value
ML	Method Quantitation Limit			

03180

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Project ID :  
Project 714 N. Second St.  
Information : Memphis, TN

Report Date : 05/21/2014  
Received : 5/15/2014

Report Number : **14-135-0223**

**REPORT OF ANALYSIS**

Lab No : **89762**

Matrix: **Solids**

Sample ID : **MLBSTW0132**

Sampled: **5/14/2014 11:50**

**Analytical Method:** 8270C SIM

**Prep Method:** 3546

**Prep Batch(es):** L199302

**Date/Time Prepped:** 5/16/2014 09:00:00

Test	Results	Units	MDL	MQL	DF	Date / Time Analyzed	By	Analytical Batch
Benzo(k)fluoranthene	<0.000239	mg/Kg - dry	0.000239	0.000821	1	05/16/14 20:36	BMP	L199485
Chrysene	<0.000388	mg/Kg - dry	0.000388	0.000821	1	05/16/14 20:36	BMP	L199485
Dibenz(a,h)anthracene	<0.000354	mg/Kg - dry	0.000354	0.000821	1	05/16/14 20:36	BMP	L199485
Fluoranthene	<0.000229	mg/Kg - dry	0.000229	0.000821	1	05/16/14 20:36	BMP	L199485
Fluorene	<0.000231	mg/Kg - dry	0.000231	0.000821	1	05/16/14 20:36	BMP	L199485
Indeno(1,2,3-cd)pyrene	<0.000273	mg/Kg - dry	0.000273	0.000821	1	05/16/14 20:36	BMP	L199485
2-Methylnaphthalene	<0.000146	mg/Kg - dry	0.000146	0.000821	1	05/16/14 20:36	BMP	L199485
Naphthalene	<b>0.000724 J</b>	mg/Kg - dry	0.000232	0.000821	1	05/16/14 20:36	BMP	L199485
Phenanthrene	<0.000590	mg/Kg - dry	0.000590	0.000821	1	05/16/14 20:36	BMP	L199485
Pyrene	<0.000237	mg/Kg - dry	0.000237	0.000821	1	05/16/14 20:36	BMP	L199485
Surrogate: 2-Fluorobiphenyl	47.1		Limits: 33-115%		1	05/16/14 20:36	BMP	L199485
Surrogate: Nitrobenzene-d5	54.5		Limits: 29-110%		1	05/16/14 20:36	BMP	L199485
Surrogate: 4-Terphenyl-d14	62.5		Limits: 33-122%		1	05/16/14 20:36	BMP	L199485

**Qualifiers/  
Definitions**

*	Outside QC limit	B	Analyte detected in blank
DF	Dilution Factor	J	Estimated value
MQL	Method Quantitation Limit		



03180

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Project 714 N. Second St.  
Information : Memphis, TN

Report Date : 05/21/2014  
Received : 5/15/2014

Report Number : **14-135-0223**

### REPORT OF ANALYSIS

Lab No : **89763**  
Sample ID : **MLBSTW0208**

Matrix: **Solids**  
Sampled: **5/14/2014 14:05**

Test	Results	Units	MDL	MQL	DF	Date / Time Analyzed	By	Analytical Method
% Moisture	<b>22.9</b>	%	0	0.100	1	05/16/14 08:25	ALP	2540G-2011
Total Arsenic	<b>8.02</b>	mg/Kg - dry	0.920	1.30	1	05/16/14 18:34	BKN	6010B
Total Barium	<b>189</b>	mg/Kg - dry	0.075	0.648	1	05/16/14 18:34	BKN	6010B
Total Cadmium	<b>0.782</b>	mg/Kg - dry	0.0197	0.130	1	05/16/14 18:34	BKN	6010B
Total Chromium	<b>11.5</b>	mg/Kg - dry	0.044	0.324	1	05/16/14 18:34	BKN	6010B
Total Lead	<b>7.65</b>	mg/Kg - dry	0.185	0.389	1	05/16/14 18:34	BKN	6010B
Total Mercury	<b>0.0169 J</b>	mg/Kg - dry	0.00341	0.0173	1	05/20/14 14:11	JRS	7471A
Total Selenium	<6.63	mg/Kg - dry	6.63	13.0	10	05/19/14 15:34	BKN	6010B
Total Silver	<b>0.189 J</b>	mg/Kg - dry	0.0352	0.324	1	05/16/14 18:34	BKN	6010B

#### Qualifiers/ Definitions

*	Outside QC limit	B	Analyte detected in blank
DF	Dilution Factor	J	Estimated value
MQL	Method Quantitation Limit		

03180

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Project ID :  
Project 714 N. Second St.  
Information : Memphis, TN

Report Date : 05/21/2014  
Received : 5/15/2014

Report Number : **14-135-0223**

**REPORT OF ANALYSIS**

Lab No : **89763**

Matrix: **Solids**

Sample ID : **MLBSTW0208**

Sampled: **5/14/2014 14:05**

**Analytical Method:** 8260B

**Prep Method:** 5030A

**Prep Batch(es):** L199392

**Date/Time Prepped:** 5/16/2014 08:00:00

Test	Results	Units	MDL	MQL	DF	Date / Time Analyzed	By	Analytical Batch
Acetone	<0.0061	mg/Kg - dry	0.0061	0.0526	1	05/16/14 14:48	ACS	L199393
Acetonitrile	<0.0167	mg/Kg - dry	0.0167	0.131	1	05/16/14 14:48	ACS	L199393
Acrolein	<0.0132	mg/Kg - dry	0.0132	0.0526	1	05/16/14 14:48	ACS	L199393
Acrylonitrile	<0.0106	mg/Kg - dry	0.0106	0.0526	1	05/16/14 14:48	ACS	L199393
Benzene	<0.0011	mg/Kg - dry	0.0011	0.0026	1	05/16/14 14:48	ACS	L199393
Bromobenzene	<0.0012	mg/Kg - dry	0.0012	0.0026	1	05/16/14 14:48	ACS	L199393
Bromochloromethane	<0.0010	mg/Kg - dry	0.0010	0.0026	1	05/16/14 14:48	ACS	L199393
Bromodichloromethane	<0.0005	mg/Kg - dry	0.0005	0.0026	1	05/16/14 14:48	ACS	L199393
Bromoform	<0.0009	mg/Kg - dry	0.0009	0.0026	1	05/16/14 14:48	ACS	L199393
Bromomethane	<0.0015	mg/Kg - dry	0.0015	0.0026	1	05/16/14 14:48	ACS	L199393
Methyl Ethyl Ketone (MEK)	<0.0081	mg/Kg - dry	0.0081	0.0526	1	05/16/14 14:48	ACS	L199393
n-Butylbenzene	<0.0009	mg/Kg - dry	0.0009	0.0026	1	05/16/14 14:48	ACS	L199393
sec-Butyl benzene	<0.0004	mg/Kg - dry	0.0004	0.0026	1	05/16/14 14:48	ACS	L199393
tert-Butyl benzene	<0.0018	mg/Kg - dry	0.0018	0.0026	1	05/16/14 14:48	ACS	L199393
Carbon Disulfide	<0.0005	mg/Kg - dry	0.0005	0.0026	1	05/16/14 14:48	ACS	L199393
Carbon Tetrachloride	<0.0007	mg/Kg - dry	0.0007	0.0026	1	05/16/14 14:48	ACS	L199393
Chlorobenzene	<0.0010	mg/Kg - dry	0.0010	0.0026	1	05/16/14 14:48	ACS	L199393
Chlorodibromomethane	<0.0011	mg/Kg - dry	0.0011	0.0026	1	05/16/14 14:48	ACS	L199393
Chloroethane	<0.0005	mg/Kg - dry	0.0005	0.0026	1	05/16/14 14:48	ACS	L199393
2-Chloroethylvinyl Ether	<0.0026	mg/Kg - dry	0.0026	0.0026	1	05/16/14 14:48	ACS	L199393
Chloroform	<0.0005	mg/Kg - dry	0.0005	0.0026	1	05/16/14 14:48	ACS	L199393
Chloromethane	<0.0010	mg/Kg - dry	0.0010	0.0026	1	05/16/14 14:48	ACS	L199393

Qualifiers/Definitions	*	Outside QC limit	B	Analyte detected in blank
	DF	Dilution Factor	J	Estimated value
	MQL	Method Quantitation Limit		

03180

Ensafe

Mr. Dave Fuehrer

5724 Summer Tree Drive

Memphis, TN 38134

Project ID :

Project 714 N. Second St.

Information : Memphis, TN

Report Date : 05/21/2014

Received : 5/15/2014

Report Number : **14-135-0223**

**REPORT OF ANALYSIS**

Lab No : **89763**

Sample ID : **MLBSTW0208**

Matrix: **Solids**

Sampled: **5/14/2014 14:05**

**Analytical Method:** 8260B

**Prep Method:** 5030A

**Prep Batch(es):** L199392

**Date/Time Prepped:** 5/16/2014 08:00:00

Test	Results	Units	MDL	ML	DF	Date / Time Analyzed	By	Analytical Batch
2-Chlorotoluene	<b>0.0006 J</b>	mg/Kg - dry	0.0002	0.0026	1	05/16/14 14:48	ACS	L199393
4-Chlorotoluene	<0.0011	mg/Kg - dry	0.0011	0.0026	1	05/16/14 14:48	ACS	L199393
1,2-Dibromo-3-Chloropropane	<0.0066	mg/Kg - dry	0.0066	0.0130	1	05/16/14 14:48	ACS	L199393
1,2-Dibromoethane	<0.0015	mg/Kg - dry	0.0015	0.0026	1	05/16/14 14:48	ACS	L199393
Dibromomethane	<0.0015	mg/Kg - dry	0.0015	0.0026	1	05/16/14 14:48	ACS	L199393
1,2-Dichlorobenzene	<0.0013	mg/Kg - dry	0.0013	0.0026	1	05/16/14 14:48	ACS	L199393
1,3-Dichlorobenzene	<0.0010	mg/Kg - dry	0.0010	0.0026	1	05/16/14 14:48	ACS	L199393
1,4-Dichlorobenzene	<0.0010	mg/Kg - dry	0.0010	0.0026	1	05/16/14 14:48	ACS	L199393
Dichlorodifluoromethane	<0.0007	mg/Kg - dry	0.0007	0.0026	1	05/16/14 14:48	ACS	L199393
1,1-Dichloroethane	<0.0004	mg/Kg - dry	0.0004	0.0026	1	05/16/14 14:48	ACS	L199393
1,2-Dichloroethane	<0.0013	mg/Kg - dry	0.0013	0.0026	1	05/16/14 14:48	ACS	L199393
1,1-Dichloroethene	<0.0006	mg/Kg - dry	0.0006	0.0026	1	05/16/14 14:48	ACS	L199393
cis-1,2-Dichloroethene	<0.0007	mg/Kg - dry	0.0007	0.0026	1	05/16/14 14:48	ACS	L199393
trans-1,2-Dichloroethene	<0.0005	mg/Kg - dry	0.0005	0.0026	1	05/16/14 14:48	ACS	L199393
1,2-Dichloroethene (Total)	<0.0005	mg/Kg - dry	0.0005	0.0026	1	05/16/14 14:48		L199393
1,2-Dichloropropane	<0.0015	mg/Kg - dry	0.0015	0.0026	1	05/16/14 14:48	ACS	L199393
1,3-Dichloropropane	<0.0015	mg/Kg - dry	0.0015	0.0026	1	05/16/14 14:48	ACS	L199393
2,2-Dichloropropane	<0.0009	mg/Kg - dry	0.0009	0.0026	1	05/16/14 14:48	ACS	L199393
1,1-Dichloropropene	<0.0012	mg/Kg - dry	0.0012	0.0026	1	05/16/14 14:48	ACS	L199393
cis-1,3-Dichloropropene	<0.0008	mg/Kg - dry	0.0008	0.0026	1	05/16/14 14:48	ACS	L199393
trans-1,3-Dichloropropene	<0.0012	mg/Kg - dry	0.0012	0.0026	1	05/16/14 14:48	ACS	L199393
Ethyl Acetate	<0.0021	mg/Kg - dry	0.0021	0.0526	1	05/16/14 14:48	ACS	L199393

**Qualifiers/  
Definitions**

*	Outside QC limit	B	Analyte detected in blank
DF	Dilution Factor	J	Estimated value
ML	Method Quantitation Limit		



03180

Ensafe  
Mr. Dave Fuehrer  
5724 Summer Tree Drive  
Memphis, TN 38134

Project ID :  
Project 714 N. Second St.  
Information : Memphis, TN

Report Date : 05/21/2014  
Received : 5/15/2014

Report Number : **14-135-0223**

**REPORT OF ANALYSIS**

Lab No : **89763**

Matrix: **Solids**

Sample ID : **MLBSTW0208**

Sampled: **5/14/2014 14:05**

**Analytical Method:** 8260B

**Prep Method:** 5030A

**Prep Batch(es):** L199392

**Date/Time Prepped:** 5/16/2014 08:00:00

Test	Results	Units	MDL	ML	DF	Date / Time Analyzed	By	Analytical Batch
Ethylbenzene	<b>0.0009 J</b>	mg/Kg - dry	0.0007	0.0026	1	05/16/14 14:48	ACS	L199393
Hexachlorobutadiene	<b>0.0011 J</b>	mg/Kg - dry	0.0010	0.0026	1	05/16/14 14:48	ACS	L199393
2-Hexanone	<0.0026	mg/Kg - dry	0.0026	0.0130	1	05/16/14 14:48	ACS	L199393
Iodomethane	<0.0012	mg/Kg - dry	0.0012	0.0130	1	05/16/14 14:48	ACS	L199393
Isopropylbenzene	<0.0004	mg/Kg - dry	0.0004	0.0026	1	05/16/14 14:48	ACS	L199393
4-Isopropyl toluene	<0.0007	mg/Kg - dry	0.0007	0.0026	1	05/16/14 14:48	ACS	L199393
Methyl tert-butyl ether (MTBE)	<0.0005	mg/Kg - dry	0.0005	0.0026	1	05/16/14 14:48	ACS	L199393
4-Methyl-2-Pentanone	<0.0038	mg/Kg - dry	0.0038	0.0130	1	05/16/14 14:48	ACS	L199393
Methylene Chloride	<0.0020	mg/Kg - dry	0.0020	0.0130	1	05/16/14 14:48	ACS	L199393
Naphthalene	<0.0041	mg/Kg - dry	0.0041	0.0130	1	05/16/14 14:48	ACS	L199393
n-Propylbenzene	<b>0.0005 J</b>	mg/Kg - dry	0.0003	0.0026	1	05/16/14 14:48	ACS	L199393
Styrene	<0.0004	mg/Kg - dry	0.0004	0.0026	1	05/16/14 14:48	ACS	L199393
1,1,1,2-Tetrachloroethane	<0.0006	mg/Kg - dry	0.0006	0.0026	1	05/16/14 14:48	ACS	L199393
1,1,2,2-Tetrachloroethane	<0.0008	mg/Kg - dry	0.0008	0.0026	1	05/16/14 14:48	ACS	L199393
Tetrachloroethene	<0.0021	mg/Kg - dry	0.0021	0.0026	1	05/16/14 14:48	ACS	L199393
Toluene	<0.0033	mg/Kg - dry	0.0033	0.0130	1	05/16/14 14:48	ACS	L199393
1,2,3-Trichlorobenzene	<0.0014	mg/Kg - dry	0.0014	0.0026	1	05/16/14 14:48	ACS	L199393
1,2,4-Trichlorobenzene	<0.0019	mg/Kg - dry	0.0019	0.0026	1	05/16/14 14:48	ACS	L199393
1,1,1-Trichloroethane	<0.0011	mg/Kg - dry	0.0011	0.0026	1	05/16/14 14:48	ACS	L199393
1,1,2-Trichloroethane	<0.0022	mg/Kg - dry	0.0022	0.0026	1	05/16/14 14:48	ACS	L199393
Trichloroethene	<0.0017	mg/Kg - dry	0.0017	0.0026	1	05/16/14 14:48	ACS	L199393
Trichlorofluoromethane	<0.0010	mg/Kg - dry	0.0010	0.0026	1	05/16/14 14:48	ACS	L199393

**Qualifiers/  
Definitions**

*	Outside QC limit	B	Analyte detected in blank
DF	Dilution Factor	J	Estimated value
ML	Method Quantitation Limit		

03180

Ensafe  
Mr. Dave Fuehrer  
5724 Summer Tree Drive  
Memphis, TN 38134

Project ID :  
Project 714 N. Second St.  
Information : Memphis, TN

Report Date : 05/21/2014  
Received : 5/15/2014

Report Number : **14-135-0223**

**REPORT OF ANALYSIS**

Lab No : **89763**

Matrix: **Solids**

Sample ID : **MLBSTW0208**

Sampled: **5/14/2014 14:05**

**Analytical Method:** 8260B

**Prep Method:** 5030A

**Prep Batch(es):** L199392

**Date/Time Prepped:** 5/16/2014 08:00:00

Test	Results	Units	MDL	ML	DF	Date / Time Analyzed	By	Analytical Batch
1,2,3-Trichloropropane	<0.0013	mg/Kg - dry	0.0013	0.0026	1	05/16/14 14:48	ACS	L199393
1,2,4-Trimethylbenzene	<b>0.0017 J</b>	mg/Kg - dry	0.0009	0.0026	1	05/16/14 14:48	ACS	L199393
1,3,5-Trimethylbenzene	<b>0.0009 J</b>	mg/Kg - dry	0.0004	0.0026	1	05/16/14 14:48	ACS	L199393
Vinyl Acetate	<0.0034	mg/Kg - dry	0.0034	0.0526	1	05/16/14 14:48	ACS	L199393
Vinyl Chloride	<0.0008	mg/Kg - dry	0.0008	0.0026	1	05/16/14 14:48	ACS	L199393
o-Xylene	<b>0.0011 J</b>	mg/Kg - dry	0.0010	0.0026	1	05/16/14 14:48	ACS	L199393
m,p-Xylene	<b>0.0031 J</b>	mg/Kg - dry	0.0010	0.0052	1	05/16/14 14:48	ACS	L199393
Xylene (Total)	<b>0.0043</b>	mg/Kg - dry	0.0010	0.0052	1	05/16/14 14:48		L199393
Surrogate: 4-Bromofluorobenzene	116		Limits: 60-130%		1	05/16/14 14:48	ACS	L199393
Surrogate: 1,2-Dichloroethane - d4	98.4		Limits: 60-132%		1	05/16/14 14:48	ACS	L199393
Surrogate: Toluene-d8	100		Limits: 70-122%		1	05/16/14 14:48	ACS	L199393

**Analytical Method:** 8270C SIM

**Prep Method:** 3546

**Prep Batch(es):** L199302

**Date/Time Prepped:** 5/16/2014 09:00:00

Test	Results	Units	MDL	ML	DF	Date / Time Analyzed	By	Analytical Batch
Acenaphthene	<b>0.00340</b>	mg/Kg - dry	0.000112	0.000856	1	05/16/14 21:06	BMP	L199485
Acenaphthylene	<b>0.00291</b>	mg/Kg - dry	0.000066	0.000856	1	05/16/14 21:06	BMP	L199485
Anthracene	<b>0.00457</b>	mg/Kg - dry	0.000274	0.000856	1	05/16/14 21:06	BMP	L199485
Benzo(a)anthracene	<b>0.00580</b>	mg/Kg - dry	0.000739	0.000856	1	05/16/14 21:06	BMP	L199485
Benzo(a)pyrene	<b>0.00409</b>	mg/Kg - dry	0.000699	0.000856	1	05/16/14 21:06	BMP	L199485
Benzo(b)fluoranthene	<b>0.00541</b>	mg/Kg - dry	0.000354	0.000856	1	05/16/14 21:06	BMP	L199485
Benzo(g,h,i)perylene	<b>0.00729</b>	mg/Kg - dry	0.000271	0.000856	1	05/16/14 21:06	BMP	L199485

Qualifiers/Definitions	*	Outside QC limit	B	Analyte detected in blank
	DF	Dilution Factor	J	Estimated value
	ML	Method Quantitation Limit		

03180

Ensafe  
Mr. Dave Fuehrer  
5724 Summer Tree Drive  
Memphis, TN 38134

Project ID :  
Project 714 N. Second St.  
Information : Memphis, TN

Report Date : 05/21/2014  
Received : 5/15/2014

Report Number : **14-135-0223**

**REPORT OF ANALYSIS**

Lab No : **89763**  
Sample ID : **MLBSTW0208**

Matrix: **Solids**  
Sampled: **5/14/2014 14:05**

**Analytical Method:** 8270C SIM

**Prep Method:** 3546

**Prep Batch(es):** L199302

**Date/Time Prepped:** 5/16/2014 09:00:00

Test	Results	Units	MDL	MQL	DF	Date / Time Analyzed	By	Analytical Batch
Benzo(k)fluoranthene	<b>0.00495</b>	mg/Kg - dry	0.000249	0.000856	1	05/16/14 21:06	BMP	L199485
Chrysene	<b>0.00494</b>	mg/Kg - dry	0.000404	0.000856	1	05/16/14 21:06	BMP	L199485
Dibenz(a,h)anthracene	<b>0.00359</b>	mg/Kg - dry	0.000369	0.000856	1	05/16/14 21:06	BMP	L199485
Fluoranthene	<b>0.00826</b>	mg/Kg - dry	0.000238	0.000856	1	05/16/14 21:06	BMP	L199485
Fluorene	<b>0.00341</b>	mg/Kg - dry	0.000241	0.000856	1	05/16/14 21:06	BMP	L199485
Indeno(1,2,3-cd)pyrene	<b>0.00471</b>	mg/Kg - dry	0.000285	0.000856	1	05/16/14 21:06	BMP	L199485
2-Methylnaphthalene	<b>0.00254</b>	mg/Kg - dry	0.000153	0.000856	1	05/16/14 21:06	BMP	L199485
Naphthalene	<b>0.00243</b>	mg/Kg - dry	0.000242	0.000856	1	05/16/14 21:06	BMP	L199485
Phenanthrene	<b>0.00851</b>	mg/Kg - dry	0.000614	0.000856	1	05/16/14 21:06	BMP	L199485
Pyrene	<b>0.00825</b>	mg/Kg - dry	0.000247	0.000856	1	05/16/14 21:06	BMP	L199485
Surrogate: 2-Fluorobiphenyl	46.5			Limits: 33-115%	1	05/16/14 21:06	BMP	L199485
Surrogate: Nitrobenzene-d5	55.4			Limits: 29-110%	1	05/16/14 21:06	BMP	L199485
Surrogate: 4-Terphenyl-d14	64.2			Limits: 33-122%	1	05/16/14 21:06	BMP	L199485

**Qualifiers/  
Definitions**

*	Outside QC limit	B	Analyte detected in blank
DF	Dilution Factor	J	Estimated value
MQL	Method Quantitation Limit		



03180

Ensafe  
Mr. Dave Fuehrer  
5724 Summer Tree Drive  
Memphis, TN 38134

Project ID :  
Project 714 N. Second St.  
Information : Memphis, TN

Report Date : 05/21/2014  
Received : 5/15/2014

Report Number : **14-135-0223**

### REPORT OF ANALYSIS

Lab No : **89764**  
Sample ID : **MLBSTW0220**

Matrix: **Solids**  
Sampled: **5/14/2014 14:15**

Test	Results	Units	MDL	MQL	DF	Date / Time Analyzed	By	Analytical Method
% Moisture	<b>20.2</b>	%	0	0.100	1	05/16/14 08:25	ALP	2540G-2011
Total Arsenic	<b>1.87</b>	mg/Kg - dry	0.889	1.25	1	05/16/14 18:39	BKN	6010B
Total Barium	<b>35.6</b>	mg/Kg - dry	0.072	0.626	1	05/16/14 18:39	BKN	6010B
Total Cadmium	<b>0.157</b>	mg/Kg - dry	0.0190	0.125	1	05/16/14 18:39	BKN	6010B
Total Chromium	<b>11.4</b>	mg/Kg - dry	0.042	0.313	1	05/16/14 18:39	BKN	6010B
Total Lead	<b>3.95</b>	mg/Kg - dry	0.179	0.375	1	05/16/14 18:39	BKN	6010B
Total Mercury	<b>0.00572 J</b>	mg/Kg - dry	0.00329	0.0167	1	05/20/14 14:13	JRS	7471A
Total Selenium	<0.639	mg/Kg - dry	0.639	1.25	1	05/16/14 18:39	BKN	6010B
Total Silver	<b>0.0362 J</b>	mg/Kg - dry	0.0340	0.313	1	05/16/14 18:39	BKN	6010B

Qualifiers/ Definitions	*	Outside QC limit	B	Analyte detected in blank
	DF	Dilution Factor	J	Estimated value
	MQL	Method Quantitation Limit		

03180

Ensafe  
Mr. Dave Fuehrer  
5724 Summer Tree Drive  
Memphis, TN 38134

Project ID :  
Project 714 N. Second St.  
Information : Memphis, TN

Report Date : 05/21/2014  
Received : 5/15/2014

Report Number : **14-135-0223**

**REPORT OF ANALYSIS**

Lab No : **89764**  
Sample ID : **MLBSTW0220**

Matrix: **Solids**  
Sampled: **5/14/2014 14:15**

**Analytical Method:** 8260B

**Prep Method:** 5030A

**Prep Batch(es):** L199392

**Date/Time Prepped:** 5/16/2014 08:00:00

Test	Results	Units	MDL	ML	DF	Date / Time Analyzed	By	Analytical Batch
Acetone	<0.0058	mg/Kg - dry	0.0058	0.0501	1	05/16/14 18:06	ACS	L199393
Acetonitrile	<0.0160	mg/Kg - dry	0.0160	0.125	1	05/16/14 18:06	ACS	L199393
Acrolein	<0.0126	mg/Kg - dry	0.0126	0.0501	1	05/16/14 18:06	ACS	L199393
Acrylonitrile	<0.0101	mg/Kg - dry	0.0101	0.0501	1	05/16/14 18:06	ACS	L199393
Benzene	<0.0011	mg/Kg - dry	0.0011	0.0025	1	05/16/14 18:06	ACS	L199393
Bromobenzene	<0.0011	mg/Kg - dry	0.0011	0.0025	1	05/16/14 18:06	ACS	L199393
Bromochloromethane	<0.0009	mg/Kg - dry	0.0009	0.0025	1	05/16/14 18:06	ACS	L199393
Bromodichloromethane	<0.0005	mg/Kg - dry	0.0005	0.0025	1	05/16/14 18:06	ACS	L199393
Bromoform	<0.0008	mg/Kg - dry	0.0008	0.0025	1	05/16/14 18:06	ACS	L199393
Bromomethane	<0.0015	mg/Kg - dry	0.0015	0.0025	1	05/16/14 18:06	ACS	L199393
Methyl Ethyl Ketone (MEK)	<0.0077	mg/Kg - dry	0.0077	0.0501	1	05/16/14 18:06	ACS	L199393
n-Butylbenzene	<0.0009	mg/Kg - dry	0.0009	0.0025	1	05/16/14 18:06	ACS	L199393
sec-Butyl benzene	<0.0004	mg/Kg - dry	0.0004	0.0025	1	05/16/14 18:06	ACS	L199393
tert-Butyl benzene	<0.0017	mg/Kg - dry	0.0017	0.0025	1	05/16/14 18:06	ACS	L199393
Carbon Disulfide	<0.0005	mg/Kg - dry	0.0005	0.0025	1	05/16/14 18:06	ACS	L199393
Carbon Tetrachloride	<0.0007	mg/Kg - dry	0.0007	0.0025	1	05/16/14 18:06	ACS	L199393
Chlorobenzene	<0.0010	mg/Kg - dry	0.0010	0.0025	1	05/16/14 18:06	ACS	L199393
Chlorodibromomethane	<0.0011	mg/Kg - dry	0.0011	0.0025	1	05/16/14 18:06	ACS	L199393
Chloroethane	<0.0004	mg/Kg - dry	0.0004	0.0025	1	05/16/14 18:06	ACS	L199393
2-Chloroethylvinyl Ether	<0.0025	mg/Kg - dry	0.0025	0.0025	1	05/16/14 18:06	ACS	L199393
Chloroform	<0.0005	mg/Kg - dry	0.0005	0.0025	1	05/16/14 18:06	ACS	L199393
Chloromethane	<0.0009	mg/Kg - dry	0.0009	0.0025	1	05/16/14 18:06	ACS	L199393

Qualifiers/Definitions	*	Outside QC limit	B	Analyte detected in blank
	DF	Dilution Factor	J	Estimated value
	ML	Method Quantitation Limit		

03180

Ensafe  
Mr. Dave Fuehrer  
5724 Summer Tree Drive  
Memphis, TN 38134

Project ID :  
Project 714 N. Second St.  
Information : Memphis, TN

Report Date : 05/21/2014  
Received : 5/15/2014

Report Number : **14-135-0223**

**REPORT OF ANALYSIS**

Lab No : **89764**  
Sample ID : **MLBSTW0220**

Matrix: **Solids**  
Sampled: **5/14/2014 14:15**

**Analytical Method:** 8260B

**Prep Method:** 5030A

**Prep Batch(es):** L199392

**Date/Time Prepped:** 5/16/2014 08:00:00

Test	Results	Units	MDL	MQL	DF	Date / Time Analyzed	By	Analytical Batch
2-Chlorotoluene	<0.0002	mg/Kg - dry	0.0002	0.0025	1	05/16/14 18:06	ACS	L199393
4-Chlorotoluene	<0.0010	mg/Kg - dry	0.0010	0.0025	1	05/16/14 18:06	ACS	L199393
1,2-Dibromo-3-Chloropropane	<0.0063	mg/Kg - dry	0.0063	0.0125	1	05/16/14 18:06	ACS	L199393
1,2-Dibromoethane	<0.0014	mg/Kg - dry	0.0014	0.0025	1	05/16/14 18:06	ACS	L199393
Dibromomethane	<0.0014	mg/Kg - dry	0.0014	0.0025	1	05/16/14 18:06	ACS	L199393
1,2-Dichlorobenzene	<0.0012	mg/Kg - dry	0.0012	0.0025	1	05/16/14 18:06	ACS	L199393
1,3-Dichlorobenzene	<0.0010	mg/Kg - dry	0.0010	0.0025	1	05/16/14 18:06	ACS	L199393
1,4-Dichlorobenzene	<0.0009	mg/Kg - dry	0.0009	0.0025	1	05/16/14 18:06	ACS	L199393
Dichlorodifluoromethane	<0.0007	mg/Kg - dry	0.0007	0.0025	1	05/16/14 18:06	ACS	L199393
1,1-Dichloroethane	<0.0004	mg/Kg - dry	0.0004	0.0025	1	05/16/14 18:06	ACS	L199393
1,2-Dichloroethane	<0.0012	mg/Kg - dry	0.0012	0.0025	1	05/16/14 18:06	ACS	L199393
1,1-Dichloroethene	<0.0006	mg/Kg - dry	0.0006	0.0025	1	05/16/14 18:06	ACS	L199393
cis-1,2-Dichloroethene	<0.0007	mg/Kg - dry	0.0007	0.0025	1	05/16/14 18:06	ACS	L199393
trans-1,2-Dichloroethene	<0.0005	mg/Kg - dry	0.0005	0.0025	1	05/16/14 18:06	ACS	L199393
1,2-Dichloroethene (Total)	<0.0005	mg/Kg - dry	0.0005	0.0025	1	05/16/14 18:06		L199393
1,2-Dichloropropane	<0.0014	mg/Kg - dry	0.0014	0.0025	1	05/16/14 18:06	ACS	L199393
1,3-Dichloropropane	<0.0014	mg/Kg - dry	0.0014	0.0025	1	05/16/14 18:06	ACS	L199393
2,2-Dichloropropane	<0.0009	mg/Kg - dry	0.0009	0.0025	1	05/16/14 18:06	ACS	L199393
1,1-Dichloropropene	<0.0012	mg/Kg - dry	0.0012	0.0025	1	05/16/14 18:06	ACS	L199393
cis-1,3-Dichloropropene	<0.0007	mg/Kg - dry	0.0007	0.0025	1	05/16/14 18:06	ACS	L199393
trans-1,3-Dichloropropene	<0.0012	mg/Kg - dry	0.0012	0.0025	1	05/16/14 18:06	ACS	L199393
Ethyl Acetate	<0.0020	mg/Kg - dry	0.0020	0.0501	1	05/16/14 18:06	ACS	L199393

Qualifiers/Definitions	*	Outside QC limit	B	Analyte detected in blank
	DF	Dilution Factor	J	Estimated value
	MQL	Method Quantitation Limit		

03180

Ensafe  
Mr. Dave Fuehrer  
5724 Summer Tree Drive  
Memphis, TN 38134

Project ID :  
Project 714 N. Second St.  
Information : Memphis, TN

Report Date : 05/21/2014  
Received : 5/15/2014

Report Number : **14-135-0223**

**REPORT OF ANALYSIS**

Lab No : **89764**  
Sample ID : **MLBSTW0220**

Matrix: **Solids**  
Sampled: **5/14/2014 14:15**

**Analytical Method:** 8260B

**Prep Method:** 5030A

**Prep Batch(es):** L199392

**Date/Time Prepped:** 5/16/2014 08:00:00

Test	Results	Units	MDL	MQL	DF	Date / Time Analyzed	By	Analytical Batch
Ethylbenzene	<0.0007	mg/Kg - dry	0.0007	0.0025	1	05/16/14 18:06	ACS	L199393
Hexachlorobutadiene	<0.0010	mg/Kg - dry	0.0010	0.0025	1	05/16/14 18:06	ACS	L199393
2-Hexanone	<0.0024	mg/Kg - dry	0.0024	0.0125	1	05/16/14 18:06	ACS	L199393
Iodomethane	<0.0012	mg/Kg - dry	0.0012	0.0125	1	05/16/14 18:06	ACS	L199393
Isopropylbenzene	<0.0004	mg/Kg - dry	0.0004	0.0025	1	05/16/14 18:06	ACS	L199393
4-Isopropyl toluene	<0.0006	mg/Kg - dry	0.0006	0.0025	1	05/16/14 18:06	ACS	L199393
Methyl tert-butyl ether (MTBE)	<0.0005	mg/Kg - dry	0.0005	0.0025	1	05/16/14 18:06	ACS	L199393
4-Methyl-2-Pentanone	<0.0036	mg/Kg - dry	0.0036	0.0125	1	05/16/14 18:06	ACS	L199393
Methylene Chloride	<0.0019	mg/Kg - dry	0.0019	0.0125	1	05/16/14 18:06	ACS	L199393
Naphthalene	<0.0039	mg/Kg - dry	0.0039	0.0125	1	05/16/14 18:06	ACS	L199393
n-Propylbenzene	<0.0003	mg/Kg - dry	0.0003	0.0025	1	05/16/14 18:06	ACS	L199393
Styrene	<0.0004	mg/Kg - dry	0.0004	0.0025	1	05/16/14 18:06	ACS	L199393
1,1,1,2-Tetrachloroethane	<0.0006	mg/Kg - dry	0.0006	0.0025	1	05/16/14 18:06	ACS	L199393
1,1,2,2-Tetrachloroethane	<0.0007	mg/Kg - dry	0.0007	0.0025	1	05/16/14 18:06	ACS	L199393
Tetrachloroethene	<0.0020	mg/Kg - dry	0.0020	0.0025	1	05/16/14 18:06	ACS	L199393
Toluene	<0.0031	mg/Kg - dry	0.0031	0.0125	1	05/16/14 18:06	ACS	L199393
1,2,3-Trichlorobenzene	<0.0013	mg/Kg - dry	0.0013	0.0025	1	05/16/14 18:06	ACS	L199393
1,2,4-Trichlorobenzene	<0.0018	mg/Kg - dry	0.0018	0.0025	1	05/16/14 18:06	ACS	L199393
1,1,1-Trichloroethane	<0.0010	mg/Kg - dry	0.0010	0.0025	1	05/16/14 18:06	ACS	L199393
1,1,2-Trichloroethane	<0.0021	mg/Kg - dry	0.0021	0.0025	1	05/16/14 18:06	ACS	L199393
Trichloroethene	<0.0016	mg/Kg - dry	0.0016	0.0025	1	05/16/14 18:06	ACS	L199393
Trichlorofluoromethane	<0.0010	mg/Kg - dry	0.0010	0.0025	1	05/16/14 18:06	ACS	L199393

Qualifiers/Definitions	*	Outside QC limit	B	Analyte detected in blank
	DF	Dilution Factor	J	Estimated value
	MQL	Method Quantitation Limit		



03180

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Project ID :  
Project 714 N. Second St.  
Information : Memphis, TN

Report Date : 05/21/2014  
Received : 5/15/2014

Report Number : **14-135-0223**

**REPORT OF ANALYSIS**

Lab No : **89764**

Matrix: **Solids**

Sample ID : **MLBSTW0220**

Sampled: **5/14/2014 14:15**

**Analytical Method:** 8260B

**Prep Method:** 5030A

**Prep Batch(es):** L199392

**Date/Time Prepped:** 5/16/2014 08:00:00

Test	Results	Units	MDL	ML	DF	Date / Time Analyzed	By	Analytical Batch
1,2,3-Trichloropropane	<0.0013	mg/Kg - dry	0.0013	0.0025	1	05/16/14 18:06	ACS	L199393
1,2,4-Trimethylbenzene	<0.0008	mg/Kg - dry	0.0008	0.0025	1	05/16/14 18:06	ACS	L199393
1,3,5-Trimethylbenzene	<0.0004	mg/Kg - dry	0.0004	0.0025	1	05/16/14 18:06	ACS	L199393
Vinyl Acetate	<0.0033	mg/Kg - dry	0.0033	0.0501	1	05/16/14 18:06	ACS	L199393
Vinyl Chloride	<0.0008	mg/Kg - dry	0.0008	0.0025	1	05/16/14 18:06	ACS	L199393
o-Xylene	<0.0010	mg/Kg - dry	0.0010	0.0025	1	05/16/14 18:06	ACS	L199393
m,p-Xylene	<0.0009	mg/Kg - dry	0.0009	0.0050	1	05/16/14 18:06	ACS	L199393
Xylene (Total)	<0.0009	mg/Kg - dry	0.0009	0.0050	1	05/16/14 18:06		L199393
Surrogate: 4-Bromofluorobenzene	116		Limits: 60-130%		1	05/16/14 18:06	ACS	L199393
Surrogate: 1,2-Dichloroethane - d4	97.4		Limits: 60-132%		1	05/16/14 18:06	ACS	L199393
Surrogate: Toluene-d8	102		Limits: 70-122%		1	05/16/14 18:06	ACS	L199393

**Analytical Method:** 8270C SIM

**Prep Method:** 3546

**Prep Batch(es):** L199302

**Date/Time Prepped:** 5/16/2014 09:00:00

Test	Results	Units	MDL	ML	DF	Date / Time Analyzed	By	Analytical Batch
Acenaphthene	<0.000109	mg/Kg - dry	0.000109	0.000827	1	05/16/14 21:37	BMP	L199485
Acenaphthylene	<0.000063	mg/Kg - dry	0.000063	0.000827	1	05/16/14 21:37	BMP	L199485
Anthracene	<0.000265	mg/Kg - dry	0.000265	0.000827	1	05/16/14 21:37	BMP	L199485
Benzo(a)anthracene	<0.000714	mg/Kg - dry	0.000714	0.000827	1	05/16/14 21:37	BMP	L199485
Benzo(a)pyrene	<0.000675	mg/Kg - dry	0.000675	0.000827	1	05/16/14 21:37	BMP	L199485
Benzo(b)fluoranthene	<b>0.000611 J</b>	mg/Kg - dry	0.000342	0.000827	1	05/16/14 21:37	BMP	L199485
Benzo(g,h,i)perylene	<b>0.000414 J</b>	mg/Kg - dry	0.000261	0.000827	1	05/16/14 21:37	BMP	L199485

Qualifiers/Definitions	*	Outside QC limit	B	Analyte detected in blank
	DF	Dilution Factor	J	Estimated value
	ML	Method Quantitation Limit		

03180

Ensafe  
Mr. Dave Fuehrer  
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Memphis, TN 38134

Project ID :  
Project 714 N. Second St.  
Information : Memphis, TN

Report Date : 05/21/2014  
Received : 5/15/2014

Report Number : **14-135-0223**

**REPORT OF ANALYSIS**

Lab No : **89764**  
Sample ID : **MLBSTW0220**

Matrix: **Solids**  
Sampled: **5/14/2014 14:15**

**Analytical Method:** 8270C SIM

**Prep Method:** 3546

**Prep Batch(es):** L199302

**Date/Time Prepped:** 5/16/2014 09:00:00

Test	Results	Units	MDL	MQL	DF	Date / Time Analyzed	By	Analytical Batch
Benzo(k)fluoranthene	<0.000240	mg/Kg - dry	0.000240	0.000827	1	05/16/14 21:37	BMP	L199485
Chrysene	<0.000390	mg/Kg - dry	0.000390	0.000827	1	05/16/14 21:37	BMP	L199485
Dibenz(a,h)anthracene	<0.000357	mg/Kg - dry	0.000357	0.000827	1	05/16/14 21:37	BMP	L199485
Fluoranthene	<0.000230	mg/Kg - dry	0.000230	0.000827	1	05/16/14 21:37	BMP	L199485
Fluorene	<b>0.000417 J</b>	mg/Kg - dry	0.000233	0.000827	1	05/16/14 21:37	BMP	L199485
Indeno(1,2,3-cd)pyrene	<0.000275	mg/Kg - dry	0.000275	0.000827	1	05/16/14 21:37	BMP	L199485
2-Methylnaphthalene	<b>0.000454 J</b>	mg/Kg - dry	0.000147	0.000827	1	05/16/14 21:37	BMP	L199485
Naphthalene	<b>0.000708 J</b>	mg/Kg - dry	0.000234	0.000827	1	05/16/14 21:37	BMP	L199485
Phenanthrene	<0.000593	mg/Kg - dry	0.000593	0.000827	1	05/16/14 21:37	BMP	L199485
Pyrene	<0.000239	mg/Kg - dry	0.000239	0.000827	1	05/16/14 21:37	BMP	L199485
Surrogate: 2-Fluorobiphenyl	45.7		Limits: 33-115%		1	05/16/14 21:37	BMP	L199485
Surrogate: Nitrobenzene-d5	49.1		Limits: 29-110%		1	05/16/14 21:37	BMP	L199485
Surrogate: 4-Terphenyl-d14	62.2		Limits: 33-122%		1	05/16/14 21:37	BMP	L199485

Qualifiers/Definitions	*	Outside QC limit	B	Analyte detected in blank
	DF	Dilution Factor	J	Estimated value
	MQL	Method Quantitation Limit		



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Project ID :  
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Report Date : 05/21/2014  
Received : 5/15/2014

Report Number : **14-135-0223**

### REPORT OF ANALYSIS

Lab No : **89765**  
Sample ID : **MLBSTW0312**

Matrix: **Solids**  
Sampled: **5/14/2014 15:20**

Test	Results	Units	MDL	MQL	DF	Date / Time Analyzed	By	Analytical Method
% Moisture	<b>25.4</b>	%	0	0.100	1	05/16/14 08:25	ALP	2540G-2011
Total Arsenic	<b>9.95</b>	mg/Kg - dry	0.951	1.34	1	05/16/14 18:43	BKN	6010B
Total Barium	<b>79.0</b>	mg/Kg - dry	0.077	0.670	1	05/16/14 18:43	BKN	6010B
Total Cadmium	<b>0.501</b>	mg/Kg - dry	0.0203	0.134	1	05/16/14 18:43	BKN	6010B
Total Chromium	<b>13.1</b>	mg/Kg - dry	0.045	0.335	1	05/16/14 18:43	BKN	6010B
Total Lead	<b>9.14</b>	mg/Kg - dry	0.191	0.402	1	05/16/14 18:43	BKN	6010B
Total Mercury	<b>0.00424 J</b>	mg/Kg - dry	0.00352	0.0178	1	05/20/14 14:19	JRS	7471A
Total Selenium	<0.683	mg/Kg - dry	0.683	1.34	1	05/16/14 18:43	BKN	6010B
Total Silver	<0.0364	mg/Kg - dry	0.0364	0.335	1	05/16/14 18:43	BKN	6010B

#### Qualifiers/ Definitions

*	Outside QC limit	B	Analyte detected in blank
DF	Dilution Factor	J	Estimated value
MQL	Method Quantitation Limit		

03180

Ensafe

Mr. Dave Fuehrer

5724 Summer Tree Drive

Memphis, TN 38134

Project ID :

Project 714 N. Second St.

Information : Memphis, TN

Report Date : 05/21/2014

Received : 5/15/2014

Report Number : **14-135-0223**

**REPORT OF ANALYSIS**

Lab No : **89765**

Sample ID : **MLBSTW0312**

Matrix: **Solids**

Sampled: **5/14/2014 15:20**

**Analytical Method:** 8260B

**Prep Method:** 5030A

**Prep Batch(es):** L199550

**Date/Time Prepped:** 5/19/2014 09:30:00

Test	Results	Units	MDL	ML	DF	Date / Time Analyzed	By	Analytical Batch
Acetone	<0.0062	mg/Kg - dry	0.0062	0.0536	1	05/19/14 14:01	SEB	L199552
Acetonitrile	<0.0171	mg/Kg - dry	0.0171	0.134	1	05/19/14 14:01	SEB	L199552
Acrolein	<0.0135	mg/Kg - dry	0.0135	0.0536	1	05/19/14 14:01	SEB	L199552
Acrylonitrile	<0.0108	mg/Kg - dry	0.0108	0.0536	1	05/19/14 14:01	SEB	L199552
Benzene	<0.0011	mg/Kg - dry	0.0011	0.0026	1	05/19/14 14:01	SEB	L199552
Bromobenzene	<0.0012	mg/Kg - dry	0.0012	0.0026	1	05/19/14 14:01	SEB	L199552
Bromochloromethane	<0.0010	mg/Kg - dry	0.0010	0.0026	1	05/19/14 14:01	SEB	L199552
Bromodichloromethane	<0.0005	mg/Kg - dry	0.0005	0.0026	1	05/19/14 14:01	SEB	L199552
Bromoform	<0.0009	mg/Kg - dry	0.0009	0.0026	1	05/19/14 14:01	SEB	L199552
Bromomethane	<0.0016	mg/Kg - dry	0.0016	0.0026	1	05/19/14 14:01	SEB	L199552
Methyl Ethyl Ketone (MEK)	<0.0082	mg/Kg - dry	0.0082	0.0536	1	05/19/14 14:01	SEB	L199552
n-Butylbenzene	<0.0009	mg/Kg - dry	0.0009	0.0026	1	05/19/14 14:01	SEB	L199552
sec-Butyl benzene	<0.0004	mg/Kg - dry	0.0004	0.0026	1	05/19/14 14:01	SEB	L199552
tert-Butyl benzene	<0.0019	mg/Kg - dry	0.0019	0.0026	1	05/19/14 14:01	SEB	L199552
Carbon Disulfide	<0.0005	mg/Kg - dry	0.0005	0.0026	1	05/19/14 14:01	SEB	L199552
Carbon Tetrachloride	<0.0007	mg/Kg - dry	0.0007	0.0026	1	05/19/14 14:01	SEB	L199552
Chlorobenzene	<0.0010	mg/Kg - dry	0.0010	0.0026	1	05/19/14 14:01	SEB	L199552
Chlorodibromomethane	<0.0012	mg/Kg - dry	0.0012	0.0026	1	05/19/14 14:01	SEB	L199552
Chloroethane	<0.0005	mg/Kg - dry	0.0005	0.0026	1	05/19/14 14:01	SEB	L199552
2-Chloroethylvinyl Ether	<0.0026	mg/Kg - dry	0.0026	0.0026	1	05/19/14 14:01	SEB	L199552
Chloroform	<0.0005	mg/Kg - dry	0.0005	0.0026	1	05/19/14 14:01	SEB	L199552
Chloromethane	<0.0010	mg/Kg - dry	0.0010	0.0026	1	05/19/14 14:01	SEB	L199552

**Qualifiers/  
Definitions**

*	Outside QC limit	B	Analyte detected in blank
DF	Dilution Factor	J	Estimated value
ML	Method Quantitation Limit		

03180

Ensafe  
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5724 Summer Tree Drive  
Memphis, TN 38134

Project ID :  
Project 714 N. Second St.  
Information : Memphis, TN

Report Date : 05/21/2014  
Received : 5/15/2014

Report Number : **14-135-0223**

**REPORT OF ANALYSIS**

Lab No : **89765**

Matrix: **Solids**

Sample ID : **MLBSTW0312**

Sampled: **5/14/2014 15:20**

**Analytical Method:** 8260B

**Prep Method:** 5030A

**Prep Batch(es):** L199550

**Date/Time Prepped:** 5/19/2014 09:30:00

Test	Results	Units	MDL	ML	DF	Date / Time Analyzed	By	Analytical Batch
2-Chlorotoluene	<0.0002	mg/Kg - dry	0.0002	0.0026	1	05/19/14 14:01	SEB	L199552
4-Chlorotoluene	<0.0011	mg/Kg - dry	0.0011	0.0026	1	05/19/14 14:01	SEB	L199552
1,2-Dibromo-3-Chloropropane	<0.0068	mg/Kg - dry	0.0068	0.0134	1	05/19/14 14:01	SEB	L199552
1,2-Dibromoethane	<0.0015	mg/Kg - dry	0.0015	0.0026	1	05/19/14 14:01	SEB	L199552
Dibromomethane	<0.0015	mg/Kg - dry	0.0015	0.0026	1	05/19/14 14:01	SEB	L199552
1,2-Dichlorobenzene	<0.0013	mg/Kg - dry	0.0013	0.0026	1	05/19/14 14:01	SEB	L199552
1,3-Dichlorobenzene	<0.0011	mg/Kg - dry	0.0011	0.0026	1	05/19/14 14:01	SEB	L199552
1,4-Dichlorobenzene	<0.0010	mg/Kg - dry	0.0010	0.0026	1	05/19/14 14:01	SEB	L199552
Dichlorodifluoromethane	<0.0007	mg/Kg - dry	0.0007	0.0026	1	05/19/14 14:01	SEB	L199552
1,1-Dichloroethane	<0.0004	mg/Kg - dry	0.0004	0.0026	1	05/19/14 14:01	SEB	L199552
1,2-Dichloroethane	<0.0013	mg/Kg - dry	0.0013	0.0026	1	05/19/14 14:01	SEB	L199552
1,1-Dichloroethene	<0.0006	mg/Kg - dry	0.0006	0.0026	1	05/19/14 14:01	SEB	L199552
cis-1,2-Dichloroethene	<0.0007	mg/Kg - dry	0.0007	0.0026	1	05/19/14 14:01	SEB	L199552
trans-1,2-Dichloroethene	<0.0005	mg/Kg - dry	0.0005	0.0026	1	05/19/14 14:01	SEB	L199552
1,2-Dichloroethene (Total)	<0.0005	mg/Kg - dry	0.0005	0.0026	1	05/19/14 14:01		L199552
1,2-Dichloropropane	<0.0015	mg/Kg - dry	0.0015	0.0026	1	05/19/14 14:01	SEB	L199552
1,3-Dichloropropane	<0.0015	mg/Kg - dry	0.0015	0.0026	1	05/19/14 14:01	SEB	L199552
2,2-Dichloropropane	<0.0010	mg/Kg - dry	0.0010	0.0026	1	05/19/14 14:01	SEB	L199552
1,1-Dichloropropene	<0.0012	mg/Kg - dry	0.0012	0.0026	1	05/19/14 14:01	SEB	L199552
cis-1,3-Dichloropropene	<0.0008	mg/Kg - dry	0.0008	0.0026	1	05/19/14 14:01	SEB	L199552
trans-1,3-Dichloropropene	<0.0013	mg/Kg - dry	0.0013	0.0026	1	05/19/14 14:01	SEB	L199552
Ethyl Acetate	<0.0021	mg/Kg - dry	0.0021	0.0536	1	05/19/14 14:01	SEB	L199552

Qualifiers/Definitions	*	Outside QC limit	B	Analyte detected in blank
	DF	Dilution Factor	J	Estimated value
	ML	Method Quantitation Limit		

03180

Ensafe  
Mr. Dave Fuehrer  
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Project ID :  
Project 714 N. Second St.  
Information : Memphis, TN

Report Date : 05/21/2014  
Received : 5/15/2014

Report Number : **14-135-0223**

**REPORT OF ANALYSIS**

Lab No : **89765**  
Sample ID : **MLBSTW0312**

Matrix: **Solids**  
Sampled: **5/14/2014 15:20**

**Analytical Method:** 8260B

**Prep Method:** 5030A

**Prep Batch(es):** L199550

**Date/Time Prepped:** 5/19/2014 09:30:00

Test	Results	Units	MDL	ML	DF	Date / Time Analyzed	By	Analytical Batch
Ethylbenzene	<b>0.0023 J</b>	mg/Kg - dry	0.0007	0.0026	1	05/19/14 14:01	SEB	L199552
Hexachlorobutadiene	<0.0010	mg/Kg - dry	0.0010	0.0026	1	05/19/14 14:01	SEB	L199552
2-Hexanone	<0.0026	mg/Kg - dry	0.0026	0.0134	1	05/19/14 14:01	SEB	L199552
Iodomethane	<0.0013	mg/Kg - dry	0.0013	0.0134	1	05/19/14 14:01	SEB	L199552
Isopropylbenzene	<0.0004	mg/Kg - dry	0.0004	0.0026	1	05/19/14 14:01	SEB	L199552
4-Isopropyl toluene	<0.0007	mg/Kg - dry	0.0007	0.0026	1	05/19/14 14:01	SEB	L199552
Methyl tert-butyl ether (MTBE)	<0.0005	mg/Kg - dry	0.0005	0.0026	1	05/19/14 14:01	SEB	L199552
4-Methyl-2-Pentanone	<0.0039	mg/Kg - dry	0.0039	0.0134	1	05/19/14 14:01	SEB	L199552
Methylene Chloride	<0.0021	mg/Kg - dry	0.0021	0.0134	1	05/19/14 14:01	SEB	L199552
Naphthalene	<0.0042	mg/Kg - dry	0.0042	0.0134	1	05/19/14 14:01	SEB	L199552
n-Propylbenzene	<b>0.0004 J</b>	mg/Kg - dry	0.0003	0.0026	1	05/19/14 14:01	SEB	L199552
Styrene	<0.0004	mg/Kg - dry	0.0004	0.0026	1	05/19/14 14:01	SEB	L199552
1,1,1,2-Tetrachloroethane	<0.0006	mg/Kg - dry	0.0006	0.0026	1	05/19/14 14:01	SEB	L199552
1,1,2,2-Tetrachloroethane	<0.0008	mg/Kg - dry	0.0008	0.0026	1	05/19/14 14:01	SEB	L199552
Tetrachloroethene	<b>0.0025 J</b>	mg/Kg - dry	0.0021	0.0026	1	05/19/14 14:01	SEB	L199552
Toluene	<0.0034	mg/Kg - dry	0.0034	0.0134	1	05/19/14 14:01	SEB	L199552
1,2,3-Trichlorobenzene	<0.0014	mg/Kg - dry	0.0014	0.0026	1	05/19/14 14:01	SEB	L199552
1,2,4-Trichlorobenzene	<0.0019	mg/Kg - dry	0.0019	0.0026	1	05/19/14 14:01	SEB	L199552
1,1,1-Trichloroethane	<0.0011	mg/Kg - dry	0.0011	0.0026	1	05/19/14 14:01	SEB	L199552
1,1,2-Trichloroethane	<0.0023	mg/Kg - dry	0.0023	0.0026	1	05/19/14 14:01	SEB	L199552
Trichloroethene	<0.0018	mg/Kg - dry	0.0018	0.0026	1	05/19/14 14:01	SEB	L199552
Trichlorofluoromethane	<0.0010	mg/Kg - dry	0.0010	0.0026	1	05/19/14 14:01	SEB	L199552

Qualifiers/Definitions	*	Outside QC limit	B	Analyte detected in blank
	DF	Dilution Factor	J	Estimated value
	ML	Method Quantitation Limit		

03180

Ensafe  
Mr. Dave Fuehrer  
5724 Summer Tree Drive  
Memphis, TN 38134

Project ID :  
Project 714 N. Second St.  
Information : Memphis, TN

Report Date : 05/21/2014  
Received : 5/15/2014

Report Number : **14-135-0223**

**REPORT OF ANALYSIS**

Lab No : **89765**  
Sample ID : **MLBSTW0312**

Matrix: **Solids**  
Sampled: **5/14/2014 15:20**

**Analytical Method:** 8260B

**Prep Method:** 5030A

**Prep Batch(es):** L199550

**Date/Time Prepped:** 5/19/2014 09:30:00

Test	Results	Units	MDL	ML	DF	Date / Time Analyzed	By	Analytical Batch
1,2,3-Trichloropropane	<0.0014	mg/Kg - dry	0.0014	0.0026	1	05/19/14 14:01	SEB	L199552
1,2,4-Trimethylbenzene	<b>0.0021 J</b>	mg/Kg - dry	0.0009	0.0026	1	05/19/14 14:01	SEB	L199552
1,3,5-Trimethylbenzene	<b>0.0007 J</b>	mg/Kg - dry	0.0004	0.0026	1	05/19/14 14:01	SEB	L199552
Vinyl Acetate	<0.0035	mg/Kg - dry	0.0035	0.0536	1	05/19/14 14:01	SEB	L199552
Vinyl Chloride	<0.0008	mg/Kg - dry	0.0008	0.0026	1	05/19/14 14:01	SEB	L199552
o-Xylene	<b>0.0014 J</b>	mg/Kg - dry	0.0010	0.0026	1	05/19/14 14:01	SEB	L199552
m,p-Xylene	<b>0.0028 J</b>	mg/Kg - dry	0.0010	0.0053	1	05/19/14 14:01	SEB	L199552
Xylene (Total)	<b>0.0042</b>	mg/Kg - dry	0.0010	0.0053	1	05/19/14 14:01		L199552
Surrogate: 4-Bromofluorobenzene	95.8		Limits: 60-130%		1	05/19/14 14:01	SEB	L199552
Surrogate: 1,2-Dichloroethane - d4	124		Limits: 60-132%		1	05/19/14 14:01	SEB	L199552
Surrogate: Toluene-d8	94.9		Limits: 70-122%		1	05/19/14 14:01	SEB	L199552

**Analytical Method:** 8270C SIM

**Prep Method:** 3546

**Prep Batch(es):** L199302

**Date/Time Prepped:** 5/16/2014 09:00:00

Test	Results	Units	MDL	ML	DF	Date / Time Analyzed	By	Analytical Batch
Acenaphthene	<0.000116	mg/Kg - dry	0.000116	0.000884	1	05/16/14 22:08	BMP	L199485
Acenaphthylene	<b>0.000445 J</b>	mg/Kg - dry	0.000068	0.000884	1	05/16/14 22:08	BMP	L199485
Anthracene	<0.000284	mg/Kg - dry	0.000284	0.000884	1	05/16/14 22:08	BMP	L199485
Benzo(a)anthracene	<0.000764	mg/Kg - dry	0.000764	0.000884	1	05/16/14 22:08	BMP	L199485
Benzo(a)pyrene	<0.000722	mg/Kg - dry	0.000722	0.000884	1	05/16/14 22:08	BMP	L199485
Benzo(b)fluoranthene	<b>0.000789 J</b>	mg/Kg - dry	0.000365	0.000884	1	05/16/14 22:08	BMP	L199485
Benzo(g,h,i)perylene	<b>0.000844 J</b>	mg/Kg - dry	0.000280	0.000884	1	05/16/14 22:08	BMP	L199485

Qualifiers/Definitions	*	Outside QC limit	B	Analyte detected in blank
	DF	Dilution Factor	J	Estimated value
	ML	Method Quantitation Limit		



03180

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Project ID :  
Project 714 N. Second St.  
Information : Memphis, TN

Report Date : 05/21/2014  
Received : 5/15/2014

Report Number : **14-135-0223**

**REPORT OF ANALYSIS**

Lab No : **89765**

Matrix: **Solids**

Sample ID : **MLBSTW0312**

Sampled: **5/14/2014 15:20**

**Analytical Method:** 8270C SIM

**Prep Method:** 3546

**Prep Batch(es):** L199302

**Date/Time Prepped:** 5/16/2014 09:00:00

Test	Results	Units	MDL	MQL	DF	Date / Time Analyzed	By	Analytical Batch
Benzo(k)fluoranthene	<b>0.000638 J</b>	mg/Kg - dry	0.000257	0.000884	1	05/16/14 22:08	BMP	L199485
Chrysene	<b>0.000510 J</b>	mg/Kg - dry	0.000418	0.000884	1	05/16/14 22:08	BMP	L199485
Dibenz(a,h)anthracene	<b>0.000689 J</b>	mg/Kg - dry	0.000382	0.000884	1	05/16/14 22:08	BMP	L199485
Fluoranthene	<b>0.000463 J</b>	mg/Kg - dry	0.000246	0.000884	1	05/16/14 22:08	BMP	L199485
Fluorene	<0.000249	mg/Kg - dry	0.000249	0.000884	1	05/16/14 22:08	BMP	L199485
Indeno(1,2,3-cd)pyrene	<b>0.000668 J</b>	mg/Kg - dry	0.000294	0.000884	1	05/16/14 22:08	BMP	L199485
2-Methylnaphthalene	<0.000158	mg/Kg - dry	0.000158	0.000884	1	05/16/14 22:08	BMP	L199485
Naphthalene	<b>0.000742 J</b>	mg/Kg - dry	0.000250	0.000884	1	05/16/14 22:08	BMP	L199485
Phenanthrene	<0.000635	mg/Kg - dry	0.000635	0.000884	1	05/16/14 22:08	BMP	L199485
Pyrene	<b>0.000455 J</b>	mg/Kg - dry	0.000256	0.000884	1	05/16/14 22:08	BMP	L199485
Surrogate: 2-Fluorobiphenyl	50.2		Limits: 33-115%		1	05/16/14 22:08	BMP	L199485
Surrogate: Nitrobenzene-d5	53.8		Limits: 29-110%		1	05/16/14 22:08	BMP	L199485
Surrogate: 4-Terphenyl-d14	62.4		Limits: 33-122%		1	05/16/14 22:08	BMP	L199485

**Qualifiers/  
Definitions**

*	Outside QC limit	B	Analyte detected in blank
DF	Dilution Factor	J	Estimated value
MQL	Method Quantitation Limit		



03180

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Project ID :  
Project 714 N. Second St.  
Information : Memphis, TN

Report Date : 05/21/2014  
Received : 5/15/2014

Report Number : **14-135-0223**

### REPORT OF ANALYSIS

Lab No : **89766**  
Sample ID : **MLBSTW0316**

Matrix: **Solids**  
Sampled: **5/14/2014 15:25**

Test	Results	Units	MDL	MQL	DF	Date / Time Analyzed	By	Analytical Method
% Moisture	<b>21.7</b>	%	0	0.100	1	05/16/14 08:25	ALP	2540G-2011
Total Arsenic	<b>9.30</b>	mg/Kg - dry	0.906	1.28	1	05/16/14 18:48	BKN	6010B
Total Barium	<b>575</b>	mg/Kg - dry	0.074	0.638	1	05/16/14 18:48	BKN	6010B
Total Cadmium	<b>0.940</b>	mg/Kg - dry	0.0194	0.128	1	05/16/14 18:48	BKN	6010B
Total Chromium	<b>11.3</b>	mg/Kg - dry	0.043	0.319	1	05/16/14 18:48	BKN	6010B
Total Lead	<b>5.99</b>	mg/Kg - dry	0.182	0.383	1	05/16/14 18:48	BKN	6010B
Total Mercury	<b>0.00724 J</b>	mg/Kg - dry	0.00335	0.0170	1	05/20/14 14:21	JRS	7471A
Total Selenium	<6.53	mg/Kg - dry	6.53	12.8	10	05/19/14 15:38	BKN	6010B
Total Silver	<b>1.00</b>	mg/Kg - dry	0.0347	0.319	1	05/16/14 18:48	BKN	6010B

#### Qualifiers/ Definitions

*	Outside QC limit	B	Analyte detected in blank
DF	Dilution Factor	J	Estimated value
MQL	Method Quantitation Limit		

03180

Ensafe

Mr. Dave Fuehrer

5724 Summer Tree Drive

Memphis, TN 38134

Project ID :

Project 714 N. Second St.

Information : Memphis, TN

Report Date : 05/21/2014

Received : 5/15/2014

Report Number : **14-135-0223**

**REPORT OF ANALYSIS**

Lab No : **89766**

Matrix: **Solids**

Sample ID : **MLBSTW0316**

Sampled: **5/14/2014 15:25**

**Analytical Method:** 8260B

**Prep Method:** 5030A

**Prep Batch(es):** L199550

**Date/Time Prepped:** 5/19/2014 09:30:00

Test	Results	Units	MDL	ML	DF	Date / Time Analyzed	By	Analytical Batch
Acetone	<0.0059	mg/Kg - dry	0.0059	0.0510	1	05/19/14 14:43	SEB	L199552
Acetonitrile	<0.0163	mg/Kg - dry	0.0163	0.128	1	05/19/14 14:43	SEB	L199552
Acrolein	<0.0128	mg/Kg - dry	0.0128	0.0510	1	05/19/14 14:43	SEB	L199552
Acrylonitrile	<0.0103	mg/Kg - dry	0.0103	0.0510	1	05/19/14 14:43	SEB	L199552
Benzene	<0.0011	mg/Kg - dry	0.0011	0.0025	1	05/19/14 14:43	SEB	L199552
Bromobenzene	<0.0012	mg/Kg - dry	0.0012	0.0025	1	05/19/14 14:43	SEB	L199552
Bromochloromethane	<0.0009	mg/Kg - dry	0.0009	0.0025	1	05/19/14 14:43	SEB	L199552
Bromodichloromethane	<0.0005	mg/Kg - dry	0.0005	0.0025	1	05/19/14 14:43	SEB	L199552
Bromoform	<0.0008	mg/Kg - dry	0.0008	0.0025	1	05/19/14 14:43	SEB	L199552
Bromomethane	<0.0015	mg/Kg - dry	0.0015	0.0025	1	05/19/14 14:43	SEB	L199552
Methyl Ethyl Ketone (MEK)	<0.0078	mg/Kg - dry	0.0078	0.0510	1	05/19/14 14:43	SEB	L199552
n-Butylbenzene	<0.0009	mg/Kg - dry	0.0009	0.0025	1	05/19/14 14:43	SEB	L199552
sec-Butyl benzene	<0.0004	mg/Kg - dry	0.0004	0.0025	1	05/19/14 14:43	SEB	L199552
tert-Butyl benzene	<0.0018	mg/Kg - dry	0.0018	0.0025	1	05/19/14 14:43	SEB	L199552
Carbon Disulfide	<0.0005	mg/Kg - dry	0.0005	0.0025	1	05/19/14 14:43	SEB	L199552
Carbon Tetrachloride	<0.0007	mg/Kg - dry	0.0007	0.0025	1	05/19/14 14:43	SEB	L199552
Chlorobenzene	<0.0010	mg/Kg - dry	0.0010	0.0025	1	05/19/14 14:43	SEB	L199552
Chlorodibromomethane	<0.0011	mg/Kg - dry	0.0011	0.0025	1	05/19/14 14:43	SEB	L199552
Chloroethane	<0.0005	mg/Kg - dry	0.0005	0.0025	1	05/19/14 14:43	SEB	L199552
2-Chloroethylvinyl Ether	<0.0025	mg/Kg - dry	0.0025	0.0025	1	05/19/14 14:43	SEB	L199552
Chloroform	<0.0005	mg/Kg - dry	0.0005	0.0025	1	05/19/14 14:43	SEB	L199552
Chloromethane	<0.0010	mg/Kg - dry	0.0010	0.0025	1	05/19/14 14:43	SEB	L199552

**Qualifiers/  
Definitions**

*	Outside QC limit	B	Analyte detected in blank
DF	Dilution Factor	J	Estimated value
ML	Method Quantitation Limit		

03180

Ensafe  
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Project ID :  
Project 714 N. Second St.  
Information : Memphis, TN

Report Date : 05/21/2014  
Received : 5/15/2014

Report Number : **14-135-0223**

**REPORT OF ANALYSIS**

Lab No : **89766**

Matrix: **Solids**

Sample ID : **MLBSTW0316**

Sampled: **5/14/2014 15:25**

**Analytical Method:** 8260B

**Prep Method:** 5030A

**Prep Batch(es):** L199550

**Date/Time Prepped:** 5/19/2014 09:30:00

Test	Results	Units	MDL	ML	DF	Date / Time Analyzed	By	Analytical Batch
2-Chlorotoluene	<0.0002	mg/Kg - dry	0.0002	0.0025	1	05/19/14 14:43	SEB	L199552
4-Chlorotoluene	<0.0010	mg/Kg - dry	0.0010	0.0025	1	05/19/14 14:43	SEB	L199552
1,2-Dibromo-3-Chloropropane	<0.0065	mg/Kg - dry	0.0065	0.0127	1	05/19/14 14:43	SEB	L199552
1,2-Dibromoethane	<0.0014	mg/Kg - dry	0.0014	0.0025	1	05/19/14 14:43	SEB	L199552
Dibromomethane	<0.0014	mg/Kg - dry	0.0014	0.0025	1	05/19/14 14:43	SEB	L199552
1,2-Dichlorobenzene	<0.0012	mg/Kg - dry	0.0012	0.0025	1	05/19/14 14:43	SEB	L199552
1,3-Dichlorobenzene	<0.0010	mg/Kg - dry	0.0010	0.0025	1	05/19/14 14:43	SEB	L199552
1,4-Dichlorobenzene	<0.0010	mg/Kg - dry	0.0010	0.0025	1	05/19/14 14:43	SEB	L199552
Dichlorodifluoromethane	<0.0007	mg/Kg - dry	0.0007	0.0025	1	05/19/14 14:43	SEB	L199552
1,1-Dichloroethane	<0.0004	mg/Kg - dry	0.0004	0.0025	1	05/19/14 14:43	SEB	L199552
1,2-Dichloroethane	<0.0013	mg/Kg - dry	0.0013	0.0025	1	05/19/14 14:43	SEB	L199552
1,1-Dichloroethene	<0.0006	mg/Kg - dry	0.0006	0.0025	1	05/19/14 14:43	SEB	L199552
cis-1,2-Dichloroethene	<0.0007	mg/Kg - dry	0.0007	0.0025	1	05/19/14 14:43	SEB	L199552
trans-1,2-Dichloroethene	<0.0005	mg/Kg - dry	0.0005	0.0025	1	05/19/14 14:43	SEB	L199552
1,2-Dichloroethene (Total)	<0.0005	mg/Kg - dry	0.0005	0.0025	1	05/19/14 14:43		L199552
1,2-Dichloropropane	<0.0014	mg/Kg - dry	0.0014	0.0025	1	05/19/14 14:43	SEB	L199552
1,3-Dichloropropane	<0.0014	mg/Kg - dry	0.0014	0.0025	1	05/19/14 14:43	SEB	L199552
2,2-Dichloropropane	<0.0009	mg/Kg - dry	0.0009	0.0025	1	05/19/14 14:43	SEB	L199552
1,1-Dichloropropene	<0.0012	mg/Kg - dry	0.0012	0.0025	1	05/19/14 14:43	SEB	L199552
cis-1,3-Dichloropropene	<0.0007	mg/Kg - dry	0.0007	0.0025	1	05/19/14 14:43	SEB	L199552
trans-1,3-Dichloropropene	<0.0012	mg/Kg - dry	0.0012	0.0025	1	05/19/14 14:43	SEB	L199552
Ethyl Acetate	<0.0020	mg/Kg - dry	0.0020	0.0510	1	05/19/14 14:43	SEB	L199552

Qualifiers/Definitions	*	Outside QC limit	B	Analyte detected in blank
	DF	Dilution Factor	J	Estimated value
	ML	Method Quantitation Limit		

03180

Ensafe

Mr. Dave Fuehrer

5724 Summer Tree Drive

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Project ID :

Project 714 N. Second St.

Information : Memphis, TN

Report Date : 05/21/2014

Received : 5/15/2014

Report Number : **14-135-0223**

**REPORT OF ANALYSIS**

Lab No : **89766**

Matrix: **Solids**

Sample ID : **MLBSTW0316**

Sampled: **5/14/2014 15:25**

**Analytical Method:** 8260B

**Prep Method:** 5030A

**Prep Batch(es):** L199550

**Date/Time Prepped:** 5/19/2014 09:30:00

Test	Results	Units	MDL	ML	DF	Date / Time Analyzed	By	Analytical Batch
Ethylbenzene	<b>0.0007 J</b>	mg/Kg - dry	0.0007	0.0025	1	05/19/14 14:43	SEB	L199552
Hexachlorobutadiene	<0.0010	mg/Kg - dry	0.0010	0.0025	1	05/19/14 14:43	SEB	L199552
2-Hexanone	<0.0025	mg/Kg - dry	0.0025	0.0127	1	05/19/14 14:43	SEB	L199552
Iodomethane	<0.0012	mg/Kg - dry	0.0012	0.0127	1	05/19/14 14:43	SEB	L199552
Isopropylbenzene	<0.0004	mg/Kg - dry	0.0004	0.0025	1	05/19/14 14:43	SEB	L199552
4-Isopropyl toluene	<0.0006	mg/Kg - dry	0.0006	0.0025	1	05/19/14 14:43	SEB	L199552
Methyl tert-butyl ether (MTBE)	<0.0005	mg/Kg - dry	0.0005	0.0025	1	05/19/14 14:43	SEB	L199552
4-Methyl-2-Pentanone	<0.0037	mg/Kg - dry	0.0037	0.0127	1	05/19/14 14:43	SEB	L199552
Methylene Chloride	<0.0020	mg/Kg - dry	0.0020	0.0127	1	05/19/14 14:43	SEB	L199552
Naphthalene	<0.0040	mg/Kg - dry	0.0040	0.0127	1	05/19/14 14:43	SEB	L199552
n-Propylbenzene	<0.0003	mg/Kg - dry	0.0003	0.0025	1	05/19/14 14:43	SEB	L199552
Styrene	<0.0004	mg/Kg - dry	0.0004	0.0025	1	05/19/14 14:43	SEB	L199552
1,1,1,2-Tetrachloroethane	<0.0006	mg/Kg - dry	0.0006	0.0025	1	05/19/14 14:43	SEB	L199552
1,1,2,2-Tetrachloroethane	<0.0007	mg/Kg - dry	0.0007	0.0025	1	05/19/14 14:43	SEB	L199552
Tetrachloroethene	<b>0.0055</b>	mg/Kg - dry	0.0020	0.0025	1	05/19/14 14:43	SEB	L199552
Toluene	<0.0032	mg/Kg - dry	0.0032	0.0127	1	05/19/14 14:43	SEB	L199552
1,2,3-Trichlorobenzene	<0.0013	mg/Kg - dry	0.0013	0.0025	1	05/19/14 14:43	SEB	L199552
1,2,4-Trichlorobenzene	<0.0019	mg/Kg - dry	0.0019	0.0025	1	05/19/14 14:43	SEB	L199552
1,1,1-Trichloroethane	<0.0010	mg/Kg - dry	0.0010	0.0025	1	05/19/14 14:43	SEB	L199552
1,1,2-Trichloroethane	<0.0022	mg/Kg - dry	0.0022	0.0025	1	05/19/14 14:43	SEB	L199552
Trichloroethene	<0.0017	mg/Kg - dry	0.0017	0.0025	1	05/19/14 14:43	SEB	L199552
Trichlorofluoromethane	<0.0010	mg/Kg - dry	0.0010	0.0025	1	05/19/14 14:43	SEB	L199552

**Qualifiers/  
Definitions**

*	Outside QC limit	B	Analyte detected in blank
DF	Dilution Factor	J	Estimated value
ML	Method Quantitation Limit		

03180

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5724 Summer Tree Drive  
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Project ID :  
Project 714 N. Second St.  
Information : Memphis, TN

Report Date : 05/21/2014  
Received : 5/15/2014

Report Number : **14-135-0223**

**REPORT OF ANALYSIS**

Lab No : **89766**

Matrix: **Solids**

Sample ID : **MLBSTW0316**

Sampled: **5/14/2014 15:25**

**Analytical Method:** 8260B

**Prep Method:** 5030A

**Prep Batch(es):** L199550

**Date/Time Prepped:** 5/19/2014 09:30:00

Test	Results	Units	MDL	ML	DF	Date / Time Analyzed	By	Analytical Batch
1,2,3-Trichloropropane	<0.0013	mg/Kg - dry	0.0013	0.0025	1	05/19/14 14:43	SEB	L199552
1,2,4-Trimethylbenzene	<b>0.0015 J</b>	mg/Kg - dry	0.0008	0.0025	1	05/19/14 14:43	SEB	L199552
1,3,5-Trimethylbenzene	<b>0.0005 J</b>	mg/Kg - dry	0.0004	0.0025	1	05/19/14 14:43	SEB	L199552
Vinyl Acetate	<0.0033	mg/Kg - dry	0.0033	0.0510	1	05/19/14 14:43	SEB	L199552
Vinyl Chloride	<0.0008	mg/Kg - dry	0.0008	0.0025	1	05/19/14 14:43	SEB	L199552
o-Xylene	<b>0.0013 J</b>	mg/Kg - dry	0.0010	0.0025	1	05/19/14 14:43	SEB	L199552
m,p-Xylene	<b>0.0033 J</b>	mg/Kg - dry	0.0009	0.0051	1	05/19/14 14:43	SEB	L199552
Xylene (Total)	<b>0.0047</b>	mg/Kg - dry	0.0009	0.0051	1	05/19/14 14:43		L199552
Surrogate: 4-Bromofluorobenzene	103		Limits: 60-130%		1	05/19/14 14:43	SEB	L199552
Surrogate: 1,2-Dichloroethane - d4	128		Limits: 60-132%		1	05/19/14 14:43	SEB	L199552
Surrogate: Toluene-d8	99.9		Limits: 70-122%		1	05/19/14 14:43	SEB	L199552

**Analytical Method:** 8270C SIM

**Prep Method:** 3546

**Prep Batch(es):** L199302

**Date/Time Prepped:** 5/16/2014 09:00:00

Test	Results	Units	MDL	ML	DF	Date / Time Analyzed	By	Analytical Batch
Acenaphthene	<0.000111	mg/Kg - dry	0.000111	0.000842	1	05/16/14 22:38	BMP	L199485
Acenaphthylene	<0.000065	mg/Kg - dry	0.000065	0.000842	1	05/16/14 22:38	BMP	L199485
Anthracene	<0.000270	mg/Kg - dry	0.000270	0.000842	1	05/16/14 22:38	BMP	L199485
Benzo(a)anthracene	<0.000727	mg/Kg - dry	0.000727	0.000842	1	05/16/14 22:38	BMP	L199485
Benzo(a)pyrene	<0.000688	mg/Kg - dry	0.000688	0.000842	1	05/16/14 22:38	BMP	L199485
Benzo(b)fluoranthene	<b>0.000500 J</b>	mg/Kg - dry	0.000348	0.000842	1	05/16/14 22:38	BMP	L199485
Benzo(g,h,i)perylene	<b>0.000480 J</b>	mg/Kg - dry	0.000266	0.000842	1	05/16/14 22:38	BMP	L199485

Qualifiers/Definitions	*	Outside QC limit	B	Analyte detected in blank
	DF	Dilution Factor	J	Estimated value
	ML	Method Quantitation Limit		

03180

Ensafe  
Mr. Dave Fuehrer  
5724 Summer Tree Drive  
Memphis, TN 38134

Project ID :  
Project 714 N. Second St.  
Information : Memphis, TN

Report Date : 05/21/2014  
Received : 5/15/2014

Report Number : **14-135-0223**

**REPORT OF ANALYSIS**

Lab No : **89766**

Matrix: **Solids**

Sample ID : **MLBSTW0316**

Sampled: **5/14/2014 15:25**

**Analytical Method:** 8270C SIM

**Prep Method:** 3546

**Prep Batch(es):** L199302

**Date/Time Prepped:** 5/16/2014 09:00:00

Test	Results	Units	MDL	MQL	DF	Date / Time Analyzed	By	Analytical Batch
Benzo(k)fluoranthene	<0.000245	mg/Kg - dry	0.000245	0.000842	1	05/16/14 22:38	BMP	L199485
Chrysene	<0.000398	mg/Kg - dry	0.000398	0.000842	1	05/16/14 22:38	BMP	L199485
Dibenz(a,h)anthracene	<0.000363	mg/Kg - dry	0.000363	0.000842	1	05/16/14 22:38	BMP	L199485
Fluoranthene	<0.000234	mg/Kg - dry	0.000234	0.000842	1	05/16/14 22:38	BMP	L199485
Fluorene	<0.000237	mg/Kg - dry	0.000237	0.000842	1	05/16/14 22:38	BMP	L199485
Indeno(1,2,3-cd)pyrene	<0.000280	mg/Kg - dry	0.000280	0.000842	1	05/16/14 22:38	BMP	L199485
2-Methylnaphthalene	<0.000150	mg/Kg - dry	0.000150	0.000842	1	05/16/14 22:38	BMP	L199485
Naphthalene	<0.000238	mg/Kg - dry	0.000238	0.000842	1	05/16/14 22:38	BMP	L199485
Phenanthrene	<0.000605	mg/Kg - dry	0.000605	0.000842	1	05/16/14 22:38	BMP	L199485
Pyrene	<0.000243	mg/Kg - dry	0.000243	0.000842	1	05/16/14 22:38	BMP	L199485
Surrogate: 2-Fluorobiphenyl	51.7		Limits: 33-115%		1	05/16/14 22:38	BMP	L199485
Surrogate: Nitrobenzene-d5	58.2		Limits: 29-110%		1	05/16/14 22:38	BMP	L199485
Surrogate: 4-Terphenyl-d14	62.5		Limits: 33-122%		1	05/16/14 22:38	BMP	L199485

Qualifiers/Definitions	*	Outside QC limit	B	Analyte detected in blank
	DF	Dilution Factor	J	Estimated value





QC Report

Client ID Ensafe
Project Description 714 N. Second St.
Report No 14-135-0223

Analytical Method: 2540G-2011

Batch: L199267

Duplicate - L 89826-DUP

QC Measurement: RPD

DateTime Analyzed: 05/16/2014 08:25 AM

Table with 7 columns: Test Description, QC Result, Criteria, DUP Result, Sample Conc., MDL, Dilution. Row 1: % Moisture, 0.1 %, <15.0, 84.1 %, 84.2, 0.000, 1

**QC Report**

Client ID           **Ensafe**  
 Project Description   714 N. Second St.  
 Report No            14-135-0223

**Analytical Method: 6010B**

**Batch: L199471**

**Prep Method: 3050B**

**Batch: L199238   5/15/14 16:00**

**Lab Reagent Blank - LRB-L199238**

**QC Measurement:   Limit**

**DateTime Analyzed: 05/16/2014 06:18 PM**

<u>Test Description</u>	<u>LRB Result</u>	<u>MDL</u>	<u>MQL</u>	<u>Dilution</u>
Total Arsenic	<0.710 mg/Kg	0.710	1.00	1
Total Barium	<0.058 mg/Kg	0.058	0.500	1
Total Cadmium	<0.0152 mg/Kg	0.0152	0.100	1
Total Chromium	<0.034 mg/Kg	0.034	0.250	1
Total Lead	<0.143 mg/Kg	0.143	0.300	1
Total Selenium	<0.510 mg/Kg	0.510	1.00	1
Total Silver	<0.0272 mg/Kg	0.0272	0.250	1

**Laboratory Control Sample - LCS-L199238**

**QC Measurement:   % Recovery**

**DateTime Analyzed: 05/16/2014 06:14 PM**

<u>Test Description</u>	<u>QC Result</u>	<u>Criteria</u>	<u>LCS Result</u>	<u>LCS Conc.</u>	<u>MDL</u>	<u>Dilution</u>
Total Arsenic	101 %	80-120%	5.07 mg/Kg	5.00	0.710	1
Total Barium	101 %	80-120%	50.6 mg/Kg	50.0	0.058	1
Total Cadmium	100 %	80-120%	5.01 mg/Kg	5.00	0.0152	1
Total Chromium	111 %	80-120%	55.4 mg/Kg	50.0	0.034	1
Total Lead	107 %	80-120%	5.34 mg/Kg	5.00	0.143	1
Total Silver	106 %	80-120%	5.32 mg/Kg	5.00	0.0272	1

**Matrix Spike - L 89766-MS-L199238**

**QC Measurement:   % Recovery**

**DateTime Analyzed: 05/16/2014 07:09 PM**

<u>Test Description</u>	<u>QC Result</u>	<u>Criteria</u>	<u>MS Result</u>	<u>MS Conc.</u>	<u>Sample Conc.</u>	<u>MDL</u>	<u>Dilution</u>
Total Arsenic	105 %	75-125%	12.2 mg/Kg	4.70	7.28	0.710	1
Total Barium	-310 % *	75-125%	296 mg/Kg	47.0	450	0.058	1
Total Cadmium	79.4 %	75-125%	4.47 mg/Kg	4.70	0.736	0.0152	1
Total Chromium	90.0 %	75-125%	51.2 mg/Kg	47.0	8.87	0.034	1
Total Lead	96.8 %	75-125%	9.24 mg/Kg	4.70	4.69	0.143	1

\* QC Fail

**QC Report**

Client ID           **Ensafe**  
Project Description   714 N. Second St.  
Report No           14-135-0223

**Analytical Method: 6010B**

**Batch: L199471**

**Prep Method: 3050B**

**Batch: L199238   5/15/14 16:00**

**Matrix Spike - L 89766-MS-L199238**

**QC Measurement:   % Recovery**

**DateTime Analyzed: 05/16/2014 07:09 PM**

Test Description	QC Result	Criteria	MS Result	MS Conc.	Sample Conc.	MDL	Dilution
Total Silver	88.4 %	75-125%	4.94 mg/Kg	4.70	0.785	0.0272	1

**Matrix Spike Duplicate - L 89766-MSD-L199238**

**QC Measurement:   % Recovery**

**DateTime Analyzed: 05/16/2014 07:13 PM**

Test Description	QC Result	Criteria	MSD Result	MSD Conc.	Sample Conc.	MDL	Dilution
Total Arsenic	243 % *	75-125%	18.7 mg/Kg	4.70	7.28	0.710	1
Total Barium	275 % *	75-125%	579 mg/Kg	47.0	450	0.058	1
Total Cadmium	86.2 %	75-125%	4.79 mg/Kg	4.70	0.736	0.0152	1
Total Chromium	88.3 %	75-125%	50.4 mg/Kg	47.0	8.87	0.034	1
Total Lead	94.0 %	75-125%	9.11 mg/Kg	4.70	4.69	0.143	1
Total Silver	96.9 %	75-125%	5.34 mg/Kg	4.70	0.785	0.0272	1

**Matrix Spike Duplicate - L 89766-MSD-L199238**

**QC Measurement:   RPD**

**DateTime Analyzed: 05/16/2014 07:13 PM**

Test Description	QC Result	Criteria	MSD Result	MSD Conc.	Sample Conc.	MDL	Dilution
Total Arsenic	42.0 % *	<20.0	18.7 mg/Kg		12.2	0.710	1
Total Barium	64.6 % *	<20.0	579 mg/Kg		296	0.058	1
Total Cadmium	6.9 %	<20.0	4.79 mg/Kg		4.47	0.0152	1
Total Chromium	1.5 %	<20.0	50.4 mg/Kg		51.2	0.034	1
Total Lead	1.4 %	<20.0	9.11 mg/Kg		9.24	0.143	1
Total Silver	7.7 %	<20.0	5.34 mg/Kg		4.94	0.0272	1

\* QC Fail

**QC Report**

Client ID           **Ensafe**  
Project Description   714 N. Second St.  
Report No            14-135-0223

**Analytical Method: 6010B**

**Batch: L199594**

**Prep Method: 3050B**

**Batch: L199238   5/15/14 16:00**

**Laboratory Control Sample - LCS-L199238**

**QC Measurement:   % Recovery**

**DateTime Analyzed: 05/19/2014 03:27 PM**

Test Description	QC Result	Criteria	LCS Result	LCS Conc.	MDL	Dilution
Total Selenium	103 %	80-120%	5.14 mg/Kg	5.00	0.510	1

**Matrix Spike - L 89766-MS-L199238**

**QC Measurement:   % Recovery**

**DateTime Analyzed: 05/19/2014 03:46 PM**

Test Description	QC Result	Criteria	MS Result	MS Conc.	Sample Conc.	MDL	Dilution
Total Selenium	0.0 % *	75-125%	<5.11 mg/Kg	4.70	< 5.11	5.11	10

**Matrix Spike Duplicate - L 89766-MSD-L199238**

**QC Measurement:   % Recovery**

**DateTime Analyzed: 05/19/2014 03:56 PM**

Test Description	QC Result	Criteria	MSD Result	MSD Conc.	Sample Conc.	MDL	Dilution
Total Selenium	0.0 % *	75-125%	<5.11 mg/Kg	4.70	< 5.11	5.11	10

**Matrix Spike Duplicate - L 89766-MSD-L199238**

**QC Measurement:   RPD**

**DateTime Analyzed: 05/19/2014 03:56 PM**

Test Description	QC Result	Criteria	MSD Result	MSD Conc.	Sample Conc.	MDL	Dilution
Total Selenium	0.0 %	75-125%	<5.11 mg/Kg	4.70	< 5.11	5.11	10

\* QC Fail

**QC Report**

Client ID           **Ensafe**  
 Project Description   714 N. Second St.  
 Report No            14-135-0223

**Analytical Method: 7471A**

**Batch: L199672**

**Prep Method: 7471A**

**Batch: L199617   05/20/14 10:00**

**Lab Reagent Blank - LRB-L199617**

**QC Measurement:   Limit**

**DateTime Analyzed: 05/20/2014 01:56 PM**

Test Description	LRB Result	MDL	MQL	Dilution
Total Mercury	<0.00263 mg/Kg	0.00263	0.0133	1

**Laboratory Control Sample - LCS-L199617**

**QC Measurement:   % Recovery**

**DateTime Analyzed: 05/20/2014 01:58 PM**

Test Description	QC Result	Criteria	LCS Result	LCS Conc.	MDL	Dilution
Total Mercury	99.9 %	80-120%	0.333 mg/Kg	0.333	0.00263	1

**Matrix Spike - L 90323-MS-L199617**

**QC Measurement:   % Recovery**

**DateTime Analyzed: 05/20/2014 02:02 PM**

Test Description	QC Result	Criteria	MS Result	MS Conc.	Sample Conc.	MDL	Dilution
Total Mercury	103 %	80-120%	0.328 mg/Kg	0.319	< 0.00263	0.00263	1

**Matrix Spike Duplicate - L 90323-MSD-L199617**

**QC Measurement:   % Recovery**

**DateTime Analyzed: 05/20/2014 02:04 PM**

Test Description	QC Result	Criteria	MSD Result	MSD Conc.	Sample Conc.	MDL	Dilution
Total Mercury	104 %	80-120%	0.323 mg/Kg	0.312	< 0.00263	0.00263	1

**Matrix Spike Duplicate - L 90323-MSD-L199617**

**QC Measurement:   RPD**

**DateTime Analyzed: 05/20/2014 02:04 PM**

Test Description	QC Result	Criteria	MSD Result	MSD Conc.	Sample Conc.	MDL	Dilution
Total Mercury	1.5 %	<20.0	0.323 mg/Kg		0.328	0.00263	1

**QC Report**

Client ID                   **Ensafe**  
 Project Description       714 N. Second St.  
 Report No                   14-135-0223

**Analytical Method: 8260B**

**Batch: L199393**

**Prep Method: 5030A**

**Batch: L199392   5/16/14 8:00**

**Lab Reagent Blank - LRB-L199392**

**QC Measurement:   Limit**

**DateTime Analyzed: 05/16/2014 12:29 PM**

<b>Test Description</b>	<b>LRB Result</b>	<b>MDL</b>	<b>SQL</b>	<b>Dilution</b>
Acetone	<0.0046 mg/Kg	0.0046	0.0400	1
Acetonitrile	<0.0128 mg/Kg	0.0128	0.100	1
Acrolein	<0.0101 mg/Kg	0.0101	0.0400	1
Acrylonitrile	<0.0080 mg/Kg	0.0080	0.0400	1
Benzene	<0.0008 mg/Kg	0.0008	0.0020	1
Bromobenzene	<0.0009 mg/Kg	0.0009	0.0020	1
Bromochloromethane	<0.0007 mg/Kg	0.0007	0.0020	1
Bromodichloromethane	<0.0004 mg/Kg	0.0004	0.0020	1
Bromoform	<0.0006 mg/Kg	0.0006	0.0020	1
Bromomethane	<0.0012 mg/Kg	0.0012	0.0020	1
Methyl Ethyl Ketone (MEK)	<0.0061 mg/Kg	0.0061	0.0400	1
n-Butylbenzene	<0.0007 mg/Kg	0.0007	0.0020	1
sec-Butyl benzene	<0.0003 mg/Kg	0.0003	0.0020	1
tert-Butyl benzene	<0.0014 mg/Kg	0.0014	0.0020	1
Carbon Disulfide	<0.0004 mg/Kg	0.0004	0.0020	1
Carbon Tetrachloride	<0.0005 mg/Kg	0.0005	0.0020	1
Chlorobenzene	<0.0008 mg/Kg	0.0008	0.0020	1
Chlorodibromomethane	<0.0009 mg/Kg	0.0009	0.0020	1
Chloroethane	<0.0003 mg/Kg	0.0003	0.0020	1
2-Chloroethylvinyl Ether	<0.0020 mg/Kg	0.0020	0.0020	1
Chloroform	<0.0004 mg/Kg	0.0004	0.0020	1
Chloromethane	<0.0007 mg/Kg	0.0007	0.0020	1
2-Chlorotoluene	<0.0002 mg/Kg	0.0002	0.0020	1
4-Chlorotoluene	<0.0008 mg/Kg	0.0008	0.0020	1
1,2-Dibromo-3-Chloropropane	<0.0050 mg/Kg	0.0050	0.0100	1
1,2-Dibromoethane	<0.0011 mg/Kg	0.0011	0.0020	1
Dibromomethane	<0.0011 mg/Kg	0.0011	0.0020	1
1,2-Dichlorobenzene	<0.0010 mg/Kg	0.0010	0.0020	1
1,3-Dichlorobenzene	<0.0008 mg/Kg	0.0008	0.0020	1

**QC Report**

Client ID                   **Ensafe**  
 Project Description       714 N. Second St.  
 Report No                 14-135-0223

**Analytical Method: 8260B**

**Batch: L199393**

**Prep Method: 5030A**

**Batch: L199392   5/16/14 8:00**

**Lab Reagent Blank - LRB-L199392**

**QC Measurement:   Limit**

**DateTime Analyzed: 05/16/2014 12:29 PM**

<b>Test Description</b>	<b>LRB Result</b>	<b>MDL</b>	<b>SQL</b>	<b>Dilution</b>
1,4-Dichlorobenzene	<0.0007 mg/Kg	0.0007	0.0020	1
Dichlorodifluoromethane	<0.0005 mg/Kg	0.0005	0.0020	1
1,1-Dichloroethane	<0.0003 mg/Kg	0.0003	0.0020	1
1,2-Dichloroethane	<0.0010 mg/Kg	0.0010	0.0020	1
1,1-Dichloroethene	<0.0004 mg/Kg	0.0004	0.0020	1
cis-1,2-Dichloroethene	<0.0005 mg/Kg	0.0005	0.0020	1
trans-1,2-Dichloroethene	<0.0004 mg/Kg	0.0004	0.0020	1
1,2-Dichloropropane	<0.0011 mg/Kg	0.0011	0.0020	1
1,3-Dichloropropane	<0.0011 mg/Kg	0.0011	0.0020	1
2,2-Dichloropropane	<0.0007 mg/Kg	0.0007	0.0020	1
1,1-Dichloropropene	<0.0009 mg/Kg	0.0009	0.0020	1
cis-1,3-Dichloropropene	<0.0006 mg/Kg	0.0006	0.0020	1
trans-1,3-Dichloropropene	<0.0009 mg/Kg	0.0009	0.0020	1
Ethyl Acetate	<0.0016 mg/Kg	0.0016	0.0400	1
Ethylbenzene	<0.0005 mg/Kg	0.0005	0.0020	1
Hexachlorobutadiene	<0.0008 mg/Kg	0.0008	0.0020	1
2-Hexanone	<0.0019 mg/Kg	0.0019	0.0100	1
Iodomethane	<0.0009 mg/Kg	0.0009	0.0100	1
Isopropylbenzene	<0.0003 mg/Kg	0.0003	0.0020	1
4-Isopropyl toluene	<0.0005 mg/Kg	0.0005	0.0020	1
Methyl tert-butyl ether (MTBE)	<0.0004 mg/Kg	0.0004	0.0020	1
4-Methyl-2-Pentanone	<0.0029 mg/Kg	0.0029	0.0100	1
Methylene Chloride	<0.0015 mg/Kg	0.0015	0.0100	1
Naphthalene	<0.0031 mg/Kg	0.0031	0.0100	1
n-Propylbenzene	<0.0002 mg/Kg	0.0002	0.0020	1
Styrene	<0.0003 mg/Kg	0.0003	0.0020	1
1,1,1,2-Tetrachloroethane	<0.0005 mg/Kg	0.0005	0.0020	1
1,1,2,2-Tetrachloroethane	<0.0006 mg/Kg	0.0006	0.0020	1
Tetrachloroethene	<0.0016 mg/Kg	0.0016	0.0020	1



**QC Report**

Client ID                   **Ensafe**  
 Project Description       714 N. Second St.  
 Report No                 14-135-0223

**Analytical Method: 8260B**

**Batch: L199393**

**Prep Method: 5030A**

**Batch: L199392   5/16/14 8:00**

**Lab Reagent Blank - LRB-L199392**

**QC Measurement:   Limit**

**DateTime Analyzed: 05/16/2014 12:29 PM**

Test Description	LRB Result	MDL	SQL	Dilution
Toluene	<0.0025 mg/Kg	0.0025	0.0100	1
1,2,3-Trichlorobenzene	<0.0010 mg/Kg	0.0010	0.0020	1
1,2,4-Trichlorobenzene	<0.0014 mg/Kg	0.0014	0.0020	1
1,1,1-Trichloroethane	<0.0008 mg/Kg	0.0008	0.0020	1
1,1,2-Trichloroethane	<0.0017 mg/Kg	0.0017	0.0020	1
Trichloroethene	<0.0013 mg/Kg	0.0013	0.0020	1
Trichlorofluoromethane	<0.0008 mg/Kg	0.0008	0.0020	1
1,2,3-Trichloropropane	<0.0010 mg/Kg	0.0010	0.0020	1
1,2,4-Trimethylbenzene	<0.0006 mg/Kg	0.0006	0.0020	1
1,3,5-Trimethylbenzene	<0.0003 mg/Kg	0.0003	0.0020	1
Vinyl Acetate	<0.0026 mg/Kg	0.0026	0.0400	1
Vinyl Chloride	<0.0006 mg/Kg	0.0006	0.0020	1
o-Xylene	<0.0008 mg/Kg	0.0008	0.0020	1
m,p-Xylene	<0.0007 mg/Kg	0.0007	0.0040	1

**Surrogate Recovery:**

4-Bromofluorobenzene	126	0.126 mg/Kg	0.100	1
1,2-Dichloroethane - d4	99.1	0.0991 mg/Kg	0.100	1
Toluene-d8	105	0.105 mg/Kg	0.100	1

**Laboratory Control Sample - LCS-L199392**

**QC Measurement:   % Recovery**

**DateTime Analyzed: 05/16/2014 09:51 AM**

Test Description	QC Result	Criteria	LCS Result	LCS Conc.	MDL	Dilution
Acetone	91.5 %	40-140%	0.183 mg/Kg	0.200	0.0046	1
Acetonitrile	86.0 %	40-140%	1.72 mg/Kg	2.00	0.0128	1
Acrolein	144 % *	40-140%	0.288 mg/Kg	0.200	0.0101	1
Acrylonitrile	97.5 %	40-140%	0.195 mg/Kg	0.200	0.0080	1
Benzene	85.0 %	80-120%	0.170 mg/Kg	0.200	0.0008	1
Bromobenzene	103 %	75-125%	0.205 mg/Kg	0.200	0.0009	1

\* QC Fail

### QC Report

Client ID           **Ensafe**  
 Project Description   714 N. Second St.  
 Report No            14-135-0223

**Analytical Method: 8260B**

**Batch: L199393**

**Prep Method: 5030A**

**Batch: L199392   5/16/14 8:00**

**Laboratory Control Sample - LCS-L199392**

**QC Measurement:   % Recovery**

**DateTime Analyzed: 05/16/2014 09:51 AM**

Test Description	QC Result	Criteria	LCS Result	LCS Conc.	MDL	Dilution
Bromochloromethane	112 %	65-130%	0.223 mg/Kg	0.200	0.0007	1
Bromodichloromethane	89.0 %	75-120%	0.178 mg/Kg	0.200	0.0004	1
Bromoform	98.5 %	70-130%	0.197 mg/Kg	0.200	0.0006	1
Bromomethane	113 %	40-140%	0.225 mg/Kg	0.200	0.0012	1
Methyl Ethyl Ketone (MEK)	92.5 %	40-140%	0.185 mg/Kg	0.200	0.0061	1
n-Butylbenzene	114 %	70-135%	0.227 mg/Kg	0.200	0.0007	1
sec-Butyl benzene	116 %	70-125%	0.231 mg/Kg	0.200	0.0003	1
tert-Butyl benzene	115 %	70-130%	0.229 mg/Kg	0.200	0.0014	1
Carbon Disulfide	85.5 %	40-140%	0.171 mg/Kg	0.200	0.0004	1
Carbon Tetrachloride	93.0 %	65-140%	0.186 mg/Kg	0.200	0.0005	1
Chlorobenzene	106 %	80-120%	0.212 mg/Kg	0.200	0.0008	1
Chlorodibromomethane	89.5 %	75-120%	0.179 mg/Kg	0.200	0.0009	1
Chloroethane	75.0 %	60-135%	0.150 mg/Kg	0.200	0.0003	1
2-Chloroethylvinyl Ether	45.2 %	40-140%	0.0905 mg/Kg	0.200	0.0020	1
Chloroform	97.0 %	80-120%	0.194 mg/Kg	0.200	0.0004	1
Chloromethane	109 %	40-125%	0.218 mg/Kg	0.200	0.0007	1
2-Chlorotoluene	88.5 %	75-125%	0.177 mg/Kg	0.200	0.0002	1
4-Chlorotoluene	115 %	75-130%	0.230 mg/Kg	0.200	0.0008	1
1,2-Dibromo-3-Chloropropane	101 %	50-130%	0.202 mg/Kg	0.200	0.0050	1
1,2-Dibromoethane	83.5 %	80-120%	0.167 mg/Kg	0.200	0.0011	1
Dibromomethane	93.5 %	75-125%	0.187 mg/Kg	0.200	0.0011	1
1,2-Dichlorobenzene	111 %	70-120%	0.221 mg/Kg	0.200	0.0010	1
1,3-Dichlorobenzene	112 %	75-125%	0.223 mg/Kg	0.200	0.0008	1
1,4-Dichlorobenzene	123 %	75-125%	0.245 mg/Kg	0.200	0.0007	1
Dichlorodifluoromethane	116 %	40-140%	0.231 mg/Kg	0.200	0.0005	1
1,1-Dichloroethane	94.5 %	70-135%	0.189 mg/Kg	0.200	0.0003	1
1,2-Dichloroethane	100 %	70-130%	0.200 mg/Kg	0.200	0.0010	1
1,1-Dichloroethene	85.5 %	80-120%	0.171 mg/Kg	0.200	0.0004	1
cis-1,2-Dichloroethene	90.0 %	70-125%	0.180 mg/Kg	0.200	0.0005	1

**QC Report**

Client ID           **Ensafe**  
 Project Description   714 N. Second St.  
 Report No            14-135-0223

**Analytical Method: 8260B**

**Batch: L199393**

**Prep Method: 5030A**

**Batch: L199392   5/16/14 8:00**

**Laboratory Control Sample - LCS-L199392**

**QC Measurement:   % Recovery**

**DateTime Analyzed: 05/16/2014 09:51 AM**

Test Description	QC Result	Criteria	LCS Result	LCS Conc.	MDL	Dilution
trans-1,2-Dichloroethene	89.0 %	60-140%	0.178 mg/Kg	0.200	0.0004	1
1,2-Dichloropropane	90.5 %	80-120%	0.181 mg/Kg	0.200	0.0011	1
1,3-Dichloropropane	92.0 %	75-125%	0.184 mg/Kg	0.200	0.0011	1
2,2-Dichloropropane	105 %	70-135%	0.209 mg/Kg	0.200	0.0007	1
1,1-Dichloropropene	100 %	75-130%	0.200 mg/Kg	0.200	0.0009	1
cis-1,3-Dichloropropene	90.5 %	70-130%	0.181 mg/Kg	0.200	0.0006	1
trans-1,3-Dichloropropene	84.0 %	55-140%	0.168 mg/Kg	0.200	0.0009	1
Ethyl Acetate	86.5 %	40-125%	0.173 mg/Kg	0.200	0.0016	1
Ethylbenzene	101 %	80-120%	0.201 mg/Kg	0.200	0.0005	1
Hexachlorobutadiene	122 %	50-140%	0.244 mg/Kg	0.200	0.0008	1
2-Hexanone	80.0 %	55-130%	0.160 mg/Kg	0.200	0.0019	1
Iodomethane	66.0 %	40-125%	0.132 mg/Kg	0.200	0.0009	1
Isopropylbenzene	108 %	75-125%	0.216 mg/Kg	0.200	0.0003	1
4-Isopropyl toluene	103 %	75-130%	0.206 mg/Kg	0.200	0.0005	1
Methyl tert-butyl ether (MTBE)	93.0 %	65-125%	0.186 mg/Kg	0.200	0.0004	1
4-Methyl-2-Pentanone	85.5 %	60-135%	0.171 mg/Kg	0.200	0.0029	1
Methylene Chloride	86.5 %	55-140%	0.173 mg/Kg	0.200	0.0015	1
Naphthalene	112 %	55-140%	0.224 mg/Kg	0.200	0.0031	1
n-Propylbenzene	121 %	70-130%	0.241 mg/Kg	0.200	0.0002	1
Styrene	98.0 %	65-135%	0.196 mg/Kg	0.200	0.0003	1
1,1,1,2-Tetrachloroethane	106 %	70-130%	0.211 mg/Kg	0.200	0.0005	1
1,1,1,2,2-Tetrachloroethane	113 %	65-130%	0.226 mg/Kg	0.200	0.0006	1
Tetrachloroethene	89.0 %	60-145%	0.178 mg/Kg	0.200	0.0016	1
Toluene	80.0 %	80-120%	0.160 mg/Kg	0.200	0.0025	1
1,2,3-Trichlorobenzene	118 %	55-140%	0.236 mg/Kg	0.200	0.0010	1
1,2,4-Trichlorobenzene	115 %	65-135%	0.230 mg/Kg	0.200	0.0014	1
1,1,1-Trichloroethane	94.0 %	65-130%	0.188 mg/Kg	0.200	0.0008	1
1,1,2-Trichloroethane	81.0 %	75-125%	0.162 mg/Kg	0.200	0.0017	1
Trichloroethene	86.5 %	70-125%	0.173 mg/Kg	0.200	0.0013	1

**QC Report**

Client ID           **Ensafe**  
Project Description   714 N. Second St.  
Report No           14-135-0223

**Analytical Method: 8260B**

**Batch: L199393**

**Prep Method: 5030A**

**Batch: L199392   5/16/14 8:00**

**Laboratory Control Sample - LCS-L199392**

**QC Measurement:   % Recovery**

**DateTime Analyzed: 05/16/2014 09:51 AM**

Test Description	QC Result	Criteria	LCS Result	LCS Conc.	MDL	Dilution
Trichlorofluoromethane	104 %	45-150%	0.207 mg/Kg	0.200	0.0008	1
1,2,3-Trichloropropane	104 %	75-125%	0.207 mg/Kg	0.200	0.0010	1
1,2,4-Trimethylbenzene	118 %	75-130%	0.236 mg/Kg	0.200	0.0006	1
1,3,5-Trimethylbenzene	112 %	75-130%	0.223 mg/Kg	0.200	0.0003	1
Vinyl Acetate	98.0 %	40-125%	0.196 mg/Kg	0.200	0.0026	1
Vinyl Chloride	97.5 %	80-120%	0.195 mg/Kg	0.200	0.0006	1
o-Xylene	106 %	75-130%	0.211 mg/Kg	0.200	0.0008	1
m,p-Xylene	102 %	75-130%	0.407 mg/Kg	0.400	0.0007	1

**Surrogate Recovery:**

4-Bromofluorobenzene	111 %	60-130%	0.111 mg/Kg	0.100		1
1,2-Dichloroethane - d4	74.2 %	60-132%	0.0742 mg/Kg	0.100		1
Toluene-d8	80.1 %	70-122%	0.0801 mg/Kg	0.100		1

**Laboratory Control Sample Dupl - LCSD-L199392**

**QC Measurement:   % Recovery**

**DateTime Analyzed: 05/16/2014 09:11 AM**

Test Description	QC Result	Criteria	LCSD Result	LCSD Conc.	Sample Conc.	MDL	Dilution
Acetone	88.5 %	40-140%	0.177 mg/Kg	0.200		0.0046	1
Acetonitrile	74.0 %	40-140%	1.48 mg/Kg	2.00		0.0128	1
Acrolein	158 % *	40-140%	0.316 mg/Kg	0.200		0.0101	1
Acrylonitrile	82.5 %	40-140%	0.165 mg/Kg	0.200		0.0080	1
Benzene	83.0 %	80-120%	0.166 mg/Kg	0.200		0.0008	1
Bromobenzene	98.5 %	75-125%	0.197 mg/Kg	0.200		0.0009	1
Bromochloromethane	84.0 %	65-130%	0.168 mg/Kg	0.200		0.0007	1
Bromodichloromethane	85.0 %	75-120%	0.170 mg/Kg	0.200		0.0004	1
Bromoform	93.5 %	70-130%	0.187 mg/Kg	0.200		0.0006	1
Bromomethane	99.5 %	40-140%	0.199 mg/Kg	0.200		0.0012	1
Methyl Ethyl Ketone (MEK)	86.5 %	40-140%	0.173 mg/Kg	0.200		0.0061	1
n-Butylbenzene	111 %	70-135%	0.221 mg/Kg	0.200		0.0007	1

\* QC Fail

**QC Report**

Client ID           **Ensafe**  
 Project Description   714 N. Second St.  
 Report No            14-135-0223

**Analytical Method: 8260B**

**Batch: L199393**

**Prep Method: 5030A**

**Batch: L199392   5/16/14 8:00**

**Laboratory Control Sample Dupl - LCSD-L199392**

**QC Measurement:   % Recovery**

**DateTime Analyzed: 05/16/2014 09:11 AM**

Test Description	QC Result	Criteria	LCSD Result	LCSD Conc.	Sample Conc.	MDL	Dilution
sec-Butyl benzene	113 %	70-125%	0.225 mg/Kg	0.200		0.0003	1
tert-Butyl benzene	120 %	70-130%	0.239 mg/Kg	0.200		0.0014	1
Carbon Disulfide	76.5 %	40-140%	0.153 mg/Kg	0.200		0.0004	1
Carbon Tetrachloride	88.0 %	65-140%	0.176 mg/Kg	0.200		0.0005	1
Chlorobenzene	97.0 %	80-120%	0.194 mg/Kg	0.200		0.0008	1
Chlorodibromomethane	97.0 %	75-120%	0.194 mg/Kg	0.200		0.0009	1
Chloroethane	73.0 %	60-135%	0.146 mg/Kg	0.200		0.0003	1
2-Chloroethylvinyl Ether	40.9 %	40-140%	0.0819 mg/Kg	0.200		0.0020	1
Chloroform	86.5 %	80-120%	0.173 mg/Kg	0.200		0.0004	1
Chloromethane	101 %	40-125%	0.202 mg/Kg	0.200		0.0007	1
2-Chlorotoluene	87.5 %	75-125%	0.175 mg/Kg	0.200		0.0002	1
4-Chlorotoluene	107 %	75-130%	0.213 mg/Kg	0.200		0.0008	1
1,2-Dibromo-3-Chloropropane	84.5 %	50-130%	0.169 mg/Kg	0.200		0.0050	1
1,2-Dibromoethane	83.5 %	80-120%	0.167 mg/Kg	0.200		0.0011	1
Dibromomethane	87.5 %	75-125%	0.175 mg/Kg	0.200		0.0011	1
1,2-Dichlorobenzene	104 %	70-120%	0.207 mg/Kg	0.200		0.0010	1
1,3-Dichlorobenzene	116 %	75-125%	0.232 mg/Kg	0.200		0.0008	1
1,4-Dichlorobenzene	105 %	75-125%	0.209 mg/Kg	0.200		0.0007	1
Dichlorodifluoromethane	118 %	40-140%	0.235 mg/Kg	0.200		0.0005	1
1,1-Dichloroethane	85.0 %	70-135%	0.170 mg/Kg	0.200		0.0003	1
1,2-Dichloroethane	92.0 %	70-130%	0.184 mg/Kg	0.200		0.0010	1
1,1-Dichloroethene	80.5 %	80-120%	0.161 mg/Kg	0.200		0.0004	1
cis-1,2-Dichloroethene	79.0 %	70-125%	0.158 mg/Kg	0.200		0.0005	1
trans-1,2-Dichloroethene	83.0 %	60-140%	0.166 mg/Kg	0.200		0.0004	1
1,2-Dichloropropane	83.0 %	80-120%	0.166 mg/Kg	0.200		0.0011	1
1,3-Dichloropropane	94.5 %	75-125%	0.189 mg/Kg	0.200		0.0011	1
2,2-Dichloropropane	88.0 %	70-135%	0.176 mg/Kg	0.200		0.0007	1
1,1-Dichloropropene	92.0 %	75-130%	0.184 mg/Kg	0.200		0.0009	1
cis-1,3-Dichloropropene	87.5 %	70-130%	0.175 mg/Kg	0.200		0.0006	1

**QC Report**

Client ID           **Ensafe**  
 Project Description   714 N. Second St.  
 Report No            14-135-0223

**Analytical Method: 8260B**

**Batch: L199393**

**Prep Method: 5030A**

**Batch: L199392   5/16/14 8:00**

**Laboratory Control Sample Dupl - LCSD-L199392**

**QC Measurement:   % Recovery**

**DateTime Analyzed: 05/16/2014 09:11 AM**

Test Description	QC Result	Criteria	LCSD Result	LCSD Conc.	Sample Conc.	MDL	Dilution
trans-1,3-Dichloropropene	93.0 %	55-140%	0.186 mg/Kg	0.200		0.0009	1
Ethyl Acetate	77.5 %	40-125%	0.155 mg/Kg	0.200		0.0016	1
Ethylbenzene	96.0 %	80-120%	0.192 mg/Kg	0.200		0.0005	1
Hexachlorobutadiene	107 %	50-140%	0.213 mg/Kg	0.200		0.0008	1
2-Hexanone	88.5 %	55-130%	0.177 mg/Kg	0.200		0.0019	1
Iodomethane	64.0 %	40-125%	0.128 mg/Kg	0.200		0.0009	1
Isopropylbenzene	92.5 %	75-125%	0.185 mg/Kg	0.200		0.0003	1
4-Isopropyl toluene	98.0 %	75-130%	0.196 mg/Kg	0.200		0.0005	1
Methyl tert-butyl ether (MTBE)	80.5 %	65-125%	0.161 mg/Kg	0.200		0.0004	1
4-Methyl-2-Pentanone	87.5 %	60-135%	0.175 mg/Kg	0.200		0.0029	1
Methylene Chloride	81.0 %	55-140%	0.162 mg/Kg	0.200		0.0015	1
Naphthalene	95.0 %	55-140%	0.190 mg/Kg	0.200		0.0031	1
n-Propylbenzene	119 %	70-130%	0.237 mg/Kg	0.200		0.0002	1
Styrene	100 %	65-135%	0.200 mg/Kg	0.200		0.0003	1
1,1,1,2-Tetrachloroethane	98.0 %	70-130%	0.196 mg/Kg	0.200		0.0005	1
1,1,2,2-Tetrachloroethane	106 %	65-130%	0.211 mg/Kg	0.200		0.0006	1
Tetrachloroethene	91.0 %	60-145%	0.182 mg/Kg	0.200		0.0016	1
Toluene	92.0 %	80-120%	0.184 mg/Kg	0.200		0.0025	1
1,2,3-Trichlorobenzene	102 %	55-140%	0.204 mg/Kg	0.200		0.0010	1
1,2,4-Trichlorobenzene	106 %	65-135%	0.212 mg/Kg	0.200		0.0014	1
1,1,1-Trichloroethane	85.0 %	65-130%	0.170 mg/Kg	0.200		0.0008	1
1,1,2-Trichloroethane	85.0 %	75-125%	0.170 mg/Kg	0.200		0.0017	1
Trichloroethene	83.5 %	70-125%	0.167 mg/Kg	0.200		0.0013	1
Trichlorofluoromethane	92.5 %	45-150%	0.185 mg/Kg	0.200		0.0008	1
1,2,3-Trichloropropane	93.0 %	75-125%	0.186 mg/Kg	0.200		0.0010	1
1,2,4-Trimethylbenzene	124 %	75-130%	0.247 mg/Kg	0.200		0.0006	1
1,3,5-Trimethylbenzene	115 %	75-130%	0.229 mg/Kg	0.200		0.0003	1
Vinyl Acetate	92.0 %	40-125%	0.184 mg/Kg	0.200		0.0026	1
Vinyl Chloride	108 %	80-120%	0.215 mg/Kg	0.200		0.0006	1

**QC Report**

Client ID           **Ensafe**  
Project Description   714 N. Second St.  
Report No           14-135-0223

**Analytical Method: 8260B**

**Batch: L199393**

**Prep Method: 5030A**

**Batch: L199392   5/16/14 8:00**

**Laboratory Control Sample Dupl - LCSD-L199392**

**QC Measurement:   % Recovery**

**DateTime Analyzed: 05/16/2014 09:11 AM**

Test Description	QC Result	Criteria	LCSD Result	LCSD Conc.	Sample Conc.	MDL	Dilution
o-Xylene	96.5 %	75-130%	0.193 mg/Kg	0.200		0.0008	1
m,p-Xylene	98.2 %	75-130%	0.393 mg/Kg	0.400		0.0007	1
<b>Surrogate Recovery:</b>							
4-Bromofluorobenzene	107 %	60-130%	0.107 mg/Kg	0.100			1
1,2-Dichloroethane - d4	76.7 %	60-132%	0.0767 mg/Kg	0.100			1
Toluene-d8	93.0 %	70-122%	0.0930 mg/Kg	0.100			1

**Laboratory Control Sample Dupl - LCSD-L199392**

**QC Measurement:   RPD**

**DateTime Analyzed: 05/16/2014 09:11 AM**

Test Description	QC Result	Criteria	LCSD Result	LCSD Conc.	Sample Conc.	MDL	Dilution
Acetone	3.3 %	< 20	0.177 mg/Kg		0.183	0.0046	1
Acetonitrile	15.0 %	< 20	1.48 mg/Kg		1.72	0.0128	1
Acrolein	9.2 %	< 20	0.316 mg/Kg		0.288	0.0101	1
Acrylonitrile	16.6 %	< 20	0.165 mg/Kg		0.195	0.0080	1
Benzene	2.3 %	< 20	0.166 mg/Kg		0.170	0.0008	1
Bromobenzene	3.9 %	< 20	0.197 mg/Kg		0.205	0.0009	1
Bromochloromethane	28.1 % *	< 20	0.168 mg/Kg		0.223	0.0007	1
Bromodichloromethane	4.5 %	< 20	0.170 mg/Kg		0.178	0.0004	1
Bromoform	5.2 %	< 20	0.187 mg/Kg		0.197	0.0006	1
Bromomethane	12.2 %	< 20	0.199 mg/Kg		0.225	0.0012	1
Methyl Ethyl Ketone (MEK)	6.7 %	< 20	0.173 mg/Kg		0.185	0.0061	1
n-Butylbenzene	2.6 %	< 20	0.221 mg/Kg		0.227	0.0007	1
sec-Butyl benzene	2.6 %	< 20	0.225 mg/Kg		0.231	0.0003	1
tert-Butyl benzene	4.2 %	< 20	0.239 mg/Kg		0.229	0.0014	1
Carbon Disulfide	11.1 %	< 20	0.153 mg/Kg		0.171	0.0004	1
Carbon Tetrachloride	5.5 %	< 20	0.176 mg/Kg		0.186	0.0005	1
Chlorobenzene	8.8 %	< 20	0.194 mg/Kg		0.212	0.0008	1
Chlorodibromomethane	8.0 %	< 20	0.194 mg/Kg		0.179	0.0009	1
Chloroethane	2.7 %	< 20	0.146 mg/Kg		0.150	0.0003	1

\* **QC Fail**



**QC Report**

Client ID           **Ensafe**  
 Project Description   714 N. Second St.  
 Report No            14-135-0223

**Analytical Method: 8260B**

**Batch: L199393**

**Prep Method: 5030A**

**Batch: L199392   5/16/14 8:00**

**Laboratory Control Sample Dupl - LCSD-L199392**

**QC Measurement:   RPD**

**DateTime Analyzed: 05/16/2014 09:11 AM**

Test Description	QC Result	Criteria	LCSD Result	LCSD Conc.	Sample Conc.	MDL	Dilution
2-Chloroethylvinyl Ether	9.9 %	< 20	0.0819 mg/Kg		0.0905	0.0020	1
Chloroform	11.4 %	< 20	0.173 mg/Kg		0.194	0.0004	1
Chloromethane	7.6 %	< 20	0.202 mg/Kg		0.218	0.0007	1
2-Chlorotoluene	1.1 %	< 20	0.175 mg/Kg		0.177	0.0002	1
4-Chlorotoluene	7.6 %	< 20	0.213 mg/Kg		0.230	0.0008	1
1,2-Dibromo-3-Chloropropane	17.7 %	< 20	0.169 mg/Kg		0.202	0.0050	1
1,2-Dibromoethane	0.0 %	< 20	0.167 mg/Kg		0.167	0.0011	1
Dibromomethane	6.6 %	< 20	0.175 mg/Kg		0.187	0.0011	1
1,2-Dichlorobenzene	6.5 %	< 20	0.207 mg/Kg		0.221	0.0010	1
1,3-Dichlorobenzene	3.9 %	< 20	0.232 mg/Kg		0.223	0.0008	1
1,4-Dichlorobenzene	15.8 %	< 20	0.209 mg/Kg		0.245	0.0007	1
Dichlorodifluoromethane	1.7 %	< 20	0.235 mg/Kg		0.231	0.0005	1
1,1-Dichloroethane	10.5 %	< 20	0.170 mg/Kg		0.189	0.0003	1
1,2-Dichloroethane	8.3 %	< 20	0.184 mg/Kg		0.200	0.0010	1
1,1-Dichloroethene	6.0 %	< 20	0.161 mg/Kg		0.171	0.0004	1
cis-1,2-Dichloroethene	13.0 %	< 20	0.158 mg/Kg		0.180	0.0005	1
trans-1,2-Dichloroethene	6.9 %	< 20	0.166 mg/Kg		0.178	0.0004	1
1,2-Dichloropropane	8.6 %	< 20	0.166 mg/Kg		0.181	0.0011	1
1,3-Dichloropropane	2.6 %	< 20	0.189 mg/Kg		0.184	0.0011	1
2,2-Dichloropropane	17.1 %	< 20	0.176 mg/Kg		0.209	0.0007	1
1,1-Dichloropropene	8.3 %	< 20	0.184 mg/Kg		0.200	0.0009	1
cis-1,3-Dichloropropene	3.3 %	< 20	0.175 mg/Kg		0.181	0.0006	1
trans-1,3-Dichloropropene	10.1 %	< 20	0.186 mg/Kg		0.168	0.0009	1
Ethyl Acetate	10.9 %	< 20	0.155 mg/Kg		0.173	0.0016	1
Ethylbenzene	4.5 %	< 20	0.192 mg/Kg		0.201	0.0005	1
Hexachlorobutadiene	13.5 %	< 20	0.213 mg/Kg		0.244	0.0008	1
2-Hexanone	10.0 %	< 20	0.177 mg/Kg		0.160	0.0019	1
Iodomethane	3.0 %	< 20	0.128 mg/Kg		0.132	0.0009	1
Isopropylbenzene	15.4 %	< 20	0.185 mg/Kg		0.216	0.0003	1

**QC Report**

Client ID           **Ensafe**  
 Project Description   714 N. Second St.  
 Report No           14-135-0223

**Analytical Method: 8260B**

**Batch: L199393**

**Prep Method: 5030A**

**Batch: L199392   5/16/14 8:00**

**Laboratory Control Sample Dupl - LCSD-L199392**

**QC Measurement:   RPD**

**DateTime Analyzed: 05/16/2014 09:11 AM**

Test Description	QC Result	Criteria	LCSD Result	LCSD Conc.	Sample Conc.	MDL	Dilution
4-Isopropyl toluene	4.9 %	< 20	0.196 mg/Kg		0.206	0.0005	1
Methyl tert-butyl ether (MTBE)	14.4 %	< 20	0.161 mg/Kg		0.186	0.0004	1
4-Methyl-2-Pentanone	2.3 %	< 20	0.175 mg/Kg		0.171	0.0029	1
Methylene Chloride	6.5 %	< 20	0.162 mg/Kg		0.173	0.0015	1
Naphthalene	16.4 %	< 20	0.190 mg/Kg		0.224	0.0031	1
n-Propylbenzene	1.6 %	< 20	0.237 mg/Kg		0.241	0.0002	1
Styrene	2.0 %	< 20	0.200 mg/Kg		0.196	0.0003	1
1,1,1,2-Tetrachloroethane	7.3 %	< 20	0.196 mg/Kg		0.211	0.0005	1
1,1,2,2-Tetrachloroethane	6.8 %	< 20	0.211 mg/Kg		0.226	0.0006	1
Tetrachloroethene	2.2 %	< 20	0.182 mg/Kg		0.178	0.0016	1
Toluene	13.9 %	< 20	0.184 mg/Kg		0.160	0.0025	1
1,2,3-Trichlorobenzene	14.5 %	< 20	0.204 mg/Kg		0.236	0.0010	1
1,2,4-Trichlorobenzene	8.1 %	< 20	0.212 mg/Kg		0.230	0.0014	1
1,1,1-Trichloroethane	10.0 %	< 20	0.170 mg/Kg		0.188	0.0008	1
1,1,2-Trichloroethane	4.8 %	< 20	0.170 mg/Kg		0.162	0.0017	1
Trichloroethene	3.5 %	< 20	0.167 mg/Kg		0.173	0.0013	1
Trichlorofluoromethane	11.2 %	< 20	0.185 mg/Kg		0.207	0.0008	1
1,2,3-Trichloropropane	10.6 %	< 20	0.186 mg/Kg		0.207	0.0010	1
1,2,4-Trimethylbenzene	4.5 %	< 20	0.247 mg/Kg		0.236	0.0006	1
1,3,5-Trimethylbenzene	2.6 %	< 20	0.229 mg/Kg		0.223	0.0003	1
Vinyl Acetate	6.3 %	< 20	0.184 mg/Kg		0.196	0.0026	1
Vinyl Chloride	9.7 %	< 20	0.215 mg/Kg		0.195	0.0006	1
o-Xylene	8.9 %	< 20	0.193 mg/Kg		0.211	0.0008	1
m,p-Xylene	3.5 %	< 20	0.393 mg/Kg		0.407	0.0007	1

**QC Report**

Client ID           **Ensafe**  
 Project Description   714 N. Second St.  
 Report No            14-135-0223

**Analytical Method: 8260B**

**Batch: L199552**

**Prep Method: 5030A**

**Batch: L199550   05/19/2014 09:30 AM**

**Lab Reagent Blank - LRB-L199550**

**QC Measurement:   Limit**

**DateTime Analyzed: 05/19/2014 12:16 PM**

<b>Test Description</b>	<b>LRB Result</b>	<b>Qualifier</b>	<b>MDL</b>	<b>MQL</b>	<b>Dilution</b>
Acetone	<0.0046 mg/Kg		0.0046	0.0400	1
Acetonitrile	<0.0128 mg/Kg		0.0128	0.100	1
Acrolein	<0.0101 mg/Kg		0.0101	0.0400	1
Acrylonitrile	<0.0080 mg/Kg		0.0080	0.0400	1
Benzene	<0.0008 mg/Kg		0.0008	0.0020	1
Bromobenzene	<0.0009 mg/Kg		0.0009	0.0020	1
Bromochloromethane	<0.0007 mg/Kg		0.0007	0.0020	1
Bromodichloromethane	<0.0004 mg/Kg		0.0004	0.0020	1
Bromoform	<0.0006 mg/Kg		0.0006	0.0020	1
Bromomethane	<0.0012 mg/Kg		0.0012	0.0020	1
Methyl Ethyl Ketone (MEK)	<0.0061 mg/Kg		0.0061	0.0400	1
n-Butylbenzene	<0.0007 mg/Kg		0.0007	0.0020	1
sec-Butyl benzene	<0.0003 mg/Kg		0.0003	0.0020	1
tert-Butyl benzene	<0.0014 mg/Kg		0.0014	0.0020	1
Carbon Disulfide	0.0005 mg/Kg	J	0.0004	0.0020	1
Carbon Tetrachloride	<0.0005 mg/Kg		0.0005	0.0020	1
Chlorobenzene	<0.0008 mg/Kg		0.0008	0.0020	1
Chlorodibromomethane	<0.0009 mg/Kg		0.0009	0.0020	1
Chloroethane	<0.0003 mg/Kg		0.0003	0.0020	1
2-Chloroethylvinyl Ether	<0.0020 mg/Kg		0.0020	0.0020	1
Chloroform	<0.0004 mg/Kg		0.0004	0.0020	1
Chloromethane	<0.0007 mg/Kg		0.0007	0.0020	1
2-Chlorotoluene	<0.0002 mg/Kg		0.0002	0.0020	1
4-Chlorotoluene	<0.0008 mg/Kg		0.0008	0.0020	1
1,2-Dibromo-3-Chloropropane	<0.0050 mg/Kg		0.0050	0.0100	1
1,2-Dibromoethane	<0.0011 mg/Kg		0.0011	0.0020	1
Dibromomethane	<0.0011 mg/Kg		0.0011	0.0020	1
1,2-Dichlorobenzene	<0.0010 mg/Kg		0.0010	0.0020	1
1,3-Dichlorobenzene	<0.0008 mg/Kg		0.0008	0.0020	1

**QC Report**

Client ID           **Ensafe**  
Project Description   714 N. Second St.  
Report No           14-135-0223

**Analytical Method: 8260B**

**Batch: L199552**

**Prep Method: 5030A**

**Batch: L199550   05/19/2014 09:30 AM**

**Lab Reagent Blank - LRB-L199550**

**QC Measurement:   Limit**

**DateTime Analyzed: 05/19/2014 12:16 PM**

<b>Test Description</b>	<b>LRB Result</b>	<b>Qualifier</b>	<b>MDL</b>	<b>SQL</b>	<b>Dilution</b>
1,4-Dichlorobenzene	<0.0007 mg/Kg		0.0007	0.0020	1
Dichlorodifluoromethane	<0.0005 mg/Kg		0.0005	0.0020	1
1,1-Dichloroethane	<0.0003 mg/Kg		0.0003	0.0020	1
1,2-Dichloroethane	<0.0010 mg/Kg		0.0010	0.0020	1
1,1-Dichloroethene	<0.0004 mg/Kg		0.0004	0.0020	1
cis-1,2-Dichloroethene	<0.0005 mg/Kg		0.0005	0.0020	1
trans-1,2-Dichloroethene	<0.0004 mg/Kg		0.0004	0.0020	1
1,2-Dichloropropane	<0.0011 mg/Kg		0.0011	0.0020	1
1,3-Dichloropropane	<0.0011 mg/Kg		0.0011	0.0020	1
2,2-Dichloropropane	<0.0007 mg/Kg		0.0007	0.0020	1
1,1-Dichloropropene	<0.0009 mg/Kg		0.0009	0.0020	1
cis-1,3-Dichloropropene	<0.0006 mg/Kg		0.0006	0.0020	1
trans-1,3-Dichloropropene	<0.0009 mg/Kg		0.0009	0.0020	1
Ethyl Acetate	<0.0016 mg/Kg		0.0016	0.0400	1
Ethylbenzene	<0.0005 mg/Kg		0.0005	0.0020	1
Hexachlorobutadiene	<0.0008 mg/Kg		0.0008	0.0020	1
2-Hexanone	<0.0019 mg/Kg		0.0019	0.0100	1
Iodomethane	0.0024 mg/Kg	J	0.0009	0.0100	1
Isopropylbenzene	<0.0003 mg/Kg		0.0003	0.0020	1
4-Isopropyl toluene	<0.0005 mg/Kg		0.0005	0.0020	1
Methyl tert-butyl ether (MTBE)	<0.0004 mg/Kg		0.0004	0.0020	1
4-Methyl-2-Pentanone	<0.0029 mg/Kg		0.0029	0.0100	1
Methylene Chloride	<0.0015 mg/Kg		0.0015	0.0100	1
Naphthalene	<0.0031 mg/Kg		0.0031	0.0100	1
n-Propylbenzene	<0.0002 mg/Kg		0.0002	0.0020	1
Styrene	<0.0003 mg/Kg		0.0003	0.0020	1
1,1,1,2-Tetrachloroethane	<0.0005 mg/Kg		0.0005	0.0020	1
1,1,2,2-Tetrachloroethane	<0.0006 mg/Kg		0.0006	0.0020	1
Tetrachloroethene	<0.0016 mg/Kg		0.0016	0.0020	1

**QC Report**

Client ID                   **Ensafe**  
Project Description       714 N. Second St.  
Report No                  14-135-0223

**Analytical Method: 8260B**

**Batch: L199552**

**Prep Method: 5030A**

**Batch: L199550   05/19/2014 09:30 AM**

**Lab Reagent Blank - LRB-L199550**

**QC Measurement:   Limit**

**DateTime Analyzed: 05/19/2014 12:16 PM**

<b>Test Description</b>	<b>LRB Result</b>	<b>Qualifier</b>	<b>MDL</b>	<b>MQL</b>	<b>Dilution</b>
Toluene	<0.0025 mg/Kg		0.0025	0.0100	1
1,2,3-Trichlorobenzene	<0.0010 mg/Kg		0.0010	0.0020	1
1,2,4-Trichlorobenzene	<0.0014 mg/Kg		0.0014	0.0020	1
1,1,1-Trichloroethane	<0.0008 mg/Kg		0.0008	0.0020	1
1,1,2-Trichloroethane	<0.0017 mg/Kg		0.0017	0.0020	1
Trichloroethene	<0.0013 mg/Kg		0.0013	0.0020	1
Trichlorofluoromethane	<0.0008 mg/Kg		0.0008	0.0020	1
1,2,3-Trichloropropane	<0.0010 mg/Kg		0.0010	0.0020	1
1,2,4-Trimethylbenzene	<0.0006 mg/Kg		0.0006	0.0020	1
1,3,5-Trimethylbenzene	<0.0003 mg/Kg		0.0003	0.0020	1
Vinyl Acetate	<0.0026 mg/Kg		0.0026	0.0400	1
Vinyl Chloride	<0.0006 mg/Kg		0.0006	0.0020	1
o-Xylene	<0.0008 mg/Kg		0.0008	0.0020	1
m,p-Xylene	<0.0007 mg/Kg		0.0007	0.0040	1

**Surrogate Recovery:**

4-Bromofluorobenzene	113	0.113 mg/Kg	0.100		1
1,2-Dichloroethane - d4	125	0.125 mg/Kg	0.100		1
Toluene-d8	104	0.104 mg/Kg	0.100		1

**Laboratory Control Sample - LCS-L199550**

**QC Measurement:   % Recovery**

**DateTime Analyzed: 05/19/2014 10:31 AM**

<b>Test Description</b>	<b>QC Result</b>	<b>Criteria</b>	<b>LCS Result</b>	<b>LCS Conc.</b>	<b>MDL</b>	<b>Dilution</b>
Acetone	71.0 %	40-140%	0.142 mg/Kg	0.200	0.0046	1
Acetonitrile	51.0 %	40-140%	1.02 mg/Kg	2.00	0.0128	1
Acrolein	112 %	40-140%	0.223 mg/Kg	0.200	0.0101	1
Acrylonitrile	116 %	40-140%	0.231 mg/Kg	0.200	0.0080	1
Benzene	95.5 %	80-120%	0.191 mg/Kg	0.200	0.0008	1
Bromobenzene	94.0 %	75-125%	0.188 mg/Kg	0.200	0.0009	1

**QC Report**

Client ID           **Ensafe**  
 Project Description   714 N. Second St.  
 Report No            14-135-0223

**Analytical Method: 8260B**

**Batch: L199552**

**Prep Method: 5030A**

**Batch: L199550   05/19/2014 09:30 AM**

**Laboratory Control Sample - LCS-L199550**

**QC Measurement:   % Recovery**

**DateTime Analyzed: 05/19/2014 10:31 AM**

Test Description	QC Result	Criteria	LCS Result	LCS Conc.	MDL	Dilution
Bromochloromethane	90.5 %	65-130%	0.181 mg/Kg	0.200	0.0007	1
Bromodichloromethane	90.5 %	75-120%	0.181 mg/Kg	0.200	0.0004	1
Bromoform	96.0 %	70-130%	0.192 mg/Kg	0.200	0.0006	1
Bromomethane	117 %	40-140%	0.233 mg/Kg	0.200	0.0012	1
Methyl Ethyl Ketone (MEK)	78.5 %	40-140%	0.157 mg/Kg	0.200	0.0061	1
n-Butylbenzene	96.0 %	70-135%	0.192 mg/Kg	0.200	0.0007	1
sec-Butyl benzene	98.0 %	70-125%	0.196 mg/Kg	0.200	0.0003	1
tert-Butyl benzene	104 %	70-130%	0.207 mg/Kg	0.200	0.0014	1
Carbon Disulfide	93.5 %	40-140%	0.187 mg/Kg	0.200	0.0004	1
Carbon Tetrachloride	101 %	65-140%	0.201 mg/Kg	0.200	0.0005	1
Chlorobenzene	92.5 %	80-120%	0.185 mg/Kg	0.200	0.0008	1
Chlorodibromomethane	99.5 %	75-120%	0.199 mg/Kg	0.200	0.0009	1
Chloroethane	79.0 %	60-135%	0.158 mg/Kg	0.200	0.0003	1
2-Chloroethylvinyl Ether	69.5 %	40-140%	0.139 mg/Kg	0.200	0.0020	1
Chloroform	104 %	80-120%	0.208 mg/Kg	0.200	0.0004	1
Chloromethane	88.5 %	40-125%	0.177 mg/Kg	0.200	0.0007	1
2-Chlorotoluene	104 %	75-125%	0.208 mg/Kg	0.200	0.0002	1
4-Chlorotoluene	101 %	75-130%	0.201 mg/Kg	0.200	0.0008	1
1,2-Dibromo-3-Chloropropane	80.5 %	50-130%	0.161 mg/Kg	0.200	0.0050	1
1,2-Dibromoethane	95.0 %	80-120%	0.190 mg/Kg	0.200	0.0011	1
Dibromomethane	104 %	75-125%	0.207 mg/Kg	0.200	0.0011	1
1,2-Dichlorobenzene	88.5 %	70-120%	0.177 mg/Kg	0.200	0.0010	1
1,3-Dichlorobenzene	91.0 %	75-125%	0.182 mg/Kg	0.200	0.0008	1
1,4-Dichlorobenzene	95.0 %	75-125%	0.190 mg/Kg	0.200	0.0007	1
Dichlorodifluoromethane	58.0 %	40-140%	0.116 mg/Kg	0.200	0.0005	1
1,1-Dichloroethane	108 %	70-135%	0.215 mg/Kg	0.200	0.0003	1
1,2-Dichloroethane	94.5 %	70-130%	0.189 mg/Kg	0.200	0.0010	1
1,1-Dichloroethene	101 %	80-120%	0.202 mg/Kg	0.200	0.0004	1
cis-1,2-Dichloroethene	95.5 %	70-125%	0.191 mg/Kg	0.200	0.0005	1

**QC Report**

Client ID           **Ensafe**  
 Project Description   714 N. Second St.  
 Report No            14-135-0223

**Analytical Method: 8260B**

**Batch: L199552**

**Prep Method: 5030A**

**Batch: L199550   05/19/2014 09:30 AM**

**Laboratory Control Sample - LCS-L199550**  
**DateTime Analyzed: 05/19/2014 10:31 AM**

**QC Measurement:   % Recovery**

Test Description	QC Result	Criteria	LCS Result	LCS Conc.	MDL	Dilution
trans-1,2-Dichloroethene	93.5 %	60-140%	0.187 mg/Kg	0.200	0.0004	1
1,2-Dichloropropane	99.0 %	80-120%	0.198 mg/Kg	0.200	0.0011	1
1,3-Dichloropropane	92.5 %	75-125%	0.185 mg/Kg	0.200	0.0011	1
2,2-Dichloropropane	112 %	70-135%	0.224 mg/Kg	0.200	0.0007	1
1,1-Dichloropropene	105 %	75-130%	0.210 mg/Kg	0.200	0.0009	1
cis-1,3-Dichloropropene	93.5 %	70-130%	0.187 mg/Kg	0.200	0.0006	1
trans-1,3-Dichloropropene	99.0 %	55-140%	0.198 mg/Kg	0.200	0.0009	1
Ethyl Acetate	99.0 %	40-125%	0.198 mg/Kg	0.200	0.0016	1
Ethylbenzene	90.5 %	80-120%	0.181 mg/Kg	0.200	0.0005	1
Hexachlorobutadiene	95.5 %	50-140%	0.191 mg/Kg	0.200	0.0008	1
2-Hexanone	94.0 %	55-130%	0.188 mg/Kg	0.200	0.0019	1
Iodomethane	83.5 %	40-125%	0.167 mg/Kg	0.200	0.0009	1
Isopropylbenzene	102 %	75-125%	0.203 mg/Kg	0.200	0.0003	1
4-Isopropyl toluene	107 %	75-130%	0.213 mg/Kg	0.200	0.0005	1
Methyl tert-butyl ether (MTBE)	92.0 %	65-125%	0.184 mg/Kg	0.200	0.0004	1
4-Methyl-2-Pentanone	101 %	60-135%	0.201 mg/Kg	0.200	0.0029	1
Methylene Chloride	99.5 %	55-140%	0.199 mg/Kg	0.200	0.0015	1
Naphthalene	82.0 %	55-140%	0.164 mg/Kg	0.200	0.0031	1
n-Propylbenzene	104 %	70-130%	0.207 mg/Kg	0.200	0.0002	1
Styrene	92.5 %	65-135%	0.185 mg/Kg	0.200	0.0003	1
1,1,1,2-Tetrachloroethane	95.5 %	70-130%	0.191 mg/Kg	0.200	0.0005	1
1,1,1,2,2-Tetrachloroethane	88.5 %	65-130%	0.177 mg/Kg	0.200	0.0006	1
Tetrachloroethene	99.0 %	60-145%	0.198 mg/Kg	0.200	0.0016	1
Toluene	97.0 %	80-120%	0.194 mg/Kg	0.200	0.0025	1
1,2,3-Trichlorobenzene	85.0 %	55-140%	0.170 mg/Kg	0.200	0.0010	1
1,2,4-Trichlorobenzene	94.5 %	65-135%	0.189 mg/Kg	0.200	0.0014	1
1,1,1-Trichloroethane	99.0 %	65-130%	0.198 mg/Kg	0.200	0.0008	1
1,1,2-Trichloroethane	102 %	75-125%	0.203 mg/Kg	0.200	0.0017	1
Trichloroethene	105 %	70-125%	0.210 mg/Kg	0.200	0.0013	1



**QC Report**

Client ID           **Ensafe**  
Project Description   714 N. Second St.  
Report No           14-135-0223

**Analytical Method: 8260B**

**Batch: L199552**

**Prep Method: 5030A**

**Batch: L199550   05/19/2014 09:30 AM**

**Laboratory Control Sample - LCS-L199550**  
**DateTime Analyzed: 05/19/2014 10:31 AM**

**QC Measurement:   % Recovery**

Test Description	QC Result	Criteria	LCS Result	LCS Conc.	MDL	Dilution
Trichlorofluoromethane	107 %	45-150%	0.213 mg/Kg	0.200	0.0008	1
1,2,3-Trichloropropane	99.5 %	75-125%	0.199 mg/Kg	0.200	0.0010	1
1,2,4-Trimethylbenzene	92.5 %	75-130%	0.185 mg/Kg	0.200	0.0006	1
1,3,5-Trimethylbenzene	103 %	75-130%	0.206 mg/Kg	0.200	0.0003	1
Vinyl Acetate	150 % *	40-125%	0.300 mg/Kg	0.200	0.0026	1
Vinyl Chloride	87.0 %	80-120%	0.174 mg/Kg	0.200	0.0006	1
o-Xylene	94.5 %	75-130%	0.189 mg/Kg	0.200	0.0008	1
m,p-Xylene	100 %	75-130%	0.401 mg/Kg	0.400	0.0007	1
<b>Surrogate Recovery:</b>						
4-Bromofluorobenzene	102 %	60-130%	0.102 mg/Kg	0.100		1
1,2-Dichloroethane - d4	91.3 %	60-132%	0.0913 mg/Kg	0.100		1
Toluene-d8	96.6 %	70-122%	0.0966 mg/Kg	0.100		1

**Matrix Spike - L 89762-MS-L199550**

**QC Measurement:   % Recovery**

**DateTime Analyzed: 05/19/2014 09:01 PM**

Test Description	QC Result	Criteria	MS Result	MS Conc.	Sample Conc.	MDL	Dilution
Acetone	65.4 %	40-140%	0.123 mg/Kg	0.188	<0.0046	0.0046	1
Acetonitrile	141 % *	40-140%	2.65 mg/Kg	1.88	<0.0128	0.0128	1
Acrolein	111 %	40-140%	0.208 mg/Kg	0.188	<0.0101	0.0101	1
Acrylonitrile	119 %	40-140%	0.223 mg/Kg	0.188	<0.0080	0.0080	1
Benzene	66.4 % *	80-120%	0.125 mg/Kg	0.188	<0.0008	0.0008	1
Bromobenzene	82.9 %	75-125%	0.156 mg/Kg	0.188	<0.0009	0.0009	1
Bromochloromethane	110 %	65-130%	0.207 mg/Kg	0.188	<0.0007	0.0007	1
Bromodichloromethane	82.9 %	75-120%	0.156 mg/Kg	0.188	<0.0004	0.0004	1
Bromoform	94.6 %	70-130%	0.178 mg/Kg	0.188	<0.0006	0.0006	1
Bromomethane	35.7 % *	40-140%	0.0672 mg/Kg	0.188	<0.0012	0.0012	1
Methyl Ethyl Ketone (MEK)	76.5 %	40-140%	0.144 mg/Kg	0.188	<0.0061	0.0061	1
n-Butylbenzene	62.7 % *	70-135%	0.118 mg/Kg	0.188	<0.0007	0.0007	1

\* QC Fail

**QC Report**

Client ID           **Ensafe**  
 Project Description   714 N. Second St.  
 Report No            14-135-0223

**Analytical Method: 8260B**

**Batch: L199552**

**Prep Method: 5030A**

**Batch: L199550   05/19/2014 09:30 AM**

**Matrix Spike - L 89762-MS-L199550**

**QC Measurement:   % Recovery**

**DateTime Analyzed: 05/19/2014 09:01 PM**

Test Description	QC Result	Criteria	MS Result	MS Conc.	Sample Conc.	MDL	Dilution
sec-Butyl benzene	69.6 % *	70-125%	0.131 mg/Kg	0.188	<0.0003	0.0003	1
tert-Butyl benzene	71.8 %	70-130%	0.135 mg/Kg	0.188	<0.0014	0.0014	1
Carbon Disulfide	43.5 %	40-140%	0.0818 mg/Kg	0.188	<0.0004	0.0004	1
Carbon Tetrachloride	52.9 % *	65-140%	0.0996 mg/Kg	0.188	<0.0005	0.0005	1
Chlorobenzene	75.5 % *	80-120%	0.142 mg/Kg	0.188	<0.0008	0.0008	1
Chlorodibromomethane	102 %	75-120%	0.191 mg/Kg	0.188	<0.0009	0.0009	1
Chloroethane	118 %	60-135%	0.222 mg/Kg	0.188	<0.0003	0.0003	1
2-Chloroethylvinyl Ether	69.6 %	40-140%	0.131 mg/Kg	0.188	<0.0020	0.0020	1
Chloroform	78.1 % *	80-120%	0.147 mg/Kg	0.188	<0.0004	0.0004	1
Chloromethane	59.0 %	40-125%	0.111 mg/Kg	0.188	<0.0007	0.0007	1
2-Chlorotoluene	85.1 %	75-125%	0.160 mg/Kg	0.188	<0.0002	0.0002	1
4-Chlorotoluene	83.5 %	75-130%	0.157 mg/Kg	0.188	<0.0008	0.0008	1
1,2-Dibromo-3-Chloropropane	77.6 %	50-130%	0.146 mg/Kg	0.188	<0.0050	0.0050	1
1,2-Dibromoethane	101 %	80-120%	0.190 mg/Kg	0.188	<0.0011	0.0011	1
Dibromomethane	110 %	75-125%	0.207 mg/Kg	0.188	<0.0011	0.0011	1
1,2-Dichlorobenzene	83.5 %	70-120%	0.157 mg/Kg	0.188	<0.0010	0.0010	1
1,3-Dichlorobenzene	85.1 %	75-125%	0.160 mg/Kg	0.188	<0.0008	0.0008	1
1,4-Dichlorobenzene	74.4 % *	75-125%	0.140 mg/Kg	0.188	<0.0007	0.0007	1
Dichlorodifluoromethane	29.8 % *	40-140%	0.0561 mg/Kg	0.188	<0.0005	0.0005	1
1,1-Dichloroethane	72.8 %	70-135%	0.137 mg/Kg	0.188	<0.0003	0.0003	1
1,2-Dichloroethane	85.1 %	70-130%	0.160 mg/Kg	0.188	<0.0010	0.0010	1
1,1-Dichloroethene	48.7 % *	80-120%	0.0916 mg/Kg	0.188	<0.0004	0.0004	1
cis-1,2-Dichloroethene	71.8 %	70-125%	0.135 mg/Kg	0.188	<0.0005	0.0005	1
trans-1,2-Dichloroethene	62.7 %	60-140%	0.118 mg/Kg	0.188	<0.0004	0.0004	1
1,2-Dichloropropane	96.2 %	80-120%	0.181 mg/Kg	0.188	<0.0011	0.0011	1
1,3-Dichloropropane	90.9 %	75-125%	0.171 mg/Kg	0.188	<0.0011	0.0011	1
2,2-Dichloropropane	55.3 % *	70-135%	0.104 mg/Kg	0.188	<0.0007	0.0007	1
1,1-Dichloropropene	58.5 % *	75-130%	0.110 mg/Kg	0.188	<0.0009	0.0009	1
cis-1,3-Dichloropropene	81.9 %	70-130%	0.154 mg/Kg	0.188	<0.0006	0.0006	1

\* QC Fail

**QC Report**

Client ID           **Ensafe**  
 Project Description   714 N. Second St.  
 Report No            14-135-0223

**Analytical Method: 8260B**

**Batch: L199552**

**Prep Method: 5030A**

**Batch: L199550   05/19/2014 09:30 AM**

**Matrix Spike - L 89762-MS-L199550**

**QC Measurement:   % Recovery**

**DateTime Analyzed: 05/19/2014 09:01 PM**

Test Description	QC Result	Criteria	MS Result	MS Conc.	Sample Conc.	MDL	Dilution
trans-1,3-Dichloropropene	81.3 %	55-140%	0.153 mg/Kg	0.188	<0.0009	0.0009	1
Ethyl Acetate	99.4 %	40-125%	0.187 mg/Kg	0.188	<0.0016	0.0016	1
Ethylbenzene	54.7 % *	80-120%	0.103 mg/Kg	0.188	<0.0005	0.0005	1
Hexachlorobutadiene	65.4 %	50-140%	0.123 mg/Kg	0.188	<0.0008	0.0008	1
2-Hexanone	96.8 %	55-130%	0.182 mg/Kg	0.188	<0.0019	0.0019	1
Iodomethane	55.3 %	40-125%	0.104 mg/Kg	0.188	<0.0009	0.0009	1
Isopropylbenzene	72.3 % *	75-125%	0.136 mg/Kg	0.188	<0.0003	0.0003	1
4-Isopropyl toluene	42.7 % *	75-130%	0.0803 mg/Kg	0.188	<0.0005	0.0005	1
Methyl tert-butyl ether (MTBE)	80.8 %	65-125%	0.152 mg/Kg	0.188	<0.0004	0.0004	1
4-Methyl-2-Pentanone	112 %	60-135%	0.210 mg/Kg	0.188	<0.0029	0.0029	1
Methylene Chloride	77.1 %	55-140%	0.145 mg/Kg	0.188	<0.0015	0.0015	1
Naphthalene	51.4 % *	55-140%	0.0967 mg/Kg	0.188	<0.0031	0.0031	1
n-Propylbenzene	79.7 %	70-130%	0.150 mg/Kg	0.188	<0.0002	0.0002	1
Styrene	62.2 % *	65-135%	0.117 mg/Kg	0.188	<0.0003	0.0003	1
1,1,1,2-Tetrachloroethane	87.7 %	70-130%	0.165 mg/Kg	0.188	<0.0005	0.0005	1
1,1,1,2-Tetrachloroethane	94.6 %	65-130%	0.178 mg/Kg	0.188	<0.0006	0.0006	1
Tetrachloroethene	61.1 %	60-145%	0.115 mg/Kg	0.188	<0.0016	0.0016	1
Toluene	78.7 % *	80-120%	0.148 mg/Kg	0.188	<0.0025	0.0025	1
1,2,3-Trichlorobenzene	60.1 %	55-140%	0.113 mg/Kg	0.188	<0.0010	0.0010	1
1,2,4-Trichlorobenzene	61.1 % *	65-135%	0.115 mg/Kg	0.188	<0.0014	0.0014	1
1,1,1-Trichloroethane	56.9 % *	65-130%	0.107 mg/Kg	0.188	<0.0008	0.0008	1
1,1,2-Trichloroethane	102 %	75-125%	0.191 mg/Kg	0.188	<0.0017	0.0017	1
Trichloroethene	84.0 %	70-125%	0.158 mg/Kg	0.188	<0.0013	0.0013	1
Trichlorofluoromethane	55.8 %	45-150%	0.105 mg/Kg	0.188	<0.0008	0.0008	1
1,2,3-Trichloropropane	82.9 %	75-125%	0.156 mg/Kg	0.188	<0.0010	0.0010	1
1,2,4-Trimethylbenzene	71.8 % *	75-130%	0.135 mg/Kg	0.188	<0.0006	0.0006	1
1,3,5-Trimethylbenzene	71.8 % *	75-130%	0.135 mg/Kg	0.188	<0.0003	0.0003	1
Vinyl Acetate	77.1 %	40-125%	0.145 mg/Kg	0.188	<0.0026	0.0026	1
Vinyl Chloride	55.8 % *	80-120%	0.105 mg/Kg	0.188	<0.0006	0.0006	1

\* **QC Fail**

**QC Report**

Client ID           **Ensafe**  
Project Description   714 N. Second St.  
Report No            14-135-0223

**Analytical Method: 8260B**

**Batch: L199552**

**Prep Method: 5030A**

**Batch: L199550   05/19/2014 09:30 AM**

**Matrix Spike - L 89762-MS-L199550**

**QC Measurement:   % Recovery**

**DateTime Analyzed: 05/19/2014 09:01 PM**

Test Description	QC Result	Criteria	MS Result	MS Conc.	Sample Conc.	MDL	Dilution
o-Xylene	81.3 %	75-130%	0.153 mg/Kg	0.188	<0.0008	0.0008	1
m,p-Xylene	73.0 % *	75-130%	0.274 mg/Kg	0.375	<0.0007	0.0007	1
<b>Surrogate Recovery:</b>							
4-Bromofluorobenzene	94.2 %	60-130%	0.0908 mg/Kg	0.0963			1
1,2-Dichloroethane - d4	127 %	60-132%	0.122 mg/Kg	0.0963			1
Toluene-d8	108 %	70-122%	0.104 mg/Kg	0.0963			1

**Matrix Spike Duplicate - L 89762-MSD-L199550**

**QC Measurement:   % Recovery**

**DateTime Analyzed: 05/19/2014 09:43 PM**

Test Description	QC Result	Criteria	MSD Result	MSD Conc.	Sample Conc.	MDL	Dilution
Acetone	59.3 %	40-140%	0.114 mg/Kg	0.192	<0.0046	0.0046	1
Acetonitrile	136 %	40-140%	2.61 mg/Kg	1.92	<0.0128	0.0128	1
Acrolein	129 %	40-140%	0.247 mg/Kg	0.192	<0.0101	0.0101	1
Acrylonitrile	111 %	40-140%	0.213 mg/Kg	0.192	<0.0080	0.0080	1
Benzene	56.2 % *	80-120%	0.108 mg/Kg	0.192	<0.0008	0.0008	1
Bromobenzene	65.6 % *	75-125%	0.126 mg/Kg	0.192	<0.0009	0.0009	1
Bromochloromethane	107 %	65-130%	0.205 mg/Kg	0.192	<0.0007	0.0007	1
Bromodichloromethane	76.5 %	75-120%	0.147 mg/Kg	0.192	<0.0004	0.0004	1
Bromoform	91.1 %	70-130%	0.175 mg/Kg	0.192	<0.0006	0.0006	1
Bromomethane	4.3 % *	40-140%	0.0082 mg/Kg	0.192	<0.0012	0.0012	1
Methyl Ethyl Ketone (MEK)	65.6 %	40-140%	0.126 mg/Kg	0.192	<0.0061	0.0061	1
n-Butylbenzene	54.1 % *	70-135%	0.104 mg/Kg	0.192	<0.0007	0.0007	1
sec-Butyl benzene	48.9 % *	70-125%	0.0939 mg/Kg	0.192	<0.0003	0.0003	1
tert-Butyl benzene	57.2 % *	70-130%	0.110 mg/Kg	0.192	<0.0014	0.0014	1
Carbon Disulfide	28.9 % *	40-140%	0.0556 mg/Kg	0.192	<0.0004	0.0004	1
Carbon Tetrachloride	30.6 % *	65-140%	0.0588 mg/Kg	0.192	<0.0005	0.0005	1
Chlorobenzene	70.8 % *	80-120%	0.136 mg/Kg	0.192	<0.0008	0.0008	1
Chlorodibromomethane	90.1 %	75-120%	0.173 mg/Kg	0.192	<0.0009	0.0009	1

\* QC Fail

**QC Report**

Client ID           **Ensafe**  
Project Description   714 N. Second St.  
Report No           14-135-0223

**Analytical Method: 8260B**

**Batch: L199552**

**Prep Method: 5030A**

**Batch: L199550   05/19/2014 09:30 AM**

**Matrix Spike Duplicate - L 89762-MSD-L199550**

**QC Measurement:   % Recovery**

**DateTime Analyzed: 05/19/2014 09:43 PM**

Test Description	QC Result	Criteria	MSD Result	MSD Conc.	Sample Conc.	MDL	Dilution
Chloroethane	83.8 %	60-135%	0.161 mg/Kg	0.192	<0.0003	0.0003	1
2-Chloroethylvinyl Ether	68.2 %	40-140%	0.131 mg/Kg	0.192	<0.0020	0.0020	1
Chloroform	66.1 % *	80-120%	0.127 mg/Kg	0.192	<0.0004	0.0004	1
Chloromethane	41.3 %	40-125%	0.0794 mg/Kg	0.192	<0.0007	0.0007	1
2-Chlorotoluene	75.0 %	75-125%	0.144 mg/Kg	0.192	<0.0002	0.0002	1
4-Chlorotoluene	72.9 % *	75-130%	0.140 mg/Kg	0.192	<0.0008	0.0008	1
1,2-Dibromo-3-Chloropropane	53.6 %	50-130%	0.103 mg/Kg	0.192	<0.0050	0.0050	1
1,2-Dibromoethane	94.7 %	80-120%	0.182 mg/Kg	0.192	<0.0011	0.0011	1
Dibromomethane	109 %	75-125%	0.210 mg/Kg	0.192	<0.0011	0.0011	1
1,2-Dichlorobenzene	83.3 %	70-120%	0.160 mg/Kg	0.192	<0.0010	0.0010	1
1,3-Dichlorobenzene	86.9 %	75-125%	0.167 mg/Kg	0.192	<0.0008	0.0008	1
1,4-Dichlorobenzene	79.1 %	75-125%	0.152 mg/Kg	0.192	<0.0007	0.0007	1
Dichlorodifluoromethane	16.9 % *	40-140%	0.0325 mg/Kg	0.192	<0.0005	0.0005	1
1,1-Dichloroethane	54.6 % *	70-135%	0.105 mg/Kg	0.192	<0.0003	0.0003	1
1,2-Dichloroethane	89.5 %	70-130%	0.172 mg/Kg	0.192	<0.0010	0.0010	1
1,1-Dichloroethene	37.1 % *	80-120%	0.0714 mg/Kg	0.192	<0.0004	0.0004	1
cis-1,2-Dichloroethene	66.6 % *	70-125%	0.128 mg/Kg	0.192	<0.0005	0.0005	1
trans-1,2-Dichloroethene	51.2 % *	60-140%	0.0984 mg/Kg	0.192	<0.0004	0.0004	1
1,2-Dichloropropane	82.2 %	80-120%	0.158 mg/Kg	0.192	<0.0011	0.0011	1
1,3-Dichloropropane	80.7 %	75-125%	0.155 mg/Kg	0.192	<0.0011	0.0011	1
2,2-Dichloropropane	22.6 % *	70-135%	0.0435 mg/Kg	0.192	<0.0007	0.0007	1
1,1-Dichloropropene	35.8 % *	75-130%	0.0689 mg/Kg	0.192	<0.0009	0.0009	1
cis-1,3-Dichloropropene	67.1 % *	70-130%	0.129 mg/Kg	0.192	<0.0006	0.0006	1
trans-1,3-Dichloropropene	60.9 %	55-140%	0.117 mg/Kg	0.192	<0.0009	0.0009	1
Ethyl Acetate	86.4 %	40-125%	0.166 mg/Kg	0.192	<0.0016	0.0016	1
Ethylbenzene	44.8 % *	80-120%	0.0862 mg/Kg	0.192	<0.0005	0.0005	1
Hexachlorobutadiene	48.2 % *	50-140%	0.0926 mg/Kg	0.192	<0.0008	0.0008	1
2-Hexanone	91.1 %	55-130%	0.175 mg/Kg	0.192	<0.0019	0.0019	1
Iodomethane	40.8 %	40-125%	0.0785 mg/Kg	0.192	<0.0009	0.0009	1

\* **QC Fail**

**QC Report**

Client ID           **Ensafe**  
Project Description   714 N. Second St.  
Report No            14-135-0223

**Analytical Method: 8260B**

**Batch: L199552**

**Prep Method: 5030A**

**Batch: L199550   05/19/2014 09:30 AM**

**Matrix Spike Duplicate - L 89762-MSD-L199550**

**QC Measurement:   % Recovery**

**DateTime Analyzed: 05/19/2014 09:43 PM**

Test Description	QC Result	Criteria	MSD Result	MSD Conc.	Sample Conc.	MDL	Dilution
Isopropylbenzene	56.2 % *	75-125%	0.108 mg/Kg	0.192	<0.0003	0.0003	1
4-Isopropyl toluene	30.8 % *	75-130%	0.0593 mg/Kg	0.192	<0.0005	0.0005	1
Methyl tert-butyl ether (MTBE)	70.8 %	65-125%	0.136 mg/Kg	0.192	<0.0004	0.0004	1
4-Methyl-2-Pentanone	104 %	60-135%	0.199 mg/Kg	0.192	<0.0029	0.0029	1
Methylene Chloride	72.3 %	55-140%	0.139 mg/Kg	0.192	<0.0015	0.0015	1
Naphthalene	8.0 % *	55-140%	0.0154 mg/Kg	0.192	<0.0031	0.0031	1
n-Propylbenzene	59.3 % *	70-130%	0.114 mg/Kg	0.192	<0.0002	0.0002	1
Styrene	55.7 % *	65-135%	0.107 mg/Kg	0.192	<0.0003	0.0003	1
1,1,1,2-Tetrachloroethane	79.6 %	70-130%	0.153 mg/Kg	0.192	<0.0005	0.0005	1
1,1,1,2,2-Tetrachloroethane	95.8 %	65-130%	0.184 mg/Kg	0.192	<0.0006	0.0006	1
Tetrachloroethene	46.0 % *	60-145%	0.0885 mg/Kg	0.192	<0.0016	0.0016	1
Toluene	63.5 % *	80-120%	0.122 mg/Kg	0.192	<0.0025	0.0025	1
1,2,3-Trichlorobenzene	10.6 % *	55-140%	0.0204 mg/Kg	0.192	<0.0010	0.0010	1
1,2,4-Trichlorobenzene	24.1 % *	65-135%	0.0464 mg/Kg	0.192	<0.0014	0.0014	1
1,1,1-Trichloroethane	37.3 % *	65-130%	0.0718 mg/Kg	0.192	<0.0008	0.0008	1
1,1,2-Trichloroethane	101 %	75-125%	0.194 mg/Kg	0.192	<0.0017	0.0017	1
Trichloroethene	63.0 % *	70-125%	0.121 mg/Kg	0.192	<0.0013	0.0013	1
Trichlorofluoromethane	32.6 % *	45-150%	0.0627 mg/Kg	0.192	<0.0008	0.0008	1
1,2,3-Trichloropropane	71.8 % *	75-125%	0.138 mg/Kg	0.192	<0.0010	0.0010	1
1,2,4-Trimethylbenzene	70.3 % *	75-130%	0.135 mg/Kg	0.192	<0.0006	0.0006	1
1,3,5-Trimethylbenzene	64.0 % *	75-130%	0.123 mg/Kg	0.192	<0.0003	0.0003	1
Vinyl Acetate	53.1 %	40-125%	0.102 mg/Kg	0.192	<0.0026	0.0026	1
Vinyl Chloride	39.7 % *	80-120%	0.0764 mg/Kg	0.192	<0.0006	0.0006	1
o-Xylene	70.3 % *	75-130%	0.135 mg/Kg	0.192	<0.0008	0.0008	1
m,p-Xylene	66.1 % *	75-130%	0.254 mg/Kg	0.384	<0.0007	0.0007	1

**Surrogate Recovery:**

4-Bromofluorobenzene	118 %	60-130%	0.114 mg/Kg	0.0963			1
1,2-Dichloroethane - d4	143 % *	60-132%	0.138 mg/Kg	0.0963			1
Toluene-d8	117 %	70-122%	0.113 mg/Kg	0.0963			1

\* **QC Fail**

**QC Report**

Client ID           **Ensafe**  
Project Description   714 N. Second St.  
Report No            14-135-0223

**Analytical Method: 8260B**

**Batch: L199552**

**Prep Method: 5030A**

**Batch: L199550   05/19/2014 09:30 AM**

**Matrix Spike Duplicate - L 89762-MSD-L199550**

**QC Measurement:   RPD**

**DateTime Analyzed: 05/19/2014 09:43 PM**

Test Description	QC Result	Criteria	MSD Result	MSD Conc.	Sample Conc.	MDL	Dilution
Acetone	7.5 %	< 30	0.114 mg/Kg		0.123	0.0046	1
Acetonitrile	1.5 %	< 30	2.61 mg/Kg		2.65	0.0128	1
Acrolein	17.1 %	< 30	0.247 mg/Kg		0.208	0.0101	1
Acrylonitrile	4.5 %	< 30	0.213 mg/Kg		0.223	0.0080	1
Benzene	14.5 %	< 30	0.108 mg/Kg		0.125	0.0008	1
Bromobenzene	21.2 %	< 30	0.126 mg/Kg		0.156	0.0009	1
Bromochloromethane	0.9 %	< 30	0.205 mg/Kg		0.207	0.0007	1
Bromodichloromethane	5.9 %	< 30	0.147 mg/Kg		0.156	0.0004	1
Bromoform	1.6 %	< 30	0.175 mg/Kg		0.178	0.0006	1
Bromomethane	156 % *	< 30	0.0082 mg/Kg		0.0672	0.0012	1
Methyl Ethyl Ketone (MEK)	13.3 %	< 30	0.126 mg/Kg		0.144	0.0061	1
n-Butylbenzene	12.6 %	< 30	0.104 mg/Kg		0.118	0.0007	1
sec-Butyl benzene	32.9 % *	< 30	0.0939 mg/Kg		0.131	0.0003	1
tert-Butyl benzene	20.4 %	< 30	0.110 mg/Kg		0.135	0.0014	1
Carbon Disulfide	38.1 % *	< 30	0.0556 mg/Kg		0.0818	0.0004	1
Carbon Tetrachloride	51.5 % *	< 30	0.0588 mg/Kg		0.0996	0.0005	1
Chlorobenzene	4.3 %	< 30	0.136 mg/Kg		0.142	0.0008	1
Chlorodibromomethane	9.8 %	< 30	0.173 mg/Kg		0.191	0.0009	1
Chloroethane	31.8 % *	< 30	0.161 mg/Kg		0.222	0.0003	1
2-Chloroethylvinyl Ether	0.0 %	< 30	0.131 mg/Kg		0.131	0.0020	1
Chloroform	14.5 %	< 30	0.127 mg/Kg		0.147	0.0004	1
Chloromethane	33.1 % *	< 30	0.0794 mg/Kg		0.111	0.0007	1
2-Chlorotoluene	10.5 %	< 30	0.144 mg/Kg		0.160	0.0002	1
4-Chlorotoluene	11.4 %	< 30	0.140 mg/Kg		0.157	0.0008	1
1,2-Dibromo-3-Chloropropane	34.5 % *	< 30	0.103 mg/Kg		0.146	0.0050	1
1,2-Dibromoethane	4.3 %	< 30	0.182 mg/Kg		0.190	0.0011	1
Dibromomethane	1.4 %	< 30	0.210 mg/Kg		0.207	0.0011	1
1,2-Dichlorobenzene	1.8 %	< 30	0.160 mg/Kg		0.157	0.0010	1
1,3-Dichlorobenzene	4.2 %	< 30	0.167 mg/Kg		0.160	0.0008	1

\* **QC Fail**



**QC Report**

Client ID           **Ensafe**  
Project Description   714 N. Second St.  
Report No           14-135-0223

**Analytical Method: 8260B**

**Batch: L199552**

**Prep Method: 5030A**

**Batch: L199550   05/19/2014 09:30 AM**

**Matrix Spike Duplicate - L 89762-MSD-L199550**

**QC Measurement:   RPD**

**DateTime Analyzed: 05/19/2014 09:43 PM**

Test Description	QC Result	Criteria	MSD Result	MSD Conc.	Sample Conc.	MDL	Dilution
1,4-Dichlorobenzene	8.2 %	< 30	0.152 mg/Kg		0.140	0.0007	1
Dichlorodifluoromethane	53.2 % *	< 30	0.0325 mg/Kg		0.0561	0.0005	1
1,1-Dichloroethane	26.4 %	< 30	0.105 mg/Kg		0.137	0.0003	1
1,2-Dichloroethane	7.2 %	< 30	0.172 mg/Kg		0.160	0.0010	1
1,1-Dichloroethene	24.7 %	< 30	0.0714 mg/Kg		0.0916	0.0004	1
cis-1,2-Dichloroethene	5.3 %	< 30	0.128 mg/Kg		0.135	0.0005	1
trans-1,2-Dichloroethene	18.1 %	< 30	0.0984 mg/Kg		0.118	0.0004	1
1,2-Dichloropropane	13.5 %	< 30	0.158 mg/Kg		0.181	0.0011	1
1,3-Dichloropropane	9.8 %	< 30	0.155 mg/Kg		0.171	0.0011	1
2,2-Dichloropropane	82.0 % *	< 30	0.0435 mg/Kg		0.104	0.0007	1
1,1-Dichloropropene	45.9 % *	< 30	0.0689 mg/Kg		0.110	0.0009	1
cis-1,3-Dichloropropene	17.6 %	< 30	0.129 mg/Kg		0.154	0.0006	1
trans-1,3-Dichloropropene	26.6 %	< 30	0.117 mg/Kg		0.153	0.0009	1
Ethyl Acetate	11.8 %	< 30	0.166 mg/Kg		0.187	0.0016	1
Ethylbenzene	17.7 %	< 30	0.0862 mg/Kg		0.103	0.0005	1
Hexachlorobutadiene	28.2 %	< 30	0.0926 mg/Kg		0.123	0.0008	1
2-Hexanone	3.9 %	< 30	0.175 mg/Kg		0.182	0.0019	1
Iodomethane	27.9 %	< 30	0.0785 mg/Kg		0.104	0.0009	1
Isopropylbenzene	22.9 %	< 30	0.108 mg/Kg		0.136	0.0003	1
4-Isopropyl toluene	30.0 % *	< 30	0.0593 mg/Kg		0.0803	0.0005	1
Methyl tert-butyl ether (MTBE)	11.1 %	< 30	0.136 mg/Kg		0.152	0.0004	1
4-Methyl-2-Pentanone	5.3 %	< 30	0.199 mg/Kg		0.210	0.0029	1
Methylene Chloride	4.2 %	< 30	0.139 mg/Kg		0.145	0.0015	1
Naphthalene	145 % *	< 30	0.0154 mg/Kg		0.0967	0.0031	1
n-Propylbenzene	27.2 %	< 30	0.114 mg/Kg		0.150	0.0002	1
Styrene	8.9 %	< 30	0.107 mg/Kg		0.117	0.0003	1
1,1,1,2-Tetrachloroethane	7.5 %	< 30	0.153 mg/Kg		0.165	0.0005	1
1,1,1,2,2-Tetrachloroethane	3.3 %	< 30	0.184 mg/Kg		0.178	0.0006	1
Tetrachloroethene	26.0 %	< 30	0.0885 mg/Kg		0.115	0.0016	1

\* **QC Fail**

**QC Report**

Client ID           **Ensafe**  
Project Description   714 N. Second St.  
Report No           14-135-0223

**Analytical Method: 8260B**

**Batch: L199552**

**Prep Method: 5030A**

**Batch: L199550   05/19/2014 09:30 AM**

**Matrix Spike Duplicate - L 89762-MSD-L199550**

**QC Measurement:   RPD**

**DateTime Analyzed: 05/19/2014 09:43 PM**

Test Description	QC Result	Criteria	MSD Result	MSD Conc.	Sample Conc.	MDL	Dilution
Toluene	19.2 %	< 30	0.122 mg/Kg		0.148	0.0025	1
1,2,3-Trichlorobenzene	139 % *	< 30	0.0204 mg/Kg		0.113	0.0010	1
1,2,4-Trichlorobenzene	85.0 % *	< 30	0.0464 mg/Kg		0.115	0.0014	1
1,1,1-Trichloroethane	39.3 % *	< 30	0.0718 mg/Kg		0.107	0.0008	1
1,1,2-Trichloroethane	1.5 %	< 30	0.194 mg/Kg		0.191	0.0017	1
Trichloroethene	26.5 %	< 30	0.121 mg/Kg		0.158	0.0013	1
Trichlorofluoromethane	50.4 % *	< 30	0.0627 mg/Kg		0.105	0.0008	1
1,2,3-Trichloropropane	12.2 %	< 30	0.138 mg/Kg		0.156	0.0010	1
1,2,4-Trimethylbenzene	0.0 %	< 30	0.135 mg/Kg		0.135	0.0006	1
1,3,5-Trimethylbenzene	9.3 %	< 30	0.123 mg/Kg		0.135	0.0003	1
Vinyl Acetate	34.8 % *	< 30	0.102 mg/Kg		0.145	0.0026	1
Vinyl Chloride	31.5 % *	< 30	0.0764 mg/Kg		0.105	0.0006	1
o-Xylene	12.5 %	< 30	0.135 mg/Kg		0.153	0.0008	1
m,p-Xylene	7.5 %	< 30	0.254 mg/Kg		0.274	0.0007	1

\* QC Fail

**QC Report**

Client ID           **Ensafe**  
Project Description   714 N. Second St.  
Report No            14-135-0223

**Analytical Method: 8270C SIM**

**Batch: L199485**

**Prep Method: 3546**

**Batch: L199302   5/16/2014 9:00**

**Lab Reagent Blank - LRB-L199302**

**QC Measurement:   Limit**

**DateTime Analyzed: 05/16/2014 06:02 PM**

<u>Test Description</u>	<u>LRB Result</u>	<u>MDL</u>	<u>MQL</u>	<u>Dilution</u>
Acenaphthene	<0.000087 mg/Kg	0.000087	0.000660	1
Acenaphthylene	<0.000051 mg/Kg	0.000051	0.000660	1
Anthracene	<0.000212 mg/Kg	0.000212	0.000660	1
Benzo(a)anthracene	<0.000570 mg/Kg	0.000570	0.000660	1
Benzo(a)pyrene	<0.000539 mg/Kg	0.000539	0.000660	1
Benzo(b)fluoranthene	<0.000273 mg/Kg	0.000273	0.000660	1
Benzo(g,h,i)perylene	<0.000209 mg/Kg	0.000209	0.000660	1
Benzo(k)fluoranthene	<0.000192 mg/Kg	0.000192	0.000660	1
Chrysene	<0.000312 mg/Kg	0.000312	0.000660	1
Dibenz(a,h)anthracene	<0.000285 mg/Kg	0.000285	0.000660	1
Fluoranthene	<0.000184 mg/Kg	0.000184	0.000660	1
Fluorene	<0.000186 mg/Kg	0.000186	0.000660	1
Indeno(1,2,3-cd)pyrene	<0.000220 mg/Kg	0.000220	0.000660	1
2-Methylnaphthalene	<0.000118 mg/Kg	0.000118	0.000660	1
Naphthalene	<0.000187 mg/Kg	0.000187	0.000660	1
Phenanthrene	<0.000474 mg/Kg	0.000474	0.000660	1
Pyrene	<0.000191 mg/Kg	0.000191	0.000660	1

**Surrogate Recovery:**

2-Fluorobiphenyl	54.6	0.182 mg/Kg	0.333	1
Nitrobenzene-d5	69.9	0.233 mg/Kg	0.333	1
4-Terphenyl-d14	65.4	0.218 mg/Kg	0.333	1

**Laboratory Control Sample - LCS-L199302**

**QC Measurement:   % Recovery**

**DateTime Analyzed: 05/16/2014 06:32 PM**

<u>Test Description</u>	<u>QC Result</u>	<u>Criteria</u>	<u>LCS Result</u>	<u>LCS Conc.</u>	<u>MDL</u>	<u>Dilution</u>
Acenaphthene	71.8 %	40-120%	0.120 mg/Kg	0.167	0.000087	1
Acenaphthylene	68.8 %	40-120%	0.115 mg/Kg	0.167	0.000051	1
Anthracene	61.6 %	40-120%	0.103 mg/Kg	0.167	0.000212	1

**QC Report**

Client ID           **Ensafe**  
Project Description   714 N. Second St.  
Report No           14-135-0223

**Analytical Method: 8270C SIM**

**Batch: L199485**

**Prep Method: 3546**

**Batch: L199302   5/16/2014 9:00**

**Laboratory Control Sample - LCS-L199302**

**QC Measurement:   % Recovery**

**DateTime Analyzed: 05/16/2014 06:32 PM**

Test Description	QC Result	Criteria	LCS Result	LCS Conc.	MDL	Dilution
Benzo(a)anthracene	73.0 %	40-120%	0.122 mg/Kg	0.167	0.000570	1
Benzo(a)pyrene	66.4 %	40-120%	0.111 mg/Kg	0.167	0.000539	1
Benzo(b)fluoranthene	70.0 %	40-120%	0.117 mg/Kg	0.167	0.000273	1
Benzo(g,h,i)perylene	70.0 %	40-120%	0.117 mg/Kg	0.167	0.000209	1
Benzo(k)fluoranthene	71.2 %	40-120%	0.119 mg/Kg	0.167	0.000192	1
Chrysene	67.0 %	40-120%	0.112 mg/Kg	0.167	0.000312	1
Dibenz(a,h)anthracene	79.0 %	40-120%	0.132 mg/Kg	0.167	0.000285	1
Fluoranthene	69.4 %	40-120%	0.116 mg/Kg	0.167	0.000184	1
Fluorene	61.6 %	40-120%	0.103 mg/Kg	0.167	0.000186	1
Indeno(1,2,3-cd)pyrene	77.8 %	40-120%	0.130 mg/Kg	0.167	0.000220	1
2-Methylnaphthalene	62.2 %	40-120%	0.104 mg/Kg	0.167	0.000118	1
Naphthalene	61.6 %	40-120%	0.103 mg/Kg	0.167	0.000187	1
Phenanthrene	68.2 %	40-120%	0.114 mg/Kg	0.167	0.000474	1
Pyrene	62.2 %	40-120%	0.104 mg/Kg	0.167	0.000191	1

**Surrogate Recovery:**

2-Fluorobiphenyl	62.1 %	33-115%	0.207 mg/Kg	0.333		1
Nitrobenzene-d5	65.4 %	29-110%	0.218 mg/Kg	0.333		1
4-Terphenyl-d14	72.3 %	33-122%	0.241 mg/Kg	0.333		1

**Matrix Spike - L 89765-MS-L199302**

**QC Measurement:   % Recovery**

**DateTime Analyzed: 05/16/2014 07:03 PM**

Test Description	QC Result	Criteria	MS Result	MS Conc.	Sample Conc.	MDL	Dilution
Acenaphthene	63.0 %	40-120%	0.104 mg/Kg	0.165	<0.000087	0.000087	1
Acenaphthylene	61.2 %	40-120%	0.101 mg/Kg	0.165	<0.000051	0.000051	1
Anthracene	67.8 %	40-120%	0.112 mg/Kg	0.165	<0.000212	0.000212	1
Benzo(a)anthracene	78.7 %	40-120%	0.130 mg/Kg	0.165	<0.000570	0.000570	1
Benzo(a)pyrene	70.3 %	40-120%	0.116 mg/Kg	0.165	<0.000539	0.000539	1
Benzo(b)fluoranthene	74.5 %	40-120%	0.123 mg/Kg	0.165	<0.000273	0.000273	1

**QC Report**

Client ID           **Ensafe**  
Project Description   714 N. Second St.  
Report No            14-135-0223

**Analytical Method: 8270C SIM**

**Batch: L199485**

**Prep Method: 3546**

**Batch: L199302   5/16/2014 9:00**

**Matrix Spike - L 89765-MS-L199302**

**QC Measurement:   % Recovery**

**DateTime Analyzed: 05/16/2014 07:03 PM**

Test Description	QC Result	Criteria	MS Result	MS Conc.	Sample Conc.	MDL	Dilution
Benzo(g,h,i)perylene	69.6 %	40-120%	0.115 mg/Kg	0.165	<0.000209	0.000209	1
Benzo(k)fluoranthene	66.6 %	40-120%	0.110 mg/Kg	0.165	<0.000192	0.000192	1
Chrysene	72.1 %	40-120%	0.119 mg/Kg	0.165	<0.000312	0.000312	1
Dibenz(a,h)anthracene	81.2 %	40-120%	0.134 mg/Kg	0.165	<0.000285	0.000285	1
Fluoranthene	66.6 %	40-120%	0.110 mg/Kg	0.165	<0.000184	0.000184	1
Fluorene	60.3 %	40-120%	0.0995 mg/Kg	0.165	<0.000186	0.000186	1
Indeno(1,2,3-cd)pyrene	76.9 %	40-120%	0.127 mg/Kg	0.165	<0.000220	0.000220	1
2-Methylnaphthalene	59.8 %	40-120%	0.0987 mg/Kg	0.165	<0.000118	0.000118	1
Naphthalene	58.5 %	40-120%	0.0966 mg/Kg	0.165	<0.000187	0.000187	1
Phenanthrene	67.8 %	40-120%	0.112 mg/Kg	0.165	<0.000474	0.000474	1
Pyrene	66.0 %	40-120%	0.109 mg/Kg	0.165	<0.000191	0.000191	1

**Surrogate Recovery:**

2-Fluorobiphenyl	58.1 %	33-115%	0.190 mg/Kg	0.327			1
Nitrobenzene-d5	60.2 %	29-110%	0.197 mg/Kg	0.327			1
4-Terphenyl-d14	83.4 %	33-122%	0.273 mg/Kg	0.327			1

**Matrix Spike Duplicate - L 89765-MSD-L199302**

**QC Measurement:   % Recovery**

**DateTime Analyzed: 05/16/2014 07:34 PM**

Test Description	QC Result	Criteria	MSD Result	MSD Conc.	Sample Conc.	MDL	Dilution
Acenaphthene	62.8 %	40-120%	0.103 mg/Kg	0.164	<0.000087	0.000087	1
Acenaphthylene	58.9 %	40-120%	0.0966 mg/Kg	0.164	<0.000051	0.000051	1
Anthracene	64.6 %	40-120%	0.106 mg/Kg	0.164	<0.000212	0.000212	1
Benzo(a)anthracene	76.8 %	40-120%	0.126 mg/Kg	0.164	<0.000570	0.000570	1
Benzo(a)pyrene	74.3 %	40-120%	0.122 mg/Kg	0.164	<0.000539	0.000539	1
Benzo(b)fluoranthene	75.0 %	40-120%	0.123 mg/Kg	0.164	<0.000273	0.000273	1
Benzo(g,h,i)perylene	73.7 %	40-120%	0.121 mg/Kg	0.164	<0.000209	0.000209	1
Benzo(k)fluoranthene	72.5 %	40-120%	0.119 mg/Kg	0.164	<0.000192	0.000192	1
Chrysene	72.5 %	40-120%	0.119 mg/Kg	0.164	<0.000312	0.000312	1

**QC Report**

Client ID               **Ensafe**  
 Project Description    714 N. Second St.  
 Report No              14-135-0223

**Analytical Method: 8270C SIM**

**Batch: L199485**

**Prep Method: 3546**

**Batch: L199302   5/16/2014 9:00**

**Matrix Spike Duplicate - L 89765-MSD-L199302**

**QC Measurement:   % Recovery**

**DateTime Analyzed: 05/16/2014 07:34 PM**

Test Description	QC Result	Criteria	MSD Result	MSD Conc.	Sample Conc.	MDL	Dilution
Dibenz(a,h)anthracene	81.7 %	40-120%	0.134 mg/Kg	0.164	<0.000285	0.000285	1
Fluoranthene	65.8 %	40-120%	0.108 mg/Kg	0.164	<0.000184	0.000184	1
Fluorene	60.1 %	40-120%	0.0987 mg/Kg	0.164	<0.000186	0.000186	1
Indeno(1,2,3-cd)pyrene	78.6 %	40-120%	0.129 mg/Kg	0.164	<0.000220	0.000220	1
2-Methylnaphthalene	55.6 %	40-120%	0.0913 mg/Kg	0.164	<0.000118	0.000118	1
Naphthalene	55.7 %	40-120%	0.0914 mg/Kg	0.164	<0.000187	0.000187	1
Phenanthrene	68.9 %	40-120%	0.113 mg/Kg	0.164	<0.000474	0.000474	1
Pyrene	60.1 %	40-120%	0.0986 mg/Kg	0.164	<0.000191	0.000191	1

**Surrogate Recovery:**

2-Fluorobiphenyl	56.5 %	33-115%	0.185 mg/Kg	0.327			1
Nitrobenzene-d5	61.4 %	29-110%	0.201 mg/Kg	0.327			1
4-Terphenyl-d14	70.9 %	33-122%	0.232 mg/Kg	0.327			1

**Matrix Spike Duplicate - L 89765-MSD-L199302**

**QC Measurement:   RPD**

**DateTime Analyzed: 05/16/2014 07:34 PM**

Test Description	QC Result	Criteria	MSD Result	MSD Conc.	Sample Conc.	MDL	Dilution
Acenaphthene	0.9 %	< 30	0.103 mg/Kg		0.104	0.000087	1
Acenaphthylene	4.4 %	< 30	0.0966 mg/Kg		0.101	0.000051	1
Anthracene	5.5 %	< 30	0.106 mg/Kg		0.112	0.000212	1
Benzo(a)anthracene	3.1 %	< 30	0.126 mg/Kg		0.130	0.000570	1
Benzo(a)pyrene	5.0 %	< 30	0.122 mg/Kg		0.116	0.000539	1
Benzo(b)fluoranthene	0.0 %	< 30	0.123 mg/Kg		0.123	0.000273	1
Benzo(g,h,i)perylene	5.0 %	< 30	0.121 mg/Kg		0.115	0.000209	1
Benzo(k)fluoranthene	7.8 %	< 30	0.119 mg/Kg		0.110	0.000192	1
Chrysene	0.0 %	< 30	0.119 mg/Kg		0.119	0.000312	1
Dibenz(a,h)anthracene	0.0 %	< 30	0.134 mg/Kg		0.134	0.000285	1
Fluoranthene	1.8 %	< 30	0.108 mg/Kg		0.110	0.000184	1
Fluorene	0.8 %	< 30	0.0987 mg/Kg		0.0995	0.000186	1
Indeno(1,2,3-cd)pyrene	1.5 %	< 30	0.129 mg/Kg		0.127	0.000220	1

**QC Report**

Client ID               **Ensafe**  
 Project Description    714 N. Second St.  
 Report No              14-135-0223

**Analytical Method: 8270C SIM**

**Batch: L199485**

**Prep Method: 3546**

**Batch: L199302   5/16/2014 9:00**

**Matrix Spike Duplicate - L 89765-MSD-L199302**

**QC Measurement:   RPD**

**DateTime Analyzed: 05/16/2014 07:34 PM**

<b>Test Description</b>	<b>QC Result</b>	<b>Criteria</b>	<b>MSD Result</b>	<b>MSD Conc.</b>	<b>Sample Conc.</b>	<b>MDL</b>	<b>Dilution</b>
2-Methylnaphthalene	7.7 %	< 30	0.0913 mg/Kg		0.0987	0.000118	1
Naphthalene	5.5 %	< 30	0.0914 mg/Kg		0.0966	0.000187	1
Phenanthrene	0.8 %	< 30	0.113 mg/Kg		0.112	0.000474	1
Pyrene	10.0 %	< 30	0.0986 mg/Kg		0.109	0.000191	1



**Cooler Receipt Form**

Customer Number: **03180**

Customer Name: **Ensafe**

Report Number: **14-135-0223**

**Shipping Method**

Fed Ex     
  US Postal     
  Lab     
  Other :   
 UPS     
  Client     
  Courier     
 Thermometer ID:

Shipping container/cooler uncompromised?	<input checked="" type="radio"/> Yes	<input type="radio"/> No	
Custody seals intact on shipping container/cooler?	<input checked="" type="radio"/> Yes	<input type="radio"/> No	<input type="radio"/> Not Required
Custody seals intact on sample bottles?	<input type="radio"/> Yes	<input type="radio"/> No	<input checked="" type="radio"/> Not Required
Chain of Custody (COC) present?	<input checked="" type="radio"/> Yes	<input type="radio"/> No	
COC agrees with sample label(s)?	<input checked="" type="radio"/> Yes	<input type="radio"/> No	
COC properly completed	<input checked="" type="radio"/> Yes	<input type="radio"/> No	
Samples in proper containers?	<input checked="" type="radio"/> Yes	<input type="radio"/> No	
Sample containers intact?	<input checked="" type="radio"/> Yes	<input type="radio"/> No	
Sufficient sample volume for indicated test(s)?	<input checked="" type="radio"/> Yes	<input type="radio"/> No	
All samples received within holding time?	<input checked="" type="radio"/> Yes	<input type="radio"/> No	
Cooler temperature in compliance?	<input checked="" type="radio"/> Yes	<input type="radio"/> No	
Cooler/Samples arrived at the laboratory on ice. Samples were considered acceptable as cooling process had begun.	<input checked="" type="radio"/> Yes	<input type="radio"/> No	
Water - Sample containers properly preserved	<input type="radio"/> Yes	<input type="radio"/> No	<input checked="" type="radio"/> N/A
Water - VOA vials free of headspace	<input type="radio"/> Yes	<input type="radio"/> No	<input checked="" type="radio"/> N/A
Trip Blanks received with VOAs	<input type="radio"/> Yes	<input type="radio"/> No	<input checked="" type="radio"/> N/A
Soil VOA method 5035 – compliance criteria met	<input type="radio"/> Yes	<input type="radio"/> No	<input checked="" type="radio"/> N/A
<input type="checkbox"/> High concentration container (48 hr)	<input type="checkbox"/> Low concentration EnCore samplers (48 hr)		
<input type="checkbox"/> High concentration pre-weighed (methanol -14 d)	<input type="checkbox"/> Low conc pre-weighed vials (Sod Bis -14 d)		
Special precautions or instructions included?	<input type="radio"/> Yes	<input checked="" type="radio"/> No	

Comments:

Any regulatory non-compliance issues will be recorded on non-compliance report.

Signature:

Date & Time:

**CHAIN OF CUSTODY AND ANALYTICAL REQUEST RECORD**



EnSafe Inc. 800-588-7962

Project Name: MLB  
 Site Location: 714 N. Second St Memphis TN  
 Sampler/Site Phone# Dave Fuenrey 338-7798

Sampler: Dave Fuenrey & Jennifer Cox  
 Send Results To: Allison Harris Email: Aharris@ensafe.com  
 Data Shipping Address: 5724 Summer Trees Dr Memphis TN 38134

COC No. JMCD5H14 of 1  
 Project No. 088815H1 Phase PH04 Task  
 Lab Name ETC

Sample Analysis Requested (Fill in the number of containers for each test)

Sample ID (sys_samp_code)	Location ID (sys_loc_code)	Date (mm/dd/yy)	Time (Military) (hhmm)	Matrix Code (1)	Sample Type (2)	Field Filtered (Y/N)	Total No. of Containers	Remarks
<u>MLBSTW0116</u>	<u>TW01</u>	<u>05/14/14</u>	<u>1145</u>	<u>SO</u>	<u>N</u>	<u>N</u>	<u>2</u>	<u>VOCs</u>
<u>MLBSTW0132</u>	<u>TW01</u>	<u>05/14/14</u>	<u>1150</u>	<u>SO</u>	<u>N</u>	<u>N</u>	<u>2</u>	<u>PCRA Metals</u>
<u>MLBSTW0208</u>	<u>TW02</u>	<u>05/14/14</u>	<u>1405</u>	<u>SO</u>	<u>N</u>	<u>N</u>	<u>2</u>	<u>VOCs</u>
<u>MLBSTW0220</u>	<u>TW02</u>	<u>05/14/14</u>	<u>1415</u>	<u>SO</u>	<u>N</u>	<u>N</u>	<u>2</u>	<u>PCRA Metals</u>
<u>MLBSTW0312</u>	<u>TW03</u>	<u>05/14/14</u>	<u>1520</u>	<u>SO</u>	<u>N</u>	<u>N</u>	<u>2</u>	<u>VOCs</u>
<u>MLBSTW0316</u>	<u>TW03</u>	<u>05/14/14</u>	<u>1525</u>	<u>SO</u>	<u>N</u>	<u>N</u>	<u>2</u>	<u>PCRA Metals</u>

14-135-0223  
 03180  
 05-15-2014  
 09:10:18



Ensafe  
 714 N. Second St.

Turnaround Time(specify): **Final** 5 days **Email** (if applicable) 5 days  
 Deliverable (check): Level 2  Level 3  Level 4  TX TRRP-13

**Field Comments:**  
Need 5 day turnaround

**Lab Comments:**  
Custom seals intact on cooler  
CSB 5/15/14 Time  
0.4°C T2

Relinquished by (signature) Jennifer Cox Date 5/15/14 8:45 AM  
 Received by (signature) J. Smith Date 5-15-14 8:45

Number of coolers in shipment: 1  
 Samples Tced?(check) Yes  No   
 Method of Shipment: Deliver  
 Airbill No: \_\_\_\_\_  
 Date Shipped: 05-15-14

(1) Matrix Code: AA=Air, AQ=Air Quality Control Matrix, DC=Drill Cuttings, GS=Soil Gas, LD=Drilling Fluid, LF=Free Product, LH=Liquid Waste, Oil=Oil, SB=Isentropic, SC=Cement, SE=Sediment, SF=Filter Sandpack, SL=Sludge, SN=Miscellaneous Solid/Building Materials, SO=Soil, SQ=Soil/Solid Quality Control Matrix, ST=Solid Waste, SW=Swab/Wipe, TA=Animal Tissue, TP=Plant Tissue, TQ=Tissue Quality Control Matrix, U=Unknown, WA=Aqueous Drill Cuttings, WE=Estuary, WG=Ground Water, WL=Leachate, WO=Ocean Water, WP=Drinking Water, WQ=Water Quality Control Matrix, WS=Surface Water, WW=Waste Water  
 (2) Sample Type: AB=Ambient Blank, EB=Equipment Blank, FB=Field Blank, FD=Field Duplicate Sample, FR=Field Replicate, MB=Material Blank, N=Normal Environmental Sample, RB=Material Rise Blank, TB=Trip Blank  
 (3) Preservative added: HA=Hydrochloric Acid, NI=Nitric Acid, SH=Sulfuric Acid, SA=Sulfuric Acid, AA=Ascorbic Acid, HX=Hexane, ME=Methanol, SB=sodium bisulfate, ST=Sodium Thiosulfate, IF NO preservative added leave blank

5/21/2014

Ensafe  
Ms. Allison Harris  
5724 Summer Tree Drive  
Memphis, TN, 38134

Ref: Analytical Testing  
ETC Report Number: 14-136-0297  
Client Project Description: MLB  
714 N. Second St./Memphis, TN  
Project #0888815441  
Project Number: 714 N. Second St. - Memphis

Dear Ms. Allison Harris:

Environmental Testing and Consulting, Inc. received sample(s) on 5/16/2014 for the analyses presented in the following report.

The above referenced project has been analyzed per your instructions. The analyses were performed in accordance with the applicable analytical method.

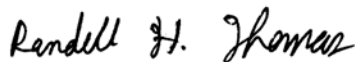
The analytical data has been validated using standard quality control measures performed as required by the analytical method. Quality Assurance, method validations, instrumentation maintenance and calibration for all parameters (NELAP and non-NELAP) were performed in accordance with guidelines established by the USEPA (including 40 CFR 136 Method Update Rule May 2012) and NELAC unless otherwise indicated. Any parameter for which the laboratory is not officially NELAP accredited is indicated by a '-' symbol. These are not included in the scope because NELAP accreditation is either not available or has not been applied for. Additional certifications may be held/are available for parameters, where NELAP accreditation is not required or applicable. A full list of certifications is available upon request.

Per EPA Methods Update Rule (May 2012), all methods from Standard Methods for the Examination of Water and Wastewater are reported to include the year of approval.

The results are shown on the attached Report of Analysis(s). Results for solid matrices are reported on an as-received basis unless otherwise indicated. This report shall not be reproduced except in full and relates only to the samples included in this report.

Please do not hesitate to contact me or client services if you have any questions or need additional information.

Sincerely,



Randy Thomas  
Project Manager

*Laboratory's liability in any claim relating to analyses performed shall be limited to, at laboratory's option, repeating the analysis in question at laboratory's expense, or the refund of the charges paid for performance of said analysis.*

Alabama #40750	Louisiana #04015	VA NELAP #460181	Texas #T104704180-11-6	Arkansas #88-0650
Mississippi	California #2904	NC #415	Oklahoma #9311	Virginia #00106
Kentucky #90047	Tennessee #TN02027	EPA #TN00012	Kentucky UST #41	Kansas #E-10396



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Client: Ensafe

**CASE NARRATIVE**

Project: MLB

Lab Report Number: 14-136-0297

Date: 5/21/2014

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**Volatile Organic Compounds - GC/MS Method SW-8260B**

Sample 90302 (MLBGTW0201)

Analyte: 1,2-Dichloroethane-d4

QC Batch No: L199684

Surrogate(s) exhibited a high bias in this project sample where no target analytes were detected. The high recovery(s) had no impact on the data. Batch QC samples (method blank and laboratory control samples) all showed surrogates within QC limits.

**Semivolatile Organic Compounds - GC/MS (SIM) Method SW-8270C (SIM LVI)**

Sample ()

Analyte: Naphthalene

QC Batch No: L199718

Target analyte(s) was identified in the method blank associated with this project. Per laboratory protocol any associated affected sample result is flagged "B" to indicate that it was detected in the method blank at a concentration of 0.010J ug/L.

Analyte: 2-Methylnaphthalene

QC Batch No: L199718

Target analyte(s) was identified in the method blank associated with this project. Per laboratory protocol any associated affected sample result is flagged "B" to indicate that it was detected in the method blank at a concentration of 0.013J ug/L.

Analyte: Phenanthrene

QC Batch No: L199718

Target analyte(s) was identified in the method blank associated with this project. Per laboratory protocol any associated affected sample result is flagged "B" to indicate that it was detected in the method blank at a concentration of 0.010J ug/L.

