

**VOLUNTARY REMEDIATION PROGRAM  
FIRST SEMI-ANNUAL PROGRESS REPORT  
FORMER MACON 2 MGP FACILITY  
MACON, BIBB COUNTY, GEORGIA  
GEC JOB NO. 130659.241**

**PREPARED FOR**

**FORMER MACON 2 MGP FACILITY  
MACON, GEORGIA HSI #10692**

**SUBMITTED TO**

**MR. DAVID HAYES  
GEORGIA DEPARTMENT OF NATURAL RESOURCES  
ENVIRONMENTAL PROTECTION DIVISION  
HAZARDOUS SITES RESPONSE PROGRAM  
2 MARTIN LUTHER KING, JR. DRIVE, SE  
SUITE 1462, EAST TOWER  
ATLANTA, GEORIGIA 30334**

**March 10, 2016**

**PREPARED BY**

**GEOTECHNICAL & ENVIRONMENTAL CONSULTANTS, INC.  
514 HILLCREST INDUSTRIAL BOULEVARD  
MACON, GEORGIA 31204**





**March 10, 2016**

**Mr. David Hayes  
Georgia Environmental Protection Division  
Response and Remediation Program  
Suite 1462 East Tower  
2 Martin Luther King, Jr. Drive S.E.  
Atlanta, GA 30334**

**SUBJECT: First VIRP Semi-annual Progress Report  
Former Macon 2 MGP Facility  
HSI #10692  
Macon, Bibb County, Georgia  
GEC Job No. 130659.241**

**Dear Mr. Hayes:**

In accordance with the Voluntary Investigation and Remediation Program (VIRP) for the Former Macon 2 MGP Facility site in Macon, Georgia, Geotechnical & Environmental Consultants, Inc. (GEC) is submitting this Semi-annual Progress Report. This report summarizes the results of additional soil sampling and calculation of upper confidence limits (UCLs) for a limited number of metals and semi-volatile organic compounds (SVOCs). Based upon the results of additional sampling and calculation of UCLs, GEC has also provided recommendations for future activities which will assist in moving the site to closure.

Sincerely,  
**GEOTECHNICAL & ENVIRONMENTAL CONSULTANTS, INC.**

Carrie Holderfield, P.G.  
Project Geologist  
Georgia Reg. No. 2174

Thomas E. Driver, P.E.  
President  
Georgia Reg. No. 17394



## **TABLE OF CONTENTS**

### **FIRST SEMI-ANNUAL PROGRESS REPORT FORMER MACON 2 MGP FACILITY MACON, BIBB COUNTY, GEORGIA GEC JOB NO. 130659.241**

	<b><u>PAGE #</u></b>
<b>1.0 INTRODUCTION</b>	<b>1</b>
<b>2.0 SITE DESCRIPTION</b>	<b>1</b>
<b>3.0 BACKGROUND</b>	<b>1</b>
<b>4.0 SUMMARY OF PREVIOUS INVESTIGATIONS</b>	<b>2</b>
<b>5.0 VAPOR INTRUSION SAMPLING</b>	<b>5</b>
<b>6.0 GROUNDWATER SAMPLING</b>	<b>6</b>
<b>7.0 STATISTICAL ANALYSIS</b>	<b>6</b>
<b>8.0 CONCLUSIONS AND RECOMMENDATIONS</b>	<b>7</b>

## **APPENDICES**

<b>APPENDIX A:</b>	<b>Figures</b>
<b>APPENDIX B:</b>	<b>Prior Reports</b>
<b>APPENDIX C:</b>	<b>Tables</b>
<b>APPENDIX D:</b>	<b>Laboratory Analytical Results</b>
<b>APPENDIX E:</b>	<b>Vapor Intrusion Screening Level (VISL) Calculator Spreadsheets</b>
<b>APPENDIX F:</b>	<b>Statistical Calculations</b>

## 1.0 INTRODUCTION

This Voluntary Remediation Program (VRP) First Semi-annual Progress report for the Former Macon 2 Manufactured Gas Plant (MGP 2) facility (Hazardous Site Inventory [HSI] #10692) in Macon, Georgia, is being submitted to the Georgia Environmental Protection Division (EPD) on behalf of Macon-Bibb County. The following sections summarize the results of additional soil sampling and calculation of upper confidence limits (UCLs) for a limited number of metals and semi-volatile organic compounds (SVOCs). The additional soil sampling and calculation of UCLs were conducted to revise the potential use from commercial/industrial to residential, within a selected area of the property.

New potential receptors and/or potential environmental issues have not been discovered since the revised VIRP was submitted by Geotechnical and Environmental Consultants, Inc. (GEC) in February 2015.

## 2.0 SITE DESCRIPTION

The Former Macon MGP 2 site (hereafter referred to as site) is located northeast of Riverside Drive/SR 23 and southeast of Spring Street/SR 87 in Macon, Bibb County, Georgia. The Norfolk Southern Railway and Ocmulgee River border the property line to the north. A **Site Location Map** is presented as **Figure 1** in **Appendix A**.

The site previously operated as a MGP facility from the mid-1800s to the mid-1950s. Subsequently, the former MGP structures were removed and the site was improved with the City of Macon Central Services complex. The Central Services complex structures were removed in 2012, and the site has remained vacant since that time. The site is currently undeveloped with the exception of asphalt roadways and the concrete foundations of former structures. The majority of the site is surfaced with grass. Property utilizations in the vicinity of the site are primarily commercial.

## 3.0 BACKGROUND

The site was previously listed on the HSI as site #10692. The site was investigated and a Compliance Status Report (CSR prepared by Williams Environmental Services) was approved on December 19, 2003, which certified compliance with Type 4 Risk Reduction Standards (RRS) for soil. The CSR also documented the extent of soil contamination both horizontally and vertically. Groundwater was certified as compliant with Type 1 RRS.

The Georgia Environmental Protection Division (EPD) also approved a Corrective Action Plan (CAP) for the site on January 4, 2006, which required a deed notice on the property. In order to comply with the CAP, a Consent Order was executed to prevent placing, permitting or approving any

residential purpose on the site.

Finally, the Georgia EPD approved an “Area of Compliance for Type 4 Risk Reduction Standards in Soil,” as identified in a CAP, prepared by RETEC Group, Inc., dated October 5, 2008. For the purposes of the report, this Area is also identified as the "Proposed Residential Use Target Zone."

Due to interest in mixed residential and commercial redevelopment of the property, Macon-Bibb County elected to modify the current site restrictions to allow residential use of the site. To that end, Macon-Bibb County submitted an updated VRP Application, which included additional investigation and possible corrective action of soils from the surface to 15-feet below ground surface (bgs), which may be needed in order to demonstrate the site’s suitability for residential development. The Residential Use Target Zone is defined by a polygon shaped area depicted **Site Map** presented as **Figure 2** in **Appendix A**.

Per EPD approval, the updated VRP application was not intended to revisit the basis for the delisting of the site, or to reevaluate the previously approved CSR. The updated VRP application served only to characterize contamination in the upper 15-feet of the site in order to enable the development of a corrective action plan, which would result in remediation to Type 1 or 2 RRS within these depths at the site.

The former MGP facility and surrounding properties were backfilled on several occasions to reach the current topography. The results of soil assessment activities indicated that fill thickness range from 4.5-feet to the west of the former MGP facility to approximately 36-feet within the eastern portion and to the southeast of the former MGP facility. Based upon visual observations collected during assessment activities, the fill material primarily consists of silts, sands, and clays consistent with the area lithology, and occasionally construction debris, including brick, concrete, glass, and asphalt. The upper 15-feet of soils and fill material were the subject of this additional investigation.

#### **4.0 SUMMARY OF PREVIOUS INVESTIGATIONS**

**Law Environmental Studies:** Law Environmental, Inc. (LAW) conducted a Preliminary Assessment (PA) of the Site in 1991, which included a review of available file material, on-site and off-site reconnaissance, review of historical property ownership and a limited pathway survey. No sampling or analysis was conducted during the PA.

**Williams Environmental Services Studies:** A Compliance Status Investigation Report (CSR) for the site was initiated by Williams Environmental Services (Williams) in June of 2002. The Revised CSR was submitted on September 5, 2003. According to the CSR, 35 Hazardous Site Response Act (HSRA) regulated substances were detected at the site.

Williams advanced over 35 soil borings within the total area of the site (including areas outside of the Residential Use Target Zone) and collected soil samples, variously, from the surface to 60-foot bgs. The selected soil samples were analyzed for volatile organic compounds (VOCs), semi volatile organic compounds (SVOCs), Resource Conservation and Recovery Act (RCRA) 11 metals, and total cyanide. Soil sample analytical results were compared to Type 1 through Type 4 RRS, and background concentrations. Comparison of the soil sample analytical results with applicable RRSs indicated two SVOCs (benzo(a)pyrene and dibenzo(a,h)anthracene) and two inorganic compounds (arsenic and lead) exceeded Type 1 or 2 RRS within the Residential Use Target Zone.

Williams also collected groundwater samples during the investigation. The groundwater samples were analyzed for the same analytes as the soil samples. Groundwater sample analytical results were compared to Type 1 RRS. None of the detected analytes exceeded Type 1 RRS. Therefore, the groundwater pathway is not considered complete at the site.

A digital copy of the **CSR** prepared by Williams in 2002, and revised in 2003, is provided in **Appendix B**.

**GEC 2014:** GEC mobilized to the site on February 13, 2014, to conduct additional assessment of shallow soils within in the Residential Use Target Zone. Assessment activities included sampling at pre-determined depths of 0 to 6-inches and 6-inches to 2-feet bgs. These depths were selected based upon prior conversations pertaining to the re-development of the site. Specifically, the depths were selected based on the two options determined by the “Analysis of Alternatives for Redevelopment of Former Macon 2 Manufactured Gas Plant.” Options 2 (Voluntary Remediation Program (VRP)) and 4 (Brownfield) both included institutional controls or limited soil removal in the upper 2-feet to enable residential use across the site. Therefore, additional sampling of soils within the upper 2-feet of the Residential Target Zone was determined to be necessary to further evaluate the possibility of pursuing Options 2 and 4.

The locations for collection of additional surface soil samples were determined by establishing an approximate 100-foot grid within the “Area of Compliance for Type 4 RRS in Soil” (aka Residential Use Target Zone) identified in the Correction Action Plan prepared by RETEC Group, Inc. (dated October 5, 2008). A total of 27 sampling locations (GB-1 through GB-27) were proposed for completion within the Residential Use Target Zone and are identified on the **GEC Sampling Locations Map** presented as **Figure 3** in **Appendix A**.

GEC mobilized to the site on February 13, 2014, and collected a total of 54 soil samples from the surface to 6-inch interval and 6-inch to 2-foot interval. To fully characterize the soils across the site, the selected soil samples were submitted for laboratory analysis of VOCs, SVOCs, and RCRA 8 metals.

Laboratory analytical results for the selected soil samples were compared to Type 1 and Type 2 RRS.

Results of the comparison indicated that VOC and SVOC concentrations in the shallow soils all measured below either Type 1 or Type 2 RRSs. Further, only lead and arsenic concentrations exceeded Type 1 or Type 2 RRSs in three of the 44 samples. The sample locations exhibiting lead and/or arsenic concentrations exceeding RRSs within the 0 to 2-foot interval are identified on **Figure 4** in **Appendix A**. Analytical results for analytes with detectable concentrations are summarized in **Table 1** in **Appendix C** and the **laboratory analytical report** is presented in **Appendix D**.

**GEC 2015:** GEC proposed additional sampling in a Voluntary Investigation and Remediation Plan (VIRP, dated January 9, 2015) which recommended additional sampling of soils within the surface to 15-foot interval. The proposed soil sample locations and sample intervals were selected based upon the analytical results presented in the CSR, which identified 11 locations with analyte concentrations which exceeded the highest respective Residential RRS for each constituent, including:

SB-4C 21.5-23.5' Benzo(a)anthracene at 37 mg/kg, Benzo(b)fluoranthene at 27 mg/kg, Indeno(1,2,3-cd)pyrene at 15 mg/kg, Benzo(a)pyrene at 26 mg/kg (\*later removed because impacted soils are located greater than 15-feet)  
SB-14 16-20' Benzo(a)pyrene at 6.8 mg/kg, Dibenzo(a,h)anthracene at 3.5 mg/kg  
SB-14 24-28' Benzo(a)pyrene at 10.0 mg/kg, Dibenzo(a,h)anthracene at 4.2 mg/kg  
SB-17 16-20' Benzo(a)pyrene at 5.0 mg/kg, Dibenzo(a,h)anthracene at 2.3 mg/kg  
SB-20 0-2' Arsenic at 31.5 mg/kg  
SB-23 14-19 Lead at 298 mg/kg (\*later removed because impacted soils are located greater than 15-feet)  
SB-24 8-12' Lead at 338 mg/kg  
SB-24 2-4' Benzo(a)pyrene at 2.9 mg/kg  
SB-25 2-4' Benzo(a)pyrene at 11.0 mg/kg  
SB-27 8-12' Lead at 634 mg/kg  
SB-42 2-4' Benzo(a)pyrene at 5.6 mg/kg  
SB-41 24-29' Lead at 484 mg/kg  
SB-41 19-24' Benzo(a)pyrene at 2.2 mg/kg  
SB-45 10-12' Lead at 425 mg/kg  
SB-45 15-17' Lead at 1070 mg/kg

A copy of the VIRP is presented in Appendix B.

Prior to mobilizing to the site, GEC notified the Utilities Protection Center to ensure that underground utilities were identified within the proposed investigation areas. GEC mobilized to the site on August 6, 7, 13, 24, and 25, 2015, to conduct the additional assessment activities. The soil borings were advanced utilizing a skid steer mounted Geoprobe rig or track-mounted drilling rig equipped with hollow stem augers. All downhole apparatus were decontaminated prior to introduction into the subsurface. Additionally, on-site sampling personnel wore new disposable nitrile gloves when handling any sampling equipment or samples, in order to prevent cross-

contamination of samples.

During drilling, soil cuttings were continuously observed and selected soils were screened for organic vapors utilizing a photo-ionization detector (PID). Elevated PID readings (greater than 100 parts per million [PPM]), olfactory, and/or visual evidence of potential soil contamination were not detected.

A total of 30 additional soil samples were collected from various intervals within the top 15-feet of soil, and submitted for analysis of SVOCs and metals. Additionally, the soil samples collected from the area of the former Gas Holders (GB-5 and GB-7) were analyzed for benzene, toluene, ethylbenzene, and xylene (BTEX), and carbon disulfide, total cyanides, and methylene chloride (GB-7 only).

Laboratory analytical results for the selected soil samples were compared to Type 1 and Type 2 RRS. Results of the comparison indicated that BTEX, SVOC, carbon disulfide, total cyanides, and methylene chloride concentrations in the selected soil samples all measured below either Type 1 or Type 2 RRSs, with the exception of benzo(a)anthracene, benzo(a)pyrene, and benzo(b)fluoranthene within the 13 to 15-foot interval of SB-17. Additionally, all metal concentrations measured below Type 1 or Type 2 RRSs, with the exception of lead in GB-14 (3 to 5-foot interval) and SB-24 (2 to 4-foot interval).

All sample locations, including those completed by Williams, and analytical results for analytes exceeding Type 1 or Type 2 RRSs within the 0 to 15-foot interval, are identified on **Figure 5** in **Appendix A**. Analytical results are summarized in **Tables 2** through **6**, in **Appendix C** and the **laboratory analytical reports** are presented in **Appendix D**.

## 5.0 VAPOR INTRUSION SAMPLING

Potential vapor intrusion at the site was addressed by sampling in two locations at the site, including the area of the former Gas Holder No. 1 (boring location GB-5) and the former Gas Holder No. 2 (boring location GB-7). Tar-Like Material (TLM) and Oil-Like Material (OLM) were encountered at depths of 13-feet or greater in both of these areas during previous studies at the site.

The temporary vapor sample “wells” (VS wells) were installed within the two areas and air samples were collected from the following depths:

VS-1 GB-7: 10-feet  
VS-2 GB-7: 5-feet  
VS-3 GB-5: 5-feet  
VS-4 GB-5: 8-feet

The vapor sample wells were constructed with approximately 2-feet of 0.010" slotted, 1"ID PVC screen, and 2"ID PVC riser to the surface. The annulus around the screen was filled with a sand pack and a bentonite seal was placed above the screened portion. Per the Office of Solid Waste and Emergency Response (OSWER) Technical Guidance for Assessing and Mitigating the Vapor Intrusion Pathway from Subsurface Vapor Sources to Indoor Air (dated June 2015), leak detection was performed following completion of the temporary vapor sample well, utilizing a helium tracer gas shroud. Leak detection was performed to ensure that the boring was properly sealed.

Prior to sampling, the vapor sample wells were pumped using a portable battery powered air pump, to evacuate air entrained in the wells during installation, and to induce the flow of gases from the surrounding soil into the well. A vacuum-pressurized metal Summa canister was then utilized to collect an approximately 30-minute air sample from the vapor sample from each well.

Following sample collection, the canisters were sealed and transported via FedEx to Test America in Savannah, Georgia for analysis of VOCs on a standard turnaround time. Proper chain-of-custody was maintained at all times.

Laboratory analytical results obtained for the soil vapor sample identified numerous COCs, including those typically associated with MGPs, which included, but are not limited to benzene, ethylbenzene, toluene, and xylenes. The EPA VISL Calculator worksheet for sub-slab or exterior soil gas concentrations to indoor air concentrations was utilized to evaluate each COCs carcinogenic risk and/or vapor intrusion hazards. Review of the VISL worksheets indicated that all COCs were reported below the Target Risk for Carcinogens (TCR -  $1.00 \times 10^{-5}$ ) and/or the Target Hazard Quotient for Non-Carcinogens (THQ) for Non-Carcinogens (1).

The locations of the soil vapor and indoor air sample locations are identified on the **Vapor Intrusions Air Sample Location Map** presented as **Figure 6** in **Appendix A**. Copies of the **VISL Calculator worksheets** are presented in **Appendix E**.

## **6.0 GROUNDWATER SAMPLING**

Since no groundwater contamination has been encountered above Type 1 RRS, no additional groundwater sampling is proposed or will be performed.

## **7.0 STATISTICAL ANALYSIS**

GEC conducted statistical analysis utilizing ProUCL Version 5.0 statistical software obtained from the Environmental Protection Agency (EPA) to calculate the 95% upper confidence limit (UCL). The UCL was calculated to determine the exposure point concentration (EPC) or average exposure that a potential receptor would have to a chemical of concern (COC) over a long period of time at the site.



UCLs were calculated for arsenic, lead, benzo(a)anthracene, benzo(a)pyrene, and benzo(b)fluoranthene, as concentrations of these COCs exceeded either Type 1 or 2 RRS. To evaluate typical residential exposures, the analytical results from the surface to 2-foot interval were analyzed separately from the analytical results from the 2 to 15-foot interval. Statistical analysis of UCLs for COCs within the 2 to 15-foot interval were calculated to evaluate typical exposures that may be expected for construction workers. Statistical analysis was not conducted for any COCs detected in soils located greater than 15-feet because proposed construction activities are anticipated to be restricted to the upper 15-feet at the site.

The results of the statistical analysis for each sample location where a COC exceeded applicable RRSs and a proposed action are presented in the **COC Decision Matrix Table** presented in **Appendix C**. Statistical calculation of the UCLs indicated that the EPC did not exceed Type 2 RRS for any of the COCs. However, per EPD request, the proposed course of action for soils exhibiting elevated arsenic and lead concentrations within the surface to 5-foot interval included excavation and proper disposal. The proposed course of action for sample locations with elevated arsenic and lead concentrations at depths greater than 5-feet included preparation of a Soil Management Plan and construction worker oversight and air monitoring for airborne arsenic and lead, if soils in those areas would be disturbed during proposed construction activities.

Copies of the **soil sample analytical data input** and **ProUCL statistical output** are provided in **Appendix F**.

## 8.0 CONCLUSIONS AND RECOMMENDATIONS

The results of extensive sampling and laboratory analysis of soil samples collected from the site and the results of statistical calculation of the 95% UCL indicated that soils located within the upper 15-feet of the Residential Use Target Zone are suitable for Residential Use. As noted previously, GEC is recommending excavation and disposal of soils at five locations where elevated arsenic and lead concentrations were detected in the upper 5-foot interval. This effort will also include collection of confirmation soil samples from the floor and side walls of each excavation to ensure that all soils exhibiting elevated arsenic and lead concentrations are removed. A **Soil Management Map**, which identifies the areas where excavation and disposal activities or soil management are proposed is presented as **Figure 7** in **Appendix E**.

GEC respectfully requests approval for residential use (Type 2 RRS) within the Residential Use Target Zone. GEC also requests issuance of a Uniform Environmental Covenant (UEC) and revision of the current Consent Order, to include restrictions for soils located greater than 15-feet, including a corrective action plan which will detail requirements necessary for any excavation or other disturbance of soils located greater than 15-feet within the Residential Use Target Zone. The intent of the corrective action plan will be insuring the protection of construction workers.



## **APPENDIX A**

### **Figures**



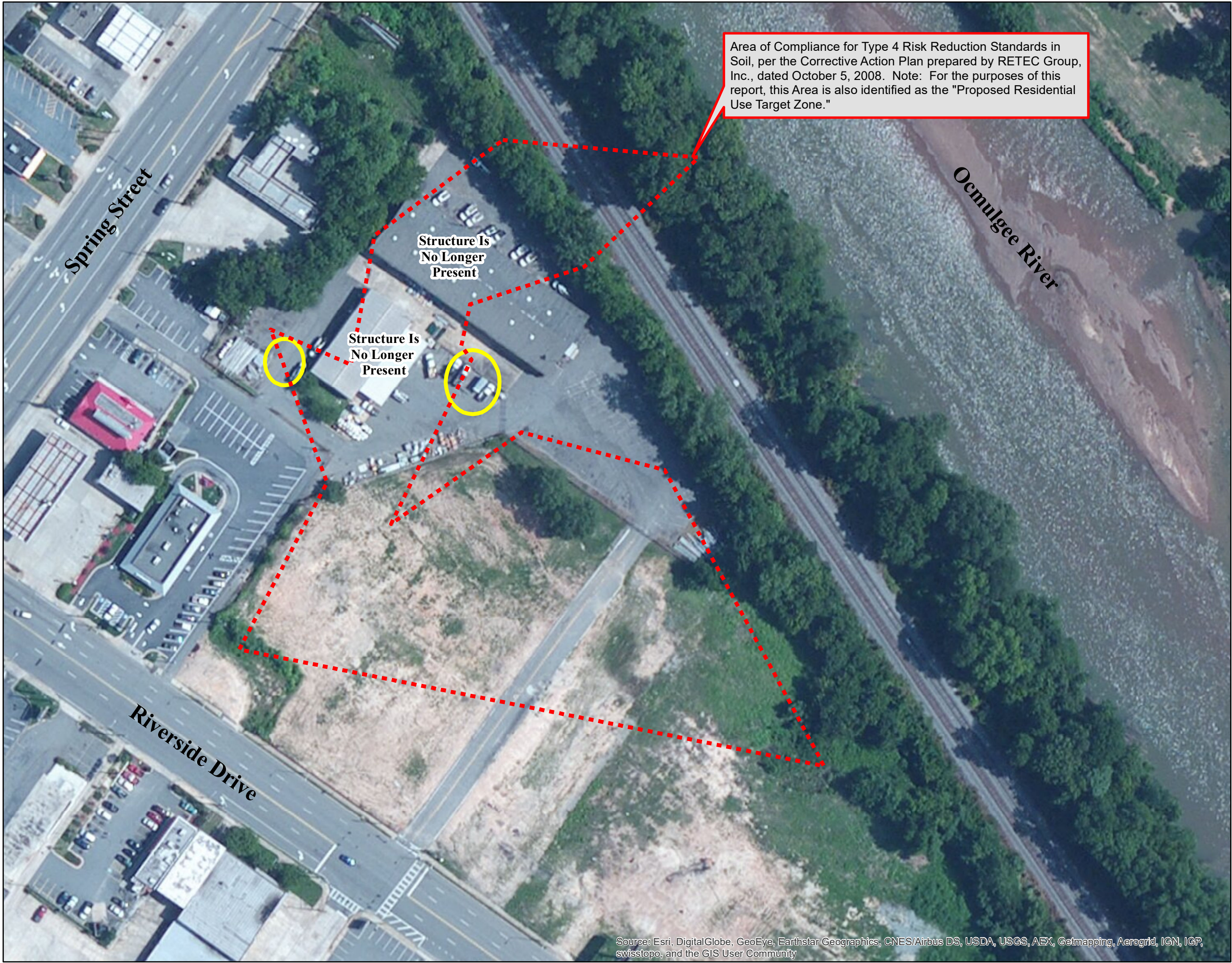
**Figure 1**  
**Site Location Map**  
**Former Macon 2 MGP Facility**  
**Macon, Bibb County, Georgia**  
**GEC Project No. 130659.241**  
**Approximate Scale: 1" = 2,000'**  
**Source: Macon West, GA Quadrangle (1985)**

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**Figure 2. Site Map**

Former Macon 2 MGP Facility  
Macon, Bibb County, Georgia

GEC Project No. 130659.241

**Prepared For:**


Macon-Bibb County  
Georgia


**Prepared By:**

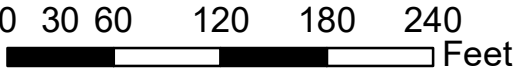
514 Hillcrest Industrial Blvd  
Macon, Ga

March 2016

**Legend**

 Proposed Residential Use Target Zone

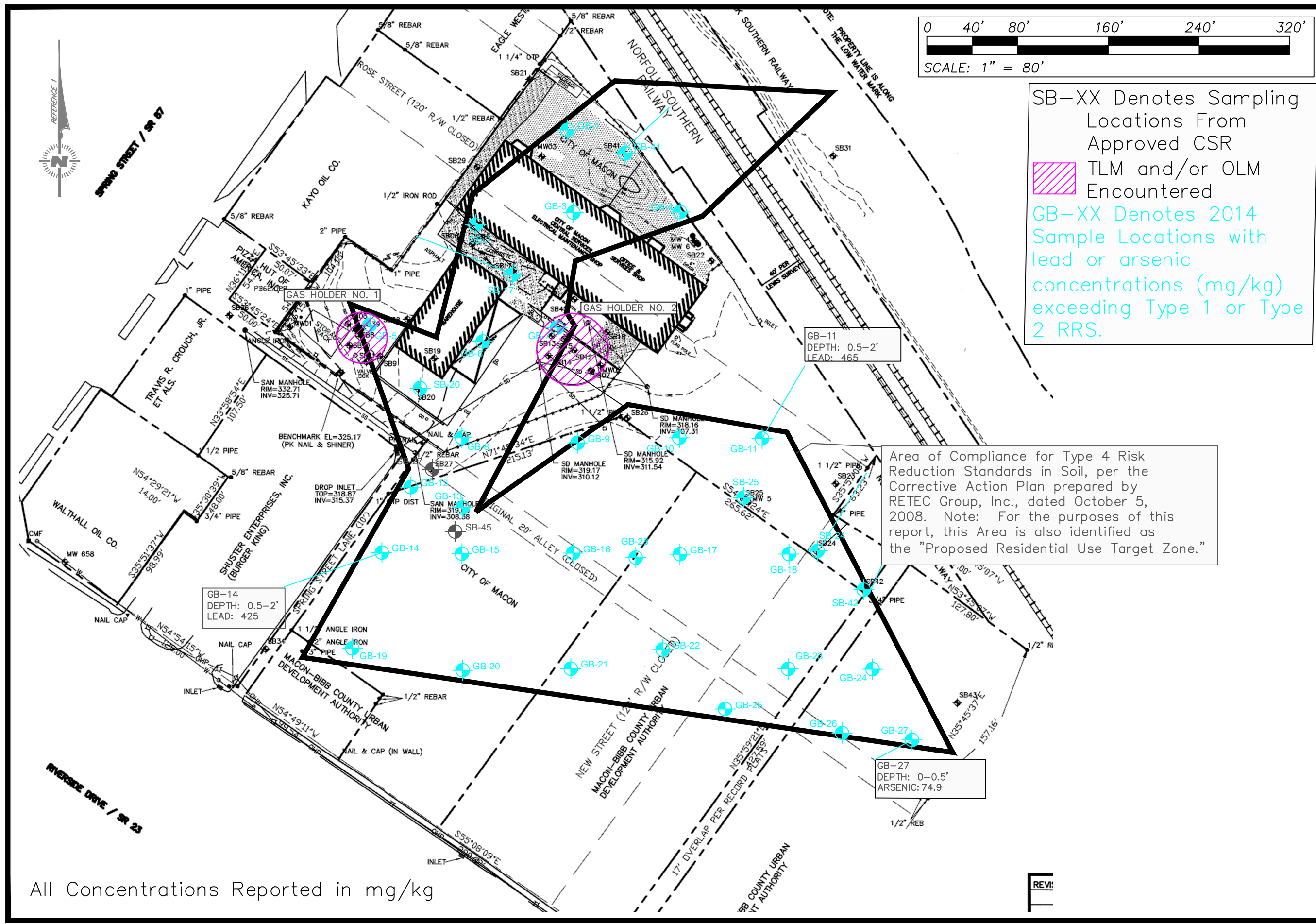
 Former Gas Holders











All Concentrations Reported in mg/kg

FIGURE 4: SOIL EXCEEDANCES MAP  
FORMER MACON 2 MPG SITE  
MACON, GEORGIA

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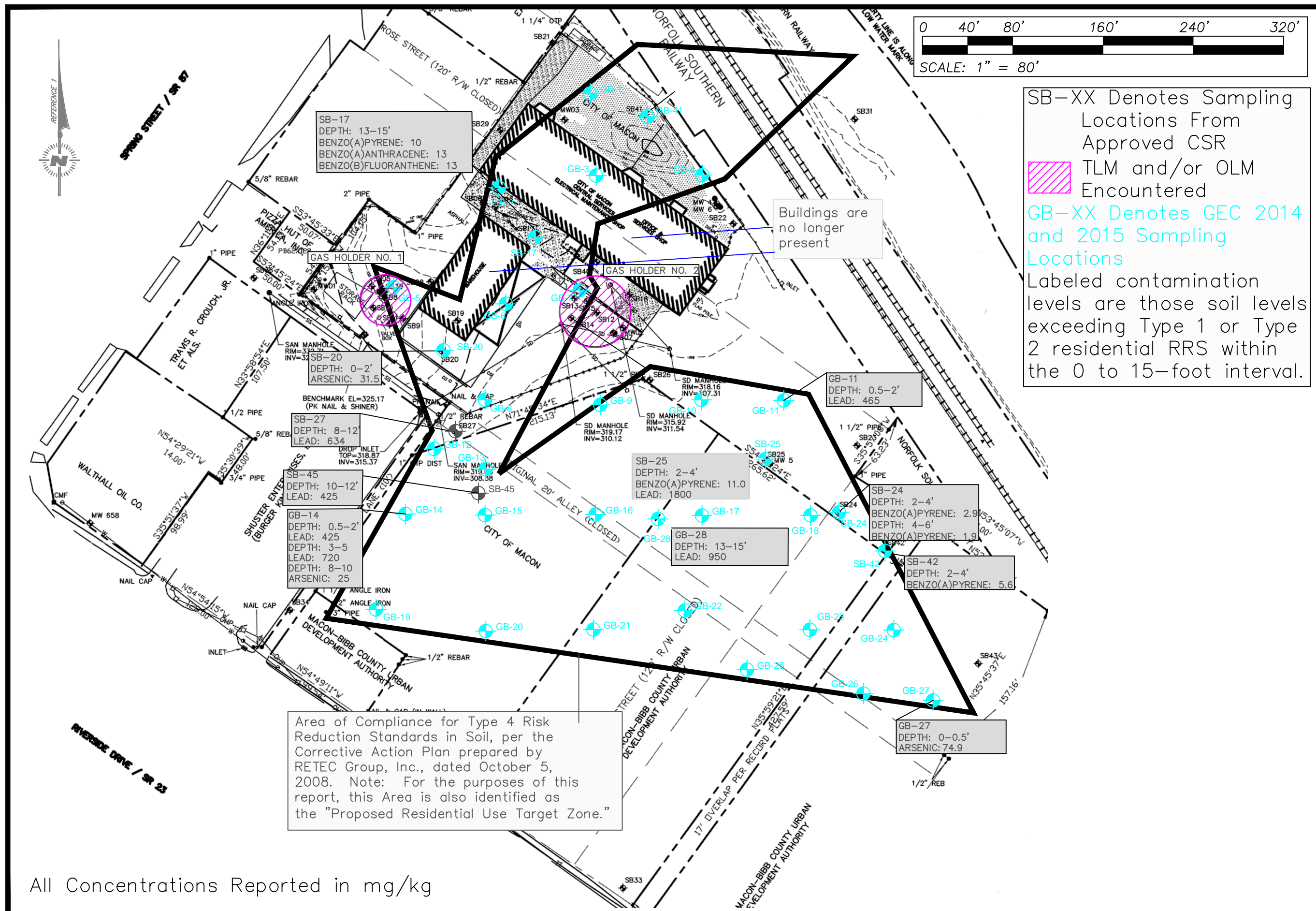
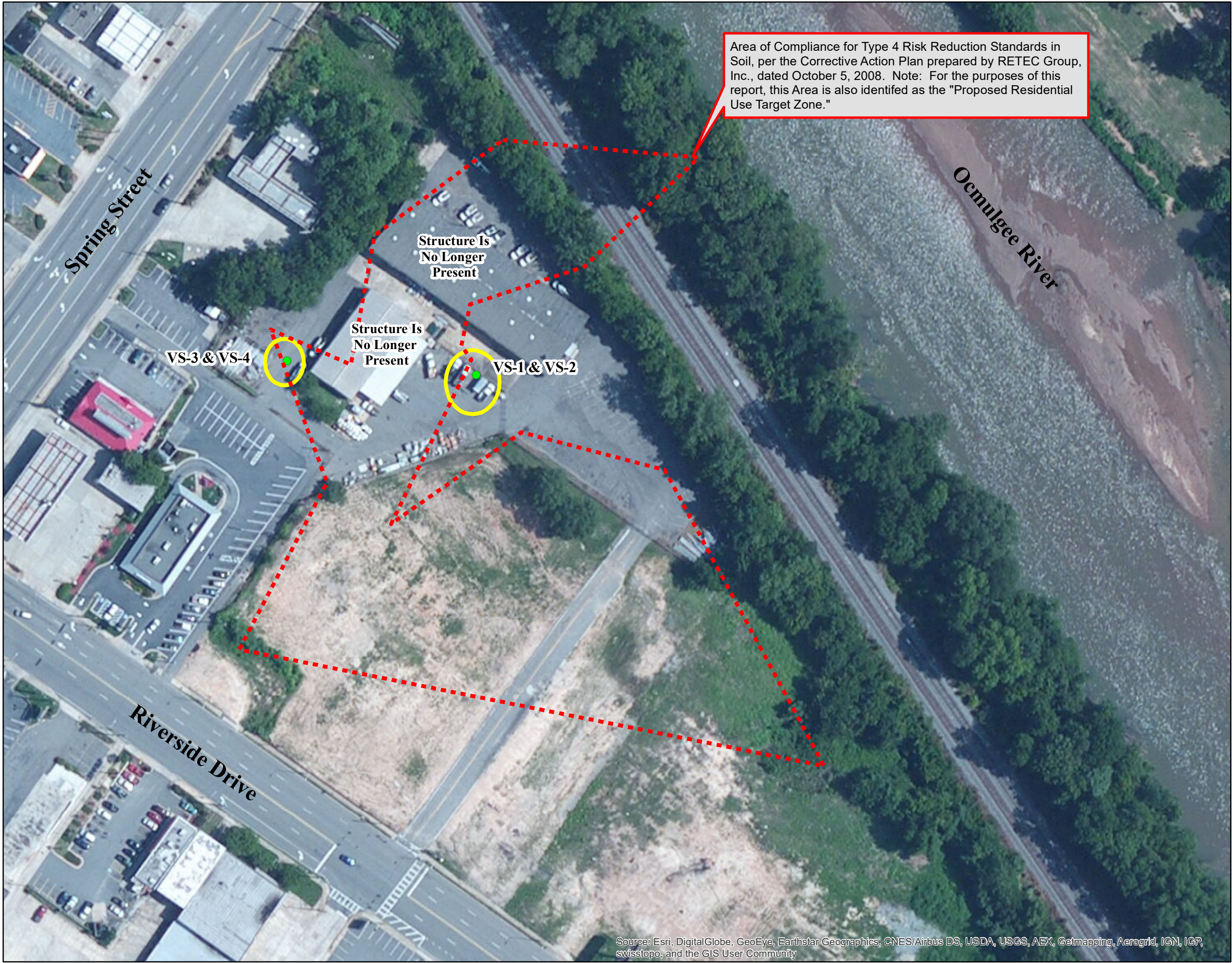


FIGURE 5: OVERALL SOIL EXCEEDANCE MAP  
0 TO 15-FOOT INTERVAL  
FORMER MACON 2 MPG SITE  
MACON, GEORGIA  
GEC PROJECT NO. 130659.241

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**Figure 6. Vapor Intrusion Sample Locations Map**




Former Macon 2 MGP Facility  
Macon, Bibb County, Georgia


GEC Project No. 130659.241

**Prepared For:**  
  
Macon-Bibb County  
Georgia


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Macon, Ga  
  
March 2016

**Legend**

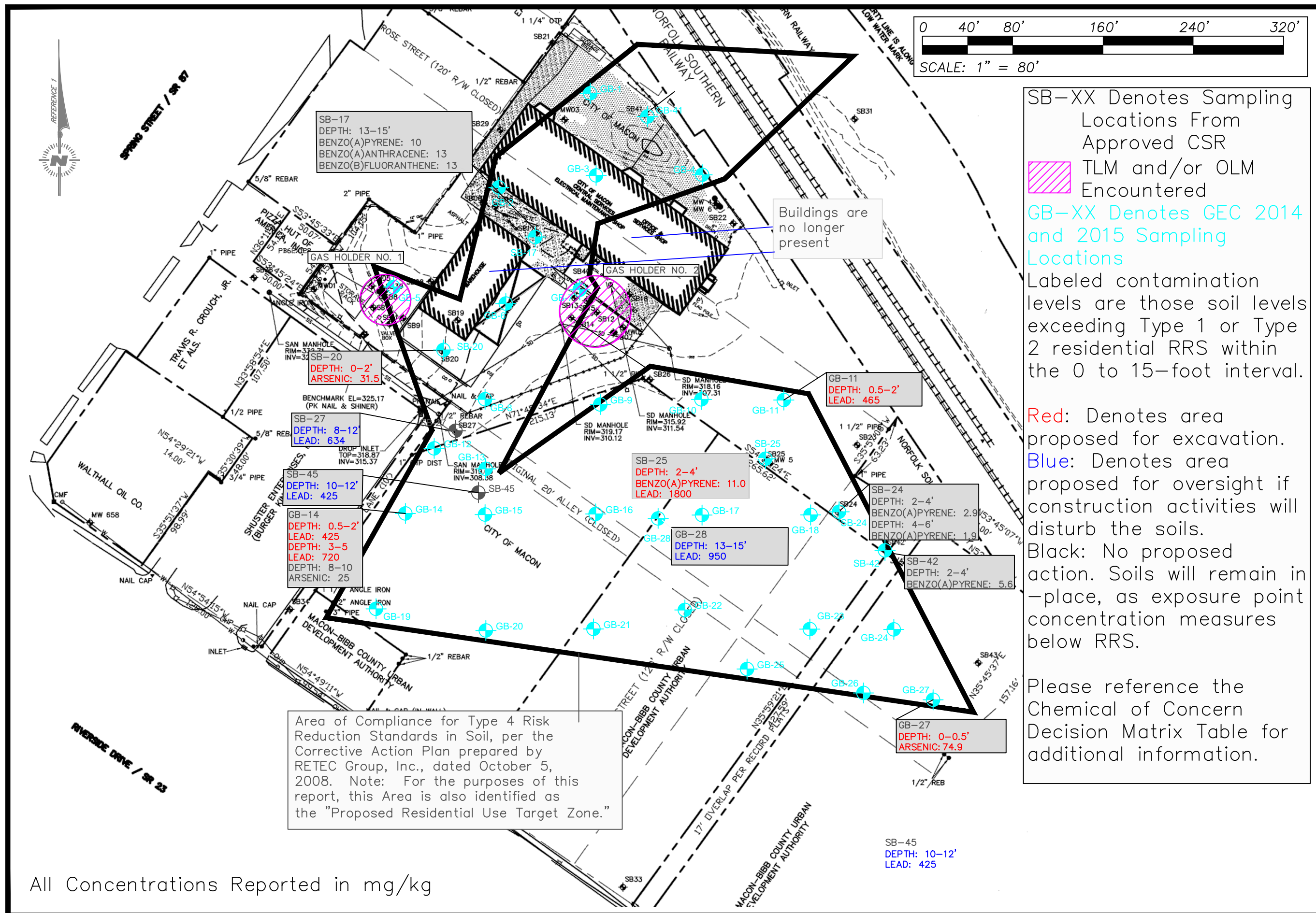
-  Proposed Residential Use Target Zone
-  Former Gas Holders
-  Vapor Intrusion Sample Location



0 30 60 120 180 240 Feet







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## **APPENDIX B**

### **Prior Reports**

# **COMPLIANCE STATUS INVESTIGATION REPORT**

**FORMER MACON 2 MGP FACILITY  
MACON, GEORGIA**

*Prepared For:*  
**Georgia Power Company  
Atlanta Gas Light Company  
and  
The City of Macon**

*Prepared By:*  
**WILLIAMS ENVIRONMENTAL SERVICES INC.  
500 Chase Park South, Suite 150  
Birmingham, Alabama 35244**

*Preparation Date: June 17, 2002  
Revised September 5, 2003*



## STATEMENT OF FINDINGS

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The Compliance Status Investigation (CSI) detailed in this report was performed by Williams Environmental Services, Inc. (Williams) on behalf of the City of Macon, the Georgia Power Company, and Atlanta Gas Light Company. The purpose of the study was to define the properties affected by a release at the former Macon 2 Manufactured Gas Plant (MGP) facility in Macon, Georgia, as well as to determine the compliance status of the properties with regard to Risk Reduction Standards (RRSs) established under the Georgia Hazardous Site Response Act (HSRA). Other objectives of the study were to delineate the extent of constituents of interest (COI) in soil and groundwater, to identify and characterize potential sources, and to identify possible human and environmental receptors potentially exposed to a release.

A Site, as defined in the report, includes all properties affected by a release of a reportable quantity of a regulated substance at or from the former MGP operations. The properties defined as part of this Site include the parcel on which the former MGP facility was located, some of the adjacent and nearby parcels, and portions of street and railroad rights-of-way near the former MGP facility.

The study includes field investigations conducted by Williams to sample soil, sediment, and groundwater at the Site, to verify the location of former MGP structures and characterize their contents, to determine background concentrations of the COI in soil and groundwater and to determine the leaching potential for COI in soil to reach groundwater. Also incorporated into this report are the results of previous investigations (Preliminary Assessment and Site Inspection) conducted by Law Environmental, Inc. (LAW).

Known and potential sources of the regulated substances identified at the Site include the former MGP structures (two gas holders, oil tanks, purifier room, condensers, and coal storage area and areas of former MGP operations). Minor amounts of tar-like and oil-like material and other by-products of the MGP processes, including slag-like material and coal fines, were found in and around remnants of the structures and former areas of MGP operations.

The COI analyzed in the soil and groundwater samples collected during the CSI included semivolatile organic compounds (SVOCs), volatile organic compounds (VOCs), and inorganics (metals and cyanide) that are commonly associated with former MGP facilities.

The extent of COI associated with the former MGP operations in soils and groundwater have been defined in all directions. The area of soils and groundwater impacts include the majority of the former MGP facility and nearby parcels to the northeast, east, and southeast.

The former MGP facility is presently secured by fencing and according to water well surveys performed, no water wells are located within a three mile-radius of the property. Potential exposure points on the property are limited to those areas where construction or excavation activities may allow potential receptors such as workers to come in contact with COI in soils or groundwater.

Types 1 through 4 RRSs for soil and groundwater were developed from the results of the background study, laboratory detection limits, and default assumptions set forth by the Georgia Environmental Protection Division. Type 4 RRSs in soil were refined based on results of a leaching potential study, default assumptions for surface soils, and construction worker exposure assumptions for subsurface soils. The Site was evaluated for compliance with HSRA Types 1 through 4 RRSs. All COI in soil at the Site are in compliance with Type 4 RRSs. All COI in groundwater at the Site are in compliance with Type 1 RRSs.

# CERTIFICATION OF COMPLIANCE WITH RISK REDUCTION STANDARDS

---

I certify under penalty of law that this report and all attachments were prepared under my direction in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Based on my review of the findings of this report with respect to the risk-reduction standards of the Rules for Hazardous Site Response, Rule 391-3-19-.07, I have determined that the following properties (identified by Bibb County, Georgia, Tax Parcel ID numbers, if applicable, and as outlined in this report) are in compliance with Type 1 risk reduction standards for soil and groundwater:


Parcel No. OC-98-5A  
Parcel No. OC-98-5C  
Parcel No. OC-98-5D  
Parcel No. OC-98-5G  
Parcel No. OC-98-5H  
Parcel No. OC-98-5I  
Parcel No. OC-98-5JA  
Parcel No. OC-98-4F  
Parcel No. OC-98-4H  
Parcel No. OC-98-3A(3B)  
Parcel No. OC-98-3D  
Parcel No. OC-98-2A(2B)

The following properties are in compliance with Type 4 risk reduction standards for soil and Type 1 risk reduction standards for groundwater:

Parcel No. OC-98-5J  
Parcel No. OC-99-4A  
Parcel No. OC-99-4AB  
Portions of Right-of-Way of Norfolk Southern Railroad  
Portions of Right-of-Way of Willow Street  
Portions of Right-of-Way of Spring Street Lane

Certified by:

Date:

  
Ralph Cleveland, Vice President of Engineering & Construction  
Atlanta Gas Light Company

9/5/03

# **CERTIFICATION OF COMPLIANCE WITH RISK REDUCTION STANDARDS**

---

I certify under penalty of law that this report and all attachments were prepared under my direction in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Based on my review of the findings of this report with respect to the risk-reduction standards of the Rules for Hazardous Site Response, Rule 391-3-19-.07, I have determined that the following properties (identified by Bibb County, Georgia, Tax Parcel ID numbers, if applicable, and as outlined in this report) are in compliance with Type 1 risk reduction standards for soil and groundwater:

Parcel No. OC-98-5A  
Parcel No. OC-98-5C  
Parcel No. OC-98-5D  
Parcel No. OC-98-5G  
Parcel No. OC-98-5H  
Parcel No. OC-98-5I  
Parcel No. OC-98-5JA  
Parcel No. OC-98-4F  
Parcel No. OC-98-4H  
Parcel No. OC-98-3A(3B)  
Parcel No. OC-98-3D  
Parcel No. OC-98-2A(2B)

The following properties are in compliance with Type 4 risk reduction standards for soil and Type 1 risk reduction standards for groundwater:

Parcel No. OC-98-5J  
Parcel No. OC-99-4A  
Parcel No. OC-99-4AB  
Portions of Right-of-Way of Norfolk Southern Railroad  
Portions of Right-of-Way of Willow Street  
Portions of Right-of-Way of Spring Street Lane

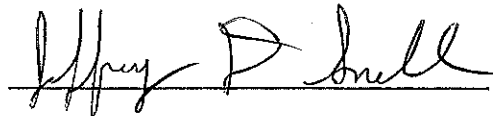
Certified by:

Date:

\_\_\_\_\_  
Honorable C. Jack Ellis, Mayor  
City of Macon

## GROUNDWATER SCIENTIST STATEMENT

I certify that I am a qualified ground-water scientist who has received a baccalaureate or post-graduate degree in the natural sciences or engineering, and have sufficient training and experience in ground-water hydrology and related fields, as demonstrated by state registration and completion of accredited university courses, that enable me to make sound professional judgments regarding ground-water monitoring and contaminant fate and transport. I further certify that revisions to this report (Compliance Status Investigation Report, revised September 5, 2003 completed for the City of Macon, the Georgia Power Company, and Atlanta Gas Light Company, Former Macon 2 MGP Facility - Macon, Georgia) were prepared by appropriate qualified subordinates working under my direction.



Jeffrey D. Snell, P.G.

Professional Geologist

Certification Number 1630

9/5/03

Date

# TABLE OF CONTENTS

PAGE

<b>SECTION 1 INTRODUCTION .....</b>	<b>1</b>
<b>SECTION 2 SITE BACKGROUND .....</b>	<b>2</b>
2.1 Site Description .....	2
2.2 History of the Former MGP Facility .....	2
2.3 Previous Investigations .....	4
2.4 Site-Specific Constituents of Interest .....	5
2.5 Potential Sources .....	6
2.5.1 Potential Sources on the Former MGP Facility .....	6
2.5.2 Database Search .....	7
2.5.3 Surrounding Land Use .....	10
<b>SECTION 3 SCOPE OF COMPLIANCE STATUS INVESTIGATION AND ENVIRONMENTAL SETTING .....</b>	<b>12</b>
3.1 General Scope of Compliance Status Investigation .....	12
3.2 Environmental Setting .....	12
3.2.1 Regional Geology and Hydrogeology .....	12
3.2.2 Site Geology .....	13
3.2.3 Site Hydrology and Hydrogeology .....	13
<b>SECTION 4 SOIL INVESTIGATION .....</b>	<b>15</b>
4.1 General Approach and Rationale .....	15
4.2 Sampling and Analysis Methods .....	15
4.2.1 Sampling Methods .....	15
4.2.2 Field Screening .....	17
4.2.3 Sample Handling and Preservation Techniques .....	17
4.2.4 Decontamination Procedures .....	17
4.2.5 Laboratory Methods .....	17
4.3 Background Concentration Study .....	18
4.4 Horizontal Extent of Constituents of Interest in Soils .....	19
4.4.1 Visual Indications of Tar-Like Material and Oil-Like Material .....	21
4.4.2 Volatile Organic Compounds .....	21
4.4.3 Semivolatile Organic Compounds .....	21
4.4.4 Inorganics .....	22
4.5 Vertical Extent of Constituents of Interest in Soils .....	23

<b>SECTION 5 GROUNDWATER INVESTIGATION .....</b>	<b>24</b>
5.1 General Approach and Rationale .....	24
5.2 Site Hydrogeology .....	24
5.2.1 General.....	24
5.2.2 Hydrogeologic Characteristics.....	24
5.2.2.1 Hydraulic Conductivity.....	24
5.2.2.2 Physical Soil Testing.....	26
5.2.3 Groundwater Flow.....	27
5.3 Groundwater Monitoring Well Installation and Rationale.....	28
5.4 Sampling and Analysis.....	29
5.4.1 Sampling Methods.....	29
5.4.2 Sample Handling and Preservation Techniques.....	30
5.4.3 Decontamination Procedures.....	30
5.4.4 Laboratory Methods.....	30
5.5 Background Concentrations .....	31
5.6 Horizontal and Vertical Extent of Constituents of Interest in Groundwater .....	32
5.6.1 Horizontal Extent of Volatile Organic Compounds in Groundwater .....	32
5.6.2 Horizontal Extent of Semivolatile Organic Compounds in Groundwater .....	32
5.6.3 Horizontal Extent of Inorganics in Groundwater .....	32
5.6.4 Natural Attenuation Parameters .....	33
<b>SECTION 6 INVESTIGATION OF NONAQUEOUS PHASE LIQUIDS .....</b>	<b>34</b>
6.1 General Observations.....	34
6.2 Soil Borings.....	34
6.3 Monitoring Wells.....	34
<b>SECTION 7 SEDIMENTS INVESTIGATION.....</b>	<b>35</b>
<b>SECTION 8 PROPERTIES POTENTIALLY AFFECTED BY A RELEASE AND OTHER POTENTIALLY RESPONSIBLE PARTIES .....</b>	<b>36</b>
8.1 Properties Potentially Affected by a Release.....	36
8.2 Other Potentially Responsible Parties .....	37
<b>SECTION 9 POTENTIAL RECEPTOR STUDY AND RISK REDUCTION STANDARDS... </b>	<b>38</b>
9.1 Chemical Source and Release Mechanisms .....	38
9.2 Environmental Transport Media.....	38
9.2.1 Persistence of Constituents of Interest.....	38
9.2.2 Potential Routes of Migration .....	39
9.2.2.1 Soils .....	39



9.2.2.1.1	Surface Topography.....	39
9.2.2.1.2	Water Table.....	40
9.2.2.1.3	Base of the Fill Material.....	40
9.2.2.1.4	Base of Alluvium.....	40
9.2.2.2	Groundwater.....	40
9.3	Potential Receptors at Exposure Points.....	40
9.3.1	Water Wells.....	41
9.3.2	Surface Water.....	41
9.3.3	Crops and Hunting.....	41
9.3.4	Environmental Receptors.....	41
9.4	Exposure Routes.....	42
9.5	HSRA Evaluation.....	42
9.5.1	Soils.....	42
9.5.1.1	Calculation of Risk Reduction Standards.....	42
9.5.1.2	Leaching Potential Study.....	44
9.5.1.2.1	Lead.....	45
9.5.1.2.2	Semivolatile Organic Compounds.....	46
9.5.1.3	Compliance With Risk Reduction Standards.....	47
9.5.2	Groundwater.....	48
<b>SECTION 10 CORRECTIVE ACTION FEASIBILITY INFORMATION .....</b>		<b>51</b>
10.1	Potential Source Material.....	51
10.2	Soils.....	51
10.3	Groundwater.....	51
10.4	Corrective Action.....	51
<b>SECTION 11 QUALITY ASSURANCE/QUALITY CONTROL .....</b>		<b>52</b>
11.1	Laboratory Quality Assurance/Quality Control Checks.....	52
11.2	Field Operations Quality Assurance/Quality Control Checks.....	52
<b>SECTION 12 REFERENCES.....</b>		<b>54</b>

## LIST OF TABLES—

TABLE 2.1	SITE-SPECIFIC CONSTITUENTS OF INTEREST
TABLE 4.1	CALCULATED BACKGROUND CONCENTRATIONS IN SOIL
TABLE 5.1	WATER LEVEL DEPTHS AND ELEVATIONS
TABLE 5.2	SUMMARY OF HYDRAULIC CONDUCTIVITY DATA
TABLE 5.3	SUMMARY OF PHYSICAL SOIL TESTS CONDUCTED DURING THE SI
TABLE 5.4	GRAIN SIZE DISTRIBUTION
TABLE 5.5	SUMMARY OF PHYSICAL SOIL TESTS CONDUCTED DURING THE CSI
TABLE 5.6	SUMMARY OF MONITORING WELL CONSTRUCTION INFORMATION
TABLE 5.7	ANALYTICAL METHODS FOR NATURAL ATTENUATION PARAMETERS

TABLE 5.8	CALCULATED BACKGROUND CONCENTRATIONS
TABLE 8.1	OWNERS OF POTENTIALLY AFFECTED PROPERTIES
TABLE 9.1	PHYSICAL AND CHEMICAL CHARACTERISTICS OF SELECT CONSTITUENTS OF INTEREST
TABLE 9.2	RISK REDUCTION STANDARDS FOR SOIL AND METHODS USED IN CALCULATIONS
TABLE 9.3	CALCULATION OF SITE-SPECIFIC DILUTION ATTENUATION FACTOR
TABLE 9.4	CALCULATION OF SOIL SCREENING LEVELS
TABLE 9.5	RISK REDUCTION STANDARD EXCEEDANCES IN SOIL
TABLE 9.6	RISK REDUCTION STANDARDS FOR GROUNDWATER AND METHODS USED IN CALCULATIONS
TABLE 9.7	RISK REDUCTION EXCEEDANCES IN GROUNDWATER - AUGUST 2003 SAMPLING EVENT

#### LIST OF FIGURES—

1	LOCATION MAP
2	OWNERSHIP MAP
3	SITE MAP
4	MANUFACTURED GAS PROCESS AND GENERATED RESIDUALS
5	SURFACE/STORM WATER FLOW PATH
6	GENERALIZED STRATIGRAPHIC SECTION
7	CROSS-SECTION A-A
8	CROSS-SECTION B-B'
9	CROSS-SECTION C-C'
10	UPPER BACKGROUND LIMIT CALCULATION FLOW CHART
11	VISUAL INDICATIONS OF TLM AND OLM IN SOILS
12	TOTAL DETECTED BENZENE AND VOCs IN SOILS
13	TOTAL DETECTED NAPHTHALENE AND SVOCs IN SOILS
14	BARIUM AND VANADIUM IN SOILS
15	LEAD AND MERCURY IN SOILS
16	ARSENIC, COPPER, AND ZINC IN SOILS
17	CHROMIUM AND CYANIDE IN SOILS
18	ESTIMATED TOP OF GROUNDWATER (08/20/03)
19	TOTAL DETECTED ACENAPHTHENE, CYANIDE, AND BARIUM IN GROUNDWATER (AUGUST 2003)
20	AREAS EXCEEDING RISK REDUCTION STANDARDS IN SOIL

Figures 2, 3, 7 through 9, and 11 through 20 are oversized drawings bound separately from the text.

#### LIST OF APPENDICES—

A	SANBORN FIRE INSURANCE MAPS AND AERIAL PHOTOGRAPHS
B	SOIL ANALYTICAL DATA
B-1	SITE INSPECTION
B-2	COMPLIANCE STATUS INVESTIGATION
C	GROUNDWATER ANALYTICAL DATA
C-1	SITE INSPECTION
C-2	COMPLIANCE STATUS INVESTIGATION
D	BORING LOGS
D-1	SITE INSPECTION
D-2	COMPLIANCE STATUS INVESTIGATION

D-3	RIVER INVESTIGATION
E	EDR DATABASE SEARCH REPORT
F	QUALITY ASSURANCE/QUALITY CONTROL SAMPLES
G	DATA VALIDATION AND QUALITY ASSURANCE/QUALITY CONTROL REPORTS
G-1	DATA VALIDATION REPORT
G-2	WILLIAMS LABORATORY QA/QC REPORTS
G-3	FIELD OPERATIONS SYSTEM AUDIT CHECKLIST
H	BACKGROUND CALCULATIONS FOR SOIL
I	SLUG TEST DATA
J	PHYSICAL SOIL TEST REPORTS
K	WELL CONSTRUCTION FORMS
L	WATER QUALITY SAMPLING FORMS
M	POTENTIAL RECEPTOR STUDY

#### **LIST OF ATTACHMENTS—**

ATTACHMENT A	ANALYTICAL DATA REPORTS
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**COMPLINACE STATUS INVESTIGATION REPORT  
FORMER MACON 2 MGP FACILITY, MACON, GEORGIA  
WILLIAMS PROJECT NO. 1100-2990**

**SECTION 1  
INTRODUCTION**

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# SECTION 1

## INTRODUCTION

---

Georgia Power Company, Atlanta Gas Light Company, and the City of Macon (Parties) retained Williams Environmental Services, Inc. (Williams) to conduct a Compliance Status Investigation (CSI) of a former manufactured gas plant (MGP) facility at the intersection of Spring Street Lane and Willow Street, Macon, Bibb County, Georgia (Georgia Hazardous Site Response Act [HSRA] Site Number 10692). The facility is designated as "Macon 2" to distinguish it from another former MGP facility (Macon 1) located at 137 Mulberry Street, Macon, Georgia. The CSI was conducted in a manner to meet the requirements of the Georgia HSRA regulations and included the following tasks:

- Identified locations and dimensions of former MGP structures still existing on Site;
- Chemically characterized (fingerprinted) potential by-product-like material and impacted soil from former MGP sources;
- Identified and chemically characterized (fingerprinted) non-MGP sources that may have contributed to soil or groundwater impacts at the Site;
- Established background concentrations of constituents of interest (COI) for soils and groundwater;
- Completely delineated COI related to the former MGP operations in soils, horizontally and vertically, at the Site;
- Completely delineated COI related to the former MGP operations in groundwater at the Site;
- Conducted assessment of potential impacts to sediments;
- Acquired data regarding physical properties of soil including porosity, hydraulic conductivity, grain-size distribution, and other relevant properties;
- Acquired data regarding aquifer characteristics;
- Evaluated potential human or environmental receptors that may be exposed to a release from the Site;
- Developed risk reduction standards (RRS) for COI (included evaluation of leaching characteristics); and
- Identified all properties which have been affected by a release from the Site.

The data collected during the CSI have been used in conjunction with data collected during the Preliminary Assessment (PA) and Site Investigation (SI) performed by Law Engineering and Environmental Services, Inc. (LAW) in 1991 and 1992, respectively, to prepare a compliance status report (CSR) as set forth by HSRA regulations in Section 391-3-19-06(3).



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**COMPLINACE STATUS INVESTIGATION REPORT  
FORMER MACON 2 MGP FACILITY, MACON, GEORGIA  
WILLIAMS PROJECT NO. 1100-2990**

**SECTION 2  
SITE BACKGROUND**

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## SECTION 2

### SITE BACKGROUND

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#### 2.1 SITE DESCRIPTION

The former Macon 2 MGP facility is located to the north of the intersection of Spring Street Lane and Willow Street (Figure 1). The term "Site" in this CSI Report refers to those parcels potentially affected by a release from the former Macon 2 MGP operations. Therefore, based on the data presented in this CSR, the Site includes the property where the former MGP facility was located and certain surrounding parcels and street rights-of-way (Figure 2). The property where the former Macon 2 MGP facility was located is currently owned by the City of Macon and is used by the City of Macon Central Services. Facilities at the property include a combined office/service shop building, a canopied equipment storage area, a warehouse and an employee parking lot (Figure 3). Most of the property is covered with asphalt paving although several areas are paved with concrete including the loading dock area to the southwest of the office/service shop and a concrete area between the equipment storage area and service shop. Grassy areas are located southwest of the office/service shop and near the southeastern property boundary. According to the topographic map of the area, elevations at the property generally range from 300 to 320 feet above mean sea level (Figure 1).

The surrounding properties are primarily commercial and include the Macon Transit Authority (bus garage) to the south, restaurants and a filling station to the west, and a filling station to the northwest. The Ocmulgee River and the Norfolk Southern Railroad are located to the east and northeast of the facility.

#### 2.2 HISTORY OF THE FORMER MGP FACILITY

From the mid-1800's until the 1950's, MGPs in general were widely used for producing gas from coal, coke, or oil. The gas was primarily used for lighting and heating. Most of the manufactured gas was generated by one of the following processes:

- Coal gas;
- Water gas/carburetted gas; or
- Oil gas.

The coal gas process involved the carbonization of coal in retorts (ovens) which produced gas consisting of hydrocarbon elements of the coal. The water gas process involved heating coke or coal in a generator, and subsequently injecting steam into the heated vessel, which produced gas consisting of hydrogen and carbon monoxide. The carburetting process further included the injection and cracking of oil, creating a gas with hydrocarbon elements and a higher BTU content. The oil gas process involved injecting oil into a heated vessel, producing a gas consisting of the hydrocarbon elements of the oil. In all of the processes, the resultant gas was cooled and purified before distribution. As a result, various process residuals such as tars, liquors, and sludges were produced by MGP operations. A generic process flow sheet for MGP operations is presented on Figure 4.

Williams reviewed Sanborn Fire Insurance maps (1889, 1895, 1908, 1924, 1951, 1960 and 1969; included in Appendix A) and aerial photographs (1938, 1958, 1966, 1972, and 1990; included in Appendix A). Williams used this information to identify the approximate former locations of purifier boxes, condensers, a coal storage area, two oil tanks, and two gas holders. Based on the information provided on the Sanborn Fire Insurance Maps, the Macon 2 MGP facility operated prior to 1889 to no later than 1908. During this time, the gas holders were decommissioned prior to 1895.

The Sanborn Fire Insurance map dated 1889 (Appendix A) shows a main building containing purifying boxes and condensers located near the center of the property along what is now referred to as Willow Street. A motor room was located on the northwest corner of this building adjacent to the purifying boxes. Two gasometers existed on the property. The gasometer located on the northwest side of the main building had a capacity of 40,000 cubic feet and will be referred to as Gas Holder No. 1. The gasometer located east of the main building had a capacity of 60,000 cubic feet, and will be referred to as Gas Holder No. 2. Two oil tanks were located to the northeast of the main building and each had a capacity of 8,000 gallons. The property was bounded to the southwest by an alley (now Willow Street), to the northwest by Spring Street, and to the southeast by New Street. An embankment of approximately 20 feet in height was located between the main building and Gas Holder No. 2 with the area to the south and west being of the higher elevation. The surrounding property was primarily residential.

The 1895 Sanborn Fire Insurance map (Appendix A) indicates the configuration of the property boundaries as well as the development of the surrounding properties remained unchanged since 1889 with few exceptions. The 8,000 gallon oil tanks are no longer pictured on the 1895 Sanborn Fire Insurance Map. A coal house was added to the north end of main building. Rose Street is shown bounding the property to the northeast and is depicted as not graded.

The Sanborn Fire Insurance map dated 1908 (Appendix A) indicates that between 1895 and 1908 the facility was abandoned and structures were vacant and not used. The property boundaries as well as the development of the surrounding properties appear to have remained unchanged since 1895. The alley located to the southwest of the property is referred to as Willow Street on the 1908 Sanborn Fire Insurance Map. The embankment dividing the property is no longer identified.

The Sanborn Fire Insurance map dated 1924 (Appendix A) indicates that, at that time, the gas holders and the facility were still abandoned and vacant. The main building is no longer identified. Surrounding property usage appears unchanged between 1889 and 1924. The Norfolk Southern Railway and Ocmulgee River are identified to the northeast of the property. Rose Street is no longer identified as bounding the property to the northeast.

The Sanborn Fire Insurance map dated 1951 (Appendix A) indicates that between 1924 and 1951 the property was cleared of all surficial MGP structures. A gas regulator station located on the southwest property boundary at the corner of Willow Street and Spring Street Lane is the only structure identified on the property. The 1951 Map indicates that in 1950, the parcel to the south of the property was developed and operated by the Bibb Transit Company. This property included a machine shop with tire and parts storage areas and a separate building that included a filling station. The property located to the west of the former MGP facility, on the corner of Ocmulgee (now Riverside Drive) and Spring Street, had been developed into a filling station by 1951. It appears that the southwestern portion of the former



MGP property, adjacent to Willow Street, was used for bus parking by the Bibb Transit Company during this time. The property located to the west of the Bibb Transit Company was developed into a Baptist Church by 1951.

The Sanborn Fire Insurance map dated 1960 (Appendix A) indicates that between 1951 and 1960, the property located to the south of the former MGP facility (west of the Bibb Transit Company) included the development of a paint shop just northeast of the former Baptist Church. The property located across Riverside Drive, south of the former MGP facility, on the corner of Riverside Drive and New Street, was developed into a paint and plate glass company by 1960. A restaurant was built on the property located on the southwest corner of Riverside Drive and Spring Street between 1951 and 1960. All other adjacent properties appeared relatively unchanged between 1951 and 1960.

The Sanborn Fire Insurance map dated 1969 (Appendix A) indicates that between 1960 and 1969, the property located to the southwest of the former MGP property on the corner of Spring Street Lane and Riverside Drive was developed into a radio station. The property located immediately southwest of the former MGP facility, across Willow Street had been developed into a restaurant. A filling station was built on the property located to the north of the former MGP facility between 1960 and 1969.

Historical aerial photographs were obtained for 1938, 1958, 1966, 1972, and 1990. The aerial photograph from 1938 indicated that the facility had been cleared of all building structures by this time. Due to the quality of the 1938 photograph, locations of the former Gas Holders were indistinguishable. The 1958 aerial photograph shows that the buildings associated with the Bibb Transit Company had been constructed and the parcel to the north of property had been cleared by this time. The 1958 aerial photograph also shows the location of Gas Holder No. 1. Based on the aerial photographs, between 1958 and 1966 the eastern and southern portion of the property had been filled. Between 1966 and 1972, additional fill material was placed on the north and northwestern portions of the property. In addition, the property to the southwest of the former MGP facility appears to have been cleared and/or filled between 1966 and 1972. The remaining structure of Gas Holder No. 1 is visible on aerial photographs from 1966 and 1972 but was apparently covered with fill and/or pavement by 1990. Between 1972 and 1990, the current structures on the former MGP facility property, including the office building and canopied storage area, were constructed. By 1990, most of the property is covered by buildings, asphalt, or concrete.

### **2.3 PREVIOUS INVESTIGATIONS**

Law Environmental, Inc. (LAW) conducted a Preliminary Assessment (PA) of the Site in 1991 which included a review of available file material, on-site and off-site reconnaissance, review of historical property ownership and a limited pathway survey. No sampling or analysis was conducted during the PA.

In February and March, 1992, LAW conducted a Site Inspection (SI) which included exploration of subsurface soils, collection and analysis of subsurface soil and groundwater samples, evaluation of soil and groundwater samples, evaluation of soil physical characteristics, ambient air monitoring and review of literature. The following activities were conducted during the SI:

- Seven exploratory soil borings (SB-1 to SB-7) were drilled to collect subsurface soil samples for a preliminary determination of the vertical and horizontal extent of impacted soils;
- Four monitoring wells were installed and screened across the water table (MW-01 to MW-04);
- Selected soil and groundwater samples were analyzed for the Target Compound List (TCL) and Target Analyte List (TAL) constituents using Contract Laboratory Program (CLP) protocol;
- One undisturbed soil sample was collected from soil boring SB-2 for physical parameter analyses including porosity, water content, dry density, hydraulic conductivity, total organic carbon, and organic content; and
- Slug tests were performed in the four monitoring wells (MW-01 through MW-04).

The sampling locations from the SI are provided in Figure 3. Analytical results from soil samples collected during the SI are included in Appendix B-1 and Appendix C-1 includes a summary of the groundwater analytical data collected during the SI.

SACAL Environmental & Management Co. submitted to the EPD a release notification on November 3, 2000, on behalf of the City of Macon. The EPD subsequently listed the Site on the Hazardous Site Inventory on January 5, 2001 (HSI Site No. 10692).

## 2.4 SITE-SPECIFIC CONSTITUENTS OF INTEREST

The materials of interest at MGP sites include tar, oil, and associated sludges that are complex mixtures of different polynuclear aromatic hydrocarbons (PAHs), lesser amounts of phenolics and volatile organic compounds (VOCs), and some inorganics such as various metals and cyanide. The Gas Research Institute (Management of Manufactured Gas Plant Sites, Volume I, Wastes and Constituents of Interest, October 1987 and later revisions) identifies a list of chemicals present at most MGP sites. Analytical data presented by LAW indicates that some of those chemicals on the list are present at the former MGP facility.

A list of constituents of interest (COI) for the Site was prepared based on the Gas Research Institute list plus those compounds detected in the SI above the HSRA notification concentration (NC) in soils or above background levels in groundwater. The Site-specific COI are listed in Table 2.1.

**TABLE 2.1**  
**SITE-SPECIFIC CONSTITUENTS OF INTEREST**

Semivolatiles	Volatiles	Inorganics
Acenaphthene	Benzene	Arsenic
Acenaphthylene	Carbon Disulfide	Barium
Anthracene	Ethylbenzene	Beryllium
Benzo(a)anthracene	Methylene Chloride	Cadmium
Benzo(a)pyrene	Toluene	Chromium
Benzo(b)fluoranthene	Total Xylenes	Copper
Benzo(g,h,i)perylene		Lead
Benzo(k)fluoranthene		Mercury
Chrysene		Nickel
Dibenzo(a,h)anthracene		Vanadium
Fluoranthene		Zinc
Fluorene		Total Cyanide
Indeno(1,2,3-cd)pyrene		
Naphthalene		
Phenanthrene		
Phenol		
Pyrene		

## 2.5 POTENTIAL SOURCES

Sources which potentially have or are contributing to a release of a hazardous constituent or substance at the former MGP facility were defined during the PA, SI and CSI. The potential sources include former MGP structures which continue to exist today in whole or in part, former MGP structures or equipment which have been removed, areas where by-products of the process were stored and/or placed, and other potential sources not located on the former MGP property. These potential sources are described in greater detail in Sections 2.5.1 and 2.5.2. The quantity and chemical composition of releases (if any) associated with the identified potential sources are not known. However, based on literature and experience, VOCs and semivolatile organic compounds (SVOCs), including PAHs, are usually associated with sources where tar was accumulated (such as holders) or processed (tar separators). The manufacturing of coal gas potentially produced phenols which may be associated with sources where tar was accumulated. PAHs are also associated with oils. Trace metals and SVOCs may be associated with coal or coke storage areas or fill material containing coal fines, ash or clinkers. Cyanides are often associated with purifier operations.

### 2.5.1 Potential Sources on the Former MGP Facility

Former MGP structures with remaining subsurface remnants were identified during the CSI. The structures and associated sampling points are indicated on Figure 3 and are described below. As-built construction diagrams are not available.

- **Gas Holder No. 1** — This structure is located at the southwest corner of the warehouse between the warehouse and the pole storage rack. Gas Holder No. 1 was decommissioned prior to 1908 and was abandoned by 1924 according to the Sanborn Fire Insurance maps. The Sanborn Fire Insurance map indicates that the gas holder was 40 feet in diameter with a capacity of 40,000 gallons. Samples were described from four soil borings performed within the structure during the CSI (SB-9 through SB-11, and SB-39). Probe refusal was encountered from 12 to 13 feet below ground surface (bgs). Additional borings (no IDs) were performed to locate the extent of the foundation which was marked on the surface and surveyed. Coal-like material (CLM) and slag-like material (SLM) were observed within the structure and a small quantity (less than one-inch lens) of oil-like material (OLM), and tar-like material (TLM) were observed at the base of two of the borings (SB-11 and SB-39). Boring logs are included in Appendix D.
- **Gas Holder No. 2** — This structure is located east of the current canopied equipment storage area and warehouse and was used at one time to store the final gas product. According to the Sanborn Fire Insurance maps the structure was decommissioned and abandoned around the same time as Gas Holder No. 1. The Sanborn Fire Insurance maps indicate that the gas holder was 60 feet in diameter with a capacity of 60,000 gallons. Based on historical aerial photographs and current Site conditions, the Gas Holder was backfilled prior to 1938 and additional fill was later placed over the structure. The holder was identified in the field by several soil borings. Samples were described from four soil borings performed within the structure during the CSI (SB-12 through SB-15). Additional soil borings (no IDs) were performed to delineate the extent of

the foundation of Gas Holder No. 2. The extent was marked on the surface and later surveyed. Probe refusal was encountered within the holder from 38 to 41 feet bgs. Coal-like material, SLM, OLM, and TLM were observed in borings performed in the structure (see boring logs in Appendix D). The OLM and TLM were observed at the very base of the structure in a highly viscous, black, tarry layer of no more than one inch in thickness.

- **Purifying Room/Condensers/Motor Room** — According to the Sanborn Fire Insurance maps from 1889, 1895, and 1908, this building was near the intersection of Willow Street and Spring Street Lane and would have been located at the southwest corner of the warehouse currently on the property and extending to Willow Street. Two soil borings (SB-19 and SB-20) were advanced in the general vicinity of this building to assess the potential release of COI from this structure.
- **Oil Tanks** — The 1889 Sanborn Fire Insurance map indicates the presence of two 8,000-gallon underground oil tanks that were located northwest of Gas Holder No. 2. Based on current property conditions, the oil tanks would have been located on the northeast and northwest corners of the current warehouse. Two soil borings (SB-16 and SB-17) were advanced between the warehouse and the maintenance shop to assess the potential release of COI from the oil tanks.

All of the potential sources listed could have contributed to the release of regulated substances but it is not known if each potential source actually was a contributor. A biased sampling approach was used during the CSI to address all known potential source areas. Continuous sampling combined with field-screening methods were employed to identify impacted strata. The sampling approach is discussed more fully in Section 4.

In addition to the former MGP structures, fill material used to develop the property and surrounding properties may be a potential source of regulated substances. The former MGP facility and surrounding properties were backfilled on several occasions to reach the current topography. Fill thickness ranges from 4.5 feet to the west of the former MGP facility to approximately 36 feet on the eastern portion and to the southeast of the former MGP facility. The fill material consists of silts, sands, and clays consistent with the area lithology and construction debris including brick, concrete, glass and asphalt. Fill material within the former MGP property boundaries and fill material beyond the former MGP property boundaries appears to be from similar sources based on visual observation.

### **2.5.2 Database Search**

A database search was performed prior to the CSI to determine the presence of facilities listed on environmental databases in the area surrounding the former Macon 2 MGP property. A report provided by Environmental Data Resources Inc. (EDR), at the request of Williams, included a listing of such facilities within a one-eighth mile, one-quarter mile, one-half mile, and in some instances a one-mile radius of the former MGP facility. The search was centered from the intersection of Spring Street Lane and Willow Street, which is the approximate location of the target property.

Facilities listed within a one-eighth mile radius of the former MGP Site include five sites found on both the Leaking Underground Storage Tank (LUST) and Underground Storage Tank (UST) databases. These facilities include Conoco #10045 (Jet #10045, EDR Report), located west-northwest of the property; Greyhound Bus Terminal, located west-southwest of the property; BP/Bucks Service Station located west-southwest of the property; Spring and Riverside Exxon (former Chevron Fac ID 40452), located southwest of the property; and the Macon-Bibb County Transit Authority, located south of the property. Morgan Tire and Auto Incorporated and Spectrum #76 are also found within one-eighth mile of the property and are listed on the LUST and UST databases, respectively.

Facilities located between one-eighth and one-quarter mile from the former MGP facility include Nationwide Printing Corporation, found on the Resource Conservation and Recovery Information Systems-Small Quantity Generator (RCRIS-SQG) list. This list includes sites that generate, store, treat or dispose of hazardous waste as defined by the RCRA. This facility is located west-southwest of the Site. Three UST sites (WC&M Incorporated, Land-O-Sun, and the Radisson Hotel-Macon) and one Georgia Non-hazardous Site Inventory site (Riverside Drive Property) are also located between one-eighth and one-quarter mile from the former MGP facility.

Facilities listed on environmental databases within one-quarter and one-half mile of the Macon 2 former MGP facility include four LUST sites: the Downtown Chevron Service Center, located south of the property; AT&T, located west-southwest of the property; BST/Macon Main/R2110, located south-southwest of the property; and Paul's Fina/Paul's Service, located northeast of the property.

The Macon 1 former MGP Site, located south-southeast of the property, was listed in the Georgia State Hazardous Waste Sites records (the state's equivalent to the U. S. EPA's Comprehensive Environmental Response, Compensation and Liability Information System) and EDR's proprietary database Former Manufactured Gas (Coal Gas) Sites. This site is found within a one-half and one-mile radius of the Macon 2 former MGP facility. Also listed on the Former Manufactured Gas (Coal Gas) Sites database is the Macon 2 MGP property itself. A copy of EDR's report is included in Appendix E.

Based on information presented in EDR's database search report and a Site reconnaissance by Williams, Kemron Environmental Services (Kemron), at the request of Georgia Power, conducted a technical file review of surrounding facilities with the greatest potential of impacting the Macon 2 former MGP property. File reviews were conducted on six facilities listed in LUST and UST databases and include Spring and Riverside Exxon (Fac ID 9000192; former Chevron Fac ID 40452), Greyhound Bus Terminal (Fac ID 4110182); Conoco #10045 (JET #10045, EDR Report; Fac ID 4110086), BP/Buck's Service Station (Fac ID 4110275), Macon-Bibb Transit Authority (Fac ID 9011141), and Spectrum #76 (Fac ID 4110210). A summary of each file review follows.

Spring and Riverside Exxon (Fac ID 9000192; former Chevron Fac ID 40452), located at 893 Riverside Drive, registered five USTs in March 1986. The USTs consisted of two 10,000-gallon gasoline USTs, two 3,000-gallon gasoline USTs and one 550-gallon used oil UST. On February 2, 1989, a suspected release was reported due to gasoline vapors in the soil and groundwater. A Phase II Environmental Site Assessment was conducted and a report submitted to EPD in February 1989. Four groundwater monitoring wells were installed and sampled during the site assessment. The

maximum benzene concentration in groundwater was reported at 24,503 µg/L and total benzene, toluene, ethyl-benzene, and total xylenes (BTEX) was reported at 238,393 ug/L, indicative of free phase product. A "trace" amount of free phase product was found on the water table at the site. Groundwater flow was radial to the northeast, east and southeast.

Remedial activities at the Spring and Riverside Exxon included the removal of all UST system components and 200 tons of soil in March 1989. A new facility was constructed in August 1989 and a soil venting pilot study was conducted in October 1989 removing 1,212 pounds of volatile organic compounds (VOCs) from the soil. A Confirmatory Soil Sampling Report received by EPD on August 26, 1991, reported total petroleum hydrocarbons (TPH) and BTEX levels at 1,460 mg/Kg and 218 mg/Kg respectively, both above Corrective Action Plan (CAP) objectives. Reinstallation of the soil vapor extraction system was proposed. A letter dated January 27, 1994, was received by the EPD from the law offices of Anderson, Walker and Reichert, who were writing on behalf of the City of Macon. The letter suggests the City's property (Macon 2 former MGP property) may have been impacted by a release originating from the former Chevron property. An up-gradient baseline monitoring well placed on the City's property adjacent to the former Chevron property contained 1,300 ug/L benzene. Based on the location of the well and the direction of groundwater flow in the area, the letter concludes the former Chevron tanks may have been the source of contamination. A CAP Part A was received by EPD on January 9, 1996, but has not yet been reviewed. Additional wells, including a deep well, were installed in 1994. A CAP Part B is proposed by Chevron along with three additional wells. The site has not been delineated and remains a candidate for impacting the Macon 2 former MGP property.

The Greyhound Bus Terminal (Facility ID 4110182) registered one 10,000-gallon diesel UST in April 1986. In April of 1992, a TPH concentration of 9,100 mg/Kg was reported from a soil sample taken from the piping trench. Three wells were installed and sampled. The maximum BTEX concentration in soil was 0.297 mg/Kg. The maximum TPH concentration in soil was 77 mg/Kg. The maximum benzene concentration found in groundwater was 8,100 ug/L. Due to the high concentration of benzene and given the fact the Greyhound Bus Terminal never operated a gasoline UST, the contamination was concluded to be from another source. A Site Characterization Report (prepared by Engineering-Science, Inc.) including this information was received in August 1992. The UST was removed in January 1992. Subsequent monitoring events were conducted and reports submitted to the EPD to solidify the argument that benzene contamination was from an up-gradient petroleum source. No free phase product was found. EPD issued a letter on June 24, 1994, indicating no further action required. Monitoring wells used in the diesel UST investigation have been decommissioned.

Conoco #10045 (Facility ID 4110086; Jet #10045, EDR Report) reported a release in October 1995 due to a failed line tightness test. EPD requested a site check on October 27, 1995. The leak was verified and soil samples were collected. A CAP Part A was received by the EPD on October 26, 1996. A CAP Part B was received August 4, 1997. The maximum concentration of benzene in groundwater was reported as 2,000 ug/L and a model was prepared to justify an alternative concentration level (ACL) of over 20,000 ug/L. Remediation by natural attenuation with annual monitoring was proposed. A Groundwater Monitoring report received by the EPD in May 1999 reported maximum concentrations of benzene in groundwater at 970 ug/L. Groundwater flow at the site was determined to be east-northeast. Two additional wells were installed down gradient to achieve delineation. Free product has been measured

several times in the well on that site designated MW-1. High vacuum recovery was approved by the EPD on January 10, 2001, to recover the free phase product. Monitoring wells near the site boundary show minimal impact; however, the contaminant plume has the potential to impact the northeast corner of the Macon 2 Former MGP property.

BP/Buck's Service Station (Facility ID 4110275) issued an Initial Site Characterization Report to the EPD on June 8, 1993. Three 8,000-gallon USTs and one 4,000-gallon UST were reported on site. Seven soil borings were installed with one sample containing detectable benzene at 1.5 mg/Kg. Benzene concentrations in groundwater were found at 24,543 ug/L and total BTEX concentrations were indicative of free phase product. EPD requested a CAP on July 26, 1993. A UST Closure Assessment Report was received by the EPD November 30, 1993. Seven tanks were closed and fourteen soil samples were collected. The highest detected total BTEX concentration was 467 mg/Kg in the soil samples. A total of 470 tons of contaminated soil were disposed of. EPD requested a CAP part A which was received in March of 1998. No free product was found at that time. The maximum benzene concentration in groundwater was 3,240 ug/L. Semi-annual monitoring was proposed. A CAP Part B is pending. This site is considered a candidate for a potential source of contamination at the Macon 2 facility; however, the groundwater flow is not directly towards the Site. Free product has recently (June 2000) been discovered in one of the wells.

Macon-Bibb County Transit Authority (Fac ID 9011141) submitted a UST Closure Report that was received by the EPD on February 10, 2000. The submittal reported the results of the closure of two 12,000-gallon diesel USTs and one 300-gallon waste oil UST. TPH and BTEX were found in several soil samples and some results exceeded applicable soil threshold levels (STLs). The maximum BTEX and TPH concentrations in the soil were reported at 11.32 mg/Kg and 480 mg/Kg, respectively. EPD requested a CAP Part A on April 10, 2000. On July 21, 2000, a letter submitted by Dobbs Environmental was received by the EPD requesting no further action. Subsequently, an additional soil boring was installed to the top of bedrock (groundwater was not encountered). The sample collected just above the bedrock contained a concentration of 0.83 mg/Kg benzene.

Spectrum #76 (Fac ID 4110210) does not appear to be a potential source of impacts to the Macon 2 Site. A Closure Report was received by EPD on January 6, 1997, after one 1,000-gallon UST was removed in November 1996. Piping was replaced to six active tanks and a report was submitted on January 28, 1998. BTEX, gasoline range organics (GRO), diesel range organics (DRO), and PAHs were all below detectable limits. A "No Further Action Requested" status was issued by the EPD on June 5, 1998. No release has been reported.

### **2.5.3 Surrounding Land Use**

According to Sanborn Fire Insurance maps the area surrounding the former MGP facility has been historically developed for commercial, industrial and residential purposes. The properties located immediately northwest of the facility, northwest across Willow Street, and west and south across Willow Street were listed as a residential (dwellings) from 1889 through 1924. Properties to the north and east were not depicted on the Sanborn maps until 1924 which shows the Norfolk Southern Railway and Ocmulgee River running on the east side of the facility. The Bibb Transit Company, a filling station, and a Baptist church occupied the property to the south by 1951. The church property was a paint shop and office in 1960 and a radio station and paint shop in 1969. Properties to the northwest and west remained

residential until at least 1960. By 1960 a plate glass company occupied the property the south of the facility across Riverside Drive on the corner of New Street and Riverside Drive. The 1969 Sanborn map shows that a restaurant and filling station occupied part of the property to the west and northwest and a filling station occupied the property immediately northwest of the facility.

Currently, the property south of the former MGP facility is occupied by the City of Macon Transit Authority Bus Garage. West of the facility is a fast food establishment, restaurant, and filling station. Another filling station is located northwest of the facility. The Norfolk Southern Railway and Ocmulgee River bound the property to the east.



**SECTION 3**  
**SCOPE OF COMPLIANCE STATUS**  
**INVESTIGATION AND ENVIRONMENTAL**  
**SETTING**

## **SECTION 3**

# **SCOPE OF COMPLIANCE STATUS INVESTIGATION AND ENVIRONMENTAL SETTING**

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### **3.1 GENERAL SCOPE OF COMPLIANCE STATUS INVESTIGATION**

The CSI field work was performed from February 2001 to May 2001 with a second event occurring in August 2003. The primary objective of the investigation was to define the horizontal and vertical extent of COI related to the former MGP operations in soil and groundwater. Other tasks included determining the presence of potential NAPL in source structures, aquifer characterization, physical testing of soil samples, collection of corrective action feasibility information, characterization of material in source areas for possible remedial alternatives, a Site survey, and an evaluation of sediments in the Ocmulgee River. Soil samples were collected for analysis from a total of 35 soil borings performed during the CSI. Three monitoring wells were installed during the CSI, and groundwater samples were collected for analysis from a total of seven monitoring wells (including four installed by LAW during the SI). In addition, 21 sediment borings were performed in the Ocmulgee River during the CSI for visual observation of potential impact from former MGP operations. Sediment samples were not analyzed and sediment sample locations were not surveyed during the CSI. After completion of the investigation, a Site survey, including new soil borings and wells and property boundaries, was performed by a surveyor certified by the State of Georgia (Donaldson, Garrett, & Associates, Inc.). Williams performed the survey during the August 2003 field event.

### **3.2 ENVIRONMENTAL SETTING**

#### **3.2.1 Regional Geology and Hydrogeology**

The southern part of Macon, Bibb County, Georgia, is located in the Atlantic Coastal Plain Physiographic province and the northern part is in the Piedmont province. The Fall Line is defined as an arbitrary line that separates the two physiographic regions and is why this region is sometimes referred to as the Fall Line District. The Coastal Plain province in Bibb County is characterized by distinctive light-colored sandy hills of Cretaceous age that slope gently towards the southeast. The Piedmont province is characterized by a rolling to hilly upland area of moderate relief that slopes gently to the south.

The former Macon 2 MGP facility is located in the vicinity of the Fall Line between the Atlantic Coastal Plain and the Piedmont Province, approximately 200 feet southwest of the Ocmulgee River. Elevations in the investigation area range from approximately 300 to 320 feet above mean sea level (USGS Topographic Map Macon West and Macon East, Georgia; Figure 1). The area is underlain by Pleistocene- to recent-age alluvial deposits up to 40 feet thick. These alluvial deposits are described as unsorted sand, gravel and clay (LeGrand, 1962). Below the alluvial deposits, the Late Eocene upper sand member of the Barnwell Formation, if present, lies unconformably above the Cretaceous-age Tuscaloosa Formation, if present. The upper sand of the Barnwell Formation is described as a deep red clayey sand (LeGrand and others, 1956). The Tuscaloosa Formation consists of fine to coarse, subangular, micaceous, arkosic sands that are interbedded with gray to green, locally iron-stained kaolinitic, micaceous sandy clays (Herrick and Vorhis,

1963). The base of the Tuscaloosa in this area dips slightly to the southeast at approximately 30 feet per mile and lies unconformably above the much older crystalline rocks below. The Paleozoic and older igneous and metamorphic rock lie at a depth of approximately 50 feet bgs (LeGrand, 1962).

According to the City of Macon Water Department, the Ocmulgee River is the only source of drinking water in the Macon water system. The intake is located on the Ocmulgee River approximately three miles upstream from the former Macon 2 MGP facility (Figure 5). Towards the south and west there is an increase in well usage; the Tuscaloosa sands gradually increase in thickness allowing for more availability of water from wells. Recharge to the Tuscaloosa occurs in outcrop areas west of the Ocmulgee River. Natural discharge from the Tuscaloosa is into the Flint and Ocmulgee Rivers and smaller streams crossing the outcrop area (Pollard and Vorhis, 1980).

### 3.2.2 Site Geology

The geology encountered during the CSI consisted of unconsolidated alluvial clays, sands, gravels, and clays, saprolite (a clayey silt to fine sand), and a mafic to felsic gneiss bedrock (Figure 6). Cross sections A-A' through C-C' (Figures 7, 8, and 9) were prepared to illustrate the Site geology. Fill material consisting of sand, silt, clay, gravel, construction debris and asphalt was encountered from the ground surface to depths ranging from approximately 0.5 to 36 feet bgs. The fill material is thicker on the northern and eastern portions of the Site, where the 20 foot embankment was previously located (see 1889 Sanborn Fire Insurance map). Underlying the fill material across most of the Site is an alluvial deposit that consists primarily of micaceous silts and clays with some fine to coarse sand and gravel in scattered lenses. The alluvium also contains some deposited organic matter such as leaves and wood fragments. Alluvium was not encountered in borings installed to the south and southwest of the property or on the southwest corner of the property in the vicinity of Gas Holder No. 1. The alluvial deposit, where encountered, ranges in thickness from 5 to 35 feet at the Site and is encountered at the surface in borings (SB-30 through SB-31) installed along the west side of the Ocmulgee River. The alluvial deposit lies unconformably above the saprolite. The saprolite in the area of the Site is generally a micaceous silt and very fine sand that is characterized by relic foliation and other structures associated with igneous and metamorphic rock. Saprolite was encountered at depths ranging from 4.5 feet (in SB-36, located southwest of the former MGP property) to 61 feet bgs. The depth at which saprolite is encountered increases towards the river and was not observed to a total depth of 64 feet in boring SB-43 located southeast of the former MGP property. Where encountered, the thickness of the saprolite ranges from a few inches to four feet thick and is thickest on the south and southwest portions of the Site. The underlying bedrock consists of a mafic to felsic gneiss and, where encountered, ranges in depth from six feet to 62 feet bgs. The bedrock appears to slope to the east and northeast of the Site towards the Ocmulgee River.

### 3.2.3 Site Hydrology and Hydrogeology

Figure 5 (Site Map and Surface/Storm Water Flow Path) identifies the flow paths of surface water at the Site and surrounding areas. Storm water at the former MGP property flows to various storm drains located at the facility (Figure 3) or as a sheet flow over the embankment located on the eastern boundary of the property. Storm water that flows

towards the embankment accumulates in standing pools on the western side of the Norfolk Southern Railway and eventually seeps through the railway gravel bed and to the Ocmulgee River. Stormwater which falls on up-gradient properties including the Exxon station, Pizza Hut restaurant, Burger King restaurant, and Conoco station, flows into either storm drains that feed into storm drains located at the facility, as surface flow over the embankment previously mentioned, or into a drainage located on the southwestern side of the Spring Street bridge. Storm water that flows into the drainage located on the southwestern side of the Spring Street bridge empties into the Ocmulgee River at a point on the southeastern side of the bridge (Figure 5).

Hydrogeology at the Site was evaluated by the use of seven monitoring wells (this includes four installed during the SI and three installed during the CSI). The uppermost portion of the surficial aquifer is located in fill material across the Site. Cross-sections A-A', B-B', and C-C' (Figures 7, 8, and 9) indicate the relationship of the top of groundwater with geologic units at the Site. Monitoring well MW-1 is screened within the saprolite and monitoring wells MW-2 through MW-5 and MW-7 are all screened within the fill material with some extending into the alluvium. Monitoring well MW-6 is screened within the alluvium. The fill material consists of clays and silty clays with abundant debris including concrete, brick, and asphalt. The matrix of the fill material does not appear very porous; however, due to the abundance of debris that creates void spaces within the fill material, wells screened within the fill material exhibited high conductivity values (see Section 5.1.1.2). The base of the alluvium in locations of the eastern area of the Site contains an alluvial clay which in some areas lies directly above the saprolite; this and the underlying saprolite appear to serve as an aquitard consisting of clays, silty clays, and clayey silts. A mafic to felsic gneiss bedrock underlies the saprolite. Based on water level measurements obtained on August 20, 2003, the top of the water table ranges from 7.32 (MW-01) to 22.75 feet bgs (MW-04). Water level measurements obtained from MW-06 were not used in determining the water table elevations due to the fact that it is screened below the top of groundwater. In addition, the proximity of MW-04 to MW-06 and their relative water levels indicate a downward flow gradient with the upper water bearing zone (see Section 5.2.3). Groundwater under the former MGP facility has a horizontal flow to the east and northeast. Three surface water bodies are located near the facility. The first is a drainage ditch located to the northwest of the former MGP property that feeds into the Ocmulgee River in the vicinity of the Spring Street bridge. Another drainage ditch is located approximately 130 feet southeast of the former MGP property and feeds into a drainage on the west side of the Norfolk Southern Railway. Based on field observations made during a period of heavy rainfall, the railway drainage has no obvious flow direction but most likely seeps through the railroad base material and into the Ocmulgee River. The third is the Ocmulgee River which is located approximately 250 feet to the east/northeast of the facility and appears to be a gaining water body.



## **SECTION 4**

# **SOIL INVESTIGATION**

## SECTION 4

# SOIL INVESTIGATION

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### 4.1 GENERAL APPROACH AND RATIONALE

Soil samples were collected at various locations to define the extent of the COI related to the former MGP operations, determine background concentrations, and evaluate potential pathways for migration of the COI. The majority of soil samples collected from soil borings performed during the CSI field work were obtained with direct-push technology (DPT) samplers equipped with liners. Where DPT was not feasible, soil samples were collected by either split-spoon samplers used in conjunction with hollow-stem augering (HSA) techniques or with hand-driven DPT.

A general sampling rationale was developed in the Work Plan (Williams, 2001) to select soil samples for laboratory analysis from geologic unit contacts and subsurface key horizons where the COI could potentially migrate. During the CSI, soil samples were field-screened to aid in the selection of soil samples for off-site laboratory analysis. Continuous sampling on four- to five-foot intervals (with two-foot, four-foot, and five-foot sampling spoons) was attempted to ensure that adequate soil samples were obtained at and between the key horizons. Field-screening using closed headspace procedures with a photoionization detector (PID) was used to determine if samples potentially contained volatile organic compounds.

Samples from the following intervals were analyzed for COI at most locations advanced:

- 0 to 2 feet bgs;
- Base of the fill;
- Top of the groundwater;
- Base of the alluvium;
- Deepest interval; and
- The soil sample with the highest PID reading.

The water table encountered during the CSI within soil borings ranged from approximately eight feet to approximately 26 feet bgs. Soil samples collected in some locations intersected the water table. If a soil sample was <50% saturated, the interval was considered part of the vadose (unsaturated) zone. If a soil sample exhibited >50% saturation, the sample was considered to be from the saturated zone.

### 4.2 SAMPLING AND ANALYSIS METHODS

#### 4.2.1 Sampling Methods

Direct-push technology sampling methods were utilized to collect the majority of the soil samples to minimize CSI-derived waste. The method also allows sampling of discrete intervals with minimal interference from flowing sands and/or cave-ins that sometimes occur during augering operations. The method involves pushing a closed two-, three-, or

four-foot sampling spoon with a liner to the desired depth, unlocking the spoon tip, and pushing the spoon through the sampling interval.

Hollow-stem augering techniques in conjunction with split-spoon sampling were utilized to advance selected borings where DPT was limited by depth. In those borings, five-foot long split-spoons were advanced with the augers for sample collection and description.

The soil borings installed during the CSI were labeled with the prefix "SB" followed by the appropriate sample location number. Some soil borings were denoted with the suffix "B" to denote a soil boring adjacent to previous soil boring locations advanced during the CSI. The locations of soil borings are shown on Figure 3.

A boring log was maintained for each soil boring installed during the CSI. Each log contains general Site information and specific information about each boring including: date sampled, sampling method, sampler, sample identification number, sample interval, time sampled, moisture content, field-screening, a complete lithologic description, and comments. Boring logs are included in Appendix D.

Soil samples were collected according to the general rationale described in this section and according to the CSI Work Plan (Williams, 2001). During field sampling, the center portion of the sample interval was collected for field-screening with a PID. Field-screening samples were placed into sealable plastic bags. A portion of the center of the interval was also collected for possible laboratory analysis of volatile organic compounds (VOCs). Each VOC sample was collected in a 4-ounce glass jar for analysis of percent solids and high-level VOCs and two five-gram aliquots of soil were also placed into two pre-weighed vials containing a five-milliliter solution of sodium bisulfate for low-level analysis of VOCs. Samples for VOC analysis and field-screening were not homogenized before they were placed into the appropriate containers. Samples for possible analysis of SVOCs and inorganics were collected over the entire interval, thoroughly homogenized on heavy duty aluminum foil (on glass during the August 2003 sampling event), and placed in laboratory-provided containers.

Sample jars filled for possible laboratory analysis were immediately labeled, placed into sealable plastic bags, and stored on ice in a cooler. Samples for field-screening were labeled and allowed to warm in the sun for a minimum of 30 minutes to allow the volatilization of organic compounds.

One soil sample containing potential OLM (GH-2-41) was collected from the base of Gas Holder No. 2 for analysis of VOCs, SVOCs, synthetic precipitation leachability procedure (SPLP) VOCs and SPLP SVOCs. This sample was collected in a 4-ounce glass jar, placed in a sealable plastic bag and stored on ice in a separate cooler to prevent cross contamination to other soil samples. This sample was shipped under chain-of-custody as part of a SDG.

Four soil samples indicated elevated lead concentrations (above the Type 3 Risk Reduction Standard of 400 mg/Kg). Upon receipt of the analytical results, three of these samples were also run for SPLP lead to determine the potential for the lead to leach into groundwater above RRSs.

Four undisturbed (UD) soil samples were collected during the CSI with Shelby tube samplers using HSA techniques for the analysis of physical characteristics of the soil (Section 5.2).

Following completion of the CSI field work, surveys were performed by a surveyor certified by the State of Georgia (Donaldson, Garrett, & Associates, Inc.) to locate the soil borings (soil borings performed in August 2003 were surveyed by Williams). The surveys were tied into the previous Site survey conducted during the SI.

#### **4.2.2 Field Screening**

Field-screening performed during the CSI was conducted utilizing closed headspace procedures by placing a portion of the sample into a sealable plastic bag. The sample was placed in the sun and allowed to warm. After sufficient time was allowed for organic compounds to volatilize (a minimum of 30 minutes), the sample was screened with a PID. The PID probe tip was inserted through the bag opening into the headspace of each container and the maximum reading was recorded. The PID was calibrated at the beginning and end of each day of use with isobutylene and zero gas. The PID reading of each sample is noted on the boring logs (Appendix D).

#### **4.2.3 Sample Handling and Preservation Techniques**

Soil samples collected during the CSI were placed in ice-filled coolers which were temporarily stored in a locked office until a determination of samples to be analyzed was made. Soil samples selected for laboratory analysis were recorded on chain-of-custody forms. Those samples selected for analysis were organized into sample delivery groups (SDGs) which were secured in ice-filled coolers and shipped or couriered to Analytical Environmental Services, Inc. (AES) in Atlanta, Georgia for analysis. Chain-of-custody documents accompanied each shipment. In general, a trip blank, field blank, rinsate, and duplicate sample were included with each SDG. One rinsate sample was collected each day or for each SDG from decontaminated or new sampling equipment. A sample was collected from the potable water supply used for decontamination procedures for analysis for the COI. The results of analysis of QA/QC samples are summarized in Appendix F.

#### **4.2.4 Decontamination Procedures**

Nondisposable sampling equipment was decontaminated before and between each sample by washing with phosphate-free detergent and water and rinsing with tap water, deionized water, isopropanol, and organic-free water. Equipment transported to a sampling point from the decontamination area was wrapped in aluminum foil. Large equipment, such as the drilling rig and ancillary tools, was decontaminated at the beginning of each day and between boreholes. Decontamination water was collected and placed into a wastewater tank and/or drums on the City of Macon property until it could be characterized for disposal.

#### **4.2.5 Laboratory Methods**

Analyses were performed according to current approved EPA methods. Volatile organic compounds were analyzed using SW-846 Method 8260 and SVOCs were analyzed using SW-846 Method 8270A. Soil samples collected for VOC analysis during CSI field work were collected and analyzed using the up-dated SW-846 Method 5035. Most inorganic compounds were analyzed using SW-846 Method 6010 except mercury (SW-846 Method 7471) and total cyanide (SW-846 Method 9010A). The Contract Required Quantitation Limit (CRQL) for each compound was based on



the laboratory's self-determined Practical Quantitation Limit (PQL). Summaries of analytical data for the CSI are contained in Appendix C-2. Attachment A of this CSR contains copies of analytical data collected during the CSI.

A complete Contract Laboratory Program (CLP) like data package was prepared by AES for one SDG containing soil samples collected during the CSI. The data package was submitted to Southern Company Chemical Services, Norcross, Georgia, for data validation using USEPA Contract Laboratory Program National Functional Guidelines for Organic Data Review, 1994, and Contract Laboratory Program National Functional Guidelines for Inorganic Data Review, 1994. Southern Company Chemical Services indicated that all laboratory data for the soil samples were acceptable. Southern Company Chemical Services also reviewed the laboratory data for precision, accuracy, representativeness, compatibility and completeness (PARCC) parameters. Southern Company Chemical Services found the PARCC parameters acceptable. A copy of Southern Company Chemical Services' report is included in Appendix G-1. Laboratory reports for other SDGs were reviewed by Williams for QA/QC measurements and the Williams QA/QC reports are included in Appendix G-2.

#### **4.3 BACKGROUND CONCENTRATION STUDY**

The lithology beneath the Site was divided into two units (fill material and natural soils) for the purpose of establishing upper-background limits (UBLs) and delineation. The background study included the collection of soil samples from areas topographically and hydrogeologically up-gradient or cross-gradient from the former MGP facility operations. Background borings included SB-33, SB-34, SB-36, SB-38, SB-38B, and SB-43. The data set for the fill material UBLs include 25 samples and 23 samples composed the data set for the natural soils. Table 4.1 lists the calculated UBLs for the COI with respect to units. Background concentrations for VOCs are determined to be the detection limit.

The background soil data were statistically evaluated to determine the UBL for each analyte for each unit. A flow-chart for the method described below is presented in Figure 10. First, the data were evaluated to determine the percentage of detected values. If the percentage of detects was less than 85 percent and the data set contained at least one detected value, a Nonparametric UBL was calculated. The Nonparametric UBL equaled the greatest detected value. If there were no detected values, the UBL was determined to be the detection limit.

If the percentage of detects was 85 percent or more, nondetect values were substituted with one-half the detection limit. Next, the underlying distributional assumption was tested using the Shapiro-Wilk Test. Then, the data was tested for outliers by calculating the 99% confidence outlier value. If a value in the data set was greater than the 99% confidence outlier value, an outlier was suspected. To be conservative, suspect outliers were removed from the initial run. If the data were determined, by the Shapiro-Wilk Test, to be normally distributed with no outliers, the UBL was calculated as the mean plus two standard deviations. If the data set was determined not to be normally distributed with no outliers, a Nonparametric UBL was calculated. If the original data set was determined to contain a suspect outlier, the outlier was removed and the modified data set was re-evaluated. If the modified data set contained another suspect

outlier and/or was not normally distributed, a Nonparametric UBL was determined based on the modified data set. The data set and calculations for background concentrations are detailed in Appendix H.

#### 4.4 HORIZONTAL EXTENT OF CONSTITUENTS OF INTEREST IN SOILS

Cross-sections A-A' through C-C' (Figures 7 through 9) depict the relationship of the COI distribution to the Site soils and show the horizontal and vertical extent of the COI as well as visual identification of TLM and OLM in soil intervals. Visual identification of TLM and OLM in soil is also noted in plan view on Figure 11. Isoconcentration maps (Figures 12 through 17) were prepared for various COI in soil. Data from the CSI and the SI were used in the evaluation of the extent of the COI in soil. Analytical results of the COI for all soil samples collected during the SI and CSI are summarized in Appendix B-1 and Appendix B-2, respectively.

Samples from background borings which exceeded calculated background concentrations were not included in the contours (except for the VOCs delineation) since, by definition, they are background samples. A background calculation based on the mean plus two standard deviations corresponds to a 97.7% confidence level of the distribution. Therefore, it is expected that a portion of the background samples will exceed the calculated background levels. For data sets of these sizes, it is typical that one sample will exceed the UBL. Additionally, to be conservative, suspect outliers from the UBL data set were removed for calculations of UBLs.

TABLE 4.1  
CALCULATED BACKGROUND CONCENTRATIONS IN SOIL

FILL MATERIAL				
SVOCs				
ANALYTE	RANGE (mg/Kg)	%NONDETECTS	STATISTICAL METHOD	UPPER BACKGROUND LIMIT (mg/Kg)
Acenaphthene	<0.35 - <0.40	0%	Detection Limit	DL
Acenaphthylene	<0.35 - <0.40	0%	Detection Limit	DL
Anthracene	<0.35 - <0.40	0%	Detection Limit	DL
Benzo(a)anthracene	<0.35 - 0.56	25%	Nonparametric 85% Prediction Limit	0.56
Benzo(a)pyrene	<0.35 - 0.69	25%	Nonparametric 85% Prediction Limit	0.69
Benzo(b)fluoranthene	<0.35 - 0.61	33%	Nonparametric 85% Prediction Limit	0.61
Benzo(g,h,i)pyrene	<0.35 - 0.69	17%	Nonparametric 85% Prediction Limit	0.69
Benzo(k)fluoranthene	<0.35 - 0.57	17%	Nonparametric 85% Prediction Limit	0.57
Chrysene	<0.35 - 0.68	25%	Nonparametric 85% Prediction Limit	0.68
Dibenzo(a,h)anthracene	<0.35 - <0.40	0%	Detection Limit	DL
Fluoranthene	<0.35 - 0.12	42%	Nonparametric 85% Prediction Limit	1.2
Fluorene	<0.35 - <0.40	0%	Detection Limit	DL
Indeno(1,2,3-cd)pyrene	<0.35 - 0.58	17%	Nonparametric 85% Prediction Limit	0.58
Naphthalene	<0.35 - <0.40	0%	Detection Limit	DL
Phenanthrene	<0.35 - 0.56	33%	Nonparametric 85% Prediction Limit	0.56
Phenol	<0.35 - <0.40	0%	Detection Limit	DL
Pyrene	<0.35 - 0.92	42%	Nonparametric 85% Prediction Limit	0.92

**TABLE 4.1 (CONTINUED)**  
**CALCULATED BACKGROUND CONCENTRATIONS IN SOIL**

<b>FILL MATERIAL</b>				
<b>INORGANICS</b>				
<b>ANALYTE</b>	<b>RANGE (mg/Kg)</b>	<b>% NONDETECTS</b>	<b>STATISTICAL METHOD</b>	<b>UPPER BACKGROUND LIMIT (mg/Kg)</b>
Arsenic (As)	<2.98 - 7.05	8%	Nonparametric 85% Prediction Limit	7.05
Barium (Ba)	11.1 - 126	100%	Mean + 2 SDs	115
Beryllium (Be)	<1.49 - <3.04	0%	Detection Limit	DL
Cadmium (Cd)	<1.49 - <3.04	0%	Detection Limit	DL
Chromium (Cr)	7.01 - 46.3*	100%	Nonparametric 85% Prediction Limit (Outlier Removed)	28.7
Copper (Cu)	5.54 - 74.9*	100%	Nonparametric 85% Prediction Limit (Outlier Removed)	43.4
Lead (Pb)	<5.67 - 379*	96%	Mean + 2 SDs (Outlier Removed)	204
Mercury (Hg)	<0.0938 - 0.541	80%	Nonparametric 85% Prediction Limit	0.541
Nickel (Ni)	3.10 - 14.4	28%	Nonparametric 85% Prediction Limit	14.4
Vanadium (V)	14.0 - 79.3*	100%	Nonparametric 85% Prediction Limit (Outlier Removed)	58.9
Zinc (Zn)	6.33 - 339*	100%	Nonparametric 85% Prediction Limit (Outlier Removed)	257
Cyanide (CN)	<0.678 - <1.22	0%	Detection Limit	DL
<b>NATURAL SOILS</b>				
<b>INORGANICS</b>				
<b>ANALYTE</b>	<b>RANGE (mg/Kg)</b>	<b>% NONDETECTS</b>	<b>STATISTICAL METHOD</b>	<b>UPPER BACKGROUND LIMIT (mg/Kg)</b>
Arsenic (As)	<3.77 - <10.5	0%	Detection Limit	DL
Barium (Ba)	<5.04 - 338	87%	Mean + 2 SDs	275
Beryllium (Be)	<1.88 - <5.27	0%	Detection Limit	DL
Cadmium (Cd)	<1.88 - <5.77	0%	Detection Limit	DL
Chromium	<2.52 - 87.2*	96%	Mean + 2 SDs (Outlier Removed)	52.8
Copper	<2.52 - 45.5	87%	Mean + 2 SDs	35.7
Lead	<4.94 - 26.5	65%	Nonparametric 85% Prediction Limit	26.5
Mercury (Hg)	<0.101 - <0.237	0%	Detection Limit	DL
Nickel (Ni)	<5.04 - 29.7	70%	Nonparametric 85% Prediction Limit	29.7
Vanadium (V)	<5.04 - 152	96%	Mean + 2 SDs	120
Zinc (Zn)	<5.04 - 125*	87%	Mean + 2 SDs (Outlier Removed)	80.3
Cyanide (CN)	<0.963 - <1.81	0%	Detection Limit	DL
<b>Notes:</b> DL - Detection Limit * - Outlier listed, however, removed for data interpretation SDs - Standard Deviations mg/Kg - milligrams per kilogram µg/Kg - micrograms per kilogram				

Samples were typically collected in two-foot or four-foot intervals which sometimes resulted in samples selected across a lithologic contact. If this occurred, the lithologic unit for the sample would be classified by what the majority of the sample was composed of.

#### 4.4.1 Visual Indications of Tar-Like Material and Oil-Like Material

TLM and OLM were observed in soil borings (SB-11 and SB-39) advanced within Gas Holder No. 1 and soil borings (SB-12, SB-13 and SB-15) advanced within Gas Holder No. 2. The TLM and OLM were observed at the base of Gas Holder No. 1 at a depth of approximately 12.5 feet bgs and in Gas Holder No. 2 at a depth of approximately 41 feet bgs. In both gas holders, the TLM/OLM was a very high viscosity, black material and was observed in less than a one-inch layer or in tarry globules existing in less than a one-inch intervals.

#### 4.4.2 Volatile Organic Compounds

Upper background limits (UBLs) for VOCs in the soils are determined to be the detection limit. Figure 12 is a contour map of the horizontal extent of total detected benzene and total VOCs in soils. The horizontal extent of benzene in soil is defined to the north by soil samples from borings SB-03, SB-04, and SB-41. Benzene was detected in soil from boring SB-38 at a concentration of 0.062 mg/Kg. Based on the fact that benzene was not detected in soil samples collected from soil boring SB-21 (between the former MGP property and soil boring SB-38) the benzene concentration detected in SB-38 is most likely related to an off-property source. Soil borings SB-27 and SB-34 contain benzene concentrations in soil of 0.031 mg/Kg and 0.0057 mg/Kg, respectively. These borings are located up-gradient of the former MGP operations and these concentrations are most likely related to off-property sources. Benzene in soil is horizontally defined to the east by soil borings SB-02, SB-04, SB-22 and SB-26. To the west benzene in soil is horizontally defined by soil borings SB-16, SB-19, SB-20, and SB-28.

Total VOCs in soil are defined in all directions. To the north, the limits of VOCs in soil are defined by samples collected from soil borings SB-30, SB-31, and SB-38. The VOC concentrations detected in soil borings SB-34 and SB-38 consisted only of benzene and as described above, are likely related to off-property sources. To the east, the horizontal extent of total VOCs is defined by samples collected from soil borings SB-22, SB-23, SB-26, and SB-32. The only detected VOC in soil from SB-23 and SB-24 was carbon disulfide. This area is separated from the remaining VOC plume and is defined in all directions. The horizontal extent of VOCs is defined to the south by samples collected from soil borings SB-33 and SB-34 and to the west by samples collected from soil borings SB-29 and SB-36.

#### 4.4.3 Semivolatile Organic Compounds

The background limits for SVOCs are presented in Table 4.1 and on Figure 13. Figure 13 is a contour map of the horizontal extent of naphthalene detected in soils and total SVOC concentrations above background limits in soils. The horizontal limits of naphthalene in soil are defined in all directions. Three areas of naphthalene concentrations in soil are located at the Site and include an area northeast of the office and service shop, an area in the vicinity of Gas Holder No. 2, and an area along the southeastern property boundary. These are defined to the north by samples collected from soil borings SB-23, SB-31, and SB-41; to the east by samples from borings SB-32 and SB-43; to the south by samples from borings SB-26, SB-27, and SB-33; and to the west by samples from borings SB-19, SB-20, and SB-40.



The horizontal extent of total SVOCs in soil above UBLs is defined in all directions. The horizontal extent is defined to the north by samples from soil borings SB-23, SB-30, and SB-31. To the east the extent is defined by soil samples collected from borings SB-32 and SB-43. To the south, the horizontal limits of SVOCs above UBLs are defined by samples from soil borings SB-33/33B and SB-34 and to the west the extent is defined by samples collected from soil borings SB-21 and SB-36.

The soil sample initially collected from soil boring SB-33 at a depth of two to four feet bgs indicated a total SVOC concentration of 23.7 mg/Kg. A second sample was collected (SB-33B-2-4) from a boring adjacent to SB-33 and analyzed for SVOCs. The analytical results from this sample indicated a total SVOC concentration of 6.3 mg/Kg. Based on these results, the concentrations reported in the original sample collected from SB-33 are likely to have been a result of the presence of asphalt in the sample.

#### 4.4.4 Inorganics

Figure 14 is a map of the horizontal extent of barium and vanadium concentrations in soil above the UBLs. This map indicates that the horizontal extents of barium and vanadium are defined in all directions. The horizontal extent of barium in soil is defined to the north by samples from borings SB-04, SB-22, SB-30, and SB-38; to the east by SB-32 and SB-43 (background soil boring); to the south by SB-33 and SB-34; and to the west by SB-06, SB-19, and SB-20. The horizontal extent of vanadium in soil is defined to the north by samples from borings SB-30 and SB-38; to the east by SB-02, SB-04, and SB-22; to the south by SB-27; and to the west by SB-06, SB-28, and SB-39.

Figure 15 illustrates the horizontal delineation of lead and mercury concentrations above UBLs in soils. The horizontal extents of lead and mercury in soil above the UBL are defined in all directions. The horizontal extent of lead in soil is defined to the north by samples from borings SB-21, SB-30, and SB-31; to the east by SB-43 (background soil boring); to the south by SB-33 and SB-34; and to the west by SB-06, SB-19, SB-20, SB-29 and SB-44. The highest concentration of lead detected in soils is from a sample (SB-45-15-17; 1,070 mg/Kg) collected from fill material on a property that is located up-/cross-gradient and to the south of the former MGP operations. Lead associated with this sample is highly unlikely to be related to the former MGP operations, and is more likely related to fill material. Lead at this location is delineated to the UBLs in all directions. The sample collected from SB-32 (located east of the former MGP facility along the Ocmulgee River) at two to four feet bgs contained a lead concentration of 43 mg/Kg in natural soils. This result is likely related to river deposition since no direct route of migration exists between SB-32 and the former MGP property. Also, concentrations of lead above the UBL from soil borings (SB-23 and SB-24) located on the MGP property occurred in the fill material and not in natural soils. No other COI was detected above a UBL in SB-32. Mercury concentrations in soil above the UBL are horizontally defined in all directions at the Site. The horizontal extent of mercury in soils is defined to the north by samples collected from soil borings SB-31 and SB-38; to the east by samples from borings SB-32 and SB-43; to the south by samples from borings SB-33 and SB-34; and to the west by samples from boring SB-36. Mercury was detected in soil boring SB-30 (located to the north of the former MGP facility, in the direction of the Ocmulgee River) at a depth of 8 to 12 feet bgs, at a concentration of 0.154 mg/Kg. The mercury UBL concentration for natural soils is the detection limit which is 0.129 mg/Kg. As with the lead UBL exceedance in

soil boring SB-32, the mercury exceedance in SB-30 is in natural soils and is likely related to river depositions. Other than beryllium, mercury was the only COI exceeding background in SB-30 and beryllium was not detected above the UBL anywhere else on the Site.

Figure 16 is a contour map of sample locations with arsenic, copper and zinc concentrations in soil above the UBLs. The horizontal extents of arsenic, copper and zinc in soil exceeding the UBL are defined in all directions. The horizontal extent of arsenic in soil is defined to the north by samples from boring SB-14; to the east by SB-25; to the south by SB-34; and to the west by SB-39. The horizontal extent of copper in soil is defined to the north by samples from borings SB-02; SB-03, SB-06, SB-07, SB-23, SB-25, and SB-26; to the east by SB-32 and SB-43 (background soil boring); to the south by SB-33 and SB-34; and to the west by SB-36 (background soil boring) and SB-38. The horizontal extent of zinc in soil is defined to the north by samples from borings SB-15 and SB-22; to the east by SB-32 and SB-43 (background soil boring); to the south by SB-33; and to the west by SB-19 and SB-20.

Figure 17 illustrates the horizontal delineations of chromium and cyanide concentrations above the UBLs. The horizontal extents of chromium and cyanide concentrations exceeding the UBL are defined in all directions. Chromium was present in two areas of the Site. The horizontal extent of chromium in soil in the first area is defined to the north by samples from borings SB-38B; to the east by SB-41; and to the south by SB-29. The second area is defined by SB-04 to the north; SB-22 to the east; SB-02 to the south; and SB-15 and SB-40 to the west. The horizontal extent of cyanide in soil is defined to the north by samples from borings SB-21, SB-31, and SB-41; to the east by SB-22 and SB-25; to the south by SB-33 and SB-34; and to the west by SB-29 and SB-36 (background soil boring).

Cadmium and nickel were not detected above their respective UBLs in any samples collected during the SI and CSI.

#### **4.5 VERTICAL EXTENT OF CONSTITUENTS OF INTEREST IN SOILS**

The vertical extent of COI in soils exceeding the UBL is defined at the Site by one of three methods, including:

- The deepest samples in a given soil boring are below the UBL (e.g., in SB-27 the soil sample collected from 8 to 12 feet bgs had a lead concentration of 634 mg/Kg but the sample collected from 20 to 21 feet bgs had a lead concentration of 6.35 mg/Kg);
- A sample collected at a deeper depth from a near by boring exhibited concentrations below the UBL (e.g., samples collected from SB-04 at 21.5 to 23.5 feet bgs had SVOC concentrations above the UBL but samples collected during the installation of MW-6 at a depth of 34 to 39 feet bgs were below detection limits for all analyzed SVOCs); and
- The deepest sample in the boring is immediately above competent rock (e.g., the sample collected from SB-38 at a depth of 34 to 38 feet bgs had a benzene concentration of 0.062 mg/Kg and auger refusal was encountered at 38 feet bgs).

## **SECTION 5**

# **GROUNDWATER INVESTIGATION**



## SECTION 5

# GROUNDWATER INVESTIGATION

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### 5.1 GENERAL APPROACH AND RATIONALE

Groundwater at the Site was evaluated by the use of seven permanent monitoring wells (four installed during the SI and three installed during the CSI). All seven monitoring wells (MW-01 through MW-07) were constructed as Type II (single-cased) monitoring wells. The objectives of the study were to define the horizontal and vertical extents of dissolved COI related to the former MGP operations, to collect data in regard to aquifer characterization, and to obtain data concerning natural attenuation parameters. The locations of the sampling points were determined by the presence of existing monitoring wells, historical information, and information gathered during the CSI. Each of the monitoring wells was designated by MW-#. After completion of the field work, surveys were conducted of sampling points by a surveyor certified by the State of Georgia (Donaldson, Garrett, & Associates, Inc.). Williams performed the survey of MW-07. The surveys referenced the previous Site survey conducted during the SI.

### 5.2 SITE HYDROGEOLOGY

#### 5.2.1 General

The most recent water level measurements were collected at each of the monitoring wells (MW-01 through MW-07) on August 20, 2003 between 7:15 a.m. to 9:00 a.m., utilizing an electronic water level indicator. Depth to water in each well was measured from the northern side on the top of each casing. Elevations of top of casings and ground elevations for each monitoring well are listed on Figure 3. Depth to top of groundwater measured in the monitoring wells ranged from 7.32 feet to 22.75 feet below top of casing on August 20, 2003 (excludes MW-06 as this is a deep monitoring well). Table 5.1 summarizes the historical depths to water and elevations for the monitoring wells.

#### 5.2.2 Hydrogeologic Characteristics

##### 5.2.2.1 Hydraulic Conductivity

Hydraulic conductivity was estimated through slug tests conducted in monitoring wells during the SI and the CSI. LAW performed slug tests in 1992, during the SI, in monitoring wells MW-01, MW-02, MW-03, and MW-04. Slug tests were performed during the CSI on April 12 and 13, 2001, in monitoring wells MW-01 through MW-06 (data collected from MW-03 were not usable).

The following methods were utilized during slug tests performed during the CSI. Slug-in tests were performed by lowering a weighted, five-foot long PVC pipe into the water column in each of the tested wells to cause an instantaneous water level change in the well. Slug-out tests were performed by withdrawing the PVC slug and recording head changes versus time. The changes in head with respect to time were recorded with a pressure transducer and data logger. The data from all of the slug tests were analyzed using the Bouwer and Rice (1976) analytical method for estimating

hydraulic conductivity of unconfined aquifers or leaky confined aquifers. The computer program AQTESOLV (Geraghty and Miller, 1991) was used to calculate the hydraulic conductivity and prepare graphs of the data.

**TABLE 5.1**  
**WATER LEVEL DEPTHS AND ELEVATIONS**

Well ID #	Date Gauged	Top of Casing Elevation*	Depth to Groundwater	Water Table Elevation*
MW-01	March 11, 1992	325.84	7.85	317.99
	March 12, 2001		10.42	315.42
	March 29, 2001		9.50	316.34
	August 20, 2003		7.32	318.52
MW-02	March 11, 1992	317.87	20.14	297.73
	March 12, 2001		20.61	297.26
	March 29, 2001		19.99	297.88
	August 20, 2003		18.23	299.64
MW-03	March 11, 1992	317.09	23.47	293.62
	March 12, 2001		22.36	294.73
	March 29, 2001		23.22	293.87
	August 20, 2003		22.00	295.09
MW-04	March 11, 1992	318.42	24.77	293.65
	March 12, 2001		25.40	293.02
	March 29, 2001		25.61	292.81
	August 20, 2003		22.75	295.67
MW-05	March 11, 1992	316.62	NA	NA
	March 12, 2001		NA	NA
	March 29, 2001		22.32	294.30
	August 20, 2003		19.17	297.45
MW-06	March 11, 1992	318.41	NA	NA
	March 12, 2001		NA	NA
	March 29, 2001		32.31	286.10
	August 20, 2003		35.28	283.13
MW-07	March 11, 1992	318.07	NA	NA
	March 12, 2001		NA	NA
	March 29, 2001		NA	NA
	August 20, 2003		18.95	299.12

\*in feet above mean sea level (MSL)

NA – Not Available (well not constructed)

The average hydraulic conductivity for wells (MW-02, MW-04, and MW-05) screened in the fill material was determined to be  $1.73 \text{ E-02}$  feet per minute (ft/min). The average hydraulic conductivity for the well screened in the saprolite (MW-01) and the well screened in the alluvium (MW-06) was determined to be  $3.77 \text{ E-04}$  ft/min and  $3.60 \text{ E-04}$  ft/min, respectively. Table 5.2 summarizes the results of slug tests performed both during the SI and the CSI and indicates the depth each well was screened. Appendix I includes the time and head data, input parameters, and graphs from the slug tests performed during the CSI.

**TABLE 5.2**  
**SUMMARY OF HYDRAULIC CONDUCTIVITY DATA**

Well ID	Test Date	Well Depth (ft. BTOC)	Water Level (ft. BTOC)	Screened Interval (ft. BTOC)	Test Type	Hydraulic Conductivity (ft/min)
<b>Saprolite</b>						
LAW DATA (from SI)						
MW-01	03/13/92	18	8.9	8-18	Slug-out	4.8 E-05
WILLIAMS DATA (from CSI)						
MW-01	04/13/01	18	9.15	8-18	Slug-out	7.05 E-04
AVERAGE (Law and Williams Data)						3.77 E-04
<b>Fill</b>						
LAW DATA (from SI)						
MW-02	03/12/92	28	19.96	18-28	Slug-out	1.1 E-03
MW-04	03/12/92	33	24.78	23-33	Slug-out	2.1 E-02
WILLIAMS DATA (from CSI)						
MW-02	04/13/01	28	19.83	18-28	Slug-out	1.61 E-03
MW-04	04/13/01	33	24.30	23-33	Slug-out	5.89 E-02
MW-05	06/07/01	30	21.81	15-30	Slug-out	3.79 E-03
AVERAGE (Law and Williams Data)						1.73 E-02
<b>Alluvium</b>						
MW-06	06/07/01	50	33.69	40-50	Slug-in Slug-out	3.95 E-04 3.24 E-04
AVERAGE						3.60 E-04
BTOC – below top of casing.						
ft. – feet.						
ft/min – feet per minute.						

#### 5.2.2.2 Physical Soil Testing

Physical soil testing was performed during the SI on one soil sample collected from the boring associated with the installation of monitoring well MW-02. The sample was analyzed for total porosity, water content, dry density, hydraulic conductivity, total organic carbon, and organic content. Four soil samples were collected during the CSI from the boring associated with the installation of monitoring well MW-05 to determine grain size distribution, specific gravity, permeability, porosity, and percent moisture for the soils encountered across the area.

The samples collected during the CSI were analyzed by Southern Company Central Laboratory. Laboratory results for the physical soil tests from both the SI and CSI are shown in Tables 5.3, 5.4, and 5.5. Laboratory reports for samples collected during the CSI are included as Appendix J.

**TABLE 5.3**  
**SUMMARY OF PHYSICAL SOIL TESTS**  
**CONDUCTED DURING THE SI**

Sample ID	Water Content (%)	Porosity (%)	Vertical Permeability cm/sec	TOC (mg/Kg)	Organic Content (%)	Dry Unit Weight (pcf)
ASB-02 (24-26)*	22.4	36.3	1.9 E-06	3,400	1.4	105.4
cm/sec – centimeters per second						
mg/Kg – milligrams per kilogram						
PCF – Pounds per cubic foot						
TOC – Total organic carbon						
* approximate depth						

**TABLE 5.4**  
**GRAIN SIZE DISTRIBUTION**

Sample ID	% Gravel	% Sand	% Silt/Clay
<b>Fill</b>			
ST-1-4-6.5	6.4	57.5	36.1
ST-1-12-14.5	1.9	60.3	37.8
ST-1-20-22.5	0.3	58.3	41.4
ST-1-28-30.5	1.2	64.1	34.7

**TABLE 5.5**  
**SUMMARY OF PHYSICAL SOIL TESTS**  
**CONDUCTED DURING THE CSI**

Sample ID	Water Content (%)	Porosity (%)	Vertical Permeability (cm/sec)	Specific Gravity	Wet Unit Weight (PCF)	Dry Unit Weight (pcf)
ST-1-4-6.5	17.7	37.4	4.9 E-05	2.64	121.3	103.1
ST-1-12-14.5	17.1	38.1	2.3 E-05	2.65	119.8	102.3
ST-1-20-22.5	17.3	33.5	8.6 E-07	2.65	129.1	110.1
ST-1-28-30.5	21.0	35.4	5.2 E-05	2.65	129.3	106.9
cm/sec – centimeters per second						
PCF – Pounds per cubic foot						

### 5.2.3 Groundwater Flow

Figure 18 is a map showing the configuration of the top of the water table on August 20, 2003. Depth to top of groundwater ranged from 7.32 feet below top of casing (MW-01) to 22.75 feet below top of casing (MW-04). Due to the proximity of MW-06 to MW-04, and the difference in water table elevations between these two wells, MW-06 was not used in determining groundwater flow direction or gradient in the upper water bearing zone. However, the relationship of these two wells provides data to determine the general vertical flow characteristics at the Site. The higher groundwater elevation measured in MW-04 (295.67), which is screened across the water table (295.38 to 285.38), versus the potentiometric head measured in MW-06 (283.13), which is screened below the water table (278.76 to 268.76), indicates a downward flow regime. The horizontal flow pattern for groundwater in the soils under the former MGP facility is generally to the east at an average gradient of 0.086 ft/ft (Figure 18).

The groundwater flow velocity or seepage velocity (V) can be determined using the horizontal hydraulic conductivity, hydraulic gradient, and effective porosity. Site values for horizontal hydraulic conductivity and hydraulic gradient were determined from the data collected during the SI and CSI. Effective porosity can be estimated from published literature based on the presence of fine sand/clayey sand. The groundwater flow velocity was calculated separately for groundwater within the saprolite (from monitoring well MW-01), fill material (from monitoring wells MW-02, MW-04, MW-05, and MW-07) and alluvium (from monitoring well MW-06).

The groundwater flow velocity is calculated from the equation:

$$V = k \cdot \frac{i}{n_e}$$

Where:

- $k$  = hydraulic conductivity = 3.7 E-04 ft/min. for saprolite, 1.73 E-02 ft/min. for fill material, and 3.60 E-04 ft/min for alluvium (average from slug tests);
- $i$  = hydraulic gradient = 0.086 (from Figure 18); and
- $n_e$  = effective porosity = 0.20 for saprolite and fill material (silt), and 0.33 for alluvium (fine sand); from Groundwater Hydrology and Hydraulics, D. B. McWhorter and D. K. Sunada, 1977).

Using the assumptions listed above, the average groundwater flow velocity at the Site is approximately 0.23 ft/day or 84 ft/year for groundwater flow in the saprolite, 10.7 ft/day or 3,900 ft/year for groundwater flow within the fill material, and 0.14 ft/day or 200 ft/year for groundwater flow within the alluvium. However, due to adsorption and degradation, the COI are expected to migrate at a slower rate.

### 5.3 GROUNDWATER MONITORING WELL INSTALLATION AND RATIONALE

Descriptions of the installation and rationale of monitoring wells MW-01 through MW-04 can be found in the SI Report by LAW.

Monitoring wells MW-05, MW-06, and MW-07 were installed during the CSI. Monitoring wells MW-05 and MW-07 were installed to define the horizontal extent of COI related to the former MGP operations in groundwater. Monitoring well MW-06 was installed adjacent to MW-04 and approximately 16 feet deeper to insure vertical delineation of COI related to the former MGP operations in groundwater.

Soil borings for the Type II monitoring wells installed during the CSI were advanced with 6.25-inch outside-diameter (OD) HSAs. The soil borings for monitoring wells MW-05 and MW-07 were advanced to 30 feet bgs and 32.5 feet bgs, respectively. Monitoring wells MW-05 and MW-07 were constructed with 15 feet of two-inch diameter, 0.010-inch slotted schedule 40 PVC screen and 15 feet of two-inch diameter schedule 40 PVC riser. Following installation of the well screen and riser, a sand pack was placed in the annulus from the total depth to a point approximately two feet above the top of the screen. Approximately two feet of bentonite were placed in the annulus above the sand pack to effect a seal. Grout was placed in the annulus from the top of the seal to ground level.

Monitoring well MW-06 was constructed with 10 feet of pre-packed well screen and 40 feet of PVC riser. The pre-packed screen consisted of 10-feet of an inner two-inch diameter, 0.010-inch slot, schedule 40 PVC screen and an outer 3.5-inch diameter, 0.010-inch slot schedule 40 PVC screen. The annular space between the screens was filled with sand pack material prior to installation. Following installation of the well screen and riser, a sand pack was placed in the annulus between the borehole and well construction material from the total depth to a point approximately two feet above the top of the screen. Approximately two feet of bentonite were placed in the annulus above the sand pack to effect a seal. Grout was placed in the annulus from the top of the seal to ground level. Each well was finished at the surface with a flush-mounted metal well guard.

More detailed information concerning well construction for all of the monitoring wells at the Site are summarized on Table 5.6. Monitoring well construction diagrams are included in Appendix K.

Each of the new and existing monitoring wells was developed, or redeveloped, respectively, by pumping with a submersible pump until the water was relatively free of suspended solids. The water removed from the wells was pumped into a waste water tank or drums located at the Site.

**TABLE 5.6**  
**SUMMARY OF MONITORING WELL CONSTRUCTION INFORMATION**

Well ID #	Ground Surface Elevation *	Top of Casing Elevation*	SCREENED INTERVALS	
			Elevation (MSL)	Feet bgs
MW-01	326.45	325.84	314.95-304.95	11.5-21.5
MW-02	318.34	317.87	300.84-290.34	18-28
MW-03	317.55	317.09	297.05-287.05	20.5-30.5
MW-04	318.88	318.42	295.38-285.38	23.5-33.5
MW-05	316.99	316.62	301.99-286.99	15-30
MW-06	318.76	318.41	278.76-268.76	40-50
MW-07	318.33	318.07	300.83-285.83	17.5-32.5

\* - feet above mean sea level (MSL)

## 5.4 SAMPLING AND ANALYSIS

Two rounds of groundwater sampling were performed as part of the CSI. The first sampling event occurred during March 2001 and the second event occurred during August 2003. Groundwater analytical data were obtained through groundwater samples collected from the monitoring wells. The groundwater samples were analyzed by Analytical Environmental Services, Inc. (AES) for the COI. Groundwater samples collected for natural attenuation parameters during the March 2001 sampling event were analyzed by Microseeps in Pittsburgh, Pennsylvania. Appendix C-2 contains summary tables of the analytical reports. Attachment A of this CSR contain copies of analytical data collected during the CSI.

### 5.4.1 Sampling Methods

Depths to groundwater were measured in the monitoring wells using a water level indicator. Depths to water, well diameter and well depths from the monitoring wells were used to calculate well volumes. Purging was accomplished using a peristaltic pump and dedicated polyethylene tubing. A minimum of three well volumes of water was removed from each well during purging. Temperature, pH, specific conductivity, dissolved oxygen, turbidity, and oxidation/reduction potential were measured during purging. The wells were purged until these field parameters had equilibrated and turbidity was less than 5 NTUs. Measurements were recorded on water quality sampling forms found in Appendix L. Groundwater samples collected during the March 2001 sampling event for VOCs and SVOCs were collected immediately following purging. Samples for analyses of inorganic COI were collected within 24 hours of purge completion using quiescent sampling techniques. For the August 2003 sampling event, samples were collected

immediately following purging with the exception of the sample from MW-01 which was allowed to recharge overnight after the well went dry. Purge water was collected and transported to the waste water tank or drums.

Groundwater samples were also collected during the March 2001 sampling event from each monitoring well for natural attenuation parameters which included ammonia as nitrogen, ferrous iron, nitrate, sulfate, sulfide, iron, manganese, dissolved manganese, carbon dioxide, methane, nitrogen, and oxygen. Natural attenuation parameters in groundwater were analyzed to determine the applicability of biodegradation of COI in groundwater for the purposes of remediation if necessary.

#### **5.4.2 Sample Handling and Preservation Techniques**

Groundwater samples collected for COI related to former MGP operations from the monitoring wells were analyzed for VOCs, SVOCs, metals, and cyanide. The samples were collected in the following order: 1) VOCs; 2) SVOCs; and 3) inorganic compounds. The samples were placed in the appropriate containers with the appropriate preservatives prescribed by the Work Plan. The samples were designated by the well number and identified by attaching sample labels with the required information completed. The sample containers were sealed in plastic bags, placed in a trash bag and sealed in a cooler with plastic bubble wrap and ice. Chain-of-custody forms were completed for each SDG and shipped with the samples. Each shipment of samples was assigned a SDG number. Equipment rinse blanks and field duplicate samples were included in the SDGs and were analyzed for the COI. Trip blanks and field blanks were included in the SDGs and analyzed for VOCs only.

Groundwater samples collected for natural attenuation parameters were placed in appropriate containers with the appropriate preservative as prescribed by the Work Plan. The sample containers were sealed in plastic bags, placed in a trash bag and sealed in a cooler with plastic bubble wrap and ice. Chain-of-custody documentation accompanied each shipment. All samples sent for natural attenuation parameters were shipped overnight via Federal Express.

#### **5.4.3 Decontamination Procedures**

Decontamination procedures were followed according to the Work Plan. All reusable down-hole equipment, consisting of the water level indicator, pressure transducer, and tape measure was decontaminated prior to entering the well. Decontamination was performed by washing the equipment in a solution of tap water and Liquinox, and rinsing with deionized water, isopropanol and organic-free water. Throughout the sampling and decontamination procedures, new disposable gloves were worn when equipment was handled.

#### **5.4.4 Laboratory Methods**

Groundwater samples for COI analyses were shipped to AES, via Federal Express Priority Overnight. Samples were analyzed for VOCs and methyl-tert-butyl-ether (MTBE; only during the March 2001 sampling event) according to SW-846 Method 8260, SVOCs according to SW-846 Method 8270A, and inorganic constituents using SW-846 Method 6010 except for mercury and total cyanide which were analyzed using SW-846 Method 7471 and SW-846 Method 9010, respectively. The CRQLs were based on the laboratory's self-determined PQL.



Groundwater samples collected for natural attenuation parameters were shipped to Microseeps, via Federal Express Priority Overnight. Table 5.7 lists the methods numbers for each parameter analyzed.

**TABLE 5.7**  
**ANALYTICAL METHODS FOR NATURAL ATTENUATION PARAMETERS**

Parameter	Method
Ammonia as Nitrogen	EPA Method 350.2
Ferrous Iron	Modified SW-846 Method 7199
Nitrate, Nitrite, Sulfate	SW-846 Method 9056
Sulfide	EPA Method 376.1
Iron, Manganese, Dissolved Manganese	SW-846 Method 6010
Carbon Dioxide, Nitrogen, Oxygen	AM 15*
Methane	AM 18*

\* Microseeps Method

A complete CLP-like data package was prepared by AES for one water SDG. The data package was submitted to Southern Company Chemical Services for data validation using USEPA SMO Data Validation Functional Guidelines. All laboratory data were considered by Southern Company Chemical Services to be acceptable. Southern Company Chemical Services also reviewed the laboratory data for PARCC parameters. Southern Company Chemical Services found the PARCC parameters acceptable (Appendix G-1). The laboratory packages for the remaining SDGs were reviewed and qualified by Williams for quality assurance/quality control measurements and results are included in Appendix G-2.

## 5.5 BACKGROUND CONCENTRATIONS

Background concentrations of the COI for groundwater were determined from the groundwater samples collected from monitoring well MW-01 for inorganic compounds. This well is located up-gradient from any known MGP source area (Figure 18). Table 5.8 lists the background concentrations for the inorganic COI in groundwater. The UBLs for VOCs and SVOCs were assumed to be the detection limit.

**TABLE 5.8**  
**CALCULATED BACKGROUND**  
**CONCENTRATIONS**

<b>GROUNDWATER</b>	
<b>INORGANICS</b>	
<b>ANALYTE</b>	<b>UPPER BACKGROUND LIMIT (mg/L)</b>
Arsenic (As)	Detection Limit
Barium (Ba)	Detection Limit
Beryllium (Be)	Detection Limit
Cadmium (Cd)	Detection Limit
Chromium (Cr)	Detection Limit
Copper (Cu)	Detection Limit
Lead (Pb)	Detection Limit
Mercury (Hg)	Detection Limit
Nickel (Ni)	Detection Limit
Zinc (Zn)	0.029
Cyanide (CN)	Detection Limit

## **5.6 HORIZONTAL AND VERTICAL EXTENT OF CONSTITUENTS OF INTEREST IN GROUNDWATER**

Analytical results of the COI for all groundwater samples collected during the CSI are summarized in Appendix C-2. Cross-sections A-A' through C-C' (Figures 7 through 9) show the horizontal and vertical extent of the COI in groundwater samples collected during the CSI sampling event. An isoconcentration map (Figure 19) was also prepared for various COI detected in the groundwater from monitoring wells sampled during the August 2003 CSI field sampling event. In addition to the previously listed COI, MTBE analyses were conducted on collected groundwater samples during the March 2001 for the purpose of fingerprinting possible impacts and determining potential off-property sources.

### **5.6.1 Horizontal Extent of Volatile Organic Compounds in Groundwater**

Groundwater samples collected during the August 2003 sampling event did not contain any detectable concentrations of VOCs. The groundwater sample collected from monitoring well MW-01 (up-gradient of the former MGP facility) during the March 2001 sampling event contained benzene at a concentration of 9.1 µg/L (duplicate sample Dup031201A collected from MW-01 did not contain a detectable concentration of benzene). This was the only groundwater sample collected during the CSI that contained benzene and MW-01 is located immediately down-gradient of a known off-Site UST related release and cross-gradient of another off-Site UST release (these plumes are presented on Figure 19). Therefore, the benzene concentration detected in MW-01 during the March 2001 sampling event is not related to the former MGP facility.

MTBE was detected in groundwater samples collected from MW-02 and MW-04 at 8.5 µg/L and 18 µg/L, respectively during the March 2001 sampling event. As MTBE is a synthetic compound developed in the 1970's, and MGP operations ceased in the early 1900's, it can be assumed that the concentrations of MTBE in groundwater at the Site are representative of off-site sources (likely related to the up-gradient USTs).

### **5.6.2 Horizontal Extent of Semivolatile Organic Compounds in Groundwater**

Detectable SVOC concentrations were reported in only two groundwater samples collected during the August 2003 CSI sampling event (MW-02 and MW-05; Figure 19). Analytical results indicated the presence of acenaphthene at concentrations of 12 µg/L and 14 µg/L slightly above the detection limit of 10 µg/L in MW-02 and MW-05, respectively. No other SVOCs were detected in groundwater samples collected during the August 2003 sampling event.

### **5.6.3 Horizontal Extent of Inorganics in Groundwater**

The horizontal extents of inorganic constituents detected in groundwater above the background limits are defined at the Site (Figure 19). Concentrations of all inorganic COI, with the exception of barium and cyanide, were below the laboratory detection limit in the groundwater samples collected during the August 2003 sampling event. Barium was detected in monitoring wells MW-02 through MW-07. The background monitoring well (MW-01) did not contain detectable levels of barium. When evaluated independently, the chemical data suggests that there has been a barium release to groundwater that is not defined. However, when the data is evaluated in combination with geologic units and background soil chemical analysis, the data suggests the barium present in the groundwater at the Site is related to

alluvial soils and fill material. This is based on the fact that the background well (MW-01) is the only well that is screened within the saprolite and the remaining wells are screened within fill material and/or alluvium. Specifically, MW-03, MW-05, and MW-07 are screened completely in the fill material, MW-02 and MW-06 are screened completely in the alluvium, and MW-04 is screened across the fill material and alluvium contact. An evaluation of barium in soil from the background soil borings shows that barium is not present above the detection limit in the saprolite background soil samples, however, barium is present in the fill material and alluvium background soil samples at concentrations ranging from 11.1 mg/kg to 126 mg/kg and 30.1 mg/kg to 338 mg/kg, respectively. Additionally, barium is not present in soils at the locations of former MGP operations at concentrations exceeding the soil background concentrations, demonstrating that a release of barium has not occurred at the MGP facility. Therefore, the barium present in the groundwater is directly related to the barium present in the fill material and alluvium, and not the former MGP operations. Cyanide was detected in monitoring well MW-02 at a concentration of 0.048 mg/L (Figure 19) and is defined in all directions by MW-01, MW-04, MW-05, and MW-07 (MW-07 is a new well that was installed to define the cyanide present in MW-02).

#### **5.6.4 Natural Attenuation Parameters**

Groundwater samples were collected from all monitoring wells (MW-01 through MW-06) during the March 2001 sampling event and analyzed for natural attenuation parameters. Based on analytical results of COI in groundwater, further study of the results from the natural attenuation parameter analysis is not warranted at this time.

## **SECTION 6**

# **INVESTIGATION OF NONAQUEOUS PHASE LIQUIDS**

## **SECTION 6**

# **INVESTIGATION OF NONAQUEOUS PHASE LIQUIDS**

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### **6.1 GENERAL OBSERVATIONS**

Non-aqueous phase liquids (NAPL) were not identified at the Site during the CSI. Williams advanced borings in the vicinity of former structures where NAPL could potentially be encountered in the subsurface.

### **6.2 SOIL BORINGS**

During the CSI, borings were advanced in areas where structures appear to have been located according to the Sanborn maps. A minimal amount of TLM and/or OLM was observed in two borings (SB-11 and SB-39) installed within Gas Holder No. 1 and three borings (SB-12, SB-13, and SB-15) installed within Gas Holder No. 2. In SB-11 and SB-39, the TLM and/or OLM were observed at the base of the gas holder at a depth of approximately 12.5 feet bgs in less than one-inch lens. The TLM and/or OLM were observed at the base of Gas Holder No. 2 at a depth of approximately 41 feet bgs in a less than one-inch layer.

### **6.3 MONITORING WELLS**

No measurable thickness of light non-aqueous phase liquid (LNAPL) or dense non-aqueous phase liquid (DNAPL) was observed during the CSI in any of the monitoring wells.

## **SECTION 7**

# **SEDIMENTS INVESTIGATION**

## SECTION 7

# SEDIMENTS INVESTIGATION

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The CSI assessed the potential impact of the COI on sediments in the Ocmulgee River. The river is located approximately 200 feet northeast of the former MGP facility.

Williams performed an investigation of the sediments of the Ocmulgee River on April 11, 2001. Sediment samples were collected using hand DPT for visual observation only to determine if sediments had been impacted by former MGP operations. Sediment samples were collected at approximately 100 foot intervals along the western bank of the river beginning at the Spring Street bridge and extending approximately 700 feet south of the bridge. At each interval, samples were collected from 0-2 feet and 2-4 feet below the top of the sediment at approximately three feet and 13 feet from the edge of the river bank. Depth to the top of the sediment from the water level was measured for each location and is recorded on boring logs included in Appendix D-3. The boring logs also include a lithologic description and any observation of visible staining, if present. Additional sediment samples were collected for visual observation at the culvert located on the south side of the bridge (Figure 3).

A hydrocarbon-like staining and odor (possibly diesel fuel in nature) were noted in four sediment samples (SD-D-30, SD-D-40, SD-E-3, and SD-E-8) collected in the vicinity of the culvert. Due to the large drainage basin that includes several other potential sources (several UST facilities, manufacturing facilities, commercial area and roadways) associated with this culvert, the lack of a direct hydraulic connection with the former MGP facility and the fact that the hydrocarbon-like odor resembled that of diesel fuel, it does not appear likely this is associated with the former MGP operations (see Figure 5). Minor amounts of coal-like material were observed in the sediment sample (SD-D-20) collected approximately 20 feet outward from the culvert and one piece of slag-like material was observed in the sample collected approximately 20 feet downstream and approximately three feet from the edge of the bank (SD-E-3). None of the sediment samples collected indicated the presence of TLM or OLM semi-volatile organic compounds.



**SECTION 8**  
**PROPERTIES POTENTIALLY AFFECTED BY A  
RELEASE AND OTHER POTENTIALLY  
RESPONSIBLE PARTIES**

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## SECTION 8

### PROPERTIES POTENTIALLY AFFECTED BY A RELEASE AND OTHER POTENTIALLY RESPONSIBLE PARTIES

#### 8.1 PROPERTIES POTENTIALLY AFFECTED BY A RELEASE

As defined by the CSI, the properties potentially affected by a release from the former MPG facility are shown on Figure 2 and include the following owners and/or occupants listed in Table 8.1.

TABLE 8.1  
OWNERS OF POTENTIALLY AFFECTED PROPERTIES

Affected Parcel	Parcel Address	Parcel Owner	Address and Telephone Number
OC-98-5I	32 Spring Street Macon, Georgia	Eagle West, LLC	Outdoor West 8976 N. Expressway Griffin, GA 30223 Phone: 770-227-2060
OC-98-5C OC-98-5D OC-98-5G OC-98-5H	40 Spring Street 40 Spring Street 40 Spring Street 36 Spring Street	Kayo Oil Company	Kayo Oil Company c/o Conoco P.O. Box 1039 Wilmington, GE 19899 Phone: 770-425-2507
OC-98-5A	44 Spring Street	Pizza Hut of America, Inc.	66 Frank Street Macon, GA 31201 Phone: 912-741-2525
OC-98-4F	66 Spring Street	Travis R. Crouch, Jr. et Al.	Jeanette C. Miller P.O. Box 35370 Louisville, KY 40232 Phone: Not Available
OC-98-3A OC-98-3B OC-98-3D OC-98-4H	855 Riverside Drive 855 Riverside Drive 855 Riverside Drive 886 Willow Street	Schuster Enterprises, Inc.	Schuster Enterprises, Inc. P.O. Box 12029 Columbus, GA 31917 Phone: 706-563-3066
OC-99-4AB	815 Riverside Drive Macon, Georgia	City of Macon, Transit Authority	City Hall 700 Poplar Street Macon, GA 31201 Phone: 478-751-7110
OC-98-2A OC-98-2B	847 Riverside Drive 839 Riverside Drive	Roscoe Douglas, Jr.	P.O. Box 2823 Macon, GA 31203 Phone: 478-475-9555
OC-98-5J	801 Riverside Drive	City of Macon Central Services	801 Riverside Drive Macon, GA 31201 478-751-9147
OC-99-4A	725 Riverside Drive	Macon-Bibb County Urban Development Authority	305 Coliseum Drive Macon, GA 31201 Phone: 478-741-8000
R-O-W Norfolk Southern	NA	Norfolk Southern Corporation	Three Commercial Place Norfolk, VA 23510-9227 757-629-2600

## 8.2 OTHER POTENTIALLY RESPONSIBLE PARTIES

HSRA regulations, by which this report is being prepared, require the name, address, and telephone number of any other person who may be a responsible party for the Site and a description of the type and amount of regulated substances such party may have contributed to a release.

The following potentially responsible parties have been identified at this time:

The City of Macon  
700 Poplar street  
Macon, Georgia

Georgia Power Company  
241 Ralph McGill Boulevard, NE  
Atlanta, GA 30308

Atlanta Gas Light Company  
10 Peachtree Place  
Atlanta, GA 30309

**SECTION 9**  
**POTENTIAL RECEPTOR STUDY AND RISK**  
**REDUCTION STANDARDS**

## SECTION 9

# POTENTIAL RECEPTOR STUDY AND RISK REDUCTION STANDARDS

This section evaluates the potential for exposure of human populations to COI detected in soil and groundwater at the Site. For exposure to occur a contaminant has to reach a receptor. Movement of a substance through the environment from a source, to a point of contact with an individual is defined as exposure pathway. A complete exposure pathway consists of four elements: 1) chemical source and release mechanisms, 2) environmental transport media, 3) a receptor at the exposure point, and 4) an exposure route at the exposure point. Without all four elements, an exposure pathway is incomplete, and consequently, no exposure could occur. Each of the elements as they exists at the Site are described below.

### 9.1 CHEMICAL SOURCE AND RELEASE MECHANISMS

At the Macon 2 former MGP facility, MGP constituents appear to have potentially been released from more than one source involved in the manufacture or storage of gas or its by-products. Section 2.5 lists known and potential sources of the COI and a general description of each identified potential source. The actual mechanism for release of COI from each source is not known; however, releases likely occurred due to spillage or leakage during the gas manufacturing process or leakage during storage of MGP by-products.

### 9.2 ENVIRONMENTAL TRANSPORT MEDIA

#### 9.2.1 Persistence of Constituents of Interest

The primary MGP constituents detected in soil and groundwater at the Site are PAHs, VOCs, metals, and cyanide. The physical and chemical characteristics of these compounds vary widely which causes differences in the behavior of movement of each compound in the environment. Table 9.1 lists physical and chemical characteristics for select COI found at the Site that determine their fate and transport in environmental media.

TABLE 9.1  
PHYSICAL AND CHEMICAL CHARACTERISTICS OF SELECT CONSTITUENTS OF INTEREST

Constituent of Interest	Water Solubility (ppm)	Vapor Pressure (torr)	Henry's Law Constant	Koc Water/Carbon (ml/g)
Benzene	1.8E+03	9.5E+01	5.6E-03	5.51E+01
Benzo(a)pyrene	1.63E-03	5.5E-09	1.1E-06	7.91E+05
Naphthalene	3.1E+01	8.5E-02	4.8E-04	1.76E+03
Pyrene	1.4E-00	4.6E-06	1.1E-05	6.56E+04
Lead	—	0.00E+0	—	—

Source: Superfund Chemical Data Matrix, EPA, 1996

Those chemicals with higher water solubility values, such as benzene, are more likely to be dissolved into groundwater and be potentially transported from the Site. Those with high water/carbon partitioning coefficients (such as benzo(a)pyrene) are much more likely to become bound to the organic fraction of soils. Chemicals with high vapor pressures such as benzene are likely to volatilize when in contact with air.

In general, PAH compounds tend to have a high affinity for organic compounds and low solubility in water. Therefore, in soils and sediments, PAH compounds tend to be bound to the soil particles and dissolve slowly. Volatilization of some lighter end PAH compounds may occur although most volatilize slowly due to their low vapor pressures. Biodegradation is an important process in that microorganisms are capable of breaking down PAH compounds. According to the Gas Research Institute (Management of Manufactured Gas Plant Sites, 1988) the half-life of most PAH compounds in soil varies from 140 to 480 days under good conditions. The rate of biodegradation is highly dependent upon the availability of oxygen and nutrients in the subsurface and other soil conditions.

Benzene and other VOCs tend to dissolve in groundwater and volatilize in air much more easily than PAH compounds. Therefore, they do not usually last for long periods at the surface but may be persistent in groundwater.

Metals and ferrocyanide, usually the dominant form of cyanide at MGP Sites (Management of Manufactured Gas Plant Sites, 1988), are relatively insoluble and tend to be persistent in soil. They are usually closely bound to particulate matter and may be transported in soil eroded by wind or rain. Over time, oxidation and biological action may cause reaction of sulfur and cyanide compounds to form thiocyanates which are very soluble in water.

## **9.2.2 Potential Routes of Migration**

### **9.2.2.1 Soils**

Surface and subsurface soils at or near identified sources appear to be the first media impacted by the release of MGP constituents. The primary route of migration of MGP-related constituents is movement through subsurface soils by the percolation of rainwater through the vadose zone to the water table. The migration of the COI occurs along preferential pathways where changes in permeability occur. Several key horizons were identified during the CSI which appear to be possible migration pathways including the ground surface, the water table, the base of fill material, the alluvial sands, and the base of alluvium. Constituents can also be moved from place to place on the surface by the erosion of impacted surface soils. Transport of COI from the Site as a result of surface soil erosion is not likely to occur because buildings, asphalt and concrete cover all but approximately 500 square feet (covered by grass) of the former MGP facility, as show in Figure 3.

#### **9.2.2.1.1 Surface Topography**

Surface topography at the Site slopes to the northeast and east. Surface soils at the property contain COI exceeding background concentrations. Surface water runoff would follow surface topography, as discussed in Section 2, to one of the two drainages discussed in Sections 3.2.3 and 9.3.2. However, as mentioned in the previous Section, COIs are not likely to be found in surface water runoff because there are no exposed surface soils at the Site. Therefore, the migration of MGP-related constituents from eroded surface soils or former MGP operations in surface water runoff is not considered to be the potential path of contaminant migration from the Site.

#### **9.2.2.1.2 Water Table**

As soil saturation increases near the water table, permeability to fluids other than water decreases. The result is a vertical change in the conductivity of the soil. Therefore, some migration may be expected to have occurred in a down-gradient direction along the water table. Figure 18 is a map depicting the elevation of the water table.

#### **9.2.2.1.3 Base of the Fill Material**

The clays, sands and gravels of the fill material exhibit a higher conductivity than the underlying clays and silts of the alluvium and saprolite. Therefore, the base of the fill material may be a preferential flow pathway.

#### **9.2.2.1.4 Base of Alluvium**

The medium to coarse sands and gravels observed in the alluvium at the Site has a higher conductivity than the underlying silts and fine sands of the saprolite or of the gneissic bedrock. Therefore, the contact between the base of the alluvium and the underlying saprolite or bedrock could represent a preferential flow pathway.

#### **9.2.2.2 Groundwater**

Groundwater may be impacted by COI when residual MGP constituents in subsurface soil come in contact with the groundwater or when percolating rainwater leaches the COI into the groundwater. The migration of MGP constituents that have been dissolved into the groundwater is directly controlled by the flow direction and flow rate of the groundwater. The distributions of the COI in groundwater are shown in Figure 19.

In any groundwater flow regime there is usually some component of vertical movement of groundwater. Areas where groundwater has some component of downward movement are called recharge areas. Areas where groundwater is moving up (towards the surface) are known as discharge areas. The relationship between monitoring wells MW-4 and MW-6 provides data to determine the general vertical flow characteristics at the Site. The higher groundwater elevation measured in MW-04 (295.67) which is screened across the water table (295.38 to 285.38), versus the elevation measured in MW-06 (283.13) which is screened below the water table (278.76 to 268.76), indicates a downward flow regime or recharge.

### **9.3 POTENTIAL RECEPTORS AT EXPOSURE POINTS**

Exposure points include any areas where MGP constituents are accessible in soils and groundwater to potential human (i.e., children, adult residents, and workers) and/or environmental (i.e., such as plant and animal species) receptors. Potential exposure points at the Site and its vicinity include those areas where local residents, commercial and potential future construction workers come into contact with the COI in soils or groundwater. Commercial and residential workers may potentially be exposed to COI in surface soils whereas construction workers are expected to be mainly exposed to COI detected in subsurface soils during construction or excavation activities that may occur in the



future at the Site. In addition, aquifers impacted by the COI are potential exposure points to humans who may use them as drinking water sources.

### **9.3.1 Water Wells**

A water well survey was conducted by Williams during the CSI for former Macon 2 MGP facility. The water well survey entailed a database search performed by the U.S.G.S. No water wells were found in use within a three-mile radius of the former MGP facility. The area surrounding the Site is served by the municipal water supply which obtains its water from the Ocmulgee River approximately three miles upstream from the Site.

### **9.3.2 Surface Water**

Figure 5 (Site Map and Surface/Storm Water Flow Path) identifies the flow paths of surface water at the Site and at surrounding areas. Storm water at the former MGP property flows to various storm drains located at the facility (Figure 3) or as a sheet flow over the embankment located on the eastern boundary of the property. Storm water that flows towards the embankment accumulates in standing pools on the western side of the Norfolk Southern Railway and eventually seeps through the railway gravel bed and to the Ocmulgee River. Stormwater which falls on up-gradient properties including the Exxon station, Pizza Hut restaurant, Burger King restaurant, and Conoco station, flows into either storm drains that feed into storm drains located at the facility, as surface flow over the embankment previously mentioned, or into a drainage located on the southwestern side of the Spring Street bridge. Storm water that flows into the drainage located on the southwestern side of the Spring Street bridge empties into the Ocmulgee River at a point on the southeastern side of the bridge (Figure 5).

### **9.3.3 Crops and Hunting**

Bibb County contains approximately 24,600 acres of land used for agriculture. The majority of this land is located in the southern portion of the county. However, near the Site, the land is utilized for urban and industrial purposes and, therefore, is not suitable for agriculture. Accordingly, potential exposure through ingestion of crops that might be affected by Site contaminants is not likely.

Several species of wildlife are hunted in Bibb County including fox squirrel, white-tailed deer, bobwhite, quail, and mourning dove. However, hunting is not likely to occur on the Site due to its commercial/industrial setting. Some fishing may occur in the Ocmulgee River although the potential of exposure through fish is expected to be low since the COI related to the Site were detected below Type 1 RRSs in groundwater and they have been delineated prior to entering the river. Therefore, potential human exposure to Site contaminants through ingestion of local wildlife and fish is expected to be low, if at all.

### **9.3.4 Environmental Receptors**

Environmental receptors include plant and animal species that might be exposed to the COI in soil at the Site. The discussion of potential receptors in Appendix M includes a list of species in Bibb County and adjacent counties of

Crawford, Houston, Jones, Monroe, Peach, and Twigs considered by the U.S. Fish and Wildlife Service, Georgia Department of Natural Resources, and the Georgia Natural Heritage Program as threatened, endangered, protected, and/or species of special concern. These species are not likely to inhabit the Site due to its commercial/industrial setting.

#### **9.4 EXPOSURE ROUTES**

Potential exposure routes at the exposure points include incidental ingestion, inhalation and dermal contact with the COI detected in soils and groundwater by potential receptors (i.e., Site workers or residential receptors). The potential exposure of workers and residential populations to COI present in surface soil is limited since most of the area where the COI were found in soils are covered by buildings, asphalt or concrete. In addition, no residences were noted in any of the areas defined as impacted by the COI. Construction workers are the most likely receptors that may potentially be exposed to COI detected in soils through incidental ingestion, dermal contact or inhalation of COI during construction/excavation activities.

Potential human indirect routes of exposure include ingestion by humans of plants or wildlife that have bioaccumulated/biomagnified the COI from surface soils. Indirect exposure at the Site is not likely because no terrestrial wildlife species were observed on the Site. The potential for exposure of terrestrial and aquatic wildlife to COI potentially discharged in groundwater to Ocmulgee River is low because COI related to the Site are not likely to discharge to the River. Overall, the potential for transfer of the contaminants through the food web to humans or ecological receptors is low considering the urban/industrial setting of the Site and the absence of impact of the Site-related groundwater contaminants on the Ocmulgee River.

#### **9.5 HSRA EVALUATION**

Regulated substances identified at a site must be compared with appropriate Risk Reduction Standards (RRSs) as required by HSRA. RRSs are based on property use (i.e., residential or non-residential) and, when applicable, Site-specific conditions. Thirty-five HSRA-regulated substances were detected in soils or groundwater at the Macon 2 former MGP facility during the CSI. The concentrations detected were first compared with Type 1 RRSs (most stringent residential) to determine which chemicals required further evaluation. The following subsections address the evaluation of HSRA regulated substances for compliance with RRSs.

##### **9.5.1 Soils**

###### **9.5.1.1 Calculation of Risk Reduction Standards**

Types 1 through 4 RRSs for soils at the Site were derived to evaluate Site compliance with HSRA regulations (Appendix M). The RRSs and the methods by which they were derived are summarized in Table 9.2. The methods for Types 1 and 3 RRSs include, as applicable, values given in the tables of the HSRA rules (Tables 1 and 2, Appendix III), the appropriate Risk Assessment Guidance for Superfund (RAGS) Equations, or background concentrations. Type 2 RRSs were determined by calculating the appropriate RAGS equations with default exposure assumptions published by

**TABLE 9.2**  
**RISK REDUCTION STANDARDS FOR SOIL AND**  
**METHODS USED IN CALCULATIONS**

METHODS USED IN CALCULATIONS													
Constituent	Highest Concentration*		Type 1		Type 2		Type 3 0-2'	Type 3 >2'		Type 4 0-2'	Type 4 >2'		
	0-2'	>2'											
VOCs													
Benzene	ND	0.0310	0.500	B	8.37	D	0.500	0.500	B	0.500	0.500	H	
Ethylbenzene	ND	ND	70.0	B	139	E	70.0	70	B	70.0	70.0	H	
Toluene	ND	0.0100	100	B	514	E	100	100	B	100	100	H	
Total Xylenes	ND	0.00550	1,000	B	1,000	E	1,000	1,000	B	1,000	1,000	H	
Carbon Disulfide	ND	0.0320	400	B	228	E	400	400	B	400	400	H	
Methylene Chloride	ND	ND	0.500	B	96.5	D	0.500	0.500	B	0.500	0.500	H	
SVOCs													
Acenaphthene	ND	6.10	300	A	4,690	E	300	300	A	300	300	H	
Acenaphthylene	ND	8.80	130	A	2,350	E	130	130	A	130	130	H	
Anthracene	ND	33.0	500	A	23,500	E	500	500	A	500	500	H	
Benzo(a)anthracene	0.750	37.0	5.00	A	12.5	D	5.00	5.00	A	78.4	120	D/I	
Benzo(a)pyrene	0.740	26.0	1.64	A	1.25	D	1.64	1.64	A	7.84	63.3	D/I	
Benzo(b)fluoranthene	0.690	27.0	5.00	A	12.5	D	5.00	5.00	A	78.4	298	D/I	
Benzo(g,h,i)perylene	0.540	5.00	500	A	2,350	E	500	500	A	500	500	H	
Benzo(k)fluoranthene	0.780	28.0	5.00	A	125	D	5.00	5.00	A	5.00	5.00	H	
Chrysene	0.770	37.0	5.00	A	1,250	D	5.00	5.00	A	5.00	5.00	H	
Dibenzo(a,h)anthracene	ND	3.50	2.00	D	1.25	D	5.00	5.00	A	5.00	5.00	H	
Fluoranthene	1.50	68.0	500	A	3,130	E	500	500	A	500	500	H	
Fluorene	ND	31.0	360	A	3,130	E	360	360	A	360	360	H	
Indeno(1,2,3-cd)pyrene	0.380	15.0	5.00	A	12.5	D	5.00	5.00	A	78.4	924	D	
Naphthalene	ND	51.0	100	A	59.9	E	100	100	A	100	100	H	
Phenanthrene	1.10	110	110	A	2,350	E	110	110	A	110	110	H	
Phenol	ND	ND	400	B	46,900	E	400	400	B	400	400	H	
Pyrene	1.10	70.0	500	A	2,350	E	500	500	A	500	500	H	
Inorganics													
Arsenic	31.5	7.47	20.0	C	6.08	D	38.1	41.0	D/A	38.1	41.0	H	
Barium	119	279	1,000	C	5,430	E	1,000	1,000	C	1,000	1,000	H	
Beryllium	ND	ND	2.00	C	156	E	3.00	3.00	A	3.00	3.00	H	
Cadmium	ND	ND	2.00	C	78.2	E	39.0	39.0	A	39.0	39.0	H	
Chromium	25.0	46.3	100	C	234	E	1,200	1,200	A	1,200	1,200	H	
Copper	63.7	89.1	100	C	3,130	E	1,500	1,500	A	1,500	1,500	H	
Lead	151	1070	75.0/204	C/F	400	**	400	400	**	1,070	1,070	I	
Mercury	0.825	9.43	0.500/0.540	C/F	23.5	E	17.0	17.0	A	17.0	17.0	H	
Nickel	8.29	14.4	50.0	C	1,560	E	420	420	A	420	420	H	
Vanadium	75.3	79.3	100/120	C/G	548	E	100	100	A	100	100	H	
Zinc	160	544	100/257	C/F	23,500	E	2,800	2,800	A	2,800	2,800	H	
Total Cyanide	ND	1.44	20.0	B	1,560	E	20.0	20.0	B	20.0	20.0	H	

\* - Data from the February/April 2001 sampling event

\*\* - Derived based on the EPA Integrated Exposure Biokinetic Model.

A - Appendix I Notification Requirement

B - Appendix III Table 1 times 100

C - Appendix III Table 2

D - Upperbound excess cancer risk

E - Noncarcinogenic risk

F - Background in fill material

G - Background in natural soils

H - Calculated Type 4 RRS by RAGS was not evaluated for leachability; therefore, defaults to Type 3.

I - Concentration protective of groundwater is less than Type 4 RRS calculated by RAGS, therefore Type 4 has been adjusted to be protective of groundwater.

Values listed in milligrams per kilogram (mg/Kg)

Values rounded to three significant digits



the Georgia EPD or by background concentrations. Type 4 RRSs were determined for COI that exceeded Types 1 through 3 RRSs by calculating RAGS equations for the two exposure scenarios based on depth of soils at the Site. The Type 4 RRSs were additionally evaluated by a leaching potential study (Section 9.5.1.2) to demonstrate the values are protective of groundwater. The lesser of the calculated RRSs by RAGs and the leaching potential study were used as the Type 4 RRS for soil. For COI that did not exceed Types 1 through 3 RRS in soil, the Type 4 RRS was defaulted to a lower type RRS as the COI already meet a more stringent RRS. These COI include all compounds detected in the Site soils except for benzo(a)anthracene, benzo(a)pyrene, benzo(b)fluoranthene, indeno(1,2,3-cd)pyrene, and lead.

For surface soils (i.e., soil depth interval of 0-2 feet bgs.), Type 4 RRSs were determined for a commercial worker by calculating the appropriate RAGS equations with default exposure assumptions published by the Georgia EPD or by background concentrations. For subsurface soils (i.e., soil depth interval greater than 2 feet bgs.), Type 4 RRSs were determined by calculating the appropriate RAGS equations with exposure assumptions for a construction worker. Construction activities involve a direct contact with subsurface soils primarily through incidental ingestion of soil and inhalation of volatile compounds and soil particulates. Accordingly, Type 4 RRSs for subsurface soil were derived to be protective of construction workers. Exposure parameters used in derivation of subsurface soil Type 4 RRS are the same as those used in calculating surface soil Type 4 RRS except for frequency of exposure, duration of exposure and incidental soil ingestion rate. In this case, exposure frequency was assumed to be 125 days/year and duration of exposure was selected as 0.5 year as subsurface construction activities at the Site are not expected to last more than 0.5 years. These parameters were selected based on best professional judgment, assuming that moderate construction activities may occur at the Site in the future. Incidental soil ingestion rate for construction workers was set at 330 mg per day, based on the USEPA draft guidance document; Supplemental Guidance for Developing Soil Screening Levels for Superfund Sites (USEPA, 2001). A more complete discussion of the calculation of HSRA RRSs along with calculated results of RAGS equations and a list of HSRA table values is included in Appendix M.

Because toxicity values are not available for lead, Type 2 RRSs and Type 4 RRSs were developed based on the USEPA's Integrated Exposure Uptake Model for Lead and Georgia Adult Lead Model (GALM); respectively, using standard assumptions and a Site specific groundwater lead concentration of 0.01 mg/L (refer to Appendix M for discussion of derivation of RRSs for lead). In fact, lead was not detected in groundwater beneath the Site and the detection limit was used as the lead groundwater concentration in the GALM. Compliance with a RRS for a given constituent was not evaluated if the constituent already met a more restrictive RRS (e.g., for a given constituent, compliance with a Type 3 RRS was not evaluated if the compound was in compliance with its Type 2 RRS).

#### **9.5.1.2 Leaching Potential Study**

The COI at the Macon 2 MGP Site were evaluated to determine if concentrations in soil at their respective Type 4 RRS have the potential to leach at concentrations that may cause groundwater concentrations to exceed a Type 4 RRS for groundwater (leachability study). The first step of the leachability study included screening out those COI that did not exceed Types 1, 2, and 3 RRSs in soil since these COI are already in compliance with a more restrictive RRS. For the Macon 2 MGP Site, the only five COI exceeding Types 1 through 3 RRS in soil include: lead, benzo(a)anthracene,

benzo(a)pyrene, benzo(b)fluoranthene, and indeno(1,2,3-cd)pyrene. Additional studies were performed on these COI to determine what concentrations would not cause groundwater to exceed applicable RRSs.

A dilution attenuation factor (DAF) of 20 was utilized in the leachability study for this Site based on the default value provided in the Environmental Protection Agency (EPA) "Soil Screening Guidance: User Guide, Second Edition," July 1996 (SSG). The SSG states that this DAF is protective of sources up to 0.5 acres. As the source areas at the Site are greater than this, a Site-specific value was calculated per the SSG (Table 9.3). The Site-specific calculated value was 86.2, which is greater than the default, therefore the DAF was lowered to the default value to be conservative.

**TABLE 9.3**  
**CALCULATION OF SITE-SPECIFIC DILUTION ATTENUATION FACTOR**

<b>DAF = 1+(Kd)/(IL)</b>		
Where:		
$d = (0.0112 \cdot L^2)^{0.5} + d_a [1 - \exp(-L)/(Kd_a)]$		
86.2	DAF - Dilution Attenuation Factor (unitless)	Calculated
2,770	K - Aquifer Hydraulic Conductivity (m/yr.)	Site-specific
0.086	i - Hydraulic Gradient (m/m)	Site-specific*
0.178	I - Infiltration Rate (m/yr.)	DRASTIC
7.0	d - Mixing Zone (m)	Calculated (Limited by $d_a$ )
110	L - Source Length Parallel to GW Flow (m)	Site-specific
7.0	$d_a$ - Aquifer Thickness (m)	Site-specific
Notes:		
DRASTIC - DRASTIC: A Standardized System for Evaluating Ground Water Pollution Potential Using Hydrogeologic Setting, EPA, June 1997.		
* - Hydraulic gradient from August 20, 2003 (Figure 18).		
Assumptions - Piedmont Blue Ridge Ground-Water Region; (8D) Regolith; Net Recharge Infiltration Rate (Net Recharge) Range of 0.101 m/yr. to 0.178 m/yr. (4-7 in/yr.).		

#### **9.5.1.2.1 Lead**

Three soil samples collected from unsaturated soils during the CSI contained concentrations of lead (634 mg/Kg at SB-27-8-12; 425 mg/Kg at SB-45-10-12; and 1,070 mg/Kg at SB-45-15-17) exceeding the maximum of Types 1, 2, and 3 RRS (400 mg/Kg). Since the maximum lead concentration in unsaturated soils at the Site was less than the calculated Type 4 RRS for lead (based on the GALM), samples SB-27-8-12 and SB-45-15-17 were analyzed for lead following synthetic precipitation leaching potential (SPLP) extraction. The SPLP results for sample SB-27-8-12 was 0.038 mg/L and for sample SB-45-15-17 was 0.0808 mg/L. These data were evaluated following protocols presented in the SSG. As stated in the SSG, "To calculate SSLs (soil screening levels) for the migration to groundwater pathway, multiply the acceptable groundwater concentration by the dilution factor to obtain a target soil leachate concentration." Multiplying the acceptable groundwater concentration of 0.015 mg/L (Type 4 groundwater RRS) and the DAF of 20, the target soil leachate concentration equals 0.30 mg/L. The SSG states "if a leach test is used, compare the target soil leachate concentration to the extract concentrations from the leach tests." The lead leachate concentrations from samples SB-27-8-12 and SB-45-15-17 are 0.038 mg/L and 0.0808 mg/L, respectively, which are an order of magnitude below the target soil leachate concentration of 0.30 mg/L. Therefore, for the former Macon 2 MGP Site, the Type 4 soil RRS for lead will equal 1,070 mg/Kg which is the maximum detected lead value in the data set for the Site, meets the target soil leachate concentration evaluation, and does not exceed the calculated Type 4 RRS for lead using the GALM.

### 9.5.1.2.2 Semivolatile Organic Compounds

Soil samples were not collected during the CSI to perform SPLP analysis for SVOCs to be utilized in a leachability study, therefore, an additional step taken from the SSG was used to determine the appropriate concentrations of benzo(a)anthracene, benzo(a)pyrene, benzo(b)fluoranthene, and indeno(1,2,3-cd)pyrene in soil that would not cause groundwater to exceed the higher of Types 1 through 4 groundwater RRSs. To determine the target soil leachate for these COI, the acceptable groundwater concentrations (based on RRSs for groundwater) were multiplied by a DAF of 20. Equation 10 (Soil Screening Level Partitioning Equation for Migration to Groundwater) from the SSG was used in lieu of a leach test. Table 9.4 identifies the input values used in this equation and the sources of the data. Based on the input values, concentrations of 38.3 mg/Kg benzo(a)pyrene, 120 mg/Kg benzo(a)anthracene, 298 mg/Kg benzo(b)fluoranthene, and 966 mg/Kg indeno(1,2,3-cd)pyrene in soil will not cause groundwater to exceed the Type 4 groundwater RRS. Therefore, the Type 4 soil construction worker RRS (i.e., soils deeper than 2 feet bgs.) for benzo(a)pyrene, benzo(a)anthracene, benzo(b)fluoranthene, and indeno(1,2,3-cd)pyrene default to these values, as they are protective of human health based on RAGS calculations and will not cause groundwater concentrations to exceed Type 4 RRSs.

**TABLE 9.4  
CALCULATION OF SOIL SCREENING LEVELS**

<b>SSL = <math>C_w * [K_d + (O_w + (O_a * H')) / P_b]</math></b>		
<b>Benzo(a)anthracene</b>		
120	SSL - Soil Screening Level (mg/Kg)	Calculated
0.00075	RRS - Groundwater Risk Reduction Standard (mg/L)	Type 4 RRS
20	DAF - Dilution attenuation factor	Soil Screening Guidance, July 1996
0.015	Cw - Target soil leachate conc. (mg/L)	RRS * DAF
8024	Kd - Soil-water partition coefficient (L/Kg)	Koc * foc
4.01E+05	Koc - Soil organic carbon/water partition coefficient (L/Kg)	USEPA, SCDM, June 1996
0.020	foc - Fraction organic carbon in soil (g/g)	GAEPD, Chapter 391-3-19, Appendix III, Table 3
0.19	Ow - Water-filled soil porosity (Lwater/Lsoil)	Site-specific
0.17	Oa - Air-filled soil porosity (Lair/Lsoil)	n - Ow
1.69	Pb - Dry soil bulk density (Kg/L)	Site-specific
0.36	n - Soil porosity (Lpore/Lsoil)	Site-specific
2.65	Ps - Soil particle density (Kg/L)	Site-specific
3.40E-06	H' - Dimensionless Henry's Law constant	USEPA, SCDM, June 1996
<b>Benzo(a)pyrene</b>		
63.3	SSL - Soil Screening Level (mg/Kg)	Calculated
0.0002	RRS - Groundwater Risk Reduction Standard (mg/L)	Type 3 RRS
20	DAF - Dilution attenuation factor	Soil Screening Guidance, July 1996
0.004	Cw - Target soil leachate conc. (mg/L)	RRS * DAF
15820	Kd - Soil-water partition coefficient (L/Kg)	Koc * foc
7.91E+05	Koc - Soil organic carbon/water partition coefficient (L/Kg)	USEPA, SCDM, June 1996
0.020	foc - Fraction organic carbon in soil (g/g)	GAEPD, Chapter 391-3-19, Appendix III, Table 3
0.19	Ow - Water-filled soil porosity (Lwater/Lsoil)	Site-specific
0.17	Oa - Air-filled soil porosity (Lair/Lsoil)	n - Ow
1.69	Pb - Dry soil bulk density (Kg/L)	Site-specific
0.36	n - Soil porosity (Lpore/Lsoil)	Site-specific
2.65	Ps - Soil particle density (Kg/L)	Site-specific
1.10E-04	H' - Dimensionless Henry's Law constant	USEPA, SCDM, June 1996

**TABLE 9.4**  
**CALCULATION OF SOIL SCREENING LEVELS (CONTINUED)**

<b>SSL = <math>C_w * \{K_d + [O_w + (O_a * H')]\} / P_b\}</math></b>		
<b>Benzo(b)fluoranthene</b>		
298	<b>SSL - Soil Screening Level (mg/Kg)</b>	<b>Calculated</b>
0.00075	RRS - Groundwater Risk Reduction Standard (mg/L)	Type 4 RRS
20	DAF - Dilution attenuation factor	Soil Screening Guidance, July 1996
0.015	$C_w$ - Target soil leachate conc. (mg/L)	RRS * DAF
19843	$K_d$ - Soil-water partition coefficient (L/Kg)	$K_{oc} * f_{oc}$
9.92E+05	$K_{oc}$ - Soil organic carbon/water partition coefficient (L/Kg)	USEPA, SCDM, June 1996
0.020	$f_{oc}$ - Fraction organic carbon in soil (g/g)	GAEPD, Chapter 391-3-19, Appendix III, Table 3
0.19	$O_w$ - Water-filled soil porosity ( $L_{water}/L_{soil}$ )	Site-specific
0.17	$O_a$ - Air-filled soil porosity ( $L_{air}/L_{soil}$ )	$n - O_w$
1.69	$P_b$ - Dry soil bulk density (Kg/L)	Site-specific
0.36	$n$ - Soil porosity ( $L_{pore}/L_{soil}$ )	Site-specific
2.65	$P_s$ - Soil particle density (Kg/L)	Site-specific
1.10E-04	$H'$ - Dimensionless Henry's Law constant	USEPA, SCDM, June 1996
<b>Indeno(1,2,3-cd)pyrene</b>		
924	<b>SSL - Soil Screening Level (mg/Kg)</b>	<b>Calculated</b>
0.00075	RRS - Groundwater Risk Reduction Standard (mg/L)	Type 4 RRS
20	DAF - Dilution attenuation factor	Soil Screening Guidance, July 1996
0.015	$C_w$ - Target soil leachate conc. (mg/L)	RRS * DAF
61600	$K_d$ - Soil-water partition coefficient (L/Kg)	$K_{oc} * f_{oc}$
3.08E+06	$K_{oc}$ - Soil organic carbon/water partition coefficient (L/Kg)	USEPA, SCDM, June 1996
0.020	$f_{oc}$ - Fraction organic carbon in soil (g/g)	GAEPD, Chapter 391-3-19, Appendix III, Table 3
0.19	$O_w$ - Water-filled soil porosity ( $L_{water}/L_{soil}$ )	Site-specific
0.17	$O_a$ - Air-filled soil porosity ( $L_{air}/L_{soil}$ )	$n - O_w$
1.69	$P_b$ - Dry soil bulk density (Kg/L)	Site-specific
0.36	$n$ - Soil porosity ( $L_{pore}/L_{soil}$ )	Site-specific
2.65	$P_s$ - Soil particle density (Kg/L)	Site-specific
1.60E-06	$H'$ - Dimensionless Henry's Law constant	USEPA, SCDM, June 1996

### 9.5.1.3 Compliance With Risk Reduction Standards

An evaluation of the COI detected in the Site soils with regards to Types 1 through 4 RRSs is presented in Table 9.5. Concentrations of all six detected VOCs (benzene, carbon disulfide, ethylbenzene, methylene chloride, toluene and total xylenes), ten PAHs (acenaphthene, acenaphthylene, anthracene, benzo(g,h,i)pyrene, fluoranthene, fluorene, naphthalene, phenanthrene, phenol and pyrene), seven metals (barium, beryllium, cadmium, chromium, copper, nickel and vanadium) and cyanide did not exceed Type 1 RRS. Type 3 RRSs for soils deeper than 2 feet bgs were exceeded by four PAHs (benzo(a)anthracene, benzo(a)pyrene, benzo(b)fluoranthene, and indeno(1,2,3-cd)pyrene) and lead. None of the COIs detected in the Site soils exceeded Type 4 RRSs. The areas in which RRSs are exceeded in soil are shown on Figure 20.



**TABLE 9.5**  
**RISK REDUCTION STANDARD EXCEEDANCES IN SOIL**

Constituent	Type 1	Type 2	Type 3	Type 4
<b>VOCs</b>				
Benzene	N	*	*	*
Ethylbenzene	N	*	*	*
Toluene	N	*	*	*
Total Xylenes	N	*	*	*
Methylene Chloride	N	*	*	*
Carbon Disulfide	N	*	*	*
<b>SVOCs</b>				
Acenaphthene	N	*	*	*
Acenaphthylene	N	*	*	*
Anthracene	N	*	*	*
Benzo(a)anthracene	Y	Y	Y	N
Benzo(a)pyrene	Y	Y	Y	N
Benzo(b)fluoranthene	Y	Y	Y	N
Benzo(k)fluoranthene	Y	N	*	*
Benzo(g,h,i)perylene	N	*	*	*
Chrysene	Y	N	*	*
Dibenzo(a,h)anthracene	Y	Y	N	*
Fluoranthene	N	*	*	*
Fluorene	N	*	*	*
Indeno (1,2,3-cd)pyrene	Y	Y	Y	N
Naphthalene	N	*	*	*
Phenanthrene	N	*	*	*
Phenol	N	*	*	*
Pyrene	N	*	*	*
<b>Inorganics</b>				
Arsenic	Y	Y	N	*
Barium	N	*	*	*
Beryllium	N	*	*	*
Cadmium	N	*	*	*
Chromium	N	*	*	*
Copper	N	*	*	*
Lead	Y	Y	Y	N
Mercury	Y	N	*	*
Nickel	N	*	*	*
Vanadium	N	*	*	*
Zinc	Y	N	*	*
Total Cyanide	N	*	*	*
Y – Yes; exceeds RRS. N – No; does not exceed RRS. * – Constituent meets more restrictive RRS.				

### 9.5.2 Groundwater

Types 1 through 4 RRSs for groundwater at the Site were derived in accordance with HSRA requirements and are summarized in Table 9.6. Calculations for the RRSs are attached in Appendix M. The Types 1 and 3 RRSs are based on the concentrations listed in Table 1, Appendix III of the HSRA regulations. Also, for Types 1 and 3, the sum of regulated substances in a single sample must not exceed 10 mg/L if the Table 1 value for each compound is less than 5 mg/L. If at least one compound has a Table 1 value greater than or equal to 5 mg/l, the sum of concentrations must not exceed the maximum Table 1 value plus 10 mg/l.

Types 2 and 4 RRSs are based on the lesser of the concentrations calculated by using RAGS equations 1 and 2 with default residential (Type 2) and non-residential (Type 4) exposure assumptions published by the Georgia EPD. A discussion of the calculation of the RRSs and a table of RAGS equations results for each constituent are shown in Appendix M. Compliance with a RRS for a given constituent was not evaluated if the constituent already met a more

restrictive RRS (e.g., for a given constituent, compliance with a Type 3 RRS was not evaluated if the constituent was in compliance with its Type 2 RRS).

Groundwater data collected during the CSI, August 2003 sampling event at the Site were used in evaluating compliance with the RRSs. Compliance of each COI detected in groundwater beneath the Site with RRSs is presented in Table 9.7. All COI detected in groundwater beneath the Site did not exceed any of the Types of RRSs.

**TABLE 9.6**  
**RISK REDUCTION STANDARDS FOR GROUNDWATER**  
**AND METHODS USED IN CALCULATION**

Constituent	Highest Concentration*	Type 1/3		Type 2		Type 4	
<b>VOCs</b>							
Benzene	ND	0.00500	A	0.00545	D	0.0088	C
Ethylbenzene	ND	0.700	A	0.0582	D	0.0734	D
Toluene	ND	1.00	A	0.221	D	1.10	D
Total Xylenes	ND	10.0	A	31.3	D	204	D
Carbon Disulfide	ND	4.00	A	0.329	D	1.70	D
Methylene Chloride	ND	0.00500	A	0.0622	C	0.119	C
Methyl-tert-butyl-ether	NA	DL	B	1.79	D	8.76	D
<b>SVOCs</b>							
Acenaphthene	0.014	2.00	A	0.939	D	6.13	D
Acenaphthylene	ND	DL	B	0.469	D	3.07	D
Anthracene	ND	DL	B	4.69	D	30.7	D
Benzo(a)anthracene	ND	0.000100	A	0.000450	C	0.000747	C
Benzo(a)pyrene	ND	0.000200	A	0.000450	C	0.000747	C
Benzo(b)fluoranthene	ND	0.000200	A	0.000450	C	0.000747	C
Benzo(g,h,i)perylene	ND	DL	B	0.469	D	3.07	D
Benzo(k)fluoranthene	ND	DL	B	0.00450	C	0.00747	C
Chrysene	ND	DL	B	0.0450	C	0.0747	C
Dibenzo(a,h)anthracene	ND	0.000300	A	0.000450	C	0.000747	C
Fluoranthene	ND	1.00	A	0.626	D	4.09	D
Fluorene	ND	1.00	A	0.626	D	4.09	D
Indeno(1,2,3-cd)pyrene	ND	0.000400	A	0.000450	C	0.000747	C
Naphthalene	ND	0.0200	A	0.00187	D	0.00916	D
Phenanthrene	ND	DL	B	0.469	D	3.07	D
Phenol	ND	4.00	A	9.39	D	61.3	D
Pyrene	ND	1.00	A	0.469	D	3.07	D
<b>Inorganics</b>							
Arsenic	ND	0.0500	A	0.000568	C	0.00191	C
Barium	1.85	2.00	A	1.10	D	7.15	D
Beryllium	ND	0.00500	A	0.0313	D	0.204	D
Cadmium	ND	0.00500	A	0.00782	C	0.0511	C
Chromium	ND	0.100	A	0.0469	D	0.307	D
Copper	ND	1.30	A	0.626	D	4.09	D
Lead	ND	0.0150	A	0.0150	A	0.0150	A
Mercury	ND	0.00200	A	0.00469	D	0.0307	C
Nickel	ND	0.100	A	0.313	D	2.04	D
Vanadium	ND	0.200	A	0.110	D	0.715	D
Zinc	ND	2.00	A	4.69	D	30.7	D
Total Cyanide	0.048	0.200	A	0.313	D	2.04	D
*- Data from the August 2003 sampling event A - Appendix III Table 1 B - Detection limit C - Upperbound excess cancer risk D - Noncarcinogenic risk Values listed in milligrams per liter (mg/L) Values rounded to three significant digits							

**TABLE 9.7**  
**RISK REDUCTION STANDARD EXCEEDANCES IN GROUNDWATER -**  
**AUGUST 2003 SAMPLING EVENT**

Constituent	Type 1	Type 2	Type 3	Type 4
<b>VOCs</b>				
Benzene	N	*	*	*
Ethylbenzene	N	*	*	*
Toluene	N	*	*	*
Total Xylenes	N	*	*	*
Carbon Disulfide	N	*	*	*
Methylene Chloride	N	*	*	*
Methyl-tert-butyl-ether	N	*	*	*
<b>SVOCs</b>				
Acenaphthene	N	*	*	*
Acenaphthylene	N	*	*	*
Anthracene	N	*	*	*
Benzo(a)anthracene	N	*	*	*
Benzo(a)pyrene	N	*	*	*
Benzo(b)fluoranthene	N	*	*	*
Benzo(g,h,i)perylene	N	*	*	*
Benzo(k)fluoranthene	N	*	*	*
Chrysene	N	*	*	*
Dibenzo(a,h)anthracene	N	*	*	*
Fluoranthene	N	*	*	*
Fluorene	N	*	*	*
Naphthalene	N	*	*	*
Phenanthrene	N	*	*	*
Phenol	N	*	*	*
Pyrene	N	*	*	*
<b>Inorganics</b>				
Arsenic	N	*	*	*
Barium	N	*	*	*
Beryllium	N	*	*	*
Cadmium	N	*	*	*
Chromium	N	*	*	*
Copper	N	*	*	*
Lead	N	*	*	*
Mercury	N	*	*	*
Nickel	N	*	*	*
Vanadium	N	*	*	*
Zinc	N	*	*	*
Total Cyanide	N	*	*	*
Y – Yes; exceeds RRS. N – No; does not exceed RRS. * – Constituent meets more restrictive RRS.				

**SECTION 10**  
**CORRECTIVE ACTION FEASIBILITY**  
**INFORMATION**



## **SECTION 10**

### **CORRECTIVE ACTION FEASIBILITY INFORMATION**

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The property owned by the City of Macon is partially encompassed by a security fence. The property is accessible by vehicle through two gates which are closed and locked at nights and on weekends and which control access to the property.

#### **10.1 POTENTIAL SOURCE MATERIAL**

Figure 11 indicates the horizontal distribution of TLM and/or OLM at the Site. The only observed potential source material was located within the two gas holders and consisted of limited amounts of TLM and/or OLM. As described in Section 2.5.1, within both of these holders, no more than one-inch of TLM and/or OLM was observed and therefore the material appears to be minimal. A sample (GH-2-41) of the most visibly concentrated TLM and/or OLM observed at the Site was collected and analyzed for VOCs and SVOCs. Based on the analytical results of the sample, this material does not appear to meet the definition of source material. Additionally, HSRA regulation 391-3-19-.07(9)(a) states "all source materials must be removed or decontaminated to Type 4 media criteria." The total results from sample GH-2-41 (Appendix C-2) indicate that this material already meets Type 4 or more restrictive RRSs. Based on this and that the only TLM and/or OLM observed at the Site was within the holders, no remedial actions will be required at the Site with respect to potential source material.

#### **10.2 SOILS**

As discussed in Section 9, soils at the Site are in compliance with Type 4 or more restrictive RRSs. Therefore, no remedial actions will be required to certify the Site in compliance with Type 4 RRSs with regard to soils.

#### **10.3 GROUNDWATER**

Groundwater at the Site is in compliance with all RRSs. Therefore, no remedial actions will be required to certify the Site in compliance with Type 1 RRSs with regards to groundwater.

#### **10.4 CORRECTIVE ACTION**

As previously noted, the Site is in compliance with Type 4 RRSs. Upon the Director's concurrence with the Type 4 certification, the following corrective action requirements will be implemented:

- GPC, AGLC, and the City of Macon will submit a monitoring program to the EPD to assure compliance with Section 391-3-19-.07(9)(b); and
- GPC, AGLC, and the City of Macon will make the required property notices as specified under Section 391-3-19-.08(1) and (2).

## **SECTION 11**

# **QUALITY ASSURANCE/QUALITY CONTROL**

## **SECTION 11**

### **QUALITY ASSURANCE/QUALITY CONTROL**

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During the field work of the CSI, certain procedures were followed to:

- insure that laboratory methods are within control limits;
- verify the quality of data collected during field measurements; and
- insure that cross contamination has not occurred during sample collection or sample transport.

#### **11.1 LABORATORY QUALITY ASSURANCE/QUALITY CONTROL CHECKS**

Analytical Environmental Services, Inc. was used to perform laboratory analyses for this CSI and is an accredited National Environmental Laboratory Accreditation Program laboratory (certificate number E87582). A complete CLP-like data package was prepared by AES for one SDG containing soil samples and one SDG containing groundwater samples collected during the CSI. The data packages were submitted to Southern Company Chemical Services, Norcross, Georgia, for data validation using USEPA Contract Laboratory Program National Functional Guidelines for Organic Data Review, 1994, and Contract Laboratory Program National Functional Guidelines for Inorganic Data Review, 1994. Southern Company Chemical Services indicated that all laboratory data for the soil and groundwater samples were acceptable. Southern Company Chemical Services also reviewed the laboratory data for precision, accuracy, representativeness, compatibility and completeness (PARCC) parameters. Southern Company Chemical Services found the PARCC parameters acceptable. A copy of Southern Company Chemical Services' report is included in Appendix G-1

Internal laboratory quality control checks were conducted by Williams to monitor data integrity for each SDG. These checks included evaluating method blanks, matrix spikes, matrix spike duplicates, blank spikes, internal standards, surrogate standards, calibration standards, and reference standards. Laboratory data precision for organic analyses was monitored through the use of matrix spike/matrix spike duplicate sample analyses. For other parameters, laboratory data precision was monitored through the use of field duplicates and/or laboratory duplicates. A relative percent difference (RPD) between the replicated samples was calculated. All RPDs were within the laboratory established limits except where noted in the Williams Laboratory QA/QC reports included in Appendix G-2.

Laboratory accuracy was assessed with the use of matrix spikes, surrogate spikes and reference standards. Accuracy was measured in terms of percent recovery. Percent recoveries were within laboratory established limits except where noted in the Williams Laboratory QA/QC report included in Appendix G-2.

#### **11.2 FIELD OPERATIONS QUALITY ASSURANCE/QUALITY CONTROL CHECKS**

Field performance was monitored by the Field Manager during the CSI field investigation. Field instrumentation, including the PID and water field measurement equipment were calibrated each morning prior to use and generally each afternoon using supplied standards to insure that the equipment was functioning properly and measurements were

accurate. Results of the calibrations were recorded in the calibration log. An internal audit was conducted on March 2, 2001, by the Quality Assurance Officer to verify that field measurements and field meter calibrations were taken according to established protocol and that work being performed was consistent with the Work Plan. The QAO also reviewed all field reports and drilling logs to determine if field documentation was appropriate and complete. The QAO also reviewed the duplicate, rinse and trip blank data to identify any deficiencies in field sampling, handling or decontamination procedures. A Field Operations System Audit Checklist, reports the results of the internal audit and is included in Appendix G-3. All field operations were conducted according to the Work Plan and standard procedures except where noted in the checklist.

A rinse blank sample was collected for each SDG to monitor the cleanliness of the sampling equipment and the effectiveness of the cleaning procedures. Rinse blanks were taken using organic-free water which was supplied by the laboratory and were analyzed for COI. Barium was detected in five rinse blank samples at very low concentrations. Chromium and lead were detected in one rinse blank sample at concentrations just above the detection limits. Copper was detected in one rinse blank sample just above the detection limit. Based on the low concentrations of these COI reported in the rinse blank samples, it is unlikely that analytical results of the collected soil or groundwater were affected by the sampling equipment. The equipment from which the samples were collected and analytical results for the rinse blank samples are reported in Appendix F.

A trip blank was also collected for each SDG to assess whether cross-contamination may have occurred during sample storage and transport. Trip blanks were supplied by the laboratory in appropriately preserved containers and analyzed for VOCs only. All concentrations of VOCs in trip blank samples were below detection limits. Analytical results for the trip blank samples are included in Appendix F.

Field blanks were collected for each SDG to determine if contaminants present in the sampling area may have had an affect on sample integrity. Field blanks were collected with organic-free water and containerized in 40-milliliter vials preserved with hydrochloric acid. Field blanks accompanied the applicable SDG and were analyzed for VOCs. All concentrations of VOCs in field blank samples were reported below detection limits. Analytical results for the field blank samples are included in Appendix F.

A sample of potable water was collected at the beginning of the field investigation for analysis of the Site COI. The potable water sample (TAP WATER) was collected from the source that supplied water for DPT and HSA equipment decontamination to determine if decontamination procedures could affect sample analytical results. VOC and SVOC concentrations in the tap water sample were reported below detection limits. Barium and copper were reported in the tap water sample at concentrations just above their respective detection limits and it is not believed these results would affect the integrity of the analytical results for the soil and groundwater samples collected at the Site.

## **SECTION 12**

## **REFERENCES**



## SECTION 12

### REFERENCES

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Management of Manufactured Gas Plant Sites, Volume I, Wastes and Chemicals of Interest, Gas Research Institute (GRI), 1987.

Management of Manufactured Gas Plant Sites, Volume III, Risk Assessment, Gas Research Institute (GRI), 1988.

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#### **For Background Statistics:**

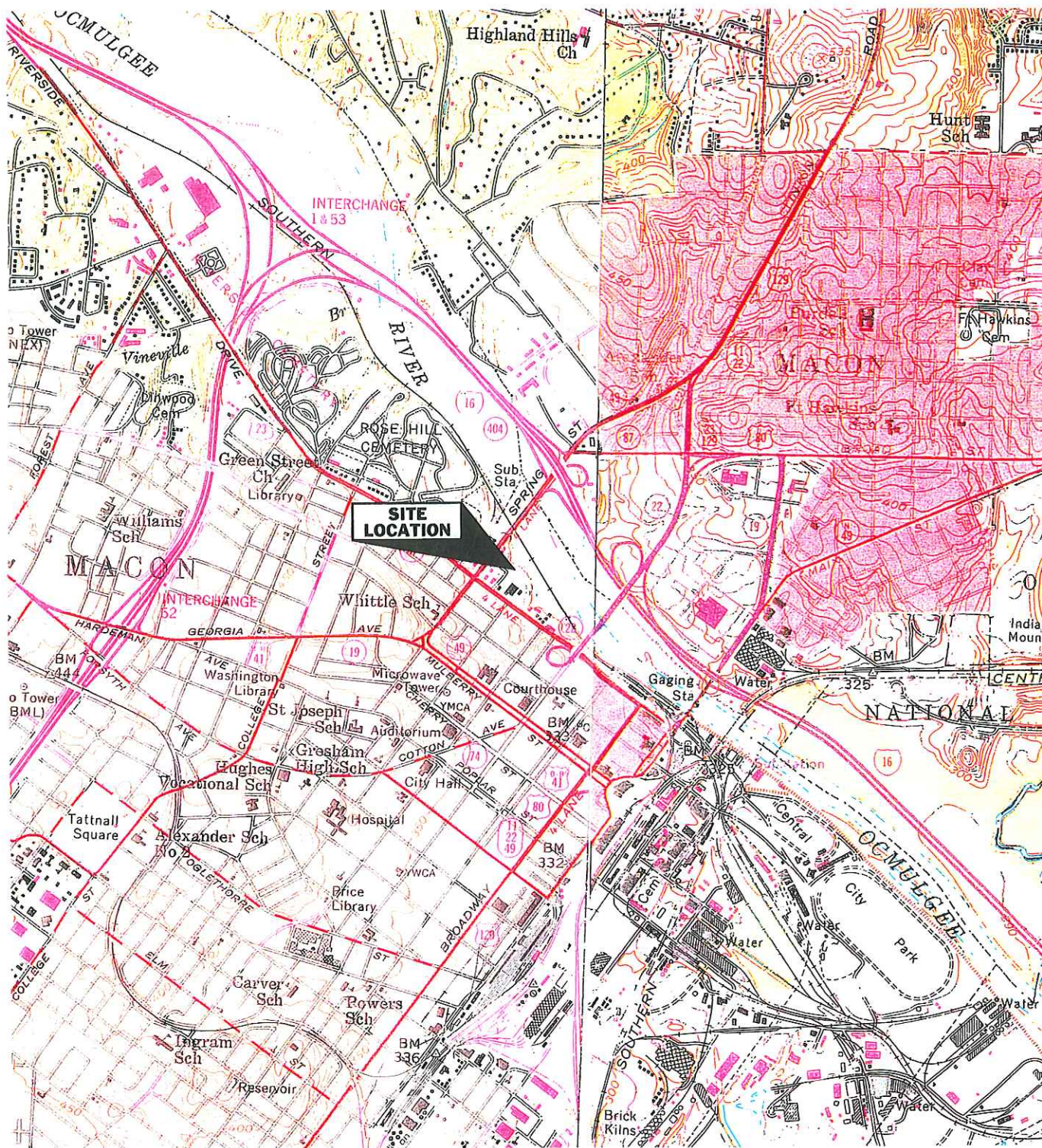
"Determination of Background Concentrations of Inorganics in Soils and Sediments at Hazardous Waste Sites." Breckenridge, R. P., and Crockett, A. B. (1995). U.S. Environmental Protection Agency. Washington, D. C.

"Statistical Analysis of Groundwater Monitoring Data At RCRA Facilities - Addendum to Interim Final Guidance." EPA. (1992). U.S. Environmental Protection Agency. Washington, D. C.

#### **For Hazardous Waste Determination:**

"SW-846. Test Methods for Evaluating Solid Waste." EPA. (1986). U.S. Environmental Protection Agency. Washington, D. C.





**DRAFT**

DESIGNED	—
DRAWN	TCM
CHECKED	—
DATE	06/25/2001
PROJ. NUMBER	1100-2990
FIGURE NO.	1

### SITE LOCATION MAP

FORMER MACON 2 MGP FACILITY  
GPC/AGLC/CITY OF MACON  
MACON, GEORGIA

Prepared By:

WILLIAMS ENVIRONMENTAL SERVICES, INC.



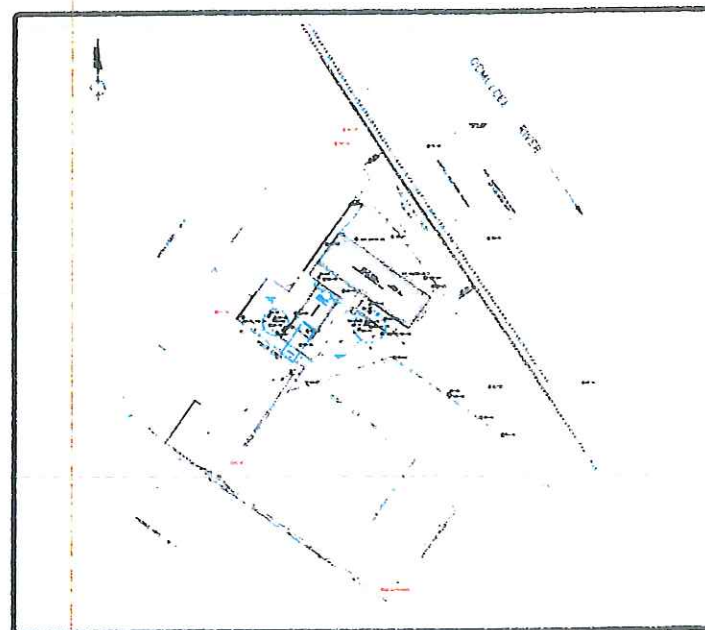
A Williams Group International Company  
500 Chase Park South, Suite 150, Birmingham, Alabama 35244  
205-988-8305 Fax: 205-988-5249



# COMPLIANCE STATUS REPORT

## FORMER MACON 2 MGP FACILITY, MACON, GEORGIA

### REVISED - SEPTEMBER 05, 2003



SITE INSET

SHEET NO.	DRAWING TITLE
1	PROPERTY BOUNDARY MAP
2	SOIL MAP
3	CROSS - SECTION A-A'
4	CROSS - SECTION B-B'
5	CROSS - SECTION C-C'
6	VEGETATION INDICATIONS OF TLM AND DLM IN SOILS
7	TOTAL DETECTED HEAVYMETALS AND ANIONS IN SOIL
8	VEGETATION INDICATIONS OF TLM AND DLM IN SOILS
9	VEGETATION INDICATIONS OF TLM AND DLM IN SOILS
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26	VEGETATION INDICATIONS OF TLM AND DLM IN SOILS
27	VEGETATION INDICATIONS OF TLM AND DLM IN SOILS

DRAWING INDEX

prepared by

**WILLIAMS ENVIRONMENTAL SERVICES, INC.**

Consulting Engineers and Scientists

500 CHASE PARK SOUTH - SUITE 150  
BIRMINGHAM, ALABAMA 35244-1869



# LEGEND

- PROPERTY LINE
- OVERHEAD POWER
- EXISTING WATER LINE
- STORM SEWER
- SANITARY SEWER
- CHAIN LINK FENCE
- PROPERTY LINES
- FORMER MGP STRUCTURE (LOCATION APPROXIMATE UNLESS NOTED IN REPORT)
- DIRECTION OF RIVER FLOW



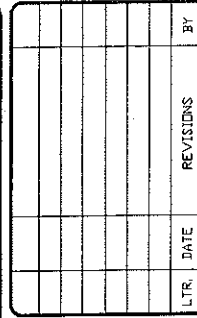
PROPERTY BOUNDARY MAP

FORMER MACON 2 MGP FACILITY  
MACON, GEORGIA

Prepared By:

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A Subsidiary of Williams Group International, Inc.  
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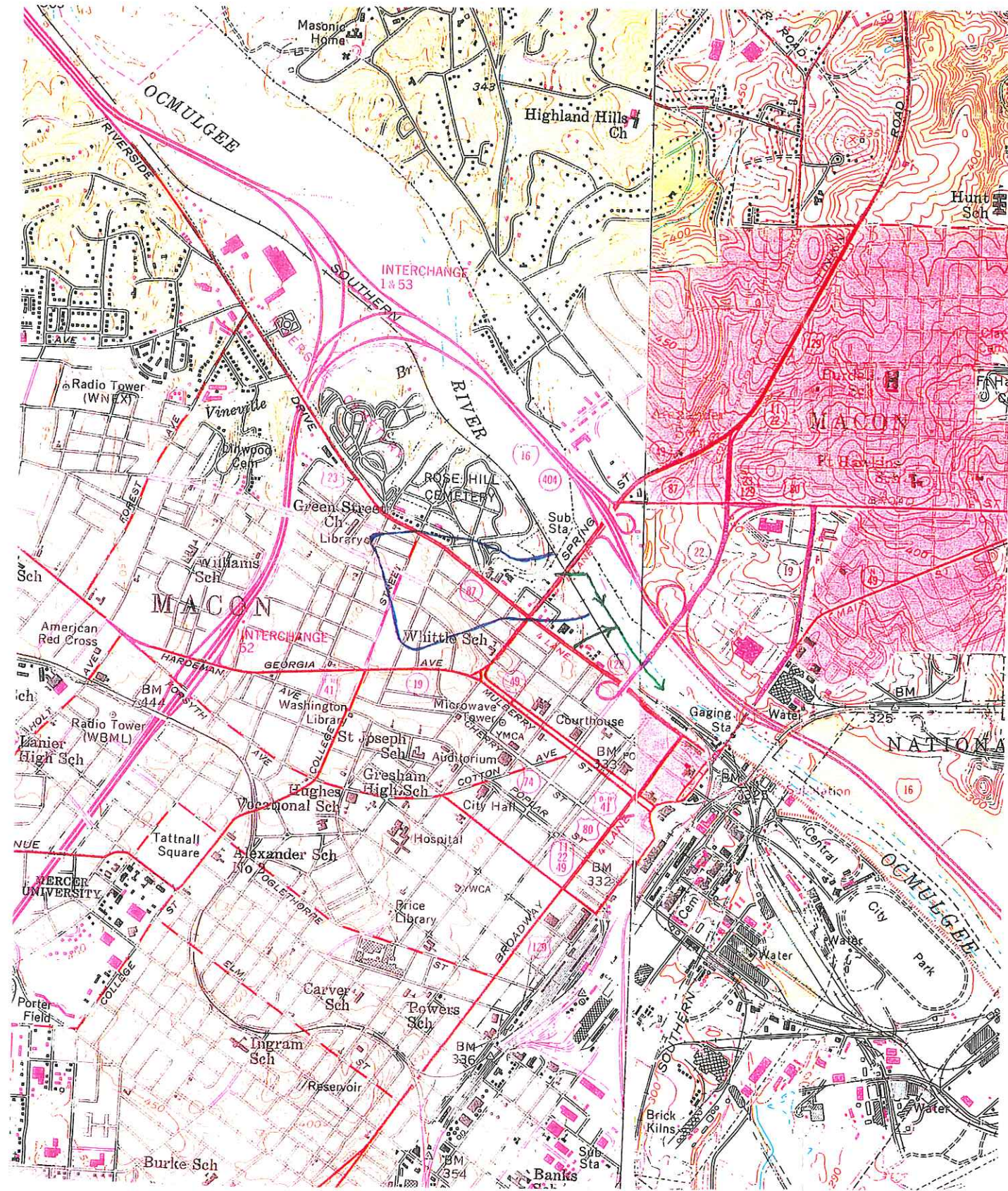




**P**

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DRAWN	TCM
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DATE	06/25/2001
PROJ. NUMBER	1100-2990
FIGURE NO.	4





APPROXIMATE DRAINAGE BASIN FOR  
OUTFALL

**DRAFT**

BY	DATE	REVISIONS

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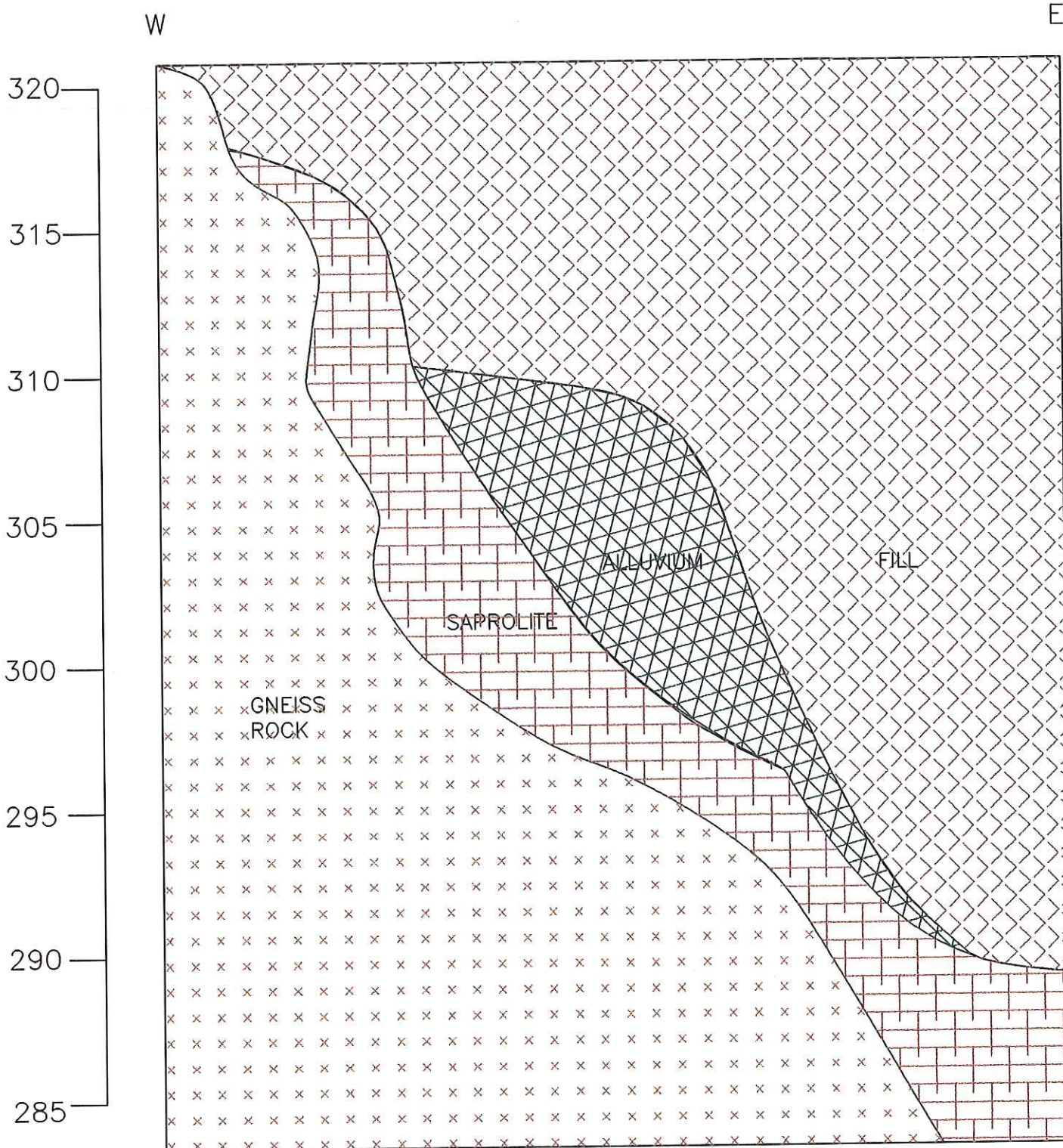
SURFACE/STORM WATER FLOW PATH

FORMER MACON 2 MGP FACILITY  
MACON, GEORGIA

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DRAWN	TCM
SCALE	1" = 2000'
DATE	06/18/2001
PROJ. NUMBER	1100-2990
FIGURE NO.	5



ELEVATION (FEET ABOVE  
MEAN SEA LEVEL)



NOTE: DEPTH AND THICKNESSES OF LITHOLOGIC UNITS ARE APPROXIMATE

DESIGNED	—
DRAWN	TCM
CHECKED	—
DATE	06/25/2001
PROJ. NUMBER	—
FIGURE NO.	6

### GENERAL CROSS - SECTION

FORMER MACON 2 MGP FACILITY  
GPC/AGLC/CITY OF MACON  
MACON, GEORGIA

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FORMER MACON 2 MGP FACILITY  
MACON, GEORGIA

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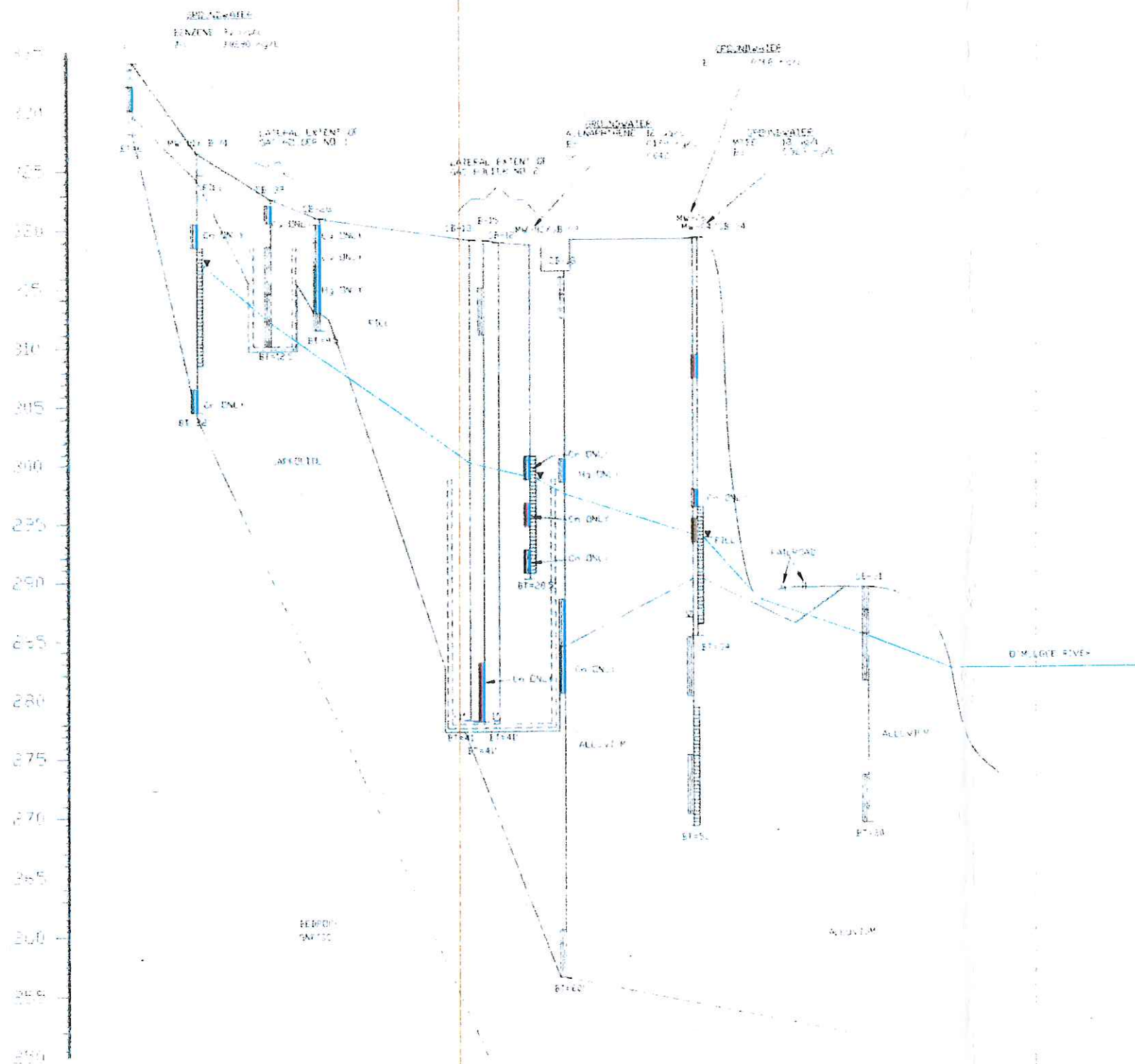
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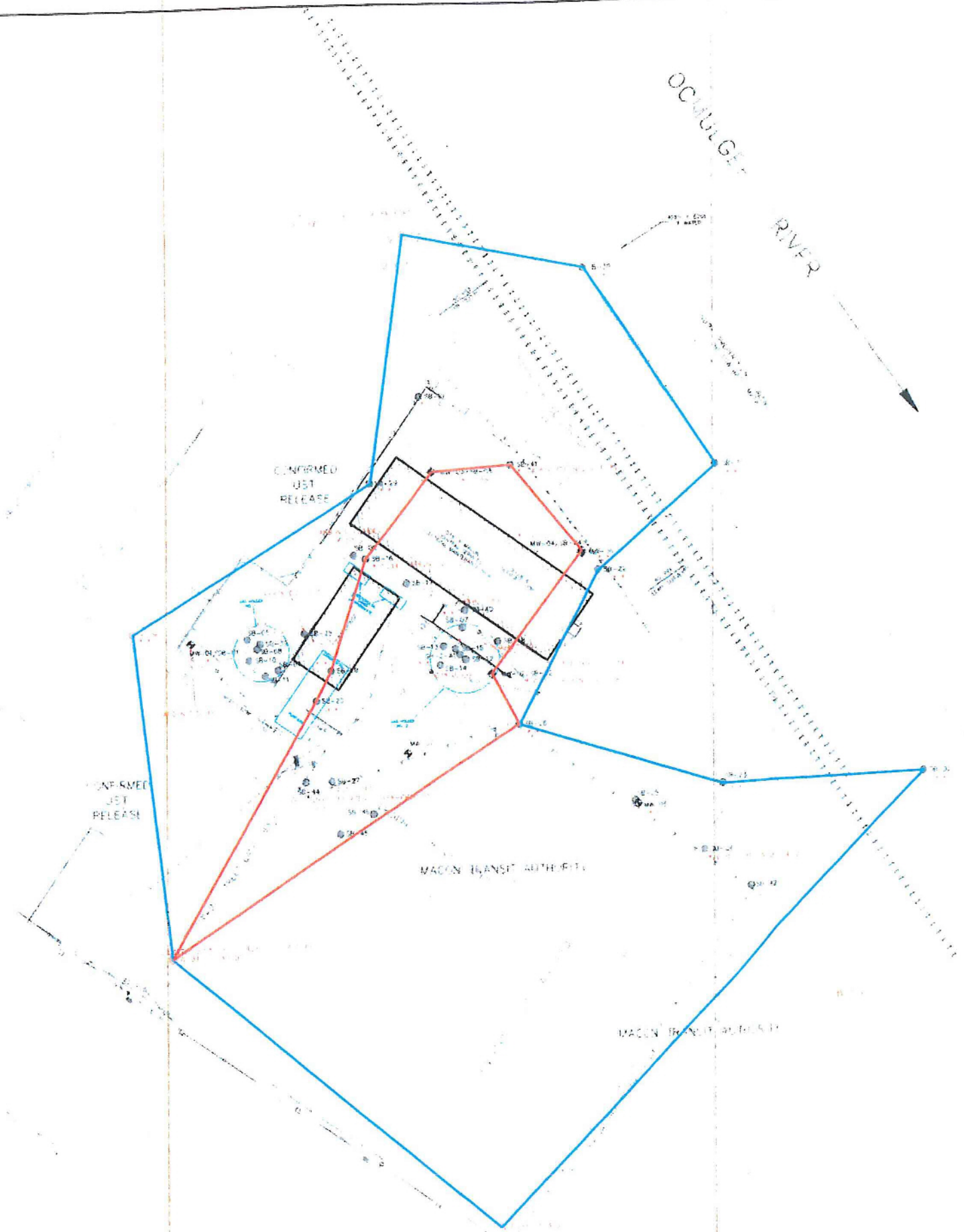
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CROSS SECTION C - C'

FORMER MACON 2 MGP FACILITY  
 MACON, GEORGIA

Soil

...