## Sample Summary Table

**Report Number:** 14-136-0297  
**Client Project Description:** **MLB**  
**714 N. Second St./Memphis, TN**  
**Project #0888815441**

Lab No	Client Sample ID	Matrix	Date Collected	Date Received	Method	Lab ID
90302	MLBGTW0201	Aqueous	05/16/2014 09:50	05/16/2014	6010B	ETC
90302	MLBGTW0201	Aqueous	05/16/2014 09:50	05/16/2014	7470A	ETC
90302	MLBGTW0201	Aqueous	05/16/2014 09:50	05/16/2014	8260B	ETC
90302	MLBGTW0201	Aqueous	05/16/2014 09:50	05/16/2014	8270C SIM	ETC
90303	MLBGTW0301	Aqueous	05/16/2014 10:30	05/16/2014	6010B	ETC
90303	MLBGTW0301	Aqueous	05/16/2014 10:30	05/16/2014	7470A	ETC
90303	MLBGTW0301	Aqueous	05/16/2014 10:30	05/16/2014	8260B	ETC
90303	MLBGTW0301	Aqueous	05/16/2014 10:30	05/16/2014	8270C SIM	ETC
90304	MLBGTW0401	Aqueous	05/16/2014 10:40	05/16/2014	6010B	ETC
90304	MLBGTW0401	Aqueous	05/16/2014 10:40	05/16/2014	7470A	ETC
90304	MLBGTW0401	Aqueous	05/16/2014 10:40	05/16/2014	8260B	ETC
90304	MLBGTW0401	Aqueous	05/16/2014 10:40	05/16/2014	8270C SIM	ETC
90305	MLBGTW0501	Aqueous	05/16/2014 11:00	05/16/2014	6010B	ETC
90305	MLBGTW0501	Aqueous	05/16/2014 11:00	05/16/2014	7470A	ETC
90305	MLBGTW0501	Aqueous	05/16/2014 11:00	05/16/2014	8260B	ETC
90305	MLBGTW0501	Aqueous	05/16/2014 11:00	05/16/2014	8270C SIM	ETC
90306	MLBGTW0601	Aqueous	05/16/2014 11:20	05/16/2014	6010B	ETC
90306	MLBGTW0601	Aqueous	05/16/2014 11:20	05/16/2014	7470A	ETC
90306	MLBGTW0601	Aqueous	05/16/2014 11:20	05/16/2014	8260B	ETC
90306	MLBGTW0601	Aqueous	05/16/2014 11:20	05/16/2014	8270C SIM	ETC
90307	MLBGTW0701	Aqueous	05/16/2014 11:50	05/16/2014	6010B	ETC
90307	MLBGTW0701	Aqueous	05/16/2014 11:50	05/16/2014	7470A	ETC
90307	MLBGTW0701	Aqueous	05/16/2014 11:50	05/16/2014	8260B	ETC
90307	MLBGTW0701	Aqueous	05/16/2014 11:50	05/16/2014	8270C SIM	ETC
90308	MLBT051614	Aqueous	05/16/2014 09:30	05/16/2014	8260B	ETC



03180

Ensafe

Ms. Allison Harris

5724 Summer Tree Drive

Memphis, TN 38134

Project ID :

Project MLB

Information : 714 N. Second St./Memphis, TN

Project #0888815441

Report Date : 05/21/2014

Received : 5/16/2014

Report Number : **14-136-0297**

### REPORT OF ANALYSIS

Lab No : **90302**

Sample ID : **MLBGTW0201**

Matrix: **Aqueous**

Sampled: **5/16/2014 9:50**

Test	Results	Units	MDL	MQL	DF	Date / Time Analyzed	By	Analytical Method
Total Arsenic	<0.006	mg/L	0.006	0.010	1	05/19/14 17:40	BKN	6010B
Total Barium	<b>0.104</b>	mg/L	0.001	0.010	1	05/19/14 17:40	BKN	6010B
Total Cadmium	<0.0003	mg/L	0.0003	0.0020	1	05/19/14 17:40	BKN	6010B
Total Chromium	<0.001	mg/L	0.001	0.005	1	05/19/14 17:40	BKN	6010B
Total Lead	<0.003	mg/L	0.003	0.006	1	05/19/14 17:40	BKN	6010B
Total Mercury	<0.00005	mg/L	0.00005	0.00020	1	05/19/14 11:42	JRS	7470A
Total Selenium	<0.008	mg/L	0.008	0.010	1	05/19/14 17:40	BKN	6010B
Total Silver	<0.0008	mg/L	0.0008	0.0050	1	05/19/14 17:40	BKN	6010B

#### Qualifiers/ Definitions

*	Outside QC limit	B	Analyte detected in blank
DF	Dilution Factor	J	Estimated value
MQL	Method Quantitation Limit		



03180

Ensafe  
Ms. Allison Harris  
5724 Summer Tree Drive  
Memphis, TN 38134

Project ID :  
Project : MLB  
Information : 714 N. Second St./Memphis, TN  
Project #0888815441

Report Date : 05/21/2014  
Received : 5/16/2014

Report Number : **14-136-0297**

**REPORT OF ANALYSIS**

Lab No : **90302**  
Sample ID : **MLBGTW0201**

Matrix: **Aqueous**  
Sampled: **5/16/2014 9:50**

**Analytical Method:** 8260B

**Prep Method:** 5030B

**Prep Batch(es):** L199486

**Date/Time Prepped:** 5/18/2014 08:13:00

Test	Results	Units	MDL	MQL	DF	Date / Time Analyzed	By	Analytical Batch
Acetone	<b>0.0239</b>	mg/L	0.00119	0.0200	1	05/18/14 14:28	SEB	L199487
Acetonitrile	<0.00520	mg/L	0.00520	0.0500	1	05/18/14 14:28	SEB	L199487
Acrolein	<0.00349	mg/L	0.00349	0.0200	1	05/18/14 14:28	SEB	L199487
Acrylonitrile	<0.00116	mg/L	0.00116	0.0200	1	05/18/14 14:28	SEB	L199487
Benzene	<0.00004	mg/L	0.00004	0.00100	1	05/18/14 14:28	SEB	L199487
Bromobenzene	<0.00014	mg/L	0.00014	0.00100	1	05/18/14 14:28	SEB	L199487
Bromochloromethane	<0.00004	mg/L	0.00004	0.00100	1	05/18/14 14:28	SEB	L199487
Bromodichloromethane	<0.00004	mg/L	0.00004	0.00100	1	05/18/14 14:28	SEB	L199487
Bromoform	<0.00008	mg/L	0.00008	0.00100	1	05/18/14 14:28	SEB	L199487
Bromomethane	<0.00019	mg/L	0.00019	0.00100	1	05/18/14 14:28	SEB	L199487
Methyl Ethyl Ketone (MEK)	<0.00086	mg/L	0.00086	0.0200	1	05/18/14 14:28	SEB	L199487
n-Butylbenzene	<0.00006	mg/L	0.00006	0.00100	1	05/18/14 14:28	SEB	L199487
sec-Butyl benzene	<0.00004	mg/L	0.00004	0.00100	1	05/18/14 14:28	SEB	L199487
tert-Butyl benzene	<0.00004	mg/L	0.00004	0.00100	1	05/18/14 14:28	SEB	L199487
Carbon Disulfide	<b>0.00021 JB</b>	mg/L	0.00004	0.00100	1	05/18/14 14:28	SEB	L199487
Carbon Tetrachloride	<0.00005	mg/L	0.00005	0.00100	1	05/18/14 14:28	SEB	L199487
Chlorobenzene	<0.00004	mg/L	0.00004	0.00100	1	05/18/14 14:28	SEB	L199487
Chlorodibromomethane	<0.00050	mg/L	0.00050	0.00100	1	05/18/14 14:28	SEB	L199487
Chloroethane	<0.00012	mg/L	0.00012	0.00100	1	05/18/14 14:28	SEB	L199487
2-Chloroethylvinyl Ether	<0.00099	mg/L	0.00099	0.00500	1	05/18/14 14:28	SEB	L199487
Chloroform	<0.00010	mg/L	0.00010	0.00100	1	05/18/14 14:28	SEB	L199487
Chloromethane	<0.00023	mg/L	0.00023	0.00100	1	05/18/14 14:28	SEB	L199487

Qualifiers/Definitions	*	Outside QC limit	B	Analyte detected in blank
	DF	Dilution Factor	J	Estimated value
	MQL	Method Quantitation Limit		



03180

Ensafe  
Ms. Allison Harris  
5724 Summer Tree Drive  
Memphis, TN 38134

Project ID :  
Project : MLB  
Information : 714 N. Second St./Memphis, TN  
Project #0888815441

Report Date : 05/21/2014  
Received : 5/16/2014

Report Number : **14-136-0297**

**REPORT OF ANALYSIS**

Lab No : **90302**  
Sample ID : **MLBGTW0201**

Matrix: **Aqueous**  
Sampled: **5/16/2014 9:50**

**Analytical Method:** 8260B

**Prep Method:** 5030B

**Prep Batch(es):** L199486

**Date/Time Prepped:** 5/18/2014 08:13:00

Test	Results	Units	MDL	MLQ	DF	Date / Time Analyzed	By	Analytical Batch
2-Chlorotoluene	<0.00005	mg/L	0.00005	0.00100	1	05/18/14 14:28	SEB	L199487
4-Chlorotoluene	<0.00006	mg/L	0.00006	0.00100	1	05/18/14 14:28	SEB	L199487
1,2-Dibromo-3-Chloropropane	<0.00033	mg/L	0.00033	0.00500	1	05/18/14 14:28	SEB	L199487
1,2-Dibromoethane	<0.00009	mg/L	0.00009	0.00100	1	05/18/14 14:28	SEB	L199487
Dibromomethane	<0.00005	mg/L	0.00005	0.00100	1	05/18/14 14:28	SEB	L199487
1,2-Dichlorobenzene	<0.00009	mg/L	0.00009	0.00100	1	05/18/14 14:28	SEB	L199487
1,3-Dichlorobenzene	<0.00009	mg/L	0.00009	0.00100	1	05/18/14 14:28	SEB	L199487
1,4-Dichlorobenzene	<0.00018	mg/L	0.00018	0.00100	1	05/18/14 14:28	SEB	L199487
Dichlorodifluoromethane	<0.00006	mg/L	0.00006	0.00100	1	05/18/14 14:28	SEB	L199487
1,1-Dichloroethane	<0.00011	mg/L	0.00011	0.00100	1	05/18/14 14:28	SEB	L199487
1,2-Dichloroethane	<0.00028	mg/L	0.00028	0.00100	1	05/18/14 14:28	SEB	L199487
1,1-Dichloroethene	<0.00007	mg/L	0.00007	0.00100	1	05/18/14 14:28	SEB	L199487
cis-1,2-Dichloroethene	<b>0.00149</b>	mg/L	0.00007	0.00100	1	05/18/14 14:28	SEB	L199487
trans-1,2-Dichloroethene	<0.00005	mg/L	0.00005	0.00100	1	05/18/14 14:28	SEB	L199487
1,2-Dichloroethene (Total)	<b>0.00149</b>	mg/L	0.00005	0.00100	1	05/18/14 14:28		L199487
1,2-Dichloropropane	<0.00003	mg/L	0.00003	0.00100	1	05/18/14 14:28	SEB	L199487
1,3-Dichloropropane	<0.00004	mg/L	0.00004	0.00100	1	05/18/14 14:28	SEB	L199487
2,2-Dichloropropane	<0.00007	mg/L	0.00007	0.00100	1	05/18/14 14:28	SEB	L199487
1,1-Dichloropropene	<0.00016	mg/L	0.00016	0.00100	1	05/18/14 14:28	SEB	L199487
cis-1,3-Dichloropropene	<0.00003	mg/L	0.00003	0.00100	1	05/18/14 14:28	SEB	L199487
trans-1,3-Dichloropropene	<0.00006	mg/L	0.00006	0.00100	1	05/18/14 14:28	SEB	L199487
Ethyl Acetate	<0.00007	mg/L	0.00007	0.0100	1	05/18/14 14:28	SEB	L199487

Qualifiers/Definitions	*	Outside QC limit	B	Analyte detected in blank
	DF	Dilution Factor	J	Estimated value
	MLQ	Method Quantitation Limit		

03180

Ensafe  
 Ms. Allison Harris  
 5724 Summer Tree Drive  
 Memphis, TN 38134

Project ID :  
 Project : MLB  
 Information : 714 N. Second St./Memphis, TN  
 Project #0888815441

Report Date : 05/21/2014  
 Received : 5/16/2014

Report Number : **14-136-0297**

**REPORT OF ANALYSIS**

Lab No : **90302**  
 Sample ID : **MLBGTW0201**

Matrix: **Aqueous**  
 Sampled: **5/16/2014 9:50**

**Analytical Method:** 8260B

**Prep Method:** 5030B

**Prep Batch(es):** L199486

**Date/Time Prepped:** 5/18/2014 08:13:00

Test	Results	Units	MDL	MQL	DF	Date / Time Analyzed	By	Analytical Batch
Ethylbenzene	<0.00005	mg/L	0.00005	0.00100	1	05/18/14 14:28	SEB	L199487
Hexachlorobutadiene	<0.00012	mg/L	0.00012	0.00100	1	05/18/14 14:28	SEB	L199487
2-Hexanone	<0.00131	mg/L	0.00131	0.00500	1	05/18/14 14:28	SEB	L199487
Iodomethane	<b>0.00049 JB</b>	mg/L	0.00007	0.00500	1	05/18/14 14:28	SEB	L199487
Isopropylbenzene	<0.00005	mg/L	0.00005	0.00100	1	05/18/14 14:28	SEB	L199487
4-Isopropyl toluene	<0.00004	mg/L	0.00004	0.00100	1	05/18/14 14:28	SEB	L199487
Methyl tert-butyl ether (MTBE)	<0.00004	mg/L	0.00004	0.00100	1	05/18/14 14:28	SEB	L199487
4-Methyl-2-Pentanone	<0.00111	mg/L	0.00111	0.00500	1	05/18/14 14:28	SEB	L199487
Methylene Chloride	<0.00041	mg/L	0.00041	0.00500	1	05/18/14 14:28	SEB	L199487
Naphthalene	<0.00054	mg/L	0.00054	0.00500	1	05/18/14 14:28	SEB	L199487
n-Propylbenzene	<0.00004	mg/L	0.00004	0.00100	1	05/18/14 14:28	SEB	L199487
Styrene	<0.00005	mg/L	0.00005	0.00100	1	05/18/14 14:28	SEB	L199487
1,1,1,2-Tetrachloroethane	<0.00006	mg/L	0.00006	0.00100	1	05/18/14 14:28	SEB	L199487
1,1,2,2-Tetrachloroethane	<0.00009	mg/L	0.00009	0.00100	1	05/18/14 14:28	SEB	L199487
Tetrachloroethene	<0.00007	mg/L	0.00007	0.00100	1	05/20/14 17:34	SEB	L199684
Toluene	<0.00004	mg/L	0.00004	0.00500	1	05/18/14 14:28	SEB	L199487
1,2,3-Trichlorobenzene	<0.00047	mg/L	0.00047	0.00100	1	05/18/14 14:28	SEB	L199487
1,2,4-Trichlorobenzene	<0.00037	mg/L	0.00037	0.00100	1	05/18/14 14:28	SEB	L199487
1,1,1-Trichloroethane	<0.00013	mg/L	0.00013	0.00100	1	05/18/14 14:28	SEB	L199487
1,1,2-Trichloroethane	<0.00004	mg/L	0.00004	0.00100	1	05/18/14 14:28	SEB	L199487
Trichloroethene	<0.00008	mg/L	0.00008	0.00100	1	05/18/14 14:28	SEB	L199487
Trichlorofluoromethane	<0.00004	mg/L	0.00004	0.00100	1	05/18/14 14:28	SEB	L199487

Qualifiers/Definitions	*	Outside QC limit	B	Analyte detected in blank
	DF	Dilution Factor	J	Estimated value
	MQL	Method Quantitation Limit		

03180

Ensafe  
Ms. Allison Harris  
5724 Summer Tree Drive  
Memphis, TN 38134

Project ID :  
Project : MLB  
Information : 714 N. Second St./Memphis, TN  
Project #0888815441

Report Date : 05/21/2014  
Received : 5/16/2014

Report Number : **14-136-0297**

**REPORT OF ANALYSIS**

Lab No : **90302**  
Sample ID : **MLBGTW0201**

Matrix: **Aqueous**  
Sampled: **5/16/2014 9:50**

**Analytical Method:** 8260B

**Prep Method:** 5030B

**Prep Batch(es):** L199486

**Date/Time Prepped:** 5/18/2014 08:13:00

Test	Results	Units	MDL	MLQ	DF	Date / Time Analyzed	By	Analytical Batch
1,2,3-Trichloropropane	<0.00010	mg/L	0.00010	0.00100	1	05/18/14 14:28	SEB	L199487
1,2,4-Trimethylbenzene	<0.00005	mg/L	0.00005	0.00100	1	05/18/14 14:28	SEB	L199487
1,3,5-Trimethylbenzene	<0.00006	mg/L	0.00006	0.00100	1	05/18/14 14:28	SEB	L199487
Vinyl Acetate	<0.00006	mg/L	0.00006	0.0100	1	05/18/14 14:28	SEB	L199487
Vinyl Chloride	<0.00004	mg/L	0.00004	0.00100	1	05/18/14 14:28	SEB	L199487
o-Xylene	<0.00007	mg/L	0.00007	0.00100	1	05/18/14 14:28	SEB	L199487
m,p-Xylene	<0.00012	mg/L	0.00012	0.00200	1	05/18/14 14:28	SEB	L199487
Xylene (Total)	<0.00007	mg/L	0.00007	0.0010	1	05/18/14 14:28		L199487
Surrogate: 4-Bromofluorobenzene	104		Limits: 71-137%		1	05/20/14 17:34	SEB	L199684
Surrogate: 4-Bromofluorobenzene	97.6		Limits: 71-137%		1	05/18/14 14:28	SEB	L199487
Surrogate: Dibromofluoromethane	96.0		Limits: 70-128%		1	05/20/14 17:34	SEB	L199684
Surrogate: Dibromofluoromethane	85.0		Limits: 70-128%		1	05/18/14 14:28	SEB	L199487
Surrogate: 1,2-Dichloroethane - d4	<b>141 *</b>		Limits: 63-136%		1	05/20/14 17:34	SEB	L199684
Surrogate: 1,2-Dichloroethane - d4	125		Limits: 63-136%		1	05/18/14 14:28	SEB	L199487
Surrogate: Toluene-d8	106		Limits: 70-130%		1	05/20/14 17:34	SEB	L199684
Surrogate: Toluene-d8	97.4		Limits: 70-130%		1	05/18/14 14:28	SEB	L199487

**Analytical Method:** 8270C SIM

**Prep Method:** 3511

**Prep Batch(es):** L199437

**Date/Time Prepped:** 5/19/2014 09:15:00

Test	Results	Units	MDL	MLQ	DF	Date / Time Analyzed	By	Analytical Batch
Acenaphthene	<0.000010	mg/L	0.000010	0.000020	1	05/20/14 14:09	NFP	L199718
Acenaphthylene	<0.000010	mg/L	0.000010	0.000020	1	05/20/14 14:09	NFP	L199718

Qualifiers/Definitions				
*	Outside QC limit		B	Analyte detected in blank
DF	Dilution Factor		J	Estimated value
MLQ	Method Quantitation Limit			



03180

Ensafe  
Ms. Allison Harris  
5724 Summer Tree Drive  
Memphis, TN 38134

Project ID :  
Project : MLB  
Information : 714 N. Second St./Memphis, TN  
Project #0888815441

Report Date : 05/21/2014  
Received : 5/16/2014

Report Number : 14-136-0297

### REPORT OF ANALYSIS

Lab No : 90302  
Sample ID : MLBGTW0201

Matrix: Aqueous  
Sampled: 5/16/2014 9:50

Analytical Method: 8270C SIM

Prep Method: 3511

Prep Batch(es): L199437

Date/Time Prepped: 5/19/2014 09:15:00

Test	Results	Units	MDL	SQL	DF	Date / Time Analyzed	By	Analytical Batch
Anthracene	0.000042	mg/L	0.000010	0.000020	1	05/20/14 14:09	NFP	L199718
Benzo(a)anthracene	<0.000010	mg/L	0.000010	0.000020	1	05/20/14 14:09	NFP	L199718
Benzo(a)pyrene	<0.000010	mg/L	0.000010	0.000020	1	05/20/14 14:09	NFP	L199718
Benzo(b)fluoranthene	<0.000010	mg/L	0.000010	0.000020	1	05/20/14 14:09	NFP	L199718
Benzo(g,h,i)perylene	<0.000010	mg/L	0.000010	0.000020	1	05/20/14 14:09	NFP	L199718
Benzo(k)fluoranthene	<0.000010	mg/L	0.000010	0.000020	1	05/20/14 14:09	NFP	L199718
Chrysene	<0.000010	mg/L	0.000010	0.000020	1	05/20/14 14:09	NFP	L199718
Dibenz(a,h)anthracene	<0.000010	mg/L	0.000010	0.000020	1	05/20/14 14:09	NFP	L199718
Fluoranthene	<0.000010	mg/L	0.000010	0.000020	1	05/20/14 14:09	NFP	L199718
Fluorene	0.000031	mg/L	0.000010	0.000020	1	05/20/14 14:09	NFP	L199718
Indeno(1,2,3-cd)pyrene	<0.000010	mg/L	0.000010	0.000020	1	05/20/14 14:09	NFP	L199718
2-Methylnaphthalene	0.000058 B	mg/L	0.000010	0.000020	1	05/20/14 14:09	NFP	L199718
Naphthalene	0.000138 B	mg/L	0.000010	0.000020	1	05/20/14 14:09	NFP	L199718
Phenanthrene	0.000082 B	mg/L	0.000010	0.000020	1	05/20/14 14:09	NFP	L199718
Pyrene	<0.000010	mg/L	0.000010	0.000020	1	05/20/14 14:09	NFP	L199718
Surrogate: 2-Fluorobiphenyl	83.3		Limits: 60-140%		1	05/20/14 14:09	NFP	L199718
Surrogate: 4-Terphenyl-d14	82.8		Limits: 60-140%		1	05/20/14 14:09	NFP	L199718

Qualifiers/Definitions	*	Outside QC limit	B	Analyte detected in blank
	DF	Dilution Factor	J	Estimated value
	SQL	Method Quantitation Limit		



03180

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Project ID :  
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Project #0888815441

Report Date : 05/21/2014  
Received : 5/16/2014

Report Number : **14-136-0297**

### REPORT OF ANALYSIS

Lab No : **90303**  
Sample ID : **MLBGTW0301**

Matrix: **Aqueous**  
Sampled: **5/16/2014 10:30**

Test	Results	Units	MDL	MQL	DF	Date / Time Analyzed	By	Analytical Method
Total Arsenic	<0.006	mg/L	0.006	0.010	1	05/19/14 17:44	BKN	6010B
Total Barium	<b>0.142</b>	mg/L	0.001	0.010	1	05/19/14 17:44	BKN	6010B
Total Cadmium	<0.0003	mg/L	0.0003	0.0020	1	05/19/14 17:44	BKN	6010B
Total Chromium	<b>0.001 J</b>	mg/L	0.001	0.005	1	05/19/14 17:44	BKN	6010B
Total Lead	<0.003	mg/L	0.003	0.006	1	05/19/14 17:44	BKN	6010B
Total Mercury	<0.00005	mg/L	0.00005	0.00020	1	05/19/14 11:44	JRS	7470A
Total Selenium	<0.008	mg/L	0.008	0.010	1	05/19/14 17:44	BKN	6010B
Total Silver	<0.0008	mg/L	0.0008	0.0050	1	05/19/14 17:44	BKN	6010B

Qualifiers/ Definitions	*	Outside QC limit	B	Analyte detected in blank
	DF	Dilution Factor	J	Estimated value
	MQL	Method Quantitation Limit		

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Report Date : 05/21/2014  
Received : 5/16/2014

Report Number : **14-136-0297**

**REPORT OF ANALYSIS**

Lab No : **90303**  
Sample ID : **MLBGTW0301**

Matrix: **Aqueous**  
Sampled: **5/16/2014 10:30**

**Analytical Method:** 8260B

**Prep Method:** 5030B

**Prep Batch(es):** L199682

**Date/Time Prepped:** 5/20/2014 08:41:00

Test	Results	Units	MDL	MQL	DF	Date / Time Analyzed	By	Analytical Batch
Acetone	<b>0.0120 J</b>	mg/L	0.00119	0.0200	1	05/20/14 14:25	SEB	L199684
Acetonitrile	<0.00520	mg/L	0.00520	0.0500	1	05/20/14 14:25	SEB	L199684
Acrolein	<0.00349	mg/L	0.00349	0.0200	1	05/20/14 14:25	SEB	L199684
Acrylonitrile	<0.00116	mg/L	0.00116	0.0200	1	05/20/14 14:25	SEB	L199684
Benzene	<0.00004	mg/L	0.00004	0.00100	1	05/20/14 14:25	SEB	L199684
Bromobenzene	<0.00014	mg/L	0.00014	0.00100	1	05/20/14 14:25	SEB	L199684
Bromochloromethane	<0.00004	mg/L	0.00004	0.00100	1	05/20/14 14:25	SEB	L199684
Bromodichloromethane	<0.00004	mg/L	0.00004	0.00100	1	05/20/14 14:25	SEB	L199684
Bromoform	<0.00008	mg/L	0.00008	0.00100	1	05/20/14 14:25	SEB	L199684
Bromomethane	<0.00019	mg/L	0.00019	0.00100	1	05/20/14 14:25	SEB	L199684
Methyl Ethyl Ketone (MEK)	<0.00086	mg/L	0.00086	0.0200	1	05/20/14 14:25	SEB	L199684
n-Butylbenzene	<0.00006	mg/L	0.00006	0.00100	1	05/20/14 14:25	SEB	L199684
sec-Butyl benzene	<0.00004	mg/L	0.00004	0.00100	1	05/20/14 14:25	SEB	L199684
tert-Butyl benzene	<0.00004	mg/L	0.00004	0.00100	1	05/20/14 14:25	SEB	L199684
Carbon Disulfide	<b>0.00019 JB</b>	mg/L	0.00004	0.00100	1	05/20/14 14:25	SEB	L199684
Carbon Tetrachloride	<0.00005	mg/L	0.00005	0.00100	1	05/20/14 14:25	SEB	L199684
Chlorobenzene	<0.00004	mg/L	0.00004	0.00100	1	05/20/14 14:25	SEB	L199684
Chlorodibromomethane	<0.00050	mg/L	0.00050	0.00100	1	05/20/14 14:25	SEB	L199684
Chloroethane	<0.00012	mg/L	0.00012	0.00100	1	05/20/14 14:25	SEB	L199684
2-Chloroethylvinyl Ether	<0.00099	mg/L	0.00099	0.00500	1	05/20/14 14:25	SEB	L199684
Chloroform	<0.00010	mg/L	0.00010	0.00100	1	05/20/14 14:25	SEB	L199684
Chloromethane	<0.00023	mg/L	0.00023	0.00100	1	05/20/14 14:25	SEB	L199684

Qualifiers/Definitions	*	Outside QC limit	B	Analyte detected in blank
	DF	Dilution Factor	J	Estimated value
	MQL	Method Quantitation Limit		

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Project ID :  
Project : MLB  
Information : 714 N. Second St./Memphis, TN  
Project #0888815441

Report Date : 05/21/2014  
Received : 5/16/2014

Report Number : **14-136-0297**

**REPORT OF ANALYSIS**

Lab No : **90303**  
Sample ID : **MLBGTW0301**

Matrix: **Aqueous**  
Sampled: **5/16/2014 10:30**

**Analytical Method:** 8260B

**Prep Method:** 5030B

**Prep Batch(es):** L199682

**Date/Time Prepped:** 5/20/2014 08:41:00

Test	Results	Units	MDL	MLQ	DF	Date / Time Analyzed	By	Analytical Batch
2-Chlorotoluene	<0.00005	mg/L	0.00005	0.00100	1	05/20/14 14:25	SEB	L199684
4-Chlorotoluene	<0.00006	mg/L	0.00006	0.00100	1	05/20/14 14:25	SEB	L199684
1,2-Dibromo-3-Chloropropane	<0.00033	mg/L	0.00033	0.00500	1	05/20/14 14:25	SEB	L199684
1,2-Dibromoethane	<0.00009	mg/L	0.00009	0.00100	1	05/20/14 14:25	SEB	L199684
Dibromomethane	<0.00005	mg/L	0.00005	0.00100	1	05/20/14 14:25	SEB	L199684
1,2-Dichlorobenzene	<0.00009	mg/L	0.00009	0.00100	1	05/20/14 14:25	SEB	L199684
1,3-Dichlorobenzene	<0.00009	mg/L	0.00009	0.00100	1	05/20/14 14:25	SEB	L199684
1,4-Dichlorobenzene	<0.00018	mg/L	0.00018	0.00100	1	05/20/14 14:25	SEB	L199684
Dichlorodifluoromethane	<0.00006	mg/L	0.00006	0.00100	1	05/20/14 14:25	SEB	L199684
1,1-Dichloroethane	<0.00011	mg/L	0.00011	0.00100	1	05/20/14 14:25	SEB	L199684
1,2-Dichloroethane	<0.00028	mg/L	0.00028	0.00100	1	05/20/14 14:25	SEB	L199684
1,1-Dichloroethene	<0.00007	mg/L	0.00007	0.00100	1	05/20/14 14:25	SEB	L199684
cis-1,2-Dichloroethene	<0.00007	mg/L	0.00007	0.00100	1	05/20/14 14:25	SEB	L199684
trans-1,2-Dichloroethene	<0.00005	mg/L	0.00005	0.00100	1	05/20/14 14:25	SEB	L199684
1,2-Dichloroethene (Total)	<0.00005	mg/L	0.00005	0.00100	1	05/20/14 14:25		L199684
1,2-Dichloropropane	<0.00003	mg/L	0.00003	0.00100	1	05/20/14 14:25	SEB	L199684
1,3-Dichloropropane	<0.00004	mg/L	0.00004	0.00100	1	05/20/14 14:25	SEB	L199684
2,2-Dichloropropane	<0.00007	mg/L	0.00007	0.00100	1	05/20/14 14:25	SEB	L199684
1,1-Dichloropropene	<0.00016	mg/L	0.00016	0.00100	1	05/20/14 14:25	SEB	L199684
cis-1,3-Dichloropropene	<0.00003	mg/L	0.00003	0.00100	1	05/20/14 14:25	SEB	L199684
trans-1,3-Dichloropropene	<0.00006	mg/L	0.00006	0.00100	1	05/20/14 14:25	SEB	L199684
Ethyl Acetate	<0.00007	mg/L	0.00007	0.0100	1	05/20/14 14:25	SEB	L199684

Qualifiers/Definitions	*	Outside QC limit	B	Analyte detected in blank
	DF	Dilution Factor	J	Estimated value
	MLQ	Method Quantitation Limit		





03180

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5724 Summer Tree Drive  
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Project ID :  
Project : MLB  
Information : 714 N. Second St./Memphis, TN  
Project #0888815441

Report Date : 05/21/2014  
Received : 5/16/2014

Report Number : 14-136-0297

### REPORT OF ANALYSIS

Lab No : 90303  
Sample ID : MLBGTW0301

Matrix: Aqueous  
Sampled: 5/16/2014 10:30

Analytical Method: 8260B

Prep Method: 5030B

Prep Batch(es): L199682

Date/Time Prepped: 5/20/2014 08:41:00

Test	Results	Units	MDL	MLQ	DF	Date / Time Analyzed	By	Analytical Batch
Ethylbenzene	<0.00005	mg/L	0.00005	0.00100	1	05/20/14 14:25	SEB	L199684
Hexachlorobutadiene	<0.00012	mg/L	0.00012	0.00100	1	05/20/14 14:25	SEB	L199684
2-Hexanone	<0.00131	mg/L	0.00131	0.00500	1	05/20/14 14:25	SEB	L199684
Iodomethane	<0.00007	mg/L	0.00007	0.00500	1	05/20/14 14:25	SEB	L199684
Isopropylbenzene	<0.00005	mg/L	0.00005	0.00100	1	05/20/14 14:25	SEB	L199684
4-Isopropyl toluene	<0.00004	mg/L	0.00004	0.00100	1	05/20/14 14:25	SEB	L199684
Methyl tert-butyl ether (MTBE)	<0.00004	mg/L	0.00004	0.00100	1	05/20/14 14:25	SEB	L199684
4-Methyl-2-Pentanone	<0.00111	mg/L	0.00111	0.00500	1	05/20/14 14:25	SEB	L199684
Methylene Chloride	<0.00041	mg/L	0.00041	0.00500	1	05/20/14 14:25	SEB	L199684
Naphthalene	<b>0.00066 J</b>	mg/L	0.00054	0.00500	1	05/20/14 14:25	SEB	L199684
n-Propylbenzene	<0.00004	mg/L	0.00004	0.00100	1	05/20/14 14:25	SEB	L199684
Styrene	<0.00005	mg/L	0.00005	0.00100	1	05/20/14 14:25	SEB	L199684
1,1,1,2-Tetrachloroethane	<0.00006	mg/L	0.00006	0.00100	1	05/20/14 14:25	SEB	L199684
1,1,2,2-Tetrachloroethane	<0.00009	mg/L	0.00009	0.00100	1	05/20/14 14:25	SEB	L199684
Tetrachloroethene	<b>0.00045 J</b>	mg/L	0.00007	0.00100	1	05/20/14 14:25	SEB	L199684
Toluene	<0.00004	mg/L	0.00004	0.00500	1	05/20/14 14:25	SEB	L199684
1,2,3-Trichlorobenzene	<0.00047	mg/L	0.00047	0.00100	1	05/20/14 14:25	SEB	L199684
1,2,4-Trichlorobenzene	<0.00037	mg/L	0.00037	0.00100	1	05/20/14 14:25	SEB	L199684
1,1,1-Trichloroethane	<0.00013	mg/L	0.00013	0.00100	1	05/20/14 14:25	SEB	L199684
1,1,2-Trichloroethane	<0.00004	mg/L	0.00004	0.00100	1	05/20/14 14:25	SEB	L199684
Trichloroethene	<0.00008	mg/L	0.00008	0.00100	1	05/20/14 14:25	SEB	L199684
Trichlorofluoromethane	<0.00004	mg/L	0.00004	0.00100	1	05/20/14 14:25	SEB	L199684

Qualifiers/Definitions	*	Outside QC limit	B	Analyte detected in blank
	DF	Dilution Factor	J	Estimated value
	MLQ	Method Quantitation Limit		

03180

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Project ID :  
Project : MLB  
Information : 714 N. Second St./Memphis, TN  
Project #0888815441

Report Date : 05/21/2014  
Received : 5/16/2014

Report Number : **14-136-0297**

**REPORT OF ANALYSIS**

Lab No : **90303**  
Sample ID : **MLBGTW0301**

Matrix: **Aqueous**  
Sampled: **5/16/2014 10:30**

**Analytical Method:** 8260B

**Prep Method:** 5030B

**Prep Batch(es):** L199682

**Date/Time Prepped:** 5/20/2014 08:41:00

Test	Results	Units	MDL	MLL	DF	Date / Time Analyzed	By	Analytical Batch
1,2,3-Trichloropropane	<0.00010	mg/L	0.00010	0.00100	1	05/20/14 14:25	SEB	L199684
1,2,4-Trimethylbenzene	<0.00005	mg/L	0.00005	0.00100	1	05/20/14 14:25	SEB	L199684
1,3,5-Trimethylbenzene	<0.00006	mg/L	0.00006	0.00100	1	05/20/14 14:25	SEB	L199684
Vinyl Acetate	<0.00006	mg/L	0.00006	0.0100	1	05/20/14 14:25	SEB	L199684
Vinyl Chloride	<0.00004	mg/L	0.00004	0.00100	1	05/20/14 14:25	SEB	L199684
o-Xylene	<0.00007	mg/L	0.00007	0.00100	1	05/20/14 14:25	SEB	L199684
m,p-Xylene	<0.00012	mg/L	0.00012	0.00200	1	05/20/14 14:25	SEB	L199684
Xylene (Total)	<0.00007	mg/L	0.00007	0.0010	1	05/20/14 14:25		L199684
Surrogate: 4-Bromofluorobenzene	96.2		Limits: 71-137%		1	05/20/14 14:25	SEB	L199684
Surrogate: Dibromofluoromethane	95.0		Limits: 70-128%		1	05/20/14 14:25	SEB	L199684
Surrogate: 1,2-Dichloroethane - d4	124		Limits: 63-136%		1	05/20/14 14:25	SEB	L199684
Surrogate: Toluene-d8	87.8		Limits: 70-130%		1	05/20/14 14:25	SEB	L199684

**Analytical Method:** 8270C SIM

**Prep Method:** 3511

**Prep Batch(es):** L199437

**Date/Time Prepped:** 5/19/2014 09:15:00

Test	Results	Units	MDL	MLL	DF	Date / Time Analyzed	By	Analytical Batch
Acenaphthene	<0.000010	mg/L	0.000010	0.000020	1	05/20/14 14:45	NFP	L199718
Acenaphthylene	<0.000010	mg/L	0.000010	0.000020	1	05/20/14 14:45	NFP	L199718
Anthracene	<b>0.000024</b>	mg/L	0.000010	0.000020	1	05/20/14 14:45	NFP	L199718
Benzo(a)anthracene	<0.000010	mg/L	0.000010	0.000020	1	05/20/14 14:45	NFP	L199718
Benzo(a)pyrene	<0.000010	mg/L	0.000010	0.000020	1	05/20/14 14:45	NFP	L199718
Benzo(b)fluoranthene	<0.000010	mg/L	0.000010	0.000020	1	05/20/14 14:45	NFP	L199718

Qualifiers/Definitions	*	Outside QC limit	B	Analyte detected in blank
	DF	Dilution Factor	J	Estimated value
	MLL	Method Quantitation Limit		



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Project #0888815441

Report Date : 05/21/2014  
Received : 5/16/2014

Report Number : **14-136-0297**

### REPORT OF ANALYSIS

Lab No : **90303**  
Sample ID : **MLBGTW0301**

Matrix: **Aqueous**  
Sampled: **5/16/2014 10:30**

**Analytical Method:** 8270C SIM

**Prep Method:** 3511

**Prep Batch(es):** L199437

**Date/Time Prepped:** 5/19/2014 09:15:00

Test	Results	Units	MDL	ML	DF	Date / Time Analyzed	By	Analytical Batch
Benzo(g,h,i)perylene	<0.000010	mg/L	0.000010	0.000020	1	05/20/14 14:45	NFP	L199718
Benzo(k)fluoranthene	<0.000010	mg/L	0.000010	0.000020	1	05/20/14 14:45	NFP	L199718
Chrysene	<0.000010	mg/L	0.000010	0.000020	1	05/20/14 14:45	NFP	L199718
Dibenz(a,h)anthracene	<0.000010	mg/L	0.000010	0.000020	1	05/20/14 14:45	NFP	L199718
Fluoranthene	<b>0.000010 J</b>	mg/L	0.000010	0.000020	1	05/20/14 14:45	NFP	L199718
Fluorene	<b>0.000019 J</b>	mg/L	0.000010	0.000020	1	05/20/14 14:45	NFP	L199718
Indeno(1,2,3-cd)pyrene	<0.000010	mg/L	0.000010	0.000020	1	05/20/14 14:45	NFP	L199718
2-Methylnaphthalene	<b>0.000042 B</b>	mg/L	0.000010	0.000020	1	05/20/14 14:45	NFP	L199718
Naphthalene	<b>0.000108 B</b>	mg/L	0.000010	0.000020	1	05/20/14 14:45	NFP	L199718
Phenanthrene	<b>0.000040 B</b>	mg/L	0.000010	0.000020	1	05/20/14 14:45	NFP	L199718
Pyrene	<0.000010	mg/L	0.000010	0.000020	1	05/20/14 14:45	NFP	L199718
Surrogate: 2-Fluorobiphenyl	85.6			Limits: 60-140%	1	05/20/14 14:45	NFP	L199718
Surrogate: 4-Terphenyl-d14	90.6			Limits: 60-140%	1	05/20/14 14:45	NFP	L199718

Qualifiers/Definitions	*	Outside QC limit	B	Analyte detected in blank
	DF	Dilution Factor	J	Estimated value
	ML	Method Quantitation Limit		



03180

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Ms. Allison Harris

5724 Summer Tree Drive

Memphis, TN 38134

Project ID :

Project MLB

Information : 714 N. Second St./Memphis, TN

Project #0888815441

Report Date : 05/21/2014

Received : 5/16/2014

Report Number : **14-136-0297**

### REPORT OF ANALYSIS

Lab No : **90304**

Sample ID : **MLBGTW0401**

Matrix: **Aqueous**

Sampled: **5/16/2014 10:40**

Test	Results	Units	MDL	MQL	DF	Date / Time Analyzed	By	Analytical Method
Total Arsenic	<0.006	mg/L	0.006	0.010	1	05/19/14 17:48	BKN	6010B
Total Barium	<b>0.151</b>	mg/L	0.001	0.010	1	05/19/14 17:48	BKN	6010B
Total Cadmium	<0.0003	mg/L	0.0003	0.0020	1	05/19/14 17:48	BKN	6010B
Total Chromium	<b>0.001 J</b>	mg/L	0.001	0.005	1	05/19/14 17:48	BKN	6010B
Total Lead	<0.003	mg/L	0.003	0.006	1	05/19/14 17:48	BKN	6010B
Total Mercury	<b>0.00005 J</b>	mg/L	0.00005	0.00020	1	05/19/14 11:46	JRS	7470A
Total Selenium	<0.008	mg/L	0.008	0.010	1	05/19/14 17:48	BKN	6010B
Total Silver	<0.0008	mg/L	0.0008	0.0050	1	05/19/14 17:48	BKN	6010B

#### Qualifiers/ Definitions

*	Outside QC limit	B	Analyte detected in blank
DF	Dilution Factor	J	Estimated value
MQL	Method Quantitation Limit		

03180

Ensafe

Ms. Allison Harris

5724 Summer Tree Drive

Memphis, TN 38134

Project ID :

Project MLB

Information : 714 N. Second St./Memphis, TN

Project #0888815441

Report Date : 05/21/2014

Received : 5/16/2014

Report Number : **14-136-0297**

## REPORT OF ANALYSIS

Lab No : **90304**

Sample ID : **MLBGTW0401**

Matrix: **Aqueous**

Sampled: **5/16/2014 10:40**

**Analytical Method:** 8260B

**Prep Method:** 5030B

**Prep Batch(es):** L199486

**Date/Time Prepped:** 5/18/2014 08:13:00

Test	Results	Units	MDL	MQL	DF	Date / Time Analyzed	By	Analytical Batch
Acetone	<b>0.0104 J</b>	mg/L	0.00119	0.0200	1	05/18/14 15:10	SEB	L199487
Acetonitrile	<0.00520	mg/L	0.00520	0.0500	1	05/18/14 15:10	SEB	L199487
Acrolein	<0.00349	mg/L	0.00349	0.0200	1	05/18/14 15:10	SEB	L199487
Acrylonitrile	<0.00116	mg/L	0.00116	0.0200	1	05/18/14 15:10	SEB	L199487
Benzene	<0.00004	mg/L	0.00004	0.00100	1	05/18/14 15:10	SEB	L199487
Bromobenzene	<0.00014	mg/L	0.00014	0.00100	1	05/18/14 15:10	SEB	L199487
Bromochloromethane	<0.00004	mg/L	0.00004	0.00100	1	05/18/14 15:10	SEB	L199487
Bromodichloromethane	<0.00004	mg/L	0.00004	0.00100	1	05/18/14 15:10	SEB	L199487
Bromoform	<0.00008	mg/L	0.00008	0.00100	1	05/18/14 15:10	SEB	L199487
Bromomethane	<0.00019	mg/L	0.00019	0.00100	1	05/18/14 15:10	SEB	L199487
Methyl Ethyl Ketone (MEK)	<0.00086	mg/L	0.00086	0.0200	1	05/18/14 15:10	SEB	L199487
n-Butylbenzene	<0.00006	mg/L	0.00006	0.00100	1	05/18/14 15:10	SEB	L199487
sec-Butyl benzene	<0.00004	mg/L	0.00004	0.00100	1	05/18/14 15:10	SEB	L199487
tert-Butyl benzene	<0.00004	mg/L	0.00004	0.00100	1	05/18/14 15:10	SEB	L199487
Carbon Disulfide	<b>0.00041 JB</b>	mg/L	0.00004	0.00100	1	05/18/14 15:10	SEB	L199487
Carbon Tetrachloride	<0.00005	mg/L	0.00005	0.00100	1	05/18/14 15:10	SEB	L199487
Chlorobenzene	<0.00004	mg/L	0.00004	0.00100	1	05/18/14 15:10	SEB	L199487
Chlorodibromomethane	<0.00050	mg/L	0.00050	0.00100	1	05/18/14 15:10	SEB	L199487
Chloroethane	<0.00012	mg/L	0.00012	0.00100	1	05/18/14 15:10	SEB	L199487
2-Chloroethylvinyl Ether	<0.00099	mg/L	0.00099	0.00500	1	05/18/14 15:10	SEB	L199487
Chloroform	<0.00010	mg/L	0.00010	0.00100	1	05/18/14 15:10	SEB	L199487
Chloromethane	<0.00023	mg/L	0.00023	0.00100	1	05/18/14 15:10	SEB	L199487

**Qualifiers/  
Definitions**

*	Outside QC limit	B	Analyte detected in blank
DF	Dilution Factor	J	Estimated value
MQL	Method Quantitation Limit		

03180

Ensafe  
Ms. Allison Harris  
5724 Summer Tree Drive  
Memphis, TN 38134

Project ID :  
Project : MLB  
Information : 714 N. Second St./Memphis, TN  
Project #0888815441

Report Date : 05/21/2014  
Received : 5/16/2014

Report Number : **14-136-0297**

**REPORT OF ANALYSIS**

Lab No : **90304**  
Sample ID : **MLBGTW0401**

Matrix: **Aqueous**  
Sampled: **5/16/2014 10:40**

**Analytical Method:** 8260B

**Prep Method:** 5030B

**Prep Batch(es):** L199486

**Date/Time Prepped:** 5/18/2014 08:13:00

Test	Results	Units	MDL	ML	DF	Date / Time Analyzed	By	Analytical Batch
2-Chlorotoluene	<0.00005	mg/L	0.00005	0.00100	1	05/18/14 15:10	SEB	L199487
4-Chlorotoluene	<0.00006	mg/L	0.00006	0.00100	1	05/18/14 15:10	SEB	L199487
1,2-Dibromo-3-Chloropropane	<0.00033	mg/L	0.00033	0.00500	1	05/18/14 15:10	SEB	L199487
1,2-Dibromoethane	<0.00009	mg/L	0.00009	0.00100	1	05/18/14 15:10	SEB	L199487
Dibromomethane	<0.00005	mg/L	0.00005	0.00100	1	05/18/14 15:10	SEB	L199487
1,2-Dichlorobenzene	<0.00009	mg/L	0.00009	0.00100	1	05/18/14 15:10	SEB	L199487
1,3-Dichlorobenzene	<0.00009	mg/L	0.00009	0.00100	1	05/18/14 15:10	SEB	L199487
1,4-Dichlorobenzene	<0.00018	mg/L	0.00018	0.00100	1	05/18/14 15:10	SEB	L199487
Dichlorodifluoromethane	<0.00006	mg/L	0.00006	0.00100	1	05/18/14 15:10	SEB	L199487
1,1-Dichloroethane	<0.00011	mg/L	0.00011	0.00100	1	05/18/14 15:10	SEB	L199487
1,2-Dichloroethane	<0.00028	mg/L	0.00028	0.00100	1	05/18/14 15:10	SEB	L199487
1,1-Dichloroethene	<0.00007	mg/L	0.00007	0.00100	1	05/18/14 15:10	SEB	L199487
cis-1,2-Dichloroethene	<b>0.0146</b>	mg/L	0.00007	0.00100	1	05/18/14 15:10	SEB	L199487
trans-1,2-Dichloroethene	<0.00005	mg/L	0.00005	0.00100	1	05/18/14 15:10	SEB	L199487
1,2-Dichloroethene (Total)	<b>0.0146</b>	mg/L	0.00005	0.00100	1	05/18/14 15:10		L199487
1,2-Dichloropropane	<0.00003	mg/L	0.00003	0.00100	1	05/18/14 15:10	SEB	L199487
1,3-Dichloropropane	<0.00004	mg/L	0.00004	0.00100	1	05/18/14 15:10	SEB	L199487
2,2-Dichloropropane	<0.00007	mg/L	0.00007	0.00100	1	05/18/14 15:10	SEB	L199487
1,1-Dichloropropene	<0.00016	mg/L	0.00016	0.00100	1	05/18/14 15:10	SEB	L199487
cis-1,3-Dichloropropene	<0.00003	mg/L	0.00003	0.00100	1	05/18/14 15:10	SEB	L199487
trans-1,3-Dichloropropene	<0.00006	mg/L	0.00006	0.00100	1	05/18/14 15:10	SEB	L199487
Ethyl Acetate	<0.00007	mg/L	0.00007	0.0100	1	05/18/14 15:10	SEB	L199487

Qualifiers/Definitions	*	Outside QC limit	B	Analyte detected in blank
	DF	Dilution Factor	J	Estimated value
	ML	Method Quantitation Limit		

03180

Ensafe  
Ms. Allison Harris  
5724 Summer Tree Drive  
Memphis, TN 38134

Project ID :  
Project : MLB  
Information : 714 N. Second St./Memphis, TN  
Project #0888815441

Report Date : 05/21/2014  
Received : 5/16/2014

Report Number : 14-136-0297

**REPORT OF ANALYSIS**

Lab No : 90304  
Sample ID : MLBGTW0401

Matrix: Aqueous  
Sampled: 5/16/2014 10:40

Analytical Method: 8260B

Prep Method: 5030B

Prep Batch(es): L199486

Date/Time Prepped: 5/18/2014 08:13:00

Test	Results	Units	MDL	MQL	DF	Date / Time Analyzed	By	Analytical Batch
Ethylbenzene	<0.00005	mg/L	0.00005	0.00100	1	05/18/14 15:10	SEB	L199487
Hexachlorobutadiene	<0.00012	mg/L	0.00012	0.00100	1	05/18/14 15:10	SEB	L199487
2-Hexanone	<0.00131	mg/L	0.00131	0.00500	1	05/18/14 15:10	SEB	L199487
Iodomethane	<b>0.00050 JB</b>	mg/L	0.00007	0.00500	1	05/18/14 15:10	SEB	L199487
Isopropylbenzene	<0.00005	mg/L	0.00005	0.00100	1	05/18/14 15:10	SEB	L199487
4-Isopropyl toluene	<0.00004	mg/L	0.00004	0.00100	1	05/18/14 15:10	SEB	L199487
Methyl tert-butyl ether (MTBE)	<0.00004	mg/L	0.00004	0.00100	1	05/18/14 15:10	SEB	L199487
4-Methyl-2-Pentanone	<0.00111	mg/L	0.00111	0.00500	1	05/18/14 15:10	SEB	L199487
Methylene Chloride	<0.00041	mg/L	0.00041	0.00500	1	05/18/14 15:10	SEB	L199487
Naphthalene	<0.00054	mg/L	0.00054	0.00500	1	05/18/14 15:10	SEB	L199487
n-Propylbenzene	<0.00004	mg/L	0.00004	0.00100	1	05/18/14 15:10	SEB	L199487
Styrene	<0.00005	mg/L	0.00005	0.00100	1	05/18/14 15:10	SEB	L199487
1,1,1,2-Tetrachloroethane	<0.00006	mg/L	0.00006	0.00100	1	05/18/14 15:10	SEB	L199487
1,1,2,2-Tetrachloroethane	<0.00009	mg/L	0.00009	0.00100	1	05/18/14 15:10	SEB	L199487
Tetrachloroethene	<b>0.178</b>	mg/L	0.00007	0.00100	1	05/18/14 15:10	SEB	L199487
Toluene	<0.00004	mg/L	0.00004	0.00500	1	05/18/14 15:10	SEB	L199487
1,2,3-Trichlorobenzene	<0.00047	mg/L	0.00047	0.00100	1	05/18/14 15:10	SEB	L199487
1,2,4-Trichlorobenzene	<0.00037	mg/L	0.00037	0.00100	1	05/18/14 15:10	SEB	L199487
1,1,1-Trichloroethane	<0.00013	mg/L	0.00013	0.00100	1	05/18/14 15:10	SEB	L199487
1,1,2-Trichloroethane	<0.00004	mg/L	0.00004	0.00100	1	05/18/14 15:10	SEB	L199487
Trichloroethene	<b>0.0219</b>	mg/L	0.00008	0.00100	1	05/18/14 15:10	SEB	L199487
Trichlorofluoromethane	<0.00004	mg/L	0.00004	0.00100	1	05/18/14 15:10	SEB	L199487

Qualifiers/Definitions	*	Outside QC limit	B	Analyte detected in blank
	DF	Dilution Factor	J	Estimated value
	MQL	Method Quantitation Limit		



03180

Ensafe  
Ms. Allison Harris  
5724 Summer Tree Drive  
Memphis, TN 38134

Project ID :  
Project : MLB  
Information : 714 N. Second St./Memphis, TN  
Project #0888815441

Report Date : 05/21/2014  
Received : 5/16/2014

Report Number : **14-136-0297**

**REPORT OF ANALYSIS**

Lab No : **90304**  
Sample ID : **MLBGTW0401**

Matrix: **Aqueous**  
Sampled: **5/16/2014 10:40**

**Analytical Method:** 8260B

**Prep Method:** 5030B

**Prep Batch(es):** L199486

**Date/Time Prepped:** 5/18/2014 08:13:00

Test	Results	Units	MDL	MQL	DF	Date / Time Analyzed	By	Analytical Batch
1,2,3-Trichloropropane	<0.00010	mg/L	0.00010	0.00100	1	05/18/14 15:10	SEB	L199487
1,2,4-Trimethylbenzene	<0.00005	mg/L	0.00005	0.00100	1	05/18/14 15:10	SEB	L199487
1,3,5-Trimethylbenzene	<0.00006	mg/L	0.00006	0.00100	1	05/18/14 15:10	SEB	L199487
Vinyl Acetate	<0.00006	mg/L	0.00006	0.0100	1	05/18/14 15:10	SEB	L199487
Vinyl Chloride	<0.00004	mg/L	0.00004	0.00100	1	05/18/14 15:10	SEB	L199487
o-Xylene	<0.00007	mg/L	0.00007	0.00100	1	05/18/14 15:10	SEB	L199487
m,p-Xylene	<0.00012	mg/L	0.00012	0.00200	1	05/18/14 15:10	SEB	L199487
Xylene (Total)	<0.00007	mg/L	0.00007	0.0010	1	05/18/14 15:10		L199487
Surrogate: 4-Bromofluorobenzene	98.6		Limits: 71-137%		1	05/18/14 15:10	SEB	L199487
Surrogate: Dibromofluoromethane	94.8		Limits: 70-128%		1	05/18/14 15:10	SEB	L199487
Surrogate: 1,2-Dichloroethane - d4	127		Limits: 63-136%		1	05/18/14 15:10	SEB	L199487
Surrogate: Toluene-d8	95.0		Limits: 70-130%		1	05/18/14 15:10	SEB	L199487

**Analytical Method:** 8270C SIM

**Prep Method:** 3511

**Prep Batch(es):** L199437

**Date/Time Prepped:** 5/19/2014 09:15:00

Test	Results	Units	MDL	MQL	DF	Date / Time Analyzed	By	Analytical Batch
Acenaphthene	<0.000010	mg/L	0.000010	0.000020	1	05/20/14 15:22	NFP	L199718
Acenaphthylene	<0.000010	mg/L	0.000010	0.000020	1	05/20/14 15:22	NFP	L199718
Anthracene	<b>0.000024</b>	mg/L	0.000010	0.000020	1	05/20/14 15:22	NFP	L199718
Benzo(a)anthracene	<0.000010	mg/L	0.000010	0.000020	1	05/20/14 15:22	NFP	L199718
Benzo(a)pyrene	<0.000010	mg/L	0.000010	0.000020	1	05/20/14 15:22	NFP	L199718
Benzo(b)fluoranthene	<0.000010	mg/L	0.000010	0.000020	1	05/20/14 15:22	NFP	L199718

Qualifiers/Definitions	*	Outside QC limit	B	Analyte detected in blank
	DF	Dilution Factor	J	Estimated value
	MQL	Method Quantitation Limit		



03180

Ensafe  
Ms. Allison Harris  
5724 Summer Tree Drive  
Memphis, TN 38134

Project ID :  
Project : MLB  
Information : 714 N. Second St./Memphis, TN  
Project #0888815441

Report Date : 05/21/2014  
Received : 5/16/2014

Report Number : 14-136-0297

### REPORT OF ANALYSIS

Lab No : 90304  
Sample ID : MLBGTW0401

Matrix: Aqueous  
Sampled: 5/16/2014 10:40

Analytical Method: 8270C SIM

Prep Method: 3511

Prep Batch(es): L199437

Date/Time Prepped: 5/19/2014 09:15:00

Test	Results	Units	MDL	ML	DF	Date / Time Analyzed	By	Analytical Batch
Benzo(g,h,i)perylene	<0.000010	mg/L	0.000010	0.000020	1	05/20/14 15:22	NFP	L199718
Benzo(k)fluoranthene	<0.000010	mg/L	0.000010	0.000020	1	05/20/14 15:22	NFP	L199718
Chrysene	<0.000010	mg/L	0.000010	0.000020	1	05/20/14 15:22	NFP	L199718
Dibenz(a,h)anthracene	<0.000010	mg/L	0.000010	0.000020	1	05/20/14 15:22	NFP	L199718
Fluoranthene	<b>0.000011 J</b>	mg/L	0.000010	0.000020	1	05/20/14 15:22	NFP	L199718
Fluorene	<b>0.000024</b>	mg/L	0.000010	0.000020	1	05/20/14 15:22	NFP	L199718
Indeno(1,2,3-cd)pyrene	<0.000010	mg/L	0.000010	0.000020	1	05/20/14 15:22	NFP	L199718
2-Methylnaphthalene	<b>0.000057 B</b>	mg/L	0.000010	0.000020	1	05/20/14 15:22	NFP	L199718
Naphthalene	<b>0.000210</b>	mg/L	0.000010	0.000020	1	05/20/14 15:22	NFP	L199718
Phenanthrene	<b>0.000060 B</b>	mg/L	0.000010	0.000020	1	05/20/14 15:22	NFP	L199718
Pyrene	<0.000010	mg/L	0.000010	0.000020	1	05/20/14 15:22	NFP	L199718
Surrogate: 2-Fluorobiphenyl	84.5		Limits: 60-140%		1	05/20/14 15:22	NFP	L199718
Surrogate: 4-Terphenyl-d14	93.2		Limits: 60-140%		1	05/20/14 15:22	NFP	L199718

Qualifiers/Definitions	*	Outside QC limit	B	Analyte detected in blank
	DF	Dilution Factor	J	Estimated value
	ML	Method Quantitation Limit		



03180

Ensafe  
Ms. Allison Harris  
5724 Summer Tree Drive  
Memphis, TN 38134

Project ID :  
Project : MLB  
Information : 714 N. Second St./Memphis, TN  
Project #0888815441

Report Date : 05/21/2014  
Received : 5/16/2014

Report Number : **14-136-0297**

### REPORT OF ANALYSIS

Lab No : **90305**  
Sample ID : **MLBGTW0501**

Matrix: **Aqueous**  
Sampled: **5/16/2014 11:00**

Test	Results	Units	MDL	MQL	DF	Date / Time Analyzed	By	Analytical Method
Total Arsenic	<0.006	mg/L	0.006	0.010	1	05/19/14 17:52	BKN	6010B
Total Barium	<b>0.153</b>	mg/L	0.001	0.010	1	05/19/14 17:52	BKN	6010B
Total Cadmium	<0.0003	mg/L	0.0003	0.0020	1	05/19/14 17:52	BKN	6010B
Total Chromium	<b>0.002 J</b>	mg/L	0.001	0.005	1	05/19/14 17:52	BKN	6010B
Total Lead	<0.003	mg/L	0.003	0.006	1	05/19/14 17:52	BKN	6010B
Total Mercury	<b>0.00007 J</b>	mg/L	0.00005	0.00020	1	05/19/14 11:51	JRS	7470A
Total Selenium	<0.008	mg/L	0.008	0.010	1	05/19/14 17:52	BKN	6010B
Total Silver	<0.0008	mg/L	0.0008	0.0050	1	05/19/14 17:52	BKN	6010B

Qualifiers/ Definitions	*	Outside QC limit	B	Analyte detected in blank
	DF	Dilution Factor	J	Estimated value
	MQL	Method Quantitation Limit		

03180

Ensafe

Ms. Allison Harris

5724 Summer Tree Drive

Memphis, TN 38134

Project ID :

Project MLB

Information : 714 N. Second St./Memphis, TN

Project #0888815441

Report Date : 05/21/2014

Received : 5/16/2014

Report Number : **14-136-0297**

**REPORT OF ANALYSIS**

Lab No : **90305**

Sample ID : **MLBGTW0501**

Matrix: **Aqueous**

Sampled: **5/16/2014 11:00**

**Analytical Method:** 8260B

**Prep Method:** 5030B

**Prep Batch(es):** L199486

**Date/Time Prepped:** 5/18/2014 08:13:00

Test	Results	Units	MDL	ML	DF	Date / Time Analyzed	By	Analytical Batch
Acetone	<b>0.00683 J</b>	mg/L	0.00119	0.0200	1	05/18/14 15:31	SEB	L199487
Acetonitrile	<0.00520	mg/L	0.00520	0.0500	1	05/18/14 15:31	SEB	L199487
Acrolein	<0.00349	mg/L	0.00349	0.0200	1	05/18/14 15:31	SEB	L199487
Acrylonitrile	<0.00116	mg/L	0.00116	0.0200	1	05/18/14 15:31	SEB	L199487
Benzene	<0.00004	mg/L	0.00004	0.00100	1	05/18/14 15:31	SEB	L199487
Bromobenzene	<0.00014	mg/L	0.00014	0.00100	1	05/18/14 15:31	SEB	L199487
Bromochloromethane	<0.00004	mg/L	0.00004	0.00100	1	05/18/14 15:31	SEB	L199487
Bromodichloromethane	<0.00004	mg/L	0.00004	0.00100	1	05/18/14 15:31	SEB	L199487
Bromoform	<0.00008	mg/L	0.00008	0.00100	1	05/18/14 15:31	SEB	L199487
Bromomethane	<0.00019	mg/L	0.00019	0.00100	1	05/18/14 15:31	SEB	L199487
Methyl Ethyl Ketone (MEK)	<0.00086	mg/L	0.00086	0.0200	1	05/18/14 15:31	SEB	L199487
n-Butylbenzene	<0.00006	mg/L	0.00006	0.00100	1	05/18/14 15:31	SEB	L199487
sec-Butyl benzene	<0.00004	mg/L	0.00004	0.00100	1	05/18/14 15:31	SEB	L199487
tert-Butyl benzene	<0.00004	mg/L	0.00004	0.00100	1	05/18/14 15:31	SEB	L199487
Carbon Disulfide	<b>0.00023 JB</b>	mg/L	0.00004	0.00100	1	05/18/14 15:31	SEB	L199487
Carbon Tetrachloride	<0.00005	mg/L	0.00005	0.00100	1	05/18/14 15:31	SEB	L199487
Chlorobenzene	<0.00004	mg/L	0.00004	0.00100	1	05/18/14 15:31	SEB	L199487
Chlorodibromomethane	<0.00050	mg/L	0.00050	0.00100	1	05/18/14 15:31	SEB	L199487
Chloroethane	<0.00012	mg/L	0.00012	0.00100	1	05/18/14 15:31	SEB	L199487
2-Chloroethylvinyl Ether	<0.00099	mg/L	0.00099	0.00500	1	05/18/14 15:31	SEB	L199487
Chloroform	<0.00010	mg/L	0.00010	0.00100	1	05/18/14 15:31	SEB	L199487
Chloromethane	<0.00023	mg/L	0.00023	0.00100	1	05/18/14 15:31	SEB	L199487

**Qualifiers/  
Definitions**

*	Outside QC limit	B	Analyte detected in blank
DF	Dilution Factor	J	Estimated value
ML	Method Quantitation Limit		

03180

Ensafe  
Ms. Allison Harris  
5724 Summer Tree Drive  
Memphis, TN 38134

Project ID :  
Project : MLB  
Information : 714 N. Second St./Memphis, TN  
Project #0888815441

Report Date : 05/21/2014  
Received : 5/16/2014

Report Number : **14-136-0297**

**REPORT OF ANALYSIS**

Lab No : **90305**  
Sample ID : **MLBGTW0501**

Matrix: **Aqueous**  
Sampled: **5/16/2014 11:00**

**Analytical Method:** 8260B

**Prep Method:** 5030B

**Prep Batch(es):** L199486

**Date/Time Prepped:** 5/18/2014 08:13:00

Test	Results	Units	MDL	MLQ	DF	Date / Time Analyzed	By	Analytical Batch
2-Chlorotoluene	<0.00005	mg/L	0.00005	0.00100	1	05/18/14 15:31	SEB	L199487
4-Chlorotoluene	<0.00006	mg/L	0.00006	0.00100	1	05/18/14 15:31	SEB	L199487
1,2-Dibromo-3-Chloropropane	<0.00033	mg/L	0.00033	0.00500	1	05/18/14 15:31	SEB	L199487
1,2-Dibromoethane	<0.00009	mg/L	0.00009	0.00100	1	05/18/14 15:31	SEB	L199487
Dibromomethane	<0.00005	mg/L	0.00005	0.00100	1	05/18/14 15:31	SEB	L199487
1,2-Dichlorobenzene	<0.00009	mg/L	0.00009	0.00100	1	05/18/14 15:31	SEB	L199487
1,3-Dichlorobenzene	<0.00009	mg/L	0.00009	0.00100	1	05/18/14 15:31	SEB	L199487
1,4-Dichlorobenzene	<0.00018	mg/L	0.00018	0.00100	1	05/18/14 15:31	SEB	L199487
Dichlorodifluoromethane	<0.00006	mg/L	0.00006	0.00100	1	05/18/14 15:31	SEB	L199487
1,1-Dichloroethane	<0.00011	mg/L	0.00011	0.00100	1	05/18/14 15:31	SEB	L199487
1,2-Dichloroethane	<0.00028	mg/L	0.00028	0.00100	1	05/18/14 15:31	SEB	L199487
1,1-Dichloroethene	<0.00007	mg/L	0.00007	0.00100	1	05/18/14 15:31	SEB	L199487
cis-1,2-Dichloroethene	<b>0.00376</b>	mg/L	0.00007	0.00100	1	05/18/14 15:31	SEB	L199487
trans-1,2-Dichloroethene	<0.00005	mg/L	0.00005	0.00100	1	05/18/14 15:31	SEB	L199487
1,2-Dichloroethene (Total)	<b>0.00376</b>	mg/L	0.00005	0.00100	1	05/18/14 15:31		L199487
1,2-Dichloropropane	<0.00003	mg/L	0.00003	0.00100	1	05/18/14 15:31	SEB	L199487
1,3-Dichloropropane	<0.00004	mg/L	0.00004	0.00100	1	05/18/14 15:31	SEB	L199487
2,2-Dichloropropane	<0.00007	mg/L	0.00007	0.00100	1	05/18/14 15:31	SEB	L199487
1,1-Dichloropropene	<0.00016	mg/L	0.00016	0.00100	1	05/18/14 15:31	SEB	L199487
cis-1,3-Dichloropropene	<0.00003	mg/L	0.00003	0.00100	1	05/18/14 15:31	SEB	L199487
trans-1,3-Dichloropropene	<0.00006	mg/L	0.00006	0.00100	1	05/18/14 15:31	SEB	L199487
Ethyl Acetate	<0.00007	mg/L	0.00007	0.0100	1	05/18/14 15:31	SEB	L199487

Qualifiers/Definitions	*	Outside QC limit	B	Analyte detected in blank
	DF	Dilution Factor	J	Estimated value
	MLQ	Method Quantitation Limit		

03180

Ensafe

Ms. Allison Harris

5724 Summer Tree Drive

Memphis, TN 38134

Project ID :

Project MLB

Information : 714 N. Second St./Memphis, TN

Project #0888815441

Report Date : 05/21/2014

Received : 5/16/2014

Report Number : **14-136-0297**

## REPORT OF ANALYSIS

Lab No : **90305**

Sample ID : **MLBGTW0501**

Matrix: **Aqueous**

Sampled: **5/16/2014 11:00**

**Analytical Method:** 8260B

**Prep Method:** 5030B

**Prep Batch(es):** L199486

**Date/Time Prepped:** 5/18/2014 08:13:00

Test	Results	Units	MDL	MQL	DF	Date / Time Analyzed	By	Analytical Batch
Ethylbenzene	<0.00005	mg/L	0.00005	0.00100	1	05/18/14 15:31	SEB	L199487
Hexachlorobutadiene	<0.00012	mg/L	0.00012	0.00100	1	05/18/14 15:31	SEB	L199487
2-Hexanone	<0.00131	mg/L	0.00131	0.00500	1	05/18/14 15:31	SEB	L199487
Iodomethane	<0.00007	mg/L	0.00007	0.00500	1	05/18/14 15:31	SEB	L199487
Isopropylbenzene	<0.00005	mg/L	0.00005	0.00100	1	05/18/14 15:31	SEB	L199487
4-Isopropyl toluene	<0.00004	mg/L	0.00004	0.00100	1	05/18/14 15:31	SEB	L199487
Methyl tert-butyl ether (MTBE)	<0.00004	mg/L	0.00004	0.00100	1	05/18/14 15:31	SEB	L199487
4-Methyl-2-Pentanone	<0.00111	mg/L	0.00111	0.00500	1	05/18/14 15:31	SEB	L199487
Methylene Chloride	<0.00041	mg/L	0.00041	0.00500	1	05/18/14 15:31	SEB	L199487
Naphthalene	<0.00054	mg/L	0.00054	0.00500	1	05/18/14 15:31	SEB	L199487
n-Propylbenzene	<0.00004	mg/L	0.00004	0.00100	1	05/18/14 15:31	SEB	L199487
Styrene	<0.00005	mg/L	0.00005	0.00100	1	05/18/14 15:31	SEB	L199487
1,1,1,2-Tetrachloroethane	<0.00006	mg/L	0.00006	0.00100	1	05/18/14 15:31	SEB	L199487
1,1,2,2-Tetrachloroethane	<0.00009	mg/L	0.00009	0.00100	1	05/18/14 15:31	SEB	L199487
Tetrachloroethene	<b>0.00385</b>	mg/L	0.00007	0.00100	1	05/18/14 15:31	SEB	L199487
Toluene	<0.00004	mg/L	0.00004	0.00500	1	05/18/14 15:31	SEB	L199487
1,2,3-Trichlorobenzene	<0.00047	mg/L	0.00047	0.00100	1	05/18/14 15:31	SEB	L199487
1,2,4-Trichlorobenzene	<0.00037	mg/L	0.00037	0.00100	1	05/18/14 15:31	SEB	L199487
1,1,1-Trichloroethane	<0.00013	mg/L	0.00013	0.00100	1	05/18/14 15:31	SEB	L199487
1,1,2-Trichloroethane	<0.00004	mg/L	0.00004	0.00100	1	05/18/14 15:31	SEB	L199487
Trichloroethene	<b>0.00830</b>	mg/L	0.00008	0.00100	1	05/18/14 15:31	SEB	L199487
Trichlorofluoromethane	<0.00004	mg/L	0.00004	0.00100	1	05/18/14 15:31	SEB	L199487

**Qualifiers/  
Definitions**

*	Outside QC limit	B	Analyte detected in blank
DF	Dilution Factor	J	Estimated value
MQL	Method Quantitation Limit		

03180

Ensafe  
Ms. Allison Harris  
5724 Summer Tree Drive  
Memphis, TN 38134

Project ID :  
Project : MLB  
Information : 714 N. Second St./Memphis, TN  
Project #0888815441

Report Date : 05/21/2014  
Received : 5/16/2014

Report Number : **14-136-0297**

**REPORT OF ANALYSIS**

Lab No : **90305**  
Sample ID : **MLBGTW0501**

Matrix: **Aqueous**  
Sampled: **5/16/2014 11:00**

**Analytical Method:** 8260B

**Prep Method:** 5030B

**Prep Batch(es):** L199486

**Date/Time Prepped:** 5/18/2014 08:13:00

Test	Results	Units	MDL	MQL	DF	Date / Time Analyzed	By	Analytical Batch
1,2,3-Trichloropropane	<0.00010	mg/L	0.00010	0.00100	1	05/18/14 15:31	SEB	L199487
1,2,4-Trimethylbenzene	<0.00005	mg/L	0.00005	0.00100	1	05/18/14 15:31	SEB	L199487
1,3,5-Trimethylbenzene	<0.00006	mg/L	0.00006	0.00100	1	05/18/14 15:31	SEB	L199487
Vinyl Acetate	<0.00006	mg/L	0.00006	0.0100	1	05/18/14 15:31	SEB	L199487
Vinyl Chloride	<0.00004	mg/L	0.00004	0.00100	1	05/18/14 15:31	SEB	L199487
o-Xylene	<0.00007	mg/L	0.00007	0.00100	1	05/18/14 15:31	SEB	L199487
m,p-Xylene	<0.00012	mg/L	0.00012	0.00200	1	05/18/14 15:31	SEB	L199487
Xylene (Total)	<0.00007	mg/L	0.00007	0.0010	1	05/18/14 15:31		L199487
Surrogate: 4-Bromofluorobenzene	87.4		Limits: 71-137%		1	05/18/14 15:31	SEB	L199487
Surrogate: Dibromofluoromethane	85.4		Limits: 70-128%		1	05/18/14 15:31	SEB	L199487
Surrogate: 1,2-Dichloroethane - d4	130		Limits: 63-136%		1	05/18/14 15:31	SEB	L199487
Surrogate: Toluene-d8	98.8		Limits: 70-130%		1	05/18/14 15:31	SEB	L199487

**Analytical Method:** 8270C SIM

**Prep Method:** 3511

**Prep Batch(es):** L199437

**Date/Time Prepped:** 5/19/2014 09:15:00

Test	Results	Units	MDL	MQL	DF	Date / Time Analyzed	By	Analytical Batch
Acenaphthene	<0.000010	mg/L	0.000010	0.000020	1	05/20/14 15:59	NFP	L199718
Acenaphthylene	<0.000010	mg/L	0.000010	0.000020	1	05/20/14 15:59	NFP	L199718
Anthracene	<b>0.000022</b>	mg/L	0.000010	0.000020	1	05/20/14 15:59	NFP	L199718
Benzo(a)anthracene	<0.000010	mg/L	0.000010	0.000020	1	05/20/14 15:59	NFP	L199718
Benzo(a)pyrene	<0.000010	mg/L	0.000010	0.000020	1	05/20/14 15:59	NFP	L199718
Benzo(b)fluoranthene	<0.000010	mg/L	0.000010	0.000020	1	05/20/14 15:59	NFP	L199718

Qualifiers/Definitions	*	Outside QC limit	B	Analyte detected in blank
	DF	Dilution Factor	J	Estimated value
	MQL	Method Quantitation Limit		





03180

Ensafe  
Ms. Allison Harris  
5724 Summer Tree Drive  
Memphis, TN 38134

Project ID :  
Project : MLB  
Information : 714 N. Second St./Memphis, TN  
Project #0888815441

Report Date : 05/21/2014  
Received : 5/16/2014

Report Number : **14-136-0297**

### REPORT OF ANALYSIS

Lab No : **90305**  
Sample ID : **MLBGTW0501**

Matrix: **Aqueous**  
Sampled: **5/16/2014 11:00**

**Analytical Method:** 8270C SIM

**Prep Method:** 3511

**Prep Batch(es):** L199437

**Date/Time Prepped:** 5/19/2014 09:15:00

Test	Results	Units	MDL	ML	DF	Date / Time Analyzed	By	Analytical Batch
Benzo(g,h,i)perylene	<0.000010	mg/L	0.000010	0.000020	1	05/20/14 15:59	NFP	L199718
Benzo(k)fluoranthene	<0.000010	mg/L	0.000010	0.000020	1	05/20/14 15:59	NFP	L199718
Chrysene	<0.000010	mg/L	0.000010	0.000020	1	05/20/14 15:59	NFP	L199718
Dibenz(a,h)anthracene	<0.000010	mg/L	0.000010	0.000020	1	05/20/14 15:59	NFP	L199718
Fluoranthene	<0.000010	mg/L	0.000010	0.000020	1	05/20/14 15:59	NFP	L199718
Fluorene	<b>0.000026</b>	mg/L	0.000010	0.000020	1	05/20/14 15:59	NFP	L199718
Indeno(1,2,3-cd)pyrene	<0.000010	mg/L	0.000010	0.000020	1	05/20/14 15:59	NFP	L199718
2-Methylnaphthalene	<b>0.000071 B</b>	mg/L	0.000010	0.000020	1	05/20/14 15:59	NFP	L199718
Naphthalene	<b>0.000225</b>	mg/L	0.000010	0.000020	1	05/20/14 15:59	NFP	L199718
Phenanthrene	<b>0.000071 B</b>	mg/L	0.000010	0.000020	1	05/20/14 15:59	NFP	L199718
Pyrene	<0.000010	mg/L	0.000010	0.000020	1	05/20/14 15:59	NFP	L199718
Surrogate: 2-Fluorobiphenyl	86.1		Limits: 60-140%		1	05/20/14 15:59	NFP	L199718
Surrogate: 4-Terphenyl-d14	97.0		Limits: 60-140%		1	05/20/14 15:59	NFP	L199718

Qualifiers/Definitions	*	Outside QC limit	B	Analyte detected in blank
	DF	Dilution Factor	J	Estimated value
	ML	Method Quantitation Limit		



03180

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Ms. Allison Harris  
5724 Summer Tree Drive  
Memphis, TN 38134

Project ID :  
Project : MLB  
Information : 714 N. Second St./Memphis, TN  
Project #0888815441

Report Date : 05/21/2014  
Received : 5/16/2014

Report Number : **14-136-0297**

### REPORT OF ANALYSIS

Lab No : **90306**  
Sample ID : **MLBGTW0601**

Matrix: **Aqueous**  
Sampled: **5/16/2014 11:20**

Test	Results	Units	MDL	MQL	DF	Date / Time Analyzed	By	Analytical Method
Total Arsenic	<0.006	mg/L	0.006	0.010	1	05/19/14 17:56	BKN	6010B
Total Barium	<b>0.160</b>	mg/L	0.001	0.010	1	05/19/14 17:56	BKN	6010B
Total Cadmium	<0.0003	mg/L	0.0003	0.0020	1	05/19/14 17:56	BKN	6010B
Total Chromium	<b>0.001 J</b>	mg/L	0.001	0.005	1	05/19/14 17:56	BKN	6010B
Total Lead	<0.003	mg/L	0.003	0.006	1	05/19/14 17:56	BKN	6010B
Total Mercury	<b>0.00005 J</b>	mg/L	0.00005	0.00020	1	05/19/14 11:53	JRS	7470A
Total Selenium	<0.008	mg/L	0.008	0.010	1	05/19/14 17:56	BKN	6010B
Total Silver	<0.0008	mg/L	0.0008	0.0050	1	05/19/14 17:56	BKN	6010B

Qualifiers/Definitions	*	Outside QC limit	B	Analyte detected in blank
	DF	Dilution Factor	J	Estimated value
	MQL	Method Quantitation Limit		

03180

Ensafe  
Ms. Allison Harris  
5724 Summer Tree Drive  
Memphis, TN 38134

Project ID :  
Project : MLB  
Information : 714 N. Second St./Memphis, TN  
Project #0888815441

Report Date : 05/21/2014  
Received : 5/16/2014

Report Number : **14-136-0297**

**REPORT OF ANALYSIS**

Lab No : **90306**  
Sample ID : **MLBGTW0601**

Matrix: **Aqueous**  
Sampled: **5/16/2014 11:20**

**Analytical Method:** 8260B

**Prep Method:** 5030B

**Prep Batch(es):** L199486

**Date/Time Prepped:** 5/18/2014 08:13:00

Test	Results	Units	MDL	ML	DF	Date / Time Analyzed	By	Analytical Batch
Acetone	<0.00119	mg/L	0.00119	0.0200	1	05/18/14 15:52	SEB	L199487
Acetonitrile	<0.00520	mg/L	0.00520	0.0500	1	05/18/14 15:52	SEB	L199487
Acrolein	<0.00349	mg/L	0.00349	0.0200	1	05/18/14 15:52	SEB	L199487
Acrylonitrile	<0.00116	mg/L	0.00116	0.0200	1	05/18/14 15:52	SEB	L199487
Benzene	<0.00004	mg/L	0.00004	0.00100	1	05/18/14 15:52	SEB	L199487
Bromobenzene	<0.00014	mg/L	0.00014	0.00100	1	05/18/14 15:52	SEB	L199487
Bromochloromethane	<0.00004	mg/L	0.00004	0.00100	1	05/18/14 15:52	SEB	L199487
Bromodichloromethane	<0.00004	mg/L	0.00004	0.00100	1	05/18/14 15:52	SEB	L199487
Bromoform	<0.00008	mg/L	0.00008	0.00100	1	05/18/14 15:52	SEB	L199487
Bromomethane	<0.00019	mg/L	0.00019	0.00100	1	05/18/14 15:52	SEB	L199487
Methyl Ethyl Ketone (MEK)	<0.00086	mg/L	0.00086	0.0200	1	05/18/14 15:52	SEB	L199487
n-Butylbenzene	<0.00006	mg/L	0.00006	0.00100	1	05/18/14 15:52	SEB	L199487
sec-Butyl benzene	<0.00004	mg/L	0.00004	0.00100	1	05/18/14 15:52	SEB	L199487
tert-Butyl benzene	<0.00004	mg/L	0.00004	0.00100	1	05/18/14 15:52	SEB	L199487
Carbon Disulfide	<b>0.00016 JB</b>	mg/L	0.00004	0.00100	1	05/18/14 15:52	SEB	L199487
Carbon Tetrachloride	<0.00005	mg/L	0.00005	0.00100	1	05/18/14 15:52	SEB	L199487
Chlorobenzene	<0.00004	mg/L	0.00004	0.00100	1	05/18/14 15:52	SEB	L199487
Chlorodibromomethane	<0.00050	mg/L	0.00050	0.00100	1	05/18/14 15:52	SEB	L199487
Chloroethane	<0.00012	mg/L	0.00012	0.00100	1	05/18/14 15:52	SEB	L199487
2-Chloroethylvinyl Ether	<0.00099	mg/L	0.00099	0.00500	1	05/18/14 15:52	SEB	L199487
Chloroform	<0.00010	mg/L	0.00010	0.00100	1	05/18/14 15:52	SEB	L199487
Chloromethane	<0.00023	mg/L	0.00023	0.00100	1	05/18/14 15:52	SEB	L199487

Qualifiers/Definitions	*	Outside QC limit	B	Analyte detected in blank
	DF	Dilution Factor	J	Estimated value
	ML	Method Quantitation Limit		



03180

Ensafe  
Ms. Allison Harris  
5724 Summer Tree Drive  
Memphis, TN 38134

Project ID :  
Project : MLB  
Information : 714 N. Second St./Memphis, TN  
Project #0888815441

Report Date : 05/21/2014  
Received : 5/16/2014

Report Number : 14-136-0297

### REPORT OF ANALYSIS

Lab No : 90306  
Sample ID : MLBGTW0601

Matrix: Aqueous  
Sampled: 5/16/2014 11:20

Analytical Method: 8260B

Prep Method: 5030B

Prep Batch(es): L199486

Date/Time Prepped: 5/18/2014 08:13:00

Test	Results	Units	MDL	MLQ	DF	Date / Time Analyzed	By	Analytical Batch
2-Chlorotoluene	<0.00005	mg/L	0.00005	0.00100	1	05/18/14 15:52	SEB	L199487
4-Chlorotoluene	<0.00006	mg/L	0.00006	0.00100	1	05/18/14 15:52	SEB	L199487
1,2-Dibromo-3-Chloropropane	<0.00033	mg/L	0.00033	0.00500	1	05/18/14 15:52	SEB	L199487
1,2-Dibromoethane	<0.00009	mg/L	0.00009	0.00100	1	05/18/14 15:52	SEB	L199487
Dibromomethane	<0.00005	mg/L	0.00005	0.00100	1	05/18/14 15:52	SEB	L199487
1,2-Dichlorobenzene	<0.00009	mg/L	0.00009	0.00100	1	05/18/14 15:52	SEB	L199487
1,3-Dichlorobenzene	<0.00009	mg/L	0.00009	0.00100	1	05/18/14 15:52	SEB	L199487
1,4-Dichlorobenzene	<0.00018	mg/L	0.00018	0.00100	1	05/18/14 15:52	SEB	L199487
Dichlorodifluoromethane	<0.00006	mg/L	0.00006	0.00100	1	05/18/14 15:52	SEB	L199487
1,1-Dichloroethane	<0.00011	mg/L	0.00011	0.00100	1	05/18/14 15:52	SEB	L199487
1,2-Dichloroethane	<0.00028	mg/L	0.00028	0.00100	1	05/18/14 15:52	SEB	L199487
1,1-Dichloroethene	<0.00007	mg/L	0.00007	0.00100	1	05/18/14 15:52	SEB	L199487
cis-1,2-Dichloroethene	<0.00007	mg/L	0.00007	0.00100	1	05/18/14 15:52	SEB	L199487
trans-1,2-Dichloroethene	<0.00005	mg/L	0.00005	0.00100	1	05/18/14 15:52	SEB	L199487
1,2-Dichloroethene (Total)	<0.00005	mg/L	0.00005	0.00100	1	05/18/14 15:52		L199487
1,2-Dichloropropane	<0.00003	mg/L	0.00003	0.00100	1	05/18/14 15:52	SEB	L199487
1,3-Dichloropropane	<0.00004	mg/L	0.00004	0.00100	1	05/18/14 15:52	SEB	L199487
2,2-Dichloropropane	<0.00007	mg/L	0.00007	0.00100	1	05/18/14 15:52	SEB	L199487
1,1-Dichloropropene	<0.00016	mg/L	0.00016	0.00100	1	05/18/14 15:52	SEB	L199487
cis-1,3-Dichloropropene	<0.00003	mg/L	0.00003	0.00100	1	05/18/14 15:52	SEB	L199487
trans-1,3-Dichloropropene	<0.00006	mg/L	0.00006	0.00100	1	05/18/14 15:52	SEB	L199487
Ethyl Acetate	<0.00007	mg/L	0.00007	0.0100	1	05/18/14 15:52	SEB	L199487

Qualifiers/Definitions	*	Outside QC limit	B	Analyte detected in blank
	DF	Dilution Factor	J	Estimated value
	MLQ	Method Quantitation Limit		

03180

Ensafe  
Ms. Allison Harris  
5724 Summer Tree Drive  
Memphis, TN 38134

Project ID :  
Project : MLB  
Information : 714 N. Second St./Memphis, TN  
Project #0888815441

Report Date : 05/21/2014  
Received : 5/16/2014

Report Number : **14-136-0297**

**REPORT OF ANALYSIS**

Lab No : **90306**  
Sample ID : **MLBGTW0601**

Matrix: **Aqueous**  
Sampled: **5/16/2014 11:20**

**Analytical Method:** 8260B

**Prep Method:** 5030B

**Prep Batch(es):** L199486

**Date/Time Prepped:** 5/18/2014 08:13:00

Test	Results	Units	MDL	MQL	DF	Date / Time Analyzed	By	Analytical Batch
Ethylbenzene	<0.00005	mg/L	0.00005	0.00100	1	05/18/14 15:52	SEB	L199487
Hexachlorobutadiene	<0.00012	mg/L	0.00012	0.00100	1	05/18/14 15:52	SEB	L199487
2-Hexanone	<0.00131	mg/L	0.00131	0.00500	1	05/18/14 15:52	SEB	L199487
Iodomethane	<b>0.00035 JB</b>	mg/L	0.00007	0.00500	1	05/18/14 15:52	SEB	L199487
Isopropylbenzene	<0.00005	mg/L	0.00005	0.00100	1	05/18/14 15:52	SEB	L199487
4-Isopropyl toluene	<0.00004	mg/L	0.00004	0.00100	1	05/18/14 15:52	SEB	L199487
Methyl tert-butyl ether (MTBE)	<0.00004	mg/L	0.00004	0.00100	1	05/18/14 15:52	SEB	L199487
4-Methyl-2-Pentanone	<0.00111	mg/L	0.00111	0.00500	1	05/18/14 15:52	SEB	L199487
Methylene Chloride	<0.00041	mg/L	0.00041	0.00500	1	05/18/14 15:52	SEB	L199487
Naphthalene	<0.00054	mg/L	0.00054	0.00500	1	05/18/14 15:52	SEB	L199487
n-Propylbenzene	<0.00004	mg/L	0.00004	0.00100	1	05/18/14 15:52	SEB	L199487
Styrene	<0.00005	mg/L	0.00005	0.00100	1	05/18/14 15:52	SEB	L199487
1,1,1,2-Tetrachloroethane	<0.00006	mg/L	0.00006	0.00100	1	05/18/14 15:52	SEB	L199487
1,1,2,2-Tetrachloroethane	<0.00009	mg/L	0.00009	0.00100	1	05/18/14 15:52	SEB	L199487
Tetrachloroethene	<b>0.00045 J</b>	mg/L	0.00007	0.00100	1	05/18/14 15:52	SEB	L199487
Toluene	<0.00004	mg/L	0.00004	0.00500	1	05/18/14 15:52	SEB	L199487
1,2,3-Trichlorobenzene	<0.00047	mg/L	0.00047	0.00100	1	05/18/14 15:52	SEB	L199487
1,2,4-Trichlorobenzene	<0.00037	mg/L	0.00037	0.00100	1	05/18/14 15:52	SEB	L199487
1,1,1-Trichloroethane	<0.00013	mg/L	0.00013	0.00100	1	05/18/14 15:52	SEB	L199487
1,1,2-Trichloroethane	<0.00004	mg/L	0.00004	0.00100	1	05/18/14 15:52	SEB	L199487
Trichloroethene	<0.00008	mg/L	0.00008	0.00100	1	05/18/14 15:52	SEB	L199487
Trichlorofluoromethane	<0.00004	mg/L	0.00004	0.00100	1	05/18/14 15:52	SEB	L199487

Qualifiers/Definitions	*	Outside QC limit	B	Analyte detected in blank
	DF	Dilution Factor	J	Estimated value
	MQL	Method Quantitation Limit		

03180

Ensafe  
Ms. Allison Harris  
5724 Summer Tree Drive  
Memphis, TN 38134

Project ID :  
Project : MLB  
Information : 714 N. Second St./Memphis, TN  
Project #0888815441

Report Date : 05/21/2014  
Received : 5/16/2014

Report Number : **14-136-0297**

**REPORT OF ANALYSIS**

Lab No : **90306**  
Sample ID : **MLBGTW0601**

Matrix: **Aqueous**  
Sampled: **5/16/2014 11:20**

**Analytical Method:** 8260B

**Prep Method:** 5030B

**Prep Batch(es):** L199486

**Date/Time Prepped:** 5/18/2014 08:13:00

Test	Results	Units	MDL	MQL	DF	Date / Time Analyzed	By	Analytical Batch
1,2,3-Trichloropropane	<0.00010	mg/L	0.00010	0.00100	1	05/18/14 15:52	SEB	L199487
1,2,4-Trimethylbenzene	<0.00005	mg/L	0.00005	0.00100	1	05/18/14 15:52	SEB	L199487
1,3,5-Trimethylbenzene	<0.00006	mg/L	0.00006	0.00100	1	05/18/14 15:52	SEB	L199487
Vinyl Acetate	<0.00006	mg/L	0.00006	0.0100	1	05/18/14 15:52	SEB	L199487
Vinyl Chloride	<0.00004	mg/L	0.00004	0.00100	1	05/18/14 15:52	SEB	L199487
o-Xylene	<0.00007	mg/L	0.00007	0.00100	1	05/18/14 15:52	SEB	L199487
m,p-Xylene	<0.00012	mg/L	0.00012	0.00200	1	05/18/14 15:52	SEB	L199487
Xylene (Total)	<0.00007	mg/L	0.00007	0.0010	1	05/18/14 15:52		L199487
Surrogate: 4-Bromofluorobenzene	98.0		Limits: 71-137%		1	05/18/14 15:52	SEB	L199487
Surrogate: Dibromofluoromethane	93.8		Limits: 70-128%		1	05/18/14 15:52	SEB	L199487
Surrogate: 1,2-Dichloroethane - d4	135		Limits: 63-136%		1	05/18/14 15:52	SEB	L199487
Surrogate: Toluene-d8	107		Limits: 70-130%		1	05/18/14 15:52	SEB	L199487

**Analytical Method:** 8270C SIM

**Prep Method:** 3511

**Prep Batch(es):** L199437

**Date/Time Prepped:** 5/19/2014 09:15:00

Test	Results	Units	MDL	MQL	DF	Date / Time Analyzed	By	Analytical Batch
Acenaphthene	<0.000010	mg/L	0.000010	0.000020	1	05/20/14 16:36	NFP	L199718
Acenaphthylene	<0.000010	mg/L	0.000010	0.000020	1	05/20/14 16:36	NFP	L199718
Anthracene	<b>0.000018 J</b>	mg/L	0.000010	0.000020	1	05/20/14 16:36	NFP	L199718
Benzo(a)anthracene	<0.000010	mg/L	0.000010	0.000020	1	05/20/14 16:36	NFP	L199718
Benzo(a)pyrene	<0.000010	mg/L	0.000010	0.000020	1	05/20/14 16:36	NFP	L199718
Benzo(b)fluoranthene	<0.000010	mg/L	0.000010	0.000020	1	05/20/14 16:36	NFP	L199718

Qualifiers/Definitions	*	Outside QC limit	B	Analyte detected in blank
	DF	Dilution Factor	J	Estimated value
	MQL	Method Quantitation Limit		



03180

Ensafe  
Ms. Allison Harris  
5724 Summer Tree Drive  
Memphis, TN 38134

Project ID :  
Project : MLB  
Information : 714 N. Second St./Memphis, TN  
Project #0888815441

Report Date : 05/21/2014  
Received : 5/16/2014

Report Number : **14-136-0297**

### REPORT OF ANALYSIS

Lab No : **90306**  
Sample ID : **MLBGTW0601**

Matrix: **Aqueous**  
Sampled: **5/16/2014 11:20**

**Analytical Method:** 8270C SIM

**Prep Method:** 3511

**Prep Batch(es):** L199437

**Date/Time Prepped:** 5/19/2014 09:15:00

Test	Results	Units	MDL	ML	DF	Date / Time Analyzed	By	Analytical Batch
Benzo(g,h,i)perylene	<0.000010	mg/L	0.000010	0.000020	1	05/20/14 16:36	NFP	L199718
Benzo(k)fluoranthene	<0.000010	mg/L	0.000010	0.000020	1	05/20/14 16:36	NFP	L199718
Chrysene	<0.000010	mg/L	0.000010	0.000020	1	05/20/14 16:36	NFP	L199718
Dibenz(a,h)anthracene	<0.000010	mg/L	0.000010	0.000020	1	05/20/14 16:36	NFP	L199718
Fluoranthene	<b>0.000012 J</b>	mg/L	0.000010	0.000020	1	05/20/14 16:36	NFP	L199718
Fluorene	<b>0.000031</b>	mg/L	0.000010	0.000020	1	05/20/14 16:36	NFP	L199718
Indeno(1,2,3-cd)pyrene	<0.000010	mg/L	0.000010	0.000020	1	05/20/14 16:36	NFP	L199718
2-Methylnaphthalene	<b>0.000059 B</b>	mg/L	0.000010	0.000020	1	05/20/14 16:36	NFP	L199718
Naphthalene	<b>0.000132 B</b>	mg/L	0.000010	0.000020	1	05/20/14 16:36	NFP	L199718
Phenanthrene	<b>0.000073 B</b>	mg/L	0.000010	0.000020	1	05/20/14 16:36	NFP	L199718
Pyrene	<0.000010	mg/L	0.000010	0.000020	1	05/20/14 16:36	NFP	L199718
Surrogate: 2-Fluorobiphenyl	84.8			Limits: 60-140%	1	05/20/14 16:36	NFP	L199718
Surrogate: 4-Terphenyl-d14	90.4			Limits: 60-140%	1	05/20/14 16:36	NFP	L199718

Qualifiers/Definitions	*	Outside QC limit	B	Analyte detected in blank
	DF	Dilution Factor	J	Estimated value
	ML	Method Quantitation Limit		





03180

Ensafe

Ms. Allison Harris

5724 Summer Tree Drive

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Project ID :

Project MLB

Information : 714 N. Second St./Memphis, TN

Project #0888815441

Report Date : 05/21/2014

Received : 5/16/2014

Report Number : **14-136-0297**

### REPORT OF ANALYSIS

Lab No : **90307**

Sample ID : **MLBGTW0701**

Matrix: **Aqueous**

Sampled: **5/16/2014 11:50**

Test	Results	Units	MDL	MQL	DF	Date / Time Analyzed	By	Analytical Method
Total Arsenic	<0.006	mg/L	0.006	0.010	1	05/19/14 18:00	BKN	6010B
Total Barium	<b>0.119</b>	mg/L	0.001	0.010	1	05/19/14 18:00	BKN	6010B
Total Cadmium	<0.0003	mg/L	0.0003	0.0020	1	05/19/14 18:00	BKN	6010B
Total Chromium	<b>0.001 J</b>	mg/L	0.001	0.005	1	05/19/14 18:00	BKN	6010B
Total Lead	<0.003	mg/L	0.003	0.006	1	05/19/14 18:00	BKN	6010B
Total Mercury	<0.00005	mg/L	0.00005	0.00020	1	05/19/14 11:55	JRS	7470A
Total Selenium	<0.008	mg/L	0.008	0.010	1	05/19/14 18:00	BKN	6010B
Total Silver	<0.0008	mg/L	0.0008	0.0050	1	05/19/14 18:00	BKN	6010B

#### Qualifiers/ Definitions

*	Outside QC limit	B	Analyte detected in blank
DF	Dilution Factor	J	Estimated value
MQL	Method Quantitation Limit		

03180

Ensafe  
Ms. Allison Harris  
5724 Summer Tree Drive  
Memphis, TN 38134

Project ID :  
Project : MLB  
Information : 714 N. Second St./Memphis, TN  
Project #0888815441

Report Date : 05/21/2014  
Received : 5/16/2014

Report Number : **14-136-0297**

**REPORT OF ANALYSIS**

Lab No : **90307**  
Sample ID : **MLBGTW0701**

Matrix: **Aqueous**  
Sampled: **5/16/2014 11:50**

**Analytical Method:** 8260B

**Prep Method:** 5030B

**Prep Batch(es):** L199486

**Date/Time Prepped:** 5/18/2014 08:13:00

Test	Results	Units	MDL	MQL	DF	Date / Time Analyzed	By	Analytical Batch
Acetone	<b>0.0104 J</b>	mg/L	0.00119	0.0200	1	05/18/14 16:13	SEB	L199487
Acetonitrile	<0.00520	mg/L	0.00520	0.0500	1	05/18/14 16:13	SEB	L199487
Acrolein	<0.00349	mg/L	0.00349	0.0200	1	05/18/14 16:13	SEB	L199487
Acrylonitrile	<0.00116	mg/L	0.00116	0.0200	1	05/18/14 16:13	SEB	L199487
Benzene	<0.00004	mg/L	0.00004	0.00100	1	05/18/14 16:13	SEB	L199487
Bromobenzene	<0.00014	mg/L	0.00014	0.00100	1	05/18/14 16:13	SEB	L199487
Bromochloromethane	<0.00004	mg/L	0.00004	0.00100	1	05/18/14 16:13	SEB	L199487
Bromodichloromethane	<0.00004	mg/L	0.00004	0.00100	1	05/18/14 16:13	SEB	L199487
Bromoform	<0.00008	mg/L	0.00008	0.00100	1	05/18/14 16:13	SEB	L199487
Bromomethane	<0.00019	mg/L	0.00019	0.00100	1	05/18/14 16:13	SEB	L199487
Methyl Ethyl Ketone (MEK)	<0.00086	mg/L	0.00086	0.0200	1	05/18/14 16:13	SEB	L199487
n-Butylbenzene	<0.00006	mg/L	0.00006	0.00100	1	05/18/14 16:13	SEB	L199487
sec-Butyl benzene	<0.00004	mg/L	0.00004	0.00100	1	05/18/14 16:13	SEB	L199487
tert-Butyl benzene	<0.00004	mg/L	0.00004	0.00100	1	05/18/14 16:13	SEB	L199487
Carbon Disulfide	<b>0.00017 JB</b>	mg/L	0.00004	0.00100	1	05/18/14 16:13	SEB	L199487
Carbon Tetrachloride	<0.00005	mg/L	0.00005	0.00100	1	05/18/14 16:13	SEB	L199487
Chlorobenzene	<0.00004	mg/L	0.00004	0.00100	1	05/18/14 16:13	SEB	L199487
Chlorodibromomethane	<0.00050	mg/L	0.00050	0.00100	1	05/18/14 16:13	SEB	L199487
Chloroethane	<0.00012	mg/L	0.00012	0.00100	1	05/18/14 16:13	SEB	L199487
2-Chloroethylvinyl Ether	<0.00099	mg/L	0.00099	0.00500	1	05/18/14 16:13	SEB	L199487
Chloroform	<0.00010	mg/L	0.00010	0.00100	1	05/18/14 16:13	SEB	L199487
Chloromethane	<0.00023	mg/L	0.00023	0.00100	1	05/18/14 16:13	SEB	L199487

Qualifiers/Definitions	*	Outside QC limit	B	Analyte detected in blank
	DF	Dilution Factor	J	Estimated value
	MQL	Method Quantitation Limit		

03180

Ensafe  
Ms. Allison Harris  
5724 Summer Tree Drive  
Memphis, TN 38134

Project ID :  
Project : MLB  
Information : 714 N. Second St./Memphis, TN  
Project #0888815441

Report Date : 05/21/2014  
Received : 5/16/2014

Report Number : **14-136-0297**

**REPORT OF ANALYSIS**

Lab No : **90307**  
Sample ID : **MLBGTW0701**

Matrix: **Aqueous**  
Sampled: **5/16/2014 11:50**

**Analytical Method:** 8260B

**Prep Method:** 5030B

**Prep Batch(es):** L199486

**Date/Time Prepped:** 5/18/2014 08:13:00

Test	Results	Units	MDL	ML	DF	Date / Time Analyzed	By	Analytical Batch
2-Chlorotoluene	<0.00005	mg/L	0.00005	0.00100	1	05/18/14 16:13	SEB	L199487
4-Chlorotoluene	<0.00006	mg/L	0.00006	0.00100	1	05/18/14 16:13	SEB	L199487
1,2-Dibromo-3-Chloropropane	<0.00033	mg/L	0.00033	0.00500	1	05/18/14 16:13	SEB	L199487
1,2-Dibromoethane	<0.00009	mg/L	0.00009	0.00100	1	05/18/14 16:13	SEB	L199487
Dibromomethane	<0.00005	mg/L	0.00005	0.00100	1	05/18/14 16:13	SEB	L199487
1,2-Dichlorobenzene	<0.00009	mg/L	0.00009	0.00100	1	05/18/14 16:13	SEB	L199487
1,3-Dichlorobenzene	<0.00009	mg/L	0.00009	0.00100	1	05/18/14 16:13	SEB	L199487
1,4-Dichlorobenzene	<0.00018	mg/L	0.00018	0.00100	1	05/18/14 16:13	SEB	L199487
Dichlorodifluoromethane	<0.00006	mg/L	0.00006	0.00100	1	05/18/14 16:13	SEB	L199487
1,1-Dichloroethane	<0.00011	mg/L	0.00011	0.00100	1	05/18/14 16:13	SEB	L199487
1,2-Dichloroethane	<0.00028	mg/L	0.00028	0.00100	1	05/18/14 16:13	SEB	L199487
1,1-Dichloroethene	<0.00007	mg/L	0.00007	0.00100	1	05/18/14 16:13	SEB	L199487
cis-1,2-Dichloroethene	<0.00007	mg/L	0.00007	0.00100	1	05/18/14 16:13	SEB	L199487
trans-1,2-Dichloroethene	<0.00005	mg/L	0.00005	0.00100	1	05/18/14 16:13	SEB	L199487
1,2-Dichloroethene (Total)	<0.00005	mg/L	0.00005	0.00100	1	05/18/14 16:13		L199487
1,2-Dichloropropane	<0.00003	mg/L	0.00003	0.00100	1	05/18/14 16:13	SEB	L199487
1,3-Dichloropropane	<0.00004	mg/L	0.00004	0.00100	1	05/18/14 16:13	SEB	L199487
2,2-Dichloropropane	<0.00007	mg/L	0.00007	0.00100	1	05/18/14 16:13	SEB	L199487
1,1-Dichloropropene	<0.00016	mg/L	0.00016	0.00100	1	05/18/14 16:13	SEB	L199487
cis-1,3-Dichloropropene	<0.00003	mg/L	0.00003	0.00100	1	05/18/14 16:13	SEB	L199487
trans-1,3-Dichloropropene	<0.00006	mg/L	0.00006	0.00100	1	05/18/14 16:13	SEB	L199487
Ethyl Acetate	<0.00007	mg/L	0.00007	0.0100	1	05/18/14 16:13	SEB	L199487

Qualifiers/Definitions	*	Outside QC limit	B	Analyte detected in blank
	DF	Dilution Factor	J	Estimated value
	ML	Method Quantitation Limit		

03180

Ensafe  
Ms. Allison Harris  
5724 Summer Tree Drive  
Memphis, TN 38134

Project ID :  
Project : MLB  
Information : 714 N. Second St./Memphis, TN  
Project #0888815441

Report Date : 05/21/2014  
Received : 5/16/2014

Report Number : **14-136-0297**

**REPORT OF ANALYSIS**

Lab No : **90307**  
Sample ID : **MLBGTW0701**

Matrix: **Aqueous**  
Sampled: **5/16/2014 11:50**

**Analytical Method:** 8260B

**Prep Method:** 5030B

**Prep Batch(es):** L199486

**Date/Time Prepped:** 5/18/2014 08:13:00

Test	Results	Units	MDL	MQL	DF	Date / Time Analyzed	By	Analytical Batch
Ethylbenzene	<0.00005	mg/L	0.00005	0.00100	1	05/18/14 16:13	SEB	L199487
Hexachlorobutadiene	<0.00012	mg/L	0.00012	0.00100	1	05/18/14 16:13	SEB	L199487
2-Hexanone	<0.00131	mg/L	0.00131	0.00500	1	05/18/14 16:13	SEB	L199487
Iodomethane	<0.00007	mg/L	0.00007	0.00500	1	05/18/14 16:13	SEB	L199487
Isopropylbenzene	<0.00005	mg/L	0.00005	0.00100	1	05/18/14 16:13	SEB	L199487
4-Isopropyl toluene	<0.00004	mg/L	0.00004	0.00100	1	05/18/14 16:13	SEB	L199487
Methyl tert-butyl ether (MTBE)	<0.00004	mg/L	0.00004	0.00100	1	05/18/14 16:13	SEB	L199487
4-Methyl-2-Pentanone	<0.00111	mg/L	0.00111	0.00500	1	05/18/14 16:13	SEB	L199487
Methylene Chloride	<0.00041	mg/L	0.00041	0.00500	1	05/18/14 16:13	SEB	L199487
Naphthalene	<0.00054	mg/L	0.00054	0.00500	1	05/18/14 16:13	SEB	L199487
n-Propylbenzene	<0.00004	mg/L	0.00004	0.00100	1	05/18/14 16:13	SEB	L199487
Styrene	<0.00005	mg/L	0.00005	0.00100	1	05/18/14 16:13	SEB	L199487
1,1,1,2-Tetrachloroethane	<0.00006	mg/L	0.00006	0.00100	1	05/18/14 16:13	SEB	L199487
1,1,2,2-Tetrachloroethane	<0.00009	mg/L	0.00009	0.00100	1	05/18/14 16:13	SEB	L199487
Tetrachloroethene	<0.00007	mg/L	0.00007	0.00100	1	05/18/14 16:13	SEB	L199487
Toluene	<0.00004	mg/L	0.00004	0.00500	1	05/18/14 16:13	SEB	L199487
1,2,3-Trichlorobenzene	<0.00047	mg/L	0.00047	0.00100	1	05/18/14 16:13	SEB	L199487
1,2,4-Trichlorobenzene	<0.00037	mg/L	0.00037	0.00100	1	05/18/14 16:13	SEB	L199487
1,1,1-Trichloroethane	<0.00013	mg/L	0.00013	0.00100	1	05/18/14 16:13	SEB	L199487
1,1,2-Trichloroethane	<0.00004	mg/L	0.00004	0.00100	1	05/18/14 16:13	SEB	L199487
Trichloroethene	<0.00008	mg/L	0.00008	0.00100	1	05/18/14 16:13	SEB	L199487
Trichlorofluoromethane	<0.00004	mg/L	0.00004	0.00100	1	05/18/14 16:13	SEB	L199487

Qualifiers/Definitions	*	Outside QC limit	B	Analyte detected in blank
	DF	Dilution Factor	J	Estimated value
	MQL	Method Quantitation Limit		

03180

Ensafe  
Ms. Allison Harris  
5724 Summer Tree Drive  
Memphis, TN 38134

Project ID :  
Project : MLB  
Information : 714 N. Second St./Memphis, TN  
Project #0888815441

Report Date : 05/21/2014  
Received : 5/16/2014

Report Number : **14-136-0297**

**REPORT OF ANALYSIS**

Lab No : **90307**  
Sample ID : **MLBGTW0701**

Matrix: **Aqueous**  
Sampled: **5/16/2014 11:50**

**Analytical Method:** 8260B

**Prep Method:** 5030B

**Prep Batch(es):** L199486

**Date/Time Prepped:** 5/18/2014 08:13:00

Test	Results	Units	MDL	MQL	DF	Date / Time Analyzed	By	Analytical Batch
1,2,3-Trichloropropane	<0.00010	mg/L	0.00010	0.00100	1	05/18/14 16:13	SEB	L199487
1,2,4-Trimethylbenzene	<0.00005	mg/L	0.00005	0.00100	1	05/18/14 16:13	SEB	L199487
1,3,5-Trimethylbenzene	<0.00006	mg/L	0.00006	0.00100	1	05/18/14 16:13	SEB	L199487
Vinyl Acetate	<0.00006	mg/L	0.00006	0.0100	1	05/18/14 16:13	SEB	L199487
Vinyl Chloride	<0.00004	mg/L	0.00004	0.00100	1	05/18/14 16:13	SEB	L199487
o-Xylene	<0.00007	mg/L	0.00007	0.00100	1	05/18/14 16:13	SEB	L199487
m,p-Xylene	<0.00012	mg/L	0.00012	0.00200	1	05/18/14 16:13	SEB	L199487
Xylene (Total)	<0.00007	mg/L	0.00007	0.0010	1	05/18/14 16:13		L199487
Surrogate: 4-Bromofluorobenzene	87.2		Limits: 71-137%		1	05/18/14 16:13	SEB	L199487
Surrogate: Dibromofluoromethane	86.8		Limits: 70-128%		1	05/18/14 16:13	SEB	L199487
Surrogate: 1,2-Dichloroethane - d4	123		Limits: 63-136%		1	05/18/14 16:13	SEB	L199487
Surrogate: Toluene-d8	97.0		Limits: 70-130%		1	05/18/14 16:13	SEB	L199487

**Analytical Method:** 8270C SIM

**Prep Method:** 3511

**Prep Batch(es):** L199437

**Date/Time Prepped:** 5/19/2014 09:15:00

Test	Results	Units	MDL	MQL	DF	Date / Time Analyzed	By	Analytical Batch
Acenaphthene	<0.000010	mg/L	0.000010	0.000020	1	05/20/14 17:13	NFP	L199718
Acenaphthylene	<0.000010	mg/L	0.000010	0.000020	1	05/20/14 17:13	NFP	L199718
Anthracene	<b>0.000018 J</b>	mg/L	0.000010	0.000020	1	05/20/14 17:13	NFP	L199718
Benzo(a)anthracene	<0.000010	mg/L	0.000010	0.000020	1	05/20/14 17:13	NFP	L199718
Benzo(a)pyrene	<0.000010	mg/L	0.000010	0.000020	1	05/20/14 17:13	NFP	L199718
Benzo(b)fluoranthene	<0.000010	mg/L	0.000010	0.000020	1	05/20/14 17:13	NFP	L199718

Qualifiers/Definitions	*	Outside QC limit	B	Analyte detected in blank
	DF	Dilution Factor	J	Estimated value
	MQL	Method Quantitation Limit		



03180

Ensafe  
 Ms. Allison Harris  
 5724 Summer Tree Drive  
 Memphis, TN 38134

Project ID :  
 Project : MLB  
 Information : 714 N. Second St./Memphis, TN  
 Project #0888815441

Report Date : 05/21/2014  
 Received : 5/16/2014

Report Number : 14-136-0297

**REPORT OF ANALYSIS**

Lab No : 90307  
 Sample ID : MLBGTW0701

Matrix: Aqueous  
 Sampled: 5/16/2014 11:50

Analytical Method: 8270C SIM

Prep Method: 3511

Prep Batch(es): L199437

Date/Time Prepped: 5/19/2014 09:15:00

Test	Results	Units	MDL	ML	DF	Date / Time Analyzed	By	Analytical Batch
Benzo(g,h,i)perylene	<0.000010	mg/L	0.000010	0.000020	1	05/20/14 17:13	NFP	L199718
Benzo(k)fluoranthene	<0.000010	mg/L	0.000010	0.000020	1	05/20/14 17:13	NFP	L199718
Chrysene	<0.000010	mg/L	0.000010	0.000020	1	05/20/14 17:13	NFP	L199718
Dibenz(a,h)anthracene	<0.000010	mg/L	0.000010	0.000020	1	05/20/14 17:13	NFP	L199718
Fluoranthene	<0.000010	mg/L	0.000010	0.000020	1	05/20/14 17:13	NFP	L199718
Fluorene	<b>0.000020</b>	mg/L	0.000010	0.000020	1	05/20/14 17:13	NFP	L199718
Indeno(1,2,3-cd)pyrene	<0.000010	mg/L	0.000010	0.000020	1	05/20/14 17:13	NFP	L199718
2-Methylnaphthalene	<b>0.000055 B</b>	mg/L	0.000010	0.000020	1	05/20/14 17:13	NFP	L199718
Naphthalene	<b>0.000170 B</b>	mg/L	0.000010	0.000020	1	05/20/14 17:13	NFP	L199718
Phenanthrene	<b>0.000044 B</b>	mg/L	0.000010	0.000020	1	05/20/14 17:13	NFP	L199718
Pyrene	<0.000010	mg/L	0.000010	0.000020	1	05/20/14 17:13	NFP	L199718
Surrogate: 2-Fluorobiphenyl	85.3		Limits: 60-140%		1	05/20/14 17:13	NFP	L199718
Surrogate: 4-Terphenyl-d14	91.1		Limits: 60-140%		1	05/20/14 17:13	NFP	L199718

Qualifiers/Definitions	*	Outside QC limit	B	Analyte detected in blank
	DF	Dilution Factor	J	Estimated value
	ML	Method Quantitation Limit		

03180

Ensafe  
Ms. Allison Harris  
5724 Summer Tree Drive  
Memphis, TN 38134

Project ID :  
Project : MLB  
Information : 714 N. Second St./Memphis, TN  
Project #0888815441

Report Date : 05/21/2014  
Received : 5/16/2014

Report Number : **14-136-0297**

**REPORT OF ANALYSIS**

Lab No : **90308**  
Sample ID : **MLBT051614**

Matrix: **Aqueous**  
Sampled: **5/16/2014 9:30**

**Analytical Method:** 8260B

**Prep Method:** 5030B

**Prep Batch(es):** L199486

**Date/Time Prepped:** 5/18/2014 08:13:00

Test	Results	Units	MDL	ML	DF	Date / Time Analyzed	By	Analytical Batch
Acetone	<0.00119	mg/L	0.00119	0.0200	1	05/18/14 16:34	SEB	L199487
Acetonitrile	<0.00520	mg/L	0.00520	0.0500	1	05/18/14 16:34	SEB	L199487
Acrolein	<0.00349	mg/L	0.00349	0.0200	1	05/18/14 16:34	SEB	L199487
Acrylonitrile	<0.00116	mg/L	0.00116	0.0200	1	05/18/14 16:34	SEB	L199487
Benzene	<0.00004	mg/L	0.00004	0.00100	1	05/18/14 16:34	SEB	L199487
Bromobenzene	<0.00014	mg/L	0.00014	0.00100	1	05/18/14 16:34	SEB	L199487
Bromochloromethane	<0.00004	mg/L	0.00004	0.00100	1	05/18/14 16:34	SEB	L199487
Bromodichloromethane	<0.00004	mg/L	0.00004	0.00100	1	05/18/14 16:34	SEB	L199487
Bromoform	<0.00008	mg/L	0.00008	0.00100	1	05/18/14 16:34	SEB	L199487
Bromomethane	<0.00019	mg/L	0.00019	0.00100	1	05/18/14 16:34	SEB	L199487
Methyl Ethyl Ketone (MEK)	<0.00086	mg/L	0.00086	0.0200	1	05/18/14 16:34	SEB	L199487
n-Butylbenzene	<0.00006	mg/L	0.00006	0.00100	1	05/18/14 16:34	SEB	L199487
sec-Butyl benzene	<0.00004	mg/L	0.00004	0.00100	1	05/18/14 16:34	SEB	L199487
tert-Butyl benzene	<0.00004	mg/L	0.00004	0.00100	1	05/18/14 16:34	SEB	L199487
Carbon Disulfide	<b>0.00013 JB</b>	mg/L	0.00004	0.00100	1	05/18/14 16:34	SEB	L199487
Carbon Tetrachloride	<0.00005	mg/L	0.00005	0.00100	1	05/18/14 16:34	SEB	L199487
Chlorobenzene	<0.00004	mg/L	0.00004	0.00100	1	05/18/14 16:34	SEB	L199487
Chlorodibromomethane	<0.00050	mg/L	0.00050	0.00100	1	05/18/14 16:34	SEB	L199487
Chloroethane	<0.00012	mg/L	0.00012	0.00100	1	05/18/14 16:34	SEB	L199487
2-Chloroethylvinyl Ether	<0.00099	mg/L	0.00099	0.00500	1	05/18/14 16:34	SEB	L199487
Chloroform	<0.00010	mg/L	0.00010	0.00100	1	05/18/14 16:34	SEB	L199487
Chloromethane	<0.00023	mg/L	0.00023	0.00100	1	05/18/14 16:34	SEB	L199487

Qualifiers/Definitions	*	Outside QC limit	B	Analyte detected in blank
	DF	Dilution Factor	J	Estimated value
	ML	Method Quantitation Limit		



03180

Ensafe  
Ms. Allison Harris  
5724 Summer Tree Drive  
Memphis, TN 38134

Project ID :  
Project : MLB  
Information : 714 N. Second St./Memphis, TN  
Project #0888815441

Report Date : 05/21/2014  
Received : 5/16/2014

Report Number : **14-136-0297**

**REPORT OF ANALYSIS**

Lab No : **90308**  
Sample ID : **MLBT051614**

Matrix: **Aqueous**  
Sampled: **5/16/2014 9:30**

**Analytical Method:** 8260B

**Prep Method:** 5030B

**Prep Batch(es):** L199486

**Date/Time Prepped:** 5/18/2014 08:13:00

Test	Results	Units	MDL	MLQ	DF	Date / Time Analyzed	By	Analytical Batch
2-Chlorotoluene	<0.00005	mg/L	0.00005	0.00100	1	05/18/14 16:34	SEB	L199487
4-Chlorotoluene	<0.00006	mg/L	0.00006	0.00100	1	05/18/14 16:34	SEB	L199487
1,2-Dibromo-3-Chloropropane	<0.00033	mg/L	0.00033	0.00500	1	05/18/14 16:34	SEB	L199487
1,2-Dibromoethane	<0.00009	mg/L	0.00009	0.00100	1	05/18/14 16:34	SEB	L199487
Dibromomethane	<0.00005	mg/L	0.00005	0.00100	1	05/18/14 16:34	SEB	L199487
1,2-Dichlorobenzene	<0.00009	mg/L	0.00009	0.00100	1	05/18/14 16:34	SEB	L199487
1,3-Dichlorobenzene	<0.00009	mg/L	0.00009	0.00100	1	05/18/14 16:34	SEB	L199487
1,4-Dichlorobenzene	<0.00018	mg/L	0.00018	0.00100	1	05/18/14 16:34	SEB	L199487
Dichlorodifluoromethane	<0.00006	mg/L	0.00006	0.00100	1	05/18/14 16:34	SEB	L199487
1,1-Dichloroethane	<0.00011	mg/L	0.00011	0.00100	1	05/18/14 16:34	SEB	L199487
1,2-Dichloroethane	<0.00028	mg/L	0.00028	0.00100	1	05/18/14 16:34	SEB	L199487
1,1-Dichloroethene	<0.00007	mg/L	0.00007	0.00100	1	05/18/14 16:34	SEB	L199487
cis-1,2-Dichloroethene	<0.00007	mg/L	0.00007	0.00100	1	05/18/14 16:34	SEB	L199487
trans-1,2-Dichloroethene	<0.00005	mg/L	0.00005	0.00100	1	05/18/14 16:34	SEB	L199487
1,2-Dichloroethene (Total)	<0.00005	mg/L	0.00005	0.00100	1	05/18/14 16:34		L199487
1,2-Dichloropropane	<0.00003	mg/L	0.00003	0.00100	1	05/18/14 16:34	SEB	L199487
1,3-Dichloropropane	<0.00004	mg/L	0.00004	0.00100	1	05/18/14 16:34	SEB	L199487
2,2-Dichloropropane	<0.00007	mg/L	0.00007	0.00100	1	05/18/14 16:34	SEB	L199487
1,1-Dichloropropene	<0.00016	mg/L	0.00016	0.00100	1	05/18/14 16:34	SEB	L199487
cis-1,3-Dichloropropene	<0.00003	mg/L	0.00003	0.00100	1	05/18/14 16:34	SEB	L199487
trans-1,3-Dichloropropene	<0.00006	mg/L	0.00006	0.00100	1	05/18/14 16:34	SEB	L199487
Ethyl Acetate	<0.00007	mg/L	0.00007	0.0100	1	05/18/14 16:34	SEB	L199487

Qualifiers/Definitions	*	Outside QC limit	B	Analyte detected in blank
	DF	Dilution Factor	J	Estimated value
	MLQ	Method Quantitation Limit		

03180

Ensafe  
Ms. Allison Harris  
5724 Summer Tree Drive  
Memphis, TN 38134

Project ID :  
Project : MLB  
Information : 714 N. Second St./Memphis, TN  
Project #0888815441

Report Date : 05/21/2014  
Received : 5/16/2014

Report Number : 14-136-0297

**REPORT OF ANALYSIS**

Lab No : 90308  
Sample ID : MLBT051614

Matrix: Aqueous  
Sampled: 5/16/2014 9:30

Analytical Method: 8260B

Prep Method: 5030B

Prep Batch(es): L199486

Date/Time Prepped: 5/18/2014 08:13:00

Test	Results	Units	MDL	MLQ	DF	Date / Time Analyzed	By	Analytical Batch
Ethylbenzene	<0.00005	mg/L	0.00005	0.00100	1	05/18/14 16:34	SEB	L199487
Hexachlorobutadiene	<0.00012	mg/L	0.00012	0.00100	1	05/18/14 16:34	SEB	L199487
2-Hexanone	<0.00131	mg/L	0.00131	0.00500	1	05/18/14 16:34	SEB	L199487
Iodomethane	<b>0.00034 JB</b>	mg/L	0.00007	0.00500	1	05/18/14 16:34	SEB	L199487
Isopropylbenzene	<0.00005	mg/L	0.00005	0.00100	1	05/18/14 16:34	SEB	L199487
4-Isopropyl toluene	<0.00004	mg/L	0.00004	0.00100	1	05/18/14 16:34	SEB	L199487
Methyl tert-butyl ether (MTBE)	<0.00004	mg/L	0.00004	0.00100	1	05/18/14 16:34	SEB	L199487
4-Methyl-2-Pentanone	<0.00111	mg/L	0.00111	0.00500	1	05/18/14 16:34	SEB	L199487
Methylene Chloride	<b>0.00224 J</b>	mg/L	0.00041	0.00500	1	05/18/14 16:34	SEB	L199487
Naphthalene	<0.00054	mg/L	0.00054	0.00500	1	05/18/14 16:34	SEB	L199487
n-Propylbenzene	<0.00004	mg/L	0.00004	0.00100	1	05/18/14 16:34	SEB	L199487
Styrene	<0.00005	mg/L	0.00005	0.00100	1	05/18/14 16:34	SEB	L199487
1,1,1,2-Tetrachloroethane	<0.00006	mg/L	0.00006	0.00100	1	05/18/14 16:34	SEB	L199487
1,1,2,2-Tetrachloroethane	<0.00009	mg/L	0.00009	0.00100	1	05/18/14 16:34	SEB	L199487
Tetrachloroethene	<0.00007	mg/L	0.00007	0.00100	1	05/18/14 16:34	SEB	L199487
Toluene	<0.00004	mg/L	0.00004	0.00500	1	05/18/14 16:34	SEB	L199487
1,2,3-Trichlorobenzene	<0.00047	mg/L	0.00047	0.00100	1	05/18/14 16:34	SEB	L199487
1,2,4-Trichlorobenzene	<0.00037	mg/L	0.00037	0.00100	1	05/18/14 16:34	SEB	L199487
1,1,1-Trichloroethane	<0.00013	mg/L	0.00013	0.00100	1	05/18/14 16:34	SEB	L199487
1,1,2-Trichloroethane	<0.00004	mg/L	0.00004	0.00100	1	05/18/14 16:34	SEB	L199487
Trichloroethene	<0.00008	mg/L	0.00008	0.00100	1	05/18/14 16:34	SEB	L199487
Trichlorofluoromethane	<0.00004	mg/L	0.00004	0.00100	1	05/18/14 16:34	SEB	L199487

Qualifiers/Definitions	*	Outside QC limit	B	Analyte detected in blank
	DF	Dilution Factor	J	Estimated value
	MLQ	Method Quantitation Limit		



03180

Ensafe  
Ms. Allison Harris  
5724 Summer Tree Drive  
Memphis, TN 38134

Project ID :  
Project : MLB  
Information : 714 N. Second St./Memphis, TN  
Project #0888815441

Report Date : 05/21/2014  
Received : 5/16/2014

Report Number : **14-136-0297**

### REPORT OF ANALYSIS

Lab No : **90308**  
Sample ID : **MLBT051614**

Matrix: **Aqueous**  
Sampled: **5/16/2014 9:30**

**Analytical Method:** 8260B

**Prep Method:** 5030B

**Prep Batch(es):** L199486

**Date/Time Prepped:** 5/18/2014 08:13:00

Test	Results	Units	MDL	ML	DF	Date / Time Analyzed	By	Analytical Batch
1,2,3-Trichloropropane	<0.00010	mg/L	0.00010	0.00100	1	05/18/14 16:34	SEB	L199487
1,2,4-Trimethylbenzene	<0.00005	mg/L	0.00005	0.00100	1	05/18/14 16:34	SEB	L199487
1,3,5-Trimethylbenzene	<0.00006	mg/L	0.00006	0.00100	1	05/18/14 16:34	SEB	L199487
Vinyl Acetate	<0.00006	mg/L	0.00006	0.0100	1	05/18/14 16:34	SEB	L199487
Vinyl Chloride	<0.00004	mg/L	0.00004	0.00100	1	05/18/14 16:34	SEB	L199487
o-Xylene	<0.00007	mg/L	0.00007	0.00100	1	05/18/14 16:34	SEB	L199487
m,p-Xylene	<0.00012	mg/L	0.00012	0.00200	1	05/18/14 16:34	SEB	L199487
Xylene (Total)	<0.00007	mg/L	0.00007	0.0010	1	05/18/14 16:34		L199487
Surrogate: 4-Bromofluorobenzene	81.6		Limits: 71-137%		1	05/18/14 16:34	SEB	L199487
Surrogate: Dibromofluoromethane	84.8		Limits: 70-128%		1	05/18/14 16:34	SEB	L199487
Surrogate: 1,2-Dichloroethane - d4	132		Limits: 63-136%		1	05/18/14 16:34	SEB	L199487
Surrogate: Toluene-d8	94.8		Limits: 70-130%		1	05/18/14 16:34	SEB	L199487

Qualifiers/Definitions	*	Outside QC limit	B	Analyte detected in blank
	DF	Dilution Factor	J	Estimated value
	ML	Method Quantitation Limit		

**QC Report**

Client ID           **Ensafe**  
 Project Description    MLB  
 Report No            14-136-0297

**Analytical Method: 6010B**

**Batch: L199596**

**Prep Method: 3005A**

**Batch: L199467   5/19/14 10:35**

**Lab Reagent Blank - LRB-L199467**

**QC Measurement:   Limit**

**DateTime Analyzed: 05/19/2014 05:28 PM**

<u>Test Description</u>	<u>LRB Result</u>	<u>MDL</u>	<u>MQL</u>	<u>Dilution</u>
Total Arsenic	<0.006 mg/L	0.006	0.010	1
Total Barium	<0.001 mg/L	0.001	0.010	1
Total Cadmium	<0.0003 mg/L	0.0003	0.0020	1
Total Chromium	<0.001 mg/L	0.001	0.005	1
Total Lead	<0.003 mg/L	0.003	0.006	1
Total Selenium	<0.008 mg/L	0.008	0.010	1
Total Silver	<0.0008 mg/L	0.0008	0.0050	1

**Laboratory Control Sample - LCS-L199467**

**QC Measurement:   % Recovery**

**DateTime Analyzed: 05/19/2014 05:32 PM**

<u>Test Description</u>	<u>QC Result</u>	<u>Criteria</u>	<u>LCS Result</u>	<u>LCS Conc.</u>	<u>MDL</u>	<u>Dilution</u>
Total Arsenic	109 %	80-120%	0.109 mg/L	0.100	0.006	1
Total Barium	112 %	80-120%	1.12 mg/L	1.00	0.001	1
Total Cadmium	110 %	80-120%	0.110 mg/L	0.100	0.0003	1
Total Chromium	117 %	80-120%	1.17 mg/L	1.00	0.001	1
Total Lead	114 %	80-120%	0.114 mg/L	0.100	0.003	1
Total Selenium	112 %	80-120%	0.112 mg/L	0.100	0.008	1
Total Silver	108 %	80-120%	0.108 mg/L	0.100	0.0008	1

**Matrix Spike - L 90307-MS-L199467**

**QC Measurement:   % Recovery**

**DateTime Analyzed: 05/19/2014 06:19 PM**

<u>Test Description</u>	<u>QC Result</u>	<u>Criteria</u>	<u>MS Result</u>	<u>MS Conc.</u>	<u>Sample Conc.</u>	<u>MDL</u>	<u>Dilution</u>
Total Arsenic	106 %	75-125%	0.106 mg/L	0.100	< 0.006	0.006	1
Total Barium	108 %	75-125%	1.20 mg/L	1.00	0.119	0.001	1
Total Cadmium	105 %	75-125%	0.105 mg/L	0.100	< 0.0003	0.0003	1
Total Chromium	112 %	75-125%	1.12 mg/L	1.00	< 0.001	0.001	1
Total Lead	104 %	75-125%	0.104 mg/L	0.100	< 0.003	0.003	1

**QC Report**

Client ID           **Ensafe**  
Project Description    MLB  
Report No            14-136-0297

**Analytical Method: 6010B**

**Batch: L199596**

**Prep Method: 3005A**

**Batch: L199467   5/19/14 10:35**

**Matrix Spike - L 90307-MS-L199467**

**QC Measurement:   % Recovery**

**DateTime Analyzed: 05/19/2014 06:19 PM**

Test Description	QC Result	Criteria	MS Result	MS Conc.	Sample Conc.	MDL	Dilution
Total Selenium	100 %	75-125%	0.100 mg/L	0.100	< 0.008	0.008	1
Total Silver	107 %	75-125%	0.107 mg/L	0.100	< 0.0008	0.0008	1

**Matrix Spike Duplicate - L 90307-MSD-L199467**

**QC Measurement:   % Recovery**

**DateTime Analyzed: 05/19/2014 06:23 PM**

Test Description	QC Result	Criteria	MSD Result	MSD Conc.	Sample Conc.	MDL	Dilution
Total Arsenic	107 %	75-125%	0.107 mg/L	0.100	< 0.006	0.006	1
Total Barium	107 %	75-125%	1.19 mg/L	1.00	0.119	0.001	1
Total Cadmium	104 %	75-125%	0.104 mg/L	0.100	< 0.0003	0.0003	1
Total Chromium	115 %	75-125%	1.15 mg/L	1.00	< 0.001	0.001	1
Total Lead	103 %	75-125%	0.103 mg/L	0.100	< 0.003	0.003	1
Total Selenium	103 %	75-125%	0.103 mg/L	0.100	< 0.008	0.008	1
Total Silver	108 %	75-125%	0.108 mg/L	0.100	< 0.0008	0.0008	1

**Matrix Spike Duplicate - L 90307-MSD-L199467**

**QC Measurement:   RPD**

**DateTime Analyzed: 05/19/2014 06:23 PM**

Test Description	QC Result	Criteria	MSD Result	MSD Conc.	Sample Conc.	MDL	Dilution
Total Arsenic	0.9 %	<20.0	0.107 mg/L		0.106	0.006	1
Total Barium	0.8 %	<20.0	1.19 mg/L		1.20	0.001	1
Total Cadmium	0.9 %	<20.0	0.104 mg/L		0.105	0.0003	1
Total Chromium	2.6 %	<20.0	1.15 mg/L		1.12	0.001	1
Total Lead	0.9 %	<20.0	0.103 mg/L		0.104	0.003	1
Total Selenium	2.9 %	<20.0	0.103 mg/L		0.100	0.008	1
Total Silver	0.9 %	<20.0	0.108 mg/L		0.107	0.0008	1

**QC Report**

Client ID           **Ensafe**  
 Project Description    MLB  
 Report No            14-136-0297

**Analytical Method: 7470A**

**Batch: L199511**

**Prep Method: 7470A**

**Batch: L199421   05/19/14 08:00**

**Lab Reagent Blank - LRB-L199421**

**QC Measurement:   Limit**

**DateTime Analyzed: 05/19/2014 11:31 AM**

<u>Test Description</u>	<u>LRB Result</u>	<u>MDL</u>	<u>MQL</u>	<u>Dilution</u>
Total Mercury	<0.00005 mg/L	0.00005	0.00020	1

**Laboratory Control Sample - LCS-L199421**

**QC Measurement:   % Recovery**

**DateTime Analyzed: 05/19/2014 11:33 AM**

<u>Test Description</u>	<u>QC Result</u>	<u>Criteria</u>	<u>LCS Result</u>	<u>LCS Conc.</u>	<u>MDL</u>	<u>Dilution</u>
Total Mercury	95.2 %	80-120%	0.00381 mg/L	0.00400	0.00005	1

**Matrix Spike - L 90033-MS-L199421**

**QC Measurement:   % Recovery**

**DateTime Analyzed: 05/19/2014 11:36 AM**

<u>Test Description</u>	<u>QC Result</u>	<u>Criteria</u>	<u>MS Result</u>	<u>MS Conc.</u>	<u>Sample Conc.</u>	<u>MDL</u>	<u>Dilution</u>
Total Mercury	105 %	80-120%	0.00420 mg/L	0.00400	< 0.00005	0.00005	1

**Matrix Spike Duplicate - L 90033-MSD-L199421**

**QC Measurement:   % Recovery**

**DateTime Analyzed: 05/19/2014 11:38 AM**

<u>Test Description</u>	<u>QC Result</u>	<u>Criteria</u>	<u>MSD Result</u>	<u>MSD Conc.</u>	<u>Sample Conc.</u>	<u>MDL</u>	<u>Dilution</u>
Total Mercury	109 %	80-120%	0.00434 mg/L	0.00400	< 0.00005	0.00005	1

**Matrix Spike Duplicate - L 90033-MSD-L199421**

**QC Measurement:   RPD**

**DateTime Analyzed: 05/19/2014 11:38 AM**

<u>Test Description</u>	<u>QC Result</u>	<u>Criteria</u>	<u>MSD Result</u>	<u>MSD Conc.</u>	<u>Sample Conc.</u>	<u>MDL</u>	<u>Dilution</u>
Total Mercury	3.2 %	<20.0	0.00434 mg/L		0.00420	0.00005	1

**QC Report**

Client ID           **Ensafe**  
Project Description    MLB  
Report No            14-136-0297

**Analytical Method: 8260B**

**Batch: L199487**

**Prep Method: 5030B**

**Batch: L199486   05/18/2014 08:13 AM**

**Lab Reagent Blank - LRB-L199486**

**QC Measurement:   Limit**

**DateTime Analyzed: 05/18/2014 11:19 AM**

<b>Test Description</b>	<b>LRB Result</b>	<b>Qualifier</b>	<b>MDL</b>	<b>SQL</b>	<b>Dilution</b>
Acetone	<0.00119 mg/L		0.00119	0.0200	1
Acetonitrile	<0.00520 mg/L		0.00520	0.0500	1
Acrolein	<0.00349 mg/L		0.00349	0.0200	1
Acrylonitrile	<0.00116 mg/L		0.00116	0.0200	1
Benzene	<0.00004 mg/L		0.00004	0.00100	1
Bromobenzene	<0.00014 mg/L		0.00014	0.00100	1
Bromochloromethane	<0.00004 mg/L		0.00004	0.00100	1
Bromodichloromethane	<0.00004 mg/L		0.00004	0.00100	1
Bromoform	<0.00008 mg/L		0.00008	0.00100	1
Bromomethane	<0.00019 mg/L		0.00019	0.00100	1
Methyl Ethyl Ketone (MEK)	<0.00086 mg/L		0.00086	0.0200	1
n-Butylbenzene	0.00027 mg/L	J	0.00006	0.00100	1
sec-Butyl benzene	<0.00004 mg/L		0.00004	0.00100	1
tert-Butyl benzene	<0.00004 mg/L		0.00004	0.00100	1
Carbon Disulfide	0.00030 mg/L	J	0.00004	0.00100	1
Carbon Tetrachloride	<0.00005 mg/L		0.00005	0.00100	1
Chlorobenzene	<0.00004 mg/L		0.00004	0.00100	1
Chlorodibromomethane	<0.00050 mg/L		0.00050	0.00100	1
Chloroethane	<0.00012 mg/L		0.00012	0.00100	1
2-Chloroethylvinyl Ether	<0.00099 mg/L		0.00099	0.00500	1
Chloroform	<0.00010 mg/L		0.00010	0.00100	1
Chloromethane	<0.00023 mg/L		0.00023	0.00100	1
2-Chlorotoluene	<0.00005 mg/L		0.00005	0.00100	1
4-Chlorotoluene	<0.00006 mg/L		0.00006	0.00100	1
1,2-Dibromo-3-Chloropropane	<0.00033 mg/L		0.00033	0.00500	1
1,2-Dibromoethane	<0.00009 mg/L		0.00009	0.00100	1
Dibromomethane	<0.00005 mg/L		0.00005	0.00100	1
1,2-Dichlorobenzene	<0.00009 mg/L		0.00009	0.00100	1
1,3-Dichlorobenzene	<0.00009 mg/L		0.00009	0.00100	1



**QC Report**

Client ID           **Ensafe**  
 Project Description    MLB  
 Report No            14-136-0297

**Analytical Method: 8260B**

**Batch: L199487**

**Prep Method: 5030B**

**Batch: L199486   05/18/2014 08:13 AM**

**Lab Reagent Blank - LRB-L199486**

**QC Measurement:   Limit**

**DateTime Analyzed: 05/18/2014 11:19 AM**

<b>Test Description</b>	<b>LRB Result</b>	<b>Qualifier</b>	<b>MDL</b>	<b>MLQ</b>	<b>Dilution</b>
1,4-Dichlorobenzene	<0.00018 mg/L		0.00018	0.00100	1
Dichlorodifluoromethane	<0.00006 mg/L		0.00006	0.00100	1
1,1-Dichloroethane	<0.00011 mg/L		0.00011	0.00100	1
1,2-Dichloroethane	0.00030 mg/L	J	0.00028	0.00100	1
1,1-Dichloroethene	<0.00007 mg/L		0.00007	0.00100	1
cis-1,2-Dichloroethene	<0.00007 mg/L		0.00007	0.00100	1
trans-1,2-Dichloroethene	<0.00005 mg/L		0.00005	0.00100	1
1,2-Dichloropropane	<0.00003 mg/L		0.00003	0.00100	1
1,3-Dichloropropane	<0.00004 mg/L		0.00004	0.00100	1
2,2-Dichloropropane	<0.00007 mg/L		0.00007	0.00100	1
1,1-Dichloropropene	<0.00016 mg/L		0.00016	0.00100	1
cis-1,3-Dichloropropene	<0.00003 mg/L		0.00003	0.00100	1
trans-1,3-Dichloropropene	<0.00006 mg/L		0.00006	0.00100	1
Ethyl Acetate	<0.00007 mg/L		0.00007	0.0100	1
Ethylbenzene	<0.00005 mg/L		0.00005	0.00100	1
Hexachlorobutadiene	<0.00012 mg/L		0.00012	0.00100	1
2-Hexanone	<0.00131 mg/L		0.00131	0.00500	1
Iodomethane	0.00103 mg/L	J	0.00007	0.00500	1
Isopropylbenzene	<0.00005 mg/L		0.00005	0.00100	1
4-Isopropyl toluene	<0.00004 mg/L		0.00004	0.00100	1
Methyl tert-butyl ether (MTBE)	<0.00004 mg/L		0.00004	0.00100	1
4-Methyl-2-Pentanone	<0.00111 mg/L		0.00111	0.00500	1
Methylene Chloride	<0.00041 mg/L		0.00041	0.00500	1
Naphthalene	0.00059 mg/L	J	0.00054	0.00500	1
n-Propylbenzene	<0.00004 mg/L		0.00004	0.00100	1
Styrene	<0.00005 mg/L		0.00005	0.00100	1
1,1,1,2-Tetrachloroethane	<0.00006 mg/L		0.00006	0.00100	1
1,1,2,2-Tetrachloroethane	<0.00009 mg/L		0.00009	0.00100	1
Tetrachloroethene	<0.00007 mg/L		0.00007	0.00100	1

**QC Report**

Client ID           **Ensafe**  
 Project Description    MLB  
 Report No            14-136-0297

**Analytical Method: 8260B**

**Batch: L199487**

**Prep Method: 5030B**

**Batch: L199486   05/18/2014 08:13 AM**

**Lab Reagent Blank - LRB-L199486**

**QC Measurement:    Limit**

**DateTime Analyzed: 05/18/2014 11:19 AM**

Test Description	LRB				
	Result	Qualifier	MDL	MQL	Dilution
Toluene	0.00065 mg/L	J	0.00004	0.00500	1
1,2,3-Trichlorobenzene	<0.00047 mg/L		0.00047	0.00100	1
1,2,4-Trichlorobenzene	<0.00037 mg/L		0.00037	0.00100	1
1,1,1-Trichloroethane	<0.00013 mg/L		0.00013	0.00100	1
1,1,2-Trichloroethane	<0.00004 mg/L		0.00004	0.00100	1
Trichloroethene	<0.00008 mg/L		0.00008	0.00100	1
Trichlorofluoromethane	<0.00004 mg/L		0.00004	0.00100	1
1,2,3-Trichloropropane	<0.00010 mg/L		0.00010	0.00100	1
1,2,4-Trimethylbenzene	<0.00005 mg/L		0.00005	0.00100	1
1,3,5-Trimethylbenzene	<0.00006 mg/L		0.00006	0.00100	1
Vinyl Acetate	<0.00006 mg/L		0.00006	0.0100	1
Vinyl Chloride	<0.00004 mg/L		0.00004	0.00100	1
o-Xylene	<0.00007 mg/L		0.00007	0.00100	1
m,p-Xylene	<0.00012 mg/L		0.00012	0.00200	1

**Surrogate Recovery:**

4-Bromofluorobenzene	94.8	0.0474 mg/L	0.0500		1
Dibromofluoromethane	89.0	0.0445 mg/L	0.0500		1
1,2-Dichloroethane - d4	120	0.0599 mg/L	0.0500		1
Toluene-d8	93.6	0.0468 mg/L	0.0500		1

**Laboratory Control Sample - LCS-L199486**

**QC Measurement:    % Recovery**

**DateTime Analyzed: 05/18/2014 08:52 AM**

Test Description	QC		LCS Result	LCS Conc.	MDL	Dilution
	Result	Criteria				
Acetone	91.0 %	40-160%	0.0910 mg/L	0.100	0.00119	1
Acetonitrile	97.7 %	40-140%	0.977 mg/L	1.00	0.00520	1
Acrolein	106 %	20-140%	0.106 mg/L	0.100	0.00349	1
Acrylonitrile	109 %	20-140%	0.109 mg/L	0.100	0.00116	1
Benzene	91.2 %	80-120%	0.0912 mg/L	0.100	0.00004	1

## QC Report

Client ID           **Ensafe**  
 Project Description    MLB  
 Report No            14-136-0297

**Analytical Method: 8260B**

**Batch: L199487**

**Prep Method: 5030B**

**Batch: L199486   05/18/2014 08:13 AM**

**Laboratory Control Sample - LCS-L199486**

**QC Measurement:   % Recovery**

**DateTime Analyzed: 05/18/2014 08:52 AM**

Test Description	QC Result	Criteria	LCS Result	LCS Conc.	MDL	Dilution
Bromobenzene	114 %	75-125%	0.114 mg/L	0.100	0.00014	1
Bromochloromethane	94.1 %	65-130%	0.0941 mg/L	0.100	0.00004	1
Bromodichloromethane	101 %	75-120%	0.101 mg/L	0.100	0.00004	1
Bromoform	111 %	70-130%	0.111 mg/L	0.100	0.00008	1
Bromomethane	121 %	40-140%	0.121 mg/L	0.100	0.00019	1
Methyl Ethyl Ketone (MEK)	92.9 %	40-140%	0.0929 mg/L	0.100	0.00086	1
n-Butylbenzene	110 %	70-135%	0.110 mg/L	0.100	0.00006	1
sec-Butyl benzene	111 %	70-125%	0.111 mg/L	0.100	0.00004	1
tert-Butyl benzene	110 %	70-130%	0.110 mg/L	0.100	0.00004	1
Carbon Disulfide	88.1 %	40-140%	0.0881 mg/L	0.100	0.00004	1
Carbon Tetrachloride	94.1 %	65-140%	0.0941 mg/L	0.100	0.00005	1
Chlorobenzene	107 %	80-120%	0.107 mg/L	0.100	0.00004	1
Chlorodibromomethane	113 %	75-120%	0.113 mg/L	0.100	0.00050	1
Chloroethane	68.1 %	60-135%	0.0681 mg/L	0.100	0.00012	1
2-Chloroethylvinyl Ether	79.8 %	40-140%	0.0798 mg/L	0.100	0.00099	1
Chloroform	102 %	80-120%	0.102 mg/L	0.100	0.00010	1
Chloromethane	82.5 %	40-125%	0.0825 mg/L	0.100	0.00023	1
2-Chlorotoluene	119 %	75-125%	0.119 mg/L	0.100	0.00005	1
4-Chlorotoluene	117 %	75-130%	0.117 mg/L	0.100	0.00006	1
1,2-Dibromo-3-Chloropropane	108 %	50-130%	0.108 mg/L	0.100	0.00033	1
1,2-Dibromoethane	101 %	80-120%	0.101 mg/L	0.100	0.00009	1
Dibromomethane	111 %	75-125%	0.111 mg/L	0.100	0.00005	1
1,2-Dichlorobenzene	112 %	70-120%	0.112 mg/L	0.100	0.00009	1
1,3-Dichlorobenzene	122 %	70-130%	0.122 mg/L	0.100	0.00009	1
1,4-Dichlorobenzene	112 %	75-125%	0.112 mg/L	0.100	0.00018	1
Dichlorodifluoromethane	60.6 %	40-140%	0.0606 mg/L	0.100	0.00006	1
1,1-Dichloroethane	103 %	70-135%	0.103 mg/L	0.100	0.00011	1
1,2-Dichloroethane	92.3 %	70-130%	0.0923 mg/L	0.100	0.00028	1
1,1-Dichloroethene	98.7 %	80-120%	0.0987 mg/L	0.100	0.00007	1

### QC Report

Client ID           **Ensafe**  
 Project Description    MLB  
 Report No            14-136-0297

**Analytical Method: 8260B**
**Batch: L199487**
**Prep Method: 5030B**
**Batch: L199486   05/18/2014 08:13 AM**
**Laboratory Control Sample - LCS-L199486**
**QC Measurement:   % Recovery**
**DateTime Analyzed: 05/18/2014 08:52 AM**

Test Description	QC Result	Criteria	LCS Result	LCS Conc.	MDL	Dilution
cis-1,2-Dichloroethene	94.2 %	70-125%	0.0942 mg/L	0.100	0.00007	1
trans-1,2-Dichloroethene	90.8 %	60-140%	0.0908 mg/L	0.100	0.00005	1
1,2-Dichloropropane	111 %	80-120%	0.111 mg/L	0.100	0.00003	1
1,3-Dichloropropane	100 %	75-125%	0.100 mg/L	0.100	0.00004	1
2,2-Dichloropropane	110 %	70-135%	0.110 mg/L	0.100	0.00007	1
1,1-Dichloropropene	101 %	75-130%	0.101 mg/L	0.100	0.00016	1
cis-1,3-Dichloropropene	104 %	70-130%	0.104 mg/L	0.100	0.00003	1
trans-1,3-Dichloropropene	108 %	55-140%	0.108 mg/L	0.100	0.00006	1
Ethyl Acetate	93.3 %	40-125%	0.0933 mg/L	0.100	0.00007	1
Ethylbenzene	119 %	80-120%	0.119 mg/L	0.100	0.00005	1
Hexachlorobutadiene	117 %	50-140%	0.117 mg/L	0.100	0.00012	1
2-Hexanone	139 %	55-145%	0.139 mg/L	0.100	0.00131	1
Iodomethane	71.0 %	40-125%	0.0710 mg/L	0.100	0.00007	1
Isopropylbenzene	106 %	75-125%	0.106 mg/L	0.100	0.00005	1
4-Isopropyl toluene	115 %	75-130%	0.115 mg/L	0.100	0.00004	1
Methyl tert-butyl ether (MTBE)	86.2 %	65-135%	0.0862 mg/L	0.100	0.00004	1
4-Methyl-2-Pentanone	115 %	60-135%	0.115 mg/L	0.100	0.00111	1
Methylene Chloride	96.8 %	55-140%	0.0968 mg/L	0.100	0.00041	1
Naphthalene	106 %	55-140%	0.106 mg/L	0.100	0.00054	1
n-Propylbenzene	127 %	60-140%	0.127 mg/L	0.100	0.00004	1
Styrene	110 %	65-135%	0.110 mg/L	0.100	0.00005	1
1,1,1,2-Tetrachloroethane	107 %	70-130%	0.107 mg/L	0.100	0.00006	1
1,1,2,2-Tetrachloroethane	118 %	65-140%	0.118 mg/L	0.100	0.00009	1
Tetrachloroethene	111 %	60-145%	0.111 mg/L	0.100	0.00007	1
Toluene	105 %	80-120%	0.105 mg/L	0.100	0.00004	1
1,2,3-Trichlorobenzene	110 %	55-140%	0.110 mg/L	0.100	0.00047	1
1,2,4-Trichlorobenzene	113 %	65-135%	0.113 mg/L	0.100	0.00037	1
1,1,1-Trichloroethane	95.8 %	65-130%	0.0958 mg/L	0.100	0.00013	1
1,1,2-Trichloroethane	117 %	75-125%	0.117 mg/L	0.100	0.00004	1

**QC Report**

Client ID           **Ensafe**  
Project Description    **MLB**  
Report No            **14-136-0297**

**Analytical Method: 8260B**

**Batch: L199487**

**Prep Method: 5030B**

**Batch: L199486   05/18/2014 08:13 AM**

**Laboratory Control Sample - LCS-L199486**

**QC Measurement:    % Recovery**

**DateTime Analyzed: 05/18/2014 08:52 AM**

Test Description	QC Result	Criteria	LCS Result	LCS Conc.	MDL	Dilution
Trichloroethene	120 %	70-125%	0.120 mg/L	0.100	0.00008	1
Trichlorofluoromethane	90.4 %	45-150%	0.0904 mg/L	0.100	0.00004	1
1,2,3-Trichloropropane	97.5 %	75-125%	0.0975 mg/L	0.100	0.00010	1
1,2,4-Trimethylbenzene	102 %	70-130%	0.102 mg/L	0.100	0.00005	1
1,3,5-Trimethylbenzene	115 %	75-130%	0.115 mg/L	0.100	0.00006	1
Vinyl Acetate	93.5 %	40-125%	0.0935 mg/L	0.100	0.00006	1
Vinyl Chloride	84.8 %	80-120%	0.0848 mg/L	0.100	0.00004	1
o-Xylene	119 %	80-120%	0.119 mg/L	0.100	0.00007	1
m,p-Xylene	117 %	75-130%	0.233 mg/L	0.200	0.00012	1

**Surrogate Recovery:**

4-Bromofluorobenzene	100 %	71-137%	0.0501 mg/L	0.0500		1
Dibromofluoromethane	82.4 %	70-128%	0.0412 mg/L	0.0500		1
1,2-Dichloroethane - d4	93.8 %	63-136%	0.0469 mg/L	0.0500		1
Toluene-d8	88.4 %	70-130%	0.0442 mg/L	0.0500		1

**Matrix Spike - L 89707-MS-L199486**

**QC Measurement:    % Recovery**

**DateTime Analyzed: 05/18/2014 07:01 PM**

Test Description	QC Result	Criteria	MS Result	MS Conc.	Sample Conc.	MDL	Dilution
Acetone	57.7 %	40-160%	0.0577 mg/L	0.100	<0.00119	0.00119	1
Acetonitrile	114 %	40-140%	1.14 mg/L	1.00	<0.00520	0.00520	1
Acrolein	102 %	20-140%	0.102 mg/L	0.100	<0.00349	0.00349	1
Acrylonitrile	124 %	20-140%	0.124 mg/L	0.100	<0.00116	0.00116	1
Benzene	100 %	80-120%	0.100 mg/L	0.100	<0.00004	0.00004	1
Bromobenzene	104 %	75-125%	0.104 mg/L	0.100	<0.00014	0.00014	1
Bromochloromethane	104 %	65-130%	0.104 mg/L	0.100	<0.00004	0.00004	1
Bromodichloromethane	108 %	75-120%	0.108 mg/L	0.100	<0.00004	0.00004	1
Bromoform	103 %	70-130%	0.103 mg/L	0.100	<0.00008	0.00008	1
Bromomethane	119 %	40-140%	0.119 mg/L	0.100	<0.00019	0.00019	1

**QC Report**

Client ID           **Ensafe**  
Project Description    MLB  
Report No            14-136-0297

**Analytical Method: 8260B**

**Batch: L199487**

**Prep Method: 5030B**

**Batch: L199486   05/18/2014 08:13 AM**

**Matrix Spike - L 89707-MS-L199486**

**QC Measurement:   % Recovery**

**DateTime Analyzed: 05/18/2014 07:01 PM**

Test Description	QC Result	Criteria	MS Result	MS Conc.	Sample Conc.	MDL	Dilution
Methyl Ethyl Ketone (MEK)	76.0 %	40-140%	0.0760 mg/L	0.100	<0.00086	0.00086	1
n-Butylbenzene	92.4 %	70-135%	0.0924 mg/L	0.100	<0.00006	0.00006	1
sec-Butyl benzene	106 %	70-125%	0.106 mg/L	0.100	<0.00004	0.00004	1
tert-Butyl benzene	115 %	70-130%	0.115 mg/L	0.100	<0.00004	0.00004	1
Carbon Disulfide	99.5 %	40-140%	0.0995 mg/L	0.100	<0.00004	0.00004	1
Carbon Tetrachloride	103 %	65-140%	0.103 mg/L	0.100	<0.00005	0.00005	1
Chlorobenzene	108 %	80-120%	0.108 mg/L	0.100	<0.00004	0.00004	1
Chlorodibromomethane	122 % *	75-120%	0.122 mg/L	0.100	<0.00050	0.00050	1
Chloroethane	92.6 %	60-135%	0.0926 mg/L	0.100	<0.00012	0.00012	1
2-Chloroethylvinyl Ether	0.0 % *	40-140%	0.00156 mg/L	0.100	<0.00099	0.00099	1
Chloroform	104 %	80-120%	0.104 mg/L	0.100	<0.00010	0.00010	1
Chloromethane	89.2 %	40-125%	0.0892 mg/L	0.100	<0.00023	0.00023	1
2-Chlorotoluene	115 %	75-125%	0.115 mg/L	0.100	<0.00005	0.00005	1
4-Chlorotoluene	104 %	75-130%	0.104 mg/L	0.100	<0.00006	0.00006	1
1,2-Dibromo-3-Chloropropane	99.4 %	50-130%	0.0994 mg/L	0.100	<0.00033	0.00033	1
1,2-Dibromoethane	119 %	80-120%	0.119 mg/L	0.100	<0.00009	0.00009	1
Dibromomethane	116 %	75-125%	0.116 mg/L	0.100	<0.00005	0.00005	1
1,2-Dichlorobenzene	97.7 %	70-120%	0.0977 mg/L	0.100	<0.00009	0.00009	1
1,3-Dichlorobenzene	105 %	70-130%	0.105 mg/L	0.100	<0.00009	0.00009	1
1,4-Dichlorobenzene	93.7 %	75-125%	0.0937 mg/L	0.100	<0.00018	0.00018	1
Dichlorodifluoromethane	62.3 %	40-140%	0.0623 mg/L	0.100	<0.00006	0.00006	1
1,1-Dichloroethane	107 %	70-135%	0.107 mg/L	0.100	<0.00011	0.00011	1
1,2-Dichloroethane	111 %	70-130%	0.111 mg/L	0.100	<0.00028	0.00028	1
1,1-Dichloroethene	100 %	80-120%	0.100 mg/L	0.100	<0.00007	0.00007	1
cis-1,2-Dichloroethene	102 %	70-125%	0.102 mg/L	0.100	<0.00007	0.00007	1
trans-1,2-Dichloroethene	99.4 %	60-140%	0.0994 mg/L	0.100	<0.00005	0.00005	1
1,2-Dichloropropane	116 %	80-120%	0.116 mg/L	0.100	<0.00003	0.00003	1
1,3-Dichloropropane	107 %	75-125%	0.107 mg/L	0.100	<0.00004	0.00004	1
2,2-Dichloropropane	109 %	70-135%	0.109 mg/L	0.100	<0.00007	0.00007	1

\* QC Fail

**QC Report**

Client ID           **Ensafe**  
 Project Description    MLB  
 Report No            14-136-0297

**Analytical Method: 8260B**

**Batch: L199487**

**Prep Method: 5030B**

**Batch: L199486   05/18/2014 08:13 AM**

**Matrix Spike - L 89707-MS-L199486**

**QC Measurement:   % Recovery**

**DateTime Analyzed: 05/18/2014 07:01 PM**

Test Description	QC Result	Criteria	MS Result	MS Conc.	Sample Conc.	MDL	Dilution
1,1-Dichloropropene	109 %	75-130%	0.109 mg/L	0.100	<0.00016	0.00016	1
cis-1,3-Dichloropropene	107 %	70-130%	0.107 mg/L	0.100	<0.00003	0.00003	1
trans-1,3-Dichloropropene	108 %	55-140%	0.108 mg/L	0.100	<0.00006	0.00006	1
Ethyl Acetate	87.9 %	40-125%	0.0879 mg/L	0.100	<0.00007	0.00007	1
Ethylbenzene	101 %	80-120%	0.101 mg/L	0.100	<0.00005	0.00005	1
Hexachlorobutadiene	101 %	50-140%	0.101 mg/L	0.100	<0.00012	0.00012	1
2-Hexanone	108 %	55-145%	0.108 mg/L	0.100	<0.00131	0.00131	1
Iodomethane	86.8 %	40-125%	0.0868 mg/L	0.100	<0.00007	0.00007	1
Isopropylbenzene	103 %	75-125%	0.103 mg/L	0.100	<0.00005	0.00005	1
4-Isopropyl toluene	108 %	75-130%	0.108 mg/L	0.100	<0.00004	0.00004	1
Methyl tert-butyl ether (MTBE)	97.5 %	65-135%	0.0975 mg/L	0.100	<0.00004	0.00004	1
4-Methyl-2-Pentanone	113 %	60-135%	0.113 mg/L	0.100	<0.00111	0.00111	1
Methylene Chloride	101 %	55-140%	0.101 mg/L	0.100	<0.00041	0.00041	1
Naphthalene	92.9 %	55-140%	0.0929 mg/L	0.100	<0.00054	0.00054	1
n-Propylbenzene	115 %	60-140%	0.115 mg/L	0.100	<0.00004	0.00004	1
Styrene	99.6 %	65-135%	0.0996 mg/L	0.100	<0.00005	0.00005	1
1,1,1,2-Tetrachloroethane	105 %	70-130%	0.105 mg/L	0.100	<0.00006	0.00006	1
1,1,2,2-Tetrachloroethane	106 %	65-140%	0.106 mg/L	0.100	<0.00009	0.00009	1
Tetrachloroethene	21.0 % *	60-145%	0.546 mg/L	0.100	0.525	0.00007	1
Toluene	105 %	80-120%	0.105 mg/L	0.100	<0.00004	0.00004	1
1,2,3-Trichlorobenzene	94.8 %	55-140%	0.0948 mg/L	0.100	<0.00047	0.00047	1
1,2,4-Trichlorobenzene	91.1 %	65-135%	0.0911 mg/L	0.100	<0.00037	0.00037	1
1,1,1-Trichloroethane	103 %	65-130%	0.103 mg/L	0.100	<0.00013	0.00013	1
1,1,2-Trichloroethane	117 %	75-125%	0.117 mg/L	0.100	<0.00004	0.00004	1
Trichloroethene	114 %	70-125%	0.116 mg/L	0.100	0.00170	0.00008	1
Trichlorofluoromethane	106 %	45-150%	0.106 mg/L	0.100	<0.00004	0.00004	1
1,2,3-Trichloropropane	105 %	75-125%	0.105 mg/L	0.100	<0.00010	0.00010	1
1,2,4-Trimethylbenzene	97.2 %	70-130%	0.0972 mg/L	0.100	<0.00005	0.00005	1
1,3,5-Trimethylbenzene	102 %	75-130%	0.102 mg/L	0.100	<0.00006	0.00006	1

\* QC Fail



**QC Report**

Client ID           **Ensafe**  
Project Description    MLB  
Report No            14-136-0297

**Analytical Method: 8260B**

**Batch: L199487**

**Prep Method: 5030B**

**Batch: L199486   05/18/2014 08:13 AM**

**Matrix Spike - L 89707-MS-L199486**

**QC Measurement:   % Recovery**

**DateTime Analyzed: 05/18/2014 07:01 PM**

Test Description	QC Result	Criteria	MS Result	MS Conc.	Sample Conc.	MDL	Dilution
Vinyl Acetate	102 %	40-125%	0.102 mg/L	0.100	<0.00006	0.00006	1
Vinyl Chloride	90.8 %	80-120%	0.0908 mg/L	0.100	<0.00004	0.00004	1
o-Xylene	109 %	80-120%	0.109 mg/L	0.100	<0.00007	0.00007	1
m,p-Xylene	108 %	75-130%	0.216 mg/L	0.200	<0.00012	0.00012	1
<b>Surrogate Recovery:</b>							
4-Bromofluorobenzene	91.4 %	71-137%	0.0457 mg/L	0.0500			1
Dibromofluoromethane	92.8 %	70-128%	0.0464 mg/L	0.0500			1
1,2-Dichloroethane - d4	99.4 %	63-136%	0.0497 mg/L	0.0500			1
Toluene-d8	101 %	70-130%	0.0504 mg/L	0.0500			1

**Matrix Spike Duplicate - L 89707-MSD-L199486**

**QC Measurement:   % Recovery**

**DateTime Analyzed: 05/18/2014 07:22 PM**

Test Description	QC Result	Criteria	MSD Result	MSD Conc.	Sample Conc.	MDL	Dilution
Acetone	59.9 %	40-160%	0.0599 mg/L	0.100	<0.00119	0.00119	1
Acetonitrile	117 %	40-140%	1.17 mg/L	1.00	<0.00520	0.00520	1
Acrolein	109 %	20-140%	0.109 mg/L	0.100	<0.00349	0.00349	1
Acrylonitrile	126 %	20-140%	0.126 mg/L	0.100	<0.00116	0.00116	1
Benzene	97.1 %	80-120%	0.0971 mg/L	0.100	<0.00004	0.00004	1
Bromobenzene	105 %	75-125%	0.105 mg/L	0.100	<0.00014	0.00014	1
Bromochloromethane	100 %	65-130%	0.100 mg/L	0.100	<0.00004	0.00004	1
Bromodichloromethane	103 %	75-120%	0.103 mg/L	0.100	<0.00004	0.00004	1
Bromoform	108 %	70-130%	0.108 mg/L	0.100	<0.00008	0.00008	1
Bromomethane	134 %	40-140%	0.134 mg/L	0.100	<0.00019	0.00019	1
Methyl Ethyl Ketone (MEK)	82.5 %	40-140%	0.0825 mg/L	0.100	<0.00086	0.00086	1
n-Butylbenzene	100 %	70-135%	0.100 mg/L	0.100	<0.00006	0.00006	1
sec-Butyl benzene	98.4 %	70-125%	0.0984 mg/L	0.100	<0.00004	0.00004	1
tert-Butyl benzene	104 %	70-130%	0.104 mg/L	0.100	<0.00004	0.00004	1
Carbon Disulfide	97.1 %	40-140%	0.0971 mg/L	0.100	<0.00004	0.00004	1

**QC Report**

Client ID           **Ensafe**  
Project Description    MLB  
Report No            14-136-0297

**Analytical Method: 8260B**

**Batch: L199487**

**Prep Method: 5030B**

**Batch: L199486   05/18/2014 08:13 AM**

**Matrix Spike Duplicate - L 89707-MSD-L199486**

**QC Measurement:   % Recovery**

**DateTime Analyzed: 05/18/2014 07:22 PM**

Test Description	QC Result	Criteria	MSD Result	MSD Conc.	Sample Conc.	MDL	Dilution
Carbon Tetrachloride	98.6 %	65-140%	0.0986 mg/L	0.100	<0.00005	0.00005	1
Chlorobenzene	105 %	80-120%	0.105 mg/L	0.100	<0.00004	0.00004	1
Chlorodibromomethane	113 %	75-120%	0.113 mg/L	0.100	<0.00050	0.00050	1
Chloroethane	76.7 %	60-135%	0.0767 mg/L	0.100	<0.00012	0.00012	1
2-Chloroethylvinyl Ether	0.0 % *	40-140%	<0.00099 mg/L	0.100	<0.00099	0.00099	1
Chloroform	111 %	80-120%	0.111 mg/L	0.100	<0.00010	0.00010	1
Chloromethane	98.5 %	40-125%	0.0985 mg/L	0.100	<0.00023	0.00023	1
2-Chlorotoluene	107 %	75-125%	0.107 mg/L	0.100	<0.00005	0.00005	1
4-Chlorotoluene	113 %	75-130%	0.113 mg/L	0.100	<0.00006	0.00006	1
1,2-Dibromo-3-Chloropropane	107 %	50-130%	0.107 mg/L	0.100	<0.00033	0.00033	1
1,2-Dibromoethane	109 %	80-120%	0.109 mg/L	0.100	<0.00009	0.00009	1
Dibromomethane	120 %	75-125%	0.120 mg/L	0.100	<0.00005	0.00005	1
1,2-Dichlorobenzene	105 %	70-120%	0.105 mg/L	0.100	<0.00009	0.00009	1
1,3-Dichlorobenzene	104 %	70-130%	0.104 mg/L	0.100	<0.00009	0.00009	1
1,4-Dichlorobenzene	97.7 %	75-125%	0.0977 mg/L	0.100	<0.00018	0.00018	1
Dichlorodifluoromethane	58.8 %	40-140%	0.0588 mg/L	0.100	<0.00006	0.00006	1
1,1-Dichloroethane	114 %	70-135%	0.114 mg/L	0.100	<0.00011	0.00011	1
1,2-Dichloroethane	107 %	70-130%	0.107 mg/L	0.100	<0.00028	0.00028	1
1,1-Dichloroethene	102 %	80-120%	0.102 mg/L	0.100	<0.00007	0.00007	1
cis-1,2-Dichloroethene	101 %	70-125%	0.101 mg/L	0.100	<0.00007	0.00007	1
trans-1,2-Dichloroethene	96.4 %	60-140%	0.0964 mg/L	0.100	<0.00005	0.00005	1
1,2-Dichloropropane	112 %	80-120%	0.112 mg/L	0.100	<0.00003	0.00003	1
1,3-Dichloropropane	105 %	75-125%	0.105 mg/L	0.100	<0.00004	0.00004	1
2,2-Dichloropropane	108 %	70-135%	0.108 mg/L	0.100	<0.00007	0.00007	1
1,1-Dichloropropene	104 %	75-130%	0.104 mg/L	0.100	<0.00016	0.00016	1
cis-1,3-Dichloropropene	101 %	70-130%	0.101 mg/L	0.100	<0.00003	0.00003	1
trans-1,3-Dichloropropene	109 %	55-140%	0.109 mg/L	0.100	<0.00006	0.00006	1
Ethyl Acetate	96.6 %	40-125%	0.0966 mg/L	0.100	<0.00007	0.00007	1
Ethylbenzene	99.9 %	80-120%	0.0999 mg/L	0.100	<0.00005	0.00005	1

\* QC Fail

## QC Report

Client ID           **Ensafe**  
 Project Description    MLB  
 Report No            14-136-0297

**Analytical Method: 8260B**

**Batch: L199487**

**Prep Method: 5030B**

**Batch: L199486   05/18/2014 08:13 AM**

**Matrix Spike Duplicate - L 89707-MSD-L199486**

**QC Measurement:   % Recovery**

**DateTime Analyzed: 05/18/2014 07:22 PM**

Test Description	QC Result	Criteria	MSD Result	MSD Conc.	Sample Conc.	MDL	Dilution
Hexachlorobutadiene	97.9 %	50-140%	0.0979 mg/L	0.100	<0.00012	0.00012	1
2-Hexanone	111 %	55-145%	0.111 mg/L	0.100	<0.00131	0.00131	1
Iodomethane	62.8 %	40-125%	0.0628 mg/L	0.100	<0.00007	0.00007	1
Isopropylbenzene	108 %	75-125%	0.108 mg/L	0.100	<0.00005	0.00005	1
4-Isopropyl toluene	111 %	75-130%	0.111 mg/L	0.100	<0.00004	0.00004	1
Methyl tert-butyl ether (MTBE)	98.7 %	65-135%	0.0987 mg/L	0.100	<0.00004	0.00004	1
4-Methyl-2-Pentanone	120 %	60-135%	0.120 mg/L	0.100	<0.00111	0.00111	1
Methylene Chloride	104 %	55-140%	0.104 mg/L	0.100	<0.00041	0.00041	1
Naphthalene	108 %	55-140%	0.108 mg/L	0.100	<0.00054	0.00054	1
n-Propylbenzene	110 %	60-140%	0.110 mg/L	0.100	<0.00004	0.00004	1
Styrene	103 %	65-135%	0.103 mg/L	0.100	<0.00005	0.00005	1
1,1,1,2-Tetrachloroethane	101 %	70-130%	0.101 mg/L	0.100	<0.00006	0.00006	1
1,1,2,2-Tetrachloroethane	113 %	65-140%	0.113 mg/L	0.100	<0.00009	0.00009	1
Tetrachloroethene	18.0 % *	60-145%	0.543 mg/L	0.100	0.525	0.00007	1
Toluene	107 %	80-120%	0.107 mg/L	0.100	<0.00004	0.00004	1
1,2,3-Trichlorobenzene	105 %	55-140%	0.105 mg/L	0.100	<0.00047	0.00047	1
1,2,4-Trichlorobenzene	102 %	65-135%	0.102 mg/L	0.100	<0.00037	0.00037	1
1,1,1-Trichloroethane	102 %	65-130%	0.102 mg/L	0.100	<0.00013	0.00013	1
1,1,2-Trichloroethane	120 %	75-125%	0.120 mg/L	0.100	<0.00004	0.00004	1
Trichloroethene	110 %	70-125%	0.112 mg/L	0.100	0.00170	0.00008	1
Trichlorofluoromethane	111 %	45-150%	0.111 mg/L	0.100	<0.00004	0.00004	1
1,2,3-Trichloropropane	114 %	75-125%	0.114 mg/L	0.100	<0.00010	0.00010	1
1,2,4-Trimethylbenzene	90.0 %	70-130%	0.0900 mg/L	0.100	<0.00005	0.00005	1
1,3,5-Trimethylbenzene	108 %	75-130%	0.108 mg/L	0.100	<0.00006	0.00006	1
Vinyl Acetate	156 % *	40-125%	0.156 mg/L	0.100	<0.00006	0.00006	1
Vinyl Chloride	94.6 %	80-120%	0.0946 mg/L	0.100	<0.00004	0.00004	1
o-Xylene	103 %	80-120%	0.103 mg/L	0.100	<0.00007	0.00007	1

\* QC Fail

**QC Report**

Client ID           **Ensafe**  
Project Description    MLB  
Report No            14-136-0297

**Analytical Method: 8260B**

**Batch: L199487**

**Prep Method: 5030B**

**Batch: L199486   05/18/2014 08:13 AM**

**Matrix Spike Duplicate - L 89707-MSD-L199486**

**QC Measurement:   % Recovery**

**DateTime Analyzed: 05/18/2014 07:22 PM**

Test Description	QC Result	Criteria	MSD Result	MSD Conc.	Sample Conc.	MDL	Dilution
m,p-Xylene	108 %	75-130%	0.216 mg/L	0.200	<0.00012	0.00012	1
<b>Surrogate Recovery:</b>							
4-Bromofluorobenzene	88.0 %	71-137%	0.0440 mg/L	0.0500			1
Dibromofluoromethane	89.0 %	70-128%	0.0445 mg/L	0.0500			1
1,2-Dichloroethane - d4	85.0 %	63-136%	0.0425 mg/L	0.0500			1
Toluene-d8	93.6 %	70-130%	0.0468 mg/L	0.0500			1

**Matrix Spike Duplicate - L 89707-MSD-L199486**

**QC Measurement:   RPD**

**DateTime Analyzed: 05/18/2014 07:22 PM**

Test Description	QC Result	Criteria	MSD Result	MSD Conc.	Sample Conc.	MDL	Dilution
Acetone	3.7 %	< 30	0.0599 mg/L		0.0577	0.00119	1
Acetonitrile	2.5 %	< 30	1.17 mg/L		1.14	0.00520	1
Acrolein	6.6 %	< 30	0.109 mg/L		0.102	0.00349	1
Acrylonitrile	1.6 %	< 30	0.126 mg/L		0.124	0.00116	1
Benzene	2.9 %	< 30	0.0971 mg/L		0.100	0.00004	1
Bromobenzene	0.9 %	< 30	0.105 mg/L		0.104	0.00014	1
Bromochloromethane	3.9 %	< 30	0.100 mg/L		0.104	0.00004	1
Bromodichloromethane	4.7 %	< 30	0.103 mg/L		0.108	0.00004	1
Bromoform	4.7 %	< 30	0.108 mg/L		0.103	0.00008	1
Bromomethane	11.8 %	< 30	0.134 mg/L		0.119	0.00019	1
Methyl Ethyl Ketone (MEK)	8.2 %	< 30	0.0825 mg/L		0.0760	0.00086	1
n-Butylbenzene	7.9 %	< 30	0.100 mg/L		0.0924	0.00006	1
sec-Butyl benzene	7.4 %	< 30	0.0984 mg/L		0.106	0.00004	1
tert-Butyl benzene	10.0 %	< 30	0.104 mg/L		0.115	0.00004	1
Carbon Disulfide	2.4 %	< 30	0.0971 mg/L		0.0995	0.00004	1
Carbon Tetrachloride	4.3 %	< 30	0.0986 mg/L		0.103	0.00005	1
Chlorobenzene	2.8 %	< 30	0.105 mg/L		0.108	0.00004	1
Chlorodibromomethane	7.6 %	< 30	0.113 mg/L		0.122	0.00050	1
Chloroethane	18.7 %	< 30	0.0767 mg/L		0.0926	0.00012	1

**QC Report**

Client ID           **Ensafe**  
 Project Description    MLB  
 Report No            14-136-0297

**Analytical Method: 8260B**

**Batch: L199487**

**Prep Method: 5030B**

**Batch: L199486   05/18/2014 08:13 AM**

**Matrix Spike Duplicate - L 89707-MSD-L199486**

**QC Measurement:   RPD**

**DateTime Analyzed: 05/18/2014 07:22 PM**

Test Description	QC Result	Criteria	MSD Result	MSD Conc.	Sample Conc.	MDL	Dilution
2-Chloroethylvinyl Ether	105 % *	< 30	<0.00099 mg/L		0.00156	0.00099	1
Chloroform	6.5 %	< 30	0.111 mg/L		0.104	0.00010	1
Chloromethane	9.9 %	< 30	0.0985 mg/L		0.0892	0.00023	1
2-Chlorotoluene	7.2 %	< 30	0.107 mg/L		0.115	0.00005	1
4-Chlorotoluene	8.2 %	< 30	0.113 mg/L		0.104	0.00006	1
1,2-Dibromo-3-Chloropropane	7.3 %	< 30	0.107 mg/L		0.0994	0.00033	1
1,2-Dibromoethane	8.7 %	< 30	0.109 mg/L		0.119	0.00009	1
Dibromomethane	3.3 %	< 30	0.120 mg/L		0.116	0.00005	1
1,2-Dichlorobenzene	7.2 %	< 30	0.105 mg/L		0.0977	0.00009	1
1,3-Dichlorobenzene	0.9 %	< 30	0.104 mg/L		0.105	0.00009	1
1,4-Dichlorobenzene	4.1 %	< 30	0.0977 mg/L		0.0937	0.00018	1
Dichlorodifluoromethane	5.7 %	< 30	0.0588 mg/L		0.0623	0.00006	1
1,1-Dichloroethane	6.3 %	< 30	0.114 mg/L		0.107	0.00011	1
1,2-Dichloroethane	3.6 %	< 30	0.107 mg/L		0.111	0.00028	1
1,1-Dichloroethene	1.9 %	< 30	0.102 mg/L		0.100	0.00007	1
cis-1,2-Dichloroethene	0.9 %	< 30	0.101 mg/L		0.102	0.00007	1
trans-1,2-Dichloroethene	3.0 %	< 30	0.0964 mg/L		0.0994	0.00005	1
1,2-Dichloropropane	3.5 %	< 30	0.112 mg/L		0.116	0.00003	1
1,3-Dichloropropane	1.8 %	< 30	0.105 mg/L		0.107	0.00004	1
2,2-Dichloropropane	0.9 %	< 30	0.108 mg/L		0.109	0.00007	1
1,1-Dichloropropene	4.6 %	< 30	0.104 mg/L		0.109	0.00016	1
cis-1,3-Dichloropropene	5.7 %	< 30	0.101 mg/L		0.107	0.00003	1
trans-1,3-Dichloropropene	0.9 %	< 30	0.109 mg/L		0.108	0.00006	1
Ethyl Acetate	9.4 %	< 30	0.0966 mg/L		0.0879	0.00007	1
Ethylbenzene	1.0 %	< 30	0.0999 mg/L		0.101	0.00005	1
Hexachlorobutadiene	3.1 %	< 30	0.0979 mg/L		0.101	0.00012	1
2-Hexanone	2.7 %	< 30	0.111 mg/L		0.108	0.00131	1
Iodomethane	32.0 % *	< 30	0.0628 mg/L		0.0868	0.00007	1
Isopropylbenzene	4.7 %	< 30	0.108 mg/L		0.103	0.00005	1

\* **QC Fail**

### QC Report

Client ID           **Ensafe**  
 Project Description    MLB  
 Report No            14-136-0297

**Analytical Method: 8260B**

**Batch: L199487**

**Prep Method: 5030B**

**Batch: L199486   05/18/2014 08:13 AM**

**Matrix Spike Duplicate - L 89707-MSD-L199486**

**QC Measurement:   RPD**

**DateTime Analyzed: 05/18/2014 07:22 PM**

Test Description	QC Result	Criteria	MSD Result	MSD Conc.	Sample Conc.	MDL	Dilution
4-Isopropyl toluene	2.7 %	< 30	0.111 mg/L		0.108	0.00004	1
Methyl tert-butyl ether (MTBE)	1.2 %	< 30	0.0987 mg/L		0.0975	0.00004	1
4-Methyl-2-Pentanone	6.0 %	< 30	0.120 mg/L		0.113	0.00111	1
Methylene Chloride	2.9 %	< 30	0.104 mg/L		0.101	0.00041	1
Naphthalene	15.0 %	< 30	0.108 mg/L		0.0929	0.00054	1
n-Propylbenzene	4.4 %	< 30	0.110 mg/L		0.115	0.00004	1
Styrene	3.3 %	< 30	0.103 mg/L		0.0996	0.00005	1
1,1,1,2-Tetrachloroethane	3.8 %	< 30	0.101 mg/L		0.105	0.00006	1
1,1,2,2-Tetrachloroethane	6.3 %	< 30	0.113 mg/L		0.106	0.00009	1
Tetrachloroethene	0.5 %	< 30	0.543 mg/L		0.546	0.00007	1
Toluene	1.8 %	< 30	0.107 mg/L		0.105	0.00004	1
1,2,3-Trichlorobenzene	10.2 %	< 30	0.105 mg/L		0.0948	0.00047	1
1,2,4-Trichlorobenzene	11.2 %	< 30	0.102 mg/L		0.0911	0.00037	1
1,1,1-Trichloroethane	0.9 %	< 30	0.102 mg/L		0.103	0.00013	1
1,1,2-Trichloroethane	2.5 %	< 30	0.120 mg/L		0.117	0.00004	1
Trichloroethene	3.5 %	< 30	0.112 mg/L		0.116	0.00008	1
Trichlorofluoromethane	4.6 %	< 30	0.111 mg/L		0.106	0.00004	1
1,2,3-Trichloropropane	8.2 %	< 30	0.114 mg/L		0.105	0.00010	1
1,2,4-Trimethylbenzene	7.6 %	< 30	0.0900 mg/L		0.0972	0.00005	1
1,3,5-Trimethylbenzene	5.7 %	< 30	0.108 mg/L		0.102	0.00006	1
Vinyl Acetate	41.8 % *	< 30	0.156 mg/L		0.102	0.00006	1
Vinyl Chloride	4.0 %	< 30	0.0946 mg/L		0.0908	0.00004	1
o-Xylene	5.6 %	< 30	0.103 mg/L		0.109	0.00007	1
m,p-Xylene	0.0 %	< 30	0.216 mg/L		0.216	0.00012	1

\* QC Fail

**QC Report**

Client ID           **Ensafe**  
 Project Description    MLB  
 Report No            14-136-0297

**Analytical Method: 8260B**

**Batch: L199684**

**Prep Method: 5030B**

**Batch: L199682   05/20/2014 08:41 AM**

**Lab Reagent Blank - LRB-L199682**

**QC Measurement:   Limit**

**DateTime Analyzed: 05/20/2014 12:40 PM**

<b>Test Description</b>	<b>LRB Result</b>	<b>Qualifier</b>	<b>MDL</b>	<b>MQL</b>	<b>Dilution</b>
Acetone	<0.00119 mg/L		0.00119	0.0200	1
Acetonitrile	<0.00520 mg/L		0.00520	0.0500	1
Acrolein	<0.00349 mg/L		0.00349	0.0200	1
Acrylonitrile	<0.00116 mg/L		0.00116	0.0200	1
Benzene	<0.00004 mg/L		0.00004	0.00100	1
Bromobenzene	<0.00014 mg/L		0.00014	0.00100	1
Bromochloromethane	<0.00004 mg/L		0.00004	0.00100	1
Bromodichloromethane	<0.00004 mg/L		0.00004	0.00100	1
Bromoform	<0.00008 mg/L		0.00008	0.00100	1
Bromomethane	<0.00019 mg/L		0.00019	0.00100	1
Methyl Ethyl Ketone (MEK)	<0.00086 mg/L		0.00086	0.0200	1
n-Butylbenzene	<0.00006 mg/L		0.00006	0.00100	1
sec-Butyl benzene	<0.00004 mg/L		0.00004	0.00100	1
tert-Butyl benzene	<0.00004 mg/L		0.00004	0.00100	1
Carbon Disulfide	0.00020 mg/L	J	0.00004	0.00100	1
Carbon Tetrachloride	<0.00005 mg/L		0.00005	0.00100	1
Chlorobenzene	<0.00004 mg/L		0.00004	0.00100	1
Chlorodibromomethane	<0.00050 mg/L		0.00050	0.00100	1
Chloroethane	<0.00012 mg/L		0.00012	0.00100	1
2-Chloroethylvinyl Ether	<0.00099 mg/L		0.00099	0.00500	1
Chloroform	<0.00010 mg/L		0.00010	0.00100	1
Chloromethane	<0.00023 mg/L		0.00023	0.00100	1
2-Chlorotoluene	<0.00005 mg/L		0.00005	0.00100	1
4-Chlorotoluene	<0.00006 mg/L		0.00006	0.00100	1
1,2-Dibromo-3-Chloropropane	<0.00033 mg/L		0.00033	0.00500	1
1,2-Dibromoethane	<0.00009 mg/L		0.00009	0.00100	1
Dibromomethane	<0.00005 mg/L		0.00005	0.00100	1
1,2-Dichlorobenzene	<0.00009 mg/L		0.00009	0.00100	1
1,3-Dichlorobenzene	<0.00009 mg/L		0.00009	0.00100	1



**QC Report**

Client ID           **Ensafe**  
Project Description    MLB  
Report No            14-136-0297

**Analytical Method: 8260B**

**Batch: L199684**

**Prep Method: 5030B**

**Batch: L199682   05/20/2014 08:41 AM**

**Lab Reagent Blank - LRB-L199682**

**QC Measurement:   Limit**

**DateTime Analyzed: 05/20/2014 12:40 PM**

<b>Test Description</b>	<b>LRB Result</b>	<b>Qualifier</b>	<b>MDL</b>	<b>SQL</b>	<b>Dilution</b>
1,4-Dichlorobenzene	<0.00018 mg/L		0.00018	0.00100	1
Dichlorodifluoromethane	<0.00006 mg/L		0.00006	0.00100	1
1,1-Dichloroethane	<0.00011 mg/L		0.00011	0.00100	1
1,2-Dichloroethane	<0.00028 mg/L		0.00028	0.00100	1
1,1-Dichloroethene	<0.00007 mg/L		0.00007	0.00100	1
cis-1,2-Dichloroethene	<0.00007 mg/L		0.00007	0.00100	1
trans-1,2-Dichloroethene	<0.00005 mg/L		0.00005	0.00100	1
1,2-Dichloropropane	<0.00003 mg/L		0.00003	0.00100	1
1,3-Dichloropropane	<0.00004 mg/L		0.00004	0.00100	1
2,2-Dichloropropane	<0.00007 mg/L		0.00007	0.00100	1
1,1-Dichloropropene	<0.00016 mg/L		0.00016	0.00100	1
cis-1,3-Dichloropropene	<0.00003 mg/L		0.00003	0.00100	1
trans-1,3-Dichloropropene	<0.00006 mg/L		0.00006	0.00100	1
Ethyl Acetate	<0.00007 mg/L		0.00007	0.0100	1
Ethylbenzene	<0.00005 mg/L		0.00005	0.00100	1
Hexachlorobutadiene	<0.00012 mg/L		0.00012	0.00100	1
2-Hexanone	<0.00131 mg/L		0.00131	0.00500	1
Iodomethane	0.00126 mg/L	J	0.00007	0.00500	1
Isopropylbenzene	<0.00005 mg/L		0.00005	0.00100	1
4-Isopropyl toluene	<0.00004 mg/L		0.00004	0.00100	1
Methyl tert-butyl ether (MTBE)	<0.00004 mg/L		0.00004	0.00100	1
4-Methyl-2-Pentanone	<0.00111 mg/L		0.00111	0.00500	1
Methylene Chloride	<0.00041 mg/L		0.00041	0.00500	1
Naphthalene	<0.00054 mg/L		0.00054	0.00500	1
n-Propylbenzene	<0.00004 mg/L		0.00004	0.00100	1
Styrene	<0.00005 mg/L		0.00005	0.00100	1
1,1,1,2-Tetrachloroethane	<0.00006 mg/L		0.00006	0.00100	1
1,1,2,2-Tetrachloroethane	<0.00009 mg/L		0.00009	0.00100	1
Tetrachloroethene	<0.00007 mg/L		0.00007	0.00100	1

**QC Report**

Client ID           **Ensafe**  
Project Description    MLB  
Report No            14-136-0297

**Analytical Method: 8260B**

**Batch: L199684**

**Prep Method: 5030B**

**Batch: L199682   05/20/2014 08:41 AM**

**Lab Reagent Blank - LRB-L199682**

**QC Measurement:   Limit**

**DateTime Analyzed: 05/20/2014 12:40 PM**

Test Description	LRB Result	Qualifier	MDL	MQL	Dilution
Toluene	<0.00004 mg/L		0.00004	0.00500	1
1,2,3-Trichlorobenzene	<0.00047 mg/L		0.00047	0.00100	1
1,2,4-Trichlorobenzene	<0.00037 mg/L		0.00037	0.00100	1
1,1,1-Trichloroethane	<0.00013 mg/L		0.00013	0.00100	1
1,1,2-Trichloroethane	<0.00004 mg/L		0.00004	0.00100	1
Trichloroethene	<0.00008 mg/L		0.00008	0.00100	1
Trichlorofluoromethane	<0.00004 mg/L		0.00004	0.00100	1
1,2,3-Trichloropropane	<0.00010 mg/L		0.00010	0.00100	1
1,2,4-Trimethylbenzene	<0.00005 mg/L		0.00005	0.00100	1
1,3,5-Trimethylbenzene	<0.00006 mg/L		0.00006	0.00100	1
Vinyl Acetate	<0.00006 mg/L		0.00006	0.0100	1
Vinyl Chloride	<0.00004 mg/L		0.00004	0.00100	1
o-Xylene	<0.00007 mg/L		0.00007	0.00100	1
m,p-Xylene	<0.00012 mg/L		0.00012	0.00200	1

**Surrogate Recovery:**

4-Bromofluorobenzene	101	0.0503 mg/L	0.0500		1
Dibromofluoromethane	84.2	0.0421 mg/L	0.0500		1
1,2-Dichloroethane - d4	130	0.0650 mg/L	0.0500		1
Toluene-d8	98.2	0.0491 mg/L	0.0500		1

**Laboratory Control Sample - LCS-L199682**

**QC Measurement:   % Recovery**

**DateTime Analyzed: 05/20/2014 10:22 AM**

Test Description	QC Result	Criteria	LCS Result	LCS Conc.	MDL	Dilution
Acetone	113 %	40-160%	0.113 mg/L	0.100	0.00119	1
Acetonitrile	135 %	40-140%	1.35 mg/L	1.00	0.00520	1
Acrolein	121 %	20-140%	0.121 mg/L	0.100	0.00349	1
Acrylonitrile	126 %	20-140%	0.126 mg/L	0.100	0.00116	1
Benzene	97.2 %	80-120%	0.0972 mg/L	0.100	0.00004	1

### QC Report

Client ID           **Ensafe**  
 Project Description    MLB  
 Report No            14-136-0297

**Analytical Method: 8260B**

**Batch: L199684**

**Prep Method: 5030B**

**Batch: L199682   05/20/2014 08:41 AM**

**Laboratory Control Sample - LCS-L199682**

**QC Measurement:   % Recovery**

**DateTime Analyzed: 05/20/2014 10:22 AM**

Test Description	QC Result	Criteria	LCS Result	LCS Conc.	MDL	Dilution
Bromobenzene	111 %	75-125%	0.111 mg/L	0.100	0.00014	1
Bromochloromethane	101 %	65-130%	0.101 mg/L	0.100	0.00004	1
Bromodichloromethane	110 %	75-120%	0.110 mg/L	0.100	0.00004	1
Bromoform	113 %	70-130%	0.113 mg/L	0.100	0.00008	1
Bromomethane	123 %	40-140%	0.123 mg/L	0.100	0.00019	1
Methyl Ethyl Ketone (MEK)	123 %	40-140%	0.123 mg/L	0.100	0.00086	1
n-Butylbenzene	100 %	70-135%	0.100 mg/L	0.100	0.00006	1
sec-Butyl benzene	101 %	70-125%	0.101 mg/L	0.100	0.00004	1
tert-Butyl benzene	104 %	70-130%	0.104 mg/L	0.100	0.00004	1
Carbon Disulfide	97.7 %	40-140%	0.0977 mg/L	0.100	0.00004	1
Carbon Tetrachloride	95.7 %	65-140%	0.0957 mg/L	0.100	0.00005	1
Chlorobenzene	111 %	80-120%	0.111 mg/L	0.100	0.00004	1
Chlorodibromomethane	125 % *	75-120%	0.125 mg/L	0.100	0.00050	1
Chloroethane	85.6 %	60-135%	0.0856 mg/L	0.100	0.00012	1
2-Chloroethylvinyl Ether	97.7 %	40-140%	0.0977 mg/L	0.100	0.00099	1
Chloroform	114 %	80-120%	0.114 mg/L	0.100	0.00010	1
Chloromethane	92.6 %	40-125%	0.0926 mg/L	0.100	0.00023	1
2-Chlorotoluene	111 %	75-125%	0.111 mg/L	0.100	0.00005	1
4-Chlorotoluene	118 %	75-130%	0.118 mg/L	0.100	0.00006	1
1,2-Dibromo-3-Chloropropane	103 %	50-130%	0.103 mg/L	0.100	0.00033	1
1,2-Dibromoethane	117 %	80-120%	0.117 mg/L	0.100	0.00009	1
Dibromomethane	124 %	75-125%	0.124 mg/L	0.100	0.00005	1
1,2-Dichlorobenzene	111 %	70-120%	0.111 mg/L	0.100	0.00009	1
1,3-Dichlorobenzene	111 %	70-130%	0.111 mg/L	0.100	0.00009	1
1,4-Dichlorobenzene	103 %	75-125%	0.103 mg/L	0.100	0.00018	1
Dichlorodifluoromethane	51.9 %	40-140%	0.0519 mg/L	0.100	0.00006	1
1,1-Dichloroethane	110 %	70-135%	0.110 mg/L	0.100	0.00011	1
1,2-Dichloroethane	115 %	70-130%	0.115 mg/L	0.100	0.00028	1
1,1-Dichloroethene	103 %	80-120%	0.103 mg/L	0.100	0.00007	1

\* QC Fail

**QC Report**

Client ID           **Ensafe**  
 Project Description    MLB  
 Report No            14-136-0297

**Analytical Method: 8260B**

**Batch: L199684**

**Prep Method: 5030B**

**Batch: L199682   05/20/2014 08:41 AM**

**Laboratory Control Sample - LCS-L199682**

**QC Measurement:   % Recovery**

**DateTime Analyzed: 05/20/2014 10:22 AM**

Test Description	QC Result	Criteria	LCS Result	LCS Conc.	MDL	Dilution
cis-1,2-Dichloroethene	100 %	70-125%	0.100 mg/L	0.100	0.00007	1
trans-1,2-Dichloroethene	96.2 %	60-140%	0.0962 mg/L	0.100	0.00005	1
1,2-Dichloropropane	118 %	80-120%	0.118 mg/L	0.100	0.00003	1
1,3-Dichloropropane	114 %	75-125%	0.114 mg/L	0.100	0.00004	1
2,2-Dichloropropane	118 %	70-135%	0.118 mg/L	0.100	0.00007	1
1,1-Dichloropropene	110 %	75-130%	0.110 mg/L	0.100	0.00016	1
cis-1,3-Dichloropropene	115 %	70-130%	0.115 mg/L	0.100	0.00003	1
trans-1,3-Dichloropropene	121 %	55-140%	0.121 mg/L	0.100	0.00006	1
Ethyl Acetate	117 %	40-125%	0.117 mg/L	0.100	0.00007	1
Ethylbenzene	105 %	80-120%	0.105 mg/L	0.100	0.00005	1
Hexachlorobutadiene	101 %	50-140%	0.101 mg/L	0.100	0.00012	1
2-Hexanone	173 % *	55-145%	0.173 mg/L	0.100	0.00131	1
Iodomethane	82.5 %	40-125%	0.0825 mg/L	0.100	0.00007	1
Isopropylbenzene	101 %	75-125%	0.101 mg/L	0.100	0.00005	1
4-Isopropyl toluene	107 %	75-130%	0.107 mg/L	0.100	0.00004	1
Methyl tert-butyl ether (MTBE)	104 %	65-135%	0.104 mg/L	0.100	0.00004	1
4-Methyl-2-Pentanone	127 %	60-135%	0.127 mg/L	0.100	0.00111	1
Methylene Chloride	107 %	55-140%	0.107 mg/L	0.100	0.00041	1
Naphthalene	98.9 %	55-140%	0.0989 mg/L	0.100	0.00054	1
n-Propylbenzene	111 %	60-140%	0.111 mg/L	0.100	0.00004	1
Styrene	107 %	65-135%	0.107 mg/L	0.100	0.00005	1
1,1,1,2-Tetrachloroethane	105 %	70-130%	0.105 mg/L	0.100	0.00006	1
1,1,2,2-Tetrachloroethane	118 %	65-140%	0.118 mg/L	0.100	0.00009	1
Tetrachloroethene	107 %	60-145%	0.107 mg/L	0.100	0.00007	1
Toluene	108 %	80-120%	0.108 mg/L	0.100	0.00004	1
1,2,3-Trichlorobenzene	104 %	55-140%	0.104 mg/L	0.100	0.00047	1
1,2,4-Trichlorobenzene	103 %	65-135%	0.103 mg/L	0.100	0.00037	1
1,1,1-Trichloroethane	98.9 %	65-130%	0.0989 mg/L	0.100	0.00013	1
1,1,2-Trichloroethane	122 %	75-125%	0.122 mg/L	0.100	0.00004	1

\* **QC Fail**

**QC Report**

Client ID           **Ensafe**  
Project Description    **MLB**  
Report No            **14-136-0297**

**Analytical Method: 8260B**

**Batch: L199684**

**Prep Method: 5030B**

**Batch: L199682   05/20/2014 08:41 AM**

**Laboratory Control Sample - LCS-L199682**

**QC Measurement:   % Recovery**

**DateTime Analyzed: 05/20/2014 10:22 AM**

Test Description	QC Result	Criteria	LCS Result	LCS Conc.	MDL	Dilution
Trichloroethene	110 %	70-125%	0.110 mg/L	0.100	0.00008	1
Trichlorofluoromethane	110 %	45-150%	0.110 mg/L	0.100	0.00004	1
1,2,3-Trichloropropane	120 %	75-125%	0.120 mg/L	0.100	0.00010	1
1,2,4-Trimethylbenzene	97.9 %	70-130%	0.0979 mg/L	0.100	0.00005	1
1,3,5-Trimethylbenzene	113 %	75-130%	0.113 mg/L	0.100	0.00006	1
Vinyl Acetate	112 %	40-125%	0.112 mg/L	0.100	0.00006	1
Vinyl Chloride	93.8 %	80-120%	0.0938 mg/L	0.100	0.00004	1
o-Xylene	109 %	80-120%	0.109 mg/L	0.100	0.00007	1
m,p-Xylene	108 %	75-130%	0.215 mg/L	0.200	0.00012	1
<b>Surrogate Recovery:</b>						
4-Bromofluorobenzene	93.6 %	71-137%	0.0468 mg/L	0.0500		1
Dibromofluoromethane	92.8 %	70-128%	0.0464 mg/L	0.0500		1
1,2-Dichloroethane - d4	93.0 %	63-136%	0.0465 mg/L	0.0500		1
Toluene-d8	97.8 %	70-130%	0.0489 mg/L	0.0500		1

**Matrix Spike - L 89985-MS-L199682**

**QC Measurement:   % Recovery**

**DateTime Analyzed: 05/20/2014 08:01 PM**

Test Description	QC Result	Criteria	MS Result	MS Conc.	Sample Conc.	MDL	Dilution
Acetone	62.6 %	40-160%	0.0626 mg/L	0.100	<0.00119	0.00119	1
Acetonitrile	124 %	40-140%	1.24 mg/L	1.00	<0.00520	0.00520	1
Acrolein	112 %	20-140%	0.112 mg/L	0.100	<0.00349	0.00349	1
Acrylonitrile	126 %	20-140%	0.126 mg/L	0.100	<0.00116	0.00116	1
Benzene	102 %	80-120%	0.102 mg/L	0.100	<0.00004	0.00004	1
Bromobenzene	103 %	75-125%	0.103 mg/L	0.100	<0.00014	0.00014	1
Bromochloromethane	99.3 %	65-130%	0.0993 mg/L	0.100	<0.00004	0.00004	1
Bromodichloromethane	96.9 %	75-120%	0.0969 mg/L	0.100	<0.00004	0.00004	1
Bromoform	103 %	70-130%	0.103 mg/L	0.100	<0.00008	0.00008	1
Bromomethane	119 %	40-140%	0.119 mg/L	0.100	<0.00019	0.00019	1

## QC Report

Client ID           **Ensafe**  
 Project Description    MLB  
 Report No            14-136-0297

**Analytical Method: 8260B**

**Batch: L199684**

**Prep Method: 5030B**

**Batch: L199682   05/20/2014 08:41 AM**

**Matrix Spike - L 89985-MS-L199682**

**QC Measurement:   % Recovery**

**DateTime Analyzed: 05/20/2014 08:01 PM**

Test Description	QC Result	Criteria	MS Result	MS Conc.	Sample Conc.	MDL	Dilution
Methyl Ethyl Ketone (MEK)	84.0 %	40-140%	0.0840 mg/L	0.100	<0.00086	0.00086	1
n-Butylbenzene	103 %	70-135%	0.103 mg/L	0.100	<0.00006	0.00006	1
sec-Butyl benzene	99.2 %	70-125%	0.0992 mg/L	0.100	<0.00004	0.00004	1
tert-Butyl benzene	103 %	70-130%	0.103 mg/L	0.100	<0.00004	0.00004	1
Carbon Disulfide	97.2 %	40-140%	0.0972 mg/L	0.100	<0.00004	0.00004	1
Carbon Tetrachloride	99.2 %	65-140%	0.0992 mg/L	0.100	<0.00005	0.00005	1
Chlorobenzene	108 %	80-120%	0.108 mg/L	0.100	<0.00004	0.00004	1
Chlorodibromomethane	118 %	75-120%	0.118 mg/L	0.100	<0.00050	0.00050	1
Chloroethane	79.0 %	60-135%	0.0790 mg/L	0.100	<0.00012	0.00012	1
2-Chloroethylvinyl Ether	0.0 % *	40-140%	<0.00099 mg/L	0.100	<0.00099	0.00099	1
Chloroform	108 %	80-120%	0.108 mg/L	0.100	<0.00010	0.00010	1
Chloromethane	77.8 %	40-125%	0.0778 mg/L	0.100	<0.00023	0.00023	1
2-Chlorotoluene	110 %	75-125%	0.110 mg/L	0.100	<0.00005	0.00005	1
4-Chlorotoluene	92.4 %	75-130%	0.0924 mg/L	0.100	<0.00006	0.00006	1
1,2-Dibromo-3-Chloropropane	101 %	50-130%	0.101 mg/L	0.100	<0.00033	0.00033	1
1,2-Dibromoethane	109 %	80-120%	0.109 mg/L	0.100	<0.00009	0.00009	1
Dibromomethane	109 %	75-125%	0.109 mg/L	0.100	<0.00005	0.00005	1
1,2-Dichlorobenzene	101 %	70-120%	0.101 mg/L	0.100	<0.00009	0.00009	1
1,3-Dichlorobenzene	103 %	70-130%	0.103 mg/L	0.100	<0.00009	0.00009	1
1,4-Dichlorobenzene	101 %	75-125%	0.101 mg/L	0.100	<0.00018	0.00018	1
Dichlorodifluoromethane	51.1 %	40-140%	0.0511 mg/L	0.100	<0.00006	0.00006	1
1,1-Dichloroethane	109 %	70-135%	0.109 mg/L	0.100	<0.00011	0.00011	1
1,2-Dichloroethane	110 %	70-130%	0.110 mg/L	0.100	<0.00028	0.00028	1
1,1-Dichloroethene	101 %	80-120%	0.101 mg/L	0.100	<0.00007	0.00007	1
cis-1,2-Dichloroethene	101 %	70-125%	0.101 mg/L	0.100	<0.00007	0.00007	1
trans-1,2-Dichloroethene	95.0 %	60-140%	0.0950 mg/L	0.100	<0.00005	0.00005	1
1,2-Dichloropropane	113 %	80-120%	0.113 mg/L	0.100	<0.00003	0.00003	1
1,3-Dichloropropane	106 %	75-125%	0.106 mg/L	0.100	<0.00004	0.00004	1
2,2-Dichloropropane	111 %	70-135%	0.111 mg/L	0.100	<0.00007	0.00007	1

\* QC Fail

**QC Report**

Client ID           **Ensafe**  
 Project Description    MLB  
 Report No            14-136-0297

**Analytical Method: 8260B**

**Batch: L199684**

**Prep Method: 5030B**

**Batch: L199682   05/20/2014 08:41 AM**

**Matrix Spike - L 89985-MS-L199682**

**QC Measurement:   % Recovery**

**DateTime Analyzed: 05/20/2014 08:01 PM**

Test Description	QC Result	Criteria	MS Result	MS Conc.	Sample Conc.	MDL	Dilution
1,1-Dichloropropene	111 %	75-130%	0.111 mg/L	0.100	<0.00016	0.00016	1
cis-1,3-Dichloropropene	110 %	70-130%	0.110 mg/L	0.100	<0.00003	0.00003	1
trans-1,3-Dichloropropene	110 %	55-140%	0.110 mg/L	0.100	<0.00006	0.00006	1
Ethyl Acetate	99.9 %	40-125%	0.0999 mg/L	0.100	<0.00007	0.00007	1
Ethylbenzene	96.6 %	80-120%	0.0966 mg/L	0.100	<0.00005	0.00005	1
Hexachlorobutadiene	104 %	50-140%	0.104 mg/L	0.100	<0.00012	0.00012	1
2-Hexanone	120 %	55-145%	0.120 mg/L	0.100	<0.00131	0.00131	1
Iodomethane	80.6 %	40-125%	0.0806 mg/L	0.100	<0.00007	0.00007	1
Isopropylbenzene	97.1 %	75-125%	0.0971 mg/L	0.100	<0.00005	0.00005	1
4-Isopropyl toluene	102 %	75-130%	0.102 mg/L	0.100	<0.00004	0.00004	1
Methyl tert-butyl ether (MTBE)	97.9 %	65-135%	0.0979 mg/L	0.100	<0.00004	0.00004	1
4-Methyl-2-Pentanone	120 %	60-135%	0.120 mg/L	0.100	<0.00111	0.00111	1
Methylene Chloride	105 %	55-140%	0.105 mg/L	0.100	<0.00041	0.00041	1
Naphthalene	97.8 %	55-140%	0.0978 mg/L	0.100	<0.00054	0.00054	1
n-Propylbenzene	109 %	60-140%	0.109 mg/L	0.100	<0.00004	0.00004	1
Styrene	86.8 %	65-135%	0.0868 mg/L	0.100	<0.00005	0.00005	1
1,1,1,2-Tetrachloroethane	101 %	70-130%	0.101 mg/L	0.100	<0.00006	0.00006	1
1,1,2,2-Tetrachloroethane	112 %	65-140%	0.112 mg/L	0.100	<0.00009	0.00009	1
Tetrachloroethene	108 %	60-145%	0.108 mg/L	0.100	<0.00007	0.00007	1
Toluene	101 %	80-120%	0.101 mg/L	0.100	<0.00004	0.00004	1
1,2,3-Trichlorobenzene	105 %	55-140%	0.105 mg/L	0.100	<0.00047	0.00047	1
1,2,4-Trichlorobenzene	105 %	65-135%	0.105 mg/L	0.100	<0.00037	0.00037	1
1,1,1-Trichloroethane	110 %	65-130%	0.110 mg/L	0.100	<0.00013	0.00013	1
1,1,2-Trichloroethane	121 %	75-125%	0.121 mg/L	0.100	<0.00004	0.00004	1
Trichloroethene	113 %	70-125%	0.113 mg/L	0.100	<0.00008	0.00008	1
Trichlorofluoromethane	106 %	45-150%	0.106 mg/L	0.100	<0.00004	0.00004	1
1,2,3-Trichloropropane	101 %	75-125%	0.101 mg/L	0.100	<0.00010	0.00010	1
1,2,4-Trimethylbenzene	95.8 %	70-130%	0.0958 mg/L	0.100	<0.00005	0.00005	1
1,3,5-Trimethylbenzene	103 %	75-130%	0.103 mg/L	0.100	<0.00006	0.00006	1



**QC Report**

Client ID           **Ensafe**  
Project Description    MLB  
Report No            14-136-0297

**Analytical Method: 8260B**

**Batch: L199684**

**Prep Method: 5030B**

**Batch: L199682   05/20/2014 08:41 AM**

**Matrix Spike - L 89985-MS-L199682**

**QC Measurement:   % Recovery**

**DateTime Analyzed: 05/20/2014 08:01 PM**

Test Description	QC Result	Criteria	MS Result	MS Conc.	Sample Conc.	MDL	Dilution
Vinyl Acetate	88.6 %	40-125%	0.0886 mg/L	0.100	<0.00006	0.00006	1
Vinyl Chloride	85.1 %	80-120%	0.0851 mg/L	0.100	<0.00004	0.00004	1
o-Xylene	102 %	80-120%	0.102 mg/L	0.100	<0.00007	0.00007	1
m,p-Xylene	104 %	75-130%	0.208 mg/L	0.200	<0.00012	0.00012	1
<b>Surrogate Recovery:</b>							
4-Bromofluorobenzene	92.4 %	71-137%	0.0462 mg/L	0.0500			1
Dibromofluoromethane	93.6 %	70-128%	0.0468 mg/L	0.0500			1
1,2-Dichloroethane - d4	94.6 %	63-136%	0.0473 mg/L	0.0500			1
Toluene-d8	101 %	70-130%	0.0507 mg/L	0.0500			1

**Matrix Spike Duplicate - L 89985-MSD-L199682**

**QC Measurement:   % Recovery**

**DateTime Analyzed: 05/20/2014 08:22 PM**

Test Description	QC Result	Criteria	MSD Result	MSD Conc.	Sample Conc.	MDL	Dilution
Acetone	56.2 %	40-160%	0.0562 mg/L	0.100	<0.00119	0.00119	1
Acetonitrile	92.8 %	40-140%	0.928 mg/L	1.00	<0.00520	0.00520	1
Acrolein	106 %	20-140%	0.106 mg/L	0.100	<0.00349	0.00349	1
Acrylonitrile	115 %	20-140%	0.115 mg/L	0.100	<0.00116	0.00116	1
Benzene	92.9 %	80-120%	0.0929 mg/L	0.100	<0.00004	0.00004	1
Bromobenzene	105 %	75-125%	0.105 mg/L	0.100	<0.00014	0.00014	1
Bromochloromethane	89.8 %	65-130%	0.0898 mg/L	0.100	<0.00004	0.00004	1
Bromodichloromethane	97.4 %	75-120%	0.0974 mg/L	0.100	<0.00004	0.00004	1
Bromoform	99.9 %	70-130%	0.0999 mg/L	0.100	<0.00008	0.00008	1
Bromomethane	105 %	40-140%	0.105 mg/L	0.100	<0.00019	0.00019	1
Methyl Ethyl Ketone (MEK)	74.2 %	40-140%	0.0742 mg/L	0.100	<0.00086	0.00086	1
n-Butylbenzene	85.3 %	70-135%	0.0853 mg/L	0.100	<0.00006	0.00006	1
sec-Butyl benzene	96.4 %	70-125%	0.0964 mg/L	0.100	<0.00004	0.00004	1
tert-Butyl benzene	105 %	70-130%	0.105 mg/L	0.100	<0.00004	0.00004	1
Carbon Disulfide	89.2 %	40-140%	0.0892 mg/L	0.100	<0.00004	0.00004	1

## QC Report

Client ID           **Ensafe**  
 Project Description    MLB  
 Report No            14-136-0297

**Analytical Method: 8260B**

**Batch: L199684**

**Prep Method: 5030B**

**Batch: L199682   05/20/2014 08:41 AM**

**Matrix Spike Duplicate - L 89985-MSD-L199682**

**QC Measurement:   % Recovery**

**DateTime Analyzed: 05/20/2014 08:22 PM**

Test Description	QC Result	Criteria	MSD Result	MSD Conc.	Sample Conc.	MDL	Dilution
Carbon Tetrachloride	86.6 %	65-140%	0.0866 mg/L	0.100	<0.00005	0.00005	1
Chlorobenzene	97.8 %	80-120%	0.0978 mg/L	0.100	<0.00004	0.00004	1
Chlorodibromomethane	116 %	75-120%	0.116 mg/L	0.100	<0.00050	0.00050	1
Chloroethane	59.9 % *	60-135%	0.0599 mg/L	0.100	<0.00012	0.00012	1
2-Chloroethylvinyl Ether	0.0 % *	40-140%	<0.00099 mg/L	0.100	<0.00099	0.00099	1
Chloroform	99.2 %	80-120%	0.0992 mg/L	0.100	<0.00010	0.00010	1
Chloromethane	75.5 %	40-125%	0.0755 mg/L	0.100	<0.00023	0.00023	1
2-Chlorotoluene	101 %	75-125%	0.101 mg/L	0.100	<0.00005	0.00005	1
4-Chlorotoluene	108 %	75-130%	0.108 mg/L	0.100	<0.00006	0.00006	1
1,2-Dibromo-3-Chloropropane	83.2 %	50-130%	0.0832 mg/L	0.100	<0.00033	0.00033	1
1,2-Dibromoethane	109 %	80-120%	0.109 mg/L	0.100	<0.00009	0.00009	1
Dibromomethane	109 %	75-125%	0.109 mg/L	0.100	<0.00005	0.00005	1
1,2-Dichlorobenzene	89.0 %	70-120%	0.0890 mg/L	0.100	<0.00009	0.00009	1
1,3-Dichlorobenzene	93.5 %	70-130%	0.0935 mg/L	0.100	<0.00009	0.00009	1
1,4-Dichlorobenzene	82.9 %	75-125%	0.0829 mg/L	0.100	<0.00018	0.00018	1
Dichlorodifluoromethane	42.1 %	40-140%	0.0421 mg/L	0.100	<0.00006	0.00006	1
1,1-Dichloroethane	100 %	70-135%	0.100 mg/L	0.100	<0.00011	0.00011	1
1,2-Dichloroethane	99.0 %	70-130%	0.0990 mg/L	0.100	<0.00028	0.00028	1
1,1-Dichloroethene	95.6 %	80-120%	0.0956 mg/L	0.100	<0.00007	0.00007	1
cis-1,2-Dichloroethene	91.2 %	70-125%	0.0912 mg/L	0.100	<0.00007	0.00007	1
trans-1,2-Dichloroethene	88.0 %	60-140%	0.0880 mg/L	0.100	<0.00005	0.00005	1
1,2-Dichloropropane	115 %	80-120%	0.115 mg/L	0.100	<0.00003	0.00003	1
1,3-Dichloropropane	100 %	75-125%	0.100 mg/L	0.100	<0.00004	0.00004	1
2,2-Dichloropropane	98.1 %	70-135%	0.0981 mg/L	0.100	<0.00007	0.00007	1
1,1-Dichloropropene	93.0 %	75-130%	0.0930 mg/L	0.100	<0.00016	0.00016	1
cis-1,3-Dichloropropene	101 %	70-130%	0.101 mg/L	0.100	<0.00003	0.00003	1
trans-1,3-Dichloropropene	107 %	55-140%	0.107 mg/L	0.100	<0.00006	0.00006	1
Ethyl Acetate	91.6 %	40-125%	0.0916 mg/L	0.100	<0.00007	0.00007	1
Ethylbenzene	102 %	80-120%	0.102 mg/L	0.100	<0.00005	0.00005	1

\* QC Fail

**QC Report**

Client ID           **Ensafe**  
 Project Description    MLB  
 Report No            14-136-0297

**Analytical Method: 8260B**

**Batch: L199684**

**Prep Method: 5030B**

**Batch: L199682   05/20/2014 08:41 AM**

**Matrix Spike Duplicate - L 89985-MSD-L199682**

**QC Measurement:   % Recovery**

**DateTime Analyzed: 05/20/2014 08:22 PM**

Test Description	QC Result	Criteria	MSD Result	MSD Conc.	Sample Conc.	MDL	Dilution
Hexachlorobutadiene	91.1 %	50-140%	0.0911 mg/L	0.100	<0.00012	0.00012	1
2-Hexanone	113 %	55-145%	0.113 mg/L	0.100	<0.00131	0.00131	1
Iodomethane	64.4 %	40-125%	0.0644 mg/L	0.100	<0.00007	0.00007	1
Isopropylbenzene	95.7 %	75-125%	0.0957 mg/L	0.100	<0.00005	0.00005	1
4-Isopropyl toluene	107 %	75-130%	0.107 mg/L	0.100	<0.00004	0.00004	1
Methyl tert-butyl ether (MTBE)	83.0 %	65-135%	0.0830 mg/L	0.100	<0.00004	0.00004	1
4-Methyl-2-Pentanone	105 %	60-135%	0.105 mg/L	0.100	<0.00111	0.00111	1
Methylene Chloride	96.9 %	55-140%	0.0969 mg/L	0.100	<0.00041	0.00041	1
Naphthalene	93.2 %	55-140%	0.0932 mg/L	0.100	<0.00054	0.00054	1
n-Propylbenzene	107 %	60-140%	0.107 mg/L	0.100	<0.00004	0.00004	1
Styrene	106 %	65-135%	0.106 mg/L	0.100	<0.00005	0.00005	1
1,1,1,2-Tetrachloroethane	101 %	70-130%	0.101 mg/L	0.100	<0.00006	0.00006	1
1,1,2,2-Tetrachloroethane	95.7 %	65-140%	0.0957 mg/L	0.100	<0.00009	0.00009	1
Tetrachloroethene	101 %	60-145%	0.101 mg/L	0.100	<0.00007	0.00007	1
Toluene	98.9 %	80-120%	0.0989 mg/L	0.100	<0.00004	0.00004	1
1,2,3-Trichlorobenzene	90.7 %	55-140%	0.0907 mg/L	0.100	<0.00047	0.00047	1
1,2,4-Trichlorobenzene	84.0 %	65-135%	0.0840 mg/L	0.100	<0.00037	0.00037	1
1,1,1-Trichloroethane	95.5 %	65-130%	0.0955 mg/L	0.100	<0.00013	0.00013	1
1,1,2-Trichloroethane	106 %	75-125%	0.106 mg/L	0.100	<0.00004	0.00004	1
Trichloroethene	104 %	70-125%	0.104 mg/L	0.100	<0.00008	0.00008	1
Trichlorofluoromethane	99.0 %	45-150%	0.0990 mg/L	0.100	<0.00004	0.00004	1
1,2,3-Trichloropropane	108 %	75-125%	0.108 mg/L	0.100	<0.00010	0.00010	1
1,2,4-Trimethylbenzene	98.8 %	70-130%	0.0988 mg/L	0.100	<0.00005	0.00005	1
1,3,5-Trimethylbenzene	101 %	75-130%	0.101 mg/L	0.100	<0.00006	0.00006	1
Vinyl Acetate	89.7 %	40-125%	0.0897 mg/L	0.100	<0.00006	0.00006	1
Vinyl Chloride	79.3 % *	80-120%	0.0793 mg/L	0.100	<0.00004	0.00004	1
o-Xylene	103 %	80-120%	0.103 mg/L	0.100	<0.00007	0.00007	1

\* QC Fail

**QC Report**

Client ID           **Ensafe**  
 Project Description    MLB  
 Report No            14-136-0297

**Analytical Method: 8260B**

**Batch: L199684**

**Prep Method: 5030B**

**Batch: L199682   05/20/2014 08:41 AM**

**Matrix Spike Duplicate - L 89985-MSD-L199682**

**QC Measurement:   % Recovery**

**DateTime Analyzed: 05/20/2014 08:22 PM**

Test Description	QC Result	Criteria	MSD Result	MSD Conc.	Sample Conc.	MDL	Dilution
m,p-Xylene	104 %	75-130%	0.207 mg/L	0.200	<0.00012	0.00012	1
<b>Surrogate Recovery:</b>							
4-Bromofluorobenzene	83.4 %	71-137%	0.0417 mg/L	0.0500			1
Dibromofluoromethane	88.8 %	70-128%	0.0444 mg/L	0.0500			1
1,2-Dichloroethane - d4	87.0 %	63-136%	0.0435 mg/L	0.0500			1
Toluene-d8	94.0 %	70-130%	0.0470 mg/L	0.0500			1

**Matrix Spike Duplicate - L 89985-MSD-L199682**

**QC Measurement:   RPD**

**DateTime Analyzed: 05/20/2014 08:22 PM**

Test Description	QC Result	Criteria	MSD Result	MSD Conc.	Sample Conc.	MDL	Dilution
Acetone	10.7 %	< 30	0.0562 mg/L		0.0626	0.00119	1
Acetonitrile	28.7 %	< 30	0.928 mg/L		1.24	0.00520	1
Acrolein	5.5 %	< 30	0.106 mg/L		0.112	0.00349	1
Acrylonitrile	9.1 %	< 30	0.115 mg/L		0.126	0.00116	1
Benzene	9.3 %	< 30	0.0929 mg/L		0.102	0.00004	1
Bromobenzene	1.9 %	< 30	0.105 mg/L		0.103	0.00014	1
Bromochloromethane	10.0 %	< 30	0.0898 mg/L		0.0993	0.00004	1
Bromodichloromethane	0.5 %	< 30	0.0974 mg/L		0.0969	0.00004	1
Bromoform	3.0 %	< 30	0.0999 mg/L		0.103	0.00008	1
Bromomethane	12.5 %	< 30	0.105 mg/L		0.119	0.00019	1
Methyl Ethyl Ketone (MEK)	12.3 %	< 30	0.0742 mg/L		0.0840	0.00086	1
n-Butylbenzene	18.7 %	< 30	0.0853 mg/L		0.103	0.00006	1
sec-Butyl benzene	2.8 %	< 30	0.0964 mg/L		0.0992	0.00004	1
tert-Butyl benzene	1.9 %	< 30	0.105 mg/L		0.103	0.00004	1
Carbon Disulfide	8.5 %	< 30	0.0892 mg/L		0.0972	0.00004	1
Carbon Tetrachloride	13.5 %	< 30	0.0866 mg/L		0.0992	0.00005	1
Chlorobenzene	9.9 %	< 30	0.0978 mg/L		0.108	0.00004	1
Chlorodibromomethane	1.7 %	< 30	0.116 mg/L		0.118	0.00050	1
Chloroethane	27.5 %	< 30	0.0599 mg/L		0.0790	0.00012	1

### QC Report

Client ID           **Ensafe**  
 Project Description    MLB  
 Report No            14-136-0297

**Analytical Method: 8260B**

**Batch: L199684**

**Prep Method: 5030B**

**Batch: L199682   05/20/2014 08:41 AM**

**Matrix Spike Duplicate - L 89985-MSD-L199682**

**QC Measurement:   RPD**

**DateTime Analyzed: 05/20/2014 08:22 PM**

Test Description	QC Result	Criteria	MSD Result	MSD Conc.	Sample Conc.	MDL	Dilution
2-Chloroethylvinyl Ether	200 % *	< 30	<0.00099 mg/L		<0.00099	0.00099	1
Chloroform	8.4 %	< 30	0.0992 mg/L		0.108	0.00010	1
Chloromethane	3.0 %	< 30	0.0755 mg/L		0.0778	0.00023	1
2-Chlorotoluene	8.5 %	< 30	0.101 mg/L		0.110	0.00005	1
4-Chlorotoluene	15.5 %	< 30	0.108 mg/L		0.0924	0.00006	1
1,2-Dibromo-3-Chloropropane	19.3 %	< 30	0.0832 mg/L		0.101	0.00033	1
1,2-Dibromoethane	0.0 %	< 30	0.109 mg/L		0.109	0.00009	1
Dibromomethane	0.0 %	< 30	0.109 mg/L		0.109	0.00005	1
1,2-Dichlorobenzene	12.6 %	< 30	0.0890 mg/L		0.101	0.00009	1
1,3-Dichlorobenzene	9.6 %	< 30	0.0935 mg/L		0.103	0.00009	1
1,4-Dichlorobenzene	19.6 %	< 30	0.0829 mg/L		0.101	0.00018	1
Dichlorodifluoromethane	19.3 %	< 30	0.0421 mg/L		0.0511	0.00006	1
1,1-Dichloroethane	8.6 %	< 30	0.100 mg/L		0.109	0.00011	1
1,2-Dichloroethane	10.5 %	< 30	0.0990 mg/L		0.110	0.00028	1
1,1-Dichloroethene	5.4 %	< 30	0.0956 mg/L		0.101	0.00007	1
cis-1,2-Dichloroethene	10.1 %	< 30	0.0912 mg/L		0.101	0.00007	1
trans-1,2-Dichloroethene	7.6 %	< 30	0.0880 mg/L		0.0950	0.00005	1
1,2-Dichloropropane	1.7 %	< 30	0.115 mg/L		0.113	0.00003	1
1,3-Dichloropropane	5.8 %	< 30	0.100 mg/L		0.106	0.00004	1
2,2-Dichloropropane	12.3 %	< 30	0.0981 mg/L		0.111	0.00007	1
1,1-Dichloropropene	17.6 %	< 30	0.0930 mg/L		0.111	0.00016	1
cis-1,3-Dichloropropene	8.5 %	< 30	0.101 mg/L		0.110	0.00003	1
trans-1,3-Dichloropropene	2.7 %	< 30	0.107 mg/L		0.110	0.00006	1
Ethyl Acetate	8.6 %	< 30	0.0916 mg/L		0.0999	0.00007	1
Ethylbenzene	5.4 %	< 30	0.102 mg/L		0.0966	0.00005	1
Hexachlorobutadiene	13.2 %	< 30	0.0911 mg/L		0.104	0.00012	1
2-Hexanone	6.0 %	< 30	0.113 mg/L		0.120	0.00131	1
Iodomethane	22.3 %	< 30	0.0644 mg/L		0.0806	0.00007	1
Isopropylbenzene	1.4 %	< 30	0.0957 mg/L		0.0971	0.00005	1

\* QC Fail

**QC Report**

Client ID           **Ensafe**  
 Project Description    MLB  
 Report No            14-136-0297

**Analytical Method: 8260B**

**Batch: L199684**

**Prep Method: 5030B**

**Batch: L199682   05/20/2014 08:41 AM**

**Matrix Spike Duplicate - L 89985-MSD-L199682**

**QC Measurement:    RPD**

**DateTime Analyzed: 05/20/2014 08:22 PM**

Test Description	QC Result	Criteria	MSD Result	MSD Conc.	Sample Conc.	MDL	Dilution
4-Isopropyl toluene	4.7 %	< 30	0.107 mg/L		0.102	0.00004	1
Methyl tert-butyl ether (MTBE)	16.4 %	< 30	0.0830 mg/L		0.0979	0.00004	1
4-Methyl-2-Pentanone	13.3 %	< 30	0.105 mg/L		0.120	0.00111	1
Methylene Chloride	8.0 %	< 30	0.0969 mg/L		0.105	0.00041	1
Naphthalene	4.8 %	< 30	0.0932 mg/L		0.0978	0.00054	1
n-Propylbenzene	1.8 %	< 30	0.107 mg/L		0.109	0.00004	1
Styrene	19.9 %	< 30	0.106 mg/L		0.0868	0.00005	1
1,1,1,2-Tetrachloroethane	0.0 %	< 30	0.101 mg/L		0.101	0.00006	1
1,1,2,2-Tetrachloroethane	15.6 %	< 30	0.0957 mg/L		0.112	0.00009	1
Tetrachloroethene	6.6 %	< 30	0.101 mg/L		0.108	0.00007	1
Toluene	2.1 %	< 30	0.0989 mg/L		0.101	0.00004	1
1,2,3-Trichlorobenzene	14.6 %	< 30	0.0907 mg/L		0.105	0.00047	1
1,2,4-Trichlorobenzene	22.2 %	< 30	0.0840 mg/L		0.105	0.00037	1
1,1,1-Trichloroethane	14.1 %	< 30	0.0955 mg/L		0.110	0.00013	1
1,1,2-Trichloroethane	13.2 %	< 30	0.106 mg/L		0.121	0.00004	1
Trichloroethene	8.2 %	< 30	0.104 mg/L		0.113	0.00008	1
Trichlorofluoromethane	6.8 %	< 30	0.0990 mg/L		0.106	0.00004	1
1,2,3-Trichloropropane	6.6 %	< 30	0.108 mg/L		0.101	0.00010	1
1,2,4-Trimethylbenzene	3.0 %	< 30	0.0988 mg/L		0.0958	0.00005	1
1,3,5-Trimethylbenzene	1.9 %	< 30	0.101 mg/L		0.103	0.00006	1
Vinyl Acetate	1.2 %	< 30	0.0897 mg/L		0.0886	0.00006	1
Vinyl Chloride	7.0 %	< 30	0.0793 mg/L		0.0851	0.00004	1
o-Xylene	0.9 %	< 30	0.103 mg/L		0.102	0.00007	1
m,p-Xylene	0.4 %	< 30	0.207 mg/L		0.208	0.00012	1

**QC Report**

Client ID           **Ensafe**  
 Project Description    MLB  
 Report No            14-136-0297

**Analytical Method: 8270C SIM**

**Batch: L199718**

**Prep Method: 3511**

**Batch: L199437   05/19/2014 09:15**

**Lab Reagent Blank - LRB-L199437**

**QC Measurement:   Limit**

**DateTime Analyzed: 05/20/2014 12:18 PM**

Test Description	LRB Result	Qualifier	MDL	MQL	Dilution
Acenaphthene	<0.000010 mg/L		0.000010	0.000020	1
Acenaphthylene	<0.000010 mg/L		0.000010	0.000020	1
Anthracene	<0.000010 mg/L		0.000010	0.000020	1
Benzo(a)anthracene	<0.000010 mg/L		0.000010	0.000020	1
Benzo(a)pyrene	<0.000010 mg/L		0.000010	0.000020	1
Benzo(b)fluoranthene	<0.000010 mg/L		0.000010	0.000020	1
Benzo(g,h,i)perylene	<0.000010 mg/L		0.000010	0.000020	1
Benzo(k)fluoranthene	<0.000010 mg/L		0.000010	0.000020	1
Chrysene	<0.000010 mg/L		0.000010	0.000020	1
Dibenz(a,h)anthracene	<0.000010 mg/L		0.000010	0.000020	1
Fluoranthene	<0.000010 mg/L		0.000010	0.000020	1
Fluorene	<0.000010 mg/L		0.000010	0.000020	1
Indeno(1,2,3-cd)pyrene	<0.000010 mg/L		0.000010	0.000020	1
2-Methylnaphthalene	0.000013 mg/L	J	0.000010	0.000020	1
Naphthalene	0.000010 mg/L	J	0.000010	0.000020	1
Phenanthrene	0.000010 mg/L	J	0.000010	0.000020	1
Pyrene	<0.000010 mg/L		0.000010	0.000020	1

**Surrogate Recovery:**

2-Fluorobiphenyl	101	0.00613 mg/L	0.00606		1
4-Terphenyl-d14	103	0.00623 mg/L	0.00606		1

**Laboratory Control Sample - LCS-L199437**

**QC Measurement:   % Recovery**

**DateTime Analyzed: 05/20/2014 10:28 AM**

Test Description	QC Result	Criteria	LCS Result	LCS Conc.	MDL	Dilution
Acenaphthene	115 %	60-140%	0.00349 mg/L	0.00303	0.000010	1
Acenaphthylene	114 %	60-140%	0.00346 mg/L	0.00303	0.000010	1
Anthracene	118 %	60-140%	0.00358 mg/L	0.00303	0.000010	1
Benzo(a)anthracene	111 %	60-140%	0.00336 mg/L	0.00303	0.000010	1



**QC Report**

Client ID           **Ensafe**  
Project Description    MLB  
Report No            14-136-0297

**Analytical Method: 8270C SIM**

**Batch: L199718**

**Prep Method: 3511**

**Batch: L199437   05/19/2014 09:15**

**Laboratory Control Sample - LCS-L199437**

**QC Measurement:   % Recovery**

**DateTime Analyzed: 05/20/2014 10:28 AM**

Test Description	QC Result	Criteria	LCS Result	LCS Conc.	MDL	Dilution
Benzo(a)pyrene	103 %	60-140%	0.00311 mg/L	0.00303	0.000010	1
Benzo(b)fluoranthene	124 %	60-140%	0.00375 mg/L	0.00303	0.000010	1
Benzo(g,h,i)perylene	88.4 %	60-140%	0.00268 mg/L	0.00303	0.000010	1
Benzo(k)fluoranthene	102 %	60-140%	0.00310 mg/L	0.00303	0.000010	1
Chrysene	104 %	60-140%	0.00315 mg/L	0.00303	0.000010	1
Dibenz(a,h)anthracene	88.7 %	60-140%	0.00269 mg/L	0.00303	0.000010	1
Fluoranthene	100 %	60-140%	0.00303 mg/L	0.00303	0.000010	1
Fluorene	117 %	60-140%	0.00355 mg/L	0.00303	0.000010	1
Indeno(1,2,3-cd)pyrene	108 %	60-140%	0.00327 mg/L	0.00303	0.000010	1
2-Methylnaphthalene	105 %	60-140%	0.00319 mg/L	0.00303	0.000010	1
Naphthalene	112 %	60-140%	0.00338 mg/L	0.00303	0.000010	1
Phenanthrene	107 %	60-140%	0.00324 mg/L	0.00303	0.000010	1
Pyrene	101 %	60-140%	0.00307 mg/L	0.00303	0.000010	1

**Surrogate Recovery:**

2-Fluorobiphenyl	90.0 %	60-140%	0.00546 mg/L	0.00606		1
4-Terphenyl-d14	95.3 %	60-140%	0.00578 mg/L	0.00606		1

**Laboratory Control Sample Dupl - LCSD-L199437**

**QC Measurement:   % Recovery**

**DateTime Analyzed: 05/20/2014 11:05 AM**

Test Description	QC Result	Criteria	LCSD Result	LCSD Conc.	Sample Conc.	MDL	Dilution
Acenaphthene	114 %	60-140%	0.00346 mg/L	0.00303		0.000010	1
Acenaphthylene	112 %	60-140%	0.00340 mg/L	0.00303		0.000010	1
Anthracene	115 %	60-140%	0.00347 mg/L	0.00303		0.000010	1
Benzo(a)anthracene	96.0 %	60-140%	0.00291 mg/L	0.00303		0.000010	1
Benzo(a)pyrene	82.5 %	60-140%	0.00250 mg/L	0.00303		0.000010	1
Benzo(b)fluoranthene	102 %	60-140%	0.00308 mg/L	0.00303		0.000010	1
Benzo(g,h,i)perylene	69.9 %	60-140%	0.00212 mg/L	0.00303		0.000010	1
Benzo(k)fluoranthene	82.1 %	60-140%	0.00249 mg/L	0.00303		0.000010	1

**QC Report**

Client ID           **Ensafe**  
Project Description    MLB  
Report No            14-136-0297

**Analytical Method: 8270C SIM**

**Batch: L199718**

**Prep Method: 3511**

**Batch: L199437   05/19/2014 09:15**

**Laboratory Control Sample Dupl - LCSD-L199437**

**QC Measurement:   % Recovery**

**DateTime Analyzed: 05/20/2014 11:05 AM**

Test Description	QC Result	Criteria	LCSD Result	LCSD Conc.	Sample Conc.	MDL	Dilution
Chrysene	86.4 %	60-140%	0.00262 mg/L	0.00303	0.000010		1
Dibenz(a,h)anthracene	69.3 %	60-140%	0.00210 mg/L	0.00303	0.000010		1
Fluoranthene	92.0 %	60-140%	0.00279 mg/L	0.00303	0.000010		1
Fluorene	116 %	60-140%	0.00350 mg/L	0.00303	0.000010		1
Indeno(1,2,3-cd)pyrene	85.1 %	60-140%	0.00258 mg/L	0.00303	0.000010		1
2-Methylnaphthalene	104 %	60-140%	0.00314 mg/L	0.00303	0.000010		1
Naphthalene	110 %	60-140%	0.00334 mg/L	0.00303	0.000010		1
Phenanthrene	105 %	60-140%	0.00317 mg/L	0.00303	0.000010		1
Pyrene	93.0 %	60-140%	0.00282 mg/L	0.00303	0.000010		1

**Surrogate Recovery:**

2-Fluorobiphenyl	90.0 %	60-140%	0.00546 mg/L	0.00606			1
4-Terphenyl-d14	78.7 %	60-140%	0.00477 mg/L	0.00606			1

**Laboratory Control Sample Dupl - LCSD-L199437**

**QC Measurement:   RPD**

**DateTime Analyzed: 05/20/2014 11:05 AM**

Test Description	QC Result	Criteria	LCSD Result	LCSD Conc.	Sample Conc.	MDL	Dilution
Acenaphthene	0.8 %	< 20	0.00346 mg/L		0.00349	0.000010	1
Acenaphthylene	1.7 %	< 20	0.00340 mg/L		0.00346	0.000010	1
Anthracene	3.1 %	< 20	0.00347 mg/L		0.00358	0.000010	1
Benzo(a)anthracene	14.3 %	< 20	0.00291 mg/L		0.00336	0.000010	1
Benzo(a)pyrene	21.7 % *	< 20	0.00250 mg/L		0.00311	0.000010	1
Benzo(b)fluoranthene	19.6 %	< 20	0.00308 mg/L		0.00375	0.000010	1
Benzo(g,h,i)perylene	23.3 % *	< 20	0.00212 mg/L		0.00268	0.000010	1
Benzo(k)fluoranthene	21.8 % *	< 20	0.00249 mg/L		0.00310	0.000010	1
Chrysene	18.3 %	< 20	0.00262 mg/L		0.00315	0.000010	1
Dibenz(a,h)anthracene	24.6 % *	< 20	0.00210 mg/L		0.00269	0.000010	1
Fluoranthene	8.2 %	< 20	0.00279 mg/L		0.00303	0.000010	1
Fluorene	1.4 %	< 20	0.00350 mg/L		0.00355	0.000010	1
Indeno(1,2,3-cd)pyrene	23.5 % *	< 20	0.00258 mg/L		0.00327	0.000010	1

\* **QC Fail**

**QC Report**

Client ID           **Ensafe**  
Project Description    MLB  
Report No            14-136-0297

**Analytical Method: 8270C SIM**

**Batch: L199718**

**Prep Method: 3511**

**Batch: L199437   05/19/2014 09:15**

**Laboratory Control Sample Dupl - LCSD-L199437**

**QC Measurement:   RPD**

**DateTime Analyzed: 05/20/2014 11:05 AM**

<b>Test Description</b>	<b>QC Result</b>	<b>Criteria</b>	<b>LCSD Result</b>	<b>LCSD Conc.</b>	<b>Sample Conc.</b>	<b>MDL</b>	<b>Dilution</b>
2-Methylnaphthalene	1.5 %	< 20	0.00314 mg/L		0.00319	0.000010	1
Naphthalene	1.1 %	< 20	0.00334 mg/L		0.00338	0.000010	1
Phenanthrene	2.1 %	< 20	0.00317 mg/L		0.00324	0.000010	1
Pyrene	8.4 %	< 20	0.00282 mg/L		0.00307	0.000010	1

**Cooler Receipt Form**

Customer Number: **03180**

Customer Name: **Ensafe**

Report Number: **14-136-0297**

**Shipping Method**

Fed Ex       US Postal       Lab       Other :   
 UPS       Client       Courier      Thermometer ID:

Shipping container/cooler uncompromised?	<input checked="" type="radio"/> Yes	<input type="radio"/> No	
Custody seals intact on shipping container/cooler?	<input checked="" type="radio"/> Yes	<input type="radio"/> No	<input type="radio"/> Not Required
Custody seals intact on sample bottles?	<input type="radio"/> Yes	<input type="radio"/> No	<input checked="" type="radio"/> Not Required
Chain of Custody (COC) present?	<input checked="" type="radio"/> Yes	<input type="radio"/> No	
COC agrees with sample label(s)?	<input checked="" type="radio"/> Yes	<input type="radio"/> No	
COC properly completed	<input checked="" type="radio"/> Yes	<input type="radio"/> No	
Samples in proper containers?	<input checked="" type="radio"/> Yes	<input type="radio"/> No	
Sample containers intact?	<input checked="" type="radio"/> Yes	<input type="radio"/> No	
Sufficient sample volume for indicated test(s)?	<input checked="" type="radio"/> Yes	<input type="radio"/> No	
All samples received within holding time?	<input checked="" type="radio"/> Yes	<input type="radio"/> No	
Cooler temperature in compliance?	<input checked="" type="radio"/> Yes	<input type="radio"/> No	
Cooler/Samples arrived at the laboratory on ice. Samples were considered acceptable as cooling process had begun.	<input checked="" type="radio"/> Yes	<input type="radio"/> No	
Water - Sample containers properly preserved	<input checked="" type="radio"/> Yes	<input type="radio"/> No	<input type="radio"/> N/A
Water - VOA vials free of headspace	<input checked="" type="radio"/> Yes	<input type="radio"/> No	<input type="radio"/> N/A
Trip Blanks received with VOAs	<input checked="" type="radio"/> Yes	<input type="radio"/> No	<input type="radio"/> N/A
Soil VOA method 5035 – compliance criteria met	<input type="radio"/> Yes	<input type="radio"/> No	<input checked="" type="radio"/> N/A
<input type="checkbox"/> High concentration container (48 hr)	<input type="checkbox"/> Low concentration EnCore samplers (48 hr)		
<input type="checkbox"/> High concentration pre-weighed (methanol -14 d)	<input type="checkbox"/> Low conc pre-weighed vials (Sod Bis -14 d)		
Special precautions or instructions included?	<input type="radio"/> Yes	<input checked="" type="radio"/> No	

Comments:

Any regulatory non-compliance issues will be recorded on non-compliance report.

Signature:

Date & Time:

**CHAIN OF CUSTODY AND ANALYTICAL REQUEST RECORD**



EnSafe Inc. 800-588-7962

Project Name: MLB  
 Site Location: 74 N. Second  
 Sampler/Site Phone#

COC No. JC051014  
 PO No. PER MSA  
 Lab Name

Page 1 of 1  
 Project No. 08988614 Phase 4 Task  
 Lab Name

Sampler: Dave Fulkner & Jennifer Cobb  
 Send Results To: Allison Harris Email: A.Harris@ensafe.com

Data Shipping Address: 5724 Summer Trees Dr. Memphis TN 38121

Sample ID (sys_samp_code)	Location ID (sys_loc_code)	Date (mm/dd/yy)	Time (Military) (hhmm)	Matrix Code (1)	Sample Type (2)	Field Filtered (Y/N)	Total No. of Containers	Remarks
MLBGTW0201	TW02	05-16-14	0950	WG	N	N	7	VOCs
MLBGTW0301	TW03	05-16-14	1030	WG	N	N	7	PCRA Metals
MLBGTW0401	TW04	05-16-14	1040	WG	N	N	7	
MLBGTW0501	TW05	05-16-14	1100	WG	N	N	7	
MLBGTW0601	TW06	05-16-14	1200	WG	N	N	7	
MLBGTW0701	TW07	05-16-14	1150	WG	N	N	7	
MLB T051614	IB	05-16-14	0930	WB	TB	N	3	



Turnaround Time(specify): **Final** 5 days **Email** (if applicable) 5 days  
 Email Results(check): Yes  No   
 Deliverable (check): Level 2  Level 3  Level 4  TX TRRP-13

**Field Comments:**  
5 Day Turnaround Time  
Lab Comments: seal in tact 2.90C - B  
custody cooler  
 Received by (signature) \_\_\_\_\_ Date \_\_\_\_\_ Time \_\_\_\_\_  
 Relinquished by (signature) \_\_\_\_\_ Date \_\_\_\_\_ Time \_\_\_\_\_

1 Jennifer Cobb 5/16/14 3:30 PM  
 2 \_\_\_\_\_  
 3 \_\_\_\_\_

**Sample Shipment and Delivery Details**  
 Number of coolers in shipment: 1  
 Samples Iced?(check) Yes  No   
 Method of Shipment: Delivered  
 Airbill No: \_\_\_\_\_  
 Date Shipped: 05/16/14

(1) Matrix Code: AA=Air, AQ=Air Quality Control Matrix, DC=Drill Cuttings, GS=Soil Gas, LD=Drilling Fluid, LF=Free Product, LH=Liquid Waste, Oil=Oil, SB= Bentonite, SC=Cement, SE=Sediment, SF=Filter Sandpack, SL=Sludge, SN=Miscellaneous Solid/Building Materials, SO=Soil, SQ=Soil/Solid Quality Control Matrix, ST=Solid Waste, SW=Swab/Wipe, TA=Animal Tissue, TP=Plant Tissue, U=Unknown, WA=Aqueous Drill Cuttings, WE=Estuary, WG=Ground Water, WL=Leachate, WO=Ocean Water, WP=Drinking Water, WQ=Water Quality Control Matrix, WS=Surface Water, WW=Waste Water  
 (2) Sample Type: AB=Ambient Blank, EB=Equipment Blank, FB=Field Duplicate Sample, FR=Field Replicate, MB=Material Blank, N=Normal Environmental Sample, RB=Material Rinse Blank, TB=Trip Blank  
 (3) Preservative added: HA=Hydrochloric Acid, NI=Nitric Acid, SH=Sodium Hydroxide, SA=Sulfuric Acid, AA=Ascorbic Acid, ME=Hexane, MH=Methanol, SB=sodium bisulfate, ST=Sodium Thiosulfate, IF NO preservative added leave blank

5/22/2014

Ensafe  
Ms. Allison Harris  
5724 Summer Tree Drive  
Memphis, TN, 38134

Ref: Analytical Testing  
ETC Report Number: 14-136-0206  
Client Project Description: MLB Uptown  
714 N. Second St./Memphis, TN  
Project #0888815441,04  
Project Number: 714 N. Second St. - Memphis

Dear Ms. Allison Harris:

Environmental Testing and Consulting, Inc. received sample(s) on 5/16/2014 for the analyses presented in the following report.

The above referenced project has been analyzed per your instructions. The analyses were performed in accordance with the applicable analytical method.

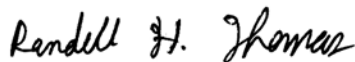
The analytical data has been validated using standard quality control measures performed as required by the analytical method. Quality Assurance, method validations, instrumentation maintenance and calibration for all parameters (NELAP and non-NELAP) were performed in accordance with guidelines established by the USEPA (including 40 CFR 136 Method Update Rule May 2012) and NELAC unless otherwise indicated. Any parameter for which the laboratory is not officially NELAP accredited is indicated by a '-' symbol. These are not included in the scope because NELAP accreditation is either not available or has not been applied for. Additional certifications may be held/are available for parameters, where NELAP accreditation is not required or applicable. A full list of certifications is available upon request.

Per EPA Methods Update Rule (May 2012), all methods from Standard Methods for the Examination of Water and Wastewater are reported to include the year of approval.

The results are shown on the attached Report of Analysis(s). Results for solid matrices are reported on an as-received basis unless otherwise indicated. This report shall not be reproduced except in full and relates only to the samples included in this report.

Please do not hesitate to contact me or client services if you have any questions or need additional information.

Sincerely,



Randy Thomas  
Project Manager

*Laboratory's liability in any claim relating to analyses performed shall be limited to, at laboratory's option, repeating the analysis in question at laboratory's expense, or the refund of the charges paid for performance of said analysis.*

Alabama #40750	Louisiana #04015	VA NELAP #460181	Texas #T104704180-11-6	Arkansas #88-0650
Mississippi	California #2904	NC #415	Oklahoma #9311	Virginia #00106
Kentucky #90047	Tennessee #TN02027	EPA #TN00012	Kentucky UST #41	Kansas #E-10396





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Client: Ensafe

**CASE NARRATIVE**

Project: MLB Uptown

Lab Report Number: 14-136-0206

Date: 5/22/2014

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**Volatile Organic Compounds - GC/MS Method SW-8260B**

Sample 90028 (MLBBSTW0508)

Analyte: 1,2-Dichloroethane-d4

QC Batch No: L199866

Surrogate(s) exhibited a high bias in this project sample where no target analytes were detected. The high recovery(s) had no impact on the data. Batch QC samples (method blank and laboratory control samples) all showed surrogates within QC limits.

Sample 90029 (MLBBSTW0608)

QC Batch No: L199552

Surrogate(s) exhibited a high bias in this project sample where no target analytes were detected. The high recovery(s) had no impact on the data. Batch QC samples (method blank and laboratory control samples) all showed surrogates within QC limits.

Sample 90030 (MLBBSTW0612)

QC Batch No: L199552

Surrogate(s) exhibited a high bias in this project sample where no target analytes were detected. The high recovery(s) had no impact on the data. Batch QC samples (method blank and laboratory control samples) all showed surrogates within QC limits.

Sample 90031 (MLBBSTW0716)

QC Batch No: L199552

Surrogate(s) exhibited a high bias in this project sample where no target analytes were detected. The high recovery(s) had no impact on the data. Batch QC samples (method blank and laboratory control samples) all showed surrogates within QC limits.

**Semivolatile Organic Compounds - GC/MS (SIM) Method SW-8270C (SIM LVI)**

Sample ()

Analyte: Naphthalene

QC Batch No: L199718

Target analyte(s) was identified in the method blank associated with this project. Per laboratory protocol any associated affected sample result is flagged "B" to indicate that it was detected in the method blank at a concentration of 0.010J ug/L.

Analyte: 2-Methylnaphthalene

QC Batch No: L199718

Target analyte(s) was identified in the method blank associated with this project. Per laboratory protocol any associated affected sample result is flagged "B" to indicate that it was detected in the method blank at a concentration of 0.013J ug/L.

Analyte: Phenanthrene

QC Batch No: L199718

Target analyte(s) was identified in the method blank associated with this project. Per laboratory protocol any associated affected sample result is flagged "B" to indicate that it was detected in the method blank at a concentration of 0.010J ug/L.



## Sample Summary Table

**Report Number:** 14-136-0206  
**Client Project Description:** **MLB Uptown**  
**714 N. Second St./Memphis, TN**  
**Project #0888815441,04**

Lab No	Client Sample ID	Matrix	Date Collected	Date Received	Method	Lab ID
90025	MLBBSTW0408	Solids	05/15/2014 08:55	05/16/2014	2540G-2011	ETC
90025	MLBBSTW0408	Solids	05/15/2014 08:55	05/16/2014	6010B	ETC
90025	MLBBSTW0408	Solids	05/15/2014 08:55	05/16/2014	7471A	ETC
90025	MLBBSTW0408	Solids	05/15/2014 08:55	05/16/2014	8260B	ETC
90025	MLBBSTW0408	Solids	05/15/2014 08:55	05/16/2014	8270C SIM	ETC
90026	MLBBSTW0412	Solids	05/15/2014 09:00	05/16/2014	2540G-2011	ETC
90026	MLBBSTW0412	Solids	05/15/2014 09:00	05/16/2014	6010B	ETC
90026	MLBBSTW0412	Solids	05/15/2014 09:00	05/16/2014	7471A	ETC
90026	MLBBSTW0412	Solids	05/15/2014 09:00	05/16/2014	8260B	ETC
90026	MLBBSTW0412	Solids	05/15/2014 09:00	05/16/2014	8270C SIM	ETC
90027	MLBBSTW0504	Solids	05/15/2014 09:40	05/16/2014	2540G-2011	ETC
90027	MLBBSTW0504	Solids	05/15/2014 09:40	05/16/2014	6010B	ETC
90027	MLBBSTW0504	Solids	05/15/2014 09:40	05/16/2014	7471A	ETC
90027	MLBBSTW0504	Solids	05/15/2014 09:40	05/16/2014	8260B	ETC
90027	MLBBSTW0504	Solids	05/15/2014 09:40	05/16/2014	8270C SIM	ETC
90028	MLBBSTW0508	Solids	05/15/2014 09:45	05/16/2014	2540G-2011	ETC
90028	MLBBSTW0508	Solids	05/15/2014 09:45	05/16/2014	6010B	ETC
90028	MLBBSTW0508	Solids	05/15/2014 09:45	05/16/2014	7471A	ETC
90028	MLBBSTW0508	Solids	05/15/2014 09:45	05/16/2014	8260B	ETC
90028	MLBBSTW0508	Solids	05/15/2014 09:45	05/16/2014	8270C SIM	ETC
90029	MLBBSTW0608	Solids	05/15/2014 12:20	05/16/2014	2540G-2011	ETC
90029	MLBBSTW0608	Solids	05/15/2014 12:20	05/16/2014	6010B	ETC
90029	MLBBSTW0608	Solids	05/15/2014 12:20	05/16/2014	7471A	ETC
90029	MLBBSTW0608	Solids	05/15/2014 12:20	05/16/2014	8260B	ETC
90029	MLBBSTW0608	Solids	05/15/2014 12:20	05/16/2014	8270C SIM	ETC
90030	MLBBSTW0612	Solids	05/15/2014 12:25	05/16/2014	2540G-2011	ETC

## Sample Summary Table

**Report Number:** 14-136-0206  
**Client Project Description:** **MLB Uptown**  
**714 N. Second St./Memphis, TN**  
**Project #0888815441,04**

Lab No	Client Sample ID	Matrix	Date Collected	Date Received	Method	Lab ID
90030	MLBBSTW0612	Solids	05/15/2014 12:25	05/16/2014	6010B	ETC
90030	MLBBSTW0612	Solids	05/15/2014 12:25	05/16/2014	7471A	ETC
90030	MLBBSTW0612	Solids	05/15/2014 12:25	05/16/2014	8260B	ETC
90030	MLBBSTW0612	Solids	05/15/2014 12:25	05/16/2014	8270C SIM	ETC
90031	MLBBSTW0716	Solids	05/15/2014 13:00	05/16/2014	2540G-2011	ETC
90031	MLBBSTW0716	Solids	05/15/2014 13:00	05/16/2014	6010B	ETC
90031	MLBBSTW0716	Solids	05/15/2014 13:00	05/16/2014	7471A	ETC
90031	MLBBSTW0716	Solids	05/15/2014 13:00	05/16/2014	8260B	ETC
90031	MLBBSTW0716	Solids	05/15/2014 13:00	05/16/2014	8270C SIM	ETC
90032	MLBBSTW0720	Solids	05/15/2014 13:05	05/16/2014	2540G-2011	ETC
90032	MLBBSTW0720	Solids	05/15/2014 13:05	05/16/2014	6010B	ETC
90032	MLBBSTW0720	Solids	05/15/2014 13:05	05/16/2014	7471A	ETC
90032	MLBBSTW0720	Solids	05/15/2014 13:05	05/16/2014	8260B	ETC
90032	MLBBSTW0720	Solids	05/15/2014 13:05	05/16/2014	8270C SIM	ETC
90033	MLBGTW0101	Aqueous	05/15/2014 14:50	05/16/2014	6010B	ETC
90033	MLBGTW0101	Aqueous	05/15/2014 14:50	05/16/2014	7470A	ETC
90033	MLBGTW0101	Aqueous	05/15/2014 14:50	05/16/2014	8260B	ETC
90033	MLBGTW0101	Aqueous	05/15/2014 14:50	05/16/2014	8270C SIM	ETC



03180

Ensafe  
 Ms. Allison Harris  
 5724 Summer Tree Drive  
 Memphis, TN 38134

Project ID :  
 Project : MLB Uptown  
 Information : 714 N. Second St./Memphis, TN  
 Project #0888815441,04

Report Date : 05/22/2014  
 Received : 5/16/2014

Report Number : **14-136-0206**

**REPORT OF ANALYSIS**

Lab No : **90025**  
 Sample ID : **MLBBSTW0408**

Matrix: **Solids**  
 Sampled: **5/15/2014 8:55**

Test	Results	Units	MDL	MQL	DF	Date / Time Analyzed	By	Analytical Method
% Moisture	<b>23.6</b>	%	0	0.100	1	05/19/14 09:00	ALP	2540G-2011
Total Arsenic	<b>8.27</b>	mg/Kg - dry	0.929	1.31	1	05/19/14 18:35	BKN	6010B
Total Barium	<b>102</b>	mg/Kg - dry	0.075	0.654	1	05/19/14 18:35	BKN	6010B
Total Cadmium	<b>0.267</b>	mg/Kg - dry	0.0198	0.131	1	05/19/14 18:35	BKN	6010B
Total Chromium	<b>14.4</b>	mg/Kg - dry	0.044	0.327	1	05/19/14 18:35	BKN	6010B
Total Lead	<b>8.94</b>	mg/Kg - dry	0.187	0.392	1	05/19/14 18:35	BKN	6010B
Total Mercury	<b>0.0190</b>	mg/Kg - dry	0.00344	0.0174	1	05/20/14 14:23	JRS	7471A
Total Selenium	<0.667	mg/Kg - dry	0.667	1.31	1	05/19/14 18:35	BKN	6010B
Total Silver	<0.0356	mg/Kg - dry	0.0356	0.327	1	05/19/14 18:35	BKN	6010B

Qualifiers/Definitions	*	Outside QC limit	B	Analyte detected in blank
	DF	Dilution Factor	J	Estimated value
	MQL	Method Quantitation Limit		

03180

Ensafe  
 Ms. Allison Harris  
 5724 Summer Tree Drive  
 Memphis, TN 38134

Project ID :  
 Project : MLB Uptown  
 Information : 714 N. Second St./Memphis, TN  
 Project #0888815441,04

Report Date : 05/22/2014  
 Received : 5/16/2014

Report Number : **14-136-0206**

**REPORT OF ANALYSIS**

Lab No : **90025**  
 Sample ID : **MLBBSTW0408**

Matrix: **Solids**  
 Sampled: **5/15/2014 8:55**

**Analytical Method:** 8260B

**Prep Method:** 5030A

**Prep Batch(es):** L199862

**Date/Time Prepped:** 5/21/2014 07:17:00

Test	Results	Units	MDL	MQL	DF	Date / Time Analyzed	By	Analytical Batch
Acetone	<0.0060	mg/Kg - dry	0.0060	0.0523	1	05/21/14 13:53	SEB	L199866
Acetonitrile	<0.0167	mg/Kg - dry	0.0167	0.131	1	05/21/14 13:53	SEB	L199866
Acrolein	<0.0132	mg/Kg - dry	0.0132	0.0523	1	05/21/14 13:53	SEB	L199866
Acrylonitrile	<0.0105	mg/Kg - dry	0.0105	0.0523	1	05/21/14 13:53	SEB	L199866
Benzene	<0.0011	mg/Kg - dry	0.0011	0.0026	1	05/21/14 13:53	SEB	L199866
Bromobenzene	<0.0012	mg/Kg - dry	0.0012	0.0026	1	05/21/14 13:53	SEB	L199866
Bromochloromethane	<0.0010	mg/Kg - dry	0.0010	0.0026	1	05/21/14 13:53	SEB	L199866
Bromodichloromethane	<0.0005	mg/Kg - dry	0.0005	0.0026	1	05/21/14 13:53	SEB	L199866
Bromoform	<0.0009	mg/Kg - dry	0.0009	0.0026	1	05/21/14 13:53	SEB	L199866
Bromomethane	<0.0015	mg/Kg - dry	0.0015	0.0026	1	05/21/14 13:53	SEB	L199866
Methyl Ethyl Ketone (MEK)	<0.0080	mg/Kg - dry	0.0080	0.0523	1	05/21/14 13:53	SEB	L199866
n-Butylbenzene	<0.0009	mg/Kg - dry	0.0009	0.0026	1	05/21/14 13:53	SEB	L199866
sec-Butyl benzene	<0.0004	mg/Kg - dry	0.0004	0.0026	1	05/21/14 13:53	SEB	L199866
tert-Butyl benzene	<0.0018	mg/Kg - dry	0.0018	0.0026	1	05/21/14 13:53	SEB	L199866
Carbon Disulfide	<0.0005	mg/Kg - dry	0.0005	0.0026	1	05/21/14 13:53	SEB	L199866
Carbon Tetrachloride	<0.0007	mg/Kg - dry	0.0007	0.0026	1	05/21/14 13:53	SEB	L199866
Chlorobenzene	<0.0010	mg/Kg - dry	0.0010	0.0026	1	05/21/14 13:53	SEB	L199866
Chlorodibromomethane	<0.0011	mg/Kg - dry	0.0011	0.0026	1	05/21/14 13:53	SEB	L199866
Chloroethane	<0.0005	mg/Kg - dry	0.0005	0.0026	1	05/21/14 13:53	SEB	L199866
2-Chloroethylvinyl Ether	<0.0026	mg/Kg - dry	0.0026	0.0026	1	05/21/14 13:53	SEB	L199866
Chloroform	<0.0005	mg/Kg - dry	0.0005	0.0026	1	05/21/14 13:53	SEB	L199866
Chloromethane	<0.0010	mg/Kg - dry	0.0010	0.0026	1	05/21/14 13:53	SEB	L199866

Qualifiers/Definitions				
*	Outside QC limit		B	Analyte detected in blank
DF	Dilution Factor		I	Recovery out of range
J	Estimated value		MQL	Method Quantitation Limit

03180

Ensafe  
Ms. Allison Harris  
5724 Summer Tree Drive  
Memphis, TN 38134

Project ID :  
Project : MLB Uptown  
Information : 714 N. Second St./Memphis, TN  
Project #0888815441,04

Report Date : 05/22/2014  
Received : 5/16/2014

Report Number : **14-136-0206**

**REPORT OF ANALYSIS**

Lab No : **90025**  
Sample ID : **MLBBSTW0408**

Matrix: **Solids**  
Sampled: **5/15/2014 8:55**

**Analytical Method:** 8260B

**Prep Method:** 5030A

**Prep Batch(es):** L199862

**Date/Time Prepped:** 5/21/2014 07:17:00

Test	Results	Units	MDL	MQL	DF	Date / Time Analyzed	By	Analytical Batch
2-Chlorotoluene	<0.0002	mg/Kg - dry	0.0002	0.0026	1	05/21/14 13:53	SEB	L199866
4-Chlorotoluene	<0.0011	mg/Kg - dry	0.0011	0.0026	1	05/21/14 13:53	SEB	L199866
1,2-Dibromo-3-Chloropropane	<0.0066	mg/Kg - dry	0.0066	0.0130	1	05/21/14 13:53	SEB	L199866
1,2-Dibromoethane	<0.0015	mg/Kg - dry	0.0015	0.0026	1	05/21/14 13:53	SEB	L199866
Dibromomethane	<0.0015	mg/Kg - dry	0.0015	0.0026	1	05/21/14 13:53	SEB	L199866
1,2-Dichlorobenzene	<0.0013	mg/Kg - dry	0.0013	0.0026	1	05/21/14 13:53	SEB	L199866
1,3-Dichlorobenzene	<0.0010	mg/Kg - dry	0.0010	0.0026	1	05/21/14 13:53	SEB	L199866
1,4-Dichlorobenzene	<0.0010	mg/Kg - dry	0.0010	0.0026	1	05/21/14 13:53	SEB	L199866
Dichlorodifluoromethane	<0.0007	mg/Kg - dry	0.0007	0.0026	1	05/21/14 13:53	SEB	L199866
1,1-Dichloroethane	<0.0004	mg/Kg - dry	0.0004	0.0026	1	05/21/14 13:53	SEB	L199866
1,2-Dichloroethane	<0.0013	mg/Kg - dry	0.0013	0.0026	1	05/21/14 13:53	SEB	L199866
1,1-Dichloroethene	<0.0006	mg/Kg - dry	0.0006	0.0026	1	05/21/14 13:53	SEB	L199866
cis-1,2-Dichloroethene	<0.0007	mg/Kg - dry	0.0007	0.0026	1	05/21/14 13:53	SEB	L199866
trans-1,2-Dichloroethene	<0.0005	mg/Kg - dry	0.0005	0.0026	1	05/21/14 13:53	SEB	L199866
1,2-Dichloroethene (Total)	<0.0005	mg/Kg - dry	0.0005	0.0026	1	05/21/14 13:53		L199866
1,2-Dichloropropane	<0.0015	mg/Kg - dry	0.0015	0.0026	1	05/21/14 13:53	SEB	L199866
1,3-Dichloropropane	<0.0015	mg/Kg - dry	0.0015	0.0026	1	05/21/14 13:53	SEB	L199866
2,2-Dichloropropane	<0.0009	mg/Kg - dry	0.0009	0.0026	1	05/21/14 13:53	SEB	L199866
1,1-Dichloropropene	<0.0012	mg/Kg - dry	0.0012	0.0026	1	05/21/14 13:53	SEB	L199866
cis-1,3-Dichloropropene	<0.0008	mg/Kg - dry	0.0008	0.0026	1	05/21/14 13:53	SEB	L199866
trans-1,3-Dichloropropene	<0.0012	mg/Kg - dry	0.0012	0.0026	1	05/21/14 13:53	SEB	L199866
Ethyl Acetate	<0.0021	mg/Kg - dry	0.0021	0.0523	1	05/21/14 13:53	SEB	L199866

Qualifiers/Definitions				
*	Outside QC limit		B	Analyte detected in blank
DF	Dilution Factor		I	Recovery out of range
J	Estimated value		MQL	Method Quantitation Limit

03180

Ensafe  
Ms. Allison Harris  
5724 Summer Tree Drive  
Memphis, TN 38134

Project ID :  
Project : MLB Uptown  
Information : 714 N. Second St./Memphis, TN  
Project #0888815441,04

Report Date : 05/22/2014  
Received : 5/16/2014

Report Number : **14-136-0206**

**REPORT OF ANALYSIS**

Lab No : **90025**  
Sample ID : **MLBBSTW0408**

Matrix: **Solids**  
Sampled: **5/15/2014 8:55**

**Analytical Method:** 8260B

**Prep Method:** 5030A

**Prep Batch(es):** L199862

**Date/Time Prepped:** 5/21/2014 07:17:00

Test	Results	Units	MDL	MLQ	DF	Date / Time Analyzed	By	Analytical Batch
Ethylbenzene	<b>0.0015 J</b>	mg/Kg - dry	0.0007	0.0026	1	05/21/14 13:53	SEB	L199866
Hexachlorobutadiene	<0.0010	mg/Kg - dry	0.0010	0.0026	1	05/21/14 13:53	SEB	L199866
2-Hexanone	<0.0026	mg/Kg - dry	0.0026	0.0130	1	05/21/14 13:53	SEB	L199866
Iodomethane	<0.0012	mg/Kg - dry	0.0012	0.0130	1	05/21/14 13:53	SEB	L199866
Isopropylbenzene	<0.0004	mg/Kg - dry	0.0004	0.0026	1	05/21/14 13:53	SEB	L199866
4-Isopropyl toluene	<0.0007	mg/Kg - dry	0.0007	0.0026	1	05/21/14 13:53	SEB	L199866
Methyl tert-butyl ether (MTBE)	<0.0005	mg/Kg - dry	0.0005	0.0026	1	05/21/14 13:53	SEB	L199866
4-Methyl-2-Pentanone	<0.0038	mg/Kg - dry	0.0038	0.0130	1	05/21/14 13:53	SEB	L199866
Methylene Chloride	<0.0020	mg/Kg - dry	0.0020	0.0130	1	05/21/14 13:53	SEB	L199866
Naphthalene	<0.0041	mg/Kg - dry	0.0041	0.0130	1	05/21/14 13:53	SEB	L199866
n-Propylbenzene	<0.0003	mg/Kg - dry	0.0003	0.0026	1	05/21/14 13:53	SEB	L199866
Styrene	<0.0004	mg/Kg - dry	0.0004	0.0026	1	05/21/14 13:53	SEB	L199866
1,1,1,2-Tetrachloroethane	<0.0006	mg/Kg - dry	0.0006	0.0026	1	05/21/14 13:53	SEB	L199866
1,1,2,2-Tetrachloroethane	<0.0007	mg/Kg - dry	0.0007	0.0026	1	05/21/14 13:53	SEB	L199866
Tetrachloroethene	<b>0.0025 J</b>	mg/Kg - dry	0.0020	0.0026	1	05/21/14 13:53	SEB	L199866
Toluene	<0.0033	mg/Kg - dry	0.0033	0.0130	1	05/21/14 13:53	SEB	L199866
1,2,3-Trichlorobenzene	<0.0014	mg/Kg - dry	0.0014	0.0026	1	05/21/14 13:53	SEB	L199866
1,2,4-Trichlorobenzene	<0.0019	mg/Kg - dry	0.0019	0.0026	1	05/21/14 13:53	SEB	L199866
1,1,1-Trichloroethane	<0.0011	mg/Kg - dry	0.0011	0.0026	1	05/21/14 13:53	SEB	L199866
1,1,2-Trichloroethane	<0.0022	mg/Kg - dry	0.0022	0.0026	1	05/21/14 13:53	SEB	L199866
Trichloroethene	<0.0017	mg/Kg - dry	0.0017	0.0026	1	05/21/14 13:53	SEB	L199866
Trichlorofluoromethane	<0.0010	mg/Kg - dry	0.0010	0.0026	1	05/21/14 13:53	SEB	L199866

Qualifiers/Definitions				
*	Outside QC limit	B	Analyte detected in blank	
DF	Dilution Factor	I	Recovery out of range	
J	Estimated value	MQL	Method Quantitation Limit	

03180

Ensafe  
Ms. Allison Harris  
5724 Summer Tree Drive  
Memphis, TN 38134

Project ID :  
Project : MLB Uptown  
Information : 714 N. Second St./Memphis, TN  
Project #0888815441,04

Report Date : 05/22/2014  
Received : 5/16/2014

Report Number : **14-136-0206**

**REPORT OF ANALYSIS**

Lab No : **90025**  
Sample ID : **MLBBSTW0408**

Matrix: **Solids**  
Sampled: **5/15/2014 8:55**

**Analytical Method:** 8260B

**Prep Method:** 5030A

**Prep Batch(es):** L199862

**Date/Time Prepped:** 5/21/2014 07:17:00

Test	Results	Units	MDL	MQL	DF	Date / Time Analyzed	By	Analytical Batch
1,2,3-Trichloropropane	<0.0013	mg/Kg - dry	0.0013	0.0026	1	05/21/14 13:53	SEB	L199866
1,2,4-Trimethylbenzene	<b>0.0016 J</b>	mg/Kg - dry	0.0009	0.0026	1	05/21/14 13:53	SEB	L199866
1,3,5-Trimethylbenzene	<b>0.0005 J</b>	mg/Kg - dry	0.0004	0.0026	1	05/21/14 13:53	SEB	L199866
Vinyl Acetate	<0.0034	mg/Kg - dry	0.0034	0.0523	1	05/21/14 13:53	SEB	L199866
Vinyl Chloride	<0.0008	mg/Kg - dry	0.0008	0.0026	1	05/21/14 13:53	SEB	L199866
o-Xylene	<0.0010	mg/Kg - dry	0.0010	0.0026	1	05/21/14 13:53	SEB	L199866
m,p-Xylene	<b>0.0019 J</b>	mg/Kg - dry	0.0010	0.0052	1	05/21/14 13:53	SEB	L199866
Xylene (Total)	<b>0.0019</b>	mg/Kg - dry	0.0010	0.0052	1	05/21/14 13:53		L199866
Surrogate: 4-Bromofluorobenzene	109		Limits: 60-130%		1	05/21/14 13:53	SEB	L199866
Surrogate: 1,2-Dichloroethane - d4	132		Limits: 60-132%		1	05/21/14 13:53	SEB	L199866
Surrogate: Toluene-d8	102		Limits: 70-122%		1	05/21/14 13:53	SEB	L199866

**Analytical Method:** 8270C SIM

**Prep Method:** 3546

**Prep Batch(es):** L199302

**Date/Time Prepped:** 5/16/2014 09:00:00

Test	Results	Units	MDL	MQL	DF	Date / Time Analyzed	By	Analytical Batch
Acenaphthene	<0.000113	mg/Kg - dry	0.000113	0.000863	1	05/16/14 23:09	BMP	L199485
Acenaphthylene	<0.000066	mg/Kg - dry	0.000066	0.000863	1	05/16/14 23:09	BMP	L199485
Anthracene	<b>0.00137</b>	mg/Kg - dry	0.000277	0.000863	1	05/16/14 23:09	BMP	L199485
Benzo(a)anthracene	<b>0.00406</b>	mg/Kg - dry	0.000746	0.000863	1	05/16/14 23:09	BMP	L199485
Benzo(a)pyrene	<b>0.00170</b>	mg/Kg - dry	0.000705	0.000863	1	05/16/14 23:09	BMP	L199485
Benzo(b)fluoranthene	<b>0.00298</b>	mg/Kg - dry	0.000357	0.000863	1	05/16/14 23:09	BMP	L199485
Benzo(g,h,i)perylene	<b>0.00130</b>	mg/Kg - dry	0.000273	0.000863	1	05/16/14 23:09	BMP	L199485

Qualifiers/Definitions				
*	Outside QC limit		B	Analyte detected in blank
DF	Dilution Factor		I	Recovery out of range
J	Estimated value		MQL	Method Quantitation Limit



03180

Ensafe  
Ms. Allison Harris  
5724 Summer Tree Drive  
Memphis, TN 38134

Project ID :  
Project : MLB Uptown  
Information : 714 N. Second St./Memphis, TN  
Project #0888815441,04

Report Date : 05/22/2014  
Received : 5/16/2014

Report Number : **14-136-0206**

**REPORT OF ANALYSIS**

Lab No : **90025**  
Sample ID : **MLBBSTW0408**

Matrix: **Solids**  
Sampled: **5/15/2014 8:55**

**Analytical Method:** 8270C SIM

**Prep Method:** 3546

**Prep Batch(es):** L199302

**Date/Time Prepped:** 5/16/2014 09:00:00

Test	Results	Units	MDL	MQL	DF	Date / Time Analyzed	By	Analytical Batch
Benzo(k)fluoranthene	<b>0.00136</b>	mg/Kg - dry	0.000251	0.000863	1	05/16/14 23:09	BMP	L199485
Chrysene	<b>0.00297</b>	mg/Kg - dry	0.000408	0.000863	1	05/16/14 23:09	BMP	L199485
Dibenz(a,h)anthracene	<0.000373	mg/Kg - dry	0.000373	0.000863	1	05/16/14 23:09	BMP	L199485
Fluoranthene	<b>0.00770</b>	mg/Kg - dry	0.000240	0.000863	1	05/16/14 23:09	BMP	L199485
Fluorene	<b>0.000445 J</b>	mg/Kg - dry	0.000243	0.000863	1	05/16/14 23:09	BMP	L199485
Indeno(1,2,3-cd)pyrene	<b>0.00113</b>	mg/Kg - dry	0.000287	0.000863	1	05/16/14 23:09	BMP	L199485
2-Methylnaphthalene	<0.000154	mg/Kg - dry	0.000154	0.000863	1	05/16/14 23:09	BMP	L199485
Naphthalene	<b>0.000441 J</b>	mg/Kg - dry	0.000244	0.000863	1	05/16/14 23:09	BMP	L199485
Phenanthrene	<b>0.00478</b>	mg/Kg - dry	0.000620	0.000863	1	05/16/14 23:09	BMP	L199485
Pyrene	<b>0.00562</b>	mg/Kg - dry	0.000250	0.000863	1	05/16/14 23:09	BMP	L199485
Surrogate: 2-Fluorobiphenyl	46.3		Limits: 33-115%		1	05/16/14 23:09	BMP	L199485
Surrogate: Nitrobenzene-d5	42.1		Limits: 29-110%		1	05/16/14 23:09	BMP	L199485
Surrogate: 4-Terphenyl-d14	60.7		Limits: 33-122%		1	05/16/14 23:09	BMP	L199485

**Qualifiers/  
Definitions**

*	Outside QC limit	B	Analyte detected in blank
DF	Dilution Factor	I	Recovery out of range
J	Estimated value	MQL	Method Quantitation Limit



03180

Ensafe  
Ms. Allison Harris  
5724 Summer Tree Drive  
Memphis, TN 38134

Project ID :  
Project : MLB Uptown  
Information : 714 N. Second St./Memphis, TN  
Project #0888815441,04

Report Date : 05/22/2014  
Received : 5/16/2014

Report Number : **14-136-0206**

### REPORT OF ANALYSIS

Lab No : **90026**  
Sample ID : **MLBBSTW0412**

Matrix: **Solids**  
Sampled: **5/15/2014 9:00**

Test	Results	Units	MDL	MQL	DF	Date / Time Analyzed	By	Analytical Method
% Moisture	<b>23.2</b>	%	0	0.100	1	05/19/14 09:00	ALP	2540G-2011
Total Arsenic	<b>22.0</b>	mg/Kg - dry	0.924	1.30	1	05/19/14 18:39	BKN	6010B
Total Barium	<b>83.7</b>	mg/Kg - dry	0.075	0.651	1	05/19/14 18:39	BKN	6010B
Total Cadmium	<b>0.470</b>	mg/Kg - dry	0.0197	0.130	1	05/19/14 18:39	BKN	6010B
Total Chromium	<b>10.8</b>	mg/Kg - dry	0.044	0.325	1	05/19/14 18:39	BKN	6010B
Total Lead	<b>7.27</b>	mg/Kg - dry	0.186	0.390	1	05/19/14 18:39	BKN	6010B
Total Mercury	<b>0.00949 J</b>	mg/Kg - dry	0.00342	0.0173	1	05/20/14 14:24	JRS	7471A
Total Selenium	<6.65	mg/Kg - dry	6.65	13.0	10	05/20/14 13:38	BKN	6010B
Total Silver	<0.0354	mg/Kg - dry	0.0354	0.326	1	05/19/14 18:39	BKN	6010B

Qualifiers/ Definitions	*	Outside QC limit	B	Analyte detected in blank
	DF	Dilution Factor	J	Estimated value
	MQL	Method Quantitation Limit		

03180

Ensafe  
Ms. Allison Harris  
5724 Summer Tree Drive  
Memphis, TN 38134

Project ID :  
Project : MLB Uptown  
Information : 714 N. Second St./Memphis, TN  
Project #0888815441,04

Report Date : 05/22/2014  
Received : 5/16/2014

Report Number : **14-136-0206**

**REPORT OF ANALYSIS**

Lab No : **90026**  
Sample ID : **MLBBSTW0412**

Matrix: **Solids**  
Sampled: **5/15/2014 9:00**

**Analytical Method:** 8260B

**Prep Method:** 5030A

**Prep Batch(es):** L199550

**Date/Time Prepped:** 5/19/2014 09:30:00

Test	Results	Units	MDL	MQL	DF	Date / Time Analyzed	By	Analytical Batch
Acetone	<0.0060	mg/Kg - dry	0.0060	0.0520	1	05/19/14 16:06	SEB	L199552
Acetonitrile	<0.0166	mg/Kg - dry	0.0166	0.130	1	05/19/14 16:06	SEB	L199552
Acrolein	<0.0131	mg/Kg - dry	0.0131	0.0520	1	05/19/14 16:06	SEB	L199552
Acrylonitrile	<0.0105	mg/Kg - dry	0.0105	0.0520	1	05/19/14 16:06	SEB	L199552
Benzene	<0.0011	mg/Kg - dry	0.0011	0.0026	1	05/19/14 16:06	SEB	L199552
Bromobenzene	<0.0012	mg/Kg - dry	0.0012	0.0026	1	05/19/14 16:06	SEB	L199552
Bromochloromethane	<0.0010	mg/Kg - dry	0.0010	0.0026	1	05/19/14 16:06	SEB	L199552
Bromodichloromethane	<0.0005	mg/Kg - dry	0.0005	0.0026	1	05/19/14 16:06	SEB	L199552
Bromoform	<0.0008	mg/Kg - dry	0.0008	0.0026	1	05/19/14 16:06	SEB	L199552
Bromomethane	<0.0015	mg/Kg - dry	0.0015	0.0026	1	05/19/14 16:06	SEB	L199552
Methyl Ethyl Ketone (MEK)	<0.0080	mg/Kg - dry	0.0080	0.0520	1	05/19/14 16:06	SEB	L199552
n-Butylbenzene	<0.0009	mg/Kg - dry	0.0009	0.0026	1	05/19/14 16:06	SEB	L199552
sec-Butyl benzene	<0.0004	mg/Kg - dry	0.0004	0.0026	1	05/19/14 16:06	SEB	L199552
tert-Butyl benzene	<0.0018	mg/Kg - dry	0.0018	0.0026	1	05/19/14 16:06	SEB	L199552
Carbon Disulfide	<0.0005	mg/Kg - dry	0.0005	0.0026	1	05/19/14 16:06	SEB	L199552
Carbon Tetrachloride	<0.0007	mg/Kg - dry	0.0007	0.0026	1	05/19/14 16:06	SEB	L199552
Chlorobenzene	<0.0010	mg/Kg - dry	0.0010	0.0026	1	05/19/14 16:06	SEB	L199552
Chlorodibromomethane	<0.0011	mg/Kg - dry	0.0011	0.0026	1	05/19/14 16:06	SEB	L199552
Chloroethane	<0.0005	mg/Kg - dry	0.0005	0.0026	1	05/19/14 16:06	SEB	L199552
2-Chloroethylvinyl Ether	<0.0026	mg/Kg - dry	0.0026	0.0026	1	05/19/14 16:06	SEB	L199552
Chloroform	<0.0005	mg/Kg - dry	0.0005	0.0026	1	05/19/14 16:06	SEB	L199552
Chloromethane	<0.0010	mg/Kg - dry	0.0010	0.0026	1	05/19/14 16:06	SEB	L199552

Qualifiers/Definitions				
*	Outside QC limit		B	Analyte detected in blank
DF	Dilution Factor		I	Recovery out of range
J	Estimated value		MQL	Method Quantitation Limit

03180

Ensafe  
 Ms. Allison Harris  
 5724 Summer Tree Drive  
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Project ID :  
 Project : MLB Uptown  
 Information : 714 N. Second St./Memphis, TN  
 Project #0888815441,04

Report Date : 05/22/2014  
 Received : 5/16/2014

Report Number : **14-136-0206**

**REPORT OF ANALYSIS**

Lab No : **90026**  
 Sample ID : **MLBBSTW0412**

Matrix: **Solids**  
 Sampled: **5/15/2014 9:00**

**Analytical Method:** 8260B

**Prep Method:** 5030A

**Prep Batch(es):** L199550

**Date/Time Prepped:** 5/19/2014 09:30:00

Test	Results	Units	MDL	MQL	DF	Date / Time Analyzed	By	Analytical Batch
2-Chlorotoluene	<0.0002	mg/Kg - dry	0.0002	0.0026	1	05/19/14 16:06	SEB	L199552
4-Chlorotoluene	<0.0011	mg/Kg - dry	0.0011	0.0026	1	05/19/14 16:06	SEB	L199552
1,2-Dibromo-3-Chloropropane	<0.0066	mg/Kg - dry	0.0066	0.0130	1	05/19/14 16:06	SEB	L199552
1,2-Dibromoethane	<0.0015	mg/Kg - dry	0.0015	0.0026	1	05/19/14 16:06	SEB	L199552
Dibromomethane	<0.0015	mg/Kg - dry	0.0015	0.0026	1	05/19/14 16:06	SEB	L199552
1,2-Dichlorobenzene	<0.0013	mg/Kg - dry	0.0013	0.0026	1	05/19/14 16:06	SEB	L199552
1,3-Dichlorobenzene	<0.0010	mg/Kg - dry	0.0010	0.0026	1	05/19/14 16:06	SEB	L199552
1,4-Dichlorobenzene	<0.0010	mg/Kg - dry	0.0010	0.0026	1	05/19/14 16:06	SEB	L199552
Dichlorodifluoromethane	<0.0007	mg/Kg - dry	0.0007	0.0026	1	05/19/14 16:06	SEB	L199552
1,1-Dichloroethane	<0.0004	mg/Kg - dry	0.0004	0.0026	1	05/19/14 16:06	SEB	L199552
1,2-Dichloroethane	<0.0013	mg/Kg - dry	0.0013	0.0026	1	05/19/14 16:06	SEB	L199552
1,1-Dichloroethene	<0.0006	mg/Kg - dry	0.0006	0.0026	1	05/19/14 16:06	SEB	L199552
cis-1,2-Dichloroethene	<b>0.0017 J</b>	mg/Kg - dry	0.0007	0.0026	1	05/19/14 16:06	SEB	L199552
trans-1,2-Dichloroethene	<0.0005	mg/Kg - dry	0.0005	0.0026	1	05/19/14 16:06	SEB	L199552
1,2-Dichloroethene (Total)	<b>0.0017</b>	mg/Kg - dry	0.0005	0.0026	1	05/19/14 16:06		L199552
1,2-Dichloropropane	<0.0014	mg/Kg - dry	0.0014	0.0026	1	05/19/14 16:06	SEB	L199552
1,3-Dichloropropane	<0.0015	mg/Kg - dry	0.0015	0.0026	1	05/19/14 16:06	SEB	L199552
2,2-Dichloropropane	<0.0009	mg/Kg - dry	0.0009	0.0026	1	05/19/14 16:06	SEB	L199552
1,1-Dichloropropene	<0.0012	mg/Kg - dry	0.0012	0.0026	1	05/19/14 16:06	SEB	L199552
cis-1,3-Dichloropropene	<0.0007	mg/Kg - dry	0.0007	0.0026	1	05/19/14 16:06	SEB	L199552
trans-1,3-Dichloropropene	<0.0012	mg/Kg - dry	0.0012	0.0026	1	05/19/14 16:06	SEB	L199552
Ethyl Acetate	<0.0021	mg/Kg - dry	0.0021	0.0520	1	05/19/14 16:06	SEB	L199552

Qualifiers/Definitions				
*	Outside QC limit		B	Analyte detected in blank
DF	Dilution Factor		I	Recovery out of range
J	Estimated value		MQL	Method Quantitation Limit

03180

Ensafe  
Ms. Allison Harris  
5724 Summer Tree Drive  
Memphis, TN 38134

Project ID :  
Project : MLB Uptown  
Information : 714 N. Second St./Memphis, TN  
Project #0888815441,04

Report Date : 05/22/2014  
Received : 5/16/2014

Report Number : **14-136-0206**

**REPORT OF ANALYSIS**

Lab No : **90026**  
Sample ID : **MLBBSTW0412**

Matrix: **Solids**  
Sampled: **5/15/2014 9:00**

**Analytical Method:** 8260B

**Prep Method:** 5030A

**Prep Batch(es):** L199550

**Date/Time Prepped:** 5/19/2014 09:30:00

Test	Results	Units	MDL	MQL	DF	Date / Time Analyzed	By	Analytical Batch
Ethylbenzene	<0.0007	mg/Kg - dry	0.0007	0.0026	1	05/19/14 16:06	SEB	L199552
Hexachlorobutadiene	<0.0010	mg/Kg - dry	0.0010	0.0026	1	05/19/14 16:06	SEB	L199552
2-Hexanone	<0.0025	mg/Kg - dry	0.0025	0.0130	1	05/19/14 16:06	SEB	L199552
Iodomethane	<0.0012	mg/Kg - dry	0.0012	0.0130	1	05/19/14 16:06	SEB	L199552
Isopropylbenzene	<0.0004	mg/Kg - dry	0.0004	0.0026	1	05/19/14 16:06	SEB	L199552
4-Isopropyl toluene	<0.0006	mg/Kg - dry	0.0006	0.0026	1	05/19/14 16:06	SEB	L199552
Methyl tert-butyl ether (MTBE)	<0.0005	mg/Kg - dry	0.0005	0.0026	1	05/19/14 16:06	SEB	L199552
4-Methyl-2-Pentanone	<0.0038	mg/Kg - dry	0.0038	0.0130	1	05/19/14 16:06	SEB	L199552
Methylene Chloride	<0.0020	mg/Kg - dry	0.0020	0.0130	1	05/19/14 16:06	SEB	L199552
Naphthalene	<0.0041	mg/Kg - dry	0.0041	0.0130	1	05/19/14 16:06	SEB	L199552
n-Propylbenzene	<0.0003	mg/Kg - dry	0.0003	0.0026	1	05/19/14 16:06	SEB	L199552
Styrene	<0.0004	mg/Kg - dry	0.0004	0.0026	1	05/19/14 16:06	SEB	L199552
1,1,1,2-Tetrachloroethane	<0.0006	mg/Kg - dry	0.0006	0.0026	1	05/19/14 16:06	SEB	L199552
1,1,2,2-Tetrachloroethane	<0.0007	mg/Kg - dry	0.0007	0.0026	1	05/19/14 16:06	SEB	L199552
Tetrachloroethene	<b>0.0670</b>	mg/Kg - dry	0.0020	0.0026	1	05/19/14 16:06	SEB	L199552
Toluene	<0.0033	mg/Kg - dry	0.0033	0.0130	1	05/19/14 16:06	SEB	L199552
1,2,3-Trichlorobenzene	<0.0014	mg/Kg - dry	0.0014	0.0026	1	05/19/14 16:06	SEB	L199552
1,2,4-Trichlorobenzene	<0.0019	mg/Kg - dry	0.0019	0.0026	1	05/19/14 16:06	SEB	L199552
1,1,1-Trichloroethane	<0.0011	mg/Kg - dry	0.0011	0.0026	1	05/19/14 16:06	SEB	L199552
1,1,2-Trichloroethane	<0.0022	mg/Kg - dry	0.0022	0.0026	1	05/19/14 16:06	SEB	L199552
Trichloroethene	<b>0.0042</b>	mg/Kg - dry	0.0017	0.0026	1	05/19/14 16:06	SEB	L199552
Trichlorofluoromethane	<0.0010	mg/Kg - dry	0.0010	0.0026	1	05/19/14 16:06	SEB	L199552

Qualifiers/Definitions				
*	Outside QC limit	B	Analyte detected in blank	
DF	Dilution Factor	I	Recovery out of range	
J	Estimated value	MQL	Method Quantitation Limit	

03180

Ensafe  
Ms. Allison Harris  
5724 Summer Tree Drive  
Memphis, TN 38134

Project ID :  
Project : MLB Uptown  
Information : 714 N. Second St./Memphis, TN  
Project #0888815441,04

Report Date : 05/22/2014  
Received : 5/16/2014

Report Number : **14-136-0206**

**REPORT OF ANALYSIS**

Lab No : **90026**  
Sample ID : **MLBBSTW0412**

Matrix: **Solids**  
Sampled: **5/15/2014 9:00**

**Analytical Method:** 8260B

**Prep Method:** 5030A

**Prep Batch(es):** L199550

**Date/Time Prepped:** 5/19/2014 09:30:00

Test	Results	Units	MDL	MQL	DF	Date / Time Analyzed	By	Analytical Batch
1,2,3-Trichloropropane	<0.0013	mg/Kg - dry	0.0013	0.0026	1	05/19/14 16:06	SEB	L199552
1,2,4-Trimethylbenzene	<b>0.0016 J</b>	mg/Kg - dry	0.0008	0.0026	1	05/19/14 16:06	SEB	L199552
1,3,5-Trimethylbenzene	<b>0.0004 J</b>	mg/Kg - dry	0.0004	0.0026	1	05/19/14 16:06	SEB	L199552
Vinyl Acetate	<0.0034	mg/Kg - dry	0.0034	0.0520	1	05/19/14 16:06	SEB	L199552
Vinyl Chloride	<0.0008	mg/Kg - dry	0.0008	0.0026	1	05/19/14 16:06	SEB	L199552
o-Xylene	<b>0.0014 J</b>	mg/Kg - dry	0.0010	0.0026	1	05/19/14 16:06	SEB	L199552
m,p-Xylene	<b>0.0028 J</b>	mg/Kg - dry	0.0009	0.0052	1	05/19/14 16:06	SEB	L199552
Xylene (Total)	<b>0.0043</b>	mg/Kg - dry	0.0009	0.0052	1	05/19/14 16:06		L199552
Surrogate: 4-Bromofluorobenzene	96.7		Limits: 60-130%		1	05/19/14 16:06	SEB	L199552
Surrogate: 1,2-Dichloroethane - d4	121		Limits: 60-132%		1	05/19/14 16:06	SEB	L199552
Surrogate: Toluene-d8	93.3		Limits: 70-122%		1	05/19/14 16:06	SEB	L199552

**Analytical Method:** 8270C SIM

**Prep Method:** 3546

**Prep Batch(es):** L199302

**Date/Time Prepped:** 5/16/2014 09:00:00

Test	Results	Units	MDL	MQL	DF	Date / Time Analyzed	By	Analytical Batch
Acenaphthene	<0.000113	mg/Kg - dry	0.000113	0.000859	1	05/16/14 23:39	BMP	L199485
Acenaphthylene	<0.000066	mg/Kg - dry	0.000066	0.000859	1	05/16/14 23:39	BMP	L199485
Anthracene	<0.000276	mg/Kg - dry	0.000276	0.000859	1	05/16/14 23:39	BMP	L199485
Benzo(a)anthracene	<0.000742	mg/Kg - dry	0.000742	0.000859	1	05/16/14 23:39	BMP	L199485
Benzo(a)pyrene	<0.000701	mg/Kg - dry	0.000701	0.000859	1	05/16/14 23:39	BMP	L199485
Benzo(b)fluoranthene	<0.000355	mg/Kg - dry	0.000355	0.000859	1	05/16/14 23:39	BMP	L199485
Benzo(g,h,i)perylene	<0.000272	mg/Kg - dry	0.000272	0.000859	1	05/16/14 23:39	BMP	L199485

Qualifiers/Definitions				
*	Outside QC limit		B	Analyte detected in blank
DF	Dilution Factor		I	Recovery out of range
J	Estimated value		MQL	Method Quantitation Limit

03180

Ensafe  
Ms. Allison Harris  
5724 Summer Tree Drive  
Memphis, TN 38134

Project ID :  
Project : MLB Uptown  
Information : 714 N. Second St./Memphis, TN  
Project #0888815441,04

Report Date : 05/22/2014  
Received : 5/16/2014

Report Number : **14-136-0206**

**REPORT OF ANALYSIS**

Lab No : **90026**  
Sample ID : **MLBBSTW0412**

Matrix: **Solids**  
Sampled: **5/15/2014 9:00**

**Analytical Method:** 8270C SIM

**Prep Method:** 3546

**Prep Batch(es):** L199302

**Date/Time Prepped:** 5/16/2014 09:00:00

Test	Results	Units	MDL	MQL	DF	Date / Time Analyzed	By	Analytical Batch
Benzo(k)fluoranthene	<0.000250	mg/Kg - dry	0.000250	0.000859	1	05/16/14 23:39	BMP	L199485
Chrysene	<0.000406	mg/Kg - dry	0.000406	0.000859	1	05/16/14 23:39	BMP	L199485
Dibenz(a,h)anthracene	<0.000371	mg/Kg - dry	0.000371	0.000859	1	05/16/14 23:39	BMP	L199485
Fluoranthene	<0.000239	mg/Kg - dry	0.000239	0.000859	1	05/16/14 23:39	BMP	L199485
Fluorene	<0.000242	mg/Kg - dry	0.000242	0.000859	1	05/16/14 23:39	BMP	L199485
Indeno(1,2,3-cd)pyrene	<0.000286	mg/Kg - dry	0.000286	0.000859	1	05/16/14 23:39	BMP	L199485
2-Methylnaphthalene	<0.000153	mg/Kg - dry	0.000153	0.000859	1	05/16/14 23:39	BMP	L199485
Naphthalene	<b>0.000660 J</b>	mg/Kg - dry	0.000243	0.000859	1	05/16/14 23:39	BMP	L199485
Phenanthrene	<0.000617	mg/Kg - dry	0.000617	0.000859	1	05/16/14 23:39	BMP	L199485
Pyrene	<0.000248	mg/Kg - dry	0.000248	0.000859	1	05/16/14 23:39	BMP	L199485
Surrogate: 2-Fluorobiphenyl	46.4		Limits: 33-115%		1	05/16/14 23:39	BMP	L199485
Surrogate: Nitrobenzene-d5	48.5		Limits: 29-110%		1	05/16/14 23:39	BMP	L199485
Surrogate: 4-Terphenyl-d14	57.2		Limits: 33-122%		1	05/16/14 23:39	BMP	L199485

**Qualifiers/  
Definitions**

*	Outside QC limit	B	Analyte detected in blank
DF	Dilution Factor	I	Recovery out of range
J	Estimated value	MQL	Method Quantitation Limit





03180

Ensafe  
Ms. Allison Harris  
5724 Summer Tree Drive  
Memphis, TN 38134

Project ID :  
Project : MLB Uptown  
Information : 714 N. Second St./Memphis, TN  
Project #0888815441,04

Report Date : 05/22/2014  
Received : 5/16/2014

Report Number : **14-136-0206**

### REPORT OF ANALYSIS

Lab No : **90027**  
Sample ID : **MLBBSTW0504**

Matrix: **Solids**  
Sampled: **5/15/2014 9:40**

Test	Results	Units	MDL	MQL	DF	Date / Time Analyzed	By	Analytical Method
% Moisture	<b>21.0</b>	%	0	0.100	1	05/19/14 09:00	ALP	2540G-2011
Total Arsenic	<b>10.6</b>	mg/Kg - dry	0.898	1.27	1	05/19/14 18:44	BKN	6010B
Total Barium	<b>110</b>	mg/Kg - dry	0.073	0.632	1	05/19/14 18:44	BKN	6010B
Total Cadmium	<b>0.480</b>	mg/Kg - dry	0.0192	0.127	1	05/19/14 18:44	BKN	6010B
Total Chromium	<b>13.9</b>	mg/Kg - dry	0.043	0.316	1	05/19/14 18:44	BKN	6010B
Total Lead	<b>12.0</b>	mg/Kg - dry	0.181	0.379	1	05/19/14 18:44	BKN	6010B
Total Mercury	<b>0.0220</b>	mg/Kg - dry	0.00332	0.0168	1	05/20/14 14:26	JRS	7471A
Total Selenium	<0.645	mg/Kg - dry	0.645	1.27	1	05/19/14 18:44	BKN	6010B
Total Silver	<0.0344	mg/Kg - dry	0.0344	0.316	1	05/19/14 18:44	BKN	6010B

Qualifiers/ Definitions	*	Outside QC limit	B	Analyte detected in blank
	DF	Dilution Factor	J	Estimated value
	MQL	Method Quantitation Limit		

03180

Ensafe  
Ms. Allison Harris  
5724 Summer Tree Drive  
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Project ID :  
Project : MLB Uptown  
Information : 714 N. Second St./Memphis, TN  
Project #0888815441,04

Report Date : 05/22/2014  
Received : 5/16/2014

Report Number : **14-136-0206**

**REPORT OF ANALYSIS**

Lab No : **90027**  
Sample ID : **MLBBSTW0504**

Matrix: **Solids**  
Sampled: **5/15/2014 9:40**

**Analytical Method:** 8260B

**Prep Method:** 5030A

**Prep Batch(es):** L199550

**Date/Time Prepped:** 5/19/2014 09:30:00

Test	Results	Units	MDL	MQL	DF	Date / Time Analyzed	By	Analytical Batch
Acetone	<0.0058	mg/Kg - dry	0.0058	0.0506	1	05/19/14 16:48	SEB	L199552
Acetonitrile	<0.0162	mg/Kg - dry	0.0162	0.127	1	05/19/14 16:48	SEB	L199552
Acrolein	<0.0127	mg/Kg - dry	0.0127	0.0506	1	05/19/14 16:48	SEB	L199552
Acrylonitrile	<0.0102	mg/Kg - dry	0.0102	0.0506	1	05/19/14 16:48	SEB	L199552
Benzene	<0.0011	mg/Kg - dry	0.0011	0.0025	1	05/19/14 16:48	SEB	L199552
Bromobenzene	<0.0012	mg/Kg - dry	0.0012	0.0025	1	05/19/14 16:48	SEB	L199552
Bromochloromethane	<0.0009	mg/Kg - dry	0.0009	0.0025	1	05/19/14 16:48	SEB	L199552
Bromodichloromethane	<0.0005	mg/Kg - dry	0.0005	0.0025	1	05/19/14 16:48	SEB	L199552
Bromoform	<0.0008	mg/Kg - dry	0.0008	0.0025	1	05/19/14 16:48	SEB	L199552
Bromomethane	<0.0015	mg/Kg - dry	0.0015	0.0025	1	05/19/14 16:48	SEB	L199552
Methyl Ethyl Ketone (MEK)	<0.0078	mg/Kg - dry	0.0078	0.0506	1	05/19/14 16:48	SEB	L199552
n-Butylbenzene	<0.0009	mg/Kg - dry	0.0009	0.0025	1	05/19/14 16:48	SEB	L199552
sec-Butyl benzene	<0.0004	mg/Kg - dry	0.0004	0.0025	1	05/19/14 16:48	SEB	L199552
tert-Butyl benzene	<0.0018	mg/Kg - dry	0.0018	0.0025	1	05/19/14 16:48	SEB	L199552
Carbon Disulfide	<0.0005	mg/Kg - dry	0.0005	0.0025	1	05/19/14 16:48	SEB	L199552
Carbon Tetrachloride	<0.0007	mg/Kg - dry	0.0007	0.0025	1	05/19/14 16:48	SEB	L199552
Chlorobenzene	<0.0010	mg/Kg - dry	0.0010	0.0025	1	05/19/14 16:48	SEB	L199552
Chlorodibromomethane	<0.0011	mg/Kg - dry	0.0011	0.0025	1	05/19/14 16:48	SEB	L199552
Chloroethane	<0.0004	mg/Kg - dry	0.0004	0.0025	1	05/19/14 16:48	SEB	L199552
2-Chloroethylvinyl Ether	<0.0025	mg/Kg - dry	0.0025	0.0025	1	05/19/14 16:48	SEB	L199552
Chloroform	<0.0005	mg/Kg - dry	0.0005	0.0025	1	05/19/14 16:48	SEB	L199552
Chloromethane	<0.0010	mg/Kg - dry	0.0010	0.0025	1	05/19/14 16:48	SEB	L199552

Qualifiers/Definitions				
*	Outside QC limit		B	Analyte detected in blank
DF	Dilution Factor		I	Recovery out of range
J	Estimated value		MQL	Method Quantitation Limit

03180

Ensafe  
Ms. Allison Harris  
5724 Summer Tree Drive  
Memphis, TN 38134

Project ID :  
Project : MLB Uptown  
Information : 714 N. Second St./Memphis, TN  
Project #0888815441,04

Report Date : 05/22/2014  
Received : 5/16/2014

Report Number : **14-136-0206**

**REPORT OF ANALYSIS**

Lab No : **90027**

Matrix: **Solids**

Sample ID : **MLBBSTW0504**

Sampled: **5/15/2014 9:40**

**Analytical Method:** 8260B

**Prep Method:** 5030A

**Prep Batch(es):** L199550

**Date/Time Prepped:** 5/19/2014 09:30:00

Test	Results	Units	MDL	MQL	DF	Date / Time Analyzed	By	Analytical Batch
2-Chlorotoluene	<0.0002	mg/Kg - dry	0.0002	0.0025	1	05/19/14 16:48	SEB	L199552
4-Chlorotoluene	<0.0010	mg/Kg - dry	0.0010	0.0025	1	05/19/14 16:48	SEB	L199552
1,2-Dibromo-3-Chloropropane	<0.0064	mg/Kg - dry	0.0064	0.0126	1	05/19/14 16:48	SEB	L199552
1,2-Dibromoethane	<0.0014	mg/Kg - dry	0.0014	0.0025	1	05/19/14 16:48	SEB	L199552
Dibromomethane	<0.0014	mg/Kg - dry	0.0014	0.0025	1	05/19/14 16:48	SEB	L199552
1,2-Dichlorobenzene	<0.0012	mg/Kg - dry	0.0012	0.0025	1	05/19/14 16:48	SEB	L199552
1,3-Dichlorobenzene	<0.0010	mg/Kg - dry	0.0010	0.0025	1	05/19/14 16:48	SEB	L199552
1,4-Dichlorobenzene	<0.0010	mg/Kg - dry	0.0010	0.0025	1	05/19/14 16:48	SEB	L199552
Dichlorodifluoromethane	<0.0007	mg/Kg - dry	0.0007	0.0025	1	05/19/14 16:48	SEB	L199552
1,1-Dichloroethane	<0.0004	mg/Kg - dry	0.0004	0.0025	1	05/19/14 16:48	SEB	L199552
1,2-Dichloroethane	<0.0013	mg/Kg - dry	0.0013	0.0025	1	05/19/14 16:48	SEB	L199552
1,1-Dichloroethene	<0.0006	mg/Kg - dry	0.0006	0.0025	1	05/19/14 16:48	SEB	L199552
cis-1,2-Dichloroethene	<b>0.0012 J</b>	mg/Kg - dry	0.0007	0.0025	1	05/19/14 16:48	SEB	L199552
trans-1,2-Dichloroethene	<0.0005	mg/Kg - dry	0.0005	0.0025	1	05/19/14 16:48	SEB	L199552
1,2-Dichloroethene (Total)	<b>0.0012</b>	mg/Kg - dry	0.0005	0.0025	1	05/19/14 16:48		L199552
1,2-Dichloropropane	<0.0014	mg/Kg - dry	0.0014	0.0025	1	05/19/14 16:48	SEB	L199552
1,3-Dichloropropane	<0.0014	mg/Kg - dry	0.0014	0.0025	1	05/19/14 16:48	SEB	L199552
2,2-Dichloropropane	<0.0009	mg/Kg - dry	0.0009	0.0025	1	05/19/14 16:48	SEB	L199552
1,1-Dichloropropene	<0.0012	mg/Kg - dry	0.0012	0.0025	1	05/19/14 16:48	SEB	L199552
cis-1,3-Dichloropropene	<0.0007	mg/Kg - dry	0.0007	0.0025	1	05/19/14 16:48	SEB	L199552
trans-1,3-Dichloropropene	<0.0012	mg/Kg - dry	0.0012	0.0025	1	05/19/14 16:48	SEB	L199552
Ethyl Acetate	<0.0020	mg/Kg - dry	0.0020	0.0506	1	05/19/14 16:48	SEB	L199552

Qualifiers/Definitions				
*	Outside QC limit		B	Analyte detected in blank
DF	Dilution Factor		I	Recovery out of range
J	Estimated value		MQL	Method Quantitation Limit

03180

Ensafe  
Ms. Allison Harris  
5724 Summer Tree Drive  
Memphis, TN 38134

Project ID :  
Project : MLB Uptown  
Information : 714 N. Second St./Memphis, TN  
Project #0888815441,04

Report Date : 05/22/2014  
Received : 5/16/2014

Report Number : **14-136-0206**

**REPORT OF ANALYSIS**

Lab No : **90027**  
Sample ID : **MLBBSTW0504**

Matrix: **Solids**  
Sampled: **5/15/2014 9:40**

**Analytical Method:** 8260B

**Prep Method:** 5030A

**Prep Batch(es):** L199550

**Date/Time Prepped:** 5/19/2014 09:30:00

Test	Results	Units	MDL	MQL	DF	Date / Time Analyzed	By	Analytical Batch
Ethylbenzene	<0.0007	mg/Kg - dry	0.0007	0.0025	1	05/19/14 16:48	SEB	L199552
Hexachlorobutadiene	<0.0010	mg/Kg - dry	0.0010	0.0025	1	05/19/14 16:48	SEB	L199552
2-Hexanone	<0.0025	mg/Kg - dry	0.0025	0.0126	1	05/19/14 16:48	SEB	L199552
Iodomethane	<0.0012	mg/Kg - dry	0.0012	0.0126	1	05/19/14 16:48	SEB	L199552
Isopropylbenzene	<0.0004	mg/Kg - dry	0.0004	0.0025	1	05/19/14 16:48	SEB	L199552
4-Isopropyl toluene	<0.0006	mg/Kg - dry	0.0006	0.0025	1	05/19/14 16:48	SEB	L199552
Methyl tert-butyl ether (MTBE)	<0.0005	mg/Kg - dry	0.0005	0.0025	1	05/19/14 16:48	SEB	L199552
4-Methyl-2-Pentanone	<0.0037	mg/Kg - dry	0.0037	0.0126	1	05/19/14 16:48	SEB	L199552
Methylene Chloride	<0.0020	mg/Kg - dry	0.0020	0.0126	1	05/19/14 16:48	SEB	L199552
Naphthalene	<0.0040	mg/Kg - dry	0.0040	0.0126	1	05/19/14 16:48	SEB	L199552
n-Propylbenzene	<0.0003	mg/Kg - dry	0.0003	0.0025	1	05/19/14 16:48	SEB	L199552
Styrene	<0.0004	mg/Kg - dry	0.0004	0.0025	1	05/19/14 16:48	SEB	L199552
1,1,1,2-Tetrachloroethane	<0.0006	mg/Kg - dry	0.0006	0.0025	1	05/19/14 16:48	SEB	L199552
1,1,2,2-Tetrachloroethane	<0.0007	mg/Kg - dry	0.0007	0.0025	1	05/19/14 16:48	SEB	L199552
Tetrachloroethene	<b>0.0056</b>	mg/Kg - dry	0.0020	0.0025	1	05/19/14 16:48	SEB	L199552
Toluene	<0.0032	mg/Kg - dry	0.0032	0.0126	1	05/19/14 16:48	SEB	L199552
1,2,3-Trichlorobenzene	<0.0013	mg/Kg - dry	0.0013	0.0025	1	05/19/14 16:48	SEB	L199552
1,2,4-Trichlorobenzene	<0.0018	mg/Kg - dry	0.0018	0.0025	1	05/19/14 16:48	SEB	L199552
1,1,1-Trichloroethane	<0.0010	mg/Kg - dry	0.0010	0.0025	1	05/19/14 16:48	SEB	L199552
1,1,2-Trichloroethane	<0.0021	mg/Kg - dry	0.0021	0.0025	1	05/19/14 16:48	SEB	L199552
Trichloroethene	<b>0.0042</b>	mg/Kg - dry	0.0017	0.0025	1	05/19/14 16:48	SEB	L199552
Trichlorofluoromethane	<0.0010	mg/Kg - dry	0.0010	0.0025	1	05/19/14 16:48	SEB	L199552

Qualifiers/Definitions				
*	Outside QC limit	B	Analyte detected in blank	
DF	Dilution Factor	I	Recovery out of range	
J	Estimated value	MQL	Method Quantitation Limit	

03180

Ensafe  
Ms. Allison Harris  
5724 Summer Tree Drive  
Memphis, TN 38134

Project ID :  
Project : MLB Uptown  
Information : 714 N. Second St./Memphis, TN  
Project #0888815441,04

Report Date : 05/22/2014  
Received : 5/16/2014

Report Number : **14-136-0206**

**REPORT OF ANALYSIS**

Lab No : **90027**

Matrix: **Solids**

Sample ID : **MLBBSTW0504**

Sampled: **5/15/2014 9:40**

**Analytical Method:** 8260B

**Prep Method:** 5030A

**Prep Batch(es):** L199550

**Date/Time Prepped:** 5/19/2014 09:30:00

Test	Results	Units	MDL	MQL	DF	Date / Time Analyzed	By	Analytical Batch
1,2,3-Trichloropropane	<0.0013	mg/Kg - dry	0.0013	0.0025	1	05/19/14 16:48	SEB	L199552
1,2,4-Trimethylbenzene	<0.0008	mg/Kg - dry	0.0008	0.0025	1	05/19/14 16:48	SEB	L199552
1,3,5-Trimethylbenzene	<0.0004	mg/Kg - dry	0.0004	0.0025	1	05/19/14 16:48	SEB	L199552
Vinyl Acetate	<0.0033	mg/Kg - dry	0.0033	0.0506	1	05/19/14 16:48	SEB	L199552
Vinyl Chloride	<0.0008	mg/Kg - dry	0.0008	0.0025	1	05/19/14 16:48	SEB	L199552
o-Xylene	<0.0010	mg/Kg - dry	0.0010	0.0025	1	05/19/14 16:48	SEB	L199552
m,p-Xylene	<b>0.0013 J</b>	mg/Kg - dry	0.0009	0.0050	1	05/19/14 16:48	SEB	L199552
Xylene (Total)	<b>0.0013</b>	mg/Kg - dry	0.0009	0.0050	1	05/19/14 16:48		L199552
Surrogate: 4-Bromofluorobenzene	97.5		Limits: 60-130%		1	05/19/14 16:48	SEB	L199552
Surrogate: 1,2-Dichloroethane - d4	131		Limits: 60-132%		1	05/19/14 16:48	SEB	L199552
Surrogate: Toluene-d8	100		Limits: 70-122%		1	05/19/14 16:48	SEB	L199552

**Analytical Method:** 8270C SIM

**Prep Method:** 3546

**Prep Batch(es):** L199302

**Date/Time Prepped:** 5/16/2014 09:00:00

Test	Results	Units	MDL	MQL	DF	Date / Time Analyzed	By	Analytical Batch
Acenaphthene	<0.000110	mg/Kg - dry	0.000110	0.000835	1	05/17/14 00:10	BMP	L199485
Acenaphthylene	<0.000064	mg/Kg - dry	0.000064	0.000835	1	05/17/14 00:10	BMP	L199485
Anthracene	<0.000268	mg/Kg - dry	0.000268	0.000835	1	05/17/14 00:10	BMP	L199485
Benzo(a)anthracene	<0.000721	mg/Kg - dry	0.000721	0.000835	1	05/17/14 00:10	BMP	L199485
Benzo(a)pyrene	<0.000682	mg/Kg - dry	0.000682	0.000835	1	05/17/14 00:10	BMP	L199485
Benzo(b)fluoranthene	<b>0.00147</b>	mg/Kg - dry	0.000345	0.000835	1	05/17/14 00:10	BMP	L199485
Benzo(g,h,i)perylene	<b>0.000831 J</b>	mg/Kg - dry	0.000264	0.000835	1	05/17/14 00:10	BMP	L199485

Qualifiers/Definitions				
*	Outside QC limit		B	Analyte detected in blank
DF	Dilution Factor		I	Recovery out of range
J	Estimated value		MQL	Method Quantitation Limit

03180

Ensafe  
Ms. Allison Harris  
5724 Summer Tree Drive  
Memphis, TN 38134

Project ID :  
Project : MLB Uptown  
Information : 714 N. Second St./Memphis, TN  
Project #0888815441,04

Report Date : 05/22/2014  
Received : 5/16/2014

Report Number : **14-136-0206**

**REPORT OF ANALYSIS**

Lab No : **90027**

Matrix: **Solids**

Sample ID : **MLBBSTW0504**

Sampled: **5/15/2014 9:40**

**Analytical Method:** 8270C SIM

**Prep Method:** 3546

**Prep Batch(es):** L199302

**Date/Time Prepped:** 5/16/2014 09:00:00

Test	Results	Units	MDL	MQL	DF	Date / Time Analyzed	By	Analytical Batch
Benzo(k)fluoranthene	<b>0.000877</b>	mg/Kg - dry	0.000243	0.000835	1	05/17/14 00:10	BMP	L199485
Chrysene	<b>0.000716 J</b>	mg/Kg - dry	0.000394	0.000835	1	05/17/14 00:10	BMP	L199485
Dibenz(a,h)anthracene	<b>0.000653 J</b>	mg/Kg - dry	0.000360	0.000835	1	05/17/14 00:10	BMP	L199485
Fluoranthene	<b>0.000431 J</b>	mg/Kg - dry	0.000232	0.000835	1	05/17/14 00:10	BMP	L199485
Fluorene	<0.000235	mg/Kg - dry	0.000235	0.000835	1	05/17/14 00:10	BMP	L199485
Indeno(1,2,3-cd)pyrene	<b>0.00116</b>	mg/Kg - dry	0.000278	0.000835	1	05/17/14 00:10	BMP	L199485
2-Methylnaphthalene	<0.000149	mg/Kg - dry	0.000149	0.000835	1	05/17/14 00:10	BMP	L199485
Naphthalene	<0.000236	mg/Kg - dry	0.000236	0.000835	1	05/17/14 00:10	BMP	L199485
Phenanthrene	<0.000600	mg/Kg - dry	0.000600	0.000835	1	05/17/14 00:10	BMP	L199485
Pyrene	<b>0.000421 J</b>	mg/Kg - dry	0.000241	0.000835	1	05/17/14 00:10	BMP	L199485
Surrogate: 2-Fluorobiphenyl	51.4		Limits: 33-115%		1	05/17/14 00:10	BMP	L199485
Surrogate: Nitrobenzene-d5	58.1		Limits: 29-110%		1	05/17/14 00:10	BMP	L199485
Surrogate: 4-Terphenyl-d14	66.3		Limits: 33-122%		1	05/17/14 00:10	BMP	L199485

**Qualifiers/  
Definitions**

*	Outside QC limit	B	Analyte detected in blank
DF	Dilution Factor	I	Recovery out of range
J	Estimated value	MQL	Method Quantitation Limit



03180

Ensafe  
 Ms. Allison Harris  
 5724 Summer Tree Drive  
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Project ID :  
 Project : MLB Uptown  
 Information : 714 N. Second St./Memphis, TN  
 Project #0888815441,04

Report Date : 05/22/2014  
 Received : 5/16/2014

Report Number : **14-136-0206**

**REPORT OF ANALYSIS**

Lab No : **90028**  
 Sample ID : **MLBBSTW0508**

Matrix: **Solids**  
 Sampled: **5/15/2014 9:45**

Test	Results	Units	MDL	MQL	DF	Date / Time Analyzed	By	Analytical Method
% Moisture	<b>23.4</b>	%	0	0.100	1	05/19/14 09:00	ALP	2540G-2011
Total Arsenic	<b>10.4</b>	mg/Kg - dry	0.926	1.31	1	05/19/14 18:48	BKN	6010B
Total Barium	<b>114</b>	mg/Kg - dry	0.075	0.652	1	05/19/14 18:48	BKN	6010B
Total Cadmium	<b>0.503</b>	mg/Kg - dry	0.0198	0.131	1	05/19/14 18:48	BKN	6010B
Total Chromium	<b>13.7</b>	mg/Kg - dry	0.044	0.326	1	05/19/14 18:48	BKN	6010B
Total Lead	<b>11.6</b>	mg/Kg - dry	0.186	0.391	1	05/19/14 18:48	BKN	6010B
Total Mercury	<b>0.0180</b>	mg/Kg - dry	0.00343	0.0174	1	05/20/14 14:28	JRS	7471A
Total Selenium	<0.665	mg/Kg - dry	0.665	1.31	1	05/19/14 18:48	BKN	6010B
Total Silver	<0.0355	mg/Kg - dry	0.0355	0.326	1	05/19/14 18:48	BKN	6010B

Qualifiers/ Definitions	*	Outside QC limit	B	Analyte detected in blank
	DF	Dilution Factor	J	Estimated value
	MQL	Method Quantitation Limit		



03180

Ensafe  
Ms. Allison Harris  
5724 Summer Tree Drive  
Memphis, TN 38134

Project ID :  
Project : MLB Uptown  
Information : 714 N. Second St./Memphis, TN  
Project #0888815441,04

Report Date : 05/22/2014  
Received : 5/16/2014

Report Number : **14-136-0206**

**REPORT OF ANALYSIS**

Lab No : **90028**  
Sample ID : **MLBBSTW0508**

Matrix: **Solids**  
Sampled: **5/15/2014 9:45**

**Analytical Method:** 8260B

**Prep Method:** 5030A

**Prep Batch(es):** L199862

**Date/Time Prepped:** 5/21/2014 07:17:00

Test	Results	Units	MDL	MQL	DF	Date / Time Analyzed	By	Analytical Batch
Acetone	<0.0060	mg/Kg - dry	0.0060	0.0522	1	05/21/14 14:14	SEB	L199866
Acetonitrile	<0.0167	mg/Kg - dry	0.0167	0.131	1	05/21/14 14:14	SEB	L199866
Acrolein	<0.0131	mg/Kg - dry	0.0131	0.0522	1	05/21/14 14:14	SEB	L199866
Acrylonitrile	<0.0105	mg/Kg - dry	0.0105	0.0522	1	05/21/14 14:14	SEB	L199866
Benzene	<0.0011	mg/Kg - dry	0.0011	0.0026	1	05/21/14 14:14	SEB	L199866
Bromobenzene	<0.0012	mg/Kg - dry	0.0012	0.0026	1	05/21/14 14:14	SEB	L199866
Bromochloromethane	<0.0010	mg/Kg - dry	0.0010	0.0026	1	05/21/14 14:14	SEB	L199866
Bromodichloromethane	<0.0005	mg/Kg - dry	0.0005	0.0026	1	05/21/14 14:14	SEB	L199866
Bromoform	<0.0009	mg/Kg - dry	0.0009	0.0026	1	05/21/14 14:14	SEB	L199866
Bromomethane	<0.0015	mg/Kg - dry	0.0015	0.0026	1	05/21/14 14:14	SEB	L199866
Methyl Ethyl Ketone (MEK)	<0.0080	mg/Kg - dry	0.0080	0.0522	1	05/21/14 14:14	SEB	L199866
n-Butylbenzene	<0.0009	mg/Kg - dry	0.0009	0.0026	1	05/21/14 14:14	SEB	L199866
sec-Butyl benzene	<0.0004	mg/Kg - dry	0.0004	0.0026	1	05/21/14 14:14	SEB	L199866
tert-Butyl benzene	<0.0018	mg/Kg - dry	0.0018	0.0026	1	05/21/14 14:14	SEB	L199866
Carbon Disulfide	<b>0.0009 JB</b>	mg/Kg - dry	0.0005	0.0026	1	05/21/14 14:14	SEB	L199866
Carbon Tetrachloride	<0.0007	mg/Kg - dry	0.0007	0.0026	1	05/21/14 14:14	SEB	L199866
Chlorobenzene	<0.0010	mg/Kg - dry	0.0010	0.0026	1	05/21/14 14:14	SEB	L199866
Chlorodibromomethane	<0.0011	mg/Kg - dry	0.0011	0.0026	1	05/21/14 14:14	SEB	L199866
Chloroethane	<0.0005	mg/Kg - dry	0.0005	0.0026	1	05/21/14 14:14	SEB	L199866
2-Chloroethylvinyl Ether	<0.0026	mg/Kg - dry	0.0026	0.0026	1	05/21/14 14:14	SEB	L199866
Chloroform	<0.0005	mg/Kg - dry	0.0005	0.0026	1	05/21/14 14:14	SEB	L199866
Chloromethane	<0.0010	mg/Kg - dry	0.0010	0.0026	1	05/21/14 14:14	SEB	L199866

Qualifiers/Definitions	*	Outside QC limit	B	Analyte detected in blank
	DF	Dilution Factor	I	Recovery out of range
	J	Estimated value	MQL	Method Quantitation Limit

03180

Ensafe  
Ms. Allison Harris  
5724 Summer Tree Drive  
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Project ID :  
Project : MLB Uptown  
Information : 714 N. Second St./Memphis, TN  
Project #0888815441,04

Report Date : 05/22/2014  
Received : 5/16/2014

Report Number : **14-136-0206**

**REPORT OF ANALYSIS**

Lab No : **90028**  
Sample ID : **MLBBSTW0508**

Matrix: **Solids**  
Sampled: **5/15/2014 9:45**

**Analytical Method:** 8260B

**Prep Method:** 5030A

**Prep Batch(es):** L199862

**Date/Time Prepped:** 5/21/2014 07:17:00

Test	Results	Units	MDL	MLQ	DF	Date / Time Analyzed	By	Analytical Batch
2-Chlorotoluene	<0.0002	mg/Kg - dry	0.0002	0.0026	1	05/21/14 14:14	SEB	L199866
4-Chlorotoluene	<0.0011	mg/Kg - dry	0.0011	0.0026	1	05/21/14 14:14	SEB	L199866
1,2-Dibromo-3-Chloropropane	<0.0066	mg/Kg - dry	0.0066	0.0130	1	05/21/14 14:14	SEB	L199866
1,2-Dibromoethane	<0.0015	mg/Kg - dry	0.0015	0.0026	1	05/21/14 14:14	SEB	L199866
Dibromomethane	<0.0015	mg/Kg - dry	0.0015	0.0026	1	05/21/14 14:14	SEB	L199866
1,2-Dichlorobenzene	<0.0013	mg/Kg - dry	0.0013	0.0026	1	05/21/14 14:14	SEB	L199866
1,3-Dichlorobenzene	<0.0010	mg/Kg - dry	0.0010	0.0026	1	05/21/14 14:14	SEB	L199866
1,4-Dichlorobenzene	<0.0010	mg/Kg - dry	0.0010	0.0026	1	05/21/14 14:14	SEB	L199866
Dichlorodifluoromethane	<0.0007	mg/Kg - dry	0.0007	0.0026	1	05/21/14 14:14	SEB	L199866
1,1-Dichloroethane	<0.0004	mg/Kg - dry	0.0004	0.0026	1	05/21/14 14:14	SEB	L199866
1,2-Dichloroethane	<0.0013	mg/Kg - dry	0.0013	0.0026	1	05/21/14 14:14	SEB	L199866
1,1-Dichloroethene	<0.0006	mg/Kg - dry	0.0006	0.0026	1	05/21/14 14:14	SEB	L199866
cis-1,2-Dichloroethene	<0.0007	mg/Kg - dry	0.0007	0.0026	1	05/21/14 14:14	SEB	L199866
trans-1,2-Dichloroethene	<0.0005	mg/Kg - dry	0.0005	0.0026	1	05/21/14 14:14	SEB	L199866
1,2-Dichloroethene (Total)	<0.0005	mg/Kg - dry	0.0005	0.0026	1	05/21/14 14:14		L199866
1,2-Dichloropropane	<0.0015	mg/Kg - dry	0.0015	0.0026	1	05/21/14 14:14	SEB	L199866
1,3-Dichloropropane	<0.0015	mg/Kg - dry	0.0015	0.0026	1	05/21/14 14:14	SEB	L199866
2,2-Dichloropropane	<0.0009	mg/Kg - dry	0.0009	0.0026	1	05/21/14 14:14	SEB	L199866
1,1-Dichloropropene	<0.0012	mg/Kg - dry	0.0012	0.0026	1	05/21/14 14:14	SEB	L199866
cis-1,3-Dichloropropene	<0.0007	mg/Kg - dry	0.0007	0.0026	1	05/21/14 14:14	SEB	L199866
trans-1,3-Dichloropropene	<0.0012	mg/Kg - dry	0.0012	0.0026	1	05/21/14 14:14	SEB	L199866
Ethyl Acetate	<0.0021	mg/Kg - dry	0.0021	0.0522	1	05/21/14 14:14	SEB	L199866

Qualifiers/Definitions				
*	Outside QC limit		B	Analyte detected in blank
DF	Dilution Factor		I	Recovery out of range
J	Estimated value		MQL	Method Quantitation Limit

03180

Ensafe  
Ms. Allison Harris  
5724 Summer Tree Drive  
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Project ID :  
Project : MLB Uptown  
Information : 714 N. Second St./Memphis, TN  
Project #0888815441,04

Report Date : 05/22/2014  
Received : 5/16/2014

Report Number : **14-136-0206**

**REPORT OF ANALYSIS**

Lab No : **90028**  
Sample ID : **MLBBSTW0508**

Matrix: **Solids**  
Sampled: **5/15/2014 9:45**

**Analytical Method:** 8260B

**Prep Method:** 5030A

**Prep Batch(es):** L199862

**Date/Time Prepped:** 5/21/2014 07:17:00

Test	Results	Units	MDL	MQL	DF	Date / Time Analyzed	By	Analytical Batch
Ethylbenzene	<0.0007	mg/Kg - dry	0.0007	0.0026	1	05/21/14 14:14	SEB	L199866
Hexachlorobutadiene	<0.0010	mg/Kg - dry	0.0010	0.0026	1	05/21/14 14:14	SEB	L199866
2-Hexanone	<0.0025	mg/Kg - dry	0.0025	0.0130	1	05/21/14 14:14	SEB	L199866
Iodomethane	<0.0012	mg/Kg - dry	0.0012	0.0130	1	05/21/14 14:14	SEB	L199866
Isopropylbenzene	<0.0004	mg/Kg - dry	0.0004	0.0026	1	05/21/14 14:14	SEB	L199866
4-Isopropyl toluene	<0.0006	mg/Kg - dry	0.0006	0.0026	1	05/21/14 14:14	SEB	L199866
Methyl tert-butyl ether (MTBE)	<0.0005	mg/Kg - dry	0.0005	0.0026	1	05/21/14 14:14	SEB	L199866
4-Methyl-2-Pentanone	<0.0038	mg/Kg - dry	0.0038	0.0130	1	05/21/14 14:14	SEB	L199866
Methylene Chloride	<0.0020	mg/Kg - dry	0.0020	0.0130	1	05/21/14 14:14	SEB	L199866
Naphthalene	<0.0041	mg/Kg - dry	0.0041	0.0130	1	05/21/14 14:14	SEB	L199866
n-Propylbenzene	<0.0003	mg/Kg - dry	0.0003	0.0026	1	05/21/14 14:14	SEB	L199866
Styrene	<0.0004	mg/Kg - dry	0.0004	0.0026	1	05/21/14 14:14	SEB	L199866
1,1,1,2-Tetrachloroethane	<0.0006	mg/Kg - dry	0.0006	0.0026	1	05/21/14 14:14	SEB	L199866
1,1,2,2-Tetrachloroethane	<0.0007	mg/Kg - dry	0.0007	0.0026	1	05/21/14 14:14	SEB	L199866
Tetrachloroethene	<0.0020	mg/Kg - dry	0.0020	0.0026	1	05/21/14 14:14	SEB	L199866
Toluene	<0.0033	mg/Kg - dry	0.0033	0.0130	1	05/21/14 14:14	SEB	L199866
1,2,3-Trichlorobenzene	<0.0014	mg/Kg - dry	0.0014	0.0026	1	05/21/14 14:14	SEB	L199866
1,2,4-Trichlorobenzene	<0.0019	mg/Kg - dry	0.0019	0.0026	1	05/21/14 14:14	SEB	L199866
1,1,1-Trichloroethane	<0.0011	mg/Kg - dry	0.0011	0.0026	1	05/21/14 14:14	SEB	L199866
1,1,2-Trichloroethane	<0.0022	mg/Kg - dry	0.0022	0.0026	1	05/21/14 14:14	SEB	L199866
Trichloroethene	<0.0017	mg/Kg - dry	0.0017	0.0026	1	05/21/14 14:14	SEB	L199866
Trichlorofluoromethane	<0.0010	mg/Kg - dry	0.0010	0.0026	1	05/21/14 14:14	SEB	L199866

Qualifiers/Definitions				
*	Outside QC limit	B	Analyte detected in blank	
DF	Dilution Factor	I	Recovery out of range	
J	Estimated value	MQL	Method Quantitation Limit	

03180

Ensafe  
Ms. Allison Harris  
5724 Summer Tree Drive  
Memphis, TN 38134

Project ID :  
Project : MLB Uptown  
Information : 714 N. Second St./Memphis, TN  
Project #0888815441,04

Report Date : 05/22/2014  
Received : 5/16/2014

Report Number : **14-136-0206**

**REPORT OF ANALYSIS**

Lab No : **90028**

Matrix: **Solids**

Sample ID : **MLBBSTW0508**

Sampled: **5/15/2014 9:45**

**Analytical Method:** 8260B

**Prep Method:** 5030A

**Prep Batch(es):** L199862

**Date/Time Prepped:** 5/21/2014 07:17:00

Test	Results	Units	MDL	MQL	DF	Date / Time Analyzed	By	Analytical Batch
1,2,3-Trichloropropane	<0.0013	mg/Kg - dry	0.0013	0.0026	1	05/21/14 14:14	SEB	L199866
1,2,4-Trimethylbenzene	<b>0.0017 J</b>	mg/Kg - dry	0.0008	0.0026	1	05/21/14 14:14	SEB	L199866
1,3,5-Trimethylbenzene	<b>0.0005 J</b>	mg/Kg - dry	0.0004	0.0026	1	05/21/14 14:14	SEB	L199866
Vinyl Acetate	<0.0034	mg/Kg - dry	0.0034	0.0522	1	05/21/14 14:14	SEB	L199866
Vinyl Chloride	<0.0008	mg/Kg - dry	0.0008	0.0026	1	05/21/14 14:14	SEB	L199866
o-Xylene	<b>0.0011 J</b>	mg/Kg - dry	0.0010	0.0026	1	05/21/14 14:14	SEB	L199866
m,p-Xylene	<b>0.0021 J</b>	mg/Kg - dry	0.0010	0.0052	1	05/21/14 14:14	SEB	L199866
Xylene (Total)	<b>0.0032</b>	mg/Kg - dry	0.0010	0.0052	1	05/21/14 14:14		L199866
Surrogate: 4-Bromofluorobenzene	117		Limits: 60-130%		1	05/21/14 14:14	SEB	L199866
Surrogate: 1,2-Dichloroethane - d4	<b>133 *</b>		Limits: 60-132%		1	05/21/14 14:14	SEB	L199866
Surrogate: Toluene-d8	108		Limits: 70-122%		1	05/21/14 14:14	SEB	L199866

**Analytical Method:** 8270C SIM

**Prep Method:** 3546

**Prep Batch(es):** L199302

**Date/Time Prepped:** 5/16/2014 09:00:00

Test	Results	Units	MDL	MQL	DF	Date / Time Analyzed	By	Analytical Batch
Acenaphthene	<0.000113	mg/Kg - dry	0.000113	0.000861	1	05/17/14 00:41	BMP	L199485
Acenaphthylene	<0.000066	mg/Kg - dry	0.000066	0.000861	1	05/17/14 00:41	BMP	L199485
Anthracene	<0.000276	mg/Kg - dry	0.000276	0.000861	1	05/17/14 00:41	BMP	L199485
Benzo(a)anthracene	<0.000744	mg/Kg - dry	0.000744	0.000861	1	05/17/14 00:41	BMP	L199485
Benzo(a)pyrene	<0.000703	mg/Kg - dry	0.000703	0.000861	1	05/17/14 00:41	BMP	L199485
Benzo(b)fluoranthene	<0.000356	mg/Kg - dry	0.000356	0.000861	1	05/17/14 00:41	BMP	L199485
Benzo(g,h,i)perylene	<0.000272	mg/Kg - dry	0.000272	0.000861	1	05/17/14 00:41	BMP	L199485

Qualifiers/Definitions				
*	Outside QC limit		B	Analyte detected in blank
DF	Dilution Factor		I	Recovery out of range
J	Estimated value		MQL	Method Quantitation Limit

03180

Ensafe  
Ms. Allison Harris  
5724 Summer Tree Drive  
Memphis, TN 38134

Project ID :  
Project : MLB Uptown  
Information : 714 N. Second St./Memphis, TN  
Project #0888815441,04

Report Date : 05/22/2014  
Received : 5/16/2014

Report Number : **14-136-0206**

**REPORT OF ANALYSIS**

Lab No : **90028**

Matrix: **Solids**

Sample ID : **MLBBSTW0508**

Sampled: **5/15/2014 9:45**

**Analytical Method:** 8270C SIM

**Prep Method:** 3546

**Prep Batch(es):** L199302

**Date/Time Prepped:** 5/16/2014 09:00:00

Test	Results	Units	MDL	MQL	DF	Date / Time Analyzed	By	Analytical Batch
Benzo(k)fluoranthene	<0.000250	mg/Kg - dry	0.000250	0.000861	1	05/17/14 00:41	BMP	L199485
Chrysene	<0.000407	mg/Kg - dry	0.000407	0.000861	1	05/17/14 00:41	BMP	L199485
Dibenz(a,h)anthracene	<0.000372	mg/Kg - dry	0.000372	0.000861	1	05/17/14 00:41	BMP	L199485
Fluoranthene	<0.000240	mg/Kg - dry	0.000240	0.000861	1	05/17/14 00:41	BMP	L199485
Fluorene	<0.000242	mg/Kg - dry	0.000242	0.000861	1	05/17/14 00:41	BMP	L199485
Indeno(1,2,3-cd)pyrene	<0.000287	mg/Kg - dry	0.000287	0.000861	1	05/17/14 00:41	BMP	L199485
2-Methylnaphthalene	<0.000154	mg/Kg - dry	0.000154	0.000861	1	05/17/14 00:41	BMP	L199485
Naphthalene	<0.000244	mg/Kg - dry	0.000244	0.000861	1	05/17/14 00:41	BMP	L199485
Phenanthrene	<0.000618	mg/Kg - dry	0.000618	0.000861	1	05/17/14 00:41	BMP	L199485
Pyrene	<0.000249	mg/Kg - dry	0.000249	0.000861	1	05/17/14 00:41	BMP	L199485
Surrogate: 2-Fluorobiphenyl	54.2		Limits: 33-115%		1	05/17/14 00:41	BMP	L199485
Surrogate: Nitrobenzene-d5	51.5		Limits: 29-110%		1	05/17/14 00:41	BMP	L199485
Surrogate: 4-Terphenyl-d14	63.0		Limits: 33-122%		1	05/17/14 00:41	BMP	L199485

**Qualifiers/  
Definitions**

*	Outside QC limit	B	Analyte detected in blank
DF	Dilution Factor	I	Recovery out of range
J	Estimated value	MQL	Method Quantitation Limit



03180

Ensafe  
 Ms. Allison Harris  
 5724 Summer Tree Drive  
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Project ID :  
 Project : MLB Uptown  
 Information : 714 N. Second St./Memphis, TN  
 Project #0888815441,04

Report Date : 05/22/2014  
 Received : 5/16/2014

Report Number : **14-136-0206**

**REPORT OF ANALYSIS**

Lab No : **90029**  
 Sample ID : **MLBBSTW0608**

Matrix: **Solids**  
 Sampled: **5/15/2014 12:20**

Test	Results	Units	MDL	MQL	DF	Date / Time Analyzed	By	Analytical Method
% Moisture	<b>20.7</b>	%	0	0.100	1	05/19/14 09:00	ALP	2540G-2011
Total Arsenic	<b>7.62</b>	mg/Kg - dry	0.895	1.26	1	05/19/14 18:53	BKN	6010B
Total Barium	<b>67.2</b>	mg/Kg - dry	0.073	0.630	1	05/19/14 18:53	BKN	6010B
Total Cadmium	<b>0.264</b>	mg/Kg - dry	0.0191	0.126	1	05/19/14 18:53	BKN	6010B
Total Chromium	<b>11.2</b>	mg/Kg - dry	0.042	0.315	1	05/19/14 18:53	BKN	6010B
Total Lead	<b>8.06</b>	mg/Kg - dry	0.180	0.378	1	05/19/14 18:53	BKN	6010B
Total Mercury	<b>0.0105 J</b>	mg/Kg - dry	0.00331	0.0168	1	05/20/14 14:30	JRS	7471A
Total Selenium	<6.44	mg/Kg - dry	6.44	12.6	10	05/20/14 13:41	BKN	6010B
Total Silver	<0.0343	mg/Kg - dry	0.0343	0.315	1	05/19/14 18:53	BKN	6010B

Qualifiers/ Definitions	*	Outside QC limit	B	Analyte detected in blank
	DF	Dilution Factor	J	Estimated value
	MQL	Method Quantitation Limit		

03180

Ensafe  
Ms. Allison Harris  
5724 Summer Tree Drive  
Memphis, TN 38134

Project ID :  
Project : MLB Uptown  
Information : 714 N. Second St./Memphis, TN  
Project #0888815441,04

Report Date : 05/22/2014  
Received : 5/16/2014

Report Number : **14-136-0206**

**REPORT OF ANALYSIS**

Lab No : **90029**  
Sample ID : **MLBBSTW0608**

Matrix: **Solids**  
Sampled: **5/15/2014 12:20**

**Analytical Method:** 8260B

**Prep Method:** 5030A

**Prep Batch(es):** L199550

**Date/Time Prepped:** 5/19/2014 09:30:00

Test	Results	Units	MDL	MQL	DF	Date / Time Analyzed	By	Analytical Batch
Acetone	<0.0058	mg/Kg - dry	0.0058	0.0504	1	05/19/14 18:13	SEB	L199552
Acetonitrile	<0.0161	mg/Kg - dry	0.0161	0.126	1	05/19/14 18:13	SEB	L199552
Acrolein	<0.0127	mg/Kg - dry	0.0127	0.0504	1	05/19/14 18:13	SEB	L199552
Acrylonitrile	<0.0101	mg/Kg - dry	0.0101	0.0504	1	05/19/14 18:13	SEB	L199552
Benzene	<0.0011	mg/Kg - dry	0.0011	0.0025	1	05/19/14 18:13	SEB	L199552
Bromobenzene	<0.0011	mg/Kg - dry	0.0011	0.0025	1	05/19/14 18:13	SEB	L199552
Bromochloromethane	<0.0009	mg/Kg - dry	0.0009	0.0025	1	05/19/14 18:13	SEB	L199552
Bromodichloromethane	<0.0005	mg/Kg - dry	0.0005	0.0025	1	05/19/14 18:13	SEB	L199552
Bromoform	<0.0008	mg/Kg - dry	0.0008	0.0025	1	05/19/14 18:13	SEB	L199552
Bromomethane	<0.0015	mg/Kg - dry	0.0015	0.0025	1	05/19/14 18:13	SEB	L199552
Methyl Ethyl Ketone (MEK)	<0.0077	mg/Kg - dry	0.0077	0.0504	1	05/19/14 18:13	SEB	L199552
n-Butylbenzene	<0.0009	mg/Kg - dry	0.0009	0.0025	1	05/19/14 18:13	SEB	L199552
sec-Butyl benzene	<0.0004	mg/Kg - dry	0.0004	0.0025	1	05/19/14 18:13	SEB	L199552
tert-Butyl benzene	<0.0018	mg/Kg - dry	0.0018	0.0025	1	05/19/14 18:13	SEB	L199552
Carbon Disulfide	<0.0005	mg/Kg - dry	0.0005	0.0025	1	05/19/14 18:13	SEB	L199552
Carbon Tetrachloride	<0.0007	mg/Kg - dry	0.0007	0.0025	1	05/19/14 18:13	SEB	L199552
Chlorobenzene	<0.0010	mg/Kg - dry	0.0010	0.0025	1	05/19/14 18:13	SEB	L199552
Chlorodibromomethane	<0.0011	mg/Kg - dry	0.0011	0.0025	1	05/19/14 18:13	SEB	L199552
Chloroethane	<0.0004	mg/Kg - dry	0.0004	0.0025	1	05/19/14 18:13	SEB	L199552
2-Chloroethylvinyl Ether	<0.0025	mg/Kg - dry	0.0025	0.0025	1	05/19/14 18:13	SEB	L199552
Chloroform	<0.0005	mg/Kg - dry	0.0005	0.0025	1	05/19/14 18:13	SEB	L199552
Chloromethane	<0.0010	mg/Kg - dry	0.0010	0.0025	1	05/19/14 18:13	SEB	L199552

Qualifiers/Definitions				
*	Outside QC limit		B	Analyte detected in blank
DF	Dilution Factor		I	Recovery out of range
J	Estimated value		MQL	Method Quantitation Limit



03180

Ensafe  
Ms. Allison Harris  
5724 Summer Tree Drive  
Memphis, TN 38134

Project ID :  
Project : MLB Uptown  
Information : 714 N. Second St./Memphis, TN  
Project #0888815441,04

Report Date : 05/22/2014  
Received : 5/16/2014

Report Number : **14-136-0206**

**REPORT OF ANALYSIS**

Lab No : **90029**  
Sample ID : **MLBBSTW0608**

Matrix: **Solids**  
Sampled: **5/15/2014 12:20**

**Analytical Method:** 8260B

**Prep Method:** 5030A

**Prep Batch(es):** L199550

**Date/Time Prepped:** 5/19/2014 09:30:00

Test	Results	Units	MDL	MQL	DF	Date / Time Analyzed	By	Analytical Batch
2-Chlorotoluene	<0.0002	mg/Kg - dry	0.0002	0.0025	1	05/19/14 18:13	SEB	L199552
4-Chlorotoluene	<0.0010	mg/Kg - dry	0.0010	0.0025	1	05/19/14 18:13	SEB	L199552
1,2-Dibromo-3-Chloropropane	<0.0064	mg/Kg - dry	0.0064	0.0126	1	05/19/14 18:13	SEB	L199552
1,2-Dibromoethane	<0.0014	mg/Kg - dry	0.0014	0.0025	1	05/19/14 18:13	SEB	L199552
Dibromomethane	<0.0014	mg/Kg - dry	0.0014	0.0025	1	05/19/14 18:13	SEB	L199552
1,2-Dichlorobenzene	<0.0012	mg/Kg - dry	0.0012	0.0025	1	05/19/14 18:13	SEB	L199552
1,3-Dichlorobenzene	<0.0010	mg/Kg - dry	0.0010	0.0025	1	05/19/14 18:13	SEB	L199552
1,4-Dichlorobenzene	<0.0010	mg/Kg - dry	0.0010	0.0025	1	05/19/14 18:13	SEB	L199552
Dichlorodifluoromethane	<0.0007	mg/Kg - dry	0.0007	0.0025	1	05/19/14 18:13	SEB	L199552
1,1-Dichloroethane	<0.0004	mg/Kg - dry	0.0004	0.0025	1	05/19/14 18:13	SEB	L199552
1,2-Dichloroethane	<0.0012	mg/Kg - dry	0.0012	0.0025	1	05/19/14 18:13	SEB	L199552
1,1-Dichloroethene	<0.0006	mg/Kg - dry	0.0006	0.0025	1	05/19/14 18:13	SEB	L199552
cis-1,2-Dichloroethene	<0.0007	mg/Kg - dry	0.0007	0.0025	1	05/19/14 18:13	SEB	L199552
trans-1,2-Dichloroethene	<0.0005	mg/Kg - dry	0.0005	0.0025	1	05/19/14 18:13	SEB	L199552
1,2-Dichloroethene (Total)	<0.0005	mg/Kg - dry	0.0005	0.0025	1	05/19/14 18:13		L199552
1,2-Dichloropropane	<0.0014	mg/Kg - dry	0.0014	0.0025	1	05/19/14 18:13	SEB	L199552
1,3-Dichloropropane	<0.0014	mg/Kg - dry	0.0014	0.0025	1	05/19/14 18:13	SEB	L199552
2,2-Dichloropropane	<0.0009	mg/Kg - dry	0.0009	0.0025	1	05/19/14 18:13	SEB	L199552
1,1-Dichloropropene	<0.0012	mg/Kg - dry	0.0012	0.0025	1	05/19/14 18:13	SEB	L199552
cis-1,3-Dichloropropene	<0.0007	mg/Kg - dry	0.0007	0.0025	1	05/19/14 18:13	SEB	L199552
trans-1,3-Dichloropropene	<0.0012	mg/Kg - dry	0.0012	0.0025	1	05/19/14 18:13	SEB	L199552
Ethyl Acetate	<0.0020	mg/Kg - dry	0.0020	0.0504	1	05/19/14 18:13	SEB	L199552

Qualifiers/Definitions				
*	Outside QC limit		B	Analyte detected in blank
DF	Dilution Factor		I	Recovery out of range
J	Estimated value		MQL	Method Quantitation Limit

03180

Ensafe  
Ms. Allison Harris  
5724 Summer Tree Drive  
Memphis, TN 38134

Project ID :  
Project : MLB Uptown  
Information : 714 N. Second St./Memphis, TN  
Project #0888815441,04

Report Date : 05/22/2014  
Received : 5/16/2014

Report Number : **14-136-0206**

**REPORT OF ANALYSIS**

Lab No : **90029**  
Sample ID : **MLBBSTW0608**

Matrix: **Solids**  
Sampled: **5/15/2014 12:20**

**Analytical Method:** 8260B

**Prep Method:** 5030A

**Prep Batch(es):** L199550

**Date/Time Prepped:** 5/19/2014 09:30:00

Test	Results	Units	MDL	MQL	DF	Date / Time Analyzed	By	Analytical Batch
Ethylbenzene	<0.0007	mg/Kg - dry	0.0007	0.0025	1	05/19/14 18:13	SEB	L199552
Hexachlorobutadiene	<0.0010	mg/Kg - dry	0.0010	0.0025	1	05/19/14 18:13	SEB	L199552
2-Hexanone	<0.0025	mg/Kg - dry	0.0025	0.0126	1	05/19/14 18:13	SEB	L199552
Iodomethane	<0.0012	mg/Kg - dry	0.0012	0.0126	1	05/19/14 18:13	SEB	L199552
Isopropylbenzene	<0.0004	mg/Kg - dry	0.0004	0.0025	1	05/19/14 18:13	SEB	L199552
4-Isopropyl toluene	<0.0006	mg/Kg - dry	0.0006	0.0025	1	05/19/14 18:13	SEB	L199552
Methyl tert-butyl ether (MTBE)	<0.0005	mg/Kg - dry	0.0005	0.0025	1	05/19/14 18:13	SEB	L199552
4-Methyl-2-Pentanone	<0.0037	mg/Kg - dry	0.0037	0.0126	1	05/19/14 18:13	SEB	L199552
Methylene Chloride	<0.0019	mg/Kg - dry	0.0019	0.0126	1	05/19/14 18:13	SEB	L199552
Naphthalene	<0.0039	mg/Kg - dry	0.0039	0.0126	1	05/19/14 18:13	SEB	L199552
n-Propylbenzene	<0.0003	mg/Kg - dry	0.0003	0.0025	1	05/19/14 18:13	SEB	L199552
Styrene	<0.0004	mg/Kg - dry	0.0004	0.0025	1	05/19/14 18:13	SEB	L199552
1,1,1,2-Tetrachloroethane	<0.0006	mg/Kg - dry	0.0006	0.0025	1	05/19/14 18:13	SEB	L199552
1,1,2,2-Tetrachloroethane	<0.0007	mg/Kg - dry	0.0007	0.0025	1	05/19/14 18:13	SEB	L199552
Tetrachloroethene	<0.0020	mg/Kg - dry	0.0020	0.0025	1	05/19/14 18:13	SEB	L199552
Toluene	<0.0032	mg/Kg - dry	0.0032	0.0126	1	05/19/14 18:13	SEB	L199552
1,2,3-Trichlorobenzene	<0.0013	mg/Kg - dry	0.0013	0.0025	1	05/19/14 18:13	SEB	L199552
1,2,4-Trichlorobenzene	<0.0018	mg/Kg - dry	0.0018	0.0025	1	05/19/14 18:13	SEB	L199552
1,1,1-Trichloroethane	<0.0010	mg/Kg - dry	0.0010	0.0025	1	05/19/14 18:13	SEB	L199552
1,1,2-Trichloroethane	<0.0021	mg/Kg - dry	0.0021	0.0025	1	05/19/14 18:13	SEB	L199552
Trichloroethene	<0.0017	mg/Kg - dry	0.0017	0.0025	1	05/19/14 18:13	SEB	L199552
Trichlorofluoromethane	<0.0010	mg/Kg - dry	0.0010	0.0025	1	05/19/14 18:13	SEB	L199552

Qualifiers/Definitions				
*	Outside QC limit		B	Analyte detected in blank
DF	Dilution Factor		I	Recovery out of range
J	Estimated value		MQL	Method Quantitation Limit

03180

Ensafe  
Ms. Allison Harris  
5724 Summer Tree Drive  
Memphis, TN 38134

Project ID :  
Project : MLB Uptown  
Information : 714 N. Second St./Memphis, TN  
Project #0888815441,04

Report Date : 05/22/2014  
Received : 5/16/2014

Report Number : **14-136-0206**

**REPORT OF ANALYSIS**

Lab No : **90029**  
Sample ID : **MLBBSTW0608**

Matrix: **Solids**  
Sampled: **5/15/2014 12:20**

**Analytical Method:** 8260B

**Prep Method:** 5030A

**Prep Batch(es):** L199550

**Date/Time Prepped:** 5/19/2014 09:30:00

Test	Results	Units	MDL	MQL	DF	Date / Time Analyzed	By	Analytical Batch
1,2,3-Trichloropropane	<0.0013	mg/Kg - dry	0.0013	0.0025	1	05/19/14 18:13	SEB	L199552
1,2,4-Trimethylbenzene	<b>0.0012 J</b>	mg/Kg - dry	0.0008	0.0025	1	05/19/14 18:13	SEB	L199552
1,3,5-Trimethylbenzene	<b>0.0005 J</b>	mg/Kg - dry	0.0004	0.0025	1	05/19/14 18:13	SEB	L199552
Vinyl Acetate	<0.0033	mg/Kg - dry	0.0033	0.0504	1	05/19/14 18:13	SEB	L199552
Vinyl Chloride	<0.0008	mg/Kg - dry	0.0008	0.0025	1	05/19/14 18:13	SEB	L199552
o-Xylene	<0.0010	mg/Kg - dry	0.0010	0.0025	1	05/19/14 18:13	SEB	L199552
m,p-Xylene	<b>0.0015 J</b>	mg/Kg - dry	0.0009	0.0050	1	05/19/14 18:13	SEB	L199552
Xylene (Total)	<b>0.0015</b>	mg/Kg - dry	0.0009	0.0050	1	05/19/14 18:13		L199552
Surrogate: 4-Bromofluorobenzene	109		Limits: 60-130%		1	05/19/14 18:13	SEB	L199552
Surrogate: 1,2-Dichloroethane - d4	<b>151 *</b>		Limits: 60-132%		1	05/19/14 18:13	SEB	L199552
Surrogate: Toluene-d8	115		Limits: 70-122%		1	05/19/14 18:13	SEB	L199552

**Analytical Method:** 8270C SIM

**Prep Method:** 3546

**Prep Batch(es):** L199302

**Date/Time Prepped:** 5/16/2014 09:00:00

Test	Results	Units	MDL	MQL	DF	Date / Time Analyzed	By	Analytical Batch
Acenaphthene	<0.000109	mg/Kg - dry	0.000109	0.000832	1	05/17/14 01:12	BMP	L199485
Acenaphthylene	<0.000064	mg/Kg - dry	0.000064	0.000832	1	05/17/14 01:12	BMP	L199485
Anthracene	<0.000267	mg/Kg - dry	0.000267	0.000832	1	05/17/14 01:12	BMP	L199485
Benzo(a)anthracene	<0.000718	mg/Kg - dry	0.000718	0.000832	1	05/17/14 01:12	BMP	L199485
Benzo(a)pyrene	<0.000679	mg/Kg - dry	0.000679	0.000832	1	05/17/14 01:12	BMP	L199485
Benzo(b)fluoranthene	<b>0.000639 J</b>	mg/Kg - dry	0.000344	0.000832	1	05/17/14 01:12	BMP	L199485
Benzo(g,h,i)perylene	<0.000263	mg/Kg - dry	0.000263	0.000832	1	05/17/14 01:12	BMP	L199485

Qualifiers/Definitions				
*	Outside QC limit		B	Analyte detected in blank
DF	Dilution Factor		I	Recovery out of range
J	Estimated value		MQL	Method Quantitation Limit

03180

Ensafe  
Ms. Allison Harris  
5724 Summer Tree Drive  
Memphis, TN 38134

Project ID :  
Project : MLB Uptown  
Information : 714 N. Second St./Memphis, TN  
Project #0888815441,04

Report Date : 05/22/2014  
Received : 5/16/2014

Report Number : **14-136-0206**

**REPORT OF ANALYSIS**

Lab No : **90029**  
Sample ID : **MLBBSTW0608**

Matrix: **Solids**  
Sampled: **5/15/2014 12:20**

**Analytical Method:** 8270C SIM

**Prep Method:** 3546

**Prep Batch(es):** L199302

**Date/Time Prepped:** 5/16/2014 09:00:00

Test	Results	Units	MDL	MQL	DF	Date / Time Analyzed	By	Analytical Batch
Benzo(k)fluoranthene	<b>0.000418 J</b>	mg/Kg - dry	0.000242	0.000832	1	05/17/14 01:12	BMP	L199485
Chrysene	<0.000393	mg/Kg - dry	0.000393	0.000832	1	05/17/14 01:12	BMP	L199485
Dibenz(a,h)anthracene	<0.000359	mg/Kg - dry	0.000359	0.000832	1	05/17/14 01:12	BMP	L199485
Fluoranthene	<0.000232	mg/Kg - dry	0.000232	0.000832	1	05/17/14 01:12	BMP	L199485
Fluorene	<0.000234	mg/Kg - dry	0.000234	0.000832	1	05/17/14 01:12	BMP	L199485
Indeno(1,2,3-cd)pyrene	<0.000277	mg/Kg - dry	0.000277	0.000832	1	05/17/14 01:12	BMP	L199485
2-Methylnaphthalene	<0.000148	mg/Kg - dry	0.000148	0.000832	1	05/17/14 01:12	BMP	L199485
Naphthalene	<0.000235	mg/Kg - dry	0.000235	0.000832	1	05/17/14 01:12	BMP	L199485
Phenanthrene	<0.000597	mg/Kg - dry	0.000597	0.000832	1	05/17/14 01:12	BMP	L199485
Pyrene	<0.000240	mg/Kg - dry	0.000240	0.000832	1	05/17/14 01:12	BMP	L199485
Surrogate: 2-Fluorobiphenyl	57.6		Limits: 33-115%		1	05/17/14 01:12	BMP	L199485
Surrogate: Nitrobenzene-d5	53.7		Limits: 29-110%		1	05/17/14 01:12	BMP	L199485
Surrogate: 4-Terphenyl-d14	64.9		Limits: 33-122%		1	05/17/14 01:12	BMP	L199485

Qualifiers/Definitions				
*	Outside QC limit	B	Analyte detected in blank	
DF	Dilution Factor	I	Recovery out of range	
J	Estimated value	MQL	Method Quantitation Limit	



03180

Ensafe  
Ms. Allison Harris  
5724 Summer Tree Drive  
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Project ID :  
Project : MLB Uptown  
Information : 714 N. Second St./Memphis, TN  
Project #0888815441,04

Report Date : 05/22/2014  
Received : 5/16/2014

Report Number : **14-136-0206**

### REPORT OF ANALYSIS

Lab No : **90030**  
Sample ID : **MLBBSTW0612**

Matrix: **Solids**  
Sampled: **5/15/2014 12:25**

Test	Results	Units	MDL	MLQ	DF	Date / Time Analyzed	By	Analytical Method
% Moisture	<b>21.4</b>	%	0	0.100	1	05/19/14 09:00	ALP	2540G-2011
Total Arsenic	<b>8.63</b>	mg/Kg - dry	0.903	1.27	1	05/19/14 19:05	BKN	6010B
Total Barium	<b>375</b>	mg/Kg - dry	0.073	0.636	1	05/19/14 19:05	BKN	6010B
Total Cadmium	<b>1.13</b>	mg/Kg - dry	0.0193	0.127	1	05/19/14 19:05	BKN	6010B
Total Chromium	<b>10.2</b>	mg/Kg - dry	0.043	0.318	1	05/19/14 19:05	BKN	6010B
Total Lead	<b>6.06</b>	mg/Kg - dry	0.181	0.381	1	05/19/14 19:05	BKN	6010B
Total Mercury	<b>0.00741 J</b>	mg/Kg - dry	0.00334	0.0169	1	05/20/14 14:32	JRS	7471A
Total Selenium	<6.50	mg/Kg - dry	6.50	12.7	10	05/20/14 13:45	BKN	6010B
Total Silver	<0.0346	mg/Kg - dry	0.0346	0.318	1	05/19/14 19:05	BKN	6010B

Qualifiers/ Definitions	*	Outside QC limit	B	Analyte detected in blank
	DF	Dilution Factor	J	Estimated value
	MLQ	Method Quantitation Limit		

03180

Ensafe  
Ms. Allison Harris  
5724 Summer Tree Drive  
Memphis, TN 38134

Project ID :  
Project : MLB Uptown  
Information : 714 N. Second St./Memphis, TN  
Project #0888815441,04

Report Date : 05/22/2014  
Received : 5/16/2014

Report Number : **14-136-0206**

**REPORT OF ANALYSIS**

Lab No : **90030**

Matrix: **Solids**

Sample ID : **MLBBSTW0612**

Sampled: **5/15/2014 12:25**

**Analytical Method:** 8260B

**Prep Method:** 5030A

**Prep Batch(es):** L199550

**Date/Time Prepped:** 5/19/2014 09:30:00

Test	Results	Units	MDL	MQL	DF	Date / Time Analyzed	By	Analytical Batch
Acetone	<0.0059	mg/Kg - dry	0.0059	0.0508	1	05/19/14 18:55	SEB	L199552
Acetonitrile	<0.0162	mg/Kg - dry	0.0162	0.127	1	05/19/14 18:55	SEB	L199552
Acrolein	<0.0128	mg/Kg - dry	0.0128	0.0508	1	05/19/14 18:55	SEB	L199552
Acrylonitrile	<0.0102	mg/Kg - dry	0.0102	0.0508	1	05/19/14 18:55	SEB	L199552
Benzene	<0.0011	mg/Kg - dry	0.0011	0.0025	1	05/19/14 18:55	SEB	L199552
Bromobenzene	<0.0012	mg/Kg - dry	0.0012	0.0025	1	05/19/14 18:55	SEB	L199552
Bromochloromethane	<0.0009	mg/Kg - dry	0.0009	0.0025	1	05/19/14 18:55	SEB	L199552
Bromodichloromethane	<0.0005	mg/Kg - dry	0.0005	0.0025	1	05/19/14 18:55	SEB	L199552
Bromoform	<0.0008	mg/Kg - dry	0.0008	0.0025	1	05/19/14 18:55	SEB	L199552
Bromomethane	<0.0015	mg/Kg - dry	0.0015	0.0025	1	05/19/14 18:55	SEB	L199552
Methyl Ethyl Ketone (MEK)	<0.0078	mg/Kg - dry	0.0078	0.0508	1	05/19/14 18:55	SEB	L199552
n-Butylbenzene	<0.0009	mg/Kg - dry	0.0009	0.0025	1	05/19/14 18:55	SEB	L199552
sec-Butyl benzene	<0.0004	mg/Kg - dry	0.0004	0.0025	1	05/19/14 18:55	SEB	L199552
tert-Butyl benzene	<0.0018	mg/Kg - dry	0.0018	0.0025	1	05/19/14 18:55	SEB	L199552
Carbon Disulfide	<0.0005	mg/Kg - dry	0.0005	0.0025	1	05/19/14 18:55	SEB	L199552
Carbon Tetrachloride	<0.0007	mg/Kg - dry	0.0007	0.0025	1	05/19/14 18:55	SEB	L199552
Chlorobenzene	<0.0010	mg/Kg - dry	0.0010	0.0025	1	05/19/14 18:55	SEB	L199552
Chlorodibromomethane	<0.0011	mg/Kg - dry	0.0011	0.0025	1	05/19/14 18:55	SEB	L199552
Chloroethane	<0.0005	mg/Kg - dry	0.0005	0.0025	1	05/19/14 18:55	SEB	L199552
2-Chloroethylvinyl Ether	<0.0025	mg/Kg - dry	0.0025	0.0025	1	05/19/14 18:55	SEB	L199552
Chloroform	<0.0005	mg/Kg - dry	0.0005	0.0025	1	05/19/14 18:55	SEB	L199552
Chloromethane	<0.0010	mg/Kg - dry	0.0010	0.0025	1	05/19/14 18:55	SEB	L199552

Qualifiers/Definitions				
*	Outside QC limit		B	Analyte detected in blank
DF	Dilution Factor		I	Recovery out of range
J	Estimated value		MQL	Method Quantitation Limit



03180

Ensafe
Ms. Allison Harris
5724 Summer Tree Drive
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Project ID :
Project : MLB Uptown
Information : 714 N. Second St./Memphis, TN
Project #0888815441,04

Report Date : 05/22/2014
Received : 5/16/2014

Report Number : 14-136-0206

REPORT OF ANALYSIS

Lab No : 90030
Sample ID : MLBBSTW0612

Matrix: Solids
Sampled: 5/15/2014 12:25

Analytical Method: 8260B

Prep Method: 5030A

Prep Batch(es): L199550

Date/Time Prepped: 5/19/2014 09:30:00

Table with 9 columns: Test, Results, Units, MDL, MQL, DF, Date / Time Analyzed, By, Analytical Batch. Rows list various chemical tests and their corresponding results and parameters.

Qualifiers/Definitions table with 2 columns: Qualifier (e.g., \*, DF, J) and Definition (e.g., Outside QC limit, Dilution Factor, Estimated value).



03180

Ensafe  
Ms. Allison Harris  
5724 Summer Tree Drive  
Memphis, TN 38134

Project ID :  
Project : MLB Uptown  
Information : 714 N. Second St./Memphis, TN  
Project #0888815441,04

Report Date : 05/22/2014  
Received : 5/16/2014

Report Number : **14-136-0206**

**REPORT OF ANALYSIS**

Lab No : **90030**  
Sample ID : **MLBBSTW0612**

Matrix: **Solids**  
Sampled: **5/15/2014 12:25**

**Analytical Method:** 8260B

**Prep Method:** 5030A

**Prep Batch(es):** L199550

**Date/Time Prepped:** 5/19/2014 09:30:00

Test	Results	Units	MDL	MQL	DF	Date / Time Analyzed	By	Analytical Batch
Ethylbenzene	<0.0007	mg/Kg - dry	0.0007	0.0025	1	05/19/14 18:55	SEB	L199552
Hexachlorobutadiene	<0.0010	mg/Kg - dry	0.0010	0.0025	1	05/19/14 18:55	SEB	L199552
2-Hexanone	<0.0025	mg/Kg - dry	0.0025	0.0127	1	05/19/14 18:55	SEB	L199552
Iodomethane	<0.0012	mg/Kg - dry	0.0012	0.0127	1	05/19/14 18:55	SEB	L199552
Isopropylbenzene	<0.0004	mg/Kg - dry	0.0004	0.0025	1	05/19/14 18:55	SEB	L199552
4-Isopropyl toluene	<0.0006	mg/Kg - dry	0.0006	0.0025	1	05/19/14 18:55	SEB	L199552
Methyl tert-butyl ether (MTBE)	<0.0005	mg/Kg - dry	0.0005	0.0025	1	05/19/14 18:55	SEB	L199552
4-Methyl-2-Pentanone	<0.0037	mg/Kg - dry	0.0037	0.0127	1	05/19/14 18:55	SEB	L199552
Methylene Chloride	<0.0020	mg/Kg - dry	0.0020	0.0127	1	05/19/14 18:55	SEB	L199552
Naphthalene	<0.0040	mg/Kg - dry	0.0040	0.0127	1	05/19/14 18:55	SEB	L199552
n-Propylbenzene	<0.0003	mg/Kg - dry	0.0003	0.0025	1	05/19/14 18:55	SEB	L199552
Styrene	<0.0004	mg/Kg - dry	0.0004	0.0025	1	05/19/14 18:55	SEB	L199552
1,1,1,2-Tetrachloroethane	<0.0006	mg/Kg - dry	0.0006	0.0025	1	05/19/14 18:55	SEB	L199552
1,1,2,2-Tetrachloroethane	<0.0007	mg/Kg - dry	0.0007	0.0025	1	05/19/14 18:55	SEB	L199552
Tetrachloroethene	<0.0020	mg/Kg - dry	0.0020	0.0025	1	05/19/14 18:55	SEB	L199552
Toluene	<0.0032	mg/Kg - dry	0.0032	0.0127	1	05/19/14 18:55	SEB	L199552
1,2,3-Trichlorobenzene	<0.0013	mg/Kg - dry	0.0013	0.0025	1	05/19/14 18:55	SEB	L199552
1,2,4-Trichlorobenzene	<0.0018	mg/Kg - dry	0.0018	0.0025	1	05/19/14 18:55	SEB	L199552
1,1,1-Trichloroethane	<0.0010	mg/Kg - dry	0.0010	0.0025	1	05/19/14 18:55	SEB	L199552
1,1,2-Trichloroethane	<0.0022	mg/Kg - dry	0.0022	0.0025	1	05/19/14 18:55	SEB	L199552
Trichloroethene	<0.0017	mg/Kg - dry	0.0017	0.0025	1	05/19/14 18:55	SEB	L199552
Trichlorofluoromethane	<0.0010	mg/Kg - dry	0.0010	0.0025	1	05/19/14 18:55	SEB	L199552

Qualifiers/Definitions				
*	Outside QC limit		B	Analyte detected in blank
DF	Dilution Factor		I	Recovery out of range
J	Estimated value		MQL	Method Quantitation Limit

03180

Ensafe  
Ms. Allison Harris  
5724 Summer Tree Drive  
Memphis, TN 38134

Project ID :  
Project : MLB Uptown  
Information : 714 N. Second St./Memphis, TN  
Project #0888815441,04

Report Date : 05/22/2014  
Received : 5/16/2014

Report Number : **14-136-0206**

**REPORT OF ANALYSIS**

Lab No : **90030**  
Sample ID : **MLBBSTW0612**

Matrix: **Solids**  
Sampled: **5/15/2014 12:25**

**Analytical Method:** 8260B

**Prep Method:** 5030A

**Prep Batch(es):** L199550

**Date/Time Prepped:** 5/19/2014 09:30:00

Test	Results	Units	MDL	MQL	DF	Date / Time Analyzed	By	Analytical Batch
1,2,3-Trichloropropane	<0.0013	mg/Kg - dry	0.0013	0.0025	1	05/19/14 18:55	SEB	L199552
1,2,4-Trimethylbenzene	<0.0008	mg/Kg - dry	0.0008	0.0025	1	05/19/14 18:55	SEB	L199552
1,3,5-Trimethylbenzene	<0.0004	mg/Kg - dry	0.0004	0.0025	1	05/19/14 18:55	SEB	L199552
Vinyl Acetate	<0.0033	mg/Kg - dry	0.0033	0.0508	1	05/19/14 18:55	SEB	L199552
Vinyl Chloride	<0.0008	mg/Kg - dry	0.0008	0.0025	1	05/19/14 18:55	SEB	L199552
o-Xylene	<0.0010	mg/Kg - dry	0.0010	0.0025	1	05/19/14 18:55	SEB	L199552
m,p-Xylene	<b>0.0012 J</b>	mg/Kg - dry	0.0009	0.0050	1	05/19/14 18:55	SEB	L199552
Xylene (Total)	<b>0.0012</b>	mg/Kg - dry	0.0009	0.0050	1	05/19/14 18:55		L199552
Surrogate: 4-Bromofluorobenzene	100		Limits: 60-130%		1	05/19/14 18:55	SEB	L199552
Surrogate: 1,2-Dichloroethane - d4	<b>132 *</b>		Limits: 60-132%		1	05/19/14 18:55	SEB	L199552
Surrogate: Toluene-d8	109		Limits: 70-122%		1	05/19/14 18:55	SEB	L199552

**Analytical Method:** 8270C SIM

**Prep Method:** 3546

**Prep Batch(es):** L199302

**Date/Time Prepped:** 5/16/2014 09:00:00

Test	Results	Units	MDL	MQL	DF	Date / Time Analyzed	By	Analytical Batch
Acenaphthene	<0.000110	mg/Kg - dry	0.000110	0.000839	1	05/17/14 01:42	BMP	L199485
Acenaphthylene	<0.000064	mg/Kg - dry	0.000064	0.000839	1	05/17/14 01:42	BMP	L199485
Anthracene	<0.000269	mg/Kg - dry	0.000269	0.000839	1	05/17/14 01:42	BMP	L199485
Benzo(a)anthracene	<0.000725	mg/Kg - dry	0.000725	0.000839	1	05/17/14 01:42	BMP	L199485
Benzo(a)pyrene	<0.000685	mg/Kg - dry	0.000685	0.000839	1	05/17/14 01:42	BMP	L199485
Benzo(b)fluoranthene	<0.000347	mg/Kg - dry	0.000347	0.000839	1	05/17/14 01:42	BMP	L199485
Benzo(g,h,i)perylene	<b>0.000617 J</b>	mg/Kg - dry	0.000265	0.000839	1	05/17/14 01:42	BMP	L199485

Qualifiers/Definitions				
*	Outside QC limit		B	Analyte detected in blank
DF	Dilution Factor		I	Recovery out of range
J	Estimated value		MQL	Method Quantitation Limit

03180

Ensafe  
Ms. Allison Harris  
5724 Summer Tree Drive  
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Project ID :  
Project : MLB Uptown  
Information : 714 N. Second St./Memphis, TN  
Project #0888815441,04

Report Date : 05/22/2014  
Received : 5/16/2014

Report Number : **14-136-0206**

**REPORT OF ANALYSIS**

Lab No : **90030**

Matrix: **Solids**

Sample ID : **MLBBSTW0612**

Sampled: **5/15/2014 12:25**

**Analytical Method:** 8270C SIM

**Prep Method:** 3546

**Prep Batch(es):** L199302

**Date/Time Prepped:** 5/16/2014 09:00:00

Test	Results	Units	MDL	MQL	DF	Date / Time Analyzed	By	Analytical Batch
Benzo(k)fluoranthene	<0.000244	mg/Kg - dry	0.000244	0.000839	1	05/17/14 01:42	BMP	L199485
Chrysene	<0.000396	mg/Kg - dry	0.000396	0.000839	1	05/17/14 01:42	BMP	L199485
Dibenz(a,h)anthracene	<0.000362	mg/Kg - dry	0.000362	0.000839	1	05/17/14 01:42	BMP	L199485
Fluoranthene	<0.000234	mg/Kg - dry	0.000234	0.000839	1	05/17/14 01:42	BMP	L199485
Fluorene	<0.000236	mg/Kg - dry	0.000236	0.000839	1	05/17/14 01:42	BMP	L199485
Indeno(1,2,3-cd)pyrene	<0.000279	mg/Kg - dry	0.000279	0.000839	1	05/17/14 01:42	BMP	L199485
2-Methylnaphthalene	<0.000150	mg/Kg - dry	0.000150	0.000839	1	05/17/14 01:42	BMP	L199485
Naphthalene	<0.000237	mg/Kg - dry	0.000237	0.000839	1	05/17/14 01:42	BMP	L199485
Phenanthrene	<0.000603	mg/Kg - dry	0.000603	0.000839	1	05/17/14 01:42	BMP	L199485
Pyrene	<0.000243	mg/Kg - dry	0.000243	0.000839	1	05/17/14 01:42	BMP	L199485
Surrogate: 2-Fluorobiphenyl	48.3		Limits: 33-115%		1	05/17/14 01:42	BMP	L199485
Surrogate: Nitrobenzene-d5	48.9		Limits: 29-110%		1	05/17/14 01:42	BMP	L199485
Surrogate: 4-Terphenyl-d14	66.8		Limits: 33-122%		1	05/17/14 01:42	BMP	L199485

**Qualifiers/  
Definitions**

*	Outside QC limit	B	Analyte detected in blank
DF	Dilution Factor	I	Recovery out of range
J	Estimated value	MQL	Method Quantitation Limit



03180

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Ms. Allison Harris  
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Project ID :  
Project : MLB Uptown  
Information : 714 N. Second St./Memphis, TN  
Project #0888815441,04

Report Date : 05/22/2014  
Received : 5/16/2014

Report Number : **14-136-0206**

### REPORT OF ANALYSIS

Lab No : **90031**  
Sample ID : **MLBBSTW0716**

Matrix: **Solids**  
Sampled: **5/15/2014 13:00**

Test	Results	Units	MDL	MQL	DF	Date / Time Analyzed	By	Analytical Method
% Moisture	<b>22.0</b>	%	0	0.100	1	05/19/14 12:10	ALP	2540G-2011
Total Arsenic	<b>2.46</b>	mg/Kg - dry	0.910	1.28	1	05/19/14 19:10	BKN	6010B
Total Barium	<b>56.3</b>	mg/Kg - dry	0.074	0.641	1	05/19/14 19:10	BKN	6010B
Total Cadmium	<b>0.236</b>	mg/Kg - dry	0.0194	0.128	1	05/19/14 19:10	BKN	6010B
Total Chromium	<b>38.2</b>	mg/Kg - dry	0.043	0.320	1	05/19/14 19:10	BKN	6010B
Total Lead	<b>6.12</b>	mg/Kg - dry	0.183	0.384	1	05/19/14 19:10	BKN	6010B
Total Mercury	<b>0.0138 J</b>	mg/Kg - dry	0.00337	0.0171	1	05/20/14 14:34	JRS	7471A
Total Selenium	<0.653	mg/Kg - dry	0.653	1.28	1	05/19/14 19:10	BKN	6010B
Total Silver	<0.0348	mg/Kg - dry	0.0348	0.321	1	05/19/14 19:10	BKN	6010B

Qualifiers/ Definitions	*	Outside QC limit	B	Analyte detected in blank
	DF	Dilution Factor	J	Estimated value
	MQL	Method Quantitation Limit		

03180

Ensafe

Ms. Allison Harris

5724 Summer Tree Drive

Memphis, TN 38134

Project ID :

Project MLB Uptown

Information : 714 N. Second St./Memphis, TN

Project #0888815441,04

Report Date : 05/22/2014

Received : 5/16/2014

Report Number : **14-136-0206**

**REPORT OF ANALYSIS**

Lab No : **90031**

Matrix: **Solids**

Sample ID : **MLBBSTW0716**

Sampled: **5/15/2014 13:00**

**Analytical Method:** 8260B

**Prep Method:** 5030A

**Prep Batch(es):** L199550

**Date/Time Prepped:** 5/19/2014 09:30:00

Test	Results	Units	MDL	MQL	DF	Date / Time Analyzed	By	Analytical Batch
Acetone	<0.0059	mg/Kg - dry	0.0059	0.0512	1	05/19/14 19:37	SEB	L199552
Acetonitrile	<0.0164	mg/Kg - dry	0.0164	0.128	1	05/19/14 19:37	SEB	L199552
Acrolein	<0.0129	mg/Kg - dry	0.0129	0.0512	1	05/19/14 19:37	SEB	L199552
Acrylonitrile	<0.0103	mg/Kg - dry	0.0103	0.0512	1	05/19/14 19:37	SEB	L199552
Benzene	<0.0011	mg/Kg - dry	0.0011	0.0025	1	05/19/14 19:37	SEB	L199552
Bromobenzene	<0.0012	mg/Kg - dry	0.0012	0.0025	1	05/19/14 19:37	SEB	L199552
Bromochloromethane	<0.0009	mg/Kg - dry	0.0009	0.0025	1	05/19/14 19:37	SEB	L199552
Bromodichloromethane	<0.0005	mg/Kg - dry	0.0005	0.0025	1	05/19/14 19:37	SEB	L199552
Bromoform	<0.0008	mg/Kg - dry	0.0008	0.0025	1	05/19/14 19:37	SEB	L199552
Bromomethane	<0.0015	mg/Kg - dry	0.0015	0.0025	1	05/19/14 19:37	SEB	L199552
Methyl Ethyl Ketone (MEK)	<0.0079	mg/Kg - dry	0.0079	0.0512	1	05/19/14 19:37	SEB	L199552
n-Butylbenzene	<0.0009	mg/Kg - dry	0.0009	0.0025	1	05/19/14 19:37	SEB	L199552
sec-Butyl benzene	<0.0004	mg/Kg - dry	0.0004	0.0025	1	05/19/14 19:37	SEB	L199552
tert-Butyl benzene	<0.0018	mg/Kg - dry	0.0018	0.0025	1	05/19/14 19:37	SEB	L199552
Carbon Disulfide	<0.0005	mg/Kg - dry	0.0005	0.0025	1	05/19/14 19:37	SEB	L199552
Carbon Tetrachloride	<0.0007	mg/Kg - dry	0.0007	0.0025	1	05/19/14 19:37	SEB	L199552
Chlorobenzene	<0.0010	mg/Kg - dry	0.0010	0.0025	1	05/19/14 19:37	SEB	L199552
Chlorodibromomethane	<0.0011	mg/Kg - dry	0.0011	0.0025	1	05/19/14 19:37	SEB	L199552
Chloroethane	<0.0005	mg/Kg - dry	0.0005	0.0025	1	05/19/14 19:37	SEB	L199552
2-Chloroethylvinyl Ether	<0.0025	mg/Kg - dry	0.0025	0.0025	1	05/19/14 19:37	SEB	L199552
Chloroform	<0.0005	mg/Kg - dry	0.0005	0.0025	1	05/19/14 19:37	SEB	L199552
Chloromethane	<0.0010	mg/Kg - dry	0.0010	0.0025	1	05/19/14 19:37	SEB	L199552

**Qualifiers/  
Definitions**

*	Outside QC limit	B	Analyte detected in blank
DF	Dilution Factor	I	Recovery out of range
J	Estimated value	MQL	Method Quantitation Limit

03180

Ensafe  
Ms. Allison Harris  
5724 Summer Tree Drive  
Memphis, TN 38134

Project ID :  
Project : MLB Uptown  
Information : 714 N. Second St./Memphis, TN  
Project #0888815441,04

Report Date : 05/22/2014  
Received : 5/16/2014

Report Number : **14-136-0206**

**REPORT OF ANALYSIS**

Lab No : **90031**  
Sample ID : **MLBBSTW0716**

Matrix: **Solids**  
Sampled: **5/15/2014 13:00**

**Analytical Method:** 8260B

**Prep Method:** 5030A

**Prep Batch(es):** L199550

**Date/Time Prepped:** 5/19/2014 09:30:00

Test	Results	Units	MDL	MQL	DF	Date / Time Analyzed	By	Analytical Batch
2-Chlorotoluene	<0.0002	mg/Kg - dry	0.0002	0.0025	1	05/19/14 19:37	SEB	L199552
4-Chlorotoluene	<0.0010	mg/Kg - dry	0.0010	0.0025	1	05/19/14 19:37	SEB	L199552
1,2-Dibromo-3-Chloropropane	<0.0065	mg/Kg - dry	0.0065	0.0128	1	05/19/14 19:37	SEB	L199552
1,2-Dibromoethane	<0.0015	mg/Kg - dry	0.0015	0.0025	1	05/19/14 19:37	SEB	L199552
Dibromomethane	<0.0015	mg/Kg - dry	0.0015	0.0025	1	05/19/14 19:37	SEB	L199552
1,2-Dichlorobenzene	<0.0012	mg/Kg - dry	0.0012	0.0025	1	05/19/14 19:37	SEB	L199552
1,3-Dichlorobenzene	<0.0010	mg/Kg - dry	0.0010	0.0025	1	05/19/14 19:37	SEB	L199552
1,4-Dichlorobenzene	<0.0010	mg/Kg - dry	0.0010	0.0025	1	05/19/14 19:37	SEB	L199552
Dichlorodifluoromethane	<0.0007	mg/Kg - dry	0.0007	0.0025	1	05/19/14 19:37	SEB	L199552
1,1-Dichloroethane	<0.0004	mg/Kg - dry	0.0004	0.0025	1	05/19/14 19:37	SEB	L199552
1,2-Dichloroethane	<0.0013	mg/Kg - dry	0.0013	0.0025	1	05/19/14 19:37	SEB	L199552
1,1-Dichloroethene	<0.0006	mg/Kg - dry	0.0006	0.0025	1	05/19/14 19:37	SEB	L199552
cis-1,2-Dichloroethene	<0.0007	mg/Kg - dry	0.0007	0.0025	1	05/19/14 19:37	SEB	L199552
trans-1,2-Dichloroethene	<0.0005	mg/Kg - dry	0.0005	0.0025	1	05/19/14 19:37	SEB	L199552
1,2-Dichloroethene (Total)	<0.0005	mg/Kg - dry	0.0005	0.0025	1	05/19/14 19:37		L199552
1,2-Dichloropropane	<0.0014	mg/Kg - dry	0.0014	0.0025	1	05/19/14 19:37	SEB	L199552
1,3-Dichloropropane	<0.0015	mg/Kg - dry	0.0015	0.0025	1	05/19/14 19:37	SEB	L199552
2,2-Dichloropropane	<0.0009	mg/Kg - dry	0.0009	0.0025	1	05/19/14 19:37	SEB	L199552
1,1-Dichloropropene	<0.0012	mg/Kg - dry	0.0012	0.0025	1	05/19/14 19:37	SEB	L199552
cis-1,3-Dichloropropene	<0.0007	mg/Kg - dry	0.0007	0.0025	1	05/19/14 19:37	SEB	L199552
trans-1,3-Dichloropropene	<0.0012	mg/Kg - dry	0.0012	0.0025	1	05/19/14 19:37	SEB	L199552
Ethyl Acetate	<0.0020	mg/Kg - dry	0.0020	0.0512	1	05/19/14 19:37	SEB	L199552

Qualifiers/Definitions				
*	Outside QC limit		B	Analyte detected in blank
DF	Dilution Factor		I	Recovery out of range
J	Estimated value		MQL	Method Quantitation Limit

03180

Ensafe  
Ms. Allison Harris  
5724 Summer Tree Drive  
Memphis, TN 38134

Project ID :  
Project : MLB Uptown  
Information : 714 N. Second St./Memphis, TN  
Project #0888815441,04

Report Date : 05/22/2014  
Received : 5/16/2014

Report Number : **14-136-0206**

**REPORT OF ANALYSIS**

Lab No : **90031**

Matrix: **Solids**

Sample ID : **MLBBSTW0716**

Sampled: **5/15/2014 13:00**

**Analytical Method:** 8260B

**Prep Method:** 5030A

**Prep Batch(es):** L199550

**Date/Time Prepped:** 5/19/2014 09:30:00

Test	Results	Units	MDL	MQL	DF	Date / Time Analyzed	By	Analytical Batch
Ethylbenzene	<0.0007	mg/Kg - dry	0.0007	0.0025	1	05/19/14 19:37	SEB	L199552
Hexachlorobutadiene	<0.0010	mg/Kg - dry	0.0010	0.0025	1	05/19/14 19:37	SEB	L199552
2-Hexanone	<0.0025	mg/Kg - dry	0.0025	0.0128	1	05/19/14 19:37	SEB	L199552
Iodomethane	<0.0012	mg/Kg - dry	0.0012	0.0128	1	05/19/14 19:37	SEB	L199552
Isopropylbenzene	<0.0004	mg/Kg - dry	0.0004	0.0025	1	05/19/14 19:37	SEB	L199552
4-Isopropyl toluene	<0.0006	mg/Kg - dry	0.0006	0.0025	1	05/19/14 19:37	SEB	L199552
Methyl tert-butyl ether (MTBE)	<0.0005	mg/Kg - dry	0.0005	0.0025	1	05/19/14 19:37	SEB	L199552
4-Methyl-2-Pentanone	<0.0037	mg/Kg - dry	0.0037	0.0128	1	05/19/14 19:37	SEB	L199552
Methylene Chloride	<0.0020	mg/Kg - dry	0.0020	0.0128	1	05/19/14 19:37	SEB	L199552
Naphthalene	<0.0040	mg/Kg - dry	0.0040	0.0128	1	05/19/14 19:37	SEB	L199552
n-Propylbenzene	<0.0003	mg/Kg - dry	0.0003	0.0025	1	05/19/14 19:37	SEB	L199552
Styrene	<0.0004	mg/Kg - dry	0.0004	0.0025	1	05/19/14 19:37	SEB	L199552
1,1,1,2-Tetrachloroethane	<0.0006	mg/Kg - dry	0.0006	0.0025	1	05/19/14 19:37	SEB	L199552
1,1,2,2-Tetrachloroethane	<0.0007	mg/Kg - dry	0.0007	0.0025	1	05/19/14 19:37	SEB	L199552
Tetrachloroethene	<0.0020	mg/Kg - dry	0.0020	0.0025	1	05/19/14 19:37	SEB	L199552
Toluene	<0.0032	mg/Kg - dry	0.0032	0.0128	1	05/19/14 19:37	SEB	L199552
1,2,3-Trichlorobenzene	<0.0013	mg/Kg - dry	0.0013	0.0025	1	05/19/14 19:37	SEB	L199552
1,2,4-Trichlorobenzene	<0.0019	mg/Kg - dry	0.0019	0.0025	1	05/19/14 19:37	SEB	L199552
1,1,1-Trichloroethane	<0.0011	mg/Kg - dry	0.0011	0.0025	1	05/19/14 19:37	SEB	L199552
1,1,2-Trichloroethane	<0.0022	mg/Kg - dry	0.0022	0.0025	1	05/19/14 19:37	SEB	L199552
Trichloroethene	<0.0017	mg/Kg - dry	0.0017	0.0025	1	05/19/14 19:37	SEB	L199552
Trichlorofluoromethane	<0.0010	mg/Kg - dry	0.0010	0.0025	1	05/19/14 19:37	SEB	L199552

Qualifiers/Definitions				
*	Outside QC limit		B	Analyte detected in blank
DF	Dilution Factor		I	Recovery out of range
J	Estimated value		MQL	Method Quantitation Limit



03180

Ensafe  
Ms. Allison Harris  
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Project ID :  
Project : MLB Uptown  
Information : 714 N. Second St./Memphis, TN  
Project #0888815441,04

Report Date : 05/22/2014  
Received : 5/16/2014

Report Number : **14-136-0206**

**REPORT OF ANALYSIS**

Lab No : **90031**  
Sample ID : **MLBBSTW0716**

Matrix: **Solids**  
Sampled: **5/15/2014 13:00**

**Analytical Method:** 8260B

**Prep Method:** 5030A

**Prep Batch(es):** L199550

**Date/Time Prepped:** 5/19/2014 09:30:00

Test	Results	Units	MDL	MQL	DF	Date / Time Analyzed	By	Analytical Batch
1,2,3-Trichloropropane	<0.0013	mg/Kg - dry	0.0013	0.0025	1	05/19/14 19:37	SEB	L199552
1,2,4-Trimethylbenzene	<0.0008	mg/Kg - dry	0.0008	0.0025	1	05/19/14 19:37	SEB	L199552
1,3,5-Trimethylbenzene	<0.0004	mg/Kg - dry	0.0004	0.0025	1	05/19/14 19:37	SEB	L199552
Vinyl Acetate	<0.0033	mg/Kg - dry	0.0033	0.0512	1	05/19/14 19:37	SEB	L199552
Vinyl Chloride	<0.0008	mg/Kg - dry	0.0008	0.0025	1	05/19/14 19:37	SEB	L199552
o-Xylene	<0.0010	mg/Kg - dry	0.0010	0.0025	1	05/19/14 19:37	SEB	L199552
m,p-Xylene	<0.0009	mg/Kg - dry	0.0009	0.0051	1	05/19/14 19:37	SEB	L199552
Xylene (Total)	<0.0009	mg/Kg - dry	0.0009	0.0051	1	05/19/14 19:37		L199552
Surrogate: 4-Bromofluorobenzene	101		Limits: 60-130%		1	05/19/14 19:37	SEB	L199552
Surrogate: 1,2-Dichloroethane - d4	<b>143 *</b>		Limits: 60-132%		1	05/19/14 19:37	SEB	L199552
Surrogate: Toluene-d8	107		Limits: 70-122%		1	05/19/14 19:37	SEB	L199552

**Analytical Method:** 8270C SIM

**Prep Method:** 3546

**Prep Batch(es):** L199302

**Date/Time Prepped:** 5/16/2014 09:00:00

Test	Results	Units	MDL	MQL	DF	Date / Time Analyzed	By	Analytical Batch
Acenaphthene	<0.000111	mg/Kg - dry	0.000111	0.000846	1	05/17/14 02:13	BMP	L199485
Acenaphthylene	<0.000065	mg/Kg - dry	0.000065	0.000846	1	05/17/14 02:13	BMP	L199485
Anthracene	<0.000271	mg/Kg - dry	0.000271	0.000846	1	05/17/14 02:13	BMP	L199485
Benzo(a)anthracene	<0.000730	mg/Kg - dry	0.000730	0.000846	1	05/17/14 02:13	BMP	L199485
Benzo(a)pyrene	<0.000691	mg/Kg - dry	0.000691	0.000846	1	05/17/14 02:13	BMP	L199485
Benzo(b)fluoranthene	<0.000350	mg/Kg - dry	0.000350	0.000846	1	05/17/14 02:13	BMP	L199485
Benzo(g,h,i)perylene	<0.000267	mg/Kg - dry	0.000267	0.000846	1	05/17/14 02:13	BMP	L199485

Qualifiers/Definitions				
*	Outside QC limit		B	Analyte detected in blank
DF	Dilution Factor		I	Recovery out of range
J	Estimated value		MQL	Method Quantitation Limit



03180

Ensafe  
Ms. Allison Harris  
5724 Summer Tree Drive  
Memphis, TN 38134

Project ID :  
Project : MLB Uptown  
Information : 714 N. Second St./Memphis, TN  
Project #0888815441,04

Report Date : 05/22/2014  
Received : 5/16/2014

Report Number : 14-136-0206

### REPORT OF ANALYSIS

Lab No : 90031  
Sample ID : MLBBSTW0716

Matrix: Solids  
Sampled: 5/15/2014 13:00

Analytical Method: 8270C SIM

Prep Method: 3546

Prep Batch(es): L199302

Date/Time Prepped: 5/16/2014 09:00:00

Test	Results	Units	MDL	MQL	DF	Date / Time Analyzed	By	Analytical Batch
Benzo(k)fluoranthene	<0.000246	mg/Kg - dry	0.000246	0.000846	1	05/17/14 02:13	BMP	L199485
Chrysene	<0.000400	mg/Kg - dry	0.000400	0.000846	1	05/17/14 02:13	BMP	L199485
Dibenz(a,h)anthracene	<0.000365	mg/Kg - dry	0.000365	0.000846	1	05/17/14 02:13	BMP	L199485
Fluoranthene	<0.000235	mg/Kg - dry	0.000235	0.000846	1	05/17/14 02:13	BMP	L199485
Fluorene	<0.000238	mg/Kg - dry	0.000238	0.000846	1	05/17/14 02:13	BMP	L199485
Indeno(1,2,3-cd)pyrene	<0.000282	mg/Kg - dry	0.000282	0.000846	1	05/17/14 02:13	BMP	L199485
2-Methylnaphthalene	<0.000151	mg/Kg - dry	0.000151	0.000846	1	05/17/14 02:13	BMP	L199485
Naphthalene	<0.000239	mg/Kg - dry	0.000239	0.000846	1	05/17/14 02:13	BMP	L199485
Phenanthrene	<0.000607	mg/Kg - dry	0.000607	0.000846	1	05/17/14 02:13	BMP	L199485
Pyrene	<0.000244	mg/Kg - dry	0.000244	0.000846	1	05/17/14 02:13	BMP	L199485
Surrogate: 2-Fluorobiphenyl	59.3		Limits: 33-115%		1	05/17/14 02:13	BMP	L199485
Surrogate: Nitrobenzene-d5	58.1		Limits: 29-110%		1	05/17/14 02:13	BMP	L199485
Surrogate: 4-Terphenyl-d14	72.9		Limits: 33-122%		1	05/17/14 02:13	BMP	L199485

Qualifiers/Definitions				
*	Outside QC limit	B	Analyte detected in blank	
DF	Dilution Factor	I	Recovery out of range	
J	Estimated value	MQL	Method Quantitation Limit	



03180

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Project ID :  
Project : MLB Uptown  
Information : 714 N. Second St./Memphis, TN  
Project #0888815441,04

Report Date : 05/22/2014  
Received : 5/16/2014

Report Number : **14-136-0206**

### REPORT OF ANALYSIS

Lab No : **90032**  
Sample ID : **MLBBSTW0720**

Matrix: **Solids**  
Sampled: **5/15/2014 13:05**

Test	Results	Units	MDL	MQL	DF	Date / Time Analyzed	By	Analytical Method
% Moisture	<b>19.6</b>	%	0	0.100	1	05/19/14 12:10	ALP	2540G-2011
Total Arsenic	<b>1.65</b>	mg/Kg - dry	0.883	1.24	1	05/19/14 19:14	BKN	6010B
Total Barium	<b>97.5</b>	mg/Kg - dry	0.072	0.621	1	05/19/14 19:14	BKN	6010B
Total Cadmium	<b>0.0426 J</b>	mg/Kg - dry	0.0189	0.124	1	05/19/14 19:14	BKN	6010B
Total Chromium	<b>15.7</b>	mg/Kg - dry	0.042	0.310	1	05/19/14 19:14	BKN	6010B
Total Lead	<b>7.94</b>	mg/Kg - dry	0.177	0.373	1	05/19/14 19:14	BKN	6010B
Total Mercury	<b>0.0225</b>	mg/Kg - dry	0.00327	0.0165	1	05/20/14 14:36	JRS	7471A
Total Selenium	<0.634	mg/Kg - dry	0.634	1.24	1	05/19/14 19:14	BKN	6010B
Total Silver	<0.0338	mg/Kg - dry	0.0338	0.311	1	05/19/14 19:14	BKN	6010B

Qualifiers/ Definitions	*	Outside QC limit	B	Analyte detected in blank
	DF	Dilution Factor	J	Estimated value
	MQL	Method Quantitation Limit		

03180

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Ms. Allison Harris  
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Project ID :  
Project : MLB Uptown  
Information : 714 N. Second St./Memphis, TN  
Project #0888815441,04

Report Date : 05/22/2014  
Received : 5/16/2014

Report Number : **14-136-0206**

**REPORT OF ANALYSIS**

Lab No : **90032**  
Sample ID : **MLBBSTW0720**

Matrix: **Solids**  
Sampled: **5/15/2014 13:05**

**Analytical Method:** 8260B

**Prep Method:** 5030A

**Prep Batch(es):** L199550

**Date/Time Prepped:** 5/19/2014 09:30:00

Test	Results	Units	MDL	MQL	DF	Date / Time Analyzed	By	Analytical Batch
Acetone	<0.0057	mg/Kg - dry	0.0057	0.0497	1	05/19/14 20:19	SEB	L199552
Acetonitrile	<0.0159	mg/Kg - dry	0.0159	0.124	1	05/19/14 20:19	SEB	L199552
Acrolein	<0.0125	mg/Kg - dry	0.0125	0.0497	1	05/19/14 20:19	SEB	L199552
Acrylonitrile	<0.0100	mg/Kg - dry	0.0100	0.0497	1	05/19/14 20:19	SEB	L199552
Benzene	<0.0011	mg/Kg - dry	0.0011	0.0024	1	05/19/14 20:19	SEB	L199552
Bromobenzene	<0.0011	mg/Kg - dry	0.0011	0.0024	1	05/19/14 20:19	SEB	L199552
Bromochloromethane	<0.0009	mg/Kg - dry	0.0009	0.0024	1	05/19/14 20:19	SEB	L199552
Bromodichloromethane	<0.0005	mg/Kg - dry	0.0005	0.0024	1	05/19/14 20:19	SEB	L199552
Bromoform	<0.0008	mg/Kg - dry	0.0008	0.0024	1	05/19/14 20:19	SEB	L199552
Bromomethane	<0.0015	mg/Kg - dry	0.0015	0.0024	1	05/19/14 20:19	SEB	L199552
Methyl Ethyl Ketone (MEK)	<0.0076	mg/Kg - dry	0.0076	0.0497	1	05/19/14 20:19	SEB	L199552
n-Butylbenzene	<0.0009	mg/Kg - dry	0.0009	0.0024	1	05/19/14 20:19	SEB	L199552
sec-Butyl benzene	<0.0004	mg/Kg - dry	0.0004	0.0024	1	05/19/14 20:19	SEB	L199552
tert-Butyl benzene	<0.0017	mg/Kg - dry	0.0017	0.0024	1	05/19/14 20:19	SEB	L199552
Carbon Disulfide	<0.0005	mg/Kg - dry	0.0005	0.0024	1	05/19/14 20:19	SEB	L199552
Carbon Tetrachloride	<0.0006	mg/Kg - dry	0.0006	0.0024	1	05/19/14 20:19	SEB	L199552
Chlorobenzene	<0.0010	mg/Kg - dry	0.0010	0.0024	1	05/19/14 20:19	SEB	L199552
Chlorodibromomethane	<0.0011	mg/Kg - dry	0.0011	0.0024	1	05/19/14 20:19	SEB	L199552
Chloroethane	<0.0004	mg/Kg - dry	0.0004	0.0024	1	05/19/14 20:19	SEB	L199552
2-Chloroethylvinyl Ether	<0.0024	mg/Kg - dry	0.0024	0.0024	1	05/19/14 20:19	SEB	L199552
Chloroform	<0.0005	mg/Kg - dry	0.0005	0.0024	1	05/19/14 20:19	SEB	L199552
Chloromethane	<0.0009	mg/Kg - dry	0.0009	0.0024	1	05/19/14 20:19	SEB	L199552

Qualifiers/Definitions				
*	Outside QC limit		B	Analyte detected in blank
DF	Dilution Factor		I	Recovery out of range
J	Estimated value		MQL	Method Quantitation Limit

03180

Ensafe  
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Project ID :  
Project : MLB Uptown  
Information : 714 N. Second St./Memphis, TN  
Project #0888815441,04

Report Date : 05/22/2014  
Received : 5/16/2014

Report Number : **14-136-0206**

**REPORT OF ANALYSIS**

Lab No : **90032**  
Sample ID : **MLBBSTW0720**

Matrix: **Solids**  
Sampled: **5/15/2014 13:05**

**Analytical Method:** 8260B

**Prep Method:** 5030A

**Prep Batch(es):** L199550

**Date/Time Prepped:** 5/19/2014 09:30:00

Test	Results	Units	MDL	MLQ	DF	Date / Time Analyzed	By	Analytical Batch
2-Chlorotoluene	<0.0002	mg/Kg - dry	0.0002	0.0024	1	05/19/14 20:19	SEB	L199552
4-Chlorotoluene	<0.0010	mg/Kg - dry	0.0010	0.0024	1	05/19/14 20:19	SEB	L199552
1,2-Dibromo-3-Chloropropane	<0.0063	mg/Kg - dry	0.0063	0.0124	1	05/19/14 20:19	SEB	L199552
1,2-Dibromoethane	<0.0014	mg/Kg - dry	0.0014	0.0024	1	05/19/14 20:19	SEB	L199552
Dibromomethane	<0.0014	mg/Kg - dry	0.0014	0.0024	1	05/19/14 20:19	SEB	L199552
1,2-Dichlorobenzene	<0.0012	mg/Kg - dry	0.0012	0.0024	1	05/19/14 20:19	SEB	L199552
1,3-Dichlorobenzene	<0.0010	mg/Kg - dry	0.0010	0.0024	1	05/19/14 20:19	SEB	L199552
1,4-Dichlorobenzene	<0.0009	mg/Kg - dry	0.0009	0.0024	1	05/19/14 20:19	SEB	L199552
Dichlorodifluoromethane	<0.0007	mg/Kg - dry	0.0007	0.0024	1	05/19/14 20:19	SEB	L199552
1,1-Dichloroethane	<0.0004	mg/Kg - dry	0.0004	0.0024	1	05/19/14 20:19	SEB	L199552
1,2-Dichloroethane	<0.0012	mg/Kg - dry	0.0012	0.0024	1	05/19/14 20:19	SEB	L199552
1,1-Dichloroethene	<0.0006	mg/Kg - dry	0.0006	0.0024	1	05/19/14 20:19	SEB	L199552
cis-1,2-Dichloroethene	<0.0007	mg/Kg - dry	0.0007	0.0024	1	05/19/14 20:19	SEB	L199552
trans-1,2-Dichloroethene	<0.0005	mg/Kg - dry	0.0005	0.0024	1	05/19/14 20:19	SEB	L199552
1,2-Dichloroethene (Total)	<0.0005	mg/Kg - dry	0.0005	0.0024	1	05/19/14 20:19		L199552
1,2-Dichloropropane	<0.0014	mg/Kg - dry	0.0014	0.0024	1	05/19/14 20:19	SEB	L199552
1,3-Dichloropropane	<0.0014	mg/Kg - dry	0.0014	0.0024	1	05/19/14 20:19	SEB	L199552
2,2-Dichloropropane	<0.0009	mg/Kg - dry	0.0009	0.0024	1	05/19/14 20:19	SEB	L199552
1,1-Dichloropropene	<0.0011	mg/Kg - dry	0.0011	0.0024	1	05/19/14 20:19	SEB	L199552
cis-1,3-Dichloropropene	<0.0007	mg/Kg - dry	0.0007	0.0024	1	05/19/14 20:19	SEB	L199552
trans-1,3-Dichloropropene	<0.0012	mg/Kg - dry	0.0012	0.0024	1	05/19/14 20:19	SEB	L199552
Ethyl Acetate	<0.0020	mg/Kg - dry	0.0020	0.0497	1	05/19/14 20:19	SEB	L199552

Qualifiers/Definitions				
*	Outside QC limit	B	Analyte detected in blank	
DF	Dilution Factor	I	Recovery out of range	
J	Estimated value	MQL	Method Quantitation Limit	

03180

Ensafe  
Ms. Allison Harris  
5724 Summer Tree Drive  
Memphis, TN 38134

Project ID :  
Project : MLB Uptown  
Information : 714 N. Second St./Memphis, TN  
Project #0888815441,04

Report Date : 05/22/2014  
Received : 5/16/2014

Report Number : **14-136-0206**

**REPORT OF ANALYSIS**

Lab No : **90032**  
Sample ID : **MLBBSTW0720**

Matrix: **Solids**  
Sampled: **5/15/2014 13:05**

**Analytical Method:** 8260B

**Prep Method:** 5030A

**Prep Batch(es):** L199550

**Date/Time Prepped:** 5/19/2014 09:30:00

Test	Results	Units	MDL	MQL	DF	Date / Time Analyzed	By	Analytical Batch
Ethylbenzene	<0.0006	mg/Kg - dry	0.0006	0.0024	1	05/19/14 20:19	SEB	L199552
Hexachlorobutadiene	<0.0010	mg/Kg - dry	0.0010	0.0024	1	05/19/14 20:19	SEB	L199552
2-Hexanone	<0.0024	mg/Kg - dry	0.0024	0.0124	1	05/19/14 20:19	SEB	L199552
Iodomethane	<0.0012	mg/Kg - dry	0.0012	0.0124	1	05/19/14 20:19	SEB	L199552
Isopropylbenzene	<0.0004	mg/Kg - dry	0.0004	0.0024	1	05/19/14 20:19	SEB	L199552
4-Isopropyl toluene	<0.0006	mg/Kg - dry	0.0006	0.0024	1	05/19/14 20:19	SEB	L199552
Methyl tert-butyl ether (MTBE)	<0.0005	mg/Kg - dry	0.0005	0.0024	1	05/19/14 20:19	SEB	L199552
4-Methyl-2-Pentanone	<0.0036	mg/Kg - dry	0.0036	0.0124	1	05/19/14 20:19	SEB	L199552
Methylene Chloride	<0.0019	mg/Kg - dry	0.0019	0.0124	1	05/19/14 20:19	SEB	L199552
Naphthalene	<0.0039	mg/Kg - dry	0.0039	0.0124	1	05/19/14 20:19	SEB	L199552
n-Propylbenzene	<0.0003	mg/Kg - dry	0.0003	0.0024	1	05/19/14 20:19	SEB	L199552
Styrene	<0.0004	mg/Kg - dry	0.0004	0.0024	1	05/19/14 20:19	SEB	L199552
1,1,1,2-Tetrachloroethane	<0.0006	mg/Kg - dry	0.0006	0.0024	1	05/19/14 20:19	SEB	L199552
1,1,2,2-Tetrachloroethane	<0.0007	mg/Kg - dry	0.0007	0.0024	1	05/19/14 20:19	SEB	L199552
Tetrachloroethene	<0.0019	mg/Kg - dry	0.0019	0.0024	1	05/19/14 20:19	SEB	L199552
Toluene	<0.0031	mg/Kg - dry	0.0031	0.0124	1	05/19/14 20:19	SEB	L199552
1,2,3-Trichlorobenzene	<0.0013	mg/Kg - dry	0.0013	0.0024	1	05/19/14 20:19	SEB	L199552
1,2,4-Trichlorobenzene	<0.0018	mg/Kg - dry	0.0018	0.0024	1	05/19/14 20:19	SEB	L199552
1,1,1-Trichloroethane	<0.0010	mg/Kg - dry	0.0010	0.0024	1	05/19/14 20:19	SEB	L199552
1,1,2-Trichloroethane	<0.0021	mg/Kg - dry	0.0021	0.0024	1	05/19/14 20:19	SEB	L199552
Trichloroethene	<b>0.0120</b>	mg/Kg - dry	0.0016	0.0024	1	05/19/14 20:19	SEB	L199552
Trichlorofluoromethane	<0.0009	mg/Kg - dry	0.0009	0.0024	1	05/19/14 20:19	SEB	L199552

Qualifiers/Definitions				
*	Outside QC limit	B	Analyte detected in blank	
DF	Dilution Factor	I	Recovery out of range	
J	Estimated value	MQL	Method Quantitation Limit	

03180

Ensafe  
Ms. Allison Harris  
5724 Summer Tree Drive  
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Project ID :  
Project : MLB Uptown  
Information : 714 N. Second St./Memphis, TN  
Project #0888815441,04

Report Date : 05/22/2014  
Received : 5/16/2014

Report Number : **14-136-0206**

**REPORT OF ANALYSIS**

Lab No : **90032**  
Sample ID : **MLBBSTW0720**

Matrix: **Solids**  
Sampled: **5/15/2014 13:05**

**Analytical Method:** 8260B

**Prep Method:** 5030A

**Prep Batch(es):** L199550

**Date/Time Prepped:** 5/19/2014 09:30:00

Test	Results	Units	MDL	MLQ	DF	Date / Time Analyzed	By	Analytical Batch
1,2,3-Trichloropropane	<0.0013	mg/Kg - dry	0.0013	0.0024	1	05/19/14 20:19	SEB	L199552
1,2,4-Trimethylbenzene	<b>0.0014 J</b>	mg/Kg - dry	0.0008	0.0024	1	05/19/14 20:19	SEB	L199552
1,3,5-Trimethylbenzene	<0.0004	mg/Kg - dry	0.0004	0.0024	1	05/19/14 20:19	SEB	L199552
Vinyl Acetate	<0.0032	mg/Kg - dry	0.0032	0.0497	1	05/19/14 20:19	SEB	L199552
Vinyl Chloride	<0.0007	mg/Kg - dry	0.0007	0.0024	1	05/19/14 20:19	SEB	L199552
o-Xylene	<b>0.0010 J</b>	mg/Kg - dry	0.0009	0.0024	1	05/19/14 20:19	SEB	L199552
m,p-Xylene	<b>0.0021 J</b>	mg/Kg - dry	0.0009	0.0049	1	05/19/14 20:19	SEB	L199552
Xylene (Total)	<b>0.0031</b>	mg/Kg - dry	0.0009	0.0049	1	05/19/14 20:19		L199552
Surrogate: 4-Bromofluorobenzene	105		Limits: 60-130%		1	05/19/14 20:19	SEB	L199552
Surrogate: 1,2-Dichloroethane - d4	127		Limits: 60-132%		1	05/19/14 20:19	SEB	L199552
Surrogate: Toluene-d8	102		Limits: 70-122%		1	05/19/14 20:19	SEB	L199552

**Analytical Method:** 8270C SIM

**Prep Method:** 3546

**Prep Batch(es):** L199302

**Date/Time Prepped:** 5/16/2014 09:00:00

Test	Results	Units	MDL	MLQ	DF	Date / Time Analyzed	By	Analytical Batch
Acenaphthene	<0.000108	mg/Kg - dry	0.000108	0.000820	1	05/17/14 02:44	BMP	L199485
Acenaphthylene	<0.000063	mg/Kg - dry	0.000063	0.000820	1	05/17/14 02:44	BMP	L199485
Anthracene	<0.000263	mg/Kg - dry	0.000263	0.000820	1	05/17/14 02:44	BMP	L199485
Benzo(a)anthracene	<0.000708	mg/Kg - dry	0.000708	0.000820	1	05/17/14 02:44	BMP	L199485
Benzo(a)pyrene	<0.000670	mg/Kg - dry	0.000670	0.000820	1	05/17/14 02:44	BMP	L199485
Benzo(b)fluoranthene	<0.000339	mg/Kg - dry	0.000339	0.000820	1	05/17/14 02:44	BMP	L199485
Benzo(g,h,i)perylene	<b>0.000465 J</b>	mg/Kg - dry	0.000259	0.000820	1	05/17/14 02:44	BMP	L199485

Qualifiers/Definitions				
*	Outside QC limit		B	Analyte detected in blank
DF	Dilution Factor		I	Recovery out of range
J	Estimated value		MLQ	Method Quantitation Limit



03180

Ensafe  
Ms. Allison Harris  
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Project ID :  
Project : MLB Uptown  
Information : 714 N. Second St./Memphis, TN  
Project #0888815441,04

Report Date : 05/22/2014  
Received : 5/16/2014

Report Number : **14-136-0206**

**REPORT OF ANALYSIS**

Lab No : **90032**  
Sample ID : **MLBBSTW0720**

Matrix: **Solids**  
Sampled: **5/15/2014 13:05**

**Analytical Method:** 8270C SIM

**Prep Method:** 3546

**Prep Batch(es):** L199302

**Date/Time Prepped:** 5/16/2014 09:00:00

Test	Results	Units	MDL	MQL	DF	Date / Time Analyzed	By	Analytical Batch
Benzo(k)fluoranthene	<0.000238	mg/Kg - dry	0.000238	0.000820	1	05/17/14 02:44	BMP	L199485
Chrysene	<0.000388	mg/Kg - dry	0.000388	0.000820	1	05/17/14 02:44	BMP	L199485
Dibenz(a,h)anthracene	<0.000354	mg/Kg - dry	0.000354	0.000820	1	05/17/14 02:44	BMP	L199485
Fluoranthene	<0.000228	mg/Kg - dry	0.000228	0.000820	1	05/17/14 02:44	BMP	L199485
Fluorene	<0.000231	mg/Kg - dry	0.000231	0.000820	1	05/17/14 02:44	BMP	L199485
Indeno(1,2,3-cd)pyrene	<0.000273	mg/Kg - dry	0.000273	0.000820	1	05/17/14 02:44	BMP	L199485
2-Methylnaphthalene	<0.000146	mg/Kg - dry	0.000146	0.000820	1	05/17/14 02:44	BMP	L199485
Naphthalene	<0.000232	mg/Kg - dry	0.000232	0.000820	1	05/17/14 02:44	BMP	L199485
Phenanthrene	<0.000589	mg/Kg - dry	0.000589	0.000820	1	05/17/14 02:44	BMP	L199485
Pyrene	<0.000237	mg/Kg - dry	0.000237	0.000820	1	05/17/14 02:44	BMP	L199485
Surrogate: 2-Fluorobiphenyl	51.5		Limits: 33-115%		1	05/17/14 02:44	BMP	L199485
Surrogate: Nitrobenzene-d5	50.6		Limits: 29-110%		1	05/17/14 02:44	BMP	L199485
Surrogate: 4-Terphenyl-d14	74.7		Limits: 33-122%		1	05/17/14 02:44	BMP	L199485

Qualifiers/Definitions				
*	Outside QC limit	B	Analyte detected in blank	
DF	Dilution Factor	I	Recovery out of range	
J	Estimated value	MQL	Method Quantitation Limit	



03180

Ensafe  
 Ms. Allison Harris  
 5724 Summer Tree Drive  
 Memphis, TN 38134

Project ID :  
 Project : MLB Uptown  
 Information : 714 N. Second St./Memphis, TN  
 Project #0888815441,04

Report Date : 05/22/2014  
 Received : 5/16/2014

Report Number : **14-136-0206**

**REPORT OF ANALYSIS**

Lab No : **90033**  
 Sample ID : **MLBGTW0101**

Matrix: **Aqueous**  
 Sampled: **5/15/2014 14:50**

Test	Results	Units	MDL	MQL	DF	Date / Time Analyzed	By	Analytical Method
Total Arsenic	<0.006	mg/L	0.006	0.010	1	05/19/14 17:36	BKN	6010B
Total Barium	<b>0.139</b>	mg/L	0.001	0.010	1	05/19/14 17:36	BKN	6010B
Total Cadmium	<0.0003	mg/L	0.0003	0.0020	1	05/19/14 17:36	BKN	6010B
Total Chromium	<b>0.012</b>	mg/L	0.001	0.005	1	05/19/14 17:36	BKN	6010B
Total Lead	<0.003	mg/L	0.003	0.006	1	05/19/14 17:36	BKN	6010B
Total Mercury	<b>0.00011 J</b>	mg/L	0.00005	0.00020	1	05/19/14 11:34	JRS	7470A
Total Selenium	<0.008	mg/L	0.008	0.010	1	05/19/14 17:36	BKN	6010B
Total Silver	<0.0008	mg/L	0.0008	0.0050	1	05/19/14 17:36	BKN	6010B

Qualifiers/ Definitions	*	Outside QC limit	B	Analyte detected in blank
	DF	Dilution Factor	J	Estimated value
	MQL	Method Quantitation Limit		

03180

Ensafe  
Ms. Allison Harris  
5724 Summer Tree Drive  
Memphis, TN 38134

Project ID :  
Project : MLB Uptown  
Information : 714 N. Second St./Memphis, TN  
Project #0888815441,04

Report Date : 05/22/2014  
Received : 5/16/2014

Report Number : **14-136-0206**

**REPORT OF ANALYSIS**

Lab No : **90033**  
Sample ID : **MLBGTW0101**

Matrix: **Aqueous**  
Sampled: **5/15/2014 14:50**

**Analytical Method:** 8260B

**Prep Method:** 5030B

**Prep Batch(es):** L199486

**Date/Time Prepped:** 5/18/2014 08:13:00

Test	Results	Units	MDL	MQL	DF	Date / Time Analyzed	By	Analytical Batch
Acetone	<0.00119	mg/L	0.00119	0.0200	1	05/18/14 13:46	SEB	L199487
Acetonitrile	<0.00520	mg/L	0.00520	0.0500	1	05/18/14 13:46	SEB	L199487
Acrolein	<0.00349	mg/L	0.00349	0.0200	1	05/18/14 13:46	SEB	L199487
Acrylonitrile	<0.00116	mg/L	0.00116	0.0200	1	05/18/14 13:46	SEB	L199487
Benzene	<b>0.00034 J</b>	mg/L	0.00004	0.00100	1	05/18/14 13:46	SEB	L199487
Bromobenzene	<0.00014	mg/L	0.00014	0.00100	1	05/18/14 13:46	SEB	L199487
Bromochloromethane	<0.00004	mg/L	0.00004	0.00100	1	05/18/14 13:46	SEB	L199487
Bromodichloromethane	<0.00004	mg/L	0.00004	0.00100	1	05/18/14 13:46	SEB	L199487
Bromoform	<0.00008	mg/L	0.00008	0.00100	1	05/18/14 13:46	SEB	L199487
Bromomethane	<0.00019	mg/L	0.00019	0.00100	1	05/18/14 13:46	SEB	L199487
Methyl Ethyl Ketone (MEK)	<0.00086	mg/L	0.00086	0.0200	1	05/18/14 13:46	SEB	L199487
n-Butylbenzene	<0.00006	mg/L	0.00006	0.00100	1	05/18/14 13:46	SEB	L199487
sec-Butyl benzene	<0.00004	mg/L	0.00004	0.00100	1	05/18/14 13:46	SEB	L199487
tert-Butyl benzene	<0.00004	mg/L	0.00004	0.00100	1	05/18/14 13:46	SEB	L199487
Carbon Disulfide	<b>0.00016 JB</b>	mg/L	0.00004	0.00100	1	05/18/14 13:46	SEB	L199487
Carbon Tetrachloride	<0.00005	mg/L	0.00005	0.00100	1	05/18/14 13:46	SEB	L199487
Chlorobenzene	<0.00004	mg/L	0.00004	0.00100	1	05/18/14 13:46	SEB	L199487
Chlorodibromomethane	<0.00050	mg/L	0.00050	0.00100	1	05/18/14 13:46	SEB	L199487
Chloroethane	<0.00012	mg/L	0.00012	0.00100	1	05/18/14 13:46	SEB	L199487
2-Chloroethylvinyl Ether	<0.00099	mg/L	0.00099	0.00500	1	05/18/14 13:46	SEB	L199487
Chloroform	<b>0.00033 J</b>	mg/L	0.00010	0.00100	1	05/18/14 13:46	SEB	L199487
Chloromethane	<0.00023	mg/L	0.00023	0.00100	1	05/18/14 13:46	SEB	L199487

Qualifiers/Definitions				
*	Outside QC limit	B	Analyte detected in blank	
DF	Dilution Factor	I	Recovery out of range	
J	Estimated value	MQL	Method Quantitation Limit	

03180

Ensafe  
Ms. Allison Harris  
5724 Summer Tree Drive  
Memphis, TN 38134

Project ID :  
Project : MLB Uptown  
Information : 714 N. Second St./Memphis, TN  
Project #0888815441,04

Report Date : 05/22/2014  
Received : 5/16/2014

Report Number : **14-136-0206**

**REPORT OF ANALYSIS**

Lab No : **90033**  
Sample ID : **MLBGTW0101**

Matrix: **Aqueous**  
Sampled: **5/15/2014 14:50**

**Analytical Method:** 8260B

**Prep Method:** 5030B

**Prep Batch(es):** L199486

**Date/Time Prepped:** 5/18/2014 08:13:00

Test	Results	Units	MDL	MQL	DF	Date / Time Analyzed	By	Analytical Batch
2-Chlorotoluene	<0.00005	mg/L	0.00005	0.00100	1	05/18/14 13:46	SEB	L199487
4-Chlorotoluene	<0.00006	mg/L	0.00006	0.00100	1	05/18/14 13:46	SEB	L199487
1,2-Dibromo-3-Chloropropane	<0.00033	mg/L	0.00033	0.00500	1	05/18/14 13:46	SEB	L199487
1,2-Dibromoethane	<0.00009	mg/L	0.00009	0.00100	1	05/18/14 13:46	SEB	L199487
Dibromomethane	<0.00005	mg/L	0.00005	0.00100	1	05/18/14 13:46	SEB	L199487
1,2-Dichlorobenzene	<0.00009	mg/L	0.00009	0.00100	1	05/18/14 13:46	SEB	L199487
1,3-Dichlorobenzene	<0.00009	mg/L	0.00009	0.00100	1	05/18/14 13:46	SEB	L199487
1,4-Dichlorobenzene	<0.00018	mg/L	0.00018	0.00100	1	05/18/14 13:46	SEB	L199487
Dichlorodifluoromethane	<0.00006	mg/L	0.00006	0.00100	1	05/18/14 13:46	SEB	L199487
1,1-Dichloroethane	<b>0.00215</b>	mg/L	0.00011	0.00100	1	05/18/14 13:46	SEB	L199487
1,2-Dichloroethane	<0.00028	mg/L	0.00028	0.00100	1	05/18/14 13:46	SEB	L199487
1,1-Dichloroethene	<b>0.00207</b>	mg/L	0.00007	0.00100	1	05/18/14 13:46	SEB	L199487
cis-1,2-Dichloroethene	<b>1.36</b>	mg/L	0.00071	0.0100	10	05/18/14 14:07	SEB	L199487
trans-1,2-Dichloroethene	<b>0.0125</b>	mg/L	0.00005	0.00100	1	05/18/14 13:46	SEB	L199487
1,2-Dichloroethene (Total)	<b>1.37</b>	mg/L	0.00005	0.00100	1	05/18/14 13:46		L199487
1,2-Dichloropropane	<0.00003	mg/L	0.00003	0.00100	1	05/18/14 13:46	SEB	L199487
1,3-Dichloropropane	<0.00004	mg/L	0.00004	0.00100	1	05/18/14 13:46	SEB	L199487
2,2-Dichloropropane	<0.00007	mg/L	0.00007	0.00100	1	05/18/14 13:46	SEB	L199487
1,1-Dichloropropene	<0.00016	mg/L	0.00016	0.00100	1	05/18/14 13:46	SEB	L199487
cis-1,3-Dichloropropene	<0.00003	mg/L	0.00003	0.00100	1	05/18/14 13:46	SEB	L199487
trans-1,3-Dichloropropene	<0.00006	mg/L	0.00006	0.00100	1	05/18/14 13:46	SEB	L199487
Ethyl Acetate	<0.00007	mg/L	0.00007	0.0100	1	05/18/14 13:46	SEB	L199487

Qualifiers/Definitions				
*	Outside QC limit	B	Analyte detected in blank	
DF	Dilution Factor	I	Recovery out of range	
J	Estimated value	MQL	Method Quantitation Limit	

03180

Ensafe  
Ms. Allison Harris  
5724 Summer Tree Drive  
Memphis, TN 38134

Project ID :  
Project : MLB Uptown  
Information : 714 N. Second St./Memphis, TN  
Project #0888815441,04

Report Date : 05/22/2014  
Received : 5/16/2014

Report Number : **14-136-0206**

**REPORT OF ANALYSIS**

Lab No : **90033**  
Sample ID : **MLBGTW0101**

Matrix: **Aqueous**  
Sampled: **5/15/2014 14:50**

**Analytical Method:** 8260B

**Prep Method:** 5030B

**Prep Batch(es):** L199486

**Date/Time Prepped:** 5/18/2014 08:13:00

Test	Results	Units	MDL	MQL	DF	Date / Time Analyzed	By	Analytical Batch
Ethylbenzene	<0.00005	mg/L	0.00005	0.00100	1	05/18/14 13:46	SEB	L199487
Hexachlorobutadiene	<0.00012	mg/L	0.00012	0.00100	1	05/18/14 13:46	SEB	L199487
2-Hexanone	<0.00131	mg/L	0.00131	0.00500	1	05/18/14 13:46	SEB	L199487
Iodomethane	<b>0.00045 JB</b>	mg/L	0.00007	0.00500	1	05/18/14 13:46	SEB	L199487
Isopropylbenzene	<0.00005	mg/L	0.00005	0.00100	1	05/18/14 13:46	SEB	L199487
4-Isopropyl toluene	<0.00004	mg/L	0.00004	0.00100	1	05/18/14 13:46	SEB	L199487
Methyl tert-butyl ether (MTBE)	<0.00004	mg/L	0.00004	0.00100	1	05/18/14 13:46	SEB	L199487
4-Methyl-2-Pentanone	<0.00111	mg/L	0.00111	0.00500	1	05/18/14 13:46	SEB	L199487
Methylene Chloride	<0.00041	mg/L	0.00041	0.00500	1	05/18/14 13:46	SEB	L199487
Naphthalene	<0.00054	mg/L	0.00054	0.00500	1	05/18/14 13:46	SEB	L199487
n-Propylbenzene	<0.00004	mg/L	0.00004	0.00100	1	05/18/14 13:46	SEB	L199487
Styrene	<0.00005	mg/L	0.00005	0.00100	1	05/18/14 13:46	SEB	L199487
1,1,1,2-Tetrachloroethane	<0.00006	mg/L	0.00006	0.00100	1	05/18/14 13:46	SEB	L199487
1,1,2,2-Tetrachloroethane	<0.00009	mg/L	0.00009	0.00100	1	05/18/14 13:46	SEB	L199487
Tetrachloroethene	<b>0.592</b>	mg/L	0.00074	0.0100	10	05/18/14 14:07	SEB	L199487
Toluene	<0.00004	mg/L	0.00004	0.00500	1	05/18/14 13:46	SEB	L199487
1,2,3-Trichlorobenzene	<0.00047	mg/L	0.00047	0.00100	1	05/18/14 13:46	SEB	L199487
1,2,4-Trichlorobenzene	<0.00037	mg/L	0.00037	0.00100	1	05/18/14 13:46	SEB	L199487
1,1,1-Trichloroethane	<0.00013	mg/L	0.00013	0.00100	1	05/18/14 13:46	SEB	L199487
1,1,2-Trichloroethane	<0.00004	mg/L	0.00004	0.00100	1	05/18/14 13:46	SEB	L199487
Trichloroethene	<b>0.288</b>	mg/L	0.00082	0.0100	10	05/18/14 14:07	SEB	L199487
Trichlorofluoromethane	<0.00004	mg/L	0.00004	0.00100	1	05/18/14 13:46	SEB	L199487

Qualifiers/Definitions				
*	Outside QC limit	B	Analyte detected in blank	
DF	Dilution Factor	I	Recovery out of range	
J	Estimated value	MQL	Method Quantitation Limit	

03180

Ensafe  
Ms. Allison Harris  
5724 Summer Tree Drive  
Memphis, TN 38134

Project ID :  
Project : MLB Uptown  
Information : 714 N. Second St./Memphis, TN  
Project #0888815441,04

Report Date : 05/22/2014  
Received : 5/16/2014

Report Number : **14-136-0206**

**REPORT OF ANALYSIS**

Lab No : **90033**  
Sample ID : **MLBGTW0101**

Matrix: **Aqueous**  
Sampled: **5/15/2014 14:50**

**Analytical Method:** 8260B

**Prep Method:** 5030B

**Prep Batch(es):** L199486

**Date/Time Prepped:** 5/18/2014 08:13:00

Test	Results	Units	MDL	MQL	DF	Date / Time Analyzed	By	Analytical Batch
1,2,3-Trichloropropane	<0.00010	mg/L	0.00010	0.00100	1	05/18/14 13:46	SEB	L199487
1,2,4-Trimethylbenzene	<0.00005	mg/L	0.00005	0.00100	1	05/18/14 13:46	SEB	L199487
1,3,5-Trimethylbenzene	<0.00006	mg/L	0.00006	0.00100	1	05/18/14 13:46	SEB	L199487
Vinyl Acetate	<0.00006	mg/L	0.00006	0.0100	1	05/18/14 13:46	SEB	L199487
Vinyl Chloride	<b>0.00049 J</b>	mg/L	0.00004	0.00100	1	05/18/14 13:46	SEB	L199487
o-Xylene	<b>0.00019 J</b>	mg/L	0.00007	0.00100	1	05/18/14 13:46	SEB	L199487
m,p-Xylene	<0.00012	mg/L	0.00012	0.00200	1	05/18/14 13:46	SEB	L199487
Xylene (Total)	<b>0.0001</b>	mg/L	0.00007	0.0010	1	05/18/14 13:46		L199487
Surrogate: 4-Bromofluorobenzene	92.0		Limits: 71-137%		1	05/18/14 13:46	SEB	L199487
Surrogate: Dibromofluoromethane	83.0		Limits: 70-128%		1	05/18/14 13:46	SEB	L199487
Surrogate: 1,2-Dichloroethane - d4	131		Limits: 63-136%		1	05/18/14 13:46	SEB	L199487
Surrogate: Toluene-d8	103		Limits: 70-130%		1	05/18/14 13:46	SEB	L199487
Surrogate: 4-Bromofluorobenzene	92.4		Limits: 71-137%		10	05/18/14 14:07	SEB	L199487
Surrogate: Dibromofluoromethane	82.8		Limits: 70-128%		10	05/18/14 14:07	SEB	L199487
Surrogate: 1,2-Dichloroethane - d4	125		Limits: 63-136%		10	05/18/14 14:07	SEB	L199487
Surrogate: Toluene-d8	97.0		Limits: 70-130%		10	05/18/14 14:07	SEB	L199487

**Analytical Method:** 8270C SIM

**Prep Method:** 3511

**Prep Batch(es):** L199437

**Date/Time Prepped:** 5/19/2014 09:15:00

Test	Results	Units	MDL	MQL	DF	Date / Time Analyzed	By	Analytical Batch
Acenaphthene	<0.000010	mg/L	0.000010	0.000020	1	05/20/14 13:32	NFP	L199718
Acenaphthylene	<0.000010	mg/L	0.000010	0.000020	1	05/20/14 13:32	NFP	L199718

Qualifiers/Definitions				
*	Outside QC limit		B	Analyte detected in blank
DF	Dilution Factor		I	Recovery out of range
J	Estimated value		MQL	Method Quantitation Limit



03180

Ensafe  
Ms. Allison Harris  
5724 Summer Tree Drive  
Memphis, TN 38134

Project ID :  
Project : MLB Uptown  
Information : 714 N. Second St./Memphis, TN  
Project #0888815441,04

Report Date : 05/22/2014  
Received : 5/16/2014

Report Number : 14-136-0206

### REPORT OF ANALYSIS

Lab No : 90033  
Sample ID : MLBGTW0101

Matrix: Aqueous  
Sampled: 5/15/2014 14:50

Analytical Method: 8270C SIM

Prep Method: 3511

Prep Batch(es): L199437

Date/Time Prepped: 5/19/2014 09:15:00

Test	Results	Units	MDL	MQL	DF	Date / Time Analyzed	By	Analytical Batch
Anthracene	0.000092	mg/L	0.000010	0.000020	1	05/20/14 13:32	NFP	L199718
Benzo(a)anthracene	<0.000010	mg/L	0.000010	0.000020	1	05/20/14 13:32	NFP	L199718
Benzo(a)pyrene	<0.000010	mg/L	0.000010	0.000020	1	05/20/14 13:32	NFP	L199718
Benzo(b)fluoranthene	<0.000010	mg/L	0.000010	0.000020	1	05/20/14 13:32	NFP	L199718
Benzo(g,h,i)perylene	<0.000010	mg/L	0.000010	0.000020	1	05/20/14 13:32	NFP	L199718
Benzo(k)fluoranthene	<0.000010	mg/L	0.000010	0.000020	1	05/20/14 13:32	NFP	L199718
Chrysene	<0.000010	mg/L	0.000010	0.000020	1	05/20/14 13:32	NFP	L199718
Dibenz(a,h)anthracene	<0.000010	mg/L	0.000010	0.000020	1	05/20/14 13:32	NFP	L199718
Fluoranthene	<0.000010	mg/L	0.000010	0.000020	1	05/20/14 13:32	NFP	L199718
Fluorene	0.000034	mg/L	0.000010	0.000020	1	05/20/14 13:32	NFP	L199718
Indeno(1,2,3-cd)pyrene	<0.000010	mg/L	0.000010	0.000020	1	05/20/14 13:32	NFP	L199718
2-Methylnaphthalene	0.000054 B	mg/L	0.000010	0.000020	1	05/20/14 13:32	NFP	L199718
Naphthalene	0.000101 B	mg/L	0.000010	0.000020	1	05/20/14 13:32	NFP	L199718
Phenanthrene	0.000068 B	mg/L	0.000010	0.000020	1	05/20/14 13:32	NFP	L199718
Pyrene	<0.000010	mg/L	0.000010	0.000020	1	05/20/14 13:32	NFP	L199718
Surrogate: 2-Fluorobiphenyl	88.8		Limits: 60-140%		1	05/20/14 13:32	NFP	L199718
Surrogate: 4-Terphenyl-d14	94.4		Limits: 60-140%		1	05/20/14 13:32	NFP	L199718

Qualifiers/Definitions				
*	Outside QC limit	B	Analyte detected in blank	
DF	Dilution Factor	I	Recovery out of range	
J	Estimated value	MQL	Method Quantitation Limit	





QC Report

Client ID Ensafe
Project Description MLB Uptown
Report No 14-136-0206

Analytical Method: 2540G-2011

Batch: L199409

Duplicate - A 57888-DUP

QC Measurement: RPD

DateTime Analyzed: 05/19/2014 09:00 AM

Table with 7 columns: Test Description, QC Result, Criteria, DUP Result, Sample Conc., MDL, Dilution. Row 1: % Moisture, 0.0 %, <15.0, 48.5 %, 48.5, 0.000, 1



QC Report

Client ID Ensafe
Project Description MLB Uptown
Report No 14-136-0206

Analytical Method: 2540G-2011

Batch: L199466

Duplicate - L 90323-DUP

QC Measurement: RPD

DateTime Analyzed: 05/19/2014 12:10 PM

Table with 7 columns: Test Description, QC Result, Criteria, DUP Result, Sample Conc., MDL, Dilution. Row 1: % Moisture, 2.1 %, <15.0, 18.3 %, 18.7, 0.000, 1

## QC Report

Client ID           **Ensafe**  
 Project Description    MLB Uptown  
 Report No            14-136-0206

**Analytical Method: 6010B**

**Batch: L199535**

**Prep Method: 3050B**

**Batch: L199444   5/19/14 9:45**

**Lab Reagent Blank - LRB-L199444**

**QC Measurement:   Limit**

**DateTime Analyzed: 05/19/2014 01:56 PM**

Test Description	LRB Result	MDL	SQL	Dilution
Total Arsenic	<0.710 mg/Kg	0.710	1.00	1
Total Barium	<0.058 mg/Kg	0.058	0.500	1
Total Cadmium	<0.0152 mg/Kg	0.0152	0.100	1
Total Chromium	<0.034 mg/Kg	0.034	0.250	1
Total Lead	<0.143 mg/Kg	0.143	0.300	1
Total Selenium	<0.510 mg/Kg	0.510	1.00	1
Total Silver	<0.0272 mg/Kg	0.0272	0.250	1

**Laboratory Control Sample - LCS-L199444**

**QC Measurement:   % Recovery**

**DateTime Analyzed: 05/19/2014 01:52 PM**

Test Description	QC Result	Criteria	LCS Result	LCS Conc.	MDL	Dilution
Total Arsenic	102 %	80-120%	5.12 mg/Kg	5.00	0.710	1
Total Barium	107 %	80-120%	53.7 mg/Kg	50.0	0.058	1
Total Cadmium	106 %	80-120%	5.28 mg/Kg	5.00	0.0152	1
Total Chromium	113 %	80-120%	56.6 mg/Kg	50.0	0.034	1
Total Lead	108 %	80-120%	5.39 mg/Kg	5.00	0.143	1
Total Selenium	99.4 %	80-120%	4.97 mg/Kg	5.00	0.510	1
Total Silver	105 %	80-120%	5.27 mg/Kg	5.00	0.0272	1

**Matrix Spike - L 90175-MS-L199444**

**QC Measurement:   % Recovery**

**DateTime Analyzed: 05/19/2014 07:30 PM**

Test Description	QC Result	Criteria	MS Result	MS Conc.	Sample Conc.	MDL	Dilution
Total Arsenic	127 % *	75-125%	6.04 mg/Kg	4.75	< 0.710	0.710	1
Total Barium	106 %	75-125%	112 mg/Kg	47.5	61.5	0.058	1
Total Cadmium	102 %	75-125%	5.23 mg/Kg	4.75	0.370	0.0152	1
Total Chromium	111 %	75-125%	68.3 mg/Kg	47.5	15.8	0.034	1
Total Lead	110 %	75-125%	12.1 mg/Kg	4.75	6.87	0.143	1

\* QC Fail

**QC Report**

Client ID           **Ensafe**  
Project Description    MLB Uptown  
Report No            14-136-0206

**Analytical Method: 6010B**

**Batch: L199535**

**Prep Method: 3050B**

**Batch: L199444   5/19/14 9:45**

**Matrix Spike - L 90175-MS-L199444**

**QC Measurement:   % Recovery**

**DateTime Analyzed: 05/19/2014 07:30 PM**

Test Description	QC Result	Criteria	MS Result	MS Conc.	Sample Conc.	MDL	Dilution
Total Selenium	95.4 %	75-125%	5.82 mg/Kg	4.75	1.29	0.510	1
Total Silver	104 %	75-125%	6.04 mg/Kg	4.75	1.11	0.0272	1

**Matrix Spike Duplicate - L 90175-MSD-L199444**

**QC Measurement:   % Recovery**

**DateTime Analyzed: 05/19/2014 07:33 PM**

Test Description	QC Result	Criteria	MSD Result	MSD Conc.	Sample Conc.	MDL	Dilution
Total Arsenic	125 % *	75-125%	5.84 mg/Kg	4.67	< 0.710	0.710	1
Total Barium	104 %	75-125%	110 mg/Kg	46.7	61.5	0.058	1
Total Cadmium	103 %	75-125%	5.19 mg/Kg	4.67	0.370	0.0152	1
Total Chromium	108 %	75-125%	66.3 mg/Kg	46.7	15.8	0.034	1
Total Lead	108 %	75-125%	11.9 mg/Kg	4.67	6.87	0.143	1
Total Selenium	97.2 %	75-125%	5.83 mg/Kg	4.67	1.29	0.510	1
Total Silver	103 %	75-125%	5.92 mg/Kg	4.67	1.11	0.0272	1

**Matrix Spike Duplicate - L 90175-MSD-L199444**

**QC Measurement:   RPD**

**DateTime Analyzed: 05/19/2014 07:33 PM**

Test Description	QC Result	Criteria	MSD Result	MSD Conc.	Sample Conc.	MDL	Dilution
Total Arsenic	3.3 %	<20.0	5.84 mg/Kg		6.04	0.710	1
Total Barium	1.8 %	<20.0	110 mg/Kg		112	0.058	1
Total Cadmium	0.7 %	<20.0	5.19 mg/Kg		5.23	0.0152	1
Total Chromium	2.9 %	<20.0	66.3 mg/Kg		68.3	0.034	1
Total Lead	1.6 %	<20.0	11.9 mg/Kg		12.1	0.143	1
Total Selenium	0.1 %	<20.0	5.83 mg/Kg		5.82	0.510	1
Total Silver	2.0 %	<20.0	5.92 mg/Kg		6.04	0.0272	1

\* QC Fail

**QC Report**

Client ID           **Ensafe**  
 Project Description    MLB Uptown  
 Report No            14-136-0206

**Analytical Method: 6010B**

**Batch: L199596**

**Prep Method: 3005A**

**Batch: L199467   5/19/14 10:35**

**Lab Reagent Blank - LRB-L199467**

**QC Measurement:   Limit**

**DateTime Analyzed: 05/19/2014 05:28 PM**

<b>Test Description</b>	<b>LRB Result</b>	<b>MDL</b>	<b>SQL</b>	<b>Dilution</b>
Total Arsenic	<0.006 mg/L	0.006	0.010	1
Total Barium	<0.001 mg/L	0.001	0.010	1
Total Cadmium	<0.0003 mg/L	0.0003	0.0020	1
Total Chromium	<0.001 mg/L	0.001	0.005	1
Total Lead	<0.003 mg/L	0.003	0.006	1
Total Selenium	<0.008 mg/L	0.008	0.010	1
Total Silver	<0.0008 mg/L	0.0008	0.0050	1

**Laboratory Control Sample - LCS-L199467**

**QC Measurement:   % Recovery**

**DateTime Analyzed: 05/19/2014 05:32 PM**

<b>Test Description</b>	<b>QC Result</b>	<b>Criteria</b>	<b>LCS Result</b>	<b>LCS Conc.</b>	<b>MDL</b>	<b>Dilution</b>
Total Arsenic	109 %	80-120%	0.109 mg/L	0.100	0.006	1
Total Barium	112 %	80-120%	1.12 mg/L	1.00	0.001	1
Total Cadmium	110 %	80-120%	0.110 mg/L	0.100	0.0003	1
Total Chromium	117 %	80-120%	1.17 mg/L	1.00	0.001	1
Total Lead	114 %	80-120%	0.114 mg/L	0.100	0.003	1
Total Selenium	112 %	80-120%	0.112 mg/L	0.100	0.008	1
Total Silver	108 %	80-120%	0.108 mg/L	0.100	0.0008	1

**Matrix Spike - L 90307-MS-L199467**

**QC Measurement:   % Recovery**

**DateTime Analyzed: 05/19/2014 06:19 PM**

<b>Test Description</b>	<b>QC Result</b>	<b>Criteria</b>	<b>MS Result</b>	<b>MS Conc.</b>	<b>Sample Conc.</b>	<b>MDL</b>	<b>Dilution</b>
Total Arsenic	106 %	75-125%	0.106 mg/L	0.100	< 0.006	0.006	1
Total Barium	108 %	75-125%	1.20 mg/L	1.00	0.119	0.001	1
Total Cadmium	105 %	75-125%	0.105 mg/L	0.100	< 0.0003	0.0003	1
Total Chromium	112 %	75-125%	1.12 mg/L	1.00	< 0.001	0.001	1
Total Lead	104 %	75-125%	0.104 mg/L	0.100	< 0.003	0.003	1

**QC Report**

Client ID **Ensafe**  
Project Description **MLB Uptown**  
Report No **14-136-0206**

**Analytical Method: 6010B**

**Batch: L199596**

**Prep Method: 3005A**

**Batch: L199467 5/19/14 10:35**

**Matrix Spike - L 90307-MS-L199467**

**QC Measurement: % Recovery**

**DateTime Analyzed: 05/19/2014 06:19 PM**

Test Description	QC Result	Criteria	MS Result	MS Conc.	Sample Conc.	MDL	Dilution
Total Selenium	100 %	75-125%	0.100 mg/L	0.100	< 0.008	0.008	1
Total Silver	107 %	75-125%	0.107 mg/L	0.100	< 0.0008	0.0008	1

**Matrix Spike Duplicate - L 90307-MSD-L199467**

**QC Measurement: % Recovery**

**DateTime Analyzed: 05/19/2014 06:23 PM**

Test Description	QC Result	Criteria	MSD Result	MSD Conc.	Sample Conc.	MDL	Dilution
Total Arsenic	107 %	75-125%	0.107 mg/L	0.100	< 0.006	0.006	1
Total Barium	107 %	75-125%	1.19 mg/L	1.00	0.119	0.001	1
Total Cadmium	104 %	75-125%	0.104 mg/L	0.100	< 0.0003	0.0003	1
Total Chromium	115 %	75-125%	1.15 mg/L	1.00	< 0.001	0.001	1
Total Lead	103 %	75-125%	0.103 mg/L	0.100	< 0.003	0.003	1
Total Selenium	103 %	75-125%	0.103 mg/L	0.100	< 0.008	0.008	1
Total Silver	108 %	75-125%	0.108 mg/L	0.100	< 0.0008	0.0008	1

**Matrix Spike Duplicate - L 90307-MSD-L199467**

**QC Measurement: RPD**

**DateTime Analyzed: 05/19/2014 06:23 PM**

Test Description	QC Result	Criteria	MSD Result	MSD Conc.	Sample Conc.	MDL	Dilution
Total Arsenic	0.9 %	<20.0	0.107 mg/L		0.106	0.006	1
Total Barium	0.8 %	<20.0	1.19 mg/L		1.20	0.001	1
Total Cadmium	0.9 %	<20.0	0.104 mg/L		0.105	0.0003	1
Total Chromium	2.6 %	<20.0	1.15 mg/L		1.12	0.001	1
Total Lead	0.9 %	<20.0	0.103 mg/L		0.104	0.003	1
Total Selenium	2.9 %	<20.0	0.103 mg/L		0.100	0.008	1
Total Silver	0.9 %	<20.0	0.108 mg/L		0.107	0.0008	1

**QC Report**

Client ID           **Ensafe**  
Project Description    MLB Uptown  
Report No            14-136-0206

**Analytical Method: 7470A**

**Batch: L199511**

**Prep Method: 7470A**

**Batch: L199421   05/19/14 08:00**

**Lab Reagent Blank - LRB-L199421**

**QC Measurement:   Limit**

**DateTime Analyzed: 05/19/2014 11:31 AM**

<u>Test Description</u>	<u>LRB Result</u>	<u>MDL</u>	<u>MQL</u>	<u>Dilution</u>
Total Mercury	<0.00005 mg/L	0.00005	0.00020	1

**Laboratory Control Sample - LCS-L199421**

**QC Measurement:   % Recovery**

**DateTime Analyzed: 05/19/2014 11:33 AM**

<u>Test Description</u>	<u>QC Result</u>	<u>Criteria</u>	<u>LCS Result</u>	<u>LCS Conc.</u>	<u>MDL</u>	<u>Dilution</u>
Total Mercury	95.2 %	80-120%	0.00381 mg/L	0.00400	0.00005	1

**Matrix Spike - L 90033-MS-L199421**

**QC Measurement:   % Recovery**

**DateTime Analyzed: 05/19/2014 11:36 AM**

<u>Test Description</u>	<u>QC Result</u>	<u>Criteria</u>	<u>MS Result</u>	<u>MS Conc.</u>	<u>Sample Conc.</u>	<u>MDL</u>	<u>Dilution</u>
Total Mercury	105 %	80-120%	0.00420 mg/L	0.00400	< 0.00005	0.00005	1

**Matrix Spike Duplicate - L 90033-MSD-L199421**

**QC Measurement:   % Recovery**

**DateTime Analyzed: 05/19/2014 11:38 AM**

<u>Test Description</u>	<u>QC Result</u>	<u>Criteria</u>	<u>MSD Result</u>	<u>MSD Conc.</u>	<u>Sample Conc.</u>	<u>MDL</u>	<u>Dilution</u>
Total Mercury	109 %	80-120%	0.00434 mg/L	0.00400	< 0.00005	0.00005	1

**Matrix Spike Duplicate - L 90033-MSD-L199421**

**QC Measurement:   RPD**

**DateTime Analyzed: 05/19/2014 11:38 AM**

<u>Test Description</u>	<u>QC Result</u>	<u>Criteria</u>	<u>MSD Result</u>	<u>MSD Conc.</u>	<u>Sample Conc.</u>	<u>MDL</u>	<u>Dilution</u>
Total Mercury	3.2 %	<20.0	0.00434 mg/L		0.00420	0.00005	1



**QC Report**

Client ID           **Ensafe**  
Project Description    MLB Uptown  
Report No            14-136-0206

**Analytical Method: 7471A**

**Batch: L199672**

**Prep Method: 7471A**

**Batch: L199617   05/20/14 10:00**

**Lab Reagent Blank - LRB-L199617**

**QC Measurement:   Limit**

**DateTime Analyzed: 05/20/2014 01:56 PM**

<u>Test Description</u>	<u>LRB Result</u>	<u>MDL</u>	<u>MQL</u>	<u>Dilution</u>
Total Mercury	<0.00263 mg/Kg	0.00263	0.0133	1

**Laboratory Control Sample - LCS-L199617**

**QC Measurement:   % Recovery**

**DateTime Analyzed: 05/20/2014 01:58 PM**

<u>Test Description</u>	<u>QC Result</u>	<u>Criteria</u>	<u>LCS Result</u>	<u>LCS Conc.</u>	<u>MDL</u>	<u>Dilution</u>
Total Mercury	99.9 %	80-120%	0.333 mg/Kg	0.333	0.00263	1

**Matrix Spike - L 90323-MS-L199617**

**QC Measurement:   % Recovery**

**DateTime Analyzed: 05/20/2014 02:02 PM**

<u>Test Description</u>	<u>QC Result</u>	<u>Criteria</u>	<u>MS Result</u>	<u>MS Conc.</u>	<u>Sample Conc.</u>	<u>MDL</u>	<u>Dilution</u>
Total Mercury	103 %	80-120%	0.328 mg/Kg	0.319	< 0.00263	0.00263	1

**Matrix Spike Duplicate - L 90323-MSD-L199617**

**QC Measurement:   % Recovery**

**DateTime Analyzed: 05/20/2014 02:04 PM**

<u>Test Description</u>	<u>QC Result</u>	<u>Criteria</u>	<u>MSD Result</u>	<u>MSD Conc.</u>	<u>Sample Conc.</u>	<u>MDL</u>	<u>Dilution</u>
Total Mercury	104 %	80-120%	0.323 mg/Kg	0.312	< 0.00263	0.00263	1

**Matrix Spike Duplicate - L 90323-MSD-L199617**

**QC Measurement:   RPD**

**DateTime Analyzed: 05/20/2014 02:04 PM**

<u>Test Description</u>	<u>QC Result</u>	<u>Criteria</u>	<u>MSD Result</u>	<u>MSD Conc.</u>	<u>Sample Conc.</u>	<u>MDL</u>	<u>Dilution</u>
Total Mercury	1.5 %	<20.0	0.323 mg/Kg		0.328	0.00263	1

## QC Report

Client ID           **Ensafe**  
 Project Description    MLB Uptown  
 Report No            14-136-0206

**Analytical Method: 8260B**

**Batch: L199487**

**Prep Method: 5030B**

**Batch: L199486   05/18/2014 08:13 AM**

**Lab Reagent Blank - LRB-L199486**

**QC Measurement:   Limit**

**DateTime Analyzed: 05/18/2014 11:19 AM**

Test Description	LRB Result	Qualifier	MDL	MQL	Dilution
Acetone	<0.00119 mg/L		0.00119	0.0200	1
Acetonitrile	<0.00520 mg/L		0.00520	0.0500	1
Acrolein	<0.00349 mg/L		0.00349	0.0200	1
Acrylonitrile	<0.00116 mg/L		0.00116	0.0200	1
Benzene	<0.00004 mg/L		0.00004	0.00100	1
Bromobenzene	<0.00014 mg/L		0.00014	0.00100	1
Bromochloromethane	<0.00004 mg/L		0.00004	0.00100	1
Bromodichloromethane	<0.00004 mg/L		0.00004	0.00100	1
Bromoform	<0.00008 mg/L		0.00008	0.00100	1
Bromomethane	<0.00019 mg/L		0.00019	0.00100	1
Methyl Ethyl Ketone (MEK)	<0.00086 mg/L		0.00086	0.0200	1
n-Butylbenzene	0.00027 mg/L	J	0.00006	0.00100	1
sec-Butyl benzene	<0.00004 mg/L		0.00004	0.00100	1
tert-Butyl benzene	<0.00004 mg/L		0.00004	0.00100	1
Carbon Disulfide	0.00030 mg/L	J	0.00004	0.00100	1
Carbon Tetrachloride	<0.00005 mg/L		0.00005	0.00100	1
Chlorobenzene	<0.00004 mg/L		0.00004	0.00100	1
Chlorodibromomethane	<0.00050 mg/L		0.00050	0.00100	1
Chloroethane	<0.00012 mg/L		0.00012	0.00100	1
2-Chloroethylvinyl Ether	<0.00099 mg/L		0.00099	0.00500	1
Chloroform	<0.00010 mg/L		0.00010	0.00100	1
Chloromethane	<0.00023 mg/L		0.00023	0.00100	1
2-Chlorotoluene	<0.00005 mg/L		0.00005	0.00100	1
4-Chlorotoluene	<0.00006 mg/L		0.00006	0.00100	1
1,2-Dibromo-3-Chloropropane	<0.00033 mg/L		0.00033	0.00500	1
1,2-Dibromoethane	<0.00009 mg/L		0.00009	0.00100	1
Dibromomethane	<0.00005 mg/L		0.00005	0.00100	1
1,2-Dichlorobenzene	<0.00009 mg/L		0.00009	0.00100	1
1,3-Dichlorobenzene	<0.00009 mg/L		0.00009	0.00100	1

**QC Report**

Client ID           **Ensafe**  
Project Description    MLB Uptown  
Report No            14-136-0206

**Analytical Method: 8260B**

**Batch: L199487**

**Prep Method: 5030B**

**Batch: L199486   05/18/2014 08:13 AM**

**Lab Reagent Blank - LRB-L199486**

**QC Measurement:   Limit**

**DateTime Analyzed: 05/18/2014 11:19 AM**

<b>Test Description</b>	<b>LRB Result</b>	<b>Qualifier</b>	<b>MDL</b>	<b>MLL</b>	<b>Dilution</b>
1,4-Dichlorobenzene	<0.00018 mg/L		0.00018	0.00100	1
Dichlorodifluoromethane	<0.00006 mg/L		0.00006	0.00100	1
1,1-Dichloroethane	<0.00011 mg/L		0.00011	0.00100	1
1,2-Dichloroethane	0.00030 mg/L	J	0.00028	0.00100	1
1,1-Dichloroethene	<0.00007 mg/L		0.00007	0.00100	1
cis-1,2-Dichloroethene	<0.00007 mg/L		0.00007	0.00100	1
trans-1,2-Dichloroethene	<0.00005 mg/L		0.00005	0.00100	1
1,2-Dichloropropane	<0.00003 mg/L		0.00003	0.00100	1
1,3-Dichloropropane	<0.00004 mg/L		0.00004	0.00100	1
2,2-Dichloropropane	<0.00007 mg/L		0.00007	0.00100	1
1,1-Dichloropropene	<0.00016 mg/L		0.00016	0.00100	1
cis-1,3-Dichloropropene	<0.00003 mg/L		0.00003	0.00100	1
trans-1,3-Dichloropropene	<0.00006 mg/L		0.00006	0.00100	1
Ethyl Acetate	<0.00007 mg/L		0.00007	0.0100	1
Ethylbenzene	<0.00005 mg/L		0.00005	0.00100	1
Hexachlorobutadiene	<0.00012 mg/L		0.00012	0.00100	1
2-Hexanone	<0.00131 mg/L		0.00131	0.00500	1
Iodomethane	0.00103 mg/L	J	0.00007	0.00500	1
Isopropylbenzene	<0.00005 mg/L		0.00005	0.00100	1
4-Isopropyl toluene	<0.00004 mg/L		0.00004	0.00100	1
Methyl tert-butyl ether (MTBE)	<0.00004 mg/L		0.00004	0.00100	1
4-Methyl-2-Pentanone	<0.00111 mg/L		0.00111	0.00500	1
Methylene Chloride	<0.00041 mg/L		0.00041	0.00500	1
Naphthalene	0.00059 mg/L	J	0.00054	0.00500	1
n-Propylbenzene	<0.00004 mg/L		0.00004	0.00100	1
Styrene	<0.00005 mg/L		0.00005	0.00100	1
1,1,1,2-Tetrachloroethane	<0.00006 mg/L		0.00006	0.00100	1
1,1,2,2-Tetrachloroethane	<0.00009 mg/L		0.00009	0.00100	1
Tetrachloroethene	<0.00007 mg/L		0.00007	0.00100	1

**QC Report**

Client ID           **Ensafe**  
Project Description    MLB Uptown  
Report No            14-136-0206

**Analytical Method: 8260B**

**Batch: L199487**

**Prep Method: 5030B**

**Batch: L199486   05/18/2014 08:13 AM**

**Lab Reagent Blank - LRB-L199486**

**QC Measurement:    Limit**

**DateTime Analyzed: 05/18/2014 11:19 AM**

<b>Test Description</b>	<b>LRB Result</b>	<b>Qualifier</b>	<b>MDL</b>	<b>SQL</b>	<b>Dilution</b>
Toluene	0.00065 mg/L	J	0.00004	0.00500	1
1,2,3-Trichlorobenzene	<0.00047 mg/L		0.00047	0.00100	1
1,2,4-Trichlorobenzene	<0.00037 mg/L		0.00037	0.00100	1
1,1,1-Trichloroethane	<0.00013 mg/L		0.00013	0.00100	1
1,1,2-Trichloroethane	<0.00004 mg/L		0.00004	0.00100	1
Trichloroethene	<0.00008 mg/L		0.00008	0.00100	1
Trichlorofluoromethane	<0.00004 mg/L		0.00004	0.00100	1
1,2,3-Trichloropropane	<0.00010 mg/L		0.00010	0.00100	1
1,2,4-Trimethylbenzene	<0.00005 mg/L		0.00005	0.00100	1
1,3,5-Trimethylbenzene	<0.00006 mg/L		0.00006	0.00100	1
Vinyl Acetate	<0.00006 mg/L		0.00006	0.0100	1
Vinyl Chloride	<0.00004 mg/L		0.00004	0.00100	1
o-Xylene	<0.00007 mg/L		0.00007	0.00100	1
m,p-Xylene	<0.00012 mg/L		0.00012	0.00200	1

**Surrogate Recovery:**

4-Bromofluorobenzene	94.8	0.0474 mg/L	0.0500		1
Dibromofluoromethane	89.0	0.0445 mg/L	0.0500		1
1,2-Dichloroethane - d4	120	0.0599 mg/L	0.0500		1
Toluene-d8	93.6	0.0468 mg/L	0.0500		1

**Laboratory Control Sample - LCS-L199486**

**QC Measurement:    % Recovery**

**DateTime Analyzed: 05/18/2014 08:52 AM**

<b>Test Description</b>	<b>QC Result</b>	<b>Criteria</b>	<b>LCS Result</b>	<b>LCS Conc.</b>	<b>MDL</b>	<b>Dilution</b>
Acetone	91.0 %	40-160%	0.0910 mg/L	0.100	0.00119	1
Acetonitrile	97.7 %	40-140%	0.977 mg/L	1.00	0.00520	1
Acrolein	106 %	20-140%	0.106 mg/L	0.100	0.00349	1
Acrylonitrile	109 %	20-140%	0.109 mg/L	0.100	0.00116	1
Benzene	91.2 %	80-120%	0.0912 mg/L	0.100	0.00004	1

**QC Report**

Client ID           **Ensafe**  
 Project Description   MLB Uptown  
 Report No            14-136-0206

**Analytical Method: 8260B**

**Batch: L199487**

**Prep Method: 5030B**

**Batch: L199486   05/18/2014 08:13 AM**

**Laboratory Control Sample - LCS-L199486**

**QC Measurement:   % Recovery**

**DateTime Analyzed: 05/18/2014 08:52 AM**

Test Description	QC Result	Criteria	LCS Result	LCS Conc.	MDL	Dilution
Bromobenzene	114 %	75-125%	0.114 mg/L	0.100	0.00014	1
Bromochloromethane	94.1 %	65-130%	0.0941 mg/L	0.100	0.00004	1
Bromodichloromethane	101 %	75-120%	0.101 mg/L	0.100	0.00004	1
Bromoform	111 %	70-130%	0.111 mg/L	0.100	0.00008	1
Bromomethane	121 %	40-140%	0.121 mg/L	0.100	0.00019	1
Methyl Ethyl Ketone (MEK)	92.9 %	40-140%	0.0929 mg/L	0.100	0.00086	1
n-Butylbenzene	110 %	70-135%	0.110 mg/L	0.100	0.00006	1
sec-Butyl benzene	111 %	70-125%	0.111 mg/L	0.100	0.00004	1
tert-Butyl benzene	110 %	70-130%	0.110 mg/L	0.100	0.00004	1
Carbon Disulfide	88.1 %	40-140%	0.0881 mg/L	0.100	0.00004	1
Carbon Tetrachloride	94.1 %	65-140%	0.0941 mg/L	0.100	0.00005	1
Chlorobenzene	107 %	80-120%	0.107 mg/L	0.100	0.00004	1
Chlorodibromomethane	113 %	75-120%	0.113 mg/L	0.100	0.00050	1
Chloroethane	68.1 %	60-135%	0.0681 mg/L	0.100	0.00012	1
2-Chloroethylvinyl Ether	79.8 %	40-140%	0.0798 mg/L	0.100	0.00099	1
Chloroform	102 %	80-120%	0.102 mg/L	0.100	0.00010	1
Chloromethane	82.5 %	40-125%	0.0825 mg/L	0.100	0.00023	1
2-Chlorotoluene	119 %	75-125%	0.119 mg/L	0.100	0.00005	1
4-Chlorotoluene	117 %	75-130%	0.117 mg/L	0.100	0.00006	1
1,2-Dibromo-3-Chloropropane	108 %	50-130%	0.108 mg/L	0.100	0.00033	1
1,2-Dibromoethane	101 %	80-120%	0.101 mg/L	0.100	0.00009	1
Dibromomethane	111 %	75-125%	0.111 mg/L	0.100	0.00005	1
1,2-Dichlorobenzene	112 %	70-120%	0.112 mg/L	0.100	0.00009	1
1,3-Dichlorobenzene	122 %	70-130%	0.122 mg/L	0.100	0.00009	1
1,4-Dichlorobenzene	112 %	75-125%	0.112 mg/L	0.100	0.00018	1
Dichlorodifluoromethane	60.6 %	40-140%	0.0606 mg/L	0.100	0.00006	1
1,1-Dichloroethane	103 %	70-135%	0.103 mg/L	0.100	0.00011	1
1,2-Dichloroethane	92.3 %	70-130%	0.0923 mg/L	0.100	0.00028	1
1,1-Dichloroethene	98.7 %	80-120%	0.0987 mg/L	0.100	0.00007	1

**QC Report**

Client ID           **Ensafe**  
 Project Description    MLB Uptown  
 Report No            14-136-0206

**Analytical Method: 8260B**

**Batch: L199487**

**Prep Method: 5030B**

**Batch: L199486   05/18/2014 08:13 AM**

**Laboratory Control Sample - LCS-L199486**

**QC Measurement:   % Recovery**

**DateTime Analyzed: 05/18/2014 08:52 AM**

Test Description	QC Result	Criteria	LCS Result	LCS Conc.	MDL	Dilution
cis-1,2-Dichloroethene	94.2 %	70-125%	0.0942 mg/L	0.100	0.00007	1
trans-1,2-Dichloroethene	90.8 %	60-140%	0.0908 mg/L	0.100	0.00005	1
1,2-Dichloropropane	111 %	80-120%	0.111 mg/L	0.100	0.00003	1
1,3-Dichloropropane	100 %	75-125%	0.100 mg/L	0.100	0.00004	1
2,2-Dichloropropane	110 %	70-135%	0.110 mg/L	0.100	0.00007	1
1,1-Dichloropropene	101 %	75-130%	0.101 mg/L	0.100	0.00016	1
cis-1,3-Dichloropropene	104 %	70-130%	0.104 mg/L	0.100	0.00003	1
trans-1,3-Dichloropropene	108 %	55-140%	0.108 mg/L	0.100	0.00006	1
Ethyl Acetate	93.3 %	40-125%	0.0933 mg/L	0.100	0.00007	1
Ethylbenzene	119 %	80-120%	0.119 mg/L	0.100	0.00005	1
Hexachlorobutadiene	117 %	50-140%	0.117 mg/L	0.100	0.00012	1
2-Hexanone	139 %	55-145%	0.139 mg/L	0.100	0.00131	1
Iodomethane	71.0 %	40-125%	0.0710 mg/L	0.100	0.00007	1
Isopropylbenzene	106 %	75-125%	0.106 mg/L	0.100	0.00005	1
4-Isopropyl toluene	115 %	75-130%	0.115 mg/L	0.100	0.00004	1
Methyl tert-butyl ether (MTBE)	86.2 %	65-135%	0.0862 mg/L	0.100	0.00004	1
4-Methyl-2-Pentanone	115 %	60-135%	0.115 mg/L	0.100	0.00111	1
Methylene Chloride	96.8 %	55-140%	0.0968 mg/L	0.100	0.00041	1
Naphthalene	106 %	55-140%	0.106 mg/L	0.100	0.00054	1
n-Propylbenzene	127 %	60-140%	0.127 mg/L	0.100	0.00004	1
Styrene	110 %	65-135%	0.110 mg/L	0.100	0.00005	1
1,1,1,2-Tetrachloroethane	107 %	70-130%	0.107 mg/L	0.100	0.00006	1
1,1,2,2-Tetrachloroethane	118 %	65-140%	0.118 mg/L	0.100	0.00009	1
Tetrachloroethene	111 %	60-145%	0.111 mg/L	0.100	0.00007	1
Toluene	105 %	80-120%	0.105 mg/L	0.100	0.00004	1
1,2,3-Trichlorobenzene	110 %	55-140%	0.110 mg/L	0.100	0.00047	1
1,2,4-Trichlorobenzene	113 %	65-135%	0.113 mg/L	0.100	0.00037	1
1,1,1-Trichloroethane	95.8 %	65-130%	0.0958 mg/L	0.100	0.00013	1
1,1,2-Trichloroethane	117 %	75-125%	0.117 mg/L	0.100	0.00004	1