# LEGEND

- PROPERTY LINE
- OVERHEAD POWER
- EXISTING WATER LINE
- STORM SEWER
- SANITARY SEWER
- CHAIN LINK FENCE
- MONITORING WELL LOCATION
- SOIL BORING LOCATION
- BACKGROUND SOIL BORING LOCATION
- FORMER MGP STRUCTURE (LOCATION APPROXIMATE UNLESS NOTED IN REPORT)
- HIGHEST CONCENTRATION OF BENZENE IN SOIL EXCEEDING UPPER BACKGROUND LIMIT (UBL; mg/kg)
- HIGHEST CONCENTRATION OF TOTAL VOCs IN SOIL EXCEEDING UBL (mg/kg)
- UBL ISOCONCENTRATION LINE OF BENZENE IN SOIL DRAWN TO POINTS WHERE BENZENE IS KNOWN TO BE BELOW BACKGROUND (DETECTION LIMIT)
- UBL ISOCONCENTRATION LINE OF VOCs IN SOIL DRAWN TO POINTS WHERE VOCs ARE KNOWN TO BE BELOW BACKGROUND (DETECTION LIMIT)
- DOES NOT EXCEED BACKGROUND
- NOTE: THE UBL FOR BENZENE AND VOCs IS THE DETECTION LIMIT



TOTAL DETECTED BENZENE AND VOCs IN SOIL

FORMER MACON 2 MGP FACILITY  
MACON, GEORGIA

Prepared By:



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OCMULGE RIVER

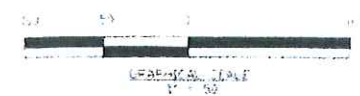
# LEGEND

- PROPERTY LINE
- OVERHEAD POWER
- EXISTING WATER LINE
- STORM SEWER
- SANITARY SEWER
- CHAIN LINK FENCE
- MONITORING WELL LOCATION
- SOIL BORING LOCATION
- BACKGROUND SOIL BORING LOCATION (DEFINES MAXIMUM EXTENT)
- FORMER MGP STRUCTURE (LOCATION APPROXIMATE UNLESS NOTED IN REPORT)
- HIGHEST CONCENTRATION OF NAPHTHALENE IN SOIL EXCEEDING DETECTION LIMIT (mg/kg)
- HIGHEST CONCENTRATION OF TOTAL SVOCs IN SOIL EXCEEDING UPPER BACKGROUND LIMIT (UBL, mg/kg)
- UBL ISOCONCENTRATION LINE OF NAPHTHALENE IN SOIL DRAWN TO POINTS WHERE NAPHTHALENE IS KNOWN TO BE BELOW BACKGROUND (DETECTION LIMIT)
- UBL ISOCONCENTRATION LINE OF SVOCs IN SOIL DRAWN TO POINTS WHERE SVOCs ARE KNOWN TO BE BELOW BACKGROUND
- DOES NOT EXCEED BACKGROUND

NOTE: THE UBL FOR NAPHTHALENE IS THE DETECTION LIMIT

## UPPER BACKGROUND LIMITS

COMPOUND	UBL (mg/kg)	
	PAHs	SVOCs
NAPHTHALENE	0.56	15
1-METHYLNAPHTHALENE	0.09	15
2-METHYLNAPHTHALENE	0.09	15
1-METHYLBENZENE	0.09	15
2-METHYLBENZENE	0.09	15
3-METHYLBENZENE	0.09	15
4-METHYLBENZENE	0.09	15
1,2-DIMETHYLBENZENE	0.09	15
1,3-DIMETHYLBENZENE	0.09	15
1,4-DIMETHYLBENZENE	0.09	15
1,2,3-TRIMETHYLBENZENE	0.09	15
1,2,4-TRIMETHYLBENZENE	0.09	15
1,3,5-TRIMETHYLBENZENE	0.09	15
1,2,3,4-TETRAMETHYLBENZENE	0.09	15
1,2,3,5-TETRAMETHYLBENZENE	0.09	15
1,2,4,5-TETRAMETHYLBENZENE	0.09	15
1,2,3,4,5-PENTAMETHYLBENZENE	0.09	15
1,2,3,4,6-PENTAMETHYLBENZENE	0.09	15
1,2,3,5,6-PENTAMETHYLBENZENE	0.09	15
1,2,4,5,6-PENTAMETHYLBENZENE	0.09	15
1,2,3,4,5,6-HEXAMETHYLBENZENE	0.09	15
OTHER SVOCs	15	15

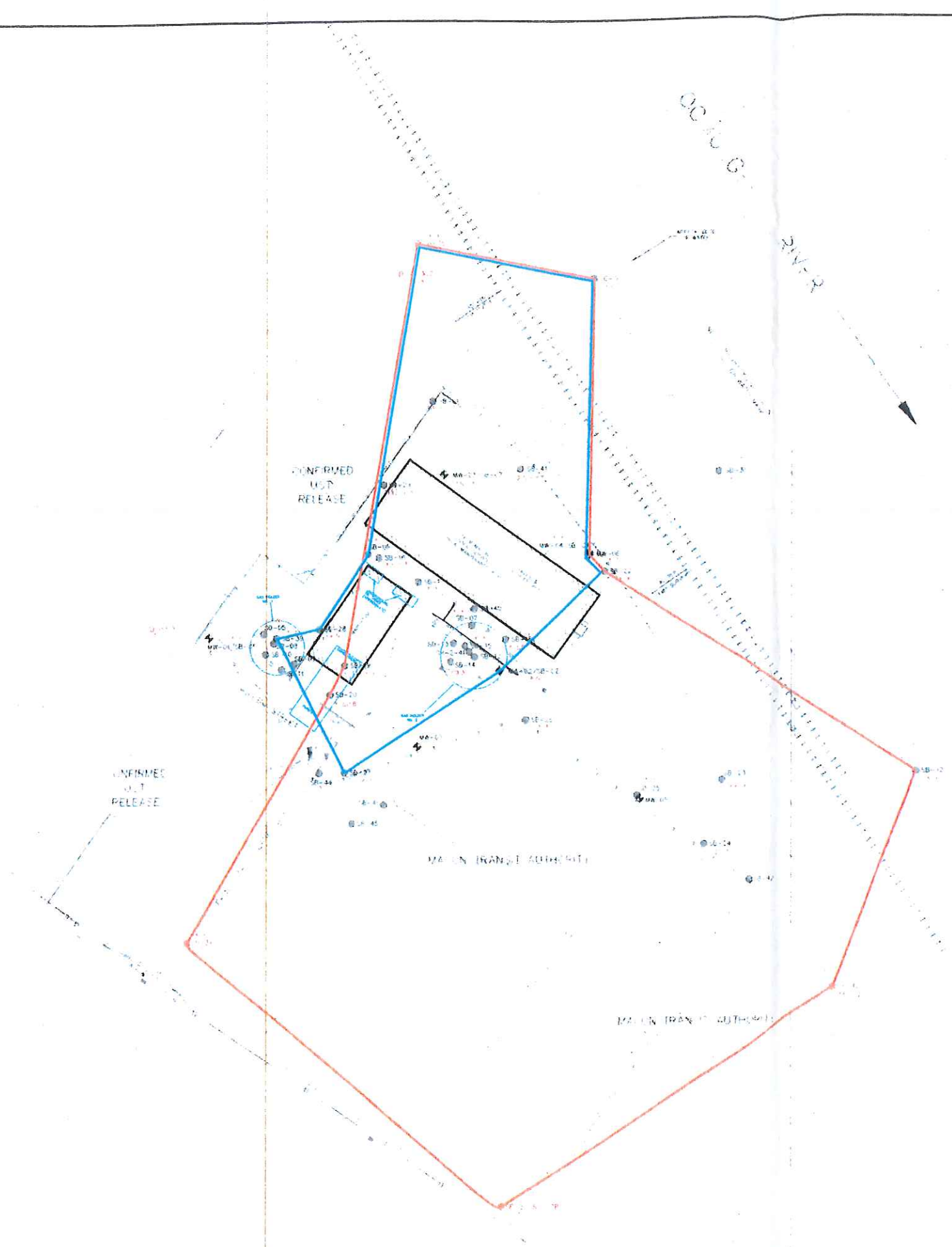


TOTAL DETECTED NAPHTHALENE AND SVOCs IN SOIL

FORMER MACON 2 MGP FACILITY  
MACON, GEORGIA

Prepared By:  
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# LEGEND

- PROPERTY LINE
- OVERHEAD POWER
- EXISTING WATER LINE
- STORM SEWER
- SANITARY SEWER
- CHAIN LINK FENCE
- MONITORING WELL LOCATION
- SOIL BORING LOCATION
- BACKGROUND SOIL BORING LOCATION (DEFINES MAXIMUM EXTENT)
- FORMER MCP STRUCTURE (LOCATION APPROXIMATE UNLESS NOTED IN REPORT)
- HIGHEST CONCENTRATION OF BARIUM IN SOIL EXCEEDING UPPER BACKGROUND LIMIT (UBL, mg/kg)
- HIGHEST CONCENTRATION OF VANADIUM IN SOIL EXCEEDING UBL (mg/kg)
- UBL ISOCONCENTRATION LINE OF BARIUM IN SOILS DRAWN TO POINTS WHERE BARIUM IS KNOWN TO BE BELOW BACKGROUND
- UBL ISOCONCENTRATION LINE OF VANADIUM IN SOILS DRAWN TO POINTS WHERE VANADIUM ARE KNOWN TO BE BELOW BACKGROUND
- DOES NOT EXCEED UBL
- SPIKE SAMPLE RECOVERY NOT WITHIN RECOVERY LIMITS
- INDICATES AN ESTIMATED VALUE

COMPOUND	UBL (mg/kg)	
	PER WATER	PER SOIL
BARIUM	115	275
VANADIUM	24.2	120



Prepared By:

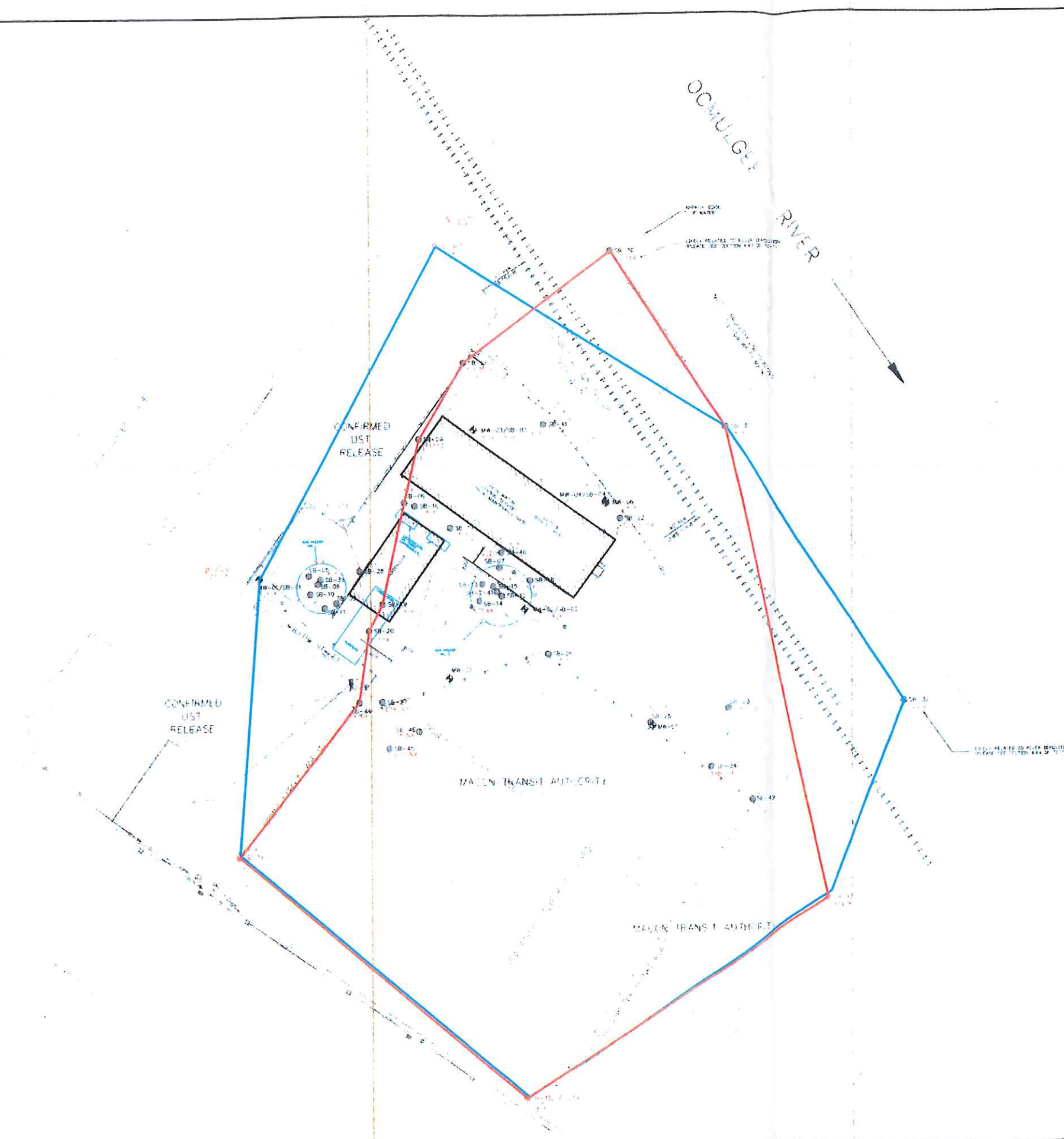
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BARIUM AND VANADIUM IN SOILS

FORMER MACON 2 MCP FACILITY  
MACON, GEORGIA





# LEGEND

- PROPERTY LINE
- OVERHEAD POWER
- EXISTING WATER LINE
- STORM SEWER
- SANITARY SEWER
- CHAIN LINK FENCE
- MONITORING WELL LOCATION
- SOIL BORING LOCATION
- BACKGROUND SOIL BORING LOCATION (DEFINES MAXIMUM EXTENT)
- FORMER MCP STRUCTURE (LOCATION APPROXIMATE UNLESS NOTED IN REPORT)
- HIGHEST CONCENTRATION OF LEAD IN SOIL EXCEEDING UPPER BACKGROUND LIMIT (UBL: mg/kg)
- HIGHEST CONCENTRATION OF MERCURY IN SOIL EXCEEDING UBL (mg/kg)
- UBL ISOCONCENTRATION LINE OF LEAD IN SOILS DRAWN TO POINTS WHERE LEAD IS KNOWN TO BE BELOW BACKGROUND
- UBL ISOCONCENTRATION LINE OF MERCURY IN SOILS DRAWN TO POINTS WHERE MERCURY IS KNOWN TO BE BELOW BACKGROUND
- DOES NOT EXCEED UBL
- SPIKE SAMPLE RECOVERY NOT WITHIN RECOVERY LIMITS
- INDICATES AN ESTIMATED VALUE
- NOT ANALYZED

## UPPER BACKGROUND LIMITS

COMPOUND	UBL (mg/kg)	
	FILL MATERIAL	NATURAL SOIL
LEAD	204	24.5
MERCURY	0.541	EL
EL - DETECTION LIMIT		



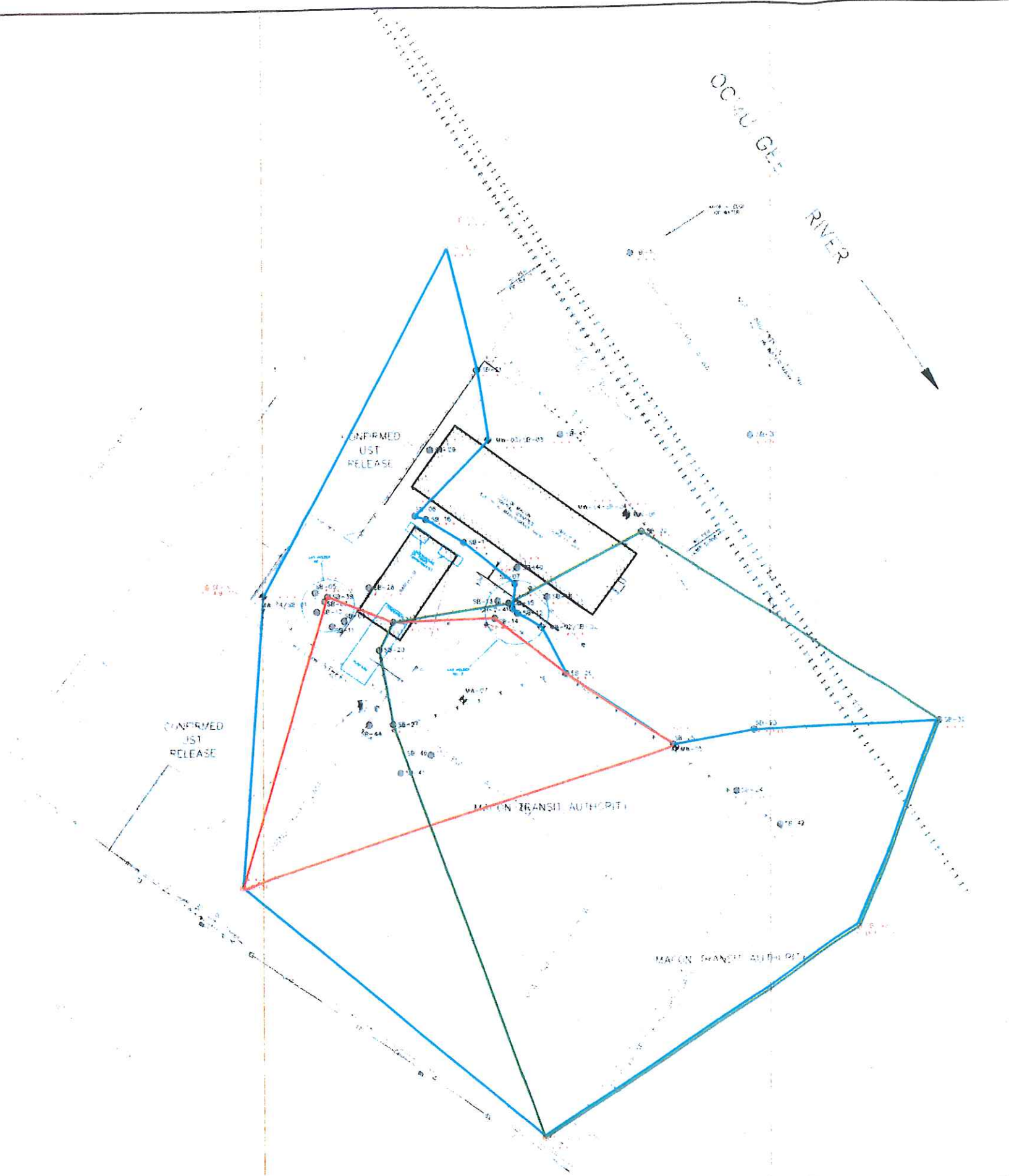
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LEAD AND MERCURY IN SOILS

FORMER MACON 2 MCP FACILITY  
MACON, GEORGIA



# LEGEND

- PROPERTY LINE
- OVERHEAD POWER
- EXISTING WATER LINE
- STORM SEWER
- SANITARY SEWER
- CHAIN LINK FENCE
- MONITORING WELL LOCATION
- SOIL BORING LOCATION
- BACKGROUND SOIL BORING LOCATION (DEFINES MAXIMUM EXTENT)
- FORMER MGP STRUCTURE (LOCATION APPROXIMATE UNLESS NOTED IN REPORT)
- HIGHEST CONCENTRATION OF COPPER IN SOIL EXCEEDING UPPER BACKGROUND LIMIT (UBL mg/kg)
- HIGHEST CONCENTRATION OF ARSENIC IN SOIL EXCEEDING UBL (mg/kg)
- HIGHEST CONCENTRATION OF ZINC IN SOIL EXCEEDING UBL (mg/kg)
- UBL ISOCONCENTRATION LINE OF ARSENIC IN SOILS DRAWN TO POINTS WHERE ARSENIC IS KNOWN TO BE BELOW BACKGROUND
- UBL ISOCONCENTRATION LINE OF COPPER IN SOILS DRAWN TO POINTS WHERE COPPER IS KNOWN TO BE BELOW BACKGROUND
- UBL ISOCONCENTRATION LINE OF ZINC IN SOILS DRAWN TO POINTS WHERE ZINC IS KNOWN TO BE BELOW BACKGROUND
- DOES NOT EXCEED UBL

UPPER BACKGROUND LIMITS		
COMPOUND	UBL (mg/kg)	
	RESIDENTIAL	INDUSTRIAL
ARSENIC	15	50
COPPER	40	100
ZINC	100	1000
DL - DETECTION LIMIT		



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ARSENIC, COPPER, AND ZINC IN SOILS

FORMER MACON 2 MGP FACILITY  
MACON, GEORGIA





OCHULGEE RIVER

# LEGEND

- PROPERTY LINE
- OVERHEAD POWER
- EXISTING WATER LINE
- STORM SEWER
- SANITARY SEWER
- CHAIN LINK FENCE
- MONITORING WELL LOCATION
- SOIL BORING LOCATION
- BACKGROUND SOIL BORING LOCATION (DEFINES MAXIMUM EXTENT)
- FORMER MGP STRUCTURE (LOCATION APPROXIMATE UNLESS NOTED IN REPORT)
- HIGHEST CONCENTRATION OF CHROMIUM IN SOIL EXCEEDING UPPER BACKGROUND LIMIT (UBL: mg/kg)
- HIGHEST CONCENTRATION OF CYANIDE IN SOIL EXCEEDING UBL (mg/kg)
- UBL ISOCONCENTRATION LINE OF CHROMIUM IN SOILS DRAWN TO POINTS WHERE CHROMIUM IS KNOWN TO BE BELOW BACKGROUND
- UBL ISOCONCENTRATION LINE OF CYANIDE IN SOILS DRAWN TO POINTS WHERE CYANIDE IS KNOWN TO BE BELOW BACKGROUND
- DOES NOT EXCEED UBL
- VALUES ESTIMATED BECAUSE OF PRESENCE OF INTERFERENCE
- SPIKE SAMPLE RECOVERY NOT WITHIN RECOVERY LIMITS

CONFIRMED UST RELEASE

CONFIRMED UST RELEASE

MACON TRANSIT AUTHORITY

MACON TRANSIT AUTHORITY

## UPPER BACKGROUND LIMITS

COMPOUND	UBL (mg/kg)	
	RES. WATERS	WATERS
CHROMIUM	10	10
TOTAL CYANIDE	10	10
As determined by		



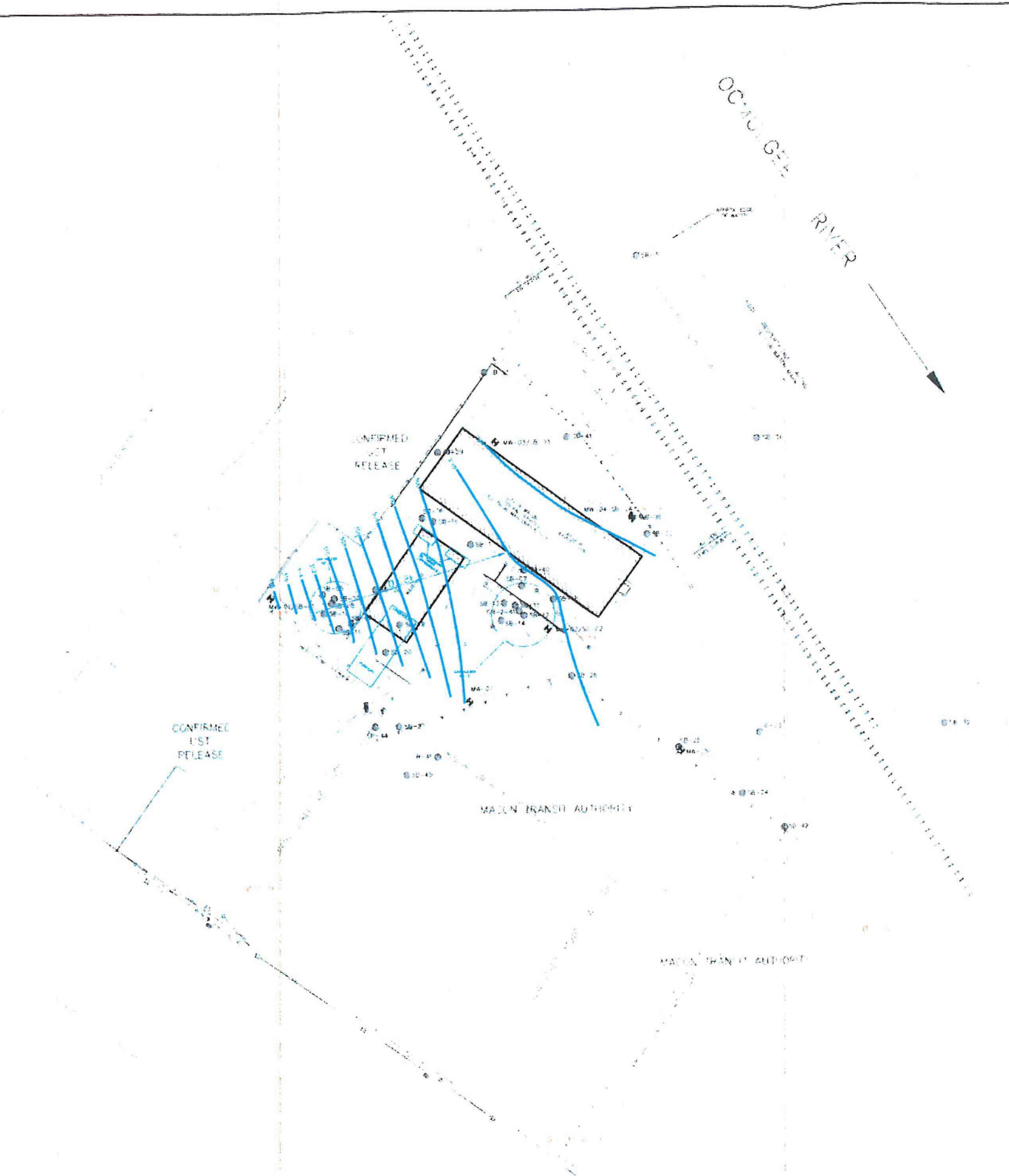
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CHROMIUM AND CYANIDE IN SOILS

FORMER MACON 2 MGP FACILITY  
MACON, GEORGIA



# LEGEND

- PROPERTY LINE
- OVERHEAD POWER
- EXISTING WATER LINE
- STORM SEWER
- SANITARY SEWER
- CHAIN LINK FENCE
- MONITORING WELL LOCATION
- SOIL BORING LOCATION
- BACKGROUND SOIL BORING LOCATION (DEFINES MAXIMUM EXTENT)
- FORMER MGP STRUCTURE (LOCATION APPROXIMATE UNLESS NOTED IN REPORT)
- CONTOUR OF GROUNDWATER IN FEET ABOVE MEAN SEA LEVEL
- GROUNDWATER FLOW DIRECTION
- WATER TABLE ELEVATION IN FEET ABOVE MEAN SEA LEVEL (MSL)
- MW-6 SCREENED IN LOWER PORTION OF AQUIFER; NOT USED IN CONTOURING



WATER TABLE ELEVATION MAP FOR  
AUGUST 20, 2003

FORMER MACON 2 MGP FACILITY  
MACON, GEORGIA

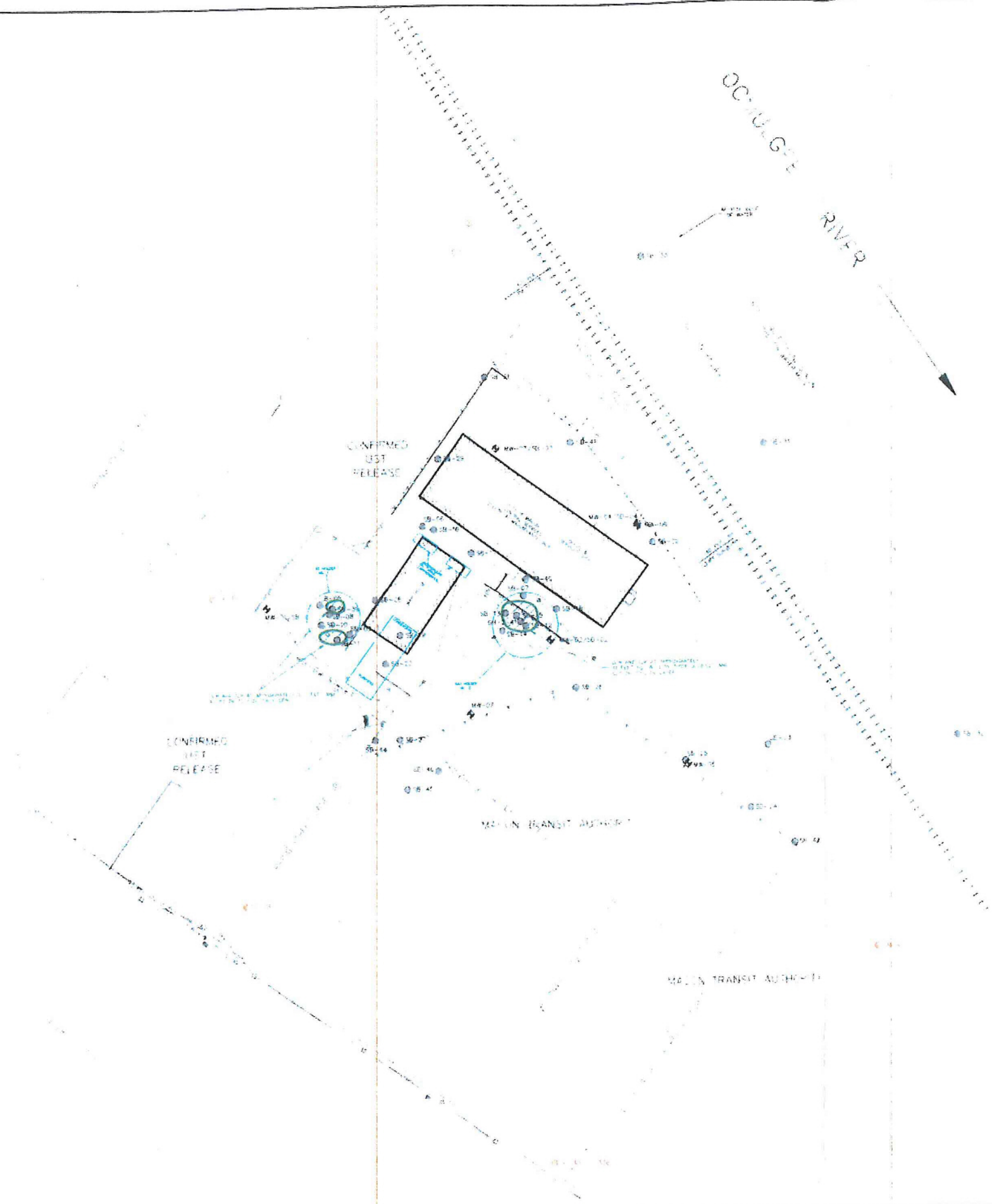
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# LEGEND

- PROPERTY LINE
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- EXISTING WATER LINE
- STORM SEWER
- SANITARY SEWER
- CHAIN LINK FENCE
- MONITORING WELL LOCATION
- SOIL BORING LOCATION
- BACKGROUND SOIL BORING LOCATION (DEFINES MAXIMUM EXTENT)
- FORMER MGP STRUCTURE (LOCATION APPROXIMATE UNLESS NOTED IN REPORT)
- VISUAL INDICATION OF FAR-LIFE MATERIAL (TLM) AND/OR OIL-LIFE MATERIAL (OLM) IN SOIL



- NOTE: LAYER - A TLM OR OLM UNIT THAT DOES NOT EXTEND (PINCHES-OUT) THROUGH SAMPLE WITHIN SAMPLE
- LENS - A TLM OR OLM LAYER THAT DOES NOT EXTEND (PINCHES-OUT) LATERALLY WITHIN SAMPLE
- GLOBULE - A SMALL SPHERICAL ACCUMULATION OF TLM OR OLM WITHIN SAMPLE



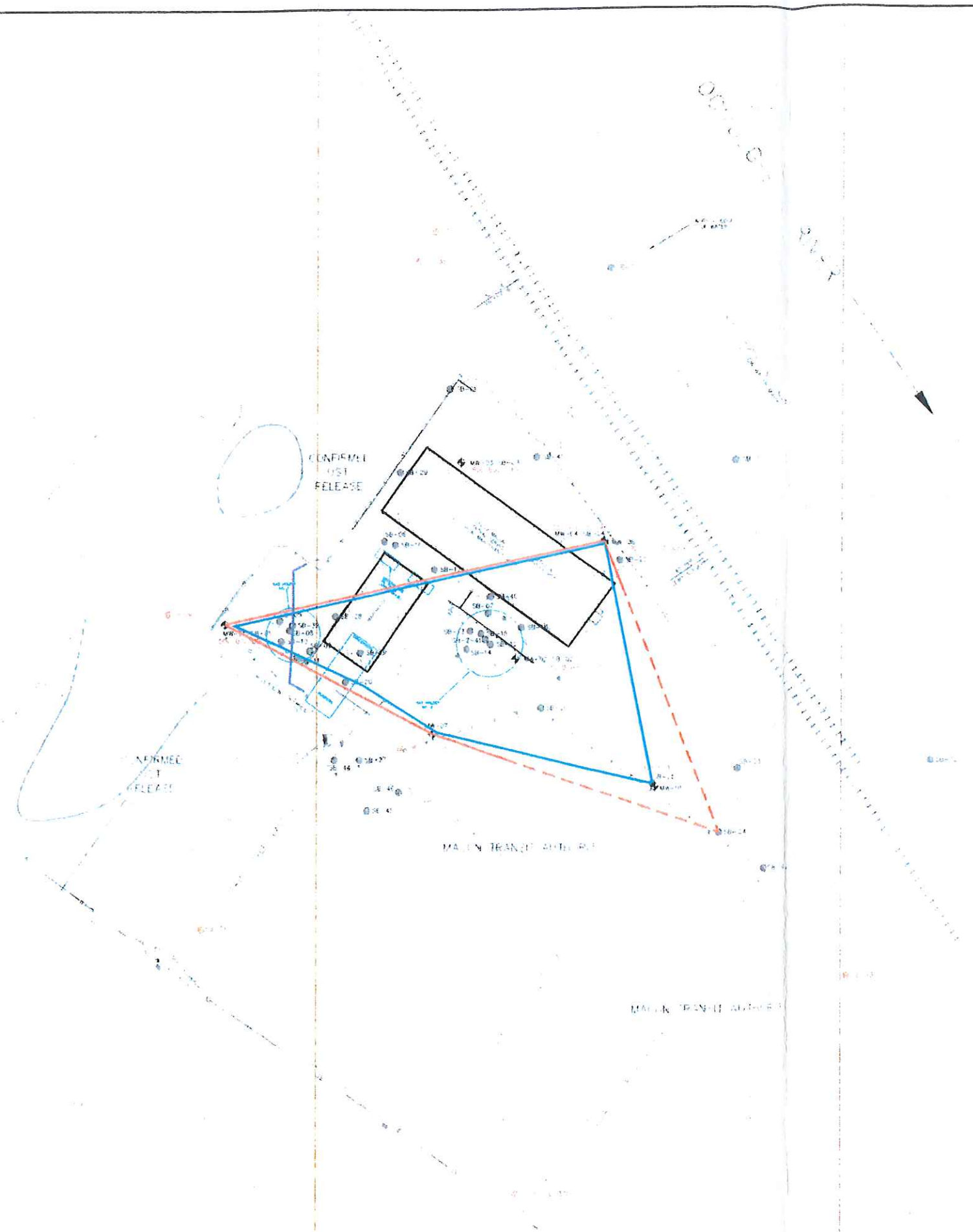
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VISUAL INDICATION OF TLM AND OLM IN SOILS

FORMER MACON 2 MGP FACILITY  
MACON, GEORGIA



# LEGEND

- PROPERTY LINE
- OVERHEAD POWER
- EXISTING WATER LINE
- STORM SEWER
- SANITARY SEWER
- CHAIN LINK FENCE
- MONITORING WELL LOCATION
- SOIL BORING LOCATION
- BACKGROUND SOIL BORING LOCATION (DEFINES MAXIMUM EXTENT)
- FORMER MGP STRUCTURE (LOCATION APPROXIMATE UNLESS NOTED IN REPORT)
- CONCENTRATION OF ACENAPHTHENE IN GROUNDWATER (ug/L)
- CONCENTRATION OF CYANIDE IN GROUNDWATER (mg/L)
- CONCENTRATION OF BARIUM IN GROUNDWATER (mg/L)
- APPROXIMATE BENZENE GROUNDWATER PLUMES ON ADJACENT PROPERTIES (FROM UST REPORTS)
- UBL ISOCONCENTRATION LINE OF ACENAPHTHENE IN GROUNDWATER WHERE ACENAPHTHENE IS KNOWN TO BE BELOW DETECTION LIMIT (DASHED LINES ARE INTERFERED)
- UBL ISOCONCENTRATION LINE OF CYANIDE IN GROUNDWATER WHERE CYANIDE IS KNOWN TO BE BELOW DETECTION LIMIT
- UBL ISOCONCENTRATION LINE OF BARIUM IN GROUNDWATER WHERE BARIUM IS KNOWN TO BE BELOW DETECTION LIMIT (PLEASE SEE SECTION 5.6.3 OF TEXT DESCRIBING BARIUM IN GROUNDWATER)
- BELOW DETECTION LIMIT



TOTAL DETECTED ACENAPHTHENE, CYANIDE AND BARIUM GROUNDWATER AUGUST 2003

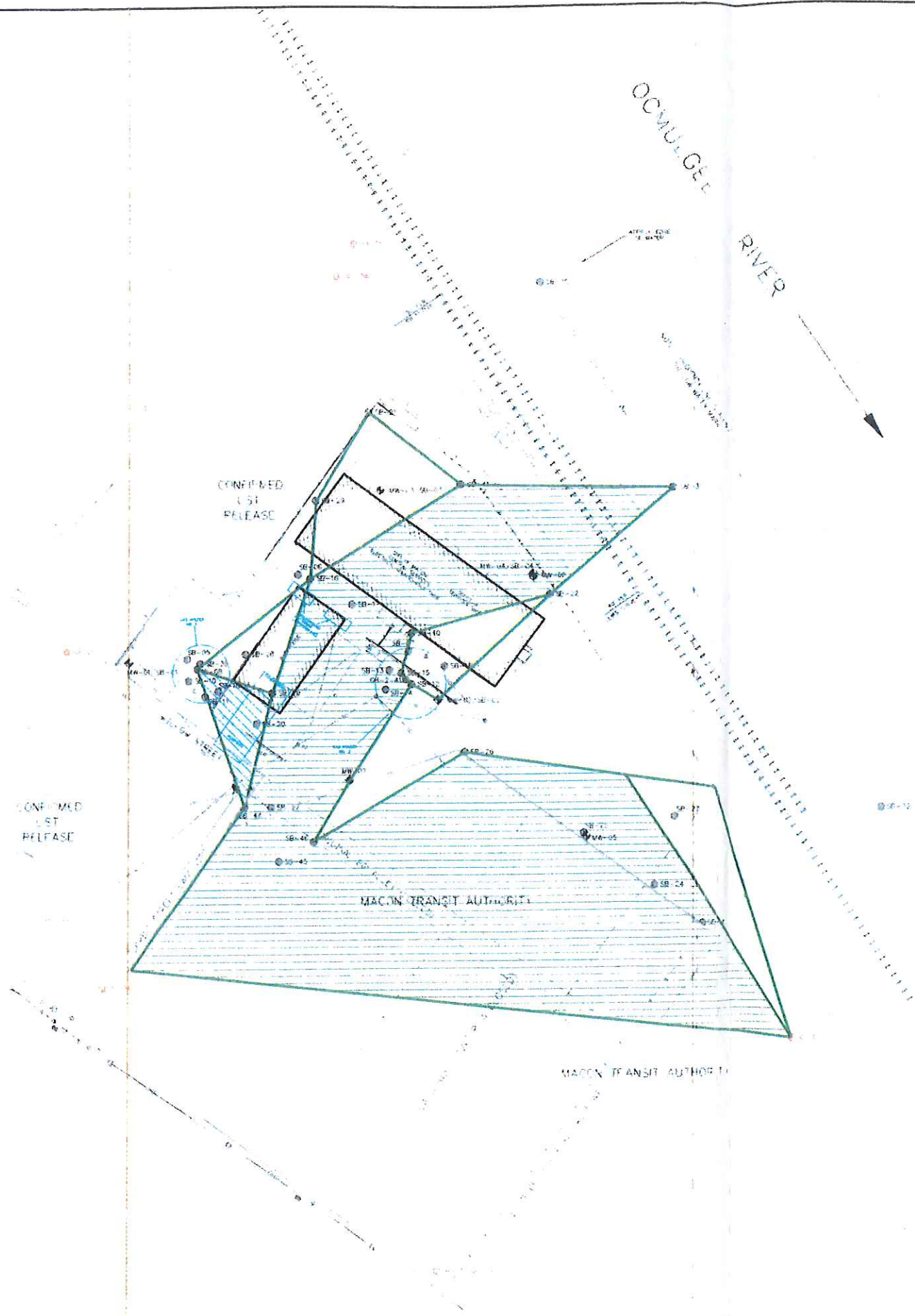
FORMER MACON 2 MGP FACILITY  
MACON, GEORGIA

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# LEGEND

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- MONITORING WELL LOCATION
- SOIL BORING LOCATION
- BACKGROUND SOIL BORING LOCATION (DEFINES MAXIMUM EXTENT)
- FORMER MGP STRUCTURE (LOCATION APPROXIMATE UNLESS NOTED IN REPORT)
- AREAS EXCEEDING TYPE 1 RISK REDUCTION STANDARDS
- AREAS EXCEEDING TYPE 1 AND 2 RISK REDUCTION STANDARDS
- AREAS EXCEEDING TYPE 1, 2, AND 3 RISK REDUCTION STANDARDS
- AREAS EXCEEDING TYPE 1, 2, 3, AND 4 RISK REDUCTION STANDARDS
- DIRECTION OF RIVER FLOW
- BOUNDARY PARCELS



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AREAS EXCEEDING RISK REDUCTION STANDARDS IN SOIL

FORMER MACON 2 MGP FACILITY  
MACON, GEORGIA



## **B-2 COMPLIANCE STATUS INVESTIGATION**

**VOLATILE ORGANIC COMPOUNDS**  
**SOIL SAMPLES-COMPLIANCE STATUS INVESTIGATION**  
**MACON 2 FORMER MGP FACILITY/WILLIAMS PROJECT NO. 1100-2990**  
**VALUES LISTED IN MICROGRAMS PER KILOGRAM (ug/kg)**

	Saturated/Unsaturated		Unit	Benzene	Carbon Disulfide	Ethylbenzene	Methylene Chloride	Toluene	Xylenes	Total Detected VOCs
UBL - Fill Material				DL	DL	DL	DL	DL	DL	--
UBL - Nat. Soils				DL	DL	DL	DL	DL	DL	--
SB-14-0.5-2	U	Fill		5.8U	5.8U	5.8U	23U	5.8U	5.8U	0
SB-14-16-20	U	Fill		5.1U	5.1U	5.1U	20U	5.1U	5.1U	0
SB-14-24-28	S	Fill		9.3	8.2U	8.2U	33U	8.2U	8.2U	9.3
SB-15-4-8	U	Fill		4.2U	4.2U	4.2U	17U	4.2U	4.2U	0
SB-15-36-41	S	Fill		5.1U	17	5.1U	20U	5.1U	5.1U	17
SB-16-0.5-2	U	Fill		6U	6U	6U	24U	6U	6U	0
SB-16-2-4	U	Fill		4.9U	4.9U	4.9U	20U	4.9U	4.9U	0
SB-16-19-24	U	Fill		4.9U	4.9U	4.9U	20U	4.9U	4.9U	0
SB-16-24-29	S	Fill		6.6U	14	6.6U	26U	6.6U	6.6U	14
SB-16-29-34	S	Nat. Soil		7U	7U	7U	28U	7U	7U	0
SB-16-34-37	S	Nat. Soil		5.6U	5.6U	5.6U	22U	5.6U	5.6U	0
SB-17-0.5-2	U	Fill		6.1U	6.1U	6.1U	24U	6.1U	6.1U	0
SB-17-2-4	U	Fill		4.4U	4.4U	4.4U	18U	4.4U	4.4U	0
SB-17-16-20	U	Fill		5U	5.3	5U	20U	5U	5U	5.3
SB-17-24-28	S	Fill		5.1U	5.1U	5.1U	20U	5.1U	5.1U	0
SB-17-29-33	S	Fill		13	6.3U	6.3U	25U	6.3U	6.3U	13
SB-17-44-49	S	Nat. Soil		5100	6.9U	23	28U	150	61	5300
SB-17-49-51	S	Nat. Soil		10	5U	5U	20U	5U	5U	10
SB-17-54-59	S	Nat. Soil		15	4.9U	4.9U	20U	4.9U	4.9U	15
SB-18-0.5-2	U	Fill		5.6U	5.6U	5.6U	22U	5.6U	5.6U	0
SB-18-2-4	U	Fill		5.1U	5.1U	5.1U	20U	5.1U	5.1U	0
SB-18-16-18	U	Fill		5.2U	5.2U	5.2U	21U	5.2U	5.2U	0
SB-18-28-32	S	Fill		4.6U	4.6U	4.6U	18U	4.6U	4.6U	0
SB-18-32-36	S	Nat. Soil		94	5.7U	15	23U	9.6	37	160
SB-18-56-60	S	Nat. Soil		6.5U	6.5U	6.5U	26U	6.5U	6.5U	0
SB-19-0.5-2	U	Fill		4.4U	4.4U	4.4U	18U	4.4U	4.4U	0
SB-19-2-4	U	Fill		5.1U	5.1U	5.1U	20U	5.1U	5.1U	0
DUP032101A	U	Fill		4.8U	4.8U	4.8U	19U	4.8U	4.8U	0
SB-19-4-8	U	Fill		4.6U	4.6U	4.6U	18U	4.6U	4.6U	0
SB-19-8-11	U	Nat. Soil		5.2U	5.2U	5.2U	21U	5.2U	5.2U	0
SB-20-0-2	U	Fill		5.8U	5.8U	5.8U	23U	5.8U	5.8U	0
DUP031501B	U	Fill		5.3U	5.3U	5.3U	21U	5.3U	5.3U	0
SB-20-2-4	U	Fill		4.3U	4.3U	4.3U	17U	4.3U	4.3U	0
SB-20-4-8	U	Fill		4.8U	4.8U	4.8U	19U	4.8U	4.8U	0
SB-20-9-13	U	Nat. Soil		5.5U	5.5U	5.5U	22U	5.5U	5.5U	0
SB-21-0-2	U	Fill		4.6U	4.6U	4.6U	18U	4.6U	4.6U	0
DUP030601A	U	Fill		4.8U	4.8U	4.8U	19U	4.8U	4.8U	0
SB-21-2-4	U	Fill		7.1U	7.1U	7.1U	29U	7.1U	7.1U	0
SB-21-12-16	U	Fill		4.9U	4.9U	4.9U	20U	6.7	4.9U	6.7
SB-21-16-20	U	Fill		5.4U	5.4U	5.4U	22U	5.4U	5.4U	0
SB-21-28-30	S	Fill		5.3U	10	5.3U	21U	5.3U	5.3U	10
SB-21-44-48	S	Nat. Soil		5U	5U	5U	20U	5U	5U	0
SB-21-60-64	S	Nat. Soil		4.6U	4.6U	4.6U	18U	4.6U	4.6U	0
SB-22-0-2	U	Fill		4.8U	4.8U	4.8U	19U	4.8U	4.8U	0

**VOLATILE ORGANIC COMPOUNDS**  
**SOIL SAMPLES-COMPLIANCE STATUS INVESTIGATION**  
**MACON 2 FORMER MGP FACILITY/WILLIAMS PROJECT NO. 1100-2990**  
**VALUES LISTED IN MICROGRAMS PER KILOGRAM (ug/kg)**

	Saturated/Unsaturated		Unit	Benzene	Carbon Disulfide	Ethylbenzene	Methylene Chloride	Toluene	Xylenes	Total Detected VOCs
UBL - Fill Material				DL	DL	DL	DL	DL	DL	--
UBL - Nat. Soils				DL	DL	DL	DL	DL	DL	--
SB-22-2-4	U	Fill		3.6U	3.6U	3.6U	15U	3.6U	3.6U	0
SB-22-19-24	U	Fill		3.8U	3.8U	3.8U	15U	3.8U	3.8U	0
SB-22-24-29	S	Nat. Soil		4.5U	4.5U	4.5U	18U	4.5U	4.5U	0
SB-22-59-62	S	Nat. Soil		5.1U	5.1U	5.1U	21U	5.1U	5.1U	0
SB-23-0-2	U	Fill		5.6U	5.6U	5.6U	22U	5.6U	5.6U	0
DUP032201B	U	Fill		5.5U	5.5U	5.5U	22U	5.5U	5.5U	0
SB-23-2-4	U	Fill		3.8U	3.8U	3.8U	15U	3.8U	3.8U	0
SB-23-14-19	U	Fill		5.2U	5.2U	5.2U	21U	5.2U	5.2U	0
SB-23-24-29	S	Fill		5.9U	5.9U	5.9U	23U	5.9U	5.9U	0
SB-23-59-62	S	Nat. Soil		6.2U	6.2U	6.2U	25U	6.2U	6.2U	0
SB-24-0-2	U	Fill		4.1U	4.1U	4.1U	16U	4.1U	4.1U	0
SB-24-2-4	U	Fill		3.5U	3.5U	3.5U	14U	3.5U	3.5U	0
SB-24-8-12	U	Fill		4.8U	5.4	4.8U	19U	4.8U	4.8U	5.4
SB-24-32-34	S	Fill		5.4U	18	5.4U	22U	5.4U	5.4U	18
SB-24-40-42	S	Nat. Soil		5.6U	5.6U	5.6U	22U	5.6U	5.6U	0
SB-24-44-48	S	Nat. Soil		5.3U	5.3U	5.3U	21U	5.3U	5.3U	0
DUP030101A	S	Nat. Soil		4.5U	4.5U	4.5U	18U	4.5U	4.5U	0
SB-24-52-56	S	Nat. Soil		4.9U	4.9U	4.9U	19U	4.9U	4.9U	0
SB-25-0.5-2	U	Fill		4.4U	4.4U	4.4U	18U	4.4U	4.4U	0
SB-25-2-4	U	Fill		4.7U	4.7U	4.7U	19U	4.7U	4.7U	0
SB-25-16-20	U	Fill		3.7U	3.7U	3.7U	15U	3.7U	3.7U	0
SB-25-28-32	S	Fill		5U	5U	5U	20U	5U	5U	0
SB-25-44-48	S	Nat. Soil		5.1U	5.1U	5.1U	21U	5.1U	5.1U	0
SB-25-56-60	S	Nat. Soil		4.4U	4.4U	4.4U	17U	4.4U	4.4U	0
SB-25-60-61	S	Nat. Soil		6U	6U	6U	24U	6U	6U	0
SB-26-0.5-2	U	Fill		4.7U	4.7U	4.7U	19U	4.7U	4.7U	0
SB-26-2-4	U	Fill		4.1U	4.1U	4.1U	16U	4.1U	4.1U	0
SB-26-8-12	U	Fill		5U	5U	5U	20U	5U	5U	0
DUP030201A	U	Fill		3.9U	3.9U	3.9U	16U	3.9U	3.9U	0
SB-26-20-24	U	Fill		3.5U	3.5U	3.5U	14U	3.5U	3.5U	0
SB-26-32-36	S	Fill		5.2U	5.2U	5.2U	21U	5.2U	5.2U	0
SB-26-48-51	S	Nat. Soil		6.8U	6.8U	6.8U	27U	6.8U	6.8U	0
SB-26-51-52	S	Nat. Soil		5.9U	5.9U	5.9U	24U	5.9U	5.9U	0
SB-27-0.5-1.5	U	Fill		5.4U	5.4U	5.4U	21U	5.4U	5.4U	0
SB-27-2-4	U	Fill		4.5U	4.5U	4.5U	18U	4.5U	4.5U	0
SB-27-8-12	U	Fill		5.4	5.4U	5.4U	22U	6.8	6.5	43
SB-27-16-20	U	Nat. Soil		4.8U	4.8U	4.8U	19U	4.8U	4.8U	0
SB-27-20-21	S	Nat. Soil		4.9U	4.9U	4.9U	19U	4.9U	4.9U	0
SB-28-0.5-2	U	Fill		5.4U	5.4U	5.4U	21U	5.4U	5.4U	0
SB-28-2-4	U	Fill		4.5U	4.5U	4.5U	18U	4.5U	4.5U	0
SB-28-4-8	U	Fill		4.8U	5.7	4.8U	19U	4.8U	4.8U	5.7
SB-28-8-9.5	U	Nat. Soil		5.3U	5.3U	5.3U	21U	5.3U	5.3U	0
SB-29-0.5-2	U	Fill		5U	5U	5U	20U	5U	5U	0
DUP030501A	U	Fill		5U	5U	5U	20U	5U	5U	0

**VOLATILE ORGANIC COMPOUNDS**  
**SOIL SAMPLES-COMPLIANCE STATUS INVESTIGATION**  
**MACON 2 FORMER MGP FACILITY/WILLIAMS PROJECT NO. 1100-2990**  
**VALUES LISTED IN MICROGRAMS PER KILOGRAM (ug/kg)**

	Saturated/Unsaturated		Unit	Benzene	Carbon Disulfide	Ethylbenzene	Methylene Chloride	Toluene	Xylenes	Total Detected VOCs
UBL - Fill Material				DL	DL	DL	DL	DL	DL	--
UBL - Nat. Soils				DL	DL	DL	DL	DL	DL	--
SB-29-2-4	U	Fill		4.7U	4.7U	4.7U	19U	4.7U	4.7U	0
SB-29-20-24	U	Fill		3.5U	3.5U	3.5U	14U	3.5U	3.5U	0
SB-29-28-32	S	Fill		4.8U	4.8U	4.8U	19U	4.8U	4.8U	0
SB-29-48-52	S	Nat. Soil		7U	7U	7U	28U	7U	7U	0
SB-29-52-53	S	Nat. Soil		4.6U	4.6U	4.6U	18U	4.6U	4.6U	0
SB-30-0-2	U	Nat. Soil		5.8U	5.8U	5.8U	23U	5.8U	5.8U	0
DUP041201A	U	Nat. Soil		6.1U	6.1U	6.1U	24U	6.1U	6.1U	0
SB-30-2-4	U	Nat. Soil		6.9U	6.9U	6.9U	28U	6.9U	6.9U	0
SB-30-8-12	S	Nat. Soil		6.8U	6.8U	6.8U	27U	6.8U	6.8U	0
SB-30-16-20	S	Nat. Soil		5.5U	5.5U	5.5U	22U	5.5U	5.5U	0
SB-31-0-2	U	Nat. Soil		6.9U	6.9U	6.9U	28U	6.9U	6.9U	0
SB-31-2-4	U	Nat. Soil		7U	7U	7U	28U	7U	7U	0
SB-31-4-8	U	Nat. Soil		6.3U	6.3U	6.3U	25U	6.3U	6.3U	0
SB-31-8-12	U	Nat. Soil		6.7U	6.7U	6.7U	27U	6.7U	6.7U	0
SB-31-16-20	S	Nat. Soil		6.4U	6.4U	6.4U	26U	6.4U	6.4U	0
SB-32-0-2	U	Nat. Soil		7.3U	7.3U	7.3U	29U	7.3U	7.3U	0
SB-32-2-4	U	Nat. Soil		5.8U	5.8U	5.8U	23U	5.8U	5.8U	0
SB-32-4-8	U	Nat. Soil		6.4U	6.4U	6.4U	26U	6.4U	6.4U	0
SB-32-16-20	S	Nat. Soil		6U	6U	6U	24U	6U	6U	0
SB-33-0.5-2	U	Fill		4.2U	4.2U	4.2U	17U	4.2U	4.2U	0
SB-33-2-4	U	Fill		4.6U	4.6U	4.6U	19U	4.6U	4.6U	0
SB-33-8-10	U	Fill		5.3U	5.3U	5.3U	21U	5.3U	5.3U	0
SB-33-10-14	U	Nat. Soil		4.7U	4.7U	4.7U	19U	4.7U	4.7U	0
SB-34-0.5-2	U	Fill		4.7U	4.7U	4.7U	19U	4.7U	4.7U	0
SB-34-2-4	U	Fill		4.7U	4.7U	4.7U	19U	4.7U	4.7U	0
SB-34-4-8	U	Fill		5.7	4.1U	4.1U	17U	4.1U	4.1U	5.7
SB-34-8-10	U	Nat. Soil		7.3U	7.3U	7.3U	29U	7.3U	7.3U	0
SB-36-0.5-2	U	Fill		5.4U	5.4U	5.4U	21U	5.4U	5.4U	0
SB-36-2-4	U	Fill		6.6U	6.6U	6.6U	26U	6.6U	6.6U	0
SB-36-4-6	U	Nat. Soil		8.5U	8.5U	8.5U	34U	8.5U	8.5U	0
SB-38-0-2	U	Fill		5.7U	5.7U	5.7U	23U	5.7U	5.7U	0
DUP041201B	U	Fill		5.6U	5.6U	5.6U	23U	5.6U	5.6U	0
SB-38-2-4	U	Fill		5.5U	5.5U	5.5U	22U	5.5U	5.5U	0
SB-38-4-6.5	U	Fill		6.1U	6.1U	6.1U	24U	6.1U	6.1U	0
SB-38-14-19	S	Nat. Soil		6.6U	6.6U	6.6U	26U	6.6U	6.6U	0
SB-38-34-38	S	Nat. Soil		62	6.8U	6.8U	27U	6.8U	6.8U	62
SB-39-0.5-2	U	Fill		6.1U	6.1U	6.1U	24U	6.1U	6.1U	0
SB-39-4-8	U	Fill		4.6U	4.6U	4.6U	18U	4.6U	4.6U	0
SB-39-8-12.5	U	Fill		4.5U	4.5U	4.5U	18U	4.5U	4.5U	0
SB-40-0.5-2	U	Fill		6U	6U	6U	24U	6U	6U	0
SB-40-2-4	U	Fill		5.1U	5.1U	5.1U	20U	5.1U	5.1U	0
SB-40-16-20	U	Fill		4.7U	4.7U	4.7U	19U	4.7U	4.7U	0
SB-40-24-28	S	Fill		4.6U	4.6U	4.6U	18U	4.6U	4.6U	0
SB-40-40-44	S	Nat. Soil		33	4.5U	4.5U	18U	4.5U	4.5U	33



**VOLATILE ORGANIC COMPOUNDS**  
**SOIL SAMPLES-COMPLIANCE STATUS INVESTIGATION**  
**MACON 2 FORMER MGP FACILITY/WILLIAMS PROJECT NO. 1100-2990**  
**VALUES LISTED IN MICROGRAMS PER KILOGRAM (ug/kg)**

	Saturated/Unsaturated	Unit	Benzene	Carbon Disulfide	Ethylbenzene	Methylene Chloride	Toluene	Xylenes	Total Detected VOCs
UBL - Fill Material			DL	DL	DL	DL	DL	DL	--
UBL - Nat. Soils			DL	DL	DL	DL	DL	DL	--
DUP032001A	S	Nat. Soil	64	6.1U	6.1U	24U	6.1U	6.1U	64
SB-40-56-58	S	Nat. Soil	4.9U	4.9U	4.9U	20U	4.9U	4.9U	0
SB-41-0-2	U	Fill	7.9U	7.9U	7.9U	32U	7.9U	7.9U	0
SB-41-2-4	U	Fill	5.1U	5.1U	5.1U	20U	5.1U	5.1U	0
SB-41-19-24	U	Fill	4.5U	12	4.5U	18U	4.5U	4.5U	12
SB-41-24-29	S	Fill	8.3U	15	8.3U	33U	8.3U	8.3U	15
SB-41-54-59	S	Nat. Soil	4.9U	4.9U	4.9U	20U	4.9U	4.9U	0
MW-6-34-39	S	Nat. Soil	6.1U	6.1U	6.1U	25U	6.1U	6.1U	0
MW-6-44-49	S	Nat. Soil	6.3U	6.3U	6.3U	25U	6.3U	6.3U	0
DUP032701A	S	Nat. Soil	5.6U	5.6U	5.6U	22U	5.6U	5.6U	0
GH-2-41	S	Fill	7.5U	7.5U	7.5U	30U	7.5U	7.5U	0

**SEMI-VOLATILE ORGANIC COMPOUNDS**  
**SOIL SAMPLES-COMPLIANCE STATUS INVESTIGATION**  
**MACON 2 FORMER MGP/WILLIAMS PROJECT NO. 1100-2990**  
**VALUES LISTED IN MICROGRAMS PER KILOGRAM (ug/kg)**

	Saturated/Unsaturated	Unit	Acenaphthene	Acenaphthylene	Anthracene	Benzo(a)anthracene	Benzo(a)pyrene	Benzo(b)fluoranthene	Benzo(g,h,i)perylene	Benzo(k)fluoranthene	Chrysene	Dibenzo(a,h)anthracene	Fluoranthene	Indeno(1,2,3-cd)pyrene	Naphthalene	Phenanthrene	Phenol	Pyrene	Total Detected SVOCs	Total Detected SVOCs Exceeding Background
UBL - Fill Material			DL	DL	DL	560	690	610	690	570	680	DL	1,200	DL	580	DL	560	DL	920	-
UBL - Nat. Soils			DL	DL	DL	DL	DL	DL	DL	DL	DL	DL	DL	DL	DL	DL	DL	DL	DL	-
SB-14-0.5-2	U Fill		420U	420U	420U	420U	420U	420U	420U	420U	420U	420U	420U	420U	420U	420U	420U	420U	420U	0
SB-14-16-20	U Fill		2,200	370U	3,700	6,600	6,800	5,600	6,000	5,800	6,000	3,500	14,000	2,300	6,100	2,100	13,000	370U	11,000	94,000
SB-14-24-28	S Fill		2,100	400U	4,000	8,900	10,000	8,900	8,500	8,300	9,600	4,200	20,000	2,700	7,100	1,800	15,000	400U	15,000	130,000
SB-15-4-8	U Fill		410U	410U	410U	410U	410U	410U	410U	410U	410U	410U	410U	410U	410U	410U	410U	410U	410U	0
SB-15-36-41	S Fill		380U	380U	550	1,100	1,200	1,100	1,000	720	1,100	390	2,600	380U	870	380U	2,100	380U	2,300	15,000
SB-16-0.5-2	U Fill		450U	450U	450U	450U	450U	450U	450U	450U	450U	450U	450U	450U	450U	450U	450U	450U	450U	0
SB-16-2-4	U Fill		370U	370U	370U	370U	370U	370U	370U	370U	370U	370U	370U	370U	370U	370U	370U	370U	370U	0
SB-16-19-24	U Fill		380U	380U	380U	570	740	630	380U	700	680	380U	1,500	380U	380U	380U	380U	980	6,200	6,900
SB-16-24-29	S Fill		410U	410U	410U	410U	410U	410U	410U	410U	410U	410U	410U	410U	410U	410U	410U	410U	410U	0
SB-16-29-34	S Nat. Soil		460U	460U	460U	460U	460U	460U	460U	460U	460U	460U	460U	460U	460U	460U	460U	460U	460U	0
SB-16-34-37	S Nat. Soil		410U	410U	410U	410U	410U	410U	410U	410U	410U	410U	410U	410U	410U	410U	410U	410U	410U	0
SB-17-0.5-2	U Fill		390U	390U	390U	390U	390U	390U	390U	390U	390U	390U	390U	390U	390U	390U	390U	390U	390U	0
SB-17-2-4	U Fill		410U	410U	410U	410U	410U	410U	410U	410U	410U	410U	410U	410U	410U	410U	410U	410U	410U	0
SB-17-16-20	U Fill		1,500	400U	2,600	5,300	5,000	4,500	4,900	3,900	5,100	2,300	17,000	1,300	4,700	400U	7,500	400U	7,400	67,000
SB-17-24-28	S Fill		400U	400U	400U	400U	400U	400U	400U	400U	400U	400U	400U	400U	400U	400U	400U	400U	400U	0
SB-17-29-33	S Fill		420U	450	420U	570	910	680	1,300	940	900	420U	3,000	420U	840	420U	2,600	420U	3,900	16,000
SB-17-44-49	S Nat. Soil		480U	480U	480U	480U	480U	480U	480U	480U	480U	480U	480U	480U	480U	480U	480U	480U	480U	0
SB-17-49-51	S Nat. Soil		400U	400U	400U	400U	400U	400U	400U	400U	400U	400U	400U	400U	400U	400U	400U	400U	400U	0
SB-17-54-59	S Nat. Soil		400U	400U	400U	400U	400U	400U	400U	400U	400U	400U	400U	400U	400U	400U	400U	400U	400U	0
SB-18-0.5-2	U Fill		380U	380U	380U	380U	380U	380U	380U	380U	380U	380U	380U	380U	380U	380U	380U	380U	380U	0
SB-18-2-4	U Fill		370U	370U	370U	370U	370U	370U	370U	370U	370U	370U	370U	370U	370U	370U	370U	370U	370U	0
SB-18-16-18	U Fill		370U	370U	370U	370U	370U	370U	370U	370U	370U	370U	370U	370U	370U	370U	370U	370U	370U	0
SB-18-28-32	S Fill		420U	420U	420U	420U	420U	420U	420U	420U	420U	420U	420U	420U	420U	420U	420U	420U	420U	0
SB-18-32-36	S Nat. Soil		420U	420U	420U	420U	420U	420U	420U	420U	420U	420U	420U	420U	420U	420U	420U	420U	420U	0
SB-18-56-60	S Nat. Soil		440U	440U	440U	440U	440U	440U	440U	440U	440U	440U	440U	440U	440U	440U	440U	440U	440U	0
SB-19-0.5-2	U Fill		410U	410U	410U	410U	410U	410U	410U	410U	410U	410U	410U	410U	410U	410U	410U	410U	410U	0
SB-19-2-4	U Fill		380U	380U	380U	380U	380U	380U	380U	380U	380U	380U	380U	380U	380U	380U	380U	380U	380U	0

**SEMI-VOLATILE ORGANIC COMPOUNDS**  
**SOIL SAMPLES-COMPLIANCE STATUS INVESTIGATION**  
**MACON 2 FORMER MGP/WILLIAMS PROJECT NO. 1100-2990**  
**VALUES LISTED IN MICROGRAMS PER KILOGRAM (ug/kg)**

	Saturated/Unsaturated	Unit	Acenaphthene	Acenaphthylene	Anthracene	Benzo(a)anthracene	Benzo(a)pyrene	Benzo(b)fluoranthene	Benzo(g,h,i)perylene	Benzo(k)fluoranthene	Chrysene	Dibenzo(a,h)anthracene	Fluoranthene	Fluorene	Indeno(1,2,3-cd)pyrene	Naphthalene	Phenanthrene	Phenol	Pyrene	Total Detected SVOCs Exceeding Background	Total Detected SVOCs
			DL	DL	DL	DL	DL	DL	DL	DL	DL	DL	DL	DL	DL	DL	DL	DL	DL		
UBL - Fill Material																					
UBL - Nat. Soils																					
DUP032101A	U Fill		370U	370U	370U	370U	370U	370U	370U	370U	370U	370U	370U	370U	370U	370U	370U	370U	370U	0	0
SB-19-4-8	U Fill		370U	370U	360U	360U	360U	360U	360U	360U	360U	360U	360U	360U	360U	360U	360U	360U	360U	0	0
SB-19-8-11	U Nat. Soil		420U	420U	420U	420U	420U	420U	420U	420U	420U	420U	420U	420U	420U	420U	420U	420U	420U	0	0
SB-20-0-2	U Fill		400U	400U	400U	400U	400U	400U	400U	400U	400U	400U	400U	400U	400U	400U	400U	400U	400U	0	0
DUP031501B	U Fill		390U	390U	390U	390U	390U	390U	390U	390U	390U	390U	390U	390U	390U	390U	390U	390U	390U	0	0
SB-20-2-4	U Fill		360U	360U	360U	360U	360U	360U	360U	360U	360U	360U	360U	360U	360U	360U	360U	360U	360U	0	0
SB-20-4-8	U Fill		370U	370U	370U	370U	370U	370U	370U	370U	370U	370U	370U	370U	370U	370U	370U	370U	370U	0	0
SB-20-9-13	U Nat. Soil		400U	400U	400U	400U	400U	400U	400U	400U	400U	400U	400U	400U	400U	400U	400U	400U	400U	0	0
SB-21-0-2	U Fill		410U	410U	410U	410U	410U	410U	410U	410U	410U	410U	410U	410U	410U	410U	410U	410U	410U	0	0
DUP030601A	U Fill		430U	430U	430U	430U	430U	430U	430U	430U	430U	430U	430U	430U	430U	430U	430U	430U	430U	0	0
SB-21-2-4	U Fill		390U	390U	390U	390U	390U	390U	390U	390U	390U	390U	390U	390U	390U	390U	390U	390U	390U	0	0
SB-21-12-16	U Fill		380U	380U	380U	380U	380U	380U	380U	380U	380U	380U	380U	380U	380U	380U	380U	380U	380U	0	0
SB-21-16-20	U Fill		400U	400U	400U	400U	400U	400U	400U	400U	400U	400U	400U	400U	400U	400U	400U	400U	400U	0	0
SB-21-28-30	S Fill		430U	430U	430U	430U	430U	430U	430U	430U	430U	430U	430U	430U	430U	430U	430U	430U	430U	0	0
SB-21-44-48	S Nat. Soil		460U	460U	460U	460U	460U	460U	460U	460U	460U	460U	460U	460U	460U	460U	460U	460U	460U	0	0
SB-21-60-64	S Nat. Soil		400U	400U	400U	400U	400U	400U	400U	400U	400U	400U	400U	400U	400U	400U	400U	400U	400U	0	0
SB-22-0-2	U Fill		360U	360U	360U	360U	360U	360U	360U	360U	360U	360U	360U	360U	360U	360U	360U	360U	360U	0	0
SB-22-2-4	U Fill		370U	370U	370U	370U	370U	370U	370U	370U	370U	370U	370U	370U	370U	370U	370U	370U	370U	0	0
SB-22-19-24	U Fill		390U	390U	390U	390U	390U	390U	390U	390U	390U	390U	390U	390U	390U	390U	390U	390U	390U	21,000	21,000
SB-22-24-29	S Nat. Soil		380U	380U	380U	380U	380U	380U	380U	380U	380U	380U	380U	380U	380U	380U	380U	380U	380U	0	0
SB-22-59-62	S Nat. Soil		440U	440U	440U	440U	440U	440U	440U	440U	440U	440U	440U	440U	440U	440U	440U	440U	440U	0	0
SB-23-0-2	U Fill		370U	370U	370U	370U	370U	370U	370U	370U	370U	370U	370U	370U	370U	370U	370U	370U	370U	0	0
DUP032201B	U Fill		360U	360U	360U	360U	360U	360U	360U	360U	360U	360U	360U	360U	360U	360U	360U	360U	360U	0	0
SB-23-2-4	U Fill		360U	360U	360U	360U	360U	360U	360U	360U	360U	360U	360U	360U	360U	360U	360U	360U	360U	0	0
SB-23-14-19	U Fill		390U	390U	390U	390U	390U	390U	390U	390U	390U	390U	390U	390U	390U	390U	390U	390U	390U	0	920
SB-23-24-29	S Fill		450U	450U	450U	450U	450U	450U	450U	450U	450U	450U	450U	450U	450U	450U	450U	450U	450U	0	0
SB-23-59-62	S Nat. Soil		450U	450U	450U	450U	450U	450U	450U	450U	450U	450U	450U	450U	450U	450U	450U	450U	450U	0	0

**SEMI-VOLATILE ORGANIC COMPOUNDS**  
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**MACON 2 FORMER MGP/WILLIAMS PROJECT NO. 1100-2990**  
**VALUES LISTED IN MICROGRAMS PER KILOGRAM (ug/kg)**

	Saturated/Unsaturated	Unit	Acenaphthene	Acenaphthylene	Anthracene	Benzo(a)anthracene	Benzo(a)pyrene	Benzo(b)fluoranthene	Benzo(g,h,i)perylene	Benzo(k)fluoranthene	Chrysene	Dibenzo(a,h)anthracene	Fluoranthene	Fluorene	Indeno(1,2,3-cd)pyrene	Naphthalene	Phenanthrene	Phenol	Pyrene	Total Detected SVOCs
UBL - Fill Material			DL	DL	DL	560	690	610	690	570	680	DL	1,200	DL	580	DL	560	DL	920	-
UBL - Nat. Soils			DL	DL	DL	360U	360U	360U	360U	360U	360U	360U	360U	360U	360U	360U	360U	360U	DL	-
SB-24-0-2	U Fill		360U	370U	360U	2,500	2,900	3,200	730	2,100	2,500	370U	5,600	420	1,690	370U	3,700	370U	360U	0
SB-24-2-4	U Fill		360U	380U	380U	380U	380U	380U	380U	380U	380U	380U	410	380U	380U	380U	380U	380U	360U	30,000
SB-24-8-12	U Fill		360U	380U	380U	380U	380U	380U	380U	380U	380U	380U	440U	440U	440U	440U	440U	440U	370U	410
SB-24-32-34	S		440U	440U	440U	440U	440U	440U	440U	440U	440U	440U	440U	440U	440U	440U	440U	440U	440U	0
SB-24-40-42	S	Nat. Soil	440U	440U	440U	440U	440U	440U	440U	440U	440U	440U	440U	440U	440U	440U	440U	440U	440U	0
SB-24-44-48	S	Nat. Soil	440U	440U	440U	440U	440U	440U	440U	440U	440U	440U	440U	440U	440U	440U	440U	440U	440U	0
DUP030101A	S	Nat. Soil	440U	440U	440U	440U	440U	440U	440U	440U	440U	440U	440U	440U	440U	440U	440U	440U	440U	0
SB-24-52-56	S	Nat. Soil	440U	440U	440U	440U	440U	440U	440U	440U	440U	440U	440U	440U	440U	440U	440U	440U	440U	0
SB-25-0.5-2	U Fill		370U	370U	370U	750	740	690	370U	780	770	370U	1,500	370U	370U	370U	1,100	370U	1,100	7,400
SB-25-2-4	U Fill		360U	360U	360U	800	800	12,000	2,500	12,000	9,100	650	17,000	970	2,600	370U	8,600	360U	13,000	100,000
SB-25-16-20	U Fill		380U	380U	380U	380U	380U	380U	380U	380U	380U	380U	380U	380U	380U	380U	380U	380U	380U	0
SB-25-28-32	S		480U	480U	480U	480U	480U	480U	480U	480U	480U	480U	480U	480U	480U	480U	480U	480U	480U	0
SB-25-44-48	S	Nat. Soil	440U	440U	440U	440U	440U	440U	440U	440U	440U	440U	440U	440U	440U	440U	440U	440U	440U	0
SB-25-56-60	S	Nat. Soil	450U	450U	450U	450U	450U	450U	450U	450U	450U	450U	450U	450U	450U	450U	450U	450U	450U	0
SB-25-60-61	S	Nat. Soil	470U	470U	470U	470U	470U	470U	470U	470U	470U	470U	470U	470U	470U	470U	470U	470U	470U	0
SB-26-0.5-2	U Fill		370U	370U	370U	370U	370U	370U	370U	370U	370U	370U	370U	370U	370U	370U	370U	370U	370U	0
SB-26-2-4	U Fill		370U	370U	370U	370U	370U	370U	370U	370U	370U	370U	370U	370U	370U	370U	370U	370U	370U	0
SB-26-8-12	U Fill		370U	370U	370U	370U	370U	370U	370U	370U	370U	370U	370U	370U	370U	370U	370U	370U	370U	0
DUP030201A	U Fill		370U	370U	370U	370U	370U	370U	370U	370U	370U	370U	370U	370U	370U	370U	370U	370U	370U	0
SB-26-20-24	U Fill		370U	370U	370U	580	610	500	380	610	690	370U	1,400	370U	370	370U	1,200	370U	1,200	5,700
SB-26-32-36	S		390U	390U	390U	390U	390U	390U	390U	390U	390U	390U	390U	390U	390U	390U	390U	390U	390U	0
SB-26-48-51	S	Nat. Soil	400U	400U	400U	400U	400U	400U	400U	400U	400U	400U	400U	400U	400U	400U	400U	400U	400U	0
SB-26-51-52	S	Nat. Soil	420U	420U	420U	420U	420U	420U	420U	420U	420U	420U	420U	420U	420U	420U	420U	420U	420U	0
SB-27-0.5-1.5	U Fill		400U	400U	400U	400U	400U	400U	400U	400U	400U	400U	400U	400U	400U	400U	400U	400U	400U	0
SB-27-2-4	U Fill		370U	370U	370U	450	540	430	370U	500	460	370U	960	370U	370U	370U	370U	370U	370U	720
SB-27-8-12	U Fill		460U	460U	460U	980	1,100	1,000	460U	930	1,000	460U	2,000	460U	460U	460U	2,000	460U	1,900	4,800
SB-27-16-20	U Nat. Soil		390U	390U	390U	390U	390U	390U	390U	390U	390U	390U	390U	390U	390U	390U	390U	390U	390U	11,000
																				0



	Saturated/Unsaturated	Unit	Acenaphthene	Acenaphthylene	Anthracene	Benzo(a)anthracene	Benzo(a)pyrene	Benzo(b)fluoranthene	Benzo(g,h,i)perylene	Benzo(k)fluoranthene	Chrysene	Dibenzo(a,h)anthracene	Fluoranthene	Fluorene	Indeno(1,2,3-cd)pyrene	Naphthalene	Phenanthrene	Phenol	Pyrene	Total Detected SVOCs Exceeding Background	Total Detected SVOCs
UBL - Fill Material			DL	DL	DL	560	690	610	690	570	680	DL	1,200	DL	580	DL	560	DL	920	-	-
UBL - Nat. Soils			DL	DL	DL	DL	DL	DL	DL	DL	DL	DL	DL	DL	DL	DL	DL	DL	DL	-	-
SB-27-20-21	S	Nat. Soil	380U	380U	380U	380U	380U	380U	380U	380U	380U	380U	380U	380U	380U	380U	380U	380U	380U	0	0
SB-28-0.5-2	U	Fill	410U	410U	410U	410U	410U	410U	410U	410U	410U	410U	410U	410U	410U	410U	410U	410U	410U	0	0
SB-28-2-4	U	Fill	390U	390U	390U	390U	390U	390U	390U	390U	390U	390U	390U	390U	390U	390U	390U	390U	390U	0	0
SB-28-4-8	U	Fill	410U	410U	410U	410U	410U	410U	410U	410U	410U	410U	410U	410U	410U	410U	410U	410U	410U	0	0
SB-28-8-9.5	U	Nat. Soil	360U	360U	360U	360U	360U	360U	360U	360U	360U	360U	360U	360U	360U	360U	360U	360U	360U	0	0
SB-29-0.5-2	U	Fill	430U	430U	430U	430U	430U	430U	430U	430U	430U	430U	430U	430U	430U	430U	430U	430U	430U	0	0
DUP030501A	U	Surface	420U	420U	420U	420U	420U	420U	420U	420U	420U	420U	420U	420U	420U	420U	420U	420U	420U	0	0
SB-29-2-4	U	Fill	400U	400U	400U	400U	400U	400U	400U	400U	400U	400U	400U	400U	400U	400U	400U	400U	400U	0	0
SB-29-20-24	U	Fill	390U	390U	390U	390U	390U	390U	390U	390U	390U	390U	390U	390U	390U	390U	390U	390U	390U	0	0
SB-29-28-32	S	Fill	410U	410U	410U	410U	410U	410U	410U	410U	410U	410U	410U	410U	410U	410U	410U	410U	410U	0	0
SB-29-48-52	S	Nat. Soil	490U	490U	490U	490U	490U	490U	490U	490U	490U	490U	490U	490U	490U	490U	490U	490U	490U	0	520
SB-29-52-53	S	Nat. Soil	390U	390U	390U	390U	390U	390U	390U	390U	390U	390U	390U	390U	390U	390U	390U	390U	390U	0	0
SB-30-0-2	U	Nat. Soil	340U	340U	340U	340U	340U	340U	340U	340U	340U	340U	340U	340U	340U	340U	340U	340U	340U	0	0
DUP041201A	U	Nat. Soil	350U	350U	350U	350U	350U	350U	350U	350U	350U	350U	350U	350U	350U	350U	350U	350U	350U	0	0
SB-30-2-4	U	Nat. Soil	360U	360U	360U	360U	360U	360U	360U	360U	360U	360U	360U	360U	360U	360U	360U	360U	360U	0	0
SB-30-8-12	S	Nat. Soil	430U	430U	430U	430U	430U	430U	430U	430U	430U	430U	430U	430U	430U	430U	430U	430U	430U	0	0
SB-30-16-20	S	Nat. Soil	420U	420U	420U	420U	420U	420U	420U	420U	420U	420U	420U	420U	420U	420U	420U	420U	420U	0	0
SB-31-0-2	U	Nat. Soil	410U	410U	410U	410U	410U	410U	410U	410U	410U	410U	410	410U	410U	410U	410U	410U	410U	0	410</

**SEMI-VOLATILE ORGANIC COMPOUNDS**  
**SOIL SAMPLES-COMPLIANCE STATUS INVESTIGATION**  
**MACON 2 FORMER MGP/WILLIAMS PROJECT NO. 1100-2990**  
**VALUES LISTED IN MICROGRAMS PER KILOGRAM (ug/kg)**

	Saturated/Unsaturated	Unit	Acenaphthene	Acenaphthylene	Anthracene	Benzo(a)anthracene	Benzo(a)pyrene	Benzo(b)fluoranthene	Benzo(g,h,i)perylene	Benzo(k)fluoranthene	Chrysene	Dibenzo(a,h)anthracene	Fluoranthene	Indeno(1,2,3-cd)pyrene	Naphthalene	Phenanthrene	Phenol	Pyrene	Total Detected SVOCs	Total Detected SVOCs Exceeding Background
			DL	DL	DL	560	690	610	690	DL	DL	570	680	DL	1,200	DL	580	DL	560	DL
UBL - Fill Material			DL	DL	DL	DL	DL	DL	DL	DL	DL	DL	DL	DL	DL	DL	DL	DL	DL	--
UBL - Nat. Soils			DL	DL	DL	DL	DL	DL	DL	DL	DL	DL	DL	DL	DL	DL	DL	DL	DL	--
SB-33-2-4	U Fill		370U	420	370U	2,900	5,200	2,500	3,800	2,200	2,300	520	3,200	370U	370U	370U	370U	3,200	24,000	24,000
SB-33-8-10	U Fill		400U	400U	400U	400U	400U	400U	400U	400U	400U	400U	400U	400U	400U	400U	400U	400U	0	0
SB-33-10-14	U Nat. Soil		360U	360U	360U	360U	360U	360U	360U	360U	360U	360U	360U	360U	360U	360U	360U	360U	0	0
SB-33B-2-4	U Fill		370U	370U	370U	490	690	540	690	430	540	370U	970	580	370U	530	370U	850	6,310	0
SB-34-0.5-2	U Fill		350U	350U	350U	350U	350U	350U	350U	350U	350U	350U	350U	350U	350U	350U	350U	350U	0	0
SB-34-2-4	U Fill		360U	360U	360U	360U	360U	360U	360U	360U	360U	360U	610	360U	360U	360U	360U	530	1,100	0
SB-34-4-8	U Fill		360U	360U	360U	360U	360U	360U	360U	360U	360U	360U	360U	360U	360U	360U	360U	360U	0	0
SB-34-8-10	U Nat. Soil		350U	350U	350U	350U	350U	350U	350U	350U	350U	350U	350U	350U	350U	350U	350U	350U	0	0
SB-36-0.5-2	U Fill		350U	350U	350U	350U	350U	350U	350U	350U	350U	350U	350U	350U	350U	350U	350U	350U	0	0
SB-36-2-4	U Fill		380U	380U	380U	380U	380U	380U	380U	380U	380U	380U	380U	380U	380U	380U	380U	380U	0	0
SB-36-4-6	U Nat. Soil		460U	460U	460U	460U	460U	460U	460U	460U	460U	460U	460U	460U	460U	460U	460U	460U	0	0
SB-38-0-2	U Fill		370U	370U	370U	470	450	590	540	370U	490	370U	1,000	380	370U	480	370U	920	5,300	0
DUP041201B	U Fill		370U	370U	370U	370U	420	420	440	370U	370	370U	870	370U	370U	670	370U	670	3,900	670
SB-38-2-4	U Fill		370U	370U	370U	560	590	610	370U	570	680	370U	1,200	370U	370U	560	370U	900	5,700	0
SB-38-4-6.5	U Fill		400U	400U	400U	400U	400U	400U	400U	400U	400U	400U	400U	400U	400U	400U	400U	400U	0	0
SB-38-14-19	S Nat. Soil		430U	430U	430U	430U	430U	430U	430U	430U	430U	430U	430U	430U	430U	430U	430U	430U	0	0
SB-38-34-38	S Nat. Soil		450U	450U	450U	450U	450U	450U	450U	450U	450U	450U	450U	450U	450U	450U	450U	450U	0	0
SB-39-0.5-2	U Fill		430U	430U	430U	430U	430U	430U	430U	430U	430U	430U	430U	430U	430U	430U	430U	430U	0	0
SB-39-4-8	U Fill		380U	380U	380U	380U	380U	380U	380U	380U	380U	380U	380U	380U	380U	380U	380U	380U	0	0
SB-39-8-12.5	U Fill		390U	390U	390U	390U	390U	390U	390U	390U	390U	390U	390U	390U	390U	390U	390U	390U	0	0
SB-40-0.5-2	U Fill		410U	410U	410U	410U	410U	410U	410U	410U	410U	410U	410U	410U	410U	410U	410U	410U	0	0
SB-40-2-4	U Fill		390U	390U	390U	390U	390U	390U	390U	390U	390U	390U	390U	390U	390U	390U	390U	390U	0	0
SB-40-16-20	U Fill		360U	360U	360U	540	550	380	360U	510	570	360U	360U	360U	360U	360U	360U	760	5,600	2,300
SB-40-24-28	S Fill		390U	390U	390U	390U	390U	390U	390U	390U	390U	390U	390U	390U	390U	390U	390U	390U	0	0
SB-40-40-44	S Nat. Soil		450U	450U	450U	450U	450U	450U	450U	450U	450U	450U	450U	450U	450U	450U	450U	450U	0	0
DUP032001A	S Nat. Soil		430U	430U	430U	430U	430U	430U	430U	430U	430U	430U	430U	430U	430U	430U	430U	430U	0	0
SB-40-56-58	S Nat. Soil		430U	430U	430U	430U	430U	430U	430U	430U	430U	430U	430U	430U	430U	430U	430U	430U	0	0

**SEMI-VOLATILE ORGANIC COMPOUNDS**  
**SOIL SAMPLES-COMPLIANCE STATUS INVESTIGATION**  
**MACON 2 FORMER MGP/WILLIAMS PROJECT NO. 1100-2990**  
**VALUES LISTED IN MICROGRAMS PER KILOGRAM (ug/kg)**

		Saturated/Unsaturated	Unit	Acenaphthene	Acenaphthylene	Anthracene	Benzo(a)anthracene	Benzo(a)pyrene	Benzo(b)fluoranthene	Benzo(g,h,i)perylene	Benzo(k)fluoranthene	Chrysene	Dibenzo(a,h)anthracene	Fluoranthene	Fluorene	Indeno(1,2,3-cd)pyrene	Naphthalene	Phenanthrene	Phenol	Pyrene	Total Detected SVOCs
UBL - Fill Material				DL	DL	DL	560	690	610	690	570	680	DL	1,200	DL	580	DL	560	DL	920	-
UBL - Nat. Soils				DL	DL	DL	DL	DL	DL	DL	DL	DL	DL	DL	DL	DL	DL	DL	DL	DL	-
SB-41-0-2	U	Fill		390U	390U	390U	390U	390U	390U	390U	390U	390U	390U	390U	390U	390U	390U	390U	390U	390U	0
SB-41-2-4	U	Fill		360U	360U	360U	360U	360U	360U	360U	360U	360U	360U	360U	360U	360U	360U	360U	360U	360U	0
SB-41-19-24	U	Fill		380U	380U	380U	2,300	2,200	2,200	630	1,700	2,100	380U	4,800	690	710	380U	4,100	380U	3,600	27,000
SB-41-24-29	S	Fill		550U	550U	550U	550U	550U	550U	550U	550U	550U	550U	550U	550U	550U	550U	550U	550U	550U	0
SB-41-54-59	S	Nat. Soil		430U	430U	430U	430U	430U	430U	430U	430U	430U	430U	430U	430U	430U	430U	430U	430U	430U	0
SB-42-2-4	U	Fill		370U	370U	370U	6,100	4,900	4,900	4,200	4,600	6,100	1,500	12,000	1,200	3,700	1,800	9,900	370U	6,900	71,000
SB-43-2-4	U	Fill		350U	350U	350U	350U	350U	390	350U	350U	350U	350U	690	350U	350U	350U	480	350U	560	2,100
MW-6-34-39	S	Nat. Soil		440U	440U	440U	440U	440U	440U	440U	440U	440U	440U	440U	440U	440U	440U	440U	440U	440U	0
MW-6-44-49	S	Nat. Soil		440U	440U	440U	440U	440U	440U	440U	440U	440U	440U	440U	440U	440U	440U	440U	440U	440U	0
DUP032701A	S	Nat. Soil		460U	460U	460U	460U	460U	460U	460U	460U	460U	460U	460U	460U	460U	460U	460U	460U	460U	0
GH-2-41	S	Fill		6,100	4,400	17,000	10,000	16,000	7,400	6,700	7,900	11,000	570	37,000	11,000	9,000	24,000	55,000	530U	47,000	270,000

**INORGANIC COMPOUNDS**  
**SOIL SAMPLES - COMPLIANCE STATUS INVESTIGATION**  
**MACON 2 FORMER MGP FACILITY/ WILLIAMS PROJECT NO. 1100-2990**  
**VALUES LISTED IN MILLIGRAMS PER KILOGRAM (mg/kg)**

	Saturated/Unsaturated	Unit	Arsenic	Barium	Beryllium	Cadmium	Chromium	Copper	Lead	Mercury	Nickel	Vanadium	Zinc	T-Cyanide
UBL - Fill Material			7.05	115	DL	DL	28.7	43.4	204	0.541	14.4	58.9	257	DL
UBL - Nat. Soils			DL	275	DL	DL	52.8	35.7	26.5	DL	29.7	120	80.3	DL
SB-14-0-5-2	U Fill		6.33U	100	3.16U	3.16U	9.48	51.6	13.0	0.131	6.33U	69.3	47.0	0.959U
SB-14-16-20	U Fill		5.54U	104	2.77U	2.77U	11.0	31.7	195	9.43	5.76	17.5	267	1.09U
SB-14-24-28	S Fill		5.66U	61.8	2.83U	2.83U	9.68	56.4	83.3	0.147	5.66U	18.1	39.1	0.985U
SB-15-4-8	U Fill		5.09U	53.1	2.54U	2.54U	7.37	17.1	9.72	0.105U	5.09U	47.6	32.5	1.1U
SB-15-36-41	S Fill		4.6U	25.6	2.3U	2.3U	4.68	4.43	10.0	0.0957U	4.6U	7.70	11.7	1.17
SB-16-0-5-2	U Fill		6.26U	65.3	3.13U	3.13U	17.2	39.2	10.4	0.124U	6.26U	75.3	18.8	1.13U
SB-16-2-4	U Fill		4.63U	6.52	2.32U	2.32U	2.77	3.19	7.94	0.288	4.63U	24.6	9.58	0.754U
SB-16-19-24	U Fill		5.19U	88.1	2.59U	2.59U	14.9	12.3	125	0.202	5.19U	31.5	118	0.735U
SB-16-24-29	S Fill		5.41U	37.5	2.71U	2.71U	9.28	16.9	62.1	0.299	5.41U	19.9	48.4	0.739U
SB-16-29-34	S Nat. Soil		5.26U	76.0	2.63U	2.63U	9.88	2.82	16.3	0.131U	5.26U	9.81	14.3	1.08U
SB-16-34-37	S Nat. Soil		4.36U	9.77	2.18U	2.18U	3.73	2.18U	7.69	0.11U	4.36U	5.88	4.98	1.06U
SB-17-0-5-2	U Fill		6.02U	114	3.01U	3.01U	9.93	23.3	16.8	0.112	6.28	43.1	48.1	1.2U
SB-17-2-4	U Fill		5.16U	80.1	2.58U	2.58U	8.10	19.8	14.7	0.115U	5.16U	37.4	31.2	1.25U
SB-17-16-20	U Fill		5.91U	44.2	2.95U	2.95U	11.4	13.2	54.3	0.170	5.91U	14.0	58.3	0.738U
SB-17-24-28	S Fill		4.95U	75.4	2.47U	2.47U	10.5	9.51	41.9	0.223	5.05	30.8	40.5	0.833U
SB-17-29-33	S Fill		5.78	84.4	2.78U	2.78U	10.9	12.2	73.4	0.159	5.57U	21.5	83.5	1.03U
SB-17-44-49	S Nat. Soil		6.89U	157	3.44U	3.44U	37.1	21.6	16.5	0.128U	13.4	62.1	57.9	1.32U
SB-17-49-51	S Nat. Soil		5.35U	13.4	2.67U	2.67U	6.44	2.67U	5.35U	0.116U	5.35U	8.64	7.36	0.989U
SB-17-54-59	S Nat. Soil		5.29U	24.0	2.64U	2.64U	7.35	3.66	5.29U	0.118U	5.29U	5.29U	13.2	0.97U
SB-18-0-5-2	U Fill		5.44U	68.2	2.72U	2.72U	9.84	20.5	24.6	0.135	5.44U	46.1	39.4	1.17U
SB-18-2-4	U Fill		3.98U	65.4	1.99U	1.99U	10.9	16.8	77.1	0.191	4.34	39.8	55.9	1.11U
SB-18-16-18	U Fill		3.61U	59.6	1.81U	1.81U	7.78	12.1	70.6	0.182	3.61U	23.6	62.6	1.11U
SB-18-28-32	S Fill		5.96U	111	2.98U	2.98U	23.1	18.3	14.0	0.0988U	10.1	69.7	44.0	1.28U
SB-18-32-36	S Nat. Soil		4.82U	74.6	2.41U	2.41U	14.6	7.79	14.5	0.111U	5.54	28.7	23.6	1.81
SB-18-56-60	S Nat. Soil		5.78U	68.8	2.89U	2.89U	22.7	14.2	6.91	0.105U	9.04	40.9	41.9	1.33U
SB-19-0-5-2	U Fill		4.81U	87.9	2.4U	2.4U	11.2	68.7	13.5	0.105U	6.72	57.0	44.5	1.01U
SB-19-2-4	U Fill		4.32U	29.9	2.16U	2.16U	8.07	16.4	21.6	0.102	4.32U	25.9	16.9	0.96U



**INORGANIC COMPOUNDS**  
**SOIL SAMPLES - COMPLIANCE STATUS INVESTIGATION**  
**MACON 2 FORMER MGP FACILITY/ WILLIAMS PROJECT NO. 1100-2990**  
**VALUES LISTED IN MILLIGRAMS PER KILOGRAM (mg/kg)**

	Saturated/Unsaturated	Unit	Arsenic	Barium	Beryllium	Cadmium	Chromium	Copper	Lead	Mercury	Nickel	Vanadium	Zinc	T-Cyanide
UBL - Fill Material			7.05	115	DL	DL	28.7	43.4	204	0.541	14.4	58.9	257	DL
UBL - Nat. Soils			DL	275	DL	DL	52.8	35.7	26.5	DL	29.7	120	80.3	DL
DUP032101A	U Fill		4.79U	29.4	2.4U	2.4U	6.75	14.6	11.2	0.11U	4.79U	24.3	11.2	0.873U
SB-19-4-8	U Fill		4.62U	47.6	2.31U	2.31U	7.34	11.3	11.1	0.0963U	4.62U	20.8	13.8	1.08U
SB-19-8-11	U Nat. Soil		4.74U	9.42	2.37U	2.37U	4.84	2.37U	4.74U	0.108U	4.74U	9.66	4.74U	1U
SB-20-0-2	U Fill		3.15	47.5	2.47U	2.47U	25.0	21.8	117	0.1825	5.85	50.1	97.2	1.27U
DUP031501B	U Fill		5.3U	88.3	2.65U	2.65U	12.3	36.1	11.3	0.112U	6.74	60.6	39.4	1.22U
SB-20-2-4	U Fill		4.64U	50.4	2.32U	2.32U	9.05	16.6	28.0	DL	4.64U	34.9	33.6	1.17U
SB-20-4-8	U Fill		5.24U	65.4	2.62U	2.62U	12.2	14.3	33.3	0.170	5.25	29.9	45.5	1.1U
SB-20-9-13	U Nat. Soil		4.15U	8.32	2.07U	2.07U	8.22	2.98	8.55	0.103U	4.15U	6.97	6.24	1.13U
SB-21-0-2	U Fill		5.98U	76.7	2.99U	2.99U	10.6	21.2	51.4	0.357	5.98U	40.8	153	0.936U
DUP030601A	U Fill		5.69U	60.9	2.85U	2.85U	23.5	19.7	68.6	0.202	5.69U	73.5	73.8	1.07U
SB-21-2-4	U Fill		6.04U	134	3.02U	3.02U	7.32	31.4	13.0	0.129	9.09	62.1	48.2	0.992U
SB-21-12-16	U Fill		5.88U	47.8	2.94U	2.94U	13.4	19.3	61.1	0.284	5.88U	25.5	68.8	0.879U
SB-21-16-20	U Fill		5.56	50.4	2.71U	2.71U	29.4	14.3	57.8	0.276	5.42U	40.1	45.0	1.08U
SB-21-28-30	S Fill		5.23U	47.4	2.62U	2.62U	9.72	17.1	54.6	0.136	5.23U	20.7	43.2	0.772U
SB-21-44-48	S Nat. Soil		5.86U	171	2.93U	2.93U	37.1	21.6	12.3	0.123U	12.1	69.2	61.9	1.25U
SB-21-60-64	S Nat. Soil		6.38U	78.9	3.19U	3.19U	18.8	10.1	6.38U	0.131U	6.38U	33.4	32.1	0.886U
SB-22-0-2	U Fill		5.56U	92.1	2.78U	2.78U	8.45	18.9	10.3	0.108U	5.56U	50.8	36.4	0.912U
SB-22-2-4	U Fill		4.55U	52.3	2.27U	2.27U	6.78	11.1	36.7	0.121	4.55U	26.7	43.3	1.03U
SB-22-19-24	U Fill		5.29U	31.8	2.64U	2.64U	9.38	31.1	138	0.161	5.29U	17.6	62.3	0.828U
SB-22-24-29	S Nat. Soil		5.77U	33.2	2.89U	2.89U	8.44	5.33	32.1	0.161	5.77U	16.7	30.0	0.734U
SB-22-59-62	S Nat. Soil		4.02U	13.3	2.01U	2.01U	4.51	2.01U	4.02U	0.111U	4.02U	5.01	10.9	0.901U
SB-23-0-2	U Fill		6.58U	80.8	3.29U	3.29U	8.31	14.1	7.82	0.12U	6.58U	48.4	34.0	0.996U
DUP032201B	U Fill		4.2U	49.0	2.1U	2.1U	7.32	18.4	7.20	0.106U	4.2U	39.6	33.5	1.02U
SB-23-2-4	U Fill		5.01U	50.9	2.5U	2.5U	10.9	9.20	39.9	0.0554	5.01U	19.5	30.1	0.944U
SB-23-14-19	U Fill		6.81	268	2.42U	2.42U	18.5	37.6	298	0.118	10.3	23.6	544	1U
SB-23-24-29	S Fill		4.45U	60.7	2.23U	2.23U	13.0	18.2	42.4	0.133	4.78	17.9	60.5	0.767U
SB-23-59-62	S Nat. Soil		6.21U	38.3	3.1U	3.1U	13.3	5.57	6.21U	0.124U	6.21U	25.8	20.7	0.852U

**INORGANIC COMPOUNDS**  
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	Saturated/Unsaturated	Unit	Arsenic	Barium	Beryllium	Cadmium	Chromium	Copper	Lead	Mercury	Nickel	Vanadium	Zinc	T-Cyanide
UBL - Fill Material			7.05	115	DL	DL	28.7	43.4	204	0.541	14.4	58.9	257	DL
UBL - Nat. Soils			DL	275	DL	DL	52.8	35.7	26.5	DL	29.7	120	80.3	DL
SB-24-0-2	U Fill		5.38U	74.6	2.69U	2.69U	13.5	11.6	151	0.650	5.38U	24.7	86.6	0.889U
SB-24-2-4	U Fill		5.44U	42.4	2.72U	2.72U	9.63	11.5	80.9	0.601	5.44U	23.9	53.7	0.748U
SB-24-8-12	U Fill		5.32U	131	2.66U	2.66U	9.75	13.8	338	0.412	5.32U	19.3	462	1.08U
SB-24-32-34	S Fill		6.43U	74.5	3.22U	3.22U	15.9	358	152	0.465	6.43U	31.6	106	1.24U
SB-24-40-42	S Nat. Soil		6.11U	40.1	3.06U	3.06U	7.44	4.36	14.5	0.112U	6.11U	14.4	12.5	0.745U
SB-24-44-48	S Nat. Soil		6.56U	186	3.28U	3.28U	41.9	21.2	12.1	0.126	15.0	72.5	63.0	1.11U
DUP030101A	S Nat. Soil		6.43U	175	3.22U	3.22U	43.2	20.5	13.8	0.126U	14.4	76.2	59.0	0.928U
SB-24-52-56	S Nat. Soil		5.26U	134	2.63U	2.63U	29.8	15.2	10.4	0.109U	11.1	55.2	45.3	0.958U
SB-25-0.5-2	U Fill		5.25U	56.9	2.63U	2.63U	10.3	14.6	67.3	0.289	5.25U	28.7	59.1	0.793U
SB-25-2-4	U Fill		5.4U	23.0	2.7U	2.7U	6.21	9.23	29.5	0.154	5.4U	13.1	21.5	0.879U
SB-25-16-20	U Fill		3.46U	93.6	1.73U	1.73U	9.10	10.1	85.3	0.346	3.76	22.4	104	0.942U
SB-25-28-32	S Fill		4.97U	50.5	2.49U	2.49U	17.2	8.63	20.9	0.454	4.97U	38.3	26.2	1.01U
SB-25-44-48	S Nat. Soil		5.47U	169	2.74U	2.74U	36.0	20.7	363	0.134U	11.7	74.5	61.9	1.32U
SB-25-56-60	S Nat. Soil		6.15U	160	3.07U	3.07U	31.0	18.8	10.7	0.131U	10.6	60.8	47.9	0.842U
SB-25-60-61	S Nat. Soil		6.48U	91.9	3.24U	3.24U	25.6	13.4	7.49	0.139U	11.5	52.1	46.3	0.87U
SB-26-0.5-2	U Fill		5.19U	50.1	2.6U	2.6U	14.2	27.9	15.7	0.203	5.19U	43.0	22.7	0.999U
SB-26-2-4	U Fill		5.11U	33.8	2.55U	2.55U	9.96	14.1	89.3	0.151	5.11U	18.7	59.8	0.883U
SB-26-8-12	U Fill		5.53U	54.2	2.77U	2.77U	13.3	6.60	20.1	0.125	5.53U	32.0	24.0	1.01U
DUP030201A	U Fill		5.25U	104	2.62U	2.62U	14.5	9.00	59.9	0.286	6.14	31.8	39.6	0.823U
SB-26-20-24	U Fill		5.36U	42.4	2.68U	2.68U	7.86	24.7	75.1	0.237	5.36U	18.0	41.9	1.01U
SB-26-32-36	S Fill		5.93U	593U	2.96U	2.96U	9.67	3.57	6.65	0.438	5.93U	10.8	5.93U	1.14U
SB-26-48-51	S Nat. Soil		5.74U	58.8	2.87U	2.87U	15.8	6.76	6.87	0.118U	5.74U	29.6	22.1	1.03U
SB-26-51-52	S Nat. Soil		5.9U	48.8	2.95U	2.95U	13.1	3.70	5.9U	0.122U	11.5	25.0	54.6	0.888U
SB-27-0.5-1.5	U Fill		5.6U	53.9	2.8U	2.8U	10.4	15.7	57.4	0.242	5.6U	33.6	40.5	0.933U
SB-27-2-4	U Fill		5.3U	42.0	2.65U	2.65U	11.5	24.8	104	0.266	5.3U	20.5	71.7	0.986U
SB-27-8-12	U Fill		7.47	209	3.23U	3.23U	22.6	891	634	4.59	6.46U	19.6	219	1.44
SB-27-16-20	U Nat. Soil		5.93U	44.7	2.96U	2.96U	11.8	4.69	18.5	0.154	5.93U	21.1	10.2	0.766U

**INORGANIC COMPOUNDS**  
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**MACON 2 FORMER MGP FACILITY/ WILLIAMS PROJECT NO. 1100-2990**  
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	Saturated/Unsaturated	Unit	Arsenic	Barium	Beryllium	Cadmium	Chromium	Copper	Lead	Mercury	Nickel	Vanadium	Zinc	T-Cyanide
UBL - Fill Material			7.05	115	DL	DL	28.7	43.4	204	0.541	14.4	58.9	257	DL
UBL - Nat. Soils			DL	275	DL	DL	52.8	35.7	26.5	DL	29.7	120	80.3	DL
SB-27-20-21	S	Nat. Soil	5.43U	5.43U	2.72U	2.72U	9.62	3.55	6.35	0.115U	5.43U	11.0	5.43U	1.04U
SB-28-0-5-2	U	Fill	6.13U	81.0	3.06U	3.06U	10.0	57.6	12.5	0.115	6.13U	56.0	33.3	1.23U
SB-28-2-4	U	Fill	6U	85.4	3U	3U	8.53	44.7	9.52	0.12U	6U	48.6	41.1	1.2U
SB-28-4-8	U	Fill	6.15U	73.1	3.08U	3.08U	12.6	16.8	76.3	0.814	6.15U	31.9	101	1.25U
SB-28-8-9-5	U	Nat. Soil	4.91U	5.88	2.46U	2.46U	5.26	2.46U	6.35	0.105U	4.91U	9.80	4.91U	1.09U
SB-29-0-5-2	U	Fill	4.24U	50.3	2.12U	2.12U	14.7	42.6	11.6	0.126U	4.24U	72.8	17.3	1.13U
DUP030501A	U	Fill	6.34U	19	3.17U	3.17U	11.6	56.3	22.0	0.149	6.34U	60.9	28.8	0.759U
SB-29-2-4	U	Fill	4.6U	67.2	2.3U	2.3U	13.2	31.7	12.8	0.114U	4.72	44.6	29.6	1.15U
SB-29-20-24	U	Fill	5.35U	17.3	2.67U	2.67U	5.78	3.64	14.1	0.134	5.35U	22.1	13.3	0.841U
SB-29-28-32	S	Fill	3.65U	72.9	1.83U	1.83U	16.3	4.99	11.0	0.553	4.11	22.7	22.6	1.03U
SB-29-48-52	S	Nat. Soil	5.55U	88.0	2.77U	2.77U	21.1	10.5	8.98	0.138U	9.46	35.9	37.4	1.36U
SB-29-52-53	S	Nat. Soil	5.07U	9.52	2.53U	2.53U	5.69	2.53U	5.07U	0.11U	5.07U	14.7	17.8	1.04U
SB-30-0-2	U	Nat. Soil	2.98U	25.5	1.49U	1.49U	11.1	5.28	7.46	0.0913U	2.98U	12.9	15.2	0.817U
DUP041201A	U	Nat. Soil	3.59U	33.5	1.8U	1.8U	10.7	5.67	6.34	0.103U	3.59U	16.5	18.7	0.889U
SB-30-2-4	U	Nat. Soil	2.78U	45.7	1.39U	1.39U	13.1	8.69	11.2	0.101U	3.72	21.6	19.8	1.03U
SB-30-8-12	S	Nat. Soil	3.83U	128	1.91U	1.91U	30.6	19.7	16.3	0.154	11.1	62.8	44.0	1.13U
SB-30-16-20	S	Nat. Soil	4.14U	159	2.21U	2.07U	40.9	19.6	12.3	0.122U	14.2	72.0	66.6	1.27U
SB-31-0-2	U	Nat. Soil	5.03U	102	2.51U	2.51U	18.9	12.9	21.2	0.12U	7.42	35.5	51.0	1.17U
SB-31-2-4	U	Nat. Soil	5.3U	93.0	2.65U	2.65U	18.8	14.0	23.5	0.125U	6.19	36.7	37.9	0.976U
SB-31-4-8	U	Nat. Soil	5.8U	119	2.9U	2.9U	26.5	15.8	14.1	0.126U	9.05	54.3	37.1	0.856U
SB-31-8-12	U	Nat. Soil	6.55U	40.2	3.28U	3.28U	8.43	4.19	6.55U	0.124U	6.55U	16.7	12.8	0.960U
SB-31-16-20	S	Nat. Soil	5.76U	57.2	2.88U	2.88U	15.9	7.29	5.76U	0.125U	5.76U	30.4	24.3	0.718U
SB-32-0-2	U	Nat. Soil	5.09U	95.0	2.55U	2.55U	19.5	13.0	20.4	0.12U	6.62	37.2	43.0	0.871U
SB-32-2-4	U	Nat. Soil	5.57U	85.5	2.79U	2.79U	20.1	12.0	43.0	0.121U	6.32	38.2	27.8	0.995U
SB-32-4-8	U	Nat. Soil	6.04U	83.5	3.02U	3.02U	18.0	10.1	12.1	0.121U	6.04U	38.8	22.8	0.74U
SB-32-16-20	S	Nat. Soil	6.18U	63.5	3.09U	3.09U	20.6	6.00	6.18U	0.126U	6.18U	26.7	22.3	0.941U
SB-33-0-5-2	U	Fill	4.4U	99.7	2.2U	2.2U	8.10	6.71	32.9	0.174	4.4U	21.7	33.5	0.929U

**INORGANIC COMPOUNDS**  
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	Saturated/Unsaturated	Unit	Arsenic	Barium	Beryllium	Cadmium	Chromium	Copper	Lead	Mercury	Nickel	Vanadium	Zinc	T-Cyanide
UBL - Fill Material			7.05	115	DL	DL	28.7	43.4	204	0.541	14.4	58.9	257	DL
UBL - Nat. Soils			DL	275	DL	DL	52.8	35.7	26.5	DL	29.7	120	80.3	DL
SB-33-2-4	U	Fill	4.58U	81.1	2.29U	2.29U	22.0	43.4	65.8	0.541	4.58U	43.4	73.7	1.02U
SB-33-8-10	U	Fill	5.67U	11.1	2.84U	2.84U	28.7	5.74	5.67U	0.247	5.67U	58.9	6.33	1.02U
SB-33-10-14	U	Nat. Soil	5.43U	5.43U	2.72U	2.72U	5.58	2.72U	5.43U	0.105U	5.43U	10.6	5.43U	0.963U
SB-34-0-5-2	U	Fill	4.61U	87.2	2.31U	2.31U	9.40	42.2	149	0.241	8.29	17.3	160	0.82U
SB-34-2-4	U	Fill	4.93U	41.5	2.47U	2.47U	12.9	10.8	60.1	0.318	4.93U	24.5	58.8	0.87U
SB-34-4-8	U	Fill	4.92U	95.7	2.46U	2.46U	14.4	10.8	95.7	0.264	4.92U	18.8	85.4	1.08U
SB-34-8-10	U	Nat. Soil	5.04U	5.04U	2.52U	2.52U	2.52U	2.52U	5.04U	0.101U	5.04U	5.04U	5.04U	1.03U
SB-36-0-5-2	U	Fill	4.23U	24.8	2.12U	2.12U	12.3	8.42	8.98	0.0938U	4.23U	24.7	15.9	1.07U
SB-36-2-4	U	Fill	7.05	70.1	2.55U	2.55U	16.3	74.9	232	0.380	5.1U	79.3	339	0.908U
SB-36-4-6	U	Nat. Soil	6.56U	6.56U	3.28U	3.28U	5.63	3.28U	6.56U	0.122U	6.56U	14.6	6.56U	1.06U
SB-38-0-2	U	Fill	5.69U	54.4	2.84U	2.84U	11.5	11.9	135	0.248	5.69U	27.8	106	1.14U
DUP041201B	U	Fill	5.63U	57.1	2.82U	2.82U	8.49	11.6	94.3	0.182	5.63U	21.9	95.8	1.13U
SB-38-2-4	U	Fill	5.55U	63.9	2.77U	2.77U	9.08	12.4	116	0.336	5.55U	20.9	102	1.11U
SB-38-4-6.5	U	Fill	6.08U	21.6	3.04U	3.04U	9.68	5.54	18.1	0.117U	6.08U	17.2	15.8	1.22U
SB-38-6-5-9	U	Nat. Soil	6.72U	84.1	3.36U	3.36U	16.3	9.53	7.88	0.133U	6.72U	33.9	23.8	1.34U
SB-38-9-11.5	U	Nat. Soil	6.32U	91.5	3.16U	3.16U	23.5	11.3	6.33	0.119U	7.62	45.9	38.8	1.26U
SB-38-11.5-14	U	Nat. Soil	6.15U	83.4	3.08U	3.08U	24.6	11.9	7.47	0.122U	8.45	55.0	41.1	1.23U
SB-38-14-16.5	U	Nat. Soil	6.62U	63.2	3.31U	3.31U	17.7	10.1	6.62U	0.126U	8.24	32.8	35.1	1.32U
SB-38-16.5-19	U	Nat. Soil	6.65U	51.2	3.32U	3.32U	15.5	8.44	6.65U	0.131U	6.65U	32.3	27.7	1.33U
SB-38-19-21.5	S	Nat. Soil	6.51U	92.5	3.26U	3.26U	20.0	11.6	6.95	0.121U	6.88	36.6	40.2	1.3U
SB-38-21.5-24	S	Nat. Soil	6.35U	65.9	3.18U	3.18U	15.0	9.66	6.35U	0.118U	6.35U	34.6	27.0	1.27U
SB-38-24-26.5	S	Nat. Soil	6.64U	30.1	3.32U	3.32U	7.76	4.02	6.64U	0.124U	6.64U	15.9	13.3	1.33U
SB-38-26.5-29	S	Nat. Soil	6.53U	110	3.26U	3.26U	24.5	13.8	8.34	0.123U	8.28	48.1	42.5	1.31U
SB-38-29-31.5	S	Nat. Soil	6.92U	155	3.46U	3.46U	36.3	23.1	13.6	0.124U	11.1	68.4	57.6	1.38U
SB-38-31.5-34	S	Nat. Soil	6.84U	155	3.42U	3.42U	35.3	22.1	14.7	0.125U	10.3	71.9	50.8	1.37U
SB-38-34-36	S	Nat. Soil	5.96U	169	2.98U	2.98U	41.4	23.4	15.0	0.136U	15.9	78.3	60.7	0.991U
SB-38-36-38	S	Nat. Soil	6.27U	147	3.14U	3.14U	39.4	19.5	14.6	0.126U	12.1	75.0	46.9	1.2U



**INORGANIC COMPOUNDS**  
**SOIL SAMPLES - COMPLIANCE STATUS INVESTIGATION**  
**MACON 2 FORMER MGP FACILITY/ WILLIAMS PROJECT NO. 1100-2990**  
**VALUES LISTED IN MILLIGRAMS PER KILOGRAM (mg/kg)**

	Saturated/Unsaturated	Unit	Arsenic	Barium	Beryllium	Cadmium	Chromium	Copper	Lead	Mercury	Nickel	Vanadium	Zinc	T-Cyanide
UBL - Fill Material			7.05	115	DL	DL	28.7	43.4	204	0.541	14.4	58.9	257	DL
UBL - Nat. Soils			DL	275	DL	DL	52.8	35.7	26.5	DL	29.7	120	80.3	DL
SB-38B-0-2	U	Fill	4.8U	53.8	2.4U	2.4U	10.3	11.6	59.1	0.132	4.8U	23.8	65.2	0.971U
DUP041301A	U	Fill	5.41U	52.9	2.7U	2.7U	11.2	11.0	72.6	0.156	5.41U	23.6	69.5	0.915U
SB-38B-2-4	U	Fill	4.89U	69.9	2.44U	2.44U	10.2	11.5	164	0.318	4.89U	20.3	145	0.749U
SB-38B-4-6	U	Fill	4.1U	59.4	2.05U	2.05U	11.6	12.3	77.9	0.188	14.4	20.4	76.6	0.881U
SB-38B-6-8	U	Fill	4.54U	63.3	2.27U	2.27U	11.6	21.1	65.9	0.385	4.54U	50.1	62.4	0.678U
SB-38B-8-10	U	Fill	4.26U	52.8	2.13U	2.13U	16.0	17.1	73.2	0.329	6.05	19.6	61.7	0.795U
SB-38B-10-12	U	Fill	4.27U	49.7	2.13U	2.13U	9.43	11.8	75.7	0.293	4.27U	19.0	64.1	0.801U
SB-39-0.5-2	U	Fill	6.3U	53.6	3.15U	3.15U	6.34	39.8	8.97	0.12U	6.3U	39.0	20.1	1.01U
SB-39-4-8	U	Fill	4.98U	58.0	2.49U	2.49U	12.8	39.8	68.0	0.262	5.70	30.4	32.9	0.958U
SB-39-8-12.5	U	Fill	5.17U	42.3	2.59U	2.59U	14.7	27.1	23.1	0.191	5.17U	34.1	21.6	1.03U
SB-40-0.5-2	U	Fill	5.92U	51.2	2.96U	2.96U	10.2	18.3	25.7	0.185	5.92U	46.8	43.3	1.06U
SB-40-2-4	U	Fill	5.58U	83.7	2.79U	2.79U	11.8	10.5	135	0.402	5.58U	26.9	136	1.15U
SB-40-16-20	U	Fill	5.03U	74.0	2.51U	2.51U	5.83	13.4	140	0.498	5.03U	12.4	105	1.03U
SB-40-24-28	S	Fill	4.27U	53.9	2.13U	2.13U	8.94	6.36	17.2	0.0996	5.80	13.7	24.0	0.985U
SB-40-40-44	S	Nat. Soil	6.52U	119	3.26U	3.26U	27.0	13.7	7.16	0.118U	10.0	48.4	47.6	0.985U
DUP032001A	S	Nat. Soil	6.45U	104	3.23U	3.23U	24.1	14.2	6.82	0.127U	8.93	45.0	43.1	0.889U
SB-40-56-58	S	Nat. Soil	6.27U	104	3.14U	3.14U	31.3	16.6	10.3	0.108U	10.4	58.9	44.9	0.897U
SB-41-0-2	U	Fill	5.56U	92.0	2.78U	2.78U	12.0	35.2	11.2	0.101U	6.82	59.8	48.5	1.08U
SB-41-2-4	U	Fill	4.75U	63.2	2.37U	2.37U	11.3	12.9	7.25	0.101U	5.45	43.6	37.3	0.878U
SB-41-19-24	U	Fill	4.97U	77.9	2.49U	2.49U	10.8	9.66	166	0.228	4.97U	18.5	219	0.961U
SB-41-24-29	S	Fill	6.39U	212	3.19U	3.19U	13.0	9.02	484	1.33	6.39U	18.6	84.4	0.998U
SB-41-54-59	S	Nat. Soil	5.78U	114	2.89U	2.89U	31.3	17.3	10.4	0.125U	10.8	58.1	46.3	1.09U
SB-43-2-4	U	Fill	3.79U	69.2	1.9U	1.9U	7.01	7.78	166	0.242	3.79U	14	96.9	0.854U
SB-43-4-8	U	Fill	2.98U	70.4	1.49U	1.49U	14.5	11.7	170	0.274	3.1	18.6	124	0.928U
SB-43-8-12	U	Fill	3.86U	26	1.93U	1.93U	9.11	9.22	99.2	0.139	3.86U	28	71.2	1.03U
SB-43-12-16	U	Fill	4.14U	78.6	2.07U	2.07U	16.7	12	113	0.253	4.91	24.6	86.8	0.971U
SB-43-16-20	U	Fill	3.07U	55.9	1.54U	1.54U	13.90	9.16	51.3	0.134U	3.66	25.3	55.7	1.09U

**INORGANIC COMPOUNDS**  
**SOIL SAMPLES - COMPLIANCE STATUS INVESTIGATION**  
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	Saturated/Unsaturated	Unit	Arsenic	Barium	Beryllium	Cadmium	Chromium	Copper	Lead	Mercury	Nickel	Vanadium	Zinc	T-Cyanide
UBL - Fill Material			7.05	115	DL	DL	28.7	43.4	204	0.541	14.4	58.9	257	DL
UBL - Nat. Soils			DL	275	DL	DL	52.8	35.7	26.5	DL	29.7	120	80.3	DL
SB-43-20-24	U	Fill	4.19	89	1.79U	1.79U	17.80	11.1	379	0.184	3.58U	16.4	257	1.06U
SB-43-24-28	S	Fill	4.24U	37.1	2.12U	2.12U	18.40	7.34	104	0.109U	4.24U	31	69.1	0.706U
SB-43-32-36	S	Fill	3.94U	67.7	1.97U	1.97U	12.6	6.3	66.9	0.114U	4.36	16.5	49.8	0.829U
SB-43-36-40	S	Nat. Soil	5.22U	158.0	2.61U	2.61U	31.3	13.8	12.8	0.123U	13	58.9	54.9	1.22U
SB-43-40-44	S	Nat. Soil	5.9U	197	2.95U	2.95U	51.5	26.4	17.9	0.130U	15.8	96.6	68.6	0.995U
SB-43-44-48	S	Nat. Soil	10.5U	338	5.27U	5.27U	87.2	45.5	26.5	0.237U	29.7	152	125	1.81U
SB-43-48-52	S	Nat. Soil	4.94U	204	2.47U	2.47U	44.7	25.6	16	0.132U	16.3	88.1	68.3	1.04U
SB-43-52-56	S	Nat. Soil	5.53U	219	2.77U	2.77U	41	24.2	15.6	0.131U	14.7	75	68	1.23U
SB-43-56-60	S	Nat. Soil	3.77U	116	1.88U	1.88U	29.3	17.7	9.9	0.138U	10.8	59.6	46	1.22U
SB-43-60-64	S	Nat. Soil	4.94U	50.4	2.47U	2.47U	15.7	7.39	4.94U	0.139U	5.89	28.4	24.9	1.13U
SB-44-0-2	U	Fill	NA	NA	NA	NA	NA	NA	12.1	NA	NA	NA	NA	NA
SB-44-5-7	U	Fill	NA	NA	NA	NA	NA	NA	25.3	NA	NA	NA	NA	NA
SB-44-10-12	U	Fill	NA	NA	NA	NA	NA	NA	181	NA	NA	NA	NA	NA
SB-44-15-17	U	Nat. Soil	NA	NA	NA	NA	NA	NA	5.53U	NA	NA	NA	NA	NA
SB-44-20-21	U	Nat. Soil	NA	NA	NA	NA	NA	NA	5.54U	NA	NA	NA	NA	NA
SB-45-0-2	U	Fill	NA	NA	NA	NA	NA	NA	58.5	NA	NA	NA	NA	NA
SB-45-5-7	U	Fill	NA	NA	NA	NA	NA	NA	35.6	NA	NA	NA	NA	NA
SB-45-10-12	U	Fill	NA	NA	NA	NA	NA	NA	425	NA	NA	NA	NA	NA
SB-45-15-17	U	Fill	NA	NA	NA	NA	NA	NA	1070	NA	NA	NA	NA	NA
SB-45-18.5-20	U	Fill	NA	NA	NA	NA	NA	NA	38.6	NA	NA	NA	NA	NA
DUP082003A	U	Fill	NA	NA	NA	NA	NA	NA	37.8	NA	NA	NA	NA	NA
SB-46-0-2	U	Fill	NA	NA	NA	NA	NA	NA	15.6	NA	NA	NA	NA	NA
SB-46-0-2	U	Fill	NA	NA	NA	NA	NA	NA	70.6	NA	NA	NA	NA	NA
SB-46-0-2	U	Fill	NA	NA	NA	NA	NA	NA	34.5	NA	NA	NA	NA	NA
SB-46-0-2	U	Fill	NA	NA	NA	NA	NA	NA	20.0	NA	NA	NA	NA	NA
MW-6-34-39	S	Nat. Soil	6.43U	173	3.21U	3.21U	26.7	23.5	24.6	0.125U	10.6	68.3	54.5	1.19U
MW-6-44-49	S	Nat. Soil	6.36U	114	3.18U	3.18U	25.5	14.5	7.52	0.123U	11.6	49.5	46.9	1.14U

## **C-2 COMPLIANCE STATUS INVESTIGATION**

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**VOLATILE ORGANIC COMPOUNDS**  
**GROUNDWATER SAMPLES-COMPLIANCE STATUS INVESTIGATION**  
**MACON 2 FORMER MGP FACILITY/WILLIAMS PROJECT NO. 1100-2990**  
**VALUES LISTED IN MICROGRAMS PER LITER (ug/L)**

	Date	Benzene	Carbon Disulfide	Ethylbenzene	Methylene Chloride	Methyl-tert-butyl-ether	Toluene	Xylenes	Total Detected VOCs
UBL	--	DL	DL	DL	DL	DL	DL	DL	--
MW-1	March-01	9.1	5U	5U	5U	5U	5U	5U	9.1
	August-03	5U	5U	5U	5U	N/A	5U	5U	0
MW-2	March-01	5U	5U	5U	5U	8.5	5U	5U	8.5
	August-03	5U	5U	5U	5U	N/A	5U	5U	0
MW-3	March-01	5U	5U	5U	5U	5U	5U	5U	0
Dup 031201A	March-01	5U	5U	5U	5U	5U	5U	5U	0
	August-03	5U	5U	5U	5U	N/A	5U	5U	0
Dup082003A	August-03	5U	5U	5U	5U	N/A	5U	5U	0
MW-4	March-01	5U	5U	5U	5U	18	5U	5U	18
	August-03	5U	5U	5U	5U	N/A	5U	5U	0
MW-5 Dup032901A	March-01	5U	5U	5U	5U	5U	5U	5U	0
	March-01	5U	5U	5U	5U	5U	5U	5U	0
	August-03	5U	5U	5U	5U	N/A	5U	5U	0
MW-6	March-01	5U	5U	5U	5U	5U	5U	5U	0
	August-03	5U	5U	5U	5U	N/A	5U	5U	0
MW-7	August-03	5U	5U	5U	5U	N/A	5U	5U	0



**SEMI-VOLATILE ORGANIC COMPOUNDS**  
**GROUNDWATER SAMPLES-COMPLIANCE STATUS INVESTIGATION**  
**MACON 2 FORMER MGP FACILITY/WILLIAMS PROJECT NO. 1100-2990**  
**VALUES LISTED IN MICROGRAMS PER LITER (ug/L)**

UBL	Date	Acenaphthene	Acenaphthylene	Anthracene	Benzo(a)anthracene	Benzo(a)pyrene	Benzo(b)fluoranthene	Benzo(g,h,i)perylene	Benzo(k)fluoranthene	Chrysene	Dibenzo(a,h)anthracene	Fluoranthene	Fluorene	Indeno(1,2,3-cd)pyrene	Naphthalene	Phenanthrene	Pyrene	Phenol	Total Detected SVOCs
MW-1	March-01	10U	10U	10U	10U	10U	10U	10U	10U	10U	10U	10U	10U	10U	10U	10U	10U	DL	0
	August-03	10U	10U	10U	10U	10U	10U	10U	10U	10U	10U	10U	10U	10U	10U	10U	10U	10U	0
MW-2	March-01	10U	10U	10U	10U	10U	10U	10U	10U	10U	10U	10U	10U	10U	10U	10U	10U	10U	0
	August-03	10U	10U	10U	10U	10U	10U	10U	10U	10U	10U	10U	10U	10U	10U	10U	10U	10U	12
MW-3	March-01	10U	10U	10U	10U	10U	10U	10U	10U	10U	10U	10U	10U	10U	10U	10U	10U	10U	0
Dup 031201A	March-01	10U	10U	10U	10U	10U	10U	10U	10U	10U	10U	10U	10U	10U	10U	10U	10U	10U	0
	August-03	10U	10U	10U	10U	10U	10U	10U	10U	10U	10U	10U	10U	10U	10U	10U	10U	10U	0
Dup082003A	August-03	10U	10U	10U	10U	10U	10U	10U	10U	10U	10U	10U	10U	10U	10U	10U	10U	10U	0
MW-4	March-01	10U	10U	10U	10U	10U	10U	10U	10U	10U	10U	10U	10U	10U	10U	10U	10U	10U	0
	August-03	10U	10U	10U	10U	10U	10U	10U	10U	10U	10U	10U	10U	10U	10U	10U	10U	10U	0
MW-5	March-01	10U	10U	10U	10U	10U	10U	10U	10U	10U	10U	10U	10U	10U	10U	10U	10U	10U	13
Dup032901A	March-01	10U	10U	10U	10U	10U	10U	10U	10U	10U	10U	10U	10U	10U	10U	10U	10U	10U	12
	August-03	10U	10U	10U	10U	10U	10U	10U	10U	10U	10U	10U	10U	10U	10U	10U	10U	10U	14
MW-6	March-01	10U	10U	10U	10U	10U	10U	10U	10U	10U	10U	10U	10U	10U	10U	10U	10U	10U	0
	August-03	10U	10U	10U	10U	10U	10U	10U	10U	10U	10U	10U	10U	10U	10U	10U	10U	10U	0
MW-7	August-03	10U	10U	10U	10U	10U	10U	10U	10U	10U	10U	10U	10U	10U	10U	10U	10U	10U	0

**INORGANIC COMPOUNDS**  
**GROUNDWATER SAMPLES-COMPLIANCE STATUS INVESTIGATION**  
**MACON 2 FORMER MGP FACILITY/WILLIAMS PROJECT NO. 1100-2990**  
**VALUES LISTED IN MILLIGRAMS PER LITER (mg/L)**

UBL	Date	Arsenic	Barium	Beryllium	Cadmium	Chromium	Copper	Lead	Mercury	Nickel	Vanadium	Zinc	T-Cyanide
	--	DL	DL	DL	DL	DL	DL	DL	DL	DL	DL	0.0290	DL
MW-1	March-01	0.02U	0.02U	0.005U	0.005U	0.01U	0.01U	0.01U	0.0005U	0.02U	0.01U	0.0290	0.01U
	August-03	0.02U	0.02U	0.005U	0.005U	0.01U	0.01U	0.01U	0.0005U	0.02U	0.01U	0.02U	0.01U
MW-2	March-01	0.02U	0.102	0.005U	0.005U	0.01U	0.01U	0.01U	0.0005U	0.02U	0.01U	0.02U	0.0689
	August-03	0.02U	0.178	0.005U	0.005U	0.01U	0.01U	0.01U	0.0005U	0.02U	0.01U	0.02U	0.048
MW-3	March-01	0.02U	0.886	0.005U	0.005U	0.01U	0.01U	0.01U	0.0005U	0.02U	0.01U	0.02U	0.01U
Dup 031201A	March-01	0.02U	0.857	0.005U	0.005U	0.01U	0.01U	0.01U	0.0005U	0.02U	0.01U	0.02U	0.01U
	August-03	0.02U	0.699	0.005U	0.005U	0.01U	0.01U	0.01U	0.0005U	0.02U	0.01U	0.02U	0.01U
Dup082003A	August-03	0.02U	0.692	0.005U	0.005U	0.01U	0.01U	0.01U	0.0005U	0.02U	0.01U	0.02U	0.01U
MW-4	March-01	0.02U	0.328	0.005U	0.005U	0.01U	0.01U	0.01U	0.0005U	0.02U	0.01U	0.02U	0.01U
	August-03	0.02U	0.389	0.005U	0.005U	0.01U	0.01U	0.01U	0.0005U	0.02U	0.01U	0.02U	0.01U
MW-5	March-01	0.02U	1.93	0.01U	0.01U	0.01U	0.01U	0.01U	0.0005U	0.02U	0.01U	0.02U	0.01U
Dup032901A	March-01	0.02U	1.90	0.01U	0.01U	0.01U	0.01U	0.01U	0.0005U	0.02U	0.01U	0.02U	0.01U
	August-03	0.02U	1.85	0.005U	0.005U	0.01U	0.01U	0.01U	0.0005U	0.02U	0.01U	0.02U	0.01U
MW-6	March-01	0.02U	0.167	0.005U	0.005U	0.01U	0.01U	0.01U	0.0005U	0.02U	0.01U	0.02U	0.01U
	August-03	0.02U	0.168	0.005U	0.005U	0.01U	0.01U	0.01U	0.0005U	0.02U	0.01U	0.02U	0.01U
MW-7	August-03	0.02U	0.328	0.005U	0.005U	0.01U	0.01U	0.01U	0.0005U	0.02U	0.01U	0.02U	0.01U

## **D-2 COMPLIANCE STATUS INVESTIGATION**

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## BORING LOG

BORING NUMBER		SB-44		PAGE		1		OF		1		PROJECT NUMBER		1100-2990																	
PROJECT								Macon 2 MGP								DRILLING CONTRACTOR				Georgia Power Company											
BORING LOCATION																GROUND ELEVATION															
DRILLING METHOD AND EQUIPMENT								HSA with continuous sampler								TOP OF CASING ELEVATION															
DATE				8/20/03				START				730				FINISH				820				LOGGER				Mike Dillon			

DEPTH BELOW GROUND SURFACE (feet)	SAMPLE						SYMBOLIC LOG	SOIL DESCRIPTION/COMMENTS  NAME, GRADATION OR PLASTICITY, PARTICLE SIZE, DISTRIBUTION, COLOR, MOISTURE CONTENT, RELATIVE DENSITY OR CONSISTENCY, SOIL STRUCTURE, MINERALOGY, USCS GROUP SYMBOL
	SAMPLE INTERVAL	TYPE AND NUMBER	TIME	REC. %	OVM PEAK/ AVG. (ppm)	REMARKS		
0							FILL	Asphalt
	0-3.5	0-2	730	100%				0-3' Sandy clay - light brown, fine sand, plastic, stiff, dry
5	3.5-8.5	5-7	740	100%				3-3.5' Clayey sandy silt - dark yellowish orange, fine sand, slightly cohesive, dry
								3.5-6.5' Clayey silty sand - dark yellowish brown, very cohesive, medium sand, dry
								6.5-8.5 Same as above; less clay content, no cohesiveness, glass and brick fragments
10	8.5-13.5	10-12	750	80%				8.5-12' Gravelly silty sand - dusky yellowish brown, dry, gravel size brick, glass, fine sand, wood
15	13.5-18.5	15-17	800	95%			SAP	13.5-18.5' Clayey silty sand - saprolite - mottled grayish orange and pale red, dry, relict foliation almost vertical friable
20	18.5-21	20-21	810	95%				18.5-21 Same as above; less friable, more cohesive, dry
								Boring Termination 21' at bedrock
25								

(Continued on next page if over 25 feet deep)





## BORING LOG

BORING NUMBER		SB-45		PAGE		1		OF		1		PROJECT NUMBER		1100-2990																	
PROJECT								Macon 2 MGP								DRILLING CONTRACTOR				Georgia Power Company											
BORING LOCATION																GROUND ELEVATION															
DRILLING METHOD AND EQUIPMENT								HSA with continuous sampler								TOP OF CASING ELEVATION															
DATE				8/20/03				START				830				FINISH				920				LOGGER				Mike Dillon			

DEPTH BELOW GROUND SURFACE (feet)	SAMPLE						SYMBOLIC LOG	SOIL DESCRIPTION/COMMENTS  NAME, GRADATION OR PLASTICITY, PARTICLE SIZE, DISTRIBUTION, COLOR, MOISTURE CONTENT, RELATIVE DENSITY OR CONSISTENCY, SOIL STRUCTURE, MINERALOGY, USCS GROUP SYMBOL
	SAMPLE INTERVAL	TYPE AND NUMBER	TIME	REC. %	OVM PEAK/ AVG. (ppm)	REMARKS		
0							FILL	Asphalt
	0-3.5	0-2	830	100%				0-3.5' Sandy clay - light brown, plastic, medium sand, stiff, dry
								3.5-5' Same as above
5	3.5-8.5	5-7	840	80%				5-5.5' Clayey sand - dusky yellowish brown, very cohesive, medium sand, dry
								5.5-6.5' Same as above; pale yellowish brown
								6.5-7.5' Sandy clay - medium light gray, very fine sand, plastic, 3" brick fragment at base
10	8.5-13.5	10-12	850	95%				8.5-13.5' Clayey gravelly sand - dusky yellowish brown, abundant organic material, wood, sticks, glass, brick fragments
								13.5-17.5' Same as above - abundant particle board
15	13.5-18.5	15-17	900	80%				
20	18.5-23.5	18.5-20	910	80%				18.5-23.5' Clayey sand - dusky yellowish green, medium sand, slightly cohesive, wet at 20' bgs
25								Boring Termination 23.5'

(Continued on next page if over 25 feet deep)



## BORING LOG

BORING NUMBER		SB-46		PAGE		1		OF		1		PROJECT NUMBER		1100-2990																	
PROJECT								Macon 2 MGP								DRILLING CONTRACTOR				Georgia Power Company											
BORING LOCATION																GROUND ELEVATION															
DRILLING METHOD AND EQUIPMENT								HSA with continuous sampler								TOP OF CASING ELEVATION															
DATE				8/20/03				START				940				FINISH				1040				LOGGER				Mike Dillon			

DEPTH BELOW GROUND SURFACE (feet)	SAMPLE						SYMBOLIC LOG	SOIL DESCRIPTION/COMMENTS  NAME, GRADATION OR PLASTICITY, PARTICLE SIZE, DISTRIBUTION, COLOR, MOISTURE CONTENT, RELATIVE DENSITY OR CONSISTENCY, SOIL STRUCTURE, MINERALOGY, USCS GROUP SYMBOL
	SAMPLE INTERVAL	TYPE AND NUMBER	TIME	REC. %	OVM PEAK/ AVG. (ppm)	REMARKS		
0							FILL	Asphalt
	0-3.5	0-2	950	100%				0-0.5' Gravelly silty sand - dusky yellowish brown, brick frags., dry, very fine sand, slightly cohesive, glass
								0.5-6' Same as above; light brown
5	3.5-8.5	5-7	10000	95%				6-8.5' Sand - pale brown, dry, medium, some gravel sized brick fragments
								8.5-12' Gravelly clayey fine sand - moderate yellowish brown, slightly cohesive, minor amount of rounded river gravel (quartz)
10	8.5-13.5	10-12	1010	95%				12-13.5' Gravelly sand clay - dusky yellowish brown, gravel size rocks & brick fragments, dry, plastic, stiff
								13.5-18.5' 3" brick at top - Clayey sandy silt - grayish orange, dry, very fine sand, slightly cohesive, glass
15	13.5-18.5	15-17	1020	80%				1.25' of Gravelly sand - dusky yellowish brown, gravel size rocks & brick, medium sand, glass, saturated (difficult to determine depth)
20	18.5-23.5			25%				
								Boring Termination 23.5'
25								

(Continued on next page if over 25 feet deep)



# BORING LOG

BORING NUMBER		MW-07		PAGE		1		OF		2		PROJECT NUMBER		1100-2990																	
PROJECT								Macon 2 MGP								DRILLING CONTRACTOR								Georgia Power Company							
BORING LOCATION																GROUND ELEVATION															
DRILLING METHOD AND EQUIPMENT								HSA								TOP OF CASING ELEVATION															
DATE				8/19/03				START				1400				FINISH				1630				LOGGER				Mike Dillon			
DEPTH BELOW GROUND SURFACE (feet)		SAMPLE						SYMBOLIC LOG	SOIL DESCRIPTION/COMMENTS																						
		SAMPLE INTERVAL	TYPE AND NUMBER	TIME	REC. %	OVM PEAK/AVG. (ppm)	REMARKS		NAME, GRADATION OR PLASTICITY, PARTICLE SIZE, DISTRIBUTION, COLOR, MOISTURE CONTENT, RELATIVE DENSITY OR CONSISTENCY, SOIL STRUCTURE, MINERALOGY, USCS GROUP SYMBOL																						
0									FILL	Asphalt																					
1										Clay - light brown, cohesive, plastic, dry																					
2										Gravelly sand - moderate yellowish brown, dry, fine sand, medium size gravel																					
3																															
4																															
5																															
6																															
7																															
8																															
9																															
10										Same as above; slight cohesiveness, slightly moist																					
11																															
12																															
13																															
14																															
15										Gravelly clay - plastic, moderate brown, small gravel																					
16																															
17																															
18																															
19																															
20										Sandy clay - dark yellowish brown, stiff, medium sand, plastic, dry																					
21																															
22																															
23																															
24																															
25										Clayey fine sand - dusky yellowish brown, cohesive, dry																					
26																															
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# BORING LOG

BORING NUMBER		MW-07		PAGE		1		OF		2		PROJECT NUMBER		1100-2990																	
PROJECT								Macon 2 MGP								DRILLING CONTRACTOR				Georgia Power Company											
BORING LOCATION																GROUND ELEVATION															
DRILLING METHOD AND EQUIPMENT								HSA								TOP OF CASING ELEVATION															
DATE				8/19/03				START				1400				FINISH				1630				LOGGER				Mike Dillon			
DEPTH BELOW GROUND SURFACE (feet)		SAMPLE						SYMBOLIC LOG	SOIL DESCRIPTION/COMMENTS																						
		SAMPLE INTERVAL	TYPE AND NUMBER	TIME	REC. %	OVM PEAK/AVG. (ppm)	REMARKS		NAME, GRADATION OR PLASTICITY, PARTICLE SIZE, DISTRIBUTION, COLOR, MOISTURE CONTENT, RELATIVE DENSITY OR CONSISTENCY, SOIL STRUCTURE, MINERALOGY, USCS GROUP SYMBOL																						
25										Logged from Cuttings						Same as above; moderate yellowish brown, rock && brick fragments															
30																Clayey sand - dusky yellowish brown, very saturated,															
35																Boring Termination 33.5'															
40																															
45																															
50																															



## **APPENDIX F**

# **QUALITY ASSURANCE / QUALITY CONTROL SAMPLES**

**VOLATILE ORGANIC COMPOUNDS**  
**QA/QC SAMPLES-COMPLIANCE STATUS INVESTIGATION**  
**MACON 2 FORMER MGP FACILITY/WILLIAMS PROJECT NO. 1100-2990**  
**VALUES LISTED IN MICROGRAMS PER LITER (ug/L)**

	Sample Collected From	Benzene	Carbon Disulfide	Ethylbenzene	Methylene Chloride	Methyl-tert-butyl-ether	Toluene	Xylenes	Total Detected VOCs
FB030101A	NA	5U	5U	5U	5U	N/A	5U	5U	0
FB030201A	NA	5U	5U	5U	10U	N/A	5U	5U	0
FB030501A	NA	5U	5U	5U	10U	N/A	5U	5U	0
FB030601A	NA	5U	5U	5U	10U	N/A	5U	5U	0
FB030701A	NA	5U	5U	5U	10U	N/A	5U	5U	0
FB031201A	NA	5U	5U	5U	5U	5U	5U	5U	0
FB031401A	NA	5U	5U	5U	10U	N/A	5U	5U	0
FB032001A	NA	5U	5U	5U	10U	N/A	5U	5U	0
FB032101A	NA	5U	5U	5U	10U	5U	5U	5U	0
FB032201A	NA	5U	5U	5U	10U	N/A	5U	5U	0
FB032601A	NA	5U	5U	5U	10U	N/A	5U	5U	0
FB041201A	NA	5U	5U	5U	10U	5U	5U	5U	0
FB041201B	NA	5U	5U	5U	10U	5U	5U	5U	0
FB041301A	NA	5U	5U	5U	10U	5U	5U	5U	0
RB030101A	Liner	5U	5U	5U	10U	N/A	5U	5U	0
RB030201A	Liner	5U	5U	5U	10U	N/A	5U	5U	0
RB030501A	Liner	5U	5U	5U	10U	N/A	5U	5U	0
RB030601A	Liner	5U	5U	5U	10U	N/A	5U	5U	0
RB030701A	Liner	5U	5U	5U	10U	N/A	5U	5U	0
RB031401A	Liner	5U	5U	5U	10U	N/A	5U	5U	0
RB032001A	Split spoon	5U	5U	5U	10U	N/A	5U	5U	0
RB032101A	Liner	5U	5U	5U	10U	N/A	5U	5U	0
RB032201A	Liner	5U	5U	5U	10U	5U	5U	5U	0
RB032601A	Split spoon	5U	5U	5U	10U	N/A	5U	5U	0
RB032901A	Peristaltic pump and tubing	5U	5U	5U	10U	N/A	5U	5U	0
RB041201A	Liner	5U	5U	5U	10U	5U	5U	5U	0
RB041201B	Gloves	5U	5U	5U	10U	5U	5U	5U	0
RB041301A	Liner	5U	5U	5U	10U	5U	5U	5U	0
RB082103	Tubing	5U	5U	5U	5U	N/A	5U	5U	0
TB030101A	NA	5U	5U	5U	5U	N/A	5U	5U	0
TB030201A	NA	5U	5U	5U	10U	N/A	5U	5U	0
TB030701A	NA	5U	5U	5U	10U	N/A	5U	5U	0
TB031601A	NA	5U	5U	5U	10U	N/A	5U	5U	0
TB032001A	NA	5U	5U	5U	10U	N/A	5U	5U	0
TB032301A	NA	5U	5U	5U	10U	5U	5U	5U	0
TB032301B	NA	5U	5U	5U	10U	N/A	5U	5U	0
TB032901A	NA	5U	5U	5U	10U	5U	5U	5U	0
TB033001A	NA	5U	5U	5U	5U	5U	5U	5U	0
TB040301A	NA	5U	5U	5U	5U	5U	5U	5U	0
TB041301A	NA	5U	5U	5U	10U	5U	5U	5U	0
TB041301B	NA	5U	5U	5U	10U	5U	5U	5U	0
TB041301C	NA	5U	5U	5U	10U	5U	5U	5U	0
TB082103	NA	5U	5U	5U	5U	N/A	5U	5U	0
TAP WATER	Loading dock spicket	5U	5U	5U	5U	N/A	5U	5U	0

NA - Not Available

N/A - Not Analyzed

**SEMI-VOLATILE ORGANIC COMPOUNDS**  
**QA/QC SAMPLES-COMPLIANCE STATUS INVESTIGATION**  
**MACON 2 FORMER MGP FACILITY/WILLIAMS PROJECT NO. 1100-2390**  
**VALUES LISTED IN MICROGRAMS PER LITER (ug/L)**

Sample Collected From	Acenaphthene	Acenaphthylene	Anthracene	Benzo(a)anthracene	Benzo(a)pyrene	Benzo(b)fluoranthene	Benzo(g,h,i)perylene	Benzo(k)fluoranthene	Chrysene	Dibenzo(a,h)anthracene	Fluoranthene	Fluorene	Indeno(1,2,3-cd)pyrene	Naphthalene	Phenanthrene	Phenol	Pyrene	Total Detected SVOCs
RB030101A	10U	10U	10U	10U	10U	10U	10U	10U	10U	10U	10U	10U	10U	10U	10U	10U	10U	0
RB030201A	10U	10U	10U	10U	10U	10U	10U	10U	10U	10U	10U	10U	10U	10U	10U	10U	10U	0
RB030501A	10U	10U	10U	10U	10U	10U	10U	10U	10U	10U	10U	10U	10U	10U	10U	10U	10U	0
RB030601A	10U	10U	10U	10U	10U	10U	10U	10U	10U	10U	10U	10U	10U	10U	10U	10U	10U	0
RB030701A	10U	10U	10U	10U	10U	10U	10U	10U	10U	10U	10U	10U	10U	10U	10U	10U	10U	0
RB031401A	10U	10U	10U	10U	10U	10U	10U	10U	10U	10U	10U	10U	10U	10U	10U	10U	10U	0
RB032001A	10U	10U	10U	10U	10U	10U	10U	10U	10U	10U	10U	10U	10U	10U	10U	10U	10U	0
RB032101A	10U	10U	10U	10U	10U	10U	10U	10U	10U	10U	10U	10U	10U	10U	10U	10U	10U	0
RB032201A	10U	10U	10U	10U	10U	10U	10U	10U	10U	10U	10U	10U	10U	10U	10U	10U	10U	0
RB032601A	10U	10U	10U	10U	10U	10U	10U	10U	10U	10U	10U	10U	10U	10U	10U	10U	10U	0
Peristaltic pump and tubing	10U	10U	10U	10U	10U	10U	10U	10U	10U	10U	10U	10U	10U	10U	10U	10U	10U	0
RB032901A	10U	10U	10U	10U	10U	10U	10U	10U	10U	10U	10U	10U	10U	10U	10U	10U	10U	0
RB041201A	10U	10U	10U	10U	10U	10U	10U	10U	10U	10U	10U	10U	10U	10U	10U	10U	10U	0
RB041201B	10U	10U	10U	10U	10U	10U	10U	10U	10U	10U	10U	10U	10U	10U	10U	10U	10U	0
RB041301A	10U	10U	10U	10U	10U	10U	10U	10U	10U	10U	10U	10U	10U	10U	10U	10U	10U	0
RB082103	10U	10U	10U	10U	10U	10U	10U	10U	10U	10U	10U	10U	10U	10U	10U	10U	10U	0
TAP WATER	10U	10U	10U	10U	10U	10U	10U	10U	10U	10U	10U	10U	10U	10U	10U	10U	10U	0

N/A - Not Analyzed

**INORGANIC COMPOUNDS**  
**QA/QC SAMPLES-COMPLIANCE STATUS INVESTIGATION**  
**MACON 2 FORMER MGP FACILITY/WILLIAMS PROJECT NO. 1100-2990**  
**VALUES LISTED IN MILLIGRAMS PER LITER (mg/L)**

	Sample Collected From	Arsenic	Barium	Cadmium	Chromium	Copper	Lead	Mercury	Nickel	Zinc	Vanadium	T-Cyanide
RB030101A	Liner	0.02U	0.009	0.005U	0.01U	0.01U	0.01U	0.0005U	0.02U	0.02U	0.01U	0.01U
RB030201A	Liner	0.02U	0.007	0.005U	0.01U	0.01U	0.01U	0.0005U	0.02U	0.02U	0.01U	0.01U
RB030501A	Liner	0.02U	0.009	0.005U	0.01U	0.01U	0.01U	0.0005U	0.02U	0.02U	0.01U	0.01U
RB030601A	Liner	0.02U	0.009	0.005U	0.01U	0.01U	0.01U	0.0005U	0.02U	0.02U	0.01U	0.01U
RB030701A	Liner	0.02U	0.02U	0.005U	0.01U	0.01U	0.01U	0.0005U	0.02U	0.02U	0.01U	0.01U
RB031401A	Liner	0.02U	0.02U	0.005U	0.01U	0.01U	0.01U	0.0005U	0.02U	0.02U	0.01U	0.01U
RB032001A	Split spoon	0.02U	0.02U	0.005U	0.01U	0.01U	0.01U	0.0005U	0.02U	0.02U	0.01U	0.01U
RB032101A	Liner	0.02U	0.02U	0.005U	0.01U	0.01U	0.01U	0.0005U	0.02U	0.02U	0.01U	0.01U
RB032201A	Liner	0.02U	0.02U	0.005U	0.01U	0.01U	0.01U	0.0005U	0.02U	0.02U	0.01U	0.01U
RB032601A	Split spoon	0.02U	0.02U	0.005U	0.01U	0.01U	0.01U	0.0005U	0.02U	0.02U	0.01U	0.01U
	Peristaltic pump and tubing											
RB032901A		0.02U	0.02U	0.01U	0.01U	0.01U	0.01U	0.0005U	0.02U	0.02U	0.01U	0.01U
RB041201A	Liner	0.02U	0.02U	0.005U	0.01U	0.01U	0.01U	0.0005U	0.02U	0.02U	0.01U	0.01U
RB041201B	Gloves	0.02U	0.02U	0.005U	0.01U	0.01U	0.01U	0.0005U	0.02U	0.02U	0.01U	0.01U
RB041301A	Liner	0.02U	0.02U	0.005U	0.01U	0.01U	0.01U	0.0005U	0.02U	0.02U	0.01U	0.01U
RB082103	Liner	0.02U	0.02U	0.005U	0.01U	0.01U	0.01U	0.0005U	0.02U	0.02U	0.01U	0.01U
	Loading dock spicket											
TAP WATER		0.02U	0.0215	0.005U	0.01U	0.0258	0.01U	0.0005U	0.02U	0.0585	0.01U	0.01U



**G-2 WILLIAMS LABORATORY QA/QC  
REPORTS**

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## Analytical Data Validation Report

**Client:** Georgia Power Company

**Project Location:** Macon, Georgia

**Project Number:** 1100-2990

**Laboratory:** Analytical Environmental Services, Inc.

**Date of Sample Collection:** August 20, 2003

**Samples Collected By:** Mike Dillon

**Date Samples Received By Laboratory:** August 21, 2003

**Laboratory Remarks:** None

**Laboratory Code:** 0308662

### Analytical Data Validation Report Continued

Project Number: 1100-2990

Laboratory Code: 0308662

Sample ID# SB-44-0-2, SB-44-5-7, SB-44-10-12, SB-44-15-17, SB-44-20-21, SB-45-0-2, SB-45-5-7, SB-45-10-12, SB-45-15-17, SB-45-18.5-20, SB-46-0-2, SB-46-5-7, SB-46-10-12, SB-46-15-17, DUP082003A, DRUM-1

Analysis: Total Lead

Method: SW6010B

Matrix: Soil

Preservative: Ice for soil

Holding Time: 6 months

Date of Collection: August 20, 2003

Date of Analysis: August 25, 2003

Samples Analyzed Within Holding Time: Yes

Laboratory Method Blank Less Than Laboratory Reporting Limits: Yes

Surrogate Spike Recovery Within Quality Control Limits: N/A

Laboratory Control Sample (LCS) Percent Recovery Within Advisory Limits: Yes

Relative Percent Difference (RPD) Between Field Duplicate Sample and Laboratory Duplicate Sample Below Quality Control Limits: Yes

Matrix Spike Percent Recovery Within Advisory Limits: Yes

Trip Blank Result Less Than Laboratory Reporting Limits: N/A

Equipment Blank Result Less Than Laboratory Reporting Limits: No equipment blank collected.

Comparison of Duplicate Results: A duplicate sample of SB-45-18.5-20 was collected and identified as DUP082003A. A comparison of the results is shown in the table below.

#### Comparison of Sample and Duplicate Results (mg/kg-dry)

Parameter	SB-45-18.5-20	DUP082003A
Total Lead	38.6	37.8

## Analytical Data Validation Report

**Client:** Georgia Power Company

**Project Location:** Macon, Georgia

**Project Number:** 1100-2990

**Laboratory:** Analytical Environmental Services, Inc.

**Date of Sample Collection:** August 20 & 21, 2003

**Samples Collected By:** Pete Robinson

**Date Samples Received By Laboratory:** August 21, 2003

**Laboratory Remarks:** None

**Laboratory Code:** 0308663



## Analytical Data Validation Report Continued

Project Number: 1100-2990

Laboratory Code: 0308663

Sample ID# MW-5, MW-2, MW-3, MW-4, MW-7, MW-6, MW-1, DUP082003, RB082103

Analysis: Total Metals

Method: SW6020 for all metals except mercury, 7470A for mercury

Matrix: Water

Preservative: Nitric Acid and Ice

Holding Time: 6 months for all metals except mercury, 28 days for mercury

Date of Collection: August 20, 2003

Date of Analysis: August 25 & 26, 2003

Samples Analyzed Within Holding Time: Yes

Laboratory Method Blank Less Than Laboratory Reporting Limits: Yes

Surrogate Spike Recovery Within Quality Control Limits: N/A

Laboratory Control Sample (LCS) Percent Recovery Within Advisory Limits: Yes, except where noted in the QC Report.

Relative Percent Difference (RPD) Between Field Duplicate Sample and Laboratory Duplicate Sample Below Quality Control Limits: Yes

Matrix Spike Percent Recovery Within Advisory Limits: Yes, except where noted in the QC Report and the Case Narrative

Trip Blank Result Less Than Laboratory Reporting Limits: N/A

Equipment Blank Result Less Than Laboratory Reporting Limits: Yes

Comparison of Duplicate Results: A duplicate sample of MW-3 was collected and identified as DUP082003. All of the results for both the sample and the duplicate were below laboratory detection limits with the exception of barium. It was detected at 699 µg/l in the regular sample and at 692 µg/l in the duplicate sample.

## Analytical Data Validation Report Continued

Project Number: 1100-2990

Laboratory Code: 0308663

Sample ID# MW-5, MW-2, MW-3, MW-4, MW-7, MW-6, MW-1, DUP082003, RB082103

Analysis: Semivolatile Organic Compounds

Method: SW8270C

Matrix: Water

Preservative: Ice

Holding Time: 14 days until extraction, 40 days after extraction

Date of Collection: August 20, 2003

Date of Analysis: August 22, 23, and 25, 2003

Samples Analyzed Within Holding Time: Yes

Laboratory Method Blank Less Than Laboratory Reporting Limits: Yes

Surrogate Spike Recovery Within Quality Control Limits: Yes

Laboratory Control Sample (LCS) Percent Recovery Within Advisory Limits: Yes

Relative Percent Difference (RPD) Between MS and MSD Below  
Quality Control Limits: Yes

Matrix Spike (MS) and Matrix Spike Duplicate (MSD)  
Percent Recoveries Within Advisory Limits: Yes

Trip Blank Result Less Than Laboratory Reporting Limits: N/A

Equipment Blank Result Less Than Laboratory Reporting Limits: Yes

Comparison of Duplicate Results: A duplicate sample of MW-3 was collected and identified as DUP082003. All of the results for both the sample and the duplicate were below laboratory detection limits.

**Analytical Data Validation Report Continued**

**Project Number:** 1100-2990

**Laboratory Code:** 0308663

**Sample ID#** MW-5, MW-2, MW-3, MW-4, MW-7, MW-6, MW-1, DUP082003, RB082103, TB082103

**Analysis:** Volatile Organic Compounds

**Method:** SW8260B

**Matrix:** Water

**Preservative:** Hydrochloric Acid and Ice

**Holding Time:** 14 days

**Date of Collection:** August 20, 2003

**Date of Analysis:** August 22, and 25, 2003

**Samples Analyzed Within Holding Time:** Yes

**Laboratory Method Blank Less Than Laboratory Reporting Limits:** Yes

**Surrogate Spike Recovery Within Quality Control Limits:** Yes

**Laboratory Control Sample (LCS) Percent Recovery Within Advisory Limits:** Yes

**Relative Percent Difference (RPD) Between MS and MSD Below Quality Control Limits:** Yes

**Matrix Spike (MS) and Matrix Spike Duplicate (MSD) Percent Recoveries Within Advisory Limits:** Yes

**Trip Blank Result Less Than Laboratory Reporting Limits:** Yes

**Equipment Blank Result Less Than Laboratory Reporting Limits:** Yes

**Comparison of Duplicate Results:** A duplicate sample of MW-3 was collected and identified as DUP082003. All of the results for both the sample and the duplicate were below laboratory detection limits.

### Analytical Data Validation Report Continued

Project Number: 1100-2990

Laboratory Code: 0308663

Sample ID# MW-5, MW-2, MW-3, MW-4, MW-7, MW-6, MW-1, DUP082003, RB082103,

Analysis: Cyanide

Method: SW9014

Matrix: Water

Preservative: Sodium Hydroxide and Ice

Holding Time: 14 days

Date of Collection: August 20, 2003

Date of Analysis: August 21, 2003

Samples Analyzed Within Holding Time: Yes

Laboratory Method Blank Less Than Laboratory Reporting Limits: Yes

Surrogate Spike Recovery Within Quality Control Limits: N/A

Laboratory Control Sample (LCS) Percent Recovery Within Advisory Limits: Yes

Relative Percent Difference (RPD) Between Field Duplicate Sample  
and Laboratory Duplicate Sample Below Quality Control Limits: Yes

Matrix Spike Percent Recovery Within Advisory Limits: Yes

Trip Blank Result Less Than Laboratory Reporting Limits: N/A

Equipment Blank Result Less Than Laboratory Reporting Limits: Yes

Comparison of Duplicate Results: A duplicate sample of MW-3 was collected and identified as DUP082003. All of the results for both the sample and the duplicate were below laboratory detection limits.



## Analytical Data Validation Report

**Client:** Georgia Power Company

**Project Location:** Macon, Georgia

**Project Number:** 1100-2990

**Laboratory:** Analytical Environmental Services, Inc.

**Date of Sample Collection:** August 20, 2003

**Samples Collected By:** Mike Dillon

**Date Samples Received By Laboratory:** August 21, 2003

**Laboratory Remarks:** None

**Laboratory Code:** 0308828

**Analytical Data Validation Report Continued**

**Project Number:** 1100-2990

**Laboratory Code:** 0308828

**Sample ID#** SB-45-15-17

**Analysis:** ICP Metals, SPLP

**Method:** SW1312/6010B

**Matrix:** Soil

**Preservative:** Ice

**Holding Time:** 14 days

**Date of Collection:** August 20, 2003

**Date of Analysis:** August 27, 2003

**Samples Analyzed Within Holding Time:** Yes

**Laboratory Method Blank Less Than Laboratory Reporting Limits:** Yes

**Surrogate Spike Recovery Within Quality Control Limits:** N/A

**Laboratory Control Sample (LCS) Percent Recovery Within Advisory Limits:** Yes

**Relative Percent Difference (RPD) for Laboratory Duplicate Sample  
Below Quality Control Limits:** Yes

**Matrix Spike Percent Recovery Within Advisory Limits:** Yes

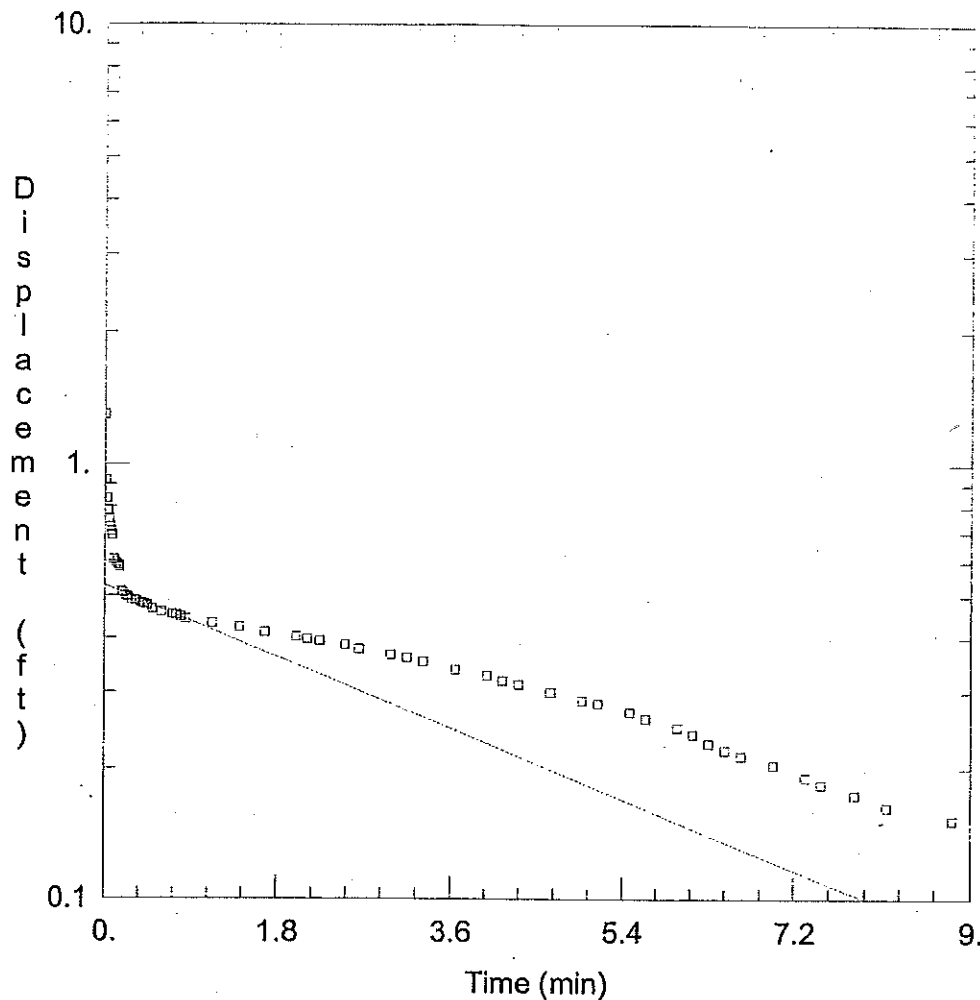
**Trip Blank Result Less Than Laboratory Reporting Limits:** N/A

**Equipment Blank Result Less Than Laboratory Reporting Limits:** No equipment blank  
collected.

**Comparison of Duplicate Results:** No duplicate sample collected.

## **APPENDIX I**

## **SLUG TEST DATA**



### MW-01-OUT

Data Set: L:\Mike Dillon\1100\2990\mw1out.agt

Date: 08/22/03

Time: 14:48:37

### PROJECT INFORMATION

Company: Williams Environmental

Client: Georgia Power Company

Project: 1100-2990

Test Location: Macon, Ga

Test Well: MW-01

Test Date: 4/13/01

### AQUIFER DATA

Saturated Thickness: 40. ft

Anisotropy Ratio ( $K_z/K_r$ ): 1.

### WELL DATA (MW-01)

Initial Displacement: 1.297 ft

Casing Radius: 0.08333 ft

Wellbore Radius: 0.2813 ft

Well Skin Radius: 0.2813 ft

Screen Length: 9.39 ft

Total Well Penetration Depth: 8.85 ft

Gravel Pack Porosity: 0.3

### SOLUTION

Aquifer Model: Unconfined

Solution Method: Bouwer-Rice

$K = 0.0007049$  ft/min

$\alpha = 0.5284$



Data Set: L:\Mike Dillon\1100\2990\mw1out.aqt  
 Title: MW-01-OUT  
 Date: 08/22/03  
 Time: 14:48:43

### PROJECT INFORMATION

Company: Williams Environmental  
 Client: Georgia Power Company  
 Project: 1100-2990  
 Location: Macon, Ga  
 Test Date: 4/13/01  
 Test Well: MW-01

### AQUIFER DATA

Saturated Thickness: 40. ft  
 Anisotropy Ratio (Kz/Kr): 1.

### SLUG TEST WELL DATA

Initial Displacement: 1.297 ft  
 Casing Radius: 0.08333 ft  
 Wellbore Radius: 0.2813 ft  
 Well Skin Radius: 0.2813 ft  
 Screen Length: 9.39 ft  
 Total Well Penetration Depth: 8.85 ft  
 Gravel Pack Porosity: 0.3

No. of observations: 66

Observation Data					
Time (min)	Displacement (ft)	Time (min)	Displacement (ft)	Time (min)	Displacement (ft)
0.0001	1.297	0.2829	0.49	3.149	0.36
0.0112	0.919	0.3172	0.488	3.316	0.353
0.0224	0.835	0.3359	0.486	3.649	0.338
0.0335	0.784	0.3767	0.482	3.983	0.328
0.0447	0.749	0.3989	0.48	4.149	0.319
0.0559	0.719	0.4224	0.478	4.316	0.313
0.067	0.702	0.4472	0.475	4.649	0.3
0.0782	0.689	0.5015	0.467	4.983	0.287
0.0894	0.606	0.5957	0.46	5.149	0.283
0.1005	0.604	0.7077	0.454	5.483	0.27
0.1117	0.597	0.7495	0.452	5.649	0.261
0.1229	0.593	0.7939	0.448	5.983	0.249
0.134	0.589	0.8409	0.443	6.149	0.24
0.1452	0.587	1.121	0.433	6.316	0.229
0.1564	0.582	1.411	0.424	6.483	0.221
0.1675	0.512	1.677	0.413	6.649	0.214
0.1787	0.51	1.993	0.403	6.983	0.204
0.1899	0.508	2.111	0.398	7.316	0.191
0.2127	0.501	2.237	0.394	7.483	0.184
0.2252	0.499	2.51	0.386	7.816	0.174
0.2384	0.497	2.659	0.377	8.149	0.163
0.2524	0.495	2.983	0.366	8.816	0.152

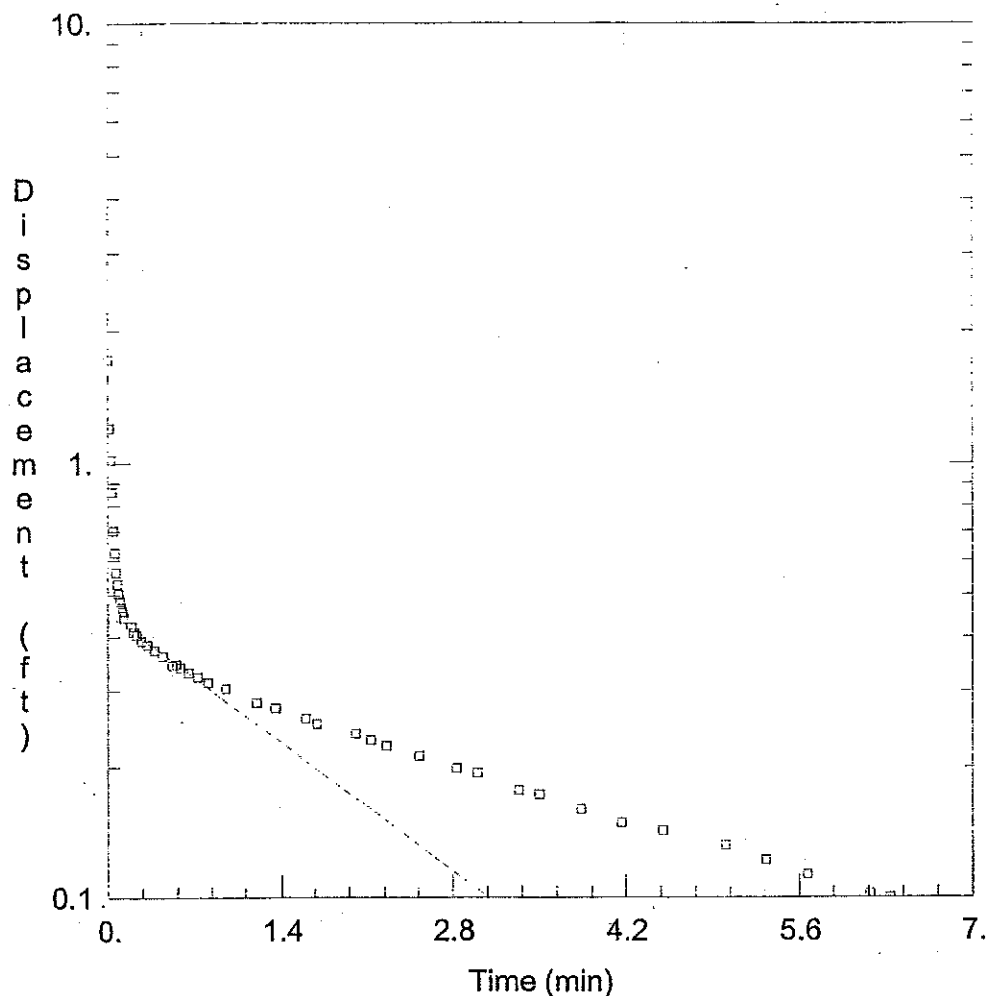
### SOLUTION

Aquifer Model: Unconfined  
 Solution Method: Bouwer-Rice

### VISUAL ESTIMATION RESULTS

#### Estimated Parameters

Parameter	Estimate	
K	0.0007049	ft/min
y0	0.5284	ft



### MW-02-OUT

Data Set: L:\Mike Dillon\1100\2990\mw2out.aqt

Date: 08/22/03

Time: 14:49:07

### PROJECT INFORMATION

Company: Williams Environmental

Client: Georgia Power Company

Project: 1100-2990

Test Location: Macon, Ga

Test Well: MW-02

Test Date: 4/13/01

### AQUIFER DATA

Saturated Thickness: 40. ft

Anisotropy Ratio ( $K_z/K_r$ ): 1.

### WELL DATA (MW-02)

Initial Displacement: 1.722 ft

Casing Radius: 0.08333 ft

Wellbore Radius: 0.2813 ft

Well Skin Radius: 0.2813 ft

Screen Length: 9.39 ft

Total Well Penetration Depth: 8.17 ft

Gravel Pack Porosity: 0.3

### SOLUTION

Aquifer Model: Unconfined

Solution Method: Bouwer-Rice

$K = 0.001612 \text{ ft/min}$

$\alpha = 0.1500$

Data Set: L:\Mike Dillon\1100\2990\mw2out.aqt  
 Title: MW-02-OUT  
 Date: 08/22/03  
 Time: 14:49:12

### PROJECT INFORMATION

Company: Williams Environmental  
 Client: Georgia Power Company  
 Project: 1100-2990  
 Location: Macon, Ga  
 Test Date: 4/13/01  
 Test Well: MW-02

### AQUIFER DATA

Saturated Thickness: 40. ft  
 Anisotropy Ratio (Kz/Kr): 1.

### SLUG TEST WELL DATA

Initial Displacement: 1.722 ft  
 Casing Radius: 0.08333 ft  
 Wellbore Radius: 0.2813 ft  
 Well Skin Radius: 0.2813 ft  
 Screen Length: 9.39 ft  
 Total Well Penetration Depth: 8.17 ft  
 Gravel Pack Porosity: 0.3

No. of observations: 47

Observation Data					
Time (min)	Displacement (ft)	Time (min)	Displacement (ft)	Time (min)	Displacement (ft)
0.001	1.722	0.2713	0.391	2.131	0.231
0.011	1.202	0.3185	0.383	2.256	0.224
0.022	1.016	0.3747	0.372	2.529	0.212
0.033	0.86	0.4413	0.361	2.835	0.199
0.044	0.702	0.5205	0.344	3.002	0.194
0.055	0.625	0.5502	0.346	3.335	0.177
0.066	0.563	0.5815	0.34	3.502	0.173
0.077	0.53	0.6498	0.331	3.835	0.16
0.088	0.503	0.7267	0.323	4.168	0.149
0.099	0.483	0.8128	0.314	4.502	0.143
0.11	0.468	0.9623	0.304	5.002	0.132
0.121	0.458	1.206	0.282	5.335	0.122
0.132	0.443	1.351	0.274	5.668	0.113
0.187	0.423	1.602	0.259	6.168	0.102
0.209	0.411	1.696	0.252	6.335	0.1
0.2317	0.404	2.012	0.239		

### SOLUTION

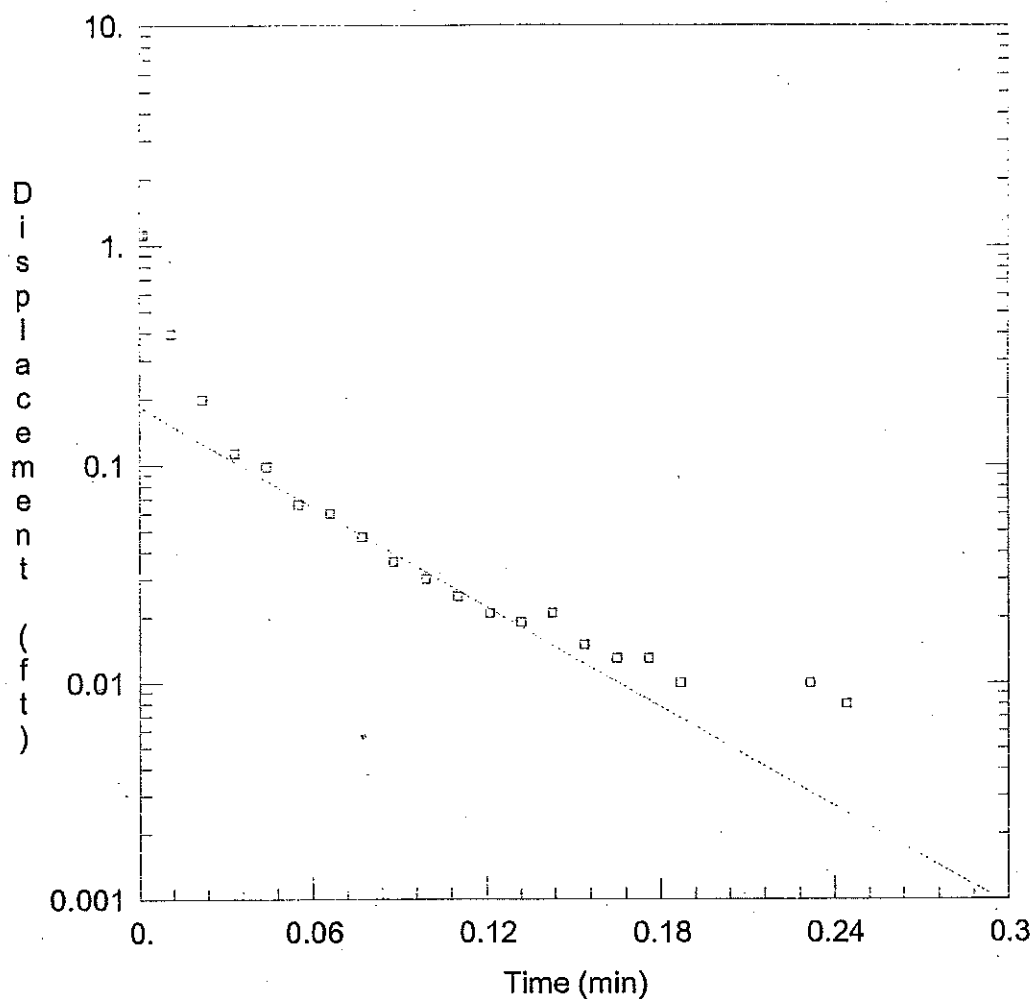
Aquifer Model: Unconfined  
 Solution Method: Bouwer-Rice

### VISUAL ESTIMATION RESULTS

#### Estimated Parameters

Parameter	Estimate	
K	0.001612	ft/min
y0	0.4533	ft





#### MW-04-OUT

Data Set: L:\Mike Dillon\1100\2990\mw4out.aqt

Date: 08/22/03

Time: 14:49:26

#### PROJECT INFORMATION

Company: Williams Environmental

Client: Georgia Power Company

Project: 1100-2990

Test Location: Macon, Ga

Test Well: MW-04

Test Date: 4/13/01

#### AQUIFER DATA

Saturated Thickness: 40. ft

Anisotropy Ratio ( $K_z/K_r$ ): 1.

#### WELL DATA (MW-04)

Initial Displacement: 1.119 ft

Casing Radius: 0.08333 ft

Wellbore Radius: 0.2813 ft

Well Skin Radius: 0.2813 ft

Screen Length: 9.39 ft

Total Well Penetration Depth: 8.7 ft

Gravel Pack Porosity: 0.3

#### SOLUTION

Aquifer Model: Unconfined

Solution Method: Bouwer-Rice

Data Set: L:\Mike Dillon\1100\2990\mw4out.aqt  
 Title: MW-04-OUT  
 Date: 08/22/03  
 Time: 14:49:31

### PROJECT INFORMATION

Company: Williams Environmental  
 Client: Georgia Power Company  
 Project: 1100-2990  
 Location: Macon, Ga  
 Test Date: 4/13/01  
 Test Well: MW-04

### AQUIFER DATA

Saturated Thickness: 40. ft  
 Anisotropy Ratio (Kz/Kr): 1.

### SLUG TEST WELL DATA

Initial Displacement: 1.119 ft  
 Casing Radius: 0.08333 ft  
 Wellbore Radius: 0.2813 ft  
 Well Skin Radius: 0.2813 ft  
 Screen Length: 9.39 ft  
 Total Well Penetration Depth: 8.7 ft  
 Gravel Pack Porosity: 0.3

No. of observations: 20

Observation Data					
Time (min)	Displacement (ft)	Time (min)	Displacement (ft)	Time (min)	Displacement (ft)
0.001	1.119	0.077	0.047	0.154	0.015
0.011	0.396	0.088	0.036	0.165	0.013
0.022	0.199	0.099	0.03	0.176	0.013
0.033	0.113	0.11	0.025	0.187	0.01
0.044	0.098	0.121	0.021	0.2317	0.01
0.055	0.066	0.132	0.019	0.2442	0.008
0.066	0.06	0.143	0.021		

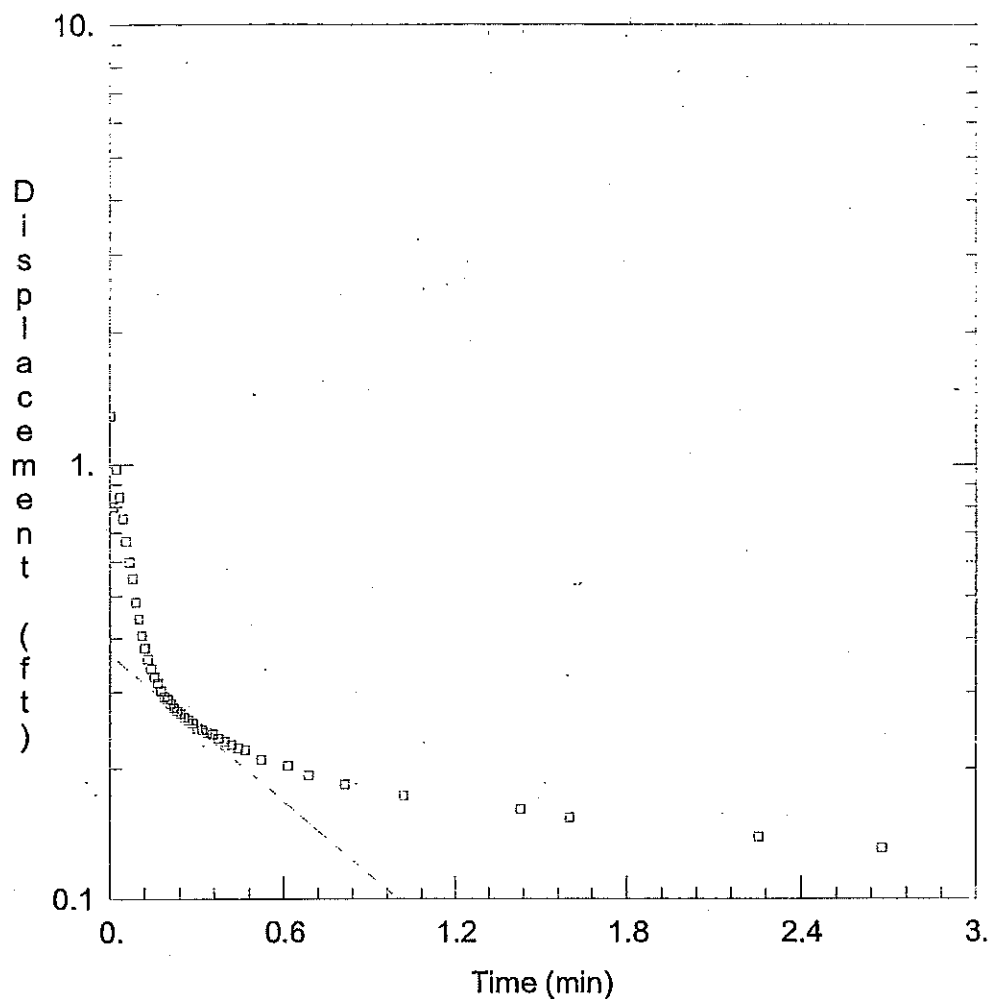
### SOLUTION

Aquifer Model: Unconfined  
 Solution Method: Bouwer-Rice

### VISUAL ESTIMATION RESULTS

#### Estimated Parameters

Parameter	Estimate	
K	0.05886	ft/min
y0	0.1847	ft



#### MW-05-OUT

Data Set: L:\Mike Dillon\1100\2990\mw5out.aqt

Date: 08/22/03

Time: 14:50:31

#### PROJECT INFORMATION

Company: Williams Environmental

Client: Georgia Power Company

Project: 1100-2990

Test Location: Macon, Ga

Test Well: MW-05

Test Date: 4/13/01

#### AQUIFER DATA

Saturated Thickness: 40. ft

Anisotropy Ratio ( $K_z/K_r$ ): 1.

#### WELL DATA (MW-05)

Initial Displacement: 1.289 ft

Casing Radius: 0.08333 ft

Wellbore Radius: 0.3438 ft

Well Skin Radius: 0.3438 ft

Screen Length: 15. ft

Total Well Penetration Depth: 8.19 ft

Gravel Pack Porosity: 0.3

#### SOLUTION

Aquifer Model: Unconfined

Solution Method: Bouwer-Rice

Data Set: L:\Mike Dillon\1100\2990\mw5out.aqt  
 Title: MW-05-OUT  
 Date: 08/22/03  
 Time: 14:50:37

### PROJECT INFORMATION

Company: Williams Environmental  
 Client: Georgia Power Company  
 Project: 1100-2990  
 Location: Macon, Ga  
 Test Date: 4/13/01  
 Test Well: MW-05

### AQUIFER DATA

Saturated Thickness: 40. ft  
 Anisotropy Ratio (Kz/Kr): 1.

### SLUG TEST WELL DATA

Initial Displacement: 1.289 ft  
 Casing Radius: 0.08333 ft  
 Wellbore Radius: 0.3438 ft  
 Well Skin Radius: 0.3438 ft  
 Screen Length: 15. ft  
 Total Well Penetration Depth: 8.19 ft  
 Gravel Pack Porosity: 0.3

No. of observations: 44

Observation Data					
Time (min)	Displacement (ft)	Time (min)	Displacement (ft)	Time (min)	Displacement (ft)
0.001	1.289	0.165	0.315	0.3747	0.235
0.011	0.801	0.176	0.302	0.3957	0.231
0.022	0.976	0.187	0.293	0.4178	0.227
0.033	0.843	0.198	0.289	0.4413	0.223
0.044	0.753	0.209	0.283	0.4662	0.221
0.055	0.668	0.22	0.276	0.5205	0.21
0.066	0.599	0.2317	0.272	0.6147	0.203
0.077	0.548	0.2442	0.268	0.6872	0.193
0.088	0.484	0.2573	0.263	0.8128	0.184
0.099	0.443	0.2713	0.259	1.018	0.173
0.11	0.405	0.2862	0.255	1.43	0.161
0.121	0.379	0.3018	0.248	1.602	0.154
0.132	0.358	0.3185	0.246	2.256	0.139
0.143	0.34	0.3362	0.242	2.678	0.131
0.154	0.325	0.3548	0.24		

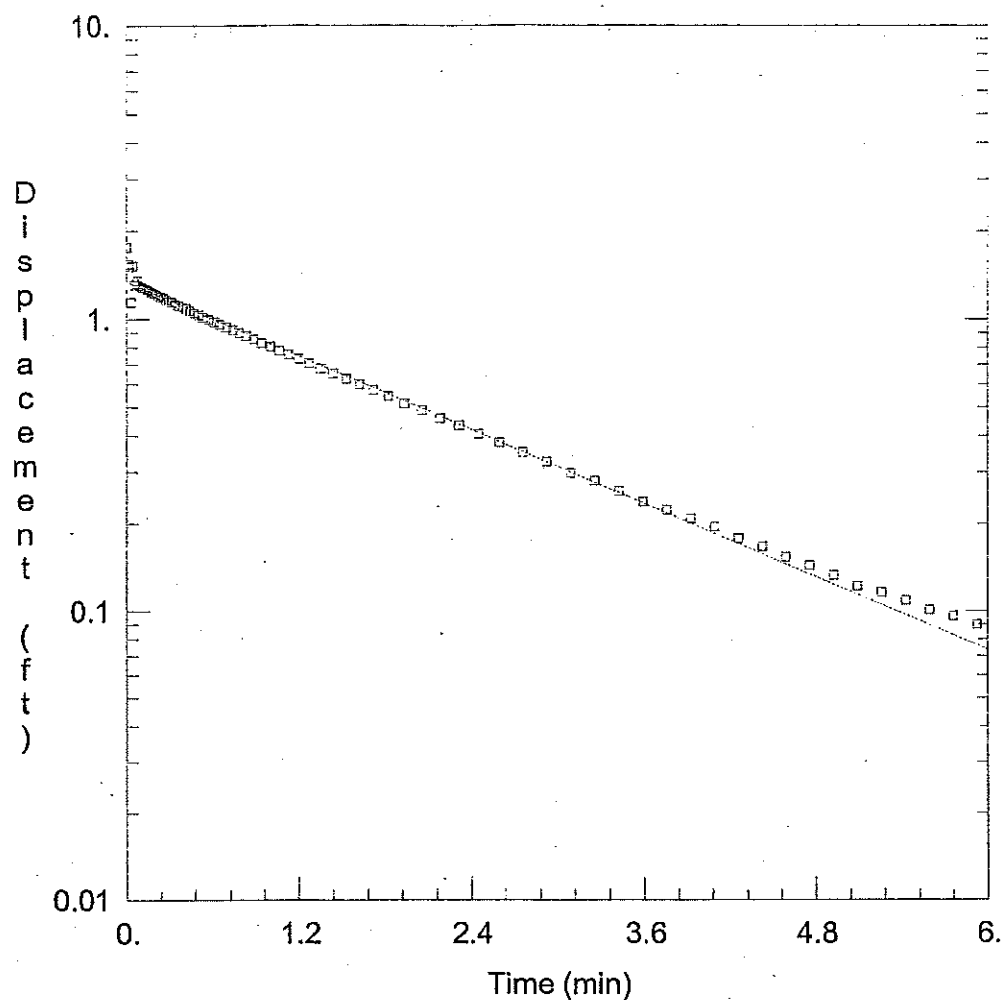
### SOLUTION

Aquifer Model: Unconfined  
 Solution Method: Bouwer-Rice

### VISUAL ESTIMATION RESULTS

#### Estimated Parameters

Parameter	Estimate	
K	0.003787	ft/min
y0	0.3663	ft



#### MW-06-IN

Data Set: L:\Mike Dillon\1100\2990\mw6in.aqt

Date: 08/22/03

Time: 14:49:44

#### PROJECT INFORMATION

Company: Williams Environmental

Client: Georgia Power Company

Project: 1100-2990

Test Location: Macon, Ga

Test Well: MW-06

Test Date: 4/13/01

#### AQUIFER DATA

Saturated Thickness: 40. ft

Anisotropy Ratio ( $K_z/K_r$ ): 1.

#### WELL DATA (MW-06)

Initial Displacement: 1.757 ft

Casing Radius: 0.08333 ft

Wellbore Radius: 0.3438 ft

Well Skin Radius: 0.3438 ft

Screen Length: 10. ft

Total Well Penetration Depth: 16.31 ft

Gravel Pack Porosity: 0.3

#### SOLUTION

Aquifer Model: Unconfined

Solution Method: Bouwer-Rice



Data Set: L:\Mike Dillon\1100\2990\mw6in.aqt  
 Title: MW-06-IN  
 Date: 08/22/03  
 Time: 14:49:50

### PROJECT INFORMATION

Company: Williams Environmental  
 Client: Georgia Power Company  
 Project: 1100-2990  
 Location: Macon, Ga  
 Test Date: 4/13/01  
 Test Well: MW-06

### AQUIFER DATA

Saturated Thickness: 40. ft  
 Anisotropy Ratio ( $K_z/K_r$ ): 1.

### SLUG TEST WELL DATA

Initial Displacement: 1.757 ft  
 Casing Radius: 0.08333 ft  
 Wellbore Radius: 0.3438 ft  
 Well Skin Radius: 0.3438 ft  
 Screen Length: 10. ft  
 Total Well Penetration Depth: 16.31 ft  
 Gravel Pack Porosity: 0.3

No. of observations: 79

Observation Data					
Time (min)	Displacement (ft)	Time (min)	Displacement (ft)	Time (min)	Displacement (ft)
0.001	1.757	0.3892	1.097	2.054	0.488
0.011	1.54	0.4155	1.088	2.179	0.458
0.022	1.506	0.4435	1.067	2.311	0.433
0.033	1.14	0.4732	1.048	2.452	0.405
0.044	1.521	0.5045	1.033	2.6	0.379
0.055	1.305	0.5377	1.013	2.758	0.351
0.066	1.32	0.5728	0.996	2.925	0.326
0.077	1.35	0.6102	0.979	3.091	0.298
0.088	1.3	0.6497	0.958	3.258	0.281
0.099	1.287	0.6915	0.94	3.425	0.259
0.11	1.279	0.7358	0.919	3.591	0.238
0.121	1.27	0.7828	0.898	3.758	0.223
0.132	1.262	0.8327	0.876	3.925	0.208
0.143	1.253	0.8853	0.855	4.091	0.195
0.1547	1.245	0.9412	0.829	4.258	0.178
0.1672	1.234	1.	0.808	4.425	0.167
0.1803	1.225	1.063	0.782	4.591	0.154
0.1943	1.215	1.129	0.758	4.758	0.144
0.2092	1.206	1.2	0.733	4.925	0.133
0.2248	1.195	1.274	0.707	5.091	0.122
0.2415	1.185	1.353	0.679	5.258	0.116
0.2592	1.172	1.437	0.653	5.425	0.109
0.2778	1.161	1.525	0.625	5.591	0.101
0.2977	1.148	1.619	0.598	5.758	0.096
0.3187	1.137	1.718	0.572	5.925	0.09
0.3408	1.122	1.824	0.544		
0.3643	1.11	1.935	0.514		

### SOLUTION

Aquifer Model: Unconfined

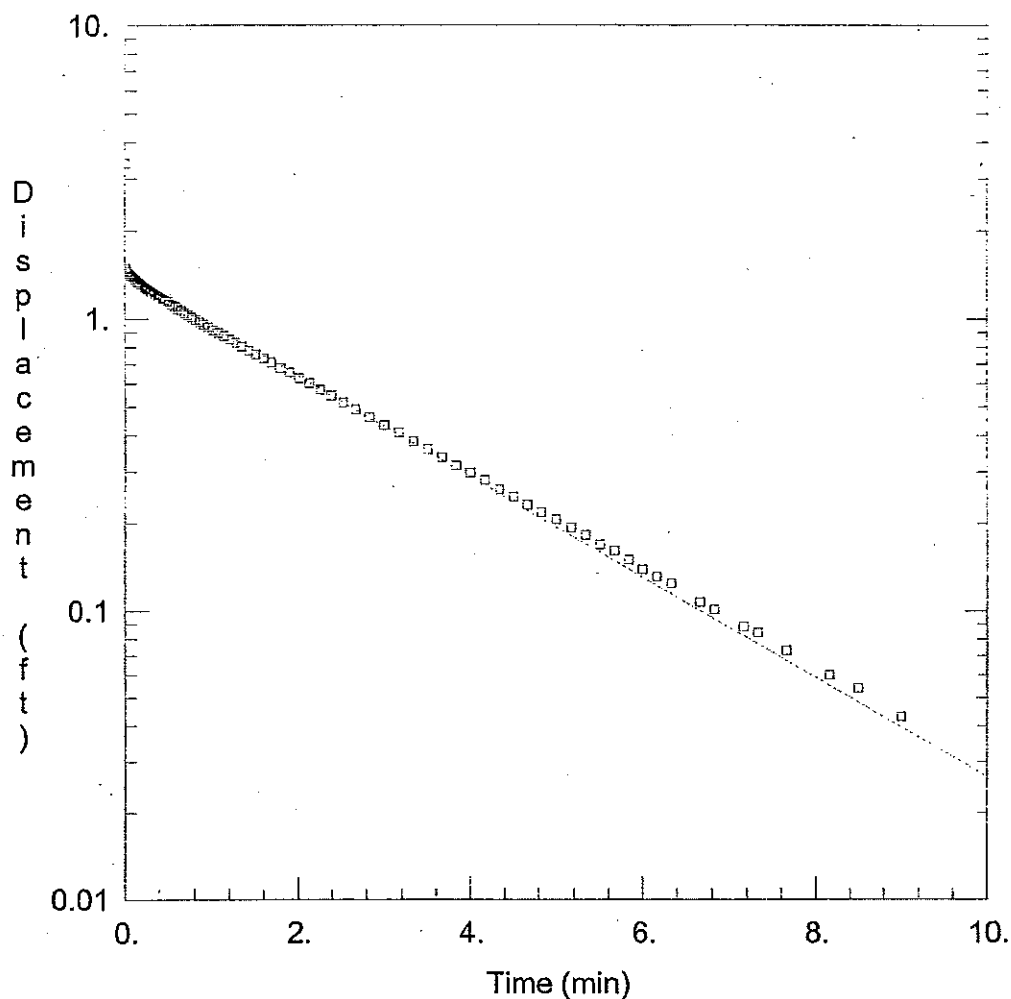
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Solution Method: Bouwer-Rice

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VISUAL ESTIMATION RESULTSEstimated Parameters

<u>Parameter</u>	<u>Estimate</u>	
K	0.0003948	ft/min
y0	1.339	ft



#### MW-06-OUT

Data Set: L:\Mike Dillon\1100\2990\mw6out.aqt

Date: 08/22/03

Time: 14:50:01

#### PROJECT INFORMATION

Company: Williams Environmental

Client: Georgia Power Company

Project: 1100-2990

Test Location: Macon, GA

Test Well: MW-06

Test Date: 4/13/01

#### AQUIFER DATA

Saturated Thickness: 40. ft

Anisotropy Ratio ( $K_z/K_r$ ): 1.

#### WELL DATA (MW-06)

Initial Displacement: 3.396 ft

Casing Radius: 0.08333 ft

Wellbore Radius: 0.3438 ft

Well Skin Radius: 0.3438 ft

Screen Length: 10. ft

Total Well Penetration Depth: 16.31 ft

Gravel Pack Porosity: 0.3

#### SOLUTION

Aquifer Model: Unconfined

Solution Method: Bower-Rice

Data Set: L:\Mike Dillon\1100\2990\mw6out.aqt  
 Title: MW-06-OUT  
 Date: 08/22/03  
 Time: 14:50:08

### PROJECT INFORMATION

Company: Williams Environmental  
 Client: Georgia Power Company  
 Project: 1100-2990  
 Location: Macon, GA  
 Test Date: 4/13/01  
 Test Well: MW-06

### AQUIFER DATA

Saturated Thickness: 40. ft  
 Anisotropy Ratio (Kz/Kr): 1.

### SLUG TEST WELL DATA

Initial Displacement: 3.396 ft  
 Casing Radius: 0.08333 ft  
 Wellbore Radius: 0.3438 ft  
 Well Skin Radius: 0.3438 ft  
 Screen Length: 10. ft  
 Total Well Penetration Depth: 16.31 ft  
 Gravel Pack Porosity: 0.3

No. of observations: 96

Observation Data					
Time (min)	Displacement (ft)	Time (min)	Displacement (ft)	Time (min)	Displacement (ft)
0.001	3.396	0.4178	1.174	2.529	0.518
0.011	1.486	0.4413	1.163	2.678	0.49
0.022	1.456	0.4662	1.154	2.835	0.46
0.033	1.428	0.4925	1.148	3.002	0.433
0.044	1.428	0.5205	1.12	3.168	0.409
0.055	1.411	0.5502	1.109	3.335	0.381
0.066	1.405	0.5815	1.097	3.502	0.358
0.077	1.396	0.6147	1.077	3.668	0.336
0.088	1.386	0.6498	1.064	3.835	0.315
0.099	1.373	0.6872	1.047	4.002	0.298
0.11	1.358	0.7267	1.03	4.168	0.281
0.121	1.358	0.7685	1.011	4.335	0.261
0.132	1.341	0.8128	0.994	4.502	0.246
0.143	1.332	0.8598	0.974	4.668	0.231
0.154	1.326	0.9097	0.955	4.835	0.218
0.165	1.317	0.9623	0.936	5.002	0.206
0.176	1.309	1.018	0.914	5.168	0.193
0.187	1.302	1.077	0.895	5.335	0.182
0.198	1.294	1.14	0.874	5.502	0.169
0.209	1.287	1.206	0.85	5.668	0.161
0.22	1.281	1.277	0.829	5.835	0.15
0.2317	1.272	1.351	0.803	6.002	0.139
0.2442	1.266	1.43	0.78	6.168	0.131
0.2573	1.259	1.514	0.756	6.335	0.124
0.2713	1.251	1.602	0.732	6.668	0.107
0.2862	1.242	1.696	0.709	6.835	0.101
0.3018	1.234	1.796	0.679	7.168	0.088
0.3185	1.225	1.901	0.655	7.335	0.084
0.3362	1.216	2.012	0.625	7.668	0.073
0.3548	1.208	2.131	0.602	8.168	0.06
0.3747	1.197	2.256	0.572	8.502	0.054

<u>Time (min)</u>	<u>Displacement (ft)</u>	<u>Time (min)</u>	<u>Displacement (ft)</u>	<u>Time (min)</u>	<u>Displacement (ft)</u>
0.3957	1.184	2.388	0.546	9.002	0.043

SOLUTION

Aquifer Model: Unconfined  
Solution Method: Bouwer-Rice

VISUAL ESTIMATION RESULTSEstimated Parameters

<u>Parameter</u>	<u>Estimate</u>	
K	0.000324	ft/min
y0	1.41	ft



**APPENDIX K**  
**WELL CONSTRUCTION FORMS**

# **TYPE II MONITORING WELL**

<b>WELL NUMBER</b>  MW-07			
<b>DRILLER</b> Georgia Power <b>DRILLING METHOD</b> HSA 8.25" OD <b>DEVELOPMENT METHOD</b> Pump		<b>TYPE OF SURFACE SEAL</b> Flush  <b>RISER PIPE ID</b> 2" <b>TYPE OF RISER PIPE</b> PVC	
<b>WELL MATERIALS USED</b> FEET OF 5 FOOT RISER _____ FEET OF 10 FOOT RISER 20' FEET OF SCREEN 10' CAPS/PLUGS 1 cap/ 1 plug BAGS OF SAND 10 BAGS OF BENTONITE PELLETS _____ BUCKETS OF BENTONITE PELLETS 1 BAGS OF CEMENT _____ BAGS OF CONCRETE MIX _____ HOLE COVERS _____ OTHER _____		<b>DEPTH OF TOP OF SEAL</b> 13.8' <b>TYPE OF SEAL</b> Bentonite  <b>DEPTH OF TOP OF SAND PACK</b> 15.8'  <b>DEPTH OF TOP OF SCREEN</b> 17.5' <b>DEPTH OF TOP OF GROUNDWATER</b> approx. 22' <b>TYPE OF SCREEN</b> PVC 0.01 slot <b>LENGTH OF SCREEN</b> 15'  <b>DEPTH TO BOTTOM OF SCREEN</b> 32.5' <b>DEPTH TO BOTTOM OF BORING</b> 32.5'	
<b>DATE INSTALLED</b> 08/19/2003	<b>PROJECT NO.</b> 1100-2990	<b>WELL NO.</b> MW-07	<b>Williams Environmental Services, Inc.</b> A Subsidiary of Williams Group International, Inc.



## **APPENDIX L**

# **WATER QUALITY SAMPLING FORMS**

# WATER QUALITY SAMPLING FORM

Client:	MACON II MGP	Project Number:	11002990
Sample Number:	MW-1	Date:	8/20/03
Sample Type:	GROUNDWATER	Time:	
Sampled By:	PNR	Weather:	CLEAR 83°F

## WELL DEVELOPMENT

Depth to Water:	7.32	Well Diameter:	2"
Depth of Well:	17.89		
Height of Water Column:	10.57		
Water Column (gal):			
Gallons Purged:	5.5 GALS (WELL DRY)		

## WATER SAMPLE COLLECTION DATA

Method of Removal:	PUMP	Pump Time:	
Method of Sampling:	PUMP	Pump On:	1057
Time of Sampling:	8/12/03 0830	Pump Off:	1133
	9.06 NTU'S		

## FIELD ANALYSES

	Well Vol. 1	Well Vol. 2	Well Vol. 3	Well Vol. 4	Well Vol. 5
Temperature:	25.8	24.7	24.7	24.5	24.4
pH:	7.44	5.63	5.71	5.05	5.35
Specific Conductance:	21.0 ms/m	21.4	22.2	19.0	20.2
Dissolved Oxygen:	10.24	8.16	7.06	6.58	6.10
Redox Potential:	135	176	178	233	220
Gallons Purged	0	1.0	2.0	3.0	4.0
NTU's	27.6	26.6	12.9	57.2	57.2
Time:	1058	1105	1112	1119	1126

Reason for Sampling:			
Other (Specify):			
Method of Shipment:	HAND DELIVER		
Physical Appearance:	CLEAR W/NO ODOR		
Type of Analysis:	VOC'S	SVOC'S	METALS
Container Size and Type:	2@40ml	2@1liter	500ml
Preservative:	HCL	ICE	HNO3
			NAOH

## REMARKS AND OBSERVATIONS

Well dry @ 5.5 gals. Let recharge overnight. Sampled 8/21/03


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Site Location:	MACON, GA	 Williams Environmental Services, Inc. <small>A Subsidiary of Williams Group International, Inc.</small>
Date:	8/20/03	Project No. 11002990
		Well I.D. MW-1

# WATER QUALITY SAMPLING FORM

Client: MACON II MGP Project Number: 11002990  
Sample Number: MW-1 Date: 8/20/03  
Sample Type: GROUNDWATER Time: \_\_\_\_\_  
Sampled By: PNR Weather: CLEAR 83°F

## WELL DEVELOPMENT

Depth to Water: 7.32 Well Diameter: 2"  
Depth of Well: 17.89  
Height of Water Column: 10.57  
Water Column (gal): \_\_\_\_\_  
Gallons Purged: 5.5 GALS (WELL DRY)

## WATER SAMPLE COLLECTION DATA

Method of Removal: PUMP Pump Time: \_\_\_\_\_  
Method of Sampling: PUMP Pump On: 1057  
Time of Sampling: 8/12/03 0830 Pump Off: 1133  
9.06 NTU'S

## FIELD ANALYSES

	FINAL			
Temperature:	24.2			
pH:	5.24			
Specific Conductance:	19.5			
Dissolved Oxygen:	5.47			
Redox Potential:	231			
Gallons Purged	5.0			
NTU's	>1000			
Time:	1133			

Reason for Sampling: \_\_\_\_\_  
Other (Specify): \_\_\_\_\_  
Method of Shipment: HAND DELIVER  
Physical Appearance: CLEAR W/NO ODOR  
Type of Analysis: VOC'S SVOC'S METALS CN  
Container Size and Type: 2@40ml 2@1liter 500ml 500ml  
Preservative: HCL ICE HNO3 NAOH

## REMARKS AND OBSERVATIONS

Well dry @ 5.5 gals. Let recharge overnight. Sampled 8/21/03

Site Location: MACON, GA

Williams Environmental Services, Inc.  
A Subsidiary of Williams Group International, Inc.



Date:

8/20/03

Project No.

11002990

Well I.D.

MW-1 Pg.2



# WATER QUALITY SAMPLING FORM

Client:	MACON II MGP	Project Number:	11002990
Sample Number:	MW-2	Date:	8/20/03
Sample Type:	GROUNDWATER	Time:	
Sampled By:	PNR	Weather:	SUNNY 83°F

## WELL DEVELOPMENT

Depth to Water:	18.23'	Well Diameter:	2"
Depth of Well:	27.90		
Height of Water Column:	9.67		
Water Column (gal):			
Gallons Purged:	2 GALS.		

## WATER SAMPLE COLLECTION DATA


Method of Removal:	PUMP	Pump Time:	
Method of Sampling:	PUMP	Pump On:	0758
Time of Sampling:	0820	Pump Off:	0820

## FIELD ANALYSES

	Well Vol. 1	Well Vol. 2	FINAL		
Temperature:	24.2	23.7	23.8		
pH:	8.08	7.85	7.80		
Specific Conductance:	84.0 ms/m	83.3	82.9		
Dissolved Oxygen:	4.54	3.08	2.77		
Redox Potential:	-169	-186	-179		
Gallons Purged	0	1.0	2.0		
NTU's	91.1	11.0	4.84		
Time:	0759	0805	0815		

Reason for Sampling:			
Other (Specify):			
Method of Shipment:	HAND DELIVER		
Physical Appearance:	CLEAR W/NO ODOR		
Type of Analysis:	VOC'S	SVOC'S	METALS
Container Size and Type:	2@40ml	2@1liter	500ml
Preservative:	HCL	ICE	HNO3
			NAOH

## REMARKS AND OBSERVATIONS


Site Location:	MACON, GA	 Williams Environmental Services, Inc. <small>A Subsidiary of Williams Group International, Inc.</small>
Date:	8/20/03	Project No.
		11002990
		Well I.D.
		MW-2

# WATER QUALITY SAMPLING FORM

Client:	MACON II MGP	Project Number:	11002990
Sample Number:	MW-3 DUP082003	Date:	8/20/03
Sample Type:	GROUNDWATER	Time:	
Sampled By:	PNR	Weather:	SUNNY 90°F

## WELL DEVELOPMENT

Depth to Water:	22.00'	Well Diameter:	2"
Depth of Well:	30.30		
Height of Water Column:	8.3		
Water Column (gal):			
Gallons Purged:	2 GALS.		

## WATER SAMPLE COLLECTION DATA

Method of Removal:	PUMP	Pump Time:	
Method of Sampling:	PUMP	Pump On:	1234
Time of Sampling:	1300	Pump Off:	1300

## FIELD ANALYSES

	Well Vol. 1	Well Vol. 2	FINAL		
Temperature:	26.3	22.6	22.4		
pH:	6.70	6.81	6.84		
Specific Conductance:	.128 ms/m	.128	.128		
Dissolved Oxygen:	9.26	6.26	5.17		
Redox Potential:	-126	-132	-137		
Gallons Purged	0	1.0	2.0		
NTU's	35.8	6.97	3.44		
Time:	1235	1244	1253		

Reason for Sampling:			
Other (Specify):			
Method of Shipment:	HAND DELIVER		
Physical Appearance:	CLEAR W/NO ODOR		
Type of Analysis:	VOC'S	SVOC'S	METALS
Container Size and Type:	2@40ml	2@1liter	500ml
Preservative:	HCL	ICE	HNO3

## REMARKS AND OBSERVATIONS


Site Location:	MACON, GA	<b>Williams Environmental Services, Inc.</b> <small>A Subsidiary of Williams Group International, Inc.</small>
Date:	8/20/03	Project No.
		11002990
		Well I.D.
		MW-3 DUP

# WATER QUALITY SAMPLING FORM

Client:	MACON II MGP	Project Number:	11002990
Sample Number:	MW-4	Date:	8/20/03
Sample Type:	GROUNDWATER	Time:	
Sampled By:	PNR	Weather:	SUNNY 91°F

## WELL DEVELOPMENT

Depth to Water:	22.75'	Well Diameter:	2"
Depth of Well:	32.85		
Height of Water Column:	10.1		
Water Column (gal):			
Gallons Purged:	3 GALS.		

## WATER SAMPLE COLLECTION DATA

Method of Removal:	PUMP	Pump Time:	
Method of Sampling:	PUMP	Pump On:	1347
Time of Sampling:	1415	Pump Off:	1415

## FIELD ANALYSES

	Well Vol. 1	Well Vol. 2	Well Vol. 3	FINAL	
Temperature:	23.3	22.4	22.4	22.4	
pH:	7.55	7.51	7.56	7.55	
Specific Conductance:	.137 s/m	131	.129	128	
Dissolved Oxygen:	9.39	6.75	5.42	5.40	
Redox Potential:	-194	-191	-194	-195	
Gallons Purged	0	1.0	2.0	3.0	
NTU's	37.4	10.9	4.63	4.38	
Time:	1349	1356	1404	1411	

Reason for Sampling:			
Other (Specify):			
Method of Shipment:	HAND DELIVER		
Physical Appearance:	CLEAR W/NO ODOR		
Type of Analysis:	VOC'S	SVOC'S	METALS
			CN
Container Size and Type:	2@40ml	2@1liter	500ml
			500ml
Preservative:	HCL	ICE	HNO3
			NAOH

## REMARKS AND OBSERVATIONS

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Site Location: MACON, GA

Williams Environmental Services, Inc.  
A Subsidiary of Williams Group International, Inc.



Date:	Project No.	Well I.D.
8/20/03	11002990	MW-4

# WATER QUALITY SAMPLING FORM

Client:	MACON II MGP	Project Number:	11002990
Sample Number:	MW-5	Date:	8/20/03
Sample Type:	GROUNDWATER	Time:	
Sampled By:	PNR	Weather:	CLEAR 75°F

## WELL DEVELOPMENT

Depth to Water:	19.17'	Well Diameter:	2"
Depth of Well:	30.20		
Height of Water Column:	11.03		
Water Column (gal):			
Gallons Purged:	8 GALS.		

## WATER SAMPLE COLLECTION DATA


Method of Removal:	PUMP	Pump Time:	
Method of Sampling:	PUMP	Pump On:	0642
Time of Sampling:	0745	Pump Off:	0745

## FIELD ANALYSES

	Well Vol. 1	Well Vol. 2	Well Vol. 3	Well Vol. 4	FINAL
Temperature:	23.3	22.6	22.6	22.6	22.6
pH:	7.71	7.78	7.80	7.82	7.82
Specific Conductance:	.103 s/m	.104	.103	.099	.099
Dissolved Oxygen:	6.56	3.96	3.47	3.29	3.27
Redox Potential:	-177	-223	-224	-224	-224
Gallons Purged	0	2.0	4.0	6.0	8.0
NTU's	22.8	19.3	15.8	10.4	4.46
Time:	0643	0704	0721	0732	0745

Reason for Sampling:			
Other (Specify):			
Method of Shipment:	HAND DELIVER		
Physical Appearance:	CLEAR W/NO ODOR		
Type of Analysis:	VOC'S	SVOC'S	METALS
Container Size and Type:	2@40ml	2@1liter	500ml
Preservative:	HCL	ICE	HNO3
			NAOH

## REMARKS AND OBSERVATIONS


Site Location:	MACON, GA	
		<small>Williams Environmental Services, Inc. A Subsidiary of Williams Group International, Inc.</small>
Date:	Project No.	Well I.D.
8/20/03	11002990	MW-5

# WATER QUALITY SAMPLING FORM

Client: MACON II MGP Project Number: 11002990  
Sample Number: MW-6 Date: 8/21/03  
Sample Type: GROUNDWATER Time: \_\_\_\_\_  
Sampled By: PNR Weather: CLEAR 85°F

## WELL DEVELOPMENT

Depth to Water: 35.28' Well Diameter: 2"  
Depth of Well: 50.20  
Height of Water Column: 14.92  
Water Column (gal): \_\_\_\_\_  
Gallons Purged: 3.0 GALS.

## WATER SAMPLE COLLECTION DATA

Method of Removal: PUMP Pump Time: \_\_\_\_\_  
Method of Sampling: PUMP Pump On: 0739  
Time of Sampling: 0815 Pump Off: 0815

## FIELD ANALYSES

	Well Vol. 1	Well Vol. 2	Well Vol. 3	FINAL	
Temperature:	23.0	22.0	22.0	22.1	
pH:	7.09	6.53	6.51	6.51	
Specific Conductance:	43.3 ms/m	42.9	42.7	42.6	
Dissolved Oxygen:	6.24	4.33	4.30	4.29	
Redox Potential:	-35	-32	-29	-27	
Gallons Purged	0	1.0	2.0	3.0	
NTU's	62.2	14.3	10.7	4.46	
Time:	0740	0748	0756	0805	

Reason for Sampling: \_\_\_\_\_  
Other (Specify): \_\_\_\_\_  
Method of Shipment: HAND DELIVER  
Physical Appearance: CLEAR W/NO ODOR  
Type of Analysis: VOC'S SVOC'S METALS CN  
Container Size and Type: 2@40ml 2@1liter 500ml 500ml  
Preservative: HCL ICE HNO3 NAOH

## REMARKS AND OBSERVATIONS

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Site Location: MACON, GA

Williams Environmental Services, Inc.  
A Subsidiary of Williams Group International, Inc.



Date:

8/21/03

Project No.

11002990

Well I.D.

MW-6



# WATER QUALITY SAMPLING FORM

Client:	MACON II MGP	Project Numb	11002990
Sample Number:	MW-7	Date:	8/21/03
Sample Type:	GROUNDWATER	Time:	
Sampled By:	PNR	Weather:	CLEAR 75°F

## WELL DEVELOPMENT

Depth to Water:	21.45'	Well Diameter	2"
Depth of Well:	34.83		
Height of Water Column:	13.38		
Water Column (gal):			
Gallons Purged:	8.0 GALS.		

## WATER SAMPLE COLLECTION DATA

Method of Removal:	PUMP	Pump Time:	
Method of Sampling:	PUMP	Pump On:	0538
Time of Sampling:	0650	Pump Off:	0650

## FIELD ANALYSES

	Well Vol. 1	Well Vol. 2	Well Vol. 3	Well Vol. 4	FINAL
Temperature:	24.2	24.1	24.1	24.1	24.1
pH:	7.91	7.32	7.18	7.14	7.14
Specific Conductance:	84.9 ms/m	85.0	91.0	93.3	93.4
Dissolved Oxygen:	5.45	4.01	3.46	3.14	3.12
Redox Potential:	-168	-165	-156	-154	-154
Gallons Purged	0	2.0	4.0	6.0	8.0
NTU's	34.7	268	31.3	16.1	4.98
Time:	0538	0552	0608	0623	0646

Reason for Sampling:	
Other (Specify):	
Method of Shipment:	HAND DELIVER
Physical Appearance:	CLEAR W/NO ODOR
Type of Analysis:	VOC'S      SVOC'S      METALS      CN
Container Size and Type:	2@40ml      2@1liter      500ml      500ml
Preservative:	HCL      ICE      HNO3      NAOH

## REMARKS AND OBSERVATIONS

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Site Location: MACON, GA

Williams Environmental Services, Inc.  
A Subsidiary of Williams Group International, Inc.



Date:

8/21/03

Project No.

11002990

Well I.D.

MW-7

## **APPENDIX M**

# **POTENTIAL RECEPTOR STUDY**

# SECTION 1

## INTRODUCTION

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The Hazardous Site Response Act (HSRA) Rules (GEPD, 2003) allow for the determination of Risk Reduction Standards (RRS) that are protective of human health and the environment. Regulated substances identified at a given site must be compared with appropriate RRS that are based on property use (i.e., residential or non-residential) and, when applicable, site specific conditions. The five types of RRS against which a site's compliance status may be evaluated are described below:

**Type 1** - standardized exposure assumptions for residential properties;

**Type 2** - site-specific exposure determinations for residential properties;

**Type 3** - standardized exposure assumptions for non-residential properties;

**Type 4** - site-specific exposure determinations for non-residential properties; and

**Type 5**- restricted exposure assumptions evolving from engineering and institutional controls, such as caps, slurry walls, fences, deed restrictions, etc., to minimize exposure on properties where it is not appropriate and/or practical to apply Types 1 through 4 RRS.

The Macon 2 former Manufactured Gas Plant (MGP) facility is located on a 2.5-acre parcel, southeast of Spring Street between Riverside Drive and the Ocmulgee River in Macon, Georgia. The property is currently owned by the City of Macon and is used by the City of Macon to house the Electrical Service Shop. Facilities at the property include a combined office/service shop, equipment storage area, a warehouse and an employee parking lot. The majority of the property is covered with asphalt.

The Macon Transit Authority Bus Garage is located to the south of the former MGP facility. A Burger King restaurant, an Exxon service station and a Pizza Hut restaurant are located to west of the former MGP facility. The Norfolk Southern Railroad abuts the property to the northeast. The Ocmulgee River is located approximately 250 feet east of the Macon 2 former MGP facility.

The derivation of RRS and an ecological receptor evaluation were performed for an area encompassed by Macon 2 former MGP facility as well as all properties potentially affected by former MGP operations. Henceforth this area will be called the Site. The results of the Compliance Status Investigation (CSI) conducted by Williams Environmental Services, Inc., from February through April, 2001 and August 2003, revealed the presence of 35 regulated substances in soils and/or groundwater beneath the Site. The maximum concentrations of regulated substances detected in soil and groundwater were compared with Types 1 through 4 RRS to determine Site compliance. All four types of RRS are potentially applicable for the Site because the former Macon 2 MGP facility is located or adjacent to areas zoned for commercial, industrial as well as residential use and the future use of these areas is expected to remain the same. Type 5 RRS were not considered for this Site.

## SECTION 2

# RISK REDUCTION STANDARDS

The following section presents methods used to calculate RRS for the constituents of interest (COIs) detected in soil and groundwater.

### 2.1 SOIL

The equations employed in calculating Types 1 through 4 RRS for COI detected in Site soils are presented below. The assumptions employed in derivation of each type of RRS are discussed in Sections 2.1.1 through 2.1.4.

#### Non-carcinogenic Effects:

$$C_{\text{soil}} = \frac{HI * BW * AT * 365 \text{ days/year}}{ED * EF * [(1/RfD_o * CF * IR) + (1/RfD_i * IR_a * (1/VF + 1/PEF))]}$$

#### Carcinogenic Effects:

$$C_{\text{soil}} = \frac{TR * BW * AT * 365 \text{ days/year}}{ED * EF * [CSF_o * CF * IR) + (CSF_i * IR_a * (1/VF + 1/PEF))]}$$

Where:

$C_{\text{soil}}$  = Concentration of a contaminant in soil (mg/kg)

HI = Hazard Index

BW = Body Weight (kg)

AT = Averaging Time, non-carcinogenic effects (years)

AT = Averaging Time, carcinogenic effects (years)

ED = Exposure Duration (years)

EF = Exposure Frequency (days/year)

$RfD_o$  = Oral Reference Dose (mg/kg-d)

CF = Conversion Factor (kg/mg)

IR = Ingestion Rate (mg/day)

$RfD_i$  = Inhalation Reference Dose (mg/kg-d)

$IR_a$  = Inhalation rate ( $m^3$ /day)

VF = Volatilization Factor ( $m^3$ /kg)

PEF = Particulate Emission Factor ( $m^3$ /kg)

$CSF_o$  = Oral Cancer Slope Factor (mg/kg-d) $^{-1}$

$CSF_i$  = Inhalation Cancer Slope Factor (mg/kg-d) $^{-1}$

#### 2.1.1 TYPE 1 RISK REDUCTION STANDARDS

Type 1 RRS (generic residential) for soil were developed for the Site in accordance with HSRA Rule 391-3-19-.07(6) by selecting the smallest concentration fitting the following criteria:

1. The highest value of:
  - (a) Soil concentrations that trigger notification requirements (Appendix I of HSRA Rules);
  - (b) 100-times the Type I groundwater criteria listed in Appendix III, Table 1 of the HSRA Rules; and
  - (c) Type 1 soil criteria listed in Appendix III, Table 2 of the HSRA Rules
2. The non-cancer effects RRS, as calculated by equation 7 from Part B of the Risk Assessment Guidance (RAGS)

- Part B; USEPA, 1991); and
3. The carcinogenic effects RRS as calculated by equation 6 from RAGS Part B.

The equations used to calculate Type 1 RRS concentrations for non-carcinogenic and carcinogenic effects (i.e., RAGS Part B equation 7 and equation 6, respectively; USEPA, 1991a) are presented in Section 2.1. Type 1 RRS concentrations are calculated based on residential adult exposure via incidental ingestion of soil and inhalation of particulates and volatile compounds. The default exposure parameters used to calculate Type 1 RRS were obtained from Table 3 of Appendix III of HSRA Rules (GEPD, 2003) and included the following: 70 kilograms (Kg) body weight for an adult, 30 years exposure duration, 350 days per year frequency of exposure and 114 mg/day for an incidental ingestion of soil. The inhalation rate for adult residential receptors used was 20 m<sup>3</sup>/day. The soil-to-air volatilization factors for volatile compounds were derived according to an equation presented in the footnote to Table 3, Appendix III of the HSRA Rules. Physical and chemical properties of the regulated substances required to derive the volatilization factor for each compound such as diffusivity in air (D<sub>i</sub>), Henry's Law Constant (H), and the organic partitioning coefficient (K<sub>oc</sub>) were obtained from widely cited USEPA sources and are presented in Table 1. The particulate emission factor of 4.63 x 10<sup>-9</sup> m<sup>3</sup>/Kg used in calculating fugitive dust emission for each compound was obtained from Appendix III of the HSRA Rules.

Toxicity values of regulated compounds [i.e., the cancer slope factors (CSFs), used to assess potential carcinogenic effects risks, and reference doses (RfDs), used to assess non-carcinogenic effects], are employed in the derivation of RRS. These toxicity values were primarily obtained from the United States Environmental Protection Agency (USEPA) Integrated Risk Information System (IRIS, 2001). When toxicity values were not available in IRIS, other sources of information were used. These include Health Effects Assessment Tables (USEPA, 1997) and the National Center for Environmental Assessment. These sources of toxicity data have been accepted by the GEPD in the past. Toxicity values used in derivation of RRS are presented in Table 2.

Table 3 presents a comparison of maximum detected concentrations of COIs in soil to Type 1 RRS. Eleven COIs [benzo(a)anthracene, benzo(a)pyrene, benzo(b)fluoranthene, benzo(k)fluoranthene, chrysene, dibenzo(a,h)anthracene, indeno(1,2,3-cd)pyrene, arsenic, lead, mercury, and zinc) exceeded Type 1 RRS.

### 2.1.2 Type 2 Risk Reduction Standards

Residential exposure factors were used to calculate the Type 2 RRS for COIs detected in Site soils through incidental ingestion of soils and inhalation of volatile compounds and fugitive dust. Since the vicinity of the Site is inhabited by both adults and children, Type 2 RRS concentrations were calculated for each of these receptor populations separately and the lesser of the two values was taken as the Type 2 RRS. The exposure factors used to calculate Type 2 RRS included: 70 Kg body weight for an adult and 15 Kg for a child, 30 years exposure duration for an adult and 6 years for a child, and incidental soil ingestion rates of 100 mg/day for an adult and 200 mg/day for a child. The inhalation rate for adult residential receptors used was 20 m<sup>3</sup>/day and 15 m<sup>3</sup>/day for a child. It was also assumed that



residents would be at home 350 days per year. The equations used in the derivation of Type 2 RRS are presented in Section 2.1 and the Type 2 RRS for the 35 COI are presented in Table 4.

Type 2 RRS cannot be calculated for lead because toxicity values are not available for this metal. A better prediction of potential exposure for lead is obtained through determining blood lead levels of exposed populations. Sensitive populations include preschool-age children and fetuses. In children, a blood lead level of 10 micrograms per deciliter (ug/dL) has been identified as a level at which no adverse effects would be expected (Centers for Disease Prevention and Control, 1985).

The Type 2 RRS for lead in soil was determined to be 400 mg/Kg based on the concentration in soil that triggers a notification concentration under HSRA. A cleanup target level of 400 mg/Kg for lead was also established by the Office of Solid Waste and Emergency Response as presented in the "Interim Guidance on Establishing Soil Lead Cleanup Levels at RCRA Facilities" (USEPA, 1994a). A concentration of 400 mg/Kg lead in soil is also supported by the USEPA's Integrated Exposure Uptake Model for Lead in Children (IEUBK; USEPA, 1994b). The IEUBK predicts that 400 mg/Kg lead in soil would cause 6 year old child to have a probability of no greater than 5 percent of a blood lead level of 10 ug/dL assuming exposure to Site soil and groundwater and other media not necessarily related to the Site such as food and maternal milk.

The comparison of maximum detected soil concentrations of COIs with Type 2 RRS (Table 3) indicated that benzo(a)anthracene, benzo(a)pyrene, benzo(b)fluoranthene, dibenzo(a,h)anthracene, indeno(1,2,3-cd)pyrene, arsenic and lead exceeded Type 2 RRS.

### **2.1.3 Type 3 Risk Reduction Standards**

Compounds that exceeded Type 2 RRS for soil were evaluated for compliance with Type 3 RRS. Type 3 RRS (generic non-residential) for soil were developed for the Site by selecting the highest concentration among the following criteria:

1. Soil concentrations that trigger notification requirements (Appendix I of HSRA Rules);
2. 100-times the Type I groundwater criteria listed in Appendix II, Table 1 of the HSRA Rules;
3. For lead, 400 mg/kg
4. Type 1 soil criteria listed in Appendix III, Table 2 of the HSRA Rules; and
5. For constituents detected in the top two feet of soil (surface soil) the lower of:
  - (a) the non-cancer effects RRS as calculated by equation 7 from RAGS Part B; and
  - (b) The carcinogenic effects RRS as calculated by equation 6 from RAGS Part B.

Type 3 RRS concentrations for carcinogenic and non-carcinogenic effects were calculated based on the exposed commercial/industrial worker scenario. Default exposure parameters for non-residential exposures obtained from Table 3, Appendix III of the HSRA Rule were applied in these calculations. The exposure factors include the following; 70 Kg body weight, 25 years exposure duration, 250 days per year as frequency of exposure, incidental soil ingestion rate of 50 mg/day, and inhalation rate of 20 m<sup>3</sup>/day. It was also assumed that workers would be at work for 8 hours per day and 5

days per week

As indicated in Table 5, no COI detected in surface soils (i.e., soil depth interval of 0-2 feet bgs.) exceeded Type 3 RRS for surface soils. The maximum detected concentrations of benzo(a)anthracene, benzo(a)pyrene, benzo(b)fluoranthene, indeno(1,2,3-cd)pyrene, and lead in deep soils (i.e., soil depth interval greater than 2 feet) exceeded Type 3 RRS for deep soils.

#### **2.1.4 Type 4 Risk Reduction Standards**

Exposure factors for commercial land use were employed to derive RRS for surface soils. For soils deeper than 2 feet, RRS were derived based on a construction worker scenario. Since commercial and/or industrial use of the Site is anticipated to continue, industrial exposure scenario is a conservative assumption for the surface soils at the Site and provides an adequate level of protection for potentially exposed populations. In the future, construction or excavation might be performed at the Site, therefore, the RRSs developed for deep soils based on construction worker scenario are also appropriate. During construction and/or excavation activities, workers might potentially come to contact with contaminants in soils below ground surface. Type 4 RRS are presented in Table 6. The exposure parameters used for a commercial worker scenario are the same as those used for derivation of Type 3 RRS. Exposure parameters used in derivation of Type 4 RRSs for construction worker scenario differ in incidental ingestion of soil, 330 mg/day (USEPA, 2001), and duration of exposure, assumed to be 0.5 years based on best professional judgment that subsurface construction activities would not be expected to last more than a half a year. Therefore, construction workers would not likely be exposed to site COI in the subsurface soils greater than a 0.5 years.

The Type 4 RRS for lead in soil was calculated using the Georgia Adult Lead Model (GALM) that was finalized in November 1999. The GALM was based on USEPA's methodology for assessing risk associated with adult exposures to lead known as the "adult lead model" (USEPA, 1996). Like the adult lead model, the GALM is based on the protection of fetal blood levels. However, the GALM considers intakes from both soil and groundwater. The approach used by the GALM relates intake of lead from soil and groundwater to blood lead concentrations in women of child-bearing age who might spend considerable time at the Site (GEPD, 1998). Protection of the blood lead of a hypothetical fetus ensures that any other person working the site will be adequately protected. For the Macon 2 former MGP facility, the Type 4 RRS for lead was calculated using the GALM that employed parameters presented in the HSRA Rules. The site-specific input parameter is the concentration of lead detected in groundwater beneath the Site. The analytical groundwater data indicated that lead was not detected at the Site. Therefore, the detection limit (0.01 mg/L) was used as the lead groundwater concentration in the GALM. The equations employed in derivation of Type 4 RRS for lead are presented in Table 7. The derived Type 4 RRS for lead is 1,429 mg/kg and is the same for both receptors (i.e., commercial and construction worker).

The HSRA regulations indicate that in addition to being protective of human health, Type 4 RRSs for soil should not cause impacts to groundwater above Type 4 RRSs established for groundwater. For those COI which did not exceed

Type 3 soil RRS, the Type 4 soil RRS was defaulted to the Type 3 RRS. Most of the COI were in compliance with more restrictive RRSs. Therefore, leachability studies were performed for only those COI which exceeded Type 3 RRS for soil, and the Type 4 RRSs have been adjusted accordingly. Section 9.5.1.2 of the CSR discusses the leachability study.

Comparison of the maximum detected concentrations of COI in soils (Table 5) indicated that no COIs exceeded Type 4 RRS and, therefore, the Site is in compliance with Type 4 RRS.

## 2.2 GROUNDWATER

The equations employed in calculating Types 1 through 4 RRS for contaminants detected in Site groundwater are presented below. The assumptions used in derivation of each type of RRS are discussed in Sections 2.2.1 and 2.2.4.

### Non-carcinogenic Effects:

$$C_{\text{groundwater}} = \frac{HI \cdot BW \cdot AT \cdot 365 \text{ days/year}}{ED \cdot EF \cdot [(1/RfD_o \cdot IR_w) + (1/RfD_i \cdot K \cdot IR_a)]}$$

### Carcinogenic Effects:

$$C_{\text{groundwater}} = \frac{TR \cdot BW \cdot AT \cdot 365 \text{ days/year}}{ED \cdot EF \cdot [CSF_o \cdot IR_w + (CSF_i \cdot K \cdot IR_a)]}$$

### Where:

$C_{\text{groundwater}}$  = Concentration of a contaminant in groundwater (mg/l)

HI = Hazard Index

BW = Body Weight (kg)

AT = Averaging Time, non-carcinogenic effects (years)

AT = Averaging Time, carcinogenic effects (years)

ED = Exposure Duration (years)

EF = Exposure Frequency (days/year)

$RfD_o$  = Oral Reference Dose (mg/kg-d)

$IR_w$  = Ingestion Rate (l/day)

$RfD_i$  = Inhalation Reference Dose (mg/kg-d)

$IR_a$  = Inhalation rate ( $m^3$ /day)

K = Volatilization Factor (unitless)

$CSF_o$  = Oral Cancer Slope Factor (mg/kg-d)<sup>-1</sup>

$CSF_i$  = Inhalation Cancer Slope Factor (mg/kg-d)<sup>-1</sup>

### 2.2.1 Types 1 and 3 Risk Reduction Standards

Type 1 RRSs apply at any point where groundwater has been affected by a release. To be in compliance, concentrations of COI in groundwater shall not exceed concentrations given in Table 1 of Appendix III of the HSRA Rules or, for those substances not listed, the background or detection limit concentration. If two or more regulated

organic compounds are present in groundwater, their sum in a single sample shall not exceed 10 mg/L if the Table 1 value for each compound is less than 5 mg/L, or, where at least one compound has a Table 1 value greater than or equal to 5 mg/L, the sum of the concentrations shall not exceed the maximum Table 1 value for a detected compound plus 10 mg/L.

No COI were detected in groundwater beneath the Site at concentrations exceeding their respective Type 1 RRS (Table 8). Therefore, groundwater at the Site is in compliance with Type 1 RRSs.

### **2.2.2 Type 2 Risk Reduction Standards**

The groundwater Types 2 and 4 RRS concentrations for carcinogenic and non-carcinogenic effects were calculated using Equations 1 and 2, respectively from RAGS Part B. These equations are presented in Section 2.2. Residential exposure factors were used to calculate Type 2 RRSs for COI detected in groundwater. The Type 2 RRSs are based on potential residential exposure of both children and adult populations. The Type 2 RRSs take under account that groundwater might be used as a source of potable water. Accordingly, exposure through ingestion of groundwater and inhalation of volatile compounds are considered as potential exposure pathways. The exposure factors used to calculate Type 2 RRSs are obtained from Appendix III, Table 3 of the HSRA Rules. Water intake rates for adult and child were assumed to be 2 L/day and 1 L/day, respectively. The remaining exposure factors (i.e., body weight of adult and child receptor, exposure frequency and duration of exposure etc.) were the same as the ones used to calculate residential (Type 2) RRS for soil.

RAGS Equations 1 and 2 include a default water-air volatilization factor of 0.5 L/m<sup>3</sup> for compounds that easily evaporate from water. Based on RAGS Part B this volatilization factor is only applicable to chemicals with Henry's Law constant of greater than  $1 \times 10^{-5}$  atm-m<sup>3</sup>/mole. Accordingly, the volatilization potential for compounds that did not meet these criteria were not included in the derivation of groundwater RRSs.

Type 2 RRS are presented in Table 9. Comparison of maximum detected concentrations of COI in groundwater with Type 2 RRS indicate that no COI were detected in groundwater exceeding a Type 2 RRS (Table 8).

### **2.2.3 Type 3 Risk Reduction Standards**

The Type 3 RRS criteria for groundwater are the same as the Type 1 RRS (see Section 2.2.1). As indicated in Table 10, concentrations of COI in groundwater are below the Type 3 RRSs.

### **2.2.4 Type 4 Risk Reduction Standards**

Non-residential exposure factors based on a commercial worker scenario were used to calculate Type 4 RRS concentrations for COIs detected in groundwater beneath the Site. Under the commercial worker scenario it was assumed that persons working at the Site might be exposed to groundwater through ingestion of 1 liter of water per day and through inhalation of volatile compounds. All the other exposure intakes such are the same as those used for

calculation of Types 4 RRS for soil. Derived Type 4 RRSs for COI are presented in Table 11. No COI detected in groundwater exceeded Type 4 RRSs for groundwater (Table 10).



## SECTION 3

# ECOLOGICAL RECEPTORS EVALUATION

The following section identifies ecological receptors likely to be present at the Site and its vicinity and evaluates potential pathways whereby local fauna and flora might be exposed to contaminants detected in Site soils and groundwater.

### 3.1 ECOLOGICAL SETTING

The former Macon 2 MGP facility is located in an area developed largely for industrial and commercial use. Due to its location and use, there are no suitable (natural) ecological habitats at the Site. The Site is comprised of buildings and open areas mostly covered by asphalt and/or concrete. The Site is located approximately 250 feet from the Ocmulgee River. The stretch of Ocmulgee River that lies adjacent to the former Macon 2 MGP facility is located in the industrial area. The banks of the river are densely vegetated by shrubs, grasses and mixed hardwood and pine trees. Bottomland hardwood habitats are limited to a narrow strip of land along the river banks due to proximity of urban and industrial/commercial areas. Trees commonly observed in areas adjacent to the site include loblolly-shortleaf pine, oak, hickory, sweet gum, yellow poplar, elm, maple and white ash. The plants sighted in the area include wild black cherry, passion flower, Catesby's trillium and mountain laurel. Reptiles commonly found in this part of Georgia include timber rattlesnakes, kingsnakes, cottonmouth, copperhead, and the black rat snakes and these may be present in this area. Common birds found in this area include red-tailed hawk, northern bobwhite, summer tanager, blue jay, downy woodpecker, dove, wood duck and snowy egret. Small wildlife such as grey squirrels, opossums and chipmunks are expected to inhabit this area. This area is also a suitable habitat for white-tailed deer, raccoons and cottontail rabbits.

The Ocmulgee River at Macon passes through the downtown area and is approximately 280 feet wide. The river provides habitat for a variety of aquatic species such as striped bass, largemouth bass, catfish, common carp and black and white crappie as well as a variety of mussels.

### 3.2 THREATENED AND ENDANGERED SPECIES

Based on information obtained from the Georgia Natural Heritage, and the U.S. Fish and Wildlife databases, several federal endangered and threatened plant and animal species are listed (Table 12) for Bibb County and adjacent counties (Crawford, Houston, Jones, Monroe, Peach and Twiggs) and may, therefore, potentially inhabit this area. The endangered and threatened animal species include bald eagle, (*Haliaeetus leucocephalus*), wood stork (*Mycteria americana*), red-cockaded woodpecker (*Picoides borealis*), Eastern indigo snake (*Drymarchon corais couperi*), Barbour's map turtle (*Graptemys barbouri*), alligator snapping turtle (*Macrolemys temmincki*) and gopher tortoise (*Gopherus polyphemus*). The endangered and threatened plant species include sweet pitcher-plant (*Sarracenia rubra*), fringed campion (*Silene polypetala*), Shoals spider-lily (*Hymenocallis coronaria*), Ocmulgee skullcap (*Scutellaria ocmulgee*), green pitcher-plant (*Sarracenia rubra*), Indian olive (*Nestronia umbellula*) and relict trillium (*Trillium reliquum*). Aquatic species listed as threatened and endangered species that may inhabit the stretch of Ocmulgee River

adjacent to the Site include bluestripe shiner (*Cyprinella callitaenia*), purple bankclimber mussel (*Elliptoideus sloatianus*), shiny-rayed pocketbook mussel (*Lampsilis subangulata*), Gulf moccasinshell mussel (*Medionidus pencillatus*) and oval pigtoe mussel (*Pleurobema pyriforme*).

### 3.3 POTENTIAL EXPOSURE

The potential for exposure of ecological species to contaminants detected in soil and groundwater at the Site is low. Terrestrial wildlife is not likely to enter the Site because the Site is covered by buildings and pavement and therefore does not provide a suitable habitat for wildlife. The Ocmulgee River and areas adjacent to the River present a suitable habitat for aquatic birds, fish and terrestrial wildlife. These receptors could potentially be exposed to contaminants in surface soils through ingestion of soil, dermal contact and inhalation of fugitive dust. However, ecological receptors are not likely to be affected by contaminants detected in the Site soils because the Site is currently paved and, therefore, there are no mechanisms for transport of soil contaminants (i.e., via surface water runoff or through fugitive emissions) from the Site. Contaminants detected in groundwater beneath the Site might potentially discharge to surface waters in Ocmulgee River. However, the impact on Ocmulgee River is expected to be low because all of the COIs detected in groundwater are below Type 1 RRS (see Section 2.2). In addition, the extent of COI in groundwater has been delineated to background levels and does not extend to the river.

## SECTION 4

# REFERENCES

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U.S. Environmental Protection Agency (USEPA), 1994b. Guidance Manual for the Integrated Exposure Uptake Biokinetic Model. OSWER Directive #9285.7-15.1, BB93-963510, February 1994.

U.S. Environmental Protection Agency (USEPA), 1996. Methodology for Assessing Risk Associated with Adult Exposure to Lead in Soil.

U.S. Environmental Protection Agency (USEPA), 2001. Supplemental Guidance for Developing Soil Screening Levels for Superfund Sites - Draft.

TABLE 1  
PHYSICAL AND CHEMICAL PROPERTIES OF CONSTITUENTS OF INTEREST  
Former Macon 2 Manufactured Gas Plant Facility  
Macon, Georgia

Parameter	Di (cm <sup>2</sup> /sec)	H (atm-m <sup>3</sup> /mol)	Koc (cm <sup>3</sup> /g)	VF (m <sup>3</sup> /kg)
<b>VOCs</b>				
Benzene	0.088	5.60E-03	55.1	2.76E+03
Carbon Disulfide	0.104	3.00E-02	66.2	1.12E+03
Ethylbenzene	0.075	7.88E-03	341	6.36E+03
Methylene Chloride	1.01E-01	2.20E-03	12.80	1.95E+03
Toluene	0.087	6.60E-03	165	4.47E+03
Xylenes	0.0769	7.30E-03	341	6.53E+03
<b>Semi-VOCs</b>				
Acenaphthene	0.0421	1.60E-04	6820	2.68E+05
Acenaphthylene	0.06703	1.10E-04	10700	3.21E+05
Anthracene	0.0324	6.50E-05	26500	9.44E+05
Fluorene	0.0363	6.40E-05	13500	6.42E+05
Naphthalene	0.059	4.80E-04	1780	6.64E+04
Phenanthrene	0.0543	2.56E-05	26500	1.16E+06

Superfund Chemical Data Marix, EPA, 1996.