**QC Report**

Client ID           **Ensafe**  
Project Description    MLB Uptown  
Report No            14-136-0206

**Analytical Method: 8260B**

**Batch: L199487**

**Prep Method: 5030B**

**Batch: L199486   05/18/2014 08:13 AM**

**Laboratory Control Sample - LCS-L199486**

**QC Measurement:   % Recovery**

**DateTime Analyzed: 05/18/2014 08:52 AM**

Test Description	QC Result	Criteria	LCS Result	LCS Conc.	MDL	Dilution
Trichloroethene	120 %	70-125%	0.120 mg/L	0.100	0.00008	1
Trichlorofluoromethane	90.4 %	45-150%	0.0904 mg/L	0.100	0.00004	1
1,2,3-Trichloropropane	97.5 %	75-125%	0.0975 mg/L	0.100	0.00010	1
1,2,4-Trimethylbenzene	102 %	70-130%	0.102 mg/L	0.100	0.00005	1
1,3,5-Trimethylbenzene	115 %	75-130%	0.115 mg/L	0.100	0.00006	1
Vinyl Acetate	93.5 %	40-125%	0.0935 mg/L	0.100	0.00006	1
Vinyl Chloride	84.8 %	80-120%	0.0848 mg/L	0.100	0.00004	1
o-Xylene	119 %	80-120%	0.119 mg/L	0.100	0.00007	1
m,p-Xylene	117 %	75-130%	0.233 mg/L	0.200	0.00012	1

**Surrogate Recovery:**

4-Bromofluorobenzene	100 %	71-137%	0.0501 mg/L	0.0500		1
Dibromofluoromethane	82.4 %	70-128%	0.0412 mg/L	0.0500		1
1,2-Dichloroethane - d4	93.8 %	63-136%	0.0469 mg/L	0.0500		1
Toluene-d8	88.4 %	70-130%	0.0442 mg/L	0.0500		1

**Matrix Spike - L 89707-MS-L199486**

**QC Measurement:   % Recovery**

**DateTime Analyzed: 05/18/2014 07:01 PM**

Test Description	QC Result	Criteria	MS Result	MS Conc.	Sample Conc.	MDL	Dilution
Acetone	57.7 %	40-160%	0.0577 mg/L	0.100	<0.00119	0.00119	1
Acetonitrile	114 %	40-140%	1.14 mg/L	1.00	<0.00520	0.00520	1
Acrolein	102 %	20-140%	0.102 mg/L	0.100	<0.00349	0.00349	1
Acrylonitrile	124 %	20-140%	0.124 mg/L	0.100	<0.00116	0.00116	1
Benzene	100 %	80-120%	0.100 mg/L	0.100	<0.00004	0.00004	1
Bromobenzene	104 %	75-125%	0.104 mg/L	0.100	<0.00014	0.00014	1
Bromochloromethane	104 %	65-130%	0.104 mg/L	0.100	<0.00004	0.00004	1
Bromodichloromethane	108 %	75-120%	0.108 mg/L	0.100	<0.00004	0.00004	1
Bromoform	103 %	70-130%	0.103 mg/L	0.100	<0.00008	0.00008	1
Bromomethane	119 %	40-140%	0.119 mg/L	0.100	<0.00019	0.00019	1



### QC Report

Client ID           **Ensafe**  
 Project Description   MLB Uptown  
 Report No            14-136-0206

**Analytical Method: 8260B**

**Batch: L199487**

**Prep Method: 5030B**

**Batch: L199486   05/18/2014 08:13 AM**

**Matrix Spike - L 89707-MS-L199486**

**QC Measurement:   % Recovery**

**DateTime Analyzed: 05/18/2014 07:01 PM**

Test Description	QC Result	Criteria	MS Result	MS Conc.	Sample Conc.	MDL	Dilution
Methyl Ethyl Ketone (MEK)	76.0 %	40-140%	0.0760 mg/L	0.100	<0.00086	0.00086	1
n-Butylbenzene	92.4 %	70-135%	0.0924 mg/L	0.100	<0.00006	0.00006	1
sec-Butyl benzene	106 %	70-125%	0.106 mg/L	0.100	<0.00004	0.00004	1
tert-Butyl benzene	115 %	70-130%	0.115 mg/L	0.100	<0.00004	0.00004	1
Carbon Disulfide	99.5 %	40-140%	0.0995 mg/L	0.100	<0.00004	0.00004	1
Carbon Tetrachloride	103 %	65-140%	0.103 mg/L	0.100	<0.00005	0.00005	1
Chlorobenzene	108 %	80-120%	0.108 mg/L	0.100	<0.00004	0.00004	1
Chlorodibromomethane	122 % *	75-120%	0.122 mg/L	0.100	<0.00050	0.00050	1
Chloroethane	92.6 %	60-135%	0.0926 mg/L	0.100	<0.00012	0.00012	1
2-Chloroethylvinyl Ether	0.0 % *	40-140%	0.00156 mg/L	0.100	<0.00099	0.00099	1
Chloroform	104 %	80-120%	0.104 mg/L	0.100	<0.00010	0.00010	1
Chloromethane	89.2 %	40-125%	0.0892 mg/L	0.100	<0.00023	0.00023	1
2-Chlorotoluene	115 %	75-125%	0.115 mg/L	0.100	<0.00005	0.00005	1
4-Chlorotoluene	104 %	75-130%	0.104 mg/L	0.100	<0.00006	0.00006	1
1,2-Dibromo-3-Chloropropane	99.4 %	50-130%	0.0994 mg/L	0.100	<0.00033	0.00033	1
1,2-Dibromoethane	119 %	80-120%	0.119 mg/L	0.100	<0.00009	0.00009	1
Dibromomethane	116 %	75-125%	0.116 mg/L	0.100	<0.00005	0.00005	1
1,2-Dichlorobenzene	97.7 %	70-120%	0.0977 mg/L	0.100	<0.00009	0.00009	1
1,3-Dichlorobenzene	105 %	70-130%	0.105 mg/L	0.100	<0.00009	0.00009	1
1,4-Dichlorobenzene	93.7 %	75-125%	0.0937 mg/L	0.100	<0.00018	0.00018	1
Dichlorodifluoromethane	62.3 %	40-140%	0.0623 mg/L	0.100	<0.00006	0.00006	1
1,1-Dichloroethane	107 %	70-135%	0.107 mg/L	0.100	<0.00011	0.00011	1
1,2-Dichloroethane	111 %	70-130%	0.111 mg/L	0.100	<0.00028	0.00028	1
1,1-Dichloroethene	100 %	80-120%	0.100 mg/L	0.100	<0.00007	0.00007	1
cis-1,2-Dichloroethene	102 %	70-125%	0.102 mg/L	0.100	<0.00007	0.00007	1
trans-1,2-Dichloroethene	99.4 %	60-140%	0.0994 mg/L	0.100	<0.00005	0.00005	1
1,2-Dichloropropane	116 %	80-120%	0.116 mg/L	0.100	<0.00003	0.00003	1
1,3-Dichloropropane	107 %	75-125%	0.107 mg/L	0.100	<0.00004	0.00004	1
2,2-Dichloropropane	109 %	70-135%	0.109 mg/L	0.100	<0.00007	0.00007	1

\* QC Fail

**QC Report**

Client ID           **Ensafe**  
 Project Description    MLB Uptown  
 Report No            14-136-0206

**Analytical Method: 8260B**

**Batch: L199487**

**Prep Method: 5030B**

**Batch: L199486   05/18/2014 08:13 AM**

**Matrix Spike - L 89707-MS-L199486**

**QC Measurement:   % Recovery**

**DateTime Analyzed: 05/18/2014 07:01 PM**

Test Description	QC Result	Criteria	MS Result	MS Conc.	Sample Conc.	MDL	Dilution
1,1-Dichloropropene	109 %	75-130%	0.109 mg/L	0.100	<0.00016	0.00016	1
cis-1,3-Dichloropropene	107 %	70-130%	0.107 mg/L	0.100	<0.00003	0.00003	1
trans-1,3-Dichloropropene	108 %	55-140%	0.108 mg/L	0.100	<0.00006	0.00006	1
Ethyl Acetate	87.9 %	40-125%	0.0879 mg/L	0.100	<0.00007	0.00007	1
Ethylbenzene	101 %	80-120%	0.101 mg/L	0.100	<0.00005	0.00005	1
Hexachlorobutadiene	101 %	50-140%	0.101 mg/L	0.100	<0.00012	0.00012	1
2-Hexanone	108 %	55-145%	0.108 mg/L	0.100	<0.00131	0.00131	1
Iodomethane	86.8 %	40-125%	0.0868 mg/L	0.100	<0.00007	0.00007	1
Isopropylbenzene	103 %	75-125%	0.103 mg/L	0.100	<0.00005	0.00005	1
4-Isopropyl toluene	108 %	75-130%	0.108 mg/L	0.100	<0.00004	0.00004	1
Methyl tert-butyl ether (MTBE)	97.5 %	65-135%	0.0975 mg/L	0.100	<0.00004	0.00004	1
4-Methyl-2-Pentanone	113 %	60-135%	0.113 mg/L	0.100	<0.00111	0.00111	1
Methylene Chloride	101 %	55-140%	0.101 mg/L	0.100	<0.00041	0.00041	1
Naphthalene	92.9 %	55-140%	0.0929 mg/L	0.100	<0.00054	0.00054	1
n-Propylbenzene	115 %	60-140%	0.115 mg/L	0.100	<0.00004	0.00004	1
Styrene	99.6 %	65-135%	0.0996 mg/L	0.100	<0.00005	0.00005	1
1,1,1,2-Tetrachloroethane	105 %	70-130%	0.105 mg/L	0.100	<0.00006	0.00006	1
1,1,2,2-Tetrachloroethane	106 %	65-140%	0.106 mg/L	0.100	<0.00009	0.00009	1
Tetrachloroethene	21.0 % *	60-145%	0.546 mg/L	0.100	0.525	0.00007	1
Toluene	105 %	80-120%	0.105 mg/L	0.100	<0.00004	0.00004	1
1,2,3-Trichlorobenzene	94.8 %	55-140%	0.0948 mg/L	0.100	<0.00047	0.00047	1
1,2,4-Trichlorobenzene	91.1 %	65-135%	0.0911 mg/L	0.100	<0.00037	0.00037	1
1,1,1-Trichloroethane	103 %	65-130%	0.103 mg/L	0.100	<0.00013	0.00013	1
1,1,2-Trichloroethane	117 %	75-125%	0.117 mg/L	0.100	<0.00004	0.00004	1
Trichloroethene	114 %	70-125%	0.116 mg/L	0.100	0.00170	0.00008	1
Trichlorofluoromethane	106 %	45-150%	0.106 mg/L	0.100	<0.00004	0.00004	1
1,2,3-Trichloropropane	105 %	75-125%	0.105 mg/L	0.100	<0.00010	0.00010	1
1,2,4-Trimethylbenzene	97.2 %	70-130%	0.0972 mg/L	0.100	<0.00005	0.00005	1
1,3,5-Trimethylbenzene	102 %	75-130%	0.102 mg/L	0.100	<0.00006	0.00006	1

\* QC Fail

**QC Report**

Client ID           **Ensafe**  
Project Description    MLB Uptown  
Report No            14-136-0206

**Analytical Method: 8260B**

**Batch: L199487**

**Prep Method: 5030B**

**Batch: L199486   05/18/2014 08:13 AM**

**Matrix Spike - L 89707-MS-L199486**

**QC Measurement:   % Recovery**

**DateTime Analyzed: 05/18/2014 07:01 PM**

Test Description	QC Result	Criteria	MS Result	MS Conc.	Sample Conc.	MDL	Dilution
Vinyl Acetate	102 %	40-125%	0.102 mg/L	0.100	<0.00006	0.00006	1
Vinyl Chloride	90.8 %	80-120%	0.0908 mg/L	0.100	<0.00004	0.00004	1
o-Xylene	109 %	80-120%	0.109 mg/L	0.100	<0.00007	0.00007	1
m,p-Xylene	108 %	75-130%	0.216 mg/L	0.200	<0.00012	0.00012	1
<b>Surrogate Recovery:</b>							
4-Bromofluorobenzene	91.4 %	71-137%	0.0457 mg/L	0.0500			1
Dibromofluoromethane	92.8 %	70-128%	0.0464 mg/L	0.0500			1
1,2-Dichloroethane - d4	99.4 %	63-136%	0.0497 mg/L	0.0500			1
Toluene-d8	101 %	70-130%	0.0504 mg/L	0.0500			1

**Matrix Spike Duplicate - L 89707-MSD-L199486**

**QC Measurement:   % Recovery**

**DateTime Analyzed: 05/18/2014 07:22 PM**

Test Description	QC Result	Criteria	MSD Result	MSD Conc.	Sample Conc.	MDL	Dilution
Acetone	59.9 %	40-160%	0.0599 mg/L	0.100	<0.00119	0.00119	1
Acetonitrile	117 %	40-140%	1.17 mg/L	1.00	<0.00520	0.00520	1
Acrolein	109 %	20-140%	0.109 mg/L	0.100	<0.00349	0.00349	1
Acrylonitrile	126 %	20-140%	0.126 mg/L	0.100	<0.00116	0.00116	1
Benzene	97.1 %	80-120%	0.0971 mg/L	0.100	<0.00004	0.00004	1
Bromobenzene	105 %	75-125%	0.105 mg/L	0.100	<0.00014	0.00014	1
Bromochloromethane	100 %	65-130%	0.100 mg/L	0.100	<0.00004	0.00004	1
Bromodichloromethane	103 %	75-120%	0.103 mg/L	0.100	<0.00004	0.00004	1
Bromoform	108 %	70-130%	0.108 mg/L	0.100	<0.00008	0.00008	1
Bromomethane	134 %	40-140%	0.134 mg/L	0.100	<0.00019	0.00019	1
Methyl Ethyl Ketone (MEK)	82.5 %	40-140%	0.0825 mg/L	0.100	<0.00086	0.00086	1
n-Butylbenzene	100 %	70-135%	0.100 mg/L	0.100	<0.00006	0.00006	1
sec-Butyl benzene	98.4 %	70-125%	0.0984 mg/L	0.100	<0.00004	0.00004	1
tert-Butyl benzene	104 %	70-130%	0.104 mg/L	0.100	<0.00004	0.00004	1
Carbon Disulfide	97.1 %	40-140%	0.0971 mg/L	0.100	<0.00004	0.00004	1

### QC Report

Client ID           **Ensafe**  
 Project Description    MLB Uptown  
 Report No            14-136-0206

**Analytical Method: 8260B**

**Batch: L199487**

**Prep Method: 5030B**

**Batch: L199486   05/18/2014 08:13 AM**

**Matrix Spike Duplicate - L 89707-MSD-L199486**

**QC Measurement:   % Recovery**

**DateTime Analyzed: 05/18/2014 07:22 PM**

Test Description	QC Result	Criteria	MSD Result	MSD Conc.	Sample Conc.	MDL	Dilution
Carbon Tetrachloride	98.6 %	65-140%	0.0986 mg/L	0.100	<0.00005	0.00005	1
Chlorobenzene	105 %	80-120%	0.105 mg/L	0.100	<0.00004	0.00004	1
Chlorodibromomethane	113 %	75-120%	0.113 mg/L	0.100	<0.00050	0.00050	1
Chloroethane	76.7 %	60-135%	0.0767 mg/L	0.100	<0.00012	0.00012	1
2-Chloroethylvinyl Ether	0.0 % *	40-140%	<0.00099 mg/L	0.100	<0.00099	0.00099	1
Chloroform	111 %	80-120%	0.111 mg/L	0.100	<0.00010	0.00010	1
Chloromethane	98.5 %	40-125%	0.0985 mg/L	0.100	<0.00023	0.00023	1
2-Chlorotoluene	107 %	75-125%	0.107 mg/L	0.100	<0.00005	0.00005	1
4-Chlorotoluene	113 %	75-130%	0.113 mg/L	0.100	<0.00006	0.00006	1
1,2-Dibromo-3-Chloropropane	107 %	50-130%	0.107 mg/L	0.100	<0.00033	0.00033	1
1,2-Dibromoethane	109 %	80-120%	0.109 mg/L	0.100	<0.00009	0.00009	1
Dibromomethane	120 %	75-125%	0.120 mg/L	0.100	<0.00005	0.00005	1
1,2-Dichlorobenzene	105 %	70-120%	0.105 mg/L	0.100	<0.00009	0.00009	1
1,3-Dichlorobenzene	104 %	70-130%	0.104 mg/L	0.100	<0.00009	0.00009	1
1,4-Dichlorobenzene	97.7 %	75-125%	0.0977 mg/L	0.100	<0.00018	0.00018	1
Dichlorodifluoromethane	58.8 %	40-140%	0.0588 mg/L	0.100	<0.00006	0.00006	1
1,1-Dichloroethane	114 %	70-135%	0.114 mg/L	0.100	<0.00011	0.00011	1
1,2-Dichloroethane	107 %	70-130%	0.107 mg/L	0.100	<0.00028	0.00028	1
1,1-Dichloroethene	102 %	80-120%	0.102 mg/L	0.100	<0.00007	0.00007	1
cis-1,2-Dichloroethene	101 %	70-125%	0.101 mg/L	0.100	<0.00007	0.00007	1
trans-1,2-Dichloroethene	96.4 %	60-140%	0.0964 mg/L	0.100	<0.00005	0.00005	1
1,2-Dichloropropane	112 %	80-120%	0.112 mg/L	0.100	<0.00003	0.00003	1
1,3-Dichloropropane	105 %	75-125%	0.105 mg/L	0.100	<0.00004	0.00004	1
2,2-Dichloropropane	108 %	70-135%	0.108 mg/L	0.100	<0.00007	0.00007	1
1,1-Dichloropropene	104 %	75-130%	0.104 mg/L	0.100	<0.00016	0.00016	1
cis-1,3-Dichloropropene	101 %	70-130%	0.101 mg/L	0.100	<0.00003	0.00003	1
trans-1,3-Dichloropropene	109 %	55-140%	0.109 mg/L	0.100	<0.00006	0.00006	1
Ethyl Acetate	96.6 %	40-125%	0.0966 mg/L	0.100	<0.00007	0.00007	1
Ethylbenzene	99.9 %	80-120%	0.0999 mg/L	0.100	<0.00005	0.00005	1

\* QC Fail

**QC Report**

Client ID           **Ensafe**  
Project Description    MLB Uptown  
Report No            14-136-0206

**Analytical Method: 8260B**

**Batch: L199487**

**Prep Method: 5030B**

**Batch: L199486   05/18/2014 08:13 AM**

**Matrix Spike Duplicate - L 89707-MSD-L199486**

**QC Measurement:   % Recovery**

**DateTime Analyzed: 05/18/2014 07:22 PM**

Test Description	QC Result	Criteria	MSD Result	MSD Conc.	Sample Conc.	MDL	Dilution
Hexachlorobutadiene	97.9 %	50-140%	0.0979 mg/L	0.100	<0.00012	0.00012	1
2-Hexanone	111 %	55-145%	0.111 mg/L	0.100	<0.00131	0.00131	1
Iodomethane	62.8 %	40-125%	0.0628 mg/L	0.100	<0.00007	0.00007	1
Isopropylbenzene	108 %	75-125%	0.108 mg/L	0.100	<0.00005	0.00005	1
4-Isopropyl toluene	111 %	75-130%	0.111 mg/L	0.100	<0.00004	0.00004	1
Methyl tert-butyl ether (MTBE)	98.7 %	65-135%	0.0987 mg/L	0.100	<0.00004	0.00004	1
4-Methyl-2-Pentanone	120 %	60-135%	0.120 mg/L	0.100	<0.00111	0.00111	1
Methylene Chloride	104 %	55-140%	0.104 mg/L	0.100	<0.00041	0.00041	1
Naphthalene	108 %	55-140%	0.108 mg/L	0.100	<0.00054	0.00054	1
n-Propylbenzene	110 %	60-140%	0.110 mg/L	0.100	<0.00004	0.00004	1
Styrene	103 %	65-135%	0.103 mg/L	0.100	<0.00005	0.00005	1
1,1,1,2-Tetrachloroethane	101 %	70-130%	0.101 mg/L	0.100	<0.00006	0.00006	1
1,1,2,2-Tetrachloroethane	113 %	65-140%	0.113 mg/L	0.100	<0.00009	0.00009	1
Tetrachloroethene	18.0 % *	60-145%	0.543 mg/L	0.100	0.525	0.00007	1
Toluene	107 %	80-120%	0.107 mg/L	0.100	<0.00004	0.00004	1
1,2,3-Trichlorobenzene	105 %	55-140%	0.105 mg/L	0.100	<0.00047	0.00047	1
1,2,4-Trichlorobenzene	102 %	65-135%	0.102 mg/L	0.100	<0.00037	0.00037	1
1,1,1-Trichloroethane	102 %	65-130%	0.102 mg/L	0.100	<0.00013	0.00013	1
1,1,2-Trichloroethane	120 %	75-125%	0.120 mg/L	0.100	<0.00004	0.00004	1
Trichloroethene	110 %	70-125%	0.112 mg/L	0.100	0.00170	0.00008	1
Trichlorofluoromethane	111 %	45-150%	0.111 mg/L	0.100	<0.00004	0.00004	1
1,2,3-Trichloropropane	114 %	75-125%	0.114 mg/L	0.100	<0.00010	0.00010	1
1,2,4-Trimethylbenzene	90.0 %	70-130%	0.0900 mg/L	0.100	<0.00005	0.00005	1
1,3,5-Trimethylbenzene	108 %	75-130%	0.108 mg/L	0.100	<0.00006	0.00006	1
Vinyl Acetate	156 % *	40-125%	0.156 mg/L	0.100	<0.00006	0.00006	1
Vinyl Chloride	94.6 %	80-120%	0.0946 mg/L	0.100	<0.00004	0.00004	1
o-Xylene	103 %	80-120%	0.103 mg/L	0.100	<0.00007	0.00007	1

\* QC Fail

**QC Report**

Client ID           **Ensafe**  
Project Description    MLB Uptown  
Report No            14-136-0206

**Analytical Method: 8260B**

**Batch: L199487**

**Prep Method: 5030B**

**Batch: L199486   05/18/2014 08:13 AM**

**Matrix Spike Duplicate - L 89707-MSD-L199486**

**QC Measurement:   % Recovery**

**DateTime Analyzed: 05/18/2014 07:22 PM**

Test Description	QC Result	Criteria	MSD Result	MSD Conc.	Sample Conc.	MDL	Dilution
m,p-Xylene	108 %	75-130%	0.216 mg/L	0.200	<0.00012	0.00012	1
<b>Surrogate Recovery:</b>							
4-Bromofluorobenzene	88.0 %	71-137%	0.0440 mg/L	0.0500			1
Dibromofluoromethane	89.0 %	70-128%	0.0445 mg/L	0.0500			1
1,2-Dichloroethane - d4	85.0 %	63-136%	0.0425 mg/L	0.0500			1
Toluene-d8	93.6 %	70-130%	0.0468 mg/L	0.0500			1

**Matrix Spike Duplicate - L 89707-MSD-L199486**

**QC Measurement:   RPD**

**DateTime Analyzed: 05/18/2014 07:22 PM**

Test Description	QC Result	Criteria	MSD Result	MSD Conc.	Sample Conc.	MDL	Dilution
Acetone	3.7 %	< 30	0.0599 mg/L		0.0577	0.00119	1
Acetonitrile	2.5 %	< 30	1.17 mg/L		1.14	0.00520	1
Acrolein	6.6 %	< 30	0.109 mg/L		0.102	0.00349	1
Acrylonitrile	1.6 %	< 30	0.126 mg/L		0.124	0.00116	1
Benzene	2.9 %	< 30	0.0971 mg/L		0.100	0.00004	1
Bromobenzene	0.9 %	< 30	0.105 mg/L		0.104	0.00014	1
Bromochloromethane	3.9 %	< 30	0.100 mg/L		0.104	0.00004	1
Bromodichloromethane	4.7 %	< 30	0.103 mg/L		0.108	0.00004	1
Bromoform	4.7 %	< 30	0.108 mg/L		0.103	0.00008	1
Bromomethane	11.8 %	< 30	0.134 mg/L		0.119	0.00019	1
Methyl Ethyl Ketone (MEK)	8.2 %	< 30	0.0825 mg/L		0.0760	0.00086	1
n-Butylbenzene	7.9 %	< 30	0.100 mg/L		0.0924	0.00006	1
sec-Butyl benzene	7.4 %	< 30	0.0984 mg/L		0.106	0.00004	1
tert-Butyl benzene	10.0 %	< 30	0.104 mg/L		0.115	0.00004	1
Carbon Disulfide	2.4 %	< 30	0.0971 mg/L		0.0995	0.00004	1
Carbon Tetrachloride	4.3 %	< 30	0.0986 mg/L		0.103	0.00005	1
Chlorobenzene	2.8 %	< 30	0.105 mg/L		0.108	0.00004	1
Chlorodibromomethane	7.6 %	< 30	0.113 mg/L		0.122	0.00050	1
Chloroethane	18.7 %	< 30	0.0767 mg/L		0.0926	0.00012	1

**QC Report**

Client ID           **Ensafe**  
Project Description    MLB Uptown  
Report No            14-136-0206

**Analytical Method: 8260B**

**Batch: L199487**

**Prep Method: 5030B**

**Batch: L199486   05/18/2014 08:13 AM**

**Matrix Spike Duplicate - L 89707-MSD-L199486**

**QC Measurement:   RPD**

**DateTime Analyzed: 05/18/2014 07:22 PM**

Test Description	QC Result	Criteria	MSD Result	MSD Conc.	Sample Conc.	MDL	Dilution
2-Chloroethylvinyl Ether	105 % *	< 30	<0.00099 mg/L		0.00156	0.00099	1
Chloroform	6.5 %	< 30	0.111 mg/L		0.104	0.00010	1
Chloromethane	9.9 %	< 30	0.0985 mg/L		0.0892	0.00023	1
2-Chlorotoluene	7.2 %	< 30	0.107 mg/L		0.115	0.00005	1
4-Chlorotoluene	8.2 %	< 30	0.113 mg/L		0.104	0.00006	1
1,2-Dibromo-3-Chloropropane	7.3 %	< 30	0.107 mg/L		0.0994	0.00033	1
1,2-Dibromoethane	8.7 %	< 30	0.109 mg/L		0.119	0.00009	1
Dibromomethane	3.3 %	< 30	0.120 mg/L		0.116	0.00005	1
1,2-Dichlorobenzene	7.2 %	< 30	0.105 mg/L		0.0977	0.00009	1
1,3-Dichlorobenzene	0.9 %	< 30	0.104 mg/L		0.105	0.00009	1
1,4-Dichlorobenzene	4.1 %	< 30	0.0977 mg/L		0.0937	0.00018	1
Dichlorodifluoromethane	5.7 %	< 30	0.0588 mg/L		0.0623	0.00006	1
1,1-Dichloroethane	6.3 %	< 30	0.114 mg/L		0.107	0.00011	1
1,2-Dichloroethane	3.6 %	< 30	0.107 mg/L		0.111	0.00028	1
1,1-Dichloroethene	1.9 %	< 30	0.102 mg/L		0.100	0.00007	1
cis-1,2-Dichloroethene	0.9 %	< 30	0.101 mg/L		0.102	0.00007	1
trans-1,2-Dichloroethene	3.0 %	< 30	0.0964 mg/L		0.0994	0.00005	1
1,2-Dichloropropane	3.5 %	< 30	0.112 mg/L		0.116	0.00003	1
1,3-Dichloropropane	1.8 %	< 30	0.105 mg/L		0.107	0.00004	1
2,2-Dichloropropane	0.9 %	< 30	0.108 mg/L		0.109	0.00007	1
1,1-Dichloropropene	4.6 %	< 30	0.104 mg/L		0.109	0.00016	1
cis-1,3-Dichloropropene	5.7 %	< 30	0.101 mg/L		0.107	0.00003	1
trans-1,3-Dichloropropene	0.9 %	< 30	0.109 mg/L		0.108	0.00006	1
Ethyl Acetate	9.4 %	< 30	0.0966 mg/L		0.0879	0.00007	1
Ethylbenzene	1.0 %	< 30	0.0999 mg/L		0.101	0.00005	1
Hexachlorobutadiene	3.1 %	< 30	0.0979 mg/L		0.101	0.00012	1
2-Hexanone	2.7 %	< 30	0.111 mg/L		0.108	0.00131	1
Iodomethane	32.0 % *	< 30	0.0628 mg/L		0.0868	0.00007	1
Isopropylbenzene	4.7 %	< 30	0.108 mg/L		0.103	0.00005	1

\* **QC Fail**



**QC Report**

Client ID           **Ensafe**  
Project Description    MLB Uptown  
Report No            14-136-0206

**Analytical Method: 8260B**

**Batch: L199487**

**Prep Method: 5030B**

**Batch: L199486   05/18/2014 08:13 AM**

**Matrix Spike Duplicate - L 89707-MSD-L199486**

**QC Measurement:   RPD**

**DateTime Analyzed: 05/18/2014 07:22 PM**

Test Description	QC Result	Criteria	MSD Result	MSD Conc.	Sample Conc.	MDL	Dilution
4-Isopropyl toluene	2.7 %	< 30	0.111 mg/L		0.108	0.00004	1
Methyl tert-butyl ether (MTBE)	1.2 %	< 30	0.0987 mg/L		0.0975	0.00004	1
4-Methyl-2-Pentanone	6.0 %	< 30	0.120 mg/L		0.113	0.00111	1
Methylene Chloride	2.9 %	< 30	0.104 mg/L		0.101	0.00041	1
Naphthalene	15.0 %	< 30	0.108 mg/L		0.0929	0.00054	1
n-Propylbenzene	4.4 %	< 30	0.110 mg/L		0.115	0.00004	1
Styrene	3.3 %	< 30	0.103 mg/L		0.0996	0.00005	1
1,1,1,2-Tetrachloroethane	3.8 %	< 30	0.101 mg/L		0.105	0.00006	1
1,1,2,2-Tetrachloroethane	6.3 %	< 30	0.113 mg/L		0.106	0.00009	1
Tetrachloroethene	0.5 %	< 30	0.543 mg/L		0.546	0.00007	1
Toluene	1.8 %	< 30	0.107 mg/L		0.105	0.00004	1
1,2,3-Trichlorobenzene	10.2 %	< 30	0.105 mg/L		0.0948	0.00047	1
1,2,4-Trichlorobenzene	11.2 %	< 30	0.102 mg/L		0.0911	0.00037	1
1,1,1-Trichloroethane	0.9 %	< 30	0.102 mg/L		0.103	0.00013	1
1,1,2-Trichloroethane	2.5 %	< 30	0.120 mg/L		0.117	0.00004	1
Trichloroethene	3.5 %	< 30	0.112 mg/L		0.116	0.00008	1
Trichlorofluoromethane	4.6 %	< 30	0.111 mg/L		0.106	0.00004	1
1,2,3-Trichloropropane	8.2 %	< 30	0.114 mg/L		0.105	0.00010	1
1,2,4-Trimethylbenzene	7.6 %	< 30	0.0900 mg/L		0.0972	0.00005	1
1,3,5-Trimethylbenzene	5.7 %	< 30	0.108 mg/L		0.102	0.00006	1
Vinyl Acetate	41.8 % *	< 30	0.156 mg/L		0.102	0.00006	1
Vinyl Chloride	4.0 %	< 30	0.0946 mg/L		0.0908	0.00004	1
o-Xylene	5.6 %	< 30	0.103 mg/L		0.109	0.00007	1
m,p-Xylene	0.0 %	< 30	0.216 mg/L		0.216	0.00012	1

\* QC Fail

**QC Report**

Client ID           **Ensafe**  
Project Description    MLB Uptown  
Report No            14-136-0206

**Analytical Method: 8260B**

**Batch: L199552**

**Prep Method: 5030A**

**Batch: L199550   05/19/2014 09:30 AM**

**Lab Reagent Blank - LRB-L199550**

**QC Measurement:   Limit**

**DateTime Analyzed: 05/19/2014 12:16 PM**

<b>Test Description</b>	<b>LRB Result</b>	<b>Qualifier</b>	<b>MDL</b>	<b>SQL</b>	<b>Dilution</b>
Acetone	<0.0046 mg/Kg		0.0046	0.0400	1
Acetonitrile	<0.0128 mg/Kg		0.0128	0.100	1
Acrolein	<0.0101 mg/Kg		0.0101	0.0400	1
Acrylonitrile	<0.0080 mg/Kg		0.0080	0.0400	1
Benzene	<0.0008 mg/Kg		0.0008	0.0020	1
Bromobenzene	<0.0009 mg/Kg		0.0009	0.0020	1
Bromochloromethane	<0.0007 mg/Kg		0.0007	0.0020	1
Bromodichloromethane	<0.0004 mg/Kg		0.0004	0.0020	1
Bromoform	<0.0006 mg/Kg		0.0006	0.0020	1
Bromomethane	<0.0012 mg/Kg		0.0012	0.0020	1
Methyl Ethyl Ketone (MEK)	<0.0061 mg/Kg		0.0061	0.0400	1
n-Butylbenzene	<0.0007 mg/Kg		0.0007	0.0020	1
sec-Butyl benzene	<0.0003 mg/Kg		0.0003	0.0020	1
tert-Butyl benzene	<0.0014 mg/Kg		0.0014	0.0020	1
Carbon Disulfide	0.0005 mg/Kg	J	0.0004	0.0020	1
Carbon Tetrachloride	<0.0005 mg/Kg		0.0005	0.0020	1
Chlorobenzene	<0.0008 mg/Kg		0.0008	0.0020	1
Chlorodibromomethane	<0.0009 mg/Kg		0.0009	0.0020	1
Chloroethane	<0.0003 mg/Kg		0.0003	0.0020	1
2-Chloroethylvinyl Ether	<0.0020 mg/Kg		0.0020	0.0020	1
Chloroform	<0.0004 mg/Kg		0.0004	0.0020	1
Chloromethane	<0.0007 mg/Kg		0.0007	0.0020	1
2-Chlorotoluene	<0.0002 mg/Kg		0.0002	0.0020	1
4-Chlorotoluene	<0.0008 mg/Kg		0.0008	0.0020	1
1,2-Dibromo-3-Chloropropane	<0.0050 mg/Kg		0.0050	0.0100	1
1,2-Dibromoethane	<0.0011 mg/Kg		0.0011	0.0020	1
Dibromomethane	<0.0011 mg/Kg		0.0011	0.0020	1
1,2-Dichlorobenzene	<0.0010 mg/Kg		0.0010	0.0020	1
1,3-Dichlorobenzene	<0.0008 mg/Kg		0.0008	0.0020	1

**QC Report**

Client ID           **Ensafe**  
Project Description    MLB Uptown  
Report No            14-136-0206

**Analytical Method: 8260B**

**Batch: L199552**

**Prep Method: 5030A**

**Batch: L199550   05/19/2014 09:30 AM**

**Lab Reagent Blank - LRB-L199550**

**QC Measurement:   Limit**

**DateTime Analyzed: 05/19/2014 12:16 PM**

<b>Test Description</b>	<b>LRB Result</b>	<b>Qualifier</b>	<b>MDL</b>	<b>SQL</b>	<b>Dilution</b>
1,4-Dichlorobenzene	<0.0007 mg/Kg		0.0007	0.0020	1
Dichlorodifluoromethane	<0.0005 mg/Kg		0.0005	0.0020	1
1,1-Dichloroethane	<0.0003 mg/Kg		0.0003	0.0020	1
1,2-Dichloroethane	<0.0010 mg/Kg		0.0010	0.0020	1
1,1-Dichloroethene	<0.0004 mg/Kg		0.0004	0.0020	1
cis-1,2-Dichloroethene	<0.0005 mg/Kg		0.0005	0.0020	1
trans-1,2-Dichloroethene	<0.0004 mg/Kg		0.0004	0.0020	1
1,2-Dichloropropane	<0.0011 mg/Kg		0.0011	0.0020	1
1,3-Dichloropropane	<0.0011 mg/Kg		0.0011	0.0020	1
2,2-Dichloropropane	<0.0007 mg/Kg		0.0007	0.0020	1
1,1-Dichloropropene	<0.0009 mg/Kg		0.0009	0.0020	1
cis-1,3-Dichloropropene	<0.0006 mg/Kg		0.0006	0.0020	1
trans-1,3-Dichloropropene	<0.0009 mg/Kg		0.0009	0.0020	1
Ethyl Acetate	<0.0016 mg/Kg		0.0016	0.0400	1
Ethylbenzene	<0.0005 mg/Kg		0.0005	0.0020	1
Hexachlorobutadiene	<0.0008 mg/Kg		0.0008	0.0020	1
2-Hexanone	<0.0019 mg/Kg		0.0019	0.0100	1
Iodomethane	0.0024 mg/Kg	J	0.0009	0.0100	1
Isopropylbenzene	<0.0003 mg/Kg		0.0003	0.0020	1
4-Isopropyl toluene	<0.0005 mg/Kg		0.0005	0.0020	1
Methyl tert-butyl ether (MTBE)	<0.0004 mg/Kg		0.0004	0.0020	1
4-Methyl-2-Pentanone	<0.0029 mg/Kg		0.0029	0.0100	1
Methylene Chloride	<0.0015 mg/Kg		0.0015	0.0100	1
Naphthalene	<0.0031 mg/Kg		0.0031	0.0100	1
n-Propylbenzene	<0.0002 mg/Kg		0.0002	0.0020	1
Styrene	<0.0003 mg/Kg		0.0003	0.0020	1
1,1,1,2-Tetrachloroethane	<0.0005 mg/Kg		0.0005	0.0020	1
1,1,2,2-Tetrachloroethane	<0.0006 mg/Kg		0.0006	0.0020	1
Tetrachloroethene	<0.0016 mg/Kg		0.0016	0.0020	1

**QC Report**

Client ID           **Ensafe**  
Project Description    MLB Uptown  
Report No            14-136-0206

**Analytical Method: 8260B**

**Batch: L199552**

**Prep Method: 5030A**

**Batch: L199550   05/19/2014 09:30 AM**

**Lab Reagent Blank - LRB-L199550**

**QC Measurement:    Limit**

**DateTime Analyzed: 05/19/2014 12:16 PM**

<b>Test Description</b>	<b>LRB Result</b>	<b>Qualifier</b>	<b>MDL</b>	<b>SQL</b>	<b>Dilution</b>
Toluene	<0.0025 mg/Kg		0.0025	0.0100	1
1,2,3-Trichlorobenzene	<0.0010 mg/Kg		0.0010	0.0020	1
1,2,4-Trichlorobenzene	<0.0014 mg/Kg		0.0014	0.0020	1
1,1,1-Trichloroethane	<0.0008 mg/Kg		0.0008	0.0020	1
1,1,2-Trichloroethane	<0.0017 mg/Kg		0.0017	0.0020	1
Trichloroethene	<0.0013 mg/Kg		0.0013	0.0020	1
Trichlorofluoromethane	<0.0008 mg/Kg		0.0008	0.0020	1
1,2,3-Trichloropropane	<0.0010 mg/Kg		0.0010	0.0020	1
1,2,4-Trimethylbenzene	<0.0006 mg/Kg		0.0006	0.0020	1
1,3,5-Trimethylbenzene	<0.0003 mg/Kg		0.0003	0.0020	1
Vinyl Acetate	<0.0026 mg/Kg		0.0026	0.0400	1
Vinyl Chloride	<0.0006 mg/Kg		0.0006	0.0020	1
o-Xylene	<0.0008 mg/Kg		0.0008	0.0020	1
m,p-Xylene	<0.0007 mg/Kg		0.0007	0.0040	1

**Surrogate Recovery:**

4-Bromofluorobenzene	113	0.113 mg/Kg	0.100		1
1,2-Dichloroethane - d4	125	0.125 mg/Kg	0.100		1
Toluene-d8	104	0.104 mg/Kg	0.100		1

**Laboratory Control Sample - LCS-L199550**

**QC Measurement:    % Recovery**

**DateTime Analyzed: 05/19/2014 10:31 AM**

<b>Test Description</b>	<b>QC Result</b>	<b>Criteria</b>	<b>LCS Result</b>	<b>LCS Conc.</b>	<b>MDL</b>	<b>Dilution</b>
Acetone	71.0 %	40-140%	0.142 mg/Kg	0.200	0.0046	1
Acetonitrile	51.0 %	40-140%	1.02 mg/Kg	2.00	0.0128	1
Acrolein	112 %	40-140%	0.223 mg/Kg	0.200	0.0101	1
Acrylonitrile	116 %	40-140%	0.231 mg/Kg	0.200	0.0080	1
Benzene	95.5 %	80-120%	0.191 mg/Kg	0.200	0.0008	1
Bromobenzene	94.0 %	75-125%	0.188 mg/Kg	0.200	0.0009	1

## QC Report

Client ID           **Ensafe**  
 Project Description   MLB Uptown  
 Report No            14-136-0206

**Analytical Method: 8260B**

**Batch: L199552**

**Prep Method: 5030A**

**Batch: L199550   05/19/2014 09:30 AM**

**Laboratory Control Sample - LCS-L199550**

**QC Measurement:   % Recovery**

**DateTime Analyzed: 05/19/2014 10:31 AM**

Test Description	QC Result	Criteria	LCS Result	LCS Conc.	MDL	Dilution
Bromochloromethane	90.5 %	65-130%	0.181 mg/Kg	0.200	0.0007	1
Bromodichloromethane	90.5 %	75-120%	0.181 mg/Kg	0.200	0.0004	1
Bromoform	96.0 %	70-130%	0.192 mg/Kg	0.200	0.0006	1
Bromomethane	117 %	40-140%	0.233 mg/Kg	0.200	0.0012	1
Methyl Ethyl Ketone (MEK)	78.5 %	40-140%	0.157 mg/Kg	0.200	0.0061	1
n-Butylbenzene	96.0 %	70-135%	0.192 mg/Kg	0.200	0.0007	1
sec-Butyl benzene	98.0 %	70-125%	0.196 mg/Kg	0.200	0.0003	1
tert-Butyl benzene	104 %	70-130%	0.207 mg/Kg	0.200	0.0014	1
Carbon Disulfide	93.5 %	40-140%	0.187 mg/Kg	0.200	0.0004	1
Carbon Tetrachloride	101 %	65-140%	0.201 mg/Kg	0.200	0.0005	1
Chlorobenzene	92.5 %	80-120%	0.185 mg/Kg	0.200	0.0008	1
Chlorodibromomethane	99.5 %	75-120%	0.199 mg/Kg	0.200	0.0009	1
Chloroethane	79.0 %	60-135%	0.158 mg/Kg	0.200	0.0003	1
2-Chloroethylvinyl Ether	69.5 %	40-140%	0.139 mg/Kg	0.200	0.0020	1
Chloroform	104 %	80-120%	0.208 mg/Kg	0.200	0.0004	1
Chloromethane	88.5 %	40-125%	0.177 mg/Kg	0.200	0.0007	1
2-Chlorotoluene	104 %	75-125%	0.208 mg/Kg	0.200	0.0002	1
4-Chlorotoluene	101 %	75-130%	0.201 mg/Kg	0.200	0.0008	1
1,2-Dibromo-3-Chloropropane	80.5 %	50-130%	0.161 mg/Kg	0.200	0.0050	1
1,2-Dibromoethane	95.0 %	80-120%	0.190 mg/Kg	0.200	0.0011	1
Dibromomethane	104 %	75-125%	0.207 mg/Kg	0.200	0.0011	1
1,2-Dichlorobenzene	88.5 %	70-120%	0.177 mg/Kg	0.200	0.0010	1
1,3-Dichlorobenzene	91.0 %	75-125%	0.182 mg/Kg	0.200	0.0008	1
1,4-Dichlorobenzene	95.0 %	75-125%	0.190 mg/Kg	0.200	0.0007	1
Dichlorodifluoromethane	58.0 %	40-140%	0.116 mg/Kg	0.200	0.0005	1
1,1-Dichloroethane	108 %	70-135%	0.215 mg/Kg	0.200	0.0003	1
1,2-Dichloroethane	94.5 %	70-130%	0.189 mg/Kg	0.200	0.0010	1
1,1-Dichloroethene	101 %	80-120%	0.202 mg/Kg	0.200	0.0004	1
cis-1,2-Dichloroethene	95.5 %	70-125%	0.191 mg/Kg	0.200	0.0005	1

**QC Report**

Client ID           **Ensafe**  
 Project Description   MLB Uptown  
 Report No            14-136-0206

**Analytical Method: 8260B**

**Batch: L199552**

**Prep Method: 5030A**

**Batch: L199550   05/19/2014 09:30 AM**

**Laboratory Control Sample - LCS-L199550**  
**DateTime Analyzed: 05/19/2014 10:31 AM**

**QC Measurement:   % Recovery**

Test Description	QC Result	Criteria	LCS Result	LCS Conc.	MDL	Dilution
trans-1,2-Dichloroethene	93.5 %	60-140%	0.187 mg/Kg	0.200	0.0004	1
1,2-Dichloropropane	99.0 %	80-120%	0.198 mg/Kg	0.200	0.0011	1
1,3-Dichloropropane	92.5 %	75-125%	0.185 mg/Kg	0.200	0.0011	1
2,2-Dichloropropane	112 %	70-135%	0.224 mg/Kg	0.200	0.0007	1
1,1-Dichloropropene	105 %	75-130%	0.210 mg/Kg	0.200	0.0009	1
cis-1,3-Dichloropropene	93.5 %	70-130%	0.187 mg/Kg	0.200	0.0006	1
trans-1,3-Dichloropropene	99.0 %	55-140%	0.198 mg/Kg	0.200	0.0009	1
Ethyl Acetate	99.0 %	40-125%	0.198 mg/Kg	0.200	0.0016	1
Ethylbenzene	90.5 %	80-120%	0.181 mg/Kg	0.200	0.0005	1
Hexachlorobutadiene	95.5 %	50-140%	0.191 mg/Kg	0.200	0.0008	1
2-Hexanone	94.0 %	55-130%	0.188 mg/Kg	0.200	0.0019	1
Iodomethane	83.5 %	40-125%	0.167 mg/Kg	0.200	0.0009	1
Isopropylbenzene	102 %	75-125%	0.203 mg/Kg	0.200	0.0003	1
4-Isopropyl toluene	107 %	75-130%	0.213 mg/Kg	0.200	0.0005	1
Methyl tert-butyl ether (MTBE)	92.0 %	65-125%	0.184 mg/Kg	0.200	0.0004	1
4-Methyl-2-Pentanone	101 %	60-135%	0.201 mg/Kg	0.200	0.0029	1
Methylene Chloride	99.5 %	55-140%	0.199 mg/Kg	0.200	0.0015	1
Naphthalene	82.0 %	55-140%	0.164 mg/Kg	0.200	0.0031	1
n-Propylbenzene	104 %	70-130%	0.207 mg/Kg	0.200	0.0002	1
Styrene	92.5 %	65-135%	0.185 mg/Kg	0.200	0.0003	1
1,1,1,2-Tetrachloroethane	95.5 %	70-130%	0.191 mg/Kg	0.200	0.0005	1
1,1,1,2,2-Tetrachloroethane	88.5 %	65-130%	0.177 mg/Kg	0.200	0.0006	1
Tetrachloroethene	99.0 %	60-145%	0.198 mg/Kg	0.200	0.0016	1
Toluene	97.0 %	80-120%	0.194 mg/Kg	0.200	0.0025	1
1,2,3-Trichlorobenzene	85.0 %	55-140%	0.170 mg/Kg	0.200	0.0010	1
1,2,4-Trichlorobenzene	94.5 %	65-135%	0.189 mg/Kg	0.200	0.0014	1
1,1,1-Trichloroethane	99.0 %	65-130%	0.198 mg/Kg	0.200	0.0008	1
1,1,2-Trichloroethane	102 %	75-125%	0.203 mg/Kg	0.200	0.0017	1
Trichloroethene	105 %	70-125%	0.210 mg/Kg	0.200	0.0013	1

**QC Report**

Client ID           **Ensafe**  
Project Description    MLB Uptown  
Report No            14-136-0206

**Analytical Method: 8260B**

**Batch: L199552**

**Prep Method: 5030A**

**Batch: L199550   05/19/2014 09:30 AM**

**Laboratory Control Sample - LCS-L199550**

**QC Measurement:   % Recovery**

**DateTime Analyzed: 05/19/2014 10:31 AM**

Test Description	QC Result	Criteria	LCS Result	LCS Conc.	MDL	Dilution
Trichlorofluoromethane	107 %	45-150%	0.213 mg/Kg	0.200	0.0008	1
1,2,3-Trichloropropane	99.5 %	75-125%	0.199 mg/Kg	0.200	0.0010	1
1,2,4-Trimethylbenzene	92.5 %	75-130%	0.185 mg/Kg	0.200	0.0006	1
1,3,5-Trimethylbenzene	103 %	75-130%	0.206 mg/Kg	0.200	0.0003	1
Vinyl Acetate	150 % *	40-125%	0.300 mg/Kg	0.200	0.0026	1
Vinyl Chloride	87.0 %	80-120%	0.174 mg/Kg	0.200	0.0006	1
o-Xylene	94.5 %	75-130%	0.189 mg/Kg	0.200	0.0008	1
m,p-Xylene	100 %	75-130%	0.401 mg/Kg	0.400	0.0007	1
<b>Surrogate Recovery:</b>						
4-Bromofluorobenzene	102 %	60-130%	0.102 mg/Kg	0.100		1
1,2-Dichloroethane - d4	91.3 %	60-132%	0.0913 mg/Kg	0.100		1
Toluene-d8	96.6 %	70-122%	0.0966 mg/Kg	0.100		1

**Matrix Spike - L 89762-MS-L199550**

**QC Measurement:   % Recovery**

**DateTime Analyzed: 05/19/2014 09:01 PM**

Test Description	QC Result	Criteria	MS Result	MS Conc.	Sample Conc.	MDL	Dilution
Acetone	65.4 %	40-140%	0.123 mg/Kg	0.188	<0.0046	0.0046	1
Acetonitrile	141 % *	40-140%	2.65 mg/Kg	1.88	<0.0128	0.0128	1
Acrolein	111 %	40-140%	0.208 mg/Kg	0.188	<0.0101	0.0101	1
Acrylonitrile	119 %	40-140%	0.223 mg/Kg	0.188	<0.0080	0.0080	1
Benzene	66.4 % *	80-120%	0.125 mg/Kg	0.188	<0.0008	0.0008	1
Bromobenzene	82.9 %	75-125%	0.156 mg/Kg	0.188	<0.0009	0.0009	1
Bromochloromethane	110 %	65-130%	0.207 mg/Kg	0.188	<0.0007	0.0007	1
Bromodichloromethane	82.9 %	75-120%	0.156 mg/Kg	0.188	<0.0004	0.0004	1
Bromoform	94.6 %	70-130%	0.178 mg/Kg	0.188	<0.0006	0.0006	1
Bromomethane	35.7 % *	40-140%	0.0672 mg/Kg	0.188	<0.0012	0.0012	1
Methyl Ethyl Ketone (MEK)	76.5 %	40-140%	0.144 mg/Kg	0.188	<0.0061	0.0061	1
n-Butylbenzene	62.7 % *	70-135%	0.118 mg/Kg	0.188	<0.0007	0.0007	1

\* QC Fail



### QC Report

Client ID           **Ensafe**  
 Project Description    MLB Uptown  
 Report No            14-136-0206

**Analytical Method: 8260B**

**Batch: L199552**

**Prep Method: 5030A**

**Batch: L199550   05/19/2014 09:30 AM**

**Matrix Spike - L 89762-MS-L199550**

**QC Measurement:   % Recovery**

**DateTime Analyzed: 05/19/2014 09:01 PM**

Test Description	QC Result	Criteria	MS Result	MS Conc.	Sample Conc.	MDL	Dilution
sec-Butyl benzene	69.6 % *	70-125%	0.131 mg/Kg	0.188	<0.0003	0.0003	1
tert-Butyl benzene	71.8 %	70-130%	0.135 mg/Kg	0.188	<0.0014	0.0014	1
Carbon Disulfide	43.5 %	40-140%	0.0818 mg/Kg	0.188	<0.0004	0.0004	1
Carbon Tetrachloride	52.9 % *	65-140%	0.0996 mg/Kg	0.188	<0.0005	0.0005	1
Chlorobenzene	75.5 % *	80-120%	0.142 mg/Kg	0.188	<0.0008	0.0008	1
Chlorodibromomethane	102 %	75-120%	0.191 mg/Kg	0.188	<0.0009	0.0009	1
Chloroethane	118 %	60-135%	0.222 mg/Kg	0.188	<0.0003	0.0003	1
2-Chloroethylvinyl Ether	69.6 %	40-140%	0.131 mg/Kg	0.188	<0.0020	0.0020	1
Chloroform	78.1 % *	80-120%	0.147 mg/Kg	0.188	<0.0004	0.0004	1
Chloromethane	59.0 %	40-125%	0.111 mg/Kg	0.188	<0.0007	0.0007	1
2-Chlorotoluene	85.1 %	75-125%	0.160 mg/Kg	0.188	<0.0002	0.0002	1
4-Chlorotoluene	83.5 %	75-130%	0.157 mg/Kg	0.188	<0.0008	0.0008	1
1,2-Dibromo-3-Chloropropane	77.6 %	50-130%	0.146 mg/Kg	0.188	<0.0050	0.0050	1
1,2-Dibromoethane	101 %	80-120%	0.190 mg/Kg	0.188	<0.0011	0.0011	1
Dibromomethane	110 %	75-125%	0.207 mg/Kg	0.188	<0.0011	0.0011	1
1,2-Dichlorobenzene	83.5 %	70-120%	0.157 mg/Kg	0.188	<0.0010	0.0010	1
1,3-Dichlorobenzene	85.1 %	75-125%	0.160 mg/Kg	0.188	<0.0008	0.0008	1
1,4-Dichlorobenzene	74.4 % *	75-125%	0.140 mg/Kg	0.188	<0.0007	0.0007	1
Dichlorodifluoromethane	29.8 % *	40-140%	0.0561 mg/Kg	0.188	<0.0005	0.0005	1
1,1-Dichloroethane	72.8 %	70-135%	0.137 mg/Kg	0.188	<0.0003	0.0003	1
1,2-Dichloroethane	85.1 %	70-130%	0.160 mg/Kg	0.188	<0.0010	0.0010	1
1,1-Dichloroethene	48.7 % *	80-120%	0.0916 mg/Kg	0.188	<0.0004	0.0004	1
cis-1,2-Dichloroethene	71.8 %	70-125%	0.135 mg/Kg	0.188	<0.0005	0.0005	1
trans-1,2-Dichloroethene	62.7 %	60-140%	0.118 mg/Kg	0.188	<0.0004	0.0004	1
1,2-Dichloropropane	96.2 %	80-120%	0.181 mg/Kg	0.188	<0.0011	0.0011	1
1,3-Dichloropropane	90.9 %	75-125%	0.171 mg/Kg	0.188	<0.0011	0.0011	1
2,2-Dichloropropane	55.3 % *	70-135%	0.104 mg/Kg	0.188	<0.0007	0.0007	1
1,1-Dichloropropene	58.5 % *	75-130%	0.110 mg/Kg	0.188	<0.0009	0.0009	1
cis-1,3-Dichloropropene	81.9 %	70-130%	0.154 mg/Kg	0.188	<0.0006	0.0006	1

\* QC Fail

**QC Report**

Client ID           **Ensafe**  
Project Description    MLB Uptown  
Report No            14-136-0206

**Analytical Method: 8260B**

**Batch: L199552**

**Prep Method: 5030A**

**Batch: L199550   05/19/2014 09:30 AM**

**Matrix Spike - L 89762-MS-L199550**

**QC Measurement:   % Recovery**

**DateTime Analyzed: 05/19/2014 09:01 PM**

Test Description	QC Result	Criteria	MS Result	MS Conc.	Sample Conc.	MDL	Dilution
trans-1,3-Dichloropropene	81.3 %	55-140%	0.153 mg/Kg	0.188	<0.0009	0.0009	1
Ethyl Acetate	99.4 %	40-125%	0.187 mg/Kg	0.188	<0.0016	0.0016	1
Ethylbenzene	54.7 % *	80-120%	0.103 mg/Kg	0.188	<0.0005	0.0005	1
Hexachlorobutadiene	65.4 %	50-140%	0.123 mg/Kg	0.188	<0.0008	0.0008	1
2-Hexanone	96.8 %	55-130%	0.182 mg/Kg	0.188	<0.0019	0.0019	1
Iodomethane	55.3 %	40-125%	0.104 mg/Kg	0.188	<0.0009	0.0009	1
Isopropylbenzene	72.3 % *	75-125%	0.136 mg/Kg	0.188	<0.0003	0.0003	1
4-Isopropyl toluene	42.7 % *	75-130%	0.0803 mg/Kg	0.188	<0.0005	0.0005	1
Methyl tert-butyl ether (MTBE)	80.8 %	65-125%	0.152 mg/Kg	0.188	<0.0004	0.0004	1
4-Methyl-2-Pentanone	112 %	60-135%	0.210 mg/Kg	0.188	<0.0029	0.0029	1
Methylene Chloride	77.1 %	55-140%	0.145 mg/Kg	0.188	<0.0015	0.0015	1
Naphthalene	51.4 % *	55-140%	0.0967 mg/Kg	0.188	<0.0031	0.0031	1
n-Propylbenzene	79.7 %	70-130%	0.150 mg/Kg	0.188	<0.0002	0.0002	1
Styrene	62.2 % *	65-135%	0.117 mg/Kg	0.188	<0.0003	0.0003	1
1,1,1,2-Tetrachloroethane	87.7 %	70-130%	0.165 mg/Kg	0.188	<0.0005	0.0005	1
1,1,1,2-Tetrachloroethane	94.6 %	65-130%	0.178 mg/Kg	0.188	<0.0006	0.0006	1
Tetrachloroethene	61.1 %	60-145%	0.115 mg/Kg	0.188	<0.0016	0.0016	1
Toluene	78.7 % *	80-120%	0.148 mg/Kg	0.188	<0.0025	0.0025	1
1,2,3-Trichlorobenzene	60.1 %	55-140%	0.113 mg/Kg	0.188	<0.0010	0.0010	1
1,2,4-Trichlorobenzene	61.1 % *	65-135%	0.115 mg/Kg	0.188	<0.0014	0.0014	1
1,1,1-Trichloroethane	56.9 % *	65-130%	0.107 mg/Kg	0.188	<0.0008	0.0008	1
1,1,2-Trichloroethane	102 %	75-125%	0.191 mg/Kg	0.188	<0.0017	0.0017	1
Trichloroethene	84.0 %	70-125%	0.158 mg/Kg	0.188	<0.0013	0.0013	1
Trichlorofluoromethane	55.8 %	45-150%	0.105 mg/Kg	0.188	<0.0008	0.0008	1
1,2,3-Trichloropropane	82.9 %	75-125%	0.156 mg/Kg	0.188	<0.0010	0.0010	1
1,2,4-Trimethylbenzene	71.8 % *	75-130%	0.135 mg/Kg	0.188	<0.0006	0.0006	1
1,3,5-Trimethylbenzene	71.8 % *	75-130%	0.135 mg/Kg	0.188	<0.0003	0.0003	1
Vinyl Acetate	77.1 %	40-125%	0.145 mg/Kg	0.188	<0.0026	0.0026	1
Vinyl Chloride	55.8 % *	80-120%	0.105 mg/Kg	0.188	<0.0006	0.0006	1

\* **QC Fail**

**QC Report**

Client ID           **Ensafe**  
Project Description    MLB Uptown  
Report No            14-136-0206

**Analytical Method: 8260B**

**Batch: L199552**

**Prep Method: 5030A**

**Batch: L199550   05/19/2014 09:30 AM**

**Matrix Spike - L 89762-MS-L199550**

**QC Measurement:   % Recovery**

**DateTime Analyzed: 05/19/2014 09:01 PM**

Test Description	QC Result	Criteria	MS Result	MS Conc.	Sample Conc.	MDL	Dilution
o-Xylene	81.3 %	75-130%	0.153 mg/Kg	0.188	<0.0008	0.0008	1
m,p-Xylene	73.0 % *	75-130%	0.274 mg/Kg	0.375	<0.0007	0.0007	1
<b>Surrogate Recovery:</b>							
4-Bromofluorobenzene	94.2 %	60-130%	0.0908 mg/Kg	0.0963			1
1,2-Dichloroethane - d4	127 %	60-132%	0.122 mg/Kg	0.0963			1
Toluene-d8	108 %	70-122%	0.104 mg/Kg	0.0963			1

**Matrix Spike Duplicate - L 89762-MSD-L199550**

**QC Measurement:   % Recovery**

**DateTime Analyzed: 05/19/2014 09:43 PM**

Test Description	QC Result	Criteria	MSD Result	MSD Conc.	Sample Conc.	MDL	Dilution
Acetone	59.3 %	40-140%	0.114 mg/Kg	0.192	<0.0046	0.0046	1
Acetonitrile	136 %	40-140%	2.61 mg/Kg	1.92	<0.0128	0.0128	1
Acrolein	129 %	40-140%	0.247 mg/Kg	0.192	<0.0101	0.0101	1
Acrylonitrile	111 %	40-140%	0.213 mg/Kg	0.192	<0.0080	0.0080	1
Benzene	56.2 % *	80-120%	0.108 mg/Kg	0.192	<0.0008	0.0008	1
Bromobenzene	65.6 % *	75-125%	0.126 mg/Kg	0.192	<0.0009	0.0009	1
Bromochloromethane	107 %	65-130%	0.205 mg/Kg	0.192	<0.0007	0.0007	1
Bromodichloromethane	76.5 %	75-120%	0.147 mg/Kg	0.192	<0.0004	0.0004	1
Bromoform	91.1 %	70-130%	0.175 mg/Kg	0.192	<0.0006	0.0006	1
Bromomethane	4.3 % *	40-140%	0.0082 mg/Kg	0.192	<0.0012	0.0012	1
Methyl Ethyl Ketone (MEK)	65.6 %	40-140%	0.126 mg/Kg	0.192	<0.0061	0.0061	1
n-Butylbenzene	54.1 % *	70-135%	0.104 mg/Kg	0.192	<0.0007	0.0007	1
sec-Butyl benzene	48.9 % *	70-125%	0.0939 mg/Kg	0.192	<0.0003	0.0003	1
tert-Butyl benzene	57.2 % *	70-130%	0.110 mg/Kg	0.192	<0.0014	0.0014	1
Carbon Disulfide	28.9 % *	40-140%	0.0556 mg/Kg	0.192	<0.0004	0.0004	1
Carbon Tetrachloride	30.6 % *	65-140%	0.0588 mg/Kg	0.192	<0.0005	0.0005	1
Chlorobenzene	70.8 % *	80-120%	0.136 mg/Kg	0.192	<0.0008	0.0008	1
Chlorodibromomethane	90.1 %	75-120%	0.173 mg/Kg	0.192	<0.0009	0.0009	1

\* QC Fail

## QC Report

Client ID           **Ensafe**  
 Project Description   MLB Uptown  
 Report No            14-136-0206

**Analytical Method: 8260B**

**Batch: L199552**

**Prep Method: 5030A**

**Batch: L199550   05/19/2014 09:30 AM**

**Matrix Spike Duplicate - L 89762-MSD-L199550**

**QC Measurement:   % Recovery**

**DateTime Analyzed: 05/19/2014 09:43 PM**

Test Description	QC Result	Criteria	MSD Result	MSD Conc.	Sample Conc.	MDL	Dilution
Chloroethane	83.8 %	60-135%	0.161 mg/Kg	0.192	<0.0003	0.0003	1
2-Chloroethylvinyl Ether	68.2 %	40-140%	0.131 mg/Kg	0.192	<0.0020	0.0020	1
Chloroform	66.1 % *	80-120%	0.127 mg/Kg	0.192	<0.0004	0.0004	1
Chloromethane	41.3 %	40-125%	0.0794 mg/Kg	0.192	<0.0007	0.0007	1
2-Chlorotoluene	75.0 %	75-125%	0.144 mg/Kg	0.192	<0.0002	0.0002	1
4-Chlorotoluene	72.9 % *	75-130%	0.140 mg/Kg	0.192	<0.0008	0.0008	1
1,2-Dibromo-3-Chloropropane	53.6 %	50-130%	0.103 mg/Kg	0.192	<0.0050	0.0050	1
1,2-Dibromoethane	94.7 %	80-120%	0.182 mg/Kg	0.192	<0.0011	0.0011	1
Dibromomethane	109 %	75-125%	0.210 mg/Kg	0.192	<0.0011	0.0011	1
1,2-Dichlorobenzene	83.3 %	70-120%	0.160 mg/Kg	0.192	<0.0010	0.0010	1
1,3-Dichlorobenzene	86.9 %	75-125%	0.167 mg/Kg	0.192	<0.0008	0.0008	1
1,4-Dichlorobenzene	79.1 %	75-125%	0.152 mg/Kg	0.192	<0.0007	0.0007	1
Dichlorodifluoromethane	16.9 % *	40-140%	0.0325 mg/Kg	0.192	<0.0005	0.0005	1
1,1-Dichloroethane	54.6 % *	70-135%	0.105 mg/Kg	0.192	<0.0003	0.0003	1
1,2-Dichloroethane	89.5 %	70-130%	0.172 mg/Kg	0.192	<0.0010	0.0010	1
1,1-Dichloroethene	37.1 % *	80-120%	0.0714 mg/Kg	0.192	<0.0004	0.0004	1
cis-1,2-Dichloroethene	66.6 % *	70-125%	0.128 mg/Kg	0.192	<0.0005	0.0005	1
trans-1,2-Dichloroethene	51.2 % *	60-140%	0.0984 mg/Kg	0.192	<0.0004	0.0004	1
1,2-Dichloropropane	82.2 %	80-120%	0.158 mg/Kg	0.192	<0.0011	0.0011	1
1,3-Dichloropropane	80.7 %	75-125%	0.155 mg/Kg	0.192	<0.0011	0.0011	1
2,2-Dichloropropane	22.6 % *	70-135%	0.0435 mg/Kg	0.192	<0.0007	0.0007	1
1,1-Dichloropropene	35.8 % *	75-130%	0.0689 mg/Kg	0.192	<0.0009	0.0009	1
cis-1,3-Dichloropropene	67.1 % *	70-130%	0.129 mg/Kg	0.192	<0.0006	0.0006	1
trans-1,3-Dichloropropene	60.9 %	55-140%	0.117 mg/Kg	0.192	<0.0009	0.0009	1
Ethyl Acetate	86.4 %	40-125%	0.166 mg/Kg	0.192	<0.0016	0.0016	1
Ethylbenzene	44.8 % *	80-120%	0.0862 mg/Kg	0.192	<0.0005	0.0005	1
Hexachlorobutadiene	48.2 % *	50-140%	0.0926 mg/Kg	0.192	<0.0008	0.0008	1
2-Hexanone	91.1 %	55-130%	0.175 mg/Kg	0.192	<0.0019	0.0019	1
Iodomethane	40.8 %	40-125%	0.0785 mg/Kg	0.192	<0.0009	0.0009	1

\* QC Fail

**QC Report**

Client ID           **Ensafe**  
Project Description    MLB Uptown  
Report No            14-136-0206

**Analytical Method: 8260B**

**Batch: L199552**

**Prep Method: 5030A**

**Batch: L199550   05/19/2014 09:30 AM**

**Matrix Spike Duplicate - L 89762-MSD-L199550**

**QC Measurement:   % Recovery**

**DateTime Analyzed: 05/19/2014 09:43 PM**

Test Description	QC Result	Criteria	MSD Result	MSD Conc.	Sample Conc.	MDL	Dilution
Isopropylbenzene	56.2 % *	75-125%	0.108 mg/Kg	0.192	<0.0003	0.0003	1
4-Isopropyl toluene	30.8 % *	75-130%	0.0593 mg/Kg	0.192	<0.0005	0.0005	1
Methyl tert-butyl ether (MTBE)	70.8 %	65-125%	0.136 mg/Kg	0.192	<0.0004	0.0004	1
4-Methyl-2-Pentanone	104 %	60-135%	0.199 mg/Kg	0.192	<0.0029	0.0029	1
Methylene Chloride	72.3 %	55-140%	0.139 mg/Kg	0.192	<0.0015	0.0015	1
Naphthalene	8.0 % *	55-140%	0.0154 mg/Kg	0.192	<0.0031	0.0031	1
n-Propylbenzene	59.3 % *	70-130%	0.114 mg/Kg	0.192	<0.0002	0.0002	1
Styrene	55.7 % *	65-135%	0.107 mg/Kg	0.192	<0.0003	0.0003	1
1,1,1,2-Tetrachloroethane	79.6 %	70-130%	0.153 mg/Kg	0.192	<0.0005	0.0005	1
1,1,1,2-Tetrachloroethane	95.8 %	65-130%	0.184 mg/Kg	0.192	<0.0006	0.0006	1
Tetrachloroethene	46.0 % *	60-145%	0.0885 mg/Kg	0.192	<0.0016	0.0016	1
Toluene	63.5 % *	80-120%	0.122 mg/Kg	0.192	<0.0025	0.0025	1
1,2,3-Trichlorobenzene	10.6 % *	55-140%	0.0204 mg/Kg	0.192	<0.0010	0.0010	1
1,2,4-Trichlorobenzene	24.1 % *	65-135%	0.0464 mg/Kg	0.192	<0.0014	0.0014	1
1,1,1-Trichloroethane	37.3 % *	65-130%	0.0718 mg/Kg	0.192	<0.0008	0.0008	1
1,1,2-Trichloroethane	101 %	75-125%	0.194 mg/Kg	0.192	<0.0017	0.0017	1
Trichloroethene	63.0 % *	70-125%	0.121 mg/Kg	0.192	<0.0013	0.0013	1
Trichlorofluoromethane	32.6 % *	45-150%	0.0627 mg/Kg	0.192	<0.0008	0.0008	1
1,2,3-Trichloropropane	71.8 % *	75-125%	0.138 mg/Kg	0.192	<0.0010	0.0010	1
1,2,4-Trimethylbenzene	70.3 % *	75-130%	0.135 mg/Kg	0.192	<0.0006	0.0006	1
1,3,5-Trimethylbenzene	64.0 % *	75-130%	0.123 mg/Kg	0.192	<0.0003	0.0003	1
Vinyl Acetate	53.1 %	40-125%	0.102 mg/Kg	0.192	<0.0026	0.0026	1
Vinyl Chloride	39.7 % *	80-120%	0.0764 mg/Kg	0.192	<0.0006	0.0006	1
o-Xylene	70.3 % *	75-130%	0.135 mg/Kg	0.192	<0.0008	0.0008	1
m,p-Xylene	66.1 % *	75-130%	0.254 mg/Kg	0.384	<0.0007	0.0007	1

**Surrogate Recovery:**

4-Bromofluorobenzene	118 %	60-130%	0.114 mg/Kg	0.0963			1
1,2-Dichloroethane - d4	143 % *	60-132%	0.138 mg/Kg	0.0963			1
Toluene-d8	117 %	70-122%	0.113 mg/Kg	0.0963			1

\* **QC Fail**

**QC Report**

Client ID           **Ensafe**  
Project Description    MLB Uptown  
Report No            14-136-0206

**Analytical Method: 8260B**

**Batch: L199552**

**Prep Method: 5030A**

**Batch: L199550   05/19/2014 09:30 AM**

**Matrix Spike Duplicate - L 89762-MSD-L199550**

**QC Measurement:   RPD**

**DateTime Analyzed: 05/19/2014 09:43 PM**

Test Description	QC Result	Criteria	MSD Result	MSD Conc.	Sample Conc.	MDL	Dilution
Acetone	7.5 %	< 30	0.114 mg/Kg		0.123	0.0046	1
Acetonitrile	1.5 %	< 30	2.61 mg/Kg		2.65	0.0128	1
Acrolein	17.1 %	< 30	0.247 mg/Kg		0.208	0.0101	1
Acrylonitrile	4.5 %	< 30	0.213 mg/Kg		0.223	0.0080	1
Benzene	14.5 %	< 30	0.108 mg/Kg		0.125	0.0008	1
Bromobenzene	21.2 %	< 30	0.126 mg/Kg		0.156	0.0009	1
Bromochloromethane	0.9 %	< 30	0.205 mg/Kg		0.207	0.0007	1
Bromodichloromethane	5.9 %	< 30	0.147 mg/Kg		0.156	0.0004	1
Bromoform	1.6 %	< 30	0.175 mg/Kg		0.178	0.0006	1
Bromomethane	156 % *	< 30	0.0082 mg/Kg		0.0672	0.0012	1
Methyl Ethyl Ketone (MEK)	13.3 %	< 30	0.126 mg/Kg		0.144	0.0061	1
n-Butylbenzene	12.6 %	< 30	0.104 mg/Kg		0.118	0.0007	1
sec-Butyl benzene	32.9 % *	< 30	0.0939 mg/Kg		0.131	0.0003	1
tert-Butyl benzene	20.4 %	< 30	0.110 mg/Kg		0.135	0.0014	1
Carbon Disulfide	38.1 % *	< 30	0.0556 mg/Kg		0.0818	0.0004	1
Carbon Tetrachloride	51.5 % *	< 30	0.0588 mg/Kg		0.0996	0.0005	1
Chlorobenzene	4.3 %	< 30	0.136 mg/Kg		0.142	0.0008	1
Chlorodibromomethane	9.8 %	< 30	0.173 mg/Kg		0.191	0.0009	1
Chloroethane	31.8 % *	< 30	0.161 mg/Kg		0.222	0.0003	1
2-Chloroethylvinyl Ether	0.0 %	< 30	0.131 mg/Kg		0.131	0.0020	1
Chloroform	14.5 %	< 30	0.127 mg/Kg		0.147	0.0004	1
Chloromethane	33.1 % *	< 30	0.0794 mg/Kg		0.111	0.0007	1
2-Chlorotoluene	10.5 %	< 30	0.144 mg/Kg		0.160	0.0002	1
4-Chlorotoluene	11.4 %	< 30	0.140 mg/Kg		0.157	0.0008	1
1,2-Dibromo-3-Chloropropane	34.5 % *	< 30	0.103 mg/Kg		0.146	0.0050	1
1,2-Dibromoethane	4.3 %	< 30	0.182 mg/Kg		0.190	0.0011	1
Dibromomethane	1.4 %	< 30	0.210 mg/Kg		0.207	0.0011	1
1,2-Dichlorobenzene	1.8 %	< 30	0.160 mg/Kg		0.157	0.0010	1
1,3-Dichlorobenzene	4.2 %	< 30	0.167 mg/Kg		0.160	0.0008	1

\* **QC Fail**

**QC Report**

Client ID           **Ensafe**  
Project Description    MLB Uptown  
Report No            14-136-0206

**Analytical Method: 8260B**

**Batch: L199552**

**Prep Method: 5030A**

**Batch: L199550   05/19/2014 09:30 AM**

**Matrix Spike Duplicate - L 89762-MSD-L199550**

**QC Measurement:   RPD**

**DateTime Analyzed: 05/19/2014 09:43 PM**

Test Description	QC Result	Criteria	MSD Result	MSD Conc.	Sample Conc.	MDL	Dilution
1,4-Dichlorobenzene	8.2 %	< 30	0.152 mg/Kg		0.140	0.0007	1
Dichlorodifluoromethane	53.2 % *	< 30	0.0325 mg/Kg		0.0561	0.0005	1
1,1-Dichloroethane	26.4 %	< 30	0.105 mg/Kg		0.137	0.0003	1
1,2-Dichloroethane	7.2 %	< 30	0.172 mg/Kg		0.160	0.0010	1
1,1-Dichloroethene	24.7 %	< 30	0.0714 mg/Kg		0.0916	0.0004	1
cis-1,2-Dichloroethene	5.3 %	< 30	0.128 mg/Kg		0.135	0.0005	1
trans-1,2-Dichloroethene	18.1 %	< 30	0.0984 mg/Kg		0.118	0.0004	1
1,2-Dichloropropane	13.5 %	< 30	0.158 mg/Kg		0.181	0.0011	1
1,3-Dichloropropane	9.8 %	< 30	0.155 mg/Kg		0.171	0.0011	1
2,2-Dichloropropane	82.0 % *	< 30	0.0435 mg/Kg		0.104	0.0007	1
1,1-Dichloropropene	45.9 % *	< 30	0.0689 mg/Kg		0.110	0.0009	1
cis-1,3-Dichloropropene	17.6 %	< 30	0.129 mg/Kg		0.154	0.0006	1
trans-1,3-Dichloropropene	26.6 %	< 30	0.117 mg/Kg		0.153	0.0009	1
Ethyl Acetate	11.8 %	< 30	0.166 mg/Kg		0.187	0.0016	1
Ethylbenzene	17.7 %	< 30	0.0862 mg/Kg		0.103	0.0005	1
Hexachlorobutadiene	28.2 %	< 30	0.0926 mg/Kg		0.123	0.0008	1
2-Hexanone	3.9 %	< 30	0.175 mg/Kg		0.182	0.0019	1
Iodomethane	27.9 %	< 30	0.0785 mg/Kg		0.104	0.0009	1
Isopropylbenzene	22.9 %	< 30	0.108 mg/Kg		0.136	0.0003	1
4-Isopropyl toluene	30.0 % *	< 30	0.0593 mg/Kg		0.0803	0.0005	1
Methyl tert-butyl ether (MTBE)	11.1 %	< 30	0.136 mg/Kg		0.152	0.0004	1
4-Methyl-2-Pentanone	5.3 %	< 30	0.199 mg/Kg		0.210	0.0029	1
Methylene Chloride	4.2 %	< 30	0.139 mg/Kg		0.145	0.0015	1
Naphthalene	145 % *	< 30	0.0154 mg/Kg		0.0967	0.0031	1
n-Propylbenzene	27.2 %	< 30	0.114 mg/Kg		0.150	0.0002	1
Styrene	8.9 %	< 30	0.107 mg/Kg		0.117	0.0003	1
1,1,1,2-Tetrachloroethane	7.5 %	< 30	0.153 mg/Kg		0.165	0.0005	1
1,1,1,2,2-Tetrachloroethane	3.3 %	< 30	0.184 mg/Kg		0.178	0.0006	1
Tetrachloroethene	26.0 %	< 30	0.0885 mg/Kg		0.115	0.0016	1

\* **QC Fail**



**QC Report**

Client ID           **Ensafe**  
Project Description    MLB Uptown  
Report No            14-136-0206

**Analytical Method: 8260B**

**Batch: L199552**

**Prep Method: 5030A**

**Batch: L199550   05/19/2014 09:30 AM**

**Matrix Spike Duplicate - L 89762-MSD-L199550**

**QC Measurement:   RPD**

**DateTime Analyzed: 05/19/2014 09:43 PM**

Test Description	QC Result	Criteria	MSD Result	MSD Conc.	Sample Conc.	MDL	Dilution
Toluene	19.2 %	< 30	0.122 mg/Kg		0.148	0.0025	1
1,2,3-Trichlorobenzene	139 % *	< 30	0.0204 mg/Kg		0.113	0.0010	1
1,2,4-Trichlorobenzene	85.0 % *	< 30	0.0464 mg/Kg		0.115	0.0014	1
1,1,1-Trichloroethane	39.3 % *	< 30	0.0718 mg/Kg		0.107	0.0008	1
1,1,2-Trichloroethane	1.5 %	< 30	0.194 mg/Kg		0.191	0.0017	1
Trichloroethene	26.5 %	< 30	0.121 mg/Kg		0.158	0.0013	1
Trichlorofluoromethane	50.4 % *	< 30	0.0627 mg/Kg		0.105	0.0008	1
1,2,3-Trichloropropane	12.2 %	< 30	0.138 mg/Kg		0.156	0.0010	1
1,2,4-Trimethylbenzene	0.0 %	< 30	0.135 mg/Kg		0.135	0.0006	1
1,3,5-Trimethylbenzene	9.3 %	< 30	0.123 mg/Kg		0.135	0.0003	1
Vinyl Acetate	34.8 % *	< 30	0.102 mg/Kg		0.145	0.0026	1
Vinyl Chloride	31.5 % *	< 30	0.0764 mg/Kg		0.105	0.0006	1
o-Xylene	12.5 %	< 30	0.135 mg/Kg		0.153	0.0008	1
m,p-Xylene	7.5 %	< 30	0.254 mg/Kg		0.274	0.0007	1

\* QC Fail

**QC Report**

Client ID           **Ensafe**  
Project Description    MLB Uptown  
Report No            14-136-0206

**Analytical Method: 8260B**

**Batch: L199866**

**Prep Method: 5030A**

**Batch: L199862   05/21/2014 07:17 AM**

**Lab Reagent Blank - LRB-L199862**

**QC Measurement:   Limit**

**DateTime Analyzed: 05/21/2014 09:42 AM**

<b>Test Description</b>	<b>LRB Result</b>	<b>Qualifier</b>	<b>MDL</b>	<b>SQL</b>	<b>Dilution</b>
Acetone	<0.0046 mg/Kg		0.0046	0.0400	1
Acetonitrile	<0.0128 mg/Kg		0.0128	0.100	1
Acrolein	<0.0101 mg/Kg		0.0101	0.0400	1
Acrylonitrile	<0.0080 mg/Kg		0.0080	0.0400	1
Benzene	<0.0008 mg/Kg		0.0008	0.0020	1
Bromobenzene	<0.0009 mg/Kg		0.0009	0.0020	1
Bromochloromethane	<0.0007 mg/Kg		0.0007	0.0020	1
Bromodichloromethane	<0.0004 mg/Kg		0.0004	0.0020	1
Bromoform	<0.0006 mg/Kg		0.0006	0.0020	1
Bromomethane	<0.0012 mg/Kg		0.0012	0.0020	1
Methyl Ethyl Ketone (MEK)	<0.0061 mg/Kg		0.0061	0.0400	1
n-Butylbenzene	<0.0007 mg/Kg		0.0007	0.0020	1
sec-Butyl benzene	<0.0003 mg/Kg		0.0003	0.0020	1
tert-Butyl benzene	<0.0014 mg/Kg		0.0014	0.0020	1
Carbon Disulfide	0.0005 mg/Kg	J	0.0004	0.0020	1
Carbon Tetrachloride	<0.0005 mg/Kg		0.0005	0.0020	1
Chlorobenzene	<0.0008 mg/Kg		0.0008	0.0020	1
Chlorodibromomethane	<0.0009 mg/Kg		0.0009	0.0020	1
Chloroethane	<0.0003 mg/Kg		0.0003	0.0020	1
2-Chloroethylvinyl Ether	<0.0020 mg/Kg		0.0020	0.0020	1
Chloroform	<0.0004 mg/Kg		0.0004	0.0020	1
Chloromethane	<0.0007 mg/Kg		0.0007	0.0020	1
2-Chlorotoluene	<0.0002 mg/Kg		0.0002	0.0020	1
4-Chlorotoluene	<0.0008 mg/Kg		0.0008	0.0020	1
1,2-Dibromo-3-Chloropropane	<0.0050 mg/Kg		0.0050	0.0100	1
1,2-Dibromoethane	<0.0011 mg/Kg		0.0011	0.0020	1
Dibromomethane	<0.0011 mg/Kg		0.0011	0.0020	1
1,2-Dichlorobenzene	<0.0010 mg/Kg		0.0010	0.0020	1
1,3-Dichlorobenzene	<0.0008 mg/Kg		0.0008	0.0020	1

**QC Report**

Client ID           **Ensafe**  
Project Description    MLB Uptown  
Report No            14-136-0206

**Analytical Method: 8260B**

**Batch: L199866**

**Prep Method: 5030A**

**Batch: L199862   05/21/2014 07:17 AM**

**Lab Reagent Blank - LRB-L199862**

**QC Measurement:   Limit**

**DateTime Analyzed: 05/21/2014 09:42 AM**

<b>Test Description</b>	<b>LRB Result</b>	<b>Qualifier</b>	<b>MDL</b>	<b>SQL</b>	<b>Dilution</b>
1,4-Dichlorobenzene	<0.0007 mg/Kg		0.0007	0.0020	1
Dichlorodifluoromethane	<0.0005 mg/Kg		0.0005	0.0020	1
1,1-Dichloroethane	<0.0003 mg/Kg		0.0003	0.0020	1
1,2-Dichloroethane	<0.0010 mg/Kg		0.0010	0.0020	1
1,1-Dichloroethene	<0.0004 mg/Kg		0.0004	0.0020	1
cis-1,2-Dichloroethene	<0.0005 mg/Kg		0.0005	0.0020	1
trans-1,2-Dichloroethene	<0.0004 mg/Kg		0.0004	0.0020	1
1,2-Dichloropropane	<0.0011 mg/Kg		0.0011	0.0020	1
1,3-Dichloropropane	<0.0011 mg/Kg		0.0011	0.0020	1
2,2-Dichloropropane	<0.0007 mg/Kg		0.0007	0.0020	1
1,1-Dichloropropene	<0.0009 mg/Kg		0.0009	0.0020	1
cis-1,3-Dichloropropene	<0.0006 mg/Kg		0.0006	0.0020	1
trans-1,3-Dichloropropene	<0.0009 mg/Kg		0.0009	0.0020	1
Ethyl Acetate	<0.0016 mg/Kg		0.0016	0.0400	1
Ethylbenzene	<0.0005 mg/Kg		0.0005	0.0020	1
Hexachlorobutadiene	<0.0008 mg/Kg		0.0008	0.0020	1
2-Hexanone	<0.0019 mg/Kg		0.0019	0.0100	1
Iodomethane	0.0012 mg/Kg	J	0.0009	0.0100	1
Isopropylbenzene	<0.0003 mg/Kg		0.0003	0.0020	1
4-Isopropyl toluene	<0.0005 mg/Kg		0.0005	0.0020	1
Methyl tert-butyl ether (MTBE)	<0.0004 mg/Kg		0.0004	0.0020	1
4-Methyl-2-Pentanone	<0.0029 mg/Kg		0.0029	0.0100	1
Methylene Chloride	<0.0015 mg/Kg		0.0015	0.0100	1
Naphthalene	<0.0031 mg/Kg		0.0031	0.0100	1
n-Propylbenzene	<0.0002 mg/Kg		0.0002	0.0020	1
Styrene	<0.0003 mg/Kg		0.0003	0.0020	1
1,1,1,2-Tetrachloroethane	<0.0005 mg/Kg		0.0005	0.0020	1
1,1,2,2-Tetrachloroethane	<0.0006 mg/Kg		0.0006	0.0020	1
Tetrachloroethene	<0.0016 mg/Kg		0.0016	0.0020	1

**QC Report**

Client ID           **Ensafe**  
Project Description    MLB Uptown  
Report No            14-136-0206

**Analytical Method: 8260B**

**Batch: L199866**

**Prep Method: 5030A**

**Batch: L199862   05/21/2014 07:17 AM**

**Lab Reagent Blank - LRB-L199862**

**QC Measurement:   Limit**

**DateTime Analyzed: 05/21/2014 09:42 AM**

<b>Test Description</b>	<b>LRB Result</b>	<b>Qualifier</b>	<b>MDL</b>	<b>SQL</b>	<b>Dilution</b>
Toluene	<0.0025 mg/Kg		0.0025	0.0100	1
1,2,3-Trichlorobenzene	<0.0010 mg/Kg		0.0010	0.0020	1
1,2,4-Trichlorobenzene	<0.0014 mg/Kg		0.0014	0.0020	1
1,1,1-Trichloroethane	<0.0008 mg/Kg		0.0008	0.0020	1
1,1,2-Trichloroethane	<0.0017 mg/Kg		0.0017	0.0020	1
Trichloroethene	<0.0013 mg/Kg		0.0013	0.0020	1
Trichlorofluoromethane	<0.0008 mg/Kg		0.0008	0.0020	1
1,2,3-Trichloropropane	<0.0010 mg/Kg		0.0010	0.0020	1
1,2,4-Trimethylbenzene	<0.0006 mg/Kg		0.0006	0.0020	1
1,3,5-Trimethylbenzene	<0.0003 mg/Kg		0.0003	0.0020	1
Vinyl Acetate	<0.0026 mg/Kg		0.0026	0.0400	1
Vinyl Chloride	<0.0006 mg/Kg		0.0006	0.0020	1
o-Xylene	<0.0008 mg/Kg		0.0008	0.0020	1
m,p-Xylene	<0.0007 mg/Kg		0.0007	0.0040	1

**Surrogate Recovery:**

4-Bromofluorobenzene	106	0.106 mg/Kg	0.100		1
1,2-Dichloroethane - d4	125	0.125 mg/Kg	0.100		1
Toluene-d8	105	0.105 mg/Kg	0.100		1

**Laboratory Control Sample - LCS-L199862**

**QC Measurement:   % Recovery**

**DateTime Analyzed: 05/21/2014 08:18 AM**

<b>Test Description</b>	<b>QC Result</b>	<b>Criteria</b>	<b>LCS Result</b>	<b>LCS Conc.</b>	<b>MDL</b>	<b>Dilution</b>
Acetone	67.5 %	40-140%	0.135 mg/Kg	0.200	0.0046	1
Acetonitrile	108 %	40-140%	2.15 mg/Kg	2.00	0.0128	1
Acrolein	113 %	40-140%	0.225 mg/Kg	0.200	0.0101	1
Acrylonitrile	108 %	40-140%	0.216 mg/Kg	0.200	0.0080	1
Benzene	93.0 %	80-120%	0.186 mg/Kg	0.200	0.0008	1
Bromobenzene	98.0 %	75-125%	0.196 mg/Kg	0.200	0.0009	1

**QC Report**

Client ID           **Ensafe**  
Project Description    MLB Uptown  
Report No            14-136-0206

**Analytical Method: 8260B**

**Batch: L199866**

**Prep Method: 5030A**

**Batch: L199862   05/21/2014 07:17 AM**

**Laboratory Control Sample - LCS-L199862**

**QC Measurement:   % Recovery**

**DateTime Analyzed: 05/21/2014 08:18 AM**

Test Description	QC Result	Criteria	LCS Result	LCS Conc.	MDL	Dilution
Bromochloromethane	92.5 %	65-130%	0.185 mg/Kg	0.200	0.0007	1
Bromodichloromethane	91.5 %	75-120%	0.183 mg/Kg	0.200	0.0004	1
Bromoform	95.0 %	70-130%	0.190 mg/Kg	0.200	0.0006	1
Bromomethane	114 %	40-140%	0.228 mg/Kg	0.200	0.0012	1
Methyl Ethyl Ketone (MEK)	78.5 %	40-140%	0.157 mg/Kg	0.200	0.0061	1
n-Butylbenzene	100 %	70-135%	0.200 mg/Kg	0.200	0.0007	1
sec-Butyl benzene	101 %	70-125%	0.201 mg/Kg	0.200	0.0003	1
tert-Butyl benzene	99.5 %	70-130%	0.199 mg/Kg	0.200	0.0014	1
Carbon Disulfide	84.0 %	40-140%	0.168 mg/Kg	0.200	0.0004	1
Carbon Tetrachloride	92.5 %	65-140%	0.185 mg/Kg	0.200	0.0005	1
Chlorobenzene	93.5 %	80-120%	0.187 mg/Kg	0.200	0.0008	1
Chlorodibromomethane	110 %	75-120%	0.220 mg/Kg	0.200	0.0009	1
Chloroethane	74.5 %	60-135%	0.149 mg/Kg	0.200	0.0003	1
2-Chloroethylvinyl Ether	71.5 %	40-140%	0.143 mg/Kg	0.200	0.0020	1
Chloroform	100 %	80-120%	0.200 mg/Kg	0.200	0.0004	1
Chloromethane	81.5 %	40-125%	0.163 mg/Kg	0.200	0.0007	1
2-Chlorotoluene	109 %	75-125%	0.217 mg/Kg	0.200	0.0002	1
4-Chlorotoluene	91.5 %	75-130%	0.183 mg/Kg	0.200	0.0008	1
1,2-Dibromo-3-Chloropropane	92.5 %	50-130%	0.185 mg/Kg	0.200	0.0050	1
1,2-Dibromoethane	101 %	80-120%	0.201 mg/Kg	0.200	0.0011	1
Dibromomethane	109 %	75-125%	0.217 mg/Kg	0.200	0.0011	1
1,2-Dichlorobenzene	97.0 %	70-120%	0.194 mg/Kg	0.200	0.0010	1
1,3-Dichlorobenzene	95.5 %	75-125%	0.191 mg/Kg	0.200	0.0008	1
1,4-Dichlorobenzene	103 %	75-125%	0.205 mg/Kg	0.200	0.0007	1
Dichlorodifluoromethane	45.5 %	40-140%	0.0911 mg/Kg	0.200	0.0005	1
1,1-Dichloroethane	99.5 %	70-135%	0.199 mg/Kg	0.200	0.0003	1
1,2-Dichloroethane	101 %	70-130%	0.201 mg/Kg	0.200	0.0010	1
1,1-Dichloroethene	92.0 %	80-120%	0.184 mg/Kg	0.200	0.0004	1
cis-1,2-Dichloroethene	90.5 %	70-125%	0.181 mg/Kg	0.200	0.0005	1

**QC Report**

Client ID           **Ensafe**  
 Project Description   MLB Uptown  
 Report No            14-136-0206

**Analytical Method: 8260B**

**Batch: L199866**

**Prep Method: 5030A**

**Batch: L199862   05/21/2014 07:17 AM**

**Laboratory Control Sample - LCS-L199862**

**QC Measurement:   % Recovery**

**DateTime Analyzed: 05/21/2014 08:18 AM**

Test Description	QC Result	Criteria	LCS Result	LCS Conc.	MDL	Dilution
trans-1,2-Dichloroethene	93.5 %	60-140%	0.187 mg/Kg	0.200	0.0004	1
1,2-Dichloropropane	105 %	80-120%	0.210 mg/Kg	0.200	0.0011	1
1,3-Dichloropropane	102 %	75-125%	0.204 mg/Kg	0.200	0.0011	1
2,2-Dichloropropane	107 %	70-135%	0.214 mg/Kg	0.200	0.0007	1
1,1-Dichloropropene	103 %	75-130%	0.206 mg/Kg	0.200	0.0009	1
cis-1,3-Dichloropropene	105 %	70-130%	0.210 mg/Kg	0.200	0.0006	1
trans-1,3-Dichloropropene	104 %	55-140%	0.207 mg/Kg	0.200	0.0009	1
Ethyl Acetate	96.5 %	40-125%	0.193 mg/Kg	0.200	0.0016	1
Ethylbenzene	90.5 %	80-120%	0.181 mg/Kg	0.200	0.0005	1
Hexachlorobutadiene	101 %	50-140%	0.202 mg/Kg	0.200	0.0008	1
2-Hexanone	106 %	55-130%	0.212 mg/Kg	0.200	0.0019	1
Iodomethane	72.0 %	40-125%	0.144 mg/Kg	0.200	0.0009	1
Isopropylbenzene	97.0 %	75-125%	0.194 mg/Kg	0.200	0.0003	1
4-Isopropyl toluene	102 %	75-130%	0.204 mg/Kg	0.200	0.0005	1
Methyl tert-butyl ether (MTBE)	91.0 %	65-125%	0.182 mg/Kg	0.200	0.0004	1
4-Methyl-2-Pentanone	109 %	60-135%	0.218 mg/Kg	0.200	0.0029	1
Methylene Chloride	97.5 %	55-140%	0.195 mg/Kg	0.200	0.0015	1
Naphthalene	92.0 %	55-140%	0.184 mg/Kg	0.200	0.0031	1
n-Propylbenzene	100 %	70-130%	0.200 mg/Kg	0.200	0.0002	1
Styrene	83.0 %	65-135%	0.166 mg/Kg	0.200	0.0003	1
1,1,1,2-Tetrachloroethane	98.5 %	70-130%	0.197 mg/Kg	0.200	0.0005	1
1,1,1,2,2-Tetrachloroethane	103 %	65-130%	0.206 mg/Kg	0.200	0.0006	1
Tetrachloroethene	104 %	60-145%	0.208 mg/Kg	0.200	0.0016	1
Toluene	97.5 %	80-120%	0.195 mg/Kg	0.200	0.0025	1
1,2,3-Trichlorobenzene	99.5 %	55-140%	0.199 mg/Kg	0.200	0.0010	1
1,2,4-Trichlorobenzene	97.5 %	65-135%	0.195 mg/Kg	0.200	0.0014	1
1,1,1-Trichloroethane	95.0 %	65-130%	0.190 mg/Kg	0.200	0.0008	1
1,1,2-Trichloroethane	110 %	75-125%	0.220 mg/Kg	0.200	0.0017	1
Trichloroethene	109 %	70-125%	0.217 mg/Kg	0.200	0.0013	1

## QC Report

Client ID               **Ensafe**  
 Project Description    MLB Uptown  
 Report No              14-136-0206

**Analytical Method: 8260B**

**Batch: L199866**

**Prep Method: 5030A**

**Batch: L199862   05/21/2014 07:17 AM**

**Laboratory Control Sample - LCS-L199862**

**QC Measurement:   % Recovery**

**DateTime Analyzed: 05/21/2014 08:18 AM**

Test Description	QC Result	Criteria	LCS Result	LCS Conc.	MDL	Dilution
Trichlorofluoromethane	100 %	45-150%	0.200 mg/Kg	0.200	0.0008	1
1,2,3-Trichloropropane	96.5 %	75-125%	0.193 mg/Kg	0.200	0.0010	1
1,2,4-Trimethylbenzene	97.5 %	75-130%	0.195 mg/Kg	0.200	0.0006	1
1,3,5-Trimethylbenzene	99.5 %	75-130%	0.199 mg/Kg	0.200	0.0003	1
Vinyl Acetate	89.5 %	40-125%	0.179 mg/Kg	0.200	0.0026	1
Vinyl Chloride	83.0 %	80-120%	0.166 mg/Kg	0.200	0.0006	1
o-Xylene	96.5 %	75-130%	0.193 mg/Kg	0.200	0.0008	1
m,p-Xylene	102 %	75-130%	0.407 mg/Kg	0.400	0.0007	1
<b>Surrogate Recovery:</b>						
4-Bromofluorobenzene	93.6 %	60-130%	0.0936 mg/Kg	0.100		1
1,2-Dichloroethane - d4	95.0 %	60-132%	0.0950 mg/Kg	0.100		1
Toluene-d8	97.4 %	70-122%	0.0974 mg/Kg	0.100		1

**Matrix Spike - L 90028-MS-L199862**

**QC Measurement:   % Recovery**

**DateTime Analyzed: 05/21/2014 05:23 PM**

Test Description	QC Result	Criteria	MS Result	MS Conc.	Sample Conc.	MDL	Dilution
Acetone	67.6 %	40-140%	0.132 mg/Kg	0.195	<0.0046	0.0046	1
Acetonitrile	104 %	40-140%	2.03 mg/Kg	1.95	<0.0128	0.0128	1
Acrolein	110 %	40-140%	0.215 mg/Kg	0.195	<0.0101	0.0101	1
Acrylonitrile	112 %	40-140%	0.219 mg/Kg	0.195	<0.0080	0.0080	1
Benzene	81.0 %	80-120%	0.158 mg/Kg	0.195	<0.0008	0.0008	1
Bromobenzene	83.0 %	75-125%	0.162 mg/Kg	0.195	<0.0009	0.0009	1
Bromochloromethane	92.3 %	65-130%	0.180 mg/Kg	0.195	<0.0007	0.0007	1
Bromodichloromethane	87.6 %	75-120%	0.171 mg/Kg	0.195	<0.0004	0.0004	1
Bromoform	91.2 %	70-130%	0.178 mg/Kg	0.195	<0.0006	0.0006	1
Bromomethane	105 %	40-140%	0.205 mg/Kg	0.195	<0.0012	0.0012	1
Methyl Ethyl Ketone (MEK)	71.7 %	40-140%	0.140 mg/Kg	0.195	<0.0061	0.0061	1
n-Butylbenzene	76.4 %	70-135%	0.149 mg/Kg	0.195	<0.0007	0.0007	1



**QC Report**

Client ID           **Ensafe**  
Project Description    MLB Uptown  
Report No            14-136-0206

**Analytical Method: 8260B**

**Batch: L199866**

**Prep Method: 5030A**

**Batch: L199862   05/21/2014 07:17 AM**

**Matrix Spike - L 90028-MS-L199862**

**QC Measurement:   % Recovery**

**DateTime Analyzed: 05/21/2014 05:23 PM**

Test Description	QC Result	Criteria	MS Result	MS Conc.	Sample Conc.	MDL	Dilution
sec-Butyl benzene	82.5 %	70-125%	0.161 mg/Kg	0.195	<0.0003	0.0003	1
tert-Butyl benzene	89.7 %	70-130%	0.175 mg/Kg	0.195	<0.0014	0.0014	1
Carbon Disulfide	72.3 %	40-140%	0.141 mg/Kg	0.195	<0.0004	0.0004	1
Carbon Tetrachloride	82.5 %	65-140%	0.161 mg/Kg	0.195	<0.0005	0.0005	1
Chlorobenzene	81.5 %	80-120%	0.159 mg/Kg	0.195	<0.0008	0.0008	1
Chlorodibromomethane	101 %	75-120%	0.197 mg/Kg	0.195	<0.0009	0.0009	1
Chloroethane	83.5 %	60-135%	0.163 mg/Kg	0.195	<0.0003	0.0003	1
2-Chloroethylvinyl Ether	54.8 %	40-140%	0.107 mg/Kg	0.195	<0.0020	0.0020	1
Chloroform	88.7 %	80-120%	0.173 mg/Kg	0.195	<0.0004	0.0004	1
Chloromethane	76.4 %	40-125%	0.149 mg/Kg	0.195	<0.0007	0.0007	1
2-Chlorotoluene	83.0 %	75-125%	0.162 mg/Kg	0.195	<0.0002	0.0002	1
4-Chlorotoluene	89.7 %	75-130%	0.175 mg/Kg	0.195	<0.0008	0.0008	1
1,2-Dibromo-3-Chloropropane	78.9 %	50-130%	0.154 mg/Kg	0.195	<0.0050	0.0050	1
1,2-Dibromoethane	93.8 %	80-120%	0.183 mg/Kg	0.195	<0.0011	0.0011	1
Dibromomethane	98.4 %	75-125%	0.192 mg/Kg	0.195	<0.0011	0.0011	1
1,2-Dichlorobenzene	82.0 %	70-120%	0.160 mg/Kg	0.195	<0.0010	0.0010	1
1,3-Dichlorobenzene	81.0 %	75-125%	0.158 mg/Kg	0.195	<0.0008	0.0008	1
1,4-Dichlorobenzene	74.3 % *	75-125%	0.145 mg/Kg	0.195	<0.0007	0.0007	1
Dichlorodifluoromethane	48.8 %	40-140%	0.0952 mg/Kg	0.195	<0.0005	0.0005	1
1,1-Dichloroethane	90.7 %	70-135%	0.177 mg/Kg	0.195	<0.0003	0.0003	1
1,2-Dichloroethane	90.7 %	70-130%	0.177 mg/Kg	0.195	<0.0010	0.0010	1
1,1-Dichloroethene	81.5 %	80-120%	0.159 mg/Kg	0.195	<0.0004	0.0004	1
cis-1,2-Dichloroethene	83.0 %	70-125%	0.162 mg/Kg	0.195	<0.0005	0.0005	1
trans-1,2-Dichloroethene	80.0 %	60-140%	0.156 mg/Kg	0.195	<0.0004	0.0004	1
1,2-Dichloropropane	103 %	80-120%	0.200 mg/Kg	0.195	<0.0011	0.0011	1
1,3-Dichloropropane	89.7 %	75-125%	0.175 mg/Kg	0.195	<0.0011	0.0011	1
2,2-Dichloropropane	88.7 %	70-135%	0.173 mg/Kg	0.195	<0.0007	0.0007	1
1,1-Dichloropropene	86.1 %	75-130%	0.168 mg/Kg	0.195	<0.0009	0.0009	1
cis-1,3-Dichloropropene	94.3 %	70-130%	0.184 mg/Kg	0.195	<0.0006	0.0006	1

\* **QC Fail**

**QC Report**

Client ID           **Ensafe**  
Project Description    MLB Uptown  
Report No            14-136-0206

**Analytical Method: 8260B**

**Batch: L199866**

**Prep Method: 5030A**

**Batch: L199862   05/21/2014 07:17 AM**

**Matrix Spike - L 90028-MS-L199862**

**QC Measurement:   % Recovery**

**DateTime Analyzed: 05/21/2014 05:23 PM**

Test Description	QC Result	Criteria	MS Result	MS Conc.	Sample Conc.	MDL	Dilution
trans-1,3-Dichloropropene	86.6 %	55-140%	0.169 mg/Kg	0.195	<0.0009	0.0009	1
Ethyl Acetate	94.3 %	40-125%	0.184 mg/Kg	0.195	<0.0016	0.0016	1
Ethylbenzene	74.8 % *	80-120%	0.146 mg/Kg	0.195	<0.0005	0.0005	1
Hexachlorobutadiene	78.9 %	50-140%	0.154 mg/Kg	0.195	<0.0008	0.0008	1
2-Hexanone	88.7 %	55-130%	0.173 mg/Kg	0.195	<0.0019	0.0019	1
Iodomethane	66.1 %	40-125%	0.129 mg/Kg	0.195	<0.0009	0.0009	1
Isopropylbenzene	80.5 %	75-125%	0.157 mg/Kg	0.195	<0.0003	0.0003	1
4-Isopropyl toluene	84.1 %	75-130%	0.164 mg/Kg	0.195	<0.0005	0.0005	1
Methyl tert-butyl ether (MTBE)	85.6 %	65-125%	0.167 mg/Kg	0.195	<0.0004	0.0004	1
4-Methyl-2-Pentanone	99.4 %	60-135%	0.194 mg/Kg	0.195	<0.0029	0.0029	1
Methylene Chloride	85.6 %	55-140%	0.167 mg/Kg	0.195	<0.0015	0.0015	1
Naphthalene	75.3 %	55-140%	0.147 mg/Kg	0.195	<0.0031	0.0031	1
n-Propylbenzene	91.7 %	70-130%	0.179 mg/Kg	0.195	<0.0002	0.0002	1
Styrene	73.3 %	65-135%	0.143 mg/Kg	0.195	<0.0003	0.0003	1
1,1,1,2-Tetrachloroethane	77.4 %	70-130%	0.151 mg/Kg	0.195	<0.0005	0.0005	1
1,1,1,2-Tetrachloroethane	85.1 %	65-130%	0.166 mg/Kg	0.195	<0.0006	0.0006	1
Tetrachloroethene	86.1 %	60-145%	0.168 mg/Kg	0.195	<0.0016	0.0016	1
Toluene	92.3 %	80-120%	0.180 mg/Kg	0.195	<0.0025	0.0025	1
1,2,3-Trichlorobenzene	85.6 %	55-140%	0.167 mg/Kg	0.195	<0.0010	0.0010	1
1,2,4-Trichlorobenzene	70.7 %	65-135%	0.138 mg/Kg	0.195	<0.0014	0.0014	1
1,1,1-Trichloroethane	86.1 %	65-130%	0.168 mg/Kg	0.195	<0.0008	0.0008	1
1,1,2-Trichloroethane	96.4 %	75-125%	0.188 mg/Kg	0.195	<0.0017	0.0017	1
Trichloroethene	90.2 %	70-125%	0.176 mg/Kg	0.195	<0.0013	0.0013	1
Trichlorofluoromethane	104 %	45-150%	0.203 mg/Kg	0.195	<0.0008	0.0008	1
1,2,3-Trichloropropane	88.7 %	75-125%	0.173 mg/Kg	0.195	<0.0010	0.0010	1
1,2,4-Trimethylbenzene	85.6 %	75-130%	0.167 mg/Kg	0.195	<0.0006	0.0006	1
1,3,5-Trimethylbenzene	84.6 %	75-130%	0.165 mg/Kg	0.195	<0.0003	0.0003	1
Vinyl Acetate	93.8 %	40-125%	0.183 mg/Kg	0.195	<0.0026	0.0026	1
Vinyl Chloride	85.1 %	80-120%	0.166 mg/Kg	0.195	<0.0006	0.0006	1

\* **QC Fail**

**QC Report**

Client ID           **Ensafe**  
Project Description    MLB Uptown  
Report No            14-136-0206

**Analytical Method: 8260B**

**Batch: L199866**

**Prep Method: 5030A**

**Batch: L199862   05/21/2014 07:17 AM**

**Matrix Spike - L 90028-MS-L199862**

**QC Measurement:   % Recovery**

**DateTime Analyzed: 05/21/2014 05:23 PM**

Test Description	QC Result	Criteria	MS Result	MS Conc.	Sample Conc.	MDL	Dilution
o-Xylene	91.7 %	75-130%	0.179 mg/Kg	0.195	<0.0008	0.0008	1
m,p-Xylene	85.1 %	75-130%	0.333 mg/Kg	0.391	<0.0007	0.0007	1
<b>Surrogate Recovery:</b>							
4-Bromofluorobenzene	113 %	60-130%	0.106 mg/Kg	0.0942			1
1,2-Dichloroethane - d4	106 %	60-132%	0.100 mg/Kg	0.0942			1
Toluene-d8	116 %	70-122%	0.109 mg/Kg	0.0942			1

**Matrix Spike Duplicate - L 90028-MSD-L199862**

**QC Measurement:   % Recovery**

**DateTime Analyzed: 05/21/2014 06:25 PM**

Test Description	QC Result	Criteria	MSD Result	MSD Conc.	Sample Conc.	MDL	Dilution
Acetone	65.7 %	40-140%	0.125 mg/Kg	0.190	<0.0046	0.0046	1
Acetonitrile	149 % *	40-140%	2.83 mg/Kg	1.90	<0.0128	0.0128	1
Acrolein	94.7 %	40-140%	0.180 mg/Kg	0.190	<0.0101	0.0101	1
Acrylonitrile	130 %	40-140%	0.247 mg/Kg	0.190	<0.0080	0.0080	1
Benzene	76.3 % *	80-120%	0.145 mg/Kg	0.190	<0.0008	0.0008	1
Bromobenzene	80.5 %	75-125%	0.153 mg/Kg	0.190	<0.0009	0.0009	1
Bromochloromethane	106 %	65-130%	0.201 mg/Kg	0.190	<0.0007	0.0007	1
Bromodichloromethane	88.4 %	75-120%	0.168 mg/Kg	0.190	<0.0004	0.0004	1
Bromoform	93.6 %	70-130%	0.178 mg/Kg	0.190	<0.0006	0.0006	1
Bromomethane	56.3 %	40-140%	0.107 mg/Kg	0.190	<0.0012	0.0012	1
Methyl Ethyl Ketone (MEK)	84.7 %	40-140%	0.161 mg/Kg	0.190	<0.0061	0.0061	1
n-Butylbenzene	68.9 % *	70-135%	0.131 mg/Kg	0.190	<0.0007	0.0007	1
sec-Butyl benzene	64.7 % *	70-125%	0.123 mg/Kg	0.190	<0.0003	0.0003	1
tert-Butyl benzene	80.0 %	70-130%	0.152 mg/Kg	0.190	<0.0014	0.0014	1
Carbon Disulfide	58.4 %	40-140%	0.111 mg/Kg	0.190	<0.0004	0.0004	1
Carbon Tetrachloride	58.4 % *	65-140%	0.111 mg/Kg	0.190	<0.0005	0.0005	1
Chlorobenzene	73.6 % *	80-120%	0.140 mg/Kg	0.190	<0.0008	0.0008	1
Chlorodibromomethane	100 %	75-120%	0.190 mg/Kg	0.190	<0.0009	0.0009	1

\* QC Fail

**QC Report**

Client ID           **Ensafe**  
Project Description    MLB Uptown  
Report No            14-136-0206

**Analytical Method: 8260B**

**Batch: L199866**

**Prep Method: 5030A**

**Batch: L199862   05/21/2014 07:17 AM**

**Matrix Spike Duplicate - L 90028-MSD-L199862**

**QC Measurement:   % Recovery**

**DateTime Analyzed: 05/21/2014 06:25 PM**

Test Description	QC Result	Criteria	MSD Result	MSD Conc.	Sample Conc.	MDL	Dilution
Chloroethane	97.8 %	60-135%	0.186 mg/Kg	0.190	<0.0003	0.0003	1
2-Chloroethylvinyl Ether	45.8 %	40-140%	0.0872 mg/Kg	0.190	<0.0020	0.0020	1
Chloroform	83.1 %	80-120%	0.158 mg/Kg	0.190	<0.0004	0.0004	1
Chloromethane	65.7 %	40-125%	0.125 mg/Kg	0.190	<0.0007	0.0007	1
2-Chlorotoluene	82.1 %	75-125%	0.156 mg/Kg	0.190	<0.0002	0.0002	1
4-Chlorotoluene	75.2 %	75-130%	0.143 mg/Kg	0.190	<0.0008	0.0008	1
1,2-Dibromo-3-Chloropropane	92.6 %	50-130%	0.176 mg/Kg	0.190	<0.0050	0.0050	1
1,2-Dibromoethane	97.3 %	80-120%	0.185 mg/Kg	0.190	<0.0011	0.0011	1
Dibromomethane	110 %	75-125%	0.209 mg/Kg	0.190	<0.0011	0.0011	1
1,2-Dichlorobenzene	84.7 %	70-120%	0.161 mg/Kg	0.190	<0.0010	0.0010	1
1,3-Dichlorobenzene	84.7 %	75-125%	0.161 mg/Kg	0.190	<0.0008	0.0008	1
1,4-Dichlorobenzene	71.0 % *	75-125%	0.135 mg/Kg	0.190	<0.0007	0.0007	1
Dichlorodifluoromethane	30.8 % *	40-140%	0.0587 mg/Kg	0.190	<0.0005	0.0005	1
1,1-Dichloroethane	77.3 %	70-135%	0.147 mg/Kg	0.190	<0.0003	0.0003	1
1,2-Dichloroethane	91.5 %	70-130%	0.174 mg/Kg	0.190	<0.0010	0.0010	1
1,1-Dichloroethene	63.1 % *	80-120%	0.120 mg/Kg	0.190	<0.0004	0.0004	1
cis-1,2-Dichloroethene	76.8 %	70-125%	0.146 mg/Kg	0.190	<0.0005	0.0005	1
trans-1,2-Dichloroethene	73.1 %	60-140%	0.139 mg/Kg	0.190	<0.0004	0.0004	1
1,2-Dichloropropane	102 %	80-120%	0.194 mg/Kg	0.190	<0.0011	0.0011	1
1,3-Dichloropropane	90.5 %	75-125%	0.172 mg/Kg	0.190	<0.0011	0.0011	1
2,2-Dichloropropane	63.1 % *	70-135%	0.120 mg/Kg	0.190	<0.0007	0.0007	1
1,1-Dichloropropene	68.4 % *	75-130%	0.130 mg/Kg	0.190	<0.0009	0.0009	1
cis-1,3-Dichloropropene	91.5 %	70-130%	0.174 mg/Kg	0.190	<0.0006	0.0006	1
trans-1,3-Dichloropropene	90.0 %	55-140%	0.171 mg/Kg	0.190	<0.0009	0.0009	1
Ethyl Acetate	115 %	40-125%	0.218 mg/Kg	0.190	<0.0016	0.0016	1
Ethylbenzene	55.2 % *	80-120%	0.105 mg/Kg	0.190	<0.0005	0.0005	1
Hexachlorobutadiene	67.3 %	50-140%	0.128 mg/Kg	0.190	<0.0008	0.0008	1
2-Hexanone	126 %	55-130%	0.239 mg/Kg	0.190	<0.0019	0.0019	1
Iodomethane	52.1 %	40-125%	0.0991 mg/Kg	0.190	<0.0009	0.0009	1

\* QC Fail

**QC Report**

Client ID           **Ensafe**  
Project Description    MLB Uptown  
Report No            14-136-0206

**Analytical Method: 8260B**

**Batch: L199866**

**Prep Method: 5030A**

**Batch: L199862   05/21/2014 07:17 AM**

**Matrix Spike Duplicate - L 90028-MSD-L199862**

**QC Measurement:   % Recovery**

**DateTime Analyzed: 05/21/2014 06:25 PM**

Test Description	QC Result	Criteria	MSD Result	MSD Conc.	Sample Conc.	MDL	Dilution
Isopropylbenzene	72.6 % *	75-125%	0.138 mg/Kg	0.190	<0.0003	0.0003	1
4-Isopropyl toluene	51.8 % *	75-130%	0.0985 mg/Kg	0.190	<0.0005	0.0005	1
Methyl tert-butyl ether (MTBE)	84.7 %	65-125%	0.161 mg/Kg	0.190	<0.0004	0.0004	1
4-Methyl-2-Pentanone	113 %	60-135%	0.215 mg/Kg	0.190	<0.0029	0.0029	1
Methylene Chloride	82.1 %	55-140%	0.156 mg/Kg	0.190	<0.0015	0.0015	1
Naphthalene	77.3 %	55-140%	0.147 mg/Kg	0.190	<0.0031	0.0031	1
n-Propylbenzene	76.3 %	70-130%	0.145 mg/Kg	0.190	<0.0002	0.0002	1
Styrene	67.8 %	65-135%	0.129 mg/Kg	0.190	<0.0003	0.0003	1
1,1,1,2-Tetrachloroethane	84.2 %	70-130%	0.160 mg/Kg	0.190	<0.0005	0.0005	1
1,1,1,2-Tetrachloroethane	97.8 %	65-130%	0.186 mg/Kg	0.190	<0.0006	0.0006	1
Tetrachloroethene	73.6 %	60-145%	0.140 mg/Kg	0.190	<0.0016	0.0016	1
Toluene	83.6 %	80-120%	0.159 mg/Kg	0.190	<0.0025	0.0025	1
1,2,3-Trichlorobenzene	76.8 %	55-140%	0.146 mg/Kg	0.190	<0.0010	0.0010	1
1,2,4-Trichlorobenzene	73.1 %	65-135%	0.139 mg/Kg	0.190	<0.0014	0.0014	1
1,1,1-Trichloroethane	68.9 %	65-130%	0.131 mg/Kg	0.190	<0.0008	0.0008	1
1,1,2-Trichloroethane	114 %	75-125%	0.216 mg/Kg	0.190	<0.0017	0.0017	1
Trichloroethene	88.9 %	70-125%	0.169 mg/Kg	0.190	<0.0013	0.0013	1
Trichlorofluoromethane	73.1 %	45-150%	0.139 mg/Kg	0.190	<0.0008	0.0008	1
1,2,3-Trichloropropane	86.8 %	75-125%	0.165 mg/Kg	0.190	<0.0010	0.0010	1
1,2,4-Trimethylbenzene	75.7 %	75-130%	0.144 mg/Kg	0.190	<0.0006	0.0006	1
1,3,5-Trimethylbenzene	78.4 %	75-130%	0.149 mg/Kg	0.190	<0.0003	0.0003	1
Vinyl Acetate	109 %	40-125%	0.207 mg/Kg	0.190	<0.0026	0.0026	1
Vinyl Chloride	67.3 % *	80-120%	0.128 mg/Kg	0.190	<0.0006	0.0006	1
o-Xylene	78.9 %	75-130%	0.150 mg/Kg	0.190	<0.0008	0.0008	1
m,p-Xylene	76.5 %	75-130%	0.291 mg/Kg	0.380	<0.0007	0.0007	1

**Surrogate Recovery:**

4-Bromofluorobenzene	106 %	60-130%	0.0998 mg/Kg	0.0942			1
1,2-Dichloroethane - d4	136 % *	60-132%	0.128 mg/Kg	0.0942			1
Toluene-d8	115 %	70-122%	0.108 mg/Kg	0.0942			1

\* **QC Fail**

## QC Report

Client ID           **Ensafe**  
 Project Description   MLB Uptown  
 Report No            14-136-0206

**Analytical Method: 8260B**

**Batch: L199866**

**Prep Method: 5030A**

**Batch: L199862   05/21/2014 07:17 AM**

**Matrix Spike Duplicate - L 90028-MSD-L199862**

**QC Measurement:   RPD**

**DateTime Analyzed: 05/21/2014 06:25 PM**

Test Description	QC Result	Criteria	MSD Result	MSD Conc.	Sample Conc.	MDL	Dilution
Acetone	5.4 %	< 30	0.125 mg/Kg		0.132	0.0046	1
Acetonitrile	32.9 % *	< 30	2.83 mg/Kg		2.03	0.0128	1
Acrolein	17.7 %	< 30	0.180 mg/Kg		0.215	0.0101	1
Acrylonitrile	12.0 %	< 30	0.247 mg/Kg		0.219	0.0080	1
Benzene	8.5 %	< 30	0.145 mg/Kg		0.158	0.0008	1
Bromobenzene	5.7 %	< 30	0.153 mg/Kg		0.162	0.0009	1
Bromochloromethane	11.0 %	< 30	0.201 mg/Kg		0.180	0.0007	1
Bromodichloromethane	1.7 %	< 30	0.168 mg/Kg		0.171	0.0004	1
Bromoform	0.0 %	< 30	0.178 mg/Kg		0.178	0.0006	1
Bromomethane	62.8 % *	< 30	0.107 mg/Kg		0.205	0.0012	1
Methyl Ethyl Ketone (MEK)	13.9 %	< 30	0.161 mg/Kg		0.140	0.0061	1
n-Butylbenzene	12.8 %	< 30	0.131 mg/Kg		0.149	0.0007	1
sec-Butyl benzene	26.7 %	< 30	0.123 mg/Kg		0.161	0.0003	1
tert-Butyl benzene	14.0 %	< 30	0.152 mg/Kg		0.175	0.0014	1
Carbon Disulfide	23.8 %	< 30	0.111 mg/Kg		0.141	0.0004	1
Carbon Tetrachloride	36.7 % *	< 30	0.111 mg/Kg		0.161	0.0005	1
Chlorobenzene	12.7 %	< 30	0.140 mg/Kg		0.159	0.0008	1
Chlorodibromomethane	3.6 %	< 30	0.190 mg/Kg		0.197	0.0009	1
Chloroethane	13.1 %	< 30	0.186 mg/Kg		0.163	0.0003	1
2-Chloroethylvinyl Ether	20.3 %	< 30	0.0872 mg/Kg		0.107	0.0020	1
Chloroform	9.0 %	< 30	0.158 mg/Kg		0.173	0.0004	1
Chloromethane	17.5 %	< 30	0.125 mg/Kg		0.149	0.0007	1
2-Chlorotoluene	3.7 %	< 30	0.156 mg/Kg		0.162	0.0002	1
4-Chlorotoluene	20.1 %	< 30	0.143 mg/Kg		0.175	0.0008	1
1,2-Dibromo-3-Chloropropane	13.3 %	< 30	0.176 mg/Kg		0.154	0.0050	1
1,2-Dibromoethane	1.0 %	< 30	0.185 mg/Kg		0.183	0.0011	1
Dibromomethane	8.4 %	< 30	0.209 mg/Kg		0.192	0.0011	1
1,2-Dichlorobenzene	0.6 %	< 30	0.161 mg/Kg		0.160	0.0010	1
1,3-Dichlorobenzene	1.8 %	< 30	0.161 mg/Kg		0.158	0.0008	1

\* **QC Fail**

**QC Report**

Client ID           **Ensafe**  
Project Description   MLB Uptown  
Report No           14-136-0206

**Analytical Method: 8260B**

**Batch: L199866**

**Prep Method: 5030A**

**Batch: L199862   05/21/2014 07:17 AM**

**Matrix Spike Duplicate - L 90028-MSD-L199862**

**QC Measurement:   RPD**

**DateTime Analyzed: 05/21/2014 06:25 PM**

Test Description	QC Result	Criteria	MSD Result	MSD Conc.	Sample Conc.	MDL	Dilution
1,4-Dichlorobenzene	7.1 %	< 30	0.135 mg/Kg		0.145	0.0007	1
Dichlorodifluoromethane	47.4 % *	< 30	0.0587 mg/Kg		0.0952	0.0005	1
1,1-Dichloroethane	18.5 %	< 30	0.147 mg/Kg		0.177	0.0003	1
1,2-Dichloroethane	1.7 %	< 30	0.174 mg/Kg		0.177	0.0010	1
1,1-Dichloroethene	27.9 %	< 30	0.120 mg/Kg		0.159	0.0004	1
cis-1,2-Dichloroethene	10.3 %	< 30	0.146 mg/Kg		0.162	0.0005	1
trans-1,2-Dichloroethene	11.5 %	< 30	0.139 mg/Kg		0.156	0.0004	1
1,2-Dichloropropane	3.0 %	< 30	0.194 mg/Kg		0.200	0.0011	1
1,3-Dichloropropane	1.7 %	< 30	0.172 mg/Kg		0.175	0.0011	1
2,2-Dichloropropane	36.1 % *	< 30	0.120 mg/Kg		0.173	0.0007	1
1,1-Dichloropropene	25.5 %	< 30	0.130 mg/Kg		0.168	0.0009	1
cis-1,3-Dichloropropene	5.5 %	< 30	0.174 mg/Kg		0.184	0.0006	1
trans-1,3-Dichloropropene	1.1 %	< 30	0.171 mg/Kg		0.169	0.0009	1
Ethyl Acetate	16.9 %	< 30	0.218 mg/Kg		0.184	0.0016	1
Ethylbenzene	32.6 % *	< 30	0.105 mg/Kg		0.146	0.0005	1
Hexachlorobutadiene	18.4 %	< 30	0.128 mg/Kg		0.154	0.0008	1
2-Hexanone	32.0 % *	< 30	0.239 mg/Kg		0.173	0.0019	1
Iodomethane	26.2 %	< 30	0.0991 mg/Kg		0.129	0.0009	1
Isopropylbenzene	12.8 %	< 30	0.138 mg/Kg		0.157	0.0003	1
4-Isopropyl toluene	49.9 % *	< 30	0.0985 mg/Kg		0.164	0.0005	1
Methyl tert-butyl ether (MTBE)	3.6 %	< 30	0.161 mg/Kg		0.167	0.0004	1
4-Methyl-2-Pentanone	10.2 %	< 30	0.215 mg/Kg		0.194	0.0029	1
Methylene Chloride	6.8 %	< 30	0.156 mg/Kg		0.167	0.0015	1
Naphthalene	0.0 %	< 30	0.147 mg/Kg		0.147	0.0031	1
n-Propylbenzene	20.9 %	< 30	0.145 mg/Kg		0.179	0.0002	1
Styrene	10.2 %	< 30	0.129 mg/Kg		0.143	0.0003	1
1,1,1,2-Tetrachloroethane	5.7 %	< 30	0.160 mg/Kg		0.151	0.0005	1
1,1,1,2-Tetrachloroethane	11.3 %	< 30	0.186 mg/Kg		0.166	0.0006	1
Tetrachloroethene	18.1 %	< 30	0.140 mg/Kg		0.168	0.0016	1

\* **QC Fail**



**QC Report**

Client ID           **Ensafe**  
Project Description    MLB Uptown  
Report No            14-136-0206

**Analytical Method: 8260B**

**Batch: L199866**

**Prep Method: 5030A**

**Batch: L199862   05/21/2014 07:17 AM**

**Matrix Spike Duplicate - L 90028-MSD-L199862**

**QC Measurement:   RPD**

**DateTime Analyzed: 05/21/2014 06:25 PM**

Test Description	QC Result	Criteria	MSD Result	MSD Conc.	Sample Conc.	MDL	Dilution
Toluene	12.3 %	< 30	0.159 mg/Kg		0.180	0.0025	1
1,2,3-Trichlorobenzene	13.4 %	< 30	0.146 mg/Kg		0.167	0.0010	1
1,2,4-Trichlorobenzene	0.7 %	< 30	0.139 mg/Kg		0.138	0.0014	1
1,1,1-Trichloroethane	24.7 %	< 30	0.131 mg/Kg		0.168	0.0008	1
1,1,2-Trichloroethane	13.8 %	< 30	0.216 mg/Kg		0.188	0.0017	1
Trichloroethene	4.0 %	< 30	0.169 mg/Kg		0.176	0.0013	1
Trichlorofluoromethane	37.4 % *	< 30	0.139 mg/Kg		0.203	0.0008	1
1,2,3-Trichloropropane	4.7 %	< 30	0.165 mg/Kg		0.173	0.0010	1
1,2,4-Trimethylbenzene	14.7 %	< 30	0.144 mg/Kg		0.167	0.0006	1
1,3,5-Trimethylbenzene	10.1 %	< 30	0.149 mg/Kg		0.165	0.0003	1
Vinyl Acetate	12.3 %	< 30	0.207 mg/Kg		0.183	0.0026	1
Vinyl Chloride	25.8 %	< 30	0.128 mg/Kg		0.166	0.0006	1
o-Xylene	17.6 %	< 30	0.150 mg/Kg		0.179	0.0008	1
m,p-Xylene	13.4 %	< 30	0.291 mg/Kg		0.333	0.0007	1

\* QC Fail

**QC Report**

Client ID           **Ensafe**  
Project Description   MLB Uptown  
Report No            14-136-0206

**Analytical Method: 8270C SIM**

**Batch: L199718**

**Prep Method: 3511**

**Batch: L199437   05/19/2014 09:15**

**Lab Reagent Blank - LRB-L199437**

**QC Measurement:   Limit**

**DateTime Analyzed: 05/20/2014 12:18 PM**

Test Description	LRB Result	Qualifier	MDL	MQL	Dilution
Acenaphthene	<0.000010 mg/L		0.000010	0.000020	1
Acenaphthylene	<0.000010 mg/L		0.000010	0.000020	1
Anthracene	<0.000010 mg/L		0.000010	0.000020	1
Benzo(a)anthracene	<0.000010 mg/L		0.000010	0.000020	1
Benzo(a)pyrene	<0.000010 mg/L		0.000010	0.000020	1
Benzo(b)fluoranthene	<0.000010 mg/L		0.000010	0.000020	1
Benzo(g,h,i)perylene	<0.000010 mg/L		0.000010	0.000020	1
Benzo(k)fluoranthene	<0.000010 mg/L		0.000010	0.000020	1
Chrysene	<0.000010 mg/L		0.000010	0.000020	1
Dibenz(a,h)anthracene	<0.000010 mg/L		0.000010	0.000020	1
Fluoranthene	<0.000010 mg/L		0.000010	0.000020	1
Fluorene	<0.000010 mg/L		0.000010	0.000020	1
Indeno(1,2,3-cd)pyrene	<0.000010 mg/L		0.000010	0.000020	1
2-Methylnaphthalene	0.000013 mg/L	J	0.000010	0.000020	1
Naphthalene	0.000010 mg/L	J	0.000010	0.000020	1
Phenanthrene	0.000010 mg/L	J	0.000010	0.000020	1
Pyrene	<0.000010 mg/L		0.000010	0.000020	1

**Surrogate Recovery:**

2-Fluorobiphenyl	101	0.00613 mg/L	0.00606		1
4-Terphenyl-d14	103	0.00623 mg/L	0.00606		1

**Laboratory Control Sample - LCS-L199437**

**QC Measurement:   % Recovery**

**DateTime Analyzed: 05/20/2014 10:28 AM**

Test Description	QC Result	Criteria	LCS Result	LCS Conc.	MDL	Dilution
Acenaphthene	115 %	60-140%	0.00349 mg/L	0.00303	0.000010	1
Acenaphthylene	114 %	60-140%	0.00346 mg/L	0.00303	0.000010	1
Anthracene	118 %	60-140%	0.00358 mg/L	0.00303	0.000010	1
Benzo(a)anthracene	111 %	60-140%	0.00336 mg/L	0.00303	0.000010	1

**QC Report**

Client ID           **Ensafe**  
Project Description    MLB Uptown  
Report No            14-136-0206

**Analytical Method: 8270C SIM**

**Batch: L199718**

**Prep Method: 3511**

**Batch: L199437   05/19/2014 09:15**

**Laboratory Control Sample - LCS-L199437**

**QC Measurement:   % Recovery**

**DateTime Analyzed: 05/20/2014 10:28 AM**

Test Description	QC Result	Criteria	LCS Result	LCS Conc.	MDL	Dilution
Benzo(a)pyrene	103 %	60-140%	0.00311 mg/L	0.00303	0.000010	1
Benzo(b)fluoranthene	124 %	60-140%	0.00375 mg/L	0.00303	0.000010	1
Benzo(g,h,i)perylene	88.4 %	60-140%	0.00268 mg/L	0.00303	0.000010	1
Benzo(k)fluoranthene	102 %	60-140%	0.00310 mg/L	0.00303	0.000010	1
Chrysene	104 %	60-140%	0.00315 mg/L	0.00303	0.000010	1
Dibenz(a,h)anthracene	88.7 %	60-140%	0.00269 mg/L	0.00303	0.000010	1
Fluoranthene	100 %	60-140%	0.00303 mg/L	0.00303	0.000010	1
Fluorene	117 %	60-140%	0.00355 mg/L	0.00303	0.000010	1
Indeno(1,2,3-cd)pyrene	108 %	60-140%	0.00327 mg/L	0.00303	0.000010	1
2-Methylnaphthalene	105 %	60-140%	0.00319 mg/L	0.00303	0.000010	1
Naphthalene	112 %	60-140%	0.00338 mg/L	0.00303	0.000010	1
Phenanthrene	107 %	60-140%	0.00324 mg/L	0.00303	0.000010	1
Pyrene	101 %	60-140%	0.00307 mg/L	0.00303	0.000010	1

**Surrogate Recovery:**

2-Fluorobiphenyl	90.0 %	60-140%	0.00546 mg/L	0.00606		1
4-Terphenyl-d14	95.3 %	60-140%	0.00578 mg/L	0.00606		1

**Laboratory Control Sample Dupl - LCSD-L199437**

**QC Measurement:   % Recovery**

**DateTime Analyzed: 05/20/2014 11:05 AM**

Test Description	QC Result	Criteria	LCSD Result	LCSD Conc.	Sample Conc.	MDL	Dilution
Acenaphthene	114 %	60-140%	0.00346 mg/L	0.00303		0.000010	1
Acenaphthylene	112 %	60-140%	0.00340 mg/L	0.00303		0.000010	1
Anthracene	115 %	60-140%	0.00347 mg/L	0.00303		0.000010	1
Benzo(a)anthracene	96.0 %	60-140%	0.00291 mg/L	0.00303		0.000010	1
Benzo(a)pyrene	82.5 %	60-140%	0.00250 mg/L	0.00303		0.000010	1
Benzo(b)fluoranthene	102 %	60-140%	0.00308 mg/L	0.00303		0.000010	1
Benzo(g,h,i)perylene	69.9 %	60-140%	0.00212 mg/L	0.00303		0.000010	1
Benzo(k)fluoranthene	82.1 %	60-140%	0.00249 mg/L	0.00303		0.000010	1

**QC Report**

Client ID           **Ensafe**  
Project Description    MLB Uptown  
Report No            14-136-0206

**Analytical Method: 8270C SIM**

**Batch: L199718**

**Prep Method: 3511**

**Batch: L199437   05/19/2014 09:15**

**Laboratory Control Sample Dupl - LCSD-L199437**

**QC Measurement:   % Recovery**

**DateTime Analyzed: 05/20/2014 11:05 AM**

Test Description	QC Result	Criteria	LCSD Result	LCSD Conc.	Sample Conc.	MDL	Dilution
Chrysene	86.4 %	60-140%	0.00262 mg/L	0.00303	0.000010		1
Dibenz(a,h)anthracene	69.3 %	60-140%	0.00210 mg/L	0.00303	0.000010		1
Fluoranthene	92.0 %	60-140%	0.00279 mg/L	0.00303	0.000010		1
Fluorene	116 %	60-140%	0.00350 mg/L	0.00303	0.000010		1
Indeno(1,2,3-cd)pyrene	85.1 %	60-140%	0.00258 mg/L	0.00303	0.000010		1
2-Methylnaphthalene	104 %	60-140%	0.00314 mg/L	0.00303	0.000010		1
Naphthalene	110 %	60-140%	0.00334 mg/L	0.00303	0.000010		1
Phenanthrene	105 %	60-140%	0.00317 mg/L	0.00303	0.000010		1
Pyrene	93.0 %	60-140%	0.00282 mg/L	0.00303	0.000010		1

**Surrogate Recovery:**

2-Fluorobiphenyl	90.0 %	60-140%	0.00546 mg/L	0.00606			1
4-Terphenyl-d14	78.7 %	60-140%	0.00477 mg/L	0.00606			1

**Laboratory Control Sample Dupl - LCSD-L199437**

**QC Measurement:   RPD**

**DateTime Analyzed: 05/20/2014 11:05 AM**

Test Description	QC Result	Criteria	LCSD Result	LCSD Conc.	Sample Conc.	MDL	Dilution
Acenaphthene	0.8 %	< 20	0.00346 mg/L		0.00349	0.000010	1
Acenaphthylene	1.7 %	< 20	0.00340 mg/L		0.00346	0.000010	1
Anthracene	3.1 %	< 20	0.00347 mg/L		0.00358	0.000010	1
Benzo(a)anthracene	14.3 %	< 20	0.00291 mg/L		0.00336	0.000010	1
Benzo(a)pyrene	21.7 % *	< 20	0.00250 mg/L		0.00311	0.000010	1
Benzo(b)fluoranthene	19.6 %	< 20	0.00308 mg/L		0.00375	0.000010	1
Benzo(g,h,i)perylene	23.3 % *	< 20	0.00212 mg/L		0.00268	0.000010	1
Benzo(k)fluoranthene	21.8 % *	< 20	0.00249 mg/L		0.00310	0.000010	1
Chrysene	18.3 %	< 20	0.00262 mg/L		0.00315	0.000010	1
Dibenz(a,h)anthracene	24.6 % *	< 20	0.00210 mg/L		0.00269	0.000010	1
Fluoranthene	8.2 %	< 20	0.00279 mg/L		0.00303	0.000010	1
Fluorene	1.4 %	< 20	0.00350 mg/L		0.00355	0.000010	1
Indeno(1,2,3-cd)pyrene	23.5 % *	< 20	0.00258 mg/L		0.00327	0.000010	1

\* **QC Fail**

**QC Report**

Client ID               **Ensafe**  
 Project Description    MLB Uptown  
 Report No               14-136-0206

**Analytical Method: 8270C SIM**

**Batch: L199718**

**Prep Method: 3511**

**Batch: L199437   05/19/2014 09:15**

**Laboratory Control Sample Dupl - LCSD-L199437**

**QC Measurement:   RPD**

**DateTime Analyzed: 05/20/2014 11:05 AM**

<b>Test Description</b>	<b>QC Result</b>	<b>Criteria</b>	<b>LCSD Result</b>	<b>LCSD Conc.</b>	<b>Sample Conc.</b>	<b>MDL</b>	<b>Dilution</b>
2-Methylnaphthalene	1.5 %	< 20	0.00314 mg/L		0.00319	0.000010	1
Naphthalene	1.1 %	< 20	0.00334 mg/L		0.00338	0.000010	1
Phenanthrene	2.1 %	< 20	0.00317 mg/L		0.00324	0.000010	1
Pyrene	8.4 %	< 20	0.00282 mg/L		0.00307	0.000010	1

**QC Report**

Client ID           **Ensafe**  
Project Description    MLB Uptown  
Report No            14-136-0206

**Analytical Method: 8270C SIM**

**Batch: L199485**

**Prep Method: 3546**

**Batch: L199302   5/16/2014 9:00**

**Lab Reagent Blank - LRB-L199302**

**QC Measurement:   Limit**

**DateTime Analyzed: 05/16/2014 06:02 PM**

<u>Test Description</u>	<u>LRB Result</u>	<u>MDL</u>	<u>MQL</u>	<u>Dilution</u>
Acenaphthene	<0.000087 mg/Kg	0.000087	0.000660	1
Acenaphthylene	<0.000051 mg/Kg	0.000051	0.000660	1
Anthracene	<0.000212 mg/Kg	0.000212	0.000660	1
Benzo(a)anthracene	<0.000570 mg/Kg	0.000570	0.000660	1
Benzo(a)pyrene	<0.000539 mg/Kg	0.000539	0.000660	1
Benzo(b)fluoranthene	<0.000273 mg/Kg	0.000273	0.000660	1
Benzo(g,h,i)perylene	<0.000209 mg/Kg	0.000209	0.000660	1
Benzo(k)fluoranthene	<0.000192 mg/Kg	0.000192	0.000660	1
Chrysene	<0.000312 mg/Kg	0.000312	0.000660	1
Dibenz(a,h)anthracene	<0.000285 mg/Kg	0.000285	0.000660	1
Fluoranthene	<0.000184 mg/Kg	0.000184	0.000660	1
Fluorene	<0.000186 mg/Kg	0.000186	0.000660	1
Indeno(1,2,3-cd)pyrene	<0.000220 mg/Kg	0.000220	0.000660	1
2-Methylnaphthalene	<0.000118 mg/Kg	0.000118	0.000660	1
Naphthalene	<0.000187 mg/Kg	0.000187	0.000660	1
Phenanthrene	<0.000474 mg/Kg	0.000474	0.000660	1
Pyrene	<0.000191 mg/Kg	0.000191	0.000660	1

**Surrogate Recovery:**

2-Fluorobiphenyl	54.6	0.182 mg/Kg	0.333	1
Nitrobenzene-d5	69.9	0.233 mg/Kg	0.333	1
4-Terphenyl-d14	65.4	0.218 mg/Kg	0.333	1

**Laboratory Control Sample - LCS-L199302**

**QC Measurement:   % Recovery**

**DateTime Analyzed: 05/16/2014 06:32 PM**

<u>Test Description</u>	<u>QC Result</u>	<u>Criteria</u>	<u>LCS Result</u>	<u>LCS Conc.</u>	<u>MDL</u>	<u>Dilution</u>
Acenaphthene	71.8 %	40-120%	0.120 mg/Kg	0.167	0.000087	1
Acenaphthylene	68.8 %	40-120%	0.115 mg/Kg	0.167	0.000051	1
Anthracene	61.6 %	40-120%	0.103 mg/Kg	0.167	0.000212	1

**QC Report**

Client ID **Ensafe**  
Project Description **MLB Uptown**  
Report No **14-136-0206**

**Analytical Method: 8270C SIM**

**Batch: L199485**

**Prep Method: 3546**

**Batch: L199302 5/16/2014 9:00**

**Laboratory Control Sample - LCS-L199302**

**QC Measurement: % Recovery**

**DateTime Analyzed: 05/16/2014 06:32 PM**

Test Description	QC Result	Criteria	LCS Result	LCS Conc.	MDL	Dilution
Benzo(a)anthracene	73.0 %	40-120%	0.122 mg/Kg	0.167	0.000570	1
Benzo(a)pyrene	66.4 %	40-120%	0.111 mg/Kg	0.167	0.000539	1
Benzo(b)fluoranthene	70.0 %	40-120%	0.117 mg/Kg	0.167	0.000273	1
Benzo(g,h,i)perylene	70.0 %	40-120%	0.117 mg/Kg	0.167	0.000209	1
Benzo(k)fluoranthene	71.2 %	40-120%	0.119 mg/Kg	0.167	0.000192	1
Chrysene	67.0 %	40-120%	0.112 mg/Kg	0.167	0.000312	1
Dibenz(a,h)anthracene	79.0 %	40-120%	0.132 mg/Kg	0.167	0.000285	1
Fluoranthene	69.4 %	40-120%	0.116 mg/Kg	0.167	0.000184	1
Fluorene	61.6 %	40-120%	0.103 mg/Kg	0.167	0.000186	1
Indeno(1,2,3-cd)pyrene	77.8 %	40-120%	0.130 mg/Kg	0.167	0.000220	1
2-Methylnaphthalene	62.2 %	40-120%	0.104 mg/Kg	0.167	0.000118	1
Naphthalene	61.6 %	40-120%	0.103 mg/Kg	0.167	0.000187	1
Phenanthrene	68.2 %	40-120%	0.114 mg/Kg	0.167	0.000474	1
Pyrene	62.2 %	40-120%	0.104 mg/Kg	0.167	0.000191	1

**Surrogate Recovery:**

2-Fluorobiphenyl	62.1 %	33-115%	0.207 mg/Kg	0.333		1
Nitrobenzene-d5	65.4 %	29-110%	0.218 mg/Kg	0.333		1
4-Terphenyl-d14	72.3 %	33-122%	0.241 mg/Kg	0.333		1

**Matrix Spike - L 89765-MS-L199302**

**QC Measurement: % Recovery**

**DateTime Analyzed: 05/16/2014 07:03 PM**

Test Description	QC Result	Criteria	MS Result	MS Conc.	Sample Conc.	MDL	Dilution
Acenaphthene	63.0 %	40-120%	0.104 mg/Kg	0.165	<0.000087	0.000087	1
Acenaphthylene	61.2 %	40-120%	0.101 mg/Kg	0.165	<0.000051	0.000051	1
Anthracene	67.8 %	40-120%	0.112 mg/Kg	0.165	<0.000212	0.000212	1
Benzo(a)anthracene	78.7 %	40-120%	0.130 mg/Kg	0.165	<0.000570	0.000570	1
Benzo(a)pyrene	70.3 %	40-120%	0.116 mg/Kg	0.165	<0.000539	0.000539	1
Benzo(b)fluoranthene	74.5 %	40-120%	0.123 mg/Kg	0.165	<0.000273	0.000273	1



**QC Report**

Client ID           **Ensafe**  
Project Description    MLB Uptown  
Report No            14-136-0206

**Analytical Method: 8270C SIM**

**Batch: L199485**

**Prep Method: 3546**

**Batch: L199302   5/16/2014 9:00**

**Matrix Spike - L 89765-MS-L199302**

**QC Measurement:   % Recovery**

**DateTime Analyzed: 05/16/2014 07:03 PM**

Test Description	QC Result	Criteria	MS Result	MS Conc.	Sample Conc.	MDL	Dilution
Benzo(g,h,i)perylene	69.6 %	40-120%	0.115 mg/Kg	0.165	<0.000209	0.000209	1
Benzo(k)fluoranthene	66.6 %	40-120%	0.110 mg/Kg	0.165	<0.000192	0.000192	1
Chrysene	72.1 %	40-120%	0.119 mg/Kg	0.165	<0.000312	0.000312	1
Dibenz(a,h)anthracene	81.2 %	40-120%	0.134 mg/Kg	0.165	<0.000285	0.000285	1
Fluoranthene	66.6 %	40-120%	0.110 mg/Kg	0.165	<0.000184	0.000184	1
Fluorene	60.3 %	40-120%	0.0995 mg/Kg	0.165	<0.000186	0.000186	1
Indeno(1,2,3-cd)pyrene	76.9 %	40-120%	0.127 mg/Kg	0.165	<0.000220	0.000220	1
2-Methylnaphthalene	59.8 %	40-120%	0.0987 mg/Kg	0.165	<0.000118	0.000118	1
Naphthalene	58.5 %	40-120%	0.0966 mg/Kg	0.165	<0.000187	0.000187	1
Phenanthrene	67.8 %	40-120%	0.112 mg/Kg	0.165	<0.000474	0.000474	1
Pyrene	66.0 %	40-120%	0.109 mg/Kg	0.165	<0.000191	0.000191	1
<b>Surrogate Recovery:</b>							
2-Fluorobiphenyl	58.1 %	33-115%	0.190 mg/Kg	0.327			1
Nitrobenzene-d5	60.2 %	29-110%	0.197 mg/Kg	0.327			1
4-Terphenyl-d14	83.4 %	33-122%	0.273 mg/Kg	0.327			1

**Matrix Spike Duplicate - L 89765-MSD-L199302**

**QC Measurement:   % Recovery**

**DateTime Analyzed: 05/16/2014 07:34 PM**

Test Description	QC Result	Criteria	MSD Result	MSD Conc.	Sample Conc.	MDL	Dilution
Acenaphthene	62.8 %	40-120%	0.103 mg/Kg	0.164	<0.000087	0.000087	1
Acenaphthylene	58.9 %	40-120%	0.0966 mg/Kg	0.164	<0.000051	0.000051	1
Anthracene	64.6 %	40-120%	0.106 mg/Kg	0.164	<0.000212	0.000212	1
Benzo(a)anthracene	76.8 %	40-120%	0.126 mg/Kg	0.164	<0.000570	0.000570	1
Benzo(a)pyrene	74.3 %	40-120%	0.122 mg/Kg	0.164	<0.000539	0.000539	1
Benzo(b)fluoranthene	75.0 %	40-120%	0.123 mg/Kg	0.164	<0.000273	0.000273	1
Benzo(g,h,i)perylene	73.7 %	40-120%	0.121 mg/Kg	0.164	<0.000209	0.000209	1
Benzo(k)fluoranthene	72.5 %	40-120%	0.119 mg/Kg	0.164	<0.000192	0.000192	1
Chrysene	72.5 %	40-120%	0.119 mg/Kg	0.164	<0.000312	0.000312	1

**QC Report**

Client ID           **Ensafe**  
Project Description    MLB Uptown  
Report No            14-136-0206

**Analytical Method: 8270C SIM**

**Batch: L199485**

**Prep Method: 3546**

**Batch: L199302   5/16/2014 9:00**

**Matrix Spike Duplicate - L 89765-MSD-L199302**

**QC Measurement:   % Recovery**

**DateTime Analyzed: 05/16/2014 07:34 PM**

Test Description	QC Result	Criteria	MSD Result	MSD Conc.	Sample Conc.	MDL	Dilution
Dibenz(a,h)anthracene	81.7 %	40-120%	0.134 mg/Kg	0.164	<0.000285	0.000285	1
Fluoranthene	65.8 %	40-120%	0.108 mg/Kg	0.164	<0.000184	0.000184	1
Fluorene	60.1 %	40-120%	0.0987 mg/Kg	0.164	<0.000186	0.000186	1
Indeno(1,2,3-cd)pyrene	78.6 %	40-120%	0.129 mg/Kg	0.164	<0.000220	0.000220	1
2-Methylnaphthalene	55.6 %	40-120%	0.0913 mg/Kg	0.164	<0.000118	0.000118	1
Naphthalene	55.7 %	40-120%	0.0914 mg/Kg	0.164	<0.000187	0.000187	1
Phenanthrene	68.9 %	40-120%	0.113 mg/Kg	0.164	<0.000474	0.000474	1
Pyrene	60.1 %	40-120%	0.0986 mg/Kg	0.164	<0.000191	0.000191	1

**Surrogate Recovery:**

2-Fluorobiphenyl	56.5 %	33-115%	0.185 mg/Kg	0.327			1
Nitrobenzene-d5	61.4 %	29-110%	0.201 mg/Kg	0.327			1
4-Terphenyl-d14	70.9 %	33-122%	0.232 mg/Kg	0.327			1

**Matrix Spike Duplicate - L 89765-MSD-L199302**

**QC Measurement:   RPD**

**DateTime Analyzed: 05/16/2014 07:34 PM**

Test Description	QC Result	Criteria	MSD Result	MSD Conc.	Sample Conc.	MDL	Dilution
Acenaphthene	0.9 %	< 30	0.103 mg/Kg		0.104	0.000087	1
Acenaphthylene	4.4 %	< 30	0.0966 mg/Kg		0.101	0.000051	1
Anthracene	5.5 %	< 30	0.106 mg/Kg		0.112	0.000212	1
Benzo(a)anthracene	3.1 %	< 30	0.126 mg/Kg		0.130	0.000570	1
Benzo(a)pyrene	5.0 %	< 30	0.122 mg/Kg		0.116	0.000539	1
Benzo(b)fluoranthene	0.0 %	< 30	0.123 mg/Kg		0.123	0.000273	1
Benzo(g,h,i)perylene	5.0 %	< 30	0.121 mg/Kg		0.115	0.000209	1
Benzo(k)fluoranthene	7.8 %	< 30	0.119 mg/Kg		0.110	0.000192	1
Chrysene	0.0 %	< 30	0.119 mg/Kg		0.119	0.000312	1
Dibenz(a,h)anthracene	0.0 %	< 30	0.134 mg/Kg		0.134	0.000285	1
Fluoranthene	1.8 %	< 30	0.108 mg/Kg		0.110	0.000184	1
Fluorene	0.8 %	< 30	0.0987 mg/Kg		0.0995	0.000186	1
Indeno(1,2,3-cd)pyrene	1.5 %	< 30	0.129 mg/Kg		0.127	0.000220	1

**QC Report**

Client ID               **Ensafe**  
 Project Description    MLB Uptown  
 Report No               14-136-0206

**Analytical Method: 8270C SIM**

**Batch: L199485**

**Prep Method: 3546**

**Batch: L199302   5/16/2014 9:00**

**Matrix Spike Duplicate - L 89765-MSD-L199302**

**QC Measurement:   RPD**

**DateTime Analyzed: 05/16/2014 07:34 PM**

<b>Test Description</b>	<b>QC Result</b>	<b>Criteria</b>	<b>MSD Result</b>	<b>MSD Conc.</b>	<b>Sample Conc.</b>	<b>MDL</b>	<b>Dilution</b>
2-Methylnaphthalene	7.7 %	< 30	0.0913 mg/Kg		0.0987	0.000118	1
Naphthalene	5.5 %	< 30	0.0914 mg/Kg		0.0966	0.000187	1
Phenanthrene	0.8 %	< 30	0.113 mg/Kg		0.112	0.000474	1
Pyrene	10.0 %	< 30	0.0986 mg/Kg		0.109	0.000191	1

**Cooler Receipt Form**

Customer Number: **03180**

Customer Name: **Ensafe**

Report Number: **14-136-0206**

**Shipping Method**

Fed Ex       US Postal       Lab       Other :   
 UPS       Client       Courier      Thermometer ID:

Shipping container/cooler uncompromised?	<input checked="" type="radio"/> Yes	<input type="radio"/> No	
Custody seals intact on shipping container/cooler?	<input type="radio"/> Yes	<input type="radio"/> No	<input checked="" type="radio"/> Not Required
Custody seals intact on sample bottles?	<input type="radio"/> Yes	<input type="radio"/> No	<input checked="" type="radio"/> Not Required
Chain of Custody (COC) present?	<input checked="" type="radio"/> Yes	<input type="radio"/> No	
COC agrees with sample label(s)?	<input checked="" type="radio"/> Yes	<input type="radio"/> No	
COC properly completed	<input checked="" type="radio"/> Yes	<input type="radio"/> No	
Samples in proper containers?	<input checked="" type="radio"/> Yes	<input type="radio"/> No	
Sample containers intact?	<input checked="" type="radio"/> Yes	<input type="radio"/> No	
Sufficient sample volume for indicated test(s)?	<input checked="" type="radio"/> Yes	<input type="radio"/> No	
All samples received within holding time?	<input checked="" type="radio"/> Yes	<input type="radio"/> No	
Cooler temperature in compliance?	<input checked="" type="radio"/> Yes	<input type="radio"/> No	
Cooler/Samples arrived at the laboratory on ice. Samples were considered acceptable as cooling process had begun.	<input checked="" type="radio"/> Yes	<input type="radio"/> No	
Water - Sample containers properly preserved	<input checked="" type="radio"/> Yes	<input type="radio"/> No	<input type="radio"/> N/A
Water - VOA vials free of headspace	<input checked="" type="radio"/> Yes	<input type="radio"/> No	<input type="radio"/> N/A
Trip Blanks received with VOAs	<input type="radio"/> Yes	<input type="radio"/> No	<input checked="" type="radio"/> N/A
Soil VOA method 5035 – compliance criteria met	<input type="radio"/> Yes	<input type="radio"/> No	<input checked="" type="radio"/> N/A
<input type="checkbox"/> High concentration container (48 hr)	<input type="checkbox"/> Low concentration EnCore samplers (48 hr)		
<input type="checkbox"/> High concentration pre-weighed (methanol -14 d)	<input type="checkbox"/> Low conc pre-weighed vials (Sod Bis -14 d)		
Special precautions or instructions included?	<input type="radio"/> Yes	<input checked="" type="radio"/> No	

Comments:

Any regulatory non-compliance issues will be recorded on non-compliance report.

Signature:

Date & Time:

Environmental Testing & Consulting, Inc. Chain of Custody Page 1 of 1

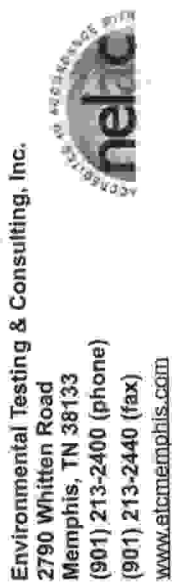
Client Name: **MLB Upton** Client Project Manager/Contact: **Allison Harris** Phone #: **901-372-7102**

Project/ Site Location: **714 N. Second Street** email Address: **aharris@ensafe**

Project Number: **088881544104** FID #: **088881544104** Purchase Order Number: **088881544104**

Type of Event: **(Single) Daily** Method of Shipment: **Delivery**

Frequency: **Weekly** Quarterly Semi-Annual



Environmental Testing & Consulting, Inc.  
 2790 Whitten Road  
 Memphis, TN 38133  
 (901) 213-2400 (phone)  
 (901) 213-2440 (fax)  
 www.etcmemphis.com

Date	Time	Sample Identification	Number of Containers	Matrix	(G/rab or (C)omposite)	VOC / VOC1	PAH by GC/MS	PAH by GC/MS
5/15/14	0855	MLBSTW0408	2	S	S	-	-	-
5/15/14	0900	MLBSTW0412	2	S	S	-	-	-
5/15/14	0940	MLBSTW0504	2	S	S	-	-	-
5/15/14	0945	MLBSTW0508	2	S	S	-	-	-
5/15/14	1220	MLBSTW0408	2	S	S	-	-	-
5/15/14	1225	MLBSTW0412	2	S	S	-	-	-
5/15/14	1300	MLBSTW0710	2	S	S	-	-	-
5/15/14	1305	MLBSTW0720	2	S	S	-	-	-
5/15/14	1450	MLBGTW0101	7	GW	G	-	-	-

Required Analysis:  
 VOC  
 PAH  
 8 PCRA MTHS

RUSH - Additional charges apply.  
 The following require a Statement of Work  
 Special Report Requirements  
 Special Detection Limit(s)  
 Special Method Requirements

NPDES  
 Wastewater  
 UST  
 Other Program

Client Remarks/Comments

Sampled by (Name/Affiliation): (Print):  
**Erin Yarker**

Relinquished by: (SIGNATURE)

Date/Time  
**5/16/14 0800**

Received by: (SIGNATURE)

Date/Time  
**5-16-14 0800**

Matrix  
 WW - Wastewater GW - Groundwater DW-Drinking Water S-Soil O-Oil L-Non aqueous liquid

For Laboratory Use Only  
 Cooler Temp  
**0.40 - B**

Relinquished by: (SIGNATURE)

Date/Time  
**5/16/14 0800**

Received by: (SIGNATURE)

Date/Time  
**5-16-14 0800**

**Appendix C**  
**Monitoring Well and Boring Logs**



5724 Summer Trees Drive  
Memphis TN 38134

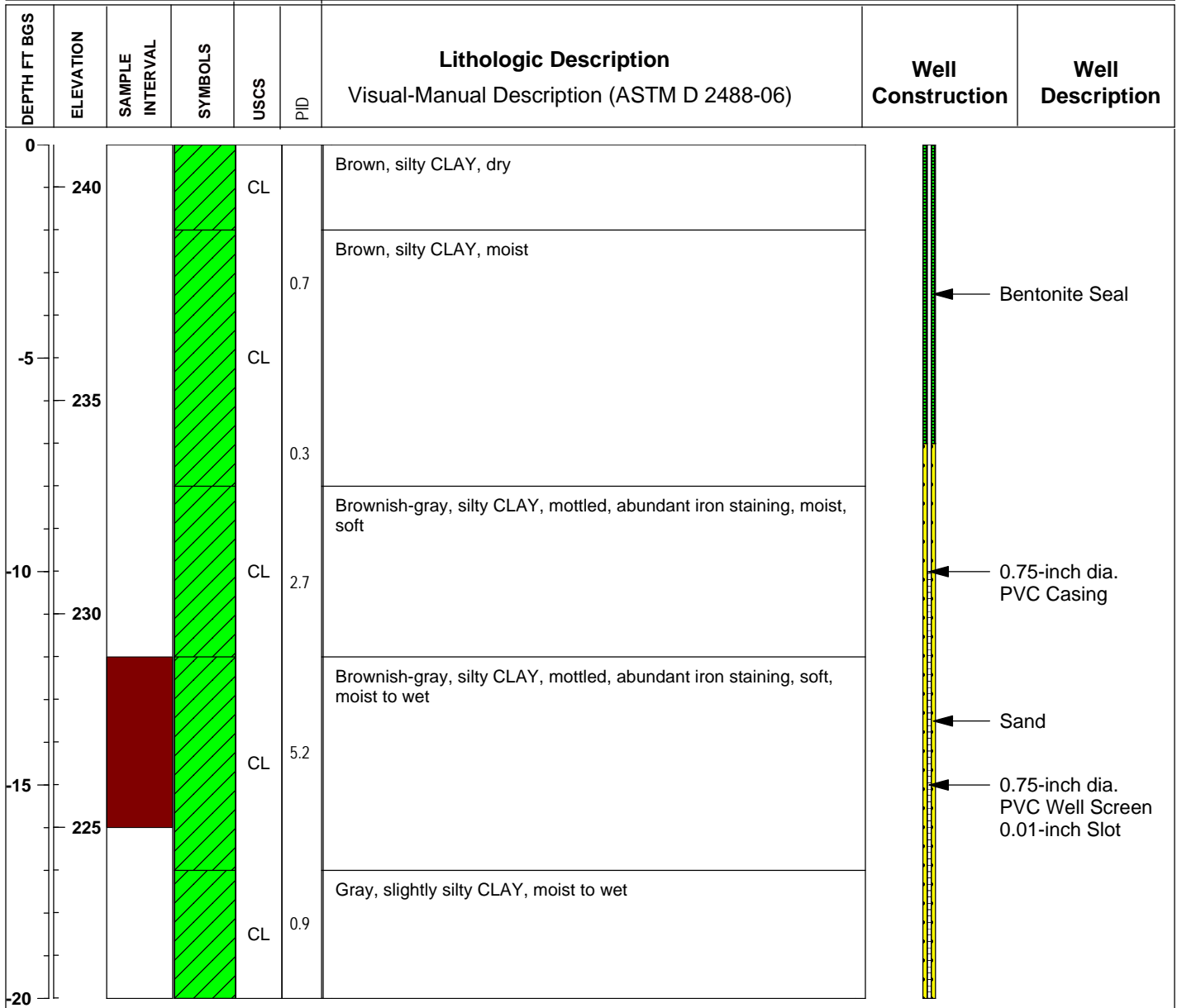
## Soil Boring/Monitoring Well Log Project : MLB at 2nd Avenue and Chelsea

**Location:**  
TW01

Client: MLB Uptown  
Purpose: Phase II ESA

Start Date: 5/14/2014  
End Date: 5/14/2014  
Drilling Method: DPT  
Drilling Contractor: McCray Drilling  
Geologist: Dave Fuehrer

Northing: 326948.15  
Easting: 760115.33  
TOC Elevation: 240.99  
Surface Elevation FT: 241.1  
Well Depth FT: 20



**NOTES:**

Second well set to 20 feet adjacent to TW01A. Soil samples are from TW01A borehole, and groundwater sample is from TW01 well.

Q:\Memphis\\_Client Projects M-Z\MLB\Report\Boring Logs





5724 Summer Trees Drive  
Memphis TN 38134

## Soil Boring/Monitoring Well Log Project : MLB at 2nd Avenue and Chelsea

**Location:**  
TW01A

Client: MLB  
Purpose: Phase II ESA

Start Date: 5/14/2014  
End Date: 5/14/2014  
Drilling Method: DPT  
Drilling Contractor: McCray Drilling  
Geologist: Dave Fuehrer

Northing: 326944.06  
Easting: 760118.58  
TOC Elevation: 240.97  
Surface Elevation FT: 241.0  
Well Depth FT: 36

DEPTH FT BGS	ELEVATION	SAMPLE INTERVAL	SYMBOLS	USCS	PID	Lithologic Description Visual-Manual Description (ASTM D 2488-06)	Well Construction	Well Description
0						Brown, silty CLAY, dry		
240				CL		Brown, silty CLAY, moist		
-5				CL	0.7			
235					0.3	Brownish-gray, silty CLAY, mottled, abundant iron staining, moist, soft		
-10				CL	2.7			
230						Brownish-gray, silty CLAY, mottled, abundant iron staining, soft, moist to wet		
-15				CL	5.2			
225						Gray, slightly silty CLAY, moist to wet		
-20				CL	0.9			
220					2.6	Brown, slightly silty CLAY, slightly moist, some gray mottling, iron staining, dense		
-25				CL	1100			
						Reddish-brown, silty CLAY with some sand towards 28 feet, gray and brown mottling		

← Bentonite Seal  
← 0.75-inch dia. PVC Casing

**NOTES:**

Q:\Memphis\\_Client Projects M-Z\MLB\Report\Boring Logs



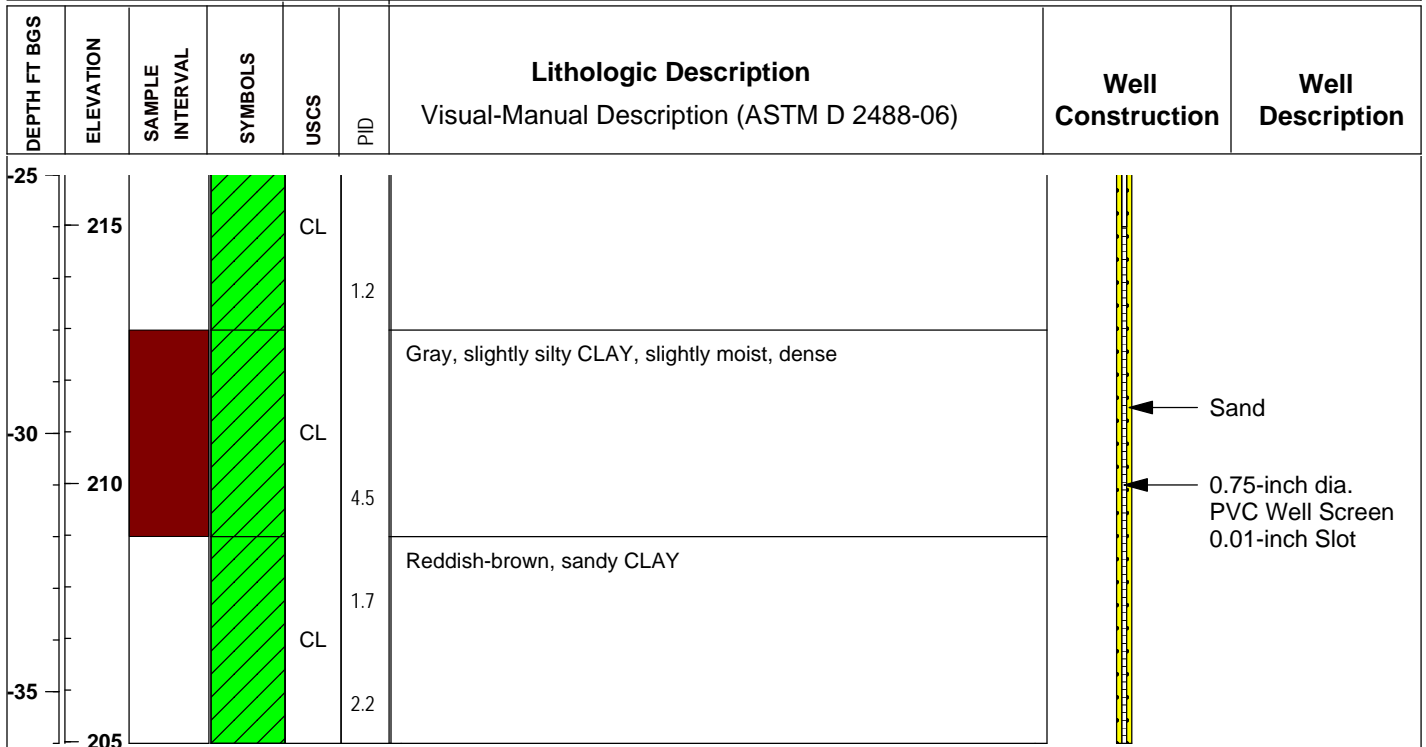
5724 Summer Trees Drive  
Memphis TN 38134

## Soil Boring/Monitoring Well Log Project : MLB at 2nd Avenue and Chelsea

**Location:**  
TW01A

Client: MLB  
Purpose: Phase II ESA

Start Date: 5/14/2014	Northing: 326944.06
End Date: 5/14/2014	Easting: 760118.58
Drilling Method: DPT	TOC Elevation: 240.97
Drilling Contractor: McCray Drilling	Surface Elevation FT: 241.0
Geologist: Dave Fuehrer	Well Depth FT: 36



**NOTES:**

Q:\Memphis\\_Client Projects M-Z\MLB\Report\Boring Logs



5724 Summer Trees Drive  
Memphis TN 38134

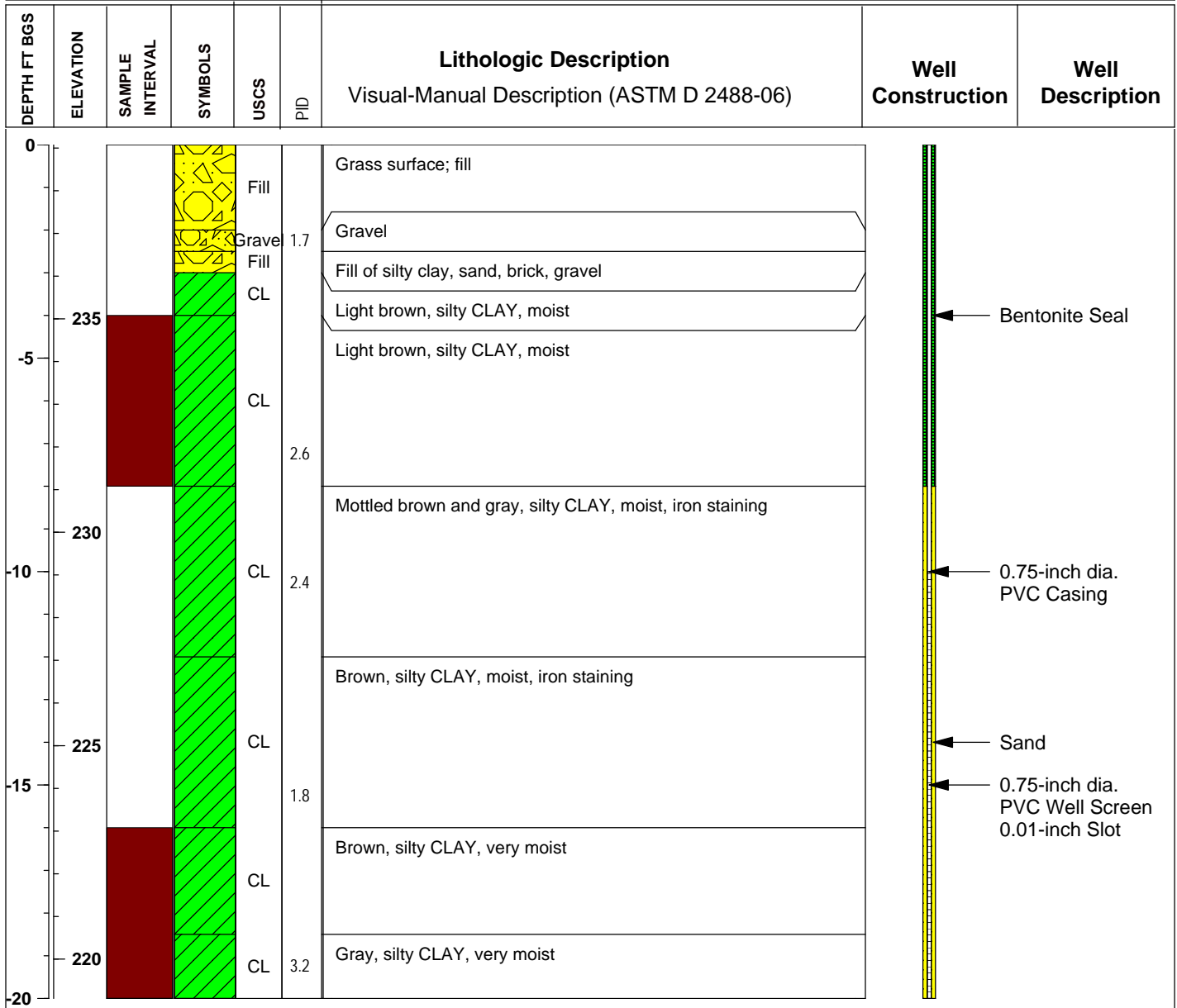
## Soil Boring/Monitoring Well Log Project : MLB at 2nd Avenue and Chelsea

**Location:**  
TW02

Client: MLB Uptown  
Purpose: Phase II ESA

Start Date: 5/14/2014  
End Date: 5/14/2014  
Drilling Method: DPT  
Drilling Contractor: McCray Drilling  
Geologist: Dave Fuehrer

Northing: 326904.18  
Easting: 760043.12  
TOC Elevation: 239.08  
Surface Elevation FT: 238.9  
Well Depth FT: 20



**NOTES:**

Q:\Memphis\\_Client Projects M-Z\MLB\Report\Boring Logs



5724 Summer Trees Drive  
Memphis TN 38134

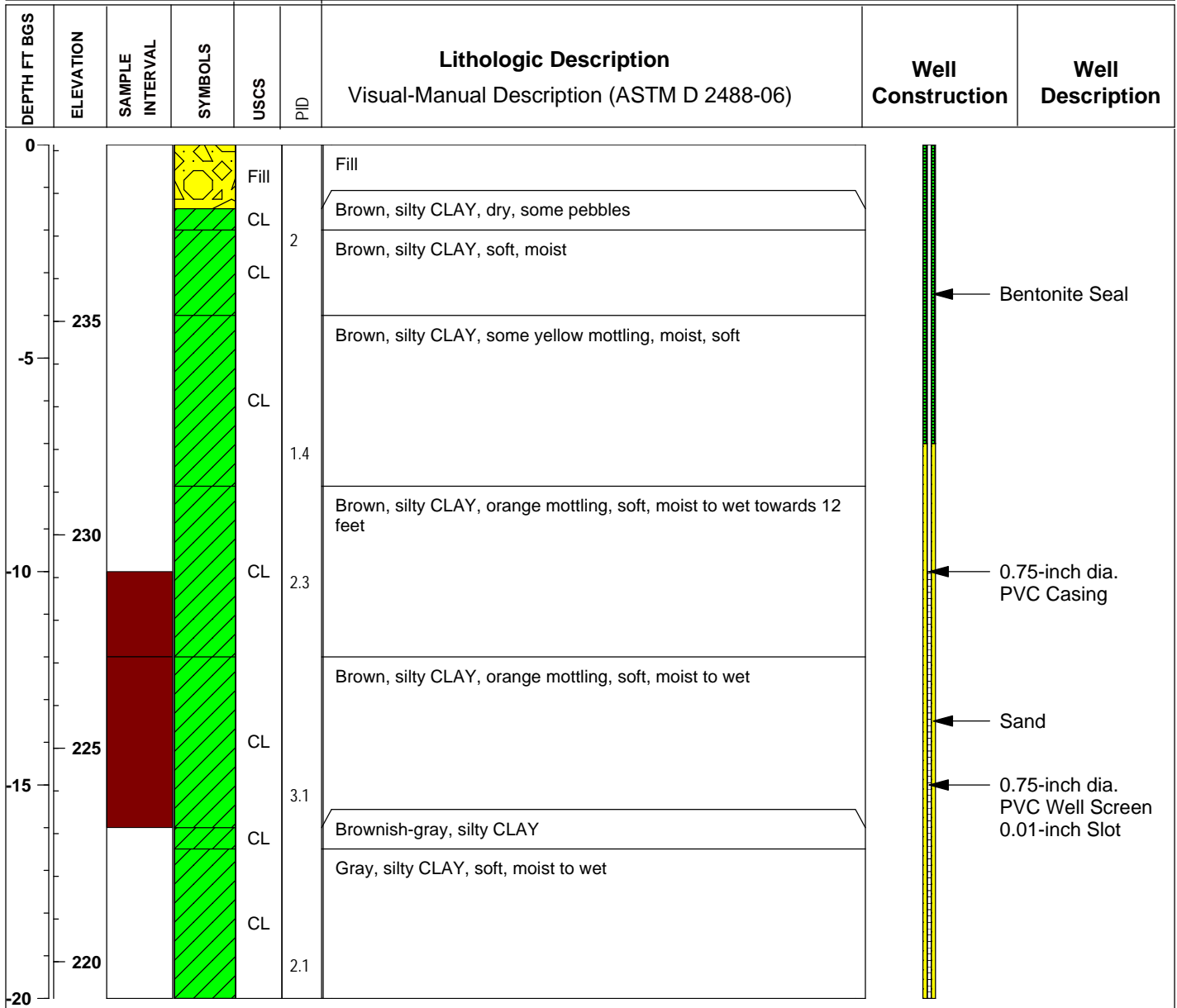
## Soil Boring/Monitoring Well Log Project : MLB at 2nd Avenue and Chelsea

**Location:**  
TW03

Client: MLB  
Purpose: Phase II ESA

Start Date: 5/14/2014  
End Date: 5/14/2014  
Drilling Method: DPT  
Drilling Contractor: McCray Drilling  
Geologist: Dave Fuehrer

Northing: 326952.30  
Easting: 759994.89  
TOC Elevation: 239.14  
Surface Elevation FT: 239.1  
Well Depth FT: 20



**NOTES:**

Q:\Memphis\\_Client Projects M-Z\MLB\Report\Boring Logs



5724 Summer Trees Drive  
Memphis TN 38134

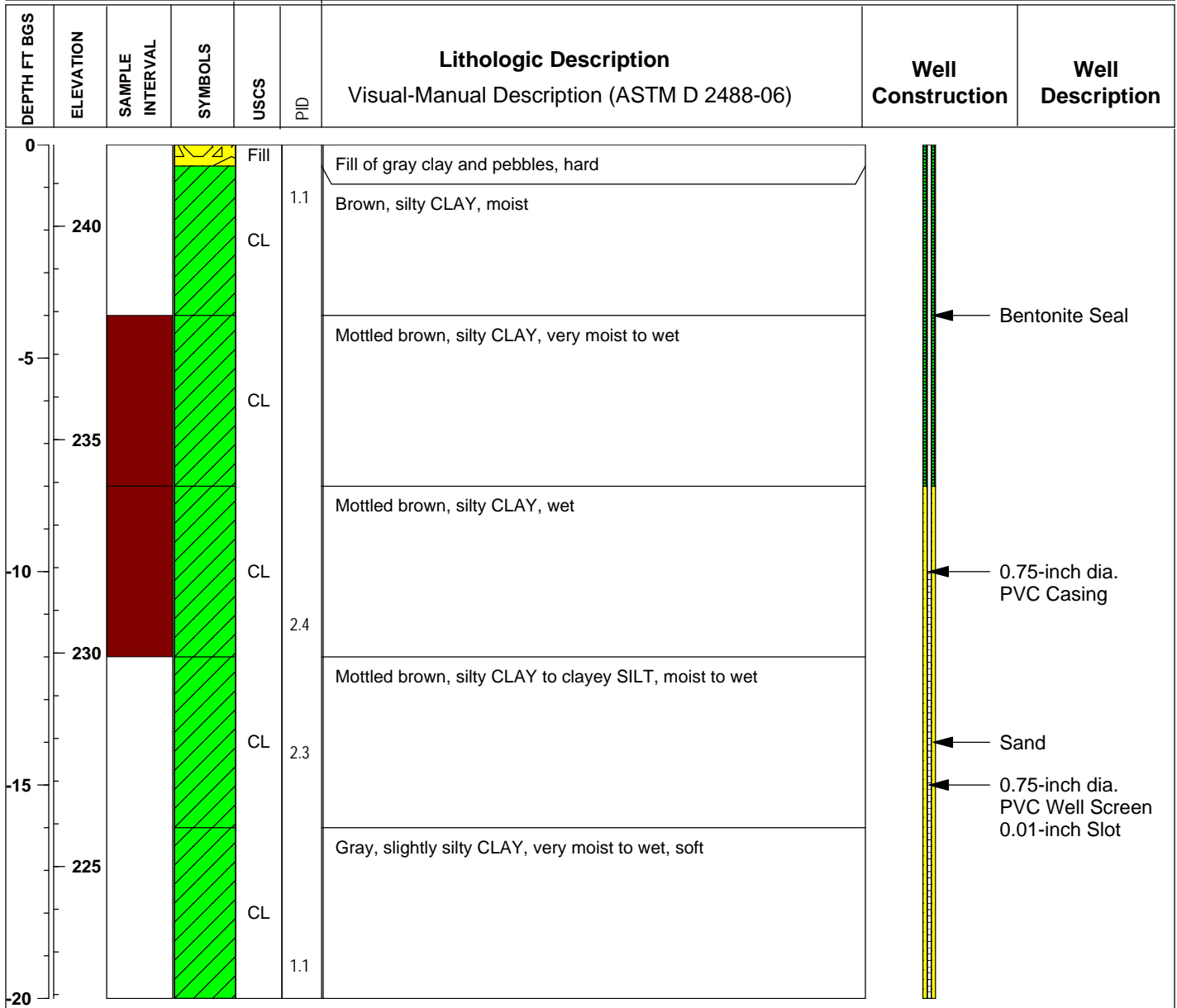
## Soil Boring/Monitoring Well Log Project : MLB at 2nd Avenue and Chelsea

**Location:**  
TW04

Client: MLB  
Purpose: Phase II ESA

Start Date: 5/15/2014  
End Date: 5/15/2014  
Drilling Method: DPT  
Drilling Contractor: McCray Drilling  
Geologist: Dave Fuehrer

Northing: 327017.55  
Easting: 760080.74  
TOC Elevation: 241.91  
Surface Elevation FT: 241.7  
Well Depth FT: 20



**NOTES:**

Q:\Memphis\\_Client Projects M-Z\MLB\Report\Boring Logs



5724 Summer Trees Drive  
Memphis TN 38134

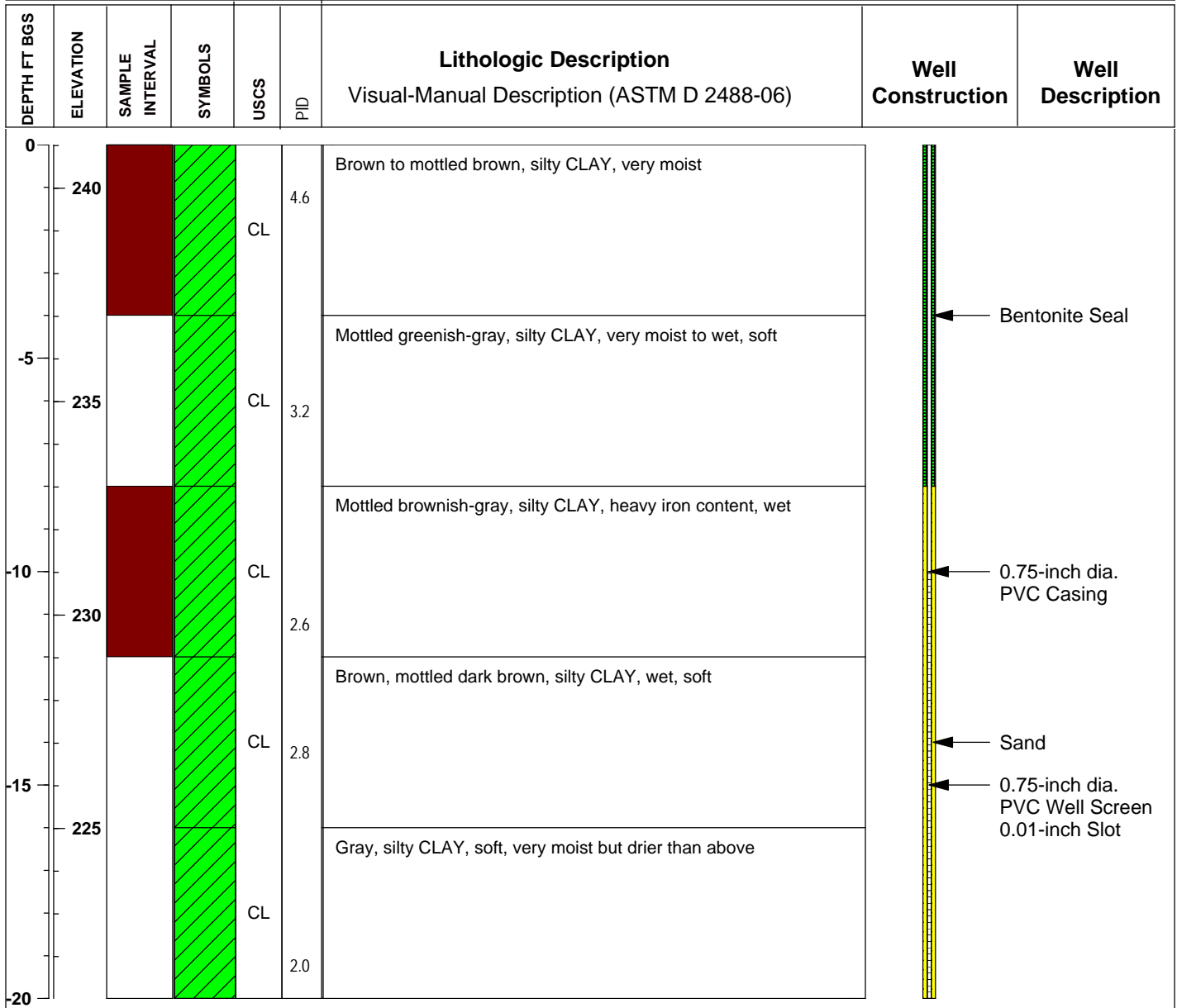
## Soil Boring/Monitoring Well Log Project : MLB at 2nd Avenue and Chelsea

**Location:**  
TW05

Client: MLB  
Purpose: Phase II ESA

Start Date: 5/15/2014  
End Date: 5/15/2014  
Drilling Method: DPT  
Drilling Contractor: McCray Drilling  
Geologist: Dave Fuehrer

Northing: 327034.88  
Easting: 760045.08  
TOC Elevation: 241.02  
Surface Elevation FT: 241.2  
Well Depth FT: 20



**NOTES:**

Q:\Memphis\\_Client Projects M-Z\MLB\Report\Boring Logs



5724 Summer Trees Drive  
Memphis TN 38134

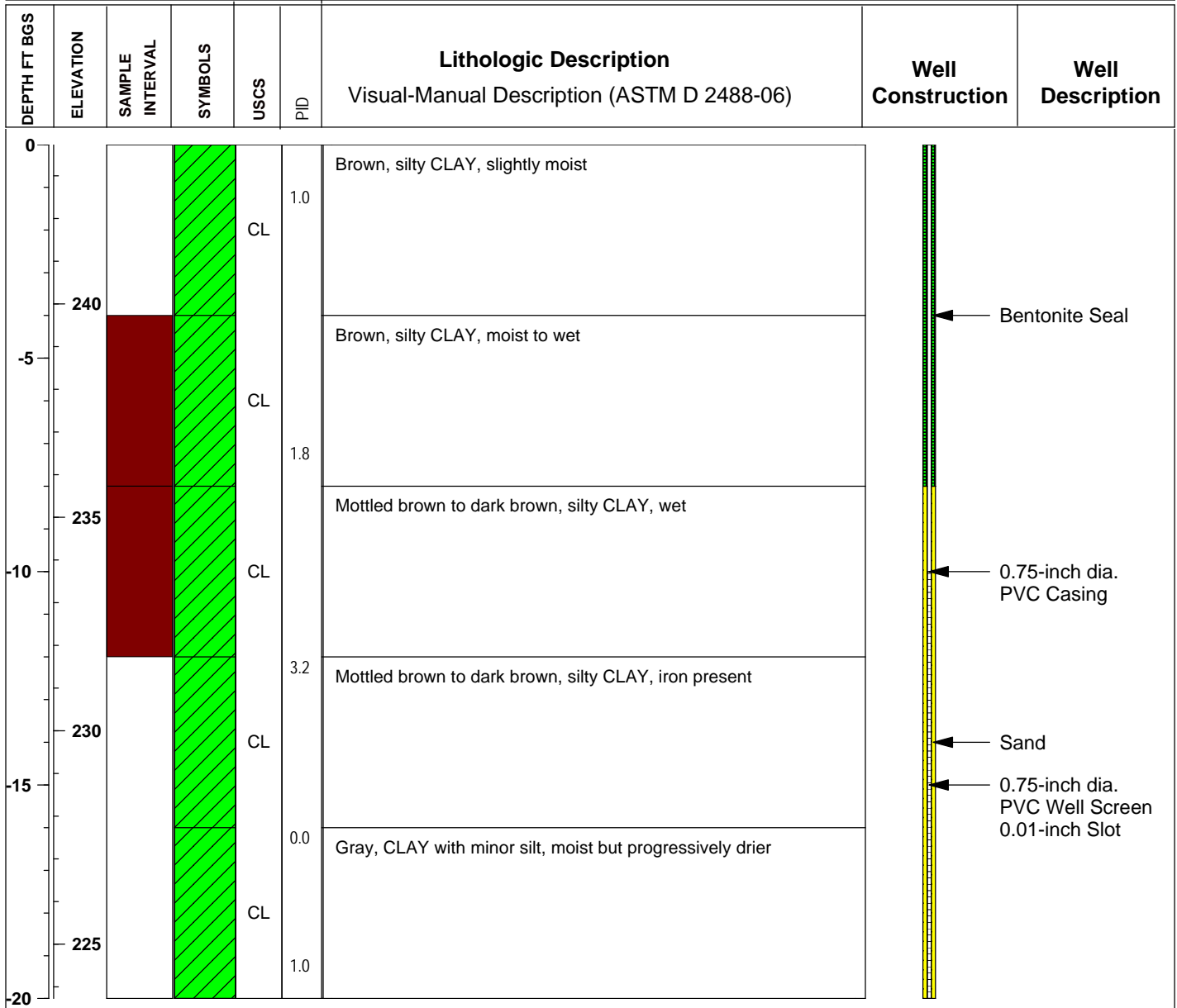
## Soil Boring/Monitoring Well Log Project : MLB at 2nd Avenue and Chelsea

**Location:**  
TW06

Client: MLB  
Purpose: Phase II ESA

Start Date: 5/15/2014  
End Date: 5/15/2014  
Drilling Method: DPT  
Drilling Contractor: McCray Drilling  
Geologist: Dave Fuehrer

Northing: 327081.26  
Easting: 760088.29  
TOC Elevation: 243.73  
Surface Elevation FT: 243.6  
Well Depth FT: 20



**NOTES:**

Q:\Memphis\\_Client Projects M-Z\MLB\Report\Boring Logs





5724 Summer Trees Drive  
Memphis TN 38134

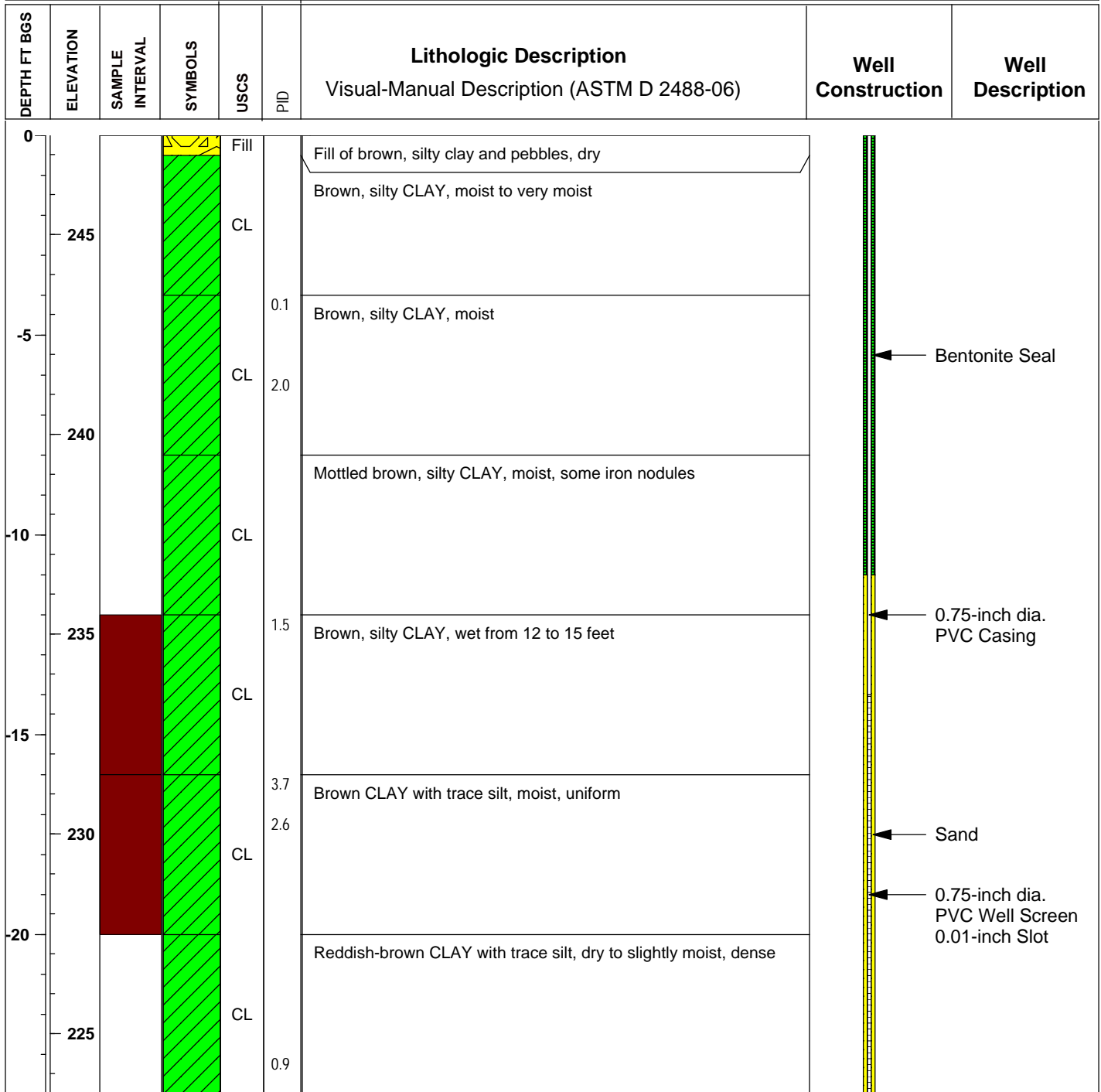
## Soil Boring/Monitoring Well Log Project : MLB at 2nd Avenue and Chelsea

**Location:**  
TW07

Client: MLB  
Purpose: Phase II ESA

Start Date: 5/15/2014  
End Date: 5/15/2014  
Drilling Method: DPT  
Drilling Contractor: McCray Drilling  
Geologist: Dave Fuehrer

Northing: 327104.45  
Easting: 760177.59  
TOC Elevation: 247.48  
Surface Elevation FT: 247.4  
Well Depth FT: 24



**NOTES:**

Q:\Memphis\\_Client Projects M-Z\MLB\Report\Boring Logs

**Appendix D**  
**Well Survey Data**



**Appendix E**  
**Disposal Documents**

Tunica Landfill  
 6035 BOWDRE RD,  
 ROBINSONVILLE, MS, 38664-9792  
 Ph: (662) 363-2282

Reprint Ticket # 491763

Customer Name	ENSAFEINC	Carrier	MATTHEWSTRUCKIN STRAYHORN TRUCKING	
Ticket Date	10/23/2014	Vehicle#	1	Volume
Payment Type	Credit Account	Container		
Manual Ticket#		Driver		
Hauling Ticket#		Check#		
Route		Billing#	0000682	
StateWasteCode		Gen EPA ID	NR	
Manifest	2482783	Grid		
Destination				
PO#	17821			
Profile	400640MS(VOC IMPACTED SOIL FROM UNKNOWN SOURCE)			
Generator	1720737 181-MLBMEMPHIS			

	Time	Scale	Operator	Inbound	Gross 10000 lb*
In	10/23/14 12:56:39 PM	Scale1	TAMMY		Tare 9795 lb*
Out	10/23/14 12:56:39 PM		TAMMY		Net 205 lb
			* Manual Weight		Tons .1

Comments

Products	LD%	Qty	UOM	Rate	Fee	Amount	Origin
Special Misc-Each-Special Waste	100	1	Each	35.00		\$35.00	SHE
FUEL-Fuel Surcharge - Landfill	100		%	8.13		\$3.98	SHE
EVF-L-Standard Environmental Fe	100	1	Load	14.00		\$14.00	SHE
RCR-P-Regulatory Cost Recovery	100		%	3.60		\$1.76	SHE

Driver's Signature \_\_\_\_\_ Total Fees  
 Total Ticket \$54.74

Tunica Landfill  
 6035 BOWDRE RD,  
 ROBINSONVILLE, MS, 38664-9792  
 Ph: (662) 363-2282

Reprint Ticket # 491762

Customer Name ENSAFEOPPSLLC  
 Ticket Date 10/23/2014  
 Payment Type Credit Account  
 Manual Ticket#  
 Hauling Ticket#  
 Route  
 StateWasteCode  
 Manifest 2482782  
 Destination  
 PO# 17821  
 Profile 400645MS(VOC IMPACTED WATER)  
 Generator 1720737 181-MLBMEMPHIS

Carrier MATTHEWSTRUCKIN STRAYHORN TRUCKING  
 Vehicle# 1 Volume  
 Container  
 Driver  
 Check#  
 Billing# 0000155  
 Gen EPA ID NR  
 Grid

Time	Scale	Operator	Inbound	Gross 10000 lb*
In 10/23/14 12:55:32 PM	Scale1	TAMMY		Tare 9795 lb*
Out 10/23/14 12:55:32 PM		TAMMY		Net 205 lb
		* Manual Weight		Tons .1

Comments

Products	LD%	Qty	UOM	Rate	Fee	Amount	Origin
Special Liquid-Each-Basin (gallons	100	1	Each	70.00		\$70.00	SHE
RCR-P-Regulatory Cost Recovery	100		%	3.60		\$3.02	SHE
FUEL-Fuel Surcharge - Landfill	100		%	8.13		\$6.83	SHE
EVF-L-Standard Environmental Fe	100	1	Load	14.00		\$14.00	SHE

Driver's Signature \_\_\_\_\_ Total Fees  
 Total Ticket \$93.85

**Appendix F**  
**Soil Gas Laboratory Data**



6/5/2014  
Mr. Joe Matthews  
EnSafe, Inc.  
5724 Summer Trees Drive

Memphis TN 38134

Project Name: Chelsea @ 2nd  
Project #: 15441-PH04  
Workorder #: 1405437B

Dear Mr. Joe Matthews

The following report includes the data for the above referenced project for sample(s) received on 5/23/2014 at Air Toxics Ltd.

The data and associated QC analyzed by Modified TO-15 are compliant with the project requirements or laboratory criteria with the exception of the deviations noted in the attached case narrative.

Thank you for choosing Air Toxics Ltd. for your air analysis needs. Air Toxics Ltd. is committed to providing accurate data of the highest quality. Please feel free to contact the Project Manager: Ausha Scott at 916-985-1000 if you have any questions regarding the data in this report.

Regards,



Ausha Scott  
Project Manager

**WORK ORDER #: 1405437B**

Work Order Summary

<b>CLIENT:</b>	Mr. Joe Matthews EnSafe, Inc. 5724 Summer Trees Drive Memphis, TN 38134	<b>BILL TO:</b>	Accounts Payable EnSafe, Inc. 5724 Summer Trees Drive Memphis, TN 38134
<b>PHONE:</b>	901-372-7962	<b>P.O. #</b>	16904
<b>FAX:</b>	901-383-1743	<b>PROJECT #</b>	15441-PH04 Chelsea @ 2nd
<b>DATE RECEIVED:</b>	05/23/2014	<b>CONTACT:</b>	Ausha Scott
<b>DATE COMPLETED:</b>	06/05/2014		

<u>FRACTION #</u>	<u>NAME</u>	<u>TEST</u>	<u>RECEIPT VAC./PRES.</u>	<u>FINAL PRESSURE</u>
01A	MLBCHLSG01	Modified TO-15	15.5 "Hg	15.5 psi
02A	Lab Blank	Modified TO-15	NA	NA
03A	CCV	Modified TO-15	NA	NA
04A	LCS	Modified TO-15	NA	NA
04AA	LCSD	Modified TO-15	NA	NA

CERTIFIED BY:   
 Technical Director

DATE: 06/05/14

Certification numbers: AZ Licensure AZ0775, CA NELAP - 12282CA, NJ NELAP - CA016, NY NELAP - 11291, TX NELAP - T104704434-13-6, UT NELAP CA009332013-4, VA NELAP - 460197, WA NELAP - C935  
 Name of Accrediting Agency: NELAP/ORELAP (Oregon Environmental Laboratory Accreditation Program)  
 Accreditation number: CA300005, Effective date: 10/18/2013, Expiration date: 10/17/2014.

Eurofins Air Toxics Inc.. certifies that the test results contained in this report meet all requirements of the NELAC standards

This report shall not be reproduced, except in full, without the written approval of Eurofins Air Toxics, Inc.

180 BLUE RAVINE ROAD, SUITE B FOLSOM, CA - 9563  
 (916) 985-1000 . (800) 985-5955 . FAX (916) 985-1020

**LABORATORY NARRATIVE**  
**Modified TO-15**  
**EnSafe, Inc.**  
**Workorder# 1405437B**

One 1 Liter Summa Canister (100% Certified) sample was received on May 23, 2014. The laboratory performed analysis via modified EPA Method TO-15 using GC/MS in the full scan mode.

This workorder was independently validated prior to submittal using 'USEPA National Functional Guidelines' as generally applied to the analysis of volatile organic compounds in air. A rules-based, logic driven, independent validation engine was employed to assess completeness, evaluate pass/fail of relevant project quality control requirements and verification of all quantified amounts.

Method modifications taken to run these samples are summarized in the table below. Specific project requirements may over-ride the ATL modifications.

<i>Requirement</i>	<i>TO-15</i>	<i>ATL Modifications</i>
Initial Calibration	</=30% RSD with 2 compounds allowed out to < 40% RSD	</=30% RSD with 4 compounds allowed out to < 40% RSD
Blank and standards	Zero Air	UHP Nitrogen provides a higher purity gas matrix than zero air

**Receiving Notes**

Sample MLBCHLSG01 was placed on hold per the client's request.

Sample MLBCHLSG01 was received with significant vacuum remaining in the canister. The residual canister vacuum resulted in elevated reporting limits.

Sample MLBCHLSG01 was removed from "Hold" and placed on "Active" status per client request on 6/4/2014.

**Analytical Notes**

All Quality Control Limit exceedances and affected sample results are noted by flags. Each flag is defined at the bottom of this Case Narrative and on each Sample Result Summary page. Target compound non-detects in the samples that are associated with high bias in QC analyses have not been flagged.

As per project specific client request the laboratory has reported estimated values for target compound hits that are below the Reporting Limit but greater than the Method Detection Limit. All The canisters used for this project have been certified to the Reporting Limit for the target analytes included in this workorder. Concentrations that are below the level at which the canister was certified may be false positives.

**Definition of Data Qualifying Flags**

Eight qualifiers may have been used on the data analysis sheets and indicates as follows:

B - Compound present in laboratory blank greater than reporting limit (background subtraction not performed).

J - Estimated value.

E - Exceeds instrument calibration range.

S - Saturated peak.

Q - Exceeds quality control limits.

U - Compound analyzed for but not detected above the reporting limit, LOD, or MDL value. See data page for project specific U-flag definition.

UJ- Non-detected compound associated with low bias in the CCV

N - The identification is based on presumptive evidence.

File extensions may have been used on the data analysis sheets and indicates as follows:

a-File was requantified

b-File was quantified by a second column and detector

r1-File was requantified for the purpose of reissue

## Summary of Detected Compounds MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

Client Sample ID: MLBCHLSG01

Lab ID#: 1405437B-01A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	0.42	0.21 J	2.1	1.0 J
Chloromethane	2.1	2.3	4.4	4.8
Vinyl Chloride	0.42	0.56	1.1	1.4
1,3-Butadiene	0.42	33	0.94	72
Bromomethane	2.1	1.0 J	8.2	4.1 J
Freon 11	0.42	0.23 J	2.4	1.3 J
Ethanol	2.1	66	4.0	120
Freon 113	0.42	0.10 J	3.2	0.79 J
Acetone	2.1	120	5.0	300
2-Propanol	2.1	24	5.2	59
Carbon Disulfide	2.1	7.2	6.6	22
Hexane	0.42	45	1.5	160
2-Butanone (Methyl Ethyl Ketone)	2.1	38	6.3	110
Tetrahydrofuran	2.1	0.87 J	6.3	2.6 J
Cyclohexane	0.42	13	1.5	46
2,2,4-Trimethylpentane	2.1	2.9	9.9	14
Benzene	0.42	29	1.4	92
Heptane	0.42	21	1.7	87
4-Methyl-2-pentanone	0.42	1.7	1.7	7.1
Toluene	0.42	49	1.6	180
Tetrachloroethene	0.42	0.11 J	2.9	0.77 J
2-Hexanone	2.1	3.8	8.7	16
Chlorobenzene	0.42	0.73	2.0	3.4
Ethyl Benzene	0.42	4.0	1.8	17
m,p-Xylene	0.42	15	1.8	67
o-Xylene	0.42	10	1.8	44
Styrene	0.42	1.2	1.8	5.1
Cumene	0.42	0.52	2.1	2.6
Propylbenzene	0.42	11	2.1	55
4-Ethyltoluene	0.42	5.9	2.1	29
1,3,5-Trimethylbenzene	0.42	2.3	2.1	11
1,2,4-Trimethylbenzene	0.42	8.3	2.1	41
1,3-Dichlorobenzene	0.42	1.6	2.6	9.4

**Summary of Detected Compounds**  
**MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN**

**Client Sample ID: MLBCHLSG01**

**Lab ID#: 1405437B-01A**

1,4-Dichlorobenzene	0.42	3.6	2.6	22
1,2-Dichlorobenzene	0.42	0.71	2.6	4.2



Air Toxics

Client Sample ID: MLBCHLSG01

Lab ID#: 1405437B-01A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	v060408	Date of Collection:	5/22/14 4:00:00 PM
Dil. Factor:	4.25	Date of Analysis:	6/4/14 01:45 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	0.42	0.21 J	2.1	1.0 J
Freon 114	0.42	Not Detected	3.0	Not Detected
Chloromethane	2.1	2.3	4.4	4.8
Vinyl Chloride	0.42	0.56	1.1	1.4
1,3-Butadiene	0.42	33	0.94	72
Bromomethane	2.1	1.0 J	8.2	4.1 J
Chloroethane	2.1	Not Detected	5.6	Not Detected
Freon 11	0.42	0.23 J	2.4	1.3 J
Ethanol	2.1	66	4.0	120
Freon 113	0.42	0.10 J	3.2	0.79 J
1,1-Dichloroethene	0.42	Not Detected	1.7	Not Detected
Acetone	2.1	120	5.0	300
2-Propanol	2.1	24	5.2	59
Carbon Disulfide	2.1	7.2	6.6	22
3-Chloropropene	2.1	Not Detected	6.6	Not Detected
Methylene Chloride	0.85	Not Detected	3.0	Not Detected
Methyl tert-butyl ether	0.42	Not Detected	1.5	Not Detected
trans-1,2-Dichloroethene	0.42	Not Detected	1.7	Not Detected
Hexane	0.42	45	1.5	160
1,1-Dichloroethane	0.42	Not Detected	1.7	Not Detected
2-Butanone (Methyl Ethyl Ketone)	2.1	38	6.3	110
cis-1,2-Dichloroethene	0.42	Not Detected	1.7	Not Detected
Tetrahydrofuran	2.1	0.87 J	6.3	2.6 J
Chloroform	0.42	Not Detected	2.1	Not Detected
1,1,1-Trichloroethane	0.42	Not Detected	2.3	Not Detected
Cyclohexane	0.42	13	1.5	46
Carbon Tetrachloride	0.42	Not Detected UJ	2.7	Not Detected UJ
2,2,4-Trimethylpentane	2.1	2.9	9.9	14
Benzene	0.42	29	1.4	92
1,2-Dichloroethane	0.42	Not Detected	1.7	Not Detected
Heptane	0.42	21	1.7	87
Trichloroethene	0.42	Not Detected	2.3	Not Detected
1,2-Dichloropropane	0.42	Not Detected	2.0	Not Detected
1,4-Dioxane	0.42	Not Detected	1.5	Not Detected
Bromodichloromethane	0.42	Not Detected	2.8	Not Detected
cis-1,3-Dichloropropene	0.42	Not Detected	1.9	Not Detected
4-Methyl-2-pentanone	0.42	1.7	1.7	7.1
Toluene	0.42	49	1.6	180
trans-1,3-Dichloropropene	0.42	Not Detected	1.9	Not Detected
1,1,2-Trichloroethane	0.42	Not Detected	2.3	Not Detected
Tetrachloroethene	0.42	0.11 J	2.9	0.77 J
2-Hexanone	2.1	3.8	8.7	16



Client Sample ID: MLBCHLSG01

Lab ID#: 1405437B-01A

**MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN**

File Name:	v060408	Date of Collection:	5/22/14 4:00:00 PM
Dil. Factor:	4.25	Date of Analysis:	6/4/14 01:45 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Dibromochloromethane	0.42	Not Detected	3.6	Not Detected
1,2-Dibromoethane (EDB)	0.42	Not Detected	3.3	Not Detected
Chlorobenzene	0.42	0.73	2.0	3.4
Ethyl Benzene	0.42	4.0	1.8	17
m,p-Xylene	0.42	15	1.8	67
o-Xylene	0.42	10	1.8	44
Styrene	0.42	1.2	1.8	5.1
Bromoform	0.42	Not Detected	4.4	Not Detected
Cumene	0.42	0.52	2.1	2.6
1,1,2,2-Tetrachloroethane	0.42	Not Detected	2.9	Not Detected
Propylbenzene	0.42	11	2.1	55
4-Ethyltoluene	0.42	5.9	2.1	29
1,3,5-Trimethylbenzene	0.42	2.3	2.1	11
1,2,4-Trimethylbenzene	0.42	8.3	2.1	41
1,3-Dichlorobenzene	0.42	1.6	2.6	9.4
1,4-Dichlorobenzene	0.42	3.6	2.6	22
alpha-Chlorotoluene	0.42	Not Detected	2.2	Not Detected
1,2-Dichlorobenzene	0.42	0.71	2.6	4.2
1,2,4-Trichlorobenzene	2.1	Not Detected	16	Not Detected
Hexachlorobutadiene	2.1	Not Detected	23	Not Detected

J = Estimated value.

UJ = Analyte associated with low bias in the CCV and/or LCS.

Container Type: 1 Liter Summa Canister (100% Certified)

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	92	70-130
Toluene-d8	102	70-130
4-Bromofluorobenzene	108	70-130



Air Toxics

Client Sample ID: Lab Blank

Lab ID#: 1405437B-02A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	v060407a	Date of Collection:	NA
Dil. Factor:	1.00	Date of Analysis:	6/4/14 12:38 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	0.10	Not Detected	0.49	Not Detected
Freon 114	0.10	Not Detected	0.70	Not Detected
Chloromethane	0.50	Not Detected	1.0	Not Detected
Vinyl Chloride	0.10	Not Detected	0.26	Not Detected
1,3-Butadiene	0.10	Not Detected	0.22	Not Detected
Bromomethane	0.50	Not Detected	1.9	Not Detected
Chloroethane	0.50	Not Detected	1.3	Not Detected
Freon 11	0.10	Not Detected	0.56	Not Detected
Ethanol	0.50	Not Detected	0.94	Not Detected
Freon 113	0.10	Not Detected	0.77	Not Detected
1,1-Dichloroethene	0.10	Not Detected	0.40	Not Detected
Acetone	0.50	0.21 J	1.2	0.50 J
2-Propanol	0.50	Not Detected	1.2	Not Detected
Carbon Disulfide	0.50	Not Detected	1.6	Not Detected
3-Chloropropene	0.50	Not Detected	1.6	Not Detected
Methylene Chloride	0.20	Not Detected	0.69	Not Detected
Methyl tert-butyl ether	0.10	Not Detected	0.36	Not Detected
trans-1,2-Dichloroethene	0.10	Not Detected	0.40	Not Detected
Hexane	0.10	Not Detected	0.35	Not Detected
1,1-Dichloroethane	0.10	Not Detected	0.40	Not Detected
2-Butanone (Methyl Ethyl Ketone)	0.50	Not Detected	1.5	Not Detected
cis-1,2-Dichloroethene	0.10	Not Detected	0.40	Not Detected
Tetrahydrofuran	0.50	Not Detected	1.5	Not Detected
Chloroform	0.10	Not Detected	0.49	Not Detected
1,1,1-Trichloroethane	0.10	Not Detected	0.54	Not Detected
Cyclohexane	0.10	Not Detected	0.34	Not Detected
Carbon Tetrachloride	0.10	Not Detected UJ	0.63	Not Detected UJ
2,2,4-Trimethylpentane	0.50	Not Detected	2.3	Not Detected
Benzene	0.10	Not Detected	0.32	Not Detected
1,2-Dichloroethane	0.10	Not Detected	0.40	Not Detected
Heptane	0.10	Not Detected	0.41	Not Detected
Trichloroethene	0.10	Not Detected	0.54	Not Detected
1,2-Dichloropropane	0.10	Not Detected	0.46	Not Detected
1,4-Dioxane	0.10	Not Detected	0.36	Not Detected
Bromodichloromethane	0.10	Not Detected	0.67	Not Detected
cis-1,3-Dichloropropene	0.10	Not Detected	0.45	Not Detected
4-Methyl-2-pentanone	0.10	Not Detected	0.41	Not Detected
Toluene	0.10	Not Detected	0.38	Not Detected
trans-1,3-Dichloropropene	0.10	Not Detected	0.45	Not Detected
1,1,2-Trichloroethane	0.10	Not Detected	0.54	Not Detected
Tetrachloroethene	0.10	Not Detected	0.68	Not Detected
2-Hexanone	0.50	Not Detected	2.0	Not Detected

Client Sample ID: Lab Blank

Lab ID#: 1405437B-02A

**MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN**

File Name:	v060407a	Date of Collection:	NA
Dil. Factor:	1.00	Date of Analysis:	6/4/14 12:38 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Dibromochloromethane	0.10	Not Detected	0.85	Not Detected
1,2-Dibromoethane (EDB)	0.10	Not Detected	0.77	Not Detected
Chlorobenzene	0.10	Not Detected	0.46	Not Detected
Ethyl Benzene	0.10	Not Detected	0.43	Not Detected
m,p-Xylene	0.10	Not Detected	0.43	Not Detected
o-Xylene	0.10	Not Detected	0.43	Not Detected
Styrene	0.10	Not Detected	0.42	Not Detected
Bromoform	0.10	Not Detected	1.0	Not Detected
Cumene	0.10	Not Detected	0.49	Not Detected
1,1,2,2-Tetrachloroethane	0.10	Not Detected	0.69	Not Detected
Propylbenzene	0.10	Not Detected	0.49	Not Detected
4-Ethyltoluene	0.10	Not Detected	0.49	Not Detected
1,3,5-Trimethylbenzene	0.10	Not Detected	0.49	Not Detected
1,2,4-Trimethylbenzene	0.10	Not Detected	0.49	Not Detected
1,3-Dichlorobenzene	0.10	Not Detected	0.60	Not Detected
1,4-Dichlorobenzene	0.10	Not Detected	0.60	Not Detected
alpha-Chlorotoluene	0.10	Not Detected	0.52	Not Detected
1,2-Dichlorobenzene	0.10	Not Detected	0.60	Not Detected
1,2,4-Trichlorobenzene	0.50	Not Detected	3.7	Not Detected
Hexachlorobutadiene	0.50	Not Detected	5.3	Not Detected

J = Estimated value.

UJ = Analyte associated with low bias in the CCV and/or LCS.

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	78	70-130
Toluene-d8	96	70-130
4-Bromofluorobenzene	95	70-130



Air Toxics

Client Sample ID: CCV

Lab ID#: 1405437B-03A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	v060405	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 6/4/14 11:05 AM

Compound	%Recovery
Freon 12	85
Freon 114	96
Chloromethane	82
Vinyl Chloride	82
1,3-Butadiene	78
Bromomethane	93
Chloroethane	80
Freon 11	87
Ethanol	84
Freon 113	97
1,1-Dichloroethene	90
Acetone	74
2-Propanol	83
Carbon Disulfide	86
3-Chloropropene	83
Methylene Chloride	85
Methyl tert-butyl ether	87
trans-1,2-Dichloroethene	92
Hexane	79
1,1-Dichloroethane	82
2-Butanone (Methyl Ethyl Ketone)	88
cis-1,2-Dichloroethene	87
Tetrahydrofuran	79
Chloroform	88
1,1,1-Trichloroethane	87
Cyclohexane	87
Carbon Tetrachloride	68 Q
2,2,4-Trimethylpentane	83
Benzene	94
1,2-Dichloroethane	91
Heptane	88
Trichloroethene	100
1,2-Dichloropropane	87
1,4-Dioxane	94
Bromodichloromethane	93
cis-1,3-Dichloropropene	96
4-Methyl-2-pentanone	91
Toluene	98
trans-1,3-Dichloropropene	100
1,1,2-Trichloroethane	98
Tetrachloroethene	111
2-Hexanone	88



Air Toxics

Client Sample ID: CCV

Lab ID#: 1405437B-03A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	v060405	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 6/4/14 11:05 AM

Compound	%Recovery
Dibromochloromethane	114
1,2-Dibromoethane (EDB)	104
Chlorobenzene	101
Ethyl Benzene	104
m,p-Xylene	106
o-Xylene	108
Styrene	108
Bromoform	121
Cumene	104
1,1,2,2-Tetrachloroethane	95
Propylbenzene	103
4-Ethyltoluene	114
1,3,5-Trimethylbenzene	109
1,2,4-Trimethylbenzene	116
1,3-Dichlorobenzene	116
1,4-Dichlorobenzene	112
alpha-Chlorotoluene	92
1,2-Dichlorobenzene	108
1,2,4-Trichlorobenzene	125
Hexachlorobutadiene	117

Q = Exceeds Quality Control limits.

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	83	70-130
Toluene-d8	99	70-130
4-Bromofluorobenzene	112	70-130

Client Sample ID: LCS

Lab ID#: 1405437B-04A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	v060403	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 6/4/14 09:35 AM

Compound	%Recovery	Method Limits
Freon 12	84	70-130
Freon 114	94	70-130
Chloromethane	78	70-130
Vinyl Chloride	81	70-130
1,3-Butadiene	76	70-130
Bromomethane	89	70-130
Chloroethane	80	70-130
Freon 11	87	70-130
Ethanol	87	70-130
Freon 113	107	70-130
1,1-Dichloroethene	100	70-130
Acetone	84	70-130
2-Propanol	84	70-130
Carbon Disulfide	81	70-130
3-Chloropropene	76	70-130
Methylene Chloride	94	70-130
Methyl tert-butyl ether	86	70-130
trans-1,2-Dichloroethene	80	70-130
Hexane	81	70-130
1,1-Dichloroethane	84	70-130
2-Butanone (Methyl Ethyl Ketone)	93	70-130
cis-1,2-Dichloroethene	100	70-130
Tetrahydrofuran	82	70-130
Chloroform	89	70-130
1,1,1-Trichloroethane	88	70-130
Cyclohexane	90	70-130
Carbon Tetrachloride	62 Q	70-130
2,2,4-Trimethylpentane	84	70-130
Benzene	92	70-130
1,2-Dichloroethane	88	70-130
Heptane	87	70-130
Trichloroethene	97	70-130
1,2-Dichloropropane	85	70-130
1,4-Dioxane	93	70-130
Bromodichloromethane	95	70-130
cis-1,3-Dichloropropene	97	70-130
4-Methyl-2-pentanone	91	70-130
Toluene	93	70-130
trans-1,3-Dichloropropene	84	70-130
1,1,2-Trichloroethane	92	70-130
Tetrachloroethene	105	70-130
2-Hexanone	84	70-130

Client Sample ID: LCS

Lab ID#: 1405437B-04A

**MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN**

<b>File Name:</b>	<b>v060403</b>	<b>Date of Collection:</b> NA
<b>Dil. Factor:</b>	<b>1.00</b>	<b>Date of Analysis:</b> 6/4/14 09:35 AM

<b>Compound</b>	<b>%Recovery</b>	<b>Method Limits</b>
Dibromochloromethane	108	70-130
1,2-Dibromoethane (EDB)	97	70-130
Chlorobenzene	91	70-130
Ethyl Benzene	99	70-130
m,p-Xylene	100	70-130
o-Xylene	99	70-130
Styrene	99	70-130
Bromoform	113	70-130
Cumene	102	70-130
1,1,2,2-Tetrachloroethane	88	70-130
Propylbenzene	101	70-130
4-Ethyltoluene	109	70-130
1,3,5-Trimethylbenzene	98	70-130
1,2,4-Trimethylbenzene	104	70-130
1,3-Dichlorobenzene	109	70-130
1,4-Dichlorobenzene	105	70-130
alpha-Chlorotoluene	99	70-130
1,2-Dichlorobenzene	103	70-130
1,2,4-Trichlorobenzene	109	70-130
Hexachlorobutadiene	115	70-130

Q = Exceeds Quality Control limits.

**Container Type: NA - Not Applicable**

<b>Surrogates</b>	<b>%Recovery</b>	<b>Method Limits</b>
1,2-Dichloroethane-d4	85	70-130
Toluene-d8	100	70-130
4-Bromofluorobenzene	103	70-130





Air Toxics

Client Sample ID: LCSD

Lab ID#: 1405437B-04AA

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	v060404	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 6/4/14 10:20 AM

Compound	%Recovery	Method Limits
Freon 12	81	70-130
Freon 114	92	70-130
Chloromethane	77	70-130
Vinyl Chloride	80	70-130
1,3-Butadiene	74	70-130
Bromomethane	88	70-130
Chloroethane	78	70-130
Freon 11	84	70-130
Ethanol	81	70-130
Freon 113	102	70-130
1,1-Dichloroethene	94	70-130
Acetone	79	70-130
2-Propanol	78	70-130
Carbon Disulfide	77	70-130
3-Chloropropene	69 Q	70-130
Methylene Chloride	88	70-130
Methyl tert-butyl ether	82	70-130
trans-1,2-Dichloroethene	77	70-130
Hexane	79	70-130
1,1-Dichloroethane	80	70-130
2-Butanone (Methyl Ethyl Ketone)	86	70-130
cis-1,2-Dichloroethene	95	70-130
Tetrahydrofuran	80	70-130
Chloroform	85	70-130
1,1,1-Trichloroethane	84	70-130
Cyclohexane	87	70-130
Carbon Tetrachloride	58 Q	70-130
2,2,4-Trimethylpentane	80	70-130
Benzene	92	70-130
1,2-Dichloroethane	88	70-130
Heptane	88	70-130
Trichloroethene	98	70-130
1,2-Dichloropropane	85	70-130
1,4-Dioxane	93	70-130
Bromodichloromethane	95	70-130
cis-1,3-Dichloropropene	96	70-130
4-Methyl-2-pentanone	92	70-130
Toluene	94	70-130
trans-1,3-Dichloropropene	84	70-130
1,1,2-Trichloroethane	93	70-130
Tetrachloroethene	104	70-130
2-Hexanone	86	70-130



Client Sample ID: LCSD

Lab ID#: 1405437B-04AA

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	v060404	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 6/4/14 10:20 AM

Compound	%Recovery	Method Limits
Dibromochloromethane	110	70-130
1,2-Dibromoethane (EDB)	101	70-130
Chlorobenzene	96	70-130
Ethyl Benzene	101	70-130
m,p-Xylene	101	70-130
o-Xylene	102	70-130
Styrene	101	70-130
Bromoform	117	70-130
Cumene	104	70-130
1,1,2,2-Tetrachloroethane	91	70-130
Propylbenzene	101	70-130
4-Ethyltoluene	106	70-130
1,3,5-Trimethylbenzene	96	70-130
1,2,4-Trimethylbenzene	100	70-130
1,3-Dichlorobenzene	108	70-130
1,4-Dichlorobenzene	105	70-130
alpha-Chlorotoluene	102	70-130
1,2-Dichlorobenzene	103	70-130
1,2,4-Trichlorobenzene	112	70-130
Hexachlorobutadiene	111	70-130

Q = Exceeds Quality Control limits.

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	84	70-130
Toluene-d8	101	70-130
4-Bromofluorobenzene	109	70-130



Air Toxics

Sample Transportation Notice

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(916) 985-1000 FAX (916) 985-1020

Page \_\_\_ of \_\_\_

Project Manager Alison Harels

Collected by: (Print and Sign) J. Matthews

Company ENSAFE INC

Address 5724 Summer Valley City Memphis TN Zip 38134

Phone 901-512-7962 Fax \_\_\_\_\_

P.O. # 16904

Project # 15441-PH04

Project Name Chelsea @ 2nd

Turn Around Time:

Normal

Rush

5 day specify

Lab Use Only: Pressurized by:

Date: \_\_\_\_\_

Pressurization Gas: \_\_\_\_\_

N<sub>2</sub> He

Lab I.D.	Field Sample I.D. (Location)	Can #	Date of Collection	Time of Collection	Analyses Requested	Canister Pressure/Vacuum		
						Initial	Final	Receipt Final (psi)
01A	MLBCHLSG01	3758	5/22/14	1600	TO15LL	-20	-17.5	
02A	MLBCHLSG02	7997	5/22/14	1115		-30	-3.5	
03A	MLBCHLSG03	34137	5/22/14	1117		-30	-0.5	
04A	MLBCHLSG04	37340	5/22/14	1128		-30	-1	
05A	MLBCHLSG05	18036	5/22/14	1152		-28	-1.5	
06A	MLBCHLSG06	37285	5/22/14	1256		-30	-4.0	
07A	MLBCHLSG07	35595	5/24/14	1305		-30	-2.5	
08A	MLBCHLSG08	80288	5/24/14	1348		-30	-0.5	

DM  
7/23/14

Relinquished by: (signature) [Signature] Date/Time 5/24/14-1655

Received by: (signature) [Signature] Date/Time 5/23/14 085

Relinquished by: (signature) \_\_\_\_\_ Date/Time \_\_\_\_\_

Received by: (signature) \_\_\_\_\_ Date/Time \_\_\_\_\_

Notes:  
Hold for analysis sample  
MLBCHLSG01 (Can 3758)

Relinquished by: (signature) \_\_\_\_\_ Date/Time \_\_\_\_\_

Received by: (signature) \_\_\_\_\_ Date/Time \_\_\_\_\_

Shipper Name: EDFX Air Bill #: \_\_\_\_\_ Temp (°C): NA Condition: Good Custody/Seals Intact? None Work Order #: 1405437

September 16, 2020

Ms. April Simmons  
The City of Memphis and Shelby County  
Community Redevelopment Agency  
170 North Main Street, Floor 6  
Memphis, Tennessee 38103

via e-mail: April.Simmons@memphistn.gov

**Re: Former Wayne's Pinball Palace  
Phase II Environmental Site Assessment  
167 Chelsea Avenue and 705 North Third Street  
Memphis, Tennessee**

Dear Ms. Simmons:

EnSafe Inc. is pleased to provide this Phase II Environmental Site Assessment (ESA) for the properties at 167 Chelsea Avenue and 705 North Third Street in Memphis, Tennessee.

## **SITE DESCRIPTION AND HISTORY**

The subject property is comprised of two parcels totaling 0.5-acres. Various commercial businesses have operated on the 167 Chelsea Avenue property since the early 1930s, including an automotive repair garage, gas station, coin-operated laundry, and arcade/restaurant. The commercial building, known as Wayne's Pinball Palace, was demolished in August 2020. The 705 North Third Street property was residential until 2008. The buildings were subsequently demolished.

## **Past Investigation Summary**

The following investigations were previously completed for the subject or surrounding properties:

### **2011 Phase II ESA for 167 Chelsea Avenue — Fisher Arnold**

In the Phase II ESA for 167 Chelsea Avenue, detected concentrations in soil were compared to the Tennessee Department of Environment and Conservation (TDEC) Division of Underground Storage Tanks (DUST) commercial/industrial Initial Screening Levels (ISLs) and United States Environmental Protection Agency (U.S. EPA) Regional Screening Levels (RSLs) for industrial soil. Detected concentrations in groundwater were compared to ISLs for non-drinking water and RSLs for tap water. Petroleum contamination was detected in soil and groundwater. The report also noted that a historic gasoline release had occurred from the former underground storage tank (UST) at the site. Soil gas samples were not collected on the subject property during this assessment.

### **2011 Phase II ESA for Block 55, North Second Street, and Chelsea Avenue — Fisher Arnold**

In the 2011 Phase II for Block 55, detected concentrations in groundwater were below clean-up levels; suggesting that UST contaminants from 167 Chelsea Avenue had not migrated to the southwestern adjacent property. Active soil gas samples were collected on the southwestern property. Tetrachloroethene (PCE) and trichloroethylene (TCE) were detected above U.S. EPA RSLs for residential site use.

### **2015 Phase II ESA/Site Demolition and Removal Report, North Second Street and Chelsea Avenue — EnSafe**

In the 2015 Phase II, groundwater and active soil gas samples were collected on the western and southwestern adjoining properties (696-714 N Second Street). Laboratory analysis identified three volatile organic compounds (VOCs) exceeding U.S. EPA maximum contaminant levels (MCLs) in groundwater and twelve VOCs exceeding U.S. EPA RSLs for residential soil gas. Chlorinated solvents were identified in both groundwater and soil gas on these properties.

## **PHASE II INVESTIGATION APPROACH AND SAMPLING**

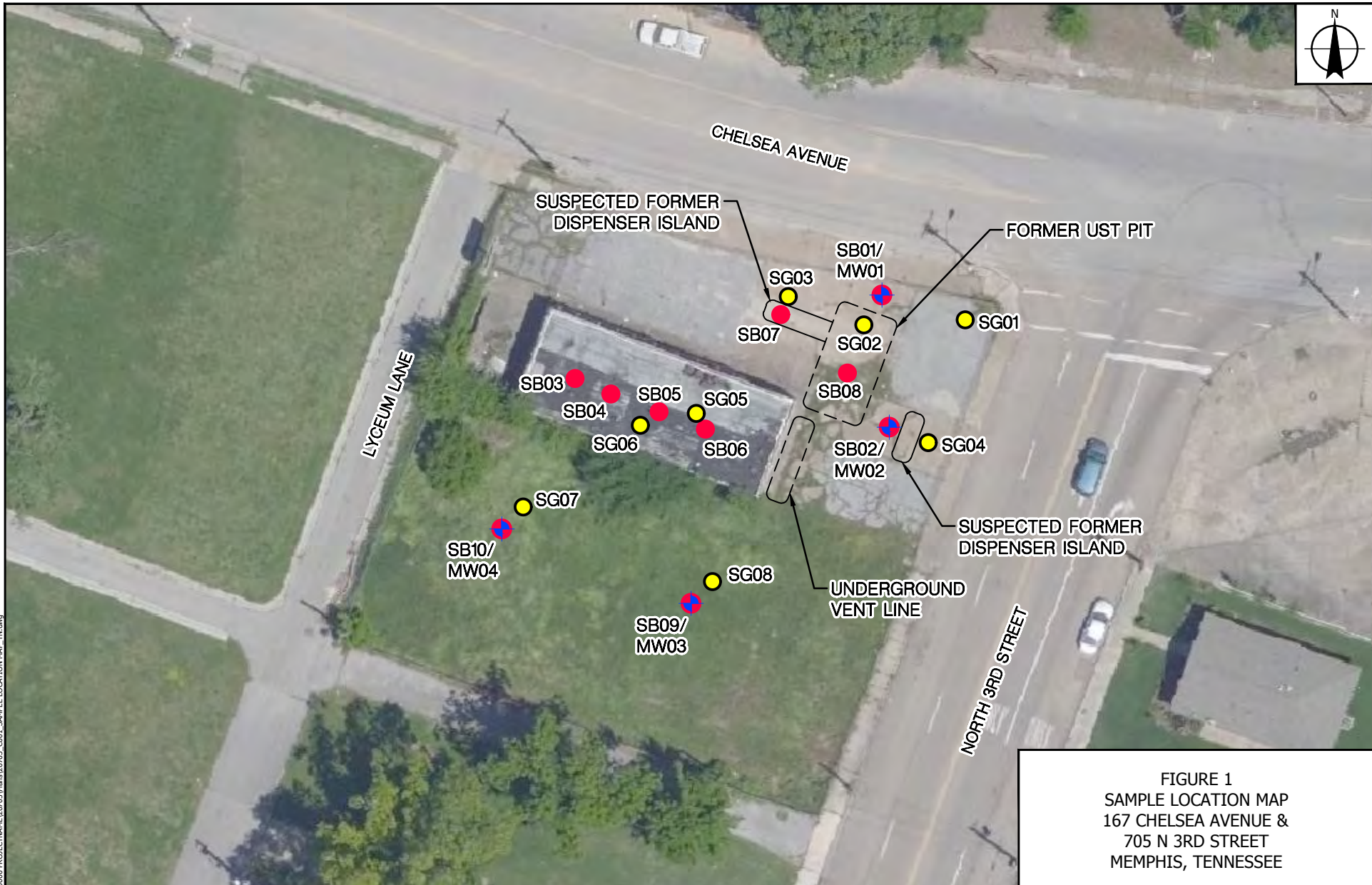
EnSafe conducted sampling on August 4 through August 7, 2020, at 167 Chelsea Avenue and 705 North Third Street. The Phase II ESA included the collection and laboratory analysis of soil, groundwater, and soil gas samples. Sample locations are shown on Figure 1 and sample location rationale is described in Table 1.

Before initiating field sampling, Tennessee One Call was contacted to identify the locations of buried utilities, and a private subsurface utility location service was subcontracted to locate and mark underground utilities and pipelines on the subject property using ground-penetrating radar equipment. The ground-penetrating radar survey looked for the presence of underground utilities and other structures that would be damaged or would prevent the advancement of the proposed sampling locations.

### **Soil Sampling**

EnSafe completed eight soil borings at 167 Chelsea Avenue on August 4, 2020, and two soil borings at 705 North Third Street on August 7, 2020, using Direct Push Technology (DPT) drilling methods. Boring and sample depths are described in Table 1. No utilities or other underground structures were encountered during soil boring advancement. The soil borings were classified for lithology and examined for visual and olfactory indications of contamination. The descriptions and observations of the soils were recorded on the field boring logs, provided in Attachment A.





**FIGURE 1**  
**SAMPLE LOCATION MAP**  
 167 CHELSEA AVENUE &  
 705 N 3RD STREET  
 MEMPHIS, TENNESSEE

**LEGEND**

- SOIL BORING/MONITORING WELL LOCATION
- SOIL GAS LOCATION
- APPROXIMATE SUBJECT PROPERTY BOUNDARY
- SOIL BORING LOCATION
- UST UNDERGROUND STORAGE TANK

NAD 1983 STATE PLANE  
 TENNESSEE FEET  
 0 20 40  
 SCALE IN FEET

REQUESTED BY:	CK
DRAWN BY:	CC
DATE:	8/31/2020
PROJECT:	0888826703

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C:\Users\corfomas\Desktop\PROJECT\NAME\26703\plans\26703 - CD01 - SAMPLE LOCATION MAP - TN.dwg

Source: © 2020 Microsoft Corporation © 2020 Maxar © CNES (2020) Distribution Airbus DS Bing

<b>Table 1</b>				
<b>Description of Phase II ESA Sampling Locations</b>				
<b>Identification</b>	<b>Media</b>	<b>Boring Depth/ Well Screen Interval</b>	<b>Soil Sample Depth</b>	<b>Location Rationale</b>
<b>SB01/MW01</b>	Soil and Groundwater	24'/9'-24'	10'-12' 12'-16'	Near the former UST pit.
<b>SB02/MW02</b>	Soil and Groundwater	24'/9'-24'	4'-8' 8'-10'	Suspected former dispenser island area.
<b>SB03</b>	Soil	4'	0'-4'	Former automotive bay.
<b>SB04</b>	Soil	4'	0'-4'	Former automotive bay.
<b>SB05</b>	Soil	4'	0'-4'	Former automotive bay.
<b>SB06</b>	Soil	4'	0'-4'	Former automotive bay.
<b>SB07</b>	Soil	8'	0'-4'	Suspected former dispenser island area.
<b>SB08</b>	Soil	4'	0'-4'	Former UST pit.
<b>SB09/MW03</b>	Soil and Groundwater	24'/9'-24'	0'-4' 12'-16'	Former residential lot. Known petroleum contamination at adjoining lot (167 Chelsea Ave).
<b>SB10/MW04</b>	Soil and Groundwater	24'/9'-24'	0'-4' 12'-16'	Former residential lot. Known chlorinated solvent soil gas contamination at adjacent lot (696 N Second St.).
<b>SG01</b>	Soil Gas	3'	NA	Near the former UST pit.
<b>SG02</b>	Soil Gas	3'	NA	Former UST pit.
<b>SG03</b>	Soil Gas	3'	NA	Suspected former dispenser island area.
<b>SG04</b>	Soil Gas	3'	NA	Suspected former dispenser island area.
<b>SG05</b>	Soil Gas	3'	NA	Former automotive bay.
<b>SG06</b>	Soil Gas	3'	NA	Former automotive bay.
<b>SG07</b>	Soil Gas	3'	NA	Former residential lot. Known chlorinated solvent soil gas contamination at adjacent lot (696 N Second St.).
<b>SG08</b>	Soil Gas	3'	NA	Former residential lot. Known petroleum contamination at adjoining lot (167 Chelsea Ave).



Soil samples were field-screened for ionizable organic vapors using a photoionization detector (PID) at each DPT depth interval of four feet. Portions of the soil cores were placed in sealable plastic bags for a brief period and then a reading was measured using the PID. The PID readings were recorded on the soil boring log in parts per million above background. Generally, soil samples were collected near the intervals with the highest PID measurements. Where PID readings and other visual or olfactory indicators were absent, samples were collected from near surface and above the groundwater. Samples were submitted to WayPoint Analytical in Memphis, Tennessee under chain-of-custody protocols for laboratory analysis of VOCs, Polynuclear Aromatic Hydrocarbons (PAHs), Resource Conservation and Recovery Act (RCRA) 8 Metals, and Extractable Petroleum Hydrocarbons (EPH).

### Groundwater Investigation

Two temporary small-diameter 1-inch monitoring wells were installed in borings SB01 and SB02 at 167 Chelsea Avenue on August 4, 2020. Monitoring wells MW01 and MW02 were left undisturbed for one day following construction, after which the wells were sampled. Two temporary monitoring wells were installed in borings SB09 and SB10 at 705 North Third Street on August 7, 2020, allowed to recharge for approximately three hours, and then sampled. A peristaltic pump and fresh, dedicated Teflon tubing was used to pump groundwater from the wells. A small volume of water was produced with low flow rates from each well and soils at the subject property were tight, silty clay suggesting that the groundwater sampled was from a small water-bearing zone with little transmissivity.

During initial purging the wells were pumped until there was a significant reduction of turbidity in the water. The grab groundwater samples were collected from the temporary wells following purging. The samples were filtered during collection with 0.45-micron filter cartridges to help ensure low-turbidity samples. Turbidity measurements were collected using a Hach 2100Q handheld turbidity meter. To ensure quality measurements, the meter was calibrated to 10.0 NTU. Final turbidity measurements following filtering are shown in Table 2. All groundwater samples were submitted under chain-of-custody protocols for laboratory analysis of VOCs, PAHs, RCRA 8 Metals, and EPH.

<b>Monitoring Well</b>	<b>Turbidity (NTU)</b>
MW01	6.13
MW02	14.1
MW03	1.79
MW04	38.4

### Soil Gas Sampling

Six soil gas samples were collected at 167 Chelsea Avenue and two soil gas samples were collected at 705 North Third Street on August 5, 2020. Soil gas borings were advanced to 3-feet below ground

surface using a hammer drill. A 6-inch stainless steel screen and Teflon tubing were inserted into each soil boring. The screens were secured in place with sand. Bentonite clay was used at the surface to seal the borehole and to prevent infiltration from outside air.

Before sampling, the soil gas borings were allowed to stabilize for a minimum of 2 hours; all fittings were inspected for proper fit and seal; and each system was purged using a laboratory provided clean certified, 1-liter purge vacuum canister. Isopropanol was used as a tracer gas to indicate any potential leaks within each sample setup. Soil-gas samples were collected in laboratory-provided, individually clean-certified, 1-liter Summa canisters with a designated soil-gas manifold. Each sample was collected over an approximately 5-minute period. Purge rates did not exceed 200 milliliters per minute as recommended by the referenced guidance documents<sup>1</sup>.

All samples, including pre- and post-canister vacuum pressures, canister serial numbers, sample identifications, sampling dates, and required analyses were recorded on the chain-of-custody form. The samples were shipped via overnight courier to Pace Analytical of Minneapolis, Minnesota. Canisters were analyzed using U.S. EPA Method TO-15 for VOCs. Field sampling logs for soil gas samples are included in Attachment B.

## **ANALYTICAL RESULTS**

### **Soil Results**

Analytical results for the soil samples were compared to the U.S. EPA RSLs for both residential and industrial soils, TDEC DUST ISLs, and Tennessee background concentrations for metals in soils. The RSLs are based on a lifetime target cancer risk of 1E-6 and a target hazard quotient of 0.1, which is the most-protective exposure scenario. Laboratory detections and exceedances for the soil samples are summarized in Table 3.

Fourteen soil samples were submitted for laboratory analysis. Two PAHs (2-methylnaphthalene and naphthalene) were detected in the laboratory method blank. Thirty-two VOCs and PAHs were detected. Soil samples SB01, SB03, SB04, SB05, SB08, SB09, and SB10 did not have any detections that exceeded residential or industrial RSLs. Naphthalene exceeded its residential RSL in SB02 (4 to 8-foot depth interval). Benzo(a)pyrene exceeded its residential RSL in SB06. Ethylbenzene, 1,2,4-trimethylbenzene, naphthalene, xylene (total), and 2-methylnaphthalene exceeded their respective residential RSLs in SB07. SB07 was the only sample to exceed the ISL for EPH.

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<sup>1</sup> In accordance with the New Jersey Department of Environmental Protection Vapor Intrusion Technical Guidance (Version 4.1), January 2018.

**Table 3**  
**Detected Concentrations in Soil**  
**167 Chelsea Avenue and 705 N Third Street, Memphis, Tennessee**

Method	CAS No.	Analyte	Res				TN				SB01				SB02				SB03				SB04				SB05				SB06				SB07				SB08				SB09				SB10			
			RSL (a)	Ind RSL (a)	ISL (c)	TN BKG (d)	Units	167SSB0112	167SSB0116	167SSB0208	167SSB0212	167SSB0304	167SSB0404	167SSB0504	167SSB0604	167SSB0704	167SSB0804	167SSB0901	167SSB0916	167SSB1001	167SSB1016	08/04/2020	08/04/2020	08/04/2020	08/04/2020	08/04/2020	08/04/2020	08/04/2020	08/04/2020	08/04/2020	08/04/2020	08/04/2020	08/04/2020	08/04/2020	08/07/2020	08/07/2020	08/07/2020	08/07/2020	10-12 Feet	12-16 Feet	4-8 Feet	8-10 Feet	0-4 Feet	0-4 Feet	0-4 Feet	0-4 Feet	0-4 Feet	0-4 Feet	0-4 Feet	12-16 Feet
<b>Metals</b>																																																		
SW6010	7440-38-2	Arsenic	0.68	3	NE	10	mg/kg	3.73 ab	2.71 a	6.55 ab	9.07 ab	12.4 abd	13.4 abd	7.99 ab	10 ab	8.78 ab	0.933 a	12.8 abd	5.56 ab	10.7 abd	3.55 ab																													
SW6010	7440-39-3	Barium	1500	22000	NE	144	mg/kg	36.1	73.2	48.9	48.1	222 d	149 d	142	164 d	67.7	16.5	155 d	55.8	185 d	53.1																													
SW6010	7440-43-9	Cadmium	7.1	98	NE	1	mg/kg	0.0661 J	0.279	0.147	0.165	0.254 J	0.481 J	0.218	0.455	0.264	0.033 J	0.311	0.242	0.474	0.149																													
SW6010	7440-47-3	Chromium, Total	0.3	6.3	NE	20	mg/kg	11 ab	16.4 ab	12.8 ab	13.8 ab	18 ab	17.6 ab	13.7 ab	13.4 ab	12.1 ab	3.5 a	19.3 ab	14.6 ab	16.4 ab	11.9 ab																													
SW6010	7439-92-1	Lead	400	800	NE	45	mg/kg	4.99	6.55	6.14	8.1	39.2	48.1 d	8.98	164 d	47 d	3.94	55.1 d	5.75	26.4	4.69																													
SW6010	7440-22-4	Silver	39	580	NE	1.2	mg/kg	0.602	ND	0.269 J	ND	ND	ND	ND	ND	ND	ND	ND	0.46	ND	0.444																													
SW7471	7439-97-6	Mercury	1.1	4.6	NE	0.18	mg/kg	0.0113 J	0.0171 J	0.00587 J	0.0163 J	0.255 d	0.0429	0.0253	0.0276	0.11	0.0098 J	0.0765	0.0389	0.051	0.0104 J																													
<b>Volatile Organic Compounds</b>																																																		
SW8260	95-63-6	1,2,4-Trimethylbenzene	30	180	NE	NE	mg/kg	ND	ND	0.215	ND	ND	ND	ND	ND	273 ab	ND	ND	ND	ND	ND																													
SW8260	108-67-8	1,3,5-Trimethylbenzene	27	150	NE	NE	mg/kg	ND	ND	ND	ND	ND	ND	ND	ND	10.3 E	ND	ND	ND	ND	ND																													
SW8260	67-66-3	Chloroform	0.32	1.4	NE	NE	mg/kg	ND	ND	ND	ND	0.007	ND	ND	ND	ND	ND	ND	ND	ND	ND																													
SW8260	100-41-4	Ethylbenzene	5.8	25	143	NE	mg/kg	ND	ND	0.51	0.08	ND	ND	ND	ND	38.5 ab	ND	ND	ND	ND	ND																													
SW8260	98-82-8	Isopropylbenzene	190	990	NE	NE	mg/kg	ND	ND	0.468	0.804 E	ND	ND	ND	ND	2.98 E	ND	ND	ND	ND	ND																													
SW8260	179601-23-1	m,p-Xylene	58	250	NE	NE	mg/kg	ND	ND	0.388	0.023	0.001 J	ND	ND	ND	247 a	ND	ND	ND	ND	ND																													
SW8260	104-51-8	n-Butylbenzene	390	5800	NE	NE	mg/kg	ND	ND	0.398	0.452	ND	ND	ND	ND	1.93	ND	ND	ND	ND	ND																													
SW8260	103-65-1	n-Propylbenzene	380	2400	NE	NE	mg/kg	ND	ND	1.43	2.17 E	ND	ND	ND	ND	9.41 E	ND	ND	ND	ND	ND																													
SW8260	91-20-3	Naphthalene*	2	8.6	NE	NE	mg/kg	ND	ND	2.18 a	ND	ND	ND	ND	ND	1.29	ND	ND	ND	ND	ND																													
SW8260	95-47-6	o-Xylene	65	280	NE	NE	mg/kg	ND	ND	0.009 J	ND	0.0006 J	ND	ND	ND	ND	ND	ND	ND	ND	ND																													
SW8260	99-87-6	p-Isopropyltoluene	190	990	NE	NE	mg/kg	ND	ND	ND	0.074	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND																													
SW8260	135-98-8	sec-Butylbenzene	780	12000	NE	NE	mg/kg	ND	ND	0.113	0.28	ND	ND	ND	ND	0.859	ND	ND	ND	ND	ND																													
SW8260	98-06-6	tert-Butylbenzene	780	12000	NE	NE	mg/kg	ND	ND	ND	0.013	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND																													
SW8260	108-88-3	Toluene	490	4700	6.78	NE	mg/kg	ND	ND	ND	ND	ND	ND	ND	ND	0.67	ND	ND	ND	ND	ND																													
SW8260	1330-20-7	Xylene (Total)	58	250	9.6	NE	mg/kg	ND	ND	0.397 J	0.023	0.002 J	ND	ND	ND	247 ac	ND	ND	ND	ND	ND																													
<b>Polynuclear Aromatic Hydrocarbons</b>																																																		
SW8270SIM	91-57-6	2-Methylnaphthalene	24	300	NE	NE	mg/kg	0.00161 B	0.000941 B	2.31	0.00905	0.046	0.00103 B	0.000872 B	0.0173	25.2 a	0.00397 B	ND	ND	ND	ND																													
SW8270SIM	83-32-9	Acenaphthene	360	4500	NE	NE	mg/kg	ND	0.000801 J	0.00887	ND	0.0019	ND	ND	ND	0.174	0.00102	ND	ND	0.000549 J	ND																													
SW8270SIM	208-96-8	Acenaphthylene	360	4500	NE	NE	mg/kg	ND	ND	ND	ND	0.00161	ND	ND	0.0137	0.0708	ND	ND	ND	ND	ND																													
SW8270SIM	120-12-7	Anthracene	1800	23000	NE	NE	mg/kg	ND	ND	0.00242	ND	0.0067	ND	ND	0.0056	0.0333	0.00551	ND	ND	ND	ND																													
SW8270SIM	56-55-3	Benzo(a)anthracene	1.1	21	NE	NE	mg/kg	0.000965	ND	ND	0.00217 J	0.046	0.00372	ND	0.273	0.0282	0.0413	0.016	0.000661 J	0.0104	0.000614 J																													
SW8270SIM	50-32-8	Benzo(a)pyrene	0.11	2.1	NE	NE	mg/kg	ND	ND	ND	0.00217 J	0.0496	0.00308	ND	0.251 a	0.00932	0.0371	ND	ND	ND	ND																													
SW8270SIM	205-99-2	Benzo(b)fluoranthene	1.1	21	NE	NE	mg/kg	ND	ND	ND	0.00161 J	0.0963	0.00595	ND	0.283	0.0142	0.0516	0.0305	ND	0.0229	0.000778 J																													
SW8270SIM	191-24-2	Benzo(g,h,i)perylene	180	2300	NE	NE	mg/kg	ND	ND	ND	ND	0.0313	ND	ND	0.167	0.0153	0.0236	0.0175	0.0019	0.0131	0.00108																													
SW8270SIM	207-08-9	Benzo(k)fluoranthene	11	210	NE	NE	mg/kg	ND	ND	ND	ND	0.0391	0.00192	ND	0.141	0.0034	0.0232	0.0159	ND	ND	ND																													

**Table 3**  
**Detected Concentrations in Soil**  
**167 Chelsea Avenue and 705 N Third Street, Memphis, Tennessee**

			Sample Location:																											
			SB01		SB01		SB02		SB02		SB03		SB04		SB05		SB06		SB07		SB08		SB09		SB09		SB10		SB10	
			167SSB0112		167SSB0116		167SSB0208		167SSB0212		167SSB0304		167SSB0404		167SSB0504		167SSB0604		167SSB0704		167SSB0804		167SSB0901		167SSB0916		167SSB1001		167SSB1016	
			08/04/2020		08/04/2020		08/04/2020		08/04/2020		08/04/2020		08/04/2020		08/04/2020		08/04/2020		08/04/2020		08/04/2020		08/07/2020		08/07/2020		08/07/2020		08/07/2020	
			Soil		Soil		Soil		Soil		Soil		Soil		Soil		Soil		Soil		Soil		Soil		Soil		Soil		Soil	
			10-12 Feet		12-16 Feet		4-8 Feet		8-10 Feet		0-4 Feet		0-4 Feet		0-4 Feet		0-4 Feet		4-8 Feet		0-4 Feet		0-4 Feet		12-16 Feet		0-4 Feet		12-16 Feet	
Method	CAS No.	Analyte	Res RSL (a)	Ind RSL (a)	TN ISL (c)	TN BKG (d)	Units																							
SW8270SIM	218-01-9	Chrysene	110	2100	NE	NE	mg/kg	<b>0.00116</b>	ND	<b>0.00119 J</b>	ND	<b>0.0626</b>	<b>0.00459</b>	ND	<b>0.243</b>	<b>0.0258</b>	<b>0.035</b>	<b>0.017</b>	ND	<b>0.0102</b>	<b>0.000349 J</b>									
SW8270SIM	53-70-3	Dibenz(a,h)anthracene	0.11	2.1	NE	NE	mg/kg	ND	ND	ND	<b>0.00144 J</b>	<b>0.00776</b>	ND	ND	<b>0.0466</b>	ND	<b>0.00625</b>	ND	<b>0.00244</b>	ND	<b>0.00117</b>									
SW8270SIM	206-44-0	Fluoranthene	240	3000	NE	NE	mg/kg	<b>0.003</b>	ND	<b>0.0022 J</b>	ND	<b>0.128</b>	<b>0.00849</b>	ND	<b>0.26</b>	<b>0.0549</b>	<b>0.0668</b>	<b>0.036</b>	ND	<b>0.0199</b>	ND									
SW8270SIM	86-73-7	Fluorene	240	3000	NE	NE	mg/kg	ND	ND	<b>0.00896</b>	ND	<b>0.00148</b>	ND	ND	ND	<b>0.242</b>	<b>0.00129</b>	ND	ND	<b>0.000706 J</b>	ND									
SW8270SIM	193-39-5	Indeno(1,2,3-cd)pyrene	1.1	21	NE	NE	mg/kg	ND	ND	ND	ND	<b>0.0411</b>	<b>0.00113</b>	ND	<b>0.197</b>	<b>0.00536</b>	<b>0.031</b>	<b>0.0198</b>	<b>0.00144 B</b>	<b>0.0139</b>	ND									
SW8270SIM	91-20-3	<b>Naphthalene*</b>	<b>2</b>	<b>8.6</b>	135	NE	mg/kg	<b>0.002 B</b>	<b>0.00496 B</b>	<b>2.48 a</b>	<b>0.0266</b>	<b>0.0361</b>	<b>0.000864 B</b>	<b>0.000746 JB</b>	<b>0.0137</b>	<b>29.1 ab</b>	<b>0.00325 B</b>	ND	ND	ND	ND									
SW8270SIM	85-01-8	Phenanthrene	180	2300	NE	NE	mg/kg	ND	ND	<b>0.0129</b>	ND	<b>0.0982</b>	<b>0.00261</b>	ND	<b>0.0342</b>	<b>0.328</b>	<b>0.0201</b>	ND	ND	ND	ND									
SW8270SIM	129-00-0	Pyrene	180	2300	NE	NE	mg/kg	<b>0.0034</b>	ND	<b>0.00395</b>	ND	<b>0.0919</b>	<b>0.00646</b>	ND	<b>0.232</b>	<b>0.106</b>	<b>0.0537</b>	<b>0.0278</b>	<b>0.00061 J</b>	<b>0.015</b>	<b>0.00056 J</b>									
<b>Extractable Petroleum Hydrocarbons</b>																														
TNEPH	9999000-74-8	Hydrocarbons C28-C40	NE	NE	NE	NE	mg/kg	ND	ND	ND	ND	<b>7.53</b>	ND	ND	<b>30.5</b>	ND	<b>10.1</b>	<b>23.4</b>	ND	<b>16.1</b>	<b>26.6</b>									
TNEPH	9999900-33-7	<b>TN EPH (C10-C40)</b>	NE	NE	<b>500</b>	NE	mg/kg	ND	ND	<b>12</b>	<b>23.5</b>	<b>12.5</b>	ND	ND	<b>52.8</b>	<b>3610 c</b>	<b>14.8</b>	<b>30.9</b>	ND	<b>23</b>	<b>31.2</b>									
TNEPH	9999000-99-7	TPH DRO - C10-C28	NE	NE	NE	NE	mg/kg	ND	ND	<b>12</b>	<b>23.5</b>	<b>4.93</b>	ND	ND	<b>22.3</b>	<b>3610</b>	<b>4.71</b>	<b>7.56</b>	ND	<b>6.92</b>	<b>4.57</b>									

- Notes:**
- CAS No. = Chemical Abstracts Service number
  - Res RSL = U.S. EPA Regional Screening Level for Residential Soil, hazard quotient = 0.1 (May 2020)
  - Ind RSL = U.S. EPA Regional Screening Level for Industrial Soil, hazard quotient = 0.1 (May 2020)
  - TN ISL = Tennessee Underground Storage Tank System Assessment Closure Initial Screening Levels for Residential Soil (September 2006)
  - TN BKG = Hazardous Trace Elements in Tennessee Soils, TDEC Report of Investigation No 49, (2001)
  - U.S. EPA = United States Environmental Protection Agency
  - TDEC = Tennessee Department of Environment and Conservation
  - NE = Value is not established.
  - mg/kg = Milligrams per kilogram
  - ND = Undetected
  - B = Analyte was detected in the laboratory method blank.
  - J = Estimated value
  - E = Analyte was detected above the instrument calibration range and is estimated.
  - Bold** = Detected
  - a** = Exceeds Res RSL
  - b** = Exceeds Ind RSL
  - c** = Exceeds TN ISL
  - d** = Exceeds TN BKG
  - \* = Naphthalene was detected in both VOC and PAH samples. PAH detections were higher than VOC detections. PAH detections were discussed in the report.

Seven of the RCRA 8 metals were detected in the soil samples. Arsenic and chromium exceeded either their respective residential or industrial RSLs in all fourteen samples, but, only four samples (SB03, SB04, SB09 at 0 to 4-foot depth, and SB10 at 0 to 4-foot depth) exceeded the Tennessee background level for arsenic and no samples exceeded the Tennessee background level for chromium. Four samples (SB04, SB06, SB07, and SB09) exceeded the Tennessee background level for lead but did not exceed the RSLs for lead.

### Groundwater Results

Analytical results for the groundwater samples were compared to U.S. EPA RSLs for tap water, U.S. EPA MCLs, and TDEC DUST ISLs. RSLs are based on the same lifetime target cancer risk and target hazard quotient as was used to assess the soil sample results. Laboratory detections and exceedances for the groundwater samples are summarized in Table 4. Copies of complete laboratory reports for soil and groundwater samples are included in Attachment C.

Four groundwater samples were submitted for laboratory analysis. All four groundwater samples had detections of at least four VOCs or PAHs. A total of fifteen VOCs and PAHs were detected. Naphthalene exceeded its RSL in all groundwater samples. Benzene and ethylbenzene exceeded their respective RSLs in sample MW02. Four of the RCRA 8 metals were detected in the groundwater samples. Arsenic exceeded its RSL and MCL in samples MW01 and MW02 and chromium exceeded its RSL in sample MW04. No groundwater samples exceeded MCLs for VOCs or PAHs or ISLs for EPH.

### Soil Gas Results

Analytical results for the soil gas samples were compared to U.S. EPA Vapor Intrusion Screening Levels (VISL) for residential and commercial air. In accordance with TDEC guidance, detected chemicals were evaluated based on the cumulative target lifetime carcinogenic risk of 10E-6 and a target noncarcinogenic hazard quotient of 0.2. Laboratory detections and exceedances for the soil gas samples are summarized in Table 5. A complete laboratory report for soil gas is included in Attachment D.

Eight soil gas samples were submitted for laboratory analysis. All soil gas samples had detections of VOCs. Soil gas samples SG01, SG02, and SG07 did not have detections that exceeded residential or commercial VISLs. Benzene exceeded its residential VISL in samples SG03 and SG04. Naphthalene exceeded its residential and commercial VISL in sample SG04 and its residential VISL in sample SG08. Ethylbenzene, 1,2,4-trimethylbenzene, 1,3,5-trimethylbenzene, and o-xylene exceeded their respective residential and commercial VISLs in sample SG04. PCE exceeded its residential VISL in samples SG05 and SG06.

**Table 4**  
**Detected Concentrations in Groundwater**  
**167 Chelsea Avenue and 705 N Third Street, Memphis, Tennessee**

							Sample Location:	MW01	MW02	MW03	MW04
							Sample ID:	167GMW01080520	167GMW02080520	167GMW03080720	167GMW04080720
							Sample Date:	08/05/2020	08/05/2020	08/07/2020	08/07/2020
							Matrix:	Groundwater	Groundwater	Groundwater	Groundwater
Method	CAS No.	Analyte	RSL (a)	MCL (b)	TN ISL (c)	Units					
<b>Metals</b>											
SW6010	7440-38-2	<b>Arsenic</b>	<b>0.052</b>	<b>10</b>	NE	µg/L	<b>19.5 ab</b>	<b>35.3 ab</b>	ND	ND	
SW6010	7440-39-3	Barium	380	2000	NE	µg/L	<b>56.1</b>	<b>118</b>	<b>157</b>	<b>136</b>	
SW6010	7440-47-3	<b>Chromium, Total</b>	<b>0.035</b>	100	100	µg/L	ND	ND	ND	<b>12 a</b>	
SW6010	7439-92-1	Lead	15	15	15	µg/L	ND	ND	ND	<b>4 J</b>	
<b>Volatile Organic Compounds</b>											
SW8260	95-63-6	1,2,4-Trimethylbenzene	5.6	NE	NE	µg/L	ND	<b>4</b>	ND	ND	
SW8260	108-67-8	1,3,5-Trimethylbenzene	6	NE	NE	µg/L	ND	<b>1</b>	ND	ND	
SW8260	71-43-2	<b>Benzene</b>	<b>0.46</b>	5	5	µg/L	ND	<b>0.5 J a</b>	ND	ND	
SW8260	100-41-4	<b>Ethylbenzene</b>	<b>1.5</b>	700	700	µg/L	ND	<b>2 a</b>	ND	ND	
SW8260	98-82-8	Isopropylbenzene	45	NE	NE	µg/L	ND	<b>2</b>	ND	ND	
SW8260	179601-23-1	m,p-Xylene	19	NE	NE	µg/L	ND	<b>5</b>	ND	ND	
SW8260	135-98-8	sec-Butylbenzene	200	NE	NE	µg/L	<b>1</b>	<b>2</b>	ND	ND	
SW8260	1330-20-7	Xylene (Total)	19	10000	10000	µg/L	ND	<b>5</b>	ND	ND	
<b>Polynuclear Aromatic Hydrocarbons</b>											
SW8270SIM	91-57-6	2-Methylnaphthalene	3.6	NE	NE	µg/L	<b>0.067</b>	<b>0.208</b>	<b>0.051</b>	<b>0.048</b>	
SW8270SIM	83-32-9	Acenaphthene	53	NE	939	µg/L	<b>0.081</b>	<b>0.033</b>	ND	ND	
SW8270SIM	120-12-7	Anthracene	180	NE	43.4	µg/L	<b>0.008 J</b>	<b>0.007 J</b>	<b>0.005 J</b>	<b>0.008 J</b>	
SW8270SIM	206-44-0	Fluoranthene	80	NE	206	µg/L	<b>0.006 J</b>	ND	ND	ND	
SW8270SIM	86-73-7	Fluorene	29	NE	626	µg/L	<b>0.014 J</b>	<b>0.016 J</b>	ND	ND	
SW8270SIM	91-20-3	<b>Naphthalene</b>	<b>0.12</b>	NE	20	µg/L	<b>1.99 a</b>	<b>1.94 a</b>	<b>0.158 a</b>	<b>0.181 a</b>	
SW8270SIM	85-01-8	Phenanthrene	12	NE	469	µg/L	<b>0.015 J</b>	<b>0.012 J</b>	<b>0.011 J</b>	<b>0.008 J</b>	
<b>Extractable Petroleum Hydrocarbons</b>											
TNEPH	9999000-74-8	Hydrocarbons C28-C40	NE	NE	NE	µg/L	<b>93.3</b>	ND	ND	ND	
TNEPH	9999900-33-7	TN EPH (C10-C40)	NE	NE	NE	µg/L	<b>379 B</b>	<b>1130</b>	<b>87.2 JB</b>	ND	
TNEPH	9999000-99-7	TPH DRO - C10-C28	NE	NE	NE	µg/L	<b>286 B</b>	<b>1130</b>	<b>87.2 JB</b>	ND	

**Notes:**

- CAS No. = Chemical Abstracts Service number
- RSL = U.S. EPA Tapwater Regional Screening Level, hazard quotient = 0.1 (May 2020)
- MCL = U.S. EPA Maximum Contaminant Level (March 2018)
- TN ISL = Tennessee Underground Storage Tank System Assessment Closure Initial Screening Levels for Groundwater, Drinking Water (September 2006)
- U.S. EPA = United States Environmental Protection Agency
- µg/L = Micrograms per liter
- NE = Value is not established.
- ND = Undetected at the listed reporting limit
- J = Estimated value
- B = Analyte was detected in the laboratory method blank.
- Bold** = Detected
- a** = Detected above the RSL
- b** = Detected above the MCL
- c** = Detected above TN ISL



**Table 5**  
**Detected Concentrations in Soil Gas**  
**167 Chelsea Avenue and 705 North Third Street, Memphis, Tennessee**

Sample Location:						SG01	SG02	SG03	SG04	SG05	SG06	SG07	SG08
Sample ID:						167SG01	167SG02	167SG03	167SG04	167SG05	167SG06	167SG07	167SG08
Sample Date:						08/05/2020	08/05/2020	08/05/2020	08/05/2020	08/05/2020	08/05/2020	08/05/2020	08/05/2020
Matrix:						Soil Gas	Soil Gas	Soil Gas	Soil Gas	Soil Gas	Soil Gas	Soil Gas	Soil Gas
Method	CAS No.	Analyte	Res VISL	Com VISL	Units								
TO-15	71-55-6	1,1,1-Trichloroethane	34800	146000	µg/m <sup>3</sup>	ND	ND	ND	ND	0.98 J	0.97 J	ND	0.35 J
TO-15	76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	34800	146000	µg/m <sup>3</sup>	ND	ND	0.67 J	ND	ND	ND	ND	ND
TO-15	95-63-6	<b>1,2,4-Trimethylbenzene</b>	<b>417</b>	<b>1750</b>	µg/m <sup>3</sup>	<b>3.3</b>	<b>11.8</b>	<b>10.1</b>	<b>8500 ab</b>	<b>14.7</b>	<b>12</b>	<b>1.3 J</b>	<b>1.1 J</b>
TO-15	107-06-2	1,2-Dichloroethane	3.6	15.7	µg/m <sup>3</sup>	ND	0.39 J	0.7 J	ND	ND	ND	ND	ND
TO-15	108-67-8	<b>1,3,5-Trimethylbenzene</b>	<b>417</b>	<b>1750</b>	µg/m <sup>3</sup>	<b>1.6 J</b>	<b>5.5</b>	<b>4.9</b>	<b>2940 ab</b>	<b>6.4</b>	<b>6.6</b>	<b>0.64 J</b>	ND
TO-15	106-99-0	1,3-Butadiene	3.12	13.6	µg/m <sup>3</sup>	ND	ND	ND	ND	0.64 J	ND	ND	ND
TO-15	78-93-3	2-Butanone (MEK)	34800	146000	µg/m <sup>3</sup>	<b>17.8</b>	<b>11.7</b>	<b>12.9</b>	ND	<b>23.2</b>	<b>30.3</b>	<b>13.6</b>	<b>6.7</b>
TO-15	591-78-6	2-Hexanone	209	876	µg/m <sup>3</sup>	<b>2.7 J</b>	ND	<b>1.6 J</b>	ND	<b>3.5 J</b>	ND	<b>2.5 J</b>	<b>0.89 J</b>
TO-15	108-10-1	4-Methyl-2-Pentanone (MIBK)	20900	87600	µg/m <sup>3</sup>	<b>2.5 J</b>	ND	<b>2 J</b>	ND	<b>18.1</b>	<b>16.4</b>	<b>1 J</b>	<b>0.91 J</b>
TO-15	67-64-1	Acetone	215000	902000	µg/m <sup>3</sup>	<b>33.3</b>	<b>26.5</b>	<b>35.8</b>	ND	<b>46.2</b>	<b>29.9</b>	<b>28</b>	<b>18.9</b>
TO-15	71-43-2	<b>Benzene</b>	<b>12</b>	52.4	µg/m <sup>3</sup>	<b>4.2</b>	<b>7.6</b>	<b>14.4 a</b>	<b>49.7 a</b>	<b>2.7</b>	<b>1.5</b>	<b>0.43 J</b>	<b>1.3</b>
TO-15	74-83-9	Bromomethane	34.8	146	µg/m <sup>3</sup>	ND	ND	ND	ND	ND	0.6 J	0.73 J	ND
TO-15	75-15-0	Carbon disulfide	4870	20400	µg/m <sup>3</sup>	<b>13.1</b>	<b>14.5</b>	<b>14.1</b>	<b>13.3 J</b>	<b>24.8</b>	<b>13.9</b>	<b>11.6</b>	<b>10.5</b>
TO-15	56-23-5	Carbon tetrachloride	15.6	68.1	µg/m <sup>3</sup>	ND	ND	0.31 J	ND	ND	ND	ND	ND
TO-15	67-66-3	Chloroform	4.07	17.8	µg/m <sup>3</sup>	ND	ND	ND	ND	0.45 J	ND	ND	ND
TO-15	74-87-3	Chloromethane	626	2630	µg/m <sup>3</sup>	<b>1.5</b>	<b>1</b>	<b>1.2</b>	ND	<b>1.2</b>	<b>1.2</b>	<b>1.4</b>	<b>0.41 J</b>
TO-15	110-82-7	Cyclohexane	41700	175000	µg/m <sup>3</sup>	<b>2.8 J</b>	<b>11.7</b>	<b>5.2</b>	ND	<b>5.7</b>	<b>5.3</b>	<b>0.66 J</b>	<b>0.81 J</b>
TO-15	75-71-8	Dichlorodifluoromethane	695	2920	µg/m <sup>3</sup>	<b>2 J</b>	<b>2.6</b>	<b>2.2</b>	ND	<b>2.5</b>	<b>1.9 J</b>	<b>2 J</b>	<b>2.4</b>
TO-15	64-17-5	Ethanol	NE	NE	µg/m <sup>3</sup>	<b>29.9</b>	<b>26.3</b>	<b>24.8</b>	ND	<b>21.9</b>	<b>29.7</b>	<b>24.1</b>	<b>39.6</b>
TO-15	141-78-6	Ethyl acetate	487	2040	µg/m <sup>3</sup>	<b>5.4</b>	<b>3.8</b>	<b>3.7</b>	ND	<b>2.5</b>	<b>4.4</b>	<b>2.2</b>	<b>1.7</b>
TO-15	100-41-4	<b>Ethylbenzene</b>	<b>37.4</b>	<b>164</b>	µg/m <sup>3</sup>	<b>13.2</b>	<b>4.6</b>	<b>4.1</b>	<b>1170 ab</b>	<b>2.8</b>	<b>2.8</b>	<b>0.61 J</b>	<b>0.56 J</b>
TO-15	67-63-0	Isopropanol	1390	5840	µg/m <sup>3</sup>	<b>4.7 J</b>	<b>4.4 J</b>	<b>3 J</b>	ND	<b>5.7</b>	<b>10.3</b>	<b>9.9</b>	<b>3.7 J</b>
TO-15	179601-23-1	m,p-Xylene	NE	NE	µg/m <sup>3</sup>	<b>53.5</b>	<b>15.9</b>	<b>17.6</b>	<b>6740</b>	<b>11.7</b>	<b>15.6</b>	<b>2.3 J</b>	<b>2.6 J</b>
TO-15	75-09-2	Methylene chloride	3380	17500	µg/m <sup>3</sup>	<b>19.7</b>	<b>22.2</b>	<b>30.3</b>	ND	<b>19.2</b>	<b>36.9</b>	<b>21</b>	<b>27</b>
TO-15	142-82-5	n-Heptane	2780	11700	µg/m <sup>3</sup>	<b>8.3</b>	<b>14.3</b>	<b>5.5</b>	<b>633</b>	ND	<b>5.6</b>	ND	ND
TO-15	110-54-3	n-Hexane	4870	20400	µg/m <sup>3</sup>	<b>7.9</b>	<b>17.8</b>	<b>8.8</b>	<b>495</b>	<b>5.1</b>	<b>4.3</b>	<b>1.5</b>	<b>2.4</b>
TO-15	91-20-3	<b>Naphthalene</b>	<b>2.75</b>	<b>12</b>	µg/m <sup>3</sup>	ND	ND	ND	<b>1450 ab</b>	ND	ND	ND	<b>5.6 a</b>
TO-15	95-47-6	<b>o-Xylene</b>	<b>695</b>	<b>2920</b>	µg/m <sup>3</sup>	<b>14.7</b>	<b>6.7</b>	<b>7.7</b>	<b>2940 ab</b>	<b>5.6</b>	<b>11.4</b>	<b>1.1 J</b>	<b>1 J</b>
TO-15	622-96-8	p-Ethyltoluene	NE	NE	µg/m <sup>3</sup>	ND	<b>1.5 J</b>	<b>1.6 J</b>	<b>1790</b>	<b>2.9 J</b>	<b>2.3 J</b>	ND	ND
TO-15	115-07-1	Propylene	20900	87600	µg/m <sup>3</sup>	<b>49.3</b>	<b>71.1</b>	<b>74.5</b>	<b>34.7</b>	<b>10.6</b>	<b>12.2</b>	ND	ND
TO-15	100-42-5	Styrene	6950	29200	µg/m <sup>3</sup>	<b>2.6</b>	<b>1.7 J</b>	<b>1.9</b>	<b>37.3 J</b>	<b>1.1 J</b>	<b>1.1 J</b>	<b>0.83 J</b>	<b>1.3 J</b>
TO-15	127-18-4	<b>Tetrachloroethene</b>	<b>278</b>	1170	µg/m <sup>3</sup>	<b>0.79 J</b>	<b>1 J</b>	<b>3.6</b>	ND	<b>930 a</b>	<b>621 a</b>	<b>0.76 J</b>	<b>8.4</b>
TO-15	108-88-3	Toluene	34800	146000	µg/m <sup>3</sup>	<b>15.8</b>	<b>25.4</b>	<b>24.4</b>	<b>1600</b>	<b>24.1</b>	<b>13.1</b>	<b>6.3</b>	<b>7.2</b>
TO-15	79-01-6	Trichloroethene	13.9	58.4	µg/m <sup>3</sup>	<b>0.67 J</b>	<b>0.7 J</b>	<b>0.78 J</b>	ND	<b>1.6</b>	<b>0.89 J</b>	<b>0.56 J</b>	<b>2.3</b>
TO-15	75-69-4	Trichlorofluoromethane	NE	NE	µg/m <sup>3</sup>	<b>0.96 J</b>	<b>1.6 J</b>	<b>1.3 J</b>	ND	<b>1.5 J</b>	<b>1.3 J</b>	<b>0.99 J</b>	<b>1.2 J</b>

**Notes:**

- Res VISL = Vapor Intrusion Screening Level Residential Target Sub-Slab and Near-source Soil Gas Concentration (TCR=1E-06 or THQ=0.2).
- Com VISL = Vapor Intrusion Screening Level Commercial Target Sub-Slab and Near-source Soil Gas Concentration (TCR=1E-06 or THQ=0.2).
- VISL = Vapor Intrusion Screening Level
- TCR = Target cancer risk
- THQ = Target hazard quotient
- NE = Value is not established.
- µg/m<sup>3</sup> = Micrograms per cubic meter
- CAS No. = Chemical Abstracts Service number
- ND = Not detected
- J = Estimated value
- bold** = Detected concentration
- a** = Exceeds Res VISL
- b** = Exceeds Com VISL



## CONCLUSIONS

This Phase II ESA included collection and laboratory analysis of soil, groundwater, and soil gas samples in August 2020 to evaluate the potential for subsurface contamination associated with past operations on the subject property. Petroleum contamination had been reported from a former UST on the 167 Chelsea Avenue property.

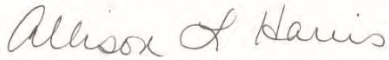
Laboratory analysis identified the following:

- One or more petroleum-related compounds were identified in soil samples from all borings, with higher concentrations encountered at the two former fuel dispenser islands. Naphthalene exceeded its residential RSL near both fuel dispenser island locations (SB02 and SB07). Ethylbenzene, 1,2,4-trimethylbenzene, naphthalene, xylene (total), and 2-methylnaphthalene exceeded their respective residential RSLs at the western fuel dispenser island location (SB07). SB07 was the only sample to exceed the TN ISL for EPH.
- Benzene and ethylbenzene also exceeded their respective RSL in groundwater at MW02 (eastern fuel dispenser island). Naphthalene exceeded its RSL in all four groundwater samples. Naphthalene exceedances were an order of magnitude higher at MW01 (former UST pit) and MW02 than at MW03 and MW04 (former residential property); indicating that the groundwater plume is likely contained on the subject property.
- Benzene exceeded its residential VISL in soil gas sampled at the western fuel dispenser island location (SG03) and at the eastern fuel dispenser island location (SG04). Ethylbenzene, 1,2,4-trimethylbenzene, 1,3,5-trimethylbenzene, and o-xylene exceeded their respective residential and commercial VISLs in soil gas sampled at the eastern fuel dispenser island location. Naphthalene exceeded its residential VISL in soil gas sampled at SG08 (approximately 50 feet southwest of SG04).
- PCE exceeded its residential VISL in soil gas sampled from under two of the former automotive bays (SG05 and SG06). A pit within the building footprint was noted during the field investigation and the presence of chlorinated solvents was likely related to past automotive maintenance and repair operations.

Additional actions for the soil, groundwater, and soil gas findings at the subject property will be based on the potential future use of the property.

Sincerely,

EnSafe Inc.




By: Allison Harris  
Project Manager



Chelsey Kipper  
Geologist

Attachments:

- Attachment A — Soil Boring Logs
- Attachment B — Soil Gas Field Sampling Logs
- Attachment C — Soil and Groundwater Laboratory Reports
- Attachment D — Soil Gas Laboratory Report



**Attachment A**  
**Soil Boring Logs**

LOCATION OF BORING <i>Chelsea</i>		JOB NO	CLIENT <i>CRA</i>	LOCATION <i>167 Chelsea</i>
		DRILLING METHOD:		BORING NO. <i>SB01</i>
		SAMPLING METHOD: <i>DPT</i>		SHEET <i>1 of 1</i>
DATUM		ELEVATION		DRILLING
		WATER LEVEL		START TIME <i>0920</i>
		TIME		FINISH TIME <i>1010</i>
		DATE		DATE <i>08-07-20</i>
		CASING DEPTH		

DRILLING CONTR

SAMPLER TYPE	INCHES DRIVEN INCHES RECOVERED	DEPTH OF CASING	SAMPLE NO. SAMPLE DEPTH	BLOWS/FT SAMPLER	VAPOR CONCENTRATIONS (PPM)	DEPTH IN FEET	SOIL GRAPH	SURFACE CONDITIONS:
						0		<i>Concrete</i>
	<i>48/12</i>		<i>1/4</i>		<i>0.0</i>	1		<i>0-4' Brown silty clay w/ trace sand. No odor or stain. Likely Fill.</i>
	<i>48/2</i>		<i>2/8</i>		<i>0.1</i>	3		<i>4-8' Brown silty clay, w/ fine brown sand, no odor or stain</i>
	<i>48/26</i>		<i>3/12</i>		<i>0.1</i>	7		<i>8-12' <del>10-12'</del> <sup>DF</sup> Brown silty clay, <sup>DF</sup> trace sand, no odor or stain, fill to 10'. 10-12' brown moist silty clay, some greenish-yellow tinge, no odor. Sample 10-12'</i>
	<i>48/48</i>		<i>4/16</i>		<i>1.3</i>	11		<i>12-16' Light yellow brown very moist to moist silty clay, no odor at 12'; then odor to 16' (petroleum). At 14.5' color grades to dark brown</i>
	<i>48/48</i>		<i>5/20</i>		<i>0.2</i>	15		<i>16-20 - grades to slightly moist silty clay, brown, lighter brown than above.</i>
	<i>48/30</i>		<i>6/24</i>		<i>0.2</i>	18		<i>20-24 Brown clay to silty clay, moist seam of very moist brown sand at 22'. No odor Setwell - Hole to 24', 15' screen 9-24' MW01</i>

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BY



LOCATION OF BORING <b>Chelsea</b>		JOB NO.	CLIENT <b>CRA</b>	LOCATION <b>167 Chelsea</b>
DRILLING METHOD: <b>DPT</b>			BORING NO. <b>SBO2</b>	
SAMPLING METHOD:			SHEET <b>1 of 1</b>	
WATER LEVEL			START TIME <b>1030</b>	FINISH TIME <b>1140</b>
TIME			DATE <b>08.04.20</b>	DATE
DATE			CASING DEPTH	

SAMPLER TYPE	INCHES DRIVEN / INCHES RECOVERED	DEPTH OF CASING	SAMPLE NO / SAMPLE DEPTH	BLOWS/FT SAMPLER	VAPOR CONCENTRATIONS (PPM)	DEPTH IN FEET	SOIL GRAPH	SURFACE CONDITIONS:
						0		<b>concrete Asphalt</b>
	<b>48 / 20</b>		<b>1 / 4</b>		<b>2.4</b>	1		<b>0-4' - Brown silty clay grading to green silty clay, odor (petroleum) soft slightly moist</b>
	<b>48 / 48</b>		<b>2 / 8</b>		<b>58.0</b>	4		<b>4-8' mottled green, gray silty clay slightly moist to moist, petroleum odor. Sample 4-8 1105</b>
	<b>48 / 36</b>		<b>3 / 12</b>		<b>11.2</b>	7		<b>8-12' Brown greenish gray to gray silty clay, very stiff w/ petroleum odor, moist to slightly moist Sample 8-12 1110</b>
	<b>48 / 48</b>		<b>4 / 16</b>		<b>7.5</b>	10		<b>12-16' Brownish, green gray to yellow gray silty clay, soft, moist to very moist. Trace odor.</b>
	<b>48 / 48</b>		<b>5 / 20</b>		<b>8.8</b>	13		<b>16-20' Dark brown, moist, silty clay trace odor, soft.</b>
	<b>48 / 48</b>		<b>6 / 24</b>		<b>2.4</b>	16		<b>20-24' Brown silty clay, slightly moist, denser - stiffer, no odor.</b>
						15		<b>set well to 24', 15' screen, 24'-9' MW02</b>

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LOCATION OF BORING <i>chelsea</i>		JOB NO.	CLIENT <i>CRA</i>	LOCATION <i>167 chelsea</i>
			DRILLING METHOD: <i>DPT</i>	BORING NO. <i>SBO3</i>
			SAMPLING METHOD:	SHEET <i>1 of 1</i>
DATUM		ELEVATION		DRILLING
WATER LEVEL		TIME		START TIME <i>1240</i>
TIME		DATE		FINISH TIME <i>1305</i>
CASING DEPTH		DATE		DATE <i>0808-04-20</i>

DRILLING CONTR

SAMPLER TYPE	INCHES DRIVEN INCHES RECOVERED	DEPTH OF CASING	SAMPLE NO. SAMPLE DEPTH	BLOWS/FT SAMPLER	VAPOR CONCENTRATIONS (PPM)	DEPTH IN FEET	SOIL GRAPH
/	/	/	/	/	/	0	
/	/	/	/	/	/	1	
/	/	/	/	/	/	2	
/	<i>48</i>	/	/	/	/	3	
/	<i>48</i>	/	<i>4</i>	/	<i>0.5</i>	4	
/	<i>20</i>	/	/	/	/	5	
/	/	/	/	/	/	6	
/	/	/	/	/	/	7	
/	/	/	/	/	/	8	
/	/	/	/	/	/	9	
/	/	/	/	/	/	0	
/	/	/	/	/	/	1	
/	/	/	/	/	/	2	
/	/	/	/	/	/	3	
/	/	/	/	/	/	4	
/	/	/	/	/	/	5	
/	/	/	/	/	/	6	
/	/	/	/	/	/	7	
/	/	/	/	/	/	8	
/	/	/	/	/	/	9	
/	/	/	/	/	/	0	

SURFACE CONDITIONS:  
*DF*

*Concrete*

*Thin concrete > 1"*  
*Brown fine fill sand, do multiple pushes due to poor recovery.*  
*0-4"*  
*Brown, dry silty clay below 1"*  
*thick concrete and thin gravel layers. silty clay has no odor or stain. collect 0-4' sample*

BY \_\_\_\_\_ DATE \_\_\_\_\_  
CHK D BY \_\_\_\_\_

LOCATION OF BORING <b>CHELSEA</b>		JOB NO.	CLIENT <b>CRA</b>	LOCATION <b>167 Chelsea</b>
DRILLING METHOD: <b>DPT</b>			BORING NO. <b>SBO4</b>	
SAMPLING METHOD:			SHEET <b>1 of 1</b>	
DATUM			DRILLING	
ELEVATION			START TIME <b>1310</b>	FINISH TIME <b>1320</b>
WATER LEVEL			DATE <b>08-04-20</b>	DATE
TIME			CASING DEPTH	
DATE				

SAMPLER TYPE	INCHES DRIVEN RECOVERED	DEPTH OF CASING	SAMPLE NO.	BLOWS/FT. SAMPLER	VAPOR CONCENTRATIONS (PPM)	DEPTH IN FEET	SOIL GRAPH
/	/	/	/	/	/	0	
/	/	/	/	/	/	1	
/	<b>48 / 24</b>	/	<b>1 / 4</b>	<b>005</b>		2	
/	/	/	/	/	/	3	
/	/	/	/	/	/	4	
/	/	/	/	/	/	5	
/	/	/	/	/	/	6	
/	/	/	/	/	/	7	
/	/	/	/	/	/	8	
/	/	/	/	/	/	9	
/	/	/	/	/	/	0	
/	/	/	/	/	/	1	
/	/	/	/	/	/	2	
/	/	/	/	/	/	3	
/	/	/	/	/	/	4	
/	/	/	/	/	/	5	
/	/	/	/	/	/	6	
/	/	/	/	/	/	7	
/	/	/	/	/	/	8	
/	/	/	/	/	/	9	
/	/	/	/	/	/	0	

SURFACE CONDITIONS:  
**concrete**

**Thin concrete**  
**0-4' Brown, dry silty clay, no odor or stain w/ trace of sand collect 0-4'**

DRILLING CONTR \_\_\_\_\_

BY \_\_\_\_\_ DATE \_\_\_\_\_  
CHK'D BY \_\_\_\_\_



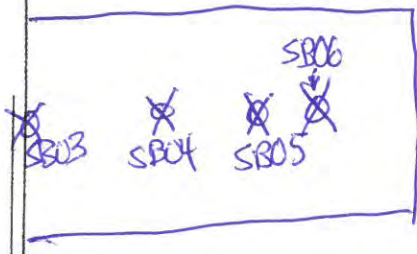
LOCATION OF BORING <i>chelsea</i>		JOB NO.	CLIENT <i>CRA</i>	LOCATION <i>167chelsea</i>
			BORING NO. <i>SBO5</i>	
			SHEET <i>1 of 1</i>	
DRILLING METHOD:			DRILLING	
SAMPLING METHOD:			START TIME <i>1340</i>	FINISH TIME <i>1350</i>
WATER LEVEL			DATE <i>08-04-20</i>	DATE
TIME			CASING DEPTH	
DATE				
DATUM			ELEVATION	

DRILLING CONTR

SAMPLER TYPE	INCHES DRIVEN INCHES RECOVERED	DEPTH OF CASING	SAMPLE NO SAMPLE DEPTH	BLOWS/FT SAMPLER	VAPOR CONCENTRATIONS (PPM)	DEPTH IN FEET	SOIL GRAPH	SURFACE CONDITIONS:
						0		
						1		
	<i>48 24</i>		<i>1 4</i>		<i>0.4</i>	2		<i>Concrete</i>
						3		<i>0-4</i>
						4		<i>Brown, dry silty clay w/ trace of</i>
						5		<i>sand, moist at 2-4', mostly</i>
						6		<i>dry the rest of it, no odor or</i>
						7		<i>stains.</i>
						8		
						9		
						0		
						1		
						2		
						3		
						4		
						5		
						6		
						7		
						8		
						9		
						0		

BY \_\_\_\_\_ DATE \_\_\_\_\_  
 CHK'D BY \_\_\_\_\_

LOCATION OF BORING <i>Chelsea</i>		JOB NO.	CLIENT <i>CRA</i>	LOCATION <i>167 Chelsea</i>
DRILLING METHOD: <i>DPT</i>			BORING NO. <i>SBO6</i>	
SAMPLING METHOD:			SHEET <i>1</i> OF <i>1</i>	
DRILLING			START TIME	FINISH TIME
WATER LEVEL			<i>1320</i>	<i>1335</i>
TIME			DATE	DATE
DATE			<i>08.04.20</i>	<i>08.04.20</i>
CASING DEPTH				



DATUM		ELEVATION		SURFACE CONDITIONS:			
SAMPLER TYPE	INCHES DRIVEN RECOVERED	DEPTH OF CASING	SAMPLE NO. SAMPLE DEPTH	BLOWS/FT SAMPLER	VAPOR CONCENTRATIONS (PPM)	DEPTH IN FEET	SOIL GRAPH
						0	
						1	
	<i>18/22</i>		<i>1/4</i>		<i>0.3</i>	2	<i>0-4'</i> <i>Brown, dry silty clay, trace of sand, no odor or stain</i> <i>collect 0-4'</i>
						3	
						4	
						5	
						6	
						7	
						8	
						9	
						0	
						1	
						2	
						3	
						4	
						5	
						6	
						7	
						8	
						9	
						0	

DRILLING CONTR

BY \_\_\_\_\_ DATE \_\_\_\_\_  
CHK'D BY \_\_\_\_\_



LOCATION OF BORING <i>Chelsea</i>		JOB NO.	CLIENT <i>CRA</i>	LOCATION <i>167 Chelsea</i>
		DRILLING METHOD: <i>DPT</i>		BORING NO. <i>SB07</i>
		SAMPLING METHOD:		SHEET <i>1 of 1</i>
DATUM		ELEVATION		DRILLING
WATER LEVEL		TIME		START TIME <i>1425</i>
TIME		DATE		FINISH TIME <i>1445</i>
CASING DEPTH		DATE		DATE <i>08.04.20</i>

DRILLING CONTR

SAMPLER TYPE	INCHES DRIVEN / INCHES RECOVERED	DEPTH OF CASING	SAMPLE NO. / SAMPLE DEPTH	BLOWS/FT SAMPLER	VAPOR CONCENTRATIONS (PPM)	DEPTH IN FEET	SOIL GRAPH	SURFACE CONDITIONS:
						0		
						1		
	<i>48/24</i>		<i>1/4</i>		<i>1.2</i>	2		<i>Concrete</i>
						3		
						4		
						5		
						6		
	<i>48/42</i>		<i>2/8</i>		<i>402.3</i>	7		<i>0-4' Browns silty clay, dry, grades to green-gray moist silty clay at 3.8'-4.0' (assumed to be) with strong odor (petroleum).</i>
						8		
						9		
						0		
						1		
						2		
						3		
						4		
						5		
						6		
						7		
						8		
						9		
						0		

BY \_\_\_\_\_ DATE \_\_\_\_\_  
 \_\_\_\_\_ CHK'D BY \_\_\_\_\_







LOCATION OF BORING		JOB NO	CLIENT	LOCATION	
<p>BZAG SLAB</p> <p>107 CHELSEA</p> <p><del>SBO9</del></p> <p>Glass</p> <p>705 N. 3RD</p>			CRA	705 N. 3RD	
		DRILLING METHOD:			BORING NO.
		DPT			SBO9
		SAMPLING METHOD:			SHEET
			1 OF 1		
			DRILLING		
			START	FINISH	
WATER LEVEL			TIME	TIME	
			0840	0905	
TIME			DATE	DATE	
			08.07.20		
CASING DEPTH					

DATUM		ELEVATION		SURFACE CONDITIONS:				
SAMPLER TYPE	INCHES DRIVEN / INCHES RECOVERED	DEPTH OF CASING	SAMPLE NO. / SAMPLE DEPTH	BLOWS/FT SAMPLER	VAPOR CONCENTRATIONS (PPM)	DEPTH IN FEET	SOIL GRAPH	
	48/16				0.0	0		GRASS
	48/24				0.0	1		0-4' Brown silty clay, slightly moist no odor. No odor or PID evidence so collect 0-1' at 0910 4-8 SAA, more moist
	48/40				0.0	2		8-12 - Brown silty clay, moist, no odor or stain
	48/48				0.0	3		12-16 grayish green silty clay moist, some petroleum odor, semi-soft no stain take 12-16' just at or above water and trace of odor
	48/46				0.0	4		16-20 grayish-green to mottled brown, moist - wet silty clay. odor around 16'
	48/48				0.0	5		20-24 Darker brown silty clay, moist dense, softer from 20-22' then harder from 22-24'
						6		Set well with 15' screen from 24'-9'

DRILLING CONTR

BY \_\_\_\_\_ DATE \_\_\_\_\_  
CHK'D BY \_\_\_\_\_

checked  
PID  
OK



LOCATION OF BORING 167 CHELSEA		JOB NO.	CLIENT CRA	LOCATION 167-705-N3R
SCAB 705 3RD			DRILLING METHOD:	BORING NO. SB-10
			SAMPLING METHOD: DPT	SHEET 1 of 1
<del>SB-10</del> <del>SB-09</del>		WATER LEVEL		DRILLING
DATUM		ELEVATION		START TIME 0945
				FINISH TIME 1010
				DATE 08-07-20
		CASING DEPTH		DATE

DRILLING CONTR

SAMPLER TYPE	INCHES DRIVEN / INCHES RECOVERED	DEPTH OF CASING	SAMPLE NO. / SAMPLE DEPTH	BLOWS/FT SAMPLER	VAPOR CONCENTRATIONS (PPM)	DEPTH IN FEET	SOIL GRAPH	SURFACE CONDITIONS:
	48/20		1/4		0.0	0		GRASS
						1		0-4 Brown silty clay, slightly moist to dry, no odor, no stain
	48/46		2/8		0.0	4		4-8 Brown silty clay, moist no odor or stain
			<del>2/8</del> 2/8 DF			6		
	48/49		3/12		0.0	8		8-12 Brown silty clay, dense, slightly soft, no odor, moist
	48/48		4/16		0.0	10		12-16 Brown silty clay, dense soft very moist to wet no odor
	48/48		5/20		0.0	16		16-20 Brown moist to wet silty clay to 18', then moist dark brown clay. Soft, no odor or stain
	48/46		6/24		0.0	20		20-21 Dark brown silty clay, dense slightly moist, no odor or stain. Set well with 15' screen from 24'-9'

BY \_\_\_\_\_ DATE \_\_\_\_\_  
CHK'D BY \_\_\_\_\_



**Attachment B**  
**Soil Gas Field Sampling Logs**



	Conditions at Start of Sampling:	Conditions at End of Sampling:
Site: <u>167 Chelsea</u>	Date / Time: <u>08/05/2014 12:00</u> <sup>1416</sup> <del>1412</del> <sub>DF</sub>	Date / Time: <u>08/05/2014 21</u>
Sample Point: <u>SG-01</u>	Outside Temp: <u>90°</u> °C or F	Outside Temp: <u>NO CHANGE</u> °C or F
Building ID: _____	Wind <u>10</u> mph. Out of the <u>NW</u>	Wind _____ mph. Out of the _____
Room ID: _____	Precip. <u>0+0</u>	Precip. _____
Personnel: <u>Chelsey Kipper</u>	Inside: Temp: _____ °C or F	Inside: Temp: _____ °C or F
Personnel: _____	HVAC: _____	HVAC: _____
	Operations: _____	Operations: _____
	<u>Purge 1412 start 1415 finish</u>	

**Type of Points (Circle all that apply):**

Indoor Air    Ambient Air

Sub-Slab Vapor

Soil Gas

DF

**Sample Type:**

VOCs    Radon

**Sample type:**

Summa Canister (6 liter)

Summa Canister (1 liter)

Tedlar bag ( \_\_\_ liter)

HAPSITE

24-hr sample

12-hr sample

8-hr sample

Grab

other \_\_\_\_\_

**Breathing Zone / Indoor Sample Intake Height from Floor:** NA Feet    or    Inches

**Sub-Slab Data**

**Type of Sub-slab Point:** NA Temporary    Permanent    Type of Probe: \_\_\_\_\_

**Was shut-in test performed?**    Yes    No

**Leak testing performed?**    Yes    No    If yes by helium testing or Water or ISOPROPANOL

Description of Sub-Slab System Purge: Purge Can

Purge Rate: 200 mL/min    Amount Purged: 400 L

**PID Screen:** Ambient: \_\_\_\_\_ ppm    Purge Gas: \_\_\_\_\_ ppm    or    Not Applicable

**GEM 2000 Screen:** Not Applicable

Ambient: \_\_\_\_\_ O<sub>2</sub>%    \_\_\_\_\_ CO<sub>2</sub>%    \_\_\_\_\_ CH<sub>4</sub>%    Purge Gas: \_\_\_\_\_ O<sub>2</sub>%    \_\_\_\_\_ CO<sub>2</sub>%    \_\_\_\_\_ CH<sub>4</sub>%

Canister Sampling Records								
Zone	Sample ID	Analytical Methods	Start Time/Date	Canister #	Flow Controller #	Initial Vac. (in Hg)	Stop Time/Date	End Vac. (in Hg)
	167SG01	T015	1416/08/05/20	1303	2291	30	1421/08/05/20	4
	Purge Can							
				3744	2235			
				3942	2460			
				2732	2562			

Tedlar Bag Records						
Zone	Sample ID	Analytical Methods	Sample Date/Time	Tedlar Bag Size	Approx. Volume Collected (cc/ml)	Percent Full

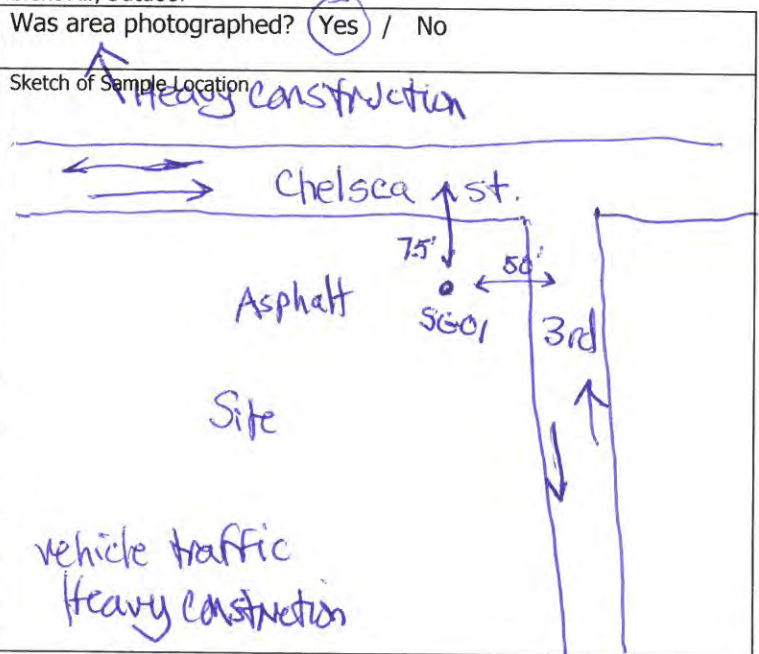
Notes: SS = Sub-Slab BZ=Breathing Zone/Indoor AA=Ambient Air/Outdoor

Floor conditions: Concrete Wood Tile Carpet  
Other: Asphalt

Any cracks or utility breaches in this floor? Y / N  
If Yes mark locations on sketch. outdoor

VOC Sources in area? Y / N  
If Yes mark locations on sketch.

Other comments:  
Asphalt lot is cracked





	Conditions at Start of Sampling:	Conditions at End of Sampling:
Site: <u>167 Chelsea</u>	Date / Time: <u>09/05/20-1443</u>	Date / Time: <u>09/05/20-1448</u>
Sample Point: <u>SG02</u>	Outside Temp: <u>90</u> °C or F <input checked="" type="radio"/>	Outside Temp: <u>90</u> °C or F <input checked="" type="radio"/>
Building ID: _____	Wind <u>NW</u> mph. Out of the <u>10</u>	Wind <u>NW</u> mph. Out of the <u>NW</u>
Room ID: _____	Precip. <u>0.0</u>	Precip. <u>0.0</u>
Personnel: <u>Chelsey Kipper</u>	Inside: Temp: <u>/</u> °C or F	Inside: Temp: <u>/</u> °C or F
Personnel: _____	HVAC: <u>/</u>	HVAC: <u>/</u>
	Operations: <u>/</u>	Operations: <u>/</u>

**Type of Points (Circle all that apply):**

Indoor Air    Ambient Air    Sub-Slab Vapor     Soil Gas     VOCs    Radon

**Sample Type:**

**Sample type:**

Summa Canister (6 liter)     Summa Canister (1 liter)    Tedlar bag ( \_\_\_ liter)    HAPSITE

24-hr sample    12-hr sample    8-hr sample     Grab    other 5min.

**Breathing Zone / Indoor Sample Intake Height from Floor:** NA Feet **or** Inches

**Sub-Slab Data**

**Type of Sub-slab Point:** NA  Temporary    Permanent    Type of Probe: \_\_\_\_\_

**Was shut-in test performed?**  Yes    No

**Leak testing performed?**  Yes    No    If yes by helium testing or Water or  Isopropanol

Description of Sub-Slab System Purge: Purge can

Purge Rate: 200 mL/min    Amount Purged: 400 200 L

**PID Screen:** Ambient: \_\_\_\_\_ ppm    Purge Gas: \_\_\_\_\_ ppm **or** Not Applicable

**GEM 2000 Screen:** Not Applicable

Ambient: \_\_\_\_\_ O<sub>2</sub>%    \_\_\_\_\_ CO<sub>2</sub>%    \_\_\_\_\_ CH<sub>4</sub>%    Purge Gas: \_\_\_\_\_ O<sub>2</sub>%    \_\_\_\_\_ CO<sub>2</sub>%    \_\_\_\_\_ CH<sub>4</sub>%

Canister Sampling Records								
Zone	Sample ID	Analytical Methods	Start Time/Date	Canister #	Flow Controller #	Initial Vac. (in Hg)	Stop Time/Date	End Vac. (in Hg)
	167SG02	T0-15	1443/09/05/20	1141	2558	30	1448/09/05/20	4

Tedlar Bag Records						
Zone	Sample ID	Analytical Methods	Sample Date/Time	Tedlar Bag Size	Approx. Volume Collected (cc/ml)	Percent Full
	<del>167SG02</del>	(DF)				

Notes: SS = Sub-Slab BZ=Breathing Zone/Indoor AA=Ambient Air/Outdoor

Floor conditions: Concrete Wood Tile Carpet  
 Other: Asphalt is cracked

Any cracks or utility breaches in this floor? (Y) / N  
 If Yes mark locations on sketch.

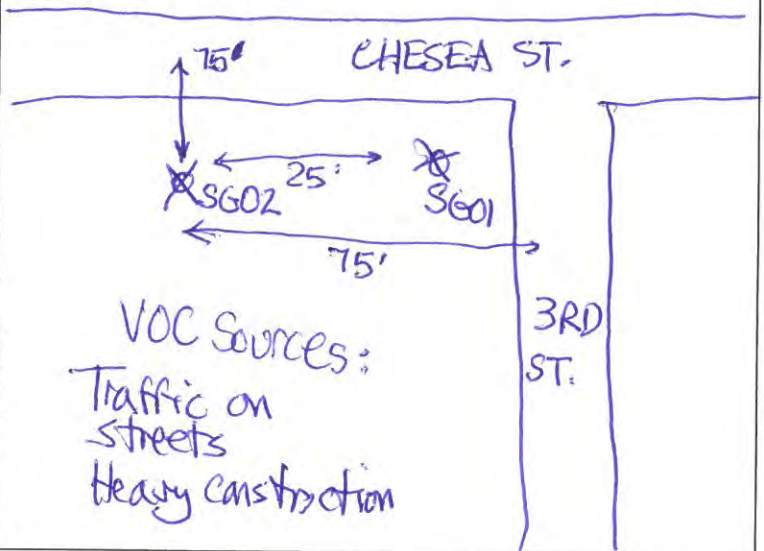
VOC Sources in area? (Y) / N  
 If Yes mark locations on sketch.

Other comments:

Purge-1441-1443  
Vehicle Traffic, construction equipment

Was area photographed? Yes / No  
HEAVY CONSTRUCTION

Sketch of Sample Location





	Conditions at Start of Sampling:	Conditions at End of Sampling:
Site: <u>167 Chelsea</u>	Date / Time: <u>09/05/20-1454</u>	Date / Time: <u>09/05/20-1459</u>
Sample Point: <u>SG03</u>	Outside Temp: <u>90°</u> °C or <input checked="" type="radio"/> F	Outside Temp: <u>90°</u> °C or <input checked="" type="radio"/> F
Building ID: _____	Wind <u>10</u> mph. Out of the <u>NW</u>	Wind <u>10</u> mph. Out of the <u>NW</u>
Room ID: _____	Precip. <u>0.0</u>	Precip. <u>0.0</u>
Personnel: <u>Chelsey K.</u>	Inside: Temp: _____ °C or F	Inside: Temp: _____ °C or F
Personnel: _____	HVAC: _____	HVAC: _____
	Operations: <u>start purge 1451</u>	Operations: _____

**Type of Points (Circle all that apply):**

Indoor Air    Ambient Air    Sub-Slab Vapor     Soil Gas     VOCs    Radon

**Sample Type:**

**Sample type:**

Summa Canister (6 liter)     Summa Canister (1 liter)    Tedlar bag ( \_\_\_ liter)    HAPSITE

24-hr sample    12-hr sample    8-hr sample     Grab    other 5 minute

**Breathing Zone / Indoor Sample Intake Height from Floor:** NA Feet **or** Inches

**Sub-Slab Data**

**Type of Sub-slab Point:** NA     Temporary    Permanent    Type of Probe: \_\_\_\_\_

**Was shut-in test performed?**     Yes    No

**Leak testing performed?**     Yes    No    If yes by helium testing or Water or Isopropanol

Description of Sub-Slab System Purge: purge can

Purge Rate: 200 mL/min    Amount Purged: 400 L

**PID Screen:** Ambient: \_\_\_\_\_ ppm    Purge Gas: \_\_\_\_\_ ppm **or** Not Applicable

**GEM 2000 Screen:** Not Applicable

Ambient: \_\_\_\_\_ O<sub>2</sub>%    \_\_\_\_\_ CO<sub>2</sub>%    \_\_\_\_\_ CH<sub>4</sub>%    Purge Gas: \_\_\_\_\_ O<sub>2</sub>%    \_\_\_\_\_ CO<sub>2</sub>%    \_\_\_\_\_ CH<sub>4</sub>%

Canister Sampling Records								
Zone	Sample ID	Analytical Methods	Start Time/Date	Canister #	Flow Controller #	Initial Vac. (in Hg)	Stop Time/Date	End Vac. (in Hg)
	167SG03	To-15	1454/07.05.20	2958	2303	30	1454 07.05.20	3

Tedlar Bag Records						
Zone	Sample ID	Analytical Methods	Sample Date/Time	Tedlar Bag Size	Approx. Volume Collected (cc/ml)	Percent Full

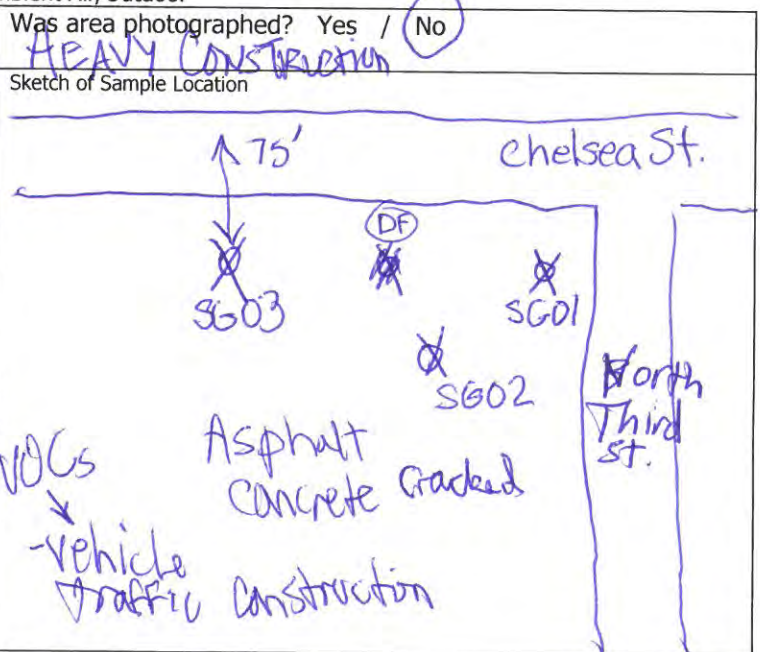
Notes: SS = Sub-Slab BZ=Breathing Zone/Indoor AA=Ambient Air/Outdoor

Floor conditions: Concrete Wood Tile Carpet  
Other: Asphalt is wacked

Any cracks or utility breaches in this floor?  Y /  N  
If Yes mark locations on sketch.

VOC Sources in area?  Y /  N  
If Yes mark locations on sketch.

Other comments:  
VOC sources on adjacent roads





	Conditions at Start of Sampling:	Conditions at End of Sampling:
Site: <u>167 Chelsea</u>	Date / Time: <u>08/05/20 - 1510<sup>1510</sup> - 1507<sup>DF</sup></u>	Date / Time: <u>08/05/20 - 1515</u>
Sample Point: <u>SG04</u>	Outside Temp: <u>90°</u> °C or <u>F</u>	Outside Temp: <u>90°</u> °C or <u>F</u>
Building ID: _____	Wind <u>10</u> mph. Out of the <u>NW</u>	Wind <u>10</u> mph. Out of the <u>NW</u>
Room ID: _____	Precip. <u>0.0</u>	Precip. <u>0.0</u>
Personnel: <u>Chelsea Kipper</u>	Inside: Temp: _____ °C or F	Inside: Temp: _____ °C or F
Personnel: _____	HVAC: _____	HVAC: _____
	Operations: _____	Operations: _____
	<u>Purge 1507</u>	

**Type of Points (Circle all that apply):**

Indoor Air    Ambient Air    Sub-Slab Vapor    Soil Gas    VOCs    Radon

**Sample type:**

Summa Canister (6 liter)    Summa Canister (1 liter)    Tedlar bag ( \_\_\_ liter)    HAPSITE

24-hr sample    12-hr sample    8-hr sample    Grab    other 5 minute

**Breathing Zone / Indoor Sample Intake Height from Floor:** NA Feet or Inches

**Sub-Slab Data**

**Type of Sub-slab Point:** NA    Temporary    Permanent    Type of Probe: \_\_\_\_\_

**Was shut-in test performed?** Yes    No    1505

**Leak testing performed?** Yes    No    If yes by helium testing or Water or Isopropanol

Description of Sub-Slab System Purge: Purge can

Purge Rate: 200 mL/min    Amount Purged: 400 L

**PID Screen:** Ambient: \_\_\_\_\_ ppm    Purge Gas: \_\_\_\_\_ ppm or Not Applicable

**GEM 2000 Screen:** Not Applicable

Ambient: \_\_\_\_\_ O<sub>2</sub>%    \_\_\_\_\_ CO<sub>2</sub>%    \_\_\_\_\_ CH<sub>4</sub>%    Purge Gas: \_\_\_\_\_ O<sub>2</sub>%    \_\_\_\_\_ CO<sub>2</sub>%    \_\_\_\_\_ CH<sub>4</sub>%



Canister Sampling Records								
Zone	Sample ID	Analytical Methods	Start Time/Date	Canister #	Flow Controller #	Initial Vac. (in Hg)	Stop Time/Date	End Vac. (in Hg)
	167SG04	TO-15	08/05/20 -1510	3258	2451	30	1515 08/15/20	4

Tedlar Bag Records						
Zone	Sample ID	Analytical Methods	Sample Date/Time	Tedlar Bag Size	Approx. Volume Collected (cc/ml)	Percent Full

Notes: SS = Sub-Slab BZ=Breathing Zone/Indoor AA=Ambient Air/Outdoor

Floor conditions: Concrete Wood Tile Carpet  
Other:

Any cracks or utility breaches in this floor? Y / N  
If Yes mark locations on sketch.

VOC Sources in area? Y / N  
If Yes mark locations on sketch.

Other comments:

Traffic/Vehicles - Construction  
are VOC sources

Was area photographed? Yes / No  
Heavy construction

Sketch of Sample Location

	Conditions at Start of Sampling:	Conditions at End of Sampling:
Site: <u>167 Chelsea</u>	<u>8/5/2020</u> Date / Time: <u>1532</u>	<u>8/5/2020</u> Date / Time: <u>1538</u>
Sample Point: <u>SG05</u>	Outside Temp: <u>82</u> °C or <input checked="" type="radio"/> F	Outside Temp: <u>82</u> °C or <input checked="" type="radio"/> F
Building ID: _____	Wind <u>9</u> mph. Out of the <u>N</u>	Wind <u>9</u> mph. Out of the <u>N</u>
Room ID: _____	Precip. <u>0</u>	Precip. <u>0</u>
Personnel: <u>Chelsey Kipper</u>	Inside: Temp: _____ °C or F	Inside: Temp: _____ °C or F
Personnel: _____	HVAC: _____	HVAC: _____
	Operations: _____	Operations: _____

**Type of Points (Circle all that apply):**

Indoor Air    Ambient Air    Sub-Slab Vapor     Soil Gas     VOCs    Radon

**Sample Type:**

**Sample type:**

Summa Canister (6 liter)     Summa Canister (1 liter)    Tedlar bag ( \_\_\_ liter)    HAPSITE

24-hr sample    12-hr sample    8-hr sample     Grab    other \_\_\_\_\_

**Breathing Zone / Indoor Sample Intake Height from Floor:** NA Feet **or** Inches

**Sub-Slab Data**

**Type of Sub-slab Point:** NA     Temporary    Permanent    Type of Probe: \_\_\_\_\_

**Was shut-in test performed?**  Yes    No

**Leak testing performed?**  Yes    No    If yes by helium testing or Water or Isopropanol

Description of Sub-Slab System Purge: Purge can

Purge Rate: 200 mL/min    Amount Purged: 400 L

**PID Screen:** Ambient: NA ppm    Purge Gas: NA ppm **or** Not Applicable

**GEM 2000 Screen:** Not Applicable

Ambient: \_\_\_\_\_ O<sub>2</sub>%    \_\_\_\_\_ CO<sub>2</sub>%    \_\_\_\_\_ CH<sub>4</sub>%    Purge Gas: \_\_\_\_\_ O<sub>2</sub>%    \_\_\_\_\_ CO<sub>2</sub>%    \_\_\_\_\_ CH<sub>4</sub>%



Canister Sampling Records								
Zone	Sample ID	Analytical Methods	Start Time/Date	Canister #	Flow Controller #	Initial Vac. (in Hg)	Stop Time/Date	End Vac. (in Hg)
	SG05	T0-15	8/5/2020 1532	2968	2285	29	8/5/2020 1538	4

Tedlar Bag Records						
Zone	Sample ID	Analytical Methods	Sample Date/Time	Tedlar Bag Size	Approx. Volume Collected (cc/ml)	Percent Full

Notes: SS = Sub-Slab BZ=Breathing Zone/Indoor AA=Ambient Air/Outdoor

Floor conditions: Concrete Wood Tile Carpet  
Other:

Any cracks or utility breaches in this floor? Y / N  
If Yes mark locations on sketch.

VOC Sources in area? Y / N  
If Yes mark locations on sketch.

Other comments:

VOC sources  
construction  
+  
traffic

Was area photographed? Yes / No

Sketch of Sample Location

	Conditions at Start of Sampling:	Conditions at End of Sampling:
Site: <u>167 Chelsea</u>	Date / Time: <u>8/5/2020 1545</u>	Date / Time: <u>8/5/2020</u>
Sample Point: <u>5606</u>	Outside Temp: <u>82</u> °C or F	Outside Temp: _____ °C or F
Building ID: _____	Wind <u>9</u> mph. Out of the <u>N</u>	Wind _____ mph. Out of the _____
Room ID: _____	Precip. <u>0</u>	Precip. _____
Personnel: <u>Chelsay Hipper</u>	Inside: Temp: _____ °C or F	Inside: Temp: _____ °C or F
Personnel: _____	HVAC: _____	HVAC: _____
	Operations: _____	Operations: _____

**Type of Points (Circle all that apply):**

Indoor Air    Ambient Air    Sub-Slab Vapor    Soil Gas    VOCs    Radon

**Sample type:**

Summa Canister (6 liter)    Summa Canister (1 liter)    Tedlar bag ( \_\_\_ liter)    HAPSITE

24-hr sample    12-hr sample    8-hr sample    Grab    other \_\_\_\_\_

**Breathing Zone / Indoor Sample Intake Height from Floor:** NA Feet    or    Inches

**Sub-Slab Data**

**Type of Sub-slab Point:** NA    Temporary    Permanent    Type of Probe: \_\_\_\_\_

**Was shut-in test performed?** Yes    No

**Leak testing performed?** Yes    No    If yes by helium testing or Water or Isopropanol

Description of Sub-Slab System Purge: Purge Can

Purge Rate: 200 mL/min    Amount Purged: 400 L

**PID Screen:** Ambient: \_\_\_\_\_ ppm    Purge Gas: \_\_\_\_\_ ppm    or    Not Applicable

**GEM 2000 Screen:** Not Applicable

Ambient: \_\_\_\_\_ O<sub>2</sub>%    \_\_\_\_\_ CO<sub>2</sub>%    \_\_\_\_\_ CH<sub>4</sub>%    Purge Gas: \_\_\_\_\_ O<sub>2</sub>%    \_\_\_\_\_ CO<sub>2</sub>%    \_\_\_\_\_ CH<sub>4</sub>%



Canister Sampling Records								
Zone	Sample ID	Analytical Methods	Start Time/Date	Canister #	Flow Controller #	Initial Vac. (in Hg)	Stop Time/Date	End Vac. (in Hg)
	SG06	T0-15	8/5/20 1545	1014	2372	28	8/5/20 1551	4

Tedlar Bag Records						
Zone	Sample ID	Analytical Methods	Sample Date/Time	Tedlar Bag Size	Approx. Volume Collected (cc/ml)	Percent Full

Notes: SS = Sub-Slab BZ=Breathing Zone/Indoor AA=Ambient Air/Outdoor

Floor conditions: Concrete Wood Tile Carpet  
Other:

Any cracks or utility breaches in this floor? Y / N  
If Yes mark locations on sketch.

VOC Sources in area? Y / N  
If Yes mark locations on sketch.

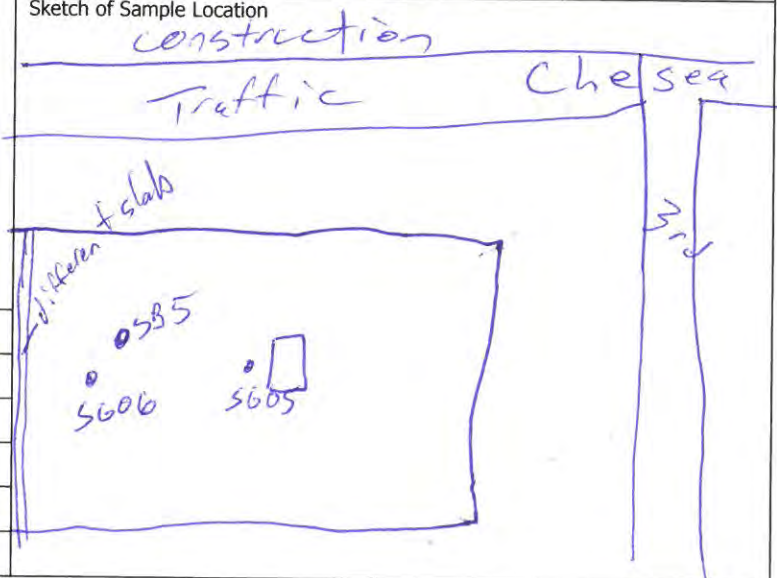
Other comments:

VOCs

- construction on Chelsea  
and Traffic

Was area photographed? Yes / No

Sketch of Sample Location



	Conditions at Start of Sampling:	Conditions at End of Sampling:
Site: <u>167 Chelsea</u>	Date / Time: <u>8/5/20 1604</u>	Date / Time: _____
Sample Point: <u>5607</u>	Outside Temp: <u>83</u> °C or F	Outside Temp: _____ °C or F
Building ID: _____	Wind <u>8</u> mph. Out of the <u>N</u>	Wind _____ mph. Out of the _____
Room ID: _____	Precip. <u>0</u>	Precip. _____
Personnel: <u>Daksey Kupper</u>	Inside: Temp: _____ °C or F	Inside: Temp: _____ °C or F
Personnel: _____	HVAC: _____	HVAC: _____
	Operations: _____	Operations: _____

**Type of Points (Circle all that apply):**

Indoor Air    Ambient Air    Sub-Slab Vapor    Soil Gas    VOCs    Radon

**Sample Type:**

**Sample type:**

Summa Canister (6 liter)    Summa Canister (1 liter)    Tedlar bag ( \_\_\_ liter)    HAPSITE

24-hr sample    12-hr sample    8-hr sample    Grab    other \_\_\_\_\_

**Breathing Zone / Indoor Sample Intake Height from Floor:** NA Feet or Inches

**Sub-Slab Data**

**Type of Sub-slab Point:** NA    Temporary    Permanent    Type of Probe: \_\_\_\_\_

**Was shut-in test performed?** Yes No

**Leak testing performed?** Yes No    If yes by helium testing or Water or Isopropanol

Description of Sub-Slab System Purge: Purge can

Purge Rate: 200 mL/min    Amount Purged: 400 mL

**PID Screen:** Ambient: \_\_\_\_\_ ppm    Purge Gas: \_\_\_\_\_ ppm or Not Applicable

**GEM 2000 Screen:** Not Applicable

Ambient: \_\_\_\_\_ O<sub>2</sub>%    \_\_\_\_\_ CO<sub>2</sub>%    \_\_\_\_\_ CH<sub>4</sub>%    Purge Gas: \_\_\_\_\_ O<sub>2</sub>%    \_\_\_\_\_ CO<sub>2</sub>%    \_\_\_\_\_ CH<sub>4</sub>%

Canister Sampling Records								
Zone	Sample ID	Analytical Methods	Start Time/Date	Canister #	Flow Controller #	Initial Vac. (in Hg)	Stop Time/Date	End Vac. (in Hg)
	5607	T0-15	8/5/20 1602	2411	2443	29	8/5/20 1608	4

Tedlar Bag Records						
Zone	Sample ID	Analytical Methods	Sample Date/Time	Tedlar Bag Size	Approx. Volume Collected (cc/ml)	Percent Full

Notes: SS = Sub-Slab BZ=Breathing Zone/Indoor AA=Ambient Air/Outdoor

Floor conditions: Concrete Wood Tile Carpet

Other: GRASS

Any cracks or utility breaches in this floor? Y /  N  
If Yes mark locations on sketch.

VOC Sources in area?  Y / N  
If Yes mark locations on sketch.

Other comments:

VOCs - construction  
& traffic

Was area photographed? Yes / No

Sketch of Sample Location

The sketch shows a rectangular area labeled 'Building Footprint' with 'Grass' written below it. Above the footprint is a horizontal line labeled 'Construction' and another line labeled 'chelsea'. To the right of the footprint is a vertical line labeled '32'.

•5607



	Conditions at Start of Sampling:	Conditions at End of Sampling:
Site: <u>167 Chelsea</u>	Date / Time: <u>8/5/20 1619</u>	Date / Time: <u>8/5/20 1627</u>
Sample Point: <u>5604</u>	Outside Temp: <u>83</u> °C or F	Outside Temp: <u>83</u> °C or F
Building ID: _____	Wind <u>4</u> mph. Out of the <u>N</u>	Wind <u>8</u> mph. Out of the <u>NNW</u>
Room ID: _____	Precip. <u>0</u>	Precip. <u>0</u>
Personnel: <u>Chelsea Ripper</u>	Inside Temp: _____ °C or F	Inside Temp: _____ °C or F
Personnel: _____	HVAC: _____	HVAC: _____
	Operations: _____	Operations: _____

**Type of Points (Circle all that apply):**

Indoor Air    Ambient Air    Sub-Slab Vapor    Soil Gas    VOCs    Radon

**Sample type:**

Summa Canister (6 liter)    Summa Canister (1 liter)    Tedlar bag ( \_\_\_ liter)    HAPSITE

24-hr sample    12-hr sample    8-hr sample    Grab    other \_\_\_\_\_

**Breathing Zone / Indoor Sample Intake Height from Floor:** NA Feet **or** Inches

**Sub-Slab Data**

**Type of Sub-slab Point:** NA    Temporary    Permanent    Type of Probe: \_\_\_\_\_

**Was shut-in test performed?** Yes    No

**Leak testing performed?** Yes    No    If yes by helium testing or Water or isopropanol

Description of Sub-Slab System Purge: Purge can

Purge Rate: 200 mL/min    Amount Purged: 400 L

**PID Screen:** Ambient: \_\_\_\_\_ ppm    Purge Gas: \_\_\_\_\_ ppm **or** Not Applicable

**GEM 2000 Screen:** Not Applicable

Ambient: \_\_\_\_\_ O<sub>2</sub>%    \_\_\_\_\_ CO<sub>2</sub>%    \_\_\_\_\_ CH<sub>4</sub>%    Purge Gas: \_\_\_\_\_ O<sub>2</sub>%    \_\_\_\_\_ CO<sub>2</sub>%    \_\_\_\_\_ CH<sub>4</sub>%

Canister Sampling Records								
Zone	Sample ID	Analytical Methods	Start Time/Date	Canister #	Flow Controller #	Initial Vac. (in Hg)	Stop Time/Date	End Vac. (in Hg)
	S608	TO-15	8/5/2020 1621	3958	2711	28	8/5/2020 1626	4

Tedlar Bag Records						
Zone	Sample ID	Analytical Methods	Sample Date/Time	Tedlar Bag Size	Approx. Volume Collected (cc/ml)	Percent Full

Notes: SS = Sub-Slab BZ=Breathing Zone/Indoor AA=Ambient Air/Outdoor

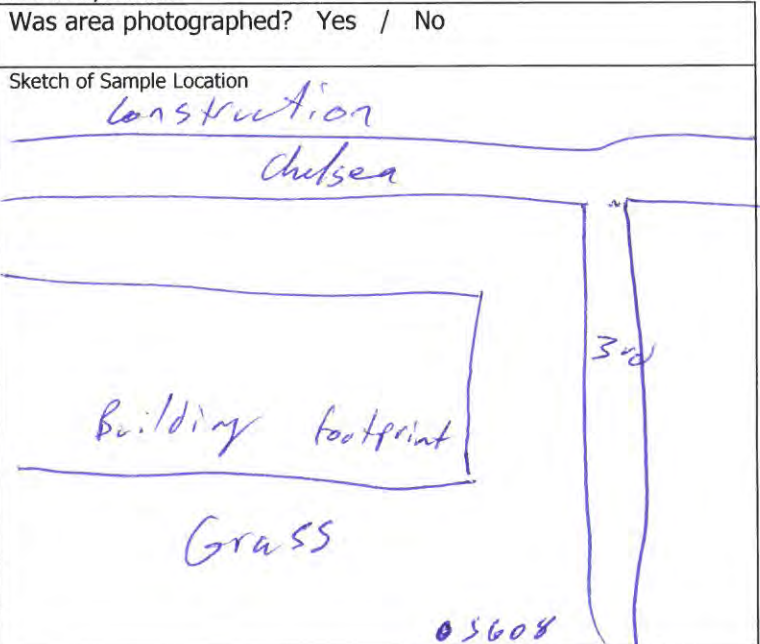
Floor conditions: Concrete Wood Tile Carpet

Other: Grass

Any cracks or utility breaches in this floor? Y /  N  
If Yes mark locations on sketch.

VOC Sources in area?  Y / N  
If Yes mark locations on sketch.

Other comments:  
VOCs - construction + traffic





**Attachment C**  
**Soil and Groundwater**  
**Laboratory Reports**



8/14/2020

Ensafe  
Ms. Chelsey Kipper  
5724 Summer Tree Drive  
Memphis, TN, 38134

Ref: Analytical Testing  
Lab Report Number: 20-218-0165  
Client Project Description: Former Wayne's Pinball Palace  
167 Chelsea Avenue, Memphis, TN  
Project No. 0888826703

Dear Ms. Chelsey Kipper:  
Waypoint Analytical, LLC. received sample(s) on 8/5/2020 for the analyses presented in the following report.

The above referenced project has been analyzed per your instructions. The analyses were performed in accordance with the applicable analytical method. Where the laboratory was not responsible for the sampling stage (refer to the chain of custody) results apply to the sample as received.

The analytical data has been validated using standard quality control measures performed as required by the analytical method. Quality Assurance, method validations, instrumentation maintenance and calibration for all parameters (NELAP and non-NELAP) were performed in accordance with guidelines established by the USEPA (including 40 CFR 136 Method Update Rule August 2017) and NELAC unless otherwise indicated. Any parameter for which the laboratory is not officially NELAP accredited is indicated by a '~' symbol. These are not included in the scope because NELAP accreditation is either not available or has not been applied for. Additional certifications may be held/are available for parameters, where NELAP accreditation is not required or applicable. A full list of certifications is available upon request.

Certain parameters (chlorine, pH, dissolved oxygen, sulfite...) are required to be analyzed within 15 minutes of sampling. Usually, but not always, any field parameter analyzed at the laboratory is outside of this holding time. Refer to sample analysis time for confirmation of holding time compliance.

The results are shown on the attached Report of Analysis(s). Results for solid matrices are reported on an as-received basis unless otherwise indicated. This report shall not be reproduced except in full and relates only to the samples included in this report.

Please do not hesitate to contact me or client services if you have any questions or need additional information.

Sincerely,

Rebekah Ross  
Project Manager

*Laboratory's liability in any claim relating to analyses performed shall be limited to, at laboratory's option, repeating the analysis in question at laboratory's expense, or the refund of the charges paid for performance of said analysis.*



## Certification Summary

**Laboratory ID: WP MTN: Waypoint Analytical, LLC., Memphis, TN**

State	Program	Lab ID	Expiration Date
Alabama	State Program	40750	02/28/2021
Arizona	State Program	AZ0816	08/30/2020
Arkansas	State Program	88-0650	02/07/2021
California	State Program	2904	05/10/2020
Florida	State Program - NELAP	E871157	06/30/2021
Georgia	State Program	C044	02/18/2023
Georgia	State Program	04015	06/30/2021
Illinois	State Program - NELAP	200078	10/10/2020
Kentucky	State Program	80215	06/30/2021
Kentucky	State Program	KY90047	12/31/2020
Louisiana	State Program - NELAP	LA037	12/31/2020
Louisiana	State Program - NELAP	04015	06/30/2021
Mississippi	State Program	MS	02/11/2023
North Carolina	State Program	415	12/31/2020
Oklahoma	State Program	9311	08/31/2020
Pennsylvania	State Program - NELAP	68-03195	05/31/2021
South Carolina	State Program	84002	06/30/2021
South Carolina	State Program	84002	06/30/2020
Tennessee	State Program	02027	02/11/2023
Tennessee	A2LA ISO 17025:2017	4313.01	10/31/2021
Texas	State Program - NELAP	T104704180	09/30/2020
Virginia	State Program	00106	06/30/2021
Virginia	State Program - NELAP	460181	09/14/2020



**Sample Summary Table**

**Report Number:** 20-218-0165  
**Client Project Description:** Former Wayne's Pinball Palace  
167 Chelsea Avenue, Memphis, TN  
Project No. 0888826703

Lab No	Client Sample ID	Matrix	Date Collected	Date Received
92395	167SSB0116	Solids	08/04/2020 10:05	08/05/2020
92396	167SSB0112	Solids	08/04/2020 10:10	08/05/2020
92397	167SSB0208	Solids	08/04/2020 11:05	08/05/2020
92398	167SSB0212	Solids	08/04/2020 11:10	08/05/2020
92399	167SSB0304	Solids	08/04/2020 13:05	08/05/2020
92400	167SSB0404	Solids	08/04/2020 13:15	08/05/2020
92401	167SSB0504	Solids	08/04/2020 13:45	08/05/2020
92402	167SSB0604	Solids	08/04/2020 13:30	08/05/2020
92403	167SSB0704	Solids	08/04/2020 14:40	08/05/2020
92404	167SSB0804	Solids	08/04/2020 14:55	08/05/2020

Summary of Detected Analytes

**Project:** Former Wayne's Pinball Palace

**Report Number:** 20-218-0165

Client Sample ID	Lab Sample ID	Method	Parameters	Result	Units	Report Limit	Analyzed	Qualifiers
<b>167SSB0116</b>	<b>L 92395</b>							
6010D	Arsenic			2.71	mg/Kg - dry	0.308	08/08/2020 01:45	
6010D	Barium			73.2	mg/Kg - dry	0.167	08/08/2020 01:45	
6010D	Cadmium			0.279	mg/Kg - dry	0.0256	08/08/2020 01:45	
6010D	Chromium			16.4	mg/Kg - dry	0.302	08/08/2020 01:45	
6010D	Lead			6.55	mg/Kg - dry	0.230	08/08/2020 01:45	
7471A	Mercury			0.0171	mg/Kg - dry	0.00383	08/13/2020 17:23	J
8270D SIM	Acenaphthene			0.000801	mg/Kg - dry	0.000552	08/07/2020 14:09	J
8270D SIM	2-Methylnaphthalene			0.000941	mg/Kg - dry	0.000694	08/07/2020 14:09	B
8270D SIM	Naphthalene			0.00496	mg/Kg - dry	0.000598	08/07/2020 14:09	B
SW-DRYWT	Moisture			22.0	%		08/10/2020 14:13	
<b>167SSB0112</b>	<b>L 92396</b>							
6010D	Arsenic			3.73	mg/Kg - dry	0.302	08/08/2020 01:50	
6010D	Barium			36.1	mg/Kg - dry	0.164	08/08/2020 01:50	
6010D	Cadmium			0.0661	mg/Kg - dry	0.0251	08/08/2020 01:50	J
6010D	Chromium			11.0	mg/Kg - dry	0.297	08/08/2020 01:50	
6010D	Lead			4.99	mg/Kg - dry	0.226	08/08/2020 01:50	
6010D	Silver			0.602	mg/Kg - dry	0.202	08/08/2020 01:50	
7471A	Mercury			0.0113	mg/Kg - dry	0.00413	08/13/2020 17:24	J
8270D SIM	Benzo(a)anthracene			0.000965	mg/Kg - dry	0.000555	08/07/2020 14:30	
8270D SIM	Chrysene			0.00116	mg/Kg - dry	0.000322	08/07/2020 14:30	
8270D SIM	Fluoranthene			0.00300	mg/Kg - dry	0.000666	08/07/2020 14:30	
8270D SIM	2-Methylnaphthalene			0.00161	mg/Kg - dry	0.000682	08/07/2020 14:30	B
8270D SIM	Naphthalene			0.00200	mg/Kg - dry	0.000588	08/07/2020 14:30	B
8270D SIM	Pyrene			0.00340	mg/Kg - dry	0.000487	08/07/2020 14:30	
SW-DRYWT	Moisture			20.6	%		08/10/2020 14:13	
<b>167SSB0208</b>	<b>L 92397</b>							
6010D	Arsenic			6.55	mg/Kg - dry	0.301	08/08/2020 01:55	
6010D	Barium			48.9	mg/Kg - dry	0.163	08/08/2020 01:55	
6010D	Cadmium			0.147	mg/Kg - dry	0.0250	08/08/2020 01:55	
6010D	Chromium			12.8	mg/Kg - dry	0.296	08/08/2020 01:55	
6010D	Lead			6.14	mg/Kg - dry	0.225	08/08/2020 01:55	
6010D	Silver			0.269	mg/Kg - dry	0.201	08/08/2020 01:55	J
7471A	Mercury			0.00587	mg/Kg - dry	0.00424	08/13/2020 17:25	J
8260B	n-Butylbenzene			0.398	mg/Kg - dry	0.008	08/06/2020 18:33	
8260B	sec-Butyl benzene			0.113	mg/Kg - dry	0.008	08/06/2020 18:33	
8260B	Ethylbenzene			0.510	mg/Kg - dry	0.004	08/06/2020 18:33	



Summary of Detected Analytes

**Project:** Former Wayne's Pinball Palace

**Report Number:** 20-218-0165

Client Sample ID	Lab Sample ID	Method	Parameters	Result	Units	Report Limit	Analyzed	Qualifiers
<b>167SSB0208</b>	<b>L 92397</b>							
8260B	Isopropylbenzene			0.468	mg/Kg - dry	0.005	08/06/2020 18:33	
8260B	m,p-Xylene			0.388	mg/Kg - dry	0.007	08/06/2020 18:33	
8260B	Naphthalene			2.18	mg/Kg - dry	0.041	08/06/2020 18:33	
8260B	o-Xylene			0.009	mg/Kg - dry	0.002	08/06/2020 18:33	J
8260B	n-Propylbenzene			1.43	mg/Kg - dry	0.006	08/06/2020 18:33	
8260B	1,2,4-Trimethylbenzene			0.215	mg/Kg - dry	0.005	08/06/2020 18:33	
8260B	Xylene (Total)			0.397	mg/Kg - dry	0.002	08/06/2020 18:33	J
8270D SIM	Acenaphthene			0.00887	mg/Kg - dry	0.00151	08/07/2020 14:51	
8270D SIM	Anthracene			0.00242	mg/Kg - dry	0.00148	08/07/2020 14:51	
8270D SIM	Chrysene			0.00119	mg/Kg - dry	0.000892	08/07/2020 14:51	J
8270D SIM	Fluoranthene			0.00220	mg/Kg - dry	0.00184	08/07/2020 14:51	J
8270D SIM	Fluorene			0.00896	mg/Kg - dry	0.00174	08/07/2020 14:51	
8270D SIM	2-Methylnaphthalene			2.31	mg/Kg - dry	0.00945	08/11/2020 15:54	
8270D SIM	Naphthalene			2.48	mg/Kg - dry	0.00814	08/11/2020 15:54	
8270D SIM	Phenanthrene			0.0129	mg/Kg - dry	0.00228	08/07/2020 14:51	
8270D SIM	Pyrene			0.00395	mg/Kg - dry	0.00136	08/07/2020 14:51	
SW-DRYWT	Moisture			20.3	%		08/10/2020 14:13	
TN EPH	Diesel Range Organics (C10-C28)			12.0	mg/Kg - dry	4.14	08/12/2020 11:29	
TN EPH	TN EPH (C10-C40)			12.0	mg/Kg - dry	4.14	08/12/2020 11:29	
<b>167SSB0212</b>	<b>L 92398</b>							
6010D	Arsenic			9.07	mg/Kg - dry	0.307	08/08/2020 02:00	
6010D	Barium			48.1	mg/Kg - dry	0.166	08/08/2020 02:00	
6010D	Cadmium			0.165	mg/Kg - dry	0.0255	08/08/2020 02:00	
6010D	Chromium			13.8	mg/Kg - dry	0.301	08/08/2020 02:00	
6010D	Lead			8.10	mg/Kg - dry	0.229	08/08/2020 02:00	
7471A	Mercury			0.0163	mg/Kg - dry	0.00390	08/13/2020 17:27	J
8260B	n-Butylbenzene			0.452	mg/Kg - dry	0.001	08/10/2020 10:53	
8260B	sec-Butyl benzene			0.280	mg/Kg - dry	0.001	08/10/2020 10:53	
8260B	tert-Butyl benzene			0.013	mg/Kg - dry	0.001	08/10/2020 10:53	
8260B	Ethylbenzene			0.080	mg/Kg - dry	0.0009	08/10/2020 10:53	
8260B	Isopropylbenzene			0.804	mg/Kg - dry	0.001	08/10/2020 10:53	E
8260B	4-Isopropyl toluene			0.074	mg/Kg - dry	0.001	08/10/2020 10:53	
8260B	m,p-Xylene			0.023	mg/Kg - dry	0.001	08/10/2020 10:53	
8260B	n-Propylbenzene			2.17	mg/Kg - dry	0.001	08/10/2020 10:53	E
8260B	Xylene (Total)			0.023	mg/Kg - dry	0.0006	08/10/2020 10:53	
8270D SIM	Benzo(a)anthracene			0.00217	mg/Kg - dry	0.00167	08/11/2020 15:11	J

Summary of Detected Analytes

**Project:** Former Wayne's Pinball Palace

**Report Number:** 20-218-0165

Client Sample ID	Lab Sample ID	Method	Parameters	Result	Units	Report Limit	Analyzed	Qualifiers
<b>167SSB0212</b>	<b>L 92398</b>							
8270D SIM	Benzo(a)pyrene			0.00217	mg/Kg - dry	0.000504	08/11/2020 15:11	J
8270D SIM	Benzo(b)fluoranthene			0.00161	mg/Kg - dry	0.000523	08/11/2020 15:11	J
8270D SIM	Dibenz(a,h)anthracene			0.00144	mg/Kg - dry	0.00106	08/11/2020 15:11	J
8270D SIM	2-Methylnaphthalene			0.00905	mg/Kg - dry	0.00206	08/11/2020 15:11	
8270D SIM	Naphthalene			0.0266	mg/Kg - dry	0.00178	08/11/2020 15:11	
SW-DRYWWT	Moisture			21.7	%		08/10/2020 14:13	
TN EPH	Diesel Range Organics (C10-C28)			23.5	mg/Kg - dry	4.21	08/12/2020 11:49	
TN EPH	TN EPH (C10-C40)			23.5	mg/Kg - dry	4.21	08/12/2020 11:49	
<b>167SSB0304</b>	<b>L 92399</b>							
6010D	Arsenic			12.4	mg/Kg - dry	1.43	08/11/2020 08:17	
6010D	Barium			222	mg/Kg - dry	0.775	08/11/2020 08:17	
6010D	Cadmium			0.254	mg/Kg - dry	0.119	08/11/2020 08:17	J
6010D	Chromium			18.0	mg/Kg - dry	1.41	08/11/2020 08:17	
6010D	Lead			39.2	mg/Kg - dry	1.07	08/11/2020 08:17	
7471A	Mercury			0.255	mg/Kg - dry	0.00404	08/11/2020 13:43	
8260B	Chloroform			0.007	mg/Kg - dry	0.002	08/10/2020 11:14	
8260B	m,p-Xylene			0.001	mg/Kg - dry	0.001	08/10/2020 11:14	J
8260B	o-Xylene			0.0006	mg/Kg - dry	0.0005	08/10/2020 11:14	J
8260B	Xylene (Total)			0.002	mg/Kg - dry	0.0005	08/10/2020 11:14	J
8270D SIM	Acenaphthene			0.00190	mg/Kg - dry	0.000513	08/07/2020 15:34	
8270D SIM	Acenaphthylene			0.00161	mg/Kg - dry	0.000455	08/07/2020 15:34	
8270D SIM	Anthracene			0.00670	mg/Kg - dry	0.000507	08/07/2020 15:34	
8270D SIM	Benzo(a)anthracene			0.0460	mg/Kg - dry	0.000525	08/07/2020 15:34	
8270D SIM	Benzo(a)pyrene			0.0496	mg/Kg - dry	0.000158	08/07/2020 15:34	
8270D SIM	Benzo(b)fluoranthene			0.0963	mg/Kg - dry	0.000164	08/07/2020 15:34	
8270D SIM	Benzo(g,h,i)perylene			0.0313	mg/Kg - dry	0.000275	08/07/2020 15:34	
8270D SIM	Benzo(k)fluoranthene			0.0391	mg/Kg - dry	0.000579	08/07/2020 15:34	
8270D SIM	Chrysene			0.0626	mg/Kg - dry	0.000305	08/07/2020 15:34	
8270D SIM	Dibenz(a,h)anthracene			0.00776	mg/Kg - dry	0.000332	08/07/2020 15:34	
8270D SIM	Fluoranthene			0.128	mg/Kg - dry	0.000630	08/07/2020 15:34	
8270D SIM	Fluorene			0.00148	mg/Kg - dry	0.000597	08/07/2020 15:34	
8270D SIM	Indeno(1,2,3-cd)pyrene			0.0411	mg/Kg - dry	0.000410	08/07/2020 15:34	
8270D SIM	2-Methylnaphthalene			0.0460	mg/Kg - dry	0.000646	08/07/2020 15:34	
8270D SIM	Naphthalene			0.0361	mg/Kg - dry	0.000556	08/07/2020 15:34	
8270D SIM	Phenanthrene			0.0982	mg/Kg - dry	0.000779	08/07/2020 15:34	
8270D SIM	Pyrene			0.0919	mg/Kg - dry	0.000461	08/07/2020 15:34	

Summary of Detected Analytes

**Project:** Former Wayne's Pinball Palace

**Report Number:** 20-218-0165

Client Sample ID	Lab Sample ID	Method	Parameters	Result	Units	Report Limit	Analyzed	Qualifiers
<b>167SSB0304</b>	<b>L 92399</b>							
SW-DRYWT	Moisture			16.1	%		08/10/2020 14:13	
TN EPH	Diesel Range Organics (C10-C28)			4.93	mg/Kg - dry	3.93	08/12/2020 12:08	
TN EPH	Oil Range Organics (>C28-C40)			7.53	mg/Kg - dry	3.93	08/12/2020 12:08	
TN EPH	TN EPH (C10-C40)			12.5	mg/Kg - dry	3.93	08/12/2020 12:08	
<b>167SSB0404</b>	<b>L 92400</b>							
6010D	Arsenic			13.4	mg/Kg - dry	1.45	08/11/2020 08:22	
6010D	Barium			149	mg/Kg - dry	0.785	08/11/2020 08:22	
6010D	Cadmium			0.481	mg/Kg - dry	0.121	08/11/2020 08:22	J
6010D	Chromium			17.6	mg/Kg - dry	1.43	08/11/2020 08:22	
6010D	Lead			48.1	mg/Kg - dry	1.09	08/11/2020 08:22	
7471A	Mercury			0.0429	mg/Kg - dry	0.00419	08/13/2020 17:31	
8270D SIM	Benzo(a)anthracene			0.00372	mg/Kg - dry	0.000532	08/07/2020 15:56	
8270D SIM	Benzo(a)pyrene			0.00308	mg/Kg - dry	0.000160	08/07/2020 15:56	
8270D SIM	Benzo(b)fluoranthene			0.00595	mg/Kg - dry	0.000166	08/07/2020 15:56	
8270D SIM	Benzo(k)fluoranthene			0.00192	mg/Kg - dry	0.000586	08/07/2020 15:56	
8270D SIM	Chrysene			0.00459	mg/Kg - dry	0.000309	08/07/2020 15:56	
8270D SIM	Fluoranthene			0.00849	mg/Kg - dry	0.000638	08/07/2020 15:56	
8270D SIM	Indeno(1,2,3-cd)pyrene			0.00113	mg/Kg - dry	0.000415	08/07/2020 15:56	
8270D SIM	2-Methylnaphthalene			0.00103	mg/Kg - dry	0.000654	08/07/2020 15:56	B
8270D SIM	Naphthalene			0.000864	mg/Kg - dry	0.000564	08/07/2020 15:56	B
8270D SIM	Phenanthrene			0.00261	mg/Kg - dry	0.000789	08/07/2020 15:56	
8270D SIM	Pyrene			0.00646	mg/Kg - dry	0.000467	08/07/2020 15:56	
SW-DRYWT	Moisture			17.2	%		08/07/2020 13:51	
<b>167SSB0504</b>	<b>L 92401</b>							
6010D	Arsenic			7.99	mg/Kg - dry	0.299	08/08/2020 02:16	
6010D	Barium			142	mg/Kg - dry	0.162	08/08/2020 02:16	
6010D	Cadmium			0.218	mg/Kg - dry	0.0249	08/08/2020 02:16	
6010D	Chromium			13.7	mg/Kg - dry	0.294	08/08/2020 02:16	
6010D	Lead			8.98	mg/Kg - dry	0.224	08/08/2020 02:16	
7471A	Mercury			0.0253	mg/Kg - dry	0.00381	08/13/2020 17:32	
8270D SIM	2-Methylnaphthalene			0.000872	mg/Kg - dry	0.000675	08/07/2020 16:18	B
8270D SIM	Naphthalene			0.000746	mg/Kg - dry	0.000582	08/07/2020 16:18	JB
SW-DRYWT	Moisture			19.8	%		08/07/2020 13:51	
<b>167SSB0604</b>	<b>L 92402</b>							
6010D	Arsenic			10.0	mg/Kg - dry	0.292	08/08/2020 02:31	

Summary of Detected Analytes

**Project:** Former Wayne's Pinball Palace

**Report Number:** 20-218-0165

Client Sample ID	Lab Sample ID	Method	Parameters	Result	Units	Report Limit	Analyzed	Qualifiers
<b>167SSB0604</b>	<b>L 92402</b>							
6010D	Barium			164	mg/Kg - dry	0.158	08/08/2020 02:31	
6010D	Cadmium			0.455	mg/Kg - dry	0.0243	08/08/2020 02:31	
6010D	Chromium			13.4	mg/Kg - dry	0.287	08/08/2020 02:31	
6010D	Lead			164	mg/Kg - dry	0.218	08/08/2020 02:31	
7471A	Mercury			0.0276	mg/Kg - dry	0.00364	08/13/2020 14:27	
8270D SIM	Acenaphthylene			0.0137	mg/Kg - dry	0.00232	08/07/2020 16:39	
8270D SIM	Anthracene			0.00560	mg/Kg - dry	0.00259	08/07/2020 16:39	
8270D SIM	Benzo(a)anthracene			0.273	mg/Kg - dry	0.00269	08/07/2020 16:39	
8270D SIM	Benzo(a)pyrene			0.251	mg/Kg - dry	0.000809	08/07/2020 16:39	
8270D SIM	Benzo(b)fluoranthene			0.283	mg/Kg - dry	0.000839	08/07/2020 16:39	
8270D SIM	Benzo(g,h,i)perylene			0.167	mg/Kg - dry	0.00141	08/07/2020 16:39	
8270D SIM	Benzo(k)fluoranthene			0.141	mg/Kg - dry	0.00296	08/07/2020 16:39	
8270D SIM	Chrysene			0.243	mg/Kg - dry	0.00156	08/07/2020 16:39	
8270D SIM	Dibenz(a,h)anthracene			0.0466	mg/Kg - dry	0.00170	08/07/2020 16:39	
8270D SIM	Fluoranthene			0.260	mg/Kg - dry	0.00322	08/07/2020 16:39	
8270D SIM	Indeno(1,2,3-cd)pyrene			0.197	mg/Kg - dry	0.00209	08/07/2020 16:39	
8270D SIM	2-Methylnaphthalene			0.0173	mg/Kg - dry	0.00330	08/07/2020 16:39	
8270D SIM	Naphthalene			0.0137	mg/Kg - dry	0.00285	08/07/2020 16:39	
8270D SIM	Phenanthrene			0.0342	mg/Kg - dry	0.00398	08/07/2020 16:39	
8270D SIM	Pyrene			0.232	mg/Kg - dry	0.00236	08/07/2020 16:39	
SW-DRYWT	Moisture			17.8	%		08/07/2020 13:51	
TN EPH	Diesel Range Organics (C10-C28)			22.3	mg/Kg - dry	4.01	08/12/2020 13:05	
TN EPH	Oil Range Organics (>C28-C40)			30.5	mg/Kg - dry	4.01	08/12/2020 13:05	
TN EPH	TN EPH (C10-C40)			52.8	mg/Kg - dry	4.01	08/12/2020 13:05	
<b>167SSB0704</b>	<b>L 92403</b>							
6010D	Arsenic			8.78	mg/Kg - dry	0.301	08/08/2020 02:37	
6010D	Barium			67.7	mg/Kg - dry	0.163	08/08/2020 02:37	
6010D	Cadmium			0.264	mg/Kg - dry	0.0250	08/08/2020 02:37	
6010D	Chromium			12.1	mg/Kg - dry	0.295	08/08/2020 02:37	
6010D	Lead			47.0	mg/Kg - dry	0.225	08/08/2020 02:37	
7471A	Mercury			0.110	mg/Kg - dry	0.00436	08/13/2020 14:28	
8260B	n-Butylbenzene			1.93	mg/Kg - dry	0.008	08/10/2020 18:00	
8260B	sec-Butyl benzene			0.859	mg/Kg - dry	0.009	08/10/2020 18:00	
8260B	Ethylbenzene			38.5	mg/Kg - dry	0.061	08/11/2020 18:41	
8260B	Isopropylbenzene			2.98	mg/Kg - dry	0.005	08/10/2020 18:00	E
8260B	m,p-Xylene			247	mg/Kg - dry	0.745	08/12/2020 14:38	

Summary of Detected Analytes

**Project:** Former Wayne's Pinball Palace

**Report Number:** 20-218-0165

Client Sample ID	Lab Sample ID	Method	Parameters	Result	Units	Report Limit	Analyzed	Qualifiers
<b>167SSB0704</b>	<b>L 92403</b>							
8260B	Naphthalene			1.29	mg/Kg - dry	0.042	08/10/2020 18:00	
8260B	n-Propylbenzene			9.41	mg/Kg - dry	0.006	08/10/2020 18:00	E
8260B	Toluene			0.670	mg/Kg - dry	0.021	08/10/2020 18:00	
8260B	1,2,4-Trimethylbenzene			273	mg/Kg - dry	0.496	08/12/2020 14:38	
8260B	1,3,5-Trimethylbenzene			10.3	mg/Kg - dry	0.008	08/10/2020 18:00	E
8260B	Xylene (Total)			247	mg/Kg - dry	0.002	08/10/2020 18:00	
8270D SIM	Acenaphthene			0.174	mg/Kg - dry	0.00152	08/07/2020 17:01	
8270D SIM	Acenaphthylene			0.0708	mg/Kg - dry	0.00134	08/07/2020 17:01	
8270D SIM	Anthracene			0.0333	mg/Kg - dry	0.00149	08/07/2020 17:01	
8270D SIM	Benzo(a)anthracene			0.0282	mg/Kg - dry	0.00155	08/07/2020 17:01	
8270D SIM	Benzo(a)pyrene			0.00932	mg/Kg - dry	0.000467	08/07/2020 17:01	
8270D SIM	Benzo(b)fluoranthene			0.0142	mg/Kg - dry	0.000484	08/07/2020 17:01	
8270D SIM	Benzo(g,h,i)perylene			0.0153	mg/Kg - dry	0.000812	08/07/2020 17:01	
8270D SIM	Benzo(k)fluoranthene			0.00340	mg/Kg - dry	0.00170	08/07/2020 17:01	
8270D SIM	Chrysene			0.0258	mg/Kg - dry	0.000899	08/07/2020 17:01	
8270D SIM	Fluoranthene			0.0549	mg/Kg - dry	0.00185	08/07/2020 17:01	
8270D SIM	Fluorene			0.242	mg/Kg - dry	0.00175	08/07/2020 17:01	
8270D SIM	Indeno(1,2,3-cd)pyrene			0.00536	mg/Kg - dry	0.00121	08/07/2020 17:01	
8270D SIM	2-Methylnaphthalene			25.2	mg/Kg - dry	0.0381	08/11/2020 15:33	
8270D SIM	Naphthalene			29.1	mg/Kg - dry	0.0328	08/11/2020 15:33	
8270D SIM	Phenanthrene			0.328	mg/Kg - dry	0.00229	08/07/2020 17:01	
8270D SIM	Pyrene			0.106	mg/Kg - dry	0.00137	08/07/2020 17:01	
SW-DRYWT	Moisture			20.2	%		08/07/2020 13:51	
TN EPH	Diesel Range Organics (C10-C28)			3610	mg/Kg - dry	414	08/12/2020 15:18	
TN EPH	TN EPH (C10-C40)			3610	mg/Kg - dry	41.4	08/12/2020 14:59	
<b>167SSB0804</b>	<b>L 92404</b>							
6010D	Arsenic			0.933	mg/Kg - dry	0.270	08/08/2020 02:42	
6010D	Barium			16.5	mg/Kg - dry	0.146	08/08/2020 02:42	
6010D	Cadmium			0.0330	mg/Kg - dry	0.0224	08/08/2020 02:42	J
6010D	Chromium			3.50	mg/Kg - dry	0.265	08/08/2020 02:42	
6010D	Lead			3.94	mg/Kg - dry	0.202	08/08/2020 02:42	
7471A	Mercury			0.00980	mg/Kg - dry	0.00359	08/13/2020 14:29	J
8270D SIM	Acenaphthene			0.00102	mg/Kg - dry	0.000484	08/07/2020 17:22	
8270D SIM	Anthracene			0.00551	mg/Kg - dry	0.000479	08/07/2020 17:22	
8270D SIM	Benzo(a)anthracene			0.0413	mg/Kg - dry	0.000496	08/07/2020 17:22	
8270D SIM	Benzo(a)pyrene			0.0371	mg/Kg - dry	0.000149	08/07/2020 17:22	

**Summary of Detected Analytes**

**Project:** Former Wayne's Pinball Palace

**Report Number:** 20-218-0165

Client Sample ID	Lab Sample ID					
Method	Parameters	Result	Units	Report Limit	Analyzed	Qualifiers
<b>167SSB0804</b>	<b>L 92404</b>					
8270D SIM	Benzo(b)fluoranthene	0.0516	mg/Kg - dry	0.000155	08/07/2020 17:22	
8270D SIM	Benzo(g,h,i)perylene	0.0236	mg/Kg - dry	0.000259	08/07/2020 17:22	
8270D SIM	Benzo(k)fluoranthene	0.0232	mg/Kg - dry	0.000546	08/07/2020 17:22	
8270D SIM	Chrysene	0.0350	mg/Kg - dry	0.000287	08/07/2020 17:22	
8270D SIM	Dibenz(a,h)anthracene	0.00625	mg/Kg - dry	0.000313	08/07/2020 17:22	
8270D SIM	Fluoranthene	0.0668	mg/Kg - dry	0.000595	08/07/2020 17:22	
8270D SIM	Fluorene	0.00129	mg/Kg - dry	0.000563	08/07/2020 17:22	
8270D SIM	Indeno(1,2,3-cd)pyrene	0.0310	mg/Kg - dry	0.000386	08/07/2020 17:22	
8270D SIM	2-Methylnaphthalene	0.00397	mg/Kg - dry	0.000609	08/07/2020 17:22	B
8270D SIM	Naphthalene	0.00325	mg/Kg - dry	0.000525	08/07/2020 17:22	B
8270D SIM	Phenanthrene	0.0201	mg/Kg - dry	0.000735	08/07/2020 17:22	
8270D SIM	Pyrene	0.0537	mg/Kg - dry	0.000435	08/07/2020 17:22	
SW-DRYWT	Moisture	11.1	%		08/07/2020 13:51	
TN EPH	Diesel Range Organics (C10-C28)	4.71	mg/Kg - dry	3.71	08/12/2020 13:24	
TN EPH	Oil Range Organics (>C28-C40)	10.1	mg/Kg - dry	3.71	08/12/2020 13:24	
TN EPH	TN EPH (C10-C40)	14.8	mg/Kg - dry	3.71	08/12/2020 13:24	

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Client: Ensafe  
Project: Former Wayne's Pinball Palace  
Lab Report Number: 20-218-0165  
Date: 8/13/2020

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**CASE NARRATIVE**

**Ultrasonic Extraction for 8270 Method 3550B**

Sample 92397 (167SSB0208)

QC Batch No: L505071/L505071

The weight/volume extracted was reduced during the extraction procedure due to the nature of the sample. Reporting limits are factored for the sample size reduction.

Sample 92398 (167SSB0212)

QC Batch No: L505071/L505071

The weight/volume extracted was reduced during the extraction procedure due to the nature of the sample. Reporting limits are factored for the sample size reduction.

Sample 92403 (167SSB0704)

QC Batch No: L505071/L505071

The weight/volume extracted was reduced during the extraction procedure due to the nature of the sample. Reporting limits are factored for the sample size reduction.

**Metals Analysis Method 6010D**

Analyte: Silver

QC Batch No: L505494

The matrix spike and/or the matrix spike duplicate was outside quality control acceptance ranges. A post digestion spike was performed and passed quality control acceptance ranges. No matrix interference is suspected.

Analyte: Arsenic

QC Batch No: L505494

The matrix spike and/or the matrix spike duplicate was outside quality control acceptance ranges. A post digestion spike was performed and passed quality control acceptance ranges. No matrix interference is suspected.

Analyte: Barium

QC Batch No: L505494

The matrix spike, matrix spike duplicate and the dilution test were all outside of the quality control acceptance ranges. Matrix interference is suspected.

Analyte: Cadmium

QC Batch No: L505494

The matrix spike, matrix spike duplicate and the post digestion spike were all outside of the quality control acceptance ranges. Matrix interference is suspected

Analyte: Chromium

QC Batch No: L505494

The matrix spike, matrix spike duplicate and the dilution test were all outside of the quality control acceptance ranges. Matrix interference is suspected.



Analyte: Lead

QC Batch No: L505494

The matrix spike, matrix spike duplicate and the dilution test were all outside of the quality control acceptance ranges. Matrix interference is suspected.

Analyte: Selenium

QC Batch No: L505748

The matrix spike and/or the matrix spike duplicate was outside quality control acceptance ranges. A post digestion spike was performed and passed quality control acceptance ranges. No matrix interference is suspected.

Sample 92399 (167SSB0304)

QC Batch No: L505494/L505057

One or more Internal Standards are outside method acceptance criteria. Re-analysis and/or sample dilutions are required.

Sample 92400 (167SSB0404)

QC Batch No: L505494/L505057

One or more Internal Standards are outside method acceptance criteria. Re-analysis and/or sample dilutions are required.

#### **Volatile Organic Compounds - GC/MS Method 8260B**

Sample 92398 (167SSB0212)

QC Batch No: L505699/L505698

Data is reported with the qualifier E, to indicate concentrations above the calibration range. Results for this analyte should be considered estimated concentration. The analysis of this sample by medium level technique, resulted in an estimated concentration (J value). The concentration of this analyte in the sample was not sufficiently high enough to produce a result by medium level methodology.

QC Batch No: L505699/L505698

Surrogate recovery(s) was flagged as outside QC limits due to high levels of target and/or non-target analytes. Batch QC samples (method blank and laboratory control samples) all showed surrogates within QC limits.

Sample 92403 (167SSB0704)

QC Batch No: L505699/L505698

Data is reported with the qualifier E, to indicate concentrations above the calibration range for three compounds. Results for these analytes should be considered estimated concentrations. The analysis of this sample by medium level technique, resulted in an estimated concentration (J value). The concentration of these analytes in the sample was not sufficiently high enough to produce a result by medium level methodology.

#### **Semivolatile Organic Compounds - GC/MS (SIM) Method 8270D SIM**

Sample 92398 (167SSB0212)

QC Batch No: L505238/L505071

Surrogate(s) was flagged for recovery outside QC limits in this project sample. This sample was re-analyzed for verification, and/or dilution of target analytes. Batch QC samples (method blank and laboratory control samples) all showed surrogates within QC limits.

Sample 92403 (167SSB0704)

QC Batch No: L505238/L505071

Surrogate(s) flagged for recovery outside QC limits in this project sample due to a required dilution. The dilution factor resulted in surrogate concentration(s) below the minimum detectable level. Batch QC samples (method blank and laboratory control samples) all showed surrogates within QC limits.



Analyte: 2-Methylnaphthalene

QC Batch No: L505238/L505071

Target analyte(s) was identified in the method blank associated with this project, below the Method Quantitation Limit. The result for the method blank and sample are flagged with the data qualifier J, Estimated Concentration. Per laboratory protocol any associated affected sample result is flagged "B" to indicate that it was detected in the method blank.

Analyte: Naphthalene

QC Batch No: L505238/L505071

Target analyte(s) was identified in the method blank associated with this project, below the Method Quantitation Limit. The result for the method blank and sample are flagged with the data qualifier J, Estimated Concentration. Per laboratory protocol any associated affected sample result is flagged "B" to indicate that it was detected in the method blank.

03180

Ensafe  
Ms. Chelsey Kipper  
5724 Summer Tree Drive  
Memphis , TN 38134

Project Former Wayne's Pinball Palace  
Information : 167 Chelsea Avenue, Memphis, TN  
Project No. 0888826703

Report Date : 08/14/2020  
Received : 08/05/2020



Report Number : **20-218-0165**

**REPORT OF ANALYSIS**

Rebekah Ross  
Project Manager

Lab No : **92395**

Matrix: **Solids**

Sample ID : **167SSB0116**

Sampled: **8/4/2020 10:05**

Test	Results	Units	MDL	MQL	DF	Date / Time Analyzed	By	Analytical Method
Moisture	<b>22.0</b>	%			1	08/10/20 14:13	FMM	SW-DRYWT
Arsenic	<b>2.71</b>	mg/Kg - dry	0.308	0.641	1	08/08/20 01:45	TJS	6010D
Barium	<b>73.2</b>	mg/Kg - dry	0.167	0.641	1	08/08/20 01:45	TJS	6010D
Cadmium	<b>0.279</b>	mg/Kg - dry	0.0256	0.128	1	08/08/20 01:45	TJS	6010D
Chromium	<b>16.4</b>	mg/Kg - dry	0.302	0.320	1	08/08/20 01:45	TJS	6010D
Lead	<b>6.55</b>	mg/Kg - dry	0.230	0.384	1	08/08/20 01:45	TJS	6010D
Mercury	<b>0.0171 J</b>	mg/Kg - dry	0.00383	0.0174	1	08/13/20 17:23	DDB	7471A
Selenium	<0.410	mg/Kg - dry	0.410	0.641	1	08/11/20 07:46	TJS	6010D
Silver	<0.205	mg/Kg - dry	0.205	0.321	1	08/08/20 01:45	TJS	6010D

**Qualifiers/  
Definitions**

*	Outside QC Limit	B	Analyte detected in blank
DF	Dilution Factor	E	Result above cal range
J	Estimated value	L	Limit Exceeded
MQL	Method Quantitation Limit		

03180

Ensafe  
 Ms. Chelsey Kipper  
 5724 Summer Tree Drive  
 Memphis , TN 38134

Project Former Wayne's Pinball Palace  
 Information : 167 Chelsea Avenue, Memphis, TN  
 Project No. 0888826703

Report Date : 08/14/2020  
 Received : 08/05/2020



Report Number : **20-218-0165**

**REPORT OF ANALYSIS**

Rebekah Ross  
 Project Manager

Lab No : **92395**

Matrix: **Solids**

Sample ID : **167SSB0116**

Sampled: **8/4/2020 10:05**

**Analytical Method:** 8260B                      **Prep Batch(es):** **L505228** 08/06/20 08:26  
**Prep Method:** 5030A

Test	Results	Units	MDL	MQL	DF	Date / Time Analyzed	By	Analytical Batch
Acetone	<0.029	mg/Kg - dry	0.029	0.256	1	08/06/20 17:12	RED	L505241
Acetonitrile	<0.291	mg/Kg - dry	0.291	0.641	1	08/06/20 17:12	RED	L505241
Acrolein	<0.040	mg/Kg - dry	0.040	0.256	1	08/06/20 17:12	RED	L505241
Acrylonitrile	<0.016	mg/Kg - dry	0.016	0.256	1	08/06/20 17:12	RED	L505241
Benzene	<0.003	mg/Kg - dry	0.003	0.012	1	08/06/20 17:12	RED	L505241
Bromobenzene	<0.005	mg/Kg - dry	0.005	0.012	1	08/06/20 17:12	RED	L505241
Bromochloromethane	<0.008	mg/Kg - dry	0.008	0.012	1	08/06/20 17:12	RED	L505241
Bromodichloromethane	<0.012	mg/Kg - dry	0.012	0.012	1	08/06/20 17:12	RED	L505241
Bromoform	<0.011	mg/Kg - dry	0.011	0.012	1	08/06/20 17:12	RED	L505241
Bromomethane	<0.008	mg/Kg - dry	0.008	0.012	1	08/06/20 17:12	RED	L505241
Methyl Ethyl Ketone (MEK)	<0.049	mg/Kg - dry	0.049	0.256	1	08/06/20 17:12	RED	L505241
n-Butylbenzene	<0.008	mg/Kg - dry	0.008	0.012	1	08/06/20 17:12	RED	L505241
sec-Butyl benzene	<0.009	mg/Kg - dry	0.009	0.012	1	08/06/20 17:12	RED	L505241
tert-Butyl benzene	<0.006	mg/Kg - dry	0.006	0.012	1	08/06/20 17:12	RED	L505241
Carbon Disulfide	<0.006	mg/Kg - dry	0.006	0.012	1	08/06/20 17:12	RED	L505241
Carbon Tetrachloride	<0.002	mg/Kg - dry	0.002	0.012	1	08/06/20 17:12	RED	L505241
Chlorobenzene	<0.003	mg/Kg - dry	0.003	0.012	1	08/06/20 17:12	RED	L505241
Chlorodibromomethane	<0.012	mg/Kg - dry	0.012	0.012	1	08/06/20 17:12	RED	L505241
Chloroethane	<0.007	mg/Kg - dry	0.007	0.012	1	08/06/20 17:12	RED	L505241
2-Chloroethylvinyl Ether	<0.035	mg/Kg - dry	0.035	0.064	1	08/06/20 17:12	RED	L505241
Chloroform	<0.012	mg/Kg - dry	0.012	0.012	1	08/06/20 17:12	RED	L505241
Chloromethane	<0.006	mg/Kg - dry	0.006	0.012	1	08/06/20 17:12	RED	L505241

Qualifiers/Definitions				
*	Outside QC Limit		B	Analyte detected in blank
DF	Dilution Factor		E	Result above cal range
I	Recovery out of range		J	Estimated value
MQL	Method Quantitation Limit			

03180

Ensafe  
 Ms. Chelsey Kipper  
 5724 Summer Tree Drive  
 Memphis , TN 38134

Project Former Wayne's Pinball Palace  
 Information : 167 Chelsea Avenue, Memphis, TN  
 Project No. 0888826703

Report Date : 08/14/2020  
 Received : 08/05/2020



Report Number : **20-218-0165**

**REPORT OF ANALYSIS**

Rebekah Ross  
 Project Manager

Lab No : **92395**

Matrix: **Solids**

Sample ID : **167SSB0116**

Sampled: **8/4/2020 10:05**

**Analytical Method:** 8260B      **Prep Batch(es):** **L505228** 08/06/20 08:26  
**Prep Method:** 5030A

Test	Results	Units	MDL	MQL	DF	Date / Time Analyzed	By	Analytical Batch
2-Chlorotoluene	<0.007	mg/Kg - dry	0.007	0.012	1	08/06/20 17:12	RED	L505241
4-Chlorotoluene	<0.008	mg/Kg - dry	0.008	0.012	1	08/06/20 17:12	RED	L505241
1,2-Dibromo-3-Chloropropane	<0.027	mg/Kg - dry	0.027	0.064	1	08/06/20 17:12	RED	L505241
1,2-Dibromoethane	<0.003	mg/Kg - dry	0.003	0.012	1	08/06/20 17:12	RED	L505241
Dibromomethane	<0.003	mg/Kg - dry	0.003	0.012	1	08/06/20 17:12	RED	L505241
1,2-Dichlorobenzene	<0.007	mg/Kg - dry	0.007	0.012	1	08/06/20 17:12	RED	L505241
1,3-Dichlorobenzene	<0.005	mg/Kg - dry	0.005	0.012	1	08/06/20 17:12	RED	L505241
1,4-Dichlorobenzene	<0.008	mg/Kg - dry	0.008	0.012	1	08/06/20 17:12	RED	L505241
Dichlorodifluoromethane	<0.008	mg/Kg - dry	0.008	0.012	1	08/06/20 17:12	RED	L505241
1,1-Dichloroethane	<0.005	mg/Kg - dry	0.005	0.012	1	08/06/20 17:12	RED	L505241
1,2-Dichloroethane	<0.005	mg/Kg - dry	0.005	0.012	1	08/06/20 17:12	RED	L505241
1,1-Dichloroethene	<0.006	mg/Kg - dry	0.006	0.012	1	08/06/20 17:12	RED	L505241
cis-1,2-Dichloroethene	<0.004	mg/Kg - dry	0.004	0.012	1	08/06/20 17:12	RED	L505241
trans-1,2-Dichloroethene	<0.007	mg/Kg - dry	0.007	0.012	1	08/06/20 17:12	RED	L505241
1,2-Dichloroethene (Total)	<0.004	mg/Kg - dry	0.004	0.012	1	08/06/20 17:12		L505241
1,2-Dichloropropane	<0.005	mg/Kg - dry	0.005	0.012	1	08/06/20 17:12	RED	L505241
1,3-Dichloropropane	<0.006	mg/Kg - dry	0.006	0.012	1	08/06/20 17:12	RED	L505241
2,2-Dichloropropane	<0.004	mg/Kg - dry	0.004	0.012	1	08/06/20 17:12	RED	L505241
1,1-Dichloropropene	<0.004	mg/Kg - dry	0.004	0.012	1	08/06/20 17:12	RED	L505241
cis-1,3-Dichloropropene	<0.003	mg/Kg - dry	0.003	0.012	1	08/06/20 17:12	RED	L505241
trans-1,3-Dichloropropene	<0.003	mg/Kg - dry	0.003	0.012	1	08/06/20 17:12	RED	L505241
Ethyl Acetate	<0.048	mg/Kg - dry	0.048	0.256	1	08/06/20 17:12	RED	L505241

Qualifiers/Definitions				
*	Outside QC Limit		B	Analyte detected in blank
DF	Dilution Factor		E	Result above cal range
I	Recovery out of range		J	Estimated value
MQL	Method Quantitation Limit			

03180

Ensafe  
Ms. Chelsey Kipper  
5724 Summer Tree Drive  
Memphis, TN 38134

Project Former Wayne's Pinball Palace  
Information : 167 Chelsea Avenue, Memphis, TN  
Project No. 0888826703

Report Date : 08/14/2020  
Received : 08/05/2020



Report Number : **20-218-0165**

**REPORT OF ANALYSIS**

Rebekah Ross  
Project Manager

Lab No : **92395**

Matrix: **Solids**

Sample ID : **167SSB0116**

Sampled: **8/4/2020 10:05**

**Analytical Method:** 8260B      **Prep Batch(es):** **L505228** 08/06/20 08:26  
**Prep Method:** 5030A

Test	Results	Units	MDL	MQL	DF	Date / Time Analyzed	By	Analytical Batch
Ethylbenzene	<0.004	mg/Kg - dry	0.004	0.012	1	08/06/20 17:12	RED	L505241
Hexachlorobutadiene	<0.006	mg/Kg - dry	0.006	0.012	1	08/06/20 17:12	RED	L505241
2-Hexanone	<0.032	mg/Kg - dry	0.032	0.064	1	08/06/20 17:12	RED	L505241
Iodomethane	<0.005	mg/Kg - dry	0.005	0.064	1	08/06/20 17:12	RED	L505241
Isopropylbenzene	<0.005	mg/Kg - dry	0.005	0.012	1	08/06/20 17:12	RED	L505241
4-Isopropyl toluene	<0.006	mg/Kg - dry	0.006	0.012	1	08/06/20 17:12	RED	L505241
4-Methyl-2-Pentanone	<0.033	mg/Kg - dry	0.033	0.064	1	08/06/20 17:12	RED	L505241
Methylene Chloride	<0.037	mg/Kg - dry	0.037	0.256	1	08/06/20 17:12	RED	L505241
Methyl tert-butyl ether (MTBE)	<0.009	mg/Kg - dry	0.009	0.012	1	08/06/20 17:12	RED	L505241
m,p-Xylene	<0.007	mg/Kg - dry	0.007	0.025	1	08/06/20 17:12	RED	L505241
Naphthalene	<0.043	mg/Kg - dry	0.043	0.064	1	08/06/20 17:12	RED	L505241
o-Xylene	<0.002	mg/Kg - dry	0.002	0.012	1	08/06/20 17:12	RED	L505241
n-Propylbenzene	<0.006	mg/Kg - dry	0.006	0.012	1	08/06/20 17:12	RED	L505241
Styrene	<0.010	mg/Kg - dry	0.010	0.012	1	08/06/20 17:12	RED	L505241
1,1,1,2-Tetrachloroethane	<0.006	mg/Kg - dry	0.006	0.012	1	08/06/20 17:12	RED	L505241
1,1,2,2-Tetrachloroethane	<0.009	mg/Kg - dry	0.009	0.012	1	08/06/20 17:12	RED	L505241
Tetrachloroethene	<0.005	mg/Kg - dry	0.005	0.012	1	08/06/20 17:12	RED	L505241
Toluene	<0.022	mg/Kg - dry	0.022	0.064	1	08/06/20 17:12	RED	L505241
1,2,3-Trichlorobenzene	<0.010	mg/Kg - dry	0.010	0.012	1	08/06/20 17:12	RED	L505241
1,2,4-Trichlorobenzene	<0.006	mg/Kg - dry	0.006	0.012	1	08/06/20 17:12	RED	L505241
1,1,1-Trichloroethane	<0.004	mg/Kg - dry	0.004	0.012	1	08/06/20 17:12	RED	L505241
1,1,2-Trichloroethane	<0.003	mg/Kg - dry	0.003	0.012	1	08/06/20 17:12	RED	L505241

Qualifiers/ Definitions				
*	Outside QC Limit		B	Analyte detected in blank
DF	Dilution Factor		E	Result above cal range
I	Recovery out of range		J	Estimated value
MQL	Method Quantitation Limit			

03180

Ensafe  
 Ms. Chelsey Kipper  
 5724 Summer Tree Drive  
 Memphis, TN 38134

Project Former Wayne's Pinball Palace  
 Information : 167 Chelsea Avenue, Memphis, TN  
 Project No. 0888826703

Report Date : 08/14/2020  
 Received : 08/05/2020



Report Number : **20-218-0165**

**REPORT OF ANALYSIS**

Rebekah Ross  
 Project Manager

Lab No : **92395**

Matrix: **Solids**

Sample ID : **167SSB0116**

Sampled: **8/4/2020 10:05**

**Analytical Method:** 8260B                      **Prep Batch(es):** **L505228** 08/06/20 08:26  
**Prep Method:** 5030A

Test	Results	Units	MDL	MQL	DF	Date / Time Analyzed	By	Analytical Batch
Trichloroethene	<0.003	mg/Kg - dry	0.003	0.012	1	08/06/20 17:12	RED	L505241
Trichlorofluoromethane	<0.007	mg/Kg - dry	0.007	0.012	1	08/06/20 17:12	RED	L505241
1,2,3-Trichloropropane	<0.003	mg/Kg - dry	0.003	0.012	1	08/06/20 17:12	RED	L505241
1,2,4-Trimethylbenzene	<0.005	mg/Kg - dry	0.005	0.012	1	08/06/20 17:12	RED	L505241
1,3,5-Trimethylbenzene	<0.009	mg/Kg - dry	0.009	0.012	1	08/06/20 17:12	RED	L505241
Vinyl Acetate	<0.023	mg/Kg - dry	0.023	0.256	1	08/06/20 17:12	RED	L505241
Vinyl Chloride	<0.003	mg/Kg - dry	0.003	0.012	1	08/06/20 17:12	RED	L505241
Xylene (Total)	<0.002	mg/Kg - dry	0.002	0.012	1	08/06/20 17:12		L505241
Surrogate: 4-Bromofluorobenzene	108		Limits: 60-130%		1	08/06/20 17:12	RED	L505241
Surrogate: 1,2-Dichloroethane - d4	109		Limits: 60-132%		1	08/06/20 17:12	RED	L505241
Surrogate: Toluene-d8	115		Limits: 70-130%		1	08/06/20 17:12	RED	L505241

**Analytical Method:** 8270D SIM                      **Prep Batch(es):** **L505071** 08/06/20 12:00  
**Prep Method:** 3550B

Test	Results	Units	MDL	MQL	DF	Date / Time Analyzed	By	Analytical Batch
Acenaphthene	<b>0.000801 J</b>	mg/Kg - dry	0.000552	0.000858	1	08/07/20 14:09	MLR	L505238
Acenaphthylene	<0.000489	mg/Kg - dry	0.000489	0.000858	1	08/07/20 14:09	MLR	L505238
Anthracene	<0.000546	mg/Kg - dry	0.000546	0.000858	1	08/07/20 14:09	MLR	L505238
Benzo(a)anthracene	<0.000565	mg/Kg - dry	0.000565	0.000858	1	08/07/20 14:09	MLR	L505238
Benzo(a)pyrene	<0.000170	mg/Kg - dry	0.000170	0.000858	1	08/07/20 14:09	MLR	L505238
Benzo(b)fluoranthene	<0.000176	mg/Kg - dry	0.000176	0.000858	1	08/07/20 14:09	MLR	L505238
Benzo(g,h,i)perylene	<0.000296	mg/Kg - dry	0.000296	0.000858	1	08/07/20 14:09	MLR	L505238

Qualifiers/Definitions				
*	Outside QC Limit		B	Analyte detected in blank
DF	Dilution Factor		E	Result above cal range
I	Recovery out of range		J	Estimated value
MQL	Method Quantitation Limit			



03180  
 Ensafe  
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 Memphis, TN 38134

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 Information : 167 Chelsea Avenue, Memphis, TN  
 Project No. 0888826703

Report Date : 08/14/2020  
 Received : 08/05/2020



Report Number : **20-218-0165**

**REPORT OF ANALYSIS**

Rebekah Ross  
 Project Manager

Lab No : **92395**  
 Sample ID : **167SSB0116**

Matrix: **Solids**  
 Sampled: **8/4/2020 10:05**

**Analytical Method:** 8270D SIM      **Prep Batch(es):** **L505071** 08/06/20 12:00  
**Prep Method:** 3550B

Test	Results	Units	MDL	MQL	DF	Date / Time Analyzed	By	Analytical Batch
Benzo(k)fluoranthene	<0.000623	mg/Kg - dry	0.000623	0.000858	1	08/07/20 14:09	MLR	L505238
Chrysene	<0.000328	mg/Kg - dry	0.000328	0.000858	1	08/07/20 14:09	MLR	L505238
Dibenz(a,h)anthracene	<0.000357	mg/Kg - dry	0.000357	0.000858	1	08/07/20 14:09	MLR	L505238
Fluoranthene	<0.000678	mg/Kg - dry	0.000678	0.000858	1	08/07/20 14:09	MLR	L505238
Fluorene	<0.000642	mg/Kg - dry	0.000642	0.000858	1	08/07/20 14:09	MLR	L505238
Indeno(1,2,3-cd)pyrene	<0.000441	mg/Kg - dry	0.000441	0.000858	1	08/07/20 14:09	MLR	L505238
2-Methylnaphthalene	<b>0.000941 B</b>	mg/Kg - dry	0.000694	0.000858	1	08/07/20 14:09	MLR	L505238
Naphthalene	<b>0.00496 B</b>	mg/Kg - dry	0.000598	0.000858	1	08/07/20 14:09	MLR	L505238
Phenanthrene	<0.000838	mg/Kg - dry	0.000838	0.000858	1	08/07/20 14:09	MLR	L505238
Pyrene	<0.000496	mg/Kg - dry	0.000496	0.000858	1	08/07/20 14:09	MLR	L505238
Surrogate: 2-Fluorobiphenyl	34.8			Limits: 33-115%	1	08/07/20 14:09	MLR	L505238
Surrogate: Nitrobenzene-d5	33.0			Limits: 29-110%	1	08/07/20 14:09	MLR	L505238
Surrogate: 4-Terphenyl-d14	46.5			Limits: 33-122%	1	08/07/20 14:09	MLR	L505238

**Analytical Method:** TN EPH      **Prep Batch(es):** **L505693** 08/11/20 10:04  
**Prep Method:** 3550B

Test	Results	Units	MDL	MQL	DF	Date / Time Analyzed	By	Analytical Batch
Diesel Range Organics (C10-C28)	<4.23	mg/Kg - dry	4.23	4.23	1	08/12/20 10:51	MMK	L505941
Oil Range Organics (>C28-C40)	<4.23	mg/Kg - dry	4.23	4.23	1	08/12/20 10:51	MMK	L505941
TN EPH (C10-C40)	<4.23	mg/Kg - dry	4.23	4.23	1	08/12/20 10:51		L505941
Surrogate: OTP Surrogate	69.7			Limits: 50-150%	1	08/12/20 10:51	MMK	L505941

Qualifiers/Definitions				
*	Outside QC Limit		B	Analyte detected in blank
DF	Dilution Factor		E	Result above cal range
I	Recovery out of range		J	Estimated value
MQL	Method Quantitation Limit			

03180

Ensafe  
Ms. Chelsey Kipper  
5724 Summer Tree Drive  
Memphis , TN 38134

Project Former Wayne's Pinball Palace  
Information : 167 Chelsea Avenue, Memphis, TN  
Project No. 0888826703

Report Date : 08/14/2020  
Received : 08/05/2020



Report Number : **20-218-0165**

**REPORT OF ANALYSIS**

Rebekah Ross  
Project Manager

Lab No : **92396**

Matrix: **Solids**

Sample ID : **167SSB0112**

Sampled: **8/4/2020 10:10**

Test	Results	Units	MDL	MQL	DF	Date / Time Analyzed	By	Analytical Method
Moisture	<b>20.6</b>	%			1	08/10/20 14:13	FMM	SW-DRYWT
Arsenic	<b>3.73</b>	mg/Kg - dry	0.302	0.630	1	08/08/20 01:50	TJS	6010D
Barium	<b>36.1</b>	mg/Kg - dry	0.164	0.630	1	08/08/20 01:50	TJS	6010D
Cadmium	<b>0.0661 J</b>	mg/Kg - dry	0.0251	0.126	1	08/08/20 01:50	TJS	6010D
Chromium	<b>11.0</b>	mg/Kg - dry	0.297	0.314	1	08/08/20 01:50	TJS	6010D
Lead	<b>4.99</b>	mg/Kg - dry	0.226	0.377	1	08/08/20 01:50	TJS	6010D
Mercury	<b>0.0113 J</b>	mg/Kg - dry	0.00413	0.0188	1	08/13/20 17:24	DDB	7471A
Selenium	<0.403	mg/Kg - dry	0.403	0.629	1	08/11/20 07:51	TJS	6010D
Silver	<b>0.602</b>	mg/Kg - dry	0.202	0.315	1	08/08/20 01:50	TJS	6010D

**Qualifiers/  
Definitions**

*	Outside QC Limit	B	Analyte detected in blank
DF	Dilution Factor	E	Result above cal range
J	Estimated value	L	Limit Exceeded
MQL	Method Quantitation Limit		

03180

Ensafe  
 Ms. Chelsey Kipper  
 5724 Summer Tree Drive  
 Memphis, TN 38134

Project Former Wayne's Pinball Palace  
 Information : 167 Chelsea Avenue, Memphis, TN  
 Project No. 0888826703

Report Date : 08/14/2020  
 Received : 08/05/2020



Report Number : **20-218-0165**

**REPORT OF ANALYSIS**

Rebekah Ross  
 Project Manager

Lab No : **92396**

Matrix: **Solids**

Sample ID : **167SSB0112**

Sampled: **8/4/2020 10:10**

**Analytical Method:** 8260B      **Prep Batch(es):** **L505228** 08/06/20 08:26  
**Prep Method:** 5030A

Test	Results	Units	MDL	MQL	DF	Date / Time Analyzed	By	Analytical Batch
Acetone	<0.025	mg/Kg - dry	0.025	0.220	1	08/06/20 17:52	RED	L505241
Acetonitrile	<0.250	mg/Kg - dry	0.250	0.552	1	08/06/20 17:52	RED	L505241
Acrolein	<0.035	mg/Kg - dry	0.035	0.220	1	08/06/20 17:52	RED	L505241
Acrylonitrile	<0.013	mg/Kg - dry	0.013	0.220	1	08/06/20 17:52	RED	L505241
Benzene	<0.003	mg/Kg - dry	0.003	0.011	1	08/06/20 17:52	RED	L505241
Bromobenzene	<0.004	mg/Kg - dry	0.004	0.011	1	08/06/20 17:52	RED	L505241
Bromochloromethane	<0.007	mg/Kg - dry	0.007	0.011	1	08/06/20 17:52	RED	L505241
Bromodichloromethane	<0.010	mg/Kg - dry	0.010	0.011	1	08/06/20 17:52	RED	L505241
Bromoform	<0.010	mg/Kg - dry	0.010	0.011	1	08/06/20 17:52	RED	L505241
Bromomethane	<0.007	mg/Kg - dry	0.007	0.011	1	08/06/20 17:52	RED	L505241
Methyl Ethyl Ketone (MEK)	<0.042	mg/Kg - dry	0.042	0.220	1	08/06/20 17:52	RED	L505241
n-Butylbenzene	<0.007	mg/Kg - dry	0.007	0.011	1	08/06/20 17:52	RED	L505241
sec-Butyl benzene	<0.007	mg/Kg - dry	0.007	0.011	1	08/06/20 17:52	RED	L505241
tert-Butyl benzene	<0.005	mg/Kg - dry	0.005	0.011	1	08/06/20 17:52	RED	L505241
Carbon Disulfide	<0.005	mg/Kg - dry	0.005	0.011	1	08/06/20 17:52	RED	L505241
Carbon Tetrachloride	<0.002	mg/Kg - dry	0.002	0.011	1	08/06/20 17:52	RED	L505241
Chlorobenzene	<0.002	mg/Kg - dry	0.002	0.011	1	08/06/20 17:52	RED	L505241
Chlorodibromomethane	<0.010	mg/Kg - dry	0.010	0.011	1	08/06/20 17:52	RED	L505241
Chloroethane	<0.006	mg/Kg - dry	0.006	0.011	1	08/06/20 17:52	RED	L505241
2-Chloroethylvinyl Ether	<0.030	mg/Kg - dry	0.030	0.055	1	08/06/20 17:52	RED	L505241
Chloroform	<0.010	mg/Kg - dry	0.010	0.011	1	08/06/20 17:52	RED	L505241
Chloromethane	<0.005	mg/Kg - dry	0.005	0.011	1	08/06/20 17:52	RED	L505241

Qualifiers/Definitions				
*	Outside QC Limit		B	Analyte detected in blank
DF	Dilution Factor		E	Result above cal range
I	Recovery out of range		J	Estimated value
MQL	Method Quantitation Limit			

03180

Ensafe

Ms. Chelsey Kipper

5724 Summer Tree Drive

Memphis, TN 38134

Project

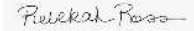
Former Wayne's Pinball Palace

Information : 167 Chelsea Avenue, Memphis, TN

Project No. 0888826703

Report Date : 08/14/2020

Received : 08/05/2020



Report Number : **20-218-0165**

**REPORT OF ANALYSIS**

Rebekah Ross  
Project Manager

Lab No : **92396**

Sample ID : **167SSB0112**

Matrix: **Solids**

Sampled: **8/4/2020 10:10**

**Analytical Method:** 8260B      **Prep Batch(es):** **L505228** 08/06/20 08:26  
**Prep Method:** 5030A

Test	Results	Units	MDL	MQL	DF	Date / Time Analyzed	By	Analytical Batch
2-Chlorotoluene	<0.006	mg/Kg - dry	0.006	0.011	1	08/06/20 17:52	RED	L505241
4-Chlorotoluene	<0.007	mg/Kg - dry	0.007	0.011	1	08/06/20 17:52	RED	L505241
1,2-Dibromo-3-Chloropropane	<0.023	mg/Kg - dry	0.023	0.055	1	08/06/20 17:52	RED	L505241
1,2-Dibromoethane	<0.003	mg/Kg - dry	0.003	0.011	1	08/06/20 17:52	RED	L505241
Dibromomethane	<0.002	mg/Kg - dry	0.002	0.011	1	08/06/20 17:52	RED	L505241
1,2-Dichlorobenzene	<0.006	mg/Kg - dry	0.006	0.011	1	08/06/20 17:52	RED	L505241
1,3-Dichlorobenzene	<0.005	mg/Kg - dry	0.005	0.011	1	08/06/20 17:52	RED	L505241
1,4-Dichlorobenzene	<0.007	mg/Kg - dry	0.007	0.011	1	08/06/20 17:52	RED	L505241
Dichlorodifluoromethane	<0.007	mg/Kg - dry	0.007	0.011	1	08/06/20 17:52	RED	L505241
1,1-Dichloroethane	<0.005	mg/Kg - dry	0.005	0.011	1	08/06/20 17:52	RED	L505241
1,2-Dichloroethane	<0.005	mg/Kg - dry	0.005	0.011	1	08/06/20 17:52	RED	L505241
1,1-Dichloroethene	<0.005	mg/Kg - dry	0.005	0.011	1	08/06/20 17:52	RED	L505241
cis-1,2-Dichloroethene	<0.003	mg/Kg - dry	0.003	0.011	1	08/06/20 17:52	RED	L505241
trans-1,2-Dichloroethene	<0.006	mg/Kg - dry	0.006	0.011	1	08/06/20 17:52	RED	L505241
1,2-Dichloroethene (Total)	<0.003	mg/Kg - dry	0.003	0.011	1	08/06/20 17:52		L505241
1,2-Dichloropropane	<0.004	mg/Kg - dry	0.004	0.011	1	08/06/20 17:52	RED	L505241
1,3-Dichloropropane	<0.005	mg/Kg - dry	0.005	0.011	1	08/06/20 17:52	RED	L505241
2,2-Dichloropropane	<0.003	mg/Kg - dry	0.003	0.011	1	08/06/20 17:52	RED	L505241
1,1-Dichloropropene	<0.003	mg/Kg - dry	0.003	0.011	1	08/06/20 17:52	RED	L505241
cis-1,3-Dichloropropene	<0.003	mg/Kg - dry	0.003	0.011	1	08/06/20 17:52	RED	L505241
trans-1,3-Dichloropropene	<0.003	mg/Kg - dry	0.003	0.011	1	08/06/20 17:52	RED	L505241
Ethyl Acetate	<0.041	mg/Kg - dry	0.041	0.220	1	08/06/20 17:52	RED	L505241

Qualifiers/Definitions				
*	Outside QC Limit		B	Analyte detected in blank
DF	Dilution Factor		E	Result above cal range
I	Recovery out of range		J	Estimated value
MQL	Method Quantitation Limit			

03180

Ensafe  
Ms. Chelsey Kipper  
5724 Summer Tree Drive  
Memphis, TN 38134

Project Former Wayne's Pinball Palace  
Information : 167 Chelsea Avenue, Memphis, TN  
Project No. 0888826703

Report Date : 08/14/2020  
Received : 08/05/2020



Report Number : **20-218-0165**

**REPORT OF ANALYSIS**

Rebekah Ross  
Project Manager

Lab No : **92396**

Matrix: **Solids**

Sample ID : **167SSB0112**

Sampled: **8/4/2020 10:10**

**Analytical Method:** 8260B      **Prep Batch(es):** **L505228** 08/06/20 08:26  
**Prep Method:** 5030A

Test	Results	Units	MDL	MQL	DF	Date / Time Analyzed	By	Analytical Batch
Ethylbenzene	<0.003	mg/Kg - dry	0.003	0.011	1	08/06/20 17:52	RED	L505241
Hexachlorobutadiene	<0.005	mg/Kg - dry	0.005	0.011	1	08/06/20 17:52	RED	L505241
2-Hexanone	<0.027	mg/Kg - dry	0.027	0.055	1	08/06/20 17:52	RED	L505241
Iodomethane	<0.004	mg/Kg - dry	0.004	0.055	1	08/06/20 17:52	RED	L505241
Isopropylbenzene	<0.005	mg/Kg - dry	0.005	0.011	1	08/06/20 17:52	RED	L505241
4-Isopropyl toluene	<0.005	mg/Kg - dry	0.005	0.011	1	08/06/20 17:52	RED	L505241
4-Methyl-2-Pentanone	<0.029	mg/Kg - dry	0.029	0.055	1	08/06/20 17:52	RED	L505241
Methylene Chloride	<0.031	mg/Kg - dry	0.031	0.220	1	08/06/20 17:52	RED	L505241
Methyl tert-butyl ether (MTBE)	<0.008	mg/Kg - dry	0.008	0.011	1	08/06/20 17:52	RED	L505241
m,p-Xylene	<0.006	mg/Kg - dry	0.006	0.022	1	08/06/20 17:52	RED	L505241
Naphthalene	<0.037	mg/Kg - dry	0.037	0.055	1	08/06/20 17:52	RED	L505241
o-Xylene	<0.002	mg/Kg - dry	0.002	0.011	1	08/06/20 17:52	RED	L505241
n-Propylbenzene	<0.005	mg/Kg - dry	0.005	0.011	1	08/06/20 17:52	RED	L505241
Styrene	<0.008	mg/Kg - dry	0.008	0.011	1	08/06/20 17:52	RED	L505241
1,1,1,2-Tetrachloroethane	<0.005	mg/Kg - dry	0.005	0.011	1	08/06/20 17:52	RED	L505241
1,1,2,2-Tetrachloroethane	<0.008	mg/Kg - dry	0.008	0.011	1	08/06/20 17:52	RED	L505241
Tetrachloroethene	<0.004	mg/Kg - dry	0.004	0.011	1	08/06/20 17:52	RED	L505241
Toluene	<0.019	mg/Kg - dry	0.019	0.055	1	08/06/20 17:52	RED	L505241
1,2,3-Trichlorobenzene	<0.009	mg/Kg - dry	0.009	0.011	1	08/06/20 17:52	RED	L505241
1,2,4-Trichlorobenzene	<0.005	mg/Kg - dry	0.005	0.011	1	08/06/20 17:52	RED	L505241
1,1,1-Trichloroethane	<0.003	mg/Kg - dry	0.003	0.011	1	08/06/20 17:52	RED	L505241
1,1,2-Trichloroethane	<0.003	mg/Kg - dry	0.003	0.011	1	08/06/20 17:52	RED	L505241

Qualifiers/ Definitions				
*	Outside QC Limit		B	Analyte detected in blank
DF	Dilution Factor		E	Result above cal range
I	Recovery out of range		J	Estimated value
MQL	Method Quantitation Limit			

03180

Ensafe

Ms. Chelsey Kipper

5724 Summer Tree Drive

Memphis, TN 38134

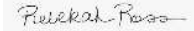
Project Former Wayne's Pinball Palace

Information : 167 Chelsea Avenue, Memphis, TN

Project No. 0888826703

Report Date : 08/14/2020

Received : 08/05/2020



Report Number : **20-218-0165**

**REPORT OF ANALYSIS**

Rebekah Ross  
Project Manager

Lab No : **92396**

Matrix: **Solids**

Sample ID : **167SSB0112**

Sampled: **8/4/2020 10:10**

**Analytical Method:** 8260B **Prep Batch(es):** L505228 08/06/20 08:26

**Prep Method:** 5030A

Test	Results	Units	MDL	MQL	DF	Date / Time Analyzed	By	Analytical Batch
Trichloroethene	<0.002	mg/Kg - dry	0.002	0.011	1	08/06/20 17:52	RED	L505241
Trichlorofluoromethane	<0.006	mg/Kg - dry	0.006	0.011	1	08/06/20 17:52	RED	L505241
1,2,3-Trichloropropane	<0.003	mg/Kg - dry	0.003	0.011	1	08/06/20 17:52	RED	L505241
1,2,4-Trimethylbenzene	<0.005	mg/Kg - dry	0.005	0.011	1	08/06/20 17:52	RED	L505241
1,3,5-Trimethylbenzene	<0.007	mg/Kg - dry	0.007	0.011	1	08/06/20 17:52	RED	L505241
Vinyl Acetate	<0.020	mg/Kg - dry	0.020	0.220	1	08/06/20 17:52	RED	L505241
Vinyl Chloride	<0.002	mg/Kg - dry	0.002	0.011	1	08/06/20 17:52	RED	L505241
Xylene (Total)	<0.002	mg/Kg - dry	0.002	0.011	1	08/06/20 17:52		L505241
Surrogate: 4-Bromofluorobenzene	99.3		Limits: 60-130%		1	08/06/20 17:52	RED	L505241
Surrogate: 1,2-Dichloroethane - d4	106		Limits: 60-132%		1	08/06/20 17:52	RED	L505241
Surrogate: Toluene-d8	112		Limits: 70-130%		1	08/06/20 17:52	RED	L505241

**Analytical Method:** 8270D SIM **Prep Batch(es):** L505071 08/06/20 12:00

**Prep Method:** 3550B

Test	Results	Units	MDL	MQL	DF	Date / Time Analyzed	By	Analytical Batch
Acenaphthene	<0.000542	mg/Kg - dry	0.000542	0.000843	1	08/07/20 14:30	MLR	L505238
Acenaphthylene	<0.000481	mg/Kg - dry	0.000481	0.000843	1	08/07/20 14:30	MLR	L505238
Anthracene	<0.000536	mg/Kg - dry	0.000536	0.000843	1	08/07/20 14:30	MLR	L505238
Benzo(a)anthracene	<b>0.000965</b>	mg/Kg - dry	0.000555	0.000843	1	08/07/20 14:30	MLR	L505238
Benzo(a)pyrene	<0.000167	mg/Kg - dry	0.000167	0.000843	1	08/07/20 14:30	MLR	L505238
Benzo(b)fluoranthene	<0.000173	mg/Kg - dry	0.000173	0.000843	1	08/07/20 14:30	MLR	L505238
Benzo(g,h,i)perylene	<0.000290	mg/Kg - dry	0.000290	0.000843	1	08/07/20 14:30	MLR	L505238

Qualifiers/Definitions				
*	Outside QC Limit		B	Analyte detected in blank
DF	Dilution Factor		E	Result above cal range
I	Recovery out of range		J	Estimated value
MQL	Method Quantitation Limit			



03180

Ensafe  
Ms. Chelsey Kipper  
5724 Summer Tree Drive  
Memphis, TN 38134

Project Former Wayne's Pinball Palace  
Information : 167 Chelsea Avenue, Memphis, TN  
Project No. 0888826703

Report Date : 08/14/2020  
Received : 08/05/2020



Report Number : **20-218-0165**

**REPORT OF ANALYSIS**

Rebekah Ross  
Project Manager

Lab No : **92396**

Matrix: **Solids**

Sample ID : **167SSB0112**

Sampled: **8/4/2020 10:10**

**Analytical Method:** 8270D SIM      **Prep Batch(es):** **L505071** 08/06/20 12:00  
**Prep Method:** 3550B

Test	Results	Units	MDL	MQL	DF	Date / Time Analyzed	By	Analytical Batch
Benzo(k)fluoranthene	<0.000612	mg/Kg - dry	0.000612	0.000843	1	08/07/20 14:30	MLR	L505238
Chrysene	<b>0.00116</b>	mg/Kg - dry	0.000322	0.000843	1	08/07/20 14:30	MLR	L505238
Dibenz(a,h)anthracene	<0.000351	mg/Kg - dry	0.000351	0.000843	1	08/07/20 14:30	MLR	L505238
Fluoranthene	<b>0.00300</b>	mg/Kg - dry	0.000666	0.000843	1	08/07/20 14:30	MLR	L505238
Fluorene	<0.000630	mg/Kg - dry	0.000630	0.000843	1	08/07/20 14:30	MLR	L505238
Indeno(1,2,3-cd)pyrene	<0.000433	mg/Kg - dry	0.000433	0.000843	1	08/07/20 14:30	MLR	L505238
2-Methylnaphthalene	<b>0.00161 B</b>	mg/Kg - dry	0.000682	0.000843	1	08/07/20 14:30	MLR	L505238
Naphthalene	<b>0.00200 B</b>	mg/Kg - dry	0.000588	0.000843	1	08/07/20 14:30	MLR	L505238
Phenanthrene	<0.000823	mg/Kg - dry	0.000823	0.000843	1	08/07/20 14:30	MLR	L505238
Pyrene	<b>0.00340</b>	mg/Kg - dry	0.000487	0.000843	1	08/07/20 14:30	MLR	L505238
Surrogate: 2-Fluorobiphenyl	71.7			Limits: 33-115%	1	08/07/20 14:30	MLR	L505238
Surrogate: Nitrobenzene-d5	66.0			Limits: 29-110%	1	08/07/20 14:30	MLR	L505238
Surrogate: 4-Terphenyl-d14	98.8			Limits: 33-122%	1	08/07/20 14:30	MLR	L505238

**Analytical Method:** TN EPH      **Prep Batch(es):** **L505693** 08/11/20 10:04  
**Prep Method:** 3550B

Test	Results	Units	MDL	MQL	DF	Date / Time Analyzed	By	Analytical Batch
Diesel Range Organics (C10-C28)	<4.16	mg/Kg - dry	4.16	4.16	1	08/12/20 11:10	MMK	L505941
Oil Range Organics (>C28-C40)	<4.16	mg/Kg - dry	4.16	4.16	1	08/12/20 11:10	MMK	L505941
TN EPH (C10-C40)	<4.16	mg/Kg - dry	4.16	4.16	1	08/12/20 11:10		L505941
Surrogate: OTP Surrogate	63.3			Limits: 50-150%	1	08/12/20 11:10	MMK	L505941

Qualifiers/Definitions				
*	Outside QC Limit		B	Analyte detected in blank
DF	Dilution Factor		E	Result above cal range
I	Recovery out of range		J	Estimated value
MQL	Method Quantitation Limit			



03180

Ensafe

Ms. Chelsey Kipper

5724 Summer Tree Drive

Memphis , TN 38134

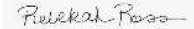
Project Former Wayne's Pinball Palace

Information : 167 Chelsea Avenue, Memphis, TN

Project No. 0888826703

Report Date : 08/14/2020

Received : 08/05/2020



Report Number : **20-218-0165**

**REPORT OF ANALYSIS**

Rebekah Ross  
Project Manager

Lab No : **92397**

Sample ID : **167SSB0208**

Matrix: **Solids**

Sampled: **8/4/2020 11:05**

Test	Results	Units	MDL	MQL	DF	Date / Time Analyzed	By	Analytical Method
Moisture	<b>20.3</b>	%			1	08/10/20 14:13	FMM	SW-DRYWT
Arsenic	<b>6.55</b>	mg/Kg - dry	0.301	0.627	1	08/08/20 01:55	TJS	6010D
Barium	<b>48.9</b>	mg/Kg - dry	0.163	0.627	1	08/08/20 01:55	TJS	6010D
Cadmium	<b>0.147</b>	mg/Kg - dry	0.0250	0.125	1	08/08/20 01:55	TJS	6010D
Chromium	<b>12.8</b>	mg/Kg - dry	0.296	0.313	1	08/08/20 01:55	TJS	6010D
Lead	<b>6.14</b>	mg/Kg - dry	0.225	0.376	1	08/08/20 01:55	TJS	6010D
Mercury	<b>0.00587 J</b>	mg/Kg - dry	0.00424	0.0192	1	08/13/20 17:25	DDB	7471A
Selenium	<0.401	mg/Kg - dry	0.401	0.627	1	08/11/20 07:57	TJS	6010D
Silver	<b>0.269 J</b>	mg/Kg - dry	0.201	0.314	1	08/08/20 01:55	TJS	6010D

**Qualifiers/  
Definitions**

*	Outside QC Limit	B	Analyte detected in blank
DF	Dilution Factor	E	Result above cal range
J	Estimated value	L	Limit Exceeded
MQL	Method Quantitation Limit		

03180

Ensafe  
 Ms. Chelsey Kipper  
 5724 Summer Tree Drive  
 Memphis, TN 38134

Project Former Wayne's Pinball Palace  
 Information : 167 Chelsea Avenue, Memphis, TN  
 Project No. 0888826703

Report Date : 08/14/2020  
 Received : 08/05/2020



Report Number : **20-218-0165**

**REPORT OF ANALYSIS**

Rebekah Ross  
 Project Manager

Lab No : **92397**

Matrix: **Solids**

Sample ID : **167SSB0208**

Sampled: **8/4/2020 11:05**

**Analytical Method:** 8260B      **Prep Batch(es):** **L505228** 08/06/20 08:26  
**Prep Method:** 5030A

Test	Results	Units	MDL	MQL	DF	Date / Time Analyzed	By	Analytical Batch
Acetone	<0.027	mg/Kg - dry	0.027	0.243	1	08/06/20 18:33	RED	L505241
Acetonitrile	<0.276	mg/Kg - dry	0.276	0.608	1	08/06/20 18:33	RED	L505241
Acrolein	<0.038	mg/Kg - dry	0.038	0.243	1	08/06/20 18:33	RED	L505241
Acrylonitrile	<0.015	mg/Kg - dry	0.015	0.243	1	08/06/20 18:33	RED	L505241
Benzene	<0.003	mg/Kg - dry	0.003	0.012	1	08/06/20 18:33	RED	L505241
Bromobenzene	<0.004	mg/Kg - dry	0.004	0.012	1	08/06/20 18:33	RED	L505241
Bromochloromethane	<0.007	mg/Kg - dry	0.007	0.012	1	08/06/20 18:33	RED	L505241
Bromodichloromethane	<0.011	mg/Kg - dry	0.011	0.012	1	08/06/20 18:33	RED	L505241
Bromoform	<0.011	mg/Kg - dry	0.011	0.012	1	08/06/20 18:33	RED	L505241
Bromomethane	<0.007	mg/Kg - dry	0.007	0.012	1	08/06/20 18:33	RED	L505241
Methyl Ethyl Ketone (MEK)	<0.046	mg/Kg - dry	0.046	0.243	1	08/06/20 18:33	RED	L505241
n-Butylbenzene	<b>0.398</b>	mg/Kg - dry	0.008	0.012	1	08/06/20 18:33	RED	L505241
sec-Butyl benzene	<b>0.113</b>	mg/Kg - dry	0.008	0.012	1	08/06/20 18:33	RED	L505241
tert-Butyl benzene	<0.006	mg/Kg - dry	0.006	0.012	1	08/06/20 18:33	RED	L505241
Carbon Disulfide	<0.006	mg/Kg - dry	0.006	0.012	1	08/06/20 18:33	RED	L505241
Carbon Tetrachloride	<0.002	mg/Kg - dry	0.002	0.012	1	08/06/20 18:33	RED	L505241
Chlorobenzene	<0.003	mg/Kg - dry	0.003	0.012	1	08/06/20 18:33	RED	L505241
Chlorodibromomethane	<0.011	mg/Kg - dry	0.011	0.012	1	08/06/20 18:33	RED	L505241
Chloroethane	<0.007	mg/Kg - dry	0.007	0.012	1	08/06/20 18:33	RED	L505241
2-Chloroethylvinyl Ether	<0.034	mg/Kg - dry	0.034	0.060	1	08/06/20 18:33	RED	L505241
Chloroform	<0.011	mg/Kg - dry	0.011	0.012	1	08/06/20 18:33	RED	L505241
Chloromethane	<0.006	mg/Kg - dry	0.006	0.012	1	08/06/20 18:33	RED	L505241

Qualifiers/Definitions				
*	Outside QC Limit		B	Analyte detected in blank
DF	Dilution Factor		E	Result above cal range
I	Recovery out of range		J	Estimated value
MQL	Method Quantitation Limit			

03180

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Project Former Wayne's Pinball Palace  
 Information : 167 Chelsea Avenue, Memphis, TN  
 Project No. 0888826703

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Report Number : **20-218-0165**

**REPORT OF ANALYSIS**

Rebekah Ross  
 Project Manager

Lab No : **92397**

Matrix: **Solids**

Sample ID : **167SSB0208**

Sampled: **8/4/2020 11:05**

**Analytical Method:** 8260B      **Prep Batch(es):** **L505228** 08/06/20 08:26  
**Prep Method:** 5030A

Test	Results	Units	MDL	MQL	DF	Date / Time Analyzed	By	Analytical Batch
2-Chlorotoluene	<0.007	mg/Kg - dry	0.007	0.012	1	08/06/20 18:33	RED	L505241
4-Chlorotoluene	<0.008	mg/Kg - dry	0.008	0.012	1	08/06/20 18:33	RED	L505241
1,2-Dibromo-3-Chloropropane	<0.026	mg/Kg - dry	0.026	0.060	1	08/06/20 18:33	RED	L505241
1,2-Dibromoethane	<0.003	mg/Kg - dry	0.003	0.012	1	08/06/20 18:33	RED	L505241
Dibromomethane	<0.002	mg/Kg - dry	0.002	0.012	1	08/06/20 18:33	RED	L505241
1,2-Dichlorobenzene	<0.006	mg/Kg - dry	0.006	0.012	1	08/06/20 18:33	RED	L505241
1,3-Dichlorobenzene	<0.005	mg/Kg - dry	0.005	0.012	1	08/06/20 18:33	RED	L505241
1,4-Dichlorobenzene	<0.007	mg/Kg - dry	0.007	0.012	1	08/06/20 18:33	RED	L505241
Dichlorodifluoromethane	<0.008	mg/Kg - dry	0.008	0.012	1	08/06/20 18:33	RED	L505241
1,1-Dichloroethane	<0.005	mg/Kg - dry	0.005	0.012	1	08/06/20 18:33	RED	L505241
1,2-Dichloroethane	<0.005	mg/Kg - dry	0.005	0.012	1	08/06/20 18:33	RED	L505241
1,1-Dichloroethene	<0.006	mg/Kg - dry	0.006	0.012	1	08/06/20 18:33	RED	L505241
cis-1,2-Dichloroethene	<0.004	mg/Kg - dry	0.004	0.012	1	08/06/20 18:33	RED	L505241
trans-1,2-Dichloroethene	<0.007	mg/Kg - dry	0.007	0.012	1	08/06/20 18:33	RED	L505241
1,2-Dichloroethene (Total)	<0.004	mg/Kg - dry	0.004	0.012	1	08/06/20 18:33		L505241
1,2-Dichloropropane	<0.004	mg/Kg - dry	0.004	0.012	1	08/06/20 18:33	RED	L505241
1,3-Dichloropropane	<0.005	mg/Kg - dry	0.005	0.012	1	08/06/20 18:33	RED	L505241
2,2-Dichloropropane	<0.003	mg/Kg - dry	0.003	0.012	1	08/06/20 18:33	RED	L505241
1,1-Dichloropropene	<0.004	mg/Kg - dry	0.004	0.012	1	08/06/20 18:33	RED	L505241
cis-1,3-Dichloropropene	<0.003	mg/Kg - dry	0.003	0.012	1	08/06/20 18:33	RED	L505241
trans-1,3-Dichloropropene	<0.003	mg/Kg - dry	0.003	0.012	1	08/06/20 18:33	RED	L505241
Ethyl Acetate	<0.045	mg/Kg - dry	0.045	0.243	1	08/06/20 18:33	RED	L505241

Qualifiers/Definitions				
*	Outside QC Limit		B	Analyte detected in blank
DF	Dilution Factor		E	Result above cal range
I	Recovery out of range		J	Estimated value
MQL	Method Quantitation Limit			

03180

Ensafe  
 Ms. Chelsey Kipper  
 5724 Summer Tree Drive  
 Memphis, TN 38134

Project Former Wayne's Pinball Palace  
 Information : 167 Chelsea Avenue, Memphis, TN  
 Project No. 0888826703

Report Date : 08/14/2020  
 Received : 08/05/2020



Report Number : **20-218-0165**

**REPORT OF ANALYSIS**

Rebekah Ross  
 Project Manager

Lab No : **92397**  
 Sample ID : **167SSB0208**

Matrix: **Solids**  
 Sampled: **8/4/2020 11:05**

**Analytical Method:** 8260B      **Prep Batch(es):** **L505228** 08/06/20 08:26  
**Prep Method:** 5030A

Test	Results	Units	MDL	MQL	DF	Date / Time Analyzed	By	Analytical Batch
Ethylbenzene	<b>0.510</b>	mg/Kg - dry	0.004	0.012	1	08/06/20 18:33	RED	L505241
Hexachlorobutadiene	<0.006	mg/Kg - dry	0.006	0.012	1	08/06/20 18:33	RED	L505241
2-Hexanone	<0.030	mg/Kg - dry	0.030	0.060	1	08/06/20 18:33	RED	L505241
Iodomethane	<0.005	mg/Kg - dry	0.005	0.060	1	08/06/20 18:33	RED	L505241
Isopropylbenzene	<b>0.468</b>	mg/Kg - dry	0.005	0.012	1	08/06/20 18:33	RED	L505241
4-Isopropyl toluene	<0.005	mg/Kg - dry	0.005	0.012	1	08/06/20 18:33	RED	L505241
4-Methyl-2-Pentanone	<0.032	mg/Kg - dry	0.032	0.060	1	08/06/20 18:33	RED	L505241
Methylene Chloride	<0.035	mg/Kg - dry	0.035	0.243	1	08/06/20 18:33	RED	L505241
Methyl tert-butyl ether (MTBE)	<0.008	mg/Kg - dry	0.008	0.012	1	08/06/20 18:33	RED	L505241
m,p-Xylene	<b>0.388</b>	mg/Kg - dry	0.007	0.024	1	08/06/20 18:33	RED	L505241
Naphthalene	<b>2.18</b>	mg/Kg - dry	0.041	0.060	1	08/06/20 18:33	RED	L505241
o-Xylene	<b>0.009 J</b>	mg/Kg - dry	0.002	0.012	1	08/06/20 18:33	RED	L505241
n-Propylbenzene	<b>1.43</b>	mg/Kg - dry	0.006	0.012	1	08/06/20 18:33	RED	L505241
Styrene	<0.009	mg/Kg - dry	0.009	0.012	1	08/06/20 18:33	RED	L505241
1,1,1,2-Tetrachloroethane	<0.005	mg/Kg - dry	0.005	0.012	1	08/06/20 18:33	RED	L505241
1,1,2,2-Tetrachloroethane	<0.009	mg/Kg - dry	0.009	0.012	1	08/06/20 18:33	RED	L505241
Tetrachloroethene	<0.005	mg/Kg - dry	0.005	0.012	1	08/06/20 18:33	RED	L505241
Toluene	<0.021	mg/Kg - dry	0.021	0.060	1	08/06/20 18:33	RED	L505241
1,2,3-Trichlorobenzene	<0.009	mg/Kg - dry	0.009	0.012	1	08/06/20 18:33	RED	L505241
1,2,4-Trichlorobenzene	<0.006	mg/Kg - dry	0.006	0.012	1	08/06/20 18:33	RED	L505241
1,1,1-Trichloroethane	<0.004	mg/Kg - dry	0.004	0.012	1	08/06/20 18:33	RED	L505241
1,1,2-Trichloroethane	<0.003	mg/Kg - dry	0.003	0.012	1	08/06/20 18:33	RED	L505241

Qualifiers/Definitions	*	Outside QC Limit	B	Analyte detected in blank
	DF	Dilution Factor	E	Result above cal range
	I	Recovery out of range	J	Estimated value
	MQL	Method Quantitation Limit		

03180

Ensafe

Ms. Chelsey Kipper

5724 Summer Tree Drive

Memphis, TN 38134

Project Former Wayne's Pinball Palace

Information : 167 Chelsea Avenue, Memphis, TN

Project No. 0888826703

Report Date : 08/14/2020

Received : 08/05/2020



Report Number : **20-218-0165**

**REPORT OF ANALYSIS**

Rebekah Ross  
Project Manager

Lab No : **92397**

Matrix: **Solids**

Sample ID : **167SSB0208**

Sampled: **8/4/2020 11:05**

**Analytical Method:** 8260B **Prep Batch(es):** **L505228** 08/06/20 08:26

**Prep Method:** 5030A

Test	Results	Units	MDL	MQL	DF	Date / Time Analyzed	By	Analytical Batch
Trichloroethene	<0.002	mg/Kg - dry	0.002	0.012	1	08/06/20 18:33	RED	L505241
Trichlorofluoromethane	<0.007	mg/Kg - dry	0.007	0.012	1	08/06/20 18:33	RED	L505241
1,2,3-Trichloropropane	<0.003	mg/Kg - dry	0.003	0.012	1	08/06/20 18:33	RED	L505241
1,2,4-Trimethylbenzene	<b>0.215</b>	mg/Kg - dry	0.005	0.012	1	08/06/20 18:33	RED	L505241
1,3,5-Trimethylbenzene	<0.008	mg/Kg - dry	0.008	0.012	1	08/06/20 18:33	RED	L505241
Vinyl Acetate	<0.022	mg/Kg - dry	0.022	0.243	1	08/06/20 18:33	RED	L505241
Vinyl Chloride	<0.003	mg/Kg - dry	0.003	0.012	1	08/06/20 18:33	RED	L505241
Xylene (Total)	<b>0.397 J</b>	mg/Kg - dry	0.002	0.012	1	08/06/20 18:33		L505241
Surrogate: 4-Bromofluorobenzene	91.5		Limits: 60-130%		1	08/06/20 18:33	RED	L505241
Surrogate: 1,2-Dichloroethane - d4	88.2		Limits: 60-132%		1	08/06/20 18:33	RED	L505241
Surrogate: Toluene-d8	122		Limits: 70-130%		1	08/06/20 18:33	RED	L505241

**Analytical Method:** 8270D SIM **Prep Batch(es):** **L505071** 08/06/20 12:00

**Prep Method:** 3550B

Test	Results	Units	MDL	MQL	DF	Date / Time Analyzed	By	Analytical Batch
Acenaphthene	<b>0.00887</b>	mg/Kg - dry	0.00151	0.00233	1	08/07/20 14:51	MLR	L505238
Acenaphthylene	<0.00133	mg/Kg - dry	0.00133	0.00233	1	08/07/20 14:51	MLR	L505238
Anthracene	<b>0.00242</b>	mg/Kg - dry	0.00148	0.00233	1	08/07/20 14:51	MLR	L505238
Benzo(a)anthracene	<0.00154	mg/Kg - dry	0.00154	0.00233	1	08/07/20 14:51	MLR	L505238
Benzo(a)pyrene	<0.000462	mg/Kg - dry	0.000462	0.00233	1	08/07/20 14:51	MLR	L505238
Benzo(b)fluoranthene	<0.000480	mg/Kg - dry	0.000480	0.00233	1	08/07/20 14:51	MLR	L505238
Benzo(g,h,i)perylene	<0.000805	mg/Kg - dry	0.000805	0.00233	1	08/07/20 14:51	MLR	L505238

Qualifiers/Definitions				
*	Outside QC Limit		B	Analyte detected in blank
DF	Dilution Factor		E	Result above cal range
I	Recovery out of range		J	Estimated value
MQL	Method Quantitation Limit			

03180

Ensafe  
Ms. Chelsey Kipper  
5724 Summer Tree Drive  
Memphis, TN 38134

Project Former Wayne's Pinball Palace  
Information : 167 Chelsea Avenue, Memphis, TN  
Project No. 0888826703

Report Date : 08/14/2020  
Received : 08/05/2020



Report Number : **20-218-0165**

**REPORT OF ANALYSIS**

Rebekah Ross  
Project Manager

Lab No : **92397**

Matrix: **Solids**

Sample ID : **167SSB0208**

Sampled: **8/4/2020 11:05**

**Analytical Method:** 8270D SIM      **Prep Batch(es):** **L505071** 08/06/20 12:00  
**Prep Method:** 3550B

Test	Results	Units	MDL	MQL	DF	Date / Time Analyzed	By	Analytical Batch
Benzo(k)fluoranthene	<0.00169	mg/Kg - dry	0.00169	0.00233	1	08/07/20 14:51	MLR	L505238
Chrysene	<b>0.00119 J</b>	mg/Kg - dry	0.000892	0.00233	1	08/07/20 14:51	MLR	L505238
Dibenz(a,h)anthracene	<0.000972	mg/Kg - dry	0.000972	0.00233	1	08/07/20 14:51	MLR	L505238
Fluoranthene	<b>0.00220 J</b>	mg/Kg - dry	0.00184	0.00233	1	08/07/20 14:51	MLR	L505238
Fluorene	<b>0.00896</b>	mg/Kg - dry	0.00174	0.00233	1	08/07/20 14:51	MLR	L505238
Indeno(1,2,3-cd)pyrene	<0.00120	mg/Kg - dry	0.00120	0.00233	1	08/07/20 14:51	MLR	L505238
2-Methylnaphthalene	<b>2.31</b>	mg/Kg - dry	0.00945	0.0117	5	08/11/20 15:54	MLR	L505238
Naphthalene	<b>2.48</b>	mg/Kg - dry	0.00814	0.0117	5	08/11/20 15:54	MLR	L505238
Phenanthrene	<b>0.0129</b>	mg/Kg - dry	0.00228	0.00233	1	08/07/20 14:51	MLR	L505238
Pyrene	<b>0.00395</b>	mg/Kg - dry	0.00136	0.00233	1	08/07/20 14:51	MLR	L505238
Surrogate: 2-Fluorobiphenyl	72.8			Limits: 33-115%	1	08/07/20 14:51	MLR	L505238
Surrogate: Nitrobenzene-d5	103			Limits: 29-110%	1	08/07/20 14:51	MLR	L505238
Surrogate: 4-Terphenyl-d14	102			Limits: 33-122%	1	08/07/20 14:51	MLR	L505238

**Analytical Method:** TN EPH      **Prep Batch(es):** **L505693** 08/11/20 10:04  
**Prep Method:** 3550B

Test	Results	Units	MDL	MQL	DF	Date / Time Analyzed	By	Analytical Batch
Diesel Range Organics (C10-C28)	<b>12.0</b>	mg/Kg - dry	4.14	4.14	1	08/12/20 11:29	MMK	L505941
Oil Range Organics (>C28-C40)	<4.14	mg/Kg - dry	4.14	4.14	1	08/12/20 11:29	MMK	L505941
TN EPH (C10-C40)	<b>12.0</b>	mg/Kg - dry	4.14	4.14	1	08/12/20 11:29		L505941
Surrogate: OTP Surrogate	62.7			Limits: 50-150%	1	08/12/20 11:29	MMK	L505941

Qualifiers/Definitions				
*	Outside QC Limit		B	Analyte detected in blank
DF	Dilution Factor		E	Result above cal range
I	Recovery out of range		J	Estimated value
MQL	Method Quantitation Limit			

03180

Ensafe

Ms. Chelsey Kipper

5724 Summer Tree Drive

Memphis , TN 38134

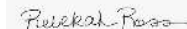
Project Former Wayne's Pinball Palace

Information : 167 Chelsea Avenue, Memphis, TN

Project No. 0888826703

Report Date : 08/14/2020

Received : 08/05/2020



Report Number : **20-218-0165**

**REPORT OF ANALYSIS**

Rebekah Ross  
Project Manager

Lab No : **92398**

Matrix: **Solids**

Sample ID : **167SSB0212**

Sampled: **8/4/2020 11:10**

Test	Results	Units	MDL	MQL	DF	Date / Time Analyzed	By	Analytical Method
Moisture	<b>21.7</b>	%			1	08/10/20 14:13	FMM	SW-DRYWT
Arsenic	<b>9.07</b>	mg/Kg - dry	0.307	0.639	1	08/08/20 02:00	TJS	6010D
Barium	<b>48.1</b>	mg/Kg - dry	0.166	0.639	1	08/08/20 02:00	TJS	6010D
Cadmium	<b>0.165</b>	mg/Kg - dry	0.0255	0.128	1	08/08/20 02:00	TJS	6010D
Chromium	<b>13.8</b>	mg/Kg - dry	0.301	0.319	1	08/08/20 02:00	TJS	6010D
Lead	<b>8.10</b>	mg/Kg - dry	0.229	0.383	1	08/08/20 02:00	TJS	6010D
Mercury	<b>0.0163 J</b>	mg/Kg - dry	0.00390	0.0176	1	08/13/20 17:27	DDB	7471A
Selenium	<0.408	mg/Kg - dry	0.408	0.638	1	08/11/20 08:12	TJS	6010D
Silver	<0.204	mg/Kg - dry	0.204	0.319	1	08/08/20 02:00	TJS	6010D

**Qualifiers/  
Definitions**

*	Outside QC Limit	B	Analyte detected in blank
DF	Dilution Factor	E	Result above cal range
J	Estimated value	L	Limit Exceeded
MQL	Method Quantitation Limit		



03180

Ensafe

Ms. Chelsey Kipper

5724 Summer Tree Drive

Memphis , TN 38134

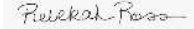
Project Former Wayne's Pinball Palace

Information : 167 Chelsea Avenue, Memphis, TN

Project No. 0888826703

Report Date : 08/14/2020

Received : 08/05/2020



Report Number : **20-218-0165**

**REPORT OF ANALYSIS**

Rebekah Ross  
Project Manager

Lab No : **92398**

Sample ID : **167SSB0212**

Matrix: **Solids**

Sampled: **8/4/2020 11:10**

**Analytical Method:** 8260B      **Prep Batch(es):** **L505698** 08/10/20 07:41  
**Prep Method:** 5030A

Test	Results	Units	MDL	MQL	DF	Date / Time Analyzed	By	Analytical Batch
Acetone	<0.005	mg/Kg - dry	0.005	0.051	1	08/10/20 10:53	ELM	L505699
Acetonitrile	<0.057	mg/Kg - dry	0.057	0.127	1	08/10/20 10:53	ELM	L505699
Acrolein	<0.008	mg/Kg - dry	0.008	0.051	1	08/10/20 10:53	ELM	L505699
Acrylonitrile	<0.003	mg/Kg - dry	0.003	0.051	1	08/10/20 10:53	ELM	L505699
Benzene	<0.0007	mg/Kg - dry	0.0007	0.002	1	08/10/20 10:53	ELM	L505699
Bromobenzene	<0.001	mg/Kg - dry	0.001	0.002	1	08/10/20 10:53	ELM	L505699
Bromochloromethane	<0.001	mg/Kg - dry	0.001	0.002	1	08/10/20 10:53	ELM	L505699
Bromodichloromethane	<0.002	mg/Kg - dry	0.002	0.002	1	08/10/20 10:53	ELM	L505699
Bromoform	<0.002	mg/Kg - dry	0.002	0.002	1	08/10/20 10:53	ELM	L505699
Bromomethane	<0.001	mg/Kg - dry	0.001	0.002	1	08/10/20 10:53	ELM	L505699
Methyl Ethyl Ketone (MEK)	<0.009	mg/Kg - dry	0.009	0.051	1	08/10/20 10:53	ELM	L505699
n-Butylbenzene	<b>0.452</b>	mg/Kg - dry	0.001	0.002	1	08/10/20 10:53	ELM	L505699
sec-Butyl benzene	<b>0.280</b>	mg/Kg - dry	0.001	0.002	1	08/10/20 10:53	ELM	L505699
tert-Butyl benzene	<b>0.013</b>	mg/Kg - dry	0.001	0.002	1	08/10/20 10:53	ELM	L505699
Carbon Disulfide	<0.001	mg/Kg - dry	0.001	0.002	1	08/10/20 10:53	ELM	L505699
Carbon Tetrachloride	<0.0006	mg/Kg - dry	0.0006	0.002	1	08/10/20 10:53	ELM	L505699
Chlorobenzene	<0.0006	mg/Kg - dry	0.0006	0.002	1	08/10/20 10:53	ELM	L505699
Chlorodibromomethane	<0.002	mg/Kg - dry	0.002	0.002	1	08/10/20 10:53	ELM	L505699
Chloroethane	<0.001	mg/Kg - dry	0.001	0.002	1	08/10/20 10:53	ELM	L505699
2-Chloroethylvinyl Ether	<0.007	mg/Kg - dry	0.007	0.012	1	08/10/20 10:53	ELM	L505699
Chloroform	<0.002	mg/Kg - dry	0.002	0.002	1	08/10/20 10:53	ELM	L505699
Chloromethane	<0.001	mg/Kg - dry	0.001	0.002	1	08/10/20 10:53	ELM	L505699

Qualifiers/Definitions				
*	Outside QC Limit		B	Analyte detected in blank
DF	Dilution Factor		E	Result above cal range
I	Recovery out of range		J	Estimated value
MQL	Method Quantitation Limit			

03180

Ensafe

Ms. Chelsey Kipper

5724 Summer Tree Drive

Memphis , TN 38134

Project

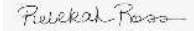
Former Wayne's Pinball Palace

Information : 167 Chelsea Avenue, Memphis, TN

Project No. 0888826703

Report Date : 08/14/2020

Received : 08/05/2020



Report Number : **20-218-0165**

**REPORT OF ANALYSIS**

Rebekah Ross  
Project Manager

Lab No : **92398**

Sample ID : **167SSB0212**

Matrix: **Solids**

Sampled: **8/4/2020 11:10**

**Analytical Method:** 8260B      **Prep Batch(es):** **L505698** 08/10/20 07:41  
**Prep Method:** 5030A

Test	Results	Units	MDL	MQL	DF	Date / Time Analyzed	By	Analytical Batch
2-Chlorotoluene	<0.001	mg/Kg - dry	0.001	0.002	1	08/10/20 10:53	ELM	L505699
4-Chlorotoluene	<0.001	mg/Kg - dry	0.001	0.002	1	08/10/20 10:53	ELM	L505699
1,2-Dibromo-3-Chloropropane	<0.005	mg/Kg - dry	0.005	0.012	1	08/10/20 10:53	ELM	L505699
1,2-Dibromoethane	<0.0008	mg/Kg - dry	0.0008	0.002	1	08/10/20 10:53	ELM	L505699
Dibromomethane	<0.0006	mg/Kg - dry	0.0006	0.002	1	08/10/20 10:53	ELM	L505699
1,2-Dichlorobenzene	<0.001	mg/Kg - dry	0.001	0.002	1	08/10/20 10:53	ELM	L505699
1,3-Dichlorobenzene	<0.001	mg/Kg - dry	0.001	0.002	1	08/10/20 10:53	ELM	L505699
1,4-Dichlorobenzene	<0.001	mg/Kg - dry	0.001	0.002	1	08/10/20 10:53	ELM	L505699
Dichlorodifluoromethane	<0.001	mg/Kg - dry	0.001	0.002	1	08/10/20 10:53	ELM	L505699
1,1-Dichloroethane	<0.001	mg/Kg - dry	0.001	0.002	1	08/10/20 10:53	ELM	L505699
1,2-Dichloroethane	<0.001	mg/Kg - dry	0.001	0.002	1	08/10/20 10:53	ELM	L505699
1,1-Dichloroethene	<0.001	mg/Kg - dry	0.001	0.002	1	08/10/20 10:53	ELM	L505699
cis-1,2-Dichloroethene	<0.0008	mg/Kg - dry	0.0008	0.002	1	08/10/20 10:53	ELM	L505699
trans-1,2-Dichloroethene	<0.001	mg/Kg - dry	0.001	0.002	1	08/10/20 10:53	ELM	L505699
1,2-Dichloroethene (Total)	<0.0008	mg/Kg - dry	0.0008	0.002	1	08/10/20 10:53		L505699
1,2-Dichloropropane	<0.001	mg/Kg - dry	0.001	0.002	1	08/10/20 10:53	ELM	L505699
1,3-Dichloropropane	<0.001	mg/Kg - dry	0.001	0.002	1	08/10/20 10:53	ELM	L505699
2,2-Dichloropropane	<0.0008	mg/Kg - dry	0.0008	0.002	1	08/10/20 10:53	ELM	L505699
1,1-Dichloropropene	<0.0009	mg/Kg - dry	0.0009	0.002	1	08/10/20 10:53	ELM	L505699
cis-1,3-Dichloropropene	<0.0008	mg/Kg - dry	0.0008	0.002	1	08/10/20 10:53	ELM	L505699
trans-1,3-Dichloropropene	<0.0007	mg/Kg - dry	0.0007	0.002	1	08/10/20 10:53	ELM	L505699
Ethyl Acetate	<0.009	mg/Kg - dry	0.009	0.051	1	08/10/20 10:53	ELM	L505699

Qualifiers/ Definitions				
*	Outside QC Limit		B	Analyte detected in blank
DF	Dilution Factor		E	Result above cal range
I	Recovery out of range		J	Estimated value
MQL	Method Quantitation Limit			

03180

Ensafe  
Ms. Chelsey Kipper  
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Project Former Wayne's Pinball Palace  
Information : 167 Chelsea Avenue, Memphis, TN  
Project No. 0888826703

Report Date : 08/14/2020  
Received : 08/05/2020



Report Number : **20-218-0165**

**REPORT OF ANALYSIS**

Rebekah Ross  
Project Manager

Lab No : **92398**

Matrix: **Solids**

Sample ID : **167SSB0212**

Sampled: **8/4/2020 11:10**

**Analytical Method:** 8260B      **Prep Batch(es):** **L505698** 08/10/20 07:41  
**Prep Method:** 5030A

Test	Results	Units	MDL	MQL	DF	Date / Time Analyzed	By	Analytical Batch
Ethylbenzene	<b>0.080</b>	mg/Kg - dry	0.0009	0.002	1	08/10/20 10:53	ELM	L505699
Hexachlorobutadiene	<0.001	mg/Kg - dry	0.001	0.002	1	08/10/20 10:53	ELM	L505699
2-Hexanone	<0.006	mg/Kg - dry	0.006	0.012	1	08/10/20 10:53	ELM	L505699
Iodomethane	<0.001	mg/Kg - dry	0.001	0.012	1	08/10/20 10:53	ELM	L505699
Isopropylbenzene	<b>0.804 E</b>	mg/Kg - dry	0.001	0.002	1	08/10/20 10:53	ELM	L505699
4-Isopropyl toluene	<b>0.074</b>	mg/Kg - dry	0.001	0.002	1	08/10/20 10:53	ELM	L505699
4-Methyl-2-Pentanone	<0.006	mg/Kg - dry	0.006	0.012	1	08/10/20 10:53	ELM	L505699
Methylene Chloride	<0.007	mg/Kg - dry	0.007	0.051	1	08/10/20 10:53	ELM	L505699
Methyl tert-butyl ether (MTBE)	<0.001	mg/Kg - dry	0.001	0.002	1	08/10/20 10:53	ELM	L505699
m,p-Xylene	<b>0.023</b>	mg/Kg - dry	0.001	0.005	1	08/10/20 10:53	ELM	L505699
Naphthalene	<0.008	mg/Kg - dry	0.008	0.012	1	08/10/20 10:53	ELM	L505699
o-Xylene	<0.0006	mg/Kg - dry	0.0006	0.002	1	08/10/20 10:53	ELM	L505699
n-Propylbenzene	<b>2.17 E</b>	mg/Kg - dry	0.001	0.002	1	08/10/20 10:53	ELM	L505699
Styrene	<0.002	mg/Kg - dry	0.002	0.002	1	08/10/20 10:53	ELM	L505699
1,1,1,2-Tetrachloroethane	<0.001	mg/Kg - dry	0.001	0.002	1	08/10/20 10:53	ELM	L505699
1,1,2,2-Tetrachloroethane	<0.001	mg/Kg - dry	0.001	0.002	1	08/10/20 10:53	ELM	L505699
Tetrachloroethene	<0.001	mg/Kg - dry	0.001	0.002	1	08/10/20 10:53	ELM	L505699
Toluene	<0.004	mg/Kg - dry	0.004	0.012	1	08/10/20 10:53	ELM	L505699
1,2,3-Trichlorobenzene	<0.002	mg/Kg - dry	0.002	0.002	1	08/10/20 10:53	ELM	L505699
1,2,4-Trichlorobenzene	<0.001	mg/Kg - dry	0.001	0.002	1	08/10/20 10:53	ELM	L505699
1,1,1-Trichloroethane	<0.0009	mg/Kg - dry	0.0009	0.002	1	08/10/20 10:53	ELM	L505699
1,1,2-Trichloroethane	<0.0007	mg/Kg - dry	0.0007	0.002	1	08/10/20 10:53	ELM	L505699

Qualifiers/ Definitions	*	Outside QC Limit	B	Analyte detected in blank
	DF	Dilution Factor	E	Result above cal range
	I	Recovery out of range	J	Estimated value
	MQL	Method Quantitation Limit		

03180

Ensafe

Ms. Chelsey Kipper

5724 Summer Tree Drive

Memphis, TN 38134

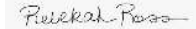
Project Former Wayne's Pinball Palace

Information : 167 Chelsea Avenue, Memphis, TN

Project No. 0888826703

Report Date : 08/14/2020

Received : 08/05/2020



Report Number : **20-218-0165**

**REPORT OF ANALYSIS**

Rebekah Ross  
Project Manager

Lab No : **92398**

Matrix: **Solids**

Sample ID : **167SSB0212**

Sampled: **8/4/2020 11:10**

**Analytical Method:** 8260B **Prep Batch(es):** L505698 08/10/20 07:41

**Prep Method:** 5030A

Test	Results	Units	MDL	SQL	DF	Date / Time Analyzed	By	Analytical Batch
Trichloroethene	<0.0006	mg/Kg - dry	0.0006	0.002	1	08/10/20 10:53	ELM	L505699
Trichlorofluoromethane	<0.001	mg/Kg - dry	0.001	0.002	1	08/10/20 10:53	ELM	L505699
1,2,3-Trichloropropane	<0.0008	mg/Kg - dry	0.0008	0.002	1	08/10/20 10:53	ELM	L505699
1,2,4-Trimethylbenzene	<0.001	mg/Kg - dry	0.001	0.002	1	08/10/20 10:53	ELM	L505699
1,3,5-Trimethylbenzene	<0.001	mg/Kg - dry	0.001	0.002	1	08/10/20 10:53	ELM	L505699
Vinyl Acetate	<0.004	mg/Kg - dry	0.004	0.051	1	08/10/20 10:53	ELM	L505699
Vinyl Chloride	<0.0007	mg/Kg - dry	0.0007	0.002	1	08/10/20 10:53	ELM	L505699
Xylene (Total)	<b>0.023</b>	mg/Kg - dry	0.0006	0.002	1	08/10/20 10:53		L505699
Surrogate: 4-Bromofluorobenzene	82.3		Limits: 60-130%		1	08/10/20 10:53	ELM	L505699
Surrogate: 1,2-Dichloroethane - d4	119		Limits: 60-132%		1	08/10/20 10:53	ELM	L505699
Surrogate: Toluene-d8	<b>189 *</b>		Limits: 70-130%		1	08/10/20 10:53	ELM	L505699

**Analytical Method:** 8270D SIM **Prep Batch(es):** L505071 08/06/20 12:00

**Prep Method:** 3550B

Test	Results	Units	MDL	SQL	DF	Date / Time Analyzed	By	Analytical Batch
Acenaphthene	<0.00163	mg/Kg - dry	0.00163	0.00254	1	08/11/20 15:11	MLR	L505238
Acenaphthylene	<0.00144	mg/Kg - dry	0.00144	0.00254	1	08/11/20 15:11	MLR	L505238
Anthracene	<0.00162	mg/Kg - dry	0.00162	0.00254	1	08/11/20 15:11	MLR	L505238
Benzo(a)anthracene	<b>0.00217 J</b>	mg/Kg - dry	0.00167	0.00254	1	08/11/20 15:11	MLR	L505238
Benzo(a)pyrene	<b>0.00217 J</b>	mg/Kg - dry	0.000504	0.00254	1	08/11/20 15:11	MLR	L505238
Benzo(b)fluoranthene	<b>0.00161 J</b>	mg/Kg - dry	0.000523	0.00254	1	08/11/20 15:11	MLR	L505238
Benzo(g,h,i)perylene	<0.000876	mg/Kg - dry	0.000876	0.00254	1	08/11/20 15:11	MLR	L505238

Qualifiers/Definitions				
*	Outside QC Limit		B	Analyte detected in blank
DF	Dilution Factor		E	Result above cal range
I	Recovery out of range		J	Estimated value
SQL	Method Quantitation Limit			

03180

Ensafe  
Ms. Chelsey Kipper  
5724 Summer Tree Drive  
Memphis, TN 38134

Project Former Wayne's Pinball Palace  
Information : 167 Chelsea Avenue, Memphis, TN  
Project No. 0888826703

Report Date : 08/14/2020  
Received : 08/05/2020



Report Number : **20-218-0165**

**REPORT OF ANALYSIS**

Rebekah Ross  
Project Manager

Lab No : **92398**

Matrix: **Solids**

Sample ID : **167SSB0212**

Sampled: **8/4/2020 11:10**

**Analytical Method:** 8270D SIM      **Prep Batch(es):** **L505071** 08/06/20 12:00  
**Prep Method:** 3550B

Test	Results	Units	MDL	MQL	DF	Date / Time Analyzed	By	Analytical Batch
Benzo(k)fluoranthene	<0.00184	mg/Kg - dry	0.00184	0.00254	1	08/11/20 15:11	MLR	L505238
Chrysene	<0.000970	mg/Kg - dry	0.000970	0.00254	1	08/11/20 15:11	MLR	L505238
Dibenz(a,h)anthracene	<b>0.00144 J</b>	mg/Kg - dry	0.00106	0.00254	1	08/11/20 15:11	MLR	L505238
Fluoranthene	<0.00201	mg/Kg - dry	0.00201	0.00254	1	08/11/20 15:11	MLR	L505238
Fluorene	<0.00190	mg/Kg - dry	0.00190	0.00254	1	08/11/20 15:11	MLR	L505238
Indeno(1,2,3-cd)pyrene	<0.00130	mg/Kg - dry	0.00130	0.00254	1	08/11/20 15:11	MLR	L505238
2-Methylnaphthalene	<b>0.00905</b>	mg/Kg - dry	0.00206	0.00254	1	08/11/20 15:11	MLR	L505238
Naphthalene	<b>0.0266</b>	mg/Kg - dry	0.00178	0.00254	1	08/11/20 15:11	MLR	L505238
Phenanthrene	<0.00248	mg/Kg - dry	0.00248	0.00254	1	08/11/20 15:11	MLR	L505238
Pyrene	<0.00147	mg/Kg - dry	0.00147	0.00254	1	08/11/20 15:11	MLR	L505238
Surrogate: 2-Fluorobiphenyl	35.7		Limits: 33-115%		1	08/11/20 15:11	MLR	L505238
Surrogate: Nitrobenzene-d5	46.1		Limits: 29-110%		1	08/11/20 15:11	MLR	L505238
Surrogate: 4-Terphenyl-d14	57.9		Limits: 33-122%		1	08/11/20 15:11	MLR	L505238