**Derivation Of VF Values (Soil-to-Air Volatilization Factor):**

$$VF(m^3/kg) = \frac{(LS \times V \times DH)}{A} \times \frac{(\pi \times \alpha \times T)^{1/2}}{(2 \times D_{el} \times E \times K_{as} \times 10^{-3} \text{ kg/g})}$$

where:

LS = length of side of contaminated area (m):	45
V = wind speed in mixing zone (m/s):	2.25
DH = diffusion height (m):	2
A = area of contamination (cm <sup>2</sup> )	2.03E+07
π = pi:	3.1415927
α = (cm <sup>2</sup> /s):	(D <sub>el</sub> × E)/(E + (ρ <sub>s</sub> × ((1-E)/K <sub>as</sub> )))
T = exposure interval (s), industrial:	7.88E+08
ρ <sub>s</sub> = density of soil solids (g/cm <sup>3</sup> ):	2.65
OC = soil organic carbon content fraction (unitless):	0.02
D <sub>el</sub> = effective diffusivity (cm <sup>2</sup> /s):	D <sub>i</sub> × E <sup>0.33</sup>
D <sub>i</sub> = molecular diffusivity (cm <sup>2</sup> /s):	chemical-specific
E = total soil porosity (unitless):	0.35
K <sub>as</sub> = soil/air partition coefficient (g soil/cm <sup>3</sup> air):	(H/K <sub>d</sub> ) × 41
H = Henry's law constant (atm-m <sup>3</sup> /mol):	chemical-specific
K <sub>d</sub> = soil-water partition coefficient (cm <sup>3</sup> /g):	K <sub>oc</sub> × OC
K <sub>oc</sub> = organic carbon partition coefficient (cm <sup>3</sup> /g):	chemical-specific

m = meter

s = second

cm = centimeter

g = gram

atm-m<sup>3</sup>/mol = atmospheres-cubic meters per mole

**TABLE 2**  
**CANCER SLOPE FACTORS AND REFERENCE DOSES FOR CONSTITUENTS OF INTEREST**  
Former Macon 2 Manufactured Gas Plant Facility  
Macon, Georgia

Parameter	RfD <sub>o</sub> (mg/kg-d)		RfD <sub>i</sub> (mg/kg-d)		CSF <sub>o</sub> (mg/kg-d) <sup>-1</sup>		CSF <sub>i</sub> (mg/kg-d) <sup>-1</sup>	
<b>VOCs</b>								
Benzene	4.00E-03	a	8.60E-03	a	5.50E-02	a	2.73E-02	a
Carbon Disulfide	1.00E-01	a	2.00E-01	a	NA		NA	
Ethylbenzene	1.00E-01	a	2.90E-01	a	NA		3.90E-03	e
Methylene Chloride	6.00E-02	a	8.60E-01	b	7.50E-03	a	1.65E-03	a
Methyl-tert-butyl-ether	NA		8.57E-01	a	NA		NA	
Toluene	2.00E-01	a	1.14E-01	a	NA		NA	
Xylenes	2.00E+00	a	3.00E-03	a	NA		NA	
<b>SVOCs</b>								
Acenaphthene	6.00E-02	a	NA		NA		NA	
Acenaphthylene	3.00E-03	c	NA		NA		NA	
Anthracene	3.00E-01	a	NA		NA		NA	
Benzo(a)anthracene	NA		NA		7.30E-01	d	3.10E-01	d
Benzo(a)pyrene	NA		NA		7.30E+00	a	3.10E+00	g
Benzo(b)fluoranthene	NA		NA		7.30E-01	d	3.10E-01	d
Benzo(g,h,i)perylene	3.00E-02	e	NA		NA		NA	
Benzo(k)fluoranthene	NA		NA		7.30E-02	d	3.10E-02	d
Chrysene	NA		NA		7.30E-03	d	3.10E-03	d
Dibenzo(a,h)anthracene	NA		NA		7.30E+00	d	3.10E+00	d
Fluoranthene	4.00E-02	a	NA		NA		NA	
Fluorene	4.00E-02	a	NA		NA		NA	
Indeno(1,2,3-cd)pyrene	NA		NA		7.30E-01	d	3.10E-01	d
Naphthalene	2.00E-02	a	9.00E-04	a	NA		NA	
Phenanthrene	3.00E-02	c	NA		NA		NA	
Phenol	6.00E-01	a	NA		NA		NA	
Pyrene	3.00E-02	a	NA		NA		NA	
<b>Inorganics</b>								
Arsenic	3.00E-04	a	NA		1.50E+00	a	1.51E+01	a
Barium	7.00E-02	a	1.40E-04	b	NA		NA	
Beryllium	2.00E-03	a	5.70E-06	a	NA		8.40E+00	a
Cadmium	1.00E-03	a, f	5.70E-05	e	NA		6.30E+00	a
Chromium	3.00E-03	a	3.00E-05	a	NA		4.10E+01	b
Copper	4.00E-02	b	NA		NA		NA	
Cyanide	2.00E-02	a	NA		NA		NA	
Lead	NA		NA		NA		NA	
Mercury	3.00E-04	a	8.60E-05	a	NA		NA	
Nickel	2.00E-02	a	NA		NA		NA	a
Vanadium	7.00E-03	b	NA		NA		NA	
Zinc	3.00E-01	a	NA		NA		NA	

(a) IRIS (2003)

(b) HEAST(7/97)

(c) Pyrene used as surrogate

(d) Toxicity Equivalence Factor (TEF) relative to benzo(a)pyrene were obtained from:  
USEPA Region IV Office of Technical Services Supplemental Guidance to RAGS; October, 1996.

(e) EPA-NCEA

(f) Value based on exposure to cadmium through food intake; RfD for cadmium-water is 5E-04 mg/kg-day

NA = Not available or not applicable



TABLE 3  
COMPARISON OF MAXIMUM CONCENTRATIONS DETECTED IN SOIL  
TO TYPES 1 AND 2 RISK REDUCTION STANDARDS  
Former Macon 2 Manufactured Gas Plant Facility  
Macon, Georgia

Parameter	Max. Conc. Above Water Table (mg/kg)	Type 1 RRS (mg/kg)	Source of Type 1 Standard	Type 2 RRS (mg/kg)	Source of Type 2 Standard
<b>VOCs</b>					
Benzene	0.031	0.500	b	8.37	d
Carbon Disulfide	0.032	400	b	228	f
Ethylbenzene	ND	70.0	b	139	f
Methylene Chloride	ND	0.500	b	96.5	d
Toluene	0.010	100	b	514	f
Xylenes	0.0055	1,000	b	1,000	f
<b>SVOCs</b>					
Acenaphthene	6.1	300	a	4,690	f
Acenaphthylene	8.8	130	a	2,350	f
Anthracene	33	500	a	23,500	f
Benzo(a)anthracene	37	5.00	a	12.5	d
Benzo(a)pyrene	26	1.64	a	1.25	d
Benzo(b)fluoranthene	27	5.00	a	12.5	d
Benzo(g,h,i)perylene	5.0	500	a	2,350	f
Benzo(k)fluoranthene	28	5.00	a	125	d
Chrysene	37	5.00	a	1,250	d
Dibenzo(a,h)anthracene	3.5	2.00	d	1.25	d
Fluoranthene	68	500	a	3,130	f
Fluorene	31	360	a	3,130	f
Indeno(1,2,3-cd)pyrene	15	5.00	a	12.5	d
Naphthalene	51	100	a	59.9	f
Phenanthrene	110	110	a	2,350	f
Phenol	ND	400	b	46,900	f
Pyrene	70	500	a	2,350	f
<b>Inorganics</b>					
Arsenic	31.5	20.0	c	6.08	d
Barium	279	1,000	c	5,430	f
Beryllium	ND	2.00	c	156	f
Cadmium	ND	2.00	c	78.2	f
Chromium	46.3	100	c	234	f
Copper	89.1	100	c	3,130	f
Cyanide	1.44	20.0	b	1,560	f
Lead	634	75.0/204	c/e	400	*
Mercury	9.43	0.500/0.540	c/e	23.5	f
Nickel	14.4	50.0	c	1,560	f
Vanadium	79.3	100/120	c/g	548	f
Zinc	544	100/257	c/e	23,500	f

Blocked values exceed Risk Reduction Standards

\* = Derived based on the EPA Integrated Exposure Biokinetic Model.

a = Appendix I Notification Requirement (GEPD, 1999)

b = Appendix III Table 1 times 100 (GEPD, 1999)

c = Appendix III Table 2 (GEPD, 1999)

d = Upperbound excess cancer risk

e = Background in fill material

f = Noncarcinogenic risk

g = Background in natural soils

NA = Not available

**TABLE 4**  
**TYPE 2 RISK REDUCTION STANDARDS FOR**  
**POTENTIAL RESIDENTIAL (ADULT AND CHILD) EXPOSURE TO SOIL**  
**Former Macon 2 Manufactured Gas Plant Facility**  
**Macon, Georgia**

Parameter	Calculated Goal Child (Nonc) (mg/kg)	Calculated Goal Child (Carc) (mg/kg)	Calculated Goal Adult (Nonc) (mg/kg)	Calculated Goal Adult (Carc) (mg/kg)	Type 2 RRSs (mg/kg)
<b><u>VOCs</u></b>					
Benzene	22.91	11.44	84.04	8.368	8.37
Carbon Disulfide	227.7	NA	811.8	NA	228
Ethylbenzene	1,544	199	6,166	139	139
Methylene Chloride	1,275	128.7	5,374	96.45	96.5
Toluene	514.5	NA	1,839	NA	514
Xylenes	156,429	NA	1,460,000	NA	156,429
<b><u>SVOCs</u></b>					
Acenaphthene	4,693	NA	43,800	NA	4,693
Acenaphthylene	2,346	NA	21,900	NA	2,346
Anthracene	23,464	NA	219,000	NA	23,464
Benzo(a)anthracene	NA	12.50	NA	23.33	12.5
Benzo(a)pyrene	NA	1,250	NA	2,333	1.25
Benzo(b)fluoranthene	NA	12.50	NA	23.33	12.5
Benzo(g,h,i)perylene	2,346	NA	21,900	NA	2,346
Benzo(k)fluoranthene	NA	125.0	NA	233	125
Chrysene	NA	1,250	NA	2,333	1,250
Dibenzo(a,h)anthracene	NA	1,250	NA	2,333	1.25
Fluoranthene	3,129	NA	29,200	NA	3,129
Fluorene	3,129	NA	29,200	NA	3,129
Indeno(1,2,3-cd)pyrene	NA	12.50	NA	23.33	12.5
Naphthalene	59.9	NA	214.8	NA	59.9
Phenanthrene	2,346	NA	21,900	NA	2,346
Phenol	46,929	NA	438,000	NA	46,929
Pyrene	2,346	NA	21,900	NA	2,346
<b><u>Inorganics</u></b>					
Arsenic	23.46	6.082	219.0	11.35	6.08
Barium	5,431	NA	50,020	NA	5,431
Beryllium	155.5	67,056	1,438	46,939	156
Cadmium	78.19	89,408	729.4	62,586	78.2
Chromium	234.3	13,738	2,181	9,617	234
Copper	3,129	NA	29,200	NA	3,129
Cyanide	1,564	NA	14,600	NA	1,564
Lead	NA	NA	NA	NA	400
Mercury	23.46	NA	218.9670	NA	23.5
Nickel	1,564	NA	14,600	NA	1,564
Vanadium	548	NA	5,110	NA	548
Zinc	23,464	NA	219,000	NA	23,464

NA = Not available

\* = Derived based on the EPA Integrated Exposure Biokinetic Model.

TABLE 4  
TYPE 2 RISK REDUCTION STANDARDS FOR  
POTENTIAL RESIDENTIAL (ADULT AND CHILD) EXPOSURE TO SOIL  
Former Macon 2 Manufactured Gas Plant Facility  
Macon, Georgia

Noncarcinogens:

$$C = \frac{HI \cdot BW \cdot AT \cdot 365 \text{ days/year}}{EF \cdot ED \cdot [(1/RfD_o \cdot IR \cdot CF) + (1/RfD_i \cdot IR_a \cdot (1/VF + 1/PEF))]}$$

Carcinogens:

$$C = \frac{TR \cdot BW \cdot AT \cdot 365 \text{ days/year}}{EF \cdot ED \cdot [(CSF_o \cdot IR \cdot CF) + (CSF_i \cdot IR_a \cdot (1/VF + 1/PEF))]}$$

where:

HI (Hazard Index)	1
BW = Body Weight (kg), adult	70
BW = Body Weight (kg), child	15
AT = Averaging Time (years), child	6
AT = Averaging Time (years), (carc)	70
EF = Exposure Frequency (days/year)	350
ED = Exposure Duration (years), adult	30
ED = Exposure Duration (years), child	6
RfD <sub>o</sub> = Oral Reference Dose	Chemical-specific
RfD <sub>i</sub> = Inhalation Reference Dose	Chemical-specific
IR = Ingestion Rate (mg/day), child	200
IR = Ingestion Rate (mg/day), adult	100
TR = Target Risk	1.00E-05
CSF <sub>o</sub> = Oral Cancer Slope Factor	Chemical-specific
CSF <sub>i</sub> = Inhalation Cancer Slope Factor	Chemical-specific
IR <sub>a</sub> = Air Inhalation Rate (child) (m <sup>3</sup> /day)	15
IR <sub>a</sub> = Air Inhalation Rate (Adult) (m <sup>3</sup> /day)	15
1/PEF = Inv of Particulate Emission Factor (kg/m <sup>3</sup> )	2.18E-10
CF = Conversion Factor (kg/mg)	1.00E-06
VF = Volatilization Factor (m <sup>3</sup> /kg)	Chemical-specific

**TABLE 5**  
**COMPARISON OF MAXIMUM CONCENTRATIONS DETECTED IN SOIL**  
**TO TYPES 3 AND 4 RISK REDUCTION STANDARDS**  
**Former Macon 2 Manufactured Gas Plant Facility**  
**Macon, Georgia**

Parameter	Max.Conc. Above Water Table (mg/kg)	Max.Conc. Above Water Table (mg/kg)	Type 3 RRS (mg/kg)	Type 3 RRS (mg/kg)	Source of Type 3 Standard	Type 4 RRS (mg/kg)	Type 4 RRS (mg/kg)	Source of Type 4 Standard
	0-2'	>2'	0-2'	>2'		0-2'	>2'	
<b>VOCs</b>								
Benzene	ND	0.031	0.500	0.500	b	0.500	0.500	e
Carbon Disulfide	ND	0.032	400	400	b	400	400	e
Ethylbenzene	ND	ND	70.0	70.0	b	70.0	70.0	e
Methylene Chloride	ND	ND	0.500	0.500	b	0.500	0.500	e
Toluene	ND	0.010	100	100	b	100	100	e
Xylenes	ND	0.0055	1,000	1,000	b	1,000	1,000	e
<b>SVOCs</b>								
Acenaphthene	ND	6.1	300	300	a	300	300	e
Acenaphthylene	ND	8.8	130	130	a	130	130	e
Anthracene	ND	33	500	500	a	500	500	e
Benzo(a)anthracene	0.75	37	5.00	5.00	a	78.4	120	d/f
Benzo(a)pyrene	0.74	26	1.64	1.64	a	7.84	63.3	d/f
Benzo(b)fluoranthene	0.69	27	5.00	5.00	a	78.4	298	d/f
Benzo(g,h,i)perylene	0.540	5.0	500	500	a	500	500	e
Benzo(k)fluoranthene	0.780	28	5.00	5.00	a	5.00	5.00	e
Chrysene	0.77	37	5.00	5.00	a	5.00	5.00	e
Dibenzo(a,h)anthracene	ND	3.5	5.00	5.00	a	5.00	5.00	e
Fluoranthene	1.5	68	500	500	a	500	500	e
Fluorene	ND	31	360	360	a	360	360	e
Indeno(1,2,3-cd)pyrene	0.38	15	5.00	5.00	a	78.4	924	d/f
Naphthalene	DL	51	100	100	a	100	100	e
Phenanthrene	1.1	110	110	110	a	110	110	e
Phenol	ND	ND	400	400	b	400	400	e
Pyrene	1.1	70	500	500	a	500	500	e
<b>Inorganics</b>								
Arsenic	31.6	7.47	38.1	41.0	d,a	38.1	41.0	e
Barium	119	279	1,000	1,000	c	1,000	1,000	e
Beryllium	ND	ND	3.00	3.00	a	3.00	3.00	e
Cadmium	ND	ND	39.0	39.0	a	39.0	39.0	e
Chromium	25.0	46.3	1,200	1,200	a	1,200	1,200	e
Copper	63.7	89.1	1,500	1,500	a	1,500	1,500	e
Cyanide	ND	1.44	20.0	20.0	b	20.0	20.0	e
Lead	151	634	400	400	a	1,070	1,070	f
Mercury	0.825	9.43	17.0	17.0	a	17.0	17.0	e
Nickel	8.29	14.4	420	420	a	420	420	e
Vanadium	75.3	79.3	100	100	a	100	100	e
Zinc	160	544	2,800	2,800	a	2,800	2,800	e

ND = Non detect

Blocked values exceed Risk Reduction Standards

a = Appendix I Notification Requirement (GEPD, 1999)

b = Appendix III Table 1 times 100 (GEPD, 1999)

c = Appendix III Table 2 (GEPD, 1999)

d = Upperbound excess cancer risk

e = Calculated Type 4 RRS by RAGs was not evaluated for leachability; therefore, defaults to Type 3.

f = Concentration protective of groundwater is less than Type 4 RRS calculated by RAGs, therefore, Type 4 has been adjusted to be protective of groundwater

NA = Not available

**TABLE 6**  
**TYPE 4 RISK REDUCTION STANDARDS FOR**  
**POTENTIAL COMMERCIAL AND CONSTRUCTION EXPOSURE TO SOIL**  
**Former Macon 2 Manufactured Gas Plant Facility**  
**Macon, Georgia**

Parameter	Commercial Worker			Construction Worker		
	Calculated Goal (Nonc) (mg/kg)	Calculated Goal (Carc) (mg/kg)	Type 4	Calculated Goal (Noncar) (mg/kg)	Calculated Goal (Car) (mg/kg)	Type 4
			RRSs			RRS
			(mg/kg) 0-2'			(mg/kg) >2'
<b><u>VOCs</u></b>						
Benzene	119.4	14.25	14.25	220.7	1,324	220.7
Carbon Disulfide	1,143	NA	1,143	2,216	NA	2,216
Ethylbenzene	9,013	233.4	233.4	14,457	23,344	14,457
Methylene Chloride	8,016	165.6	165.6	11,736	14,762	11,736
Toluene	2,590	NA	2,590	5,003	NA	5,003
Xylenes	4,088,000	NA	4,088,000	1,238,788	NA	1,238,788
<b><u>SVOCs</u></b>						
Acenaphthene	122,640	NA	122,640	37,164	NA	37,164
Acenaphthylene	6,132	NA	6,132	1,858	NA	1,858
Anthracene	613,200	NA	613,200	185,818	NA	185,818
Benzo(a)anthracene	NA	78.4	78.40	NA	1,188	1,188
Benzo(a)pyrene	NA	7.84	7.840	NA	118.8	118.8
Benzo(b)fluoranthene	NA	78.4	78.40	NA	1,188	1,188
Benzo(g,h,i)perylene	61,320	NA	61,320	18,582	NA	18,582
Benzo(k)fluoranthene	NA	784	784.0	NA	11,879	11,879
Chrysene	NA	7,840	7,840	NA	118,787	118,787
Dibenzo(a,h)anthracene	NA	7.84	7.840	NA	118.8	118.8
Fluoranthene	81,760	NA	81,760	24,776	NA	24,776
Fluorene	81,760	NA	81,760	24,776	NA	24,776
Indeno(1,2,3-cd)pyrene	NA	78.4	78.40	NA	1,188	1,188
Naphthalene	303	NA	302.9	581.6	NA	582
Phenanthrene	61,320	NA	61,320	18,582	NA	18,582
Phenol	1,228,400	NA	1,228,400	371,636	NA	371,636
Pyrene	61,320	NA	61,320	18,582	NA	18,582
<b><u>Inorganics</u></b>						
Arsenic	613.2	38.12	38.12	185.8	578.0	186
Barium	137,155	NA	137,155	43,076	NA	43,076
Beryllium	3,968	78,858	3,968	1,233	112,654	1,233
Cadmium	2,041	105,144	2,041	619.3	10,514,403	619
Chromium	6,079	18,156	6,079	1,856	11,540	1,856
Copper	81,760	NA	81,760	24,776	NA	24,776
Cyanide	40,880	NA	40,880	12,388	NA	12,388
Lead	NA	NA	1,429	NA	NA	1,429
Mercury	613.0	NA	613.0	185.8	NA	186
Nickel	40,880	NA	40,880	12,388	NA	12,388
Vanadium	14,308	NA	14,308	4,336	NA	4,336
Zinc	613,200	NA	613,200	185,818	NA	185,818

\* = Type 4 RRS > 1.00E+06, therefore it defaults to Type 3 RRS.

\*\* = Calculated based on Georgia Adult Lead Model (see Table 7)

NA = Not available



TABLE 6  
TYPE 4 RISK REDUCTION STANDARDS FOR  
POTENTIAL COMMERCIAL AND CONSTRUCTION EXPOSURE TO SOIL  
Former Macon 2 Manufactured Gas Plant Facility  
Macon, Georgia

Noncarcinogens:

$$C = \frac{HI \cdot BW \cdot AT \cdot 365 \text{ days/year}}{EF \cdot ED \cdot \left[ \left( \frac{1}{RfD_o} \cdot CF \cdot IR \right) + \left( \frac{1}{RfD_i} \cdot IR_a \cdot \left( \frac{1}{VF} + 1/PEF \right) \right) \right]}$$

Carcinogens:

$$C = \frac{TR \cdot BW \cdot AT \cdot 365 \text{ days/year}}{EF \cdot ED \cdot \left[ (CSF_o \cdot IR \cdot CF) + (CSF_i \cdot IR_a \cdot \left( \frac{1}{VF} + 1/PEF \right)) \right]}$$

where:

	Commercial Worker	Construction Worker
HI (Hazard Index)	1	1
BW = Body Weight (kg), adult	70	70
AT = Averaging Time (years), (adult/carc)	70	70
AT = Averaging Time (years), (adult/nonc)	25	0.5
EF = Exposure Frequency (days/year)	250	125
ED = Exposure Duration (years), adult/carc	25	0.5
RfD <sub>o</sub> = Oral Reference Dose	Chemical-specific	Chemical-specific
RfD <sub>i</sub> = Inhalation Reference Dose	Chemical-specific	Chemical-specific
CSF <sub>o</sub> = Oral Cancer Slope Factor	Chemical-specific	Chemical-specific
CSF <sub>i</sub> = Inhalation Cancer Slope Factor	Chemical-specific	Chemical-specific
IR = Ingestion Rate (mg/day), adult	50	330
TR = Target Risk	1.00E-05	1.00E-05
IR <sub>a</sub> = Air Inhalation Rate (adult)	20	20
1/PEF = Inv of Particulate Emission Factor (kg/m <sup>3</sup> )	2.16E-10	2.16E-10
CF = Conversion Factor (kg/mg)	1.00E-06	1.00E-06
VF = Volatilization Factor (m <sup>3</sup> /kg)	Chemical-specific	Chemical-specific

TABLE 7  
CALCULATION OF TYPE 4 RISK REDUCTION STANDARDS FOR LEAD IN SOIL  
Former Macon 2 Manufactured Gas Facility  
Macon, Georgia

Definitions	Units	Values	Comments
Baseline blood lead concentration in adults	ug/dL	1.38	
The blood lead goal for the unborn fetus	ug/dL	10	
The average blood lead goal for adult	ug/dL	3.44	Calculated from equation 1 (see below)
Geometric standard deviation of blood lead concentration	unitless	2.04	
Constant of proportionality between fetal blood lead concentration at birth and maternal blood lead concentration	unitless	0.9	
Biokinetic slope factor	ug/dL per ug/day	0.4	
Exposure frequency	days/year	219	
Averaging time	days/year	365	
Intake rate of soil	g/day	0.05	
Absolute GI absorption factor for ingested lead in soil and in dust	unitless	0.12	
Concentration of lead in groundwater at site	ug/L	0.01	Detection Limit
Intake rate of water	L/day	1	
Absolute GI absorption factor for lead ingested in groundwater	unitless	0.2	
Risk Reduction Standard - soil lead concentrations	mg/kg	1429.44	Calculated from equation 2 (see below)

Model, HSRA Appendix IV, October 27, 1999.

$$PbB = PbB_{fetal}$$

$$R^*GSD^{1.645}$$

$$RRS = \frac{[(PbB - PbB_{fetal}) - (C_w * I_w * A_{wI}) * (I_s * A_s)^{-1}]}{BSF^*(EF/AT)}$$

TABLE 8  
COMPARISON OF MAXIMUM CONCENTRATIONS DETECTED IN GROUNDWATER  
TO TYPES 1 AND 2 RISK REDUCTION STANDARDS  
Former Macon 2 Manufactured Gas Plant Facility  
Macon, Georgia

Parameter	Maximum Detected Concentration* (mg/L)	Type 1 RRS (mg/L)	Source of Type 1 Standard	Type 2 RRS (mg/L)	Source of Type 2 Standard
<b>VOCs</b>					
Benzene	ND	0.00500	a	0.00545	d
Carbon Disulfide	ND	4.00	a	0.329	d
Ethylbenzene	ND	0.700	a	0.0582	d
Methylene Chloride	ND	0.00500	a	0.0622	c
Methyl-tert-butyl-ether	NA	DL	b	1.79	d
Toluene	ND	1.00	a	0.221	d
Xylenes	ND	10.0	a	31.3	d
<b>SVOCs</b>					
Acenaphthene	0.014	2.00	a	0.939	d
Acenaphthylene	ND	DL	b	0.469	d
Anthracene	ND	DL	b	4.69	d
Benzo(a)anthracene	ND	0.000100	a	0.000450	c
Benzo(a)pyrene	ND	0.000200	a	0.000450	c
Benzo(b)fluoranthene	ND	0.000200	a	0.000450	c
Benzo(g,h,i)perylene	ND	DL	b	0.469	d
Benzo(k)fluoranthene	ND	DL	b	0.00450	c
Chrysene	ND	DL	b	0.0450	c
Dibenzo(a,h)anthracene	ND	0.000300	a	0.000450	c
Fluoranthene	ND	1.00	a	0.626	d
Fluorene	ND	1.00	a	0.626	d
Indeno(1,2,3-cd)pyrene	ND	0.000400	a	0.000450	c
Naphthalene	ND	0.0200	a	0.00187	d
Phenanthrene	ND	DL	b	0.469	d
Phenol	ND	4.00	a	9.39	d
Pyrene	ND	1.00	a	0.469	d
<b>Inorganics</b>					
Arsenic	ND	0.0500	a	0.000568	c
Barium	1.85	2.00	a	1.10	d
Beryllium	ND	0.00500	a	0.0313	d
Cadmium	ND	0.00500	a	0.00782	c
Chromium	ND	0.100	a	0.0469	d
Copper	ND	1.30	a	0.626	d
Cyanide	0.048	0.200	a	0.313	d
Lead	ND	0.0150	a	0.0150	a
Mercury	ND	0.00200	a	0.00469	d
Nickel	ND	0.100	a	0.313	d
Vanadium	ND	0.200	a	0.110	d
Zinc	ND	2.00	a	4.69	d

Blocked values = Risk Reduction Standard exceeded

a = Appendix III Table 1 (GEPD, 1999)

b = Detection limit

c = Upperbound excess cancer risk

d = Noncarcinogenic risk

\* = Based on August 2003 sampling event.

TABLE 9  
TYPE 2 RISK REDUCTION STANDARDS FOR POTENTIAL  
RESIDENTIAL (CHILD AND ADULT) EXPOSURE TO GROUNDWATER  
Former Macon 2 Manufactured Gas Plant  
Macon, Georgia

Parameter	Calculated Goal Child (Noncarc) (mg/L)	Calculated Goal Child (Car) (mg/L)	Calculated Goal Adult (Noncarc) (mg/L)	Calculated Goal Adult (Carc) (mg/L)	Type 2 RRSs (mg/L)
<b><u>VOCs</u></b>					
Benzene	0.01394	0.007087	0.05320	0.005451	0.00545
Carbon Disulfide	0.3293	NA	1.270	NA	0.329
Ethylbenzene	0.4362	0.06239	1.592	0.05823	0.0582
Methylene Chloride	0.6182	0.09182	1.736	0.08222	0.0822
Methyl-tert-butyl-ether	1.787	NA	8.341	NA	1.79
Toluene	0.2210	NA	0.9632	NA	0.221
Xylenes	31.29	NA	73.00	NA	31.3
<b><u>SVOCs</u></b>					
Acenaphthene	0.9386	NA	2.190	NA	0.939
Acenaphthylene	0.4693	NA	1.095	NA	0.469
Anthracene	4.693	NA	10.95	NA	4.69
Benzo(a)anthracene	NA	0.000597	NA	0.000450	0.000450
Benzo(a)pyrene	NA	0.000597	NA	0.000450	0.000450
Benzo(b)fluoranthene	NA	0.000597	NA	0.000450	0.000450
Benzo(g,h,i)perylene	0.4693	NA	1.095	NA	0.469
Benzo(k)fluoranthene	NA	0.00597	NA	0.00450	0.00450
Chrysene	NA	0.0597	NA	0.0450	0.0450
Dibenzo(a,h)anthracene	NA	0.000597	NA	0.000450	0.000450
Fluoranthene	0.6257	NA	1.460	NA	0.626
Fluorene	0.6257	NA	1.460	NA	0.626
Indeno(1,2,3-cd)pyrene	NA	0.000597	NA	0.000450	0.000450
Naphthalene	0.001866	NA	0.7300	NA	0.00187
Phenanthrene	0.4693	NA	1.095	NA	0.469
Phenol	9.386	NA	21.90	NA	9.39
Pyrene	0.4693	NA	1.095	NA	0.469
<b><u>Inorganics</u></b>					
Arsenic	0.004693	0.00122	0.0110	0.000568	0.000568
Barium	1.095	NA	2.555	NA	1.10
Beryllium	0.03129	NA	0.07300	NA	0.0313
Cadmium	0.007821	NA	0.01825	NA	0.00782
Chromium	0.04693	NA	0.1095	NA	0.0469
Copper	0.6257	NA	1.460	NA	0.626
Cyanide	0.3129	NA	0.7300	NA	0.313
Lead	NA	NA	NA	NA	NA
Mercury	0.004693	NA	0.01095	NA	0.00469
Nickel	0.3129	NA	0.7300	NA	0.313
Vanadium	0.1095	NA	0.2555	NA	0.110
Zinc	4.693	NA	10.95	NA	4.69

TABLE 9  
TYPE 2 RISK REDUCTION STANDARDS FOR POTENTIAL  
RESIDENTIAL (CHILD AND ADULT) EXPOSURE TO GROUNDWATER  
Former Macon 2 Manufactured Gas Plant  
Macon, Georgia

Noncarcinogens:

$$c = \frac{THI \cdot BW \cdot AT \cdot 365 \text{ days/year}}{EF \cdot ED \cdot [(1/RfD_i \cdot K \cdot IR_a) + (1/RfD_o \cdot IR_w)]}$$

Carcinogens:

$$c = \frac{TR \cdot BW \cdot AT \cdot 365 \text{ days/year}}{EF \cdot ED \cdot [(CSF_i \cdot K \cdot IR_a) + (CSF_o \cdot IR_w)]}$$

where:

THI = Target Hazard Index	1
BW = Body Weight (kg), child	15
BW = Body Weight (kg), adult	70
AT = Averaging Time (years) (carc)	70
AT = Averaging Time (years), child (noncarc)	6
AT = Averaging Time (years), adult (noncarc)	30
EF = Exposure Frequency (days/year)	350
ED = Exposure Duration (years), child	6
ED = Exposure Duration (years), adult	30
K = Volatilization Factor (unitless)	0.5
IR <sub>a</sub> = Inhalation Rate of Air (m <sup>3</sup> /day), child	15
IR <sub>a</sub> = Inhalation Rate of Air (m <sup>3</sup> /day), adult	15
IR <sub>w</sub> = Ingestion Rate of Water (L/day), adult	2
IR <sub>w</sub> = Ingestion Rate of Water (L/day), child	1
RfD <sub>o</sub> = Oral Reference Dose	Chemical-specific
RfD <sub>i</sub> = Inhalation Reference Dose	Chemical-specific
TR = Target Risk	1.00E-05
CSF <sub>o</sub> = Oral Cancer Slope Factor	Chemical-specific
CSF <sub>i</sub> = Inhalation Cancer Slope Factor	Chemical-specific
NA = Not Applicable	



TABLE 10  
COMPARISON OF MAXIMUM DETECTED CONCENTRATIONS  
IN GROUNDWATER TO TYPES 3 AND 4 RISK REDUCTION STANDARDS  
Former Macon 2 Manufactured Gas Plant Facility  
Macon, Georgia

Parameter	Maximum Detected Concentration* (mg/L)	Type 3 RRS (mg/L)	Source of Type 3 Standard	Type 4 RRS (mg/L)	Source of Type 4 Standard
<b><u>VOCs</u></b>					
Benzene	ND	0.00500	a	0.0088	c
Carbon Disulfide	ND	4.00	a	1.70	d
Ethylbenzene	ND	0.700	a	0.0734	d
Methylene Chloride	ND	0.00500	a	0.119	c
Methyl-tert-butyl-ether	NA	DL	b	8.76	d
Toluene	ND	1.00	a	1.10	d
Xylenes	ND	10.0	a	204	d
<b><u>SVOCs</u></b>					
Acenaphthene	0.014	2.00	a	6.13	d
Acenaphthylene	ND	DL	b	3.07	d
Anthracene	ND	DL	b	30.7	d
Benzo(a)anthracene	ND	0.000100	a	0.000747	c
Benzo(a)pyrene	ND	0.000200	a	0.0000747	c
Benzo(b)fluoranthene	ND	0.000200	a	0.000747	c
Benzo(g,h,i)perylene	ND	DL	a	3.07	d
Benzo(k)fluoranthene	ND	DL	b	0.00747	c
Chrysene	ND	DL	a	0.0747	c
Dibenzo(a,h)anthracene	ND	0.000300	b	0.0000747	c
Fluoranthene	ND	1.00	b	4.09	d
Fluorene	ND	1.00	a	4.09	d
Indeno(1,2,3-cd)pyrene	ND	0.000400	a	0.000747	c
Naphthalene	ND	0.0200	a	0.00916	d
Phenanthrene	ND	DL	b	3.07	d
Phenol	ND	4.00	a	61.3	d
Pyrene	ND	1.00	a	3.07	d
<b><u>Inorganics</u></b>					
Arsenic	ND	0.0500	a	0.00191	c
Barium	1.85	2.00	a	7.15	d
Beryllium	ND	0.00500	a	0.204	d
Cadmium	ND	0.00500	a	0.0511	c
Chromium	ND	0.100	a	0.307	d
Copper	ND	1.30	a	4.09	d
Cyanide	0.048	0.200	a	2.04	d
Lead	ND	0.0150	a	0.0150	d
Mercury	ND	0.00200	a	0.0307	c
Nickel	ND	0.100	a	2.04	d
Vanadium	ND	0.200	a	0.715	d
Zinc	ND	2.00	a	30.7	d

Blocked values = Risk Reduction Standard exceeded

a = Appendix III Table 1 (GEPD, 1999)

b = Detection limit

c = Upperbound excess cancer risk

d = Noncarcinogenic risk

\* = Based on August 2003 sampling event.

TABLE 11  
TYPE 4 RISK REDUCTION STANDARDS  
FOR POTENTIAL INDUSTRIAL GROUNDWATER EXPOSURE  
Former Macon 2 Manufactured Gas Plant, Macon, Georgia

Parameter	Calculated Goal (Nonc) (mg/L)	Calculated Goal (Carc) (mg/L)	RRS Type 4 (mg/L)
<b><u>VOCs</u></b>			
Benzene	0.0723	0.0088	0.0088
Carbon Disulfide	1.703	NA	1.70
Ethylbenzene	2.298	0.07337	0.0734
Methylene Chloride	3.612	0.1192	0.119
Methyl-tert-butyl-ether	8.759	NA	8.76
Toluene	1.102	NA	1.10
Xylenes	204.4	NA	204
<b><u>SVOCs</u></b>			
Acenaphthene	6.132	NA	6.13
Acenaphthylene	3.066	NA	3.07
Anthracene	30.66	NA	30.7
Benzo(a)anthracene	NA	0.000747	0.000747
Benzo(a)pyrene	NA	0.0000747	0.0000747
Benzo(b)fluoranthene	NA	0.000747	0.000747
Benzo(g,h,i)perylene	3.066	NA	3.07
Benzo(k)fluoranthene	NA	0.00747	0.00747
Chrysene	NA	0.07472	0.0747
Dibenzo(a,h)anthracene	NA	0.0000747	0.0000747
Fluoranthene	4.088	NA	4.09
Fluorene	4.088	NA	4.09
Indeno(1,2,3-cd)pyrene	NA	0.000747	0.000747
Naphthalene	0.00916	NA	0.00916
Phenanthrene	3.066	NA	3.07
Phenol	61.32	NA	61.3
Pyrene	3.066	NA	3.07
<b><u>Inorganics</u></b>			
Arsenic	0.03066	0.001908	0.00191
Barium	7.154	NA	7.15
Beryllium	0.2044	NA	0.204
Cadmium	0.05110	NA	0.0511
Chromium	0.3066	NA	0.307
Copper	4.088	NA	4.09
Cyanide	2.044	NA	2.04
Lead	NA	NA	NA
Mercury	0.03066	NA	0.0307
Nickel	2.044	NA	2.04
Vanadium	0.7154	NA	0.715
Zinc	30.66	NA	30.7

NA = Not available

TABLE 11  
TYPE 4 RISK REDUCTION STANDARDS  
FOR POTENTIAL INDUSTRIAL GROUNDWATER EXPOSURE  
Former Macon 2 Manufactured Gas Plant, Macon, Georgia

Non-carcinogens:

$$c = \frac{THI \cdot BW \cdot AT \cdot 365 \text{ days/year}}{EF \cdot ED \cdot [(1/RfD_i \cdot K \cdot IR_a) + (1/RfD_o \cdot IR_w)]}$$

Carcinogens:

$$c = \frac{TR \cdot BW \cdot AT \cdot 365 \text{ days/year}}{EF \cdot ED \cdot [(CSF_i \cdot K \cdot IR_a) + (CSF_o \cdot IR_w)]}$$

where:

THI = Target Hazard Index	1
BW = Body Weight (kg), adult	70
AT = Averaging Time (years) adult (nonc)	25
AT = Averaging Time (years) adult (carc)	70
EF = Exposure Frequency (days/year)	250
ED = Exposure Duration (year), adult (nonc)	25
K = Volatilization Factor (unitless)	0.5
IR <sub>a</sub> = Inhalation Rate of Air (m <sup>3</sup> /day), adult	20
IR <sub>w</sub> = Ingestion Rate of Water (L/day), adult	1
RfD <sub>o</sub> = Oral Reference Dose	Chemical-specific
RfD <sub>i</sub> = Inhalation Reference Dose	Chemical-specific
TR = Target Risk	1.00E-05
CSF <sub>o</sub> = Oral Cancer Slope Factor	Chemical-specific
CSF <sub>i</sub> = Inhalation Cancer Slope Factor	Chemical-specific
NA = Not Applicable	

Table 12

**PROTECTED ANIMAL AND PLANT SPECIES POTENTIALLY OCCURRING IN BIBB COUNTY AND THE SURROUNDING COUNTIES OF  
CRAWFORD, HOUSTON, JONES, MONROE, PEACH, AND TWIGGS  
Macon 2 Former Manufactured Gas Plant Facility  
Macon, Georgia**

Species Name	County	Federal Status <sup>(a)</sup>	State Status <sup>(b)</sup>	Preferred Habitat
<b>BIRDS</b>				
Bald eagle ( <i>Haliaeetus leucocephalus</i> )	Bibb, Crawford, Houston, Jones, Monroe, Peach, Twiggs	T	E	Associated with coasts, river and lakes, usually nesting within sight of large bodies of water.
Wood stork ( <i>Mycteria americana</i> )	Bibb, Crawford, Houston, Jones, Peach, Twiggs	E	E	Primarily feed on fish in fresh and brackish wetlands and nest in cypress or other wooded swamps.
Red-cockaded woodpecker ( <i>Picoides borealis</i> )	Bibb, Crawford, Houston, Jones, Monroe, Peach, Twiggs	E	E	Nest in mature pine with low understory vegetation, forage in pine hardwood stands greater than 30 years of age.
<b>FISHES</b>				
Bluestripe shiner ( <i>Cyprinella callitania</i> )	Crawford	NL	T	Restricted to the Apalachicola - Chattahoochee-Flint (ACF) River system, in large streams with open, sand or rock-bottomed channels with flowing water and little or no aquatic vegetation.
<b>MUSSELS</b>				
Purple bankclimber mussel ( <i>Elliptioideus sloatianus</i> )	Crawford, Peach	T	T	Main channels of ACF Basin rivers in moderate currents over sand, sand mixed mud, or gravel substrates.
Shiny-rayed pocketbook mussel ( <i>Lampsilis subangulata</i> )	Crawford, Peach	E	E	Medium Creeks to mainstream of rivers (Choctawhatchee and Ochlockonee only) with slow to moderate currents over sandy substrates and associated with rock or clay.
Gulf moccasinshell mussel ( <i>Medionidus pencillatus</i> )	Crawford, Peach	E	E	Medium creeks to mainstream of rivers (Choctawhatchee and Ochlockonee only) with slow to moderate currents over sandy substrates and associated with rock or clay.
Oval pigtoe mussel ( <i>Pleurobema pyriforme</i> )	Crawford, Peach	E	E	River tributaries and main channels (Apalachicola, Chattahoochee, and Flint basin) in slow to moderate currents over silty sand, muddy sand, sand, and gravel substrates.

Species Name	County	Federal Status <sup>(a)</sup>	State Status <sup>(b)</sup>	Preferred Habitat
<b>PLANTS</b>				
Shoals spider-lily ( <i>Hymenocallis coronaria</i> )	Bibb	NL	E	Major streams and rivers in rocky shoals and in cracks of exposed bedrock, plants can be completely submerged during flooding.
Green pitcher-plant ( <i>Sarracenia oreophila</i> )	Bibb	E	E	Open seepy meadows along sandy flushed banks of streams, and in partially shaded red maple-blackgum low woods or poorly drained oak-pine flatwoods; believed to be extirpated from Bibb County.
Sweet pitcher-plant ( <i>Sarracnia rubra</i> )	Bibb, Crawford, Peach	NL	E	Acidic soils of open bogs, sandhill seeps, Atlantic white cedar swamps, wet savannas, and low areas in pine flatwoods and along sloughs and ditches.
Ocmulgee skullcap ( <i>Scutellaria ocmulgee</i> )	Bibb, Houston	NFS	T	Prefers forested terraces, hardwood slopes and riverbanks of tributaries to the Ocmulgee, Oconee, and Savannah Rivers.
Fringed campion ( <i>Silene polypetala</i> )	Bibb, Crawford	E	E	Mature hardwood or hardwood-pine forests on river bluffs, small stream terraces, moist slopes and well shaded ridge crests.
Relict trillium ( <i>Trillium reliquum</i> )	Bibb, Houston, Jones	E	E	Hardwood forests; in the Piedmont on either rich ravines or adjacent alluvial terraces with other spring-flowering herbs.
Indian olive ( <i>Nestronia umbellula</i> )	Peach	NFS	T	Dry open upland pine-hardwood forests.
<b>AMPHIBIANS AND REPTILES</b>				
Eastern indigo snake ( <i>Drymarchon corais couperi</i> )	Bibb, Houston, Twiggs	T	T	Winters in xeric sandhills habitat associated with gopher tortoises; forages in creek bottoms, upland forests, and agricultural fields during the warm months.
Barbour's map turtle ( <i>Graptemys barbouri</i> )	Crawford	NFS	T	Restricted to Apalachicola River and large tributaries including Chipola, Chattahoochee, and Flint Rivers in eastern Alabama, western Georgia, and western Florida.
Alligator snapping turtle ( <i>Macroclmys temminckii</i> )	Crawford, Peach	NFS	R	Rivers, lakes, and large ponds
Gopher tortoise ( <i>Gopherus polyphemus</i> )	Bibb, Crawford, Houston	NFS	T	Well drained sandy soils in forest and grassy areas often associated with pine overstory with grass associated with pine overstory and open understory with grass and groundcover, and sunny areas for nesting.

Source: <http://www.fws.gov/h4gafo/>

(a) Federal; E = Endangered; T = Threatened; NFS = No Federal Status

(b) State; E = Endangered; T = Threatened



# **COMPLIANCE STATUS INVESTIGATION REPORT**

## **ATTACHMENT A**

**FORMER MACON 2 MGP FACILITY**

**MACON, GEORGIA**

**WILLIAMS PROJECT NO. 1100-2990**

**June 17, 2002 - Revised September 5, 2003**

**COMPLIANCE STATUS  
INVESTIGATION REPORT  
ATTACHMENT A  
FORMER MACON 2 MGP FACILITY  
MACON, GEORGIA**

*Prepared For:*  
**Georgia Power Company  
Atlanta Gas Light Company  
and  
The City of Macon**

*Prepared By:*  
**WILLIAMS ENVIRONMENTAL SERVICES INC.  
500 Chase Park South, Suite 150  
Birmingham, Alabama 35244**

*Preparation Date: June 17, 2002  
Revised September 5, 2003*

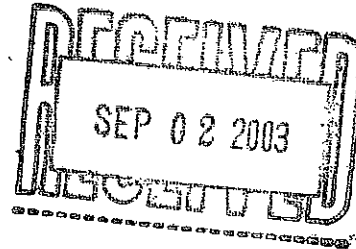




ANALYTICAL ENVIRONMENTAL SERVICES, INC.

August 25, 2003

Mike Dillon  
Williams Environmental Services, Inc  
500 Chase Park South  
Suite 150  
Birmingham, AL 35244  
TEL: (205) 988-8305  
FAX (205) 988-5249



RE: Macon II MGP

Order No.: 0308662

Dear Mike Dillon:

Analytical Environmental Servs, Inc. received 16 samples on 8/21/2003 9:50:00 AM for the analyses presented in the following report.

No problems were encountered during the analyses. Additionally, all results for the associated Quality Control samples were within EPA and/or AES established limits. Any discrepancies associated with the analyses contained herein will be noted and submitted in the form of a project Case Narrative. AES' certifications are as follows:

- NELAC/Florida Certification number E87582 for analysis of Environmental Water, soil/hazardous waste, and Drinking Water, effective 07/02/03-06/30/04.
- AIHA Certification number 505 for analysis of Air, Paint Chips, Soil and Dust Wipes, effective until 10/01/03.

These results relate only to the items tested. This report may only be reproduced in full and contains 20 total pages (including cover letter).

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

Sincerely,

*Allison Cantrell*

Allison Cantrell  
Project Manager



TEL: (770) 457-8177 / TOLL FREE: (800) 972-4889 / FAX: (770) 457-8188

Date: 08/20/2016 Page 2 of 2

COMPANY:		ADDRESS:		FAX:		PHONE:		ANALYSIS REQUESTED		REMARKS		No. of Containers	
WEST		3800 CHASE AVE., 50		5244		5244							
SAMPLE ID		DATE		TIME		SIGNED							
100-788-8305		11/10/03		12:00		M. W. Dill							
SAMPLED BY:		DATE		TIME		SIGNED							
M. W. Dill		11/10/03		12:00		M. W. Dill							
SAMPLE ID		DATE		TIME		SIGNED							
100-788-8305		11/10/03		12:00		M. W. Dill							
SAMPLED BY:		DATE		TIME		SIGNED							
M. W. Dill		11/10/03		12:00		M. W. Dill							
SAMPLE ID		DATE		TIME		SIGNED							
100-788-8305		11/10/03		12:00		M. W. Dill							
SAMPLED BY:		DATE		TIME		SIGNED							
M. W. Dill		11/10/03		12:00		M. W. Dill							
SAMPLE ID		DATE		TIME		SIGNED							
100-788-8305		11/10/03		12:00		M. W. Dill							
SAMPLED BY:		DATE		TIME		SIGNED							
M. W. Dill		11/10/03		12:00		M. W. Dill							
SAMPLE ID		DATE		TIME		SIGNED							
100-788-8305		11/10/03		12:00		M. W. Dill							
SAMPLED BY:		DATE		TIME		SIGNED							
M. W. Dill		11/10/03		12:00		M. W. Dill							
SAMPLE ID		DATE		TIME		SIGNED							
100-788-8305		11/10/03		12:00		M. W. Dill							
SAMPLED BY:		DATE		TIME		SIGNED							
M. W. Dill		11/10/03		12:00		M. W. Dill							
SAMPLE ID		DATE		TIME		SIGNED							
100-788-8305		11/10/03		12:00		M. W. Dill							
SAMPLED BY:		DATE		TIME		SIGNED							
M. W. Dill		11/10/03		12:00		M. W. Dill							
SAMPLE ID		DATE		TIME		SIGNED							
100-788-8305		11/10/03		12:00		M. W. Dill							
SAMPLED BY:		DATE		TIME		SIGNED							
M. W. Dill		11/10/03		12:00		M. W. Dill							
SAMPLE ID		DATE		TIME		SIGNED							
100-788-8305		11/10/03		12:00		M. W. Dill							
SAMPLED BY:		DATE		TIME		SIGNED							
M. W. Dill		11/10/03		12:00		M. W. Dill							
SAMPLE ID		DATE		TIME		SIGNED							
100-788-8305		11/10/03		12:00		M. W. Dill							
SAMPLED BY:		DATE		TIME		SIGNED							
M. W. Dill		11/10/03		12:00		M. W. Dill							
SAMPLE ID		DATE		TIME		SIGNED							
100-788-8305		11/10/03		12:00		M. W. Dill							
SAMPLED BY:		DATE		TIME		SIGNED							
M. W. Dill		11/10/03		12:00		M. W. Dill							
SAMPLE ID		DATE		TIME		SIGNED							
100-788-8305		11/10/03		12:00		M. W. Dill							
SAMPLED BY:		DATE		TIME		SIGNED							
M. W. Dill		11/10/03		12:00		M. W. Dill							
SAMPLE ID		DATE		TIME		SIGNED							
100-788-8305		11/10/03		12:00		M. W. Dill							
SAMPLED BY:		DATE		TIME		SIGNED							
M. W. Dill		11/10/03		12:00		M. W. Dill							
SAMPLE ID		DATE		TIME		SIGNED							

White Copy - ORIGINAL; Yellow Copy - LAB; Pink Copy - CLIENT



**Analytical Environmental Servs, Inc.**

Date: 25-Aug-03

CLIENT: Williams Environmental Services, Inc

Client Sample ID: SB-44-0-2

Lab Order: 0308662

Collection Date: 8/20/2003 7:30:00 AM

Project: Macon II MGP

Lab ID: 0308662-001

Matrix: SOIL

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
METALS, TOTAL		SW6010B				Analyst: CDW
Lead	12.1	5.79		mg/Kg-dry	1	8/25/2003 12:57:00 AM
PERCENT MOISTURE		D2216				Analyst: DCC
Percent Moisture	20.1	0		wt%	1	8/21/2003 5:00:00 PM

Qualifiers: \* Value exceeds Maximum Contaminant Level

BRL Below Reporting Limit

H Holding times for preparation or analysis exceeded

N Analyte not NELAC certified

Rpt Limit Reporting Limit

B Analyte detected in the associated Method Blank

E Value above quantitation range

J Analyte detected below quantitation limits

P NELAC analyte certification pending

S Spike Recovery outside accepted recovery limits

**Analytical Environmental Servs, Inc.**

Date: 25-Aug-03

**CLIENT:** Williams Environmental Services, Inc  
**Lab Order:** 0308662  
**Project:** Macon II MGP  
**Lab ID:** 0308662-002

**Client Sample ID:** SB-44-5-7  
**Collection Date:** 8/20/2003 7:40:00 AM  
**Matrix:** SOIL

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
<b>METALS, TOTAL</b>		<b>SW6010B</b>				Analyst: CDW
Lead	25.3	5.67		mg/Kg-dry	1	8/25/2003 1:02:00 AM
<b>PERCENT MOISTURE</b>		<b>D2216</b>				Analyst: DCC
Percent Moisture	14.4	0		wt%	1	8/21/2003 5:00:00 PM

<b>Qualifiers:</b>	*	Value exceeds Maximum Contaminant Level	B	Analyte detected in the associated Method Blank
	BRL	Below Reporting Limit	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	N	Analyte not NELAC certified	P	NELAC analyte certification pending
	Rpt Limit	Reporting Limit	S	Spike Recovery outside accepted recovery limits

**Analytical Environmental Servs, Inc.**

Date: 25-Aug-03

CLIENT: Williams Environmental Services, Inc

Client Sample ID: SB-44-10-12

Lab Order: 0308662

Collection Date: 8/20/2003 7:50:00 AM

Project: Macon II MGP

Lab ID: 0308662-003

Matrix: SOIL

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
<b>METALS, TOTAL</b>		<b>SW6010B</b>				Analyst: CDW
Lead	181	5.76		mg/Kg-dry	1	8/25/2003 1:06:00 AM
<b>PERCENT MOISTURE</b>		<b>D2216</b>				Analyst: DCC
Percent Moisture	14.6	0		wt%	1	8/21/2003 5:00:00 PM

Qualifiers: \* Value exceeds Maximum Contaminant Level

BRL Below Reporting Limit

H Holding times for preparation or analysis exceeded

N Analyte not NELAC certified

Rpt Limit Reporting Limit

B Analyte detected in the associated Method Blank

E Value above quantitation range

J Analyte detected below quantitation limits

P NELAC analyte certification pending

S Spike Recovery outside accepted recovery limits

**Analytical Environmental Servs, Inc.**

Date: 25-Aug-03

CLIENT: Williams Environmental Services, Inc

Client Sample ID: SB-44-15-17

Lab Order: 0308662

Collection Date: 8/20/2003 8:00:00 AM

Project: Macon II MGP

Lab ID: 0308662-004

Matrix: SOIL

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
METALS, TOTAL		SW6010B				Analyst: CDW
Lead	BRL	5.53		mg/Kg-dry	1	8/25/2003 1:11:00 AM
PERCENT MOISTURE		D2216				Analyst: DCC
Percent Moisture	11.5	0		wt%	1	8/21/2003 5:00:00 PM

Qualifiers:	*	Value exceeds Maximum Contaminant Level	B	Analyte detected in the associated Method Blank
	BRL	Below Reporting Limit	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	N	Analyte not NELAC certified	P	NELAC analyte certification pending
	Rpt Limit	Reporting Limit	S	Spike Recovery outside accepted recovery limits

**Analytical Environmental Servs, Inc.**

Date: 25-Aug-03

**CLIENT:** Williams Environmental Services, Inc  
**Lab Order:** 0308662  
**Project:** Macon II MGP  
**Lab ID:** 0308662-005

**Client Sample ID:** SB-44-20-21  
**Collection Date:** 8/20/2003 8:16:00 AM

**Matrix:** SOIL

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
<b>METALS, TOTAL</b>		<b>SW6010B</b>				Analyst: CDW
Lead	BRL	5.54		mg/Kg-dry	1	8/25/2003 1:15:00 AM
<b>PERCENT MOISTURE</b>		<b>D2216</b>				Analyst: DCC
Percent Moisture	12.9	0		wt%	1	8/21/2003 5:00:00 PM

<b>Qualifiers:</b>	*	Value exceeds Maximum Contaminant Level	B	Analyte detected in the associated Method Blank
	BRL	Below Reporting Limit	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	N	Analyte not NELAC certified	P	NELAC analyte certification pending
	Rpt Limit	Reporting Limit	S	Spike Recovery outside accepted recovery limits

**Analytical Environmental Servs, Inc.**

Date: 25-Aug-03

**CLIENT:** Williams Environmental Services, Inc  
**Lab Order:** 0308662  
**Project:** Macon II MGP  
**Lab ID:** 0308662-006

**Client Sample ID:** SB-45-0-2  
**Collection Date:** 8/20/2003 8:36:00 AM

**Matrix:** SOIL

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
<b>METALS, TOTAL</b>		<b>SW6010B</b>				Analyst: CDW
Lead	58.5	5.42		mg/Kg-dry	1	8/25/2003 1:31:00 AM
<b>PERCENT MOISTURE</b>		<b>D2216</b>				Analyst: DCC
Percent Moisture	15.4	0		wt%	1	8/21/2003 5:00:00 PM

**Qualifiers:** \* Value exceeds Maximum Contaminant Level  
BRL Below Reporting Limit  
H Holding times for preparation or analysis exceeded  
N Analyte not NELAC certified  
Rpt Limit Reporting Limit

B Analyte detected in the associated Method Blank  
E Value above quantitation range  
J Analyte detected below quantitation limits  
P NELAC analyte certification pending  
S Spike Recovery outside accepted recovery limits



**Analytical Environmental Servs, Inc.**

Date: 25-Aug-03

**CLIENT:** Williams Environmental Services, Inc  
**Lab Order:** 0308662  
**Project:** Macon II MGP  
**Lab ID:** 0308662-007

**Client Sample ID:** SB-45-5-7  
**Collection Date:** 8/20/2003 8:40:00 AM

**Matrix:** SOIL

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
<b>METALS, TOTAL</b>		<b>SW6010B</b>				Analyst: <b>CDW</b>
Lead	35.6	4.50		mg/Kg-dry	1	8/25/2003 1:35:00 AM
<b>PERCENT MOISTURE</b>		<b>D2216</b>				Analyst: <b>DCC</b>
Percent Moisture	9.10	0		wt%	1	8/21/2003 5:00:00 PM

<b>Qualifiers:</b>	*	Value exceeds Maximum Contaminant Level	B	Analyte detected in the associated Method Blank
	BRL	Below Reporting Limit	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	N	Analyte not NELAC certified	P	NELAC analyte certification pending
	Rpt Limit	Reporting Limit	S	Spike Recovery outside accepted recovery limits

**Analytical Environmental Servs, Inc.**

Date: 25-Aug-03

**CLIENT:** Williams Environmental Services, Inc**Client Sample ID:** SB-45-10-12**Lab Order:** 0308662**Collection Date:** 8/20/2003 8:50:00 AM**Project:** Macon II MGP**Lab ID:** 0308662-008**Matrix:** SOIL

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
<b>METALS, TOTAL</b>		<b>SW6010B</b>				Analyst: <b>CDW</b>
Lead	425	4.33		mg/Kg-dry	1	8/25/2003 1:40:00 AM
<b>PERCENT MOISTURE</b>		<b>D2216</b>				Analyst: <b>DCC</b>
Percent Moisture	11.2	0		wt%	1	8/21/2003 5:00:00 PM

<b>Qualifiers:</b>	*	Value exceeds Maximum Contaminant Level	B	Analyte detected in the associated Method Blank
	BRL	Below Reporting Limit	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	N	Analyte not NELAC certified	P	NELAC analyte certification pending
	Rpt Limit	Reporting Limit	S	Spike Recovery outside accepted recovery limits

**Analytical Environmental Servs, Inc.**

Date: 25-Aug-03

**CLIENT:** Williams Environmental Services, Inc  
**Lab Order:** 0308662  
**Project:** Macon II MGP  
**Lab ID:** 0308662-009

**Client Sample ID:** SB-45-15-17  
**Collection Date:** 8/20/2003 9:00:00 AM  
**Matrix:** SOIL

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
<b>METALS, TOTAL</b>		<b>SW6010B</b>				Analyst: <b>CDW</b>
Lead	1070	5.51		mg/Kg-dry	1	8/25/2003 1:44:00 AM
<b>PERCENT MOISTURE</b>		<b>D2216</b>				Analyst: <b>DCC</b>
Percent Moisture	33.3	0		wt%	1	8/21/2003 5:00:00 PM

<b>Qualifiers:</b>	*	Value exceeds Maximum Contaminant Level	B	Analyte detected in the associated Method Blank
	BRL	Below Reporting Limit	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	N	Analyte not NELAC certified	P	NELAC analyte certification pending
	Rpt Limit	Reporting Limit	S	Spike Recovery outside accepted recovery limits

**Analytical Environmental Servs, Inc.**

Date: 25-Aug-03

**CLIENT:** Williams Environmental Services, Inc  
**Lab Order:** 0308662  
**Project:** Macon II MGP  
**Lab ID:** 0308662-010

**Client Sample ID:** SB-45-18.5-20  
**Collection Date:** 8/20/2003 9:10:00 AM

**Matrix:** SOIL

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
<b>METALS, TOTAL</b>		<b>SW6010B</b>				Analyst: <b>CDW</b>
Lead	38.6	4.48		mg/Kg-dry	1	8/25/2003 1:49:00 AM
<b>PERCENT MOISTURE</b>		<b>D2216</b>				Analyst: <b>DCC</b>
Percent Moisture	17.7	0		wt%	1	8/21/2003 5:00:00 PM

<b>Qualifiers:</b>	*	Value exceeds Maximum Contaminant Level	B	Analyte detected in the associated Method Blank
	BRL	Below Reporting Limit	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	N	Analyte not NELAC certified	P	NELAC analyte certification pending
	Rpt Limit	Reporting Limit	S	Spike Recovery outside accepted recovery limits

**Analytical Environmental Servs, Inc.**

Date: 25-Aug-03

**CLIENT:** Williams Environmental Services, Inc  
**Lab Order:** 0308662  
**Project:** Macon II MGP  
**Lab ID:** 0308662-011

**Client Sample ID:** SB-46-0-2  
**Collection Date:** 8/20/2003 9:50:00 AM

**Matrix:** SOIL

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
<b>METALS, TOTAL</b>						Analyst: <b>CDW</b>
Lead	15.6	4.84		mg/Kg-dry	1	8/25/2003 1:53:00 AM
<b>PERCENT MOISTURE</b>						Analyst: <b>DCC</b>
Percent Moisture	23.8	0		wt%	1	8/21/2003 5:00:00 PM

<b>Qualifiers:</b>	*	Value exceeds Maximum Contaminant Level	B	Analyte detected in the associated Method Blank
	BRL	Below Reporting Limit	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	N	Analyte not NELAC certified	P	NELAC analyte certification pending
	Rpt Limit	Reporting Limit	S	Spike Recovery outside accepted recovery limits

**Analytical Environmental Servs, Inc.**

Date: 25-Aug-03

**CLIENT:** Williams Environmental Services, Inc  
**Lab Order:** 0308662  
**Project:** Macon II MGP  
**Lab ID:** 0308662-012

**Client Sample ID:** SB-46-5-7  
**Collection Date:** 8/20/2003 10:00:00 AM

**Matrix:** SOIL

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
<b>METALS, TOTAL</b>		<b>SW6010B</b>				Analyst: <b>CDW</b>
Lead	70.6	3.82		mg/Kg-dry	1	8/25/2003 1:58:00 AM
<b>PERCENT MOISTURE</b>		<b>D2216</b>				Analyst: <b>DCC</b>
Percent Moisture	24.4	0		wt%	1	8/21/2003 5:00:00 PM

<b>Qualifiers:</b>	*	Value exceeds Maximum Contaminant Level	B	Analyte detected in the associated Method Blank
	BRL	Below Reporting Limit	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	N	Analyte not NELAC certified	P	NELAC analyte certification pending
	Rpt Limit	Reporting Limit	S	Spike Recovery outside accepted recovery limits



**Analytical Environmental Servs, Inc.**

Date: 25-Aug-03

**CLIENT:** Williams Environmental Services, Inc  
**Lab Order:** 0308662  
**Project:** Macon II MGP  
**Lab ID:** 0308662-013

**Client Sample ID:** SB-46-10-12  
**Collection Date:** 8/20/2003 10:10:00 AM

**Matrix:** SOIL

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
<b>METALS, TOTAL</b>		<b>SW6010B</b>				Analyst: <b>CDW</b>
Lead	34.5	4.51		mg/Kg-dry	1	8/25/2003 2:02:00 AM
<b>PERCENT MOISTURE</b>		<b>D2216</b>				Analyst: <b>DCC</b>
Percent Moisture	24.2	0		wt%	1	8/21/2003 5:00:00 PM

**Qualifiers:** \* Value exceeds Maximum Contaminant Level  
BRL Below Reporting Limit  
H Holding times for preparation or analysis exceeded  
N Analyte not NELAC certified  
Rpt Limit Reporting Limit

B Analyte detected in the associated Method Blank  
E Value above quantitation range  
J Analyte detected below quantitation limits  
P NELAC analyte certification pending  
S Spike Recovery outside accepted recovery limits

**Analytical Environmental Servs, Inc.**

Date: 25-Aug-03

CLIENT: Williams Environmental Services, Inc

Client Sample ID: SB-46-15-17

Lab Order: 0308662

Collection Date: 8/20/2003 10:20:00 AM

Project: Macon II MGP

Lab ID: 0308662-014

Matrix: SOIL

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
<b>METALS, TOTAL</b>						Analyst: CDW
Lead	20.0	3.78		mg/Kg-dry	1	8/25/2003 2:07:00 AM
<b>PERCENT MOISTURE</b>						Analyst: DCC
Percent Moisture	15.7	0		wt%	1	8/21/2003 5:00:00 PM

Qualifiers: \* Value exceeds Maximum Contaminant Level  
BRL Below Reporting Limit  
H Holding times for preparation or analysis exceeded  
N Analyte not NELAC certified  
Rpt Limit Reporting Limit

B Analyte detected in the associated Method Blank  
E Value above quantitation range  
J Analyte detected below quantitation limits  
P NELAC analyte certification pending  
S Spike Recovery outside accepted recovery limits

**Analytical Environmental Servs, Inc.**

Date: 25-Aug-03

**CLIENT:** Williams Environmental Services, Inc  
**Lab Order:** 0308662  
**Project:** Macon II MGP  
**Lab ID:** 0308662-015

**Client Sample ID:** DUP082003A**Collection Date:** 8/20/2003**Matrix:** SOIL

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
<b>METALS, TOTAL</b>		<b>SW6010B</b>				Analyst: <b>CDW</b>
Lead	37.8	3.65		mg/Kg-dry	1	8/25/2003 12:44:00 AM
<b>PERCENT MOISTURE</b>		<b>D2216</b>				Analyst: <b>DCC</b>
Percent Moisture	18.5	0		wt%	1	8/21/2003 5:00:00 PM

<b>Qualifiers:</b>	*	Value exceeds Maximum Contaminant Level	B	Analyte detected in the associated Method Blank
	BRL	Below Reporting Limit	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	N	Analyte not NELAC certified	P	NELAC analyte certification pending
	Rpt Limit	Reporting Limit	S	Spike Recovery outside accepted recovery limits

Analytical Environmental Services, Inc.

Sample/Cooler Receipt Checklist

Client Williams Law Services

Work Order Number 0308662

Checklist completed by Amye Ogden 3/21/03  
Signature Date

Carrier name: FedEx ☒ UPS ☐ Courier ☐ Client ☐ US Mail ☐ Other ☐

Shipping container/cooler in good condition? Yes ☒ No ☐ Not Present ☐

Custody seals intact on shipping container/cooler? Yes ☒ No ☐ Not Present ☐

Custody seals intact on sample bottles? Yes ☐ No ☐ Not Present ☒

Container/Temp Blank temperature in compliance? Yes ☒ No ☐

Cooler #1 5.0°C Cooler #2 ☐ Cooler #3 ☐ Cooler #4 ☐ Cooler #5 ☐ Cooler #6 ☐

Chain of custody present? Yes ☒ No ☐

Chain of custody signed when relinquished and received? Yes ☒ No ☐

Chain of custody agrees with sample labels? Yes ☒ No ☐

Samples in proper container/bottle? Yes ☒ No ☐

Sample containers intact? Yes ☒ No ☐

Sufficient sample volume for indicated test? Yes ☒ No ☐

All samples received within holding time? Yes ☒ No ☐

Was TAT marked on the COC? Yes ☒ No ☐

Proceed with Standard TAT as per project history? Yes ☐ No ☐ Not Applicable ☒

Water - VOA vials have zero headspace? No VOA vials submitted ☒ Yes ☐ No ☐

Water - pH acceptable upon receipt? Yes ☐ No ☐ Not Applicable ☒

Adjusted? ☐ Checked by ☐

Case Narrative for resolution of the Non-Conformance.

# Analytical Environmental Servs, Inc.

Date: 25-Aug-03

CLIENT: Williams Environmental Services, Inc  
 Work Order: 0308662  
 Project: Macon II MGP

## ANALYTICAL QC SUMMARY REPORT

BatchID: 37297

Sample ID	MB-37297	SampType:	MBLK	TestCode:	6010B_S	Units:	mg/Kg	Prep Date:	8/21/2003	RunNo:	41861		
Client ID:		Batch ID:	37297	TestNo:	SW6010B			Analysis Date:	8/25/2003	SeqNo:	762036		
Analyte		Result		PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Lead		BRL			5.00								

Sample ID	LCS-37297	SampType:	LCS	TestCode:	6010B_S	Units:	mg/Kg	Prep Date:	8/21/2003	RunNo:	41861		
Client ID:		Batch ID:	37297		TestNo:	SW6010B		Analysis Date:	8/25/2003	SeqNo:	762035		
Analyte		Result		PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Lead		48.22		5.00	50	0	96.4	80	120	0	0	0	

Sample ID 0308662-015AMS	SampType: MS	TestCode: 6010B_S	Units: mg/Kg-dry	Prep Date: 8/21/2003	RunNo: 41861						
Client ID: DUP082003A	Batch ID: 37297	TestNo: SW6010B		Analysis Date: 8/25/2003	SeqNo: 762039						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Lead	75.08	3.70	36.96	37.76	101	75	125	0	0	0	

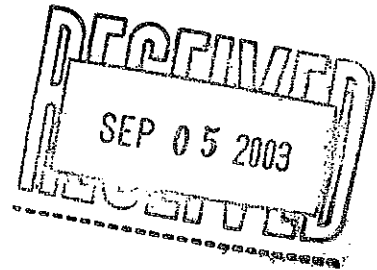
Sample ID 0308662-015ADUP	SampType: DUP	TestCode: 6010B_S	Units: mg/Kg-dry	Prep Date: 8/21/2003	RunNo: 41861						
Client ID: DUP082003A	Batch ID: 37297	TestNo: SW6010B		Analysis Date: 8/25/2003	SeqNo: 762038						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Lead	42.63	3.73	0	0	0	0	0	37.76	12.1	20	

Qualifiers: B Analyte detected in the associated Method Blank  
 H Holding times for preparation or analysis exceeded  
 R RPD outside accepted recovery limits  
 BRL Below Reporting Limit  
 J Analyte detected below quantitation limits  
 S Spike Recovery outside accepted recovery limits  
 E Value above quantitation range  
 N Analyte not NELAC certified



ANALYTICAL ENVIRONMENTAL SERVICES, INC.

August 27, 2003



Matt Ebbert  
Williams Environmental Services, Inc  
500 Chase Park South  
Suite 150  
Birmingham, AL 35244

TEL: (205) 988-8305

FAX (205) 988-5249

RE: Macon II MGP

Order No.: 0308663

Dear Matt Ebbert:

Analytical Environmental Servs, Inc. received 10 samples on 8/21/2003 12:30:00 PM for the analyses presented in the following report.

No problems were encountered during the analyses. Additionally, all results for the associated Quality Control samples were within EPA and/or AES established limits. Any discrepancies associated with the analyses contained herein will be noted and submitted in the form of a project Case Narrative. AES' certifications are as follows:

-NELAC/Florida Certification number E87582 for analysis of Environmental Water, soil/hazardous waste, and Drinking Water, effective 07/02/03-06/30/04.

-AIHA Certification number 505 for analysis of Air, Paint Chips, Soil and Dust Wipes, effective until 10/01/03.

These results relate only to the items tested. This report may only be reproduced in full and contains 4 total pages (including cover letter).

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

Sincerely,

Allison Cantrell  
Project Manager



15 Presidential Pkwy., Atlanta, GA 30340-3704

L: (770) 457-8177 / TOLL FREE: (800) 972-4889 / FAX: (770) 457-8188

Date: 8/21/03

Page 1 of 2

COMPANY:		ADDRESS:		ANALYSIS REQUESTED		REMARKS		No. of Containers											
WEST		500 Chase Park South Suite 150 Birmingham, AL																	
NE: 205-988-8305		FAX: 205-988-5291																	
PIPED BY: Peter N. Robinson		SIGNATURE: <i>Peter N. Robinson</i>																	
SAMPLE ID	SAMPLED		Grab	Composite	Matrix (See codes)	PRESERVATION												No. of Containers	
	DATE	TIME																	
MW-5	8/20/03	0745	X		GW													6	
MW-2	8/20/03	0820	X		GW													6	
MW-3	8/20/03	1300	X		GW													6	
MW-4	8/20/03	1415	X		GW													6	
MW-7	8/21/03	0815	X		GW													6	
MW-6	8/21/03	0650	X		GW													6	
MW-1	8/21/03	0830	X		GW													6	
RA082103	8/21/03	1000	X		GW													6	
TH082103	8/21/03	1005	X		GW													2	
INQUIRED BY: <i>Peter N. Robinson</i>		RECEIVED BY: <i>Amel Hameed</i>		DATE/TIME: 8/21/03 12:30		PROJECT INFORMATION												RECEIPT	
						PROJECT NAME: <i>MAcon II</i>												Total # of Containers: <i>56</i>	
						PROJECT # <i>1102590</i>												Turnaround Time Request: Standard 3-5 Business Days Same Day Rush (auth req.) Next Business Day Rush 2 Business Day Rush Other	
						SITE ADDRESS: <i>MAcon, GA</i>													
						PROJECT MANAGER: <i>MAH BLANKET</i>													
						INVOICE TO: (IF DIFFERENT FROM ABOVE)												PROGRAM (see codes):	
						SHIPMENT METHOD: OUT / / VIA: IN / / VIA: FedEx UPS MAIL COURIER GREYHOUND OTHER												DATA PACKAGE: I II III IV	

DIE CONTRACT #:

PREFIX CODES: A = Air GW = Groundwater SE = Sediment SO = Soil SW = Surface Water W = Water (Blanks) O = Other (specify)

PRESERVATIVE CODES: H = Hydrochloric acid + ice I = Ice only N = Nitric acid + ice S = Sulfuric acid + ice O = Other (specify) NA = None

GRAM: FLUST FLDC ALUST TNUST NCUST SCUST GAUST GACONV FLCONV

White Copy - ORIGINAL; Yellow Copy - LAB; Pink Copy - CLIENT

# Analytical Environmental Servs, Inc.

Date: 27-Aug-03

CLIENT: Williams Environmental Services, Inc  
Lab Order: 0308663  
Project: Macon II MGP  
Lab ID: 0308663-001

Client Sample ID: MW-5  
Collection Date: 8/20/2003 7:45:00 AM  
Matrix: GROUNDWATER

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
<b>TOTAL METALS BY ICP/MS</b>		<b>SW6020</b>		Analyst: SSS		
Arsenic	BRL	20.0		µg/L	1	8/25/2003 12:03:34 PM
Barium	1850	200		µg/L	10	8/26/2003 12:57:43 PM
Beryllium	BRL	5.00		µg/L	1	8/25/2003 12:03:34 PM
Cadmium	BRL	5.00		µg/L	1	8/25/2003 12:03:34 PM
Chromium	BRL	10.0		µg/L	1	8/25/2003 12:03:34 PM
Copper	BRL	10.0		µg/L	1	8/25/2003 12:03:34 PM
Lead	BRL	10.0		µg/L	1	8/25/2003 12:03:34 PM
Nickel	BRL	20.0		µg/L	1	8/25/2003 12:03:34 PM
Vanadium	BRL	10.0		µg/L	1	8/25/2003 12:03:34 PM
Zinc	BRL	20.0		µg/L	1	8/25/2003 12:03:34 PM
<b>MERCURY, TOTAL</b>		<b>SW7470A</b>		Analyst: JDJ		
Mercury	BRL	0.00050		mg/L	1	8/25/2003
<b>SEMIVOLATILE ORG. COMP. BY GC/MS</b>		<b>SW8270C</b>		Analyst: EP		
Acenaphthene	14	10		µg/L	1	8/22/2003 10:02:00 PM
Acenaphthylene	BRL	10		µg/L	1	8/22/2003 10:02:00 PM
Anthracene	BRL	10		µg/L	1	8/22/2003 10:02:00 PM
Benz(a)anthracene	BRL	10		µg/L	1	8/22/2003 10:02:00 PM
Benzo(a)pyrene	BRL	10		µg/L	1	8/22/2003 10:02:00 PM
Benzo(b)fluoranthene	BRL	10		µg/L	1	8/22/2003 10:02:00 PM
Benzo(g,h,i)perylene	BRL	10		µg/L	1	8/22/2003 10:02:00 PM
Benzo(k)fluoranthene	BRL	10		µg/L	1	8/22/2003 10:02:00 PM
Chrysene	BRL	10		µg/L	1	8/22/2003 10:02:00 PM
Dibenz(a,h)anthracene	BRL	10		µg/L	1	8/22/2003 10:02:00 PM
Fluoranthene	BRL	10		µg/L	1	8/22/2003 10:02:00 PM
Fluorene	BRL	10		µg/L	1	8/22/2003 10:02:00 PM
Indeno(1,2,3-cd)pyrene	BRL	10		µg/L	1	8/22/2003 10:02:00 PM
Naphthalene	BRL	10		µg/L	1	8/22/2003 10:02:00 PM
Phenanthrene	BRL	10		µg/L	1	8/22/2003 10:02:00 PM
Phenol	BRL	10		µg/L	1	8/22/2003 10:02:00 PM
Pyrene	BRL	10		µg/L	1	8/22/2003 10:02:00 PM
Surr: 2,4,6-Tribromophenol	118	37-127		%REC	1	8/22/2003 10:02:00 PM
Surr: 2-Fluorobiphenyl	97.7	43-110		%REC	1	8/22/2003 10:02:00 PM
Surr: 2-Fluorophenol	66.3	13-100		%REC	1	8/22/2003 10:02:00 PM
Surr: 4-Terphenyl-d14	87.6	10-121		%REC	1	8/22/2003 10:02:00 PM
Surr: Nitrobenzene-d5	82.7	40-110		%REC	1	8/22/2003 10:02:00 PM
Surr: Phenol-d5	20.5	10-121		%REC	1	8/22/2003 10:02:00 PM
<b>VOLATILE ORGANIC COMPOUNDS BY GC/MS</b>		<b>SW8260B</b>		Analyst: AD		
Benzene	BRL	5.0		µg/L	1	8/22/2003 9:11:00 PM
Carbon disulfide	BRL	5.0		µg/L	1	8/22/2003 9:11:00 PM

Qualifiers:	*	Value exceeds Maximum Contaminant Level	B	Analyte detected in the associated Method Blank
	BRL	Below Reporting Limit	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	N	Analyte not NELAC certified	P	NELAC analyte certification pending
	Rpt Limit	Reporting Limit	S	Spike Recovery outside accepted recovery limits

**Analytical Environmental Servs, Inc.**

Date: 27-Aug-03

CLIENT: Williams Environmental Services, Inc  
Lab Order: 0308663  
Project: Macon II MGP  
Lab ID: 0308663-001

Client Sample ID: MW-5  
Collection Date: 8/20/2003 7:45:00 AM

Matrix: GROUNDWATER

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
<b>VOLATILE ORGANIC COMPOUNDS BY GC/MS</b>		<b>SW8260B</b>		Analyst: AD		
Ethylbenzene	BRL	5.0		µg/L	1	8/22/2003 9:11:00 PM
Methylene chloride	BRL	5.0		µg/L	1	8/22/2003 9:11:00 PM
Toluene	BRL	5.0		µg/L	1	8/22/2003 9:11:00 PM
Xylenes, Total	BRL	5.0		µg/L	1	8/22/2003 9:11:00 PM
Surr: 4-Bromofluorobenzene	88.6	71.8-143		%REC	1	8/22/2003 9:11:00 PM
Surr: Dibromofluoromethane	93.4	80.3-123		%REC	1	8/22/2003 9:11:00 PM
Surr: Toluene-d8	89.1	70.1-142		%REC	1	8/22/2003 9:11:00 PM
<b>CYANIDE</b>		<b>SW9014</b>		Analyst: VS		
Cyanide, Total	BRL	0.010		mg/L	1	8/21/2003 6:20:00 PM

Qualifiers:	*	Value exceeds Maximum Contaminant Level	B	Analyte detected in the associated Method Blank
	BRL	Below Reporting Limit	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	N	Analyte not NELAC certified	P	NELAC analyte certification pending
	Rpt Limit	Reporting Limit	S	Spike Recovery outside accepted recovery limits

# Analytical Environmental Servs, Inc.

Date: 27-Aug-03

CLIENT: Williams Environmental Services, Inc  
 Lab Order: 0308663  
 Project: Macon II MGP  
 Lab ID: 0308663-002

Client Sample ID: MW-2  
 Collection Date: 8/20/2003 8:20:00 AM  
 Matrix: GROUNDWATER

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
<b>TOTAL METALS BY ICP/MS</b>		<b>SW6020</b>		<b>Analyst: SSS</b>		
Arsenic	BRL	20.0		µg/L	1	8/25/2003 12:12:38 PM
Barium	178	20.0		µg/L	1	8/25/2003 12:12:38 PM
Beryllium	BRL	5.00		µg/L	1	8/25/2003 12:12:38 PM
Cadmium	BRL	5.00		µg/L	1	8/25/2003 12:12:38 PM
Chromium	BRL	10.0		µg/L	1	8/25/2003 12:12:38 PM
Copper	BRL	10.0		µg/L	1	8/25/2003 12:12:38 PM
Lead	BRL	10.0		µg/L	1	8/25/2003 12:12:38 PM
Nickel	BRL	20.0		µg/L	1	8/25/2003 12:12:38 PM
Vanadium	BRL	10.0		µg/L	1	8/25/2003 12:12:38 PM
Zinc	BRL	20.0		µg/L	1	8/25/2003 12:12:38 PM
<b>MERCURY, TOTAL</b>		<b>SW7470A</b>		<b>Analyst: JDJ</b>		
Mercury	BRL	0.00050		mg/L	1	8/25/2003
<b>SEMIVOLATILE ORG. COMP. BY GC/MS</b>		<b>SW8270C</b>		<b>Analyst: EP</b>		
Acenaphthene	12	10		µg/L	1	8/22/2003 10:38:00 PM
Acenaphthylene	BRL	10		µg/L	1	8/22/2003 10:38:00 PM
Anthracene	BRL	10		µg/L	1	8/22/2003 10:38:00 PM
Benz(a)anthracene	BRL	10		µg/L	1	8/22/2003 10:38:00 PM
Benzo(a)pyrene	BRL	10		µg/L	1	8/22/2003 10:38:00 PM
Benzo(b)fluoranthene	BRL	10		µg/L	1	8/22/2003 10:38:00 PM
Benzo(g,h,i)perylene	BRL	10		µg/L	1	8/22/2003 10:38:00 PM
Benzo(k)fluoranthene	BRL	10		µg/L	1	8/22/2003 10:38:00 PM
Chrysene	BRL	10		µg/L	1	8/22/2003 10:38:00 PM
Dibenz(a,h)anthracene	BRL	10		µg/L	1	8/22/2003 10:38:00 PM
Fluoranthene	BRL	10		µg/L	1	8/22/2003 10:38:00 PM
Fluorene	BRL	10		µg/L	1	8/22/2003 10:38:00 PM
Indeno(1,2,3-cd)pyrene	BRL	10		µg/L	1	8/22/2003 10:38:00 PM
Naphthalene	BRL	10		µg/L	1	8/22/2003 10:38:00 PM
Phenanthrene	BRL	10		µg/L	1	8/22/2003 10:38:00 PM
Phenol	BRL	10		µg/L	1	8/22/2003 10:38:00 PM
Pyrene	BRL	10		µg/L	1	8/22/2003 10:38:00 PM
Surr: 2,4,6-Tribromophenol	109	37-127		%REC	1	8/22/2003 10:38:00 PM
Surr: 2-Fluorobiphenyl	92.5	43-110		%REC	1	8/22/2003 10:38:00 PM
Surr: 2-Fluorophenol	62.8	13-100		%REC	1	8/22/2003 10:38:00 PM
Surr: 4-Terphenyl-d14	81.9	10-121		%REC	1	8/22/2003 10:38:00 PM
Surr: Nitrobenzene-d5	80.2	40-110		%REC	1	8/22/2003 10:38:00 PM
Surr: Phenol-d5	39.7	10-121		%REC	1	8/22/2003 10:38:00 PM
<b>VOLATILE ORGANIC COMPOUNDS BY GC/MS</b>		<b>SW8260B</b>		<b>Analyst: AD</b>		
Benzene	BRL	5.0		µg/L	1	8/22/2003 9:42:00 PM
Carbon disulfide	BRL	5.0		µg/L	1	8/22/2003 9:42:00 PM

Qualifiers:	*	Value exceeds Maximum Contaminant Level	B	Analyte detected in the associated Method Blank
	BRL	Below Reporting Limit	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	N	Analyte not NELAC certified	P	NELAC analyte certification pending
	Rpt Limit	Reporting Limit	S	Spike Recovery outside accepted recovery limits

**Analytical Environmental Servs, Inc.**

Date: 27-Aug-03

**CLIENT:** Williams Environmental Services, Inc  
**Lab Order:** 0308663  
**Project:** Macon II MGP  
**Lab ID:** 0308663-002

**Client Sample ID:** MW-2  
**Collection Date:** 8/20/2003 8:20:00 AM  
**Matrix:** GROUNDWATER

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
<b>VOLATILE ORGANIC COMPOUNDS BY GC/MS</b>		<b>SW8260B</b>		Analyst: AD		
Ethylbenzene	BRL	5.0		µg/L	1	8/22/2003 9:42:00 PM
Methylene chloride	BRL	5.0		µg/L	1	8/22/2003 9:42:00 PM
Toluene	BRL	5.0		µg/L	1	8/22/2003 9:42:00 PM
Xylenes, Total	BRL	5.0		µg/L	1	8/22/2003 9:42:00 PM
Surr: 4-Bromofluorobenzene	88.4	71.8-143		%REC	1	8/22/2003 9:42:00 PM
Surr: Dibromofluoromethane	101	80.3-123		%REC	1	8/22/2003 9:42:00 PM
Surr: Toluene-d8	91.1	70.1-142		%REC	1	8/22/2003 9:42:00 PM
<b>CYANIDE</b>		<b>SW9014</b>		Analyst: VS		
Cyanide, Total	0.048	0.010		mg/L	1	8/21/2003 6:20:00 PM

<b>Qualifiers:</b>	*	Value exceeds Maximum Contaminant Level	B	Analyte detected in the associated Method Blank
	BRL	Below Reporting Limit	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	N	Analyte not NELAC certified	P	NELAC analyte certification pending
	Rpt Limit	Reporting Limit	S	Spike Recovery outside accepted recovery limits

# Analytical Environmental Servs, Inc.

Date: 27-Aug-03

CLIENT: Williams Environmental Services, Inc  
Lab Order: 0308663  
Project: Macon II MGP  
Lab ID: 0308663-003

Client Sample ID: MW-3  
Collection Date: 8/20/2003 1:00:00 PM  
Matrix: GROUNDWATER

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
<b>TOTAL METALS BY ICP/MS</b>		<b>SW6020</b>		Analyst: SSS		
Arsenic	BRL	20.0		µg/L	1	8/25/2003 12:17:12 PM
Barium	699	20.0		µg/L	1	8/25/2003 12:17:12 PM
Beryllium	BRL	5.00		µg/L	1	8/25/2003 12:17:12 PM
Cadmium	BRL	5.00		µg/L	1	8/25/2003 12:17:12 PM
Chromium	BRL	10.0		µg/L	1	8/25/2003 12:17:12 PM
Copper	BRL	10.0		µg/L	1	8/25/2003 12:17:12 PM
Lead	BRL	10.0		µg/L	1	8/25/2003 12:17:12 PM
Nickel	BRL	20.0		µg/L	1	8/25/2003 12:17:12 PM
Vanadium	BRL	10.0		µg/L	1	8/25/2003 12:17:12 PM
Zinc	BRL	20.0		µg/L	1	8/25/2003 12:17:12 PM
<b>MERCURY, TOTAL</b>		<b>SW7470A</b>		Analyst: JDJ		
Mercury	BRL	0.00050		mg/L	1	8/25/2003
<b>SEMIVOLATILE ORG. COMP. BY GC/MS</b>		<b>SW8270C</b>		Analyst: EP		
Acenaphthene	BRL	10		µg/L	1	8/22/2003 11:15:00 PM
Acenaphthylene	BRL	10		µg/L	1	8/22/2003 11:15:00 PM
Anthracene	BRL	10		µg/L	1	8/22/2003 11:15:00 PM
Benz(a)anthracene	BRL	10		µg/L	1	8/22/2003 11:15:00 PM
Benzo(a)pyrene	BRL	10		µg/L	1	8/22/2003 11:15:00 PM
Benzo(b)fluoranthene	BRL	10		µg/L	1	8/22/2003 11:15:00 PM
Benzo(g,h,i)perylene	BRL	10		µg/L	1	8/22/2003 11:15:00 PM
Benzo(k)fluoranthene	BRL	10		µg/L	1	8/22/2003 11:15:00 PM
Chrysene	BRL	10		µg/L	1	8/22/2003 11:15:00 PM
Dibenz(a,h)anthracene	BRL	10		µg/L	1	8/22/2003 11:15:00 PM
Fluoranthene	BRL	10		µg/L	1	8/22/2003 11:15:00 PM
Fluorene	BRL	10		µg/L	1	8/22/2003 11:15:00 PM
Indeno(1,2,3-cd)pyrene	BRL	10		µg/L	1	8/22/2003 11:15:00 PM
Naphthalene	BRL	10		µg/L	1	8/22/2003 11:15:00 PM
Phenanthrene	BRL	10		µg/L	1	8/22/2003 11:15:00 PM
Phenol	BRL	10		µg/L	1	8/22/2003 11:15:00 PM
Pyrene	BRL	10		µg/L	1	8/22/2003 11:15:00 PM
Surr: 2,4,6-Tribromophenol	107	37-127		%REC	1	8/22/2003 11:15:00 PM
Surr: 2-Fluorobiphenyl	89.2	43-110		%REC	1	8/22/2003 11:15:00 PM
Surr: 2-Fluorophenol	60.1	13-100		%REC	1	8/22/2003 11:15:00 PM
Surr: 4-Terphenyl-d14	85.5	10-121		%REC	1	8/22/2003 11:15:00 PM
Surr: Nitrobenzene-d5	74.4	40-110		%REC	1	8/22/2003 11:15:00 PM
Surr: Phenol-d5	43.0	10-121		%REC	1	8/22/2003 11:15:00 PM
<b>VOLATILE ORGANIC COMPOUNDS BY GC/MS</b>		<b>SW8260B</b>		Analyst: AD		
Benzene	BRL	5.0		µg/L	1	8/22/2003 10:13:00 PM
Carbon disulfide	BRL	5.0		µg/L	1	8/22/2003 10:13:00 PM

Qualifiers:	*	Value exceeds Maximum Contaminant Level	B	Analyte detected in the associated Method Blank
	BRL	Below Reporting Limit	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	N	Analyte not NELAC certified	P	NELAC analyte certification pending
	Rpt Limit	Reporting Limit	S	Spike Recovery outside accepted recovery limits



**Analytical Environmental Servs, Inc.**

Date: 27-Aug-03

CLIENT: Williams Environmental Services, Inc  
Lab Order: 0308663  
Project: Macon II MGP  
Lab ID: 0308663-003

Client Sample ID: MW-3  
Collection Date: 8/20/2003 1:00:00 PM  
Matrix: GROUNDWATER

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
<b>VOLATILE ORGANIC COMPOUNDS BY GC/MS</b>		<b>SW8260B</b>		Analyst: AD		
Ethylbenzene	BRL	5.0		µg/L	1	8/22/2003 10:13:00 PM
Methylene chloride	BRL	5.0		µg/L	1	8/22/2003 10:13:00 PM
Toluene	BRL	5.0		µg/L	1	8/22/2003 10:13:00 PM
Xylenes, Total	BRL	5.0		µg/L	1	8/22/2003 10:13:00 PM
Surr: 4-Bromofluorobenzene	88.8	71.8-143		%REC	1	8/22/2003 10:13:00 PM
Surr: Dibromofluoromethane	91.9	80.3-123		%REC	1	8/22/2003 10:13:00 PM
Surr: Toluene-d8	91.6	70.1-142		%REC	1	8/22/2003 10:13:00 PM
<b>CYANIDE</b>		<b>SW9014</b>		Analyst: VS		
Cyanide, Total	BRL	0.010		mg/L	1	8/21/2003 6:20:00 PM

Qualifiers:	*	Value exceeds Maximum Contaminant Level	B	Analyte detected in the associated Method Blank
	BRL	Below Reporting Limit	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	N	Analyte not NELAC certified	P	NELAC analyte certification pending
	Rpt Limit	Reporting Limit	S	Spike Recovery outside accepted recovery limits

# Analytical Environmental Servs, Inc.

Date: 27-Aug-03

CLIENT: Williams Environmental Services, Inc  
Lab Order: 0308663  
Project: Macon II MGP  
Lab ID: 0308663-004

Client Sample ID: MW-4  
Collection Date: 8/20/2003 2:15:00 PM  
Matrix: GROUNDWATER

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
<b>TOTAL METALS BY ICP/MS</b>		<b>SW6020</b>		Analyst: SSS		
Arsenic	BRL	20.0		µg/L	1	8/25/2003 12:21:48 PM
Barium	389	20.0		µg/L	1	8/25/2003 12:21:48 PM
Beryllium	BRL	5.00		µg/L	1	8/25/2003 12:21:48 PM
Cadmium	BRL	5.00		µg/L	1	8/25/2003 12:21:48 PM
Chromium	BRL	10.0		µg/L	1	8/25/2003 12:21:48 PM
Copper	BRL	10.0		µg/L	1	8/25/2003 12:21:48 PM
Lead	BRL	10.0		µg/L	1	8/25/2003 12:21:48 PM
Nickel	BRL	20.0		µg/L	1	8/25/2003 12:21:48 PM
Vanadium	BRL	10.0		µg/L	1	8/25/2003 12:21:48 PM
Zinc	BRL	20.0		µg/L	1	8/25/2003 12:21:48 PM
<b>MERCURY, TOTAL</b>		<b>SW7470A</b>		Analyst: JDJ		
Mercury	BRL	0.00050		mg/L	1	8/25/2003
<b>SEMIVOLATILE ORG. COMP. BY GC/MS</b>		<b>SW8270C</b>		Analyst: EP		
Acenaphthene	BRL	10		µg/L	1	8/22/2003 11:51:00 PM
Acenaphthylene	BRL	10		µg/L	1	8/22/2003 11:51:00 PM
Anthracene	BRL	10		µg/L	1	8/22/2003 11:51:00 PM
Benz(a)anthracene	BRL	10		µg/L	1	8/22/2003 11:51:00 PM
Benzo(a)pyrene	BRL	10		µg/L	1	8/22/2003 11:51:00 PM
Benzo(b)fluoranthene	BRL	10		µg/L	1	8/22/2003 11:51:00 PM
Benzo(g,h,i)perylene	BRL	10		µg/L	1	8/22/2003 11:51:00 PM
Benzo(k)fluoranthene	BRL	10		µg/L	1	8/22/2003 11:51:00 PM
Chrysene	BRL	10		µg/L	1	8/22/2003 11:51:00 PM
Dibenz(a,h)anthracene	BRL	10		µg/L	1	8/22/2003 11:51:00 PM
Fluoranthene	BRL	10		µg/L	1	8/22/2003 11:51:00 PM
Fluorene	BRL	10		µg/L	1	8/22/2003 11:51:00 PM
Indeno(1,2,3-cd)pyrene	BRL	10		µg/L	1	8/22/2003 11:51:00 PM
Naphthalene	BRL	10		µg/L	1	8/22/2003 11:51:00 PM
Phenanthrene	BRL	10		µg/L	1	8/22/2003 11:51:00 PM
Phenol	BRL	10		µg/L	1	8/22/2003 11:51:00 PM
Pyrene	BRL	10		µg/L	1	8/22/2003 11:51:00 PM
Surr: 2,4,6-Tribromophenol	119	37-127		%REC	1	8/22/2003 11:51:00 PM
Surr: 2-Fluorobiphenyl	94.8	43-110		%REC	1	8/22/2003 11:51:00 PM
Surr: 2-Fluorophenol	62.7	13-100		%REC	1	8/22/2003 11:51:00 PM
Surr: 4-Terphenyl-d14	89.4	10-121		%REC	1	8/22/2003 11:51:00 PM
Surr: Nitrobenzene-d5	80.4	40-110		%REC	1	8/22/2003 11:51:00 PM
Surr: Phenol-d5	42.4	10-121		%REC	1	8/22/2003 11:51:00 PM
<b>VOLATILE ORGANIC COMPOUNDS BY GC/MS</b>		<b>SW8260B</b>		Analyst: AD		
Benzene	BRL	5.0		µg/L	1	8/22/2003 10:45:00 PM
Carbon disulfide	BRL	5.0		µg/L	1	8/22/2003 10:45:00 PM

Qualifiers:	*	Value exceeds Maximum Contaminant Level	B	Analyte detected in the associated Method Blank
	BRL	Below Reporting Limit	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	N	Analyte not NELAC certified	P	NELAC analyte certification pending
	Rpt Limit	Reporting Limit	S	Spike Recovery outside accepted recovery limits

**Analytical Environmental Servs, Inc.**

Date: 27-Aug-03

CLIENT: Williams Environmental Services, Inc  
Lab Order: 0308663  
Project: Macon II MGP  
Lab ID: 0308663-004

Client Sample ID: MW-4  
Collection Date: 8/20/2003 2:15:00 PM  
Matrix: GROUNDWATER

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
<b>VOLATILE ORGANIC COMPOUNDS BY GC/MS</b>		<b>SW8260B</b>		Analyst: AD		
Ethylbenzene	BRL	5.0		µg/L	1	8/22/2003 10:45:00 PM
Methylene chloride	BRL	5.0		µg/L	1	8/22/2003 10:45:00 PM
Toluene	BRL	5.0		µg/L	1	8/22/2003 10:45:00 PM
Xylenes, Total	BRL	5.0		µg/L	1	8/22/2003 10:45:00 PM
Surr: 4-Bromofluorobenzene	90.0	71.8-143		%REC	1	8/22/2003 10:45:00 PM
Surr: Dibromofluoromethane	91.4	80.3-123		%REC	1	8/22/2003 10:45:00 PM
Surr: Toluene-d8	91.6	70.1-142		%REC	1	8/22/2003 10:45:00 PM
<b>CYANIDE</b>		<b>SW9014</b>		Analyst: VS		
Cyanide, Total	BRL	0.010		mg/L	1	8/21/2003 6:20:00 PM

Qualifiers:	*	Value exceeds Maximum Contaminant Level	B	Analyte detected in the associated Method Blank
	BRL	Below Reporting Limit	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	N	Analyte not NELAC certified	P	NELAC analyte certification pending
	Rpt Limit	Reporting Limit	S	Spike Recovery outside accepted recovery limits

# Analytical Environmental Servs, Inc.

Date: 27-Aug-03

CLIENT: Williams Environmental Services, Inc  
Lab Order: 0308663  
Project: Macon II MGP  
Lab ID: 0308663-005

Client Sample ID: MW-7  
Collection Date: 8/21/2003 8:15:00 AM  
Matrix: GROUNDWATER

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
<b>TOTAL METALS BY ICP/MS</b>		<b>SW6020</b>		Analyst: SSS		
Arsenic	BRL	20.0		µg/L	1	8/25/2003 12:35:30 PM
Barium	328	20.0		µg/L	1	8/25/2003 12:35:30 PM
Beryllium	BRL	5.00		µg/L	1	8/25/2003 12:35:30 PM
Cadmium	BRL	5.00		µg/L	1	8/25/2003 12:35:30 PM
Chromium	BRL	10.0		µg/L	1	8/25/2003 12:35:30 PM
Copper	BRL	10.0		µg/L	1	8/25/2003 12:35:30 PM
Lead	BRL	10.0		µg/L	1	8/25/2003 12:35:30 PM
Nickel	BRL	20.0		µg/L	1	8/25/2003 12:35:30 PM
Vanadium	BRL	10.0		µg/L	1	8/25/2003 12:35:30 PM
Zinc	BRL	20.0		µg/L	1	8/25/2003 12:35:30 PM
<b>MERCURY, TOTAL</b>		<b>SW7470A</b>		Analyst: JDJ		
Mercury	BRL	0.00050		mg/L	1	8/25/2003
<b>SEMIVOLATILE ORG. COMP. BY GC/MS</b>		<b>SW8270C</b>		Analyst: EP		
Acenaphthene	BRL	10		µg/L	1	8/23/2003 12:27:00 AM
Acenaphthylene	BRL	10		µg/L	1	8/23/2003 12:27:00 AM
Anthracene	BRL	10		µg/L	1	8/23/2003 12:27:00 AM
Benz(a)anthracene	BRL	10		µg/L	1	8/23/2003 12:27:00 AM
Benzo(a)pyrene	BRL	10		µg/L	1	8/23/2003 12:27:00 AM
Benzo(b)fluoranthene	BRL	10		µg/L	1	8/23/2003 12:27:00 AM
Benzo(g,h,i)perylene	BRL	10		µg/L	1	8/23/2003 12:27:00 AM
Benzo(k)fluoranthene	BRL	10		µg/L	1	8/23/2003 12:27:00 AM
Chrysene	BRL	10		µg/L	1	8/23/2003 12:27:00 AM
Dibenz(a,h)anthracene	BRL	10		µg/L	1	8/23/2003 12:27:00 AM
Fluoranthene	BRL	10		µg/L	1	8/23/2003 12:27:00 AM
Fluorene	BRL	10		µg/L	1	8/23/2003 12:27:00 AM
Indeno(1,2,3-cd)pyrene	BRL	10		µg/L	1	8/23/2003 12:27:00 AM
Naphthalene	BRL	10		µg/L	1	8/23/2003 12:27:00 AM
Phenanthrene	BRL	10		µg/L	1	8/23/2003 12:27:00 AM
Phenol	BRL	10		µg/L	1	8/23/2003 12:27:00 AM
Pyrene	BRL	10		µg/L	1	8/23/2003 12:27:00 AM
Surr: 2,4,6-Tribromophenol	105	37-127		%REC	1	8/23/2003 12:27:00 AM
Surr: 2-Fluorobiphenyl	86.5	43-110		%REC	1	8/23/2003 12:27:00 AM
Surr: 2-Fluorophenol	58.8	13-100		%REC	1	8/23/2003 12:27:00 AM
Surr: 4-Terphenyl-d14	83.8	10-121		%REC	1	8/23/2003 12:27:00 AM
Surr: Nitrobenzene-d5	74.0	40-110		%REC	1	8/23/2003 12:27:00 AM
Surr: Phenol-d5	39.0	10-121		%REC	1	8/23/2003 12:27:00 AM
<b>VOLATILE ORGANIC COMPOUNDS BY GC/MS</b>		<b>SW8260B</b>		Analyst: AD		
Benzene	BRL	5.0		µg/L	1	8/22/2003 11:16:00 PM
Carbon disulfide	BRL	5.0		µg/L	1	8/22/2003 11:16:00 PM

Qualifiers:	*	Value exceeds Maximum Contaminant Level	B	Analyte detected in the associated Method Blank
	BRL	Below Reporting Limit	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	N	Analyte not NELAC certified	P	NELAC analyte certification pending
	Rpt Limit	Reporting Limit	S	Spike Recovery outside accepted recovery limits

**Analytical Environmental Servs, Inc.**

Date: 27-Aug-03

**CLIENT:** Williams Environmental Services, Inc.  
**Lab Order:** 0308663  
**Project:** Macon II MGP  
**Lab ID:** 0308663-005

**Client Sample ID:** MW-7  
**Collection Date:** 8/21/2003 8:15:00 AM

**Matrix:** GROUNDWATER

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
<b>VOLATILE ORGANIC COMPOUNDS BY GC/MS</b>		<b>SW8260B</b>		Analyst: AD		
Ethylbenzene	BRL	5.0		µg/L	1	8/22/2003 11:16:00 PM
Methylene chloride	BRL	5.0		µg/L	1	8/22/2003 11:16:00 PM
Toluene	BRL	5.0		µg/L	1	8/22/2003 11:16:00 PM
Xylenes, Total	BRL	5.0		µg/L	1	8/22/2003 11:16:00 PM
Surr: 4-Bromofluorobenzene	89.3	71.8-143		%REC	1	8/22/2003 11:16:00 PM
Surr: Dibromofluoromethane	89.7	80.3-123		%REC	1	8/22/2003 11:16:00 PM
Surr: Toluene-d8	90.9	70.1-142		%REC	1	8/22/2003 11:16:00 PM
<b>CYANIDE</b>		<b>SW9014</b>		Analyst: VS		
Cyanide, Total	BRL	0.010		mg/L	1	8/21/2003 6:20:00 PM

<b>Qualifiers:</b>	*	Value exceeds Maximum Contaminant Level	B	Analyte detected in the associated Method Blank
	BRL	Below Reporting Limit	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	N	Analyte not NELAC certified	P	NELAC analyte certification pending
	Rpt Limit	Reporting Limit	S	Spike Recovery outside accepted recovery limits

**Analytical Environmental Servs, Inc.**

Date: 27-Aug-03

**CLIENT:** Williams Environmental Services, Inc  
**Lab Order:** 0308663  
**Project:** Macon II MGP  
**Lab ID:** 0308663-006

**Client Sample ID:** MW-6  
**Collection Date:** 8/21/2003 6:50:00 AM  
**Matrix:** GROUNDWATER

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
<b>TOTAL METALS BY ICP/MS</b>		<b>SW6020</b>		<b>Analyst: SSS</b>		
Arsenic	BRL	20.0		µg/L	1	8/25/2003 2:02:48 PM
Barium	168	20.0		µg/L	1	8/25/2003 2:02:48 PM
Beryllium	BRL	5.00		µg/L	1	8/25/2003 2:02:48 PM
Cadmium	BRL	5.00		µg/L	1	8/25/2003 2:02:48 PM
Chromium	BRL	10.0		µg/L	1	8/25/2003 2:02:48 PM
Copper	BRL	10.0		µg/L	1	8/25/2003 2:02:48 PM
Lead	BRL	10.0		µg/L	1	8/25/2003 2:02:48 PM
Nickel	BRL	20.0		µg/L	1	8/25/2003 2:02:48 PM
Vanadium	BRL	10.0		µg/L	1	8/25/2003 2:02:48 PM
Zinc	BRL	20.0		µg/L	1	8/25/2003 2:02:48 PM
<b>MERCURY, TOTAL</b>		<b>SW7470A</b>		<b>Analyst: JDJ</b>		
Mercury	BRL	0.00050		mg/L	1	8/25/2003
<b>SEMIVOLATILE ORG. COMP. BY GC/MS</b>		<b>SW8270C</b>		<b>Analyst: EP</b>		
Acenaphthene	BRL	10		µg/L	1	8/23/2003 1:03:00 AM
Acenaphthylene	BRL	10		µg/L	1	8/23/2003 1:03:00 AM
Anthracene	BRL	10		µg/L	1	8/23/2003 1:03:00 AM
Benz(a)anthracene	BRL	10		µg/L	1	8/23/2003 1:03:00 AM
Benzo(a)pyrene	BRL	10		µg/L	1	8/23/2003 1:03:00 AM
Benzo(b)fluoranthene	BRL	10		µg/L	1	8/23/2003 1:03:00 AM
Benzo(g,h,i)perylene	BRL	10		µg/L	1	8/23/2003 1:03:00 AM
Benzo(k)fluoranthene	BRL	10		µg/L	1	8/23/2003 1:03:00 AM
Chrysene	BRL	10		µg/L	1	8/23/2003 1:03:00 AM
Dibenz(a,h)anthracene	BRL	10		µg/L	1	8/23/2003 1:03:00 AM
Fluoranthene	BRL	10		µg/L	1	8/23/2003 1:03:00 AM
Fluorene	BRL	10		µg/L	1	8/23/2003 1:03:00 AM
Indeno(1,2,3-cd)pyrene	BRL	10		µg/L	1	8/23/2003 1:03:00 AM
Naphthalene	BRL	10		µg/L	1	8/23/2003 1:03:00 AM
Phenanthrene	BRL	10		µg/L	1	8/23/2003 1:03:00 AM
Phenol	BRL	10		µg/L	1	8/23/2003 1:03:00 AM
Pyrene	BRL	10		µg/L	1	8/23/2003 1:03:00 AM
Surr: 2,4,6-Tribromophenol	110	37-127		%REC	1	8/23/2003 1:03:00 AM
Surr: 2-Fluorobiphenyl	84.9	43-110		%REC	1	8/23/2003 1:03:00 AM
Surr: 2-Fluorophenol	58.5	13-100		%REC	1	8/23/2003 1:03:00 AM
Surr: 4-Terphenyl-d14	84.0	10-121		%REC	1	8/23/2003 1:03:00 AM
Surr: Nitrobenzene-d5	74.4	40-110		%REC	1	8/23/2003 1:03:00 AM
Surr: Phenol-d5	39.5	10-121		%REC	1	8/23/2003 1:03:00 AM
<b>VOLATILE ORGANIC COMPOUNDS BY GC/MS</b>		<b>SW8260B</b>		<b>Analyst: AD</b>		
Benzene	BRL	5.0		µg/L	1	8/22/2003 11:47:00 PM
Carbon disulfide	BRL	5.0		µg/L	1	8/22/2003 11:47:00 PM

<b>Qualifiers:</b>	*	Value exceeds Maximum Contaminant Level	B	Analyte detected in the associated Method Blank
	BRL	Below Reporting Limit	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	N	Analyte not NELAC certified	P	NELAC analyte certification pending
	Rpt Limit	Reporting Limit	S	Spike Recovery outside accepted recovery limits



**Analytical Environmental Servs, Inc.**

Date: 27-Aug-03

**CLIENT:** Williams Environmental Services, Inc  
**Lab Order:** 0308663  
**Project:** Macon II MGP  
**Lab ID:** 0308663-006

**Client Sample ID:** MW-6  
**Collection Date:** 8/21/2003 6:50:00 AM  
**Matrix:** GROUNDWATER

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
<b>VOLATILE ORGANIC COMPOUNDS BY GC/MS</b>		<b>SW8260B</b>		<b>Analyst: AD</b>		
Ethylbenzene	BRL	5.0		µg/L	1	8/22/2003 11:47:00 PM
Methylene chloride	BRL	5.0		µg/L	1	8/22/2003 11:47:00 PM
Toluene	BRL	5.0		µg/L	1	8/22/2003 11:47:00 PM
Xylenes, Total	BRL	5.0		µg/L	1	8/22/2003 11:47:00 PM
Surr: 4-Bromofluorobenzene	89.2	71.8-143		%REC	1	8/22/2003 11:47:00 PM
Surr: Dibromofluoromethane	99.0	80.3-123		%REC	1	8/22/2003 11:47:00 PM
Surr: Toluene-d8	91.2	70.1-142		%REC	1	8/22/2003 11:47:00 PM
<b>CYANIDE</b>		<b>SW9014</b>		<b>Analyst: VS</b>		
Cyanide, Total	BRL	0.010		mg/L	1	8/21/2003 6:20:00 PM

<b>Qualifiers:</b>	*	Value exceeds Maximum Contaminant Level	B	Analyte detected in the associated Method Blank
	BRL	Below Reporting Limit	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	N	Analyte not NELAC certified	P	NELAC analyte certification pending
	Rpt Limit	Reporting Limit	S	Spike Recovery outside accepted recovery limits

# Analytical Environmental Servs, Inc.

Date: 27-Aug-03

CLIENT: Williams Environmental Services, Inc.  
Lab Order: 0308663  
Project: Macon II MGP  
Lab ID: 0308663-007

Client Sample ID: MW-1  
Collection Date: 8/21/2003 8:30:00 AM  
Matrix: GROUNDWATER

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
<b>TOTAL METALS BY ICP/MS</b>		<b>SW6020</b>		Analyst: SSS		
Arsenic	BRL	20.0		µg/L	1	8/25/2003 2:07:24 PM
Barium	BRL	20.0		µg/L	1	8/25/2003 2:07:24 PM
Beryllium	BRL	5.00		µg/L	1	8/25/2003 2:07:24 PM
Cadmium	BRL	5.00		µg/L	1	8/25/2003 2:07:24 PM
Chromium	BRL	10.0		µg/L	1	8/25/2003 2:07:24 PM
Copper	BRL	10.0		µg/L	1	8/25/2003 2:07:24 PM
Lead	BRL	10.0		µg/L	1	8/25/2003 2:07:24 PM
Nickel	BRL	20.0		µg/L	1	8/25/2003 2:07:24 PM
Vanadium	BRL	10.0		µg/L	1	8/25/2003 2:07:24 PM
Zinc	BRL	20.0		µg/L	1	8/25/2003 2:07:24 PM
<b>MERCURY, TOTAL</b>		<b>SW7470A</b>		Analyst: JDJ		
Mercury	BRL	0.00050		mg/L	1	8/25/2003
<b>SEMIVOLATILE ORG. COMP. BY GC/MS</b>		<b>SW8270C</b>		Analyst: EP		
Acenaphthene	BRL	10		µg/L	1	8/23/2003 1:39:00 AM
Acenaphthylene	BRL	10		µg/L	1	8/23/2003 1:39:00 AM
Anthracene	BRL	10		µg/L	1	8/23/2003 1:39:00 AM
Benz(a)anthracene	BRL	10		µg/L	1	8/23/2003 1:39:00 AM
Benzo(a)pyrene	BRL	10		µg/L	1	8/23/2003 1:39:00 AM
Benzo(b)fluoranthene	BRL	10		µg/L	1	8/23/2003 1:39:00 AM
Benzo(g,h,i)perylene	BRL	10		µg/L	1	8/23/2003 1:39:00 AM
Benzo(k)fluoranthene	BRL	10		µg/L	1	8/23/2003 1:39:00 AM
Chrysene	BRL	10		µg/L	1	8/23/2003 1:39:00 AM
Dibenz(a,h)anthracene	BRL	10		µg/L	1	8/23/2003 1:39:00 AM
Fluoranthene	BRL	10		µg/L	1	8/23/2003 1:39:00 AM
Fluorene	BRL	10		µg/L	1	8/23/2003 1:39:00 AM
Indeno(1,2,3-cd)pyrene	BRL	10		µg/L	1	8/23/2003 1:39:00 AM
Naphthalene	BRL	10		µg/L	1	8/23/2003 1:39:00 AM
Phenanthrene	BRL	10		µg/L	1	8/23/2003 1:39:00 AM
Phenol	BRL	10		µg/L	1	8/23/2003 1:39:00 AM
Pyrene	BRL	10		µg/L	1	8/23/2003 1:39:00 AM
Surr: 2,4,6-Tribromophenol	117	37-127		%REC	1	8/23/2003 1:39:00 AM
Surr: 2-Fluorobiphenyl	98.1	43-110		%REC	1	8/23/2003 1:39:00 AM
Surr: 2-Fluorophenol	67.3	13-100		%REC	1	8/23/2003 1:39:00 AM
Surr: 4-Terphenyl-d14	86.0	10-121		%REC	1	8/23/2003 1:39:00 AM
Surr: Nitrobenzene-d5	85.4	40-110		%REC	1	8/23/2003 1:39:00 AM
Surr: Phenol-d5	44.0	10-121		%REC	1	8/23/2003 1:39:00 AM
<b>VOLATILE ORGANIC COMPOUNDS BY GC/MS</b>		<b>SW8260B</b>		Analyst: NWH		
Benzene	BRL	5.0		µg/L	1	8/25/2003 11:48:00 AM
Carbon disulfide	BRL	5.0		µg/L	1	8/25/2003 11:48:00 AM

Qualifiers:	*	Value exceeds Maximum Contaminant Level	B	Analyte detected in the associated Method Blank
	BRL	Below Reporting Limit	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	N	Analyte not NELAC certified	P	NELAC analyte certification pending
	Rpt Limit	Reporting Limit	S	Spike Recovery outside accepted recovery limits

**Analytical Environmental Servs, Inc.**

Date: 27-Aug-03

CLIENT: Williams Environmental Services, Inc  
Lab Order: 0308663  
Project: Macon II MGP  
Lab ID: 0308663-007

Client Sample ID: MW-1  
Collection Date: 8/21/2003 8:30:00 AM  
Matrix: GROUNDWATER

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
<b>VOLATILE ORGANIC COMPOUNDS BY GC/MS</b>		<b>SW8260B</b>		Analyst: NWH		
Ethylbenzene	BRL	5.0		µg/L	1	8/25/2003 11:48:00 AM
Methylene chloride	BRL	5.0		µg/L	1	8/25/2003 11:48:00 AM
Toluene	BRL	5.0		µg/L	1	8/25/2003 11:48:00 AM
Xylenes, Total	BRL	5.0		µg/L	1	8/25/2003 11:48:00 AM
Surr: 4-Bromofluorobenzene	85.8	71.8-143		%REC	1	8/25/2003 11:48:00 AM
Surr: Dibromofluoromethane	95.1	80.3-123		%REC	1	8/25/2003 11:48:00 AM
Surr: Toluene-d8	96.4	70.1-142		%REC	1	8/25/2003 11:48:00 AM
<b>CYANIDE</b>		<b>SW9014</b>		Analyst: VS		
Cyanide, Total	BRL	0.010		mg/L	1	8/21/2003 6:20:00 PM

Qualifiers:	*	Value exceeds Maximum Contaminant Level	B	Analyte detected in the associated Method Blank
	BRL	Below Reporting Limit	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	N	Analyte not NELAC certified	P	NELAC analyte certification pending
	Rpt Limit	Reporting Limit	S	Spike Recovery outside accepted recovery limits

# Analytical Environmental Servs, Inc.

Date: 27-Aug-03

CLIENT: Williams Environmental Services, Inc  
Lab Order: 0308663  
Project: Macon II MGP  
Lab ID: 0308663-008

Client Sample ID: DUP082003  
Collection Date: 8/20/2003

Matrix: GROUNDWATER

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
<b>TOTAL METALS BY ICP/MS</b>		<b>SW6020</b>		Analyst: SSS		
Arsenic	BRL	20.0		µg/L	1	8/25/2003 2:11:58 PM
Barium	692	20.0		µg/L	1	8/25/2003 2:11:58 PM
Beryllium	BRL	5.00		µg/L	1	8/25/2003 2:11:58 PM
Cadmium	BRL	5.00		µg/L	1	8/25/2003 2:11:58 PM
Chromium	BRL	10.0		µg/L	1	8/25/2003 2:11:58 PM
Copper	BRL	10.0		µg/L	1	8/25/2003 2:11:58 PM
Lead	BRL	10.0		µg/L	1	8/25/2003 2:11:58 PM
Nickel	BRL	20.0		µg/L	1	8/25/2003 2:11:58 PM
Vanadium	BRL	10.0		µg/L	1	8/25/2003 2:11:58 PM
Zinc	BRL	20.0		µg/L	1	8/25/2003 2:11:58 PM
<b>MERCURY, TOTAL</b>		<b>SW7470A</b>		Analyst: JDJ		
Mercury	BRL	0.00050		mg/L	1	8/25/2003
<b>SEMIVOLATILE ORG. COMP. BY GC/MS</b>		<b>SW8270C</b>		Analyst: YH		
Acenaphthene	BRL	10		µg/L	1	8/25/2003 2:00:00 PM
Acenaphthylene	BRL	10		µg/L	1	8/25/2003 2:00:00 PM
Anthracene	BRL	10		µg/L	1	8/25/2003 2:00:00 PM
Benz(a)anthracene	BRL	10		µg/L	1	8/25/2003 2:00:00 PM
Benzo(a)pyrene	BRL	10		µg/L	1	8/25/2003 2:00:00 PM
Benzo(b)fluoranthene	BRL	10		µg/L	1	8/25/2003 2:00:00 PM
Benzo(g,h,i)perylene	BRL	10		µg/L	1	8/25/2003 2:00:00 PM
Benzo(k)fluoranthene	BRL	10		µg/L	1	8/25/2003 2:00:00 PM
Chrysene	BRL	10		µg/L	1	8/25/2003 2:00:00 PM
Dibenz(a,h)anthracene	BRL	10		µg/L	1	8/25/2003 2:00:00 PM
Fluoranthene	BRL	10		µg/L	1	8/25/2003 2:00:00 PM
Fluorene	BRL	10		µg/L	1	8/25/2003 2:00:00 PM
Indeno(1,2,3-cd)pyrene	BRL	10		µg/L	1	8/25/2003 2:00:00 PM
Naphthalene	BRL	10		µg/L	1	8/25/2003 2:00:00 PM
Phenanthrene	BRL	10		µg/L	1	8/25/2003 2:00:00 PM
Phenol	BRL	10		µg/L	1	8/25/2003 2:00:00 PM
Pyrene	BRL	10		µg/L	1	8/25/2003 2:00:00 PM
Surr: 2,4,6-Tribromophenol	107	37-127		%REC	1	8/25/2003 2:00:00 PM
Surr: 2-Fluorobiphenyl	92.6	43-110		%REC	1	8/25/2003 2:00:00 PM
Surr: 2-Fluorophenol	71.8	13-100		%REC	1	8/25/2003 2:00:00 PM
Surr: 4-Terphenyl-d14	98.4	10-121		%REC	1	8/25/2003 2:00:00 PM
Surr: Nitrobenzene-d5	88.6	40-110		%REC	1	8/25/2003 2:00:00 PM
Surr: Phenol-d5	52.0	10-121		%REC	1	8/25/2003 2:00:00 PM
<b>VOLATILE ORGANIC COMPOUNDS BY GC/MS</b>		<b>SW8260B</b>		Analyst: NWH		
Benzene	BRL	5.0		µg/L	1	8/25/2003 1:11:00 PM
Carbon disulfide	BRL	5.0		µg/L	1	8/25/2003 1:11:00 PM

Qualifiers:	*	Value exceeds Maximum Contaminant Level	B	Analyte detected in the associated Method Blank
	BRL	Below Reporting Limit	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	N	Analyte not NELAC certified	P	NELAC analyte certification pending
	Rpt Limit	Reporting Limit	S	Spike Recovery outside accepted recovery limits

**Analytical Environmental Servs, Inc.**

Date: 27-Aug-03

CLIENT: Williams Environmental Services, Inc  
Lab Order: 0308663  
Project: Macon II MGP  
Lab ID: 0308663-008

Client Sample ID: DUP082003

Collection Date: 8/20/2003

Matrix: GROUNDWATER

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
<b>VOLATILE ORGANIC COMPOUNDS BY GC/MS</b>		<b>SW8260B</b>		Analyst: NWH		
Ethylbenzene	BRL	5.0		µg/L	1	8/25/2003 1:11:00 PM
Methylene chloride	BRL	5.0		µg/L	1	8/25/2003 1:11:00 PM
Toluene	BRL	5.0		µg/L	1	8/25/2003 1:11:00 PM
Xylenes, Total	BRL	5.0		µg/L	1	8/25/2003 1:11:00 PM
Surr: 4-Bromofluorobenzene	85.7	71.8-143		%REC	1	8/25/2003 1:11:00 PM
Surr: Dibromofluoromethane	96.4	80.3-123		%REC	1	8/25/2003 1:11:00 PM
Surr: Toluene-d8	100	70.1-142		%REC	1	8/25/2003 1:11:00 PM
<b>CYANIDE</b>		<b>SW9014</b>		Analyst: VS		
Cyanide, Total	BRL	0.010		mg/L	1	8/21/2003 6:20:00 PM

Qualifiers:	*	Value exceeds Maximum Contaminant Level	B	Analyte detected in the associated Method Blank
	BRL	Below Reporting Limit	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	N	Analyte not NELAC certified	P	NELAC analyte certification pending
	Rpt Limit	Reporting Limit	S	Spike Recovery outside accepted recovery limits

# Analytical Environmental Servs, Inc.

Date: 27-Aug-03

CLIENT: Williams Environmental Services, Inc.  
Lab Order: 0308663  
Project: Macon II MGP  
Lab ID: 0308663-009

Client Sample ID: RB082103  
Collection Date: 8/21/2003 10:00:00 AM  
Matrix: GROUNDWATER

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
<b>TOTAL METALS BY ICP/MS</b>		<b>SW6020</b>		Analyst: SSS		
Arsenic	BRL	20.0		µg/L	1	8/25/2003 2:16:29 PM
Barium	BRL	20.0		µg/L	1	8/25/2003 2:16:29 PM
Beryllium	BRL	5.00		µg/L	1	8/25/2003 2:16:29 PM
Cadmium	BRL	5.00		µg/L	1	8/25/2003 2:16:29 PM
Chromium	BRL	10.0		µg/L	1	8/25/2003 2:16:29 PM
Copper	BRL	10.0		µg/L	1	8/25/2003 2:16:29 PM
Lead	BRL	10.0		µg/L	1	8/25/2003 2:16:29 PM
Nickel	BRL	20.0		µg/L	1	8/25/2003 2:16:29 PM
Vanadium	BRL	10.0		µg/L	1	8/25/2003 2:16:29 PM
Zinc	BRL	20.0		µg/L	1	8/25/2003 2:16:29 PM
<b>MERCURY, TOTAL</b>		<b>SW7470A</b>		Analyst: JDJ		
Mercury	BRL	0.00050		mg/L	1	8/25/2003
<b>SEMIVOLATILE ORG. COMP. BY GC/MS</b>		<b>SW8270C</b>		Analyst: YH		
Acenaphthene	BRL	10		µg/L	1	8/25/2003 2:38:00 PM
Acenaphthylene	BRL	10		µg/L	1	8/25/2003 2:38:00 PM
Anthracene	BRL	10		µg/L	1	8/25/2003 2:38:00 PM
Benz(a)anthracene	BRL	10		µg/L	1	8/25/2003 2:38:00 PM
Benzo(a)pyrene	BRL	10		µg/L	1	8/25/2003 2:38:00 PM
Benzo(b)fluoranthene	BRL	10		µg/L	1	8/25/2003 2:38:00 PM
Benzo(g,h,i)perylene	BRL	10		µg/L	1	8/25/2003 2:38:00 PM
Benzo(k)fluoranthene	BRL	10		µg/L	1	8/25/2003 2:38:00 PM
Chrysene	BRL	10		µg/L	1	8/25/2003 2:38:00 PM
Dibenz(a,h)anthracene	BRL	10		µg/L	1	8/25/2003 2:38:00 PM
Fluoranthene	BRL	10		µg/L	1	8/25/2003 2:38:00 PM
Fluorene	BRL	10		µg/L	1	8/25/2003 2:38:00 PM
Indeno(1,2,3-cd)pyrene	BRL	10		µg/L	1	8/25/2003 2:38:00 PM
Naphthalene	BRL	10		µg/L	1	8/25/2003 2:38:00 PM
Phenanthrene	BRL	10		µg/L	1	8/25/2003 2:38:00 PM
Phenol	BRL	10		µg/L	1	8/25/2003 2:38:00 PM
Pyrene	BRL	10		µg/L	1	8/25/2003 2:38:00 PM
Surr: 2,4,6-Tribromophenol	91.8	37-127		%REC	1	8/25/2003 2:38:00 PM
Surr: 2-Fluorobiphenyl	86.9	43-110		%REC	1	8/25/2003 2:38:00 PM
Surr: 2-Fluorophenol	64.5	13-100		%REC	1	8/25/2003 2:38:00 PM
Surr: 4-Terphenyl-d14	97.0	10-121		%REC	1	8/25/2003 2:38:00 PM
Surr: Nitrobenzene-d5	84.1	40-110		%REC	1	8/25/2003 2:38:00 PM
Surr: Phenol-d5	42.8	10-121		%REC	1	8/25/2003 2:38:00 PM
<b>VOLATILE ORGANIC COMPOUNDS BY GC/MS</b>		<b>SW8260B</b>		Analyst: AD		
Benzene	BRL	5.0		µg/L	1	8/22/2003 8:09:00 PM
Carbon disulfide	BRL	5.0		µg/L	1	8/22/2003 8:09:00 PM

Qualifiers:	*	Value exceeds Maximum Contaminant Level	B	Analyte detected in the associated Method Blank
	BRL	Below Reporting Limit	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	N	Analyte not NELAC certified	P	NELAC analyte certification pending
	Rpt Limit	Reporting Limit	S	Spike Recovery outside accepted recovery limits



**Analytical Environmental Servs, Inc.**

Date: 27-Aug-03

**CLIENT:** Williams Environmental Services, Inc.  
**Lab Order:** 0308663  
**Project:** Macon II MGP  
**Lab ID:** 0308663-009

**Client Sample ID:** RB082103  
**Collection Date:** 8/21/2003 10:00:00 AM  
**Matrix:** GROUNDWATER

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
<b>VOLATILE ORGANIC COMPOUNDS BY GC/MS</b>		<b>SW8260B</b>				Analyst: AD
Ethylbenzene	BRL	5.0		µg/L	1	8/22/2003 8:09:00 PM
Methylene chloride	BRL	5.0		µg/L	1	8/22/2003 8:09:00 PM
Toluene	BRL	5.0		µg/L	1	8/22/2003 8:09:00 PM
Xylenes, Total	BRL	5.0		µg/L	1	8/22/2003 8:09:00 PM
Surr: 4-Bromofluorobenzene	89.7	71.8-143		%REC	1	8/22/2003 8:09:00 PM
Surr: Dibromofluoromethane	92.3	80.3-123		%REC	1	8/22/2003 8:09:00 PM
Surr: Toluene-d8	88.8	70.1-142		%REC	1	8/22/2003 8:09:00 PM
<b>CYANIDE</b>		<b>SW9014</b>				Analyst: VS
Cyanide, Total	BRL	0.010		mg/L	1	8/21/2003 6:20:00 PM

<b>Qualifiers:</b>	*	Value exceeds Maximum Contaminant Level	B	Analyte detected in the associated Method Blank
	BRL	Below Reporting Limit	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	N	Analyte not NELAC certified	P	NELAC analyte certification pending
	Rpt Limit	Reporting Limit	S	Spike Recovery outside accepted recovery limits

**Analytical Environmental Servs, Inc.**

Date: 27-Aug-03

CLIENT: Williams Environmental Services, Inc.  
Lab Order: 0308663  
Project: Macon II MGP  
Lab ID: 0308663-010

Client Sample ID: TB082103  
Collection Date: 8/21/2003 10:05:00 AM

Matrix: GROUNDWATER

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
VOLATILE ORGANIC COMPOUNDS BY GC/MS		SW8260B		Analyst: AD		
Benzerie	BRL	5.0		µg/L	1	8/22/2003 8:40:00 PM
Carbon disulfide	BRL	5.0		µg/L	1	8/22/2003 8:40:00 PM
Ethylbenzene	BRL	5.0		µg/L	1	8/22/2003 8:40:00 PM
Methylene chloride	BRL	5.0		µg/L	1	8/22/2003 8:40:00 PM
Toluene	BRL	5.0		µg/L	1	8/22/2003 8:40:00 PM
Xylenes, Total	BRL	5.0		µg/L	1	8/22/2003 8:40:00 PM
Surr: 4-Bromofluorobenzene	87.0	71.8-143		%REC	1	8/22/2003 8:40:00 PM
Surr: Dibromofluoromethane	94.7	80.3-123		%REC	1	8/22/2003 8:40:00 PM
Surr: Toluene-d8	91.9	70.1-142		%REC	1	8/22/2003 8:40:00 PM

Qualifiers:	*	Value exceeds Maximum Contaminant Level	B	Analyte detected in the associated Method Blank
	BRL	Below Reporting Limit	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	N	Analyte not NELAC certified	P	NELAC analyte certification pending
	Rpt Limit	Reporting Limit	S	Spike Recovery outside accepted recovery limits

Analytical Environmental Services, Inc.

Sample/Cooler Receipt Checklist

Client WEST

Work Order Number 0308663

Checklist completed by Nyame Osborn 8/21/03  
Signature Date

Carrier name: FedEx ☐ UPS ☐ Courier ☐ Client ☒ US Mail ☐ Other ☐

Shipping container/cooler in good condition? Yes ☒ No ☐ Not Present ☐

Custody seals intact on shipping container/cooler? Yes ☐ No ☐ Not Present ☒

Custody seals intact on sample bottles? Yes ☐ No ☐ Not Present ☒

Container/Temp Blank temperature in compliance? Yes ☒ No ☐

Cooler #1 5.2°c Cooler #2 4.8°c Cooler #3 5.5°c Cooler #4 ☐ Cooler #5 ☐ Cooler #6 ☐

Chain of custody present? Yes ☒ No ☐

Chain of custody signed when relinquished and received? Yes ☒ No ☐

Chain of custody agrees with sample labels? Yes ☒ No ☐

Samples in proper container/bottle? Yes ☒ No ☐

Sample containers intact? Yes ☒ No ☐

Sufficient sample volume for indicated test? Yes ☒ No ☐

All samples received within holding time? Yes ☒ No ☐

Was TAT marked on the COC? Yes ☒ No ☐

Proceed with Standard TAT as per project history? Yes ☐ No ☐ Not Applicable ☒

Water - VOA vials have zero headspace? No VOA vials submitted ☐ Yes ☒ No ☐

Water - pH acceptable upon receipt? Yes ☒ No ☐ Not Applicable ☐

Adjusted? ☐ Checked by N.O.

Case Narrative for resolution of the Non-Conformance.

**Analytical Environmental Servs, Inc.**

Date: 27-Aug-03

**CLIENT:** Williams Environmental Services, Inc  
**Project:** Macon II MGP  
**Lab Order:** 0308663

**CASE NARRATIVE****Metals Analysis by Method 6020B:**

Zn was detected in Method Blank 37318 at 23µg/l which was above reporting limit of 20µg/l resulting in "B" qualified data. Associated sample values were greater than approximately 10X the blank value or less than reporting limit and data was not affected.

LCS-37318 is flagged For Zn due to the hit in the method blank.

CLIENT: Williams Environmental Services, Inc  
 Work Order: 0308663  
 Project: Macon II MGP

## ANALYTICAL QC SUMMARY REPORT

BatchID: 37280

Sample ID: MB-37280	SampType: MBLK	TestCode: 8260_TCL_W	Units: µg/L	Prep Date: 8/21/2003	RunNo: 41772						
Client ID:	Batch ID: 37280	TestNo: SW8260B		Analysis Date: 8/21/2003	SeqNo: 759657						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Benzene	BRL	5.0									
Carbon disulfide	BRL	5.0									
Ethylbenzene	BRL	5.0									
Methylene chloride	BRL	5.0									
Toluene	BRL	5.0									
Xylenes, Total	BRL	5.0									
Surr: 4-Bromofluorobenzene	48.99	0	50		98	71.8	143	0	0		
Surr: Dibromofluoromethane	57.34	0	50		115	80.3	123	0	0		
Surr: Toluene-d8	52.42	0	50		105	70.1	142	0	0		

Sample ID: MB-37280	SampType: MBLK	TestCode: 8260B_W	Units: µg/L	Prep Date: 8/21/2003	RunNo: 41762						
Client ID:	Batch ID: 37280	TestNo: SW8260B		Analysis Date: 8/20/2003	SeqNo: 759401						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Benzene	BRL	5.0									
Carbon disulfide	BRL	5.0									
Ethylbenzene	BRL	5.0									
Methylene chloride	BRL	5.0									
Toluene	BRL	5.0									
Xylenes, Total	BRL	5.0									
Surr: 4-Bromofluorobenzene	47.64	5.0	50	0	95.3	71.8	143	0	0		
Surr: Dibromofluoromethane	57.18	5.0	50	0	114	80.3	123	0	0		
Surr: Toluene-d8	53.72	5.0	50	0	107	70.1	142	0	0		

Sample ID: LCS-37280	SampType: LCS	TestCode: 8260B_W	Units: µg/L	Prep Date: 8/21/2003	RunNo: 41762						
Client ID:	Batch ID: 37280	TestNo: SW8260B		Analysis Date: 8/20/2003	SeqNo: 759402						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Benzene	50.06	5.0	50	0	100	71.1	120	0	0		
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Qualifiers: B Analyte detected in the associated Method Blank  
 H Holding times for preparation or analysis exceeded  
 R RPD outside accepted recovery limits

BRL Below Reporting Limit  
 J Analyte detected below quantitation limits  
 S Spike Recovery outside accepted recovery limits

E Value above quantitation range  
 N Analyte not NELAC certified

CLIENT: Williams Environmental Services, Inc  
 Work Order: 0308663  
 Project: Macon II MGP

# ANALYTICAL QC SUMMARY REPORT

BatchID: 37280

Sample ID: LCS-37280	Sample Type: LCS	TestCode: 8260B_W	Units: µg/L	Prep Date: 8/21/2003	RunNo: 41762						
Client ID:	Batch ID: 37280	TestNo: SW8260B		Analysis Date: 8/20/2003	SeqNo: 759402						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Toluene	51.32	5.0	50	0	103	84	124	0	0		
Surr: 4-Bromofluorobenzene	47.87	5.0	50	0	95.7	71.8	143	0	0		
Surr: Dibromofluoromethane	54.15	5.0	50	0	108	80.3	123	0	0		
Surr: Toluene-d8	51.32	5.0	50	0	103	70.1	142	0	0		

Sample ID: 0308573-016AMS	SampleType: MS	TestCode: 8260B_W	Units: µg/L	Prep Date: 8/21/2003	RunNo: 41934						
Client ID:	Batch ID: 37280	TestNo: SW8260B		Analysis Date: 8/26/2003	SeqNo: 764647						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Benzene	45.94	5.0	50	0	91.9	75	130	0	0		
Toluene	48.37	5.0	50	0	96.7	79	125	0	0		
Surr: 4-Bromofluorobenzene	43.22	5.0	50	0	86.4	71.8	143	0	0		
Surr: Dibromofluoromethane	44.98	5.0	50	0	90	80.3	123	0	0		
Surr: Toluene-d8	47.81	5.0	50	0	95.6	70.1	142	0	0		

Sample ID: 0308573-016AMSD	SampleType: MSD	TestCode: 8260B_W	Units: µg/L	Prep Date: 8/21/2003	RunNo: 41934						
Client ID:	Batch ID: 37280	TestNo: SW8260B		Analysis Date: 8/26/2003	SeqNo: 764649						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Benzene	44.57	5.0	50	0	89.1	75	130	45.94	3.03	30	
Toluene	46.4	5.0	50	0	92.8	79	125	48.37	4.16	30	
Surr: 4-Bromofluorobenzene	43.51	5.0	50	0	87	71.8	143	43.22	0	0	
Surr: Dibromofluoromethane	45.62	5.0	50	0	91.2	80.3	123	44.98	0	0	
Surr: Toluene-d8	48.35	5.0	50	0	96.7	70.1	142	47.81	0	0	

Sample ID: MB-37280	SampleType: MBLK	TestCode: 8260B_W_CL	Units: µg/L	Prep Date: 8/21/2003	RunNo: 41751						
Client ID:	Batch ID: 37280	TestNo: SW8260B		Analysis Date: 8/20/2003	SeqNo: 759216						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Benzene	BRL	5.0									
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Qualifiers: B Analyte detected in the associated Method Blank BRL Below Reporting Limit E Value above quantitation range  
 H Holding times for preparation or analysis exceeded J Analyte detected below quantitation limits N Analyte not NELAC certified  
 R RPD outside accepted recovery limits S Spike Recovery outside accepted recovery limits



CLIENT: Williams Environmental Services, Inc  
 Work Order: 0308663  
 Project: Macon II MGP

# ANALYTICAL QC SUMMARY REPORT

BatchID: 37280

Sample ID: MB-37280	SampType: MBLK	TestCode: 8260B_W_CL	Units: µg/L	Prep Date: 8/21/2003	RunNo: 41751						
Client ID:	Batch ID: 37280	TestNo: SW8260B		Analysis Date: 8/20/2003	SeqNo: 759216						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Carbon disulfide	BRL	5.0									
Ethylbenzene	BRL	5.0									
Methylene chloride	BRL	5.0									
Toluene	BRL	5.0									
Xylenes, Total	BRL	5.0									
Surr: 4-Bromofluorobenzene	47.64	0	50	0	95.3	71.8	143	0	0		
Surr: Dibromofluoromethane	57.18	0	50	0	114	80.3	123	0	0		
Surr: Toluene-d8	53.72	0	50	0	107	70.1	142	0	0		

Sample ID: LCS-37280	SampType: LCS	TestCode: 8260B_W_CL	Units: µg/L	Prep Date: 8/21/2003	RunNo: 41751						
Client ID:	Batch ID: 37280	TestNo: SW8260B		Analysis Date: 8/20/2003	SeqNo: 759217						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzene	50.06	5.0	50	0	100	71.1	120	0	0		
Toluene	51.32	5.0	50	0	103	84	124	0	0		
Surr: 4-Bromofluorobenzene	47.87	0	50	0	95.7	71.8	143	0	0		
Surr: Dibromofluoromethane	54.15	0	50	0	108	80.3	123	0	0		
Surr: Toluene-d8	51.32	0	50	0	103	70.1	142	0	0		

Qualifiers:	B	Analyte detected in the associated Method Blank	BRL	Below Reporting Limit	E	Value above quantitation range
H		Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits	N	Analyte not NELAC certified
R		RPD outside accepted recovery limits	S	Spike Recovery outside accepted recovery limits		

CLIENT: Williams Environmental Services, Inc  
 Work Order: 0308663  
 Project: Macon II MGP

# ANALYTICAL QC SUMMARY REPORT

BatchID: 37292

Sample ID: MB-37292	Sample Type: MBLK	TestCode: 8270_A2_W	Units: µg/L	Prep Date: 8/21/2003	RunNo: 41884						
Client ID:	Batch ID: 37292	TestNo: SW8270C		Analysis Date: 8/22/2003	SeqNo: 762476						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Acenaphthene	BRL	10									
Acenaphthylene	BRL	10									
Anthracene	BRL	10									
Benz(a)anthracene	BRL	10									
Benzo(a)pyrene	BRL	10									
Benzo(b)fluoranthene	BRL	10									
Benzo(g,h,i)perylene	BRL	10									
Benzo(k)fluoranthene	BRL	10									
Chrysene	BRL	10									
Dibenz(a,h)anthracene	BRL	10									
Fluoranthene	BRL	10									
Fluorene	BRL	10									
Indeno(1,2,3-cd)pyrene	BRL	10									
Naphthalene	BRL	10									
Phenanthrene	BRL	10									
Phenol	BRL	10									
Pyrene	BRL	10									
Surr: 2,4,6-Tribromophenol	98.68	0	100	0	98.7	19	124	0	0	0	
Surr: 2-Fluorobiphenyl	47.61	0	50	0	95.2	26	115	0	0	0	
Surr: 2-Fluorophenol	92.27	0	100	0	92.3	10	121	0	0	0	
Surr: 4-Terphenyl-d14	49.27	0	50	0	98.5	18	137	0	0	0	
Surr: Nitrobenzene-d5	47.42	0	50	0	94.8	15	120	0	0	0	
Surr: Phenol-d5	69.67	0	100	0	69.7	18	113	0	0	0	

Sample ID: LCS-37292	SampleType: LCS	TestCode: 8270_A2_W	Units: µg/L	Prep Date: 8/21/2003	RunNo: 41884						
Client ID:	Batch ID: 37292	TestNo: SW8270C		Analysis Date: 8/22/2003	SeqNo: 762477						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Acenaphthene	85.07	10	100	0	85.1	47	145	0	0	0	
Phenol	66.02	10	100	0	66	5	112	0	0	0	
Pyrene	97.49	10	100	0	97.5	52	115	0	0	0	

Qualifiers:	B	Analyte detected in the associated Method Blank	BRL	Below Reporting Limit	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits	N	Analyte not NELAC certified
	R	RPD outside accepted recovery limits	S	Spike Recovery outside accepted recovery limits		

CLIENT: Williams Environmental Services, Inc  
 Work Order: 0308663  
 Project: Macon II MGP

# ANALYTICAL QC SUMMARY REPORT

BatchID: 37292

Sample ID: LCS-37292	SampType: LCS	TestCode: 8270_A2_W	Units: µg/L	Prep Date: 8/21/2003	RunNo: 41884						
Client ID:	Batch ID: 37292	TestNo: SW8270C		Analysis Date: 8/22/2003	SeqNo: 762477						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Surr: 2,4,6-Tribromophenol  
 Surr: 2-Fluorobiphenyl  
 Surr: 2-Fluorophenol  
 Surr: 4-Terphenyl-d14  
 Surr: Nitrobenzene-d5  
 Surr: Phenol-d5

Sample ID: 0308605-001AMS	SampType: MS	TestCode: 8270_A2_W	Units: µg/L	Prep Date: 8/21/2003	RunNo: 41884						
Client ID:	Batch ID: 37292	TestNo: SW8270C		Analysis Date: 8/22/2003	SeqNo: 762479						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Acenaphthene  
 Phenol  
 Pyrene  
 Surr: 2,4,6-Tribromophenol  
 Surr: 2-Fluorobiphenyl  
 Surr: 2-Fluorophenol  
 Surr: 4-Terphenyl-d14  
 Surr: Nitrobenzene-d5  
 Surr: Phenol-d5

Sample ID: 0308605-001AMSD	SampType: MSD	TestCode: 8270_A2_W	Units: µg/L	Prep Date: 8/21/2003	RunNo: 41884						
Client ID:	Batch ID: 37292	TestNo: SW8270C		Analysis Date: 8/22/2003	SeqNo: 762480						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Acenaphthene  
 Phenol  
 Pyrene  
 Surr: 2,4,6-Tribromophenol  
 Surr: 2-Fluorobiphenyl  
 Surr: 2-Fluorophenol

Qualifiers:	B	Analyte detected in the associated Method Blank	BRL	Below Reporting Limit	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits	N	Analyte not NELAC certified
	R	RPD outside accepted recovery limits	S	Spike Recovery outside accepted recovery limits		

CLIENT: Williams Environmental Services, Inc  
 Work Order: 0308663  
 Project: Macon II MGP

# ANALYTICAL QC SUMMARY REPORT

BatchID: 37292

Sample ID: 0308605-001AMSD		SampType: MSD		TestCode: 8270_A2_W		Units: µg/L		Prep Date: 8/21/2003		RunNo: 41884			
Client ID:		Batch ID: 37292		TestNo: SW8270C		Analysis Date: 8/22/2003						SeqNo: 762480	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual		
Surr: 4-Terphenyl-d14	43.23	0	50	0	86.5	18	137	42.67	0	0	0		
Surr: Nitrobenzene-d5	38.16	0	50	0	76.3	15	120	38.17	0	0	0		
Surr: Phenol-d5	63.7	0	100	0	63.7	18	113	60.84	0	0	0		

Qualifiers:	B	Analyte detected in the associated Method Blank	BRL	Below Reporting Limit	E	Value above quantitation range
H		Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits	N	Analyte not NELAC certified
R		RPD outside accepted recovery limits	S	Spike Recovery outside accepted recovery limits		

CLIENT: Williams Environmental Services, Inc  
 Work Order: 0308663  
 Project: Macon II MGP

# ANALYTICAL QC SUMMARY REPORT

BatchID: 37318

Sample ID: MB-37318	SampType: MBLK	TestCode: 6020_W	Units: µg/L	Prep Date: 8/22/2003	RunNo: 41893						
Client ID:	Batch ID: 37318	TestNo: SW6020		Analysis Date: 8/25/2003	SeqNo: 762671						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Arsenic	BRL	20.0									
Barium	BRL	20.0									
Beryllium	BRL	5.00									
Cadmium	BRL	5.00									
Chromium	BRL	10.0									
Copper	BRL	10.0									
Lead	BRL	10.0									
Nickel	BRL	20.0									
Vanadium	BRL	10.0									
Zinc	30.67	20.0									

Sample ID: LCS-37318	SampType: LCS	TestCode: 6020_W	Units: µg/L	Prep Date: 8/22/2003	RunNo: 41893						
Client ID:	Batch ID: 37318	TestNo: SW6020		Analysis Date: 8/25/2003	SeqNo: 762672						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Arsenic	97.27	20.0	100	0.858	96.4	85	115	0	0		
Barium	105.5	20.0	100	0.18	105	85	115	0	0		
Beryllium	107.3	5.00	100	0	107	85	115	0	0		
Cadmium	108.9	5.00	100	0	109	85	115	0	0		
Chromium	105.5	10.0	100	0	106	85	115	0	0		
Copper	107.3	10.0	100	0.642	107	85	115	0	0		
Lead	105.1	10.0	100	0.26	105	85	115	0	0		
Nickel	107.5	20.0	100	0	108	85	115	0	0		
Vanadium	104.8	10.0	100	0	105	85	115	0	0		
Zinc	112.7	20.0	100	30.67	82	85	115	0	0		S

Sample ID: 0308663-001DMS	SampType: MS	TestCode: 6020_W	Units: µg/L	Prep Date: 8/22/2003	RunNo: 41893						
Client ID: MW-5	Batch ID: 37318	TestNo: SW6020		Analysis Date: 8/25/2003	SeqNo: 762675						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Arsenic	105.5	20.0	100	4.477	101	70	130	0	0	0	

**Qualifiers:** B Analyte detected in the associated Method Blank BRL Below Reporting Limit E Value above quantitation range  
 H Holding times for preparation or analysis exceeded J Analyte detected below quantitation limits N Analyte not NELAC certified  
 R RPD outside accepted recovery limits S Spike Recovery outside accepted recovery limits

CLIENT: Williams Environmental Services, Inc  
 Work Order: 0308663  
 Project: Macon II MGP

# ANALYTICAL QC SUMMARY REPORT

BatchID: 37318

Sample ID: 0308663-001DMS		SampType: MS		TestCode: 6020_W		Units: µg/L		Prep Date: 8/22/2003		RunNo: 41893			
Client ID: MW-5		Batch ID: 37318		TestNo: SW6020		Analysis Date: 8/25/2003						SeqNo: 762675	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual		
Beryllium	103.8	5.00	100	0	104	70	130	0	0				
Cadmium	104.4	5.00	100	0.419	104	70	130	0	0				
Chromium	103.8	10.0	100	0	104	70	130	0	0				
Copper	99.78	10.0	100	1.004	98.8	70	130	0	0				
Lead	111	10.0	100	0.918	110	70	130	0	0				
Nickel	101	20.0	100	0.619	100	70	130	0	0				
Vanadium	105.9	10.0	100	0.164	106	70	130	0	0				
Zinc	103.7	20.0	100	23.22	80.5	70	130	0	0		B		

Sample ID: 0308663-001DDUP		SampType: DUP		TestCode: 6020_W		Units: µg/L		Prep Date: 8/22/2003		RunNo: 41893			
Client ID: MW-5		Batch ID: 37318		TestNo: SW6020		Analysis Date: 8/25/2003						SeqNo: 762674	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual		
Arsenic	BRL	20.0	0	0	0	0	0	4.477	0	20			
Beryllium	BRL	5.00	0	0	0	0	0	0	0	20			
Cadmium	BRL	5.00	0	0	0	0	0	0.419	0	20			
Chromium	BRL	10.0	0	0	0	0	0	0	0	20			
Copper	BRL	10.0	0	0	0	0	0	1.004	0	20			
Lead	BRL	10.0	0	0	0	0	0	0.918	0	20			
Nickel	BRL	20.0	0	0	0	0	0	0.619	0	20			
Vanadium	BRL	10.0	0	0	0	0	0	0.164	0	20			
Zinc	BRL	20.0	0	0	0	0	0	23.22	0	20			

Qualifiers:	B	Analyte detected in the associated Method Blank	BRL	Below Reporting Limit	E	Value above quantitation range
H		Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits	N	Analyte not NELAC certified
R		RPD outside accepted recovery limits	S	Spike Recovery outside accepted recovery limits		



CLIENT: Williams Environmental Services, Inc  
 Work Order: 0308663  
 Project: Macon II MGP

# ANALYTICAL QC SUMMARY REPORT

BatchID: 37320

Sample ID: MB-37320	SampType: MBLK	TestCode: 9014_W	Units: mg/L	Prep Date: 8/21/2003	RunNo: 41809						
Client ID:	Batch ID: 37320	TestNo: SW9014		Analysis Date: 8/21/2003	SeqNo: 760439						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Cyanide, Total	BRL	0.0100	0	0	0	0	0	0	0	0	0

Sample ID: LCS-37320	SampType: LCS	TestCode: 9014_W	Units: mg/L	Prep Date: 8/21/2003	RunNo: 41809						
Client ID:	Batch ID: 37320	TestNo: SW9014		Analysis Date: 8/21/2003	SeqNo: 760440						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Cyanide, Total	0.2469	0.0100	0.25	0	98.8	85	115	0	0	0	

Sample ID: 0308663-009C MS	SampType: MS	TestCode: 9014_W	Units: mg/L	Prep Date: 8/21/2003	RunNo: 41809						
Client ID: RB082103	Batch ID: 37320	TestNo: SW9014		Analysis Date: 8/21/2003	SeqNo: 760451						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Cyanide, Total	0.2369	0.0100	0.25	0	94.8	70	130	0	0	0	

Sample ID: 0308663-009C DUP	SampType: DUP	TestCode: 9014_W	Units: mg/L	Prep Date: 8/21/2003	RunNo: 41809						
Client ID: RB082103	Batch ID: 37320	TestNo: SW9014		Analysis Date: 8/21/2003	SeqNo: 760450						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Cyanide, Total	BRL	0.0100	0	0	0	0	0	0	0	0	20

Qualifiers:	B	Analyte detected in the associated Method Blank	BRL	Below Reporting Limit	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits	N	Analyte not NELAC certified
	R	RPD outside accepted recovery limits	S	Spike Recovery outside accepted recovery limits		

CLIENT: Williams Environmental Services, Inc  
 Work Order: 0308663  
 Project: Macon II MGP

# ANALYTICAL QC SUMMARY REPORT

BatchID: 37326

Sample ID: 0308631-013CPDS	SampType: PDS	TestCode: 7470A_W_T	Units: mg/L	Prep Date: 8/25/2003	RunNo: 41912						
Client ID:	Batch ID: 37326	TestNo: SW7470A		Analysis Date: 8/25/2003	SeqNo: 763544						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Mercury	0.01258	0.000320	0.0125	0	101	85	115	0	0	0	

Sample ID: MB-37326	SampType: MBLK	TestCode: 7470A_W_T	Units: mg/L	Prep Date: 8/22/2003	RunNo: 41912						
Client ID:	Batch ID: 37326	TestNo: SW7470A		Analysis Date: 8/25/2003	SeqNo: 763538						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Mercury	BRL	0.000160									

Sample ID: LCS-37326	SampType: LCS	TestCode: 7470A_W_T	Units: mg/L	Prep Date: 8/22/2003	RunNo: 41912						
Client ID:	Batch ID: 37326	TestNo: SW7470A		Analysis Date: 8/25/2003	SeqNo: 763539						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Mercury	0.005488	0.000170	0.005	0	110	85	115	0	0	0	

Sample ID: 0308631-013CMS	SampType: MS	TestCode: 7470A_W_T	Units: mg/L	Prep Date: 8/25/2003	RunNo: 41912						
Client ID:	Batch ID: 37326	TestNo: SW7470A		Analysis Date: 8/25/2003	SeqNo: 763542						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Mercury	0.005072	0.000160	0.005	0	101	70	130	0	0	0	

Sample ID: 0308631-013CMSD	SampType: MSD	TestCode: 7470A_W_T	Units: mg/L	Prep Date: 8/25/2003	RunNo: 41912						
Client ID:	Batch ID: 37326	TestNo: SW7470A		Analysis Date: 8/25/2003	SeqNo: 763543						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Mercury	0.00503	0.000160	0.005	0	101	70	130	0.005072	0.841	20	

Qualifiers:	B	Analyte detected in the associated Method Blank	BRL	Below Reporting Limit	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits	N	Analyte not NELAC certified
	R	RPD outside accepted recovery limits	S	Spike Recovery outside accepted recovery limits		

CLIENT: Williams Environmental Services, Inc  
 Work Order: 0308663  
 Project: Macon II MGP

# ANALYTICAL QC SUMMARY REPORT

BatchID: 37356

Sample ID: MB-37356	SampType: MBLK	TestCode: 8260B_W	Units: µg/L	Prep Date: 8/23/2003	RunNo: 41898						
Client ID:	Batch ID: 37356	TestNo: SW8260B		Analysis Date: 8/25/2003	SeqNo: 762844						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Benzene	BRL	5.0									
Carbon disulfide	BRL	5.0									
Ethylbenzene	BRL	5.0									
Methylene chloride	BRL	5.0									
Toluene	BRL	5.0									
Xylenes, Total	BRL	5.0									
Surr: 4-Bromofluorobenzene	42.94	5.0	50	0	85.9	71.8	143	0	0		
Surr: Dibromofluoromethane	48.34	5.0	50	0	96.7	80.3	123	0	0		
Surr: Toluene-d8	49.09	5.0	50	0	98.2	70.1	142	0	0		

Sample ID: LCS-37356	SampType: LCS	TestCode: 8260B_W	Units: µg/L	Prep Date: 8/23/2003	RunNo: 41898						
Client ID:	Batch ID: 37356	TestNo: SW8260B		Analysis Date: 8/25/2003	SeqNo: 762845						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Benzene	46.71	5.0	50	0	93.4	71.1	120	0	0		
Toluene	42.67	5.0	50	0	85.3	84	124	0	0		
Surr: 4-Bromofluorobenzene	42.27	5.0	50	0	84.5	71.8	143	0	0		
Surr: Dibromofluoromethane	45.31	5.0	50	0	90.6	80.3	123	0	0		
Surr: Toluene-d8	42.87	5.0	50	0	85.7	70.1	142	0	0		

Sample ID: 0308663-007AMS	SampType: MS	TestCode: 8260B_W	Units: µg/L	Prep Date: 8/23/2003	RunNo: 41898						
Client ID: MW-1	Batch ID: 37356	TestNo: SW8260B		Analysis Date: 8/25/2003	SeqNo: 763261						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Benzene	44.96	5.0	50	0	89.9	75	130	0	0		
Toluene	46.47	5.0	50	0	92.9	79	125	0	0		
Surr: 4-Bromofluorobenzene	41.73	5.0	50	0	83.5	71.8	143	0	0		
Surr: Dibromofluoromethane	50.29	5.0	50	0	101	80.3	123	0	0		
Surr: Toluene-d8	48.65	5.0	50	0	97.3	70.1	142	0	0		

Qualifiers:	B	Analyte detected in the associated Method Blank	BRL	Below Reporting Limit	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits	N	Analyte not NELAC certified
	R	RPD outside accepted recovery limits	S	Spike Recovery outside accepted recovery limits		

CLIENT: Williams Environmental Services, Inc  
 Work Order: 0308663  
 Project: Macon II MGP

# ANALYTICAL QC SUMMARY REPORT

BatchID: 37356

Sample ID: 0308663-007AMSD	SampType: MSD	TestCode: 8260B_W	Units: µg/L	Prep Date: 8/23/2003	RunNo: 41898						
Client ID: MW-1	Batch ID: 37356	TestNo: SW8260B		Analysis Date: 8/25/2003	SeqNo: 763264						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzene	43.59	5.0	50	0	87.2	75	130	44.96	3.09	30	
Toluene	45.1	5.0	50	0	90.2	79	125	46.47	2.99	30	
Surr: 4-Bromofluorobenzene	41.32	5.0	50	0	82.6	71.8	143	41.73	0	0	
Surr: Dibromofluoromethane	44.54	5.0	50	0	89.1	80.3	123	50.29	0	0	
Surr: Toluene-d8	47.23	5.0	50	0	94.5	70.1	142	48.65	0	0	

Sample ID: MB-37356	SampType: MBLK	TestCode: 8260B_W_CL	Units: µg/L	Prep Date: 8/23/2003	RunNo: 41872						
Client ID:	Batch ID: 37356	TestNo: SW8260B		Analysis Date: 8/23/2003	SeqNo: 762282						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzene	BRL	5.0									
Carbon disulfide	BRL	5.0									
Ethylbenzene	BRL	5.0									
Methylene chloride	BRL	5.0									
Toluene	BRL	5.0									
Xylenes, Total	BRL	5.0									
Surr: 4-Bromofluorobenzene	43.72	0	50	0	87.4	71.8	143	0	0	0	
Surr: Dibromofluoromethane	47.82	0	50	0	95.6	80.3	123	0	0	0	
Surr: Toluene-d8	49.24	0	50	0	98.5	70.1	142	0	0	0	

Sample ID: MB-37356-1	SampType: MBLK	TestCode: 8260B_W_CL	Units: µg/L	Prep Date: 8/23/2003	RunNo: 41894						
Client ID:	Batch ID: 37356	TestNo: SW8260B		Analysis Date: 8/25/2003	SeqNo: 762725						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzene	BRL	5.0									
Carbon disulfide	BRL	5.0									
Ethylbenzene	BRL	5.0									
Methylene chloride	BRL	5.0									
Toluene	BRL	5.0									
Xylenes, Total	BRL	5.0									
Surr: 4-Bromofluorobenzene	42.94	0	50	0	85.9	71.8	143	0	0	0	

Qualifiers: B Analyte detected in the associated Method Blank  
 H Holding times for preparation or analysis exceeded  
 R RPD outside accepted recovery limits

BRL Below Reporting Limit  
 J Analyte detected below quantitation limits  
 S Spike Recovery outside accepted recovery limits

E Value above quantitation range  
 N Analyte not NELAC certified

CLIENT: Williams Environmental Services, Inc  
 Work Order: 0308663  
 Project: Macon II MGP

# ANALYTICAL QC SUMMARY REPORT

BatchID: 37356

Sample ID: MB-37356-1	SampleType: MBLK	TestCode: 8260B_W_CL	Units: µg/L	Prep Date: 8/23/2003	RunNo: 41894						
Client ID:	Batch ID: 37356	TestNo: SW8260B		Analysis Date: 8/25/2003	SeqNo: 762725						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Surr: Dibromofluoromethane	48.34	0	50	0	96.7	80.3	123	0	0		
Surr: Toluene-d8	49.09	0	50	0	98.2	70.1	142	0	0		

Sample ID: LCS-37356	Sample Type: LCS	TestCode: 8260B_W_CL	Units: µg/L	Prep Date: 8/23/2003	RunNo: 41872						
Client ID:	Batch ID: 37356	TestNo: SW8260B		Analysis Date: 8/23/2003	SeqNo: 762283						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzene	95.37	5.0	100	0	95.4	71.1	120	0	0		
Toluene	98.13	5.0	100	0	98.1	84	124	0	0		
Surr: 4-Bromofluorobenzene	46.54	0	50	0	93.1	71.8	143	0	0		
Surr: Dibromofluoromethane	49.3	0	50	0	98.6	80.3	123	0	0		
Surr: Toluene-d8	48.37	0	50	0	96.7	70.1	142	0	0		

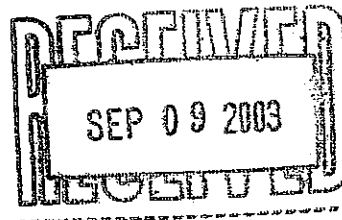
Sample ID: LCS-37356-1	SampType: LCS	TestCode: 8260B_W_CL	Units: µg/L	Prep Date: 8/23/2003	RunNo: 41894						
Client ID:	Batch ID: 37356	TestNo: SW8260B		Analysis Date: 8/25/2003	SeqNo: 762726						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzene	46.71	5.0	50	0	93.4	71.1	120	0	0		
Toluene	42.67	5.0	50	0	85.3	84	124	0	0		
Surr: 4-Bromofluorobenzene	42.27	0	50	0	84.5	71.8	143	0	0		
Surr: Dibromofluoromethane	45.31	0	50	0	90.6	80.3	123	0	0		
Surr: Toluene-d8	42.87	0	50	0	85.7	70.1	142	0	0		

Qualifiers:	B	Analyte detected in the associated Method Blank	BRL	Below Reporting Limit	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits	N	Analyte not NELAC certified
	R	RPD outside accepted recovery limits	S	Spike Recovery outside accepted recovery limits		



ANALYTICAL ENVIRONMENTAL SERVICES, INC.

August 29, 2003



Matt Ebbert  
Williams Environmental Services, Inc  
500 Chase Park South  
Suite 150  
Birmingham, AL 35244

TEL: (205) 988-8305

FAX (205) 988-5249

RE: Macon II MGP

Order No.: 0308828

Dear Matt Ebbert:

Analytical Environmental Servs, Inc. received 1 sample on 8/21/2003 9:50:00 AM for the analyses presented in the following report.

No problems were encountered during the analyses. Additionally, all results for the associated Quality Control samples were within EPA and/or AES established limits. Any discrepancies associated with the analyses contained herein will be noted and submitted in the form of a project Case Narrative. AES' certifications are as follows:

-NELAC/Florida Certification number E87582 for analysis of Environmental Water, soil/hazardous waste, and Drinking Water, effective 07/02/03-06/30/04.

-AIHA Certification number 505 for analysis of Air, Paint Chips, Soil and Dust Wipes, effective until 10/01/03.

These results relate only to the items tested. This report may only be reproduced in full and contains 7 total pages (including cover letter).

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

Sincerely,

Allison Cantrell  
Project Manager

0308 3  
 Work Order: 0308662  
 Date: 8/20/03 Page 1 of 2

ANALYTICAL ENVIRONMENTAL SERVICES, INC.  
 3785 Presidential Pkwy., Atlanta, GA 30340-3704  
 TEL: (770) 457-8177 / TOLL FREE: (800) 972-4889 / FAX: (770) 457-8188  
 CHAIN OF CUSTODY  
 SPT 082003A

COMPANY: Williams Env. Services		ADDRESS: 500 CHASE PARK, STE 150 B'ham, AL 35244		FAX: 5249		SIGNATURE: <i>Mike Dillon</i>		TOTAL PB	
PHONE: 205-788-8305	SAMPLE ID	SAMPLED DATE	SAMPLED TIME	Grab	Composite	Matrix (See codes)	REMARKS		
	5B-44-0-2	8/20/03	0730	X		50			
	5B-44-5-7		0740	X					
	5B-44-10-12		0750	X					
	5B-44-15-17		0800	X					
	5B-44-20-21		0810	X					
	5B-45-0-2		0830	X					
	5B-45-5-7		0840	X					
	5B-45-10-12		0850	X					
	5B-45-15-17		0900	X					
	5B-45-18-20		0910	X					
	5B-46-0-2		0950	X					
	5B-46-5-7		1000	X					
	5B-46-10-12		1010	X					
	5B-46-15-17		1020	X					
RELINQUISHED BY: <i>Mike W. Dillon</i>	DATE/TIME RECEIVED BY: <i>MA</i>	DATE/TIME: 8/21/03	PROJECT INFORMATION						
PROJECT NAME: MALON II MGP		PROJECT # 1100 2990							
FAC ID#:		SITE ADDRESS: SPING ST LN, MALON GA							
PROJECT MANAGER: MIKE DILLON		INVOICE TO: (IF DIFFERENT FROM ABOVE)							
SHIPMENT METHOD: OUT VIA: IN VIA: (CLIENT FedEx) UPS MAIL COURIER GREYHOUND OTHER		TOTAL # of Containers: 00000							
SPECIAL INSTRUCTIONS COMMENTS:		Turnaround Time Request: Standard 3-5 Business Days Same Day Rush (auth req.) Next Business Day Rush 2 Business Day Rush Other							
PROGRAM: FLUOR ALUSI ENUST MSISIT NCUST SCUST GAUST GACONV FLCONV		PROGRAM (see codes):							
QUOTE CONTRACT #:		DATA PACKAGE: I II III IV							

MATRIX CODES: A - Air GW - Groundwater SE - Sediment SD - Soil SW - Surface Water W - Water (Blanks) O - Other (specify)  
 PRESERVATIVE CODES: H - Hydrochloric acid - ice I - Ice only N - Nitric acid - ice S - Sulfuric acid - ice O - Other (specify) NA - None  
 PROGRAM: FLUOR ALUSI ENUST MSISIT NCUST SCUST GAUST GACONV FLCONV



## CHAIN OF CUSTODY

**ANALYTICAL ENVIRONMENTAL SERVICES, INC.**  
3785 Presidential Pkwy., Atlanta, GA 30340-3704  
TEL: (770) 457-8177 / TOLL FREE: (800) 972-4889 / FAX: (770) 457-8188

SD 6032003A

Work Order: 0902662

Date: 8/20/03 Page 2 of 2

[illegible]

MATRIX CODES: A - Air GW - Groundwater SE - Sediment SO - Soil SW - Surface Water W - Water (Blanks) O - Other (specify)

PRESERVATIVE CODES: H - Hydrochloric acid, ice I - Ice only N - Nitric acid, ice S - Sulfuric acid, ice O = Other (specify) NA = None

PROGRAM: FLUST FLDC ACUS INUST MSUST NCUST SCUST GAUCNV FLCONV

White Copy - ORIGINAL; Yellow Copy - L.A.B. Pink Copy - CLIENT

Analytical Environmental Services, Inc.

Sample/Cooler Receipt Checklist

Client Williams Law Services

Work Order Number 0308662/0308828

Checklist completed by Nyenne Ogburn 8/21/03  
Signature Date

Carrier name: FedEx ☒ UPS ☐ Courier ☐ Client ☐ US Mail ☐ Other ☐

Shipping container/cooler in good condition? Yes ☒ No ☐ Not Present ☐

Custody seals intact on shipping container/cooler? Yes ☒ No ☐ Not Present ☐

Custody seals intact on sample bottles? Yes ☐ No ☐ Not Present ☒

Container/Temp Blank temperature in compliance? Yes ☒ No ☐

Cooler #1 5.0 Cooler #2 ☐ Cooler #3 ☐ Cooler #4 ☐ Cooler #5 ☐ Cooler #6 ☐

Chain of custody present? Yes ☒ No ☐

Chain of custody signed when relinquished and received? Yes ☒ No ☐

Chain of custody agrees with sample labels? Yes ☒ No ☐

Samples in proper container/bottle? Yes ☒ No ☐

Sample containers intact? Yes ☒ No ☐

Sufficient sample volume for indicated test? Yes ☒ No ☐

All samples received within holding time? Yes ☒ No ☐

Was TAT marked on the COC? Yes ☒ No ☐

Proceed with Standard TAT as per project history? Yes ☐ No ☐ Not Applicable ☒

Water - VOA vials have zero headspace? No VOA vials submitted ☒ Yes ☐ No ☐

Water - pH acceptable upon receipt? Yes ☐ No ☐ Not Applicable ☒

Adjusted? ☐ Checked by ☐

See Case Narrative for resolution of the Non-Conformance.

**Analytical Environmental Servs, Inc.**

Date: 29-Aug-03

**CLIENT:** Williams Environmental Services, Inc  
**Lab Order:** 0308828  
**Project:** Macon II MGP  
**Lab ID:** 0308828-001

**Client Sample ID:** SB-45-15-17  
**Collection Date:** 8/20/2003 9:00:00 AM

**Matrix:** SOIL

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
ICP METALS, SPLP		SW1312/6010B				Analyst: CDW
Lead	0.0808	0.0500		mg/L	1	8/27/2003 2:21:00 PM

**Qualifiers:**

*	Value exceeds Maximum Contaminant Level
BRL	Below Reporting Limit
H	Holding times for preparation or analysis exceeded
N	Analyte not NELAC certified
Rpt Limit	Reporting Limit

B	Analyte detected in the associated Method Blank
E	Value above quantitation range
J	Analyte detected below quantitation limits
P	NELAC analyte certification pending
S	Spike Recovery outside accepted recovery limits

CLIENT: Williams Environmental Services, Inc

Work Order: 0308828

Project: Macon II MGP

## ANALYTICAL QC SUMMARY REPORT

BatchID: 37474

Sample ID	MB-37474	SampleType: MBLK	TestCode: 1312_M	Units: mg/L	Prep Date: 8/28/2003	RunNo: 42025						
Client ID:		Batch ID: 37474	TestNo: SW1312/6010		Analysis Date: 8/27/2003	SeqNo: 766072						
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Lead			BRL	0.0500								

Sample ID	LCS-37474	SampleType:	LCS	TestCode:	1312_M	Units:	mg/L	Prep Date:	8/28/2003	RunNo:	42025		
Client ID:		Batch ID:	37474	TestNo:	SW1312/6010			Analysis Date:	8/27/2003	SeqNo:	766071		
Analyte		Result		PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Lead		5.093		0.0500	5	0	102	85	115	0	0		*

Sample ID	0308828-001AMS	SampleType: MS	TestCode: 1312_M	Units: mg/L	Prep Date: 8/28/2003	RunNo: 42025					
Client ID: SB-45-15-17	Batch ID: 37474	TestNo: SW1312/6010	Analysis Date: 8/27/2003	SeqNo: 766075							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Lead	5.211	0.0500	5	0.0808	103	75	125	0	0		*

Sample ID	0308828-001ADUP	SampleType:	DUP	TestCode:	1312_M	Units:	mg/L	Prep Date:	8/28/2003	RunNo:	42025		
Client ID:	SB-45-15-17	Batch ID:	37474	TestNo:	SW1312/6010			Analysis Date:	8/27/2003	SeqNo:	766074		
Analyte		Result		PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Lead		0.06985		0.0500	0	0	0	0	0	0.0808	14.5	20	

Qualifiers:	B	Analyte detected in the associated Method Blank	BRL	Below Reporting Limit	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits	N	Analyte not NELAC certified
	R	RPD outside accepted recovery limits	S	Spike Recovery outside accepted recovery limits		

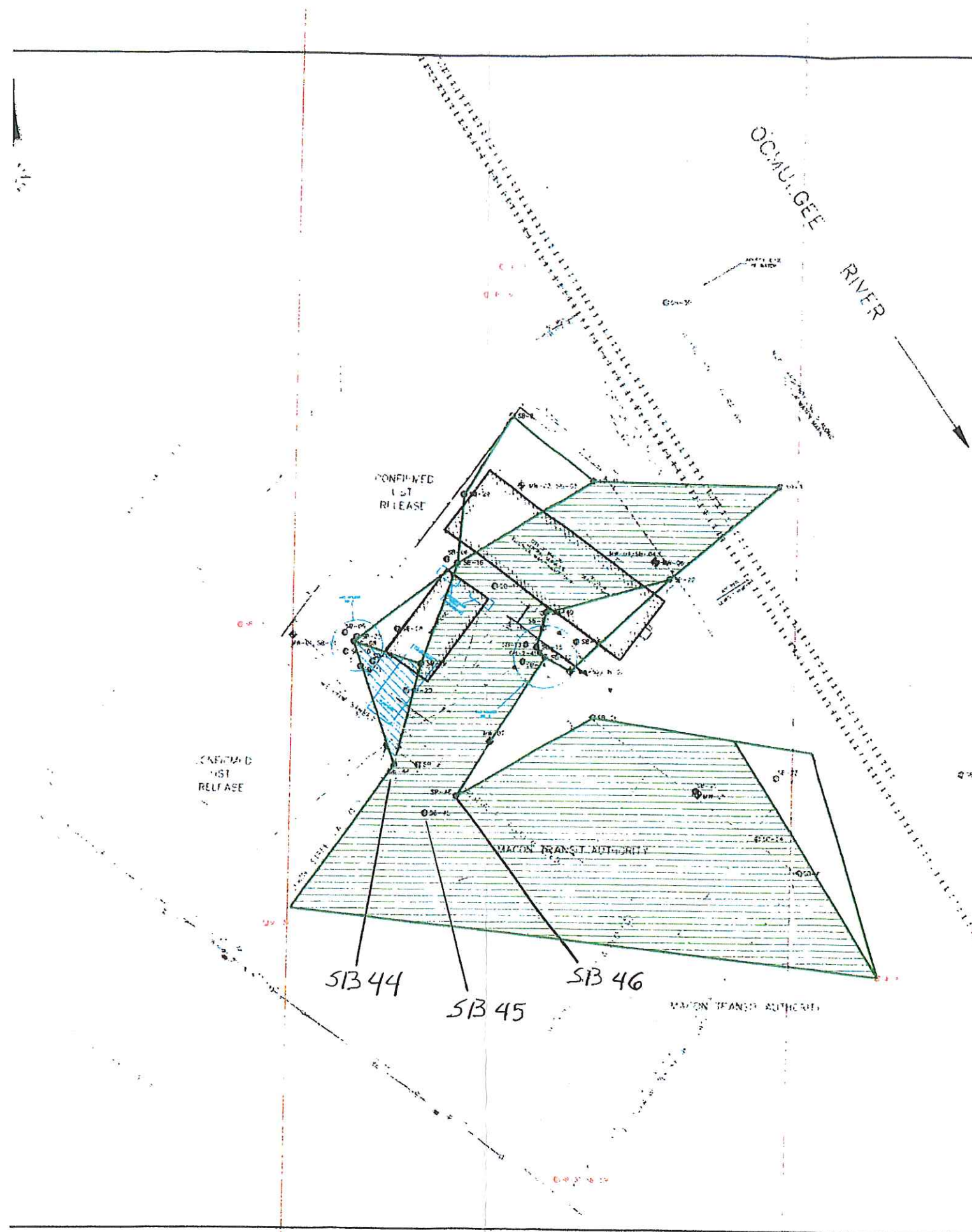
**Analytical Environmental Servs, Inc.**

Date: 29-Aug-03

**CLIENT:** Williams Environmental Services, Inc  
**Project:** Macon II MGP  
**Lab Order:** 0308828

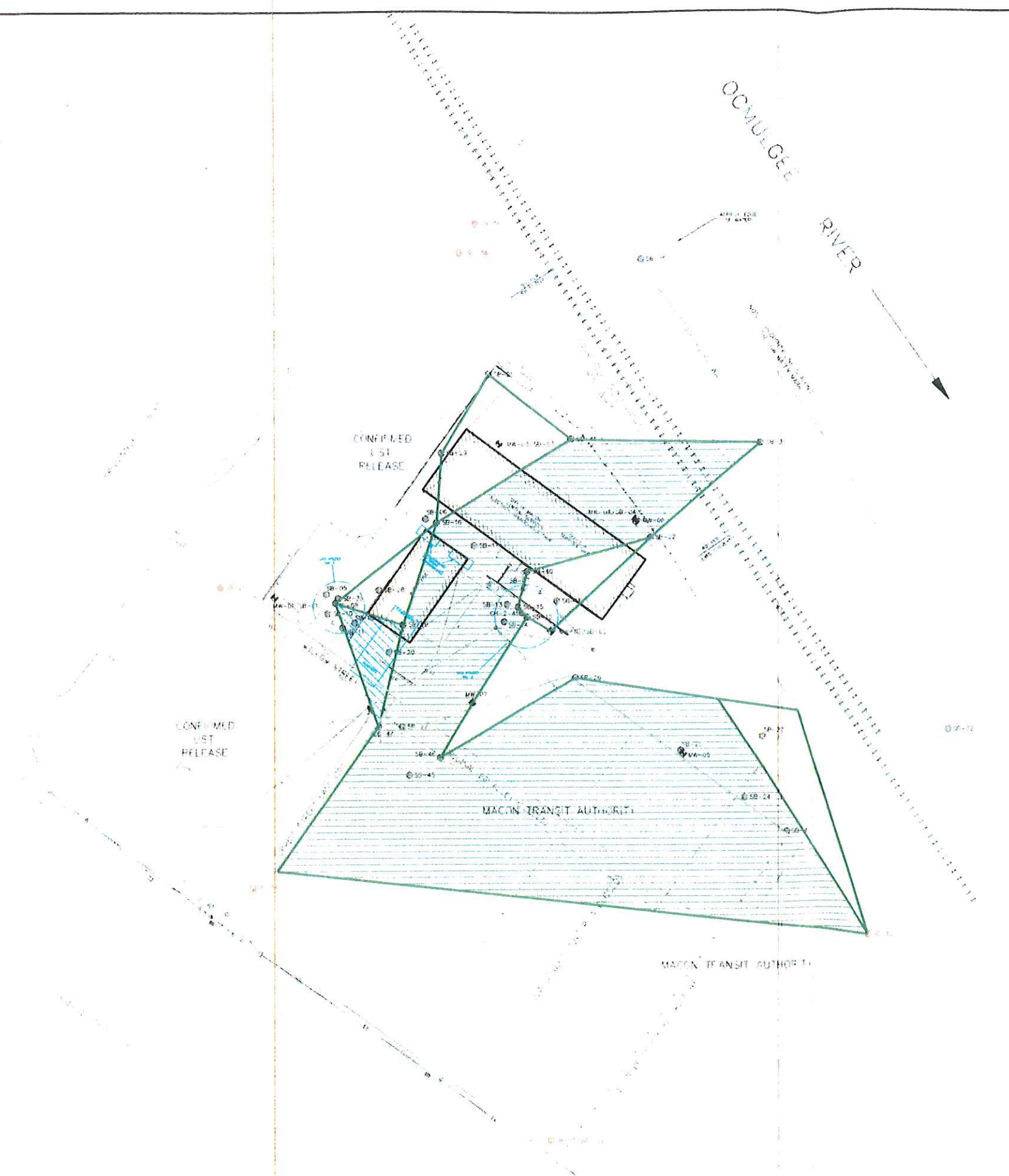
**CASE NARRATIVE**

Matt Ebbert requested SPLP Pb analysis on sample "SB-45-15-17" as next day rush turnaround 8/27/03 2:00pm.










# LEGEND

- PROPERTY LINE
- OVERHEAD POWER
- EXISTING WATER LINE
- STORM SEWER
- SANITARY SEWER
- CHAIN LINK FENCE
- MONITORING WELL LOCATION
- SOIL BORING LOCATION
- BACKGROUND SOIL BORING LOCATION (DEFINES MAXIMUM EXTENT)
- FORMER MGP STRUCTURE (LOCATION APPROXIMATE UNLESS NOTED IN REPORT)
- AREAS EXCEEDING TYPE 1 RISK REDUCTION STANDARDS
- AREAS EXCEEDING TYPE 1 AND 2 RISK REDUCTION STANDARDS
- AREAS EXCEEDING TYPE 1, 2, AND 3 RISK REDUCTION STANDARDS
- AREAS EXCEEDING TYPE 1, 2, 3, AND 4 RISK REDUCTION STANDARDS
- DIRECTION OF RIVER FLOW
- BOUNDARY PARCELS

DATE	10/1/01
BY	J. L. BROWN
CHECKED BY	J. L. BROWN
APPROVED BY	J. L. BROWN
DATE	10/1/01
BY	J. L. BROWN
CHECKED BY	J. L. BROWN
APPROVED BY	J. L. BROWN

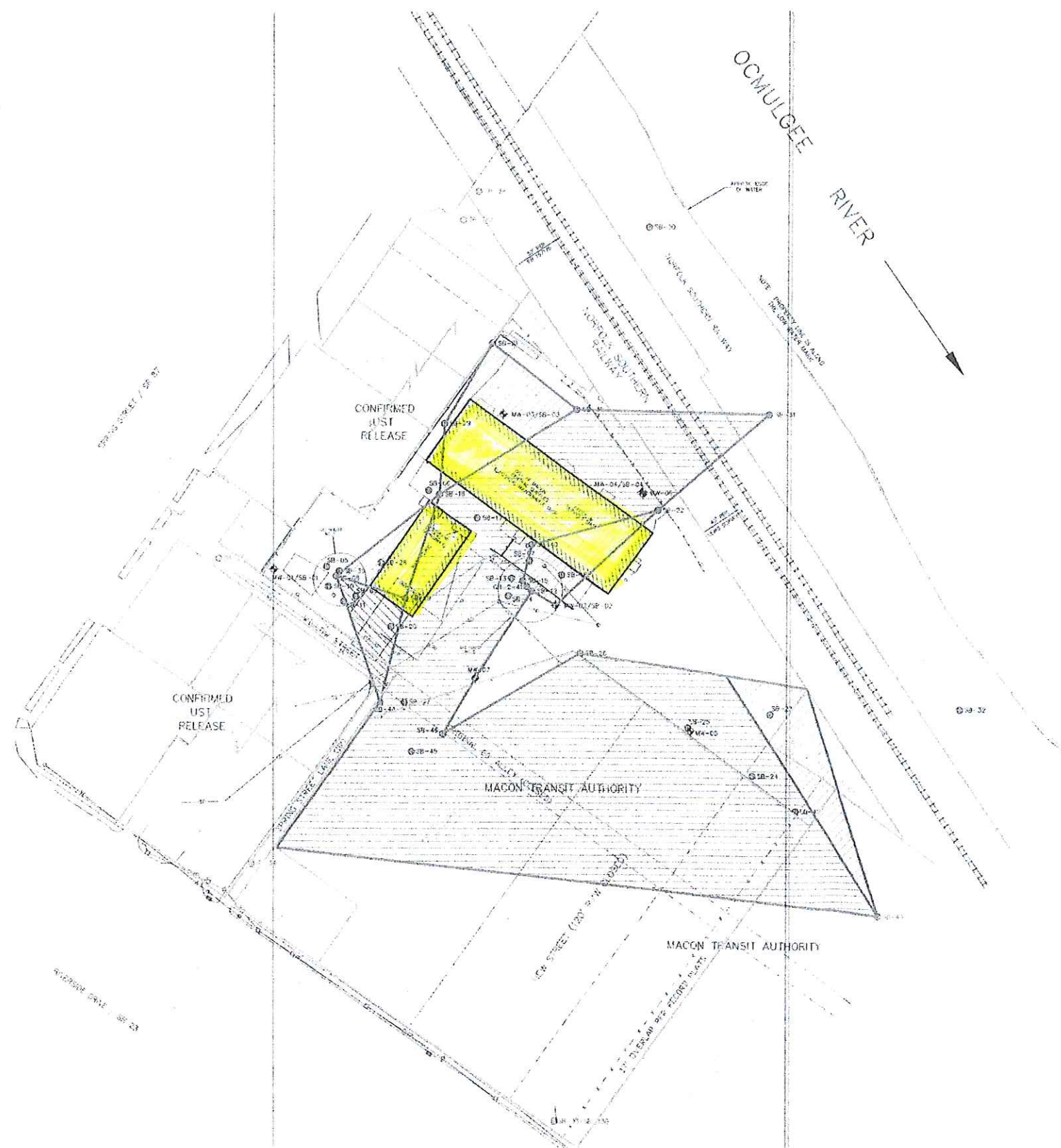
Prepared By:

**Williams Environmental Services, Inc.**  
A Subsidiary of Williams Group International, Inc.  
500 Chase Park South, Suite 150, Birmingham, Alabama 35244  
205-988-8305 Fax: 205-988-5249

AREAS EXCEEDING RISK REDUCTION STANDARDS IN SOIL

FORMER MACOMB 2 MGP FACILITY  
MACOMB, GEORGIA

DATE	10/1/01
BY	J. L. BROWN
CHECKED BY	J. L. BROWN
APPROVED BY	J. L. BROWN



PROPERTY LINE  
OVERHEAD POWER  
EXISTING WATER LINE  
STORM SEWER  
SANITARY SEWER  
CHAIN LINK FENCE  
MONITORING WELL LOCATION  
SOIL BORING LOCATION  
BACKGROUND SOIL BORING LOCATION  
(DEFINES MAXIMUM EXTENT)  
FORMER MCP STRUCTURE (LOCATION  
APPROXIMATE UNLESS NOTED IN REPORT)  
AREAS EXCEEDING TYPE 1 RISK REDUCTION  
STANDARDS  
AREAS EXCEEDING TYPE 1 AND 2 RISK  
REDUCTION STANDARDS  
AREAS EXCEEDING TYPE 1, 2, AND 3  
RISK REDUCTION STANDARDS  
AREAS EXCEEDING TYPE 1, 2, 3, AND 4  
RISK REDUCTION STANDARDS  
DIRECTION OF RIVER FLOW  
BOUNDARY PARCELS

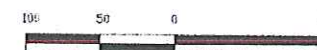
**Williams Environmental Services, Inc.**  
A Subsidiary of Williams Group International, Inc.  
1500 Chase Park South, Suite 150, Birmingham, Alabama 35244  
205-988-8305 Fax: 205-988-5249

E

FORMER MACON 2 MGP FACILITY  
MACON, GEORGIA

ENGINEERS' SEA

DESIGNED	
DRAWN	TCM
CHECKED	
DATE	09/05/200
FILENAME	FIGURE-901
PRIJ.1 NUMBER	1100 095



## **APPENDIX C**

### **Tables**

Table 1. Soil Detections from February 13, 2014 Sampling Event  
Former Macon 2 Manufactured Gas Plant Facility  
Macon, Georgia  
GEC Project No. 130659.241

SAMPLE ID	Sample Depth (Top)	Depth (Bottom)	Units_Depth	DATE SAMPLED	MATRIX	Constituent	Result	UNITS
GB-1	0.5	2	FT	2/13/2014 14:30	SOIL	Barium	55.2	mg/kg
GB-1	0.5	2	FT	2/13/2014 14:30	SOIL	Chromium	10.4	mg/kg
GB-1	0.5	2	FT	2/13/2014 14:30	SOIL	Lead	9.48	mg/kg
GB-1	0	6	IN	2/13/2014 14:27	SOIL	Barium	76.8	mg/kg
GB-1	0	6	IN	2/13/2014 14:27	SOIL	Chromium	8.65	mg/kg
GB-1	0	6	IN	2/13/2014 14:27	SOIL	Lead	8.76	mg/kg
GB-2	0.5	2	FT	2/13/2014 14:16	SOIL	Barium	22.6	mg/kg
GB-2	0.5	2	FT	2/13/2014 14:16	SOIL	Chromium	8.19	mg/kg
GB-2	0.5	2	FT	2/13/2014 14:16	SOIL	Lead	20	mg/kg
GB-2	0.5	2	FT	2/13/2014 14:16	SOIL	Mercury	0.221	mg/kg
GB-2	0	6	IN	2/13/2014 14:13	SOIL	Barium	77.3	mg/kg
GB-2	0	6	IN	2/13/2014 14:13	SOIL	Chromium	9.4	mg/kg
GB-2	0	6	IN	2/13/2014 14:13	SOIL	Lead	12.4	mg/kg
GB-3	0.5	2	FT	2/13/2014 14:37	SOIL	Barium	168	mg/kg
GB-3	0.5	2	FT	2/13/2014 14:37	SOIL	Cadmium	1.49	mg/kg
GB-3	0.5	2	FT	2/13/2014 14:37	SOIL	Chromium	10.9	mg/kg
GB-3	0.5	2	FT	2/13/2014 14:37	SOIL	Lead	15.2	mg/kg
GB-3	0	6	IN	2/13/2014 14:35	SOIL	Barium	59.7	mg/kg
GB-3	0	6	IN	2/13/2014 14:35	SOIL	Chromium	7.76	mg/kg
GB-3	0	6	IN	2/13/2014 14:35	SOIL	Lead	10.6	mg/kg
GB-3	0	6	IN	2/13/2014 14:35	SOIL	Toluene	0.0228	mg/kg
GB-4	0.5	2	FT	2/13/2014 14:46	SOIL	Barium	95.7	mg/kg
GB-4	0.5	2	FT	2/13/2014 14:46	SOIL	Chromium	8.59	mg/kg
GB-4	0.5	2	FT	2/13/2014 14:46	SOIL	Lead	11.9	mg/kg
GB-4	0	6	IN	2/13/2014 14:44	SOIL	Barium	116	mg/kg
GB-4	0	6	IN	2/13/2014 14:44	SOIL	Chromium	9.37	mg/kg
GB-4	0	6	IN	2/13/2014 14:44	SOIL	Lead	13.9	mg/kg
GB-5	0.5	2	FT	2/13/2014 14:09	SOIL	Barium	68.1	mg/kg
GB-5	0.5	2	FT	2/13/2014 14:09	SOIL	Chromium	10.6	mg/kg
GB-5	0.5	2	FT	2/13/2014 14:09	SOIL	Lead	13.2	mg/kg
GB-5	0.5	2	FT	2/13/2014 14:09	SOIL	Methyl acetate	0.0666	mg/kg
GB-5	0	6	IN	2/13/2014 14:07	SOIL	Barium	85.4	mg/kg
GB-5	0	6	IN	2/13/2014 14:07	SOIL	Chromium	7.41	mg/kg
GB-5	0	6	IN	2/13/2014 14:07	SOIL	Lead	14.6	mg/kg
GB-6	0.5	2	FT	2/13/2014 13:58	SOIL	Barium	105	mg/kg
GB-6	0.5	2	FT	2/13/2014 13:58	SOIL	Cadmium	1.23	mg/kg
GB-6	0.5	2	FT	2/13/2014 13:58	SOIL	Chromium	13.4	mg/kg
GB-6	0.5	2	FT	2/13/2014 13:58	SOIL	Lead	13.1	mg/kg
GB-6	0	6	IN	2/13/2014 13:56	SOIL	Barium	100	mg/kg
GB-6	0	6	IN	2/13/2014 13:56	SOIL	Cadmium	1.45	mg/kg



Table 1. Soil Detections from February 13, 2014 Sampling Event  
Former Macon 2 Manufactured Gas Plant Facility  
Macon, Georgia  
GEC Project No. 130659.241

SAMPLE ID	Sample Depth (Top)	Depth (Bottom)	Units_Depth	DATE SAMPLED	MATRIX	Constituent	Result	UNITS
GB-6	0	6	IN	2/13/2014 13:56	SOIL	Chromium	10.8	mg/kg
GB-6	0	6	IN	2/13/2014 13:56	SOIL	Lead	14.6	mg/kg
GB-7	0.5	2	FT	2/13/2014 13:54	SOIL	Barium	136	mg/kg
GB-7	0.5	2	FT	2/13/2014 13:54	SOIL	Cadmium	1.28	mg/kg
GB-7	0.5	2	FT	2/13/2014 13:54	SOIL	Chromium	7.46	mg/kg
GB-7	0.5	2	FT	2/13/2014 13:54	SOIL	Lead	15.1	mg/kg
GB-7	0.5	2	FT	2/13/2014 13:54	SOIL	Methyl acetate	0.0767	mg/kg
GB-7	0	6	IN	2/13/2014 13:52	SOIL	Barium	92.5	mg/kg
GB-7	0	6	IN	2/13/2014 13:52	SOIL	Cadmium	1.15	mg/kg
GB-7	0	6	IN	2/13/2014 13:52	SOIL	Chromium	8.86	mg/kg
GB-7	0	6	IN	2/13/2014 13:52	SOIL	Lead	12.1	mg/kg
GB-8	0.5	2	FT	2/13/2014 14:03	SOIL	Barium	62.3	mg/kg
GB-8	0.5	2	FT	2/13/2014 14:03	SOIL	Chromium	22	mg/kg
GB-8	0.5	2	FT	2/13/2014 14:03	SOIL	Lead	18.9	mg/kg
GB-8	0.5	2	FT	2/13/2014 14:03	SOIL	Mercury	0.107	mg/kg
GB-8	0	6	IN	2/13/2014 14:00	SOIL	Barium	41.9	mg/kg
GB-8	0	6	IN	2/13/2014 14:00	SOIL	Lead	8.77	mg/kg
GB-9	0.5	2	FT	2/13/2014 10:18	SOIL	Barium	198	mg/kg
GB-9	0.5	2	FT	2/13/2014 10:18	SOIL	Chromium	12.4	mg/kg
GB-9	0.5	2	FT	2/13/2014 10:18	SOIL	Lead	37.8	mg/kg
GB-9	0.5	2	FT	2/13/2014 10:18	SOIL	Selenium	1.73	mg/kg
GB-9	0.5	2	FT	2/13/2014 10:18	SOIL	Mercury	0.0738	mg/kg
GB-9	0	6	IN	2/13/2014 10:15	SOIL	Barium	74.1	mg/kg
GB-9	0	6	IN	2/13/2014 10:15	SOIL	Chromium	11	mg/kg
GB-9	0	6	IN	2/13/2014 10:15	SOIL	Lead	53.7	mg/kg
GB-10	0.5	2	FT	2/13/2014 13:46	SOIL	Barium	14.9	mg/kg
GB-10	0.5	2	FT	2/13/2014 13:46	SOIL	Chromium	12.4	mg/kg
GB-10	0.5	2	FT	2/13/2014 13:46	SOIL	Lead	12.1	mg/kg
GB-10	0	6	IN	2/13/2014 13:44	SOIL	Barium	58.4	mg/kg
GB-10	0	6	IN	2/13/2014 13:44	SOIL	Cadmium	1	mg/kg
GB-10	0	6	IN	2/13/2014 13:44	SOIL	Chromium	6.16	mg/kg
GB-10	0	6	IN	2/13/2014 13:44	SOIL	Lead	8.1	mg/kg
GB-11	0.5	2	FT	2/13/2014 13:42	SOIL	Barium	209	mg/kg
GB-11	0.5	2	FT	2/13/2014 13:42	SOIL	Chromium	9.4	mg/kg
GB-11	0.5	2	FT	2/13/2014 13:42	SOIL	Lead	465	mg/kg
GB-11	0.5	2	FT	2/13/2014 13:42	SOIL	Silver	1.48	mg/kg
GB-11	0.5	2	FT	2/13/2014 13:42	SOIL	Mercury	0.199	mg/kg
GB-11	0.5	2	FT	2/13/2014 13:42	SOIL	Methyl acetate	0.0299	mg/kg
GB-11	0.5	2	FT	2/13/2014 13:42	SOIL	Fluoranthene	0.449	mg/kg
GB-11	0.5	2	FT	2/13/2014 13:42	SOIL	Pyrene	0.411	mg/kg

Table 1. Soil Detections from February 13, 2014 Sampling Event  
Former Macon 2 Manufactured Gas Plant Facility  
Macon, Georgia  
GEC Project No. 130659.241

SAMPLE ID	Sample Depth (Top)	Depth (Bottom)	Units_Depth	DATE SAMPLED	MATRIX	Constituent	Result	UNITS
GB-11	0	6	IN	2/13/2014 13:40	SOIL	Barium	88.9	mg/kg
GB-11	0	6	IN	2/13/2014 13:40	SOIL	Lead	9.21	mg/kg
GB-11	0	6	IN	2/13/2014 13:40	SOIL	Methyl acetate	0.0283	mg/kg
GB-12	0.5	2	FT	2/13/2014 12:23	SOIL	Barium	38.5	mg/kg
GB-12	0.5	2	FT	2/13/2014 12:23	SOIL	Cadmium	1.26	mg/kg
GB-12	0.5	2	FT	2/13/2014 12:23	SOIL	Chromium	34.7	mg/kg
GB-12	0.5	2	FT	2/13/2014 12:23	SOIL	Lead	9.9	mg/kg
GB-12	0	6	IN	2/13/2014 12:20	SOIL	Barium	69.6	mg/kg
GB-12	0	6	IN	2/13/2014 12:20	SOIL	Chromium	19	mg/kg
GB-12	0	6	IN	2/13/2014 12:20	SOIL	Lead	72.9	mg/kg
GB-12	0	6	IN	2/13/2014 12:20	SOIL	Mercury	0.0616	mg/kg
GB-12	0	6	IN	2/13/2014 12:20	SOIL	Benzo(a)anthracene	0.461	mg/kg
GB-12	0	6	IN	2/13/2014 12:20	SOIL	Benzo(a)pyrene	0.466	mg/kg
GB-12	0	6	IN	2/13/2014 12:20	SOIL	Benzo(b)fluoranthene	0.41	mg/kg
GB-12	0	6	IN	2/13/2014 12:20	SOIL	Chrysene	0.428	mg/kg
GB-12	0	6	IN	2/13/2014 12:20	SOIL	Fluoranthene	1.06	mg/kg
GB-12	0	6	IN	2/13/2014 12:20	SOIL	Phenanthrene	0.526	mg/kg
GB-12	0	6	IN	2/13/2014 12:20	SOIL	Pyrene	0.778	mg/kg
GB-13	0.5	2	FT	2/13/2014 11:23	SOIL	Barium	11.2	mg/kg
GB-13	0.5	2	FT	2/13/2014 11:23	SOIL	Chromium	23.7	mg/kg
GB-13	0.5	2	FT	2/13/2014 11:23	SOIL	Lead	7.66	mg/kg
GB-13	0.5	2	FT	2/13/2014 11:23	SOIL	Mercury	0.137	mg/kg
GB-13	0	6	IN	2/13/2014 11:09	SOIL	Arsenic	6.22	mg/kg
GB-13	0	6	IN	2/13/2014 11:09	SOIL	Barium	42.9	mg/kg
GB-13	0	6	IN	2/13/2014 11:09	SOIL	Cadmium	1.13	mg/kg
GB-13	0	6	IN	2/13/2014 11:09	SOIL	Chromium	26.7	mg/kg
GB-13	0	6	IN	2/13/2014 11:09	SOIL	Lead	32.4	mg/kg
GB-14	0.5	2	FT	2/13/2014 12:28	SOIL	Barium	61	mg/kg
GB-14	0.5	2	FT	2/13/2014 12:28	SOIL	Chromium	7.54	mg/kg
GB-14	0.5	2	FT	2/13/2014 12:28	SOIL	Lead	425	mg/kg
GB-14	0.5	2	FT	2/13/2014 12:28	SOIL	Mercury	0.743	mg/kg
GB-14	0.5	2	FT	2/13/2014 12:28	SOIL	Anthracene	0.892	mg/kg
GB-14	0.5	2	FT	2/13/2014 12:28	SOIL	Benzo(a)anthracene	2.82	mg/kg
GB-14	0.5	2	FT	2/13/2014 12:28	SOIL	Benzo(a)pyrene	0.637	mg/kg
GB-14	0.5	2	FT	2/13/2014 12:28	SOIL	Benzo(b)fluoranthene	3.29	mg/kg
GB-14	0.5	2	FT	2/13/2014 12:28	SOIL	Benzo(g,h,i)perylene	1.61	mg/kg
GB-14	0.5	2	FT	2/13/2014 12:28	SOIL	Benzo(k)fluoranthene	0.944	mg/kg
GB-14	0.5	2	FT	2/13/2014 12:28	SOIL	Carbazole	0.649	mg/kg
GB-14	0.5	2	FT	2/13/2014 12:28	SOIL	Chrysene	2.57	mg/kg
GB-14	0.5	2	FT	2/13/2014 12:28	SOIL	Dibenz(a,h)Anthracene	0.464	mg/kg

Table 1. Soil Detections from February 13, 2014 Sampling Event  
Former Macon 2 Manufactured Gas Plant Facility  
Macon, Georgia  
GEC Project No. 130659.241

SAMPLE ID	Sample Depth (Top)	Depth (Bottom)	Units_ Depth	DATE SAMPLED	MATRIX	Constituent	Result	UNITS
GB-14	0.5	2	FT	2/13/2014 12:28	SOIL	Fluoranthene	4.15	mg/kg
GB-14	0.5	2	FT	2/13/2014 12:28	SOIL	Fluorene	0.401	mg/kg
GB-14	0.5	2	FT	2/13/2014 12:28	SOIL	Indeno(1,2,3-c,d)Pyrene	1.3	mg/kg
GB-14	0.5	2	FT	2/13/2014 12:28	SOIL	Naphthalene	0.532	mg/kg
GB-14	0.5	2	FT	2/13/2014 12:28	SOIL	Phenanthrene	4.41	mg/kg
GB-14	0.5	2	FT	2/13/2014 12:28	SOIL	Pyrene	4.81	mg/kg
GB-14	0	6	IN	2/13/2014 12:25	SOIL	Barium	45.9	mg/kg
GB-14	0	6	IN	2/13/2014 12:25	SOIL	Chromium	9.93	mg/kg
GB-14	0	6	IN	2/13/2014 12:25	SOIL	Lead	62.8	mg/kg
GB-14	0	6	IN	2/13/2014 12:25	SOIL	Mercury	0.117	mg/kg
GB-15	0.5	2	FT	2/13/2014 11:35	SOIL	Barium	12.6	mg/kg
GB-15	0.5	2	FT	2/13/2014 11:35	SOIL	Chromium	26.1	mg/kg
GB-15	0.5	2	FT	2/13/2014 11:35	SOIL	Lead	8.3	mg/kg
GB-15	0.5	2	FT	2/13/2014 11:35	SOIL	Mercury	0.105	mg/kg
GB-15	0	6	IN	2/13/2014 11:32	SOIL	Arsenic	7.59	mg/kg
GB-15	0	6	IN	2/13/2014 11:32	SOIL	Barium	55.6	mg/kg
GB-15	0	6	IN	2/13/2014 11:32	SOIL	Cadmium	1.21	mg/kg
GB-15	0	6	IN	2/13/2014 11:32	SOIL	Chromium	28.8	mg/kg
GB-15	0	6	IN	2/13/2014 11:32	SOIL	Lead	95.1	mg/kg
GB-15	0	6	IN	2/13/2014 11:32	SOIL	Mercury	0.0914	mg/kg
GB-15	0	6	IN	2/13/2014 11:32	SOIL	Methyl acetate	0.0134	mg/kg
GB-16	0.5	2	FT	2/13/2014 12:49	SOIL	Barium	70.1	mg/kg
GB-16	0.5	2	FT	2/13/2014 12:49	SOIL	Chromium	15.5	mg/kg
GB-16	0.5	2	FT	2/13/2014 12:49	SOIL	Lead	119	mg/kg
GB-16	0.5	2	FT	2/13/2014 12:49	SOIL	Mercury	0.214	mg/kg
GB-16	0	6	IN	2/13/2014 12:46	SOIL	Barium	12.2	mg/kg
GB-16	0	6	IN	2/13/2014 12:46	SOIL	Chromium	7.33	mg/kg
GB-16	0	6	IN	2/13/2014 12:46	SOIL	Lead	5.85	mg/kg
GB-16	0	6	IN	2/13/2014 12:46	SOIL	Methyl acetate	0.148	mg/kg
GB-17	0.5	2	FT	2/13/2014 12:57	SOIL	Barium	46	mg/kg
GB-17	0.5	2	FT	2/13/2014 12:57	SOIL	Chromium	13.8	mg/kg
GB-17	0.5	2	FT	2/13/2014 12:57	SOIL	Lead	18.2	mg/kg
GB-17	0.5	2	FT	2/13/2014 12:57	SOIL	Mercury	0.0851	mg/kg
GB-17	0	6	IN	2/13/2014 12:55	SOIL	Barium	36	mg/kg
GB-17	0	6	IN	2/13/2014 12:55	SOIL	Chromium	14.5	mg/kg
GB-17	0	6	IN	2/13/2014 12:55	SOIL	Lead	9.56	mg/kg
GB-18	0.5	2	FT	2/13/2014 13:38	SOIL	Arsenic	5.89	mg/kg
GB-18	0.5	2	FT	2/13/2014 13:38	SOIL	Barium	170	mg/kg
GB-18	0.5	2	FT	2/13/2014 13:38	SOIL	Chromium	11.1	mg/kg
GB-18	0.5	2	FT	2/13/2014 13:38	SOIL	Lead	147	mg/kg



Table 1. Soil Detections from February 13, 2014 Sampling Event  
Former Macon 2 Manufactured Gas Plant Facility  
Macon, Georgia  
GEC Project No. 130659.241

SAMPLE ID	Sample Depth (Top)	Depth (Bottom)	Units_ Depth	DATE SAMPLED	MATRIX	Constituent	Result	UNITS
GB-18	0.5	2	FT	2/13/2014 13:38	SOIL	Mercury	0.373	mg/kg
GB-18	0.5	2	FT	2/13/2014 13:38	SOIL	Benzo(a)anthracene	0.693	mg/kg
GB-18	0.5	2	FT	2/13/2014 13:38	SOIL	Benzo(a)pyrene	0.567	mg/kg
GB-18	0.5	2	FT	2/13/2014 13:38	SOIL	Benzo(b)fluoranthene	0.597	mg/kg
GB-18	0.5	2	FT	2/13/2014 13:38	SOIL	Chrysene	0.633	mg/kg
GB-18	0.5	2	FT	2/13/2014 13:38	SOIL	Fluoranthene	1.45	mg/kg
GB-18	0.5	2	FT	2/13/2014 13:38	SOIL	Phenanthrene	0.932	mg/kg
GB-18	0.5	2	FT	2/13/2014 13:38	SOIL	Pyrene	1.24	mg/kg
GB-18	0	6	IN	2/13/2014 13:36	SOIL	Barium	95.9	mg/kg
GB-18	0	6	IN	2/13/2014 13:36	SOIL	Chromium	7.39	mg/kg
GB-18	0	6	IN	2/13/2014 13:36	SOIL	Lead	171	mg/kg
GB-18	0	6	IN	2/13/2014 13:36	SOIL	Mercury	0.271	mg/kg
GB-18	0	6	IN	2/13/2014 13:36	SOIL	Methyl acetate	0.0319	mg/kg
GB-18	0	6	IN	2/13/2014 13:36	SOIL	Benzo(b)fluoranthene	0.431	mg/kg
GB-18	0	6	IN	2/13/2014 13:36	SOIL	Fluoranthene	0.635	mg/kg
GB-18	0	6	IN	2/13/2014 13:36	SOIL	Pyrene	0.639	mg/kg
GB-19	0.5	2	FT	2/13/2014 12:33	SOIL	Barium	12.2	mg/kg
GB-19	0.5	2	FT	2/13/2014 12:33	SOIL	Chromium	14.3	mg/kg
GB-19	0.5	2	FT	2/13/2014 12:33	SOIL	Lead	7.46	mg/kg
GB-19	0.5	2	FT	2/13/2014 12:33	SOIL	Methyl acetate	0.0159	mg/kg
GB-19	0	6	IN	2/13/2014 12:31	SOIL	Barium	24.8	mg/kg
GB-19	0	6	IN	2/13/2014 12:31	SOIL	Chromium	11.8	mg/kg
GB-19	0	6	IN	2/13/2014 12:31	SOIL	Lead	19.3	mg/kg
GB-19	0	6	IN	2/13/2014 12:31	SOIL	Mercury	0.0679	mg/kg
GB-20	0.5	2	FT	2/13/2014 12:40	SOIL	Barium	11.6	mg/kg
GB-20	0.5	2	FT	2/13/2014 12:40	SOIL	Chromium	6.17	mg/kg
GB-20	0.5	2	FT	2/13/2014 12:40	SOIL	Methyl acetate	0.0136	mg/kg
GB-20	0	6	IN	2/13/2014 12:38	SOIL	Methyl acetate	0.0956	mg/kg
GB-21	0.5	2	FT	2/13/2014 12:44	SOIL	Barium	44.8	mg/kg
GB-21	0.5	2	FT	2/13/2014 12:44	SOIL	Chromium	18.8	mg/kg
GB-21	0.5	2	FT	2/13/2014 12:44	SOIL	Lead	7.14	mg/kg
GB-21	0	6	IN	2/13/2014 12:42	SOIL	Barium	9.73	mg/kg
GB-21	0	6	IN	2/13/2014 12:42	SOIL	Mercury	0.06	mg/kg
GB-21	0	6	IN	2/13/2014 12:42	SOIL	Methyl acetate	0.0533	mg/kg
GB-22	0.5	2	FT	2/13/2014 12:01	SOIL	Barium	21.6	mg/kg
GB-22	0.5	2	FT	2/13/2014 12:01	SOIL	Chromium	5.66	mg/kg
GB-22	0.5	2	FT	2/13/2014 12:01	SOIL	Lead	33.1	mg/kg
GB-22	0.5	2	FT	2/13/2014 12:01	SOIL	Mercury	0.0725	mg/kg
GB-22	0.5	2	FT	2/13/2014 12:01	SOIL	Methyl acetate	0.0127	mg/kg
GB-22	0	6	IN	2/13/2014 12:59	SOIL	Barium	60.2	mg/kg

Table 1. Soil Detections from February 13, 2014 Sampling Event  
Former Macon 2 Manufactured Gas Plant Facility  
Macon, Georgia  
GEC Project No. 130659.241

SAMPLE ID	Sample Depth (Top)	Depth (Bottom)	Units_ Depth	DATE SAMPLED	MATRIX	Constituent	Result	UNITS
GB-22	0	6	IN	2/13/2014 12:59	SOIL	Chromium	6.94	mg/kg
GB-22	0	6	IN	2/13/2014 12:59	SOIL	Lead	38.4	mg/kg
GB-22	0	6	IN	2/13/2014 12:59	SOIL	Mercury	0.131	mg/kg
GB-23	0.5	2	FT	2/13/2014 13:33	SOIL	Barium	25.4	mg/kg
GB-23	0.5	2	FT	2/13/2014 13:33	SOIL	Chromium	25.4	mg/kg
GB-23	0.5	2	FT	2/13/2014 13:33	SOIL	Lead	9.28	mg/kg
GB-23	0	6	IN	2/13/2014 13:30	SOIL	Barium	23.5	mg/kg
GB-23	0	6	IN	2/13/2014 13:30	SOIL	Chromium	8.71	mg/kg
GB-23	0	6	IN	2/13/2014 13:30	SOIL	Lead	19.3	mg/kg
GB-23	0	6	IN	2/13/2014 13:30	SOIL	Mercury	0.066	mg/kg
GB-24	0.5	2	FT	2/13/2014 13:27	SOIL	Barium	31.4	mg/kg
GB-24	0.5	2	FT	2/13/2014 13:27	SOIL	Chromium	10.6	mg/kg
GB-24	0.5	2	FT	2/13/2014 13:27	SOIL	Lead	22.7	mg/kg
GB-24	0	6	IN	2/13/2014 13:25	SOIL	Barium	155	mg/kg
GB-24	0	6	IN	2/13/2014 13:25	SOIL	Chromium	18.2	mg/kg
GB-24	0	6	IN	2/13/2014 13:25	SOIL	Lead	211	mg/kg
GB-24	0	6	IN	2/13/2014 13:25	SOIL	Mercury	0.22	mg/kg
GB-24	0	6	IN	2/13/2014 13:25	SOIL	Fluoranthene	0.524	mg/kg
GB-24	0	6	IN	2/13/2014 13:25	SOIL	Pyrene	0.451	mg/kg
GB-25	0.5	2	FT	2/13/2014 12:03	SOIL	Barium	55.1	mg/kg
GB-25	0.5	2	FT	2/13/2014 12:03	SOIL	Chromium	8.45	mg/kg
GB-25	0.5	2	FT	2/13/2014 12:03	SOIL	Lead	71.4	mg/kg
GB-25	0.5	2	FT	2/13/2014 12:03	SOIL	Mercury	0.879	mg/kg
GB-25	0	6	IN	2/13/2014 12:04	SOIL	Barium	36.3	mg/kg
GB-25	0	6	IN	2/13/2014 12:04	SOIL	Chromium	4.89	mg/kg
GB-25	0	6	IN	2/13/2014 12:04	SOIL	Lead	7.65	mg/kg
GB-25	0	6	IN	2/13/2014 12:04	SOIL	Methyl acetate	0.0401	mg/kg
GB-26	0.5	2	FT	2/13/2014 13:16	SOIL	Barium	63.3	mg/kg
GB-26	0.5	2	FT	2/13/2014 13:16	SOIL	Chromium	13.8	mg/kg
GB-26	0.5	2	FT	2/13/2014 13:16	SOIL	Lead	76.8	mg/kg
GB-26	0.5	2	FT	2/13/2014 13:16	SOIL	Mercury	0.735	mg/kg
GB-26	0.5	2	FT	2/13/2014 13:16	SOIL	Benzo(a)anthracene	0.487	mg/kg
GB-26	0.5	2	FT	2/13/2014 13:16	SOIL	Benzo(a)pyrene	0.385	mg/kg
GB-26	0.5	2	FT	2/13/2014 13:16	SOIL	Benzo(b)fluoranthene	0.528	mg/kg
GB-26	0.5	2	FT	2/13/2014 13:16	SOIL	Chrysene	0.423	mg/kg
GB-26	0.5	2	FT	2/13/2014 13:16	SOIL	Fluoranthene	0.858	mg/kg
GB-26	0.5	2	FT	2/13/2014 13:16	SOIL	Phenanthrene	0.603	mg/kg
GB-26	0.5	2	FT	2/13/2014 13:16	SOIL	Pyrene	0.838	mg/kg
GB-26	0	6	IN	2/13/2014 13:13	SOIL	Barium	88.2	mg/kg
GB-26	0	6	IN	2/13/2014 13:13	SOIL	Chromium	13.6	mg/kg

Table 1. Soil Detections from February 13, 2014 Sampling Event  
Former Macon 2 Manufactured Gas Plant Facility  
Macon, Georgia  
GEC Project No. 130659.241

SAMPLE ID	Sample Depth (Top)	Depth (Bottom)	Units_ Depth	DATE SAMPLED	MATRIX	Constituent	Result	UNITS
GB-26	0	6	IN	2/13/2014 13:13	SOIL	Lead	95.5	mg/kg
GB-26	0	6	IN	2/13/2014 13:13	SOIL	Mercury	0.244	mg/kg
GB-26	0	6	IN	2/13/2014 13:13	SOIL	Benzo(a)anthracene	0.723	mg/kg
GB-26	0	6	IN	2/13/2014 13:13	SOIL	Benzo(b)fluoranthene	0.577	mg/kg
GB-26	0	6	IN	2/13/2014 13:13	SOIL	Chrysene	0.614	mg/kg
GB-26	0	6	IN	2/13/2014 13:13	SOIL	Fluoranthene	1.22	mg/kg
GB-26	0	6	IN	2/13/2014 13:13	SOIL	Phenanthrene	1.02	mg/kg
GB-26	0	6	IN	2/13/2014 13:13	SOIL	Pyrene	1.35	mg/kg
GB-27	0.5	2	FT	2/13/2014 13:20	SOIL	Barium	31.9	mg/kg
GB-27	0	6	IN	2/13/2014 13:18	SOIL	Arsenic	74.9	mg/kg
GB-27	0	6	IN	2/13/2014 13:18	SOIL	Barium	98.9	mg/kg
GB-27	0	6	IN	2/13/2014 13:18	SOIL	Chromium	19.2	mg/kg
GB-27	0	6	IN	2/13/2014 13:18	SOIL	Lead	172	mg/kg
GB-27	0	6	IN	2/13/2014 13:18	SOIL	Mercury	0.16	mg/kg

Highlight designates value above the Type 1 or Type 2 RRS.

- Notes:
1. Type 2 RRS for Lead in Soil is 400 mg/kg.
  2. Type 1 RRS for Lead in Soil is 75 mg/kg.
  3. Type 2 RRS for Arsenic in Soil is 6.08 mg/kg.
  4. Type 1 RRS for Arsenic in Soil is 20.0 mg/kg.
  5. Type 2 RRS for Mercury in Soil is 23.5 mg/kg.
  6. Type 1 RRS for Mercury in Soil is 0.5 mg/kg.