**Analytical Method:** TN EPH      **Prep Batch(es):** **L505693** 08/11/20 10:04  
**Prep Method:** 3550B

Test	Results	Units	MDL	MQL	DF	Date / Time Analyzed	By	Analytical Batch
Diesel Range Organics (C10-C28)	<b>23.5</b>	mg/Kg - dry	4.21	4.21	1	08/12/20 11:49	MMK	L505941
Oil Range Organics (>C28-C40)	<4.21	mg/Kg - dry	4.21	4.21	1	08/12/20 11:49	MMK	L505941
TN EPH (C10-C40)	<b>23.5</b>	mg/Kg - dry	4.21	4.21	1	08/12/20 11:49		L505941
Surrogate: OTP Surrogate	69.6		Limits: 50-150%		1	08/12/20 11:49	MMK	L505941

Qualifiers/Definitions				
*	Outside QC Limit		B	Analyte detected in blank
DF	Dilution Factor		E	Result above cal range
I	Recovery out of range		J	Estimated value
MQL	Method Quantitation Limit			

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Ensafe  
Ms. Chelsey Kipper  
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Memphis , TN 38134

Project Former Wayne's Pinball Palace  
Information : 167 Chelsea Avenue, Memphis, TN  
Project No. 0888826703

Report Date : 08/14/2020  
Received : 08/05/2020



Report Number : **20-218-0165**

**REPORT OF ANALYSIS**

Rebekah Ross  
Project Manager

Lab No : **92399**  
Sample ID : **167SSB0304**

Matrix: **Solids**  
Sampled: **8/4/2020 13:05**

Test	Results	Units	MDL	MQL	DF	Date / Time Analyzed	By	Analytical Method
Moisture	<b>16.1</b>	%			1	08/10/20 14:13	FMM	SW-DRYWT
Arsenic	<b>12.4</b>	mg/Kg - dry	1.43	2.98	5	08/11/20 08:17	TJS	6010D
Barium	<b>222</b>	mg/Kg - dry	0.775	2.98	5	08/11/20 08:17	TJS	6010D
Cadmium	<b>0.254 J</b>	mg/Kg - dry	0.119	0.596	5	08/11/20 08:17	TJS	6010D
Chromium	<b>18.0</b>	mg/Kg - dry	1.41	1.49	5	08/11/20 08:17	TJS	6010D
Lead	<b>39.2</b>	mg/Kg - dry	1.07	1.79	5	08/11/20 08:17	TJS	6010D
Mercury	<b>0.255</b>	mg/Kg - dry	0.00404	0.0182	1	08/11/20 13:43	DDB	7471A
Selenium	<1.91	mg/Kg - dry	1.91	2.98	5	08/11/20 08:17	TJS	6010D
Silver	<0.954	mg/Kg - dry	0.954	1.49	5	08/11/20 08:17	TJS	6010D

**Qualifiers/  
Definitions**

*	Outside QC Limit	B	Analyte detected in blank
DF	Dilution Factor	E	Result above cal range
J	Estimated value	L	Limit Exceeded
MQL	Method Quantitation Limit		



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Ensafe  
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 Memphis, TN 38134

Project Former Wayne's Pinball Palace  
 Information : 167 Chelsea Avenue, Memphis, TN  
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Report Date : 08/14/2020  
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Report Number : **20-218-0165**

**REPORT OF ANALYSIS**

Rebekah Ross  
 Project Manager

Lab No : **92399**

Matrix: **Solids**

Sample ID : **167SSB0304**

Sampled: **8/4/2020 13:05**

**Analytical Method:** 8260B      **Prep Batch(es):** **L505698** 08/10/20 07:41  
**Prep Method:** 5030A

Test	Results	Units	MDL	MQL	DF	Date / Time Analyzed	By	Analytical Batch
Acetone	<0.005	mg/Kg - dry	0.005	0.047	1	08/10/20 11:14	ELM	L505699
Acetonitrile	<0.054	mg/Kg - dry	0.054	0.119	1	08/10/20 11:14	ELM	L505699
Acrolein	<0.007	mg/Kg - dry	0.007	0.047	1	08/10/20 11:14	ELM	L505699
Acrylonitrile	<0.003	mg/Kg - dry	0.003	0.047	1	08/10/20 11:14	ELM	L505699
Benzene	<0.0007	mg/Kg - dry	0.0007	0.002	1	08/10/20 11:14	ELM	L505699
Bromobenzene	<0.0009	mg/Kg - dry	0.0009	0.002	1	08/10/20 11:14	ELM	L505699
Bromochloromethane	<0.001	mg/Kg - dry	0.001	0.002	1	08/10/20 11:14	ELM	L505699
Bromodichloromethane	<0.002	mg/Kg - dry	0.002	0.002	1	08/10/20 11:14	ELM	L505699
Bromoform	<0.002	mg/Kg - dry	0.002	0.002	1	08/10/20 11:14	ELM	L505699
Bromomethane	<0.001	mg/Kg - dry	0.001	0.002	1	08/10/20 11:14	ELM	L505699
Methyl Ethyl Ketone (MEK)	<0.009	mg/Kg - dry	0.009	0.047	1	08/10/20 11:14	ELM	L505699
n-Butylbenzene	<0.001	mg/Kg - dry	0.001	0.002	1	08/10/20 11:14	ELM	L505699
sec-Butyl benzene	<0.001	mg/Kg - dry	0.001	0.002	1	08/10/20 11:14	ELM	L505699
tert-Butyl benzene	<0.001	mg/Kg - dry	0.001	0.002	1	08/10/20 11:14	ELM	L505699
Carbon Disulfide	<0.001	mg/Kg - dry	0.001	0.002	1	08/10/20 11:14	ELM	L505699
Carbon Tetrachloride	<0.0005	mg/Kg - dry	0.0005	0.002	1	08/10/20 11:14	ELM	L505699
Chlorobenzene	<0.0006	mg/Kg - dry	0.0006	0.002	1	08/10/20 11:14	ELM	L505699
Chlorodibromomethane	<0.002	mg/Kg - dry	0.002	0.002	1	08/10/20 11:14	ELM	L505699
Chloroethane	<0.001	mg/Kg - dry	0.001	0.002	1	08/10/20 11:14	ELM	L505699
2-Chloroethylvinyl Ether	<0.006	mg/Kg - dry	0.006	0.011	1	08/10/20 11:14	ELM	L505699
Chloroform	<b>0.007</b>	mg/Kg - dry	0.002	0.002	1	08/10/20 11:14	ELM	L505699
Chloromethane	<0.001	mg/Kg - dry	0.001	0.002	1	08/10/20 11:14	ELM	L505699

Qualifiers/Definitions				
*	Outside QC Limit		B	Analyte detected in blank
DF	Dilution Factor		E	Result above cal range
I	Recovery out of range		J	Estimated value
MQL	Method Quantitation Limit			



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Ensafe

Ms. Chelsey Kipper

5724 Summer Tree Drive

Memphis , TN 38134

Project

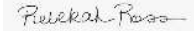
Former Wayne's Pinball Palace

Information : 167 Chelsea Avenue, Memphis, TN

Project No. 0888826703

Report Date : 08/14/2020

Received : 08/05/2020



Report Number : **20-218-0165**

**REPORT OF ANALYSIS**

Rebekah Ross  
Project Manager

Lab No : **92399**

Sample ID : **167SSB0304**

Matrix: **Solids**

Sampled: **8/4/2020 13:05**

**Analytical Method:** 8260B **Prep Batch(es):** **L505698** 08/10/20 07:41

**Prep Method:** 5030A

Test	Results	Units	MDL	MQL	DF	Date / Time Analyzed	By	Analytical Batch
2-Chlorotoluene	<0.001	mg/Kg - dry	0.001	0.002	1	08/10/20 11:14	ELM	L505699
4-Chlorotoluene	<0.001	mg/Kg - dry	0.001	0.002	1	08/10/20 11:14	ELM	L505699
1,2-Dibromo-3-Chloropropane	<0.005	mg/Kg - dry	0.005	0.011	1	08/10/20 11:14	ELM	L505699
1,2-Dibromoethane	<0.0007	mg/Kg - dry	0.0007	0.002	1	08/10/20 11:14	ELM	L505699
Dibromomethane	<0.0006	mg/Kg - dry	0.0006	0.002	1	08/10/20 11:14	ELM	L505699
1,2-Dichlorobenzene	<0.001	mg/Kg - dry	0.001	0.002	1	08/10/20 11:14	ELM	L505699
1,3-Dichlorobenzene	<0.001	mg/Kg - dry	0.001	0.002	1	08/10/20 11:14	ELM	L505699
1,4-Dichlorobenzene	<0.001	mg/Kg - dry	0.001	0.002	1	08/10/20 11:14	ELM	L505699
Dichlorodifluoromethane	<0.001	mg/Kg - dry	0.001	0.002	1	08/10/20 11:14	ELM	L505699
1,1-Dichloroethane	<0.001	mg/Kg - dry	0.001	0.002	1	08/10/20 11:14	ELM	L505699
1,2-Dichloroethane	<0.001	mg/Kg - dry	0.001	0.002	1	08/10/20 11:14	ELM	L505699
1,1-Dichloroethene	<0.001	mg/Kg - dry	0.001	0.002	1	08/10/20 11:14	ELM	L505699
cis-1,2-Dichloroethene	<0.0008	mg/Kg - dry	0.0008	0.002	1	08/10/20 11:14	ELM	L505699
trans-1,2-Dichloroethene	<0.001	mg/Kg - dry	0.001	0.002	1	08/10/20 11:14	ELM	L505699
1,2-Dichloroethene (Total)	<0.0008	mg/Kg - dry	0.0008	0.002	1	08/10/20 11:14		L505699
1,2-Dichloropropane	<0.0010	mg/Kg - dry	0.0010	0.002	1	08/10/20 11:14	ELM	L505699
1,3-Dichloropropane	<0.001	mg/Kg - dry	0.001	0.002	1	08/10/20 11:14	ELM	L505699
2,2-Dichloropropane	<0.0007	mg/Kg - dry	0.0007	0.002	1	08/10/20 11:14	ELM	L505699
1,1-Dichloropropene	<0.0008	mg/Kg - dry	0.0008	0.002	1	08/10/20 11:14	ELM	L505699
cis-1,3-Dichloropropene	<0.0007	mg/Kg - dry	0.0007	0.002	1	08/10/20 11:14	ELM	L505699
trans-1,3-Dichloropropene	<0.0007	mg/Kg - dry	0.0007	0.002	1	08/10/20 11:14	ELM	L505699
Ethyl Acetate	<0.008	mg/Kg - dry	0.008	0.047	1	08/10/20 11:14	ELM	L505699

Qualifiers/Definitions	*	Outside QC Limit	B	Analyte detected in blank
	DF	Dilution Factor	E	Result above cal range
	I	Recovery out of range	J	Estimated value
	MQL	Method Quantitation Limit		

03180

Ensafe  
 Ms. Chelsey Kipper  
 5724 Summer Tree Drive  
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Project Former Wayne's Pinball Palace  
 Information : 167 Chelsea Avenue, Memphis, TN  
 Project No. 0888826703

Report Date : 08/14/2020  
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Report Number : **20-218-0165**

**REPORT OF ANALYSIS**

Rebekah Ross  
 Project Manager

Lab No : **92399**

Matrix: **Solids**

Sample ID : **167SSB0304**

Sampled: **8/4/2020 13:05**

**Analytical Method:** 8260B      **Prep Batch(es):** **L505698** 08/10/20 07:41  
**Prep Method:** 5030A

Test	Results	Units	MDL	MQL	DF	Date / Time Analyzed	By	Analytical Batch
Ethylbenzene	<0.0008	mg/Kg - dry	0.0008	0.002	1	08/10/20 11:14	ELM	L505699
Hexachlorobutadiene	<0.001	mg/Kg - dry	0.001	0.002	1	08/10/20 11:14	ELM	L505699
2-Hexanone	<0.005	mg/Kg - dry	0.005	0.011	1	08/10/20 11:14	ELM	L505699
Iodomethane	<0.0010	mg/Kg - dry	0.0010	0.011	1	08/10/20 11:14	ELM	L505699
Isopropylbenzene	<0.001	mg/Kg - dry	0.001	0.002	1	08/10/20 11:14	ELM	L505699
4-Isopropyl toluene	<0.001	mg/Kg - dry	0.001	0.002	1	08/10/20 11:14	ELM	L505699
4-Methyl-2-Pentanone	<0.006	mg/Kg - dry	0.006	0.011	1	08/10/20 11:14	ELM	L505699
Methylene Chloride	<0.006	mg/Kg - dry	0.006	0.047	1	08/10/20 11:14	ELM	L505699
Methyl tert-butyl ether (MTBE)	<0.001	mg/Kg - dry	0.001	0.002	1	08/10/20 11:14	ELM	L505699
m,p-Xylene	<b>0.001 J</b>	mg/Kg - dry	0.001	0.004	1	08/10/20 11:14	ELM	L505699
Naphthalene	<0.008	mg/Kg - dry	0.008	0.011	1	08/10/20 11:14	ELM	L505699
o-Xylene	<b>0.0006 J</b>	mg/Kg - dry	0.0005	0.002	1	08/10/20 11:14	ELM	L505699
n-Propylbenzene	<0.001	mg/Kg - dry	0.001	0.002	1	08/10/20 11:14	ELM	L505699
Styrene	<0.001	mg/Kg - dry	0.001	0.002	1	08/10/20 11:14	ELM	L505699
1,1,1,2-Tetrachloroethane	<0.001	mg/Kg - dry	0.001	0.002	1	08/10/20 11:14	ELM	L505699
1,1,2,2-Tetrachloroethane	<0.001	mg/Kg - dry	0.001	0.002	1	08/10/20 11:14	ELM	L505699
Tetrachloroethene	<0.001	mg/Kg - dry	0.001	0.002	1	08/10/20 11:14	ELM	L505699
Toluene	<0.004	mg/Kg - dry	0.004	0.011	1	08/10/20 11:14	ELM	L505699
1,2,3-Trichlorobenzene	<0.001	mg/Kg - dry	0.001	0.002	1	08/10/20 11:14	ELM	L505699
1,2,4-Trichlorobenzene	<0.001	mg/Kg - dry	0.001	0.002	1	08/10/20 11:14	ELM	L505699
1,1,1-Trichloroethane	<0.0008	mg/Kg - dry	0.0008	0.002	1	08/10/20 11:14	ELM	L505699
1,1,2-Trichloroethane	<0.0007	mg/Kg - dry	0.0007	0.002	1	08/10/20 11:14	ELM	L505699

Qualifiers/Definitions				
*	Outside QC Limit		B	Analyte detected in blank
DF	Dilution Factor		E	Result above cal range
I	Recovery out of range		J	Estimated value
MQL	Method Quantitation Limit			

03180

Ensafe

Ms. Chelsey Kipper

5724 Summer Tree Drive

Memphis , TN 38134

Project Former Wayne's Pinball Palace

Information : 167 Chelsea Avenue, Memphis, TN

Project No. 0888826703

Report Date : 08/14/2020

Received : 08/05/2020

*Rebekah Ross*

Rebekah Ross  
Project Manager

Report Number : **20-218-0165**

**REPORT OF ANALYSIS**

Lab No : **92399**

Sample ID : **167SSB0304**

Matrix: **Solids**

Sampled: **8/4/2020 13:05**

**Analytical Method:** 8260B **Prep Batch(es):** **L505698** 08/10/20 07:41

**Prep Method:** 5030A

Test	Results	Units	MDL	SQL	DF	Date / Time Analyzed	By	Analytical Batch
Trichloroethene	<0.0006	mg/Kg - dry	0.0006	0.002	1	08/10/20 11:14	ELM	L505699
Trichlorofluoromethane	<0.001	mg/Kg - dry	0.001	0.002	1	08/10/20 11:14	ELM	L505699
1,2,3-Trichloropropane	<0.0007	mg/Kg - dry	0.0007	0.002	1	08/10/20 11:14	ELM	L505699
1,2,4-Trimethylbenzene	<0.001	mg/Kg - dry	0.001	0.002	1	08/10/20 11:14	ELM	L505699
1,3,5-Trimethylbenzene	<0.001	mg/Kg - dry	0.001	0.002	1	08/10/20 11:14	ELM	L505699
Vinyl Acetate	<0.004	mg/Kg - dry	0.004	0.047	1	08/10/20 11:14	ELM	L505699
Vinyl Chloride	<0.0006	mg/Kg - dry	0.0006	0.002	1	08/10/20 11:14	ELM	L505699
Xylene (Total)	<b>0.002J</b>	mg/Kg - dry	0.0005	0.002	1	08/10/20 11:14		L505699
Surrogate: 4-Bromofluorobenzene	104		Limits: 60-130%		1	08/10/20 11:14	ELM	L505699
Surrogate: 1,2-Dichloroethane - d4	123		Limits: 60-132%		1	08/10/20 11:14	ELM	L505699
Surrogate: Toluene-d8	103		Limits: 70-130%		1	08/10/20 11:14	ELM	L505699

**Analytical Method:** 8270D SIM **Prep Batch(es):** **L505071** 08/06/20 12:00

**Prep Method:** 3550B

Test	Results	Units	MDL	SQL	DF	Date / Time Analyzed	By	Analytical Batch
Acenaphthene	<b>0.00190</b>	mg/Kg - dry	0.000513	0.000798	1	08/07/20 15:34	MLR	L505238
Acenaphthylene	<b>0.00161</b>	mg/Kg - dry	0.000455	0.000798	1	08/07/20 15:34	MLR	L505238
Anthracene	<b>0.00670</b>	mg/Kg - dry	0.000507	0.000798	1	08/07/20 15:34	MLR	L505238
Benzo(a)anthracene	<b>0.0460</b>	mg/Kg - dry	0.000525	0.000798	1	08/07/20 15:34	MLR	L505238
Benzo(a)pyrene	<b>0.0496</b>	mg/Kg - dry	0.000158	0.000798	1	08/07/20 15:34	MLR	L505238
Benzo(b)fluoranthene	<b>0.0963</b>	mg/Kg - dry	0.000164	0.000798	1	08/07/20 15:34	MLR	L505238
Benzo(g,h,i)perylene	<b>0.0313</b>	mg/Kg - dry	0.000275	0.000798	1	08/07/20 15:34	MLR	L505238

Qualifiers/Definitions				
*	Outside QC Limit		B	Analyte detected in blank
DF	Dilution Factor		E	Result above cal range
I	Recovery out of range		J	Estimated value
SQL	Method Quantitation Limit			

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 Ms. Chelsey Kipper  
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Project Former Wayne's Pinball Palace  
 Information : 167 Chelsea Avenue, Memphis, TN  
 Project No. 0888826703

Report Date : 08/14/2020  
 Received : 08/05/2020



Report Number : **20-218-0165**

**REPORT OF ANALYSIS**

Rebekah Ross  
 Project Manager

Lab No : **92399**  
 Sample ID : **167SSB0304**

Matrix: **Solids**  
 Sampled: **8/4/2020 13:05**

**Analytical Method:** 8270D SIM      **Prep Batch(es):** **L505071** 08/06/20 12:00  
**Prep Method:** 3550B

Test	Results	Units	MDL	MQL	DF	Date / Time Analyzed	By	Analytical Batch
Benzo(k)fluoranthene	<b>0.0391</b>	mg/Kg - dry	0.000579	0.000798	1	08/07/20 15:34	MLR	L505238
Chrysene	<b>0.0626</b>	mg/Kg - dry	0.000305	0.000798	1	08/07/20 15:34	MLR	L505238
Dibenz(a,h)anthracene	<b>0.00776</b>	mg/Kg - dry	0.000332	0.000798	1	08/07/20 15:34	MLR	L505238
Fluoranthene	<b>0.128</b>	mg/Kg - dry	0.000630	0.000798	1	08/07/20 15:34	MLR	L505238
Fluorene	<b>0.00148</b>	mg/Kg - dry	0.000597	0.000798	1	08/07/20 15:34	MLR	L505238
Indeno(1,2,3-cd)pyrene	<b>0.0411</b>	mg/Kg - dry	0.000410	0.000798	1	08/07/20 15:34	MLR	L505238
2-Methylnaphthalene	<b>0.0460</b>	mg/Kg - dry	0.000646	0.000798	1	08/07/20 15:34	MLR	L505238
Naphthalene	<b>0.0361</b>	mg/Kg - dry	0.000556	0.000798	1	08/07/20 15:34	MLR	L505238
Phenanthrene	<b>0.0982</b>	mg/Kg - dry	0.000779	0.000798	1	08/07/20 15:34	MLR	L505238
Pyrene	<b>0.0919</b>	mg/Kg - dry	0.000461	0.000798	1	08/07/20 15:34	MLR	L505238
Surrogate: 2-Fluorobiphenyl	38.4			Limits: 33-115%	1	08/07/20 15:34	MLR	L505238
Surrogate: Nitrobenzene-d5	32.3			Limits: 29-110%	1	08/07/20 15:34	MLR	L505238
Surrogate: 4-Terphenyl-d14	41.2			Limits: 33-122%	1	08/07/20 15:34	MLR	L505238

**Analytical Method:** TN EPH      **Prep Batch(es):** **L505693** 08/11/20 10:04  
**Prep Method:** 3550B

Test	Results	Units	MDL	MQL	DF	Date / Time Analyzed	By	Analytical Batch
Diesel Range Organics (C10-C28)	<b>4.93</b>	mg/Kg - dry	3.93	3.93	1	08/12/20 12:08	MMK	L505941
Oil Range Organics (>C28-C40)	<b>7.53</b>	mg/Kg - dry	3.93	3.93	1	08/12/20 12:08	MMK	L505941
TN EPH (C10-C40)	<b>12.5</b>	mg/Kg - dry	3.93	3.93	1	08/12/20 12:08		L505941
Surrogate: OTP Surrogate	72.7			Limits: 50-150%	1	08/12/20 12:08	MMK	L505941

Qualifiers/Definitions				
*	Outside QC Limit		B	Analyte detected in blank
DF	Dilution Factor		E	Result above cal range
I	Recovery out of range		J	Estimated value
MQL	Method Quantitation Limit			

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Ensafe

Ms. Chelsey Kipper

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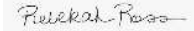
Project Former Wayne's Pinball Palace

Information : 167 Chelsea Avenue, Memphis, TN

Project No. 0888826703

Report Date : 08/14/2020

Received : 08/05/2020



Report Number : **20-218-0165**

**REPORT OF ANALYSIS**

Rebekah Ross  
Project Manager

Lab No : **92400**

Sample ID : **167SSB0404**

Matrix: **Solids**

Sampled: **8/4/2020 13:15**

Test	Results	Units	MDL	MQL	DF	Date / Time Analyzed	By	Analytical Method
Moisture	<b>17.2</b>	%			1	08/07/20 13:51	FMM	SW-DRYWT
Arsenic	<b>13.4</b>	mg/Kg - dry	1.45	3.02	5	08/11/20 08:22	TJS	6010D
Barium	<b>149</b>	mg/Kg - dry	0.785	3.02	5	08/11/20 08:22	TJS	6010D
Cadmium	<b>0.481 J</b>	mg/Kg - dry	0.121	0.604	5	08/11/20 08:22	TJS	6010D
Chromium	<b>17.6</b>	mg/Kg - dry	1.43	1.51	5	08/11/20 08:22	TJS	6010D
Lead	<b>48.1</b>	mg/Kg - dry	1.09	1.81	5	08/11/20 08:22	TJS	6010D
Mercury	<b>0.0429</b>	mg/Kg - dry	0.00419	0.0190	1	08/13/20 17:31	DDB	7471A
Selenium	<1.93	mg/Kg - dry	1.93	3.02	5	08/11/20 08:22	TJS	6010D
Silver	<0.966	mg/Kg - dry	0.966	1.51	5	08/11/20 08:22	TJS	6010D

**Qualifiers/  
Definitions**

*	Outside QC Limit	B	Analyte detected in blank
DF	Dilution Factor	E	Result above cal range
J	Estimated value	L	Limit Exceeded
MQL	Method Quantitation Limit		

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Ensafe  
 Ms. Chelsey Kipper  
 5724 Summer Tree Drive  
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Project Former Wayne's Pinball Palace  
 Information : 167 Chelsea Avenue, Memphis, TN  
 Project No. 0888826703

Report Date : 08/14/2020  
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Report Number : **20-218-0165**

**REPORT OF ANALYSIS**

Rebekah Ross  
 Project Manager

Lab No : **92400**  
 Sample ID : **167SSB0404**

Matrix: **Solids**  
 Sampled: **8/4/2020 13:15**

**Analytical Method:** 8260B      **Prep Batch(es):** **L505698** 08/10/20 07:41  
**Prep Method:** 5030A

Test	Results	Units	MDL	MQL	DF	Date / Time Analyzed	By	Analytical Batch
Acetone	<0.006	mg/Kg - dry	0.006	0.052	1	08/10/20 12:19	ELM	L505699
Acetonitrile	<0.059	mg/Kg - dry	0.059	0.131	1	08/10/20 12:19	ELM	L505699
Acrolein	<0.008	mg/Kg - dry	0.008	0.052	1	08/10/20 12:19	ELM	L505699
Acrylonitrile	<0.003	mg/Kg - dry	0.003	0.052	1	08/10/20 12:19	ELM	L505699
Benzene	<0.0008	mg/Kg - dry	0.0008	0.002	1	08/10/20 12:19	ELM	L505699
Bromobenzene	<0.001	mg/Kg - dry	0.001	0.002	1	08/10/20 12:19	ELM	L505699
Bromochloromethane	<0.001	mg/Kg - dry	0.001	0.002	1	08/10/20 12:19	ELM	L505699
Bromodichloromethane	<0.002	mg/Kg - dry	0.002	0.002	1	08/10/20 12:19	ELM	L505699
Bromoform	<0.002	mg/Kg - dry	0.002	0.002	1	08/10/20 12:19	ELM	L505699
Bromomethane	<0.001	mg/Kg - dry	0.001	0.002	1	08/10/20 12:19	ELM	L505699
Methyl Ethyl Ketone (MEK)	<0.010	mg/Kg - dry	0.010	0.052	1	08/10/20 12:19	ELM	L505699
n-Butylbenzene	<0.001	mg/Kg - dry	0.001	0.002	1	08/10/20 12:19	ELM	L505699
sec-Butyl benzene	<0.001	mg/Kg - dry	0.001	0.002	1	08/10/20 12:19	ELM	L505699
tert-Butyl benzene	<0.001	mg/Kg - dry	0.001	0.002	1	08/10/20 12:19	ELM	L505699
Carbon Disulfide	<0.001	mg/Kg - dry	0.001	0.002	1	08/10/20 12:19	ELM	L505699
Carbon Tetrachloride	<0.0006	mg/Kg - dry	0.0006	0.002	1	08/10/20 12:19	ELM	L505699
Chlorobenzene	<0.0007	mg/Kg - dry	0.0007	0.002	1	08/10/20 12:19	ELM	L505699
Chlorodibromomethane	<0.002	mg/Kg - dry	0.002	0.002	1	08/10/20 12:19	ELM	L505699
Chloroethane	<0.001	mg/Kg - dry	0.001	0.002	1	08/10/20 12:19	ELM	L505699
2-Chloroethylvinyl Ether	<0.007	mg/Kg - dry	0.007	0.013	1	08/10/20 12:19	ELM	L505699
Chloroform	<0.002	mg/Kg - dry	0.002	0.002	1	08/10/20 12:19	ELM	L505699
Chloromethane	<0.001	mg/Kg - dry	0.001	0.002	1	08/10/20 12:19	ELM	L505699

Qualifiers/Definitions				
*	Outside QC Limit		B	Analyte detected in blank
DF	Dilution Factor		E	Result above cal range
I	Recovery out of range		J	Estimated value
MQL	Method Quantitation Limit			



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Ensafe

Ms. Chelsey Kipper

5724 Summer Tree Drive

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Project Former Wayne's Pinball Palace

Information : 167 Chelsea Avenue, Memphis, TN

Project No. 0888826703

Report Date : 08/14/2020

Received : 08/05/2020



Report Number : **20-218-0165**

**REPORT OF ANALYSIS**

Rebekah Ross  
Project Manager

Lab No : **92400**

Matrix: **Solids**

Sample ID : **167SSB0404**

Sampled: **8/4/2020 13:15**

**Analytical Method:** 8260B      **Prep Batch(es):** **L505698** 08/10/20 07:41  
**Prep Method:** 5030A

Test	Results	Units	MDL	MQL	DF	Date / Time Analyzed	By	Analytical Batch
2-Chlorotoluene	<0.001	mg/Kg - dry	0.001	0.002	1	08/10/20 12:19	ELM	L505699
4-Chlorotoluene	<0.001	mg/Kg - dry	0.001	0.002	1	08/10/20 12:19	ELM	L505699
1,2-Dibromo-3-Chloropropane	<0.005	mg/Kg - dry	0.005	0.013	1	08/10/20 12:19	ELM	L505699
1,2-Dibromoethane	<0.0008	mg/Kg - dry	0.0008	0.002	1	08/10/20 12:19	ELM	L505699
Dibromomethane	<0.0006	mg/Kg - dry	0.0006	0.002	1	08/10/20 12:19	ELM	L505699
1,2-Dichlorobenzene	<0.001	mg/Kg - dry	0.001	0.002	1	08/10/20 12:19	ELM	L505699
1,3-Dichlorobenzene	<0.001	mg/Kg - dry	0.001	0.002	1	08/10/20 12:19	ELM	L505699
1,4-Dichlorobenzene	<0.001	mg/Kg - dry	0.001	0.002	1	08/10/20 12:19	ELM	L505699
Dichlorodifluoromethane	<0.001	mg/Kg - dry	0.001	0.002	1	08/10/20 12:19	ELM	L505699
1,1-Dichloroethane	<0.001	mg/Kg - dry	0.001	0.002	1	08/10/20 12:19	ELM	L505699
1,2-Dichloroethane	<0.001	mg/Kg - dry	0.001	0.002	1	08/10/20 12:19	ELM	L505699
1,1-Dichloroethene	<0.001	mg/Kg - dry	0.001	0.002	1	08/10/20 12:19	ELM	L505699
cis-1,2-Dichloroethene	<0.0009	mg/Kg - dry	0.0009	0.002	1	08/10/20 12:19	ELM	L505699
trans-1,2-Dichloroethene	<0.001	mg/Kg - dry	0.001	0.002	1	08/10/20 12:19	ELM	L505699
1,2-Dichloroethene (Total)	<0.0009	mg/Kg - dry	0.0009	0.002	1	08/10/20 12:19		L505699
1,2-Dichloropropane	<0.001	mg/Kg - dry	0.001	0.002	1	08/10/20 12:19	ELM	L505699
1,3-Dichloropropane	<0.001	mg/Kg - dry	0.001	0.002	1	08/10/20 12:19	ELM	L505699
2,2-Dichloropropane	<0.0008	mg/Kg - dry	0.0008	0.002	1	08/10/20 12:19	ELM	L505699
1,1-Dichloropropene	<0.0009	mg/Kg - dry	0.0009	0.002	1	08/10/20 12:19	ELM	L505699
cis-1,3-Dichloropropene	<0.0008	mg/Kg - dry	0.0008	0.002	1	08/10/20 12:19	ELM	L505699
trans-1,3-Dichloropropene	<0.0008	mg/Kg - dry	0.0008	0.002	1	08/10/20 12:19	ELM	L505699
Ethyl Acetate	<0.009	mg/Kg - dry	0.009	0.052	1	08/10/20 12:19	ELM	L505699

Qualifiers/Definitions				
*	Outside QC Limit		B	Analyte detected in blank
DF	Dilution Factor		E	Result above cal range
I	Recovery out of range		J	Estimated value
MQL	Method Quantitation Limit			



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Ensafe  
 Ms. Chelsey Kipper  
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Project Former Wayne's Pinball Palace  
 Information : 167 Chelsea Avenue, Memphis, TN  
 Project No. 0888826703

Report Date : 08/14/2020  
 Received : 08/05/2020



Report Number : **20-218-0165**

**REPORT OF ANALYSIS**

Rebekah Ross  
 Project Manager

Lab No : **92400**

Matrix: **Solids**

Sample ID : **167SSB0404**

Sampled: **8/4/2020 13:15**

**Analytical Method:** 8260B      **Prep Batch(es):** **L505698** 08/10/20 07:41  
**Prep Method:** 5030A

Test	Results	Units	MDL	MQL	DF	Date / Time Analyzed	By	Analytical Batch
Ethylbenzene	<0.0009	mg/Kg - dry	0.0009	0.002	1	08/10/20 12:19	ELM	L505699
Hexachlorobutadiene	<0.001	mg/Kg - dry	0.001	0.002	1	08/10/20 12:19	ELM	L505699
2-Hexanone	<0.006	mg/Kg - dry	0.006	0.013	1	08/10/20 12:19	ELM	L505699
Iodomethane	<0.001	mg/Kg - dry	0.001	0.013	1	08/10/20 12:19	ELM	L505699
Isopropylbenzene	<0.001	mg/Kg - dry	0.001	0.002	1	08/10/20 12:19	ELM	L505699
4-Isopropyl toluene	<0.001	mg/Kg - dry	0.001	0.002	1	08/10/20 12:19	ELM	L505699
4-Methyl-2-Pentanone	<0.006	mg/Kg - dry	0.006	0.013	1	08/10/20 12:19	ELM	L505699
Methylene Chloride	<0.007	mg/Kg - dry	0.007	0.052	1	08/10/20 12:19	ELM	L505699
Methyl tert-butyl ether (MTBE)	<0.001	mg/Kg - dry	0.001	0.002	1	08/10/20 12:19	ELM	L505699
m,p-Xylene	<0.001	mg/Kg - dry	0.001	0.005	1	08/10/20 12:19	ELM	L505699
Naphthalene	<0.008	mg/Kg - dry	0.008	0.013	1	08/10/20 12:19	ELM	L505699
o-Xylene	<0.0006	mg/Kg - dry	0.0006	0.002	1	08/10/20 12:19	ELM	L505699
n-Propylbenzene	<0.001	mg/Kg - dry	0.001	0.002	1	08/10/20 12:19	ELM	L505699
Styrene	<0.002	mg/Kg - dry	0.002	0.002	1	08/10/20 12:19	ELM	L505699
1,1,1,2-Tetrachloroethane	<0.001	mg/Kg - dry	0.001	0.002	1	08/10/20 12:19	ELM	L505699
1,1,2,2-Tetrachloroethane	<0.001	mg/Kg - dry	0.001	0.002	1	08/10/20 12:19	ELM	L505699
Tetrachloroethene	<0.001	mg/Kg - dry	0.001	0.002	1	08/10/20 12:19	ELM	L505699
Toluene	<0.004	mg/Kg - dry	0.004	0.013	1	08/10/20 12:19	ELM	L505699
1,2,3-Trichlorobenzene	<0.002	mg/Kg - dry	0.002	0.002	1	08/10/20 12:19	ELM	L505699
1,2,4-Trichlorobenzene	<0.001	mg/Kg - dry	0.001	0.002	1	08/10/20 12:19	ELM	L505699
1,1,1-Trichloroethane	<0.0009	mg/Kg - dry	0.0009	0.002	1	08/10/20 12:19	ELM	L505699
1,1,2-Trichloroethane	<0.0008	mg/Kg - dry	0.0008	0.002	1	08/10/20 12:19	ELM	L505699

Qualifiers/Definitions				
*	Outside QC Limit		B	Analyte detected in blank
DF	Dilution Factor		E	Result above cal range
I	Recovery out of range		J	Estimated value
MQL	Method Quantitation Limit			

03180

Ensafe

Ms. Chelsey Kipper

5724 Summer Tree Drive

Memphis , TN 38134

Project Former Wayne's Pinball Palace

Information : 167 Chelsea Avenue, Memphis, TN

Project No. 0888826703

Report Date : 08/14/2020

Received : 08/05/2020

*Rebekah Ross*

Rebekah Ross  
Project Manager

Report Number : **20-218-0165**

**REPORT OF ANALYSIS**

Lab No : **92400**

Sample ID : **167SSB0404**

Matrix: **Solids**

Sampled: **8/4/2020 13:15**

**Analytical Method:** 8260B      **Prep Batch(es):** **L505698** 08/10/20 07:41  
**Prep Method:** 5030A

Test	Results	Units	MDL	SQL	DF	Date / Time Analyzed	By	Analytical Batch
Trichloroethene	<0.0006	mg/Kg - dry	0.0006	0.002	1	08/10/20 12:19	ELM	L505699
Trichlorofluoromethane	<0.001	mg/Kg - dry	0.001	0.002	1	08/10/20 12:19	ELM	L505699
1,2,3-Trichloropropane	<0.0008	mg/Kg - dry	0.0008	0.002	1	08/10/20 12:19	ELM	L505699
1,2,4-Trimethylbenzene	<0.001	mg/Kg - dry	0.001	0.002	1	08/10/20 12:19	ELM	L505699
1,3,5-Trimethylbenzene	<0.001	mg/Kg - dry	0.001	0.002	1	08/10/20 12:19	ELM	L505699
Vinyl Acetate	<0.004	mg/Kg - dry	0.004	0.052	1	08/10/20 12:19	ELM	L505699
Vinyl Chloride	<0.0007	mg/Kg - dry	0.0007	0.002	1	08/10/20 12:19	ELM	L505699
Xylene (Total)	<0.0006	mg/Kg - dry	0.0006	0.002	1	08/10/20 12:19		L505699
Surrogate: 4-Bromofluorobenzene	99.1		Limits: 60-130%		1	08/10/20 12:19	ELM	L505699
Surrogate: 1,2-Dichloroethane - d4	118		Limits: 60-132%		1	08/10/20 12:19	ELM	L505699
Surrogate: Toluene-d8	96.3		Limits: 70-130%		1	08/10/20 12:19	ELM	L505699

**Analytical Method:** 8270D SIM      **Prep Batch(es):** **L505071** 08/06/20 12:00  
**Prep Method:** 3550B

Test	Results	Units	MDL	SQL	DF	Date / Time Analyzed	By	Analytical Batch
Acenaphthene	<0.000520	mg/Kg - dry	0.000520	0.000809	1	08/07/20 15:56	MLR	L505238
Acenaphthylene	<0.000461	mg/Kg - dry	0.000461	0.000809	1	08/07/20 15:56	MLR	L505238
Anthracene	<0.000514	mg/Kg - dry	0.000514	0.000809	1	08/07/20 15:56	MLR	L505238
Benzo(a)anthracene	<b>0.00372</b>	mg/Kg - dry	0.000532	0.000809	1	08/07/20 15:56	MLR	L505238
Benzo(a)pyrene	<b>0.00308</b>	mg/Kg - dry	0.000160	0.000809	1	08/07/20 15:56	MLR	L505238
Benzo(b)fluoranthene	<b>0.00595</b>	mg/Kg - dry	0.000166	0.000809	1	08/07/20 15:56	MLR	L505238
Benzo(g,h,i)perylene	<0.000278	mg/Kg - dry	0.000278	0.000809	1	08/07/20 15:56	MLR	L505238

Qualifiers/Definitions				
*	Outside QC Limit		B	Analyte detected in blank
DF	Dilution Factor		E	Result above cal range
I	Recovery out of range		J	Estimated value
SQL	Method Quantitation Limit			

03180

Ensafe  
Ms. Chelsey Kipper  
5724 Summer Tree Drive  
Memphis, TN 38134

Project Former Wayne's Pinball Palace  
Information : 167 Chelsea Avenue, Memphis, TN  
Project No. 0888826703

Report Date : 08/14/2020  
Received : 08/05/2020



Report Number : **20-218-0165**

**REPORT OF ANALYSIS**

Rebekah Ross  
Project Manager

Lab No : **92400**  
Sample ID : **167SSB0404**

Matrix: **Solids**  
Sampled: **8/4/2020 13:15**

**Analytical Method:** 8270D SIM      **Prep Batch(es):** **L505071** 08/06/20 12:00  
**Prep Method:** 3550B

Test	Results	Units	MDL	MQL	DF	Date / Time Analyzed	By	Analytical Batch
Benzo(k)fluoranthene	<b>0.00192</b>	mg/Kg - dry	0.000586	0.000809	1	08/07/20 15:56	MLR	L505238
Chrysene	<b>0.00459</b>	mg/Kg - dry	0.000309	0.000809	1	08/07/20 15:56	MLR	L505238
Dibenz(a,h)anthracene	<0.000336	mg/Kg - dry	0.000336	0.000809	1	08/07/20 15:56	MLR	L505238
Fluoranthene	<b>0.00849</b>	mg/Kg - dry	0.000638	0.000809	1	08/07/20 15:56	MLR	L505238
Fluorene	<0.000605	mg/Kg - dry	0.000605	0.000809	1	08/07/20 15:56	MLR	L505238
Indeno(1,2,3-cd)pyrene	<b>0.00113</b>	mg/Kg - dry	0.000415	0.000809	1	08/07/20 15:56	MLR	L505238
2-Methylnaphthalene	<b>0.00103 B</b>	mg/Kg - dry	0.000654	0.000809	1	08/07/20 15:56	MLR	L505238
Naphthalene	<b>0.000864 B</b>	mg/Kg - dry	0.000564	0.000809	1	08/07/20 15:56	MLR	L505238
Phenanthrene	<b>0.00261</b>	mg/Kg - dry	0.000789	0.000809	1	08/07/20 15:56	MLR	L505238
Pyrene	<b>0.00646</b>	mg/Kg - dry	0.000467	0.000809	1	08/07/20 15:56	MLR	L505238
Surrogate: 2-Fluorobiphenyl	46.1			Limits: 33-115%	1	08/07/20 15:56	MLR	L505238
Surrogate: Nitrobenzene-d5	41.6			Limits: 29-110%	1	08/07/20 15:56	MLR	L505238
Surrogate: 4-Terphenyl-d14	65.4			Limits: 33-122%	1	08/07/20 15:56	MLR	L505238

**Analytical Method:** TN EPH      **Prep Batch(es):** **L505693** 08/11/20 10:04  
**Prep Method:** 3550B

Test	Results	Units	MDL	MQL	DF	Date / Time Analyzed	By	Analytical Batch
Diesel Range Organics (C10-C28)	<3.99	mg/Kg - dry	3.99	3.99	1	08/12/20 12:27	MMK	L505941
Oil Range Organics (>C28-C40)	<3.99	mg/Kg - dry	3.99	3.99	1	08/12/20 12:27	MMK	L505941
TN EPH (C10-C40)	<3.99	mg/Kg - dry	3.99	3.99	1	08/12/20 12:27		L505941
Surrogate: OTP Surrogate	50.3			Limits: 50-150%	1	08/12/20 12:27	MMK	L505941

Qualifiers/Definitions				
*	Outside QC Limit		B	Analyte detected in blank
DF	Dilution Factor		E	Result above cal range
I	Recovery out of range		J	Estimated value
MQL	Method Quantitation Limit			

03180

Ensafe

Ms. Chelsey Kipper

5724 Summer Tree Drive

Memphis , TN 38134

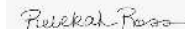
Project Former Wayne's Pinball Palace

Information : 167 Chelsea Avenue, Memphis, TN

Project No. 0888826703

Report Date : 08/14/2020

Received : 08/05/2020



Report Number : **20-218-0165**

**REPORT OF ANALYSIS**

Rebekah Ross  
Project Manager

Lab No : **92401**

Matrix: **Solids**

Sample ID : **167SSB0504**

Sampled: **8/4/2020 13:45**

Test	Results	Units	MDL	MQL	DF	Date / Time Analyzed	By	Analytical Method
Moisture	<b>19.8</b>	%			1	08/07/20 13:51	FMM	SW-DRYWT
Arsenic	<b>7.99</b>	mg/Kg - dry	0.299	0.623	1	08/08/20 02:16	TJS	6010D
Barium	<b>142</b>	mg/Kg - dry	0.162	0.623	1	08/08/20 02:16	TJS	6010D
Cadmium	<b>0.218</b>	mg/Kg - dry	0.0249	0.125	1	08/08/20 02:16	TJS	6010D
Chromium	<b>13.7</b>	mg/Kg - dry	0.294	0.311	1	08/08/20 02:16	TJS	6010D
Lead	<b>8.98</b>	mg/Kg - dry	0.224	0.374	1	08/08/20 02:16	TJS	6010D
Mercury	<b>0.0253</b>	mg/Kg - dry	0.00381	0.0173	1	08/13/20 17:32	DDB	7471A
Selenium	<0.399	mg/Kg - dry	0.399	0.623	1	08/11/20 08:27	TJS	6010D
Silver	<0.200	mg/Kg - dry	0.200	0.312	1	08/08/20 02:16	TJS	6010D

**Qualifiers/  
Definitions**


*	Outside QC Limit	B	Analyte detected in blank
DF	Dilution Factor	E	Result above cal range
J	Estimated value	L	Limit Exceeded
MQL	Method Quantitation Limit		

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Ensafe  
 Ms. Chelsey Kipper  
 5724 Summer Tree Drive  
 Memphis , TN 38134

Project Former Wayne's Pinball Palace  
 Information : 167 Chelsea Avenue, Memphis, TN  
 Project No. 0888826703

Report Date : 08/14/2020  
 Received : 08/05/2020



Report Number : **20-218-0165**

**REPORT OF ANALYSIS**

Rebekah Ross  
 Project Manager

Lab No : **92401**

Matrix: **Solids**

Sample ID : **167SSB0504**

Sampled: **8/4/2020 13:45**

**Analytical Method:** 8260B      **Prep Batch(es):** **L505698** 08/10/20 07:41  
**Prep Method:** 5030A

Test	Results	Units	MDL	MQL	DF	Date / Time Analyzed	By	Analytical Batch
Acetone	<0.005	mg/Kg - dry	0.005	0.049	1	08/10/20 17:38	ELM	L505699
Acetonitrile	<0.056	mg/Kg - dry	0.056	0.124	1	08/10/20 17:38	ELM	L505699
Acrolein	<0.007	mg/Kg - dry	0.007	0.049	1	08/10/20 17:38	ELM	L505699
Acrylonitrile	<0.003	mg/Kg - dry	0.003	0.049	1	08/10/20 17:38	ELM	L505699
Benzene	<0.0007	mg/Kg - dry	0.0007	0.002	1	08/10/20 17:38	ELM	L505699
Bromobenzene	<0.0010	mg/Kg - dry	0.0010	0.002	1	08/10/20 17:38	ELM	L505699
Bromochloromethane	<0.001	mg/Kg - dry	0.001	0.002	1	08/10/20 17:38	ELM	L505699
Bromodichloromethane	<0.002	mg/Kg - dry	0.002	0.002	1	08/10/20 17:38	ELM	L505699
Bromoform	<0.002	mg/Kg - dry	0.002	0.002	1	08/10/20 17:38	ELM	L505699
Bromomethane	<0.001	mg/Kg - dry	0.001	0.002	1	08/10/20 17:38	ELM	L505699
Methyl Ethyl Ketone (MEK)	<0.009	mg/Kg - dry	0.009	0.049	1	08/10/20 17:38	ELM	L505699
n-Butylbenzene	<0.001	mg/Kg - dry	0.001	0.002	1	08/10/20 17:38	ELM	L505699
sec-Butyl benzene	<0.001	mg/Kg - dry	0.001	0.002	1	08/10/20 17:38	ELM	L505699
tert-Butyl benzene	<0.001	mg/Kg - dry	0.001	0.002	1	08/10/20 17:38	ELM	L505699
Carbon Disulfide	<0.001	mg/Kg - dry	0.001	0.002	1	08/10/20 17:38	ELM	L505699
Carbon Tetrachloride	<0.0005	mg/Kg - dry	0.0005	0.002	1	08/10/20 17:38	ELM	L505699
Chlorobenzene	<0.0006	mg/Kg - dry	0.0006	0.002	1	08/10/20 17:38	ELM	L505699
Chlorodibromomethane	<0.002	mg/Kg - dry	0.002	0.002	1	08/10/20 17:38	ELM	L505699
Chloroethane	<0.001	mg/Kg - dry	0.001	0.002	1	08/10/20 17:38	ELM	L505699
2-Chloroethylvinyl Ether	<0.006	mg/Kg - dry	0.006	0.012	1	08/10/20 17:38	ELM	L505699
Chloroform	<0.002	mg/Kg - dry	0.002	0.002	1	08/10/20 17:38	ELM	L505699
Chloromethane	<0.001	mg/Kg - dry	0.001	0.002	1	08/10/20 17:38	ELM	L505699

Qualifiers/Definitions				
*	Outside QC Limit		B	Analyte detected in blank
DF	Dilution Factor		E	Result above cal range
I	Recovery out of range		J	Estimated value
MQL	Method Quantitation Limit			

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Ensafe

Ms. Chelsey Kipper

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Project

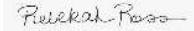
Former Wayne's Pinball Palace

Information : 167 Chelsea Avenue, Memphis, TN

Project No. 0888826703

Report Date : 08/14/2020

Received : 08/05/2020



Report Number : **20-218-0165**

**REPORT OF ANALYSIS**

Rebekah Ross  
Project Manager

Lab No : **92401**

Sample ID : **167SSB0504**

Matrix: **Solids**

Sampled: **8/4/2020 13:45**

**Analytical Method:** 8260B      **Prep Batch(es):** **L505698** 08/10/20 07:41  
**Prep Method:** 5030A

Test	Results	Units	MDL	MQL	DF	Date / Time Analyzed	By	Analytical Batch
2-Chlorotoluene	<0.001	mg/Kg - dry	0.001	0.002	1	08/10/20 17:38	ELM	L505699
4-Chlorotoluene	<0.001	mg/Kg - dry	0.001	0.002	1	08/10/20 17:38	ELM	L505699
1,2-Dibromo-3-Chloropropane	<0.005	mg/Kg - dry	0.005	0.012	1	08/10/20 17:38	ELM	L505699
1,2-Dibromoethane	<0.0008	mg/Kg - dry	0.0008	0.002	1	08/10/20 17:38	ELM	L505699
Dibromomethane	<0.0006	mg/Kg - dry	0.0006	0.002	1	08/10/20 17:38	ELM	L505699
1,2-Dichlorobenzene	<0.001	mg/Kg - dry	0.001	0.002	1	08/10/20 17:38	ELM	L505699
1,3-Dichlorobenzene	<0.001	mg/Kg - dry	0.001	0.002	1	08/10/20 17:38	ELM	L505699
1,4-Dichlorobenzene	<0.001	mg/Kg - dry	0.001	0.002	1	08/10/20 17:38	ELM	L505699
Dichlorodifluoromethane	<0.001	mg/Kg - dry	0.001	0.002	1	08/10/20 17:38	ELM	L505699
1,1-Dichloroethane	<0.001	mg/Kg - dry	0.001	0.002	1	08/10/20 17:38	ELM	L505699
1,2-Dichloroethane	<0.001	mg/Kg - dry	0.001	0.002	1	08/10/20 17:38	ELM	L505699
1,1-Dichloroethene	<0.001	mg/Kg - dry	0.001	0.002	1	08/10/20 17:38	ELM	L505699
cis-1,2-Dichloroethene	<0.0008	mg/Kg - dry	0.0008	0.002	1	08/10/20 17:38	ELM	L505699
trans-1,2-Dichloroethene	<0.001	mg/Kg - dry	0.001	0.002	1	08/10/20 17:38	ELM	L505699
1,2-Dichloroethene (Total)	<0.0008	mg/Kg - dry	0.0008	0.002	1	08/10/20 17:38		L505699
1,2-Dichloropropane	<0.001	mg/Kg - dry	0.001	0.002	1	08/10/20 17:38	ELM	L505699
1,3-Dichloropropane	<0.001	mg/Kg - dry	0.001	0.002	1	08/10/20 17:38	ELM	L505699
2,2-Dichloropropane	<0.0008	mg/Kg - dry	0.0008	0.002	1	08/10/20 17:38	ELM	L505699
1,1-Dichloropropene	<0.0009	mg/Kg - dry	0.0009	0.002	1	08/10/20 17:38	ELM	L505699
cis-1,3-Dichloropropene	<0.0007	mg/Kg - dry	0.0007	0.002	1	08/10/20 17:38	ELM	L505699
trans-1,3-Dichloropropene	<0.0007	mg/Kg - dry	0.0007	0.002	1	08/10/20 17:38	ELM	L505699
Ethyl Acetate	<0.009	mg/Kg - dry	0.009	0.049	1	08/10/20 17:38	ELM	L505699

Qualifiers/Definitions				
*	Outside QC Limit		B	Analyte detected in blank
DF	Dilution Factor		E	Result above cal range
I	Recovery out of range		J	Estimated value
MQL	Method Quantitation Limit			



03180

Ensafe

Ms. Chelsey Kipper

5724 Summer Tree Drive

Memphis , TN 38134

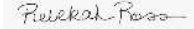
Project Former Wayne's Pinball Palace

Information : 167 Chelsea Avenue, Memphis, TN

Project No. 0888826703

Report Date : 08/14/2020

Received : 08/05/2020



Report Number : **20-218-0165**

**REPORT OF ANALYSIS**

Rebekah Ross  
Project Manager

Lab No : **92401**

Sample ID : **167SSB0504**

Matrix: **Solids**

Sampled: **8/4/2020 13:45**

**Analytical Method:** 8260B      **Prep Batch(es):** **L505698** 08/10/20 07:41  
**Prep Method:** 5030A

Test	Results	Units	MDL	MQL	DF	Date / Time Analyzed	By	Analytical Batch
Ethylbenzene	<0.0008	mg/Kg - dry	0.0008	0.002	1	08/10/20 17:38	ELM	L505699
Hexachlorobutadiene	<0.001	mg/Kg - dry	0.001	0.002	1	08/10/20 17:38	ELM	L505699
2-Hexanone	<0.006	mg/Kg - dry	0.006	0.012	1	08/10/20 17:38	ELM	L505699
Iodomethane	<0.001	mg/Kg - dry	0.001	0.012	1	08/10/20 17:38	ELM	L505699
Isopropylbenzene	<0.001	mg/Kg - dry	0.001	0.002	1	08/10/20 17:38	ELM	L505699
4-Isopropyl toluene	<0.001	mg/Kg - dry	0.001	0.002	1	08/10/20 17:38	ELM	L505699
4-Methyl-2-Pentanone	<0.006	mg/Kg - dry	0.006	0.012	1	08/10/20 17:38	ELM	L505699
Methylene Chloride	<0.007	mg/Kg - dry	0.007	0.049	1	08/10/20 17:38	ELM	L505699
Methyl tert-butyl ether (MTBE)	<0.001	mg/Kg - dry	0.001	0.002	1	08/10/20 17:38	ELM	L505699
m,p-Xylene	<0.001	mg/Kg - dry	0.001	0.004	1	08/10/20 17:38	ELM	L505699
Naphthalene	<0.008	mg/Kg - dry	0.008	0.012	1	08/10/20 17:38	ELM	L505699
o-Xylene	<0.0006	mg/Kg - dry	0.0006	0.002	1	08/10/20 17:38	ELM	L505699
n-Propylbenzene	<0.001	mg/Kg - dry	0.001	0.002	1	08/10/20 17:38	ELM	L505699
Styrene	<0.001	mg/Kg - dry	0.001	0.002	1	08/10/20 17:38	ELM	L505699
1,1,1,2-Tetrachloroethane	<0.001	mg/Kg - dry	0.001	0.002	1	08/10/20 17:38	ELM	L505699
1,1,2,2-Tetrachloroethane	<0.001	mg/Kg - dry	0.001	0.002	1	08/10/20 17:38	ELM	L505699
Tetrachloroethene	<0.001	mg/Kg - dry	0.001	0.002	1	08/10/20 17:38	ELM	L505699
Toluene	<0.004	mg/Kg - dry	0.004	0.012	1	08/10/20 17:38	ELM	L505699
1,2,3-Trichlorobenzene	<0.002	mg/Kg - dry	0.002	0.002	1	08/10/20 17:38	ELM	L505699
1,2,4-Trichlorobenzene	<0.001	mg/Kg - dry	0.001	0.002	1	08/10/20 17:38	ELM	L505699
1,1,1-Trichloroethane	<0.0009	mg/Kg - dry	0.0009	0.002	1	08/10/20 17:38	ELM	L505699
1,1,2-Trichloroethane	<0.0007	mg/Kg - dry	0.0007	0.002	1	08/10/20 17:38	ELM	L505699

Qualifiers/Definitions				
*	Outside QC Limit		B	Analyte detected in blank
DF	Dilution Factor		E	Result above cal range
I	Recovery out of range		J	Estimated value
MQL	Method Quantitation Limit			



03180

Ensafe  
Ms. Chelsey Kipper  
5724 Summer Tree Drive  
Memphis, TN 38134

Project Former Wayne's Pinball Palace  
Information : 167 Chelsea Avenue, Memphis, TN  
Project No. 0888826703

Report Date : 08/14/2020  
Received : 08/05/2020



Report Number : **20-218-0165**

**REPORT OF ANALYSIS**

Rebekah Ross  
Project Manager

Lab No : **92401**

Matrix: **Solids**

Sample ID : **167SSB0504**

Sampled: **8/4/2020 13:45**

**Analytical Method:** 8260B                      **Prep Batch(es):** **L505698** 08/10/20 07:41  
**Prep Method:** 5030A

Test	Results	Units	MDL	MLQ	DF	Date / Time Analyzed	By	Analytical Batch
Trichloroethene	<0.0006	mg/Kg - dry	0.0006	0.002	1	08/10/20 17:38	ELM	L505699
Trichlorofluoromethane	<0.001	mg/Kg - dry	0.001	0.002	1	08/10/20 17:38	ELM	L505699
1,2,3-Trichloropropane	<0.0008	mg/Kg - dry	0.0008	0.002	1	08/10/20 17:38	ELM	L505699
1,2,4-Trimethylbenzene	<0.001	mg/Kg - dry	0.001	0.002	1	08/10/20 17:38	ELM	L505699
1,3,5-Trimethylbenzene	<0.001	mg/Kg - dry	0.001	0.002	1	08/10/20 17:38	ELM	L505699
Vinyl Acetate	<0.004	mg/Kg - dry	0.004	0.049	1	08/10/20 17:38	ELM	L505699
Vinyl Chloride	<0.0007	mg/Kg - dry	0.0007	0.002	1	08/10/20 17:38	ELM	L505699
Xylene (Total)	<0.0006	mg/Kg - dry	0.0006	0.002	1	08/10/20 17:38		L505699
Surrogate: 4-Bromofluorobenzene	109		Limits: 60-130%		1	08/10/20 17:38	ELM	L505699
Surrogate: 1,2-Dichloroethane - d4	128		Limits: 60-132%		1	08/10/20 17:38	ELM	L505699
Surrogate: Toluene-d8	108		Limits: 70-130%		1	08/10/20 17:38	ELM	L505699

**Analytical Method:** 8270D SIM                      **Prep Batch(es):** **L505071** 08/06/20 12:00  
**Prep Method:** 3550B

Test	Results	Units	MDL	MLQ	DF	Date / Time Analyzed	By	Analytical Batch
Acenaphthene	<0.000537	mg/Kg - dry	0.000537	0.000835	1	08/07/20 16:18	MLR	L505238
Acenaphthylene	<0.000476	mg/Kg - dry	0.000476	0.000835	1	08/07/20 16:18	MLR	L505238
Anthracene	<0.000531	mg/Kg - dry	0.000531	0.000835	1	08/07/20 16:18	MLR	L505238
Benzo(a)anthracene	<0.000549	mg/Kg - dry	0.000549	0.000835	1	08/07/20 16:18	MLR	L505238
Benzo(a)pyrene	<0.000165	mg/Kg - dry	0.000165	0.000835	1	08/07/20 16:18	MLR	L505238
Benzo(b)fluoranthene	<0.000172	mg/Kg - dry	0.000172	0.000835	1	08/07/20 16:18	MLR	L505238
Benzo(g,h,i)perylene	<0.000288	mg/Kg - dry	0.000288	0.000835	1	08/07/20 16:18	MLR	L505238

Qualifiers/Definitions				
*	Outside QC Limit		B	Analyte detected in blank
DF	Dilution Factor		E	Result above cal range
I	Recovery out of range		J	Estimated value
MLQ	Method Quantitation Limit			

03180  
 Ensafe  
 Ms. Chelsey Kipper  
 5724 Summer Tree Drive  
 Memphis, TN 38134

Project Former Wayne's Pinball Palace  
 Information : 167 Chelsea Avenue, Memphis, TN  
 Project No. 0888826703

Report Date : 08/14/2020  
 Received : 08/05/2020



Report Number : **20-218-0165**

**REPORT OF ANALYSIS**

Rebekah Ross  
 Project Manager

Lab No : **92401**  
 Sample ID : **167SSB0504**

Matrix: **Solids**  
 Sampled: **8/4/2020 13:45**

**Analytical Method:** 8270D SIM      **Prep Batch(es):** **L505071** 08/06/20 12:00  
**Prep Method:** 3550B

Test	Results	Units	MDL	MQL	DF	Date / Time Analyzed	By	Analytical Batch
Benzo(k)fluoranthene	<0.000605	mg/Kg - dry	0.000605	0.000835	1	08/07/20 16:18	MLR	L505238
Chrysene	<0.000319	mg/Kg - dry	0.000319	0.000835	1	08/07/20 16:18	MLR	L505238
Dibenz(a,h)anthracene	<0.000347	mg/Kg - dry	0.000347	0.000835	1	08/07/20 16:18	MLR	L505238
Fluoranthene	<0.000659	mg/Kg - dry	0.000659	0.000835	1	08/07/20 16:18	MLR	L505238
Fluorene	<0.000624	mg/Kg - dry	0.000624	0.000835	1	08/07/20 16:18	MLR	L505238
Indeno(1,2,3-cd)pyrene	<0.000428	mg/Kg - dry	0.000428	0.000835	1	08/07/20 16:18	MLR	L505238
2-Methylnaphthalene	<b>0.000872 B</b>	mg/Kg - dry	0.000675	0.000835	1	08/07/20 16:18	MLR	L505238
Naphthalene	<b>0.000746 JB</b>	mg/Kg - dry	0.000582	0.000835	1	08/07/20 16:18	MLR	L505238
Phenanthrene	<0.000815	mg/Kg - dry	0.000815	0.000835	1	08/07/20 16:18	MLR	L505238
Pyrene	<0.000482	mg/Kg - dry	0.000482	0.000835	1	08/07/20 16:18	MLR	L505238
Surrogate: 2-Fluorobiphenyl	36.9		Limits: 33-115%		1	08/07/20 16:18	MLR	L505238
Surrogate: Nitrobenzene-d5	33.5		Limits: 29-110%		1	08/07/20 16:18	MLR	L505238
Surrogate: 4-Terphenyl-d14	54.4		Limits: 33-122%		1	08/07/20 16:18	MLR	L505238

**Analytical Method:** TN EPH      **Prep Batch(es):** **L505693** 08/11/20 10:04  
**Prep Method:** 3550B

Test	Results	Units	MDL	MQL	DF	Date / Time Analyzed	By	Analytical Batch
Diesel Range Organics (C10-C28)	<4.11	mg/Kg - dry	4.11	4.11	1	08/12/20 12:46	MMK	L505941
Oil Range Organics (>C28-C40)	<4.11	mg/Kg - dry	4.11	4.11	1	08/12/20 12:46	MMK	L505941
TN EPH (C10-C40)	<4.11	mg/Kg - dry	4.11	4.11	1	08/12/20 12:46		L505941
Surrogate: OTP Surrogate	72.0		Limits: 50-150%		1	08/12/20 12:46	MMK	L505941

Qualifiers/Definitions				
*	Outside QC Limit		B	Analyte detected in blank
DF	Dilution Factor		E	Result above cal range
I	Recovery out of range		J	Estimated value
MQL	Method Quantitation Limit			

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Project Former Wayne's Pinball Palace

Information : 167 Chelsea Avenue, Memphis, TN

Project No. 0888826703

Report Date : 08/14/2020

Received : 08/05/2020

*Rebekah Ross*

Report Number : **20-218-0165**

**REPORT OF ANALYSIS**

Rebekah Ross  
Project Manager

Lab No : **92402**

Sample ID : **167SSB0604**

Matrix: **Solids**

Sampled: **8/4/2020 13:30**

Test	Results	Units	MDL	MQL	DF	Date / Time Analyzed	By	Analytical Method
Moisture	<b>17.8</b>	%			1	08/07/20 13:51	FMM	SW-DRYWT
Arsenic	<b>10.0</b>	mg/Kg - dry	0.292	0.608	1	08/08/20 02:31	TJS	6010D
Barium	<b>164</b>	mg/Kg - dry	0.158	0.608	1	08/08/20 02:31	TJS	6010D
Cadmium	<b>0.455</b>	mg/Kg - dry	0.0243	0.122	1	08/08/20 02:31	TJS	6010D
Chromium	<b>13.4</b>	mg/Kg - dry	0.287	0.304	1	08/08/20 02:31	TJS	6010D
Lead	<b>164</b>	mg/Kg - dry	0.218	0.364	1	08/08/20 02:31	TJS	6010D
Mercury	<b>0.0276</b>	mg/Kg - dry	0.00364	0.0165	1	08/13/20 14:27	DDB	7471A
Selenium	<0.389	mg/Kg - dry	0.389	0.608	1	08/11/20 08:32	TJS	6010D
Silver	<0.195	mg/Kg - dry	0.195	0.304	1	08/08/20 02:31	TJS	6010D

**Qualifiers/  
Definitions**

*	Outside QC Limit	B	Analyte detected in blank
DF	Dilution Factor	E	Result above cal range
J	Estimated value	L	Limit Exceeded
MQL	Method Quantitation Limit		

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Report Number : **20-218-0165**

**REPORT OF ANALYSIS**

Rebekah Ross  
 Project Manager

Lab No : **92402**

Matrix: **Solids**

Sample ID : **167SSB0604**

Sampled: **8/4/2020 13:30**

**Analytical Method:** 8260B      **Prep Batch(es):** **L505698** 08/10/20 07:41  
**Prep Method:** 5030A

Test	Results	Units	MDL	MQL	DF	Date / Time Analyzed	By	Analytical Batch
Acetone	<0.005	mg/Kg - dry	0.005	0.048	1	08/10/20 13:02	ELM	L505699
Acetonitrile	<0.055	mg/Kg - dry	0.055	0.121	1	08/10/20 13:02	ELM	L505699
Acrolein	<0.007	mg/Kg - dry	0.007	0.048	1	08/10/20 13:02	ELM	L505699
Acrylonitrile	<0.003	mg/Kg - dry	0.003	0.048	1	08/10/20 13:02	ELM	L505699
Benzene	<0.0007	mg/Kg - dry	0.0007	0.002	1	08/10/20 13:02	ELM	L505699
Bromobenzene	<0.0010	mg/Kg - dry	0.0010	0.002	1	08/10/20 13:02	ELM	L505699
Bromochloromethane	<0.001	mg/Kg - dry	0.001	0.002	1	08/10/20 13:02	ELM	L505699
Bromodichloromethane	<0.002	mg/Kg - dry	0.002	0.002	1	08/10/20 13:02	ELM	L505699
Bromoform	<0.002	mg/Kg - dry	0.002	0.002	1	08/10/20 13:02	ELM	L505699
Bromomethane	<0.001	mg/Kg - dry	0.001	0.002	1	08/10/20 13:02	ELM	L505699
Methyl Ethyl Ketone (MEK)	<0.009	mg/Kg - dry	0.009	0.048	1	08/10/20 13:02	ELM	L505699
n-Butylbenzene	<0.001	mg/Kg - dry	0.001	0.002	1	08/10/20 13:02	ELM	L505699
sec-Butyl benzene	<0.001	mg/Kg - dry	0.001	0.002	1	08/10/20 13:02	ELM	L505699
tert-Butyl benzene	<0.001	mg/Kg - dry	0.001	0.002	1	08/10/20 13:02	ELM	L505699
Carbon Disulfide	<0.001	mg/Kg - dry	0.001	0.002	1	08/10/20 13:02	ELM	L505699
Carbon Tetrachloride	<0.0005	mg/Kg - dry	0.0005	0.002	1	08/10/20 13:02	ELM	L505699
Chlorobenzene	<0.0006	mg/Kg - dry	0.0006	0.002	1	08/10/20 13:02	ELM	L505699
Chlorodibromomethane	<0.002	mg/Kg - dry	0.002	0.002	1	08/10/20 13:02	ELM	L505699
Chloroethane	<0.001	mg/Kg - dry	0.001	0.002	1	08/10/20 13:02	ELM	L505699
2-Chloroethylvinyl Ether	<0.006	mg/Kg - dry	0.006	0.012	1	08/10/20 13:02	ELM	L505699
Chloroform	<0.002	mg/Kg - dry	0.002	0.002	1	08/10/20 13:02	ELM	L505699
Chloromethane	<0.001	mg/Kg - dry	0.001	0.002	1	08/10/20 13:02	ELM	L505699

Qualifiers/Definitions				
*	Outside QC Limit		B	Analyte detected in blank
DF	Dilution Factor		E	Result above cal range
I	Recovery out of range		J	Estimated value
MQL	Method Quantitation Limit			

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Ensafe  
 Ms. Chelsey Kipper  
 5724 Summer Tree Drive  
 Memphis, TN 38134

Project Former Wayne's Pinball Palace  
 Information : 167 Chelsea Avenue, Memphis, TN  
 Project No. 0888826703

Report Date : 08/14/2020  
 Received : 08/05/2020



Report Number : **20-218-0165**

**REPORT OF ANALYSIS**

Rebekah Ross  
 Project Manager

Lab No : **92402**  
 Sample ID : **167SSB0604**

Matrix: **Solids**  
 Sampled: **8/4/2020 13:30**

**Analytical Method:** 8260B      **Prep Batch(es):** **L505698** 08/10/20 07:41  
**Prep Method:** 5030A

Test	Results	Units	MDL	MQL	DF	Date / Time Analyzed	By	Analytical Batch
2-Chlorotoluene	<0.001	mg/Kg - dry	0.001	0.002	1	08/10/20 13:02	ELM	L505699
4-Chlorotoluene	<0.001	mg/Kg - dry	0.001	0.002	1	08/10/20 13:02	ELM	L505699
1,2-Dibromo-3-Chloropropane	<0.005	mg/Kg - dry	0.005	0.012	1	08/10/20 13:02	ELM	L505699
1,2-Dibromoethane	<0.0008	mg/Kg - dry	0.0008	0.002	1	08/10/20 13:02	ELM	L505699
Dibromomethane	<0.0006	mg/Kg - dry	0.0006	0.002	1	08/10/20 13:02	ELM	L505699
1,2-Dichlorobenzene	<0.001	mg/Kg - dry	0.001	0.002	1	08/10/20 13:02	ELM	L505699
1,3-Dichlorobenzene	<0.001	mg/Kg - dry	0.001	0.002	1	08/10/20 13:02	ELM	L505699
1,4-Dichlorobenzene	<0.001	mg/Kg - dry	0.001	0.002	1	08/10/20 13:02	ELM	L505699
Dichlorodifluoromethane	<0.001	mg/Kg - dry	0.001	0.002	1	08/10/20 13:02	ELM	L505699
1,1-Dichloroethane	<0.001	mg/Kg - dry	0.001	0.002	1	08/10/20 13:02	ELM	L505699
1,2-Dichloroethane	<0.001	mg/Kg - dry	0.001	0.002	1	08/10/20 13:02	ELM	L505699
1,1-Dichloroethene	<0.001	mg/Kg - dry	0.001	0.002	1	08/10/20 13:02	ELM	L505699
cis-1,2-Dichloroethene	<0.0008	mg/Kg - dry	0.0008	0.002	1	08/10/20 13:02	ELM	L505699
trans-1,2-Dichloroethene	<0.001	mg/Kg - dry	0.001	0.002	1	08/10/20 13:02	ELM	L505699
1,2-Dichloroethene (Total)	<0.0008	mg/Kg - dry	0.0008	0.002	1	08/10/20 13:02		L505699
1,2-Dichloropropane	<0.0010	mg/Kg - dry	0.0010	0.002	1	08/10/20 13:02	ELM	L505699
1,3-Dichloropropane	<0.001	mg/Kg - dry	0.001	0.002	1	08/10/20 13:02	ELM	L505699
2,2-Dichloropropane	<0.0008	mg/Kg - dry	0.0008	0.002	1	08/10/20 13:02	ELM	L505699
1,1-Dichloropropene	<0.0009	mg/Kg - dry	0.0009	0.002	1	08/10/20 13:02	ELM	L505699
cis-1,3-Dichloropropene	<0.0007	mg/Kg - dry	0.0007	0.002	1	08/10/20 13:02	ELM	L505699
trans-1,3-Dichloropropene	<0.0007	mg/Kg - dry	0.0007	0.002	1	08/10/20 13:02	ELM	L505699
Ethyl Acetate	<0.009	mg/Kg - dry	0.009	0.048	1	08/10/20 13:02	ELM	L505699

Qualifiers/Definitions				
*	Outside QC Limit		B	Analyte detected in blank
DF	Dilution Factor		E	Result above cal range
I	Recovery out of range		J	Estimated value
MQL	Method Quantitation Limit			

03180

Ensafe  
Ms. Chelsey Kipper  
5724 Summer Tree Drive  
Memphis , TN 38134

Project Former Wayne's Pinball Palace  
Information : 167 Chelsea Avenue, Memphis, TN  
Project No. 0888826703

Report Date : 08/14/2020  
Received : 08/05/2020



Report Number : **20-218-0165**

**REPORT OF ANALYSIS**

Rebekah Ross  
Project Manager

Lab No : **92402**

Matrix: **Solids**

Sample ID : **167SSB0604**

Sampled: **8/4/2020 13:30**

**Analytical Method:** 8260B      **Prep Batch(es):** **L505698** 08/10/20 07:41  
**Prep Method:** 5030A

Test	Results	Units	MDL	MQL	DF	Date / Time Analyzed	By	Analytical Batch
Ethylbenzene	<0.0008	mg/Kg - dry	0.0008	0.002	1	08/10/20 13:02	ELM	L505699
Hexachlorobutadiene	<0.001	mg/Kg - dry	0.001	0.002	1	08/10/20 13:02	ELM	L505699
2-Hexanone	<0.006	mg/Kg - dry	0.006	0.012	1	08/10/20 13:02	ELM	L505699
Iodomethane	<0.001	mg/Kg - dry	0.001	0.012	1	08/10/20 13:02	ELM	L505699
Isopropylbenzene	<0.001	mg/Kg - dry	0.001	0.002	1	08/10/20 13:02	ELM	L505699
4-Isopropyl toluene	<0.001	mg/Kg - dry	0.001	0.002	1	08/10/20 13:02	ELM	L505699
4-Methyl-2-Pentanone	<0.006	mg/Kg - dry	0.006	0.012	1	08/10/20 13:02	ELM	L505699
Methylene Chloride	<0.007	mg/Kg - dry	0.007	0.048	1	08/10/20 13:02	ELM	L505699
Methyl tert-butyl ether (MTBE)	<0.001	mg/Kg - dry	0.001	0.002	1	08/10/20 13:02	ELM	L505699
m,p-Xylene	<0.001	mg/Kg - dry	0.001	0.004	1	08/10/20 13:02	ELM	L505699
Naphthalene	<0.008	mg/Kg - dry	0.008	0.012	1	08/10/20 13:02	ELM	L505699
o-Xylene	<0.0005	mg/Kg - dry	0.0005	0.002	1	08/10/20 13:02	ELM	L505699
n-Propylbenzene	<0.001	mg/Kg - dry	0.001	0.002	1	08/10/20 13:02	ELM	L505699
Styrene	<0.001	mg/Kg - dry	0.001	0.002	1	08/10/20 13:02	ELM	L505699
1,1,1,2-Tetrachloroethane	<0.001	mg/Kg - dry	0.001	0.002	1	08/10/20 13:02	ELM	L505699
1,1,2,2-Tetrachloroethane	<0.001	mg/Kg - dry	0.001	0.002	1	08/10/20 13:02	ELM	L505699
Tetrachloroethene	<0.001	mg/Kg - dry	0.001	0.002	1	08/10/20 13:02	ELM	L505699
Toluene	<0.004	mg/Kg - dry	0.004	0.012	1	08/10/20 13:02	ELM	L505699
1,2,3-Trichlorobenzene	<0.001	mg/Kg - dry	0.001	0.002	1	08/10/20 13:02	ELM	L505699
1,2,4-Trichlorobenzene	<0.001	mg/Kg - dry	0.001	0.002	1	08/10/20 13:02	ELM	L505699
1,1,1-Trichloroethane	<0.0009	mg/Kg - dry	0.0009	0.002	1	08/10/20 13:02	ELM	L505699
1,1,2-Trichloroethane	<0.0007	mg/Kg - dry	0.0007	0.002	1	08/10/20 13:02	ELM	L505699

Qualifiers/ Definitions				
*	Outside QC Limit		B	Analyte detected in blank
DF	Dilution Factor		E	Result above cal range
I	Recovery out of range		J	Estimated value
MQL	Method Quantitation Limit			



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 Project No. 0888826703

Report Date : 08/14/2020  
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Report Number : **20-218-0165**

**REPORT OF ANALYSIS**

Rebekah Ross  
 Project Manager

Lab No : **92402**  
 Sample ID : **167SSB0604**

Matrix: **Solids**  
 Sampled: **8/4/2020 13:30**

**Analytical Method:** 8260B      **Prep Batch(es):** **L505698** 08/10/20 07:41  
**Prep Method:** 5030A

Test	Results	Units	MDL	MLQ	DF	Date / Time Analyzed	By	Analytical Batch
Trichloroethene	<0.0006	mg/Kg - dry	0.0006	0.002	1	08/10/20 13:02	ELM	L505699
Trichlorofluoromethane	<0.001	mg/Kg - dry	0.001	0.002	1	08/10/20 13:02	ELM	L505699
1,2,3-Trichloropropane	<0.0008	mg/Kg - dry	0.0008	0.002	1	08/10/20 13:02	ELM	L505699
1,2,4-Trimethylbenzene	<0.001	mg/Kg - dry	0.001	0.002	1	08/10/20 13:02	ELM	L505699
1,3,5-Trimethylbenzene	<0.001	mg/Kg - dry	0.001	0.002	1	08/10/20 13:02	ELM	L505699
Vinyl Acetate	<0.004	mg/Kg - dry	0.004	0.048	1	08/10/20 13:02	ELM	L505699
Vinyl Chloride	<0.0006	mg/Kg - dry	0.0006	0.002	1	08/10/20 13:02	ELM	L505699
Xylene (Total)	<0.0005	mg/Kg - dry	0.0005	0.002	1	08/10/20 13:02		L505699
Surrogate: 4-Bromofluorobenzene	98.8		Limits: 60-130%		1	08/10/20 13:02	ELM	L505699
Surrogate: 1,2-Dichloroethane - d4	127		Limits: 60-132%		1	08/10/20 13:02	ELM	L505699
Surrogate: Toluene-d8	106		Limits: 70-130%		1	08/10/20 13:02	ELM	L505699

**Analytical Method:** 8270D SIM      **Prep Batch(es):** **L505071** 08/06/20 12:00  
**Prep Method:** 3550B

Test	Results	Units	MDL	MLQ	DF	Date / Time Analyzed	By	Analytical Batch
Acenaphthene	<0.00263	mg/Kg - dry	0.00263	0.00408	5	08/07/20 16:39	MLR	L505238
Acenaphthylene	<b>0.0137</b>	mg/Kg - dry	0.00232	0.00408	5	08/07/20 16:39	MLR	L505238
Anthracene	<b>0.00560</b>	mg/Kg - dry	0.00259	0.00408	5	08/07/20 16:39	MLR	L505238
Benzo(a)anthracene	<b>0.273</b>	mg/Kg - dry	0.00269	0.00408	5	08/07/20 16:39	MLR	L505238
Benzo(a)pyrene	<b>0.251</b>	mg/Kg - dry	0.000809	0.00408	5	08/07/20 16:39	MLR	L505238
Benzo(b)fluoranthene	<b>0.283</b>	mg/Kg - dry	0.000839	0.00408	5	08/07/20 16:39	MLR	L505238
Benzo(g,h,i)perylene	<b>0.167</b>	mg/Kg - dry	0.00141	0.00408	5	08/07/20 16:39	MLR	L505238

Qualifiers/Definitions				
*	Outside QC Limit		B	Analyte detected in blank
DF	Dilution Factor		E	Result above cal range
I	Recovery out of range		J	Estimated value
MLQ	Method Quantitation Limit			



03180

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Report Date : 08/14/2020  
Received : 08/05/2020



Report Number : **20-218-0165**

**REPORT OF ANALYSIS**

Rebekah Ross  
Project Manager

Lab No : **92402**  
Sample ID : **167SSB0604**

Matrix: **Solids**  
Sampled: **8/4/2020 13:30**

**Analytical Method:** 8270D SIM      **Prep Batch(es):** **L505071** 08/06/20 12:00  
**Prep Method:** 3550B

Test	Results	Units	MDL	MQL	DF	Date / Time Analyzed	By	Analytical Batch
Benzo(k)fluoranthene	<b>0.141</b>	mg/Kg - dry	0.00296	0.00408	5	08/07/20 16:39	MLR	L505238
Chrysene	<b>0.243</b>	mg/Kg - dry	0.00156	0.00408	5	08/07/20 16:39	MLR	L505238
Dibenz(a,h)anthracene	<b>0.0466</b>	mg/Kg - dry	0.00170	0.00408	5	08/07/20 16:39	MLR	L505238
Fluoranthene	<b>0.260</b>	mg/Kg - dry	0.00322	0.00408	5	08/07/20 16:39	MLR	L505238
Fluorene	<0.00305	mg/Kg - dry	0.00305	0.00408	5	08/07/20 16:39	MLR	L505238
Indeno(1,2,3-cd)pyrene	<b>0.197</b>	mg/Kg - dry	0.00209	0.00408	5	08/07/20 16:39	MLR	L505238
2-Methylnaphthalene	<b>0.0173</b>	mg/Kg - dry	0.00330	0.00408	5	08/07/20 16:39	MLR	L505238
Naphthalene	<b>0.0137</b>	mg/Kg - dry	0.00285	0.00408	5	08/07/20 16:39	MLR	L505238
Phenanthrene	<b>0.0342</b>	mg/Kg - dry	0.00398	0.00408	5	08/07/20 16:39	MLR	L505238
Pyrene	<b>0.232</b>	mg/Kg - dry	0.00236	0.00408	5	08/07/20 16:39	MLR	L505238
Surrogate: 2-Fluorobiphenyl	48.6			Limits: 33-115%	5	08/07/20 16:39	MLR	L505238
Surrogate: Nitrobenzene-d5	38.9			Limits: 29-110%	5	08/07/20 16:39	MLR	L505238
Surrogate: 4-Terphenyl-d14	42.9			Limits: 33-122%	5	08/07/20 16:39	MLR	L505238

**Analytical Method:** TN EPH      **Prep Batch(es):** **L505693** 08/11/20 10:04  
**Prep Method:** 3550B

Test	Results	Units	MDL	MQL	DF	Date / Time Analyzed	By	Analytical Batch
Diesel Range Organics (C10-C28)	<b>22.3</b>	mg/Kg - dry	4.01	4.01	1	08/12/20 13:05	MMK	L505941
Oil Range Organics (>C28-C40)	<b>30.5</b>	mg/Kg - dry	4.01	4.01	1	08/12/20 13:05	MMK	L505941
TN EPH (C10-C40)	<b>52.8</b>	mg/Kg - dry	4.01	4.01	1	08/12/20 13:05		L505941
Surrogate: OTP Surrogate	71.5			Limits: 50-150%	1	08/12/20 13:05	MMK	L505941

Qualifiers/Definitions				
*	Outside QC Limit		B	Analyte detected in blank
DF	Dilution Factor		E	Result above cal range
I	Recovery out of range		J	Estimated value
MQL	Method Quantitation Limit			

03180

Ensafe

Ms. Chelsey Kipper

5724 Summer Tree Drive

Memphis , TN 38134

Project Former Wayne's Pinball Palace

Information : 167 Chelsea Avenue, Memphis, TN

Project No. 0888826703

Report Date : 08/14/2020

Received : 08/05/2020

*Rebekah Ross*

Report Number : **20-218-0165**

**REPORT OF ANALYSIS**

Rebekah Ross  
Project Manager

Lab No : **92403**

Matrix: **Solids**

Sample ID : **167SSB0704**

Sampled: **8/4/2020 14:40**

Test	Results	Units	MDL	MQL	DF	Date / Time Analyzed	By	Analytical Method
Moisture	<b>20.2</b>	%			1	08/07/20 13:51	FMM	SW-DRYWT
Arsenic	<b>8.78</b>	mg/Kg - dry	0.301	0.627	1	08/08/20 02:37	TJS	6010D
Barium	<b>67.7</b>	mg/Kg - dry	0.163	0.627	1	08/08/20 02:37	TJS	6010D
Cadmium	<b>0.264</b>	mg/Kg - dry	0.0250	0.125	1	08/08/20 02:37	TJS	6010D
Chromium	<b>12.1</b>	mg/Kg - dry	0.295	0.313	1	08/08/20 02:37	TJS	6010D
Lead	<b>47.0</b>	mg/Kg - dry	0.225	0.375	1	08/08/20 02:37	TJS	6010D
Mercury	<b>0.110</b>	mg/Kg - dry	0.00436	0.0198	1	08/13/20 14:28	DDB	7471A
Selenium	<0.401	mg/Kg - dry	0.401	0.626	1	08/11/20 08:37	TJS	6010D
Silver	<0.201	mg/Kg - dry	0.201	0.313	1	08/08/20 02:37	TJS	6010D

**Qualifiers/  
Definitions**

*	Outside QC Limit	B	Analyte detected in blank
DF	Dilution Factor	E	Result above cal range
J	Estimated value	L	Limit Exceeded
MQL	Method Quantitation Limit		

03180

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Ms. Chelsey Kipper  
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Memphis, TN 38134

Project Former Wayne's Pinball Palace  
Information : 167 Chelsea Avenue, Memphis, TN  
Project No. 0888826703

Report Date : 08/14/2020  
Received : 08/05/2020



Report Number : **20-218-0165**

**REPORT OF ANALYSIS**

Rebekah Ross  
Project Manager

Lab No : **92403**

Matrix: **Solids**

Sample ID : **167SSB0704**

Sampled: **8/4/2020 14:40**

**Analytical Method:** 8260B      **Prep Batch(es):** **L505698** 08/10/20 07:41      **L505913** 08/11/20 10:44  
**Prep Method:** 5030A

Test	Results	Units	MDL	MQL	DF	Date / Time Analyzed	By	Analytical Batch
Acetone	<0.028	mg/Kg - dry	0.028	0.250	1	08/10/20 18:00	ELM	L505699
Acetonitrile	<0.284	mg/Kg - dry	0.284	0.626	1	08/10/20 18:00	ELM	L505699
Acrolein	<0.039	mg/Kg - dry	0.039	0.250	1	08/10/20 18:00	ELM	L505699
Acrylonitrile	<0.015	mg/Kg - dry	0.015	0.250	1	08/10/20 18:00	ELM	L505699
Benzene	<0.003	mg/Kg - dry	0.003	0.012	1	08/10/20 18:00	ELM	L505699
Bromobenzene	<0.004	mg/Kg - dry	0.004	0.012	1	08/10/20 18:00	ELM	L505699
Bromochloromethane	<0.008	mg/Kg - dry	0.008	0.012	1	08/10/20 18:00	ELM	L505699
Bromodichloromethane	<0.011	mg/Kg - dry	0.011	0.012	1	08/10/20 18:00	ELM	L505699
Bromoform	<0.011	mg/Kg - dry	0.011	0.012	1	08/10/20 18:00	ELM	L505699
Bromomethane	<0.008	mg/Kg - dry	0.008	0.012	1	08/10/20 18:00	ELM	L505699
Methyl Ethyl Ketone (MEK)	<0.048	mg/Kg - dry	0.048	0.250	1	08/10/20 18:00	ELM	L505699
n-Butylbenzene	<b>1.93</b>	mg/Kg - dry	0.008	0.012	1	08/10/20 18:00	ELM	L505699
sec-Butyl benzene	<b>0.859</b>	mg/Kg - dry	0.009	0.012	1	08/10/20 18:00	ELM	L505699
tert-Butyl benzene	<0.006	mg/Kg - dry	0.006	0.012	1	08/10/20 18:00	ELM	L505699
Carbon Disulfide	<0.006	mg/Kg - dry	0.006	0.012	1	08/10/20 18:00	ELM	L505699
Carbon Tetrachloride	<0.002	mg/Kg - dry	0.002	0.012	1	08/10/20 18:00	ELM	L505699
Chlorobenzene	<0.003	mg/Kg - dry	0.003	0.012	1	08/10/20 18:00	ELM	L505699
Chlorodibromomethane	<0.011	mg/Kg - dry	0.011	0.012	1	08/10/20 18:00	ELM	L505699
Chloroethane	<0.007	mg/Kg - dry	0.007	0.012	1	08/10/20 18:00	ELM	L505699
2-Chloroethylvinyl Ether	<0.035	mg/Kg - dry	0.035	0.062	1	08/10/20 18:00	ELM	L505699
Chloroform	<0.011	mg/Kg - dry	0.011	0.012	1	08/10/20 18:00	ELM	L505699
Chloromethane	<0.006	mg/Kg - dry	0.006	0.012	1	08/10/20 18:00	ELM	L505699

Qualifiers/Definitions				
*	Outside QC Limit		B	Analyte detected in blank
DF	Dilution Factor		E	Result above cal range
I	Recovery out of range		J	Estimated value
MQL	Method Quantitation Limit			

03180

Ensafe

Ms. Chelsey Kipper

5724 Summer Tree Drive

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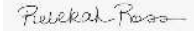
Project Former Wayne's Pinball Palace

Information : 167 Chelsea Avenue, Memphis, TN

Project No. 0888826703

Report Date : 08/14/2020

Received : 08/05/2020



Report Number : **20-218-0165**

**REPORT OF ANALYSIS**

Rebekah Ross  
Project Manager

Lab No : **92403**

Sample ID : **167SSB0704**

Matrix: **Solids**

Sampled: **8/4/2020 14:40**

**Analytical Method:** 8260B      **Prep Batch(es):** **L505698** 08/10/20 07:41      **L505913** 08/11/20 10:44  
**Prep Method:** 5030A

Test	Results	Units	MDL	MQL	DF	Date / Time Analyzed	By	Analytical Batch
2-Chlorotoluene	<0.007	mg/Kg - dry	0.007	0.012	1	08/10/20 18:00	ELM	L505699
4-Chlorotoluene	<0.008	mg/Kg - dry	0.008	0.012	1	08/10/20 18:00	ELM	L505699
1,2-Dibromo-3-Chloropropane	<0.026	mg/Kg - dry	0.026	0.062	1	08/10/20 18:00	ELM	L505699
1,2-Dibromoethane	<0.003	mg/Kg - dry	0.003	0.012	1	08/10/20 18:00	ELM	L505699
Dibromomethane	<0.002	mg/Kg - dry	0.002	0.012	1	08/10/20 18:00	ELM	L505699
1,2-Dichlorobenzene	<0.007	mg/Kg - dry	0.007	0.012	1	08/10/20 18:00	ELM	L505699
1,3-Dichlorobenzene	<0.005	mg/Kg - dry	0.005	0.012	1	08/10/20 18:00	ELM	L505699
1,4-Dichlorobenzene	<0.008	mg/Kg - dry	0.008	0.012	1	08/10/20 18:00	ELM	L505699
Dichlorodifluoromethane	<0.008	mg/Kg - dry	0.008	0.012	1	08/10/20 18:00	ELM	L505699
1,1-Dichloroethane	<0.005	mg/Kg - dry	0.005	0.012	1	08/10/20 18:00	ELM	L505699
1,2-Dichloroethane	<0.005	mg/Kg - dry	0.005	0.012	1	08/10/20 18:00	ELM	L505699
1,1-Dichloroethene	<0.006	mg/Kg - dry	0.006	0.012	1	08/10/20 18:00	ELM	L505699
cis-1,2-Dichloroethene	<0.004	mg/Kg - dry	0.004	0.012	1	08/10/20 18:00	ELM	L505699
trans-1,2-Dichloroethene	<0.007	mg/Kg - dry	0.007	0.012	1	08/10/20 18:00	ELM	L505699
1,2-Dichloroethene (Total)	<0.004	mg/Kg - dry	0.004	0.012	1	08/10/20 18:00		L505699
1,2-Dichloropropane	<0.005	mg/Kg - dry	0.005	0.012	1	08/10/20 18:00	ELM	L505699
1,3-Dichloropropane	<0.005	mg/Kg - dry	0.005	0.012	1	08/10/20 18:00	ELM	L505699
2,2-Dichloropropane	<0.003	mg/Kg - dry	0.003	0.012	1	08/10/20 18:00	ELM	L505699
1,1-Dichloropropene	<0.004	mg/Kg - dry	0.004	0.012	1	08/10/20 18:00	ELM	L505699
cis-1,3-Dichloropropene	<0.003	mg/Kg - dry	0.003	0.012	1	08/10/20 18:00	ELM	L505699
trans-1,3-Dichloropropene	<0.003	mg/Kg - dry	0.003	0.012	1	08/10/20 18:00	ELM	L505699
Ethyl Acetate	<0.046	mg/Kg - dry	0.046	0.250	1	08/10/20 18:00	ELM	L505699

Qualifiers/Definitions	*	Outside QC Limit	B	Analyte detected in blank
	DF	Dilution Factor	E	Result above cal range
	I	Recovery out of range	J	Estimated value
	MQL	Method Quantitation Limit		

03180

Ensafe

Ms. Chelsey Kipper

5724 Summer Tree Drive

Memphis , TN 38134

Project

Former Wayne's Pinball Palace

Information : 167 Chelsea Avenue, Memphis, TN

Project No. 0888826703

Report Date : 08/14/2020

Received : 08/05/2020

*Rebekah Ross*

Report Number : **20-218-0165**

**REPORT OF ANALYSIS**

Rebekah Ross  
Project Manager

Lab No : **92403**

Sample ID : **167SSB0704**

Matrix: **Solids**

Sampled: **8/4/2020 14:40**

**Analytical Method:** 8260B      **Prep Batch(es):** **L505698** 08/10/20 07:41      **L505913** 08/11/20 10:44  
**Prep Method:** 5030A

Test	Results	Units	MDL	MQL	DF	Date / Time Analyzed	By	Analytical Batch
Ethylbenzene	<b>38.5</b>	mg/Kg - dry	0.061	0.250	100	08/11/20 18:41	MKD	L505929
Hexachlorobutadiene	<0.006	mg/Kg - dry	0.006	0.012	1	08/10/20 18:00	ELM	L505699
2-Hexanone	<0.031	mg/Kg - dry	0.031	0.062	1	08/10/20 18:00	ELM	L505699
Iodomethane	<0.005	mg/Kg - dry	0.005	0.062	1	08/10/20 18:00	ELM	L505699
Isopropylbenzene	<b>2.98 E</b>	mg/Kg - dry	0.005	0.012	1	08/10/20 18:00	ELM	L505699
4-Isopropyl toluene	<0.006	mg/Kg - dry	0.006	0.012	1	08/10/20 18:00	ELM	L505699
4-Methyl-2-Pentanone	<0.033	mg/Kg - dry	0.033	0.062	1	08/10/20 18:00	ELM	L505699
Methylene Chloride	<0.036	mg/Kg - dry	0.036	0.250	1	08/10/20 18:00	ELM	L505699
Methyl tert-butyl ether (MTBE)	<0.009	mg/Kg - dry	0.009	0.012	1	08/10/20 18:00	ELM	L505699
m,p-Xylene	<b>247</b>	mg/Kg - dry	0.745	5.01	1000	08/12/20 14:38	MKD	L505929
Naphthalene	<b>1.29</b>	mg/Kg - dry	0.042	0.062	1	08/10/20 18:00	ELM	L505699
o-Xylene	<0.002	mg/Kg - dry	0.002	0.012	1	08/10/20 18:00	ELM	L505699
n-Propylbenzene	<b>9.41 E</b>	mg/Kg - dry	0.006	0.012	1	08/10/20 18:00	ELM	L505699
Styrene	<0.009	mg/Kg - dry	0.009	0.012	1	08/10/20 18:00	ELM	L505699
1,1,1,2-Tetrachloroethane	<0.005	mg/Kg - dry	0.005	0.012	1	08/10/20 18:00	ELM	L505699
1,1,2,2-Tetrachloroethane	<0.009	mg/Kg - dry	0.009	0.012	1	08/10/20 18:00	ELM	L505699
Tetrachloroethene	<0.005	mg/Kg - dry	0.005	0.012	1	08/10/20 18:00	ELM	L505699
Toluene	<b>0.670</b>	mg/Kg - dry	0.021	0.062	1	08/10/20 18:00	ELM	L505699
1,2,3-Trichlorobenzene	<0.010	mg/Kg - dry	0.010	0.012	1	08/10/20 18:00	ELM	L505699
1,2,4-Trichlorobenzene	<0.006	mg/Kg - dry	0.006	0.012	1	08/10/20 18:00	ELM	L505699
1,1,1-Trichloroethane	<0.004	mg/Kg - dry	0.004	0.012	1	08/10/20 18:00	ELM	L505699
1,1,2-Trichloroethane	<0.003	mg/Kg - dry	0.003	0.012	1	08/10/20 18:00	ELM	L505699

Qualifiers/ Definitions	*	Outside QC Limit	B	Analyte detected in blank
	DF	Dilution Factor	E	Result above cal range
	I	Recovery out of range	J	Estimated value
	MQL	Method Quantitation Limit		

03180  
 Ensafe  
 Ms. Chelsey Kipper  
 5724 Summer Tree Drive  
 Memphis , TN 38134

Project Former Wayne's Pinball Palace  
 Information : 167 Chelsea Avenue, Memphis, TN  
 Project No. 0888826703

Report Date : 08/14/2020  
 Received : 08/05/2020



Report Number : **20-218-0165**

**REPORT OF ANALYSIS**

Rebekah Ross  
 Project Manager

Lab No : **92403**  
 Sample ID : **167SSB0704**

Matrix: **Solids**  
 Sampled: **8/4/2020 14:40**

**Analytical Method:** 8260B      **Prep Batch(es):** **L505698** 08/10/20 07:41      **L505913** 08/11/20 10:44  
**Prep Method:** 5030A

Test	Results	Units	MDL	MQL	DF	Date / Time Analyzed	By	Analytical Batch
Trichloroethene	<0.003	mg/Kg - dry	0.003	0.012	1	08/10/20 18:00	ELM	L505699
Trichlorofluoromethane	<0.007	mg/Kg - dry	0.007	0.012	1	08/10/20 18:00	ELM	L505699
1,2,3-Trichloropropane	<0.003	mg/Kg - dry	0.003	0.012	1	08/10/20 18:00	ELM	L505699
1,2,4-Trimethylbenzene	<b>273</b>	mg/Kg - dry	0.496	2.51	1000	08/12/20 14:38	MKD	L505929
1,3,5-Trimethylbenzene	<b>10.3 E</b>	mg/Kg - dry	0.008	0.012	1	08/10/20 18:00	ELM	L505699
Vinyl Acetate	<0.023	mg/Kg - dry	0.023	0.250	1	08/10/20 18:00	ELM	L505699
Vinyl Chloride	<0.003	mg/Kg - dry	0.003	0.012	1	08/10/20 18:00	ELM	L505699
Xylene (Total)	<b>247</b>	mg/Kg - dry	0.002	0.012	1	08/10/20 18:00		L505699
Surrogate: 4-Bromofluorobenzene	80.8		Limits: 60-130%		1	08/10/20 18:00	ELM	L505699
Surrogate: 1,2-Dichloroethane - d4	112		Limits: 60-132%		1	08/10/20 18:00	ELM	L505699
Surrogate: Toluene-d8	88.6		Limits: 70-130%		1	08/10/20 18:00	ELM	L505699
Surrogate: 4-Bromofluorobenzene	101		Limits: 50-150%		100	08/11/20 18:41	MKD	L505929
Surrogate: 1,2-Dichloroethane - d4	99.0		Limits: 50-150%		100	08/11/20 18:41	MKD	L505929
Surrogate: Toluene-d8	98.5		Limits: 50-150%		100	08/11/20 18:41	MKD	L505929

**Analytical Method:** 8270D SIM      **Prep Batch(es):** **L505071** 08/06/20 12:00  
**Prep Method:** 3550B

Test	Results	Units	MDL	MQL	DF	Date / Time Analyzed	By	Analytical Batch
Acenaphthene	<b>0.174</b>	mg/Kg - dry	0.00152	0.00236	1	08/07/20 17:01	MLR	L505238
Acenaphthylene	<b>0.0708</b>	mg/Kg - dry	0.00134	0.00236	1	08/07/20 17:01	MLR	L505238
Anthracene	<b>0.0333</b>	mg/Kg - dry	0.00149	0.00236	1	08/07/20 17:01	MLR	L505238
Benzo(a)anthracene	<b>0.0282</b>	mg/Kg - dry	0.00155	0.00236	1	08/07/20 17:01	MLR	L505238

Qualifiers/Definitions				
*	Outside QC Limit		B	Analyte detected in blank
DF	Dilution Factor		E	Result above cal range
I	Recovery out of range		J	Estimated value
MQL	Method Quantitation Limit			



03180

Ensafe

Ms. Chelsey Kipper

5724 Summer Tree Drive

Memphis, TN 38134

Project Former Wayne's Pinball Palace

Information : 167 Chelsea Avenue, Memphis, TN

Project No. 0888826703

Report Date : 08/14/2020

Received : 08/05/2020

*Rebekah Ross*

Rebekah Ross  
Project Manager

Report Number : **20-218-0165**

**REPORT OF ANALYSIS**

Lab No : **92403**

Sample ID : **167SSB0704**

Matrix: **Solids**

Sampled: **8/4/2020 14:40**

**Analytical Method:** 8270D SIM

**Prep Batch(es):** L505071 08/06/20 12:00

**Prep Method:** 3550B

Test	Results	Units	MDL	MQL	DF	Date / Time Analyzed	By	Analytical Batch
Benzo(a)pyrene	<b>0.00932</b>	mg/Kg - dry	0.000467	0.00236	1	08/07/20 17:01	MLR	L505238
Benzo(b)fluoranthene	<b>0.0142</b>	mg/Kg - dry	0.000484	0.00236	1	08/07/20 17:01	MLR	L505238
Benzo(g,h,i)perylene	<b>0.0153</b>	mg/Kg - dry	0.000812	0.00236	1	08/07/20 17:01	MLR	L505238
Benzo(k)fluoranthene	<b>0.00340</b>	mg/Kg - dry	0.00170	0.00236	1	08/07/20 17:01	MLR	L505238
Chrysene	<b>0.0258</b>	mg/Kg - dry	0.000899	0.00236	1	08/07/20 17:01	MLR	L505238
Dibenz(a,h)anthracene	<0.000979	mg/Kg - dry	0.000979	0.00236	1	08/07/20 17:01	MLR	L505238
Fluoranthene	<b>0.0549</b>	mg/Kg - dry	0.00185	0.00236	1	08/07/20 17:01	MLR	L505238
Fluorene	<b>0.242</b>	mg/Kg - dry	0.00175	0.00236	1	08/07/20 17:01	MLR	L505238
Indeno(1,2,3-cd)pyrene	<b>0.00536</b>	mg/Kg - dry	0.00121	0.00236	1	08/07/20 17:01	MLR	L505238
2-Methylnaphthalene	<b>25.2</b>	mg/Kg - dry	0.0381	0.0471	20	08/11/20 15:33	MLR	L505238
Naphthalene	<b>29.1</b>	mg/Kg - dry	0.0328	0.0471	20	08/11/20 15:33	MLR	L505238
Phenanthrene	<b>0.328</b>	mg/Kg - dry	0.00229	0.00236	1	08/07/20 17:01	MLR	L505238
Pyrene	<b>0.106</b>	mg/Kg - dry	0.00137	0.00236	1	08/07/20 17:01	MLR	L505238
Surrogate: 2-Fluorobiphenyl	49.9			Limits: 33-115%	20	08/11/20 15:33	MLR	L505238
Surrogate: Nitrobenzene-d5	<b>I *</b>			Limits: 29-110%	20	08/11/20 15:33	MLR	L505238
Surrogate: 4-Terphenyl-d14	57.1			Limits: 33-122%	20	08/11/20 15:33	MLR	L505238

**Analytical Method:** TN EPH

**Prep Batch(es):** L505693 08/11/20 10:04

**Prep Method:** 3550B

Test	Results	Units	MDL	MQL	DF	Date / Time Analyzed	By	Analytical Batch
Diesel Range Organics (C10-C28)	<b>3610</b>	mg/Kg - dry	414	414	100	08/12/20 15:18	MMK	L505941
Oil Range Organics (>C28-C40)	<41.4	mg/Kg - dry	41.4	41.4	10	08/12/20 14:59	MMK	L505941

Qualifiers/Definitions				
*	Outside QC Limit		B	Analyte detected in blank
DF	Dilution Factor		E	Result above cal range
I	Recovery out of range		J	Estimated value
MQL	Method Quantitation Limit			



03180

Ensafe

Ms. Chelsey Kipper

5724 Summer Tree Drive

Memphis , TN 38134

Project Former Wayne's Pinball Palace

Information : 167 Chelsea Avenue, Memphis, TN

Project No. 0888826703

Report Date : 08/14/2020

Received : 08/05/2020



Report Number : **20-218-0165**

**REPORT OF ANALYSIS**

Rebekah Ross  
Project Manager

Lab No : **92403**

Matrix: **Solids**

Sample ID : **167SSB0704**

Sampled: **8/4/2020 14:40**

**Analytical Method:** TN EPH **Prep Batch(es):** **L505693** 08/11/20 10:04

**Prep Method:** 3550B

Test	Results	Units	MDL	MQL	DF	Date / Time Analyzed	By	Analytical Batch
TN EPH (C10-C40)	<b>3610</b>	mg/Kg - dry	41.4	41.4	10	08/12/20 14:59		L505941
Surrogate: OTP Surrogate		137		Limits: 50-150%	10	08/12/20 14:59	MMK	L505941

**Qualifiers/  
Definitions**

*	Outside QC Limit	B	Analyte detected in blank
DF	Dilution Factor	E	Result above cal range
I	Recovery out of range	J	Estimated value
MQL	Method Quantitation Limit		

03180

Ensafe

Ms. Chelsey Kipper

5724 Summer Tree Drive

Memphis , TN 38134

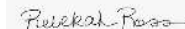
Project Former Wayne's Pinball Palace

Information : 167 Chelsea Avenue, Memphis, TN

Project No. 0888826703

Report Date : 08/14/2020

Received : 08/05/2020



Report Number : **20-218-0165**

**REPORT OF ANALYSIS**

Rebekah Ross  
Project Manager

Lab No : **92404**

Matrix: **Solids**

Sample ID : **167SSB0804**

Sampled: **8/4/2020 14:55**

Test	Results	Units	MDL	MLQ	DF	Date / Time Analyzed	By	Analytical Method
Moisture	<b>11.1</b>	%			1	08/07/20 13:51	FMM	SW-DRYWT
Arsenic	<b>0.933</b>	mg/Kg - dry	0.270	0.562	1	08/08/20 02:42	TJS	6010D
Barium	<b>16.5</b>	mg/Kg - dry	0.146	0.562	1	08/08/20 02:42	TJS	6010D
Cadmium	<b>0.0330 J</b>	mg/Kg - dry	0.0224	0.112	1	08/08/20 02:42	TJS	6010D
Chromium	<b>3.50</b>	mg/Kg - dry	0.265	0.281	1	08/08/20 02:42	TJS	6010D
Lead	<b>3.94</b>	mg/Kg - dry	0.202	0.337	1	08/08/20 02:42	TJS	6010D
Mercury	<b>0.00980 J</b>	mg/Kg - dry	0.00359	0.0163	1	08/13/20 14:29	DDB	7471A
Selenium	<0.359	mg/Kg - dry	0.359	0.562	1	08/11/20 08:43	TJS	6010D
Silver	<0.180	mg/Kg - dry	0.180	0.281	1	08/08/20 02:42	TJS	6010D

**Qualifiers/  
Definitions**

*	Outside QC Limit	B	Analyte detected in blank
DF	Dilution Factor	E	Result above cal range
J	Estimated value	L	Limit Exceeded
MLQ	Method Quantitation Limit		

03180

Ensafe

Ms. Chelsey Kipper

5724 Summer Tree Drive

Memphis , TN 38134

Project


Former Wayne's Pinball Palace

Information : 167 Chelsea Avenue, Memphis, TN

Project No. 0888826703

Report Date : 08/14/2020

Received : 08/05/2020



Rebekah Ross

Project Manager

Report Number : **20-218-0165**

**REPORT OF ANALYSIS**

Lab No : **92404**

Matrix: **Solids**

Sample ID : **167SSB0804**

Sampled: **8/4/2020 14:55**

**Analytical Method:** 8260B

**Prep Batch(es):** **L505698** 08/10/20 07:41

**Prep Method:** 5030A

Test	Results	Units	MDL	MQL	DF	Date / Time Analyzed	By	Analytical Batch
Acetone	<0.005	mg/Kg - dry	0.005	0.044	1	08/10/20 13:23	ELM	L505699
Acetonitrile	<0.051	mg/Kg - dry	0.051	0.112	1	08/10/20 13:23	ELM	L505699
Acrolein	<0.007	mg/Kg - dry	0.007	0.044	1	08/10/20 13:23	ELM	L505699
Acrylonitrile	<0.002	mg/Kg - dry	0.002	0.044	1	08/10/20 13:23	ELM	L505699
Benzene	<0.0007	mg/Kg - dry	0.0007	0.002	1	08/10/20 13:23	ELM	L505699
Bromobenzene	<0.0009	mg/Kg - dry	0.0009	0.002	1	08/10/20 13:23	ELM	L505699
Bromochloromethane	<0.001	mg/Kg - dry	0.001	0.002	1	08/10/20 13:23	ELM	L505699
Bromodichloromethane	<0.002	mg/Kg - dry	0.002	0.002	1	08/10/20 13:23	ELM	L505699
Bromoform	<0.002	mg/Kg - dry	0.002	0.002	1	08/10/20 13:23	ELM	L505699
Bromomethane	<0.001	mg/Kg - dry	0.001	0.002	1	08/10/20 13:23	ELM	L505699
Methyl Ethyl Ketone (MEK)	<0.008	mg/Kg - dry	0.008	0.044	1	08/10/20 13:23	ELM	L505699
n-Butylbenzene	<0.001	mg/Kg - dry	0.001	0.002	1	08/10/20 13:23	ELM	L505699
sec-Butyl benzene	<0.001	mg/Kg - dry	0.001	0.002	1	08/10/20 13:23	ELM	L505699
tert-Butyl benzene	<0.001	mg/Kg - dry	0.001	0.002	1	08/10/20 13:23	ELM	L505699
Carbon Disulfide	<0.001	mg/Kg - dry	0.001	0.002	1	08/10/20 13:23	ELM	L505699
Carbon Tetrachloride	<0.0005	mg/Kg - dry	0.0005	0.002	1	08/10/20 13:23	ELM	L505699
Chlorobenzene	<0.0006	mg/Kg - dry	0.0006	0.002	1	08/10/20 13:23	ELM	L505699
Chlorodibromomethane	<0.002	mg/Kg - dry	0.002	0.002	1	08/10/20 13:23	ELM	L505699
Chloroethane	<0.001	mg/Kg - dry	0.001	0.002	1	08/10/20 13:23	ELM	L505699
2-Chloroethylvinyl Ether	<0.006	mg/Kg - dry	0.006	0.011	1	08/10/20 13:23	ELM	L505699
Chloroform	<0.002	mg/Kg - dry	0.002	0.002	1	08/10/20 13:23	ELM	L505699
Chloromethane	<0.001	mg/Kg - dry	0.001	0.002	1	08/10/20 13:23	ELM	L505699

**Qualifiers/  
Definitions**

*	Outside QC Limit	B	Analyte detected in blank
DF	Dilution Factor	E	Result above cal range
I	Recovery out of range	J	Estimated value
MQL	Method Quantitation Limit		

03180

Ensafe

Ms. Chelsey Kipper

5724 Summer Tree Drive

Memphis , TN 38134


Project Former Wayne's Pinball Palace

Information : 167 Chelsea Avenue, Memphis, TN

Project No. 0888826703

Report Date : 08/14/2020

Received : 08/05/2020



Report Number : **20-218-0165**

**REPORT OF ANALYSIS**

Rebekah Ross  
Project Manager

Lab No : **92404**

Matrix: **Solids**

Sample ID : **167SSB0804**

Sampled: **8/4/2020 14:55**

**Analytical Method:** 8260B

**Prep Batch(es):** **L505698** 08/10/20 07:41

**Prep Method:** 5030A

Test	Results	Units	MDL	MQL	DF	Date / Time Analyzed	By	Analytical Batch
2-Chlorotoluene	<0.001	mg/Kg - dry	0.001	0.002	1	08/10/20 13:23	ELM	L505699
4-Chlorotoluene	<0.001	mg/Kg - dry	0.001	0.002	1	08/10/20 13:23	ELM	L505699
1,2-Dibromo-3-Chloropropane	<0.004	mg/Kg - dry	0.004	0.011	1	08/10/20 13:23	ELM	L505699
1,2-Dibromoethane	<0.0007	mg/Kg - dry	0.0007	0.002	1	08/10/20 13:23	ELM	L505699
Dibromomethane	<0.0005	mg/Kg - dry	0.0005	0.002	1	08/10/20 13:23	ELM	L505699
1,2-Dichlorobenzene	<0.001	mg/Kg - dry	0.001	0.002	1	08/10/20 13:23	ELM	L505699
1,3-Dichlorobenzene	<0.001	mg/Kg - dry	0.001	0.002	1	08/10/20 13:23	ELM	L505699
1,4-Dichlorobenzene	<0.001	mg/Kg - dry	0.001	0.002	1	08/10/20 13:23	ELM	L505699
Dichlorodifluoromethane	<0.001	mg/Kg - dry	0.001	0.002	1	08/10/20 13:23	ELM	L505699
1,1-Dichloroethane	<0.001	mg/Kg - dry	0.001	0.002	1	08/10/20 13:23	ELM	L505699
1,2-Dichloroethane	<0.001	mg/Kg - dry	0.001	0.002	1	08/10/20 13:23	ELM	L505699
1,1-Dichloroethene	<0.001	mg/Kg - dry	0.001	0.002	1	08/10/20 13:23	ELM	L505699
cis-1,2-Dichloroethene	<0.0007	mg/Kg - dry	0.0007	0.002	1	08/10/20 13:23	ELM	L505699
trans-1,2-Dichloroethene	<0.001	mg/Kg - dry	0.001	0.002	1	08/10/20 13:23	ELM	L505699
1,2-Dichloroethene (Total)	<0.0007	mg/Kg - dry	0.0007	0.002	1	08/10/20 13:23		L505699
1,2-Dichloropropane	<0.0009	mg/Kg - dry	0.0009	0.002	1	08/10/20 13:23	ELM	L505699
1,3-Dichloropropane	<0.001	mg/Kg - dry	0.001	0.002	1	08/10/20 13:23	ELM	L505699
2,2-Dichloropropane	<0.0007	mg/Kg - dry	0.0007	0.002	1	08/10/20 13:23	ELM	L505699
1,1-Dichloropropene	<0.0008	mg/Kg - dry	0.0008	0.002	1	08/10/20 13:23	ELM	L505699
cis-1,3-Dichloropropene	<0.0007	mg/Kg - dry	0.0007	0.002	1	08/10/20 13:23	ELM	L505699
trans-1,3-Dichloropropene	<0.0006	mg/Kg - dry	0.0006	0.002	1	08/10/20 13:23	ELM	L505699
Ethyl Acetate	<0.008	mg/Kg - dry	0.008	0.044	1	08/10/20 13:23	ELM	L505699

**Qualifiers/  
Definitions**

*	Outside QC Limit	B	Analyte detected in blank
DF	Dilution Factor	E	Result above cal range
I	Recovery out of range	J	Estimated value
MQL	Method Quantitation Limit		

03180

Ensafe

Ms. Chelsey Kipper

5724 Summer Tree Drive

Memphis , TN 38134

Project

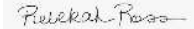
Former Wayne's Pinball Palace

Information : 167 Chelsea Avenue, Memphis, TN

Project No. 0888826703

Report Date : 08/14/2020

Received : 08/05/2020



Report Number : **20-218-0165**

**REPORT OF ANALYSIS**

Rebekah Ross  
Project Manager

Lab No : **92404**

Sample ID : **167SSB0804**

Matrix: **Solids**

Sampled: **8/4/2020 14:55**

**Analytical Method:** 8260B      **Prep Batch(es):** **L505698** 08/10/20 07:41  
**Prep Method:** 5030A

Test	Results	Units	MDL	MQL	DF	Date / Time Analyzed	By	Analytical Batch
Ethylbenzene	<0.0008	mg/Kg - dry	0.0008	0.002	1	08/10/20 13:23	ELM	L505699
Hexachlorobutadiene	<0.001	mg/Kg - dry	0.001	0.002	1	08/10/20 13:23	ELM	L505699
2-Hexanone	<0.005	mg/Kg - dry	0.005	0.011	1	08/10/20 13:23	ELM	L505699
Iodomethane	<0.0009	mg/Kg - dry	0.0009	0.011	1	08/10/20 13:23	ELM	L505699
Isopropylbenzene	<0.001	mg/Kg - dry	0.001	0.002	1	08/10/20 13:23	ELM	L505699
4-Isopropyl toluene	<0.001	mg/Kg - dry	0.001	0.002	1	08/10/20 13:23	ELM	L505699
4-Methyl-2-Pentanone	<0.005	mg/Kg - dry	0.005	0.011	1	08/10/20 13:23	ELM	L505699
Methylene Chloride	<0.006	mg/Kg - dry	0.006	0.044	1	08/10/20 13:23	ELM	L505699
Methyl tert-butyl ether (MTBE)	<0.001	mg/Kg - dry	0.001	0.002	1	08/10/20 13:23	ELM	L505699
m,p-Xylene	<0.001	mg/Kg - dry	0.001	0.004	1	08/10/20 13:23	ELM	L505699
Naphthalene	<0.007	mg/Kg - dry	0.007	0.011	1	08/10/20 13:23	ELM	L505699
o-Xylene	<0.0005	mg/Kg - dry	0.0005	0.002	1	08/10/20 13:23	ELM	L505699
n-Propylbenzene	<0.001	mg/Kg - dry	0.001	0.002	1	08/10/20 13:23	ELM	L505699
Styrene	<0.001	mg/Kg - dry	0.001	0.002	1	08/10/20 13:23	ELM	L505699
1,1,1,2-Tetrachloroethane	<0.001	mg/Kg - dry	0.001	0.002	1	08/10/20 13:23	ELM	L505699
1,1,2,2-Tetrachloroethane	<0.001	mg/Kg - dry	0.001	0.002	1	08/10/20 13:23	ELM	L505699
Tetrachloroethene	<0.001	mg/Kg - dry	0.001	0.002	1	08/10/20 13:23	ELM	L505699
Toluene	<0.003	mg/Kg - dry	0.003	0.011	1	08/10/20 13:23	ELM	L505699
1,2,3-Trichlorobenzene	<0.001	mg/Kg - dry	0.001	0.002	1	08/10/20 13:23	ELM	L505699
1,2,4-Trichlorobenzene	<0.001	mg/Kg - dry	0.001	0.002	1	08/10/20 13:23	ELM	L505699
1,1,1-Trichloroethane	<0.0008	mg/Kg - dry	0.0008	0.002	1	08/10/20 13:23	ELM	L505699
1,1,2-Trichloroethane	<0.0006	mg/Kg - dry	0.0006	0.002	1	08/10/20 13:23	ELM	L505699

Qualifiers/ Definitions				
*	Outside QC Limit		B	Analyte detected in blank
DF	Dilution Factor		E	Result above cal range
I	Recovery out of range		J	Estimated value
MQL	Method Quantitation Limit			

03180

Ensafe

Ms. Chelsey Kipper

5724 Summer Tree Drive

Memphis , TN 38134

Project Former Wayne's Pinball Palace

Information : 167 Chelsea Avenue, Memphis, TN

Project No. 0888826703

Report Date : 08/14/2020

Received : 08/05/2020

*Rebekah Ross*

Report Number : **20-218-0165**

**REPORT OF ANALYSIS**

Rebekah Ross  
Project Manager

Lab No : **92404**

Sample ID : **167SSB0804**

Matrix: **Solids**

Sampled: **8/4/2020 14:55**

**Analytical Method:** 8260B      **Prep Batch(es):** **L505698** 08/10/20 07:41  
**Prep Method:** 5030A

Test	Results	Units	MDL	MLQ	DF	Date / Time Analyzed	By	Analytical Batch
Trichloroethene	<0.0005	mg/Kg - dry	0.0005	0.002	1	08/10/20 13:23	ELM	L505699
Trichlorofluoromethane	<0.001	mg/Kg - dry	0.001	0.002	1	08/10/20 13:23	ELM	L505699
1,2,3-Trichloropropane	<0.0007	mg/Kg - dry	0.0007	0.002	1	08/10/20 13:23	ELM	L505699
1,2,4-Trimethylbenzene	<0.001	mg/Kg - dry	0.001	0.002	1	08/10/20 13:23	ELM	L505699
1,3,5-Trimethylbenzene	<0.001	mg/Kg - dry	0.001	0.002	1	08/10/20 13:23	ELM	L505699
Vinyl Acetate	<0.004	mg/Kg - dry	0.004	0.044	1	08/10/20 13:23	ELM	L505699
Vinyl Chloride	<0.0006	mg/Kg - dry	0.0006	0.002	1	08/10/20 13:23	ELM	L505699
Xylene (Total)	<0.0005	mg/Kg - dry	0.0005	0.002	1	08/10/20 13:23		L505699
Surrogate: 4-Bromofluorobenzene	102		Limits: 60-130%		1	08/10/20 13:23	ELM	L505699
Surrogate: 1,2-Dichloroethane - d4	125		Limits: 60-132%		1	08/10/20 13:23	ELM	L505699
Surrogate: Toluene-d8	104		Limits: 70-130%		1	08/10/20 13:23	ELM	L505699

**Analytical Method:** 8270D SIM      **Prep Batch(es):** **L505071** 08/06/20 12:00  
**Prep Method:** 3550B

Test	Results	Units	MDL	MLQ	DF	Date / Time Analyzed	By	Analytical Batch
Acenaphthene	<b>0.00102</b>	mg/Kg - dry	0.000484	0.000753	1	08/07/20 17:22	MLR	L505238
Acenaphthylene	<0.000429	mg/Kg - dry	0.000429	0.000753	1	08/07/20 17:22	MLR	L505238
Anthracene	<b>0.00551</b>	mg/Kg - dry	0.000479	0.000753	1	08/07/20 17:22	MLR	L505238
Benzo(a)anthracene	<b>0.0413</b>	mg/Kg - dry	0.000496	0.000753	1	08/07/20 17:22	MLR	L505238
Benzo(a)pyrene	<b>0.0371</b>	mg/Kg - dry	0.000149	0.000753	1	08/07/20 17:22	MLR	L505238
Benzo(b)fluoranthene	<b>0.0516</b>	mg/Kg - dry	0.000155	0.000753	1	08/07/20 17:22	MLR	L505238
Benzo(g,h,i)perylene	<b>0.0236</b>	mg/Kg - dry	0.000259	0.000753	1	08/07/20 17:22	MLR	L505238

Qualifiers/Definitions				
*	Outside QC Limit		B	Analyte detected in blank
DF	Dilution Factor		E	Result above cal range
I	Recovery out of range		J	Estimated value
MLQ	Method Quantitation Limit			

03180

Ensafe  
Ms. Chelsey Kipper  
5724 Summer Tree Drive  
Memphis, TN 38134

Project Former Wayne's Pinball Palace  
Information : 167 Chelsea Avenue, Memphis, TN  
Project No. 0888826703

Report Date : 08/14/2020  
Received : 08/05/2020



Report Number : **20-218-0165**

**REPORT OF ANALYSIS**

Rebekah Ross  
Project Manager

Lab No : **92404**

Matrix: **Solids**

Sample ID : **167SSB0804**

Sampled: **8/4/2020 14:55**

**Analytical Method:** 8270D SIM      **Prep Batch(es):** **L505071** 08/06/20 12:00  
**Prep Method:** 3550B

Test	Results	Units	MDL	MQL	DF	Date / Time Analyzed	By	Analytical Batch
Benzo(k)fluoranthene	<b>0.0232</b>	mg/Kg - dry	0.000546	0.000753	1	08/07/20 17:22	MLR	L505238
Chrysene	<b>0.0350</b>	mg/Kg - dry	0.000287	0.000753	1	08/07/20 17:22	MLR	L505238
Dibenz(a,h)anthracene	<b>0.00625</b>	mg/Kg - dry	0.000313	0.000753	1	08/07/20 17:22	MLR	L505238
Fluoranthene	<b>0.0668</b>	mg/Kg - dry	0.000595	0.000753	1	08/07/20 17:22	MLR	L505238
Fluorene	<b>0.00129</b>	mg/Kg - dry	0.000563	0.000753	1	08/07/20 17:22	MLR	L505238
Indeno(1,2,3-cd)pyrene	<b>0.0310</b>	mg/Kg - dry	0.000386	0.000753	1	08/07/20 17:22	MLR	L505238
2-Methylnaphthalene	<b>0.00397 B</b>	mg/Kg - dry	0.000609	0.000753	1	08/07/20 17:22	MLR	L505238
Naphthalene	<b>0.00325 B</b>	mg/Kg - dry	0.000525	0.000753	1	08/07/20 17:22	MLR	L505238
Phenanthrene	<b>0.0201</b>	mg/Kg - dry	0.000735	0.000753	1	08/07/20 17:22	MLR	L505238
Pyrene	<b>0.0537</b>	mg/Kg - dry	0.000435	0.000753	1	08/07/20 17:22	MLR	L505238
Surrogate: 2-Fluorobiphenyl	45.6			Limits: 33-115%	1	08/07/20 17:22	MLR	L505238
Surrogate: Nitrobenzene-d5	38.9			Limits: 29-110%	1	08/07/20 17:22	MLR	L505238
Surrogate: 4-Terphenyl-d14	60.5			Limits: 33-122%	1	08/07/20 17:22	MLR	L505238

**Analytical Method:** TN EPH      **Prep Batch(es):** **L505693** 08/11/20 10:04  
**Prep Method:** 3550B

Test	Results	Units	MDL	MQL	DF	Date / Time Analyzed	By	Analytical Batch
Diesel Range Organics (C10-C28)	<b>4.71</b>	mg/Kg - dry	3.71	3.71	1	08/12/20 13:24	MMK	L505941
Oil Range Organics (>C28-C40)	<b>10.1</b>	mg/Kg - dry	3.71	3.71	1	08/12/20 13:24	MMK	L505941
TN EPH (C10-C40)	<b>14.8</b>	mg/Kg - dry	3.71	3.71	1	08/12/20 13:24		L505941
Surrogate: OTP Surrogate	82.1			Limits: 50-150%	1	08/12/20 13:24	MMK	L505941

Qualifiers/Definitions				
*	Outside QC Limit		B	Analyte detected in blank
DF	Dilution Factor		E	Result above cal range
I	Recovery out of range		J	Estimated value
MQL	Method Quantitation Limit			



### Quality Control Data

**Client ID:** Ensafe  
**Project Description:** Former Wayne's Pinball Palace  
**Report No:** 20-218-0165

**QC Prep:** L505057      **QC Analytical Batch(es):** L505494,L505748,L505938  
**QC Prep Batch Method:** 3050B      **Analysis Method:** 6010D  
**Analysis Description:** Metals Analysis

**Lab Reagent Blank**      LRB-L505057      Matrix: SOL  
Associated Lab Samples: 92395, 92396, 92397, 92398, 92399, 92400, 92401, 92402, 92403, 92404

Parameter	Units	Blank Result	MDL	MQL	Analyzed
Arsenic	mg/Kg	<0.240	0.240	0.500	08/08/20 01:30
Barium	mg/Kg	<0.130	0.130	0.500	08/08/20 01:30
Cadmium	mg/Kg	<0.0200	0.0200	0.100	08/08/20 01:30
Chromium	mg/Kg	<0.236	0.236	0.250	08/08/20 01:30
Lead	mg/Kg	<0.180	0.180	0.300	08/08/20 01:30
Selenium	mg/Kg	<0.320	0.320	0.500	08/11/20 17:44
Silver	mg/Kg	<0.160	0.160	0.250	08/08/20 01:30

**Laboratory Control Sample**      LCS-L505057

Parameter	Units	Spike Conc.	LCS Result	LCS %Rec	% Rec Limits
Arsenic	mg/Kg	5.00	4.94	99.0	80-120
Barium	mg/Kg	50.0	49.0	98.0	80-120
Cadmium	mg/Kg	5.00	4.81	96.0	80-120
Chromium	mg/Kg	50.0	51.8	104	80-120
Lead	mg/Kg	5.00	4.97	99.0	80-120
Selenium	mg/Kg	5.00	4.66	93.0	80-120
Silver	mg/Kg	5.00	5.06	101	80-120

**Matrix Spike & Matrix Spike Duplicate**      L 92389-MS-L505057      L 92389-MSD-L505057

Parameter	Units	Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS %Rec	MSD %Rec	%Rec Limits	RPD	Max RPD
Arsenic	mg/Kg	5.16	4.70	4.64	9.49	8.05	92.0	62.0*	75-125	16.4	20
Barium	mg/Kg	77.9	47.0	46.4	114	97.9	77.0	43.0*	75-125	15.1	20
Cadmium	mg/Kg	0.285	4.70	4.64	2.78	3.30	53.0*	65.0*	75-125	17.1	20
Chromium	mg/Kg	12.3	47.0	46.4	42.9	43.9	65.0*	68.0*	75-125	2.3	20

**Quality Control Data**

**Client ID:** Ensafe  
**Project Description:** Former Wayne's Pinball Palace  
**Report No:** 20-218-0165

**QC Prep:** L505057      **QC Analytical Batch(es):** L505494,L505748,L505938  
**QC Prep Batch Method:** 3050B      **Analysis Method:** 6010D  
**Analysis Description:** Metals Analysis

**Matrix Spike & Matrix Spike Duplicate**      L 92389-MS-L505057      L 92389-MSD-L505057

Parameter	Units	Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS %Rec	MSD %Rec	%Rec Limits	RPD	Max RPD
Lead	mg/Kg	45.7	4.70	4.64	26.1	47.0	-400*	28.0*	75-125	57.1*	20
Selenium	mg/Kg	<0.320	4.70	4.64	2.06	3.07	44.0*	66.0*	75-125	39.3*	20
Silver	mg/Kg	0.557	4.70	4.64	3.42	4.31	61.0*	81.0	75-125	23.0*	20

### Quality Control Data

**Client ID:** Ensafe  
**Project Description:** Former Wayne's Pinball Palace  
**Report No:** 20-218-0165

**QC Prep:** L505576      **QC Analytical Batch(es):** L505787  
**QC Prep Batch Method:** 7471A      **Analysis Method:** 7471A  
**Analysis Description:** Solids Total Mercury Analysis - CVAA

**Lab Reagent Blank**      LRB-L505576      Matrix: SOL  
 Associated Lab Samples: 92399

Parameter	Units	Blank Result	MDL	MQL	Analyzed
Mercury	mg/Kg	0.0190	0.00352	0.0160	08/11/20 13:26

**Laboratory Control Sample**      LCS-L505576

Parameter	Units	Spike Conc.	LCS Result	LCS %Rec	% Rec Limits
Mercury	mg/Kg	0.400	0.430	108	80-120

**Matrix Spike & Matrix Spike Duplicate**      E 73277-MS-L505576      E 73277-MSD-L505576

Parameter	Units	Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS %Rec	MSD %Rec	%Rec Limits	RPD	Max RPD
Mercury	mg/Kg	0.0399	0.380	0.398	0.469	0.671	113	159*	80-120	35.4*	20

### Quality Control Data

**Client ID:** Ensafe  
**Project Description:** Former Wayne's Pinball Palace  
**Report No:** 20-218-0165

**QC Prep:** L506032      **QC Analytical Batch(es):** L506267  
**QC Prep Batch Method:** 7471A      **Analysis Method:** 7471A  
**Analysis Description:** Solids Total Mercury Analysis - CVAA

**Lab Reagent Blank**      LRB-L506032      Matrix: SOL  
Associated Lab Samples: 92395, 92396, 92397, 92398, 92400, 92401, 92402, 92403, 92404

Parameter	Units	Blank Result	MDL	MQL	Analyzed
Mercury	mg/Kg	<0.00352	0.00352	0.0160	08/13/20 15:00

**Laboratory Control Sample**      LCS-L506032

Parameter	Units	Spike Conc.	LCS Result	LCS %Rec	% Rec Limits
Mercury	mg/Kg	0.400	0.341	85.0	80-120

**Matrix Spike & Matrix Spike Duplicate**      L 93207-MS-L506032      L 93207-MSD-L506032

Parameter	Units	Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS %Rec	MSD %Rec	%Rec Limits	RPD	Max RPD
Mercury	mg/Kg	0.0300	0.351	0.348	0.335	0.344	87.0	90.0	80-120	2.6	20

### Quality Control Data

**Client ID:** Ensafe  
**Project Description:** Former Wayne's Pinball Palace  
**Report No:** 20-218-0165

**QC Prep:** L505228      **QC Analytical Batch(es):** L505241  
**QC Prep Batch Method:** 5030A      **Analysis Method:** 8260B  
**Analysis Description:** Volatile Organic Compounds - GC/MS

**Lab Reagent Blank**      LRB-L505228      Matrix: SOL  
Associated Lab Samples: 92395, 92396, 92397

Parameter	Units	Blank Result	MDL	MQL	Analyzed	% Recovery	% Rec Limits
Acetone	mg/Kg	0.005	0.004	0.040	08/06/20 11:06		
Acetonitrile	mg/Kg	<0.045	0.045	0.100	08/06/20 11:06		
Acrolein	mg/Kg	<0.006	0.006	0.040	08/06/20 11:06		
Acrylonitrile	mg/Kg	<0.002	0.002	0.040	08/06/20 11:06		
Benzene	mg/Kg	<0.0006	0.0006	0.002	08/06/20 11:06		
Bromobenzene	mg/Kg	<0.0008	0.0008	0.002	08/06/20 11:06		
Bromochloromethane	mg/Kg	<0.001	0.001	0.002	08/06/20 11:06		
Bromodichloromethane	mg/Kg	<0.001	0.001	0.002	08/06/20 11:06		
Bromoform	mg/Kg	<0.001	0.001	0.002	08/06/20 11:06		
Bromomethane	mg/Kg	<0.001	0.001	0.002	08/06/20 11:06		
Methyl Ethyl Ketone (MEK)	mg/Kg	<0.007	0.007	0.040	08/06/20 11:06		
n-Butylbenzene	mg/Kg	<0.001	0.001	0.002	08/06/20 11:06		
sec-Butyl benzene	mg/Kg	<0.001	0.001	0.002	08/06/20 11:06		
tert-Butyl benzene	mg/Kg	<0.001	0.001	0.002	08/06/20 11:06		
Carbon Disulfide	mg/Kg	<0.001	0.001	0.002	08/06/20 11:06		
Carbon Tetrachloride	mg/Kg	<0.0004	0.0004	0.002	08/06/20 11:06		
Chlorobenzene	mg/Kg	<0.0005	0.0005	0.002	08/06/20 11:06		
Chlorodibromomethane	mg/Kg	<0.001	0.001	0.002	08/06/20 11:06		
Chloroethane	mg/Kg	<0.001	0.001	0.002	08/06/20 11:06		
2-Chloroethylvinyl Ether	mg/Kg	<0.005	0.005	0.010	08/06/20 11:06		
Chloroform	mg/Kg	<0.001	0.001	0.002	08/06/20 11:06		
Chloromethane	mg/Kg	<0.001	0.001	0.002	08/06/20 11:06		
2-Chlorotoluene	mg/Kg	<0.001	0.001	0.002	08/06/20 11:06		
4-Chlorotoluene	mg/Kg	<0.001	0.001	0.002	08/06/20 11:06		
1,2-Dibromo-3-Chloropropane	mg/Kg	<0.004	0.004	0.010	08/06/20 11:06		
1,2-Dibromoethane	mg/Kg	<0.0006	0.0006	0.002	08/06/20 11:06		
Dibromomethane	mg/Kg	<0.0005	0.0005	0.002	08/06/20 11:06		

### Quality Control Data

**Client ID:** Ensafe  
**Project Description:** Former Wayne's Pinball Palace  
**Report No:** 20-218-0165

**QC Prep:** L505228      **QC Analytical Batch(es):** L505241  
**QC Prep Batch Method:** 5030A      **Analysis Method:** 8260B  
**Analysis Description:** Volatile Organic Compounds - GC/MS

**Lab Reagent Blank**      LRB-L505228      Matrix: SOL  
Associated Lab Samples: 92395, 92396, 92397

Parameter	Units	Blank Result	MDL	MQL	Analyzed	% Recovery	% Rec Limits
1,2-Dichlorobenzene	mg/Kg	<0.001	0.001	0.002	08/06/20 11:06		
1,3-Dichlorobenzene	mg/Kg	<0.0009	0.0009	0.002	08/06/20 11:06		
1,4-Dichlorobenzene	mg/Kg	<0.001	0.001	0.002	08/06/20 11:06		
Dichlorodifluoromethane	mg/Kg	<0.001	0.001	0.002	08/06/20 11:06		
1,1-Dichloroethane	mg/Kg	<0.0009	0.0009	0.002	08/06/20 11:06		
1,2-Dichloroethane	mg/Kg	<0.0009	0.0009	0.002	08/06/20 11:06		
1,1-Dichloroethene	mg/Kg	<0.001	0.001	0.002	08/06/20 11:06		
cis-1,2-Dichloroethene	mg/Kg	<0.0007	0.0007	0.002	08/06/20 11:06		
trans-1,2-Dichloroethene	mg/Kg	<0.001	0.001	0.002	08/06/20 11:06		
1,2-Dichloropropane	mg/Kg	<0.0008	0.0008	0.002	08/06/20 11:06		
1,3-Dichloropropane	mg/Kg	<0.0009	0.0009	0.002	08/06/20 11:06		
2,2-Dichloropropane	mg/Kg	<0.0006	0.0006	0.002	08/06/20 11:06		
1,1-Dichloropropene	mg/Kg	<0.0007	0.0007	0.002	08/06/20 11:06		
cis-1,3-Dichloropropene	mg/Kg	<0.0006	0.0006	0.002	08/06/20 11:06		
trans-1,3-Dichloropropene	mg/Kg	<0.0006	0.0006	0.002	08/06/20 11:06		
Ethyl Acetate	mg/Kg	<0.007	0.007	0.040	08/06/20 11:06		
Ethylbenzene	mg/Kg	<0.0007	0.0007	0.002	08/06/20 11:06		
Hexachlorobutadiene	mg/Kg	<0.001	0.001	0.002	08/06/20 11:06		
2-Hexanone	mg/Kg	<0.004	0.004	0.010	08/06/20 11:06		
Iodomethane	mg/Kg	<0.0008	0.0008	0.010	08/06/20 11:06		
Isopropylbenzene	mg/Kg	<0.0009	0.0009	0.002	08/06/20 11:06		
4-Isopropyl toluene	mg/Kg	<0.0010	0.0010	0.002	08/06/20 11:06		
4-Methyl-2-Pentanone	mg/Kg	<0.005	0.005	0.010	08/06/20 11:06		
Methylene Chloride	mg/Kg	<0.005	0.005	0.040	08/06/20 11:06		
Methyl tert-butyl ether (MTBE)	mg/Kg	<0.001	0.001	0.002	08/06/20 11:06		
m,p-Xylene	mg/Kg	<0.001	0.001	0.004	08/06/20 11:06		
Naphthalene	mg/Kg	<0.006	0.006	0.010	08/06/20 11:06		

### Quality Control Data

**Client ID:** Ensafe  
**Project Description:** Former Wayne's Pinball Palace  
**Report No:** 20-218-0165

**QC Prep:** L505228      **QC Analytical Batch(es):** L505241  
**QC Prep Batch Method:** 5030A      **Analysis Method:** 8260B  
**Analysis Description:** Volatile Organic Compounds - GC/MS

**Lab Reagent Blank** LRB-L505228      Matrix: SOL  
 Associated Lab Samples: 92395, 92396, 92397

Parameter	Units	Blank Result	MDL	MQL	Analyzed	% Recovery	% Rec Limits
o-Xylene	mg/Kg	<0.0004	0.0004	0.002	08/06/20 11:06		
n-Propylbenzene	mg/Kg	<0.001	0.001	0.002	08/06/20 11:06		
Styrene	mg/Kg	<0.001	0.001	0.002	08/06/20 11:06		
1,1,1,2-Tetrachloroethane	mg/Kg	<0.0009	0.0009	0.002	08/06/20 11:06		
1,1,2,2-Tetrachloroethane	mg/Kg	<0.001	0.001	0.002	08/06/20 11:06		
Tetrachloroethene	mg/Kg	<0.0009	0.0009	0.002	08/06/20 11:06		
Toluene	mg/Kg	<0.003	0.003	0.010	08/06/20 11:06		
1,2,3-Trichlorobenzene	mg/Kg	<0.001	0.001	0.002	08/06/20 11:06		
1,2,4-Trichlorobenzene	mg/Kg	<0.001	0.001	0.002	08/06/20 11:06		
1,1,1-Trichloroethane	mg/Kg	<0.0007	0.0007	0.002	08/06/20 11:06		
1,1,2-Trichloroethane	mg/Kg	<0.0006	0.0006	0.002	08/06/20 11:06		
Trichloroethene	mg/Kg	<0.0005	0.0005	0.002	08/06/20 11:06		
Trichlorofluoromethane	mg/Kg	<0.001	0.001	0.002	08/06/20 11:06		
1,2,3-Trichloropropane	mg/Kg	<0.0006	0.0006	0.002	08/06/20 11:06		
1,2,4-Trimethylbenzene	mg/Kg	<0.0009	0.0009	0.002	08/06/20 11:06		
1,3,5-Trimethylbenzene	mg/Kg	<0.001	0.001	0.002	08/06/20 11:06		
Vinyl Acetate	mg/Kg	<0.003	0.003	0.040	08/06/20 11:06		
Vinyl Chloride	mg/Kg	<0.0005	0.0005	0.002	08/06/20 11:06		
4-Bromofluorobenzene (S)					08/06/20 11:06	106	60-130
1,2-Dichloroethane - d4 (S)					08/06/20 11:06	111	60-132
Toluene-d8 (S)					08/06/20 11:06	114	70-130

**Laboratory Control Sample** LCS-L505228

Parameter	Units	Spike Conc.	LCS Result	LCS %Rec	% Rec Limits
Acetone	mg/Kg	0.200	0.218	109	40-160
Acetonitrile	mg/Kg	2.00	1.98	99.0	40-160



### Quality Control Data

**Client ID:** Ensafe  
**Project Description:** Former Wayne's Pinball Palace  
**Report No:** 20-218-0165

**QC Prep:** L505228      **QC Analytical Batch(es):** L505241  
**QC Prep Batch Method:** 5030A      **Analysis Method:** 8260B  
**Analysis Description:** Volatile Organic Compounds - GC/MS

**Laboratory Control Sample**      LCS-L505228

Parameter	Units	Spike Conc.	LCS Result	LCS %Rec	% Rec Limits
Acrolein	mg/Kg	0.200	0.099	49.6	40-160
Acrylonitrile	mg/Kg	0.200	0.206	103	40-160
Benzene	mg/Kg	0.200	0.168	84.0	70-130
Bromobenzene	mg/Kg	0.200	0.187	93.5	75-125
Bromochloromethane	mg/Kg	0.200	0.195	97.5	65-135
Bromodichloromethane	mg/Kg	0.200	0.194	97.0	75-125
Bromoform	mg/Kg	0.200	0.176	88.0	70-130
Bromomethane	mg/Kg	0.200	0.187	93.5	40-160
Methyl Ethyl Ketone (MEK)	mg/Kg	0.200	0.232	116	40-160
n-Butylbenzene	mg/Kg	0.200	0.238	119	70-130
sec-Butyl benzene	mg/Kg	0.200	0.190	95.0	70-130
tert-Butyl benzene	mg/Kg	0.200	0.197	98.5	70-130
Carbon Disulfide	mg/Kg	0.200	0.119	59.5	40-160
Carbon Tetrachloride	mg/Kg	0.200	0.181	90.5	65-135
Chlorobenzene	mg/Kg	0.200	0.164	82.0	80-120
Chlorodibromomethane	mg/Kg	0.200	0.192	96.0	60-140
Chloroethane	mg/Kg	0.200	0.144	72.0	60-140
2-Chloroethylvinyl Ether	mg/Kg	0.200	0.154	77.0	40-160
Chloroform	mg/Kg	0.200	0.174	87.0	80-120
Chloromethane	mg/Kg	0.200	0.176	88.0	40-160
2-Chlorotoluene	mg/Kg	0.200	0.190	95.0	75-125
4-Chlorotoluene	mg/Kg	0.200	0.205	103	75-125
1,2-Dibromo-3-Chloropropane	mg/Kg	0.200	0.218	109	50-150
1,2-Dibromoethane	mg/Kg	0.200	0.213	107	70-130
Dibromomethane	mg/Kg	0.200	0.179	89.5	75-125
1,2-Dichlorobenzene	mg/Kg	0.200	0.243	122	70-130
1,3-Dichlorobenzene	mg/Kg	0.200	0.194	97.0	75-125

### Quality Control Data

**Client ID:** Ensafe  
**Project Description:** Former Wayne's Pinball Palace  
**Report No:** 20-218-0165

**QC Prep:** L505228      **QC Analytical Batch(es):** L505241  
**QC Prep Batch Method:** 5030A      **Analysis Method:** 8260B  
**Analysis Description:** Volatile Organic Compounds - GC/MS

**Laboratory Control Sample**      LCS-L505228

Parameter	Units	Spike Conc.	LCS Result	LCS %Rec	% Rec Limits
1,4-Dichlorobenzene	mg/Kg	0.200	0.240	120	75-125
Dichlorodifluoromethane	mg/Kg	0.200	0.099	49.9	40-160
1,1-Dichloroethane	mg/Kg	0.200	0.160	80.0	70-130
1,2-Dichloroethane	mg/Kg	0.200	0.179	89.5	70-130
1,1-Dichloroethene	mg/Kg	0.200	0.192	96.0	80-120
cis-1,2-Dichloroethene	mg/Kg	0.200	0.175	87.5	70-130
trans-1,2-Dichloroethene	mg/Kg	0.200	0.159	79.5	60-140
1,2-Dichloropropane	mg/Kg	0.200	0.205	103	80-120
1,3-Dichloropropane	mg/Kg	0.200	0.201	101	75-125
2,2-Dichloropropane	mg/Kg	0.200	0.183	91.5	70-130
1,1-Dichloropropene	mg/Kg	0.200	0.183	91.5	75-125
cis-1,3-Dichloropropene	mg/Kg	0.200	0.173	86.5	70-130
trans-1,3-Dichloropropene	mg/Kg	0.200	0.184	92.0	55-145
Ethyl Acetate	mg/Kg	0.200	0.137	68.5	40-160
Ethylbenzene	mg/Kg	0.200	0.187	93.5	80-120
Hexachlorobutadiene	mg/Kg	0.200	0.286	143	50-150
2-Hexanone	mg/Kg	0.200	0.213	107	55-145
Iodomethane	mg/Kg	0.200	0.116	58.0	40-160
Isopropylbenzene	mg/Kg	0.200	0.188	94.0	75-125
4-Isopropyl toluene	mg/Kg	0.200	0.200	100	75-125
4-Methyl-2-Pentanone	mg/Kg	0.200	0.211	106	60-140
Methylene Chloride	mg/Kg	0.200	0.171	85.5	55-145
Methyl tert-butyl ether (MTBE)	mg/Kg	0.200	0.172	86.0	65-135
m,p-Xylene	mg/Kg	0.400	0.360	90.0	75-125
Naphthalene	mg/Kg	0.200	0.189	94.5	55-145
o-Xylene	mg/Kg	0.200	0.181	90.5	70-130
n-Propylbenzene	mg/Kg	0.200	0.190	95.0	70-130

### Quality Control Data

**Client ID:** Ensafe  
**Project Description:** Former Wayne's Pinball Palace  
**Report No:** 20-218-0165

**QC Prep:** L505228      **QC Analytical Batch(es):** L505241  
**QC Prep Batch Method:** 5030A      **Analysis Method:** 8260B  
**Analysis Description:** Volatile Organic Compounds - GC/MS

**Laboratory Control Sample**      LCS-L505228

Parameter	Units	Spike Conc.	LCS Result	LCS %Rec	% Rec Limits
Styrene	mg/Kg	0.200	0.180	90.0	65-135
1,1,1,2-Tetrachloroethane	mg/Kg	0.200	0.169	84.5	70-130
1,1,2,2-Tetrachloroethane	mg/Kg	0.200	0.250	125	65-135
Tetrachloroethene	mg/Kg	0.200	0.186	93.0	45-155
Toluene	mg/Kg	0.200	0.192	96.0	80-120
1,2,3-Trichlorobenzene	mg/Kg	0.200	0.200	100	60-140
1,2,4-Trichlorobenzene	mg/Kg	0.200	0.252	126	65-135
1,1,1-Trichloroethane	mg/Kg	0.200	0.178	89.0	65-135
1,1,2-Trichloroethane	mg/Kg	0.200	0.193	96.5	75-125
Trichloroethene	mg/Kg	0.200	0.203	102	70-130
Trichlorofluoromethane	mg/Kg	0.200	0.187	93.5	60-140
1,2,3-Trichloropropane	mg/Kg	0.200	0.207	104	75-125
1,2,4-Trimethylbenzene	mg/Kg	0.200	0.180	90.0	75-125
1,3,5-Trimethylbenzene	mg/Kg	0.200	0.190	95.0	75-125
Vinyl Acetate	mg/Kg	0.200	0.211	106	40-160
Vinyl Chloride	mg/Kg	0.200	0.172	86.0	80-120
4-Bromofluorobenzene (S)				98.2	60-130
1,2-Dichloroethane - d4 (S)				103	60-132
Toluene-d8 (S)				109	70-130

**Matrix Spike & Matrix Spike Duplicate**      L 98543-MS-L505228      L 98543-MSD-L505228

Parameter	Units	Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS %Rec	MSD %Rec	%Rec Limits	RPD	Max RPD
Acetone	mg/Kg	<0.022	0.962	0.901	0.943	1.22	98.0	135	40-160	25.6	30
Acetonitrile	mg/Kg	<0.218	9.62	9.01	11.7	10.5	122	117	40-160	10.8	30
Acrolein	mg/Kg	<0.030	0.962	0.901	0.282	0.295	29.3*	32.7*	40-160	4.5	30

\* QC Fail

Date: 08/14/2020 08:02 AM

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### Quality Control Data

**Client ID:** Ensafe  
**Project Description:** Former Wayne's Pinball Palace  
**Report No:** 20-218-0165

**QC Prep:** L505228 **QC Analytical Batch(es):** L505241  
**QC Prep Batch Method:** 5030A **Analysis Method:** 8260B  
**Analysis Description:** Volatile Organic Compounds - GC/MS

**Matrix Spike & Matrix Spike Duplicate** L 98543-MS-L505228 L 98543-MSD-L505228

Parameter	Units	Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS %Rec	MSD %Rec	%Rec Limits	RPD	Max RPD
Acrylonitrile	mg/Kg	<0.012	0.962	0.901	0.901	0.931	93.6	103	40-160	3.2	30
Benzene	mg/Kg	<0.002	0.962	0.901	0.940	0.837	97.7	92.8	70-130	11.5	30
Bromobenzene	mg/Kg	<0.003	0.962	0.901	0.929	0.612	96.5	67.9*	75-125	41.1*	30
Bromochloromethane	mg/Kg	<0.006	0.962	0.901	1.11	0.878	115	97.4	65-135	23.3	30
Bromodichloromethane	mg/Kg	<0.009	0.962	0.901	0.990	0.951	103	106	75-125	4.0	30
Bromoform	mg/Kg	<0.008	0.962	0.901	0.831	0.705	86.3	78.2	70-130	16.4	30
Bromomethane	mg/Kg	<0.006	0.962	0.901	0.972	0.785	101	87.1	40-160	21.2	30
Methyl Ethyl Ketone (MEK)	mg/Kg	<0.037	0.962	0.901	0.962	1.07	100	119	40-160	10.6	30
n-Butylbenzene	mg/Kg	<0.006	0.962	0.901	0.840	0.596	87.3	66.1*	70-130	33.9*	30
sec-Butyl benzene	mg/Kg	<0.006	0.962	0.901	0.901	0.549	93.6	60.9*	70-130	48.5*	30
tert-Butyl benzene	mg/Kg	<0.004	0.962	0.901	0.920	0.532	95.6	59.0*	70-130	53.4*	30
Carbon Disulfide	mg/Kg	<0.004	0.962	0.901	0.669	0.604	69.5	67.0	40-160	10.2	30
Carbon Tetrachloride	mg/Kg	<0.002	0.962	0.901	0.997	0.893	104	99.1	65-135	11.0	30
Chlorobenzene	mg/Kg	<0.002	0.962	0.901	0.855	0.634	88.8	70.3*	80-120	29.6	30
Chlorodibromomethane	mg/Kg	<0.009	0.962	0.901	0.893	0.869	92.8	96.4	60-140	2.7	30
Chloroethane	mg/Kg	<0.005	0.962	0.901	0.515	0.741	53.5*	82.2	60-140	35.9*	30
2-Chloroethylvinyl Ether	mg/Kg	<0.026	0.962	0.901	0.675	0.348	70.1	38.6*	40-160	63.9*	30
Chloroform	mg/Kg	<0.009	0.962	0.901	0.958	0.912	99.5	101	80-120	4.9	30
Chloromethane	mg/Kg	<0.004	0.962	0.901	0.708	0.721	73.5	80.0	40-160	1.8	30
2-Chlorotoluene	mg/Kg	<0.005	0.962	0.901	0.864	0.607	89.8	67.3*	75-125	34.9*	30
4-Chlorotoluene	mg/Kg	<0.006	0.962	0.901	0.953	0.545	99.0	60.4*	75-125	54.4*	30
1,2-Dibromo-3-Chloropropane	mg/Kg	<0.020	0.962	0.901	0.968	0.938	101	104	50-150	3.1	30
1,2-Dibromoethane	mg/Kg	<0.002	0.962	0.901	0.939	0.879	97.6	97.5	70-130	6.6	30
Dibromomethane	mg/Kg	<0.002	0.962	0.901	0.812	0.765	84.4	84.9	75-125	5.9	30
1,2-Dichlorobenzene	mg/Kg	<0.005	0.962	0.901	0.971	0.739	101	82.0	70-130	27.1	30
1,3-Dichlorobenzene	mg/Kg	<0.004	0.962	0.901	1.11	0.552	115	61.2*	75-125	67.1*	30

### Quality Control Data

**Client ID:** Ensafe  
**Project Description:** Former Wayne's Pinball Palace  
**Report No:** 20-218-0165

**QC Prep:** L505228 **QC Analytical Batch(es):** L505241  
**QC Prep Batch Method:** 5030A **Analysis Method:** 8260B  
**Analysis Description:** Volatile Organic Compounds - GC/MS

**Matrix Spike & Matrix Spike Duplicate** L 98543-MS-L505228 L 98543-MSD-L505228

Parameter	Units	Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS %Rec	MSD %Rec	%Rec Limits	RPD	Max RPD
1,4-Dichlorobenzene	mg/Kg	<0.006	0.962	0.901	0.949	0.619	98.6	68.7*	75-125	42.0*	30
Dichlorodifluoromethane	mg/Kg	<0.006	0.962	0.901	0.326	0.300	33.8*	33.2*	40-160	8.3	30
1,1-Dichloroethane	mg/Kg	<0.004	0.962	0.901	0.917	0.867	95.3	96.2	70-130	5.6	30
1,2-Dichloroethane	mg/Kg	<0.004	0.962	0.901	1.02	1.06	106	118	70-130	3.8	30
1,1-Dichloroethene	mg/Kg	<0.004	0.962	0.901	0.805	0.780	83.6	86.5	80-120	3.1	30
cis-1,2-Dichloroethene	mg/Kg	<0.003	0.962	0.901	0.695	0.618	72.2	68.5*	70-130	11.7	30
trans-1,2-Dichloroethene	mg/Kg	<0.005	0.962	0.901	0.870	0.775	90.4	86.0	60-140	11.5	30
1,2-Dichloropropane	mg/Kg	<0.003	0.962	0.901	1.07	1.02	111	113	80-120	4.7	30
1,3-Dichloropropane	mg/Kg	<0.004	0.962	0.901	0.906	0.934	94.1	104	75-125	3.0	30
2,2-Dichloropropane	mg/Kg	<0.003	0.962	0.901	1.03	0.968	107	107	70-130	6.2	30
1,1-Dichloropropene	mg/Kg	<0.003	0.962	0.901	0.978	0.890	102	98.7	75-125	9.4	30
cis-1,3-Dichloropropene	mg/Kg	<0.002	0.962	0.901	0.857	0.817	89.0	90.6	70-130	4.7	30
trans-1,3-Dichloropropene	mg/Kg	<0.002	0.962	0.901	0.845	0.748	87.8	83.0	55-145	12.1	30
Ethyl Acetate	mg/Kg	<0.036	0.962	0.901	0.582	0.527	60.4	58.4	40-160	9.9	30
Ethylbenzene	mg/Kg	<0.003	0.962	0.901	0.898	0.693	93.3	76.9*	80-120	25.7	30
Hexachlorobutadiene	mg/Kg	<0.005	0.962	0.901	0.848	0.521	88.1	57.8	50-150	47.7*	30
2-Hexanone	mg/Kg	<0.024	0.962	0.901	0.870	0.909	90.4	101	55-145	4.3	30
Iodomethane	mg/Kg	<0.003	0.962	0.901	0.628	0.601	65.2	66.7	40-160	4.3	30
Isopropylbenzene	mg/Kg	<0.004	0.962	0.901	0.924	0.639	96.0	70.9*	75-125	36.4*	30
4-Isopropyl toluene	mg/Kg	<0.004	0.962	0.901	0.848	0.537	88.1	59.6*	75-125	44.9*	30
4-Methyl-2-Pentanone	mg/Kg	<0.025	0.962	0.901	0.873	1.04	90.7	115	60-140	17.4	30
Methylene Chloride	mg/Kg	<0.027	0.962	0.901	0.908	0.884	94.3	98.1	55-145	2.6	30
Methyl tert-butyl ether (MTBE)	mg/Kg	<0.007	0.962	0.901	0.857	0.874	89.0	97.0	65-135	1.9	30
m,p-Xylene	mg/Kg	<0.005	1.92	1.80	1.74	1.30	90.6	72.2*	75-125	28.9	30
Naphthalene	mg/Kg	<0.032	0.962	0.901	0.659	0.522	68.5	57.9	55-145	23.2	30
o-Xylene	mg/Kg	<0.002	0.962	0.901	0.857	0.636	89.0	70.5	70-130	29.6	30

### Quality Control Data

**Client ID:** Ensafe  
**Project Description:** Former Wayne's Pinball Palace  
**Report No:** 20-218-0165

**QC Prep:** L505228      **QC Analytical Batch(es):** L505241  
**QC Prep Batch Method:** 5030A      **Analysis Method:** 8260B  
**Analysis Description:** Volatile Organic Compounds - GC/MS

**Matrix Spike & Matrix Spike Duplicate**      L 98543-MS-L505228      L 98543-MSD-L505228

Parameter	Units	Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS %Rec	MSD %Rec	%Rec Limits	RPD	Max RPD
n-Propylbenzene	mg/Kg	<0.004	0.962	0.901	0.860	0.605	89.3	67.1*	70-130	34.8*	30
Styrene	mg/Kg	<0.007	0.962	0.901	0.804	0.566	83.5	62.8*	65-135	34.7*	30
1,1,1,2-Tetrachloroethane	mg/Kg	<0.004	0.962	0.901	0.886	0.717	92.0	79.5	70-130	21.0	30
1,1,2,2-Tetrachloroethane	mg/Kg	<0.007	0.962	0.901	1.07	1.10	111	122	65-135	2.7	30
Tetrachloroethene	mg/Kg	<0.004	0.962	0.901	0.879	0.783	91.3	86.9	60-155	11.5	30
Toluene	mg/Kg	<0.016	0.962	0.901	0.941	0.946	97.8	105	80-120	0.5	30
1,2,3-Trichlorobenzene	mg/Kg	<0.007	0.962	0.901	0.565	0.358	58.7*	39.7*	60-140	44.8*	30
1,2,4-Trichlorobenzene	mg/Kg	<0.005	0.962	0.901	0.712	0.439	74.0	48.7*	65-135	47.4*	30
1,1,1-Trichloroethane	mg/Kg	<0.003	0.962	0.901	0.992	0.948	103	105	65-135	4.5	30
1,1,2-Trichloroethane	mg/Kg	<0.002	0.962	0.901	0.831	0.867	86.3	96.2	75-125	4.2	30
Trichloroethene	mg/Kg	<0.002	0.962	0.901	1.08	0.959	112	106	70-130	11.8	30
Trichlorofluoromethane	mg/Kg	<0.005	0.962	0.901	0.916	0.871	95.2	96.6	60-140	5.0	30
1,2,3-Trichloropropane	mg/Kg	<0.002	0.962	0.901	0.911	0.793	94.6	88.0	75-125	13.8	30
1,2,4-Trimethylbenzene	mg/Kg	<0.004	0.962	0.901	0.835	0.545	86.7	60.4*	75-125	42.0*	30
1,3,5-Trimethylbenzene	mg/Kg	<0.006	0.962	0.901	0.834	0.585	86.6	64.9*	75-125	35.0*	30
Vinyl Acetate	mg/Kg	<0.018	0.962	0.901	0.872	0.782	90.6	86.7	40-160	10.8	30
Vinyl Chloride	mg/Kg	<0.002	0.962	0.901	0.771	0.731	80.1	81.1	80-120	5.3	30
4-Bromofluorobenzene (S)							93.5	88.4	60-130		
1,2-Dichloroethane - d4 (S)							100	103	60-132		
Toluene-d8 (S)							108	120	70-130		

### Quality Control Data

**Client ID:** Ensafe  
**Project Description:** Former Wayne's Pinball Palace  
**Report No:** 20-218-0165

**QC Prep:** L505698      **QC Analytical Batch(es):** L505699  
**QC Prep Batch Method:** 5030A      **Analysis Method:** 8260B  
**Analysis Description:** Volatile Organic Compounds - GC/MS

**Lab Reagent Blank**      LRB-L505698      Matrix: SOL  
Associated Lab Samples: 92398, 92399, 92400, 92401, 92402, 92403, 92404

Parameter	Units	Blank Result	MDL	MQL	Analyzed	% Recovery	% Rec Limits
Acetone	mg/Kg	<0.004	0.004	0.040	08/10/20 09:43		
Acetonitrile	mg/Kg	<0.045	0.045	0.100	08/10/20 09:43		
Acrolein	mg/Kg	<0.006	0.006	0.040	08/10/20 09:43		
Acrylonitrile	mg/Kg	<0.002	0.002	0.040	08/10/20 09:43		
Benzene	mg/Kg	<0.0006	0.0006	0.002	08/10/20 09:43		
Bromobenzene	mg/Kg	<0.0008	0.0008	0.002	08/10/20 09:43		
Bromochloromethane	mg/Kg	<0.001	0.001	0.002	08/10/20 09:43		
Bromodichloromethane	mg/Kg	<0.001	0.001	0.002	08/10/20 09:43		
Bromoform	mg/Kg	<0.001	0.001	0.002	08/10/20 09:43		
Bromomethane	mg/Kg	<0.001	0.001	0.002	08/10/20 09:43		
Methyl Ethyl Ketone (MEK)	mg/Kg	<0.007	0.007	0.040	08/10/20 09:43		
n-Butylbenzene	mg/Kg	<0.001	0.001	0.002	08/10/20 09:43		
sec-Butyl benzene	mg/Kg	<0.001	0.001	0.002	08/10/20 09:43		
tert-Butyl benzene	mg/Kg	<0.001	0.001	0.002	08/10/20 09:43		
Carbon Disulfide	mg/Kg	<0.001	0.001	0.002	08/10/20 09:43		
Carbon Tetrachloride	mg/Kg	<0.0004	0.0004	0.002	08/10/20 09:43		
Chlorobenzene	mg/Kg	<0.0005	0.0005	0.002	08/10/20 09:43		
Chlorodibromomethane	mg/Kg	<0.001	0.001	0.002	08/10/20 09:43		
Chloroethane	mg/Kg	<0.001	0.001	0.002	08/10/20 09:43		
2-Chloroethylvinyl Ether	mg/Kg	<0.005	0.005	0.010	08/10/20 09:43		
Chloroform	mg/Kg	<0.001	0.001	0.002	08/10/20 09:43		
Chloromethane	mg/Kg	<0.001	0.001	0.002	08/10/20 09:43		
2-Chlorotoluene	mg/Kg	<0.001	0.001	0.002	08/10/20 09:43		
4-Chlorotoluene	mg/Kg	<0.001	0.001	0.002	08/10/20 09:43		
1,2-Dibromo-3-Chloropropane	mg/Kg	<0.004	0.004	0.010	08/10/20 09:43		
1,2-Dibromoethane	mg/Kg	<0.0006	0.0006	0.002	08/10/20 09:43		
Dibromomethane	mg/Kg	<0.0005	0.0005	0.002	08/10/20 09:43		



### Quality Control Data

**Client ID:** Ensafe  
**Project Description:** Former Wayne's Pinball Palace  
**Report No:** 20-218-0165

**QC Prep:** L505698      **QC Analytical Batch(es):** L505699  
**QC Prep Batch Method:** 5030A      **Analysis Method:** 8260B  
**Analysis Description:** Volatile Organic Compounds - GC/MS

**Lab Reagent Blank**      LRB-L505698      Matrix: SOL  
Associated Lab Samples: 92398, 92399, 92400, 92401, 92402, 92403, 92404

Parameter	Units	Blank Result	MDL	MQL	Analyzed	% Recovery	% Rec Limits
1,2-Dichlorobenzene	mg/Kg	<0.001	0.001	0.002	08/10/20 09:43		
1,3-Dichlorobenzene	mg/Kg	<0.0009	0.0009	0.002	08/10/20 09:43		
1,4-Dichlorobenzene	mg/Kg	<0.001	0.001	0.002	08/10/20 09:43		
Dichlorodifluoromethane	mg/Kg	<0.001	0.001	0.002	08/10/20 09:43		
1,1-Dichloroethane	mg/Kg	<0.0009	0.0009	0.002	08/10/20 09:43		
1,2-Dichloroethane	mg/Kg	<0.0009	0.0009	0.002	08/10/20 09:43		
1,1-Dichloroethene	mg/Kg	<0.001	0.001	0.002	08/10/20 09:43		
cis-1,2-Dichloroethene	mg/Kg	<0.0007	0.0007	0.002	08/10/20 09:43		
trans-1,2-Dichloroethene	mg/Kg	<0.001	0.001	0.002	08/10/20 09:43		
1,2-Dichloropropane	mg/Kg	<0.0008	0.0008	0.002	08/10/20 09:43		
1,3-Dichloropropane	mg/Kg	<0.0009	0.0009	0.002	08/10/20 09:43		
2,2-Dichloropropane	mg/Kg	<0.0006	0.0006	0.002	08/10/20 09:43		
1,1-Dichloropropene	mg/Kg	<0.0007	0.0007	0.002	08/10/20 09:43		
cis-1,3-Dichloropropene	mg/Kg	<0.0006	0.0006	0.002	08/10/20 09:43		
trans-1,3-Dichloropropene	mg/Kg	<0.0006	0.0006	0.002	08/10/20 09:43		
Ethyl Acetate	mg/Kg	<0.007	0.007	0.040	08/10/20 09:43		
Ethylbenzene	mg/Kg	<0.0007	0.0007	0.002	08/10/20 09:43		
Hexachlorobutadiene	mg/Kg	<0.001	0.001	0.002	08/10/20 09:43		
2-Hexanone	mg/Kg	<0.004	0.004	0.010	08/10/20 09:43		
Iodomethane	mg/Kg	<0.0008	0.0008	0.010	08/10/20 09:43		
Isopropylbenzene	mg/Kg	<0.0009	0.0009	0.002	08/10/20 09:43		
4-Isopropyl toluene	mg/Kg	<0.0010	0.0010	0.002	08/10/20 09:43		
4-Methyl-2-Pentanone	mg/Kg	<0.005	0.005	0.010	08/10/20 09:43		
Methylene Chloride	mg/Kg	<0.005	0.005	0.040	08/10/20 09:43		
Methyl tert-butyl ether (MTBE)	mg/Kg	<0.001	0.001	0.002	08/10/20 09:43		
m,p-Xylene	mg/Kg	<0.001	0.001	0.004	08/10/20 09:43		
Naphthalene	mg/Kg	<0.006	0.006	0.010	08/10/20 09:43		

### Quality Control Data

**Client ID:** Ensafe  
**Project Description:** Former Wayne's Pinball Palace  
**Report No:** 20-218-0165

**QC Prep:** L505698      **QC Analytical Batch(es):** L505699  
**QC Prep Batch Method:** 5030A      **Analysis Method:** 8260B  
**Analysis Description:** Volatile Organic Compounds - GC/MS

**Lab Reagent Blank**      LRB-L505698      Matrix: SOL  
Associated Lab Samples: 92398, 92399, 92400, 92401, 92402, 92403, 92404

Parameter	Units	Blank Result	MDL	MQL	Analyzed	% Recovery	% Rec Limits
o-Xylene	mg/Kg	<0.0004	0.0004	0.002	08/10/20 09:43		
n-Propylbenzene	mg/Kg	<0.001	0.001	0.002	08/10/20 09:43		
Styrene	mg/Kg	<0.001	0.001	0.002	08/10/20 09:43		
1,1,1,2-Tetrachloroethane	mg/Kg	<0.0009	0.0009	0.002	08/10/20 09:43		
1,1,2,2-Tetrachloroethane	mg/Kg	<0.001	0.001	0.002	08/10/20 09:43		
Tetrachloroethene	mg/Kg	<0.0009	0.0009	0.002	08/10/20 09:43		
Toluene	mg/Kg	<0.003	0.003	0.010	08/10/20 09:43		
1,2,3-Trichlorobenzene	mg/Kg	<0.001	0.001	0.002	08/10/20 09:43		
1,2,4-Trichlorobenzene	mg/Kg	<0.001	0.001	0.002	08/10/20 09:43		
1,1,1-Trichloroethane	mg/Kg	<0.0007	0.0007	0.002	08/10/20 09:43		
1,1,2-Trichloroethane	mg/Kg	<0.0006	0.0006	0.002	08/10/20 09:43		
Trichloroethene	mg/Kg	<0.0005	0.0005	0.002	08/10/20 09:43		
Trichlorofluoromethane	mg/Kg	<0.001	0.001	0.002	08/10/20 09:43		
1,2,3-Trichloropropane	mg/Kg	<0.0006	0.0006	0.002	08/10/20 09:43		
1,2,4-Trimethylbenzene	mg/Kg	<0.0009	0.0009	0.002	08/10/20 09:43		
1,3,5-Trimethylbenzene	mg/Kg	<0.001	0.001	0.002	08/10/20 09:43		
Vinyl Acetate	mg/Kg	<0.003	0.003	0.040	08/10/20 09:43		
Vinyl Chloride	mg/Kg	<0.0005	0.0005	0.002	08/10/20 09:43		
4-Bromofluorobenzene (S)					08/10/20 09:43	104	60-130
1,2-Dichloroethane - d4 (S)					08/10/20 09:43	129	60-132
Toluene-d8 (S)					08/10/20 09:43	106	70-130

**Laboratory Control Sample**      LCS-L505698

Parameter	Units	Spike Conc.	LCS Result	LCS %Rec	% Rec Limits
Acetone	mg/Kg	0.200	0.191	95.5	40-160
Acetonitrile	mg/Kg	2.00	1.76	88.0	40-160

### Quality Control Data

**Client ID:** Ensafe  
**Project Description:** Former Wayne's Pinball Palace  
**Report No:** 20-218-0165

**QC Prep:** L505698      **QC Analytical Batch(es):** L505699  
**QC Prep Batch Method:** 5030A      **Analysis Method:** 8260B  
**Analysis Description:** Volatile Organic Compounds - GC/MS

**Laboratory Control Sample**      LCS-L505698

Parameter	Units	Spike Conc.	LCS Result	LCS %Rec	% Rec Limits
Acrolein	mg/Kg	0.200	0.179	89.5	40-160
Acrylonitrile	mg/Kg	0.200	0.201	101	40-160
Benzene	mg/Kg	0.200	0.186	93.0	70-130
Bromobenzene	mg/Kg	0.200	0.166	83.0	75-125
Bromochloromethane	mg/Kg	0.200	0.182	91.0	65-135
Bromodichloromethane	mg/Kg	0.200	0.172	86.0	75-125
Bromoform	mg/Kg	0.200	0.177	88.5	70-130
Bromomethane	mg/Kg	0.200	0.224	112	40-160
Methyl Ethyl Ketone (MEK)	mg/Kg	0.200	0.179	89.5	40-160
n-Butylbenzene	mg/Kg	0.200	0.178	89.0	70-130
sec-Butyl benzene	mg/Kg	0.200	0.184	92.0	70-130
tert-Butyl benzene	mg/Kg	0.200	0.188	94.0	70-130
Carbon Disulfide	mg/Kg	0.200	0.172	86.0	40-160
Carbon Tetrachloride	mg/Kg	0.200	0.187	93.5	65-135
Chlorobenzene	mg/Kg	0.200	0.174	87.0	80-120
Chlorodibromomethane	mg/Kg	0.200	0.180	90.0	60-140
Chloroethane	mg/Kg	0.200	0.168	84.0	60-140
2-Chloroethylvinyl Ether	mg/Kg	0.200	0.166	83.0	40-160
Chloroform	mg/Kg	0.200	0.190	95.0	80-120
Chloromethane	mg/Kg	0.200	0.183	91.5	40-160
2-Chlorotoluene	mg/Kg	0.200	0.181	90.5	75-125
4-Chlorotoluene	mg/Kg	0.200	0.175	87.5	75-125
1,2-Dibromo-3-Chloropropane	mg/Kg	0.200	0.166	83.0	50-150
1,2-Dibromoethane	mg/Kg	0.200	0.160	80.0	70-130
Dibromomethane	mg/Kg	0.200	0.164	82.0	75-125
1,2-Dichlorobenzene	mg/Kg	0.200	0.160	80.0	70-130
1,3-Dichlorobenzene	mg/Kg	0.200	0.158	79.0	75-125

### Quality Control Data

**Client ID:** Ensafe  
**Project Description:** Former Wayne's Pinball Palace  
**Report No:** 20-218-0165

**QC Prep:** L505698      **QC Analytical Batch(es):** L505699  
**QC Prep Batch Method:** 5030A      **Analysis Method:** 8260B  
**Analysis Description:** Volatile Organic Compounds - GC/MS

**Laboratory Control Sample**      LCS-L505698

Parameter	Units	Spike Conc.	LCS Result	LCS %Rec	% Rec Limits
1,4-Dichlorobenzene	mg/Kg	0.200	0.171	85.5	75-125
Dichlorodifluoromethane	mg/Kg	0.200	0.120	60.0	40-160
1,1-Dichloroethane	mg/Kg	0.200	0.193	96.5	70-130
1,2-Dichloroethane	mg/Kg	0.200	0.193	96.5	70-130
1,1-Dichloroethene	mg/Kg	0.200	0.174	87.0	80-120
cis-1,2-Dichloroethene	mg/Kg	0.200	0.192	96.0	70-130
trans-1,2-Dichloroethene	mg/Kg	0.200	0.171	85.5	60-140
1,2-Dichloropropane	mg/Kg	0.200	0.181	90.5	80-120
1,3-Dichloropropane	mg/Kg	0.200	0.166	83.0	75-125
2,2-Dichloropropane	mg/Kg	0.200	0.204	102	70-130
1,1-Dichloropropene	mg/Kg	0.200	0.192	96.0	75-125
cis-1,3-Dichloropropene	mg/Kg	0.200	0.171	85.5	70-130
trans-1,3-Dichloropropene	mg/Kg	0.200	0.174	87.0	55-145
Ethyl Acetate	mg/Kg	0.200	0.179	89.5	40-160
Ethylbenzene	mg/Kg	0.200	0.185	92.5	80-120
Hexachlorobutadiene	mg/Kg	0.200	0.173	86.5	50-150
2-Hexanone	mg/Kg	0.200	0.166	83.0	55-145
Iodomethane	mg/Kg	0.200	0.160	80.0	40-160
Isopropylbenzene	mg/Kg	0.200	0.182	91.0	75-125
4-Isopropyl toluene	mg/Kg	0.200	0.174	87.0	75-125
4-Methyl-2-Pentanone	mg/Kg	0.200	0.166	83.0	60-140
Methylene Chloride	mg/Kg	0.200	0.176	88.0	55-145
Methyl tert-butyl ether (MTBE)	mg/Kg	0.200	0.181	90.5	65-135
m,p-Xylene	mg/Kg	0.400	0.353	88.2	75-125
Naphthalene	mg/Kg	0.200	0.156	78.0	55-145
o-Xylene	mg/Kg	0.200	0.179	89.5	70-130
n-Propylbenzene	mg/Kg	0.200	0.174	87.0	70-130

### Quality Control Data

**Client ID:** Ensafe  
**Project Description:** Former Wayne's Pinball Palace  
**Report No:** 20-218-0165

**QC Prep:** L505698      **QC Analytical Batch(es):** L505699  
**QC Prep Batch Method:** 5030A      **Analysis Method:** 8260B  
**Analysis Description:** Volatile Organic Compounds - GC/MS

**Laboratory Control Sample**      LCS-L505698

Parameter	Units	Spike Conc.	LCS Result	LCS %Rec	% Rec Limits
Styrene	mg/Kg	0.200	0.198	99.0	65-135
1,1,1,2-Tetrachloroethane	mg/Kg	0.200	0.165	82.5	70-130
1,1,2,2-Tetrachloroethane	mg/Kg	0.200	0.147	73.5	65-135
Tetrachloroethene	mg/Kg	0.200	0.179	89.5	45-155
Toluene	mg/Kg	0.200	0.167	83.5	80-120
1,2,3-Trichlorobenzene	mg/Kg	0.200	0.155	77.5	60-140
1,2,4-Trichlorobenzene	mg/Kg	0.200	0.158	79.0	65-135
1,1,1-Trichloroethane	mg/Kg	0.200	0.194	97.0	65-135
1,1,2-Trichloroethane	mg/Kg	0.200	0.172	86.0	75-125
Trichloroethene	mg/Kg	0.200	0.187	93.5	70-130
Trichlorofluoromethane	mg/Kg	0.200	0.224	112	60-140
1,2,3-Trichloropropane	mg/Kg	0.200	0.177	88.5	75-125
1,2,4-Trimethylbenzene	mg/Kg	0.200	0.194	97.0	75-125
1,3,5-Trimethylbenzene	mg/Kg	0.200	0.168	84.0	75-125
Vinyl Acetate	mg/Kg	0.200	0.196	98.0	40-160
Vinyl Chloride	mg/Kg	0.200	0.208	104	80-120
4-Bromofluorobenzene (S)				96.2	60-130
1,2-Dichloroethane - d4 (S)				88.8	60-132
Toluene-d8 (S)				98.6	70-130

**Matrix Spike & Matrix Spike Duplicate**      L 93112-MS-L505698      L 93112-MSD-L505698

Parameter	Units	Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS %Rec	MSD %Rec	%Rec Limits	RPD	Max RPD
Acetone	mg/Kg	0.011	0.204	0.200	0.192	0.191	94.1	95.5	40-160	0.5	30
Acetonitrile	mg/Kg	<0.046	2.04	2.00	1.84	2.17	90.1	109	40-160	16.4	30
Acrolein	mg/Kg	<0.006	0.204	0.200	0.011	0.154	0.0*	77.0	40-160	117*	30

\* QC Fail

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### Quality Control Data

**Client ID:** Ensafe  
**Project Description:** Former Wayne's Pinball Palace  
**Report No:** 20-218-0165

**QC Prep:** L505698 **QC Analytical Batch(es):** L505699  
**QC Prep Batch Method:** 5030A **Analysis Method:** 8260B  
**Analysis Description:** Volatile Organic Compounds - GC/MS

**Matrix Spike & Matrix Spike Duplicate** L 93112-MS-L505698 L 93112-MSD-L505698

Parameter	Units	Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS %Rec	MSD %Rec	%Rec Limits	RPD	Max RPD
Acrylonitrile	mg/Kg	<0.002	0.204	0.200	0.206	0.203	101	102	40-160	1.4	30
Benzene	mg/Kg	<0.0006	0.204	0.200	0.155	0.182	75.9	91.0	70-130	16.0	30
Bromobenzene	mg/Kg	<0.0008	0.204	0.200	0.088	0.155	43.1*	77.5	75-125	55.1*	30
Bromochloromethane	mg/Kg	<0.001	0.204	0.200	0.166	0.172	81.3	86.0	65-135	3.5	30
Bromodichloromethane	mg/Kg	<0.001	0.204	0.200	0.150	0.191	73.5*	95.5	75-125	24.0	30
Bromoform	mg/Kg	<0.001	0.204	0.200	0.149	0.193	73.0	96.5	70-130	25.7	30
Bromomethane	mg/Kg	0.002	0.204	0.200	0.201	0.184	97.2	90.6	40-160	8.8	30
Methyl Ethyl Ketone (MEK)	mg/Kg	<0.007	0.204	0.200	0.186	0.210	91.1	105	40-160	12.1	30
n-Butylbenzene	mg/Kg	<0.001	0.204	0.200	0.075	0.157	37.1*	78.5	70-130	69.8*	30
sec-Butyl benzene	mg/Kg	0.002	0.204	0.200	0.086	0.163	40.9*	80.0	70-130	61.3*	30
tert-Butyl benzene	mg/Kg	<0.001	0.204	0.200	0.089	0.158	43.6*	79.0	70-130	55.7*	30
Carbon Disulfide	mg/Kg	<0.001	0.204	0.200	0.121	0.137	59.3	68.5	40-160	12.4	30
Carbon Tetrachloride	mg/Kg	<0.0004	0.204	0.200	0.139	0.179	68.1	89.5	65-135	25.1	30
Chlorobenzene	mg/Kg	<0.0005	0.204	0.200	0.122	0.178	59.8*	89.0	80-120	37.3*	30
Chlorodibromomethane	mg/Kg	<0.001	0.204	0.200	0.159	0.198	77.9	99.0	60-140	21.8	30
Chloroethane	mg/Kg	<0.001	0.204	0.200	0.150	0.164	73.5	82.0	60-140	8.9	30
2-Chloroethylvinyl Ether	mg/Kg	<0.005	0.204	0.200	0.159	0.202	77.9	101	40-160	23.8	30
Chloroform	mg/Kg	0.002	0.204	0.200	0.168	0.200	81.0	98.6	80-120	17.3	30
Chloromethane	mg/Kg	<0.001	0.204	0.200	0.137	0.143	67.1	71.5	40-160	4.2	30
2-Chlorotoluene	mg/Kg	<0.001	0.204	0.200	0.105	0.180	51.4*	90.0	75-125	52.6*	30
4-Chlorotoluene	mg/Kg	<0.001	0.204	0.200	0.093	0.159	45.9*	79.5	75-125	51.6*	30
1,2-Dibromo-3-Chloropropane	mg/Kg	<0.004	0.204	0.200	0.150	0.187	73.5	93.5	50-150	21.9	30
1,2-Dibromoethane	mg/Kg	<0.0006	0.204	0.200	0.145	0.177	71.0	88.5	70-130	19.8	30
Dibromomethane	mg/Kg	<0.0005	0.204	0.200	0.160	0.183	78.4	91.5	75-125	13.4	30
1,2-Dichlorobenzene	mg/Kg	<0.001	0.204	0.200	0.089	0.156	43.8*	78.0	70-130	54.2*	30
1,3-Dichlorobenzene	mg/Kg	0.001	0.204	0.200	0.096	0.158	47.0*	79.0	75-125	48.8*	30

\* QC Fail

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### Quality Control Data

**Client ID:** Ensafe  
**Project Description:** Former Wayne's Pinball Palace  
**Report No:** 20-218-0165

**QC Prep:** L505698 **QC Analytical Batch(es):** L505699  
**QC Prep Batch Method:** 5030A **Analysis Method:** 8260B  
**Analysis Description:** Volatile Organic Compounds - GC/MS

**Matrix Spike & Matrix Spike Duplicate** L 93112-MS-L505698 L 93112-MSD-L505698

Parameter	Units	Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS %Rec	MSD %Rec	%Rec Limits	RPD	Max RPD
1,4-Dichlorobenzene	mg/Kg	<0.001	0.204	0.200	0.094	0.167	46.0*	83.5	75-125	55.9*	30
Dichlorodifluoromethane	mg/Kg	<0.001	0.204	0.200	0.072	0.073	35.3*	36.5*	40-160	1.2	30
1,1-Dichloroethane	mg/Kg	<0.0009	0.204	0.200	0.159	0.185	77.9	92.5	70-130	15.1	30
1,2-Dichloroethane	mg/Kg	0.028	0.204	0.200	0.238	0.234	103	103	70-130	1.6	30
1,1-Dichloroethene	mg/Kg	<0.001	0.204	0.200	0.132	0.148	64.7*	74.0*	80-120	11.4	30
cis-1,2-Dichloroethene	mg/Kg	<0.0007	0.204	0.200	0.169	0.192	82.8	96.0	70-130	12.7	30
trans-1,2-Dichloroethene	mg/Kg	<0.001	0.204	0.200	0.140	0.158	68.6	79.0	60-140	12.0	30
1,2-Dichloropropane	mg/Kg	<0.0008	0.204	0.200	0.157	0.195	76.9*	97.5	80-120	21.5	30
1,3-Dichloropropane	mg/Kg	<0.0010	0.204	0.200	0.161	0.184	78.9	92.0	75-125	13.3	30
2,2-Dichloropropane	mg/Kg	<0.0006	0.204	0.200	0.152	0.187	74.5	93.5	70-130	20.6	30
1,1-Dichloropropene	mg/Kg	0.010	0.204	0.200	0.141	0.180	64.0*	84.8	75-125	24.2	30
cis-1,3-Dichloropropene	mg/Kg	<0.0006	0.204	0.200	0.154	0.194	75.4	97.0	70-130	22.9	30
trans-1,3-Dichloropropene	mg/Kg	<0.0006	0.204	0.200	0.152	0.193	74.5	96.5	55-145	23.7	30
Ethyl Acetate	mg/Kg	<0.007	0.204	0.200	0.185	0.209	90.6	105	40-160	12.1	30
Ethylbenzene	mg/Kg	0.001	0.204	0.200	0.104	0.173	50.9*	86.5	80-120	49.8*	30
Hexachlorobutadiene	mg/Kg	<0.001	0.204	0.200	0.073	0.147	36.2*	73.5	50-150	66.1*	30
2-Hexanone	mg/Kg	<0.005	0.204	0.200	0.163	0.204	79.9	102	55-145	22.3	30
Iodomethane	mg/Kg	<0.0008	0.204	0.200	0.134	0.118	65.6	59.0	40-160	12.6	30
Isopropylbenzene	mg/Kg	<0.0009	0.204	0.200	0.092	0.176	45.2*	88.0	75-125	62.2*	30
4-Isopropyl toluene	mg/Kg	<0.0010	0.204	0.200	0.085	0.165	41.7*	82.5	75-125	63.8*	30
4-Methyl-2-Pentanone	mg/Kg	<0.005	0.204	0.200	0.159	0.200	77.9	100	60-140	22.8	30
Methylene Chloride	mg/Kg	<0.005	0.204	0.200	0.158	0.164	77.4	82.0	55-145	3.7	30
Methyl tert-butyl ether (MTBE)	mg/Kg	<0.001	0.204	0.200	0.160	0.192	78.4	96.0	65-135	18.1	30
m,p-Xylene	mg/Kg	0.005	0.407	0.401	0.218	0.347	52.2*	85.2	75-125	45.6*	30
Naphthalene	mg/Kg	0.009	0.204	0.200	0.089	0.170	43.6*	85.0	55-145	62.5*	30
o-Xylene	mg/Kg	0.001	0.204	0.200	0.121	0.170	59.3*	85.0	70-130	33.6*	30

\* QC Fail

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### Quality Control Data

**Client ID:** Ensafe  
**Project Description:** Former Wayne's Pinball Palace  
**Report No:** 20-218-0165

**QC Prep:** L505698 **QC Analytical Batch(es):** L505699  
**QC Prep Batch Method:** 5030A **Analysis Method:** 8260B  
**Analysis Description:** Volatile Organic Compounds - GC/MS

**Matrix Spike & Matrix Spike Duplicate** L 93112-MS-L505698 L 93112-MSD-L505698

Parameter	Units	Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS %Rec	MSD %Rec	%Rec Limits	RPD	Max RPD
n-Propylbenzene	mg/Kg	<0.001	0.204	0.200	0.086	0.155	42.2*	77.5	70-130	57.0*	30
Styrene	mg/Kg	<0.001	0.204	0.200	0.116	0.196	56.8*	98.0	65-135	51.2*	30
1,1,1,2-Tetrachloroethane	mg/Kg	<0.0010	0.204	0.200	0.133	0.163	65.1*	81.5	70-130	20.2	30
1,1,2,2-Tetrachloroethane	mg/Kg	<0.001	0.204	0.200	0.135	0.165	66.1	82.5	65-135	20.0	30
Tetrachloroethene	mg/Kg	<0.0009	0.204	0.200	0.107	0.179	52.4*	89.5	60-155	50.3*	30
Toluene	mg/Kg	<0.003	0.204	0.200	0.142	0.180	69.6*	90.0	80-120	23.6	30
1,2,3-Trichlorobenzene	mg/Kg	<0.001	0.204	0.200	0.067	0.139	33.1*	69.5	60-140	68.9*	30
1,2,4-Trichlorobenzene	mg/Kg	<0.001	0.204	0.200	0.068	0.129	33.6*	64.5*	65-135	61.1*	30
1,1,1-Trichloroethane	mg/Kg	<0.0007	0.204	0.200	0.152	0.189	74.5	94.5	65-135	21.7	30
1,1,2-Trichloroethane	mg/Kg	0.0007	0.204	0.200	0.160	0.201	78.4	101	75-125	22.7	30
Trichloroethene	mg/Kg	<0.0005	0.204	0.200	0.141	0.182	69.1*	91.0	70-130	25.3	30
Trichlorofluoromethane	mg/Kg	<0.001	0.204	0.200	0.190	0.214	93.1	107	60-140	11.8	30
1,2,3-Trichloropropane	mg/Kg	<0.0006	0.204	0.200	0.145	0.183	71.0*	91.5	75-125	23.1	30
1,2,4-Trimethylbenzene	mg/Kg	0.003	0.204	0.200	0.092	0.179	43.7*	87.9	75-125	63.8*	30
1,3,5-Trimethylbenzene	mg/Kg	<0.001	0.204	0.200	0.085	0.153	42.0*	76.5	75-125	56.3*	30
Vinyl Acetate	mg/Kg	<0.003	0.204	0.200	0.177	0.193	86.7	96.5	40-160	8.6	30
Vinyl Chloride	mg/Kg	<0.0005	0.204	0.200	0.173	0.170	84.8	85.0	80-120	1.7	30
4-Bromofluorobenzene (S)							101	98.4	60-130		
1,2-Dichloroethane - d4 (S)							104	99.0	60-132		
Toluene-d8 (S)							108	108	70-130		

### Quality Control Data

**Client ID:** Ensafe  
**Project Description:** Former Wayne's Pinball Palace  
**Report No:** 20-218-0165

**QC Prep:** L505913      **QC Analytical Batch(es):** L505929  
**QC Prep Batch Method:** 5030A      **Analysis Method:** 8260B  
**Analysis Description:** Volatile Organic Compounds - GC/MS

**Lab Reagent Blank**      LRB-L505913      Matrix: SOL  
Associated Lab Samples: 92403

Parameter	Units	Blank Result	MDL	MQL	Analyzed	% Recovery	% Rec Limits
Ethylbenzene	mg/Kg	<0.049	0.049	0.200	08/11/20 14:50		
m,p-Xylene	mg/Kg	<0.059	0.059	0.400	08/11/20 14:50		
1,2,4-Trimethylbenzene	mg/Kg	<0.039	0.039	0.200	08/11/20 14:50		
4-Bromofluorobenzene (S)					08/11/20 14:50	89.8	50-150
1,2-Dichloroethane - d4 (S)					08/11/20 14:50	97.4	50-150
Toluene-d8 (S)					08/11/20 14:50	80.3	50-150

**Laboratory Control Sample & LCSD**      LCS-L505913      LCSD-L505913

Parameter	Units	Spike Conc.	LCS Result	LCSD Result	LCS %Rec	LCSD % Rec	% Rec Limits	RPD	Max RPD
Ethylbenzene	mg/Kg	20.0	21.0	19.5	105	97.5	60-140	7.4	30
m,p-Xylene	mg/Kg	40.0	39.0	38.4	97.5	96.0	60-140	1.5	30
1,2,4-Trimethylbenzene	mg/Kg	20.0	20.0	17.9	100	89.5	60-140	11.0	30
4-Bromofluorobenzene (S)					94.8	89.7	50-150		
1,2-Dichloroethane - d4 (S)					97.4	83.8	50-150		
Toluene-d8 (S)					93.4	85.6	50-150		

### Quality Control Data

**Client ID:** Ensafe  
**Project Description:** Former Wayne's Pinball Palace  
**Report No:** 20-218-0165

**QC Prep:** L505071      **QC Analytical Batch(es):** L505238  
**QC Prep Batch Method:** 3550B      **Analysis Method:** 8270D SIM  
**Analysis Description:** Semivolatile Organic Compounds - GC/MS (SIM)

**Lab Reagent Blank**      LRB-L505071      Matrix: SOL  
Associated Lab Samples: 92395, 92396, 92397, 92398, 92399, 92400, 92401, 92402, 92403, 92404

Parameter	Units	Blank Result	MDL	MQL	Analyzed	% Recovery	% Rec Limits
Acenaphthene	mg/Kg	<0.000431	0.000431	0.000670	08/07/20 12:43		
Acenaphthylene	mg/Kg	<0.000382	0.000382	0.000670	08/07/20 12:43		
Anthracene	mg/Kg	<0.000426	0.000426	0.000670	08/07/20 12:43		
Benzo(a)anthracene	mg/Kg	<0.000441	0.000441	0.000670	08/07/20 12:43		
Benzo(a)pyrene	mg/Kg	<0.000133	0.000133	0.000670	08/07/20 12:43		
Benzo(b)fluoranthene	mg/Kg	<0.000138	0.000138	0.000670	08/07/20 12:43		
Benzo(g,h,i)perylene	mg/Kg	<0.000231	0.000231	0.000670	08/07/20 12:43		
Benzo(k)fluoranthene	mg/Kg	<0.000486	0.000486	0.000670	08/07/20 12:43		
Chrysene	mg/Kg	<0.000256	0.000256	0.000670	08/07/20 12:43		
Dibenz(a,h)anthracene	mg/Kg	<0.000279	0.000279	0.000670	08/07/20 12:43		
Fluoranthene	mg/Kg	<0.000529	0.000529	0.000670	08/07/20 12:43		
Fluorene	mg/Kg	<0.000501	0.000501	0.000670	08/07/20 12:43		
Indeno(1,2,3-cd)pyrene	mg/Kg	<0.000344	0.000344	0.000670	08/07/20 12:43		
2-Methylnaphthalene	mg/Kg	0.000544	0.000542	0.000670	08/07/20 12:43		
Naphthalene	mg/Kg	0.000529	0.000467	0.000670	08/07/20 12:43		
Phenanthrene	mg/Kg	<0.000654	0.000654	0.000670	08/07/20 12:43		
Pyrene	mg/Kg	<0.000387	0.000387	0.000670	08/07/20 12:43		
2-Fluorobiphenyl (S)					08/07/20 12:43	48.3	33-115
Nitrobenzene-d5 (S)					08/07/20 12:43	44.1	29-110
4-Terphenyl-d14 (S)					08/07/20 12:43	68.1	33-122

**Laboratory Control Sample**      LCS-L505071

Parameter	Units	Spike Conc.	LCS Result	LCS %Rec	% Rec Limits
Acenaphthene	mg/Kg	0.167	0.105	62.8	30-130
Acenaphthylene	mg/Kg	0.167	0.114	68.2	30-130
Anthracene	mg/Kg	0.167	0.127	76.0	30-130

### Quality Control Data

**Client ID:** Ensafe  
**Project Description:** Former Wayne's Pinball Palace  
**Report No:** 20-218-0165

**QC Prep:** L505071 **QC Analytical Batch(es):** L505238  
**QC Prep Batch Method:** 3550B **Analysis Method:** 8270D SIM  
**Analysis Description:** Semivolatile Organic Compounds - GC/MS (SIM)

**Laboratory Control Sample** LCS-L505071

Parameter	Units	Spike Conc.	LCS Result	LCS %Rec	% Rec Limits
Benzo(a)anthracene	mg/Kg	0.167	0.126	75.4	30-130
Benzo(a)pyrene	mg/Kg	0.167	0.114	68.2	30-130
Benzo(b)fluoranthene	mg/Kg	0.167	0.170	102	30-130
Benzo(g,h,i)perylene	mg/Kg	0.167	0.177	106	30-130
Benzo(k)fluoranthene	mg/Kg	0.167	0.196	117	30-130
Chrysene	mg/Kg	0.167	0.126	75.4	30-130
Dibenz(a,h)anthracene	mg/Kg	0.167	0.161	96.4	30-130
Fluoranthene	mg/Kg	0.167	0.143	85.6	30-130
Fluorene	mg/Kg	0.167	0.115	68.8	30-130
Indeno(1,2,3-cd)pyrene	mg/Kg	0.167	0.158	94.6	30-130
2-Methylnaphthalene	mg/Kg	0.167	0.114	68.2	30-130
Naphthalene	mg/Kg	0.167	0.110	65.8	30-130
Phenanthrene	mg/Kg	0.167	0.115	68.8	30-130
Pyrene	mg/Kg	0.167	0.132	79.0	30-130
2-Fluorobiphenyl (S)				71.1	33-115
Nitrobenzene-d5 (S)				62.4	29-110
4-Terphenyl-d14 (S)				94.2	33-122

**Matrix Spike & Matrix Spike Duplicate** L 92402-MS-L505071 L 92402-MSD-L505071

Parameter	Units	Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS %Rec	MSD %Rec	%Rec Limits	RPD	Max RPD
Acenaphthene	mg/Kg	<0.00216	0.166	0.164	0.0789	0.0753	47.5	45.9	30-130	4.6	30
Acenaphthylene	mg/Kg	0.0113	0.166	0.164	0.0876	0.0796	45.9	41.6	30-130	9.5	30
Anthracene	mg/Kg	0.00460	0.166	0.164	0.0836	0.0819	47.5	47.1	30-130	2.0	30
Benzo(a)anthracene	mg/Kg	0.224	0.166	0.164	0.190	0.106	-20*	-70*	30-130	56.7*	30
Benzo(a)pyrene	mg/Kg	0.206	0.166	0.164	0.169	0.0882	-22*	-70*	30-130	62.8*	30

\* QC Fail

### Quality Control Data

**Client ID:** Ensafe  
**Project Description:** Former Wayne's Pinball Palace  
**Report No:** 20-218-0165

**QC Prep:** L505071      **QC Analytical Batch(es):** L505238  
**QC Prep Batch Method:** 3550B      **Analysis Method:** 8270D SIM  
**Analysis Description:** Semivolatile Organic Compounds - GC/MS (SIM)

**Matrix Spike & Matrix Spike Duplicate**      L 92402-MS-L505071      L 92402-MSD-L505071

Parameter	Units	Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS %Rec	MSD %Rec	%Rec Limits	RPD	Max RPD
Benzo(b)fluoranthene	mg/Kg	0.233	0.166	0.164	0.239	0.138	3.6*	-56*	30-130	53.5*	30
Benzo(g,h,i)perylene	mg/Kg	0.137	0.166	0.164	0.149	0.0839	7.2*	-32*	30-130	55.9*	30
Benzo(k)fluoranthene	mg/Kg	0.116	0.166	0.164	0.181	0.112	39.1	-2.4*	30-130	47.0*	30
Chrysene	mg/Kg	0.200	0.166	0.164	0.172	0.100	-15*	-59*	30-130	52.9*	30
Dibenz(a,h)anthracene	mg/Kg	0.0383	0.166	0.164	0.100	0.0772	37.1	23.7*	30-130	25.7	30
Fluoranthene	mg/Kg	0.214	0.166	0.164	0.179	0.107	-21*	-65*	30-130	50.3*	30
Fluorene	mg/Kg	<0.00251	0.166	0.164	0.0834	0.0831	50.2	50.6	30-130	0.3	30
Indeno(1,2,3-cd)pyrene	mg/Kg	0.162	0.166	0.164	0.180	0.0894	10.8*	-44*	30-130	67.2*	30
2-Methylnaphthalene	mg/Kg	0.0142	0.166	0.164	0.0905	0.0845	45.9	42.8	30-130	6.8	30
Naphthalene	mg/Kg	0.0113	0.166	0.164	0.0856	0.0803	44.7	42.0	30-130	6.3	30
Phenanthrene	mg/Kg	0.0281	0.166	0.164	0.0907	0.0788	37.7	30.9	30-130	14.0	30
Pyrene	mg/Kg	0.191	0.166	0.164	0.159	0.0973	-19*	-57*	30-130	48.1*	30
2-Fluorobiphenyl (S)							51.9	47.2	33-115		
Nitrobenzene-d5 (S)							40.4	38.1	29-110		
4-Terphenyl-d14 (S)							42.9	44.5	33-122		

**Quality Control Data**

**Client ID:** Ensafe  
**Project Description:** Former Wayne's Pinball Palace  
**Report No:** 20-218-0165

**QC Analytical Batch:** L505291  
**Analysis Method:** SW-DRYWT  
**Analysis Description:** Dry Weight Determination

**Duplicate** L 92404-DUP

Parameter	Units	Result	DUP Result	RPD	Max RPD	Analyzed
Moisture	%	11.1	8.62	25.1*	20.0	08/07/20 13:51

**Quality Control Data**

**Client ID:** Ensafe  
**Project Description:** Former Wayne's Pinball Palace  
**Report No:** 20-218-0165

**QC Analytical Batch:** L505530  
**Analysis Method:** SW-DRYWT  
**Analysis Description:** Dry Weight Determination

**Duplicate** L 92386-DUP

Parameter	Units	Result	DUP Result	RPD	Max RPD	Analyzed
Moisture	%	16.2	15.9	1.8	20.0	08/10/20 14:13



### Quality Control Data

**Client ID:** Ensafe  
**Project Description:** Former Wayne's Pinball Palace  
**Report No:** 20-218-0165

**QC Prep:** L505693      **QC Analytical Batch(es):** L505941  
**QC Prep Batch Method:** 3550B      **Analysis Method:** TN EPH  
**Analysis Description:** TN EPH

**Lab Reagent Blank**      LRB-L505693      Matrix: SOL  
Associated Lab Samples: 92395, 92396, 92397, 92398, 92399, 92400, 92401, 92402, 92403, 92404

Parameter	Units	Blank Result	MDL	MQL	Analyzed	% Recovery	% Rec Limits
Diesel Range Organics (C10-C28)	mg/Kg	<3.30	3.30	3.30	08/12/20 10:13		
Oil Range Organics (>C28-C40)	mg/Kg	<3.30	3.30	3.30	08/12/20 10:13		
OTP Surrogate (S)					08/12/20 10:13	119	50-150

**Laboratory Control Sample**      LCS-L505693

Parameter	Units	Spike Conc.	LCS Result	LCS %Rec	% Rec Limits
Diesel Range Organics (C10-C28)	mg/Kg	33.3	37.7	113	50-150
Oil Range Organics (>C28-C40)	mg/Kg	33.3	31.9	95.7	50-150
OTP Surrogate (S)				93.1	50-150

**Matrix Spike & Matrix Spike Duplicate**      L 92399-MS-L505693      L 92399-MSD-L505693

Parameter	Units	Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS %Rec	MSD %Rec	%Rec Limits	RPD	Max RPD
Diesel Range Organics (C10-C28)	mg/Kg	4.14	33.3	33.3	33.6	38.0	88.4	102	50-150	12.2	30
Oil Range Organics (>C28-C40)	mg/Kg	6.32	33.3	33.3	45.2	47.3	117	123	50-150	4.5	30
OTP Surrogate (S)							56.2	71.0	50-150		

### Shipment Receipt Form

Customer Number: **03180**  
 Customer Name: **Ensafe**  
 Report Number: **20-218-0165**

#### Shipping Method

Fed Ex       US Postal       Lab       Other :   
 UPS       Client       Courier      Thermometer ID:

Shipping container/cooler uncompromised?	<input checked="" type="radio"/> Yes	<input type="radio"/> No	
Number of coolers/boxes received	<input type="text" value="1"/>		
Custody seals intact on shipping container/cooler?	<input checked="" type="radio"/> Yes	<input type="radio"/> No	<input type="radio"/> Not Present
Custody seals intact on sample bottles?	<input type="radio"/> Yes	<input checked="" type="radio"/> No	<input type="radio"/> Not Present
Chain of Custody (COC) present?	<input checked="" type="radio"/> Yes	<input type="radio"/> No	
COC agrees with sample label(s)?	<input checked="" type="radio"/> Yes	<input type="radio"/> No	
COC properly completed	<input checked="" type="radio"/> Yes	<input type="radio"/> No	
Samples in proper containers?	<input checked="" type="radio"/> Yes	<input type="radio"/> No	
Sample containers intact?	<input checked="" type="radio"/> Yes	<input type="radio"/> No	
Sufficient sample volume for indicated test(s)?	<input checked="" type="radio"/> Yes	<input type="radio"/> No	
All samples received within holding time?	<input checked="" type="radio"/> Yes	<input type="radio"/> No	
Cooler temperature in compliance?	<input checked="" type="radio"/> Yes	<input type="radio"/> No	
Cooler/Samples arrived at the laboratory on ice. Samples were considered acceptable as cooling process had begun.	<input checked="" type="radio"/> Yes	<input type="radio"/> No	
Water - Sample containers properly preserved	<input type="radio"/> Yes	<input type="radio"/> No	<input checked="" type="radio"/> N/A
Water - VOA vials free of headspace	<input type="radio"/> Yes	<input type="radio"/> No	<input checked="" type="radio"/> N/A
Trip Blanks received with VOAs	<input type="radio"/> Yes	<input type="radio"/> No	<input checked="" type="radio"/> N/A
Soil VOA method 5035 – compliance criteria met	<input type="radio"/> Yes	<input type="radio"/> No	<input checked="" type="radio"/> N/A
<input type="checkbox"/> High concentration container (48 hr)		<input type="checkbox"/> Low concentration EnCore samplers (48 hr)	
<input type="checkbox"/> High concentration pre-weighed (methanol -14 d)		<input type="checkbox"/> Low conc pre-weighed vials (Sod Bis -14 d)	
Special precautions or instructions included?	<input type="radio"/> Yes	<input checked="" type="radio"/> No	

Comments:

Signature:

Date & Time:



EnSafe Inc.  
800-588-7962

**CHAIN OF CUSTODY AND ANALYTICAL REQUEST RECORD**

COC No. CLK080520

Page 1 of 1

Project Name: Former Wayle's Pinball Palace

PO No. per MSA

Project No. 0888826703 Phase ---

Site Location: 167 Chelsea Ave

Sample Analysis Requested (Enter number of containers for each test)

Send Results To: Allison Harris + Dave Fuehrer

Sampler/Site Phone# Chelsey Kipper 270-287-1703

Lab Name: Way Point

Turnaround Time(specify): 10 days

Lab ID	Sample ID (sys_samp_code)	Location ID (sys_loc_code)	Time (mm/dd/yy)	Time (Military) (hhmm)	Matrix Code	Sample Type	Field Filtered (Y/N)	Total No. of Containers (3) →	PAH, TN-EPH	VOC	PC	EC	Extra Volume for MS/MSD	HOLD
	16755B0116	SB01	08/04/20	1005	50	N	N	3						
	16755B0112	SB01	08/04/20	1010	50	N	N	3						
	16755B0208	SB02	08/04/20	1105	50	N	N	3						
	16755B0212	SB02	08/04/20	1110	50	N	N	3						
	16755B0304	SB03	08/04/20	1305	50	N	N	3						
	16755B0404	SB04	08/04/20	1315	50	N	N	3						
	16755B0504	SB05	08/04/20	1345	50	N	N	3						
	16755B0604	SB06	08/04/20	1330	50	N	N	3						
	16755B0704	SB07	08/04/20	1440	50	N	N	3						
	16755B0804	SB08	08/04/20	1455	50	N	N	3						

**Custody Seals**  
received on:  
**COOLERS / CONTAINERS**

Field Comments: SAMPLES OVERNIGHT ON ICE AT 40C

Lab Comments: 3.91 T101 SHT

Relinquished by (signature)  
Chelsey Kipper

Date 6/05/20 Time 0927

Received by (signature)  
Summer Kipnis

Date 6/5/20 Time 09:30

Sample Shipment and Delivery Details

Number of coolers in shipment: 1

Samples Iced?(check) Yes ✓ No ---

Method of Shipment: DELIVER

Airbill No: ---

Date Shipped: 08/05/20



20-218-0165  
03180  
08-05-2020  
17:35:44

Ensafe  
167 Chelsea Avenue

H=Liquid Waste, MS=Mastic, OI=Oil, PT=Paint, SC=Cement/Concrete, SE=Sediment, SF=Filter Sandpack, SL=Sludge, SN=Miscellaneous Solid/Building Materials, SO=Soil, SU=Surface Water, WS=Water QC Matrix, WO=Water QC Matrix, WP=Drinking Water, WL=Leachate, WO=Ocean Water, WW=Waste Water  
 I=Sample, FR=Field Replicate, N=Normal Environmental Sample, RB=Material Rinse Blank, TB=Trip Blank  
 ME=Methanol, ME=Hexane, ME=Ascorbic Acid, HX=Hexane, ME=Ascorbic Acid, ST=Sodium bisulfate, ST=Sodium Thiosulfate, IF NO preservative added leave blank





8/14/2020

Ensafe  
Ms. Chelsey Kipper  
5724 Summer Tree Drive  
Memphis, TN, 38134

Ref: Analytical Testing  
Lab Report Number: 20-219-0137  
Client Project Description: Former Wayne's Pinball Palace  
167 Chelsea Avenue, Memphis, TN  
Project No. 0888826703

Dear Ms. Chelsey Kipper:  
Waypoint Analytical, LLC. received sample(s) on 8/6/2020 for the analyses presented in the following report.

The above referenced project has been analyzed per your instructions. The analyses were performed in accordance with the applicable analytical method. Where the laboratory was not responsible for the sampling stage (refer to the chain of custody) results apply to the sample as received.


The analytical data has been validated using standard quality control measures performed as required by the analytical method. Quality Assurance, method validations, instrumentation maintenance and calibration for all parameters (NELAP and non-NELAP) were performed in accordance with guidelines established by the USEPA (including 40 CFR 136 Method Update Rule August 2017) and NELAC unless otherwise indicated. Any parameter for which the laboratory is not officially NELAP accredited is indicated by a '~' symbol. These are not included in the scope because NELAP accreditation is either not available or has not been applied for. Additional certifications may be held/are available for parameters, where NELAP accreditation is not required or applicable. A full list of certifications is available upon request.

Certain parameters (chlorine, pH, dissolved oxygen, sulfite...) are required to be analyzed within 15 minutes of sampling. Usually, but not always, any field parameter analyzed at the laboratory is outside of this holding time. Refer to sample analysis time for confirmation of holding time compliance.

The results are shown on the attached Report of Analysis(s). Results for solid matrices are reported on an as-received basis unless otherwise indicated. This report shall not be reproduced except in full and relates only to the samples included in this report.

Please do not hesitate to contact me or client services if you have any questions or need additional information.

Sincerely,



Rebekah Ross  
Project Manager

*Laboratory's liability in any claim relating to analyses performed shall be limited to, at laboratory's option, repeating the analysis in question at laboratory's expense, or the refund of the charges paid for performance of said analysis.*



## Certification Summary

**Laboratory ID: WP MTN: Waypoint Analytical, LLC., Memphis, TN**

State	Program	Lab ID	Expiration Date
Alabama	State Program	40750	02/28/2021
Arizona	State Program	AZ0816	08/30/2020
Arkansas	State Program	88-0650	02/07/2021
California	State Program	2904	05/10/2020
Florida	State Program - NELAP	E871157	06/30/2021
Georgia	State Program	C044	02/18/2023
Georgia	State Program	04015	06/30/2021
Illinois	State Program - NELAP	200078	10/10/2020
Kentucky	State Program	80215	06/30/2021
Kentucky	State Program	KY90047	12/31/2020
Louisiana	State Program - NELAP	LA037	12/31/2020
Louisiana	State Program - NELAP	04015	06/30/2021
Mississippi	State Program	MS	02/11/2023
North Carolina	State Program	415	12/31/2020
Oklahoma	State Program	9311	08/31/2020
Pennsylvania	State Program - NELAP	68-03195	05/31/2021
South Carolina	State Program	84002	06/30/2021
South Carolina	State Program	84002	06/30/2020
Tennessee	State Program	02027	02/11/2023
Tennessee	A2LA ISO 17025:2017	4313.01	10/31/2021
Texas	State Program - NELAP	T104704180	09/30/2020
Virginia	State Program	00106	06/30/2021
Virginia	State Program - NELAP	460181	09/14/2020

**Sample Summary Table**

**Report Number:** 20-219-0137  
**Client Project Description:** Former Wayne's Pinball Palace  
167 Chelsea Avenue, Memphis, TN  
Project No. 0888826703

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<b>Lab No</b>	<b>Client Sample ID</b>	<b>Matrix</b>	<b>Date Collected</b>	<b>Date Received</b>
92718	167GMW01080520	Aqueous	08/05/2020 17:00	08/06/2020
92719	167GMW02080520	Aqueous	08/05/2020 16:15	08/06/2020
92720	167TB080520	Aqueous	08/05/2020 16:00	08/06/2020

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**Summary of Detected Analytes**

**Project:** Former Wayne's Pinball Palace

**Report Number:** 20-219-0137

Client Sample ID	Lab Sample ID	Method	Parameters	Result	Units	Report Limit	Analyzed	Qualifiers
<b>167GMW01080520</b>	<b>L 92718</b>							
6010D	Arsenic			0.0195	mg/L	0.0056	08/08/2020 04:16	
6010D	Barium			0.0561	mg/L	0.0040	08/08/2020 04:16	
8260B	sec-Butyl benzene			0.001	mg/L	0.0005	08/08/2020 11:09	
8270D SIM	Acenaphthene			0.000081	mg/L	0.000018	08/10/2020 20:26	
8270D SIM	Anthracene			0.000008	mg/L	0.000005	08/10/2020 20:26	J
8270D SIM	Fluoranthene			0.000006	mg/L	0.000005	08/10/2020 20:26	J
8270D SIM	Fluorene			0.000014	mg/L	0.000010	08/10/2020 20:26	J
8270D SIM	2-Methylnaphthalene			0.000067	mg/L	0.000018	08/10/2020 20:26	
8270D SIM	Naphthalene			0.00199	mg/L	0.000019	08/10/2020 20:26	
8270D SIM	Phenanthrene			0.000015	mg/L	0.000008	08/10/2020 20:26	J
TN EPH	Diesel Range Organics (C10-C28)			0.286	mg/L	0.0548	08/13/2020 02:02	B
TN EPH	Oil Range Organics (>C28-C40)			0.0933	mg/L	0.0841	08/13/2020 02:02	
TN EPH	TN EPH (C10-C40)			0.379	mg/L	0.0548	08/13/2020 02:02	B
<b>167GMW02080520</b>	<b>L 92719</b>							
6010D	Arsenic			0.0353	mg/L	0.0056	08/08/2020 04:20	
6010D	Barium			0.118	mg/L	0.0040	08/08/2020 04:20	
8260B	Benzene			0.0005	mg/L	0.0004	08/08/2020 11:30	J
8260B	sec-Butyl benzene			0.002	mg/L	0.0005	08/08/2020 11:30	
8260B	Ethylbenzene			0.002	mg/L	0.0006	08/08/2020 11:30	
8260B	Isopropylbenzene			0.002	mg/L	0.0008	08/08/2020 11:30	
8260B	m,p-Xylene			0.005	mg/L	0.001	08/08/2020 11:30	
8260B	1,2,4-Trimethylbenzene			0.004	mg/L	0.0008	08/08/2020 11:30	
8260B	1,3,5-Trimethylbenzene			0.001	mg/L	0.0008	08/08/2020 11:30	
8260B	Xylene (Total)			0.005	mg/L	0.0005	08/08/2020 11:30	
8270D SIM	Acenaphthene			0.000033	mg/L	0.000018	08/10/2020 20:47	
8270D SIM	Anthracene			0.000007	mg/L	0.000005	08/10/2020 20:47	J
8270D SIM	Fluorene			0.000016	mg/L	0.000010	08/10/2020 20:47	J
8270D SIM	2-Methylnaphthalene			0.000208	mg/L	0.000018	08/10/2020 20:47	
8270D SIM	Naphthalene			0.00194	mg/L	0.000019	08/10/2020 20:47	
8270D SIM	Phenanthrene			0.000012	mg/L	0.000008	08/10/2020 20:47	J
TN EPH	Diesel Range Organics (C10-C28)			1.13	mg/L	0.0548	08/13/2020 02:21	
TN EPH	TN EPH (C10-C40)			1.13	mg/L	0.0548	08/13/2020 02:21	





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Client: Ensafe  
Project: Former Wayne's Pinball Palace  
Lab Report Number: 20-219-0137  
Date: 8/13/2020

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**CASE NARRATIVE**

**Semivolatile Organic Compounds - GC/MS (SIM) Method 8270D SIM**

Sample 92719 (167GMW02080520)

QC Batch No: L505705/L505416

Surrogate(s) were flagged for recoveries in the associated project sample. During the extraction step, the extraction technician noted that a significant emulsion formed. Batch QC samples (Method Blank and Laboratory Control Samples) all showed surrogate recoveries within QC limits, indicating that the biased recoveries were due to the sample matrix.