Table 2. Analytical Summary Table - Metals  
Macon MGP #2  
Macon, Ga

Client Sample ID	Collection Date	CAS	Analyte by 6010 C	Type 1 RRS (mg/kg)	Type 2 RRS (mg/kg)	Analytical Result (mg/kg)	Flag
GB-11 13-15	8/10/2015 10:41	7440-38-2	Arsenic	20		2.7	
GB-11 13-15	8/10/2015 10:41	7440-39-3	Barium	1000		36	B
GB-11 13-15	8/10/2015 10:41	7440-41-7	Beryllium	2		0.12	J
GB-11 13-15	8/10/2015 10:41	7440-43-9	Cadmium	2		0.27	J
GB-11 13-15	8/10/2015 10:41	7440-47-3	Chromium	100		6.7	
GB-11 13-15	8/10/2015 10:41	7440-50-8	Copper	100		11	
GB-11 13-15	8/10/2015 10:41	7439-92-1	Lead	75		74	
GB-11 13-15	8/10/2015 10:41	7440-02-0	Nickel	50		1.9	J
GB-11 13-15	8/10/2015 10:41	7782-49-2	Selenium			1	U
GB-11 13-15	8/10/2015 10:41	7440-22-4	Silver			0.063	U
GB-11 13-15	8/10/2015 10:41	7440-62-2	Vanadium	100		16	
GB-11 13-15	8/10/2015 10:41	7440-66-6	Zinc	100		55	
GB-11 3-5	8/10/2015 10:31	7440-38-2	Arsenic	20		1.5	J
GB-11 3-5	8/10/2015 10:31	7440-39-3	Barium	1000		49	B
GB-11 3-5	8/10/2015 10:31	7440-41-7	Beryllium	2		0.3	J
GB-11 3-5	8/10/2015 10:31	7440-43-9	Cadmium	2		0.1	U
GB-11 3-5	8/10/2015 10:31	7440-47-3	Chromium	100		13	
GB-11 3-5	8/10/2015 10:31	7440-50-8	Copper	100		7.8	
GB-11 3-5	8/10/2015 10:31	7439-92-1	Lead	75		73	
GB-11 3-5	8/10/2015 10:31	7440-02-0	Nickel	50		2.8	J
GB-11 3-5	8/10/2015 10:31	7782-49-2	Selenium			0.99	U
GB-11 3-5	8/10/2015 10:31	7440-22-4	Silver			0.061	U
GB-11 3-5	8/10/2015 10:31	7440-62-2	Vanadium	100		28	
GB-11 3-5	8/10/2015 10:31	7440-66-6	Zinc	100		51	
GB-11 8-10	8/10/2015 10:36	7440-38-2	Arsenic	20		2.2	
GB-11 8-10	8/10/2015 10:36	7440-39-3	Barium	1000		33	B
GB-11 8-10	8/10/2015 10:36	7440-41-7	Beryllium	2		0.18	J
GB-11 8-10	8/10/2015 10:36	7440-43-9	Cadmium	2		0.1	U
GB-11 8-10	8/10/2015 10:36	7440-47-3	Chromium	100		11	

Table 2. Analytical Summary Table - Metals  
Macon MGP #2  
Macon, Ga

Client Sample ID	Collection Date	CAS	Analyte by 6010 C	Type 1 RRS (mg/kg)	Type 2 RRS (mg/kg)	Analytical Result (mg/kg)	Flag
GB-11 8-10	8/10/2015 10:36	7440-50-8	Copper	100		10	
GB-11 8-10	8/10/2015 10:36	7439-92-1	Lead	75		72	
GB-11 8-10	8/10/2015 10:36	7440-02-0	Nickel	50		2.7	J
GB-11 8-10	8/10/2015 10:36	7782-49-2	Selenium			0.99	U
GB-11 8-10	8/10/2015 10:36	7440-22-4	Silver			0.061	U
GB-11 8-10	8/10/2015 10:36	7440-62-2	Vanadium	100		25	
GB-11 8-10	8/10/2015 10:36	7440-66-6	Zinc	100		28	
GB-14 13-15	8/6/2015 12:59	7440-38-2	Arsenic	20		6.3	
GB-14 13-15	8/6/2015 12:59	7440-39-3	Barium	1000		42	
GB-14 13-15	8/6/2015 12:59	7440-41-7	Beryllium	2		0.25	J
GB-14 13-15	8/6/2015 12:59	7440-43-9	Cadmium	2		0.14	J
GB-14 13-15	8/6/2015 12:59	7440-47-3	Chromium	100		7.8	
GB-14 13-15	8/6/2015 12:59	7440-50-8	Copper	100		38	
GB-14 13-15	8/6/2015 12:59	7439-92-1	Lead	75	400	97	
GB-14 13-15	8/6/2015 12:59	7440-02-0	Nickel	50		3	J
GB-14 13-15	8/6/2015 12:59	7782-49-2	Selenium			1.4	U
GB-14 13-15	8/6/2015 12:59	7440-22-4	Silver			0.086	J
GB-14 13-15	8/6/2015 12:59	7440-62-2	Vanadium	100		11	
GB-14 13-15	8/6/2015 12:59	7440-66-6	Zinc	100		99	
GB-14 3-5	8/6/2015 12:47	7440-38-2	Arsenic	20		3.9	
GB-14 3-5	8/6/2015 12:47	7440-39-3	Barium	1000		100	
GB-14 3-5	8/6/2015 12:47	7440-41-7	Beryllium	2		0.34	J
GB-14 3-5	8/6/2015 12:47	7440-43-9	Cadmium	2		0.097	U
GB-14 3-5	8/6/2015 12:47	7440-47-3	Chromium	100		12	
GB-14 3-5	8/6/2015 12:47	7440-50-8	Copper	100		18	
GB-14 3-5	8/6/2015 12:47	7439-92-1	Lead	75	400	720	
GB-14 3-5	8/6/2015 12:47	7440-02-0	Nickel	50		7.5	
GB-14 3-5	8/6/2015 12:47	7782-49-2	Selenium			0.95	U
GB-14 3-5	8/6/2015 12:47	7440-22-4	Silver			0.48	J

Table 2. Analytical Summary Table - Metals  
Macon MGP #2  
Macon, Ga

Client Sample ID	Collection Date	CAS	Analyte by 6010 C	Type 1 RRS (mg/kg)	Type 2 RRS (mg/kg)	Analytical Result (mg/kg)	Flag
GB-14 3-5	8/6/2015 12:47	7440-62-2	Vanadium	100		21	
GB-14 3-5	8/6/2015 12:47	7440-66-6	Zinc	100		98	
GB-14 8-10	8/6/2015 12:54	7440-38-2	Arsenic	20	6.08	25	
GB-14 8-10	8/6/2015 12:54	7440-39-3	Barium	1000		490	
GB-14 8-10	8/6/2015 12:54	7440-41-7	Beryllium	2		1.9	
GB-14 8-10	8/6/2015 12:54	7440-43-9	Cadmium	2		1.1	
GB-14 8-10	8/6/2015 12:54	7440-47-3	Chromium	100		15	
GB-14 8-10	8/6/2015 12:54	7440-50-8	Copper	100		71	
GB-14 8-10	8/6/2015 12:54	7439-92-1	Lead	75	400	360	
GB-14 8-10	8/6/2015 12:54	7440-02-0	Nickel	50		13	
GB-14 8-10	8/6/2015 12:54	7782-49-2	Selenium			1.5	U
GB-14 8-10	8/6/2015 12:54	7440-22-4	Silver			0.25	J
GB-14 8-10	8/6/2015 12:54	7440-62-2	Vanadium	100		23	
GB-14 8-10	8/6/2015 12:54	7440-66-6	Zinc	100	23500	540	
GB-16 2-4	8/6/2015 13:29	7440-38-2	Arsenic	20		3.1	J
GB-16 2-4	8/6/2015 13:29	7440-39-3	Barium	1000		38	
GB-16 2-4	8/6/2015 13:29	7440-41-7	Beryllium	2		0.33	J
GB-16 2-4	8/6/2015 13:29	7440-43-9	Cadmium	2		0.19	U
GB-16 2-4	8/6/2015 13:29	7440-47-3	Chromium	100		5	
GB-16 2-4	8/6/2015 13:29	7440-50-8	Copper	100		4.1	J
GB-16 2-4	8/6/2015 13:29	7439-92-1	Lead	75		55	
GB-16 2-4	8/6/2015 13:29	7440-02-0	Nickel	50		3.1	J
GB-16 2-4	8/6/2015 13:29	7782-49-2	Selenium			1.8	U
GB-16 2-4	8/6/2015 13:29	7440-22-4	Silver			0.11	U
GB-16 2-4	8/6/2015 13:29	7440-62-2	Vanadium	100		10	
GB-16 2-4	8/6/2015 13:29	7440-66-6	Zinc	100		36	
GB-16 4-6	8/6/2015 13:35	7440-38-2	Arsenic	20		3.4	
GB-16 4-6	8/6/2015 13:35	7440-39-3	Barium	1000		6.8	
GB-16 4-6	8/6/2015 13:35	7440-41-7	Beryllium	2		0.13	J

Table 2. Analytical Summary Table - Metals  
Macon MGP #2  
Macon, Ga

Client Sample ID	Collection Date	CAS	Analyte by 6010 C	Type 1 RRS (mg/kg)	Type 2 RRS (mg/kg)	Analytical Result (mg/kg)	Flag
GB-16 4-6	8/6/2015 13:35	7440-43-9	Cadmium	2		0.12	U
GB-16 4-6	8/6/2015 13:35	7440-47-3	Chromium	100		15	
GB-16 4-6	8/6/2015 13:35	7440-50-8	Copper	100		3.9	
GB-16 4-6	8/6/2015 13:35	7439-92-1	Lead	75		5.2	
GB-16 4-6	8/6/2015 13:35	7440-02-0	Nickel	50		1.3	J
GB-16 4-6	8/6/2015 13:35	7782-49-2	Selenium			1.2	U
GB-16 4-6	8/6/2015 13:35	7440-22-4	Silver			0.074	U
GB-16 4-6	8/6/2015 13:35	7440-62-2	Vanadium	100		31	
GB-16 4-6	8/6/2015 13:35	7440-66-6	Zinc	100		6.2	
GB-18 2-4	8/6/2015 15:05	7440-38-2	Arsenic	20		6.5	
GB-18 2-4	8/6/2015 15:05	7440-39-3	Barium	1000		100	
GB-18 2-4	8/6/2015 15:05	7440-41-7	Beryllium	2		0.32	J
GB-18 2-4	8/6/2015 15:05	7440-43-9	Cadmium	2		0.36	J
GB-18 2-4	8/6/2015 15:05	7440-47-3	Chromium	100		12	
GB-18 2-4	8/6/2015 15:05	7440-50-8	Copper	100		57	
GB-18 2-4	8/6/2015 15:05	7439-92-1	Lead	75	400	200	
GB-18 2-4	8/6/2015 15:05	7440-02-0	Nickel	50		4.7	
GB-18 2-4	8/6/2015 15:05	7782-49-2	Selenium			0.97	U
GB-18 2-4	8/6/2015 15:05	7440-22-4	Silver			0.094	J
GB-18 2-4	8/6/2015 15:05	7440-62-2	Vanadium	100		18	
GB-18 2-4	8/6/2015 15:05	7440-66-6	Zinc	100		110	
GB-18 4-6	8/6/2015 15:15	7440-38-2	Arsenic	20		6	
GB-18 4-6	8/6/2015 15:15	7440-39-3	Barium	1000		220	
GB-18 4-6	8/6/2015 15:15	7440-41-7	Beryllium	2		0.26	J
GB-18 4-6	8/6/2015 15:15	7440-43-9	Cadmium	2		0.15	J
GB-18 4-6	8/6/2015 15:15	7440-47-3	Chromium	100		74	F2
GB-18 4-6	8/6/2015 15:15	7440-50-8	Copper	100		61	
GB-18 4-6	8/6/2015 15:15	7439-92-1	Lead	75	400	250	
GB-18 4-6	8/6/2015 15:15	7440-02-0	Nickel	50		12	F1



Table 2. Analytical Summary Table - Metals  
Macon MGP #2  
Macon, Ga

Client Sample ID	Collection Date	CAS	Analyte by 6010 C	Type 1 RRS (mg/kg)	Type 2 RRS (mg/kg)	Analytical Result (mg/kg)	Flag
GB-18 4-6	8/6/2015 15:15	7782-49-2	Selenium			0.92	U
GB-18 4-6	8/6/2015 15:15	7440-22-4	Silver			0.25	J
GB-18 4-6	8/6/2015 15:15	7440-62-2	Vanadium	100		47	
GB-18 4-6	8/6/2015 15:15	7440-66-6	Zinc	100	23500	270	
GB-19 8-10	8/6/2015 11:30	7440-38-2	Arsenic	20		1.6	J
GB-19 8-10	8/6/2015 11:30	7440-39-3	Barium	1000		0.21	U
GB-19 8-10	8/6/2015 11:30	7440-41-7	Beryllium	2		0.22	J
GB-19 8-10	8/6/2015 11:30	7440-43-9	Cadmium	2		0.13	U
GB-19 8-10	8/6/2015 11:30	7440-47-3	Chromium	100		3.5	
GB-19 8-10	8/6/2015 11:30	7440-50-8	Copper	100		0.29	J
GB-19 8-10	8/6/2015 11:30	7439-92-1	Lead	75		2.5	
GB-19 8-10	8/6/2015 11:30	7440-02-0	Nickel	50		4.6	J
GB-19 8-10	8/6/2015 11:30	7782-49-2	Selenium			1.3	U
GB-19 8-10	8/6/2015 11:30	7440-22-4	Silver			0.078	U
GB-19 8-10	8/6/2015 11:30	7440-62-2	Vanadium	100		4.1	
GB-19 8-10	8/6/2015 11:30	7440-66-6	Zinc	100		9.2	
GB-19 13-15	8/25/2015 11:30	7440-38-2	Arsenic	20		1.5	J
GB-19 13-15	8/25/2015 11:30	7440-39-3	Barium	1000		1.9	
GB-19 13-15	8/25/2015 11:30	7440-41-7	Beryllium	2		0.11	J
GB-19 13-15	8/25/2015 11:30	7440-43-9	Cadmium	2		0.098	U
GB-19 13-15	8/25/2015 11:30	7440-47-3	Chromium	100		3.6	
GB-19 13-15	8/25/2015 11:30	7440-50-8	Copper	100		0.79	J
GB-19 13-15	8/25/2015 11:30	7439-92-1	Lead	75		4.6	
GB-19 13-15	8/25/2015 11:30	7440-02-0	Nickel	50		1.6	J
GB-19 13-15	8/25/2015 11:30	7782-49-2	Selenium			0.95	U
GB-19 13-15	8/25/2015 11:30	7440-22-4	Silver			0.059	U
GB-19 13-15	8/25/2015 11:30	7440-62-2	Vanadium	100		3.5	
GB-19 13-15	8/25/2015 11:30	7440-66-6	Zinc	100		5.1	
GB-21 8-10	8/6/2015 10:45	7440-38-2	Arsenic	20		3.5	

Table 2. Analytical Summary Table - Metals  
Macon MGP #2  
Macon, Ga

Client Sample ID	Collection Date	CAS	Analyte by 6010 C	Type 1 RRS (mg/kg)	Type 2 RRS (mg/kg)	Analytical Result (mg/kg)	Flag
GB-21 8-10	8/6/2015 10:45	7440-39-3	Barium	1000		7.8	
GB-21 8-10	8/6/2015 10:45	7440-41-7	Beryllium	2		1	
GB-21 8-10	8/6/2015 10:45	7440-43-9	Cadmium	2		0.11	U
GB-21 8-10	8/6/2015 10:45	7440-47-3	Chromium	100		5.3	
GB-21 8-10	8/6/2015 10:45	7440-50-8	Copper	100		1.4	J
GB-21 8-10	8/6/2015 10:45	7439-92-1	Lead	75		4.9	
GB-21 8-10	8/6/2015 10:45	7440-02-0	Nickel	50		15	
GB-21 8-10	8/6/2015 10:45	7782-49-2	Selenium			1	U
GB-21 8-10	8/6/2015 10:45	7440-22-4	Silver			0.064	U
GB-21 8-10	8/6/2015 10:45	7440-62-2	Vanadium	100		5.1	
GB-21 8-10	8/6/2015 10:45	7440-66-6	Zinc	100		49	
GB-21 13-15	8/25/2015 11:50	7440-38-2	Arsenic	20		3.5	
GB-21 13-15	8/25/2015 11:50	7440-39-3	Barium	1000		50	
GB-21 13-15	8/25/2015 11:50	7440-41-7	Beryllium	2		0.26	J
GB-21 13-15	8/25/2015 11:50	7440-43-9	Cadmium	2		0.1	U
GB-21 13-15	8/25/2015 11:50	7440-47-3	Chromium	100		57	
GB-21 13-15	8/25/2015 11:50	7440-50-8	Copper	100		5.1	
GB-21 13-15	8/25/2015 11:50	7439-92-1	Lead	75		24	
GB-21 13-15	8/25/2015 11:50	7440-02-0	Nickel	50		3.9	J
GB-21 13-15	8/25/2015 11:50	7782-49-2	Selenium			0.97	U
GB-21 13-15	8/25/2015 11:50	7440-22-4	Silver			0.06	U
GB-21 13-15	8/25/2015 11:50	7440-62-2	Vanadium	100		28	
GB-21 13-15	8/25/2015 11:50	7440-66-6	Zinc	100		29	
GB-25 2-4	8/10/2015 11:39	7440-38-2	Arsenic	20		2.9	
GB-25 2-4	8/10/2015 11:39	7440-39-3	Barium	1000		7.8	B
GB-25 2-4	8/10/2015 11:39	7440-41-7	Beryllium	2		0.18	J
GB-25 2-4	8/10/2015 11:39	7440-43-9	Cadmium	2		0.099	U
GB-25 2-4	8/10/2015 11:39	7440-47-3	Chromium	100		4.9	
GB-25 2-4	8/10/2015 11:39	7440-50-8	Copper	100		1.5	J

Table 2. Analytical Summary Table - Metals

Macon MGP #2

Macon, Ga

Client Sample ID	Collection Date	CAS	Analyte by 6010 C	Type 1 RRS (mg/kg)	Type 2 RRS (mg/kg)	Analytical Result (mg/kg)	Flag
GB-25 2-4	8/10/2015 11:39	7439-92-1	Lead	75		5.7	
GB-25 2-4	8/10/2015 11:39	7440-02-0	Nickel	50		1.3	J
GB-25 2-4	8/10/2015 11:39	7782-49-2	Selenium			0.96	U
GB-25 2-4	8/10/2015 11:39	7440-22-4	Silver			0.06	U
GB-25 2-4	8/10/2015 11:39	7440-62-2	Vanadium	100		10	
GB-25 2-4	8/10/2015 11:39	7440-66-6	Zinc	100		5.8	
GB-25 4-6	8/10/2015 11:42	7440-38-2	Arsenic	20		2.8	
GB-25 4-6	8/10/2015 11:42	7440-39-3	Barium	1000		32	B
GB-25 4-6	8/10/2015 11:42	7440-41-7	Beryllium	2		0.2	J
GB-25 4-6	8/10/2015 11:42	7440-43-9	Cadmium	2		0.12	J
GB-25 4-6	8/10/2015 11:42	7440-47-3	Chromium	100		17	
GB-25 4-6	8/10/2015 11:42	7440-50-8	Copper	100		17	
GB-25 4-6	8/10/2015 11:42	7439-92-1	Lead	75	400	98	
GB-25 4-6	8/10/2015 11:42	7440-02-0	Nickel	50		4	J
GB-25 4-6	8/10/2015 11:42	7782-49-2	Selenium			1	U
GB-25 4-6	8/10/2015 11:42	7440-22-4	Silver			0.063	U
GB-25 4-6	8/10/2015 11:42	7440-62-2	Vanadium	100		10	
GB-25 4-6	8/10/2015 11:42	7440-66-6	Zinc	100		58	
GB-26 2-4	8/10/2015 12:20	7440-38-2	Arsenic	20		3.1	
GB-26 2-4	8/10/2015 12:20	7440-39-3	Barium	1000		73	B
GB-26 2-4	8/10/2015 12:20	7440-41-7	Beryllium	2		0.39	
GB-26 2-4	8/10/2015 12:20	7440-43-9	Cadmium	2		0.18	J
GB-26 2-4	8/10/2015 12:20	7440-47-3	Chromium	100		11	
GB-26 2-4	8/10/2015 12:20	7440-50-8	Copper	100		13	
GB-26 2-4	8/10/2015 12:20	7439-92-1	Lead	75	400	110	
GB-26 2-4	8/10/2015 12:20	7440-02-0	Nickel	50		3.4	J
GB-26 2-4	8/10/2015 12:20	7782-49-2	Selenium			0.94	U
GB-26 2-4	8/10/2015 12:20	7440-22-4	Silver			0.058	U
GB-26 2-4	8/10/2015 12:20	7440-62-2	Vanadium	100		27	

Table 2. Analytical Summary Table - Metals  
Macon MGP #2  
Macon, Ga

Client Sample ID	Collection Date	CAS	Analyte by 6010 C	Type 1 RRS (mg/kg)	Type 2 RRS (mg/kg)	Analytical Result (mg/kg)	Flag
GB-26 2-4	8/10/2015 12:20	7440-66-6	Zinc	100		95	
GB-26 4-6	8/10/2015 12:25	7440-38-2	Arsenic	20		2.6	
GB-26 4-6	8/10/2015 12:25	7440-39-3	Barium	1000		130	B
GB-26 4-6	8/10/2015 12:25	7440-41-7	Beryllium	2		1.2	
GB-26 4-6	8/10/2015 12:25	7440-43-9	Cadmium	2		0.095	U
GB-26 4-6	8/10/2015 12:25	7440-47-3	Chromium	100		12	
GB-26 4-6	8/10/2015 12:25	7440-50-8	Copper	100		11	
GB-26 4-6	8/10/2015 12:25	7439-92-1	Lead	75		44	
GB-26 4-6	8/10/2015 12:25	7440-02-0	Nickel	50		4.5	
GB-26 4-6	8/10/2015 12:25	7782-49-2	Selenium			0.92	U
GB-26 4-6	8/10/2015 12:25	7440-22-4	Silver			0.057	U
GB-26 4-6	8/10/2015 12:25	7440-62-2	Vanadium	100		22	
GB-26 4-6	8/10/2015 12:25	7440-66-6	Zinc	100		85	
GB-27 13-15	8/10/2015 12:48	7440-38-2	Arsenic	20		1.4	J
GB-27 13-15	8/10/2015 12:48	7440-39-3	Barium	1000		41	B
GB-27 13-15	8/10/2015 12:48	7440-41-7	Beryllium	2		0.15	J
GB-27 13-15	8/10/2015 12:48	7440-43-9	Cadmium	2		0.11	J
GB-27 13-15	8/10/2015 12:48	7440-47-3	Chromium	100		11	
GB-27 13-15	8/10/2015 12:48	7440-50-8	Copper	100		12	
GB-27 13-15	8/10/2015 12:48	7439-92-1	Lead	75		64	
GB-27 13-15	8/10/2015 12:48	7440-02-0	Nickel	50		2	J
GB-27 13-15	8/10/2015 12:48	7782-49-2	Selenium			1.1	U
GB-27 13-15	8/10/2015 12:48	7440-22-4	Silver			0.067	U
GB-27 13-15	8/10/2015 12:48	7440-62-2	Vanadium	100		21	
GB-27 13-15	8/10/2015 12:48	7440-66-6	Zinc	100		27	
GB-27 3-5	8/10/2015 12:33	7440-38-2	Arsenic	20		2.4	J
GB-27 3-5	8/10/2015 12:33	7440-39-3	Barium	1000		56	B
GB-27 3-5	8/10/2015 12:33	7440-41-7	Beryllium	2		0.36	J
GB-27 3-5	8/10/2015 12:33	7440-43-9	Cadmium	2		0.16	J

Table 2. Analytical Summary Table - Metals  
Macon MGP #2  
Macon, Ga

Client Sample ID	Collection Date	CAS	Analyte by 6010 C	Type 1 RRS (mg/kg)	Type 2 RRS (mg/kg)	Analytical Result (mg/kg)	Flag
GB-27 3-5	8/10/2015 12:33	7440-47-3	Chromium	100		11	
GB-27 3-5	8/10/2015 12:33	7440-50-8	Copper	100		12	
GB-27 3-5	8/10/2015 12:33	7439-92-1	Lead	75	400	100	
GB-27 3-5	8/10/2015 12:33	7440-02-0	Nickel	50		2.7	J
GB-27 3-5	8/10/2015 12:33	7782-49-2	Selenium			1.3	U
GB-27 3-5	8/10/2015 12:33	7440-22-4	Silver			0.078	U
GB-27 3-5	8/10/2015 12:33	7440-62-2	Vanadium	100		17	
GB-27 3-5	8/10/2015 12:33	7440-66-6	Zinc	100		68	
GB-27 8-10	8/10/2015 12:45	7440-38-2	Arsenic	20		2.4	
GB-27 8-10	8/10/2015 12:45	7440-39-3	Barium	1000		40	B
GB-27 8-10	8/10/2015 12:45	7440-41-7	Beryllium	2		0.14	J
GB-27 8-10	8/10/2015 12:45	7440-43-9	Cadmium	2		0.18	J
GB-27 8-10	8/10/2015 12:45	7440-47-3	Chromium	100		9.3	
GB-27 8-10	8/10/2015 12:45	7440-50-8	Copper	100		11	
GB-27 8-10	8/10/2015 12:45	7439-92-1	Lead	75	400	110	
GB-27 8-10	8/10/2015 12:45	7440-02-0	Nickel	50		2	J
GB-27 8-10	8/10/2015 12:45	7782-49-2	Selenium			0.96	U
GB-27 8-10	8/10/2015 12:45	7440-22-4	Silver			0.059	U
GB-27 8-10	8/10/2015 12:45	7440-62-2	Vanadium	100		17	
GB-27 8-10	8/10/2015 12:45	7440-66-6	Zinc	100		85	
GB-28 13-15	8/6/2015 14:30	7440-38-2	Arsenic	20		5.2	
GB-28 13-15	8/6/2015 14:30	7440-39-3	Barium	1000		150	
GB-28 13-15	8/6/2015 14:30	7440-41-7	Beryllium	2		0.22	J
GB-28 13-15	8/6/2015 14:30	7440-43-9	Cadmium	2		0.15	J
GB-28 13-15	8/6/2015 14:30	7440-47-3	Chromium	100		16	
GB-28 13-15	8/6/2015 14:30	7440-50-8	Copper	100		31	
GB-28 13-15	8/6/2015 14:30	7439-92-1	Lead	75	400	950	
GB-28 13-15	8/6/2015 14:30	7440-02-0	Nickel	50		3.4	J
GB-28 13-15	8/6/2015 14:30	7782-49-2	Selenium			1	U

Table 2. Analytical Summary Table - Metals  
Macon MGP #2  
Macon, Ga

Client Sample ID	Collection Date	CAS	Analyte by 6010 C	Type 1 RRS (mg/kg)	Type 2 RRS (mg/kg)	Analytical Result (mg/kg)	Flag
GB-28 13-15	8/6/2015 14:30	7440-22-4	Silver			0.067	J
GB-28 13-15	8/6/2015 14:30	7440-62-2	Vanadium	100		23	
GB-28 13-15	8/6/2015 14:30	7440-66-6	Zinc	100	23500	210	
GB-28 2-4	8/6/2015 14:00	7440-38-2	Arsenic	20		3.6	
GB-28 2-4	8/6/2015 14:00	7440-39-3	Barium	1000		17	
GB-28 2-4	8/6/2015 14:00	7440-41-7	Beryllium	2		0.31	J
GB-28 2-4	8/6/2015 14:00	7440-43-9	Cadmium	2		0.12	U
GB-28 2-4	8/6/2015 14:00	7440-47-3	Chromium	100		7.1	
GB-28 2-4	8/6/2015 14:00	7440-50-8	Copper	100		2.2	J
GB-28 2-4	8/6/2015 14:00	7439-92-1	Lead	75		5.9	
GB-28 2-4	8/6/2015 14:00	7440-02-0	Nickel	50		3.2	J
GB-28 2-4	8/6/2015 14:00	7782-49-2	Selenium			1.2	U
GB-28 2-4	8/6/2015 14:00	7440-22-4	Silver			0.074	U
GB-28 2-4	8/6/2015 14:00	7440-62-2	Vanadium	100		14	
GB-28 2-4	8/6/2015 14:00	7440-66-6	Zinc	100		12	
GB-28 8-10	8/6/2015 14:20	7440-38-2	Arsenic	20		1.8	J
GB-28 8-10	8/6/2015 14:20	7440-39-3	Barium	1000		2.3	
GB-28 8-10	8/6/2015 14:20	7440-41-7	Beryllium	2		0.092	J
GB-28 8-10	8/6/2015 14:20	7440-43-9	Cadmium	2		0.1	U
GB-28 8-10	8/6/2015 14:20	7440-47-3	Chromium	100		2.3	
GB-28 8-10	8/6/2015 14:20	7440-50-8	Copper	100		0.76	J
GB-28 8-10	8/6/2015 14:20	7439-92-1	Lead	75		2.6	
GB-28 8-10	8/6/2015 14:20	7440-02-0	Nickel	50		0.82	J
GB-28 8-10	8/6/2015 14:20	7782-49-2	Selenium			0.97	U
GB-28 8-10	8/6/2015 14:20	7440-22-4	Silver			0.06	U
GB-28 8-10	8/6/2015 14:20	7440-62-2	Vanadium	100		4.4	
GB-28 8-10	8/6/2015 14:20	7440-66-6	Zinc	100		3.6	
GB-3 13-15	8/7/2015 15:42	7440-38-2	Arsenic	20		3.4	
GB-3 13-15	8/7/2015 15:42	7440-39-3	Barium	1000		39	

Table 2. Analytical Summary Table - Metals  
Macon MGP #2  
Macon, Ga

Client Sample ID	Collection Date	CAS	Analyte by 6010 C	Type 1 RRS (mg/kg)	Type 2 RRS (mg/kg)	Analytical Result (mg/kg)	Flag
GB-3 13-15	8/7/2015 15:42	7440-41-7	Beryllium	2		0.32	J
GB-3 13-15	8/7/2015 15:42	7440-43-9	Cadmium	2		0.11	U
GB-3 13-15	8/7/2015 15:42	7440-47-3	Chromium	100		20	
GB-3 13-15	8/7/2015 15:42	7440-50-8	Copper	100		6.7	
GB-3 13-15	8/7/2015 15:42	7439-92-1	Lead	75		14	
GB-3 13-15	8/7/2015 15:42	7440-02-0	Nickel	50		3	J
GB-3 13-15	8/7/2015 15:42	7782-49-2	Selenium			1	U
GB-3 13-15	8/7/2015 15:42	7440-22-4	Silver			0.065	U
GB-3 13-15	8/7/2015 15:42	7440-62-2	Vanadium	100		43	
GB-3 13-15	8/7/2015 15:42	7440-66-6	Zinc	100		26	
GB-3 8-10	8/7/2015 15:36	7440-38-2	Arsenic	20		5.3	
GB-3 8-10	8/7/2015 15:36	7440-39-3	Barium	1000		53	
GB-3 8-10	8/7/2015 15:36	7440-41-7	Beryllium	2		0.4	J
GB-3 8-10	8/7/2015 15:36	7440-43-9	Cadmium	2		0.14	U
GB-3 8-10	8/7/2015 15:36	7440-47-3	Chromium	100		29	
GB-3 8-10	8/7/2015 15:36	7440-50-8	Copper	100		10	
GB-3 8-10	8/7/2015 15:36	7439-92-1	Lead	75		42	
GB-3 8-10	8/7/2015 15:36	7440-02-0	Nickel	50		3.9	J
GB-3 8-10	8/7/2015 15:36	7782-49-2	Selenium			1.3	U
GB-3 8-10	8/7/2015 15:36	7440-22-4	Silver			0.083	U
GB-3 8-10	8/7/2015 15:36	7440-62-2	Vanadium	100		55	
GB-3 8-10	8/7/2015 15:36	7440-66-6	Zinc	100		59	
GB-5 8-10	8/7/2015 13:45	7440-38-2	Arsenic	20		6.4	
GB-5 8-10	8/7/2015 13:45	7440-39-3	Barium	1000		84	
GB-5 8-10	8/7/2015 13:45	7440-41-7	Beryllium	2		0.4	J
GB-5 8-10	8/7/2015 13:45	7440-43-9	Cadmium	2		0.12	U
GB-5 8-10	8/7/2015 13:45	7440-47-3	Chromium	100		19	
GB-5 8-10	8/7/2015 13:45	7440-50-8	Copper	100	3130	190	
GB-5 8-10	8/7/2015 13:45	7439-92-1	Lead	75	400	100	



Table 2. Analytical Summary Table - Metals

Macon MGP #2

Macon, Ga

Client Sample ID	Collection Date	CAS	Analyte by 6010 C	Type 1 RRS (mg/kg)	Type 2 RRS (mg/kg)	Analytical Result (mg/kg)	Flag
GB-5 8-10	8/7/2015 13:45	7440-02-0	Nickel	50		9.2	
GB-5 8-10	8/7/2015 13:45	7782-49-2	Selenium			1.2	U
GB-5 8-10	8/7/2015 13:45	7440-22-4	Silver			0.17	J
GB-5 8-10	8/7/2015 13:45	7440-62-2	Vanadium	100		35	
GB-5 8-10	8/7/2015 13:45	7440-66-6	Zinc	100		83	
GB-5 13-15	8/24/2015 15:08	7440-38-2	Arsenic	20		1.2	J
GB-5 13-15	8/24/2015 15:08	7440-39-3	Barium	1000		2	F2 F1
GB-5 13-15	8/24/2015 15:08	7440-41-7	Beryllium	2		0.082	J
GB-5 13-15	8/24/2015 15:08	7440-43-9	Cadmium	2		0.1	U
GB-5 13-15	8/24/2015 15:08	7440-47-3	Chromium	100		1.6	
GB-5 13-15	8/24/2015 15:08	7440-50-8	Copper	100		1.5	J F2 F1
GB-5 13-15	8/24/2015 15:08	7439-92-1	Lead	75		1.4	
GB-5 13-15	8/24/2015 15:08	7440-02-0	Nickel	50		0.4	U
GB-5 13-15	8/24/2015 15:08	7782-49-2	Selenium			1	U
GB-5 13-15	8/24/2015 15:08	7440-22-4	Silver			0.063	U
GB-5 13-15	8/24/2015 15:08	7440-62-2	Vanadium	100		3.8	F2 F1
GB-5 13-15	8/24/2015 15:08	7440-66-6	Zinc	100		1.6	J F2 F1
GB-5 18	8/24/2015 15:17	7440-38-2	Arsenic	20		0.96	J
GB-5 18	8/24/2015 15:17	7440-39-3	Barium	1000		0.43	J
GB-5 18	8/24/2015 15:17	7440-41-7	Beryllium	2		0.057	J
GB-5 18	8/24/2015 15:17	7440-43-9	Cadmium	2		0.099	U
GB-5 18	8/24/2015 15:17	7440-47-3	Chromium	100		1	
GB-5 18	8/24/2015 15:17	7440-50-8	Copper	100		0.39	J
GB-5 18	8/24/2015 15:17	7439-92-1	Lead	75		1.1	
GB-5 18	8/24/2015 15:17	7440-02-0	Nickel	50		0.38	U
GB-5 18	8/24/2015 15:17	7782-49-2	Selenium			0.96	U
GB-5 18	8/24/2015 15:17	7440-22-4	Silver			0.06	U
GB-5 18	8/24/2015 15:17	7440-62-2	Vanadium	100		3.2	
GB-5 18	8/24/2015 15:17	7440-66-6	Zinc	100		0.92	J

Table 2. Analytical Summary Table - Metals  
Macon MGP #2  
Macon, Ga

Client Sample ID	Collection Date	CAS	Analyte by 6010 C	Type 1 RRS (mg/kg)	Type 2 RRS (mg/kg)	Analytical Result (mg/kg)	Flag
GB-7 13-15	8/7/2015 10:00	7440-38-2	Arsenic	20		1.2	J
GB-7 13-15	8/7/2015 10:00	7440-39-3	Barium	1000		64	
GB-7 13-15	8/7/2015 10:00	7440-41-7	Beryllium	2		0.51	
GB-7 13-15	8/7/2015 10:00	7440-43-9	Cadmium	2		0.099	U
GB-7 13-15	8/7/2015 10:00	7440-47-3	Chromium	100		7.6	
GB-7 13-15	8/7/2015 10:00	7440-50-8	Copper	100		22	
GB-7 13-15	8/7/2015 10:00	7439-92-1	Lead	75		10	
GB-7 13-15	8/7/2015 10:00	7440-02-0	Nickel	50		4.8	
GB-7 13-15	8/7/2015 10:00	7782-49-2	Selenium			0.96	U
GB-7 13-15	8/7/2015 10:00	7440-22-4	Silver			0.059	U
GB-7 13-15	8/7/2015 10:00	7440-62-2	Vanadium	100		48	
GB-7 13-15	8/7/2015 10:00	7440-66-6	Zinc	100		40	
GB-7 18	8/7/2015 10:06	7440-38-2	Arsenic	20		2	J
GB-7 18	8/7/2015 10:06	7440-39-3	Barium	1000		95	
GB-7 18	8/7/2015 10:06	7440-41-7	Beryllium	2		0.49	
GB-7 18	8/7/2015 10:06	7440-43-9	Cadmium	2		0.11	U
GB-7 18	8/7/2015 10:06	7440-47-3	Chromium	100		12	
GB-7 18	8/7/2015 10:06	7440-50-8	Copper	100		19	
GB-7 18	8/7/2015 10:06	7439-92-1	Lead	75		41	
GB-7 18	8/7/2015 10:06	7440-02-0	Nickel	50		5.5	
GB-7 18	8/7/2015 10:06	7782-49-2	Selenium			1.1	U
GB-7 18	8/7/2015 10:06	7440-22-4	Silver			0.065	U
GB-7 18	8/7/2015 10:06	7440-62-2	Vanadium	100		40	
GB-7 18	8/7/2015 10:06	7440-66-6	Zinc	100		60	
GB-7 8-10	8/7/2015 9:54	7440-38-2	Arsenic	20		1.6	J
GB-7 8-10	8/7/2015 9:54	7440-39-3	Barium	1000		61	
GB-7 8-10	8/7/2015 9:54	7440-41-7	Beryllium	2		0.48	
GB-7 8-10	8/7/2015 9:54	7440-43-9	Cadmium	2		0.11	U
GB-7 8-10	8/7/2015 9:54	7440-47-3	Chromium	100		9.5	

Table 2. Analytical Summary Table - Metals  
Macon MGP #2  
Macon, Ga

Client Sample ID	Collection Date	CAS	Analyte by 6010 C	Type 1 RRS (mg/kg)	Type 2 RRS (mg/kg)	Analytical Result (mg/kg)	Flag
GB-7 8-10	8/7/2015 9:54	7440-50-8	Copper	100		20	
GB-7 8-10	8/7/2015 9:54	7439-92-1	Lead	75		16	
GB-7 8-10	8/7/2015 9:54	7440-02-0	Nickel	50		5.5	
GB-7 8-10	8/7/2015 9:54	7782-49-2	Selenium			1.1	U
GB-7 8-10	8/7/2015 9:54	7440-22-4	Silver			0.082	J
GB-7 8-10	8/7/2015 9:54	7440-62-2	Vanadium	100		51	
GB-7 8-10	8/7/2015 9:54	7440-66-6	Zinc	100		43	
GB-9 8-10	8/10/2015 9:57	7440-38-2	Arsenic	20		2.8	
GB-9 8-10	8/10/2015 9:57	7440-39-3	Barium	1000		46	B
GB-9 8-10	8/10/2015 9:57	7440-41-7	Beryllium	2		0.39	J
GB-9 8-10	8/10/2015 9:57	7440-43-9	Cadmium	2		0.11	U
GB-9 8-10	8/10/2015 9:57	7440-47-3	Chromium	100		6.3	
GB-9 8-10	8/10/2015 9:57	7440-50-8	Copper	100		3.6	
GB-9 8-10	8/10/2015 9:57	7439-92-1	Lead	75		14	
GB-9 8-10	8/10/2015 9:57	7440-02-0	Nickel	50		3.8	J
GB-9 8-10	8/10/2015 9:57	7782-49-2	Selenium			1	U
GB-9 8-10	8/10/2015 9:57	7440-22-4	Silver			0.064	U
GB-9 8-10	8/10/2015 9:57	7440-62-2	Vanadium	100		15	
GB-9 8-10	8/10/2015 9:57	7440-66-6	Zinc	100		14	
GB-9 13-15	8/10/2015 10:06	7440-38-2	Arsenic	20		2.3	
GB-9 13-15	8/10/2015 10:06	7440-39-3	Barium	1000		170	B
GB-9 13-15	8/10/2015 10:06	7440-41-7	Beryllium	2		1.9	
GB-9 13-15	8/10/2015 10:06	7440-43-9	Cadmium	2		0.11	U
GB-9 13-15	8/10/2015 10:06	7440-47-3	Chromium	100		27	
GB-9 13-15	8/10/2015 10:06	7440-50-8	Copper	100		53	
GB-9 13-15	8/10/2015 10:06	7439-92-1	Lead	75		26	
GB-9 13-15	8/10/2015 10:06	7440-02-0	Nickel	50		16	
GB-9 13-15	8/10/2015 10:06	7782-49-2	Selenium			1.1	U
GB-9 13-15	8/10/2015 10:06	7440-22-4	Silver			0.069	U

Table 2. Analytical Summary Table - Metals  
Macon MGP #2  
Macon, Ga

Client Sample ID	Collection Date	CAS	Analyte by 6010 C	Type 1 RRS (mg/kg)	Type 2 RRS (mg/kg)	Analytical Result (mg/kg)	Flag
GB-9 13-15	8/10/2015 10:06	7440-62-2	Vanadium	100		77	
GB-9 13-15	8/10/2015 10:06	7440-66-6	Zinc	100	23500	110	
SB-17 13-15	8/7/2015 14:56	7440-38-2	Arsenic	20		2.3	
SB-17 13-15	8/7/2015 14:56	7440-39-3	Barium	1000		49	
SB-17 13-15	8/7/2015 14:56	7440-41-7	Beryllium	2		0.2	J
SB-17 13-15	8/7/2015 14:56	7440-43-9	Cadmium	2		0.23	J
SB-17 13-15	8/7/2015 14:56	7440-47-3	Chromium	100		11	
SB-17 13-15	8/7/2015 14:56	7440-50-8	Copper	100		16	
SB-17 13-15	8/7/2015 14:56	7439-92-1	Lead	75	400	96	
SB-17 13-15	8/7/2015 14:56	7440-02-0	Nickel	50		2.8	J
SB-17 13-15	8/7/2015 14:56	7782-49-2	Selenium			0.98	U
SB-17 13-15	8/7/2015 14:56	7440-22-4	Silver			0.061	U
SB-17 13-15	8/7/2015 14:56	7440-62-2	Vanadium	100		25	
SB-17 13-15	8/7/2015 14:56	7440-66-6	Zinc	100		90	
SB-17 8-10	8/7/2015 14:50	7440-38-2	Arsenic	20		0.8	U
SB-17 8-10	8/7/2015 14:50	7440-39-3	Barium	1000		18	
SB-17 8-10	8/7/2015 14:50	7440-41-7	Beryllium	2		0.29	J
SB-17 8-10	8/7/2015 14:50	7440-43-9	Cadmium	2		0.1	U
SB-17 8-10	8/7/2015 14:50	7440-47-3	Chromium	100		7.1	
SB-17 8-10	8/7/2015 14:50	7440-50-8	Copper	100		3.3	
SB-17 8-10	8/7/2015 14:50	7439-92-1	Lead	75		8.3	
SB-17 8-10	8/7/2015 14:50	7440-02-0	Nickel	50		2.1	J
SB-17 8-10	8/7/2015 14:50	7782-49-2	Selenium			0.97	U
SB-17 8-10	8/7/2015 14:50	7440-22-4	Silver			0.06	U
SB-17 8-10	8/7/2015 14:50	7440-62-2	Vanadium	100		12	
SB-17 8-10	8/7/2015 14:50	7440-66-6	Zinc	100		8.4	
SB-20 0-2	8/7/2015 15:04	7440-38-2	Arsenic	20		2.5	
SB-20 0-2	8/7/2015 15:04	7440-39-3	Barium	1000		99	
SB-20 0-2	8/7/2015 15:04	7440-41-7	Beryllium	2		1.1	

Table 2. Analytical Summary Table - Metals

Macon MGP #2

Macon, Ga

Client Sample ID	Collection Date	CAS	Analyte by 6010 C	Type 1 RRS (mg/kg)	Type 2 RRS (mg/kg)	Analytical Result (mg/kg)	Flag
SB-20 0-2	8/7/2015 15:04	7440-47-3	Chromium	100		16	
SB-20 0-2	8/7/2015 15:04	7440-50-8	Copper	100		27	
SB-20 0-2	8/7/2015 15:04	7439-92-1	Lead	75		14	
SB-20 0-2	8/7/2015 15:04	7440-02-0	Nickel	50		6.3	
SB-20 0-2	8/7/2015 15:04	7782-49-2	Selenium			0.98	U
SB-20 0-2	8/7/2015 15:04	7440-22-4	Silver			0.06	U
SB-20 0-2	8/7/2015 15:04	7440-62-2	Vanadium	100		66	
SB-20 0-2	8/7/2015 15:04	7440-66-6	Zinc	100		36	
SB-20 0-2	8/7/2015 15:04	7440-43-9	Cadmium	2		0.1	U
SB-20 2-4	8/7/2015 15:04	7440-38-2	Arsenic	20		1.6	J
SB-20 2-4	8/7/2015 15:04	7440-39-3	Barium	1000		99	
SB-20 2-4	8/7/2015 15:04	7440-41-7	Beryllium	2		1.6	
SB-20 2-4	8/7/2015 15:04	7440-47-3	Chromium	100		9.5	
SB-20 2-4	8/7/2015 15:04	7440-50-8	Copper	100		60	
SB-20 2-4	8/7/2015 15:04	7439-92-1	Lead	75		13	
SB-20 2-4	8/7/2015 15:04	7440-02-0	Nickel	50		6.7	
SB-20 2-4	8/7/2015 15:04	7782-49-2	Selenium			0.97	U
SB-20 2-4	8/7/2015 15:04	7440-22-4	Silver			0.06	U
SB-20 2-4	8/7/2015 15:04	7440-62-2	Vanadium	100		61	
SB-20 2-4	8/7/2015 15:04	7440-66-6	Zinc	100		56	
SB-20 2-4	8/7/2015 15:04	7440-43-9	Cadmium	2		0.1	U
SB-24 13-15	8/6/2015 15:50	7440-38-2	Arsenic	20		1.7	J
SB-24 13-15	8/6/2015 15:50	7440-39-3	Barium	1000		37	
SB-24 13-15	8/6/2015 15:50	7440-41-7	Beryllium	2		0.13	J
SB-24 13-15	8/6/2015 15:50	7440-43-9	Cadmium	2		0.14	J
SB-24 13-15	8/6/2015 15:50	7440-47-3	Chromium	100		11	
SB-24 13-15	8/6/2015 15:50	7440-50-8	Copper	100		8.2	
SB-24 13-15	8/6/2015 15:50	7439-92-1	Lead	75	400	86	
SB-24 13-15	8/6/2015 15:50	7440-02-0	Nickel	50		2.1	J

Table 2. Analytical Summary Table - Metals  
Macon MGP #2  
Macon, Ga

Client Sample ID	Collection Date	CAS	Analyte by 6010 C	Type 1 RRS (mg/kg)	Type 2 RRS (mg/kg)	Analytical Result (mg/kg)	Flag
SB-24 13-15	8/6/2015 15:50	7782-49-2	Selenium			0.96	U
SB-24 13-15	8/6/2015 15:50	7440-22-4	Silver			0.059	U
SB-24 13-15	8/6/2015 15:50	7440-62-2	Vanadium	100		21	
SB-24 13-15	8/6/2015 15:50	7440-66-6	Zinc	100		60	
SB-24 2-4	8/6/2015 15:25	7440-38-2	Arsenic	20		2.7	
SB-24 2-4	8/6/2015 15:25	7440-39-3	Barium	1000		49	
SB-24 2-4	8/6/2015 15:25	7440-41-7	Beryllium	2		0.18	J
SB-24 2-4	8/6/2015 15:25	7440-43-9	Cadmium	2		0.11	U
SB-24 2-4	8/6/2015 15:25	7440-47-3	Chromium	100		12	
SB-24 2-4	8/6/2015 15:25	7440-50-8	Copper	100		10	
SB-24 2-4	8/6/2015 15:25	7439-92-1	Lead	75		75	
SB-24 2-4	8/6/2015 15:25	7440-02-0	Nickel	50		2.7	J
SB-24 2-4	8/6/2015 15:25	7782-49-2	Selenium			1.1	U
SB-24 2-4	8/6/2015 15:25	7440-22-4	Silver			0.068	U
SB-24 2-4	8/6/2015 15:25	7440-62-2	Vanadium	100		25	
SB-24 2-4	8/6/2015 15:25	7440-66-6	Zinc	100		53	
SB-24 4-6	8/6/2015 15:32	7440-38-2	Arsenic	20		3.7	
SB-24 4-6	8/6/2015 15:32	7440-39-3	Barium	1000		88	
SB-24 4-6	8/6/2015 15:32	7440-41-7	Beryllium	2		0.34	J
SB-24 4-6	8/6/2015 15:32	7440-43-9	Cadmium	2		0.27	J
SB-24 4-6	8/6/2015 15:32	7440-47-3	Chromium	100		14	
SB-24 4-6	8/6/2015 15:32	7440-50-8	Copper	100		25	
SB-24 4-6	8/6/2015 15:32	7439-92-1	Lead	75	400	260	
SB-24 4-6	8/6/2015 15:32	7440-02-0	Nickel	50		3.1	J
SB-24 4-6	8/6/2015 15:32	7782-49-2	Selenium			1.2	U
SB-24 4-6	8/6/2015 15:32	7440-22-4	Silver			0.074	U
SB-24 4-6	8/6/2015 15:32	7440-62-2	Vanadium	100		29	
SB-24 4-6	8/6/2015 15:32	7440-66-6	Zinc	100	23500	120	
SB-24 8-10	8/6/2015 15:38	7440-38-2	Arsenic	20		3.4	

Table 2. Analytical Summary Table - Metals  
Macon MGP #2  
Macon, Ga

Client Sample ID	Collection Date	CAS	Analyte by 6010 C	Type 1 RRS (mg/kg)	Type 2 RRS (mg/kg)	Analytical Result (mg/kg)	Flag
SB-24 8-10	8/6/2015 15:38	7440-39-3	Barium	1000		73	
SB-24 8-10	8/6/2015 15:38	7440-41-7	Beryllium	2		0.29	J
SB-24 8-10	8/6/2015 15:38	7440-43-9	Cadmium	2		0.14	U
SB-24 8-10	8/6/2015 15:38	7440-47-3	Chromium	100		24	
SB-24 8-10	8/6/2015 15:38	7440-50-8	Copper	100		20	
SB-24 8-10	8/6/2015 15:38	7439-92-1	Lead	75	400	82	
SB-24 8-10	8/6/2015 15:38	7440-02-0	Nickel	50		5.4	
SB-24 8-10	8/6/2015 15:38	7782-49-2	Selenium			1.3	U
SB-24 8-10	8/6/2015 15:38	7440-22-4	Silver			0.081	U
SB-24 8-10	8/6/2015 15:38	7440-62-2	Vanadium	100		22	
SB-24 8-10	8/6/2015 15:38	7440-66-6	Zinc	100	23500	160	
SB-25 0-2	8/10/2015 10:56	7440-38-2	Arsenic	20		1.8	J
SB-25 0-2	8/10/2015 10:56	7440-39-3	Barium	1000		55	B
SB-25 0-2	8/10/2015 10:56	7440-41-7	Beryllium	2		0.39	J
SB-25 0-2	8/10/2015 10:56	7440-43-9	Cadmium	2		0.1	U
SB-25 0-2	8/10/2015 10:56	7440-47-3	Chromium	100		23	
SB-25 0-2	8/10/2015 10:56	7440-50-8	Copper	100		20	
SB-25 0-2	8/10/2015 10:56	7439-92-1	Lead	75		38	
SB-25 0-2	8/10/2015 10:56	7440-02-0	Nickel	50		4.3	
SB-25 0-2	8/10/2015 10:56	7782-49-2	Selenium			1	U
SB-25 0-2	8/10/2015 10:56	7440-22-4	Silver			0.063	U
SB-25 0-2	8/10/2015 10:56	7440-62-2	Vanadium	100		39	
SB-25 0-2	8/10/2015 10:56	7440-66-6	Zinc	100		50	
SB-25 13-15	8/10/2015 11:21	7440-38-2	Arsenic	20		3.9	
SB-25 13-15	8/10/2015 11:21	7440-39-3	Barium	1000		75	B
SB-25 13-15	8/10/2015 11:21	7440-41-7	Beryllium	2		0.43	
SB-25 13-15	8/10/2015 11:21	7440-43-9	Cadmium	2		0.11	U
SB-25 13-15	8/10/2015 11:21	7440-47-3	Chromium	100		11	
SB-25 13-15	8/10/2015 11:21	7440-50-8	Copper	100		10	



Table 2. Analytical Summary Table - Metals  
Macon MGP #2  
Macon, Ga

Client Sample ID	Collection Date	CAS	Analyte by 6010 C	Type 1 RRS (mg/kg)	Type 2 RRS (mg/kg)	Analytical Result (mg/kg)	Flag
SB-25 13-15	8/10/2015 11:21	7439-92-1	Lead	75		64	
SB-25 13-15	8/10/2015 11:21	7440-02-0	Nickel	50		4.8	
SB-25 13-15	8/10/2015 11:21	7782-49-2	Selenium			1	U
SB-25 13-15	8/10/2015 11:21	7440-22-4	Silver			0.064	U
SB-25 13-15	8/10/2015 11:21	7440-62-2	Vanadium	100		23	
SB-25 13-15	8/10/2015 11:21	7440-66-6	Zinc	100		50	
SB-25 2-4	8/10/2015 10:56	7440-38-2	Arsenic	20		4.7	
SB-25 2-4	8/10/2015 10:56	7440-39-3	Barium	1000		120	B
SB-25 2-4	8/10/2015 10:56	7440-41-7	Beryllium	2		0.28	J
SB-25 2-4	8/10/2015 10:56	7440-43-9	Cadmium	2		1.2	
SB-25 2-4	8/10/2015 10:56	7440-47-3	Chromium	100		10	
SB-25 2-4	8/10/2015 10:56	7440-50-8	Copper	100		20	
SB-25 2-4	8/10/2015 10:56	7439-92-1	Lead	75	400	1800	
SB-25 2-4	8/10/2015 10:56	7440-02-0	Nickel	50		3.4	J
SB-25 2-4	8/10/2015 10:56	7782-49-2	Selenium			0.98	U
SB-25 2-4	8/10/2015 10:56	7440-22-4	Silver			0.14	J
SB-25 2-4	8/10/2015 10:56	7440-62-2	Vanadium	100		15	
SB-25 2-4	8/10/2015 10:56	7440-66-6	Zinc	100	23500	470	
SB-25 4-6	8/10/2015 11:11	7440-38-2	Arsenic	20		2.5	
SB-25 4-6	8/10/2015 11:11	7440-39-3	Barium	1000		6.4	B
SB-25 4-6	8/10/2015 11:11	7440-41-7	Beryllium	2		0.069	J
SB-25 4-6	8/10/2015 11:11	7440-43-9	Cadmium	2		0.11	U
SB-25 4-6	8/10/2015 11:11	7440-47-3	Chromium	100		8.6	
SB-25 4-6	8/10/2015 11:11	7440-50-8	Copper	100		1.6	J
SB-25 4-6	8/10/2015 11:11	7439-92-1	Lead	75		5	
SB-25 4-6	8/10/2015 11:11	7440-02-0	Nickel	50		0.9	J
SB-25 4-6	8/10/2015 11:11	7782-49-2	Selenium			1.1	U
SB-25 4-6	8/10/2015 11:11	7440-22-4	Silver			0.066	U
SB-25 4-6	8/10/2015 11:11	7440-62-2	Vanadium	100		12	

Table 2. Analytical Summary Table - Metals  
Macon MGP #2  
Macon, Ga

Client Sample ID	Collection Date	CAS	Analyte by 6010 C	Type 1 RRS (mg/kg)	Type 2 RRS (mg/kg)	Analytical Result (mg/kg)	Flag
SB-25 4-6	8/10/2015 11:11	7440-66-6	Zinc	100		5.3	
SB-25 8-10	8/10/2015 11:17	7440-38-2	Arsenic	20		2.3	
SB-25 8-10	8/10/2015 11:17	7440-39-3	Barium	1000		59	B
SB-25 8-10	8/10/2015 11:17	7440-41-7	Beryllium	2		0.098	J
SB-25 8-10	8/10/2015 11:17	7440-43-9	Cadmium	2		0.1	U
SB-25 8-10	8/10/2015 11:17	7440-47-3	Chromium	100		9.5	
SB-25 8-10	8/10/2015 11:17	7440-50-8	Copper	100		3.6	
SB-25 8-10	8/10/2015 11:17	7439-92-1	Lead	75	400	88	
SB-25 8-10	8/10/2015 11:17	7440-02-0	Nickel	50		1.5	J
SB-25 8-10	8/10/2015 11:17	7782-49-2	Selenium			1	U
SB-25 8-10	8/10/2015 11:17	7440-22-4	Silver			0.063	U
SB-25 8-10	8/10/2015 11:17	7440-62-2	Vanadium	100		16	
SB-25 8-10	8/10/2015 11:17	7440-66-6	Zinc	100		86	
SB-41 13-15	8/10/2015 9:28	7440-38-2	Arsenic	20		1.7	J
SB-41 13-15	8/10/2015 9:28	7440-39-3	Barium	1000		30	B
SB-41 13-15	8/10/2015 9:28	7440-41-7	Beryllium	2		0.25	J
SB-41 13-15	8/10/2015 9:28	7440-43-9	Cadmium	2		0.11	U
SB-41 13-15	8/10/2015 9:28	7440-47-3	Chromium	100		11	
SB-41 13-15	8/10/2015 9:28	7440-50-8	Copper	100		5.9	
SB-41 13-15	8/10/2015 9:28	7439-92-1	Lead	75		29	
SB-41 13-15	8/10/2015 9:28	7440-02-0	Nickel	50		2.5	J
SB-41 13-15	8/10/2015 9:28	7782-49-2	Selenium			1	U
SB-41 13-15	8/10/2015 9:28	7440-22-4	Silver			0.065	U
SB-41 13-15	8/10/2015 9:28	7440-62-2	Vanadium	100		28	
SB-41 13-15	8/10/2015 9:28	7440-66-6	Zinc	100		30	
SB-41 4-6	8/10/2015 9:20	7440-38-2	Arsenic	20		2.3	
SB-41 4-6	8/10/2015 9:20	7440-39-3	Barium	1000		110	B F2
SB-41 4-6	8/10/2015 9:20	7440-41-7	Beryllium	2		0.47	
SB-41 4-6	8/10/2015 9:20	7440-43-9	Cadmium	2	78.2	2.7	

Table 2. Analytical Summary Table - Metals  
Macon MGP #2  
Macon, Ga

Client Sample ID	Collection Date	CAS	Analyte by 6010 C	Type 1 RRS (mg/kg)	Type 2 RRS (mg/kg)	Analytical Result (mg/kg)	Flag
SB-41 4-6	8/10/2015 9:20	7440-47-3	Chromium	100		13	F1
SB-41 4-6	8/10/2015 9:20	7440-50-8	Copper	100		12	F2 F1
SB-41 4-6	8/10/2015 9:20	7439-92-1	Lead	75	400	190	F1 F2
SB-41 4-6	8/10/2015 9:20	7440-02-0	Nickel	50		3.6	J
SB-41 4-6	8/10/2015 9:20	7782-49-2	Selenium			0.95	U
SB-41 4-6	8/10/2015 9:20	7440-22-4	Silver			0.059	U
SB-41 4-6	8/10/2015 9:20	7440-62-2	Vanadium	100		24	F1
SB-41 4-6	8/10/2015 9:20	7440-66-6	Zinc	100	23500	960	F2
SB-41 8-10	8/10/2015 9:24	7440-38-2	Arsenic	20		1.9	
SB-41 8-10	8/10/2015 9:24	7440-39-3	Barium	1000		42	B
SB-41 8-10	8/10/2015 9:24	7440-41-7	Beryllium	2		0.45	
SB-41 8-10	8/10/2015 9:24	7440-43-9	Cadmium	2		0.096	U
SB-41 8-10	8/10/2015 9:24	7440-47-3	Chromium	100		9.1	
SB-41 8-10	8/10/2015 9:24	7440-50-8	Copper	100		7.8	
SB-41 8-10	8/10/2015 9:24	7439-92-1	Lead	75		28	
SB-41 8-10	8/10/2015 9:24	7440-02-0	Nickel	50		3.1	J
SB-41 8-10	8/10/2015 9:24	7782-49-2	Selenium			0.93	U
SB-41 8-10	8/10/2015 9:24	7440-22-4	Silver			0.058	U
SB-41 8-10	8/10/2015 9:24	7440-62-2	Vanadium	100		20	
SB-41 8-10	8/10/2015 9:24	7440-66-6	Zinc	100		31	
SB-42 13-15	8/6/2015 16:15	7440-38-2	Arsenic	20		13	
SB-42 13-15	8/6/2015 16:15	7440-39-3	Barium	1000		50	
SB-42 13-15	8/6/2015 16:15	7440-41-7	Beryllium	2		0.28	J
SB-42 13-15	8/6/2015 16:15	7440-43-9	Cadmium	2		0.1	U
SB-42 13-15	8/6/2015 16:15	7440-47-3	Chromium	100		12	
SB-42 13-15	8/6/2015 16:15	7440-50-8	Copper	100		15	
SB-42 13-15	8/6/2015 16:15	7439-92-1	Lead	75		67	
SB-42 13-15	8/6/2015 16:15	7440-02-0	Nickel	50		3.6	J
SB-42 13-15	8/6/2015 16:15	7782-49-2	Selenium			0.99	U

Table 2. Analytical Summary Table - Metals  
Macon MGP #2  
Macon, Ga

Client Sample ID	Collection Date	CAS	Analyte by 6010 C	Type 1 RRS (mg/kg)	Type 2 RRS (mg/kg)	Analytical Result (mg/kg)	Flag
SB-42 13-15	8/6/2015 16:15	7440-22-4	Silver			0.061	U
SB-42 13-15	8/6/2015 16:15	7440-62-2	Vanadium	100		25	
SB-42 13-15	8/6/2015 16:15	7440-66-6	Zinc	100		38	
SB-42 2-4	8/6/2015 16:02	7440-38-2	Arsenic	20		3.3	
SB-42 2-4	8/6/2015 16:02	7440-39-3	Barium	1000		240	
SB-42 2-4	8/6/2015 16:02	7440-41-7	Beryllium	2	156	2.3	
SB-42 2-4	8/6/2015 16:02	7440-43-9	Cadmium	2		0.12	J
SB-42 2-4	8/6/2015 16:02	7440-47-3	Chromium	100		18	
SB-42 2-4	8/6/2015 16:02	7440-50-8	Copper	100		26	
SB-42 2-4	8/6/2015 16:02	7439-92-1	Lead	75		39	
SB-42 2-4	8/6/2015 16:02	7440-02-0	Nickel	50		12	
SB-42 2-4	8/6/2015 16:02	7782-49-2	Selenium			0.96	U
SB-42 2-4	8/6/2015 16:02	7440-22-4	Silver			0.059	U
SB-42 2-4	8/6/2015 16:02	7440-62-2	Vanadium	100		54	
SB-42 2-4	8/6/2015 16:02	7440-66-6	Zinc	100	23500	130	
SB-42 4-6	8/6/2015 16:05	7440-38-2	Arsenic	20		2.1	
SB-42 4-6	8/6/2015 16:05	7440-39-3	Barium	1000		220	
SB-42 4-6	8/6/2015 16:05	7440-41-7	Beryllium	2		1.6	
SB-42 4-6	8/6/2015 16:05	7440-43-9	Cadmium	2		0.095	U
SB-42 4-6	8/6/2015 16:05	7440-47-3	Chromium	100		26	F1
SB-42 4-6	8/6/2015 16:05	7440-50-8	Copper	100		13	
SB-42 4-6	8/6/2015 16:05	7439-92-1	Lead	75		22	
SB-42 4-6	8/6/2015 16:05	7440-02-0	Nickel	50		11	F1
SB-42 4-6	8/6/2015 16:05	7782-49-2	Selenium			0.92	U
SB-42 4-6	8/6/2015 16:05	7440-22-4	Silver			0.057	U
SB-42 4-6	8/6/2015 16:05	7440-62-2	Vanadium	100		50	
SB-42 4-6	8/6/2015 16:05	7440-66-6	Zinc	100	23500	100	
SB-42 8-10	8/6/2015 16:10	7440-38-2	Arsenic	20		3	
SB-42 8-10	8/6/2015 16:10	7440-39-3	Barium	1000		94	

Table 2. Analytical Summary Table - Metals  
Macon MGP #2  
Macon, Ga

Client Sample ID	Collection Date	CAS	Analyte by 6010 C	Type 1 RRS (mg/kg)	Type 2 RRS (mg/kg)	Analytical Result (mg/kg)	Flag
SB-42 8-10	8/6/2015 16:10	7440-41-7	Beryllium	2		0.65	
SB-42 8-10	8/6/2015 16:10	7440-43-9	Cadmium	2		0.22	J
SB-42 8-10	8/6/2015 16:10	7440-47-3	Chromium	100		14	
SB-42 8-10	8/6/2015 16:10	7440-50-8	Copper	100		12	
SB-42 8-10	8/6/2015 16:10	7439-92-1	Lead	75	400	160	
SB-42 8-10	8/6/2015 16:10	7440-02-0	Nickel	50		3.5	J
SB-42 8-10	8/6/2015 16:10	7782-49-2	Selenium			0.94	U
SB-42 8-10	8/6/2015 16:10	7440-22-4	Silver			0.058	U
SB-42 8-10	8/6/2015 16:10	7440-62-2	Vanadium	100		22	
SB-42 8-10	8/6/2015 16:10	7440-66-6	Zinc	100		95	

Notes:

Red = Analytical result exceeds the higher of the respective Type 1 or 2 RRS

"B" Flag = Compound was found in the blank and sample.

"U" Flag = Indicates the analyte was analyzed for but not detected.

"F1" Flag = MS and/or MSD Recovery is outside acceptance limits.

"F2" Flag = MS/MSD RPD exceeds control limits.

"J" Flag = Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

Table 3. Analytical Summary Table - Mercury  
Macon MGP #2  
Macon, Ga

Sample ID	Collection Date	Analyte by Method 7471 B	Type I RRS (mg/kg)	Type 2 RRS (mg/kg)	Analytical Result (mg/kg)	Flag
GB-11 13-15	8/10/2015 10:41	Mercury	0.5	23.5	0.092	
GB-11 3-5	8/10/2015 10:31	Mercury	0.5	23.5	0.2	^
GB-11 8-10	8/10/2015 10:36	Mercury	0.5	23.5	0.19	
GB-14 13-15	8/6/2015 12:59	Mercury	0.5	23.5	0.89	
GB-14 3-5	8/6/2015 12:47	Mercury	0.5	23.5	0.49	
GB-14 8-10	8/6/2015 12:54	Mercury	0.5	23.5	1.4	
GB-16 2-4	8/6/2015 13:29	Mercury	0.5	23.5	0.14	
GB-16 4-6	8/6/2015 13:35	Mercury	0.5	23.5	0.0095	U
GB-18 2-4	8/6/2015 15:05	Mercury	0.5	23.5	0.27	
GB-18 4-6	8/6/2015 15:15	Mercury	0.5	23.5	0.27	
GB-19 8-10	8/6/2015 11:30	Mercury	0.5	23.5	0.01	U
GB-19 13-15	8/25/2015 11:30	Mercury	0.5	23.5	0.0079	U
GB-21 8-10	8/6/2015 10:45	Mercury	0.5	23.5	0.0086	U
GB-21 13-15	8/25/2015 11:50	Mercury	0.5	23.5	0.099	
GB-25 2-4	8/10/2015 11:39	Mercury	0.5	23.5	0.0094	J
GB-25 4-6	8/10/2015 11:42	Mercury	0.5	23.5	0.13	
GB-26 2-4	8/10/2015 12:20	Mercury	0.5	23.5	0.32	
GB-26 4-6	8/10/2015 12:25	Mercury	0.5	23.5	0.098	
GB-27 13-15	8/10/2015 12:48	Mercury	0.5	23.5	0.14	
GB-27 3-5	8/10/2015 12:33	Mercury	0.5	23.5	0.91	
GB-27 8-10	8/10/2015 12:45	Mercury	0.5	23.5	0.15	
GB-28 13-15	8/6/2015 14:30	Mercury	0.5	23.5	0.56	
GB-28 2-4	8/6/2015 14:00	Mercury	0.5	23.5	0.011	U
GB-28 8-10	8/6/2015 14:20	Mercury	0.5	23.5	0.061	
GB-3 13-15	8/7/2015 15:42	Mercury	0.5	23.5	0.029	
GB-3 8-10	8/7/2015 15:36	Mercury	0.5	23.5	0.081	
GB-5 8-10	8/7/2015 13:45	Mercury	0.5	23.5	0.18	

Table 3. Analytical Summary Table - Mercury  
Macon MGP #2  
Macon, Ga

Sample ID	Collection Date	Analyte by Method 7471 B	Type I RRS (mg/kg)	Type 2 RRS (mg/kg)	Analytical Result (mg/kg)	Flag
GB-5 13-15	8/24/2015 15:08	Mercury	0.5	23.5	0.0084	U
GB-5 18	8/24/2015 15:17	Mercury	0.5	23.5	0.0084	U
GB-7 13-15	8/7/2015 10:00	Mercury	0.5	23.5	0.29	F1 F2
GB-7 18	8/7/2015 10:06	Mercury	0.5	23.5	0.13	
GB-7 8-10	8/7/2015 9:54	Mercury	0.5	23.5	0.062	
GB-9 8-10	8/10/2015 9:57	Mercury	0.5	23.5	0.0077	U
GB-9 13-15	8/10/2015 10:06	Mercury	0.5	23.5	0.11	^
SB-17 13-15	8/7/2015 14:56	Mercury	0.5	23.5	0.17	
SB-17 8-10	8/7/2015 14:50	Mercury	0.5	23.5	0.014	J
SB-20 0-2	8/7/2015 15:04	Mercury	0.5	23.5	0.046	
SB-20 2-4	8/7/2015 15:04	Mercury	0.5	23.5	0.028	
SB-24 13-15	8/6/2015 15:50	Mercury	0.5	23.5	0.13	
SB-24 2-4	8/6/2015 15:25	Mercury	0.5	23.5	0.41	
SB-24 4-6	8/6/2015 15:32	Mercury	0.5	23.5	0.43	F1 F2
SB-24 8-10	8/6/2015 15:38	Mercury	0.5	23.5	0.28	
SB-25 0-2	8/10/2015 10:56	Mercury	0.5	23.5	0.086	
SB-25 13-15	8/10/2015 11:21	Mercury	0.5	23.5	0.19	
SB-25 2-4	8/10/2015 10:56	Mercury	0.5	23.5	0.51	
SB-25 4-6	8/10/2015 11:11	Mercury	0.5	23.5	0.01	J
SB-25 8-10	8/10/2015 11:17	Mercury	0.5	23.5	0.029	
SB-41 13-15	8/10/2015 9:28	Mercury	0.5	23.5	0.19	^
SB-41 4-6	8/10/2015 9:20	Mercury	0.5	23.5	0.14	^
SB-41 8-10	8/10/2015 9:24	Mercury	0.5	23.5	0.28	^
SB-42 13-15	8/6/2015 16:15	Mercury	0.5	23.5	0.12	
SB-42 2-4	8/6/2015 16:02	Mercury	0.5	23.5	0.057	
SB-42 4-6	8/6/2015 16:05	Mercury	0.5	23.5	0.027	
SB-42 8-10	8/6/2015 16:10	Mercury	0.5	23.5	0.13	

Notes:



Table 3. Analytical Summary Table - Mercury

Macon MGP #2

Macon, Ga

Sample ID	Collection Date	Analyte by Method 7471 B	Type 1 RRS (mg/kg)	Type 2 RRS (mg/kg)	Analytical Result (mg/kg)	Flag
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Red = Analytical result exceeds the greater of the Type 1 or 2 RRS

Mercury CAS # 7439-97-6

"U" Flag = Indicates the analyte was analyzed for but not detected.

"J" Flag = Result is less than the RL but greater than

"^" Flag =

"F1" Flag = MS and/or MSD Recovery is outside acceptance limits.

"F2" Flag = MS/MSD RPD exceeds control limits.

Table 4. Analytical Summary Table - VOCs

Macon MGP #2

Macon, Ga

Sample ID	Collection Date	CAS	Analyte by Method 8260B	Type 1 RRS (mg/kg)	Result (mg/kg)	Flag
GB-5 8-10	8/7/2015 13:45	71-43-2	Benzene	0.5	0.00072	U
GB-5 8-10	8/7/2015 13:45	75-15-0	Carbon disulfide	400	0.0011	U
GB-5 8-10	8/7/2015 13:45	100-41-4	Ethylbenzene	70	0.0013	U
GB-5 8-10	8/7/2015 13:45	75-09-2	Methylene Chloride	0.5	0.00096	U
GB-5 8-10	8/7/2015 13:45	108-88-3	Toluene	100	0.00083	U
GB-5 8-10	8/7/2015 13:45	1330-20-7	Xylenes, Total	1000	0.0011	U
GB-7 8-10	8/7/2015 9:54	71-43-2	Benzene	0.5	0.00074	U
GB-7 8-10	8/7/2015 9:54	75-15-0	Carbon disulfide	400	0.0011	U
GB-7 8-10	8/7/2015 9:54	100-41-4	Ethylbenzene	70	0.0013	U
GB-7 8-10	8/7/2015 9:54	75-09-2	Methylene Chloride	0.5	0.00099	U
GB-7 8-10	8/7/2015 9:54	108-88-3	Toluene	100	0.00085	U
GB-7 8-10	8/7/2015 9:54	1330-20-7	Xylenes, Total	1000	0.0011	U
GB-7 13-15	8/7/2015 10:00	71-43-2	Benzene	0.5	0.00062	U
GB-7 13-15	8/7/2015 10:00	75-15-0	Carbon disulfide	400	0.00093	U
GB-7 13-15	8/7/2015 10:00	100-41-4	Ethylbenzene	70	0.0011	U
GB-7 13-15	8/7/2015 10:00	75-09-2	Methylene Chloride	0.5	0.00083	U
GB-7 13-15	8/7/2015 10:00	108-88-3	Toluene	100	0.00071	U
GB-7 13-15	8/7/2015 10:00	1330-20-7	Xylenes, Total	1000	0.00093	U
GB-7 18	8/7/2015 10:06	71-43-2	Benzene	0.5	0.00065	U
GB-7 18	8/7/2015 10:06	75-15-0	Carbon disulfide	400	0.00098	U
GB-7 18	8/7/2015 10:06	100-41-4	Ethylbenzene	70	0.0012	U
GB-7 18	8/7/2015 10:06	75-09-2	Methylene Chloride	0.5	0.00087	U
GB-7 18	8/7/2015 10:06	108-88-3	Toluene	100	0.00075	U
GB-7 18	8/7/2015 10:06	1330-20-7	Xylenes, Total	1000	0.00098	U
GB-5 13-15	8/24/2015 15:08	71-43-2	Benzene	0.5	0.00066	U
GB-5 13-15	8/24/2015 15:08	75-15-0	Carbon disulfide	400	0.00099	U
GB-5 13-15	8/24/2015 15:08	100-41-4	Ethylbenzene	70	0.0012	U
GB-5 13-15	8/24/2015 15:08	75-09-2	Methylene Chloride	0.5	0.00088	U

Table 4. Analytical Summary Table - VOCs

Macon MGP #2

Macon, Ga

GB-5 13-15	8/24/2015 15:08	108-88-3	Toluene	100	0.00076	U
GB-5 13-15	8/24/2015 15:08	1330-20-7	Xylenes, Total	1000	0.00099	U
GB-5 18	8/24/2015 15:17	71-43-2	Benzene	0.5	0.00066	U
GB-5 18	8/24/2015 15:17	75-15-0	Carbon disulfide	400	0.001	U
GB-5 18	8/24/2015 15:17	100-41-4	Ethylbenzene	70	0.0012	U
GB-5 18	8/24/2015 15:17	75-09-2	Methylene Chloride	0.5	0.00089	U
GB-5 18	8/24/2015 15:17	108-88-3	Toluene	100	0.00076	U
GB-5 18	8/24/2015 15:17	1330-20-7	Xylenes, Total	1000	0.001	U

Notes:

"U" Flag = Indicates the analyte was analyzed for but not detected.

Table 5. Analytical Summary Table - Cyanide  
Macon MGP #2  
Macon, Ga

Sample ID	Collection Date	Analyte by 9012B	Type I RRS (mg/kg)	Result (mg/kg)	Flag
GB-14 3-5	8/6/2015 12:47	Cyanide, Total	20	0.23	U
SB-24 4-6	8/6/2015 15:32	Cyanide, Total	20	0.26	U
SB-24 8-10	8/6/2015 15:38	Cyanide, Total	20	0.29	U
SB-24 13-15	8/6/2015 15:50	Cyanide, Total	20	0.24	U
SB-42 2-4	8/6/2015 16:02	Cyanide, Total	20	0.22	U
SB-42 4-6	8/6/2015 16:05	Cyanide, Total	20	0.23	U
SB-42 8-10	8/6/2015 16:10	Cyanide, Total	20	0.23	U
SB-42 13-15	8/6/2015 16:15	Cyanide, Total	20	0.23	U
GB-16 2-4	8/6/2015 13:29	Cyanide, Total	20	0.42	U
GB-16 4-6	8/6/2015 13:35	Cyanide, Total	20	0.27	U
GB-18 2-4	8/6/2015 15:05	Cyanide, Total	20	0.3	J
GB-14 8-10	8/6/2015 12:54	Cyanide, Total	20	0.86	J
GB-18 4-6	8/6/2015 15:15	Cyanide, Total	20	0.78	
GB-3 8-10	8/7/2015 15:36	Cyanide, Total	20	0.33	U
GB-3 13-15	8/7/2015 15:42	Cyanide, Total	20	0.25	U
GB-5 8-10	8/7/2015 13:45	Cyanide, Total	20	0.48	J
GB-7 8-10	8/7/2015 9:54	Cyanide, Total	20	0.26	U
GB-7 13-15	8/7/2015 10:00	Cyanide, Total	20	0.24	U
GB-7 18	8/7/2015 10:06	Cyanide, Total	20	0.25	U
SB-17 8-10	8/7/2015 14:50	Cyanide, Total	20	0.24	U
SB-17 13-15	8/7/2015 14:56	Cyanide, Total	20	0.24	U
SB-20 0-2	8/7/2015 15:04	Cyanide, Total	20	0.23	U
GB-14 13-15	8/6/2015 12:59	Cyanide, Total	20	0.3	U
SB-20 2-4	8/7/2015 15:04	Cyanide, Total	20	0.25	U
GB-19 8-10	8/6/2015 11:30	Cyanide, Total	20	0.3	U
GB-21 8-10	8/6/2015 10:45	Cyanide, Total	20	0.25	U
GB-28 2-4	8/6/2015 14:00	Cyanide, Total	20	0.29	U
GB-28 8-10	8/6/2015 14:20	Cyanide, Total	20	0.24	U

Table 5. Analytical Summary Table - Cyanide

Macon MGP #2

Macon, Ga

Sample ID	Collection Date	Analyte by 9012B	Type I RRS (mg/kg)	Result (mg/kg)	Flag
GB-28 13-15	8/6/2015 14:30	Cyanide, Total	20	0.24	U
SB-24 2-4	8/6/2015 15:25	Cyanide, Total	20	0.25	U

Notes:

Total Cyanide CAS #57-12-5

"U" Flag = Indicates the analyte was analyzed for but not detected.

"J" Flag = Result is less than the RL but greater than or equal to

Table 6. Analytical Summary Table - SVOCs

Macon MGP #2

Macon, Ga

Client Sample ID	Collection Date	CAS	Analyte by Method 8270D	Type 1 RRS (mg/kg)	Type 2 RRS (mg/kg)	Result (mg/kg)	Flag
<b>Note: RRS are provided for detected concentrations not "J" flagged only.</b>							
GB-11 13-15	8/10/2015 10:41	206-44-0	Fluoranthene			1.6	J
GB-11 13-15	8/10/2015 10:41	129-00-0	Pyrene			1.3	J
GB-11 13-15	8/10/2015 10:41	205-99-2	Benzo[b]fluoranthene			1.1	J
GB-11 13-15	8/10/2015 10:41	85-01-8	Phenanthrene			1	J
GB-11 13-15	8/10/2015 10:41	56-55-3	Benzo[a]anthracene			0.84	J
GB-11 13-15	8/10/2015 10:41	218-01-9	Chrysene			0.78	J
GB-11 13-15	8/10/2015 10:41	50-32-8	Benzo[a]pyrene			0.67	J
GB-11 13-15	8/10/2015 10:41	191-24-2	Benzo[g,h,i]perylene			0.51	J
GB-11 13-15	8/10/2015 10:41	193-39-5	Indeno[1,2,3-cd]pyrene			0.45	J
GB-11 13-15	8/10/2015 10:41	207-08-9	Benzo[k]fluoranthene			0.43	J
GB-11 13-15	8/10/2015 10:41	120-12-7	Anthracene			0.22	J
GB-11 13-15	8/10/2015 10:41	92-52-4	1,1'-Biphenyl			9.7	U
GB-11 13-15	8/10/2015 10:41	51-28-5	2,4-Dinitrophenol			4.7	U
GB-11 13-15	8/10/2015 10:41	100-02-7	4-Nitrophenol			1.9	U
GB-11 13-15	8/10/2015 10:41	87-86-5	Pentachlorophenol			1.9	U
GB-11 13-15	8/10/2015 10:41	534-52-1	4,6-Dinitro-2-methylphenol			0.97	U
GB-11 13-15	8/10/2015 10:41	105-60-2	Caprolactam			0.38	U
GB-11 13-15	8/10/2015 10:41	100-52-7	Benzaldehyde			0.33	U
GB-11 13-15	8/10/2015 10:41	106-47-8	4-Chloroaniline			0.3	U
GB-11 13-15	8/10/2015 10:41	121-14-2	2,4-Dinitrotoluene			0.28	U
GB-11 13-15	8/10/2015 10:41	100-01-6	4-Nitroaniline			0.28	U
GB-11 13-15	8/10/2015 10:41	88-74-4	2-Nitroaniline			0.26	U
GB-11 13-15	8/10/2015 10:41	99-09-2	3-Nitroaniline			0.26	U
GB-11 13-15	8/10/2015 10:41	105-67-9	2,4-Dimethylphenol			0.25	U
GB-11 13-15	8/10/2015 10:41	15831-10-4	3 & 4 Methylphenol			0.25	U
GB-11 13-15	8/10/2015 10:41	7005-72-3	4-Chlorophenyl phenyl ether			0.25	U
GB-11 13-15	8/10/2015 10:41	606-20-2	2,6-Dinitrotoluene			0.24	U
GB-11 13-15	8/10/2015 10:41	95-57-8	2-Chlorophenol			0.23	U
GB-11 13-15	8/10/2015 10:41	88-75-5	2-Nitrophenol			0.23	U
GB-11 13-15	8/10/2015 10:41	83-32-9	Acenaphthene			0.23	U
GB-11 13-15	8/10/2015 10:41	77-47-4	Hexachlorocyclopentadiene			0.23	U
GB-11 13-15	8/10/2015 10:41	91-57-6	2-Methylnaphthalene			0.22	U
GB-11 13-15	8/10/2015 10:41	111-91-1	Bis(2-chloroethoxy)methane			0.22	U
GB-11 13-15	8/10/2015 10:41	53-70-3	Dibenz(a,h)anthracene			0.22	U
GB-11 13-15	8/10/2015 10:41	118-74-1	Hexachlorobenzene			0.22	U
GB-11 13-15	8/10/2015 10:41	101-55-3	4-Bromophenyl phenyl ether			0.21	U
GB-11 13-15	8/10/2015 10:41	208-96-8	Acenaphthylene			0.21	U
GB-11 13-15	8/10/2015 10:41	84-66-2	Diethyl phthalate			0.21	U
GB-11 13-15	8/10/2015 10:41	86-73-7	Fluorene			0.21	U
GB-11 13-15	8/10/2015 10:41	87-68-3	Hexachlorobutadiene			0.21	U
GB-11 13-15	8/10/2015 10:41	95-95-4	2,4,5-Trichlorophenol			0.2	U
GB-11 13-15	8/10/2015 10:41	120-83-2	2,4-Dichlorophenol			0.2	U

Table 6. Analytical Summary Table - SVOCs

Macon MGP #2

Macon, Ga

Client Sample ID	Collection Date	CAS	Analyte by Method 8270D	Type 1 RRS (mg/kg)	Type 2 RRS (mg/kg)	Result (mg/kg)	Flag
GB-11 13-15	8/10/2015 10:41	91-58-7	2-Chloronaphthalene			0.2	U
GB-11 13-15	8/10/2015 10:41	59-50-7	4-Chloro-3-methylphenol			0.2	U
GB-11 13-15	8/10/2015 10:41	132-64-9	Dibenzofuran			0.19	U
GB-11 13-15	8/10/2015 10:41	131-11-3	Dimethyl phthalate			0.19	U
GB-11 13-15	8/10/2015 10:41	78-59-1	Isophorone			0.19	U
GB-11 13-15	8/10/2015 10:41	86-30-6	N-Nitrosodiphenylamine			0.19	U
GB-11 13-15	8/10/2015 10:41	108-95-2	Phenol			0.19	U
GB-11 13-15	8/10/2015 10:41	621-64-7	N-Nitrosodi-n-propylamine			0.18	U
GB-11 13-15	8/10/2015 10:41	88-06-2	2,4,6-Trichlorophenol			0.17	U
GB-11 13-15	8/10/2015 10:41	108-60-1	bis (2-chloroisopropyl) ether			0.17	U
GB-11 13-15	8/10/2015 10:41	117-81-7	Bis(2-ethylhexyl) phthalate			0.17	U
GB-11 13-15	8/10/2015 10:41	86-74-8	Carbazole			0.17	U
GB-11 13-15	8/10/2015 10:41	84-74-2	Di-n-butyl phthalate			0.17	U
GB-11 13-15	8/10/2015 10:41	117-84-0	Di-n-octyl phthalate			0.17	U
GB-11 13-15	8/10/2015 10:41	91-20-3	Naphthalene			0.17	U
GB-11 13-15	8/10/2015 10:41	91-94-1	3,3'-Dichlorobenzidine			0.16	U
GB-11 13-15	8/10/2015 10:41	98-86-2	Acetophenone			0.16	U
GB-11 13-15	8/10/2015 10:41	67-72-1	Hexachloroethane			0.16	U
GB-11 13-15	8/10/2015 10:41	95-48-7	2-Methylphenol			0.15	U
GB-11 13-15	8/10/2015 10:41	85-68-7	Butyl benzyl phthalate			0.15	U
GB-11 13-15	8/10/2015 10:41	98-95-3	Nitrobenzene			0.15	U
GB-11 13-15	8/10/2015 10:41	1912-24-9	Atrazine			0.13	U
GB-11 13-15	8/10/2015 10:41	111-44-4	Bis(2-chloroethyl)ether			0.26	U *
GB-11 13-15	8/10/2015 10:41	321-60-8	2-Fluorobiphenyl	NL	NL	3.2	
GB-11 3-5	8/10/2015 10:31	92-52-4	1,1'-Biphenyl			9.7	U
GB-11 3-5	8/10/2015 10:31	51-28-5	2,4-Dinitrophenol			4.7	U
GB-11 3-5	8/10/2015 10:31	100-02-7	4-Nitrophenol			1.9	U
GB-11 3-5	8/10/2015 10:31	87-86-5	Pentachlorophenol			1.9	U
GB-11 3-5	8/10/2015 10:31	534-52-1	4,6-Dinitro-2-methylphenol			0.97	U
GB-11 3-5	8/10/2015 10:31	105-60-2	Caprolactam			0.38	U
GB-11 3-5	8/10/2015 10:31	207-08-9	Benzo[k]fluoranthene			0.37	U
GB-11 3-5	8/10/2015 10:31	100-52-7	Benzaldehyde			0.33	U
GB-11 3-5	8/10/2015 10:31	106-47-8	4-Chloroaniline			0.3	U
GB-11 3-5	8/10/2015 10:31	50-32-8	Benzo[a]pyrene			0.3	U
GB-11 3-5	8/10/2015 10:31	121-14-2	2,4-Dinitrotoluene			0.28	U
GB-11 3-5	8/10/2015 10:31	100-01-6	4-Nitroaniline			0.28	U
GB-11 3-5	8/10/2015 10:31	88-74-4	2-Nitroaniline			0.26	U
GB-11 3-5	8/10/2015 10:31	99-09-2	3-Nitroaniline			0.26	U
GB-11 3-5	8/10/2015 10:31	105-67-9	2,4-Dimethylphenol			0.25	U
GB-11 3-5	8/10/2015 10:31	15831-10-4	3 & 4 Methylphenol			0.25	U
GB-11 3-5	8/10/2015 10:31	7005-72-3	4-Chlorophenyl phenyl ether			0.25	U
GB-11 3-5	8/10/2015 10:31	606-20-2	2,6-Dinitrotoluene			0.24	U
GB-11 3-5	8/10/2015 10:31	95-57-8	2-Chlorophenol			0.23	U



Table 6. Analytical Summary Table - SVOCs

Macon MGP #2

Macon, Ga

Client Sample ID	Collection Date	CAS	Analyte by Method 8270D	Type 1 RRS (mg/kg)	Type 2 RRS (mg/kg)	Result (mg/kg)	Flag
GB-11 3-5	8/10/2015 10:31	88-75-5	2-Nitrophenol			0.23	U
GB-11 3-5	8/10/2015 10:31	83-32-9	Acenaphthene			0.23	U
GB-11 3-5	8/10/2015 10:31	77-47-4	Hexachlorocyclopentadiene			0.23	U
GB-11 3-5	8/10/2015 10:31	91-57-6	2-Methylnaphthalene			0.22	U
GB-11 3-5	8/10/2015 10:31	205-99-2	Benzo[b]fluoranthene			0.22	U
GB-11 3-5	8/10/2015 10:31	111-91-1	Bis(2-chloroethoxy)methane			0.22	U
GB-11 3-5	8/10/2015 10:31	53-70-3	Dibenz(a,h)anthracene			0.22	U
GB-11 3-5	8/10/2015 10:31	118-74-1	Hexachlorobenzene			0.22	U
GB-11 3-5	8/10/2015 10:31	101-55-3	4-Bromophenyl phenyl ether			0.21	U
GB-11 3-5	8/10/2015 10:31	208-96-8	Acenaphthylene			0.21	U
GB-11 3-5	8/10/2015 10:31	84-66-2	Diethyl phthalate			0.21	U
GB-11 3-5	8/10/2015 10:31	86-73-7	Fluorene			0.21	U
GB-11 3-5	8/10/2015 10:31	87-68-3	Hexachlorobutadiene			0.21	U
GB-11 3-5	8/10/2015 10:31	95-95-4	2,4,5-Trichlorophenol			0.2	U
GB-11 3-5	8/10/2015 10:31	120-83-2	2,4-Dichlorophenol			0.2	U
GB-11 3-5	8/10/2015 10:31	91-58-7	2-Chloronaphthalene			0.2	U
GB-11 3-5	8/10/2015 10:31	59-50-7	4-Chloro-3-methylphenol			0.2	U
GB-11 3-5	8/10/2015 10:31	132-64-9	Dibenzofuran			0.19	U
GB-11 3-5	8/10/2015 10:31	131-11-3	Dimethyl phthalate			0.19	U
GB-11 3-5	8/10/2015 10:31	78-59-1	Isophorone			0.19	U
GB-11 3-5	8/10/2015 10:31	86-30-6	N-Nitrosodiphenylamine			0.19	U
GB-11 3-5	8/10/2015 10:31	108-95-2	Phenol			0.19	U
GB-11 3-5	8/10/2015 10:31	206-44-0	Fluoranthene			0.18	U
GB-11 3-5	8/10/2015 10:31	621-64-7	N-Nitrosodi-n-propylamine			0.18	U
GB-11 3-5	8/10/2015 10:31	88-06-2	2,4,6-Trichlorophenol			0.17	U
GB-11 3-5	8/10/2015 10:31	108-60-1	bis (2-chloroisopropyl) ether			0.17	U
GB-11 3-5	8/10/2015 10:31	117-81-7	Bis(2-ethylhexyl) phthalate			0.17	U
GB-11 3-5	8/10/2015 10:31	86-74-8	Carbazole			0.17	U
GB-11 3-5	8/10/2015 10:31	84-74-2	Di-n-butyl phthalate			0.17	U
GB-11 3-5	8/10/2015 10:31	117-84-0	Di-n-octyl phthalate			0.17	U
GB-11 3-5	8/10/2015 10:31	91-20-3	Naphthalene			0.17	U
GB-11 3-5	8/10/2015 10:31	91-94-1	3,3'-Dichlorobenzidine			0.16	U
GB-11 3-5	8/10/2015 10:31	98-86-2	Acetophenone			0.16	U
GB-11 3-5	8/10/2015 10:31	67-72-1	Hexachloroethane			0.16	U
GB-11 3-5	8/10/2015 10:31	193-39-5	Indeno[1,2,3-cd]pyrene			0.16	U
GB-11 3-5	8/10/2015 10:31	95-48-7	2-Methylphenol			0.15	U
GB-11 3-5	8/10/2015 10:31	56-55-3	Benzo[a]anthracene			0.15	U
GB-11 3-5	8/10/2015 10:31	85-68-7	Butyl benzyl phthalate			0.15	U
GB-11 3-5	8/10/2015 10:31	98-95-3	Nitrobenzene			0.15	U
GB-11 3-5	8/10/2015 10:31	85-01-8	Phenanthrene			0.15	U
GB-11 3-5	8/10/2015 10:31	129-00-0	Pyrene			0.15	U
GB-11 3-5	8/10/2015 10:31	120-12-7	Anthracene			0.14	U
GB-11 3-5	8/10/2015 10:31	1912-24-9	Atrazine			0.13	U

Table 6. Analytical Summary Table - SVOCs  
Macon MGP #2  
Macon, Ga

Client Sample ID	Collection Date	CAS	Analyte by Method 8270D	Type 1 RRS (mg/kg)	Type 2 RRS (mg/kg)	Result (mg/kg)	Flag
GB-11 3-5	8/10/2015 10:31	191-24-2	Benzo[g,h,i]perylene			0.13	U
GB-11 3-5	8/10/2015 10:31	218-01-9	Chrysene			0.12	U
GB-11 3-5	8/10/2015 10:31	111-44-4	Bis(2-chloroethyl)ether			0.26	U *
GB-11 3-5	8/10/2015 10:31	321-60-8	2-Fluorobiphenyl	NL	NL	2.8	
GB-11 8-10	8/10/2015 10:36	92-52-4	1,1'-Biphenyl			9.7	U
GB-11 8-10	8/10/2015 10:36	51-28-5	2,4-Dinitrophenol			4.7	U
GB-11 8-10	8/10/2015 10:36	100-02-7	4-Nitrophenol			1.9	U
GB-11 8-10	8/10/2015 10:36	87-86-5	Pentachlorophenol			1.9	U
GB-11 8-10	8/10/2015 10:36	534-52-1	4,6-Dinitro-2-methylphenol			0.97	U
GB-11 8-10	8/10/2015 10:36	105-60-2	Caprolactam			0.38	U
GB-11 8-10	8/10/2015 10:36	207-08-9	Benzo[k]fluoranthene			0.37	U
GB-11 8-10	8/10/2015 10:36	100-52-7	Benzaldehyde			0.33	U
GB-11 8-10	8/10/2015 10:36	106-47-8	4-Chloroaniline			0.3	U
GB-11 8-10	8/10/2015 10:36	50-32-8	Benzo[a]pyrene			0.3	U
GB-11 8-10	8/10/2015 10:36	121-14-2	2,4-Dinitrotoluene			0.28	U
GB-11 8-10	8/10/2015 10:36	100-01-6	4-Nitroaniline			0.28	U
GB-11 8-10	8/10/2015 10:36	88-74-4	2-Nitroaniline			0.26	U
GB-11 8-10	8/10/2015 10:36	99-09-2	3-Nitroaniline			0.26	U
GB-11 8-10	8/10/2015 10:36	105-67-9	2,4-Dimethylphenol			0.25	U
GB-11 8-10	8/10/2015 10:36	15831-10-4	3 & 4 Methylphenol			0.25	U
GB-11 8-10	8/10/2015 10:36	7005-72-3	4-Chlorophenyl phenyl ether			0.25	U
GB-11 8-10	8/10/2015 10:36	606-20-2	2,6-Dinitrotoluene			0.24	U
GB-11 8-10	8/10/2015 10:36	95-57-8	2-Chlorophenol			0.23	U
GB-11 8-10	8/10/2015 10:36	88-75-5	2-Nitrophenol			0.23	U
GB-11 8-10	8/10/2015 10:36	83-32-9	Acenaphthene			0.23	U
GB-11 8-10	8/10/2015 10:36	77-47-4	Hexachlorocyclopentadiene			0.23	U
GB-11 8-10	8/10/2015 10:36	91-57-6	2-Methylnaphthalene			0.22	U
GB-11 8-10	8/10/2015 10:36	205-99-2	Benzo[b]fluoranthene			0.22	U
GB-11 8-10	8/10/2015 10:36	111-91-1	Bis(2-chloroethoxy)methane			0.22	U
GB-11 8-10	8/10/2015 10:36	53-70-3	Dibenz(a,h)anthracene			0.22	U
GB-11 8-10	8/10/2015 10:36	118-74-1	Hexachlorobenzene			0.22	U
GB-11 8-10	8/10/2015 10:36	101-55-3	4-Bromophenyl phenyl ether			0.21	U
GB-11 8-10	8/10/2015 10:36	208-96-8	Acenaphthylene			0.21	U
GB-11 8-10	8/10/2015 10:36	84-66-2	Diethyl phthalate			0.21	U
GB-11 8-10	8/10/2015 10:36	86-73-7	Fluorene			0.21	U
GB-11 8-10	8/10/2015 10:36	87-68-3	Hexachlorobutadiene			0.21	U
GB-11 8-10	8/10/2015 10:36	95-95-4	2,4,5-Trichlorophenol			0.2	U
GB-11 8-10	8/10/2015 10:36	120-83-2	2,4-Dichlorophenol			0.2	U
GB-11 8-10	8/10/2015 10:36	91-58-7	2-Chloronaphthalene			0.2	U
GB-11 8-10	8/10/2015 10:36	59-50-7	4-Chloro-3-methylphenol			0.2	U
GB-11 8-10	8/10/2015 10:36	132-64-9	Dibenzofuran			0.19	U
GB-11 8-10	8/10/2015 10:36	131-11-3	Dimethyl phthalate			0.19	U
GB-11 8-10	8/10/2015 10:36	78-59-1	Isophorone			0.19	U

Table 6. Analytical Summary Table - SVOCs

Macon MGP #2

Macon, Ga

Client Sample ID	Collection Date	CAS	Analyte by Method 8270D	Type 1 RRS (mg/kg)	Type 2 RRS (mg/kg)	Result (mg/kg)	Flag
GB-11 8-10	8/10/2015 10:36	86-30-6	N-Nitrosodiphenylamine			0.19	U
GB-11 8-10	8/10/2015 10:36	108-95-2	Phenol			0.19	U
GB-11 8-10	8/10/2015 10:36	206-44-0	Fluoranthene			0.18	U
GB-11 8-10	8/10/2015 10:36	621-64-7	N-Nitrosodi-n-propylamine			0.18	U
GB-11 8-10	8/10/2015 10:36	88-06-2	2,4,6-Trichlorophenol			0.17	U
GB-11 8-10	8/10/2015 10:36	108-60-1	bis (2-chloroisopropyl) ether			0.17	U
GB-11 8-10	8/10/2015 10:36	117-81-7	Bis(2-ethylhexyl) phthalate			0.17	U
GB-11 8-10	8/10/2015 10:36	86-74-8	Carbazole			0.17	U
GB-11 8-10	8/10/2015 10:36	84-74-2	Di-n-butyl phthalate			0.17	U
GB-11 8-10	8/10/2015 10:36	117-84-0	Di-n-octyl phthalate			0.17	U
GB-11 8-10	8/10/2015 10:36	91-20-3	Naphthalene			0.17	U
GB-11 8-10	8/10/2015 10:36	91-94-1	3,3'-Dichlorobenzidine			0.16	U
GB-11 8-10	8/10/2015 10:36	98-86-2	Acetophenone			0.16	U
GB-11 8-10	8/10/2015 10:36	67-72-1	Hexachloroethane			0.16	U
GB-11 8-10	8/10/2015 10:36	193-39-5	Indeno[1,2,3-cd]pyrene			0.16	U
GB-11 8-10	8/10/2015 10:36	95-48-7	2-Methylphenol			0.15	U
GB-11 8-10	8/10/2015 10:36	56-55-3	Benzo[a]anthracene			0.15	U
GB-11 8-10	8/10/2015 10:36	85-68-7	Butyl benzyl phthalate			0.15	U
GB-11 8-10	8/10/2015 10:36	98-95-3	Nitrobenzene			0.15	U
GB-11 8-10	8/10/2015 10:36	85-01-8	Phenanthrene			0.15	U
GB-11 8-10	8/10/2015 10:36	129-00-0	Pyrene			0.15	U
GB-11 8-10	8/10/2015 10:36	120-12-7	Anthracene			0.14	U
GB-11 8-10	8/10/2015 10:36	1912-24-9	Atrazine			0.13	U
GB-11 8-10	8/10/2015 10:36	191-24-2	Benzo[g,h,i]perylene			0.13	U
GB-11 8-10	8/10/2015 10:36	218-01-9	Chrysene			0.12	U
GB-11 8-10	8/10/2015 10:36	111-44-4	Bis(2-chloroethyl)ether			0.26	U *
GB-11 8-10	8/10/2015 10:36	321-60-8	2-Fluorobiphenyl	NL	NL	2.3	
GB-14 13-15	8/6/2015 12:59	120-12-7	Anthracene			0.19	J
GB-14 13-15	8/6/2015 12:59	53-70-3	Dibenz(a,h)anthracene			0.14	J
GB-14 13-15	8/6/2015 12:59	91-57-6	2-Methylnaphthalene			0.13	J
GB-14 13-15	8/6/2015 12:59	91-20-3	Naphthalene			0.13	J
GB-14 13-15	8/6/2015 12:59	208-96-8	Acenaphthylene			0.12	J
GB-14 13-15	8/6/2015 12:59	86-73-7	Fluorene			0.075	J
GB-14 13-15	8/6/2015 12:59	83-32-9	Acenaphthene			0.074	J
GB-14 13-15	8/6/2015 12:59	86-74-8	Carbazole			0.071	J
GB-14 13-15	8/6/2015 12:59	132-64-9	Dibenzofuran			0.052	J
GB-14 13-15	8/6/2015 12:59	92-52-4	1,1'-Biphenyl			2.5	U
GB-14 13-15	8/6/2015 12:59	51-28-5	2,4-Dinitrophenol			1.2	U
GB-14 13-15	8/6/2015 12:59	100-02-7	4-Nitrophenol			0.48	U
GB-14 13-15	8/6/2015 12:59	87-86-5	Pentachlorophenol			0.48	U
GB-14 13-15	8/6/2015 12:59	105-60-2	Caprolactam			0.097	U
GB-14 13-15	8/6/2015 12:59	100-52-7	Benzaldehyde			0.085	U
GB-14 13-15	8/6/2015 12:59	106-47-8	4-Chloroaniline			0.076	U

Table 6. Analytical Summary Table - SVOCs

Macon MGP #2

Macon, Ga

Client Sample ID	Collection Date	CAS	Analyte by Method 8270D	Type 1 RRS (mg/kg)	Type 2 RRS (mg/kg)	Result (mg/kg)	Flag
GB-14 13-15	8/6/2015 12:59	121-14-2	2,4-Dinitrotoluene			0.072	U
GB-14 13-15	8/6/2015 12:59	100-01-6	4-Nitroaniline			0.072	U
GB-14 13-15	8/6/2015 12:59	99-09-2	3-Nitroaniline			0.067	U
GB-14 13-15	8/6/2015 12:59	88-74-4	2-Nitroaniline			0.066	U
GB-14 13-15	8/6/2015 12:59	111-44-4	Bis(2-chloroethyl)ether			0.066	U
GB-14 13-15	8/6/2015 12:59	105-67-9	2,4-Dimethylphenol			0.064	U
GB-14 13-15	8/6/2015 12:59	7005-72-3	4-Chlorophenyl phenyl ether			0.064	U
GB-14 13-15	8/6/2015 12:59	15831-10-4	3 & 4 Methylphenol			0.063	U
GB-14 13-15	8/6/2015 12:59	606-20-2	2,6-Dinitrotoluene			0.061	U
GB-14 13-15	8/6/2015 12:59	88-75-5	2-Nitrophenol			0.06	U
GB-14 13-15	8/6/2015 12:59	77-47-4	Hexachlorocyclopentadiene			0.06	U
GB-14 13-15	8/6/2015 12:59	95-57-8	2-Chlorophenol			0.059	U
GB-14 13-15	8/6/2015 12:59	111-91-1	Bis(2-chloroethoxy)methane			0.057	U
GB-14 13-15	8/6/2015 12:59	118-74-1	Hexachlorobenzene			0.057	U
GB-14 13-15	8/6/2015 12:59	84-66-2	Diethyl phthalate			0.054	U
GB-14 13-15	8/6/2015 12:59	101-55-3	4-Bromophenyl phenyl ether			0.053	U
GB-14 13-15	8/6/2015 12:59	87-68-3	Hexachlorobutadiene			0.053	U
GB-14 13-15	8/6/2015 12:59	95-95-4	2,4,5-Trichlorophenol			0.051	U
GB-14 13-15	8/6/2015 12:59	120-83-2	2,4-Dichlorophenol			0.051	U
GB-14 13-15	8/6/2015 12:59	91-58-7	2-Chloronaphthalene			0.051	U
GB-14 13-15	8/6/2015 12:59	59-50-7	4-Chloro-3-methylphenol			0.051	U
GB-14 13-15	8/6/2015 12:59	131-11-3	Dimethyl phthalate			0.05	U
GB-14 13-15	8/6/2015 12:59	108-95-2	Phenol			0.05	U
GB-14 13-15	8/6/2015 12:59	78-59-1	Isophorone			0.048	U
GB-14 13-15	8/6/2015 12:59	86-30-6	N-Nitrosodiphenylamine			0.048	U
GB-14 13-15	8/6/2015 12:59	621-64-7	N-Nitrosodi-n-propylamine			0.047	U
GB-14 13-15	8/6/2015 12:59	108-60-1	bis (2-chloroisopropyl) ether			0.044	U
GB-14 13-15	8/6/2015 12:59	84-74-2	Di-n-butyl phthalate			0.044	U
GB-14 13-15	8/6/2015 12:59	88-06-2	2,4,6-Trichlorophenol			0.042	U
GB-14 13-15	8/6/2015 12:59	117-81-7	Bis(2-ethylhexyl) phthalate			0.042	U
GB-14 13-15	8/6/2015 12:59	117-84-0	Di-n-octyl phthalate			0.042	U
GB-14 13-15	8/6/2015 12:59	91-94-1	3,3'-Dichlorobenzidine			0.041	U
GB-14 13-15	8/6/2015 12:59	98-86-2	Acetophenone			0.041	U
GB-14 13-15	8/6/2015 12:59	67-72-1	Hexachloroethane			0.041	U
GB-14 13-15	8/6/2015 12:59	95-48-7	2-Methylphenol			0.04	U
GB-14 13-15	8/6/2015 12:59	85-68-7	Butyl benzyl phthalate			0.038	U
GB-14 13-15	8/6/2015 12:59	98-95-3	Nitrobenzene			0.038	U
GB-14 13-15	8/6/2015 12:59	1912-24-9	Atrazine			0.034	U
GB-14 13-15	8/6/2015 12:59	534-52-1	4,6-Dinitro-2-methylphenol			0.25	U *
GB-14 13-15	8/6/2015 12:59	321-60-8	2-Fluorobiphenyl	NL	NL	3.3	
GB-14 13-15	8/6/2015 12:59	206-44-0	Fluoranthene	500	3,130	1.9	
GB-14 13-15	8/6/2015 12:59	129-00-0	Pyrene	500	2,350	1.8	
GB-14 13-15	8/6/2015 12:59	205-99-2	Benzo[b]fluoranthene	5	12.5	1.3	

Table 6. Analytical Summary Table - SVOCs

Macon MGP #2

Macon, Ga

Client Sample ID	Collection Date	CAS	Analyte by Method 8270D	Type 1 RRS (mg/kg)	Type 2 RRS (mg/kg)	Result (mg/kg)	Flag
GB-14 13-15	8/6/2015 12:59	218-01-9	Chrysene	5	1,250	1.1	
GB-14 13-15	8/6/2015 12:59	56-55-3	Benzo[a]anthracene	5	12.5	0.97	
GB-14 13-15	8/6/2015 12:59	50-32-8	Benzo[a]pyrene	1.64	1.25	0.92	
GB-14 13-15	8/6/2015 12:59	85-01-8	Phenanthrene	110	2,350	0.89	
GB-14 13-15	8/6/2015 12:59	207-08-9	Benzo[k]fluoranthene	5	125	0.54	
GB-14 13-15	8/6/2015 12:59	191-24-2	Benzo[g,h,i]perylene	500	2,350	0.51	
GB-14 13-15	8/6/2015 12:59	193-39-5	Indeno[1,2,3-cd]pyrene	5	12.5	0.5	
GB-14 3-5	8/6/2015 12:47	321-60-8	2-Fluorobiphenyl			0	D
GB-14 3-5	8/6/2015 12:47	206-44-0	Fluoranthene			3.1	J
GB-14 3-5	8/6/2015 12:47	129-00-0	Pyrene			2.8	J
GB-14 3-5	8/6/2015 12:47	85-01-8	Phenanthrene			2.5	J
GB-14 3-5	8/6/2015 12:47	218-01-9	Chrysene			1.7	J
GB-14 3-5	8/6/2015 12:47	205-99-2	Benzo[b]fluoranthene			1.6	J
GB-14 3-5	8/6/2015 12:47	50-32-8	Benzo[a]pyrene			1.1	J
GB-14 3-5	8/6/2015 12:47	56-55-3	Benzo[a]anthracene			1	J
GB-14 3-5	8/6/2015 12:47	207-08-9	Benzo[k]fluoranthene			0.77	J
GB-14 3-5	8/6/2015 12:47	191-24-2	Benzo[g,h,i]perylene			0.68	J
GB-14 3-5	8/6/2015 12:47	193-39-5	Indeno[1,2,3-cd]pyrene			0.54	J
GB-14 3-5	8/6/2015 12:47	92-52-4	1,1'-Biphenyl			19	U
GB-14 3-5	8/6/2015 12:47	51-28-5	2,4-Dinitrophenol			9.4	U
GB-14 3-5	8/6/2015 12:47	100-02-7	4-Nitrophenol			3.7	U
GB-14 3-5	8/6/2015 12:47	87-86-5	Pentachlorophenol			3.7	U
GB-14 3-5	8/6/2015 12:47	105-60-2	Caprolactam			0.75	U
GB-14 3-5	8/6/2015 12:47	100-52-7	Benzaldehyde			0.66	U
GB-14 3-5	8/6/2015 12:47	106-47-8	4-Chloroaniline			0.59	U
GB-14 3-5	8/6/2015 12:47	121-14-2	2,4-Dinitrotoluene			0.55	U
GB-14 3-5	8/6/2015 12:47	100-01-6	4-Nitroaniline			0.55	U
GB-14 3-5	8/6/2015 12:47	99-09-2	3-Nitroaniline			0.52	U
GB-14 3-5	8/6/2015 12:47	88-74-4	2-Nitroaniline			0.51	U
GB-14 3-5	8/6/2015 12:47	111-44-4	Bis(2-chloroethyl)ether			0.51	U
GB-14 3-5	8/6/2015 12:47	105-67-9	2,4-Dimethylphenol			0.5	U
GB-14 3-5	8/6/2015 12:47	7005-72-3	4-Chlorophenyl phenyl ether			0.5	U
GB-14 3-5	8/6/2015 12:47	15831-10-4	3 & 4 Methylphenol			0.49	U
GB-14 3-5	8/6/2015 12:47	606-20-2	2,6-Dinitrotoluene			0.47	U
GB-14 3-5	8/6/2015 12:47	88-75-5	2-Nitrophenol			0.46	U
GB-14 3-5	8/6/2015 12:47	83-32-9	Acenaphthene			0.46	U
GB-14 3-5	8/6/2015 12:47	77-47-4	Hexachlorocyclopentadiene			0.46	U
GB-14 3-5	8/6/2015 12:47	95-57-8	2-Chlorophenol			0.45	U
GB-14 3-5	8/6/2015 12:47	111-91-1	Bis(2-chloroethoxy)methane			0.44	U
GB-14 3-5	8/6/2015 12:47	53-70-3	Dibenz(a,h)anthracene			0.44	U
GB-14 3-5	8/6/2015 12:47	118-74-1	Hexachlorobenzene			0.44	U
GB-14 3-5	8/6/2015 12:47	91-57-6	2-Methylnaphthalene			0.43	U
GB-14 3-5	8/6/2015 12:47	84-66-2	Diethyl phthalate			0.42	U

Table 6. Analytical Summary Table - SVOCs

Macon MGP #2

Macon, Ga

Client Sample ID	Collection Date	CAS	Analyte by Method 8270D	Type 1 RRS (mg/kg)	Type 2 RRS (mg/kg)	Result (mg/kg)	Flag
GB-14 3-5	8/6/2015 12:47	101-55-3	4-Bromophenyl phenyl ether			0.41	U
GB-14 3-5	8/6/2015 12:47	208-96-8	Acenaphthylene			0.41	U
GB-14 3-5	8/6/2015 12:47	86-73-7	Fluorene			0.41	U
GB-14 3-5	8/6/2015 12:47	87-68-3	Hexachlorobutadiene			0.41	U
GB-14 3-5	8/6/2015 12:47	95-95-4	2,4,5-Trichlorophenol			0.4	U
GB-14 3-5	8/6/2015 12:47	120-83-2	2,4-Dichlorophenol			0.4	U
GB-14 3-5	8/6/2015 12:47	91-58-7	2-Chloronaphthalene			0.4	U
GB-14 3-5	8/6/2015 12:47	59-50-7	4-Chloro-3-methylphenol			0.4	U
GB-14 3-5	8/6/2015 12:47	131-11-3	Dimethyl phthalate			0.38	U
GB-14 3-5	8/6/2015 12:47	108-95-2	Phenol			0.38	U
GB-14 3-5	8/6/2015 12:47	132-64-9	Dibenzofuran			0.37	U
GB-14 3-5	8/6/2015 12:47	78-59-1	Isophorone			0.37	U
GB-14 3-5	8/6/2015 12:47	86-30-6	N-Nitrosodiphenylamine			0.37	U
GB-14 3-5	8/6/2015 12:47	621-64-7	N-Nitrosodi-n-propylamine			0.36	U
GB-14 3-5	8/6/2015 12:47	108-60-1	bis (2-chloroisopropyl) ether			0.34	U
GB-14 3-5	8/6/2015 12:47	86-74-8	Carbazole			0.34	U
GB-14 3-5	8/6/2015 12:47	84-74-2	Di-n-butyl phthalate			0.34	U
GB-14 3-5	8/6/2015 12:47	91-20-3	Naphthalene			0.34	U
GB-14 3-5	8/6/2015 12:47	88-06-2	2,4,6-Trichlorophenol			0.33	U
GB-14 3-5	8/6/2015 12:47	117-81-7	Bis(2-ethylhexyl) phthalate			0.33	U
GB-14 3-5	8/6/2015 12:47	117-84-0	Di-n-octyl phthalate			0.33	U
GB-14 3-5	8/6/2015 12:47	91-94-1	3,3'-Dichlorobenzidine			0.32	U
GB-14 3-5	8/6/2015 12:47	98-86-2	Acetophenone			0.32	U
GB-14 3-5	8/6/2015 12:47	67-72-1	Hexachloroethane			0.32	U
GB-14 3-5	8/6/2015 12:47	95-48-7	2-Methylphenol			0.31	U
GB-14 3-5	8/6/2015 12:47	85-68-7	Butyl benzyl phthalate			0.29	U
GB-14 3-5	8/6/2015 12:47	98-95-3	Nitrobenzene			0.29	U
GB-14 3-5	8/6/2015 12:47	120-12-7	Anthracene			0.28	U
GB-14 3-5	8/6/2015 12:47	1912-24-9	Atrazine			0.26	U
GB-14 3-5	8/6/2015 12:47	534-52-1	4,6-Dinitro-2-methylphenol			1.9	U *
GB-14 8-10	8/6/2015 12:54	321-60-8	2-Fluorobiphenyl			0	D
GB-14 8-10	8/6/2015 12:54	92-52-4	1,1'-Biphenyl			32	U
GB-14 8-10	8/6/2015 12:54	51-28-5	2,4-Dinitrophenol			15	U
GB-14 8-10	8/6/2015 12:54	100-02-7	4-Nitrophenol			6.1	U
GB-14 8-10	8/6/2015 12:54	87-86-5	Pentachlorophenol			6.1	U
GB-14 8-10	8/6/2015 12:54	207-08-9	Benzo[k]fluoranthene			1.2	U
GB-14 8-10	8/6/2015 12:54	105-60-2	Caprolactam			1.2	U
GB-14 8-10	8/6/2015 12:54	100-52-7	Benzaldehyde			1.1	U
GB-14 8-10	8/6/2015 12:54	106-47-8	4-Chloroaniline			0.97	U
GB-14 8-10	8/6/2015 12:54	50-32-8	Benzo[a]pyrene			0.97	U
GB-14 8-10	8/6/2015 12:54	121-14-2	2,4-Dinitrotoluene			0.91	U
GB-14 8-10	8/6/2015 12:54	100-01-6	4-Nitroaniline			0.91	U
GB-14 8-10	8/6/2015 12:54	99-09-2	3-Nitroaniline			0.86	U

Table 6. Analytical Summary Table - SVOCs

Macon MGP #2

Macon, Ga

Client Sample ID	Collection Date	CAS	Analyte by Method 8270D	Type 1 RRS (mg/kg)	Type 2 RRS (mg/kg)	Result (mg/kg)	Flag
GB-14 8-10	8/6/2015 12:54	88-74-4	2-Nitroaniline			0.84	U
GB-14 8-10	8/6/2015 12:54	111-44-4	Bis(2-chloroethyl)ether			0.84	U
GB-14 8-10	8/6/2015 12:54	105-67-9	2,4-Dimethylphenol			0.82	U
GB-14 8-10	8/6/2015 12:54	7005-72-3	4-Chlorophenyl phenyl ether			0.82	U
GB-14 8-10	8/6/2015 12:54	15831-10-4	3 & 4 Methylphenol			0.8	U
GB-14 8-10	8/6/2015 12:54	606-20-2	2,6-Dinitrotoluene			0.78	U
GB-14 8-10	8/6/2015 12:54	88-75-5	2-Nitrophenol			0.76	U
GB-14 8-10	8/6/2015 12:54	83-32-9	Acenaphthene			0.76	U
GB-14 8-10	8/6/2015 12:54	77-47-4	Hexachlorocyclopentadiene			0.76	U
GB-14 8-10	8/6/2015 12:54	95-57-8	2-Chlorophenol			0.74	U
GB-14 8-10	8/6/2015 12:54	111-91-1	Bis(2-chloroethoxy)methane			0.73	U
GB-14 8-10	8/6/2015 12:54	53-70-3	Dibenz(a,h)anthracene			0.73	U
GB-14 8-10	8/6/2015 12:54	118-74-1	Hexachlorobenzene			0.73	U
GB-14 8-10	8/6/2015 12:54	91-57-6	2-Methylnaphthalene			0.71	U
GB-14 8-10	8/6/2015 12:54	205-99-2	Benzo[b]fluoranthene			0.71	U
GB-14 8-10	8/6/2015 12:54	84-66-2	Diethyl phthalate			0.69	U
GB-14 8-10	8/6/2015 12:54	101-55-3	4-Bromophenyl phenyl ether			0.67	U
GB-14 8-10	8/6/2015 12:54	208-96-8	Acenaphthylene			0.67	U
GB-14 8-10	8/6/2015 12:54	86-73-7	Fluorene			0.67	U
GB-14 8-10	8/6/2015 12:54	87-68-3	Hexachlorobutadiene			0.67	U
GB-14 8-10	8/6/2015 12:54	95-95-4	2,4,5-Trichlorophenol			0.65	U
GB-14 8-10	8/6/2015 12:54	120-83-2	2,4-Dichlorophenol			0.65	U
GB-14 8-10	8/6/2015 12:54	91-58-7	2-Chloronaphthalene			0.65	U
GB-14 8-10	8/6/2015 12:54	59-50-7	4-Chloro-3-methylphenol			0.65	U
GB-14 8-10	8/6/2015 12:54	131-11-3	Dimethyl phthalate			0.63	U
GB-14 8-10	8/6/2015 12:54	108-95-2	Phenol			0.63	U
GB-14 8-10	8/6/2015 12:54	132-64-9	Dibenzofuran			0.61	U
GB-14 8-10	8/6/2015 12:54	78-59-1	Isophorone			0.61	U
GB-14 8-10	8/6/2015 12:54	86-30-6	N-Nitrosodiphenylamine			0.61	U
GB-14 8-10	8/6/2015 12:54	206-44-0	Fluoranthene			0.6	U
GB-14 8-10	8/6/2015 12:54	621-64-7	N-Nitrosodi-n-propylamine			0.6	U
GB-14 8-10	8/6/2015 12:54	108-60-1	bis (2-chloroisopropyl) ether			0.56	U
GB-14 8-10	8/6/2015 12:54	86-74-8	Carbazole			0.56	U
GB-14 8-10	8/6/2015 12:54	84-74-2	Di-n-butyl phthalate			0.56	U
GB-14 8-10	8/6/2015 12:54	91-20-3	Naphthalene			0.56	U
GB-14 8-10	8/6/2015 12:54	88-06-2	2,4,6-Trichlorophenol			0.54	U
GB-14 8-10	8/6/2015 12:54	117-81-7	Bis(2-ethylhexyl) phthalate			0.54	U
GB-14 8-10	8/6/2015 12:54	117-84-0	Di-n-octyl phthalate			0.54	U
GB-14 8-10	8/6/2015 12:54	91-94-1	3,3'-Dichlorobenzidine			0.52	U
GB-14 8-10	8/6/2015 12:54	98-86-2	Acetophenone			0.52	U
GB-14 8-10	8/6/2015 12:54	67-72-1	Hexachloroethane			0.52	U
GB-14 8-10	8/6/2015 12:54	193-39-5	Indeno[1,2,3-cd]pyrene			0.52	U
GB-14 8-10	8/6/2015 12:54	95-48-7	2-Methylphenol			0.5	U



Table 6. Analytical Summary Table - SVOCs  
Macon MGP #2  
Macon, Ga

Client Sample ID	Collection Date	CAS	Analyte by Method 8270D	Type 1 RRS (mg/kg)	Type 2 RRS (mg/kg)	Result (mg/kg)	Flag
GB-14 8-10	8/6/2015 12:54	56-55-3	Benzo[a]anthracene			0.5	U
GB-14 8-10	8/6/2015 12:54	85-01-8	Phenanthrene			0.5	U
GB-14 8-10	8/6/2015 12:54	129-00-0	Pyrene			0.5	U
GB-14 8-10	8/6/2015 12:54	85-68-7	Butyl benzyl phthalate			0.48	U
GB-14 8-10	8/6/2015 12:54	98-95-3	Nitrobenzene			0.48	U
GB-14 8-10	8/6/2015 12:54	120-12-7	Anthracene			0.47	U
GB-14 8-10	8/6/2015 12:54	1912-24-9	Atrazine			0.43	U
GB-14 8-10	8/6/2015 12:54	191-24-2	Benzo[g,h,i]perylene			0.41	U
GB-14 8-10	8/6/2015 12:54	218-01-9	Chrysene			0.39	U
GB-14 8-10	8/6/2015 12:54	534-52-1	4,6-Dinitro-2-methylphenol			3.2	U *
GB-16 2-4	8/6/2015 13:29	117-81-7	Bis(2-ethylhexyl) phthalate			0.3	J B
GB-16 2-4	8/6/2015 13:29	92-52-4	1,1'-Biphenyl			3.5	U
GB-16 2-4	8/6/2015 13:29	51-28-5	2,4-Dinitrophenol			1.7	U
GB-16 2-4	8/6/2015 13:29	100-02-7	4-Nitrophenol			0.69	U
GB-16 2-4	8/6/2015 13:29	87-86-5	Pentachlorophenol			0.69	U
GB-16 2-4	8/6/2015 13:29	207-08-9	Benzo[k]fluoranthene			0.14	U
GB-16 2-4	8/6/2015 13:29	105-60-2	Caprolactam			0.14	U
GB-16 2-4	8/6/2015 13:29	100-52-7	Benzaldehyde			0.12	U
GB-16 2-4	8/6/2015 13:29	106-47-8	4-Chloroaniline			0.11	U
GB-16 2-4	8/6/2015 13:29	50-32-8	Benzo[a]pyrene			0.11	U
GB-16 2-4	8/6/2015 13:29	121-14-2	2,4-Dinitrotoluene			0.1	U
GB-16 2-4	8/6/2015 13:29	100-01-6	4-Nitroaniline			0.1	U
GB-16 2-4	8/6/2015 13:29	99-09-2	3-Nitroaniline			0.096	U
GB-16 2-4	8/6/2015 13:29	88-74-4	2-Nitroaniline			0.094	U
GB-16 2-4	8/6/2015 13:29	111-44-4	Bis(2-chloroethyl)ether			0.094	U
GB-16 2-4	8/6/2015 13:29	105-67-9	2,4-Dimethylphenol			0.092	U
GB-16 2-4	8/6/2015 13:29	7005-72-3	4-Chlorophenyl phenyl ether			0.092	U
GB-16 2-4	8/6/2015 13:29	15831-10-4	3 & 4 Methylphenol			0.09	U
GB-16 2-4	8/6/2015 13:29	606-20-2	2,6-Dinitrotoluene			0.088	U
GB-16 2-4	8/6/2015 13:29	88-75-5	2-Nitrophenol			0.086	U
GB-16 2-4	8/6/2015 13:29	83-32-9	Acenaphthene			0.086	U
GB-16 2-4	8/6/2015 13:29	77-47-4	Hexachlorocyclopentadiene			0.086	U
GB-16 2-4	8/6/2015 13:29	95-57-8	2-Chlorophenol			0.084	U
GB-16 2-4	8/6/2015 13:29	111-91-1	Bis(2-chloroethoxy)methane			0.081	U
GB-16 2-4	8/6/2015 13:29	53-70-3	Dibenz(a,h)anthracene			0.081	U
GB-16 2-4	8/6/2015 13:29	118-74-1	Hexachlorobenzene			0.081	U
GB-16 2-4	8/6/2015 13:29	91-57-6	2-Methylnaphthalene			0.079	U
GB-16 2-4	8/6/2015 13:29	205-99-2	Benzo[b]fluoranthene			0.079	U
GB-16 2-4	8/6/2015 13:29	84-66-2	Diethyl phthalate			0.077	U
GB-16 2-4	8/6/2015 13:29	101-55-3	4-Bromophenyl phenyl ether			0.075	U
GB-16 2-4	8/6/2015 13:29	208-96-8	Acenaphthylene			0.075	U
GB-16 2-4	8/6/2015 13:29	86-73-7	Fluorene			0.075	U
GB-16 2-4	8/6/2015 13:29	87-68-3	Hexachlorobutadiene			0.075	U

Table 6. Analytical Summary Table - SVOCs

Macon MGP #2

Macon, Ga

Client Sample ID	Collection Date	CAS	Analyte by Method 8270D	Type 1 RRS (mg/kg)	Type 2 RRS (mg/kg)	Result (mg/kg)	Flag
GB-16 2-4	8/6/2015 13:29	95-95-4	2,4,5-Trichlorophenol			0.073	U
GB-16 2-4	8/6/2015 13:29	120-83-2	2,4-Dichlorophenol			0.073	U
GB-16 2-4	8/6/2015 13:29	91-58-7	2-Chloronaphthalene			0.073	U
GB-16 2-4	8/6/2015 13:29	59-50-7	4-Chloro-3-methylphenol			0.073	U
GB-16 2-4	8/6/2015 13:29	131-11-3	Dimethyl phthalate			0.071	U
GB-16 2-4	8/6/2015 13:29	108-95-2	Phenol			0.071	U
GB-16 2-4	8/6/2015 13:29	132-64-9	Dibenzofuran			0.069	U
GB-16 2-4	8/6/2015 13:29	78-59-1	Isophorone			0.069	U
GB-16 2-4	8/6/2015 13:29	86-30-6	N-Nitrosodiphenylamine			0.069	U
GB-16 2-4	8/6/2015 13:29	206-44-0	Fluoranthene			0.067	U
GB-16 2-4	8/6/2015 13:29	621-64-7	N-Nitrosodi-n-propylamine			0.067	U
GB-16 2-4	8/6/2015 13:29	108-60-1	bis (2-chloroisopropyl) ether			0.063	U
GB-16 2-4	8/6/2015 13:29	86-74-8	Carbazole			0.063	U
GB-16 2-4	8/6/2015 13:29	84-74-2	Di-n-butyl phthalate			0.063	U
GB-16 2-4	8/6/2015 13:29	91-20-3	Naphthalene			0.063	U
GB-16 2-4	8/6/2015 13:29	88-06-2	2,4,6-Trichlorophenol			0.061	U
GB-16 2-4	8/6/2015 13:29	117-84-0	Di-n-octyl phthalate			0.061	U
GB-16 2-4	8/6/2015 13:29	91-94-1	3,3'-Dichlorobenzidine			0.058	U
GB-16 2-4	8/6/2015 13:29	98-86-2	Acetophenone			0.058	U
GB-16 2-4	8/6/2015 13:29	67-72-1	Hexachloroethane			0.058	U
GB-16 2-4	8/6/2015 13:29	193-39-5	Indeno[1,2,3-cd]pyrene			0.058	U
GB-16 2-4	8/6/2015 13:29	95-48-7	2-Methylphenol			0.056	U
GB-16 2-4	8/6/2015 13:29	56-55-3	Benzo[a]anthracene			0.056	U
GB-16 2-4	8/6/2015 13:29	85-01-8	Phenanthrene			0.056	U
GB-16 2-4	8/6/2015 13:29	129-00-0	Pyrene			0.056	U
GB-16 2-4	8/6/2015 13:29	85-68-7	Butyl benzyl phthalate			0.054	U
GB-16 2-4	8/6/2015 13:29	98-95-3	Nitrobenzene			0.054	U
GB-16 2-4	8/6/2015 13:29	120-12-7	Anthracene			0.052	U
GB-16 2-4	8/6/2015 13:29	1912-24-9	Atrazine			0.048	U
GB-16 2-4	8/6/2015 13:29	191-24-2	Benzo[g,h,i]perylene			0.046	U
GB-16 2-4	8/6/2015 13:29	218-01-9	Chrysene			0.044	U
GB-16 2-4	8/6/2015 13:29	534-52-1	4,6-Dinitro-2-methylphenol			0.35	U *
GB-16 2-4	8/6/2015 13:29	321-60-8	2-Fluorobiphenyl	NL	NL	5	
GB-16 4-6	8/6/2015 13:35	117-81-7	Bis(2-ethylhexyl) phthalate			0.24	J B
GB-16 4-6	8/6/2015 13:35	92-52-4	1,1'-Biphenyl			2.3	U
GB-16 4-6	8/6/2015 13:35	100-02-7	4-Nitrophenol			0.44	U
GB-16 4-6	8/6/2015 13:35	87-86-5	Pentachlorophenol			0.44	U
GB-16 4-6	8/6/2015 13:35	105-60-2	Caprolactam			0.088	U
GB-16 4-6	8/6/2015 13:35	207-08-9	Benzo[k]fluoranthene			0.087	U
GB-16 4-6	8/6/2015 13:35	100-52-7	Benzaldehyde			0.078	U
GB-16 4-6	8/6/2015 13:35	106-47-8	4-Chloroaniline			0.07	U
GB-16 4-6	8/6/2015 13:35	50-32-8	Benzo[a]pyrene			0.07	U
GB-16 4-6	8/6/2015 13:35	121-14-2	2,4-Dinitrotoluene			0.066	U

Table 6. Analytical Summary Table - SVOCs

Macon MGP #2

Macon, Ga

Client Sample ID	Collection Date	CAS	Analyte by Method 8270D	Type 1 RRS (mg/kg)	Type 2 RRS (mg/kg)	Result (mg/kg)	Flag
GB-16 4-6	8/6/2015 13:35	100-01-6	4-Nitroaniline			0.066	U
GB-16 4-6	8/6/2015 13:35	99-09-2	3-Nitroaniline			0.062	U
GB-16 4-6	8/6/2015 13:35	88-74-4	2-Nitroaniline			0.06	U
GB-16 4-6	8/6/2015 13:35	111-44-4	Bis(2-chloroethyl)ether			0.06	U
GB-16 4-6	8/6/2015 13:35	105-67-9	2,4-Dimethylphenol			0.059	U
GB-16 4-6	8/6/2015 13:35	7005-72-3	4-Chlorophenyl phenyl ether			0.059	U
GB-16 4-6	8/6/2015 13:35	15831-10-4	3 & 4 Methylphenol			0.058	U
GB-16 4-6	8/6/2015 13:35	606-20-2	2,6-Dinitrotoluene			0.056	U
GB-16 4-6	8/6/2015 13:35	88-75-5	2-Nitrophenol			0.055	U
GB-16 4-6	8/6/2015 13:35	83-32-9	Acenaphthene			0.055	U
GB-16 4-6	8/6/2015 13:35	77-47-4	Hexachlorocyclopentadiene			0.055	U
GB-16 4-6	8/6/2015 13:35	95-57-8	2-Chlorophenol			0.054	U
GB-16 4-6	8/6/2015 13:35	111-91-1	Bis(2-chloroethoxy)methane			0.052	U
GB-16 4-6	8/6/2015 13:35	53-70-3	Dibenz(a,h)anthracene			0.052	U
GB-16 4-6	8/6/2015 13:35	118-74-1	Hexachlorobenzene			0.052	U
GB-16 4-6	8/6/2015 13:35	91-57-6	2-Methylnaphthalene			0.051	U
GB-16 4-6	8/6/2015 13:35	205-99-2	Benzo[b]fluoranthene			0.051	U
GB-16 4-6	8/6/2015 13:35	84-66-2	Diethyl phthalate			0.049	U
GB-16 4-6	8/6/2015 13:35	101-55-3	4-Bromophenyl phenyl ether			0.048	U
GB-16 4-6	8/6/2015 13:35	208-96-8	Acenaphthylene			0.048	U
GB-16 4-6	8/6/2015 13:35	86-73-7	Fluorene			0.048	U
GB-16 4-6	8/6/2015 13:35	87-68-3	Hexachlorobutadiene			0.048	U
GB-16 4-6	8/6/2015 13:35	95-95-4	2,4,5-Trichlorophenol			0.047	U
GB-16 4-6	8/6/2015 13:35	120-83-2	2,4-Dichlorophenol			0.047	U
GB-16 4-6	8/6/2015 13:35	91-58-7	2-Chloronaphthalene			0.047	U
GB-16 4-6	8/6/2015 13:35	59-50-7	4-Chloro-3-methylphenol			0.047	U
GB-16 4-6	8/6/2015 13:35	131-11-3	Dimethyl phthalate			0.045	U
GB-16 4-6	8/6/2015 13:35	108-95-2	Phenol			0.045	U
GB-16 4-6	8/6/2015 13:35	132-64-9	Dibenzofuran			0.044	U
GB-16 4-6	8/6/2015 13:35	78-59-1	Isophorone			0.044	U
GB-16 4-6	8/6/2015 13:35	86-30-6	N-Nitrosodiphenylamine			0.044	U
GB-16 4-6	8/6/2015 13:35	206-44-0	Fluoranthene			0.043	U
GB-16 4-6	8/6/2015 13:35	621-64-7	N-Nitrosodi-n-propylamine			0.043	U
GB-16 4-6	8/6/2015 13:35	108-60-1	bis (2-chloroisopropyl) ether			0.04	U
GB-16 4-6	8/6/2015 13:35	86-74-8	Carbazole			0.04	U
GB-16 4-6	8/6/2015 13:35	84-74-2	Di-n-butyl phthalate			0.04	U
GB-16 4-6	8/6/2015 13:35	91-20-3	Naphthalene			0.04	U
GB-16 4-6	8/6/2015 13:35	88-06-2	2,4,6-Trichlorophenol			0.039	U
GB-16 4-6	8/6/2015 13:35	117-84-0	Di-n-octyl phthalate			0.039	U
GB-16 4-6	8/6/2015 13:35	98-86-2	Acetophenone			0.037	U
GB-16 4-6	8/6/2015 13:35	67-72-1	Hexachloroethane			0.037	U
GB-16 4-6	8/6/2015 13:35	193-39-5	Indeno[1,2,3-cd]pyrene			0.037	U
GB-16 4-6	8/6/2015 13:35	95-48-7	2-Methylphenol			0.036	U

Table 6. Analytical Summary Table - SVOCs

Macon MGP #2

Macon, Ga

Client Sample ID	Collection Date	CAS	Analyte by Method 8270D	Type 1 RRS (mg/kg)	Type 2 RRS (mg/kg)	Result (mg/kg)	Flag
GB-16 4-6	8/6/2015 13:35	56-55-3	Benzo[a]anthracene			0.036	U
GB-16 4-6	8/6/2015 13:35	85-01-8	Phenanthrene			0.036	U
GB-16 4-6	8/6/2015 13:35	129-00-0	Pyrene			0.036	U
GB-16 4-6	8/6/2015 13:35	85-68-7	Butyl benzyl phthalate			0.035	U
GB-16 4-6	8/6/2015 13:35	98-95-3	Nitrobenzene			0.035	U
GB-16 4-6	8/6/2015 13:35	120-12-7	Anthracene			0.033	U
GB-16 4-6	8/6/2015 13:35	1912-24-9	Atrazine			0.031	U
GB-16 4-6	8/6/2015 13:35	191-24-2	Benzo[g,h,i]perylene			0.029	U
GB-16 4-6	8/6/2015 13:35	218-01-9	Chrysene			0.028	U
GB-16 4-6	8/6/2015 13:35	51-28-5	2,4-Dinitrophenol			1.1	U F1
GB-16 4-6	8/6/2015 13:35	91-94-1	3,3'-Dichlorobenzidine			0.037	U F1
GB-16 4-6	8/6/2015 13:35	534-52-1	4,6-Dinitro-2-methylphenol			0.23	U F2 *
GB-16 4-6	8/6/2015 13:35	321-60-8	2-Fluorobiphenyl	NL	NL	3.1	
GB-18 2-4	8/6/2015 15:05	321-60-8	2-Fluorobiphenyl			0	D
GB-18 2-4	8/6/2015 15:05	206-44-0	Fluoranthene			0.73	J
GB-18 2-4	8/6/2015 15:05	129-00-0	Pyrene			0.7	J
GB-18 2-4	8/6/2015 15:05	85-01-8	Phenanthrene			0.57	J
GB-18 2-4	8/6/2015 15:05	205-99-2	Benzo[b]fluoranthene			0.47	J
GB-18 2-4	8/6/2015 15:05	218-01-9	Chrysene			0.44	J
GB-18 2-4	8/6/2015 15:05	56-55-3	Benzo[a]anthracene			0.39	J
GB-18 2-4	8/6/2015 15:05	92-52-4	1,1'-Biphenyl			19	U
GB-18 2-4	8/6/2015 15:05	51-28-5	2,4-Dinitrophenol			9.2	U
GB-18 2-4	8/6/2015 15:05	100-02-7	4-Nitrophenol			3.6	U
GB-18 2-4	8/6/2015 15:05	87-86-5	Pentachlorophenol			3.6	U
GB-18 2-4	8/6/2015 15:05	105-60-2	Caprolactam			0.73	U
GB-18 2-4	8/6/2015 15:05	207-08-9	Benzo[k]fluoranthene			0.72	U
GB-18 2-4	8/6/2015 15:05	100-52-7	Benzaldehyde			0.64	U
GB-18 2-4	8/6/2015 15:05	106-47-8	4-Chloroaniline			0.57	U
GB-18 2-4	8/6/2015 15:05	50-32-8	Benzo[a]pyrene			0.57	U
GB-18 2-4	8/6/2015 15:05	121-14-2	2,4-Dinitrotoluene			0.54	U
GB-18 2-4	8/6/2015 15:05	100-01-6	4-Nitroaniline			0.54	U
GB-18 2-4	8/6/2015 15:05	99-09-2	3-Nitroaniline			0.51	U
GB-18 2-4	8/6/2015 15:05	88-74-4	2-Nitroaniline			0.5	U
GB-18 2-4	8/6/2015 15:05	111-44-4	Bis(2-chloroethyl)ether			0.5	U
GB-18 2-4	8/6/2015 15:05	105-67-9	2,4-Dimethylphenol			0.49	U
GB-18 2-4	8/6/2015 15:05	7005-72-3	4-Chlorophenyl phenyl ether			0.49	U
GB-18 2-4	8/6/2015 15:05	15831-10-4	3 & 4 Methylphenol			0.47	U
GB-18 2-4	8/6/2015 15:05	88-75-5	2-Nitrophenol			0.45	U
GB-18 2-4	8/6/2015 15:05	83-32-9	Acenaphthene			0.45	U
GB-18 2-4	8/6/2015 15:05	77-47-4	Hexachlorocyclopentadiene			0.45	U
GB-18 2-4	8/6/2015 15:05	95-57-8	2-Chlorophenol			0.44	U
GB-18 2-4	8/6/2015 15:05	111-91-1	Bis(2-chloroethoxy)methane			0.43	U

Table 6. Analytical Summary Table - SVOCs

Macon MGP #2

Macon, Ga

Client Sample ID	Collection Date	CAS	Analyte by Method 8270D	Type 1 RRS (mg/kg)	Type 2 RRS (mg/kg)	Result (mg/kg)	Flag
GB-18 2-4	8/6/2015 15:05	53-70-3	Dibenz(a,h)anthracene			0.43	U
GB-18 2-4	8/6/2015 15:05	118-74-1	Hexachlorobenzene			0.43	U
GB-18 2-4	8/6/2015 15:05	91-57-6	2-Methylnaphthalene			0.42	U
GB-18 2-4	8/6/2015 15:05	84-66-2	Diethyl phthalate			0.41	U
GB-18 2-4	8/6/2015 15:05	101-55-3	4-Bromophenyl phenyl ether			0.4	U
GB-18 2-4	8/6/2015 15:05	208-96-8	Acenaphthylene			0.4	U
GB-18 2-4	8/6/2015 15:05	86-73-7	Fluorene			0.4	U
GB-18 2-4	8/6/2015 15:05	87-68-3	Hexachlorobutadiene			0.4	U
GB-18 2-4	8/6/2015 15:05	95-95-4	2,4,5-Trichlorophenol			0.39	U
GB-18 2-4	8/6/2015 15:05	120-83-2	2,4-Dichlorophenol			0.39	U
GB-18 2-4	8/6/2015 15:05	91-58-7	2-Chloronaphthalene			0.39	U
GB-18 2-4	8/6/2015 15:05	59-50-7	4-Chloro-3-methylphenol			0.39	U
GB-18 2-4	8/6/2015 15:05	131-11-3	Dimethyl phthalate			0.38	U
GB-18 2-4	8/6/2015 15:05	108-95-2	Phenol			0.38	U
GB-18 2-4	8/6/2015 15:05	132-64-9	Dibenzofuran			0.36	U
GB-18 2-4	8/6/2015 15:05	78-59-1	Isophorone			0.36	U
GB-18 2-4	8/6/2015 15:05	86-30-6	N-Nitrosodiphenylamine			0.36	U
GB-18 2-4	8/6/2015 15:05	621-64-7	N-Nitrosodi-n-propylamine			0.35	U
GB-18 2-4	8/6/2015 15:05	108-60-1	bis (2-chloroisopropyl) ether			0.33	U
GB-18 2-4	8/6/2015 15:05	86-74-8	Carbazole			0.33	U
GB-18 2-4	8/6/2015 15:05	84-74-2	Di-n-butyl phthalate			0.33	U
GB-18 2-4	8/6/2015 15:05	91-20-3	Naphthalene			0.33	U
GB-18 2-4	8/6/2015 15:05	88-06-2	2,4,6-Trichlorophenol			0.32	U
GB-18 2-4	8/6/2015 15:05	117-81-7	Bis(2-ethylhexyl) phthalate			0.32	U
GB-18 2-4	8/6/2015 15:05	117-84-0	Di-n-octyl phthalate			0.32	U
GB-18 2-4	8/6/2015 15:05	91-94-1	3,3'-Dichlorobenzidine			0.31	U
GB-18 2-4	8/6/2015 15:05	98-86-2	Acetophenone			0.31	U
GB-18 2-4	8/6/2015 15:05	67-72-1	Hexachloroethane			0.31	U
GB-18 2-4	8/6/2015 15:05	193-39-5	Indeno[1,2,3-cd]pyrene			0.31	U
GB-18 2-4	8/6/2015 15:05	95-48-7	2-Methylphenol			0.3	U
GB-18 2-4	8/6/2015 15:05	85-68-7	Butyl benzyl phthalate			0.29	U
GB-18 2-4	8/6/2015 15:05	98-95-3	Nitrobenzene			0.29	U
GB-18 2-4	8/6/2015 15:05	120-12-7	Anthracene			0.28	U
GB-18 2-4	8/6/2015 15:05	1912-24-9	Atrazine			0.25	U
GB-18 2-4	8/6/2015 15:05	191-24-2	Benzo[g,h,i]perylene			0.24	U
GB-18 2-4	8/6/2015 15:05	534-52-1	4,6-Dinitro-2-methylphenol			1.9	U *
GB-18 2-4	8/6/2015 15:05	606-20-2	2,6-Dinitrotoluene	100		5.5	
GB-18 4-6	8/6/2015 15:15	321-60-8	2-Fluorobiphenyl			0	D
GB-18 4-6	8/6/2015 15:15	117-81-7	Bis(2-ethylhexyl) phthalate			0.63	J B
GB-18 4-6	8/6/2015 15:15	92-52-4	1,1'-Biphenyl			19	U
GB-18 4-6	8/6/2015 15:15	51-28-5	2,4-Dinitrophenol			9.1	U
GB-18 4-6	8/6/2015 15:15	100-02-7	4-Nitrophenol			3.6	U
GB-18 4-6	8/6/2015 15:15	87-86-5	Pentachlorophenol			3.6	U

Table 6. Analytical Summary Table - SVOCs

Macon MGP #2

Macon, Ga

Client Sample ID	Collection Date	CAS	Analyte by Method 8270D	Type 1 RRS (mg/kg)	Type 2 RRS (mg/kg)	Result (mg/kg)	Flag
GB-18 4-6	8/6/2015 15:15	105-60-2	Caprolactam			0.72	U
GB-18 4-6	8/6/2015 15:15	207-08-9	Benzo[k]fluoranthene			0.71	U
GB-18 4-6	8/6/2015 15:15	100-52-7	Benzaldehyde			0.64	U
GB-18 4-6	8/6/2015 15:15	106-47-8	4-Chloroaniline			0.57	U
GB-18 4-6	8/6/2015 15:15	50-32-8	Benzo[a]pyrene			0.57	U
GB-18 4-6	8/6/2015 15:15	121-14-2	2,4-Dinitrotoluene			0.54	U
GB-18 4-6	8/6/2015 15:15	100-01-6	4-Nitroaniline			0.54	U
GB-18 4-6	8/6/2015 15:15	99-09-2	3-Nitroaniline			0.5	U
GB-18 4-6	8/6/2015 15:15	88-74-4	2-Nitroaniline			0.49	U
GB-18 4-6	8/6/2015 15:15	111-44-4	Bis(2-chloroethyl)ether			0.49	U
GB-18 4-6	8/6/2015 15:15	105-67-9	2,4-Dimethylphenol			0.48	U
GB-18 4-6	8/6/2015 15:15	7005-72-3	4-Chlorophenyl phenyl ether			0.48	U
GB-18 4-6	8/6/2015 15:15	15831-10-4	3 & 4 Methylphenol			0.47	U
GB-18 4-6	8/6/2015 15:15	606-20-2	2,6-Dinitrotoluene			0.46	U
GB-18 4-6	8/6/2015 15:15	88-75-5	2-Nitrophenol			0.45	U
GB-18 4-6	8/6/2015 15:15	83-32-9	Acenaphthene			0.45	U
GB-18 4-6	8/6/2015 15:15	77-47-4	Hexachlorocyclopentadiene			0.45	U
GB-18 4-6	8/6/2015 15:15	95-57-8	2-Chlorophenol			0.44	U
GB-18 4-6	8/6/2015 15:15	111-91-1	Bis(2-chloroethoxy)methane			0.43	U
GB-18 4-6	8/6/2015 15:15	53-70-3	Dibenz(a,h)anthracene			0.43	U
GB-18 4-6	8/6/2015 15:15	118-74-1	Hexachlorobenzene			0.43	U
GB-18 4-6	8/6/2015 15:15	91-57-6	2-Methylnaphthalene			0.42	U
GB-18 4-6	8/6/2015 15:15	205-99-2	Benzo[b]fluoranthene			0.42	U
GB-18 4-6	8/6/2015 15:15	84-66-2	Diethyl phthalate			0.41	U
GB-18 4-6	8/6/2015 15:15	101-55-3	4-Bromophenyl phenyl ether			0.4	U
GB-18 4-6	8/6/2015 15:15	208-96-8	Acenaphthylene			0.4	U
GB-18 4-6	8/6/2015 15:15	86-73-7	Fluorene			0.4	U
GB-18 4-6	8/6/2015 15:15	87-68-3	Hexachlorobutadiene			0.4	U
GB-18 4-6	8/6/2015 15:15	95-95-4	2,4,5-Trichlorophenol			0.38	U
GB-18 4-6	8/6/2015 15:15	120-83-2	2,4-Dichlorophenol			0.38	U
GB-18 4-6	8/6/2015 15:15	91-58-7	2-Chloronaphthalene			0.38	U
GB-18 4-6	8/6/2015 15:15	59-50-7	4-Chloro-3-methylphenol			0.38	U
GB-18 4-6	8/6/2015 15:15	131-11-3	Dimethyl phthalate			0.37	U
GB-18 4-6	8/6/2015 15:15	108-95-2	Phenol			0.37	U
GB-18 4-6	8/6/2015 15:15	132-64-9	Dibenzofuran			0.36	U
GB-18 4-6	8/6/2015 15:15	78-59-1	Isophorone			0.36	U
GB-18 4-6	8/6/2015 15:15	86-30-6	N-Nitrosodiphenylamine			0.36	U
GB-18 4-6	8/6/2015 15:15	206-44-0	Fluoranthene			0.35	U
GB-18 4-6	8/6/2015 15:15	621-64-7	N-Nitrosodi-n-propylamine			0.35	U
GB-18 4-6	8/6/2015 15:15	108-60-1	bis (2-chloroisopropyl) ether			0.33	U
GB-18 4-6	8/6/2015 15:15	86-74-8	Carbazole			0.33	U
GB-18 4-6	8/6/2015 15:15	84-74-2	Di-n-butyl phthalate			0.33	U
GB-18 4-6	8/6/2015 15:15	91-20-3	Naphthalene			0.33	U

Table 6. Analytical Summary Table - SVOCs

Macon MGP #2

Macon, Ga

Client Sample ID	Collection Date	CAS	Analyte by Method 8270D	Type 1 RRS (mg/kg)	Type 2 RRS (mg/kg)	Result (mg/kg)	Flag
GB-18 4-6	8/6/2015 15:15	88-06-2	2,4,6-Trichlorophenol			0.32	U
GB-18 4-6	8/6/2015 15:15	117-84-0	Di-n-octyl phthalate			0.32	U
GB-18 4-6	8/6/2015 15:15	91-94-1	3,3'-Dichlorobenzidine			0.31	U
GB-18 4-6	8/6/2015 15:15	98-86-2	Acetophenone			0.31	U
GB-18 4-6	8/6/2015 15:15	67-72-1	Hexachloroethane			0.31	U
GB-18 4-6	8/6/2015 15:15	193-39-5	Indeno[1,2,3-cd]pyrene			0.31	U
GB-18 4-6	8/6/2015 15:15	95-48-7	2-Methylphenol			0.3	U
GB-18 4-6	8/6/2015 15:15	56-55-3	Benzo[a]anthracene			0.3	U
GB-18 4-6	8/6/2015 15:15	85-01-8	Phenanthrene			0.3	U
GB-18 4-6	8/6/2015 15:15	129-00-0	Pyrene			0.3	U
GB-18 4-6	8/6/2015 15:15	85-68-7	Butyl benzyl phthalate			0.29	U
GB-18 4-6	8/6/2015 15:15	98-95-3	Nitrobenzene			0.29	U
GB-18 4-6	8/6/2015 15:15	120-12-7	Anthracene			0.27	U
GB-18 4-6	8/6/2015 15:15	1912-24-9	Atrazine			0.25	U
GB-18 4-6	8/6/2015 15:15	191-24-2	Benzo[g,h,i]perylene			0.24	U
GB-18 4-6	8/6/2015 15:15	218-01-9	Chrysene			0.23	U
GB-18 4-6	8/6/2015 15:15	534-52-1	4,6-Dinitro-2-methylphenol			1.9	U *
GB-19 8-10	8/6/2015 11:30	92-52-4	1,1'-Biphenyl			2.5	U
GB-19 8-10	8/6/2015 11:30	51-28-5	2,4-Dinitrophenol			1.2	U
GB-19 8-10	8/6/2015 11:30	100-02-7	4-Nitrophenol			0.49	U
GB-19 8-10	8/6/2015 11:30	87-86-5	Pentachlorophenol			0.49	U
GB-19 8-10	8/6/2015 11:30	105-60-2	Caprolactam			0.097	U
GB-19 8-10	8/6/2015 11:30	207-08-9	Benzo[k]fluoranthene			0.096	U
GB-19 8-10	8/6/2015 11:30	100-52-7	Benzaldehyde			0.085	U
GB-19 8-10	8/6/2015 11:30	106-47-8	4-Chloroaniline			0.077	U
GB-19 8-10	8/6/2015 11:30	50-32-8	Benzo[a]pyrene			0.077	U
GB-19 8-10	8/6/2015 11:30	121-14-2	2,4-Dinitrotoluene			0.072	U
GB-19 8-10	8/6/2015 11:30	100-01-6	4-Nitroaniline			0.072	U
GB-19 8-10	8/6/2015 11:30	99-09-2	3-Nitroaniline			0.068	U
GB-19 8-10	8/6/2015 11:30	88-74-4	2-Nitroaniline			0.066	U
GB-19 8-10	8/6/2015 11:30	111-44-4	Bis(2-chloroethyl)ether			0.066	U
GB-19 8-10	8/6/2015 11:30	105-67-9	2,4-Dimethylphenol			0.065	U
GB-19 8-10	8/6/2015 11:30	7005-72-3	4-Chlorophenyl phenyl ether			0.065	U
GB-19 8-10	8/6/2015 11:30	15831-10-4	3 & 4 Methylphenol			0.063	U
GB-19 8-10	8/6/2015 11:30	606-20-2	2,6-Dinitrotoluene			0.062	U
GB-19 8-10	8/6/2015 11:30	88-75-5	2-Nitrophenol			0.06	U
GB-19 8-10	8/6/2015 11:30	83-32-9	Acenaphthene			0.06	U
GB-19 8-10	8/6/2015 11:30	77-47-4	Hexachlorocyclopentadiene			0.06	U
GB-19 8-10	8/6/2015 11:30	95-57-8	2-Chlorophenol			0.059	U
GB-19 8-10	8/6/2015 11:30	111-91-1	Bis(2-chloroethoxy)methane			0.057	U
GB-19 8-10	8/6/2015 11:30	53-70-3	Dibenz(a,h)anthracene			0.057	U
GB-19 8-10	8/6/2015 11:30	118-74-1	Hexachlorobenzene			0.057	U
GB-19 8-10	8/6/2015 11:30	91-57-6	2-Methylnaphthalene			0.056	U



Table 6. Analytical Summary Table - SVOCs

Macon MGP #2

Macon, Ga

Client Sample ID	Collection Date	CAS	Analyte by Method 8270D	Type 1 RRS (mg/kg)	Type 2 RRS (mg/kg)	Result (mg/kg)	Flag
GB-19 8-10	8/6/2015 11:30	205-99-2	Benzo[b]fluoranthene			0.056	U
GB-19 8-10	8/6/2015 11:30	84-66-2	Diethyl phthalate			0.054	U
GB-19 8-10	8/6/2015 11:30	101-55-3	4-Bromophenyl phenyl ether			0.053	U
GB-19 8-10	8/6/2015 11:30	208-96-8	Acenaphthylene			0.053	U
GB-19 8-10	8/6/2015 11:30	86-73-7	Fluorene			0.053	U
GB-19 8-10	8/6/2015 11:30	87-68-3	Hexachlorobutadiene			0.053	U
GB-19 8-10	8/6/2015 11:30	95-95-4	2,4,5-Trichlorophenol			0.051	U
GB-19 8-10	8/6/2015 11:30	120-83-2	2,4-Dichlorophenol			0.051	U
GB-19 8-10	8/6/2015 11:30	91-58-7	2-Chloronaphthalene			0.051	U
GB-19 8-10	8/6/2015 11:30	59-50-7	4-Chloro-3-methylphenol			0.051	U
GB-19 8-10	8/6/2015 11:30	131-11-3	Dimethyl phthalate			0.05	U
GB-19 8-10	8/6/2015 11:30	108-95-2	Phenol			0.05	U
GB-19 8-10	8/6/2015 11:30	132-64-9	Dibenzofuran			0.049	U
GB-19 8-10	8/6/2015 11:30	78-59-1	Isophorone			0.049	U
GB-19 8-10	8/6/2015 11:30	86-30-6	N-Nitrosodiphenylamine			0.049	U
GB-19 8-10	8/6/2015 11:30	206-44-0	Fluoranthene			0.047	U
GB-19 8-10	8/6/2015 11:30	621-64-7	N-Nitrosodi-n-propylamine			0.047	U
GB-19 8-10	8/6/2015 11:30	108-60-1	bis (2-chloroisopropyl) ether			0.044	U
GB-19 8-10	8/6/2015 11:30	86-74-8	Carbazole			0.044	U
GB-19 8-10	8/6/2015 11:30	84-74-2	Di-n-butyl phthalate			0.044	U
GB-19 8-10	8/6/2015 11:30	91-20-3	Naphthalene			0.044	U
GB-19 8-10	8/6/2015 11:30	88-06-2	2,4,6-Trichlorophenol			0.043	U
GB-19 8-10	8/6/2015 11:30	117-81-7	Bis(2-ethylhexyl) phthalate			0.043	U
GB-19 8-10	8/6/2015 11:30	117-84-0	Di-n-octyl phthalate			0.043	U
GB-19 8-10	8/6/2015 11:30	91-94-1	3,3'-Dichlorobenzidine			0.041	U
GB-19 8-10	8/6/2015 11:30	98-86-2	Acetophenone			0.041	U
GB-19 8-10	8/6/2015 11:30	67-72-1	Hexachloroethane			0.041	U
GB-19 8-10	8/6/2015 11:30	193-39-5	Indeno[1,2,3-cd]pyrene			0.041	U
GB-19 8-10	8/6/2015 11:30	95-48-7	2-Methylphenol			0.04	U
GB-19 8-10	8/6/2015 11:30	56-55-3	Benzo[a]anthracene			0.04	U
GB-19 8-10	8/6/2015 11:30	85-01-8	Phenanthrene			0.04	U
GB-19 8-10	8/6/2015 11:30	129-00-0	Pyrene			0.04	U
GB-19 8-10	8/6/2015 11:30	85-68-7	Butyl benzyl phthalate			0.038	U
GB-19 8-10	8/6/2015 11:30	98-95-3	Nitrobenzene			0.038	U
GB-19 8-10	8/6/2015 11:30	120-12-7	Anthracene			0.037	U
GB-19 8-10	8/6/2015 11:30	1912-24-9	Atrazine			0.034	U
GB-19 8-10	8/6/2015 11:30	191-24-2	Benzo[g,h,i]perylene			0.032	U
GB-19 8-10	8/6/2015 11:30	218-01-9	Chrysene			0.031	U
GB-19 8-10	8/6/2015 11:30	534-52-1	4,6-Dinitro-2-methylphenol			0.25	U *
GB-19 8-10	8/6/2015 11:30	321-60-8	2-Fluorobiphenyl	NL	NL	3.1	
GB-19 13-15	8/25/2015 11:30	117-81-7	Bis(2-ethylhexyl) phthalate			0.089	J
GB-19 13-15	8/25/2015 11:30	92-52-4	1,1'-Biphenyl			1.9	U
GB-19 13-15	8/25/2015 11:30	51-28-5	2,4-Dinitrophenol			0.94	U

Table 6. Analytical Summary Table - SVOCs

Macon MGP #2

Macon, Ga

Client Sample ID	Collection Date	CAS	Analyte by Method 8270D	Type 1 RRS (mg/kg)	Type 2 RRS (mg/kg)	Result (mg/kg)	Flag
GB-19 13-15	8/25/2015 11:30	100-02-7	4-Nitrophenol			0.37	U
GB-19 13-15	8/25/2015 11:30	87-86-5	Pentachlorophenol			0.37	U
GB-19 13-15	8/25/2015 11:30	534-52-1	4,6-Dinitro-2-methylphenol			0.19	U
GB-19 13-15	8/25/2015 11:30	105-60-2	Caprolactam			0.075	U
GB-19 13-15	8/25/2015 11:30	207-08-9	Benzo[k]fluoranthene			0.074	U
GB-19 13-15	8/25/2015 11:30	100-52-7	Benzaldehyde			0.066	U
GB-19 13-15	8/25/2015 11:30	50-32-8	Benzo[a]pyrene			0.059	U
GB-19 13-15	8/25/2015 11:30	121-14-2	2,4-Dinitrotoluene			0.056	U
GB-19 13-15	8/25/2015 11:30	100-01-6	4-Nitroaniline			0.056	U
GB-19 13-15	8/25/2015 11:30	99-09-2	3-Nitroaniline			0.052	U
GB-19 13-15	8/25/2015 11:30	88-74-4	2-Nitroaniline			0.051	U
GB-19 13-15	8/25/2015 11:30	111-44-4	Bis(2-chloroethyl)ether			0.051	U
GB-19 13-15	8/25/2015 11:30	105-67-9	2,4-Dimethylphenol			0.05	U
GB-19 13-15	8/25/2015 11:30	7005-72-3	4-Chlorophenyl phenyl ether			0.05	U
GB-19 13-15	8/25/2015 11:30	15831-10-4	3 & 4 Methylphenol			0.049	U
GB-19 13-15	8/25/2015 11:30	606-20-2	2,6-Dinitrotoluene			0.048	U
GB-19 13-15	8/25/2015 11:30	88-75-5	2-Nitrophenol			0.047	U
GB-19 13-15	8/25/2015 11:30	83-32-9	Acenaphthene			0.047	U
GB-19 13-15	8/25/2015 11:30	77-47-4	Hexachlorocyclopentadiene			0.047	U
GB-19 13-15	8/25/2015 11:30	95-57-8	2-Chlorophenol			0.045	U
GB-19 13-15	8/25/2015 11:30	111-91-1	Bis(2-chloroethoxy)methane			0.044	U
GB-19 13-15	8/25/2015 11:30	53-70-3	Dibenz(a,h)anthracene			0.044	U
GB-19 13-15	8/25/2015 11:30	118-74-1	Hexachlorobenzene			0.044	U
GB-19 13-15	8/25/2015 11:30	91-57-6	2-Methylnaphthalene			0.043	U
GB-19 13-15	8/25/2015 11:30	205-99-2	Benzo[b]fluoranthene			0.043	U
GB-19 13-15	8/25/2015 11:30	84-66-2	Diethyl phthalate			0.042	U
GB-19 13-15	8/25/2015 11:30	101-55-3	4-Bromophenyl phenyl ether			0.041	U
GB-19 13-15	8/25/2015 11:30	208-96-8	Acenaphthylene			0.041	U
GB-19 13-15	8/25/2015 11:30	86-73-7	Fluorene			0.041	U
GB-19 13-15	8/25/2015 11:30	87-68-3	Hexachlorobutadiene			0.041	U
GB-19 13-15	8/25/2015 11:30	95-95-4	2,4,5-Trichlorophenol			0.04	U
GB-19 13-15	8/25/2015 11:30	120-83-2	2,4-Dichlorophenol			0.04	U
GB-19 13-15	8/25/2015 11:30	91-58-7	2-Chloronaphthalene			0.04	U
GB-19 13-15	8/25/2015 11:30	59-50-7	4-Chloro-3-methylphenol			0.04	U
GB-19 13-15	8/25/2015 11:30	131-11-3	Dimethyl phthalate			0.039	U
GB-19 13-15	8/25/2015 11:30	108-95-2	Phenol			0.039	U
GB-19 13-15	8/25/2015 11:30	132-64-9	Dibenzofuran			0.037	U
GB-19 13-15	8/25/2015 11:30	78-59-1	Isophorone			0.037	U
GB-19 13-15	8/25/2015 11:30	86-30-6	N-Nitrosodiphenylamine			0.037	U
GB-19 13-15	8/25/2015 11:30	206-44-0	Fluoranthene			0.036	U
GB-19 13-15	8/25/2015 11:30	621-64-7	N-Nitrosodi-n-propylamine			0.036	U
GB-19 13-15	8/25/2015 11:30	108-60-1	bis (2-chloroisopropyl) ether			0.034	U
GB-19 13-15	8/25/2015 11:30	86-74-8	Carbazole			0.034	U

Table 6. Analytical Summary Table - SVOCs  
Macon MGP #2  
Macon, Ga

Client Sample ID	Collection Date	CAS	Analyte by Method 8270D	Type 1 RRS (mg/kg)	Type 2 RRS (mg/kg)	Result (mg/kg)	Flag
GB-19 13-15	8/25/2015 11:30	84-74-2	Di-n-butyl phthalate			0.034	U
GB-19 13-15	8/25/2015 11:30	91-20-3	Naphthalene			0.034	U
GB-19 13-15	8/25/2015 11:30	88-06-2	2,4,6-Trichlorophenol			0.033	U
GB-19 13-15	8/25/2015 11:30	117-84-0	Di-n-octyl phthalate			0.033	U
GB-19 13-15	8/25/2015 11:30	98-86-2	Acetophenone			0.032	U
GB-19 13-15	8/25/2015 11:30	67-72-1	Hexachloroethane			0.032	U
GB-19 13-15	8/25/2015 11:30	193-39-5	Indeno[1,2,3-cd]pyrene			0.032	U
GB-19 13-15	8/25/2015 11:30	95-48-7	2-Methylphenol			0.031	U
GB-19 13-15	8/25/2015 11:30	56-55-3	Benzo[a]anthracene			0.031	U
GB-19 13-15	8/25/2015 11:30	85-01-8	Phenanthrene			0.031	U
GB-19 13-15	8/25/2015 11:30	129-00-0	Pyrene			0.031	U
GB-19 13-15	8/25/2015 11:30	85-68-7	Butyl benzyl phthalate			0.029	U
GB-19 13-15	8/25/2015 11:30	98-95-3	Nitrobenzene			0.029	U
GB-19 13-15	8/25/2015 11:30	120-12-7	Anthracene			0.028	U
GB-19 13-15	8/25/2015 11:30	1912-24-9	Atrazine			0.026	U
GB-19 13-15	8/25/2015 11:30	191-24-2	Benzo[g,h,i]perylene			0.025	U
GB-19 13-15	8/25/2015 11:30	218-01-9	Chrysene			0.024	U
GB-19 13-15	8/25/2015 11:30	106-47-8	4-Chloroaniline			0.059	U F1
GB-19 13-15	8/25/2015 11:30	91-94-1	3,3'-Dichlorobenzidine			0.032	U F1 F2
GB-19 13-15	8/25/2015 11:30	321-60-8	2-Fluorobiphenyl	NL	NL	2.9	
GB-21 8-10	8/6/2015 10:45	92-52-4	1,1'-Biphenyl			2.1	U
GB-21 8-10	8/6/2015 10:45	51-28-5	2,4-Dinitrophenol			1	U
GB-21 8-10	8/6/2015 10:45	100-02-7	4-Nitrophenol			0.41	U
GB-21 8-10	8/6/2015 10:45	87-86-5	Pentachlorophenol			0.41	U
GB-21 8-10	8/6/2015 10:45	105-60-2	Caprolactam			0.082	U
GB-21 8-10	8/6/2015 10:45	207-08-9	Benzo[k]fluoranthene			0.081	U
GB-21 8-10	8/6/2015 10:45	100-52-7	Benzaldehyde			0.072	U
GB-21 8-10	8/6/2015 10:45	106-47-8	4-Chloroaniline			0.065	U
GB-21 8-10	8/6/2015 10:45	50-32-8	Benzo[a]pyrene			0.065	U
GB-21 8-10	8/6/2015 10:45	121-14-2	2,4-Dinitrotoluene			0.061	U
GB-21 8-10	8/6/2015 10:45	100-01-6	4-Nitroaniline			0.061	U
GB-21 8-10	8/6/2015 10:45	99-09-2	3-Nitroaniline			0.057	U
GB-21 8-10	8/6/2015 10:45	88-74-4	2-Nitroaniline			0.056	U
GB-21 8-10	8/6/2015 10:45	111-44-4	Bis(2-chloroethyl)ether			0.056	U
GB-21 8-10	8/6/2015 10:45	105-67-9	2,4-Dimethylphenol			0.055	U
GB-21 8-10	8/6/2015 10:45	7005-72-3	4-Chlorophenyl phenyl ether			0.055	U
GB-21 8-10	8/6/2015 10:45	15831-10-4	3 & 4 Methylphenol			0.054	U
GB-21 8-10	8/6/2015 10:45	606-20-2	2,6-Dinitrotoluene			0.052	U
GB-21 8-10	8/6/2015 10:45	88-75-5	2-Nitrophenol			0.051	U
GB-21 8-10	8/6/2015 10:45	83-32-9	Acenaphthene			0.051	U
GB-21 8-10	8/6/2015 10:45	77-47-4	Hexachlorocyclopentadiene			0.051	U
GB-21 8-10	8/6/2015 10:45	95-57-8	2-Chlorophenol			0.05	U

Table 6. Analytical Summary Table - SVOCs

Macon MGP #2

Macon, Ga

Client Sample ID	Collection Date	CAS	Analyte by Method 8270D	Type 1 RRS (mg/kg)	Type 2 RRS (mg/kg)	Result (mg/kg)	Flag
GB-21 8-10	8/6/2015 10:45	111-91-1	Bis(2-chloroethoxy)methane			0.049	U
GB-21 8-10	8/6/2015 10:45	53-70-3	Dibenz(a,h)anthracene			0.049	U
GB-21 8-10	8/6/2015 10:45	118-74-1	Hexachlorobenzene			0.049	U
GB-21 8-10	8/6/2015 10:45	91-57-6	2-Methylnaphthalene			0.047	U
GB-21 8-10	8/6/2015 10:45	205-99-2	Benzo[b]fluoranthene			0.047	U
GB-21 8-10	8/6/2015 10:45	84-66-2	Diethyl phthalate			0.046	U
GB-21 8-10	8/6/2015 10:45	101-55-3	4-Bromophenyl phenyl ether			0.045	U
GB-21 8-10	8/6/2015 10:45	208-96-8	Acenaphthylene			0.045	U
GB-21 8-10	8/6/2015 10:45	86-73-7	Fluorene			0.045	U
GB-21 8-10	8/6/2015 10:45	87-68-3	Hexachlorobutadiene			0.045	U
GB-21 8-10	8/6/2015 10:45	95-95-4	2,4,5-Trichlorophenol			0.044	U
GB-21 8-10	8/6/2015 10:45	120-83-2	2,4-Dichlorophenol			0.044	U
GB-21 8-10	8/6/2015 10:45	91-58-7	2-Chloronaphthalene			0.044	U
GB-21 8-10	8/6/2015 10:45	59-50-7	4-Chloro-3-methylphenol			0.044	U
GB-21 8-10	8/6/2015 10:45	131-11-3	Dimethyl phthalate			0.042	U
GB-21 8-10	8/6/2015 10:45	108-95-2	Phenol			0.042	U
GB-21 8-10	8/6/2015 10:45	132-64-9	Dibenzofuran			0.041	U
GB-21 8-10	8/6/2015 10:45	78-59-1	Isophorone			0.041	U
GB-21 8-10	8/6/2015 10:45	86-30-6	N-Nitrosodiphenylamine			0.041	U
GB-21 8-10	8/6/2015 10:45	206-44-0	Fluoranthene			0.04	U
GB-21 8-10	8/6/2015 10:45	621-64-7	N-Nitrosodi-n-propylamine			0.04	U
GB-21 8-10	8/6/2015 10:45	108-60-1	bis (2-chloroisopropyl) ether			0.037	U
GB-21 8-10	8/6/2015 10:45	86-74-8	Carbazole			0.037	U
GB-21 8-10	8/6/2015 10:45	84-74-2	Di-n-butyl phthalate			0.037	U
GB-21 8-10	8/6/2015 10:45	91-20-3	Naphthalene			0.037	U
GB-21 8-10	8/6/2015 10:45	88-06-2	2,4,6-Trichlorophenol			0.036	U
GB-21 8-10	8/6/2015 10:45	117-81-7	Bis(2-ethylhexyl) phthalate			0.036	U
GB-21 8-10	8/6/2015 10:45	117-84-0	Di-n-octyl phthalate			0.036	U
GB-21 8-10	8/6/2015 10:45	91-94-1	3,3'-Dichlorobenzidine			0.035	U
GB-21 8-10	8/6/2015 10:45	98-86-2	Acetophenone			0.035	U
GB-21 8-10	8/6/2015 10:45	67-72-1	Hexachloroethane			0.035	U
GB-21 8-10	8/6/2015 10:45	193-39-5	Indeno[1,2,3-cd]pyrene			0.035	U
GB-21 8-10	8/6/2015 10:45	95-48-7	2-Methylphenol			0.034	U
GB-21 8-10	8/6/2015 10:45	56-55-3	Benzo[a]anthracene			0.034	U
GB-21 8-10	8/6/2015 10:45	85-01-8	Phenanthrene			0.034	U
GB-21 8-10	8/6/2015 10:45	129-00-0	Pyrene			0.034	U
GB-21 8-10	8/6/2015 10:45	85-68-7	Butyl benzyl phthalate			0.032	U
GB-21 8-10	8/6/2015 10:45	98-95-3	Nitrobenzene			0.032	U
GB-21 8-10	8/6/2015 10:45	120-12-7	Anthracene			0.031	U
GB-21 8-10	8/6/2015 10:45	1912-24-9	Atrazine			0.029	U
GB-21 8-10	8/6/2015 10:45	191-24-2	Benzo[g,h,i]perylene			0.027	U
GB-21 8-10	8/6/2015 10:45	218-01-9	Chrysene			0.026	U
GB-21 8-10	8/6/2015 10:45	534-52-1	4,6-Dinitro-2-methylphenol			0.21	U *

Table 6. Analytical Summary Table - SVOCs

Macon MGP #2

Macon, Ga

Client Sample ID	Collection Date	CAS	Analyte by Method 8270D	Type 1 RRS (mg/kg)	Type 2 RRS (mg/kg)	Result (mg/kg)	Flag
GB-21 8-10	8/6/2015 10:45	321-60-8	2-Fluorobiphenyl	NL	NL	2.2	
GB-21 13-15	8/25/2015 11:50	117-81-7	Bis(2-ethylhexyl) phthalate			0.069	J
GB-21 13-15	8/25/2015 11:50	206-44-0	Fluoranthene			0.055	J
GB-21 13-15	8/25/2015 11:50	129-00-0	Pyrene			0.046	J
GB-21 13-15	8/25/2015 11:50	205-99-2	Benzo[b]fluoranthene			0.043	J
GB-21 13-15	8/25/2015 11:50	85-01-8	Phenanthrene			0.034	J
GB-21 13-15	8/25/2015 11:50	218-01-9	Chrysene			0.033	J
GB-21 13-15	8/25/2015 11:50	92-52-4	1,1'-Biphenyl			1.9	U
GB-21 13-15	8/25/2015 11:50	51-28-5	2,4-Dinitrophenol			0.93	U
GB-21 13-15	8/25/2015 11:50	100-02-7	4-Nitrophenol			0.37	U
GB-21 13-15	8/25/2015 11:50	87-86-5	Pentachlorophenol			0.37	U
GB-21 13-15	8/25/2015 11:50	534-52-1	4,6-Dinitro-2-methylphenol			0.19	U
GB-21 13-15	8/25/2015 11:50	105-60-2	Caprolactam			0.074	U
GB-21 13-15	8/25/2015 11:50	207-08-9	Benzo[k]fluoranthene			0.073	U
GB-21 13-15	8/25/2015 11:50	100-52-7	Benzaldehyde			0.065	U
GB-21 13-15	8/25/2015 11:50	106-47-8	4-Chloroaniline			0.058	U
GB-21 13-15	8/25/2015 11:50	50-32-8	Benzo[a]pyrene			0.058	U
GB-21 13-15	8/25/2015 11:50	121-14-2	2,4-Dinitrotoluene			0.055	U
GB-21 13-15	8/25/2015 11:50	100-01-6	4-Nitroaniline			0.055	U
GB-21 13-15	8/25/2015 11:50	99-09-2	3-Nitroaniline			0.052	U
GB-21 13-15	8/25/2015 11:50	88-74-4	2-Nitroaniline			0.051	U
GB-21 13-15	8/25/2015 11:50	111-44-4	Bis(2-chloroethyl)ether			0.051	U
GB-21 13-15	8/25/2015 11:50	105-67-9	2,4-Dimethylphenol			0.049	U
GB-21 13-15	8/25/2015 11:50	7005-72-3	4-Chlorophenyl phenyl ether			0.049	U
GB-21 13-15	8/25/2015 11:50	15831-10-4	3 & 4 Methylphenol			0.048	U
GB-21 13-15	8/25/2015 11:50	606-20-2	2,6-Dinitrotoluene			0.047	U
GB-21 13-15	8/25/2015 11:50	88-75-5	2-Nitrophenol			0.046	U
GB-21 13-15	8/25/2015 11:50	83-32-9	Acenaphthene			0.046	U
GB-21 13-15	8/25/2015 11:50	77-47-4	Hexachlorocyclopentadiene			0.046	U
GB-21 13-15	8/25/2015 11:50	95-57-8	2-Chlorophenol			0.045	U
GB-21 13-15	8/25/2015 11:50	111-91-1	Bis(2-chloroethoxy)methane			0.044	U
GB-21 13-15	8/25/2015 11:50	53-70-3	Dibenz(a,h)anthracene			0.044	U
GB-21 13-15	8/25/2015 11:50	118-74-1	Hexachlorobenzene			0.044	U
GB-21 13-15	8/25/2015 11:50	91-57-6	2-Methylnaphthalene			0.043	U
GB-21 13-15	8/25/2015 11:50	84-66-2	Diethyl phthalate			0.042	U
GB-21 13-15	8/25/2015 11:50	101-55-3	4-Bromophenyl phenyl ether			0.04	U
GB-21 13-15	8/25/2015 11:50	208-96-8	Acenaphthylene			0.04	U
GB-21 13-15	8/25/2015 11:50	86-73-7	Fluorene			0.04	U
GB-21 13-15	8/25/2015 11:50	87-68-3	Hexachlorobutadiene			0.04	U
GB-21 13-15	8/25/2015 11:50	95-95-4	2,4,5-Trichlorophenol			0.039	U
GB-21 13-15	8/25/2015 11:50	120-83-2	2,4-Dichlorophenol			0.039	U
GB-21 13-15	8/25/2015 11:50	91-58-7	2-Chloronaphthalene			0.039	U
GB-21 13-15	8/25/2015 11:50	59-50-7	4-Chloro-3-methylphenol			0.039	U

Table 6. Analytical Summary Table - SVOCs

Macon MGP #2

Macon, Ga

Client Sample ID	Collection Date	CAS	Analyte by Method 8270D	Type 1 RRS (mg/kg)	Type 2 RRS (mg/kg)	Result (mg/kg)	Flag
GB-21 13-15	8/25/2015 11:50	131-11-3	Dimethyl phthalate			0.038	U
GB-21 13-15	8/25/2015 11:50	108-95-2	Phenol			0.038	U
GB-21 13-15	8/25/2015 11:50	132-64-9	Dibenzofuran			0.037	U
GB-21 13-15	8/25/2015 11:50	78-59-1	Isophorone			0.037	U
GB-21 13-15	8/25/2015 11:50	86-30-6	N-Nitrosodiphenylamine			0.037	U
GB-21 13-15	8/25/2015 11:50	621-64-7	N-Nitrosodi-n-propylamine			0.036	U
GB-21 13-15	8/25/2015 11:50	108-60-1	bis (2-chloroisopropyl) ether			0.034	U
GB-21 13-15	8/25/2015 11:50	86-74-8	Carbazole			0.034	U
GB-21 13-15	8/25/2015 11:50	84-74-2	Di-n-butyl phthalate			0.034	U
GB-21 13-15	8/25/2015 11:50	91-20-3	Naphthalene			0.034	U
GB-21 13-15	8/25/2015 11:50	88-06-2	2,4,6-Trichlorophenol			0.033	U
GB-21 13-15	8/25/2015 11:50	117-84-0	Di-n-octyl phthalate			0.033	U
GB-21 13-15	8/25/2015 11:50	91-94-1	3,3'-Dichlorobenzidine			0.031	U
GB-21 13-15	8/25/2015 11:50	98-86-2	Acetophenone			0.031	U
GB-21 13-15	8/25/2015 11:50	67-72-1	Hexachloroethane			0.031	U
GB-21 13-15	8/25/2015 11:50	193-39-5	Indeno[1,2,3-cd]pyrene			0.031	U
GB-21 13-15	8/25/2015 11:50	95-48-7	2-Methylphenol			0.03	U
GB-21 13-15	8/25/2015 11:50	56-55-3	Benzo[a]anthracene			0.03	U
GB-21 13-15	8/25/2015 11:50	85-68-7	Butyl benzyl phthalate			0.029	U
GB-21 13-15	8/25/2015 11:50	98-95-3	Nitrobenzene			0.029	U
GB-21 13-15	8/25/2015 11:50	120-12-7	Anthracene			0.028	U
GB-21 13-15	8/25/2015 11:50	1912-24-9	Atrazine			0.026	U
GB-21 13-15	8/25/2015 11:50	191-24-2	Benzo[g,h,i]perylene			0.025	U
GB-21 13-15	8/25/2015 11:50	321-60-8	2-Fluorobiphenyl	NL	NL	3.1	
GB-25 2-4	8/10/2015 11:39	92-52-4	1,1'-Biphenyl			1.9	U
GB-25 2-4	8/10/2015 11:39	51-28-5	2,4-Dinitrophenol			0.92	U
GB-25 2-4	8/10/2015 11:39	100-02-7	4-Nitrophenol			0.37	U
GB-25 2-4	8/10/2015 11:39	87-86-5	Pentachlorophenol			0.37	U
GB-25 2-4	8/10/2015 11:39	534-52-1	4,6-Dinitro-2-methylphenol			0.19	U
GB-25 2-4	8/10/2015 11:39	105-60-2	Caprolactam			0.073	U
GB-25 2-4	8/10/2015 11:39	207-08-9	Benzo[k]fluoranthene			0.072	U
GB-25 2-4	8/10/2015 11:39	100-52-7	Benzaldehyde			0.065	U
GB-25 2-4	8/10/2015 11:39	106-47-8	4-Chloroaniline			0.058	U
GB-25 2-4	8/10/2015 11:39	50-32-8	Benzo[a]pyrene			0.058	U
GB-25 2-4	8/10/2015 11:39	121-14-2	2,4-Dinitrotoluene			0.055	U
GB-25 2-4	8/10/2015 11:39	100-01-6	4-Nitroaniline			0.055	U
GB-25 2-4	8/10/2015 11:39	99-09-2	3-Nitroaniline			0.051	U
GB-25 2-4	8/10/2015 11:39	88-74-4	2-Nitroaniline			0.05	U
GB-25 2-4	8/10/2015 11:39	105-67-9	2,4-Dimethylphenol			0.049	U
GB-25 2-4	8/10/2015 11:39	7005-72-3	4-Chlorophenyl phenyl ether			0.049	U
GB-25 2-4	8/10/2015 11:39	15831-10-4	3 & 4 Methylphenol			0.048	U
GB-25 2-4	8/10/2015 11:39	606-20-2	2,6-Dinitrotoluene			0.047	U
GB-25 2-4	8/10/2015 11:39	88-75-5	2-Nitrophenol			0.046	U

Table 6. Analytical Summary Table - SVOCs

Macon MGP #2

Macon, Ga

Client Sample ID	Collection Date	CAS	Analyte by Method 8270D	Type 1 RRS (mg/kg)	Type 2 RRS (mg/kg)	Result (mg/kg)	Flag
GB-25 2-4	8/10/2015 11:39	83-32-9	Acenaphthene			0.046	U
GB-25 2-4	8/10/2015 11:39	77-47-4	Hexachlorocyclopentadiene			0.046	U
GB-25 2-4	8/10/2015 11:39	95-57-8	2-Chlorophenol			0.045	U
GB-25 2-4	8/10/2015 11:39	111-91-1	Bis(2-chloroethoxy)methane			0.043	U
GB-25 2-4	8/10/2015 11:39	53-70-3	Dibenz(a,h)anthracene			0.043	U
GB-25 2-4	8/10/2015 11:39	118-74-1	Hexachlorobenzene			0.043	U
GB-25 2-4	8/10/2015 11:39	91-57-6	2-Methylnaphthalene			0.042	U
GB-25 2-4	8/10/2015 11:39	205-99-2	Benzo[b]fluoranthene			0.042	U
GB-25 2-4	8/10/2015 11:39	84-66-2	Diethyl phthalate			0.041	U
GB-25 2-4	8/10/2015 11:39	101-55-3	4-Bromophenyl phenyl ether			0.04	U
GB-25 2-4	8/10/2015 11:39	208-96-8	Acenaphthylene			0.04	U
GB-25 2-4	8/10/2015 11:39	86-73-7	Fluorene			0.04	U
GB-25 2-4	8/10/2015 11:39	87-68-3	Hexachlorobutadiene			0.04	U
GB-25 2-4	8/10/2015 11:39	95-95-4	2,4,5-Trichlorophenol			0.039	U
GB-25 2-4	8/10/2015 11:39	120-83-2	2,4-Dichlorophenol			0.039	U
GB-25 2-4	8/10/2015 11:39	91-58-7	2-Chloronaphthalene			0.039	U
GB-25 2-4	8/10/2015 11:39	59-50-7	4-Chloro-3-methylphenol			0.039	U
GB-25 2-4	8/10/2015 11:39	131-11-3	Dimethyl phthalate			0.038	U
GB-25 2-4	8/10/2015 11:39	108-95-2	Phenol			0.038	U
GB-25 2-4	8/10/2015 11:39	132-64-9	Dibenzofuran			0.037	U
GB-25 2-4	8/10/2015 11:39	78-59-1	Isophorone			0.037	U
GB-25 2-4	8/10/2015 11:39	86-30-6	N-Nitrosodiphenylamine			0.037	U
GB-25 2-4	8/10/2015 11:39	206-44-0	Fluoranthene			0.036	U
GB-25 2-4	8/10/2015 11:39	621-64-7	N-Nitrosodi-n-propylamine			0.036	U
GB-25 2-4	8/10/2015 11:39	108-60-1	bis (2-chloroisopropyl) ether			0.033	U
GB-25 2-4	8/10/2015 11:39	86-74-8	Carbazole			0.033	U
GB-25 2-4	8/10/2015 11:39	84-74-2	Di-n-butyl phthalate			0.033	U
GB-25 2-4	8/10/2015 11:39	91-20-3	Naphthalene			0.033	U
GB-25 2-4	8/10/2015 11:39	88-06-2	2,4,6-Trichlorophenol			0.032	U
GB-25 2-4	8/10/2015 11:39	117-81-7	Bis(2-ethylhexyl) phthalate			0.032	U
GB-25 2-4	8/10/2015 11:39	117-84-0	Di-n-octyl phthalate			0.032	U
GB-25 2-4	8/10/2015 11:39	91-94-1	3,3'-Dichlorobenzidine			0.031	U
GB-25 2-4	8/10/2015 11:39	98-86-2	Acetophenone			0.031	U
GB-25 2-4	8/10/2015 11:39	67-72-1	Hexachloroethane			0.031	U
GB-25 2-4	8/10/2015 11:39	193-39-5	Indeno[1,2,3-cd]pyrene			0.031	U
GB-25 2-4	8/10/2015 11:39	95-48-7	2-Methylphenol			0.03	U
GB-25 2-4	8/10/2015 11:39	56-55-3	Benzo[a]anthracene			0.03	U
GB-25 2-4	8/10/2015 11:39	85-01-8	Phenanthrene			0.03	U
GB-25 2-4	8/10/2015 11:39	129-00-0	Pyrene			0.03	U
GB-25 2-4	8/10/2015 11:39	85-68-7	Butyl benzyl phthalate			0.029	U
GB-25 2-4	8/10/2015 11:39	98-95-3	Nitrobenzene			0.029	U
GB-25 2-4	8/10/2015 11:39	120-12-7	Anthracene			0.028	U
GB-25 2-4	8/10/2015 11:39	1912-24-9	Atrazine			0.026	U



Table 6. Analytical Summary Table - SVOCs

Macon MGP #2

Macon, Ga

Client Sample ID	Collection Date	CAS	Analyte by Method 8270D	Type 1 RRS (mg/kg)	Type 2 RRS (mg/kg)	Result (mg/kg)	Flag
GB-25 2-4	8/10/2015 11:39	191-24-2	Benzo[g,h,i]perylene			0.024	U
GB-25 2-4	8/10/2015 11:39	218-01-9	Chrysene			0.023	U
GB-25 2-4	8/10/2015 11:39	111-44-4	Bis(2-chloroethyl)ether			0.05	U *
GB-25 2-4	8/10/2015 11:39	321-60-8	2-Fluorobiphenyl	NL	NL	3.1	
GB-25 4-6	8/10/2015 11:42	206-44-0	Fluoranthene			0.25	J
GB-25 4-6	8/10/2015 11:42	129-00-0	Pyrene			0.2	J
GB-25 4-6	8/10/2015 11:42	205-99-2	Benzo[b]fluoranthene			0.18	J
GB-25 4-6	8/10/2015 11:42	56-55-3	Benzo[a]anthracene			0.14	J
GB-25 4-6	8/10/2015 11:42	85-01-8	Phenanthrene			0.13	J
GB-25 4-6	8/10/2015 11:42	50-32-8	Benzo[a]pyrene			0.12	J
GB-25 4-6	8/10/2015 11:42	218-01-9	Chrysene			0.12	J
GB-25 4-6	8/10/2015 11:42	193-39-5	Indeno[1,2,3-cd]pyrene			0.08	J
GB-25 4-6	8/10/2015 11:42	207-08-9	Benzo[k]fluoranthene			0.076	J
GB-25 4-6	8/10/2015 11:42	117-81-7	Bis(2-ethylhexyl) phthalate			0.12	J B
GB-25 4-6	8/10/2015 11:42	92-52-4	1,1'-Biphenyl			1.9	U
GB-25 4-6	8/10/2015 11:42	51-28-5	2,4-Dinitrophenol			0.93	U
GB-25 4-6	8/10/2015 11:42	100-02-7	4-Nitrophenol			0.37	U
GB-25 4-6	8/10/2015 11:42	87-86-5	Pentachlorophenol			0.37	U
GB-25 4-6	8/10/2015 11:42	534-52-1	4,6-Dinitro-2-methylphenol			0.19	U
GB-25 4-6	8/10/2015 11:42	105-60-2	Caprolactam			0.074	U
GB-25 4-6	8/10/2015 11:42	100-52-7	Benzaldehyde			0.065	U
GB-25 4-6	8/10/2015 11:42	106-47-8	4-Chloroaniline			0.058	U
GB-25 4-6	8/10/2015 11:42	121-14-2	2,4-Dinitrotoluene			0.055	U
GB-25 4-6	8/10/2015 11:42	100-01-6	4-Nitroaniline			0.055	U
GB-25 4-6	8/10/2015 11:42	99-09-2	3-Nitroaniline			0.051	U
GB-25 4-6	8/10/2015 11:42	88-74-4	2-Nitroaniline			0.05	U
GB-25 4-6	8/10/2015 11:42	105-67-9	2,4-Dimethylphenol			0.049	U
GB-25 4-6	8/10/2015 11:42	7005-72-3	4-Chlorophenyl phenyl ether			0.049	U
GB-25 4-6	8/10/2015 11:42	15831-10-4	3 & 4 Methylphenol			0.048	U
GB-25 4-6	8/10/2015 11:42	606-20-2	2,6-Dinitrotoluene			0.047	U
GB-25 4-6	8/10/2015 11:42	88-75-5	2-Nitrophenol			0.046	U
GB-25 4-6	8/10/2015 11:42	83-32-9	Acenaphthene			0.046	U
GB-25 4-6	8/10/2015 11:42	77-47-4	Hexachlorocyclopentadiene			0.046	U
GB-25 4-6	8/10/2015 11:42	95-57-8	2-Chlorophenol			0.045	U
GB-25 4-6	8/10/2015 11:42	111-91-1	Bis(2-chloroethoxy)methane			0.044	U
GB-25 4-6	8/10/2015 11:42	53-70-3	Dibenz(a,h)anthracene			0.044	U
GB-25 4-6	8/10/2015 11:42	118-74-1	Hexachlorobenzene			0.044	U
GB-25 4-6	8/10/2015 11:42	91-57-6	2-Methylnaphthalene			0.042	U
GB-25 4-6	8/10/2015 11:42	84-66-2	Diethyl phthalate			0.041	U
GB-25 4-6	8/10/2015 11:42	101-55-3	4-Bromophenyl phenyl ether			0.04	U
GB-25 4-6	8/10/2015 11:42	208-96-8	Acenaphthylene			0.04	U
GB-25 4-6	8/10/2015 11:42	86-73-7	Fluorene			0.04	U
GB-25 4-6	8/10/2015 11:42	87-68-3	Hexachlorobutadiene			0.04	U

Table 6. Analytical Summary Table - SVOCs

Macon MGP #2

Macon, Ga

Client Sample ID	Collection Date	CAS	Analyte by Method 8270D	Type 1 RRS (mg/kg)	Type 2 RRS (mg/kg)	Result (mg/kg)	Flag
GB-25 4-6	8/10/2015 11:42	95-95-4	2,4,5-Trichlorophenol			0.039	U
GB-25 4-6	8/10/2015 11:42	120-83-2	2,4-Dichlorophenol			0.039	U
GB-25 4-6	8/10/2015 11:42	91-58-7	2-Chloronaphthalene			0.039	U
GB-25 4-6	8/10/2015 11:42	59-50-7	4-Chloro-3-methylphenol			0.039	U
GB-25 4-6	8/10/2015 11:42	131-11-3	Dimethyl phthalate			0.038	U
GB-25 4-6	8/10/2015 11:42	108-95-2	Phenol			0.038	U
GB-25 4-6	8/10/2015 11:42	132-64-9	Dibenzofuran			0.037	U
GB-25 4-6	8/10/2015 11:42	78-59-1	Isophorone			0.037	U
GB-25 4-6	8/10/2015 11:42	86-30-6	N-Nitrosodiphenylamine			0.037	U
GB-25 4-6	8/10/2015 11:42	621-64-7	N-Nitrosodi-n-propylamine			0.036	U
GB-25 4-6	8/10/2015 11:42	108-60-1	bis (2-chloroisopropyl) ether			0.034	U
GB-25 4-6	8/10/2015 11:42	86-74-8	Carbazole			0.034	U
GB-25 4-6	8/10/2015 11:42	84-74-2	Di-n-butyl phthalate			0.034	U
GB-25 4-6	8/10/2015 11:42	91-20-3	Naphthalene			0.034	U
GB-25 4-6	8/10/2015 11:42	88-06-2	2,4,6-Trichlorophenol			0.032	U
GB-25 4-6	8/10/2015 11:42	117-84-0	Di-n-octyl phthalate			0.032	U
GB-25 4-6	8/10/2015 11:42	91-94-1	3,3'-Dichlorobenzidine			0.031	U
GB-25 4-6	8/10/2015 11:42	98-86-2	Acetophenone			0.031	U
GB-25 4-6	8/10/2015 11:42	67-72-1	Hexachloroethane			0.031	U
GB-25 4-6	8/10/2015 11:42	95-48-7	2-Methylphenol			0.03	U
GB-25 4-6	8/10/2015 11:42	85-68-7	Butyl benzyl phthalate			0.029	U
GB-25 4-6	8/10/2015 11:42	98-95-3	Nitrobenzene			0.029	U
GB-25 4-6	8/10/2015 11:42	120-12-7	Anthracene			0.028	U
GB-25 4-6	8/10/2015 11:42	1912-24-9	Atrazine			0.026	U
GB-25 4-6	8/10/2015 11:42	191-24-2	Benzo[g,h,i]perylene			0.025	U
GB-25 4-6	8/10/2015 11:42	111-44-4	Bis(2-chloroethyl)ether			0.05	U *
GB-25 4-6	8/10/2015 11:42	321-60-8	2-Fluorobiphenyl	NL	NL	3	
GB-26 2-4	8/10/2015 12:20	321-60-8	2-Fluorobiphenyl			0	D
GB-26 2-4	8/10/2015 12:20	129-00-0	Pyrene			0.37	J
GB-26 2-4	8/10/2015 12:20	218-01-9	Chrysene			0.26	J
GB-26 2-4	8/10/2015 12:20	92-52-4	1,1'-Biphenyl			18	U
GB-26 2-4	8/10/2015 12:20	51-28-5	2,4-Dinitrophenol			8.8	U
GB-26 2-4	8/10/2015 12:20	100-02-7	4-Nitrophenol			3.5	U
GB-26 2-4	8/10/2015 12:20	87-86-5	Pentachlorophenol			3.5	U
GB-26 2-4	8/10/2015 12:20	534-52-1	4,6-Dinitro-2-methylphenol			1.8	U
GB-26 2-4	8/10/2015 12:20	105-60-2	Caprolactam			0.7	U
GB-26 2-4	8/10/2015 12:20	207-08-9	Benzo[k]fluoranthene			0.69	U
GB-26 2-4	8/10/2015 12:20	100-52-7	Benzaldehyde			0.61	U
GB-26 2-4	8/10/2015 12:20	106-47-8	4-Chloroaniline			0.55	U
GB-26 2-4	8/10/2015 12:20	50-32-8	Benzo[a]pyrene			0.55	U
GB-26 2-4	8/10/2015 12:20	121-14-2	2,4-Dinitrotoluene			0.52	U
GB-26 2-4	8/10/2015 12:20	100-01-6	4-Nitroaniline			0.52	U
GB-26 2-4	8/10/2015 12:20	99-09-2	3-Nitroaniline			0.49	U

Table 6. Analytical Summary Table - SVOCs

Macon MGP #2

Macon, Ga

Client Sample ID	Collection Date	CAS	Analyte by Method 8270D	Type 1 RRS (mg/kg)	Type 2 RRS (mg/kg)	Result (mg/kg)	Flag
GB-26 2-4	8/10/2015 12:20	88-74-4	2-Nitroaniline			0.47	U
GB-26 2-4	8/10/2015 12:20	111-44-4	Bis(2-chloroethyl)ether			0.47	U
GB-26 2-4	8/10/2015 12:20	105-67-9	2,4-Dimethylphenol			0.46	U
GB-26 2-4	8/10/2015 12:20	7005-72-3	4-Chlorophenyl phenyl ether			0.46	U
GB-26 2-4	8/10/2015 12:20	15831-10-4	3 & 4 Methylphenol			0.45	U
GB-26 2-4	8/10/2015 12:20	606-20-2	2,6-Dinitrotoluene			0.44	U
GB-26 2-4	8/10/2015 12:20	88-75-5	2-Nitrophenol			0.43	U
GB-26 2-4	8/10/2015 12:20	83-32-9	Acenaphthene			0.43	U
GB-26 2-4	8/10/2015 12:20	77-47-4	Hexachlorocyclopentadiene			0.43	U
GB-26 2-4	8/10/2015 12:20	95-57-8	2-Chlorophenol			0.42	U
GB-26 2-4	8/10/2015 12:20	111-91-1	Bis(2-chloroethoxy)methane			0.41	U
GB-26 2-4	8/10/2015 12:20	53-70-3	Dibenz(a,h)anthracene			0.41	U
GB-26 2-4	8/10/2015 12:20	118-74-1	Hexachlorobenzene			0.41	U
GB-26 2-4	8/10/2015 12:20	91-57-6	2-Methylnaphthalene			0.4	U
GB-26 2-4	8/10/2015 12:20	205-99-2	Benzo[b]fluoranthene			0.4	U
GB-26 2-4	8/10/2015 12:20	84-66-2	Diethyl phthalate			0.39	U
GB-26 2-4	8/10/2015 12:20	101-55-3	4-Bromophenyl phenyl ether			0.38	U
GB-26 2-4	8/10/2015 12:20	208-96-8	Acenaphthylene			0.38	U
GB-26 2-4	8/10/2015 12:20	86-73-7	Fluorene			0.38	U
GB-26 2-4	8/10/2015 12:20	87-68-3	Hexachlorobutadiene			0.38	U
GB-26 2-4	8/10/2015 12:20	95-95-4	2,4,5-Trichlorophenol			0.37	U
GB-26 2-4	8/10/2015 12:20	120-83-2	2,4-Dichlorophenol			0.37	U
GB-26 2-4	8/10/2015 12:20	91-58-7	2-Chloronaphthalene			0.37	U
GB-26 2-4	8/10/2015 12:20	59-50-7	4-Chloro-3-methylphenol			0.37	U
GB-26 2-4	8/10/2015 12:20	131-11-3	Dimethyl phthalate			0.36	U
GB-26 2-4	8/10/2015 12:20	108-95-2	Phenol			0.36	U
GB-26 2-4	8/10/2015 12:20	132-64-9	Dibenzofuran			0.35	U
GB-26 2-4	8/10/2015 12:20	78-59-1	Isophorone			0.35	U
GB-26 2-4	8/10/2015 12:20	86-30-6	N-Nitrosodiphenylamine			0.35	U
GB-26 2-4	8/10/2015 12:20	206-44-0	Fluoranthene			0.34	U
GB-26 2-4	8/10/2015 12:20	621-64-7	N-Nitrosodi-n-propylamine			0.34	U
GB-26 2-4	8/10/2015 12:20	108-60-1	bis (2-chloroisopropyl) ether			0.32	U
GB-26 2-4	8/10/2015 12:20	86-74-8	Carbazole			0.32	U
GB-26 2-4	8/10/2015 12:20	84-74-2	Di-n-butyl phthalate			0.32	U
GB-26 2-4	8/10/2015 12:20	91-20-3	Naphthalene			0.32	U
GB-26 2-4	8/10/2015 12:20	88-06-2	2,4,6-Trichlorophenol			0.31	U
GB-26 2-4	8/10/2015 12:20	117-81-7	Bis(2-ethylhexyl) phthalate			0.31	U
GB-26 2-4	8/10/2015 12:20	117-84-0	Di-n-octyl phthalate			0.31	U
GB-26 2-4	8/10/2015 12:20	91-94-1	3,3'-Dichlorobenzidine			0.3	U
GB-26 2-4	8/10/2015 12:20	98-86-2	Acetophenone			0.3	U
GB-26 2-4	8/10/2015 12:20	67-72-1	Hexachloroethane			0.3	U
GB-26 2-4	8/10/2015 12:20	193-39-5	Indeno[1,2,3-cd]pyrene			0.3	U
GB-26 2-4	8/10/2015 12:20	95-48-7	2-Methylphenol			0.28	U

Table 6. Analytical Summary Table - SVOCs

Macon MGP #2

Macon, Ga

Client Sample ID	Collection Date	CAS	Analyte by Method 8270D	Type 1 RRS (mg/kg)	Type 2 RRS (mg/kg)	Result (mg/kg)	Flag
GB-26 2-4	8/10/2015 12:20	56-55-3	Benzo[a]anthracene			0.28	U
GB-26 2-4	8/10/2015 12:20	85-01-8	Phenanthrene			0.28	U
GB-26 2-4	8/10/2015 12:20	85-68-7	Butyl benzyl phthalate			0.27	U
GB-26 2-4	8/10/2015 12:20	98-95-3	Nitrobenzene			0.27	U
GB-26 2-4	8/10/2015 12:20	120-12-7	Anthracene			0.26	U
GB-26 2-4	8/10/2015 12:20	1912-24-9	Atrazine			0.24	U
GB-26 2-4	8/10/2015 12:20	191-24-2	Benzo[g,h,i]perylene			0.23	U
GB-26 4-6	8/10/2015 12:25	206-44-0	Fluoranthene			0.36	J
GB-26 4-6	8/10/2015 12:25	129-00-0	Pyrene			0.28	J
GB-26 4-6	8/10/2015 12:25	205-99-2	Benzo[b]fluoranthene			0.26	J
GB-26 4-6	8/10/2015 12:25	56-55-3	Benzo[a]anthracene			0.21	J
GB-26 4-6	8/10/2015 12:25	85-01-8	Phenanthrene			0.19	J
GB-26 4-6	8/10/2015 12:25	218-01-9	Chrysene			0.18	J
GB-26 4-6	8/10/2015 12:25	191-24-2	Benzo[g,h,i]perylene			0.15	J
GB-26 4-6	8/10/2015 12:25	92-52-4	1,1'-Biphenyl			9.6	U
GB-26 4-6	8/10/2015 12:25	51-28-5	2,4-Dinitrophenol			4.7	U
GB-26 4-6	8/10/2015 12:25	100-02-7	4-Nitrophenol			1.9	U
GB-26 4-6	8/10/2015 12:25	87-86-5	Pentachlorophenol			1.9	U
GB-26 4-6	8/10/2015 12:25	534-52-1	4,6-Dinitro-2-methylphenol			0.96	U
GB-26 4-6	8/10/2015 12:25	207-08-9	Benzo[k]fluoranthene			0.37	U
GB-26 4-6	8/10/2015 12:25	105-60-2	Caprolactam			0.37	U
GB-26 4-6	8/10/2015 12:25	100-52-7	Benzaldehyde			0.33	U
GB-26 4-6	8/10/2015 12:25	106-47-8	4-Chloroaniline			0.29	U
GB-26 4-6	8/10/2015 12:25	50-32-8	Benzo[a]pyrene			0.29	U
GB-26 4-6	8/10/2015 12:25	121-14-2	2,4-Dinitrotoluene			0.28	U
GB-26 4-6	8/10/2015 12:25	100-01-6	4-Nitroaniline			0.28	U
GB-26 4-6	8/10/2015 12:25	99-09-2	3-Nitroaniline			0.26	U
GB-26 4-6	8/10/2015 12:25	105-67-9	2,4-Dimethylphenol			0.25	U
GB-26 4-6	8/10/2015 12:25	88-74-4	2-Nitroaniline			0.25	U
GB-26 4-6	8/10/2015 12:25	7005-72-3	4-Chlorophenyl phenyl ether			0.25	U
GB-26 4-6	8/10/2015 12:25	606-20-2	2,6-Dinitrotoluene			0.24	U
GB-26 4-6	8/10/2015 12:25	15831-10-4	3 & 4 Methylphenol			0.24	U
GB-26 4-6	8/10/2015 12:25	88-75-5	2-Nitrophenol			0.23	U
GB-26 4-6	8/10/2015 12:25	83-32-9	Acenaphthene			0.23	U
GB-26 4-6	8/10/2015 12:25	77-47-4	Hexachlorocyclopentadiene			0.23	U
GB-26 4-6	8/10/2015 12:25	95-57-8	2-Chlorophenol			0.22	U
GB-26 4-6	8/10/2015 12:25	111-91-1	Bis(2-chloroethoxy)methane			0.22	U
GB-26 4-6	8/10/2015 12:25	53-70-3	Dibenz(a,h)anthracene			0.22	U
GB-26 4-6	8/10/2015 12:25	118-74-1	Hexachlorobenzene			0.22	U
GB-26 4-6	8/10/2015 12:25	91-57-6	2-Methylnaphthalene			0.21	U
GB-26 4-6	8/10/2015 12:25	84-66-2	Diethyl phthalate			0.21	U
GB-26 4-6	8/10/2015 12:25	95-95-4	2,4,5-Trichlorophenol			0.2	U
GB-26 4-6	8/10/2015 12:25	120-83-2	2,4-Dichlorophenol			0.2	U

Table 6. Analytical Summary Table - SVOCs  
Macon MGP #2  
Macon, Ga

Client Sample ID	Collection Date	CAS	Analyte by Method 8270D	Type 1 RRS (mg/kg)	Type 2 RRS (mg/kg)	Result (mg/kg)	Flag
GB-26 4-6	8/10/2015 12:25	91-58-7	2-Chloronaphthalene			0.2	U
GB-26 4-6	8/10/2015 12:25	101-55-3	4-Bromophenyl phenyl ether			0.2	U
GB-26 4-6	8/10/2015 12:25	59-50-7	4-Chloro-3-methylphenol			0.2	U
GB-26 4-6	8/10/2015 12:25	208-96-8	Acenaphthylene			0.2	U
GB-26 4-6	8/10/2015 12:25	86-73-7	Fluorene			0.2	U
GB-26 4-6	8/10/2015 12:25	87-68-3	Hexachlorobutadiene			0.2	U
GB-26 4-6	8/10/2015 12:25	132-64-9	Dibenzofuran			0.19	U
GB-26 4-6	8/10/2015 12:25	131-11-3	Dimethyl phthalate			0.19	U
GB-26 4-6	8/10/2015 12:25	78-59-1	Isophorone			0.19	U
GB-26 4-6	8/10/2015 12:25	86-30-6	N-Nitrosodiphenylamine			0.19	U
GB-26 4-6	8/10/2015 12:25	108-95-2	Phenol			0.19	U
GB-26 4-6	8/10/2015 12:25	621-64-7	N-Nitrosodi-n-propylamine			0.18	U
GB-26 4-6	8/10/2015 12:25	108-60-1	bis (2-chloroisopropyl) ether			0.17	U
GB-26 4-6	8/10/2015 12:25	86-74-8	Carbazole			0.17	U
GB-26 4-6	8/10/2015 12:25	84-74-2	Di-n-butyl phthalate			0.17	U
GB-26 4-6	8/10/2015 12:25	91-20-3	Naphthalene			0.17	U
GB-26 4-6	8/10/2015 12:25	88-06-2	2,4,6-Trichlorophenol			0.16	U
GB-26 4-6	8/10/2015 12:25	91-94-1	3,3'-Dichlorobenzidine			0.16	U
GB-26 4-6	8/10/2015 12:25	98-86-2	Acetophenone			0.16	U
GB-26 4-6	8/10/2015 12:25	117-81-7	Bis(2-ethylhexyl) phthalate			0.16	U
GB-26 4-6	8/10/2015 12:25	117-84-0	Di-n-octyl phthalate			0.16	U
GB-26 4-6	8/10/2015 12:25	67-72-1	Hexachloroethane			0.16	U
GB-26 4-6	8/10/2015 12:25	193-39-5	Indeno[1,2,3-cd]pyrene			0.16	U
GB-26 4-6	8/10/2015 12:25	95-48-7	2-Methylphenol			0.15	U
GB-26 4-6	8/10/2015 12:25	85-68-7	Butyl benzyl phthalate			0.15	U
GB-26 4-6	8/10/2015 12:25	98-95-3	Nitrobenzene			0.15	U
GB-26 4-6	8/10/2015 12:25	120-12-7	Anthracene			0.14	U
GB-26 4-6	8/10/2015 12:25	1912-24-9	Atrazine			0.13	U
GB-26 4-6	8/10/2015 12:25	111-44-4	Bis(2-chloroethyl)ether			0.25	U *
GB-26 4-6	8/10/2015 12:25	321-60-8	2-Fluorobiphenyl	NL	NL	2.8	
GB-27 13-15	8/10/2015 12:48	321-60-8	2-Fluorobiphenyl			0	D
GB-27 13-15	8/10/2015 12:48	129-00-0	Pyrene			0.63	J
GB-27 13-15	8/10/2015 12:48	206-44-0	Fluoranthene			0.61	J
GB-27 13-15	8/10/2015 12:48	205-99-2	Benzo[b]fluoranthene			0.46	J
GB-27 13-15	8/10/2015 12:48	56-55-3	Benzo[a]anthracene			0.37	J
GB-27 13-15	8/10/2015 12:48	218-01-9	Chrysene			0.35	J
GB-27 13-15	8/10/2015 12:48	85-01-8	Phenanthrene			0.34	J
GB-27 13-15	8/10/2015 12:48	191-24-2	Benzo[g,h,i]perylene			0.32	J
GB-27 13-15	8/10/2015 12:48	92-52-4	1,1'-Biphenyl			20	U
GB-27 13-15	8/10/2015 12:48	51-28-5	2,4-Dinitrophenol			9.7	U
GB-27 13-15	8/10/2015 12:48	100-02-7	4-Nitrophenol			3.9	U
GB-27 13-15	8/10/2015 12:48	87-86-5	Pentachlorophenol			3.9	U
GB-27 13-15	8/10/2015 12:48	534-52-1	4,6-Dinitro-2-methylphenol			2	U

Table 6. Analytical Summary Table - SVOCs

Macon MGP #2

Macon, Ga

Client Sample ID	Collection Date	CAS	Analyte by Method 8270D	Type 1 RRS (mg/kg)	Type 2 RRS (mg/kg)	Result (mg/kg)	Flag
GB-27 13-15	8/10/2015 12:48	105-60-2	Caprolactam			0.77	U
GB-27 13-15	8/10/2015 12:48	207-08-9	Benzo[k]fluoranthene			0.76	U
GB-27 13-15	8/10/2015 12:48	100-52-7	Benzaldehyde			0.68	U
GB-27 13-15	8/10/2015 12:48	106-47-8	4-Chloroaniline			0.61	U
GB-27 13-15	8/10/2015 12:48	50-32-8	Benzo[a]pyrene			0.61	U
GB-27 13-15	8/10/2015 12:48	121-14-2	2,4-Dinitrotoluene			0.57	U
GB-27 13-15	8/10/2015 12:48	100-01-6	4-Nitroaniline			0.57	U
GB-27 13-15	8/10/2015 12:48	99-09-2	3-Nitroaniline			0.54	U
GB-27 13-15	8/10/2015 12:48	88-74-4	2-Nitroaniline			0.53	U
GB-27 13-15	8/10/2015 12:48	105-67-9	2,4-Dimethylphenol			0.51	U
GB-27 13-15	8/10/2015 12:48	7005-72-3	4-Chlorophenyl phenyl ether			0.51	U
GB-27 13-15	8/10/2015 12:48	15831-10-4	3 & 4 Methylphenol			0.5	U
GB-27 13-15	8/10/2015 12:48	606-20-2	2,6-Dinitrotoluene			0.49	U
GB-27 13-15	8/10/2015 12:48	88-75-5	2-Nitrophenol			0.48	U
GB-27 13-15	8/10/2015 12:48	83-32-9	Acenaphthene			0.48	U
GB-27 13-15	8/10/2015 12:48	77-47-4	Hexachlorocyclopentadiene			0.48	U
GB-27 13-15	8/10/2015 12:48	95-57-8	2-Chlorophenol			0.47	U
GB-27 13-15	8/10/2015 12:48	111-91-1	Bis(2-chloroethoxy)methane			0.46	U
GB-27 13-15	8/10/2015 12:48	53-70-3	Dibenz(a,h)anthracene			0.46	U
GB-27 13-15	8/10/2015 12:48	118-74-1	Hexachlorobenzene			0.46	U
GB-27 13-15	8/10/2015 12:48	91-57-6	2-Methylnaphthalene			0.44	U
GB-27 13-15	8/10/2015 12:48	84-66-2	Diethyl phthalate			0.43	U
GB-27 13-15	8/10/2015 12:48	101-55-3	4-Bromophenyl phenyl ether			0.42	U
GB-27 13-15	8/10/2015 12:48	208-96-8	Acenaphthylene			0.42	U
GB-27 13-15	8/10/2015 12:48	86-73-7	Fluorene			0.42	U
GB-27 13-15	8/10/2015 12:48	87-68-3	Hexachlorobutadiene			0.42	U
GB-27 13-15	8/10/2015 12:48	95-95-4	2,4,5-Trichlorophenol			0.41	U
GB-27 13-15	8/10/2015 12:48	120-83-2	2,4-Dichlorophenol			0.41	U
GB-27 13-15	8/10/2015 12:48	91-58-7	2-Chloronaphthalene			0.41	U
GB-27 13-15	8/10/2015 12:48	59-50-7	4-Chloro-3-methylphenol			0.41	U
GB-27 13-15	8/10/2015 12:48	131-11-3	Dimethyl phthalate			0.4	U
GB-27 13-15	8/10/2015 12:48	108-95-2	Phenol			0.4	U
GB-27 13-15	8/10/2015 12:48	132-64-9	Dibenzofuran			0.39	U
GB-27 13-15	8/10/2015 12:48	78-59-1	Isophorone			0.39	U
GB-27 13-15	8/10/2015 12:48	86-30-6	N-Nitrosodiphenylamine			0.39	U
GB-27 13-15	8/10/2015 12:48	621-64-7	N-Nitrosodi-n-propylamine			0.37	U
GB-27 13-15	8/10/2015 12:48	108-60-1	bis (2-chloroisopropyl) ether			0.35	U
GB-27 13-15	8/10/2015 12:48	86-74-8	Carbazole			0.35	U
GB-27 13-15	8/10/2015 12:48	84-74-2	Di-n-butyl phthalate			0.35	U
GB-27 13-15	8/10/2015 12:48	91-20-3	Naphthalene			0.35	U
GB-27 13-15	8/10/2015 12:48	88-06-2	2,4,6-Trichlorophenol			0.34	U
GB-27 13-15	8/10/2015 12:48	117-81-7	Bis(2-ethylhexyl) phthalate			0.34	U
GB-27 13-15	8/10/2015 12:48	117-84-0	Di-n-octyl phthalate			0.34	U

Table 6. Analytical Summary Table - SVOCs

Macon MGP #2

Macon, Ga

Client Sample ID	Collection Date	CAS	Analyte by Method 8270D	Type 1 RRS (mg/kg)	Type 2 RRS (mg/kg)	Result (mg/kg)	Flag
GB-27 13-15	8/10/2015 12:48	91-94-1	3,3'-Dichlorobenzidine			0.33	U
GB-27 13-15	8/10/2015 12:48	98-86-2	Acetophenone			0.33	U
GB-27 13-15	8/10/2015 12:48	67-72-1	Hexachloroethane			0.33	U
GB-27 13-15	8/10/2015 12:48	193-39-5	Indeno[1,2,3-cd]pyrene			0.33	U
GB-27 13-15	8/10/2015 12:48	95-48-7	2-Methylphenol			0.32	U
GB-27 13-15	8/10/2015 12:48	85-68-7	Butyl benzyl phthalate			0.3	U
GB-27 13-15	8/10/2015 12:48	98-95-3	Nitrobenzene			0.3	U
GB-27 13-15	8/10/2015 12:48	120-12-7	Anthracene			0.29	U
GB-27 13-15	8/10/2015 12:48	1912-24-9	Atrazine			0.27	U
GB-27 13-15	8/10/2015 12:48	111-44-4	Bis(2-chloroethyl)ether			0.53	U *
GB-27 3-5	8/10/2015 12:33	321-60-8	2-Fluorobiphenyl			0	D
GB-27 3-5	8/10/2015 12:33	205-99-2	Benzo[b]fluoranthene			3.8	J
GB-27 3-5	8/10/2015 12:33	56-55-3	Benzo[a]anthracene			3.4	J
GB-27 3-5	8/10/2015 12:33	218-01-9	Chrysene			3.4	J
GB-27 3-5	8/10/2015 12:33	50-32-8	Benzo[a]pyrene			2.9	J
GB-27 3-5	8/10/2015 12:33	191-24-2	Benzo[g,h,i]perylene			2.1	J
GB-27 3-5	8/10/2015 12:33	207-08-9	Benzo[k]fluoranthene			2	J
GB-27 3-5	8/10/2015 12:33	193-39-5	Indeno[1,2,3-cd]pyrene			1.8	J
GB-27 3-5	8/10/2015 12:33	120-12-7	Anthracene			1.4	J
GB-27 3-5	8/10/2015 12:33	86-74-8	Carbazole			1.2	J
GB-27 3-5	8/10/2015 12:33	86-73-7	Fluorene			0.69	J
GB-27 3-5	8/10/2015 12:33	53-70-3	Dibenz(a,h)anthracene			0.63	J
GB-27 3-5	8/10/2015 12:33	92-52-4	1,1'-Biphenyl			24	U
GB-27 3-5	8/10/2015 12:33	51-28-5	2,4-Dinitrophenol			12	U
GB-27 3-5	8/10/2015 12:33	100-02-7	4-Nitrophenol			4.7	U
GB-27 3-5	8/10/2015 12:33	87-86-5	Pentachlorophenol			4.7	U
GB-27 3-5	8/10/2015 12:33	534-52-1	4,6-Dinitro-2-methylphenol			2.4	U
GB-27 3-5	8/10/2015 12:33	105-60-2	Caprolactam			0.95	U
GB-27 3-5	8/10/2015 12:33	100-52-7	Benzaldehyde			0.83	U
GB-27 3-5	8/10/2015 12:33	106-47-8	4-Chloroaniline			0.75	U
GB-27 3-5	8/10/2015 12:33	121-14-2	2,4-Dinitrotoluene			0.7	U
GB-27 3-5	8/10/2015 12:33	100-01-6	4-Nitroaniline			0.7	U
GB-27 3-5	8/10/2015 12:33	99-09-2	3-Nitroaniline			0.66	U
GB-27 3-5	8/10/2015 12:33	88-74-4	2-Nitroaniline			0.65	U
GB-27 3-5	8/10/2015 12:33	111-44-4	Bis(2-chloroethyl)ether			0.65	U
GB-27 3-5	8/10/2015 12:33	105-67-9	2,4-Dimethylphenol			0.63	U
GB-27 3-5	8/10/2015 12:33	7005-72-3	4-Chlorophenyl phenyl ether			0.63	U
GB-27 3-5	8/10/2015 12:33	15831-10-4	3 & 4 Methylphenol			0.62	U
GB-27 3-5	8/10/2015 12:33	606-20-2	2,6-Dinitrotoluene			0.6	U
GB-27 3-5	8/10/2015 12:33	88-75-5	2-Nitrophenol			0.59	U
GB-27 3-5	8/10/2015 12:33	83-32-9	Acenaphthene			0.59	U
GB-27 3-5	8/10/2015 12:33	77-47-4	Hexachlorocyclopentadiene			0.59	U
GB-27 3-5	8/10/2015 12:33	95-57-8	2-Chlorophenol			0.57	U



Table 6. Analytical Summary Table - SVOCs

Macon MGP #2

Macon, Ga

Client Sample ID	Collection Date	CAS	Analyte by Method 8270D	Type 1 RRS (mg/kg)	Type 2 RRS (mg/kg)	Result (mg/kg)	Flag
GB-27 3-5	8/10/2015 12:33	111-91-1	Bis(2-chloroethoxy)methane			0.56	U
GB-27 3-5	8/10/2015 12:33	118-74-1	Hexachlorobenzene			0.56	U
GB-27 3-5	8/10/2015 12:33	91-57-6	2-Methylnaphthalene			0.55	U
GB-27 3-5	8/10/2015 12:33	84-66-2	Diethyl phthalate			0.53	U
GB-27 3-5	8/10/2015 12:33	101-55-3	4-Bromophenyl phenyl ether			0.52	U
GB-27 3-5	8/10/2015 12:33	208-96-8	Acenaphthylene			0.52	U
GB-27 3-5	8/10/2015 12:33	87-68-3	Hexachlorobutadiene			0.52	U
GB-27 3-5	8/10/2015 12:33	95-95-4	2,4,5-Trichlorophenol			0.5	U
GB-27 3-5	8/10/2015 12:33	120-83-2	2,4-Dichlorophenol			0.5	U
GB-27 3-5	8/10/2015 12:33	91-58-7	2-Chloronaphthalene			0.5	U
GB-27 3-5	8/10/2015 12:33	59-50-7	4-Chloro-3-methylphenol			0.5	U
GB-27 3-5	8/10/2015 12:33	131-11-3	Dimethyl phthalate			0.49	U
GB-27 3-5	8/10/2015 12:33	108-95-2	Phenol			0.49	U
GB-27 3-5	8/10/2015 12:33	132-64-9	Dibenzofuran			0.47	U
GB-27 3-5	8/10/2015 12:33	78-59-1	Isophorone			0.47	U
GB-27 3-5	8/10/2015 12:33	86-30-6	N-Nitrosodiphenylamine			0.47	U
GB-27 3-5	8/10/2015 12:33	621-64-7	N-Nitrosodi-n-propylamine			0.46	U
GB-27 3-5	8/10/2015 12:33	108-60-1	bis (2-chloroisopropyl) ether			0.43	U
GB-27 3-5	8/10/2015 12:33	84-74-2	Di-n-butyl phthalate			0.43	U
GB-27 3-5	8/10/2015 12:33	91-20-3	Naphthalene			0.43	U
GB-27 3-5	8/10/2015 12:33	88-06-2	2,4,6-Trichlorophenol			0.42	U
GB-27 3-5	8/10/2015 12:33	117-81-7	Bis(2-ethylhexyl) phthalate			0.42	U
GB-27 3-5	8/10/2015 12:33	117-84-0	Di-n-octyl phthalate			0.42	U
GB-27 3-5	8/10/2015 12:33	91-94-1	3,3'-Dichlorobenzidine			0.4	U
GB-27 3-5	8/10/2015 12:33	98-86-2	Acetophenone			0.4	U
GB-27 3-5	8/10/2015 12:33	67-72-1	Hexachloroethane			0.4	U
GB-27 3-5	8/10/2015 12:33	95-48-7	2-Methylphenol			0.39	U
GB-27 3-5	8/10/2015 12:33	85-68-7	Butyl benzyl phthalate			0.37	U
GB-27 3-5	8/10/2015 12:33	98-95-3	Nitrobenzene			0.37	U
GB-27 3-5	8/10/2015 12:33	1912-24-9	Atrazine			0.33	U
GB-27 3-5	8/10/2015 12:33	206-44-0	Fluoranthene	500	3,130	7.3	
GB-27 3-5	8/10/2015 12:33	85-01-8	Phenanthrene	110	2,350	5.5	
GB-27 3-5	8/10/2015 12:33	129-00-0	Pyrene	500	2,350	5.3	
GB-27 8-10	8/10/2015 12:45	321-60-8	2-Fluorobiphenyl			0	D
GB-27 8-10	8/10/2015 12:45	206-44-0	Fluoranthene			0.53	J
GB-27 8-10	8/10/2015 12:45	85-01-8	Phenanthrene			0.42	J
GB-27 8-10	8/10/2015 12:45	129-00-0	Pyrene			0.41	J
GB-27 8-10	8/10/2015 12:45	218-01-9	Chrysene			0.23	J
GB-27 8-10	8/10/2015 12:45	92-52-4	1,1'-Biphenyl			19	U
GB-27 8-10	8/10/2015 12:45	51-28-5	2,4-Dinitrophenol			9.1	U
GB-27 8-10	8/10/2015 12:45	100-02-7	4-Nitrophenol			3.6	U
GB-27 8-10	8/10/2015 12:45	87-86-5	Pentachlorophenol			3.6	U
GB-27 8-10	8/10/2015 12:45	534-52-1	4,6-Dinitro-2-methylphenol			1.9	U

Table 6. Analytical Summary Table - SVOCs

Macon MGP #2

Macon, Ga

Client Sample ID	Collection Date	CAS	Analyte by Method 8270D	Type 1 RRS (mg/kg)	Type 2 RRS (mg/kg)	Result (mg/kg)	Flag
GB-27 8-10	8/10/2015 12:45	105-60-2	Caprolactam			0.72	U
GB-27 8-10	8/10/2015 12:45	207-08-9	Benzo[k]fluoranthene			0.71	U
GB-27 8-10	8/10/2015 12:45	100-52-7	Benzaldehyde			0.64	U
GB-27 8-10	8/10/2015 12:45	106-47-8	4-Chloroaniline			0.57	U
GB-27 8-10	8/10/2015 12:45	50-32-8	Benzo[a]pyrene			0.57	U
GB-27 8-10	8/10/2015 12:45	121-14-2	2,4-Dinitrotoluene			0.54	U
GB-27 8-10	8/10/2015 12:45	100-01-6	4-Nitroaniline			0.54	U
GB-27 8-10	8/10/2015 12:45	99-09-2	3-Nitroaniline			0.5	U
GB-27 8-10	8/10/2015 12:45	88-74-4	2-Nitroaniline			0.49	U
GB-27 8-10	8/10/2015 12:45	105-67-9	2,4-Dimethylphenol			0.48	U
GB-27 8-10	8/10/2015 12:45	7005-72-3	4-Chlorophenyl phenyl ether			0.48	U
GB-27 8-10	8/10/2015 12:45	15831-10-4	3 & 4 Methylphenol			0.47	U
GB-27 8-10	8/10/2015 12:45	606-20-2	2,6-Dinitrotoluene			0.46	U
GB-27 8-10	8/10/2015 12:45	88-75-5	2-Nitrophenol			0.45	U
GB-27 8-10	8/10/2015 12:45	83-32-9	Acenaphthene			0.45	U
GB-27 8-10	8/10/2015 12:45	77-47-4	Hexachlorocyclopentadiene			0.45	U
GB-27 8-10	8/10/2015 12:45	95-57-8	2-Chlorophenol			0.44	U
GB-27 8-10	8/10/2015 12:45	111-91-1	Bis(2-chloroethoxy)methane			0.43	U
GB-27 8-10	8/10/2015 12:45	53-70-3	Dibenz(a,h)anthracene			0.43	U
GB-27 8-10	8/10/2015 12:45	118-74-1	Hexachlorobenzene			0.43	U
GB-27 8-10	8/10/2015 12:45	91-57-6	2-Methylnaphthalene			0.42	U
GB-27 8-10	8/10/2015 12:45	205-99-2	Benzo[b]fluoranthene			0.42	U
GB-27 8-10	8/10/2015 12:45	84-66-2	Diethyl phthalate			0.41	U
GB-27 8-10	8/10/2015 12:45	101-55-3	4-Bromophenyl phenyl ether			0.39	U
GB-27 8-10	8/10/2015 12:45	208-96-8	Acenaphthylene			0.39	U
GB-27 8-10	8/10/2015 12:45	86-73-7	Fluorene			0.39	U
GB-27 8-10	8/10/2015 12:45	87-68-3	Hexachlorobutadiene			0.39	U
GB-27 8-10	8/10/2015 12:45	95-95-4	2,4,5-Trichlorophenol			0.38	U
GB-27 8-10	8/10/2015 12:45	120-83-2	2,4-Dichlorophenol			0.38	U
GB-27 8-10	8/10/2015 12:45	91-58-7	2-Chloronaphthalene			0.38	U
GB-27 8-10	8/10/2015 12:45	59-50-7	4-Chloro-3-methylphenol			0.38	U
GB-27 8-10	8/10/2015 12:45	131-11-3	Dimethyl phthalate			0.37	U
GB-27 8-10	8/10/2015 12:45	108-95-2	Phenol			0.37	U
GB-27 8-10	8/10/2015 12:45	132-64-9	Dibenzofuran			0.36	U
GB-27 8-10	8/10/2015 12:45	78-59-1	Isophorone			0.36	U
GB-27 8-10	8/10/2015 12:45	86-30-6	N-Nitrosodiphenylamine			0.36	U
GB-27 8-10	8/10/2015 12:45	621-64-7	N-Nitrosodi-n-propylamine			0.35	U
GB-27 8-10	8/10/2015 12:45	108-60-1	bis (2-chloroisopropyl) ether			0.33	U
GB-27 8-10	8/10/2015 12:45	86-74-8	Carbazole			0.33	U
GB-27 8-10	8/10/2015 12:45	84-74-2	Di-n-butyl phthalate			0.33	U
GB-27 8-10	8/10/2015 12:45	91-20-3	Naphthalene			0.33	U
GB-27 8-10	8/10/2015 12:45	88-06-2	2,4,6-Trichlorophenol			0.32	U
GB-27 8-10	8/10/2015 12:45	117-81-7	Bis(2-ethylhexyl) phthalate			0.32	U

Table 6. Analytical Summary Table - SVOCs

Macon MGP #2

Macon, Ga

Client Sample ID	Collection Date	CAS	Analyte by Method 8270D	Type 1 RRS (mg/kg)	Type 2 RRS (mg/kg)	Result (mg/kg)	Flag
GB-27 8-10	8/10/2015 12:45	117-84-0	Di-n-octyl phthalate			0.32	U
GB-27 8-10	8/10/2015 12:45	91-94-1	3,3'-Dichlorobenzidine			0.31	U
GB-27 8-10	8/10/2015 12:45	98-86-2	Acetophenone			0.31	U
GB-27 8-10	8/10/2015 12:45	67-72-1	Hexachloroethane			0.31	U
GB-27 8-10	8/10/2015 12:45	193-39-5	Indeno[1,2,3-cd]pyrene			0.31	U
GB-27 8-10	8/10/2015 12:45	95-48-7	2-Methylphenol			0.3	U
GB-27 8-10	8/10/2015 12:45	56-55-3	Benzo[a]anthracene			0.3	U
GB-27 8-10	8/10/2015 12:45	85-68-7	Butyl benzyl phthalate			0.28	U
GB-27 8-10	8/10/2015 12:45	98-95-3	Nitrobenzene			0.28	U
GB-27 8-10	8/10/2015 12:45	120-12-7	Anthracene			0.27	U
GB-27 8-10	8/10/2015 12:45	1912-24-9	Atrazine			0.25	U
GB-27 8-10	8/10/2015 12:45	191-24-2	Benzo[g,h,i]perylene			0.24	U
GB-27 8-10	8/10/2015 12:45	111-44-4	Bis(2-chloroethyl)ether			0.49	U *
GB-28 13-15	8/6/2015 14:30	218-01-9	Chrysene			0.37	J
GB-28 13-15	8/6/2015 14:30	85-01-8	Phenanthrene			0.37	J
GB-28 13-15	8/6/2015 14:30	56-55-3	Benzo[a]anthracene			0.28	J
GB-28 13-15	8/6/2015 14:30	50-32-8	Benzo[a]pyrene			0.25	J
GB-28 13-15	8/6/2015 14:30	191-24-2	Benzo[g,h,i]perylene			0.2	J
GB-28 13-15	8/6/2015 14:30	207-08-9	Benzo[k]fluoranthene			0.2	J
GB-28 13-15	8/6/2015 14:30	91-20-3	Naphthalene			0.19	J
GB-28 13-15	8/6/2015 14:30	91-57-6	2-Methylnaphthalene			0.18	J
GB-28 13-15	8/6/2015 14:30	193-39-5	Indeno[1,2,3-cd]pyrene			0.18	J
GB-28 13-15	8/6/2015 14:30	83-32-9	Acenaphthene			0.09	J
GB-28 13-15	8/6/2015 14:30	132-64-9	Dibenzofuran			0.073	J
GB-28 13-15	8/6/2015 14:30	120-12-7	Anthracene			0.067	J
GB-28 13-15	8/6/2015 14:30	86-73-7	Fluorene			0.066	J
GB-28 13-15	8/6/2015 14:30	86-74-8	Carbazole			0.047	J
GB-28 13-15	8/6/2015 14:30	117-81-7	Bis(2-ethylhexyl) phthalate			0.26	J B
GB-28 13-15	8/6/2015 14:30	92-52-4	1,1'-Biphenyl			2.1	U
GB-28 13-15	8/6/2015 14:30	51-28-5	2,4-Dinitrophenol			1	U
GB-28 13-15	8/6/2015 14:30	100-02-7	4-Nitrophenol			0.4	U
GB-28 13-15	8/6/2015 14:30	87-86-5	Pentachlorophenol			0.4	U
GB-28 13-15	8/6/2015 14:30	105-60-2	Caprolactam			0.08	U
GB-28 13-15	8/6/2015 14:30	100-52-7	Benzaldehyde			0.071	U
GB-28 13-15	8/6/2015 14:30	106-47-8	4-Chloroaniline			0.063	U
GB-28 13-15	8/6/2015 14:30	121-14-2	2,4-Dinitrotoluene			0.06	U
GB-28 13-15	8/6/2015 14:30	100-01-6	4-Nitroaniline			0.06	U
GB-28 13-15	8/6/2015 14:30	99-09-2	3-Nitroaniline			0.056	U
GB-28 13-15	8/6/2015 14:30	88-74-4	2-Nitroaniline			0.055	U
GB-28 13-15	8/6/2015 14:30	111-44-4	Bis(2-chloroethyl)ether			0.055	U
GB-28 13-15	8/6/2015 14:30	105-67-9	2,4-Dimethylphenol			0.054	U
GB-28 13-15	8/6/2015 14:30	7005-72-3	4-Chlorophenyl phenyl ether			0.054	U
GB-28 13-15	8/6/2015 14:30	15831-10-4	3 & 4 Methylphenol			0.052	U

Table 6. Analytical Summary Table - SVOCs  
Macon MGP #2  
Macon, Ga

Client Sample ID	Collection Date	CAS	Analyte by Method 8270D	Type 1 RRS (mg/kg)	Type 2 RRS (mg/kg)	Result (mg/kg)	Flag
GB-28 13-15	8/6/2015 14:30	606-20-2	2,6-Dinitrotoluene			0.051	U
GB-28 13-15	8/6/2015 14:30	88-75-5	2-Nitrophenol			0.05	U
GB-28 13-15	8/6/2015 14:30	77-47-4	Hexachlorocyclopentadiene			0.05	U
GB-28 13-15	8/6/2015 14:30	95-57-8	2-Chlorophenol			0.049	U
GB-28 13-15	8/6/2015 14:30	111-91-1	Bis(2-chloroethoxy)methane			0.048	U
GB-28 13-15	8/6/2015 14:30	53-70-3	Dibenz(a,h)anthracene			0.048	U
GB-28 13-15	8/6/2015 14:30	118-74-1	Hexachlorobenzene			0.048	U
GB-28 13-15	8/6/2015 14:30	84-66-2	Diethyl phthalate			0.045	U
GB-28 13-15	8/6/2015 14:30	101-55-3	4-Bromophenyl phenyl ether			0.044	U
GB-28 13-15	8/6/2015 14:30	208-96-8	Acenaphthylene			0.044	U
GB-28 13-15	8/6/2015 14:30	87-68-3	Hexachlorobutadiene			0.044	U
GB-28 13-15	8/6/2015 14:30	95-95-4	2,4,5-Trichlorophenol			0.043	U
GB-28 13-15	8/6/2015 14:30	120-83-2	2,4-Dichlorophenol			0.043	U
GB-28 13-15	8/6/2015 14:30	91-58-7	2-Chloronaphthalene			0.043	U
GB-28 13-15	8/6/2015 14:30	59-50-7	4-Chloro-3-methylphenol			0.043	U
GB-28 13-15	8/6/2015 14:30	131-11-3	Dimethyl phthalate			0.041	U
GB-28 13-15	8/6/2015 14:30	108-95-2	Phenol			0.041	U
GB-28 13-15	8/6/2015 14:30	78-59-1	Isophorone			0.04	U
GB-28 13-15	8/6/2015 14:30	86-30-6	N-Nitrosodiphenylamine			0.04	U
GB-28 13-15	8/6/2015 14:30	621-64-7	N-Nitrosodi-n-propylamine			0.039	U
GB-28 13-15	8/6/2015 14:30	108-60-1	bis (2-chloroisopropyl) ether			0.037	U
GB-28 13-15	8/6/2015 14:30	84-74-2	Di-n-butyl phthalate			0.037	U
GB-28 13-15	8/6/2015 14:30	88-06-2	2,4,6-Trichlorophenol			0.035	U
GB-28 13-15	8/6/2015 14:30	117-84-0	Di-n-octyl phthalate			0.035	U
GB-28 13-15	8/6/2015 14:30	91-94-1	3,3'-Dichlorobenzidine			0.034	U
GB-28 13-15	8/6/2015 14:30	98-86-2	Acetophenone			0.034	U
GB-28 13-15	8/6/2015 14:30	67-72-1	Hexachloroethane			0.034	U
GB-28 13-15	8/6/2015 14:30	95-48-7	2-Methylphenol			0.033	U
GB-28 13-15	8/6/2015 14:30	85-68-7	Butyl benzyl phthalate			0.032	U
GB-28 13-15	8/6/2015 14:30	98-95-3	Nitrobenzene			0.032	U
GB-28 13-15	8/6/2015 14:30	1912-24-9	Atrazine			0.028	U
GB-28 13-15	8/6/2015 14:30	534-52-1	4,6-Dinitro-2-methylphenol			0.21	U *
GB-28 13-15	8/6/2015 14:30	321-60-8	2-Fluorobiphenyl	NL	NL	3	
GB-28 13-15	8/6/2015 14:30	129-00-0	Pyrene	500	2,350	0.5	
GB-28 13-15	8/6/2015 14:30	206-44-0	Fluoranthene	500	3,130	0.46	
GB-28 13-15	8/6/2015 14:30	205-99-2	Benzo[b]fluoranthene	5	12.5	0.43	
GB-28 2-4	8/6/2015 14:00	92-52-4	1,1'-Biphenyl			2.4	U
GB-28 2-4	8/6/2015 14:00	51-28-5	2,4-Dinitrophenol			1.2	U
GB-28 2-4	8/6/2015 14:00	100-02-7	4-Nitrophenol			0.47	U
GB-28 2-4	8/6/2015 14:00	87-86-5	Pentachlorophenol			0.47	U
GB-28 2-4	8/6/2015 14:00	105-60-2	Caprolactam			0.093	U
GB-28 2-4	8/6/2015 14:00	207-08-9	Benzo[k]fluoranthene			0.092	U
GB-28 2-4	8/6/2015 14:00	100-52-7	Benzaldehyde			0.082	U

Table 6. Analytical Summary Table - SVOCs

Macon MGP #2

Macon, Ga

Client Sample ID	Collection Date	CAS	Analyte by Method 8270D	Type 1 RRS (mg/kg)	Type 2 RRS (mg/kg)	Result (mg/kg)	Flag
GB-28 2-4	8/6/2015 14:00	106-47-8	4-Chloroaniline			0.074	U
GB-28 2-4	8/6/2015 14:00	50-32-8	Benzo[a]pyrene			0.074	U
GB-28 2-4	8/6/2015 14:00	121-14-2	2,4-Dinitrotoluene			0.069	U
GB-28 2-4	8/6/2015 14:00	100-01-6	4-Nitroaniline			0.069	U
GB-28 2-4	8/6/2015 14:00	99-09-2	3-Nitroaniline			0.065	U
GB-28 2-4	8/6/2015 14:00	88-74-4	2-Nitroaniline			0.064	U
GB-28 2-4	8/6/2015 14:00	111-44-4	Bis(2-chloroethyl)ether			0.064	U
GB-28 2-4	8/6/2015 14:00	105-67-9	2,4-Dimethylphenol			0.062	U
GB-28 2-4	8/6/2015 14:00	7005-72-3	4-Chlorophenyl phenyl ether			0.062	U
GB-28 2-4	8/6/2015 14:00	15831-10-4	3 & 4 Methylphenol			0.061	U
GB-28 2-4	8/6/2015 14:00	606-20-2	2,6-Dinitrotoluene			0.059	U
GB-28 2-4	8/6/2015 14:00	88-75-5	2-Nitrophenol			0.058	U
GB-28 2-4	8/6/2015 14:00	83-32-9	Acenaphthene			0.058	U
GB-28 2-4	8/6/2015 14:00	77-47-4	Hexachlorocyclopentadiene			0.058	U
GB-28 2-4	8/6/2015 14:00	95-57-8	2-Chlorophenol			0.057	U
GB-28 2-4	8/6/2015 14:00	111-91-1	Bis(2-chloroethoxy)methane			0.055	U
GB-28 2-4	8/6/2015 14:00	53-70-3	Dibenz(a,h)anthracene			0.055	U
GB-28 2-4	8/6/2015 14:00	118-74-1	Hexachlorobenzene			0.055	U
GB-28 2-4	8/6/2015 14:00	91-57-6	2-Methylnaphthalene			0.054	U
GB-28 2-4	8/6/2015 14:00	205-99-2	Benzo[b]fluoranthene			0.054	U
GB-28 2-4	8/6/2015 14:00	84-66-2	Diethyl phthalate			0.052	U
GB-28 2-4	8/6/2015 14:00	101-55-3	4-Bromophenyl phenyl ether			0.051	U
GB-28 2-4	8/6/2015 14:00	208-96-8	Acenaphthylene			0.051	U
GB-28 2-4	8/6/2015 14:00	86-73-7	Fluorene			0.051	U
GB-28 2-4	8/6/2015 14:00	87-68-3	Hexachlorobutadiene			0.051	U
GB-28 2-4	8/6/2015 14:00	95-95-4	2,4,5-Trichlorophenol			0.05	U
GB-28 2-4	8/6/2015 14:00	120-83-2	2,4-Dichlorophenol			0.05	U
GB-28 2-4	8/6/2015 14:00	91-58-7	2-Chloronaphthalene			0.05	U
GB-28 2-4	8/6/2015 14:00	59-50-7	4-Chloro-3-methylphenol			0.05	U
GB-28 2-4	8/6/2015 14:00	131-11-3	Dimethyl phthalate			0.048	U
GB-28 2-4	8/6/2015 14:00	108-95-2	Phenol			0.048	U
GB-28 2-4	8/6/2015 14:00	132-64-9	Dibenzofuran			0.047	U
GB-28 2-4	8/6/2015 14:00	78-59-1	Isophorone			0.047	U
GB-28 2-4	8/6/2015 14:00	86-30-6	N-Nitrosodiphenylamine			0.047	U
GB-28 2-4	8/6/2015 14:00	206-44-0	Fluoranthene			0.045	U
GB-28 2-4	8/6/2015 14:00	621-64-7	N-Nitrosodi-n-propylamine			0.045	U
GB-28 2-4	8/6/2015 14:00	108-60-1	bis (2-chloroisopropyl) ether			0.042	U
GB-28 2-4	8/6/2015 14:00	86-74-8	Carbazole			0.042	U
GB-28 2-4	8/6/2015 14:00	84-74-2	Di-n-butyl phthalate			0.042	U
GB-28 2-4	8/6/2015 14:00	91-20-3	Naphthalene			0.042	U
GB-28 2-4	8/6/2015 14:00	88-06-2	2,4,6-Trichlorophenol			0.041	U
GB-28 2-4	8/6/2015 14:00	117-81-7	Bis(2-ethylhexyl) phthalate			0.041	U
GB-28 2-4	8/6/2015 14:00	117-84-0	Di-n-octyl phthalate			0.041	U

Table 6. Analytical Summary Table - SVOCs  
Macon MGP #2  
Macon, Ga

Client Sample ID	Collection Date	CAS	Analyte by Method 8270D	Type 1 RRS (mg/kg)	Type 2 RRS (mg/kg)	Result (mg/kg)	Flag
GB-28 2-4	8/6/2015 14:00	91-94-1	3,3'-Dichlorobenzidine			0.04	U
GB-28 2-4	8/6/2015 14:00	98-86-2	Acetophenone			0.04	U
GB-28 2-4	8/6/2015 14:00	67-72-1	Hexachloroethane			0.04	U
GB-28 2-4	8/6/2015 14:00	193-39-5	Indeno[1,2,3-cd]pyrene			0.04	U
GB-28 2-4	8/6/2015 14:00	95-48-7	2-Methylphenol			0.038	U
GB-28 2-4	8/6/2015 14:00	56-55-3	Benzo[a]anthracene			0.038	U
GB-28 2-4	8/6/2015 14:00	85-01-8	Phenanthrene			0.038	U
GB-28 2-4	8/6/2015 14:00	129-00-0	Pyrene			0.038	U
GB-28 2-4	8/6/2015 14:00	85-68-7	Butyl benzyl phthalate			0.037	U
GB-28 2-4	8/6/2015 14:00	98-95-3	Nitrobenzene			0.037	U
GB-28 2-4	8/6/2015 14:00	120-12-7	Anthracene			0.035	U
GB-28 2-4	8/6/2015 14:00	1912-24-9	Atrazine			0.033	U
GB-28 2-4	8/6/2015 14:00	191-24-2	Benzo[g,h,i]perylene			0.031	U
GB-28 2-4	8/6/2015 14:00	218-01-9	Chrysene			0.03	U
GB-28 2-4	8/6/2015 14:00	534-52-1	4,6-Dinitro-2-methylphenol			0.24	U *
GB-28 2-4	8/6/2015 14:00	321-60-8	2-Fluorobiphenyl	NL	NL	3.5	
GB-28 8-10	8/6/2015 14:20	117-81-7	Bis(2-ethylhexyl) phthalate			0.19	J B
GB-28 8-10	8/6/2015 14:20	92-52-4	1,1'-Biphenyl			2	U
GB-28 8-10	8/6/2015 14:20	51-28-5	2,4-Dinitrophenol			0.95	U
GB-28 8-10	8/6/2015 14:20	100-02-7	4-Nitrophenol			0.38	U
GB-28 8-10	8/6/2015 14:20	87-86-5	Pentachlorophenol			0.38	U
GB-28 8-10	8/6/2015 14:20	105-60-2	Caprolactam			0.076	U
GB-28 8-10	8/6/2015 14:20	207-08-9	Benzo[k]fluoranthene			0.075	U
GB-28 8-10	8/6/2015 14:20	100-52-7	Benzaldehyde			0.067	U
GB-28 8-10	8/6/2015 14:20	106-47-8	4-Chloroaniline			0.06	U
GB-28 8-10	8/6/2015 14:20	50-32-8	Benzo[a]pyrene			0.06	U
GB-28 8-10	8/6/2015 14:20	121-14-2	2,4-Dinitrotoluene			0.056	U
GB-28 8-10	8/6/2015 14:20	100-01-6	4-Nitroaniline			0.056	U
GB-28 8-10	8/6/2015 14:20	99-09-2	3-Nitroaniline			0.053	U
GB-28 8-10	8/6/2015 14:20	88-74-4	2-Nitroaniline			0.052	U
GB-28 8-10	8/6/2015 14:20	111-44-4	Bis(2-chloroethyl)ether			0.052	U
GB-28 8-10	8/6/2015 14:20	105-67-9	2,4-Dimethylphenol			0.051	U
GB-28 8-10	8/6/2015 14:20	7005-72-3	4-Chlorophenyl phenyl ether			0.051	U
GB-28 8-10	8/6/2015 14:20	15831-10-4	3 & 4 Methylphenol			0.049	U
GB-28 8-10	8/6/2015 14:20	606-20-2	2,6-Dinitrotoluene			0.048	U
GB-28 8-10	8/6/2015 14:20	88-75-5	2-Nitrophenol			0.047	U
GB-28 8-10	8/6/2015 14:20	83-32-9	Acenaphthene			0.047	U
GB-28 8-10	8/6/2015 14:20	77-47-4	Hexachlorocyclopentadiene			0.047	U
GB-28 8-10	8/6/2015 14:20	95-57-8	2-Chlorophenol			0.046	U
GB-28 8-10	8/6/2015 14:20	111-91-1	Bis(2-chloroethoxy)methane			0.045	U
GB-28 8-10	8/6/2015 14:20	53-70-3	Dibenz(a,h)anthracene			0.045	U
GB-28 8-10	8/6/2015 14:20	118-74-1	Hexachlorobenzene			0.045	U
GB-28 8-10	8/6/2015 14:20	91-57-6	2-Methylnaphthalene			0.044	U