03180

Ensafe

Ms. Chelsey Kipper

5724 Summer Tree Drive

Memphis , TN 38134

Project Former Wayne's Pinball Palace

Information : 167 Chelsea Avenue, Memphis, TN

Project No. 0888826703

Report Date : 08/14/2020

Received : 08/06/2020

*Rebekah Ross*

Report Number : **20-219-0137**

**REPORT OF ANALYSIS**

Rebekah Ross  
Project Manager

Lab No : **92718**

Matrix: **Aqueous**

Sample ID : **167GMW01080520**

Sampled: **8/5/2020 17:00**

Test	Results	Units	MDL	MQL	DF	Date / Time Analyzed	By	Analytical Method
Arsenic	<b>0.0195</b>	mg/L	0.0056	0.0100	1	08/08/20 04:16	TJS	6010D
Barium	<b>0.0561</b>	mg/L	0.0040	0.0100	1	08/08/20 04:16	TJS	6010D
Cadmium	<0.0003	mg/L	0.0003	0.0020	1	08/08/20 04:16	TJS	6010D
Chromium	<0.003	mg/L	0.003	0.005	1	08/08/20 04:16	TJS	6010D
Lead	<0.002	mg/L	0.002	0.006	1	08/08/20 04:16	TJS	6010D
Mercury	<0.00013	mg/L	0.00013	0.00020	1	08/13/20 13:34	DDB	7470A
Selenium	<0.003	mg/L	0.003	0.010	1	08/10/20 17:43	TJS	6010D
Silver	<0.0023	mg/L	0.0023	0.0050	1	08/08/20 04:16	TJS	6010D

**Qualifiers/  
Definitions**

*	Outside QC Limit	B	Analyte detected in blank
DF	Dilution Factor	J	Estimated value
L	Limit Exceeded	MQL	Method Quantitation Limit

03180

Ensafe

Ms. Chelsey Kipper

5724 Summer Tree Drive

Memphis , TN 38134


Project Former Wayne's Pinball Palace

Information : 167 Chelsea Avenue, Memphis, TN

Project No. 0888826703

Report Date : 08/14/2020

Received : 08/06/2020



Rebekah Ross  
Project Manager

Report Number : **20-219-0137**

**REPORT OF ANALYSIS**

Lab No : **92718**

Matrix: **Aqueous**

Sample ID : **167GMW01080520**

Sampled: **8/5/2020 17:00**

**Analytical Method:** 8260B      **Prep Batch(es):** **L505402** 08/08/20 07:41  
**Prep Method:** 5030B

Test	Results	Units	MDL	MQL	DF	Date / Time Analyzed	By	Analytical Batch
Acetone	<0.009	mg/L	0.009	0.020	1	08/08/20 11:09	ASH	L505439
Acetonitrile	<0.018	mg/L	0.018	0.050	1	08/08/20 11:09	ASH	L505439
Acrolein	<0.002	mg/L	0.002	0.020	1	08/08/20 11:09	ASH	L505439
Acrylonitrile	<0.002	mg/L	0.002	0.020	1	08/08/20 11:09	ASH	L505439
Benzene	<0.0004	mg/L	0.0004	0.001	1	08/08/20 11:09	ASH	L505439
Bromobenzene	<0.0007	mg/L	0.0007	0.001	1	08/08/20 11:09	ASH	L505439
Bromochloromethane	<0.0004	mg/L	0.0004	0.001	1	08/08/20 11:09	ASH	L505439
Bromodichloromethane	<0.0009	mg/L	0.0009	0.001	1	08/08/20 11:09	ASH	L505439
Bromoform	<0.0009	mg/L	0.0009	0.001	1	08/08/20 11:09	ASH	L505439
Bromomethane	<0.001	mg/L	0.001	0.002	1	08/08/20 11:09	ASH	L505439
Methyl Ethyl Ketone (MEK)	<0.002	mg/L	0.002	0.020	1	08/08/20 11:09	ASH	L505439
n-Butylbenzene	<0.0010	mg/L	0.0010	0.001	1	08/08/20 11:09	ASH	L505439
sec-Butyl benzene	<b>0.001</b>	mg/L	0.0005	0.001	1	08/08/20 11:09	ASH	L505439
tert-Butyl benzene	<0.0004	mg/L	0.0004	0.001	1	08/08/20 11:09	ASH	L505439
Carbon Disulfide	<0.0003	mg/L	0.0003	0.001	1	08/08/20 11:09	ASH	L505439
Carbon Tetrachloride	<0.0006	mg/L	0.0006	0.001	1	08/08/20 11:09	ASH	L505439
Chlorobenzene	<0.0003	mg/L	0.0003	0.001	1	08/08/20 11:09	ASH	L505439
Chlorodibromomethane	<0.0009	mg/L	0.0009	0.001	1	08/08/20 11:09	ASH	L505439
Chloroethane	<0.0003	mg/L	0.0003	0.001	1	08/08/20 11:09	ASH	L505439
2-Chloroethylvinyl Ether	<0.002	mg/L	0.002	0.005	1	08/08/20 11:09	ASH	L505439
Chloroform	<0.0008	mg/L	0.0008	0.001	1	08/08/20 11:09	ASH	L505439
Chloromethane	<0.0007	mg/L	0.0007	0.001	1	08/08/20 11:09	ASH	L505439

Qualifiers/Definitions	*	Outside QC Limit	B	Analyte detected in blank
	DF	Dilution Factor	J	Estimated value
	MQL	Method Quantitation Limit		

03180

Ensafe

Ms. Chelsey Kipper

5724 Summer Tree Drive

Memphis , TN 38134

Project Former Wayne's Pinball Palace

Information : 167 Chelsea Avenue, Memphis, TN

Project No. 0888826703

Report Date : 08/14/2020

Received : 08/06/2020

*Rebekah Ross*

Rebekah Ross  
Project Manager

Report Number : **20-219-0137**

**REPORT OF ANALYSIS**

Lab No : **92718**

Sample ID : **167GMW01080520**

Matrix: **Aqueous**

Sampled: **8/5/2020 17:00**

**Analytical Method:** 8260B      **Prep Batch(es):** **L505402** 08/08/20 07:41  
**Prep Method:** 5030B

Test	Results	Units	MDL	MQL	DF	Date / Time Analyzed	By	Analytical Batch
2-Chlorotoluene	<0.0005	mg/L	0.0005	0.001	1	08/08/20 11:09	ASH	L505439
4-Chlorotoluene	<0.0005	mg/L	0.0005	0.001	1	08/08/20 11:09	ASH	L505439
1,2-Dibromo-3-Chloropropane	<0.001	mg/L	0.001	0.002	1	08/08/20 11:09	ASH	L505439
1,2-Dibromoethane	<0.0004	mg/L	0.0004	0.001	1	08/08/20 11:09	ASH	L505439
Dibromomethane	<0.0004	mg/L	0.0004	0.001	1	08/08/20 11:09	ASH	L505439
1,2-Dichlorobenzene	<0.0006	mg/L	0.0006	0.001	1	08/08/20 11:09	ASH	L505439
1,3-Dichlorobenzene	<0.0006	mg/L	0.0006	0.001	1	08/08/20 11:09	ASH	L505439
1,4-Dichlorobenzene	<0.0006	mg/L	0.0006	0.001	1	08/08/20 11:09	ASH	L505439
Dichlorodifluoromethane	<0.0007	mg/L	0.0007	0.001	1	08/08/20 11:09	ASH	L505439
1,1-Dichloroethane	<0.0004	mg/L	0.0004	0.001	1	08/08/20 11:09	ASH	L505439
1,2-Dichloroethane	<0.0006	mg/L	0.0006	0.001	1	08/08/20 11:09	ASH	L505439
1,1-Dichloroethene	<0.0003	mg/L	0.0003	0.001	1	08/08/20 11:09	ASH	L505439
cis-1,2-Dichloroethene	<0.0004	mg/L	0.0004	0.001	1	08/08/20 11:09	ASH	L505439
trans-1,2-Dichloroethene	<0.0004	mg/L	0.0004	0.001	1	08/08/20 11:09	ASH	L505439
1,2-Dichloroethene (Total)	<0.0004	mg/L	0.0004	0.001	1	08/08/20 11:09		L505439
1,2-Dichloropropane	<0.0004	mg/L	0.0004	0.001	1	08/08/20 11:09	ASH	L505439
1,3-Dichloropropane	<0.0003	mg/L	0.0003	0.001	1	08/08/20 11:09	ASH	L505439
2,2-Dichloropropane	<0.0006	mg/L	0.0006	0.001	1	08/08/20 11:09	ASH	L505439
1,1-Dichloropropene	<0.0008	mg/L	0.0008	0.001	1	08/08/20 11:09	ASH	L505439
cis-1,3-Dichloropropene	<0.0004	mg/L	0.0004	0.001	1	08/08/20 11:09	ASH	L505439
trans-1,3-Dichloropropene	<0.0003	mg/L	0.0003	0.001	1	08/08/20 11:09	ASH	L505439
Ethyl Acetate	<0.003	mg/L	0.003	0.010	1	08/08/20 11:09	ASH	L505439

Qualifiers/Definitions	*	Outside QC Limit	B	Analyte detected in blank
	DF	Dilution Factor	J	Estimated value
	MQL	Method Quantitation Limit		

03180

Ensafe  
 Ms. Chelsey Kipper  
 5724 Summer Tree Drive  
 Memphis , TN 38134

Project Former Wayne's Pinball Palace  
 Information : 167 Chelsea Avenue, Memphis, TN  
 Project No. 0888826703

Report Date : 08/14/2020  
 Received : 08/06/2020



Report Number : **20-219-0137**

**REPORT OF ANALYSIS**

Rebekah Ross  
 Project Manager

Lab No : **92718**

Matrix: **Aqueous**

Sample ID : **167GMW01080520**

Sampled: **8/5/2020 17:00**

**Analytical Method:** 8260B      **Prep Batch(es):** **L505402** 08/08/20 07:41  
**Prep Method:** 5030B

Test	Results	Units	MDL	MQL	DF	Date / Time Analyzed	By	Analytical Batch
Ethylbenzene	<0.0006	mg/L	0.0006	0.001	1	08/08/20 11:09	ASH	L505439
Hexachlorobutadiene	<0.0008	mg/L	0.0008	0.001	1	08/08/20 11:09	ASH	L505439
2-Hexanone	<0.001	mg/L	0.001	0.005	1	08/08/20 11:09	ASH	L505439
Iodomethane	<0.001	mg/L	0.001	0.005	1	08/08/20 11:09	ASH	L505439
Isopropylbenzene	<0.0008	mg/L	0.0008	0.001	1	08/08/20 11:09	ASH	L505439
4-Isopropyl toluene	<0.0009	mg/L	0.0009	0.001	1	08/08/20 11:09	ASH	L505439
4-Methyl-2-Pentanone	<0.001	mg/L	0.001	0.005	1	08/08/20 11:09	ASH	L505439
Methylene Chloride	<0.004	mg/L	0.004	0.005	1	08/08/20 11:09	ASH	L505439
Methyl tert-butyl ether (MTBE)	<0.0006	mg/L	0.0006	0.001	1	08/08/20 11:09	ASH	L505439
m,p-Xylene	<0.001	mg/L	0.001	0.002	1	08/08/20 11:09	ASH	L505439
Naphthalene	<0.004	mg/L	0.004	0.005	1	08/08/20 11:09	ASH	L505439
o-Xylene	<0.0005	mg/L	0.0005	0.001	1	08/08/20 11:09	ASH	L505439
n-Propylbenzene	<0.0008	mg/L	0.0008	0.001	1	08/08/20 11:09	ASH	L505439
Styrene	<0.0010	mg/L	0.0010	0.001	1	08/08/20 11:09	ASH	L505439
1,1,1,2-Tetrachloroethane	<0.0004	mg/L	0.0004	0.001	1	08/08/20 11:09	ASH	L505439
1,1,2,2-Tetrachloroethane	<0.0006	mg/L	0.0006	0.001	1	08/08/20 11:09	ASH	L505439
Tetrachloroethene	<0.0004	mg/L	0.0004	0.001	1	08/08/20 11:09	ASH	L505439
Toluene	<0.001	mg/L	0.001	0.002	1	08/08/20 11:09	ASH	L505439
1,2,3-Trichlorobenzene	<0.001	mg/L	0.001	0.002	1	08/08/20 11:09	ASH	L505439
1,2,4-Trichlorobenzene	<0.001	mg/L	0.001	0.002	1	08/08/20 11:09	ASH	L505439
1,1,1-Trichloroethane	<0.0003	mg/L	0.0003	0.001	1	08/08/20 11:09	ASH	L505439
1,1,2-Trichloroethane	<0.0008	mg/L	0.0008	0.001	1	08/08/20 11:09	ASH	L505439

Qualifiers/ Definitions	*	Outside QC Limit	B	Analyte detected in blank
	DF	Dilution Factor	J	Estimated value
	MQL	Method Quantitation Limit		

03180

Ensafe  
 Ms. Chelsey Kipper  
 5724 Summer Tree Drive  
 Memphis, TN 38134

Project Former Wayne's Pinball Palace  
 Information : 167 Chelsea Avenue, Memphis, TN  
 Project No. 0888826703

Report Date : 08/14/2020  
 Received : 08/06/2020



Report Number : **20-219-0137**

**REPORT OF ANALYSIS**

Rebekah Ross  
 Project Manager

Lab No : **92718**  
 Sample ID : **167GMW01080520**

Matrix: **Aqueous**  
 Sampled: **8/5/2020 17:00**

**Analytical Method:** 8260B      **Prep Batch(es):** **L505402** 08/08/20 07:41  
**Prep Method:** 5030B

Test	Results	Units	MDL	MLQ	DF	Date / Time Analyzed	By	Analytical Batch
Trichloroethene	<0.0005	mg/L	0.0005	0.001	1	08/08/20 11:09	ASH	L505439
Trichlorofluoromethane	<0.0003	mg/L	0.0003	0.001	1	08/08/20 11:09	ASH	L505439
1,2,3-Trichloropropane	<0.0005	mg/L	0.0005	0.001	1	08/08/20 11:09	ASH	L505439
1,2,4-Trimethylbenzene	<0.0008	mg/L	0.0008	0.001	1	08/08/20 11:09	ASH	L505439
1,3,5-Trimethylbenzene	<0.0008	mg/L	0.0008	0.001	1	08/08/20 11:09	ASH	L505439
Vinyl Acetate	<0.002	mg/L	0.002	0.010	1	08/08/20 11:09	ASH	L505439
Vinyl Chloride	<0.0003	mg/L	0.0003	0.001	1	08/08/20 11:09	ASH	L505439
Xylene (Total)	<0.0005	mg/L	0.0005	0.001	1	08/08/20 11:09		L505439
Surrogate: 4-Bromofluorobenzene	100		Limits: 71-137%		1	08/08/20 11:09	ASH	L505439
Surrogate: Dibromofluoromethane	119		Limits: 70-128%		1	08/08/20 11:09	ASH	L505439
Surrogate: 1,2-Dichloroethane - d4	130		Limits: 63-136%		1	08/08/20 11:09	ASH	L505439
Surrogate: Toluene-d8	104		Limits: 70-130%		1	08/08/20 11:09	ASH	L505439

**Analytical Method:** 8270D SIM      **Prep Batch(es):** **L505416** 08/10/20 12:30  
**Prep Method:** 3511

Test	Results	Units	MDL	MLQ	DF	Date / Time Analyzed	By	Analytical Batch
Acenaphthene	<b>0.000081</b>	mg/L	0.000018	0.000020	1	08/10/20 20:26	MLR	L505705
Acenaphthylene	<0.000014	mg/L	0.000014	0.000020	1	08/10/20 20:26	MLR	L505705
Anthracene	<b>0.000008 J</b>	mg/L	0.000005	0.000020	1	08/10/20 20:26	MLR	L505705
Benzo(a)anthracene	<0.000011	mg/L	0.000011	0.000020	1	08/10/20 20:26	MLR	L505705
Benzo(a)pyrene	<0.000012	mg/L	0.000012	0.000020	1	08/10/20 20:26	MLR	L505705
Benzo(b)fluoranthene	<0.000008	mg/L	0.000008	0.000020	1	08/10/20 20:26	MLR	L505705

Qualifiers/Definitions	*	Outside QC Limit	B	Analyte detected in blank
	DF	Dilution Factor	J	Estimated value
	MLQ	Method Quantitation Limit		

03180  
 Ensafe  
 Ms. Chelsey Kipper  
 5724 Summer Tree Drive  
 Memphis, TN 38134

Project Former Wayne's Pinball Palace  
 Information : 167 Chelsea Avenue, Memphis, TN  
 Project No. 0888826703

Report Date : 08/14/2020  
 Received : 08/06/2020



Report Number : **20-219-0137**

**REPORT OF ANALYSIS**

Rebekah Ross  
 Project Manager

Lab No : **92718**  
 Sample ID : **167GMW01080520**

Matrix: **Aqueous**  
 Sampled: **8/5/2020 17:00**

**Analytical Method:** 8270D SIM      **Prep Batch(es):** **L505416** 08/10/20 12:30  
**Prep Method:** 3511

Test	Results	Units	MDL	MQL	DF	Date / Time Analyzed	By	Analytical Batch
Benzo(g,h,i)perylene	<0.000007	mg/L	0.000007	0.000020	1	08/10/20 20:26	MLR	L505705
Benzo(k)fluoranthene	<0.000016	mg/L	0.000016	0.000020	1	08/10/20 20:26	MLR	L505705
Chrysene	<0.000008	mg/L	0.000008	0.000020	1	08/10/20 20:26	MLR	L505705
Dibenz(a,h)anthracene	<0.000006	mg/L	0.000006	0.000020	1	08/10/20 20:26	MLR	L505705
Fluoranthene	<b>0.000006 J</b>	mg/L	0.000005	0.000020	1	08/10/20 20:26	MLR	L505705
Fluorene	<b>0.000014 J</b>	mg/L	0.000010	0.000020	1	08/10/20 20:26	MLR	L505705
Indeno(1,2,3-cd)pyrene	<0.000014	mg/L	0.000014	0.000020	1	08/10/20 20:26	MLR	L505705
2-Methylnaphthalene	<b>0.000067</b>	mg/L	0.000018	0.000020	1	08/10/20 20:26	MLR	L505705
Naphthalene	<b>0.00199</b>	mg/L	0.000019	0.000020	1	08/10/20 20:26	MLR	L505705
Phenanthrene	<b>0.000015 J</b>	mg/L	0.000008	0.000020	1	08/10/20 20:26	MLR	L505705
Pyrene	<0.000009	mg/L	0.000009	0.000020	1	08/10/20 20:26	MLR	L505705
Surrogate: 2-Fluorobiphenyl	104		Limits: 70-130%		1	08/10/20 20:26	MLR	L505705
Surrogate: 4-Terphenyl-d14	103		Limits: 70-130%		1	08/10/20 20:26	MLR	L505705

**Analytical Method:** TN EPH      **Prep Batch(es):** **L505744** 08/11/20 14:30  
**Prep Method:** 3510C

Test	Results	Units	MDL	MQL	DF	Date / Time Analyzed	By	Analytical Batch
Diesel Range Organics (C10-C28)	<b>0.286 B</b>	mg/L	0.0548	0.0900	1	08/13/20 02:02	MMK	L505943
Oil Range Organics (>C28-C40)	<b>0.0933</b>	mg/L	0.0841	0.0900	1	08/13/20 02:02	MMK	L505943
TN EPH (C10-C40)	<b>0.379 B</b>	mg/L	0.0548	0.0900	1	08/13/20 02:02		L505943
Surrogate: OTP Surrogate	73.7		Limits: 50-150%		1	08/13/20 02:02	MMK	L505943

Qualifiers/Definitions	*	Outside QC Limit	B	Analyte detected in blank
	DF	Dilution Factor	J	Estimated value
	MQL	Method Quantitation Limit		



03180

Ensafe

Ms. Chelsey Kipper

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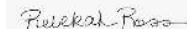
Project Former Wayne's Pinball Palace

Information : 167 Chelsea Avenue, Memphis, TN

Project No. 0888826703

Report Date : 08/14/2020

Received : 08/06/2020



Report Number : **20-219-0137**

**REPORT OF ANALYSIS**

Rebekah Ross  
Project Manager

Lab No : **92719**

Matrix: **Aqueous**

Sample ID : **167GMW02080520**

Sampled: **8/5/2020 16:15**

Test	Results	Units	MDL	MQL	DF	Date / Time Analyzed	By	Analytical Method
Arsenic	<b>0.0353</b>	mg/L	0.0056	0.0100	1	08/08/20 04:20	TJS	6010D
Barium	<b>0.118</b>	mg/L	0.0040	0.0100	1	08/08/20 04:20	TJS	6010D
Cadmium	<0.0003	mg/L	0.0003	0.0020	1	08/08/20 04:20	TJS	6010D
Chromium	<0.003	mg/L	0.003	0.005	1	08/08/20 04:20	TJS	6010D
Lead	<0.002	mg/L	0.002	0.006	1	08/08/20 04:20	TJS	6010D
Mercury	<0.00013	mg/L	0.00013	0.00020	1	08/13/20 13:36	DDB	7470A
Selenium	<0.003	mg/L	0.003	0.010	1	08/10/20 17:48	TJS	6010D
Silver	<0.0023	mg/L	0.0023	0.0050	1	08/08/20 04:20	TJS	6010D

**Qualifiers/  
Definitions**

*	Outside QC Limit	B	Analyte detected in blank
DF	Dilution Factor	J	Estimated value
L	Limit Exceeded	MQL	Method Quantitation Limit

03180

Ensafe  
 Ms. Chelsey Kipper  
 5724 Summer Tree Drive  
 Memphis , TN 38134

Project Former Wayne's Pinball Palace  
 Information : 167 Chelsea Avenue, Memphis, TN  
 Project No. 0888826703

Report Date : 08/14/2020  
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Report Number : **20-219-0137**

**REPORT OF ANALYSIS**

Rebekah Ross  
 Project Manager

Lab No : **92719**

Matrix: **Aqueous**

Sample ID : **167GMW02080520**

Sampled: **8/5/2020 16:15**

**Analytical Method:** 8260B                      **Prep Batch(es):** **L505402** 08/08/20 07:41  
**Prep Method:** 5030B

Test	Results	Units	MDL	MQL	DF	Date / Time Analyzed	By	Analytical Batch
Acetone	<0.009	mg/L	0.009	0.020	1	08/08/20 11:30	ASH	L505439
Acetonitrile	<0.018	mg/L	0.018	0.050	1	08/08/20 11:30	ASH	L505439
Acrolein	<0.002	mg/L	0.002	0.020	1	08/08/20 11:30	ASH	L505439
Acrylonitrile	<0.002	mg/L	0.002	0.020	1	08/08/20 11:30	ASH	L505439
Benzene	<b>0.0005 J</b>	mg/L	0.0004	0.001	1	08/08/20 11:30	ASH	L505439
Bromobenzene	<0.0007	mg/L	0.0007	0.001	1	08/08/20 11:30	ASH	L505439
Bromochloromethane	<0.0004	mg/L	0.0004	0.001	1	08/08/20 11:30	ASH	L505439
Bromodichloromethane	<0.0009	mg/L	0.0009	0.001	1	08/08/20 11:30	ASH	L505439
Bromoform	<0.0009	mg/L	0.0009	0.001	1	08/08/20 11:30	ASH	L505439
Bromomethane	<0.001	mg/L	0.001	0.002	1	08/08/20 11:30	ASH	L505439
Methyl Ethyl Ketone (MEK)	<0.002	mg/L	0.002	0.020	1	08/08/20 11:30	ASH	L505439
n-Butylbenzene	<0.0010	mg/L	0.0010	0.001	1	08/08/20 11:30	ASH	L505439
sec-Butyl benzene	<b>0.002</b>	mg/L	0.0005	0.001	1	08/08/20 11:30	ASH	L505439
tert-Butyl benzene	<0.0004	mg/L	0.0004	0.001	1	08/08/20 11:30	ASH	L505439
Carbon Disulfide	<0.0003	mg/L	0.0003	0.001	1	08/08/20 11:30	ASH	L505439
Carbon Tetrachloride	<0.0006	mg/L	0.0006	0.001	1	08/08/20 11:30	ASH	L505439
Chlorobenzene	<0.0003	mg/L	0.0003	0.001	1	08/08/20 11:30	ASH	L505439
Chlorodibromomethane	<0.0009	mg/L	0.0009	0.001	1	08/08/20 11:30	ASH	L505439
Chloroethane	<0.0003	mg/L	0.0003	0.001	1	08/08/20 11:30	ASH	L505439
2-Chloroethylvinyl Ether	<0.002	mg/L	0.002	0.005	1	08/08/20 11:30	ASH	L505439
Chloroform	<0.0008	mg/L	0.0008	0.001	1	08/08/20 11:30	ASH	L505439
Chloromethane	<0.0007	mg/L	0.0007	0.001	1	08/08/20 11:30	ASH	L505439

Qualifiers/Definitions	*	Outside QC Limit	B	Analyte detected in blank
	DF	Dilution Factor	J	Estimated value
	MQL	Method Quantitation Limit		

03180

Ensafe

Ms. Chelsey Kipper

5724 Summer Tree Drive

Memphis , TN 38134

Project Former Wayne's Pinball Palace

Information : 167 Chelsea Avenue, Memphis, TN

Project No. 0888826703

Report Date : 08/14/2020

Received : 08/06/2020

*Rebekah Ross*

Rebekah Ross  
Project Manager

Report Number : **20-219-0137**

**REPORT OF ANALYSIS**

Lab No : **92719**

Sample ID : **167GMW02080520**

Matrix: **Aqueous**

Sampled: **8/5/2020 16:15**

**Analytical Method:** 8260B      **Prep Batch(es):** **L505402** 08/08/20 07:41  
**Prep Method:** 5030B

Test	Results	Units	MDL	MQL	DF	Date / Time Analyzed	By	Analytical Batch
2-Chlorotoluene	<0.0005	mg/L	0.0005	0.001	1	08/08/20 11:30	ASH	L505439
4-Chlorotoluene	<0.0005	mg/L	0.0005	0.001	1	08/08/20 11:30	ASH	L505439
1,2-Dibromo-3-Chloropropane	<0.001	mg/L	0.001	0.002	1	08/08/20 11:30	ASH	L505439
1,2-Dibromoethane	<0.0004	mg/L	0.0004	0.001	1	08/08/20 11:30	ASH	L505439
Dibromomethane	<0.0004	mg/L	0.0004	0.001	1	08/08/20 11:30	ASH	L505439
1,2-Dichlorobenzene	<0.0006	mg/L	0.0006	0.001	1	08/08/20 11:30	ASH	L505439
1,3-Dichlorobenzene	<0.0006	mg/L	0.0006	0.001	1	08/08/20 11:30	ASH	L505439
1,4-Dichlorobenzene	<0.0006	mg/L	0.0006	0.001	1	08/08/20 11:30	ASH	L505439
Dichlorodifluoromethane	<0.0007	mg/L	0.0007	0.001	1	08/08/20 11:30	ASH	L505439
1,1-Dichloroethane	<0.0004	mg/L	0.0004	0.001	1	08/08/20 11:30	ASH	L505439
1,2-Dichloroethane	<0.0006	mg/L	0.0006	0.001	1	08/08/20 11:30	ASH	L505439
1,1-Dichloroethene	<0.0003	mg/L	0.0003	0.001	1	08/08/20 11:30	ASH	L505439
cis-1,2-Dichloroethene	<0.0004	mg/L	0.0004	0.001	1	08/08/20 11:30	ASH	L505439
trans-1,2-Dichloroethene	<0.0004	mg/L	0.0004	0.001	1	08/08/20 11:30	ASH	L505439
1,2-Dichloroethene (Total)	<0.0004	mg/L	0.0004	0.001	1	08/08/20 11:30		L505439
1,2-Dichloropropane	<0.0004	mg/L	0.0004	0.001	1	08/08/20 11:30	ASH	L505439
1,3-Dichloropropane	<0.0003	mg/L	0.0003	0.001	1	08/08/20 11:30	ASH	L505439
2,2-Dichloropropane	<0.0006	mg/L	0.0006	0.001	1	08/08/20 11:30	ASH	L505439
1,1-Dichloropropene	<0.0008	mg/L	0.0008	0.001	1	08/08/20 11:30	ASH	L505439
cis-1,3-Dichloropropene	<0.0004	mg/L	0.0004	0.001	1	08/08/20 11:30	ASH	L505439
trans-1,3-Dichloropropene	<0.0003	mg/L	0.0003	0.001	1	08/08/20 11:30	ASH	L505439
Ethyl Acetate	<0.003	mg/L	0.003	0.010	1	08/08/20 11:30	ASH	L505439

Qualifiers/Definitions	*	Outside QC Limit	B	Analyte detected in blank
	DF	Dilution Factor	J	Estimated value
	MQL	Method Quantitation Limit		

03180

Ensafe  
Ms. Chelsey Kipper  
5724 Summer Tree Drive  
Memphis , TN 38134

Project Former Wayne's Pinball Palace  
Information : 167 Chelsea Avenue, Memphis, TN  
Project No. 0888826703

Report Date : 08/14/2020  
Received : 08/06/2020



Report Number : **20-219-0137**

**REPORT OF ANALYSIS**

Rebekah Ross  
Project Manager

Lab No : **92719**  
Sample ID : **167GMW02080520**

Matrix: **Aqueous**  
Sampled: **8/5/2020 16:15**

**Analytical Method:** 8260B      **Prep Batch(es):** **L505402** 08/08/20 07:41  
**Prep Method:** 5030B

Test	Results	Units	MDL	MQL	DF	Date / Time Analyzed	By	Analytical Batch
Ethylbenzene	<b>0.002</b>	mg/L	0.0006	0.001	1	08/08/20 11:30	ASH	L505439
Hexachlorobutadiene	<0.0008	mg/L	0.0008	0.001	1	08/08/20 11:30	ASH	L505439
2-Hexanone	<0.001	mg/L	0.001	0.005	1	08/08/20 11:30	ASH	L505439
Iodomethane	<0.001	mg/L	0.001	0.005	1	08/08/20 11:30	ASH	L505439
Isopropylbenzene	<b>0.002</b>	mg/L	0.0008	0.001	1	08/08/20 11:30	ASH	L505439
4-Isopropyl toluene	<0.0009	mg/L	0.0009	0.001	1	08/08/20 11:30	ASH	L505439
4-Methyl-2-Pentanone	<0.001	mg/L	0.001	0.005	1	08/08/20 11:30	ASH	L505439
Methylene Chloride	<0.004	mg/L	0.004	0.005	1	08/08/20 11:30	ASH	L505439
Methyl tert-butyl ether (MTBE)	<0.0006	mg/L	0.0006	0.001	1	08/08/20 11:30	ASH	L505439
m,p-Xylene	<b>0.005</b>	mg/L	0.001	0.002	1	08/08/20 11:30	ASH	L505439
Naphthalene	<0.004	mg/L	0.004	0.005	1	08/08/20 11:30	ASH	L505439
o-Xylene	<0.0005	mg/L	0.0005	0.001	1	08/08/20 11:30	ASH	L505439
n-Propylbenzene	<0.0008	mg/L	0.0008	0.001	1	08/08/20 11:30	ASH	L505439
Styrene	<0.0010	mg/L	0.0010	0.001	1	08/08/20 11:30	ASH	L505439
1,1,1,2-Tetrachloroethane	<0.0004	mg/L	0.0004	0.001	1	08/08/20 11:30	ASH	L505439
1,1,2,2-Tetrachloroethane	<0.0006	mg/L	0.0006	0.001	1	08/08/20 11:30	ASH	L505439
Tetrachloroethene	<0.0004	mg/L	0.0004	0.001	1	08/08/20 11:30	ASH	L505439
Toluene	<0.001	mg/L	0.001	0.002	1	08/08/20 11:30	ASH	L505439
1,2,3-Trichlorobenzene	<0.001	mg/L	0.001	0.002	1	08/08/20 11:30	ASH	L505439
1,2,4-Trichlorobenzene	<0.001	mg/L	0.001	0.002	1	08/08/20 11:30	ASH	L505439
1,1,1-Trichloroethane	<0.0003	mg/L	0.0003	0.001	1	08/08/20 11:30	ASH	L505439
1,1,2-Trichloroethane	<0.0008	mg/L	0.0008	0.001	1	08/08/20 11:30	ASH	L505439

Qualifiers/ Definitions	*	Outside QC Limit	B	Analyte detected in blank
	DF	Dilution Factor	J	Estimated value
	MQL	Method Quantitation Limit		

03180

Ensafe

Ms. Chelsey Kipper

5724 Summer Tree Drive

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Project Former Wayne's Pinball Palace

Information : 167 Chelsea Avenue, Memphis, TN

Project No. 0888826703

Report Date : 08/14/2020

Received : 08/06/2020

*Rebekah Ross*

Rebekah Ross  
Project Manager

Report Number : **20-219-0137**

**REPORT OF ANALYSIS**

Lab No : **92719**

Sample ID : **167GMW02080520**

Matrix: **Aqueous**

Sampled: **8/5/2020 16:15**

**Analytical Method:** 8260B      **Prep Batch(es):** **L505402** 08/08/20 07:41  
**Prep Method:** 5030B

Test	Results	Units	MDL	MQL	DF	Date / Time Analyzed	By	Analytical Batch
Trichloroethene	<0.0005	mg/L	0.0005	0.001	1	08/08/20 11:30	ASH	L505439
Trichlorofluoromethane	<0.0003	mg/L	0.0003	0.001	1	08/08/20 11:30	ASH	L505439
1,2,3-Trichloropropane	<0.0005	mg/L	0.0005	0.001	1	08/08/20 11:30	ASH	L505439
1,2,4-Trimethylbenzene	<b>0.004</b>	mg/L	0.0008	0.001	1	08/08/20 11:30	ASH	L505439
1,3,5-Trimethylbenzene	<b>0.001</b>	mg/L	0.0008	0.001	1	08/08/20 11:30	ASH	L505439
Vinyl Acetate	<0.002	mg/L	0.002	0.010	1	08/08/20 11:30	ASH	L505439
Vinyl Chloride	<0.0003	mg/L	0.0003	0.001	1	08/08/20 11:30	ASH	L505439
Xylene (Total)	<b>0.005</b>	mg/L	0.0005	0.001	1	08/08/20 11:30		L505439
Surrogate: 4-Bromofluorobenzene	101		Limits: 71-137%		1	08/08/20 11:30	ASH	L505439
Surrogate: Dibromofluoromethane	118		Limits: 70-128%		1	08/08/20 11:30	ASH	L505439
Surrogate: 1,2-Dichloroethane - d4	115		Limits: 63-136%		1	08/08/20 11:30	ASH	L505439
Surrogate: Toluene-d8	106		Limits: 70-130%		1	08/08/20 11:30	ASH	L505439

**Analytical Method:** 8270D SIM      **Prep Batch(es):** **L505416** 08/10/20 12:30  
**Prep Method:** 3511

Test	Results	Units	MDL	MQL	DF	Date / Time Analyzed	By	Analytical Batch
Acenaphthene	<b>0.000033</b>	mg/L	0.000018	0.000020	1	08/10/20 20:47	MLR	L505705
Acenaphthylene	<0.000014	mg/L	0.000014	0.000020	1	08/10/20 20:47	MLR	L505705
Anthracene	<b>0.000007 J</b>	mg/L	0.000005	0.000020	1	08/10/20 20:47	MLR	L505705
Benzo(a)anthracene	<0.000011	mg/L	0.000011	0.000020	1	08/10/20 20:47	MLR	L505705
Benzo(a)pyrene	<0.000012	mg/L	0.000012	0.000020	1	08/10/20 20:47	MLR	L505705
Benzo(b)fluoranthene	<0.000008	mg/L	0.000008	0.000020	1	08/10/20 20:47	MLR	L505705

Qualifiers/Definitions	*	Outside QC Limit	B	Analyte detected in blank
	DF	Dilution Factor	J	Estimated value
	MQL	Method Quantitation Limit		

03180

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Ms. Chelsey Kipper  
5724 Summer Tree Drive  
Memphis, TN 38134

Project Former Wayne's Pinball Palace  
Information : 167 Chelsea Avenue, Memphis, TN  
Project No. 0888826703

Report Date : 08/14/2020  
Received : 08/06/2020



Report Number : **20-219-0137**

**REPORT OF ANALYSIS**

Rebekah Ross  
Project Manager

Lab No : **92719**

Matrix: **Aqueous**

Sample ID : **167GMW02080520**

Sampled: **8/5/2020 16:15**

**Analytical Method:** 8270D SIM      **Prep Batch(es):** **L505416** 08/10/20 12:30  
**Prep Method:** 3511

Test	Results	Units	MDL	MQL	DF	Date / Time Analyzed	By	Analytical Batch
Benzo(g,h,i)perylene	<0.000007	mg/L	0.000007	0.000020	1	08/10/20 20:47	MLR	L505705
Benzo(k)fluoranthene	<0.000016	mg/L	0.000016	0.000020	1	08/10/20 20:47	MLR	L505705
Chrysene	<0.000008	mg/L	0.000008	0.000020	1	08/10/20 20:47	MLR	L505705
Dibenz(a,h)anthracene	<0.000006	mg/L	0.000006	0.000020	1	08/10/20 20:47	MLR	L505705
Fluoranthene	<0.000005	mg/L	0.000005	0.000020	1	08/10/20 20:47	MLR	L505705
Fluorene	<b>0.000016 J</b>	mg/L	0.000010	0.000020	1	08/10/20 20:47	MLR	L505705
Indeno(1,2,3-cd)pyrene	<0.000014	mg/L	0.000014	0.000020	1	08/10/20 20:47	MLR	L505705
2-Methylnaphthalene	<b>0.000208</b>	mg/L	0.000018	0.000020	1	08/10/20 20:47	MLR	L505705
Naphthalene	<b>0.00194</b>	mg/L	0.000019	0.000020	1	08/10/20 20:47	MLR	L505705
Phenanthrene	<b>0.000012 J</b>	mg/L	0.000008	0.000020	1	08/10/20 20:47	MLR	L505705
Pyrene	<0.000009	mg/L	0.000009	0.000020	1	08/10/20 20:47	MLR	L505705
Surrogate: 2-Fluorobiphenyl	<b>133 *</b>		Limits: 70-130%		1	08/10/20 20:47	MLR	L505705
Surrogate: 4-Terphenyl-d14	123		Limits: 70-130%		1	08/10/20 20:47	MLR	L505705

**Analytical Method:** TN EPH      **Prep Batch(es):** **L505744** 08/11/20 14:30  
**Prep Method:** 3510C

Test	Results	Units	MDL	MQL	DF	Date / Time Analyzed	By	Analytical Batch
Diesel Range Organics (C10-C28)	<b>1.13</b>	mg/L	0.0548	0.0900	1	08/13/20 02:21	MMK	L505943
Oil Range Organics (>C28-C40)	<0.0841	mg/L	0.0841	0.0900	1	08/13/20 02:21	MMK	L505943
TN EPH (C10-C40)	<b>1.13</b>	mg/L	0.0548	0.0900	1	08/13/20 02:21		L505943
Surrogate: OTP Surrogate	71.9		Limits: 50-150%		1	08/13/20 02:21	MMK	L505943

<b>Qualifiers/</b>	*	Outside QC Limit	B	Analyte detected in blank
<b>Definitions</b>	DF	Dilution Factor	J	Estimated value
	MQL	Method Quantitation Limit		

03180

Ensafe

Ms. Chelsey Kipper

5724 Summer Tree Drive

Memphis , TN 38134

Project Former Wayne's Pinball Palace

Information : 167 Chelsea Avenue, Memphis, TN

Project No. 0888826703

Report Date : 08/14/2020

Received : 08/06/2020



Report Number : **20-219-0137**

**REPORT OF ANALYSIS**

Rebekah Ross  
Project Manager

Lab No : **92720**

Sample ID : **167TB080520**

Matrix: **Aqueous**

Sampled: **8/5/2020 16:00**

**Analytical Method:** 8260B      **Prep Batch(es):** **L505402** 08/08/20 07:41  
**Prep Method:** 5030B

Test	Results	Units	MDL	MQL	DF	Date / Time Analyzed	By	Analytical Batch
Acetone	<0.009	mg/L	0.009	0.020	1	08/08/20 10:26	ASH	L505439
Acetonitrile	<0.018	mg/L	0.018	0.050	1	08/08/20 10:26	ASH	L505439
Acrolein	<0.002	mg/L	0.002	0.020	1	08/08/20 10:26	ASH	L505439
Acrylonitrile	<0.002	mg/L	0.002	0.020	1	08/08/20 10:26	ASH	L505439
Benzene	<0.0004	mg/L	0.0004	0.001	1	08/08/20 10:26	ASH	L505439
Bromobenzene	<0.0007	mg/L	0.0007	0.001	1	08/08/20 10:26	ASH	L505439
Bromochloromethane	<0.0004	mg/L	0.0004	0.001	1	08/08/20 10:26	ASH	L505439
Bromodichloromethane	<0.0009	mg/L	0.0009	0.001	1	08/08/20 10:26	ASH	L505439
Bromoform	<0.0009	mg/L	0.0009	0.001	1	08/08/20 10:26	ASH	L505439
Bromomethane	<0.001	mg/L	0.001	0.002	1	08/08/20 10:26	ASH	L505439
Methyl Ethyl Ketone (MEK)	<0.002	mg/L	0.002	0.020	1	08/08/20 10:26	ASH	L505439
n-Butylbenzene	<0.0010	mg/L	0.0010	0.001	1	08/08/20 10:26	ASH	L505439
sec-Butyl benzene	<0.0005	mg/L	0.0005	0.001	1	08/08/20 10:26	ASH	L505439
tert-Butyl benzene	<0.0004	mg/L	0.0004	0.001	1	08/08/20 10:26	ASH	L505439
Carbon Disulfide	<0.0003	mg/L	0.0003	0.001	1	08/08/20 10:26	ASH	L505439
Carbon Tetrachloride	<0.0006	mg/L	0.0006	0.001	1	08/08/20 10:26	ASH	L505439
Chlorobenzene	<0.0003	mg/L	0.0003	0.001	1	08/08/20 10:26	ASH	L505439
Chlorodibromomethane	<0.0009	mg/L	0.0009	0.001	1	08/08/20 10:26	ASH	L505439
Chloroethane	<0.0003	mg/L	0.0003	0.001	1	08/08/20 10:26	ASH	L505439
2-Chloroethylvinyl Ether	<0.002	mg/L	0.002	0.005	1	08/08/20 10:26	ASH	L505439
Chloroform	<0.0008	mg/L	0.0008	0.001	1	08/08/20 10:26	ASH	L505439
Chloromethane	<0.0007	mg/L	0.0007	0.001	1	08/08/20 10:26	ASH	L505439

Qualifiers/Definitions	*	Outside QC Limit	B	Analyte detected in blank
	DF	Dilution Factor	J	Estimated value
	MQL	Method Quantitation Limit		



03180

Ensafe

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5724 Summer Tree Drive

Memphis , TN 38134

Project Former Wayne's Pinball Palace

Information : 167 Chelsea Avenue, Memphis, TN

Project No. 0888826703

Report Date : 08/14/2020

Received : 08/06/2020

*Rebekah Ross*

Report Number : **20-219-0137**

**REPORT OF ANALYSIS**

Rebekah Ross  
Project Manager

Lab No : **92720**

Sample ID : **167TB080520**

Matrix: **Aqueous**

Sampled: **8/5/2020 16:00**

**Analytical Method:** 8260B **Prep Batch(es):** L505402 08/08/20 07:41

**Prep Method:** 5030B

Test	Results	Units	MDL	MQL	DF	Date / Time Analyzed	By	Analytical Batch
2-Chlorotoluene	<0.0005	mg/L	0.0005	0.001	1	08/08/20 10:26	ASH	L505439
4-Chlorotoluene	<0.0005	mg/L	0.0005	0.001	1	08/08/20 10:26	ASH	L505439
1,2-Dibromo-3-Chloropropane	<0.001	mg/L	0.001	0.002	1	08/08/20 10:26	ASH	L505439
1,2-Dibromoethane	<0.0004	mg/L	0.0004	0.001	1	08/08/20 10:26	ASH	L505439
Dibromomethane	<0.0004	mg/L	0.0004	0.001	1	08/08/20 10:26	ASH	L505439
1,2-Dichlorobenzene	<0.0006	mg/L	0.0006	0.001	1	08/08/20 10:26	ASH	L505439
1,3-Dichlorobenzene	<0.0006	mg/L	0.0006	0.001	1	08/08/20 10:26	ASH	L505439
1,4-Dichlorobenzene	<0.0006	mg/L	0.0006	0.001	1	08/08/20 10:26	ASH	L505439
Dichlorodifluoromethane	<0.0007	mg/L	0.0007	0.001	1	08/08/20 10:26	ASH	L505439
1,1-Dichloroethane	<0.0004	mg/L	0.0004	0.001	1	08/08/20 10:26	ASH	L505439
1,2-Dichloroethane	<0.0006	mg/L	0.0006	0.001	1	08/08/20 10:26	ASH	L505439
1,1-Dichloroethene	<0.0003	mg/L	0.0003	0.001	1	08/08/20 10:26	ASH	L505439
cis-1,2-Dichloroethene	<0.0004	mg/L	0.0004	0.001	1	08/08/20 10:26	ASH	L505439
trans-1,2-Dichloroethene	<0.0004	mg/L	0.0004	0.001	1	08/08/20 10:26	ASH	L505439
1,2-Dichloroethene (Total)	<0.0004	mg/L	0.0004	0.001	1	08/08/20 10:26		L505439
1,2-Dichloropropane	<0.0004	mg/L	0.0004	0.001	1	08/08/20 10:26	ASH	L505439
1,3-Dichloropropane	<0.0003	mg/L	0.0003	0.001	1	08/08/20 10:26	ASH	L505439
2,2-Dichloropropane	<0.0006	mg/L	0.0006	0.001	1	08/08/20 10:26	ASH	L505439
1,1-Dichloropropene	<0.0008	mg/L	0.0008	0.001	1	08/08/20 10:26	ASH	L505439
cis-1,3-Dichloropropene	<0.0004	mg/L	0.0004	0.001	1	08/08/20 10:26	ASH	L505439
trans-1,3-Dichloropropene	<0.0003	mg/L	0.0003	0.001	1	08/08/20 10:26	ASH	L505439
Ethyl Acetate	<0.003	mg/L	0.003	0.010	1	08/08/20 10:26	ASH	L505439

Qualifiers/Definitions	*	Outside QC Limit	B	Analyte detected in blank
	DF	Dilution Factor	J	Estimated value
	MQL	Method Quantitation Limit		

03180

Ensafe

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5724 Summer Tree Drive

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Project

Former Wayne's Pinball Palace

Information : 167 Chelsea Avenue, Memphis, TN

Project No. 0888826703

Report Date : 08/14/2020

Received : 08/06/2020



Report Number : **20-219-0137**

**REPORT OF ANALYSIS**

Rebekah Ross  
Project Manager

Lab No : **92720**

Sample ID : **167TB080520**

Matrix: **Aqueous**

Sampled: **8/5/2020 16:00**

**Analytical Method:** 8260B      **Prep Batch(es):** **L505402** 08/08/20 07:41  
**Prep Method:** 5030B

Test	Results	Units	MDL	MQL	DF	Date / Time Analyzed	By	Analytical Batch
Ethylbenzene	<0.0006	mg/L	0.0006	0.001	1	08/08/20 10:26	ASH	L505439
Hexachlorobutadiene	<0.0008	mg/L	0.0008	0.001	1	08/08/20 10:26	ASH	L505439
2-Hexanone	<0.001	mg/L	0.001	0.005	1	08/08/20 10:26	ASH	L505439
Iodomethane	<0.001	mg/L	0.001	0.005	1	08/08/20 10:26	ASH	L505439
Isopropylbenzene	<0.0008	mg/L	0.0008	0.001	1	08/08/20 10:26	ASH	L505439
4-Isopropyl toluene	<0.0009	mg/L	0.0009	0.001	1	08/08/20 10:26	ASH	L505439
4-Methyl-2-Pentanone	<0.001	mg/L	0.001	0.005	1	08/08/20 10:26	ASH	L505439
Methylene Chloride	<0.004	mg/L	0.004	0.005	1	08/08/20 10:26	ASH	L505439
Methyl tert-butyl ether (MTBE)	<0.0006	mg/L	0.0006	0.001	1	08/08/20 10:26	ASH	L505439
m,p-Xylene	<0.001	mg/L	0.001	0.002	1	08/08/20 10:26	ASH	L505439
Naphthalene	<0.004	mg/L	0.004	0.005	1	08/08/20 10:26	ASH	L505439
o-Xylene	<0.0005	mg/L	0.0005	0.001	1	08/08/20 10:26	ASH	L505439
n-Propylbenzene	<0.0008	mg/L	0.0008	0.001	1	08/08/20 10:26	ASH	L505439
Styrene	<0.0010	mg/L	0.0010	0.001	1	08/08/20 10:26	ASH	L505439
1,1,1,2-Tetrachloroethane	<0.0004	mg/L	0.0004	0.001	1	08/08/20 10:26	ASH	L505439
1,1,2,2-Tetrachloroethane	<0.0006	mg/L	0.0006	0.001	1	08/08/20 10:26	ASH	L505439
Tetrachloroethene	<0.0004	mg/L	0.0004	0.001	1	08/08/20 10:26	ASH	L505439
Toluene	<0.001	mg/L	0.001	0.002	1	08/08/20 10:26	ASH	L505439
1,2,3-Trichlorobenzene	<0.001	mg/L	0.001	0.002	1	08/08/20 10:26	ASH	L505439
1,2,4-Trichlorobenzene	<0.001	mg/L	0.001	0.002	1	08/08/20 10:26	ASH	L505439
1,1,1-Trichloroethane	<0.0003	mg/L	0.0003	0.001	1	08/08/20 10:26	ASH	L505439
1,1,2-Trichloroethane	<0.0008	mg/L	0.0008	0.001	1	08/08/20 10:26	ASH	L505439

Qualifiers/ Definitions	*	Outside QC Limit	B	Analyte detected in blank
	DF	Dilution Factor	J	Estimated value
	MQL	Method Quantitation Limit		

03180

Ensafe

Ms. Chelsey Kipper

5724 Summer Tree Drive

Memphis , TN 38134

Project Former Wayne's Pinball Palace

Information : 167 Chelsea Avenue, Memphis, TN

Project No. 0888826703

Report Date : 08/14/2020

Received : 08/06/2020

*Rebekah Ross*

Report Number : **20-219-0137**

**REPORT OF ANALYSIS**

Rebekah Ross  
Project Manager

Lab No : **92720**

Sample ID : **167TB080520**

Matrix: **Aqueous**

Sampled: **8/5/2020 16:00**

**Analytical Method:** 8260B **Prep Batch(es):** **L505402** 08/08/20 07:41

**Prep Method:** 5030B

Test	Results	Units	MDL	MQL	DF	Date / Time Analyzed	By	Analytical Batch
Trichloroethene	<0.0005	mg/L	0.0005	0.001	1	08/08/20 10:26	ASH	L505439
Trichlorofluoromethane	<0.0003	mg/L	0.0003	0.001	1	08/08/20 10:26	ASH	L505439
1,2,3-Trichloropropane	<0.0005	mg/L	0.0005	0.001	1	08/08/20 10:26	ASH	L505439
1,2,4-Trimethylbenzene	<0.0008	mg/L	0.0008	0.001	1	08/08/20 10:26	ASH	L505439
1,3,5-Trimethylbenzene	<0.0008	mg/L	0.0008	0.001	1	08/08/20 10:26	ASH	L505439
Vinyl Acetate	<0.002	mg/L	0.002	0.010	1	08/08/20 10:26	ASH	L505439
Vinyl Chloride	<0.0003	mg/L	0.0003	0.001	1	08/08/20 10:26	ASH	L505439
Xylene (Total)	<0.0005	mg/L	0.0005	0.001	1	08/08/20 10:26		L505439
Surrogate: 4-Bromofluorobenzene	108		Limits: 71-137%		1	08/08/20 10:26	ASH	L505439
Surrogate: Dibromofluoromethane	117		Limits: 70-128%		1	08/08/20 10:26	ASH	L505439
Surrogate: 1,2-Dichloroethane - d4	130		Limits: 63-136%		1	08/08/20 10:26	ASH	L505439
Surrogate: Toluene-d8	109		Limits: 70-130%		1	08/08/20 10:26	ASH	L505439

Qualifiers/Definitions	*	Outside QC Limit	B	Analyte detected in blank
	DF	Dilution Factor	J	Estimated value
	MQL	Method Quantitation Limit		

### Quality Control Data

**Client ID:** Ensafe  
**Project Description:** Former Wayne's Pinball Palace  
**Report No:** 20-219-0137

**QC Prep:** L505206      **QC Analytical Batch(es):** L505493,L505746  
**QC Prep Batch Method:** 3005A      **Analysis Method:** 6010D  
**Analysis Description:** Metals Analysis

**Lab Reagent Blank**      LRB-L505206      Matrix: AQU  
Associated Lab Samples: 92718, 92719

Parameter	Units	Blank Result	MDL	MQL	Analyzed
Arsenic	mg/L	<0.0056	0.0056	0.0100	08/08/20 04:06
Barium	mg/L	<0.0040	0.0040	0.0100	08/08/20 04:06
Cadmium	mg/L	<0.0003	0.0003	0.0020	08/08/20 04:06
Chromium	mg/L	<0.003	0.003	0.005	08/08/20 04:06
Lead	mg/L	0.002	0.002	0.006	08/08/20 04:06
Selenium	mg/L	<0.003	0.003	0.010	08/10/20 17:33
Silver	mg/L	<0.0023	0.0023	0.0050	08/08/20 04:06

**Laboratory Control Sample**      LCS-L505206

Parameter	Units	Spike Conc.	LCS Result	LCS %Rec	% Rec Limits
Arsenic	mg/L	0.100	0.0967	97.0	80-120
Barium	mg/L	1.00	0.935	94.0	80-120
Cadmium	mg/L	0.100	0.0914	91.0	80-120
Chromium	mg/L	1.00	0.995	100	80-120
Lead	mg/L	0.100	0.092	92.0	80-120
Selenium	mg/L	0.100	0.110	110	80-120
Silver	mg/L	0.100	0.0971	97.0	80-120

**Matrix Spike & Matrix Spike Duplicate**      L 92599-MS-L505206      L 92599-MSD-L505206

Parameter	Units	Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS %Rec	MSD %Rec	%Rec Limits	RPD	Max RPD
Arsenic	mg/L	<0.0056	0.100	0.100	0.104	0.116	104	116	75-125	10.9	20
Barium	mg/L	0.131	1.00	1.00	1.14	1.25	101	112	75-125	9.2	20
Cadmium	mg/L	<0.0003	0.100	0.100	0.0991	0.109	99.0	109	75-125	9.5	20
Chromium	mg/L	0.016	1.00	1.00	0.964	0.967	95.0	95.0	75-125	0.3	20

**Quality Control Data**

**Client ID:** Ensafe  
**Project Description:** Former Wayne's Pinball Palace  
**Report No:** 20-219-0137

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**QC Prep:** L505206      **QC Analytical Batch(es):** L505493,L505746  
**QC Prep Batch Method:** 3005A      **Analysis Method:** 6010D  
**Analysis Description:** Metals Analysis

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**Matrix Spike & Matrix Spike Duplicate**      L 92599-MS-L505206      L 92599-MSD-L505206

Parameter	Units	Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS %Rec	MSD %Rec	%Rec Limits	RPD	Max RPD
Lead	mg/L	0.005	0.100	0.100	0.108	0.118	108	118	75-125	8.8	20
Selenium	mg/L	<0.003	0.100	0.100	0.099	0.111	99.0	111	75-125	11.4	20
Silver	mg/L	<0.0023	0.100	0.100	0.0930	0.0934	93.0	93.0	75-125	0.4	20

### Quality Control Data

**Client ID:** Ensafe  
**Project Description:** Former Wayne's Pinball Palace  
**Report No:** 20-219-0137

**QC Prep:** L506085      **QC Analytical Batch(es):** L506278  
**QC Prep Batch Method:** 7470A      **Analysis Method:** 7470A  
**Analysis Description:** Total Aqueous Mercury Analysis - CVAA

**Lab Reagent Blank**      LRB-L506085      Matrix: AQU  
Associated Lab Samples: 92718, 92719

Parameter	Units	Blank Result	MDL	MQL	Analyzed
Mercury	mg/L	<0.00013	0.00013	0.00020	08/13/20 13:30

**Laboratory Control Sample**      LCS-L506085

Parameter	Units	Spike Conc.	LCS Result	LCS %Rec	% Rec Limits
Mercury	mg/L	0.00400	0.00474	119	80-120

**Matrix Spike & Matrix Spike Duplicate**      L 93212-MS-L506085      L 93212-MSD-L506085

Parameter	Units	Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS %Rec	MSD %Rec	%Rec Limits	RPD	Max RPD
Mercury	mg/L	<0.00013	0.00400	0.00400	0.00463	0.00460	116	115	80-120	0.6	20

### Quality Control Data

**Client ID:** Ensafe  
**Project Description:** Former Wayne's Pinball Palace  
**Report No:** 20-219-0137

**QC Prep:** L505402      **QC Analytical Batch(es):** L505439  
**QC Prep Batch Method:** 5030B      **Analysis Method:** 8260B  
**Analysis Description:** Volatile Organic Compounds - GC/MS

**Lab Reagent Blank**      LRB-L505402      Matrix: AQU  
Associated Lab Samples: 92718, 92719, 92720

Parameter	Units	Blank Result	MDL	MQL	Analyzed	% Recovery	% Rec Limits
Acetone	mg/L	<0.009	0.009	0.020	08/08/20 10:05		
Acetonitrile	mg/L	<0.018	0.018	0.050	08/08/20 10:05		
Acrolein	mg/L	<0.002	0.002	0.020	08/08/20 10:05		
Acrylonitrile	mg/L	<0.002	0.002	0.020	08/08/20 10:05		
Benzene	mg/L	<0.0004	0.0004	0.001	08/08/20 10:05		
Bromobenzene	mg/L	<0.0007	0.0007	0.001	08/08/20 10:05		
Bromochloromethane	mg/L	<0.0004	0.0004	0.001	08/08/20 10:05		
Bromodichloromethane	mg/L	<0.0009	0.0009	0.001	08/08/20 10:05		
Bromoform	mg/L	<0.0009	0.0009	0.001	08/08/20 10:05		
Bromomethane	mg/L	<0.001	0.001	0.002	08/08/20 10:05		
Methyl Ethyl Ketone (MEK)	mg/L	<0.002	0.002	0.020	08/08/20 10:05		
n-Butylbenzene	mg/L	<0.0010	0.0010	0.001	08/08/20 10:05		
sec-Butyl benzene	mg/L	<0.0005	0.0005	0.001	08/08/20 10:05		
tert-Butyl benzene	mg/L	<0.0004	0.0004	0.001	08/08/20 10:05		
Carbon Disulfide	mg/L	<0.0003	0.0003	0.001	08/08/20 10:05		
Carbon Tetrachloride	mg/L	<0.0006	0.0006	0.001	08/08/20 10:05		
Chlorobenzene	mg/L	<0.0003	0.0003	0.001	08/08/20 10:05		
Chlorodibromomethane	mg/L	<0.0009	0.0009	0.001	08/08/20 10:05		
Chloroethane	mg/L	<0.0003	0.0003	0.001	08/08/20 10:05		
2-Chloroethylvinyl Ether	mg/L	<0.002	0.002	0.005	08/08/20 10:05		
Chloroform	mg/L	<0.0008	0.0008	0.001	08/08/20 10:05		
Chloromethane	mg/L	<0.0007	0.0007	0.001	08/08/20 10:05		
2-Chlorotoluene	mg/L	<0.0005	0.0005	0.001	08/08/20 10:05		
4-Chlorotoluene	mg/L	<0.0005	0.0005	0.001	08/08/20 10:05		
1,2-Dibromo-3-Chloropropane	mg/L	<0.001	0.001	0.002	08/08/20 10:05		
1,2-Dibromoethane	mg/L	<0.0004	0.0004	0.001	08/08/20 10:05		
Dibromomethane	mg/L	<0.0004	0.0004	0.001	08/08/20 10:05		



### Quality Control Data

**Client ID:** Ensafe  
**Project Description:** Former Wayne's Pinball Palace  
**Report No:** 20-219-0137

**QC Prep:** L505402      **QC Analytical Batch(es):** L505439  
**QC Prep Batch Method:** 5030B      **Analysis Method:** 8260B  
**Analysis Description:** Volatile Organic Compounds - GC/MS

**Lab Reagent Blank**      LRB-L505402      Matrix: AQU  
Associated Lab Samples: 92718, 92719, 92720

Parameter	Units	Blank Result	MDL	MQL	Analyzed	% Recovery	% Rec Limits
1,2-Dichlorobenzene	mg/L	<0.0006	0.0006	0.001	08/08/20 10:05		
1,3-Dichlorobenzene	mg/L	0.0008	0.0006	0.001	08/08/20 10:05		
1,4-Dichlorobenzene	mg/L	<0.0006	0.0006	0.001	08/08/20 10:05		
Dichlorodifluoromethane	mg/L	<0.0007	0.0007	0.001	08/08/20 10:05		
1,1-Dichloroethane	mg/L	<0.0004	0.0004	0.001	08/08/20 10:05		
1,2-Dichloroethane	mg/L	<0.0006	0.0006	0.001	08/08/20 10:05		
1,1-Dichloroethene	mg/L	<0.0003	0.0003	0.001	08/08/20 10:05		
cis-1,2-Dichloroethene	mg/L	<0.0004	0.0004	0.001	08/08/20 10:05		
trans-1,2-Dichloroethene	mg/L	<0.0004	0.0004	0.001	08/08/20 10:05		
1,2-Dichloropropane	mg/L	<0.0004	0.0004	0.001	08/08/20 10:05		
1,3-Dichloropropane	mg/L	<0.0003	0.0003	0.001	08/08/20 10:05		
2,2-Dichloropropane	mg/L	<0.0006	0.0006	0.001	08/08/20 10:05		
1,1-Dichloropropene	mg/L	<0.0008	0.0008	0.001	08/08/20 10:05		
cis-1,3-Dichloropropene	mg/L	<0.0004	0.0004	0.001	08/08/20 10:05		
trans-1,3-Dichloropropene	mg/L	<0.0003	0.0003	0.001	08/08/20 10:05		
Ethyl Acetate	mg/L	<0.003	0.003	0.010	08/08/20 10:05		
Ethylbenzene	mg/L	<0.0006	0.0006	0.001	08/08/20 10:05		
Hexachlorobutadiene	mg/L	<0.0008	0.0008	0.001	08/08/20 10:05		
2-Hexanone	mg/L	<0.001	0.001	0.005	08/08/20 10:05		
Iodomethane	mg/L	<0.001	0.001	0.005	08/08/20 10:05		
Isopropylbenzene	mg/L	<0.0008	0.0008	0.001	08/08/20 10:05		
4-Isopropyl toluene	mg/L	<0.0009	0.0009	0.001	08/08/20 10:05		
4-Methyl-2-Pentanone	mg/L	<0.001	0.001	0.005	08/08/20 10:05		
Methylene Chloride	mg/L	<0.004	0.004	0.005	08/08/20 10:05		
Methyl tert-butyl ether (MTBE)	mg/L	<0.0006	0.0006	0.001	08/08/20 10:05		
m,p-Xylene	mg/L	<0.001	0.001	0.002	08/08/20 10:05		
Naphthalene	mg/L	<0.004	0.004	0.005	08/08/20 10:05		

### Quality Control Data

**Client ID:** Ensafe  
**Project Description:** Former Wayne's Pinball Palace  
**Report No:** 20-219-0137

**QC Prep:** L505402      **QC Analytical Batch(es):** L505439  
**QC Prep Batch Method:** 5030B      **Analysis Method:** 8260B  
**Analysis Description:** Volatile Organic Compounds - GC/MS

**Lab Reagent Blank** LRB-L505402      Matrix: AQU  
 Associated Lab Samples: 92718, 92719, 92720

Parameter	Units	Blank Result	MDL	MQL	Analyzed	% Recovery	% Rec Limits
o-Xylene	mg/L	<0.0005	0.0005	0.001	08/08/20 10:05		
n-Propylbenzene	mg/L	<0.0008	0.0008	0.001	08/08/20 10:05		
Styrene	mg/L	<0.0010	0.0010	0.001	08/08/20 10:05		
1,1,1,2-Tetrachloroethane	mg/L	<0.0004	0.0004	0.001	08/08/20 10:05		
1,1,2,2-Tetrachloroethane	mg/L	<0.0006	0.0006	0.001	08/08/20 10:05		
Tetrachloroethene	mg/L	<0.0004	0.0004	0.001	08/08/20 10:05		
Toluene	mg/L	<0.001	0.001	0.002	08/08/20 10:05		
1,2,3-Trichlorobenzene	mg/L	<0.001	0.001	0.002	08/08/20 10:05		
1,2,4-Trichlorobenzene	mg/L	<0.001	0.001	0.002	08/08/20 10:05		
1,1,1-Trichloroethane	mg/L	<0.0003	0.0003	0.001	08/08/20 10:05		
1,1,2-Trichloroethane	mg/L	<0.0008	0.0008	0.001	08/08/20 10:05		
Trichloroethene	mg/L	<0.0005	0.0005	0.001	08/08/20 10:05		
Trichlorofluoromethane	mg/L	<0.0003	0.0003	0.001	08/08/20 10:05		
1,2,3-Trichloropropane	mg/L	<0.0005	0.0005	0.001	08/08/20 10:05		
1,2,4-Trimethylbenzene	mg/L	<0.0008	0.0008	0.001	08/08/20 10:05		
1,3,5-Trimethylbenzene	mg/L	<0.0008	0.0008	0.001	08/08/20 10:05		
Vinyl Acetate	mg/L	<0.002	0.002	0.010	08/08/20 10:05		
Vinyl Chloride	mg/L	<0.0003	0.0003	0.001	08/08/20 10:05		
4-Bromofluorobenzene (S)					08/08/20 10:05	96.8	71-137
Dibromofluoromethane (S)					08/08/20 10:05	117	70-128
1,2-Dichloroethane - d4 (S)					08/08/20 10:05	126	63-136
Toluene-d8 (S)					08/08/20 10:05	104	70-130

**Laboratory Control Sample** LCS-L505402

Parameter	Units	Spike Conc.	LCS Result	LCS %Rec	% Rec Limits
Acetone	mg/L	0.100	0.120	120	40-160

### Quality Control Data

**Client ID:** Ensafe  
**Project Description:** Former Wayne's Pinball Palace  
**Report No:** 20-219-0137

**QC Prep:** L505402      **QC Analytical Batch(es):** L505439  
**QC Prep Batch Method:** 5030B      **Analysis Method:** 8260B  
**Analysis Description:** Volatile Organic Compounds - GC/MS

**Laboratory Control Sample**      LCS-L505402

Parameter	Units	Spike Conc.	LCS Result	LCS %Rec	% Rec Limits
Acetonitrile	mg/L	1.00	1.01	101	40-160
Acrolein	mg/L	0.100	0.103	103	40-160
Acrylonitrile	mg/L	0.100	0.105	105	40-160
Benzene	mg/L	0.100	0.101	101	70-130
Bromobenzene	mg/L	0.100	0.099	99.9	75-125
Bromochloromethane	mg/L	0.100	0.091	91.1	65-135
Bromodichloromethane	mg/L	0.100	0.104	104	75-125
Bromoform	mg/L	0.100	0.115	115	70-130
Bromomethane	mg/L	0.100	0.122	122	40-160
Methyl Ethyl Ketone (MEK)	mg/L	0.100	0.114	114	40-160
n-Butylbenzene	mg/L	0.100	0.107	107	70-130
sec-Butyl benzene	mg/L	0.100	0.117	117	70-130
tert-Butyl benzene	mg/L	0.100	0.123	123	70-130
Carbon Disulfide	mg/L	0.100	0.085	85.5	40-160
Carbon Tetrachloride	mg/L	0.100	0.103	103	65-135
Chlorobenzene	mg/L	0.100	0.118	118	80-120
Chlorodibromomethane	mg/L	0.100	0.115	115	60-140
Chloroethane	mg/L	0.100	0.079	79.3	60-140
2-Chloroethylvinyl Ether	mg/L	0.100	0.108	108	40-160
Chloroform	mg/L	0.100	0.108	108	80-120
Chloromethane	mg/L	0.100	0.110	110	40-160
2-Chlorotoluene	mg/L	0.100	0.117	117	75-125
4-Chlorotoluene	mg/L	0.100	0.113	113	75-125
1,2-Dibromo-3-Chloropropane	mg/L	0.100	0.103	103	50-150
1,2-Dibromoethane	mg/L	0.100	0.103	103	70-130
Dibromomethane	mg/L	0.100	0.099	99.4	75-125
1,2-Dichlorobenzene	mg/L	0.100	0.096	96.3	70-130

### Quality Control Data

**Client ID:** Ensafe  
**Project Description:** Former Wayne's Pinball Palace  
**Report No:** 20-219-0137

**QC Prep:** L505402      **QC Analytical Batch(es):** L505439  
**QC Prep Batch Method:** 5030B      **Analysis Method:** 8260B  
**Analysis Description:** Volatile Organic Compounds - GC/MS

**Laboratory Control Sample**      LCS-L505402

Parameter	Units	Spike Conc.	LCS Result	LCS %Rec	% Rec Limits
1,3-Dichlorobenzene	mg/L	0.100	0.112	112	75-125
1,4-Dichlorobenzene	mg/L	0.100	0.106	106	75-125
Dichlorodifluoromethane	mg/L	0.100	0.097	97.0	40-160
1,1-Dichloroethane	mg/L	0.100	0.104	104	70-130
1,2-Dichloroethane	mg/L	0.100	0.112	112	70-130
1,1-Dichloroethene	mg/L	0.100	0.091	91.3	80-120
cis-1,2-Dichloroethene	mg/L	0.100	0.109	109	70-130
trans-1,2-Dichloroethene	mg/L	0.100	0.083	83.3	60-140
1,2-Dichloropropane	mg/L	0.100	0.103	103	80-120
1,3-Dichloropropane	mg/L	0.100	0.107	107	75-125
2,2-Dichloropropane	mg/L	0.100	0.114	114	70-130
1,1-Dichloropropene	mg/L	0.100	0.098	98.8	75-125
cis-1,3-Dichloropropene	mg/L	0.100	0.108	108	70-130
trans-1,3-Dichloropropene	mg/L	0.100	0.106	106	55-145
Ethyl Acetate	mg/L	0.100	0.113	113	40-160
Ethylbenzene	mg/L	0.100	0.111	111	80-120
Hexachlorobutadiene	mg/L	0.100	0.112	112	50-150
2-Hexanone	mg/L	0.100	0.106	106	55-145
Iodomethane	mg/L	0.100	0.079	79.1	40-160
Isopropylbenzene	mg/L	0.100	0.120	120	75-125
4-Isopropyl toluene	mg/L	0.100	0.114	114	75-125
4-Methyl-2-Pentanone	mg/L	0.100	0.106	106	60-140
Methylene Chloride	mg/L	0.100	0.093	93.3	55-145
Methyl tert-butyl ether (MTBE)	mg/L	0.100	0.106	106	65-135
m,p-Xylene	mg/L	0.200	0.227	114	75-125
Naphthalene	mg/L	0.100	0.094	94.5	55-145
o-Xylene	mg/L	0.100	0.110	110	70-130

### Quality Control Data

**Client ID:** Ensafe  
**Project Description:** Former Wayne's Pinball Palace  
**Report No:** 20-219-0137

**QC Prep:** L505402      **QC Analytical Batch(es):** L505439  
**QC Prep Batch Method:** 5030B      **Analysis Method:** 8260B  
**Analysis Description:** Volatile Organic Compounds - GC/MS

**Laboratory Control Sample**      LCS-L505402

Parameter	Units	Spike Conc.	LCS Result	LCS %Rec	% Rec Limits
n-Propylbenzene	mg/L	0.100	0.117	117	70-130
Styrene	mg/L	0.100	0.115	115	65-135
1,1,1,2-Tetrachloroethane	mg/L	0.100	0.098	98.5	70-130
1,1,2,2-Tetrachloroethane	mg/L	0.100	0.092	92.1	65-135
Tetrachloroethene	mg/L	0.100	0.115	115	45-155
Toluene	mg/L	0.100	0.099	99.0	80-120
1,2,3-Trichlorobenzene	mg/L	0.100	0.098	98.5	60-140
1,2,4-Trichlorobenzene	mg/L	0.100	0.101	101	65-135
1,1,1-Trichloroethane	mg/L	0.100	0.104	104	65-135
1,1,2-Trichloroethane	mg/L	0.100	0.102	102	75-125
Trichloroethene	mg/L	0.100	0.098	98.5	70-130
Trichlorofluoromethane	mg/L	0.100	0.117	117	40-140
1,2,3-Trichloropropane	mg/L	0.100	0.116	116	75-125
1,2,4-Trimethylbenzene	mg/L	0.100	0.123	123	65-135
1,3,5-Trimethylbenzene	mg/L	0.100	0.110	110	75-125
Vinyl Acetate	mg/L	0.100	0.106	106	40-160
Vinyl Chloride	mg/L	0.100	0.115	115	80-120
4-Bromofluorobenzene (S)				104	71-137
Dibromofluoromethane (S)				101	70-128
1,2-Dichloroethane - d4 (S)				84.2	63-136
Toluene-d8 (S)				97.2	70-130

**Matrix Spike & Matrix Spike Duplicate**      L 92719-MS-L505402      L 92719-MSD-L505402

Parameter	Units	Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS %Rec	MSD %Rec	%Rec Limits	RPD	Max RPD
Acetone	mg/L	<0.009	0.100	0.100	0.109	0.134	109	134	40-160	20.5	30

### Quality Control Data

**Client ID:** Ensafe  
**Project Description:** Former Wayne's Pinball Palace  
**Report No:** 20-219-0137

**QC Prep:** L505402      **QC Analytical Batch(es):** L505439  
**QC Prep Batch Method:** 5030B      **Analysis Method:** 8260B  
**Analysis Description:** Volatile Organic Compounds - GC/MS

**Matrix Spike & Matrix Spike Duplicate**      L 92719-MS-L505402      L 92719-MSD-L505402

Parameter	Units	Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS %Rec	MSD %Rec	%Rec Limits	RPD	Max RPD
Acetonitrile	mg/L	<0.018	1.00	1.00	0.997	1.35	99.7	135	40-160	30.0*	30
Acrolein	mg/L	<0.002	0.100	0.100	0.095	0.121	95.0	121	40-160	24.0	30
Acrylonitrile	mg/L	<0.002	0.100	0.100	0.110	0.133	110	133	40-160	18.9	30
Benzene	mg/L	0.0005	0.100	0.100	0.101	0.107	101	107	70-130	5.7	30
Bromobenzene	mg/L	<0.0007	0.100	0.100	0.094	0.081	94.4	81.6	75-125	14.5	30
Bromochloromethane	mg/L	<0.0004	0.100	0.100	0.087	0.093	87.7	93.1	65-135	5.9	30
Bromodichloromethane	mg/L	<0.0009	0.100	0.100	0.102	0.107	102	107	75-125	4.7	30
Bromoform	mg/L	<0.0009	0.100	0.100	0.109	0.123	109	123	70-130	12.0	30
Bromomethane	mg/L	<0.001	0.100	0.100	0.113	0.109	113	109	40-160	3.6	30
Methyl Ethyl Ketone (MEK)	mg/L	<0.002	0.100	0.100	0.114	0.139	114	139	40-160	19.7	30
n-Butylbenzene	mg/L	<0.0010	0.100	0.100	0.099	0.106	99.9	106	70-130	5.9	30
sec-Butyl benzene	mg/L	0.002	0.100	0.100	0.113	0.108	110	105	70-130	4.5	30
tert-Butyl benzene	mg/L	<0.0004	0.100	0.100	0.114	0.107	114	107	70-130	6.3	30
Carbon Disulfide	mg/L	<0.0003	0.100	0.100	0.078	0.085	78.5	85.4	40-160	8.4	30
Carbon Tetrachloride	mg/L	<0.0006	0.100	0.100	0.100	0.108	100	108	65-135	7.6	30
Chlorobenzene	mg/L	<0.0003	0.100	0.100	0.106	0.106	106	106	80-120	0.0	30
Chlorodibromomethane	mg/L	<0.0009	0.100	0.100	0.106	0.112	106	112	60-140	5.5	30
Chloroethane	mg/L	<0.0003	0.100	0.100	0.076	0.082	76.3	82.3	60-140	7.5	30
2-Chloroethylvinyl Ether	mg/L	<0.002	0.100	0.100	<0.002	<0.002	0.0*	0.0*	40-160	0.0	30
Chloroform	mg/L	<0.0008	0.100	0.100	0.104	0.115	104	115	80-120	10.0	30
Chloromethane	mg/L	<0.0007	0.100	0.100	0.090	0.103	90.1	103	40-160	13.3	30
2-Chlorotoluene	mg/L	<0.0005	0.100	0.100	0.120	0.108	120	108	75-125	10.5	30
4-Chlorotoluene	mg/L	<0.0005	0.100	0.100	0.111	0.105	111	105	75-125	5.5	30
1,2-Dibromo-3-Chloropropane	mg/L	<0.001	0.100	0.100	0.107	0.131	107	131	50-150	20.1	30
1,2-Dibromoethane	mg/L	<0.0004	0.100	0.100	0.096	0.108	96.6	108	70-130	11.1	30
Dibromomethane	mg/L	<0.0004	0.100	0.100	0.096	0.102	96.2	102	75-125	5.8	30

### Quality Control Data

**Client ID:** Ensafe  
**Project Description:** Former Wayne's Pinball Palace  
**Report No:** 20-219-0137

**QC Prep:** L505402 **QC Analytical Batch(es):** L505439  
**QC Prep Batch Method:** 5030B **Analysis Method:** 8260B  
**Analysis Description:** Volatile Organic Compounds - GC/MS

**Matrix Spike & Matrix Spike Duplicate** L 92719-MS-L505402 L 92719-MSD-L505402

Parameter	Units	Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS %Rec	MSD %Rec	%Rec Limits	RPD	Max RPD
1,2-Dichlorobenzene	mg/L	<0.0006	0.100	0.100	0.097	0.105	97.1	105	70-130	7.8	30
1,3-Dichlorobenzene	mg/L	<0.0006	0.100	0.100	0.105	0.114	105	114	75-125	8.2	30
1,4-Dichlorobenzene	mg/L	<0.0006	0.100	0.100	0.100	0.108	100	108	75-125	7.6	30
Dichlorodifluoromethane	mg/L	<0.0007	0.100	0.100	0.068	0.074	68.6	74.8	40-160	8.6	30
1,1-Dichloroethane	mg/L	<0.0004	0.100	0.100	0.101	0.107	101	107	70-130	5.7	30
1,2-Dichloroethane	mg/L	<0.0006	0.100	0.100	0.102	0.119	102	119	70-130	15.3	30
1,1-Dichloroethene	mg/L	<0.0003	0.100	0.100	0.081	0.088	81.0	88.2	80-120	8.5	30
cis-1,2-Dichloroethene	mg/L	<0.0004	0.100	0.100	0.105	0.117	105	117	70-130	10.8	30
trans-1,2-Dichloroethene	mg/L	<0.0004	0.100	0.100	0.086	0.089	86.0	89.8	60-140	4.3	30
1,2-Dichloropropane	mg/L	<0.0004	0.100	0.100	0.105	0.109	105	109	80-120	3.7	30
1,3-Dichloropropane	mg/L	<0.0003	0.100	0.100	0.111	0.121	111	121	75-125	8.6	30
2,2-Dichloropropane	mg/L	<0.0006	0.100	0.100	0.102	0.114	102	114	70-130	11.1	30
1,1-Dichloropropene	mg/L	<0.0008	0.100	0.100	0.097	0.106	97.7	106	75-125	8.1	30
cis-1,3-Dichloropropene	mg/L	<0.0004	0.100	0.100	0.104	0.108	104	108	70-130	3.7	30
trans-1,3-Dichloropropene	mg/L	<0.0003	0.100	0.100	0.110	0.114	110	114	55-145	3.5	30
Ethyl Acetate	mg/L	<0.003	0.100	0.100	0.097	0.114	97.0	114	40-160	16.1	30
Ethylbenzene	mg/L	0.002	0.100	0.100	0.102	0.098	99.8	96.4	80-120	3.3	30
Hexachlorobutadiene	mg/L	<0.0008	0.100	0.100	0.107	0.112	107	112	50-150	4.5	30
2-Hexanone	mg/L	<0.001	0.100	0.100	0.112	0.132	112	132	55-145	16.3	30
Iodomethane	mg/L	<0.001	0.100	0.100	0.077	0.063	77.2	63.2	40-160	19.9	30
Isopropylbenzene	mg/L	0.002	0.100	0.100	0.115	0.106	113	104	75-125	8.1	30
4-Isopropyl toluene	mg/L	<0.0009	0.100	0.100	0.112	0.104	112	104	75-125	7.4	30
4-Methyl-2-Pentanone	mg/L	<0.001	0.100	0.100	0.105	0.120	105	120	60-140	13.3	30
Methylene Chloride	mg/L	<0.004	0.100	0.100	0.091	0.098	91.0	98.5	55-145	7.9	30
Methyl tert-butyl ether (MTBE)	mg/L	<0.0006	0.100	0.100	0.104	0.120	104	120	65-135	14.2	30
m,p-Xylene	mg/L	0.005	0.200	0.200	0.214	0.222	104	108	75-125	3.6	30



### Quality Control Data

**Client ID:** Ensafe  
**Project Description:** Former Wayne's Pinball Palace  
**Report No:** 20-219-0137

**QC Prep:** L505402      **QC Analytical Batch(es):** L505439  
**QC Prep Batch Method:** 5030B      **Analysis Method:** 8260B  
**Analysis Description:** Volatile Organic Compounds - GC/MS

**Matrix Spike & Matrix Spike Duplicate**      L 92719-MS-L505402      L 92719-MSD-L505402

Parameter	Units	Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS %Rec	MSD %Rec	%Rec Limits	RPD	Max RPD
Naphthalene	mg/L	<0.004	0.100	0.100	0.107	0.121	107	121	55-145	12.2	30
o-Xylene	mg/L	<0.0005	0.100	0.100	0.107	0.108	107	108	70-130	0.9	30
n-Propylbenzene	mg/L	<0.0008	0.100	0.100	0.111	0.097	111	97.1	70-130	13.3	30
Styrene	mg/L	<0.0010	0.100	0.100	0.125	0.126	125	126	65-135	0.7	30
1,1,1,2-Tetrachloroethane	mg/L	<0.0004	0.100	0.100	0.098	0.097	98.2	97.1	70-130	1.1	30
1,1,1,2-Tetrachloroethane	mg/L	<0.0006	0.100	0.100	0.093	0.104	93.5	104	65-135	10.6	30
Tetrachloroethene	mg/L	<0.0004	0.100	0.100	0.112	0.106	112	106	45-155	5.5	30
Toluene	mg/L	<0.001	0.100	0.100	0.105	0.105	105	105	80-120	0.0	30
1,2,3-Trichlorobenzene	mg/L	<0.001	0.100	0.100	0.100	0.113	100	113	60-140	12.2	30
1,2,4-Trichlorobenzene	mg/L	<0.001	0.100	0.100	0.106	0.115	106	115	65-135	8.1	30
1,1,1-Trichloroethane	mg/L	<0.0003	0.100	0.100	0.102	0.111	102	111	65-135	8.4	30
1,1,2-Trichloroethane	mg/L	<0.0008	0.100	0.100	0.110	0.113	110	113	75-125	2.6	30
Trichloroethene	mg/L	<0.0005	0.100	0.100	0.100	0.102	100	102	70-130	1.9	30
Trichlorofluoromethane	mg/L	<0.0003	0.100	0.100	0.103	0.121	103	121	40-140	16.0	30
1,2,3-Trichloropropane	mg/L	<0.0005	0.100	0.100	0.112	0.123	112	123	75-125	9.3	30
1,2,4-Trimethylbenzene	mg/L	0.004	0.100	0.100	0.110	0.111	106	107	65-135	0.9	30
1,3,5-Trimethylbenzene	mg/L	0.001	0.100	0.100	0.105	0.107	103	105	75-125	1.8	30
Vinyl Acetate	mg/L	<0.002	0.100	0.100	0.095	0.115	95.6	115	40-160	18.4	30
Vinyl Chloride	mg/L	<0.0003	0.100	0.100	0.101	0.110	101	110	80-120	8.5	30
4-Bromofluorobenzene (S)							76.0	80.8	71-137		
Dibromofluoromethane (S)							100	107	70-128		
1,2-Dichloroethane - d4 (S)							74.4	81.4	63-136		
Toluene-d8 (S)							105	104	70-130		

### Quality Control Data

**Client ID:** Ensafe  
**Project Description:** Former Wayne's Pinball Palace  
**Report No:** 20-219-0137

**QC Prep:** L505416 **QC Analytical Batch(es):** L505705  
**QC Prep Batch Method:** 3511 **Analysis Method:** 8270D SIM  
**Analysis Description:** Semivolatile Organic Compounds - GC/MS (SIM)

**Lab Reagent Blank** LRB-L505416 Matrix: AQU  
 Associated Lab Samples: 92718, 92719

Parameter	Units	Blank Result	MDL	MQL	Analyzed	% Recovery	% Rec Limits
Acenaphthene	mg/L	<0.000018	0.000018	0.000020	08/10/20 18:21		
Acenaphthylene	mg/L	<0.000014	0.000014	0.000020	08/10/20 18:21		
Anthracene	mg/L	<0.000005	0.000005	0.000020	08/10/20 18:21		
Benzo(a)anthracene	mg/L	<0.000011	0.000011	0.000020	08/10/20 18:21		
Benzo(a)pyrene	mg/L	<0.000012	0.000012	0.000020	08/10/20 18:21		
Benzo(b)fluoranthene	mg/L	<0.000008	0.000008	0.000020	08/10/20 18:21		
Benzo(g,h,i)perylene	mg/L	<0.000007	0.000007	0.000020	08/10/20 18:21		
Benzo(k)fluoranthene	mg/L	<0.000016	0.000016	0.000020	08/10/20 18:21		
Chrysene	mg/L	<0.000008	0.000008	0.000020	08/10/20 18:21		
Dibenz(a,h)anthracene	mg/L	<0.000006	0.000006	0.000020	08/10/20 18:21		
Fluoranthene	mg/L	<0.000005	0.000005	0.000020	08/10/20 18:21		
Fluorene	mg/L	<0.000010	0.000010	0.000020	08/10/20 18:21		
Indeno(1,2,3-cd)pyrene	mg/L	<0.000014	0.000014	0.000020	08/10/20 18:21		
2-Methylnaphthalene	mg/L	<0.000018	0.000018	0.000020	08/10/20 18:21		
Naphthalene	mg/L	<0.000019	0.000019	0.000020	08/10/20 18:21		
Phenanthrene	mg/L	<0.000008	0.000008	0.000020	08/10/20 18:21		
Pyrene	mg/L	<0.000009	0.000009	0.000020	08/10/20 18:21		
2-Fluorobiphenyl (S)					08/10/20 18:21	116	70-130
4-Terphenyl-d14 (S)					08/10/20 18:21	123	70-130

**Laboratory Control Sample & LCSD** LCS-L505416 LCSD-L505416

Parameter	Units	Spike Conc.	LCS Result	LCSD Result	LCS %Rec	LCSD % Rec	% Rec Limits	RPD	Max RPD
Acenaphthene	mg/L	0.00303	0.00298	0.00330	98.3	109	60-140	10.1	20
Acenaphthylene	mg/L	0.00303	0.00209	0.00272	68.9	89.7	60-140	26.1*	20
Anthracene	mg/L	0.00303	0.00295	0.00297	97.3	98.0	60-140	0.6	20

\* QC Fail

### Quality Control Data

**Client ID:** Ensafe  
**Project Description:** Former Wayne's Pinball Palace  
**Report No:** 20-219-0137

**QC Prep:** L505416      **QC Analytical Batch(es):** L505705  
**QC Prep Batch Method:** 3511      **Analysis Method:** 8270D SIM  
**Analysis Description:** Semivolatile Organic Compounds - GC/MS (SIM)

**Laboratory Control Sample & LCSD**      LCS-L505416      LCSD-L505416

Parameter	Units	Spike Conc.	LCS Result	LCSD Result	LCS %Rec	LCSD % Rec	% Rec Limits	RPD	Max RPD
Benzo(a)anthracene	mg/L	0.00303	0.00326	0.00328	108	108	60-140	0.6	20
Benzo(a)pyrene	mg/L	0.00303	0.00299	0.00303	98.6	100	60-140	1.3	20
Benzo(b)fluoranthene	mg/L	0.00303	0.00313	0.00305	103	101	60-140	2.5	20
Benzo(g,h,i)perylene	mg/L	0.00303	0.00217	0.00212	71.6	69.9	60-140	2.3	20
Benzo(k)fluoranthene	mg/L	0.00303	0.00253	0.00245	83.4	80.8	60-140	3.2	20
Chrysene	mg/L	0.00303	0.00263	0.00276	86.7	91.0	60-140	4.8	20
Dibenz(a,h)anthracene	mg/L	0.00303	0.00261	0.00251	86.1	82.8	60-140	3.9	20
Fluoranthene	mg/L	0.00303	0.00319	0.00307	105	101	60-140	3.8	20
Fluorene	mg/L	0.00303	0.00272	0.00311	89.7	103	60-140	13.3	20
Indeno(1,2,3-cd)pyrene	mg/L	0.00303	0.00350	0.00331	116	109	60-140	5.5	20
2-Methylnaphthalene	mg/L	0.00303	0.00281	0.00305	92.7	101	60-140	8.1	20
Naphthalene	mg/L	0.00303	0.00307	0.00317	101	105	60-140	3.2	20
Phenanthrene	mg/L	0.00303	0.00274	0.00286	90.4	94.3	60-140	4.2	20
Pyrene	mg/L	0.00303	0.00343	0.00325	113	107	60-140	5.3	20
2-Fluorobiphenyl (S)					109	122	70-130		
4-Terphenyl-d14 (S)					122	121	70-130		

### Quality Control Data

**Client ID:** Ensafe  
**Project Description:** Former Wayne's Pinball Palace  
**Report No:** 20-219-0137

**QC Prep:** L505744      **QC Analytical Batch(es):** L505943  
**QC Prep Batch Method:** 3510C      **Analysis Method:** TN EPH  
**Analysis Description:** TN EPH

**Lab Reagent Blank**      LRB-L505744      Matrix: AQU  
 Associated Lab Samples: 92718, 92719

Parameter	Units	Blank Result	MDL	MQL	Analyzed	% Recovery	% Rec Limits
Diesel Range Organics (C10-C28)	mg/L	0.0703	0.0548	0.0900	08/12/20 15:37		
Oil Range Organics (>C28-C40)	mg/L	<0.0841	0.0841	0.0900	08/12/20 15:37		
OTP Surrogate (S)					08/12/20 15:37	123	50-150

**Laboratory Control Sample & LCSD**      LCS-L505744      LCSD-L505744

Parameter	Units	Spike Conc.	LCS Result	LCSD Result	LCS %Rec	LCSD % Rec	% Rec Limits	RPD	Max RPD
Diesel Range Organics (C10-C28)	mg/L	1.00	1.06	0.991	106	99.1	50-150	6.7	20
Oil Range Organics (>C28-C40)	mg/L	1.00	1.17	0.769	117	76.9	50-150	41.3*	20
OTP Surrogate (S)					132	118	50-150		

**Shipment Receipt Form**

Customer Number: **03180**  
 Customer Name: **Ensafe**  
 Report Number: **20-219-0137**

**Shipping Method**

Fed Ex       US Postal       Lab       Other :   
 UPS       Client       Courier      Thermometer ID: #100

Shipping container/cooler uncompromised?	<input checked="" type="radio"/> Yes	<input type="radio"/> No	
Number of coolers/boxes received	<input type="text" value="1"/>		
Custody seals intact on shipping container/cooler?	<input checked="" type="radio"/> Yes	<input type="radio"/> No	<input type="radio"/> Not Present
Custody seals intact on sample bottles?	<input type="radio"/> Yes	<input type="radio"/> No	<input checked="" type="radio"/> Not Present
Chain of Custody (COC) present?	<input checked="" type="radio"/> Yes	<input type="radio"/> No	
COC agrees with sample label(s)?	<input checked="" type="radio"/> Yes	<input type="radio"/> No	
COC properly completed	<input checked="" type="radio"/> Yes	<input type="radio"/> No	
Samples in proper containers?	<input checked="" type="radio"/> Yes	<input type="radio"/> No	
Sample containers intact?	<input checked="" type="radio"/> Yes	<input type="radio"/> No	
Sufficient sample volume for indicated test(s)?	<input checked="" type="radio"/> Yes	<input type="radio"/> No	
All samples received within holding time?	<input checked="" type="radio"/> Yes	<input type="radio"/> No	
Cooler temperature in compliance?	<input checked="" type="radio"/> Yes	<input type="radio"/> No	
Cooler/Samples arrived at the laboratory on ice. Samples were considered acceptable as cooling process had begun.	<input checked="" type="radio"/> Yes	<input type="radio"/> No	
Water - Sample containers properly preserved	<input checked="" type="radio"/> Yes	<input type="radio"/> No	<input type="radio"/> N/A
Water - VOA vials free of headspace	<input checked="" type="radio"/> Yes	<input type="radio"/> No	<input type="radio"/> N/A
Trip Blanks received with VOAs	<input checked="" type="radio"/> Yes	<input type="radio"/> No	<input type="radio"/> N/A
Soil VOA method 5035 – compliance criteria met	<input type="radio"/> Yes	<input type="radio"/> No	<input checked="" type="radio"/> N/A
<input type="checkbox"/> High concentration container (48 hr)		<input type="checkbox"/> Low concentration EnCore samplers (48 hr)	
<input type="checkbox"/> High concentration pre-weighed (methanol -14 d)		<input type="checkbox"/> Low conc pre-weighed vials (Sod Bis -14 d)	
Special precautions or instructions included?	<input type="radio"/> Yes	<input checked="" type="radio"/> No	

Comments:

Signature:

Date & Time:





EnSafe Inc.  
800-588-7962

**CHAIN OF CUSTODY AND ANALYTICAL REQUEST RECORD**

COC No. **DWF080520**

Page **1** of **1**

Project Name: **FORMER WAYNE'S PINBALL PALACE**

PO No. **PER MSA**

Project No. **1888826703**

Phase **---**

Site Location: **167 CHELSEA AVE.**

**Sample Analysis Requested (Enter number of containers for each test)**

Send Results To: **CHELSEY KIPPER (270) 287-1703**

Sampler/Site Phone# **CHELSEY KIPPER**

**VOC 5<sup>8260</sup>**

**PAH TN-EPH**

**RCRA METALS**

Lab Name: **WAY POINT** Turnaround Time (specify) **5-10 DAYS**

Lab ID	Sample ID (sys_samp_code)	Location ID (sys_loc_code)	Time (mm/dd/yy)	Time (Military) (hhmm)	Matrix Code	Sample Type	Field Filtered (Y/N)	Total No. of Containers	Extra Volume for MS/MSD	HOLD
	167GMW01080520	MW01	08/05/20	1700	WG	N	Y	9		
	167GMW02080520	MW02	08/05/20	1615	WG	N	Y	9		
	167TBO80520	TB	08/05/20	1600	TB	N	N	2		

20-219-0137  
03180  
08-06-2020  
14:37:19

Ensafe  
Former Wayne's Pinball Palace

Custody Seals  
received on:  
Cooler(s) Container(s)

Field Comments:	Received by (signature)	Date	Time	Date	Time	Sample Shipment and Delivery Details
<b>SAMPLES HELD OVERNIGHT ON ICE AT 4°C STRONG CHEMICAL ODOR IN SAMPLES</b>	<i>[Signature]</i>	08-06-20	1036			Number of coolers in shipment: <b>1</b>
	<i>[Signature]</i>					Samples Iced?(check) Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
						Method of Shipment: <b>Deliver</b>
						Airbill No:
						Date Shipped: <b>08/05/20</b>

**Lab Comments:** **0.8°C T100 (TP)**

**Matrix Code:** AA=Air, AQ=Air QC Matrix, CK=Caulk, GS=Soil Gas, LF=Free Product, LH=Liquid Waste, MS=Mastic, OIL=Oil, PT=Paint, SC=Cement/Concrete, SE=Sediment, SF=Filter Sandpack, SL=Sludge, SN=Miscellaneous Solid/Building Materials, SO=Soil, SQ=Soil/Solid QC Matrix, ST=Solid Waste, SW=Swab/Wipe, TA=Animal Tissue, TP=Plant Tissue, WG=Ground Water, WL=Leachate, WO=Ocean Water, WP=Drinking Water, WQ=Water QC Matrix, WS=Surface Water, SU=Storm Water, WW=Waste Water

**Sample Type:** AB=Ambient Blank, EB=Equipment Blank, FB=Field Blank, FD=Field Duplicate Sample, FR=Field Replicate, MB=Material Blank, N=Normal Environmental Sample, RB=Material Rinse Blank, TB=Trip Blank

**Preservative added:** HA=Hydrochloric Acid, NI=Nitric Acid, SA=Sulfuric Acid, SH=Sodium Hydroxide, SA=Ascorbic Acid, HX=Hexane, ME=Methanol, SB=sodium bisulfate, ST=Sodium Thiosulfate, IF NO preservative added leave blank

8/14/2020

Ensafe  
Ms. Allison Harris  
5724 Summer Tree Drive  
Memphis, TN, 38134

Ref: Analytical Testing  
Lab Report Number: 20-220-0136  
Client Project Description: Former Wayne's Pinball Palace  
167 Chelsea Avenue, Memphis, TN  
Project No. 0888826703

Dear Ms. Allison Harris:  
Waypoint Analytical, LLC. received sample(s) on 8/7/2020 for the analyses presented in the following report.

The above referenced project has been analyzed per your instructions. The analyses were performed in accordance with the applicable analytical method. Where the laboratory was not responsible for the sampling stage (refer to the chain of custody) results apply to the sample as received.

The analytical data has been validated using standard quality control measures performed as required by the analytical method. Quality Assurance, method validations, instrumentation maintenance and calibration for all parameters (NELAP and non-NELAP) were performed in accordance with guidelines established by the USEPA (including 40 CFR 136 Method Update Rule August 2017) and NELAC unless otherwise indicated. Any parameter for which the laboratory is not officially NELAP accredited is indicated by a '~' symbol. These are not included in the scope because NELAP accreditation is either not available or has not been applied for. Additional certifications may be held/are available for parameters, where NELAP accreditation is not required or applicable. A full list of certifications is available upon request.

Certain parameters (chlorine, pH, dissolved oxygen, sulfite...) are required to be analyzed within 15 minutes of sampling. Usually, but not always, any field parameter analyzed at the laboratory is outside of this holding time. Refer to sample analysis time for confirmation of holding time compliance.

The results are shown on the attached Report of Analysis(s). Results for solid matrices are reported on an as-received basis unless otherwise indicated. This report shall not be reproduced except in full and relates only to the samples included in this report.

Please do not hesitate to contact me or client services if you have any questions or need additional information.

Sincerely,



Rebekah Ross  
Project Manager

*Laboratory's liability in any claim relating to analyses performed shall be limited to, at laboratory's option, repeating the analysis in question at laboratory's expense, or the refund of the charges paid for performance of said analysis.*





## Certification Summary

**Laboratory ID: WP MTN: Waypoint Analytical, LLC., Memphis, TN**

State	Program	Lab ID	Expiration Date
Alabama	State Program	40750	02/28/2021
Arizona	State Program	AZ0816	08/30/2020
Arkansas	State Program	88-0650	02/07/2021
California	State Program	2904	05/10/2020
Florida	State Program - NELAP	E871157	06/30/2021
Georgia	State Program	C044	02/18/2023
Georgia	State Program	04015	06/30/2021
Illinois	State Program - NELAP	200078	10/10/2020
Kentucky	State Program	80215	06/30/2021
Kentucky	State Program	KY90047	12/31/2020
Louisiana	State Program - NELAP	LA037	12/31/2020
Louisiana	State Program - NELAP	04015	06/30/2021
Mississippi	State Program	MS	02/11/2023
North Carolina	State Program	415	12/31/2020
Oklahoma	State Program	9311	08/31/2020
Pennsylvania	State Program - NELAP	68-03195	05/31/2021
South Carolina	State Program	84002	06/30/2021
South Carolina	State Program	84002	06/30/2020
Tennessee	State Program	02027	02/11/2023
Tennessee	A2LA ISO 17025:2017	4313.01	10/31/2021
Texas	State Program - NELAP	T104704180	09/30/2020
Virginia	State Program	00106	06/30/2021
Virginia	State Program - NELAP	460181	09/14/2020

**Sample Summary Table**

**Report Number:** 20-220-0136  
**Client Project Description:** Former Wayne's Pinball Palace  
167 Chelsea Avenue, Memphis, TN  
Project No. 0888826703

Lab No	Client Sample ID	Matrix	Date Collected	Date Received
93207	167SSB0916	Solids	08/07/2020 09:15	08/07/2020
93208	167SSB0901	Solids	08/07/2020 09:10	08/07/2020
93209	167SSB1001	Solids	08/07/2020 10:15	08/07/2020
93210	167SSB1016	Solids	08/07/2020 10:25	08/07/2020
93211	167GMW03080720	Aqueous	08/07/2020 12:30	08/07/2020
93212	167GMW04080720	Aqueous	08/07/2020 13:00	08/07/2020
93213	167TB080720	Aqueous	08/07/2020 12:00	08/07/2020

**Summary of Detected Analytes**

**Project:** Former Wayne's Pinball Palace

**Report Number:** 20-220-0136

Client Sample ID	Lab Sample ID	Method	Parameters	Result	Units	Report Limit	Analyzed	Qualifiers
<b>167SSB0916</b>	<b>L 93207</b>							
6010D	Arsenic			5.56	mg/Kg - dry	0.311	08/13/2020 21:55	
6010D	Barium			55.8	mg/Kg - dry	0.168	08/13/2020 21:55	
6010D	Cadmium			0.242	mg/Kg - dry	0.0259	08/13/2020 21:55	
6010D	Chromium			14.6	mg/Kg - dry	0.305	08/13/2020 21:55	
6010D	Lead			5.75	mg/Kg - dry	0.233	08/13/2020 21:55	
6010D	Silver			0.460	mg/Kg - dry	0.207	08/14/2020 14:11	
7471A	Mercury			0.0389	mg/Kg - dry	0.00417	08/13/2020 14:37	
8270D SIM	Benzo(a)anthracene			0.000661	mg/Kg - dry	0.000571	08/13/2020 21:02	J
8270D SIM	Benzo(g,h,i)perylene			0.00190	mg/Kg - dry	0.000299	08/13/2020 21:02	
8270D SIM	Dibenz(a,h)anthracene			0.00244	mg/Kg - dry	0.000361	08/13/2020 21:02	
8270D SIM	Indeno(1,2,3-cd)pyrene			0.00144	mg/Kg - dry	0.000445	08/13/2020 21:02	B
8270D SIM	Pyrene			0.000610	mg/Kg - dry	0.000501	08/13/2020 21:02	J
SW-DRYWT	Moisture			22.8	%		08/11/2020 14:04	
<b>167SSB0901</b>	<b>L 93208</b>							
6010D	Arsenic			12.8	mg/Kg - dry	0.286	08/13/2020 22:01	
6010D	Barium			155	mg/Kg - dry	0.155	08/13/2020 22:01	
6010D	Cadmium			0.311	mg/Kg - dry	0.0238	08/13/2020 22:01	
6010D	Chromium			19.3	mg/Kg - dry	0.281	08/13/2020 22:01	
6010D	Lead			55.1	mg/Kg - dry	0.214	08/13/2020 22:01	
7471A	Mercury			0.0765	mg/Kg - dry	0.00371	08/13/2020 13:34	
8270D SIM	Benzo(a)anthracene			0.0160	mg/Kg - dry	0.000525	08/13/2020 21:23	
8270D SIM	Benzo(b)fluoranthene			0.0305	mg/Kg - dry	0.000164	08/13/2020 21:23	
8270D SIM	Benzo(g,h,i)perylene			0.0175	mg/Kg - dry	0.000275	08/13/2020 21:23	
8270D SIM	Benzo(k)fluoranthene			0.0159	mg/Kg - dry	0.000579	08/13/2020 21:23	
8270D SIM	Chrysene			0.0170	mg/Kg - dry	0.000305	08/13/2020 21:23	
8270D SIM	Fluoranthene			0.0360	mg/Kg - dry	0.000630	08/13/2020 21:23	
8270D SIM	Indeno(1,2,3-cd)pyrene			0.0198	mg/Kg - dry	0.000410	08/13/2020 21:23	
8270D SIM	Pyrene			0.0278	mg/Kg - dry	0.000461	08/13/2020 21:23	
SW-DRYWT	Moisture			16.1	%		08/11/2020 14:04	
TN EPH	Diesel Range Organics (C10-C28)			7.56	mg/Kg - dry	3.93	08/12/2020 14:02	
TN EPH	Oil Range Organics (>C28-C40)			23.4	mg/Kg - dry	3.93	08/12/2020 14:02	
TN EPH	TN EPH (C10-C40)			30.9	mg/Kg - dry	3.93	08/12/2020 14:02	
<b>167SSB1001</b>	<b>L 93209</b>							
6010D	Arsenic			10.7	mg/Kg - dry	0.276	08/13/2020 22:06	
6010D	Barium			185	mg/Kg - dry	0.150	08/13/2020 22:06	
6010D	Cadmium			0.474	mg/Kg - dry	0.0230	08/13/2020 22:06	

Summary of Detected Analytes

**Project:** Former Wayne's Pinball Palace

**Report Number:** 20-220-0136

Client Sample ID	Lab Sample ID	Method	Parameters	Result	Units	Report Limit	Analyzed	Qualifiers
<b>167SSB1001</b>	<b>L 93209</b>							
6010D	Chromium			16.4	mg/Kg - dry	0.271	08/13/2020 22:06	
6010D	Lead			26.4	mg/Kg - dry	0.207	08/13/2020 22:06	
7471A	Mercury			0.0510	mg/Kg - dry	0.00397	08/13/2020 17:35	
8270D SIM	Acenaphthene			0.000549	mg/Kg - dry	0.000496	08/13/2020 21:44	J
8270D SIM	Benzo(a)anthracene			0.0104	mg/Kg - dry	0.000508	08/13/2020 21:44	
8270D SIM	Benzo(b)fluoranthene			0.0229	mg/Kg - dry	0.000158	08/13/2020 21:44	
8270D SIM	Benzo(g,h,i)perylene			0.0131	mg/Kg - dry	0.000266	08/13/2020 21:44	
8270D SIM	Chrysene			0.0102	mg/Kg - dry	0.000294	08/13/2020 21:44	
8270D SIM	Fluoranthene			0.0199	mg/Kg - dry	0.000609	08/13/2020 21:44	
8270D SIM	Fluorene			0.000706	mg/Kg - dry	0.000577	08/13/2020 21:44	J
8270D SIM	Indeno(1,2,3-cd)pyrene			0.0139	mg/Kg - dry	0.000396	08/13/2020 21:44	
8270D SIM	Pyrene			0.0150	mg/Kg - dry	0.000445	08/13/2020 21:44	
SW-DRYWT	Moisture			13.2	%		08/11/2020 14:04	
TN EPH	Diesel Range Organics (C10-C28)			6.92	mg/Kg - dry	3.80	08/12/2020 14:21	
TN EPH	Oil Range Organics (>C28-C40)			16.1	mg/Kg - dry	3.80	08/12/2020 14:21	
TN EPH	TN EPH (C10-C40)			23.0	mg/Kg - dry	3.80	08/12/2020 14:21	
<b>167SSB1016</b>	<b>L 93210</b>							
6010D	Arsenic			3.55	mg/Kg - dry	0.307	08/13/2020 22:12	
6010D	Barium			53.1	mg/Kg - dry	0.166	08/13/2020 22:12	
6010D	Cadmium			0.149	mg/Kg - dry	0.0256	08/13/2020 22:12	
6010D	Chromium			11.9	mg/Kg - dry	0.302	08/13/2020 22:12	
6010D	Lead			4.69	mg/Kg - dry	0.230	08/13/2020 22:12	
6010D	Silver			0.444	mg/Kg - dry	0.205	08/14/2020 14:51	
7471A	Mercury			0.0104	mg/Kg - dry	0.00395	08/13/2020 17:36	J
8270D SIM	Benzo(a)anthracene			0.000614	mg/Kg - dry	0.000564	08/13/2020 22:05	J
8270D SIM	Benzo(b)fluoranthene			0.000778	mg/Kg - dry	0.000176	08/13/2020 22:05	J
8270D SIM	Benzo(g,h,i)perylene			0.00108	mg/Kg - dry	0.000295	08/13/2020 22:05	
8270D SIM	Chrysene			0.000349	mg/Kg - dry	0.000327	08/13/2020 22:05	J
8270D SIM	Dibenz(a,h)anthracene			0.00117	mg/Kg - dry	0.000357	08/13/2020 22:05	
8270D SIM	Pyrene			0.000560	mg/Kg - dry	0.000495	08/13/2020 22:05	J
SW-DRYWT	Moisture			21.9	%		08/11/2020 14:04	
TN EPH	Diesel Range Organics (C10-C28)			4.57	mg/Kg - dry	4.23	08/12/2020 14:40	
TN EPH	Oil Range Organics (>C28-C40)			26.6	mg/Kg - dry	4.23	08/12/2020 14:40	
TN EPH	TN EPH (C10-C40)			31.2	mg/Kg - dry	4.23	08/12/2020 14:40	
<b>167GMW03080720</b>	<b>L 93211</b>							
6010D	Barium			0.157	mg/L	0.0040	08/11/2020 19:14	

<b>Summary of Detected Analytes</b>
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**Project:** Former Wayne's Pinball Palace

**Report Number:** 20-220-0136

Client Sample ID	Lab Sample ID					
Method	Parameters	Result	Units	Report Limit	Analyzed	Qualifiers
<b>167GMW03080720</b>	<b>L 93211</b>					
8270D SIM	Anthracene	0.000005	mg/L	0.000005	08/10/2020 19:44	J
8270D SIM	2-Methylnaphthalene	0.000051	mg/L	0.000018	08/10/2020 19:44	
8270D SIM	Naphthalene	0.000158	mg/L	0.000019	08/10/2020 19:44	
8270D SIM	Phenanthrene	0.000011	mg/L	0.000008	08/10/2020 19:44	J
TN EPH	Diesel Range Organics (C10-C28)	0.0872	mg/L	0.0548	08/13/2020 01:24	JB
TN EPH	TN EPH (C10-C40)	0.0872	mg/L	0.0548	08/13/2020 01:24	JB
<b>167GMW04080720</b>	<b>L 93212</b>					
6010D	Barium	0.136	mg/L	0.0040	08/11/2020 19:19	
6010D	Chromium	0.012	mg/L	0.003	08/11/2020 19:19	
6010D	Lead	0.004	mg/L	0.002	08/11/2020 19:19	J
8270D SIM	Anthracene	0.000008	mg/L	0.000005	08/10/2020 20:05	J
8270D SIM	2-Methylnaphthalene	0.000048	mg/L	0.000018	08/10/2020 20:05	
8270D SIM	Naphthalene	0.000181	mg/L	0.000019	08/10/2020 20:05	
8270D SIM	Phenanthrene	0.000008	mg/L	0.000008	08/10/2020 20:05	J

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Client: Ensafe  
Project: Former Wayne's Pinball Palace  
Lab Report Number: 20-220-0136  
Date: 8/14/2020

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**CASE NARRATIVE**

**Metals Analysis Method 6010D**

Sample 93210 (167SSB1016)

Analyte: Lead

QC Batch No: L506391/L505738

The matrix spike and/or the matrix spike duplicate was outside quality control acceptance ranges. A post digestion spike was performed and passed quality control acceptance ranges. No matrix interference is suspected.

Sample 93207 (167SSB0916)

Analyte: Selenium

QC Batch No: L506391/L505738

This analyte was analyzed at a dilution due to IEC interference/matrix interference.

Sample 93208 (167SSB0901)

Analyte: Selenium

QC Batch No: L506391/L505738

This analyte was analyzed at a dilution due to IEC interference/matrix interference.

Sample 93209 (167SSB1001)

Analyte: Selenium

QC Batch No: L506391/L505738

This analyte was analyzed at a dilution due to IEC interference/matrix interference.

**Volatile Organic Compounds - GC/MS Method 8260B**

Sample 93212 (167GMW04080720)

QC Batch No: L505439/L505402

The sample was analyzed at a dilution due to the foamy nature of the matrix. Reporting limits have been adjusted accordingly.

**Semivolatile Organic Compounds - GC/MS (SIM) Method 8270D SIM**

Analyte: Indeno(1,2,3-cd)pyrene

QC Batch No: L506498/L506017

Target analyte(s) was identified in the method blank associated with this project, below the Method Quantitation Limit. The result for the method blank and sample are flagged with the data qualifier J, Estimated Concentration. Per laboratory protocol any associated affected sample result is flagged "B" to indicate that it was detected in the method blank.

03180

Ensafe

Ms. Allison Harris

5724 Summer Tree Drive

Memphis , TN 38134

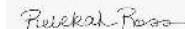
Project Former Wayne's Pinball Palace

Information : 167 Chelsea Avenue, Memphis, TN

Project No. 0888826703

Report Date : 08/14/2020

Received : 08/07/2020



Report Number : **20-220-0136**

**REPORT OF ANALYSIS**

Rebekah Ross  
Project Manager

Lab No : **93207**

Matrix: **Solids**

Sample ID : **167SSB0916**

Sampled: **8/7/2020 9:15**

Test	Results	Units	MDL	MQL	DF	Date / Time Analyzed	By	Analytical Method
Moisture	<b>22.8</b>	%			1	08/11/20 14:04	FMM	SW-DRYWT
Arsenic	<b>5.56</b>	mg/Kg - dry	0.311	0.648	1	08/13/20 21:55	TJS	6010D
Barium	<b>55.8</b>	mg/Kg - dry	0.168	0.648	1	08/13/20 21:55	TJS	6010D
Cadmium	<b>0.242</b>	mg/Kg - dry	0.0259	0.130	1	08/13/20 21:55	TJS	6010D
Chromium	<b>14.6</b>	mg/Kg - dry	0.305	0.323	1	08/13/20 21:55	TJS	6010D
Lead	<b>5.75</b>	mg/Kg - dry	0.233	0.388	1	08/13/20 21:55	TJS	6010D
Mercury	<b>0.0389</b>	mg/Kg - dry	0.00417	0.0189	1	08/13/20 14:37	DDB	7471A
Selenium	<0.414	mg/Kg - dry	0.414	0.647	1	08/14/20 14:11	TJS	6010D
Silver	<b>0.460</b>	mg/Kg - dry	0.207	0.324	1	08/14/20 14:11	TJS	6010D

**Qualifiers/  
Definitions**

B Analyte detected in blank  
J Estimated value  
MQL Method Quantitation Limit

DF Dilution Factor  
L Limit Exceeded



03180

Ensafe  
 Ms. Allison Harris  
 5724 Summer Tree Drive  
 Memphis , TN 38134

Project Former Wayne's Pinball Palace  
 Information : 167 Chelsea Avenue, Memphis, TN  
 Project No. 0888826703

Report Date : 08/14/2020  
 Received : 08/07/2020



Report Number : **20-220-0136**

**REPORT OF ANALYSIS**

Rebekah Ross  
 Project Manager

Lab No : **93207**

Matrix: **Solids**

Sample ID : **167SSB0916**

Sampled: **8/7/2020 9:15**

**Analytical Method:** 8260B                      **Prep Batch(es):** **L505698** 08/10/20 07:41  
**Prep Method:** 5030A

Test	Results	Units	MDL	MQL	DF	Date / Time Analyzed	By	Analytical Batch
Acetone	<0.005	mg/Kg - dry	0.005	0.051	1	08/10/20 13:44	ELM	L505699
Acetonitrile	<0.058	mg/Kg - dry	0.058	0.129	1	08/10/20 13:44	ELM	L505699
Acrolein	<0.008	mg/Kg - dry	0.008	0.051	1	08/10/20 13:44	ELM	L505699
Acrylonitrile	<0.003	mg/Kg - dry	0.003	0.051	1	08/10/20 13:44	ELM	L505699
Benzene	<0.0008	mg/Kg - dry	0.0008	0.002	1	08/10/20 13:44	ELM	L505699
Bromobenzene	<0.001	mg/Kg - dry	0.001	0.002	1	08/10/20 13:44	ELM	L505699
Bromochloromethane	<0.001	mg/Kg - dry	0.001	0.002	1	08/10/20 13:44	ELM	L505699
Bromodichloromethane	<0.002	mg/Kg - dry	0.002	0.002	1	08/10/20 13:44	ELM	L505699
Bromoform	<0.002	mg/Kg - dry	0.002	0.002	1	08/10/20 13:44	ELM	L505699
Bromomethane	<0.001	mg/Kg - dry	0.001	0.002	1	08/10/20 13:44	ELM	L505699
Methyl Ethyl Ketone (MEK)	<0.009	mg/Kg - dry	0.009	0.051	1	08/10/20 13:44	ELM	L505699
n-Butylbenzene	<0.001	mg/Kg - dry	0.001	0.002	1	08/10/20 13:44	ELM	L505699
sec-Butyl benzene	<0.001	mg/Kg - dry	0.001	0.002	1	08/10/20 13:44	ELM	L505699
tert-Butyl benzene	<0.001	mg/Kg - dry	0.001	0.002	1	08/10/20 13:44	ELM	L505699
Carbon Disulfide	<0.001	mg/Kg - dry	0.001	0.002	1	08/10/20 13:44	ELM	L505699
Carbon Tetrachloride	<0.0006	mg/Kg - dry	0.0006	0.002	1	08/10/20 13:44	ELM	L505699
Chlorobenzene	<0.0006	mg/Kg - dry	0.0006	0.002	1	08/10/20 13:44	ELM	L505699
Chlorodibromomethane	<0.002	mg/Kg - dry	0.002	0.002	1	08/10/20 13:44	ELM	L505699
Chloroethane	<0.001	mg/Kg - dry	0.001	0.002	1	08/10/20 13:44	ELM	L505699
2-Chloroethylvinyl Ether	<0.007	mg/Kg - dry	0.007	0.012	1	08/10/20 13:44	ELM	L505699
Chloroform	<0.002	mg/Kg - dry	0.002	0.002	1	08/10/20 13:44	ELM	L505699
Chloromethane	<0.001	mg/Kg - dry	0.001	0.002	1	08/10/20 13:44	ELM	L505699

Qualifiers/Definitions	B	Analyte detected in blank	DF	Dilution Factor
	J	Estimated value	MQL	Method Quantitation Limit

03180

Ensafe

Ms. Allison Harris

5724 Summer Tree Drive

Memphis , TN 38134

Project

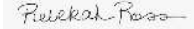
Former Wayne's Pinball Palace

Information : 167 Chelsea Avenue, Memphis, TN

Project No. 0888826703

Report Date : 08/14/2020

Received : 08/07/2020



Report Number : **20-220-0136**

**REPORT OF ANALYSIS**

Rebekah Ross  
Project Manager

Lab No : **93207**

Sample ID : **167SSB0916**

Matrix: **Solids**

Sampled: **8/7/2020 9:15**

**Analytical Method:** 8260B      **Prep Batch(es):** **L505698** 08/10/20 07:41  
**Prep Method:** 5030A

Test	Results	Units	MDL	MQL	DF	Date / Time Analyzed	By	Analytical Batch
2-Chlorotoluene	<0.001	mg/Kg - dry	0.001	0.002	1	08/10/20 13:44	ELM	L505699
4-Chlorotoluene	<0.001	mg/Kg - dry	0.001	0.002	1	08/10/20 13:44	ELM	L505699
1,2-Dibromo-3-Chloropropane	<0.005	mg/Kg - dry	0.005	0.012	1	08/10/20 13:44	ELM	L505699
1,2-Dibromoethane	<0.0008	mg/Kg - dry	0.0008	0.002	1	08/10/20 13:44	ELM	L505699
Dibromomethane	<0.0006	mg/Kg - dry	0.0006	0.002	1	08/10/20 13:44	ELM	L505699
1,2-Dichlorobenzene	<0.001	mg/Kg - dry	0.001	0.002	1	08/10/20 13:44	ELM	L505699
1,3-Dichlorobenzene	<0.001	mg/Kg - dry	0.001	0.002	1	08/10/20 13:44	ELM	L505699
1,4-Dichlorobenzene	<0.001	mg/Kg - dry	0.001	0.002	1	08/10/20 13:44	ELM	L505699
Dichlorodifluoromethane	<0.001	mg/Kg - dry	0.001	0.002	1	08/10/20 13:44	ELM	L505699
1,1-Dichloroethane	<0.001	mg/Kg - dry	0.001	0.002	1	08/10/20 13:44	ELM	L505699
1,2-Dichloroethane	<0.001	mg/Kg - dry	0.001	0.002	1	08/10/20 13:44	ELM	L505699
1,1-Dichloroethene	<0.001	mg/Kg - dry	0.001	0.002	1	08/10/20 13:44	ELM	L505699
cis-1,2-Dichloroethene	<0.0009	mg/Kg - dry	0.0009	0.002	1	08/10/20 13:44	ELM	L505699
trans-1,2-Dichloroethene	<0.001	mg/Kg - dry	0.001	0.002	1	08/10/20 13:44	ELM	L505699
1,2-Dichloroethene (Total)	<0.0009	mg/Kg - dry	0.0009	0.002	1	08/10/20 13:44		L505699
1,2-Dichloropropane	<0.001	mg/Kg - dry	0.001	0.002	1	08/10/20 13:44	ELM	L505699
1,3-Dichloropropane	<0.001	mg/Kg - dry	0.001	0.002	1	08/10/20 13:44	ELM	L505699
2,2-Dichloropropane	<0.0008	mg/Kg - dry	0.0008	0.002	1	08/10/20 13:44	ELM	L505699
1,1-Dichloropropene	<0.0009	mg/Kg - dry	0.0009	0.002	1	08/10/20 13:44	ELM	L505699
cis-1,3-Dichloropropene	<0.0008	mg/Kg - dry	0.0008	0.002	1	08/10/20 13:44	ELM	L505699
trans-1,3-Dichloropropene	<0.0007	mg/Kg - dry	0.0007	0.002	1	08/10/20 13:44	ELM	L505699
Ethyl Acetate	<0.009	mg/Kg - dry	0.009	0.051	1	08/10/20 13:44	ELM	L505699

**Qualifiers/** B Analyte detected in blank  
**Definitions** J Estimated value

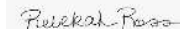
DF Dilution Factor  
MQL Method Quantitation Limit

03180

Ensafe  
Ms. Allison Harris  
5724 Summer Tree Drive  
Memphis , TN 38134

Project Former Wayne's Pinball Palace  
Information : 167 Chelsea Avenue, Memphis, TN  
Project No. 0888826703

Report Date : 08/14/2020  
Received : 08/07/2020



Report Number : **20-220-0136**

**REPORT OF ANALYSIS**

Rebekah Ross  
Project Manager

Lab No : **93207**

Matrix: **Solids**

Sample ID : **167SSB0916**

Sampled: **8/7/2020 9:15**

**Analytical Method:** 8260B      **Prep Batch(es):** **L505698** 08/10/20 07:41  
**Prep Method:** 5030A

Test	Results	Units	MDL	MQL	DF	Date / Time Analyzed	By	Analytical Batch
Ethylbenzene	<0.0009	mg/Kg - dry	0.0009	0.002	1	08/10/20 13:44	ELM	L505699
Hexachlorobutadiene	<0.001	mg/Kg - dry	0.001	0.002	1	08/10/20 13:44	ELM	L505699
2-Hexanone	<0.006	mg/Kg - dry	0.006	0.012	1	08/10/20 13:44	ELM	L505699
Iodomethane	<0.001	mg/Kg - dry	0.001	0.012	1	08/10/20 13:44	ELM	L505699
Isopropylbenzene	<0.001	mg/Kg - dry	0.001	0.002	1	08/10/20 13:44	ELM	L505699
4-Isopropyl toluene	<0.001	mg/Kg - dry	0.001	0.002	1	08/10/20 13:44	ELM	L505699
4-Methyl-2-Pentanone	<0.006	mg/Kg - dry	0.006	0.012	1	08/10/20 13:44	ELM	L505699
Methylene Chloride	<0.007	mg/Kg - dry	0.007	0.051	1	08/10/20 13:44	ELM	L505699
Methyl tert-butyl ether (MTBE)	<0.001	mg/Kg - dry	0.001	0.002	1	08/10/20 13:44	ELM	L505699
m,p-Xylene	<0.001	mg/Kg - dry	0.001	0.005	1	08/10/20 13:44	ELM	L505699
Naphthalene	<0.008	mg/Kg - dry	0.008	0.012	1	08/10/20 13:44	ELM	L505699
o-Xylene	<0.0006	mg/Kg - dry	0.0006	0.002	1	08/10/20 13:44	ELM	L505699
n-Propylbenzene	<0.001	mg/Kg - dry	0.001	0.002	1	08/10/20 13:44	ELM	L505699
Styrene	<0.002	mg/Kg - dry	0.002	0.002	1	08/10/20 13:44	ELM	L505699
1,1,1,2-Tetrachloroethane	<0.001	mg/Kg - dry	0.001	0.002	1	08/10/20 13:44	ELM	L505699
1,1,2,2-Tetrachloroethane	<0.001	mg/Kg - dry	0.001	0.002	1	08/10/20 13:44	ELM	L505699
Tetrachloroethene	<0.001	mg/Kg - dry	0.001	0.002	1	08/10/20 13:44	ELM	L505699
Toluene	<0.004	mg/Kg - dry	0.004	0.012	1	08/10/20 13:44	ELM	L505699
1,2,3-Trichlorobenzene	<0.002	mg/Kg - dry	0.002	0.002	1	08/10/20 13:44	ELM	L505699
1,2,4-Trichlorobenzene	<0.001	mg/Kg - dry	0.001	0.002	1	08/10/20 13:44	ELM	L505699
1,1,1-Trichloroethane	<0.0009	mg/Kg - dry	0.0009	0.002	1	08/10/20 13:44	ELM	L505699
1,1,2-Trichloroethane	<0.0007	mg/Kg - dry	0.0007	0.002	1	08/10/20 13:44	ELM	L505699

Qualifiers/Definitions	B	Analyte detected in blank	DF	Dilution Factor
	J	Estimated value	MQL	Method Quantitation Limit

03180  
 Ensafe  
 Ms. Allison Harris  
 5724 Summer Tree Drive  
 Memphis , TN 38134

Project Former Wayne's Pinball Palace  
 Information : 167 Chelsea Avenue, Memphis, TN  
 Project No. 0888826703

Report Date : 08/14/2020  
 Received : 08/07/2020



Report Number : **20-220-0136**

**REPORT OF ANALYSIS**

Rebekah Ross  
 Project Manager

Lab No : **93207**  
 Sample ID : **167SSB0916**

Matrix: **Solids**  
 Sampled: **8/7/2020 9:15**

**Analytical Method:** 8260B      **Prep Batch(es):** **L505698** 08/10/20 07:41  
**Prep Method:** 5030A

Test	Results	Units	MDL	MQL	DF	Date / Time Analyzed	By	Analytical Batch
Trichloroethene	<0.0006	mg/Kg - dry	0.0006	0.002	1	08/10/20 13:44	ELM	L505699
Trichlorofluoromethane	<0.001	mg/Kg - dry	0.001	0.002	1	08/10/20 13:44	ELM	L505699
1,2,3-Trichloropropane	<0.0008	mg/Kg - dry	0.0008	0.002	1	08/10/20 13:44	ELM	L505699
1,2,4-Trimethylbenzene	<0.001	mg/Kg - dry	0.001	0.002	1	08/10/20 13:44	ELM	L505699
1,3,5-Trimethylbenzene	<0.001	mg/Kg - dry	0.001	0.002	1	08/10/20 13:44	ELM	L505699
Vinyl Acetate	<0.004	mg/Kg - dry	0.004	0.051	1	08/10/20 13:44	ELM	L505699
Vinyl Chloride	<0.0007	mg/Kg - dry	0.0007	0.002	1	08/10/20 13:44	ELM	L505699
Xylene (Total)	<0.0006	mg/Kg - dry	0.0006	0.002	1	08/10/20 13:44		L505699
Surrogate: 4-Bromofluorobenzene	97.1		Limits: 60-130%		1	08/10/20 13:44	ELM	L505699
Surrogate: 1,2-Dichloroethane - d4	121		Limits: 60-132%		1	08/10/20 13:44	ELM	L505699
Surrogate: Toluene-d8	98.5		Limits: 70-130%		1	08/10/20 13:44	ELM	L505699

**Analytical Method:** 8270D SIM      **Prep Batch(es):** **L506017** 08/12/20 16:04  
**Prep Method:** 3550B

Test	Results	Units	MDL	MQL	DF	Date / Time Analyzed	By	Analytical Batch
Acenaphthene	<0.000558	mg/Kg - dry	0.000558	0.000867	1	08/13/20 21:02	MLR	L506498
Acenaphthylene	<0.000494	mg/Kg - dry	0.000494	0.000867	1	08/13/20 21:02	MLR	L506498
Anthracene	<0.000551	mg/Kg - dry	0.000551	0.000867	1	08/13/20 21:02	MLR	L506498
Benzo(a)anthracene	<b>0.000661 J</b>	mg/Kg - dry	0.000571	0.000867	1	08/13/20 21:02	MLR	L506498
Benzo(a)pyrene	<0.000172	mg/Kg - dry	0.000172	0.000867	1	08/13/20 21:02	MLR	L506498
Benzo(b)fluoranthene	<0.000178	mg/Kg - dry	0.000178	0.000867	1	08/13/20 21:02	MLR	L506498
Benzo(g,h,i)perylene	<b>0.00190</b>	mg/Kg - dry	0.000299	0.000867	1	08/13/20 21:02	MLR	L506498

**Qualifiers/Definitions**  
 B Analyte detected in blank  
 J Estimated value  
 DF Dilution Factor  
 MQL Method Quantitation Limit

03180

Ensafe  
Ms. Allison Harris  
5724 Summer Tree Drive  
Memphis, TN 38134

Project Former Wayne's Pinball Palace  
Information : 167 Chelsea Avenue, Memphis, TN  
Project No. 0888826703

Report Date : 08/14/2020  
Received : 08/07/2020



Report Number : **20-220-0136**

**REPORT OF ANALYSIS**

Rebekah Ross  
Project Manager

Lab No : **93207**

Matrix: **Solids**

Sample ID : **167SSB0916**

Sampled: **8/7/2020 9:15**

**Analytical Method:** 8270D SIM      **Prep Batch(es):** **L506017** 08/12/20 16:04  
**Prep Method:** 3550B

Test	Results	Units	MDL	MQL	DF	Date / Time Analyzed	By	Analytical Batch
Benzo(k)fluoranthene	<0.000629	mg/Kg - dry	0.000629	0.000867	1	08/13/20 21:02	MLR	L506498
Chrysene	<0.000331	mg/Kg - dry	0.000331	0.000867	1	08/13/20 21:02	MLR	L506498
Dibenz(a,h)anthracene	<b>0.00244</b>	mg/Kg - dry	0.000361	0.000867	1	08/13/20 21:02	MLR	L506498
Fluoranthene	<0.000685	mg/Kg - dry	0.000685	0.000867	1	08/13/20 21:02	MLR	L506498
Fluorene	<0.000648	mg/Kg - dry	0.000648	0.000867	1	08/13/20 21:02	MLR	L506498
Indeno(1,2,3-cd)pyrene	<b>0.00144 B</b>	mg/Kg - dry	0.000445	0.000867	1	08/13/20 21:02	MLR	L506498
2-Methylnaphthalene	<0.000702	mg/Kg - dry	0.000702	0.000867	1	08/13/20 21:02	MLR	L506498
Naphthalene	<0.000604	mg/Kg - dry	0.000604	0.000867	1	08/13/20 21:02	MLR	L506498
Phenanthrene	<0.000847	mg/Kg - dry	0.000847	0.000867	1	08/13/20 21:02	MLR	L506498
Pyrene	<b>0.000610 J</b>	mg/Kg - dry	0.000501	0.000867	1	08/13/20 21:02	MLR	L506498
Surrogate: 2-Fluorobiphenyl	47.9			Limits: 33-115%	1	08/13/20 21:02	MLR	L506498
Surrogate: Nitrobenzene-d5	47.2			Limits: 29-110%	1	08/13/20 21:02	MLR	L506498
Surrogate: 4-Terphenyl-d14	62.6			Limits: 33-122%	1	08/13/20 21:02	MLR	L506498

**Analytical Method:** TN EPH      **Prep Batch(es):** **L505693** 08/11/20 10:04  
**Prep Method:** 3550B

Test	Results	Units	MDL	MQL	DF	Date / Time Analyzed	By	Analytical Batch
Diesel Range Organics (C10-C28)	<4.27	mg/Kg - dry	4.27	4.27	1	08/12/20 13:43	MMK	L505941
Oil Range Organics (>C28-C40)	<4.27	mg/Kg - dry	4.27	4.27	1	08/12/20 13:43	MMK	L505941
TN EPH (C10-C40)	<4.27	mg/Kg - dry	4.27	4.27	1	08/12/20 13:43		L505941
Surrogate: OTP Surrogate	108			Limits: 50-150%	1	08/12/20 13:43	MMK	L505941

**Qualifiers/Definitions**  
 B Analyte detected in blank      DF Dilution Factor  
 J Estimated value      MQL Method Quantitation Limit

03180

Ensafe

Ms. Allison Harris

5724 Summer Tree Drive

Memphis , TN 38134

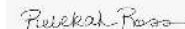
Project Former Wayne's Pinball Palace

Information : 167 Chelsea Avenue, Memphis, TN

Project No. 0888826703

Report Date : 08/14/2020

Received : 08/07/2020



Report Number : **20-220-0136**

**REPORT OF ANALYSIS**

Rebekah Ross  
Project Manager

Lab No : **93208**

Sample ID : **167SSB0901**

Matrix: **Solids**

Sampled: **8/7/2020 9:10**

Test	Results	Units	MDL	ML	DF	Date / Time Analyzed	By	Analytical Method
Moisture	<b>16.1</b>	%			1	08/11/20 14:04	FMM	SW-DRYWT
Arsenic	<b>12.8</b>	mg/Kg - dry	0.286	0.596	1	08/13/20 22:01	TJS	6010D
Barium	<b>155</b>	mg/Kg - dry	0.155	0.596	1	08/13/20 22:01	TJS	6010D
Cadmium	<b>0.311</b>	mg/Kg - dry	0.0238	0.119	1	08/13/20 22:01	TJS	6010D
Chromium	<b>19.3</b>	mg/Kg - dry	0.281	0.297	1	08/13/20 22:01	TJS	6010D
Lead	<b>55.1</b>	mg/Kg - dry	0.214	0.357	1	08/13/20 22:01	TJS	6010D
Mercury	<b>0.0765</b>	mg/Kg - dry	0.00371	0.0168	1	08/13/20 13:34	DDB	7471A
Selenium	<0.381	mg/Kg - dry	0.381	0.595	1	08/14/20 14:21	TJS	6010D
Silver	<0.191	mg/Kg - dry	0.191	0.298	1	08/14/20 14:21	TJS	6010D

**Qualifiers/  
Definitions**

B Analyte detected in blank  
J Estimated value  
MQL Method Quantitation Limit

DF Dilution Factor  
L Limit Exceeded

03180

Ensafe  
 Ms. Allison Harris  
 5724 Summer Tree Drive  
 Memphis, TN 38134

Project Former Wayne's Pinball Palace  
 Information : 167 Chelsea Avenue, Memphis, TN  
 Project No. 0888826703

Report Date : 08/14/2020  
 Received : 08/07/2020



Report Number : **20-220-0136**

**REPORT OF ANALYSIS**

Rebekah Ross  
 Project Manager

Lab No : **93208**  
 Sample ID : **167SSB0901**

Matrix: **Solids**  
 Sampled: **8/7/2020 9:10**

**Analytical Method:** 8260B      **Prep Batch(es):** **L505698** 08/10/20 07:41  
**Prep Method:** 5030A

Test	Results	Units	MDL	MQL	DF	Date / Time Analyzed	By	Analytical Batch
Acetone	<0.005	mg/Kg - dry	0.005	0.047	1	08/10/20 14:05	ELM	L505699
Acetonitrile	<0.054	mg/Kg - dry	0.054	0.119	1	08/10/20 14:05	ELM	L505699
Acrolein	<0.007	mg/Kg - dry	0.007	0.047	1	08/10/20 14:05	ELM	L505699
Acrylonitrile	<0.003	mg/Kg - dry	0.003	0.047	1	08/10/20 14:05	ELM	L505699
Benzene	<0.0007	mg/Kg - dry	0.0007	0.002	1	08/10/20 14:05	ELM	L505699
Bromobenzene	<0.0009	mg/Kg - dry	0.0009	0.002	1	08/10/20 14:05	ELM	L505699
Bromochloromethane	<0.001	mg/Kg - dry	0.001	0.002	1	08/10/20 14:05	ELM	L505699
Bromodichloromethane	<0.002	mg/Kg - dry	0.002	0.002	1	08/10/20 14:05	ELM	L505699
Bromoform	<0.002	mg/Kg - dry	0.002	0.002	1	08/10/20 14:05	ELM	L505699
Bromomethane	<0.001	mg/Kg - dry	0.001	0.002	1	08/10/20 14:05	ELM	L505699
Methyl Ethyl Ketone (MEK)	<0.009	mg/Kg - dry	0.009	0.047	1	08/10/20 14:05	ELM	L505699
n-Butylbenzene	<0.001	mg/Kg - dry	0.001	0.002	1	08/10/20 14:05	ELM	L505699
sec-Butyl benzene	<0.001	mg/Kg - dry	0.001	0.002	1	08/10/20 14:05	ELM	L505699
tert-Butyl benzene	<0.001	mg/Kg - dry	0.001	0.002	1	08/10/20 14:05	ELM	L505699
Carbon Disulfide	<0.001	mg/Kg - dry	0.001	0.002	1	08/10/20 14:05	ELM	L505699
Carbon Tetrachloride	<0.0005	mg/Kg - dry	0.0005	0.002	1	08/10/20 14:05	ELM	L505699
Chlorobenzene	<0.0006	mg/Kg - dry	0.0006	0.002	1	08/10/20 14:05	ELM	L505699
Chlorodibromomethane	<0.002	mg/Kg - dry	0.002	0.002	1	08/10/20 14:05	ELM	L505699
Chloroethane	<0.001	mg/Kg - dry	0.001	0.002	1	08/10/20 14:05	ELM	L505699
2-Chloroethylvinyl Ether	<0.006	mg/Kg - dry	0.006	0.011	1	08/10/20 14:05	ELM	L505699
Chloroform	<0.002	mg/Kg - dry	0.002	0.002	1	08/10/20 14:05	ELM	L505699
Chloromethane	<0.001	mg/Kg - dry	0.001	0.002	1	08/10/20 14:05	ELM	L505699

Qualifiers/Definitions	B	Analyte detected in blank	DF	Dilution Factor
	J	Estimated value	MQL	Method Quantitation Limit



03180

Ensafe

Ms. Allison Harris

5724 Summer Tree Drive

Memphis , TN 38134

Project Former Wayne's Pinball Palace

Information : 167 Chelsea Avenue, Memphis, TN

Project No. 0888826703

Report Date : 08/14/2020

Received : 08/07/2020



Report Number : **20-220-0136**

**REPORT OF ANALYSIS**

Rebekah Ross  
 Project Manager

Lab No : **93208**

Sample ID : **167SSB0901**

Matrix: **Solids**

Sampled: **8/7/2020 9:10**

**Analytical Method:** 8260B                      **Prep Batch(es):** **L505698** 08/10/20 07:41  
**Prep Method:** 5030A

Test	Results	Units	MDL	MQL	DF	Date / Time Analyzed	By	Analytical Batch
2-Chlorotoluene	<0.001	mg/Kg - dry	0.001	0.002	1	08/10/20 14:05	ELM	L505699
4-Chlorotoluene	<0.001	mg/Kg - dry	0.001	0.002	1	08/10/20 14:05	ELM	L505699
1,2-Dibromo-3-Chloropropane	<0.005	mg/Kg - dry	0.005	0.011	1	08/10/20 14:05	ELM	L505699
1,2-Dibromoethane	<0.0007	mg/Kg - dry	0.0007	0.002	1	08/10/20 14:05	ELM	L505699
Dibromomethane	<0.0006	mg/Kg - dry	0.0006	0.002	1	08/10/20 14:05	ELM	L505699
1,2-Dichlorobenzene	<0.001	mg/Kg - dry	0.001	0.002	1	08/10/20 14:05	ELM	L505699
1,3-Dichlorobenzene	<0.001	mg/Kg - dry	0.001	0.002	1	08/10/20 14:05	ELM	L505699
1,4-Dichlorobenzene	<0.001	mg/Kg - dry	0.001	0.002	1	08/10/20 14:05	ELM	L505699
Dichlorodifluoromethane	<0.001	mg/Kg - dry	0.001	0.002	1	08/10/20 14:05	ELM	L505699
1,1-Dichloroethane	<0.001	mg/Kg - dry	0.001	0.002	1	08/10/20 14:05	ELM	L505699
1,2-Dichloroethane	<0.001	mg/Kg - dry	0.001	0.002	1	08/10/20 14:05	ELM	L505699
1,1-Dichloroethene	<0.001	mg/Kg - dry	0.001	0.002	1	08/10/20 14:05	ELM	L505699
cis-1,2-Dichloroethene	<0.0008	mg/Kg - dry	0.0008	0.002	1	08/10/20 14:05	ELM	L505699
trans-1,2-Dichloroethene	<0.001	mg/Kg - dry	0.001	0.002	1	08/10/20 14:05	ELM	L505699
1,2-Dichloroethene (Total)	<0.0008	mg/Kg - dry	0.0008	0.002	1	08/10/20 14:05		L505699
1,2-Dichloropropane	<0.0010	mg/Kg - dry	0.0010	0.002	1	08/10/20 14:05	ELM	L505699
1,3-Dichloropropane	<0.001	mg/Kg - dry	0.001	0.002	1	08/10/20 14:05	ELM	L505699
2,2-Dichloropropane	<0.0007	mg/Kg - dry	0.0007	0.002	1	08/10/20 14:05	ELM	L505699
1,1-Dichloropropene	<0.0008	mg/Kg - dry	0.0008	0.002	1	08/10/20 14:05	ELM	L505699
cis-1,3-Dichloropropene	<0.0007	mg/Kg - dry	0.0007	0.002	1	08/10/20 14:05	ELM	L505699
trans-1,3-Dichloropropene	<0.0007	mg/Kg - dry	0.0007	0.002	1	08/10/20 14:05	ELM	L505699
Ethyl Acetate	<0.008	mg/Kg - dry	0.008	0.047	1	08/10/20 14:05	ELM	L505699

Qualifiers/Definitions	B	Analyte detected in blank	DF	Dilution Factor
	J	Estimated value	MQL	Method Quantitation Limit

03180

Ensafe  
 Ms. Allison Harris  
 5724 Summer Tree Drive  
 Memphis , TN 38134

Project Former Wayne's Pinball Palace  
 Information : 167 Chelsea Avenue, Memphis, TN  
 Project No. 0888826703

Report Date : 08/14/2020  
 Received : 08/07/2020



Report Number : **20-220-0136**

**REPORT OF ANALYSIS**

Rebekah Ross  
 Project Manager

Lab No : **93208**  
 Sample ID : **167SSB0901**

Matrix: **Solids**  
 Sampled: **8/7/2020 9:10**

**Analytical Method:** 8260B      **Prep Batch(es):** **L505698** 08/10/20 07:41  
**Prep Method:** 5030A

Test	Results	Units	MDL	MQL	DF	Date / Time Analyzed	By	Analytical Batch
Ethylbenzene	<0.0008	mg/Kg - dry	0.0008	0.002	1	08/10/20 14:05	ELM	L505699
Hexachlorobutadiene	<0.001	mg/Kg - dry	0.001	0.002	1	08/10/20 14:05	ELM	L505699
2-Hexanone	<0.005	mg/Kg - dry	0.005	0.011	1	08/10/20 14:05	ELM	L505699
Iodomethane	<0.0010	mg/Kg - dry	0.0010	0.011	1	08/10/20 14:05	ELM	L505699
Isopropylbenzene	<0.001	mg/Kg - dry	0.001	0.002	1	08/10/20 14:05	ELM	L505699
4-Isopropyl toluene	<0.001	mg/Kg - dry	0.001	0.002	1	08/10/20 14:05	ELM	L505699
4-Methyl-2-Pentanone	<0.006	mg/Kg - dry	0.006	0.011	1	08/10/20 14:05	ELM	L505699
Methylene Chloride	<0.006	mg/Kg - dry	0.006	0.047	1	08/10/20 14:05	ELM	L505699
Methyl tert-butyl ether (MTBE)	<0.001	mg/Kg - dry	0.001	0.002	1	08/10/20 14:05	ELM	L505699
m,p-Xylene	<0.001	mg/Kg - dry	0.001	0.004	1	08/10/20 14:05	ELM	L505699
Naphthalene	<0.008	mg/Kg - dry	0.008	0.011	1	08/10/20 14:05	ELM	L505699
o-Xylene	<0.0005	mg/Kg - dry	0.0005	0.002	1	08/10/20 14:05	ELM	L505699
n-Propylbenzene	<0.001	mg/Kg - dry	0.001	0.002	1	08/10/20 14:05	ELM	L505699
Styrene	<0.001	mg/Kg - dry	0.001	0.002	1	08/10/20 14:05	ELM	L505699
1,1,1,2-Tetrachloroethane	<0.001	mg/Kg - dry	0.001	0.002	1	08/10/20 14:05	ELM	L505699
1,1,2,2-Tetrachloroethane	<0.001	mg/Kg - dry	0.001	0.002	1	08/10/20 14:05	ELM	L505699
Tetrachloroethene	<0.001	mg/Kg - dry	0.001	0.002	1	08/10/20 14:05	ELM	L505699
Toluene	<0.004	mg/Kg - dry	0.004	0.011	1	08/10/20 14:05	ELM	L505699
1,2,3-Trichlorobenzene	<0.001	mg/Kg - dry	0.001	0.002	1	08/10/20 14:05	ELM	L505699
1,2,4-Trichlorobenzene	<0.001	mg/Kg - dry	0.001	0.002	1	08/10/20 14:05	ELM	L505699
1,1,1-Trichloroethane	<0.0008	mg/Kg - dry	0.0008	0.002	1	08/10/20 14:05	ELM	L505699
1,1,2-Trichloroethane	<0.0007	mg/Kg - dry	0.0007	0.002	1	08/10/20 14:05	ELM	L505699

**Qualifiers/** B Analyte detected in blank DF Dilution Factor  
**Definitions** J Estimated value MQL Method Quantitation Limit

03180  
Ensafe  
Ms. Allison Harris  
5724 Summer Tree Drive  
Memphis, TN 38134

Project Former Wayne's Pinball Palace  
Information : 167 Chelsea Avenue, Memphis, TN  
Project No. 0888826703

Report Date : 08/14/2020  
Received : 08/07/2020



Report Number : **20-220-0136**

**REPORT OF ANALYSIS**

Rebekah Ross  
Project Manager

Lab No : **93208**  
Sample ID : **167SSB0901**

Matrix: **Solids**  
Sampled: **8/7/2020 9:10**

**Analytical Method:** 8260B **Prep Batch(es):** L505698 08/10/20 07:41  
**Prep Method:** 5030A

Test	Results	Units	MDL	MQL	DF	Date / Time Analyzed	By	Analytical Batch
Trichloroethene	<0.0006	mg/Kg - dry	0.0006	0.002	1	08/10/20 14:05	ELM	L505699
Trichlorofluoromethane	<0.001	mg/Kg - dry	0.001	0.002	1	08/10/20 14:05	ELM	L505699
1,2,3-Trichloropropane	<0.0007	mg/Kg - dry	0.0007	0.002	1	08/10/20 14:05	ELM	L505699
1,2,4-Trimethylbenzene	<0.001	mg/Kg - dry	0.001	0.002	1	08/10/20 14:05	ELM	L505699
1,3,5-Trimethylbenzene	<0.001	mg/Kg - dry	0.001	0.002	1	08/10/20 14:05	ELM	L505699
Vinyl Acetate	<0.004	mg/Kg - dry	0.004	0.047	1	08/10/20 14:05	ELM	L505699
Vinyl Chloride	<0.0006	mg/Kg - dry	0.0006	0.002	1	08/10/20 14:05	ELM	L505699
Xylene (Total)	<0.0005	mg/Kg - dry	0.0005	0.002	1	08/10/20 14:05		L505699
Surrogate: 4-Bromofluorobenzene	102		Limits: 60-130%		1	08/10/20 14:05	ELM	L505699
Surrogate: 1,2-Dichloroethane - d4	126		Limits: 60-132%		1	08/10/20 14:05	ELM	L505699
Surrogate: Toluene-d8	95.6		Limits: 70-130%		1	08/10/20 14:05	ELM	L505699

**Analytical Method:** 8270D SIM **Prep Batch(es):** L506017 08/12/20 16:04  
**Prep Method:** 3550B

Test	Results	Units	MDL	MQL	DF	Date / Time Analyzed	By	Analytical Batch
Acenaphthene	<0.000513	mg/Kg - dry	0.000513	0.000798	1	08/13/20 21:23	MLR	L506498
Acenaphthylene	<0.000455	mg/Kg - dry	0.000455	0.000798	1	08/13/20 21:23	MLR	L506498
Anthracene	<0.000507	mg/Kg - dry	0.000507	0.000798	1	08/13/20 21:23	MLR	L506498
Benzo(a)anthracene	<b>0.0160</b>	mg/Kg - dry	0.000525	0.000798	1	08/13/20 21:23	MLR	L506498
Benzo(a)pyrene	<0.000158	mg/Kg - dry	0.000158	0.000798	1	08/13/20 21:23	MLR	L506498
Benzo(b)fluoranthene	<b>0.0305</b>	mg/Kg - dry	0.000164	0.000798	1	08/13/20 21:23	MLR	L506498
Benzo(g,h,i)perylene	<b>0.0175</b>	mg/Kg - dry	0.000275	0.000798	1	08/13/20 21:23	MLR	L506498

**Qualifiers/Definitions**  
B Analyte detected in blank  
J Estimated value  
DF Dilution Factor  
MQL Method Quantitation Limit

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Project Former Wayne's Pinball Palace  
 Information : 167 Chelsea Avenue, Memphis, TN  
 Project No. 0888826703

Report Date : 08/14/2020  
 Received : 08/07/2020



Report Number : **20-220-0136**

**REPORT OF ANALYSIS**

Rebekah Ross  
 Project Manager

Lab No : **93208**  
 Sample ID : **167SSB0901**

Matrix: **Solids**  
 Sampled: **8/7/2020 9:10**

**Analytical Method:** 8270D SIM      **Prep Batch(es):** **L506017** 08/12/20 16:04  
**Prep Method:** 3550B

Test	Results	Units	MDL	MQL	DF	Date / Time Analyzed	By	Analytical Batch
Benzo(k)fluoranthene	<b>0.0159</b>	mg/Kg - dry	0.000579	0.000798	1	08/13/20 21:23	MLR	L506498
Chrysene	<b>0.0170</b>	mg/Kg - dry	0.000305	0.000798	1	08/13/20 21:23	MLR	L506498
Dibenz(a,h)anthracene	<0.000332	mg/Kg - dry	0.000332	0.000798	1	08/13/20 21:23	MLR	L506498
Fluoranthene	<b>0.0360</b>	mg/Kg - dry	0.000630	0.000798	1	08/13/20 21:23	MLR	L506498
Fluorene	<0.000597	mg/Kg - dry	0.000597	0.000798	1	08/13/20 21:23	MLR	L506498
Indeno(1,2,3-cd)pyrene	<b>0.0198</b>	mg/Kg - dry	0.000410	0.000798	1	08/13/20 21:23	MLR	L506498
2-Methylnaphthalene	<0.000646	mg/Kg - dry	0.000646	0.000798	1	08/13/20 21:23	MLR	L506498
Naphthalene	<0.000556	mg/Kg - dry	0.000556	0.000798	1	08/13/20 21:23	MLR	L506498
Phenanthrene	<0.000779	mg/Kg - dry	0.000779	0.000798	1	08/13/20 21:23	MLR	L506498
Pyrene	<b>0.0278</b>	mg/Kg - dry	0.000461	0.000798	1	08/13/20 21:23	MLR	L506498
Surrogate: 2-Fluorobiphenyl	33.0			Limits: 33-115%	1	08/13/20 21:23	MLR	L506498
Surrogate: Nitrobenzene-d5	30.6			Limits: 29-110%	1	08/13/20 21:23	MLR	L506498
Surrogate: 4-Terphenyl-d14	38.4			Limits: 33-122%	1	08/13/20 21:23	MLR	L506498

**Analytical Method:** TN EPH      **Prep Batch(es):** **L505693** 08/11/20 10:04  
**Prep Method:** 3550B

Test	Results	Units	MDL	MQL	DF	Date / Time Analyzed	By	Analytical Batch
Diesel Range Organics (C10-C28)	<b>7.56</b>	mg/Kg - dry	3.93	3.93	1	08/12/20 14:02	MMK	L505941
Oil Range Organics (>C28-C40)	<b>23.4</b>	mg/Kg - dry	3.93	3.93	1	08/12/20 14:02	MMK	L505941
TN EPH (C10-C40)	<b>30.9</b>	mg/Kg - dry	3.93	3.93	1	08/12/20 14:02		L505941
Surrogate: OTP Surrogate	104			Limits: 50-150%	1	08/12/20 14:02	MMK	L505941

**Qualifiers/Definitions**  
 B Analyte detected in blank      DF Dilution Factor  
 J Estimated value      MQL Method Quantitation Limit

03180

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Project

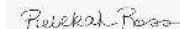
Former Wayne's Pinball Palace

Information : 167 Chelsea Avenue, Memphis, TN

Project No. 0888826703

Report Date : 08/14/2020

Received : 08/07/2020



Report Number : **20-220-0136**

**REPORT OF ANALYSIS**

Rebekah Ross  
Project Manager

Lab No : **93209**

Matrix: **Solids**

Sample ID : **167SSB1001**

Sampled: **8/7/2020 10:15**

Test	Results	Units	MDL	MQL	DF	Date / Time Analyzed	By	Analytical Method
Moisture	<b>13.2</b>	%			1	08/11/20 14:04	FMM	SW-DRYWT
Arsenic	<b>10.7</b>	mg/Kg - dry	0.276	0.576	1	08/13/20 22:06	TJS	6010D
Barium	<b>185</b>	mg/Kg - dry	0.150	0.576	1	08/13/20 22:06	TJS	6010D
Cadmium	<b>0.474</b>	mg/Kg - dry	0.0230	0.115	1	08/13/20 22:06	TJS	6010D
Chromium	<b>16.4</b>	mg/Kg - dry	0.271	0.288	1	08/13/20 22:06	TJS	6010D
Lead	<b>26.4</b>	mg/Kg - dry	0.207	0.345	1	08/13/20 22:06	TJS	6010D
Mercury	<b>0.0510</b>	mg/Kg - dry	0.00397	0.0180	1	08/13/20 17:35	DDB	7471A
Selenium	<0.368	mg/Kg - dry	0.368	0.576	1	08/14/20 14:41	TJS	6010D
Silver	<0.922	mg/Kg - dry	0.922	1.44	5	08/14/20 14:46	TJS	6010D

**Qualifiers/  
Definitions**

B Analyte detected in blank  
J Estimated value  
MQL Method Quantitation Limit

DF Dilution Factor  
L Limit Exceeded

03180

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Ms. Allison Harris

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Memphis , TN 38134

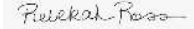
Project Former Wayne's Pinball Palace

Information : 167 Chelsea Avenue, Memphis, TN

Project No. 0888826703

Report Date : 08/14/2020

Received : 08/07/2020



Report Number : **20-220-0136**

**REPORT OF ANALYSIS**

Rebekah Ross  
Project Manager

Lab No : **93209**

Sample ID : **167SSB1001**

Matrix: **Solids**

Sampled: **8/7/2020 10:15**

**Analytical Method:** 8260B      **Prep Batch(es):** **L505698** 08/10/20 07:41  
**Prep Method:** 5030A

Test	Results	Units	MDL	MQL	DF	Date / Time Analyzed	By	Analytical Batch
Acetone	<0.005	mg/Kg - dry	0.005	0.046	1	08/10/20 14:27	ELM	L505699
Acetonitrile	<0.052	mg/Kg - dry	0.052	0.115	1	08/10/20 14:27	ELM	L505699
Acrolein	<0.007	mg/Kg - dry	0.007	0.046	1	08/10/20 14:27	ELM	L505699
Acrylonitrile	<0.002	mg/Kg - dry	0.002	0.046	1	08/10/20 14:27	ELM	L505699
Benzene	<0.0007	mg/Kg - dry	0.0007	0.002	1	08/10/20 14:27	ELM	L505699
Bromobenzene	<0.0009	mg/Kg - dry	0.0009	0.002	1	08/10/20 14:27	ELM	L505699
Bromochloromethane	<0.001	mg/Kg - dry	0.001	0.002	1	08/10/20 14:27	ELM	L505699
Bromodichloromethane	<0.002	mg/Kg - dry	0.002	0.002	1	08/10/20 14:27	ELM	L505699
Bromoform	<0.002	mg/Kg - dry	0.002	0.002	1	08/10/20 14:27	ELM	L505699
Bromomethane	<0.001	mg/Kg - dry	0.001	0.002	1	08/10/20 14:27	ELM	L505699
Methyl Ethyl Ketone (MEK)	<0.008	mg/Kg - dry	0.008	0.046	1	08/10/20 14:27	ELM	L505699
n-Butylbenzene	<0.001	mg/Kg - dry	0.001	0.002	1	08/10/20 14:27	ELM	L505699
sec-Butyl benzene	<0.001	mg/Kg - dry	0.001	0.002	1	08/10/20 14:27	ELM	L505699
tert-Butyl benzene	<0.001	mg/Kg - dry	0.001	0.002	1	08/10/20 14:27	ELM	L505699
Carbon Disulfide	<0.001	mg/Kg - dry	0.001	0.002	1	08/10/20 14:27	ELM	L505699
Carbon Tetrachloride	<0.0005	mg/Kg - dry	0.0005	0.002	1	08/10/20 14:27	ELM	L505699
Chlorobenzene	<0.0006	mg/Kg - dry	0.0006	0.002	1	08/10/20 14:27	ELM	L505699
Chlorodibromomethane	<0.002	mg/Kg - dry	0.002	0.002	1	08/10/20 14:27	ELM	L505699
Chloroethane	<0.001	mg/Kg - dry	0.001	0.002	1	08/10/20 14:27	ELM	L505699
2-Chloroethylvinyl Ether	<0.006	mg/Kg - dry	0.006	0.011	1	08/10/20 14:27	ELM	L505699
Chloroform	<0.002	mg/Kg - dry	0.002	0.002	1	08/10/20 14:27	ELM	L505699
Chloromethane	<0.001	mg/Kg - dry	0.001	0.002	1	08/10/20 14:27	ELM	L505699

Qualifiers/Definitions	B	Analyte detected in blank	DF	Dilution Factor
	J	Estimated value	MQL	Method Quantitation Limit



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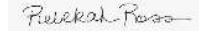
Project Former Wayne's Pinball Palace

Information : 167 Chelsea Avenue, Memphis, TN

Project No. 0888826703

Report Date : 08/14/2020

Received : 08/07/2020



Report Number : **20-220-0136**

**REPORT OF ANALYSIS**

Rebekah Ross  
Project Manager

Lab No : **93209**

Sample ID : **167SSB1001**

Matrix: **Solids**

Sampled: **8/7/2020 10:15**

**Analytical Method:** 8260B      **Prep Batch(es):** **L505698** 08/10/20 07:41  
**Prep Method:** 5030A

Test	Results	Units	MDL	MQL	DF	Date / Time Analyzed	By	Analytical Batch
2-Chlorotoluene	<0.001	mg/Kg - dry	0.001	0.002	1	08/10/20 14:27	ELM	L505699
4-Chlorotoluene	<0.001	mg/Kg - dry	0.001	0.002	1	08/10/20 14:27	ELM	L505699
1,2-Dibromo-3-Chloropropane	<0.004	mg/Kg - dry	0.004	0.011	1	08/10/20 14:27	ELM	L505699
1,2-Dibromoethane	<0.0007	mg/Kg - dry	0.0007	0.002	1	08/10/20 14:27	ELM	L505699
Dibromomethane	<0.0005	mg/Kg - dry	0.0005	0.002	1	08/10/20 14:27	ELM	L505699
1,2-Dichlorobenzene	<0.001	mg/Kg - dry	0.001	0.002	1	08/10/20 14:27	ELM	L505699
1,3-Dichlorobenzene	<0.001	mg/Kg - dry	0.001	0.002	1	08/10/20 14:27	ELM	L505699
1,4-Dichlorobenzene	<0.001	mg/Kg - dry	0.001	0.002	1	08/10/20 14:27	ELM	L505699
Dichlorodifluoromethane	<0.001	mg/Kg - dry	0.001	0.002	1	08/10/20 14:27	ELM	L505699
1,1-Dichloroethane	<0.001	mg/Kg - dry	0.001	0.002	1	08/10/20 14:27	ELM	L505699
1,2-Dichloroethane	<0.001	mg/Kg - dry	0.001	0.002	1	08/10/20 14:27	ELM	L505699
1,1-Dichloroethene	<0.001	mg/Kg - dry	0.001	0.002	1	08/10/20 14:27	ELM	L505699
cis-1,2-Dichloroethene	<0.0008	mg/Kg - dry	0.0008	0.002	1	08/10/20 14:27	ELM	L505699
trans-1,2-Dichloroethene	<0.001	mg/Kg - dry	0.001	0.002	1	08/10/20 14:27	ELM	L505699
1,2-Dichloroethene (Total)	<0.0008	mg/Kg - dry	0.0008	0.002	1	08/10/20 14:27		L505699
1,2-Dichloropropane	<0.0009	mg/Kg - dry	0.0009	0.002	1	08/10/20 14:27	ELM	L505699
1,3-Dichloropropane	<0.001	mg/Kg - dry	0.001	0.002	1	08/10/20 14:27	ELM	L505699
2,2-Dichloropropane	<0.0007	mg/Kg - dry	0.0007	0.002	1	08/10/20 14:27	ELM	L505699
1,1-Dichloropropene	<0.0008	mg/Kg - dry	0.0008	0.002	1	08/10/20 14:27	ELM	L505699
cis-1,3-Dichloropropene	<0.0007	mg/Kg - dry	0.0007	0.002	1	08/10/20 14:27	ELM	L505699
trans-1,3-Dichloropropene	<0.0007	mg/Kg - dry	0.0007	0.002	1	08/10/20 14:27	ELM	L505699
Ethyl Acetate	<0.008	mg/Kg - dry	0.008	0.046	1	08/10/20 14:27	ELM	L505699

Qualifiers/Definitions	B	Analyte detected in blank	DF	Dilution Factor
	J	Estimated value	MQL	Method Quantitation Limit



03180

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Ms. Allison Harris

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Memphis , TN 38134

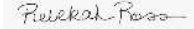
Project Former Wayne's Pinball Palace

Information : 167 Chelsea Avenue, Memphis, TN

Project No. 0888826703

Report Date : 08/14/2020

Received : 08/07/2020



Report Number : **20-220-0136**

**REPORT OF ANALYSIS**

Rebekah Ross  
Project Manager

Lab No : **93209**

Sample ID : **167SSB1001**

Matrix: **Solids**

Sampled: **8/7/2020 10:15**

**Analytical Method:** 8260B      **Prep Batch(es):** **L505698** 08/10/20 07:41  
**Prep Method:** 5030A

Test	Results	Units	MDL	MQL	DF	Date / Time Analyzed	By	Analytical Batch
Ethylbenzene	<0.0008	mg/Kg - dry	0.0008	0.002	1	08/10/20 14:27	ELM	L505699
Hexachlorobutadiene	<0.001	mg/Kg - dry	0.001	0.002	1	08/10/20 14:27	ELM	L505699
2-Hexanone	<0.005	mg/Kg - dry	0.005	0.011	1	08/10/20 14:27	ELM	L505699
Iodomethane	<0.0009	mg/Kg - dry	0.0009	0.011	1	08/10/20 14:27	ELM	L505699
Isopropylbenzene	<0.001	mg/Kg - dry	0.001	0.002	1	08/10/20 14:27	ELM	L505699
4-Isopropyl toluene	<0.001	mg/Kg - dry	0.001	0.002	1	08/10/20 14:27	ELM	L505699
4-Methyl-2-Pentanone	<0.006	mg/Kg - dry	0.006	0.011	1	08/10/20 14:27	ELM	L505699
Methylene Chloride	<0.006	mg/Kg - dry	0.006	0.046	1	08/10/20 14:27	ELM	L505699
Methyl tert-butyl ether (MTBE)	<0.001	mg/Kg - dry	0.001	0.002	1	08/10/20 14:27	ELM	L505699
m,p-Xylene	<0.001	mg/Kg - dry	0.001	0.004	1	08/10/20 14:27	ELM	L505699
Naphthalene	<0.007	mg/Kg - dry	0.007	0.011	1	08/10/20 14:27	ELM	L505699
o-Xylene	<0.0005	mg/Kg - dry	0.0005	0.002	1	08/10/20 14:27	ELM	L505699
n-Propylbenzene	<0.001	mg/Kg - dry	0.001	0.002	1	08/10/20 14:27	ELM	L505699
Styrene	<0.001	mg/Kg - dry	0.001	0.002	1	08/10/20 14:27	ELM	L505699
1,1,1,2-Tetrachloroethane	<0.001	mg/Kg - dry	0.001	0.002	1	08/10/20 14:27	ELM	L505699
1,1,2,2-Tetrachloroethane	<0.001	mg/Kg - dry	0.001	0.002	1	08/10/20 14:27	ELM	L505699
Tetrachloroethene	<0.001	mg/Kg - dry	0.001	0.002	1	08/10/20 14:27	ELM	L505699
Toluene	<0.004	mg/Kg - dry	0.004	0.011	1	08/10/20 14:27	ELM	L505699
1,2,3-Trichlorobenzene	<0.001	mg/Kg - dry	0.001	0.002	1	08/10/20 14:27	ELM	L505699
1,2,4-Trichlorobenzene	<0.001	mg/Kg - dry	0.001	0.002	1	08/10/20 14:27	ELM	L505699
1,1,1-Trichloroethane	<0.0008	mg/Kg - dry	0.0008	0.002	1	08/10/20 14:27	ELM	L505699
1,1,2-Trichloroethane	<0.0007	mg/Kg - dry	0.0007	0.002	1	08/10/20 14:27	ELM	L505699

Qualifiers/Definitions	B	Analyte detected in blank	DF	Dilution Factor
	J	Estimated value	MQL	Method Quantitation Limit

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Project Former Wayne's Pinball Palace  
 Information : 167 Chelsea Avenue, Memphis, TN  
 Project No. 0888826703

Report Date : 08/14/2020  
 Received : 08/07/2020



Report Number : **20-220-0136**

**REPORT OF ANALYSIS**

Rebekah Ross  
 Project Manager

Lab No : **93209**  
 Sample ID : **167SSB1001**

Matrix: **Solids**  
 Sampled: **8/7/2020 10:15**

**Analytical Method:** 8260B                      **Prep Batch(es):** **L505698** 08/10/20 07:41  
**Prep Method:** 5030A

Test	Results	Units	MDL	MQL	DF	Date / Time Analyzed	By	Analytical Batch
Trichloroethene	<0.0006	mg/Kg - dry	0.0006	0.002	1	08/10/20 14:27	ELM	L505699
Trichlorofluoromethane	<0.001	mg/Kg - dry	0.001	0.002	1	08/10/20 14:27	ELM	L505699
1,2,3-Trichloropropane	<0.0007	mg/Kg - dry	0.0007	0.002	1	08/10/20 14:27	ELM	L505699
1,2,4-Trimethylbenzene	<0.001	mg/Kg - dry	0.001	0.002	1	08/10/20 14:27	ELM	L505699
1,3,5-Trimethylbenzene	<0.001	mg/Kg - dry	0.001	0.002	1	08/10/20 14:27	ELM	L505699
Vinyl Acetate	<0.004	mg/Kg - dry	0.004	0.046	1	08/10/20 14:27	ELM	L505699
Vinyl Chloride	<0.0006	mg/Kg - dry	0.0006	0.002	1	08/10/20 14:27	ELM	L505699
Xylene (Total)	<0.0005	mg/Kg - dry	0.0005	0.002	1	08/10/20 14:27		L505699
Surrogate: 1,2-Dichloroethane - d4	126		Limits: 60-132%		1	08/10/20 14:27	ELM	L505699
Surrogate: 4-Bromofluorobenzene	102		Limits: 60-130%		1	08/10/20 14:27	ELM	L505699
Surrogate: Toluene-d8	98.8		Limits: 70-130%		1	08/10/20 14:27	ELM	L505699

**Analytical Method:** 8270D SIM                      **Prep Batch(es):** **L506017** 08/12/20 16:04  
**Prep Method:** 3550B

Test	Results	Units	MDL	MQL	DF	Date / Time Analyzed	By	Analytical Batch
Acenaphthene	<b>0.000549 J</b>	mg/Kg - dry	0.000496	0.000771	1	08/13/20 21:44	MLR	L506498
Acenaphthylene	<0.000440	mg/Kg - dry	0.000440	0.000771	1	08/13/20 21:44	MLR	L506498
Anthracene	<0.000490	mg/Kg - dry	0.000490	0.000771	1	08/13/20 21:44	MLR	L506498
Benzo(a)anthracene	<b>0.0104</b>	mg/Kg - dry	0.000508	0.000771	1	08/13/20 21:44	MLR	L506498
Benzo(a)pyrene	<0.000153	mg/Kg - dry	0.000153	0.000771	1	08/13/20 21:44	MLR	L506498
Benzo(b)fluoranthene	<b>0.0229</b>	mg/Kg - dry	0.000158	0.000771	1	08/13/20 21:44	MLR	L506498
Benzo(g,h,i)perylene	<b>0.0131</b>	mg/Kg - dry	0.000266	0.000771	1	08/13/20 21:44	MLR	L506498

**Qualifiers/** B Analyte detected in blank DF Dilution Factor  
**Definitions** J Estimated value MQL Method Quantitation Limit

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Project Former Wayne's Pinball Palace  
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Report Date : 08/14/2020  
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Report Number : **20-220-0136**

**REPORT OF ANALYSIS**

Rebekah Ross  
Project Manager

Lab No : **93209**  
Sample ID : **167SSB1001**

Matrix: **Solids**  
Sampled: **8/7/2020 10:15**

**Analytical Method:** 8270D SIM      **Prep Batch(es):** **L506017** 08/12/20 16:04  
**Prep Method:** 3550B

Test	Results	Units	MDL	MQL	DF	Date / Time Analyzed	By	Analytical Batch
Benzo(k)fluoranthene	<0.000559	mg/Kg - dry	0.000559	0.000771	1	08/13/20 21:44	MLR	L506498
Chrysene	<b>0.0102</b>	mg/Kg - dry	0.000294	0.000771	1	08/13/20 21:44	MLR	L506498
Dibenz(a,h)anthracene	<0.000321	mg/Kg - dry	0.000321	0.000771	1	08/13/20 21:44	MLR	L506498
Fluoranthene	<b>0.0199</b>	mg/Kg - dry	0.000609	0.000771	1	08/13/20 21:44	MLR	L506498
Fluorene	<b>0.000706 J</b>	mg/Kg - dry	0.000577	0.000771	1	08/13/20 21:44	MLR	L506498
Indeno(1,2,3-cd)pyrene	<b>0.0139</b>	mg/Kg - dry	0.000396	0.000771	1	08/13/20 21:44	MLR	L506498
2-Methylnaphthalene	<0.000624	mg/Kg - dry	0.000624	0.000771	1	08/13/20 21:44	MLR	L506498
Naphthalene	<0.000538	mg/Kg - dry	0.000538	0.000771	1	08/13/20 21:44	MLR	L506498
Phenanthrene	<0.000753	mg/Kg - dry	0.000753	0.000771	1	08/13/20 21:44	MLR	L506498
Pyrene	<b>0.0150</b>	mg/Kg - dry	0.000445	0.000771	1	08/13/20 21:44	MLR	L506498
Surrogate: 2-Fluorobiphenyl	49.2			Limits: 33-115%	1	08/13/20 21:44	MLR	L506498
Surrogate: 4-Terphenyl-d14	60.4			Limits: 33-122%	1	08/13/20 21:44	MLR	L506498
Surrogate: Nitrobenzene-d5	45.9			Limits: 29-110%	1	08/13/20 21:44	MLR	L506498

**Analytical Method:** TN EPH      **Prep Batch(es):** **L505693** 08/11/20 10:04  
**Prep Method:** 3550B

Test	Results	Units	MDL	MQL	DF	Date / Time Analyzed	By	Analytical Batch
Diesel Range Organics (C10-C28)	<b>6.92</b>	mg/Kg - dry	3.80	3.80	1	08/12/20 14:21	MMK	L505941
Oil Range Organics (>C28-C40)	<b>16.1</b>	mg/Kg - dry	3.80	3.80	1	08/12/20 14:21	MMK	L505941
TN EPH (C10-C40)	<b>23.0</b>	mg/Kg - dry	3.80	3.80	1	08/12/20 14:21		L505941
Surrogate: OTP Surrogate	118			Limits: 50-150%	1	08/12/20 14:21	MMK	L505941

**Qualifiers/Definitions**  
B Analyte detected in blank      DF Dilution Factor  
J Estimated value      MQL Method Quantitation Limit

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Project Former Wayne's Pinball Palace

Information : 167 Chelsea Avenue, Memphis, TN

Project No. 0888826703

Report Date : 08/14/2020

Received : 08/07/2020

*Rebekah Ross*

Report Number : **20-220-0136**

**REPORT OF ANALYSIS**

Rebekah Ross  
Project Manager

Lab No : **93210**

Matrix: **Solids**

Sample ID : **167SSB1016**

Sampled: **8/7/2020 10:25**

Test	Results	Units	MDL	MQL	DF	Date / Time Analyzed	By	Analytical Method
Moisture	<b>21.9</b>	%			1	08/11/20 14:04	FMM	SW-DRYWT
Arsenic	<b>3.55</b>	mg/Kg - dry	0.307	0.640	1	08/13/20 22:12	TJS	6010D
Barium	<b>53.1</b>	mg/Kg - dry	0.166	0.640	1	08/13/20 22:12	TJS	6010D
Cadmium	<b>0.149</b>	mg/Kg - dry	0.0256	0.128	1	08/13/20 22:12	TJS	6010D
Chromium	<b>11.9</b>	mg/Kg - dry	0.302	0.320	1	08/13/20 22:12	TJS	6010D
Lead	<b>4.69</b>	mg/Kg - dry	0.230	0.384	1	08/13/20 22:12	TJS	6010D
Mercury	<b>0.0104 J</b>	mg/Kg - dry	0.00395	0.0179	1	08/13/20 17:36	DDB	7471A
Selenium	<0.409	mg/Kg - dry	0.409	0.640	1	08/13/20 22:12	TJS	6010D
Silver	<b>0.444</b>	mg/Kg - dry	0.205	0.320	1	08/14/20 14:51	TJS	6010D

**Qualifiers/  
Definitions**

B Analyte detected in blank  
J Estimated value  
MQL Method Quantitation Limit

DF Dilution Factor  
L Limit Exceeded

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Ms. Allison Harris

5724 Summer Tree Drive

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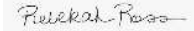
Project Former Wayne's Pinball Palace

Information : 167 Chelsea Avenue, Memphis, TN

Project No. 0888826703

Report Date : 08/14/2020

Received : 08/07/2020



Rebekah Ross  
Project Manager

Report Number : **20-220-0136**

**REPORT OF ANALYSIS**

Lab No : **93210**

Sample ID : **167SSB1016**

Matrix: **Solids**

Sampled: **8/7/2020 10:25**

**Analytical Method:** 8260B      **Prep Batch(es):** **L505698** 08/10/20 07:41  
**Prep Method:** 5030A

Test	Results	Units	MDL	MQL	DF	Date / Time Analyzed	By	Analytical Batch
Acetone	<0.005	mg/Kg - dry	0.005	0.052	1	08/10/20 14:48	ELM	L505699
Acetonitrile	<0.059	mg/Kg - dry	0.059	0.130	1	08/10/20 14:48	ELM	L505699
Acrolein	<0.008	mg/Kg - dry	0.008	0.052	1	08/10/20 14:48	ELM	L505699
Acrylonitrile	<0.003	mg/Kg - dry	0.003	0.052	1	08/10/20 14:48	ELM	L505699
Benzene	<0.0008	mg/Kg - dry	0.0008	0.002	1	08/10/20 14:48	ELM	L505699
Bromobenzene	<0.001	mg/Kg - dry	0.001	0.002	1	08/10/20 14:48	ELM	L505699
Bromochloromethane	<0.001	mg/Kg - dry	0.001	0.002	1	08/10/20 14:48	ELM	L505699
Bromodichloromethane	<0.002	mg/Kg - dry	0.002	0.002	1	08/10/20 14:48	ELM	L505699
Bromoform	<0.002	mg/Kg - dry	0.002	0.002	1	08/10/20 14:48	ELM	L505699
Bromomethane	<0.001	mg/Kg - dry	0.001	0.002	1	08/10/20 14:48	ELM	L505699
Methyl Ethyl Ketone (MEK)	<0.010	mg/Kg - dry	0.010	0.052	1	08/10/20 14:48	ELM	L505699
n-Butylbenzene	<0.001	mg/Kg - dry	0.001	0.002	1	08/10/20 14:48	ELM	L505699
sec-Butyl benzene	<0.001	mg/Kg - dry	0.001	0.002	1	08/10/20 14:48	ELM	L505699
tert-Butyl benzene	<0.001	mg/Kg - dry	0.001	0.002	1	08/10/20 14:48	ELM	L505699
Carbon Disulfide	<0.001	mg/Kg - dry	0.001	0.002	1	08/10/20 14:48	ELM	L505699
Carbon Tetrachloride	<0.0006	mg/Kg - dry	0.0006	0.002	1	08/10/20 14:48	ELM	L505699
Chlorobenzene	<0.0007	mg/Kg - dry	0.0007	0.002	1	08/10/20 14:48	ELM	L505699
Chlorodibromomethane	<0.002	mg/Kg - dry	0.002	0.002	1	08/10/20 14:48	ELM	L505699
Chloroethane	<0.001	mg/Kg - dry	0.001	0.002	1	08/10/20 14:48	ELM	L505699
2-Chloroethylvinyl Ether	<0.007	mg/Kg - dry	0.007	0.013	1	08/10/20 14:48	ELM	L505699
Chloroform	<0.002	mg/Kg - dry	0.002	0.002	1	08/10/20 14:48	ELM	L505699
Chloromethane	<0.001	mg/Kg - dry	0.001	0.002	1	08/10/20 14:48	ELM	L505699

Qualifiers/Definitions	B	Analyte detected in blank	DF	Dilution Factor
	J	Estimated value	MQL	Method Quantitation Limit

03180

Ensafe  
 Ms. Allison Harris  
 5724 Summer Tree Drive  
 Memphis , TN 38134

Project Former Wayne's Pinball Palace  
 Information : 167 Chelsea Avenue, Memphis, TN  
 Project No. 0888826703

Report Date : 08/14/2020  
 Received : 08/07/2020



Report Number : **20-220-0136**

**REPORT OF ANALYSIS**

Rebekah Ross  
 Project Manager

Lab No : **93210**

Matrix: **Solids**

Sample ID : **167SSB1016**

Sampled: **8/7/2020 10:25**

**Analytical Method:** 8260B      **Prep Batch(es):** **L505698** 08/10/20 07:41  
**Prep Method:** 5030A

Test	Results	Units	MDL	MQL	DF	Date / Time Analyzed	By	Analytical Batch
2-Chlorotoluene	<0.001	mg/Kg - dry	0.001	0.002	1	08/10/20 14:48	ELM	L505699
4-Chlorotoluene	<0.001	mg/Kg - dry	0.001	0.002	1	08/10/20 14:48	ELM	L505699
1,2-Dibromo-3-Chloropropane	<0.005	mg/Kg - dry	0.005	0.013	1	08/10/20 14:48	ELM	L505699
1,2-Dibromoethane	<0.0008	mg/Kg - dry	0.0008	0.002	1	08/10/20 14:48	ELM	L505699
Dibromomethane	<0.0006	mg/Kg - dry	0.0006	0.002	1	08/10/20 14:48	ELM	L505699
1,2-Dichlorobenzene	<0.001	mg/Kg - dry	0.001	0.002	1	08/10/20 14:48	ELM	L505699
1,3-Dichlorobenzene	<0.001	mg/Kg - dry	0.001	0.002	1	08/10/20 14:48	ELM	L505699
1,4-Dichlorobenzene	<0.001	mg/Kg - dry	0.001	0.002	1	08/10/20 14:48	ELM	L505699
Dichlorodifluoromethane	<0.001	mg/Kg - dry	0.001	0.002	1	08/10/20 14:48	ELM	L505699
1,1-Dichloroethane	<0.001	mg/Kg - dry	0.001	0.002	1	08/10/20 14:48	ELM	L505699
1,2-Dichloroethane	<0.001	mg/Kg - dry	0.001	0.002	1	08/10/20 14:48	ELM	L505699
1,1-Dichloroethene	<0.001	mg/Kg - dry	0.001	0.002	1	08/10/20 14:48	ELM	L505699
cis-1,2-Dichloroethene	<0.0009	mg/Kg - dry	0.0009	0.002	1	08/10/20 14:48	ELM	L505699
trans-1,2-Dichloroethene	<0.001	mg/Kg - dry	0.001	0.002	1	08/10/20 14:48	ELM	L505699
1,2-Dichloroethene (Total)	<0.0009	mg/Kg - dry	0.0009	0.002	1	08/10/20 14:48		L505699
1,2-Dichloropropane	<0.001	mg/Kg - dry	0.001	0.002	1	08/10/20 14:48	ELM	L505699
1,3-Dichloropropane	<0.001	mg/Kg - dry	0.001	0.002	1	08/10/20 14:48	ELM	L505699
2,2-Dichloropropane	<0.0008	mg/Kg - dry	0.0008	0.002	1	08/10/20 14:48	ELM	L505699
1,1-Dichloropropene	<0.0009	mg/Kg - dry	0.0009	0.002	1	08/10/20 14:48	ELM	L505699
cis-1,3-Dichloropropene	<0.0008	mg/Kg - dry	0.0008	0.002	1	08/10/20 14:48	ELM	L505699
trans-1,3-Dichloropropene	<0.0007	mg/Kg - dry	0.0007	0.002	1	08/10/20 14:48	ELM	L505699
Ethyl Acetate	<0.009	mg/Kg - dry	0.009	0.052	1	08/10/20 14:48	ELM	L505699

Qualifiers/Definitions	B	Analyte detected in blank	DF	Dilution Factor
	J	Estimated value	MQL	Method Quantitation Limit

03180

Ensafe

Ms. Allison Harris

5724 Summer Tree Drive

Memphis , TN 38134

Project Former Wayne's Pinball Palace

Information : 167 Chelsea Avenue, Memphis, TN

Project No. 0888826703

Report Date : 08/14/2020

Received : 08/07/2020



Report Number : **20-220-0136**

**REPORT OF ANALYSIS**

Rebekah Ross  
Project Manager

Lab No : **93210**

Sample ID : **167SSB1016**

Matrix: **Solids**

Sampled: **8/7/2020 10:25**

**Analytical Method:** 8260B      **Prep Batch(es):** **L505698** 08/10/20 07:41  
**Prep Method:** 5030A

Test	Results	Units	MDL	MQL	DF	Date / Time Analyzed	By	Analytical Batch
Ethylbenzene	<0.0009	mg/Kg - dry	0.0009	0.002	1	08/10/20 14:48	ELM	L505699
Hexachlorobutadiene	<0.001	mg/Kg - dry	0.001	0.002	1	08/10/20 14:48	ELM	L505699
2-Hexanone	<0.006	mg/Kg - dry	0.006	0.013	1	08/10/20 14:48	ELM	L505699
Iodomethane	<0.001	mg/Kg - dry	0.001	0.013	1	08/10/20 14:48	ELM	L505699
Isopropylbenzene	<0.001	mg/Kg - dry	0.001	0.002	1	08/10/20 14:48	ELM	L505699
4-Isopropyl toluene	<0.001	mg/Kg - dry	0.001	0.002	1	08/10/20 14:48	ELM	L505699
4-Methyl-2-Pentanone	<0.006	mg/Kg - dry	0.006	0.013	1	08/10/20 14:48	ELM	L505699
Methylene Chloride	<0.007	mg/Kg - dry	0.007	0.052	1	08/10/20 14:48	ELM	L505699
Methyl tert-butyl ether (MTBE)	<0.001	mg/Kg - dry	0.001	0.002	1	08/10/20 14:48	ELM	L505699
m,p-Xylene	<0.001	mg/Kg - dry	0.001	0.005	1	08/10/20 14:48	ELM	L505699
Naphthalene	<0.008	mg/Kg - dry	0.008	0.013	1	08/10/20 14:48	ELM	L505699
o-Xylene	<0.0006	mg/Kg - dry	0.0006	0.002	1	08/10/20 14:48	ELM	L505699
n-Propylbenzene	<0.001	mg/Kg - dry	0.001	0.002	1	08/10/20 14:48	ELM	L505699
Styrene	<0.002	mg/Kg - dry	0.002	0.002	1	08/10/20 14:48	ELM	L505699
1,1,1,2-Tetrachloroethane	<0.001	mg/Kg - dry	0.001	0.002	1	08/10/20 14:48	ELM	L505699
1,1,2,2-Tetrachloroethane	<0.001	mg/Kg - dry	0.001	0.002	1	08/10/20 14:48	ELM	L505699
Tetrachloroethene	<0.001	mg/Kg - dry	0.001	0.002	1	08/10/20 14:48	ELM	L505699
Toluene	<0.004	mg/Kg - dry	0.004	0.013	1	08/10/20 14:48	ELM	L505699
1,2,3-Trichlorobenzene	<0.002	mg/Kg - dry	0.002	0.002	1	08/10/20 14:48	ELM	L505699
1,2,4-Trichlorobenzene	<0.001	mg/Kg - dry	0.001	0.002	1	08/10/20 14:48	ELM	L505699
1,1,1-Trichloroethane	<0.0009	mg/Kg - dry	0.0009	0.002	1	08/10/20 14:48	ELM	L505699
1,1,2-Trichloroethane	<0.0008	mg/Kg - dry	0.0008	0.002	1	08/10/20 14:48	ELM	L505699

**Qualifiers/** B Analyte detected in blank DF Dilution Factor  
**Definitions** J Estimated value MQL Method Quantitation Limit



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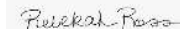
Project Former Wayne's Pinball Palace

Information : 167 Chelsea Avenue, Memphis, TN

Project No. 0888826703

Report Date : 08/14/2020

Received : 08/07/2020



Report Number : **20-220-0136**

**REPORT OF ANALYSIS**

Rebekah Ross  
Project Manager

Lab No : **93210**

Matrix: **Solids**

Sample ID : **167SSB1016**

Sampled: **8/7/2020 10:25**

**Analytical Method:** 8260B

**Prep Batch(es):** **L505698** 08/10/20 07:41

**Prep Method:** 5030A

Test	Results	Units	MDL	MQL	DF	Date / Time Analyzed	By	Analytical Batch
Trichloroethene	<0.0006	mg/Kg - dry	0.0006	0.002	1	08/10/20 14:48	ELM	L505699
Trichlorofluoromethane	<0.001	mg/Kg - dry	0.001	0.002	1	08/10/20 14:48	ELM	L505699
1,2,3-Trichloropropane	<0.0008	mg/Kg - dry	0.0008	0.002	1	08/10/20 14:48	ELM	L505699
1,2,4-Trimethylbenzene	<0.001	mg/Kg - dry	0.001	0.002	1	08/10/20 14:48	ELM	L505699
1,3,5-Trimethylbenzene	<0.001	mg/Kg - dry	0.001	0.002	1	08/10/20 14:48	ELM	L505699
Vinyl Acetate	<0.004	mg/Kg - dry	0.004	0.052	1	08/10/20 14:48	ELM	L505699
Vinyl Chloride	<0.0007	mg/Kg - dry	0.0007	0.002	1	08/10/20 14:48	ELM	L505699
Xylene (Total)	<0.0006	mg/Kg - dry	0.0006	0.002	1	08/10/20 14:48		L505699
Surrogate: 4-Bromofluorobenzene	102		Limits: 60-130%		1	08/10/20 14:48	ELM	L505699
Surrogate: 1,2-Dichloroethane - d4	119		Limits: 60-132%		1	08/10/20 14:48	ELM	L505699
Surrogate: Toluene-d8	104		Limits: 70-130%		1	08/10/20 14:48	ELM	L505699

**Analytical Method:** 8270D SIM

**Prep Batch(es):** **L506017** 08/12/20 16:04

**Prep Method:** 3550B

Test	Results	Units	MDL	MQL	DF	Date / Time Analyzed	By	Analytical Batch
Acenaphthene	<0.000551	mg/Kg - dry	0.000551	0.000857	1	08/13/20 22:05	MLR	L506498
Acenaphthylene	<0.000489	mg/Kg - dry	0.000489	0.000857	1	08/13/20 22:05	MLR	L506498
Anthracene	<0.000545	mg/Kg - dry	0.000545	0.000857	1	08/13/20 22:05	MLR	L506498
Benzo(a)anthracene	<b>0.000614 J</b>	mg/Kg - dry	0.000564	0.000857	1	08/13/20 22:05	MLR	L506498
Benzo(a)pyrene	<0.000170	mg/Kg - dry	0.000170	0.000857	1	08/13/20 22:05	MLR	L506498
Benzo(b)fluoranthene	<b>0.000778 J</b>	mg/Kg - dry	0.000176	0.000857	1	08/13/20 22:05	MLR	L506498
Benzo(g,h,i)perylene	<b>0.00108</b>	mg/Kg - dry	0.000295	0.000857	1	08/13/20 22:05	MLR	L506498

**Qualifiers/** B Analyte detected in blank  
**Definitions** J Estimated value

DF Dilution Factor  
MQL Method Quantitation Limit

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5724 Summer Tree Drive  
Memphis , TN 38134

Project Former Wayne's Pinball Palace  
Information : 167 Chelsea Avenue, Memphis, TN  
Project No. 0888826703

Report Date : 08/14/2020  
Received : 08/07/2020



Report Number : **20-220-0136**

**REPORT OF ANALYSIS**

Rebekah Ross  
Project Manager

Lab No : **93210**  
Sample ID : **167SSB1016**

Matrix: **Solids**  
Sampled: **8/7/2020 10:25**

**Analytical Method:** 8270D SIM      **Prep Batch(es):** **L506017** 08/12/20 16:04  
**Prep Method:** 3550B

Test	Results	Units	MDL	MQL	DF	Date / Time Analyzed	By	Analytical Batch
Benzo(k)fluoranthene	<0.000622	mg/Kg - dry	0.000622	0.000857	1	08/13/20 22:05	MLR	L506498
Chrysene	<b>0.000349 J</b>	mg/Kg - dry	0.000327	0.000857	1	08/13/20 22:05	MLR	L506498
Dibenz(a,h)anthracene	<b>0.00117</b>	mg/Kg - dry	0.000357	0.000857	1	08/13/20 22:05	MLR	L506498
Fluoranthene	<0.000677	mg/Kg - dry	0.000677	0.000857	1	08/13/20 22:05	MLR	L506498
Fluorene	<0.000641	mg/Kg - dry	0.000641	0.000857	1	08/13/20 22:05	MLR	L506498
Indeno(1,2,3-cd)pyrene	<0.000440	mg/Kg - dry	0.000440	0.000857	1	08/13/20 22:05	MLR	L506498
2-Methylnaphthalene	<0.000693	mg/Kg - dry	0.000693	0.000857	1	08/13/20 22:05	MLR	L506498
Naphthalene	<0.000597	mg/Kg - dry	0.000597	0.000857	1	08/13/20 22:05	MLR	L506498
Phenanthrene	<0.000837	mg/Kg - dry	0.000837	0.000857	1	08/13/20 22:05	MLR	L506498
Pyrene	<b>0.000560 J</b>	mg/Kg - dry	0.000495	0.000857	1	08/13/20 22:05	MLR	L506498
Surrogate: 2-Fluorobiphenyl	55.6			Limits: 33-115%	1	08/13/20 22:05	MLR	L506498
Surrogate: Nitrobenzene-d5	57.1			Limits: 29-110%	1	08/13/20 22:05	MLR	L506498
Surrogate: 4-Terphenyl-d14	75.8			Limits: 33-122%	1	08/13/20 22:05	MLR	L506498

**Analytical Method:** TN EPH      **Prep Batch(es):** **L505693** 08/11/20 10:04  
**Prep Method:** 3550B

Test	Results	Units	MDL	MQL	DF	Date / Time Analyzed	By	Analytical Batch
Diesel Range Organics (C10-C28)	<b>4.57</b>	mg/Kg - dry	4.23	4.23	1	08/12/20 14:40	MMK	L505941
Oil Range Organics (>C28-C40)	<b>26.6</b>	mg/Kg - dry	4.23	4.23	1	08/12/20 14:40	MMK	L505941
TN EPH (C10-C40)	<b>31.2</b>	mg/Kg - dry	4.23	4.23	1	08/12/20 14:40		L505941
Surrogate: OTP Surrogate	96.7			Limits: 50-150%	1	08/12/20 14:40	MMK	L505941

**Qualifiers/Definitions**  
 B Analyte detected in blank      DF Dilution Factor  
 J Estimated value      MQL Method Quantitation Limit

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Project

Former Wayne's Pinball Palace

Information : 167 Chelsea Avenue, Memphis, TN

Project No. 0888826703

Report Date : 08/14/2020

Received : 08/07/2020

*Rebekah Ross*

Report Number : **20-220-0136**

**REPORT OF ANALYSIS**

Rebekah Ross  
Project Manager

Lab No : **93211**

Sample ID : **167GMW03080720**

Matrix: **Aqueous**

Sampled: **8/7/2020 12:30**

Test	Results	Units	MDL	MQL	DF	Date / Time Analyzed	By	Analytical Method
Arsenic	<0.0056	mg/L	0.0056	0.0100	1	08/11/20 19:14	TJS	6010D
Barium	<b>0.157</b>	mg/L	0.0040	0.0100	1	08/11/20 19:14	TJS	6010D
Cadmium	<0.0003	mg/L	0.0003	0.0020	1	08/11/20 19:14	TJS	6010D
Chromium	<0.003	mg/L	0.003	0.005	1	08/11/20 19:14	TJS	6010D
Lead	<0.002	mg/L	0.002	0.006	1	08/11/20 19:14	TJS	6010D
Mercury	<0.00013	mg/L	0.00013	0.00020	1	08/13/20 13:42	DDB	7470A
Selenium	<0.003	mg/L	0.003	0.010	1	08/12/20 16:42	TJS	6010D
Silver	<0.0023	mg/L	0.0023	0.0050	1	08/11/20 19:14	TJS	6010D

**Qualifiers/  
Definitions**

B Analyte detected in blank  
J Estimated value  
MQL Method Quantitation Limit

DF Dilution Factor  
L Limit Exceeded

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5724 Summer Tree Drive

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Project Former Wayne's Pinball Palace

Information : 167 Chelsea Avenue, Memphis, TN

Project No. 0888826703

Report Date : 08/14/2020

Received : 08/07/2020



Report Number : **20-220-0136**

**REPORT OF ANALYSIS**

Rebekah Ross  
Project Manager

Lab No : **93211**

Sample ID : **167GMW03080720**

Matrix: **Aqueous**

Sampled: **8/7/2020 12:30**

**Analytical Method:** 8260B      **Prep Batch(es):** **L505402** 08/08/20 07:41  
**Prep Method:** 5030B

Test	Results	Units	MDL	MQL	DF	Date / Time Analyzed	By	Analytical Batch
Acetone	<0.009	mg/L	0.009	0.020	1	08/08/20 18:14	ASH	L505439
Acetonitrile	<0.018	mg/L	0.018	0.050	1	08/08/20 18:14	ASH	L505439
Acrolein	<0.002	mg/L	0.002	0.020	1	08/08/20 18:14	ASH	L505439
Acrylonitrile	<0.002	mg/L	0.002	0.020	1	08/08/20 18:14	ASH	L505439
Benzene	<0.0004	mg/L	0.0004	0.001	1	08/08/20 18:14	ASH	L505439
Bromobenzene	<0.0007	mg/L	0.0007	0.001	1	08/08/20 18:14	ASH	L505439
Bromochloromethane	<0.0004	mg/L	0.0004	0.001	1	08/08/20 18:14	ASH	L505439
Bromodichloromethane	<0.0009	mg/L	0.0009	0.001	1	08/08/20 18:14	ASH	L505439
Bromoform	<0.0009	mg/L	0.0009	0.001	1	08/08/20 18:14	ASH	L505439
Bromomethane	<0.001	mg/L	0.001	0.002	1	08/08/20 18:14	ASH	L505439
Methyl Ethyl Ketone (MEK)	<0.002	mg/L	0.002	0.020	1	08/08/20 18:14	ASH	L505439
n-Butylbenzene	<0.0010	mg/L	0.0010	0.001	1	08/08/20 18:14	ASH	L505439
sec-Butyl benzene	<0.0005	mg/L	0.0005	0.001	1	08/08/20 18:14	ASH	L505439
tert-Butyl benzene	<0.0004	mg/L	0.0004	0.001	1	08/08/20 18:14	ASH	L505439
Carbon Disulfide	<0.0003	mg/L	0.0003	0.001	1	08/08/20 18:14	ASH	L505439
Carbon Tetrachloride	<0.0006	mg/L	0.0006	0.001	1	08/08/20 18:14	ASH	L505439
Chlorobenzene	<0.0003	mg/L	0.0003	0.001	1	08/08/20 18:14	ASH	L505439
Chlorodibromomethane	<0.0009	mg/L	0.0009	0.001	1	08/08/20 18:14	ASH	L505439
Chloroethane	<0.0003	mg/L	0.0003	0.001	1	08/08/20 18:14	ASH	L505439
2-Chloroethylvinyl Ether	<0.002	mg/L	0.002	0.005	1	08/08/20 18:14	ASH	L505439
Chloroform	<0.0008	mg/L	0.0008	0.001	1	08/08/20 18:14	ASH	L505439
Chloromethane	<0.0007	mg/L	0.0007	0.001	1	08/08/20 18:14	ASH	L505439

Qualifiers/Definitions	B	Analyte detected in blank	DF	Dilution Factor
	J	Estimated value	MQL	Method Quantitation Limit

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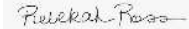
Project Former Wayne's Pinball Palace

Information : 167 Chelsea Avenue, Memphis, TN

Project No. 0888826703

Report Date : 08/14/2020

Received : 08/07/2020



Report Number : **20-220-0136**

**REPORT OF ANALYSIS**

Rebekah Ross  
Project Manager

Lab No : **93211**

Sample ID : **167GMW03080720**

Matrix: **Aqueous**

Sampled: **8/7/2020 12:30**

**Analytical Method:** 8260B      **Prep Batch(es):** **L505402** 08/08/20 07:41  
**Prep Method:** 5030B

Test	Results	Units	MDL	MQL	DF	Date / Time Analyzed	By	Analytical Batch
2-Chlorotoluene	<0.0005	mg/L	0.0005	0.001	1	08/08/20 18:14	ASH	L505439
4-Chlorotoluene	<0.0005	mg/L	0.0005	0.001	1	08/08/20 18:14	ASH	L505439
1,2-Dibromo-3-Chloropropane	<0.001	mg/L	0.001	0.002	1	08/08/20 18:14	ASH	L505439
1,2-Dibromoethane	<0.0004	mg/L	0.0004	0.001	1	08/08/20 18:14	ASH	L505439
Dibromomethane	<0.0004	mg/L	0.0004	0.001	1	08/08/20 18:14	ASH	L505439
1,2-Dichlorobenzene	<0.0006	mg/L	0.0006	0.001	1	08/08/20 18:14	ASH	L505439
1,3-Dichlorobenzene	<0.0006	mg/L	0.0006	0.001	1	08/08/20 18:14	ASH	L505439
1,4-Dichlorobenzene	<0.0006	mg/L	0.0006	0.001	1	08/08/20 18:14	ASH	L505439
Dichlorodifluoromethane	<0.0007	mg/L	0.0007	0.001	1	08/08/20 18:14	ASH	L505439
1,1-Dichloroethane	<0.0004	mg/L	0.0004	0.001	1	08/08/20 18:14	ASH	L505439
1,2-Dichloroethane	<0.0006	mg/L	0.0006	0.001	1	08/08/20 18:14	ASH	L505439
1,1-Dichloroethene	<0.0003	mg/L	0.0003	0.001	1	08/08/20 18:14	ASH	L505439
cis-1,2-Dichloroethene	<0.0004	mg/L	0.0004	0.001	1	08/08/20 18:14	ASH	L505439
trans-1,2-Dichloroethene	<0.0004	mg/L	0.0004	0.001	1	08/08/20 18:14	ASH	L505439
1,2-Dichloroethene (Total)	<0.0004	mg/L	0.0004	0.001	1	08/08/20 18:14		L505439
1,2-Dichloropropane	<0.0004	mg/L	0.0004	0.001	1	08/08/20 18:14	ASH	L505439
1,3-Dichloropropane	<0.0003	mg/L	0.0003	0.001	1	08/08/20 18:14	ASH	L505439
2,2-Dichloropropane	<0.0006	mg/L	0.0006	0.001	1	08/08/20 18:14	ASH	L505439
1,1-Dichloropropene	<0.0008	mg/L	0.0008	0.001	1	08/08/20 18:14	ASH	L505439
cis-1,3-Dichloropropene	<0.0004	mg/L	0.0004	0.001	1	08/08/20 18:14	ASH	L505439
trans-1,3-Dichloropropene	<0.0003	mg/L	0.0003	0.001	1	08/08/20 18:14	ASH	L505439
Ethyl Acetate	<0.003	mg/L	0.003	0.010	1	08/08/20 18:14	ASH	L505439

Qualifiers/Definitions	B	Analyte detected in blank	DF	Dilution Factor
	J	Estimated value	MQL	Method Quantitation Limit

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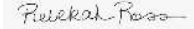
Project Former Wayne's Pinball Palace

Information : 167 Chelsea Avenue, Memphis, TN

Project No. 0888826703

Report Date : 08/14/2020

Received : 08/07/2020



Report Number : **20-220-0136**

**REPORT OF ANALYSIS**

Rebekah Ross  
Project Manager

Lab No : **93211**

Sample ID : **167GMW03080720**

Matrix: **Aqueous**

Sampled: **8/7/2020 12:30**

**Analytical Method:** 8260B      **Prep Batch(es):** **L505402** 08/08/20 07:41  
**Prep Method:** 5030B

Test	Results	Units	MDL	MQL	DF	Date / Time Analyzed	By	Analytical Batch
Ethylbenzene	<0.0006	mg/L	0.0006	0.001	1	08/08/20 18:14	ASH	L505439
Hexachlorobutadiene	<0.0008	mg/L	0.0008	0.001	1	08/08/20 18:14	ASH	L505439
2-Hexanone	<0.001	mg/L	0.001	0.005	1	08/08/20 18:14	ASH	L505439
Iodomethane	<0.001	mg/L	0.001	0.005	1	08/08/20 18:14	ASH	L505439
Isopropylbenzene	<0.0008	mg/L	0.0008	0.001	1	08/08/20 18:14	ASH	L505439
4-Isopropyl toluene	<0.0009	mg/L	0.0009	0.001	1	08/08/20 18:14	ASH	L505439
4-Methyl-2-Pentanone	<0.001	mg/L	0.001	0.005	1	08/08/20 18:14	ASH	L505439
Methylene Chloride	<0.004	mg/L	0.004	0.005	1	08/08/20 18:14	ASH	L505439
Methyl tert-butyl ether (MTBE)	<0.0006	mg/L	0.0006	0.001	1	08/08/20 18:14	ASH	L505439
m,p-Xylene	<0.001	mg/L	0.001	0.002	1	08/08/20 18:14	ASH	L505439
Naphthalene	<0.004	mg/L	0.004	0.005	1	08/08/20 18:14	ASH	L505439
o-Xylene	<0.0005	mg/L	0.0005	0.001	1	08/08/20 18:14	ASH	L505439
n-Propylbenzene	<0.0008	mg/L	0.0008	0.001	1	08/08/20 18:14	ASH	L505439
Styrene	<0.0010	mg/L	0.0010	0.001	1	08/08/20 18:14	ASH	L505439
1,1,1,2-Tetrachloroethane	<0.0004	mg/L	0.0004	0.001	1	08/08/20 18:14	ASH	L505439
1,1,2,2-Tetrachloroethane	<0.0006	mg/L	0.0006	0.001	1	08/08/20 18:14	ASH	L505439
Tetrachloroethene	<0.0004	mg/L	0.0004	0.001	1	08/08/20 18:14	ASH	L505439
Toluene	<0.001	mg/L	0.001	0.002	1	08/08/20 18:14	ASH	L505439
1,2,3-Trichlorobenzene	<0.001	mg/L	0.001	0.002	1	08/08/20 18:14	ASH	L505439
1,2,4-Trichlorobenzene	<0.001	mg/L	0.001	0.002	1	08/08/20 18:14	ASH	L505439
1,1,1-Trichloroethane	<0.0003	mg/L	0.0003	0.001	1	08/08/20 18:14	ASH	L505439
1,1,2-Trichloroethane	<0.0008	mg/L	0.0008	0.001	1	08/08/20 18:14	ASH	L505439

Qualifiers/Definitions	B	Analyte detected in blank	DF	Dilution Factor
	J	Estimated value	MQL	Method Quantitation Limit





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Ms. Allison Harris  
5724 Summer Tree Drive  
Memphis, TN 38134

Project Former Wayne's Pinball Palace  
Information : 167 Chelsea Avenue, Memphis, TN  
Project No. 0888826703

Report Date : 08/14/2020  
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Report Number : **20-220-0136**

**REPORT OF ANALYSIS**

Rebekah Ross  
Project Manager

Lab No : **93211**

Matrix: **Aqueous**

Sample ID : **167GMW03080720**

Sampled: **8/7/2020 12:30**

**Analytical Method:** 8270D SIM

**Prep Batch(es):** **L505416** 08/10/20 12:30

**Prep Method:** 3511

Test	Results	Units	MDL	MQL	DF	Date / Time Analyzed	By	Analytical Batch
Benzo(g,h,i)perylene	<0.000007	mg/L	0.000007	0.000020	1	08/10/20 19:44	MLR	L505705
Benzo(k)fluoranthene	<0.000016	mg/L	0.000016	0.000020	1	08/10/20 19:44	MLR	L505705
Chrysene	<0.000008	mg/L	0.000008	0.000020	1	08/10/20 19:44	MLR	L505705
Dibenz(a,h)anthracene	<0.000006	mg/L	0.000006	0.000020	1	08/10/20 19:44	MLR	L505705
Fluoranthene	<0.000005	mg/L	0.000005	0.000020	1	08/10/20 19:44	MLR	L505705
Fluorene	<0.000010	mg/L	0.000010	0.000020	1	08/10/20 19:44	MLR	L505705
Indeno(1,2,3-cd)pyrene	<0.000014	mg/L	0.000014	0.000020	1	08/10/20 19:44	MLR	L505705
2-Methylnaphthalene	<b>0.000051</b>	mg/L	0.000018	0.000020	1	08/10/20 19:44	MLR	L505705
Naphthalene	<b>0.000158</b>	mg/L	0.000019	0.000020	1	08/10/20 19:44	MLR	L505705
Phenanthrene	<b>0.000011 J</b>	mg/L	0.000008	0.000020	1	08/10/20 19:44	MLR	L505705
Pyrene	<0.000009	mg/L	0.000009	0.000020	1	08/10/20 19:44	MLR	L505705
Surrogate: 2-Fluorobiphenyl	104		Limits: 70-130%		1	08/10/20 19:44	MLR	L505705
Surrogate: 4-Terphenyl-d14	98.3		Limits: 70-130%		1	08/10/20 19:44	MLR	L505705

**Analytical Method:** TN EPH

**Prep Batch(es):** **L505744** 08/11/20 14:30

**Prep Method:** 3510C

Test	Results	Units	MDL	MQL	DF	Date / Time Analyzed	By	Analytical Batch
Diesel Range Organics (C10-C28)	<b>0.0872 JB</b>	mg/L	0.0548	0.0900	1	08/13/20 01:24	MMK	L505943
Oil Range Organics (>C28-C40)	<0.0841	mg/L	0.0841	0.0900	1	08/13/20 01:24	MMK	L505943
TN EPH (C10-C40)	<b>0.0872 JB</b>	mg/L	0.0548	0.0900	1	08/13/20 01:24		L505943
Surrogate: OTP Surrogate	60.3		Limits: 50-150%		1	08/13/20 01:24	MMK	L505943

**Qualifiers/** B Analyte detected in blank  
**Definitions** J Estimated value

DF Dilution Factor  
MQL Method Quantitation Limit

03180

Ensafe

Ms. Allison Harris

5724 Summer Tree Drive

Memphis , TN 38134

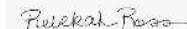
Project Former Wayne's Pinball Palace

Information : 167 Chelsea Avenue, Memphis, TN

Project No. 0888826703

Report Date : 08/14/2020

Received : 08/07/2020



Report Number : **20-220-0136**

**REPORT OF ANALYSIS**

Rebekah Ross  
Project Manager

Lab No : **93212**

Matrix: **Aqueous**

Sample ID : **167GMW04080720**

Sampled: **8/7/2020 13:00**

Test	Results	Units	MDL	MQL	DF	Date / Time Analyzed	By	Analytical Method
Arsenic	<0.0056	mg/L	0.0056	0.0100	1	08/11/20 19:19	TJS	6010D
Barium	<b>0.136</b>	mg/L	0.0040	0.0100	1	08/11/20 19:19	TJS	6010D
Cadmium	<0.0003	mg/L	0.0003	0.0020	1	08/11/20 19:19	TJS	6010D
Chromium	<b>0.012</b>	mg/L	0.003	0.005	1	08/11/20 19:19	TJS	6010D
Lead	<b>0.004 J</b>	mg/L	0.002	0.006	1	08/11/20 19:19	TJS	6010D
Mercury	<0.00013	mg/L	0.00013	0.00020	1	08/13/20 13:44	DDB	7470A
Selenium	<0.003	mg/L	0.003	0.010	1	08/12/20 16:47	TJS	6010D
Silver	<0.0023	mg/L	0.0023	0.0050	1	08/11/20 19:19	TJS	6010D

**Qualifiers/  
Definitions**

B Analyte detected in blank  
J Estimated value  
MQL Method Quantitation Limit

DF Dilution Factor  
L Limit Exceeded

03180

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Ms. Allison Harris

5724 Summer Tree Drive

Memphis , TN 38134

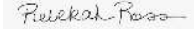
Project Former Wayne's Pinball Palace

Information : 167 Chelsea Avenue, Memphis, TN

Project No. 0888826703

Report Date : 08/14/2020

Received : 08/07/2020



Rebekah Ross  
Project Manager

Report Number : **20-220-0136**

**REPORT OF ANALYSIS**

Lab No : **93212**

Sample ID : **167GMW04080720**

Matrix: **Aqueous**

Sampled: **8/7/2020 13:00**

**Analytical Method:** 8260B      **Prep Batch(es):** **L505402** 08/08/20 07:41  
**Prep Method:** 5030B

Test	Results	Units	MDL	MQL	DF	Date / Time Analyzed	By	Analytical Batch
Acetone	<0.092	mg/L	0.092	0.200	10	08/08/20 18:36	ASH	L505439
Acetonitrile	<0.185	mg/L	0.185	0.500	10	08/08/20 18:36	ASH	L505439
Acrolein	<0.029	mg/L	0.029	0.200	10	08/08/20 18:36	ASH	L505439
Acrylonitrile	<0.023	mg/L	0.023	0.200	10	08/08/20 18:36	ASH	L505439
Benzene	<0.004	mg/L	0.004	0.010	10	08/08/20 18:36	ASH	L505439
Bromobenzene	<0.006	mg/L	0.006	0.010	10	08/08/20 18:36	ASH	L505439
Bromochloromethane	<0.003	mg/L	0.003	0.010	10	08/08/20 18:36	ASH	L505439
Bromodichloromethane	<0.008	mg/L	0.008	0.010	10	08/08/20 18:36	ASH	L505439
Bromoform	<0.008	mg/L	0.008	0.010	10	08/08/20 18:36	ASH	L505439
Bromomethane	<0.010	mg/L	0.010	0.020	10	08/08/20 18:36	ASH	L505439
Methyl Ethyl Ketone (MEK)	<0.021	mg/L	0.021	0.200	10	08/08/20 18:36	ASH	L505439
n-Butylbenzene	<0.009	mg/L	0.009	0.010	10	08/08/20 18:36	ASH	L505439
sec-Butyl benzene	<0.005	mg/L	0.005	0.010	10	08/08/20 18:36	ASH	L505439
tert-Butyl benzene	<0.004	mg/L	0.004	0.010	10	08/08/20 18:36	ASH	L505439
Carbon Disulfide	<0.002	mg/L	0.002	0.010	10	08/08/20 18:36	ASH	L505439
Carbon Tetrachloride	<0.006	mg/L	0.006	0.010	10	08/08/20 18:36	ASH	L505439
Chlorobenzene	<0.003	mg/L	0.003	0.010	10	08/08/20 18:36	ASH	L505439
Chlorodibromomethane	<0.008	mg/L	0.008	0.010	10	08/08/20 18:36	ASH	L505439
Chloroethane	<0.003	mg/L	0.003	0.010	10	08/08/20 18:36	ASH	L505439
2-Chloroethylvinyl Ether	<0.025	mg/L	0.025	0.050	10	08/08/20 18:36	ASH	L505439
Chloroform	<0.007	mg/L	0.007	0.010	10	08/08/20 18:36	ASH	L505439
Chloromethane	<0.006	mg/L	0.006	0.010	10	08/08/20 18:36	ASH	L505439

**Qualifiers/** B Analyte detected in blank  
**Definitions** J Estimated value

DF Dilution Factor  
MQL Method Quantitation Limit

03180

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Ms. Allison Harris

5724 Summer Tree Drive

Memphis , TN 38134

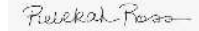
Project Former Wayne's Pinball Palace

Information : 167 Chelsea Avenue, Memphis, TN

Project No. 0888826703

Report Date : 08/14/2020

Received : 08/07/2020



Report Number : **20-220-0136**

**REPORT OF ANALYSIS**

Rebekah Ross  
Project Manager

Lab No : **93212**

Sample ID : **167GMW04080720**

Matrix: **Aqueous**

Sampled: **8/7/2020 13:00**

**Analytical Method:** 8260B      **Prep Batch(es):** **L505402** 08/08/20 07:41  
**Prep Method:** 5030B

Test	Results	Units	MDL	MQL	DF	Date / Time Analyzed	By	Analytical Batch
2-Chlorotoluene	<0.005	mg/L	0.005	0.010	10	08/08/20 18:36	ASH	L505439
4-Chlorotoluene	<0.005	mg/L	0.005	0.010	10	08/08/20 18:36	ASH	L505439
1,2-Dibromo-3-Chloropropane	<0.011	mg/L	0.011	0.020	10	08/08/20 18:36	ASH	L505439
1,2-Dibromoethane	<0.004	mg/L	0.004	0.010	10	08/08/20 18:36	ASH	L505439
Dibromomethane	<0.003	mg/L	0.003	0.010	10	08/08/20 18:36	ASH	L505439
1,2-Dichlorobenzene	<0.006	mg/L	0.006	0.010	10	08/08/20 18:36	ASH	L505439
1,3-Dichlorobenzene	<0.005	mg/L	0.005	0.010	10	08/08/20 18:36	ASH	L505439
1,4-Dichlorobenzene	<0.005	mg/L	0.005	0.010	10	08/08/20 18:36	ASH	L505439
Dichlorodifluoromethane	<0.006	mg/L	0.006	0.010	10	08/08/20 18:36	ASH	L505439
1,1-Dichloroethane	<0.004	mg/L	0.004	0.010	10	08/08/20 18:36	ASH	L505439
1,2-Dichloroethane	<0.006	mg/L	0.006	0.010	10	08/08/20 18:36	ASH	L505439
1,1-Dichloroethene	<0.002	mg/L	0.002	0.010	10	08/08/20 18:36	ASH	L505439
cis-1,2-Dichloroethene	<0.004	mg/L	0.004	0.010	10	08/08/20 18:36	ASH	L505439
trans-1,2-Dichloroethene	<0.004	mg/L	0.004	0.010	10	08/08/20 18:36	ASH	L505439
1,2-Dichloroethene (Total)	<0.004	mg/L	0.004	0.010	10	08/08/20 18:36		L505439
1,2-Dichloropropane	<0.004	mg/L	0.004	0.010	10	08/08/20 18:36	ASH	L505439
1,3-Dichloropropane	<0.003	mg/L	0.003	0.010	10	08/08/20 18:36	ASH	L505439
2,2-Dichloropropane	<0.006	mg/L	0.006	0.010	10	08/08/20 18:36	ASH	L505439
1,1-Dichloropropene	<0.007	mg/L	0.007	0.010	10	08/08/20 18:36	ASH	L505439
cis-1,3-Dichloropropene	<0.004	mg/L	0.004	0.010	10	08/08/20 18:36	ASH	L505439
trans-1,3-Dichloropropene	<0.003	mg/L	0.003	0.010	10	08/08/20 18:36	ASH	L505439
Ethyl Acetate	<0.034	mg/L	0.034	0.100	10	08/08/20 18:36	ASH	L505439

Qualifiers/Definitions	B	Analyte detected in blank	DF	Dilution Factor
	J	Estimated value	MQL	Method Quantitation Limit

03180

Ensafe

Ms. Allison Harris

5724 Summer Tree Drive

Memphis , TN 38134

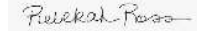
Project Former Wayne's Pinball Palace

Information : 167 Chelsea Avenue, Memphis, TN

Project No. 0888826703

Report Date : 08/14/2020

Received : 08/07/2020



Rebekah Ross  
Project Manager

Report Number : **20-220-0136**

**REPORT OF ANALYSIS**

Lab No : **93212**

Sample ID : **167GMW04080720**

Matrix: **Aqueous**

Sampled: **8/7/2020 13:00**

**Analytical Method:** 8260B      **Prep Batch(es):** **L505402** 08/08/20 07:41  
**Prep Method:** 5030B

Test	Results	Units	MDL	MQL	DF	Date / Time Analyzed	By	Analytical Batch
Ethylbenzene	<0.005	mg/L	0.005	0.010	10	08/08/20 18:36	ASH	L505439
Hexachlorobutadiene	<0.008	mg/L	0.008	0.010	10	08/08/20 18:36	ASH	L505439
2-Hexanone	<0.015	mg/L	0.015	0.050	10	08/08/20 18:36	ASH	L505439
Iodomethane	<0.019	mg/L	0.019	0.050	10	08/08/20 18:36	ASH	L505439
Isopropylbenzene	<0.007	mg/L	0.007	0.010	10	08/08/20 18:36	ASH	L505439
4-Isopropyl toluene	<0.008	mg/L	0.008	0.010	10	08/08/20 18:36	ASH	L505439
4-Methyl-2-Pentanone	<0.017	mg/L	0.017	0.050	10	08/08/20 18:36	ASH	L505439
Methylene Chloride	<0.042	mg/L	0.042	0.050	10	08/08/20 18:36	ASH	L505439
Methyl tert-butyl ether (MTBE)	<0.005	mg/L	0.005	0.010	10	08/08/20 18:36	ASH	L505439
m,p-Xylene	<0.019	mg/L	0.019	0.020	10	08/08/20 18:36	ASH	L505439
Naphthalene	<0.045	mg/L	0.045	0.050	10	08/08/20 18:36	ASH	L505439
o-Xylene	<0.005	mg/L	0.005	0.010	10	08/08/20 18:36	ASH	L505439
n-Propylbenzene	<0.007	mg/L	0.007	0.010	10	08/08/20 18:36	ASH	L505439
Styrene	<0.009	mg/L	0.009	0.010	10	08/08/20 18:36	ASH	L505439
1,1,1,2-Tetrachloroethane	<0.003	mg/L	0.003	0.010	10	08/08/20 18:36	ASH	L505439
1,1,2,2-Tetrachloroethane	<0.005	mg/L	0.005	0.010	10	08/08/20 18:36	ASH	L505439
Tetrachloroethene	<0.004	mg/L	0.004	0.010	10	08/08/20 18:36	ASH	L505439
Toluene	<0.015	mg/L	0.015	0.020	10	08/08/20 18:36	ASH	L505439
1,2,3-Trichlorobenzene	<0.010	mg/L	0.010	0.020	10	08/08/20 18:36	ASH	L505439
1,2,4-Trichlorobenzene	<0.011	mg/L	0.011	0.020	10	08/08/20 18:36	ASH	L505439
1,1,1-Trichloroethane	<0.003	mg/L	0.003	0.010	10	08/08/20 18:36	ASH	L505439
1,1,2-Trichloroethane	<0.007	mg/L	0.007	0.010	10	08/08/20 18:36	ASH	L505439

Qualifiers/Definitions	B	Analyte detected in blank	DF	Dilution Factor
	J	Estimated value	MQL	Method Quantitation Limit

03180

Ensafe  
Ms. Allison Harris  
5724 Summer Tree Drive  
Memphis , TN 38134

Project Former Wayne's Pinball Palace  
Information : 167 Chelsea Avenue, Memphis, TN  
Project No. 0888826703

Report Date : 08/14/2020  
Received : 08/07/2020



Report Number : **20-220-0136**

**REPORT OF ANALYSIS**

Rebekah Ross  
Project Manager

Lab No : **93212**

Matrix: **Aqueous**

Sample ID : **167GMW04080720**

Sampled: **8/7/2020 13:00**

**Analytical Method:** 8260B      **Prep Batch(es):** **L505402** 08/08/20 07:41  
**Prep Method:** 5030B

Test	Results	Units	MDL	MQL	DF	Date / Time Analyzed	By	Analytical Batch
Trichloroethene	<0.004	mg/L	0.004	0.010	10	08/08/20 18:36	ASH	L505439
Trichlorofluoromethane	<0.003	mg/L	0.003	0.010	10	08/08/20 18:36	ASH	L505439
1,2,3-Trichloropropane	<0.004	mg/L	0.004	0.010	10	08/08/20 18:36	ASH	L505439
1,2,4-Trimethylbenzene	<0.008	mg/L	0.008	0.010	10	08/08/20 18:36	ASH	L505439
1,3,5-Trimethylbenzene	<0.007	mg/L	0.007	0.010	10	08/08/20 18:36	ASH	L505439
Vinyl Acetate	<0.025	mg/L	0.025	0.100	10	08/08/20 18:36	ASH	L505439
Vinyl Chloride	<0.003	mg/L	0.003	0.010	10	08/08/20 18:36	ASH	L505439
Xylene (Total)	<0.005	mg/L	0.005	0.010	10	08/08/20 18:36		L505439
Surrogate: 4-Bromofluorobenzene	101		Limits: 71-137%		10	08/08/20 18:36	ASH	L505439
Surrogate: Dibromofluoromethane	122		Limits: 70-128%		10	08/08/20 18:36	ASH	L505439
Surrogate: 1,2-Dichloroethane - d4	129		Limits: 63-136%		10	08/08/20 18:36	ASH	L505439
Surrogate: Toluene-d8	103		Limits: 70-130%		10	08/08/20 18:36	ASH	L505439

**Analytical Method:** 8270D SIM      **Prep Batch(es):** **L505416** 08/10/20 12:30  
**Prep Method:** 3511

Test	Results	Units	MDL	MQL	DF	Date / Time Analyzed	By	Analytical Batch
Acenaphthene	<0.000018	mg/L	0.000018	0.000020	1	08/10/20 20:05	MLR	L505705
Acenaphthylene	<0.000014	mg/L	0.000014	0.000020	1	08/10/20 20:05	MLR	L505705
Anthracene	<b>0.000008 J</b>	mg/L	0.000005	0.000020	1	08/10/20 20:05	MLR	L505705
Benzo(a)anthracene	<0.000011	mg/L	0.000011	0.000020	1	08/10/20 20:05	MLR	L505705
Benzo(a)pyrene	<0.000012	mg/L	0.000012	0.000020	1	08/10/20 20:05	MLR	L505705
Benzo(b)fluoranthene	<0.000008	mg/L	0.000008	0.000020	1	08/10/20 20:05	MLR	L505705

**Qualifiers/Definitions**  
B Analyte detected in blank      DF Dilution Factor  
J Estimated value      MQL Method Quantitation Limit

03180

Ensafe  
Ms. Allison Harris  
5724 Summer Tree Drive  
Memphis, TN 38134

Project Former Wayne's Pinball Palace  
Information : 167 Chelsea Avenue, Memphis, TN  
Project No. 0888826703

Report Date : 08/14/2020  
Received : 08/07/2020



Report Number : **20-220-0136**

**REPORT OF ANALYSIS**

Rebekah Ross  
Project Manager

Lab No : **93212**

Matrix: **Aqueous**

Sample ID : **167GMW04080720**

Sampled: **8/7/2020 13:00**

**Analytical Method:** 8270D SIM

**Prep Batch(es):** **L505416** 08/10/20 12:30

**Prep Method:** 3511

Test	Results	Units	MDL	MQL	DF	Date / Time Analyzed	By	Analytical Batch
Benzo(g,h,i)perylene	<0.000007	mg/L	0.000007	0.000020	1	08/10/20 20:05	MLR	L505705
Benzo(k)fluoranthene	<0.000016	mg/L	0.000016	0.000020	1	08/10/20 20:05	MLR	L505705
Chrysene	<0.000008	mg/L	0.000008	0.000020	1	08/10/20 20:05	MLR	L505705
Dibenz(a,h)anthracene	<0.000006	mg/L	0.000006	0.000020	1	08/10/20 20:05	MLR	L505705
Fluoranthene	<0.000005	mg/L	0.000005	0.000020	1	08/10/20 20:05	MLR	L505705
Fluorene	<0.000010	mg/L	0.000010	0.000020	1	08/10/20 20:05	MLR	L505705
Indeno(1,2,3-cd)pyrene	<0.000014	mg/L	0.000014	0.000020	1	08/10/20 20:05	MLR	L505705
2-Methylnaphthalene	<b>0.000048</b>	mg/L	0.000018	0.000020	1	08/10/20 20:05	MLR	L505705
Naphthalene	<b>0.000181</b>	mg/L	0.000019	0.000020	1	08/10/20 20:05	MLR	L505705
Phenanthrene	<b>0.000008 J</b>	mg/L	0.000008	0.000020	1	08/10/20 20:05	MLR	L505705
Pyrene	<0.000009	mg/L	0.000009	0.000020	1	08/10/20 20:05	MLR	L505705
Surrogate: 2-Fluorobiphenyl	102		Limits: 70-130%		1	08/10/20 20:05	MLR	L505705
Surrogate: 4-Terphenyl-d14	105		Limits: 70-130%		1	08/10/20 20:05	MLR	L505705

**Analytical Method:** TN EPH

**Prep Batch(es):** **L505744** 08/11/20 14:30

**Prep Method:** 3510C

Test	Results	Units	MDL	MQL	DF	Date / Time Analyzed	By	Analytical Batch
Diesel Range Organics (C10-C28)	<0.0548	mg/L	0.0548	0.0900	1	08/13/20 01:43	MMK	L505943
Oil Range Organics (>C28-C40)	<0.0841	mg/L	0.0841	0.0900	1	08/13/20 01:43	MMK	L505943
TN EPH (C10-C40)	<0.0548	mg/L	0.0548	0.0900	1	08/13/20 01:43		L505943
Surrogate: OTP Surrogate	72.7		Limits: 50-150%		1	08/13/20 01:43	MMK	L505943

**Qualifiers/** B Analyte detected in blank  
**Definitions** J Estimated value

DF Dilution Factor  
MQL Method Quantitation Limit



03180

Ensafe

Ms. Allison Harris

5724 Summer Tree Drive

Memphis , TN 38134


Project Former Wayne's Pinball Palace

Information : 167 Chelsea Avenue, Memphis, TN

Project No. 0888826703

Report Date : 08/14/2020

Received : 08/07/2020



Rebekah Ross  
Project Manager

Report Number : **20-220-0136**

**REPORT OF ANALYSIS**

Lab No : **93213**

Matrix: **Aqueous**

Sample ID : **167TB080720**

Sampled: **8/7/2020 12:00**

**Analytical Method:** 8260B      **Prep Batch(es):** **L505402** 08/08/20 07:41  
**Prep Method:** 5030B

Test	Results	Units	MDL	MQL	DF	Date / Time Analyzed	By	Analytical Batch
Acetone	<0.009	mg/L	0.009	0.020	1	08/08/20 17:53	ASH	L505439
Acetonitrile	<0.018	mg/L	0.018	0.050	1	08/08/20 17:53	ASH	L505439
Acrolein	<0.002	mg/L	0.002	0.020	1	08/08/20 17:53	ASH	L505439
Acrylonitrile	<0.002	mg/L	0.002	0.020	1	08/08/20 17:53	ASH	L505439
Benzene	<0.0004	mg/L	0.0004	0.001	1	08/08/20 17:53	ASH	L505439
Bromobenzene	<0.0007	mg/L	0.0007	0.001	1	08/08/20 17:53	ASH	L505439
Bromochloromethane	<0.0004	mg/L	0.0004	0.001	1	08/08/20 17:53	ASH	L505439
Bromodichloromethane	<0.0009	mg/L	0.0009	0.001	1	08/08/20 17:53	ASH	L505439
Bromoform	<0.0009	mg/L	0.0009	0.001	1	08/08/20 17:53	ASH	L505439
Bromomethane	<0.001	mg/L	0.001	0.002	1	08/08/20 17:53	ASH	L505439
Methyl Ethyl Ketone (MEK)	<0.002	mg/L	0.002	0.020	1	08/08/20 17:53	ASH	L505439
n-Butylbenzene	<0.0010	mg/L	0.0010	0.001	1	08/08/20 17:53	ASH	L505439
sec-Butyl benzene	<0.0005	mg/L	0.0005	0.001	1	08/08/20 17:53	ASH	L505439
tert-Butyl benzene	<0.0004	mg/L	0.0004	0.001	1	08/08/20 17:53	ASH	L505439
Carbon Disulfide	<0.0003	mg/L	0.0003	0.001	1	08/08/20 17:53	ASH	L505439
Carbon Tetrachloride	<0.0006	mg/L	0.0006	0.001	1	08/08/20 17:53	ASH	L505439
Chlorobenzene	<0.0003	mg/L	0.0003	0.001	1	08/08/20 17:53	ASH	L505439
Chlorodibromomethane	<0.0009	mg/L	0.0009	0.001	1	08/08/20 17:53	ASH	L505439
Chloroethane	<0.0003	mg/L	0.0003	0.001	1	08/08/20 17:53	ASH	L505439
2-Chloroethylvinyl Ether	<0.002	mg/L	0.002	0.005	1	08/08/20 17:53	ASH	L505439
Chloroform	<0.0008	mg/L	0.0008	0.001	1	08/08/20 17:53	ASH	L505439
Chloromethane	<0.0007	mg/L	0.0007	0.001	1	08/08/20 17:53	ASH	L505439

Qualifiers/Definitions	B	Analyte detected in blank	DF	Dilution Factor
	J	Estimated value	MQL	Method Quantitation Limit

03180

Ensafe

Ms. Allison Harris

5724 Summer Tree Drive

Memphis , TN 38134

Project Former Wayne's Pinball Palace

Information : 167 Chelsea Avenue, Memphis, TN

Project No. 0888826703

Report Date : 08/14/2020

Received : 08/07/2020



Report Number : **20-220-0136**

**REPORT OF ANALYSIS**

Rebekah Ross  
Project Manager

Lab No : **93213**

Sample ID : **167TB080720**

Matrix: **Aqueous**

Sampled: **8/7/2020 12:00**

**Analytical Method:** 8260B      **Prep Batch(es):** **L505402** 08/08/20 07:41  
**Prep Method:** 5030B

Test	Results	Units	MDL	MQL	DF	Date / Time Analyzed	By	Analytical Batch
2-Chlorotoluene	<0.0005	mg/L	0.0005	0.001	1	08/08/20 17:53	ASH	L505439
4-Chlorotoluene	<0.0005	mg/L	0.0005	0.001	1	08/08/20 17:53	ASH	L505439
1,2-Dibromo-3-Chloropropane	<0.001	mg/L	0.001	0.002	1	08/08/20 17:53	ASH	L505439
1,2-Dibromoethane	<0.0004	mg/L	0.0004	0.001	1	08/08/20 17:53	ASH	L505439
Dibromomethane	<0.0004	mg/L	0.0004	0.001	1	08/08/20 17:53	ASH	L505439
1,2-Dichlorobenzene	<0.0006	mg/L	0.0006	0.001	1	08/08/20 17:53	ASH	L505439
1,3-Dichlorobenzene	<0.0006	mg/L	0.0006	0.001	1	08/08/20 17:53	ASH	L505439
1,4-Dichlorobenzene	<0.0006	mg/L	0.0006	0.001	1	08/08/20 17:53	ASH	L505439
Dichlorodifluoromethane	<0.0007	mg/L	0.0007	0.001	1	08/08/20 17:53	ASH	L505439
1,1-Dichloroethane	<0.0004	mg/L	0.0004	0.001	1	08/08/20 17:53	ASH	L505439
1,2-Dichloroethane	<0.0006	mg/L	0.0006	0.001	1	08/08/20 17:53	ASH	L505439
1,1-Dichloroethene	<0.0003	mg/L	0.0003	0.001	1	08/08/20 17:53	ASH	L505439
cis-1,2-Dichloroethene	<0.0004	mg/L	0.0004	0.001	1	08/08/20 17:53	ASH	L505439
trans-1,2-Dichloroethene	<0.0004	mg/L	0.0004	0.001	1	08/08/20 17:53	ASH	L505439
1,2-Dichloroethene (Total)	<0.0004	mg/L	0.0004	0.001	1	08/08/20 17:53		L505439
1,2-Dichloropropane	<0.0004	mg/L	0.0004	0.001	1	08/08/20 17:53	ASH	L505439
1,3-Dichloropropane	<0.0003	mg/L	0.0003	0.001	1	08/08/20 17:53	ASH	L505439
2,2-Dichloropropane	<0.0006	mg/L	0.0006	0.001	1	08/08/20 17:53	ASH	L505439
1,1-Dichloropropene	<0.0008	mg/L	0.0008	0.001	1	08/08/20 17:53	ASH	L505439
cis-1,3-Dichloropropene	<0.0004	mg/L	0.0004	0.001	1	08/08/20 17:53	ASH	L505439
trans-1,3-Dichloropropene	<0.0003	mg/L	0.0003	0.001	1	08/08/20 17:53	ASH	L505439
Ethyl Acetate	<0.003	mg/L	0.003	0.010	1	08/08/20 17:53	ASH	L505439

Qualifiers/Definitions	B	Analyte detected in blank	DF	Dilution Factor
	J	Estimated value	MQL	Method Quantitation Limit

03180

Ensafe  
 Ms. Allison Harris  
 5724 Summer Tree Drive  
 Memphis , TN 38134

Project Former Wayne's Pinball Palace  
 Information : 167 Chelsea Avenue, Memphis, TN  
 Project No. 0888826703

Report Date : 08/14/2020  
 Received : 08/07/2020



Report Number : **20-220-0136**

**REPORT OF ANALYSIS**

Rebekah Ross  
 Project Manager

Lab No : **93213**  
 Sample ID : **167TB080720**

Matrix: **Aqueous**  
 Sampled: **8/7/2020 12:00**

**Analytical Method:** 8260B      **Prep Batch(es):** **L505402** 08/08/20 07:41  
**Prep Method:** 5030B

Test	Results	Units	MDL	MQL	DF	Date / Time Analyzed	By	Analytical Batch
Ethylbenzene	<0.0006	mg/L	0.0006	0.001	1	08/08/20 17:53	ASH	L505439
Hexachlorobutadiene	<0.0008	mg/L	0.0008	0.001	1	08/08/20 17:53	ASH	L505439
2-Hexanone	<0.001	mg/L	0.001	0.005	1	08/08/20 17:53	ASH	L505439
Iodomethane	<0.001	mg/L	0.001	0.005	1	08/08/20 17:53	ASH	L505439
Isopropylbenzene	<0.0008	mg/L	0.0008	0.001	1	08/08/20 17:53	ASH	L505439
4-Isopropyl toluene	<0.0009	mg/L	0.0009	0.001	1	08/08/20 17:53	ASH	L505439
4-Methyl-2-Pentanone	<0.001	mg/L	0.001	0.005	1	08/08/20 17:53	ASH	L505439
Methylene Chloride	<0.004	mg/L	0.004	0.005	1	08/08/20 17:53	ASH	L505439
Methyl tert-butyl ether (MTBE)	<0.0006	mg/L	0.0006	0.001	1	08/08/20 17:53	ASH	L505439
m,p-Xylene	<0.001	mg/L	0.001	0.002	1	08/08/20 17:53	ASH	L505439
Naphthalene	<0.004	mg/L	0.004	0.005	1	08/08/20 17:53	ASH	L505439
o-Xylene	<0.0005	mg/L	0.0005	0.001	1	08/08/20 17:53	ASH	L505439
n-Propylbenzene	<0.0008	mg/L	0.0008	0.001	1	08/08/20 17:53	ASH	L505439
Styrene	<0.0010	mg/L	0.0010	0.001	1	08/08/20 17:53	ASH	L505439
1,1,1,2-Tetrachloroethane	<0.0004	mg/L	0.0004	0.001	1	08/08/20 17:53	ASH	L505439
1,1,2,2-Tetrachloroethane	<0.0006	mg/L	0.0006	0.001	1	08/08/20 17:53	ASH	L505439
Tetrachloroethene	<0.0004	mg/L	0.0004	0.001	1	08/08/20 17:53	ASH	L505439
Toluene	<0.001	mg/L	0.001	0.002	1	08/08/20 17:53	ASH	L505439
1,2,3-Trichlorobenzene	<0.001	mg/L	0.001	0.002	1	08/08/20 17:53	ASH	L505439
1,2,4-Trichlorobenzene	<0.001	mg/L	0.001	0.002	1	08/08/20 17:53	ASH	L505439
1,1,1-Trichloroethane	<0.0003	mg/L	0.0003	0.001	1	08/08/20 17:53	ASH	L505439
1,1,2-Trichloroethane	<0.0008	mg/L	0.0008	0.001	1	08/08/20 17:53	ASH	L505439

Qualifiers/Definitions	B	Analyte detected in blank	DF	Dilution Factor
	J	Estimated value	MQL	Method Quantitation Limit



### Quality Control Data

**Client ID:** Ensafe  
**Project Description:** Former Wayne's Pinball Palace  
**Report No:** 20-220-0136

**QC Prep:** L505628      **QC Analytical Batch(es):** L505888,L506248  
**QC Prep Batch Method:** 3005A      **Analysis Method:** 6010D  
**Analysis Description:** Metals Analysis

**Lab Reagent Blank**      LRB-L505628      Matrix: AQU  
Associated Lab Samples: 93211, 93212

Parameter	Units	Blank Result	MDL	MQL	Analyzed
Arsenic	mg/L	<0.0056	0.0056	0.0100	08/11/20 19:09
Barium	mg/L	<0.0040	0.0040	0.0100	08/11/20 19:09
Cadmium	mg/L	<0.0003	0.0003	0.0020	08/11/20 19:09
Chromium	mg/L	<0.003	0.003	0.005	08/11/20 19:09
Lead	mg/L	<0.002	0.002	0.006	08/11/20 19:09
Selenium	mg/L	<0.003	0.003	0.010	08/12/20 16:37
Silver	mg/L	<0.0023	0.0023	0.0050	08/11/20 19:09

**Laboratory Control Sample**      LCS-L505628

Parameter	Units	Spike Conc.	LCS Result	LCS %Rec	% Rec Limits
Arsenic	mg/L	0.100	0.0974	97.0	80-120
Barium	mg/L	1.00	0.990	99.0	80-120
Cadmium	mg/L	0.100	0.0973	97.0	80-120
Chromium	mg/L	1.00	1.06	106	80-120
Lead	mg/L	0.100	0.101	101	80-120
Selenium	mg/L	0.100	0.095	95.0	80-120
Silver	mg/L	0.100	0.0980	98.0	80-120

**Matrix Spike & Matrix Spike Duplicate**      G 79285-MS-L505628      G 79285-MSD-L505628

Parameter	Units	Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS %Rec	MSD %Rec	%Rec Limits	RPD	Max RPD
Arsenic	mg/L	0.116	0.100	0.100	0.230	0.233	114	117	75-125	1.2	20
Barium	mg/L	0.0611	1.00	1.00	0.986	0.975	92.0	91.0	75-125	1.1	20
Cadmium	mg/L	<0.0003	0.100	0.100	0.0910	0.0898	91.0	90.0	75-125	1.3	20
Chromium	mg/L	0.318	1.00	1.00	1.30	1.30	98.0	98.0	75-125	0.0	20

**Quality Control Data**

**Client ID:** Ensafe  
**Project Description:** Former Wayne's Pinball Palace  
**Report No:** 20-220-0136

**QC Prep:** L505628      **QC Analytical Batch(es):** L505888,L506248  
**QC Prep Batch Method:** 3005A      **Analysis Method:** 6010D  
**Analysis Description:** Metals Analysis

**Matrix Spike & Matrix Spike Duplicate**      G 79285-MS-L505628      G 79285-MSD-L505628

Parameter	Units	Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS %Rec	MSD %Rec	%Rec Limits	RPD	Max RPD
Lead	mg/L	<0.002	0.100	0.100	0.091	0.090	91.0	90.0	75-125	1.1	20
Selenium	mg/L	0.075	0.100	0.100	0.161	0.154	86.0	79.0	75-125	4.4	20
Silver	mg/L	<0.0023	0.100	0.100	0.110	0.109	110	109	75-125	0.9	20

### Quality Control Data

**Client ID:** Ensafe  
**Project Description:** Former Wayne's Pinball Palace  
**Report No:** 20-220-0136

**QC Prep:** L505738      **QC Analytical Batch(es):** L506391,L506505  
**QC Prep Batch Method:** 3050B      **Analysis Method:** 6010D  
**Analysis Description:** Metals Analysis

**Lab Reagent Blank**      LRB-L505738      Matrix: SOL  
Associated Lab Samples: 93207, 93208, 93209, 93210

Parameter	Units	Blank Result	MDL	MQL	Analyzed
Arsenic	mg/Kg	<0.240	0.240	0.500	08/13/20 20:02
Barium	mg/Kg	<0.130	0.130	0.500	08/13/20 20:02
Cadmium	mg/Kg	<0.0200	0.0200	0.100	08/13/20 20:02
Chromium	mg/Kg	<0.236	0.236	0.250	08/13/20 20:02
Lead	mg/Kg	<0.180	0.180	0.300	08/13/20 20:02
Selenium	mg/Kg	<0.320	0.320	0.500	08/13/20 20:02
Silver	mg/Kg	<0.160	0.160	0.250	08/13/20 20:02

**Laboratory Control Sample**      LCS-L505738

Parameter	Units	Spike Conc.	LCS Result	LCS %Rec	% Rec Limits
Arsenic	mg/Kg	5.00	5.51	110	80-120
Barium	mg/Kg	50.0	53.1	106	80-120
Cadmium	mg/Kg	5.00	5.22	104	80-120
Chromium	mg/Kg	50.0	54.6	109	80-120
Lead	mg/Kg	5.00	5.43	109	80-120
Selenium	mg/Kg	5.00	5.29	106	80-120
Silver	mg/Kg	5.00	5.82	116	80-120

**Matrix Spike & Matrix Spike Duplicate**      L 93210-MS-L505738      L 93210-MSD-L505738

Parameter	Units	Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS %Rec	MSD %Rec	%Rec Limits	RPD	Max RPD
Arsenic	mg/Kg	2.77	4.65	4.92	7.26	7.81	97.0	103	75-125	7.2	20
Barium	mg/Kg	41.5	46.5	49.2	78.9	88.8	80.0	96.0	75-125	11.8	20
Cadmium	mg/Kg	0.116	4.65	4.92	3.92	4.33	82.0	86.0	75-125	9.9	20
Chromium	mg/Kg	9.29	46.5	49.2	50.3	54.7	88.0	92.0	75-125	8.3	20



### Quality Control Data

**Client ID:** Ensafe  
**Project Description:** Former Wayne's Pinball Palace  
**Report No:** 20-220-0136

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**QC Prep:** L505738      **QC Analytical Batch(es):** L506391,L506505  
**QC Prep Batch Method:** 3050B      **Analysis Method:** 6010D  
**Analysis Description:** Metals Analysis

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**Matrix Spike & Matrix Spike Duplicate**      L 93210-MS-L505738      L 93210-MSD-L505738

Parameter	Units	Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS %Rec	MSD %Rec	%Rec Limits	RPD	Max RPD
Lead	mg/Kg	3.66	4.65	4.92	6.86	8.21	69.0*	93.0	75-125	17.9	20
Selenium	mg/Kg	<0.320	4.65	4.92	3.53	3.94	76.0	80.0	75-125	10.9	20
Silver	mg/Kg	0.347	4.65	4.92	4.96	5.22	99.0	99.0	75-125	5.1	20

### Quality Control Data

**Client ID:** Ensafe  
**Project Description:** Former Wayne's Pinball Palace  
**Report No:** 20-220-0136

**QC Prep:** L506085      **QC Analytical Batch(es):** L506278  
**QC Prep Batch Method:** 7470A      **Analysis Method:** 7470A  
**Analysis Description:** Total Aqueous Mercury Analysis - CVAA

**Lab Reagent Blank**      LRB-L506085      Matrix: AQU  
Associated Lab Samples: 93211, 93212

Parameter	Units	Blank Result	MDL	MQL	Analyzed
Mercury	mg/L	<0.00013	0.00013	0.00020	08/13/20 13:30

**Laboratory Control Sample**      LCS-L506085

Parameter	Units	Spike Conc.	LCS Result	LCS %Rec	% Rec Limits
Mercury	mg/L	0.00400	0.00474	119	80-120

**Matrix Spike & Matrix Spike Duplicate**      L 93212-MS-L506085      L 93212-MSD-L506085

Parameter	Units	Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS %Rec	MSD %Rec	%Rec Limits	RPD	Max RPD
Mercury	mg/L	<0.00013	0.00400	0.00400	0.00463	0.00460	116	115	80-120	0.6	20

### Quality Control Data

**Client ID:** Ensafe  
**Project Description:** Former Wayne's Pinball Palace  
**Report No:** 20-220-0136

**QC Prep:** L505796      **QC Analytical Batch(es):** L506267  
**QC Prep Batch Method:** 7471A      **Analysis Method:** 7471A  
**Analysis Description:** Solids Total Mercury Analysis - CVAA

**Lab Reagent Blank**      LRB-L505796      Matrix: SOL  
Associated Lab Samples: 93208, 93209, 93210

Parameter	Units	Blank Result	MDL	MQL	Analyzed
Mercury	mg/Kg	<0.00352	0.00352	0.0160	08/13/20 14:59

**Laboratory Control Sample**      LCS-L505796

Parameter	Units	Spike Conc.	LCS Result	LCS %Rec	% Rec Limits
Mercury	mg/Kg	0.400	0.365	91.0	80-120

**Matrix Spike & Matrix Spike Duplicate**      E 73302-MS-L505796      E 73302-MSD-L505796

Parameter	Units	Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS %Rec	MSD %Rec	%Rec Limits	RPD	Max RPD
Mercury	mg/Kg	0.0235	0.388	0.369	0.331	0.355	79.0*	90.0	80-120	6.9	20

### Quality Control Data

**Client ID:** Ensafe  
**Project Description:** Former Wayne's Pinball Palace  
**Report No:** 20-220-0136

**QC Prep:** L506032      **QC Analytical Batch(es):** L506267  
**QC Prep Batch Method:** 7471A      **Analysis Method:** 7471A  
**Analysis Description:** Solids Total Mercury Analysis - CVA

**Lab Reagent Blank**      LRB-L506032      Matrix: SOL  
 Associated Lab Samples: 93207

Parameter	Units	Blank Result	MDL	MQL	Analyzed
Mercury	mg/Kg	<0.00352	0.00352	0.0160	08/13/20 15:00

**Laboratory Control Sample**      LCS-L506032

Parameter	Units	Spike Conc.	LCS Result	LCS %Rec	% Rec Limits
Mercury	mg/Kg	0.400	0.341	85.0	80-120

**Matrix Spike & Matrix Spike Duplicate**      L 93207-MS-L506032      L 93207-MSD-L506032

Parameter	Units	Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS %Rec	MSD %Rec	%Rec Limits	RPD	Max RPD
Mercury	mg/Kg	0.0300	0.351	0.348	0.335	0.344	87.0	90.0	80-120	2.6	20

### Quality Control Data

**Client ID:** Ensafe  
**Project Description:** Former Wayne's Pinball Palace  
**Report No:** 20-220-0136

**QC Prep:** L505402      **QC Analytical Batch(es):** L505439  
**QC Prep Batch Method:** 5030B      **Analysis Method:** 8260B  
**Analysis Description:** Volatile Organic Compounds - GC/MS

**Lab Reagent Blank**      LRB-L505402      Matrix: AQU  
Associated Lab Samples: 93211, 93212, 93213

Parameter	Units	Blank Result	MDL	MQL	Analyzed	% Recovery	% Rec Limits
Acetone	mg/L	<0.009	0.009	0.020	08/08/20 10:05		
Acetonitrile	mg/L	<0.018	0.018	0.050	08/08/20 10:05		
Acrolein	mg/L	<0.002	0.002	0.020	08/08/20 10:05		
Acrylonitrile	mg/L	<0.002	0.002	0.020	08/08/20 10:05		
Benzene	mg/L	<0.0004	0.0004	0.001	08/08/20 10:05		
Bromobenzene	mg/L	<0.0007	0.0007	0.001	08/08/20 10:05		
Bromochloromethane	mg/L	<0.0004	0.0004	0.001	08/08/20 10:05		
Bromodichloromethane	mg/L	<0.0009	0.0009	0.001	08/08/20 10:05		
Bromoform	mg/L	<0.0009	0.0009	0.001	08/08/20 10:05		
Bromomethane	mg/L	<0.001	0.001	0.002	08/08/20 10:05		
Methyl Ethyl Ketone (MEK)	mg/L	<0.002	0.002	0.020	08/08/20 10:05		
n-Butylbenzene	mg/L	<0.0010	0.0010	0.001	08/08/20 10:05		
sec-Butyl benzene	mg/L	<0.0005	0.0005	0.001	08/08/20 10:05		
tert-Butyl benzene	mg/L	<0.0004	0.0004	0.001	08/08/20 10:05		
Carbon Disulfide	mg/L	<0.0003	0.0003	0.001	08/08/20 10:05		
Carbon Tetrachloride	mg/L	<0.0006	0.0006	0.001	08/08/20 10:05		
Chlorobenzene	mg/L	<0.0003	0.0003	0.001	08/08/20 10:05		
Chlorodibromomethane	mg/L	<0.0009	0.0009	0.001	08/08/20 10:05		
Chloroethane	mg/L	<0.0003	0.0003	0.001	08/08/20 10:05		
2-Chloroethylvinyl Ether	mg/L	<0.002	0.002	0.005	08/08/20 10:05		
Chloroform	mg/L	<0.0008	0.0008	0.001	08/08/20 10:05		
Chloromethane	mg/L	<0.0007	0.0007	0.001	08/08/20 10:05		
2-Chlorotoluene	mg/L	<0.0005	0.0005	0.001	08/08/20 10:05		
4-Chlorotoluene	mg/L	<0.0005	0.0005	0.001	08/08/20 10:05		
1,2-Dibromo-3-Chloropropane	mg/L	<0.001	0.001	0.002	08/08/20 10:05		
1,2-Dibromoethane	mg/L	<0.0004	0.0004	0.001	08/08/20 10:05		
Dibromomethane	mg/L	<0.0004	0.0004	0.001	08/08/20 10:05		

### Quality Control Data

**Client ID:** Ensafe  
**Project Description:** Former Wayne's Pinball Palace  
**Report No:** 20-220-0136

**QC Prep:** L505402      **QC Analytical Batch(es):** L505439  
**QC Prep Batch Method:** 5030B      **Analysis Method:** 8260B  
**Analysis Description:** Volatile Organic Compounds - GC/MS

**Lab Reagent Blank**      LRB-L505402      Matrix: AQU  
Associated Lab Samples: 93211, 93212, 93213

Parameter	Units	Blank Result	MDL	MQL	Analyzed	% Recovery	% Rec Limits
1,2-Dichlorobenzene	mg/L	<0.0006	0.0006	0.001	08/08/20 10:05		
1,3-Dichlorobenzene	mg/L	0.0008	0.0006	0.001	08/08/20 10:05		
1,4-Dichlorobenzene	mg/L	<0.0006	0.0006	0.001	08/08/20 10:05		
Dichlorodifluoromethane	mg/L	<0.0007	0.0007	0.001	08/08/20 10:05		
1,1-Dichloroethane	mg/L	<0.0004	0.0004	0.001	08/08/20 10:05		
1,2-Dichloroethane	mg/L	<0.0006	0.0006	0.001	08/08/20 10:05		
1,1-Dichloroethene	mg/L	<0.0003	0.0003	0.001	08/08/20 10:05		
cis-1,2-Dichloroethene	mg/L	<0.0004	0.0004	0.001	08/08/20 10:05		
trans-1,2-Dichloroethene	mg/L	<0.0004	0.0004	0.001	08/08/20 10:05		
1,2-Dichloropropane	mg/L	<0.0004	0.0004	0.001	08/08/20 10:05		
1,3-Dichloropropane	mg/L	<0.0003	0.0003	0.001	08/08/20 10:05		
2,2-Dichloropropane	mg/L	<0.0006	0.0006	0.001	08/08/20 10:05		
1,1-Dichloropropene	mg/L	<0.0008	0.0008	0.001	08/08/20 10:05		
cis-1,3-Dichloropropene	mg/L	<0.0004	0.0004	0.001	08/08/20 10:05		
trans-1,3-Dichloropropene	mg/L	<0.0003	0.0003	0.001	08/08/20 10:05		
Ethyl Acetate	mg/L	<0.003	0.003	0.010	08/08/20 10:05		
Ethylbenzene	mg/L	<0.0006	0.0006	0.001	08/08/20 10:05		
Hexachlorobutadiene	mg/L	<0.0008	0.0008	0.001	08/08/20 10:05		
2-Hexanone	mg/L	<0.001	0.001	0.005	08/08/20 10:05		
Iodomethane	mg/L	<0.001	0.001	0.005	08/08/20 10:05		
Isopropylbenzene	mg/L	<0.0008	0.0008	0.001	08/08/20 10:05		
4-Isopropyl toluene	mg/L	<0.0009	0.0009	0.001	08/08/20 10:05		
4-Methyl-2-Pentanone	mg/L	<0.001	0.001	0.005	08/08/20 10:05		
Methylene Chloride	mg/L	<0.004	0.004	0.005	08/08/20 10:05		
Methyl tert-butyl ether (MTBE)	mg/L	<0.0006	0.0006	0.001	08/08/20 10:05		
m,p-Xylene	mg/L	<0.001	0.001	0.002	08/08/20 10:05		
Naphthalene	mg/L	<0.004	0.004	0.005	08/08/20 10:05		

### Quality Control Data

**Client ID:** Ensafe  
**Project Description:** Former Wayne's Pinball Palace  
**Report No:** 20-220-0136

**QC Prep:** L505402      **QC Analytical Batch(es):** L505439  
**QC Prep Batch Method:** 5030B      **Analysis Method:** 8260B  
**Analysis Description:** Volatile Organic Compounds - GC/MS

**Lab Reagent Blank**      LRB-L505402      Matrix: AQU  
Associated Lab Samples: 93211, 93212, 93213

Parameter	Units	Blank Result	MDL	MQL	Analyzed	% Recovery	% Rec Limits
o-Xylene	mg/L	<0.0005	0.0005	0.001	08/08/20 10:05		
n-Propylbenzene	mg/L	<0.0008	0.0008	0.001	08/08/20 10:05		
Styrene	mg/L	<0.0010	0.0010	0.001	08/08/20 10:05		
1,1,1,2-Tetrachloroethane	mg/L	<0.0004	0.0004	0.001	08/08/20 10:05		
1,1,1,2-Tetrachloroethane	mg/L	<0.0006	0.0006	0.001	08/08/20 10:05		
Tetrachloroethene	mg/L	<0.0004	0.0004	0.001	08/08/20 10:05		
Toluene	mg/L	<0.001	0.001	0.002	08/08/20 10:05		
1,2,3-Trichlorobenzene	mg/L	<0.001	0.001	0.002	08/08/20 10:05		
1,2,4-Trichlorobenzene	mg/L	<0.001	0.001	0.002	08/08/20 10:05		
1,1,1-Trichloroethane	mg/L	<0.0003	0.0003	0.001	08/08/20 10:05		
1,1,2-Trichloroethane	mg/L	<0.0008	0.0008	0.001	08/08/20 10:05		
Trichloroethene	mg/L	<0.0005	0.0005	0.001	08/08/20 10:05		
Trichlorofluoromethane	mg/L	<0.0003	0.0003	0.001	08/08/20 10:05		
1,2,3-Trichloropropane	mg/L	<0.0005	0.0005	0.001	08/08/20 10:05		
1,2,4-Trimethylbenzene	mg/L	<0.0008	0.0008	0.001	08/08/20 10:05		
1,3,5-Trimethylbenzene	mg/L	<0.0008	0.0008	0.001	08/08/20 10:05		
Vinyl Acetate	mg/L	<0.002	0.002	0.010	08/08/20 10:05		
Vinyl Chloride	mg/L	<0.0003	0.0003	0.001	08/08/20 10:05		
4-Bromofluorobenzene (S)					08/08/20 10:05	96.8	71-137
Dibromofluoromethane (S)					08/08/20 10:05	117	70-128
1,2-Dichloroethane - d4 (S)					08/08/20 10:05	126	63-136
Toluene-d8 (S)					08/08/20 10:05	104	70-130

**Laboratory Control Sample**      LCS-L505402

Parameter	Units	Spike Conc.	LCS Result	LCS %Rec	% Rec Limits
Acetone	mg/L	0.100	0.120	120	40-160



### Quality Control Data

**Client ID:** Ensafe  
**Project Description:** Former Wayne's Pinball Palace  
**Report No:** 20-220-0136

**QC Prep:** L505402      **QC Analytical Batch(es):** L505439  
**QC Prep Batch Method:** 5030B      **Analysis Method:** 8260B  
**Analysis Description:** Volatile Organic Compounds - GC/MS

**Laboratory Control Sample**      LCS-L505402

Parameter	Units	Spike Conc.	LCS Result	LCS %Rec	% Rec Limits
Acetonitrile	mg/L	1.00	1.01	101	40-160
Acrolein	mg/L	0.100	0.103	103	40-160
Acrylonitrile	mg/L	0.100	0.105	105	40-160
Benzene	mg/L	0.100	0.101	101	70-130
Bromobenzene	mg/L	0.100	0.099	99.9	75-125
Bromochloromethane	mg/L	0.100	0.091	91.1	65-135
Bromodichloromethane	mg/L	0.100	0.104	104	75-125
Bromoform	mg/L	0.100	0.115	115	70-130
Bromomethane	mg/L	0.100	0.122	122	40-160
Methyl Ethyl Ketone (MEK)	mg/L	0.100	0.114	114	40-160
n-Butylbenzene	mg/L	0.100	0.107	107	70-130
sec-Butyl benzene	mg/L	0.100	0.117	117	70-130
tert-Butyl benzene	mg/L	0.100	0.123	123	70-130
Carbon Disulfide	mg/L	0.100	0.085	85.5	40-160
Carbon Tetrachloride	mg/L	0.100	0.103	103	65-135
Chlorobenzene	mg/L	0.100	0.118	118	80-120
Chlorodibromomethane	mg/L	0.100	0.115	115	60-140
Chloroethane	mg/L	0.100	0.079	79.3	60-140
2-Chloroethylvinyl Ether	mg/L	0.100	0.108	108	40-160
Chloroform	mg/L	0.100	0.108	108	80-120
Chloromethane	mg/L	0.100	0.110	110	40-160
2-Chlorotoluene	mg/L	0.100	0.117	117	75-125
4-Chlorotoluene	mg/L	0.100	0.113	113	75-125
1,2-Dibromo-3-Chloropropane	mg/L	0.100	0.103	103	50-150
1,2-Dibromoethane	mg/L	0.100	0.103	103	70-130
Dibromomethane	mg/L	0.100	0.099	99.4	75-125
1,2-Dichlorobenzene	mg/L	0.100	0.096	96.3	70-130

### Quality Control Data

**Client ID:** Ensafe  
**Project Description:** Former Wayne's Pinball Palace  
**Report No:** 20-220-0136

**QC Prep:** L505402      **QC Analytical Batch(es):** L505439  
**QC Prep Batch Method:** 5030B      **Analysis Method:** 8260B  
**Analysis Description:** Volatile Organic Compounds - GC/MS

**Laboratory Control Sample**      LCS-L505402

Parameter	Units	Spike Conc.	LCS Result	LCS %Rec	% Rec Limits
1,3-Dichlorobenzene	mg/L	0.100	0.112	112	75-125
1,4-Dichlorobenzene	mg/L	0.100	0.106	106	75-125
Dichlorodifluoromethane	mg/L	0.100	0.097	97.0	40-160
1,1-Dichloroethane	mg/L	0.100	0.104	104	70-130
1,2-Dichloroethane	mg/L	0.100	0.112	112	70-130
1,1-Dichloroethene	mg/L	0.100	0.091	91.3	80-120
cis-1,2-Dichloroethene	mg/L	0.100	0.109	109	70-130
trans-1,2-Dichloroethene	mg/L	0.100	0.083	83.3	60-140
1,2-Dichloropropane	mg/L	0.100	0.103	103	80-120
1,3-Dichloropropane	mg/L	0.100	0.107	107	75-125
2,2-Dichloropropane	mg/L	0.100	0.114	114	70-130
1,1-Dichloropropene	mg/L	0.100	0.098	98.8	75-125
cis-1,3-Dichloropropene	mg/L	0.100	0.108	108	70-130
trans-1,3-Dichloropropene	mg/L	0.100	0.106	106	55-145
Ethyl Acetate	mg/L	0.100	0.113	113	40-160
Ethylbenzene	mg/L	0.100	0.111	111	80-120
Hexachlorobutadiene	mg/L	0.100	0.112	112	50-150
2-Hexanone	mg/L	0.100	0.106	106	55-145
Iodomethane	mg/L	0.100	0.079	79.1	40-160
Isopropylbenzene	mg/L	0.100	0.120	120	75-125
4-Isopropyl toluene	mg/L	0.100	0.114	114	75-125
4-Methyl-2-Pentanone	mg/L	0.100	0.106	106	60-140
Methylene Chloride	mg/L	0.100	0.093	93.3	55-145
Methyl tert-butyl ether (MTBE)	mg/L	0.100	0.106	106	65-135
m,p-Xylene	mg/L	0.200	0.227	114	75-125
Naphthalene	mg/L	0.100	0.094	94.5	55-145
o-Xylene	mg/L	0.100	0.110	110	70-130

### Quality Control Data

**Client ID:** Ensafe  
**Project Description:** Former Wayne's Pinball Palace  
**Report No:** 20-220-0136

**QC Prep:** L505402      **QC Analytical Batch(es):** L505439  
**QC Prep Batch Method:** 5030B      **Analysis Method:** 8260B  
**Analysis Description:** Volatile Organic Compounds - GC/MS

**Laboratory Control Sample**      LCS-L505402

Parameter	Units	Spike Conc.	LCS Result	LCS %Rec	% Rec Limits
n-Propylbenzene	mg/L	0.100	0.117	117	70-130
Styrene	mg/L	0.100	0.115	115	65-135
1,1,1,2-Tetrachloroethane	mg/L	0.100	0.098	98.5	70-130
1,1,2,2-Tetrachloroethane	mg/L	0.100	0.092	92.1	65-135
Tetrachloroethene	mg/L	0.100	0.115	115	45-155
Toluene	mg/L	0.100	0.099	99.0	80-120
1,2,3-Trichlorobenzene	mg/L	0.100	0.098	98.5	60-140
1,2,4-Trichlorobenzene	mg/L	0.100	0.101	101	65-135
1,1,1-Trichloroethane	mg/L	0.100	0.104	104	65-135
1,1,2-Trichloroethane	mg/L	0.100	0.102	102	75-125
Trichloroethene	mg/L	0.100	0.098	98.5	70-130
Trichlorofluoromethane	mg/L	0.100	0.117	117	40-140
1,2,3-Trichloropropane	mg/L	0.100	0.116	116	75-125
1,2,4-Trimethylbenzene	mg/L	0.100	0.123	123	65-135
1,3,5-Trimethylbenzene	mg/L	0.100	0.110	110	75-125
Vinyl Acetate	mg/L	0.100	0.106	106	40-160
Vinyl Chloride	mg/L	0.100	0.115	115	80-120
4-Bromofluorobenzene (S)				104	71-137
Dibromofluoromethane (S)				101	70-128
1,2-Dichloroethane - d4 (S)				84.2	63-136
Toluene-d8 (S)				97.2	70-130

**Matrix Spike & Matrix Spike Duplicate**      L 92719-MS-L505402      L 92719-MSD-L505402

Parameter	Units	Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS %Rec	MSD %Rec	%Rec Limits	RPD	Max RPD
Acetone	mg/L	<0.009	0.100	0.100	0.109	0.134	109	134	40-160	20.5	30

### Quality Control Data

**Client ID:** Ensafe  
**Project Description:** Former Wayne's Pinball Palace  
**Report No:** 20-220-0136

**QC Prep:** L505402      **QC Analytical Batch(es):** L505439  
**QC Prep Batch Method:** 5030B      **Analysis Method:** 8260B  
**Analysis Description:** Volatile Organic Compounds - GC/MS

**Matrix Spike & Matrix Spike Duplicate**      L 92719-MS-L505402      L 92719-MSD-L505402

Parameter	Units	Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS %Rec	MSD %Rec	%Rec Limits	RPD	Max RPD
Acetonitrile	mg/L	<0.018	1.00	1.00	0.997	1.35	99.7	135	40-160	30.0*	30
Acrolein	mg/L	<0.002	0.100	0.100	0.095	0.121	95.0	121	40-160	24.0	30
Acrylonitrile	mg/L	<0.002	0.100	0.100	0.110	0.133	110	133	40-160	18.9	30
Benzene	mg/L	0.0005	0.100	0.100	0.101	0.107	101	107	70-130	5.7	30
Bromobenzene	mg/L	<0.0007	0.100	0.100	0.094	0.081	94.4	81.6	75-125	14.5	30
Bromochloromethane	mg/L	<0.0004	0.100	0.100	0.087	0.093	87.7	93.1	65-135	5.9	30
Bromodichloromethane	mg/L	<0.0009	0.100	0.100	0.102	0.107	102	107	75-125	4.7	30
Bromoform	mg/L	<0.0009	0.100	0.100	0.109	0.123	109	123	70-130	12.0	30
Bromomethane	mg/L	<0.001	0.100	0.100	0.113	0.109	113	109	40-160	3.6	30
Methyl Ethyl Ketone (MEK)	mg/L	<0.002	0.100	0.100	0.114	0.139	114	139	40-160	19.7	30
n-Butylbenzene	mg/L	<0.0010	0.100	0.100	0.099	0.106	99.9	106	70-130	5.9	30
sec-Butyl benzene	mg/L	0.002	0.100	0.100	0.113	0.108	110	105	70-130	4.5	30
tert-Butyl benzene	mg/L	<0.0004	0.100	0.100	0.114	0.107	114	107	70-130	6.3	30
Carbon Disulfide	mg/L	<0.0003	0.100	0.100	0.078	0.085	78.5	85.4	40-160	8.4	30
Carbon Tetrachloride	mg/L	<0.0006	0.100	0.100	0.100	0.108	100	108	65-135	7.6	30
Chlorobenzene	mg/L	<0.0003	0.100	0.100	0.106	0.106	106	106	80-120	0.0	30
Chlorodibromomethane	mg/L	<0.0009	0.100	0.100	0.106	0.112	106	112	60-140	5.5	30
Chloroethane	mg/L	<0.0003	0.100	0.100	0.076	0.082	76.3	82.3	60-140	7.5	30
2-Chloroethylvinyl Ether	mg/L	<0.002	0.100	0.100	<0.002	<0.002	0.0*	0.0*	40-160	0.0	30
Chloroform	mg/L	<0.0008	0.100	0.100	0.104	0.115	104	115	80-120	10.0	30
Chloromethane	mg/L	<0.0007	0.100	0.100	0.090	0.103	90.1	103	40-160	13.3	30
2-Chlorotoluene	mg/L	<0.0005	0.100	0.100	0.120	0.108	120	108	75-125	10.5	30
4-Chlorotoluene	mg/L	<0.0005	0.100	0.100	0.111	0.105	111	105	75-125	5.5	30
1,2-Dibromo-3-Chloropropane	mg/L	<0.001	0.100	0.100	0.107	0.131	107	131	50-150	20.1	30
1,2-Dibromoethane	mg/L	<0.0004	0.100	0.100	0.096	0.108	96.6	108	70-130	11.1	30
Dibromomethane	mg/L	<0.0004	0.100	0.100	0.096	0.102	96.2	102	75-125	5.8	30

### Quality Control Data

**Client ID:** Ensafe  
**Project Description:** Former Wayne's Pinball Palace  
**Report No:** 20-220-0136

**QC Prep:** L505402      **QC Analytical Batch(es):** L505439  
**QC Prep Batch Method:** 5030B      **Analysis Method:** 8260B  
**Analysis Description:** Volatile Organic Compounds - GC/MS

**Matrix Spike & Matrix Spike Duplicate**      L 92719-MS-L505402      L 92719-MSD-L505402

Parameter	Units	Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS %Rec	MSD %Rec	%Rec Limits	RPD	Max RPD
1,2-Dichlorobenzene	mg/L	<0.0006	0.100	0.100	0.097	0.105	97.1	105	70-130	7.8	30
1,3-Dichlorobenzene	mg/L	<0.0006	0.100	0.100	0.105	0.114	105	114	75-125	8.2	30
1,4-Dichlorobenzene	mg/L	<0.0006	0.100	0.100	0.100	0.108	100	108	75-125	7.6	30
Dichlorodifluoromethane	mg/L	<0.0007	0.100	0.100	0.068	0.074	68.6	74.8	40-160	8.6	30
1,1-Dichloroethane	mg/L	<0.0004	0.100	0.100	0.101	0.107	101	107	70-130	5.7	30
1,2-Dichloroethane	mg/L	<0.0006	0.100	0.100	0.102	0.119	102	119	70-130	15.3	30
1,1-Dichloroethene	mg/L	<0.0003	0.100	0.100	0.081	0.088	81.0	88.2	80-120	8.5	30
cis-1,2-Dichloroethene	mg/L	<0.0004	0.100	0.100	0.105	0.117	105	117	70-130	10.8	30
trans-1,2-Dichloroethene	mg/L	<0.0004	0.100	0.100	0.086	0.089	86.0	89.8	60-140	4.3	30
1,2-Dichloropropane	mg/L	<0.0004	0.100	0.100	0.105	0.109	105	109	80-120	3.7	30
1,3-Dichloropropane	mg/L	<0.0003	0.100	0.100	0.111	0.121	111	121	75-125	8.6	30
2,2-Dichloropropane	mg/L	<0.0006	0.100	0.100	0.102	0.114	102	114	70-130	11.1	30
1,1-Dichloropropene	mg/L	<0.0008	0.100	0.100	0.097	0.106	97.7	106	75-125	8.1	30
cis-1,3-Dichloropropene	mg/L	<0.0004	0.100	0.100	0.104	0.108	104	108	70-130	3.7	30
trans-1,3-Dichloropropene	mg/L	<0.0003	0.100	0.100	0.110	0.114	110	114	55-145	3.5	30
Ethyl Acetate	mg/L	<0.003	0.100	0.100	0.097	0.114	97.0	114	40-160	16.1	30
Ethylbenzene	mg/L	0.002	0.100	0.100	0.102	0.098	99.8	96.4	80-120	3.3	30
Hexachlorobutadiene	mg/L	<0.0008	0.100	0.100	0.107	0.112	107	112	50-150	4.5	30
2-Hexanone	mg/L	<0.001	0.100	0.100	0.112	0.132	112	132	55-145	16.3	30
Iodomethane	mg/L	<0.001	0.100	0.100	0.077	0.063	77.2	63.2	40-160	19.9	30
Isopropylbenzene	mg/L	0.002	0.100	0.100	0.115	0.106	113	104	75-125	8.1	30
4-Isopropyl toluene	mg/L	<0.0009	0.100	0.100	0.112	0.104	112	104	75-125	7.4	30
4-Methyl-2-Pentanone	mg/L	<0.001	0.100	0.100	0.105	0.120	105	120	60-140	13.3	30
Methylene Chloride	mg/L	<0.004	0.100	0.100	0.091	0.098	91.0	98.5	55-145	7.9	30
Methyl tert-butyl ether (MTBE)	mg/L	<0.0006	0.100	0.100	0.104	0.120	104	120	65-135	14.2	30
m,p-Xylene	mg/L	0.005	0.200	0.200	0.214	0.222	104	108	75-125	3.6	30

### Quality Control Data

**Client ID:** Ensafe  
**Project Description:** Former Wayne's Pinball Palace  
**Report No:** 20-220-0136

**QC Prep:** L505402 **QC Analytical Batch(es):** L505439  
**QC Prep Batch Method:** 5030B **Analysis Method:** 8260B  
**Analysis Description:** Volatile Organic Compounds - GC/MS

**Matrix Spike & Matrix Spike Duplicate** L 92719-MS-L505402 L 92719-MSD-L505402

Parameter	Units	Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS %Rec	MSD %Rec	%Rec Limits	RPD	Max RPD
Naphthalene	mg/L	<0.004	0.100	0.100	0.107	0.121	107	121	55-145	12.2	30
o-Xylene	mg/L	<0.0005	0.100	0.100	0.107	0.108	107	108	70-130	0.9	30
n-Propylbenzene	mg/L	<0.0008	0.100	0.100	0.111	0.097	111	97.1	70-130	13.3	30
Styrene	mg/L	<0.0010	0.100	0.100	0.125	0.126	125	126	65-135	0.7	30
1,1,1,2-Tetrachloroethane	mg/L	<0.0004	0.100	0.100	0.098	0.097	98.2	97.1	70-130	1.1	30
1,1,2,2-Tetrachloroethane	mg/L	<0.0006	0.100	0.100	0.093	0.104	93.5	104	65-135	10.6	30
Tetrachloroethene	mg/L	<0.0004	0.100	0.100	0.112	0.106	112	106	45-155	5.5	30
Toluene	mg/L	<0.001	0.100	0.100	0.105	0.105	105	105	80-120	0.0	30
1,2,3-Trichlorobenzene	mg/L	<0.001	0.100	0.100	0.100	0.113	100	113	60-140	12.2	30
1,2,4-Trichlorobenzene	mg/L	<0.001	0.100	0.100	0.106	0.115	106	115	65-135	8.1	30
1,1,1-Trichloroethane	mg/L	<0.0003	0.100	0.100	0.102	0.111	102	111	65-135	8.4	30
1,1,2-Trichloroethane	mg/L	<0.0008	0.100	0.100	0.110	0.113	110	113	75-125	2.6	30
Trichloroethene	mg/L	<0.0005	0.100	0.100	0.100	0.102	100	102	70-130	1.9	30
Trichlorofluoromethane	mg/L	<0.0003	0.100	0.100	0.103	0.121	103	121	40-140	16.0	30
1,2,3-Trichloropropane	mg/L	<0.0005	0.100	0.100	0.112	0.123	112	123	75-125	9.3	30
1,2,4-Trimethylbenzene	mg/L	0.004	0.100	0.100	0.110	0.111	106	107	65-135	0.9	30
1,3,5-Trimethylbenzene	mg/L	0.001	0.100	0.100	0.105	0.107	103	105	75-125	1.8	30
Vinyl Acetate	mg/L	<0.002	0.100	0.100	0.095	0.115	95.6	115	40-160	18.4	30
Vinyl Chloride	mg/L	<0.0003	0.100	0.100	0.101	0.110	101	110	80-120	8.5	30
4-Bromofluorobenzene (S)							76.0	80.8	71-137		
Dibromofluoromethane (S)							100	107	70-128		
1,2-Dichloroethane - d4 (S)							74.4	81.4	63-136		
Toluene-d8 (S)							105	104	70-130		

### Quality Control Data

**Client ID:** Ensafe  
**Project Description:** Former Wayne's Pinball Palace  
**Report No:** 20-220-0136

**QC Prep:** L505698 **QC Analytical Batch(es):** L505699  
**QC Prep Batch Method:** 5030A **Analysis Method:** 8260B  
**Analysis Description:** Volatile Organic Compounds - GC/MS

**Lab Reagent Blank** LRB-L505698 Matrix: SOL  
Associated Lab Samples: 93207, 93208, 93209, 93210

Parameter	Units	Blank Result	MDL	MQL	Analyzed	% Recovery	% Rec Limits
Acetone	mg/Kg	<0.004	0.004	0.040	08/10/20 09:43		
Acetonitrile	mg/Kg	<0.045	0.045	0.100	08/10/20 09:43		
Acrolein	mg/Kg	<0.006	0.006	0.040	08/10/20 09:43		
Acrylonitrile	mg/Kg	<0.002	0.002	0.040	08/10/20 09:43		
Benzene	mg/Kg	<0.0006	0.0006	0.002	08/10/20 09:43		
Bromobenzene	mg/Kg	<0.0008	0.0008	0.002	08/10/20 09:43		
Bromochloromethane	mg/Kg	<0.001	0.001	0.002	08/10/20 09:43		
Bromodichloromethane	mg/Kg	<0.001	0.001	0.002	08/10/20 09:43		
Bromoform	mg/Kg	<0.001	0.001	0.002	08/10/20 09:43		
Bromomethane	mg/Kg	<0.001	0.001	0.002	08/10/20 09:43		
Methyl Ethyl Ketone (MEK)	mg/Kg	<0.007	0.007	0.040	08/10/20 09:43		
n-Butylbenzene	mg/Kg	<0.001	0.001	0.002	08/10/20 09:43		
sec-Butyl benzene	mg/Kg	<0.001	0.001	0.002	08/10/20 09:43		
tert-Butyl benzene	mg/Kg	<0.001	0.001	0.002	08/10/20 09:43		
Carbon Disulfide	mg/Kg	<0.001	0.001	0.002	08/10/20 09:43		
Carbon Tetrachloride	mg/Kg	<0.0004	0.0004	0.002	08/10/20 09:43		
Chlorobenzene	mg/Kg	<0.0005	0.0005	0.002	08/10/20 09:43		
Chlorodibromomethane	mg/Kg	<0.001	0.001	0.002	08/10/20 09:43		
Chloroethane	mg/Kg	<0.001	0.001	0.002	08/10/20 09:43		
2-Chloroethylvinyl Ether	mg/Kg	<0.005	0.005	0.010	08/10/20 09:43		
Chloroform	mg/Kg	<0.001	0.001	0.002	08/10/20 09:43		
Chloromethane	mg/Kg	<0.001	0.001	0.002	08/10/20 09:43		
2-Chlorotoluene	mg/Kg	<0.001	0.001	0.002	08/10/20 09:43		
4-Chlorotoluene	mg/Kg	<0.001	0.001	0.002	08/10/20 09:43		
1,2-Dibromo-3-Chloropropane	mg/Kg	<0.004	0.004	0.010	08/10/20 09:43		
1,2-Dibromoethane	mg/Kg	<0.0006	0.0006	0.002	08/10/20 09:43		
Dibromomethane	mg/Kg	<0.0005	0.0005	0.002	08/10/20 09:43		



### Quality Control Data

**Client ID:** Ensafe  
**Project Description:** Former Wayne's Pinball Palace  
**Report No:** 20-220-0136

**QC Prep:** L505698      **QC Analytical Batch(es):** L505699  
**QC Prep Batch Method:** 5030A      **Analysis Method:** 8260B  
**Analysis Description:** Volatile Organic Compounds - GC/MS

**Lab Reagent Blank**      LRB-L505698      Matrix: SOL  
Associated Lab Samples: 93207, 93208, 93209, 93210

Parameter	Units	Blank Result	MDL	MQL	Analyzed	% Recovery	% Rec Limits
1,2-Dichlorobenzene	mg/Kg	<0.001	0.001	0.002	08/10/20 09:43		
1,3-Dichlorobenzene	mg/Kg	<0.0009	0.0009	0.002	08/10/20 09:43		
1,4-Dichlorobenzene	mg/Kg	<0.001	0.001	0.002	08/10/20 09:43		
Dichlorodifluoromethane	mg/Kg	<0.001	0.001	0.002	08/10/20 09:43		
1,1-Dichloroethane	mg/Kg	<0.0009	0.0009	0.002	08/10/20 09:43		
1,2-Dichloroethane	mg/Kg	<0.0009	0.0009	0.002	08/10/20 09:43		
1,1-Dichloroethene	mg/Kg	<0.001	0.001	0.002	08/10/20 09:43		
cis-1,2-Dichloroethene	mg/Kg	<0.0007	0.0007	0.002	08/10/20 09:43		
trans-1,2-Dichloroethene	mg/Kg	<0.001	0.001	0.002	08/10/20 09:43		
1,2-Dichloropropane	mg/Kg	<0.0008	0.0008	0.002	08/10/20 09:43		
1,3-Dichloropropane	mg/Kg	<0.0009	0.0009	0.002	08/10/20 09:43		
2,2-Dichloropropane	mg/Kg	<0.0006	0.0006	0.002	08/10/20 09:43		
1,1-Dichloropropene	mg/Kg	<0.0007	0.0007	0.002	08/10/20 09:43		
cis-1,3-Dichloropropene	mg/Kg	<0.0006	0.0006	0.002	08/10/20 09:43		
trans-1,3-Dichloropropene	mg/Kg	<0.0006	0.0006	0.002	08/10/20 09:43		
Ethyl Acetate	mg/Kg	<0.007	0.007	0.040	08/10/20 09:43		
Ethylbenzene	mg/Kg	<0.0007	0.0007	0.002	08/10/20 09:43		
Hexachlorobutadiene	mg/Kg	<0.001	0.001	0.002	08/10/20 09:43		
2-Hexanone	mg/Kg	<0.004	0.004	0.010	08/10/20 09:43		
Iodomethane	mg/Kg	<0.0008	0.0008	0.010	08/10/20 09:43		
Isopropylbenzene	mg/Kg	<0.0009	0.0009	0.002	08/10/20 09:43		
4-Isopropyl toluene	mg/Kg	<0.0010	0.0010	0.002	08/10/20 09:43		
4-Methyl-2-Pentanone	mg/Kg	<0.005	0.005	0.010	08/10/20 09:43		
Methylene Chloride	mg/Kg	<0.005	0.005	0.040	08/10/20 09:43		
Methyl tert-butyl ether (MTBE)	mg/Kg	<0.001	0.001	0.002	08/10/20 09:43		
m,p-Xylene	mg/Kg	<0.001	0.001	0.004	08/10/20 09:43		
Naphthalene	mg/Kg	<0.006	0.006	0.010	08/10/20 09:43		

### Quality Control Data

**Client ID:** Ensafe  
**Project Description:** Former Wayne's Pinball Palace  
**Report No:** 20-220-0136

**QC Prep:** L505698      **QC Analytical Batch(es):** L505699  
**QC Prep Batch Method:** 5030A      **Analysis Method:** 8260B  
**Analysis Description:** Volatile Organic Compounds - GC/MS

**Lab Reagent Blank** LRB-L505698      Matrix: SOL  
Associated Lab Samples: 93207, 93208, 93209, 93210

Parameter	Units	Blank Result	MDL	MQL	Analyzed	% Recovery	% Rec Limits
o-Xylene	mg/Kg	<0.0004	0.0004	0.002	08/10/20 09:43		
n-Propylbenzene	mg/Kg	<0.001	0.001	0.002	08/10/20 09:43		
Styrene	mg/Kg	<0.001	0.001	0.002	08/10/20 09:43		
1,1,1,2-Tetrachloroethane	mg/Kg	<0.0009	0.0009	0.002	08/10/20 09:43		
1,1,2,2-Tetrachloroethane	mg/Kg	<0.001	0.001	0.002	08/10/20 09:43		
Tetrachloroethene	mg/Kg	<0.0009	0.0009	0.002	08/10/20 09:43		
Toluene	mg/Kg	<0.003	0.003	0.010	08/10/20 09:43		
1,2,3-Trichlorobenzene	mg/Kg	<0.001	0.001	0.002	08/10/20 09:43		
1,2,4-Trichlorobenzene	mg/Kg	<0.001	0.001	0.002	08/10/20 09:43		
1,1,1-Trichloroethane	mg/Kg	<0.0007	0.0007	0.002	08/10/20 09:43		
1,1,2-Trichloroethane	mg/Kg	<0.0006	0.0006	0.002	08/10/20 09:43		
Trichloroethene	mg/Kg	<0.0005	0.0005	0.002	08/10/20 09:43		
Trichlorofluoromethane	mg/Kg	<0.001	0.001	0.002	08/10/20 09:43		
1,2,3-Trichloropropane	mg/Kg	<0.0006	0.0006	0.002	08/10/20 09:43		
1,2,4-Trimethylbenzene	mg/Kg	<0.0009	0.0009	0.002	08/10/20 09:43		
1,3,5-Trimethylbenzene	mg/Kg	<0.001	0.001	0.002	08/10/20 09:43		
Vinyl Acetate	mg/Kg	<0.003	0.003	0.040	08/10/20 09:43		
Vinyl Chloride	mg/Kg	<0.0005	0.0005	0.002	08/10/20 09:43		
4-Bromofluorobenzene (S)					08/10/20 09:43	104	60-130
1,2-Dichloroethane - d4 (S)					08/10/20 09:43	129	60-132
Toluene-d8 (S)					08/10/20 09:43	106	70-130

**Laboratory Control Sample** LCS-L505698

Parameter	Units	Spike Conc.	LCS Result	LCS %Rec	% Rec Limits
Acetone	mg/Kg	0.200	0.191	95.5	40-160
Acetonitrile	mg/Kg	2.00	1.76	88.0	40-160

### Quality Control Data

**Client ID:** Ensafe  
**Project Description:** Former Wayne's Pinball Palace  
**Report No:** 20-220-0136

**QC Prep:** L505698      **QC Analytical Batch(es):** L505699  
**QC Prep Batch Method:** 5030A      **Analysis Method:** 8260B  
**Analysis Description:** Volatile Organic Compounds - GC/MS

**Laboratory Control Sample**      LCS-L505698

Parameter	Units	Spike Conc.	LCS Result	LCS %Rec	% Rec Limits
Acrolein	mg/Kg	0.200	0.179	89.5	40-160
Acrylonitrile	mg/Kg	0.200	0.201	101	40-160
Benzene	mg/Kg	0.200	0.186	93.0	70-130
Bromobenzene	mg/Kg	0.200	0.166	83.0	75-125
Bromochloromethane	mg/Kg	0.200	0.182	91.0	65-135
Bromodichloromethane	mg/Kg	0.200	0.172	86.0	75-125
Bromoform	mg/Kg	0.200	0.177	88.5	70-130
Bromomethane	mg/Kg	0.200	0.224	112	40-160
Methyl Ethyl Ketone (MEK)	mg/Kg	0.200	0.179	89.5	40-160
n-Butylbenzene	mg/Kg	0.200	0.178	89.0	70-130
sec-Butyl benzene	mg/Kg	0.200	0.184	92.0	70-130
tert-Butyl benzene	mg/Kg	0.200	0.188	94.0	70-130
Carbon Disulfide	mg/Kg	0.200	0.172	86.0	40-160
Carbon Tetrachloride	mg/Kg	0.200	0.187	93.5	65-135
Chlorobenzene	mg/Kg	0.200	0.174	87.0	80-120
Chlorodibromomethane	mg/Kg	0.200	0.180	90.0	60-140
Chloroethane	mg/Kg	0.200	0.168	84.0	60-140
2-Chloroethylvinyl Ether	mg/Kg	0.200	0.166	83.0	40-160
Chloroform	mg/Kg	0.200	0.190	95.0	80-120
Chloromethane	mg/Kg	0.200	0.183	91.5	40-160
2-Chlorotoluene	mg/Kg	0.200	0.181	90.5	75-125
4-Chlorotoluene	mg/Kg	0.200	0.175	87.5	75-125
1,2-Dibromo-3-Chloropropane	mg/Kg	0.200	0.166	83.0	50-150
1,2-Dibromoethane	mg/Kg	0.200	0.160	80.0	70-130
Dibromomethane	mg/Kg	0.200	0.164	82.0	75-125
1,2-Dichlorobenzene	mg/Kg	0.200	0.160	80.0	70-130
1,3-Dichlorobenzene	mg/Kg	0.200	0.158	79.0	75-125

### Quality Control Data

**Client ID:** Ensafe  
**Project Description:** Former Wayne's Pinball Palace  
**Report No:** 20-220-0136

**QC Prep:** L505698      **QC Analytical Batch(es):** L505699  
**QC Prep Batch Method:** 5030A      **Analysis Method:** 8260B  
**Analysis Description:** Volatile Organic Compounds - GC/MS

**Laboratory Control Sample**      LCS-L505698

Parameter	Units	Spike Conc.	LCS Result	LCS %Rec	% Rec Limits
1,4-Dichlorobenzene	mg/Kg	0.200	0.171	85.5	75-125
Dichlorodifluoromethane	mg/Kg	0.200	0.120	60.0	40-160
1,1-Dichloroethane	mg/Kg	0.200	0.193	96.5	70-130
1,2-Dichloroethane	mg/Kg	0.200	0.193	96.5	70-130
1,1-Dichloroethene	mg/Kg	0.200	0.174	87.0	80-120
cis-1,2-Dichloroethene	mg/Kg	0.200	0.192	96.0	70-130
trans-1,2-Dichloroethene	mg/Kg	0.200	0.171	85.5	60-140
1,2-Dichloropropane	mg/Kg	0.200	0.181	90.5	80-120
1,3-Dichloropropane	mg/Kg	0.200	0.166	83.0	75-125
2,2-Dichloropropane	mg/Kg	0.200	0.204	102	70-130
1,1-Dichloropropene	mg/Kg	0.200	0.192	96.0	75-125
cis-1,3-Dichloropropene	mg/Kg	0.200	0.171	85.5	70-130
trans-1,3-Dichloropropene	mg/Kg	0.200	0.174	87.0	55-145
Ethyl Acetate	mg/Kg	0.200	0.179	89.5	40-160
Ethylbenzene	mg/Kg	0.200	0.185	92.5	80-120
Hexachlorobutadiene	mg/Kg	0.200	0.173	86.5	50-150
2-Hexanone	mg/Kg	0.200	0.166	83.0	55-145
Iodomethane	mg/Kg	0.200	0.160	80.0	40-160
Isopropylbenzene	mg/Kg	0.200	0.182	91.0	75-125
4-Isopropyl toluene	mg/Kg	0.200	0.174	87.0	75-125
4-Methyl-2-Pentanone	mg/Kg	0.200	0.166	83.0	60-140
Methylene Chloride	mg/Kg	0.200	0.176	88.0	55-145
Methyl tert-butyl ether (MTBE)	mg/Kg	0.200	0.181	90.5	65-135
m,p-Xylene	mg/Kg	0.400	0.353	88.2	75-125
Naphthalene	mg/Kg	0.200	0.156	78.0	55-145
o-Xylene	mg/Kg	0.200	0.179	89.5	70-130
n-Propylbenzene	mg/Kg	0.200	0.174	87.0	70-130

### Quality Control Data

**Client ID:** Ensafe  
**Project Description:** Former Wayne's Pinball Palace  
**Report No:** 20-220-0136

**QC Prep:** L505698      **QC Analytical Batch(es):** L505699  
**QC Prep Batch Method:** 5030A      **Analysis Method:** 8260B  
**Analysis Description:** Volatile Organic Compounds - GC/MS

**Laboratory Control Sample**      LCS-L505698

Parameter	Units	Spike Conc.	LCS Result	LCS %Rec	% Rec Limits
Styrene	mg/Kg	0.200	0.198	99.0	65-135
1,1,1,2-Tetrachloroethane	mg/Kg	0.200	0.165	82.5	70-130
1,1,2,2-Tetrachloroethane	mg/Kg	0.200	0.147	73.5	65-135
Tetrachloroethene	mg/Kg	0.200	0.179	89.5	45-155
Toluene	mg/Kg	0.200	0.167	83.5	80-120
1,2,3-Trichlorobenzene	mg/Kg	0.200	0.155	77.5	60-140
1,2,4-Trichlorobenzene	mg/Kg	0.200	0.158	79.0	65-135
1,1,1-Trichloroethane	mg/Kg	0.200	0.194	97.0	65-135
1,1,2-Trichloroethane	mg/Kg	0.200	0.172	86.0	75-125
Trichloroethene	mg/Kg	0.200	0.187	93.5	70-130
Trichlorofluoromethane	mg/Kg	0.200	0.224	112	60-140
1,2,3-Trichloropropane	mg/Kg	0.200	0.177	88.5	75-125
1,2,4-Trimethylbenzene	mg/Kg	0.200	0.194	97.0	75-125
1,3,5-Trimethylbenzene	mg/Kg	0.200	0.168	84.0	75-125
Vinyl Acetate	mg/Kg	0.200	0.196	98.0	40-160
Vinyl Chloride	mg/Kg	0.200	0.208	104	80-120
4-Bromofluorobenzene (S)				96.2	60-130
1,2-Dichloroethane - d4 (S)				88.8	60-132
Toluene-d8 (S)				98.6	70-130

**Matrix Spike & Matrix Spike Duplicate**      L 93112-MS-L505698      L 93112-MSD-L505698

Parameter	Units	Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS %Rec	MSD %Rec	%Rec Limits	RPD	Max RPD
Acetone	mg/Kg	0.011	0.204	0.200	0.192	0.191	94.1	95.5	40-160	0.5	30
Acetonitrile	mg/Kg	<0.046	2.04	2.00	1.84	2.17	90.1	109	40-160	16.4	30
Acrolein	mg/Kg	<0.006	0.204	0.200	0.011	0.154	0.0*	77.0	40-160	117*	30

\* QC Fail

Date: 08/14/2020 05:07 PM

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### Quality Control Data

**Client ID:** Ensafe  
**Project Description:** Former Wayne's Pinball Palace  
**Report No:** 20-220-0136

**QC Prep:** L505698 **QC Analytical Batch(es):** L505699  
**QC Prep Batch Method:** 5030A **Analysis Method:** 8260B  
**Analysis Description:** Volatile Organic Compounds - GC/MS

**Matrix Spike & Matrix Spike Duplicate** L 93112-MS-L505698 L 93112-MSD-L505698

Parameter	Units	Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS %Rec	MSD %Rec	%Rec Limits	RPD	Max RPD
Acrylonitrile	mg/Kg	<0.002	0.204	0.200	0.206	0.203	101	102	40-160	1.4	30
Benzene	mg/Kg	<0.0006	0.204	0.200	0.155	0.182	75.9	91.0	70-130	16.0	30
Bromobenzene	mg/Kg	<0.0008	0.204	0.200	0.088	0.155	43.1*	77.5	75-125	55.1*	30
Bromochloromethane	mg/Kg	<0.001	0.204	0.200	0.166	0.172	81.3	86.0	65-135	3.5	30
Bromodichloromethane	mg/Kg	<0.001	0.204	0.200	0.150	0.191	73.5*	95.5	75-125	24.0	30
Bromoform	mg/Kg	<0.001	0.204	0.200	0.149	0.193	73.0	96.5	70-130	25.7	30
Bromomethane	mg/Kg	0.002	0.204	0.200	0.201	0.184	97.2	90.6	40-160	8.8	30
Methyl Ethyl Ketone (MEK)	mg/Kg	<0.007	0.204	0.200	0.186	0.210	91.1	105	40-160	12.1	30
n-Butylbenzene	mg/Kg	<0.001	0.204	0.200	0.075	0.157	37.1*	78.5	70-130	69.8*	30
sec-Butyl benzene	mg/Kg	0.002	0.204	0.200	0.086	0.163	40.9*	80.0	70-130	61.3*	30
tert-Butyl benzene	mg/Kg	<0.001	0.204	0.200	0.089	0.158	43.6*	79.0	70-130	55.7*	30
Carbon Disulfide	mg/Kg	<0.001	0.204	0.200	0.121	0.137	59.3	68.5	40-160	12.4	30
Carbon Tetrachloride	mg/Kg	<0.0004	0.204	0.200	0.139	0.179	68.1	89.5	65-135	25.1	30
Chlorobenzene	mg/Kg	<0.0005	0.204	0.200	0.122	0.178	59.8*	89.0	80-120	37.3*	30
Chlorodibromomethane	mg/Kg	<0.001	0.204	0.200	0.159	0.198	77.9	99.0	60-140	21.8	30
Chloroethane	mg/Kg	<0.001	0.204	0.200	0.150	0.164	73.5	82.0	60-140	8.9	30
2-Chloroethylvinyl Ether	mg/Kg	<0.005	0.204	0.200	0.159	0.202	77.9	101	40-160	23.8	30
Chloroform	mg/Kg	0.002	0.204	0.200	0.168	0.200	81.0	98.6	80-120	17.3	30
Chloromethane	mg/Kg	<0.001	0.204	0.200	0.137	0.143	67.1	71.5	40-160	4.2	30
2-Chlorotoluene	mg/Kg	<0.001	0.204	0.200	0.105	0.180	51.4*	90.0	75-125	52.6*	30
4-Chlorotoluene	mg/Kg	<0.001	0.204	0.200	0.093	0.159	45.9*	79.5	75-125	51.6*	30
1,2-Dibromo-3-Chloropropane	mg/Kg	<0.004	0.204	0.200	0.150	0.187	73.5	93.5	50-150	21.9	30
1,2-Dibromoethane	mg/Kg	<0.0006	0.204	0.200	0.145	0.177	71.0	88.5	70-130	19.8	30
Dibromomethane	mg/Kg	<0.0005	0.204	0.200	0.160	0.183	78.4	91.5	75-125	13.4	30
1,2-Dichlorobenzene	mg/Kg	<0.001	0.204	0.200	0.089	0.156	43.8*	78.0	70-130	54.2*	30
1,3-Dichlorobenzene	mg/Kg	0.001	0.204	0.200	0.096	0.158	47.0*	79.0	75-125	48.8*	30

### Quality Control Data

**Client ID:** Ensafe  
**Project Description:** Former Wayne's Pinball Palace  
**Report No:** 20-220-0136

**QC Prep:** L505698 **QC Analytical Batch(es):** L505699  
**QC Prep Batch Method:** 5030A **Analysis Method:** 8260B  
**Analysis Description:** Volatile Organic Compounds - GC/MS

**Matrix Spike & Matrix Spike Duplicate** L 93112-MS-L505698 L 93112-MSD-L505698

Parameter	Units	Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS %Rec	MSD %Rec	%Rec Limits	RPD	Max RPD
1,4-Dichlorobenzene	mg/Kg	<0.001	0.204	0.200	0.094	0.167	46.0*	83.5	75-125	55.9*	30
Dichlorodifluoromethane	mg/Kg	<0.001	0.204	0.200	0.072	0.073	35.3*	36.5*	40-160	1.2	30
1,1-Dichloroethane	mg/Kg	<0.0009	0.204	0.200	0.159	0.185	77.9	92.5	70-130	15.1	30
1,2-Dichloroethane	mg/Kg	0.028	0.204	0.200	0.238	0.234	103	103	70-130	1.6	30
1,1-Dichloroethene	mg/Kg	<0.001	0.204	0.200	0.132	0.148	64.7*	74.0*	80-120	11.4	30
cis-1,2-Dichloroethene	mg/Kg	<0.0007	0.204	0.200	0.169	0.192	82.8	96.0	70-130	12.7	30
trans-1,2-Dichloroethene	mg/Kg	<0.001	0.204	0.200	0.140	0.158	68.6	79.0	60-140	12.0	30
1,2-Dichloropropane	mg/Kg	<0.0008	0.204	0.200	0.157	0.195	76.9*	97.5	80-120	21.5	30
1,3-Dichloropropane	mg/Kg	<0.0010	0.204	0.200	0.161	0.184	78.9	92.0	75-125	13.3	30
2,2-Dichloropropane	mg/Kg	<0.0006	0.204	0.200	0.152	0.187	74.5	93.5	70-130	20.6	30
1,1-Dichloropropene	mg/Kg	0.010	0.204	0.200	0.141	0.180	64.0*	84.8	75-125	24.2	30
cis-1,3-Dichloropropene	mg/Kg	<0.0006	0.204	0.200	0.154	0.194	75.4	97.0	70-130	22.9	30
trans-1,3-Dichloropropene	mg/Kg	<0.0006	0.204	0.200	0.152	0.193	74.5	96.5	55-145	23.7	30
Ethyl Acetate	mg/Kg	<0.007	0.204	0.200	0.185	0.209	90.6	105	40-160	12.1	30
Ethylbenzene	mg/Kg	0.001	0.204	0.200	0.104	0.173	50.9*	86.5	80-120	49.8*	30
Hexachlorobutadiene	mg/Kg	<0.001	0.204	0.200	0.073	0.147	36.2*	73.5	50-150	66.1*	30
2-Hexanone	mg/Kg	<0.005	0.204	0.200	0.163	0.204	79.9	102	55-145	22.3	30
Iodomethane	mg/Kg	<0.0008	0.204	0.200	0.134	0.118	65.6	59.0	40-160	12.6	30
Isopropylbenzene	mg/Kg	<0.0009	0.204	0.200	0.092	0.176	45.2*	88.0	75-125	62.2*	30
4-Isopropyl toluene	mg/Kg	<0.0010	0.204	0.200	0.085	0.165	41.7*	82.5	75-125	63.8*	30
4-Methyl-2-Pentanone	mg/Kg	<0.005	0.204	0.200	0.159	0.200	77.9	100	60-140	22.8	30
Methylene Chloride	mg/Kg	<0.005	0.204	0.200	0.158	0.164	77.4	82.0	55-145	3.7	30
Methyl tert-butyl ether (MTBE)	mg/Kg	<0.001	0.204	0.200	0.160	0.192	78.4	96.0	65-135	18.1	30
m,p-Xylene	mg/Kg	0.005	0.407	0.401	0.218	0.347	52.2*	85.2	75-125	45.6*	30
Naphthalene	mg/Kg	0.009	0.204	0.200	0.089	0.170	43.6*	85.0	55-145	62.5*	30
o-Xylene	mg/Kg	0.001	0.204	0.200	0.121	0.170	59.3*	85.0	70-130	33.6*	30



### Quality Control Data

**Client ID:** Ensafe  
**Project Description:** Former Wayne's Pinball Palace  
**Report No:** 20-220-0136

**QC Prep:** L505698      **QC Analytical Batch(es):** L505699  
**QC Prep Batch Method:** 5030A      **Analysis Method:** 8260B  
**Analysis Description:** Volatile Organic Compounds - GC/MS

**Matrix Spike & Matrix Spike Duplicate**      L 93112-MS-L505698      L 93112-MSD-L505698

Parameter	Units	Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS %Rec	MSD %Rec	%Rec Limits	RPD	Max RPD
n-Propylbenzene	mg/Kg	<0.001	0.204	0.200	0.086	0.155	42.2*	77.5	70-130	57.0*	30
Styrene	mg/Kg	<0.001	0.204	0.200	0.116	0.196	56.8*	98.0	65-135	51.2*	30
1,1,1,2-Tetrachloroethane	mg/Kg	<0.0010	0.204	0.200	0.133	0.163	65.1*	81.5	70-130	20.2	30
1,1,2,2-Tetrachloroethane	mg/Kg	<0.001	0.204	0.200	0.135	0.165	66.1	82.5	65-135	20.0	30
Tetrachloroethene	mg/Kg	<0.0009	0.204	0.200	0.107	0.179	52.4*	89.5	60-155	50.3*	30
Toluene	mg/Kg	<0.003	0.204	0.200	0.142	0.180	69.6*	90.0	80-120	23.6	30
1,2,3-Trichlorobenzene	mg/Kg	<0.001	0.204	0.200	0.067	0.139	33.1*	69.5	60-140	68.9*	30
1,2,4-Trichlorobenzene	mg/Kg	<0.001	0.204	0.200	0.068	0.129	33.6*	64.5*	65-135	61.1*	30
1,1,1-Trichloroethane	mg/Kg	<0.0007	0.204	0.200	0.152	0.189	74.5	94.5	65-135	21.7	30
1,1,2-Trichloroethane	mg/Kg	0.0007	0.204	0.200	0.160	0.201	78.4	101	75-125	22.7	30
Trichloroethene	mg/Kg	<0.0005	0.204	0.200	0.141	0.182	69.1*	91.0	70-130	25.3	30
Trichlorofluoromethane	mg/Kg	<0.001	0.204	0.200	0.190	0.214	93.1	107	60-140	11.8	30
1,2,3-Trichloropropane	mg/Kg	<0.0006	0.204	0.200	0.145	0.183	71.0*	91.5	75-125	23.1	30
1,2,4-Trimethylbenzene	mg/Kg	0.003	0.204	0.200	0.092	0.179	43.7*	87.9	75-125	63.8*	30
1,3,5-Trimethylbenzene	mg/Kg	<0.001	0.204	0.200	0.085	0.153	42.0*	76.5	75-125	56.3*	30
Vinyl Acetate	mg/Kg	<0.003	0.204	0.200	0.177	0.193	86.7	96.5	40-160	8.6	30
Vinyl Chloride	mg/Kg	<0.0005	0.204	0.200	0.173	0.170	84.8	85.0	80-120	1.7	30
4-Bromofluorobenzene (S)							101	98.4	60-130		
1,2-Dichloroethane - d4 (S)							104	99.0	60-132		
Toluene-d8 (S)							108	108	70-130		

### Quality Control Data

**Client ID:** Ensafe  
**Project Description:** Former Wayne's Pinball Palace  
**Report No:** 20-220-0136

**QC Prep:** L505416 **QC Analytical Batch(es):** L505705  
**QC Prep Batch Method:** 3511 **Analysis Method:** 8270D SIM  
**Analysis Description:** Semivolatile Organic Compounds - GC/MS (SIM)

**Lab Reagent Blank** LRB-L505416 Matrix: AQU  
 Associated Lab Samples: 93211, 93212

Parameter	Units	Blank Result	MDL	MQL	Analyzed	% Recovery	% Rec Limits
Acenaphthene	mg/L	<0.000018	0.000018	0.000020	08/10/20 18:21		
Acenaphthylene	mg/L	<0.000014	0.000014	0.000020	08/10/20 18:21		
Anthracene	mg/L	<0.000005	0.000005	0.000020	08/10/20 18:21		
Benzo(a)anthracene	mg/L	<0.000011	0.000011	0.000020	08/10/20 18:21		
Benzo(a)pyrene	mg/L	<0.000012	0.000012	0.000020	08/10/20 18:21		
Benzo(b)fluoranthene	mg/L	<0.000008	0.000008	0.000020	08/10/20 18:21		
Benzo(g,h,i)perylene	mg/L	<0.000007	0.000007	0.000020	08/10/20 18:21		
Benzo(k)fluoranthene	mg/L	<0.000016	0.000016	0.000020	08/10/20 18:21		
Chrysene	mg/L	<0.000008	0.000008	0.000020	08/10/20 18:21		
Dibenz(a,h)anthracene	mg/L	<0.000006	0.000006	0.000020	08/10/20 18:21		
Fluoranthene	mg/L	<0.000005	0.000005	0.000020	08/10/20 18:21		
Fluorene	mg/L	<0.000010	0.000010	0.000020	08/10/20 18:21		
Indeno(1,2,3-cd)pyrene	mg/L	<0.000014	0.000014	0.000020	08/10/20 18:21		
2-Methylnaphthalene	mg/L	<0.000018	0.000018	0.000020	08/10/20 18:21		
Naphthalene	mg/L	<0.000019	0.000019	0.000020	08/10/20 18:21		
Phenanthrene	mg/L	<0.000008	0.000008	0.000020	08/10/20 18:21		
Pyrene	mg/L	<0.000009	0.000009	0.000020	08/10/20 18:21		
2-Fluorobiphenyl (S)					08/10/20 18:21	116	70-130
4-Terphenyl-d14 (S)					08/10/20 18:21	123	70-130

**Laboratory Control Sample & LCSD** LCS-L505416 LCSD-L505416

Parameter	Units	Spike Conc.	LCS Result	LCSD Result	LCS %Rec	LCSD % Rec	% Rec Limits	RPD	Max RPD
Acenaphthene	mg/L	0.00303	0.00298	0.00330	98.3	109	60-140	10.1	20
Acenaphthylene	mg/L	0.00303	0.00209	0.00272	68.9	89.7	60-140	26.1*	20
Anthracene	mg/L	0.00303	0.00295	0.00297	97.3	98.0	60-140	0.6	20

\* QC Fail

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### Quality Control Data

**Client ID:** Ensafe  
**Project Description:** Former Wayne's Pinball Palace  
**Report No:** 20-220-0136

**QC Prep:** L505416      **QC Analytical Batch(es):** L505705  
**QC Prep Batch Method:** 3511      **Analysis Method:** 8270D SIM  
**Analysis Description:** Semivolatile Organic Compounds - GC/MS (SIM)

**Laboratory Control Sample & LCSD**      LCS-L505416      LCSD-L505416

Parameter	Units	Spike Conc.	LCS Result	LCSD Result	LCS %Rec	LCSD % Rec	% Rec Limits	RPD	Max RPD
Benzo(a)anthracene	mg/L	0.00303	0.00326	0.00328	108	108	60-140	0.6	20
Benzo(a)pyrene	mg/L	0.00303	0.00299	0.00303	98.6	100	60-140	1.3	20
Benzo(b)fluoranthene	mg/L	0.00303	0.00313	0.00305	103	101	60-140	2.5	20
Benzo(g,h,i)perylene	mg/L	0.00303	0.00217	0.00212	71.6	69.9	60-140	2.3	20
Benzo(k)fluoranthene	mg/L	0.00303	0.00253	0.00245	83.4	80.8	60-140	3.2	20
Chrysene	mg/L	0.00303	0.00263	0.00276	86.7	91.0	60-140	4.8	20
Dibenz(a,h)anthracene	mg/L	0.00303	0.00261	0.00251	86.1	82.8	60-140	3.9	20
Fluoranthene	mg/L	0.00303	0.00319	0.00307	105	101	60-140	3.8	20
Fluorene	mg/L	0.00303	0.00272	0.00311	89.7	103	60-140	13.3	20
Indeno(1,2,3-cd)pyrene	mg/L	0.00303	0.00350	0.00331	116	109	60-140	5.5	20
2-Methylnaphthalene	mg/L	0.00303	0.00281	0.00305	92.7	101	60-140	8.1	20
Naphthalene	mg/L	0.00303	0.00307	0.00317	101	105	60-140	3.2	20
Phenanthrene	mg/L	0.00303	0.00274	0.00286	90.4	94.3	60-140	4.2	20
Pyrene	mg/L	0.00303	0.00343	0.00325	113	107	60-140	5.3	20
2-Fluorobiphenyl (S)					109	122	70-130		
4-Terphenyl-d14 (S)					122	121	70-130		

### Quality Control Data

**Client ID:** Ensafe  
**Project Description:** Former Wayne's Pinball Palace  
**Report No:** 20-220-0136

**QC Prep:** L506017      **QC Analytical Batch(es):** L506498  
**QC Prep Batch Method:** 3550B      **Analysis Method:** 8270D SIM  
**Analysis Description:** Semivolatile Organic Compounds - GC/MS (SIM)

**Lab Reagent Blank**      LRB-L506017      Matrix: SOL  
Associated Lab Samples: 93207, 93208, 93209, 93210

Parameter	Units	Blank Result	MDL	MQL	Analyzed	% Recovery	% Rec Limits
Acenaphthene	mg/Kg	<0.000431	0.000431	0.000670	08/13/20 18:13		
Acenaphthylene	mg/Kg	<0.000382	0.000382	0.000670	08/13/20 18:13		
Anthracene	mg/Kg	<0.000426	0.000426	0.000670	08/13/20 18:13		
Benzo(a)anthracene	mg/Kg	<0.000441	0.000441	0.000670	08/13/20 18:13		
Benzo(a)pyrene	mg/Kg	<0.000133	0.000133	0.000670	08/13/20 18:13		
Benzo(b)fluoranthene	mg/Kg	<0.000138	0.000138	0.000670	08/13/20 18:13		
Benzo(g,h,i)perylene	mg/Kg	<0.000231	0.000231	0.000670	08/13/20 18:13		
Benzo(k)fluoranthene	mg/Kg	<0.000486	0.000486	0.000670	08/13/20 18:13		
Chrysene	mg/Kg	<0.000256	0.000256	0.000670	08/13/20 18:13		
Dibenz(a,h)anthracene	mg/Kg	<0.000279	0.000279	0.000670	08/13/20 18:13		
Fluoranthene	mg/Kg	<0.000529	0.000529	0.000670	08/13/20 18:13		
Fluorene	mg/Kg	<0.000501	0.000501	0.000670	08/13/20 18:13		
Indeno(1,2,3-cd)pyrene	mg/Kg	0.000592	0.000344	0.000670	08/13/20 18:13		
2-Methylnaphthalene	mg/Kg	<0.000542	0.000542	0.000670	08/13/20 18:13		
Naphthalene	mg/Kg	<0.000467	0.000467	0.000670	08/13/20 18:13		
Phenanthrene	mg/Kg	<0.000654	0.000654	0.000670	08/13/20 18:13		
Pyrene	mg/Kg	<0.000387	0.000387	0.000670	08/13/20 18:13		
2-Fluorobiphenyl (S)					08/13/20 18:13	57.6	33-115
Nitrobenzene-d5 (S)					08/13/20 18:13	54.3	29-110
4-Terphenyl-d14 (S)					08/13/20 18:13	78.3	33-122

**Laboratory Control Sample**      LCS-L506017

Parameter	Units	Spike Conc.	LCS Result	LCS %Rec	% Rec Limits
Acenaphthene	mg/Kg	0.167	0.101	60.4	30-130
Acenaphthylene	mg/Kg	0.167	0.110	65.8	30-130
Anthracene	mg/Kg	0.167	0.107	64.0	30-130

### Quality Control Data

**Client ID:** Ensafe  
**Project Description:** Former Wayne's Pinball Palace  
**Report No:** 20-220-0136

**QC Prep:** L506017      **QC Analytical Batch(es):** L506498  
**QC Prep Batch Method:** 3550B      **Analysis Method:** 8270D SIM  
**Analysis Description:** Semivolatile Organic Compounds - GC/MS (SIM)

**Laboratory Control Sample**      LCS-L506017

Parameter	Units	Spike Conc.	LCS Result	LCS %Rec	% Rec Limits
Benzo(a)anthracene	mg/Kg	0.167	0.124	74.2	30-130
Benzo(a)pyrene	mg/Kg	0.167	0.119	71.2	30-130
Benzo(b)fluoranthene	mg/Kg	0.167	0.193	116	30-130
Benzo(g,h,i)perylene	mg/Kg	0.167	0.117	70.0	30-130
Benzo(k)fluoranthene	mg/Kg	0.167	0.188	113	30-130
Chrysene	mg/Kg	0.167	0.102	61.0	30-130
Dibenz(a,h)anthracene	mg/Kg	0.167	0.143	85.6	30-130
Fluoranthene	mg/Kg	0.167	0.135	80.8	30-130
Fluorene	mg/Kg	0.167	0.127	76.0	30-130
Indeno(1,2,3-cd)pyrene	mg/Kg	0.167	0.135	80.8	30-130
2-Methylnaphthalene	mg/Kg	0.167	0.0867	51.9	30-130
Naphthalene	mg/Kg	0.167	0.0823	49.2	30-130
Phenanthrene	mg/Kg	0.167	0.0989	59.2	30-130
Pyrene	mg/Kg	0.167	0.132	79.0	30-130
2-Fluorobiphenyl (S)				54.0	33-115
Nitrobenzene-d5 (S)				50.4	29-110
4-Terphenyl-d14 (S)				92.7	33-122

**Matrix Spike & Matrix Spike Duplicate**      L 93208-MS-L506017      L 93208-MSD-L506017

Parameter	Units	Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS %Rec	MSD %Rec	%Rec Limits	RPD	Max RPD
Acenaphthene	mg/Kg	<0.000431	0.166	0.164	0.0966	0.0906	58.1	55.2	30-130	6.4	30
Acenaphthylene	mg/Kg	<0.000382	0.166	0.164	0.105	0.0985	63.2	60.0	30-130	6.3	30
Anthracene	mg/Kg	<0.000426	0.166	0.164	0.0972	0.0945	58.5	57.6	30-130	2.8	30
Benzo(a)anthracene	mg/Kg	0.0134	0.166	0.164	0.114	0.109	60.6	58.2	30-130	4.4	30
Benzo(a)pyrene	mg/Kg	<0.000133	0.166	0.164	0.102	0.0931	61.4	56.7	30-130	9.1	30

### Quality Control Data

**Client ID:** Ensafe  
**Project Description:** Former Wayne's Pinball Palace  
**Report No:** 20-220-0136

**QC Prep:** L506017      **QC Analytical Batch(es):** L506498  
**QC Prep Batch Method:** 3550B      **Analysis Method:** 8270D SIM  
**Analysis Description:** Semivolatile Organic Compounds - GC/MS (SIM)

**Matrix Spike & Matrix Spike Duplicate**      L 93208-MS-L506017      L 93208-MSD-L506017

Parameter	Units	Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS %Rec	MSD %Rec	%Rec Limits	RPD	Max RPD
Benzo(b)fluoranthene	mg/Kg	0.0256	0.166	0.164	0.124	0.161	59.2	82.5	30-130	25.9	30
Benzo(g,h,i)perylene	mg/Kg	0.0147	0.166	0.164	0.146	0.140	79.0	76.4	30-130	4.1	30
Benzo(k)fluoranthene	mg/Kg	0.0133	0.166	0.164	0.116	0.160	61.8	89.4	30-130	31.8*	30
Chrysene	mg/Kg	0.0143	0.166	0.164	0.0917	0.0961	46.6	49.8	30-130	4.6	30
Dibenz(a,h)anthracene	mg/Kg	<0.000279	0.166	0.164	0.183	0.176	110	107	30-130	3.8	30
Fluoranthene	mg/Kg	0.0302	0.166	0.164	0.120	0.0950	54.0	39.5	30-130	23.2	30
Fluorene	mg/Kg	<0.000501	0.166	0.164	0.123	0.107	74.0	65.2	30-130	13.9	30
Indeno(1,2,3-cd)pyrene	mg/Kg	0.0166	0.166	0.164	0.156	0.144	83.9	77.6	30-130	8.0	30
2-Methylnaphthalene	mg/Kg	<0.000542	0.166	0.164	0.0828	0.0784	49.8	47.8	30-130	5.4	30
Naphthalene	mg/Kg	<0.000467	0.166	0.164	0.0792	0.0743	47.7	45.3	30-130	6.3	30
Phenanthrene	mg/Kg	<0.000654	0.166	0.164	0.103	0.105	62.0	64.0	30-130	1.9	30
Pyrene	mg/Kg	0.0233	0.166	0.164	0.111	0.0809	52.8	35.1	30-130	31.3*	30
2-Fluorobiphenyl (S)							47.4	37.5	33-115		
Nitrobenzene-d5 (S)							45.6	35.9	29-110		
4-Terphenyl-d14 (S)							61.0	33.2	33-122		

**Quality Control Data**

**Client ID:** Ensafe  
**Project Description:** Former Wayne's Pinball Palace  
**Report No:** 20-220-0136

**QC Analytical Batch:** L505753  
**Analysis Method:** SW-DRYWT  
**Analysis Description:** Dry Weight Determination

**Duplicate** L 93210-DUP

Parameter	Units	Result	DUP Result	RPD	Max RPD	Analyzed
Moisture	%	21.9	20.3	7.5	20.0	08/11/20 14:04



### Quality Control Data

**Client ID:** Ensafe  
**Project Description:** Former Wayne's Pinball Palace  
**Report No:** 20-220-0136

**QC Prep:** L505693 **QC Analytical Batch(es):** L505941  
**QC Prep Batch Method:** 3550B **Analysis Method:** TN EPH  
**Analysis Description:** TN EPH

**Lab Reagent Blank** LRB-L505693 Matrix: SOL  
 Associated Lab Samples: 93207, 93208, 93209, 93210

Parameter	Units	Blank Result	MDL	MQL	Analyzed	% Recovery	% Rec Limits
Diesel Range Organics (C10-C28)	mg/Kg	<3.30	3.30	3.30	08/12/20 10:13		
Oil Range Organics (>C28-C40)	mg/Kg	<3.30	3.30	3.30	08/12/20 10:13		
OTP Surrogate (S)					08/12/20 10:13	119	50-150

**Laboratory Control Sample** LCS-L505693

Parameter	Units	Spike Conc.	LCS Result	LCS %Rec	% Rec Limits
Diesel Range Organics (C10-C28)	mg/Kg	33.3	37.7	113	50-150
Oil Range Organics (>C28-C40)	mg/Kg	33.3	31.9	95.7	50-150
OTP Surrogate (S)				93.1	50-150

**Matrix Spike & Matrix Spike Duplicate** L 92399-MS-L505693 L 92399-MSD-L505693

Parameter	Units	Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS %Rec	MSD %Rec	%Rec Limits	RPD	Max RPD
Diesel Range Organics (C10-C28)	mg/Kg	4.14	33.3	33.3	33.6	38.0	88.4	102	50-150	12.2	30
Oil Range Organics (>C28-C40)	mg/Kg	6.32	33.3	33.3	45.2	47.3	117	123	50-150	4.5	30
OTP Surrogate (S)							56.2	71.0	50-150		

### Quality Control Data

**Client ID:** Ensafe  
**Project Description:** Former Wayne's Pinball Palace  
**Report No:** 20-220-0136

**QC Prep:** L505744      **QC Analytical Batch(es):** L505943  
**QC Prep Batch Method:** 3510C      **Analysis Method:** TN EPH  
**Analysis Description:** TN EPH

**Lab Reagent Blank**      LRB-L505744      Matrix: AQU  
Associated Lab Samples: 93211, 93212

Parameter	Units	Blank Result	MDL	MQL	Analyzed	% Recovery	% Rec Limits
Diesel Range Organics (C10-C28)	mg/L	0.0703	0.0548	0.0900	08/12/20 15:37		
Oil Range Organics (>C28-C40)	mg/L	<0.0841	0.0841	0.0900	08/12/20 15:37		
OTP Surrogate (S)					08/12/20 15:37	123	50-150

**Laboratory Control Sample & LCSD**      LCS-L505744      LCSD-L505744

Parameter	Units	Spike Conc.	LCS Result	LCSD Result	LCS %Rec	LCSD % Rec	% Rec Limits	RPD	Max RPD
Diesel Range Organics (C10-C28)	mg/L	1.00	1.06	0.991	106	99.1	50-150	6.7	20
Oil Range Organics (>C28-C40)	mg/L	1.00	1.17	0.769	117	76.9	50-150	41.3*	20
OTP Surrogate (S)					132	118	50-150		

### Shipment Receipt Form

Customer Number: **03180**  
 Customer Name: **Ensafe**  
 Report Number: **20-220-0136**

#### Shipping Method

Fed Ex       US Postal       Lab       Other :   
 UPS       Client       Courier      Thermometer ID: #100

Shipping container/cooler uncompromised?	<input checked="" type="radio"/> Yes	<input type="radio"/> No	
Number of coolers/boxes received	<input type="text" value="1"/>		
Custody seals intact on shipping container/cooler?	<input checked="" type="radio"/> Yes	<input type="radio"/> No	<input type="radio"/> Not Present
Custody seals intact on sample bottles?	<input type="radio"/> Yes	<input type="radio"/> No	<input checked="" type="radio"/> Not Present
Chain of Custody (COC) present?	<input checked="" type="radio"/> Yes	<input type="radio"/> No	
COC agrees with sample label(s)?	<input checked="" type="radio"/> Yes	<input type="radio"/> No	
COC properly completed	<input checked="" type="radio"/> Yes	<input type="radio"/> No	
Samples in proper containers?	<input checked="" type="radio"/> Yes	<input type="radio"/> No	
Sample containers intact?	<input checked="" type="radio"/> Yes	<input type="radio"/> No	
Sufficient sample volume for indicated test(s)?	<input checked="" type="radio"/> Yes	<input type="radio"/> No	
All samples received within holding time?	<input checked="" type="radio"/> Yes	<input type="radio"/> No	
Cooler temperature in compliance?	<input checked="" type="radio"/> Yes	<input type="radio"/> No	
Cooler/Samples arrived at the laboratory on ice. Samples were considered acceptable as cooling process had begun.	<input checked="" type="radio"/> Yes	<input type="radio"/> No	
Water - Sample containers properly preserved	<input checked="" type="radio"/> Yes	<input type="radio"/> No	<input type="radio"/> N/A
Water - VOA vials free of headspace	<input checked="" type="radio"/> Yes	<input type="radio"/> No	<input type="radio"/> N/A
Trip Blanks received with VOAs	<input checked="" type="radio"/> Yes	<input type="radio"/> No	<input type="radio"/> N/A
Soil VOA method 5035 – compliance criteria met	<input type="radio"/> Yes	<input type="radio"/> No	<input checked="" type="radio"/> N/A
<input type="checkbox"/> High concentration container (48 hr)		<input type="checkbox"/> Low concentration EnCore samplers (48 hr)	
<input type="checkbox"/> High concentration pre-weighed (methanol -14 d)		<input type="checkbox"/> Low conc pre-weighed vials (Sod Bis -14 d)	
Special precautions or instructions included?	<input type="radio"/> Yes	<input checked="" type="radio"/> No	

Comments:

Signature:

Date & Time:



**CHAIN OF CUSTODY AND ANALYTICAL REQUEST RECORD**

COC No. **CLK080720**


Page **1** of **1**

Project Name: **Former Wayne's Pinball Palace**  
Site Location: **167 Chelsea + 705 N Third St**  
Send Results To: **Allison Harris + Dave Fuehrer**


PO No. **per MSA** Project No. **0888826703** Phase

Sample Analysis Requested (Enter number of containers for each test)

Sampler/Site Phone#  
Lab Name: **Way Point** Turnaround Time(specify): **10 days**

Lab ID	Sample ID (sys_samp_code)	Location ID (sys_loc_code)	Time (mm/dd/yy)	Time (Military) (hhmm)	Matrix Code	Sample Type	Field Filtered (Y/N)	Total No. of Containers (3)→	VOC	PAH, TN-EH RCRA Metals	VOC - Rev PAH - Agv RCRA & Metals	NI HA	HA	NI HA	Extra Volume for MS/MSD	HOLD
	167SSB0916	SB09	08/07/20	0915	SO	N	N	3	1	1	1					
	167SSB0901	SB09	08/07/20	0910	SO	N	N	3	1	1	1					
	167SSB1001	SB10	08/07/20	1015	SO	N	N	3	1	1	1					
	167SSB1016	SB10	08/07/20	1025	SO	N	N	3	1	1	1					
	167GMW03080720	MW03	08/07/20	1230	WG	N	Y	9	3	3	1	2				
	167GMW04080720	MW04	08/07/20	1300	WG	N	Y	9	3	3	1	2				
	167TB080720	TB	08/07/20	1200	WR	TB	N	2								
 <p>20-220-0136 03180 08-07-2020 16:24:27</p> <p>Ensafe Former Wayne's Pinball Palace</p>																
<p><b>Field Comments:</b> Done Sampling</p> <p><b>Lab Comments:</b> 3.8°C T100(TP)</p>																
<p>Relinquished by (signature) <i>Chelsey Kipper</i> Date <b>08/07/2020 1533</b> Time</p> <p>Received by (signature) _____ Date _____ Time _____</p>																
<p>Number of coolers in shipment: <b>1</b></p> <p>Samples Iced?(check) Yes <input checked="" type="checkbox"/> No _____</p> <p>Method of Shipment: <b>Personal Delivery</b></p> <p>Airbill No: _____</p>																
<p>Date Shipped: <b>08/07/2020</b></p>																

(1) Matrix Code: AA=Air, AQ=Air QC Matrix, CK=Caulk, GS=Soil Gas, LF=Free Product, LH=Liquid Waste, MS=Mastid, Oil=oil, PT=Paint, SC=Cement/Concrete, SE=Sediment, SF=Filter Sandpack, SL=Sludge, SN=Miscellaneous Solid/Building Materials, SO=Soil, SQ=Soil/Solid QC Matrix, ST=Solid Waste, SW=Swab/Wipe, TA=Animal Tissue, TP=Plant Tissue, WG=Ground Water, WL=Leachate, WO=Ocean Water, WP=Drinking Water, WQ=Water QC Matrix, WS=Surface Water, SU=Storm Water, WW=Waste Water  
(2) Sample Type: AB=Ambient Blank, EB=Equipment Blank, FB=Field Blank, FD=Field Duplicate Sample, FR=Field Replicate, MB=Material Blank, N=Normal Environmental Sample, RB=Material Rinse Blank, TB=Trip Blank  
(3) Preservative added: HA=Hydrochloric Acid, NI=Nitric Acid, SH=Sodium Hydroxide, SA=Sulfuric Acid, AA=Ascorbic Acid, HX=Hexane, ME=Methanol, SB=sodium bisulfate, ST=sodium Thiosulfate, if NO preservative added leave blank



**Attachment D**  
**Soil Gas Laboratory Report**

August 12, 2020

Allison Harris  
Ensafe  
5724 Summer Trees Drive  
Memphis, TN 38134

RE: Project: Former Wayne's Pinball Palace  
Pace Project No.: 10527674

Dear Allison Harris:

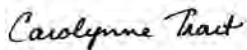
Enclosed are the analytical results for sample(s) received by the laboratory on August 07, 2020. The results relate only to the samples included in this report. Results reported herein conform to the applicable TNI/NELAC Standards and the laboratory's Quality Manual, where applicable, unless otherwise noted in the body of the report.

The test results provided in this final report were generated by each of the following laboratories within the Pace Network:

- Pace Analytical Services - Minneapolis

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

Sincerely,



Carolynne Trout  
carolynne.trout@pacelabs.com  
1(612)607-6351  
Project Manager

Enclosures

cc: Tina Cantwell, Ensaf



## REPORT OF LABORATORY ANALYSIS

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## CERTIFICATIONS

Project: Former Wayne's Pinball Palace

Pace Project No.: 10527674

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### **Pace Analytical Services - Minneapolis MN**

A2LA Certification #: 2926.01	Minnesota Petrofund Certification #: 1240
Alabama Certification #: 40770	Mississippi Certification #: MN00064
Alaska Contaminated Sites Certification #: 17-009	Missouri Certification #: 10100
Alaska DW Certification #: MN00064	Montana Certification #: CERT0092
Arizona Certification #: AZ0014	Nebraska Certification #: NE-OS-18-06
Arkansas DW Certification #: MN00064	Nevada Certification #: MN00064
Arkansas WW Certification #: 88-0680	New Hampshire Certification #: 2081
California Certification #: 2929	New Jersey Certification #: MN002
CNMI Saipan Certification #: MP0003	New York Certification #: 11647
Colorado Certification #: MN00064	North Carolina DW Certification #: 27700
Connecticut Certification #: PH-0256	North Carolina WW Certification #: 530
EPA Region 8+Wyoming DW Certification #: via MN 027-053-137	North Dakota Certification #: R-036
Florida Certification #: E87605	Ohio DW Certification #: 41244
Georgia Certification #: 959	Ohio VAP Certification #: CL101
Guam EPA Certification #: MN00064	Oklahoma Certification #: 9507
Hawaii Certification #: MN00064	Oregon Primary Certification #: MN300001
Idaho Certification #: MN00064	Oregon Secondary Certification #: MN200001
Illinois Certification #: 200011	Pennsylvania Certification #: 68-00563
Indiana Certification #: C-MN-01	Puerto Rico Certification #: MN00064
Iowa Certification #: 368	South Carolina Certification #: 74003001
Kansas Certification #: E-10167	Tennessee Certification #: TN02818
Kentucky DW Certification #: 90062	Texas Certification #: T104704192
Kentucky WW Certification #: 90062	Utah Certification #: MN00064
Louisiana DEQ Certification #: 03086	Vermont Certification #: VT-027053137
Louisiana DW Certification #: MN00064	Virginia Certification #: 460163
Maine Certification #: MN00064	Washington Certification #: C486
Maryland Certification #: 322	West Virginia DEP Certification #: 382
Massachusetts DWP Certification #: via MN 027-053-137	West Virginia DW Certification #: 9952 C
Michigan Certification #: 9909	Wisconsin Certification #: 999407970
Minnesota Certification #: 027-053-137	Wyoming UST Certification #: via A2LA 2926.01
Minnesota Dept of Ag Certification #: via MN 027-053-137	

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## REPORT OF LABORATORY ANALYSIS

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## SAMPLE SUMMARY

Project: Former Wayne's Pinball Palace

Pace Project No.: 10527674

Lab ID	Sample ID	Matrix	Date Collected	Date Received
10527674001	167SG01	Air	08/05/20 14:21	08/07/20 09:00
10527674002	167SG02	Air	08/05/20 14:48	08/07/20 09:00
10527674003	167SG03	Air	08/05/20 14:59	08/07/20 09:00
10527674004	167SG04	Air	08/05/20 15:15	08/07/20 09:00
10527674005	167SG05	Air	08/05/20 15:38	08/07/20 09:00
10527674006	167SG06	Air	08/05/20 15:51	08/07/20 09:00
10527674007	167SG07	Air	08/05/20 16:08	08/07/20 09:00
10527674008	167SG08	Air	08/05/20 16:26	08/07/20 09:00

## REPORT OF LABORATORY ANALYSIS

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### SAMPLE ANALYTE COUNT

Project: Former Wayne's Pinball Palace

Pace Project No.: 10527674

Lab ID	Sample ID	Method	Analysts	Analytes Reported
10527674001	167SG01	TO-15	MG2	61
10527674002	167SG02	TO-15	MG2	61
10527674003	167SG03	TO-15	MG2	61
10527674004	167SG04	TO-15	MG2	61
10527674005	167SG05	TO-15	MG2	61
10527674006	167SG06	TO-15	MG2	61
10527674007	167SG07	TO-15	MG2	61
10527674008	167SG08	TO-15	MG2	61

PASI-M = Pace Analytical Services - Minneapolis

### REPORT OF LABORATORY ANALYSIS

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## PROJECT NARRATIVE

Project: Former Wayne's Pinball Palace

Pace Project No.: 10527674

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**Method:** TO-15

**Description:** TO15 MSV AIR

**Client:** EnSafe

**Date:** August 12, 2020

**General Information:**

8 samples were analyzed for TO-15 by Pace Analytical Services Minneapolis. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

**Hold Time:**

The samples were analyzed within the method required hold times with any exceptions noted below.

**Initial Calibrations (including MS Tune as applicable):**

All criteria were within method requirements with any exceptions noted below.

**Continuing Calibration:**

All criteria were within method requirements with any exceptions noted below.

**Internal Standards:**

All internal standards were within QC limits with any exceptions noted below.

**Method Blank:**

All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

**Laboratory Control Spike:**

All laboratory control spike compounds were within QC limits with any exceptions noted below.

**Duplicate Sample:**

All duplicate sample results were within method acceptance criteria with any exceptions noted below.

**Additional Comments:**

Analyte Comments:

QC Batch: 691611

E: Analyte concentration exceeded the calibration range. The reported result is estimated.

- DUP (Lab ID: 3698408)
- Ethanol

This data package has been reviewed for quality and completeness and is approved for release.

## REPORT OF LABORATORY ANALYSIS

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## ANALYTICAL RESULTS

Project: Former Wayne's Pinball Palace

Pace Project No.: 10527674

Sample: 167SG01 Lab ID: 10527674001 Collected: 08/05/20 14:21 Received: 08/07/20 09:00 Matrix: Air

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>TO15 MSV AIR</b>									
Analytical Method: TO-15									
Pace Analytical Services - Minneapolis									
Acetone	33.3	ug/m3	12.2	3.5	2.02		08/12/20 01:05	67-64-1	
Benzene	4.2	ug/m3	0.66	0.26	2.02		08/12/20 01:05	71-43-2	
Benzyl chloride	<0.66	ug/m3	5.3	0.66	2.02		08/12/20 01:05	100-44-7	
Bromodichloromethane	<0.53	ug/m3	2.7	0.53	2.02		08/12/20 01:05	75-27-4	
Bromoform	<2.8	ug/m3	10.6	2.8	2.02		08/12/20 01:05	75-25-2	
Bromomethane	<0.36	ug/m3	1.6	0.36	2.02		08/12/20 01:05	74-83-9	
1,3-Butadiene	<0.20	ug/m3	0.91	0.20	2.02		08/12/20 01:05	106-99-0	
2-Butanone (MEK)	17.8	ug/m3	6.1	1.1	2.02		08/12/20 01:05	78-93-3	
Carbon disulfide	13.1	ug/m3	1.3	0.39	2.02		08/12/20 01:05	75-15-0	
Carbon tetrachloride	<0.30	ug/m3	2.6	0.30	2.02		08/12/20 01:05	56-23-5	
Chlorobenzene	<0.31	ug/m3	1.9	0.31	2.02		08/12/20 01:05	108-90-7	
Chloroethane	<0.26	ug/m3	1.1	0.26	2.02		08/12/20 01:05	75-00-3	
Chloroform	<0.39	ug/m3	1.0	0.39	2.02		08/12/20 01:05	67-66-3	
Chloromethane	1.5	ug/m3	0.85	0.19	2.02		08/12/20 01:05	74-87-3	
Cyclohexane	2.8J	ug/m3	3.5	0.46	2.02		08/12/20 01:05	110-82-7	
Dibromochloromethane	<0.60	ug/m3	3.5	0.60	2.02		08/12/20 01:05	124-48-1	
1,2-Dibromoethane (EDB)	<0.66	ug/m3	1.6	0.66	2.02		08/12/20 01:05	106-93-4	
1,2-Dichlorobenzene	<0.76	ug/m3	2.5	0.76	2.02		08/12/20 01:05	95-50-1	
1,3-Dichlorobenzene	<0.96	ug/m3	2.5	0.96	2.02		08/12/20 01:05	541-73-1	
1,4-Dichlorobenzene	<1.7	ug/m3	6.2	1.7	2.02		08/12/20 01:05	106-46-7	
Dichlorodifluoromethane	2.0J	ug/m3	2.0	0.30	2.02		08/12/20 01:05	75-71-8	
1,1-Dichloroethane	<0.25	ug/m3	1.7	0.25	2.02		08/12/20 01:05	75-34-3	
1,2-Dichloroethane	<0.36	ug/m3	0.83	0.36	2.02		08/12/20 01:05	107-06-2	
1,1-Dichloroethene	<0.29	ug/m3	1.6	0.29	2.02		08/12/20 01:05	75-35-4	
cis-1,2-Dichloroethene	<0.33	ug/m3	1.6	0.33	2.02		08/12/20 01:05	156-59-2	
trans-1,2-Dichloroethene	<0.34	ug/m3	1.6	0.34	2.02		08/12/20 01:05	156-60-5	
1,2-Dichloropropane	<0.34	ug/m3	1.9	0.34	2.02		08/12/20 01:05	78-87-5	
cis-1,3-Dichloropropene	<0.44	ug/m3	1.9	0.44	2.02		08/12/20 01:05	10061-01-5	
trans-1,3-Dichloropropene	<0.58	ug/m3	1.9	0.58	2.02		08/12/20 01:05	10061-02-6	
Dichlorotetrafluoroethane	<0.66	ug/m3	2.9	0.66	2.02		08/12/20 01:05	76-14-2	
Ethanol	29.9	ug/m3	3.9	1.9	2.02		08/12/20 01:05	64-17-5	
Ethyl acetate	5.4	ug/m3	1.5	0.34	2.02		08/12/20 01:05	141-78-6	
Ethylbenzene	13.2	ug/m3	1.8	0.37	2.02		08/12/20 01:05	100-41-4	
4-Ethyltoluene	<0.96	ug/m3	5.0	0.96	2.02		08/12/20 01:05	622-96-8	
n-Heptane	8.3	ug/m3	1.7	0.35	2.02		08/12/20 01:05	142-82-5	
Hexachloro-1,3-butadiene	<1.6	ug/m3	10.9	1.6	2.02		08/12/20 01:05	87-68-3	
n-Hexane	7.9	ug/m3	1.4	0.49	2.02		08/12/20 01:05	110-54-3	
2-Hexanone	2.7J	ug/m3	8.4	0.72	2.02		08/12/20 01:05	591-78-6	
Methylene Chloride	19.7	ug/m3	7.1	2.0	2.02		08/12/20 01:05	75-09-2	
4-Methyl-2-pentanone (MIBK)	2.5J	ug/m3	8.4	0.42	2.02		08/12/20 01:05	108-10-1	
Methyl-tert-butyl ether	<0.28	ug/m3	7.4	0.28	2.02		08/12/20 01:05	1634-04-4	
Naphthalene	<2.5	ug/m3	5.4	2.5	2.02		08/12/20 01:05	91-20-3	
2-Propanol	4.7J	ug/m3	5.0	1.7	2.02		08/12/20 01:05	67-63-0	
Propylene	49.3	ug/m3	0.71	0.20	2.02		08/12/20 01:05	115-07-1	
Styrene	2.6	ug/m3	1.7	0.75	2.02		08/12/20 01:05	100-42-5	

### REPORT OF LABORATORY ANALYSIS

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## ANALYTICAL RESULTS

Project: Former Wayne's Pinball Palace

Pace Project No.: 10527674

**Sample: 167SG01**      **Lab ID: 10527674001**      Collected: 08/05/20 14:21      Received: 08/07/20 09:00      Matrix: Air

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>TO15 MSV AIR</b>									
Analytical Method: TO-15									
Pace Analytical Services - Minneapolis									
1,1,2,2-Tetrachloroethane	<0.61	ug/m3	1.4	0.61	2.02		08/12/20 01:05	79-34-5	
Tetrachloroethene	0.79J	ug/m3	1.4	0.58	2.02		08/12/20 01:05	127-18-4	
Tetrahydrofuran	<0.34	ug/m3	1.2	0.34	2.02		08/12/20 01:05	109-99-9	
Toluene	15.8	ug/m3	1.5	0.34	2.02		08/12/20 01:05	108-88-3	
1,2,4-Trichlorobenzene	<6.7	ug/m3	15.2	6.7	2.02		08/12/20 01:05	120-82-1	
1,1,1-Trichloroethane	<0.27	ug/m3	2.2	0.27	2.02		08/12/20 01:05	71-55-6	
1,1,2-Trichloroethane	<0.45	ug/m3	1.1	0.45	2.02		08/12/20 01:05	79-00-5	
Trichloroethene	0.67J	ug/m3	1.1	0.36	2.02		08/12/20 01:05	79-01-6	
Trichlorofluoromethane	0.96J	ug/m3	2.3	0.57	2.02		08/12/20 01:05	75-69-4	
1,1,2-Trichlorotrifluoroethane	<0.50	ug/m3	3.2	0.50	2.02		08/12/20 01:05	76-13-1	
1,2,4-Trimethylbenzene	3.3	ug/m3	2.0	0.82	2.02		08/12/20 01:05	95-63-6	
1,3,5-Trimethylbenzene	1.6J	ug/m3	2.0	0.61	2.02		08/12/20 01:05	108-67-8	
Vinyl acetate	<0.36	ug/m3	1.4	0.36	2.02		08/12/20 01:05	108-05-4	
Vinyl chloride	<0.20	ug/m3	0.53	0.20	2.02		08/12/20 01:05	75-01-4	
m&p-Xylene	53.5	ug/m3	3.6	0.86	2.02		08/12/20 01:05	179601-23-1	
o-Xylene	14.7	ug/m3	1.8	0.39	2.02		08/12/20 01:05	95-47-6	

**Sample: 167SG02**      **Lab ID: 10527674002**      Collected: 08/05/20 14:48      Received: 08/07/20 09:00      Matrix: Air

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>TO15 MSV AIR</b>									
Analytical Method: TO-15									
Pace Analytical Services - Minneapolis									
Acetone	26.5	ug/m3	11.7	3.4	1.94		08/10/20 01:20	67-64-1	
Benzene	7.6	ug/m3	0.63	0.25	1.94		08/10/20 01:20	71-43-2	
Benzyl chloride	<0.64	ug/m3	5.1	0.64	1.94		08/10/20 01:20	100-44-7	
Bromodichloromethane	<0.51	ug/m3	2.6	0.51	1.94		08/10/20 01:20	75-27-4	
Bromoform	<2.7	ug/m3	10.2	2.7	1.94		08/10/20 01:20	75-25-2	
Bromomethane	<0.35	ug/m3	1.5	0.35	1.94		08/10/20 01:20	74-83-9	
1,3-Butadiene	<0.19	ug/m3	0.87	0.19	1.94		08/10/20 01:20	106-99-0	
2-Butanone (MEK)	11.7	ug/m3	5.8	1.0	1.94		08/10/20 01:20	78-93-3	
Carbon disulfide	14.5	ug/m3	1.2	0.38	1.94		08/10/20 01:20	75-15-0	
Carbon tetrachloride	<0.29	ug/m3	2.5	0.29	1.94		08/10/20 01:20	56-23-5	
Chlorobenzene	<0.29	ug/m3	1.8	0.29	1.94		08/10/20 01:20	108-90-7	
Chloroethane	<0.25	ug/m3	1.0	0.25	1.94		08/10/20 01:20	75-00-3	
Chloroform	<0.37	ug/m3	0.96	0.37	1.94		08/10/20 01:20	67-66-3	
Chloromethane	1.0	ug/m3	0.81	0.19	1.94		08/10/20 01:20	74-87-3	
Cyclohexane	11.7	ug/m3	3.4	0.44	1.94		08/10/20 01:20	110-82-7	
Dibromochloromethane	<0.57	ug/m3	3.4	0.57	1.94		08/10/20 01:20	124-48-1	
1,2-Dibromoethane (EDB)	<0.63	ug/m3	1.5	0.63	1.94		08/10/20 01:20	106-93-4	
1,2-Dichlorobenzene	<0.73	ug/m3	2.4	0.73	1.94		08/10/20 01:20	95-50-1	
1,3-Dichlorobenzene	<0.92	ug/m3	2.4	0.92	1.94		08/10/20 01:20	541-73-1	
1,4-Dichlorobenzene	<1.6	ug/m3	5.9	1.6	1.94		08/10/20 01:20	106-46-7	

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## ANALYTICAL RESULTS

Project: Former Wayne's Pinball Palace

Pace Project No.: 10527674

Sample: **167SG02** Lab ID: **10527674002** Collected: 08/05/20 14:48 Received: 08/07/20 09:00 Matrix: Air

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>TO15 MSV AIR</b>									
Analytical Method: TO-15									
Pace Analytical Services - Minneapolis									
Dichlorodifluoromethane	2.6	ug/m3	2.0	0.29	1.94		08/10/20 01:20	75-71-8	
1,1-Dichloroethane	<0.24	ug/m3	1.6	0.24	1.94		08/10/20 01:20	75-34-3	
1,2-Dichloroethane	0.39J	ug/m3	0.80	0.35	1.94		08/10/20 01:20	107-06-2	
1,1-Dichloroethene	<0.28	ug/m3	1.6	0.28	1.94		08/10/20 01:20	75-35-4	
cis-1,2-Dichloroethene	<0.31	ug/m3	1.6	0.31	1.94		08/10/20 01:20	156-59-2	
trans-1,2-Dichloroethene	<0.33	ug/m3	1.6	0.33	1.94		08/10/20 01:20	156-60-5	
1,2-Dichloropropane	<0.33	ug/m3	1.8	0.33	1.94		08/10/20 01:20	78-87-5	
cis-1,3-Dichloropropene	<0.43	ug/m3	1.8	0.43	1.94		08/10/20 01:20	10061-01-5	
trans-1,3-Dichloropropene	<0.55	ug/m3	1.8	0.55	1.94		08/10/20 01:20	10061-02-6	
Dichlorotetrafluoroethane	<0.63	ug/m3	2.8	0.63	1.94		08/10/20 01:20	76-14-2	
Ethanol	26.3	ug/m3	3.7	1.8	1.94		08/10/20 01:20	64-17-5	
Ethyl acetate	3.8	ug/m3	1.4	0.33	1.94		08/10/20 01:20	141-78-6	
Ethylbenzene	4.6	ug/m3	1.7	0.35	1.94		08/10/20 01:20	100-41-4	
4-Ethyltoluene	1.5J	ug/m3	4.8	0.92	1.94		08/10/20 01:20	622-96-8	
n-Heptane	14.3	ug/m3	1.6	0.34	1.94		08/10/20 01:20	142-82-5	
Hexachloro-1,3-butadiene	<1.5	ug/m3	10.5	1.5	1.94		08/10/20 01:20	87-68-3	
n-Hexane	17.8	ug/m3	1.4	0.47	1.94		08/10/20 01:20	110-54-3	
2-Hexanone	<0.69	ug/m3	8.1	0.69	1.94		08/10/20 01:20	591-78-6	
Methylene Chloride	22.2	ug/m3	6.8	1.9	1.94		08/10/20 01:20	75-09-2	
4-Methyl-2-pentanone (MIBK)	<0.41	ug/m3	8.1	0.41	1.94		08/10/20 01:20	108-10-1	
Methyl-tert-butyl ether	<0.27	ug/m3	7.1	0.27	1.94		08/10/20 01:20	1634-04-4	
Naphthalene	<2.4	ug/m3	5.2	2.4	1.94		08/10/20 01:20	91-20-3	
2-Propanol	4.4J	ug/m3	4.8	1.7	1.94		08/10/20 01:20	67-63-0	
Propylene	71.1	ug/m3	0.68	0.19	1.94		08/10/20 01:20	115-07-1	
Styrene	1.7J	ug/m3	1.7	0.72	1.94		08/10/20 01:20	100-42-5	
1,1,2,2-Tetrachloroethane	<0.58	ug/m3	1.4	0.58	1.94		08/10/20 01:20	79-34-5	
Tetrachloroethene	1.0J	ug/m3	1.3	0.55	1.94		08/10/20 01:20	127-18-4	
Tetrahydrofuran	<0.33	ug/m3	1.2	0.33	1.94		08/10/20 01:20	109-99-9	
Toluene	25.4	ug/m3	1.5	0.32	1.94		08/10/20 01:20	108-88-3	
1,2,4-Trichlorobenzene	<6.4	ug/m3	14.6	6.4	1.94		08/10/20 01:20	120-82-1	
1,1,1-Trichloroethane	<0.26	ug/m3	2.2	0.26	1.94		08/10/20 01:20	71-55-6	
1,1,2-Trichloroethane	<0.44	ug/m3	1.1	0.44	1.94		08/10/20 01:20	79-00-5	
Trichloroethene	0.70J	ug/m3	1.1	0.34	1.94		08/10/20 01:20	79-01-6	
Trichlorofluoromethane	1.6J	ug/m3	2.2	0.55	1.94		08/10/20 01:20	75-69-4	
1,1,2-Trichlorotrifluoroethane	<0.48	ug/m3	3.0	0.48	1.94		08/10/20 01:20	76-13-1	
1,2,4-Trimethylbenzene	11.8	ug/m3	1.9	0.79	1.94		08/10/20 01:20	95-63-6	
1,3,5-Trimethylbenzene	5.5	ug/m3	1.9	0.58	1.94		08/10/20 01:20	108-67-8	
Vinyl acetate	<0.34	ug/m3	1.4	0.34	1.94		08/10/20 01:20	108-05-4	
Vinyl chloride	<0.20	ug/m3	0.50	0.20	1.94		08/10/20 01:20	75-01-4	
m&p-Xylene	15.9	ug/m3	3.4	0.83	1.94		08/10/20 01:20	179601-23-1	
o-Xylene	6.7	ug/m3	1.7	0.38	1.94		08/10/20 01:20	95-47-6	

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## ANALYTICAL RESULTS

Project: Former Wayne's Pinball Palace

Pace Project No.: 10527674

Sample: **167SG03** Lab ID: **10527674003** Collected: 08/05/20 14:59 Received: 08/07/20 09:00 Matrix: Air

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>TO15 MSV AIR</b>									
Analytical Method: TO-15									
Pace Analytical Services - Minneapolis									
Acetone	35.8	ug/m3	11.7	3.4	1.94		08/12/20 00:36	67-64-1	
Benzene	14.4	ug/m3	0.63	0.25	1.94		08/12/20 00:36	71-43-2	
Benzyl chloride	<0.64	ug/m3	5.1	0.64	1.94		08/12/20 00:36	100-44-7	
Bromodichloromethane	<0.51	ug/m3	2.6	0.51	1.94		08/12/20 00:36	75-27-4	
Bromoform	<2.7	ug/m3	10.2	2.7	1.94		08/12/20 00:36	75-25-2	
Bromomethane	<0.35	ug/m3	1.5	0.35	1.94		08/12/20 00:36	74-83-9	
1,3-Butadiene	<0.19	ug/m3	0.87	0.19	1.94		08/12/20 00:36	106-99-0	
2-Butanone (MEK)	12.9	ug/m3	5.8	1.0	1.94		08/12/20 00:36	78-93-3	
Carbon disulfide	14.1	ug/m3	1.2	0.38	1.94		08/12/20 00:36	75-15-0	
Carbon tetrachloride	0.31J	ug/m3	2.5	0.29	1.94		08/12/20 00:36	56-23-5	
Chlorobenzene	<0.29	ug/m3	1.8	0.29	1.94		08/12/20 00:36	108-90-7	
Chloroethane	<0.25	ug/m3	1.0	0.25	1.94		08/12/20 00:36	75-00-3	
Chloroform	<0.37	ug/m3	0.96	0.37	1.94		08/12/20 00:36	67-66-3	
Chloromethane	1.2	ug/m3	0.81	0.19	1.94		08/12/20 00:36	74-87-3	
Cyclohexane	5.2	ug/m3	3.4	0.44	1.94		08/12/20 00:36	110-82-7	
Dibromochloromethane	<0.57	ug/m3	3.4	0.57	1.94		08/12/20 00:36	124-48-1	
1,2-Dibromoethane (EDB)	<0.63	ug/m3	1.5	0.63	1.94		08/12/20 00:36	106-93-4	
1,2-Dichlorobenzene	<0.73	ug/m3	2.4	0.73	1.94		08/12/20 00:36	95-50-1	
1,3-Dichlorobenzene	<0.92	ug/m3	2.4	0.92	1.94		08/12/20 00:36	541-73-1	
1,4-Dichlorobenzene	<1.6	ug/m3	5.9	1.6	1.94		08/12/20 00:36	106-46-7	
Dichlorodifluoromethane	2.2	ug/m3	2.0	0.29	1.94		08/12/20 00:36	75-71-8	
1,1-Dichloroethane	<0.24	ug/m3	1.6	0.24	1.94		08/12/20 00:36	75-34-3	
1,2-Dichloroethane	0.70J	ug/m3	0.80	0.35	1.94		08/12/20 00:36	107-06-2	
1,1-Dichloroethene	<0.28	ug/m3	1.6	0.28	1.94		08/12/20 00:36	75-35-4	
cis-1,2-Dichloroethene	<0.31	ug/m3	1.6	0.31	1.94		08/12/20 00:36	156-59-2	
trans-1,2-Dichloroethene	<0.33	ug/m3	1.6	0.33	1.94		08/12/20 00:36	156-60-5	
1,2-Dichloropropane	<0.33	ug/m3	1.8	0.33	1.94		08/12/20 00:36	78-87-5	
cis-1,3-Dichloropropene	<0.43	ug/m3	1.8	0.43	1.94		08/12/20 00:36	10061-01-5	
trans-1,3-Dichloropropene	<0.55	ug/m3	1.8	0.55	1.94		08/12/20 00:36	10061-02-6	
Dichlorotetrafluoroethane	<0.63	ug/m3	2.8	0.63	1.94		08/12/20 00:36	76-14-2	
Ethanol	24.8	ug/m3	3.7	1.8	1.94		08/12/20 00:36	64-17-5	
Ethyl acetate	3.7	ug/m3	1.4	0.33	1.94		08/12/20 00:36	141-78-6	
Ethylbenzene	4.1	ug/m3	1.7	0.35	1.94		08/12/20 00:36	100-41-4	
4-Ethyltoluene	1.6J	ug/m3	4.8	0.92	1.94		08/12/20 00:36	622-96-8	
n-Heptane	5.5	ug/m3	1.6	0.34	1.94		08/12/20 00:36	142-82-5	
Hexachloro-1,3-butadiene	<1.5	ug/m3	10.5	1.5	1.94		08/12/20 00:36	87-68-3	
n-Hexane	8.8	ug/m3	1.4	0.47	1.94		08/12/20 00:36	110-54-3	
2-Hexanone	1.6J	ug/m3	8.1	0.69	1.94		08/12/20 00:36	591-78-6	
Methylene Chloride	30.3	ug/m3	6.8	1.9	1.94		08/12/20 00:36	75-09-2	
4-Methyl-2-pentanone (MIBK)	2.0J	ug/m3	8.1	0.41	1.94		08/12/20 00:36	108-10-1	
Methyl-tert-butyl ether	<0.27	ug/m3	7.1	0.27	1.94		08/12/20 00:36	1634-04-4	
Naphthalene	<2.4	ug/m3	5.2	2.4	1.94		08/12/20 00:36	91-20-3	
2-Propanol	3.0J	ug/m3	4.8	1.7	1.94		08/12/20 00:36	67-63-0	
Propylene	74.5	ug/m3	0.68	0.19	1.94		08/12/20 00:36	115-07-1	
Styrene	1.9	ug/m3	1.7	0.72	1.94		08/12/20 00:36	100-42-5	

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### ANALYTICAL RESULTS

Project: Former Wayne's Pinball Palace

Pace Project No.: 10527674

Sample: 167SG03 Lab ID: 10527674003 Collected: 08/05/20 14:59 Received: 08/07/20 09:00 Matrix: Air

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>TO15 MSV AIR</b>									
Analytical Method: TO-15									
Pace Analytical Services - Minneapolis									
1,1,2,2-Tetrachloroethane	<0.58	ug/m3	1.4	0.58	1.94		08/12/20 00:36	79-34-5	
Tetrachloroethene	3.6	ug/m3	1.3	0.55	1.94		08/12/20 00:36	127-18-4	
Tetrahydrofuran	<0.33	ug/m3	1.2	0.33	1.94		08/12/20 00:36	109-99-9	
Toluene	24.4	ug/m3	1.5	0.32	1.94		08/12/20 00:36	108-88-3	
1,2,4-Trichlorobenzene	<6.4	ug/m3	14.6	6.4	1.94		08/12/20 00:36	120-82-1	
1,1,1-Trichloroethane	<0.26	ug/m3	2.2	0.26	1.94		08/12/20 00:36	71-55-6	
1,1,2-Trichloroethane	<0.44	ug/m3	1.1	0.44	1.94		08/12/20 00:36	79-00-5	
Trichloroethene	0.78J	ug/m3	1.1	0.34	1.94		08/12/20 00:36	79-01-6	
Trichlorofluoromethane	1.3J	ug/m3	2.2	0.55	1.94		08/12/20 00:36	75-69-4	
1,1,2-Trichlorotrifluoroethane	0.67J	ug/m3	3.0	0.48	1.94		08/12/20 00:36	76-13-1	
1,2,4-Trimethylbenzene	10.1	ug/m3	1.9	0.79	1.94		08/12/20 00:36	95-63-6	
1,3,5-Trimethylbenzene	4.9	ug/m3	1.9	0.58	1.94		08/12/20 00:36	108-67-8	
Vinyl acetate	<0.34	ug/m3	1.4	0.34	1.94		08/12/20 00:36	108-05-4	
Vinyl chloride	<0.20	ug/m3	0.50	0.20	1.94		08/12/20 00:36	75-01-4	
m&p-Xylene	17.6	ug/m3	3.4	0.83	1.94		08/12/20 00:36	179601-23-1	
o-Xylene	7.7	ug/m3	1.7	0.38	1.94		08/12/20 00:36	95-47-6	

Sample: 167SG04 Lab ID: 10527674004 Collected: 08/05/20 15:15 Received: 08/07/20 09:00 Matrix: Air

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>TO15 MSV AIR</b>									
Analytical Method: TO-15									
Pace Analytical Services - Minneapolis									
Acetone	<106	ug/m3	366	106	60.6		08/12/20 02:25	67-64-1	
Benzene	49.7	ug/m3	19.7	7.8	60.6		08/12/20 02:25	71-43-2	
Benzyl chloride	<19.9	ug/m3	159	19.9	60.6		08/12/20 02:25	100-44-7	
Bromodichloromethane	<16.0	ug/m3	82.4	16.0	60.6		08/12/20 02:25	75-27-4	
Bromoform	<85.4	ug/m3	318	85.4	60.6		08/12/20 02:25	75-25-2	
Bromomethane	<10.9	ug/m3	47.8	10.9	60.6		08/12/20 02:25	74-83-9	
1,3-Butadiene	<6.0	ug/m3	27.3	6.0	60.6		08/12/20 02:25	106-99-0	
2-Butanone (MEK)	<32.5	ug/m3	182	32.5	60.6		08/12/20 02:25	78-93-3	
Carbon disulfide	13.3J	ug/m3	38.4	11.8	60.6		08/12/20 02:25	75-15-0	
Carbon tetrachloride	<8.9	ug/m3	77.6	8.9	60.6		08/12/20 02:25	56-23-5	
Chlorobenzene	<9.2	ug/m3	56.7	9.2	60.6		08/12/20 02:25	108-90-7	
Chloroethane	<7.9	ug/m3	32.5	7.9	60.6		08/12/20 02:25	75-00-3	
Chloroform	<11.7	ug/m3	30.1	11.7	60.6		08/12/20 02:25	67-66-3	
Chloromethane	<5.8	ug/m3	25.5	5.8	60.6		08/12/20 02:25	74-87-3	
Cyclohexane	<13.9	ug/m3	106	13.9	60.6		08/12/20 02:25	110-82-7	
Dibromochloromethane	<17.9	ug/m3	105	17.9	60.6		08/12/20 02:25	124-48-1	
1,2-Dibromoethane (EDB)	<19.7	ug/m3	47.3	19.7	60.6		08/12/20 02:25	106-93-4	
1,2-Dichlorobenzene	<22.8	ug/m3	73.9	22.8	60.6		08/12/20 02:25	95-50-1	
1,3-Dichlorobenzene	<28.7	ug/m3	73.9	28.7	60.6		08/12/20 02:25	541-73-1	
1,4-Dichlorobenzene	<51.1	ug/m3	185	51.1	60.6		08/12/20 02:25	106-46-7	

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## ANALYTICAL RESULTS

Project: Former Wayne's Pinball Palace

Pace Project No.: 10527674

Sample: **167SG04** Lab ID: **10527674004** Collected: 08/05/20 15:15 Received: 08/07/20 09:00 Matrix: Air

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>TO15 MSV AIR</b>									
Analytical Method: TO-15									
Pace Analytical Services - Minneapolis									
Dichlorodifluoromethane	<9.1	ug/m3	61.2	9.1	60.6		08/12/20 02:25	75-71-8	
1,1-Dichloroethane	<7.6	ug/m3	49.9	7.6	60.6		08/12/20 02:25	75-34-3	
1,2-Dichloroethane	<10.8	ug/m3	24.9	10.8	60.6		08/12/20 02:25	107-06-2	
1,1-Dichloroethene	<8.7	ug/m3	48.8	8.7	60.6		08/12/20 02:25	75-35-4	
cis-1,2-Dichloroethene	<9.8	ug/m3	48.8	9.8	60.6		08/12/20 02:25	156-59-2	
trans-1,2-Dichloroethene	<10.2	ug/m3	48.8	10.2	60.6		08/12/20 02:25	156-60-5	
1,2-Dichloropropane	<10.3	ug/m3	56.9	10.3	60.6		08/12/20 02:25	78-87-5	
cis-1,3-Dichloropropene	<13.3	ug/m3	55.9	13.3	60.6		08/12/20 02:25	10061-01-5	
trans-1,3-Dichloropropene	<17.3	ug/m3	55.9	17.3	60.6		08/12/20 02:25	10061-02-6	
Dichlorotetrafluoroethane	<19.8	ug/m3	86.1	19.8	60.6		08/12/20 02:25	76-14-2	
Ethanol	<57.1	ug/m3	116	57.1	60.6		08/12/20 02:25	64-17-5	
Ethyl acetate	<10.2	ug/m3	44.4	10.2	60.6		08/12/20 02:25	141-78-6	
Ethylbenzene	1170	ug/m3	53.5	11.0	60.6		08/12/20 02:25	100-41-4	
4-Ethyltoluene	1790	ug/m3	152	28.8	60.6		08/12/20 02:25	622-96-8	
n-Heptane	633	ug/m3	50.5	10.5	60.6		08/12/20 02:25	142-82-5	
Hexachloro-1,3-butadiene	<48.2	ug/m3	328	48.2	60.6		08/12/20 02:25	87-68-3	
n-Hexane	495	ug/m3	43.4	14.7	60.6		08/12/20 02:25	110-54-3	
2-Hexanone	<21.5	ug/m3	252	21.5	60.6		08/12/20 02:25	591-78-6	
Methylene Chloride	<59.9	ug/m3	214	59.9	60.6		08/12/20 02:25	75-09-2	
4-Methyl-2-pentanone (MIBK)	<12.7	ug/m3	252	12.7	60.6		08/12/20 02:25	108-10-1	
Methyl-tert-butyl ether	<8.4	ug/m3	222	8.4	60.6		08/12/20 02:25	1634-04-4	
Naphthalene	1450	ug/m3	161	75.1	60.6		08/12/20 02:25	91-20-3	
2-Propanol	<51.7	ug/m3	152	51.7	60.6		08/12/20 02:25	67-63-0	
Propylene	34.7	ug/m3	21.2	5.9	60.6		08/12/20 02:25	115-07-1	
Styrene	37.3J	ug/m3	52.5	22.4	60.6		08/12/20 02:25	100-42-5	
1,1,2,2-Tetrachloroethane	<18.2	ug/m3	42.3	18.2	60.6		08/12/20 02:25	79-34-5	
Tetrachloroethene	<17.3	ug/m3	41.8	17.3	60.6		08/12/20 02:25	127-18-4	
Tetrahydrofuran	<10.3	ug/m3	36.4	10.3	60.6		08/12/20 02:25	109-99-9	
Toluene	1600	ug/m3	46.4	10.1	60.6		08/12/20 02:25	108-88-3	
1,2,4-Trichlorobenzene	<201	ug/m3	457	201	60.6		08/12/20 02:25	120-82-1	
1,1,1-Trichloroethane	<8.1	ug/m3	67.3	8.1	60.6		08/12/20 02:25	71-55-6	
1,1,2-Trichloroethane	<13.6	ug/m3	33.6	13.6	60.6		08/12/20 02:25	79-00-5	
Trichloroethene	<10.7	ug/m3	33.1	10.7	60.6		08/12/20 02:25	79-01-6	
Trichlorofluoromethane	<17.1	ug/m3	69.1	17.1	60.6		08/12/20 02:25	75-69-4	
1,1,2-Trichlorotrifluoroethane	<15.1	ug/m3	94.5	15.1	60.6		08/12/20 02:25	76-13-1	
1,2,4-Trimethylbenzene	8500	ug/m3	60.5	24.6	60.6		08/12/20 02:25	95-63-6	
1,3,5-Trimethylbenzene	2940	ug/m3	60.5	18.2	60.6		08/12/20 02:25	108-67-8	
Vinyl acetate	<10.7	ug/m3	43.4	10.7	60.6		08/12/20 02:25	108-05-4	
Vinyl chloride	<6.1	ug/m3	15.8	6.1	60.6		08/12/20 02:25	75-01-4	
m&p-Xylene	6740	ug/m3	107	25.8	60.6		08/12/20 02:25	179601-23-1	
o-Xylene	2940	ug/m3	53.5	11.8	60.6		08/12/20 02:25	95-47-6	

## REPORT OF LABORATORY ANALYSIS

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## ANALYTICAL RESULTS

Project: Former Wayne's Pinball Palace

Pace Project No.: 10527674

Sample: 167SG05 Lab ID: 10527674005 Collected: 08/05/20 15:38 Received: 08/07/20 09:00 Matrix: Air

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>TO15 MSV AIR</b>									
Analytical Method: TO-15									
Pace Analytical Services - Minneapolis									
Acetone	46.2	ug/m3	12.0	3.5	1.98		08/12/20 01:33	67-64-1	
Benzene	2.7	ug/m3	0.64	0.26	1.98		08/12/20 01:33	71-43-2	
Benzyl chloride	<0.65	ug/m3	5.2	0.65	1.98		08/12/20 01:33	100-44-7	
Bromodichloromethane	<0.52	ug/m3	2.7	0.52	1.98		08/12/20 01:33	75-27-4	
Bromoform	<2.8	ug/m3	10.4	2.8	1.98		08/12/20 01:33	75-25-2	
Bromomethane	<0.36	ug/m3	1.6	0.36	1.98		08/12/20 01:33	74-83-9	
1,3-Butadiene	0.64J	ug/m3	0.89	0.20	1.98		08/12/20 01:33	106-99-0	
2-Butanone (MEK)	23.2	ug/m3	5.9	1.1	1.98		08/12/20 01:33	78-93-3	
Carbon disulfide	24.8	ug/m3	1.3	0.39	1.98		08/12/20 01:33	75-15-0	
Carbon tetrachloride	<0.29	ug/m3	2.5	0.29	1.98		08/12/20 01:33	56-23-5	
Chlorobenzene	<0.30	ug/m3	1.9	0.30	1.98		08/12/20 01:33	108-90-7	
Chloroethane	<0.26	ug/m3	1.1	0.26	1.98		08/12/20 01:33	75-00-3	
Chloroform	0.45J	ug/m3	0.98	0.38	1.98		08/12/20 01:33	67-66-3	
Chloromethane	1.2	ug/m3	0.83	0.19	1.98		08/12/20 01:33	74-87-3	
Cyclohexane	5.7	ug/m3	3.5	0.45	1.98		08/12/20 01:33	110-82-7	
Dibromochloromethane	<0.58	ug/m3	3.4	0.58	1.98		08/12/20 01:33	124-48-1	
1,2-Dibromoethane (EDB)	<0.64	ug/m3	1.5	0.64	1.98		08/12/20 01:33	106-93-4	
1,2-Dichlorobenzene	<0.74	ug/m3	2.4	0.74	1.98		08/12/20 01:33	95-50-1	
1,3-Dichlorobenzene	<0.94	ug/m3	2.4	0.94	1.98		08/12/20 01:33	541-73-1	
1,4-Dichlorobenzene	<1.7	ug/m3	6.1	1.7	1.98		08/12/20 01:33	106-46-7	
Dichlorodifluoromethane	2.5	ug/m3	2.0	0.30	1.98		08/12/20 01:33	75-71-8	
1,1-Dichloroethane	<0.25	ug/m3	1.6	0.25	1.98		08/12/20 01:33	75-34-3	
1,2-Dichloroethane	<0.35	ug/m3	0.81	0.35	1.98		08/12/20 01:33	107-06-2	
1,1-Dichloroethene	<0.28	ug/m3	1.6	0.28	1.98		08/12/20 01:33	75-35-4	
cis-1,2-Dichloroethene	<0.32	ug/m3	1.6	0.32	1.98		08/12/20 01:33	156-59-2	
trans-1,2-Dichloroethene	<0.33	ug/m3	1.6	0.33	1.98		08/12/20 01:33	156-60-5	
1,2-Dichloropropane	<0.34	ug/m3	1.9	0.34	1.98		08/12/20 01:33	78-87-5	
cis-1,3-Dichloropropene	<0.44	ug/m3	1.8	0.44	1.98		08/12/20 01:33	10061-01-5	
trans-1,3-Dichloropropene	<0.56	ug/m3	1.8	0.56	1.98		08/12/20 01:33	10061-02-6	
Dichlorotetrafluoroethane	<0.65	ug/m3	2.8	0.65	1.98		08/12/20 01:33	76-14-2	
Ethanol	21.9	ug/m3	3.8	1.9	1.98		08/12/20 01:33	64-17-5	
Ethyl acetate	2.5	ug/m3	1.5	0.33	1.98		08/12/20 01:33	141-78-6	
Ethylbenzene	2.8	ug/m3	1.7	0.36	1.98		08/12/20 01:33	100-41-4	
4-Ethyltoluene	2.9J	ug/m3	5.0	0.94	1.98		08/12/20 01:33	622-96-8	
n-Heptane	<0.34	ug/m3	1.6	0.34	1.98		08/12/20 01:33	142-82-5	
Hexachloro-1,3-butadiene	<1.6	ug/m3	10.7	1.6	1.98		08/12/20 01:33	87-68-3	
n-Hexane	5.1	ug/m3	1.4	0.48	1.98		08/12/20 01:33	110-54-3	
2-Hexanone	3.5J	ug/m3	8.2	0.70	1.98		08/12/20 01:33	591-78-6	
Methylene Chloride	19.2	ug/m3	7.0	2.0	1.98		08/12/20 01:33	75-09-2	
4-Methyl-2-pentanone (MIBK)	18.1	ug/m3	8.2	0.42	1.98		08/12/20 01:33	108-10-1	
Methyl-tert-butyl ether	<0.27	ug/m3	7.2	0.27	1.98		08/12/20 01:33	1634-04-4	
Naphthalene	<2.5	ug/m3	5.3	2.5	1.98		08/12/20 01:33	91-20-3	
2-Propanol	5.7	ug/m3	5.0	1.7	1.98		08/12/20 01:33	67-63-0	
Propylene	10.6	ug/m3	0.69	0.19	1.98		08/12/20 01:33	115-07-1	
Styrene	1.1J	ug/m3	1.7	0.73	1.98		08/12/20 01:33	100-42-5	

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## ANALYTICAL RESULTS

Project: Former Wayne's Pinball Palace

Pace Project No.: 10527674

**Sample: 167SG05**      **Lab ID: 10527674005**      Collected: 08/05/20 15:38      Received: 08/07/20 09:00      Matrix: Air

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>TO15 MSV AIR</b>									
Analytical Method: TO-15									
Pace Analytical Services - Minneapolis									
1,1,2,2-Tetrachloroethane	<0.60	ug/m3	1.4	0.60	1.98		08/12/20 01:33	79-34-5	
Tetrachloroethene	930	ug/m3	40.9	17.0	59.4		08/12/20 01:59	127-18-4	
Tetrahydrofuran	<0.34	ug/m3	1.2	0.34	1.98		08/12/20 01:33	109-99-9	
Toluene	24.1	ug/m3	1.5	0.33	1.98		08/12/20 01:33	108-88-3	
1,2,4-Trichlorobenzene	<6.6	ug/m3	14.9	6.6	1.98		08/12/20 01:33	120-82-1	
1,1,1-Trichloroethane	0.98J	ug/m3	2.2	0.27	1.98		08/12/20 01:33	71-55-6	
1,1,2-Trichloroethane	<0.45	ug/m3	1.1	0.45	1.98		08/12/20 01:33	79-00-5	
Trichloroethene	1.6	ug/m3	1.1	0.35	1.98		08/12/20 01:33	79-01-6	
Trichlorofluoromethane	1.5J	ug/m3	2.3	0.56	1.98		08/12/20 01:33	75-69-4	
1,1,2-Trichlorotrifluoroethane	<0.49	ug/m3	3.1	0.49	1.98		08/12/20 01:33	76-13-1	
1,2,4-Trimethylbenzene	14.7	ug/m3	2.0	0.80	1.98		08/12/20 01:33	95-63-6	
1,3,5-Trimethylbenzene	6.4	ug/m3	2.0	0.59	1.98		08/12/20 01:33	108-67-8	
Vinyl acetate	<0.35	ug/m3	1.4	0.35	1.98		08/12/20 01:33	108-05-4	
Vinyl chloride	<0.20	ug/m3	0.51	0.20	1.98		08/12/20 01:33	75-01-4	
m&p-Xylene	11.7	ug/m3	3.5	0.84	1.98		08/12/20 01:33	179601-23-1	
o-Xylene	5.6	ug/m3	1.7	0.38	1.98		08/12/20 01:33	95-47-6	

**Sample: 167SG06**      **Lab ID: 10527674006**      Collected: 08/05/20 15:51      Received: 08/07/20 09:00      Matrix: Air

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>TO15 MSV AIR</b>									
Analytical Method: TO-15									
Pace Analytical Services - Minneapolis									
Acetone	29.9	ug/m3	12.4	3.6	2.06		08/12/20 00:04	67-64-1	
Benzene	1.5	ug/m3	0.67	0.27	2.06		08/12/20 00:04	71-43-2	
Benzyl chloride	<0.68	ug/m3	5.4	0.68	2.06		08/12/20 00:04	100-44-7	
Bromodichloromethane	<0.54	ug/m3	2.8	0.54	2.06		08/12/20 00:04	75-27-4	
Bromoform	<2.9	ug/m3	10.8	2.9	2.06		08/12/20 00:04	75-25-2	
Bromomethane	0.60J	ug/m3	1.6	0.37	2.06		08/12/20 00:04	74-83-9	
1,3-Butadiene	<0.21	ug/m3	0.93	0.21	2.06		08/12/20 00:04	106-99-0	
2-Butanone (MEK)	30.3	ug/m3	6.2	1.1	2.06		08/12/20 00:04	78-93-3	
Carbon disulfide	13.9	ug/m3	1.3	0.40	2.06		08/12/20 00:04	75-15-0	
Carbon tetrachloride	<0.30	ug/m3	2.6	0.30	2.06		08/12/20 00:04	56-23-5	
Chlorobenzene	<0.31	ug/m3	1.9	0.31	2.06		08/12/20 00:04	108-90-7	
Chloroethane	<0.27	ug/m3	1.1	0.27	2.06		08/12/20 00:04	75-00-3	
Chloroform	<0.40	ug/m3	1.0	0.40	2.06		08/12/20 00:04	67-66-3	
Chloromethane	1.2	ug/m3	0.87	0.20	2.06		08/12/20 00:04	74-87-3	
Cyclohexane	5.3	ug/m3	3.6	0.47	2.06		08/12/20 00:04	110-82-7	
Dibromochloromethane	<0.61	ug/m3	3.6	0.61	2.06		08/12/20 00:04	124-48-1	
1,2-Dibromoethane (EDB)	<0.67	ug/m3	1.6	0.67	2.06		08/12/20 00:04	106-93-4	
1,2-Dichlorobenzene	<0.77	ug/m3	2.5	0.77	2.06		08/12/20 00:04	95-50-1	
1,3-Dichlorobenzene	<0.97	ug/m3	2.5	0.97	2.06		08/12/20 00:04	541-73-1	
1,4-Dichlorobenzene	<1.7	ug/m3	6.3	1.7	2.06		08/12/20 00:04	106-46-7	

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## ANALYTICAL RESULTS

Project: Former Wayne's Pinball Palace

Pace Project No.: 10527674

Sample: 167SG06 Lab ID: 10527674006 Collected: 08/05/20 15:51 Received: 08/07/20 09:00 Matrix: Air

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>TO15 MSV AIR</b>									
Analytical Method: TO-15									
Pace Analytical Services - Minneapolis									
Dichlorodifluoromethane	1.9J	ug/m3	2.1	0.31	2.06		08/12/20 00:04	75-71-8	
1,1-Dichloroethane	<0.26	ug/m3	1.7	0.26	2.06		08/12/20 00:04	75-34-3	
1,2-Dichloroethane	<0.37	ug/m3	0.85	0.37	2.06		08/12/20 00:04	107-06-2	
1,1-Dichloroethene	<0.29	ug/m3	1.7	0.29	2.06		08/12/20 00:04	75-35-4	
cis-1,2-Dichloroethene	<0.33	ug/m3	1.7	0.33	2.06		08/12/20 00:04	156-59-2	
trans-1,2-Dichloroethene	<0.35	ug/m3	1.7	0.35	2.06		08/12/20 00:04	156-60-5	
1,2-Dichloropropane	<0.35	ug/m3	1.9	0.35	2.06		08/12/20 00:04	78-87-5	
cis-1,3-Dichloropropene	<0.45	ug/m3	1.9	0.45	2.06		08/12/20 00:04	10061-01-5	
trans-1,3-Dichloropropene	<0.59	ug/m3	1.9	0.59	2.06		08/12/20 00:04	10061-02-6	
Dichlorotetrafluoroethane	<0.67	ug/m3	2.9	0.67	2.06		08/12/20 00:04	76-14-2	
Ethanol	29.7	ug/m3	4.0	1.9	2.06		08/12/20 00:04	64-17-5	
Ethyl acetate	4.4	ug/m3	1.5	0.35	2.06		08/12/20 00:04	141-78-6	
Ethylbenzene	2.8	ug/m3	1.8	0.37	2.06		08/12/20 00:04	100-41-4	
4-Ethyltoluene	2.3J	ug/m3	5.2	0.98	2.06		08/12/20 00:04	622-96-8	
n-Heptane	5.6	ug/m3	1.7	0.36	2.06		08/12/20 00:04	142-82-5	
Hexachloro-1,3-butadiene	<1.6	ug/m3	11.2	1.6	2.06		08/12/20 00:04	87-68-3	
n-Hexane	4.3	ug/m3	1.5	0.50	2.06		08/12/20 00:04	110-54-3	
2-Hexanone	<0.73	ug/m3	8.6	0.73	2.06		08/12/20 00:04	591-78-6	
Methylene Chloride	36.9	ug/m3	7.3	2.0	2.06		08/12/20 00:04	75-09-2	
4-Methyl-2-pentanone (MIBK)	16.4	ug/m3	8.6	0.43	2.06		08/12/20 00:04	108-10-1	
Methyl-tert-butyl ether	<0.28	ug/m3	7.5	0.28	2.06		08/12/20 00:04	1634-04-4	
Naphthalene	<2.6	ug/m3	5.5	2.6	2.06		08/12/20 00:04	91-20-3	
2-Propanol	10.3	ug/m3	5.2	1.8	2.06		08/12/20 00:04	67-63-0	
Propylene	12.2	ug/m3	0.72	0.20	2.06		08/12/20 00:04	115-07-1	
Styrene	1.1J	ug/m3	1.8	0.76	2.06		08/12/20 00:04	100-42-5	
1,1,2,2-Tetrachloroethane	<0.62	ug/m3	1.4	0.62	2.06		08/12/20 00:04	79-34-5	
Tetrachloroethene	621	ug/m3	13.9	5.8	20.2		08/12/20 11:34	127-18-4	
Tetrahydrofuran	<0.35	ug/m3	1.2	0.35	2.06		08/12/20 00:04	109-99-9	
Toluene	13.1	ug/m3	1.6	0.34	2.06		08/12/20 00:04	108-88-3	
1,2,4-Trichlorobenzene	<6.8	ug/m3	15.5	6.8	2.06		08/12/20 00:04	120-82-1	
1,1,1-Trichloroethane	0.97J	ug/m3	2.3	0.28	2.06		08/12/20 00:04	71-55-6	
1,1,2-Trichloroethane	<0.46	ug/m3	1.1	0.46	2.06		08/12/20 00:04	79-00-5	
Trichloroethene	0.89J	ug/m3	1.1	0.36	2.06		08/12/20 00:04	79-01-6	
Trichlorofluoromethane	1.3J	ug/m3	2.3	0.58	2.06		08/12/20 00:04	75-69-4	
1,1,2-Trichlorotrifluoroethane	<0.51	ug/m3	3.2	0.51	2.06		08/12/20 00:04	76-13-1	
1,2,4-Trimethylbenzene	12.0	ug/m3	2.1	0.84	2.06		08/12/20 00:04	95-63-6	
1,3,5-Trimethylbenzene	6.6	ug/m3	2.1	0.62	2.06		08/12/20 00:04	108-67-8	
Vinyl acetate	<0.36	ug/m3	1.5	0.36	2.06		08/12/20 00:04	108-05-4	
Vinyl chloride	<0.21	ug/m3	0.54	0.21	2.06		08/12/20 00:04	75-01-4	
m&p-Xylene	15.6	ug/m3	3.6	0.88	2.06		08/12/20 00:04	179601-23-1	
o-Xylene	11.4	ug/m3	1.8	0.40	2.06		08/12/20 00:04	95-47-6	

## REPORT OF LABORATORY ANALYSIS

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## ANALYTICAL RESULTS

Project: Former Wayne's Pinball Palace

Pace Project No.: 10527674

Sample: 167SG07 Lab ID: 10527674007 Collected: 08/05/20 16:08 Received: 08/07/20 09:00 Matrix: Air

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>TO15 MSV AIR</b>									
Analytical Method: TO-15									
Pace Analytical Services - Minneapolis									
Acetone	28.0	ug/m3	12.2	3.5	2.02		08/11/20 23:32	67-64-1	
Benzene	0.43J	ug/m3	0.66	0.26	2.02		08/11/20 23:32	71-43-2	
Benzyl chloride	<0.66	ug/m3	5.3	0.66	2.02		08/11/20 23:32	100-44-7	
Bromodichloromethane	<0.53	ug/m3	2.7	0.53	2.02		08/11/20 23:32	75-27-4	
Bromoform	<2.8	ug/m3	10.6	2.8	2.02		08/11/20 23:32	75-25-2	
Bromomethane	0.73J	ug/m3	1.6	0.36	2.02		08/11/20 23:32	74-83-9	
1,3-Butadiene	<0.20	ug/m3	0.91	0.20	2.02		08/11/20 23:32	106-99-0	
2-Butanone (MEK)	13.6	ug/m3	6.1	1.1	2.02		08/11/20 23:32	78-93-3	
Carbon disulfide	11.6	ug/m3	1.3	0.39	2.02		08/11/20 23:32	75-15-0	
Carbon tetrachloride	<0.30	ug/m3	2.6	0.30	2.02		08/11/20 23:32	56-23-5	
Chlorobenzene	<0.31	ug/m3	1.9	0.31	2.02		08/11/20 23:32	108-90-7	
Chloroethane	<0.26	ug/m3	1.1	0.26	2.02		08/11/20 23:32	75-00-3	
Chloroform	<0.39	ug/m3	1.0	0.39	2.02		08/11/20 23:32	67-66-3	
Chloromethane	1.4	ug/m3	0.85	0.19	2.02		08/11/20 23:32	74-87-3	
Cyclohexane	0.66J	ug/m3	3.5	0.46	2.02		08/11/20 23:32	110-82-7	
Dibromochloromethane	<0.60	ug/m3	3.5	0.60	2.02		08/11/20 23:32	124-48-1	
1,2-Dibromoethane (EDB)	<0.66	ug/m3	1.6	0.66	2.02		08/11/20 23:32	106-93-4	
1,2-Dichlorobenzene	<0.76	ug/m3	2.5	0.76	2.02		08/11/20 23:32	95-50-1	
1,3-Dichlorobenzene	<0.96	ug/m3	2.5	0.96	2.02		08/11/20 23:32	541-73-1	
1,4-Dichlorobenzene	<1.7	ug/m3	6.2	1.7	2.02		08/11/20 23:32	106-46-7	
Dichlorodifluoromethane	2.0J	ug/m3	2.0	0.30	2.02		08/11/20 23:32	75-71-8	
1,1-Dichloroethane	<0.25	ug/m3	1.7	0.25	2.02		08/11/20 23:32	75-34-3	
1,2-Dichloroethane	<0.36	ug/m3	0.83	0.36	2.02		08/11/20 23:32	107-06-2	
1,1-Dichloroethene	<0.29	ug/m3	1.6	0.29	2.02		08/11/20 23:32	75-35-4	
cis-1,2-Dichloroethene	<0.33	ug/m3	1.6	0.33	2.02		08/11/20 23:32	156-59-2	
trans-1,2-Dichloroethene	<0.34	ug/m3	1.6	0.34	2.02		08/11/20 23:32	156-60-5	
1,2-Dichloropropane	<0.34	ug/m3	1.9	0.34	2.02		08/11/20 23:32	78-87-5	
cis-1,3-Dichloropropene	<0.44	ug/m3	1.9	0.44	2.02		08/11/20 23:32	10061-01-5	
trans-1,3-Dichloropropene	<0.58	ug/m3	1.9	0.58	2.02		08/11/20 23:32	10061-02-6	
Dichlorotetrafluoroethane	<0.66	ug/m3	2.9	0.66	2.02		08/11/20 23:32	76-14-2	
Ethanol	24.1	ug/m3	3.9	1.9	2.02		08/11/20 23:32	64-17-5	
Ethyl acetate	2.2	ug/m3	1.5	0.34	2.02		08/11/20 23:32	141-78-6	
Ethylbenzene	0.61J	ug/m3	1.8	0.37	2.02		08/11/20 23:32	100-41-4	
4-Ethyltoluene	<0.96	ug/m3	5.0	0.96	2.02		08/11/20 23:32	622-96-8	
n-Heptane	<0.35	ug/m3	1.7	0.35	2.02		08/11/20 23:32	142-82-5	
Hexachloro-1,3-butadiene	<1.6	ug/m3	10.9	1.6	2.02		08/11/20 23:32	87-68-3	
n-Hexane	1.5	ug/m3	1.4	0.49	2.02		08/11/20 23:32	110-54-3	
2-Hexanone	2.5J	ug/m3	8.4	0.72	2.02		08/11/20 23:32	591-78-6	
Methylene Chloride	21.0	ug/m3	7.1	2.0	2.02		08/11/20 23:32	75-09-2	
4-Methyl-2-pentanone (MIBK)	1.0J	ug/m3	8.4	0.42	2.02		08/11/20 23:32	108-10-1	
Methyl-tert-butyl ether	<0.28	ug/m3	7.4	0.28	2.02		08/11/20 23:32	1634-04-4	
Naphthalene	<2.5	ug/m3	5.4	2.5	2.02		08/11/20 23:32	91-20-3	
2-Propanol	9.9	ug/m3	5.0	1.7	2.02		08/11/20 23:32	67-63-0	
Propylene	<0.20	ug/m3	0.71	0.20	2.02		08/11/20 23:32	115-07-1	
Styrene	0.83J	ug/m3	1.7	0.75	2.02		08/11/20 23:32	100-42-5	

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### ANALYTICAL RESULTS

Project: Former Wayne's Pinball Palace

Pace Project No.: 10527674

Sample: 167SG07 Lab ID: 10527674007 Collected: 08/05/20 16:08 Received: 08/07/20 09:00 Matrix: Air

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>TO15 MSV AIR</b>									
Analytical Method: TO-15									
Pace Analytical Services - Minneapolis									
1,1,2,2-Tetrachloroethane	<0.61	ug/m3	1.4	0.61	2.02		08/11/20 23:32	79-34-5	
Tetrachloroethene	0.76J	ug/m3	1.4	0.58	2.02		08/11/20 23:32	127-18-4	
Tetrahydrofuran	<0.34	ug/m3	1.2	0.34	2.02		08/11/20 23:32	109-99-9	
Toluene	6.3	ug/m3	1.5	0.34	2.02		08/11/20 23:32	108-88-3	
1,2,4-Trichlorobenzene	<6.7	ug/m3	15.2	6.7	2.02		08/11/20 23:32	120-82-1	
1,1,1-Trichloroethane	<0.27	ug/m3	2.2	0.27	2.02		08/11/20 23:32	71-55-6	
1,1,2-Trichloroethane	<0.45	ug/m3	1.1	0.45	2.02		08/11/20 23:32	79-00-5	
Trichloroethene	0.56J	ug/m3	1.1	0.36	2.02		08/11/20 23:32	79-01-6	
Trichlorofluoromethane	0.99J	ug/m3	2.3	0.57	2.02		08/11/20 23:32	75-69-4	
1,1,2-Trichlorotrifluoroethane	<0.50	ug/m3	3.2	0.50	2.02		08/11/20 23:32	76-13-1	
1,2,4-Trimethylbenzene	1.3J	ug/m3	2.0	0.82	2.02		08/11/20 23:32	95-63-6	
1,3,5-Trimethylbenzene	0.64J	ug/m3	2.0	0.61	2.02		08/11/20 23:32	108-67-8	
Vinyl acetate	<0.36	ug/m3	1.4	0.36	2.02		08/11/20 23:32	108-05-4	
Vinyl chloride	<0.20	ug/m3	0.53	0.20	2.02		08/11/20 23:32	75-01-4	
m&p-Xylene	2.3J	ug/m3	3.6	0.86	2.02		08/11/20 23:32	179601-23-1	
o-Xylene	1.1J	ug/m3	1.8	0.39	2.02		08/11/20 23:32	95-47-6	

Sample: 167SG08 Lab ID: 10527674008 Collected: 08/05/20 16:26 Received: 08/07/20 09:00 Matrix: Air

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>TO15 MSV AIR</b>									
Analytical Method: TO-15									
Pace Analytical Services - Minneapolis									
Acetone	18.9	ug/m3	12.4	3.6	2.06		08/11/20 23:02	67-64-1	
Benzene	1.3	ug/m3	0.67	0.27	2.06		08/11/20 23:02	71-43-2	
Benzyl chloride	<0.68	ug/m3	5.4	0.68	2.06		08/11/20 23:02	100-44-7	
Bromodichloromethane	<0.54	ug/m3	2.8	0.54	2.06		08/11/20 23:02	75-27-4	
Bromoform	<2.9	ug/m3	10.8	2.9	2.06		08/11/20 23:02	75-25-2	
Bromomethane	<0.37	ug/m3	1.6	0.37	2.06		08/11/20 23:02	74-83-9	
1,3-Butadiene	<0.21	ug/m3	0.93	0.21	2.06		08/11/20 23:02	106-99-0	
2-Butanone (MEK)	6.7	ug/m3	6.2	1.1	2.06		08/11/20 23:02	78-93-3	
Carbon disulfide	10.5	ug/m3	1.3	0.40	2.06		08/11/20 23:02	75-15-0	
Carbon tetrachloride	<0.30	ug/m3	2.6	0.30	2.06		08/11/20 23:02	56-23-5	
Chlorobenzene	<0.31	ug/m3	1.9	0.31	2.06		08/11/20 23:02	108-90-7	
Chloroethane	<0.27	ug/m3	1.1	0.27	2.06		08/11/20 23:02	75-00-3	
Chloroform	<0.40	ug/m3	1.0	0.40	2.06		08/11/20 23:02	67-66-3	
Chloromethane	0.41J	ug/m3	0.87	0.20	2.06		08/11/20 23:02	74-87-3	
Cyclohexane	0.81J	ug/m3	3.6	0.47	2.06		08/11/20 23:02	110-82-7	
Dibromochloromethane	<0.61	ug/m3	3.6	0.61	2.06		08/11/20 23:02	124-48-1	
1,2-Dibromoethane (EDB)	<0.67	ug/m3	1.6	0.67	2.06		08/11/20 23:02	106-93-4	
1,2-Dichlorobenzene	<0.77	ug/m3	2.5	0.77	2.06		08/11/20 23:02	95-50-1	
1,3-Dichlorobenzene	<0.97	ug/m3	2.5	0.97	2.06		08/11/20 23:02	541-73-1	
1,4-Dichlorobenzene	<1.7	ug/m3	6.3	1.7	2.06		08/11/20 23:02	106-46-7	

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## ANALYTICAL RESULTS

Project: Former Wayne's Pinball Palace

Pace Project No.: 10527674

Sample: **167SG08** Lab ID: **10527674008** Collected: 08/05/20 16:26 Received: 08/07/20 09:00 Matrix: Air

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>TO15 MSV AIR</b>									
Analytical Method: TO-15									
Pace Analytical Services - Minneapolis									
Dichlorodifluoromethane	2.4	ug/m3	2.1	0.31	2.06		08/11/20 23:02	75-71-8	
1,1-Dichloroethane	<0.26	ug/m3	1.7	0.26	2.06		08/11/20 23:02	75-34-3	
1,2-Dichloroethane	<0.37	ug/m3	0.85	0.37	2.06		08/11/20 23:02	107-06-2	
1,1-Dichloroethene	<0.29	ug/m3	1.7	0.29	2.06		08/11/20 23:02	75-35-4	
cis-1,2-Dichloroethene	<0.33	ug/m3	1.7	0.33	2.06		08/11/20 23:02	156-59-2	
trans-1,2-Dichloroethene	<0.35	ug/m3	1.7	0.35	2.06		08/11/20 23:02	156-60-5	
1,2-Dichloropropane	<0.35	ug/m3	1.9	0.35	2.06		08/11/20 23:02	78-87-5	
cis-1,3-Dichloropropene	<0.45	ug/m3	1.9	0.45	2.06		08/11/20 23:02	10061-01-5	
trans-1,3-Dichloropropene	<0.59	ug/m3	1.9	0.59	2.06		08/11/20 23:02	10061-02-6	
Dichlorotetrafluoroethane	<0.67	ug/m3	2.9	0.67	2.06		08/11/20 23:02	76-14-2	
Ethanol	39.6	ug/m3	4.0	1.9	2.06		08/11/20 23:02	64-17-5	
Ethyl acetate	1.7	ug/m3	1.5	0.35	2.06		08/11/20 23:02	141-78-6	
Ethylbenzene	0.56J	ug/m3	1.8	0.37	2.06		08/11/20 23:02	100-41-4	
4-Ethyltoluene	<0.98	ug/m3	5.2	0.98	2.06		08/11/20 23:02	622-96-8	
n-Heptane	<0.36	ug/m3	1.7	0.36	2.06		08/11/20 23:02	142-82-5	
Hexachloro-1,3-butadiene	<1.6	ug/m3	11.2	1.6	2.06		08/11/20 23:02	87-68-3	
n-Hexane	2.4	ug/m3	1.5	0.50	2.06		08/11/20 23:02	110-54-3	
2-Hexanone	0.89J	ug/m3	8.6	0.73	2.06		08/11/20 23:02	591-78-6	
Methylene Chloride	27.0	ug/m3	7.3	2.0	2.06		08/11/20 23:02	75-09-2	
4-Methyl-2-pentanone (MIBK)	0.91J	ug/m3	8.6	0.43	2.06		08/11/20 23:02	108-10-1	
Methyl-tert-butyl ether	<0.28	ug/m3	7.5	0.28	2.06		08/11/20 23:02	1634-04-4	
Naphthalene	5.6	ug/m3	5.5	2.6	2.06		08/11/20 23:02	91-20-3	
2-Propanol	3.7J	ug/m3	5.2	1.8	2.06		08/11/20 23:02	67-63-0	
Propylene	<0.20	ug/m3	0.72	0.20	2.06		08/11/20 23:02	115-07-1	
Styrene	1.3J	ug/m3	1.8	0.76	2.06		08/11/20 23:02	100-42-5	
1,1,2,2-Tetrachloroethane	<0.62	ug/m3	1.4	0.62	2.06		08/11/20 23:02	79-34-5	
Tetrachloroethene	8.4	ug/m3	1.4	0.59	2.06		08/11/20 23:02	127-18-4	
Tetrahydrofuran	<0.35	ug/m3	1.2	0.35	2.06		08/11/20 23:02	109-99-9	
Toluene	7.2	ug/m3	1.6	0.34	2.06		08/11/20 23:02	108-88-3	
1,2,4-Trichlorobenzene	<6.8	ug/m3	15.5	6.8	2.06		08/11/20 23:02	120-82-1	
1,1,1-Trichloroethane	0.35J	ug/m3	2.3	0.28	2.06		08/11/20 23:02	71-55-6	
1,1,2-Trichloroethane	<0.46	ug/m3	1.1	0.46	2.06		08/11/20 23:02	79-00-5	
Trichloroethene	2.3	ug/m3	1.1	0.36	2.06		08/11/20 23:02	79-01-6	
Trichlorofluoromethane	1.2J	ug/m3	2.3	0.58	2.06		08/11/20 23:02	75-69-4	
1,1,2-Trichlorotrifluoroethane	<0.51	ug/m3	3.2	0.51	2.06		08/11/20 23:02	76-13-1	
1,2,4-Trimethylbenzene	1.1J	ug/m3	2.1	0.84	2.06		08/11/20 23:02	95-63-6	
1,3,5-Trimethylbenzene	<0.62	ug/m3	2.1	0.62	2.06		08/11/20 23:02	108-67-8	
Vinyl acetate	<0.36	ug/m3	1.5	0.36	2.06		08/11/20 23:02	108-05-4	
Vinyl chloride	<0.21	ug/m3	0.54	0.21	2.06		08/11/20 23:02	75-01-4	
m&p-Xylene	2.6J	ug/m3	3.6	0.88	2.06		08/11/20 23:02	179601-23-1	
o-Xylene	1.0J	ug/m3	1.8	0.40	2.06		08/11/20 23:02	95-47-6	

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### QUALITY CONTROL DATA

Project: Former Wayne's Pinball Palace  
Pace Project No.: 10527674

QC Batch: 691611      Analysis Method: TO-15  
QC Batch Method: TO-15      Analysis Description: TO15 MSV AIR Low Level  
Laboratory: Pace Analytical Services - Minneapolis

Associated Lab Samples: 10527674002

METHOD BLANK: 3697737      Matrix: Air  
Associated Lab Samples: 10527674002

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
1,1,1-Trichloroethane	ug/m3	<0.067	0.56	0.067	08/09/20 09:26	
1,1,2,2-Tetrachloroethane	ug/m3	<0.15	0.35	0.15	08/09/20 09:26	
1,1,2-Trichloroethane	ug/m3	<0.11	0.28	0.11	08/09/20 09:26	
1,1,2-Trichlorotrifluoroethane	ug/m3	<0.12	0.78	0.12	08/09/20 09:26	
1,1-Dichloroethane	ug/m3	<0.063	0.41	0.063	08/09/20 09:26	
1,1-Dichloroethene	ug/m3	<0.072	0.40	0.072	08/09/20 09:26	
1,2,4-Trichlorobenzene	ug/m3	<1.7	3.8	1.7	08/09/20 09:26	
1,2,4-Trimethylbenzene	ug/m3	<0.20	0.50	0.20	08/09/20 09:26	
1,2-Dibromoethane (EDB)	ug/m3	<0.16	0.39	0.16	08/09/20 09:26	
1,2-Dichlorobenzene	ug/m3	<0.19	0.61	0.19	08/09/20 09:26	
1,2-Dichloroethane	ug/m3	<0.089	0.21	0.089	08/09/20 09:26	
1,2-Dichloropropane	ug/m3	<0.085	0.47	0.085	08/09/20 09:26	
1,3,5-Trimethylbenzene	ug/m3	<0.15	0.50	0.15	08/09/20 09:26	
1,3-Butadiene	ug/m3	<0.050	0.22	0.050	08/09/20 09:26	
1,3-Dichlorobenzene	ug/m3	<0.24	0.61	0.24	08/09/20 09:26	
1,4-Dichlorobenzene	ug/m3	<0.42	1.5	0.42	08/09/20 09:26	
2-Butanone (MEK)	ug/m3	<0.27	1.5	0.27	08/09/20 09:26	
2-Hexanone	ug/m3	<0.18	2.1	0.18	08/09/20 09:26	
2-Propanol	ug/m3	<0.43	1.2	0.43	08/09/20 09:26	
4-Ethyltoluene	ug/m3	<0.24	1.2	0.24	08/09/20 09:26	
4-Methyl-2-pentanone (MIBK)	ug/m3	<0.10	2.1	0.10	08/09/20 09:26	
Acetone	ug/m3	<0.88	3.0	0.88	08/09/20 09:26	
Benzene	ug/m3	<0.064	0.16	0.064	08/09/20 09:26	
Benzyl chloride	ug/m3	<0.16	1.3	0.16	08/09/20 09:26	
Bromodichloromethane	ug/m3	<0.13	0.68	0.13	08/09/20 09:26	
Bromoform	ug/m3	<0.70	2.6	0.70	08/09/20 09:26	
Bromomethane	ug/m3	<0.090	0.39	0.090	08/09/20 09:26	
Carbon disulfide	ug/m3	<0.098	0.32	0.098	08/09/20 09:26	
Carbon tetrachloride	ug/m3	<0.074	0.64	0.074	08/09/20 09:26	
Chlorobenzene	ug/m3	<0.076	0.47	0.076	08/09/20 09:26	
Chloroethane	ug/m3	<0.066	0.27	0.066	08/09/20 09:26	
Chloroform	ug/m3	<0.096	0.25	0.096	08/09/20 09:26	
Chloromethane	ug/m3	<0.048	0.21	0.048	08/09/20 09:26	
cis-1,2-Dichloroethene	ug/m3	<0.080	0.40	0.080	08/09/20 09:26	
cis-1,3-Dichloropropene	ug/m3	<0.11	0.46	0.11	08/09/20 09:26	
Cyclohexane	ug/m3	<0.11	0.88	0.11	08/09/20 09:26	
Dibromochloromethane	ug/m3	<0.15	0.86	0.15	08/09/20 09:26	
Dichlorodifluoromethane	ug/m3	<0.075	0.50	0.075	08/09/20 09:26	
Dichlorotetrafluoroethane	ug/m3	<0.16	0.71	0.16	08/09/20 09:26	
Ethanol	ug/m3	<0.47	0.96	0.47	08/09/20 09:26	

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### REPORT OF LABORATORY ANALYSIS

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### QUALITY CONTROL DATA

Project: Former Wayne's Pinball Palace  
Pace Project No.: 10527674

METHOD BLANK: 3697737 Matrix: Air  
Associated Lab Samples: 10527674002

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Ethyl acetate	ug/m3	<0.084	0.37	0.084	08/09/20 09:26	
Ethylbenzene	ug/m3	<0.090	0.44	0.090	08/09/20 09:26	
Hexachloro-1,3-butadiene	ug/m3	<0.40	2.7	0.40	08/09/20 09:26	
m&p-Xylene	ug/m3	<0.21	0.88	0.21	08/09/20 09:26	
Methyl-tert-butyl ether	ug/m3	<0.069	1.8	0.069	08/09/20 09:26	
Methylene Chloride	ug/m3	<0.49	1.8	0.49	08/09/20 09:26	
n-Heptane	ug/m3	<0.086	0.42	0.086	08/09/20 09:26	
n-Hexane	ug/m3	<0.12	0.36	0.12	08/09/20 09:26	
Naphthalene	ug/m3	<0.62	1.3	0.62	08/09/20 09:26	
o-Xylene	ug/m3	<0.097	0.44	0.097	08/09/20 09:26	
Propylene	ug/m3	<0.049	0.18	0.049	08/09/20 09:26	
Styrene	ug/m3	<0.18	0.43	0.18	08/09/20 09:26	
Tetrachloroethene	ug/m3	<0.14	0.34	0.14	08/09/20 09:26	
Tetrahydrofuran	ug/m3	<0.085	0.30	0.085	08/09/20 09:26	
Toluene	ug/m3	<0.083	0.38	0.083	08/09/20 09:26	
trans-1,2-Dichloroethene	ug/m3	<0.084	0.40	0.084	08/09/20 09:26	
trans-1,3-Dichloropropene	ug/m3	<0.14	0.46	0.14	08/09/20 09:26	
Trichloroethene	ug/m3	<0.088	0.27	0.088	08/09/20 09:26	
Trichlorofluoromethane	ug/m3	<0.14	0.57	0.14	08/09/20 09:26	
Vinyl acetate	ug/m3	<0.088	0.36	0.088	08/09/20 09:26	
Vinyl chloride	ug/m3	<0.050	0.13	0.050	08/09/20 09:26	

LABORATORY CONTROL SAMPLE: 3697738

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,1,1-Trichloroethane	ug/m3	57	66.5	117	70-130	
1,1,2,2-Tetrachloroethane	ug/m3	71.9	69.9	97	70-132	
1,1,2-Trichloroethane	ug/m3	57.3	61.6	108	70-133	
1,1,2-Trichlorotrifluoroethane	ug/m3	80.3	93.1	116	70-130	
1,1-Dichloroethane	ug/m3	42.7	47.7	112	70-130	
1,1-Dichloroethene	ug/m3	41.4	51.4	124	69-137	
1,2,4-Trichlorobenzene	ug/m3	156	169	108	70-130	
1,2,4-Trimethylbenzene	ug/m3	51.5	56.5	110	70-137	
1,2-Dibromoethane (EDB)	ug/m3	80.3	87.4	109	70-138	
1,2-Dichlorobenzene	ug/m3	63.1	62.9	100	70-136	
1,2-Dichloroethane	ug/m3	42.4	49.7	117	70-130	
1,2-Dichloropropane	ug/m3	48.6	52.1	107	70-132	
1,3,5-Trimethylbenzene	ug/m3	51.6	56.0	109	70-136	
1,3-Butadiene	ug/m3	23.3	25.4	109	67-139	
1,3-Dichlorobenzene	ug/m3	63.4	64.7	102	70-138	
1,4-Dichlorobenzene	ug/m3	63.4	64.6	102	70-145	
2-Butanone (MEK)	ug/m3	31.4	37.2	119	61-130	
2-Hexanone	ug/m3	42.8	50.0	117	70-138	
2-Propanol	ug/m3	119	114	96	70-136	

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### REPORT OF LABORATORY ANALYSIS

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### QUALITY CONTROL DATA

Project: Former Wayne's Pinball Palace

Pace Project No.: 10527674

LABORATORY CONTROL SAMPLE: 3697738

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
4-Ethyltoluene	ug/m3	52.4	60.6	116	70-142	
4-Methyl-2-pentanone (MIBK)	ug/m3	43.6	47.9	110	70-134	
Acetone	ug/m3	126	121	96	59-137	
Benzene	ug/m3	33.5	36.1	108	70-133	
Benzyl chloride	ug/m3	55.1	60.4	110	70-139	
Bromodichloromethane	ug/m3	71.5	81.4	114	70-130	
Bromoform	ug/m3	110	131	119	60-140	
Bromomethane	ug/m3	41.3	43.6	106	70-131	
Carbon disulfide	ug/m3	33.3	38.3	115	70-130	
Carbon tetrachloride	ug/m3	66.2	78.7	119	70-133	
Chlorobenzene	ug/m3	48.3	49.5	102	70-131	
Chloroethane	ug/m3	28.1	30.6	109	70-141	
Chloroform	ug/m3	51.1	58.0	114	70-130	
Chloromethane	ug/m3	21.9	22.0	100	64-137	
cis-1,2-Dichloroethene	ug/m3	41.6	48.0	115	70-132	
cis-1,3-Dichloropropene	ug/m3	47.7	55.0	115	70-138	
Cyclohexane	ug/m3	36.7	42.0	114	70-133	
Dibromochloromethane	ug/m3	90.7	105	116	70-139	
Dichlorodifluoromethane	ug/m3	51.6	60.1	117	70-130	
Dichlorotetrafluoroethane	ug/m3	72.7	79.4	109	65-133	
Ethanol	ug/m3	103	95.1	93	65-135	
Ethyl acetate	ug/m3	38.6	42.6	111	70-135	
Ethylbenzene	ug/m3	45.6	49.6	109	70-142	
Hexachloro-1,3-butadiene	ug/m3	112	144	129	70-134	
m&p-Xylene	ug/m3	91.2	102	112	70-141	
Methyl-tert-butyl ether	ug/m3	38.4	44.6	116	70-131	
Methylene Chloride	ug/m3	182	194	107	69-130	
n-Heptane	ug/m3	43.6	47.6	109	70-130	
n-Hexane	ug/m3	37.6	41.1	109	70-131	
Naphthalene	ug/m3	57.7	52.5	91	63-130	
o-Xylene	ug/m3	45.5	49.4	109	70-135	
Propylene	ug/m3	18.2	20.2	111	63-139	
Styrene	ug/m3	44.9	52.9	118	70-143	
Tetrachloroethene	ug/m3	71	74.5	105	70-136	
Tetrahydrofuran	ug/m3	31.5	34.7	110	70-137	
Toluene	ug/m3	39.5	43.5	110	70-136	
trans-1,2-Dichloroethene	ug/m3	42.2	46.1	109	70-132	
trans-1,3-Dichloropropene	ug/m3	47.7	57.0	120	70-139	
Trichloroethene	ug/m3	56.3	60.8	108	70-132	
Trichlorofluoromethane	ug/m3	59.7	65.7	110	65-136	
Vinyl acetate	ug/m3	34.5	40.7	118	66-140	
Vinyl chloride	ug/m3	26.7	28.9	108	68-141	

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### QUALITY CONTROL DATA

Project: Former Wayne's Pinball Palace

Pace Project No.: 10527674

SAMPLE DUPLICATE: 3698408

Parameter	Units	10527686001 Result	Dup Result	RPD	Max RPD	Qualifiers
1,1,1-Trichloroethane	ug/m3	<0.21	<0.21			25
1,1,2,2-Tetrachloroethane	ug/m3	<0.47	<0.47			25
1,1,2-Trichloroethane	ug/m3	<0.35	<0.35			25
1,1,2-Trichlorotrifluoroethane	ug/m3	0.61J	<0.39			25
1,1-Dichloroethane	ug/m3	<0.20	<0.20			25
1,1-Dichloroethene	ug/m3	<0.22	<0.22			25
1,2,4-Trichlorobenzene	ug/m3	<5.1	<5.1			25
1,2,4-Trimethylbenzene	ug/m3	0.81J	0.90J			25
1,2-Dibromoethane (EDB)	ug/m3	<0.50	<0.50			25
1,2-Dichlorobenzene	ug/m3	<0.58	<0.58			25
1,2-Dichloroethane	ug/m3	<0.28	<0.28			25
1,2-Dichloropropane	ug/m3	<0.26	<0.26			25
1,3,5-Trimethylbenzene	ug/m3	<0.46	<0.46			25
1,3-Butadiene	ug/m3	<0.15	<0.15			25
1,3-Dichlorobenzene	ug/m3	<0.73	<0.73			25
1,4-Dichlorobenzene	ug/m3	<1.3	<1.3			25
2-Butanone (MEK)	ug/m3	5.2	5.1	1		25
2-Hexanone	ug/m3	<0.55	<0.55			25
2-Propanol	ug/m3	64.4	63.7	1		25
4-Ethyltoluene	ug/m3	<0.74	<0.74			25
4-Methyl-2-pentanone (MIBK)	ug/m3	<0.33	<0.33			25
Acetone	ug/m3	21.4	20.4	5		25
Benzene	ug/m3	0.54	0.52	5		25
Benzyl chloride	ug/m3	<0.51	<0.51			25
Bromodichloromethane	ug/m3	<0.41	<0.41			25
Bromoform	ug/m3	<2.2	<2.2			25
Bromomethane	ug/m3	<0.28	<0.28			25
Carbon disulfide	ug/m3	<0.30	<0.30			25
Carbon tetrachloride	ug/m3	0.49J	0.42J			25
Chlorobenzene	ug/m3	<0.24	<0.24			25
Chloroethane	ug/m3	<0.20	<0.20			25
Chloroform	ug/m3	<0.30	<0.30			25
Chloromethane	ug/m3	0.95	1.2	22		25
cis-1,2-Dichloroethene	ug/m3	<0.25	<0.25			25
cis-1,3-Dichloropropene	ug/m3	<0.34	<0.34			25
Cyclohexane	ug/m3	<0.35	<0.35			25
Dibromochloromethane	ug/m3	<0.46	<0.46			25
Dichlorodifluoromethane	ug/m3	3.0	3.1	3		25
Dichlorotetrafluoroethane	ug/m3	<0.51	<0.51			25
Ethanol	ug/m3	1380	1440	4		25 E
Ethyl acetate	ug/m3	<0.26	<0.26			25
Ethylbenzene	ug/m3	0.36J	0.39J			25
Hexachloro-1,3-butadiene	ug/m3	<1.2	<1.2			25
m&p-Xylene	ug/m3	1.3J	1.3J			25
Methyl-tert-butyl ether	ug/m3	<0.21	<0.21			25
Methylene Chloride	ug/m3	2.8J	2.7J			25
n-Heptane	ug/m3	<0.27	<0.27			25

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### QUALITY CONTROL DATA

Project: Former Wayne's Pinball Palace

Pace Project No.: 10527674

SAMPLE DUPLICATE: 3698408

Parameter	Units	10527686001 Result	Dup Result	RPD	Max RPD	Qualifiers
n-Hexane	ug/m3	1.1	1.1J		25	
Naphthalene	ug/m3	<1.9	<1.9		25	
o-Xylene	ug/m3	0.52J	0.52J		25	
Propylene	ug/m3	<0.15	<0.15		25	
Styrene	ug/m3	<0.57	<0.57		25	
Tetrachloroethene	ug/m3	1.1J	1.2		25	
Tetrahydrofuran	ug/m3	<0.26	<0.26		25	
Toluene	ug/m3	2.4	2.4	1	25	
trans-1,2-Dichloroethene	ug/m3	<0.26	<0.26		25	
trans-1,3-Dichloropropene	ug/m3	<0.44	<0.44		25	
Trichloroethene	ug/m3	<0.27	<0.27		25	
Trichlorofluoromethane	ug/m3	1.6J	1.5J		25	
Vinyl acetate	ug/m3	<0.27	<0.27		25	
Vinyl chloride	ug/m3	<0.16	<0.16		25	

SAMPLE DUPLICATE: 3698409

Parameter	Units	10527547017 Result	Dup Result	RPD	Max RPD	Qualifiers
1,1,1-Trichloroethane	ug/m3	ND	<0.21		25	
1,1,2,2-Tetrachloroethane	ug/m3	ND	<0.47		25	
1,1,2-Trichloroethane	ug/m3	ND	<0.35		25	
1,1,2-Trichlorotrifluoroethane	ug/m3	ND	0.51J		25	
1,1-Dichloroethane	ug/m3	ND	<0.20		25	
1,1-Dichloroethene	ug/m3	ND	<0.22		25	
1,2,4-Trichlorobenzene	ug/m3	ND	<5.1		25	
1,2,4-Trimethylbenzene	ug/m3	ND	<0.63		25	
1,2-Dibromoethane (EDB)	ug/m3	ND	<0.50		25	
1,2-Dichlorobenzene	ug/m3	ND	<0.58		25	
1,2-Dichloroethane	ug/m3	ND	<0.28		25	
1,2-Dichloropropane	ug/m3	ND	<0.26		25	
1,3,5-Trimethylbenzene	ug/m3	ND	<0.46		25	
1,3-Butadiene	ug/m3	ND	<0.15		25	
1,3-Dichlorobenzene	ug/m3	ND	<0.73		25	
1,4-Dichlorobenzene	ug/m3	ND	<1.3		25	
2-Butanone (MEK)	ug/m3	ND	<0.83		25	
2-Hexanone	ug/m3	ND	<0.55		25	
2-Propanol	ug/m3	ND	<1.3		25	
4-Ethyltoluene	ug/m3	ND	<0.74		25	
4-Methyl-2-pentanone (MIBK)	ug/m3	ND	<0.33		25	
Acetone	ug/m3	ND	5.7J		25	
Benzene	ug/m3	ND	<0.20		25	
Benzyl chloride	ug/m3	ND	<0.51		25	
Bromodichloromethane	ug/m3	ND	<0.41		25	
Bromoform	ug/m3	ND	<2.2		25	
Bromomethane	ug/m3	ND	<0.28		25	

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### QUALITY CONTROL DATA

Project: Former Wayne's Pinball Palace

Pace Project No.: 10527674

SAMPLE DUPLICATE: 3698409

Parameter	Units	10527547017 Result	Dup Result	RPD	Max RPD	Qualifiers
Carbon disulfide	ug/m3	ND	<0.30		25	
Carbon tetrachloride	ug/m3	ND	0.49J		25	
Chlorobenzene	ug/m3	ND	<0.24		25	
Chloroethane	ug/m3	ND	<0.20		25	
Chloroform	ug/m3	ND	<0.30		25	
Chloromethane	ug/m3	0.79	0.80	2	25	
cis-1,2-Dichloroethene	ug/m3	ND	<0.25		25	
cis-1,3-Dichloropropene	ug/m3	ND	<0.34		25	
Cyclohexane	ug/m3	ND	<0.35		25	
Dibromochloromethane	ug/m3	ND	<0.46		25	
Dichlorodifluoromethane	ug/m3	3.0	3.0	0	25	
Dichlorotetrafluoroethane	ug/m3	ND	<0.51		25	
Ethanol	ug/m3	4.3	3.5	22	25	
Ethyl acetate	ug/m3	ND	<0.26		25	
Ethylbenzene	ug/m3	ND	<0.28		25	
Hexachloro-1,3-butadiene	ug/m3	ND	<1.2		25	
m&p-Xylene	ug/m3	ND	<0.66		25	
Methyl-tert-butyl ether	ug/m3	ND	<0.21		25	
Methylene Chloride	ug/m3	ND	4.0J		25	
n-Heptane	ug/m3	ND	<0.27		25	
n-Hexane	ug/m3	ND	0.40J		25	
Naphthalene	ug/m3	ND	<1.9		25	
o-Xylene	ug/m3	ND	<0.30		25	
Propylene	ug/m3	ND	<0.15		25	
Styrene	ug/m3	ND	<0.57		25	
Tetrachloroethene	ug/m3	ND	<0.44		25	
Tetrahydrofuran	ug/m3	ND	<0.26		25	
Toluene	ug/m3	ND	<0.26		25	
trans-1,2-Dichloroethene	ug/m3	ND	<0.26		25	
trans-1,3-Dichloropropene	ug/m3	ND	<0.44		25	
Trichloroethene	ug/m3	ND	<0.27		25	
Trichlorofluoromethane	ug/m3	ND	1.5J		25	
Vinyl acetate	ug/m3	ND	<0.27		25	
Vinyl chloride	ug/m3	ND	<0.16		25	

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### QUALITY CONTROL DATA

Project: Former Wayne's Pinball Palace

Pace Project No.: 10527674

QC Batch: 691915

Analysis Method: TO-15

QC Batch Method: TO-15

Analysis Description: TO15 MSV AIR Low Level

Laboratory: Pace Analytical Services - Minneapolis

Associated Lab Samples: 10527674001, 10527674003, 10527674004, 10527674005, 10527674006, 10527674007, 10527674008

METHOD BLANK: 3698778

Matrix: Air

Associated Lab Samples: 10527674001, 10527674003, 10527674004, 10527674005, 10527674006, 10527674007, 10527674008

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
1,1,1-Trichloroethane	ug/m3	<0.13	1.1	0.13	08/11/20 14:15	
1,1,2,2-Tetrachloroethane	ug/m3	<0.30	0.70	0.30	08/11/20 14:15	
1,1,2-Trichloroethane	ug/m3	<0.22	0.56	0.22	08/11/20 14:15	
1,1,2-Trichlorotrifluoroethane	ug/m3	<0.25	1.6	0.25	08/11/20 14:15	
1,1-Dichloroethane	ug/m3	<0.13	0.82	0.13	08/11/20 14:15	
1,1-Dichloroethene	ug/m3	<0.14	0.81	0.14	08/11/20 14:15	
1,2,4-Trichlorobenzene	ug/m3	<3.3	7.5	3.3	08/11/20 14:15	
1,2,4-Trimethylbenzene	ug/m3	<0.41	1.0	0.41	08/11/20 14:15	
1,2-Dibromoethane (EDB)	ug/m3	<0.32	0.78	0.32	08/11/20 14:15	
1,2-Dichlorobenzene	ug/m3	<0.38	1.2	0.38	08/11/20 14:15	
1,2-Dichloroethane	ug/m3	<0.18	0.41	0.18	08/11/20 14:15	
1,2-Dichloropropane	ug/m3	<0.17	0.94	0.17	08/11/20 14:15	
1,3,5-Trimethylbenzene	ug/m3	<0.30	1.0	0.30	08/11/20 14:15	
1,3-Butadiene	ug/m3	<0.10	0.45	0.10	08/11/20 14:15	
1,3-Dichlorobenzene	ug/m3	<0.47	1.2	0.47	08/11/20 14:15	
1,4-Dichlorobenzene	ug/m3	<0.84	3.1	0.84	08/11/20 14:15	
2-Butanone (MEK)	ug/m3	<0.54	3.0	0.54	08/11/20 14:15	
2-Hexanone	ug/m3	<0.36	4.2	0.36	08/11/20 14:15	
2-Propanol	ug/m3	<0.85	2.5	0.85	08/11/20 14:15	
4-Ethyltoluene	ug/m3	<0.48	2.5	0.48	08/11/20 14:15	
4-Methyl-2-pentanone (MIBK)	ug/m3	<0.21	4.2	0.21	08/11/20 14:15	
Acetone	ug/m3	<1.8	6.0	1.8	08/11/20 14:15	
Benzene	ug/m3	<0.13	0.32	0.13	08/11/20 14:15	
Benzyl chloride	ug/m3	<0.33	2.6	0.33	08/11/20 14:15	
Bromodichloromethane	ug/m3	<0.26	1.4	0.26	08/11/20 14:15	
Bromoform	ug/m3	<1.4	5.2	1.4	08/11/20 14:15	
Bromomethane	ug/m3	<0.18	0.79	0.18	08/11/20 14:15	
Carbon disulfide	ug/m3	<0.20	0.63	0.20	08/11/20 14:15	
Carbon tetrachloride	ug/m3	<0.15	1.3	0.15	08/11/20 14:15	
Chlorobenzene	ug/m3	<0.15	0.94	0.15	08/11/20 14:15	
Chloroethane	ug/m3	<0.13	0.54	0.13	08/11/20 14:15	
Chloroform	ug/m3	<0.19	0.50	0.19	08/11/20 14:15	
Chloromethane	ug/m3	<0.096	0.42	0.096	08/11/20 14:15	
cis-1,2-Dichloroethene	ug/m3	<0.16	0.81	0.16	08/11/20 14:15	
cis-1,3-Dichloropropene	ug/m3	<0.22	0.92	0.22	08/11/20 14:15	
Cyclohexane	ug/m3	<0.23	1.8	0.23	08/11/20 14:15	
Dibromochloromethane	ug/m3	<0.30	1.7	0.30	08/11/20 14:15	
Dichlorodifluoromethane	ug/m3	0.18J	1.0	0.15	08/11/20 14:15	
Dichlorotetrafluoroethane	ug/m3	<0.33	1.4	0.33	08/11/20 14:15	
Ethanol	ug/m3	<0.94	1.9	0.94	08/11/20 14:15	

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### REPORT OF LABORATORY ANALYSIS

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### QUALITY CONTROL DATA

Project: Former Wayne's Pinball Palace

Pace Project No.: 10527674

METHOD BLANK: 3698778

Matrix: Air

Associated Lab Samples: 10527674001, 10527674003, 10527674004, 10527674005, 10527674006, 10527674007, 10527674008

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Ethyl acetate	ug/m3	<0.17	0.73	0.17	08/11/20 14:15	
Ethylbenzene	ug/m3	<0.18	0.88	0.18	08/11/20 14:15	
Hexachloro-1,3-butadiene	ug/m3	<0.80	5.4	0.80	08/11/20 14:15	
m&p-Xylene	ug/m3	<0.43	1.8	0.43	08/11/20 14:15	
Methyl-tert-butyl ether	ug/m3	<0.14	3.7	0.14	08/11/20 14:15	
Methylene Chloride	ug/m3	<0.99	3.5	0.99	08/11/20 14:15	
n-Heptane	ug/m3	<0.17	0.83	0.17	08/11/20 14:15	
n-Hexane	ug/m3	<0.24	0.72	0.24	08/11/20 14:15	
Naphthalene	ug/m3	<1.2	2.7	1.2	08/11/20 14:15	
o-Xylene	ug/m3	<0.19	0.88	0.19	08/11/20 14:15	
Propylene	ug/m3	<0.098	0.35	0.098	08/11/20 14:15	
Styrene	ug/m3	<0.37	0.87	0.37	08/11/20 14:15	
Tetrachloroethene	ug/m3	<0.29	0.69	0.29	08/11/20 14:15	
Tetrahydrofuran	ug/m3	<0.17	0.60	0.17	08/11/20 14:15	
Toluene	ug/m3	<0.17	0.77	0.17	08/11/20 14:15	
trans-1,2-Dichloroethene	ug/m3	<0.17	0.81	0.17	08/11/20 14:15	
trans-1,3-Dichloropropene	ug/m3	<0.28	0.92	0.28	08/11/20 14:15	
Trichloroethene	ug/m3	<0.18	0.55	0.18	08/11/20 14:15	
Trichlorofluoromethane	ug/m3	<0.28	1.1	0.28	08/11/20 14:15	
Vinyl acetate	ug/m3	<0.18	0.72	0.18	08/11/20 14:15	
Vinyl chloride	ug/m3	<0.10	0.26	0.10	08/11/20 14:15	

LABORATORY CONTROL SAMPLE: 3698779

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,1,1-Trichloroethane	ug/m3	56.7	57.7	102	70-130	
1,1,2,2-Tetrachloroethane	ug/m3	73.4	66.8	91	70-132	
1,1,2-Trichloroethane	ug/m3	57.4	56.7	99	70-133	
1,1,2-Trichlorotrifluoroethane	ug/m3	81.1	84.6	104	70-130	
1,1-Dichloroethane	ug/m3	43	41.7	97	70-130	
1,1-Dichloroethene	ug/m3	43.2	41.1	95	69-137	
1,2,4-Trichlorobenzene	ug/m3	81.1	80.9	100	70-130	
1,2,4-Trimethylbenzene	ug/m3	52.3	57.9	111	70-137	
1,2-Dibromoethane (EDB)	ug/m3	82.1	81.0	99	70-138	
1,2-Dichlorobenzene	ug/m3	63.2	63.4	100	70-136	
1,2-Dichloroethane	ug/m3	42.8	42.6	100	70-130	
1,2-Dichloropropane	ug/m3	48.8	48.1	99	70-132	
1,3,5-Trimethylbenzene	ug/m3	53	56.7	107	70-136	
1,3-Butadiene	ug/m3	24.6	25.7	104	67-139	
1,3-Dichlorobenzene	ug/m3	60.3	64.8	107	70-138	
1,4-Dichlorobenzene	ug/m3	66	66.2	100	70-145	
2-Butanone (MEK)	ug/m3	30	31.6	105	61-130	
2-Hexanone	ug/m3	37.6	47.1	125	70-138	
2-Propanol	ug/m3	27.5	23.6	86	70-136	

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### REPORT OF LABORATORY ANALYSIS

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### QUALITY CONTROL DATA

Project: Former Wayne's Pinball Palace  
Pace Project No.: 10527674

LABORATORY CONTROL SAMPLE: 3698779

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
4-Ethyltoluene	ug/m3	52.7	59.0	112	70-142	
4-Methyl-2-pentanone (MIBK)	ug/m3	42.1	46.2	110	70-134	
Acetone	ug/m3	26.2	21.7	83	59-137	
Benzene	ug/m3	34.4	32.6	95	70-133	
Benzyl chloride	ug/m3	52.4	51.5	98	70-139	
Bromodichloromethane	ug/m3	69.1	70.4	102	70-130	
Bromoform	ug/m3	108	124	115	60-140	
Bromomethane	ug/m3	41	40.8	100	70-131	
Carbon disulfide	ug/m3	34.3	32.7	95	70-130	
Carbon tetrachloride	ug/m3	65.5	68.2	104	70-133	
Chlorobenzene	ug/m3	49.5	45.3	91	70-131	
Chloroethane	ug/m3	28	31.1	111	70-141	
Chloroform	ug/m3	50	49.8	100	70-130	
Chloromethane	ug/m3	22.1	22.4	101	64-137	
cis-1,2-Dichloroethene	ug/m3	41.8	43.4	104	70-132	
cis-1,3-Dichloropropene	ug/m3	46	54.6	119	70-138	
Cyclohexane	ug/m3	36.4	37.2	102	70-133	
Dibromochloromethane	ug/m3	88.7	90.7	102	70-139	
Dichlorodifluoromethane	ug/m3	54.9	50.3	92	70-130	
Dichlorotetrafluoroethane	ug/m3	77.9	73.5	94	65-133	
Ethanol	ug/m3	21.1	18.7	89	65-135	
Ethyl acetate	ug/m3	37.7	38.8	103	70-135	
Ethylbenzene	ug/m3	46.3	47.4	102	70-142	
Hexachloro-1,3-butadiene	ug/m3	116	111	95	70-134	
m&p-Xylene	ug/m3	46	48.1	105	70-141	
Methyl-tert-butyl ether	ug/m3	34.9	38.5	111	70-131	
Methylene Chloride	ug/m3	38.8	38.7	100	69-130	
n-Heptane	ug/m3	42.8	42.7	100	70-130	
n-Hexane	ug/m3	36.8	37.0	101	70-131	
Naphthalene	ug/m3	58.3	58.1	100	63-130	
o-Xylene	ug/m3	46.5	46.3	100	70-135	
Propylene	ug/m3	18.3	18.0	98	63-139	
Styrene	ug/m3	45.2	50.5	112	70-143	
Tetrachloroethene	ug/m3	74.9	69.4	93	70-136	
Tetrahydrofuran	ug/m3	29.8	31.7	106	70-137	
Toluene	ug/m3	40.4	40.1	99	70-136	
trans-1,2-Dichloroethene	ug/m3	41.9	41.4	99	70-132	
trans-1,3-Dichloropropene	ug/m3	43.4	53.0	122	70-139	
Trichloroethene	ug/m3	56.7	56.6	100	70-132	
Trichlorofluoromethane	ug/m3	59.6	56.6	95	65-136	
Vinyl acetate	ug/m3	32.5	37.4	115	66-140	
Vinyl chloride	ug/m3	28.5	27.5	96	68-141	

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### QUALITY CONTROL DATA

Project: Former Wayne's Pinball Palace

Pace Project No.: 10527674

SAMPLE DUPLICATE: 3699944

Parameter	Units	10527675006 Result	Dup Result	RPD	Max RPD	Qualifiers
1,1,1-Trichloroethane	ug/m3	ND	<0.20		25	
1,1,2,2-Tetrachloroethane	ug/m3	ND	<0.45		25	
1,1,2-Trichloroethane	ug/m3	ND	<0.34		25	
1,1,2-Trichlorotrifluoroethane	ug/m3	ND	0.44J		25	
1,1-Dichloroethane	ug/m3	ND	<0.19		25	
1,1-Dichloroethene	ug/m3	ND	<0.21		25	
1,2,4-Trichlorobenzene	ug/m3	ND	<4.9		25	
1,2,4-Trimethylbenzene	ug/m3	ND	<0.60		25	
1,2-Dibromoethane (EDB)	ug/m3	ND	<0.48		25	
1,2-Dichlorobenzene	ug/m3	ND	<0.56		25	
1,2-Dichloroethane	ug/m3	ND	<0.27		25	
1,2-Dichloropropane	ug/m3	ND	<0.25		25	
1,3,5-Trimethylbenzene	ug/m3	ND	<0.45		25	
1,3-Butadiene	ug/m3	ND	<0.15		25	
1,3-Dichlorobenzene	ug/m3	ND	<0.70		25	
1,4-Dichlorobenzene	ug/m3	ND	<1.3		25	
2-Butanone (MEK)	ug/m3	ND	0.96J		25	
2-Hexanone	ug/m3	ND	<0.53		25	
2-Propanol	ug/m3	6.2	6.2	1	25	
4-Ethyltoluene	ug/m3	ND	<0.71		25	
4-Methyl-2-pentanone (MIBK)	ug/m3	ND	<0.31		25	
Acetone	ug/m3	ND	7.9J		25	
Benzene	ug/m3	ND	0.27J		25	
Benzyl chloride	ug/m3	ND	<0.49		25	
Bromodichloromethane	ug/m3	ND	<0.39		25	
Bromoform	ug/m3	ND	<2.1		25	
Bromomethane	ug/m3	ND	<0.27		25	
Carbon disulfide	ug/m3	ND	<0.29		25	
Carbon tetrachloride	ug/m3	ND	0.30J		25	
Chlorobenzene	ug/m3	ND	<0.23		25	
Chloroethane	ug/m3	ND	<0.20		25	
Chloroform	ug/m3	ND	<0.29		25	
Chloromethane	ug/m3	0.74	0.78	5	25	
cis-1,2-Dichloroethene	ug/m3	ND	<0.24		25	
cis-1,3-Dichloropropene	ug/m3	ND	<0.33		25	
Cyclohexane	ug/m3	ND	<0.34		25	
Dibromochloromethane	ug/m3	ND	<0.44		25	
Dichlorodifluoromethane	ug/m3	2.2	2.3	5	25	
Dichlorotetrafluoroethane	ug/m3	ND	<0.49		25	
Ethanol	ug/m3	5.3	5.6	4	25	
Ethyl acetate	ug/m3	ND	<0.25		25	
Ethylbenzene	ug/m3	ND	<0.27		25	
Hexachloro-1,3-butadiene	ug/m3	ND	<1.2		25	
m&p-Xylene	ug/m3	ND	<0.63		25	
Methyl-tert-butyl ether	ug/m3	ND	<0.21		25	
Methylene Chloride	ug/m3	ND	4.3J		25	
n-Heptane	ug/m3	ND	<0.26		25	

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### QUALITY CONTROL DATA

Project: Former Wayne's Pinball Palace

Pace Project No.: 10527674

SAMPLE DUPLICATE: 3699944

Parameter	Units	10527675006 Result	Dup Result	RPD	Max RPD	Qualifiers
n-Hexane	ug/m3	ND	1.1J		25	
Naphthalene	ug/m3	ND	<1.8		25	
o-Xylene	ug/m3	ND	<0.29		25	
Propylene	ug/m3	ND	<0.15		25	
Styrene	ug/m3	ND	<0.55		25	
Tetrachloroethene	ug/m3	ND	<0.43		25	
Tetrahydrofuran	ug/m3	ND	<0.25		25	
Toluene	ug/m3	1.6	1.6	2	25	
trans-1,2-Dichloroethene	ug/m3	ND	<0.25		25	
trans-1,3-Dichloropropene	ug/m3	ND	<0.42		25	
Trichloroethene	ug/m3	ND	<0.26		25	
Trichlorofluoromethane	ug/m3	ND	1.1J		25	
Vinyl acetate	ug/m3	ND	<0.26		25	
Vinyl chloride	ug/m3	ND	<0.15		25	

SAMPLE DUPLICATE: 3699945

Parameter	Units	10527675005 Result	Dup Result	RPD	Max RPD	Qualifiers
1,1,1-Trichloroethane	ug/m3	ND	<0.18		25	
1,1,2,2-Tetrachloroethane	ug/m3	ND	<0.40		25	
1,1,2-Trichloroethane	ug/m3	ND	<0.30		25	
1,1,2-Trichlorotrifluoroethane	ug/m3	ND	0.43J		25	
1,1-Dichloroethane	ug/m3	ND	<0.17		25	
1,1-Dichloroethene	ug/m3	ND	<0.19		25	
1,2,4-Trichlorobenzene	ug/m3	ND	<4.4		25	
1,2,4-Trimethylbenzene	ug/m3	ND	0.58J		25	
1,2-Dibromoethane (EDB)	ug/m3	ND	<0.44		25	
1,2-Dichlorobenzene	ug/m3	ND	<0.50		25	
1,2-Dichloroethane	ug/m3	ND	<0.24		25	
1,2-Dichloropropane	ug/m3	ND	<0.23		25	
1,3,5-Trimethylbenzene	ug/m3	ND	<0.40		25	
1,3-Butadiene	ug/m3	ND	<0.13		25	
1,3-Dichlorobenzene	ug/m3	ND	<0.63		25	
1,4-Dichlorobenzene	ug/m3	ND	<1.1		25	
2-Butanone (MEK)	ug/m3	10.1	9.8	3	25	
2-Hexanone	ug/m3	ND	2.6J		25	
2-Propanol	ug/m3	8.8	8.0	10	25	
4-Ethyltoluene	ug/m3	ND	<0.64		25	
4-Methyl-2-pentanone (MIBK)	ug/m3	ND	1.4J		25	
Acetone	ug/m3	37.6	34.8	8	25	
Benzene	ug/m3	ND	0.37J		25	
Benzyl chloride	ug/m3	ND	<0.44		25	
Bromodichloromethane	ug/m3	ND	<0.35		25	
Bromoform	ug/m3	ND	<1.9		25	
Bromomethane	ug/m3	ND	<0.24		25	

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### QUALITY CONTROL DATA

Project: Former Wayne's Pinball Palace

Pace Project No.: 10527674

SAMPLE DUPLICATE: 3699945

Parameter	Units	10527675005 Result	Dup Result	RPD	Max RPD	Qualifiers
Carbon disulfide	ug/m3	ND	0.56J		25	
Carbon tetrachloride	ug/m3	ND	0.40J		25	
Chlorobenzene	ug/m3	ND	<0.20		25	
Chloroethane	ug/m3	ND	<0.18		25	
Chloroform	ug/m3	0.84	0.82	2	25	
Chloromethane	ug/m3	1.1	1.0	10	25	
cis-1,2-Dichloroethene	ug/m3	ND	<0.22		25	
cis-1,3-Dichloropropene	ug/m3	ND	<0.29		25	
Cyclohexane	ug/m3	ND	0.93J		25	
Dibromochloromethane	ug/m3	ND	<0.40		25	
Dichlorodifluoromethane	ug/m3	2.3	2.2	6	25	
Dichlorotetrafluoroethane	ug/m3	ND	<0.44		25	
Ethanol	ug/m3	187	165	12	25	
Ethyl acetate	ug/m3	4.5	4.6	3	25	
Ethylbenzene	ug/m3	2.5	2.4	1	25	
Hexachloro-1,3-butadiene	ug/m3	ND	<1.1		25	
m&p-Xylene	ug/m3	11.9	11.9	0	25	
Methyl-tert-butyl ether	ug/m3	ND	<0.18		25	
Methylene Chloride	ug/m3	39.0	37.8	3	25	
n-Heptane	ug/m3	3.9	4.0	2	25	
n-Hexane	ug/m3	4.5	4.5	1	25	
Naphthalene	ug/m3	ND	<1.7		25	
o-Xylene	ug/m3	4.4	4.4	0	25	
Propylene	ug/m3	ND	<0.13		25	
Styrene	ug/m3	ND	0.86J		25	
Tetrachloroethene	ug/m3	ND	<0.38		25	
Tetrahydrofuran	ug/m3	3.9	3.7	4	25	
Toluene	ug/m3	9.8	9.9	1	25	
trans-1,2-Dichloroethene	ug/m3	ND	<0.23		25	
trans-1,3-Dichloropropene	ug/m3	ND	<0.38		25	
Trichloroethene	ug/m3	ND	<0.24		25	
Trichlorofluoromethane	ug/m3	ND	1.2J		25	
Vinyl acetate	ug/m3	ND	<0.24		25	
Vinyl chloride	ug/m3	ND	<0.14		25	

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## QUALIFIERS

Project: Former Wayne's Pinball Palace

Pace Project No.: 10527674

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### DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to dilution of the sample aliquot.

ND - Not Detected at or above adjusted reporting limit.

TNTC - Too Numerous To Count

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

MDL - Adjusted Method Detection Limit.

PQL - Practical Quantitation Limit.

RL - Reporting Limit - The lowest concentration value that meets project requirements for quantitative data with known precision and bias for a specific analyte in a specific matrix.

S - Surrogate

1,2-Diphenylhydrazine decomposes to and cannot be separated from Azobenzene using Method 8270. The result for each analyte is a combined concentration.

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

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

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

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

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

TNI - The NELAC Institute.

### ANALYTE QUALIFIERS

E Analyte concentration exceeded the calibration range. The reported result is estimated.

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### QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: Former Wayne's Pinball Palace

Pace Project No.: 10527674

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
10527674001	167SG01	TO-15	691915		
10527674002	167SG02	TO-15	691611		
10527674003	167SG03	TO-15	691915		
10527674004	167SG04	TO-15	691915		
10527674005	167SG05	TO-15	691915		
10527674006	167SG06	TO-15	691915		
10527674007	167SG07	TO-15	691915		
10527674008	167SG08	TO-15	691915		

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EnSafe Inc.  
800-588-7962

**SUMMA CANISTER CHAIN OF CUSTODY AND ANALYTICAL REQUEST RECORD**

Project Name: Former Wayne's Pinball Palace  
COC No. CLK 080620 Page 1 of 1  
PO No. per MSA Project No. 0888826703 Phase

Site Location: 167 Chelsea Ave + 705 N Third St

Send Results To: Allison Harris + Tina Cantwell

Sampler/Site Phone# Chelsea Hipper 270-287-1703

Lab Name: PACE - MN

Turnaround Time (specify): Standard

Lab ID	Sample ID (sys_sample_code)	Location ID (sys_loc_code)	Matrix Code (1)	Canister Number	Flow Controller Number	Start Date (mm/dd/yy)	Start Time (hhmm)	End Date (mm/dd/yy)	End Time (hhmm)	Canister Size (Liters)	Field Initial Pressure (in Hg)	Field Final Pressure (in Hg)	Analysis Requested
	1675601	5601	GS	1303	2291	08/05/00	1416	08/05/00	1421	1	30	4	1 10-15
	1675602	5602	GS	1141	2558	08/05/00	1443	08/05/00	1448	1	30	4	1 002
	1675603	5603	GS	2958	2303	08/05/00	1454	08/05/00	1459	1	30	3	1 003
	1675604	5604	GS	3258	2451	08/05/00	1510	08/05/00	1515	1	30	4	1 004
	1675605	5605	GS	2968	2285	08/05/00	1532	08/05/00	1538	1	29	4	1 005
	1675606	5606	GS	1018	2372	08/05/00	1545	08/05/00	1551	1	28	4	1 006
	1675607	5607	GS	2411	2443	08/05/00	1602	08/05/00	1608	1	29	4	1 007
	1675608	5608	GS	3958	2411	08/05/00	1621	08/05/00	1626	1	28	4	1 008

WO#: 10527674



Field Comments:

Lab Comments:

Sample Shipment Details

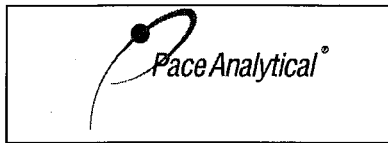
Unless otherwise specified, all results must be reported in µg/m3

Relinquished by (signature)	Date	Time	Received by (signature)	Date	Time
Chelsea Hipper	08/06/00	1230	1. Allison Harris		
			2. Tina Cantwell	08/06/00	0900
			3.		

Number of packages: 1

Method of Shipment: FedEx

Date Shipped: 08/06/2000



Document Name:  
**Sample Condition Upon Receipt (SCUR) - Air**

Document No.:

ENV-FRM-MIN4-0113 Rev.00

Document Revised: 24Mar2020

Page 1 of 1

Pace Analytical Services -  
 Minneapolis

**Air Sample Condition  
 Upon Receipt**

Client Name: Ensafe

Project #:

**WO# : 10527674**

PM: CT1

Due Date: 08/14/20

CLIENT: EnSafe

Courier:  Fed Ex  UPS  USPS  Client  
 Pace  Speedee  Commercial See Exception

Tracking Number: 1875 2987 8438

Custody Seal on Cooler/Box Present?  Yes  No Seals Intact?  Yes  No

Packing Material:  Bubble Wrap  Bubble Bags  Foam  None  Tin Can  Other: \_\_\_\_\_ Temp Blank rec:  Yes  No

Temp. (TO17 and TO13 samples only) (°C):      Corrected Temp (°C):      Thermometer Used:  G87A9170600254  G87A9155100842

Temp should be above freezing to 6°C Correction Factor:      Date & Initials of Person Examining Contents: 8/11/20 M

Type of ice Received  Blue  Wet  None ① 8/11/20 M

Comments:

Chain of Custody Present?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	1.
Chain of Custody Filled Out?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	2.
Chain of Custody Relinquished?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	3.
Sampler Name and/or Signature on COC?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	4.
Samples Arrived within Hold Time?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	5.
Short Hold Time Analysis (<72 hr)?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	6.
Rush Turn Around Time Requested?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	7.
Sufficient Volume?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	8.
Correct Containers Used? (Tedlar bags not acceptable container for TO-14, TO-15 or APH)	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	9.
-Pace Containers Used?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	
Containers Intact? (visual inspection/no leaks when pressurized)	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	10.
Media: <u>Air Can</u> Airbag Filter TDT Passive		11. Individually Certified Cans Y <u>N</u> (list which samples)
Is sufficient information available to reconcile samples to the COC?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	12.
Do cans need to be pressurized? (DO NOT PRESSURIZE 3C or ASTM 1946!!!)	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	13.

Gauge #  10AIR26  10AIR34  10AIR35  4097

Canisters

Canisters

Sample Number	Can ID	Flow Controller	Initial Pressure	Final Pressure	Sample Number	Can ID	Flow Controller	Initial Pressure	Final Pressure
SG01	1303	2291	-5	10					
SG02	1141	2558	-4						
SG03	2958	2303	-4						
SG04	3258 <del>2968</del>	2451	-5						
SG05	2968 <del>1018</del>	2285	-4.5						
SG06	1018	2372	-5.5						
SG07	2411	2443	-5						
SG08	3958	2411	-5.5						

CLIENT NOTIFICATION/RESOLUTION

Field Data Required?  Yes  No

Person Contacted: \_\_\_\_\_ Date/Time: \_\_\_\_\_

Comments/Resolution: \_\_\_\_\_

Project Manager Review: Carolynne Hunt

Date: 8/11/20