Table 6. Analytical Summary Table - SVOCs

Macon MGP #2

Macon, Ga

Client Sample ID	Collection Date	CAS	Analyte by Method 8270D	Type 1 RRS (mg/kg)	Type 2 RRS (mg/kg)	Result (mg/kg)	Flag
GB-28 8-10	8/6/2015 14:20	205-99-2	Benzo[b]fluoranthene			0.044	U
GB-28 8-10	8/6/2015 14:20	84-66-2	Diethyl phthalate			0.042	U
GB-28 8-10	8/6/2015 14:20	101-55-3	4-Bromophenyl phenyl ether			0.041	U
GB-28 8-10	8/6/2015 14:20	208-96-8	Acenaphthylene			0.041	U
GB-28 8-10	8/6/2015 14:20	86-73-7	Fluorene			0.041	U
GB-28 8-10	8/6/2015 14:20	87-68-3	Hexachlorobutadiene			0.041	U
GB-28 8-10	8/6/2015 14:20	95-95-4	2,4,5-Trichlorophenol			0.04	U
GB-28 8-10	8/6/2015 14:20	120-83-2	2,4-Dichlorophenol			0.04	U
GB-28 8-10	8/6/2015 14:20	91-58-7	2-Chloronaphthalene			0.04	U
GB-28 8-10	8/6/2015 14:20	59-50-7	4-Chloro-3-methylphenol			0.04	U
GB-28 8-10	8/6/2015 14:20	131-11-3	Dimethyl phthalate			0.039	U
GB-28 8-10	8/6/2015 14:20	108-95-2	Phenol			0.039	U
GB-28 8-10	8/6/2015 14:20	132-64-9	Dibenzofuran			0.038	U
GB-28 8-10	8/6/2015 14:20	78-59-1	Isophorone			0.038	U
GB-28 8-10	8/6/2015 14:20	86-30-6	N-Nitrosodiphenylamine			0.038	U
GB-28 8-10	8/6/2015 14:20	206-44-0	Fluoranthene			0.037	U
GB-28 8-10	8/6/2015 14:20	621-64-7	N-Nitrosodi-n-propylamine			0.037	U
GB-28 8-10	8/6/2015 14:20	108-60-1	bis (2-chloroisopropyl) ether			0.034	U
GB-28 8-10	8/6/2015 14:20	86-74-8	Carbazole			0.034	U
GB-28 8-10	8/6/2015 14:20	84-74-2	Di-n-butyl phthalate			0.034	U
GB-28 8-10	8/6/2015 14:20	91-20-3	Naphthalene			0.034	U
GB-28 8-10	8/6/2015 14:20	88-06-2	2,4,6-Trichlorophenol			0.033	U
GB-28 8-10	8/6/2015 14:20	117-84-0	Di-n-octyl phthalate			0.033	U
GB-28 8-10	8/6/2015 14:20	91-94-1	3,3'-Dichlorobenzidine			0.032	U
GB-28 8-10	8/6/2015 14:20	98-86-2	Acetophenone			0.032	U
GB-28 8-10	8/6/2015 14:20	67-72-1	Hexachloroethane			0.032	U
GB-28 8-10	8/6/2015 14:20	193-39-5	Indeno[1,2,3-cd]pyrene			0.032	U
GB-28 8-10	8/6/2015 14:20	95-48-7	2-Methylphenol			0.031	U
GB-28 8-10	8/6/2015 14:20	56-55-3	Benzo[a]anthracene			0.031	U
GB-28 8-10	8/6/2015 14:20	85-01-8	Phenanthrene			0.031	U
GB-28 8-10	8/6/2015 14:20	129-00-0	Pyrene			0.031	U
GB-28 8-10	8/6/2015 14:20	85-68-7	Butyl benzyl phthalate			0.03	U
GB-28 8-10	8/6/2015 14:20	98-95-3	Nitrobenzene			0.03	U
GB-28 8-10	8/6/2015 14:20	120-12-7	Anthracene			0.029	U
GB-28 8-10	8/6/2015 14:20	1912-24-9	Atrazine			0.026	U
GB-28 8-10	8/6/2015 14:20	191-24-2	Benzo[g,h,i]perylene			0.025	U
GB-28 8-10	8/6/2015 14:20	218-01-9	Chrysene			0.024	U
GB-28 8-10	8/6/2015 14:20	534-52-1	4,6-Dinitro-2-methylphenol			0.2	U *
GB-28 8-10	8/6/2015 14:20	321-60-8	2-Fluorobiphenyl	NL	NL	2.4	
GB-3 13-15	8/7/2015 15:42	85-01-8	Phenanthrene			0.075	J
GB-3 13-15	8/7/2015 15:42	206-44-0	Fluoranthene			0.045	J
GB-3 13-15	8/7/2015 15:42	129-00-0	Pyrene			0.035	J
GB-3 13-15	8/7/2015 15:42	117-81-7	Bis(2-ethylhexyl) phthalate			0.29	J B



Table 6. Analytical Summary Table - SVOCs

Macon MGP #2

Macon, Ga

Client Sample ID	Collection Date	CAS	Analyte by Method 8270D	Type 1 RRS (mg/kg)	Type 2 RRS (mg/kg)	Result (mg/kg)	Flag
GB-3 13-15	8/7/2015 15:42	92-52-4	1,1'-Biphenyl			2.1	U
GB-3 13-15	8/7/2015 15:42	51-28-5	2,4-Dinitrophenol			1	U
GB-3 13-15	8/7/2015 15:42	100-02-7	4-Nitrophenol			0.41	U
GB-3 13-15	8/7/2015 15:42	105-60-2	Caprolactam			0.082	U
GB-3 13-15	8/7/2015 15:42	207-08-9	Benzo[k]fluoranthene			0.081	U
GB-3 13-15	8/7/2015 15:42	100-52-7	Benzaldehyde			0.072	U
GB-3 13-15	8/7/2015 15:42	106-47-8	4-Chloroaniline			0.065	U
GB-3 13-15	8/7/2015 15:42	50-32-8	Benzo[a]pyrene			0.065	U
GB-3 13-15	8/7/2015 15:42	121-14-2	2,4-Dinitrotoluene			0.061	U
GB-3 13-15	8/7/2015 15:42	100-01-6	4-Nitroaniline			0.061	U
GB-3 13-15	8/7/2015 15:42	99-09-2	3-Nitroaniline			0.057	U
GB-3 13-15	8/7/2015 15:42	88-74-4	2-Nitroaniline			0.056	U
GB-3 13-15	8/7/2015 15:42	111-44-4	Bis(2-chloroethyl)ether			0.056	U
GB-3 13-15	8/7/2015 15:42	105-67-9	2,4-Dimethylphenol			0.055	U
GB-3 13-15	8/7/2015 15:42	7005-72-3	4-Chlorophenyl phenyl ether			0.055	U
GB-3 13-15	8/7/2015 15:42	15831-10-4	3 & 4 Methylphenol			0.053	U
GB-3 13-15	8/7/2015 15:42	606-20-2	2,6-Dinitrotoluene			0.052	U
GB-3 13-15	8/7/2015 15:42	88-75-5	2-Nitrophenol			0.051	U
GB-3 13-15	8/7/2015 15:42	83-32-9	Acenaphthene			0.051	U
GB-3 13-15	8/7/2015 15:42	77-47-4	Hexachlorocyclopentadiene			0.051	U
GB-3 13-15	8/7/2015 15:42	95-57-8	2-Chlorophenol			0.05	U
GB-3 13-15	8/7/2015 15:42	111-91-1	Bis(2-chloroethoxy)methane			0.048	U
GB-3 13-15	8/7/2015 15:42	53-70-3	Dibenz(a,h)anthracene			0.048	U
GB-3 13-15	8/7/2015 15:42	118-74-1	Hexachlorobenzene			0.048	U
GB-3 13-15	8/7/2015 15:42	91-57-6	2-Methylnaphthalene			0.047	U
GB-3 13-15	8/7/2015 15:42	205-99-2	Benzo[b]fluoranthene			0.047	U
GB-3 13-15	8/7/2015 15:42	84-66-2	Diethyl phthalate			0.046	U
GB-3 13-15	8/7/2015 15:42	101-55-3	4-Bromophenyl phenyl ether			0.045	U
GB-3 13-15	8/7/2015 15:42	208-96-8	Acenaphthylene			0.045	U
GB-3 13-15	8/7/2015 15:42	86-73-7	Fluorene			0.045	U
GB-3 13-15	8/7/2015 15:42	87-68-3	Hexachlorobutadiene			0.045	U
GB-3 13-15	8/7/2015 15:42	95-95-4	2,4,5-Trichlorophenol			0.043	U
GB-3 13-15	8/7/2015 15:42	120-83-2	2,4-Dichlorophenol			0.043	U
GB-3 13-15	8/7/2015 15:42	91-58-7	2-Chloronaphthalene			0.043	U
GB-3 13-15	8/7/2015 15:42	59-50-7	4-Chloro-3-methylphenol			0.043	U
GB-3 13-15	8/7/2015 15:42	131-11-3	Dimethyl phthalate			0.042	U
GB-3 13-15	8/7/2015 15:42	108-95-2	Phenol			0.042	U
GB-3 13-15	8/7/2015 15:42	132-64-9	Dibenzofuran			0.041	U
GB-3 13-15	8/7/2015 15:42	78-59-1	Isophorone			0.041	U
GB-3 13-15	8/7/2015 15:42	86-30-6	N-Nitrosodiphenylamine			0.041	U
GB-3 13-15	8/7/2015 15:42	621-64-7	N-Nitrosodi-n-propylamine			0.04	U
GB-3 13-15	8/7/2015 15:42	108-60-1	bis (2-chloroisopropyl) ether			0.037	U
GB-3 13-15	8/7/2015 15:42	86-74-8	Carbazole			0.037	U

Table 6. Analytical Summary Table - SVOCs

Macon MGP #2

Macon, Ga

Client Sample ID	Collection Date	CAS	Analyte by Method 8270D	Type 1 RRS (mg/kg)	Type 2 RRS (mg/kg)	Result (mg/kg)	Flag
GB-3 13-15	8/7/2015 15:42	84-74-2	Di-n-butyl phthalate			0.037	U
GB-3 13-15	8/7/2015 15:42	91-20-3	Naphthalene			0.037	U
GB-3 13-15	8/7/2015 15:42	88-06-2	2,4,6-Trichlorophenol			0.036	U
GB-3 13-15	8/7/2015 15:42	117-84-0	Di-n-octyl phthalate			0.036	U
GB-3 13-15	8/7/2015 15:42	91-94-1	3,3'-Dichlorobenzidine			0.035	U
GB-3 13-15	8/7/2015 15:42	98-86-2	Acetophenone			0.035	U
GB-3 13-15	8/7/2015 15:42	67-72-1	Hexachloroethane			0.035	U
GB-3 13-15	8/7/2015 15:42	193-39-5	Indeno[1,2,3-cd]pyrene			0.035	U
GB-3 13-15	8/7/2015 15:42	95-48-7	2-Methylphenol			0.034	U
GB-3 13-15	8/7/2015 15:42	56-55-3	Benzo[a]anthracene			0.034	U
GB-3 13-15	8/7/2015 15:42	85-68-7	Butyl benzyl phthalate			0.032	U
GB-3 13-15	8/7/2015 15:42	98-95-3	Nitrobenzene			0.032	U
GB-3 13-15	8/7/2015 15:42	120-12-7	Anthracene			0.031	U
GB-3 13-15	8/7/2015 15:42	1912-24-9	Atrazine			0.029	U
GB-3 13-15	8/7/2015 15:42	191-24-2	Benzo[g,h,i]perylene			0.027	U
GB-3 13-15	8/7/2015 15:42	218-01-9	Chrysene			0.026	U
GB-3 13-15	8/7/2015 15:42	87-86-5	Pentachlorophenol			0.41	U *
GB-3 13-15	8/7/2015 15:42	534-52-1	4,6-Dinitro-2-methylphenol			0.21	U *
GB-3 13-15	8/7/2015 15:42	321-60-8	2-Fluorobiphenyl	NL	NL	3.5	
GB-3 8-10	8/7/2015 15:36	205-99-2	Benzo[b]fluoranthene			0.27	J
GB-3 8-10	8/7/2015 15:36	218-01-9	Chrysene			0.24	J
GB-3 8-10	8/7/2015 15:36	56-55-3	Benzo[a]anthracene			0.15	J
GB-3 8-10	8/7/2015 15:36	207-08-9	Benzo[k]fluoranthene			0.13	J
GB-3 8-10	8/7/2015 15:36	50-32-8	Benzo[a]pyrene			0.12	J
GB-3 8-10	8/7/2015 15:36	206-44-0	Fluoranthene			0.067	J
GB-3 8-10	8/7/2015 15:36	129-00-0	Pyrene			0.065	J
GB-3 8-10	8/7/2015 15:36	191-24-2	Benzo[g,h,i]perylene			0.064	J
GB-3 8-10	8/7/2015 15:36	193-39-5	Indeno[1,2,3-cd]pyrene			0.06	J
GB-3 8-10	8/7/2015 15:36	117-81-7	Bis(2-ethylhexyl) phthalate			0.42	J B
GB-3 8-10	8/7/2015 15:36	92-52-4	1,1'-Biphenyl			2.7	U
GB-3 8-10	8/7/2015 15:36	51-28-5	2,4-Dinitrophenol			1.3	U
GB-3 8-10	8/7/2015 15:36	100-02-7	4-Nitrophenol			0.52	U
GB-3 8-10	8/7/2015 15:36	105-60-2	Caprolactam			0.1	U
GB-3 8-10	8/7/2015 15:36	100-52-7	Benzaldehyde			0.091	U
GB-3 8-10	8/7/2015 15:36	106-47-8	4-Chloroaniline			0.081	U
GB-3 8-10	8/7/2015 15:36	121-14-2	2,4-Dinitrotoluene			0.076	U
GB-3 8-10	8/7/2015 15:36	100-01-6	4-Nitroaniline			0.076	U
GB-3 8-10	8/7/2015 15:36	99-09-2	3-Nitroaniline			0.072	U
GB-3 8-10	8/7/2015 15:36	88-74-4	2-Nitroaniline			0.07	U
GB-3 8-10	8/7/2015 15:36	111-44-4	Bis(2-chloroethyl)ether			0.07	U
GB-3 8-10	8/7/2015 15:36	105-67-9	2,4-Dimethylphenol			0.069	U
GB-3 8-10	8/7/2015 15:36	7005-72-3	4-Chlorophenyl phenyl ether			0.069	U
GB-3 8-10	8/7/2015 15:36	15831-10-4	3 & 4 Methylphenol			0.067	U

Table 6. Analytical Summary Table - SVOCs

Macon MGP #2

Macon, Ga

Client Sample ID	Collection Date	CAS	Analyte by Method 8270D	Type 1 RRS (mg/kg)	Type 2 RRS (mg/kg)	Result (mg/kg)	Flag
GB-3 8-10	8/7/2015 15:36	606-20-2	2,6-Dinitrotoluene			0.066	U
GB-3 8-10	8/7/2015 15:36	88-75-5	2-Nitrophenol			0.064	U
GB-3 8-10	8/7/2015 15:36	83-32-9	Acenaphthene			0.064	U
GB-3 8-10	8/7/2015 15:36	77-47-4	Hexachlorocyclopentadiene			0.064	U
GB-3 8-10	8/7/2015 15:36	95-57-8	2-Chlorophenol			0.062	U
GB-3 8-10	8/7/2015 15:36	111-91-1	Bis(2-chloroethoxy)methane			0.061	U
GB-3 8-10	8/7/2015 15:36	53-70-3	Dibenz(a,h)anthracene			0.061	U
GB-3 8-10	8/7/2015 15:36	118-74-1	Hexachlorobenzene			0.061	U
GB-3 8-10	8/7/2015 15:36	91-57-6	2-Methylnaphthalene			0.059	U
GB-3 8-10	8/7/2015 15:36	84-66-2	Diethyl phthalate			0.058	U
GB-3 8-10	8/7/2015 15:36	101-55-3	4-Bromophenyl phenyl ether			0.056	U
GB-3 8-10	8/7/2015 15:36	208-96-8	Acenaphthylene			0.056	U
GB-3 8-10	8/7/2015 15:36	86-73-7	Fluorene			0.056	U
GB-3 8-10	8/7/2015 15:36	87-68-3	Hexachlorobutadiene			0.056	U
GB-3 8-10	8/7/2015 15:36	95-95-4	2,4,5-Trichlorophenol			0.055	U
GB-3 8-10	8/7/2015 15:36	120-83-2	2,4-Dichlorophenol			0.055	U
GB-3 8-10	8/7/2015 15:36	91-58-7	2-Chloronaphthalene			0.055	U
GB-3 8-10	8/7/2015 15:36	59-50-7	4-Chloro-3-methylphenol			0.055	U
GB-3 8-10	8/7/2015 15:36	131-11-3	Dimethyl phthalate			0.053	U
GB-3 8-10	8/7/2015 15:36	108-95-2	Phenol			0.053	U
GB-3 8-10	8/7/2015 15:36	132-64-9	Dibenzofuran			0.052	U
GB-3 8-10	8/7/2015 15:36	78-59-1	Isophorone			0.052	U
GB-3 8-10	8/7/2015 15:36	86-30-6	N-Nitrosodiphenylamine			0.052	U
GB-3 8-10	8/7/2015 15:36	621-64-7	N-Nitrosodi-n-propylamine			0.05	U
GB-3 8-10	8/7/2015 15:36	108-60-1	bis (2-chloroisopropyl) ether			0.047	U
GB-3 8-10	8/7/2015 15:36	86-74-8	Carbazole			0.047	U
GB-3 8-10	8/7/2015 15:36	84-74-2	Di-n-butyl phthalate			0.047	U
GB-3 8-10	8/7/2015 15:36	91-20-3	Naphthalene			0.047	U
GB-3 8-10	8/7/2015 15:36	88-06-2	2,4,6-Trichlorophenol			0.045	U
GB-3 8-10	8/7/2015 15:36	117-84-0	Di-n-octyl phthalate			0.045	U
GB-3 8-10	8/7/2015 15:36	91-94-1	3,3'-Dichlorobenzidine			0.044	U
GB-3 8-10	8/7/2015 15:36	98-86-2	Acetophenone			0.044	U
GB-3 8-10	8/7/2015 15:36	67-72-1	Hexachloroethane			0.044	U
GB-3 8-10	8/7/2015 15:36	95-48-7	2-Methylphenol			0.042	U
GB-3 8-10	8/7/2015 15:36	85-01-8	Phenanthrene			0.042	U
GB-3 8-10	8/7/2015 15:36	85-68-7	Butyl benzyl phthalate			0.041	U
GB-3 8-10	8/7/2015 15:36	98-95-3	Nitrobenzene			0.041	U
GB-3 8-10	8/7/2015 15:36	120-12-7	Anthracene			0.039	U
GB-3 8-10	8/7/2015 15:36	1912-24-9	Atrazine			0.036	U
GB-3 8-10	8/7/2015 15:36	87-86-5	Pentachlorophenol			0.52	U *
GB-3 8-10	8/7/2015 15:36	534-52-1	4,6-Dinitro-2-methylphenol			0.27	U *
GB-3 8-10	8/7/2015 15:36	321-60-8	2-Fluorobiphenyl	NL	NL	4	
GB-5 8-10	8/7/2015 13:45	117-81-7	Bis(2-ethylhexyl) phthalate			0.5	B

Table 6. Analytical Summary Table - SVOCs

Macon MGP #2

Macon, Ga

Client Sample ID	Collection Date	CAS	Analyte by Method 8270D	Type 1 RRS (mg/kg)	Type 2 RRS (mg/kg)	Result (mg/kg)	Flag
GB-5 8-10	8/7/2015 13:45	85-01-8	Phenanthrene			0.069	J
GB-5 8-10	8/7/2015 13:45	206-44-0	Fluoranthene			0.054	J
GB-5 8-10	8/7/2015 13:45	129-00-0	Pyrene			0.044	J
GB-5 8-10	8/7/2015 13:45	218-01-9	Chrysene			0.029	J
GB-5 8-10	8/7/2015 13:45	92-52-4	1,1'-Biphenyl			2.2	U
GB-5 8-10	8/7/2015 13:45	51-28-5	2,4-Dinitrophenol			1.1	U
GB-5 8-10	8/7/2015 13:45	100-02-7	4-Nitrophenol			0.43	U
GB-5 8-10	8/7/2015 13:45	105-60-2	Caprolactam			0.086	U
GB-5 8-10	8/7/2015 13:45	207-08-9	Benzo[k]fluoranthene			0.085	U
GB-5 8-10	8/7/2015 13:45	100-52-7	Benzaldehyde			0.076	U
GB-5 8-10	8/7/2015 13:45	106-47-8	4-Chloroaniline			0.068	U
GB-5 8-10	8/7/2015 13:45	50-32-8	Benzo[a]pyrene			0.068	U
GB-5 8-10	8/7/2015 13:45	121-14-2	2,4-Dinitrotoluene			0.064	U
GB-5 8-10	8/7/2015 13:45	100-01-6	4-Nitroaniline			0.064	U
GB-5 8-10	8/7/2015 13:45	99-09-2	3-Nitroaniline			0.06	U
GB-5 8-10	8/7/2015 13:45	88-74-4	2-Nitroaniline			0.059	U
GB-5 8-10	8/7/2015 13:45	111-44-4	Bis(2-chloroethyl)ether			0.059	U
GB-5 8-10	8/7/2015 13:45	105-67-9	2,4-Dimethylphenol			0.058	U
GB-5 8-10	8/7/2015 13:45	7005-72-3	4-Chlorophenyl phenyl ether			0.058	U
GB-5 8-10	8/7/2015 13:45	15831-10-4	3 & 4 Methylphenol			0.056	U
GB-5 8-10	8/7/2015 13:45	606-20-2	2,6-Dinitrotoluene			0.055	U
GB-5 8-10	8/7/2015 13:45	88-75-5	2-Nitrophenol			0.054	U
GB-5 8-10	8/7/2015 13:45	83-32-9	Acenaphthene			0.054	U
GB-5 8-10	8/7/2015 13:45	77-47-4	Hexachlorocyclopentadiene			0.054	U
GB-5 8-10	8/7/2015 13:45	95-57-8	2-Chlorophenol			0.052	U
GB-5 8-10	8/7/2015 13:45	111-91-1	Bis(2-chloroethoxy)methane			0.051	U
GB-5 8-10	8/7/2015 13:45	53-70-3	Dibenz(a,h)anthracene			0.051	U
GB-5 8-10	8/7/2015 13:45	118-74-1	Hexachlorobenzene			0.051	U
GB-5 8-10	8/7/2015 13:45	91-57-6	2-Methylnaphthalene			0.05	U
GB-5 8-10	8/7/2015 13:45	205-99-2	Benzo[b]fluoranthene			0.05	U
GB-5 8-10	8/7/2015 13:45	84-66-2	Diethyl phthalate			0.048	U
GB-5 8-10	8/7/2015 13:45	101-55-3	4-Bromophenyl phenyl ether			0.047	U
GB-5 8-10	8/7/2015 13:45	208-96-8	Acenaphthylene			0.047	U
GB-5 8-10	8/7/2015 13:45	86-73-7	Fluorene			0.047	U
GB-5 8-10	8/7/2015 13:45	87-68-3	Hexachlorobutadiene			0.047	U
GB-5 8-10	8/7/2015 13:45	95-95-4	2,4,5-Trichlorophenol			0.046	U
GB-5 8-10	8/7/2015 13:45	120-83-2	2,4-Dichlorophenol			0.046	U
GB-5 8-10	8/7/2015 13:45	91-58-7	2-Chloronaphthalene			0.046	U
GB-5 8-10	8/7/2015 13:45	59-50-7	4-Chloro-3-methylphenol			0.046	U
GB-5 8-10	8/7/2015 13:45	131-11-3	Dimethyl phthalate			0.045	U
GB-5 8-10	8/7/2015 13:45	108-95-2	Phenol			0.045	U
GB-5 8-10	8/7/2015 13:45	132-64-9	Dibenzofuran			0.043	U
GB-5 8-10	8/7/2015 13:45	78-59-1	Isophorone			0.043	U

Table 6. Analytical Summary Table - SVOCs

Macon MGP #2

Macon, Ga

Client Sample ID	Collection Date	CAS	Analyte by Method 8270D	Type 1 RRS (mg/kg)	Type 2 RRS (mg/kg)	Result (mg/kg)	Flag
GB-5 8-10	8/7/2015 13:45	86-30-6	N-Nitrosodiphenylamine			0.043	U
GB-5 8-10	8/7/2015 13:45	621-64-7	N-Nitrosodi-n-propylamine			0.042	U
GB-5 8-10	8/7/2015 13:45	108-60-1	bis (2-chloroisopropyl) ether			0.039	U
GB-5 8-10	8/7/2015 13:45	86-74-8	Carbazole			0.039	U
GB-5 8-10	8/7/2015 13:45	84-74-2	Di-n-butyl phthalate			0.039	U
GB-5 8-10	8/7/2015 13:45	91-20-3	Naphthalene			0.039	U
GB-5 8-10	8/7/2015 13:45	88-06-2	2,4,6-Trichlorophenol			0.038	U
GB-5 8-10	8/7/2015 13:45	117-84-0	Di-n-octyl phthalate			0.038	U
GB-5 8-10	8/7/2015 13:45	91-94-1	3,3'-Dichlorobenzidine			0.037	U
GB-5 8-10	8/7/2015 13:45	98-86-2	Acetophenone			0.037	U
GB-5 8-10	8/7/2015 13:45	67-72-1	Hexachloroethane			0.037	U
GB-5 8-10	8/7/2015 13:45	193-39-5	Indeno[1,2,3-cd]pyrene			0.037	U
GB-5 8-10	8/7/2015 13:45	95-48-7	2-Methylphenol			0.035	U
GB-5 8-10	8/7/2015 13:45	56-55-3	Benzo[a]anthracene			0.035	U
GB-5 8-10	8/7/2015 13:45	85-68-7	Butyl benzyl phthalate			0.034	U
GB-5 8-10	8/7/2015 13:45	98-95-3	Nitrobenzene			0.034	U
GB-5 8-10	8/7/2015 13:45	120-12-7	Anthracene			0.033	U
GB-5 8-10	8/7/2015 13:45	1912-24-9	Atrazine			0.03	U
GB-5 8-10	8/7/2015 13:45	191-24-2	Benzo[g,h,i]perylene			0.029	U
GB-5 8-10	8/7/2015 13:45	87-86-5	Pentachlorophenol			0.43	U *
GB-5 8-10	8/7/2015 13:45	534-52-1	4,6-Dinitro-2-methylphenol			0.22	U *
GB-5 8-10	8/7/2015 13:45	321-60-8	2-Fluorobiphenyl	NL	NL	2.9	
GB-5 13-15	8/24/2015 15:08	117-81-7	Bis(2-ethylhexyl) phthalate			0.25	J
GB-5 13-15	8/24/2015 15:08	85-01-8	Phenanthrene			0.034	J
GB-5 13-15	8/24/2015 15:08	92-52-4	1,1'-Biphenyl			2	U
GB-5 13-15	8/24/2015 15:08	51-28-5	2,4-Dinitrophenol			0.96	U
GB-5 13-15	8/24/2015 15:08	100-02-7	4-Nitrophenol			0.38	U
GB-5 13-15	8/24/2015 15:08	87-86-5	Pentachlorophenol			0.38	U
GB-5 13-15	8/24/2015 15:08	534-52-1	4,6-Dinitro-2-methylphenol			0.2	U
GB-5 13-15	8/24/2015 15:08	105-60-2	Caprolactam			0.077	U
GB-5 13-15	8/24/2015 15:08	207-08-9	Benzo[k]fluoranthene			0.075	U
GB-5 13-15	8/24/2015 15:08	100-52-7	Benzaldehyde			0.067	U
GB-5 13-15	8/24/2015 15:08	106-47-8	4-Chloroaniline			0.06	U
GB-5 13-15	8/24/2015 15:08	50-32-8	Benzo[a]pyrene			0.06	U
GB-5 13-15	8/24/2015 15:08	121-14-2	2,4-Dinitrotoluene			0.057	U
GB-5 13-15	8/24/2015 15:08	100-01-6	4-Nitroaniline			0.057	U
GB-5 13-15	8/24/2015 15:08	99-09-2	3-Nitroaniline			0.053	U
GB-5 13-15	8/24/2015 15:08	88-74-4	2-Nitroaniline			0.052	U
GB-5 13-15	8/24/2015 15:08	111-44-4	Bis(2-chloroethyl)ether			0.052	U
GB-5 13-15	8/24/2015 15:08	105-67-9	2,4-Dimethylphenol			0.051	U
GB-5 13-15	8/24/2015 15:08	7005-72-3	4-Chlorophenyl phenyl ether			0.051	U
GB-5 13-15	8/24/2015 15:08	15831-10-4	3 & 4 Methylphenol			0.05	U
GB-5 13-15	8/24/2015 15:08	606-20-2	2,6-Dinitrotoluene			0.049	U

Table 6. Analytical Summary Table - SVOCs

Macon MGP #2

Macon, Ga

Client Sample ID	Collection Date	CAS	Analyte by Method 8270D	Type 1 RRS (mg/kg)	Type 2 RRS (mg/kg)	Result (mg/kg)	Flag
GB-5 13-15	8/24/2015 15:08	88-75-5	2-Nitrophenol			0.048	U
GB-5 13-15	8/24/2015 15:08	83-32-9	Acenaphthene			0.048	U
GB-5 13-15	8/24/2015 15:08	77-47-4	Hexachlorocyclopentadiene			0.048	U
GB-5 13-15	8/24/2015 15:08	95-57-8	2-Chlorophenol			0.046	U
GB-5 13-15	8/24/2015 15:08	111-91-1	Bis(2-chloroethoxy)methane			0.045	U
GB-5 13-15	8/24/2015 15:08	53-70-3	Dibenz(a,h)anthracene			0.045	U
GB-5 13-15	8/24/2015 15:08	118-74-1	Hexachlorobenzene			0.045	U
GB-5 13-15	8/24/2015 15:08	91-57-6	2-Methylnaphthalene			0.044	U
GB-5 13-15	8/24/2015 15:08	205-99-2	Benzo[b]fluoranthene			0.044	U
GB-5 13-15	8/24/2015 15:08	84-66-2	Diethyl phthalate			0.043	U
GB-5 13-15	8/24/2015 15:08	101-55-3	4-Bromophenyl phenyl ether			0.042	U
GB-5 13-15	8/24/2015 15:08	208-96-8	Acenaphthylene			0.042	U
GB-5 13-15	8/24/2015 15:08	86-73-7	Fluorene			0.042	U
GB-5 13-15	8/24/2015 15:08	87-68-3	Hexachlorobutadiene			0.042	U
GB-5 13-15	8/24/2015 15:08	95-95-4	2,4,5-Trichlorophenol			0.041	U
GB-5 13-15	8/24/2015 15:08	120-83-2	2,4-Dichlorophenol			0.041	U
GB-5 13-15	8/24/2015 15:08	91-58-7	2-Chloronaphthalene			0.041	U
GB-5 13-15	8/24/2015 15:08	59-50-7	4-Chloro-3-methylphenol			0.041	U
GB-5 13-15	8/24/2015 15:08	131-11-3	Dimethyl phthalate			0.039	U
GB-5 13-15	8/24/2015 15:08	108-95-2	Phenol			0.039	U
GB-5 13-15	8/24/2015 15:08	132-64-9	Dibenzofuran			0.038	U
GB-5 13-15	8/24/2015 15:08	78-59-1	Isophorone			0.038	U
GB-5 13-15	8/24/2015 15:08	86-30-6	N-Nitrosodiphenylamine			0.038	U
GB-5 13-15	8/24/2015 15:08	206-44-0	Fluoranthene			0.037	U
GB-5 13-15	8/24/2015 15:08	621-64-7	N-Nitrosodi-n-propylamine			0.037	U
GB-5 13-15	8/24/2015 15:08	108-60-1	bis (2-chloroisopropyl) ether			0.035	U
GB-5 13-15	8/24/2015 15:08	86-74-8	Carbazole			0.035	U
GB-5 13-15	8/24/2015 15:08	84-74-2	Di-n-butyl phthalate			0.035	U
GB-5 13-15	8/24/2015 15:08	91-20-3	Naphthalene			0.035	U
GB-5 13-15	8/24/2015 15:08	88-06-2	2,4,6-Trichlorophenol			0.034	U
GB-5 13-15	8/24/2015 15:08	117-84-0	Di-n-octyl phthalate			0.034	U
GB-5 13-15	8/24/2015 15:08	91-94-1	3,3'-Dichlorobenzidine			0.032	U
GB-5 13-15	8/24/2015 15:08	98-86-2	Acetophenone			0.032	U
GB-5 13-15	8/24/2015 15:08	67-72-1	Hexachloroethane			0.032	U
GB-5 13-15	8/24/2015 15:08	193-39-5	Indeno[1,2,3-cd]pyrene			0.032	U
GB-5 13-15	8/24/2015 15:08	95-48-7	2-Methylphenol			0.031	U
GB-5 13-15	8/24/2015 15:08	56-55-3	Benzo[a]anthracene			0.031	U
GB-5 13-15	8/24/2015 15:08	129-00-0	Pyrene			0.031	U
GB-5 13-15	8/24/2015 15:08	85-68-7	Butyl benzyl phthalate			0.03	U
GB-5 13-15	8/24/2015 15:08	98-95-3	Nitrobenzene			0.03	U
GB-5 13-15	8/24/2015 15:08	120-12-7	Anthracene			0.029	U
GB-5 13-15	8/24/2015 15:08	1912-24-9	Atrazine			0.027	U
GB-5 13-15	8/24/2015 15:08	191-24-2	Benzo[g,h,i]perylene			0.026	U

Table 6. Analytical Summary Table - SVOCs

Macon MGP #2

Macon, Ga

Client Sample ID	Collection Date	CAS	Analyte by Method 8270D	Type 1 RRS (mg/kg)	Type 2 RRS (mg/kg)	Result (mg/kg)	Flag
GB-5 13-15	8/24/2015 15:08	218-01-9	Chrysene			0.024	U
GB-5 13-15	8/24/2015 15:08	321-60-8	2-Fluorobiphenyl	NL	NL	3	
GB-5 18	8/24/2015 15:17	92-52-4	1,1'-Biphenyl			2	U
GB-5 18	8/24/2015 15:17	51-28-5	2,4-Dinitrophenol			0.97	U
GB-5 18	8/24/2015 15:17	100-02-7	4-Nitrophenol			0.39	U
GB-5 18	8/24/2015 15:17	87-86-5	Pentachlorophenol			0.39	U
GB-5 18	8/24/2015 15:17	534-52-1	4,6-Dinitro-2-methylphenol			0.2	U
GB-5 18	8/24/2015 15:17	105-60-2	Caprolactam			0.077	U
GB-5 18	8/24/2015 15:17	207-08-9	Benzo[k]fluoranthene			0.076	U
GB-5 18	8/24/2015 15:17	100-52-7	Benzaldehyde			0.068	U
GB-5 18	8/24/2015 15:17	106-47-8	4-Chloroaniline			0.061	U
GB-5 18	8/24/2015 15:17	50-32-8	Benzo[a]pyrene			0.061	U
GB-5 18	8/24/2015 15:17	121-14-2	2,4-Dinitrotoluene			0.057	U
GB-5 18	8/24/2015 15:17	100-01-6	4-Nitroaniline			0.057	U
GB-5 18	8/24/2015 15:17	99-09-2	3-Nitroaniline			0.054	U
GB-5 18	8/24/2015 15:17	88-74-4	2-Nitroaniline			0.053	U
GB-5 18	8/24/2015 15:17	111-44-4	Bis(2-chloroethyl)ether			0.053	U
GB-5 18	8/24/2015 15:17	105-67-9	2,4-Dimethylphenol			0.051	U
GB-5 18	8/24/2015 15:17	7005-72-3	4-Chlorophenyl phenyl ether			0.051	U
GB-5 18	8/24/2015 15:17	15831-10-4	3 & 4 Methylphenol			0.05	U
GB-5 18	8/24/2015 15:17	606-20-2	2,6-Dinitrotoluene			0.049	U
GB-5 18	8/24/2015 15:17	88-75-5	2-Nitrophenol			0.048	U
GB-5 18	8/24/2015 15:17	83-32-9	Acenaphthene			0.048	U
GB-5 18	8/24/2015 15:17	77-47-4	Hexachlorocyclopentadiene			0.048	U
GB-5 18	8/24/2015 15:17	95-57-8	2-Chlorophenol			0.047	U
GB-5 18	8/24/2015 15:17	111-91-1	Bis(2-chloroethoxy)methane			0.046	U
GB-5 18	8/24/2015 15:17	53-70-3	Dibenz(a,h)anthracene			0.046	U
GB-5 18	8/24/2015 15:17	118-74-1	Hexachlorobenzene			0.046	U
GB-5 18	8/24/2015 15:17	91-57-6	2-Methylnaphthalene			0.044	U
GB-5 18	8/24/2015 15:17	205-99-2	Benzo[b]fluoranthene			0.044	U
GB-5 18	8/24/2015 15:17	84-66-2	Diethyl phthalate			0.043	U
GB-5 18	8/24/2015 15:17	101-55-3	4-Bromophenyl phenyl ether			0.042	U
GB-5 18	8/24/2015 15:17	208-96-8	Acenaphthylene			0.042	U
GB-5 18	8/24/2015 15:17	86-73-7	Fluorene			0.042	U
GB-5 18	8/24/2015 15:17	87-68-3	Hexachlorobutadiene			0.042	U
GB-5 18	8/24/2015 15:17	95-95-4	2,4,5-Trichlorophenol			0.041	U
GB-5 18	8/24/2015 15:17	120-83-2	2,4-Dichlorophenol			0.041	U
GB-5 18	8/24/2015 15:17	91-58-7	2-Chloronaphthalene			0.041	U
GB-5 18	8/24/2015 15:17	59-50-7	4-Chloro-3-methylphenol			0.041	U
GB-5 18	8/24/2015 15:17	131-11-3	Dimethyl phthalate			0.04	U
GB-5 18	8/24/2015 15:17	108-95-2	Phenol			0.04	U
GB-5 18	8/24/2015 15:17	132-64-9	Dibenzofuran			0.039	U
GB-5 18	8/24/2015 15:17	78-59-1	Isophorone			0.039	U



Table 6. Analytical Summary Table - SVOCs

Macon MGP #2

Macon, Ga

Client Sample ID	Collection Date	CAS	Analyte by Method 8270D	Type 1 RRS (mg/kg)	Type 2 RRS (mg/kg)	Result (mg/kg)	Flag
GB-5 18	8/24/2015 15:17	86-30-6	N-Nitrosodiphenylamine			0.039	U
GB-5 18	8/24/2015 15:17	206-44-0	Fluoranthene			0.037	U
GB-5 18	8/24/2015 15:17	621-64-7	N-Nitrosodi-n-propylamine			0.037	U
GB-5 18	8/24/2015 15:17	108-60-1	bis (2-chloroisopropyl) ether			0.035	U
GB-5 18	8/24/2015 15:17	86-74-8	Carbazole			0.035	U
GB-5 18	8/24/2015 15:17	84-74-2	Di-n-butyl phthalate			0.035	U
GB-5 18	8/24/2015 15:17	91-20-3	Naphthalene			0.035	U
GB-5 18	8/24/2015 15:17	88-06-2	2,4,6-Trichlorophenol			0.034	U
GB-5 18	8/24/2015 15:17	117-81-7	Bis(2-ethylhexyl) phthalate			0.034	U
GB-5 18	8/24/2015 15:17	117-84-0	Di-n-octyl phthalate			0.034	U
GB-5 18	8/24/2015 15:17	91-94-1	3,3'-Dichlorobenzidine			0.033	U
GB-5 18	8/24/2015 15:17	98-86-2	Acetophenone			0.033	U
GB-5 18	8/24/2015 15:17	67-72-1	Hexachloroethane			0.033	U
GB-5 18	8/24/2015 15:17	193-39-5	Indeno[1,2,3-cd]pyrene			0.033	U
GB-5 18	8/24/2015 15:17	95-48-7	2-Methylphenol			0.032	U
GB-5 18	8/24/2015 15:17	56-55-3	Benzo[a]anthracene			0.032	U
GB-5 18	8/24/2015 15:17	85-01-8	Phenanthrene			0.032	U
GB-5 18	8/24/2015 15:17	129-00-0	Pyrene			0.032	U
GB-5 18	8/24/2015 15:17	85-68-7	Butyl benzyl phthalate			0.03	U
GB-5 18	8/24/2015 15:17	98-95-3	Nitrobenzene			0.03	U
GB-5 18	8/24/2015 15:17	120-12-7	Anthracene			0.029	U
GB-5 18	8/24/2015 15:17	1912-24-9	Atrazine			0.027	U
GB-5 18	8/24/2015 15:17	191-24-2	Benzo[g,h,i]perylene			0.026	U
GB-5 18	8/24/2015 15:17	218-01-9	Chrysene			0.025	U
GB-5 18	8/24/2015 15:17	321-60-8	2-Fluorobiphenyl	NL	NL	2.7	
GB-7 13-15	8/7/2015 10:00	206-44-0	Fluoranthene			0.19	J
GB-7 13-15	8/7/2015 10:00	129-00-0	Pyrene			0.17	J
GB-7 13-15	8/7/2015 10:00	205-99-2	Benzo[b]fluoranthene			0.13	J
GB-7 13-15	8/7/2015 10:00	85-01-8	Phenanthrene			0.12	J
GB-7 13-15	8/7/2015 10:00	56-55-3	Benzo[a]anthracene			0.099	J
GB-7 13-15	8/7/2015 10:00	218-01-9	Chrysene			0.096	J
GB-7 13-15	8/7/2015 10:00	50-32-8	Benzo[a]pyrene			0.083	J
GB-7 13-15	8/7/2015 10:00	191-24-2	Benzo[g,h,i]perylene			0.056	J
GB-7 13-15	8/7/2015 10:00	193-39-5	Indeno[1,2,3-cd]pyrene			0.046	J
GB-7 13-15	8/7/2015 10:00	117-81-7	Bis(2-ethylhexyl) phthalate			0.32	J B
GB-7 13-15	8/7/2015 10:00	92-52-4	1,1'-Biphenyl			2	U
GB-7 13-15	8/7/2015 10:00	51-28-5	2,4-Dinitrophenol			0.96	U
GB-7 13-15	8/7/2015 10:00	100-02-7	4-Nitrophenol			0.38	U
GB-7 13-15	8/7/2015 10:00	105-60-2	Caprolactam			0.076	U
GB-7 13-15	8/7/2015 10:00	207-08-9	Benzo[k]fluoranthene			0.075	U
GB-7 13-15	8/7/2015 10:00	100-52-7	Benzaldehyde			0.067	U
GB-7 13-15	8/7/2015 10:00	106-47-8	4-Chloroaniline			0.06	U
GB-7 13-15	8/7/2015 10:00	121-14-2	2,4-Dinitrotoluene			0.057	U

Table 6. Analytical Summary Table - SVOCs

Macon MGP #2

Macon, Ga

Client Sample ID	Collection Date	CAS	Analyte by Method 8270D	Type 1 RRS (mg/kg)	Type 2 RRS (mg/kg)	Result (mg/kg)	Flag
GB-7 13-15	8/7/2015 10:00	100-01-6	4-Nitroaniline			0.057	U
GB-7 13-15	8/7/2015 10:00	99-09-2	3-Nitroaniline			0.053	U
GB-7 13-15	8/7/2015 10:00	88-74-4	2-Nitroaniline			0.052	U
GB-7 13-15	8/7/2015 10:00	111-44-4	Bis(2-chloroethyl)ether			0.052	U
GB-7 13-15	8/7/2015 10:00	105-67-9	2,4-Dimethylphenol			0.051	U
GB-7 13-15	8/7/2015 10:00	7005-72-3	4-Chlorophenyl phenyl ether			0.051	U
GB-7 13-15	8/7/2015 10:00	15831-10-4	3 & 4 Methylphenol			0.05	U
GB-7 13-15	8/7/2015 10:00	606-20-2	2,6-Dinitrotoluene			0.049	U
GB-7 13-15	8/7/2015 10:00	88-75-5	2-Nitrophenol			0.047	U
GB-7 13-15	8/7/2015 10:00	83-32-9	Acenaphthene			0.047	U
GB-7 13-15	8/7/2015 10:00	77-47-4	Hexachlorocyclopentadiene			0.047	U
GB-7 13-15	8/7/2015 10:00	95-57-8	2-Chlorophenol			0.046	U
GB-7 13-15	8/7/2015 10:00	111-91-1	Bis(2-chloroethoxy)methane			0.045	U
GB-7 13-15	8/7/2015 10:00	53-70-3	Dibenz(a,h)anthracene			0.045	U
GB-7 13-15	8/7/2015 10:00	118-74-1	Hexachlorobenzene			0.045	U
GB-7 13-15	8/7/2015 10:00	91-57-6	2-Methylnaphthalene			0.044	U
GB-7 13-15	8/7/2015 10:00	84-66-2	Diethyl phthalate			0.043	U
GB-7 13-15	8/7/2015 10:00	101-55-3	4-Bromophenyl phenyl ether			0.042	U
GB-7 13-15	8/7/2015 10:00	208-96-8	Acenaphthylene			0.042	U
GB-7 13-15	8/7/2015 10:00	86-73-7	Fluorene			0.042	U
GB-7 13-15	8/7/2015 10:00	87-68-3	Hexachlorobutadiene			0.042	U
GB-7 13-15	8/7/2015 10:00	95-95-4	2,4,5-Trichlorophenol			0.041	U
GB-7 13-15	8/7/2015 10:00	120-83-2	2,4-Dichlorophenol			0.041	U
GB-7 13-15	8/7/2015 10:00	91-58-7	2-Chloronaphthalene			0.041	U
GB-7 13-15	8/7/2015 10:00	59-50-7	4-Chloro-3-methylphenol			0.041	U
GB-7 13-15	8/7/2015 10:00	131-11-3	Dimethyl phthalate			0.039	U
GB-7 13-15	8/7/2015 10:00	108-95-2	Phenol			0.039	U
GB-7 13-15	8/7/2015 10:00	132-64-9	Dibenzofuran			0.038	U
GB-7 13-15	8/7/2015 10:00	78-59-1	Isophorone			0.038	U
GB-7 13-15	8/7/2015 10:00	86-30-6	N-Nitrosodiphenylamine			0.038	U
GB-7 13-15	8/7/2015 10:00	621-64-7	N-Nitrosodi-n-propylamine			0.037	U
GB-7 13-15	8/7/2015 10:00	108-60-1	bis (2-chloroisopropyl) ether			0.035	U
GB-7 13-15	8/7/2015 10:00	86-74-8	Carbazole			0.035	U
GB-7 13-15	8/7/2015 10:00	84-74-2	Di-n-butyl phthalate			0.035	U
GB-7 13-15	8/7/2015 10:00	91-20-3	Naphthalene			0.035	U
GB-7 13-15	8/7/2015 10:00	88-06-2	2,4,6-Trichlorophenol			0.034	U
GB-7 13-15	8/7/2015 10:00	117-84-0	Di-n-octyl phthalate			0.034	U
GB-7 13-15	8/7/2015 10:00	91-94-1	3,3'-Dichlorobenzidine			0.032	U
GB-7 13-15	8/7/2015 10:00	98-86-2	Acetophenone			0.032	U
GB-7 13-15	8/7/2015 10:00	67-72-1	Hexachloroethane			0.032	U
GB-7 13-15	8/7/2015 10:00	95-48-7	2-Methylphenol			0.031	U
GB-7 13-15	8/7/2015 10:00	85-68-7	Butyl benzyl phthalate			0.03	U
GB-7 13-15	8/7/2015 10:00	98-95-3	Nitrobenzene			0.03	U

Table 6. Analytical Summary Table - SVOCs

Macon MGP #2

Macon, Ga

Client Sample ID	Collection Date	CAS	Analyte by Method 8270D	Type 1 RRS (mg/kg)	Type 2 RRS (mg/kg)	Result (mg/kg)	Flag
GB-7 13-15	8/7/2015 10:00	120-12-7	Anthracene			0.029	U
GB-7 13-15	8/7/2015 10:00	1912-24-9	Atrazine			0.027	U
GB-7 13-15	8/7/2015 10:00	87-86-5	Pentachlorophenol			0.38	U *
GB-7 13-15	8/7/2015 10:00	534-52-1	4,6-Dinitro-2-methylphenol			0.2	U *
GB-7 13-15	8/7/2015 10:00	321-60-8	2-Fluorobiphenyl	NL	NL	2.6	
GB-7 18	8/7/2015 10:06	206-44-0	Fluoranthene			0.1	J
GB-7 18	8/7/2015 10:06	129-00-0	Pyrene			0.083	J
GB-7 18	8/7/2015 10:06	205-99-2	Benzo[b]fluoranthene			0.071	J
GB-7 18	8/7/2015 10:06	85-01-8	Phenanthrene			0.065	J
GB-7 18	8/7/2015 10:06	56-55-3	Benzo[a]anthracene			0.053	J
GB-7 18	8/7/2015 10:06	218-01-9	Chrysene			0.052	J
GB-7 18	8/7/2015 10:06	191-24-2	Benzo[g,h,i]perylene			0.037	J
GB-7 18	8/7/2015 10:06	117-81-7	Bis(2-ethylhexyl) phthalate			0.26	J B
GB-7 18	8/7/2015 10:06	92-52-4	1,1'-Biphenyl			2	U
GB-7 18	8/7/2015 10:06	51-28-5	2,4-Dinitrophenol			0.99	U
GB-7 18	8/7/2015 10:06	100-02-7	4-Nitrophenol			0.39	U
GB-7 18	8/7/2015 10:06	105-60-2	Caprolactam			0.079	U
GB-7 18	8/7/2015 10:06	207-08-9	Benzo[k]fluoranthene			0.077	U
GB-7 18	8/7/2015 10:06	100-52-7	Benzaldehyde			0.069	U
GB-7 18	8/7/2015 10:06	106-47-8	4-Chloroaniline			0.062	U
GB-7 18	8/7/2015 10:06	50-32-8	Benzo[a]pyrene			0.062	U
GB-7 18	8/7/2015 10:06	121-14-2	2,4-Dinitrotoluene			0.058	U
GB-7 18	8/7/2015 10:06	100-01-6	4-Nitroaniline			0.058	U
GB-7 18	8/7/2015 10:06	99-09-2	3-Nitroaniline			0.055	U
GB-7 18	8/7/2015 10:06	88-74-4	2-Nitroaniline			0.054	U
GB-7 18	8/7/2015 10:06	111-44-4	Bis(2-chloroethyl)ether			0.054	U
GB-7 18	8/7/2015 10:06	105-67-9	2,4-Dimethylphenol			0.052	U
GB-7 18	8/7/2015 10:06	7005-72-3	4-Chlorophenyl phenyl ether			0.052	U
GB-7 18	8/7/2015 10:06	15831-10-4	3 & 4 Methylphenol			0.051	U
GB-7 18	8/7/2015 10:06	606-20-2	2,6-Dinitrotoluene			0.05	U
GB-7 18	8/7/2015 10:06	88-75-5	2-Nitrophenol			0.049	U
GB-7 18	8/7/2015 10:06	83-32-9	Acenaphthene			0.049	U
GB-7 18	8/7/2015 10:06	77-47-4	Hexachlorocyclopentadiene			0.049	U
GB-7 18	8/7/2015 10:06	95-57-8	2-Chlorophenol			0.048	U
GB-7 18	8/7/2015 10:06	111-91-1	Bis(2-chloroethoxy)methane			0.046	U
GB-7 18	8/7/2015 10:06	53-70-3	Dibenz(a,h)anthracene			0.046	U
GB-7 18	8/7/2015 10:06	118-74-1	Hexachlorobenzene			0.046	U
GB-7 18	8/7/2015 10:06	91-57-6	2-Methylnaphthalene			0.045	U
GB-7 18	8/7/2015 10:06	84-66-2	Diethyl phthalate			0.044	U
GB-7 18	8/7/2015 10:06	101-55-3	4-Bromophenyl phenyl ether			0.043	U
GB-7 18	8/7/2015 10:06	208-96-8	Acenaphthylene			0.043	U
GB-7 18	8/7/2015 10:06	86-73-7	Fluorene			0.043	U
GB-7 18	8/7/2015 10:06	87-68-3	Hexachlorobutadiene			0.043	U

Table 6. Analytical Summary Table - SVOCs

Macon MGP #2

Macon, Ga

Client Sample ID	Collection Date	CAS	Analyte by Method 8270D	Type 1 RRS (mg/kg)	Type 2 RRS (mg/kg)	Result (mg/kg)	Flag
GB-7 18	8/7/2015 10:06	95-95-4	2,4,5-Trichlorophenol			0.042	U
GB-7 18	8/7/2015 10:06	120-83-2	2,4-Dichlorophenol			0.042	U
GB-7 18	8/7/2015 10:06	91-58-7	2-Chloronaphthalene			0.042	U
GB-7 18	8/7/2015 10:06	59-50-7	4-Chloro-3-methylphenol			0.042	U
GB-7 18	8/7/2015 10:06	131-11-3	Dimethyl phthalate			0.04	U
GB-7 18	8/7/2015 10:06	108-95-2	Phenol			0.04	U
GB-7 18	8/7/2015 10:06	132-64-9	Dibenzofuran			0.039	U
GB-7 18	8/7/2015 10:06	78-59-1	Isophorone			0.039	U
GB-7 18	8/7/2015 10:06	86-30-6	N-Nitrosodiphenylamine			0.039	U
GB-7 18	8/7/2015 10:06	621-64-7	N-Nitrosodi-n-propylamine			0.038	U
GB-7 18	8/7/2015 10:06	108-60-1	bis (2-chloroisopropyl) ether			0.036	U
GB-7 18	8/7/2015 10:06	86-74-8	Carbazole			0.036	U
GB-7 18	8/7/2015 10:06	84-74-2	Di-n-butyl phthalate			0.036	U
GB-7 18	8/7/2015 10:06	91-20-3	Naphthalene			0.036	U
GB-7 18	8/7/2015 10:06	88-06-2	2,4,6-Trichlorophenol			0.035	U
GB-7 18	8/7/2015 10:06	117-84-0	Di-n-octyl phthalate			0.035	U
GB-7 18	8/7/2015 10:06	91-94-1	3,3'-Dichlorobenzidine			0.033	U
GB-7 18	8/7/2015 10:06	98-86-2	Acetophenone			0.033	U
GB-7 18	8/7/2015 10:06	67-72-1	Hexachloroethane			0.033	U
GB-7 18	8/7/2015 10:06	193-39-5	Indeno[1,2,3-cd]pyrene			0.033	U
GB-7 18	8/7/2015 10:06	95-48-7	2-Methylphenol			0.032	U
GB-7 18	8/7/2015 10:06	85-68-7	Butyl benzyl phthalate			0.031	U
GB-7 18	8/7/2015 10:06	98-95-3	Nitrobenzene			0.031	U
GB-7 18	8/7/2015 10:06	120-12-7	Anthracene			0.03	U
GB-7 18	8/7/2015 10:06	1912-24-9	Atrazine			0.027	U
GB-7 18	8/7/2015 10:06	87-86-5	Pentachlorophenol			0.39	U *
GB-7 18	8/7/2015 10:06	534-52-1	4,6-Dinitro-2-methylphenol			0.2	U *
GB-7 18	8/7/2015 10:06	321-60-8	2-Fluorobiphenyl	NL	NL	2.5	
GB-7 8-10	8/7/2015 9:54	117-81-7	Bis(2-ethylhexyl) phthalate			0.46	B
GB-7 8-10	8/7/2015 9:54	206-44-0	Fluoranthene			0.047	J
GB-7 8-10	8/7/2015 9:54	129-00-0	Pyrene			0.039	J
GB-7 8-10	8/7/2015 9:54	92-52-4	1,1'-Biphenyl			2.1	U
GB-7 8-10	8/7/2015 9:54	51-28-5	2,4-Dinitrophenol			1	U
GB-7 8-10	8/7/2015 9:54	100-02-7	4-Nitrophenol			0.41	U
GB-7 8-10	8/7/2015 9:54	105-60-2	Caprolactam			0.082	U
GB-7 8-10	8/7/2015 9:54	207-08-9	Benzo[k]fluoranthene			0.081	U
GB-7 8-10	8/7/2015 9:54	100-52-7	Benzaldehyde			0.072	U
GB-7 8-10	8/7/2015 9:54	106-47-8	4-Chloroaniline			0.065	U
GB-7 8-10	8/7/2015 9:54	50-32-8	Benzo[a]pyrene			0.065	U
GB-7 8-10	8/7/2015 9:54	121-14-2	2,4-Dinitrotoluene			0.061	U
GB-7 8-10	8/7/2015 9:54	100-01-6	4-Nitroaniline			0.061	U
GB-7 8-10	8/7/2015 9:54	99-09-2	3-Nitroaniline			0.057	U
GB-7 8-10	8/7/2015 9:54	88-74-4	2-Nitroaniline			0.056	U

Table 6. Analytical Summary Table - SVOCs

Macon MGP #2

Macon, Ga

Client Sample ID	Collection Date	CAS	Analyte by Method 8270D	Type 1 RRS (mg/kg)	Type 2 RRS (mg/kg)	Result (mg/kg)	Flag
GB-7 8-10	8/7/2015 9:54	111-44-4	Bis(2-chloroethyl)ether			0.056	U
GB-7 8-10	8/7/2015 9:54	105-67-9	2,4-Dimethylphenol			0.055	U
GB-7 8-10	8/7/2015 9:54	7005-72-3	4-Chlorophenyl phenyl ether			0.055	U
GB-7 8-10	8/7/2015 9:54	15831-10-4	3 & 4 Methylphenol			0.054	U
GB-7 8-10	8/7/2015 9:54	606-20-2	2,6-Dinitrotoluene			0.052	U
GB-7 8-10	8/7/2015 9:54	88-75-5	2-Nitrophenol			0.051	U
GB-7 8-10	8/7/2015 9:54	83-32-9	Acenaphthene			0.051	U
GB-7 8-10	8/7/2015 9:54	77-47-4	Hexachlorocyclopentadiene			0.051	U
GB-7 8-10	8/7/2015 9:54	95-57-8	2-Chlorophenol			0.05	U
GB-7 8-10	8/7/2015 9:54	111-91-1	Bis(2-chloroethoxy)methane			0.049	U
GB-7 8-10	8/7/2015 9:54	53-70-3	Dibenz(a,h)anthracene			0.049	U
GB-7 8-10	8/7/2015 9:54	118-74-1	Hexachlorobenzene			0.049	U
GB-7 8-10	8/7/2015 9:54	91-57-6	2-Methylnaphthalene			0.047	U
GB-7 8-10	8/7/2015 9:54	205-99-2	Benzo[b]fluoranthene			0.047	U
GB-7 8-10	8/7/2015 9:54	84-66-2	Diethyl phthalate			0.046	U
GB-7 8-10	8/7/2015 9:54	101-55-3	4-Bromophenyl phenyl ether			0.045	U
GB-7 8-10	8/7/2015 9:54	208-96-8	Acenaphthylene			0.045	U
GB-7 8-10	8/7/2015 9:54	86-73-7	Fluorene			0.045	U
GB-7 8-10	8/7/2015 9:54	87-68-3	Hexachlorobutadiene			0.045	U
GB-7 8-10	8/7/2015 9:54	95-95-4	2,4,5-Trichlorophenol			0.044	U
GB-7 8-10	8/7/2015 9:54	120-83-2	2,4-Dichlorophenol			0.044	U
GB-7 8-10	8/7/2015 9:54	91-58-7	2-Chloronaphthalene			0.044	U
GB-7 8-10	8/7/2015 9:54	59-50-7	4-Chloro-3-methylphenol			0.044	U
GB-7 8-10	8/7/2015 9:54	131-11-3	Dimethyl phthalate			0.042	U
GB-7 8-10	8/7/2015 9:54	108-95-2	Phenol			0.042	U
GB-7 8-10	8/7/2015 9:54	132-64-9	Dibenzofuran			0.041	U
GB-7 8-10	8/7/2015 9:54	78-59-1	Isophorone			0.041	U
GB-7 8-10	8/7/2015 9:54	86-30-6	N-Nitrosodiphenylamine			0.041	U
GB-7 8-10	8/7/2015 9:54	621-64-7	N-Nitrosodi-n-propylamine			0.04	U
GB-7 8-10	8/7/2015 9:54	108-60-1	bis (2-chloroisopropyl) ether			0.037	U
GB-7 8-10	8/7/2015 9:54	86-74-8	Carbazole			0.037	U
GB-7 8-10	8/7/2015 9:54	84-74-2	Di-n-butyl phthalate			0.037	U
GB-7 8-10	8/7/2015 9:54	91-20-3	Naphthalene			0.037	U
GB-7 8-10	8/7/2015 9:54	88-06-2	2,4,6-Trichlorophenol			0.036	U
GB-7 8-10	8/7/2015 9:54	117-84-0	Di-n-octyl phthalate			0.036	U
GB-7 8-10	8/7/2015 9:54	91-94-1	3,3'-Dichlorobenzidine			0.035	U
GB-7 8-10	8/7/2015 9:54	98-86-2	Acetophenone			0.035	U
GB-7 8-10	8/7/2015 9:54	67-72-1	Hexachloroethane			0.035	U
GB-7 8-10	8/7/2015 9:54	193-39-5	Indeno[1,2,3-cd]pyrene			0.035	U
GB-7 8-10	8/7/2015 9:54	95-48-7	2-Methylphenol			0.034	U
GB-7 8-10	8/7/2015 9:54	56-55-3	Benzo[a]anthracene			0.034	U
GB-7 8-10	8/7/2015 9:54	85-01-8	Phenanthrene			0.034	U
GB-7 8-10	8/7/2015 9:54	85-68-7	Butyl benzyl phthalate			0.032	U

Table 6. Analytical Summary Table - SVOCs

Macon MGP #2

Macon, Ga

Client Sample ID	Collection Date	CAS	Analyte by Method 8270D	Type 1 RRS (mg/kg)	Type 2 RRS (mg/kg)	Result (mg/kg)	Flag
GB-7 8-10	8/7/2015 9:54	98-95-3	Nitrobenzene			0.032	U
GB-7 8-10	8/7/2015 9:54	120-12-7	Anthracene			0.031	U
GB-7 8-10	8/7/2015 9:54	1912-24-9	Atrazine			0.029	U
GB-7 8-10	8/7/2015 9:54	191-24-2	Benzo[g,h,i]perylene			0.027	U
GB-7 8-10	8/7/2015 9:54	218-01-9	Chrysene			0.026	U
GB-7 8-10	8/7/2015 9:54	87-86-5	Pentachlorophenol			0.41	U *
GB-7 8-10	8/7/2015 9:54	534-52-1	4,6-Dinitro-2-methylphenol			0.21	U *
GB-7 8-10	8/7/2015 9:54	321-60-8	2-Fluorobiphenyl	NL	NL	3.5	
GB-9 8-10	8/10/2015 9:57	117-81-7	Bis(2-ethylhexyl) phthalate			0.037	J B
GB-9 8-10	8/10/2015 9:57	92-52-4	1,1'-Biphenyl			1.9	U
GB-9 8-10	8/10/2015 9:57	51-28-5	2,4-Dinitrophenol			0.94	U
GB-9 8-10	8/10/2015 9:57	100-02-7	4-Nitrophenol			0.37	U
GB-9 8-10	8/10/2015 9:57	87-86-5	Pentachlorophenol			0.37	U
GB-9 8-10	8/10/2015 9:57	534-52-1	4,6-Dinitro-2-methylphenol			0.19	U
GB-9 8-10	8/10/2015 9:57	105-60-2	Caprolactam			0.075	U
GB-9 8-10	8/10/2015 9:57	207-08-9	Benzo[k]fluoranthene			0.074	U
GB-9 8-10	8/10/2015 9:57	100-52-7	Benzaldehyde			0.066	U
GB-9 8-10	8/10/2015 9:57	106-47-8	4-Chloroaniline			0.059	U
GB-9 8-10	8/10/2015 9:57	50-32-8	Benzo[a]pyrene			0.059	U
GB-9 8-10	8/10/2015 9:57	121-14-2	2,4-Dinitrotoluene			0.055	U
GB-9 8-10	8/10/2015 9:57	100-01-6	4-Nitroaniline			0.055	U
GB-9 8-10	8/10/2015 9:57	99-09-2	3-Nitroaniline			0.052	U
GB-9 8-10	8/10/2015 9:57	88-74-4	2-Nitroaniline			0.051	U
GB-9 8-10	8/10/2015 9:57	105-67-9	2,4-Dimethylphenol			0.05	U
GB-9 8-10	8/10/2015 9:57	7005-72-3	4-Chlorophenyl phenyl ether			0.05	U
GB-9 8-10	8/10/2015 9:57	15831-10-4	3 & 4 Methylphenol			0.049	U
GB-9 8-10	8/10/2015 9:57	606-20-2	2,6-Dinitrotoluene			0.048	U
GB-9 8-10	8/10/2015 9:57	88-75-5	2-Nitrophenol			0.046	U
GB-9 8-10	8/10/2015 9:57	83-32-9	Acenaphthene			0.046	U
GB-9 8-10	8/10/2015 9:57	77-47-4	Hexachlorocyclopentadiene			0.046	U
GB-9 8-10	8/10/2015 9:57	95-57-8	2-Chlorophenol			0.045	U
GB-9 8-10	8/10/2015 9:57	111-91-1	Bis(2-chloroethoxy)methane			0.044	U
GB-9 8-10	8/10/2015 9:57	53-70-3	Dibenz(a,h)anthracene			0.044	U
GB-9 8-10	8/10/2015 9:57	118-74-1	Hexachlorobenzene			0.044	U
GB-9 8-10	8/10/2015 9:57	91-57-6	2-Methylnaphthalene			0.043	U
GB-9 8-10	8/10/2015 9:57	205-99-2	Benzo[b]fluoranthene			0.043	U
GB-9 8-10	8/10/2015 9:57	84-66-2	Diethyl phthalate			0.042	U
GB-9 8-10	8/10/2015 9:57	101-55-3	4-Bromophenyl phenyl ether			0.041	U
GB-9 8-10	8/10/2015 9:57	208-96-8	Acenaphthylene			0.041	U
GB-9 8-10	8/10/2015 9:57	86-73-7	Fluorene			0.041	U
GB-9 8-10	8/10/2015 9:57	87-68-3	Hexachlorobutadiene			0.041	U
GB-9 8-10	8/10/2015 9:57	95-95-4	2,4,5-Trichlorophenol			0.04	U
GB-9 8-10	8/10/2015 9:57	120-83-2	2,4-Dichlorophenol			0.04	U

Table 6. Analytical Summary Table - SVOCs  
Macon MGP #2  
Macon, Ga

Client Sample ID	Collection Date	CAS	Analyte by Method 8270D	Type 1 RRS (mg/kg)	Type 2 RRS (mg/kg)	Result (mg/kg)	Flag
GB-9 8-10	8/10/2015 9:57	91-58-7	2-Chloronaphthalene			0.04	U
GB-9 8-10	8/10/2015 9:57	59-50-7	4-Chloro-3-methylphenol			0.04	U
GB-9 8-10	8/10/2015 9:57	131-11-3	Dimethyl phthalate			0.038	U
GB-9 8-10	8/10/2015 9:57	108-95-2	Phenol			0.038	U
GB-9 8-10	8/10/2015 9:57	132-64-9	Dibenzofuran			0.037	U
GB-9 8-10	8/10/2015 9:57	78-59-1	Isophorone			0.037	U
GB-9 8-10	8/10/2015 9:57	86-30-6	N-Nitrosodiphenylamine			0.037	U
GB-9 8-10	8/10/2015 9:57	206-44-0	Fluoranthene			0.036	U
GB-9 8-10	8/10/2015 9:57	621-64-7	N-Nitrosodi-n-propylamine			0.036	U
GB-9 8-10	8/10/2015 9:57	108-60-1	bis (2-chloroisopropyl) ether			0.034	U
GB-9 8-10	8/10/2015 9:57	86-74-8	Carbazole			0.034	U
GB-9 8-10	8/10/2015 9:57	84-74-2	Di-n-butyl phthalate			0.034	U
GB-9 8-10	8/10/2015 9:57	91-20-3	Naphthalene			0.034	U
GB-9 8-10	8/10/2015 9:57	88-06-2	2,4,6-Trichlorophenol			0.033	U
GB-9 8-10	8/10/2015 9:57	117-84-0	Di-n-octyl phthalate			0.033	U
GB-9 8-10	8/10/2015 9:57	91-94-1	3,3'-Dichlorobenzidine			0.032	U
GB-9 8-10	8/10/2015 9:57	98-86-2	Acetophenone			0.032	U
GB-9 8-10	8/10/2015 9:57	67-72-1	Hexachloroethane			0.032	U
GB-9 8-10	8/10/2015 9:57	193-39-5	Indeno[1,2,3-cd]pyrene			0.032	U
GB-9 8-10	8/10/2015 9:57	95-48-7	2-Methylphenol			0.031	U
GB-9 8-10	8/10/2015 9:57	56-55-3	Benzo[a]anthracene			0.031	U
GB-9 8-10	8/10/2015 9:57	85-01-8	Phenanthrene			0.031	U
GB-9 8-10	8/10/2015 9:57	129-00-0	Pyrene			0.031	U
GB-9 8-10	8/10/2015 9:57	85-68-7	Butyl benzyl phthalate			0.029	U
GB-9 8-10	8/10/2015 9:57	98-95-3	Nitrobenzene			0.029	U
GB-9 8-10	8/10/2015 9:57	120-12-7	Anthracene			0.028	U
GB-9 8-10	8/10/2015 9:57	1912-24-9	Atrazine			0.026	U
GB-9 8-10	8/10/2015 9:57	191-24-2	Benzo[g,h,i]perylene			0.025	U
GB-9 8-10	8/10/2015 9:57	218-01-9	Chrysene			0.024	U
GB-9 8-10	8/10/2015 9:57	111-44-4	Bis(2-chloroethyl)ether			0.051	U *
GB-9 8-10	8/10/2015 9:57	321-60-8	2-Fluorobiphenyl	NL	NL	3.2	
GB-9 13-15	8/10/2015 10:06	117-81-7	Bis(2-ethylhexyl) phthalate			0.07	J B
GB-9 13-15	8/10/2015 10:06	92-52-4	1,1'-Biphenyl			2.1	U
GB-9 13-15	8/10/2015 10:06	51-28-5	2,4-Dinitrophenol			1	U
GB-9 13-15	8/10/2015 10:06	100-02-7	4-Nitrophenol			0.41	U
GB-9 13-15	8/10/2015 10:06	87-86-5	Pentachlorophenol			0.41	U
GB-9 13-15	8/10/2015 10:06	534-52-1	4,6-Dinitro-2-methylphenol			0.21	U
GB-9 13-15	8/10/2015 10:06	105-60-2	Caprolactam			0.083	U
GB-9 13-15	8/10/2015 10:06	207-08-9	Benzo[k]fluoranthene			0.082	U
GB-9 13-15	8/10/2015 10:06	100-52-7	Benzaldehyde			0.073	U
GB-9 13-15	8/10/2015 10:06	106-47-8	4-Chloroaniline			0.065	U
GB-9 13-15	8/10/2015 10:06	50-32-8	Benzo[a]pyrene			0.065	U
GB-9 13-15	8/10/2015 10:06	121-14-2	2,4-Dinitrotoluene			0.062	U

Table 6. Analytical Summary Table - SVOCs

Macon MGP #2

Macon, Ga

Client Sample ID	Collection Date	CAS	Analyte by Method 8270D	Type 1 RRS (mg/kg)	Type 2 RRS (mg/kg)	Result (mg/kg)	Flag
GB-9 13-15	8/10/2015 10:06	100-01-6	4-Nitroaniline			0.062	U
GB-9 13-15	8/10/2015 10:06	99-09-2	3-Nitroaniline			0.058	U
GB-9 13-15	8/10/2015 10:06	88-74-4	2-Nitroaniline			0.057	U
GB-9 13-15	8/10/2015 10:06	105-67-9	2,4-Dimethylphenol			0.055	U
GB-9 13-15	8/10/2015 10:06	7005-72-3	4-Chlorophenyl phenyl ether			0.055	U
GB-9 13-15	8/10/2015 10:06	15831-10-4	3 & 4 Methylphenol			0.054	U
GB-9 13-15	8/10/2015 10:06	606-20-2	2,6-Dinitrotoluene			0.053	U
GB-9 13-15	8/10/2015 10:06	88-75-5	2-Nitrophenol			0.051	U
GB-9 13-15	8/10/2015 10:06	83-32-9	Acenaphthene			0.051	U
GB-9 13-15	8/10/2015 10:06	77-47-4	Hexachlorocyclopentadiene			0.051	U
GB-9 13-15	8/10/2015 10:06	95-57-8	2-Chlorophenol			0.05	U
GB-9 13-15	8/10/2015 10:06	111-91-1	Bis(2-chloroethoxy)methane			0.049	U
GB-9 13-15	8/10/2015 10:06	53-70-3	Dibenz(a,h)anthracene			0.049	U
GB-9 13-15	8/10/2015 10:06	118-74-1	Hexachlorobenzene			0.049	U
GB-9 13-15	8/10/2015 10:06	91-57-6	2-Methylnaphthalene			0.048	U
GB-9 13-15	8/10/2015 10:06	205-99-2	Benzo[b]fluoranthene			0.048	U
GB-9 13-15	8/10/2015 10:06	84-66-2	Diethyl phthalate			0.046	U
GB-9 13-15	8/10/2015 10:06	101-55-3	4-Bromophenyl phenyl ether			0.045	U
GB-9 13-15	8/10/2015 10:06	208-96-8	Acenaphthylene			0.045	U
GB-9 13-15	8/10/2015 10:06	86-73-7	Fluorene			0.045	U
GB-9 13-15	8/10/2015 10:06	87-68-3	Hexachlorobutadiene			0.045	U
GB-9 13-15	8/10/2015 10:06	95-95-4	2,4,5-Trichlorophenol			0.044	U
GB-9 13-15	8/10/2015 10:06	120-83-2	2,4-Dichlorophenol			0.044	U
GB-9 13-15	8/10/2015 10:06	91-58-7	2-Chloronaphthalene			0.044	U
GB-9 13-15	8/10/2015 10:06	59-50-7	4-Chloro-3-methylphenol			0.044	U
GB-9 13-15	8/10/2015 10:06	131-11-3	Dimethyl phthalate			0.043	U
GB-9 13-15	8/10/2015 10:06	108-95-2	Phenol			0.043	U
GB-9 13-15	8/10/2015 10:06	132-64-9	Dibenzofuran			0.041	U
GB-9 13-15	8/10/2015 10:06	78-59-1	Isophorone			0.041	U
GB-9 13-15	8/10/2015 10:06	86-30-6	N-Nitrosodiphenylamine			0.041	U
GB-9 13-15	8/10/2015 10:06	206-44-0	Fluoranthene			0.04	U
GB-9 13-15	8/10/2015 10:06	621-64-7	N-Nitrosodi-n-propylamine			0.04	U
GB-9 13-15	8/10/2015 10:06	108-60-1	bis (2-chloroisopropyl) ether			0.038	U
GB-9 13-15	8/10/2015 10:06	86-74-8	Carbazole			0.038	U
GB-9 13-15	8/10/2015 10:06	84-74-2	Di-n-butyl phthalate			0.038	U
GB-9 13-15	8/10/2015 10:06	91-20-3	Naphthalene			0.038	U
GB-9 13-15	8/10/2015 10:06	88-06-2	2,4,6-Trichlorophenol			0.036	U
GB-9 13-15	8/10/2015 10:06	117-84-0	Di-n-octyl phthalate			0.036	U
GB-9 13-15	8/10/2015 10:06	91-94-1	3,3'-Dichlorobenzidine			0.035	U
GB-9 13-15	8/10/2015 10:06	98-86-2	Acetophenone			0.035	U
GB-9 13-15	8/10/2015 10:06	67-72-1	Hexachloroethane			0.035	U
GB-9 13-15	8/10/2015 10:06	193-39-5	Indeno[1,2,3-cd]pyrene			0.035	U
GB-9 13-15	8/10/2015 10:06	95-48-7	2-Methylphenol			0.034	U



Table 6. Analytical Summary Table - SVOCs

Macon MGP #2

Macon, Ga

Client Sample ID	Collection Date	CAS	Analyte by Method 8270D	Type 1 RRS (mg/kg)	Type 2 RRS (mg/kg)	Result (mg/kg)	Flag
GB-9 13-15	8/10/2015 10:06	56-55-3	Benzo[a]anthracene			0.034	U
GB-9 13-15	8/10/2015 10:06	85-01-8	Phenanthrene			0.034	U
GB-9 13-15	8/10/2015 10:06	129-00-0	Pyrene			0.034	U
GB-9 13-15	8/10/2015 10:06	85-68-7	Butyl benzyl phthalate			0.033	U
GB-9 13-15	8/10/2015 10:06	98-95-3	Nitrobenzene			0.033	U
GB-9 13-15	8/10/2015 10:06	120-12-7	Anthracene			0.031	U
GB-9 13-15	8/10/2015 10:06	1912-24-9	Atrazine			0.029	U
GB-9 13-15	8/10/2015 10:06	191-24-2	Benzo[g,h,i]perylene			0.028	U
GB-9 13-15	8/10/2015 10:06	218-01-9	Chrysene			0.026	U
GB-9 13-15	8/10/2015 10:06	111-44-4	Bis(2-chloroethyl)ether			0.057	U *
GB-9 13-15	8/10/2015 10:06	321-60-8	2-Fluorobiphenyl	NL	NL	3.6	
SB-17 13-15	8/7/2015 14:56	321-60-8	2-Fluorobiphenyl			0	D
SB-17 13-15	8/7/2015 14:56	86-74-8	Carbazole			3.3	J
SB-17 13-15	8/7/2015 14:56	53-70-3	Dibenz(a,h)anthracene			2	J
SB-17 13-15	8/7/2015 14:56	132-64-9	Dibenzofuran			1.3	J
SB-17 13-15	8/7/2015 14:56	91-20-3	Naphthalene			0.94	J
SB-17 13-15	8/7/2015 14:56	92-52-4	1,1'-Biphenyl			20	U
SB-17 13-15	8/7/2015 14:56	51-28-5	2,4-Dinitrophenol			9.7	U
SB-17 13-15	8/7/2015 14:56	100-02-7	4-Nitrophenol			3.9	U
SB-17 13-15	8/7/2015 14:56	105-60-2	Caprolactam			0.77	U
SB-17 13-15	8/7/2015 14:56	100-52-7	Benzaldehyde			0.68	U
SB-17 13-15	8/7/2015 14:56	106-47-8	4-Chloroaniline			0.61	U
SB-17 13-15	8/7/2015 14:56	121-14-2	2,4-Dinitrotoluene			0.57	U
SB-17 13-15	8/7/2015 14:56	100-01-6	4-Nitroaniline			0.57	U
SB-17 13-15	8/7/2015 14:56	99-09-2	3-Nitroaniline			0.54	U
SB-17 13-15	8/7/2015 14:56	88-74-4	2-Nitroaniline			0.53	U
SB-17 13-15	8/7/2015 14:56	111-44-4	Bis(2-chloroethyl)ether			0.53	U
SB-17 13-15	8/7/2015 14:56	105-67-9	2,4-Dimethylphenol			0.51	U
SB-17 13-15	8/7/2015 14:56	7005-72-3	4-Chlorophenyl phenyl ether			0.51	U
SB-17 13-15	8/7/2015 14:56	15831-10-4	3 & 4 Methylphenol			0.5	U
SB-17 13-15	8/7/2015 14:56	606-20-2	2,6-Dinitrotoluene			0.49	U
SB-17 13-15	8/7/2015 14:56	88-75-5	2-Nitrophenol			0.48	U
SB-17 13-15	8/7/2015 14:56	77-47-4	Hexachlorocyclopentadiene			0.48	U
SB-17 13-15	8/7/2015 14:56	95-57-8	2-Chlorophenol			0.47	U
SB-17 13-15	8/7/2015 14:56	111-91-1	Bis(2-chloroethoxy)methane			0.46	U
SB-17 13-15	8/7/2015 14:56	118-74-1	Hexachlorobenzene			0.46	U
SB-17 13-15	8/7/2015 14:56	91-57-6	2-Methylnaphthalene			0.44	U
SB-17 13-15	8/7/2015 14:56	84-66-2	Diethyl phthalate			0.43	U
SB-17 13-15	8/7/2015 14:56	101-55-3	4-Bromophenyl phenyl ether			0.42	U
SB-17 13-15	8/7/2015 14:56	208-96-8	Acenaphthylene			0.42	U
SB-17 13-15	8/7/2015 14:56	87-68-3	Hexachlorobutadiene			0.42	U
SB-17 13-15	8/7/2015 14:56	95-95-4	2,4,5-Trichlorophenol			0.41	U
SB-17 13-15	8/7/2015 14:56	120-83-2	2,4-Dichlorophenol			0.41	U

Table 6. Analytical Summary Table - SVOCs

Macon MGP #2

Macon, Ga

Client Sample ID	Collection Date	CAS	Analyte by Method 8270D	Type 1 RRS (mg/kg)	Type 2 RRS (mg/kg)	Result (mg/kg)	Flag
SB-17 13-15	8/7/2015 14:56	91-58-7	2-Chloronaphthalene			0.41	U
SB-17 13-15	8/7/2015 14:56	59-50-7	4-Chloro-3-methylphenol			0.41	U
SB-17 13-15	8/7/2015 14:56	131-11-3	Dimethyl phthalate			0.4	U
SB-17 13-15	8/7/2015 14:56	108-95-2	Phenol			0.4	U
SB-17 13-15	8/7/2015 14:56	78-59-1	Isophorone			0.39	U
SB-17 13-15	8/7/2015 14:56	86-30-6	N-Nitrosodiphenylamine			0.39	U
SB-17 13-15	8/7/2015 14:56	621-64-7	N-Nitrosodi-n-propylamine			0.37	U
SB-17 13-15	8/7/2015 14:56	108-60-1	bis (2-chloroisopropyl) ether			0.35	U
SB-17 13-15	8/7/2015 14:56	84-74-2	Di-n-butyl phthalate			0.35	U
SB-17 13-15	8/7/2015 14:56	88-06-2	2,4,6-Trichlorophenol			0.34	U
SB-17 13-15	8/7/2015 14:56	117-81-7	Bis(2-ethylhexyl) phthalate			0.34	U
SB-17 13-15	8/7/2015 14:56	117-84-0	Di-n-octyl phthalate			0.34	U
SB-17 13-15	8/7/2015 14:56	91-94-1	3,3'-Dichlorobenzidine			0.33	U
SB-17 13-15	8/7/2015 14:56	98-86-2	Acetophenone			0.33	U
SB-17 13-15	8/7/2015 14:56	67-72-1	Hexachloroethane			0.33	U
SB-17 13-15	8/7/2015 14:56	95-48-7	2-Methylphenol			0.32	U
SB-17 13-15	8/7/2015 14:56	85-68-7	Butyl benzyl phthalate			0.3	U
SB-17 13-15	8/7/2015 14:56	98-95-3	Nitrobenzene			0.3	U
SB-17 13-15	8/7/2015 14:56	1912-24-9	Atrazine			0.27	U
SB-17 13-15	8/7/2015 14:56	87-86-5	Pentachlorophenol			3.9	U *
SB-17 13-15	8/7/2015 14:56	534-52-1	4,6-Dinitro-2-methylphenol			2	U *
SB-17 13-15	8/7/2015 14:56	206-44-0	Fluoranthene	500	3,130	28	
SB-17 13-15	8/7/2015 14:56	85-01-8	Phenanthrene	110	2,350	20	
SB-17 13-15	8/7/2015 14:56	129-00-0	Pyrene	500	2,350	20	
SB-17 13-15	8/7/2015 14:56	56-55-3	Benzo[a]anthracene	5	12.5	13	
SB-17 13-15	8/7/2015 14:56	205-99-2	Benzo[b]fluoranthene	5	12.5	13	
SB-17 13-15	8/7/2015 14:56	50-32-8	Benzo[a]pyrene	1.64	1.25	10	
SB-17 13-15	8/7/2015 14:56	218-01-9	Chrysene	5	1,250	10	
SB-17 13-15	8/7/2015 14:56	191-24-2	Benzo[g,h,i]perylene	500	2,350	6.9	
SB-17 13-15	8/7/2015 14:56	207-08-9	Benzo[k]fluoranthene	5	125	6.3	
SB-17 13-15	8/7/2015 14:56	120-12-7	Anthracene	500	23,500	6.2	
SB-17 13-15	8/7/2015 14:56	193-39-5	Indeno[1,2,3-cd]pyrene	5	12.5	6.1	
SB-17 13-15	8/7/2015 14:56	83-32-9	Acenaphthene	300	2,350	5.5	
SB-17 13-15	8/7/2015 14:56	86-73-7	Fluorene	360	3,130	4.1	
SB-17 8-10	8/7/2015 14:50	206-44-0	Fluoranthene			0.78	F1
SB-17 8-10	8/7/2015 14:50	85-01-8	Phenanthrene			0.63	F1
SB-17 8-10	8/7/2015 14:50	129-00-0	Pyrene			0.56	F1
SB-17 8-10	8/7/2015 14:50	120-12-7	Anthracene			0.19	J
SB-17 8-10	8/7/2015 14:50	191-24-2	Benzo[g,h,i]perylene			0.19	J
SB-17 8-10	8/7/2015 14:50	207-08-9	Benzo[k]fluoranthene			0.18	J
SB-17 8-10	8/7/2015 14:50	193-39-5	Indeno[1,2,3-cd]pyrene			0.17	J
SB-17 8-10	8/7/2015 14:50	86-73-7	Fluorene			0.13	J
SB-17 8-10	8/7/2015 14:50	53-70-3	Dibenz(a,h)anthracene			0.061	J

Table 6. Analytical Summary Table - SVOCs

Macon MGP #2

Macon, Ga

Client Sample ID	Collection Date	CAS	Analyte by Method 8270D	Type 1 RRS (mg/kg)	Type 2 RRS (mg/kg)	Result (mg/kg)	Flag
SB-17 8-10	8/7/2015 14:50	132-64-9	Dibenzofuran			0.052	J
SB-17 8-10	8/7/2015 14:50	117-81-7	Bis(2-ethylhexyl) phthalate			0.18	J B
SB-17 8-10	8/7/2015 14:50	218-01-9	Chrysene			0.33	J F1
SB-17 8-10	8/7/2015 14:50	50-32-8	Benzo[a]pyrene			0.32	J F1
SB-17 8-10	8/7/2015 14:50	83-32-9	Acenaphthene			0.12	J F1
SB-17 8-10	8/7/2015 14:50	86-74-8	Carbazole			0.12	J F1
SB-17 8-10	8/7/2015 14:50	92-52-4	1,1'-Biphenyl			1.9	U
SB-17 8-10	8/7/2015 14:50	100-02-7	4-Nitrophenol			0.37	U
SB-17 8-10	8/7/2015 14:50	105-60-2	Caprolactam			0.075	U
SB-17 8-10	8/7/2015 14:50	100-52-7	Benzaldehyde			0.066	U
SB-17 8-10	8/7/2015 14:50	106-47-8	4-Chloroaniline			0.059	U
SB-17 8-10	8/7/2015 14:50	121-14-2	2,4-Dinitrotoluene			0.056	U
SB-17 8-10	8/7/2015 14:50	100-01-6	4-Nitroaniline			0.056	U
SB-17 8-10	8/7/2015 14:50	99-09-2	3-Nitroaniline			0.052	U
SB-17 8-10	8/7/2015 14:50	88-74-4	2-Nitroaniline			0.051	U
SB-17 8-10	8/7/2015 14:50	111-44-4	Bis(2-chloroethyl)ether			0.051	U
SB-17 8-10	8/7/2015 14:50	105-67-9	2,4-Dimethylphenol			0.05	U
SB-17 8-10	8/7/2015 14:50	7005-72-3	4-Chlorophenyl phenyl ether			0.05	U
SB-17 8-10	8/7/2015 14:50	15831-10-4	3 & 4 Methylphenol			0.049	U
SB-17 8-10	8/7/2015 14:50	606-20-2	2,6-Dinitrotoluene			0.048	U
SB-17 8-10	8/7/2015 14:50	88-75-5	2-Nitrophenol			0.047	U
SB-17 8-10	8/7/2015 14:50	77-47-4	Hexachlorocyclopentadiene			0.047	U
SB-17 8-10	8/7/2015 14:50	95-57-8	2-Chlorophenol			0.045	U
SB-17 8-10	8/7/2015 14:50	118-74-1	Hexachlorobenzene			0.044	U
SB-17 8-10	8/7/2015 14:50	91-57-6	2-Methylnaphthalene			0.043	U
SB-17 8-10	8/7/2015 14:50	84-66-2	Diethyl phthalate			0.042	U
SB-17 8-10	8/7/2015 14:50	101-55-3	4-Bromophenyl phenyl ether			0.041	U
SB-17 8-10	8/7/2015 14:50	87-68-3	Hexachlorobutadiene			0.041	U
SB-17 8-10	8/7/2015 14:50	95-95-4	2,4,5-Trichlorophenol			0.04	U
SB-17 8-10	8/7/2015 14:50	120-83-2	2,4-Dichlorophenol			0.04	U
SB-17 8-10	8/7/2015 14:50	91-58-7	2-Chloronaphthalene			0.04	U
SB-17 8-10	8/7/2015 14:50	59-50-7	4-Chloro-3-methylphenol			0.04	U
SB-17 8-10	8/7/2015 14:50	108-95-2	Phenol			0.039	U
SB-17 8-10	8/7/2015 14:50	78-59-1	Isophorone			0.037	U
SB-17 8-10	8/7/2015 14:50	86-30-6	N-Nitrosodiphenylamine			0.037	U
SB-17 8-10	8/7/2015 14:50	621-64-7	N-Nitrosodi-n-propylamine			0.036	U
SB-17 8-10	8/7/2015 14:50	108-60-1	bis (2-chloroisopropyl) ether			0.034	U
SB-17 8-10	8/7/2015 14:50	91-20-3	Naphthalene			0.034	U
SB-17 8-10	8/7/2015 14:50	88-06-2	2,4,6-Trichlorophenol			0.033	U
SB-17 8-10	8/7/2015 14:50	117-84-0	Di-n-octyl phthalate			0.033	U
SB-17 8-10	8/7/2015 14:50	91-94-1	3,3'-Dichlorobenzidine			0.032	U
SB-17 8-10	8/7/2015 14:50	98-86-2	Acetophenone			0.032	U
SB-17 8-10	8/7/2015 14:50	67-72-1	Hexachloroethane			0.032	U

Table 6. Analytical Summary Table - SVOCs

Macon MGP #2

Macon, Ga

Client Sample ID	Collection Date	CAS	Analyte by Method 8270D	Type 1 RRS (mg/kg)	Type 2 RRS (mg/kg)	Result (mg/kg)	Flag
SB-17 8-10	8/7/2015 14:50	95-48-7	2-Methylphenol			0.031	U
SB-17 8-10	8/7/2015 14:50	85-68-7	Butyl benzyl phthalate			0.03	U
SB-17 8-10	8/7/2015 14:50	98-95-3	Nitrobenzene			0.03	U
SB-17 8-10	8/7/2015 14:50	1912-24-9	Atrazine			0.026	U
SB-17 8-10	8/7/2015 14:50	87-86-5	Pentachlorophenol			0.37	U *
SB-17 8-10	8/7/2015 14:50	51-28-5	2,4-Dinitrophenol			0.94	U F1
SB-17 8-10	8/7/2015 14:50	111-91-1	Bis(2-chloroethoxy)methane			0.044	U F1
SB-17 8-10	8/7/2015 14:50	208-96-8	Acenaphthylene			0.041	U F1
SB-17 8-10	8/7/2015 14:50	131-11-3	Dimethyl phthalate			0.039	U F1
SB-17 8-10	8/7/2015 14:50	84-74-2	Di-n-butyl phthalate			0.034	U F1
SB-17 8-10	8/7/2015 14:50	534-52-1	4,6-Dinitro-2-methylphenol			0.19	U F2 *
SB-17 8-10	8/7/2015 14:50	321-60-8	2-Fluorobiphenyl	NL	NL	2	
SB-17 8-10	8/7/2015 14:50	205-99-2	Benzo[b]fluoranthene	5	12.5	0.45	
SB-17 8-10	8/7/2015 14:50	56-55-3	Benzo[a]anthracene	5	12.5	0.39	
SB-20 0-2	8/7/2015 15:04	191-24-2	Benzo[g,h,i]perylene			0.04	J
SB-20 0-2	8/7/2015 15:04	117-81-7	Bis(2-ethylhexyl) phthalate			0.21	J B
SB-20 0-2	8/7/2015 15:04	92-52-4	1,1'-Biphenyl			2	U
SB-20 0-2	8/7/2015 15:04	51-28-5	2,4-Dinitrophenol			0.96	U
SB-20 0-2	8/7/2015 15:04	100-02-7	4-Nitrophenol			0.38	U
SB-20 0-2	8/7/2015 15:04	105-60-2	Caprolactam			0.076	U
SB-20 0-2	8/7/2015 15:04	207-08-9	Benzo[k]fluoranthene			0.075	U
SB-20 0-2	8/7/2015 15:04	100-52-7	Benzaldehyde			0.067	U
SB-20 0-2	8/7/2015 15:04	106-47-8	4-Chloroaniline			0.06	U
SB-20 0-2	8/7/2015 15:04	50-32-8	Benzo[a]pyrene			0.06	U
SB-20 0-2	8/7/2015 15:04	121-14-2	2,4-Dinitrotoluene			0.057	U
SB-20 0-2	8/7/2015 15:04	100-01-6	4-Nitroaniline			0.057	U
SB-20 0-2	8/7/2015 15:04	99-09-2	3-Nitroaniline			0.053	U
SB-20 0-2	8/7/2015 15:04	88-74-4	2-Nitroaniline			0.052	U
SB-20 0-2	8/7/2015 15:04	111-44-4	Bis(2-chloroethyl)ether			0.052	U
SB-20 0-2	8/7/2015 15:04	105-67-9	2,4-Dimethylphenol			0.051	U
SB-20 0-2	8/7/2015 15:04	7005-72-3	4-Chlorophenyl phenyl ether			0.051	U
SB-20 0-2	8/7/2015 15:04	15831-10-4	3 & 4 Methylphenol			0.05	U
SB-20 0-2	8/7/2015 15:04	606-20-2	2,6-Dinitrotoluene			0.048	U
SB-20 0-2	8/7/2015 15:04	88-75-5	2-Nitrophenol			0.047	U
SB-20 0-2	8/7/2015 15:04	83-32-9	Acenaphthene			0.047	U
SB-20 0-2	8/7/2015 15:04	77-47-4	Hexachlorocyclopentadiene			0.047	U
SB-20 0-2	8/7/2015 15:04	95-57-8	2-Chlorophenol			0.046	U
SB-20 0-2	8/7/2015 15:04	111-91-1	Bis(2-chloroethoxy)methane			0.045	U
SB-20 0-2	8/7/2015 15:04	53-70-3	Dibenz(a,h)anthracene			0.045	U
SB-20 0-2	8/7/2015 15:04	118-74-1	Hexachlorobenzene			0.045	U
SB-20 0-2	8/7/2015 15:04	91-57-6	2-Methylnaphthalene			0.044	U
SB-20 0-2	8/7/2015 15:04	205-99-2	Benzo[b]fluoranthene			0.044	U

Table 6. Analytical Summary Table - SVOCs

Macon MGP #2

Macon, Ga

Client Sample ID	Collection Date	CAS	Analyte by Method 8270D	Type 1 RRS (mg/kg)	Type 2 RRS (mg/kg)	Result (mg/kg)	Flag
SB-20 0-2	8/7/2015 15:04	84-66-2	Diethyl phthalate			0.043	U
SB-20 0-2	8/7/2015 15:04	101-55-3	4-Bromophenyl phenyl ether			0.042	U
SB-20 0-2	8/7/2015 15:04	208-96-8	Acenaphthylene			0.042	U
SB-20 0-2	8/7/2015 15:04	86-73-7	Fluorene			0.042	U
SB-20 0-2	8/7/2015 15:04	87-68-3	Hexachlorobutadiene			0.042	U
SB-20 0-2	8/7/2015 15:04	95-95-4	2,4,5-Trichlorophenol			0.04	U
SB-20 0-2	8/7/2015 15:04	120-83-2	2,4-Dichlorophenol			0.04	U
SB-20 0-2	8/7/2015 15:04	91-58-7	2-Chloronaphthalene			0.04	U
SB-20 0-2	8/7/2015 15:04	59-50-7	4-Chloro-3-methylphenol			0.04	U
SB-20 0-2	8/7/2015 15:04	131-11-3	Dimethyl phthalate			0.039	U
SB-20 0-2	8/7/2015 15:04	108-95-2	Phenol			0.039	U
SB-20 0-2	8/7/2015 15:04	132-64-9	Dibenzofuran			0.038	U
SB-20 0-2	8/7/2015 15:04	78-59-1	Isophorone			0.038	U
SB-20 0-2	8/7/2015 15:04	86-30-6	N-Nitrosodiphenylamine			0.038	U
SB-20 0-2	8/7/2015 15:04	206-44-0	Fluoranthene			0.037	U
SB-20 0-2	8/7/2015 15:04	621-64-7	N-Nitrosodi-n-propylamine			0.037	U
SB-20 0-2	8/7/2015 15:04	108-60-1	bis (2-chloroisopropyl) ether			0.035	U
SB-20 0-2	8/7/2015 15:04	86-74-8	Carbazole			0.035	U
SB-20 0-2	8/7/2015 15:04	84-74-2	Di-n-butyl phthalate			0.035	U
SB-20 0-2	8/7/2015 15:04	91-20-3	Naphthalene			0.035	U
SB-20 0-2	8/7/2015 15:04	88-06-2	2,4,6-Trichlorophenol			0.033	U
SB-20 0-2	8/7/2015 15:04	117-84-0	Di-n-octyl phthalate			0.033	U
SB-20 0-2	8/7/2015 15:04	91-94-1	3,3'-Dichlorobenzidine			0.032	U
SB-20 0-2	8/7/2015 15:04	98-86-2	Acetophenone			0.032	U
SB-20 0-2	8/7/2015 15:04	67-72-1	Hexachloroethane			0.032	U
SB-20 0-2	8/7/2015 15:04	193-39-5	Indeno[1,2,3-cd]pyrene			0.032	U
SB-20 0-2	8/7/2015 15:04	95-48-7	2-Methylphenol			0.031	U
SB-20 0-2	8/7/2015 15:04	56-55-3	Benzo[a]anthracene			0.031	U
SB-20 0-2	8/7/2015 15:04	85-01-8	Phenanthrene			0.031	U
SB-20 0-2	8/7/2015 15:04	129-00-0	Pyrene			0.031	U
SB-20 0-2	8/7/2015 15:04	85-68-7	Butyl benzyl phthalate			0.03	U
SB-20 0-2	8/7/2015 15:04	98-95-3	Nitrobenzene			0.03	U
SB-20 0-2	8/7/2015 15:04	120-12-7	Anthracene			0.029	U
SB-20 0-2	8/7/2015 15:04	1912-24-9	Atrazine			0.027	U
SB-20 0-2	8/7/2015 15:04	218-01-9	Chrysene			0.024	U
SB-20 0-2	8/7/2015 15:04	87-86-5	Pentachlorophenol			0.38	U *
SB-20 0-2	8/7/2015 15:04	534-52-1	4,6-Dinitro-2-methylphenol			0.2	U *
SB-20 0-2	8/7/2015 15:04	321-60-8	2-Fluorobiphenyl	NL	NL	2.6	
SB-20 2-4	8/7/2015 15:04	117-81-7	Bis(2-ethylhexyl) phthalate			0.26	J B
SB-20 2-4	8/7/2015 15:04	92-52-4	1,1'-Biphenyl			2	U
SB-20 2-4	8/7/2015 15:04	51-28-5	2,4-Dinitrophenol			0.98	U
SB-20 2-4	8/7/2015 15:04	100-02-7	4-Nitrophenol			0.39	U
SB-20 2-4	8/7/2015 15:04	105-60-2	Caprolactam			0.078	U

Table 6. Analytical Summary Table - SVOCs

Macon MGP #2

Macon, Ga

Client Sample ID	Collection Date	CAS	Analyte by Method 8270D	Type 1 RRS (mg/kg)	Type 2 RRS (mg/kg)	Result (mg/kg)	Flag
SB-20 2-4	8/7/2015 15:04	207-08-9	Benzo[k]fluoranthene			0.077	U
SB-20 2-4	8/7/2015 15:04	100-52-7	Benzaldehyde			0.068	U
SB-20 2-4	8/7/2015 15:04	106-47-8	4-Chloroaniline			0.061	U
SB-20 2-4	8/7/2015 15:04	50-32-8	Benzo[a]pyrene			0.061	U
SB-20 2-4	8/7/2015 15:04	121-14-2	2,4-Dinitrotoluene			0.058	U
SB-20 2-4	8/7/2015 15:04	100-01-6	4-Nitroaniline			0.058	U
SB-20 2-4	8/7/2015 15:04	99-09-2	3-Nitroaniline			0.054	U
SB-20 2-4	8/7/2015 15:04	88-74-4	2-Nitroaniline			0.053	U
SB-20 2-4	8/7/2015 15:04	111-44-4	Bis(2-chloroethyl)ether			0.053	U
SB-20 2-4	8/7/2015 15:04	105-67-9	2,4-Dimethylphenol			0.052	U
SB-20 2-4	8/7/2015 15:04	7005-72-3	4-Chlorophenyl phenyl ether			0.052	U
SB-20 2-4	8/7/2015 15:04	15831-10-4	3 & 4 Methylphenol			0.051	U
SB-20 2-4	8/7/2015 15:04	606-20-2	2,6-Dinitrotoluene			0.049	U
SB-20 2-4	8/7/2015 15:04	88-75-5	2-Nitrophenol			0.048	U
SB-20 2-4	8/7/2015 15:04	83-32-9	Acenaphthene			0.048	U
SB-20 2-4	8/7/2015 15:04	77-47-4	Hexachlorocyclopentadiene			0.048	U
SB-20 2-4	8/7/2015 15:04	95-57-8	2-Chlorophenol			0.047	U
SB-20 2-4	8/7/2015 15:04	111-91-1	Bis(2-chloroethoxy)methane			0.046	U
SB-20 2-4	8/7/2015 15:04	53-70-3	Dibenz(a,h)anthracene			0.046	U
SB-20 2-4	8/7/2015 15:04	118-74-1	Hexachlorobenzene			0.046	U
SB-20 2-4	8/7/2015 15:04	91-57-6	2-Methylnaphthalene			0.045	U
SB-20 2-4	8/7/2015 15:04	205-99-2	Benzo[b]fluoranthene			0.045	U
SB-20 2-4	8/7/2015 15:04	84-66-2	Diethyl phthalate			0.044	U
SB-20 2-4	8/7/2015 15:04	101-55-3	4-Bromophenyl phenyl ether			0.042	U
SB-20 2-4	8/7/2015 15:04	208-96-8	Acenaphthylene			0.042	U
SB-20 2-4	8/7/2015 15:04	86-73-7	Fluorene			0.042	U
SB-20 2-4	8/7/2015 15:04	87-68-3	Hexachlorobutadiene			0.042	U
SB-20 2-4	8/7/2015 15:04	95-95-4	2,4,5-Trichlorophenol			0.041	U
SB-20 2-4	8/7/2015 15:04	120-83-2	2,4-Dichlorophenol			0.041	U
SB-20 2-4	8/7/2015 15:04	91-58-7	2-Chloronaphthalene			0.041	U
SB-20 2-4	8/7/2015 15:04	59-50-7	4-Chloro-3-methylphenol			0.041	U
SB-20 2-4	8/7/2015 15:04	131-11-3	Dimethyl phthalate			0.04	U
SB-20 2-4	8/7/2015 15:04	108-95-2	Phenol			0.04	U
SB-20 2-4	8/7/2015 15:04	132-64-9	Dibenzofuran			0.039	U
SB-20 2-4	8/7/2015 15:04	78-59-1	Isophorone			0.039	U
SB-20 2-4	8/7/2015 15:04	86-30-6	N-Nitrosodiphenylamine			0.039	U
SB-20 2-4	8/7/2015 15:04	206-44-0	Fluoranthene			0.038	U
SB-20 2-4	8/7/2015 15:04	621-64-7	N-Nitrosodi-n-propylamine			0.038	U
SB-20 2-4	8/7/2015 15:04	108-60-1	bis (2-chloroisopropyl) ether			0.035	U
SB-20 2-4	8/7/2015 15:04	86-74-8	Carbazole			0.035	U
SB-20 2-4	8/7/2015 15:04	84-74-2	Di-n-butyl phthalate			0.035	U
SB-20 2-4	8/7/2015 15:04	91-20-3	Naphthalene			0.035	U
SB-20 2-4	8/7/2015 15:04	88-06-2	2,4,6-Trichlorophenol			0.034	U

Table 6. Analytical Summary Table - SVOCs

Macon MGP #2

Macon, Ga

Client Sample ID	Collection Date	CAS	Analyte by Method 8270D	Type 1 RRS (mg/kg)	Type 2 RRS (mg/kg)	Result (mg/kg)	Flag
SB-20 2-4	8/7/2015 15:04	117-84-0	Di-n-octyl phthalate			0.034	U
SB-20 2-4	8/7/2015 15:04	91-94-1	3,3'-Dichlorobenzidine			0.033	U
SB-20 2-4	8/7/2015 15:04	98-86-2	Acetophenone			0.033	U
SB-20 2-4	8/7/2015 15:04	67-72-1	Hexachloroethane			0.033	U
SB-20 2-4	8/7/2015 15:04	193-39-5	Indeno[1,2,3-cd]pyrene			0.033	U
SB-20 2-4	8/7/2015 15:04	95-48-7	2-Methylphenol			0.032	U
SB-20 2-4	8/7/2015 15:04	56-55-3	Benzo[a]anthracene			0.032	U
SB-20 2-4	8/7/2015 15:04	85-01-8	Phenanthrene			0.032	U
SB-20 2-4	8/7/2015 15:04	129-00-0	Pyrene			0.032	U
SB-20 2-4	8/7/2015 15:04	85-68-7	Butyl benzyl phthalate			0.031	U
SB-20 2-4	8/7/2015 15:04	98-95-3	Nitrobenzene			0.031	U
SB-20 2-4	8/7/2015 15:04	120-12-7	Anthracene			0.029	U
SB-20 2-4	8/7/2015 15:04	1912-24-9	Atrazine			0.027	U
SB-20 2-4	8/7/2015 15:04	191-24-2	Benzo[g,h,i]perylene			0.026	U
SB-20 2-4	8/7/2015 15:04	218-01-9	Chrysene			0.025	U
SB-20 2-4	8/7/2015 15:04	87-86-5	Pentachlorophenol			0.39	U *
SB-20 2-4	8/7/2015 15:04	534-52-1	4,6-Dinitro-2-methylphenol			0.2	U *
SB-20 2-4	8/7/2015 15:04	321-60-8	2-Fluorobiphenyl	NL	NL	2.6	
SB-24 13-15	8/6/2015 15:50	206-44-0	Fluoranthene			0.33	J
SB-24 13-15	8/6/2015 15:50	129-00-0	Pyrene			0.3	J
SB-24 13-15	8/6/2015 15:50	100-52-7	Benzaldehyde			0.22	J
SB-24 13-15	8/6/2015 15:50	205-99-2	Benzo[b]fluoranthene			0.22	J
SB-24 13-15	8/6/2015 15:50	218-01-9	Chrysene			0.19	J
SB-24 13-15	8/6/2015 15:50	85-01-8	Phenanthrene			0.18	J
SB-24 13-15	8/6/2015 15:50	56-55-3	Benzo[a]anthracene			0.17	J
SB-24 13-15	8/6/2015 15:50	50-32-8	Benzo[a]pyrene			0.14	J
SB-24 13-15	8/6/2015 15:50	207-08-9	Benzo[k]fluoranthene			0.11	J
SB-24 13-15	8/6/2015 15:50	191-24-2	Benzo[g,h,i]perylene			0.098	J
SB-24 13-15	8/6/2015 15:50	193-39-5	Indeno[1,2,3-cd]pyrene			0.074	J
SB-24 13-15	8/6/2015 15:50	15831-10-4	3 & 4 Methylphenol			0.061	J
SB-24 13-15	8/6/2015 15:50	91-57-6	2-Methylnaphthalene			0.051	J
SB-24 13-15	8/6/2015 15:50	91-20-3	Naphthalene			0.05	J
SB-24 13-15	8/6/2015 15:50	120-12-7	Anthracene			0.034	J
SB-24 13-15	8/6/2015 15:50	98-86-2	Acetophenone			0.032	J
SB-24 13-15	8/6/2015 15:50	92-52-4	1,1'-Biphenyl			1.9	U
SB-24 13-15	8/6/2015 15:50	51-28-5	2,4-Dinitrophenol			0.95	U
SB-24 13-15	8/6/2015 15:50	100-02-7	4-Nitrophenol			0.38	U
SB-24 13-15	8/6/2015 15:50	87-86-5	Pentachlorophenol			0.38	U
SB-24 13-15	8/6/2015 15:50	105-60-2	Caprolactam			0.076	U
SB-24 13-15	8/6/2015 15:50	106-47-8	4-Chloroaniline			0.059	U
SB-24 13-15	8/6/2015 15:50	121-14-2	2,4-Dinitrotoluene			0.056	U
SB-24 13-15	8/6/2015 15:50	100-01-6	4-Nitroaniline			0.056	U
SB-24 13-15	8/6/2015 15:50	99-09-2	3-Nitroaniline			0.053	U

Table 6. Analytical Summary Table - SVOCs

Macon MGP #2

Macon, Ga

Client Sample ID	Collection Date	CAS	Analyte by Method 8270D	Type 1 RRS (mg/kg)	Type 2 RRS (mg/kg)	Result (mg/kg)	Flag
SB-24 13-15	8/6/2015 15:50	88-74-4	2-Nitroaniline			0.051	U
SB-24 13-15	8/6/2015 15:50	111-44-4	Bis(2-chloroethyl)ether			0.051	U
SB-24 13-15	8/6/2015 15:50	105-67-9	2,4-Dimethylphenol			0.05	U
SB-24 13-15	8/6/2015 15:50	7005-72-3	4-Chlorophenyl phenyl ether			0.05	U
SB-24 13-15	8/6/2015 15:50	606-20-2	2,6-Dinitrotoluene			0.048	U
SB-24 13-15	8/6/2015 15:50	88-75-5	2-Nitrophenol			0.047	U
SB-24 13-15	8/6/2015 15:50	83-32-9	Acenaphthene			0.047	U
SB-24 13-15	8/6/2015 15:50	77-47-4	Hexachlorocyclopentadiene			0.047	U
SB-24 13-15	8/6/2015 15:50	95-57-8	2-Chlorophenol			0.046	U
SB-24 13-15	8/6/2015 15:50	111-91-1	Bis(2-chloroethoxy)methane			0.045	U
SB-24 13-15	8/6/2015 15:50	53-70-3	Dibenz(a,h)anthracene			0.045	U
SB-24 13-15	8/6/2015 15:50	118-74-1	Hexachlorobenzene			0.045	U
SB-24 13-15	8/6/2015 15:50	84-66-2	Diethyl phthalate			0.042	U
SB-24 13-15	8/6/2015 15:50	101-55-3	4-Bromophenyl phenyl ether			0.041	U
SB-24 13-15	8/6/2015 15:50	208-96-8	Acenaphthylene			0.041	U
SB-24 13-15	8/6/2015 15:50	86-73-7	Fluorene			0.041	U
SB-24 13-15	8/6/2015 15:50	87-68-3	Hexachlorobutadiene			0.041	U
SB-24 13-15	8/6/2015 15:50	95-95-4	2,4,5-Trichlorophenol			0.04	U
SB-24 13-15	8/6/2015 15:50	120-83-2	2,4-Dichlorophenol			0.04	U
SB-24 13-15	8/6/2015 15:50	91-58-7	2-Chloronaphthalene			0.04	U
SB-24 13-15	8/6/2015 15:50	59-50-7	4-Chloro-3-methylphenol			0.04	U
SB-24 13-15	8/6/2015 15:50	131-11-3	Dimethyl phthalate			0.039	U
SB-24 13-15	8/6/2015 15:50	108-95-2	Phenol			0.039	U
SB-24 13-15	8/6/2015 15:50	132-64-9	Dibenzofuran			0.038	U
SB-24 13-15	8/6/2015 15:50	78-59-1	Isophorone			0.038	U
SB-24 13-15	8/6/2015 15:50	86-30-6	N-Nitrosodiphenylamine			0.038	U
SB-24 13-15	8/6/2015 15:50	621-64-7	N-Nitrosodi-n-propylamine			0.037	U
SB-24 13-15	8/6/2015 15:50	108-60-1	bis (2-chloroisopropyl) ether			0.034	U
SB-24 13-15	8/6/2015 15:50	86-74-8	Carbazole			0.034	U
SB-24 13-15	8/6/2015 15:50	84-74-2	Di-n-butyl phthalate			0.034	U
SB-24 13-15	8/6/2015 15:50	88-06-2	2,4,6-Trichlorophenol			0.033	U
SB-24 13-15	8/6/2015 15:50	117-81-7	Bis(2-ethylhexyl) phthalate			0.033	U
SB-24 13-15	8/6/2015 15:50	117-84-0	Di-n-octyl phthalate			0.033	U
SB-24 13-15	8/6/2015 15:50	91-94-1	3,3'-Dichlorobenzidine			0.032	U
SB-24 13-15	8/6/2015 15:50	67-72-1	Hexachloroethane			0.032	U
SB-24 13-15	8/6/2015 15:50	95-48-7	2-Methylphenol			0.031	U
SB-24 13-15	8/6/2015 15:50	85-68-7	Butyl benzyl phthalate			0.03	U
SB-24 13-15	8/6/2015 15:50	98-95-3	Nitrobenzene			0.03	U
SB-24 13-15	8/6/2015 15:50	1912-24-9	Atrazine			0.026	U
SB-24 13-15	8/6/2015 15:50	534-52-1	4,6-Dinitro-2-methylphenol			0.19	U *
SB-24 13-15	8/6/2015 15:50	321-60-8	2-Fluorobiphenyl	NL	NL	2.9	
SB-24 2-4	8/6/2015 15:25	321-60-8	2-Fluorobiphenyl			0	D
SB-24 2-4	8/6/2015 15:25	206-44-0	Fluoranthene			1	J



Table 6. Analytical Summary Table - SVOCs

Macon MGP #2

Macon, Ga

Client Sample ID	Collection Date	CAS	Analyte by Method 8270D	Type 1 RRS (mg/kg)	Type 2 RRS (mg/kg)	Result (mg/kg)	Flag
SB-24 2-4	8/6/2015 15:25	129-00-0	Pyrene			0.87	J
SB-24 2-4	8/6/2015 15:25	205-99-2	Benzo[b]fluoranthene			0.57	J
SB-24 2-4	8/6/2015 15:25	218-01-9	Chrysene			0.57	J
SB-24 2-4	8/6/2015 15:25	85-01-8	Phenanthrene			0.52	J
SB-24 2-4	8/6/2015 15:25	56-55-3	Benzo[a]anthracene			0.47	J
SB-24 2-4	8/6/2015 15:25	92-52-4	1,1'-Biphenyl			21	U
SB-24 2-4	8/6/2015 15:25	51-28-5	2,4-Dinitrophenol			10	U
SB-24 2-4	8/6/2015 15:25	100-02-7	4-Nitrophenol			4.1	U
SB-24 2-4	8/6/2015 15:25	87-86-5	Pentachlorophenol			4.1	U
SB-24 2-4	8/6/2015 15:25	105-60-2	Caprolactam			0.82	U
SB-24 2-4	8/6/2015 15:25	207-08-9	Benzo[k]fluoranthene			0.81	U
SB-24 2-4	8/6/2015 15:25	100-52-7	Benzaldehyde			0.72	U
SB-24 2-4	8/6/2015 15:25	106-47-8	4-Chloroaniline			0.65	U
SB-24 2-4	8/6/2015 15:25	50-32-8	Benzo[a]pyrene			0.65	U
SB-24 2-4	8/6/2015 15:25	121-14-2	2,4-Dinitrotoluene			0.61	U
SB-24 2-4	8/6/2015 15:25	100-01-6	4-Nitroaniline			0.61	U
SB-24 2-4	8/6/2015 15:25	99-09-2	3-Nitroaniline			0.57	U
SB-24 2-4	8/6/2015 15:25	88-74-4	2-Nitroaniline			0.56	U
SB-24 2-4	8/6/2015 15:25	111-44-4	Bis(2-chloroethyl)ether			0.56	U
SB-24 2-4	8/6/2015 15:25	105-67-9	2,4-Dimethylphenol			0.55	U
SB-24 2-4	8/6/2015 15:25	7005-72-3	4-Chlorophenyl phenyl ether			0.55	U
SB-24 2-4	8/6/2015 15:25	15831-10-4	3 & 4 Methylphenol			0.53	U
SB-24 2-4	8/6/2015 15:25	88-75-5	2-Nitrophenol			0.51	U
SB-24 2-4	8/6/2015 15:25	83-32-9	Acenaphthene			0.51	U
SB-24 2-4	8/6/2015 15:25	77-47-4	Hexachlorocyclopentadiene			0.51	U
SB-24 2-4	8/6/2015 15:25	95-57-8	2-Chlorophenol			0.5	U
SB-24 2-4	8/6/2015 15:25	111-91-1	Bis(2-chloroethoxy)methane			0.48	U
SB-24 2-4	8/6/2015 15:25	53-70-3	Dibenz(a,h)anthracene			0.48	U
SB-24 2-4	8/6/2015 15:25	118-74-1	Hexachlorobenzene			0.48	U
SB-24 2-4	8/6/2015 15:25	91-57-6	2-Methylnaphthalene			0.47	U
SB-24 2-4	8/6/2015 15:25	84-66-2	Diethyl phthalate			0.46	U
SB-24 2-4	8/6/2015 15:25	101-55-3	4-Bromophenyl phenyl ether			0.45	U
SB-24 2-4	8/6/2015 15:25	208-96-8	Acenaphthylene			0.45	U
SB-24 2-4	8/6/2015 15:25	86-73-7	Fluorene			0.45	U
SB-24 2-4	8/6/2015 15:25	87-68-3	Hexachlorobutadiene			0.45	U
SB-24 2-4	8/6/2015 15:25	95-95-4	2,4,5-Trichlorophenol			0.43	U
SB-24 2-4	8/6/2015 15:25	120-83-2	2,4-Dichlorophenol			0.43	U
SB-24 2-4	8/6/2015 15:25	91-58-7	2-Chloronaphthalene			0.43	U
SB-24 2-4	8/6/2015 15:25	59-50-7	4-Chloro-3-methylphenol			0.43	U
SB-24 2-4	8/6/2015 15:25	131-11-3	Dimethyl phthalate			0.42	U
SB-24 2-4	8/6/2015 15:25	108-95-2	Phenol			0.42	U
SB-24 2-4	8/6/2015 15:25	132-64-9	Dibenzofuran			0.41	U
SB-24 2-4	8/6/2015 15:25	78-59-1	Isophorone			0.41	U

Table 6. Analytical Summary Table - SVOCs

Macon MGP #2

Macon, Ga

Client Sample ID	Collection Date	CAS	Analyte by Method 8270D	Type 1 RRS (mg/kg)	Type 2 RRS (mg/kg)	Result (mg/kg)	Flag
SB-24 2-4	8/6/2015 15:25	86-30-6	N-Nitrosodiphenylamine			0.41	U
SB-24 2-4	8/6/2015 15:25	621-64-7	N-Nitrosodi-n-propylamine			0.4	U
SB-24 2-4	8/6/2015 15:25	108-60-1	bis (2-chloroisopropyl) ether			0.37	U
SB-24 2-4	8/6/2015 15:25	86-74-8	Carbazole			0.37	U
SB-24 2-4	8/6/2015 15:25	84-74-2	Di-n-butyl phthalate			0.37	U
SB-24 2-4	8/6/2015 15:25	91-20-3	Naphthalene			0.37	U
SB-24 2-4	8/6/2015 15:25	88-06-2	2,4,6-Trichlorophenol			0.36	U
SB-24 2-4	8/6/2015 15:25	117-81-7	Bis(2-ethylhexyl) phthalate			0.36	U
SB-24 2-4	8/6/2015 15:25	117-84-0	Di-n-octyl phthalate			0.36	U
SB-24 2-4	8/6/2015 15:25	91-94-1	3,3'-Dichlorobenzidine			0.35	U
SB-24 2-4	8/6/2015 15:25	98-86-2	Acetophenone			0.35	U
SB-24 2-4	8/6/2015 15:25	67-72-1	Hexachloroethane			0.35	U
SB-24 2-4	8/6/2015 15:25	193-39-5	Indeno[1,2,3-cd]pyrene			0.35	U
SB-24 2-4	8/6/2015 15:25	95-48-7	2-Methylphenol			0.34	U
SB-24 2-4	8/6/2015 15:25	85-68-7	Butyl benzyl phthalate			0.32	U
SB-24 2-4	8/6/2015 15:25	98-95-3	Nitrobenzene			0.32	U
SB-24 2-4	8/6/2015 15:25	120-12-7	Anthracene			0.31	U
SB-24 2-4	8/6/2015 15:25	1912-24-9	Atrazine			0.29	U
SB-24 2-4	8/6/2015 15:25	191-24-2	Benzo[g,h,i]perylene			0.27	U
SB-24 2-4	8/6/2015 15:25	534-52-1	4,6-Dinitro-2-methylphenol			2.1	U *
SB-24 2-4	8/6/2015 15:25	606-20-2	2,6-Dinitrotoluene	0.76		6.1	
SB-24 4-6	8/6/2015 15:32	321-60-8	2-Fluorobiphenyl			0	D
SB-24 4-6	8/6/2015 15:32	56-55-3	Benzo[a]anthracene			2.7	J
SB-24 4-6	8/6/2015 15:32	218-01-9	Chrysene			2.7	J
SB-24 4-6	8/6/2015 15:32	205-99-2	Benzo[b]fluoranthene			2.4	J
SB-24 4-6	8/6/2015 15:32	50-32-8	Benzo[a]pyrene			1.9	J
SB-24 4-6	8/6/2015 15:32	120-12-7	Anthracene			1.6	J
SB-24 4-6	8/6/2015 15:32	207-08-9	Benzo[k]fluoranthene			1.2	J
SB-24 4-6	8/6/2015 15:32	132-64-9	Dibenzofuran			0.8	J
SB-24 4-6	8/6/2015 15:32	86-73-7	Fluorene			0.76	J
SB-24 4-6	8/6/2015 15:32	193-39-5	Indeno[1,2,3-cd]pyrene			0.72	J
SB-24 4-6	8/6/2015 15:32	91-57-6	2-Methylnaphthalene			0.67	J
SB-24 4-6	8/6/2015 15:32	191-24-2	Benzo[g,h,i]perylene			0.67	J
SB-24 4-6	8/6/2015 15:32	86-74-8	Carbazole			0.61	J
SB-24 4-6	8/6/2015 15:32	208-96-8	Acenaphthylene			0.51	J
SB-24 4-6	8/6/2015 15:32	91-20-3	Naphthalene			0.5	J
SB-24 4-6	8/6/2015 15:32	92-52-4	1,1'-Biphenyl			22	U
SB-24 4-6	8/6/2015 15:32	51-28-5	2,4-Dinitrophenol			11	U
SB-24 4-6	8/6/2015 15:32	100-02-7	4-Nitrophenol			4.3	U
SB-24 4-6	8/6/2015 15:32	87-86-5	Pentachlorophenol			4.3	U
SB-24 4-6	8/6/2015 15:32	105-60-2	Caprolactam			0.86	U
SB-24 4-6	8/6/2015 15:32	100-52-7	Benzaldehyde			0.76	U
SB-24 4-6	8/6/2015 15:32	106-47-8	4-Chloroaniline			0.68	U

Table 6. Analytical Summary Table - SVOCs

Macon MGP #2

Macon, Ga

Client Sample ID	Collection Date	CAS	Analyte by Method 8270D	Type 1 RRS (mg/kg)	Type 2 RRS (mg/kg)	Result (mg/kg)	Flag
SB-24 4-6	8/6/2015 15:32	121-14-2	2,4-Dinitrotoluene			0.64	U
SB-24 4-6	8/6/2015 15:32	100-01-6	4-Nitroaniline			0.64	U
SB-24 4-6	8/6/2015 15:32	99-09-2	3-Nitroaniline			0.6	U
SB-24 4-6	8/6/2015 15:32	88-74-4	2-Nitroaniline			0.59	U
SB-24 4-6	8/6/2015 15:32	111-44-4	Bis(2-chloroethyl)ether			0.59	U
SB-24 4-6	8/6/2015 15:32	105-67-9	2,4-Dimethylphenol			0.58	U
SB-24 4-6	8/6/2015 15:32	7005-72-3	4-Chlorophenyl phenyl ether			0.58	U
SB-24 4-6	8/6/2015 15:32	15831-10-4	3 & 4 Methylphenol			0.56	U
SB-24 4-6	8/6/2015 15:32	606-20-2	2,6-Dinitrotoluene			0.55	U
SB-24 4-6	8/6/2015 15:32	88-75-5	2-Nitrophenol			0.54	U
SB-24 4-6	8/6/2015 15:32	83-32-9	Acenaphthene			0.54	U
SB-24 4-6	8/6/2015 15:32	77-47-4	Hexachlorocyclopentadiene			0.54	U
SB-24 4-6	8/6/2015 15:32	95-57-8	2-Chlorophenol			0.52	U
SB-24 4-6	8/6/2015 15:32	111-91-1	Bis(2-chloroethoxy)methane			0.51	U
SB-24 4-6	8/6/2015 15:32	53-70-3	Dibenz(a,h)anthracene			0.51	U
SB-24 4-6	8/6/2015 15:32	118-74-1	Hexachlorobenzene			0.51	U
SB-24 4-6	8/6/2015 15:32	84-66-2	Diethyl phthalate			0.48	U
SB-24 4-6	8/6/2015 15:32	101-55-3	4-Bromophenyl phenyl ether			0.47	U
SB-24 4-6	8/6/2015 15:32	87-68-3	Hexachlorobutadiene			0.47	U
SB-24 4-6	8/6/2015 15:32	95-95-4	2,4,5-Trichlorophenol			0.46	U
SB-24 4-6	8/6/2015 15:32	120-83-2	2,4-Dichlorophenol			0.46	U
SB-24 4-6	8/6/2015 15:32	91-58-7	2-Chloronaphthalene			0.46	U
SB-24 4-6	8/6/2015 15:32	59-50-7	4-Chloro-3-methylphenol			0.46	U
SB-24 4-6	8/6/2015 15:32	131-11-3	Dimethyl phthalate			0.45	U
SB-24 4-6	8/6/2015 15:32	108-95-2	Phenol			0.45	U
SB-24 4-6	8/6/2015 15:32	78-59-1	Isophorone			0.43	U
SB-24 4-6	8/6/2015 15:32	86-30-6	N-Nitrosodiphenylamine			0.43	U
SB-24 4-6	8/6/2015 15:32	621-64-7	N-Nitrosodi-n-propylamine			0.42	U
SB-24 4-6	8/6/2015 15:32	108-60-1	bis (2-chloroisopropyl) ether			0.39	U
SB-24 4-6	8/6/2015 15:32	84-74-2	Di-n-butyl phthalate			0.39	U
SB-24 4-6	8/6/2015 15:32	88-06-2	2,4,6-Trichlorophenol			0.38	U
SB-24 4-6	8/6/2015 15:32	117-81-7	Bis(2-ethylhexyl) phthalate			0.38	U
SB-24 4-6	8/6/2015 15:32	117-84-0	Di-n-octyl phthalate			0.38	U
SB-24 4-6	8/6/2015 15:32	91-94-1	3,3'-Dichlorobenzidine			0.37	U
SB-24 4-6	8/6/2015 15:32	98-86-2	Acetophenone			0.37	U
SB-24 4-6	8/6/2015 15:32	67-72-1	Hexachloroethane			0.37	U
SB-24 4-6	8/6/2015 15:32	95-48-7	2-Methylphenol			0.35	U
SB-24 4-6	8/6/2015 15:32	85-68-7	Butyl benzyl phthalate			0.34	U
SB-24 4-6	8/6/2015 15:32	98-95-3	Nitrobenzene			0.34	U
SB-24 4-6	8/6/2015 15:32	1912-24-9	Atrazine			0.3	U
SB-24 4-6	8/6/2015 15:32	534-52-1	4,6-Dinitro-2-methylphenol			2.2	U *
SB-24 4-6	8/6/2015 15:32	85-01-8	Phenanthrene	110	2,350	7.1	
SB-24 4-6	8/6/2015 15:32	129-00-0	Pyrene	500	2,350	5.3	

Table 6. Analytical Summary Table - SVOCs

Macon MGP #2

Macon, Ga

Client Sample ID	Collection Date	CAS	Analyte by Method 8270D	Type 1 RRS (mg/kg)	Type 2 RRS (mg/kg)	Result (mg/kg)	Flag
SB-24 4-6	8/6/2015 15:32	206-44-0	Fluoranthene	500	3,130	4.9	
SB-24 8-10	8/6/2015 15:38	321-60-8	2-Fluorobiphenyl			0	D
SB-24 8-10	8/6/2015 15:38	206-44-0	Fluoranthene			0.48	J
SB-24 8-10	8/6/2015 15:38	129-00-0	Pyrene			0.43	J
SB-24 8-10	8/6/2015 15:38	117-81-7	Bis(2-ethylhexyl) phthalate			0.54	J B
SB-24 8-10	8/6/2015 15:38	92-52-4	1,1'-Biphenyl			24	U
SB-24 8-10	8/6/2015 15:38	51-28-5	2,4-Dinitrophenol			12	U
SB-24 8-10	8/6/2015 15:38	100-02-7	4-Nitrophenol			4.7	U
SB-24 8-10	8/6/2015 15:38	87-86-5	Pentachlorophenol			4.7	U
SB-24 8-10	8/6/2015 15:38	105-60-2	Caprolactam			0.94	U
SB-24 8-10	8/6/2015 15:38	207-08-9	Benzo[k]fluoranthene			0.93	U
SB-24 8-10	8/6/2015 15:38	100-52-7	Benzaldehyde			0.83	U
SB-24 8-10	8/6/2015 15:38	106-47-8	4-Chloroaniline			0.74	U
SB-24 8-10	8/6/2015 15:38	50-32-8	Benzo[a]pyrene			0.74	U
SB-24 8-10	8/6/2015 15:38	121-14-2	2,4-Dinitrotoluene			0.7	U
SB-24 8-10	8/6/2015 15:38	100-01-6	4-Nitroaniline			0.7	U
SB-24 8-10	8/6/2015 15:38	99-09-2	3-Nitroaniline			0.66	U
SB-24 8-10	8/6/2015 15:38	88-74-4	2-Nitroaniline			0.64	U
SB-24 8-10	8/6/2015 15:38	111-44-4	Bis(2-chloroethyl)ether			0.64	U
SB-24 8-10	8/6/2015 15:38	105-67-9	2,4-Dimethylphenol			0.63	U
SB-24 8-10	8/6/2015 15:38	7005-72-3	4-Chlorophenyl phenyl ether			0.63	U
SB-24 8-10	8/6/2015 15:38	15831-10-4	3 & 4 Methylphenol			0.61	U
SB-24 8-10	8/6/2015 15:38	606-20-2	2,6-Dinitrotoluene			0.6	U
SB-24 8-10	8/6/2015 15:38	88-75-5	2-Nitrophenol			0.59	U
SB-24 8-10	8/6/2015 15:38	83-32-9	Acenaphthene			0.59	U
SB-24 8-10	8/6/2015 15:38	77-47-4	Hexachlorocyclopentadiene			0.59	U
SB-24 8-10	8/6/2015 15:38	95-57-8	2-Chlorophenol			0.57	U
SB-24 8-10	8/6/2015 15:38	111-91-1	Bis(2-chloroethoxy)methane			0.56	U
SB-24 8-10	8/6/2015 15:38	53-70-3	Dibenz(a,h)anthracene			0.56	U
SB-24 8-10	8/6/2015 15:38	118-74-1	Hexachlorobenzene			0.56	U
SB-24 8-10	8/6/2015 15:38	91-57-6	2-Methylnaphthalene			0.54	U
SB-24 8-10	8/6/2015 15:38	205-99-2	Benzo[b]fluoranthene			0.54	U
SB-24 8-10	8/6/2015 15:38	84-66-2	Diethyl phthalate			0.53	U
SB-24 8-10	8/6/2015 15:38	101-55-3	4-Bromophenyl phenyl ether			0.51	U
SB-24 8-10	8/6/2015 15:38	208-96-8	Acenaphthylene			0.51	U
SB-24 8-10	8/6/2015 15:38	86-73-7	Fluorene			0.51	U
SB-24 8-10	8/6/2015 15:38	87-68-3	Hexachlorobutadiene			0.51	U
SB-24 8-10	8/6/2015 15:38	95-95-4	2,4,5-Trichlorophenol			0.5	U
SB-24 8-10	8/6/2015 15:38	120-83-2	2,4-Dichlorophenol			0.5	U
SB-24 8-10	8/6/2015 15:38	91-58-7	2-Chloronaphthalene			0.5	U
SB-24 8-10	8/6/2015 15:38	59-50-7	4-Chloro-3-methylphenol			0.5	U
SB-24 8-10	8/6/2015 15:38	131-11-3	Dimethyl phthalate			0.49	U
SB-24 8-10	8/6/2015 15:38	108-95-2	Phenol			0.49	U

Table 6. Analytical Summary Table - SVOCs

Macon MGP #2

Macon, Ga

Client Sample ID	Collection Date	CAS	Analyte by Method 8270D	Type 1 RRS (mg/kg)	Type 2 RRS (mg/kg)	Result (mg/kg)	Flag
SB-24 8-10	8/6/2015 15:38	132-64-9	Dibenzofuran			0.47	U
SB-24 8-10	8/6/2015 15:38	78-59-1	Isophorone			0.47	U
SB-24 8-10	8/6/2015 15:38	86-30-6	N-Nitrosodiphenylamine			0.47	U
SB-24 8-10	8/6/2015 15:38	621-64-7	N-Nitrosodi-n-propylamine			0.46	U
SB-24 8-10	8/6/2015 15:38	108-60-1	bis (2-chloroisopropyl) ether			0.43	U
SB-24 8-10	8/6/2015 15:38	86-74-8	Carbazole			0.43	U
SB-24 8-10	8/6/2015 15:38	84-74-2	Di-n-butyl phthalate			0.43	U
SB-24 8-10	8/6/2015 15:38	91-20-3	Naphthalene			0.43	U
SB-24 8-10	8/6/2015 15:38	88-06-2	2,4,6-Trichlorophenol			0.41	U
SB-24 8-10	8/6/2015 15:38	117-84-0	Di-n-octyl phthalate			0.41	U
SB-24 8-10	8/6/2015 15:38	91-94-1	3,3'-Dichlorobenzidine			0.4	U
SB-24 8-10	8/6/2015 15:38	98-86-2	Acetophenone			0.4	U
SB-24 8-10	8/6/2015 15:38	67-72-1	Hexachloroethane			0.4	U
SB-24 8-10	8/6/2015 15:38	193-39-5	Indeno[1,2,3-cd]pyrene			0.4	U
SB-24 8-10	8/6/2015 15:38	95-48-7	2-Methylphenol			0.39	U
SB-24 8-10	8/6/2015 15:38	56-55-3	Benzo[a]anthracene			0.39	U
SB-24 8-10	8/6/2015 15:38	85-01-8	Phenanthrene			0.39	U
SB-24 8-10	8/6/2015 15:38	85-68-7	Butyl benzyl phthalate			0.37	U
SB-24 8-10	8/6/2015 15:38	98-95-3	Nitrobenzene			0.37	U
SB-24 8-10	8/6/2015 15:38	120-12-7	Anthracene			0.36	U
SB-24 8-10	8/6/2015 15:38	1912-24-9	Atrazine			0.33	U
SB-24 8-10	8/6/2015 15:38	191-24-2	Benzo[g,h,i]perylene			0.31	U
SB-24 8-10	8/6/2015 15:38	218-01-9	Chrysene			0.3	U
SB-24 8-10	8/6/2015 15:38	534-52-1	4,6-Dinitro-2-methylphenol			2.4	U *
SB-25 0-2	8/10/2015 10:56	321-60-8	2-Fluorobiphenyl			0	D
SB-25 0-2	8/10/2015 10:56	92-52-4	1,1'-Biphenyl			19	U
SB-25 0-2	8/10/2015 10:56	51-28-5	2,4-Dinitrophenol			9.5	U
SB-25 0-2	8/10/2015 10:56	100-02-7	4-Nitrophenol			3.8	U
SB-25 0-2	8/10/2015 10:56	87-86-5	Pentachlorophenol			3.8	U
SB-25 0-2	8/10/2015 10:56	534-52-1	4,6-Dinitro-2-methylphenol			1.9	U
SB-25 0-2	8/10/2015 10:56	105-60-2	Caprolactam			0.75	U
SB-25 0-2	8/10/2015 10:56	207-08-9	Benzo[k]fluoranthene			0.74	U
SB-25 0-2	8/10/2015 10:56	100-52-7	Benzaldehyde			0.66	U
SB-25 0-2	8/10/2015 10:56	106-47-8	4-Chloroaniline			0.59	U
SB-25 0-2	8/10/2015 10:56	50-32-8	Benzo[a]pyrene			0.59	U
SB-25 0-2	8/10/2015 10:56	121-14-2	2,4-Dinitrotoluene			0.56	U
SB-25 0-2	8/10/2015 10:56	100-01-6	4-Nitroaniline			0.56	U
SB-25 0-2	8/10/2015 10:56	99-09-2	3-Nitroaniline			0.52	U
SB-25 0-2	8/10/2015 10:56	88-74-4	2-Nitroaniline			0.51	U
SB-25 0-2	8/10/2015 10:56	105-67-9	2,4-Dimethylphenol			0.5	U
SB-25 0-2	8/10/2015 10:56	7005-72-3	4-Chlorophenyl phenyl ether			0.5	U
SB-25 0-2	8/10/2015 10:56	15831-10-4	3 & 4 Methylphenol			0.49	U
SB-25 0-2	8/10/2015 10:56	606-20-2	2,6-Dinitrotoluene			0.48	U

Table 6. Analytical Summary Table - SVOCs

Macon MGP #2

Macon, Ga

Client Sample ID	Collection Date	CAS	Analyte by Method 8270D	Type 1 RRS (mg/kg)	Type 2 RRS (mg/kg)	Result (mg/kg)	Flag
SB-25 0-2	8/10/2015 10:56	88-75-5	2-Nitrophenol			0.47	U
SB-25 0-2	8/10/2015 10:56	83-32-9	Acenaphthene			0.47	U
SB-25 0-2	8/10/2015 10:56	77-47-4	Hexachlorocyclopentadiene			0.47	U
SB-25 0-2	8/10/2015 10:56	95-57-8	2-Chlorophenol			0.46	U
SB-25 0-2	8/10/2015 10:56	111-91-1	Bis(2-chloroethoxy)methane			0.44	U
SB-25 0-2	8/10/2015 10:56	53-70-3	Dibenz(a,h)anthracene			0.44	U
SB-25 0-2	8/10/2015 10:56	118-74-1	Hexachlorobenzene			0.44	U
SB-25 0-2	8/10/2015 10:56	91-57-6	2-Methylnaphthalene			0.43	U
SB-25 0-2	8/10/2015 10:56	205-99-2	Benzo[b]fluoranthene			0.43	U
SB-25 0-2	8/10/2015 10:56	84-66-2	Diethyl phthalate			0.42	U
SB-25 0-2	8/10/2015 10:56	101-55-3	4-Bromophenyl phenyl ether			0.41	U
SB-25 0-2	8/10/2015 10:56	208-96-8	Acenaphthylene			0.41	U
SB-25 0-2	8/10/2015 10:56	86-73-7	Fluorene			0.41	U
SB-25 0-2	8/10/2015 10:56	87-68-3	Hexachlorobutadiene			0.41	U
SB-25 0-2	8/10/2015 10:56	95-95-4	2,4,5-Trichlorophenol			0.4	U
SB-25 0-2	8/10/2015 10:56	120-83-2	2,4-Dichlorophenol			0.4	U
SB-25 0-2	8/10/2015 10:56	91-58-7	2-Chloronaphthalene			0.4	U
SB-25 0-2	8/10/2015 10:56	59-50-7	4-Chloro-3-methylphenol			0.4	U
SB-25 0-2	8/10/2015 10:56	131-11-3	Dimethyl phthalate			0.39	U
SB-25 0-2	8/10/2015 10:56	108-95-2	Phenol			0.39	U
SB-25 0-2	8/10/2015 10:56	132-64-9	Dibenzofuran			0.38	U
SB-25 0-2	8/10/2015 10:56	78-59-1	Isophorone			0.38	U
SB-25 0-2	8/10/2015 10:56	86-30-6	N-Nitrosodiphenylamine			0.38	U
SB-25 0-2	8/10/2015 10:56	206-44-0	Fluoranthene			0.37	U
SB-25 0-2	8/10/2015 10:56	621-64-7	N-Nitrosodi-n-propylamine			0.37	U
SB-25 0-2	8/10/2015 10:56	108-60-1	bis (2-chloroisopropyl) ether			0.34	U
SB-25 0-2	8/10/2015 10:56	86-74-8	Carbazole			0.34	U
SB-25 0-2	8/10/2015 10:56	84-74-2	Di-n-butyl phthalate			0.34	U
SB-25 0-2	8/10/2015 10:56	91-20-3	Naphthalene			0.34	U
SB-25 0-2	8/10/2015 10:56	88-06-2	2,4,6-Trichlorophenol			0.33	U
SB-25 0-2	8/10/2015 10:56	117-81-7	Bis(2-ethylhexyl) phthalate			0.33	U
SB-25 0-2	8/10/2015 10:56	117-84-0	Di-n-octyl phthalate			0.33	U
SB-25 0-2	8/10/2015 10:56	91-94-1	3,3'-Dichlorobenzidine			0.32	U
SB-25 0-2	8/10/2015 10:56	98-86-2	Acetophenone			0.32	U
SB-25 0-2	8/10/2015 10:56	67-72-1	Hexachloroethane			0.32	U
SB-25 0-2	8/10/2015 10:56	193-39-5	Indeno[1,2,3-cd]pyrene			0.32	U
SB-25 0-2	8/10/2015 10:56	95-48-7	2-Methylphenol			0.31	U
SB-25 0-2	8/10/2015 10:56	56-55-3	Benzo[a]anthracene			0.31	U
SB-25 0-2	8/10/2015 10:56	85-01-8	Phenanthrene			0.31	U
SB-25 0-2	8/10/2015 10:56	129-00-0	Pyrene			0.31	U
SB-25 0-2	8/10/2015 10:56	85-68-7	Butyl benzyl phthalate			0.3	U
SB-25 0-2	8/10/2015 10:56	98-95-3	Nitrobenzene			0.3	U
SB-25 0-2	8/10/2015 10:56	120-12-7	Anthracene			0.29	U

Table 6. Analytical Summary Table - SVOCs

Macon MGP #2

Macon, Ga

Client Sample ID	Collection Date	CAS	Analyte by Method 8270D	Type 1 RRS (mg/kg)	Type 2 RRS (mg/kg)	Result (mg/kg)	Flag
SB-25 0-2	8/10/2015 10:56	1912-24-9	Atrazine			0.26	U
SB-25 0-2	8/10/2015 10:56	191-24-2	Benzo[g,h,i]perylene			0.25	U
SB-25 0-2	8/10/2015 10:56	218-01-9	Chrysene			0.24	U
SB-25 0-2	8/10/2015 10:56	111-44-4	Bis(2-chloroethyl)ether			0.51	U *
SB-25 13-15	8/10/2015 11:21	206-44-0	Fluoranthene			0.27	J
SB-25 13-15	8/10/2015 11:21	129-00-0	Pyrene			0.2	J
SB-25 13-15	8/10/2015 11:21	85-01-8	Phenanthrene			0.17	J
SB-25 13-15	8/10/2015 11:21	205-99-2	Benzo[b]fluoranthene			0.16	J
SB-25 13-15	8/10/2015 11:21	56-55-3	Benzo[a]anthracene			0.14	J
SB-25 13-15	8/10/2015 11:21	50-32-8	Benzo[a]pyrene			0.12	J
SB-25 13-15	8/10/2015 11:21	218-01-9	Chrysene			0.11	J
SB-25 13-15	8/10/2015 11:21	191-24-2	Benzo[g,h,i]perylene			0.094	J
SB-25 13-15	8/10/2015 11:21	193-39-5	Indeno[1,2,3-cd]pyrene			0.077	J
SB-25 13-15	8/10/2015 11:21	91-57-6	2-Methylnaphthalene			0.045	J
SB-25 13-15	8/10/2015 11:21	120-12-7	Anthracene			0.04	J
SB-25 13-15	8/10/2015 11:21	92-52-4	1,1'-Biphenyl			2	U
SB-25 13-15	8/10/2015 11:21	51-28-5	2,4-Dinitrophenol			0.95	U
SB-25 13-15	8/10/2015 11:21	100-02-7	4-Nitrophenol			0.38	U
SB-25 13-15	8/10/2015 11:21	87-86-5	Pentachlorophenol			0.38	U
SB-25 13-15	8/10/2015 11:21	534-52-1	4,6-Dinitro-2-methylphenol			0.2	U
SB-25 13-15	8/10/2015 11:21	105-60-2	Caprolactam			0.076	U
SB-25 13-15	8/10/2015 11:21	207-08-9	Benzo[k]fluoranthene			0.075	U
SB-25 13-15	8/10/2015 11:21	100-52-7	Benzaldehyde			0.067	U
SB-25 13-15	8/10/2015 11:21	106-47-8	4-Chloroaniline			0.06	U
SB-25 13-15	8/10/2015 11:21	121-14-2	2,4-Dinitrotoluene			0.056	U
SB-25 13-15	8/10/2015 11:21	100-01-6	4-Nitroaniline			0.056	U
SB-25 13-15	8/10/2015 11:21	99-09-2	3-Nitroaniline			0.053	U
SB-25 13-15	8/10/2015 11:21	88-74-4	2-Nitroaniline			0.052	U
SB-25 13-15	8/10/2015 11:21	105-67-9	2,4-Dimethylphenol			0.05	U
SB-25 13-15	8/10/2015 11:21	7005-72-3	4-Chlorophenyl phenyl ether			0.05	U
SB-25 13-15	8/10/2015 11:21	15831-10-4	3 & 4 Methylphenol			0.049	U
SB-25 13-15	8/10/2015 11:21	606-20-2	2,6-Dinitrotoluene			0.048	U
SB-25 13-15	8/10/2015 11:21	88-75-5	2-Nitrophenol			0.047	U
SB-25 13-15	8/10/2015 11:21	83-32-9	Acenaphthene			0.047	U
SB-25 13-15	8/10/2015 11:21	77-47-4	Hexachlorocyclopentadiene			0.047	U
SB-25 13-15	8/10/2015 11:21	95-57-8	2-Chlorophenol			0.046	U
SB-25 13-15	8/10/2015 11:21	111-91-1	Bis(2-chloroethoxy)methane			0.045	U
SB-25 13-15	8/10/2015 11:21	53-70-3	Dibenz(a,h)anthracene			0.045	U
SB-25 13-15	8/10/2015 11:21	118-74-1	Hexachlorobenzene			0.045	U
SB-25 13-15	8/10/2015 11:21	84-66-2	Diethyl phthalate			0.042	U
SB-25 13-15	8/10/2015 11:21	101-55-3	4-Bromophenyl phenyl ether			0.041	U
SB-25 13-15	8/10/2015 11:21	208-96-8	Acenaphthylene			0.041	U
SB-25 13-15	8/10/2015 11:21	86-73-7	Fluorene			0.041	U

Table 6. Analytical Summary Table - SVOCs

Macon MGP #2

Macon, Ga

Client Sample ID	Collection Date	CAS	Analyte by Method 8270D	Type 1 RRS (mg/kg)	Type 2 RRS (mg/kg)	Result (mg/kg)	Flag
SB-25 13-15	8/10/2015 11:21	87-68-3	Hexachlorobutadiene			0.041	U
SB-25 13-15	8/10/2015 11:21	95-95-4	2,4,5-Trichlorophenol			0.04	U
SB-25 13-15	8/10/2015 11:21	120-83-2	2,4-Dichlorophenol			0.04	U
SB-25 13-15	8/10/2015 11:21	91-58-7	2-Chloronaphthalene			0.04	U
SB-25 13-15	8/10/2015 11:21	59-50-7	4-Chloro-3-methylphenol			0.04	U
SB-25 13-15	8/10/2015 11:21	131-11-3	Dimethyl phthalate			0.039	U
SB-25 13-15	8/10/2015 11:21	108-95-2	Phenol			0.039	U
SB-25 13-15	8/10/2015 11:21	132-64-9	Dibenzofuran			0.038	U
SB-25 13-15	8/10/2015 11:21	78-59-1	Isophorone			0.038	U
SB-25 13-15	8/10/2015 11:21	86-30-6	N-Nitrosodiphenylamine			0.038	U
SB-25 13-15	8/10/2015 11:21	621-64-7	N-Nitrosodi-n-propylamine			0.037	U
SB-25 13-15	8/10/2015 11:21	108-60-1	bis (2-chloroisopropyl) ether			0.034	U
SB-25 13-15	8/10/2015 11:21	86-74-8	Carbazole			0.034	U
SB-25 13-15	8/10/2015 11:21	84-74-2	Di-n-butyl phthalate			0.034	U
SB-25 13-15	8/10/2015 11:21	91-20-3	Naphthalene			0.034	U
SB-25 13-15	8/10/2015 11:21	88-06-2	2,4,6-Trichlorophenol			0.033	U
SB-25 13-15	8/10/2015 11:21	117-81-7	Bis(2-ethylhexyl) phthalate			0.033	U
SB-25 13-15	8/10/2015 11:21	117-84-0	Di-n-octyl phthalate			0.033	U
SB-25 13-15	8/10/2015 11:21	91-94-1	3,3'-Dichlorobenzidine			0.032	U
SB-25 13-15	8/10/2015 11:21	98-86-2	Acetophenone			0.032	U
SB-25 13-15	8/10/2015 11:21	67-72-1	Hexachloroethane			0.032	U
SB-25 13-15	8/10/2015 11:21	95-48-7	2-Methylphenol			0.031	U
SB-25 13-15	8/10/2015 11:21	85-68-7	Butyl benzyl phthalate			0.03	U
SB-25 13-15	8/10/2015 11:21	98-95-3	Nitrobenzene			0.03	U
SB-25 13-15	8/10/2015 11:21	1912-24-9	Atrazine			0.026	U
SB-25 13-15	8/10/2015 11:21	111-44-4	Bis(2-chloroethyl)ether			0.052	U *
SB-25 13-15	8/10/2015 11:21	321-60-8	2-Fluorobiphenyl	NL	NL	2.9	
SB-25 2-4	8/10/2015 10:56	207-08-9	Benzo[k]fluoranthene			0.33	J
SB-25 2-4	8/10/2015 10:56	85-01-8	Phenanthrene			0.21	J
SB-25 2-4	8/10/2015 10:56	53-70-3	Dibenz(a,h)anthracene			0.15	J
SB-25 2-4	8/10/2015 10:56	120-12-7	Anthracene			0.071	J
SB-25 2-4	8/10/2015 10:56	91-20-3	Naphthalene			0.046	J
SB-25 2-4	8/10/2015 10:56	92-52-4	1,1'-Biphenyl			1.9	U
SB-25 2-4	8/10/2015 10:56	51-28-5	2,4-Dinitrophenol			0.94	U
SB-25 2-4	8/10/2015 10:56	100-02-7	4-Nitrophenol			0.37	U
SB-25 2-4	8/10/2015 10:56	87-86-5	Pentachlorophenol			0.37	U
SB-25 2-4	8/10/2015 10:56	534-52-1	4,6-Dinitro-2-methylphenol			0.19	U
SB-25 2-4	8/10/2015 10:56	105-60-2	Caprolactam			0.075	U
SB-25 2-4	8/10/2015 10:56	100-52-7	Benzaldehyde			0.066	U
SB-25 2-4	8/10/2015 10:56	106-47-8	4-Chloroaniline			0.059	U
SB-25 2-4	8/10/2015 10:56	121-14-2	2,4-Dinitrotoluene			0.056	U
SB-25 2-4	8/10/2015 10:56	100-01-6	4-Nitroaniline			0.056	U
SB-25 2-4	8/10/2015 10:56	99-09-2	3-Nitroaniline			0.052	U



Table 6. Analytical Summary Table - SVOCs

Macon MGP #2

Macon, Ga

Client Sample ID	Collection Date	CAS	Analyte by Method 8270D	Type 1 RRS (mg/kg)	Type 2 RRS (mg/kg)	Result (mg/kg)	Flag
SB-25 2-4	8/10/2015 10:56	88-74-4	2-Nitroaniline			0.051	U
SB-25 2-4	8/10/2015 10:56	105-67-9	2,4-Dimethylphenol			0.05	U
SB-25 2-4	8/10/2015 10:56	7005-72-3	4-Chlorophenyl phenyl ether			0.05	U
SB-25 2-4	8/10/2015 10:56	15831-10-4	3 & 4 Methylphenol			0.049	U
SB-25 2-4	8/10/2015 10:56	606-20-2	2,6-Dinitrotoluene			0.048	U
SB-25 2-4	8/10/2015 10:56	88-75-5	2-Nitrophenol			0.047	U
SB-25 2-4	8/10/2015 10:56	83-32-9	Acenaphthene			0.047	U
SB-25 2-4	8/10/2015 10:56	77-47-4	Hexachlorocyclopentadiene			0.047	U
SB-25 2-4	8/10/2015 10:56	95-57-8	2-Chlorophenol			0.045	U
SB-25 2-4	8/10/2015 10:56	111-91-1	Bis(2-chloroethoxy)methane			0.044	U
SB-25 2-4	8/10/2015 10:56	118-74-1	Hexachlorobenzene			0.044	U
SB-25 2-4	8/10/2015 10:56	91-57-6	2-Methylnaphthalene			0.043	U
SB-25 2-4	8/10/2015 10:56	84-66-2	Diethyl phthalate			0.042	U
SB-25 2-4	8/10/2015 10:56	101-55-3	4-Bromophenyl phenyl ether			0.041	U
SB-25 2-4	8/10/2015 10:56	208-96-8	Acenaphthylene			0.041	U
SB-25 2-4	8/10/2015 10:56	86-73-7	Fluorene			0.041	U
SB-25 2-4	8/10/2015 10:56	87-68-3	Hexachlorobutadiene			0.041	U
SB-25 2-4	8/10/2015 10:56	95-95-4	2,4,5-Trichlorophenol			0.04	U
SB-25 2-4	8/10/2015 10:56	120-83-2	2,4-Dichlorophenol			0.04	U
SB-25 2-4	8/10/2015 10:56	91-58-7	2-Chloronaphthalene			0.04	U
SB-25 2-4	8/10/2015 10:56	59-50-7	4-Chloro-3-methylphenol			0.04	U
SB-25 2-4	8/10/2015 10:56	131-11-3	Dimethyl phthalate			0.039	U
SB-25 2-4	8/10/2015 10:56	108-95-2	Phenol			0.039	U
SB-25 2-4	8/10/2015 10:56	132-64-9	Dibenzofuran			0.037	U
SB-25 2-4	8/10/2015 10:56	78-59-1	Isophorone			0.037	U
SB-25 2-4	8/10/2015 10:56	86-30-6	N-Nitrosodiphenylamine			0.037	U
SB-25 2-4	8/10/2015 10:56	621-64-7	N-Nitrosodi-n-propylamine			0.036	U
SB-25 2-4	8/10/2015 10:56	108-60-1	bis (2-chloroisopropyl) ether			0.034	U
SB-25 2-4	8/10/2015 10:56	86-74-8	Carbazole			0.034	U
SB-25 2-4	8/10/2015 10:56	84-74-2	Di-n-butyl phthalate			0.034	U
SB-25 2-4	8/10/2015 10:56	88-06-2	2,4,6-Trichlorophenol			0.033	U
SB-25 2-4	8/10/2015 10:56	117-81-7	Bis(2-ethylhexyl) phthalate			0.033	U
SB-25 2-4	8/10/2015 10:56	117-84-0	Di-n-octyl phthalate			0.033	U
SB-25 2-4	8/10/2015 10:56	91-94-1	3,3'-Dichlorobenzidine			0.032	U
SB-25 2-4	8/10/2015 10:56	98-86-2	Acetophenone			0.032	U
SB-25 2-4	8/10/2015 10:56	67-72-1	Hexachloroethane			0.032	U
SB-25 2-4	8/10/2015 10:56	95-48-7	2-Methylphenol			0.031	U
SB-25 2-4	8/10/2015 10:56	85-68-7	Butyl benzyl phthalate			0.03	U
SB-25 2-4	8/10/2015 10:56	98-95-3	Nitrobenzene			0.03	U
SB-25 2-4	8/10/2015 10:56	1912-24-9	Atrazine			0.026	U
SB-25 2-4	8/10/2015 10:56	111-44-4	Bis(2-chloroethyl)ether			0.051	U *
SB-25 2-4	8/10/2015 10:56	321-60-8	2-Fluorobiphenyl	NL	NL	2.3	
SB-25 2-4	8/10/2015 10:56	205-99-2	Benzo[b]fluoranthene	5	12.5	0.95	

Table 6. Analytical Summary Table - SVOCs

Macon MGP #2

Macon, Ga

Client Sample ID	Collection Date	CAS	Analyte by Method 8270D	Type 1 RRS (mg/kg)	Type 2 RRS (mg/kg)	Result (mg/kg)	Flag
SB-25 2-4	8/10/2015 10:56	129-00-0	Pyrene	500	2,350	0.81	
SB-25 2-4	8/10/2015 10:56	206-44-0	Fluoranthene	500	3,130	0.77	
SB-25 2-4	8/10/2015 10:56	50-32-8	Benzo[a]pyrene	1.64	1.25	0.76	
SB-25 2-4	8/10/2015 10:56	191-24-2	Benzo[g,h,i]perylene	500	2,350	0.64	
SB-25 2-4	8/10/2015 10:56	56-55-3	Benzo[a]anthracene	5	12.5	0.6	
SB-25 2-4	8/10/2015 10:56	218-01-9	Chrysene	5	1,250	0.5	
SB-25 2-4	8/10/2015 10:56	193-39-5	Indeno[1,2,3-cd]pyrene	5	12.5	0.49	
SB-25 4-6	8/10/2015 11:11	92-52-4	1,1'-Biphenyl			2.1	U
SB-25 4-6	8/10/2015 11:11	51-28-5	2,4-Dinitrophenol			1	U
SB-25 4-6	8/10/2015 11:11	100-02-7	4-Nitrophenol			0.41	U
SB-25 4-6	8/10/2015 11:11	87-86-5	Pentachlorophenol			0.41	U
SB-25 4-6	8/10/2015 11:11	534-52-1	4,6-Dinitro-2-methylphenol			0.21	U
SB-25 4-6	8/10/2015 11:11	105-60-2	Caprolactam			0.082	U
SB-25 4-6	8/10/2015 11:11	207-08-9	Benzo[k]fluoranthene			0.081	U
SB-25 4-6	8/10/2015 11:11	100-52-7	Benzaldehyde			0.072	U
SB-25 4-6	8/10/2015 11:11	106-47-8	4-Chloroaniline			0.064	U
SB-25 4-6	8/10/2015 11:11	50-32-8	Benzo[a]pyrene			0.064	U
SB-25 4-6	8/10/2015 11:11	121-14-2	2,4-Dinitrotoluene			0.061	U
SB-25 4-6	8/10/2015 11:11	100-01-6	4-Nitroaniline			0.061	U
SB-25 4-6	8/10/2015 11:11	99-09-2	3-Nitroaniline			0.057	U
SB-25 4-6	8/10/2015 11:11	88-74-4	2-Nitroaniline			0.056	U
SB-25 4-6	8/10/2015 11:11	105-67-9	2,4-Dimethylphenol			0.055	U
SB-25 4-6	8/10/2015 11:11	7005-72-3	4-Chlorophenyl phenyl ether			0.055	U
SB-25 4-6	8/10/2015 11:11	15831-10-4	3 & 4 Methylphenol			0.053	U
SB-25 4-6	8/10/2015 11:11	606-20-2	2,6-Dinitrotoluene			0.052	U
SB-25 4-6	8/10/2015 11:11	88-75-5	2-Nitrophenol			0.051	U
SB-25 4-6	8/10/2015 11:11	83-32-9	Acenaphthene			0.051	U
SB-25 4-6	8/10/2015 11:11	77-47-4	Hexachlorocyclopentadiene			0.051	U
SB-25 4-6	8/10/2015 11:11	95-57-8	2-Chlorophenol			0.05	U
SB-25 4-6	8/10/2015 11:11	111-91-1	Bis(2-chloroethoxy)methane			0.048	U
SB-25 4-6	8/10/2015 11:11	53-70-3	Dibenz(a,h)anthracene			0.048	U
SB-25 4-6	8/10/2015 11:11	118-74-1	Hexachlorobenzene			0.048	U
SB-25 4-6	8/10/2015 11:11	91-57-6	2-Methylnaphthalene			0.047	U
SB-25 4-6	8/10/2015 11:11	205-99-2	Benzo[b]fluoranthene			0.047	U
SB-25 4-6	8/10/2015 11:11	84-66-2	Diethyl phthalate			0.046	U
SB-25 4-6	8/10/2015 11:11	101-55-3	4-Bromophenyl phenyl ether			0.045	U
SB-25 4-6	8/10/2015 11:11	208-96-8	Acenaphthylene			0.045	U
SB-25 4-6	8/10/2015 11:11	86-73-7	Fluorene			0.045	U
SB-25 4-6	8/10/2015 11:11	87-68-3	Hexachlorobutadiene			0.045	U
SB-25 4-6	8/10/2015 11:11	95-95-4	2,4,5-Trichlorophenol			0.043	U
SB-25 4-6	8/10/2015 11:11	120-83-2	2,4-Dichlorophenol			0.043	U
SB-25 4-6	8/10/2015 11:11	91-58-7	2-Chloronaphthalene			0.043	U
SB-25 4-6	8/10/2015 11:11	59-50-7	4-Chloro-3-methylphenol			0.043	U

Table 6. Analytical Summary Table - SVOCs

Macon MGP #2

Macon, Ga

Client Sample ID	Collection Date	CAS	Analyte by Method 8270D	Type 1 RRS (mg/kg)	Type 2 RRS (mg/kg)	Result (mg/kg)	Flag
SB-25 4-6	8/10/2015 11:11	131-11-3	Dimethyl phthalate			0.042	U
SB-25 4-6	8/10/2015 11:11	108-95-2	Phenol			0.042	U
SB-25 4-6	8/10/2015 11:11	132-64-9	Dibenzofuran			0.041	U
SB-25 4-6	8/10/2015 11:11	78-59-1	Isophorone			0.041	U
SB-25 4-6	8/10/2015 11:11	86-30-6	N-Nitrosodiphenylamine			0.041	U
SB-25 4-6	8/10/2015 11:11	206-44-0	Fluoranthene			0.04	U
SB-25 4-6	8/10/2015 11:11	621-64-7	N-Nitrosodi-n-propylamine			0.04	U
SB-25 4-6	8/10/2015 11:11	108-60-1	bis (2-chloroisopropyl) ether			0.037	U
SB-25 4-6	8/10/2015 11:11	86-74-8	Carbazole			0.037	U
SB-25 4-6	8/10/2015 11:11	84-74-2	Di-n-butyl phthalate			0.037	U
SB-25 4-6	8/10/2015 11:11	91-20-3	Naphthalene			0.037	U
SB-25 4-6	8/10/2015 11:11	88-06-2	2,4,6-Trichlorophenol			0.036	U
SB-25 4-6	8/10/2015 11:11	117-81-7	Bis(2-ethylhexyl) phthalate			0.036	U
SB-25 4-6	8/10/2015 11:11	117-84-0	Di-n-octyl phthalate			0.036	U
SB-25 4-6	8/10/2015 11:11	91-94-1	3,3'-Dichlorobenzidine			0.035	U
SB-25 4-6	8/10/2015 11:11	98-86-2	Acetophenone			0.035	U
SB-25 4-6	8/10/2015 11:11	67-72-1	Hexachloroethane			0.035	U
SB-25 4-6	8/10/2015 11:11	193-39-5	Indeno[1,2,3-cd]pyrene			0.035	U
SB-25 4-6	8/10/2015 11:11	95-48-7	2-Methylphenol			0.033	U
SB-25 4-6	8/10/2015 11:11	56-55-3	Benzo[a]anthracene			0.033	U
SB-25 4-6	8/10/2015 11:11	85-01-8	Phenanthrene			0.033	U
SB-25 4-6	8/10/2015 11:11	129-00-0	Pyrene			0.033	U
SB-25 4-6	8/10/2015 11:11	85-68-7	Butyl benzyl phthalate			0.032	U
SB-25 4-6	8/10/2015 11:11	98-95-3	Nitrobenzene			0.032	U
SB-25 4-6	8/10/2015 11:11	120-12-7	Anthracene			0.031	U
SB-25 4-6	8/10/2015 11:11	1912-24-9	Atrazine			0.029	U
SB-25 4-6	8/10/2015 11:11	191-24-2	Benzo[g,h,i]perylene			0.027	U
SB-25 4-6	8/10/2015 11:11	218-01-9	Chrysene			0.026	U
SB-25 4-6	8/10/2015 11:11	111-44-4	Bis(2-chloroethyl)ether			0.056	U F1 *
SB-25 4-6	8/10/2015 11:11	321-60-8	2-Fluorobiphenyl	NL	NL	3.5	
SB-25 8-10	8/10/2015 11:17	321-60-8	2-Fluorobiphenyl			0	D
SB-25 8-10	8/10/2015 11:17	92-52-4	1,1'-Biphenyl			20	U
SB-25 8-10	8/10/2015 11:17	51-28-5	2,4-Dinitrophenol			9.8	U
SB-25 8-10	8/10/2015 11:17	100-02-7	4-Nitrophenol			3.9	U
SB-25 8-10	8/10/2015 11:17	87-86-5	Pentachlorophenol			3.9	U
SB-25 8-10	8/10/2015 11:17	534-52-1	4,6-Dinitro-2-methylphenol			2	U
SB-25 8-10	8/10/2015 11:17	105-60-2	Caprolactam			0.78	U
SB-25 8-10	8/10/2015 11:17	207-08-9	Benzo[k]fluoranthene			0.76	U
SB-25 8-10	8/10/2015 11:17	100-52-7	Benzaldehyde			0.68	U
SB-25 8-10	8/10/2015 11:17	106-47-8	4-Chloroaniline			0.61	U
SB-25 8-10	8/10/2015 11:17	50-32-8	Benzo[a]pyrene			0.61	U
SB-25 8-10	8/10/2015 11:17	121-14-2	2,4-Dinitrotoluene			0.58	U

Table 6. Analytical Summary Table - SVOCs

Macon MGP #2

Macon, Ga

Client Sample ID	Collection Date	CAS	Analyte by Method 8270D	Type 1 RRS (mg/kg)	Type 2 RRS (mg/kg)	Result (mg/kg)	Flag
SB-25 8-10	8/10/2015 11:17	100-01-6	4-Nitroaniline			0.58	U
SB-25 8-10	8/10/2015 11:17	99-09-2	3-Nitroaniline			0.54	U
SB-25 8-10	8/10/2015 11:17	88-74-4	2-Nitroaniline			0.53	U
SB-25 8-10	8/10/2015 11:17	105-67-9	2,4-Dimethylphenol			0.52	U
SB-25 8-10	8/10/2015 11:17	7005-72-3	4-Chlorophenyl phenyl ether			0.52	U
SB-25 8-10	8/10/2015 11:17	15831-10-4	3 & 4 Methylphenol			0.51	U
SB-25 8-10	8/10/2015 11:17	606-20-2	2,6-Dinitrotoluene			0.49	U
SB-25 8-10	8/10/2015 11:17	88-75-5	2-Nitrophenol			0.48	U
SB-25 8-10	8/10/2015 11:17	83-32-9	Acenaphthene			0.48	U
SB-25 8-10	8/10/2015 11:17	77-47-4	Hexachlorocyclopentadiene			0.48	U
SB-25 8-10	8/10/2015 11:17	95-57-8	2-Chlorophenol			0.47	U
SB-25 8-10	8/10/2015 11:17	111-91-1	Bis(2-chloroethoxy)methane			0.46	U
SB-25 8-10	8/10/2015 11:17	53-70-3	Dibenz(a,h)anthracene			0.46	U
SB-25 8-10	8/10/2015 11:17	118-74-1	Hexachlorobenzene			0.46	U
SB-25 8-10	8/10/2015 11:17	91-57-6	2-Methylnaphthalene			0.45	U
SB-25 8-10	8/10/2015 11:17	205-99-2	Benzo[b]fluoranthene			0.45	U
SB-25 8-10	8/10/2015 11:17	84-66-2	Diethyl phthalate			0.43	U
SB-25 8-10	8/10/2015 11:17	101-55-3	4-Bromophenyl phenyl ether			0.42	U
SB-25 8-10	8/10/2015 11:17	208-96-8	Acenaphthylene			0.42	U
SB-25 8-10	8/10/2015 11:17	86-73-7	Fluorene			0.42	U
SB-25 8-10	8/10/2015 11:17	87-68-3	Hexachlorobutadiene			0.42	U
SB-25 8-10	8/10/2015 11:17	95-95-4	2,4,5-Trichlorophenol			0.41	U
SB-25 8-10	8/10/2015 11:17	120-83-2	2,4-Dichlorophenol			0.41	U
SB-25 8-10	8/10/2015 11:17	91-58-7	2-Chloronaphthalene			0.41	U
SB-25 8-10	8/10/2015 11:17	59-50-7	4-Chloro-3-methylphenol			0.41	U
SB-25 8-10	8/10/2015 11:17	131-11-3	Dimethyl phthalate			0.4	U
SB-25 8-10	8/10/2015 11:17	108-95-2	Phenol			0.4	U
SB-25 8-10	8/10/2015 11:17	132-64-9	Dibenzofuran			0.39	U
SB-25 8-10	8/10/2015 11:17	78-59-1	Isophorone			0.39	U
SB-25 8-10	8/10/2015 11:17	86-30-6	N-Nitrosodiphenylamine			0.39	U
SB-25 8-10	8/10/2015 11:17	206-44-0	Fluoranthene			0.38	U
SB-25 8-10	8/10/2015 11:17	621-64-7	N-Nitrosodi-n-propylamine			0.38	U
SB-25 8-10	8/10/2015 11:17	108-60-1	bis (2-chloroisopropyl) ether			0.35	U
SB-25 8-10	8/10/2015 11:17	86-74-8	Carbazole			0.35	U
SB-25 8-10	8/10/2015 11:17	84-74-2	Di-n-butyl phthalate			0.35	U
SB-25 8-10	8/10/2015 11:17	91-20-3	Naphthalene			0.35	U
SB-25 8-10	8/10/2015 11:17	88-06-2	2,4,6-Trichlorophenol			0.34	U
SB-25 8-10	8/10/2015 11:17	117-81-7	Bis(2-ethylhexyl) phthalate			0.34	U
SB-25 8-10	8/10/2015 11:17	117-84-0	Di-n-octyl phthalate			0.34	U
SB-25 8-10	8/10/2015 11:17	91-94-1	3,3'-Dichlorobenzidine			0.33	U
SB-25 8-10	8/10/2015 11:17	98-86-2	Acetophenone			0.33	U
SB-25 8-10	8/10/2015 11:17	67-72-1	Hexachloroethane			0.33	U
SB-25 8-10	8/10/2015 11:17	193-39-5	Indeno[1,2,3-cd]pyrene			0.33	U

Table 6. Analytical Summary Table - SVOCs

Macon MGP #2

Macon, Ga

Client Sample ID	Collection Date	CAS	Analyte by Method 8270D	Type 1 RRS (mg/kg)	Type 2 RRS (mg/kg)	Result (mg/kg)	Flag
SB-25 8-10	8/10/2015 11:17	95-48-7	2-Methylphenol			0.32	U
SB-25 8-10	8/10/2015 11:17	56-55-3	Benzo[a]anthracene			0.32	U
SB-25 8-10	8/10/2015 11:17	85-01-8	Phenanthrene			0.32	U
SB-25 8-10	8/10/2015 11:17	129-00-0	Pyrene			0.32	U
SB-25 8-10	8/10/2015 11:17	85-68-7	Butyl benzyl phthalate			0.31	U
SB-25 8-10	8/10/2015 11:17	98-95-3	Nitrobenzene			0.31	U
SB-25 8-10	8/10/2015 11:17	120-12-7	Anthracene			0.29	U
SB-25 8-10	8/10/2015 11:17	1912-24-9	Atrazine			0.27	U
SB-25 8-10	8/10/2015 11:17	191-24-2	Benzo[g,h,i]perylene			0.26	U
SB-25 8-10	8/10/2015 11:17	218-01-9	Chrysene			0.25	U
SB-25 8-10	8/10/2015 11:17	111-44-4	Bis(2-chloroethyl)ether			0.53	U *
SB-41 13-15	8/10/2015 9:28	206-44-0	Fluoranthene			0.29	J
SB-41 13-15	8/10/2015 9:28	85-01-8	Phenanthrene			0.25	J
SB-41 13-15	8/10/2015 9:28	129-00-0	Pyrene			0.23	J
SB-41 13-15	8/10/2015 9:28	218-01-9	Chrysene			0.14	J
SB-41 13-15	8/10/2015 9:28	92-52-4	1,1'-Biphenyl			9.6	U
SB-41 13-15	8/10/2015 9:28	51-28-5	2,4-Dinitrophenol			4.7	U
SB-41 13-15	8/10/2015 9:28	100-02-7	4-Nitrophenol			1.9	U
SB-41 13-15	8/10/2015 9:28	87-86-5	Pentachlorophenol			1.9	U
SB-41 13-15	8/10/2015 9:28	534-52-1	4,6-Dinitro-2-methylphenol			0.96	U
SB-41 13-15	8/10/2015 9:28	207-08-9	Benzo[k]fluoranthene			0.37	U
SB-41 13-15	8/10/2015 9:28	105-60-2	Caprolactam			0.37	U
SB-41 13-15	8/10/2015 9:28	100-52-7	Benzaldehyde			0.33	U
SB-41 13-15	8/10/2015 9:28	106-47-8	4-Chloroaniline			0.29	U
SB-41 13-15	8/10/2015 9:28	50-32-8	Benzo[a]pyrene			0.29	U
SB-41 13-15	8/10/2015 9:28	121-14-2	2,4-Dinitrotoluene			0.28	U
SB-41 13-15	8/10/2015 9:28	100-01-6	4-Nitroaniline			0.28	U
SB-41 13-15	8/10/2015 9:28	99-09-2	3-Nitroaniline			0.26	U
SB-41 13-15	8/10/2015 9:28	105-67-9	2,4-Dimethylphenol			0.25	U
SB-41 13-15	8/10/2015 9:28	88-74-4	2-Nitroaniline			0.25	U
SB-41 13-15	8/10/2015 9:28	7005-72-3	4-Chlorophenyl phenyl ether			0.25	U
SB-41 13-15	8/10/2015 9:28	606-20-2	2,6-Dinitrotoluene			0.24	U
SB-41 13-15	8/10/2015 9:28	15831-10-4	3 & 4 Methylphenol			0.24	U
SB-41 13-15	8/10/2015 9:28	88-75-5	2-Nitrophenol			0.23	U
SB-41 13-15	8/10/2015 9:28	83-32-9	Acenaphthene			0.23	U
SB-41 13-15	8/10/2015 9:28	77-47-4	Hexachlorocyclopentadiene			0.23	U
SB-41 13-15	8/10/2015 9:28	95-57-8	2-Chlorophenol			0.22	U
SB-41 13-15	8/10/2015 9:28	111-91-1	Bis(2-chloroethoxy)methane			0.22	U
SB-41 13-15	8/10/2015 9:28	53-70-3	Dibenz(a,h)anthracene			0.22	U
SB-41 13-15	8/10/2015 9:28	118-74-1	Hexachlorobenzene			0.22	U
SB-41 13-15	8/10/2015 9:28	91-57-6	2-Methylnaphthalene			0.21	U
SB-41 13-15	8/10/2015 9:28	205-99-2	Benzo[b]fluoranthene			0.21	U
SB-41 13-15	8/10/2015 9:28	84-66-2	Diethyl phthalate			0.21	U

Table 6. Analytical Summary Table - SVOCs  
Macon MGP #2  
Macon, Ga

Client Sample ID	Collection Date	CAS	Analyte by Method 8270D	Type 1 RRS (mg/kg)	Type 2 RRS (mg/kg)	Result (mg/kg)	Flag
SB-41 13-15	8/10/2015 9:28	95-95-4	2,4,5-Trichlorophenol			0.2	U
SB-41 13-15	8/10/2015 9:28	120-83-2	2,4-Dichlorophenol			0.2	U
SB-41 13-15	8/10/2015 9:28	91-58-7	2-Chloronaphthalene			0.2	U
SB-41 13-15	8/10/2015 9:28	101-55-3	4-Bromophenyl phenyl ether			0.2	U
SB-41 13-15	8/10/2015 9:28	59-50-7	4-Chloro-3-methylphenol			0.2	U
SB-41 13-15	8/10/2015 9:28	208-96-8	Acenaphthylene			0.2	U
SB-41 13-15	8/10/2015 9:28	86-73-7	Fluorene			0.2	U
SB-41 13-15	8/10/2015 9:28	87-68-3	Hexachlorobutadiene			0.2	U
SB-41 13-15	8/10/2015 9:28	132-64-9	Dibenzofuran			0.19	U
SB-41 13-15	8/10/2015 9:28	131-11-3	Dimethyl phthalate			0.19	U
SB-41 13-15	8/10/2015 9:28	78-59-1	Isophorone			0.19	U
SB-41 13-15	8/10/2015 9:28	86-30-6	N-Nitrosodiphenylamine			0.19	U
SB-41 13-15	8/10/2015 9:28	108-95-2	Phenol			0.19	U
SB-41 13-15	8/10/2015 9:28	621-64-7	N-Nitrosodi-n-propylamine			0.18	U
SB-41 13-15	8/10/2015 9:28	108-60-1	bis (2-chloroisopropyl) ether			0.17	U
SB-41 13-15	8/10/2015 9:28	86-74-8	Carbazole			0.17	U
SB-41 13-15	8/10/2015 9:28	84-74-2	Di-n-butyl phthalate			0.17	U
SB-41 13-15	8/10/2015 9:28	91-20-3	Naphthalene			0.17	U
SB-41 13-15	8/10/2015 9:28	88-06-2	2,4,6-Trichlorophenol			0.16	U
SB-41 13-15	8/10/2015 9:28	91-94-1	3,3'-Dichlorobenzidine			0.16	U
SB-41 13-15	8/10/2015 9:28	98-86-2	Acetophenone			0.16	U
SB-41 13-15	8/10/2015 9:28	117-81-7	Bis(2-ethylhexyl) phthalate			0.16	U
SB-41 13-15	8/10/2015 9:28	117-84-0	Di-n-octyl phthalate			0.16	U
SB-41 13-15	8/10/2015 9:28	67-72-1	Hexachloroethane			0.16	U
SB-41 13-15	8/10/2015 9:28	193-39-5	Indeno[1,2,3-cd]pyrene			0.16	U
SB-41 13-15	8/10/2015 9:28	95-48-7	2-Methylphenol			0.15	U
SB-41 13-15	8/10/2015 9:28	56-55-3	Benzo[a]anthracene			0.15	U
SB-41 13-15	8/10/2015 9:28	85-68-7	Butyl benzyl phthalate			0.15	U
SB-41 13-15	8/10/2015 9:28	98-95-3	Nitrobenzene			0.15	U
SB-41 13-15	8/10/2015 9:28	120-12-7	Anthracene			0.14	U
SB-41 13-15	8/10/2015 9:28	1912-24-9	Atrazine			0.13	U
SB-41 13-15	8/10/2015 9:28	191-24-2	Benzo[g,h,i]perylene			0.12	U
SB-41 13-15	8/10/2015 9:28	111-44-4	Bis(2-chloroethyl)ether			0.25	U *
SB-41 13-15	8/10/2015 9:28	321-60-8	2-Fluorobiphenyl	NL	NL	2.4	
SB-41 4-6	8/10/2015 9:20	206-44-0	Fluoranthene			0.19	J
SB-41 4-6	8/10/2015 9:20	92-52-4	1,1'-Biphenyl			9.5	U
SB-41 4-6	8/10/2015 9:20	51-28-5	2,4-Dinitrophenol			4.6	U
SB-41 4-6	8/10/2015 9:20	100-02-7	4-Nitrophenol			1.8	U
SB-41 4-6	8/10/2015 9:20	87-86-5	Pentachlorophenol			1.8	U
SB-41 4-6	8/10/2015 9:20	534-52-1	4,6-Dinitro-2-methylphenol			0.95	U
SB-41 4-6	8/10/2015 9:20	105-60-2	Caprolactam			0.37	U
SB-41 4-6	8/10/2015 9:20	207-08-9	Benzo[k]fluoranthene			0.36	U
SB-41 4-6	8/10/2015 9:20	100-52-7	Benzaldehyde			0.32	U

Table 6. Analytical Summary Table - SVOCs  
Macon MGP #2  
Macon, Ga

Client Sample ID	Collection Date	CAS	Analyte by Method 8270D	Type 1 RRS (mg/kg)	Type 2 RRS (mg/kg)	Result (mg/kg)	Flag
SB-41 4-6	8/10/2015 9:20	106-47-8	4-Chloroaniline			0.29	U
SB-41 4-6	8/10/2015 9:20	50-32-8	Benzo[a]pyrene			0.29	U
SB-41 4-6	8/10/2015 9:20	121-14-2	2,4-Dinitrotoluene			0.27	U
SB-41 4-6	8/10/2015 9:20	100-01-6	4-Nitroaniline			0.27	U
SB-41 4-6	8/10/2015 9:20	99-09-2	3-Nitroaniline			0.26	U
SB-41 4-6	8/10/2015 9:20	88-74-4	2-Nitroaniline			0.25	U
SB-41 4-6	8/10/2015 9:20	105-67-9	2,4-Dimethylphenol			0.24	U
SB-41 4-6	8/10/2015 9:20	15831-10-4	3 & 4 Methylphenol			0.24	U
SB-41 4-6	8/10/2015 9:20	7005-72-3	4-Chlorophenyl phenyl ether			0.24	U
SB-41 4-6	8/10/2015 9:20	606-20-2	2,6-Dinitrotoluene			0.23	U
SB-41 4-6	8/10/2015 9:20	88-75-5	2-Nitrophenol			0.23	U
SB-41 4-6	8/10/2015 9:20	83-32-9	Acenaphthene			0.23	U
SB-41 4-6	8/10/2015 9:20	77-47-4	Hexachlorocyclopentadiene			0.23	U
SB-41 4-6	8/10/2015 9:20	95-57-8	2-Chlorophenol			0.22	U
SB-41 4-6	8/10/2015 9:20	111-91-1	Bis(2-chloroethoxy)methane			0.22	U
SB-41 4-6	8/10/2015 9:20	53-70-3	Dibenz(a,h)anthracene			0.22	U
SB-41 4-6	8/10/2015 9:20	118-74-1	Hexachlorobenzene			0.22	U
SB-41 4-6	8/10/2015 9:20	91-57-6	2-Methylnaphthalene			0.21	U
SB-41 4-6	8/10/2015 9:20	205-99-2	Benzo[b]fluoranthene			0.21	U
SB-41 4-6	8/10/2015 9:20	84-66-2	Diethyl phthalate			0.21	U
SB-41 4-6	8/10/2015 9:20	101-55-3	4-Bromophenyl phenyl ether			0.2	U
SB-41 4-6	8/10/2015 9:20	208-96-8	Acenaphthylene			0.2	U
SB-41 4-6	8/10/2015 9:20	86-73-7	Fluorene			0.2	U
SB-41 4-6	8/10/2015 9:20	87-68-3	Hexachlorobutadiene			0.2	U
SB-41 4-6	8/10/2015 9:20	95-95-4	2,4,5-Trichlorophenol			0.19	U
SB-41 4-6	8/10/2015 9:20	120-83-2	2,4-Dichlorophenol			0.19	U
SB-41 4-6	8/10/2015 9:20	91-58-7	2-Chloronaphthalene			0.19	U
SB-41 4-6	8/10/2015 9:20	59-50-7	4-Chloro-3-methylphenol			0.19	U
SB-41 4-6	8/10/2015 9:20	131-11-3	Dimethyl phthalate			0.19	U
SB-41 4-6	8/10/2015 9:20	108-95-2	Phenol			0.19	U
SB-41 4-6	8/10/2015 9:20	132-64-9	Dibenzofuran			0.18	U
SB-41 4-6	8/10/2015 9:20	78-59-1	Isophorone			0.18	U
SB-41 4-6	8/10/2015 9:20	621-64-7	N-Nitrosodi-n-propylamine			0.18	U
SB-41 4-6	8/10/2015 9:20	86-30-6	N-Nitrosodiphenylamine			0.18	U
SB-41 4-6	8/10/2015 9:20	108-60-1	bis (2-chloroisopropyl) ether			0.17	U
SB-41 4-6	8/10/2015 9:20	86-74-8	Carbazole			0.17	U
SB-41 4-6	8/10/2015 9:20	84-74-2	Di-n-butyl phthalate			0.17	U
SB-41 4-6	8/10/2015 9:20	91-20-3	Naphthalene			0.17	U
SB-41 4-6	8/10/2015 9:20	88-06-2	2,4,6-Trichlorophenol			0.16	U
SB-41 4-6	8/10/2015 9:20	91-94-1	3,3'-Dichlorobenzidine			0.16	U
SB-41 4-6	8/10/2015 9:20	98-86-2	Acetophenone			0.16	U
SB-41 4-6	8/10/2015 9:20	117-81-7	Bis(2-ethylhexyl) phthalate			0.16	U
SB-41 4-6	8/10/2015 9:20	117-84-0	Di-n-octyl phthalate			0.16	U

Table 6. Analytical Summary Table - SVOCs  
Macon MGP #2  
Macon, Ga

Client Sample ID	Collection Date	CAS	Analyte by Method 8270D	Type 1 RRS (mg/kg)	Type 2 RRS (mg/kg)	Result (mg/kg)	Flag
SB-41 4-6	8/10/2015 9:20	67-72-1	Hexachloroethane			0.16	U
SB-41 4-6	8/10/2015 9:20	193-39-5	Indeno[1,2,3-cd]pyrene			0.16	U
SB-41 4-6	8/10/2015 9:20	95-48-7	2-Methylphenol			0.15	U
SB-41 4-6	8/10/2015 9:20	56-55-3	Benzo[a]anthracene			0.15	U
SB-41 4-6	8/10/2015 9:20	85-01-8	Phenanthrene			0.15	U
SB-41 4-6	8/10/2015 9:20	129-00-0	Pyrene			0.15	U
SB-41 4-6	8/10/2015 9:20	120-12-7	Anthracene			0.14	U
SB-41 4-6	8/10/2015 9:20	85-68-7	Butyl benzyl phthalate			0.14	U
SB-41 4-6	8/10/2015 9:20	98-95-3	Nitrobenzene			0.14	U
SB-41 4-6	8/10/2015 9:20	1912-24-9	Atrazine			0.13	U
SB-41 4-6	8/10/2015 9:20	191-24-2	Benzo[g,h,i]perylene			0.12	U
SB-41 4-6	8/10/2015 9:20	218-01-9	Chrysene			0.12	U
SB-41 4-6	8/10/2015 9:20	111-44-4	Bis(2-chloroethyl)ether			0.25	U *
SB-41 4-6	8/10/2015 9:20	321-60-8	2-Fluorobiphenyl	NL	NL	2.8	
SB-41 8-10	8/10/2015 9:24	92-52-4	1,1'-Biphenyl			9.4	U
SB-41 8-10	8/10/2015 9:24	51-28-5	2,4-Dinitrophenol			4.6	U
SB-41 8-10	8/10/2015 9:24	100-02-7	4-Nitrophenol			1.8	U
SB-41 8-10	8/10/2015 9:24	87-86-5	Pentachlorophenol			1.8	U
SB-41 8-10	8/10/2015 9:24	534-52-1	4,6-Dinitro-2-methylphenol			0.94	U
SB-41 8-10	8/10/2015 9:24	105-60-2	Caprolactam			0.37	U
SB-41 8-10	8/10/2015 9:24	207-08-9	Benzo[k]fluoranthene			0.36	U
SB-41 8-10	8/10/2015 9:24	100-52-7	Benzaldehyde			0.32	U
SB-41 8-10	8/10/2015 9:24	106-47-8	4-Chloroaniline			0.29	U
SB-41 8-10	8/10/2015 9:24	50-32-8	Benzo[a]pyrene			0.29	U
SB-41 8-10	8/10/2015 9:24	121-14-2	2,4-Dinitrotoluene			0.27	U
SB-41 8-10	8/10/2015 9:24	100-01-6	4-Nitroaniline			0.27	U
SB-41 8-10	8/10/2015 9:24	99-09-2	3-Nitroaniline			0.26	U
SB-41 8-10	8/10/2015 9:24	88-74-4	2-Nitroaniline			0.25	U
SB-41 8-10	8/10/2015 9:24	105-67-9	2,4-Dimethylphenol			0.24	U
SB-41 8-10	8/10/2015 9:24	15831-10-4	3 & 4 Methylphenol			0.24	U
SB-41 8-10	8/10/2015 9:24	7005-72-3	4-Chlorophenyl phenyl ether			0.24	U
SB-41 8-10	8/10/2015 9:24	606-20-2	2,6-Dinitrotoluene			0.23	U
SB-41 8-10	8/10/2015 9:24	88-75-5	2-Nitrophenol			0.23	U
SB-41 8-10	8/10/2015 9:24	83-32-9	Acenaphthene			0.23	U
SB-41 8-10	8/10/2015 9:24	77-47-4	Hexachlorocyclopentadiene			0.23	U
SB-41 8-10	8/10/2015 9:24	95-57-8	2-Chlorophenol			0.22	U
SB-41 8-10	8/10/2015 9:24	111-91-1	Bis(2-chloroethoxy)methane			0.22	U
SB-41 8-10	8/10/2015 9:24	53-70-3	Dibenz(a,h)anthracene			0.22	U
SB-41 8-10	8/10/2015 9:24	118-74-1	Hexachlorobenzene			0.22	U
SB-41 8-10	8/10/2015 9:24	91-57-6	2-Methylnaphthalene			0.21	U
SB-41 8-10	8/10/2015 9:24	205-99-2	Benzo[b]fluoranthene			0.21	U
SB-41 8-10	8/10/2015 9:24	84-66-2	Diethyl phthalate			0.21	U
SB-41 8-10	8/10/2015 9:24	101-55-3	4-Bromophenyl phenyl ether			0.2	U



Table 6. Analytical Summary Table - SVOCs

Macon MGP #2

Macon, Ga

Client Sample ID	Collection Date	CAS	Analyte by Method 8270D	Type 1 RRS (mg/kg)	Type 2 RRS (mg/kg)	Result (mg/kg)	Flag
SB-41 8-10	8/10/2015 9:24	208-96-8	Acenaphthylene			0.2	U
SB-41 8-10	8/10/2015 9:24	86-73-7	Fluorene			0.2	U
SB-41 8-10	8/10/2015 9:24	87-68-3	Hexachlorobutadiene			0.2	U
SB-41 8-10	8/10/2015 9:24	95-95-4	2,4,5-Trichlorophenol			0.19	U
SB-41 8-10	8/10/2015 9:24	120-83-2	2,4-Dichlorophenol			0.19	U
SB-41 8-10	8/10/2015 9:24	91-58-7	2-Chloronaphthalene			0.19	U
SB-41 8-10	8/10/2015 9:24	59-50-7	4-Chloro-3-methylphenol			0.19	U
SB-41 8-10	8/10/2015 9:24	131-11-3	Dimethyl phthalate			0.19	U
SB-41 8-10	8/10/2015 9:24	108-95-2	Phenol			0.19	U
SB-41 8-10	8/10/2015 9:24	132-64-9	Dibenzofuran			0.18	U
SB-41 8-10	8/10/2015 9:24	206-44-0	Fluoranthene			0.18	U
SB-41 8-10	8/10/2015 9:24	78-59-1	Isophorone			0.18	U
SB-41 8-10	8/10/2015 9:24	621-64-7	N-Nitrosodi-n-propylamine			0.18	U
SB-41 8-10	8/10/2015 9:24	86-30-6	N-Nitrosodiphenylamine			0.18	U
SB-41 8-10	8/10/2015 9:24	108-60-1	bis (2-chloroisopropyl) ether			0.17	U
SB-41 8-10	8/10/2015 9:24	86-74-8	Carbazole			0.17	U
SB-41 8-10	8/10/2015 9:24	84-74-2	Di-n-butyl phthalate			0.17	U
SB-41 8-10	8/10/2015 9:24	91-20-3	Naphthalene			0.17	U
SB-41 8-10	8/10/2015 9:24	88-06-2	2,4,6-Trichlorophenol			0.16	U
SB-41 8-10	8/10/2015 9:24	91-94-1	3,3'-Dichlorobenzidine			0.16	U
SB-41 8-10	8/10/2015 9:24	98-86-2	Acetophenone			0.16	U
SB-41 8-10	8/10/2015 9:24	117-81-7	Bis(2-ethylhexyl) phthalate			0.16	U
SB-41 8-10	8/10/2015 9:24	117-84-0	Di-n-octyl phthalate			0.16	U
SB-41 8-10	8/10/2015 9:24	67-72-1	Hexachloroethane			0.16	U
SB-41 8-10	8/10/2015 9:24	193-39-5	Indeno[1,2,3-cd]pyrene			0.16	U
SB-41 8-10	8/10/2015 9:24	95-48-7	2-Methylphenol			0.15	U
SB-41 8-10	8/10/2015 9:24	56-55-3	Benzo[a]anthracene			0.15	U
SB-41 8-10	8/10/2015 9:24	85-01-8	Phenanthrene			0.15	U
SB-41 8-10	8/10/2015 9:24	129-00-0	Pyrene			0.15	U
SB-41 8-10	8/10/2015 9:24	120-12-7	Anthracene			0.14	U
SB-41 8-10	8/10/2015 9:24	85-68-7	Butyl benzyl phthalate			0.14	U
SB-41 8-10	8/10/2015 9:24	98-95-3	Nitrobenzene			0.14	U
SB-41 8-10	8/10/2015 9:24	1912-24-9	Atrazine			0.13	U
SB-41 8-10	8/10/2015 9:24	191-24-2	Benzo[g,h,i]perylene			0.12	U
SB-41 8-10	8/10/2015 9:24	218-01-9	Chrysene			0.12	U
SB-41 8-10	8/10/2015 9:24	111-44-4	Bis(2-chloroethyl)ether			0.25	U *
SB-41 8-10	8/10/2015 9:24	321-60-8	2-Fluorobiphenyl	NL	NL	2.8	
SB-42 13-15	8/6/2015 16:15	129-00-0	Pyrene			0.044	J
SB-42 13-15	8/6/2015 16:15	206-44-0	Fluoranthene			0.038	J
SB-42 13-15	8/6/2015 16:15	85-01-8	Phenanthrene			0.037	J
SB-42 13-15	8/6/2015 16:15	91-20-3	Naphthalene			0.034	J
SB-42 13-15	8/6/2015 16:15	218-01-9	Chrysene			0.033	J
SB-42 13-15	8/6/2015 16:15	117-81-7	Bis(2-ethylhexyl) phthalate			0.21	J B

Table 6. Analytical Summary Table - SVOCs

Macon MGP #2

Macon, Ga

Client Sample ID	Collection Date	CAS	Analyte by Method 8270D	Type 1 RRS (mg/kg)	Type 2 RRS (mg/kg)	Result (mg/kg)	Flag
SB-42 13-15	8/6/2015 16:15	92-52-4	1,1'-Biphenyl			1.9	U
SB-42 13-15	8/6/2015 16:15	51-28-5	2,4-Dinitrophenol			0.93	U
SB-42 13-15	8/6/2015 16:15	100-02-7	4-Nitrophenol			0.37	U
SB-42 13-15	8/6/2015 16:15	87-86-5	Pentachlorophenol			0.37	U
SB-42 13-15	8/6/2015 16:15	105-60-2	Caprolactam			0.074	U
SB-42 13-15	8/6/2015 16:15	207-08-9	Benzo[k]fluoranthene			0.073	U
SB-42 13-15	8/6/2015 16:15	100-52-7	Benzaldehyde			0.065	U
SB-42 13-15	8/6/2015 16:15	106-47-8	4-Chloroaniline			0.058	U
SB-42 13-15	8/6/2015 16:15	50-32-8	Benzo[a]pyrene			0.058	U
SB-42 13-15	8/6/2015 16:15	121-14-2	2,4-Dinitrotoluene			0.055	U
SB-42 13-15	8/6/2015 16:15	100-01-6	4-Nitroaniline			0.055	U
SB-42 13-15	8/6/2015 16:15	99-09-2	3-Nitroaniline			0.052	U
SB-42 13-15	8/6/2015 16:15	88-74-4	2-Nitroaniline			0.05	U
SB-42 13-15	8/6/2015 16:15	111-44-4	Bis(2-chloroethyl)ether			0.05	U
SB-42 13-15	8/6/2015 16:15	105-67-9	2,4-Dimethylphenol			0.049	U
SB-42 13-15	8/6/2015 16:15	7005-72-3	4-Chlorophenyl phenyl ether			0.049	U
SB-42 13-15	8/6/2015 16:15	15831-10-4	3 & 4 Methylphenol			0.048	U
SB-42 13-15	8/6/2015 16:15	606-20-2	2,6-Dinitrotoluene			0.047	U
SB-42 13-15	8/6/2015 16:15	88-75-5	2-Nitrophenol			0.046	U
SB-42 13-15	8/6/2015 16:15	83-32-9	Acenaphthene			0.046	U
SB-42 13-15	8/6/2015 16:15	77-47-4	Hexachlorocyclopentadiene			0.046	U
SB-42 13-15	8/6/2015 16:15	95-57-8	2-Chlorophenol			0.045	U
SB-42 13-15	8/6/2015 16:15	111-91-1	Bis(2-chloroethoxy)methane			0.044	U
SB-42 13-15	8/6/2015 16:15	53-70-3	Dibenz(a,h)anthracene			0.044	U
SB-42 13-15	8/6/2015 16:15	118-74-1	Hexachlorobenzene			0.044	U
SB-42 13-15	8/6/2015 16:15	91-57-6	2-Methylnaphthalene			0.043	U
SB-42 13-15	8/6/2015 16:15	205-99-2	Benzo[b]fluoranthene			0.043	U
SB-42 13-15	8/6/2015 16:15	84-66-2	Diethyl phthalate			0.041	U
SB-42 13-15	8/6/2015 16:15	101-55-3	4-Bromophenyl phenyl ether			0.04	U
SB-42 13-15	8/6/2015 16:15	208-96-8	Acenaphthylene			0.04	U
SB-42 13-15	8/6/2015 16:15	86-73-7	Fluorene			0.04	U
SB-42 13-15	8/6/2015 16:15	87-68-3	Hexachlorobutadiene			0.04	U
SB-42 13-15	8/6/2015 16:15	95-95-4	2,4,5-Trichlorophenol			0.039	U
SB-42 13-15	8/6/2015 16:15	120-83-2	2,4-Dichlorophenol			0.039	U
SB-42 13-15	8/6/2015 16:15	91-58-7	2-Chloronaphthalene			0.039	U
SB-42 13-15	8/6/2015 16:15	59-50-7	4-Chloro-3-methylphenol			0.039	U
SB-42 13-15	8/6/2015 16:15	131-11-3	Dimethyl phthalate			0.038	U
SB-42 13-15	8/6/2015 16:15	108-95-2	Phenol			0.038	U
SB-42 13-15	8/6/2015 16:15	132-64-9	Dibenzofuran			0.037	U
SB-42 13-15	8/6/2015 16:15	78-59-1	Isophorone			0.037	U
SB-42 13-15	8/6/2015 16:15	86-30-6	N-Nitrosodiphenylamine			0.037	U
SB-42 13-15	8/6/2015 16:15	621-64-7	N-Nitrosodi-n-propylamine			0.036	U
SB-42 13-15	8/6/2015 16:15	108-60-1	bis (2-chloroisopropyl) ether			0.034	U

Table 6. Analytical Summary Table - SVOCs  
Macon MGP #2  
Macon, Ga

Client Sample ID	Collection Date	CAS	Analyte by Method 8270D	Type 1 RRS (mg/kg)	Type 2 RRS (mg/kg)	Result (mg/kg)	Flag
SB-42 13-15	8/6/2015 16:15	86-74-8	Carbazole			0.034	U
SB-42 13-15	8/6/2015 16:15	84-74-2	Di-n-butyl phthalate			0.034	U
SB-42 13-15	8/6/2015 16:15	88-06-2	2,4,6-Trichlorophenol			0.033	U
SB-42 13-15	8/6/2015 16:15	117-84-0	Di-n-octyl phthalate			0.033	U
SB-42 13-15	8/6/2015 16:15	91-94-1	3,3'-Dichlorobenzidine			0.031	U
SB-42 13-15	8/6/2015 16:15	98-86-2	Acetophenone			0.031	U
SB-42 13-15	8/6/2015 16:15	67-72-1	Hexachloroethane			0.031	U
SB-42 13-15	8/6/2015 16:15	193-39-5	Indeno[1,2,3-cd]pyrene			0.031	U
SB-42 13-15	8/6/2015 16:15	95-48-7	2-Methylphenol			0.03	U
SB-42 13-15	8/6/2015 16:15	56-55-3	Benzo[a]anthracene			0.03	U
SB-42 13-15	8/6/2015 16:15	85-68-7	Butyl benzyl phthalate			0.029	U
SB-42 13-15	8/6/2015 16:15	98-95-3	Nitrobenzene			0.029	U
SB-42 13-15	8/6/2015 16:15	120-12-7	Anthracene			0.028	U
SB-42 13-15	8/6/2015 16:15	1912-24-9	Atrazine			0.026	U
SB-42 13-15	8/6/2015 16:15	191-24-2	Benzo[g,h,i]perylene			0.025	U
SB-42 13-15	8/6/2015 16:15	534-52-1	4,6-Dinitro-2-methylphenol			0.19	U *
SB-42 13-15	8/6/2015 16:15	321-60-8	2-Fluorobiphenyl	NL	NL	2.5	
SB-42 2-4	8/6/2015 16:02	206-44-0	Fluoranthene			0.27	J
SB-42 2-4	8/6/2015 16:02	129-00-0	Pyrene			0.22	J
SB-42 2-4	8/6/2015 16:02	205-99-2	Benzo[b]fluoranthene			0.16	J
SB-42 2-4	8/6/2015 16:02	85-01-8	Phenanthrene			0.16	J
SB-42 2-4	8/6/2015 16:02	218-01-9	Chrysene			0.12	J
SB-42 2-4	8/6/2015 16:02	56-55-3	Benzo[a]anthracene			0.11	J
SB-42 2-4	8/6/2015 16:02	50-32-8	Benzo[a]pyrene			0.11	J
SB-42 2-4	8/6/2015 16:02	191-24-2	Benzo[g,h,i]perylene			0.074	J
SB-42 2-4	8/6/2015 16:02	207-08-9	Benzo[k]fluoranthene			0.074	J
SB-42 2-4	8/6/2015 16:02	193-39-5	Indeno[1,2,3-cd]pyrene			0.06	J
SB-42 2-4	8/6/2015 16:02	120-12-7	Anthracene			0.042	J
SB-42 2-4	8/6/2015 16:02	92-52-4	1,1'-Biphenyl			1.8	U
SB-42 2-4	8/6/2015 16:02	51-28-5	2,4-Dinitrophenol			0.9	U
SB-42 2-4	8/6/2015 16:02	100-02-7	4-Nitrophenol			0.36	U
SB-42 2-4	8/6/2015 16:02	87-86-5	Pentachlorophenol			0.36	U
SB-42 2-4	8/6/2015 16:02	105-60-2	Caprolactam			0.071	U
SB-42 2-4	8/6/2015 16:02	100-52-7	Benzaldehyde			0.063	U
SB-42 2-4	8/6/2015 16:02	106-47-8	4-Chloroaniline			0.056	U
SB-42 2-4	8/6/2015 16:02	121-14-2	2,4-Dinitrotoluene			0.053	U
SB-42 2-4	8/6/2015 16:02	100-01-6	4-Nitroaniline			0.053	U
SB-42 2-4	8/6/2015 16:02	99-09-2	3-Nitroaniline			0.05	U
SB-42 2-4	8/6/2015 16:02	88-74-4	2-Nitroaniline			0.049	U
SB-42 2-4	8/6/2015 16:02	111-44-4	Bis(2-chloroethyl)ether			0.049	U
SB-42 2-4	8/6/2015 16:02	105-67-9	2,4-Dimethylphenol			0.048	U
SB-42 2-4	8/6/2015 16:02	7005-72-3	4-Chlorophenyl phenyl ether			0.048	U
SB-42 2-4	8/6/2015 16:02	15831-10-4	3 & 4 Methylphenol			0.046	U

Table 6. Analytical Summary Table - SVOCs

Macon MGP #2

Macon, Ga

Client Sample ID	Collection Date	CAS	Analyte by Method 8270D	Type 1 RRS (mg/kg)	Type 2 RRS (mg/kg)	Result (mg/kg)	Flag
SB-42 2-4	8/6/2015 16:02	606-20-2	2,6-Dinitrotoluene			0.045	U
SB-42 2-4	8/6/2015 16:02	88-75-5	2-Nitrophenol			0.044	U
SB-42 2-4	8/6/2015 16:02	83-32-9	Acenaphthene			0.044	U
SB-42 2-4	8/6/2015 16:02	77-47-4	Hexachlorocyclopentadiene			0.044	U
SB-42 2-4	8/6/2015 16:02	95-57-8	2-Chlorophenol			0.043	U
SB-42 2-4	8/6/2015 16:02	111-91-1	Bis(2-chloroethoxy)methane			0.042	U
SB-42 2-4	8/6/2015 16:02	53-70-3	Dibenz(a,h)anthracene			0.042	U
SB-42 2-4	8/6/2015 16:02	118-74-1	Hexachlorobenzene			0.042	U
SB-42 2-4	8/6/2015 16:02	91-57-6	2-Methylnaphthalene			0.041	U
SB-42 2-4	8/6/2015 16:02	84-66-2	Diethyl phthalate			0.04	U
SB-42 2-4	8/6/2015 16:02	101-55-3	4-Bromophenyl phenyl ether			0.039	U
SB-42 2-4	8/6/2015 16:02	208-96-8	Acenaphthylene			0.039	U
SB-42 2-4	8/6/2015 16:02	86-73-7	Fluorene			0.039	U
SB-42 2-4	8/6/2015 16:02	87-68-3	Hexachlorobutadiene			0.039	U
SB-42 2-4	8/6/2015 16:02	95-95-4	2,4,5-Trichlorophenol			0.038	U
SB-42 2-4	8/6/2015 16:02	120-83-2	2,4-Dichlorophenol			0.038	U
SB-42 2-4	8/6/2015 16:02	91-58-7	2-Chloronaphthalene			0.038	U
SB-42 2-4	8/6/2015 16:02	59-50-7	4-Chloro-3-methylphenol			0.038	U
SB-42 2-4	8/6/2015 16:02	131-11-3	Dimethyl phthalate			0.037	U
SB-42 2-4	8/6/2015 16:02	108-95-2	Phenol			0.037	U
SB-42 2-4	8/6/2015 16:02	132-64-9	Dibenzofuran			0.036	U
SB-42 2-4	8/6/2015 16:02	78-59-1	Isophorone			0.036	U
SB-42 2-4	8/6/2015 16:02	86-30-6	N-Nitrosodiphenylamine			0.036	U
SB-42 2-4	8/6/2015 16:02	621-64-7	N-Nitrosodi-n-propylamine			0.035	U
SB-42 2-4	8/6/2015 16:02	108-60-1	bis (2-chloroisopropyl) ether			0.032	U
SB-42 2-4	8/6/2015 16:02	86-74-8	Carbazole			0.032	U
SB-42 2-4	8/6/2015 16:02	84-74-2	Di-n-butyl phthalate			0.032	U
SB-42 2-4	8/6/2015 16:02	91-20-3	Naphthalene			0.032	U
SB-42 2-4	8/6/2015 16:02	88-06-2	2,4,6-Trichlorophenol			0.031	U
SB-42 2-4	8/6/2015 16:02	117-81-7	Bis(2-ethylhexyl) phthalate			0.031	U
SB-42 2-4	8/6/2015 16:02	117-84-0	Di-n-octyl phthalate			0.031	U
SB-42 2-4	8/6/2015 16:02	91-94-1	3,3'-Dichlorobenzidine			0.03	U
SB-42 2-4	8/6/2015 16:02	98-86-2	Acetophenone			0.03	U
SB-42 2-4	8/6/2015 16:02	67-72-1	Hexachloroethane			0.03	U
SB-42 2-4	8/6/2015 16:02	95-48-7	2-Methylphenol			0.029	U
SB-42 2-4	8/6/2015 16:02	85-68-7	Butyl benzyl phthalate			0.028	U
SB-42 2-4	8/6/2015 16:02	98-95-3	Nitrobenzene			0.028	U
SB-42 2-4	8/6/2015 16:02	1912-24-9	Atrazine			0.025	U
SB-42 2-4	8/6/2015 16:02	534-52-1	4,6-Dinitro-2-methylphenol			0.18	U *
SB-42 2-4	8/6/2015 16:02	321-60-8	2-Fluorobiphenyl	NL	NL	2.8	
SB-42 4-6	8/6/2015 16:05	117-81-7	Bis(2-ethylhexyl) phthalate			0.2	J B
SB-42 4-6	8/6/2015 16:05	92-52-4	1,1'-Biphenyl			1.8	U
SB-42 4-6	8/6/2015 16:05	51-28-5	2,4-Dinitrophenol			0.9	U

Table 6. Analytical Summary Table - SVOCs

Macon MGP #2

Macon, Ga

Client Sample ID	Collection Date	CAS	Analyte by Method 8270D	Type 1 RRS (mg/kg)	Type 2 RRS (mg/kg)	Result (mg/kg)	Flag
SB-42 4-6	8/6/2015 16:05	100-02-7	4-Nitrophenol			0.36	U
SB-42 4-6	8/6/2015 16:05	87-86-5	Pentachlorophenol			0.36	U
SB-42 4-6	8/6/2015 16:05	105-60-2	Caprolactam			0.072	U
SB-42 4-6	8/6/2015 16:05	207-08-9	Benzo[k]fluoranthene			0.071	U
SB-42 4-6	8/6/2015 16:05	100-52-7	Benzaldehyde			0.063	U
SB-42 4-6	8/6/2015 16:05	106-47-8	4-Chloroaniline			0.056	U
SB-42 4-6	8/6/2015 16:05	50-32-8	Benzo[a]pyrene			0.056	U
SB-42 4-6	8/6/2015 16:05	121-14-2	2,4-Dinitrotoluene			0.053	U
SB-42 4-6	8/6/2015 16:05	100-01-6	4-Nitroaniline			0.053	U
SB-42 4-6	8/6/2015 16:05	99-09-2	3-Nitroaniline			0.05	U
SB-42 4-6	8/6/2015 16:05	88-74-4	2-Nitroaniline			0.049	U
SB-42 4-6	8/6/2015 16:05	111-44-4	Bis(2-chloroethyl)ether			0.049	U
SB-42 4-6	8/6/2015 16:05	105-67-9	2,4-Dimethylphenol			0.048	U
SB-42 4-6	8/6/2015 16:05	7005-72-3	4-Chlorophenyl phenyl ether			0.048	U
SB-42 4-6	8/6/2015 16:05	15831-10-4	3 & 4 Methylphenol			0.047	U
SB-42 4-6	8/6/2015 16:05	606-20-2	2,6-Dinitrotoluene			0.046	U
SB-42 4-6	8/6/2015 16:05	88-75-5	2-Nitrophenol			0.045	U
SB-42 4-6	8/6/2015 16:05	83-32-9	Acenaphthene			0.045	U
SB-42 4-6	8/6/2015 16:05	77-47-4	Hexachlorocyclopentadiene			0.045	U
SB-42 4-6	8/6/2015 16:05	95-57-8	2-Chlorophenol			0.043	U
SB-42 4-6	8/6/2015 16:05	111-91-1	Bis(2-chloroethoxy)methane			0.042	U
SB-42 4-6	8/6/2015 16:05	53-70-3	Dibenz(a,h)anthracene			0.042	U
SB-42 4-6	8/6/2015 16:05	118-74-1	Hexachlorobenzene			0.042	U
SB-42 4-6	8/6/2015 16:05	91-57-6	2-Methylnaphthalene			0.041	U
SB-42 4-6	8/6/2015 16:05	205-99-2	Benzo[b]fluoranthene			0.041	U
SB-42 4-6	8/6/2015 16:05	84-66-2	Diethyl phthalate			0.04	U
SB-42 4-6	8/6/2015 16:05	101-55-3	4-Bromophenyl phenyl ether			0.039	U
SB-42 4-6	8/6/2015 16:05	208-96-8	Acenaphthylene			0.039	U
SB-42 4-6	8/6/2015 16:05	86-73-7	Fluorene			0.039	U
SB-42 4-6	8/6/2015 16:05	87-68-3	Hexachlorobutadiene			0.039	U
SB-42 4-6	8/6/2015 16:05	95-95-4	2,4,5-Trichlorophenol			0.038	U
SB-42 4-6	8/6/2015 16:05	120-83-2	2,4-Dichlorophenol			0.038	U
SB-42 4-6	8/6/2015 16:05	91-58-7	2-Chloronaphthalene			0.038	U
SB-42 4-6	8/6/2015 16:05	59-50-7	4-Chloro-3-methylphenol			0.038	U
SB-42 4-6	8/6/2015 16:05	131-11-3	Dimethyl phthalate			0.037	U
SB-42 4-6	8/6/2015 16:05	108-95-2	Phenol			0.037	U
SB-42 4-6	8/6/2015 16:05	132-64-9	Dibenzofuran			0.036	U
SB-42 4-6	8/6/2015 16:05	78-59-1	Isophorone			0.036	U
SB-42 4-6	8/6/2015 16:05	86-30-6	N-Nitrosodiphenylamine			0.036	U
SB-42 4-6	8/6/2015 16:05	206-44-0	Fluoranthene			0.035	U
SB-42 4-6	8/6/2015 16:05	621-64-7	N-Nitrosodi-n-propylamine			0.035	U
SB-42 4-6	8/6/2015 16:05	108-60-1	bis (2-chloroisopropyl) ether			0.033	U
SB-42 4-6	8/6/2015 16:05	86-74-8	Carbazole			0.033	U

Table 6. Analytical Summary Table - SVOCs

Macon MGP #2

Macon, Ga

Client Sample ID	Collection Date	CAS	Analyte by Method 8270D	Type 1 RRS (mg/kg)	Type 2 RRS (mg/kg)	Result (mg/kg)	Flag
SB-42 4-6	8/6/2015 16:05	84-74-2	Di-n-butyl phthalate			0.033	U
SB-42 4-6	8/6/2015 16:05	91-20-3	Naphthalene			0.033	U
SB-42 4-6	8/6/2015 16:05	88-06-2	2,4,6-Trichlorophenol			0.031	U
SB-42 4-6	8/6/2015 16:05	117-84-0	Di-n-octyl phthalate			0.031	U
SB-42 4-6	8/6/2015 16:05	91-94-1	3,3'-Dichlorobenzidine			0.03	U
SB-42 4-6	8/6/2015 16:05	98-86-2	Acetophenone			0.03	U
SB-42 4-6	8/6/2015 16:05	67-72-1	Hexachloroethane			0.03	U
SB-42 4-6	8/6/2015 16:05	193-39-5	Indeno[1,2,3-cd]pyrene			0.03	U
SB-42 4-6	8/6/2015 16:05	95-48-7	2-Methylphenol			0.029	U
SB-42 4-6	8/6/2015 16:05	56-55-3	Benzo[a]anthracene			0.029	U
SB-42 4-6	8/6/2015 16:05	85-01-8	Phenanthrene			0.029	U
SB-42 4-6	8/6/2015 16:05	129-00-0	Pyrene			0.029	U
SB-42 4-6	8/6/2015 16:05	85-68-7	Butyl benzyl phthalate			0.028	U
SB-42 4-6	8/6/2015 16:05	98-95-3	Nitrobenzene			0.028	U
SB-42 4-6	8/6/2015 16:05	120-12-7	Anthracene			0.027	U
SB-42 4-6	8/6/2015 16:05	1912-24-9	Atrazine			0.025	U
SB-42 4-6	8/6/2015 16:05	191-24-2	Benzo[g,h,i]perylene			0.024	U
SB-42 4-6	8/6/2015 16:05	218-01-9	Chrysene			0.023	U
SB-42 4-6	8/6/2015 16:05	534-52-1	4,6-Dinitro-2-methylphenol			0.18	U *
SB-42 4-6	8/6/2015 16:05	321-60-8	2-Fluorobiphenyl	NL	NL	2	
SB-42 8-10	8/6/2015 16:10	321-60-8	2-Fluorobiphenyl			0	D
SB-42 8-10	8/6/2015 16:10	205-99-2	Benzo[b]fluoranthene			0.94	J
SB-42 8-10	8/6/2015 16:10	206-44-0	Fluoranthene			0.9	J
SB-42 8-10	8/6/2015 16:10	129-00-0	Pyrene			0.81	J
SB-42 8-10	8/6/2015 16:10	218-01-9	Chrysene			0.75	J
SB-42 8-10	8/6/2015 16:10	50-32-8	Benzo[a]pyrene			0.71	J
SB-42 8-10	8/6/2015 16:10	56-55-3	Benzo[a]anthracene			0.62	J
SB-42 8-10	8/6/2015 16:10	85-01-8	Phenanthrene			0.5	J
SB-42 8-10	8/6/2015 16:10	191-24-2	Benzo[g,h,i]perylene			0.45	J
SB-42 8-10	8/6/2015 16:10	193-39-5	Indeno[1,2,3-cd]pyrene			0.4	J
SB-42 8-10	8/6/2015 16:10	92-52-4	1,1'-Biphenyl			19	U
SB-42 8-10	8/6/2015 16:10	51-28-5	2,4-Dinitrophenol			9.3	U
SB-42 8-10	8/6/2015 16:10	100-02-7	4-Nitrophenol			3.7	U
SB-42 8-10	8/6/2015 16:10	87-86-5	Pentachlorophenol			3.7	U
SB-42 8-10	8/6/2015 16:10	105-60-2	Caprolactam			0.74	U
SB-42 8-10	8/6/2015 16:10	207-08-9	Benzo[k]fluoranthene			0.73	U
SB-42 8-10	8/6/2015 16:10	100-52-7	Benzaldehyde			0.65	U
SB-42 8-10	8/6/2015 16:10	106-47-8	4-Chloroaniline			0.58	U
SB-42 8-10	8/6/2015 16:10	121-14-2	2,4-Dinitrotoluene			0.55	U
SB-42 8-10	8/6/2015 16:10	100-01-6	4-Nitroaniline			0.55	U
SB-42 8-10	8/6/2015 16:10	99-09-2	3-Nitroaniline			0.51	U
SB-42 8-10	8/6/2015 16:10	88-74-4	2-Nitroaniline			0.5	U
SB-42 8-10	8/6/2015 16:10	111-44-4	Bis(2-chloroethyl)ether			0.5	U

Table 6. Analytical Summary Table - SVOCs

Macon MGP #2

Macon, Ga

Client Sample ID	Collection Date	CAS	Analyte by Method 8270D	Type 1 RRS (mg/kg)	Type 2 RRS (mg/kg)	Result (mg/kg)	Flag
SB-42 8-10	8/6/2015 16:10	105-67-9	2,4-Dimethylphenol			0.49	U
SB-42 8-10	8/6/2015 16:10	7005-72-3	4-Chlorophenyl phenyl ether			0.49	U
SB-42 8-10	8/6/2015 16:10	15831-10-4	3 & 4 Methylphenol			0.48	U
SB-42 8-10	8/6/2015 16:10	606-20-2	2,6-Dinitrotoluene			0.47	U
SB-42 8-10	8/6/2015 16:10	88-75-5	2-Nitrophenol			0.46	U
SB-42 8-10	8/6/2015 16:10	83-32-9	Acenaphthene			0.46	U
SB-42 8-10	8/6/2015 16:10	77-47-4	Hexachlorocyclopentadiene			0.46	U
SB-42 8-10	8/6/2015 16:10	95-57-8	2-Chlorophenol			0.45	U
SB-42 8-10	8/6/2015 16:10	111-91-1	Bis(2-chloroethoxy)methane			0.44	U
SB-42 8-10	8/6/2015 16:10	53-70-3	Dibenz(a,h)anthracene			0.44	U
SB-42 8-10	8/6/2015 16:10	118-74-1	Hexachlorobenzene			0.44	U
SB-42 8-10	8/6/2015 16:10	91-57-6	2-Methylnaphthalene			0.43	U
SB-42 8-10	8/6/2015 16:10	84-66-2	Diethyl phthalate			0.41	U
SB-42 8-10	8/6/2015 16:10	101-55-3	4-Bromophenyl phenyl ether			0.4	U
SB-42 8-10	8/6/2015 16:10	208-96-8	Acenaphthylene			0.4	U
SB-42 8-10	8/6/2015 16:10	86-73-7	Fluorene			0.4	U
SB-42 8-10	8/6/2015 16:10	87-68-3	Hexachlorobutadiene			0.4	U
SB-42 8-10	8/6/2015 16:10	95-95-4	2,4,5-Trichlorophenol			0.39	U
SB-42 8-10	8/6/2015 16:10	120-83-2	2,4-Dichlorophenol			0.39	U
SB-42 8-10	8/6/2015 16:10	91-58-7	2-Chloronaphthalene			0.39	U
SB-42 8-10	8/6/2015 16:10	59-50-7	4-Chloro-3-methylphenol			0.39	U
SB-42 8-10	8/6/2015 16:10	131-11-3	Dimethyl phthalate			0.38	U
SB-42 8-10	8/6/2015 16:10	108-95-2	Phenol			0.38	U
SB-42 8-10	8/6/2015 16:10	132-64-9	Dibenzofuran			0.37	U
SB-42 8-10	8/6/2015 16:10	78-59-1	Isophorone			0.37	U
SB-42 8-10	8/6/2015 16:10	86-30-6	N-Nitrosodiphenylamine			0.37	U
SB-42 8-10	8/6/2015 16:10	621-64-7	N-Nitrosodi-n-propylamine			0.36	U
SB-42 8-10	8/6/2015 16:10	108-60-1	bis (2-chloroisopropyl) ether			0.34	U
SB-42 8-10	8/6/2015 16:10	86-74-8	Carbazole			0.34	U
SB-42 8-10	8/6/2015 16:10	84-74-2	Di-n-butyl phthalate			0.34	U
SB-42 8-10	8/6/2015 16:10	91-20-3	Naphthalene			0.34	U
SB-42 8-10	8/6/2015 16:10	88-06-2	2,4,6-Trichlorophenol			0.32	U
SB-42 8-10	8/6/2015 16:10	117-81-7	Bis(2-ethylhexyl) phthalate			0.32	U
SB-42 8-10	8/6/2015 16:10	117-84-0	Di-n-octyl phthalate			0.32	U
SB-42 8-10	8/6/2015 16:10	91-94-1	3,3'-Dichlorobenzidine			0.31	U
SB-42 8-10	8/6/2015 16:10	98-86-2	Acetophenone			0.31	U
SB-42 8-10	8/6/2015 16:10	67-72-1	Hexachloroethane			0.31	U
SB-42 8-10	8/6/2015 16:10	95-48-7	2-Methylphenol			0.3	U
SB-42 8-10	8/6/2015 16:10	85-68-7	Butyl benzyl phthalate			0.29	U
SB-42 8-10	8/6/2015 16:10	98-95-3	Nitrobenzene			0.29	U
SB-42 8-10	8/6/2015 16:10	120-12-7	Anthracene			0.28	U
SB-42 8-10	8/6/2015 16:10	1912-24-9	Atrazine			0.26	U
SB-42 8-10	8/6/2015 16:10	534-52-1	4,6-Dinitro-2-methylphenol			1.9	U *

Table 6. Analytical Summary Table - SVOCs

Macon MGP #2

Macon, Ga

Client Sample ID	Collection Date	CAS	Analyte by Method 8270D	Type 1 RRS (mg/kg)	Type 2 RRS (mg/kg)	Result (mg/kg)	Flag
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Notes:

"B" Flag = Compound was found in the blank and sample.

"U" Flag = Indicates the analyte was analyzed for but not detected.

"F1" Flag = MS and/or MSD Recovery is outside acceptance limits.

"F2" Flag = MS/MSD RPD exceeds control limits.

"J" Flag = Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

"D" = Surrogate or matrix spike recoveries were not obtained because the extract was diluted for analysis; also compounds analyzed at a dilution may be flagged with a D.

\*LCS or LCSD is outside acceptance limits.

Red = Analytical result exceeds the respective Typ 1 RRS



Draft COC Decision Matrix  
MGP #2, Macon, Georgia

COI	Boring ID	Maximum Depth (feet)	Analytical Result	Type 1 RRS (mg/kg)	Source	Type 2 RRS (mg/kg)	Source	UBL (mg/kg)	UCL (mg/kg)	EPC < Critical PCL?	Proposed Action
Arsenic	GB-27	0-0.5	74.9	20.0	C	6.06	D	7.05	6.044	Yes	NFA Required - However recommend excavation of soil to 0.5-feet in this area
	GB-14	8-10	25	20.0	C	6.06	D	7.05	6.044	Yes	NFA - EPC measures below Type 1 & 2 RRS and UBL
Lead	GB-14	0.5-2	425	75	C	400	**	204	94.09	Yes	NFA Required - However recommend excavation of soil to 2-feet in this area
	GB-11	0.5-2	465	75	C	400	**	204	94.09	Yes	NFA Required - However recommend excavation of soil to 2-feet in this area
	GB-14	3-5	720	75	C	400	**	204	314.5	Yes	NFA Required - However recommend excavation of soil to 5-feet in this area
	SB-25	2-4	1800	75	C	400	**	204	314.5	Yes	NFA Required - However recommend excavation of soil to 4-feet in this area
	SB-45	10-12	425	75	C	400	**	204	314.5	Yes	NFA - EPC measures below Type 2 RRS. Recommend preparation of a Soil Management Plan and construction worker oversight/air monitoring if soils in this area will be disturbed during construction.
	SB-45	15-17	1070	75	C	400	**	204	Not Calculated	Not Applicable	NFA - Soils greater than 15-ft
Lead	SB-27	8-12	634	75	C	400	**	204	314.5	Yes	NFA - EPC measures below Type 2 RRS. Recommend preparation of a Soil Management Plan and construction worker oversight/air monitoring if soils in this area will be disturbed during construction.

Draft COC Decision Matrix  
MGP #2, Macon, Georgia

COI	Boring ID	Maximum Depth (feet)	Analytical Result	Type 1 RRS (mg/kg)	Source	Type 2 RRS (mg/kg)	Source	UBL (mg/kg)	UCL (mg/kg)	EPC < Critical PCL?	Proposed Action
Lead	GB-28	13-15	950	75	C	400	**	204	314.5	Yes	NFA - EPC measures below Type 2 RRS. Recommend preparation of a Soil Management Plan and construction worker oversight/air monitoring if soils in this area will be disturbed during construction.
	SB-41	24-29	484	75	C	400	**	204	Not Calculated	Not Applicable	NFA - Soils greater than 15-ft
Benzo(a)anthracene	SB-17	13-15	13	1.25	A	1.65	D	0.56	1.375	Yes	NFA - Potential exposure to COC measures below Type 2 RRS
Benzo(a)pyrene	SB-17	13-15	10	1.64	A	1.25	D	0.69	1.277	Yes	NFA - EPC measures below Type 1 RRS
	SB-17	16-20	5.0	1.64	A	1.25	D	0.69	Not Calculated	Not Applicable	NFA - Soils greater than 15-ft
	SB-41	19-24	2.2	1.64	A	1.25	D	0.69	Not Calculated	Not Applicable	NFA - Soils greater than 15-ft
	SB-14	16-20	6.8	1.64	A	1.25	D	0.69	Not Calculated	Not Applicable	NFA - Soils greater than 15-ft
	SB-14	24-28	10.0	1.64	A	1.25	D	0.69	Not Calculated	Not Applicable	NFA - Soils greater than 15-ft
	SB-24	2-4	2.9	1.64	A	1.25	D	0.69	1.277	Yes	NFA - EPC measures below Type 1 RRS
	SB-24	4-6	1.9	1.64	A	1.25	D	0.69	1.277	Yes	NFA - EPC measures below Type 1 RRS
	SB-25	2-4	11.0	1.64	A	1.25	D	0.69	1.277	Yes	NFA - EPC measures below Type 1 RRS
Benzo(a)pyrene	SB-42	2-4	5.6	1.64	A	1.25	D	0.69	1.277	Yes	NFA - EPC measures below Type 1 RRS
Benzo(b)fluoranthene	SB-17	13-15	13	5	A	12.5	D	0.61	1.511	Yes	NFA - EPC measures below Type 1 & 2 RRS
Dibenzo(a,h)anthracene	SB-17	16-20	2.3	2	D	1.25	D	*0.35	Not Calculated	Not Applicable	NFA - Soils greater than 15-ft
	SB-14	16-20	3.5	2	D	1.25	D	*0.35	Not Calculated	Not Applicable	NFA - Soils greater than 15-ft

Draft COC Decision Matrix  
MGP #2, Macon, Georgia

COI	Boring ID	Maximum Depth (feet)	Analytical Result	Type 1 RRS (mg/kg)	Source	Type 2 RRS (mg/kg)	Source	UBL (mg/kg)	UCL (mg/kg)	EPC < Critical PCL?	Proposed Action
Dibenzo(a,h)anthracene	SB-14	24-28	4.2	2	D	1.25	D	*0.35	Not Calculated	Not Applicable	NFA - Soils greater than 15-ft

Notes:

UBL: Upper Background Limit calculated presented in the Compliance Status Investigation Report (dated September 2003) approved by EPD.

UCL: Upper Confidence Limit

EPC: Exposure Point Concentration

PCL: Protective Concentration Level

NFA: No Further Action

RRS: Risk Reduction Standards

\* Detection Limit

\*\* Derived based on the EPA Integrated Exposure Biokinetic Model

A: Appendix 1 Notification Requirement

C: Appendix III Table 2

D: Upperbound excess cancer risk

**APPENDIX D**

**Laboratory Analytical Results**

# TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

## ANALYTICAL REPORT

TestAmerica Laboratories, Inc.

TestAmerica Savannah

5102 LaRoche Avenue

Savannah, GA 31404

Tel: (912)354-7858

TestAmerica Job ID: 680-115409-1

Client Project/Site: Macon MGP

Revision: 1

For:

Geotechnical & Environmental Consultants

514 Hillcrest Industrial Blvd.

Macon, Georgia 31204

Attn: Carrie Holderfield



Authorized for release by:

9/17/2015 4:31:25 PM

Lisa Harvey, Project Manager II

(912)354-7858 e.3221

[lisa.harvey@testamericainc.com](mailto:lisa.harvey@testamericainc.com)

### LINKS

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*The test results in this report meet all 2003 NELAC and 2009 TNI requirements for accredited parameters, exceptions are noted in this report. This report may not be reproduced except in full, and with written approval from the laboratory. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.*

*This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.*

*Results relate only to the items tested and the sample(s) as received by the laboratory.*

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# Definitions/Glossary

Client: Geotechnical & Environmental Consultants  
Project/Site: Macon MGP

TestAmerica Job ID: 680-115409-1

## Qualifiers

### GC/MS VOA

Qualifier	Qualifier Description
U	Indicates the analyte was analyzed for but not detected.

### GC/MS Semi VOA

Qualifier	Qualifier Description
U	Indicates the analyte was analyzed for but not detected.
D	Surrogate or matrix spike recoveries were not obtained because the extract was diluted for analysis; also compounds analyzed at a dilution may be flagged with a D.
*	LCS or LCSD is outside acceptance limits.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
B	Compound was found in the blank and sample.
X	Surrogate is outside control limits
F1	MS and/or MSD Recovery is outside acceptance limits.
F2	MS/MSD RPD exceeds control limits

### Metals

Qualifier	Qualifier Description
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
U	Indicates the analyte was analyzed for but not detected.
F1	MS and/or MSD Recovery is outside acceptance limits.
F2	MS/MSD RPD exceeds control limits
4	MS, MSD: The analyte present in the original sample is greater than 4 times the matrix spike concentration; therefore, control limits are not applicable.

### General Chemistry

Qualifier	Qualifier Description
U	Indicates the analyte was analyzed for but not detected.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

## Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
α	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CNF	Contains no Free Liquid
DER	Duplicate error ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision level concentration
MDA	Minimum detectable activity
EDL	Estimated Detection Limit
MDC	Minimum detectable concentration
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
NC	Not Calculated
ND	Not detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RER	Relative error ratio
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

TestAmerica Savannah

# Sample Summary

Client: Geotechnical & Environmental Consultants  
Project/Site: Macon MGP

TestAmerica Job ID: 680-115409-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
680-115409-1	GB-14 3-5	Solid	08/06/15 12:47	08/08/15 10:00
680-115409-2	GB-14 8-10	Solid	08/06/15 12:54	08/08/15 10:00
680-115409-3	GB-14 13-15	Solid	08/06/15 12:59	08/08/15 10:00
680-115409-4	GB-19 8-10	Solid	08/06/15 11:30	08/08/15 10:00
680-115409-5	GB-21 8-10	Solid	08/06/15 10:45	08/08/15 10:00
680-115409-6	GB-28 2-4	Solid	08/06/15 14:00	08/08/15 10:00
680-115409-7	GB-28 8-10	Solid	08/06/15 14:20	08/08/15 10:00
680-115409-8	GB-28 13-15	Solid	08/06/15 14:30	08/08/15 10:00
680-115409-9	SB-24 2-4	Solid	08/06/15 15:25	08/08/15 10:00
680-115409-10	SB-24 4-6	Solid	08/06/15 15:32	08/08/15 10:00
680-115409-11	SB-24 8-10	Solid	08/06/15 15:38	08/08/15 10:00
680-115409-12	SB-24 13-15	Solid	08/06/15 15:50	08/08/15 10:00
680-115409-13	SB-42 2-4	Solid	08/06/15 16:02	08/08/15 10:00
680-115409-14	SB-42 4-6	Solid	08/06/15 16:05	08/08/15 10:00
680-115409-15	SB-42 8-10	Solid	08/06/15 16:10	08/08/15 10:00
680-115409-16	SB-42 13-15	Solid	08/06/15 16:15	08/08/15 10:00
680-115409-17	GB-16 2-4	Solid	08/06/15 13:29	08/08/15 10:00
680-115409-18	GB-16 4-6	Solid	08/06/15 13:35	08/08/15 10:00
680-115409-19	GB-18 2-4	Solid	08/06/15 15:05	08/08/15 10:00
680-115409-20	GB-18 4-6	Solid	08/06/15 15:15	08/08/15 10:00
680-115409-21	GB-3 8-10	Solid	08/07/15 15:36	08/08/15 10:00
680-115409-22	GB-3 13-15	Solid	08/07/15 15:42	08/08/15 10:00
680-115409-23	GB-5 8-10	Solid	08/07/15 13:45	08/08/15 10:00
680-115409-24	GB-7 8-10	Solid	08/07/15 09:54	08/08/15 10:00
680-115409-25	GB-7 13-15	Solid	08/07/15 10:00	08/08/15 10:00
680-115409-26	GB-7 18	Solid	08/07/15 10:06	08/08/15 10:00
680-115409-27	SB-17 8-10	Solid	08/07/15 14:50	08/08/15 10:00
680-115409-28	SB-17 13-15	Solid	08/07/15 14:56	08/08/15 10:00
680-115409-29	SB-20 0-2	Solid	08/07/15 15:04	08/08/15 10:00
680-115409-30	SB-20 2-4	Solid	08/07/15 15:04	08/08/15 10:00
680-115409-31	Trip Blank lot ATL156	Water	08/07/15 00:00	08/08/15 10:00

TestAmerica Savannah

# Case Narrative

Client: Geotechnical & Environmental Consultants  
Project/Site: Macon MGP

TestAmerica Job ID: 680-115409-1

**Job ID: 680-115409-1**

**Laboratory: TestAmerica Savannah**

## Narrative

### CASE NARRATIVE

**Client: Geotechnical & Environmental Consultants**

**Project: Macon MGP**

**Report Number: 680-115409-1**

With the exceptions noted as flags or footnotes, standard analytical protocols were followed in the analysis of the samples and no problems were encountered or anomalies observed. In addition all laboratory quality control samples were within established control limits, with any exceptions noted below. Each sample was analyzed to achieve the lowest possible reporting limit within the constraints of the method. In the event of interference or analytes present at high concentrations, samples may be diluted. For diluted samples, the reporting limits are adjusted relative to the dilution required.

09/17/2015: This report has been revised. The report formatter has been changed so that non-detects would be reported at the Method Detection Limit (MDL) rather than the Reporting Limit (RL).

### RECEIPT

The samples were received on 8/8/2015 10:00 AM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperatures of the 2 coolers at receipt time were 3.6° C and 4.0° C.

Samples numbered -21 to -31 were received without a COC. A COC was created by lab staff using the pre-printed labels on containers and Logged accordingly. The COC was later emailed by the client and is included in the report.

### VOLATILE ORGANIC COMPOUNDS (GC-MS)

Samples GB-5 8-10 (680-115409-23), GB-7 8-10 (680-115409-24), GB-7 13-15 (680-115409-25) and GB-7 18 (680-115409-26) were analyzed for Volatile Organic Compounds (GC-MS) in accordance with EPA SW-846 Method 8260B. The samples were prepared on 08/10/2015 and analyzed on 08/11/2015.

Method(s) 8260B: Insufficient sample volume was available to perform a matrix spike/matrix spike duplicate (MS/MSD) associated with preparation batch 680-395276 and analytical batch 680-395460.

No analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

### VOLATILE ORGANIC COMPOUNDS (GC-MS)

Sample Trip Blank lot ATL156 (680-115409-31) was analyzed for Volatile Organic Compounds (GC-MS) in accordance with EPA SW-846 Method 8260B. The samples were analyzed on 08/18/2015.

No analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

### SEMIVOLATILE ORGANIC COMPOUNDS (SOLID)

Samples GB-14 3-5 (680-115409-1), GB-14 8-10 (680-115409-2), GB-14 13-15 (680-115409-3), GB-19 8-10 (680-115409-4), GB-21 8-10 (680-115409-5), GB-28 2-4 (680-115409-6), GB-28 8-10 (680-115409-7), GB-28 13-15 (680-115409-8), SB-24 2-4 (680-115409-9), SB-24 4-6 (680-115409-10), SB-24 8-10 (680-115409-11), SB-24 13-15 (680-115409-12), SB-42 2-4 (680-115409-13), SB-42 4-6 (680-115409-14), SB-42 8-10 (680-115409-15), SB-42 13-15 (680-115409-16), GB-16 2-4 (680-115409-17), GB-16 4-6 (680-115409-18), GB-18 2-4 (680-115409-19), GB-18 4-6 (680-115409-20), GB-3 8-10 (680-115409-21), GB-3 13-15 (680-115409-22), GB-5 8-10 (680-115409-23), GB-7 8-10 (680-115409-24), GB-7 13-15 (680-115409-25), GB-7 18 (680-115409-26), SB-17 8-10 (680-115409-27), SB-17 13-15 (680-115409-28), SB-20 0-2 (680-115409-29) and SB-20 2-4 (680-115409-30) were analyzed for Semivolatile Organic Compounds (Solid) in accordance with EPA SW-846 Method 8270D. The samples were prepared on 08/10/2015 and analyzed on 08/11/2015 and 08/12/2015.

Method(s) 8270D: The continuing calibration verification (CCV) analyzed in batch 680-395487 was outside the method criteria for the following analyte(s): 4,6-Dinitro-2-methylphenol. A CCV standard at or below the reporting limit (RL) was analyzed with the affected samples and found to be acceptable. As indicated in the reference method, sample analysis may proceed; however, any detection for the affected analyte(s) is considered estimated.

Method(s) 8270D: Six surrogates are used for this analysis. The laboratory's SOP allows one of these surrogates to be outside



## Case Narrative

Client: Geotechnical & Environmental Consultants  
Project/Site: Macon MGP

TestAmerica Job ID: 680-115409-1

### Job ID: 680-115409-1 (Continued)

#### Laboratory: TestAmerica Savannah (Continued)

acceptance criteria without performing re-extraction/re-analysis. The following sample contained an allowable number of surrogate compounds outside limits: SB-42 2-4 (680-115409-13). These results have been reported and qualified.

Method(s) 8270D: The following samples was diluted due to the nature of the sample matrix : GB-14 3-5 (680-115409-1), GB-14 8-10 (680-115409-2), SB-24 2-4 (680-115409-9), SB-24 4-6 (680-115409-10), SB-24 8-10 (680-115409-11), SB-42 8-10 (680-115409-15), GB-18 2-4 (680-115409-19) and GB-18 4-6 (680-115409-20). As such, surrogate recoveries are below the calibration range or are not reported, and elevated reporting limits (RLs) are provided.

Method(s) 8270D: The following analytes have been identified, in the reference method and/or via historical data, to be poor and/or erratic performers: Famphur, 1,4-Napthaquinone, Methane sulfonate, 1-naphthylamine, 2-naphthylamine, p-Dimethylamino azobenzene, p-phenylenediamine, a,a-dimethylphenethylamine, Methapyriline, 2-picoline (2-methylpyridine), 3,3'-dimethylbenzidine, 3,3'-dichlorobenzidine, Benzidine, Benzaldehyde, Benzoic acid, Dinoseb, Hexachlorophene, Hexachlorocyclopentadiene, o,o,o-triethylphosphorothioate. These analytes may have a %D >60% if the average %D of all the analytes in the continuing calibration verification (CCV) is 30%.

Method(s) 8270D: The continuing calibration verification (CCV) analyzed in batch 680-395880 was outside the method criteria for the following analytes: 2,4-Dimethylphenol . A CCV standard at or below the reporting limit (RL) was analyzed with the affected samples and found to be acceptable. As indicated in the reference method, sample analysis may proceed; however, any detection for the affected analyte(s) is considered estimated.

Method(s) 8270D: The method blank for 680-395880 contained Bis(2-ethylhexyl) phthalate above the method detection limit (MDL). Associated samples were not re-analyzed because results were less than the reporting limit (RL) OR practical quantitation limit (PQL).

Method(s) 8270D: The following analytes recovered outside control limits for the LCS associated with 680-395714: 4,6-Dinitro-2-methylphenol and Pentachlorophenol. This is not indicative of a systematic control problem because these were random marginal exceedances. Qualified results have been reported.

Method(s) 8270D: The following sample was diluted due to the nature of the sample matrix : SB-17 13-15 (680-115409-28). As such, surrogate recoveries are below the calibration range or are not reported, and elevated reporting limits (RLs) are provided.

2,4-Dinitrophenol and 3,3'-Dichlorobenzidine recoveries are outside criteria low for the MS of sample GB-16 4-6 (680-115409-18) in batch 680-395487.

3,3'-Dichlorobenzidine recovery is outside criteria low for the MSD of sample GB-16 4-6 (680-115409-18) in batch 680-395487. 4,6-Dinitro-2-methylphenol exceeded the RPD limit.

Several analytes have recoveries outside criteria low for the MSD of sample SB-17 8-10 (680-115409-27) in batch 680-395714. 4,6-Dinitro-2-methylphenol exceeded the RPD limit.

Refer to the QC report for details.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

#### METALS (ICP)

Samples GB-14 3-5 (680-115409-1), GB-14 8-10 (680-115409-2), GB-14 13-15 (680-115409-3), GB-19 8-10 (680-115409-4), GB-21 8-10 (680-115409-5), GB-28 2-4 (680-115409-6), GB-28 8-10 (680-115409-7), GB-28 13-15 (680-115409-8), SB-24 2-4 (680-115409-9), SB-24 4-6 (680-115409-10), SB-24 8-10 (680-115409-11), SB-24 13-15 (680-115409-12), SB-42 2-4 (680-115409-13), SB-42 4-6 (680-115409-14), SB-42 8-10 (680-115409-15), SB-42 13-15 (680-115409-16), GB-16 2-4 (680-115409-17), GB-16 4-6 (680-115409-18), GB-18 2-4 (680-115409-19), GB-18 4-6 (680-115409-20), GB-3 8-10 (680-115409-21), GB-3 13-15 (680-115409-22), GB-5 8-10 (680-115409-23), GB-7 8-10 (680-115409-24), GB-7 13-15 (680-115409-25), GB-7 18 (680-115409-26), SB-17 8-10 (680-115409-27), SB-17 13-15 (680-115409-28), SB-20 0-2 (680-115409-29) and SB-20 2-4 (680-115409-30) were analyzed for Metals (ICP) in accordance with EPA SW-846 Method 6010C. The samples were prepared on 08/11/2015 and analyzed on 08/11/2015, 08/15/2015 and 08/17/2015.

Several analytes have recoveries outside criteria low for the MS and MSD of sample SB-42 4-6 (680-115409-14) in batch 680-395634.

# Case Narrative

Client: Geotechnical & Environmental Consultants  
Project/Site: Macon MGP

TestAmerica Job ID: 680-115409-1

## Job ID: 680-115409-1 (Continued)

### Laboratory: TestAmerica Savannah (Continued)

Several analytes have recoveries outside criteria low for the MS and MSD of sample GB-18 4-6 (680-115409-20) in batch 680-396333. Barium, Lead and Zinc failed the recovery criteria high. Chromium exceeded the RPD limit.

Refer to the QC report for details.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

#### **TOTAL MERCURY**

Samples GB-14 3-5 (680-115409-1), GB-14 8-10 (680-115409-2), GB-14 13-15 (680-115409-3), GB-19 8-10 (680-115409-4), GB-21 8-10 (680-115409-5), GB-28 2-4 (680-115409-6), GB-28 8-10 (680-115409-7), GB-28 13-15 (680-115409-8), SB-24 2-4 (680-115409-9), SB-24 4-6 (680-115409-10), SB-24 8-10 (680-115409-11), SB-24 13-15 (680-115409-12), SB-42 2-4 (680-115409-13), SB-42 4-6 (680-115409-14), SB-42 8-10 (680-115409-15), SB-42 13-15 (680-115409-16), GB-16 2-4 (680-115409-17), GB-16 4-6 (680-115409-18), GB-18 2-4 (680-115409-19), GB-18 4-6 (680-115409-20), GB-3 8-10 (680-115409-21), GB-3 13-15 (680-115409-22), GB-5 8-10 (680-115409-23), GB-7 8-10 (680-115409-24), GB-7 13-15 (680-115409-25), GB-7 18 (680-115409-26), SB-17 8-10 (680-115409-27), SB-17 13-15 (680-115409-28), SB-20 0-2 (680-115409-29) and SB-20 2-4 (680-115409-30) were analyzed for total mercury in accordance with EPA SW-846 Method 7471B. The samples were prepared on 08/13/2015, 08/16/2015 and 08/17/2015 and analyzed on 08/13/2015 and 08/17/2015.

Mercury recovery is outside criteria low for the MS of sample SB-24 4-6 (680-115409-10) in batch 680-396738.

Mercury exceeded the RPD limit for the MSD of sample SB-24 4-6 (680-115409-10) in batch 680-396738.

Mercury recovery is outside criteria low for the MS of sample GB-7 13-15 (680-115409-25) in batch 680-396738.

Mercury recovery is outside criteria low for the MSD of sample GB-7 13-15 (680-115409-25) in batch 680-396738. Mercury exceeded the RPD limit.

Refer to the QC report for details.

Samples GB-14 8-10 (680-115409-2)[5X], GB-14 13-15 (680-115409-3)[5X] and GB-28 13-15 (680-115409-8)[5X] required dilution prior to analysis. The reporting limits have been adjusted accordingly.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

#### **TOTAL CYANIDE**

Samples GB-14 3-5 (680-115409-1), GB-14 8-10 (680-115409-2), GB-14 13-15 (680-115409-3), GB-19 8-10 (680-115409-4), GB-21 8-10 (680-115409-5), GB-28 2-4 (680-115409-6), GB-28 8-10 (680-115409-7), GB-28 13-15 (680-115409-8), SB-24 2-4 (680-115409-9), SB-24 4-6 (680-115409-10), SB-24 8-10 (680-115409-11), SB-24 13-15 (680-115409-12), SB-42 2-4 (680-115409-13), SB-42 4-6 (680-115409-14), SB-42 8-10 (680-115409-15), SB-42 13-15 (680-115409-16), GB-16 2-4 (680-115409-17), GB-16 4-6 (680-115409-18), GB-18 2-4 (680-115409-19), GB-18 4-6 (680-115409-20), GB-3 8-10 (680-115409-21), GB-3 13-15 (680-115409-22), GB-5 8-10 (680-115409-23), GB-7 8-10 (680-115409-24), GB-7 13-15 (680-115409-25), GB-7 18 (680-115409-26), SB-17 8-10 (680-115409-27), SB-17 13-15 (680-115409-28), SB-20 0-2 (680-115409-29) and SB-20 2-4 (680-115409-30) were analyzed for total cyanide in accordance with EPA SW-846 Method 9012B. The samples were prepared and analyzed on 08/17/2015.

No analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

#### **PERCENT SOLIDS/MOISTURE**

Samples GB-14 3-5 (680-115409-1), GB-14 8-10 (680-115409-2), GB-14 13-15 (680-115409-3), GB-19 8-10 (680-115409-4), GB-21 8-10 (680-115409-5), GB-28 2-4 (680-115409-6), GB-28 8-10 (680-115409-7), GB-28 13-15 (680-115409-8), SB-24 2-4 (680-115409-9), SB-24 4-6 (680-115409-10), SB-24 8-10 (680-115409-11), SB-24 13-15 (680-115409-12), SB-42 2-4 (680-115409-13), SB-42 4-6 (680-115409-14), SB-42 8-10 (680-115409-15), SB-42 13-15 (680-115409-16), GB-16 2-4 (680-115409-17), GB-16 4-6 (680-115409-18), GB-18 2-4 (680-115409-19), GB-18 4-6 (680-115409-20), GB-3 8-10 (680-115409-21), GB-3 13-15 (680-115409-22), GB-5 8-10 (680-115409-23), GB-7 8-10 (680-115409-24), GB-7 13-15 (680-115409-25), GB-7 18 (680-115409-26), SB-17 8-10 (680-115409-27), SB-17 13-15 (680-115409-28), SB-20 0-2 (680-115409-29) and SB-20 2-4 (680-115409-30) were analyzed for Percent

## Case Narrative

Client: Geotechnical & Environmental Consultants  
Project/Site: Macon MGP

TestAmerica Job ID: 680-115409-1

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### Job ID: 680-115409-1 (Continued)

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#### Laboratory: TestAmerica Savannah (Continued)

Solids/Moisture in accordance with TestAmerica SOP. The samples were analyzed on 08/10/2015.

No analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

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# Client Sample Results

Client: Geotechnical & Environmental Consultants  
Project/Site: Macon MGP

TestAmerica Job ID: 680-115409-1

**Client Sample ID: GB-14 3-5**

**Date Collected: 08/06/15 12:47**

**Date Received: 08/08/15 10:00**

**Lab Sample ID: 680-115409-1**

**Matrix: Solid**

**Percent Solids: 87.7**

## Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	0.46	U	3.7	0.46	mg/Kg	☼	08/10/15 14:33	08/11/15 15:23	10
Acenaphthylene	0.41	U	3.7	0.41	mg/Kg	☼	08/10/15 14:33	08/11/15 15:23	10
Acetophenone	0.32	U	3.7	0.32	mg/Kg	☼	08/10/15 14:33	08/11/15 15:23	10
Anthracene	0.28	U	3.7	0.28	mg/Kg	☼	08/10/15 14:33	08/11/15 15:23	10
Atrazine	0.26	U	3.7	0.26	mg/Kg	☼	08/10/15 14:33	08/11/15 15:23	10
Benzaldehyde	0.66	U	3.7	0.66	mg/Kg	☼	08/10/15 14:33	08/11/15 15:23	10
<b>Benzo[a]anthracene</b>	<b>1.0</b>	<b>J</b>	3.7	0.31	mg/Kg	☼	08/10/15 14:33	08/11/15 15:23	10
<b>Benzo[a]pyrene</b>	<b>1.1</b>	<b>J</b>	3.7	0.59	mg/Kg	☼	08/10/15 14:33	08/11/15 15:23	10
<b>Benzo[b]fluoranthene</b>	<b>1.6</b>	<b>J</b>	3.7	0.43	mg/Kg	☼	08/10/15 14:33	08/11/15 15:23	10
<b>Benzo[g,h,i]perylene</b>	<b>0.68</b>	<b>J</b>	3.7	0.25	mg/Kg	☼	08/10/15 14:33	08/11/15 15:23	10
<b>Benzo[k]fluoranthene</b>	<b>0.77</b>	<b>J</b>	3.7	0.73	mg/Kg	☼	08/10/15 14:33	08/11/15 15:23	10
1,1'-Biphenyl	19	U	19	19	mg/Kg	☼	08/10/15 14:33	08/11/15 15:23	10
Bis(2-chloroethoxy)methane	0.44	U	3.7	0.44	mg/Kg	☼	08/10/15 14:33	08/11/15 15:23	10
Bis(2-chloroethyl)ether	0.51	U	3.7	0.51	mg/Kg	☼	08/10/15 14:33	08/11/15 15:23	10
bis (2-chloroisopropyl) ether	0.34	U	3.7	0.34	mg/Kg	☼	08/10/15 14:33	08/11/15 15:23	10
Bis(2-ethylhexyl) phthalate	0.33	U	3.7	0.33	mg/Kg	☼	08/10/15 14:33	08/11/15 15:23	10
4-Bromophenyl phenyl ether	0.41	U	3.7	0.41	mg/Kg	☼	08/10/15 14:33	08/11/15 15:23	10
Butyl benzyl phthalate	0.29	U	3.7	0.29	mg/Kg	☼	08/10/15 14:33	08/11/15 15:23	10
Caprolactam	0.75	U	3.7	0.75	mg/Kg	☼	08/10/15 14:33	08/11/15 15:23	10
Carbazole	0.34	U	3.7	0.34	mg/Kg	☼	08/10/15 14:33	08/11/15 15:23	10
4-Chloroaniline	0.59	U	7.5	0.59	mg/Kg	☼	08/10/15 14:33	08/11/15 15:23	10
4-Chloro-3-methylphenol	0.40	U	3.7	0.40	mg/Kg	☼	08/10/15 14:33	08/11/15 15:23	10
2-Chloronaphthalene	0.40	U	3.7	0.40	mg/Kg	☼	08/10/15 14:33	08/11/15 15:23	10
2-Chlorophenol	0.45	U	3.7	0.45	mg/Kg	☼	08/10/15 14:33	08/11/15 15:23	10
4-Chlorophenyl phenyl ether	0.50	U	3.7	0.50	mg/Kg	☼	08/10/15 14:33	08/11/15 15:23	10
<b>Chrysene</b>	<b>1.7</b>	<b>J</b>	3.7	0.24	mg/Kg	☼	08/10/15 14:33	08/11/15 15:23	10
Dibenz(a,h)anthracene	0.44	U	3.7	0.44	mg/Kg	☼	08/10/15 14:33	08/11/15 15:23	10
Dibenzofuran	0.37	U	3.7	0.37	mg/Kg	☼	08/10/15 14:33	08/11/15 15:23	10
3,3'-Dichlorobenzidine	0.32	U	7.5	0.32	mg/Kg	☼	08/10/15 14:33	08/11/15 15:23	10
2,4-Dichlorophenol	0.40	U	3.7	0.40	mg/Kg	☼	08/10/15 14:33	08/11/15 15:23	10
Diethyl phthalate	0.42	U	3.7	0.42	mg/Kg	☼	08/10/15 14:33	08/11/15 15:23	10
2,4-Dimethylphenol	0.50	U	3.7	0.50	mg/Kg	☼	08/10/15 14:33	08/11/15 15:23	10
Dimethyl phthalate	0.38	U	3.7	0.38	mg/Kg	☼	08/10/15 14:33	08/11/15 15:23	10
Di-n-butyl phthalate	0.34	U	3.7	0.34	mg/Kg	☼	08/10/15 14:33	08/11/15 15:23	10
4,6-Dinitro-2-methylphenol	1.9	U *	19	1.9	mg/Kg	☼	08/10/15 14:33	08/11/15 15:23	10
2,4-Dinitrophenol	9.4	U	19	9.4	mg/Kg	☼	08/10/15 14:33	08/11/15 15:23	10
2,4-Dinitrotoluene	0.55	U	3.7	0.55	mg/Kg	☼	08/10/15 14:33	08/11/15 15:23	10
2,6-Dinitrotoluene	0.47	U	3.7	0.47	mg/Kg	☼	08/10/15 14:33	08/11/15 15:23	10
Di-n-octyl phthalate	0.33	U	3.7	0.33	mg/Kg	☼	08/10/15 14:33	08/11/15 15:23	10
<b>Fluoranthene</b>	<b>3.1</b>	<b>J</b>	3.7	0.36	mg/Kg	☼	08/10/15 14:33	08/11/15 15:23	10
Fluorene	0.41	U	3.7	0.41	mg/Kg	☼	08/10/15 14:33	08/11/15 15:23	10
Hexachlorobenzene	0.44	U	3.7	0.44	mg/Kg	☼	08/10/15 14:33	08/11/15 15:23	10
Hexachlorobutadiene	0.41	U	3.7	0.41	mg/Kg	☼	08/10/15 14:33	08/11/15 15:23	10
Hexachlorocyclopentadiene	0.46	U	3.7	0.46	mg/Kg	☼	08/10/15 14:33	08/11/15 15:23	10
Hexachloroethane	0.32	U	3.7	0.32	mg/Kg	☼	08/10/15 14:33	08/11/15 15:23	10
<b>Indeno[1,2,3-cd]pyrene</b>	<b>0.54</b>	<b>J</b>	3.7	0.32	mg/Kg	☼	08/10/15 14:33	08/11/15 15:23	10
Isophorone	0.37	U	3.7	0.37	mg/Kg	☼	08/10/15 14:33	08/11/15 15:23	10
2-Methylnaphthalene	0.43	U	3.7	0.43	mg/Kg	☼	08/10/15 14:33	08/11/15 15:23	10
2-Methylphenol	0.31	U	3.7	0.31	mg/Kg	☼	08/10/15 14:33	08/11/15 15:23	10

TestAmerica Savannah

# Client Sample Results

Client: Geotechnical & Environmental Consultants  
Project/Site: Macon MGP

TestAmerica Job ID: 680-115409-1

**Client Sample ID: GB-14 3-5**

**Date Collected: 08/06/15 12:47**

**Date Received: 08/08/15 10:00**

**Lab Sample ID: 680-115409-1**

**Matrix: Solid**

**Percent Solids: 87.7**

## Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
3 & 4 Methylphenol	0.49	U	3.7	0.49	mg/Kg	☼	08/10/15 14:33	08/11/15 15:23	10
Naphthalene	0.34	U	3.7	0.34	mg/Kg	☼	08/10/15 14:33	08/11/15 15:23	10
2-Nitroaniline	0.51	U	19	0.51	mg/Kg	☼	08/10/15 14:33	08/11/15 15:23	10
3-Nitroaniline	0.52	U	19	0.52	mg/Kg	☼	08/10/15 14:33	08/11/15 15:23	10
4-Nitroaniline	0.55	U	19	0.55	mg/Kg	☼	08/10/15 14:33	08/11/15 15:23	10
Nitrobenzene	0.29	U	3.7	0.29	mg/Kg	☼	08/10/15 14:33	08/11/15 15:23	10
2-Nitrophenol	0.46	U	3.7	0.46	mg/Kg	☼	08/10/15 14:33	08/11/15 15:23	10
4-Nitrophenol	3.7	U	19	3.7	mg/Kg	☼	08/10/15 14:33	08/11/15 15:23	10
N-Nitrosodi-n-propylamine	0.36	U	3.7	0.36	mg/Kg	☼	08/10/15 14:33	08/11/15 15:23	10
N-Nitrosodiphenylamine	0.37	U	3.7	0.37	mg/Kg	☼	08/10/15 14:33	08/11/15 15:23	10
Pentachlorophenol	3.7	U	19	3.7	mg/Kg	☼	08/10/15 14:33	08/11/15 15:23	10
Phenanthrene	2.5	J	3.7	0.31	mg/Kg	☼	08/10/15 14:33	08/11/15 15:23	10
Phenol	0.38	U	3.7	0.38	mg/Kg	☼	08/10/15 14:33	08/11/15 15:23	10
Pyrene	2.8	J	3.7	0.31	mg/Kg	☼	08/10/15 14:33	08/11/15 15:23	10
2,4,5-Trichlorophenol	0.40	U	3.7	0.40	mg/Kg	☼	08/10/15 14:33	08/11/15 15:23	10
2,4,6-Trichlorophenol	0.33	U	3.7	0.33	mg/Kg	☼	08/10/15 14:33	08/11/15 15:23	10

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl	0	D	41 - 116	08/10/15 14:33	08/11/15 15:23	10
2-Fluorophenol (Surr)	0	D	39 - 114	08/10/15 14:33	08/11/15 15:23	10
Nitrobenzene-d5 (Surr)	0	D	37 - 115	08/10/15 14:33	08/11/15 15:23	10
Phenol-d5 (Surr)	0	D	38 - 122	08/10/15 14:33	08/11/15 15:23	10
Terphenyl-d14 (Surr)	0	D	46 - 126	08/10/15 14:33	08/11/15 15:23	10
2,4,6-Tribromophenol (Surr)	0	D	45 - 129	08/10/15 14:33	08/11/15 15:23	10

## Method: 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	3.9		1.9	0.78	mg/Kg	☼	08/11/15 07:36	08/11/15 20:25	1
Barium	100		0.97	0.16	mg/Kg	☼	08/11/15 07:36	08/11/15 20:25	1
Beryllium	0.34	J	0.39	0.0097	mg/Kg	☼	08/11/15 07:36	08/11/15 20:25	1
Cadmium	0.097	U	0.49	0.097	mg/Kg	☼	08/11/15 07:36	08/11/15 20:25	1
Chromium	12		0.97	0.20	mg/Kg	☼	08/11/15 07:36	08/11/15 20:25	1
Copper	18		2.4	0.17	mg/Kg	☼	08/11/15 07:36	08/11/15 20:25	1
Lead	720		0.97	0.33	mg/Kg	☼	08/11/15 07:36	08/11/15 20:25	1
Nickel	7.5		3.9	0.37	mg/Kg	☼	08/11/15 07:36	08/11/15 20:25	1
Selenium	0.95	U	2.4	0.95	mg/Kg	☼	08/11/15 07:36	08/11/15 20:25	1
Silver	0.48	J	0.97	0.058	mg/Kg	☼	08/11/15 07:36	08/11/15 20:25	1
Vanadium	21		0.97	0.097	mg/Kg	☼	08/11/15 07:36	08/11/15 20:25	1
Zinc	98		1.9	0.68	mg/Kg	☼	08/11/15 07:36	08/11/15 20:25	1

## Method: 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.49		0.022	0.0089	mg/Kg	☼	08/13/15 09:48	08/13/15 16:06	1

## General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total	0.23	U	0.55	0.23	mg/Kg	☼	08/17/15 06:30	08/17/15 11:33	1

TestAmerica Savannah

# Client Sample Results

Client: Geotechnical & Environmental Consultants  
Project/Site: Macon MGP

TestAmerica Job ID: 680-115409-1

**Client Sample ID: GB-14 8-10**

**Date Collected: 08/06/15 12:54**

**Date Received: 08/08/15 10:00**

**Lab Sample ID: 680-115409-2**

**Matrix: Solid**

**Percent Solids: 53.6**

## Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	0.76	U	6.1	0.76	mg/Kg	☼	08/10/15 14:33	08/11/15 15:48	10
Acenaphthylene	0.67	U	6.1	0.67	mg/Kg	☼	08/10/15 14:33	08/11/15 15:48	10
Acetophenone	0.52	U	6.1	0.52	mg/Kg	☼	08/10/15 14:33	08/11/15 15:48	10
Anthracene	0.47	U	6.1	0.47	mg/Kg	☼	08/10/15 14:33	08/11/15 15:48	10
Atrazine	0.43	U	6.1	0.43	mg/Kg	☼	08/10/15 14:33	08/11/15 15:48	10
Benzaldehyde	1.1	U	6.1	1.1	mg/Kg	☼	08/10/15 14:33	08/11/15 15:48	10
Benzo[a]anthracene	0.50	U	6.1	0.50	mg/Kg	☼	08/10/15 14:33	08/11/15 15:48	10
Benzo[a]pyrene	0.97	U	6.1	0.97	mg/Kg	☼	08/10/15 14:33	08/11/15 15:48	10
Benzo[b]fluoranthene	0.71	U	6.1	0.71	mg/Kg	☼	08/10/15 14:33	08/11/15 15:48	10
Benzo[g,h,i]perylene	0.41	U	6.1	0.41	mg/Kg	☼	08/10/15 14:33	08/11/15 15:48	10
Benzo[k]fluoranthene	1.2	U	6.1	1.2	mg/Kg	☼	08/10/15 14:33	08/11/15 15:48	10
1,1'-Biphenyl	32	U	32	32	mg/Kg	☼	08/10/15 14:33	08/11/15 15:48	10
Bis(2-chloroethoxy)methane	0.73	U	6.1	0.73	mg/Kg	☼	08/10/15 14:33	08/11/15 15:48	10
Bis(2-chloroethyl)ether	0.84	U	6.1	0.84	mg/Kg	☼	08/10/15 14:33	08/11/15 15:48	10
bis (2-chloroisopropyl) ether	0.56	U	6.1	0.56	mg/Kg	☼	08/10/15 14:33	08/11/15 15:48	10
Bis(2-ethylhexyl) phthalate	0.54	U	6.1	0.54	mg/Kg	☼	08/10/15 14:33	08/11/15 15:48	10
4-Bromophenyl phenyl ether	0.67	U	6.1	0.67	mg/Kg	☼	08/10/15 14:33	08/11/15 15:48	10
Butyl benzyl phthalate	0.48	U	6.1	0.48	mg/Kg	☼	08/10/15 14:33	08/11/15 15:48	10
Caprolactam	1.2	U	6.1	1.2	mg/Kg	☼	08/10/15 14:33	08/11/15 15:48	10
Carbazole	0.56	U	6.1	0.56	mg/Kg	☼	08/10/15 14:33	08/11/15 15:48	10
4-Chloroaniline	0.97	U	12	0.97	mg/Kg	☼	08/10/15 14:33	08/11/15 15:48	10
4-Chloro-3-methylphenol	0.65	U	6.1	0.65	mg/Kg	☼	08/10/15 14:33	08/11/15 15:48	10
2-Chloronaphthalene	0.65	U	6.1	0.65	mg/Kg	☼	08/10/15 14:33	08/11/15 15:48	10
2-Chlorophenol	0.74	U	6.1	0.74	mg/Kg	☼	08/10/15 14:33	08/11/15 15:48	10
4-Chlorophenyl phenyl ether	0.82	U	6.1	0.82	mg/Kg	☼	08/10/15 14:33	08/11/15 15:48	10
Chrysene	0.39	U	6.1	0.39	mg/Kg	☼	08/10/15 14:33	08/11/15 15:48	10
Dibenz(a,h)anthracene	0.73	U	6.1	0.73	mg/Kg	☼	08/10/15 14:33	08/11/15 15:48	10
Dibenzofuran	0.61	U	6.1	0.61	mg/Kg	☼	08/10/15 14:33	08/11/15 15:48	10
3,3'-Dichlorobenzidine	0.52	U	12	0.52	mg/Kg	☼	08/10/15 14:33	08/11/15 15:48	10
2,4-Dichlorophenol	0.65	U	6.1	0.65	mg/Kg	☼	08/10/15 14:33	08/11/15 15:48	10
Diethyl phthalate	0.69	U	6.1	0.69	mg/Kg	☼	08/10/15 14:33	08/11/15 15:48	10
2,4-Dimethylphenol	0.82	U	6.1	0.82	mg/Kg	☼	08/10/15 14:33	08/11/15 15:48	10
Dimethyl phthalate	0.63	U	6.1	0.63	mg/Kg	☼	08/10/15 14:33	08/11/15 15:48	10
Di-n-butyl phthalate	0.56	U	6.1	0.56	mg/Kg	☼	08/10/15 14:33	08/11/15 15:48	10
4,6-Dinitro-2-methylphenol	3.2	U *	32	3.2	mg/Kg	☼	08/10/15 14:33	08/11/15 15:48	10
2,4-Dinitrophenol	15	U	32	15	mg/Kg	☼	08/10/15 14:33	08/11/15 15:48	10
2,4-Dinitrotoluene	0.91	U	6.1	0.91	mg/Kg	☼	08/10/15 14:33	08/11/15 15:48	10
2,6-Dinitrotoluene	0.78	U	6.1	0.78	mg/Kg	☼	08/10/15 14:33	08/11/15 15:48	10
Di-n-octyl phthalate	0.54	U	6.1	0.54	mg/Kg	☼	08/10/15 14:33	08/11/15 15:48	10
Fluoranthene	0.60	U	6.1	0.60	mg/Kg	☼	08/10/15 14:33	08/11/15 15:48	10
Fluorene	0.67	U	6.1	0.67	mg/Kg	☼	08/10/15 14:33	08/11/15 15:48	10
Hexachlorobenzene	0.73	U	6.1	0.73	mg/Kg	☼	08/10/15 14:33	08/11/15 15:48	10
Hexachlorobutadiene	0.67	U	6.1	0.67	mg/Kg	☼	08/10/15 14:33	08/11/15 15:48	10
Hexachlorocyclopentadiene	0.76	U	6.1	0.76	mg/Kg	☼	08/10/15 14:33	08/11/15 15:48	10
Hexachloroethane	0.52	U	6.1	0.52	mg/Kg	☼	08/10/15 14:33	08/11/15 15:48	10
Indeno[1,2,3-cd]pyrene	0.52	U	6.1	0.52	mg/Kg	☼	08/10/15 14:33	08/11/15 15:48	10
Isophorone	0.61	U	6.1	0.61	mg/Kg	☼	08/10/15 14:33	08/11/15 15:48	10
2-Methylnaphthalene	0.71	U	6.1	0.71	mg/Kg	☼	08/10/15 14:33	08/11/15 15:48	10
2-Methylphenol	0.50	U	6.1	0.50	mg/Kg	☼	08/10/15 14:33	08/11/15 15:48	10

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# Client Sample Results

Client: Geotechnical & Environmental Consultants  
Project/Site: Macon MGP

TestAmerica Job ID: 680-115409-1

**Client Sample ID: GB-14 8-10**

**Date Collected: 08/06/15 12:54**

**Date Received: 08/08/15 10:00**

**Lab Sample ID: 680-115409-2**

**Matrix: Solid**

**Percent Solids: 53.6**

## Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
3 & 4 Methylphenol	0.80	U	6.1	0.80	mg/Kg	☼	08/10/15 14:33	08/11/15 15:48	10
Naphthalene	0.56	U	6.1	0.56	mg/Kg	☼	08/10/15 14:33	08/11/15 15:48	10
2-Nitroaniline	0.84	U	32	0.84	mg/Kg	☼	08/10/15 14:33	08/11/15 15:48	10
3-Nitroaniline	0.86	U	32	0.86	mg/Kg	☼	08/10/15 14:33	08/11/15 15:48	10
4-Nitroaniline	0.91	U	32	0.91	mg/Kg	☼	08/10/15 14:33	08/11/15 15:48	10
Nitrobenzene	0.48	U	6.1	0.48	mg/Kg	☼	08/10/15 14:33	08/11/15 15:48	10
2-Nitrophenol	0.76	U	6.1	0.76	mg/Kg	☼	08/10/15 14:33	08/11/15 15:48	10
4-Nitrophenol	6.1	U	32	6.1	mg/Kg	☼	08/10/15 14:33	08/11/15 15:48	10
N-Nitrosodi-n-propylamine	0.60	U	6.1	0.60	mg/Kg	☼	08/10/15 14:33	08/11/15 15:48	10
N-Nitrosodiphenylamine	0.61	U	6.1	0.61	mg/Kg	☼	08/10/15 14:33	08/11/15 15:48	10
Pentachlorophenol	6.1	U	32	6.1	mg/Kg	☼	08/10/15 14:33	08/11/15 15:48	10
Phenanthrene	0.50	U	6.1	0.50	mg/Kg	☼	08/10/15 14:33	08/11/15 15:48	10
Phenol	0.63	U	6.1	0.63	mg/Kg	☼	08/10/15 14:33	08/11/15 15:48	10
Pyrene	0.50	U	6.1	0.50	mg/Kg	☼	08/10/15 14:33	08/11/15 15:48	10
2,4,5-Trichlorophenol	0.65	U	6.1	0.65	mg/Kg	☼	08/10/15 14:33	08/11/15 15:48	10
2,4,6-Trichlorophenol	0.54	U	6.1	0.54	mg/Kg	☼	08/10/15 14:33	08/11/15 15:48	10

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl	0	D	41 - 116	08/10/15 14:33	08/11/15 15:48	10
2-Fluorophenol (Surr)	0	D	39 - 114	08/10/15 14:33	08/11/15 15:48	10
Nitrobenzene-d5 (Surr)	0	D	37 - 115	08/10/15 14:33	08/11/15 15:48	10
Phenol-d5 (Surr)	0	D	38 - 122	08/10/15 14:33	08/11/15 15:48	10
Terphenyl-d14 (Surr)	0	D	46 - 126	08/10/15 14:33	08/11/15 15:48	10
2,4,6-Tribromophenol (Surr)	0	D	45 - 129	08/10/15 14:33	08/11/15 15:48	10

## Method: 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	25		3.2	1.3	mg/Kg	☼	08/11/15 07:36	08/11/15 19:17	1
Barium	490		1.6	0.25	mg/Kg	☼	08/11/15 07:36	08/11/15 19:17	1
Beryllium	1.9		0.64	0.016	mg/Kg	☼	08/11/15 07:36	08/11/15 19:17	1
Cadmium	1.1		0.80	0.16	mg/Kg	☼	08/11/15 07:36	08/11/15 19:17	1
Chromium	15		1.6	0.33	mg/Kg	☼	08/11/15 07:36	08/11/15 19:17	1
Copper	71		4.0	0.27	mg/Kg	☼	08/11/15 07:36	08/11/15 19:17	1
Lead	360		1.6	0.54	mg/Kg	☼	08/11/15 07:36	08/11/15 19:17	1
Nickel	13		6.4	0.61	mg/Kg	☼	08/11/15 07:36	08/11/15 19:17	1
Selenium	1.5	U	4.0	1.5	mg/Kg	☼	08/11/15 07:36	08/11/15 19:17	1
Silver	0.25	J	1.6	0.096	mg/Kg	☼	08/11/15 07:36	08/11/15 19:17	1
Vanadium	23		1.6	0.16	mg/Kg	☼	08/11/15 07:36	08/11/15 19:17	1
Zinc	540		3.2	1.1	mg/Kg	☼	08/11/15 07:36	08/11/15 19:17	1

## Method: 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	1.4		0.18	0.073	mg/Kg	☼	08/13/15 09:48	08/13/15 17:29	5

## General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total	0.86	J	0.90	0.38	mg/Kg	☼	08/17/15 06:30	08/17/15 11:36	1

TestAmerica Savannah

# Client Sample Results

Client: Geotechnical & Environmental Consultants  
Project/Site: Macon MGP

TestAmerica Job ID: 680-115409-1

**Client Sample ID: GB-14 13-15**

**Lab Sample ID: 680-115409-3**

**Date Collected: 08/06/15 12:59**

**Matrix: Solid**

**Date Received: 08/08/15 10:00**

**Percent Solids: 68.2**

## Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	0.074	J	0.48	0.060	mg/Kg	☼	08/10/15 14:33	08/11/15 16:12	1
Acenaphthylene	0.12	J	0.48	0.053	mg/Kg	☼	08/10/15 14:33	08/11/15 16:12	1
Acetophenone	0.041	U	0.48	0.041	mg/Kg	☼	08/10/15 14:33	08/11/15 16:12	1
Anthracene	0.19	J	0.48	0.037	mg/Kg	☼	08/10/15 14:33	08/11/15 16:12	1
Atrazine	0.034	U	0.48	0.034	mg/Kg	☼	08/10/15 14:33	08/11/15 16:12	1
Benzaldehyde	0.085	U	0.48	0.085	mg/Kg	☼	08/10/15 14:33	08/11/15 16:12	1
Benzo[a]anthracene	0.97		0.48	0.040	mg/Kg	☼	08/10/15 14:33	08/11/15 16:12	1
Benzo[a]pyrene	0.92		0.48	0.076	mg/Kg	☼	08/10/15 14:33	08/11/15 16:12	1
Benzo[b]fluoranthene	1.3		0.48	0.056	mg/Kg	☼	08/10/15 14:33	08/11/15 16:12	1
Benzo[g,h,i]perylene	0.51		0.48	0.032	mg/Kg	☼	08/10/15 14:33	08/11/15 16:12	1
Benzo[k]fluoranthene	0.54		0.48	0.095	mg/Kg	☼	08/10/15 14:33	08/11/15 16:12	1
1,1'-Biphenyl	2.5	U	2.5	2.5	mg/Kg	☼	08/10/15 14:33	08/11/15 16:12	1
Bis(2-chloroethoxy)methane	0.057	U	0.48	0.057	mg/Kg	☼	08/10/15 14:33	08/11/15 16:12	1
Bis(2-chloroethyl)ether	0.066	U	0.48	0.066	mg/Kg	☼	08/10/15 14:33	08/11/15 16:12	1
bis (2-chloroisopropyl) ether	0.044	U	0.48	0.044	mg/Kg	☼	08/10/15 14:33	08/11/15 16:12	1
Bis(2-ethylhexyl) phthalate	0.042	U	0.48	0.042	mg/Kg	☼	08/10/15 14:33	08/11/15 16:12	1
4-Bromophenyl phenyl ether	0.053	U	0.48	0.053	mg/Kg	☼	08/10/15 14:33	08/11/15 16:12	1
Butyl benzyl phthalate	0.038	U	0.48	0.038	mg/Kg	☼	08/10/15 14:33	08/11/15 16:12	1
Caprolactam	0.097	U	0.48	0.097	mg/Kg	☼	08/10/15 14:33	08/11/15 16:12	1
Carbazole	0.071	J	0.48	0.044	mg/Kg	☼	08/10/15 14:33	08/11/15 16:12	1
4-Chloroaniline	0.076	U	0.97	0.076	mg/Kg	☼	08/10/15 14:33	08/11/15 16:12	1
4-Chloro-3-methylphenol	0.051	U	0.48	0.051	mg/Kg	☼	08/10/15 14:33	08/11/15 16:12	1
2-Chloronaphthalene	0.051	U	0.48	0.051	mg/Kg	☼	08/10/15 14:33	08/11/15 16:12	1
2-Chlorophenol	0.059	U	0.48	0.059	mg/Kg	☼	08/10/15 14:33	08/11/15 16:12	1
4-Chlorophenyl phenyl ether	0.064	U	0.48	0.064	mg/Kg	☼	08/10/15 14:33	08/11/15 16:12	1
Chrysene	1.1		0.48	0.031	mg/Kg	☼	08/10/15 14:33	08/11/15 16:12	1
Dibenz(a,h)anthracene	0.14	J	0.48	0.057	mg/Kg	☼	08/10/15 14:33	08/11/15 16:12	1
Dibenzofuran	0.052	J	0.48	0.048	mg/Kg	☼	08/10/15 14:33	08/11/15 16:12	1
3,3'-Dichlorobenzidine	0.041	U	0.97	0.041	mg/Kg	☼	08/10/15 14:33	08/11/15 16:12	1
2,4-Dichlorophenol	0.051	U	0.48	0.051	mg/Kg	☼	08/10/15 14:33	08/11/15 16:12	1
Diethyl phthalate	0.054	U	0.48	0.054	mg/Kg	☼	08/10/15 14:33	08/11/15 16:12	1
2,4-Dimethylphenol	0.064	U	0.48	0.064	mg/Kg	☼	08/10/15 14:33	08/11/15 16:12	1
Dimethyl phthalate	0.050	U	0.48	0.050	mg/Kg	☼	08/10/15 14:33	08/11/15 16:12	1
Di-n-butyl phthalate	0.044	U	0.48	0.044	mg/Kg	☼	08/10/15 14:33	08/11/15 16:12	1
4,6-Dinitro-2-methylphenol	0.25	U *	2.5	0.25	mg/Kg	☼	08/10/15 14:33	08/11/15 16:12	1
2,4-Dinitrophenol	1.2	U	2.5	1.2	mg/Kg	☼	08/10/15 14:33	08/11/15 16:12	1
2,4-Dinitrotoluene	0.072	U	0.48	0.072	mg/Kg	☼	08/10/15 14:33	08/11/15 16:12	1
2,6-Dinitrotoluene	0.061	U	0.48	0.061	mg/Kg	☼	08/10/15 14:33	08/11/15 16:12	1
Di-n-octyl phthalate	0.042	U	0.48	0.042	mg/Kg	☼	08/10/15 14:33	08/11/15 16:12	1
Fluoranthene	1.9		0.48	0.047	mg/Kg	☼	08/10/15 14:33	08/11/15 16:12	1
Fluorene	0.075	J	0.48	0.053	mg/Kg	☼	08/10/15 14:33	08/11/15 16:12	1
Hexachlorobenzene	0.057	U	0.48	0.057	mg/Kg	☼	08/10/15 14:33	08/11/15 16:12	1
Hexachlorobutadiene	0.053	U	0.48	0.053	mg/Kg	☼	08/10/15 14:33	08/11/15 16:12	1
Hexachlorocyclopentadiene	0.060	U	0.48	0.060	mg/Kg	☼	08/10/15 14:33	08/11/15 16:12	1
Hexachloroethane	0.041	U	0.48	0.041	mg/Kg	☼	08/10/15 14:33	08/11/15 16:12	1
Indeno[1,2,3-cd]pyrene	0.50		0.48	0.041	mg/Kg	☼	08/10/15 14:33	08/11/15 16:12	1
Isophorone	0.048	U	0.48	0.048	mg/Kg	☼	08/10/15 14:33	08/11/15 16:12	1
2-Methylnaphthalene	0.13	J	0.48	0.056	mg/Kg	☼	08/10/15 14:33	08/11/15 16:12	1
2-Methylphenol	0.040	U	0.48	0.040	mg/Kg	☼	08/10/15 14:33	08/11/15 16:12	1

TestAmerica Savannah



# Client Sample Results

Client: Geotechnical & Environmental Consultants  
Project/Site: Macon MGP

TestAmerica Job ID: 680-115409-1

**Client Sample ID: GB-14 13-15**

**Date Collected: 08/06/15 12:59**

**Date Received: 08/08/15 10:00**

**Lab Sample ID: 680-115409-3**

**Matrix: Solid**

**Percent Solids: 68.2**

## Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
3 & 4 Methylphenol	0.063	U	0.48	0.063	mg/Kg	☼	08/10/15 14:33	08/11/15 16:12	1
<b>Naphthalene</b>	<b>0.13</b>	<b>J</b>	0.48	0.044	mg/Kg	☼	08/10/15 14:33	08/11/15 16:12	1
2-Nitroaniline	0.066	U	2.5	0.066	mg/Kg	☼	08/10/15 14:33	08/11/15 16:12	1
3-Nitroaniline	0.067	U	2.5	0.067	mg/Kg	☼	08/10/15 14:33	08/11/15 16:12	1
4-Nitroaniline	0.072	U	2.5	0.072	mg/Kg	☼	08/10/15 14:33	08/11/15 16:12	1
Nitrobenzene	0.038	U	0.48	0.038	mg/Kg	☼	08/10/15 14:33	08/11/15 16:12	1
2-Nitrophenol	0.060	U	0.48	0.060	mg/Kg	☼	08/10/15 14:33	08/11/15 16:12	1
4-Nitrophenol	0.48	U	2.5	0.48	mg/Kg	☼	08/10/15 14:33	08/11/15 16:12	1
N-Nitrosodi-n-propylamine	0.047	U	0.48	0.047	mg/Kg	☼	08/10/15 14:33	08/11/15 16:12	1
N-Nitrosodiphenylamine	0.048	U	0.48	0.048	mg/Kg	☼	08/10/15 14:33	08/11/15 16:12	1
Pentachlorophenol	0.48	U	2.5	0.48	mg/Kg	☼	08/10/15 14:33	08/11/15 16:12	1
<b>Phenanthrene</b>	<b>0.89</b>		0.48	0.040	mg/Kg	☼	08/10/15 14:33	08/11/15 16:12	1
Phenol	0.050	U	0.48	0.050	mg/Kg	☼	08/10/15 14:33	08/11/15 16:12	1
<b>Pyrene</b>	<b>1.8</b>		0.48	0.040	mg/Kg	☼	08/10/15 14:33	08/11/15 16:12	1
2,4,5-Trichlorophenol	0.051	U	0.48	0.051	mg/Kg	☼	08/10/15 14:33	08/11/15 16:12	1
2,4,6-Trichlorophenol	0.042	U	0.48	0.042	mg/Kg	☼	08/10/15 14:33	08/11/15 16:12	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl	68		41 - 116	08/10/15 14:33	08/11/15 16:12	1
2-Fluorophenol (Surr)	60		39 - 114	08/10/15 14:33	08/11/15 16:12	1
Nitrobenzene-d5 (Surr)	59		37 - 115	08/10/15 14:33	08/11/15 16:12	1
Phenol-d5 (Surr)	62		38 - 122	08/10/15 14:33	08/11/15 16:12	1
Terphenyl-d14 (Surr)	62		46 - 126	08/10/15 14:33	08/11/15 16:12	1
2,4,6-Tribromophenol (Surr)	66		45 - 129	08/10/15 14:33	08/11/15 16:12	1

## Method: 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Arsenic</b>	<b>6.3</b>		2.8	1.1	mg/Kg	☼	08/11/15 07:36	08/11/15 19:21	1
<b>Barium</b>	<b>42</b>		1.4	0.23	mg/Kg	☼	08/11/15 07:36	08/11/15 19:21	1
<b>Beryllium</b>	<b>0.25</b>	<b>J</b>	0.56	0.014	mg/Kg	☼	08/11/15 07:36	08/11/15 19:21	1
<b>Cadmium</b>	<b>0.14</b>	<b>J</b>	0.70	0.14	mg/Kg	☼	08/11/15 07:36	08/11/15 19:21	1
<b>Chromium</b>	<b>7.8</b>		1.4	0.30	mg/Kg	☼	08/11/15 07:36	08/11/15 19:21	1
<b>Copper</b>	<b>38</b>		3.5	0.24	mg/Kg	☼	08/11/15 07:36	08/11/15 19:21	1
<b>Lead</b>	<b>97</b>		1.4	0.48	mg/Kg	☼	08/11/15 07:36	08/11/15 19:21	1
<b>Nickel</b>	<b>3.0</b>	<b>J</b>	5.6	0.54	mg/Kg	☼	08/11/15 07:36	08/11/15 19:21	1
Selenium	1.4	U	3.5	1.4	mg/Kg	☼	08/11/15 07:36	08/11/15 19:21	1
<b>Silver</b>	<b>0.086</b>	<b>J</b>	1.4	0.085	mg/Kg	☼	08/11/15 07:36	08/11/15 19:21	1
<b>Vanadium</b>	<b>11</b>		1.4	0.14	mg/Kg	☼	08/11/15 07:36	08/11/15 19:21	1
<b>Zinc</b>	<b>99</b>		2.8	0.99	mg/Kg	☼	08/11/15 07:36	08/11/15 19:21	1

## Method: 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Mercury</b>	<b>0.89</b>		0.14	0.055	mg/Kg	☼	08/13/15 09:48	08/13/15 17:32	5

## General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total	0.30	U	0.73	0.30	mg/Kg	☼	08/17/15 06:30	08/17/15 11:38	1

TestAmerica Savannah

# Client Sample Results

Client: Geotechnical & Environmental Consultants  
Project/Site: Macon MGP

TestAmerica Job ID: 680-115409-1

**Client Sample ID: GB-19 8-10**

**Lab Sample ID: 680-115409-4**

**Date Collected: 08/06/15 11:30**

**Matrix: Solid**

**Date Received: 08/08/15 10:00**

**Percent Solids: 67.4**

## Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	0.060	U	0.49	0.060	mg/Kg	☼	08/10/15 14:33	08/11/15 16:36	1
Acenaphthylene	0.053	U	0.49	0.053	mg/Kg	☼	08/10/15 14:33	08/11/15 16:36	1
Acetophenone	0.041	U	0.49	0.041	mg/Kg	☼	08/10/15 14:33	08/11/15 16:36	1
Anthracene	0.037	U	0.49	0.037	mg/Kg	☼	08/10/15 14:33	08/11/15 16:36	1
Atrazine	0.034	U	0.49	0.034	mg/Kg	☼	08/10/15 14:33	08/11/15 16:36	1
Benzaldehyde	0.085	U	0.49	0.085	mg/Kg	☼	08/10/15 14:33	08/11/15 16:36	1
Benzo[a]anthracene	0.040	U	0.49	0.040	mg/Kg	☼	08/10/15 14:33	08/11/15 16:36	1
Benzo[a]pyrene	0.077	U	0.49	0.077	mg/Kg	☼	08/10/15 14:33	08/11/15 16:36	1
Benzo[b]fluoranthene	0.056	U	0.49	0.056	mg/Kg	☼	08/10/15 14:33	08/11/15 16:36	1
Benzo[g,h,i]perylene	0.032	U	0.49	0.032	mg/Kg	☼	08/10/15 14:33	08/11/15 16:36	1
Benzo[k]fluoranthene	0.096	U	0.49	0.096	mg/Kg	☼	08/10/15 14:33	08/11/15 16:36	1
1,1'-Biphenyl	2.5	U	2.5	2.5	mg/Kg	☼	08/10/15 14:33	08/11/15 16:36	1
Bis(2-chloroethoxy)methane	0.057	U	0.49	0.057	mg/Kg	☼	08/10/15 14:33	08/11/15 16:36	1
Bis(2-chloroethyl)ether	0.066	U	0.49	0.066	mg/Kg	☼	08/10/15 14:33	08/11/15 16:36	1
bis (2-chloroisopropyl) ether	0.044	U	0.49	0.044	mg/Kg	☼	08/10/15 14:33	08/11/15 16:36	1
Bis(2-ethylhexyl) phthalate	0.043	U	0.49	0.043	mg/Kg	☼	08/10/15 14:33	08/11/15 16:36	1
4-Bromophenyl phenyl ether	0.053	U	0.49	0.053	mg/Kg	☼	08/10/15 14:33	08/11/15 16:36	1
Butyl benzyl phthalate	0.038	U	0.49	0.038	mg/Kg	☼	08/10/15 14:33	08/11/15 16:36	1
Caprolactam	0.097	U	0.49	0.097	mg/Kg	☼	08/10/15 14:33	08/11/15 16:36	1
Carbazole	0.044	U	0.49	0.044	mg/Kg	☼	08/10/15 14:33	08/11/15 16:36	1
4-Chloroaniline	0.077	U	0.97	0.077	mg/Kg	☼	08/10/15 14:33	08/11/15 16:36	1
4-Chloro-3-methylphenol	0.051	U	0.49	0.051	mg/Kg	☼	08/10/15 14:33	08/11/15 16:36	1
2-Chloronaphthalene	0.051	U	0.49	0.051	mg/Kg	☼	08/10/15 14:33	08/11/15 16:36	1
2-Chlorophenol	0.059	U	0.49	0.059	mg/Kg	☼	08/10/15 14:33	08/11/15 16:36	1
4-Chlorophenyl phenyl ether	0.065	U	0.49	0.065	mg/Kg	☼	08/10/15 14:33	08/11/15 16:36	1
Chrysene	0.031	U	0.49	0.031	mg/Kg	☼	08/10/15 14:33	08/11/15 16:36	1
Dibenz(a,h)anthracene	0.057	U	0.49	0.057	mg/Kg	☼	08/10/15 14:33	08/11/15 16:36	1
Dibenzofuran	0.049	U	0.49	0.049	mg/Kg	☼	08/10/15 14:33	08/11/15 16:36	1
3,3'-Dichlorobenzidine	0.041	U	0.97	0.041	mg/Kg	☼	08/10/15 14:33	08/11/15 16:36	1
2,4-Dichlorophenol	0.051	U	0.49	0.051	mg/Kg	☼	08/10/15 14:33	08/11/15 16:36	1
Diethyl phthalate	0.054	U	0.49	0.054	mg/Kg	☼	08/10/15 14:33	08/11/15 16:36	1
2,4-Dimethylphenol	0.065	U	0.49	0.065	mg/Kg	☼	08/10/15 14:33	08/11/15 16:36	1
Dimethyl phthalate	0.050	U	0.49	0.050	mg/Kg	☼	08/10/15 14:33	08/11/15 16:36	1
Di-n-butyl phthalate	0.044	U	0.49	0.044	mg/Kg	☼	08/10/15 14:33	08/11/15 16:36	1
4,6-Dinitro-2-methylphenol	0.25	U *	2.5	0.25	mg/Kg	☼	08/10/15 14:33	08/11/15 16:36	1
2,4-Dinitrophenol	1.2	U	2.5	1.2	mg/Kg	☼	08/10/15 14:33	08/11/15 16:36	1
2,4-Dinitrotoluene	0.072	U	0.49	0.072	mg/Kg	☼	08/10/15 14:33	08/11/15 16:36	1
2,6-Dinitrotoluene	0.062	U	0.49	0.062	mg/Kg	☼	08/10/15 14:33	08/11/15 16:36	1
Di-n-octyl phthalate	0.043	U	0.49	0.043	mg/Kg	☼	08/10/15 14:33	08/11/15 16:36	1
Fluoranthene	0.047	U	0.49	0.047	mg/Kg	☼	08/10/15 14:33	08/11/15 16:36	1
Fluorene	0.053	U	0.49	0.053	mg/Kg	☼	08/10/15 14:33	08/11/15 16:36	1
Hexachlorobenzene	0.057	U	0.49	0.057	mg/Kg	☼	08/10/15 14:33	08/11/15 16:36	1
Hexachlorobutadiene	0.053	U	0.49	0.053	mg/Kg	☼	08/10/15 14:33	08/11/15 16:36	1
Hexachlorocyclopentadiene	0.060	U	0.49	0.060	mg/Kg	☼	08/10/15 14:33	08/11/15 16:36	1
Hexachloroethane	0.041	U	0.49	0.041	mg/Kg	☼	08/10/15 14:33	08/11/15 16:36	1
Indeno[1,2,3-cd]pyrene	0.041	U	0.49	0.041	mg/Kg	☼	08/10/15 14:33	08/11/15 16:36	1
Isophorone	0.049	U	0.49	0.049	mg/Kg	☼	08/10/15 14:33	08/11/15 16:36	1
2-Methylnaphthalene	0.056	U	0.49	0.056	mg/Kg	☼	08/10/15 14:33	08/11/15 16:36	1
2-Methylphenol	0.040	U	0.49	0.040	mg/Kg	☼	08/10/15 14:33	08/11/15 16:36	1

TestAmerica Savannah

# Client Sample Results

Client: Geotechnical & Environmental Consultants  
Project/Site: Macon MGP

TestAmerica Job ID: 680-115409-1

**Client Sample ID: GB-19 8-10**

**Date Collected: 08/06/15 11:30**

**Date Received: 08/08/15 10:00**

**Lab Sample ID: 680-115409-4**

**Matrix: Solid**

**Percent Solids: 67.4**

## Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
3 & 4 Methylphenol	0.063	U	0.49	0.063	mg/Kg	☼	08/10/15 14:33	08/11/15 16:36	1
Naphthalene	0.044	U	0.49	0.044	mg/Kg	☼	08/10/15 14:33	08/11/15 16:36	1
2-Nitroaniline	0.066	U	2.5	0.066	mg/Kg	☼	08/10/15 14:33	08/11/15 16:36	1
3-Nitroaniline	0.068	U	2.5	0.068	mg/Kg	☼	08/10/15 14:33	08/11/15 16:36	1
4-Nitroaniline	0.072	U	2.5	0.072	mg/Kg	☼	08/10/15 14:33	08/11/15 16:36	1
Nitrobenzene	0.038	U	0.49	0.038	mg/Kg	☼	08/10/15 14:33	08/11/15 16:36	1
2-Nitrophenol	0.060	U	0.49	0.060	mg/Kg	☼	08/10/15 14:33	08/11/15 16:36	1
4-Nitrophenol	0.49	U	2.5	0.49	mg/Kg	☼	08/10/15 14:33	08/11/15 16:36	1
N-Nitrosodi-n-propylamine	0.047	U	0.49	0.047	mg/Kg	☼	08/10/15 14:33	08/11/15 16:36	1
N-Nitrosodiphenylamine	0.049	U	0.49	0.049	mg/Kg	☼	08/10/15 14:33	08/11/15 16:36	1
Pentachlorophenol	0.49	U	2.5	0.49	mg/Kg	☼	08/10/15 14:33	08/11/15 16:36	1
Phenanthrene	0.040	U	0.49	0.040	mg/Kg	☼	08/10/15 14:33	08/11/15 16:36	1
Phenol	0.050	U	0.49	0.050	mg/Kg	☼	08/10/15 14:33	08/11/15 16:36	1
Pyrene	0.040	U	0.49	0.040	mg/Kg	☼	08/10/15 14:33	08/11/15 16:36	1
2,4,5-Trichlorophenol	0.051	U	0.49	0.051	mg/Kg	☼	08/10/15 14:33	08/11/15 16:36	1
2,4,6-Trichlorophenol	0.043	U	0.49	0.043	mg/Kg	☼	08/10/15 14:33	08/11/15 16:36	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl	63		41 - 116	08/10/15 14:33	08/11/15 16:36	1
2-Fluorophenol (Surr)	59		39 - 114	08/10/15 14:33	08/11/15 16:36	1
Nitrobenzene-d5 (Surr)	55		37 - 115	08/10/15 14:33	08/11/15 16:36	1
Phenol-d5 (Surr)	60		38 - 122	08/10/15 14:33	08/11/15 16:36	1
Terphenyl-d14 (Surr)	70		46 - 126	08/10/15 14:33	08/11/15 16:36	1
2,4,6-Tribromophenol (Surr)	63		45 - 129	08/10/15 14:33	08/11/15 16:36	1

## Method: 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	1.6	J	2.6	1.0	mg/Kg	☼	08/11/15 07:36	08/11/15 19:26	1
Barium	0.21	U	1.3	0.21	mg/Kg	☼	08/11/15 07:36	08/11/15 19:26	1
Beryllium	0.22	J	0.52	0.013	mg/Kg	☼	08/11/15 07:36	08/11/15 19:26	1
Cadmium	0.13	U	0.65	0.13	mg/Kg	☼	08/11/15 07:36	08/11/15 19:26	1
Chromium	3.5		1.3	0.27	mg/Kg	☼	08/11/15 07:36	08/11/15 19:26	1
Copper	0.29	J	3.3	0.22	mg/Kg	☼	08/11/15 07:36	08/11/15 19:26	1
Lead	2.5		1.3	0.44	mg/Kg	☼	08/11/15 07:36	08/11/15 19:26	1
Nickel	4.6	J	5.2	0.49	mg/Kg	☼	08/11/15 07:36	08/11/15 19:26	1
Selenium	1.3	U	3.3	1.3	mg/Kg	☼	08/11/15 07:36	08/11/15 19:26	1
Silver	0.078	U	1.3	0.078	mg/Kg	☼	08/11/15 07:36	08/11/15 19:26	1
Vanadium	4.1		1.3	0.13	mg/Kg	☼	08/11/15 07:36	08/11/15 19:26	1
Zinc	9.2		2.6	0.91	mg/Kg	☼	08/11/15 07:36	08/11/15 19:26	1

## Method: 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.010	U	0.026	0.010	mg/Kg	☼	08/13/15 09:48	08/13/15 16:15	1

## General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total	0.30	U	0.71	0.30	mg/Kg	☼	08/17/15 06:30	08/17/15 11:39	1

TestAmerica Savannah

# Client Sample Results

Client: Geotechnical & Environmental Consultants  
Project/Site: Macon MGP

TestAmerica Job ID: 680-115409-1

**Client Sample ID: GB-21 8-10**

**Date Collected: 08/06/15 10:45**

**Date Received: 08/08/15 10:00**

**Lab Sample ID: 680-115409-5**

**Matrix: Solid**

**Percent Solids: 80.3**

## Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	0.051	U	0.41	0.051	mg/Kg	☼	08/10/15 14:33	08/11/15 17:00	1
Acenaphthylene	0.045	U	0.41	0.045	mg/Kg	☼	08/10/15 14:33	08/11/15 17:00	1
Acetophenone	0.035	U	0.41	0.035	mg/Kg	☼	08/10/15 14:33	08/11/15 17:00	1
Anthracene	0.031	U	0.41	0.031	mg/Kg	☼	08/10/15 14:33	08/11/15 17:00	1
Atrazine	0.029	U	0.41	0.029	mg/Kg	☼	08/10/15 14:33	08/11/15 17:00	1
Benzaldehyde	0.072	U	0.41	0.072	mg/Kg	☼	08/10/15 14:33	08/11/15 17:00	1
Benzo[a]anthracene	0.034	U	0.41	0.034	mg/Kg	☼	08/10/15 14:33	08/11/15 17:00	1
Benzo[a]pyrene	0.065	U	0.41	0.065	mg/Kg	☼	08/10/15 14:33	08/11/15 17:00	1
Benzo[b]fluoranthene	0.047	U	0.41	0.047	mg/Kg	☼	08/10/15 14:33	08/11/15 17:00	1
Benzo[g,h,i]perylene	0.027	U	0.41	0.027	mg/Kg	☼	08/10/15 14:33	08/11/15 17:00	1
Benzo[k]fluoranthene	0.081	U	0.41	0.081	mg/Kg	☼	08/10/15 14:33	08/11/15 17:00	1
1,1'-Biphenyl	2.1	U	2.1	2.1	mg/Kg	☼	08/10/15 14:33	08/11/15 17:00	1
Bis(2-chloroethoxy)methane	0.049	U	0.41	0.049	mg/Kg	☼	08/10/15 14:33	08/11/15 17:00	1
Bis(2-chloroethyl)ether	0.056	U	0.41	0.056	mg/Kg	☼	08/10/15 14:33	08/11/15 17:00	1
bis (2-chloroisopropyl) ether	0.037	U	0.41	0.037	mg/Kg	☼	08/10/15 14:33	08/11/15 17:00	1
Bis(2-ethylhexyl) phthalate	0.036	U	0.41	0.036	mg/Kg	☼	08/10/15 14:33	08/11/15 17:00	1
4-Bromophenyl phenyl ether	0.045	U	0.41	0.045	mg/Kg	☼	08/10/15 14:33	08/11/15 17:00	1
Butyl benzyl phthalate	0.032	U	0.41	0.032	mg/Kg	☼	08/10/15 14:33	08/11/15 17:00	1
Caprolactam	0.082	U	0.41	0.082	mg/Kg	☼	08/10/15 14:33	08/11/15 17:00	1
Carbazole	0.037	U	0.41	0.037	mg/Kg	☼	08/10/15 14:33	08/11/15 17:00	1
4-Chloroaniline	0.065	U	0.82	0.065	mg/Kg	☼	08/10/15 14:33	08/11/15 17:00	1
4-Chloro-3-methylphenol	0.044	U	0.41	0.044	mg/Kg	☼	08/10/15 14:33	08/11/15 17:00	1
2-Chloronaphthalene	0.044	U	0.41	0.044	mg/Kg	☼	08/10/15 14:33	08/11/15 17:00	1
2-Chlorophenol	0.050	U	0.41	0.050	mg/Kg	☼	08/10/15 14:33	08/11/15 17:00	1
4-Chlorophenyl phenyl ether	0.055	U	0.41	0.055	mg/Kg	☼	08/10/15 14:33	08/11/15 17:00	1
Chrysene	0.026	U	0.41	0.026	mg/Kg	☼	08/10/15 14:33	08/11/15 17:00	1
Dibenz(a,h)anthracene	0.049	U	0.41	0.049	mg/Kg	☼	08/10/15 14:33	08/11/15 17:00	1
Dibenzofuran	0.041	U	0.41	0.041	mg/Kg	☼	08/10/15 14:33	08/11/15 17:00	1
3,3'-Dichlorobenzidine	0.035	U	0.82	0.035	mg/Kg	☼	08/10/15 14:33	08/11/15 17:00	1
2,4-Dichlorophenol	0.044	U	0.41	0.044	mg/Kg	☼	08/10/15 14:33	08/11/15 17:00	1
Diethyl phthalate	0.046	U	0.41	0.046	mg/Kg	☼	08/10/15 14:33	08/11/15 17:00	1
2,4-Dimethylphenol	0.055	U	0.41	0.055	mg/Kg	☼	08/10/15 14:33	08/11/15 17:00	1
Dimethyl phthalate	0.042	U	0.41	0.042	mg/Kg	☼	08/10/15 14:33	08/11/15 17:00	1
Di-n-butyl phthalate	0.037	U	0.41	0.037	mg/Kg	☼	08/10/15 14:33	08/11/15 17:00	1
4,6-Dinitro-2-methylphenol	0.21	U *	2.1	0.21	mg/Kg	☼	08/10/15 14:33	08/11/15 17:00	1
2,4-Dinitrophenol	1.0	U	2.1	1.0	mg/Kg	☼	08/10/15 14:33	08/11/15 17:00	1
2,4-Dinitrotoluene	0.061	U	0.41	0.061	mg/Kg	☼	08/10/15 14:33	08/11/15 17:00	1
2,6-Dinitrotoluene	0.052	U	0.41	0.052	mg/Kg	☼	08/10/15 14:33	08/11/15 17:00	1
Di-n-octyl phthalate	0.036	U	0.41	0.036	mg/Kg	☼	08/10/15 14:33	08/11/15 17:00	1
Fluoranthene	0.040	U	0.41	0.040	mg/Kg	☼	08/10/15 14:33	08/11/15 17:00	1
Fluorene	0.045	U	0.41	0.045	mg/Kg	☼	08/10/15 14:33	08/11/15 17:00	1
Hexachlorobenzene	0.049	U	0.41	0.049	mg/Kg	☼	08/10/15 14:33	08/11/15 17:00	1
Hexachlorobutadiene	0.045	U	0.41	0.045	mg/Kg	☼	08/10/15 14:33	08/11/15 17:00	1
Hexachlorocyclopentadiene	0.051	U	0.41	0.051	mg/Kg	☼	08/10/15 14:33	08/11/15 17:00	1
Hexachloroethane	0.035	U	0.41	0.035	mg/Kg	☼	08/10/15 14:33	08/11/15 17:00	1
Indeno[1,2,3-cd]pyrene	0.035	U	0.41	0.035	mg/Kg	☼	08/10/15 14:33	08/11/15 17:00	1
Isophorone	0.041	U	0.41	0.041	mg/Kg	☼	08/10/15 14:33	08/11/15 17:00	1
2-Methylnaphthalene	0.047	U	0.41	0.047	mg/Kg	☼	08/10/15 14:33	08/11/15 17:00	1
2-Methylphenol	0.034	U	0.41	0.034	mg/Kg	☼	08/10/15 14:33	08/11/15 17:00	1

TestAmerica Savannah

# Client Sample Results

Client: Geotechnical & Environmental Consultants  
Project/Site: Macon MGP

TestAmerica Job ID: 680-115409-1

**Client Sample ID: GB-21 8-10**

**Lab Sample ID: 680-115409-5**

**Date Collected: 08/06/15 10:45**

**Matrix: Solid**

**Date Received: 08/08/15 10:00**

**Percent Solids: 80.3**

## Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
3 & 4 Methylphenol	0.054	U	0.41	0.054	mg/Kg	☼	08/10/15 14:33	08/11/15 17:00	1
Naphthalene	0.037	U	0.41	0.037	mg/Kg	☼	08/10/15 14:33	08/11/15 17:00	1
2-Nitroaniline	0.056	U	2.1	0.056	mg/Kg	☼	08/10/15 14:33	08/11/15 17:00	1
3-Nitroaniline	0.057	U	2.1	0.057	mg/Kg	☼	08/10/15 14:33	08/11/15 17:00	1
4-Nitroaniline	0.061	U	2.1	0.061	mg/Kg	☼	08/10/15 14:33	08/11/15 17:00	1
Nitrobenzene	0.032	U	0.41	0.032	mg/Kg	☼	08/10/15 14:33	08/11/15 17:00	1
2-Nitrophenol	0.051	U	0.41	0.051	mg/Kg	☼	08/10/15 14:33	08/11/15 17:00	1
4-Nitrophenol	0.41	U	2.1	0.41	mg/Kg	☼	08/10/15 14:33	08/11/15 17:00	1
N-Nitrosodi-n-propylamine	0.040	U	0.41	0.040	mg/Kg	☼	08/10/15 14:33	08/11/15 17:00	1
N-Nitrosodiphenylamine	0.041	U	0.41	0.041	mg/Kg	☼	08/10/15 14:33	08/11/15 17:00	1
Pentachlorophenol	0.41	U	2.1	0.41	mg/Kg	☼	08/10/15 14:33	08/11/15 17:00	1
Phenanthrene	0.034	U	0.41	0.034	mg/Kg	☼	08/10/15 14:33	08/11/15 17:00	1
Phenol	0.042	U	0.41	0.042	mg/Kg	☼	08/10/15 14:33	08/11/15 17:00	1
Pyrene	0.034	U	0.41	0.034	mg/Kg	☼	08/10/15 14:33	08/11/15 17:00	1
2,4,5-Trichlorophenol	0.044	U	0.41	0.044	mg/Kg	☼	08/10/15 14:33	08/11/15 17:00	1
2,4,6-Trichlorophenol	0.036	U	0.41	0.036	mg/Kg	☼	08/10/15 14:33	08/11/15 17:00	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl	53		41 - 116	08/10/15 14:33	08/11/15 17:00	1
2-Fluorophenol (Surr)	59		39 - 114	08/10/15 14:33	08/11/15 17:00	1
Nitrobenzene-d5 (Surr)	47		37 - 115	08/10/15 14:33	08/11/15 17:00	1
Phenol-d5 (Surr)	48		38 - 122	08/10/15 14:33	08/11/15 17:00	1
Terphenyl-d14 (Surr)	66		46 - 126	08/10/15 14:33	08/11/15 17:00	1
2,4,6-Tribromophenol (Surr)	47		45 - 129	08/10/15 14:33	08/11/15 17:00	1

## Method: 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	3.5		2.1	0.86	mg/Kg	☼	08/11/15 07:36	08/11/15 19:30	1
Barium	7.8		1.1	0.17	mg/Kg	☼	08/11/15 07:36	08/11/15 19:30	1
Beryllium	1.0		0.43	0.011	mg/Kg	☼	08/11/15 07:36	08/11/15 19:30	1
Cadmium	0.11	U	0.54	0.11	mg/Kg	☼	08/11/15 07:36	08/11/15 19:30	1
Chromium	5.3		1.1	0.23	mg/Kg	☼	08/11/15 07:36	08/11/15 19:30	1
Copper	1.4	J	2.7	0.18	mg/Kg	☼	08/11/15 07:36	08/11/15 19:30	1
Lead	4.9		1.1	0.37	mg/Kg	☼	08/11/15 07:36	08/11/15 19:30	1
Nickel	15		4.3	0.41	mg/Kg	☼	08/11/15 07:36	08/11/15 19:30	1
Selenium	1.0	U	2.7	1.0	mg/Kg	☼	08/11/15 07:36	08/11/15 19:30	1
Silver	0.064	U	1.1	0.064	mg/Kg	☼	08/11/15 07:36	08/11/15 19:30	1
Vanadium	5.1		1.1	0.11	mg/Kg	☼	08/11/15 07:36	08/11/15 19:30	1
Zinc	49		2.1	0.75	mg/Kg	☼	08/11/15 07:36	08/11/15 19:30	1

## Method: 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.0086	U	0.021	0.0086	mg/Kg	☼	08/13/15 09:48	08/13/15 16:18	1

## General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total	0.25	U	0.60	0.25	mg/Kg	☼	08/17/15 06:30	08/17/15 11:42	1

TestAmerica Savannah



# Client Sample Results

Client: Geotechnical & Environmental Consultants  
Project/Site: Macon MGP

TestAmerica Job ID: 680-115409-1

Client Sample ID: GB-28 2-4

Date Collected: 08/06/15 14:00

Date Received: 08/08/15 10:00

Lab Sample ID: 680-115409-6

Matrix: Solid

Percent Solids: 70.7

## Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	0.058	U	0.47	0.058	mg/Kg	☼	08/10/15 14:33	08/11/15 17:24	1
Acenaphthylene	0.051	U	0.47	0.051	mg/Kg	☼	08/10/15 14:33	08/11/15 17:24	1
Acetophenone	0.040	U	0.47	0.040	mg/Kg	☼	08/10/15 14:33	08/11/15 17:24	1
Anthracene	0.035	U	0.47	0.035	mg/Kg	☼	08/10/15 14:33	08/11/15 17:24	1
Atrazine	0.033	U	0.47	0.033	mg/Kg	☼	08/10/15 14:33	08/11/15 17:24	1
Benzaldehyde	0.082	U	0.47	0.082	mg/Kg	☼	08/10/15 14:33	08/11/15 17:24	1
Benzo[a]anthracene	0.038	U	0.47	0.038	mg/Kg	☼	08/10/15 14:33	08/11/15 17:24	1
Benzo[a]pyrene	0.074	U	0.47	0.074	mg/Kg	☼	08/10/15 14:33	08/11/15 17:24	1
Benzo[b]fluoranthene	0.054	U	0.47	0.054	mg/Kg	☼	08/10/15 14:33	08/11/15 17:24	1
Benzo[g,h,i]perylene	0.031	U	0.47	0.031	mg/Kg	☼	08/10/15 14:33	08/11/15 17:24	1
Benzo[k]fluoranthene	0.092	U	0.47	0.092	mg/Kg	☼	08/10/15 14:33	08/11/15 17:24	1
1,1'-Biphenyl	2.4	U	2.4	2.4	mg/Kg	☼	08/10/15 14:33	08/11/15 17:24	1
Bis(2-chloroethoxy)methane	0.055	U	0.47	0.055	mg/Kg	☼	08/10/15 14:33	08/11/15 17:24	1
Bis(2-chloroethyl)ether	0.064	U	0.47	0.064	mg/Kg	☼	08/10/15 14:33	08/11/15 17:24	1
bis (2-chloroisopropyl) ether	0.042	U	0.47	0.042	mg/Kg	☼	08/10/15 14:33	08/11/15 17:24	1
Bis(2-ethylhexyl) phthalate	0.041	U	0.47	0.041	mg/Kg	☼	08/10/15 14:33	08/11/15 17:24	1
4-Bromophenyl phenyl ether	0.051	U	0.47	0.051	mg/Kg	☼	08/10/15 14:33	08/11/15 17:24	1
Butyl benzyl phthalate	0.037	U	0.47	0.037	mg/Kg	☼	08/10/15 14:33	08/11/15 17:24	1
Caprolactam	0.093	U	0.47	0.093	mg/Kg	☼	08/10/15 14:33	08/11/15 17:24	1
Carbazole	0.042	U	0.47	0.042	mg/Kg	☼	08/10/15 14:33	08/11/15 17:24	1
4-Chloroaniline	0.074	U	0.93	0.074	mg/Kg	☼	08/10/15 14:33	08/11/15 17:24	1
4-Chloro-3-methylphenol	0.050	U	0.47	0.050	mg/Kg	☼	08/10/15 14:33	08/11/15 17:24	1
2-Chloronaphthalene	0.050	U	0.47	0.050	mg/Kg	☼	08/10/15 14:33	08/11/15 17:24	1
2-Chlorophenol	0.057	U	0.47	0.057	mg/Kg	☼	08/10/15 14:33	08/11/15 17:24	1
4-Chlorophenyl phenyl ether	0.062	U	0.47	0.062	mg/Kg	☼	08/10/15 14:33	08/11/15 17:24	1
Chrysene	0.030	U	0.47	0.030	mg/Kg	☼	08/10/15 14:33	08/11/15 17:24	1
Dibenz(a,h)anthracene	0.055	U	0.47	0.055	mg/Kg	☼	08/10/15 14:33	08/11/15 17:24	1
Dibenzofuran	0.047	U	0.47	0.047	mg/Kg	☼	08/10/15 14:33	08/11/15 17:24	1
3,3'-Dichlorobenzidine	0.040	U	0.93	0.040	mg/Kg	☼	08/10/15 14:33	08/11/15 17:24	1
2,4-Dichlorophenol	0.050	U	0.47	0.050	mg/Kg	☼	08/10/15 14:33	08/11/15 17:24	1
Diethyl phthalate	0.052	U	0.47	0.052	mg/Kg	☼	08/10/15 14:33	08/11/15 17:24	1
2,4-Dimethylphenol	0.062	U	0.47	0.062	mg/Kg	☼	08/10/15 14:33	08/11/15 17:24	1
Dimethyl phthalate	0.048	U	0.47	0.048	mg/Kg	☼	08/10/15 14:33	08/11/15 17:24	1
Di-n-butyl phthalate	0.042	U	0.47	0.042	mg/Kg	☼	08/10/15 14:33	08/11/15 17:24	1
4,6-Dinitro-2-methylphenol	0.24	U *	2.4	0.24	mg/Kg	☼	08/10/15 14:33	08/11/15 17:24	1
2,4-Dinitrophenol	1.2	U	2.4	1.2	mg/Kg	☼	08/10/15 14:33	08/11/15 17:24	1
2,4-Dinitrotoluene	0.069	U	0.47	0.069	mg/Kg	☼	08/10/15 14:33	08/11/15 17:24	1
2,6-Dinitrotoluene	0.059	U	0.47	0.059	mg/Kg	☼	08/10/15 14:33	08/11/15 17:24	1
Di-n-octyl phthalate	0.041	U	0.47	0.041	mg/Kg	☼	08/10/15 14:33	08/11/15 17:24	1
Fluoranthene	0.045	U	0.47	0.045	mg/Kg	☼	08/10/15 14:33	08/11/15 17:24	1
Fluorene	0.051	U	0.47	0.051	mg/Kg	☼	08/10/15 14:33	08/11/15 17:24	1
Hexachlorobenzene	0.055	U	0.47	0.055	mg/Kg	☼	08/10/15 14:33	08/11/15 17:24	1
Hexachlorobutadiene	0.051	U	0.47	0.051	mg/Kg	☼	08/10/15 14:33	08/11/15 17:24	1
Hexachlorocyclopentadiene	0.058	U	0.47	0.058	mg/Kg	☼	08/10/15 14:33	08/11/15 17:24	1
Hexachloroethane	0.040	U	0.47	0.040	mg/Kg	☼	08/10/15 14:33	08/11/15 17:24	1
Indeno[1,2,3-cd]pyrene	0.040	U	0.47	0.040	mg/Kg	☼	08/10/15 14:33	08/11/15 17:24	1
Isophorone	0.047	U	0.47	0.047	mg/Kg	☼	08/10/15 14:33	08/11/15 17:24	1
2-Methylnaphthalene	0.054	U	0.47	0.054	mg/Kg	☼	08/10/15 14:33	08/11/15 17:24	1
2-Methylphenol	0.038	U	0.47	0.038	mg/Kg	☼	08/10/15 14:33	08/11/15 17:24	1

TestAmerica Savannah

# Client Sample Results

Client: Geotechnical & Environmental Consultants  
Project/Site: Macon MGP

TestAmerica Job ID: 680-115409-1

**Client Sample ID: GB-28 2-4**

**Date Collected: 08/06/15 14:00**

**Date Received: 08/08/15 10:00**

**Lab Sample ID: 680-115409-6**

**Matrix: Solid**

**Percent Solids: 70.7**

## Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
3 & 4 Methylphenol	0.061	U	0.47	0.061	mg/Kg	☼	08/10/15 14:33	08/11/15 17:24	1
Naphthalene	0.042	U	0.47	0.042	mg/Kg	☼	08/10/15 14:33	08/11/15 17:24	1
2-Nitroaniline	0.064	U	2.4	0.064	mg/Kg	☼	08/10/15 14:33	08/11/15 17:24	1
3-Nitroaniline	0.065	U	2.4	0.065	mg/Kg	☼	08/10/15 14:33	08/11/15 17:24	1
4-Nitroaniline	0.069	U	2.4	0.069	mg/Kg	☼	08/10/15 14:33	08/11/15 17:24	1
Nitrobenzene	0.037	U	0.47	0.037	mg/Kg	☼	08/10/15 14:33	08/11/15 17:24	1
2-Nitrophenol	0.058	U	0.47	0.058	mg/Kg	☼	08/10/15 14:33	08/11/15 17:24	1
4-Nitrophenol	0.47	U	2.4	0.47	mg/Kg	☼	08/10/15 14:33	08/11/15 17:24	1
N-Nitrosodi-n-propylamine	0.045	U	0.47	0.045	mg/Kg	☼	08/10/15 14:33	08/11/15 17:24	1
N-Nitrosodiphenylamine	0.047	U	0.47	0.047	mg/Kg	☼	08/10/15 14:33	08/11/15 17:24	1
Pentachlorophenol	0.47	U	2.4	0.47	mg/Kg	☼	08/10/15 14:33	08/11/15 17:24	1
Phenanthrene	0.038	U	0.47	0.038	mg/Kg	☼	08/10/15 14:33	08/11/15 17:24	1
Phenol	0.048	U	0.47	0.048	mg/Kg	☼	08/10/15 14:33	08/11/15 17:24	1
Pyrene	0.038	U	0.47	0.038	mg/Kg	☼	08/10/15 14:33	08/11/15 17:24	1
2,4,5-Trichlorophenol	0.050	U	0.47	0.050	mg/Kg	☼	08/10/15 14:33	08/11/15 17:24	1
2,4,6-Trichlorophenol	0.041	U	0.47	0.041	mg/Kg	☼	08/10/15 14:33	08/11/15 17:24	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl	74		41 - 116	08/10/15 14:33	08/11/15 17:24	1
2-Fluorophenol (Surr)	72		39 - 114	08/10/15 14:33	08/11/15 17:24	1
Nitrobenzene-d5 (Surr)	79		37 - 115	08/10/15 14:33	08/11/15 17:24	1
Phenol-d5 (Surr)	83		38 - 122	08/10/15 14:33	08/11/15 17:24	1
Terphenyl-d14 (Surr)	90		46 - 126	08/10/15 14:33	08/11/15 17:24	1
2,4,6-Tribromophenol (Surr)	75		45 - 129	08/10/15 14:33	08/11/15 17:24	1

## Method: 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	3.6		2.5	0.98	mg/Kg	☼	08/11/15 07:36	08/11/15 19:35	1
Barium	17		1.2	0.20	mg/Kg	☼	08/11/15 07:36	08/11/15 19:35	1
Beryllium	0.31	J	0.49	0.012	mg/Kg	☼	08/11/15 07:36	08/11/15 19:35	1
Cadmium	0.12	U	0.61	0.12	mg/Kg	☼	08/11/15 07:36	08/11/15 19:35	1
Chromium	7.1		1.2	0.26	mg/Kg	☼	08/11/15 07:36	08/11/15 19:35	1
Copper	2.2	J	3.1	0.21	mg/Kg	☼	08/11/15 07:36	08/11/15 19:35	1
Lead	5.9		1.2	0.42	mg/Kg	☼	08/11/15 07:36	08/11/15 19:35	1
Nickel	3.2	J	4.9	0.47	mg/Kg	☼	08/11/15 07:36	08/11/15 19:35	1
Selenium	1.2	U	3.1	1.2	mg/Kg	☼	08/11/15 07:36	08/11/15 19:35	1
Silver	0.074	U	1.2	0.074	mg/Kg	☼	08/11/15 07:36	08/11/15 19:35	1
Vanadium	14		1.2	0.12	mg/Kg	☼	08/11/15 07:36	08/11/15 19:35	1
Zinc	12		2.5	0.86	mg/Kg	☼	08/11/15 07:36	08/11/15 19:35	1

## Method: 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.011	U	0.028	0.011	mg/Kg	☼	08/13/15 09:48	08/13/15 16:27	1

## General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total	0.29	U	0.69	0.29	mg/Kg	☼	08/17/15 06:30	08/17/15 11:43	1

TestAmerica Savannah

# Client Sample Results

Client: Geotechnical & Environmental Consultants  
Project/Site: Macon MGP

TestAmerica Job ID: 680-115409-1

**Client Sample ID: GB-28 8-10**

**Date Collected: 08/06/15 14:20**

**Date Received: 08/08/15 10:00**

**Lab Sample ID: 680-115409-7**

**Matrix: Solid**

**Percent Solids: 86.5**

## Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	0.047	U	0.38	0.047	mg/Kg	☼	08/10/15 14:33	08/11/15 17:48	1
Acenaphthylene	0.041	U	0.38	0.041	mg/Kg	☼	08/10/15 14:33	08/11/15 17:48	1
Acetophenone	0.032	U	0.38	0.032	mg/Kg	☼	08/10/15 14:33	08/11/15 17:48	1
Anthracene	0.029	U	0.38	0.029	mg/Kg	☼	08/10/15 14:33	08/11/15 17:48	1
Atrazine	0.026	U	0.38	0.026	mg/Kg	☼	08/10/15 14:33	08/11/15 17:48	1
Benzaldehyde	0.067	U	0.38	0.067	mg/Kg	☼	08/10/15 14:33	08/11/15 17:48	1
Benzo[a]anthracene	0.031	U	0.38	0.031	mg/Kg	☼	08/10/15 14:33	08/11/15 17:48	1
Benzo[a]pyrene	0.060	U	0.38	0.060	mg/Kg	☼	08/10/15 14:33	08/11/15 17:48	1
Benzo[b]fluoranthene	0.044	U	0.38	0.044	mg/Kg	☼	08/10/15 14:33	08/11/15 17:48	1
Benzo[g,h,i]perylene	0.025	U	0.38	0.025	mg/Kg	☼	08/10/15 14:33	08/11/15 17:48	1
Benzo[k]fluoranthene	0.075	U	0.38	0.075	mg/Kg	☼	08/10/15 14:33	08/11/15 17:48	1
1,1'-Biphenyl	2.0	U	2.0	2.0	mg/Kg	☼	08/10/15 14:33	08/11/15 17:48	1
Bis(2-chloroethoxy)methane	0.045	U	0.38	0.045	mg/Kg	☼	08/10/15 14:33	08/11/15 17:48	1
Bis(2-chloroethyl)ether	0.052	U	0.38	0.052	mg/Kg	☼	08/10/15 14:33	08/11/15 17:48	1
bis (2-chloroisopropyl) ether	0.034	U	0.38	0.034	mg/Kg	☼	08/10/15 14:33	08/11/15 17:48	1
<b>Bis(2-ethylhexyl) phthalate</b>	<b>0.19</b>	<b>J B</b>	0.38	0.033	mg/Kg	☼	08/10/15 14:33	08/11/15 17:48	1
4-Bromophenyl phenyl ether	0.041	U	0.38	0.041	mg/Kg	☼	08/10/15 14:33	08/11/15 17:48	1
Butyl benzyl phthalate	0.030	U	0.38	0.030	mg/Kg	☼	08/10/15 14:33	08/11/15 17:48	1
Caprolactam	0.076	U	0.38	0.076	mg/Kg	☼	08/10/15 14:33	08/11/15 17:48	1
Carbazole	0.034	U	0.38	0.034	mg/Kg	☼	08/10/15 14:33	08/11/15 17:48	1
4-Chloroaniline	0.060	U	0.76	0.060	mg/Kg	☼	08/10/15 14:33	08/11/15 17:48	1
4-Chloro-3-methylphenol	0.040	U	0.38	0.040	mg/Kg	☼	08/10/15 14:33	08/11/15 17:48	1
2-Chloronaphthalene	0.040	U	0.38	0.040	mg/Kg	☼	08/10/15 14:33	08/11/15 17:48	1
2-Chlorophenol	0.046	U	0.38	0.046	mg/Kg	☼	08/10/15 14:33	08/11/15 17:48	1
4-Chlorophenyl phenyl ether	0.051	U	0.38	0.051	mg/Kg	☼	08/10/15 14:33	08/11/15 17:48	1
Chrysene	0.024	U	0.38	0.024	mg/Kg	☼	08/10/15 14:33	08/11/15 17:48	1
Dibenz(a,h)anthracene	0.045	U	0.38	0.045	mg/Kg	☼	08/10/15 14:33	08/11/15 17:48	1
Dibenzofuran	0.038	U	0.38	0.038	mg/Kg	☼	08/10/15 14:33	08/11/15 17:48	1
3,3'-Dichlorobenzidine	0.032	U	0.76	0.032	mg/Kg	☼	08/10/15 14:33	08/11/15 17:48	1
2,4-Dichlorophenol	0.040	U	0.38	0.040	mg/Kg	☼	08/10/15 14:33	08/11/15 17:48	1
Diethyl phthalate	0.042	U	0.38	0.042	mg/Kg	☼	08/10/15 14:33	08/11/15 17:48	1
2,4-Dimethylphenol	0.051	U	0.38	0.051	mg/Kg	☼	08/10/15 14:33	08/11/15 17:48	1
Dimethyl phthalate	0.039	U	0.38	0.039	mg/Kg	☼	08/10/15 14:33	08/11/15 17:48	1
Di-n-butyl phthalate	0.034	U	0.38	0.034	mg/Kg	☼	08/10/15 14:33	08/11/15 17:48	1
4,6-Dinitro-2-methylphenol	0.20	U *	2.0	0.20	mg/Kg	☼	08/10/15 14:33	08/11/15 17:48	1
2,4-Dinitrophenol	0.95	U	2.0	0.95	mg/Kg	☼	08/10/15 14:33	08/11/15 17:48	1
2,4-Dinitrotoluene	0.056	U	0.38	0.056	mg/Kg	☼	08/10/15 14:33	08/11/15 17:48	1
2,6-Dinitrotoluene	0.048	U	0.38	0.048	mg/Kg	☼	08/10/15 14:33	08/11/15 17:48	1
Di-n-octyl phthalate	0.033	U	0.38	0.033	mg/Kg	☼	08/10/15 14:33	08/11/15 17:48	1
Fluoranthene	0.037	U	0.38	0.037	mg/Kg	☼	08/10/15 14:33	08/11/15 17:48	1
Fluorene	0.041	U	0.38	0.041	mg/Kg	☼	08/10/15 14:33	08/11/15 17:48	1
Hexachlorobenzene	0.045	U	0.38	0.045	mg/Kg	☼	08/10/15 14:33	08/11/15 17:48	1
Hexachlorobutadiene	0.041	U	0.38	0.041	mg/Kg	☼	08/10/15 14:33	08/11/15 17:48	1
Hexachlorocyclopentadiene	0.047	U	0.38	0.047	mg/Kg	☼	08/10/15 14:33	08/11/15 17:48	1
Hexachloroethane	0.032	U	0.38	0.032	mg/Kg	☼	08/10/15 14:33	08/11/15 17:48	1
Indeno[1,2,3-cd]pyrene	0.032	U	0.38	0.032	mg/Kg	☼	08/10/15 14:33	08/11/15 17:48	1
Isophorone	0.038	U	0.38	0.038	mg/Kg	☼	08/10/15 14:33	08/11/15 17:48	1
2-Methylnaphthalene	0.044	U	0.38	0.044	mg/Kg	☼	08/10/15 14:33	08/11/15 17:48	1
2-Methylphenol	0.031	U	0.38	0.031	mg/Kg	☼	08/10/15 14:33	08/11/15 17:48	1

TestAmerica Savannah



# Client Sample Results

Client: Geotechnical & Environmental Consultants  
Project/Site: Macon MGP

TestAmerica Job ID: 680-115409-1

**Client Sample ID: GB-28 8-10**

**Date Collected: 08/06/15 14:20**

**Date Received: 08/08/15 10:00**

**Lab Sample ID: 680-115409-7**

**Matrix: Solid**

**Percent Solids: 86.5**

## Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
3 & 4 Methylphenol	0.049	U	0.38	0.049	mg/Kg	☼	08/10/15 14:33	08/11/15 17:48	1
Naphthalene	0.034	U	0.38	0.034	mg/Kg	☼	08/10/15 14:33	08/11/15 17:48	1
2-Nitroaniline	0.052	U	2.0	0.052	mg/Kg	☼	08/10/15 14:33	08/11/15 17:48	1
3-Nitroaniline	0.053	U	2.0	0.053	mg/Kg	☼	08/10/15 14:33	08/11/15 17:48	1
4-Nitroaniline	0.056	U	2.0	0.056	mg/Kg	☼	08/10/15 14:33	08/11/15 17:48	1
Nitrobenzene	0.030	U	0.38	0.030	mg/Kg	☼	08/10/15 14:33	08/11/15 17:48	1
2-Nitrophenol	0.047	U	0.38	0.047	mg/Kg	☼	08/10/15 14:33	08/11/15 17:48	1
4-Nitrophenol	0.38	U	2.0	0.38	mg/Kg	☼	08/10/15 14:33	08/11/15 17:48	1
N-Nitrosodi-n-propylamine	0.037	U	0.38	0.037	mg/Kg	☼	08/10/15 14:33	08/11/15 17:48	1
N-Nitrosodiphenylamine	0.038	U	0.38	0.038	mg/Kg	☼	08/10/15 14:33	08/11/15 17:48	1
Pentachlorophenol	0.38	U	2.0	0.38	mg/Kg	☼	08/10/15 14:33	08/11/15 17:48	1
Phenanthrene	0.031	U	0.38	0.031	mg/Kg	☼	08/10/15 14:33	08/11/15 17:48	1
Phenol	0.039	U	0.38	0.039	mg/Kg	☼	08/10/15 14:33	08/11/15 17:48	1
Pyrene	0.031	U	0.38	0.031	mg/Kg	☼	08/10/15 14:33	08/11/15 17:48	1
2,4,5-Trichlorophenol	0.040	U	0.38	0.040	mg/Kg	☼	08/10/15 14:33	08/11/15 17:48	1
2,4,6-Trichlorophenol	0.033	U	0.38	0.033	mg/Kg	☼	08/10/15 14:33	08/11/15 17:48	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl	63		41 - 116	08/10/15 14:33	08/11/15 17:48	1
2-Fluorophenol (Surr)	46		39 - 114	08/10/15 14:33	08/11/15 17:48	1
Nitrobenzene-d5 (Surr)	55		37 - 115	08/10/15 14:33	08/11/15 17:48	1
Phenol-d5 (Surr)	51		38 - 122	08/10/15 14:33	08/11/15 17:48	1
Terphenyl-d14 (Surr)	59		46 - 126	08/10/15 14:33	08/11/15 17:48	1
2,4,6-Tribromophenol (Surr)	52		45 - 129	08/10/15 14:33	08/11/15 17:48	1

## Method: 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	1.8	J	2.0	0.80	mg/Kg	☼	08/11/15 07:36	08/11/15 19:49	1
Barium	2.3		1.0	0.16	mg/Kg	☼	08/11/15 07:36	08/11/15 19:49	1
Beryllium	0.092	J	0.40	0.010	mg/Kg	☼	08/11/15 07:36	08/11/15 19:49	1
Cadmium	0.10	U	0.50	0.10	mg/Kg	☼	08/11/15 07:36	08/11/15 19:49	1
Chromium	2.3		1.0	0.21	mg/Kg	☼	08/11/15 07:36	08/11/15 19:49	1
Copper	0.76	J	2.5	0.17	mg/Kg	☼	08/11/15 07:36	08/11/15 19:49	1
Lead	2.6		1.0	0.34	mg/Kg	☼	08/11/15 07:36	08/11/15 19:49	1
Nickel	0.82	J	4.0	0.38	mg/Kg	☼	08/11/15 07:36	08/11/15 19:49	1
Selenium	0.97	U	2.5	0.97	mg/Kg	☼	08/11/15 07:36	08/11/15 19:49	1
Silver	0.060	U	1.0	0.060	mg/Kg	☼	08/11/15 07:36	08/11/15 19:49	1
Vanadium	4.4		1.0	0.10	mg/Kg	☼	08/11/15 07:36	08/11/15 19:49	1
Zinc	3.6		2.0	0.70	mg/Kg	☼	08/11/15 07:36	08/11/15 19:49	1

## Method: 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.061		0.022	0.0087	mg/Kg	☼	08/13/15 09:48	08/13/15 16:31	1

## General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total	0.24	U	0.57	0.24	mg/Kg	☼	08/17/15 06:30	08/17/15 11:44	1

TestAmerica Savannah

# Client Sample Results

Client: Geotechnical & Environmental Consultants  
Project/Site: Macon MGP

TestAmerica Job ID: 680-115409-1

Client Sample ID: GB-28 13-15

Lab Sample ID: 680-115409-8

Date Collected: 08/06/15 14:30

Matrix: Solid

Date Received: 08/08/15 10:00

Percent Solids: 82.0

## Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Acenaphthene</b>	<b>0.090</b>	<b>J</b>	0.40	0.050	mg/Kg	☼	08/10/15 14:33	08/11/15 18:12	1
Acenaphthylene	0.044	U	0.40	0.044	mg/Kg	☼	08/10/15 14:33	08/11/15 18:12	1
Acetophenone	0.034	U	0.40	0.034	mg/Kg	☼	08/10/15 14:33	08/11/15 18:12	1
<b>Anthracene</b>	<b>0.067</b>	<b>J</b>	0.40	0.030	mg/Kg	☼	08/10/15 14:33	08/11/15 18:12	1
Atrazine	0.028	U	0.40	0.028	mg/Kg	☼	08/10/15 14:33	08/11/15 18:12	1
Benzaldehyde	0.071	U	0.40	0.071	mg/Kg	☼	08/10/15 14:33	08/11/15 18:12	1
<b>Benzo[a]anthracene</b>	<b>0.28</b>	<b>J</b>	0.40	0.033	mg/Kg	☼	08/10/15 14:33	08/11/15 18:12	1
<b>Benzo[a]pyrene</b>	<b>0.25</b>	<b>J</b>	0.40	0.063	mg/Kg	☼	08/10/15 14:33	08/11/15 18:12	1
<b>Benzo[b]fluoranthene</b>	<b>0.43</b>		0.40	0.046	mg/Kg	☼	08/10/15 14:33	08/11/15 18:12	1
<b>Benzo[g,h,i]perylene</b>	<b>0.20</b>	<b>J</b>	0.40	0.027	mg/Kg	☼	08/10/15 14:33	08/11/15 18:12	1
<b>Benzo[k]fluoranthene</b>	<b>0.20</b>	<b>J</b>	0.40	0.079	mg/Kg	☼	08/10/15 14:33	08/11/15 18:12	1
1,1'-Biphenyl	2.1	U	2.1	2.1	mg/Kg	☼	08/10/15 14:33	08/11/15 18:12	1
Bis(2-chloroethoxy)methane	0.048	U	0.40	0.048	mg/Kg	☼	08/10/15 14:33	08/11/15 18:12	1
Bis(2-chloroethyl)ether	0.055	U	0.40	0.055	mg/Kg	☼	08/10/15 14:33	08/11/15 18:12	1
bis (2-chloroisopropyl) ether	0.037	U	0.40	0.037	mg/Kg	☼	08/10/15 14:33	08/11/15 18:12	1
<b>Bis(2-ethylhexyl) phthalate</b>	<b>0.26</b>	<b>J B</b>	0.40	0.035	mg/Kg	☼	08/10/15 14:33	08/11/15 18:12	1
4-Bromophenyl phenyl ether	0.044	U	0.40	0.044	mg/Kg	☼	08/10/15 14:33	08/11/15 18:12	1
Butyl benzyl phthalate	0.032	U	0.40	0.032	mg/Kg	☼	08/10/15 14:33	08/11/15 18:12	1
Caprolactam	0.080	U	0.40	0.080	mg/Kg	☼	08/10/15 14:33	08/11/15 18:12	1
<b>Carbazole</b>	<b>0.047</b>	<b>J</b>	0.40	0.037	mg/Kg	☼	08/10/15 14:33	08/11/15 18:12	1
4-Chloroaniline	0.063	U	0.80	0.063	mg/Kg	☼	08/10/15 14:33	08/11/15 18:12	1
4-Chloro-3-methylphenol	0.043	U	0.40	0.043	mg/Kg	☼	08/10/15 14:33	08/11/15 18:12	1
2-Chloronaphthalene	0.043	U	0.40	0.043	mg/Kg	☼	08/10/15 14:33	08/11/15 18:12	1
2-Chlorophenol	0.049	U	0.40	0.049	mg/Kg	☼	08/10/15 14:33	08/11/15 18:12	1
4-Chlorophenyl phenyl ether	0.054	U	0.40	0.054	mg/Kg	☼	08/10/15 14:33	08/11/15 18:12	1
<b>Chrysene</b>	<b>0.37</b>	<b>J</b>	0.40	0.026	mg/Kg	☼	08/10/15 14:33	08/11/15 18:12	1
Dibenz(a,h)anthracene	0.048	U	0.40	0.048	mg/Kg	☼	08/10/15 14:33	08/11/15 18:12	1
<b>Dibenzofuran</b>	<b>0.073</b>	<b>J</b>	0.40	0.040	mg/Kg	☼	08/10/15 14:33	08/11/15 18:12	1
3,3'-Dichlorobenzidine	0.034	U	0.80	0.034	mg/Kg	☼	08/10/15 14:33	08/11/15 18:12	1
2,4-Dichlorophenol	0.043	U	0.40	0.043	mg/Kg	☼	08/10/15 14:33	08/11/15 18:12	1
Diethyl phthalate	0.045	U	0.40	0.045	mg/Kg	☼	08/10/15 14:33	08/11/15 18:12	1
2,4-Dimethylphenol	0.054	U	0.40	0.054	mg/Kg	☼	08/10/15 14:33	08/11/15 18:12	1
Dimethyl phthalate	0.041	U	0.40	0.041	mg/Kg	☼	08/10/15 14:33	08/11/15 18:12	1
Di-n-butyl phthalate	0.037	U	0.40	0.037	mg/Kg	☼	08/10/15 14:33	08/11/15 18:12	1
4,6-Dinitro-2-methylphenol	0.21	U *	2.1	0.21	mg/Kg	☼	08/10/15 14:33	08/11/15 18:12	1
2,4-Dinitrophenol	1.0	U	2.1	1.0	mg/Kg	☼	08/10/15 14:33	08/11/15 18:12	1
2,4-Dinitrotoluene	0.060	U	0.40	0.060	mg/Kg	☼	08/10/15 14:33	08/11/15 18:12	1
2,6-Dinitrotoluene	0.051	U	0.40	0.051	mg/Kg	☼	08/10/15 14:33	08/11/15 18:12	1
Di-n-octyl phthalate	0.035	U	0.40	0.035	mg/Kg	☼	08/10/15 14:33	08/11/15 18:12	1
<b>Fluoranthene</b>	<b>0.46</b>		0.40	0.039	mg/Kg	☼	08/10/15 14:33	08/11/15 18:12	1
<b>Fluorene</b>	<b>0.066</b>	<b>J</b>	0.40	0.044	mg/Kg	☼	08/10/15 14:33	08/11/15 18:12	1
Hexachlorobenzene	0.048	U	0.40	0.048	mg/Kg	☼	08/10/15 14:33	08/11/15 18:12	1
Hexachlorobutadiene	0.044	U	0.40	0.044	mg/Kg	☼	08/10/15 14:33	08/11/15 18:12	1
Hexachlorocyclopentadiene	0.050	U	0.40	0.050	mg/Kg	☼	08/10/15 14:33	08/11/15 18:12	1
Hexachloroethane	0.034	U	0.40	0.034	mg/Kg	☼	08/10/15 14:33	08/11/15 18:12	1
<b>Indeno[1,2,3-cd]pyrene</b>	<b>0.18</b>	<b>J</b>	0.40	0.034	mg/Kg	☼	08/10/15 14:33	08/11/15 18:12	1
Isophorone	0.040	U	0.40	0.040	mg/Kg	☼	08/10/15 14:33	08/11/15 18:12	1
<b>2-Methylnaphthalene</b>	<b>0.18</b>	<b>J</b>	0.40	0.046	mg/Kg	☼	08/10/15 14:33	08/11/15 18:12	1
2-Methylphenol	0.033	U	0.40	0.033	mg/Kg	☼	08/10/15 14:33	08/11/15 18:12	1

TestAmerica Savannah

# Client Sample Results

Client: Geotechnical & Environmental Consultants  
Project/Site: Macon MGP

TestAmerica Job ID: 680-115409-1

**Client Sample ID: GB-28 13-15**

**Lab Sample ID: 680-115409-8**

**Date Collected: 08/06/15 14:30**

**Matrix: Solid**

**Date Received: 08/08/15 10:00**

**Percent Solids: 82.0**

## Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
3 & 4 Methylphenol	0.052	U	0.40	0.052	mg/Kg	☼	08/10/15 14:33	08/11/15 18:12	1
<b>Naphthalene</b>	<b>0.19</b>	<b>J</b>	0.40	0.037	mg/Kg	☼	08/10/15 14:33	08/11/15 18:12	1
2-Nitroaniline	0.055	U	2.1	0.055	mg/Kg	☼	08/10/15 14:33	08/11/15 18:12	1
3-Nitroaniline	0.056	U	2.1	0.056	mg/Kg	☼	08/10/15 14:33	08/11/15 18:12	1
4-Nitroaniline	0.060	U	2.1	0.060	mg/Kg	☼	08/10/15 14:33	08/11/15 18:12	1
Nitrobenzene	0.032	U	0.40	0.032	mg/Kg	☼	08/10/15 14:33	08/11/15 18:12	1
2-Nitrophenol	0.050	U	0.40	0.050	mg/Kg	☼	08/10/15 14:33	08/11/15 18:12	1
4-Nitrophenol	0.40	U	2.1	0.40	mg/Kg	☼	08/10/15 14:33	08/11/15 18:12	1
N-Nitrosodi-n-propylamine	0.039	U	0.40	0.039	mg/Kg	☼	08/10/15 14:33	08/11/15 18:12	1
N-Nitrosodiphenylamine	0.040	U	0.40	0.040	mg/Kg	☼	08/10/15 14:33	08/11/15 18:12	1
Pentachlorophenol	0.40	U	2.1	0.40	mg/Kg	☼	08/10/15 14:33	08/11/15 18:12	1
<b>Phenanthrene</b>	<b>0.37</b>	<b>J</b>	0.40	0.033	mg/Kg	☼	08/10/15 14:33	08/11/15 18:12	1
Phenol	0.041	U	0.40	0.041	mg/Kg	☼	08/10/15 14:33	08/11/15 18:12	1
<b>Pyrene</b>	<b>0.50</b>		0.40	0.033	mg/Kg	☼	08/10/15 14:33	08/11/15 18:12	1
2,4,5-Trichlorophenol	0.043	U	0.40	0.043	mg/Kg	☼	08/10/15 14:33	08/11/15 18:12	1
2,4,6-Trichlorophenol	0.035	U	0.40	0.035	mg/Kg	☼	08/10/15 14:33	08/11/15 18:12	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl	74		41 - 116	08/10/15 14:33	08/11/15 18:12	1
2-Fluorophenol (Surr)	54		39 - 114	08/10/15 14:33	08/11/15 18:12	1
Nitrobenzene-d5 (Surr)	71		37 - 115	08/10/15 14:33	08/11/15 18:12	1
Phenol-d5 (Surr)	62		38 - 122	08/10/15 14:33	08/11/15 18:12	1
Terphenyl-d14 (Surr)	82		46 - 126	08/10/15 14:33	08/11/15 18:12	1
2,4,6-Tribromophenol (Surr)	72		45 - 129	08/10/15 14:33	08/11/15 18:12	1

## Method: 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Arsenic</b>	<b>5.2</b>		2.2	0.86	mg/Kg	☼	08/11/15 07:36	08/11/15 19:53	1
<b>Barium</b>	<b>150</b>		1.1	0.17	mg/Kg	☼	08/11/15 07:36	08/11/15 19:53	1
<b>Beryllium</b>	<b>0.22</b>	<b>J</b>	0.43	0.011	mg/Kg	☼	08/11/15 07:36	08/11/15 19:53	1
<b>Cadmium</b>	<b>0.15</b>	<b>J</b>	0.54	0.11	mg/Kg	☼	08/11/15 07:36	08/11/15 19:53	1
<b>Chromium</b>	<b>16</b>		1.1	0.23	mg/Kg	☼	08/11/15 07:36	08/11/15 19:53	1
<b>Copper</b>	<b>31</b>		2.7	0.18	mg/Kg	☼	08/11/15 07:36	08/11/15 19:53	1
<b>Lead</b>	<b>950</b>		1.1	0.37	mg/Kg	☼	08/11/15 07:36	08/11/15 19:53	1
<b>Nickel</b>	<b>3.4</b>	<b>J</b>	4.3	0.41	mg/Kg	☼	08/11/15 07:36	08/11/15 19:53	1
Selenium	1.0	U	2.7	1.0	mg/Kg	☼	08/11/15 07:36	08/11/15 19:53	1
<b>Silver</b>	<b>0.067</b>	<b>J</b>	1.1	0.065	mg/Kg	☼	08/11/15 07:36	08/11/15 19:53	1
<b>Vanadium</b>	<b>23</b>		1.1	0.11	mg/Kg	☼	08/11/15 07:36	08/11/15 19:53	1
<b>Zinc</b>	<b>210</b>		2.2	0.76	mg/Kg	☼	08/11/15 07:36	08/11/15 19:53	1

## Method: 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Mercury</b>	<b>0.56</b>		0.11	0.045	mg/Kg	☼	08/13/15 09:48	08/13/15 17:35	5

## General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total	0.24	U	0.58	0.24	mg/Kg	☼	08/17/15 06:30	08/17/15 11:45	1

TestAmerica Savannah

# Client Sample Results

Client: Geotechnical & Environmental Consultants  
Project/Site: Macon MGP

TestAmerica Job ID: 680-115409-1

**Client Sample ID: SB-24 2-4**

**Date Collected: 08/06/15 15:25**

**Date Received: 08/08/15 10:00**

**Lab Sample ID: 680-115409-9**

**Matrix: Solid**

**Percent Solids: 80.4**

## Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	0.51	U	4.1	0.51	mg/Kg	☼	08/10/15 14:33	08/11/15 18:35	10
Acenaphthylene	0.45	U	4.1	0.45	mg/Kg	☼	08/10/15 14:33	08/11/15 18:35	10
Acetophenone	0.35	U	4.1	0.35	mg/Kg	☼	08/10/15 14:33	08/11/15 18:35	10
Anthracene	0.31	U	4.1	0.31	mg/Kg	☼	08/10/15 14:33	08/11/15 18:35	10
Atrazine	0.29	U	4.1	0.29	mg/Kg	☼	08/10/15 14:33	08/11/15 18:35	10
Benzaldehyde	0.72	U	4.1	0.72	mg/Kg	☼	08/10/15 14:33	08/11/15 18:35	10
<b>Benzo[a]anthracene</b>	<b>0.47</b>	<b>J</b>	4.1	0.34	mg/Kg	☼	08/10/15 14:33	08/11/15 18:35	10
Benzo[a]pyrene	0.65	U	4.1	0.65	mg/Kg	☼	08/10/15 14:33	08/11/15 18:35	10
<b>Benzo[b]fluoranthene</b>	<b>0.57</b>	<b>J</b>	4.1	0.47	mg/Kg	☼	08/10/15 14:33	08/11/15 18:35	10
Benzo[g,h,i]perylene	0.27	U	4.1	0.27	mg/Kg	☼	08/10/15 14:33	08/11/15 18:35	10
Benzo[k]fluoranthene	0.81	U	4.1	0.81	mg/Kg	☼	08/10/15 14:33	08/11/15 18:35	10
1,1'-Biphenyl	21	U	21	21	mg/Kg	☼	08/10/15 14:33	08/11/15 18:35	10
Bis(2-chloroethoxy)methane	0.48	U	4.1	0.48	mg/Kg	☼	08/10/15 14:33	08/11/15 18:35	10
Bis(2-chloroethyl)ether	0.56	U	4.1	0.56	mg/Kg	☼	08/10/15 14:33	08/11/15 18:35	10
bis (2-chloroisopropyl) ether	0.37	U	4.1	0.37	mg/Kg	☼	08/10/15 14:33	08/11/15 18:35	10
Bis(2-ethylhexyl) phthalate	0.36	U	4.1	0.36	mg/Kg	☼	08/10/15 14:33	08/11/15 18:35	10
4-Bromophenyl phenyl ether	0.45	U	4.1	0.45	mg/Kg	☼	08/10/15 14:33	08/11/15 18:35	10
Butyl benzyl phthalate	0.32	U	4.1	0.32	mg/Kg	☼	08/10/15 14:33	08/11/15 18:35	10
Caprolactam	0.82	U	4.1	0.82	mg/Kg	☼	08/10/15 14:33	08/11/15 18:35	10
Carbazole	0.37	U	4.1	0.37	mg/Kg	☼	08/10/15 14:33	08/11/15 18:35	10
4-Chloroaniline	0.65	U	8.2	0.65	mg/Kg	☼	08/10/15 14:33	08/11/15 18:35	10
4-Chloro-3-methylphenol	0.43	U	4.1	0.43	mg/Kg	☼	08/10/15 14:33	08/11/15 18:35	10
2-Chloronaphthalene	0.43	U	4.1	0.43	mg/Kg	☼	08/10/15 14:33	08/11/15 18:35	10
2-Chlorophenol	0.50	U	4.1	0.50	mg/Kg	☼	08/10/15 14:33	08/11/15 18:35	10
4-Chlorophenyl phenyl ether	0.55	U	4.1	0.55	mg/Kg	☼	08/10/15 14:33	08/11/15 18:35	10
<b>Chrysene</b>	<b>0.57</b>	<b>J</b>	4.1	0.26	mg/Kg	☼	08/10/15 14:33	08/11/15 18:35	10
Dibenz(a,h)anthracene	0.48	U	4.1	0.48	mg/Kg	☼	08/10/15 14:33	08/11/15 18:35	10
Dibenzofuran	0.41	U	4.1	0.41	mg/Kg	☼	08/10/15 14:33	08/11/15 18:35	10
3,3'-Dichlorobenzidine	0.35	U	8.2	0.35	mg/Kg	☼	08/10/15 14:33	08/11/15 18:35	10
2,4-Dichlorophenol	0.43	U	4.1	0.43	mg/Kg	☼	08/10/15 14:33	08/11/15 18:35	10
Diethyl phthalate	0.46	U	4.1	0.46	mg/Kg	☼	08/10/15 14:33	08/11/15 18:35	10
2,4-Dimethylphenol	0.55	U	4.1	0.55	mg/Kg	☼	08/10/15 14:33	08/11/15 18:35	10
Dimethyl phthalate	0.42	U	4.1	0.42	mg/Kg	☼	08/10/15 14:33	08/11/15 18:35	10
Di-n-butyl phthalate	0.37	U	4.1	0.37	mg/Kg	☼	08/10/15 14:33	08/11/15 18:35	10
4,6-Dinitro-2-methylphenol	2.1	U *	21	2.1	mg/Kg	☼	08/10/15 14:33	08/11/15 18:35	10
2,4-Dinitrophenol	10	U	21	10	mg/Kg	☼	08/10/15 14:33	08/11/15 18:35	10
2,4-Dinitrotoluene	0.61	U	4.1	0.61	mg/Kg	☼	08/10/15 14:33	08/11/15 18:35	10
<b>2,6-Dinitrotoluene</b>	<b>6.1</b>		4.1	0.52	mg/Kg	☼	08/10/15 14:33	08/11/15 18:35	10
Di-n-octyl phthalate	0.36	U	4.1	0.36	mg/Kg	☼	08/10/15 14:33	08/11/15 18:35	10
<b>Fluoranthene</b>	<b>1.0</b>	<b>J</b>	4.1	0.40	mg/Kg	☼	08/10/15 14:33	08/11/15 18:35	10
Fluorene	0.45	U	4.1	0.45	mg/Kg	☼	08/10/15 14:33	08/11/15 18:35	10
Hexachlorobenzene	0.48	U	4.1	0.48	mg/Kg	☼	08/10/15 14:33	08/11/15 18:35	10
Hexachlorobutadiene	0.45	U	4.1	0.45	mg/Kg	☼	08/10/15 14:33	08/11/15 18:35	10
Hexachlorocyclopentadiene	0.51	U	4.1	0.51	mg/Kg	☼	08/10/15 14:33	08/11/15 18:35	10
Hexachloroethane	0.35	U	4.1	0.35	mg/Kg	☼	08/10/15 14:33	08/11/15 18:35	10
Indeno[1,2,3-cd]pyrene	0.35	U	4.1	0.35	mg/Kg	☼	08/10/15 14:33	08/11/15 18:35	10
Isophorone	0.41	U	4.1	0.41	mg/Kg	☼	08/10/15 14:33	08/11/15 18:35	10
2-Methylnaphthalene	0.47	U	4.1	0.47	mg/Kg	☼	08/10/15 14:33	08/11/15 18:35	10
2-Methylphenol	0.34	U	4.1	0.34	mg/Kg	☼	08/10/15 14:33	08/11/15 18:35	10

TestAmerica Savannah

# Client Sample Results

Client: Geotechnical & Environmental Consultants  
Project/Site: Macon MGP

TestAmerica Job ID: 680-115409-1

**Client Sample ID: SB-24 2-4**

**Date Collected: 08/06/15 15:25**

**Date Received: 08/08/15 10:00**

**Lab Sample ID: 680-115409-9**

**Matrix: Solid**

**Percent Solids: 80.4**

## Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
3 & 4 Methylphenol	0.53	U	4.1	0.53	mg/Kg	☼	08/10/15 14:33	08/11/15 18:35	10
Naphthalene	0.37	U	4.1	0.37	mg/Kg	☼	08/10/15 14:33	08/11/15 18:35	10
2-Nitroaniline	0.56	U	21	0.56	mg/Kg	☼	08/10/15 14:33	08/11/15 18:35	10
3-Nitroaniline	0.57	U	21	0.57	mg/Kg	☼	08/10/15 14:33	08/11/15 18:35	10
4-Nitroaniline	0.61	U	21	0.61	mg/Kg	☼	08/10/15 14:33	08/11/15 18:35	10
Nitrobenzene	0.32	U	4.1	0.32	mg/Kg	☼	08/10/15 14:33	08/11/15 18:35	10
2-Nitrophenol	0.51	U	4.1	0.51	mg/Kg	☼	08/10/15 14:33	08/11/15 18:35	10
4-Nitrophenol	4.1	U	21	4.1	mg/Kg	☼	08/10/15 14:33	08/11/15 18:35	10
N-Nitrosodi-n-propylamine	0.40	U	4.1	0.40	mg/Kg	☼	08/10/15 14:33	08/11/15 18:35	10
N-Nitrosodiphenylamine	0.41	U	4.1	0.41	mg/Kg	☼	08/10/15 14:33	08/11/15 18:35	10
Pentachlorophenol	4.1	U	21	4.1	mg/Kg	☼	08/10/15 14:33	08/11/15 18:35	10
Phenanthrene	0.52	J	4.1	0.34	mg/Kg	☼	08/10/15 14:33	08/11/15 18:35	10
Phenol	0.42	U	4.1	0.42	mg/Kg	☼	08/10/15 14:33	08/11/15 18:35	10
Pyrene	0.87	J	4.1	0.34	mg/Kg	☼	08/10/15 14:33	08/11/15 18:35	10
2,4,5-Trichlorophenol	0.43	U	4.1	0.43	mg/Kg	☼	08/10/15 14:33	08/11/15 18:35	10
2,4,6-Trichlorophenol	0.36	U	4.1	0.36	mg/Kg	☼	08/10/15 14:33	08/11/15 18:35	10

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl	0	D	41 - 116	08/10/15 14:33	08/11/15 18:35	10
2-Fluorophenol (Surr)	0	D	39 - 114	08/10/15 14:33	08/11/15 18:35	10
Nitrobenzene-d5 (Surr)	0	D	37 - 115	08/10/15 14:33	08/11/15 18:35	10
Phenol-d5 (Surr)	0	D	38 - 122	08/10/15 14:33	08/11/15 18:35	10
Terphenyl-d14 (Surr)	0	D	46 - 126	08/10/15 14:33	08/11/15 18:35	10
2,4,6-Tribromophenol (Surr)	0	D	45 - 129	08/10/15 14:33	08/11/15 18:35	10

## Method: 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	2.7		2.3	0.90	mg/Kg	☼	08/11/15 07:36	08/11/15 19:58	1
Barium	49		1.1	0.18	mg/Kg	☼	08/11/15 07:36	08/11/15 19:58	1
Beryllium	0.18	J	0.45	0.011	mg/Kg	☼	08/11/15 07:36	08/11/15 19:58	1
Cadmium	0.11	U	0.57	0.11	mg/Kg	☼	08/11/15 07:36	08/11/15 19:58	1
Chromium	12		1.1	0.24	mg/Kg	☼	08/11/15 07:36	08/11/15 19:58	1
Copper	10		2.8	0.19	mg/Kg	☼	08/11/15 07:36	08/11/15 19:58	1
Lead	75		1.1	0.38	mg/Kg	☼	08/11/15 07:36	08/11/15 19:58	1
Nickel	2.7	J	4.5	0.43	mg/Kg	☼	08/11/15 07:36	08/11/15 19:58	1
Selenium	1.1	U	2.8	1.1	mg/Kg	☼	08/11/15 07:36	08/11/15 19:58	1
Silver	0.068	U	1.1	0.068	mg/Kg	☼	08/11/15 07:36	08/11/15 19:58	1
Vanadium	25		1.1	0.11	mg/Kg	☼	08/11/15 07:36	08/11/15 19:58	1
Zinc	53		2.3	0.79	mg/Kg	☼	08/11/15 07:36	08/11/15 19:58	1

## Method: 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.41		0.021	0.0084	mg/Kg	☼	08/13/15 09:48	08/13/15 16:37	1

## General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total	0.25	U	0.59	0.25	mg/Kg	☼	08/17/15 06:30	08/17/15 11:46	1

TestAmerica Savannah



# Client Sample Results

Client: Geotechnical & Environmental Consultants  
Project/Site: Macon MGP

TestAmerica Job ID: 680-115409-1

**Client Sample ID: SB-24 4-6**

**Date Collected: 08/06/15 15:32**

**Date Received: 08/08/15 10:00**

**Lab Sample ID: 680-115409-10**

**Matrix: Solid**

**Percent Solids: 76.0**

## Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	0.54	U	4.3	0.54	mg/Kg	☼	08/10/15 14:33	08/11/15 18:59	10
<b>Acenaphthylene</b>	<b>0.51</b>	<b>J</b>	4.3	0.47	mg/Kg	☼	08/10/15 14:33	08/11/15 18:59	10
Acetophenone	0.37	U	4.3	0.37	mg/Kg	☼	08/10/15 14:33	08/11/15 18:59	10
<b>Anthracene</b>	<b>1.6</b>	<b>J</b>	4.3	0.33	mg/Kg	☼	08/10/15 14:33	08/11/15 18:59	10
Atrazine	0.30	U	4.3	0.30	mg/Kg	☼	08/10/15 14:33	08/11/15 18:59	10
Benzaldehyde	0.76	U	4.3	0.76	mg/Kg	☼	08/10/15 14:33	08/11/15 18:59	10
<b>Benzo[a]anthracene</b>	<b>2.7</b>	<b>J</b>	4.3	0.35	mg/Kg	☼	08/10/15 14:33	08/11/15 18:59	10
<b>Benzo[a]pyrene</b>	<b>1.9</b>	<b>J</b>	4.3	0.68	mg/Kg	☼	08/10/15 14:33	08/11/15 18:59	10
<b>Benzo[b]fluoranthene</b>	<b>2.4</b>	<b>J</b>	4.3	0.50	mg/Kg	☼	08/10/15 14:33	08/11/15 18:59	10
<b>Benzo[g,h,i]perylene</b>	<b>0.67</b>	<b>J</b>	4.3	0.29	mg/Kg	☼	08/10/15 14:33	08/11/15 18:59	10
<b>Benzo[k]fluoranthene</b>	<b>1.2</b>	<b>J</b>	4.3	0.85	mg/Kg	☼	08/10/15 14:33	08/11/15 18:59	10
1,1'-Biphenyl	22	U	22	22	mg/Kg	☼	08/10/15 14:33	08/11/15 18:59	10
Bis(2-chloroethoxy)methane	0.51	U	4.3	0.51	mg/Kg	☼	08/10/15 14:33	08/11/15 18:59	10
Bis(2-chloroethyl)ether	0.59	U	4.3	0.59	mg/Kg	☼	08/10/15 14:33	08/11/15 18:59	10
bis (2-chloroisopropyl) ether	0.39	U	4.3	0.39	mg/Kg	☼	08/10/15 14:33	08/11/15 18:59	10
Bis(2-ethylhexyl) phthalate	0.38	U	4.3	0.38	mg/Kg	☼	08/10/15 14:33	08/11/15 18:59	10
4-Bromophenyl phenyl ether	0.47	U	4.3	0.47	mg/Kg	☼	08/10/15 14:33	08/11/15 18:59	10
Butyl benzyl phthalate	0.34	U	4.3	0.34	mg/Kg	☼	08/10/15 14:33	08/11/15 18:59	10
Caprolactam	0.86	U	4.3	0.86	mg/Kg	☼	08/10/15 14:33	08/11/15 18:59	10
<b>Carbazole</b>	<b>0.61</b>	<b>J</b>	4.3	0.39	mg/Kg	☼	08/10/15 14:33	08/11/15 18:59	10
4-Chloroaniline	0.68	U	8.6	0.68	mg/Kg	☼	08/10/15 14:33	08/11/15 18:59	10
4-Chloro-3-methylphenol	0.46	U	4.3	0.46	mg/Kg	☼	08/10/15 14:33	08/11/15 18:59	10
2-Chloronaphthalene	0.46	U	4.3	0.46	mg/Kg	☼	08/10/15 14:33	08/11/15 18:59	10
2-Chlorophenol	0.52	U	4.3	0.52	mg/Kg	☼	08/10/15 14:33	08/11/15 18:59	10
4-Chlorophenyl phenyl ether	0.58	U	4.3	0.58	mg/Kg	☼	08/10/15 14:33	08/11/15 18:59	10
<b>Chrysene</b>	<b>2.7</b>	<b>J</b>	4.3	0.28	mg/Kg	☼	08/10/15 14:33	08/11/15 18:59	10
Dibenz(a,h)anthracene	0.51	U	4.3	0.51	mg/Kg	☼	08/10/15 14:33	08/11/15 18:59	10
<b>Dibenzofuran</b>	<b>0.80</b>	<b>J</b>	4.3	0.43	mg/Kg	☼	08/10/15 14:33	08/11/15 18:59	10
3,3'-Dichlorobenzidine	0.37	U	8.6	0.37	mg/Kg	☼	08/10/15 14:33	08/11/15 18:59	10
2,4-Dichlorophenol	0.46	U	4.3	0.46	mg/Kg	☼	08/10/15 14:33	08/11/15 18:59	10
Diethyl phthalate	0.48	U	4.3	0.48	mg/Kg	☼	08/10/15 14:33	08/11/15 18:59	10
2,4-Dimethylphenol	0.58	U	4.3	0.58	mg/Kg	☼	08/10/15 14:33	08/11/15 18:59	10
Dimethyl phthalate	0.45	U	4.3	0.45	mg/Kg	☼	08/10/15 14:33	08/11/15 18:59	10
Di-n-butyl phthalate	0.39	U	4.3	0.39	mg/Kg	☼	08/10/15 14:33	08/11/15 18:59	10
4,6-Dinitro-2-methylphenol	2.2	U *	22	2.2	mg/Kg	☼	08/10/15 14:33	08/11/15 18:59	10
2,4-Dinitrophenol	11	U	22	11	mg/Kg	☼	08/10/15 14:33	08/11/15 18:59	10
2,4-Dinitrotoluene	0.64	U	4.3	0.64	mg/Kg	☼	08/10/15 14:33	08/11/15 18:59	10
2,6-Dinitrotoluene	0.55	U	4.3	0.55	mg/Kg	☼	08/10/15 14:33	08/11/15 18:59	10
Di-n-octyl phthalate	0.38	U	4.3	0.38	mg/Kg	☼	08/10/15 14:33	08/11/15 18:59	10
<b>Fluoranthene</b>	<b>4.9</b>		4.3	0.42	mg/Kg	☼	08/10/15 14:33	08/11/15 18:59	10
<b>Fluorene</b>	<b>0.76</b>	<b>J</b>	4.3	0.47	mg/Kg	☼	08/10/15 14:33	08/11/15 18:59	10
Hexachlorobenzene	0.51	U	4.3	0.51	mg/Kg	☼	08/10/15 14:33	08/11/15 18:59	10
Hexachlorobutadiene	0.47	U	4.3	0.47	mg/Kg	☼	08/10/15 14:33	08/11/15 18:59	10
Hexachlorocyclopentadiene	0.54	U	4.3	0.54	mg/Kg	☼	08/10/15 14:33	08/11/15 18:59	10
Hexachloroethane	0.37	U	4.3	0.37	mg/Kg	☼	08/10/15 14:33	08/11/15 18:59	10
<b>Indeno[1,2,3-cd]pyrene</b>	<b>0.72</b>	<b>J</b>	4.3	0.37	mg/Kg	☼	08/10/15 14:33	08/11/15 18:59	10
Isophorone	0.43	U	4.3	0.43	mg/Kg	☼	08/10/15 14:33	08/11/15 18:59	10
<b>2-Methylnaphthalene</b>	<b>0.67</b>	<b>J</b>	4.3	0.50	mg/Kg	☼	08/10/15 14:33	08/11/15 18:59	10
2-Methylphenol	0.35	U	4.3	0.35	mg/Kg	☼	08/10/15 14:33	08/11/15 18:59	10

TestAmerica Savannah

# Client Sample Results

Client: Geotechnical & Environmental Consultants  
Project/Site: Macon MGP

TestAmerica Job ID: 680-115409-1

**Client Sample ID: SB-24 4-6**

**Date Collected: 08/06/15 15:32**

**Date Received: 08/08/15 10:00**

**Lab Sample ID: 680-115409-10**

**Matrix: Solid**

**Percent Solids: 76.0**

## Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
3 & 4 Methylphenol	0.56	U	4.3	0.56	mg/Kg	☼	08/10/15 14:33	08/11/15 18:59	10
<b>Naphthalene</b>	<b>0.50</b>	<b>J</b>	4.3	0.39	mg/Kg	☼	08/10/15 14:33	08/11/15 18:59	10
2-Nitroaniline	0.59	U	22	0.59	mg/Kg	☼	08/10/15 14:33	08/11/15 18:59	10
3-Nitroaniline	0.60	U	22	0.60	mg/Kg	☼	08/10/15 14:33	08/11/15 18:59	10
4-Nitroaniline	0.64	U	22	0.64	mg/Kg	☼	08/10/15 14:33	08/11/15 18:59	10
Nitrobenzene	0.34	U	4.3	0.34	mg/Kg	☼	08/10/15 14:33	08/11/15 18:59	10
2-Nitrophenol	0.54	U	4.3	0.54	mg/Kg	☼	08/10/15 14:33	08/11/15 18:59	10
4-Nitrophenol	4.3	U	22	4.3	mg/Kg	☼	08/10/15 14:33	08/11/15 18:59	10
N-Nitrosodi-n-propylamine	0.42	U	4.3	0.42	mg/Kg	☼	08/10/15 14:33	08/11/15 18:59	10
N-Nitrosodiphenylamine	0.43	U	4.3	0.43	mg/Kg	☼	08/10/15 14:33	08/11/15 18:59	10
Pentachlorophenol	4.3	U	22	4.3	mg/Kg	☼	08/10/15 14:33	08/11/15 18:59	10
<b>Phenanthrene</b>	<b>7.1</b>		4.3	0.35	mg/Kg	☼	08/10/15 14:33	08/11/15 18:59	10
Phenol	0.45	U	4.3	0.45	mg/Kg	☼	08/10/15 14:33	08/11/15 18:59	10
<b>Pyrene</b>	<b>5.3</b>		4.3	0.35	mg/Kg	☼	08/10/15 14:33	08/11/15 18:59	10
2,4,5-Trichlorophenol	0.46	U	4.3	0.46	mg/Kg	☼	08/10/15 14:33	08/11/15 18:59	10
2,4,6-Trichlorophenol	0.38	U	4.3	0.38	mg/Kg	☼	08/10/15 14:33	08/11/15 18:59	10

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl	0	D	41 - 116	08/10/15 14:33	08/11/15 18:59	10
2-Fluorophenol (Surr)	0	D	39 - 114	08/10/15 14:33	08/11/15 18:59	10
Nitrobenzene-d5 (Surr)	0	D	37 - 115	08/10/15 14:33	08/11/15 18:59	10
Phenol-d5 (Surr)	0	D	38 - 122	08/10/15 14:33	08/11/15 18:59	10
Terphenyl-d14 (Surr)	0	D	46 - 126	08/10/15 14:33	08/11/15 18:59	10
2,4,6-Tribromophenol (Surr)	0	D	45 - 129	08/10/15 14:33	08/11/15 18:59	10

## Method: 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Arsenic</b>	<b>3.7</b>		2.5	0.99	mg/Kg	☼	08/11/15 07:36	08/11/15 20:02	1
<b>Barium</b>	<b>88</b>		1.2	0.20	mg/Kg	☼	08/11/15 07:36	08/11/15 20:02	1
<b>Beryllium</b>	<b>0.34</b>	<b>J</b>	0.50	0.012	mg/Kg	☼	08/11/15 07:36	08/11/15 20:02	1
<b>Cadmium</b>	<b>0.27</b>	<b>J</b>	0.62	0.12	mg/Kg	☼	08/11/15 07:36	08/11/15 20:02	1
<b>Chromium</b>	<b>14</b>		1.2	0.26	mg/Kg	☼	08/11/15 07:36	08/11/15 20:02	1
<b>Copper</b>	<b>25</b>		3.1	0.21	mg/Kg	☼	08/11/15 07:36	08/11/15 20:02	1
<b>Lead</b>	<b>260</b>		1.2	0.42	mg/Kg	☼	08/11/15 07:36	08/11/15 20:02	1
<b>Nickel</b>	<b>3.1</b>	<b>J</b>	5.0	0.47	mg/Kg	☼	08/11/15 07:36	08/11/15 20:02	1
Selenium	1.2	U	3.1	1.2	mg/Kg	☼	08/11/15 07:36	08/11/15 20:02	1
Silver	0.074	U	1.2	0.074	mg/Kg	☼	08/11/15 07:36	08/11/15 20:02	1
<b>Vanadium</b>	<b>29</b>		1.2	0.12	mg/Kg	☼	08/11/15 07:36	08/11/15 20:02	1
<b>Zinc</b>	<b>120</b>		2.5	0.87	mg/Kg	☼	08/11/15 07:36	08/11/15 20:02	1

## Method: 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Mercury</b>	<b>0.43</b>	<b>F1 F2</b>	0.024	0.0097	mg/Kg	☼	08/16/15 13:43	08/17/15 21:11	1

## General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total	0.26	U	0.63	0.26	mg/Kg	☼	08/17/15 06:30	08/17/15 11:47	1

TestAmerica Savannah

# Client Sample Results

Client: Geotechnical & Environmental Consultants  
Project/Site: Macon MGP

TestAmerica Job ID: 680-115409-1

**Client Sample ID: SB-24 8-10**

**Date Collected: 08/06/15 15:38**

**Date Received: 08/08/15 10:00**

**Lab Sample ID: 680-115409-11**

**Matrix: Solid**

**Percent Solids: 69.7**

## Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	0.59	U	4.7	0.59	mg/Kg	☼	08/10/15 14:33	08/11/15 19:23	10
Acenaphthylene	0.51	U	4.7	0.51	mg/Kg	☼	08/10/15 14:33	08/11/15 19:23	10
Acetophenone	0.40	U	4.7	0.40	mg/Kg	☼	08/10/15 14:33	08/11/15 19:23	10
Anthracene	0.36	U	4.7	0.36	mg/Kg	☼	08/10/15 14:33	08/11/15 19:23	10
Atrazine	0.33	U	4.7	0.33	mg/Kg	☼	08/10/15 14:33	08/11/15 19:23	10
Benzaldehyde	0.83	U	4.7	0.83	mg/Kg	☼	08/10/15 14:33	08/11/15 19:23	10
Benzo[a]anthracene	0.39	U	4.7	0.39	mg/Kg	☼	08/10/15 14:33	08/11/15 19:23	10
Benzo[a]pyrene	0.74	U	4.7	0.74	mg/Kg	☼	08/10/15 14:33	08/11/15 19:23	10
Benzo[b]fluoranthene	0.54	U	4.7	0.54	mg/Kg	☼	08/10/15 14:33	08/11/15 19:23	10
Benzo[g,h,i]perylene	0.31	U	4.7	0.31	mg/Kg	☼	08/10/15 14:33	08/11/15 19:23	10
Benzo[k]fluoranthene	0.93	U	4.7	0.93	mg/Kg	☼	08/10/15 14:33	08/11/15 19:23	10
1,1'-Biphenyl	24	U	24	24	mg/Kg	☼	08/10/15 14:33	08/11/15 19:23	10
Bis(2-chloroethoxy)methane	0.56	U	4.7	0.56	mg/Kg	☼	08/10/15 14:33	08/11/15 19:23	10
Bis(2-chloroethyl)ether	0.64	U	4.7	0.64	mg/Kg	☼	08/10/15 14:33	08/11/15 19:23	10
bis (2-chloroisopropyl) ether	0.43	U	4.7	0.43	mg/Kg	☼	08/10/15 14:33	08/11/15 19:23	10
<b>Bis(2-ethylhexyl) phthalate</b>	<b>0.54</b>	<b>J B</b>	4.7	0.41	mg/Kg	☼	08/10/15 14:33	08/11/15 19:23	10
4-Bromophenyl phenyl ether	0.51	U	4.7	0.51	mg/Kg	☼	08/10/15 14:33	08/11/15 19:23	10
Butyl benzyl phthalate	0.37	U	4.7	0.37	mg/Kg	☼	08/10/15 14:33	08/11/15 19:23	10
Caprolactam	0.94	U	4.7	0.94	mg/Kg	☼	08/10/15 14:33	08/11/15 19:23	10
Carbazole	0.43	U	4.7	0.43	mg/Kg	☼	08/10/15 14:33	08/11/15 19:23	10
4-Chloroaniline	0.74	U	9.4	0.74	mg/Kg	☼	08/10/15 14:33	08/11/15 19:23	10
4-Chloro-3-methylphenol	0.50	U	4.7	0.50	mg/Kg	☼	08/10/15 14:33	08/11/15 19:23	10
2-Chloronaphthalene	0.50	U	4.7	0.50	mg/Kg	☼	08/10/15 14:33	08/11/15 19:23	10
2-Chlorophenol	0.57	U	4.7	0.57	mg/Kg	☼	08/10/15 14:33	08/11/15 19:23	10
4-Chlorophenyl phenyl ether	0.63	U	4.7	0.63	mg/Kg	☼	08/10/15 14:33	08/11/15 19:23	10
Chrysene	0.30	U	4.7	0.30	mg/Kg	☼	08/10/15 14:33	08/11/15 19:23	10
Dibenz(a,h)anthracene	0.56	U	4.7	0.56	mg/Kg	☼	08/10/15 14:33	08/11/15 19:23	10
Dibenzofuran	0.47	U	4.7	0.47	mg/Kg	☼	08/10/15 14:33	08/11/15 19:23	10
3,3'-Dichlorobenzidine	0.40	U	9.4	0.40	mg/Kg	☼	08/10/15 14:33	08/11/15 19:23	10
2,4-Dichlorophenol	0.50	U	4.7	0.50	mg/Kg	☼	08/10/15 14:33	08/11/15 19:23	10
Diethyl phthalate	0.53	U	4.7	0.53	mg/Kg	☼	08/10/15 14:33	08/11/15 19:23	10
2,4-Dimethylphenol	0.63	U	4.7	0.63	mg/Kg	☼	08/10/15 14:33	08/11/15 19:23	10
Dimethyl phthalate	0.49	U	4.7	0.49	mg/Kg	☼	08/10/15 14:33	08/11/15 19:23	10
Di-n-butyl phthalate	0.43	U	4.7	0.43	mg/Kg	☼	08/10/15 14:33	08/11/15 19:23	10
4,6-Dinitro-2-methylphenol	2.4	U *	24	2.4	mg/Kg	☼	08/10/15 14:33	08/11/15 19:23	10
2,4-Dinitrophenol	12	U	24	12	mg/Kg	☼	08/10/15 14:33	08/11/15 19:23	10
2,4-Dinitrotoluene	0.70	U	4.7	0.70	mg/Kg	☼	08/10/15 14:33	08/11/15 19:23	10
2,6-Dinitrotoluene	0.60	U	4.7	0.60	mg/Kg	☼	08/10/15 14:33	08/11/15 19:23	10
Di-n-octyl phthalate	0.41	U	4.7	0.41	mg/Kg	☼	08/10/15 14:33	08/11/15 19:23	10
<b>Fluoranthene</b>	<b>0.48</b>	<b>J</b>	4.7	0.46	mg/Kg	☼	08/10/15 14:33	08/11/15 19:23	10
Fluorene	0.51	U	4.7	0.51	mg/Kg	☼	08/10/15 14:33	08/11/15 19:23	10
Hexachlorobenzene	0.56	U	4.7	0.56	mg/Kg	☼	08/10/15 14:33	08/11/15 19:23	10
Hexachlorobutadiene	0.51	U	4.7	0.51	mg/Kg	☼	08/10/15 14:33	08/11/15 19:23	10
Hexachlorocyclopentadiene	0.59	U	4.7	0.59	mg/Kg	☼	08/10/15 14:33	08/11/15 19:23	10
Hexachloroethane	0.40	U	4.7	0.40	mg/Kg	☼	08/10/15 14:33	08/11/15 19:23	10
Indeno[1,2,3-cd]pyrene	0.40	U	4.7	0.40	mg/Kg	☼	08/10/15 14:33	08/11/15 19:23	10
Isophorone	0.47	U	4.7	0.47	mg/Kg	☼	08/10/15 14:33	08/11/15 19:23	10
2-Methylnaphthalene	0.54	U	4.7	0.54	mg/Kg	☼	08/10/15 14:33	08/11/15 19:23	10
2-Methylphenol	0.39	U	4.7	0.39	mg/Kg	☼	08/10/15 14:33	08/11/15 19:23	10

TestAmerica Savannah



# Client Sample Results

Client: Geotechnical & Environmental Consultants  
Project/Site: Macon MGP

TestAmerica Job ID: 680-115409-1

**Client Sample ID: SB-24 8-10**

**Date Collected: 08/06/15 15:38**

**Date Received: 08/08/15 10:00**

**Lab Sample ID: 680-115409-11**

**Matrix: Solid**

**Percent Solids: 69.7**

## Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
3 & 4 Methylphenol	0.61	U	4.7	0.61	mg/Kg	☼	08/10/15 14:33	08/11/15 19:23	10
Naphthalene	0.43	U	4.7	0.43	mg/Kg	☼	08/10/15 14:33	08/11/15 19:23	10
2-Nitroaniline	0.64	U	24	0.64	mg/Kg	☼	08/10/15 14:33	08/11/15 19:23	10
3-Nitroaniline	0.66	U	24	0.66	mg/Kg	☼	08/10/15 14:33	08/11/15 19:23	10
4-Nitroaniline	0.70	U	24	0.70	mg/Kg	☼	08/10/15 14:33	08/11/15 19:23	10
Nitrobenzene	0.37	U	4.7	0.37	mg/Kg	☼	08/10/15 14:33	08/11/15 19:23	10
2-Nitrophenol	0.59	U	4.7	0.59	mg/Kg	☼	08/10/15 14:33	08/11/15 19:23	10
4-Nitrophenol	4.7	U	24	4.7	mg/Kg	☼	08/10/15 14:33	08/11/15 19:23	10
N-Nitrosodi-n-propylamine	0.46	U	4.7	0.46	mg/Kg	☼	08/10/15 14:33	08/11/15 19:23	10
N-Nitrosodiphenylamine	0.47	U	4.7	0.47	mg/Kg	☼	08/10/15 14:33	08/11/15 19:23	10
Pentachlorophenol	4.7	U	24	4.7	mg/Kg	☼	08/10/15 14:33	08/11/15 19:23	10
Phenanthrene	0.39	U	4.7	0.39	mg/Kg	☼	08/10/15 14:33	08/11/15 19:23	10
Phenol	0.49	U	4.7	0.49	mg/Kg	☼	08/10/15 14:33	08/11/15 19:23	10
<b>Pyrene</b>	<b>0.43</b>	<b>J</b>	4.7	0.39	mg/Kg	☼	08/10/15 14:33	08/11/15 19:23	10
2,4,5-Trichlorophenol	0.50	U	4.7	0.50	mg/Kg	☼	08/10/15 14:33	08/11/15 19:23	10
2,4,6-Trichlorophenol	0.41	U	4.7	0.41	mg/Kg	☼	08/10/15 14:33	08/11/15 19:23	10

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl	0	D	41 - 116	08/10/15 14:33	08/11/15 19:23	10
2-Fluorophenol (Surr)	0	D	39 - 114	08/10/15 14:33	08/11/15 19:23	10
Nitrobenzene-d5 (Surr)	0	D	37 - 115	08/10/15 14:33	08/11/15 19:23	10
Phenol-d5 (Surr)	0	D	38 - 122	08/10/15 14:33	08/11/15 19:23	10
Terphenyl-d14 (Surr)	0	D	46 - 126	08/10/15 14:33	08/11/15 19:23	10
2,4,6-Tribromophenol (Surr)	0	D	45 - 129	08/10/15 14:33	08/11/15 19:23	10

## Method: 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Arsenic</b>	<b>3.4</b>		2.7	1.1	mg/Kg	☼	08/11/15 07:36	08/11/15 20:07	1
<b>Barium</b>	<b>73</b>		1.4	0.22	mg/Kg	☼	08/11/15 07:36	08/11/15 20:07	1
<b>Beryllium</b>	<b>0.29</b>	<b>J</b>	0.54	0.014	mg/Kg	☼	08/11/15 07:36	08/11/15 20:07	1
Cadmium	0.14	U	0.68	0.14	mg/Kg	☼	08/11/15 07:36	08/11/15 20:07	1
<b>Chromium</b>	<b>24</b>		1.4	0.28	mg/Kg	☼	08/11/15 07:36	08/11/15 20:07	1
<b>Copper</b>	<b>20</b>		3.4	0.23	mg/Kg	☼	08/11/15 07:36	08/11/15 20:07	1
<b>Lead</b>	<b>82</b>		1.4	0.46	mg/Kg	☼	08/11/15 07:36	08/11/15 20:07	1
<b>Nickel</b>	<b>5.4</b>		5.4	0.51	mg/Kg	☼	08/11/15 07:36	08/11/15 20:07	1
Selenium	1.3	U	3.4	1.3	mg/Kg	☼	08/11/15 07:36	08/11/15 20:07	1
Silver	0.081	U	1.4	0.081	mg/Kg	☼	08/11/15 07:36	08/11/15 20:07	1
<b>Vanadium</b>	<b>22</b>		1.4	0.14	mg/Kg	☼	08/11/15 07:36	08/11/15 20:07	1
<b>Zinc</b>	<b>160</b>		2.7	0.95	mg/Kg	☼	08/11/15 07:36	08/11/15 20:07	1

## Method: 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Mercury</b>	<b>0.28</b>		0.028	0.011	mg/Kg	☼	08/16/15 13:43	08/17/15 21:20	1

## General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total	0.29	U	0.69	0.29	mg/Kg	☼	08/17/15 06:30	08/17/15 11:48	1

TestAmerica Savannah

# Client Sample Results

Client: Geotechnical & Environmental Consultants  
Project/Site: Macon MGP

TestAmerica Job ID: 680-115409-1

Client Sample ID: SB-24 13-15

Date Collected: 08/06/15 15:50

Date Received: 08/08/15 10:00

Lab Sample ID: 680-115409-12

Matrix: Solid

Percent Solids: 86.8

## Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	0.047	U	0.38	0.047	mg/Kg	☼	08/10/15 14:33	08/11/15 19:47	1
Acenaphthylene	0.041	U	0.38	0.041	mg/Kg	☼	08/10/15 14:33	08/11/15 19:47	1
Acetophenone	0.032	J	0.38	0.032	mg/Kg	☼	08/10/15 14:33	08/11/15 19:47	1
Anthracene	0.034	J	0.38	0.029	mg/Kg	☼	08/10/15 14:33	08/11/15 19:47	1
Atrazine	0.026	U	0.38	0.026	mg/Kg	☼	08/10/15 14:33	08/11/15 19:47	1
Benzaldehyde	0.22	J	0.38	0.066	mg/Kg	☼	08/10/15 14:33	08/11/15 19:47	1
Benzo[a]anthracene	0.17	J	0.38	0.031	mg/Kg	☼	08/10/15 14:33	08/11/15 19:47	1
Benzo[a]pyrene	0.14	J	0.38	0.059	mg/Kg	☼	08/10/15 14:33	08/11/15 19:47	1
Benzo[b]fluoranthene	0.22	J	0.38	0.043	mg/Kg	☼	08/10/15 14:33	08/11/15 19:47	1
Benzo[g,h,i]perylene	0.098	J	0.38	0.025	mg/Kg	☼	08/10/15 14:33	08/11/15 19:47	1
Benzo[k]fluoranthene	0.11	J	0.38	0.074	mg/Kg	☼	08/10/15 14:33	08/11/15 19:47	1
1,1'-Biphenyl	1.9	U	1.9	1.9	mg/Kg	☼	08/10/15 14:33	08/11/15 19:47	1
Bis(2-chloroethoxy)methane	0.045	U	0.38	0.045	mg/Kg	☼	08/10/15 14:33	08/11/15 19:47	1
Bis(2-chloroethyl)ether	0.051	U	0.38	0.051	mg/Kg	☼	08/10/15 14:33	08/11/15 19:47	1
bis (2-chloroisopropyl) ether	0.034	U	0.38	0.034	mg/Kg	☼	08/10/15 14:33	08/11/15 19:47	1
Bis(2-ethylhexyl) phthalate	0.033	U	0.38	0.033	mg/Kg	☼	08/10/15 14:33	08/11/15 19:47	1
4-Bromophenyl phenyl ether	0.041	U	0.38	0.041	mg/Kg	☼	08/10/15 14:33	08/11/15 19:47	1
Butyl benzyl phthalate	0.030	U	0.38	0.030	mg/Kg	☼	08/10/15 14:33	08/11/15 19:47	1
Caprolactam	0.076	U	0.38	0.076	mg/Kg	☼	08/10/15 14:33	08/11/15 19:47	1
Carbazole	0.034	U	0.38	0.034	mg/Kg	☼	08/10/15 14:33	08/11/15 19:47	1
4-Chloroaniline	0.059	U	0.76	0.059	mg/Kg	☼	08/10/15 14:33	08/11/15 19:47	1
4-Chloro-3-methylphenol	0.040	U	0.38	0.040	mg/Kg	☼	08/10/15 14:33	08/11/15 19:47	1
2-Chloronaphthalene	0.040	U	0.38	0.040	mg/Kg	☼	08/10/15 14:33	08/11/15 19:47	1
2-Chlorophenol	0.046	U	0.38	0.046	mg/Kg	☼	08/10/15 14:33	08/11/15 19:47	1
4-Chlorophenyl phenyl ether	0.050	U	0.38	0.050	mg/Kg	☼	08/10/15 14:33	08/11/15 19:47	1
Chrysene	0.19	J	0.38	0.024	mg/Kg	☼	08/10/15 14:33	08/11/15 19:47	1
Dibenz(a,h)anthracene	0.045	U	0.38	0.045	mg/Kg	☼	08/10/15 14:33	08/11/15 19:47	1
Dibenzofuran	0.038	U	0.38	0.038	mg/Kg	☼	08/10/15 14:33	08/11/15 19:47	1
3,3'-Dichlorobenzidine	0.032	U	0.76	0.032	mg/Kg	☼	08/10/15 14:33	08/11/15 19:47	1
2,4-Dichlorophenol	0.040	U	0.38	0.040	mg/Kg	☼	08/10/15 14:33	08/11/15 19:47	1
Diethyl phthalate	0.042	U	0.38	0.042	mg/Kg	☼	08/10/15 14:33	08/11/15 19:47	1
2,4-Dimethylphenol	0.050	U	0.38	0.050	mg/Kg	☼	08/10/15 14:33	08/11/15 19:47	1
Dimethyl phthalate	0.039	U	0.38	0.039	mg/Kg	☼	08/10/15 14:33	08/11/15 19:47	1
Di-n-butyl phthalate	0.034	U	0.38	0.034	mg/Kg	☼	08/10/15 14:33	08/11/15 19:47	1
4,6-Dinitro-2-methylphenol	0.19	U *	1.9	0.19	mg/Kg	☼	08/10/15 14:33	08/11/15 19:47	1
2,4-Dinitrophenol	0.95	U	1.9	0.95	mg/Kg	☼	08/10/15 14:33	08/11/15 19:47	1
2,4-Dinitrotoluene	0.056	U	0.38	0.056	mg/Kg	☼	08/10/15 14:33	08/11/15 19:47	1
2,6-Dinitrotoluene	0.048	U	0.38	0.048	mg/Kg	☼	08/10/15 14:33	08/11/15 19:47	1
Di-n-octyl phthalate	0.033	U	0.38	0.033	mg/Kg	☼	08/10/15 14:33	08/11/15 19:47	1
Fluoranthene	0.33	J	0.38	0.037	mg/Kg	☼	08/10/15 14:33	08/11/15 19:47	1
Fluorene	0.041	U	0.38	0.041	mg/Kg	☼	08/10/15 14:33	08/11/15 19:47	1
Hexachlorobenzene	0.045	U	0.38	0.045	mg/Kg	☼	08/10/15 14:33	08/11/15 19:47	1
Hexachlorobutadiene	0.041	U	0.38	0.041	mg/Kg	☼	08/10/15 14:33	08/11/15 19:47	1
Hexachlorocyclopentadiene	0.047	U	0.38	0.047	mg/Kg	☼	08/10/15 14:33	08/11/15 19:47	1
Hexachloroethane	0.032	U	0.38	0.032	mg/Kg	☼	08/10/15 14:33	08/11/15 19:47	1
Indeno[1,2,3-cd]pyrene	0.074	J	0.38	0.032	mg/Kg	☼	08/10/15 14:33	08/11/15 19:47	1
Isophorone	0.038	U	0.38	0.038	mg/Kg	☼	08/10/15 14:33	08/11/15 19:47	1
2-Methylnaphthalene	0.051	J	0.38	0.043	mg/Kg	☼	08/10/15 14:33	08/11/15 19:47	1
2-Methylphenol	0.031	U	0.38	0.031	mg/Kg	☼	08/10/15 14:33	08/11/15 19:47	1

TestAmerica Savannah

# Client Sample Results

Client: Geotechnical & Environmental Consultants  
Project/Site: Macon MGP

TestAmerica Job ID: 680-115409-1

**Client Sample ID: SB-24 13-15**

**Lab Sample ID: 680-115409-12**

**Date Collected: 08/06/15 15:50**

**Matrix: Solid**

**Date Received: 08/08/15 10:00**

**Percent Solids: 86.8**

## Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>3 &amp; 4 Methylphenol</b>	<b>0.061</b>	<b>J</b>	0.38	0.049	mg/Kg	☼	08/10/15 14:33	08/11/15 19:47	1
<b>Naphthalene</b>	<b>0.050</b>	<b>J</b>	0.38	0.034	mg/Kg	☼	08/10/15 14:33	08/11/15 19:47	1
2-Nitroaniline	0.051	U	1.9	0.051	mg/Kg	☼	08/10/15 14:33	08/11/15 19:47	1
3-Nitroaniline	0.053	U	1.9	0.053	mg/Kg	☼	08/10/15 14:33	08/11/15 19:47	1
4-Nitroaniline	0.056	U	1.9	0.056	mg/Kg	☼	08/10/15 14:33	08/11/15 19:47	1
Nitrobenzene	0.030	U	0.38	0.030	mg/Kg	☼	08/10/15 14:33	08/11/15 19:47	1
2-Nitrophenol	0.047	U	0.38	0.047	mg/Kg	☼	08/10/15 14:33	08/11/15 19:47	1
4-Nitrophenol	0.38	U	1.9	0.38	mg/Kg	☼	08/10/15 14:33	08/11/15 19:47	1
N-Nitrosodi-n-propylamine	0.037	U	0.38	0.037	mg/Kg	☼	08/10/15 14:33	08/11/15 19:47	1
N-Nitrosodiphenylamine	0.038	U	0.38	0.038	mg/Kg	☼	08/10/15 14:33	08/11/15 19:47	1
Pentachlorophenol	0.38	U	1.9	0.38	mg/Kg	☼	08/10/15 14:33	08/11/15 19:47	1
<b>Phenanthrene</b>	<b>0.18</b>	<b>J</b>	0.38	0.031	mg/Kg	☼	08/10/15 14:33	08/11/15 19:47	1
Phenol	0.039	U	0.38	0.039	mg/Kg	☼	08/10/15 14:33	08/11/15 19:47	1
<b>Pyrene</b>	<b>0.30</b>	<b>J</b>	0.38	0.031	mg/Kg	☼	08/10/15 14:33	08/11/15 19:47	1
2,4,5-Trichlorophenol	0.040	U	0.38	0.040	mg/Kg	☼	08/10/15 14:33	08/11/15 19:47	1
2,4,6-Trichlorophenol	0.033	U	0.38	0.033	mg/Kg	☼	08/10/15 14:33	08/11/15 19:47	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl	76		41 - 116	08/10/15 14:33	08/11/15 19:47	1
2-Fluorophenol (Surr)	70		39 - 114	08/10/15 14:33	08/11/15 19:47	1
Nitrobenzene-d5 (Surr)	70		37 - 115	08/10/15 14:33	08/11/15 19:47	1
Phenol-d5 (Surr)	65		38 - 122	08/10/15 14:33	08/11/15 19:47	1
Terphenyl-d14 (Surr)	91		46 - 126	08/10/15 14:33	08/11/15 19:47	1
2,4,6-Tribromophenol (Surr)	75		45 - 129	08/10/15 14:33	08/11/15 19:47	1

## Method: 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Arsenic</b>	<b>1.7</b>	<b>J</b>	2.0	0.79	mg/Kg	☼	08/11/15 07:36	08/11/15 20:11	1
<b>Barium</b>	<b>37</b>		0.98	0.16	mg/Kg	☼	08/11/15 07:36	08/11/15 20:11	1
<b>Beryllium</b>	<b>0.13</b>	<b>J</b>	0.39	0.0098	mg/Kg	☼	08/11/15 07:36	08/11/15 20:11	1
<b>Cadmium</b>	<b>0.14</b>	<b>J</b>	0.49	0.098	mg/Kg	☼	08/11/15 07:36	08/11/15 20:11	1
<b>Chromium</b>	<b>11</b>		0.98	0.21	mg/Kg	☼	08/11/15 07:36	08/11/15 20:11	1
<b>Copper</b>	<b>8.2</b>		2.5	0.17	mg/Kg	☼	08/11/15 07:36	08/11/15 20:11	1
<b>Lead</b>	<b>86</b>		0.98	0.33	mg/Kg	☼	08/11/15 07:36	08/11/15 20:11	1
<b>Nickel</b>	<b>2.1</b>	<b>J</b>	3.9	0.37	mg/Kg	☼	08/11/15 07:36	08/11/15 20:11	1
Selenium	0.96	U	2.5	0.96	mg/Kg	☼	08/11/15 07:36	08/11/15 20:11	1
Silver	0.059	U	0.98	0.059	mg/Kg	☼	08/11/15 07:36	08/11/15 20:11	1
<b>Vanadium</b>	<b>21</b>		0.98	0.098	mg/Kg	☼	08/11/15 07:36	08/11/15 20:11	1
<b>Zinc</b>	<b>60</b>		2.0	0.69	mg/Kg	☼	08/11/15 07:36	08/11/15 20:11	1

## Method: 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Mercury</b>	<b>0.13</b>		0.023	0.0092	mg/Kg	☼	08/16/15 13:43	08/17/15 21:29	1

## General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total	0.24	U	0.56	0.24	mg/Kg	☼	08/17/15 06:30	08/17/15 11:50	1

TestAmerica Savannah

# Client Sample Results

Client: Geotechnical & Environmental Consultants  
Project/Site: Macon MGP

TestAmerica Job ID: 680-115409-1

**Client Sample ID: SB-42 2-4**

**Date Collected: 08/06/15 16:02**

**Date Received: 08/08/15 10:00**

**Lab Sample ID: 680-115409-13**

**Matrix: Solid**

**Percent Solids: 92.3**

## Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	0.044	U	0.36	0.044	mg/Kg	☼	08/10/15 14:33	08/11/15 20:10	1
Acenaphthylene	0.039	U	0.36	0.039	mg/Kg	☼	08/10/15 14:33	08/11/15 20:10	1
Acetophenone	0.030	U	0.36	0.030	mg/Kg	☼	08/10/15 14:33	08/11/15 20:10	1
<b>Anthracene</b>	<b>0.042</b>	<b>J</b>	0.36	0.027	mg/Kg	☼	08/10/15 14:33	08/11/15 20:10	1
Atrazine	0.025	U	0.36	0.025	mg/Kg	☼	08/10/15 14:33	08/11/15 20:10	1
Benzaldehyde	0.063	U	0.36	0.063	mg/Kg	☼	08/10/15 14:33	08/11/15 20:10	1
<b>Benzo[a]anthracene</b>	<b>0.11</b>	<b>J</b>	0.36	0.029	mg/Kg	☼	08/10/15 14:33	08/11/15 20:10	1
<b>Benzo[a]pyrene</b>	<b>0.11</b>	<b>J</b>	0.36	0.056	mg/Kg	☼	08/10/15 14:33	08/11/15 20:10	1
<b>Benzo[b]fluoranthene</b>	<b>0.16</b>	<b>J</b>	0.36	0.041	mg/Kg	☼	08/10/15 14:33	08/11/15 20:10	1
<b>Benzo[g,h,i]perylene</b>	<b>0.074</b>	<b>J</b>	0.36	0.024	mg/Kg	☼	08/10/15 14:33	08/11/15 20:10	1
<b>Benzo[k]fluoranthene</b>	<b>0.074</b>	<b>J</b>	0.36	0.070	mg/Kg	☼	08/10/15 14:33	08/11/15 20:10	1
1,1'-Biphenyl	1.8	U	1.8	1.8	mg/Kg	☼	08/10/15 14:33	08/11/15 20:10	1
Bis(2-chloroethoxy)methane	0.042	U	0.36	0.042	mg/Kg	☼	08/10/15 14:33	08/11/15 20:10	1
Bis(2-chloroethyl)ether	0.049	U	0.36	0.049	mg/Kg	☼	08/10/15 14:33	08/11/15 20:10	1
bis (2-chloroisopropyl) ether	0.032	U	0.36	0.032	mg/Kg	☼	08/10/15 14:33	08/11/15 20:10	1
Bis(2-ethylhexyl) phthalate	0.031	U	0.36	0.031	mg/Kg	☼	08/10/15 14:33	08/11/15 20:10	1
4-Bromophenyl phenyl ether	0.039	U	0.36	0.039	mg/Kg	☼	08/10/15 14:33	08/11/15 20:10	1
Butyl benzyl phthalate	0.028	U	0.36	0.028	mg/Kg	☼	08/10/15 14:33	08/11/15 20:10	1
Caprolactam	0.071	U	0.36	0.071	mg/Kg	☼	08/10/15 14:33	08/11/15 20:10	1
Carbazole	0.032	U	0.36	0.032	mg/Kg	☼	08/10/15 14:33	08/11/15 20:10	1
4-Chloroaniline	0.056	U	0.71	0.056	mg/Kg	☼	08/10/15 14:33	08/11/15 20:10	1
4-Chloro-3-methylphenol	0.038	U	0.36	0.038	mg/Kg	☼	08/10/15 14:33	08/11/15 20:10	1
2-Chloronaphthalene	0.038	U	0.36	0.038	mg/Kg	☼	08/10/15 14:33	08/11/15 20:10	1
2-Chlorophenol	0.043	U	0.36	0.043	mg/Kg	☼	08/10/15 14:33	08/11/15 20:10	1
4-Chlorophenyl phenyl ether	0.048	U	0.36	0.048	mg/Kg	☼	08/10/15 14:33	08/11/15 20:10	1
<b>Chrysene</b>	<b>0.12</b>	<b>J</b>	0.36	0.023	mg/Kg	☼	08/10/15 14:33	08/11/15 20:10	1
Dibenz(a,h)anthracene	0.042	U	0.36	0.042	mg/Kg	☼	08/10/15 14:33	08/11/15 20:10	1
Dibenzofuran	0.036	U	0.36	0.036	mg/Kg	☼	08/10/15 14:33	08/11/15 20:10	1
3,3'-Dichlorobenzidine	0.030	U	0.71	0.030	mg/Kg	☼	08/10/15 14:33	08/11/15 20:10	1
2,4-Dichlorophenol	0.038	U	0.36	0.038	mg/Kg	☼	08/10/15 14:33	08/11/15 20:10	1
Diethyl phthalate	0.040	U	0.36	0.040	mg/Kg	☼	08/10/15 14:33	08/11/15 20:10	1
2,4-Dimethylphenol	0.048	U	0.36	0.048	mg/Kg	☼	08/10/15 14:33	08/11/15 20:10	1
Dimethyl phthalate	0.037	U	0.36	0.037	mg/Kg	☼	08/10/15 14:33	08/11/15 20:10	1
Di-n-butyl phthalate	0.032	U	0.36	0.032	mg/Kg	☼	08/10/15 14:33	08/11/15 20:10	1
4,6-Dinitro-2-methylphenol	0.18	U *	1.8	0.18	mg/Kg	☼	08/10/15 14:33	08/11/15 20:10	1
2,4-Dinitrophenol	0.90	U	1.8	0.90	mg/Kg	☼	08/10/15 14:33	08/11/15 20:10	1
2,4-Dinitrotoluene	0.053	U	0.36	0.053	mg/Kg	☼	08/10/15 14:33	08/11/15 20:10	1
2,6-Dinitrotoluene	0.045	U	0.36	0.045	mg/Kg	☼	08/10/15 14:33	08/11/15 20:10	1
Di-n-octyl phthalate	0.031	U	0.36	0.031	mg/Kg	☼	08/10/15 14:33	08/11/15 20:10	1
<b>Fluoranthene</b>	<b>0.27</b>	<b>J</b>	0.36	0.035	mg/Kg	☼	08/10/15 14:33	08/11/15 20:10	1
Fluorene	0.039	U	0.36	0.039	mg/Kg	☼	08/10/15 14:33	08/11/15 20:10	1
Hexachlorobenzene	0.042	U	0.36	0.042	mg/Kg	☼	08/10/15 14:33	08/11/15 20:10	1
Hexachlorobutadiene	0.039	U	0.36	0.039	mg/Kg	☼	08/10/15 14:33	08/11/15 20:10	1
Hexachlorocyclopentadiene	0.044	U	0.36	0.044	mg/Kg	☼	08/10/15 14:33	08/11/15 20:10	1
Hexachloroethane	0.030	U	0.36	0.030	mg/Kg	☼	08/10/15 14:33	08/11/15 20:10	1
<b>Indeno[1,2,3-cd]pyrene</b>	<b>0.060</b>	<b>J</b>	0.36	0.030	mg/Kg	☼	08/10/15 14:33	08/11/15 20:10	1
Isophorone	0.036	U	0.36	0.036	mg/Kg	☼	08/10/15 14:33	08/11/15 20:10	1
2-Methylnaphthalene	0.041	U	0.36	0.041	mg/Kg	☼	08/10/15 14:33	08/11/15 20:10	1
2-Methylphenol	0.029	U	0.36	0.029	mg/Kg	☼	08/10/15 14:33	08/11/15 20:10	1

TestAmerica Savannah

# Client Sample Results

Client: Geotechnical & Environmental Consultants  
Project/Site: Macon MGP

TestAmerica Job ID: 680-115409-1

**Client Sample ID: SB-42 2-4**

**Date Collected: 08/06/15 16:02**

**Date Received: 08/08/15 10:00**

**Lab Sample ID: 680-115409-13**

**Matrix: Solid**

**Percent Solids: 92.3**

## Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
3 & 4 Methylphenol	0.046	U	0.36	0.046	mg/Kg	☼	08/10/15 14:33	08/11/15 20:10	1
Naphthalene	0.032	U	0.36	0.032	mg/Kg	☼	08/10/15 14:33	08/11/15 20:10	1
2-Nitroaniline	0.049	U	1.8	0.049	mg/Kg	☼	08/10/15 14:33	08/11/15 20:10	1
3-Nitroaniline	0.050	U	1.8	0.050	mg/Kg	☼	08/10/15 14:33	08/11/15 20:10	1
4-Nitroaniline	0.053	U	1.8	0.053	mg/Kg	☼	08/10/15 14:33	08/11/15 20:10	1
Nitrobenzene	0.028	U	0.36	0.028	mg/Kg	☼	08/10/15 14:33	08/11/15 20:10	1
2-Nitrophenol	0.044	U	0.36	0.044	mg/Kg	☼	08/10/15 14:33	08/11/15 20:10	1
4-Nitrophenol	0.36	U	1.8	0.36	mg/Kg	☼	08/10/15 14:33	08/11/15 20:10	1
N-Nitrosodi-n-propylamine	0.035	U	0.36	0.035	mg/Kg	☼	08/10/15 14:33	08/11/15 20:10	1
N-Nitrosodiphenylamine	0.036	U	0.36	0.036	mg/Kg	☼	08/10/15 14:33	08/11/15 20:10	1
Pentachlorophenol	0.36	U	1.8	0.36	mg/Kg	☼	08/10/15 14:33	08/11/15 20:10	1
Phenanthrene	0.16	J	0.36	0.029	mg/Kg	☼	08/10/15 14:33	08/11/15 20:10	1
Phenol	0.037	U	0.36	0.037	mg/Kg	☼	08/10/15 14:33	08/11/15 20:10	1
Pyrene	0.22	J	0.36	0.029	mg/Kg	☼	08/10/15 14:33	08/11/15 20:10	1
2,4,5-Trichlorophenol	0.038	U	0.36	0.038	mg/Kg	☼	08/10/15 14:33	08/11/15 20:10	1
2,4,6-Trichlorophenol	0.031	U	0.36	0.031	mg/Kg	☼	08/10/15 14:33	08/11/15 20:10	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl	77		41 - 116	08/10/15 14:33	08/11/15 20:10	1
2-Fluorophenol (Surr)	62		39 - 114	08/10/15 14:33	08/11/15 20:10	1
Nitrobenzene-d5 (Surr)	79		37 - 115	08/10/15 14:33	08/11/15 20:10	1
Phenol-d5 (Surr)	72		38 - 122	08/10/15 14:33	08/11/15 20:10	1
Terphenyl-d14 (Surr)	80		46 - 126	08/10/15 14:33	08/11/15 20:10	1
2,4,6-Tribromophenol (Surr)	42	X	45 - 129	08/10/15 14:33	08/11/15 20:10	1

## Method: 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	3.3		2.0	0.79	mg/Kg	☼	08/11/15 07:36	08/11/15 20:16	1
Barium	240		0.98	0.16	mg/Kg	☼	08/11/15 07:36	08/11/15 20:16	1
Beryllium	2.3		0.39	0.0098	mg/Kg	☼	08/11/15 07:36	08/11/15 20:16	1
Cadmium	0.12	J	0.49	0.098	mg/Kg	☼	08/11/15 07:36	08/11/15 20:16	1
Chromium	18		0.98	0.21	mg/Kg	☼	08/11/15 07:36	08/11/15 20:16	1
Copper	26		2.5	0.17	mg/Kg	☼	08/11/15 07:36	08/11/15 20:16	1
Lead	39		0.98	0.33	mg/Kg	☼	08/11/15 07:36	08/11/15 20:16	1
Nickel	12		3.9	0.37	mg/Kg	☼	08/11/15 07:36	08/11/15 20:16	1
Selenium	0.96	U	2.5	0.96	mg/Kg	☼	08/11/15 07:36	08/11/15 20:16	1
Silver	0.059	U	0.98	0.059	mg/Kg	☼	08/11/15 07:36	08/11/15 20:16	1
Vanadium	54		0.98	0.098	mg/Kg	☼	08/11/15 07:36	08/11/15 20:16	1
Zinc	130		2.0	0.69	mg/Kg	☼	08/11/15 07:36	08/11/15 20:16	1

## Method: 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.057		0.021	0.0083	mg/Kg	☼	08/16/15 13:43	08/17/15 21:32	1

## General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total	0.22	U	0.52	0.22	mg/Kg	☼	08/17/15 06:30	08/17/15 11:51	1

TestAmerica Savannah



# Client Sample Results

Client: Geotechnical & Environmental Consultants  
Project/Site: Macon MGP

TestAmerica Job ID: 680-115409-1

**Client Sample ID: SB-42 4-6**

**Date Collected: 08/06/15 16:05**

**Date Received: 08/08/15 10:00**

**Lab Sample ID: 680-115409-14**

**Matrix: Solid**

**Percent Solids: 92.3**

## Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	0.045	U	0.36	0.045	mg/Kg	☼	08/10/15 14:33	08/11/15 20:34	1
Acenaphthylene	0.039	U	0.36	0.039	mg/Kg	☼	08/10/15 14:33	08/11/15 20:34	1
Acetophenone	0.030	U	0.36	0.030	mg/Kg	☼	08/10/15 14:33	08/11/15 20:34	1
Anthracene	0.027	U	0.36	0.027	mg/Kg	☼	08/10/15 14:33	08/11/15 20:34	1
Atrazine	0.025	U	0.36	0.025	mg/Kg	☼	08/10/15 14:33	08/11/15 20:34	1
Benzaldehyde	0.063	U	0.36	0.063	mg/Kg	☼	08/10/15 14:33	08/11/15 20:34	1
Benzo[a]anthracene	0.029	U	0.36	0.029	mg/Kg	☼	08/10/15 14:33	08/11/15 20:34	1
Benzo[a]pyrene	0.056	U	0.36	0.056	mg/Kg	☼	08/10/15 14:33	08/11/15 20:34	1
Benzo[b]fluoranthene	0.041	U	0.36	0.041	mg/Kg	☼	08/10/15 14:33	08/11/15 20:34	1
Benzo[g,h,i]perylene	0.024	U	0.36	0.024	mg/Kg	☼	08/10/15 14:33	08/11/15 20:34	1
Benzo[k]fluoranthene	0.071	U	0.36	0.071	mg/Kg	☼	08/10/15 14:33	08/11/15 20:34	1
1,1'-Biphenyl	1.8	U	1.8	1.8	mg/Kg	☼	08/10/15 14:33	08/11/15 20:34	1
Bis(2-chloroethoxy)methane	0.042	U	0.36	0.042	mg/Kg	☼	08/10/15 14:33	08/11/15 20:34	1
Bis(2-chloroethyl)ether	0.049	U	0.36	0.049	mg/Kg	☼	08/10/15 14:33	08/11/15 20:34	1
bis (2-chloroisopropyl) ether	0.033	U	0.36	0.033	mg/Kg	☼	08/10/15 14:33	08/11/15 20:34	1
<b>Bis(2-ethylhexyl) phthalate</b>	<b>0.20</b>	<b>J B</b>	0.36	0.031	mg/Kg	☼	08/10/15 14:33	08/11/15 20:34	1
4-Bromophenyl phenyl ether	0.039	U	0.36	0.039	mg/Kg	☼	08/10/15 14:33	08/11/15 20:34	1
Butyl benzyl phthalate	0.028	U	0.36	0.028	mg/Kg	☼	08/10/15 14:33	08/11/15 20:34	1
Caprolactam	0.072	U	0.36	0.072	mg/Kg	☼	08/10/15 14:33	08/11/15 20:34	1
Carbazole	0.033	U	0.36	0.033	mg/Kg	☼	08/10/15 14:33	08/11/15 20:34	1
4-Chloroaniline	0.056	U	0.72	0.056	mg/Kg	☼	08/10/15 14:33	08/11/15 20:34	1
4-Chloro-3-methylphenol	0.038	U	0.36	0.038	mg/Kg	☼	08/10/15 14:33	08/11/15 20:34	1
2-Chloronaphthalene	0.038	U	0.36	0.038	mg/Kg	☼	08/10/15 14:33	08/11/15 20:34	1
2-Chlorophenol	0.043	U	0.36	0.043	mg/Kg	☼	08/10/15 14:33	08/11/15 20:34	1
4-Chlorophenyl phenyl ether	0.048	U	0.36	0.048	mg/Kg	☼	08/10/15 14:33	08/11/15 20:34	1
Chrysene	0.023	U	0.36	0.023	mg/Kg	☼	08/10/15 14:33	08/11/15 20:34	1
Dibenz(a,h)anthracene	0.042	U	0.36	0.042	mg/Kg	☼	08/10/15 14:33	08/11/15 20:34	1
Dibenzofuran	0.036	U	0.36	0.036	mg/Kg	☼	08/10/15 14:33	08/11/15 20:34	1
3,3'-Dichlorobenzidine	0.030	U	0.72	0.030	mg/Kg	☼	08/10/15 14:33	08/11/15 20:34	1
2,4-Dichlorophenol	0.038	U	0.36	0.038	mg/Kg	☼	08/10/15 14:33	08/11/15 20:34	1
Diethyl phthalate	0.040	U	0.36	0.040	mg/Kg	☼	08/10/15 14:33	08/11/15 20:34	1
2,4-Dimethylphenol	0.048	U	0.36	0.048	mg/Kg	☼	08/10/15 14:33	08/11/15 20:34	1
Dimethyl phthalate	0.037	U	0.36	0.037	mg/Kg	☼	08/10/15 14:33	08/11/15 20:34	1
Di-n-butyl phthalate	0.033	U	0.36	0.033	mg/Kg	☼	08/10/15 14:33	08/11/15 20:34	1
4,6-Dinitro-2-methylphenol	0.18	U *	1.8	0.18	mg/Kg	☼	08/10/15 14:33	08/11/15 20:34	1
2,4-Dinitrophenol	0.90	U	1.8	0.90	mg/Kg	☼	08/10/15 14:33	08/11/15 20:34	1
2,4-Dinitrotoluene	0.053	U	0.36	0.053	mg/Kg	☼	08/10/15 14:33	08/11/15 20:34	1
2,6-Dinitrotoluene	0.046	U	0.36	0.046	mg/Kg	☼	08/10/15 14:33	08/11/15 20:34	1
Di-n-octyl phthalate	0.031	U	0.36	0.031	mg/Kg	☼	08/10/15 14:33	08/11/15 20:34	1
Fluoranthene	0.035	U	0.36	0.035	mg/Kg	☼	08/10/15 14:33	08/11/15 20:34	1
Fluorene	0.039	U	0.36	0.039	mg/Kg	☼	08/10/15 14:33	08/11/15 20:34	1
Hexachlorobenzene	0.042	U	0.36	0.042	mg/Kg	☼	08/10/15 14:33	08/11/15 20:34	1
Hexachlorobutadiene	0.039	U	0.36	0.039	mg/Kg	☼	08/10/15 14:33	08/11/15 20:34	1
Hexachlorocyclopentadiene	0.045	U	0.36	0.045	mg/Kg	☼	08/10/15 14:33	08/11/15 20:34	1
Hexachloroethane	0.030	U	0.36	0.030	mg/Kg	☼	08/10/15 14:33	08/11/15 20:34	1
Indeno[1,2,3-cd]pyrene	0.030	U	0.36	0.030	mg/Kg	☼	08/10/15 14:33	08/11/15 20:34	1
Isophorone	0.036	U	0.36	0.036	mg/Kg	☼	08/10/15 14:33	08/11/15 20:34	1
2-Methylnaphthalene	0.041	U	0.36	0.041	mg/Kg	☼	08/10/15 14:33	08/11/15 20:34	1
2-Methylphenol	0.029	U	0.36	0.029	mg/Kg	☼	08/10/15 14:33	08/11/15 20:34	1

TestAmerica Savannah

# Client Sample Results

Client: Geotechnical & Environmental Consultants  
Project/Site: Macon MGP

TestAmerica Job ID: 680-115409-1

**Client Sample ID: SB-42 4-6**

**Lab Sample ID: 680-115409-14**

**Date Collected: 08/06/15 16:05**

**Matrix: Solid**

**Date Received: 08/08/15 10:00**

**Percent Solids: 92.3**

## Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
3 & 4 Methylphenol	0.047	U	0.36	0.047	mg/Kg	☼	08/10/15 14:33	08/11/15 20:34	1
Naphthalene	0.033	U	0.36	0.033	mg/Kg	☼	08/10/15 14:33	08/11/15 20:34	1
2-Nitroaniline	0.049	U	1.8	0.049	mg/Kg	☼	08/10/15 14:33	08/11/15 20:34	1
3-Nitroaniline	0.050	U	1.8	0.050	mg/Kg	☼	08/10/15 14:33	08/11/15 20:34	1
4-Nitroaniline	0.053	U	1.8	0.053	mg/Kg	☼	08/10/15 14:33	08/11/15 20:34	1
Nitrobenzene	0.028	U	0.36	0.028	mg/Kg	☼	08/10/15 14:33	08/11/15 20:34	1
2-Nitrophenol	0.045	U	0.36	0.045	mg/Kg	☼	08/10/15 14:33	08/11/15 20:34	1
4-Nitrophenol	0.36	U	1.8	0.36	mg/Kg	☼	08/10/15 14:33	08/11/15 20:34	1
N-Nitrosodi-n-propylamine	0.035	U	0.36	0.035	mg/Kg	☼	08/10/15 14:33	08/11/15 20:34	1
N-Nitrosodiphenylamine	0.036	U	0.36	0.036	mg/Kg	☼	08/10/15 14:33	08/11/15 20:34	1
Pentachlorophenol	0.36	U	1.8	0.36	mg/Kg	☼	08/10/15 14:33	08/11/15 20:34	1
Phenanthrene	0.029	U	0.36	0.029	mg/Kg	☼	08/10/15 14:33	08/11/15 20:34	1
Phenol	0.037	U	0.36	0.037	mg/Kg	☼	08/10/15 14:33	08/11/15 20:34	1
Pyrene	0.029	U	0.36	0.029	mg/Kg	☼	08/10/15 14:33	08/11/15 20:34	1
2,4,5-Trichlorophenol	0.038	U	0.36	0.038	mg/Kg	☼	08/10/15 14:33	08/11/15 20:34	1
2,4,6-Trichlorophenol	0.031	U	0.36	0.031	mg/Kg	☼	08/10/15 14:33	08/11/15 20:34	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl	56		41 - 116	08/10/15 14:33	08/11/15 20:34	1
2-Fluorophenol (Surr)	50		39 - 114	08/10/15 14:33	08/11/15 20:34	1
Nitrobenzene-d5 (Surr)	58		37 - 115	08/10/15 14:33	08/11/15 20:34	1
Phenol-d5 (Surr)	52		38 - 122	08/10/15 14:33	08/11/15 20:34	1
Terphenyl-d14 (Surr)	64		46 - 126	08/10/15 14:33	08/11/15 20:34	1
2,4,6-Tribromophenol (Surr)	54		45 - 129	08/10/15 14:33	08/11/15 20:34	1

## Method: 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	2.1		1.9	0.76	mg/Kg	☼	08/11/15 07:36	08/11/15 18:47	1
Barium	220		0.95	0.15	mg/Kg	☼	08/11/15 07:36	08/11/15 18:47	1
Beryllium	1.6		0.38	0.0095	mg/Kg	☼	08/11/15 07:36	08/11/15 18:47	1
Cadmium	0.095	U	0.47	0.095	mg/Kg	☼	08/11/15 07:36	08/11/15 18:47	1
Chromium	26	F1	0.95	0.20	mg/Kg	☼	08/11/15 07:36	08/11/15 18:47	1
Copper	13		2.4	0.16	mg/Kg	☼	08/11/15 07:36	08/11/15 18:47	1
Lead	22		0.95	0.32	mg/Kg	☼	08/11/15 07:36	08/11/15 18:47	1
Nickel	11	F1	3.8	0.36	mg/Kg	☼	08/11/15 07:36	08/11/15 18:47	1
Selenium	0.92	U	2.4	0.92	mg/Kg	☼	08/11/15 07:36	08/11/15 18:47	1
Silver	0.057	U	0.95	0.057	mg/Kg	☼	08/11/15 07:36	08/11/15 18:47	1
Vanadium	50		0.95	0.095	mg/Kg	☼	08/11/15 07:36	08/11/15 18:47	1
Zinc	100		1.9	0.66	mg/Kg	☼	08/11/15 07:36	08/11/15 18:47	1

## Method: 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.027		0.021	0.0085	mg/Kg	☼	08/16/15 13:43	08/17/15 21:35	1

## General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total	0.23	U	0.54	0.23	mg/Kg	☼	08/17/15 06:30	08/17/15 11:55	1

TestAmerica Savannah

# Client Sample Results

Client: Geotechnical & Environmental Consultants  
Project/Site: Macon MGP

TestAmerica Job ID: 680-115409-1

**Client Sample ID: SB-42 8-10**

**Date Collected: 08/06/15 16:10**

**Date Received: 08/08/15 10:00**

**Lab Sample ID: 680-115409-15**

**Matrix: Solid**

**Percent Solids: 88.4**

## Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	0.46	U	3.7	0.46	mg/Kg	☼	08/10/15 14:33	08/11/15 20:57	10
Acenaphthylene	0.40	U	3.7	0.40	mg/Kg	☼	08/10/15 14:33	08/11/15 20:57	10
Acetophenone	0.31	U	3.7	0.31	mg/Kg	☼	08/10/15 14:33	08/11/15 20:57	10
Anthracene	0.28	U	3.7	0.28	mg/Kg	☼	08/10/15 14:33	08/11/15 20:57	10
Atrazine	0.26	U	3.7	0.26	mg/Kg	☼	08/10/15 14:33	08/11/15 20:57	10
Benzaldehyde	0.65	U	3.7	0.65	mg/Kg	☼	08/10/15 14:33	08/11/15 20:57	10
<b>Benzo[a]anthracene</b>	<b>0.62</b>	<b>J</b>	3.7	0.30	mg/Kg	☼	08/10/15 14:33	08/11/15 20:57	10
<b>Benzo[a]pyrene</b>	<b>0.71</b>	<b>J</b>	3.7	0.58	mg/Kg	☼	08/10/15 14:33	08/11/15 20:57	10
<b>Benzo[b]fluoranthene</b>	<b>0.94</b>	<b>J</b>	3.7	0.43	mg/Kg	☼	08/10/15 14:33	08/11/15 20:57	10
<b>Benzo[g,h,i]perylene</b>	<b>0.45</b>	<b>J</b>	3.7	0.25	mg/Kg	☼	08/10/15 14:33	08/11/15 20:57	10
Benzo[k]fluoranthene	0.73	U	3.7	0.73	mg/Kg	☼	08/10/15 14:33	08/11/15 20:57	10
1,1'-Biphenyl	19	U	19	19	mg/Kg	☼	08/10/15 14:33	08/11/15 20:57	10
Bis(2-chloroethoxy)methane	0.44	U	3.7	0.44	mg/Kg	☼	08/10/15 14:33	08/11/15 20:57	10
Bis(2-chloroethyl)ether	0.50	U	3.7	0.50	mg/Kg	☼	08/10/15 14:33	08/11/15 20:57	10
bis (2-chloroisopropyl) ether	0.34	U	3.7	0.34	mg/Kg	☼	08/10/15 14:33	08/11/15 20:57	10
Bis(2-ethylhexyl) phthalate	0.32	U	3.7	0.32	mg/Kg	☼	08/10/15 14:33	08/11/15 20:57	10
4-Bromophenyl phenyl ether	0.40	U	3.7	0.40	mg/Kg	☼	08/10/15 14:33	08/11/15 20:57	10
Butyl benzyl phthalate	0.29	U	3.7	0.29	mg/Kg	☼	08/10/15 14:33	08/11/15 20:57	10
Caprolactam	0.74	U	3.7	0.74	mg/Kg	☼	08/10/15 14:33	08/11/15 20:57	10
Carbazole	0.34	U	3.7	0.34	mg/Kg	☼	08/10/15 14:33	08/11/15 20:57	10
4-Chloroaniline	0.58	U	7.4	0.58	mg/Kg	☼	08/10/15 14:33	08/11/15 20:57	10
4-Chloro-3-methylphenol	0.39	U	3.7	0.39	mg/Kg	☼	08/10/15 14:33	08/11/15 20:57	10
2-Chloronaphthalene	0.39	U	3.7	0.39	mg/Kg	☼	08/10/15 14:33	08/11/15 20:57	10
2-Chlorophenol	0.45	U	3.7	0.45	mg/Kg	☼	08/10/15 14:33	08/11/15 20:57	10
4-Chlorophenyl phenyl ether	0.49	U	3.7	0.49	mg/Kg	☼	08/10/15 14:33	08/11/15 20:57	10
<b>Chrysene</b>	<b>0.75</b>	<b>J</b>	3.7	0.23	mg/Kg	☼	08/10/15 14:33	08/11/15 20:57	10
Dibenz(a,h)anthracene	0.44	U	3.7	0.44	mg/Kg	☼	08/10/15 14:33	08/11/15 20:57	10
Dibenzofuran	0.37	U	3.7	0.37	mg/Kg	☼	08/10/15 14:33	08/11/15 20:57	10
3,3'-Dichlorobenzidine	0.31	U	7.4	0.31	mg/Kg	☼	08/10/15 14:33	08/11/15 20:57	10
2,4-Dichlorophenol	0.39	U	3.7	0.39	mg/Kg	☼	08/10/15 14:33	08/11/15 20:57	10
Diethyl phthalate	0.41	U	3.7	0.41	mg/Kg	☼	08/10/15 14:33	08/11/15 20:57	10
2,4-Dimethylphenol	0.49	U	3.7	0.49	mg/Kg	☼	08/10/15 14:33	08/11/15 20:57	10
Dimethyl phthalate	0.38	U	3.7	0.38	mg/Kg	☼	08/10/15 14:33	08/11/15 20:57	10
Di-n-butyl phthalate	0.34	U	3.7	0.34	mg/Kg	☼	08/10/15 14:33	08/11/15 20:57	10
4,6-Dinitro-2-methylphenol	1.9	U *	19	1.9	mg/Kg	☼	08/10/15 14:33	08/11/15 20:57	10
2,4-Dinitrophenol	9.3	U	19	9.3	mg/Kg	☼	08/10/15 14:33	08/11/15 20:57	10
2,4-Dinitrotoluene	0.55	U	3.7	0.55	mg/Kg	☼	08/10/15 14:33	08/11/15 20:57	10
2,6-Dinitrotoluene	0.47	U	3.7	0.47	mg/Kg	☼	08/10/15 14:33	08/11/15 20:57	10
Di-n-octyl phthalate	0.32	U	3.7	0.32	mg/Kg	☼	08/10/15 14:33	08/11/15 20:57	10
<b>Fluoranthene</b>	<b>0.90</b>	<b>J</b>	3.7	0.36	mg/Kg	☼	08/10/15 14:33	08/11/15 20:57	10
Fluorene	0.40	U	3.7	0.40	mg/Kg	☼	08/10/15 14:33	08/11/15 20:57	10
Hexachlorobenzene	0.44	U	3.7	0.44	mg/Kg	☼	08/10/15 14:33	08/11/15 20:57	10
Hexachlorobutadiene	0.40	U	3.7	0.40	mg/Kg	☼	08/10/15 14:33	08/11/15 20:57	10
Hexachlorocyclopentadiene	0.46	U	3.7	0.46	mg/Kg	☼	08/10/15 14:33	08/11/15 20:57	10
Hexachloroethane	0.31	U	3.7	0.31	mg/Kg	☼	08/10/15 14:33	08/11/15 20:57	10
<b>Indeno[1,2,3-cd]pyrene</b>	<b>0.40</b>	<b>J</b>	3.7	0.31	mg/Kg	☼	08/10/15 14:33	08/11/15 20:57	10
Isophorone	0.37	U	3.7	0.37	mg/Kg	☼	08/10/15 14:33	08/11/15 20:57	10
2-Methylnaphthalene	0.43	U	3.7	0.43	mg/Kg	☼	08/10/15 14:33	08/11/15 20:57	10
2-Methylphenol	0.30	U	3.7	0.30	mg/Kg	☼	08/10/15 14:33	08/11/15 20:57	10

TestAmerica Savannah



# Client Sample Results

Client: Geotechnical & Environmental Consultants  
Project/Site: Macon MGP

TestAmerica Job ID: 680-115409-1

**Client Sample ID: SB-42 8-10**

**Date Collected: 08/06/15 16:10**

**Date Received: 08/08/15 10:00**

**Lab Sample ID: 680-115409-15**

**Matrix: Solid**

**Percent Solids: 88.4**

## Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
3 & 4 Methylphenol	0.48	U	3.7	0.48	mg/Kg	☼	08/10/15 14:33	08/11/15 20:57	10
Naphthalene	0.34	U	3.7	0.34	mg/Kg	☼	08/10/15 14:33	08/11/15 20:57	10
2-Nitroaniline	0.50	U	19	0.50	mg/Kg	☼	08/10/15 14:33	08/11/15 20:57	10
3-Nitroaniline	0.51	U	19	0.51	mg/Kg	☼	08/10/15 14:33	08/11/15 20:57	10
4-Nitroaniline	0.55	U	19	0.55	mg/Kg	☼	08/10/15 14:33	08/11/15 20:57	10
Nitrobenzene	0.29	U	3.7	0.29	mg/Kg	☼	08/10/15 14:33	08/11/15 20:57	10
2-Nitrophenol	0.46	U	3.7	0.46	mg/Kg	☼	08/10/15 14:33	08/11/15 20:57	10
4-Nitrophenol	3.7	U	19	3.7	mg/Kg	☼	08/10/15 14:33	08/11/15 20:57	10
N-Nitrosodi-n-propylamine	0.36	U	3.7	0.36	mg/Kg	☼	08/10/15 14:33	08/11/15 20:57	10
N-Nitrosodiphenylamine	0.37	U	3.7	0.37	mg/Kg	☼	08/10/15 14:33	08/11/15 20:57	10
Pentachlorophenol	3.7	U	19	3.7	mg/Kg	☼	08/10/15 14:33	08/11/15 20:57	10
Phenanthrene	0.50	J	3.7	0.30	mg/Kg	☼	08/10/15 14:33	08/11/15 20:57	10
Phenol	0.38	U	3.7	0.38	mg/Kg	☼	08/10/15 14:33	08/11/15 20:57	10
Pyrene	0.81	J	3.7	0.30	mg/Kg	☼	08/10/15 14:33	08/11/15 20:57	10
2,4,5-Trichlorophenol	0.39	U	3.7	0.39	mg/Kg	☼	08/10/15 14:33	08/11/15 20:57	10
2,4,6-Trichlorophenol	0.32	U	3.7	0.32	mg/Kg	☼	08/10/15 14:33	08/11/15 20:57	10

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl	0	D	41 - 116	08/10/15 14:33	08/11/15 20:57	10
2-Fluorophenol (Surr)	0	D	39 - 114	08/10/15 14:33	08/11/15 20:57	10
Nitrobenzene-d5 (Surr)	0	D	37 - 115	08/10/15 14:33	08/11/15 20:57	10
Phenol-d5 (Surr)	0	D	38 - 122	08/10/15 14:33	08/11/15 20:57	10
Terphenyl-d14 (Surr)	0	D	46 - 126	08/10/15 14:33	08/11/15 20:57	10
2,4,6-Tribromophenol (Surr)	0	D	45 - 129	08/10/15 14:33	08/11/15 20:57	10

## Method: 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	3.0		1.9	0.77	mg/Kg	☼	08/11/15 07:36	08/11/15 20:21	1
Barium	94		0.97	0.15	mg/Kg	☼	08/11/15 07:36	08/11/15 20:21	1
Beryllium	0.65		0.39	0.0097	mg/Kg	☼	08/11/15 07:36	08/11/15 20:21	1
Cadmium	0.22	J	0.48	0.097	mg/Kg	☼	08/11/15 07:36	08/11/15 20:21	1
Chromium	14		0.97	0.20	mg/Kg	☼	08/11/15 07:36	08/11/15 20:21	1
Copper	12		2.4	0.16	mg/Kg	☼	08/11/15 07:36	08/11/15 20:21	1
Lead	160		0.97	0.33	mg/Kg	☼	08/11/15 07:36	08/11/15 20:21	1
Nickel	3.5	J	3.9	0.37	mg/Kg	☼	08/11/15 07:36	08/11/15 20:21	1
Selenium	0.94	U	2.4	0.94	mg/Kg	☼	08/11/15 07:36	08/11/15 20:21	1
Silver	0.058	U	0.97	0.058	mg/Kg	☼	08/11/15 07:36	08/11/15 20:21	1
Vanadium	22		0.97	0.097	mg/Kg	☼	08/11/15 07:36	08/11/15 20:21	1
Zinc	95		1.9	0.68	mg/Kg	☼	08/11/15 07:36	08/11/15 20:21	1

## Method: 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.13		0.021	0.0082	mg/Kg	☼	08/16/15 13:43	08/17/15 21:38	1

## General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total	0.23	U	0.54	0.23	mg/Kg	☼	08/17/15 06:30	08/17/15 11:56	1

TestAmerica Savannah

# Client Sample Results

Client: Geotechnical & Environmental Consultants  
Project/Site: Macon MGP

TestAmerica Job ID: 680-115409-1

Client Sample ID: SB-42 13-15

Date Collected: 08/06/15 16:15

Date Received: 08/08/15 10:00

Lab Sample ID: 680-115409-16

Matrix: Solid

Percent Solids: 88.9

## Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	0.046	U	0.37	0.046	mg/Kg	☼	08/10/15 14:33	08/11/15 21:21	1
Acenaphthylene	0.040	U	0.37	0.040	mg/Kg	☼	08/10/15 14:33	08/11/15 21:21	1
Acetophenone	0.031	U	0.37	0.031	mg/Kg	☼	08/10/15 14:33	08/11/15 21:21	1
Anthracene	0.028	U	0.37	0.028	mg/Kg	☼	08/10/15 14:33	08/11/15 21:21	1
Atrazine	0.026	U	0.37	0.026	mg/Kg	☼	08/10/15 14:33	08/11/15 21:21	1
Benzaldehyde	0.065	U	0.37	0.065	mg/Kg	☼	08/10/15 14:33	08/11/15 21:21	1
Benzo[a]anthracene	0.030	U	0.37	0.030	mg/Kg	☼	08/10/15 14:33	08/11/15 21:21	1
Benzo[a]pyrene	0.058	U	0.37	0.058	mg/Kg	☼	08/10/15 14:33	08/11/15 21:21	1
Benzo[b]fluoranthene	0.043	U	0.37	0.043	mg/Kg	☼	08/10/15 14:33	08/11/15 21:21	1
Benzo[g,h,i]perylene	0.025	U	0.37	0.025	mg/Kg	☼	08/10/15 14:33	08/11/15 21:21	1
Benzo[k]fluoranthene	0.073	U	0.37	0.073	mg/Kg	☼	08/10/15 14:33	08/11/15 21:21	1
1,1'-Biphenyl	1.9	U	1.9	1.9	mg/Kg	☼	08/10/15 14:33	08/11/15 21:21	1
Bis(2-chloroethoxy)methane	0.044	U	0.37	0.044	mg/Kg	☼	08/10/15 14:33	08/11/15 21:21	1
Bis(2-chloroethyl)ether	0.050	U	0.37	0.050	mg/Kg	☼	08/10/15 14:33	08/11/15 21:21	1
bis (2-chloroisopropyl) ether	0.034	U	0.37	0.034	mg/Kg	☼	08/10/15 14:33	08/11/15 21:21	1
<b>Bis(2-ethylhexyl) phthalate</b>	<b>0.21</b>	<b>J B</b>	0.37	0.033	mg/Kg	☼	08/10/15 14:33	08/11/15 21:21	1
4-Bromophenyl phenyl ether	0.040	U	0.37	0.040	mg/Kg	☼	08/10/15 14:33	08/11/15 21:21	1
Butyl benzyl phthalate	0.029	U	0.37	0.029	mg/Kg	☼	08/10/15 14:33	08/11/15 21:21	1
Caprolactam	0.074	U	0.37	0.074	mg/Kg	☼	08/10/15 14:33	08/11/15 21:21	1
Carbazole	0.034	U	0.37	0.034	mg/Kg	☼	08/10/15 14:33	08/11/15 21:21	1
4-Chloroaniline	0.058	U	0.74	0.058	mg/Kg	☼	08/10/15 14:33	08/11/15 21:21	1
4-Chloro-3-methylphenol	0.039	U	0.37	0.039	mg/Kg	☼	08/10/15 14:33	08/11/15 21:21	1
2-Chloronaphthalene	0.039	U	0.37	0.039	mg/Kg	☼	08/10/15 14:33	08/11/15 21:21	1
2-Chlorophenol	0.045	U	0.37	0.045	mg/Kg	☼	08/10/15 14:33	08/11/15 21:21	1
4-Chlorophenyl phenyl ether	0.049	U	0.37	0.049	mg/Kg	☼	08/10/15 14:33	08/11/15 21:21	1
<b>Chrysene</b>	<b>0.033</b>	<b>J</b>	0.37	0.024	mg/Kg	☼	08/10/15 14:33	08/11/15 21:21	1
Dibenz(a,h)anthracene	0.044	U	0.37	0.044	mg/Kg	☼	08/10/15 14:33	08/11/15 21:21	1
Dibenzofuran	0.037	U	0.37	0.037	mg/Kg	☼	08/10/15 14:33	08/11/15 21:21	1
3,3'-Dichlorobenzidine	0.031	U	0.74	0.031	mg/Kg	☼	08/10/15 14:33	08/11/15 21:21	1
2,4-Dichlorophenol	0.039	U	0.37	0.039	mg/Kg	☼	08/10/15 14:33	08/11/15 21:21	1
Diethyl phthalate	0.041	U	0.37	0.041	mg/Kg	☼	08/10/15 14:33	08/11/15 21:21	1
2,4-Dimethylphenol	0.049	U	0.37	0.049	mg/Kg	☼	08/10/15 14:33	08/11/15 21:21	1
Dimethyl phthalate	0.038	U	0.37	0.038	mg/Kg	☼	08/10/15 14:33	08/11/15 21:21	1
Di-n-butyl phthalate	0.034	U	0.37	0.034	mg/Kg	☼	08/10/15 14:33	08/11/15 21:21	1
4,6-Dinitro-2-methylphenol	0.19	U *	1.9	0.19	mg/Kg	☼	08/10/15 14:33	08/11/15 21:21	1
2,4-Dinitrophenol	0.93	U	1.9	0.93	mg/Kg	☼	08/10/15 14:33	08/11/15 21:21	1
2,4-Dinitrotoluene	0.055	U	0.37	0.055	mg/Kg	☼	08/10/15 14:33	08/11/15 21:21	1
2,6-Dinitrotoluene	0.047	U	0.37	0.047	mg/Kg	☼	08/10/15 14:33	08/11/15 21:21	1
Di-n-octyl phthalate	0.033	U	0.37	0.033	mg/Kg	☼	08/10/15 14:33	08/11/15 21:21	1
<b>Fluoranthene</b>	<b>0.038</b>	<b>J</b>	0.37	0.036	mg/Kg	☼	08/10/15 14:33	08/11/15 21:21	1
Fluorene	0.040	U	0.37	0.040	mg/Kg	☼	08/10/15 14:33	08/11/15 21:21	1
Hexachlorobenzene	0.044	U	0.37	0.044	mg/Kg	☼	08/10/15 14:33	08/11/15 21:21	1
Hexachlorobutadiene	0.040	U	0.37	0.040	mg/Kg	☼	08/10/15 14:33	08/11/15 21:21	1
Hexachlorocyclopentadiene	0.046	U	0.37	0.046	mg/Kg	☼	08/10/15 14:33	08/11/15 21:21	1
Hexachloroethane	0.031	U	0.37	0.031	mg/Kg	☼	08/10/15 14:33	08/11/15 21:21	1
Indeno[1,2,3-cd]pyrene	0.031	U	0.37	0.031	mg/Kg	☼	08/10/15 14:33	08/11/15 21:21	1
Isophorone	0.037	U	0.37	0.037	mg/Kg	☼	08/10/15 14:33	08/11/15 21:21	1
2-Methylnaphthalene	0.043	U	0.37	0.043	mg/Kg	☼	08/10/15 14:33	08/11/15 21:21	1
2-Methylphenol	0.030	U	0.37	0.030	mg/Kg	☼	08/10/15 14:33	08/11/15 21:21	1

TestAmerica Savannah

# Client Sample Results

Client: Geotechnical & Environmental Consultants  
Project/Site: Macon MGP

TestAmerica Job ID: 680-115409-1

**Client Sample ID: SB-42 13-15**

**Lab Sample ID: 680-115409-16**

**Date Collected: 08/06/15 16:15**

**Matrix: Solid**

**Date Received: 08/08/15 10:00**

**Percent Solids: 88.9**

## Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
3 & 4 Methylphenol	0.048	U	0.37	0.048	mg/Kg	☼	08/10/15 14:33	08/11/15 21:21	1
<b>Naphthalene</b>	<b>0.034</b>	<b>J</b>	0.37	0.034	mg/Kg	☼	08/10/15 14:33	08/11/15 21:21	1
2-Nitroaniline	0.050	U	1.9	0.050	mg/Kg	☼	08/10/15 14:33	08/11/15 21:21	1
3-Nitroaniline	0.052	U	1.9	0.052	mg/Kg	☼	08/10/15 14:33	08/11/15 21:21	1
4-Nitroaniline	0.055	U	1.9	0.055	mg/Kg	☼	08/10/15 14:33	08/11/15 21:21	1
Nitrobenzene	0.029	U	0.37	0.029	mg/Kg	☼	08/10/15 14:33	08/11/15 21:21	1
2-Nitrophenol	0.046	U	0.37	0.046	mg/Kg	☼	08/10/15 14:33	08/11/15 21:21	1
4-Nitrophenol	0.37	U	1.9	0.37	mg/Kg	☼	08/10/15 14:33	08/11/15 21:21	1
N-Nitrosodi-n-propylamine	0.036	U	0.37	0.036	mg/Kg	☼	08/10/15 14:33	08/11/15 21:21	1
N-Nitrosodiphenylamine	0.037	U	0.37	0.037	mg/Kg	☼	08/10/15 14:33	08/11/15 21:21	1
Pentachlorophenol	0.37	U	1.9	0.37	mg/Kg	☼	08/10/15 14:33	08/11/15 21:21	1
<b>Phenanthrene</b>	<b>0.037</b>	<b>J</b>	0.37	0.030	mg/Kg	☼	08/10/15 14:33	08/11/15 21:21	1
Phenol	0.038	U	0.37	0.038	mg/Kg	☼	08/10/15 14:33	08/11/15 21:21	1
<b>Pyrene</b>	<b>0.044</b>	<b>J</b>	0.37	0.030	mg/Kg	☼	08/10/15 14:33	08/11/15 21:21	1
2,4,5-Trichlorophenol	0.039	U	0.37	0.039	mg/Kg	☼	08/10/15 14:33	08/11/15 21:21	1
2,4,6-Trichlorophenol	0.033	U	0.37	0.033	mg/Kg	☼	08/10/15 14:33	08/11/15 21:21	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl	67		41 - 116	08/10/15 14:33	08/11/15 21:21	1
2-Fluorophenol (Surr)	60		39 - 114	08/10/15 14:33	08/11/15 21:21	1
Nitrobenzene-d5 (Surr)	69		37 - 115	08/10/15 14:33	08/11/15 21:21	1
Phenol-d5 (Surr)	68		38 - 122	08/10/15 14:33	08/11/15 21:21	1
Terphenyl-d14 (Surr)	90		46 - 126	08/10/15 14:33	08/11/15 21:21	1
2,4,6-Tribromophenol (Surr)	64		45 - 129	08/10/15 14:33	08/11/15 21:21	1

## Method: 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Arsenic</b>	<b>13</b>		2.0	0.82	mg/Kg	☼	08/11/15 08:25	08/15/15 04:01	1
<b>Barium</b>	<b>50</b>		1.0	0.16	mg/Kg	☼	08/11/15 08:25	08/15/15 04:01	1
<b>Beryllium</b>	<b>0.28</b>	<b>J</b>	0.41	0.010	mg/Kg	☼	08/11/15 08:25	08/15/15 04:01	1
Cadmium	0.10	U	0.51	0.10	mg/Kg	☼	08/11/15 08:25	08/15/15 04:01	1
<b>Chromium</b>	<b>12</b>		1.0	0.21	mg/Kg	☼	08/11/15 08:25	08/15/15 04:01	1
<b>Copper</b>	<b>15</b>		2.6	0.17	mg/Kg	☼	08/11/15 08:25	08/15/15 04:01	1
<b>Lead</b>	<b>67</b>		1.0	0.35	mg/Kg	☼	08/11/15 08:25	08/15/15 04:01	1
<b>Nickel</b>	<b>3.6</b>	<b>J</b>	4.1	0.39	mg/Kg	☼	08/11/15 08:25	08/15/15 04:01	1
Selenium	0.99	U	2.6	0.99	mg/Kg	☼	08/11/15 08:25	08/15/15 04:01	1
Silver	0.061	U	1.0	0.061	mg/Kg	☼	08/11/15 08:25	08/15/15 04:01	1
<b>Vanadium</b>	<b>25</b>		1.0	0.10	mg/Kg	☼	08/11/15 08:25	08/15/15 04:01	1
<b>Zinc</b>	<b>38</b>		2.0	0.72	mg/Kg	☼	08/11/15 08:25	08/15/15 04:01	1

## Method: 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Mercury</b>	<b>0.12</b>		0.022	0.0088	mg/Kg	☼	08/16/15 13:43	08/17/15 21:41	1

## General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total	0.23	U	0.55	0.23	mg/Kg	☼	08/17/15 06:30	08/17/15 11:57	1

TestAmerica Savannah

# Client Sample Results

Client: Geotechnical & Environmental Consultants  
Project/Site: Macon MGP

TestAmerica Job ID: 680-115409-1

Client Sample ID: GB-16 2-4

Date Collected: 08/06/15 13:29

Date Received: 08/08/15 10:00

Lab Sample ID: 680-115409-17

Matrix: Solid

Percent Solids: 47.6

## Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	0.086	U	0.69	0.086	mg/Kg	☼	08/10/15 14:33	08/11/15 21:45	1
Acenaphthylene	0.075	U	0.69	0.075	mg/Kg	☼	08/10/15 14:33	08/11/15 21:45	1
Acetophenone	0.058	U	0.69	0.058	mg/Kg	☼	08/10/15 14:33	08/11/15 21:45	1
Anthracene	0.052	U	0.69	0.052	mg/Kg	☼	08/10/15 14:33	08/11/15 21:45	1
Atrazine	0.048	U	0.69	0.048	mg/Kg	☼	08/10/15 14:33	08/11/15 21:45	1
Benzaldehyde	0.12	U	0.69	0.12	mg/Kg	☼	08/10/15 14:33	08/11/15 21:45	1
Benzo[a]anthracene	0.056	U	0.69	0.056	mg/Kg	☼	08/10/15 14:33	08/11/15 21:45	1
Benzo[a]pyrene	0.11	U	0.69	0.11	mg/Kg	☼	08/10/15 14:33	08/11/15 21:45	1
Benzo[b]fluoranthene	0.079	U	0.69	0.079	mg/Kg	☼	08/10/15 14:33	08/11/15 21:45	1
Benzo[g,h,i]perylene	0.046	U	0.69	0.046	mg/Kg	☼	08/10/15 14:33	08/11/15 21:45	1
Benzo[k]fluoranthene	0.14	U	0.69	0.14	mg/Kg	☼	08/10/15 14:33	08/11/15 21:45	1
1,1'-Biphenyl	3.5	U	3.5	3.5	mg/Kg	☼	08/10/15 14:33	08/11/15 21:45	1
Bis(2-chloroethoxy)methane	0.081	U	0.69	0.081	mg/Kg	☼	08/10/15 14:33	08/11/15 21:45	1
Bis(2-chloroethyl)ether	0.094	U	0.69	0.094	mg/Kg	☼	08/10/15 14:33	08/11/15 21:45	1
bis (2-chloroisopropyl) ether	0.063	U	0.69	0.063	mg/Kg	☼	08/10/15 14:33	08/11/15 21:45	1
<b>Bis(2-ethylhexyl) phthalate</b>	<b>0.30</b>	<b>J B</b>	0.69	0.061	mg/Kg	☼	08/10/15 14:33	08/11/15 21:45	1
4-Bromophenyl phenyl ether	0.075	U	0.69	0.075	mg/Kg	☼	08/10/15 14:33	08/11/15 21:45	1
Butyl benzyl phthalate	0.054	U	0.69	0.054	mg/Kg	☼	08/10/15 14:33	08/11/15 21:45	1
Caprolactam	0.14	U	0.69	0.14	mg/Kg	☼	08/10/15 14:33	08/11/15 21:45	1
Carbazole	0.063	U	0.69	0.063	mg/Kg	☼	08/10/15 14:33	08/11/15 21:45	1
4-Chloroaniline	0.11	U	1.4	0.11	mg/Kg	☼	08/10/15 14:33	08/11/15 21:45	1
4-Chloro-3-methylphenol	0.073	U	0.69	0.073	mg/Kg	☼	08/10/15 14:33	08/11/15 21:45	1
2-Chloronaphthalene	0.073	U	0.69	0.073	mg/Kg	☼	08/10/15 14:33	08/11/15 21:45	1
2-Chlorophenol	0.084	U	0.69	0.084	mg/Kg	☼	08/10/15 14:33	08/11/15 21:45	1
4-Chlorophenyl phenyl ether	0.092	U	0.69	0.092	mg/Kg	☼	08/10/15 14:33	08/11/15 21:45	1
Chrysene	0.044	U	0.69	0.044	mg/Kg	☼	08/10/15 14:33	08/11/15 21:45	1
Dibenz(a,h)anthracene	0.081	U	0.69	0.081	mg/Kg	☼	08/10/15 14:33	08/11/15 21:45	1
Dibenzofuran	0.069	U	0.69	0.069	mg/Kg	☼	08/10/15 14:33	08/11/15 21:45	1
3,3'-Dichlorobenzidine	0.058	U	1.4	0.058	mg/Kg	☼	08/10/15 14:33	08/11/15 21:45	1
2,4-Dichlorophenol	0.073	U	0.69	0.073	mg/Kg	☼	08/10/15 14:33	08/11/15 21:45	1
Diethyl phthalate	0.077	U	0.69	0.077	mg/Kg	☼	08/10/15 14:33	08/11/15 21:45	1
2,4-Dimethylphenol	0.092	U	0.69	0.092	mg/Kg	☼	08/10/15 14:33	08/11/15 21:45	1
Dimethyl phthalate	0.071	U	0.69	0.071	mg/Kg	☼	08/10/15 14:33	08/11/15 21:45	1
Di-n-butyl phthalate	0.063	U	0.69	0.063	mg/Kg	☼	08/10/15 14:33	08/11/15 21:45	1
4,6-Dinitro-2-methylphenol	0.35	U *	3.5	0.35	mg/Kg	☼	08/10/15 14:33	08/11/15 21:45	1
2,4-Dinitrophenol	1.7	U	3.5	1.7	mg/Kg	☼	08/10/15 14:33	08/11/15 21:45	1
2,4-Dinitrotoluene	0.10	U	0.69	0.10	mg/Kg	☼	08/10/15 14:33	08/11/15 21:45	1
2,6-Dinitrotoluene	0.088	U	0.69	0.088	mg/Kg	☼	08/10/15 14:33	08/11/15 21:45	1
Di-n-octyl phthalate	0.061	U	0.69	0.061	mg/Kg	☼	08/10/15 14:33	08/11/15 21:45	1
Fluoranthene	0.067	U	0.69	0.067	mg/Kg	☼	08/10/15 14:33	08/11/15 21:45	1
Fluorene	0.075	U	0.69	0.075	mg/Kg	☼	08/10/15 14:33	08/11/15 21:45	1
Hexachlorobenzene	0.081	U	0.69	0.081	mg/Kg	☼	08/10/15 14:33	08/11/15 21:45	1
Hexachlorobutadiene	0.075	U	0.69	0.075	mg/Kg	☼	08/10/15 14:33	08/11/15 21:45	1
Hexachlorocyclopentadiene	0.086	U	0.69	0.086	mg/Kg	☼	08/10/15 14:33	08/11/15 21:45	1
Hexachloroethane	0.058	U	0.69	0.058	mg/Kg	☼	08/10/15 14:33	08/11/15 21:45	1
Indeno[1,2,3-cd]pyrene	0.058	U	0.69	0.058	mg/Kg	☼	08/10/15 14:33	08/11/15 21:45	1
Isophorone	0.069	U	0.69	0.069	mg/Kg	☼	08/10/15 14:33	08/11/15 21:45	1
2-Methylnaphthalene	0.079	U	0.69	0.079	mg/Kg	☼	08/10/15 14:33	08/11/15 21:45	1
2-Methylphenol	0.056	U	0.69	0.056	mg/Kg	☼	08/10/15 14:33	08/11/15 21:45	1

TestAmerica Savannah

# Client Sample Results

Client: Geotechnical & Environmental Consultants  
Project/Site: Macon MGP

TestAmerica Job ID: 680-115409-1

**Client Sample ID: GB-16 2-4**

**Date Collected: 08/06/15 13:29**

**Date Received: 08/08/15 10:00**

**Lab Sample ID: 680-115409-17**

**Matrix: Solid**

**Percent Solids: 47.6**

## Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
3 & 4 Methylphenol	0.090	U	0.69	0.090	mg/Kg	☼	08/10/15 14:33	08/11/15 21:45	1
Naphthalene	0.063	U	0.69	0.063	mg/Kg	☼	08/10/15 14:33	08/11/15 21:45	1
2-Nitroaniline	0.094	U	3.5	0.094	mg/Kg	☼	08/10/15 14:33	08/11/15 21:45	1
3-Nitroaniline	0.096	U	3.5	0.096	mg/Kg	☼	08/10/15 14:33	08/11/15 21:45	1
4-Nitroaniline	0.10	U	3.5	0.10	mg/Kg	☼	08/10/15 14:33	08/11/15 21:45	1
Nitrobenzene	0.054	U	0.69	0.054	mg/Kg	☼	08/10/15 14:33	08/11/15 21:45	1
2-Nitrophenol	0.086	U	0.69	0.086	mg/Kg	☼	08/10/15 14:33	08/11/15 21:45	1
4-Nitrophenol	0.69	U	3.5	0.69	mg/Kg	☼	08/10/15 14:33	08/11/15 21:45	1
N-Nitrosodi-n-propylamine	0.067	U	0.69	0.067	mg/Kg	☼	08/10/15 14:33	08/11/15 21:45	1
N-Nitrosodiphenylamine	0.069	U	0.69	0.069	mg/Kg	☼	08/10/15 14:33	08/11/15 21:45	1
Pentachlorophenol	0.69	U	3.5	0.69	mg/Kg	☼	08/10/15 14:33	08/11/15 21:45	1
Phenanthrene	0.056	U	0.69	0.056	mg/Kg	☼	08/10/15 14:33	08/11/15 21:45	1
Phenol	0.071	U	0.69	0.071	mg/Kg	☼	08/10/15 14:33	08/11/15 21:45	1
Pyrene	0.056	U	0.69	0.056	mg/Kg	☼	08/10/15 14:33	08/11/15 21:45	1
2,4,5-Trichlorophenol	0.073	U	0.69	0.073	mg/Kg	☼	08/10/15 14:33	08/11/15 21:45	1
2,4,6-Trichlorophenol	0.061	U	0.69	0.061	mg/Kg	☼	08/10/15 14:33	08/11/15 21:45	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl	72		41 - 116	08/10/15 14:33	08/11/15 21:45	1
2-Fluorophenol (Surr)	53		39 - 114	08/10/15 14:33	08/11/15 21:45	1
Nitrobenzene-d5 (Surr)	68		37 - 115	08/10/15 14:33	08/11/15 21:45	1
Phenol-d5 (Surr)	61		38 - 122	08/10/15 14:33	08/11/15 21:45	1
Terphenyl-d14 (Surr)	68		46 - 126	08/10/15 14:33	08/11/15 21:45	1
2,4,6-Tribromophenol (Surr)	59		45 - 129	08/10/15 14:33	08/11/15 21:45	1

## Method: 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	3.1	J	3.8	1.5	mg/Kg	☼	08/11/15 08:25	08/15/15 04:15	1
Barium	38		1.9	0.30	mg/Kg	☼	08/11/15 08:25	08/15/15 04:15	1
Beryllium	0.33	J	0.75	0.019	mg/Kg	☼	08/11/15 08:25	08/15/15 04:15	1
Cadmium	0.19	U	0.94	0.19	mg/Kg	☼	08/11/15 08:25	08/15/15 04:15	1
Chromium	5.0		1.9	0.39	mg/Kg	☼	08/11/15 08:25	08/15/15 04:15	1
Copper	4.1	J	4.7	0.32	mg/Kg	☼	08/11/15 08:25	08/15/15 04:15	1
Lead	55		1.9	0.64	mg/Kg	☼	08/11/15 08:25	08/15/15 04:15	1
Nickel	3.1	J	7.5	0.71	mg/Kg	☼	08/11/15 08:25	08/15/15 04:15	1
Selenium	1.8	U	4.7	1.8	mg/Kg	☼	08/11/15 08:25	08/15/15 04:15	1
Silver	0.11	U	1.9	0.11	mg/Kg	☼	08/11/15 08:25	08/15/15 04:15	1
Vanadium	10		1.9	0.19	mg/Kg	☼	08/11/15 08:25	08/15/15 04:15	1
Zinc	36		3.8	1.3	mg/Kg	☼	08/11/15 08:25	08/15/15 04:15	1

## Method: 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.14		0.039	0.016	mg/Kg	☼	08/16/15 13:43	08/17/15 21:44	1

## General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total	0.42	U	1.0	0.42	mg/Kg	☼	08/17/15 06:30	08/17/15 11:58	1

TestAmerica Savannah



# Client Sample Results

Client: Geotechnical & Environmental Consultants  
Project/Site: Macon MGP

TestAmerica Job ID: 680-115409-1

Client Sample ID: GB-16 4-6

Date Collected: 08/06/15 13:35

Date Received: 08/08/15 10:00

Lab Sample ID: 680-115409-18

Matrix: Solid

Percent Solids: 74.8

## Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	0.055	U	0.44	0.055	mg/Kg	☼	08/10/15 14:33	08/11/15 22:08	1
Acenaphthylene	0.048	U	0.44	0.048	mg/Kg	☼	08/10/15 14:33	08/11/15 22:08	1
Acetophenone	0.037	U	0.44	0.037	mg/Kg	☼	08/10/15 14:33	08/11/15 22:08	1
Anthracene	0.033	U	0.44	0.033	mg/Kg	☼	08/10/15 14:33	08/11/15 22:08	1
Atrazine	0.031	U	0.44	0.031	mg/Kg	☼	08/10/15 14:33	08/11/15 22:08	1
Benzaldehyde	0.078	U	0.44	0.078	mg/Kg	☼	08/10/15 14:33	08/11/15 22:08	1
Benzo[a]anthracene	0.036	U	0.44	0.036	mg/Kg	☼	08/10/15 14:33	08/11/15 22:08	1
Benzo[a]pyrene	0.070	U	0.44	0.070	mg/Kg	☼	08/10/15 14:33	08/11/15 22:08	1
Benzo[b]fluoranthene	0.051	U	0.44	0.051	mg/Kg	☼	08/10/15 14:33	08/11/15 22:08	1
Benzo[g,h,i]perylene	0.029	U	0.44	0.029	mg/Kg	☼	08/10/15 14:33	08/11/15 22:08	1
Benzo[k]fluoranthene	0.087	U	0.44	0.087	mg/Kg	☼	08/10/15 14:33	08/11/15 22:08	1
1,1'-Biphenyl	2.3	U	2.3	2.3	mg/Kg	☼	08/10/15 14:33	08/11/15 22:08	1
Bis(2-chloroethoxy)methane	0.052	U	0.44	0.052	mg/Kg	☼	08/10/15 14:33	08/11/15 22:08	1
Bis(2-chloroethyl)ether	0.060	U	0.44	0.060	mg/Kg	☼	08/10/15 14:33	08/11/15 22:08	1
bis (2-chloroisopropyl) ether	0.040	U	0.44	0.040	mg/Kg	☼	08/10/15 14:33	08/11/15 22:08	1
<b>Bis(2-ethylhexyl) phthalate</b>	<b>0.24</b>	<b>J B</b>	0.44	0.039	mg/Kg	☼	08/10/15 14:33	08/11/15 22:08	1
4-Bromophenyl phenyl ether	0.048	U	0.44	0.048	mg/Kg	☼	08/10/15 14:33	08/11/15 22:08	1
Butyl benzyl phthalate	0.035	U	0.44	0.035	mg/Kg	☼	08/10/15 14:33	08/11/15 22:08	1
Caprolactam	0.088	U	0.44	0.088	mg/Kg	☼	08/10/15 14:33	08/11/15 22:08	1
Carbazole	0.040	U	0.44	0.040	mg/Kg	☼	08/10/15 14:33	08/11/15 22:08	1
4-Chloroaniline	0.070	U	0.88	0.070	mg/Kg	☼	08/10/15 14:33	08/11/15 22:08	1
4-Chloro-3-methylphenol	0.047	U	0.44	0.047	mg/Kg	☼	08/10/15 14:33	08/11/15 22:08	1
2-Chloronaphthalene	0.047	U	0.44	0.047	mg/Kg	☼	08/10/15 14:33	08/11/15 22:08	1
2-Chlorophenol	0.054	U	0.44	0.054	mg/Kg	☼	08/10/15 14:33	08/11/15 22:08	1
4-Chlorophenyl phenyl ether	0.059	U	0.44	0.059	mg/Kg	☼	08/10/15 14:33	08/11/15 22:08	1
Chrysene	0.028	U	0.44	0.028	mg/Kg	☼	08/10/15 14:33	08/11/15 22:08	1
Dibenz(a,h)anthracene	0.052	U	0.44	0.052	mg/Kg	☼	08/10/15 14:33	08/11/15 22:08	1
Dibenzofuran	0.044	U	0.44	0.044	mg/Kg	☼	08/10/15 14:33	08/11/15 22:08	1
3,3'-Dichlorobenzidine	0.037	U F1	0.88	0.037	mg/Kg	☼	08/10/15 14:33	08/11/15 22:08	1
2,4-Dichlorophenol	0.047	U	0.44	0.047	mg/Kg	☼	08/10/15 14:33	08/11/15 22:08	1
Diethyl phthalate	0.049	U	0.44	0.049	mg/Kg	☼	08/10/15 14:33	08/11/15 22:08	1
2,4-Dimethylphenol	0.059	U	0.44	0.059	mg/Kg	☼	08/10/15 14:33	08/11/15 22:08	1
Dimethyl phthalate	0.045	U	0.44	0.045	mg/Kg	☼	08/10/15 14:33	08/11/15 22:08	1
Di-n-butyl phthalate	0.040	U	0.44	0.040	mg/Kg	☼	08/10/15 14:33	08/11/15 22:08	1
4,6-Dinitro-2-methylphenol	0.23	U F2 *	2.3	0.23	mg/Kg	☼	08/10/15 14:33	08/11/15 22:08	1
2,4-Dinitrophenol	1.1	U F1	2.3	1.1	mg/Kg	☼	08/10/15 14:33	08/11/15 22:08	1
2,4-Dinitrotoluene	0.066	U	0.44	0.066	mg/Kg	☼	08/10/15 14:33	08/11/15 22:08	1
2,6-Dinitrotoluene	0.056	U	0.44	0.056	mg/Kg	☼	08/10/15 14:33	08/11/15 22:08	1
Di-n-octyl phthalate	0.039	U	0.44	0.039	mg/Kg	☼	08/10/15 14:33	08/11/15 22:08	1
Fluoranthene	0.043	U	0.44	0.043	mg/Kg	☼	08/10/15 14:33	08/11/15 22:08	1
Fluorene	0.048	U	0.44	0.048	mg/Kg	☼	08/10/15 14:33	08/11/15 22:08	1
Hexachlorobenzene	0.052	U	0.44	0.052	mg/Kg	☼	08/10/15 14:33	08/11/15 22:08	1
Hexachlorobutadiene	0.048	U	0.44	0.048	mg/Kg	☼	08/10/15 14:33	08/11/15 22:08	1
Hexachlorocyclopentadiene	0.055	U	0.44	0.055	mg/Kg	☼	08/10/15 14:33	08/11/15 22:08	1
Hexachloroethane	0.037	U	0.44	0.037	mg/Kg	☼	08/10/15 14:33	08/11/15 22:08	1
Indeno[1,2,3-cd]pyrene	0.037	U	0.44	0.037	mg/Kg	☼	08/10/15 14:33	08/11/15 22:08	1
Isophorone	0.044	U	0.44	0.044	mg/Kg	☼	08/10/15 14:33	08/11/15 22:08	1
2-Methylnaphthalene	0.051	U	0.44	0.051	mg/Kg	☼	08/10/15 14:33	08/11/15 22:08	1
2-Methylphenol	0.036	U	0.44	0.036	mg/Kg	☼	08/10/15 14:33	08/11/15 22:08	1

TestAmerica Savannah

# Client Sample Results

Client: Geotechnical & Environmental Consultants  
Project/Site: Macon MGP

TestAmerica Job ID: 680-115409-1

**Client Sample ID: GB-16 4-6**

**Lab Sample ID: 680-115409-18**

**Date Collected: 08/06/15 13:35**

**Matrix: Solid**

**Date Received: 08/08/15 10:00**

**Percent Solids: 74.8**

## Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
3 & 4 Methylphenol	0.058	U	0.44	0.058	mg/Kg	☼	08/10/15 14:33	08/11/15 22:08	1
Naphthalene	0.040	U	0.44	0.040	mg/Kg	☼	08/10/15 14:33	08/11/15 22:08	1
2-Nitroaniline	0.060	U	2.3	0.060	mg/Kg	☼	08/10/15 14:33	08/11/15 22:08	1
3-Nitroaniline	0.062	U	2.3	0.062	mg/Kg	☼	08/10/15 14:33	08/11/15 22:08	1
4-Nitroaniline	0.066	U	2.3	0.066	mg/Kg	☼	08/10/15 14:33	08/11/15 22:08	1
Nitrobenzene	0.035	U	0.44	0.035	mg/Kg	☼	08/10/15 14:33	08/11/15 22:08	1
2-Nitrophenol	0.055	U	0.44	0.055	mg/Kg	☼	08/10/15 14:33	08/11/15 22:08	1
4-Nitrophenol	0.44	U	2.3	0.44	mg/Kg	☼	08/10/15 14:33	08/11/15 22:08	1
N-Nitrosodi-n-propylamine	0.043	U	0.44	0.043	mg/Kg	☼	08/10/15 14:33	08/11/15 22:08	1
N-Nitrosodiphenylamine	0.044	U	0.44	0.044	mg/Kg	☼	08/10/15 14:33	08/11/15 22:08	1
Pentachlorophenol	0.44	U	2.3	0.44	mg/Kg	☼	08/10/15 14:33	08/11/15 22:08	1
Phenanthrene	0.036	U	0.44	0.036	mg/Kg	☼	08/10/15 14:33	08/11/15 22:08	1
Phenol	0.045	U	0.44	0.045	mg/Kg	☼	08/10/15 14:33	08/11/15 22:08	1
Pyrene	0.036	U	0.44	0.036	mg/Kg	☼	08/10/15 14:33	08/11/15 22:08	1
2,4,5-Trichlorophenol	0.047	U	0.44	0.047	mg/Kg	☼	08/10/15 14:33	08/11/15 22:08	1
2,4,6-Trichlorophenol	0.039	U	0.44	0.039	mg/Kg	☼	08/10/15 14:33	08/11/15 22:08	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl	70		41 - 116	08/10/15 14:33	08/11/15 22:08	1
2-Fluorophenol (Surr)	76		39 - 114	08/10/15 14:33	08/11/15 22:08	1
Nitrobenzene-d5 (Surr)	68		37 - 115	08/10/15 14:33	08/11/15 22:08	1
Phenol-d5 (Surr)	67		38 - 122	08/10/15 14:33	08/11/15 22:08	1
Terphenyl-d14 (Surr)	93		46 - 126	08/10/15 14:33	08/11/15 22:08	1
2,4,6-Tribromophenol (Surr)	70		45 - 129	08/10/15 14:33	08/11/15 22:08	1

## Method: 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	3.4		2.5	0.99	mg/Kg	☼	08/11/15 08:25	08/15/15 04:20	1
Barium	6.8		1.2	0.20	mg/Kg	☼	08/11/15 08:25	08/15/15 04:20	1
Beryllium	0.13	J	0.49	0.012	mg/Kg	☼	08/11/15 08:25	08/15/15 04:20	1
Cadmium	0.12	U	0.62	0.12	mg/Kg	☼	08/11/15 08:25	08/15/15 04:20	1
Chromium	15		1.2	0.26	mg/Kg	☼	08/11/15 08:25	08/15/15 04:20	1
Copper	3.9		3.1	0.21	mg/Kg	☼	08/11/15 08:25	08/15/15 04:20	1
Lead	5.2		1.2	0.42	mg/Kg	☼	08/11/15 08:25	08/15/15 04:20	1
Nickel	1.3	J	4.9	0.47	mg/Kg	☼	08/11/15 08:25	08/15/15 04:20	1
Selenium	1.2	U	3.1	1.2	mg/Kg	☼	08/11/15 08:25	08/15/15 04:20	1
Silver	0.074	U	1.2	0.074	mg/Kg	☼	08/11/15 08:25	08/15/15 04:20	1
Vanadium	31		1.2	0.12	mg/Kg	☼	08/11/15 08:25	08/15/15 04:20	1
Zinc	6.2		2.5	0.87	mg/Kg	☼	08/11/15 08:25	08/15/15 04:20	1

## Method: 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.0095	U	0.024	0.0095	mg/Kg	☼	08/16/15 13:43	08/17/15 21:47	1

## General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total	0.27	U	0.64	0.27	mg/Kg	☼	08/17/15 06:30	08/17/15 11:59	1

TestAmerica Savannah

# Client Sample Results

Client: Geotechnical & Environmental Consultants  
Project/Site: Macon MGP

TestAmerica Job ID: 680-115409-1

Client Sample ID: GB-18 2-4

Date Collected: 08/06/15 15:05

Date Received: 08/08/15 10:00

Lab Sample ID: 680-115409-19

Matrix: Solid

Percent Solids: 90.7

## Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	0.45	U	3.6	0.45	mg/Kg	☼	08/10/15 14:33	08/11/15 22:32	10
Acenaphthylene	0.40	U	3.6	0.40	mg/Kg	☼	08/10/15 14:33	08/11/15 22:32	10
Acetophenone	0.31	U	3.6	0.31	mg/Kg	☼	08/10/15 14:33	08/11/15 22:32	10
Anthracene	0.28	U	3.6	0.28	mg/Kg	☼	08/10/15 14:33	08/11/15 22:32	10
Atrazine	0.25	U	3.6	0.25	mg/Kg	☼	08/10/15 14:33	08/11/15 22:32	10
Benzaldehyde	0.64	U	3.6	0.64	mg/Kg	☼	08/10/15 14:33	08/11/15 22:32	10
<b>Benzo[a]anthracene</b>	<b>0.39</b>	<b>J</b>	3.6	0.30	mg/Kg	☼	08/10/15 14:33	08/11/15 22:32	10
Benzo[a]pyrene	0.57	U	3.6	0.57	mg/Kg	☼	08/10/15 14:33	08/11/15 22:32	10
<b>Benzo[b]fluoranthene</b>	<b>0.47</b>	<b>J</b>	3.6	0.42	mg/Kg	☼	08/10/15 14:33	08/11/15 22:32	10
Benzo[g,h,i]perylene	0.24	U	3.6	0.24	mg/Kg	☼	08/10/15 14:33	08/11/15 22:32	10
Benzo[k]fluoranthene	0.72	U	3.6	0.72	mg/Kg	☼	08/10/15 14:33	08/11/15 22:32	10
1,1'-Biphenyl	19	U	19	19	mg/Kg	☼	08/10/15 14:33	08/11/15 22:32	10
Bis(2-chloroethoxy)methane	0.43	U	3.6	0.43	mg/Kg	☼	08/10/15 14:33	08/11/15 22:32	10
Bis(2-chloroethyl)ether	0.50	U	3.6	0.50	mg/Kg	☼	08/10/15 14:33	08/11/15 22:32	10
bis (2-chloroisopropyl) ether	0.33	U	3.6	0.33	mg/Kg	☼	08/10/15 14:33	08/11/15 22:32	10
Bis(2-ethylhexyl) phthalate	0.32	U	3.6	0.32	mg/Kg	☼	08/10/15 14:33	08/11/15 22:32	10
4-Bromophenyl phenyl ether	0.40	U	3.6	0.40	mg/Kg	☼	08/10/15 14:33	08/11/15 22:32	10
Butyl benzyl phthalate	0.29	U	3.6	0.29	mg/Kg	☼	08/10/15 14:33	08/11/15 22:32	10
Caprolactam	0.73	U	3.6	0.73	mg/Kg	☼	08/10/15 14:33	08/11/15 22:32	10
Carbazole	0.33	U	3.6	0.33	mg/Kg	☼	08/10/15 14:33	08/11/15 22:32	10
4-Chloroaniline	0.57	U	7.3	0.57	mg/Kg	☼	08/10/15 14:33	08/11/15 22:32	10
4-Chloro-3-methylphenol	0.39	U	3.6	0.39	mg/Kg	☼	08/10/15 14:33	08/11/15 22:32	10
2-Chloronaphthalene	0.39	U	3.6	0.39	mg/Kg	☼	08/10/15 14:33	08/11/15 22:32	10
2-Chlorophenol	0.44	U	3.6	0.44	mg/Kg	☼	08/10/15 14:33	08/11/15 22:32	10
4-Chlorophenyl phenyl ether	0.49	U	3.6	0.49	mg/Kg	☼	08/10/15 14:33	08/11/15 22:32	10
<b>Chrysene</b>	<b>0.44</b>	<b>J</b>	3.6	0.23	mg/Kg	☼	08/10/15 14:33	08/11/15 22:32	10
Dibenz(a,h)anthracene	0.43	U	3.6	0.43	mg/Kg	☼	08/10/15 14:33	08/11/15 22:32	10
Dibenzofuran	0.36	U	3.6	0.36	mg/Kg	☼	08/10/15 14:33	08/11/15 22:32	10
3,3'-Dichlorobenzidine	0.31	U	7.3	0.31	mg/Kg	☼	08/10/15 14:33	08/11/15 22:32	10
2,4-Dichlorophenol	0.39	U	3.6	0.39	mg/Kg	☼	08/10/15 14:33	08/11/15 22:32	10
Diethyl phthalate	0.41	U	3.6	0.41	mg/Kg	☼	08/10/15 14:33	08/11/15 22:32	10
2,4-Dimethylphenol	0.49	U	3.6	0.49	mg/Kg	☼	08/10/15 14:33	08/11/15 22:32	10
Dimethyl phthalate	0.38	U	3.6	0.38	mg/Kg	☼	08/10/15 14:33	08/11/15 22:32	10
Di-n-butyl phthalate	0.33	U	3.6	0.33	mg/Kg	☼	08/10/15 14:33	08/11/15 22:32	10
4,6-Dinitro-2-methylphenol	1.9	U *	19	1.9	mg/Kg	☼	08/10/15 14:33	08/11/15 22:32	10
2,4-Dinitrophenol	9.2	U	19	9.2	mg/Kg	☼	08/10/15 14:33	08/11/15 22:32	10
2,4-Dinitrotoluene	0.54	U	3.6	0.54	mg/Kg	☼	08/10/15 14:33	08/11/15 22:32	10
<b>2,6-Dinitrotoluene</b>	<b>5.5</b>		3.6	0.46	mg/Kg	☼	08/10/15 14:33	08/11/15 22:32	10
Di-n-octyl phthalate	0.32	U	3.6	0.32	mg/Kg	☼	08/10/15 14:33	08/11/15 22:32	10
<b>Fluoranthene</b>	<b>0.73</b>	<b>J</b>	3.6	0.35	mg/Kg	☼	08/10/15 14:33	08/11/15 22:32	10
Fluorene	0.40	U	3.6	0.40	mg/Kg	☼	08/10/15 14:33	08/11/15 22:32	10
Hexachlorobenzene	0.43	U	3.6	0.43	mg/Kg	☼	08/10/15 14:33	08/11/15 22:32	10
Hexachlorobutadiene	0.40	U	3.6	0.40	mg/Kg	☼	08/10/15 14:33	08/11/15 22:32	10
Hexachlorocyclopentadiene	0.45	U	3.6	0.45	mg/Kg	☼	08/10/15 14:33	08/11/15 22:32	10
Hexachloroethane	0.31	U	3.6	0.31	mg/Kg	☼	08/10/15 14:33	08/11/15 22:32	10
Indeno[1,2,3-cd]pyrene	0.31	U	3.6	0.31	mg/Kg	☼	08/10/15 14:33	08/11/15 22:32	10
Isophorone	0.36	U	3.6	0.36	mg/Kg	☼	08/10/15 14:33	08/11/15 22:32	10
2-Methylnaphthalene	0.42	U	3.6	0.42	mg/Kg	☼	08/10/15 14:33	08/11/15 22:32	10
2-Methylphenol	0.30	U	3.6	0.30	mg/Kg	☼	08/10/15 14:33	08/11/15 22:32	10

TestAmerica Savannah



# Client Sample Results

Client: Geotechnical & Environmental Consultants  
Project/Site: Macon MGP

TestAmerica Job ID: 680-115409-1

**Client Sample ID: GB-18 2-4**

**Lab Sample ID: 680-115409-19**

**Date Collected: 08/06/15 15:05**

**Matrix: Solid**

**Date Received: 08/08/15 10:00**

**Percent Solids: 90.7**

## Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
3 & 4 Methylphenol	0.47	U	3.6	0.47	mg/Kg	☼	08/10/15 14:33	08/11/15 22:32	10
Naphthalene	0.33	U	3.6	0.33	mg/Kg	☼	08/10/15 14:33	08/11/15 22:32	10
2-Nitroaniline	0.50	U	19	0.50	mg/Kg	☼	08/10/15 14:33	08/11/15 22:32	10
3-Nitroaniline	0.51	U	19	0.51	mg/Kg	☼	08/10/15 14:33	08/11/15 22:32	10
4-Nitroaniline	0.54	U	19	0.54	mg/Kg	☼	08/10/15 14:33	08/11/15 22:32	10
Nitrobenzene	0.29	U	3.6	0.29	mg/Kg	☼	08/10/15 14:33	08/11/15 22:32	10
2-Nitrophenol	0.45	U	3.6	0.45	mg/Kg	☼	08/10/15 14:33	08/11/15 22:32	10
4-Nitrophenol	3.6	U	19	3.6	mg/Kg	☼	08/10/15 14:33	08/11/15 22:32	10
N-Nitrosodi-n-propylamine	0.35	U	3.6	0.35	mg/Kg	☼	08/10/15 14:33	08/11/15 22:32	10
N-Nitrosodiphenylamine	0.36	U	3.6	0.36	mg/Kg	☼	08/10/15 14:33	08/11/15 22:32	10
Pentachlorophenol	3.6	U	19	3.6	mg/Kg	☼	08/10/15 14:33	08/11/15 22:32	10
Phenanthrene	0.57	J	3.6	0.30	mg/Kg	☼	08/10/15 14:33	08/11/15 22:32	10
Phenol	0.38	U	3.6	0.38	mg/Kg	☼	08/10/15 14:33	08/11/15 22:32	10
Pyrene	0.70	J	3.6	0.30	mg/Kg	☼	08/10/15 14:33	08/11/15 22:32	10
2,4,5-Trichlorophenol	0.39	U	3.6	0.39	mg/Kg	☼	08/10/15 14:33	08/11/15 22:32	10
2,4,6-Trichlorophenol	0.32	U	3.6	0.32	mg/Kg	☼	08/10/15 14:33	08/11/15 22:32	10

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl	0	D	41 - 116	08/10/15 14:33	08/11/15 22:32	10
2-Fluorophenol (Surr)	0	D	39 - 114	08/10/15 14:33	08/11/15 22:32	10
Nitrobenzene-d5 (Surr)	0	D	37 - 115	08/10/15 14:33	08/11/15 22:32	10
Phenol-d5 (Surr)	0	D	38 - 122	08/10/15 14:33	08/11/15 22:32	10
Terphenyl-d14 (Surr)	0	D	46 - 126	08/10/15 14:33	08/11/15 22:32	10
2,4,6-Tribromophenol (Surr)	0	D	45 - 129	08/10/15 14:33	08/11/15 22:32	10

## Method: 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	6.5		2.0	0.80	mg/Kg	☼	08/11/15 08:25	08/15/15 04:24	1
Barium	100		1.0	0.16	mg/Kg	☼	08/11/15 08:25	08/15/15 04:24	1
Beryllium	0.32	J	0.40	0.010	mg/Kg	☼	08/11/15 08:25	08/15/15 04:24	1
Cadmium	0.36	J	0.50	0.10	mg/Kg	☼	08/11/15 08:25	08/15/15 04:24	1
Chromium	12		1.0	0.21	mg/Kg	☼	08/11/15 08:25	08/15/15 04:24	1
Copper	57		2.5	0.17	mg/Kg	☼	08/11/15 08:25	08/15/15 04:24	1
Lead	200		1.0	0.34	mg/Kg	☼	08/11/15 08:25	08/15/15 04:24	1
Nickel	4.7		4.0	0.38	mg/Kg	☼	08/11/15 08:25	08/15/15 04:24	1
Selenium	0.97	U	2.5	0.97	mg/Kg	☼	08/11/15 08:25	08/15/15 04:24	1
Silver	0.094	J	1.0	0.060	mg/Kg	☼	08/11/15 08:25	08/15/15 04:24	1
Vanadium	18		1.0	0.10	mg/Kg	☼	08/11/15 08:25	08/15/15 04:24	1
Zinc	110		2.0	0.70	mg/Kg	☼	08/11/15 08:25	08/15/15 04:24	1

## Method: 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.27		0.018	0.0074	mg/Kg	☼	08/16/15 13:43	08/17/15 21:50	1

## General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total	0.30	J	0.53	0.22	mg/Kg	☼	08/17/15 06:30	08/17/15 12:01	1

TestAmerica Savannah

# Client Sample Results

Client: Geotechnical & Environmental Consultants  
Project/Site: Macon MGP

TestAmerica Job ID: 680-115409-1

Client Sample ID: GB-18 4-6

Date Collected: 08/06/15 15:15

Date Received: 08/08/15 10:00

Lab Sample ID: 680-115409-20

Matrix: Solid

Percent Solids: 90.8

## Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	0.45	U	3.6	0.45	mg/Kg	☼	08/10/15 14:33	08/11/15 22:55	10
Acenaphthylene	0.40	U	3.6	0.40	mg/Kg	☼	08/10/15 14:33	08/11/15 22:55	10
Acetophenone	0.31	U	3.6	0.31	mg/Kg	☼	08/10/15 14:33	08/11/15 22:55	10
Anthracene	0.27	U	3.6	0.27	mg/Kg	☼	08/10/15 14:33	08/11/15 22:55	10
Atrazine	0.25	U	3.6	0.25	mg/Kg	☼	08/10/15 14:33	08/11/15 22:55	10
Benzaldehyde	0.64	U	3.6	0.64	mg/Kg	☼	08/10/15 14:33	08/11/15 22:55	10
Benzo[a]anthracene	0.30	U	3.6	0.30	mg/Kg	☼	08/10/15 14:33	08/11/15 22:55	10
Benzo[a]pyrene	0.57	U	3.6	0.57	mg/Kg	☼	08/10/15 14:33	08/11/15 22:55	10
Benzo[b]fluoranthene	0.42	U	3.6	0.42	mg/Kg	☼	08/10/15 14:33	08/11/15 22:55	10
Benzo[g,h,i]perylene	0.24	U	3.6	0.24	mg/Kg	☼	08/10/15 14:33	08/11/15 22:55	10
Benzo[k]fluoranthene	0.71	U	3.6	0.71	mg/Kg	☼	08/10/15 14:33	08/11/15 22:55	10
1,1'-Biphenyl	19	U	19	19	mg/Kg	☼	08/10/15 14:33	08/11/15 22:55	10
Bis(2-chloroethoxy)methane	0.43	U	3.6	0.43	mg/Kg	☼	08/10/15 14:33	08/11/15 22:55	10
Bis(2-chloroethyl)ether	0.49	U	3.6	0.49	mg/Kg	☼	08/10/15 14:33	08/11/15 22:55	10
bis (2-chloroisopropyl) ether	0.33	U	3.6	0.33	mg/Kg	☼	08/10/15 14:33	08/11/15 22:55	10
<b>Bis(2-ethylhexyl) phthalate</b>	<b>0.63</b>	<b>J B</b>	3.6	0.32	mg/Kg	☼	08/10/15 14:33	08/11/15 22:55	10
4-Bromophenyl phenyl ether	0.40	U	3.6	0.40	mg/Kg	☼	08/10/15 14:33	08/11/15 22:55	10
Butyl benzyl phthalate	0.29	U	3.6	0.29	mg/Kg	☼	08/10/15 14:33	08/11/15 22:55	10
Caprolactam	0.72	U	3.6	0.72	mg/Kg	☼	08/10/15 14:33	08/11/15 22:55	10
Carbazole	0.33	U	3.6	0.33	mg/Kg	☼	08/10/15 14:33	08/11/15 22:55	10
4-Chloroaniline	0.57	U	7.2	0.57	mg/Kg	☼	08/10/15 14:33	08/11/15 22:55	10
4-Chloro-3-methylphenol	0.38	U	3.6	0.38	mg/Kg	☼	08/10/15 14:33	08/11/15 22:55	10
2-Chloronaphthalene	0.38	U	3.6	0.38	mg/Kg	☼	08/10/15 14:33	08/11/15 22:55	10
2-Chlorophenol	0.44	U	3.6	0.44	mg/Kg	☼	08/10/15 14:33	08/11/15 22:55	10
4-Chlorophenyl phenyl ether	0.48	U	3.6	0.48	mg/Kg	☼	08/10/15 14:33	08/11/15 22:55	10
Chrysene	0.23	U	3.6	0.23	mg/Kg	☼	08/10/15 14:33	08/11/15 22:55	10
Dibenz(a,h)anthracene	0.43	U	3.6	0.43	mg/Kg	☼	08/10/15 14:33	08/11/15 22:55	10
Dibenzofuran	0.36	U	3.6	0.36	mg/Kg	☼	08/10/15 14:33	08/11/15 22:55	10
3,3'-Dichlorobenzidine	0.31	U	7.2	0.31	mg/Kg	☼	08/10/15 14:33	08/11/15 22:55	10
2,4-Dichlorophenol	0.38	U	3.6	0.38	mg/Kg	☼	08/10/15 14:33	08/11/15 22:55	10
Diethyl phthalate	0.41	U	3.6	0.41	mg/Kg	☼	08/10/15 14:33	08/11/15 22:55	10
2,4-Dimethylphenol	0.48	U	3.6	0.48	mg/Kg	☼	08/10/15 14:33	08/11/15 22:55	10
Dimethyl phthalate	0.37	U	3.6	0.37	mg/Kg	☼	08/10/15 14:33	08/11/15 22:55	10
Di-n-butyl phthalate	0.33	U	3.6	0.33	mg/Kg	☼	08/10/15 14:33	08/11/15 22:55	10
4,6-Dinitro-2-methylphenol	1.9	U *	19	1.9	mg/Kg	☼	08/10/15 14:33	08/11/15 22:55	10
2,4-Dinitrophenol	9.1	U	19	9.1	mg/Kg	☼	08/10/15 14:33	08/11/15 22:55	10
2,4-Dinitrotoluene	0.54	U	3.6	0.54	mg/Kg	☼	08/10/15 14:33	08/11/15 22:55	10
2,6-Dinitrotoluene	0.46	U	3.6	0.46	mg/Kg	☼	08/10/15 14:33	08/11/15 22:55	10
Di-n-octyl phthalate	0.32	U	3.6	0.32	mg/Kg	☼	08/10/15 14:33	08/11/15 22:55	10
Fluoranthene	0.35	U	3.6	0.35	mg/Kg	☼	08/10/15 14:33	08/11/15 22:55	10
Fluorene	0.40	U	3.6	0.40	mg/Kg	☼	08/10/15 14:33	08/11/15 22:55	10
Hexachlorobenzene	0.43	U	3.6	0.43	mg/Kg	☼	08/10/15 14:33	08/11/15 22:55	10
Hexachlorobutadiene	0.40	U	3.6	0.40	mg/Kg	☼	08/10/15 14:33	08/11/15 22:55	10
Hexachlorocyclopentadiene	0.45	U	3.6	0.45	mg/Kg	☼	08/10/15 14:33	08/11/15 22:55	10
Hexachloroethane	0.31	U	3.6	0.31	mg/Kg	☼	08/10/15 14:33	08/11/15 22:55	10
Indeno[1,2,3-cd]pyrene	0.31	U	3.6	0.31	mg/Kg	☼	08/10/15 14:33	08/11/15 22:55	10
Isophorone	0.36	U	3.6	0.36	mg/Kg	☼	08/10/15 14:33	08/11/15 22:55	10
2-Methylnaphthalene	0.42	U	3.6	0.42	mg/Kg	☼	08/10/15 14:33	08/11/15 22:55	10
2-Methylphenol	0.30	U	3.6	0.30	mg/Kg	☼	08/10/15 14:33	08/11/15 22:55	10

TestAmerica Savannah

# Client Sample Results

Client: Geotechnical & Environmental Consultants  
Project/Site: Macon MGP

TestAmerica Job ID: 680-115409-1

**Client Sample ID: GB-18 4-6**

**Lab Sample ID: 680-115409-20**

**Date Collected: 08/06/15 15:15**

**Matrix: Solid**

**Date Received: 08/08/15 10:00**

**Percent Solids: 90.8**

## Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
3 & 4 Methylphenol	0.47	U	3.6	0.47	mg/Kg	☼	08/10/15 14:33	08/11/15 22:55	10
Naphthalene	0.33	U	3.6	0.33	mg/Kg	☼	08/10/15 14:33	08/11/15 22:55	10
2-Nitroaniline	0.49	U	19	0.49	mg/Kg	☼	08/10/15 14:33	08/11/15 22:55	10
3-Nitroaniline	0.50	U	19	0.50	mg/Kg	☼	08/10/15 14:33	08/11/15 22:55	10
4-Nitroaniline	0.54	U	19	0.54	mg/Kg	☼	08/10/15 14:33	08/11/15 22:55	10
Nitrobenzene	0.29	U	3.6	0.29	mg/Kg	☼	08/10/15 14:33	08/11/15 22:55	10
2-Nitrophenol	0.45	U	3.6	0.45	mg/Kg	☼	08/10/15 14:33	08/11/15 22:55	10
4-Nitrophenol	3.6	U	19	3.6	mg/Kg	☼	08/10/15 14:33	08/11/15 22:55	10
N-Nitrosodi-n-propylamine	0.35	U	3.6	0.35	mg/Kg	☼	08/10/15 14:33	08/11/15 22:55	10
N-Nitrosodiphenylamine	0.36	U	3.6	0.36	mg/Kg	☼	08/10/15 14:33	08/11/15 22:55	10
Pentachlorophenol	3.6	U	19	3.6	mg/Kg	☼	08/10/15 14:33	08/11/15 22:55	10
Phenanthrene	0.30	U	3.6	0.30	mg/Kg	☼	08/10/15 14:33	08/11/15 22:55	10
Phenol	0.37	U	3.6	0.37	mg/Kg	☼	08/10/15 14:33	08/11/15 22:55	10
Pyrene	0.30	U	3.6	0.30	mg/Kg	☼	08/10/15 14:33	08/11/15 22:55	10
2,4,5-Trichlorophenol	0.38	U	3.6	0.38	mg/Kg	☼	08/10/15 14:33	08/11/15 22:55	10
2,4,6-Trichlorophenol	0.32	U	3.6	0.32	mg/Kg	☼	08/10/15 14:33	08/11/15 22:55	10

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl	0	D	41 - 116	08/10/15 14:33	08/11/15 22:55	10
2-Fluorophenol (Surr)	0	D	39 - 114	08/10/15 14:33	08/11/15 22:55	10
Nitrobenzene-d5 (Surr)	0	D	37 - 115	08/10/15 14:33	08/11/15 22:55	10
Phenol-d5 (Surr)	0	D	38 - 122	08/10/15 14:33	08/11/15 22:55	10
Terphenyl-d14 (Surr)	0	D	46 - 126	08/10/15 14:33	08/11/15 22:55	10
2,4,6-Tribromophenol (Surr)	0	D	45 - 129	08/10/15 14:33	08/11/15 22:55	10

## Method: 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	6.0		1.9	0.76	mg/Kg	☼	08/11/15 08:25	08/15/15 03:38	1
Barium	220		0.95	0.15	mg/Kg	☼	08/11/15 08:25	08/15/15 03:38	1
Beryllium	0.26	J	0.38	0.0095	mg/Kg	☼	08/11/15 08:25	08/15/15 03:38	1
Cadmium	0.15	J	0.47	0.095	mg/Kg	☼	08/11/15 08:25	08/15/15 03:38	1
Chromium	74	F2	0.95	0.20	mg/Kg	☼	08/11/15 08:25	08/15/15 03:38	1
Copper	61		2.4	0.16	mg/Kg	☼	08/11/15 08:25	08/15/15 03:38	1
Lead	250		0.95	0.32	mg/Kg	☼	08/11/15 08:25	08/15/15 03:38	1
Nickel	12	F1	3.8	0.36	mg/Kg	☼	08/11/15 08:25	08/15/15 03:38	1
Selenium	0.92	U	2.4	0.92	mg/Kg	☼	08/11/15 08:25	08/15/15 03:38	1
Silver	0.25	J	0.95	0.057	mg/Kg	☼	08/11/15 08:25	08/15/15 03:38	1
Vanadium	47		0.95	0.095	mg/Kg	☼	08/11/15 08:25	08/15/15 03:38	1
Zinc	270		1.9	0.66	mg/Kg	☼	08/11/15 08:25	08/15/15 03:38	1

## Method: 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.27		0.020	0.0082	mg/Kg	☼	08/16/15 13:43	08/17/15 21:53	1

## General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total	0.78		0.54	0.23	mg/Kg	☼	08/17/15 06:30	08/17/15 12:02	1

TestAmerica Savannah

# Client Sample Results

Client: Geotechnical & Environmental Consultants  
Project/Site: Macon MGP

TestAmerica Job ID: 680-115409-1

**Client Sample ID: GB-3 8-10**

**Date Collected: 08/07/15 15:36**

**Date Received: 08/08/15 10:00**

**Lab Sample ID: 680-115409-21**

**Matrix: Solid**

**Percent Solids: 63.3**

## Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	0.064	U	0.52	0.064	mg/Kg	☼	08/10/15 16:16	08/12/15 16:15	1
Acenaphthylene	0.056	U	0.52	0.056	mg/Kg	☼	08/10/15 16:16	08/12/15 16:15	1
Acetophenone	0.044	U	0.52	0.044	mg/Kg	☼	08/10/15 16:16	08/12/15 16:15	1
Anthracene	0.039	U	0.52	0.039	mg/Kg	☼	08/10/15 16:16	08/12/15 16:15	1
Atrazine	0.036	U	0.52	0.036	mg/Kg	☼	08/10/15 16:16	08/12/15 16:15	1
Benzaldehyde	0.091	U	0.52	0.091	mg/Kg	☼	08/10/15 16:16	08/12/15 16:15	1
<b>Benzo[a]anthracene</b>	<b>0.15</b>	<b>J</b>	0.52	0.042	mg/Kg	☼	08/10/15 16:16	08/12/15 16:15	1
<b>Benzo[a]pyrene</b>	<b>0.12</b>	<b>J</b>	0.52	0.081	mg/Kg	☼	08/10/15 16:16	08/12/15 16:15	1
<b>Benzo[b]fluoranthene</b>	<b>0.27</b>	<b>J</b>	0.52	0.059	mg/Kg	☼	08/10/15 16:16	08/12/15 16:15	1
<b>Benzo[g,h,i]perylene</b>	<b>0.064</b>	<b>J</b>	0.52	0.034	mg/Kg	☼	08/10/15 16:16	08/12/15 16:15	1
<b>Benzo[k]fluoranthene</b>	<b>0.13</b>	<b>J</b>	0.52	0.10	mg/Kg	☼	08/10/15 16:16	08/12/15 16:15	1
1,1'-Biphenyl	2.7	U	2.7	2.7	mg/Kg	☼	08/10/15 16:16	08/12/15 16:15	1
Bis(2-chloroethoxy)methane	0.061	U	0.52	0.061	mg/Kg	☼	08/10/15 16:16	08/12/15 16:15	1
Bis(2-chloroethyl)ether	0.070	U	0.52	0.070	mg/Kg	☼	08/10/15 16:16	08/12/15 16:15	1
bis (2-chloroisopropyl) ether	0.047	U	0.52	0.047	mg/Kg	☼	08/10/15 16:16	08/12/15 16:15	1
<b>Bis(2-ethylhexyl) phthalate</b>	<b>0.42</b>	<b>J B</b>	0.52	0.045	mg/Kg	☼	08/10/15 16:16	08/12/15 16:15	1
4-Bromophenyl phenyl ether	0.056	U	0.52	0.056	mg/Kg	☼	08/10/15 16:16	08/12/15 16:15	1
Butyl benzyl phthalate	0.041	U	0.52	0.041	mg/Kg	☼	08/10/15 16:16	08/12/15 16:15	1
Caprolactam	0.10	U	0.52	0.10	mg/Kg	☼	08/10/15 16:16	08/12/15 16:15	1
Carbazole	0.047	U	0.52	0.047	mg/Kg	☼	08/10/15 16:16	08/12/15 16:15	1
4-Chloroaniline	0.081	U	1.0	0.081	mg/Kg	☼	08/10/15 16:16	08/12/15 16:15	1
4-Chloro-3-methylphenol	0.055	U	0.52	0.055	mg/Kg	☼	08/10/15 16:16	08/12/15 16:15	1
2-Chloronaphthalene	0.055	U	0.52	0.055	mg/Kg	☼	08/10/15 16:16	08/12/15 16:15	1
2-Chlorophenol	0.062	U	0.52	0.062	mg/Kg	☼	08/10/15 16:16	08/12/15 16:15	1
4-Chlorophenyl phenyl ether	0.069	U	0.52	0.069	mg/Kg	☼	08/10/15 16:16	08/12/15 16:15	1
<b>Chrysene</b>	<b>0.24</b>	<b>J</b>	0.52	0.033	mg/Kg	☼	08/10/15 16:16	08/12/15 16:15	1
Dibenz(a,h)anthracene	0.061	U	0.52	0.061	mg/Kg	☼	08/10/15 16:16	08/12/15 16:15	1
Dibenzofuran	0.052	U	0.52	0.052	mg/Kg	☼	08/10/15 16:16	08/12/15 16:15	1
3,3'-Dichlorobenzidine	0.044	U	1.0	0.044	mg/Kg	☼	08/10/15 16:16	08/12/15 16:15	1
2,4-Dichlorophenol	0.055	U	0.52	0.055	mg/Kg	☼	08/10/15 16:16	08/12/15 16:15	1
Diethyl phthalate	0.058	U	0.52	0.058	mg/Kg	☼	08/10/15 16:16	08/12/15 16:15	1
2,4-Dimethylphenol	0.069	U	0.52	0.069	mg/Kg	☼	08/10/15 16:16	08/12/15 16:15	1
Dimethyl phthalate	0.053	U	0.52	0.053	mg/Kg	☼	08/10/15 16:16	08/12/15 16:15	1
Di-n-butyl phthalate	0.047	U	0.52	0.047	mg/Kg	☼	08/10/15 16:16	08/12/15 16:15	1
4,6-Dinitro-2-methylphenol	0.27	U *	2.7	0.27	mg/Kg	☼	08/10/15 16:16	08/12/15 16:15	1
2,4-Dinitrophenol	1.3	U	2.7	1.3	mg/Kg	☼	08/10/15 16:16	08/12/15 16:15	1
2,4-Dinitrotoluene	0.076	U	0.52	0.076	mg/Kg	☼	08/10/15 16:16	08/12/15 16:15	1
2,6-Dinitrotoluene	0.066	U	0.52	0.066	mg/Kg	☼	08/10/15 16:16	08/12/15 16:15	1
Di-n-octyl phthalate	0.045	U	0.52	0.045	mg/Kg	☼	08/10/15 16:16	08/12/15 16:15	1
<b>Fluoranthene</b>	<b>0.067</b>	<b>J</b>	0.52	0.050	mg/Kg	☼	08/10/15 16:16	08/12/15 16:15	1
Fluorene	0.056	U	0.52	0.056	mg/Kg	☼	08/10/15 16:16	08/12/15 16:15	1
Hexachlorobenzene	0.061	U	0.52	0.061	mg/Kg	☼	08/10/15 16:16	08/12/15 16:15	1
Hexachlorobutadiene	0.056	U	0.52	0.056	mg/Kg	☼	08/10/15 16:16	08/12/15 16:15	1
Hexachlorocyclopentadiene	0.064	U	0.52	0.064	mg/Kg	☼	08/10/15 16:16	08/12/15 16:15	1
Hexachloroethane	0.044	U	0.52	0.044	mg/Kg	☼	08/10/15 16:16	08/12/15 16:15	1
<b>Indeno[1,2,3-cd]pyrene</b>	<b>0.060</b>	<b>J</b>	0.52	0.044	mg/Kg	☼	08/10/15 16:16	08/12/15 16:15	1
Isophorone	0.052	U	0.52	0.052	mg/Kg	☼	08/10/15 16:16	08/12/15 16:15	1
2-Methylnaphthalene	0.059	U	0.52	0.059	mg/Kg	☼	08/10/15 16:16	08/12/15 16:15	1
2-Methylphenol	0.042	U	0.52	0.042	mg/Kg	☼	08/10/15 16:16	08/12/15 16:15	1

TestAmerica Savannah

# Client Sample Results

Client: Geotechnical & Environmental Consultants  
Project/Site: Macon MGP

TestAmerica Job ID: 680-115409-1

**Client Sample ID: GB-3 8-10**

**Date Collected: 08/07/15 15:36**

**Date Received: 08/08/15 10:00**

**Lab Sample ID: 680-115409-21**

**Matrix: Solid**

**Percent Solids: 63.3**

## Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
3 & 4 Methylphenol	0.067	U	0.52	0.067	mg/Kg	☼	08/10/15 16:16	08/12/15 16:15	1
Naphthalene	0.047	U	0.52	0.047	mg/Kg	☼	08/10/15 16:16	08/12/15 16:15	1
2-Nitroaniline	0.070	U	2.7	0.070	mg/Kg	☼	08/10/15 16:16	08/12/15 16:15	1
3-Nitroaniline	0.072	U	2.7	0.072	mg/Kg	☼	08/10/15 16:16	08/12/15 16:15	1
4-Nitroaniline	0.076	U	2.7	0.076	mg/Kg	☼	08/10/15 16:16	08/12/15 16:15	1
Nitrobenzene	0.041	U	0.52	0.041	mg/Kg	☼	08/10/15 16:16	08/12/15 16:15	1
2-Nitrophenol	0.064	U	0.52	0.064	mg/Kg	☼	08/10/15 16:16	08/12/15 16:15	1
4-Nitrophenol	0.52	U	2.7	0.52	mg/Kg	☼	08/10/15 16:16	08/12/15 16:15	1
N-Nitrosodi-n-propylamine	0.050	U	0.52	0.050	mg/Kg	☼	08/10/15 16:16	08/12/15 16:15	1
N-Nitrosodiphenylamine	0.052	U	0.52	0.052	mg/Kg	☼	08/10/15 16:16	08/12/15 16:15	1
Pentachlorophenol	0.52	U *	2.7	0.52	mg/Kg	☼	08/10/15 16:16	08/12/15 16:15	1
Phenanthrene	0.042	U	0.52	0.042	mg/Kg	☼	08/10/15 16:16	08/12/15 16:15	1
Phenol	0.053	U	0.52	0.053	mg/Kg	☼	08/10/15 16:16	08/12/15 16:15	1
<b>Pyrene</b>	<b>0.065</b>	<b>J</b>	0.52	0.042	mg/Kg	☼	08/10/15 16:16	08/12/15 16:15	1
2,4,5-Trichlorophenol	0.055	U	0.52	0.055	mg/Kg	☼	08/10/15 16:16	08/12/15 16:15	1
2,4,6-Trichlorophenol	0.045	U	0.52	0.045	mg/Kg	☼	08/10/15 16:16	08/12/15 16:15	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl	77		41 - 116	08/10/15 16:16	08/12/15 16:15	1
2-Fluorophenol (Surr)	56		39 - 114	08/10/15 16:16	08/12/15 16:15	1
Nitrobenzene-d5 (Surr)	51		37 - 115	08/10/15 16:16	08/12/15 16:15	1
Phenol-d5 (Surr)	60		38 - 122	08/10/15 16:16	08/12/15 16:15	1
Terphenyl-d14 (Surr)	74		46 - 126	08/10/15 16:16	08/12/15 16:15	1
2,4,6-Tribromophenol (Surr)	77		45 - 129	08/10/15 16:16	08/12/15 16:15	1

## Method: 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Arsenic</b>	<b>5.3</b>		2.8	1.1	mg/Kg	☼	08/11/15 08:25	08/15/15 04:29	1
<b>Barium</b>	<b>53</b>		1.4	0.22	mg/Kg	☼	08/11/15 08:25	08/15/15 04:29	1
<b>Beryllium</b>	<b>0.40</b>	<b>J</b>	0.55	0.014	mg/Kg	☼	08/11/15 08:25	08/15/15 04:29	1
Cadmium	0.14	U	0.69	0.14	mg/Kg	☼	08/11/15 08:25	08/15/15 04:29	1
<b>Chromium</b>	<b>29</b>		1.4	0.29	mg/Kg	☼	08/11/15 08:25	08/15/15 04:29	1
<b>Copper</b>	<b>10</b>		3.5	0.24	mg/Kg	☼	08/11/15 08:25	08/15/15 04:29	1
<b>Lead</b>	<b>42</b>		1.4	0.47	mg/Kg	☼	08/11/15 08:25	08/15/15 04:29	1
<b>Nickel</b>	<b>3.9</b>	<b>J</b>	5.5	0.53	mg/Kg	☼	08/11/15 08:25	08/15/15 04:29	1
Selenium	1.3	U	3.5	1.3	mg/Kg	☼	08/11/15 08:25	08/15/15 04:29	1
Silver	0.083	U	1.4	0.083	mg/Kg	☼	08/11/15 08:25	08/15/15 04:29	1
<b>Vanadium</b>	<b>55</b>		1.4	0.14	mg/Kg	☼	08/11/15 08:25	08/15/15 04:29	1
<b>Zinc</b>	<b>59</b>		2.8	0.97	mg/Kg	☼	08/11/15 08:25	08/15/15 04:29	1

## Method: 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Mercury</b>	<b>0.081</b>		0.029	0.011	mg/Kg	☼	08/16/15 13:43	08/17/15 21:56	1

## General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total	0.33	U	0.78	0.33	mg/Kg	☼	08/17/15 08:00	08/17/15 12:05	1

TestAmerica Savannah



# Client Sample Results

Client: Geotechnical & Environmental Consultants  
Project/Site: Macon MGP

TestAmerica Job ID: 680-115409-1

Client Sample ID: GB-3 13-15

Lab Sample ID: 680-115409-22

Date Collected: 08/07/15 15:42

Matrix: Solid

Date Received: 08/08/15 10:00

Percent Solids: 80.7

## Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	0.051	U	0.41	0.051	mg/Kg	☼	08/10/15 16:16	08/12/15 16:42	1
Acenaphthylene	0.045	U	0.41	0.045	mg/Kg	☼	08/10/15 16:16	08/12/15 16:42	1
Acetophenone	0.035	U	0.41	0.035	mg/Kg	☼	08/10/15 16:16	08/12/15 16:42	1
Anthracene	0.031	U	0.41	0.031	mg/Kg	☼	08/10/15 16:16	08/12/15 16:42	1
Atrazine	0.029	U	0.41	0.029	mg/Kg	☼	08/10/15 16:16	08/12/15 16:42	1
Benzaldehyde	0.072	U	0.41	0.072	mg/Kg	☼	08/10/15 16:16	08/12/15 16:42	1
Benzo[a]anthracene	0.034	U	0.41	0.034	mg/Kg	☼	08/10/15 16:16	08/12/15 16:42	1
Benzo[a]pyrene	0.065	U	0.41	0.065	mg/Kg	☼	08/10/15 16:16	08/12/15 16:42	1
Benzo[b]fluoranthene	0.047	U	0.41	0.047	mg/Kg	☼	08/10/15 16:16	08/12/15 16:42	1
Benzo[g,h,i]perylene	0.027	U	0.41	0.027	mg/Kg	☼	08/10/15 16:16	08/12/15 16:42	1
Benzo[k]fluoranthene	0.081	U	0.41	0.081	mg/Kg	☼	08/10/15 16:16	08/12/15 16:42	1
1,1'-Biphenyl	2.1	U	2.1	2.1	mg/Kg	☼	08/10/15 16:16	08/12/15 16:42	1
Bis(2-chloroethoxy)methane	0.048	U	0.41	0.048	mg/Kg	☼	08/10/15 16:16	08/12/15 16:42	1
Bis(2-chloroethyl)ether	0.056	U	0.41	0.056	mg/Kg	☼	08/10/15 16:16	08/12/15 16:42	1
bis (2-chloroisopropyl) ether	0.037	U	0.41	0.037	mg/Kg	☼	08/10/15 16:16	08/12/15 16:42	1
<b>Bis(2-ethylhexyl) phthalate</b>	<b>0.29</b>	<b>J B</b>	0.41	0.036	mg/Kg	☼	08/10/15 16:16	08/12/15 16:42	1
4-Bromophenyl phenyl ether	0.045	U	0.41	0.045	mg/Kg	☼	08/10/15 16:16	08/12/15 16:42	1
Butyl benzyl phthalate	0.032	U	0.41	0.032	mg/Kg	☼	08/10/15 16:16	08/12/15 16:42	1
Caprolactam	0.082	U	0.41	0.082	mg/Kg	☼	08/10/15 16:16	08/12/15 16:42	1
Carbazole	0.037	U	0.41	0.037	mg/Kg	☼	08/10/15 16:16	08/12/15 16:42	1
4-Chloroaniline	0.065	U	0.82	0.065	mg/Kg	☼	08/10/15 16:16	08/12/15 16:42	1
4-Chloro-3-methylphenol	0.043	U	0.41	0.043	mg/Kg	☼	08/10/15 16:16	08/12/15 16:42	1
2-Chloronaphthalene	0.043	U	0.41	0.043	mg/Kg	☼	08/10/15 16:16	08/12/15 16:42	1
2-Chlorophenol	0.050	U	0.41	0.050	mg/Kg	☼	08/10/15 16:16	08/12/15 16:42	1
4-Chlorophenyl phenyl ether	0.055	U	0.41	0.055	mg/Kg	☼	08/10/15 16:16	08/12/15 16:42	1
Chrysene	0.026	U	0.41	0.026	mg/Kg	☼	08/10/15 16:16	08/12/15 16:42	1
Dibenz(a,h)anthracene	0.048	U	0.41	0.048	mg/Kg	☼	08/10/15 16:16	08/12/15 16:42	1
Dibenzofuran	0.041	U	0.41	0.041	mg/Kg	☼	08/10/15 16:16	08/12/15 16:42	1
3,3'-Dichlorobenzidine	0.035	U	0.82	0.035	mg/Kg	☼	08/10/15 16:16	08/12/15 16:42	1
2,4-Dichlorophenol	0.043	U	0.41	0.043	mg/Kg	☼	08/10/15 16:16	08/12/15 16:42	1
Diethyl phthalate	0.046	U	0.41	0.046	mg/Kg	☼	08/10/15 16:16	08/12/15 16:42	1
2,4-Dimethylphenol	0.055	U	0.41	0.055	mg/Kg	☼	08/10/15 16:16	08/12/15 16:42	1
Dimethyl phthalate	0.042	U	0.41	0.042	mg/Kg	☼	08/10/15 16:16	08/12/15 16:42	1
Di-n-butyl phthalate	0.037	U	0.41	0.037	mg/Kg	☼	08/10/15 16:16	08/12/15 16:42	1
4,6-Dinitro-2-methylphenol	0.21	U *	2.1	0.21	mg/Kg	☼	08/10/15 16:16	08/12/15 16:42	1
2,4-Dinitrophenol	1.0	U	2.1	1.0	mg/Kg	☼	08/10/15 16:16	08/12/15 16:42	1
2,4-Dinitrotoluene	0.061	U	0.41	0.061	mg/Kg	☼	08/10/15 16:16	08/12/15 16:42	1
2,6-Dinitrotoluene	0.052	U	0.41	0.052	mg/Kg	☼	08/10/15 16:16	08/12/15 16:42	1
Di-n-octyl phthalate	0.036	U	0.41	0.036	mg/Kg	☼	08/10/15 16:16	08/12/15 16:42	1
<b>Fluoranthene</b>	<b>0.045</b>	<b>J</b>	0.41	0.040	mg/Kg	☼	08/10/15 16:16	08/12/15 16:42	1
Fluorene	0.045	U	0.41	0.045	mg/Kg	☼	08/10/15 16:16	08/12/15 16:42	1
Hexachlorobenzene	0.048	U	0.41	0.048	mg/Kg	☼	08/10/15 16:16	08/12/15 16:42	1
Hexachlorobutadiene	0.045	U	0.41	0.045	mg/Kg	☼	08/10/15 16:16	08/12/15 16:42	1
Hexachlorocyclopentadiene	0.051	U	0.41	0.051	mg/Kg	☼	08/10/15 16:16	08/12/15 16:42	1
Hexachloroethane	0.035	U	0.41	0.035	mg/Kg	☼	08/10/15 16:16	08/12/15 16:42	1
Indeno[1,2,3-cd]pyrene	0.035	U	0.41	0.035	mg/Kg	☼	08/10/15 16:16	08/12/15 16:42	1
Isophorone	0.041	U	0.41	0.041	mg/Kg	☼	08/10/15 16:16	08/12/15 16:42	1
2-Methylnaphthalene	0.047	U	0.41	0.047	mg/Kg	☼	08/10/15 16:16	08/12/15 16:42	1
2-Methylphenol	0.034	U	0.41	0.034	mg/Kg	☼	08/10/15 16:16	08/12/15 16:42	1

TestAmerica Savannah

# Client Sample Results

Client: Geotechnical & Environmental Consultants  
Project/Site: Macon MGP

TestAmerica Job ID: 680-115409-1

**Client Sample ID: GB-3 13-15**

**Lab Sample ID: 680-115409-22**

**Date Collected: 08/07/15 15:42**

**Matrix: Solid**

**Date Received: 08/08/15 10:00**

**Percent Solids: 80.7**

## Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
3 & 4 Methylphenol	0.053	U	0.41	0.053	mg/Kg	☼	08/10/15 16:16	08/12/15 16:42	1
Naphthalene	0.037	U	0.41	0.037	mg/Kg	☼	08/10/15 16:16	08/12/15 16:42	1
2-Nitroaniline	0.056	U	2.1	0.056	mg/Kg	☼	08/10/15 16:16	08/12/15 16:42	1
3-Nitroaniline	0.057	U	2.1	0.057	mg/Kg	☼	08/10/15 16:16	08/12/15 16:42	1
4-Nitroaniline	0.061	U	2.1	0.061	mg/Kg	☼	08/10/15 16:16	08/12/15 16:42	1
Nitrobenzene	0.032	U	0.41	0.032	mg/Kg	☼	08/10/15 16:16	08/12/15 16:42	1
2-Nitrophenol	0.051	U	0.41	0.051	mg/Kg	☼	08/10/15 16:16	08/12/15 16:42	1
4-Nitrophenol	0.41	U	2.1	0.41	mg/Kg	☼	08/10/15 16:16	08/12/15 16:42	1
N-Nitrosodi-n-propylamine	0.040	U	0.41	0.040	mg/Kg	☼	08/10/15 16:16	08/12/15 16:42	1
N-Nitrosodiphenylamine	0.041	U	0.41	0.041	mg/Kg	☼	08/10/15 16:16	08/12/15 16:42	1
Pentachlorophenol	0.41	U *	2.1	0.41	mg/Kg	☼	08/10/15 16:16	08/12/15 16:42	1
Phenanthrene	0.075	J	0.41	0.034	mg/Kg	☼	08/10/15 16:16	08/12/15 16:42	1
Phenol	0.042	U	0.41	0.042	mg/Kg	☼	08/10/15 16:16	08/12/15 16:42	1
Pyrene	0.035	J	0.41	0.034	mg/Kg	☼	08/10/15 16:16	08/12/15 16:42	1
2,4,5-Trichlorophenol	0.043	U	0.41	0.043	mg/Kg	☼	08/10/15 16:16	08/12/15 16:42	1
2,4,6-Trichlorophenol	0.036	U	0.41	0.036	mg/Kg	☼	08/10/15 16:16	08/12/15 16:42	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl	84		41 - 116	08/10/15 16:16	08/12/15 16:42	1
2-Fluorophenol (Surr)	62		39 - 114	08/10/15 16:16	08/12/15 16:42	1
Nitrobenzene-d5 (Surr)	53		37 - 115	08/10/15 16:16	08/12/15 16:42	1
Phenol-d5 (Surr)	65		38 - 122	08/10/15 16:16	08/12/15 16:42	1
Terphenyl-d14 (Surr)	77		46 - 126	08/10/15 16:16	08/12/15 16:42	1
2,4,6-Tribromophenol (Surr)	86		45 - 129	08/10/15 16:16	08/12/15 16:42	1

## Method: 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	3.4		2.2	0.86	mg/Kg	☼	08/11/15 08:25	08/15/15 04:33	1
Barium	39		1.1	0.17	mg/Kg	☼	08/11/15 08:25	08/15/15 04:33	1
Beryllium	0.32	J	0.43	0.011	mg/Kg	☼	08/11/15 08:25	08/15/15 04:33	1
Cadmium	0.11	U	0.54	0.11	mg/Kg	☼	08/11/15 08:25	08/15/15 04:33	1
Chromium	20		1.1	0.23	mg/Kg	☼	08/11/15 08:25	08/15/15 04:33	1
Copper	6.7		2.7	0.18	mg/Kg	☼	08/11/15 08:25	08/15/15 04:33	1
Lead	14		1.1	0.37	mg/Kg	☼	08/11/15 08:25	08/15/15 04:33	1
Nickel	3.0	J	4.3	0.41	mg/Kg	☼	08/11/15 08:25	08/15/15 04:33	1
Selenium	1.0	U	2.7	1.0	mg/Kg	☼	08/11/15 08:25	08/15/15 04:33	1
Silver	0.065	U	1.1	0.065	mg/Kg	☼	08/11/15 08:25	08/15/15 04:33	1
Vanadium	43		1.1	0.11	mg/Kg	☼	08/11/15 08:25	08/15/15 04:33	1
Zinc	26		2.2	0.75	mg/Kg	☼	08/11/15 08:25	08/15/15 04:33	1

## Method: 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.029		0.024	0.0097	mg/Kg	☼	08/16/15 13:43	08/17/15 22:05	1

## General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total	0.25	U	0.59	0.25	mg/Kg	☼	08/17/15 08:00	08/17/15 12:08	1

TestAmerica Savannah

# Client Sample Results

Client: Geotechnical & Environmental Consultants  
Project/Site: Macon MGP

TestAmerica Job ID: 680-115409-1

Client Sample ID: GB-5 8-10

Date Collected: 08/07/15 13:45

Date Received: 08/08/15 10:00

Lab Sample ID: 680-115409-23

Matrix: Solid

Percent Solids: 75.9

## Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	0.00072	U	0.0049	0.00072	mg/Kg	☼	08/10/15 10:33	08/11/15 20:21	1
Carbon disulfide	0.0011	U	0.0049	0.0011	mg/Kg	☼	08/10/15 10:33	08/11/15 20:21	1
Ethylbenzene	0.0013	U	0.0049	0.0013	mg/Kg	☼	08/10/15 10:33	08/11/15 20:21	1
Methylene Chloride	0.00096	U	0.0049	0.00096	mg/Kg	☼	08/10/15 10:33	08/11/15 20:21	1
Toluene	0.00083	U	0.0049	0.00083	mg/Kg	☼	08/10/15 10:33	08/11/15 20:21	1
Xylenes, Total	0.0011	U	0.0098	0.0011	mg/Kg	☼	08/10/15 10:33	08/11/15 20:21	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	84		65 - 130	08/10/15 10:33	08/11/15 20:21	1
Dibromofluoromethane (Surr)	89		65 - 130	08/10/15 10:33	08/11/15 20:21	1
1,2-Dichloroethane-d4 (Surr)	88		65 - 130	08/10/15 10:33	08/11/15 20:21	1
Toluene-d8 (Surr)	92		65 - 130	08/10/15 10:33	08/11/15 20:21	1

## Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	0.054	U	0.43	0.054	mg/Kg	☼	08/10/15 16:16	08/12/15 17:08	1
Acenaphthylene	0.047	U	0.43	0.047	mg/Kg	☼	08/10/15 16:16	08/12/15 17:08	1
Acetophenone	0.037	U	0.43	0.037	mg/Kg	☼	08/10/15 16:16	08/12/15 17:08	1
Anthracene	0.033	U	0.43	0.033	mg/Kg	☼	08/10/15 16:16	08/12/15 17:08	1
Atrazine	0.030	U	0.43	0.030	mg/Kg	☼	08/10/15 16:16	08/12/15 17:08	1
Benzaldehyde	0.076	U	0.43	0.076	mg/Kg	☼	08/10/15 16:16	08/12/15 17:08	1
Benzo[a]anthracene	0.035	U	0.43	0.035	mg/Kg	☼	08/10/15 16:16	08/12/15 17:08	1
Benzo[a]pyrene	0.068	U	0.43	0.068	mg/Kg	☼	08/10/15 16:16	08/12/15 17:08	1
Benzo[b]fluoranthene	0.050	U	0.43	0.050	mg/Kg	☼	08/10/15 16:16	08/12/15 17:08	1
Benzo[g,h,i]perylene	0.029	U	0.43	0.029	mg/Kg	☼	08/10/15 16:16	08/12/15 17:08	1
Benzo[k]fluoranthene	0.085	U	0.43	0.085	mg/Kg	☼	08/10/15 16:16	08/12/15 17:08	1
1,1'-Biphenyl	2.2	U	2.2	2.2	mg/Kg	☼	08/10/15 16:16	08/12/15 17:08	1
Bis(2-chloroethoxy)methane	0.051	U	0.43	0.051	mg/Kg	☼	08/10/15 16:16	08/12/15 17:08	1
Bis(2-chloroethyl)ether	0.059	U	0.43	0.059	mg/Kg	☼	08/10/15 16:16	08/12/15 17:08	1
bis (2-chloroisopropyl) ether	0.039	U	0.43	0.039	mg/Kg	☼	08/10/15 16:16	08/12/15 17:08	1
Bis(2-ethylhexyl) phthalate	0.50	B	0.43	0.038	mg/Kg	☼	08/10/15 16:16	08/12/15 17:08	1
4-Bromophenyl phenyl ether	0.047	U	0.43	0.047	mg/Kg	☼	08/10/15 16:16	08/12/15 17:08	1
Butyl benzyl phthalate	0.034	U	0.43	0.034	mg/Kg	☼	08/10/15 16:16	08/12/15 17:08	1
Caprolactam	0.086	U	0.43	0.086	mg/Kg	☼	08/10/15 16:16	08/12/15 17:08	1
Carbazole	0.039	U	0.43	0.039	mg/Kg	☼	08/10/15 16:16	08/12/15 17:08	1
4-Chloroaniline	0.068	U	0.86	0.068	mg/Kg	☼	08/10/15 16:16	08/12/15 17:08	1
4-Chloro-3-methylphenol	0.046	U	0.43	0.046	mg/Kg	☼	08/10/15 16:16	08/12/15 17:08	1
2-Chloronaphthalene	0.046	U	0.43	0.046	mg/Kg	☼	08/10/15 16:16	08/12/15 17:08	1
2-Chlorophenol	0.052	U	0.43	0.052	mg/Kg	☼	08/10/15 16:16	08/12/15 17:08	1
4-Chlorophenyl phenyl ether	0.058	U	0.43	0.058	mg/Kg	☼	08/10/15 16:16	08/12/15 17:08	1
Chrysene	0.029	J	0.43	0.027	mg/Kg	☼	08/10/15 16:16	08/12/15 17:08	1
Dibenz(a,h)anthracene	0.051	U	0.43	0.051	mg/Kg	☼	08/10/15 16:16	08/12/15 17:08	1
Dibenzofuran	0.043	U	0.43	0.043	mg/Kg	☼	08/10/15 16:16	08/12/15 17:08	1
3,3'-Dichlorobenzidine	0.037	U	0.86	0.037	mg/Kg	☼	08/10/15 16:16	08/12/15 17:08	1
2,4-Dichlorophenol	0.046	U	0.43	0.046	mg/Kg	☼	08/10/15 16:16	08/12/15 17:08	1
Diethyl phthalate	0.048	U	0.43	0.048	mg/Kg	☼	08/10/15 16:16	08/12/15 17:08	1
2,4-Dimethylphenol	0.058	U	0.43	0.058	mg/Kg	☼	08/10/15 16:16	08/12/15 17:08	1
Dimethyl phthalate	0.045	U	0.43	0.045	mg/Kg	☼	08/10/15 16:16	08/12/15 17:08	1
Di-n-butyl phthalate	0.039	U	0.43	0.039	mg/Kg	☼	08/10/15 16:16	08/12/15 17:08	1
4,6-Dinitro-2-methylphenol	0.22	U *	2.2	0.22	mg/Kg	☼	08/10/15 16:16	08/12/15 17:08	1

TestAmerica Savannah



# Client Sample Results

Client: Geotechnical & Environmental Consultants  
Project/Site: Macon MGP

TestAmerica Job ID: 680-115409-1

**Client Sample ID: GB-5 8-10**

**Lab Sample ID: 680-115409-23**

**Date Collected: 08/07/15 13:45**

**Matrix: Solid**

**Date Received: 08/08/15 10:00**

**Percent Solids: 75.9**

## Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4-Dinitrophenol	1.1	U	2.2	1.1	mg/Kg	☼	08/10/15 16:16	08/12/15 17:08	1
2,4-Dinitrotoluene	0.064	U	0.43	0.064	mg/Kg	☼	08/10/15 16:16	08/12/15 17:08	1
2,6-Dinitrotoluene	0.055	U	0.43	0.055	mg/Kg	☼	08/10/15 16:16	08/12/15 17:08	1
Di-n-octyl phthalate	0.038	U	0.43	0.038	mg/Kg	☼	08/10/15 16:16	08/12/15 17:08	1
<b>Fluoranthene</b>	<b>0.054</b>	<b>J</b>	0.43	0.042	mg/Kg	☼	08/10/15 16:16	08/12/15 17:08	1
Fluorene	0.047	U	0.43	0.047	mg/Kg	☼	08/10/15 16:16	08/12/15 17:08	1
Hexachlorobenzene	0.051	U	0.43	0.051	mg/Kg	☼	08/10/15 16:16	08/12/15 17:08	1
Hexachlorobutadiene	0.047	U	0.43	0.047	mg/Kg	☼	08/10/15 16:16	08/12/15 17:08	1
Hexachlorocyclopentadiene	0.054	U	0.43	0.054	mg/Kg	☼	08/10/15 16:16	08/12/15 17:08	1
Hexachloroethane	0.037	U	0.43	0.037	mg/Kg	☼	08/10/15 16:16	08/12/15 17:08	1
Indeno[1,2,3-cd]pyrene	0.037	U	0.43	0.037	mg/Kg	☼	08/10/15 16:16	08/12/15 17:08	1
Isophorone	0.043	U	0.43	0.043	mg/Kg	☼	08/10/15 16:16	08/12/15 17:08	1
2-Methylnaphthalene	0.050	U	0.43	0.050	mg/Kg	☼	08/10/15 16:16	08/12/15 17:08	1
2-Methylphenol	0.035	U	0.43	0.035	mg/Kg	☼	08/10/15 16:16	08/12/15 17:08	1
3 & 4 Methylphenol	0.056	U	0.43	0.056	mg/Kg	☼	08/10/15 16:16	08/12/15 17:08	1
Naphthalene	0.039	U	0.43	0.039	mg/Kg	☼	08/10/15 16:16	08/12/15 17:08	1
2-Nitroaniline	0.059	U	2.2	0.059	mg/Kg	☼	08/10/15 16:16	08/12/15 17:08	1
3-Nitroaniline	0.060	U	2.2	0.060	mg/Kg	☼	08/10/15 16:16	08/12/15 17:08	1
4-Nitroaniline	0.064	U	2.2	0.064	mg/Kg	☼	08/10/15 16:16	08/12/15 17:08	1
Nitrobenzene	0.034	U	0.43	0.034	mg/Kg	☼	08/10/15 16:16	08/12/15 17:08	1
2-Nitrophenol	0.054	U	0.43	0.054	mg/Kg	☼	08/10/15 16:16	08/12/15 17:08	1
4-Nitrophenol	0.43	U	2.2	0.43	mg/Kg	☼	08/10/15 16:16	08/12/15 17:08	1
N-Nitrosodi-n-propylamine	0.042	U	0.43	0.042	mg/Kg	☼	08/10/15 16:16	08/12/15 17:08	1
N-Nitrosodiphenylamine	0.043	U	0.43	0.043	mg/Kg	☼	08/10/15 16:16	08/12/15 17:08	1
Pentachlorophenol	0.43	U *	2.2	0.43	mg/Kg	☼	08/10/15 16:16	08/12/15 17:08	1
<b>Phenanthrene</b>	<b>0.069</b>	<b>J</b>	0.43	0.035	mg/Kg	☼	08/10/15 16:16	08/12/15 17:08	1
Phenol	0.045	U	0.43	0.045	mg/Kg	☼	08/10/15 16:16	08/12/15 17:08	1
<b>Pyrene</b>	<b>0.044</b>	<b>J</b>	0.43	0.035	mg/Kg	☼	08/10/15 16:16	08/12/15 17:08	1
2,4,5-Trichlorophenol	0.046	U	0.43	0.046	mg/Kg	☼	08/10/15 16:16	08/12/15 17:08	1
2,4,6-Trichlorophenol	0.038	U	0.43	0.038	mg/Kg	☼	08/10/15 16:16	08/12/15 17:08	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl	66		41 - 116	08/10/15 16:16	08/12/15 17:08	1
2-Fluorophenol (Surr)	52		39 - 114	08/10/15 16:16	08/12/15 17:08	1
Nitrobenzene-d5 (Surr)	43		37 - 115	08/10/15 16:16	08/12/15 17:08	1
Phenol-d5 (Surr)	54		38 - 122	08/10/15 16:16	08/12/15 17:08	1
Terphenyl-d14 (Surr)	61		46 - 126	08/10/15 16:16	08/12/15 17:08	1
2,4,6-Tribromophenol (Surr)	67		45 - 129	08/10/15 16:16	08/12/15 17:08	1

## Method: 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Arsenic</b>	<b>6.4</b>		2.4	0.95	mg/Kg	☼	08/11/15 08:25	08/15/15 04:38	1
<b>Barium</b>	<b>84</b>		1.2	0.19	mg/Kg	☼	08/11/15 08:25	08/15/15 04:38	1
<b>Beryllium</b>	<b>0.40</b>	<b>J</b>	0.47	0.012	mg/Kg	☼	08/11/15 08:25	08/15/15 04:38	1
Cadmium	0.12	U	0.59	0.12	mg/Kg	☼	08/11/15 08:25	08/15/15 04:38	1
<b>Chromium</b>	<b>19</b>		1.2	0.25	mg/Kg	☼	08/11/15 08:25	08/15/15 04:38	1
<b>Copper</b>	<b>190</b>		3.0	0.20	mg/Kg	☼	08/11/15 08:25	08/15/15 04:38	1
<b>Lead</b>	<b>100</b>		1.2	0.40	mg/Kg	☼	08/11/15 08:25	08/15/15 04:38	1
<b>Nickel</b>	<b>9.2</b>		4.7	0.45	mg/Kg	☼	08/11/15 08:25	08/15/15 04:38	1
Selenium	1.2	U	3.0	1.2	mg/Kg	☼	08/11/15 08:25	08/15/15 04:38	1

TestAmerica Savannah

# Client Sample Results

Client: Geotechnical & Environmental Consultants  
Project/Site: Macon MGP

TestAmerica Job ID: 680-115409-1

**Client Sample ID: GB-5 8-10**

**Lab Sample ID: 680-115409-23**

**Date Collected: 08/07/15 13:45**

**Matrix: Solid**

**Date Received: 08/08/15 10:00**

**Percent Solids: 75.9**

## Method: 6010C - Metals (ICP) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	0.17	J	1.2	0.071	mg/Kg	☼	08/11/15 08:25	08/15/15 04:38	1
Vanadium	35		1.2	0.12	mg/Kg	☼	08/11/15 08:25	08/15/15 04:38	1
Zinc	83		2.4	0.83	mg/Kg	☼	08/11/15 08:25	08/15/15 04:38	1

## Method: 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.18		0.024	0.0096	mg/Kg	☼	08/16/15 13:43	08/17/15 22:08	1

## General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total	0.48	J	0.63	0.26	mg/Kg	☼	08/17/15 08:00	08/17/15 12:11	1

# Client Sample Results

Client: Geotechnical & Environmental Consultants  
Project/Site: Macon MGP

TestAmerica Job ID: 680-115409-1

**Client Sample ID: GB-7 8-10**

**Date Collected: 08/07/15 09:54**

**Date Received: 08/08/15 10:00**

**Lab Sample ID: 680-115409-24**

**Matrix: Solid**

**Percent Solids: 80.0**

## Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	0.00074	U	0.0050	0.00074	mg/Kg	☼	08/10/15 10:33	08/11/15 20:42	1
Carbon disulfide	0.0011	U	0.0050	0.0011	mg/Kg	☼	08/10/15 10:33	08/11/15 20:42	1
Ethylbenzene	0.0013	U	0.0050	0.0013	mg/Kg	☼	08/10/15 10:33	08/11/15 20:42	1
Methylene Chloride	0.00099	U	0.0050	0.00099	mg/Kg	☼	08/10/15 10:33	08/11/15 20:42	1
Toluene	0.00085	U	0.0050	0.00085	mg/Kg	☼	08/10/15 10:33	08/11/15 20:42	1
Xylenes, Total	0.0011	U	0.010	0.0011	mg/Kg	☼	08/10/15 10:33	08/11/15 20:42	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	84		65 - 130	08/10/15 10:33	08/11/15 20:42	1
Dibromofluoromethane (Surr)	89		65 - 130	08/10/15 10:33	08/11/15 20:42	1
1,2-Dichloroethane-d4 (Surr)	92		65 - 130	08/10/15 10:33	08/11/15 20:42	1
Toluene-d8 (Surr)	91		65 - 130	08/10/15 10:33	08/11/15 20:42	1

## Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	0.051	U	0.41	0.051	mg/Kg	☼	08/10/15 16:16	08/12/15 17:36	1
Acenaphthylene	0.045	U	0.41	0.045	mg/Kg	☼	08/10/15 16:16	08/12/15 17:36	1
Acetophenone	0.035	U	0.41	0.035	mg/Kg	☼	08/10/15 16:16	08/12/15 17:36	1
Anthracene	0.031	U	0.41	0.031	mg/Kg	☼	08/10/15 16:16	08/12/15 17:36	1
Atrazine	0.029	U	0.41	0.029	mg/Kg	☼	08/10/15 16:16	08/12/15 17:36	1
Benzaldehyde	0.072	U	0.41	0.072	mg/Kg	☼	08/10/15 16:16	08/12/15 17:36	1
Benzo[a]anthracene	0.034	U	0.41	0.034	mg/Kg	☼	08/10/15 16:16	08/12/15 17:36	1
Benzo[a]pyrene	0.065	U	0.41	0.065	mg/Kg	☼	08/10/15 16:16	08/12/15 17:36	1
Benzo[b]fluoranthene	0.047	U	0.41	0.047	mg/Kg	☼	08/10/15 16:16	08/12/15 17:36	1
Benzo[g,h,i]perylene	0.027	U	0.41	0.027	mg/Kg	☼	08/10/15 16:16	08/12/15 17:36	1
Benzo[k]fluoranthene	0.081	U	0.41	0.081	mg/Kg	☼	08/10/15 16:16	08/12/15 17:36	1
1,1'-Biphenyl	2.1	U	2.1	2.1	mg/Kg	☼	08/10/15 16:16	08/12/15 17:36	1
Bis(2-chloroethoxy)methane	0.049	U	0.41	0.049	mg/Kg	☼	08/10/15 16:16	08/12/15 17:36	1
Bis(2-chloroethyl)ether	0.056	U	0.41	0.056	mg/Kg	☼	08/10/15 16:16	08/12/15 17:36	1
bis (2-chloroisopropyl) ether	0.037	U	0.41	0.037	mg/Kg	☼	08/10/15 16:16	08/12/15 17:36	1
<b>Bis(2-ethylhexyl) phthalate</b>	<b>0.46</b>	<b>B</b>	0.41	0.036	mg/Kg	☼	08/10/15 16:16	08/12/15 17:36	1
4-Bromophenyl phenyl ether	0.045	U	0.41	0.045	mg/Kg	☼	08/10/15 16:16	08/12/15 17:36	1
Butyl benzyl phthalate	0.032	U	0.41	0.032	mg/Kg	☼	08/10/15 16:16	08/12/15 17:36	1
Caprolactam	0.082	U	0.41	0.082	mg/Kg	☼	08/10/15 16:16	08/12/15 17:36	1
Carbazole	0.037	U	0.41	0.037	mg/Kg	☼	08/10/15 16:16	08/12/15 17:36	1
4-Chloroaniline	0.065	U	0.82	0.065	mg/Kg	☼	08/10/15 16:16	08/12/15 17:36	1
4-Chloro-3-methylphenol	0.044	U	0.41	0.044	mg/Kg	☼	08/10/15 16:16	08/12/15 17:36	1
2-Chloronaphthalene	0.044	U	0.41	0.044	mg/Kg	☼	08/10/15 16:16	08/12/15 17:36	1
2-Chlorophenol	0.050	U	0.41	0.050	mg/Kg	☼	08/10/15 16:16	08/12/15 17:36	1
4-Chlorophenyl phenyl ether	0.055	U	0.41	0.055	mg/Kg	☼	08/10/15 16:16	08/12/15 17:36	1
Chrysene	0.026	U	0.41	0.026	mg/Kg	☼	08/10/15 16:16	08/12/15 17:36	1
Dibenz(a,h)anthracene	0.049	U	0.41	0.049	mg/Kg	☼	08/10/15 16:16	08/12/15 17:36	1
Dibenzofuran	0.041	U	0.41	0.041	mg/Kg	☼	08/10/15 16:16	08/12/15 17:36	1
3,3'-Dichlorobenzidine	0.035	U	0.82	0.035	mg/Kg	☼	08/10/15 16:16	08/12/15 17:36	1
2,4-Dichlorophenol	0.044	U	0.41	0.044	mg/Kg	☼	08/10/15 16:16	08/12/15 17:36	1
Diethyl phthalate	0.046	U	0.41	0.046	mg/Kg	☼	08/10/15 16:16	08/12/15 17:36	1
2,4-Dimethylphenol	0.055	U	0.41	0.055	mg/Kg	☼	08/10/15 16:16	08/12/15 17:36	1
Dimethyl phthalate	0.042	U	0.41	0.042	mg/Kg	☼	08/10/15 16:16	08/12/15 17:36	1
Di-n-butyl phthalate	0.037	U	0.41	0.037	mg/Kg	☼	08/10/15 16:16	08/12/15 17:36	1
4,6-Dinitro-2-methylphenol	0.21	U *	2.1	0.21	mg/Kg	☼	08/10/15 16:16	08/12/15 17:36	1

TestAmerica Savannah

# Client Sample Results

Client: Geotechnical & Environmental Consultants  
Project/Site: Macon MGP

TestAmerica Job ID: 680-115409-1

**Client Sample ID: GB-7 8-10**

**Lab Sample ID: 680-115409-24**

**Date Collected: 08/07/15 09:54**

**Matrix: Solid**

**Date Received: 08/08/15 10:00**

**Percent Solids: 80.0**

## Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4-Dinitrophenol	1.0	U	2.1	1.0	mg/Kg	☼	08/10/15 16:16	08/12/15 17:36	1
2,4-Dinitrotoluene	0.061	U	0.41	0.061	mg/Kg	☼	08/10/15 16:16	08/12/15 17:36	1
2,6-Dinitrotoluene	0.052	U	0.41	0.052	mg/Kg	☼	08/10/15 16:16	08/12/15 17:36	1
Di-n-octyl phthalate	0.036	U	0.41	0.036	mg/Kg	☼	08/10/15 16:16	08/12/15 17:36	1
<b>Fluoranthene</b>	<b>0.047</b>	<b>J</b>	0.41	0.040	mg/Kg	☼	08/10/15 16:16	08/12/15 17:36	1
Fluorene	0.045	U	0.41	0.045	mg/Kg	☼	08/10/15 16:16	08/12/15 17:36	1
Hexachlorobenzene	0.049	U	0.41	0.049	mg/Kg	☼	08/10/15 16:16	08/12/15 17:36	1
Hexachlorobutadiene	0.045	U	0.41	0.045	mg/Kg	☼	08/10/15 16:16	08/12/15 17:36	1
Hexachlorocyclopentadiene	0.051	U	0.41	0.051	mg/Kg	☼	08/10/15 16:16	08/12/15 17:36	1
Hexachloroethane	0.035	U	0.41	0.035	mg/Kg	☼	08/10/15 16:16	08/12/15 17:36	1
Indeno[1,2,3-cd]pyrene	0.035	U	0.41	0.035	mg/Kg	☼	08/10/15 16:16	08/12/15 17:36	1
Isophorone	0.041	U	0.41	0.041	mg/Kg	☼	08/10/15 16:16	08/12/15 17:36	1
2-Methylnaphthalene	0.047	U	0.41	0.047	mg/Kg	☼	08/10/15 16:16	08/12/15 17:36	1
2-Methylphenol	0.034	U	0.41	0.034	mg/Kg	☼	08/10/15 16:16	08/12/15 17:36	1
3 & 4 Methylphenol	0.054	U	0.41	0.054	mg/Kg	☼	08/10/15 16:16	08/12/15 17:36	1
Naphthalene	0.037	U	0.41	0.037	mg/Kg	☼	08/10/15 16:16	08/12/15 17:36	1
2-Nitroaniline	0.056	U	2.1	0.056	mg/Kg	☼	08/10/15 16:16	08/12/15 17:36	1
3-Nitroaniline	0.057	U	2.1	0.057	mg/Kg	☼	08/10/15 16:16	08/12/15 17:36	1
4-Nitroaniline	0.061	U	2.1	0.061	mg/Kg	☼	08/10/15 16:16	08/12/15 17:36	1
Nitrobenzene	0.032	U	0.41	0.032	mg/Kg	☼	08/10/15 16:16	08/12/15 17:36	1
2-Nitrophenol	0.051	U	0.41	0.051	mg/Kg	☼	08/10/15 16:16	08/12/15 17:36	1
4-Nitrophenol	0.41	U	2.1	0.41	mg/Kg	☼	08/10/15 16:16	08/12/15 17:36	1
N-Nitrosodi-n-propylamine	0.040	U	0.41	0.040	mg/Kg	☼	08/10/15 16:16	08/12/15 17:36	1
N-Nitrosodiphenylamine	0.041	U	0.41	0.041	mg/Kg	☼	08/10/15 16:16	08/12/15 17:36	1
Pentachlorophenol	0.41	U *	2.1	0.41	mg/Kg	☼	08/10/15 16:16	08/12/15 17:36	1
Phenanthrene	0.034	U	0.41	0.034	mg/Kg	☼	08/10/15 16:16	08/12/15 17:36	1
Phenol	0.042	U	0.41	0.042	mg/Kg	☼	08/10/15 16:16	08/12/15 17:36	1
<b>Pyrene</b>	<b>0.039</b>	<b>J</b>	0.41	0.034	mg/Kg	☼	08/10/15 16:16	08/12/15 17:36	1
2,4,5-Trichlorophenol	0.044	U	0.41	0.044	mg/Kg	☼	08/10/15 16:16	08/12/15 17:36	1
2,4,6-Trichlorophenol	0.036	U	0.41	0.036	mg/Kg	☼	08/10/15 16:16	08/12/15 17:36	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl	84		41 - 116	08/10/15 16:16	08/12/15 17:36	1
2-Fluorophenol (Surr)	62		39 - 114	08/10/15 16:16	08/12/15 17:36	1
Nitrobenzene-d5 (Surr)	61		37 - 115	08/10/15 16:16	08/12/15 17:36	1
Phenol-d5 (Surr)	66		38 - 122	08/10/15 16:16	08/12/15 17:36	1
Terphenyl-d14 (Surr)	76		46 - 126	08/10/15 16:16	08/12/15 17:36	1
2,4,6-Tribromophenol (Surr)	89		45 - 129	08/10/15 16:16	08/12/15 17:36	1

## Method: 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Arsenic</b>	<b>1.6</b>	<b>J</b>	2.2	0.89	mg/Kg	☼	08/11/15 08:25	08/15/15 04:43	1
<b>Barium</b>	<b>61</b>		1.1	0.18	mg/Kg	☼	08/11/15 08:25	08/15/15 04:43	1
<b>Beryllium</b>	<b>0.48</b>		0.45	0.011	mg/Kg	☼	08/11/15 08:25	08/15/15 04:43	1
Cadmium	0.11	U	0.56	0.11	mg/Kg	☼	08/11/15 08:25	08/15/15 04:43	1
<b>Chromium</b>	<b>9.5</b>		1.1	0.23	mg/Kg	☼	08/11/15 08:25	08/15/15 04:43	1
<b>Copper</b>	<b>20</b>		2.8	0.19	mg/Kg	☼	08/11/15 08:25	08/15/15 04:43	1
<b>Lead</b>	<b>16</b>		1.1	0.38	mg/Kg	☼	08/11/15 08:25	08/15/15 04:43	1
<b>Nickel</b>	<b>5.5</b>		4.5	0.42	mg/Kg	☼	08/11/15 08:25	08/15/15 04:43	1
Selenium	1.1	U	2.8	1.1	mg/Kg	☼	08/11/15 08:25	08/15/15 04:43	1

TestAmerica Savannah

# Client Sample Results

Client: Geotechnical & Environmental Consultants  
Project/Site: Macon MGP

TestAmerica Job ID: 680-115409-1

**Client Sample ID: GB-7 8-10**

**Lab Sample ID: 680-115409-24**

**Date Collected: 08/07/15 09:54**

**Matrix: Solid**

**Date Received: 08/08/15 10:00**

**Percent Solids: 80.0**

## Method: 6010C - Metals (ICP) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	0.082	J	1.1	0.067	mg/Kg	☼	08/11/15 08:25	08/15/15 04:43	1
Vanadium	51		1.1	0.11	mg/Kg	☼	08/11/15 08:25	08/15/15 04:43	1
Zinc	43		2.2	0.78	mg/Kg	☼	08/11/15 08:25	08/15/15 04:43	1

## Method: 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.062		0.025	0.0098	mg/Kg	☼	08/16/15 13:43	08/17/15 22:11	1

## General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total	0.26	U	0.63	0.26	mg/Kg	☼	08/17/15 08:00	08/17/15 12:13	1

# Client Sample Results

Client: Geotechnical & Environmental Consultants  
Project/Site: Macon MGP

TestAmerica Job ID: 680-115409-1

**Client Sample ID: GB-7 13-15**

**Date Collected: 08/07/15 10:00**

**Date Received: 08/08/15 10:00**

**Lab Sample ID: 680-115409-25**

**Matrix: Solid**

**Percent Solids: 86.0**

## Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	0.00062	U	0.0042	0.00062	mg/Kg	☼	08/10/15 10:33	08/11/15 21:04	1
Carbon disulfide	0.00093	U	0.0042	0.00093	mg/Kg	☼	08/10/15 10:33	08/11/15 21:04	1
Ethylbenzene	0.0011	U	0.0042	0.0011	mg/Kg	☼	08/10/15 10:33	08/11/15 21:04	1
Methylene Chloride	0.00083	U	0.0042	0.00083	mg/Kg	☼	08/10/15 10:33	08/11/15 21:04	1
Toluene	0.00071	U	0.0042	0.00071	mg/Kg	☼	08/10/15 10:33	08/11/15 21:04	1
Xylenes, Total	0.00093	U	0.0085	0.00093	mg/Kg	☼	08/10/15 10:33	08/11/15 21:04	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	85		65 - 130	08/10/15 10:33	08/11/15 21:04	1
Dibromofluoromethane (Surr)	91		65 - 130	08/10/15 10:33	08/11/15 21:04	1
1,2-Dichloroethane-d4 (Surr)	86		65 - 130	08/10/15 10:33	08/11/15 21:04	1
Toluene-d8 (Surr)	94		65 - 130	08/10/15 10:33	08/11/15 21:04	1

## Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	0.047	U	0.38	0.047	mg/Kg	☼	08/10/15 16:16	08/12/15 18:02	1
Acenaphthylene	0.042	U	0.38	0.042	mg/Kg	☼	08/10/15 16:16	08/12/15 18:02	1
Acetophenone	0.032	U	0.38	0.032	mg/Kg	☼	08/10/15 16:16	08/12/15 18:02	1
Anthracene	0.029	U	0.38	0.029	mg/Kg	☼	08/10/15 16:16	08/12/15 18:02	1
Atrazine	0.027	U	0.38	0.027	mg/Kg	☼	08/10/15 16:16	08/12/15 18:02	1
Benzaldehyde	0.067	U	0.38	0.067	mg/Kg	☼	08/10/15 16:16	08/12/15 18:02	1
Benzo[a]anthracene	0.099	J	0.38	0.031	mg/Kg	☼	08/10/15 16:16	08/12/15 18:02	1
Benzo[a]pyrene	0.083	J	0.38	0.060	mg/Kg	☼	08/10/15 16:16	08/12/15 18:02	1
Benzo[b]fluoranthene	0.13	J	0.38	0.044	mg/Kg	☼	08/10/15 16:16	08/12/15 18:02	1
Benzo[g,h,i]perylene	0.056	J	0.38	0.025	mg/Kg	☼	08/10/15 16:16	08/12/15 18:02	1
Benzo[k]fluoranthene	0.075	U	0.38	0.075	mg/Kg	☼	08/10/15 16:16	08/12/15 18:02	1
1,1'-Biphenyl	2.0	U	2.0	2.0	mg/Kg	☼	08/10/15 16:16	08/12/15 18:02	1
Bis(2-chloroethoxy)methane	0.045	U	0.38	0.045	mg/Kg	☼	08/10/15 16:16	08/12/15 18:02	1
Bis(2-chloroethyl)ether	0.052	U	0.38	0.052	mg/Kg	☼	08/10/15 16:16	08/12/15 18:02	1
bis (2-chloroisopropyl) ether	0.035	U	0.38	0.035	mg/Kg	☼	08/10/15 16:16	08/12/15 18:02	1
Bis(2-ethylhexyl) phthalate	0.32	J B	0.38	0.034	mg/Kg	☼	08/10/15 16:16	08/12/15 18:02	1
4-Bromophenyl phenyl ether	0.042	U	0.38	0.042	mg/Kg	☼	08/10/15 16:16	08/12/15 18:02	1
Butyl benzyl phthalate	0.030	U	0.38	0.030	mg/Kg	☼	08/10/15 16:16	08/12/15 18:02	1
Caprolactam	0.076	U	0.38	0.076	mg/Kg	☼	08/10/15 16:16	08/12/15 18:02	1
Carbazole	0.035	U	0.38	0.035	mg/Kg	☼	08/10/15 16:16	08/12/15 18:02	1
4-Chloroaniline	0.060	U	0.76	0.060	mg/Kg	☼	08/10/15 16:16	08/12/15 18:02	1
4-Chloro-3-methylphenol	0.041	U	0.38	0.041	mg/Kg	☼	08/10/15 16:16	08/12/15 18:02	1
2-Chloronaphthalene	0.041	U	0.38	0.041	mg/Kg	☼	08/10/15 16:16	08/12/15 18:02	1
2-Chlorophenol	0.046	U	0.38	0.046	mg/Kg	☼	08/10/15 16:16	08/12/15 18:02	1
4-Chlorophenyl phenyl ether	0.051	U	0.38	0.051	mg/Kg	☼	08/10/15 16:16	08/12/15 18:02	1
Chrysene	0.096	J	0.38	0.024	mg/Kg	☼	08/10/15 16:16	08/12/15 18:02	1
Dibenz(a,h)anthracene	0.045	U	0.38	0.045	mg/Kg	☼	08/10/15 16:16	08/12/15 18:02	1
Dibenzofuran	0.038	U	0.38	0.038	mg/Kg	☼	08/10/15 16:16	08/12/15 18:02	1
3,3'-Dichlorobenzidine	0.032	U	0.76	0.032	mg/Kg	☼	08/10/15 16:16	08/12/15 18:02	1
2,4-Dichlorophenol	0.041	U	0.38	0.041	mg/Kg	☼	08/10/15 16:16	08/12/15 18:02	1
Diethyl phthalate	0.043	U	0.38	0.043	mg/Kg	☼	08/10/15 16:16	08/12/15 18:02	1
2,4-Dimethylphenol	0.051	U	0.38	0.051	mg/Kg	☼	08/10/15 16:16	08/12/15 18:02	1
Dimethyl phthalate	0.039	U	0.38	0.039	mg/Kg	☼	08/10/15 16:16	08/12/15 18:02	1
Di-n-butyl phthalate	0.035	U	0.38	0.035	mg/Kg	☼	08/10/15 16:16	08/12/15 18:02	1
4,6-Dinitro-2-methylphenol	0.20	U *	2.0	0.20	mg/Kg	☼	08/10/15 16:16	08/12/15 18:02	1

TestAmerica Savannah



# Client Sample Results

Client: Geotechnical & Environmental Consultants  
Project/Site: Macon MGP

TestAmerica Job ID: 680-115409-1

**Client Sample ID: GB-7 13-15**

**Lab Sample ID: 680-115409-25**

**Date Collected: 08/07/15 10:00**

**Matrix: Solid**

**Date Received: 08/08/15 10:00**

**Percent Solids: 86.0**

## Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4-Dinitrophenol	0.96	U	2.0	0.96	mg/Kg	☼	08/10/15 16:16	08/12/15 18:02	1
2,4-Dinitrotoluene	0.057	U	0.38	0.057	mg/Kg	☼	08/10/15 16:16	08/12/15 18:02	1
2,6-Dinitrotoluene	0.049	U	0.38	0.049	mg/Kg	☼	08/10/15 16:16	08/12/15 18:02	1
Di-n-octyl phthalate	0.034	U	0.38	0.034	mg/Kg	☼	08/10/15 16:16	08/12/15 18:02	1
<b>Fluoranthene</b>	<b>0.19</b>	<b>J</b>	0.38	0.037	mg/Kg	☼	08/10/15 16:16	08/12/15 18:02	1
Fluorene	0.042	U	0.38	0.042	mg/Kg	☼	08/10/15 16:16	08/12/15 18:02	1
Hexachlorobenzene	0.045	U	0.38	0.045	mg/Kg	☼	08/10/15 16:16	08/12/15 18:02	1
Hexachlorobutadiene	0.042	U	0.38	0.042	mg/Kg	☼	08/10/15 16:16	08/12/15 18:02	1
Hexachlorocyclopentadiene	0.047	U	0.38	0.047	mg/Kg	☼	08/10/15 16:16	08/12/15 18:02	1
Hexachloroethane	0.032	U	0.38	0.032	mg/Kg	☼	08/10/15 16:16	08/12/15 18:02	1
<b>Indeno[1,2,3-cd]pyrene</b>	<b>0.046</b>	<b>J</b>	0.38	0.032	mg/Kg	☼	08/10/15 16:16	08/12/15 18:02	1
Isophorone	0.038	U	0.38	0.038	mg/Kg	☼	08/10/15 16:16	08/12/15 18:02	1
2-Methylnaphthalene	0.044	U	0.38	0.044	mg/Kg	☼	08/10/15 16:16	08/12/15 18:02	1
2-Methylphenol	0.031	U	0.38	0.031	mg/Kg	☼	08/10/15 16:16	08/12/15 18:02	1
3 & 4 Methylphenol	0.050	U	0.38	0.050	mg/Kg	☼	08/10/15 16:16	08/12/15 18:02	1
Naphthalene	0.035	U	0.38	0.035	mg/Kg	☼	08/10/15 16:16	08/12/15 18:02	1
2-Nitroaniline	0.052	U	2.0	0.052	mg/Kg	☼	08/10/15 16:16	08/12/15 18:02	1
3-Nitroaniline	0.053	U	2.0	0.053	mg/Kg	☼	08/10/15 16:16	08/12/15 18:02	1
4-Nitroaniline	0.057	U	2.0	0.057	mg/Kg	☼	08/10/15 16:16	08/12/15 18:02	1
Nitrobenzene	0.030	U	0.38	0.030	mg/Kg	☼	08/10/15 16:16	08/12/15 18:02	1
2-Nitrophenol	0.047	U	0.38	0.047	mg/Kg	☼	08/10/15 16:16	08/12/15 18:02	1
4-Nitrophenol	0.38	U	2.0	0.38	mg/Kg	☼	08/10/15 16:16	08/12/15 18:02	1
N-Nitrosodi-n-propylamine	0.037	U	0.38	0.037	mg/Kg	☼	08/10/15 16:16	08/12/15 18:02	1
N-Nitrosodiphenylamine	0.038	U	0.38	0.038	mg/Kg	☼	08/10/15 16:16	08/12/15 18:02	1
Pentachlorophenol	0.38	U *	2.0	0.38	mg/Kg	☼	08/10/15 16:16	08/12/15 18:02	1
<b>Phenanthrene</b>	<b>0.12</b>	<b>J</b>	0.38	0.031	mg/Kg	☼	08/10/15 16:16	08/12/15 18:02	1
Phenol	0.039	U	0.38	0.039	mg/Kg	☼	08/10/15 16:16	08/12/15 18:02	1
<b>Pyrene</b>	<b>0.17</b>	<b>J</b>	0.38	0.031	mg/Kg	☼	08/10/15 16:16	08/12/15 18:02	1
2,4,5-Trichlorophenol	0.041	U	0.38	0.041	mg/Kg	☼	08/10/15 16:16	08/12/15 18:02	1
2,4,6-Trichlorophenol	0.034	U	0.38	0.034	mg/Kg	☼	08/10/15 16:16	08/12/15 18:02	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl	69		41 - 116	08/10/15 16:16	08/12/15 18:02	1
2-Fluorophenol (Surr)	53		39 - 114	08/10/15 16:16	08/12/15 18:02	1
Nitrobenzene-d5 (Surr)	54		37 - 115	08/10/15 16:16	08/12/15 18:02	1
Phenol-d5 (Surr)	57		38 - 122	08/10/15 16:16	08/12/15 18:02	1
Terphenyl-d14 (Surr)	65		46 - 126	08/10/15 16:16	08/12/15 18:02	1
2,4,6-Tribromophenol (Surr)	69		45 - 129	08/10/15 16:16	08/12/15 18:02	1

## Method: 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Arsenic</b>	<b>1.2</b>	<b>J</b>	2.0	0.79	mg/Kg	☼	08/11/15 08:25	08/15/15 04:47	1
<b>Barium</b>	<b>64</b>		0.99	0.16	mg/Kg	☼	08/11/15 08:25	08/15/15 04:47	1
<b>Beryllium</b>	<b>0.51</b>		0.39	0.0099	mg/Kg	☼	08/11/15 08:25	08/15/15 04:47	1
Cadmium	0.099	U	0.49	0.099	mg/Kg	☼	08/11/15 08:25	08/15/15 04:47	1
<b>Chromium</b>	<b>7.6</b>		0.99	0.21	mg/Kg	☼	08/11/15 08:25	08/15/15 04:47	1
<b>Copper</b>	<b>22</b>		2.5	0.17	mg/Kg	☼	08/11/15 08:25	08/15/15 04:47	1
<b>Lead</b>	<b>10</b>		0.99	0.34	mg/Kg	☼	08/11/15 08:25	08/15/15 04:47	1
<b>Nickel</b>	<b>4.8</b>		3.9	0.37	mg/Kg	☼	08/11/15 08:25	08/15/15 04:47	1
Selenium	0.96	U	2.5	0.96	mg/Kg	☼	08/11/15 08:25	08/15/15 04:47	1

TestAmerica Savannah

# Client Sample Results

Client: Geotechnical & Environmental Consultants  
Project/Site: Macon MGP

TestAmerica Job ID: 680-115409-1

**Client Sample ID: GB-7 13-15**

**Lab Sample ID: 680-115409-25**

**Date Collected: 08/07/15 10:00**

**Matrix: Solid**

**Date Received: 08/08/15 10:00**

**Percent Solids: 86.0**

## Method: 6010C - Metals (ICP) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	0.059	U	0.99	0.059	mg/Kg	☼	08/11/15 08:25	08/15/15 04:47	1
Vanadium	48		0.99	0.099	mg/Kg	☼	08/11/15 08:25	08/15/15 04:47	1
Zinc	40		2.0	0.69	mg/Kg	☼	08/11/15 08:25	08/15/15 04:47	1

## Method: 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.29	F1 F2	0.023	0.0091	mg/Kg	☼	08/17/15 10:06	08/17/15 22:42	1

## General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total	0.24	U	0.58	0.24	mg/Kg	☼	08/17/15 08:00	08/17/15 12:14	1



# Client Sample Results

Client: Geotechnical & Environmental Consultants  
Project/Site: Macon MGP

TestAmerica Job ID: 680-115409-1

**Client Sample ID: GB-7 18**

**Date Collected: 08/07/15 10:06**

**Date Received: 08/08/15 10:00**

**Lab Sample ID: 680-115409-26**

**Matrix: Solid**

**Percent Solids: 83.9**

## Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	0.00065	U	0.0045	0.00065	mg/Kg	☼	08/10/15 10:33	08/11/15 21:25	1
Carbon disulfide	0.00098	U	0.0045	0.00098	mg/Kg	☼	08/10/15 10:33	08/11/15 21:25	1
Ethylbenzene	0.0012	U	0.0045	0.0012	mg/Kg	☼	08/10/15 10:33	08/11/15 21:25	1
Methylene Chloride	0.00087	U	0.0045	0.00087	mg/Kg	☼	08/10/15 10:33	08/11/15 21:25	1
Toluene	0.00075	U	0.0045	0.00075	mg/Kg	☼	08/10/15 10:33	08/11/15 21:25	1
Xylenes, Total	0.00098	U	0.0089	0.00098	mg/Kg	☼	08/10/15 10:33	08/11/15 21:25	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	80		65 - 130	08/10/15 10:33	08/11/15 21:25	1
Dibromofluoromethane (Surr)	90		65 - 130	08/10/15 10:33	08/11/15 21:25	1
1,2-Dichloroethane-d4 (Surr)	86		65 - 130	08/10/15 10:33	08/11/15 21:25	1
Toluene-d8 (Surr)	91		65 - 130	08/10/15 10:33	08/11/15 21:25	1

## Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	0.049	U	0.39	0.049	mg/Kg	☼	08/10/15 16:16	08/12/15 18:28	1
Acenaphthylene	0.043	U	0.39	0.043	mg/Kg	☼	08/10/15 16:16	08/12/15 18:28	1
Acetophenone	0.033	U	0.39	0.033	mg/Kg	☼	08/10/15 16:16	08/12/15 18:28	1
Anthracene	0.030	U	0.39	0.030	mg/Kg	☼	08/10/15 16:16	08/12/15 18:28	1
Atrazine	0.027	U	0.39	0.027	mg/Kg	☼	08/10/15 16:16	08/12/15 18:28	1
Benzaldehyde	0.069	U	0.39	0.069	mg/Kg	☼	08/10/15 16:16	08/12/15 18:28	1
<b>Benzo[a]anthracene</b>	<b>0.053</b>	<b>J</b>	0.39	0.032	mg/Kg	☼	08/10/15 16:16	08/12/15 18:28	1
Benzo[a]pyrene	0.062	U	0.39	0.062	mg/Kg	☼	08/10/15 16:16	08/12/15 18:28	1
<b>Benzo[b]fluoranthene</b>	<b>0.071</b>	<b>J</b>	0.39	0.045	mg/Kg	☼	08/10/15 16:16	08/12/15 18:28	1
<b>Benzo[g,h,i]perylene</b>	<b>0.037</b>	<b>J</b>	0.39	0.026	mg/Kg	☼	08/10/15 16:16	08/12/15 18:28	1
Benzo[k]fluoranthene	0.077	U	0.39	0.077	mg/Kg	☼	08/10/15 16:16	08/12/15 18:28	1
1,1'-Biphenyl	2.0	U	2.0	2.0	mg/Kg	☼	08/10/15 16:16	08/12/15 18:28	1
Bis(2-chloroethoxy)methane	0.046	U	0.39	0.046	mg/Kg	☼	08/10/15 16:16	08/12/15 18:28	1
Bis(2-chloroethyl)ether	0.054	U	0.39	0.054	mg/Kg	☼	08/10/15 16:16	08/12/15 18:28	1
bis (2-chloroisopropyl) ether	0.036	U	0.39	0.036	mg/Kg	☼	08/10/15 16:16	08/12/15 18:28	1
<b>Bis(2-ethylhexyl) phthalate</b>	<b>0.26</b>	<b>J B</b>	0.39	0.035	mg/Kg	☼	08/10/15 16:16	08/12/15 18:28	1
4-Bromophenyl phenyl ether	0.043	U	0.39	0.043	mg/Kg	☼	08/10/15 16:16	08/12/15 18:28	1
Butyl benzyl phthalate	0.031	U	0.39	0.031	mg/Kg	☼	08/10/15 16:16	08/12/15 18:28	1
Caprolactam	0.079	U	0.39	0.079	mg/Kg	☼	08/10/15 16:16	08/12/15 18:28	1
Carbazole	0.036	U	0.39	0.036	mg/Kg	☼	08/10/15 16:16	08/12/15 18:28	1
4-Chloroaniline	0.062	U	0.79	0.062	mg/Kg	☼	08/10/15 16:16	08/12/15 18:28	1
4-Chloro-3-methylphenol	0.042	U	0.39	0.042	mg/Kg	☼	08/10/15 16:16	08/12/15 18:28	1
2-Chloronaphthalene	0.042	U	0.39	0.042	mg/Kg	☼	08/10/15 16:16	08/12/15 18:28	1
2-Chlorophenol	0.048	U	0.39	0.048	mg/Kg	☼	08/10/15 16:16	08/12/15 18:28	1
4-Chlorophenyl phenyl ether	0.052	U	0.39	0.052	mg/Kg	☼	08/10/15 16:16	08/12/15 18:28	1
<b>Chrysene</b>	<b>0.052</b>	<b>J</b>	0.39	0.025	mg/Kg	☼	08/10/15 16:16	08/12/15 18:28	1
Dibenz(a,h)anthracene	0.046	U	0.39	0.046	mg/Kg	☼	08/10/15 16:16	08/12/15 18:28	1
Dibenzofuran	0.039	U	0.39	0.039	mg/Kg	☼	08/10/15 16:16	08/12/15 18:28	1
3,3'-Dichlorobenzidine	0.033	U	0.79	0.033	mg/Kg	☼	08/10/15 16:16	08/12/15 18:28	1
2,4-Dichlorophenol	0.042	U	0.39	0.042	mg/Kg	☼	08/10/15 16:16	08/12/15 18:28	1
Diethyl phthalate	0.044	U	0.39	0.044	mg/Kg	☼	08/10/15 16:16	08/12/15 18:28	1
2,4-Dimethylphenol	0.052	U	0.39	0.052	mg/Kg	☼	08/10/15 16:16	08/12/15 18:28	1
Dimethyl phthalate	0.040	U	0.39	0.040	mg/Kg	☼	08/10/15 16:16	08/12/15 18:28	1
Di-n-butyl phthalate	0.036	U	0.39	0.036	mg/Kg	☼	08/10/15 16:16	08/12/15 18:28	1
4,6-Dinitro-2-methylphenol	0.20	U *	2.0	0.20	mg/Kg	☼	08/10/15 16:16	08/12/15 18:28	1

TestAmerica Savannah

# Client Sample Results

Client: Geotechnical & Environmental Consultants  
Project/Site: Macon MGP

TestAmerica Job ID: 680-115409-1

Client Sample ID: GB-7 18

Date Collected: 08/07/15 10:06

Date Received: 08/08/15 10:00

Lab Sample ID: 680-115409-26

Matrix: Solid

Percent Solids: 83.9

## Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4-Dinitrophenol	0.99	U	2.0	0.99	mg/Kg	☼	08/10/15 16:16	08/12/15 18:28	1
2,4-Dinitrotoluene	0.058	U	0.39	0.058	mg/Kg	☼	08/10/15 16:16	08/12/15 18:28	1
2,6-Dinitrotoluene	0.050	U	0.39	0.050	mg/Kg	☼	08/10/15 16:16	08/12/15 18:28	1
Di-n-octyl phthalate	0.035	U	0.39	0.035	mg/Kg	☼	08/10/15 16:16	08/12/15 18:28	1
Fluoranthene	0.10	J	0.39	0.038	mg/Kg	☼	08/10/15 16:16	08/12/15 18:28	1
Fluorene	0.043	U	0.39	0.043	mg/Kg	☼	08/10/15 16:16	08/12/15 18:28	1
Hexachlorobenzene	0.046	U	0.39	0.046	mg/Kg	☼	08/10/15 16:16	08/12/15 18:28	1
Hexachlorobutadiene	0.043	U	0.39	0.043	mg/Kg	☼	08/10/15 16:16	08/12/15 18:28	1
Hexachlorocyclopentadiene	0.049	U	0.39	0.049	mg/Kg	☼	08/10/15 16:16	08/12/15 18:28	1
Hexachloroethane	0.033	U	0.39	0.033	mg/Kg	☼	08/10/15 16:16	08/12/15 18:28	1
Indeno[1,2,3-cd]pyrene	0.033	U	0.39	0.033	mg/Kg	☼	08/10/15 16:16	08/12/15 18:28	1
Isophorone	0.039	U	0.39	0.039	mg/Kg	☼	08/10/15 16:16	08/12/15 18:28	1
2-Methylnaphthalene	0.045	U	0.39	0.045	mg/Kg	☼	08/10/15 16:16	08/12/15 18:28	1
2-Methylphenol	0.032	U	0.39	0.032	mg/Kg	☼	08/10/15 16:16	08/12/15 18:28	1
3 & 4 Methylphenol	0.051	U	0.39	0.051	mg/Kg	☼	08/10/15 16:16	08/12/15 18:28	1
Naphthalene	0.036	U	0.39	0.036	mg/Kg	☼	08/10/15 16:16	08/12/15 18:28	1
2-Nitroaniline	0.054	U	2.0	0.054	mg/Kg	☼	08/10/15 16:16	08/12/15 18:28	1
3-Nitroaniline	0.055	U	2.0	0.055	mg/Kg	☼	08/10/15 16:16	08/12/15 18:28	1
4-Nitroaniline	0.058	U	2.0	0.058	mg/Kg	☼	08/10/15 16:16	08/12/15 18:28	1
Nitrobenzene	0.031	U	0.39	0.031	mg/Kg	☼	08/10/15 16:16	08/12/15 18:28	1
2-Nitrophenol	0.049	U	0.39	0.049	mg/Kg	☼	08/10/15 16:16	08/12/15 18:28	1
4-Nitrophenol	0.39	U	2.0	0.39	mg/Kg	☼	08/10/15 16:16	08/12/15 18:28	1
N-Nitrosodi-n-propylamine	0.038	U	0.39	0.038	mg/Kg	☼	08/10/15 16:16	08/12/15 18:28	1
N-Nitrosodiphenylamine	0.039	U	0.39	0.039	mg/Kg	☼	08/10/15 16:16	08/12/15 18:28	1
Pentachlorophenol	0.39	U *	2.0	0.39	mg/Kg	☼	08/10/15 16:16	08/12/15 18:28	1
Phenanthrene	0.065	J	0.39	0.032	mg/Kg	☼	08/10/15 16:16	08/12/15 18:28	1
Phenol	0.040	U	0.39	0.040	mg/Kg	☼	08/10/15 16:16	08/12/15 18:28	1
Pyrene	0.083	J	0.39	0.032	mg/Kg	☼	08/10/15 16:16	08/12/15 18:28	1
2,4,5-Trichlorophenol	0.042	U	0.39	0.042	mg/Kg	☼	08/10/15 16:16	08/12/15 18:28	1
2,4,6-Trichlorophenol	0.035	U	0.39	0.035	mg/Kg	☼	08/10/15 16:16	08/12/15 18:28	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl	63		41 - 116	08/10/15 16:16	08/12/15 18:28	1
2-Fluorophenol (Surr)	47		39 - 114	08/10/15 16:16	08/12/15 18:28	1
Nitrobenzene-d5 (Surr)	47		37 - 115	08/10/15 16:16	08/12/15 18:28	1
Phenol-d5 (Surr)	49		38 - 122	08/10/15 16:16	08/12/15 18:28	1
Terphenyl-d14 (Surr)	60		46 - 126	08/10/15 16:16	08/12/15 18:28	1
2,4,6-Tribromophenol (Surr)	67		45 - 129	08/10/15 16:16	08/12/15 18:28	1

## Method: 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	2.0	J	2.2	0.87	mg/Kg	☼	08/11/15 08:25	08/15/15 04:52	1
Barium	95		1.1	0.17	mg/Kg	☼	08/11/15 08:25	08/15/15 04:52	1
Beryllium	0.49		0.43	0.011	mg/Kg	☼	08/11/15 08:25	08/15/15 04:52	1
Cadmium	0.11	U	0.54	0.11	mg/Kg	☼	08/11/15 08:25	08/15/15 04:52	1
Chromium	12		1.1	0.23	mg/Kg	☼	08/11/15 08:25	08/15/15 04:52	1
Copper	19		2.7	0.18	mg/Kg	☼	08/11/15 08:25	08/15/15 04:52	1
Lead	41		1.1	0.37	mg/Kg	☼	08/11/15 08:25	08/15/15 04:52	1
Nickel	5.5		4.3	0.41	mg/Kg	☼	08/11/15 08:25	08/15/15 04:52	1
Selenium	1.1	U	2.7	1.1	mg/Kg	☼	08/11/15 08:25	08/15/15 04:52	1

TestAmerica Savannah

# Client Sample Results

Client: Geotechnical & Environmental Consultants  
Project/Site: Macon MGP

TestAmerica Job ID: 680-115409-1

**Client Sample ID: GB-7 18**

**Lab Sample ID: 680-115409-26**

**Date Collected: 08/07/15 10:06**

**Matrix: Solid**

**Date Received: 08/08/15 10:00**

**Percent Solids: 83.9**

## Method: 6010C - Metals (ICP) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	0.065	U	1.1	0.065	mg/Kg	☼	08/11/15 08:25	08/15/15 04:52	1
Vanadium	40		1.1	0.11	mg/Kg	☼	08/11/15 08:25	08/15/15 04:52	1
Zinc	60		2.2	0.76	mg/Kg	☼	08/11/15 08:25	08/15/15 04:52	1

## Method: 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.13		0.021	0.0085	mg/Kg	☼	08/16/15 13:43	08/17/15 22:14	1

## General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total	0.25	U	0.58	0.25	mg/Kg	☼	08/17/15 08:00	08/17/15 12:15	1

# Client Sample Results

Client: Geotechnical & Environmental Consultants  
Project/Site: Macon MGP

TestAmerica Job ID: 680-115409-1

**Client Sample ID: SB-17 8-10**

**Date Collected: 08/07/15 14:50**

**Date Received: 08/08/15 10:00**

**Lab Sample ID: 680-115409-27**

**Matrix: Solid**

**Percent Solids: 88.1**

## Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Acenaphthene</b>	<b>0.12</b>	<b>J F1</b>	0.37	0.047	mg/Kg	☼	08/10/15 16:16	08/12/15 18:54	1
Acenaphthylene	0.041	U F1	0.37	0.041	mg/Kg	☼	08/10/15 16:16	08/12/15 18:54	1
Acetophenone	0.032	U	0.37	0.032	mg/Kg	☼	08/10/15 16:16	08/12/15 18:54	1
<b>Anthracene</b>	<b>0.19</b>	<b>J</b>	0.37	0.028	mg/Kg	☼	08/10/15 16:16	08/12/15 18:54	1
Atrazine	0.026	U	0.37	0.026	mg/Kg	☼	08/10/15 16:16	08/12/15 18:54	1
Benzaldehyde	0.066	U	0.37	0.066	mg/Kg	☼	08/10/15 16:16	08/12/15 18:54	1
<b>Benzo[a]anthracene</b>	<b>0.39</b>		0.37	0.031	mg/Kg	☼	08/10/15 16:16	08/12/15 18:54	1
<b>Benzo[a]pyrene</b>	<b>0.32</b>	<b>J F1</b>	0.37	0.059	mg/Kg	☼	08/10/15 16:16	08/12/15 18:54	1
<b>Benzo[b]fluoranthene</b>	<b>0.45</b>		0.37	0.043	mg/Kg	☼	08/10/15 16:16	08/12/15 18:54	1
<b>Benzo[g,h,i]perylene</b>	<b>0.19</b>	<b>J</b>	0.37	0.025	mg/Kg	☼	08/10/15 16:16	08/12/15 18:54	1
<b>Benzo[k]fluoranthene</b>	<b>0.18</b>	<b>J</b>	0.37	0.074	mg/Kg	☼	08/10/15 16:16	08/12/15 18:54	1
1,1'-Biphenyl	1.9	U	1.9	1.9	mg/Kg	☼	08/10/15 16:16	08/12/15 18:54	1
Bis(2-chloroethoxy)methane	0.044	U F1	0.37	0.044	mg/Kg	☼	08/10/15 16:16	08/12/15 18:54	1
Bis(2-chloroethyl)ether	0.051	U	0.37	0.051	mg/Kg	☼	08/10/15 16:16	08/12/15 18:54	1
bis (2-chloroisopropyl) ether	0.034	U	0.37	0.034	mg/Kg	☼	08/10/15 16:16	08/12/15 18:54	1
<b>Bis(2-ethylhexyl) phthalate</b>	<b>0.18</b>	<b>J B</b>	0.37	0.033	mg/Kg	☼	08/10/15 16:16	08/12/15 18:54	1
4-Bromophenyl phenyl ether	0.041	U	0.37	0.041	mg/Kg	☼	08/10/15 16:16	08/12/15 18:54	1
Butyl benzyl phthalate	0.030	U	0.37	0.030	mg/Kg	☼	08/10/15 16:16	08/12/15 18:54	1
Caprolactam	0.075	U	0.37	0.075	mg/Kg	☼	08/10/15 16:16	08/12/15 18:54	1
<b>Carbazole</b>	<b>0.12</b>	<b>J F1</b>	0.37	0.034	mg/Kg	☼	08/10/15 16:16	08/12/15 18:54	1
4-Chloroaniline	0.059	U	0.75	0.059	mg/Kg	☼	08/10/15 16:16	08/12/15 18:54	1
4-Chloro-3-methylphenol	0.040	U	0.37	0.040	mg/Kg	☼	08/10/15 16:16	08/12/15 18:54	1
2-Chloronaphthalene	0.040	U	0.37	0.040	mg/Kg	☼	08/10/15 16:16	08/12/15 18:54	1
2-Chlorophenol	0.045	U	0.37	0.045	mg/Kg	☼	08/10/15 16:16	08/12/15 18:54	1
4-Chlorophenyl phenyl ether	0.050	U	0.37	0.050	mg/Kg	☼	08/10/15 16:16	08/12/15 18:54	1
<b>Chrysene</b>	<b>0.33</b>	<b>J F1</b>	0.37	0.024	mg/Kg	☼	08/10/15 16:16	08/12/15 18:54	1
<b>Dibenz(a,h)anthracene</b>	<b>0.061</b>	<b>J</b>	0.37	0.044	mg/Kg	☼	08/10/15 16:16	08/12/15 18:54	1
<b>Dibenzofuran</b>	<b>0.052</b>	<b>J</b>	0.37	0.037	mg/Kg	☼	08/10/15 16:16	08/12/15 18:54	1
3,3'-Dichlorobenzidine	0.032	U	0.75	0.032	mg/Kg	☼	08/10/15 16:16	08/12/15 18:54	1
2,4-Dichlorophenol	0.040	U	0.37	0.040	mg/Kg	☼	08/10/15 16:16	08/12/15 18:54	1
Diethyl phthalate	0.042	U	0.37	0.042	mg/Kg	☼	08/10/15 16:16	08/12/15 18:54	1
2,4-Dimethylphenol	0.050	U	0.37	0.050	mg/Kg	☼	08/10/15 16:16	08/12/15 18:54	1
Dimethyl phthalate	0.039	U F1	0.37	0.039	mg/Kg	☼	08/10/15 16:16	08/12/15 18:54	1
Di-n-butyl phthalate	0.034	U F1	0.37	0.034	mg/Kg	☼	08/10/15 16:16	08/12/15 18:54	1
4,6-Dinitro-2-methylphenol	0.19	U F2 *	1.9	0.19	mg/Kg	☼	08/10/15 16:16	08/12/15 18:54	1
2,4-Dinitrophenol	0.94	U F1	1.9	0.94	mg/Kg	☼	08/10/15 16:16	08/12/15 18:54	1
2,4-Dinitrotoluene	0.056	U	0.37	0.056	mg/Kg	☼	08/10/15 16:16	08/12/15 18:54	1
2,6-Dinitrotoluene	0.048	U	0.37	0.048	mg/Kg	☼	08/10/15 16:16	08/12/15 18:54	1
Di-n-octyl phthalate	0.033	U	0.37	0.033	mg/Kg	☼	08/10/15 16:16	08/12/15 18:54	1
<b>Fluoranthene</b>	<b>0.78</b>	<b>F1</b>	0.37	0.036	mg/Kg	☼	08/10/15 16:16	08/12/15 18:54	1
<b>Fluorene</b>	<b>0.13</b>	<b>J</b>	0.37	0.041	mg/Kg	☼	08/10/15 16:16	08/12/15 18:54	1
Hexachlorobenzene	0.044	U	0.37	0.044	mg/Kg	☼	08/10/15 16:16	08/12/15 18:54	1
Hexachlorobutadiene	0.041	U	0.37	0.041	mg/Kg	☼	08/10/15 16:16	08/12/15 18:54	1
Hexachlorocyclopentadiene	0.047	U	0.37	0.047	mg/Kg	☼	08/10/15 16:16	08/12/15 18:54	1
Hexachloroethane	0.032	U	0.37	0.032	mg/Kg	☼	08/10/15 16:16	08/12/15 18:54	1
<b>Indeno[1,2,3-cd]pyrene</b>	<b>0.17</b>	<b>J</b>	0.37	0.032	mg/Kg	☼	08/10/15 16:16	08/12/15 18:54	1
Isophorone	0.037	U	0.37	0.037	mg/Kg	☼	08/10/15 16:16	08/12/15 18:54	1
2-Methylnaphthalene	0.043	U	0.37	0.043	mg/Kg	☼	08/10/15 16:16	08/12/15 18:54	1
2-Methylphenol	0.031	U	0.37	0.031	mg/Kg	☼	08/10/15 16:16	08/12/15 18:54	1

TestAmerica Savannah

# Client Sample Results

Client: Geotechnical & Environmental Consultants  
Project/Site: Macon MGP

TestAmerica Job ID: 680-115409-1

**Client Sample ID: SB-17 8-10**

**Lab Sample ID: 680-115409-27**

**Date Collected: 08/07/15 14:50**

**Matrix: Solid**

**Date Received: 08/08/15 10:00**

**Percent Solids: 88.1**

## Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
3 & 4 Methylphenol	0.049	U	0.37	0.049	mg/Kg	☼	08/10/15 16:16	08/12/15 18:54	1
Naphthalene	0.034	U	0.37	0.034	mg/Kg	☼	08/10/15 16:16	08/12/15 18:54	1
2-Nitroaniline	0.051	U	1.9	0.051	mg/Kg	☼	08/10/15 16:16	08/12/15 18:54	1
3-Nitroaniline	0.052	U	1.9	0.052	mg/Kg	☼	08/10/15 16:16	08/12/15 18:54	1
4-Nitroaniline	0.056	U	1.9	0.056	mg/Kg	☼	08/10/15 16:16	08/12/15 18:54	1
Nitrobenzene	0.030	U	0.37	0.030	mg/Kg	☼	08/10/15 16:16	08/12/15 18:54	1
2-Nitrophenol	0.047	U	0.37	0.047	mg/Kg	☼	08/10/15 16:16	08/12/15 18:54	1
4-Nitrophenol	0.37	U	1.9	0.37	mg/Kg	☼	08/10/15 16:16	08/12/15 18:54	1
N-Nitrosodi-n-propylamine	0.036	U	0.37	0.036	mg/Kg	☼	08/10/15 16:16	08/12/15 18:54	1
N-Nitrosodiphenylamine	0.037	U	0.37	0.037	mg/Kg	☼	08/10/15 16:16	08/12/15 18:54	1
Pentachlorophenol	0.37	U *	1.9	0.37	mg/Kg	☼	08/10/15 16:16	08/12/15 18:54	1
<b>Phenanthrene</b>	<b>0.63</b>	<b>F1</b>	0.37	0.031	mg/Kg	☼	08/10/15 16:16	08/12/15 18:54	1
Phenol	0.039	U	0.37	0.039	mg/Kg	☼	08/10/15 16:16	08/12/15 18:54	1
<b>Pyrene</b>	<b>0.56</b>	<b>F1</b>	0.37	0.031	mg/Kg	☼	08/10/15 16:16	08/12/15 18:54	1
2,4,5-Trichlorophenol	0.040	U	0.37	0.040	mg/Kg	☼	08/10/15 16:16	08/12/15 18:54	1
2,4,6-Trichlorophenol	0.033	U	0.37	0.033	mg/Kg	☼	08/10/15 16:16	08/12/15 18:54	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl	52		41 - 116	08/10/15 16:16	08/12/15 18:54	1
2-Fluorophenol (Surr)	39		39 - 114	08/10/15 16:16	08/12/15 18:54	1
Nitrobenzene-d5 (Surr)	41		37 - 115	08/10/15 16:16	08/12/15 18:54	1
Phenol-d5 (Surr)	41		38 - 122	08/10/15 16:16	08/12/15 18:54	1
Terphenyl-d14 (Surr)	49		46 - 126	08/10/15 16:16	08/12/15 18:54	1
2,4,6-Tribromophenol (Surr)	49		45 - 129	08/10/15 16:16	08/12/15 18:54	1

## Method: 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	0.80	U	2.0	0.80	mg/Kg	☼	08/11/15 08:25	08/15/15 04:56	1
<b>Barium</b>	<b>18</b>		1.0	0.16	mg/Kg	☼	08/11/15 08:25	08/15/15 04:56	1
<b>Beryllium</b>	<b>0.29</b>	<b>J</b>	0.40	0.010	mg/Kg	☼	08/11/15 08:25	08/15/15 04:56	1
Cadmium	0.10	U	0.50	0.10	mg/Kg	☼	08/11/15 08:25	08/15/15 04:56	1
<b>Chromium</b>	<b>7.1</b>		1.0	0.21	mg/Kg	☼	08/11/15 08:25	08/15/15 04:56	1
<b>Copper</b>	<b>3.3</b>		2.5	0.17	mg/Kg	☼	08/11/15 08:25	08/15/15 04:56	1
<b>Lead</b>	<b>8.3</b>		1.0	0.34	mg/Kg	☼	08/11/15 08:25	08/15/15 04:56	1
<b>Nickel</b>	<b>2.1</b>	<b>J</b>	4.0	0.38	mg/Kg	☼	08/11/15 08:25	08/15/15 04:56	1
Selenium	0.97	U	2.5	0.97	mg/Kg	☼	08/11/15 08:25	08/15/15 04:56	1
Silver	0.060	U	1.0	0.060	mg/Kg	☼	08/11/15 08:25	08/15/15 04:56	1
<b>Vanadium</b>	<b>12</b>		1.0	0.10	mg/Kg	☼	08/11/15 08:25	08/15/15 04:56	1
<b>Zinc</b>	<b>8.4</b>		2.0	0.70	mg/Kg	☼	08/11/15 08:25	08/15/15 04:56	1

## Method: 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Mercury</b>	<b>0.014</b>	<b>J</b>	0.021	0.0086	mg/Kg	☼	08/16/15 13:43	08/17/15 22:17	1

## General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total	0.24	U	0.57	0.24	mg/Kg	☼	08/17/15 08:00	08/17/15 12:16	1

TestAmerica Savannah

# Client Sample Results

Client: Geotechnical & Environmental Consultants  
Project/Site: Macon MGP

TestAmerica Job ID: 680-115409-1

**Client Sample ID: SB-17 13-15**

**Date Collected: 08/07/15 14:56**

**Date Received: 08/08/15 10:00**

**Lab Sample ID: 680-115409-28**

**Matrix: Solid**

**Percent Solids: 85.5**

## Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Acenaphthene</b>	<b>5.5</b>		3.9	0.48	mg/Kg	☼	08/10/15 16:16	08/12/15 19:20	10
Acenaphthylene	0.42	U	3.9	0.42	mg/Kg	☼	08/10/15 16:16	08/12/15 19:20	10
Acetophenone	0.33	U	3.9	0.33	mg/Kg	☼	08/10/15 16:16	08/12/15 19:20	10
<b>Anthracene</b>	<b>6.2</b>		3.9	0.29	mg/Kg	☼	08/10/15 16:16	08/12/15 19:20	10
Atrazine	0.27	U	3.9	0.27	mg/Kg	☼	08/10/15 16:16	08/12/15 19:20	10
Benzaldehyde	0.68	U	3.9	0.68	mg/Kg	☼	08/10/15 16:16	08/12/15 19:20	10
<b>Benzo[a]anthracene</b>	<b>13</b>		3.9	0.32	mg/Kg	☼	08/10/15 16:16	08/12/15 19:20	10
<b>Benzo[a]pyrene</b>	<b>10</b>		3.9	0.61	mg/Kg	☼	08/10/15 16:16	08/12/15 19:20	10
<b>Benzo[b]fluoranthene</b>	<b>13</b>		3.9	0.44	mg/Kg	☼	08/10/15 16:16	08/12/15 19:20	10
<b>Benzo[g,h,i]perylene</b>	<b>6.9</b>		3.9	0.26	mg/Kg	☼	08/10/15 16:16	08/12/15 19:20	10
<b>Benzo[k]fluoranthene</b>	<b>6.3</b>		3.9	0.76	mg/Kg	☼	08/10/15 16:16	08/12/15 19:20	10
1,1'-Biphenyl	20	U	20	20	mg/Kg	☼	08/10/15 16:16	08/12/15 19:20	10
Bis(2-chloroethoxy)methane	0.46	U	3.9	0.46	mg/Kg	☼	08/10/15 16:16	08/12/15 19:20	10
Bis(2-chloroethyl)ether	0.53	U	3.9	0.53	mg/Kg	☼	08/10/15 16:16	08/12/15 19:20	10
bis (2-chloroisopropyl) ether	0.35	U	3.9	0.35	mg/Kg	☼	08/10/15 16:16	08/12/15 19:20	10
Bis(2-ethylhexyl) phthalate	0.34	U	3.9	0.34	mg/Kg	☼	08/10/15 16:16	08/12/15 19:20	10
4-Bromophenyl phenyl ether	0.42	U	3.9	0.42	mg/Kg	☼	08/10/15 16:16	08/12/15 19:20	10
Butyl benzyl phthalate	0.30	U	3.9	0.30	mg/Kg	☼	08/10/15 16:16	08/12/15 19:20	10
Caprolactam	0.77	U	3.9	0.77	mg/Kg	☼	08/10/15 16:16	08/12/15 19:20	10
<b>Carbazole</b>	<b>3.3 J</b>		3.9	0.35	mg/Kg	☼	08/10/15 16:16	08/12/15 19:20	10
4-Chloroaniline	0.61	U	7.7	0.61	mg/Kg	☼	08/10/15 16:16	08/12/15 19:20	10
4-Chloro-3-methylphenol	0.41	U	3.9	0.41	mg/Kg	☼	08/10/15 16:16	08/12/15 19:20	10
2-Chloronaphthalene	0.41	U	3.9	0.41	mg/Kg	☼	08/10/15 16:16	08/12/15 19:20	10
2-Chlorophenol	0.47	U	3.9	0.47	mg/Kg	☼	08/10/15 16:16	08/12/15 19:20	10
4-Chlorophenyl phenyl ether	0.51	U	3.9	0.51	mg/Kg	☼	08/10/15 16:16	08/12/15 19:20	10
<b>Chrysene</b>	<b>10</b>		3.9	0.25	mg/Kg	☼	08/10/15 16:16	08/12/15 19:20	10
<b>Dibenz(a,h)anthracene</b>	<b>2.0 J</b>		3.9	0.46	mg/Kg	☼	08/10/15 16:16	08/12/15 19:20	10
<b>Dibenzofuran</b>	<b>1.3 J</b>		3.9	0.39	mg/Kg	☼	08/10/15 16:16	08/12/15 19:20	10
3,3'-Dichlorobenzidine	0.33	U	7.7	0.33	mg/Kg	☼	08/10/15 16:16	08/12/15 19:20	10
2,4-Dichlorophenol	0.41	U	3.9	0.41	mg/Kg	☼	08/10/15 16:16	08/12/15 19:20	10
Diethyl phthalate	0.43	U	3.9	0.43	mg/Kg	☼	08/10/15 16:16	08/12/15 19:20	10
2,4-Dimethylphenol	0.51	U	3.9	0.51	mg/Kg	☼	08/10/15 16:16	08/12/15 19:20	10
Dimethyl phthalate	0.40	U	3.9	0.40	mg/Kg	☼	08/10/15 16:16	08/12/15 19:20	10
Di-n-butyl phthalate	0.35	U	3.9	0.35	mg/Kg	☼	08/10/15 16:16	08/12/15 19:20	10
4,6-Dinitro-2-methylphenol	2.0	U *	20	2.0	mg/Kg	☼	08/10/15 16:16	08/12/15 19:20	10
2,4-Dinitrophenol	9.7	U	20	9.7	mg/Kg	☼	08/10/15 16:16	08/12/15 19:20	10
2,4-Dinitrotoluene	0.57	U	3.9	0.57	mg/Kg	☼	08/10/15 16:16	08/12/15 19:20	10
2,6-Dinitrotoluene	0.49	U	3.9	0.49	mg/Kg	☼	08/10/15 16:16	08/12/15 19:20	10
Di-n-octyl phthalate	0.34	U	3.9	0.34	mg/Kg	☼	08/10/15 16:16	08/12/15 19:20	10
<b>Fluoranthene</b>	<b>28</b>		3.9	0.37	mg/Kg	☼	08/10/15 16:16	08/12/15 19:20	10
<b>Fluorene</b>	<b>4.1</b>		3.9	0.42	mg/Kg	☼	08/10/15 16:16	08/12/15 19:20	10
Hexachlorobenzene	0.46	U	3.9	0.46	mg/Kg	☼	08/10/15 16:16	08/12/15 19:20	10
Hexachlorobutadiene	0.42	U	3.9	0.42	mg/Kg	☼	08/10/15 16:16	08/12/15 19:20	10
Hexachlorocyclopentadiene	0.48	U	3.9	0.48	mg/Kg	☼	08/10/15 16:16	08/12/15 19:20	10
Hexachloroethane	0.33	U	3.9	0.33	mg/Kg	☼	08/10/15 16:16	08/12/15 19:20	10
<b>Indeno[1,2,3-cd]pyrene</b>	<b>6.1</b>		3.9	0.33	mg/Kg	☼	08/10/15 16:16	08/12/15 19:20	10
Isophorone	0.39	U	3.9	0.39	mg/Kg	☼	08/10/15 16:16	08/12/15 19:20	10
2-Methylnaphthalene	0.44	U	3.9	0.44	mg/Kg	☼	08/10/15 16:16	08/12/15 19:20	10
2-Methylphenol	0.32	U	3.9	0.32	mg/Kg	☼	08/10/15 16:16	08/12/15 19:20	10

TestAmerica Savannah



# Client Sample Results

Client: Geotechnical & Environmental Consultants  
Project/Site: Macon MGP

TestAmerica Job ID: 680-115409-1

**Client Sample ID: SB-17 13-15**

**Lab Sample ID: 680-115409-28**

**Date Collected: 08/07/15 14:56**

**Matrix: Solid**

**Date Received: 08/08/15 10:00**

**Percent Solids: 85.5**

## Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
3 & 4 Methylphenol	0.50	U	3.9	0.50	mg/Kg	☼	08/10/15 16:16	08/12/15 19:20	10
<b>Naphthalene</b>	<b>0.94</b>	<b>J</b>	3.9	0.35	mg/Kg	☼	08/10/15 16:16	08/12/15 19:20	10
2-Nitroaniline	0.53	U	20	0.53	mg/Kg	☼	08/10/15 16:16	08/12/15 19:20	10
3-Nitroaniline	0.54	U	20	0.54	mg/Kg	☼	08/10/15 16:16	08/12/15 19:20	10
4-Nitroaniline	0.57	U	20	0.57	mg/Kg	☼	08/10/15 16:16	08/12/15 19:20	10
Nitrobenzene	0.30	U	3.9	0.30	mg/Kg	☼	08/10/15 16:16	08/12/15 19:20	10
2-Nitrophenol	0.48	U	3.9	0.48	mg/Kg	☼	08/10/15 16:16	08/12/15 19:20	10
4-Nitrophenol	3.9	U	20	3.9	mg/Kg	☼	08/10/15 16:16	08/12/15 19:20	10
N-Nitrosodi-n-propylamine	0.37	U	3.9	0.37	mg/Kg	☼	08/10/15 16:16	08/12/15 19:20	10
N-Nitrosodiphenylamine	0.39	U	3.9	0.39	mg/Kg	☼	08/10/15 16:16	08/12/15 19:20	10
Pentachlorophenol	3.9	U *	20	3.9	mg/Kg	☼	08/10/15 16:16	08/12/15 19:20	10
<b>Phenanthrene</b>	<b>20</b>		3.9	0.32	mg/Kg	☼	08/10/15 16:16	08/12/15 19:20	10
Phenol	0.40	U	3.9	0.40	mg/Kg	☼	08/10/15 16:16	08/12/15 19:20	10
<b>Pyrene</b>	<b>20</b>		3.9	0.32	mg/Kg	☼	08/10/15 16:16	08/12/15 19:20	10
2,4,5-Trichlorophenol	0.41	U	3.9	0.41	mg/Kg	☼	08/10/15 16:16	08/12/15 19:20	10
2,4,6-Trichlorophenol	0.34	U	3.9	0.34	mg/Kg	☼	08/10/15 16:16	08/12/15 19:20	10

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl	0	D	41 - 116	08/10/15 16:16	08/12/15 19:20	10
2-Fluorophenol (Surr)	0	D	39 - 114	08/10/15 16:16	08/12/15 19:20	10
Nitrobenzene-d5 (Surr)	0	D	37 - 115	08/10/15 16:16	08/12/15 19:20	10
Phenol-d5 (Surr)	0	D	38 - 122	08/10/15 16:16	08/12/15 19:20	10
Terphenyl-d14 (Surr)	0	D	46 - 126	08/10/15 16:16	08/12/15 19:20	10
2,4,6-Tribromophenol (Surr)	0	D	45 - 129	08/10/15 16:16	08/12/15 19:20	10

## Method: 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Arsenic</b>	<b>2.3</b>		2.0	0.81	mg/Kg	☼	08/11/15 08:25	08/15/15 05:10	1
<b>Barium</b>	<b>49</b>		1.0	0.16	mg/Kg	☼	08/11/15 08:25	08/15/15 05:10	1
<b>Beryllium</b>	<b>0.20</b>	<b>J</b>	0.40	0.010	mg/Kg	☼	08/11/15 08:25	08/15/15 05:10	1
<b>Cadmium</b>	<b>0.23</b>	<b>J</b>	0.50	0.10	mg/Kg	☼	08/11/15 08:25	08/15/15 05:10	1
<b>Chromium</b>	<b>11</b>		1.0	0.21	mg/Kg	☼	08/11/15 08:25	08/15/15 05:10	1
<b>Copper</b>	<b>16</b>		2.5	0.17	mg/Kg	☼	08/11/15 08:25	08/15/15 05:10	1
<b>Lead</b>	<b>96</b>		1.0	0.34	mg/Kg	☼	08/11/15 08:25	08/15/15 05:10	1
<b>Nickel</b>	<b>2.8</b>	<b>J</b>	4.0	0.38	mg/Kg	☼	08/11/15 08:25	08/15/15 05:10	1
Selenium	0.98	U	2.5	0.98	mg/Kg	☼	08/11/15 08:25	08/15/15 05:10	1
Silver	0.061	U	1.0	0.061	mg/Kg	☼	08/11/15 08:25	08/15/15 05:10	1
<b>Vanadium</b>	<b>25</b>		1.0	0.10	mg/Kg	☼	08/11/15 08:25	08/15/15 05:10	1
<b>Zinc</b>	<b>90</b>		2.0	0.71	mg/Kg	☼	08/11/15 08:25	08/15/15 05:10	1

## Method: 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Mercury</b>	<b>0.17</b>		0.021	0.0085	mg/Kg	☼	08/16/15 13:43	08/17/15 22:20	1

## General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total	0.24	U	0.58	0.24	mg/Kg	☼	08/17/15 08:00	08/17/15 12:17	1

TestAmerica Savannah

# Client Sample Results

Client: Geotechnical & Environmental Consultants  
Project/Site: Macon MGP

TestAmerica Job ID: 680-115409-1

Client Sample ID: SB-20 0-2

Date Collected: 08/07/15 15:04

Date Received: 08/08/15 10:00

Lab Sample ID: 680-115409-29

Matrix: Solid

Percent Solids: 86.5

## Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	0.047	U	0.38	0.047	mg/Kg	☼	08/10/15 16:16	08/12/15 19:46	1
Acenaphthylene	0.042	U	0.38	0.042	mg/Kg	☼	08/10/15 16:16	08/12/15 19:46	1
Acetophenone	0.032	U	0.38	0.032	mg/Kg	☼	08/10/15 16:16	08/12/15 19:46	1
Anthracene	0.029	U	0.38	0.029	mg/Kg	☼	08/10/15 16:16	08/12/15 19:46	1
Atrazine	0.027	U	0.38	0.027	mg/Kg	☼	08/10/15 16:16	08/12/15 19:46	1
Benzaldehyde	0.067	U	0.38	0.067	mg/Kg	☼	08/10/15 16:16	08/12/15 19:46	1
Benzo[a]anthracene	0.031	U	0.38	0.031	mg/Kg	☼	08/10/15 16:16	08/12/15 19:46	1
Benzo[a]pyrene	0.060	U	0.38	0.060	mg/Kg	☼	08/10/15 16:16	08/12/15 19:46	1
Benzo[b]fluoranthene	0.044	U	0.38	0.044	mg/Kg	☼	08/10/15 16:16	08/12/15 19:46	1
<b>Benzo[g,h,i]perylene</b>	<b>0.040</b>	<b>J</b>	0.38	0.025	mg/Kg	☼	08/10/15 16:16	08/12/15 19:46	1
Benzo[k]fluoranthene	0.075	U	0.38	0.075	mg/Kg	☼	08/10/15 16:16	08/12/15 19:46	1
1,1'-Biphenyl	2.0	U	2.0	2.0	mg/Kg	☼	08/10/15 16:16	08/12/15 19:46	1
Bis(2-chloroethoxy)methane	0.045	U	0.38	0.045	mg/Kg	☼	08/10/15 16:16	08/12/15 19:46	1
Bis(2-chloroethyl)ether	0.052	U	0.38	0.052	mg/Kg	☼	08/10/15 16:16	08/12/15 19:46	1
bis (2-chloroisopropyl) ether	0.035	U	0.38	0.035	mg/Kg	☼	08/10/15 16:16	08/12/15 19:46	1
<b>Bis(2-ethylhexyl) phthalate</b>	<b>0.21</b>	<b>J B</b>	0.38	0.033	mg/Kg	☼	08/10/15 16:16	08/12/15 19:46	1
4-Bromophenyl phenyl ether	0.042	U	0.38	0.042	mg/Kg	☼	08/10/15 16:16	08/12/15 19:46	1
Butyl benzyl phthalate	0.030	U	0.38	0.030	mg/Kg	☼	08/10/15 16:16	08/12/15 19:46	1
Caprolactam	0.076	U	0.38	0.076	mg/Kg	☼	08/10/15 16:16	08/12/15 19:46	1
Carbazole	0.035	U	0.38	0.035	mg/Kg	☼	08/10/15 16:16	08/12/15 19:46	1
4-Chloroaniline	0.060	U	0.76	0.060	mg/Kg	☼	08/10/15 16:16	08/12/15 19:46	1
4-Chloro-3-methylphenol	0.040	U	0.38	0.040	mg/Kg	☼	08/10/15 16:16	08/12/15 19:46	1
2-Chloronaphthalene	0.040	U	0.38	0.040	mg/Kg	☼	08/10/15 16:16	08/12/15 19:46	1
2-Chlorophenol	0.046	U	0.38	0.046	mg/Kg	☼	08/10/15 16:16	08/12/15 19:46	1
4-Chlorophenyl phenyl ether	0.051	U	0.38	0.051	mg/Kg	☼	08/10/15 16:16	08/12/15 19:46	1
Chrysene	0.024	U	0.38	0.024	mg/Kg	☼	08/10/15 16:16	08/12/15 19:46	1
Dibenz(a,h)anthracene	0.045	U	0.38	0.045	mg/Kg	☼	08/10/15 16:16	08/12/15 19:46	1
Dibenzofuran	0.038	U	0.38	0.038	mg/Kg	☼	08/10/15 16:16	08/12/15 19:46	1
3,3'-Dichlorobenzidine	0.032	U	0.76	0.032	mg/Kg	☼	08/10/15 16:16	08/12/15 19:46	1
2,4-Dichlorophenol	0.040	U	0.38	0.040	mg/Kg	☼	08/10/15 16:16	08/12/15 19:46	1
Diethyl phthalate	0.043	U	0.38	0.043	mg/Kg	☼	08/10/15 16:16	08/12/15 19:46	1
2,4-Dimethylphenol	0.051	U	0.38	0.051	mg/Kg	☼	08/10/15 16:16	08/12/15 19:46	1
Dimethyl phthalate	0.039	U	0.38	0.039	mg/Kg	☼	08/10/15 16:16	08/12/15 19:46	1
Di-n-butyl phthalate	0.035	U	0.38	0.035	mg/Kg	☼	08/10/15 16:16	08/12/15 19:46	1
4,6-Dinitro-2-methylphenol	0.20	U *	2.0	0.20	mg/Kg	☼	08/10/15 16:16	08/12/15 19:46	1
2,4-Dinitrophenol	0.96	U	2.0	0.96	mg/Kg	☼	08/10/15 16:16	08/12/15 19:46	1
2,4-Dinitrotoluene	0.057	U	0.38	0.057	mg/Kg	☼	08/10/15 16:16	08/12/15 19:46	1
2,6-Dinitrotoluene	0.048	U	0.38	0.048	mg/Kg	☼	08/10/15 16:16	08/12/15 19:46	1
Di-n-octyl phthalate	0.033	U	0.38	0.033	mg/Kg	☼	08/10/15 16:16	08/12/15 19:46	1
Fluoranthene	0.037	U	0.38	0.037	mg/Kg	☼	08/10/15 16:16	08/12/15 19:46	1
Fluorene	0.042	U	0.38	0.042	mg/Kg	☼	08/10/15 16:16	08/12/15 19:46	1
Hexachlorobenzene	0.045	U	0.38	0.045	mg/Kg	☼	08/10/15 16:16	08/12/15 19:46	1
Hexachlorobutadiene	0.042	U	0.38	0.042	mg/Kg	☼	08/10/15 16:16	08/12/15 19:46	1
Hexachlorocyclopentadiene	0.047	U	0.38	0.047	mg/Kg	☼	08/10/15 16:16	08/12/15 19:46	1
Hexachloroethane	0.032	U	0.38	0.032	mg/Kg	☼	08/10/15 16:16	08/12/15 19:46	1
Indeno[1,2,3-cd]pyrene	0.032	U	0.38	0.032	mg/Kg	☼	08/10/15 16:16	08/12/15 19:46	1
Isophorone	0.038	U	0.38	0.038	mg/Kg	☼	08/10/15 16:16	08/12/15 19:46	1
2-Methylnaphthalene	0.044	U	0.38	0.044	mg/Kg	☼	08/10/15 16:16	08/12/15 19:46	1
2-Methylphenol	0.031	U	0.38	0.031	mg/Kg	☼	08/10/15 16:16	08/12/15 19:46	1

TestAmerica Savannah



# Client Sample Results

Client: Geotechnical & Environmental Consultants  
Project/Site: Macon MGP

TestAmerica Job ID: 680-115409-1

**Client Sample ID: SB-20 0-2**

**Date Collected: 08/07/15 15:04**

**Date Received: 08/08/15 10:00**

**Lab Sample ID: 680-115409-29**

**Matrix: Solid**

**Percent Solids: 86.5**

## Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
3 & 4 Methylphenol	0.050	U	0.38	0.050	mg/Kg	☼	08/10/15 16:16	08/12/15 19:46	1
Naphthalene	0.035	U	0.38	0.035	mg/Kg	☼	08/10/15 16:16	08/12/15 19:46	1
2-Nitroaniline	0.052	U	2.0	0.052	mg/Kg	☼	08/10/15 16:16	08/12/15 19:46	1
3-Nitroaniline	0.053	U	2.0	0.053	mg/Kg	☼	08/10/15 16:16	08/12/15 19:46	1
4-Nitroaniline	0.057	U	2.0	0.057	mg/Kg	☼	08/10/15 16:16	08/12/15 19:46	1
Nitrobenzene	0.030	U	0.38	0.030	mg/Kg	☼	08/10/15 16:16	08/12/15 19:46	1
2-Nitrophenol	0.047	U	0.38	0.047	mg/Kg	☼	08/10/15 16:16	08/12/15 19:46	1
4-Nitrophenol	0.38	U	2.0	0.38	mg/Kg	☼	08/10/15 16:16	08/12/15 19:46	1
N-Nitrosodi-n-propylamine	0.037	U	0.38	0.037	mg/Kg	☼	08/10/15 16:16	08/12/15 19:46	1
N-Nitrosodiphenylamine	0.038	U	0.38	0.038	mg/Kg	☼	08/10/15 16:16	08/12/15 19:46	1
Pentachlorophenol	0.38	U *	2.0	0.38	mg/Kg	☼	08/10/15 16:16	08/12/15 19:46	1
Phenanthrene	0.031	U	0.38	0.031	mg/Kg	☼	08/10/15 16:16	08/12/15 19:46	1
Phenol	0.039	U	0.38	0.039	mg/Kg	☼	08/10/15 16:16	08/12/15 19:46	1
Pyrene	0.031	U	0.38	0.031	mg/Kg	☼	08/10/15 16:16	08/12/15 19:46	1
2,4,5-Trichlorophenol	0.040	U	0.38	0.040	mg/Kg	☼	08/10/15 16:16	08/12/15 19:46	1
2,4,6-Trichlorophenol	0.033	U	0.38	0.033	mg/Kg	☼	08/10/15 16:16	08/12/15 19:46	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl	68		41 - 116	08/10/15 16:16	08/12/15 19:46	1
2-Fluorophenol (Surr)	51		39 - 114	08/10/15 16:16	08/12/15 19:46	1
Nitrobenzene-d5 (Surr)	52		37 - 115	08/10/15 16:16	08/12/15 19:46	1
Phenol-d5 (Surr)	53		38 - 122	08/10/15 16:16	08/12/15 19:46	1
Terphenyl-d14 (Surr)	61		46 - 126	08/10/15 16:16	08/12/15 19:46	1
2,4,6-Tribromophenol (Surr)	69		45 - 129	08/10/15 16:16	08/12/15 19:46	1

## Method: 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	2.5		2.0	0.80	mg/Kg	☼	08/11/15 08:25	08/15/15 05:15	1
Barium	99		1.0	0.16	mg/Kg	☼	08/11/15 08:25	08/15/15 05:15	1
Beryllium	1.1		0.40	0.010	mg/Kg	☼	08/11/15 08:25	08/15/15 05:15	1
Cadmium	0.10	U	0.50	0.10	mg/Kg	☼	08/11/15 08:25	08/17/15 15:17	1
Chromium	16		1.0	0.21	mg/Kg	☼	08/11/15 08:25	08/15/15 05:15	1
Copper	27		2.5	0.17	mg/Kg	☼	08/11/15 08:25	08/15/15 05:15	1
Lead	14		1.0	0.34	mg/Kg	☼	08/11/15 08:25	08/15/15 05:15	1
Nickel	6.3		4.0	0.38	mg/Kg	☼	08/11/15 08:25	08/15/15 05:15	1
Selenium	0.98	U	2.5	0.98	mg/Kg	☼	08/11/15 08:25	08/15/15 05:15	1
Silver	0.060	U	1.0	0.060	mg/Kg	☼	08/11/15 08:25	08/15/15 05:15	1
Vanadium	66		1.0	0.10	mg/Kg	☼	08/11/15 08:25	08/15/15 05:15	1
Zinc	36		2.0	0.70	mg/Kg	☼	08/11/15 08:25	08/15/15 05:15	1

## Method: 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.046		0.021	0.0083	mg/Kg	☼	08/16/15 13:43	08/17/15 22:24	1

## General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total	0.23	U	0.55	0.23	mg/Kg	☼	08/17/15 08:00	08/17/15 12:18	1

TestAmerica Savannah

# Client Sample Results

Client: Geotechnical & Environmental Consultants  
Project/Site: Macon MGP

TestAmerica Job ID: 680-115409-1

Client Sample ID: SB-20 2-4

Date Collected: 08/07/15 15:04

Date Received: 08/08/15 10:00

Lab Sample ID: 680-115409-30

Matrix: Solid

Percent Solids: 84.8

## Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	0.048	U	0.39	0.048	mg/Kg	☼	08/10/15 16:16	08/12/15 20:11	1
Acenaphthylene	0.042	U	0.39	0.042	mg/Kg	☼	08/10/15 16:16	08/12/15 20:11	1
Acetophenone	0.033	U	0.39	0.033	mg/Kg	☼	08/10/15 16:16	08/12/15 20:11	1
Anthracene	0.029	U	0.39	0.029	mg/Kg	☼	08/10/15 16:16	08/12/15 20:11	1
Atrazine	0.027	U	0.39	0.027	mg/Kg	☼	08/10/15 16:16	08/12/15 20:11	1
Benzaldehyde	0.068	U	0.39	0.068	mg/Kg	☼	08/10/15 16:16	08/12/15 20:11	1
Benzo[a]anthracene	0.032	U	0.39	0.032	mg/Kg	☼	08/10/15 16:16	08/12/15 20:11	1
Benzo[a]pyrene	0.061	U	0.39	0.061	mg/Kg	☼	08/10/15 16:16	08/12/15 20:11	1
Benzo[b]fluoranthene	0.045	U	0.39	0.045	mg/Kg	☼	08/10/15 16:16	08/12/15 20:11	1
Benzo[g,h,i]perylene	0.026	U	0.39	0.026	mg/Kg	☼	08/10/15 16:16	08/12/15 20:11	1
Benzo[k]fluoranthene	0.077	U	0.39	0.077	mg/Kg	☼	08/10/15 16:16	08/12/15 20:11	1
1,1'-Biphenyl	2.0	U	2.0	2.0	mg/Kg	☼	08/10/15 16:16	08/12/15 20:11	1
Bis(2-chloroethoxy)methane	0.046	U	0.39	0.046	mg/Kg	☼	08/10/15 16:16	08/12/15 20:11	1
Bis(2-chloroethyl)ether	0.053	U	0.39	0.053	mg/Kg	☼	08/10/15 16:16	08/12/15 20:11	1
bis (2-chloroisopropyl) ether	0.035	U	0.39	0.035	mg/Kg	☼	08/10/15 16:16	08/12/15 20:11	1
<b>Bis(2-ethylhexyl) phthalate</b>	<b>0.26</b>	<b>J B</b>	0.39	0.034	mg/Kg	☼	08/10/15 16:16	08/12/15 20:11	1
4-Bromophenyl phenyl ether	0.042	U	0.39	0.042	mg/Kg	☼	08/10/15 16:16	08/12/15 20:11	1
Butyl benzyl phthalate	0.031	U	0.39	0.031	mg/Kg	☼	08/10/15 16:16	08/12/15 20:11	1
Caprolactam	0.078	U	0.39	0.078	mg/Kg	☼	08/10/15 16:16	08/12/15 20:11	1
Carbazole	0.035	U	0.39	0.035	mg/Kg	☼	08/10/15 16:16	08/12/15 20:11	1
4-Chloroaniline	0.061	U	0.78	0.061	mg/Kg	☼	08/10/15 16:16	08/12/15 20:11	1
4-Chloro-3-methylphenol	0.041	U	0.39	0.041	mg/Kg	☼	08/10/15 16:16	08/12/15 20:11	1
2-Chloronaphthalene	0.041	U	0.39	0.041	mg/Kg	☼	08/10/15 16:16	08/12/15 20:11	1
2-Chlorophenol	0.047	U	0.39	0.047	mg/Kg	☼	08/10/15 16:16	08/12/15 20:11	1
4-Chlorophenyl phenyl ether	0.052	U	0.39	0.052	mg/Kg	☼	08/10/15 16:16	08/12/15 20:11	1
Chrysene	0.025	U	0.39	0.025	mg/Kg	☼	08/10/15 16:16	08/12/15 20:11	1
Dibenz(a,h)anthracene	0.046	U	0.39	0.046	mg/Kg	☼	08/10/15 16:16	08/12/15 20:11	1
Dibenzofuran	0.039	U	0.39	0.039	mg/Kg	☼	08/10/15 16:16	08/12/15 20:11	1
3,3'-Dichlorobenzidine	0.033	U	0.78	0.033	mg/Kg	☼	08/10/15 16:16	08/12/15 20:11	1
2,4-Dichlorophenol	0.041	U	0.39	0.041	mg/Kg	☼	08/10/15 16:16	08/12/15 20:11	1
Diethyl phthalate	0.044	U	0.39	0.044	mg/Kg	☼	08/10/15 16:16	08/12/15 20:11	1
2,4-Dimethylphenol	0.052	U	0.39	0.052	mg/Kg	☼	08/10/15 16:16	08/12/15 20:11	1
Dimethyl phthalate	0.040	U	0.39	0.040	mg/Kg	☼	08/10/15 16:16	08/12/15 20:11	1
Di-n-butyl phthalate	0.035	U	0.39	0.035	mg/Kg	☼	08/10/15 16:16	08/12/15 20:11	1
4,6-Dinitro-2-methylphenol	0.20	U *	2.0	0.20	mg/Kg	☼	08/10/15 16:16	08/12/15 20:11	1
2,4-Dinitrophenol	0.98	U	2.0	0.98	mg/Kg	☼	08/10/15 16:16	08/12/15 20:11	1
2,4-Dinitrotoluene	0.058	U	0.39	0.058	mg/Kg	☼	08/10/15 16:16	08/12/15 20:11	1
2,6-Dinitrotoluene	0.049	U	0.39	0.049	mg/Kg	☼	08/10/15 16:16	08/12/15 20:11	1
Di-n-octyl phthalate	0.034	U	0.39	0.034	mg/Kg	☼	08/10/15 16:16	08/12/15 20:11	1
Fluoranthene	0.038	U	0.39	0.038	mg/Kg	☼	08/10/15 16:16	08/12/15 20:11	1
Fluorene	0.042	U	0.39	0.042	mg/Kg	☼	08/10/15 16:16	08/12/15 20:11	1
Hexachlorobenzene	0.046	U	0.39	0.046	mg/Kg	☼	08/10/15 16:16	08/12/15 20:11	1
Hexachlorobutadiene	0.042	U	0.39	0.042	mg/Kg	☼	08/10/15 16:16	08/12/15 20:11	1
Hexachlorocyclopentadiene	0.048	U	0.39	0.048	mg/Kg	☼	08/10/15 16:16	08/12/15 20:11	1
Hexachloroethane	0.033	U	0.39	0.033	mg/Kg	☼	08/10/15 16:16	08/12/15 20:11	1
Indeno[1,2,3-cd]pyrene	0.033	U	0.39	0.033	mg/Kg	☼	08/10/15 16:16	08/12/15 20:11	1
Isophorone	0.039	U	0.39	0.039	mg/Kg	☼	08/10/15 16:16	08/12/15 20:11	1
2-Methylnaphthalene	0.045	U	0.39	0.045	mg/Kg	☼	08/10/15 16:16	08/12/15 20:11	1
2-Methylphenol	0.032	U	0.39	0.032	mg/Kg	☼	08/10/15 16:16	08/12/15 20:11	1

TestAmerica Savannah

# Client Sample Results

Client: Geotechnical & Environmental Consultants  
Project/Site: Macon MGP

TestAmerica Job ID: 680-115409-1

**Client Sample ID: SB-20 2-4**

**Date Collected: 08/07/15 15:04**

**Date Received: 08/08/15 10:00**

**Lab Sample ID: 680-115409-30**

**Matrix: Solid**

**Percent Solids: 84.8**

## Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
3 & 4 Methylphenol	0.051	U	0.39	0.051	mg/Kg	☼	08/10/15 16:16	08/12/15 20:11	1
Naphthalene	0.035	U	0.39	0.035	mg/Kg	☼	08/10/15 16:16	08/12/15 20:11	1
2-Nitroaniline	0.053	U	2.0	0.053	mg/Kg	☼	08/10/15 16:16	08/12/15 20:11	1
3-Nitroaniline	0.054	U	2.0	0.054	mg/Kg	☼	08/10/15 16:16	08/12/15 20:11	1
4-Nitroaniline	0.058	U	2.0	0.058	mg/Kg	☼	08/10/15 16:16	08/12/15 20:11	1
Nitrobenzene	0.031	U	0.39	0.031	mg/Kg	☼	08/10/15 16:16	08/12/15 20:11	1
2-Nitrophenol	0.048	U	0.39	0.048	mg/Kg	☼	08/10/15 16:16	08/12/15 20:11	1
4-Nitrophenol	0.39	U	2.0	0.39	mg/Kg	☼	08/10/15 16:16	08/12/15 20:11	1
N-Nitrosodi-n-propylamine	0.038	U	0.39	0.038	mg/Kg	☼	08/10/15 16:16	08/12/15 20:11	1
N-Nitrosodiphenylamine	0.039	U	0.39	0.039	mg/Kg	☼	08/10/15 16:16	08/12/15 20:11	1
Pentachlorophenol	0.39	U *	2.0	0.39	mg/Kg	☼	08/10/15 16:16	08/12/15 20:11	1
Phenanthrene	0.032	U	0.39	0.032	mg/Kg	☼	08/10/15 16:16	08/12/15 20:11	1
Phenol	0.040	U	0.39	0.040	mg/Kg	☼	08/10/15 16:16	08/12/15 20:11	1
Pyrene	0.032	U	0.39	0.032	mg/Kg	☼	08/10/15 16:16	08/12/15 20:11	1
2,4,5-Trichlorophenol	0.041	U	0.39	0.041	mg/Kg	☼	08/10/15 16:16	08/12/15 20:11	1
2,4,6-Trichlorophenol	0.034	U	0.39	0.034	mg/Kg	☼	08/10/15 16:16	08/12/15 20:11	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl	65		41 - 116	08/10/15 16:16	08/12/15 20:11	1
2-Fluorophenol (Surr)	47		39 - 114	08/10/15 16:16	08/12/15 20:11	1
Nitrobenzene-d5 (Surr)	47		37 - 115	08/10/15 16:16	08/12/15 20:11	1
Phenol-d5 (Surr)	49		38 - 122	08/10/15 16:16	08/12/15 20:11	1
Terphenyl-d14 (Surr)	64		46 - 126	08/10/15 16:16	08/12/15 20:11	1
2,4,6-Tribromophenol (Surr)	70		45 - 129	08/10/15 16:16	08/12/15 20:11	1

## Method: 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	1.6	J	2.0	0.80	mg/Kg	☼	08/11/15 08:25	08/15/15 05:19	1
Barium	99		1.0	0.16	mg/Kg	☼	08/11/15 08:25	08/15/15 05:19	1
Beryllium	1.6		0.40	0.010	mg/Kg	☼	08/11/15 08:25	08/15/15 05:19	1
Cadmium	0.10	U	0.50	0.10	mg/Kg	☼	08/11/15 08:25	08/17/15 15:22	1
Chromium	9.5		1.0	0.21	mg/Kg	☼	08/11/15 08:25	08/15/15 05:19	1
Copper	60		2.5	0.17	mg/Kg	☼	08/11/15 08:25	08/15/15 05:19	1
Lead	13		1.0	0.34	mg/Kg	☼	08/11/15 08:25	08/15/15 05:19	1
Nickel	6.7		4.0	0.38	mg/Kg	☼	08/11/15 08:25	08/15/15 05:19	1
Selenium	0.97	U	2.5	0.97	mg/Kg	☼	08/11/15 08:25	08/15/15 05:19	1
Silver	0.060	U	1.0	0.060	mg/Kg	☼	08/11/15 08:25	08/15/15 05:19	1
Vanadium	61		1.0	0.10	mg/Kg	☼	08/11/15 08:25	08/15/15 05:19	1
Zinc	56		2.0	0.70	mg/Kg	☼	08/11/15 08:25	08/15/15 05:19	1

## Method: 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.028		0.023	0.0092	mg/Kg	☼	08/16/15 13:43	08/17/15 22:27	1

## General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total	0.25	U	0.58	0.25	mg/Kg	☼	08/17/15 08:00	08/17/15 12:21	1

TestAmerica Savannah

# Client Sample Results

Client: Geotechnical & Environmental Consultants  
Project/Site: Macon MGP

TestAmerica Job ID: 680-115409-1

**Client Sample ID: Trip Blank lot ATL156**

**Lab Sample ID: 680-115409-31**

**Date Collected: 08/07/15 00:00**

**Matrix: Water**

**Date Received: 08/08/15 10:00**

## Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	0.43	U	1.0	0.43	ug/L			08/18/15 11:14	1
Carbon disulfide	1.0	U	2.0	1.0	ug/L			08/18/15 11:14	1
Ethylbenzene	0.33	U	1.0	0.33	ug/L			08/18/15 11:14	1
Methylene Chloride	2.5	U	5.0	2.5	ug/L			08/18/15 11:14	1
Toluene	0.48	U	1.0	0.48	ug/L			08/18/15 11:14	1
Xylenes, Total	0.23	U	1.0	0.23	ug/L			08/18/15 11:14	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	120		70 - 130		08/18/15 11:14	1
Dibromofluoromethane (Surr)	100		70 - 130		08/18/15 11:14	1
1,2-Dichloroethane-d4 (Surr)	92		70 - 130		08/18/15 11:14	1
Toluene-d8 (Surr)	100		70 - 130		08/18/15 11:14	1

# QC Sample Results

Client: Geotechnical & Environmental Consultants  
Project/Site: Macon MGP

TestAmerica Job ID: 680-115409-1

## Method: 8260B - Volatile Organic Compounds (GC/MS)

Lab Sample ID: MB 680-395460/10

Matrix: Solid

Analysis Batch: 395460

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	0.00072	U	0.0049	0.00072	mg/Kg			08/11/15 16:33	1
Carbon disulfide	0.0011	U	0.0049	0.0011	mg/Kg			08/11/15 16:33	1
Ethylbenzene	0.0013	U	0.0049	0.0013	mg/Kg			08/11/15 16:33	1
Methylene Chloride	0.00097	U	0.0049	0.00097	mg/Kg			08/11/15 16:33	1
Toluene	0.00083	U	0.0049	0.00083	mg/Kg			08/11/15 16:33	1
Xylenes, Total	0.0011	U	0.0099	0.0011	mg/Kg			08/11/15 16:33	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	80		65 - 130		08/11/15 16:33	1
Dibromofluoromethane (Surr)	90		65 - 130		08/11/15 16:33	1
1,2-Dichloroethane-d4 (Surr)	85		65 - 130		08/11/15 16:33	1
Toluene-d8 (Surr)	92		65 - 130		08/11/15 16:33	1

Lab Sample ID: LCS 680-395460/4

Matrix: Solid

Analysis Batch: 395460

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Benzene	0.0500	0.0507		mg/Kg		101	76 - 120
Carbon disulfide	0.0500	0.0499		mg/Kg		100	74 - 125
Ethylbenzene	0.0500	0.0505		mg/Kg		101	78 - 121
Methylene Chloride	0.0500	0.0506		mg/Kg		101	80 - 120
Toluene	0.0500	0.0507		mg/Kg		101	73 - 122
Xylenes, Total	0.100	0.101		mg/Kg		101	79 - 121

Surrogate	LCS %Recovery	LCS Qualifier	Limits
4-Bromofluorobenzene (Surr)	95		65 - 130
Dibromofluoromethane (Surr)	101		65 - 130
1,2-Dichloroethane-d4 (Surr)	97		65 - 130
Toluene-d8 (Surr)	99		65 - 130

Lab Sample ID: LCSD 680-395460/5

Matrix: Solid

Analysis Batch: 395460

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Benzene	0.0487	0.0520		mg/Kg		107	76 - 120	3	30
Carbon disulfide	0.0487	0.0525		mg/Kg		108	74 - 125	5	30
Ethylbenzene	0.0487	0.0544		mg/Kg		112	78 - 121	7	30
Methylene Chloride	0.0487	0.0511		mg/Kg		105	80 - 120	1	30
Toluene	0.0487	0.0523		mg/Kg		107	73 - 122	3	30
Xylenes, Total	0.0975	0.108		mg/Kg		111	79 - 121	7	30

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
4-Bromofluorobenzene (Surr)	102		65 - 130
Dibromofluoromethane (Surr)	103		65 - 130
1,2-Dichloroethane-d4 (Surr)	97		65 - 130

TestAmerica Savannah

# QC Sample Results

Client: Geotechnical & Environmental Consultants  
Project/Site: Macon MGP

TestAmerica Job ID: 680-115409-1

## Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCSD 680-395460/5

Matrix: Solid

Analysis Batch: 395460

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
Toluene-d8 (Surr)	108		65 - 130

Lab Sample ID: MB 680-396685/11

Matrix: Water

Analysis Batch: 396685

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	0.43	U	1.0	0.43	ug/L			08/18/15 10:38	1
Carbon disulfide	1.0	U	2.0	1.0	ug/L			08/18/15 10:38	1
Ethylbenzene	0.33	U	1.0	0.33	ug/L			08/18/15 10:38	1
Methylene Chloride	2.5	U	5.0	2.5	ug/L			08/18/15 10:38	1
Toluene	0.48	U	1.0	0.48	ug/L			08/18/15 10:38	1
Xylenes, Total	0.23	U	1.0	0.23	ug/L			08/18/15 10:38	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	120		70 - 130		08/18/15 10:38	1
Dibromofluoromethane (Surr)	98		70 - 130		08/18/15 10:38	1
1,2-Dichloroethane-d4 (Surr)	94		70 - 130		08/18/15 10:38	1
Toluene-d8 (Surr)	99		70 - 130		08/18/15 10:38	1

Lab Sample ID: LCS 680-396685/4

Matrix: Water

Analysis Batch: 396685

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Benzene	50.0	49.7		ug/L		99	73 - 131
Carbon disulfide	50.0	52.2		ug/L		104	73 - 127
Ethylbenzene	50.0	49.6		ug/L		99	80 - 120
Methylene Chloride	50.0	49.6		ug/L		99	76 - 129
Toluene	50.0	50.8		ug/L		102	80 - 122
Xylenes, Total	100	101		ug/L		101	80 - 120

Surrogate	LCS %Recovery	LCS Qualifier	Limits
4-Bromofluorobenzene (Surr)	92		70 - 130
Dibromofluoromethane (Surr)	96		70 - 130
1,2-Dichloroethane-d4 (Surr)	94		70 - 130
Toluene-d8 (Surr)	97		70 - 130

Lab Sample ID: LCSD 680-396685/5

Matrix: Water

Analysis Batch: 396685

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Benzene	50.0	49.1		ug/L		98	73 - 131	1	30
Carbon disulfide	50.0	51.6		ug/L		103	73 - 127	1	20
Ethylbenzene	50.0	48.3		ug/L		97	80 - 120	3	20
Methylene Chloride	50.0	49.3		ug/L		99	76 - 129	1	20

TestAmerica Savannah

# QC Sample Results

Client: Geotechnical & Environmental Consultants  
Project/Site: Macon MGP

TestAmerica Job ID: 680-115409-1

## Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCSD 680-396685/5

Matrix: Water

Analysis Batch: 396685

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Toluene	50.0	50.1		ug/L		100	80 - 122	1	20
Xylenes, Total	100	99.0		ug/L		99	80 - 120	2	20

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
4-Bromofluorobenzene (Surr)	89		70 - 130
Dibromofluoromethane (Surr)	94		70 - 130
1,2-Dichloroethane-d4 (Surr)	93		70 - 130
Toluene-d8 (Surr)	95		70 - 130

## Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Lab Sample ID: MB 680-395299/21-A

Matrix: Solid

Analysis Batch: 395487

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 395299

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	0.041	U	0.33	0.041	mg/Kg		08/10/15 14:33	08/11/15 14:58	1
Acenaphthylene	0.036	U	0.33	0.036	mg/Kg		08/10/15 14:33	08/11/15 14:58	1
Acetophenone	0.028	U	0.33	0.028	mg/Kg		08/10/15 14:33	08/11/15 14:58	1
Anthracene	0.025	U	0.33	0.025	mg/Kg		08/10/15 14:33	08/11/15 14:58	1
Atrazine	0.023	U	0.33	0.023	mg/Kg		08/10/15 14:33	08/11/15 14:58	1
Benzaldehyde	0.058	U	0.33	0.058	mg/Kg		08/10/15 14:33	08/11/15 14:58	1
Benzo[a]anthracene	0.027	U	0.33	0.027	mg/Kg		08/10/15 14:33	08/11/15 14:58	1
Benzo[a]pyrene	0.052	U	0.33	0.052	mg/Kg		08/10/15 14:33	08/11/15 14:58	1
Benzo[b]fluoranthene	0.038	U	0.33	0.038	mg/Kg		08/10/15 14:33	08/11/15 14:58	1
Benzo[g,h,i]perylene	0.022	U	0.33	0.022	mg/Kg		08/10/15 14:33	08/11/15 14:58	1
Benzo[k]fluoranthene	0.065	U	0.33	0.065	mg/Kg		08/10/15 14:33	08/11/15 14:58	1
1,1'-Biphenyl	1.7	U	1.7	1.7	mg/Kg		08/10/15 14:33	08/11/15 14:58	1
Bis(2-chloroethoxy)methane	0.039	U	0.33	0.039	mg/Kg		08/10/15 14:33	08/11/15 14:58	1
Bis(2-chloroethyl)ether	0.045	U	0.33	0.045	mg/Kg		08/10/15 14:33	08/11/15 14:58	1
bis (2-chloroisopropyl) ether	0.030	U	0.33	0.030	mg/Kg		08/10/15 14:33	08/11/15 14:58	1
Bis(2-ethylhexyl) phthalate	0.141	J	0.33	0.029	mg/Kg		08/10/15 14:33	08/11/15 14:58	1
4-Bromophenyl phenyl ether	0.036	U	0.33	0.036	mg/Kg		08/10/15 14:33	08/11/15 14:58	1
Butyl benzyl phthalate	0.026	U	0.33	0.026	mg/Kg		08/10/15 14:33	08/11/15 14:58	1
Caprolactam	0.066	U	0.33	0.066	mg/Kg		08/10/15 14:33	08/11/15 14:58	1
Carbazole	0.030	U	0.33	0.030	mg/Kg		08/10/15 14:33	08/11/15 14:58	1
4-Chloroaniline	0.052	U	0.66	0.052	mg/Kg		08/10/15 14:33	08/11/15 14:58	1
4-Chloro-3-methylphenol	0.035	U	0.33	0.035	mg/Kg		08/10/15 14:33	08/11/15 14:58	1
2-Chloronaphthalene	0.035	U	0.33	0.035	mg/Kg		08/10/15 14:33	08/11/15 14:58	1
2-Chlorophenol	0.040	U	0.33	0.040	mg/Kg		08/10/15 14:33	08/11/15 14:58	1
4-Chlorophenyl phenyl ether	0.044	U	0.33	0.044	mg/Kg		08/10/15 14:33	08/11/15 14:58	1
Chrysene	0.021	U	0.33	0.021	mg/Kg		08/10/15 14:33	08/11/15 14:58	1
Dibenz(a,h)anthracene	0.039	U	0.33	0.039	mg/Kg		08/10/15 14:33	08/11/15 14:58	1
Dibenzofuran	0.033	U	0.33	0.033	mg/Kg		08/10/15 14:33	08/11/15 14:58	1
3,3'-Dichlorobenzidine	0.028	U	0.66	0.028	mg/Kg		08/10/15 14:33	08/11/15 14:58	1
2,4-Dichlorophenol	0.035	U	0.33	0.035	mg/Kg		08/10/15 14:33	08/11/15 14:58	1
Diethyl phthalate	0.037	U	0.33	0.037	mg/Kg		08/10/15 14:33	08/11/15 14:58	1
2,4-Dimethylphenol	0.044	U	0.33	0.044	mg/Kg		08/10/15 14:33	08/11/15 14:58	1

TestAmerica Savannah



# QC Sample Results

Client: Geotechnical & Environmental Consultants  
Project/Site: Macon MGP

TestAmerica Job ID: 680-115409-1

## Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 680-395299/21-A

Matrix: Solid

Analysis Batch: 395487

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 395299

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Dimethyl phthalate	0.034	U	0.33	0.034	mg/Kg		08/10/15 14:33	08/11/15 14:58	1
Di-n-butyl phthalate	0.030	U	0.33	0.030	mg/Kg		08/10/15 14:33	08/11/15 14:58	1
4,6-Dinitro-2-methylphenol	0.17	U	1.7	0.17	mg/Kg		08/10/15 14:33	08/11/15 14:58	1
2,4-Dinitrophenol	0.83	U	1.7	0.83	mg/Kg		08/10/15 14:33	08/11/15 14:58	1
2,4-Dinitrotoluene	0.049	U	0.33	0.049	mg/Kg		08/10/15 14:33	08/11/15 14:58	1
2,6-Dinitrotoluene	0.042	U	0.33	0.042	mg/Kg		08/10/15 14:33	08/11/15 14:58	1
Di-n-octyl phthalate	0.029	U	0.33	0.029	mg/Kg		08/10/15 14:33	08/11/15 14:58	1
Fluoranthene	0.032	U	0.33	0.032	mg/Kg		08/10/15 14:33	08/11/15 14:58	1
Fluorene	0.036	U	0.33	0.036	mg/Kg		08/10/15 14:33	08/11/15 14:58	1
Hexachlorobenzene	0.039	U	0.33	0.039	mg/Kg		08/10/15 14:33	08/11/15 14:58	1
Hexachlorobutadiene	0.036	U	0.33	0.036	mg/Kg		08/10/15 14:33	08/11/15 14:58	1
Hexachlorocyclopentadiene	0.041	U	0.33	0.041	mg/Kg		08/10/15 14:33	08/11/15 14:58	1
Hexachloroethane	0.028	U	0.33	0.028	mg/Kg		08/10/15 14:33	08/11/15 14:58	1
Indeno[1,2,3-cd]pyrene	0.028	U	0.33	0.028	mg/Kg		08/10/15 14:33	08/11/15 14:58	1
Isophorone	0.033	U	0.33	0.033	mg/Kg		08/10/15 14:33	08/11/15 14:58	1
2-Methylnaphthalene	0.038	U	0.33	0.038	mg/Kg		08/10/15 14:33	08/11/15 14:58	1
2-Methylphenol	0.027	U	0.33	0.027	mg/Kg		08/10/15 14:33	08/11/15 14:58	1
3 & 4 Methylphenol	0.043	U	0.33	0.043	mg/Kg		08/10/15 14:33	08/11/15 14:58	1
Naphthalene	0.030	U	0.33	0.030	mg/Kg		08/10/15 14:33	08/11/15 14:58	1
2-Nitroaniline	0.045	U	1.7	0.045	mg/Kg		08/10/15 14:33	08/11/15 14:58	1
3-Nitroaniline	0.046	U	1.7	0.046	mg/Kg		08/10/15 14:33	08/11/15 14:58	1
4-Nitroaniline	0.049	U	1.7	0.049	mg/Kg		08/10/15 14:33	08/11/15 14:58	1
Nitrobenzene	0.026	U	0.33	0.026	mg/Kg		08/10/15 14:33	08/11/15 14:58	1
2-Nitrophenol	0.041	U	0.33	0.041	mg/Kg		08/10/15 14:33	08/11/15 14:58	1
4-Nitrophenol	0.33	U	1.7	0.33	mg/Kg		08/10/15 14:33	08/11/15 14:58	1
N-Nitrosodi-n-propylamine	0.032	U	0.33	0.032	mg/Kg		08/10/15 14:33	08/11/15 14:58	1
N-Nitrosodiphenylamine	0.033	U	0.33	0.033	mg/Kg		08/10/15 14:33	08/11/15 14:58	1
Pentachlorophenol	0.33	U	1.7	0.33	mg/Kg		08/10/15 14:33	08/11/15 14:58	1
Phenanthrene	0.027	U	0.33	0.027	mg/Kg		08/10/15 14:33	08/11/15 14:58	1
Phenol	0.034	U	0.33	0.034	mg/Kg		08/10/15 14:33	08/11/15 14:58	1
Pyrene	0.027	U	0.33	0.027	mg/Kg		08/10/15 14:33	08/11/15 14:58	1
2,4,5-Trichlorophenol	0.035	U	0.33	0.035	mg/Kg		08/10/15 14:33	08/11/15 14:58	1
2,4,6-Trichlorophenol	0.029	U	0.33	0.029	mg/Kg		08/10/15 14:33	08/11/15 14:58	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl	55		41 - 116	08/10/15 14:33	08/11/15 14:58	1
2-Fluorophenol (Surr)	66		39 - 114	08/10/15 14:33	08/11/15 14:58	1
Nitrobenzene-d5 (Surr)	69		37 - 115	08/10/15 14:33	08/11/15 14:58	1
Phenol-d5 (Surr)	63		38 - 122	08/10/15 14:33	08/11/15 14:58	1
Terphenyl-d14 (Surr)	79		46 - 126	08/10/15 14:33	08/11/15 14:58	1
2,4,6-Tribromophenol (Surr)	61		45 - 129	08/10/15 14:33	08/11/15 14:58	1

Lab Sample ID: LCS 680-395299/22-A

Matrix: Solid

Analysis Batch: 395487

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 395299

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Acenaphthene	3.34	2.78		mg/Kg		83	47 - 130

TestAmerica Savannah

# QC Sample Results

Client: Geotechnical & Environmental Consultants  
Project/Site: Macon MGP

TestAmerica Job ID: 680-115409-1

## Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 680-395299/22-A

Matrix: Solid

Analysis Batch: 395487

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 395299

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Acenaphthylene	3.34	2.58		mg/Kg		77	45 - 130
Acetophenone	3.34	2.46		mg/Kg		74	44 - 130
Anthracene	3.34	2.72		mg/Kg		82	50 - 130
Atrazine	3.34	2.70		mg/Kg		81	47 - 130
Benzaldehyde	3.34	0.430		mg/Kg		13	10 - 130
Benzo[a]anthracene	3.34	2.95		mg/Kg		88	50 - 130
Benzo[a]pyrene	3.34	2.91		mg/Kg		87	47 - 131
Benzo[b]fluoranthene	3.34	3.03		mg/Kg		91	48 - 130
Benzo[g,h,i]perylene	3.34	2.70		mg/Kg		81	42 - 130
Benzo[k]fluoranthene	3.34	3.61		mg/Kg		108	48 - 108
1,1'-Biphenyl	3.34	2.42		mg/Kg		72	48 - 130
Bis(2-chloroethoxy)methane	3.34	2.55		mg/Kg		76	47 - 130
Bis(2-chloroethyl)ether	3.34	2.42		mg/Kg		73	37 - 130
bis (2-chloroisopropyl) ether	3.34	2.81		mg/Kg		84	38 - 130
Bis(2-ethylhexyl) phthalate	3.34	3.47		mg/Kg		104	48 - 130
4-Bromophenyl phenyl ether	3.34	2.66		mg/Kg		80	53 - 130
Butyl benzyl phthalate	3.34	3.21		mg/Kg		96	53 - 134
Caprolactam	3.34	2.74		mg/Kg		82	44 - 130
Carbazole	3.34	2.81		mg/Kg		84	51 - 130
4-Chloroaniline	3.34	1.38		mg/Kg		41	10 - 130
4-Chloro-3-methylphenol	3.34	2.70		mg/Kg		81	51 - 130
2-Chloronaphthalene	3.34	2.51		mg/Kg		75	48 - 130
2-Chlorophenol	3.34	2.58		mg/Kg		77	47 - 130
4-Chlorophenyl phenyl ether	3.34	2.60		mg/Kg		78	49 - 130
Chrysene	3.34	2.83		mg/Kg		85	47 - 130
Dibenz(a,h)anthracene	3.34	2.74		mg/Kg		82	44 - 130
Dibenzofuran	3.34	2.59		mg/Kg		77	49 - 130
3,3'-Dichlorobenzidine	3.34	1.61		mg/Kg		48	16 - 130
2,4-Dichlorophenol	3.34	2.64		mg/Kg		79	48 - 130
Diethyl phthalate	3.34	2.75		mg/Kg		82	49 - 130
2,4-Dimethylphenol	3.34	2.59		mg/Kg		78	43 - 130
Dimethyl phthalate	3.34	2.73		mg/Kg		82	50 - 130
Di-n-butyl phthalate	3.34	3.01		mg/Kg		90	52 - 130
4,6-Dinitro-2-methylphenol	6.68	0.578	J *	mg/Kg		9	23 - 130
2,4-Dinitrophenol	6.68	1.97		mg/Kg		29	10 - 130
2,4-Dinitrotoluene	3.34	2.82		mg/Kg		84	49 - 111
2,6-Dinitrotoluene	3.34	2.74		mg/Kg		82	49 - 130
Di-n-octyl phthalate	3.34	3.50		mg/Kg		105	46 - 130
Fluoranthene	3.34	2.75		mg/Kg		82	51 - 130
Fluorene	3.34	2.61		mg/Kg		78	52 - 130
Hexachlorobenzene	3.34	2.66		mg/Kg		80	53 - 130
Hexachlorobutadiene	3.34	2.55		mg/Kg		76	48 - 130
Hexachlorocyclopentadiene	3.34	1.81		mg/Kg		54	28 - 130
Hexachloroethane	3.34	2.53		mg/Kg		76	42 - 130
Indeno[1,2,3-cd]pyrene	3.34	2.68		mg/Kg		80	41 - 130
Isophorone	3.34	2.65		mg/Kg		79	48 - 130
2-Methylnaphthalene	3.34	2.55		mg/Kg		76	48 - 130
2-Methylphenol	3.34	2.59		mg/Kg		78	46 - 130

TestAmerica Savannah

# QC Sample Results

Client: Geotechnical & Environmental Consultants  
Project/Site: Macon MGP

TestAmerica Job ID: 680-115409-1

## Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 680-395299/22-A

Matrix: Solid

Analysis Batch: 395487

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 395299

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
3 & 4 Methylphenol	3.34	2.72		mg/Kg		81	46 - 130
Naphthalene	3.34	2.64		mg/Kg		79	47 - 130
2-Nitroaniline	3.34	2.70		mg/Kg		81	44 - 130
3-Nitroaniline	3.34	2.02		mg/Kg		60	21 - 130
4-Nitroaniline	3.34	2.30		mg/Kg		69	41 - 130
Nitrobenzene	3.34	2.61		mg/Kg		78	45 - 130
2-Nitrophenol	3.34	2.64		mg/Kg		79	43 - 130
4-Nitrophenol	6.68	4.84		mg/Kg		73	40 - 130
N-Nitrosodi-n-propylamine	3.34	2.61		mg/Kg		78	38 - 130
N-Nitrosodiphenylamine	6.68	5.28		mg/Kg		79	50 - 130
Pentachlorophenol	6.68	4.37		mg/Kg		65	41 - 130
Phenanthrene	3.34	2.73		mg/Kg		82	52 - 130
Phenol	3.34	2.41		mg/Kg		72	47 - 130
Pyrene	3.34	2.94		mg/Kg		88	50 - 130
2,4,5-Trichlorophenol	3.34	2.50		mg/Kg		75	51 - 130
2,4,6-Trichlorophenol	3.34	2.59		mg/Kg		77	50 - 130

Surrogate	LCS %Recovery	LCS Qualifier	Limits
2-Fluorobiphenyl	69		41 - 116
2-Fluorophenol (Surr)	68		39 - 114
Nitrobenzene-d5 (Surr)	76		37 - 115
Phenol-d5 (Surr)	74		38 - 122
Terphenyl-d14 (Surr)	88		46 - 126
2,4,6-Tribromophenol (Surr)	79		45 - 129

Lab Sample ID: 680-115409-18 MS

Matrix: Solid

Analysis Batch: 395487

Client Sample ID: GB-16 4-6

Prep Type: Total/NA

Prep Batch: 395299

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Acenaphthene	0.055	U	4.45	3.38		mg/Kg	☼	76	58 - 130
Acenaphthylene	0.048	U	4.45	3.18		mg/Kg	☼	71	58 - 130
Acetophenone	0.037	U	4.45	3.13		mg/Kg	☼	70	42 - 130
Anthracene	0.033	U	4.45	3.25		mg/Kg	☼	73	60 - 130
Atrazine	0.031	U	4.45	3.16		mg/Kg	☼	71	54 - 141
Benzaldehyde	0.078	U	4.45	2.33		mg/Kg	☼	52	10 - 130
Benzo[a]anthracene	0.036	U	4.45	3.39		mg/Kg	☼	76	62 - 130
Benzo[a]pyrene	0.070	U	4.45	3.45		mg/Kg	☼	77	68 - 131
Benzo[b]fluoranthene	0.051	U	4.45	3.20		mg/Kg	☼	72	53 - 130
Benzo[g,h,i]perylene	0.029	U	4.45	3.29		mg/Kg	☼	74	54 - 130
Benzo[k]fluoranthene	0.087	U	4.45	3.48		mg/Kg	☼	78	57 - 130
1,1'-Biphenyl	2.3	U	4.45	3.04		mg/Kg	☼	68	57 - 130
Bis(2-chloroethoxy)methane	0.052	U	4.45	3.23		mg/Kg	☼	73	56 - 130
Bis(2-chloroethyl)ether	0.060	U	4.45	3.04		mg/Kg	☼	68	42 - 130
bis (2-chloroisopropyl) ether	0.040	U	4.45	3.58		mg/Kg	☼	80	44 - 130
Bis(2-ethylhexyl) phthalate	0.24	J B	4.45	4.02		mg/Kg	☼	85	62 - 132
4-Bromophenyl phenyl ether	0.048	U	4.45	3.21		mg/Kg	☼	72	65 - 130
Butyl benzyl phthalate	0.035	U	4.45	3.76		mg/Kg	☼	84	65 - 134

TestAmerica Savannah

# QC Sample Results

Client: Geotechnical & Environmental Consultants  
Project/Site: Macon MGP

TestAmerica Job ID: 680-115409-1

## Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: 680-115409-18 MS

Matrix: Solid

Analysis Batch: 395487

Client Sample ID: GB-16 4-6

Prep Type: Total/NA

Prep Batch: 395299

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Caprolactam	0.088	U	4.45	2.73		mg/Kg	☼	61	52 - 130
Carbazole	0.040	U	4.45	3.36		mg/Kg	☼	76	60 - 130
4-Chloroaniline	0.070	U	4.45	1.73		mg/Kg	☼	39	36 - 130
4-Chloro-3-methylphenol	0.047	U	4.45	3.26		mg/Kg	☼	73	52 - 130
2-Chloronaphthalene	0.047	U	4.45	3.01		mg/Kg	☼	68	55 - 130
2-Chlorophenol	0.054	U	4.45	3.04		mg/Kg	☼	68	51 - 130
4-Chlorophenyl phenyl ether	0.059	U	4.45	3.11		mg/Kg	☼	70	61 - 130
Chrysene	0.028	U	4.45	3.27		mg/Kg	☼	73	62 - 130
Dibenz(a,h)anthracene	0.052	U	4.45	3.35		mg/Kg	☼	75	56 - 130
Dibenzofuran	0.044	U	4.45	3.15		mg/Kg	☼	71	56 - 130
3,3'-Dichlorobenzidine	0.037	U F1	4.45	1.98	F1	mg/Kg	☼	44	45 - 130
2,4-Dichlorophenol	0.047	U	4.45	3.32		mg/Kg	☼	75	53 - 130
Diethyl phthalate	0.049	U	4.45	3.14		mg/Kg	☼	70	62 - 130
2,4-Dimethylphenol	0.059	U	4.45	3.30		mg/Kg	☼	74	47 - 130
Dimethyl phthalate	0.045	U	4.45	3.28		mg/Kg	☼	74	63 - 130
Di-n-butyl phthalate	0.040	U	4.45	3.49		mg/Kg	☼	78	65 - 130
4,6-Dinitro-2-methylphenol	0.23	U F2 *	8.91	2.71		mg/Kg	☼	30	14 - 137
2,4-Dinitrophenol	1.1	U F1	8.91	1.1	U F1	mg/Kg	☼	0	10 - 154
2,4-Dinitrotoluene	0.066	U	4.45	3.32		mg/Kg	☼	74	55 - 130
2,6-Dinitrotoluene	0.056	U	4.45	3.25		mg/Kg	☼	73	57 - 130
Di-n-octyl phthalate	0.039	U	4.45	3.89		mg/Kg	☼	87	59 - 146
Fluoranthene	0.043	U	4.45	3.23		mg/Kg	☼	72	62 - 130
Fluorene	0.048	U	4.45	3.21		mg/Kg	☼	72	58 - 130
Hexachlorobenzene	0.052	U	4.45	3.18		mg/Kg	☼	71	59 - 130
Hexachlorobutadiene	0.048	U	4.45	2.85		mg/Kg	☼	64	47 - 130
Hexachlorocyclopentadiene	0.055	U	4.45	2.31		mg/Kg	☼	52	35 - 130
Hexachloroethane	0.037	U	4.45	2.88		mg/Kg	☼	65	44 - 130
Indeno[1,2,3-cd]pyrene	0.037	U	4.45	3.29		mg/Kg	☼	74	52 - 130
Isophorone	0.044	U	4.45	3.29		mg/Kg	☼	74	48 - 130
2-Methylnaphthalene	0.051	U	4.45	2.78		mg/Kg	☼	62	55 - 130
2-Methylphenol	0.036	U	4.45	3.31		mg/Kg	☼	74	49 - 130
3 & 4 Methylphenol	0.058	U	4.45	3.15		mg/Kg	☼	71	50 - 130
Naphthalene	0.040	U	4.45	2.99		mg/Kg	☼	67	54 - 130
2-Nitroaniline	0.060	U	4.45	3.19		mg/Kg	☼	72	52 - 130
3-Nitroaniline	0.062	U	4.45	2.50		mg/Kg	☼	56	42 - 130
4-Nitroaniline	0.066	U	4.45	2.79		mg/Kg	☼	63	49 - 130
Nitrobenzene	0.035	U	4.45	3.27		mg/Kg	☼	73	43 - 130
2-Nitrophenol	0.055	U	4.45	3.32		mg/Kg	☼	75	45 - 130
4-Nitrophenol	0.44	U	8.91	6.46		mg/Kg	☼	73	30 - 130
N-Nitrosodi-n-propylamine	0.043	U	4.45	3.28		mg/Kg	☼	74	48 - 130
N-Nitrosodiphenylamine	0.044	U	8.91	6.58		mg/Kg	☼	74	62 - 130
Pentachlorophenol	0.44	U	8.91	5.94		mg/Kg	☼	67	38 - 131
Phenanthrene	0.036	U	4.45	3.22		mg/Kg	☼	72	61 - 130
Phenol	0.045	U	4.45	3.03		mg/Kg	☼	68	46 - 130
Pyrene	0.036	U	4.45	3.02		mg/Kg	☼	68	59 - 130
2,4,5-Trichlorophenol	0.047	U	4.45	2.91		mg/Kg	☼	65	60 - 130
2,4,6-Trichlorophenol	0.039	U	4.45	3.16		mg/Kg	☼	71	53 - 130

TestAmerica Savannah

# QC Sample Results

Client: Geotechnical & Environmental Consultants  
Project/Site: Macon MGP

TestAmerica Job ID: 680-115409-1

## Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: 680-115409-18 MS

Matrix: Solid

Analysis Batch: 395487

Client Sample ID: GB-16 4-6

Prep Type: Total/NA

Prep Batch: 395299

Surrogate	MS %Recovery	MS Qualifier	Limits
2-Fluorobiphenyl	58		41 - 116
2-Fluorophenol (Surr)	65		39 - 114
Nitrobenzene-d5 (Surr)	70		37 - 115
Phenol-d5 (Surr)	69		38 - 122
Terphenyl-d14 (Surr)	74		46 - 126
2,4,6-Tribromophenol (Surr)	74		45 - 129

Lab Sample ID: 680-115409-18 MSD

Matrix: Solid

Analysis Batch: 395487

Client Sample ID: GB-16 4-6

Prep Type: Total/NA

Prep Batch: 395299

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Acenaphthene	0.055	U	4.44	3.69		mg/Kg	☼	83	58 - 130	9	50
Acenaphthylene	0.048	U	4.44	3.38		mg/Kg	☼	76	58 - 130	6	50
Acetophenone	0.037	U	4.44	2.90		mg/Kg	☼	65	42 - 130	8	50
Anthracene	0.033	U	4.44	3.82		mg/Kg	☼	86	60 - 130	16	50
Atrazine	0.031	U	4.44	3.66		mg/Kg	☼	82	54 - 141	15	50
Benzaldehyde	0.078	U	4.44	2.54		mg/Kg	☼	57	10 - 130	8	50
Benzo[a]anthracene	0.036	U	4.44	3.74		mg/Kg	☼	84	62 - 130	10	50
Benzo[a]pyrene	0.070	U	4.44	3.57		mg/Kg	☼	80	68 - 131	4	50
Benzo[b]fluoranthene	0.051	U	4.44	3.80		mg/Kg	☼	85	53 - 130	17	50
Benzo[g,h,i]perylene	0.029	U	4.44	3.62		mg/Kg	☼	82	54 - 130	10	50
Benzo[k]fluoranthene	0.087	U	4.44	3.94		mg/Kg	☼	89	57 - 130	12	50
1,1'-Biphenyl	2.3	U	4.44	3.23		mg/Kg	☼	73	57 - 130	6	50
Bis(2-chloroethoxy)methane	0.052	U	4.44	3.23		mg/Kg	☼	73	56 - 130	0	50
Bis(2-chloroethyl)ether	0.060	U	4.44	2.96		mg/Kg	☼	67	42 - 130	3	50
bis (2-chloroisopropyl) ether	0.040	U	4.44	3.24		mg/Kg	☼	73	44 - 130	10	50
Bis(2-ethylhexyl) phthalate	0.24	J B	4.44	4.49		mg/Kg	☼	96	62 - 132	11	50
4-Bromophenyl phenyl ether	0.048	U	4.44	3.76		mg/Kg	☼	85	65 - 130	16	50
Butyl benzyl phthalate	0.035	U	4.44	3.90		mg/Kg	☼	88	65 - 134	4	50
Caprolactam	0.088	U	4.44	3.07		mg/Kg	☼	69	52 - 130	12	50
Carbazole	0.040	U	4.44	3.85		mg/Kg	☼	87	60 - 130	13	50
4-Chloroaniline	0.070	U	4.44	1.68		mg/Kg	☼	38	36 - 130	3	50
4-Chloro-3-methylphenol	0.047	U	4.44	3.26		mg/Kg	☼	73	52 - 130	0	50
2-Chloronaphthalene	0.047	U	4.44	3.21		mg/Kg	☼	72	55 - 130	6	50
2-Chlorophenol	0.054	U	4.44	3.12		mg/Kg	☼	70	51 - 130	3	50
4-Chlorophenyl phenyl ether	0.059	U	4.44	3.28		mg/Kg	☼	74	61 - 130	5	50
Chrysene	0.028	U	4.44	3.74		mg/Kg	☼	84	62 - 130	14	50
Dibenz(a,h)anthracene	0.052	U	4.44	3.84		mg/Kg	☼	86	56 - 130	14	50
Dibenzofuran	0.044	U	4.44	3.37		mg/Kg	☼	76	56 - 130	7	50
3,3'-Dichlorobenzidine	0.037	U F1	4.44	1.88	F1	mg/Kg	☼	42	45 - 130	5	50
2,4-Dichlorophenol	0.047	U	4.44	3.16		mg/Kg	☼	71	53 - 130	5	50
Diethyl phthalate	0.049	U	4.44	3.50		mg/Kg	☼	79	62 - 130	11	50
2,4-Dimethylphenol	0.059	U	4.44	3.22		mg/Kg	☼	72	47 - 130	2	50
Dimethyl phthalate	0.045	U	4.44	3.55		mg/Kg	☼	80	63 - 130	8	50
Di-n-butyl phthalate	0.040	U	4.44	4.07		mg/Kg	☼	92	65 - 130	15	50
4,6-Dinitro-2-methylphenol	0.23	U F2 *	8.88	5.13	F2	mg/Kg	☼	58	14 - 137	62	50
2,4-Dinitrophenol	1.1	U F1	8.88	2.26	J	mg/Kg	☼	25	10 - 154	NC	50

TestAmerica Savannah

# QC Sample Results

Client: Geotechnical & Environmental Consultants  
Project/Site: Macon MGP

TestAmerica Job ID: 680-115409-1

## Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: 680-115409-18 MSD

Matrix: Solid

Analysis Batch: 395487

Client Sample ID: GB-16 4-6

Prep Type: Total/NA

Prep Batch: 395299

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
2,4-Dinitrotoluene	0.066	U	4.44	3.67		mg/Kg	☼	83	55 - 130	10	50
2,6-Dinitrotoluene	0.056	U	4.44	3.51		mg/Kg	☼	79	57 - 130	8	50
Di-n-octyl phthalate	0.039	U	4.44	4.61		mg/Kg	☼	104	59 - 146	17	50
Fluoranthene	0.043	U	4.44	3.83		mg/Kg	☼	86	62 - 130	17	50
Fluorene	0.048	U	4.44	3.33		mg/Kg	☼	75	58 - 130	4	50
Hexachlorobenzene	0.052	U	4.44	3.70		mg/Kg	☼	83	59 - 130	15	50
Hexachlorobutadiene	0.048	U	4.44	3.09		mg/Kg	☼	70	47 - 130	8	50
Hexachlorocyclopentadiene	0.055	U	4.44	2.65		mg/Kg	☼	60	35 - 130	14	50
Hexachloroethane	0.037	U	4.44	2.90		mg/Kg	☼	65	44 - 130	1	50
Indeno[1,2,3-cd]pyrene	0.037	U	4.44	3.49		mg/Kg	☼	79	52 - 130	6	50
Isophorone	0.044	U	4.44	3.20		mg/Kg	☼	72	48 - 130	3	50
2-Methylnaphthalene	0.051	U	4.44	3.09		mg/Kg	☼	70	55 - 130	11	50
2-Methylphenol	0.036	U	4.44	3.03		mg/Kg	☼	68	49 - 130	9	50
3 & 4 Methylphenol	0.058	U	4.44	3.28		mg/Kg	☼	74	50 - 130	4	50
Naphthalene	0.040	U	4.44	3.25		mg/Kg	☼	73	54 - 130	8	50
2-Nitroaniline	0.060	U	4.44	3.49		mg/Kg	☼	79	52 - 130	9	50
3-Nitroaniline	0.062	U	4.44	2.34		mg/Kg	☼	53	42 - 130	7	50
4-Nitroaniline	0.066	U	4.44	3.10		mg/Kg	☼	70	49 - 130	10	50
Nitrobenzene	0.035	U	4.44	3.10		mg/Kg	☼	70	43 - 130	5	50
2-Nitrophenol	0.055	U	4.44	3.14		mg/Kg	☼	71	45 - 130	6	50
4-Nitrophenol	0.44	U	8.88	7.05		mg/Kg	☼	79	30 - 130	9	50
N-Nitrosodi-n-propylamine	0.043	U	4.44	3.14		mg/Kg	☼	71	48 - 130	4	50
N-Nitrosodiphenylamine	0.044	U	8.88	7.50		mg/Kg	☼	84	62 - 130	13	50
Pentachlorophenol	0.44	U	8.88	7.17		mg/Kg	☼	81	38 - 131	19	50
Phenanthrene	0.036	U	4.44	3.83		mg/Kg	☼	86	61 - 130	17	50
Phenol	0.045	U	4.44	2.88		mg/Kg	☼	65	46 - 130	5	50
Pyrene	0.036	U	4.44	3.52		mg/Kg	☼	79	59 - 130	15	50
2,4,5-Trichlorophenol	0.047	U	4.44	3.27		mg/Kg	☼	74	60 - 130	12	50
2,4,6-Trichlorophenol	0.039	U	4.44	3.37		mg/Kg	☼	76	53 - 130	6	50

Surrogate	MSD %Recovery	MSD Qualifier	Limits
2-Fluorobiphenyl	72		41 - 116
2-Fluorophenol (Surr)	68		39 - 114
Nitrobenzene-d5 (Surr)	68		37 - 115
Phenol-d5 (Surr)	69		38 - 122
Terphenyl-d14 (Surr)	79		46 - 126
2,4,6-Tribromophenol (Surr)	76		45 - 129

Lab Sample ID: MB 680-395304/11-A

Matrix: Solid

Analysis Batch: 395880

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 395304

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	0.041	U	0.33	0.041	mg/Kg		08/10/15 16:16	08/14/15 13:28	1
Acenaphthylene	0.036	U	0.33	0.036	mg/Kg		08/10/15 16:16	08/14/15 13:28	1
Acetophenone	0.028	U	0.33	0.028	mg/Kg		08/10/15 16:16	08/14/15 13:28	1
Anthracene	0.025	U	0.33	0.025	mg/Kg		08/10/15 16:16	08/14/15 13:28	1
Atrazine	0.023	U	0.33	0.023	mg/Kg		08/10/15 16:16	08/14/15 13:28	1

TestAmerica Savannah



# QC Sample Results

Client: Geotechnical & Environmental Consultants  
Project/Site: Macon MGP

TestAmerica Job ID: 680-115409-1

## Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 680-395304/11-A

Matrix: Solid

Analysis Batch: 395880

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 395304

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzaldehyde	0.058	U	0.33	0.058	mg/Kg		08/10/15 16:16	08/14/15 13:28	1
Benzo[a]anthracene	0.027	U	0.33	0.027	mg/Kg		08/10/15 16:16	08/14/15 13:28	1
Benzo[a]pyrene	0.052	U	0.33	0.052	mg/Kg		08/10/15 16:16	08/14/15 13:28	1
Benzo[b]fluoranthene	0.038	U	0.33	0.038	mg/Kg		08/10/15 16:16	08/14/15 13:28	1
Benzo[g,h,i]perylene	0.022	U	0.33	0.022	mg/Kg		08/10/15 16:16	08/14/15 13:28	1
Benzo[k]fluoranthene	0.065	U	0.33	0.065	mg/Kg		08/10/15 16:16	08/14/15 13:28	1
1,1'-Biphenyl	1.7	U	1.7	1.7	mg/Kg		08/10/15 16:16	08/14/15 13:28	1
Bis(2-chloroethoxy)methane	0.039	U	0.33	0.039	mg/Kg		08/10/15 16:16	08/14/15 13:28	1
Bis(2-chloroethyl)ether	0.045	U	0.33	0.045	mg/Kg		08/10/15 16:16	08/14/15 13:28	1
bis (2-chloroisopropyl) ether	0.030	U	0.33	0.030	mg/Kg		08/10/15 16:16	08/14/15 13:28	1
Bis(2-ethylhexyl) phthalate	0.0973	J	0.33	0.029	mg/Kg		08/10/15 16:16	08/14/15 13:28	1
4-Bromophenyl phenyl ether	0.036	U	0.33	0.036	mg/Kg		08/10/15 16:16	08/14/15 13:28	1
Butyl benzyl phthalate	0.026	U	0.33	0.026	mg/Kg		08/10/15 16:16	08/14/15 13:28	1
Caprolactam	0.066	U	0.33	0.066	mg/Kg		08/10/15 16:16	08/14/15 13:28	1
Carbazole	0.030	U	0.33	0.030	mg/Kg		08/10/15 16:16	08/14/15 13:28	1
4-Chloroaniline	0.052	U	0.66	0.052	mg/Kg		08/10/15 16:16	08/14/15 13:28	1
4-Chloro-3-methylphenol	0.035	U	0.33	0.035	mg/Kg		08/10/15 16:16	08/14/15 13:28	1
2-Chloronaphthalene	0.035	U	0.33	0.035	mg/Kg		08/10/15 16:16	08/14/15 13:28	1
2-Chlorophenol	0.040	U	0.33	0.040	mg/Kg		08/10/15 16:16	08/14/15 13:28	1
4-Chlorophenyl phenyl ether	0.044	U	0.33	0.044	mg/Kg		08/10/15 16:16	08/14/15 13:28	1
Chrysene	0.021	U	0.33	0.021	mg/Kg		08/10/15 16:16	08/14/15 13:28	1
Dibenz(a,h)anthracene	0.039	U	0.33	0.039	mg/Kg		08/10/15 16:16	08/14/15 13:28	1
Dibenzofuran	0.033	U	0.33	0.033	mg/Kg		08/10/15 16:16	08/14/15 13:28	1
3,3'-Dichlorobenzidine	0.028	U	0.66	0.028	mg/Kg		08/10/15 16:16	08/14/15 13:28	1
2,4-Dichlorophenol	0.035	U	0.33	0.035	mg/Kg		08/10/15 16:16	08/14/15 13:28	1
Diethyl phthalate	0.037	U	0.33	0.037	mg/Kg		08/10/15 16:16	08/14/15 13:28	1
2,4-Dimethylphenol	0.044	U	0.33	0.044	mg/Kg		08/10/15 16:16	08/14/15 13:28	1
Dimethyl phthalate	0.034	U	0.33	0.034	mg/Kg		08/10/15 16:16	08/14/15 13:28	1
Di-n-butyl phthalate	0.030	U	0.33	0.030	mg/Kg		08/10/15 16:16	08/14/15 13:28	1
4,6-Dinitro-2-methylphenol	0.17	U	1.7	0.17	mg/Kg		08/10/15 16:16	08/14/15 13:28	1
2,4-Dinitrophenol	0.83	U	1.7	0.83	mg/Kg		08/10/15 16:16	08/14/15 13:28	1
2,4-Dinitrotoluene	0.049	U	0.33	0.049	mg/Kg		08/10/15 16:16	08/14/15 13:28	1
2,6-Dinitrotoluene	0.042	U	0.33	0.042	mg/Kg		08/10/15 16:16	08/14/15 13:28	1
Di-n-octyl phthalate	0.029	U	0.33	0.029	mg/Kg		08/10/15 16:16	08/14/15 13:28	1
Fluoranthene	0.032	U	0.33	0.032	mg/Kg		08/10/15 16:16	08/14/15 13:28	1
Fluorene	0.036	U	0.33	0.036	mg/Kg		08/10/15 16:16	08/14/15 13:28	1
Hexachlorobenzene	0.039	U	0.33	0.039	mg/Kg		08/10/15 16:16	08/14/15 13:28	1
Hexachlorobutadiene	0.036	U	0.33	0.036	mg/Kg		08/10/15 16:16	08/14/15 13:28	1
Hexachlorocyclopentadiene	0.041	U	0.33	0.041	mg/Kg		08/10/15 16:16	08/14/15 13:28	1
Hexachloroethane	0.028	U	0.33	0.028	mg/Kg		08/10/15 16:16	08/14/15 13:28	1
Indeno[1,2,3-cd]pyrene	0.028	U	0.33	0.028	mg/Kg		08/10/15 16:16	08/14/15 13:28	1
Isophorone	0.033	U	0.33	0.033	mg/Kg		08/10/15 16:16	08/14/15 13:28	1
2-Methylnaphthalene	0.038	U	0.33	0.038	mg/Kg		08/10/15 16:16	08/14/15 13:28	1
2-Methylphenol	0.027	U	0.33	0.027	mg/Kg		08/10/15 16:16	08/14/15 13:28	1
3 & 4 Methylphenol	0.043	U	0.33	0.043	mg/Kg		08/10/15 16:16	08/14/15 13:28	1
Naphthalene	0.030	U	0.33	0.030	mg/Kg		08/10/15 16:16	08/14/15 13:28	1
2-Nitroaniline	0.045	U	1.7	0.045	mg/Kg		08/10/15 16:16	08/14/15 13:28	1
3-Nitroaniline	0.046	U	1.7	0.046	mg/Kg		08/10/15 16:16	08/14/15 13:28	1

TestAmerica Savannah



# QC Sample Results

Client: Geotechnical & Environmental Consultants  
Project/Site: Macon MGP

TestAmerica Job ID: 680-115409-1

## Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 680-395304/11-A

Matrix: Solid

Analysis Batch: 395880

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 395304

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4-Nitroaniline	0.049	U	1.7	0.049	mg/Kg		08/10/15 16:16	08/14/15 13:28	1
Nitrobenzene	0.026	U	0.33	0.026	mg/Kg		08/10/15 16:16	08/14/15 13:28	1
2-Nitrophenol	0.041	U	0.33	0.041	mg/Kg		08/10/15 16:16	08/14/15 13:28	1
4-Nitrophenol	0.33	U	1.7	0.33	mg/Kg		08/10/15 16:16	08/14/15 13:28	1
N-Nitrosodi-n-propylamine	0.032	U	0.33	0.032	mg/Kg		08/10/15 16:16	08/14/15 13:28	1
N-Nitrosodiphenylamine	0.033	U	0.33	0.033	mg/Kg		08/10/15 16:16	08/14/15 13:28	1
Pentachlorophenol	0.33	U	1.7	0.33	mg/Kg		08/10/15 16:16	08/14/15 13:28	1
Phenanthrene	0.027	U	0.33	0.027	mg/Kg		08/10/15 16:16	08/14/15 13:28	1
Phenol	0.034	U	0.33	0.034	mg/Kg		08/10/15 16:16	08/14/15 13:28	1
Pyrene	0.027	U	0.33	0.027	mg/Kg		08/10/15 16:16	08/14/15 13:28	1
2,4,5-Trichlorophenol	0.035	U	0.33	0.035	mg/Kg		08/10/15 16:16	08/14/15 13:28	1
2,4,6-Trichlorophenol	0.029	U	0.33	0.029	mg/Kg		08/10/15 16:16	08/14/15 13:28	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl	73		41 - 116	08/10/15 16:16	08/14/15 13:28	1
2-Fluorophenol (Surr)	62		39 - 114	08/10/15 16:16	08/14/15 13:28	1
Nitrobenzene-d5 (Surr)	96		37 - 115	08/10/15 16:16	08/14/15 13:28	1
Phenol-d5 (Surr)	73		38 - 122	08/10/15 16:16	08/14/15 13:28	1
Terphenyl-d14 (Surr)	82		46 - 126	08/10/15 16:16	08/14/15 13:28	1
2,4,6-Tribromophenol (Surr)	72		45 - 129	08/10/15 16:16	08/14/15 13:28	1

Lab Sample ID: LCS 680-395304/12-A

Matrix: Solid

Analysis Batch: 395714

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 395304

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits
Acenaphthene	3.33	2.12		mg/Kg		64	47 - 130
Acenaphthylene	3.33	2.26		mg/Kg		68	45 - 130
Acetophenone	3.33	2.15		mg/Kg		64	44 - 130
Anthracene	3.33	2.53		mg/Kg		76	50 - 130
Atrazine	3.33	2.34		mg/Kg		70	47 - 130
Benzaldehyde	3.33	0.426		mg/Kg		13	10 - 130
Benzo[a]anthracene	3.33	2.71		mg/Kg		81	50 - 130
Benzo[a]pyrene	3.33	2.44		mg/Kg		73	47 - 131
Benzo[b]fluoranthene	3.33	2.48		mg/Kg		74	48 - 130
Benzo[g,h,i]perylene	3.33	2.31		mg/Kg		69	42 - 130
Benzo[k]fluoranthene	3.33	2.62		mg/Kg		79	48 - 108
1,1'-Biphenyl	3.33	2.29		mg/Kg		69	48 - 130
Bis(2-chloroethoxy)methane	3.33	2.04		mg/Kg		61	47 - 130
Bis(2-chloroethyl)ether	3.33	1.88		mg/Kg		56	37 - 130
bis (2-chloroisopropyl) ether	3.33	1.96		mg/Kg		59	38 - 130
Bis(2-ethylhexyl) phthalate	3.33	2.61		mg/Kg		78	48 - 130
4-Bromophenyl phenyl ether	3.33	2.49		mg/Kg		75	53 - 130
Butyl benzyl phthalate	3.33	2.44		mg/Kg		73	53 - 134
Caprolactam	3.33	1.95		mg/Kg		59	44 - 130
Carbazole	3.33	2.34		mg/Kg		70	51 - 130
4-Chloroaniline	3.33	1.88		mg/Kg		56	10 - 130
4-Chloro-3-methylphenol	3.33	2.37		mg/Kg		71	51 - 130

TestAmerica Savannah

# QC Sample Results

Client: Geotechnical & Environmental Consultants  
Project/Site: Macon MGP

TestAmerica Job ID: 680-115409-1

## Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 680-395304/12-A

Matrix: Solid

Analysis Batch: 395714

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 395304

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
2-Chloronaphthalene	3.33	2.46		mg/Kg		74	48 - 130
2-Chlorophenol	3.33	2.18		mg/Kg		65	47 - 130
4-Chlorophenyl phenyl ether	3.33	2.50		mg/Kg		75	49 - 130
Chrysene	3.33	2.23		mg/Kg		67	47 - 130
Dibenz(a,h)anthracene	3.33	2.42		mg/Kg		73	44 - 130
Dibenzofuran	3.33	2.33		mg/Kg		70	49 - 130
3,3'-Dichlorobenzidine	3.33	2.01		mg/Kg		60	16 - 130
2,4-Dichlorophenol	3.33	2.39		mg/Kg		72	48 - 130
Diethyl phthalate	3.33	2.47		mg/Kg		74	49 - 130
2,4-Dimethylphenol	3.33	2.20		mg/Kg		66	43 - 130
Dimethyl phthalate	3.33	2.41		mg/Kg		72	50 - 130
Di-n-butyl phthalate	3.33	2.43		mg/Kg		73	52 - 130
4,6-Dinitro-2-methylphenol	6.67	0.225	J *	mg/Kg		3	23 - 130
2,4-Dinitrophenol	6.67	5.31		mg/Kg		80	10 - 130
2,4-Dinitrotoluene	3.33	2.38		mg/Kg		71	49 - 111
2,6-Dinitrotoluene	3.33	2.36		mg/Kg		71	49 - 130
Di-n-octyl phthalate	3.33	2.46		mg/Kg		74	46 - 130
Fluoranthene	3.33	2.43		mg/Kg		73	51 - 130
Fluorene	3.33	2.66		mg/Kg		80	52 - 130
Hexachlorobenzene	3.33	2.47		mg/Kg		74	53 - 130
Hexachlorobutadiene	3.33	2.22		mg/Kg		67	48 - 130
Hexachlorocyclopentadiene	3.33	1.80		mg/Kg		54	28 - 130
Hexachloroethane	3.33	1.96		mg/Kg		59	42 - 130
Indeno[1,2,3-cd]pyrene	3.33	2.31		mg/Kg		69	41 - 130
Isophorone	3.33	1.98		mg/Kg		59	48 - 130
2-Methylnaphthalene	3.33	2.23		mg/Kg		67	48 - 130
2-Methylphenol	3.33	2.18		mg/Kg		65	46 - 130
3 & 4 Methylphenol	3.33	2.14		mg/Kg		64	46 - 130
Naphthalene	3.33	2.16		mg/Kg		65	47 - 130
2-Nitroaniline	3.33	2.16		mg/Kg		65	44 - 130
3-Nitroaniline	3.33	2.12		mg/Kg		64	21 - 130
4-Nitroaniline	3.33	2.27		mg/Kg		68	41 - 130
Nitrobenzene	3.33	1.96		mg/Kg		59	45 - 130
2-Nitrophenol	3.33	2.28		mg/Kg		68	43 - 130
4-Nitrophenol	6.67	4.13		mg/Kg		62	40 - 130
N-Nitrosodi-n-propylamine	3.33	1.97		mg/Kg		59	38 - 130
N-Nitrosodiphenylamine	6.67	5.15		mg/Kg		77	50 - 130
Pentachlorophenol	6.67	1.45	J *	mg/Kg		22	41 - 130
Phenanthrene	3.33	2.35		mg/Kg		70	52 - 130
Phenol	3.33	2.19		mg/Kg		66	47 - 130
Pyrene	3.33	2.42		mg/Kg		73	50 - 130
2,4,5-Trichlorophenol	3.33	2.60		mg/Kg		78	51 - 130
2,4,6-Trichlorophenol	3.33	2.28		mg/Kg		69	50 - 130

Surrogate	LCS %Recovery	LCS Qualifier	Limits
2-Fluorobiphenyl	73		41 - 116
2-Fluorophenol (Surr)	61		39 - 114
Nitrobenzene-d5 (Surr)	60		37 - 115

TestAmerica Savannah

# QC Sample Results

Client: Geotechnical & Environmental Consultants  
Project/Site: Macon MGP

TestAmerica Job ID: 680-115409-1

## Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 680-395304/12-A

Matrix: Solid

Analysis Batch: 395714

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 395304

Surrogate	LCS %Recovery	LCS Qualifier	Limits
Phenol-d5 (Surr)	65		38 - 122
Terphenyl-d14 (Surr)	76		46 - 126
2,4,6-Tribromophenol (Surr)	79		45 - 129

Lab Sample ID: 680-115409-27 MS

Matrix: Solid

Analysis Batch: 395714

Client Sample ID: SB-17 8-10

Prep Type: Total/NA

Prep Batch: 395304

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	Limits
Acenaphthene	0.12	J F1	3.77	2.82		mg/Kg	☼	72	58 - 130
Acenaphthylene	0.041	U F1	3.77	2.89		mg/Kg	☼	77	58 - 130
Acetophenone	0.032	U	3.77	2.72		mg/Kg	☼	72	42 - 130
Anthracene	0.19	J	3.77	3.37		mg/Kg	☼	84	60 - 130
Atrazine	0.026	U	3.77	2.92		mg/Kg	☼	77	54 - 141
Benzaldehyde	0.066	U	3.77	1.62		mg/Kg	☼	43	10 - 130
Benzo[a]anthracene	0.39		3.77	3.84		mg/Kg	☼	91	62 - 130
Benzo[a]pyrene	0.32	J F1	3.77	3.39		mg/Kg	☼	81	68 - 131
Benzo[b]fluoranthene	0.45		3.77	3.47		mg/Kg	☼	80	53 - 130
Benzo[g,h,i]perylene	0.19	J	3.77	3.23		mg/Kg	☼	81	54 - 130
Benzo[k]fluoranthene	0.18	J	3.77	3.68		mg/Kg	☼	93	57 - 130
1,1'-Biphenyl	1.9	U	3.77	2.88		mg/Kg	☼	76	57 - 130
Bis(2-chloroethoxy)methane	0.044	U F1	3.77	2.64		mg/Kg	☼	70	56 - 130
Bis(2-chloroethyl)ether	0.051	U	3.77	2.28		mg/Kg	☼	60	42 - 130
bis (2-chloroisopropyl) ether	0.034	U	3.77	2.41		mg/Kg	☼	64	44 - 130
Bis(2-ethylhexyl) phthalate	0.18	J B	3.77	3.36		mg/Kg	☼	84	62 - 132
4-Bromophenyl phenyl ether	0.041	U	3.77	3.18		mg/Kg	☼	84	65 - 130
Butyl benzyl phthalate	0.030	U	3.77	3.15		mg/Kg	☼	83	65 - 134
Caprolactam	0.075	U	3.77	2.57		mg/Kg	☼	68	52 - 130
Carbazole	0.12	J F1	3.77	2.78		mg/Kg	☼	71	60 - 130
4-Chloroaniline	0.059	U	3.77	2.42		mg/Kg	☼	64	36 - 130
4-Chloro-3-methylphenol	0.040	U	3.77	2.95		mg/Kg	☼	78	52 - 130
2-Chloronaphthalene	0.040	U	3.77	3.11		mg/Kg	☼	82	55 - 130
2-Chlorophenol	0.045	U	3.77	2.72		mg/Kg	☼	72	51 - 130
4-Chlorophenyl phenyl ether	0.050	U	3.77	3.11		mg/Kg	☼	82	61 - 130
Chrysene	0.33	J F1	3.77	3.13		mg/Kg	☼	74	62 - 130
Dibenz(a,h)anthracene	0.061	J	3.77	3.12		mg/Kg	☼	81	56 - 130
Dibenzofuran	0.052	J	3.77	3.04		mg/Kg	☼	79	56 - 130
3,3'-Dichlorobenzidine	0.032	U	3.77	2.81		mg/Kg	☼	75	45 - 130
2,4-Dichlorophenol	0.040	U	3.77	3.02		mg/Kg	☼	80	53 - 130
Diethyl phthalate	0.042	U	3.77	3.09		mg/Kg	☼	82	62 - 130
2,4-Dimethylphenol	0.050	U	3.77	2.86		mg/Kg	☼	76	47 - 130
Dimethyl phthalate	0.039	U F1	3.77	3.07		mg/Kg	☼	81	63 - 130
Di-n-butyl phthalate	0.034	U F1	3.77	3.02		mg/Kg	☼	80	65 - 130
4,6-Dinitro-2-methylphenol	0.19	U F2 *	7.55	3.93		mg/Kg	☼	52	14 - 137
2,4-Dinitrophenol	0.94	U F1	7.55	1.50	J	mg/Kg	☼	20	10 - 154
2,4-Dinitrotoluene	0.056	U	3.77	3.17		mg/Kg	☼	84	55 - 130
2,6-Dinitrotoluene	0.048	U	3.77	3.01		mg/Kg	☼	80	57 - 130
Di-n-octyl phthalate	0.033	U	3.77	3.17		mg/Kg	☼	84	59 - 146

TestAmerica Savannah

# QC Sample Results

Client: Geotechnical & Environmental Consultants  
Project/Site: Macon MGP

TestAmerica Job ID: 680-115409-1

## Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: 680-115409-27 MS

Matrix: Solid

Analysis Batch: 395714

Client Sample ID: SB-17 8-10

Prep Type: Total/NA

Prep Batch: 395304

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	Limits
Fluoranthene	0.78	F1	3.77	3.72		mg/Kg	☼	78	62 - 130
Fluorene	0.13	J	3.77	3.41		mg/Kg	☼	87	58 - 130
Hexachlorobenzene	0.044	U	3.77	3.16		mg/Kg	☼	84	59 - 130
Hexachlorobutadiene	0.041	U	3.77	2.80		mg/Kg	☼	74	47 - 130
Hexachlorocyclopentadiene	0.047	U	3.77	2.04		mg/Kg	☼	54	35 - 130
Hexachloroethane	0.032	U	3.77	2.38		mg/Kg	☼	63	44 - 130
Indeno[1,2,3-cd]pyrene	0.17	J	3.77	3.25		mg/Kg	☼	82	52 - 130
Isophorone	0.037	U	3.77	2.57		mg/Kg	☼	68	48 - 130
2-Methylnaphthalene	0.043	U	3.77	2.90		mg/Kg	☼	77	55 - 130
2-Methylphenol	0.031	U	3.77	2.73		mg/Kg	☼	72	49 - 130
3 & 4 Methylphenol	0.049	U	3.77	2.65		mg/Kg	☼	70	50 - 130
Naphthalene	0.034	U	3.77	2.77		mg/Kg	☼	73	54 - 130
2-Nitroaniline	0.051	U	3.77	2.80		mg/Kg	☼	74	52 - 130
3-Nitroaniline	0.052	U	3.77	2.75		mg/Kg	☼	73	42 - 130
4-Nitroaniline	0.056	U	3.77	2.34		mg/Kg	☼	62	49 - 130
Nitrobenzene	0.030	U	3.77	2.49		mg/Kg	☼	66	43 - 130
2-Nitrophenol	0.047	U	3.77	2.93		mg/Kg	☼	78	45 - 130
4-Nitrophenol	0.37	U	7.55	6.13		mg/Kg	☼	81	30 - 130
N-Nitrosodi-n-propylamine	0.036	U	3.77	2.45		mg/Kg	☼	65	48 - 130
N-Nitrosodiphenylamine	0.037	U	7.55	6.62		mg/Kg	☼	88	62 - 130
Pentachlorophenol	0.37	U *	7.55	5.27		mg/Kg	☼	70	38 - 131
Phenanthrene	0.63	F1	3.77	3.43		mg/Kg	☼	74	61 - 130
Phenol	0.039	U	3.77	2.65		mg/Kg	☼	70	46 - 130
Pyrene	0.56	F1	3.77	3.61		mg/Kg	☼	81	59 - 130
2,4,5-Trichlorophenol	0.040	U	3.77	3.32		mg/Kg	☼	88	60 - 130
2,4,6-Trichlorophenol	0.033	U	3.77	2.90		mg/Kg	☼	77	53 - 130

Surrogate	MS %Recovery	MS Qualifier	Limits
2-Fluorobiphenyl	83		41 - 116
2-Fluorophenol (Surr)	67		39 - 114
Nitrobenzene-d5 (Surr)	65		37 - 115
Phenol-d5 (Surr)	70		38 - 122
Terphenyl-d14 (Surr)	85		46 - 126
2,4,6-Tribromophenol (Surr)	91		45 - 129

Lab Sample ID: 680-115409-27 MSD

Matrix: Solid

Analysis Batch: 395714

Client Sample ID: SB-17 8-10

Prep Type: Total/NA

Prep Batch: 395304

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Acenaphthene	0.12	J F1	3.76	2.06	F1	mg/Kg	☼	52	58 - 130	31	50
Acenaphthylene	0.041	U F1	3.76	2.14	F1	mg/Kg	☼	57	58 - 130	30	50
Acetophenone	0.032	U	3.76	2.09		mg/Kg	☼	56	42 - 130	26	50
Anthracene	0.19	J	3.76	2.57		mg/Kg	☼	63	60 - 130	27	50
Atrazine	0.026	U	3.76	2.28		mg/Kg	☼	61	54 - 141	25	50
Benzaldehyde	0.066	U	3.76	1.00		mg/Kg	☼	27	10 - 130	47	50
Benzo[a]anthracene	0.39		3.76	2.87		mg/Kg	☼	66	62 - 130	29	50
Benzo[a]pyrene	0.32	J F1	3.76	2.49	F1	mg/Kg	☼	58	68 - 131	31	50

TestAmerica Savannah

# QC Sample Results

Client: Geotechnical & Environmental Consultants  
Project/Site: Macon MGP

TestAmerica Job ID: 680-115409-1

## Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: 680-115409-27 MSD

Matrix: Solid

Analysis Batch: 395714

Client Sample ID: SB-17 8-10

Prep Type: Total/NA

Prep Batch: 395304

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Benzo[b]fluoranthene	0.45		3.76	2.58		mg/Kg	✱	57	53 - 130	29	50
Benzo[g,h,i]perylene	0.19	J	3.76	2.36		mg/Kg	✱	58	54 - 130	31	50
Benzo[k]fluoranthene	0.18	J	3.76	2.54		mg/Kg	✱	63	57 - 130	37	50
1,1'-Biphenyl	1.9	U	3.76	2.18		mg/Kg	✱	58	57 - 130	28	50
Bis(2-chloroethoxy)methane	0.044	U F1	3.76	1.99	F1	mg/Kg	✱	53	56 - 130	28	50
Bis(2-chloroethyl)ether	0.051	U	3.76	1.84		mg/Kg	✱	49	42 - 130	21	50
bis (2-chloroisopropyl) ether	0.034	U	3.76	1.92		mg/Kg	✱	51	44 - 130	23	50
Bis(2-ethylhexyl) phthalate	0.18	J B	3.76	2.64		mg/Kg	✱	66	62 - 132	24	50
4-Bromophenyl phenyl ether	0.041	U	3.76	2.43		mg/Kg	✱	65	65 - 130	27	50
Butyl benzyl phthalate	0.030	U	3.76	2.45		mg/Kg	✱	65	65 - 134	25	50
Caprolactam	0.075	U	3.76	2.01		mg/Kg	✱	54	52 - 130	24	50
Carbazole	0.12	J F1	3.76	2.25	F1	mg/Kg	✱	57	60 - 130	21	50
4-Chloroaniline	0.059	U	3.76	1.76		mg/Kg	✱	47	36 - 130	32	50
4-Chloro-3-methylphenol	0.040	U	3.76	2.25		mg/Kg	✱	60	52 - 130	27	50
2-Chloronaphthalene	0.040	U	3.76	2.37		mg/Kg	✱	63	55 - 130	27	50
2-Chlorophenol	0.045	U	3.76	2.15		mg/Kg	✱	57	51 - 130	23	50
4-Chlorophenyl phenyl ether	0.050	U	3.76	2.30		mg/Kg	✱	61	61 - 130	30	50
Chrysene	0.33	J F1	3.76	2.28	F1	mg/Kg	✱	52	62 - 130	31	50
Dibenz(a,h)anthracene	0.061	J	3.76	2.39		mg/Kg	✱	62	56 - 130	27	50
Dibenzofuran	0.052	J	3.76	2.29		mg/Kg	✱	60	56 - 130	28	50
3,3'-Dichlorobenzidine	0.032	U	3.76	2.09		mg/Kg	✱	56	45 - 130	30	50
2,4-Dichlorophenol	0.040	U	3.76	2.29		mg/Kg	✱	61	53 - 130	28	50
Diethyl phthalate	0.042	U	3.76	2.32		mg/Kg	✱	62	62 - 130	28	50
2,4-Dimethylphenol	0.050	U	3.76	2.19		mg/Kg	✱	58	47 - 130	26	50
Dimethyl phthalate	0.039	U F1	3.76	2.31	F1	mg/Kg	✱	62	63 - 130	28	50
Di-n-butyl phthalate	0.034	U F1	3.76	2.35	F1	mg/Kg	✱	63	65 - 130	25	50
4,6-Dinitro-2-methylphenol	0.19	U F2 *	7.51	2.13	F2	mg/Kg	✱	28	14 - 137	60	50
2,4-Dinitrophenol	0.94	U F1	7.51	0.94	U F1	mg/Kg	✱	0	10 - 154	NC	50
2,4-Dinitrotoluene	0.056	U	3.76	2.27		mg/Kg	✱	60	55 - 130	33	50
2,6-Dinitrotoluene	0.048	U	3.76	2.30		mg/Kg	✱	61	57 - 130	27	50
Di-n-octyl phthalate	0.033	U	3.76	2.43		mg/Kg	✱	65	59 - 146	26	50
Fluoranthene	0.78	F1	3.76	2.68	F1	mg/Kg	✱	51	62 - 130	33	50
Fluorene	0.13	J	3.76	2.55		mg/Kg	✱	64	58 - 130	29	50
Hexachlorobenzene	0.044	U	3.76	2.44		mg/Kg	✱	65	59 - 130	26	50
Hexachlorobutadiene	0.041	U	3.76	2.16		mg/Kg	✱	58	47 - 130	26	50
Hexachlorocyclopentadiene	0.047	U	3.76	1.68		mg/Kg	✱	45	35 - 130	19	50
Hexachloroethane	0.032	U	3.76	1.92		mg/Kg	✱	51	44 - 130	22	50
Indeno[1,2,3-cd]pyrene	0.17	J	3.76	2.43		mg/Kg	✱	60	52 - 130	29	50
Isophorone	0.037	U	3.76	1.96		mg/Kg	✱	52	48 - 130	27	50
2-Methylnaphthalene	0.043	U	3.76	2.15		mg/Kg	✱	57	55 - 130	30	50
2-Methylphenol	0.031	U	3.76	2.12		mg/Kg	✱	56	49 - 130	25	50
3 & 4 Methylphenol	0.049	U	3.76	2.07		mg/Kg	✱	55	50 - 130	25	50
Naphthalene	0.034	U	3.76	2.15		mg/Kg	✱	57	54 - 130	25	50
2-Nitroaniline	0.051	U	3.76	2.11		mg/Kg	✱	56	52 - 130	28	50
3-Nitroaniline	0.052	U	3.76	2.03		mg/Kg	✱	54	42 - 130	30	50
4-Nitroaniline	0.056	U	3.76	1.93		mg/Kg	✱	51	49 - 130	19	50
Nitrobenzene	0.030	U	3.76	1.92		mg/Kg	✱	51	43 - 130	26	50
2-Nitrophenol	0.047	U	3.76	2.22		mg/Kg	✱	59	45 - 130	28	50

TestAmerica Savannah

# QC Sample Results

Client: Geotechnical & Environmental Consultants  
Project/Site: Macon MGP

TestAmerica Job ID: 680-115409-1

## Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: 680-115409-27 MSD

Matrix: Solid

Analysis Batch: 395714

Client Sample ID: SB-17 8-10

Prep Type: Total/NA

Prep Batch: 395304

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
4-Nitrophenol	0.37	U	7.51	4.18		mg/Kg	☼	56	30 - 130	38	50
N-Nitrosodi-n-propylamine	0.036	U	3.76	1.95		mg/Kg	☼	52	48 - 130	23	50
N-Nitrosodiphenylamine	0.037	U	7.51	5.14		mg/Kg	☼	68	62 - 130	25	50
Pentachlorophenol	0.37	U *	7.51	3.42		mg/Kg	☼	46	38 - 131	42	50
Phenanthrene	0.63	F1	3.76	2.51	F1	mg/Kg	☼	50	61 - 130	31	50
Phenol	0.039	U	3.76	2.09		mg/Kg	☼	56	46 - 130	24	50
Pyrene	0.56	F1	3.76	2.60	F1	mg/Kg	☼	54	59 - 130	33	50
2,4,5-Trichlorophenol	0.040	U	3.76	2.51		mg/Kg	☼	67	60 - 130	28	50
2,4,6-Trichlorophenol	0.033	U	3.76	2.15		mg/Kg	☼	57	53 - 130	30	50

Surrogate	MSD %Recovery	MSD Qualifier	Limits
2-Fluorobiphenyl	63		41 - 116
2-Fluorophenol (Surr)	52		39 - 114
Nitrobenzene-d5 (Surr)	54		37 - 115
Phenol-d5 (Surr)	56		38 - 122
Terphenyl-d14 (Surr)	68		46 - 126
2,4,6-Tribromophenol (Surr)	67		45 - 129

## Method: 6010C - Metals (ICP)

Lab Sample ID: MB 680-395413/1-A

Matrix: Solid

Analysis Batch: 395634

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 395413

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	0.68	U	1.7	0.68	mg/Kg		08/11/15 07:36	08/11/15 18:29	1
Barium	0.14	U	0.85	0.14	mg/Kg		08/11/15 07:36	08/11/15 18:29	1
Beryllium	0.0085	U	0.34	0.0085	mg/Kg		08/11/15 07:36	08/11/15 18:29	1
Cadmium	0.085	U	0.42	0.085	mg/Kg		08/11/15 07:36	08/11/15 18:29	1
Chromium	0.18	U	0.85	0.18	mg/Kg		08/11/15 07:36	08/11/15 18:29	1
Copper	0.14	U	2.1	0.14	mg/Kg		08/11/15 07:36	08/11/15 18:29	1
Lead	0.29	U	0.85	0.29	mg/Kg		08/11/15 07:36	08/11/15 18:29	1
Nickel	0.32	U	3.4	0.32	mg/Kg		08/11/15 07:36	08/11/15 18:29	1
Selenium	0.82	U	2.1	0.82	mg/Kg		08/11/15 07:36	08/11/15 18:29	1
Silver	0.051	U	0.85	0.051	mg/Kg		08/11/15 07:36	08/11/15 18:29	1
Vanadium	0.085	U	0.85	0.085	mg/Kg		08/11/15 07:36	08/11/15 18:29	1
Zinc	0.59	U	1.7	0.59	mg/Kg		08/11/15 07:36	08/11/15 18:29	1

Lab Sample ID: LCS 680-395413/2-A

Matrix: Solid

Analysis Batch: 395634

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 395413

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Arsenic	8.85	8.85		mg/Kg		100	80 - 120
Barium	8.85	8.79		mg/Kg		99	80 - 120
Beryllium	4.42	4.58		mg/Kg		104	80 - 120
Cadmium	4.42	4.67		mg/Kg		105	80 - 120
Chromium	8.85	9.15		mg/Kg		103	80 - 120

TestAmerica Savannah



# QC Sample Results

Client: Geotechnical & Environmental Consultants  
Project/Site: Macon MGP

TestAmerica Job ID: 680-115409-1

## Method: 6010C - Metals (ICP) (Continued)

Lab Sample ID: LCS 680-395413/2-A

Matrix: Solid

Analysis Batch: 395634

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 395413

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Copper	8.85	9.01		mg/Kg		102	80 - 120
Lead	44.2	44.7		mg/Kg		101	80 - 120
Nickel	8.85	9.14		mg/Kg		103	80 - 120
Selenium	8.85	8.68		mg/Kg		98	80 - 120
Silver	4.42	4.38		mg/Kg		99	80 - 120
Vanadium	8.85	8.77		mg/Kg		99	80 - 120
Zinc	8.85	9.19		mg/Kg		104	80 - 120

Lab Sample ID: 680-115409-14 MS

Matrix: Solid

Analysis Batch: 395634

Client Sample ID: SB-42 4-6

Prep Type: Total/NA

Prep Batch: 395413

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Arsenic	2.1		9.58	10.3		mg/Kg	☼	86	75 - 125
Barium	220		9.58	207	4	mg/Kg	☼	-130	75 - 125
Beryllium	1.6		4.79	6.17		mg/Kg	☼	95	75 - 125
Cadmium	0.095	U	4.79	4.70		mg/Kg	☼	98	75 - 125
Chromium	26	F1	9.58	31.3	F1	mg/Kg	☼	58	75 - 125
Copper	13		9.58	21.9		mg/Kg	☼	93	75 - 125
Lead	22		47.9	64.0		mg/Kg	☼	87	75 - 125
Nickel	11	F1	9.58	18.2	F1	mg/Kg	☼	72	75 - 125
Selenium	0.92	U	9.58	7.70		mg/Kg	☼	80	75 - 125
Silver	0.057	U	4.79	4.29		mg/Kg	☼	90	75 - 125
Vanadium	50		9.58	52.6	4	mg/Kg	☼	28	75 - 125
Zinc	100		9.58	106	4	mg/Kg	☼	27	75 - 125

Lab Sample ID: 680-115409-14 MSD

Matrix: Solid

Analysis Batch: 395634

Client Sample ID: SB-42 4-6

Prep Type: Total/NA

Prep Batch: 395413

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	Limit
Arsenic	2.1		9.50	10.6		mg/Kg	☼	89	75 - 125	2	20
Barium	220		9.50	221	4	mg/Kg	☼	14	75 - 125	6	20
Beryllium	1.6		4.75	6.15		mg/Kg	☼	96	75 - 125	0	20
Cadmium	0.095	U	4.75	4.62		mg/Kg	☼	97	75 - 125	2	20
Chromium	26	F1	9.50	31.6	F1	mg/Kg	☼	61	75 - 125	1	20
Copper	13		9.50	21.8		mg/Kg	☼	93	75 - 125	1	20
Lead	22		47.5	65.0		mg/Kg	☼	90	75 - 125	2	20
Nickel	11	F1	9.50	18.7		mg/Kg	☼	78	75 - 125	3	20
Selenium	0.92	U	9.50	7.13		mg/Kg	☼	75	75 - 125	8	20
Silver	0.057	U	4.75	4.27		mg/Kg	☼	90	75 - 125	1	20
Vanadium	50		9.50	60.1	4	mg/Kg	☼	107	75 - 125	13	20
Zinc	100		9.50	115	4	mg/Kg	☼	121	75 - 125	8	20

TestAmerica Savannah



# QC Sample Results

Client: Geotechnical & Environmental Consultants  
Project/Site: Macon MGP

TestAmerica Job ID: 680-115409-1

## Method: 6010C - Metals (ICP) (Continued)

Lab Sample ID: MB 680-395425/1-A

Matrix: Solid

Analysis Batch: 396333

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 395425

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	0.71	U	1.8	0.71	mg/Kg		08/11/15 08:25	08/15/15 03:29	1
Barium	0.14	U	0.89	0.14	mg/Kg		08/11/15 08:25	08/15/15 03:29	1
Beryllium	0.0089	U	0.36	0.0089	mg/Kg		08/11/15 08:25	08/15/15 03:29	1
Cadmium	0.089	U	0.45	0.089	mg/Kg		08/11/15 08:25	08/15/15 03:29	1
Chromium	0.19	U	0.89	0.19	mg/Kg		08/11/15 08:25	08/15/15 03:29	1
Copper	0.15	U	2.2	0.15	mg/Kg		08/11/15 08:25	08/15/15 03:29	1
Lead	0.30	U	0.89	0.30	mg/Kg		08/11/15 08:25	08/15/15 03:29	1
Nickel	0.34	U	3.6	0.34	mg/Kg		08/11/15 08:25	08/15/15 03:29	1
Selenium	0.87	U	2.2	0.87	mg/Kg		08/11/15 08:25	08/15/15 03:29	1
Silver	0.054	U	0.89	0.054	mg/Kg		08/11/15 08:25	08/15/15 03:29	1
Vanadium	0.089	U	0.89	0.089	mg/Kg		08/11/15 08:25	08/15/15 03:29	1
Zinc	0.63	U	1.8	0.63	mg/Kg		08/11/15 08:25	08/15/15 03:29	1

Lab Sample ID: LCS 680-395425/2-A

Matrix: Solid

Analysis Batch: 396333

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 395425

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Arsenic	9.01	9.14		mg/Kg		101	80 - 120
Barium	9.01	8.91		mg/Kg		99	80 - 120
Beryllium	4.50	4.78		mg/Kg		106	80 - 120
Cadmium	4.50	4.78		mg/Kg		106	80 - 120
Chromium	9.01	9.38		mg/Kg		104	80 - 120
Copper	9.01	9.45		mg/Kg		105	80 - 120
Lead	45.0	45.2		mg/Kg		100	80 - 120
Nickel	9.01	9.31		mg/Kg		103	80 - 120
Selenium	9.01	9.46		mg/Kg		105	80 - 120
Silver	4.50	4.55		mg/Kg		101	80 - 120
Vanadium	9.01	9.03		mg/Kg		100	80 - 120
Zinc	9.01	9.28		mg/Kg		103	80 - 120

Lab Sample ID: 680-115409-20 MS

Matrix: Solid

Analysis Batch: 396333

Client Sample ID: GB-18 4-6

Prep Type: Total/NA

Prep Batch: 395425

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Arsenic	6.0		9.49	13.9		mg/Kg	☼	83	75 - 125
Barium	220		9.49	244	4	mg/Kg	☼	216	75 - 125
Beryllium	0.26	J	4.75	5.49		mg/Kg	☼	110	75 - 125
Cadmium	0.15	J	4.75	5.66		mg/Kg	☼	116	75 - 125
Chromium	74	F2	9.49	36.8	4	mg/Kg	☼	-396	75 - 125
Copper	61		9.49	42.9	4	mg/Kg	☼	-194	75 - 125
Lead	250		47.5	354	4	mg/Kg	☼	213	75 - 125
Nickel	12	F1	9.49	16.4	F1	mg/Kg	☼	49	75 - 125
Selenium	0.92	U	9.49	9.26		mg/Kg	☼	98	75 - 125
Silver	0.25	J	4.75	4.99		mg/Kg	☼	100	75 - 125
Vanadium	47		9.49	28.5	4	mg/Kg	☼	-192	75 - 125
Zinc	270		9.49	316	4	mg/Kg	☼	514	75 - 125

TestAmerica Savannah

# QC Sample Results

Client: Geotechnical & Environmental Consultants  
Project/Site: Macon MGP

TestAmerica Job ID: 680-115409-1

## Method: 6010C - Metals (ICP) (Continued)

Lab Sample ID: 680-115409-20 MSD

Matrix: Solid

Analysis Batch: 396333

Client Sample ID: GB-18 4-6

Prep Type: Total/NA

Prep Batch: 395425

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Arsenic	6.0		9.41	13.4		mg/Kg	☼	79	75 - 125	4	20
Barium	220		9.41	199	4	mg/Kg	☼	-264	75 - 125	20	20
Beryllium	0.26	J	4.70	5.44		mg/Kg	☼	110	75 - 125	1	20
Cadmium	0.15	J	4.70	5.34		mg/Kg	☼	110	75 - 125	6	20
Chromium	74	F2	9.41	45.9	4 F2	mg/Kg	☼	-302	75 - 125	22	20
Copper	61		9.41	43.8	4	mg/Kg	☼	-185	75 - 125	2	20
Lead	250		47.0	292	4	mg/Kg	☼	84	75 - 125	19	20
Nickel	12	F1	9.41	17.4	F1	mg/Kg	☼	60	75 - 125	6	20
Selenium	0.92	U	9.41	8.92		mg/Kg	☼	95	75 - 125	4	20
Silver	0.25	J	4.70	5.23		mg/Kg	☼	106	75 - 125	5	20
Vanadium	47		9.41	31.2	4	mg/Kg	☼	-166	75 - 125	9	20
Zinc	270		9.41	268	4	mg/Kg	☼	3	75 - 125	17	20

## Method: 7471B - Mercury (CVAA)

Lab Sample ID: MB 680-395891/13-A

Matrix: Solid

Analysis Batch: 396091

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 395891

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.0077	U	0.019	0.0077	mg/Kg		08/13/15 09:48	08/13/15 15:51	1

Lab Sample ID: LCS 680-395891/14-A

Matrix: Solid

Analysis Batch: 396091

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 395891

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits
Mercury	0.227	0.222		mg/Kg		98	80 - 120

Lab Sample ID: MB 680-396439/13-A

Matrix: Solid

Analysis Batch: 396738

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 396439

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.0075	U	0.019	0.0075	mg/Kg		08/16/15 13:43	08/17/15 21:05	1

Lab Sample ID: LCS 680-396439/14-A

Matrix: Solid

Analysis Batch: 396738

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 396439

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits
Mercury	0.212	0.213		mg/Kg		100	80 - 120

Lab Sample ID: 680-115409-10 MS

Matrix: Solid

Analysis Batch: 396738

Client Sample ID: SB-24 4-6

Prep Type: Total/NA

Prep Batch: 396439

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	Limits
Mercury	0.43	F1 F2	0.113	0.397	F1	mg/Kg	☼	-31	80 - 120

TestAmerica Savannah

# QC Sample Results

Client: Geotechnical & Environmental Consultants  
Project/Site: Macon MGP

TestAmerica Job ID: 680-115409-1

Lab Sample ID: 680-115409-10 MSD

Matrix: Solid

Analysis Batch: 396738

Client Sample ID: SB-24 4-6

Prep Type: Total/NA

Prep Batch: 396439

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Mercury	0.43	F1 F2	0.120	0.556	F2	mg/Kg	✱	104	80 - 120	33	20

Lab Sample ID: MB 680-396509/1-A

Matrix: Solid

Analysis Batch: 396738

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 396509

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.0068	U	0.017	0.0068	mg/Kg	-	08/17/15 10:06	08/17/15 22:30	1

Lab Sample ID: LCS 680-396509/2-A

Matrix: Solid

Analysis Batch: 396738

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 396509

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Mercury	0.245	0.259		mg/Kg	-	106	80 - 120

Lab Sample ID: 680-115409-25 MS

Matrix: Solid

Analysis Batch: 396738

Client Sample ID: GB-7 13-15

Prep Type: Total/NA

Prep Batch: 396509

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Mercury	0.29	F1 F2	0.108	0.248	F1	mg/Kg	✱	-36	80 - 120

Lab Sample ID: 680-115409-25 MSD

Matrix: Solid

Analysis Batch: 396738

Client Sample ID: GB-7 13-15

Prep Type: Total/NA

Prep Batch: 396509

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Mercury	0.29	F1 F2	0.0969	0.194	F1 F2	mg/Kg	✱	-96	80 - 120	24	20

## Method: 9012B - Cyanide, Total and/or Amenable

Lab Sample ID: MB 680-396472/1-A

Matrix: Solid

Analysis Batch: 396567

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 396472

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total	0.21	U	0.50	0.21	mg/Kg	-	08/17/15 06:30	08/17/15 11:29	1

Lab Sample ID: HLCS 680-396472/4-A

Matrix: Solid

Analysis Batch: 396567

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 396472

Analyte	Spike Added	HLCS Result	HLCS Qualifier	Unit	D	%Rec	%Rec. Limits
Cyanide, Total	0.0750	0.0709		mg/Kg	-	95	

Lab Sample ID: LCS 680-396472/2-A

Matrix: Solid

Analysis Batch: 396567

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 396472

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Cyanide, Total	5.00	4.82		mg/Kg	-	96	75 - 125

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# QC Sample Results

Client: Geotechnical & Environmental Consultants  
Project/Site: Macon MGP

TestAmerica Job ID: 680-115409-1

Lab Sample ID: LLCS 680-396472/3-A  
Matrix: Solid  
Analysis Batch: 396567

Client Sample ID: Lab Control Sample  
Prep Type: Total/NA  
Prep Batch: 396472

Analyte	Spike Added	LLCS Result	LLCS Qualifier	Unit	D	%Rec	%Rec. Limits
Cyanide, Total	0.0100	0.0106		mg/Kg		106	90 - 110

Lab Sample ID: 680-115409-1 MS  
Matrix: Solid  
Analysis Batch: 396567

Client Sample ID: GB-14 3-5  
Prep Type: Total/NA  
Prep Batch: 396472

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Cyanide, Total	0.23	U	5.59	5.45		mg/Kg	✱	98	75 - 125

Lab Sample ID: 680-115409-1 MSD  
Matrix: Solid  
Analysis Batch: 396567

Client Sample ID: GB-14 3-5  
Prep Type: Total/NA  
Prep Batch: 396472

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Cyanide, Total	0.23	U	5.48	5.46		mg/Kg	✱	100	75 - 125	0	30

Lab Sample ID: 680-115409-13 DU  
Matrix: Solid  
Analysis Batch: 396567

Client Sample ID: SB-42 2-4  
Prep Type: Total/NA  
Prep Batch: 396472

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Cyanide, Total	0.22	U	0.22	U	mg/Kg	✱	NC	30

Lab Sample ID: MB 680-396473/1-A  
Matrix: Solid  
Analysis Batch: 396567

Client Sample ID: Method Blank  
Prep Type: Total/NA  
Prep Batch: 396473

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total	0.21	U	0.50	0.21	mg/Kg		08/17/15 08:00	08/17/15 12:03	1

Lab Sample ID: LCS 680-396473/2-A  
Matrix: Solid  
Analysis Batch: 396567

Client Sample ID: Lab Control Sample  
Prep Type: Total/NA  
Prep Batch: 396473

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Cyanide, Total	5.00	4.85		mg/Kg		97	75 - 125

Lab Sample ID: 680-115409-22 MS  
Matrix: Solid  
Analysis Batch: 396567

Client Sample ID: GB-3 13-15  
Prep Type: Total/NA  
Prep Batch: 396473

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Cyanide, Total	0.25	U	5.96	5.35		mg/Kg	✱	90	75 - 125

Lab Sample ID: 680-115409-22 MSD  
Matrix: Solid  
Analysis Batch: 396567

Client Sample ID: GB-3 13-15  
Prep Type: Total/NA  
Prep Batch: 396473

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Cyanide, Total	0.25	U	5.90	5.48		mg/Kg	✱	93	75 - 125	3	30

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# QC Association Summary

Client: Geotechnical & Environmental Consultants  
Project/Site: Macon MGP

TestAmerica Job ID: 680-115409-1

## GC/MS VOA

### Prep Batch: 395276

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-115409-23	GB-5 8-10	Total/NA	Solid	5035	
680-115409-24	GB-7 8-10	Total/NA	Solid	5035	
680-115409-25	GB-7 13-15	Total/NA	Solid	5035	
680-115409-26	GB-7 18	Total/NA	Solid	5035	

### Analysis Batch: 395460

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-115409-23	GB-5 8-10	Total/NA	Solid	8260B	395276
680-115409-24	GB-7 8-10	Total/NA	Solid	8260B	395276
680-115409-25	GB-7 13-15	Total/NA	Solid	8260B	395276
680-115409-26	GB-7 18	Total/NA	Solid	8260B	395276
LCS 680-395460/4	Lab Control Sample	Total/NA	Solid	8260B	
LCSD 680-395460/5	Lab Control Sample Dup	Total/NA	Solid	8260B	
MB 680-395460/10	Method Blank	Total/NA	Solid	8260B	

### Analysis Batch: 396685

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-115409-31	Trip Blank lot ATL156	Total/NA	Water	8260B	
LCS 680-396685/4	Lab Control Sample	Total/NA	Water	8260B	
LCSD 680-396685/5	Lab Control Sample Dup	Total/NA	Water	8260B	
MB 680-396685/11	Method Blank	Total/NA	Water	8260B	

## GC/MS Semi VOA

### Prep Batch: 395299

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-115409-1	GB-14 3-5	Total/NA	Solid	3546	
680-115409-2	GB-14 8-10	Total/NA	Solid	3546	
680-115409-3	GB-14 13-15	Total/NA	Solid	3546	
680-115409-4	GB-19 8-10	Total/NA	Solid	3546	
680-115409-5	GB-21 8-10	Total/NA	Solid	3546	
680-115409-6	GB-28 2-4	Total/NA	Solid	3546	
680-115409-7	GB-28 8-10	Total/NA	Solid	3546	
680-115409-8	GB-28 13-15	Total/NA	Solid	3546	
680-115409-9	SB-24 2-4	Total/NA	Solid	3546	
680-115409-10	SB-24 4-6	Total/NA	Solid	3546	
680-115409-11	SB-24 8-10	Total/NA	Solid	3546	
680-115409-12	SB-24 13-15	Total/NA	Solid	3546	
680-115409-13	SB-42 2-4	Total/NA	Solid	3546	
680-115409-14	SB-42 4-6	Total/NA	Solid	3546	
680-115409-15	SB-42 8-10	Total/NA	Solid	3546	
680-115409-16	SB-42 13-15	Total/NA	Solid	3546	
680-115409-17	GB-16 2-4	Total/NA	Solid	3546	
680-115409-18	GB-16 4-6	Total/NA	Solid	3546	
680-115409-18 MS	GB-16 4-6	Total/NA	Solid	3546	
680-115409-18 MSD	GB-16 4-6	Total/NA	Solid	3546	
680-115409-19	GB-18 2-4	Total/NA	Solid	3546	
680-115409-20	GB-18 4-6	Total/NA	Solid	3546	
LCS 680-395299/22-A	Lab Control Sample	Total/NA	Solid	3546	
MB 680-395299/21-A	Method Blank	Total/NA	Solid	3546	

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# QC Association Summary

Client: Geotechnical & Environmental Consultants  
Project/Site: Macon MGP

TestAmerica Job ID: 680-115409-1

## GC/MS Semi VOA (Continued)

### Prep Batch: 395304

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-115409-21	GB-3 8-10	Total/NA	Solid	3546	
680-115409-22	GB-3 13-15	Total/NA	Solid	3546	
680-115409-23	GB-5 8-10	Total/NA	Solid	3546	
680-115409-24	GB-7 8-10	Total/NA	Solid	3546	
680-115409-25	GB-7 13-15	Total/NA	Solid	3546	
680-115409-26	GB-7 18	Total/NA	Solid	3546	
680-115409-27	SB-17 8-10	Total/NA	Solid	3546	
680-115409-27 MS	SB-17 8-10	Total/NA	Solid	3546	
680-115409-27 MSD	SB-17 8-10	Total/NA	Solid	3546	
680-115409-28	SB-17 13-15	Total/NA	Solid	3546	
680-115409-29	SB-20 0-2	Total/NA	Solid	3546	
680-115409-30	SB-20 2-4	Total/NA	Solid	3546	
LCS 680-395304/12-A	Lab Control Sample	Total/NA	Solid	3546	
MB 680-395304/11-A	Method Blank	Total/NA	Solid	3546	

### Analysis Batch: 395487

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-115409-1	GB-14 3-5	Total/NA	Solid	8270D	395299
680-115409-2	GB-14 8-10	Total/NA	Solid	8270D	395299
680-115409-3	GB-14 13-15	Total/NA	Solid	8270D	395299
680-115409-4	GB-19 8-10	Total/NA	Solid	8270D	395299
680-115409-5	GB-21 8-10	Total/NA	Solid	8270D	395299
680-115409-6	GB-28 2-4	Total/NA	Solid	8270D	395299
680-115409-7	GB-28 8-10	Total/NA	Solid	8270D	395299
680-115409-8	GB-28 13-15	Total/NA	Solid	8270D	395299
680-115409-9	SB-24 2-4	Total/NA	Solid	8270D	395299
680-115409-10	SB-24 4-6	Total/NA	Solid	8270D	395299
680-115409-11	SB-24 8-10	Total/NA	Solid	8270D	395299
680-115409-12	SB-24 13-15	Total/NA	Solid	8270D	395299
680-115409-13	SB-42 2-4	Total/NA	Solid	8270D	395299
680-115409-14	SB-42 4-6	Total/NA	Solid	8270D	395299
680-115409-15	SB-42 8-10	Total/NA	Solid	8270D	395299
680-115409-16	SB-42 13-15	Total/NA	Solid	8270D	395299
680-115409-17	GB-16 2-4	Total/NA	Solid	8270D	395299
680-115409-18	GB-16 4-6	Total/NA	Solid	8270D	395299
680-115409-18 MS	GB-16 4-6	Total/NA	Solid	8270D	395299
680-115409-18 MSD	GB-16 4-6	Total/NA	Solid	8270D	395299
680-115409-19	GB-18 2-4	Total/NA	Solid	8270D	395299
680-115409-20	GB-18 4-6	Total/NA	Solid	8270D	395299
LCS 680-395299/22-A	Lab Control Sample	Total/NA	Solid	8270D	395299
MB 680-395299/21-A	Method Blank	Total/NA	Solid	8270D	395299

### Analysis Batch: 395714

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-115409-21	GB-3 8-10	Total/NA	Solid	8270D	395304
680-115409-22	GB-3 13-15	Total/NA	Solid	8270D	395304
680-115409-23	GB-5 8-10	Total/NA	Solid	8270D	395304
680-115409-24	GB-7 8-10	Total/NA	Solid	8270D	395304
680-115409-25	GB-7 13-15	Total/NA	Solid	8270D	395304
680-115409-26	GB-7 18	Total/NA	Solid	8270D	395304
680-115409-27	SB-17 8-10	Total/NA	Solid	8270D	395304

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# QC Association Summary

Client: Geotechnical & Environmental Consultants  
Project/Site: Macon MGP

TestAmerica Job ID: 680-115409-1

## GC/MS Semi VOA (Continued)

### Analysis Batch: 395714 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-115409-27 MS	SB-17 8-10	Total/NA	Solid	8270D	395304
680-115409-27 MSD	SB-17 8-10	Total/NA	Solid	8270D	395304
680-115409-28	SB-17 13-15	Total/NA	Solid	8270D	395304
680-115409-29	SB-20 0-2	Total/NA	Solid	8270D	395304
680-115409-30	SB-20 2-4	Total/NA	Solid	8270D	395304
LCS 680-395304/12-A	Lab Control Sample	Total/NA	Solid	8270D	395304

### Analysis Batch: 395880

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 680-395304/11-A	Method Blank	Total/NA	Solid	8270D	395304

## Metals

### Prep Batch: 395413

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-115409-1	GB-14 3-5	Total/NA	Solid	3050B	
680-115409-2	GB-14 8-10	Total/NA	Solid	3050B	
680-115409-3	GB-14 13-15	Total/NA	Solid	3050B	
680-115409-4	GB-19 8-10	Total/NA	Solid	3050B	
680-115409-5	GB-21 8-10	Total/NA	Solid	3050B	
680-115409-6	GB-28 2-4	Total/NA	Solid	3050B	
680-115409-7	GB-28 8-10	Total/NA	Solid	3050B	
680-115409-8	GB-28 13-15	Total/NA	Solid	3050B	
680-115409-9	SB-24 2-4	Total/NA	Solid	3050B	
680-115409-10	SB-24 4-6	Total/NA	Solid	3050B	
680-115409-11	SB-24 8-10	Total/NA	Solid	3050B	
680-115409-12	SB-24 13-15	Total/NA	Solid	3050B	
680-115409-13	SB-42 2-4	Total/NA	Solid	3050B	
680-115409-14	SB-42 4-6	Total/NA	Solid	3050B	
680-115409-14 MS	SB-42 4-6	Total/NA	Solid	3050B	
680-115409-14 MSD	SB-42 4-6	Total/NA	Solid	3050B	
680-115409-15	SB-42 8-10	Total/NA	Solid	3050B	
LCS 680-395413/2-A	Lab Control Sample	Total/NA	Solid	3050B	
MB 680-395413/1-A	Method Blank	Total/NA	Solid	3050B	

### Prep Batch: 395425

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-115409-16	SB-42 13-15	Total/NA	Solid	3050B	
680-115409-17	GB-16 2-4	Total/NA	Solid	3050B	
680-115409-18	GB-16 4-6	Total/NA	Solid	3050B	
680-115409-19	GB-18 2-4	Total/NA	Solid	3050B	
680-115409-20	GB-18 4-6	Total/NA	Solid	3050B	
680-115409-20 MS	GB-18 4-6	Total/NA	Solid	3050B	
680-115409-20 MSD	GB-18 4-6	Total/NA	Solid	3050B	
680-115409-21	GB-3 8-10	Total/NA	Solid	3050B	
680-115409-22	GB-3 13-15	Total/NA	Solid	3050B	
680-115409-23	GB-5 8-10	Total/NA	Solid	3050B	
680-115409-24	GB-7 8-10	Total/NA	Solid	3050B	
680-115409-25	GB-7 13-15	Total/NA	Solid	3050B	
680-115409-26	GB-7 18	Total/NA	Solid	3050B	

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# QC Association Summary

Client: Geotechnical & Environmental Consultants  
Project/Site: Macon MGP

TestAmerica Job ID: 680-115409-1

## Metals (Continued)

### Prep Batch: 395425 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-115409-27	SB-17 8-10	Total/NA	Solid	3050B	
680-115409-28	SB-17 13-15	Total/NA	Solid	3050B	
680-115409-29	SB-20 0-2	Total/NA	Solid	3050B	
680-115409-30	SB-20 2-4	Total/NA	Solid	3050B	
LCS 680-395425/2-A	Lab Control Sample	Total/NA	Solid	3050B	
MB 680-395425/1-A	Method Blank	Total/NA	Solid	3050B	

### Analysis Batch: 395634

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-115409-1	GB-14 3-5	Total/NA	Solid	6010C	395413
680-115409-2	GB-14 8-10	Total/NA	Solid	6010C	395413
680-115409-3	GB-14 13-15	Total/NA	Solid	6010C	395413
680-115409-4	GB-19 8-10	Total/NA	Solid	6010C	395413
680-115409-5	GB-21 8-10	Total/NA	Solid	6010C	395413
680-115409-6	GB-28 2-4	Total/NA	Solid	6010C	395413
680-115409-7	GB-28 8-10	Total/NA	Solid	6010C	395413
680-115409-8	GB-28 13-15	Total/NA	Solid	6010C	395413
680-115409-9	SB-24 2-4	Total/NA	Solid	6010C	395413
680-115409-10	SB-24 4-6	Total/NA	Solid	6010C	395413
680-115409-11	SB-24 8-10	Total/NA	Solid	6010C	395413
680-115409-12	SB-24 13-15	Total/NA	Solid	6010C	395413
680-115409-13	SB-42 2-4	Total/NA	Solid	6010C	395413
680-115409-14	SB-42 4-6	Total/NA	Solid	6010C	395413
680-115409-14 MS	SB-42 4-6	Total/NA	Solid	6010C	395413
680-115409-14 MSD	SB-42 4-6	Total/NA	Solid	6010C	395413
680-115409-15	SB-42 8-10	Total/NA	Solid	6010C	395413
LCS 680-395413/2-A	Lab Control Sample	Total/NA	Solid	6010C	395413
MB 680-395413/1-A	Method Blank	Total/NA	Solid	6010C	395413

### Prep Batch: 395891

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-115409-1	GB-14 3-5	Total/NA	Solid	7471B	
680-115409-2	GB-14 8-10	Total/NA	Solid	7471B	
680-115409-3	GB-14 13-15	Total/NA	Solid	7471B	
680-115409-4	GB-19 8-10	Total/NA	Solid	7471B	
680-115409-5	GB-21 8-10	Total/NA	Solid	7471B	
680-115409-6	GB-28 2-4	Total/NA	Solid	7471B	
680-115409-7	GB-28 8-10	Total/NA	Solid	7471B	
680-115409-8	GB-28 13-15	Total/NA	Solid	7471B	
680-115409-9	SB-24 2-4	Total/NA	Solid	7471B	
LCS 680-395891/14-A	Lab Control Sample	Total/NA	Solid	7471B	
MB 680-395891/13-A	Method Blank	Total/NA	Solid	7471B	

### Analysis Batch: 396091

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-115409-1	GB-14 3-5	Total/NA	Solid	7471B	395891
680-115409-2	GB-14 8-10	Total/NA	Solid	7471B	395891
680-115409-3	GB-14 13-15	Total/NA	Solid	7471B	395891
680-115409-4	GB-19 8-10	Total/NA	Solid	7471B	395891
680-115409-5	GB-21 8-10	Total/NA	Solid	7471B	395891
680-115409-6	GB-28 2-4	Total/NA	Solid	7471B	395891

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# QC Association Summary

Client: Geotechnical & Environmental Consultants  
Project/Site: Macon MGP

TestAmerica Job ID: 680-115409-1

## Metals (Continued)

### Analysis Batch: 396091 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-115409-7	GB-28 8-10	Total/NA	Solid	7471B	395891
680-115409-8	GB-28 13-15	Total/NA	Solid	7471B	395891
680-115409-9	SB-24 2-4	Total/NA	Solid	7471B	395891
LCS 680-395891/14-A	Lab Control Sample	Total/NA	Solid	7471B	395891
MB 680-395891/13-A	Method Blank	Total/NA	Solid	7471B	395891

### Analysis Batch: 396333

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-115409-16	SB-42 13-15	Total/NA	Solid	6010C	395425
680-115409-17	GB-16 2-4	Total/NA	Solid	6010C	395425
680-115409-18	GB-16 4-6	Total/NA	Solid	6010C	395425
680-115409-19	GB-18 2-4	Total/NA	Solid	6010C	395425
680-115409-20	GB-18 4-6	Total/NA	Solid	6010C	395425
680-115409-20 MS	GB-18 4-6	Total/NA	Solid	6010C	395425
680-115409-20 MSD	GB-18 4-6	Total/NA	Solid	6010C	395425
680-115409-21	GB-3 8-10	Total/NA	Solid	6010C	395425
680-115409-22	GB-3 13-15	Total/NA	Solid	6010C	395425
680-115409-23	GB-5 8-10	Total/NA	Solid	6010C	395425
680-115409-24	GB-7 8-10	Total/NA	Solid	6010C	395425
680-115409-25	GB-7 13-15	Total/NA	Solid	6010C	395425
680-115409-26	GB-7 18	Total/NA	Solid	6010C	395425
680-115409-27	SB-17 8-10	Total/NA	Solid	6010C	395425
680-115409-28	SB-17 13-15	Total/NA	Solid	6010C	395425
680-115409-29	SB-20 0-2	Total/NA	Solid	6010C	395425
680-115409-30	SB-20 2-4	Total/NA	Solid	6010C	395425
LCS 680-395425/2-A	Lab Control Sample	Total/NA	Solid	6010C	395425
MB 680-395425/1-A	Method Blank	Total/NA	Solid	6010C	395425

### Prep Batch: 396439

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-115409-10	SB-24 4-6	Total/NA	Solid	7471B	
680-115409-10 MS	SB-24 4-6	Total/NA	Solid	7471B	
680-115409-10 MSD	SB-24 4-6	Total/NA	Solid	7471B	
680-115409-11	SB-24 8-10	Total/NA	Solid	7471B	
680-115409-12	SB-24 13-15	Total/NA	Solid	7471B	
680-115409-13	SB-42 2-4	Total/NA	Solid	7471B	
680-115409-14	SB-42 4-6	Total/NA	Solid	7471B	
680-115409-15	SB-42 8-10	Total/NA	Solid	7471B	
680-115409-16	SB-42 13-15	Total/NA	Solid	7471B	
680-115409-17	GB-16 2-4	Total/NA	Solid	7471B	
680-115409-18	GB-16 4-6	Total/NA	Solid	7471B	
680-115409-19	GB-18 2-4	Total/NA	Solid	7471B	
680-115409-20	GB-18 4-6	Total/NA	Solid	7471B	
680-115409-21	GB-3 8-10	Total/NA	Solid	7471B	
680-115409-22	GB-3 13-15	Total/NA	Solid	7471B	
680-115409-23	GB-5 8-10	Total/NA	Solid	7471B	
680-115409-24	GB-7 8-10	Total/NA	Solid	7471B	
680-115409-26	GB-7 18	Total/NA	Solid	7471B	
680-115409-27	SB-17 8-10	Total/NA	Solid	7471B	
680-115409-28	SB-17 13-15	Total/NA	Solid	7471B	
680-115409-29	SB-20 0-2	Total/NA	Solid	7471B	

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# QC Association Summary

Client: Geotechnical & Environmental Consultants  
Project/Site: Macon MGP

TestAmerica Job ID: 680-115409-1

## Metals (Continued)

### Prep Batch: 396439 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-115409-30	SB-20 2-4	Total/NA	Solid	7471B	
LCS 680-396439/14-A	Lab Control Sample	Total/NA	Solid	7471B	
MB 680-396439/13-A	Method Blank	Total/NA	Solid	7471B	

### Prep Batch: 396509

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-115409-25	GB-7 13-15	Total/NA	Solid	7471B	
680-115409-25 MS	GB-7 13-15	Total/NA	Solid	7471B	
680-115409-25 MSD	GB-7 13-15	Total/NA	Solid	7471B	
LCS 680-396509/2-A	Lab Control Sample	Total/NA	Solid	7471B	
MB 680-396509/1-A	Method Blank	Total/NA	Solid	7471B	

### Analysis Batch: 396738

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-115409-10	SB-24 4-6	Total/NA	Solid	7471B	396439
680-115409-10 MS	SB-24 4-6	Total/NA	Solid	7471B	396439
680-115409-10 MSD	SB-24 4-6	Total/NA	Solid	7471B	396439
680-115409-11	SB-24 8-10	Total/NA	Solid	7471B	396439
680-115409-12	SB-24 13-15	Total/NA	Solid	7471B	396439
680-115409-13	SB-42 2-4	Total/NA	Solid	7471B	396439
680-115409-14	SB-42 4-6	Total/NA	Solid	7471B	396439
680-115409-15	SB-42 8-10	Total/NA	Solid	7471B	396439
680-115409-16	SB-42 13-15	Total/NA	Solid	7471B	396439
680-115409-17	GB-16 2-4	Total/NA	Solid	7471B	396439
680-115409-18	GB-16 4-6	Total/NA	Solid	7471B	396439
680-115409-19	GB-18 2-4	Total/NA	Solid	7471B	396439
680-115409-20	GB-18 4-6	Total/NA	Solid	7471B	396439
680-115409-21	GB-3 8-10	Total/NA	Solid	7471B	396439
680-115409-22	GB-3 13-15	Total/NA	Solid	7471B	396439
680-115409-23	GB-5 8-10	Total/NA	Solid	7471B	396439
680-115409-24	GB-7 8-10	Total/NA	Solid	7471B	396439
680-115409-25	GB-7 13-15	Total/NA	Solid	7471B	396509
680-115409-25 MS	GB-7 13-15	Total/NA	Solid	7471B	396509
680-115409-25 MSD	GB-7 13-15	Total/NA	Solid	7471B	396509
680-115409-26	GB-7 18	Total/NA	Solid	7471B	396439
680-115409-27	SB-17 8-10	Total/NA	Solid	7471B	396439
680-115409-28	SB-17 13-15	Total/NA	Solid	7471B	396439
680-115409-29	SB-20 0-2	Total/NA	Solid	7471B	396439
680-115409-30	SB-20 2-4	Total/NA	Solid	7471B	396439
LCS 680-396439/14-A	Lab Control Sample	Total/NA	Solid	7471B	396439
LCS 680-396509/2-A	Lab Control Sample	Total/NA	Solid	7471B	396509
MB 680-396439/13-A	Method Blank	Total/NA	Solid	7471B	396439
MB 680-396509/1-A	Method Blank	Total/NA	Solid	7471B	396509

### Analysis Batch: 396749

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-115409-29	SB-20 0-2	Total/NA	Solid	6010C	395425
680-115409-30	SB-20 2-4	Total/NA	Solid	6010C	395425

TestAmerica Savannah

# QC Association Summary

Client: Geotechnical & Environmental Consultants  
Project/Site: Macon MGP

TestAmerica Job ID: 680-115409-1

## General Chemistry

### Analysis Batch: 395339

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-115409-1	GB-14 3-5	Total/NA	Solid	Moisture	
680-115409-2	GB-14 8-10	Total/NA	Solid	Moisture	
680-115409-3	GB-14 13-15	Total/NA	Solid	Moisture	
680-115409-4	GB-19 8-10	Total/NA	Solid	Moisture	
680-115409-5	GB-21 8-10	Total/NA	Solid	Moisture	
680-115409-6	GB-28 2-4	Total/NA	Solid	Moisture	
680-115409-7	GB-28 8-10	Total/NA	Solid	Moisture	
680-115409-8	GB-28 13-15	Total/NA	Solid	Moisture	
680-115409-9	SB-24 2-4	Total/NA	Solid	Moisture	
680-115409-10	SB-24 4-6	Total/NA	Solid	Moisture	
680-115409-11	SB-24 8-10	Total/NA	Solid	Moisture	
680-115409-12	SB-24 13-15	Total/NA	Solid	Moisture	
680-115409-13	SB-42 2-4	Total/NA	Solid	Moisture	
680-115409-14	SB-42 4-6	Total/NA	Solid	Moisture	
680-115409-15	SB-42 8-10	Total/NA	Solid	Moisture	
680-115409-16	SB-42 13-15	Total/NA	Solid	Moisture	
680-115409-17	GB-16 2-4	Total/NA	Solid	Moisture	
680-115409-18	GB-16 4-6	Total/NA	Solid	Moisture	
680-115409-19	GB-18 2-4	Total/NA	Solid	Moisture	
680-115409-20	GB-18 4-6	Total/NA	Solid	Moisture	
680-115409-21	GB-3 8-10	Total/NA	Solid	Moisture	
680-115409-22	GB-3 13-15	Total/NA	Solid	Moisture	
680-115409-23	GB-5 8-10	Total/NA	Solid	Moisture	
680-115409-24	GB-7 8-10	Total/NA	Solid	Moisture	
680-115409-25	GB-7 13-15	Total/NA	Solid	Moisture	
680-115409-26	GB-7 18	Total/NA	Solid	Moisture	
680-115409-27	SB-17 8-10	Total/NA	Solid	Moisture	
680-115409-28	SB-17 13-15	Total/NA	Solid	Moisture	
680-115409-29	SB-20 0-2	Total/NA	Solid	Moisture	
680-115409-30	SB-20 2-4	Total/NA	Solid	Moisture	

### Prep Batch: 396472

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-115409-1	GB-14 3-5	Total/NA	Solid	9012B	
680-115409-1 MS	GB-14 3-5	Total/NA	Solid	9012B	
680-115409-1 MSD	GB-14 3-5	Total/NA	Solid	9012B	
680-115409-2	GB-14 8-10	Total/NA	Solid	9012B	
680-115409-3	GB-14 13-15	Total/NA	Solid	9012B	
680-115409-4	GB-19 8-10	Total/NA	Solid	9012B	
680-115409-5	GB-21 8-10	Total/NA	Solid	9012B	
680-115409-6	GB-28 2-4	Total/NA	Solid	9012B	
680-115409-7	GB-28 8-10	Total/NA	Solid	9012B	
680-115409-8	GB-28 13-15	Total/NA	Solid	9012B	
680-115409-9	SB-24 2-4	Total/NA	Solid	9012B	
680-115409-10	SB-24 4-6	Total/NA	Solid	9012B	
680-115409-11	SB-24 8-10	Total/NA	Solid	9012B	
680-115409-12	SB-24 13-15	Total/NA	Solid	9012B	
680-115409-13	SB-42 2-4	Total/NA	Solid	9012B	
680-115409-13 DU	SB-42 2-4	Total/NA	Solid	9012B	
680-115409-14	SB-42 4-6	Total/NA	Solid	9012B	
680-115409-15	SB-42 8-10	Total/NA	Solid	9012B	

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# QC Association Summary

Client: Geotechnical & Environmental Consultants  
Project/Site: Macon MGP

TestAmerica Job ID: 680-115409-1

## General Chemistry (Continued)

### Prep Batch: 396472 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-115409-16	SB-42 13-15	Total/NA	Solid	9012B	
680-115409-17	GB-16 2-4	Total/NA	Solid	9012B	
680-115409-18	GB-16 4-6	Total/NA	Solid	9012B	
680-115409-19	GB-18 2-4	Total/NA	Solid	9012B	
680-115409-20	GB-18 4-6	Total/NA	Solid	9012B	
HLCS 680-396472/4-A	Lab Control Sample	Total/NA	Solid	9012B	
LCS 680-396472/2-A	Lab Control Sample	Total/NA	Solid	9012B	
LLCS 680-396472/3-A	Lab Control Sample	Total/NA	Solid	9012B	
MB 680-396472/1-A	Method Blank	Total/NA	Solid	9012B	

### Prep Batch: 396473

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-115409-21	GB-3 8-10	Total/NA	Solid	9012B	
680-115409-22	GB-3 13-15	Total/NA	Solid	9012B	
680-115409-22 MS	GB-3 13-15	Total/NA	Solid	9012B	
680-115409-22 MSD	GB-3 13-15	Total/NA	Solid	9012B	
680-115409-23	GB-5 8-10	Total/NA	Solid	9012B	
680-115409-24	GB-7 8-10	Total/NA	Solid	9012B	
680-115409-25	GB-7 13-15	Total/NA	Solid	9012B	
680-115409-26	GB-7 18	Total/NA	Solid	9012B	
680-115409-27	SB-17 8-10	Total/NA	Solid	9012B	
680-115409-28	SB-17 13-15	Total/NA	Solid	9012B	
680-115409-29	SB-20 0-2	Total/NA	Solid	9012B	
680-115409-30	SB-20 2-4	Total/NA	Solid	9012B	
LCS 680-396473/2-A	Lab Control Sample	Total/NA	Solid	9012B	
MB 680-396473/1-A	Method Blank	Total/NA	Solid	9012B	

### Analysis Batch: 396567

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-115409-1	GB-14 3-5	Total/NA	Solid	9012B	396472
680-115409-1 MS	GB-14 3-5	Total/NA	Solid	9012B	396472
680-115409-1 MSD	GB-14 3-5	Total/NA	Solid	9012B	396472
680-115409-2	GB-14 8-10	Total/NA	Solid	9012B	396472
680-115409-3	GB-14 13-15	Total/NA	Solid	9012B	396472
680-115409-4	GB-19 8-10	Total/NA	Solid	9012B	396472
680-115409-5	GB-21 8-10	Total/NA	Solid	9012B	396472
680-115409-6	GB-28 2-4	Total/NA	Solid	9012B	396472
680-115409-7	GB-28 8-10	Total/NA	Solid	9012B	396472
680-115409-8	GB-28 13-15	Total/NA	Solid	9012B	396472
680-115409-9	SB-24 2-4	Total/NA	Solid	9012B	396472
680-115409-10	SB-24 4-6	Total/NA	Solid	9012B	396472
680-115409-11	SB-24 8-10	Total/NA	Solid	9012B	396472
680-115409-12	SB-24 13-15	Total/NA	Solid	9012B	396472
680-115409-13	SB-42 2-4	Total/NA	Solid	9012B	396472
680-115409-13 DU	SB-42 2-4	Total/NA	Solid	9012B	396472
680-115409-14	SB-42 4-6	Total/NA	Solid	9012B	396472
680-115409-15	SB-42 8-10	Total/NA	Solid	9012B	396472
680-115409-16	SB-42 13-15	Total/NA	Solid	9012B	396472
680-115409-17	GB-16 2-4	Total/NA	Solid	9012B	396472
680-115409-18	GB-16 4-6	Total/NA	Solid	9012B	396472
680-115409-19	GB-18 2-4	Total/NA	Solid	9012B	396472

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## QC Association Summary

Client: Geotechnical & Environmental Consultants  
Project/Site: Macon MGP

TestAmerica Job ID: 680-115409-1

### General Chemistry (Continued)

#### Analysis Batch: 396567 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-115409-20	GB-18 4-6	Total/NA	Solid	9012B	396472
680-115409-21	GB-3 8-10	Total/NA	Solid	9012B	396473
680-115409-22	GB-3 13-15	Total/NA	Solid	9012B	396473
680-115409-22 MS	GB-3 13-15	Total/NA	Solid	9012B	396473
680-115409-22 MSD	GB-3 13-15	Total/NA	Solid	9012B	396473
680-115409-23	GB-5 8-10	Total/NA	Solid	9012B	396473
680-115409-24	GB-7 8-10	Total/NA	Solid	9012B	396473
680-115409-25	GB-7 13-15	Total/NA	Solid	9012B	396473
680-115409-26	GB-7 18	Total/NA	Solid	9012B	396473
680-115409-27	SB-17 8-10	Total/NA	Solid	9012B	396473
680-115409-28	SB-17 13-15	Total/NA	Solid	9012B	396473
680-115409-29	SB-20 0-2	Total/NA	Solid	9012B	396473
680-115409-30	SB-20 2-4	Total/NA	Solid	9012B	396473
HLCS 680-396472/4-A	Lab Control Sample	Total/NA	Solid	9012B	396472
LCS 680-396472/2-A	Lab Control Sample	Total/NA	Solid	9012B	396472
LCS 680-396473/2-A	Lab Control Sample	Total/NA	Solid	9012B	396473
LLCS 680-396472/3-A	Lab Control Sample	Total/NA	Solid	9012B	396472
MB 680-396472/1-A	Method Blank	Total/NA	Solid	9012B	396472
MB 680-396473/1-A	Method Blank	Total/NA	Solid	9012B	396473

# Lab Chronicle

Client: Geotechnical & Environmental Consultants  
Project/Site: Macon MGP

TestAmerica Job ID: 680-115409-1

**Client Sample ID: GB-14 3-5**

**Date Collected: 08/06/15 12:47**

**Date Received: 08/08/15 10:00**

**Lab Sample ID: 680-115409-1**

**Matrix: Solid**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1			395339	08/10/15 15:25	FES	TAL SAV
Instrument ID: NOEQUIP										

**Client Sample ID: GB-14 3-5**

**Date Collected: 08/06/15 12:47**

**Date Received: 08/08/15 10:00**

**Lab Sample ID: 680-115409-1**

**Matrix: Solid**

**Percent Solids: 87.7**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3546			30.28 g	1 mL	395299	08/10/15 14:33	JMV	TAL SAV
Total/NA	Analysis	8270D		10	30.28 g	1 mL	395487	08/11/15 15:23	RAM	TAL SAV
Instrument ID: CMSN										
Total/NA	Prep	3050B			1.17 g	100 mL	395413	08/11/15 07:36	CDD	TAL SAV
Total/NA	Analysis	6010C		1	1.17 g	100 mL	395634	08/11/15 20:25	BCB	TAL SAV
Instrument ID: ICPE										
Total/NA	Prep	7471B			0.51 g	50 mL	395891	08/13/15 09:48	CRW	TAL SAV
Total/NA	Analysis	7471B		1	0.51 g	50 mL	396091	08/13/15 16:06	BCB	TAL SAV
Instrument ID: LEEMAN2										
Total/NA	Prep	9012B			1.03 g	50 mL	396472	08/17/15 06:30	DAM	TAL SAV
Total/NA	Analysis	9012B		1	1.03 g	50 mL	396567	08/17/15 11:33	DAM	TAL SAV
Instrument ID: LACHAT1										

**Client Sample ID: GB-14 8-10**

**Date Collected: 08/06/15 12:54**

**Date Received: 08/08/15 10:00**

**Lab Sample ID: 680-115409-2**

**Matrix: Solid**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1			395339	08/10/15 15:25	FES	TAL SAV
Instrument ID: NOEQUIP										

**Client Sample ID: GB-14 8-10**

**Date Collected: 08/06/15 12:54**

**Date Received: 08/08/15 10:00**

**Lab Sample ID: 680-115409-2**

**Matrix: Solid**

**Percent Solids: 53.6**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3546			30.03 g	1 mL	395299	08/10/15 14:33	JMV	TAL SAV
Total/NA	Analysis	8270D		10	30.03 g	1 mL	395487	08/11/15 15:48	RAM	TAL SAV
Instrument ID: CMSN										
Total/NA	Prep	3050B			1.17 g	100 mL	395413	08/11/15 07:36	CDD	TAL SAV
Total/NA	Analysis	6010C		1	1.17 g	100 mL	395634	08/11/15 19:17	BCB	TAL SAV
Instrument ID: ICPE										
Total/NA	Prep	7471B			0.51 g	50 mL	395891	08/13/15 09:48	CRW	TAL SAV
Total/NA	Analysis	7471B		5	0.51 g	50 mL	396091	08/13/15 17:29	BCB	TAL SAV
Instrument ID: LEEMAN2										

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# Lab Chronicle

Client: Geotechnical & Environmental Consultants  
Project/Site: Macon MGP

TestAmerica Job ID: 680-115409-1

**Client Sample ID: GB-14 8-10**

**Date Collected: 08/06/15 12:54**

**Date Received: 08/08/15 10:00**

**Lab Sample ID: 680-115409-2**

**Matrix: Solid**

**Percent Solids: 53.6**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	9012B			1.04 g	50 mL	396472	08/17/15 06:30	DAM	TAL SAV
Total/NA	Analysis	9012B		1	1.04 g	50 mL	396567	08/17/15 11:36	DAM	TAL SAV
Instrument ID: LACHAT1										

**Client Sample ID: GB-14 13-15**

**Date Collected: 08/06/15 12:59**

**Date Received: 08/08/15 10:00**

**Lab Sample ID: 680-115409-3**

**Matrix: Solid**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1			395339	08/10/15 15:25	FES	TAL SAV
Instrument ID: NOEQUIP										

**Client Sample ID: GB-14 13-15**

**Date Collected: 08/06/15 12:59**

**Date Received: 08/08/15 10:00**

**Lab Sample ID: 680-115409-3**

**Matrix: Solid**

**Percent Solids: 68.2**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3546			30.04 g	1 mL	395299	08/10/15 14:33	JMV	TAL SAV
Total/NA	Analysis	8270D		1	30.04 g	1 mL	395487	08/11/15 16:12	RAM	TAL SAV
Instrument ID: CMSN										
Total/NA	Prep	3050B			1.04 g	100 mL	395413	08/11/15 07:36	CDD	TAL SAV
Total/NA	Analysis	6010C		1	1.04 g	100 mL	395634	08/11/15 19:21	BCB	TAL SAV
Instrument ID: ICPE										
Total/NA	Prep	7471B			0.53 g	50 mL	395891	08/13/15 09:48	CRW	TAL SAV
Total/NA	Analysis	7471B		5	0.53 g	50 mL	396091	08/13/15 17:32	BCB	TAL SAV
Instrument ID: LEEMAN2										
Total/NA	Prep	9012B			1.01 g	50 mL	396472	08/17/15 06:30	DAM	TAL SAV
Total/NA	Analysis	9012B		1	1.01 g	50 mL	396567	08/17/15 11:38	DAM	TAL SAV
Instrument ID: LACHAT1										

**Client Sample ID: GB-19 8-10**

**Date Collected: 08/06/15 11:30**

**Date Received: 08/08/15 10:00**

**Lab Sample ID: 680-115409-4**

**Matrix: Solid**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1			395339	08/10/15 15:25	FES	TAL SAV
Instrument ID: NOEQUIP										

TestAmerica Savannah

# Lab Chronicle

Client: Geotechnical & Environmental Consultants  
Project/Site: Macon MGP

TestAmerica Job ID: 680-115409-1

**Client Sample ID: GB-19 8-10**

**Date Collected: 08/06/15 11:30**

**Date Received: 08/08/15 10:00**

**Lab Sample ID: 680-115409-4**

**Matrix: Solid**

**Percent Solids: 67.4**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3546			30.25 g	1 mL	395299	08/10/15 14:33	JMV	TAL SAV
Total/NA	Analysis	8270D		1	30.25 g	1 mL	395487	08/11/15 16:36	RAM	TAL SAV
Instrument ID: CMSN										
Total/NA	Prep	3050B			1.14 g	100 mL	395413	08/11/15 07:36	CDD	TAL SAV
Total/NA	Analysis	6010C		1	1.14 g	100 mL	395634	08/11/15 19:26	BCB	TAL SAV
Instrument ID: ICPE										
Total/NA	Prep	7471B			0.57 g	50 mL	395891	08/13/15 09:48	CRW	TAL SAV
Total/NA	Analysis	7471B		1	0.57 g	50 mL	396091	08/13/15 16:15	BCB	TAL SAV
Instrument ID: LEEMAN2										
Total/NA	Prep	9012B			1.04 g	50 mL	396472	08/17/15 06:30	DAM	TAL SAV
Total/NA	Analysis	9012B		1	1.04 g	50 mL	396567	08/17/15 11:39	DAM	TAL SAV
Instrument ID: LACHAT1										

**Client Sample ID: GB-21 8-10**

**Date Collected: 08/06/15 10:45**

**Date Received: 08/08/15 10:00**

**Lab Sample ID: 680-115409-5**

**Matrix: Solid**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1			395339	08/10/15 15:25	FES	TAL SAV
Instrument ID: NOEQUIP										

**Client Sample ID: GB-21 8-10**

**Date Collected: 08/06/15 10:45**

**Date Received: 08/08/15 10:00**

**Lab Sample ID: 680-115409-5**

**Matrix: Solid**

**Percent Solids: 80.3**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3546			30.03 g	1 mL	395299	08/10/15 14:33	JMV	TAL SAV
Total/NA	Analysis	8270D		1	30.03 g	1 mL	395487	08/11/15 17:00	RAM	TAL SAV
Instrument ID: CMSN										
Total/NA	Prep	3050B			1.16 g	100 mL	395413	08/11/15 07:36	CDD	TAL SAV
Total/NA	Analysis	6010C		1	1.16 g	100 mL	395634	08/11/15 19:30	BCB	TAL SAV
Instrument ID: ICPE										
Total/NA	Prep	7471B			0.58 g	50 mL	395891	08/13/15 09:48	CRW	TAL SAV
Total/NA	Analysis	7471B		1	0.58 g	50 mL	396091	08/13/15 16:18	BCB	TAL SAV
Instrument ID: LEEMAN2										
Total/NA	Prep	9012B			1.04 g	50 mL	396472	08/17/15 06:30	DAM	TAL SAV
Total/NA	Analysis	9012B		1	1.04 g	50 mL	396567	08/17/15 11:42	DAM	TAL SAV
Instrument ID: LACHAT1										

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# Lab Chronicle

Client: Geotechnical & Environmental Consultants  
Project/Site: Macon MGP

TestAmerica Job ID: 680-115409-1

**Client Sample ID: GB-28 2-4**

**Date Collected: 08/06/15 14:00**

**Date Received: 08/08/15 10:00**

**Lab Sample ID: 680-115409-6**

**Matrix: Solid**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1			395339	08/10/15 15:25	FES	TAL SAV
Instrument ID: NOEQUIP										

**Client Sample ID: GB-28 2-4**

**Date Collected: 08/06/15 14:00**

**Date Received: 08/08/15 10:00**

**Lab Sample ID: 680-115409-6**

**Matrix: Solid**

**Percent Solids: 70.7**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3546			29.95 g	1 mL	395299	08/10/15 14:33	JMV	TAL SAV
Total/NA	Analysis	8270D		1	29.95 g	1 mL	395487	08/11/15 17:24	RAM	TAL SAV
Instrument ID: CMSN										
Total/NA	Prep	3050B			1.15 g	100 mL	395413	08/11/15 07:36	CDD	TAL SAV
Total/NA	Analysis	6010C		1	1.15 g	100 mL	395634	08/11/15 19:35	BCB	TAL SAV
Instrument ID: ICPE										
Total/NA	Prep	7471B			0.50 g	50 mL	395891	08/13/15 09:48	CRW	TAL SAV
Total/NA	Analysis	7471B		1	0.50 g	50 mL	396091	08/13/15 16:27	BCB	TAL SAV
Instrument ID: LEEMAN2										
Total/NA	Prep	9012B			1.03 g	50 mL	396472	08/17/15 06:30	DAM	TAL SAV
Total/NA	Analysis	9012B		1	1.03 g	50 mL	396567	08/17/15 11:43	DAM	TAL SAV
Instrument ID: LACHAT1										

**Client Sample ID: GB-28 8-10**

**Date Collected: 08/06/15 14:20**

**Date Received: 08/08/15 10:00**

**Lab Sample ID: 680-115409-7**

**Matrix: Solid**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1			395339	08/10/15 15:25	FES	TAL SAV
Instrument ID: NOEQUIP										

**Client Sample ID: GB-28 8-10**

**Date Collected: 08/06/15 14:20**

**Date Received: 08/08/15 10:00**

**Lab Sample ID: 680-115409-7**

**Matrix: Solid**

**Percent Solids: 86.5**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3546			30.21 g	1 mL	395299	08/10/15 14:33	JMV	TAL SAV
Total/NA	Analysis	8270D		1	30.21 g	1 mL	395487	08/11/15 17:48	RAM	TAL SAV
Instrument ID: CMSN										
Total/NA	Prep	3050B			1.16 g	100 mL	395413	08/11/15 07:36	CDD	TAL SAV
Total/NA	Analysis	6010C		1	1.16 g	100 mL	395634	08/11/15 19:49	BCB	TAL SAV
Instrument ID: ICPE										
Total/NA	Prep	7471B			0.53 g	50 mL	395891	08/13/15 09:48	CRW	TAL SAV
Total/NA	Analysis	7471B		1	0.53 g	50 mL	396091	08/13/15 16:31	BCB	TAL SAV
Instrument ID: LEEMAN2										
Total/NA	Prep	9012B			1.02 g	50 mL	396472	08/17/15 06:30	DAM	TAL SAV

TestAmerica Savannah

# Lab Chronicle

Client: Geotechnical & Environmental Consultants  
Project/Site: Macon MGP

TestAmerica Job ID: 680-115409-1

**Client Sample ID: GB-28 8-10**

**Lab Sample ID: 680-115409-7**

**Date Collected: 08/06/15 14:20**

**Matrix: Solid**

**Date Received: 08/08/15 10:00**

**Percent Solids: 86.5**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	9012B		1	1.02 g	50 mL	396567	08/17/15 11:44	DAM	TAL SAV
Instrument ID: LACHAT1										

**Client Sample ID: GB-28 13-15**

**Lab Sample ID: 680-115409-8**

**Date Collected: 08/06/15 14:30**

**Matrix: Solid**

**Date Received: 08/08/15 10:00**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1			395339	08/10/15 15:25	FES	TAL SAV
Instrument ID: NOEQUIP										

**Client Sample ID: GB-28 13-15**

**Lab Sample ID: 680-115409-8**

**Date Collected: 08/06/15 14:30**

**Matrix: Solid**

**Date Received: 08/08/15 10:00**

**Percent Solids: 82.0**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3546			30.02 g	1 mL	395299	08/10/15 14:33	JMV	TAL SAV
Total/NA	Analysis	8270D		1	30.02 g	1 mL	395487	08/11/15 18:12	RAM	TAL SAV
Instrument ID: CMSN										
Total/NA	Prep	3050B			1.13 g	100 mL	395413	08/11/15 07:36	CDD	TAL SAV
Total/NA	Analysis	6010C		1	1.13 g	100 mL	395634	08/11/15 19:53	BCB	TAL SAV
Instrument ID: ICPE										
Total/NA	Prep	7471B			0.54 g	50 mL	395891	08/13/15 09:48	CRW	TAL SAV
Total/NA	Analysis	7471B		5	0.54 g	50 mL	396091	08/13/15 17:35	BCB	TAL SAV
Instrument ID: LEEMAN2										
Total/NA	Prep	9012B			1.05 g	50 mL	396472	08/17/15 06:30	DAM	TAL SAV
Total/NA	Analysis	9012B		1	1.05 g	50 mL	396567	08/17/15 11:45	DAM	TAL SAV
Instrument ID: LACHAT1										

**Client Sample ID: SB-24 2-4**

**Lab Sample ID: 680-115409-9**

**Date Collected: 08/06/15 15:25**

**Matrix: Solid**

**Date Received: 08/08/15 10:00**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1			395339	08/10/15 15:25	FES	TAL SAV
Instrument ID: NOEQUIP										

**Client Sample ID: SB-24 2-4**

**Lab Sample ID: 680-115409-9**

**Date Collected: 08/06/15 15:25**

**Matrix: Solid**

**Date Received: 08/08/15 10:00**

**Percent Solids: 80.4**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3546			30.08 g	1 mL	395299	08/10/15 14:33	JMV	TAL SAV

TestAmerica Savannah

# Lab Chronicle

Client: Geotechnical & Environmental Consultants  
Project/Site: Macon MGP

TestAmerica Job ID: 680-115409-1

**Client Sample ID: SB-24 2-4**

**Date Collected: 08/06/15 15:25**

**Date Received: 08/08/15 10:00**

**Lab Sample ID: 680-115409-9**

**Matrix: Solid**

**Percent Solids: 80.4**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8270D		10	30.08 g	1 mL	395487	08/11/15 18:35	RAM	TAL SAV
		Instrument ID: CMSN								
Total/NA	Prep	3050B			1.10 g	100 mL	395413	08/11/15 07:36	CDD	TAL SAV
Total/NA	Analysis	6010C		1	1.10 g	100 mL	395634	08/11/15 19:58	BCB	TAL SAV
		Instrument ID: ICPE								
Total/NA	Prep	7471B			0.59 g	50 mL	395891	08/13/15 09:48	CRW	TAL SAV
Total/NA	Analysis	7471B		1	0.59 g	50 mL	396091	08/13/15 16:37	BCB	TAL SAV
		Instrument ID: LEEMAN2								
Total/NA	Prep	9012B			1.05 g	50 mL	396472	08/17/15 06:30	DAM	TAL SAV
Total/NA	Analysis	9012B		1	1.05 g	50 mL	396567	08/17/15 11:46	DAM	TAL SAV
		Instrument ID: LACHAT1								

**Client Sample ID: SB-24 4-6**

**Date Collected: 08/06/15 15:32**

**Date Received: 08/08/15 10:00**

**Lab Sample ID: 680-115409-10**

**Matrix: Solid**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1			395339	08/10/15 15:25	FES	TAL SAV
		Instrument ID: NOEQUIP								

**Client Sample ID: SB-24 4-6**

**Date Collected: 08/06/15 15:32**

**Date Received: 08/08/15 10:00**

**Lab Sample ID: 680-115409-10**

**Matrix: Solid**

**Percent Solids: 76.0**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3546			30.11 g	1 mL	395299	08/10/15 14:33	JMV	TAL SAV
Total/NA	Analysis	8270D		10	30.11 g	1 mL	395487	08/11/15 18:59	RAM	TAL SAV
		Instrument ID: CMSN								
Total/NA	Prep	3050B			1.06 g	100 mL	395413	08/11/15 07:36	CDD	TAL SAV
Total/NA	Analysis	6010C		1	1.06 g	100 mL	395634	08/11/15 20:02	BCB	TAL SAV
		Instrument ID: ICPE								
Total/NA	Prep	7471B			0.54 g	50 mL	396439	08/16/15 13:43	JKL	TAL SAV
Total/NA	Analysis	7471B		1	0.54 g	50 mL	396738	08/17/15 21:11	BCB	TAL SAV
		Instrument ID: LEEMAN2								
Total/NA	Prep	9012B			1.05 g	50 mL	396472	08/17/15 06:30	DAM	TAL SAV
Total/NA	Analysis	9012B		1	1.05 g	50 mL	396567	08/17/15 11:47	DAM	TAL SAV
		Instrument ID: LACHAT1								

**Client Sample ID: SB-24 8-10**

**Date Collected: 08/06/15 15:38**

**Date Received: 08/08/15 10:00**

**Lab Sample ID: 680-115409-11**

**Matrix: Solid**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1			395339	08/10/15 15:25	FES	TAL SAV

TestAmerica Savannah

# Lab Chronicle

Client: Geotechnical & Environmental Consultants  
Project/Site: Macon MGP

TestAmerica Job ID: 680-115409-1

**Client Sample ID: SB-24 8-10**

**Date Collected: 08/06/15 15:38**

**Date Received: 08/08/15 10:00**

**Lab Sample ID: 680-115409-11**

**Matrix: Solid**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1			395339	08/10/15 15:25	FES	TAL SAV
Instrument ID: NOEQUIP										

**Client Sample ID: SB-24 8-10**

**Date Collected: 08/06/15 15:38**

**Date Received: 08/08/15 10:00**

**Lab Sample ID: 680-115409-11**

**Matrix: Solid**

**Percent Solids: 69.7**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3546			30.14 g	1 mL	395299	08/10/15 14:33	JMV	TAL SAV
Total/NA	Analysis	8270D		10	30.14 g	1 mL	395487	08/11/15 19:23	RAM	TAL SAV
Instrument ID: CMSN										
Total/NA	Prep	3050B			1.06 g	100 mL	395413	08/11/15 07:36	CDD	TAL SAV
Total/NA	Analysis	6010C		1	1.06 g	100 mL	395634	08/11/15 20:07	BCB	TAL SAV
Instrument ID: ICPE										
Total/NA	Prep	7471B			0.51 g	50 mL	396439	08/16/15 13:43	JKL	TAL SAV
Total/NA	Analysis	7471B		1	0.51 g	50 mL	396738	08/17/15 21:20	BCB	TAL SAV
Instrument ID: LEEMAN2										
Total/NA	Prep	9012B			1.04 g	50 mL	396472	08/17/15 06:30	DAM	TAL SAV
Total/NA	Analysis	9012B		1	1.04 g	50 mL	396567	08/17/15 11:48	DAM	TAL SAV
Instrument ID: LACHAT1										

**Client Sample ID: SB-24 13-15**

**Date Collected: 08/06/15 15:50**

**Date Received: 08/08/15 10:00**

**Lab Sample ID: 680-115409-12**

**Matrix: Solid**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1			395339	08/10/15 15:25	FES	TAL SAV
Instrument ID: NOEQUIP										

**Client Sample ID: SB-24 13-15**

**Date Collected: 08/06/15 15:50**

**Date Received: 08/08/15 10:00**

**Lab Sample ID: 680-115409-12**

**Matrix: Solid**

**Percent Solids: 86.8**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3546			30.21 g	1 mL	395299	08/10/15 14:33	JMV	TAL SAV
Total/NA	Analysis	8270D		1	30.21 g	1 mL	395487	08/11/15 19:47	RAM	TAL SAV
Instrument ID: CMSN										
Total/NA	Prep	3050B			1.17 g	100 mL	395413	08/11/15 07:36	CDD	TAL SAV
Total/NA	Analysis	6010C		1	1.17 g	100 mL	395634	08/11/15 20:11	BCB	TAL SAV
Instrument ID: ICPE										
Total/NA	Prep	7471B			0.50 g	50 mL	396439	08/16/15 13:43	JKL	TAL SAV
Total/NA	Analysis	7471B		1	0.50 g	50 mL	396738	08/17/15 21:29	BCB	TAL SAV
Instrument ID: LEEMAN2										
Total/NA	Prep	9012B			1.02 g	50 mL	396472	08/17/15 06:30	DAM	TAL SAV

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# Lab Chronicle

Client: Geotechnical & Environmental Consultants  
Project/Site: Macon MGP

TestAmerica Job ID: 680-115409-1

**Client Sample ID: SB-24 13-15**

**Date Collected: 08/06/15 15:50**

**Date Received: 08/08/15 10:00**

**Lab Sample ID: 680-115409-12**

**Matrix: Solid**

**Percent Solids: 86.8**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	9012B		1	1.02 g	50 mL	396567	08/17/15 11:50	DAM	TAL SAV
Instrument ID: LACHAT1										

**Client Sample ID: SB-42 2-4**

**Date Collected: 08/06/15 16:02**

**Date Received: 08/08/15 10:00**

**Lab Sample ID: 680-115409-13**

**Matrix: Solid**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1			395339	08/10/15 15:25	FES	TAL SAV
Instrument ID: NOEQUIP										

**Client Sample ID: SB-42 2-4**

**Date Collected: 08/06/15 16:02**

**Date Received: 08/08/15 10:00**

**Lab Sample ID: 680-115409-13**

**Matrix: Solid**

**Percent Solids: 92.3**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3546			30.06 g	1 mL	395299	08/10/15 14:33	JMV	TAL SAV
Total/NA	Analysis	8270D		1	30.06 g	1 mL	395487	08/11/15 20:10	RAM	TAL SAV
Instrument ID: CMSN										
Total/NA	Prep	3050B			1.10 g	100 mL	395413	08/11/15 07:36	CDD	TAL SAV
Total/NA	Analysis	6010C		1	1.10 g	100 mL	395634	08/11/15 20:16	BCB	TAL SAV
Instrument ID: ICPE										
Total/NA	Prep	7471B			0.52 g	50 mL	396439	08/16/15 13:43	JKL	TAL SAV
Total/NA	Analysis	7471B		1	0.52 g	50 mL	396738	08/17/15 21:32	BCB	TAL SAV
Instrument ID: LEEMAN2										
Total/NA	Prep	9012B			1.05 g	50 mL	396472	08/17/15 06:30	DAM	TAL SAV
Total/NA	Analysis	9012B		1	1.05 g	50 mL	396567	08/17/15 11:51	DAM	TAL SAV
Instrument ID: LACHAT1										

**Client Sample ID: SB-42 4-6**

**Date Collected: 08/06/15 16:05**

**Date Received: 08/08/15 10:00**

**Lab Sample ID: 680-115409-14**

**Matrix: Solid**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1			395339	08/10/15 15:25	FES	TAL SAV
Instrument ID: NOEQUIP										

**Client Sample ID: SB-42 4-6**

**Date Collected: 08/06/15 16:05**

**Date Received: 08/08/15 10:00**

**Lab Sample ID: 680-115409-14**

**Matrix: Solid**

**Percent Solids: 92.3**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3546			29.93 g	1 mL	395299	08/10/15 14:33	JMV	TAL SAV

TestAmerica Savannah



# Lab Chronicle

Client: Geotechnical & Environmental Consultants  
Project/Site: Macon MGP

TestAmerica Job ID: 680-115409-1

**Client Sample ID: SB-42 4-6**

**Date Collected: 08/06/15 16:05**

**Date Received: 08/08/15 10:00**

**Lab Sample ID: 680-115409-14**

**Matrix: Solid**

**Percent Solids: 92.3**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8270D		1	29.93 g	1 mL	395487	08/11/15 20:34	RAM	TAL SAV
		Instrument ID: CMSN								
Total/NA	Prep	3050B			1.14 g	100 mL	395413	08/11/15 07:36	CDD	TAL SAV
Total/NA	Analysis	6010C		1	1.14 g	100 mL	395634	08/11/15 18:47	BCB	TAL SAV
		Instrument ID: ICPE								
Total/NA	Prep	7471B			0.51 g	50 mL	396439	08/16/15 13:43	JKL	TAL SAV
Total/NA	Analysis	7471B		1	0.51 g	50 mL	396738	08/17/15 21:35	BCB	TAL SAV
		Instrument ID: LEEMAN2								
Total/NA	Prep	9012B			1.00 g	50 mL	396472	08/17/15 06:30	DAM	TAL SAV
Total/NA	Analysis	9012B		1	1.00 g	50 mL	396567	08/17/15 11:55	DAM	TAL SAV
		Instrument ID: LACHAT1								

**Client Sample ID: SB-42 8-10**

**Date Collected: 08/06/15 16:10**

**Date Received: 08/08/15 10:00**

**Lab Sample ID: 680-115409-15**

**Matrix: Solid**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1			395339	08/10/15 15:25	FES	TAL SAV
		Instrument ID: NOEQUIP								

**Client Sample ID: SB-42 8-10**

**Date Collected: 08/06/15 16:10**

**Date Received: 08/08/15 10:00**

**Lab Sample ID: 680-115409-15**

**Matrix: Solid**

**Percent Solids: 88.4**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3546			30.33 g	1 mL	395299	08/10/15 14:33	JMV	TAL SAV
Total/NA	Analysis	8270D		10	30.33 g	1 mL	395487	08/11/15 20:57	RAM	TAL SAV
		Instrument ID: CMSN								
Total/NA	Prep	3050B			1.17 g	100 mL	395413	08/11/15 07:36	CDD	TAL SAV
Total/NA	Analysis	6010C		1	1.17 g	100 mL	395634	08/11/15 20:21	BCB	TAL SAV
		Instrument ID: ICPE								
Total/NA	Prep	7471B			0.55 g	50 mL	396439	08/16/15 13:43	JKL	TAL SAV
Total/NA	Analysis	7471B		1	0.55 g	50 mL	396738	08/17/15 21:38	BCB	TAL SAV
		Instrument ID: LEEMAN2								
Total/NA	Prep	9012B			1.05 g	50 mL	396472	08/17/15 06:30	DAM	TAL SAV
Total/NA	Analysis	9012B		1	1.05 g	50 mL	396567	08/17/15 11:56	DAM	TAL SAV
		Instrument ID: LACHAT1								

**Client Sample ID: SB-42 13-15**

**Date Collected: 08/06/15 16:15**

**Date Received: 08/08/15 10:00**

**Lab Sample ID: 680-115409-16**

**Matrix: Solid**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1			395339	08/10/15 15:25	FES	TAL SAV

TestAmerica Savannah

# Lab Chronicle

Client: Geotechnical & Environmental Consultants  
Project/Site: Macon MGP

TestAmerica Job ID: 680-115409-1

**Client Sample ID: SB-42 13-15**

**Date Collected: 08/06/15 16:15**

**Date Received: 08/08/15 10:00**

**Lab Sample ID: 680-115409-16**

**Matrix: Solid**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1			395339	08/10/15 15:25	FES	TAL SAV
Instrument ID: NOEQUIP										

**Client Sample ID: SB-42 13-15**

**Date Collected: 08/06/15 16:15**

**Date Received: 08/08/15 10:00**

**Lab Sample ID: 680-115409-16**

**Matrix: Solid**

**Percent Solids: 88.9**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3546			30.10 g	1 mL	395299	08/10/15 14:33	JMV	TAL SAV
Total/NA	Analysis	8270D		1	30.10 g	1 mL	395487	08/11/15 21:21	RAM	TAL SAV
Instrument ID: CMSN										
Total/NA	Prep	3050B			1.10 g	100 mL	395425	08/11/15 08:25	CDD	TAL SAV
Total/NA	Analysis	6010C		1	1.10 g	100 mL	396333	08/15/15 04:01	BCB	TAL SAV
Instrument ID: ICPE										
Total/NA	Prep	7471B			0.51 g	50 mL	396439	08/16/15 13:43	JKL	TAL SAV
Total/NA	Analysis	7471B		1	0.51 g	50 mL	396738	08/17/15 21:41	BCB	TAL SAV
Instrument ID: LEEMAN2										
Total/NA	Prep	9012B			1.02 g	50 mL	396472	08/17/15 06:30	DAM	TAL SAV
Total/NA	Analysis	9012B		1	1.02 g	50 mL	396567	08/17/15 11:57	DAM	TAL SAV
Instrument ID: LACHAT1										

**Client Sample ID: GB-16 2-4**

**Date Collected: 08/06/15 13:29**

**Date Received: 08/08/15 10:00**

**Lab Sample ID: 680-115409-17**

**Matrix: Solid**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1			395339	08/10/15 15:25	FES	TAL SAV
Instrument ID: NOEQUIP										

**Client Sample ID: GB-16 2-4**

**Date Collected: 08/06/15 13:29**

**Date Received: 08/08/15 10:00**

**Lab Sample ID: 680-115409-17**

**Matrix: Solid**

**Percent Solids: 47.6**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3546			30.18 g	1 mL	395299	08/10/15 14:33	JMV	TAL SAV
Total/NA	Analysis	8270D		1	30.18 g	1 mL	395487	08/11/15 21:45	RAM	TAL SAV
Instrument ID: CMSN										
Total/NA	Prep	3050B			1.12 g	100 mL	395425	08/11/15 08:25	CDD	TAL SAV
Total/NA	Analysis	6010C		1	1.12 g	100 mL	396333	08/15/15 04:15	BCB	TAL SAV
Instrument ID: ICPE										
Total/NA	Prep	7471B			0.54 g	50 mL	396439	08/16/15 13:43	JKL	TAL SAV
Total/NA	Analysis	7471B		1	0.54 g	50 mL	396738	08/17/15 21:44	BCB	TAL SAV
Instrument ID: LEEMAN2										
Total/NA	Prep	9012B			1.05 g	50 mL	396472	08/17/15 06:30	DAM	TAL SAV

TestAmerica Savannah

# Lab Chronicle

Client: Geotechnical & Environmental Consultants  
Project/Site: Macon MGP

TestAmerica Job ID: 680-115409-1

**Client Sample ID: GB-16 2-4**

**Date Collected: 08/06/15 13:29**

**Date Received: 08/08/15 10:00**

**Lab Sample ID: 680-115409-17**

**Matrix: Solid**

**Percent Solids: 47.6**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	9012B		1	1.05 g	50 mL	396567	08/17/15 11:58	DAM	TAL SAV
Instrument ID: LACHAT1										

**Client Sample ID: GB-16 4-6**

**Date Collected: 08/06/15 13:35**

**Date Received: 08/08/15 10:00**

**Lab Sample ID: 680-115409-18**

**Matrix: Solid**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1			395339	08/10/15 15:25	FES	TAL SAV
Instrument ID: NOEQUIP										

**Client Sample ID: GB-16 4-6**

**Date Collected: 08/06/15 13:35**

**Date Received: 08/08/15 10:00**

**Lab Sample ID: 680-115409-18**

**Matrix: Solid**

**Percent Solids: 74.8**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3546			29.97 g	1 mL	395299	08/10/15 14:33	JMV	TAL SAV
Total/NA	Analysis	8270D		1	29.97 g	1 mL	395487	08/11/15 22:08	RAM	TAL SAV
Instrument ID: CMSN										
Total/NA	Prep	3050B			1.08 g	100 mL	395425	08/11/15 08:25	CDD	TAL SAV
Total/NA	Analysis	6010C		1	1.08 g	100 mL	396333	08/15/15 04:20	BCB	TAL SAV
Instrument ID: ICPE										
Total/NA	Prep	7471B			0.56 g	50 mL	396439	08/16/15 13:43	JKL	TAL SAV
Total/NA	Analysis	7471B		1	0.56 g	50 mL	396738	08/17/15 21:47	BCB	TAL SAV
Instrument ID: LEEMAN2										
Total/NA	Prep	9012B			1.04 g	50 mL	396472	08/17/15 06:30	DAM	TAL SAV
Total/NA	Analysis	9012B		1	1.04 g	50 mL	396567	08/17/15 11:59	DAM	TAL SAV
Instrument ID: LACHAT1										

**Client Sample ID: GB-18 2-4**

**Date Collected: 08/06/15 15:05**

**Date Received: 08/08/15 10:00**

**Lab Sample ID: 680-115409-19**

**Matrix: Solid**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1			395339	08/10/15 15:25	FES	TAL SAV
Instrument ID: NOEQUIP										

**Client Sample ID: GB-18 2-4**

**Date Collected: 08/06/15 15:05**

**Date Received: 08/08/15 10:00**

**Lab Sample ID: 680-115409-19**

**Matrix: Solid**

**Percent Solids: 90.7**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3546			29.96 g	1 mL	395299	08/10/15 14:33	JMV	TAL SAV

TestAmerica Savannah

# Lab Chronicle

Client: Geotechnical & Environmental Consultants  
Project/Site: Macon MGP

TestAmerica Job ID: 680-115409-1

**Client Sample ID: GB-18 2-4**

**Date Collected: 08/06/15 15:05**

**Date Received: 08/08/15 10:00**

**Lab Sample ID: 680-115409-19**

**Matrix: Solid**

**Percent Solids: 90.7**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8270D		10	29.96 g	1 mL	395487	08/11/15 22:32	RAM	TAL SAV
		Instrument ID: CMSN								
Total/NA	Prep	3050B			1.10 g	100 mL	395425	08/11/15 08:25	CDD	TAL SAV
Total/NA	Analysis	6010C		1	1.10 g	100 mL	396333	08/15/15 04:24	BCB	TAL SAV
		Instrument ID: ICPE								
Total/NA	Prep	7471B			0.60 g	50 mL	396439	08/16/15 13:43	JKL	TAL SAV
Total/NA	Analysis	7471B		1	0.60 g	50 mL	396738	08/17/15 21:50	BCB	TAL SAV
		Instrument ID: LEEMAN2								
Total/NA	Prep	9012B			1.04 g	50 mL	396472	08/17/15 06:30	DAM	TAL SAV
Total/NA	Analysis	9012B		1	1.04 g	50 mL	396567	08/17/15 12:01	DAM	TAL SAV
		Instrument ID: LACHAT1								

**Client Sample ID: GB-18 4-6**

**Date Collected: 08/06/15 15:15**

**Date Received: 08/08/15 10:00**

**Lab Sample ID: 680-115409-20**

**Matrix: Solid**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1			395339	08/10/15 15:25	FES	TAL SAV
		Instrument ID: NOEQUIP								

**Client Sample ID: GB-18 4-6**

**Date Collected: 08/06/15 15:15**

**Date Received: 08/08/15 10:00**

**Lab Sample ID: 680-115409-20**

**Matrix: Solid**

**Percent Solids: 90.8**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3546			30.09 g	1 mL	395299	08/10/15 14:33	JMV	TAL SAV
Total/NA	Analysis	8270D		10	30.09 g	1 mL	395487	08/11/15 22:55	RAM	TAL SAV
		Instrument ID: CMSN								
Total/NA	Prep	3050B			1.16 g	100 mL	395425	08/11/15 08:25	CDD	TAL SAV
Total/NA	Analysis	6010C		1	1.16 g	100 mL	396333	08/15/15 03:38	BCB	TAL SAV
		Instrument ID: ICPE								
Total/NA	Prep	7471B			0.54 g	50 mL	396439	08/16/15 13:43	JKL	TAL SAV
Total/NA	Analysis	7471B		1	0.54 g	50 mL	396738	08/17/15 21:53	BCB	TAL SAV
		Instrument ID: LEEMAN2								
Total/NA	Prep	9012B			1.02 g	50 mL	396472	08/17/15 06:30	DAM	TAL SAV
Total/NA	Analysis	9012B		1	1.02 g	50 mL	396567	08/17/15 12:02	DAM	TAL SAV
		Instrument ID: LACHAT1								

**Client Sample ID: GB-3 8-10**

**Date Collected: 08/07/15 15:36**

**Date Received: 08/08/15 10:00**

**Lab Sample ID: 680-115409-21**

**Matrix: Solid**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1			395339	08/10/15 15:25	FES	TAL SAV

TestAmerica Savannah

# Lab Chronicle

Client: Geotechnical & Environmental Consultants  
Project/Site: Macon MGP

TestAmerica Job ID: 680-115409-1

**Client Sample ID: GB-3 8-10**

**Date Collected: 08/07/15 15:36**

**Date Received: 08/08/15 10:00**

**Lab Sample ID: 680-115409-21**

**Matrix: Solid**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1			395339	08/10/15 15:25	FES	TAL SAV
Instrument ID: NOEQUIP										

**Client Sample ID: GB-3 8-10**

**Date Collected: 08/07/15 15:36**

**Date Received: 08/08/15 10:00**

**Lab Sample ID: 680-115409-21**

**Matrix: Solid**

**Percent Solids: 63.3**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3546			30.34 g	1 mL	395304	08/10/15 16:16	ALS	TAL SAV
Total/NA	Analysis	8270D		1	30.34 g	1 mL	395714	08/12/15 16:15	RAM	TAL SAV
Instrument ID: CMST										
Total/NA	Prep	3050B			1.14 g	100 mL	395425	08/11/15 08:25	CDD	TAL SAV
Total/NA	Analysis	6010C		1	1.14 g	100 mL	396333	08/15/15 04:29	BCB	TAL SAV
Instrument ID: ICPE										
Total/NA	Prep	7471B			0.55 g	50 mL	396439	08/16/15 13:43	JKL	TAL SAV
Total/NA	Analysis	7471B		1	0.55 g	50 mL	396738	08/17/15 21:56	BCB	TAL SAV
Instrument ID: LEEMAN2										
Total/NA	Prep	9012B			1.01 g	50 mL	396473	08/17/15 08:00	DAM	TAL SAV
Total/NA	Analysis	9012B		1	1.01 g	50 mL	396567	08/17/15 12:05	DAM	TAL SAV
Instrument ID: LACHAT1										

**Client Sample ID: GB-3 13-15**

**Date Collected: 08/07/15 15:42**

**Date Received: 08/08/15 10:00**

**Lab Sample ID: 680-115409-22**

**Matrix: Solid**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1			395339	08/10/15 15:25	FES	TAL SAV
Instrument ID: NOEQUIP										

**Client Sample ID: GB-3 13-15**

**Date Collected: 08/07/15 15:42**

**Date Received: 08/08/15 10:00**

**Lab Sample ID: 680-115409-22**

**Matrix: Solid**

**Percent Solids: 80.7**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3546			29.95 g	1 mL	395304	08/10/15 16:16	ALS	TAL SAV
Total/NA	Analysis	8270D		1	29.95 g	1 mL	395714	08/12/15 16:42	RAM	TAL SAV
Instrument ID: CMST										
Total/NA	Prep	3050B			1.15 g	100 mL	395425	08/11/15 08:25	CDD	TAL SAV
Total/NA	Analysis	6010C		1	1.15 g	100 mL	396333	08/15/15 04:33	BCB	TAL SAV
Instrument ID: ICPE										
Total/NA	Prep	7471B			0.51 g	50 mL	396439	08/16/15 13:43	JKL	TAL SAV
Total/NA	Analysis	7471B		1	0.51 g	50 mL	396738	08/17/15 22:05	BCB	TAL SAV
Instrument ID: LEEMAN2										
Total/NA	Prep	9012B			1.05 g	50 mL	396473	08/17/15 08:00	DAM	TAL SAV

TestAmerica Savannah

# Lab Chronicle

Client: Geotechnical & Environmental Consultants  
Project/Site: Macon MGP

TestAmerica Job ID: 680-115409-1

**Client Sample ID: GB-3 13-15**

**Date Collected: 08/07/15 15:42**

**Date Received: 08/08/15 10:00**

**Lab Sample ID: 680-115409-22**

**Matrix: Solid**

**Percent Solids: 80.7**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	9012B		1	1.05 g	50 mL	396567	08/17/15 12:08	DAM	TAL SAV
Instrument ID: LACHAT1										

**Client Sample ID: GB-5 8-10**

**Date Collected: 08/07/15 13:45**

**Date Received: 08/08/15 10:00**

**Lab Sample ID: 680-115409-23**

**Matrix: Solid**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1			395339	08/10/15 15:25	FES	TAL SAV
Instrument ID: NOEQUIP										

**Client Sample ID: GB-5 8-10**

**Date Collected: 08/07/15 13:45**

**Date Received: 08/08/15 10:00**

**Lab Sample ID: 680-115409-23**

**Matrix: Solid**

**Percent Solids: 75.9**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			6.698 g	5 mL	395276	08/10/15 10:33	FES	TAL SAV
Total/NA	Analysis	8260B		1	6.698 g	5 mL	395460	08/11/15 20:21	DJK	TAL SAV
Instrument ID: CMSL										
Total/NA	Prep	3546			30.20 g	1 mL	395304	08/10/15 16:16	ALS	TAL SAV
Total/NA	Analysis	8270D		1	30.20 g	1 mL	395714	08/12/15 17:08	RAM	TAL SAV
Instrument ID: CMST										
Total/NA	Prep	3050B			1.11 g	100 mL	395425	08/11/15 08:25	CDD	TAL SAV
Total/NA	Analysis	6010C		1	1.11 g	100 mL	396333	08/15/15 04:38	BCB	TAL SAV
Instrument ID: ICPE										
Total/NA	Prep	7471B			0.55 g	50 mL	396439	08/16/15 13:43	JKL	TAL SAV
Total/NA	Analysis	7471B		1	0.55 g	50 mL	396738	08/17/15 22:08	BCB	TAL SAV
Instrument ID: LEEMAN2										
Total/NA	Prep	9012B			1.05 g	50 mL	396473	08/17/15 08:00	DAM	TAL SAV
Total/NA	Analysis	9012B		1	1.05 g	50 mL	396567	08/17/15 12:11	DAM	TAL SAV
Instrument ID: LACHAT1										

**Client Sample ID: GB-7 8-10**

**Date Collected: 08/07/15 09:54**

**Date Received: 08/08/15 10:00**

**Lab Sample ID: 680-115409-24**

**Matrix: Solid**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1			395339	08/10/15 15:25	FES	TAL SAV
Instrument ID: NOEQUIP										

TestAmerica Savannah

# Lab Chronicle

Client: Geotechnical & Environmental Consultants  
Project/Site: Macon MGP

TestAmerica Job ID: 680-115409-1

**Client Sample ID: GB-7 8-10**

**Date Collected: 08/07/15 09:54**

**Date Received: 08/08/15 10:00**

**Lab Sample ID: 680-115409-24**

**Matrix: Solid**

**Percent Solids: 80.0**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			6.209 g	5 mL	395276	08/10/15 10:33	FES	TAL SAV
Total/NA	Analysis	8260B		1	6.209 g	5 mL	395460	08/11/15 20:42	DJK	TAL SAV
		Instrument ID: CMSL								
Total/NA	Prep	3546			30.14 g	1 mL	395304	08/10/15 16:16	ALS	TAL SAV
Total/NA	Analysis	8270D		1	30.14 g	1 mL	395714	08/12/15 17:36	RAM	TAL SAV
		Instrument ID: CMST								
Total/NA	Prep	3050B			1.12 g	100 mL	395425	08/11/15 08:25	CDD	TAL SAV
Total/NA	Analysis	6010C		1	1.12 g	100 mL	396333	08/15/15 04:43	BCB	TAL SAV
		Instrument ID: ICPE								
Total/NA	Prep	7471B			0.51 g	50 mL	396439	08/16/15 13:43	JKL	TAL SAV
Total/NA	Analysis	7471B		1	0.51 g	50 mL	396738	08/17/15 22:11	BCB	TAL SAV
		Instrument ID: LEEMAN2								
Total/NA	Prep	9012B			1.00 g	50 mL	396473	08/17/15 08:00	DAM	TAL SAV
Total/NA	Analysis	9012B		1	1.00 g	50 mL	396567	08/17/15 12:13	DAM	TAL SAV
		Instrument ID: LACHAT1								

**Client Sample ID: GB-7 13-15**

**Date Collected: 08/07/15 10:00**

**Date Received: 08/08/15 10:00**

**Lab Sample ID: 680-115409-25**

**Matrix: Solid**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1			395339	08/10/15 15:25	FES	TAL SAV
		Instrument ID: NOEQUIP								

**Client Sample ID: GB-7 13-15**

**Date Collected: 08/07/15 10:00**

**Date Received: 08/08/15 10:00**

**Lab Sample ID: 680-115409-25**

**Matrix: Solid**

**Percent Solids: 86.0**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			6.845 g	5 mL	395276	08/10/15 10:33	FES	TAL SAV
Total/NA	Analysis	8260B		1	6.845 g	5 mL	395460	08/11/15 21:04	DJK	TAL SAV
		Instrument ID: CMSL								
Total/NA	Prep	3546			30.16 g	1 mL	395304	08/10/15 16:16	ALS	TAL SAV
Total/NA	Analysis	8270D		1	30.16 g	1 mL	395714	08/12/15 18:02	RAM	TAL SAV
		Instrument ID: CMST								
Total/NA	Prep	3050B			1.18 g	100 mL	395425	08/11/15 08:25	CDD	TAL SAV
Total/NA	Analysis	6010C		1	1.18 g	100 mL	396333	08/15/15 04:47	BCB	TAL SAV
		Instrument ID: ICPE								
Total/NA	Prep	7471B			0.51 g	50 mL	396509	08/17/15 10:06	JKL	TAL SAV
Total/NA	Analysis	7471B		1	0.51 g	50 mL	396738	08/17/15 22:42	BCB	TAL SAV
		Instrument ID: LEEMAN2								
Total/NA	Prep	9012B			1.01 g	50 mL	396473	08/17/15 08:00	DAM	TAL SAV
Total/NA	Analysis	9012B		1	1.01 g	50 mL	396567	08/17/15 12:14	DAM	TAL SAV
		Instrument ID: LACHAT1								

TestAmerica Savannah



# Lab Chronicle

Client: Geotechnical & Environmental Consultants  
Project/Site: Macon MGP

TestAmerica Job ID: 680-115409-1

**Client Sample ID: GB-7 18**

**Date Collected: 08/07/15 10:06**

**Date Received: 08/08/15 10:00**

**Lab Sample ID: 680-115409-26**

**Matrix: Solid**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1			395339	08/10/15 15:25	FES	TAL SAV
Instrument ID: NOEQUIP										

**Client Sample ID: GB-7 18**

**Date Collected: 08/07/15 10:06**

**Date Received: 08/08/15 10:00**

**Lab Sample ID: 680-115409-26**

**Matrix: Solid**

**Percent Solids: 83.9**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			6.694 g	5 mL	395276	08/10/15 10:33	FES	TAL SAV
Total/NA	Analysis	8260B		1	6.694 g	5 mL	395460	08/11/15 21:25	DJK	TAL SAV
Instrument ID: CMSL										
Total/NA	Prep	3546			30.05 g	1 mL	395304	08/10/15 16:16	ALS	TAL SAV
Total/NA	Analysis	8270D		1	30.05 g	1 mL	395714	08/12/15 18:28	RAM	TAL SAV
Instrument ID: CMST										
Total/NA	Prep	3050B			1.10 g	100 mL	395425	08/11/15 08:25	CDD	TAL SAV
Total/NA	Analysis	6010C		1	1.10 g	100 mL	396333	08/15/15 04:52	BCB	TAL SAV
Instrument ID: ICPE										
Total/NA	Prep	7471B			0.56 g	50 mL	396439	08/16/15 13:43	JKL	TAL SAV
Total/NA	Analysis	7471B		1	0.56 g	50 mL	396738	08/17/15 22:14	BCB	TAL SAV
Instrument ID: LEEMAN2										
Total/NA	Prep	9012B			1.02 g	50 mL	396473	08/17/15 08:00	DAM	TAL SAV
Total/NA	Analysis	9012B		1	1.02 g	50 mL	396567	08/17/15 12:15	DAM	TAL SAV
Instrument ID: LACHAT1										

**Client Sample ID: SB-17 8-10**

**Date Collected: 08/07/15 14:50**

**Date Received: 08/08/15 10:00**

**Lab Sample ID: 680-115409-27**

**Matrix: Solid**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1			395339	08/10/15 15:25	FES	TAL SAV
Instrument ID: NOEQUIP										

**Client Sample ID: SB-17 8-10**

**Date Collected: 08/07/15 14:50**

**Date Received: 08/08/15 10:00**

**Lab Sample ID: 680-115409-27**

**Matrix: Solid**

**Percent Solids: 88.1**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3546			29.98 g	1 mL	395304	08/10/15 16:16	ALS	TAL SAV
Total/NA	Analysis	8270D		1	29.98 g	1 mL	395714	08/12/15 18:54	RAM	TAL SAV
Instrument ID: CMST										
Total/NA	Prep	3050B			1.14 g	100 mL	395425	08/11/15 08:25	CDD	TAL SAV
Total/NA	Analysis	6010C		1	1.14 g	100 mL	396333	08/15/15 04:56	BCB	TAL SAV
Instrument ID: ICPE										
Total/NA	Prep	7471B			0.53 g	50 mL	396439	08/16/15 13:43	JKL	TAL SAV

TestAmerica Savannah

# Lab Chronicle

Client: Geotechnical & Environmental Consultants  
Project/Site: Macon MGP

TestAmerica Job ID: 680-115409-1

**Client Sample ID: SB-17 8-10**

**Date Collected: 08/07/15 14:50**

**Date Received: 08/08/15 10:00**

**Lab Sample ID: 680-115409-27**

**Matrix: Solid**

**Percent Solids: 88.1**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	7471B		1	0.53 g	50 mL	396738	08/17/15 22:17	BCB	TAL SAV
		Instrument ID: LEEMAN2								
Total/NA	Prep	9012B			1.00 g	50 mL	396473	08/17/15 08:00	DAM	TAL SAV
Total/NA	Analysis	9012B		1	1.00 g	50 mL	396567	08/17/15 12:16	DAM	TAL SAV
		Instrument ID: LACHAT1								

**Client Sample ID: SB-17 13-15**

**Date Collected: 08/07/15 14:56**

**Date Received: 08/08/15 10:00**

**Lab Sample ID: 680-115409-28**

**Matrix: Solid**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1			395339	08/10/15 15:25	FES	TAL SAV
		Instrument ID: NOEQUIP								

**Client Sample ID: SB-17 13-15**

**Date Collected: 08/07/15 14:56**

**Date Received: 08/08/15 10:00**

**Lab Sample ID: 680-115409-28**

**Matrix: Solid**

**Percent Solids: 85.5**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3546			30.05 g	1 mL	395304	08/10/15 16:16	ALS	TAL SAV
Total/NA	Analysis	8270D		10	30.05 g	1 mL	395714	08/12/15 19:20	RAM	TAL SAV
		Instrument ID: CMST								
Total/NA	Prep	3050B			1.16 g	100 mL	395425	08/11/15 08:25	CDD	TAL SAV
Total/NA	Analysis	6010C		1	1.16 g	100 mL	396333	08/15/15 05:10	BCB	TAL SAV
		Instrument ID: ICPE								
Total/NA	Prep	7471B			0.55 g	50 mL	396439	08/16/15 13:43	JKL	TAL SAV
Total/NA	Analysis	7471B		1	0.55 g	50 mL	396738	08/17/15 22:20	BCB	TAL SAV
		Instrument ID: LEEMAN2								
Total/NA	Prep	9012B			1.01 g	50 mL	396473	08/17/15 08:00	DAM	TAL SAV
Total/NA	Analysis	9012B		1	1.01 g	50 mL	396567	08/17/15 12:17	DAM	TAL SAV
		Instrument ID: LACHAT1								

**Client Sample ID: SB-20 0-2**

**Date Collected: 08/07/15 15:04**

**Date Received: 08/08/15 10:00**

**Lab Sample ID: 680-115409-29**

**Matrix: Solid**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1			395339	08/10/15 15:25	FES	TAL SAV
		Instrument ID: NOEQUIP								

TestAmerica Savannah

# Lab Chronicle

Client: Geotechnical & Environmental Consultants  
Project/Site: Macon MGP

TestAmerica Job ID: 680-115409-1

**Client Sample ID: SB-20 0-2**

**Date Collected: 08/07/15 15:04**

**Date Received: 08/08/15 10:00**

**Lab Sample ID: 680-115409-29**

**Matrix: Solid**

**Percent Solids: 86.5**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3546			30.08 g	1 mL	395304	08/10/15 16:16	ALS	TAL SAV
Total/NA	Analysis	8270D		1	30.08 g	1 mL	395714	08/12/15 19:46	RAM	TAL SAV
		Instrument ID: CMST								
Total/NA	Prep	3050B			1.15 g	100 mL	395425	08/11/15 08:25	CDD	TAL SAV
Total/NA	Analysis	6010C		1	1.15 g	100 mL	396333	08/15/15 05:15	BCB	TAL SAV
		Instrument ID: ICPE								
Total/NA	Prep	3050B			1.15 g	100 mL	395425	08/11/15 08:25	CDD	TAL SAV
Total/NA	Analysis	6010C		1	1.15 g	100 mL	396749	08/17/15 15:17	BCB	TAL SAV
		Instrument ID: ICPE								
Total/NA	Prep	7471B			0.56 g	50 mL	396439	08/16/15 13:43	JKL	TAL SAV
Total/NA	Analysis	7471B		1	0.56 g	50 mL	396738	08/17/15 22:24	BCB	TAL SAV
		Instrument ID: LEEMAN2								
Total/NA	Prep	9012B			1.05 g	50 mL	396473	08/17/15 08:00	DAM	TAL SAV
Total/NA	Analysis	9012B		1	1.05 g	50 mL	396567	08/17/15 12:18	DAM	TAL SAV
		Instrument ID: LACHAT1								

**Client Sample ID: SB-20 2-4**

**Date Collected: 08/07/15 15:04**

**Date Received: 08/08/15 10:00**

**Lab Sample ID: 680-115409-30**

**Matrix: Solid**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1			395339	08/10/15 15:25	FES	TAL SAV
		Instrument ID: NOEQUIP								

**Client Sample ID: SB-20 2-4**

**Date Collected: 08/07/15 15:04**

**Date Received: 08/08/15 10:00**

**Lab Sample ID: 680-115409-30**

**Matrix: Solid**

**Percent Solids: 84.8**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3546			30.01 g	1 mL	395304	08/10/15 16:16	ALS	TAL SAV
Total/NA	Analysis	8270D		1	30.01 g	1 mL	395714	08/12/15 20:11	RAM	TAL SAV
		Instrument ID: CMST								
Total/NA	Prep	3050B			1.18 g	100 mL	395425	08/11/15 08:25	CDD	TAL SAV
Total/NA	Analysis	6010C		1	1.18 g	100 mL	396333	08/15/15 05:19	BCB	TAL SAV
		Instrument ID: ICPE								
Total/NA	Prep	3050B			1.18 g	100 mL	395425	08/11/15 08:25	CDD	TAL SAV
Total/NA	Analysis	6010C		1	1.18 g	100 mL	396749	08/17/15 15:22	BCB	TAL SAV
		Instrument ID: ICPE								
Total/NA	Prep	7471B			0.51 g	50 mL	396439	08/16/15 13:43	JKL	TAL SAV
Total/NA	Analysis	7471B		1	0.51 g	50 mL	396738	08/17/15 22:27	BCB	TAL SAV
		Instrument ID: LEEMAN2								
Total/NA	Prep	9012B			1.01 g	50 mL	396473	08/17/15 08:00	DAM	TAL SAV
Total/NA	Analysis	9012B		1	1.01 g	50 mL	396567	08/17/15 12:21	DAM	TAL SAV
		Instrument ID: LACHAT1								

TestAmerica Savannah

# Lab Chronicle

Client: Geotechnical & Environmental Consultants  
Project/Site: Macon MGP

TestAmerica Job ID: 680-115409-1

**Client Sample ID: Trip Blank lot ATL156**

**Lab Sample ID: 680-115409-31**

**Date Collected: 08/07/15 00:00**

**Matrix: Water**

**Date Received: 08/08/15 10:00**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	5 mL	5 mL	396685	08/18/15 11:14	JD1	TAL SAV
Instrument ID: CMSB										

## Laboratory References:

TAL SAV = TestAmerica Savannah, 5102 LaRoche Avenue, Savannah, GA 31404, TEL (912)354-7858

# Certification Summary

Client: Geotechnical & Environmental Consultants  
Project/Site: Macon MGP

TestAmerica Job ID: 680-115409-1

## Laboratory: TestAmerica Savannah

All certifications held by this laboratory are listed. Not all certifications are applicable to this report.

Authority	Program	EPA Region	Certification ID	Expiration Date
	AFCEE		SAVLAB	
A2LA	DoD ELAP		399.01	02-28-17
A2LA	ISO/IEC 17025		399.01	02-28-17
Alabama	State Program	4	41450	06-30-16
Arkansas DEQ	State Program	6	88-0692	01-31-16
California	State Program	9	2939	07-31-16
Colorado	State Program	8	N/A	12-31-15
Connecticut	State Program	1	PH-0161	03-31-17
Florida	NELAP	4	E87052	06-30-16
GA Dept. of Agriculture	State Program	4	N/A	06-12-17
Georgia	State Program	4	803	06-30-16
Guam	State Program	9	14-004r	04-16-16
Hawaii	State Program	9	N/A	06-30-16
Illinois	NELAP	5	200022	11-30-15
Indiana	State Program	5	N/A	06-30-15 *
Iowa	State Program	7	353	06-30-17
Kentucky (DW)	State Program	4	90084	12-31-15
Kentucky (UST)	State Program	4	18	06-30-16
Kentucky (WW)	State Program	4	90084	12-31-15
Louisiana	NELAP	6	30690	06-30-16
Louisiana (DW)	NELAP	6	LA150014	12-31-15
Maine	State Program	1	GA00006	09-24-16
Maryland	State Program	3	250	12-31-15
Massachusetts	State Program	1	M-GA006	06-30-16
Michigan	State Program	5	9925	03-05-16
Mississippi	State Program	4	N/A	06-30-15 *
Montana	State Program	8	CERT0081	12-31-15
Nebraska	State Program	7	TestAmerica-Savannah	06-30-16
New Jersey	NELAP	2	GA769	09-30-15 *
New Mexico	State Program	6	N/A	06-30-16
New York	NELAP	2	10842	03-31-16
North Carolina (DW)	State Program	4	13701	07-31-16
North Carolina (WW/SW)	State Program	4	269	12-31-15
Oklahoma	State Program	6	9984	08-31-15 *
Pennsylvania	NELAP	3	68-00474	06-30-16
Puerto Rico	State Program	2	GA00006	12-31-15
South Carolina	State Program	4	98001	06-30-15 *
Tennessee	State Program	4	TN02961	06-30-16
Texas	NELAP	6	T104704185-14-7	11-30-15
USDA	Federal		SAV 3-04	06-11-17
Virginia	NELAP	3	460161	06-14-16
Washington	State Program	10	C805	06-10-16
West Virginia (DW)	State Program	3	9950C	12-31-15
West Virginia DEP	State Program	3	094	06-30-16
Wisconsin	State Program	5	999819810	08-31-16
Wyoming	State Program	8	8TMS-L	06-30-16

\* Certification renewal pending - certification considered valid.

TestAmerica Savannah

## Method Summary

Client: Geotechnical & Environmental Consultants  
Project/Site: Macon MGP

TestAmerica Job ID: 680-115409-1

Method	Method Description	Protocol	Laboratory
8260B	Volatile Organic Compounds (GC/MS)	SW846	TAL SAV
8270D	Semivolatile Organic Compounds (GC/MS)	SW846	TAL SAV
6010C	Metals (ICP)	SW846	TAL SAV
7471B	Mercury (CVAA)	SW846	TAL SAV
9012B	Cyanide, Total and/or Amenable	SW846	TAL SAV
Moisture	Percent Moisture	EPA	TAL SAV

### Protocol References:

EPA = US Environmental Protection Agency

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

### Laboratory References:

TAL SAV = TestAmerica Savannah, 5102 LaRoche Avenue, Savannah, GA 31404, TEL (912)354-7858

Serial Number 99572 Rev-1011A

# ANALYSIS REQUEST AND CHAIN OF CUSTODY RECORD

## TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

☐ TestAmerica Savannah  
5102 LaRoche Avenue  
Savannah, GA 31404

Website: www.testamericainc.com  
Phone: (912) 354-7858  
Fax: (912) 352-0165

☐ Alternate Laboratory Name/Location

Phone:  
Fax:

PROJECT REFERENCE <b>Macom MLP #2</b>	PROJECT NO. <b>130689.241</b>	PROJECT LOCATION (STATE) <b>GA</b>	MATRIX TYPE	REQUIRED ANALYSIS	PAGE <b>1</b> OF <b>2</b>
TAL (LAB) PROJECT MANAGER	P.O. NUMBER	CONTRACT NO.	NONAQUEOUS LIQUID (OIL, SOLVENT, ...)	STANDARD REPORT DELIVERY	DATE DUE
CLIENT (SITE) PM <b>C. Holderfield</b>	CLIENT PHONE <b>202-872-8016</b>	CLIENT FAX	AIR	EXPEDITED REPORT DELIVERY (SURCHARGE)	DATE DUE
CLIENT NAME <b>GEC</b>	CLIENT E-MAIL <b>chofield@macom.com</b>		AQUEOUS (WATER)		
CLIENT ADDRESS <b>514 Hillcrest Blvd, Macom, GA</b>			COMPOSITE (C) OR GRAB (G) INDICATE		
COMPANY CONTRACTING THIS WORK (if applicable)					

SAMPLE		SAMPLE IDENTIFICATION		NUMBER OF CONTAINERS SUBMITTED		REMARKS	
DATE	TIME						
8-1-15	1247	GB-14	3-5			* PQA 8 pbs	
	1254	GB-14	8-10	X	X	Co, Ni, Va, Zh	
	1259	GB-14	13-15	X	X	+ Total Cyanides	
	1130	GB-14	8-10			+ be (LMH 8-10-15)	
	1045	GB-21	8-10				
	1400	GB-28	2-4				
	1420	GB-28	8-10				
	1430	GB-28	13-5				
	1525	GB-24	2-4 (SB-24)				
	1532	GB-24	4-6 (SB-24)				
	1538	GB-24	8-10 (SB-24)				
	1550	GB-24	13-15 (SB-24)				



680-115409 Chain of Custody

RELINQUISHED BY: (SIGNATURE) <i>[Signature]</i>	DATE 8/7/15	TIME 0830	RELINQUISHED BY: (SIGNATURE) <i>[Signature]</i>	DATE 9/15	TIME 9:15
RECEIVED BY: (SIGNATURE) <i>[Signature]</i>	DATE 8/7/15	TIME 0830	RECEIVED BY: (SIGNATURE) <i>[Signature]</i>	DATE 9/15	TIME 9:15

RECEIVED FOR LABORATORY BY: <i>[Signature]</i>		DATE 8/8/15	TIME 1000	CUSTODY INTACT YES <input type="radio"/> NO <input type="radio"/>		CUSTODY SEAL NO.	SAVANNAH LOG NO. <b>680-115409</b>	LABORATORY REMARKS <b>3.6/3.2(x) 4.0/3.6 c</b>
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Serial Number 99571

## ANALYSIS REQUEST AND CHAIN OF CUSTODY RECORD

Website: [www.testamericainc.com](http://www.testamericainc.com)  
Phone: (912) 354-7858  
Fax: (912) 352-0165


Alternate Laboratory Name/Location

Phone: \_\_\_\_\_  
Fax: \_\_\_\_\_

# TestAmerica

## THE LEADER IN ENVIRONMENTAL TESTING

PROJECT REFERENCE		PROJECT NO.		PROJECT LOCATION (STATE)		MATRIX TYPE	REQUIRED ANALYSIS						PAGE	OF				
PROJECT MANAGER		P.O. NUMBER		CONTRACT NO.		COMPOSITE (C) OR GRAB (G) INDICATE	AQUEOUS (WATER)	SOLID OR SEMISOLID	AIR	NONAQUEOUS LIQUID (OIL, SOLVENT, ...)							STANDARD REPORT DELIVERY	DATE DUE
CLIENT NAME		CLIENT E-MAIL		CLIENT PHONE		CLIENT FAX										EXPEDITED REPORT DELIVERY (SURCHARGE)	DATE DUE	
CLIENT ADDRESS												NUMBER OF COOLERS SUBMITTED PER SHIPMENT:						
COMPANY CONTRACTING THIS WORK (if applicable)																		
SAMPLE DATE		TIME		SAMPLE IDENTIFICATION		NUMBER OF CONTAINERS SUBMITTED							REMARKS					
SB-15	1602	SB-42	2-4	C	X									* PCP A8 POC				
SB-15	1605	SB-42	4-6	C	X									Co, Ni, V, Zn				
SB-15	1610	SB-42	8-10	C	X									and total Cyanide				
SB-15	1615	SB-42	13-15	C	X									+ Be Limit 8-10-1				
SB-15	1329	GB-16	2-4	C	X													
SB-15	1335	GB-16	4-6	C	X													
SB-15	1505	GB-18	2-4	C	X													
SB-15	1515	GB-18	4-6	C	X													
RELINQUISHED BY: (SIGNATURE)		DATE	TIME	RELINQUISHED BY: (SIGNATURE)		DATE	TIME	RELINQUISHED BY: (SIGNATURE)		DATE	TIME	RELINQUISHED BY: (SIGNATURE)		DATE	TIME			
RECEIVED BY: (SIGNATURE)		DATE	TIME	RECEIVED BY: (SIGNATURE)		DATE	TIME	RECEIVED BY: (SIGNATURE)		DATE	TIME	RECEIVED BY: (SIGNATURE)		DATE	TIME			

RECEIVED FOR LABORATORY BY: SIGNATURE	DATE	TIME	CUSTODY INTACT YES <input type="radio"/> NO <input type="radio"/>	CUSTODY SEAL NO.	SAVANNAH LOG NO.	LABORATORY REMARKS
						
08/05/00		08:05	YES <input type="radio"/> NO <input type="radio"/>		180-115409	3.63.2(CF) 40/3.62

Serial Number 99574

# ANALYSIS REQUEST AND CHAIN OF CUSTODY RECORD

## TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

Website: [www.testamericainc.com](http://www.testamericainc.com)  
Phone: (912) 354-7858  
Fax: (912) 352-0165

TestAmerica Savannah  
5102 LaRoche Avenue  
Savannah, GA 31404

Alternate Laboratory Name/Location

Phone:  
Fax:

PROJECT REFERENCE Macedonia #12	PROJECT NO. 15-0659, 241	PROJECT LOCATION (STATE) GA	MATRIX TYPE COMPOSITE (C) OR GRAB (G) INDICATE	REQUIRED ANALYSIS	PAGE 1 OF
TAL (LAB) PROJECT MANAGER Tanner Fowler	P.O. NUMBER	CONTRACT NO.	NONAQUEOUS LIQUID (OIL, SOLVENT, ...)	STANDARD REPORT DELIVERY DATE DUE Q	
CLIENT (SITE) PM C. Bland	CLIENT PHONE 707-292-1016	CLIENT FAX	AIR	EXPEDITED REPORT DELIVERY (SURCHARGE) DATE DUE O	
CLIENT NAME C. Bland	CLIENT E-MAIL cbland@macdonald.com		AQUEOUS (WATER)	NUMBER OF COOLERS SUBMITTED PER SHIPMENT: 1	
CLIENT ADDRESS Macdonald Food, Macdonald, GA					

COMPANY CONTRACTING THIS WORK (if applicable)

SAMPLE IDENTIFICATION		NUMBER OF CONTAINERS SUBMITTED		REMARKS	
DATE	TIME				
15-07-15	08:15	X	X	X	24
15-07-15	08:15	X	X	X	25
15-07-15	08:15	X	X	X	26
15-07-15	08:15	X	X	X	23
15-07-15	08:15	X	X	X	29
15-07-15	08:15	X	X	X	30
15-07-15	08:15	X	X	X	21
15-07-15	08:15	X	X	X	22
15-07-15	08:15	X	X	X	27
15-07-15	08:15	X	X	X	28

RELINQUISHED BY: (SIGNATURE) C. Bland	DATE 8/15/15	TIME 16:45	RELINQUISHED BY: (SIGNATURE)	DATE	TIME
RECEIVED BY: (SIGNATURE)	DATE	TIME	RECEIVED BY: (SIGNATURE)	DATE	TIME

RECEIVED FOR LABORATORY BY: (SIGNATURE) C. Bland	DATE 8/10/15	TIME 10:00	CUSTODY INTACT YES <input checked="" type="radio"/> NO <input type="radio"/>	SAVANNAH LOG NO. 115469	LABORATORY REMARKS 3.6/4.0 CF -3.2°/3.6° CF
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TAL240-680 (1008)

## Login Sample Receipt Checklist

Client: Geotechnical & Environmental Consultants

Job Number: 680-115409-1

**Login Number: 115409**

**List Source: TestAmerica Savannah**

**List Number: 1**

**Creator: Banda, Christy S**

Question	Answer	Comment
Radioactivity wasn't checked or is $\leq$ background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	N/A	
There are no discrepancies between the containers received and the COC.	False	COC not received for samples -21 through -31, client emailed 8/10/15
Samples are received within Holding Time.	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is $<6\text{mm}$ (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

# TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

## ANALYTICAL REPORT

TestAmerica Laboratories, Inc.

TestAmerica Savannah

5102 LaRoche Avenue

Savannah, GA 31404

Tel: (912)354-7858

TestAmerica Job ID: 680-115544-1

Client Project/Site: Macon MGP #2

Revision: 1

For:

Geotechnical & Environmental Consultants

514 Hillcrest Industrial Blvd.

Macon, Georgia 31204

Attn: Carrie Holderfield



Authorized for release by:

9/17/2015 6:40:12 PM

Lisa Harvey, Project Manager II

(912)354-7858 e.3221

[lisa.harvey@testamericainc.com](mailto:lisa.harvey@testamericainc.com)

### LINKS

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results through

TotalAccess

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

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*This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.*

*Results relate only to the items tested and the sample(s) as received by the laboratory.*

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# Definitions/Glossary

Client: Geotechnical & Environmental Consultants  
Project/Site: Macon MGP #2

TestAmerica Job ID: 680-115544-1

## Qualifiers

### GC/MS Semi VOA

Qualifier	Qualifier Description
U	Indicates the analyte was analyzed for but not detected.
*	LCS or LCSD is outside acceptance limits.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
F1	MS and/or MSD Recovery is outside acceptance limits.
D	Sample results are obtained from a dilution; the surrogate or matrix spike recoveries reported are calculated from diluted samples.
B	Compound was found in the blank and sample.

### Metals

Qualifier	Qualifier Description
^	ICV,CCV,ICB,CCB, ISA, ISB, CRI, CRA, DLCK or MRL standard: Instrument related QC is outside acceptance limits.
B	Compound was found in the blank and sample.
F2	MS/MSD RPD exceeds control limits
F1	MS and/or MSD Recovery is outside acceptance limits.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
U	Indicates the analyte was analyzed for but not detected.
4	MS, MSD: The analyte present in the original sample is greater than 4 times the matrix spike concentration; therefore, control limits are not applicable.

### General Chemistry

Qualifier	Qualifier Description
U	Indicates the analyte was analyzed for but not detected.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

## Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
α	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CNF	Contains no Free Liquid
DER	Duplicate error ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision level concentration
MDA	Minimum detectable activity
EDL	Estimated Detection Limit
MDC	Minimum detectable concentration
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
NC	Not Calculated
ND	Not detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RER	Relative error ratio
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

# Sample Summary

Client: Geotechnical & Environmental Consultants  
Project/Site: Macon MGP #2

TestAmerica Job ID: 680-115544-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
680-115544-1	SB-41 4-6	Solid	08/10/15 09:20	08/12/15 09:46
680-115544-2	SB-41 8-10	Solid	08/10/15 09:24	08/12/15 09:46
680-115544-3	SB-41 13-15	Solid	08/10/15 09:28	08/12/15 09:46
680-115544-4	GB-9 8-10	Solid	08/10/15 09:57	08/12/15 09:46
680-115544-5	GB-9 13-15	Solid	08/10/15 10:06	08/12/15 09:46
680-115544-6	GB-11 3-5	Solid	08/10/15 10:31	08/12/15 09:46
680-115544-7	GB-11 8-10	Solid	08/10/15 10:36	08/12/15 09:46
680-115544-8	GB-11 13-15	Solid	08/10/15 10:41	08/12/15 09:46
680-115544-9	SB-25 0-2	Solid	08/10/15 10:56	08/12/15 09:46
680-115544-10	SB-25 2-4	Solid	08/10/15 10:56	08/12/15 09:46
680-115544-11	SB-25 4-6	Solid	08/10/15 11:11	08/12/15 09:46
680-115544-12	SB-25 8-10	Solid	08/10/15 11:17	08/12/15 09:46
680-115544-13	SB-25 13-15	Solid	08/10/15 11:21	08/12/15 09:46
680-115544-14	GB-25 2-4	Solid	08/10/15 11:39	08/12/15 09:46
680-115544-15	GB-25 4-6	Solid	08/10/15 11:42	08/12/15 09:46
680-115544-16	GB-26 2-4	Solid	08/10/15 12:20	08/12/15 09:46
680-115544-17	GB-26 4-6	Solid	08/10/15 12:25	08/12/15 09:46
680-115544-18	GB-27 3-5	Solid	08/10/15 12:33	08/12/15 09:46
680-115544-19	GB-27 8-10	Solid	08/10/15 12:45	08/12/15 09:46
680-115544-20	GB-27 13-15	Solid	08/10/15 12:48	08/12/15 09:46

## Case Narrative

Client: Geotechnical & Environmental Consultants  
Project/Site: Macon MGP #2

TestAmerica Job ID: 680-115544-1

**Job ID: 680-115544-1**

**Laboratory: TestAmerica Savannah**

### Narrative

#### CASE NARRATIVE

**Client: Geotechnical & Environmental Consultants**

**Project: Macon MGP #2**

**Report Number: 680-115544-1**

With the exceptions noted as flags or footnotes, standard analytical protocols were followed in the analysis of the samples and no problems were encountered or anomalies observed. In addition all laboratory quality control samples were within established control limits, with any exceptions noted below. Each sample was analyzed to achieve the lowest possible reporting limit within the constraints of the method. In the event of interference or analytes present at high concentrations, samples may be diluted. For diluted samples, the reporting limits are adjusted relative to the dilution required.

09/17/2015: This report has been revised. The report formatter has been changed so that non-detects would be reported at the Method Detection Limit (MDL) rather than the Reporting Limit (RL).

#### RECEIPT

The samples were received on 08/12/2015; the samples arrived in good condition, properly preserved and on ice. The temperature of the coolers at receipt was 4.8 C.

The following sample(s) were submitted for analysis; however, it was not listed on the Chain-of-Custody (COC): GB-27 3-5, GB-27 8-10, GB-27 13-15. The lab was instructed to analyze these samples.

#### SEMIVOLATILE ORGANIC COMPOUNDS (SOLID)

Samples SB-41 4-6 (680-115544-1), SB-41 8-10 (680-115544-2), SB-41 13-15 (680-115544-3), GB-9 8-10 (680-115544-4), GB-9 13-15 (680-115544-5), GB-11 3-5 (680-115544-6), GB-11 8-10 (680-115544-7), GB-11 13-15 (680-115544-8), SB-25 0-2 (680-115544-9), SB-25 2-4 (680-115544-10), SB-25 4-6 (680-115544-11), SB-25 8-10 (680-115544-12), SB-25 13-15 (680-115544-13), GB-25 2-4 (680-115544-14), GB-25 4-6 (680-115544-15), GB-26 2-4 (680-115544-16), GB-26 4-6 (680-115544-17), GB-27 3-5 (680-115544-18), GB-27 8-10 (680-115544-19) and GB-27 13-15 (680-115544-20) were analyzed for Semivolatile Organic Compounds (Solid) in accordance with EPA SW-846 Method 8270D. The samples were prepared on 08/14/2015 and analyzed on 08/17/2015 and 08/20/2015.

Method(s) 8270D: The following analytes have been identified, in the reference method and/or via historical data, to be poor and/or erratic performers: Famphur, 1,4-Napthaquinone, Methane sulfonate, 1-naphthylamine, 2-naphthylamine, p-Dimethylamino azobenzene, p-phenylenediamine, a,a-dimethylphenethylamine, Methapyriline, 2-picoline (2-methylpyridine), 3,3'-dimethylbenzidine, 3,3'-dichlorobenzidine, Benzidine, Benzaldehyde, Benzoic acid, Dinoseb, Hexachlorophene, Hexachlorocyclopentadiene, o,o,o-triethylphosphorothioate. These analytes may have a %D >60% if the average %D of all the analytes in the continuing calibration verification (CCV) is 30%.

Method(s) 8270D: The continuing calibration verification (CCV) analyzed in batch 680-396502 was outside the method criteria for the following analyte(s): 2,4-Dinitrophenol. A CCV standard at or below the reporting limit (RL) was analyzed with the affected samples and found to be acceptable. As indicated in the reference method, sample analysis may proceed; however, any detection for the affected analyte(s) is considered estimated.

Method(s) 8270D: The following analyte recovered outside control limits for the 680-396502 LCS associated with 680-396502: Bis(2-chloroethyl)ether. This is not indicative of a systematic control problem because these were random marginal exceedances. Qualified results have been reported.

Method(s) 8270D: The following samples was diluted due to the nature of the sample matrix : GB-26 2-4 (680-115544-16), SB-25 0-2 (680-115544-9), SB-25 8-10 (680-115544-12), GB-27 8-10 (680-115544-19) and GB-27 13-15 (680-115544-20). As such, surrogate recoveries are below the calibration range or are not reported, and elevated reporting limits (RLs) are provided.

Method(s) 8270D: The following sample was diluted due to abundance of target analytes: GB-27 3-5 (680-115544-18). As such, surrogate recoveries are below the calibration range or are not reported, and elevated reporting limits (RLs) are provided.

Method(s) 8270D: The method blank for preparation batch 680-395865 and analytical batch 680-396502 contained Bis(2-ethylhexyl)phthalate above the method detection limit (MDL). Associated samples were not re-analyzed because results were less



# Case Narrative

Client: Geotechnical & Environmental Consultants  
Project/Site: Macon MGP #2

TestAmerica Job ID: 680-115544-1

## Job ID: 680-115544-1 (Continued)

### Laboratory: TestAmerica Savannah (Continued)

than the reporting limit (RL) OR practical quantitation limit (PQL).

Bis(2-chloroethyl)ether recovery is outside criteria low for the MS and MSD of sample SB-25 4-6 (680-115544-11) in batch 680-396502. Refer to the QC report for details.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

### METALS (ICP)

Samples SB-41 4-6 (680-115544-1), SB-41 8-10 (680-115544-2), SB-41 13-15 (680-115544-3), GB-9 8-10 (680-115544-4), GB-9 13-15 (680-115544-5), GB-11 3-5 (680-115544-6), GB-11 8-10 (680-115544-7), GB-11 13-15 (680-115544-8), SB-25 0-2 (680-115544-9), SB-25 2-4 (680-115544-10), SB-25 4-6 (680-115544-11), SB-25 8-10 (680-115544-12), SB-25 13-15 (680-115544-13), GB-25 2-4 (680-115544-14), GB-25 4-6 (680-115544-15), GB-26 2-4 (680-115544-16), GB-26 4-6 (680-115544-17), GB-27 3-5 (680-115544-18), GB-27 8-10 (680-115544-19) and GB-27 13-15 (680-115544-20) were analyzed for Metals (ICP) in accordance with EPA SW-846 Method 6010C. The samples were prepared on 08/14/2015 and analyzed on 08/17/2015.

Barium was detected in method blank MB 680-396119/1-A at a level that was above the method detection limit but below the reporting limit. The value should be considered an estimate, and has been flagged. If the associated sample reported a result above the MDL and/or RL, the result has been flagged. Refer to the QC report for details.

Barium, Lead and Zinc have recovery outside criteria low for the MS of sample SB-41 4-6 (680-115544-1) in batch 680-396749. Chromium and Vanadium failed the recovery criteria high.

Barium, Copper, Lead and Zinc have recovery outside criteria high for the MSD of sample SB-41 4-6 (680-115544-1) in batch 680-396749. Barium, Copper, Lead and Zinc exceeded the RPD limit.

Refer to the QC report for details.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

### TOTAL MERCURY

Samples SB-41 4-6 (680-115544-1), SB-41 8-10 (680-115544-2), SB-41 13-15 (680-115544-3), GB-9 8-10 (680-115544-4), GB-9 13-15 (680-115544-5), GB-11 3-5 (680-115544-6), GB-11 8-10 (680-115544-7), GB-11 13-15 (680-115544-8), SB-25 0-2 (680-115544-9), SB-25 2-4 (680-115544-10), SB-25 4-6 (680-115544-11), SB-25 8-10 (680-115544-12), SB-25 13-15 (680-115544-13), GB-25 2-4 (680-115544-14), GB-25 4-6 (680-115544-15), GB-26 2-4 (680-115544-16), GB-26 4-6 (680-115544-17), GB-27 3-5 (680-115544-18), GB-27 8-10 (680-115544-19) and GB-27 13-15 (680-115544-20) were analyzed for total mercury in accordance with EPA SW-846 Method 7471B. The samples were prepared on 08/16/2015 and 08/17/2015 and analyzed on 08/17/2015 and 08/18/2015.

Samples SB-25 2-4 (680-115544-10)[5X] and GB-27 3-5 (680-115544-18)[5X] required dilution prior to analysis. The reporting limits have been adjusted accordingly.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

### TOTAL CYANIDE

Samples SB-41 4-6 (680-115544-1), SB-41 8-10 (680-115544-2), SB-41 13-15 (680-115544-3), GB-9 8-10 (680-115544-4), GB-9 13-15 (680-115544-5), GB-11 3-5 (680-115544-6), GB-11 8-10 (680-115544-7), GB-11 13-15 (680-115544-8), SB-25 0-2 (680-115544-9), SB-25 2-4 (680-115544-10), SB-25 4-6 (680-115544-11), SB-25 8-10 (680-115544-12), SB-25 13-15 (680-115544-13), GB-25 2-4 (680-115544-14), GB-25 4-6 (680-115544-15), GB-26 2-4 (680-115544-16), GB-26 4-6 (680-115544-17), GB-27 3-5 (680-115544-18), GB-27 8-10 (680-115544-19) and GB-27 13-15 (680-115544-20) were analyzed for total cyanide in accordance with EPA SW-846 Method 9012B. The samples were prepared and analyzed on 08/19/2015 and 08/20/2015.

No analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

### PERCENT SOLIDS/MOISTURE

Samples SB-41 4-6 (680-115544-1), SB-41 8-10 (680-115544-2), SB-41 13-15 (680-115544-3), GB-9 8-10 (680-115544-4), GB-9 13-15 (680-115544-5), GB-11 3-5 (680-115544-6), GB-11 8-10 (680-115544-7), GB-11 13-15 (680-115544-8), SB-25 0-2 (680-115544-9),

## Case Narrative

Client: Geotechnical & Environmental Consultants  
Project/Site: Macon MGP #2

TestAmerica Job ID: 680-115544-1

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### Job ID: 680-115544-1 (Continued)

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#### Laboratory: TestAmerica Savannah (Continued)

SB-25 2-4 (680-115544-10), SB-25 4-6 (680-115544-11), SB-25 8-10 (680-115544-12), SB-25 13-15 (680-115544-13), GB-25 2-4 (680-115544-14), GB-25 4-6 (680-115544-15), GB-26 2-4 (680-115544-16), GB-26 4-6 (680-115544-17), GB-27 3-5 (680-115544-18), GB-27 8-10 (680-115544-19) and GB-27 13-15 (680-115544-20) were analyzed for Percent Solids/Moisture in accordance with TestAmerica SOP. The samples were analyzed on 08/13/2015.

No analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

# Client Sample Results

Client: Geotechnical & Environmental Consultants  
Project/Site: Macon MGP #2

TestAmerica Job ID: 680-115544-1

**Client Sample ID: SB-41 4-6**

**Date Collected: 08/10/15 09:20**

**Date Received: 08/12/15 09:46**

**Lab Sample ID: 680-115544-1**

**Matrix: Solid**

**Percent Solids: 89.4**

## Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	0.23	U	1.8	0.23	mg/Kg	☼	08/14/15 10:57	08/17/15 12:56	5
Acenaphthylene	0.20	U	1.8	0.20	mg/Kg	☼	08/14/15 10:57	08/17/15 12:56	5
Acetophenone	0.16	U	1.8	0.16	mg/Kg	☼	08/14/15 10:57	08/17/15 12:56	5
Anthracene	0.14	U	1.8	0.14	mg/Kg	☼	08/14/15 10:57	08/17/15 12:56	5
Atrazine	0.13	U	1.8	0.13	mg/Kg	☼	08/14/15 10:57	08/17/15 12:56	5
Benzaldehyde	0.32	U	1.8	0.32	mg/Kg	☼	08/14/15 10:57	08/17/15 12:56	5
Benzo[a]anthracene	0.15	U	1.8	0.15	mg/Kg	☼	08/14/15 10:57	08/17/15 12:56	5
Benzo[a]pyrene	0.29	U	1.8	0.29	mg/Kg	☼	08/14/15 10:57	08/17/15 12:56	5
Benzo[b]fluoranthene	0.21	U	1.8	0.21	mg/Kg	☼	08/14/15 10:57	08/17/15 12:56	5
Benzo[g,h,i]perylene	0.12	U	1.8	0.12	mg/Kg	☼	08/14/15 10:57	08/17/15 12:56	5
Benzo[k]fluoranthene	0.36	U	1.8	0.36	mg/Kg	☼	08/14/15 10:57	08/17/15 12:56	5
1,1'-Biphenyl	9.5	U	9.5	9.5	mg/Kg	☼	08/14/15 10:57	08/17/15 12:56	5
Bis(2-chloroethoxy)methane	0.22	U	1.8	0.22	mg/Kg	☼	08/14/15 10:57	08/17/15 12:56	5
Bis(2-chloroethyl)ether	0.25	U *	1.8	0.25	mg/Kg	☼	08/14/15 10:57	08/17/15 12:56	5
bis (2-chloroisopropyl) ether	0.17	U	1.8	0.17	mg/Kg	☼	08/14/15 10:57	08/17/15 12:56	5
Bis(2-ethylhexyl) phthalate	0.16	U	1.8	0.16	mg/Kg	☼	08/14/15 10:57	08/17/15 12:56	5
4-Bromophenyl phenyl ether	0.20	U	1.8	0.20	mg/Kg	☼	08/14/15 10:57	08/17/15 12:56	5
Butyl benzyl phthalate	0.14	U	1.8	0.14	mg/Kg	☼	08/14/15 10:57	08/17/15 12:56	5
Caprolactam	0.37	U	1.8	0.37	mg/Kg	☼	08/14/15 10:57	08/17/15 12:56	5
Carbazole	0.17	U	1.8	0.17	mg/Kg	☼	08/14/15 10:57	08/17/15 12:56	5
4-Chloroaniline	0.29	U	3.7	0.29	mg/Kg	☼	08/14/15 10:57	08/17/15 12:56	5
4-Chloro-3-methylphenol	0.19	U	1.8	0.19	mg/Kg	☼	08/14/15 10:57	08/17/15 12:56	5
2-Chloronaphthalene	0.19	U	1.8	0.19	mg/Kg	☼	08/14/15 10:57	08/17/15 12:56	5
2-Chlorophenol	0.22	U	1.8	0.22	mg/Kg	☼	08/14/15 10:57	08/17/15 12:56	5
4-Chlorophenyl phenyl ether	0.24	U	1.8	0.24	mg/Kg	☼	08/14/15 10:57	08/17/15 12:56	5
Chrysene	0.12	U	1.8	0.12	mg/Kg	☼	08/14/15 10:57	08/17/15 12:56	5
Dibenz(a,h)anthracene	0.22	U	1.8	0.22	mg/Kg	☼	08/14/15 10:57	08/17/15 12:56	5
Dibenzofuran	0.18	U	1.8	0.18	mg/Kg	☼	08/14/15 10:57	08/17/15 12:56	5
3,3'-Dichlorobenzidine	0.16	U	3.7	0.16	mg/Kg	☼	08/14/15 10:57	08/17/15 12:56	5
2,4-Dichlorophenol	0.19	U	1.8	0.19	mg/Kg	☼	08/14/15 10:57	08/17/15 12:56	5
Diethyl phthalate	0.21	U	1.8	0.21	mg/Kg	☼	08/14/15 10:57	08/17/15 12:56	5
2,4-Dimethylphenol	0.24	U	1.8	0.24	mg/Kg	☼	08/14/15 10:57	08/17/15 12:56	5
Dimethyl phthalate	0.19	U	1.8	0.19	mg/Kg	☼	08/14/15 10:57	08/17/15 12:56	5
Di-n-butyl phthalate	0.17	U	1.8	0.17	mg/Kg	☼	08/14/15 10:57	08/17/15 12:56	5
4,6-Dinitro-2-methylphenol	0.95	U	9.5	0.95	mg/Kg	☼	08/14/15 10:57	08/17/15 12:56	5
2,4-Dinitrophenol	4.6	U	9.5	4.6	mg/Kg	☼	08/14/15 10:57	08/17/15 12:56	5
2,4-Dinitrotoluene	0.27	U	1.8	0.27	mg/Kg	☼	08/14/15 10:57	08/17/15 12:56	5
2,6-Dinitrotoluene	0.23	U	1.8	0.23	mg/Kg	☼	08/14/15 10:57	08/17/15 12:56	5
Di-n-octyl phthalate	0.16	U	1.8	0.16	mg/Kg	☼	08/14/15 10:57	08/17/15 12:56	5
<b>Fluoranthene</b>	<b>0.19</b>	<b>J</b>	1.8	0.18	mg/Kg	☼	08/14/15 10:57	08/17/15 12:56	5
Fluorene	0.20	U	1.8	0.20	mg/Kg	☼	08/14/15 10:57	08/17/15 12:56	5
Hexachlorobenzene	0.22	U	1.8	0.22	mg/Kg	☼	08/14/15 10:57	08/17/15 12:56	5
Hexachlorobutadiene	0.20	U	1.8	0.20	mg/Kg	☼	08/14/15 10:57	08/17/15 12:56	5
Hexachlorocyclopentadiene	0.23	U	1.8	0.23	mg/Kg	☼	08/14/15 10:57	08/17/15 12:56	5
Hexachloroethane	0.16	U	1.8	0.16	mg/Kg	☼	08/14/15 10:57	08/17/15 12:56	5
Indeno[1,2,3-cd]pyrene	0.16	U	1.8	0.16	mg/Kg	☼	08/14/15 10:57	08/17/15 12:56	5
Isophorone	0.18	U	1.8	0.18	mg/Kg	☼	08/14/15 10:57	08/17/15 12:56	5
2-Methylnaphthalene	0.21	U	1.8	0.21	mg/Kg	☼	08/14/15 10:57	08/17/15 12:56	5
2-Methylphenol	0.15	U	1.8	0.15	mg/Kg	☼	08/14/15 10:57	08/17/15 12:56	5

TestAmerica Savannah

# Client Sample Results

Client: Geotechnical & Environmental Consultants  
Project/Site: Macon MGP #2

TestAmerica Job ID: 680-115544-1

**Client Sample ID: SB-41 4-6**

**Date Collected: 08/10/15 09:20**

**Date Received: 08/12/15 09:46**

**Lab Sample ID: 680-115544-1**

**Matrix: Solid**

**Percent Solids: 89.4**

## Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
3 & 4 Methylphenol	0.24	U	1.8	0.24	mg/Kg	☼	08/14/15 10:57	08/17/15 12:56	5
Naphthalene	0.17	U	1.8	0.17	mg/Kg	☼	08/14/15 10:57	08/17/15 12:56	5
2-Nitroaniline	0.25	U	9.5	0.25	mg/Kg	☼	08/14/15 10:57	08/17/15 12:56	5
3-Nitroaniline	0.26	U	9.5	0.26	mg/Kg	☼	08/14/15 10:57	08/17/15 12:56	5
4-Nitroaniline	0.27	U	9.5	0.27	mg/Kg	☼	08/14/15 10:57	08/17/15 12:56	5
Nitrobenzene	0.14	U	1.8	0.14	mg/Kg	☼	08/14/15 10:57	08/17/15 12:56	5
2-Nitrophenol	0.23	U	1.8	0.23	mg/Kg	☼	08/14/15 10:57	08/17/15 12:56	5
4-Nitrophenol	1.8	U	9.5	1.8	mg/Kg	☼	08/14/15 10:57	08/17/15 12:56	5
N-Nitrosodi-n-propylamine	0.18	U	1.8	0.18	mg/Kg	☼	08/14/15 10:57	08/17/15 12:56	5
N-Nitrosodiphenylamine	0.18	U	1.8	0.18	mg/Kg	☼	08/14/15 10:57	08/17/15 12:56	5
Pentachlorophenol	1.8	U	9.5	1.8	mg/Kg	☼	08/14/15 10:57	08/17/15 12:56	5
Phenanthrene	0.15	U	1.8	0.15	mg/Kg	☼	08/14/15 10:57	08/17/15 12:56	5
Phenol	0.19	U	1.8	0.19	mg/Kg	☼	08/14/15 10:57	08/17/15 12:56	5
Pyrene	0.15	U	1.8	0.15	mg/Kg	☼	08/14/15 10:57	08/17/15 12:56	5
2,4,5-Trichlorophenol	0.19	U	1.8	0.19	mg/Kg	☼	08/14/15 10:57	08/17/15 12:56	5
2,4,6-Trichlorophenol	0.16	U	1.8	0.16	mg/Kg	☼	08/14/15 10:57	08/17/15 12:56	5

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl	76		41 - 116	08/14/15 10:57	08/17/15 12:56	5
2-Fluorophenol (Surr)	57		39 - 114	08/14/15 10:57	08/17/15 12:56	5
Nitrobenzene-d5 (Surr)	60		37 - 115	08/14/15 10:57	08/17/15 12:56	5
Phenol-d5 (Surr)	61		38 - 122	08/14/15 10:57	08/17/15 12:56	5
Terphenyl-d14 (Surr)	73		46 - 126	08/14/15 10:57	08/17/15 12:56	5
2,4,6-Tribromophenol (Surr)	73		45 - 129	08/14/15 10:57	08/17/15 12:56	5

## Method: 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	2.3		2.0	0.78	mg/Kg	☼	08/14/15 08:59	08/17/15 19:34	1
Barium	110	B F2	0.98	0.16	mg/Kg	☼	08/14/15 08:59	08/17/15 19:34	1
Beryllium	0.47		0.39	0.0098	mg/Kg	☼	08/14/15 08:59	08/17/15 19:34	1
Cadmium	2.7		0.49	0.098	mg/Kg	☼	08/14/15 08:59	08/17/15 19:34	1
Chromium	13	F1	0.98	0.21	mg/Kg	☼	08/14/15 08:59	08/17/15 19:34	1
Copper	12	F2 F1	2.5	0.17	mg/Kg	☼	08/14/15 08:59	08/17/15 19:34	1
Lead	190	F1 F2	0.98	0.33	mg/Kg	☼	08/14/15 08:59	08/17/15 19:34	1
Nickel	3.6	J	3.9	0.37	mg/Kg	☼	08/14/15 08:59	08/17/15 19:34	1
Selenium	0.95	U	2.5	0.95	mg/Kg	☼	08/14/15 08:59	08/17/15 19:34	1
Silver	0.059	U	0.98	0.059	mg/Kg	☼	08/14/15 08:59	08/17/15 19:34	1
Vanadium	24	F1	0.98	0.098	mg/Kg	☼	08/14/15 08:59	08/17/15 19:34	1
Zinc	960	F2	2.0	0.69	mg/Kg	☼	08/14/15 08:59	08/17/15 19:34	1

## Method: 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.14	^	0.022	0.0088	mg/Kg	☼	08/16/15 14:39	08/17/15 19:46	1

## General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total	0.23	U	0.56	0.23	mg/Kg	☼	08/19/15 09:00	08/19/15 12:14	1

TestAmerica Savannah

# Client Sample Results

Client: Geotechnical & Environmental Consultants  
Project/Site: Macon MGP #2

TestAmerica Job ID: 680-115544-1

**Client Sample ID: SB-41 8-10**

**Date Collected: 08/10/15 09:24**

**Date Received: 08/12/15 09:46**

**Lab Sample ID: 680-115544-2**

**Matrix: Solid**

**Percent Solids: 88.7**

## Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	0.23	U	1.8	0.23	mg/Kg	☼	08/14/15 10:57	08/17/15 13:22	5
Acenaphthylene	0.20	U	1.8	0.20	mg/Kg	☼	08/14/15 10:57	08/17/15 13:22	5
Acetophenone	0.16	U	1.8	0.16	mg/Kg	☼	08/14/15 10:57	08/17/15 13:22	5
Anthracene	0.14	U	1.8	0.14	mg/Kg	☼	08/14/15 10:57	08/17/15 13:22	5
Atrazine	0.13	U	1.8	0.13	mg/Kg	☼	08/14/15 10:57	08/17/15 13:22	5
Benzaldehyde	0.32	U	1.8	0.32	mg/Kg	☼	08/14/15 10:57	08/17/15 13:22	5
Benzo[a]anthracene	0.15	U	1.8	0.15	mg/Kg	☼	08/14/15 10:57	08/17/15 13:22	5
Benzo[a]pyrene	0.29	U	1.8	0.29	mg/Kg	☼	08/14/15 10:57	08/17/15 13:22	5
Benzo[b]fluoranthene	0.21	U	1.8	0.21	mg/Kg	☼	08/14/15 10:57	08/17/15 13:22	5
Benzo[g,h,i]perylene	0.12	U	1.8	0.12	mg/Kg	☼	08/14/15 10:57	08/17/15 13:22	5
Benzo[k]fluoranthene	0.36	U	1.8	0.36	mg/Kg	☼	08/14/15 10:57	08/17/15 13:22	5
1,1'-Biphenyl	9.4	U	9.4	9.4	mg/Kg	☼	08/14/15 10:57	08/17/15 13:22	5
Bis(2-chloroethoxy)methane	0.22	U	1.8	0.22	mg/Kg	☼	08/14/15 10:57	08/17/15 13:22	5
Bis(2-chloroethyl)ether	0.25	U *	1.8	0.25	mg/Kg	☼	08/14/15 10:57	08/17/15 13:22	5
bis (2-chloroisopropyl) ether	0.17	U	1.8	0.17	mg/Kg	☼	08/14/15 10:57	08/17/15 13:22	5
Bis(2-ethylhexyl) phthalate	0.16	U	1.8	0.16	mg/Kg	☼	08/14/15 10:57	08/17/15 13:22	5
4-Bromophenyl phenyl ether	0.20	U	1.8	0.20	mg/Kg	☼	08/14/15 10:57	08/17/15 13:22	5
Butyl benzyl phthalate	0.14	U	1.8	0.14	mg/Kg	☼	08/14/15 10:57	08/17/15 13:22	5
Caprolactam	0.37	U	1.8	0.37	mg/Kg	☼	08/14/15 10:57	08/17/15 13:22	5
Carbazole	0.17	U	1.8	0.17	mg/Kg	☼	08/14/15 10:57	08/17/15 13:22	5
4-Chloroaniline	0.29	U	3.7	0.29	mg/Kg	☼	08/14/15 10:57	08/17/15 13:22	5
4-Chloro-3-methylphenol	0.19	U	1.8	0.19	mg/Kg	☼	08/14/15 10:57	08/17/15 13:22	5
2-Chloronaphthalene	0.19	U	1.8	0.19	mg/Kg	☼	08/14/15 10:57	08/17/15 13:22	5
2-Chlorophenol	0.22	U	1.8	0.22	mg/Kg	☼	08/14/15 10:57	08/17/15 13:22	5
4-Chlorophenyl phenyl ether	0.24	U	1.8	0.24	mg/Kg	☼	08/14/15 10:57	08/17/15 13:22	5
Chrysene	0.12	U	1.8	0.12	mg/Kg	☼	08/14/15 10:57	08/17/15 13:22	5
Dibenz(a,h)anthracene	0.22	U	1.8	0.22	mg/Kg	☼	08/14/15 10:57	08/17/15 13:22	5
Dibenzofuran	0.18	U	1.8	0.18	mg/Kg	☼	08/14/15 10:57	08/17/15 13:22	5
3,3'-Dichlorobenzidine	0.16	U	3.7	0.16	mg/Kg	☼	08/14/15 10:57	08/17/15 13:22	5
2,4-Dichlorophenol	0.19	U	1.8	0.19	mg/Kg	☼	08/14/15 10:57	08/17/15 13:22	5
Diethyl phthalate	0.21	U	1.8	0.21	mg/Kg	☼	08/14/15 10:57	08/17/15 13:22	5
2,4-Dimethylphenol	0.24	U	1.8	0.24	mg/Kg	☼	08/14/15 10:57	08/17/15 13:22	5
Dimethyl phthalate	0.19	U	1.8	0.19	mg/Kg	☼	08/14/15 10:57	08/17/15 13:22	5
Di-n-butyl phthalate	0.17	U	1.8	0.17	mg/Kg	☼	08/14/15 10:57	08/17/15 13:22	5
4,6-Dinitro-2-methylphenol	0.94	U	9.4	0.94	mg/Kg	☼	08/14/15 10:57	08/17/15 13:22	5
2,4-Dinitrophenol	4.6	U	9.4	4.6	mg/Kg	☼	08/14/15 10:57	08/17/15 13:22	5
2,4-Dinitrotoluene	0.27	U	1.8	0.27	mg/Kg	☼	08/14/15 10:57	08/17/15 13:22	5
2,6-Dinitrotoluene	0.23	U	1.8	0.23	mg/Kg	☼	08/14/15 10:57	08/17/15 13:22	5
Di-n-octyl phthalate	0.16	U	1.8	0.16	mg/Kg	☼	08/14/15 10:57	08/17/15 13:22	5
Fluoranthene	0.18	U	1.8	0.18	mg/Kg	☼	08/14/15 10:57	08/17/15 13:22	5
Fluorene	0.20	U	1.8	0.20	mg/Kg	☼	08/14/15 10:57	08/17/15 13:22	5
Hexachlorobenzene	0.22	U	1.8	0.22	mg/Kg	☼	08/14/15 10:57	08/17/15 13:22	5
Hexachlorobutadiene	0.20	U	1.8	0.20	mg/Kg	☼	08/14/15 10:57	08/17/15 13:22	5
Hexachlorocyclopentadiene	0.23	U	1.8	0.23	mg/Kg	☼	08/14/15 10:57	08/17/15 13:22	5
Hexachloroethane	0.16	U	1.8	0.16	mg/Kg	☼	08/14/15 10:57	08/17/15 13:22	5
Indeno[1,2,3-cd]pyrene	0.16	U	1.8	0.16	mg/Kg	☼	08/14/15 10:57	08/17/15 13:22	5
Isophorone	0.18	U	1.8	0.18	mg/Kg	☼	08/14/15 10:57	08/17/15 13:22	5
2-Methylnaphthalene	0.21	U	1.8	0.21	mg/Kg	☼	08/14/15 10:57	08/17/15 13:22	5
2-Methylphenol	0.15	U	1.8	0.15	mg/Kg	☼	08/14/15 10:57	08/17/15 13:22	5

TestAmerica Savannah

# Client Sample Results

Client: Geotechnical & Environmental Consultants  
Project/Site: Macon MGP #2

TestAmerica Job ID: 680-115544-1

**Client Sample ID: SB-41 8-10**

**Date Collected: 08/10/15 09:24**

**Date Received: 08/12/15 09:46**

**Lab Sample ID: 680-115544-2**

**Matrix: Solid**

**Percent Solids: 88.7**

## Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
3 & 4 Methylphenol	0.24	U	1.8	0.24	mg/Kg	☼	08/14/15 10:57	08/17/15 13:22	5
Naphthalene	0.17	U	1.8	0.17	mg/Kg	☼	08/14/15 10:57	08/17/15 13:22	5
2-Nitroaniline	0.25	U	9.4	0.25	mg/Kg	☼	08/14/15 10:57	08/17/15 13:22	5
3-Nitroaniline	0.26	U	9.4	0.26	mg/Kg	☼	08/14/15 10:57	08/17/15 13:22	5
4-Nitroaniline	0.27	U	9.4	0.27	mg/Kg	☼	08/14/15 10:57	08/17/15 13:22	5
Nitrobenzene	0.14	U	1.8	0.14	mg/Kg	☼	08/14/15 10:57	08/17/15 13:22	5
2-Nitrophenol	0.23	U	1.8	0.23	mg/Kg	☼	08/14/15 10:57	08/17/15 13:22	5
4-Nitrophenol	1.8	U	9.4	1.8	mg/Kg	☼	08/14/15 10:57	08/17/15 13:22	5
N-Nitrosodi-n-propylamine	0.18	U	1.8	0.18	mg/Kg	☼	08/14/15 10:57	08/17/15 13:22	5
N-Nitrosodiphenylamine	0.18	U	1.8	0.18	mg/Kg	☼	08/14/15 10:57	08/17/15 13:22	5
Pentachlorophenol	1.8	U	9.4	1.8	mg/Kg	☼	08/14/15 10:57	08/17/15 13:22	5
Phenanthrene	0.15	U	1.8	0.15	mg/Kg	☼	08/14/15 10:57	08/17/15 13:22	5
Phenol	0.19	U	1.8	0.19	mg/Kg	☼	08/14/15 10:57	08/17/15 13:22	5
Pyrene	0.15	U	1.8	0.15	mg/Kg	☼	08/14/15 10:57	08/17/15 13:22	5
2,4,5-Trichlorophenol	0.19	U	1.8	0.19	mg/Kg	☼	08/14/15 10:57	08/17/15 13:22	5
2,4,6-Trichlorophenol	0.16	U	1.8	0.16	mg/Kg	☼	08/14/15 10:57	08/17/15 13:22	5

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl	75		41 - 116	08/14/15 10:57	08/17/15 13:22	5
2-Fluorophenol (Surr)	53		39 - 114	08/14/15 10:57	08/17/15 13:22	5
Nitrobenzene-d5 (Surr)	56		37 - 115	08/14/15 10:57	08/17/15 13:22	5
Phenol-d5 (Surr)	60		38 - 122	08/14/15 10:57	08/17/15 13:22	5
Terphenyl-d14 (Surr)	70		46 - 126	08/14/15 10:57	08/17/15 13:22	5
2,4,6-Tribromophenol (Surr)	67		45 - 129	08/14/15 10:57	08/17/15 13:22	5

## Method: 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	1.9		1.9	0.77	mg/Kg	☼	08/14/15 08:59	08/17/15 21:29	1
Barium	42	B	0.96	0.15	mg/Kg	☼	08/14/15 08:59	08/17/15 21:29	1
Beryllium	0.45		0.39	0.0096	mg/Kg	☼	08/14/15 08:59	08/17/15 21:29	1
Cadmium	0.096	U	0.48	0.096	mg/Kg	☼	08/14/15 08:59	08/17/15 21:29	1
Chromium	9.1		0.96	0.20	mg/Kg	☼	08/14/15 08:59	08/17/15 21:29	1
Copper	7.8		2.4	0.16	mg/Kg	☼	08/14/15 08:59	08/17/15 21:29	1
Lead	28		0.96	0.33	mg/Kg	☼	08/14/15 08:59	08/17/15 21:29	1
Nickel	3.1	J	3.9	0.37	mg/Kg	☼	08/14/15 08:59	08/17/15 21:29	1
Selenium	0.93	U	2.4	0.93	mg/Kg	☼	08/14/15 08:59	08/17/15 21:29	1
Silver	0.058	U	0.96	0.058	mg/Kg	☼	08/14/15 08:59	08/17/15 21:29	1
Vanadium	20		0.96	0.096	mg/Kg	☼	08/14/15 08:59	08/17/15 21:29	1
Zinc	31		1.9	0.67	mg/Kg	☼	08/14/15 08:59	08/17/15 21:29	1

## Method: 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.28	^	0.022	0.0087	mg/Kg	☼	08/16/15 14:39	08/17/15 19:55	1

## General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total	0.24	U	0.56	0.24	mg/Kg	☼	08/19/15 09:00	08/19/15 12:19	1

TestAmerica Savannah



# Client Sample Results

Client: Geotechnical & Environmental Consultants  
Project/Site: Macon MGP #2

TestAmerica Job ID: 680-115544-1

**Client Sample ID: SB-41 13-15**

**Date Collected: 08/10/15 09:28**

**Date Received: 08/12/15 09:46**

**Lab Sample ID: 680-115544-3**

**Matrix: Solid**

**Percent Solids: 88.1**

## Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	0.23	U	1.9	0.23	mg/Kg	☼	08/14/15 10:57	08/17/15 13:48	5
Acenaphthylene	0.20	U	1.9	0.20	mg/Kg	☼	08/14/15 10:57	08/17/15 13:48	5
Acetophenone	0.16	U	1.9	0.16	mg/Kg	☼	08/14/15 10:57	08/17/15 13:48	5
Anthracene	0.14	U	1.9	0.14	mg/Kg	☼	08/14/15 10:57	08/17/15 13:48	5
Atrazine	0.13	U	1.9	0.13	mg/Kg	☼	08/14/15 10:57	08/17/15 13:48	5
Benzaldehyde	0.33	U	1.9	0.33	mg/Kg	☼	08/14/15 10:57	08/17/15 13:48	5
Benzo[a]anthracene	0.15	U	1.9	0.15	mg/Kg	☼	08/14/15 10:57	08/17/15 13:48	5
Benzo[a]pyrene	0.29	U	1.9	0.29	mg/Kg	☼	08/14/15 10:57	08/17/15 13:48	5
Benzo[b]fluoranthene	0.21	U	1.9	0.21	mg/Kg	☼	08/14/15 10:57	08/17/15 13:48	5
Benzo[g,h,i]perylene	0.12	U	1.9	0.12	mg/Kg	☼	08/14/15 10:57	08/17/15 13:48	5
Benzo[k]fluoranthene	0.37	U	1.9	0.37	mg/Kg	☼	08/14/15 10:57	08/17/15 13:48	5
1,1'-Biphenyl	9.6	U	9.6	9.6	mg/Kg	☼	08/14/15 10:57	08/17/15 13:48	5
Bis(2-chloroethoxy)methane	0.22	U	1.9	0.22	mg/Kg	☼	08/14/15 10:57	08/17/15 13:48	5
Bis(2-chloroethyl)ether	0.25	U *	1.9	0.25	mg/Kg	☼	08/14/15 10:57	08/17/15 13:48	5
bis (2-chloroisopropyl) ether	0.17	U	1.9	0.17	mg/Kg	☼	08/14/15 10:57	08/17/15 13:48	5
Bis(2-ethylhexyl) phthalate	0.16	U	1.9	0.16	mg/Kg	☼	08/14/15 10:57	08/17/15 13:48	5
4-Bromophenyl phenyl ether	0.20	U	1.9	0.20	mg/Kg	☼	08/14/15 10:57	08/17/15 13:48	5
Butyl benzyl phthalate	0.15	U	1.9	0.15	mg/Kg	☼	08/14/15 10:57	08/17/15 13:48	5
Caprolactam	0.37	U	1.9	0.37	mg/Kg	☼	08/14/15 10:57	08/17/15 13:48	5
Carbazole	0.17	U	1.9	0.17	mg/Kg	☼	08/14/15 10:57	08/17/15 13:48	5
4-Chloroaniline	0.29	U	3.7	0.29	mg/Kg	☼	08/14/15 10:57	08/17/15 13:48	5
4-Chloro-3-methylphenol	0.20	U	1.9	0.20	mg/Kg	☼	08/14/15 10:57	08/17/15 13:48	5
2-Chloronaphthalene	0.20	U	1.9	0.20	mg/Kg	☼	08/14/15 10:57	08/17/15 13:48	5
2-Chlorophenol	0.22	U	1.9	0.22	mg/Kg	☼	08/14/15 10:57	08/17/15 13:48	5
4-Chlorophenyl phenyl ether	0.25	U	1.9	0.25	mg/Kg	☼	08/14/15 10:57	08/17/15 13:48	5
<b>Chrysene</b>	<b>0.14</b>	<b>J</b>	1.9	0.12	mg/Kg	☼	08/14/15 10:57	08/17/15 13:48	5
Dibenz(a,h)anthracene	0.22	U	1.9	0.22	mg/Kg	☼	08/14/15 10:57	08/17/15 13:48	5
Dibenzofuran	0.19	U	1.9	0.19	mg/Kg	☼	08/14/15 10:57	08/17/15 13:48	5
3,3'-Dichlorobenzidine	0.16	U	3.7	0.16	mg/Kg	☼	08/14/15 10:57	08/17/15 13:48	5
2,4-Dichlorophenol	0.20	U	1.9	0.20	mg/Kg	☼	08/14/15 10:57	08/17/15 13:48	5
Diethyl phthalate	0.21	U	1.9	0.21	mg/Kg	☼	08/14/15 10:57	08/17/15 13:48	5
2,4-Dimethylphenol	0.25	U	1.9	0.25	mg/Kg	☼	08/14/15 10:57	08/17/15 13:48	5
Dimethyl phthalate	0.19	U	1.9	0.19	mg/Kg	☼	08/14/15 10:57	08/17/15 13:48	5
Di-n-butyl phthalate	0.17	U	1.9	0.17	mg/Kg	☼	08/14/15 10:57	08/17/15 13:48	5
4,6-Dinitro-2-methylphenol	0.96	U	9.6	0.96	mg/Kg	☼	08/14/15 10:57	08/17/15 13:48	5
2,4-Dinitrophenol	4.7	U	9.6	4.7	mg/Kg	☼	08/14/15 10:57	08/17/15 13:48	5
2,4-Dinitrotoluene	0.28	U	1.9	0.28	mg/Kg	☼	08/14/15 10:57	08/17/15 13:48	5
2,6-Dinitrotoluene	0.24	U	1.9	0.24	mg/Kg	☼	08/14/15 10:57	08/17/15 13:48	5
Di-n-octyl phthalate	0.16	U	1.9	0.16	mg/Kg	☼	08/14/15 10:57	08/17/15 13:48	5
<b>Fluoranthene</b>	<b>0.29</b>	<b>J</b>	1.9	0.18	mg/Kg	☼	08/14/15 10:57	08/17/15 13:48	5
Fluorene	0.20	U	1.9	0.20	mg/Kg	☼	08/14/15 10:57	08/17/15 13:48	5
Hexachlorobenzene	0.22	U	1.9	0.22	mg/Kg	☼	08/14/15 10:57	08/17/15 13:48	5
Hexachlorobutadiene	0.20	U	1.9	0.20	mg/Kg	☼	08/14/15 10:57	08/17/15 13:48	5
Hexachlorocyclopentadiene	0.23	U	1.9	0.23	mg/Kg	☼	08/14/15 10:57	08/17/15 13:48	5
Hexachloroethane	0.16	U	1.9	0.16	mg/Kg	☼	08/14/15 10:57	08/17/15 13:48	5
Indeno[1,2,3-cd]pyrene	0.16	U	1.9	0.16	mg/Kg	☼	08/14/15 10:57	08/17/15 13:48	5
Isophorone	0.19	U	1.9	0.19	mg/Kg	☼	08/14/15 10:57	08/17/15 13:48	5
2-Methylnaphthalene	0.21	U	1.9	0.21	mg/Kg	☼	08/14/15 10:57	08/17/15 13:48	5
2-Methylphenol	0.15	U	1.9	0.15	mg/Kg	☼	08/14/15 10:57	08/17/15 13:48	5

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# Client Sample Results

Client: Geotechnical & Environmental Consultants  
Project/Site: Macon MGP #2

TestAmerica Job ID: 680-115544-1

**Client Sample ID: SB-41 13-15**

**Date Collected: 08/10/15 09:28**

**Date Received: 08/12/15 09:46**

**Lab Sample ID: 680-115544-3**

**Matrix: Solid**

**Percent Solids: 88.1**

## Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
3 & 4 Methylphenol	0.24	U	1.9	0.24	mg/Kg	☼	08/14/15 10:57	08/17/15 13:48	5
Naphthalene	0.17	U	1.9	0.17	mg/Kg	☼	08/14/15 10:57	08/17/15 13:48	5
2-Nitroaniline	0.25	U	9.6	0.25	mg/Kg	☼	08/14/15 10:57	08/17/15 13:48	5
3-Nitroaniline	0.26	U	9.6	0.26	mg/Kg	☼	08/14/15 10:57	08/17/15 13:48	5
4-Nitroaniline	0.28	U	9.6	0.28	mg/Kg	☼	08/14/15 10:57	08/17/15 13:48	5
Nitrobenzene	0.15	U	1.9	0.15	mg/Kg	☼	08/14/15 10:57	08/17/15 13:48	5
2-Nitrophenol	0.23	U	1.9	0.23	mg/Kg	☼	08/14/15 10:57	08/17/15 13:48	5
4-Nitrophenol	1.9	U	9.6	1.9	mg/Kg	☼	08/14/15 10:57	08/17/15 13:48	5
N-Nitrosodi-n-propylamine	0.18	U	1.9	0.18	mg/Kg	☼	08/14/15 10:57	08/17/15 13:48	5
N-Nitrosodiphenylamine	0.19	U	1.9	0.19	mg/Kg	☼	08/14/15 10:57	08/17/15 13:48	5
Pentachlorophenol	1.9	U	9.6	1.9	mg/Kg	☼	08/14/15 10:57	08/17/15 13:48	5
Phenanthrene	0.25	J	1.9	0.15	mg/Kg	☼	08/14/15 10:57	08/17/15 13:48	5
Phenol	0.19	U	1.9	0.19	mg/Kg	☼	08/14/15 10:57	08/17/15 13:48	5
Pyrene	0.23	J	1.9	0.15	mg/Kg	☼	08/14/15 10:57	08/17/15 13:48	5
2,4,5-Trichlorophenol	0.20	U	1.9	0.20	mg/Kg	☼	08/14/15 10:57	08/17/15 13:48	5
2,4,6-Trichlorophenol	0.16	U	1.9	0.16	mg/Kg	☼	08/14/15 10:57	08/17/15 13:48	5

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl	64		41 - 116	08/14/15 10:57	08/17/15 13:48	5
2-Fluorophenol (Surr)	47		39 - 114	08/14/15 10:57	08/17/15 13:48	5
Nitrobenzene-d5 (Surr)	49		37 - 115	08/14/15 10:57	08/17/15 13:48	5
Phenol-d5 (Surr)	52		38 - 122	08/14/15 10:57	08/17/15 13:48	5
Terphenyl-d14 (Surr)	65		46 - 126	08/14/15 10:57	08/17/15 13:48	5
2,4,6-Tribromophenol (Surr)	66		45 - 129	08/14/15 10:57	08/17/15 13:48	5

## Method: 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	1.7	J	2.2	0.87	mg/Kg	☼	08/14/15 08:59	08/17/15 21:07	1
Barium	30	B	1.1	0.17	mg/Kg	☼	08/14/15 08:59	08/17/15 21:07	1
Beryllium	0.25	J	0.43	0.011	mg/Kg	☼	08/14/15 08:59	08/17/15 21:07	1
Cadmium	0.11	U	0.54	0.11	mg/Kg	☼	08/14/15 08:59	08/17/15 21:07	1
Chromium	11		1.1	0.23	mg/Kg	☼	08/14/15 08:59	08/17/15 21:07	1
Copper	5.9		2.7	0.18	mg/Kg	☼	08/14/15 08:59	08/17/15 21:07	1
Lead	29		1.1	0.37	mg/Kg	☼	08/14/15 08:59	08/17/15 21:07	1
Nickel	2.5	J	4.3	0.41	mg/Kg	☼	08/14/15 08:59	08/17/15 21:07	1
Selenium	1.0	U	2.7	1.0	mg/Kg	☼	08/14/15 08:59	08/17/15 21:07	1
Silver	0.065	U	1.1	0.065	mg/Kg	☼	08/14/15 08:59	08/17/15 21:07	1
Vanadium	28		1.1	0.11	mg/Kg	☼	08/14/15 08:59	08/17/15 21:07	1
Zinc	30		2.2	0.76	mg/Kg	☼	08/14/15 08:59	08/17/15 21:07	1

## Method: 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.19	^	0.022	0.0089	mg/Kg	☼	08/16/15 14:39	08/17/15 19:58	1

## General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total	0.23	U	0.55	0.23	mg/Kg	☼	08/19/15 09:00	08/19/15 12:20	1

TestAmerica Savannah

# Client Sample Results

Client: Geotechnical & Environmental Consultants  
Project/Site: Macon MGP #2

TestAmerica Job ID: 680-115544-1

**Client Sample ID: GB-9 8-10**

**Date Collected: 08/10/15 09:57**

**Date Received: 08/12/15 09:46**

**Lab Sample ID: 680-115544-4**

**Matrix: Solid**

**Percent Solids: 88.0**

## Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	0.046	U	0.37	0.046	mg/Kg	☼	08/14/15 10:57	08/17/15 14:14	1
Acenaphthylene	0.041	U	0.37	0.041	mg/Kg	☼	08/14/15 10:57	08/17/15 14:14	1
Acetophenone	0.032	U	0.37	0.032	mg/Kg	☼	08/14/15 10:57	08/17/15 14:14	1
Anthracene	0.028	U	0.37	0.028	mg/Kg	☼	08/14/15 10:57	08/17/15 14:14	1
Atrazine	0.026	U	0.37	0.026	mg/Kg	☼	08/14/15 10:57	08/17/15 14:14	1
Benzaldehyde	0.066	U	0.37	0.066	mg/Kg	☼	08/14/15 10:57	08/17/15 14:14	1
Benzo[a]anthracene	0.031	U	0.37	0.031	mg/Kg	☼	08/14/15 10:57	08/17/15 14:14	1
Benzo[a]pyrene	0.059	U	0.37	0.059	mg/Kg	☼	08/14/15 10:57	08/17/15 14:14	1
Benzo[b]fluoranthene	0.043	U	0.37	0.043	mg/Kg	☼	08/14/15 10:57	08/17/15 14:14	1
Benzo[g,h,i]perylene	0.025	U	0.37	0.025	mg/Kg	☼	08/14/15 10:57	08/17/15 14:14	1
Benzo[k]fluoranthene	0.074	U	0.37	0.074	mg/Kg	☼	08/14/15 10:57	08/17/15 14:14	1
1,1'-Biphenyl	1.9	U	1.9	1.9	mg/Kg	☼	08/14/15 10:57	08/17/15 14:14	1
Bis(2-chloroethoxy)methane	0.044	U	0.37	0.044	mg/Kg	☼	08/14/15 10:57	08/17/15 14:14	1
Bis(2-chloroethyl)ether	0.051	U *	0.37	0.051	mg/Kg	☼	08/14/15 10:57	08/17/15 14:14	1
bis (2-chloroisopropyl) ether	0.034	U	0.37	0.034	mg/Kg	☼	08/14/15 10:57	08/17/15 14:14	1
<b>Bis(2-ethylhexyl) phthalate</b>	<b>0.037</b>	<b>J B</b>	0.37	0.033	mg/Kg	☼	08/14/15 10:57	08/17/15 14:14	1
4-Bromophenyl phenyl ether	0.041	U	0.37	0.041	mg/Kg	☼	08/14/15 10:57	08/17/15 14:14	1
Butyl benzyl phthalate	0.029	U	0.37	0.029	mg/Kg	☼	08/14/15 10:57	08/17/15 14:14	1
Caprolactam	0.075	U	0.37	0.075	mg/Kg	☼	08/14/15 10:57	08/17/15 14:14	1
Carbazole	0.034	U	0.37	0.034	mg/Kg	☼	08/14/15 10:57	08/17/15 14:14	1
4-Chloroaniline	0.059	U	0.75	0.059	mg/Kg	☼	08/14/15 10:57	08/17/15 14:14	1
4-Chloro-3-methylphenol	0.040	U	0.37	0.040	mg/Kg	☼	08/14/15 10:57	08/17/15 14:14	1
2-Chloronaphthalene	0.040	U	0.37	0.040	mg/Kg	☼	08/14/15 10:57	08/17/15 14:14	1
2-Chlorophenol	0.045	U	0.37	0.045	mg/Kg	☼	08/14/15 10:57	08/17/15 14:14	1
4-Chlorophenyl phenyl ether	0.050	U	0.37	0.050	mg/Kg	☼	08/14/15 10:57	08/17/15 14:14	1
Chrysene	0.024	U	0.37	0.024	mg/Kg	☼	08/14/15 10:57	08/17/15 14:14	1
Dibenz(a,h)anthracene	0.044	U	0.37	0.044	mg/Kg	☼	08/14/15 10:57	08/17/15 14:14	1
Dibenzofuran	0.037	U	0.37	0.037	mg/Kg	☼	08/14/15 10:57	08/17/15 14:14	1
3,3'-Dichlorobenzidine	0.032	U	0.75	0.032	mg/Kg	☼	08/14/15 10:57	08/17/15 14:14	1
2,4-Dichlorophenol	0.040	U	0.37	0.040	mg/Kg	☼	08/14/15 10:57	08/17/15 14:14	1
Diethyl phthalate	0.042	U	0.37	0.042	mg/Kg	☼	08/14/15 10:57	08/17/15 14:14	1
2,4-Dimethylphenol	0.050	U	0.37	0.050	mg/Kg	☼	08/14/15 10:57	08/17/15 14:14	1
Dimethyl phthalate	0.038	U	0.37	0.038	mg/Kg	☼	08/14/15 10:57	08/17/15 14:14	1
Di-n-butyl phthalate	0.034	U	0.37	0.034	mg/Kg	☼	08/14/15 10:57	08/17/15 14:14	1
4,6-Dinitro-2-methylphenol	0.19	U	1.9	0.19	mg/Kg	☼	08/14/15 10:57	08/17/15 14:14	1
2,4-Dinitrophenol	0.94	U	1.9	0.94	mg/Kg	☼	08/14/15 10:57	08/17/15 14:14	1
2,4-Dinitrotoluene	0.055	U	0.37	0.055	mg/Kg	☼	08/14/15 10:57	08/17/15 14:14	1
2,6-Dinitrotoluene	0.048	U	0.37	0.048	mg/Kg	☼	08/14/15 10:57	08/17/15 14:14	1
Di-n-octyl phthalate	0.033	U	0.37	0.033	mg/Kg	☼	08/14/15 10:57	08/17/15 14:14	1
Fluoranthene	0.036	U	0.37	0.036	mg/Kg	☼	08/14/15 10:57	08/17/15 14:14	1
Fluorene	0.041	U	0.37	0.041	mg/Kg	☼	08/14/15 10:57	08/17/15 14:14	1
Hexachlorobenzene	0.044	U	0.37	0.044	mg/Kg	☼	08/14/15 10:57	08/17/15 14:14	1
Hexachlorobutadiene	0.041	U	0.37	0.041	mg/Kg	☼	08/14/15 10:57	08/17/15 14:14	1
Hexachlorocyclopentadiene	0.046	U	0.37	0.046	mg/Kg	☼	08/14/15 10:57	08/17/15 14:14	1
Hexachloroethane	0.032	U	0.37	0.032	mg/Kg	☼	08/14/15 10:57	08/17/15 14:14	1
Indeno[1,2,3-cd]pyrene	0.032	U	0.37	0.032	mg/Kg	☼	08/14/15 10:57	08/17/15 14:14	1
Isophorone	0.037	U	0.37	0.037	mg/Kg	☼	08/14/15 10:57	08/17/15 14:14	1
2-Methylnaphthalene	0.043	U	0.37	0.043	mg/Kg	☼	08/14/15 10:57	08/17/15 14:14	1
2-Methylphenol	0.031	U	0.37	0.031	mg/Kg	☼	08/14/15 10:57	08/17/15 14:14	1

TestAmerica Savannah

# Client Sample Results

Client: Geotechnical & Environmental Consultants  
Project/Site: Macon MGP #2

TestAmerica Job ID: 680-115544-1

**Client Sample ID: GB-9 8-10**

**Date Collected: 08/10/15 09:57**

**Date Received: 08/12/15 09:46**

**Lab Sample ID: 680-115544-4**

**Matrix: Solid**

**Percent Solids: 88.0**

## Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
3 & 4 Methylphenol	0.049	U	0.37	0.049	mg/Kg	☼	08/14/15 10:57	08/17/15 14:14	1
Naphthalene	0.034	U	0.37	0.034	mg/Kg	☼	08/14/15 10:57	08/17/15 14:14	1
2-Nitroaniline	0.051	U	1.9	0.051	mg/Kg	☼	08/14/15 10:57	08/17/15 14:14	1
3-Nitroaniline	0.052	U	1.9	0.052	mg/Kg	☼	08/14/15 10:57	08/17/15 14:14	1
4-Nitroaniline	0.055	U	1.9	0.055	mg/Kg	☼	08/14/15 10:57	08/17/15 14:14	1
Nitrobenzene	0.029	U	0.37	0.029	mg/Kg	☼	08/14/15 10:57	08/17/15 14:14	1
2-Nitrophenol	0.046	U	0.37	0.046	mg/Kg	☼	08/14/15 10:57	08/17/15 14:14	1
4-Nitrophenol	0.37	U	1.9	0.37	mg/Kg	☼	08/14/15 10:57	08/17/15 14:14	1
N-Nitrosodi-n-propylamine	0.036	U	0.37	0.036	mg/Kg	☼	08/14/15 10:57	08/17/15 14:14	1
N-Nitrosodiphenylamine	0.037	U	0.37	0.037	mg/Kg	☼	08/14/15 10:57	08/17/15 14:14	1
Pentachlorophenol	0.37	U	1.9	0.37	mg/Kg	☼	08/14/15 10:57	08/17/15 14:14	1
Phenanthrene	0.031	U	0.37	0.031	mg/Kg	☼	08/14/15 10:57	08/17/15 14:14	1
Phenol	0.038	U	0.37	0.038	mg/Kg	☼	08/14/15 10:57	08/17/15 14:14	1
Pyrene	0.031	U	0.37	0.031	mg/Kg	☼	08/14/15 10:57	08/17/15 14:14	1
2,4,5-Trichlorophenol	0.040	U	0.37	0.040	mg/Kg	☼	08/14/15 10:57	08/17/15 14:14	1
2,4,6-Trichlorophenol	0.033	U	0.37	0.033	mg/Kg	☼	08/14/15 10:57	08/17/15 14:14	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl	85		41 - 116	08/14/15 10:57	08/17/15 14:14	1
2-Fluorophenol (Surr)	62		39 - 114	08/14/15 10:57	08/17/15 14:14	1
Nitrobenzene-d5 (Surr)	71		37 - 115	08/14/15 10:57	08/17/15 14:14	1
Phenol-d5 (Surr)	67		38 - 122	08/14/15 10:57	08/17/15 14:14	1
Terphenyl-d14 (Surr)	83		46 - 126	08/14/15 10:57	08/17/15 14:14	1
2,4,6-Tribromophenol (Surr)	90		45 - 129	08/14/15 10:57	08/17/15 14:14	1

## Method: 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	2.8		2.1	0.86	mg/Kg	☼	08/14/15 08:59	08/17/15 20:05	1
Barium	46	B	1.1	0.17	mg/Kg	☼	08/14/15 08:59	08/17/15 20:05	1
Beryllium	0.39	J	0.43	0.011	mg/Kg	☼	08/14/15 08:59	08/17/15 20:05	1
Cadmium	0.11	U	0.54	0.11	mg/Kg	☼	08/14/15 08:59	08/17/15 20:05	1
Chromium	6.3		1.1	0.23	mg/Kg	☼	08/14/15 08:59	08/17/15 20:05	1
Copper	3.6		2.7	0.18	mg/Kg	☼	08/14/15 08:59	08/17/15 20:05	1
Lead	14		1.1	0.36	mg/Kg	☼	08/14/15 08:59	08/17/15 20:05	1
Nickel	3.8	J	4.3	0.41	mg/Kg	☼	08/14/15 08:59	08/17/15 20:05	1
Selenium	1.0	U	2.7	1.0	mg/Kg	☼	08/14/15 08:59	08/17/15 20:05	1
Silver	0.064	U	1.1	0.064	mg/Kg	☼	08/14/15 08:59	08/17/15 20:05	1
Vanadium	15		1.1	0.11	mg/Kg	☼	08/14/15 08:59	08/17/15 20:05	1
Zinc	14		2.1	0.75	mg/Kg	☼	08/14/15 08:59	08/17/15 20:05	1

## Method: 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.0077	U	0.019	0.0077	mg/Kg	☼	08/16/15 14:39	08/17/15 20:01	1

## General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total	0.24	U	0.56	0.24	mg/Kg	☼	08/19/15 09:00	08/19/15 12:21	1

TestAmerica Savannah

# Client Sample Results

Client: Geotechnical & Environmental Consultants  
Project/Site: Macon MGP #2

TestAmerica Job ID: 680-115544-1

**Client Sample ID: GB-9 13-15**

**Date Collected: 08/10/15 10:06**

**Date Received: 08/12/15 09:46**

**Lab Sample ID: 680-115544-5**

**Matrix: Solid**

**Percent Solids: 79.1**

## Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	0.051	U	0.41	0.051	mg/Kg	☼	08/14/15 10:57	08/17/15 14:40	1
Acenaphthylene	0.045	U	0.41	0.045	mg/Kg	☼	08/14/15 10:57	08/17/15 14:40	1
Acetophenone	0.035	U	0.41	0.035	mg/Kg	☼	08/14/15 10:57	08/17/15 14:40	1
Anthracene	0.031	U	0.41	0.031	mg/Kg	☼	08/14/15 10:57	08/17/15 14:40	1
Atrazine	0.029	U	0.41	0.029	mg/Kg	☼	08/14/15 10:57	08/17/15 14:40	1
Benzaldehyde	0.073	U	0.41	0.073	mg/Kg	☼	08/14/15 10:57	08/17/15 14:40	1
Benzo[a]anthracene	0.034	U	0.41	0.034	mg/Kg	☼	08/14/15 10:57	08/17/15 14:40	1
Benzo[a]pyrene	0.065	U	0.41	0.065	mg/Kg	☼	08/14/15 10:57	08/17/15 14:40	1
Benzo[b]fluoranthene	0.048	U	0.41	0.048	mg/Kg	☼	08/14/15 10:57	08/17/15 14:40	1
Benzo[g,h,i]perylene	0.028	U	0.41	0.028	mg/Kg	☼	08/14/15 10:57	08/17/15 14:40	1
Benzo[k]fluoranthene	0.082	U	0.41	0.082	mg/Kg	☼	08/14/15 10:57	08/17/15 14:40	1
1,1'-Biphenyl	2.1	U	2.1	2.1	mg/Kg	☼	08/14/15 10:57	08/17/15 14:40	1
Bis(2-chloroethoxy)methane	0.049	U	0.41	0.049	mg/Kg	☼	08/14/15 10:57	08/17/15 14:40	1
Bis(2-chloroethyl)ether	0.057	U *	0.41	0.057	mg/Kg	☼	08/14/15 10:57	08/17/15 14:40	1
bis (2-chloroisopropyl) ether	0.038	U	0.41	0.038	mg/Kg	☼	08/14/15 10:57	08/17/15 14:40	1
<b>Bis(2-ethylhexyl) phthalate</b>	<b>0.070</b>	<b>J B</b>	0.41	0.036	mg/Kg	☼	08/14/15 10:57	08/17/15 14:40	1
4-Bromophenyl phenyl ether	0.045	U	0.41	0.045	mg/Kg	☼	08/14/15 10:57	08/17/15 14:40	1
Butyl benzyl phthalate	0.033	U	0.41	0.033	mg/Kg	☼	08/14/15 10:57	08/17/15 14:40	1
Caprolactam	0.083	U	0.41	0.083	mg/Kg	☼	08/14/15 10:57	08/17/15 14:40	1
Carbazole	0.038	U	0.41	0.038	mg/Kg	☼	08/14/15 10:57	08/17/15 14:40	1
4-Chloroaniline	0.065	U	0.83	0.065	mg/Kg	☼	08/14/15 10:57	08/17/15 14:40	1
4-Chloro-3-methylphenol	0.044	U	0.41	0.044	mg/Kg	☼	08/14/15 10:57	08/17/15 14:40	1
2-Chloronaphthalene	0.044	U	0.41	0.044	mg/Kg	☼	08/14/15 10:57	08/17/15 14:40	1
2-Chlorophenol	0.050	U	0.41	0.050	mg/Kg	☼	08/14/15 10:57	08/17/15 14:40	1
4-Chlorophenyl phenyl ether	0.055	U	0.41	0.055	mg/Kg	☼	08/14/15 10:57	08/17/15 14:40	1
Chrysene	0.026	U	0.41	0.026	mg/Kg	☼	08/14/15 10:57	08/17/15 14:40	1
Dibenz(a,h)anthracene	0.049	U	0.41	0.049	mg/Kg	☼	08/14/15 10:57	08/17/15 14:40	1
Dibenzofuran	0.041	U	0.41	0.041	mg/Kg	☼	08/14/15 10:57	08/17/15 14:40	1
3,3'-Dichlorobenzidine	0.035	U	0.83	0.035	mg/Kg	☼	08/14/15 10:57	08/17/15 14:40	1
2,4-Dichlorophenol	0.044	U	0.41	0.044	mg/Kg	☼	08/14/15 10:57	08/17/15 14:40	1
Diethyl phthalate	0.046	U	0.41	0.046	mg/Kg	☼	08/14/15 10:57	08/17/15 14:40	1
2,4-Dimethylphenol	0.055	U	0.41	0.055	mg/Kg	☼	08/14/15 10:57	08/17/15 14:40	1
Dimethyl phthalate	0.043	U	0.41	0.043	mg/Kg	☼	08/14/15 10:57	08/17/15 14:40	1
Di-n-butyl phthalate	0.038	U	0.41	0.038	mg/Kg	☼	08/14/15 10:57	08/17/15 14:40	1
4,6-Dinitro-2-methylphenol	0.21	U	2.1	0.21	mg/Kg	☼	08/14/15 10:57	08/17/15 14:40	1
2,4-Dinitrophenol	1.0	U	2.1	1.0	mg/Kg	☼	08/14/15 10:57	08/17/15 14:40	1
2,4-Dinitrotoluene	0.062	U	0.41	0.062	mg/Kg	☼	08/14/15 10:57	08/17/15 14:40	1
2,6-Dinitrotoluene	0.053	U	0.41	0.053	mg/Kg	☼	08/14/15 10:57	08/17/15 14:40	1
Di-n-octyl phthalate	0.036	U	0.41	0.036	mg/Kg	☼	08/14/15 10:57	08/17/15 14:40	1
Fluoranthene	0.040	U	0.41	0.040	mg/Kg	☼	08/14/15 10:57	08/17/15 14:40	1
Fluorene	0.045	U	0.41	0.045	mg/Kg	☼	08/14/15 10:57	08/17/15 14:40	1
Hexachlorobenzene	0.049	U	0.41	0.049	mg/Kg	☼	08/14/15 10:57	08/17/15 14:40	1
Hexachlorobutadiene	0.045	U	0.41	0.045	mg/Kg	☼	08/14/15 10:57	08/17/15 14:40	1
Hexachlorocyclopentadiene	0.051	U	0.41	0.051	mg/Kg	☼	08/14/15 10:57	08/17/15 14:40	1
Hexachloroethane	0.035	U	0.41	0.035	mg/Kg	☼	08/14/15 10:57	08/17/15 14:40	1
Indeno[1,2,3-cd]pyrene	0.035	U	0.41	0.035	mg/Kg	☼	08/14/15 10:57	08/17/15 14:40	1
Isophorone	0.041	U	0.41	0.041	mg/Kg	☼	08/14/15 10:57	08/17/15 14:40	1
2-Methylnaphthalene	0.048	U	0.41	0.048	mg/Kg	☼	08/14/15 10:57	08/17/15 14:40	1
2-Methylphenol	0.034	U	0.41	0.034	mg/Kg	☼	08/14/15 10:57	08/17/15 14:40	1

TestAmerica Savannah

# Client Sample Results

Client: Geotechnical & Environmental Consultants  
Project/Site: Macon MGP #2

TestAmerica Job ID: 680-115544-1

**Client Sample ID: GB-9 13-15**

**Date Collected: 08/10/15 10:06**

**Date Received: 08/12/15 09:46**

**Lab Sample ID: 680-115544-5**

**Matrix: Solid**

**Percent Solids: 79.1**

## Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
3 & 4 Methylphenol	0.054	U	0.41	0.054	mg/Kg	☼	08/14/15 10:57	08/17/15 14:40	1
Naphthalene	0.038	U	0.41	0.038	mg/Kg	☼	08/14/15 10:57	08/17/15 14:40	1
2-Nitroaniline	0.057	U	2.1	0.057	mg/Kg	☼	08/14/15 10:57	08/17/15 14:40	1
3-Nitroaniline	0.058	U	2.1	0.058	mg/Kg	☼	08/14/15 10:57	08/17/15 14:40	1
4-Nitroaniline	0.062	U	2.1	0.062	mg/Kg	☼	08/14/15 10:57	08/17/15 14:40	1
Nitrobenzene	0.033	U	0.41	0.033	mg/Kg	☼	08/14/15 10:57	08/17/15 14:40	1
2-Nitrophenol	0.051	U	0.41	0.051	mg/Kg	☼	08/14/15 10:57	08/17/15 14:40	1
4-Nitrophenol	0.41	U	2.1	0.41	mg/Kg	☼	08/14/15 10:57	08/17/15 14:40	1
N-Nitrosodi-n-propylamine	0.040	U	0.41	0.040	mg/Kg	☼	08/14/15 10:57	08/17/15 14:40	1
N-Nitrosodiphenylamine	0.041	U	0.41	0.041	mg/Kg	☼	08/14/15 10:57	08/17/15 14:40	1
Pentachlorophenol	0.41	U	2.1	0.41	mg/Kg	☼	08/14/15 10:57	08/17/15 14:40	1
Phenanthrene	0.034	U	0.41	0.034	mg/Kg	☼	08/14/15 10:57	08/17/15 14:40	1
Phenol	0.043	U	0.41	0.043	mg/Kg	☼	08/14/15 10:57	08/17/15 14:40	1
Pyrene	0.034	U	0.41	0.034	mg/Kg	☼	08/14/15 10:57	08/17/15 14:40	1
2,4,5-Trichlorophenol	0.044	U	0.41	0.044	mg/Kg	☼	08/14/15 10:57	08/17/15 14:40	1
2,4,6-Trichlorophenol	0.036	U	0.41	0.036	mg/Kg	☼	08/14/15 10:57	08/17/15 14:40	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl	85		41 - 116	08/14/15 10:57	08/17/15 14:40	1
2-Fluorophenol (Surr)	64		39 - 114	08/14/15 10:57	08/17/15 14:40	1
Nitrobenzene-d5 (Surr)	68		37 - 115	08/14/15 10:57	08/17/15 14:40	1
Phenol-d5 (Surr)	67		38 - 122	08/14/15 10:57	08/17/15 14:40	1
Terphenyl-d14 (Surr)	77		46 - 126	08/14/15 10:57	08/17/15 14:40	1
2,4,6-Tribromophenol (Surr)	92		45 - 129	08/14/15 10:57	08/17/15 14:40	1

## Method: 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	2.3		2.3	0.92	mg/Kg	☼	08/14/15 08:59	08/17/15 21:20	1
Barium	170	B	1.1	0.18	mg/Kg	☼	08/14/15 08:59	08/17/15 21:20	1
Beryllium	1.9		0.46	0.011	mg/Kg	☼	08/14/15 08:59	08/17/15 21:20	1
Cadmium	0.11	U	0.57	0.11	mg/Kg	☼	08/14/15 08:59	08/17/15 21:20	1
Chromium	27		1.1	0.24	mg/Kg	☼	08/14/15 08:59	08/17/15 21:20	1
Copper	53		2.9	0.20	mg/Kg	☼	08/14/15 08:59	08/17/15 21:20	1
Lead	26		1.1	0.39	mg/Kg	☼	08/14/15 08:59	08/17/15 21:20	1
Nickel	16		4.6	0.44	mg/Kg	☼	08/14/15 08:59	08/17/15 21:20	1
Selenium	1.1	U	2.9	1.1	mg/Kg	☼	08/14/15 08:59	08/17/15 21:20	1
Silver	0.069	U	1.1	0.069	mg/Kg	☼	08/14/15 08:59	08/17/15 21:20	1
Vanadium	77		1.1	0.11	mg/Kg	☼	08/14/15 08:59	08/17/15 21:20	1
Zinc	110		2.3	0.80	mg/Kg	☼	08/14/15 08:59	08/17/15 21:20	1

## Method: 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.11	^	0.023	0.0090	mg/Kg	☼	08/16/15 14:39	08/17/15 20:04	1

## General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total	0.26	U	0.61	0.26	mg/Kg	☼	08/19/15 09:00	08/19/15 12:22	1

TestAmerica Savannah



# Client Sample Results

Client: Geotechnical & Environmental Consultants  
Project/Site: Macon MGP #2

TestAmerica Job ID: 680-115544-1

**Client Sample ID: GB-11 3-5**

**Date Collected: 08/10/15 10:31**

**Date Received: 08/12/15 09:46**

**Lab Sample ID: 680-115544-6**

**Matrix: Solid**

**Percent Solids: 87.6**

## Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	0.23	U	1.9	0.23	mg/Kg	☼	08/14/15 10:57	08/17/15 15:06	5
Acenaphthylene	0.21	U	1.9	0.21	mg/Kg	☼	08/14/15 10:57	08/17/15 15:06	5
Acetophenone	0.16	U	1.9	0.16	mg/Kg	☼	08/14/15 10:57	08/17/15 15:06	5
Anthracene	0.14	U	1.9	0.14	mg/Kg	☼	08/14/15 10:57	08/17/15 15:06	5
Atrazine	0.13	U	1.9	0.13	mg/Kg	☼	08/14/15 10:57	08/17/15 15:06	5
Benzaldehyde	0.33	U	1.9	0.33	mg/Kg	☼	08/14/15 10:57	08/17/15 15:06	5
Benzo[a]anthracene	0.15	U	1.9	0.15	mg/Kg	☼	08/14/15 10:57	08/17/15 15:06	5
Benzo[a]pyrene	0.30	U	1.9	0.30	mg/Kg	☼	08/14/15 10:57	08/17/15 15:06	5
Benzo[b]fluoranthene	0.22	U	1.9	0.22	mg/Kg	☼	08/14/15 10:57	08/17/15 15:06	5
Benzo[g,h,i]perylene	0.13	U	1.9	0.13	mg/Kg	☼	08/14/15 10:57	08/17/15 15:06	5
Benzo[k]fluoranthene	0.37	U	1.9	0.37	mg/Kg	☼	08/14/15 10:57	08/17/15 15:06	5
1,1'-Biphenyl	9.7	U	9.7	9.7	mg/Kg	☼	08/14/15 10:57	08/17/15 15:06	5
Bis(2-chloroethoxy)methane	0.22	U	1.9	0.22	mg/Kg	☼	08/14/15 10:57	08/17/15 15:06	5
Bis(2-chloroethyl)ether	0.26	U *	1.9	0.26	mg/Kg	☼	08/14/15 10:57	08/17/15 15:06	5
bis (2-chloroisopropyl) ether	0.17	U	1.9	0.17	mg/Kg	☼	08/14/15 10:57	08/17/15 15:06	5
Bis(2-ethylhexyl) phthalate	0.17	U	1.9	0.17	mg/Kg	☼	08/14/15 10:57	08/17/15 15:06	5
4-Bromophenyl phenyl ether	0.21	U	1.9	0.21	mg/Kg	☼	08/14/15 10:57	08/17/15 15:06	5
Butyl benzyl phthalate	0.15	U	1.9	0.15	mg/Kg	☼	08/14/15 10:57	08/17/15 15:06	5
Caprolactam	0.38	U	1.9	0.38	mg/Kg	☼	08/14/15 10:57	08/17/15 15:06	5
Carbazole	0.17	U	1.9	0.17	mg/Kg	☼	08/14/15 10:57	08/17/15 15:06	5
4-Chloroaniline	0.30	U	3.8	0.30	mg/Kg	☼	08/14/15 10:57	08/17/15 15:06	5
4-Chloro-3-methylphenol	0.20	U	1.9	0.20	mg/Kg	☼	08/14/15 10:57	08/17/15 15:06	5
2-Chloronaphthalene	0.20	U	1.9	0.20	mg/Kg	☼	08/14/15 10:57	08/17/15 15:06	5
2-Chlorophenol	0.23	U	1.9	0.23	mg/Kg	☼	08/14/15 10:57	08/17/15 15:06	5
4-Chlorophenyl phenyl ether	0.25	U	1.9	0.25	mg/Kg	☼	08/14/15 10:57	08/17/15 15:06	5
Chrysene	0.12	U	1.9	0.12	mg/Kg	☼	08/14/15 10:57	08/17/15 15:06	5
Dibenz(a,h)anthracene	0.22	U	1.9	0.22	mg/Kg	☼	08/14/15 10:57	08/17/15 15:06	5
Dibenzofuran	0.19	U	1.9	0.19	mg/Kg	☼	08/14/15 10:57	08/17/15 15:06	5
3,3'-Dichlorobenzidine	0.16	U	3.8	0.16	mg/Kg	☼	08/14/15 10:57	08/17/15 15:06	5
2,4-Dichlorophenol	0.20	U	1.9	0.20	mg/Kg	☼	08/14/15 10:57	08/17/15 15:06	5
Diethyl phthalate	0.21	U	1.9	0.21	mg/Kg	☼	08/14/15 10:57	08/17/15 15:06	5
2,4-Dimethylphenol	0.25	U	1.9	0.25	mg/Kg	☼	08/14/15 10:57	08/17/15 15:06	5
Dimethyl phthalate	0.19	U	1.9	0.19	mg/Kg	☼	08/14/15 10:57	08/17/15 15:06	5
Di-n-butyl phthalate	0.17	U	1.9	0.17	mg/Kg	☼	08/14/15 10:57	08/17/15 15:06	5
4,6-Dinitro-2-methylphenol	0.97	U	9.7	0.97	mg/Kg	☼	08/14/15 10:57	08/17/15 15:06	5
2,4-Dinitrophenol	4.7	U	9.7	4.7	mg/Kg	☼	08/14/15 10:57	08/17/15 15:06	5
2,4-Dinitrotoluene	0.28	U	1.9	0.28	mg/Kg	☼	08/14/15 10:57	08/17/15 15:06	5
2,6-Dinitrotoluene	0.24	U	1.9	0.24	mg/Kg	☼	08/14/15 10:57	08/17/15 15:06	5
Di-n-octyl phthalate	0.17	U	1.9	0.17	mg/Kg	☼	08/14/15 10:57	08/17/15 15:06	5
Fluoranthene	0.18	U	1.9	0.18	mg/Kg	☼	08/14/15 10:57	08/17/15 15:06	5
Fluorene	0.21	U	1.9	0.21	mg/Kg	☼	08/14/15 10:57	08/17/15 15:06	5
Hexachlorobenzene	0.22	U	1.9	0.22	mg/Kg	☼	08/14/15 10:57	08/17/15 15:06	5
Hexachlorobutadiene	0.21	U	1.9	0.21	mg/Kg	☼	08/14/15 10:57	08/17/15 15:06	5
Hexachlorocyclopentadiene	0.23	U	1.9	0.23	mg/Kg	☼	08/14/15 10:57	08/17/15 15:06	5
Hexachloroethane	0.16	U	1.9	0.16	mg/Kg	☼	08/14/15 10:57	08/17/15 15:06	5
Indeno[1,2,3-cd]pyrene	0.16	U	1.9	0.16	mg/Kg	☼	08/14/15 10:57	08/17/15 15:06	5
Isophorone	0.19	U	1.9	0.19	mg/Kg	☼	08/14/15 10:57	08/17/15 15:06	5
2-Methylnaphthalene	0.22	U	1.9	0.22	mg/Kg	☼	08/14/15 10:57	08/17/15 15:06	5
2-Methylphenol	0.15	U	1.9	0.15	mg/Kg	☼	08/14/15 10:57	08/17/15 15:06	5

TestAmerica Savannah

# Client Sample Results

Client: Geotechnical & Environmental Consultants  
Project/Site: Macon MGP #2

TestAmerica Job ID: 680-115544-1

**Client Sample ID: GB-11 3-5**

**Date Collected: 08/10/15 10:31**

**Date Received: 08/12/15 09:46**

**Lab Sample ID: 680-115544-6**

**Matrix: Solid**

**Percent Solids: 87.6**

## Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
3 & 4 Methylphenol	0.25	U	1.9	0.25	mg/Kg	☼	08/14/15 10:57	08/17/15 15:06	5
Naphthalene	0.17	U	1.9	0.17	mg/Kg	☼	08/14/15 10:57	08/17/15 15:06	5
2-Nitroaniline	0.26	U	9.7	0.26	mg/Kg	☼	08/14/15 10:57	08/17/15 15:06	5
3-Nitroaniline	0.26	U	9.7	0.26	mg/Kg	☼	08/14/15 10:57	08/17/15 15:06	5
4-Nitroaniline	0.28	U	9.7	0.28	mg/Kg	☼	08/14/15 10:57	08/17/15 15:06	5
Nitrobenzene	0.15	U	1.9	0.15	mg/Kg	☼	08/14/15 10:57	08/17/15 15:06	5
2-Nitrophenol	0.23	U	1.9	0.23	mg/Kg	☼	08/14/15 10:57	08/17/15 15:06	5
4-Nitrophenol	1.9	U	9.7	1.9	mg/Kg	☼	08/14/15 10:57	08/17/15 15:06	5
N-Nitrosodi-n-propylamine	0.18	U	1.9	0.18	mg/Kg	☼	08/14/15 10:57	08/17/15 15:06	5
N-Nitrosodiphenylamine	0.19	U	1.9	0.19	mg/Kg	☼	08/14/15 10:57	08/17/15 15:06	5
Pentachlorophenol	1.9	U	9.7	1.9	mg/Kg	☼	08/14/15 10:57	08/17/15 15:06	5
Phenanthrene	0.15	U	1.9	0.15	mg/Kg	☼	08/14/15 10:57	08/17/15 15:06	5
Phenol	0.19	U	1.9	0.19	mg/Kg	☼	08/14/15 10:57	08/17/15 15:06	5
Pyrene	0.15	U	1.9	0.15	mg/Kg	☼	08/14/15 10:57	08/17/15 15:06	5
2,4,5-Trichlorophenol	0.20	U	1.9	0.20	mg/Kg	☼	08/14/15 10:57	08/17/15 15:06	5
2,4,6-Trichlorophenol	0.17	U	1.9	0.17	mg/Kg	☼	08/14/15 10:57	08/17/15 15:06	5

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl	75		41 - 116	08/14/15 10:57	08/17/15 15:06	5
2-Fluorophenol (Surr)	58		39 - 114	08/14/15 10:57	08/17/15 15:06	5
Nitrobenzene-d5 (Surr)	59		37 - 115	08/14/15 10:57	08/17/15 15:06	5
Phenol-d5 (Surr)	61		38 - 122	08/14/15 10:57	08/17/15 15:06	5
Terphenyl-d14 (Surr)	72		46 - 126	08/14/15 10:57	08/17/15 15:06	5
2,4,6-Tribromophenol (Surr)	80		45 - 129	08/14/15 10:57	08/17/15 15:06	5

## Method: 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	1.5	J	2.0	0.82	mg/Kg	☼	08/14/15 08:59	08/17/15 21:12	1
Barium	49	B	1.0	0.16	mg/Kg	☼	08/14/15 08:59	08/17/15 21:12	1
Beryllium	0.30	J	0.41	0.010	mg/Kg	☼	08/14/15 08:59	08/17/15 21:12	1
Cadmium	0.10	U	0.51	0.10	mg/Kg	☼	08/14/15 08:59	08/17/15 21:12	1
Chromium	13		1.0	0.21	mg/Kg	☼	08/14/15 08:59	08/17/15 21:12	1
Copper	7.8		2.5	0.17	mg/Kg	☼	08/14/15 08:59	08/17/15 21:12	1
Lead	73		1.0	0.35	mg/Kg	☼	08/14/15 08:59	08/17/15 21:12	1
Nickel	2.8	J	4.1	0.39	mg/Kg	☼	08/14/15 08:59	08/17/15 21:12	1
Selenium	0.99	U	2.5	0.99	mg/Kg	☼	08/14/15 08:59	08/17/15 21:12	1
Silver	0.061	U	1.0	0.061	mg/Kg	☼	08/14/15 08:59	08/17/15 21:12	1
Vanadium	28		1.0	0.10	mg/Kg	☼	08/14/15 08:59	08/17/15 21:12	1
Zinc	51		2.0	0.71	mg/Kg	☼	08/14/15 08:59	08/17/15 21:12	1

## Method: 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.20	^	0.021	0.0083	mg/Kg	☼	08/16/15 14:39	08/17/15 20:07	1

## General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total	0.23	U	0.54	0.23	mg/Kg	☼	08/19/15 09:00	08/19/15 12:24	1

TestAmerica Savannah



# Client Sample Results

Client: Geotechnical & Environmental Consultants  
Project/Site: Macon MGP #2

TestAmerica Job ID: 680-115544-1

**Client Sample ID: GB-11 8-10**

**Date Collected: 08/10/15 10:36**

**Date Received: 08/12/15 09:46**

**Lab Sample ID: 680-115544-7**

**Matrix: Solid**

**Percent Solids: 87.6**

## Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	0.23	U	1.9	0.23	mg/Kg	☼	08/14/15 10:57	08/17/15 15:32	5
Acenaphthylene	0.21	U	1.9	0.21	mg/Kg	☼	08/14/15 10:57	08/17/15 15:32	5
Acetophenone	0.16	U	1.9	0.16	mg/Kg	☼	08/14/15 10:57	08/17/15 15:32	5
Anthracene	0.14	U	1.9	0.14	mg/Kg	☼	08/14/15 10:57	08/17/15 15:32	5
Atrazine	0.13	U	1.9	0.13	mg/Kg	☼	08/14/15 10:57	08/17/15 15:32	5
Benzaldehyde	0.33	U	1.9	0.33	mg/Kg	☼	08/14/15 10:57	08/17/15 15:32	5
Benzo[a]anthracene	0.15	U	1.9	0.15	mg/Kg	☼	08/14/15 10:57	08/17/15 15:32	5
Benzo[a]pyrene	0.30	U	1.9	0.30	mg/Kg	☼	08/14/15 10:57	08/17/15 15:32	5
Benzo[b]fluoranthene	0.22	U	1.9	0.22	mg/Kg	☼	08/14/15 10:57	08/17/15 15:32	5
Benzo[g,h,i]perylene	0.13	U	1.9	0.13	mg/Kg	☼	08/14/15 10:57	08/17/15 15:32	5
Benzo[k]fluoranthene	0.37	U	1.9	0.37	mg/Kg	☼	08/14/15 10:57	08/17/15 15:32	5
1,1'-Biphenyl	9.7	U	9.7	9.7	mg/Kg	☼	08/14/15 10:57	08/17/15 15:32	5
Bis(2-chloroethoxy)methane	0.22	U	1.9	0.22	mg/Kg	☼	08/14/15 10:57	08/17/15 15:32	5
Bis(2-chloroethyl)ether	0.26	U *	1.9	0.26	mg/Kg	☼	08/14/15 10:57	08/17/15 15:32	5
bis (2-chloroisopropyl) ether	0.17	U	1.9	0.17	mg/Kg	☼	08/14/15 10:57	08/17/15 15:32	5
Bis(2-ethylhexyl) phthalate	0.17	U	1.9	0.17	mg/Kg	☼	08/14/15 10:57	08/17/15 15:32	5
4-Bromophenyl phenyl ether	0.21	U	1.9	0.21	mg/Kg	☼	08/14/15 10:57	08/17/15 15:32	5
Butyl benzyl phthalate	0.15	U	1.9	0.15	mg/Kg	☼	08/14/15 10:57	08/17/15 15:32	5
Caprolactam	0.38	U	1.9	0.38	mg/Kg	☼	08/14/15 10:57	08/17/15 15:32	5
Carbazole	0.17	U	1.9	0.17	mg/Kg	☼	08/14/15 10:57	08/17/15 15:32	5
4-Chloroaniline	0.30	U	3.8	0.30	mg/Kg	☼	08/14/15 10:57	08/17/15 15:32	5
4-Chloro-3-methylphenol	0.20	U	1.9	0.20	mg/Kg	☼	08/14/15 10:57	08/17/15 15:32	5
2-Chloronaphthalene	0.20	U	1.9	0.20	mg/Kg	☼	08/14/15 10:57	08/17/15 15:32	5
2-Chlorophenol	0.23	U	1.9	0.23	mg/Kg	☼	08/14/15 10:57	08/17/15 15:32	5
4-Chlorophenyl phenyl ether	0.25	U	1.9	0.25	mg/Kg	☼	08/14/15 10:57	08/17/15 15:32	5
Chrysene	0.12	U	1.9	0.12	mg/Kg	☼	08/14/15 10:57	08/17/15 15:32	5
Dibenz(a,h)anthracene	0.22	U	1.9	0.22	mg/Kg	☼	08/14/15 10:57	08/17/15 15:32	5
Dibenzofuran	0.19	U	1.9	0.19	mg/Kg	☼	08/14/15 10:57	08/17/15 15:32	5
3,3'-Dichlorobenzidine	0.16	U	3.8	0.16	mg/Kg	☼	08/14/15 10:57	08/17/15 15:32	5
2,4-Dichlorophenol	0.20	U	1.9	0.20	mg/Kg	☼	08/14/15 10:57	08/17/15 15:32	5
Diethyl phthalate	0.21	U	1.9	0.21	mg/Kg	☼	08/14/15 10:57	08/17/15 15:32	5
2,4-Dimethylphenol	0.25	U	1.9	0.25	mg/Kg	☼	08/14/15 10:57	08/17/15 15:32	5
Dimethyl phthalate	0.19	U	1.9	0.19	mg/Kg	☼	08/14/15 10:57	08/17/15 15:32	5
Di-n-butyl phthalate	0.17	U	1.9	0.17	mg/Kg	☼	08/14/15 10:57	08/17/15 15:32	5
4,6-Dinitro-2-methylphenol	0.97	U	9.7	0.97	mg/Kg	☼	08/14/15 10:57	08/17/15 15:32	5
2,4-Dinitrophenol	4.7	U	9.7	4.7	mg/Kg	☼	08/14/15 10:57	08/17/15 15:32	5
2,4-Dinitrotoluene	0.28	U	1.9	0.28	mg/Kg	☼	08/14/15 10:57	08/17/15 15:32	5
2,6-Dinitrotoluene	0.24	U	1.9	0.24	mg/Kg	☼	08/14/15 10:57	08/17/15 15:32	5
Di-n-octyl phthalate	0.17	U	1.9	0.17	mg/Kg	☼	08/14/15 10:57	08/17/15 15:32	5
Fluoranthene	0.18	U	1.9	0.18	mg/Kg	☼	08/14/15 10:57	08/17/15 15:32	5
Fluorene	0.21	U	1.9	0.21	mg/Kg	☼	08/14/15 10:57	08/17/15 15:32	5
Hexachlorobenzene	0.22	U	1.9	0.22	mg/Kg	☼	08/14/15 10:57	08/17/15 15:32	5
Hexachlorobutadiene	0.21	U	1.9	0.21	mg/Kg	☼	08/14/15 10:57	08/17/15 15:32	5
Hexachlorocyclopentadiene	0.23	U	1.9	0.23	mg/Kg	☼	08/14/15 10:57	08/17/15 15:32	5
Hexachloroethane	0.16	U	1.9	0.16	mg/Kg	☼	08/14/15 10:57	08/17/15 15:32	5
Indeno[1,2,3-cd]pyrene	0.16	U	1.9	0.16	mg/Kg	☼	08/14/15 10:57	08/17/15 15:32	5
Isophorone	0.19	U	1.9	0.19	mg/Kg	☼	08/14/15 10:57	08/17/15 15:32	5
2-Methylnaphthalene	0.22	U	1.9	0.22	mg/Kg	☼	08/14/15 10:57	08/17/15 15:32	5
2-Methylphenol	0.15	U	1.9	0.15	mg/Kg	☼	08/14/15 10:57	08/17/15 15:32	5

TestAmerica Savannah

# Client Sample Results

Client: Geotechnical & Environmental Consultants  
Project/Site: Macon MGP #2

TestAmerica Job ID: 680-115544-1

**Client Sample ID: GB-11 8-10**

**Date Collected: 08/10/15 10:36**

**Date Received: 08/12/15 09:46**

**Lab Sample ID: 680-115544-7**

**Matrix: Solid**

**Percent Solids: 87.6**

## Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
3 & 4 Methylphenol	0.25	U	1.9	0.25	mg/Kg	☼	08/14/15 10:57	08/17/15 15:32	5
Naphthalene	0.17	U	1.9	0.17	mg/Kg	☼	08/14/15 10:57	08/17/15 15:32	5
2-Nitroaniline	0.26	U	9.7	0.26	mg/Kg	☼	08/14/15 10:57	08/17/15 15:32	5
3-Nitroaniline	0.26	U	9.7	0.26	mg/Kg	☼	08/14/15 10:57	08/17/15 15:32	5
4-Nitroaniline	0.28	U	9.7	0.28	mg/Kg	☼	08/14/15 10:57	08/17/15 15:32	5
Nitrobenzene	0.15	U	1.9	0.15	mg/Kg	☼	08/14/15 10:57	08/17/15 15:32	5
2-Nitrophenol	0.23	U	1.9	0.23	mg/Kg	☼	08/14/15 10:57	08/17/15 15:32	5
4-Nitrophenol	1.9	U	9.7	1.9	mg/Kg	☼	08/14/15 10:57	08/17/15 15:32	5
N-Nitrosodi-n-propylamine	0.18	U	1.9	0.18	mg/Kg	☼	08/14/15 10:57	08/17/15 15:32	5
N-Nitrosodiphenylamine	0.19	U	1.9	0.19	mg/Kg	☼	08/14/15 10:57	08/17/15 15:32	5
Pentachlorophenol	1.9	U	9.7	1.9	mg/Kg	☼	08/14/15 10:57	08/17/15 15:32	5
Phenanthrene	0.15	U	1.9	0.15	mg/Kg	☼	08/14/15 10:57	08/17/15 15:32	5
Phenol	0.19	U	1.9	0.19	mg/Kg	☼	08/14/15 10:57	08/17/15 15:32	5
Pyrene	0.15	U	1.9	0.15	mg/Kg	☼	08/14/15 10:57	08/17/15 15:32	5
2,4,5-Trichlorophenol	0.20	U	1.9	0.20	mg/Kg	☼	08/14/15 10:57	08/17/15 15:32	5
2,4,6-Trichlorophenol	0.17	U	1.9	0.17	mg/Kg	☼	08/14/15 10:57	08/17/15 15:32	5

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl	59		41 - 116	08/14/15 10:57	08/17/15 15:32	5
2-Fluorophenol (Surr)	49		39 - 114	08/14/15 10:57	08/17/15 15:32	5
Nitrobenzene-d5 (Surr)	48		37 - 115	08/14/15 10:57	08/17/15 15:32	5
Phenol-d5 (Surr)	52		38 - 122	08/14/15 10:57	08/17/15 15:32	5
Terphenyl-d14 (Surr)	60		46 - 126	08/14/15 10:57	08/17/15 15:32	5
2,4,6-Tribromophenol (Surr)	61		45 - 129	08/14/15 10:57	08/17/15 15:32	5

## Method: 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	2.2		2.0	0.82	mg/Kg	☼	08/14/15 08:59	08/17/15 20:23	1
Barium	33	B	1.0	0.16	mg/Kg	☼	08/14/15 08:59	08/17/15 20:23	1
Beryllium	0.18	J	0.41	0.010	mg/Kg	☼	08/14/15 08:59	08/17/15 20:23	1
Cadmium	0.10	U	0.51	0.10	mg/Kg	☼	08/14/15 08:59	08/17/15 20:23	1
Chromium	11		1.0	0.21	mg/Kg	☼	08/14/15 08:59	08/17/15 20:23	1
Copper	10		2.5	0.17	mg/Kg	☼	08/14/15 08:59	08/17/15 20:23	1
Lead	72		1.0	0.35	mg/Kg	☼	08/14/15 08:59	08/17/15 20:23	1
Nickel	2.7	J	4.1	0.39	mg/Kg	☼	08/14/15 08:59	08/17/15 20:23	1
Selenium	0.99	U	2.5	0.99	mg/Kg	☼	08/14/15 08:59	08/17/15 20:23	1
Silver	0.061	U	1.0	0.061	mg/Kg	☼	08/14/15 08:59	08/17/15 20:23	1
Vanadium	25		1.0	0.10	mg/Kg	☼	08/14/15 08:59	08/17/15 20:23	1
Zinc	28		2.0	0.71	mg/Kg	☼	08/14/15 08:59	08/17/15 20:23	1

## Method: 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.19		0.019	0.0077	mg/Kg	☼	08/16/15 14:39	08/17/15 20:16	1

## General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total	0.25	J	0.56	0.24	mg/Kg	☼	08/19/15 09:00	08/19/15 12:25	1

TestAmerica Savannah

# Client Sample Results

Client: Geotechnical & Environmental Consultants  
Project/Site: Macon MGP #2

TestAmerica Job ID: 680-115544-1

**Client Sample ID: GB-11 13-15**

**Date Collected: 08/10/15 10:41**

**Date Received: 08/12/15 09:46**

**Lab Sample ID: 680-115544-8**

**Matrix: Solid**

**Percent Solids: 87.7**

## Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	0.23	U	1.9	0.23	mg/Kg	☼	08/14/15 10:57	08/17/15 15:58	5
Acenaphthylene	0.21	U	1.9	0.21	mg/Kg	☼	08/14/15 10:57	08/17/15 15:58	5
Acetophenone	0.16	U	1.9	0.16	mg/Kg	☼	08/14/15 10:57	08/17/15 15:58	5
<b>Anthracene</b>	<b>0.22</b>	<b>J</b>	1.9	0.14	mg/Kg	☼	08/14/15 10:57	08/17/15 15:58	5
Atrazine	0.13	U	1.9	0.13	mg/Kg	☼	08/14/15 10:57	08/17/15 15:58	5
Benzaldehyde	0.33	U	1.9	0.33	mg/Kg	☼	08/14/15 10:57	08/17/15 15:58	5
<b>Benzo[a]anthracene</b>	<b>0.84</b>	<b>J</b>	1.9	0.15	mg/Kg	☼	08/14/15 10:57	08/17/15 15:58	5
<b>Benzo[a]pyrene</b>	<b>0.67</b>	<b>J</b>	1.9	0.30	mg/Kg	☼	08/14/15 10:57	08/17/15 15:58	5
<b>Benzo[b]fluoranthene</b>	<b>1.1</b>	<b>J</b>	1.9	0.22	mg/Kg	☼	08/14/15 10:57	08/17/15 15:58	5
<b>Benzo[g,h,i]perylene</b>	<b>0.51</b>	<b>J</b>	1.9	0.13	mg/Kg	☼	08/14/15 10:57	08/17/15 15:58	5
<b>Benzo[k]fluoranthene</b>	<b>0.43</b>	<b>J</b>	1.9	0.37	mg/Kg	☼	08/14/15 10:57	08/17/15 15:58	5
1,1'-Biphenyl	9.7	U	9.7	9.7	mg/Kg	☼	08/14/15 10:57	08/17/15 15:58	5
Bis(2-chloroethoxy)methane	0.22	U	1.9	0.22	mg/Kg	☼	08/14/15 10:57	08/17/15 15:58	5
Bis(2-chloroethyl)ether	0.26	U *	1.9	0.26	mg/Kg	☼	08/14/15 10:57	08/17/15 15:58	5
bis (2-chloroisopropyl) ether	0.17	U	1.9	0.17	mg/Kg	☼	08/14/15 10:57	08/17/15 15:58	5
Bis(2-ethylhexyl) phthalate	0.17	U	1.9	0.17	mg/Kg	☼	08/14/15 10:57	08/17/15 15:58	5
4-Bromophenyl phenyl ether	0.21	U	1.9	0.21	mg/Kg	☼	08/14/15 10:57	08/17/15 15:58	5
Butyl benzyl phthalate	0.15	U	1.9	0.15	mg/Kg	☼	08/14/15 10:57	08/17/15 15:58	5
Caprolactam	0.38	U	1.9	0.38	mg/Kg	☼	08/14/15 10:57	08/17/15 15:58	5
Carbazole	0.17	U	1.9	0.17	mg/Kg	☼	08/14/15 10:57	08/17/15 15:58	5
4-Chloroaniline	0.30	U	3.8	0.30	mg/Kg	☼	08/14/15 10:57	08/17/15 15:58	5
4-Chloro-3-methylphenol	0.20	U	1.9	0.20	mg/Kg	☼	08/14/15 10:57	08/17/15 15:58	5
2-Chloronaphthalene	0.20	U	1.9	0.20	mg/Kg	☼	08/14/15 10:57	08/17/15 15:58	5
2-Chlorophenol	0.23	U	1.9	0.23	mg/Kg	☼	08/14/15 10:57	08/17/15 15:58	5
4-Chlorophenyl phenyl ether	0.25	U	1.9	0.25	mg/Kg	☼	08/14/15 10:57	08/17/15 15:58	5
<b>Chrysene</b>	<b>0.78</b>	<b>J</b>	1.9	0.12	mg/Kg	☼	08/14/15 10:57	08/17/15 15:58	5
Dibenz(a,h)anthracene	0.22	U	1.9	0.22	mg/Kg	☼	08/14/15 10:57	08/17/15 15:58	5
Dibenzofuran	0.19	U	1.9	0.19	mg/Kg	☼	08/14/15 10:57	08/17/15 15:58	5
3,3'-Dichlorobenzidine	0.16	U	3.8	0.16	mg/Kg	☼	08/14/15 10:57	08/17/15 15:58	5
2,4-Dichlorophenol	0.20	U	1.9	0.20	mg/Kg	☼	08/14/15 10:57	08/17/15 15:58	5
Diethyl phthalate	0.21	U	1.9	0.21	mg/Kg	☼	08/14/15 10:57	08/17/15 15:58	5
2,4-Dimethylphenol	0.25	U	1.9	0.25	mg/Kg	☼	08/14/15 10:57	08/17/15 15:58	5
Dimethyl phthalate	0.19	U	1.9	0.19	mg/Kg	☼	08/14/15 10:57	08/17/15 15:58	5
Di-n-butyl phthalate	0.17	U	1.9	0.17	mg/Kg	☼	08/14/15 10:57	08/17/15 15:58	5
4,6-Dinitro-2-methylphenol	0.97	U	9.7	0.97	mg/Kg	☼	08/14/15 10:57	08/17/15 15:58	5
2,4-Dinitrophenol	4.7	U	9.7	4.7	mg/Kg	☼	08/14/15 10:57	08/17/15 15:58	5
2,4-Dinitrotoluene	0.28	U	1.9	0.28	mg/Kg	☼	08/14/15 10:57	08/17/15 15:58	5
2,6-Dinitrotoluene	0.24	U	1.9	0.24	mg/Kg	☼	08/14/15 10:57	08/17/15 15:58	5
Di-n-octyl phthalate	0.17	U	1.9	0.17	mg/Kg	☼	08/14/15 10:57	08/17/15 15:58	5
<b>Fluoranthene</b>	<b>1.6</b>	<b>J</b>	1.9	0.18	mg/Kg	☼	08/14/15 10:57	08/17/15 15:58	5
Fluorene	0.21	U	1.9	0.21	mg/Kg	☼	08/14/15 10:57	08/17/15 15:58	5
Hexachlorobenzene	0.22	U	1.9	0.22	mg/Kg	☼	08/14/15 10:57	08/17/15 15:58	5
Hexachlorobutadiene	0.21	U	1.9	0.21	mg/Kg	☼	08/14/15 10:57	08/17/15 15:58	5
Hexachlorocyclopentadiene	0.23	U	1.9	0.23	mg/Kg	☼	08/14/15 10:57	08/17/15 15:58	5
Hexachloroethane	0.16	U	1.9	0.16	mg/Kg	☼	08/14/15 10:57	08/17/15 15:58	5
<b>Indeno[1,2,3-cd]pyrene</b>	<b>0.45</b>	<b>J</b>	1.9	0.16	mg/Kg	☼	08/14/15 10:57	08/17/15 15:58	5
Isophorone	0.19	U	1.9	0.19	mg/Kg	☼	08/14/15 10:57	08/17/15 15:58	5
2-Methylnaphthalene	0.22	U	1.9	0.22	mg/Kg	☼	08/14/15 10:57	08/17/15 15:58	5
2-Methylphenol	0.15	U	1.9	0.15	mg/Kg	☼	08/14/15 10:57	08/17/15 15:58	5

TestAmerica Savannah

# Client Sample Results

Client: Geotechnical & Environmental Consultants  
Project/Site: Macon MGP #2

TestAmerica Job ID: 680-115544-1

**Client Sample ID: GB-11 13-15**

**Date Collected: 08/10/15 10:41**

**Date Received: 08/12/15 09:46**

**Lab Sample ID: 680-115544-8**

**Matrix: Solid**

**Percent Solids: 87.7**

## Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
3 & 4 Methylphenol	0.25	U	1.9	0.25	mg/Kg	☼	08/14/15 10:57	08/17/15 15:58	5
Naphthalene	0.17	U	1.9	0.17	mg/Kg	☼	08/14/15 10:57	08/17/15 15:58	5
2-Nitroaniline	0.26	U	9.7	0.26	mg/Kg	☼	08/14/15 10:57	08/17/15 15:58	5
3-Nitroaniline	0.26	U	9.7	0.26	mg/Kg	☼	08/14/15 10:57	08/17/15 15:58	5
4-Nitroaniline	0.28	U	9.7	0.28	mg/Kg	☼	08/14/15 10:57	08/17/15 15:58	5
Nitrobenzene	0.15	U	1.9	0.15	mg/Kg	☼	08/14/15 10:57	08/17/15 15:58	5
2-Nitrophenol	0.23	U	1.9	0.23	mg/Kg	☼	08/14/15 10:57	08/17/15 15:58	5
4-Nitrophenol	1.9	U	9.7	1.9	mg/Kg	☼	08/14/15 10:57	08/17/15 15:58	5
N-Nitrosodi-n-propylamine	0.18	U	1.9	0.18	mg/Kg	☼	08/14/15 10:57	08/17/15 15:58	5
N-Nitrosodiphenylamine	0.19	U	1.9	0.19	mg/Kg	☼	08/14/15 10:57	08/17/15 15:58	5
Pentachlorophenol	1.9	U	9.7	1.9	mg/Kg	☼	08/14/15 10:57	08/17/15 15:58	5
Phenanthrene	1.0	J	1.9	0.15	mg/Kg	☼	08/14/15 10:57	08/17/15 15:58	5
Phenol	0.19	U	1.9	0.19	mg/Kg	☼	08/14/15 10:57	08/17/15 15:58	5
Pyrene	1.3	J	1.9	0.15	mg/Kg	☼	08/14/15 10:57	08/17/15 15:58	5
2,4,5-Trichlorophenol	0.20	U	1.9	0.20	mg/Kg	☼	08/14/15 10:57	08/17/15 15:58	5
2,4,6-Trichlorophenol	0.17	U	1.9	0.17	mg/Kg	☼	08/14/15 10:57	08/17/15 15:58	5

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl	85		41 - 116	08/14/15 10:57	08/17/15 15:58	5
2-Fluorophenol (Surr)	67		39 - 114	08/14/15 10:57	08/17/15 15:58	5
Nitrobenzene-d5 (Surr)	66		37 - 115	08/14/15 10:57	08/17/15 15:58	5
Phenol-d5 (Surr)	70		38 - 122	08/14/15 10:57	08/17/15 15:58	5
Terphenyl-d14 (Surr)	83		46 - 126	08/14/15 10:57	08/17/15 15:58	5
2,4,6-Tribromophenol (Surr)	92		45 - 129	08/14/15 10:57	08/17/15 15:58	5

## Method: 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	2.7		2.1	0.84	mg/Kg	☼	08/14/15 08:59	08/17/15 21:25	1
Barium	36	B	1.1	0.17	mg/Kg	☼	08/14/15 08:59	08/17/15 21:25	1
Beryllium	0.12	J	0.42	0.011	mg/Kg	☼	08/14/15 08:59	08/17/15 21:25	1
Cadmium	0.27	J	0.53	0.11	mg/Kg	☼	08/14/15 08:59	08/17/15 21:25	1
Chromium	6.7		1.1	0.22	mg/Kg	☼	08/14/15 08:59	08/17/15 21:25	1
Copper	11		2.6	0.18	mg/Kg	☼	08/14/15 08:59	08/17/15 21:25	1
Lead	74		1.1	0.36	mg/Kg	☼	08/14/15 08:59	08/17/15 21:25	1
Nickel	1.9	J	4.2	0.40	mg/Kg	☼	08/14/15 08:59	08/17/15 21:25	1
Selenium	1.0	U	2.6	1.0	mg/Kg	☼	08/14/15 08:59	08/17/15 21:25	1
Silver	0.063	U	1.1	0.063	mg/Kg	☼	08/14/15 08:59	08/17/15 21:25	1
Vanadium	16		1.1	0.11	mg/Kg	☼	08/14/15 08:59	08/17/15 21:25	1
Zinc	55		2.1	0.74	mg/Kg	☼	08/14/15 08:59	08/17/15 21:25	1

## Method: 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.092		0.020	0.0079	mg/Kg	☼	08/16/15 14:39	08/17/15 20:19	1

## General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total	0.24	U	0.57	0.24	mg/Kg	☼	08/19/15 09:00	08/19/15 12:26	1

TestAmerica Savannah

# Client Sample Results

Client: Geotechnical & Environmental Consultants  
Project/Site: Macon MGP #2

TestAmerica Job ID: 680-115544-1

**Client Sample ID: SB-25 0-2**

**Date Collected: 08/10/15 10:56**

**Date Received: 08/12/15 09:46**

**Lab Sample ID: 680-115544-9**

**Matrix: Solid**

**Percent Solids: 87.1**

## Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	0.47	U	3.8	0.47	mg/Kg	☼	08/14/15 10:57	08/17/15 16:24	10
Acenaphthylene	0.41	U	3.8	0.41	mg/Kg	☼	08/14/15 10:57	08/17/15 16:24	10
Acetophenone	0.32	U	3.8	0.32	mg/Kg	☼	08/14/15 10:57	08/17/15 16:24	10
Anthracene	0.29	U	3.8	0.29	mg/Kg	☼	08/14/15 10:57	08/17/15 16:24	10
Atrazine	0.26	U	3.8	0.26	mg/Kg	☼	08/14/15 10:57	08/17/15 16:24	10
Benzaldehyde	0.66	U	3.8	0.66	mg/Kg	☼	08/14/15 10:57	08/17/15 16:24	10
Benzo[a]anthracene	0.31	U	3.8	0.31	mg/Kg	☼	08/14/15 10:57	08/17/15 16:24	10
Benzo[a]pyrene	0.59	U	3.8	0.59	mg/Kg	☼	08/14/15 10:57	08/17/15 16:24	10
Benzo[b]fluoranthene	0.43	U	3.8	0.43	mg/Kg	☼	08/14/15 10:57	08/17/15 16:24	10
Benzo[g,h,i]perylene	0.25	U	3.8	0.25	mg/Kg	☼	08/14/15 10:57	08/17/15 16:24	10
Benzo[k]fluoranthene	0.74	U	3.8	0.74	mg/Kg	☼	08/14/15 10:57	08/17/15 16:24	10
1,1'-Biphenyl	19	U	19	19	mg/Kg	☼	08/14/15 10:57	08/17/15 16:24	10
Bis(2-chloroethoxy)methane	0.44	U	3.8	0.44	mg/Kg	☼	08/14/15 10:57	08/17/15 16:24	10
Bis(2-chloroethyl)ether	0.51	U *	3.8	0.51	mg/Kg	☼	08/14/15 10:57	08/17/15 16:24	10
bis (2-chloroisopropyl) ether	0.34	U	3.8	0.34	mg/Kg	☼	08/14/15 10:57	08/17/15 16:24	10
Bis(2-ethylhexyl) phthalate	0.33	U	3.8	0.33	mg/Kg	☼	08/14/15 10:57	08/17/15 16:24	10
4-Bromophenyl phenyl ether	0.41	U	3.8	0.41	mg/Kg	☼	08/14/15 10:57	08/17/15 16:24	10
Butyl benzyl phthalate	0.30	U	3.8	0.30	mg/Kg	☼	08/14/15 10:57	08/17/15 16:24	10
Caprolactam	0.75	U	3.8	0.75	mg/Kg	☼	08/14/15 10:57	08/17/15 16:24	10
Carbazole	0.34	U	3.8	0.34	mg/Kg	☼	08/14/15 10:57	08/17/15 16:24	10
4-Chloroaniline	0.59	U	7.5	0.59	mg/Kg	☼	08/14/15 10:57	08/17/15 16:24	10
4-Chloro-3-methylphenol	0.40	U	3.8	0.40	mg/Kg	☼	08/14/15 10:57	08/17/15 16:24	10
2-Chloronaphthalene	0.40	U	3.8	0.40	mg/Kg	☼	08/14/15 10:57	08/17/15 16:24	10
2-Chlorophenol	0.46	U	3.8	0.46	mg/Kg	☼	08/14/15 10:57	08/17/15 16:24	10
4-Chlorophenyl phenyl ether	0.50	U	3.8	0.50	mg/Kg	☼	08/14/15 10:57	08/17/15 16:24	10
Chrysene	0.24	U	3.8	0.24	mg/Kg	☼	08/14/15 10:57	08/17/15 16:24	10
Dibenz(a,h)anthracene	0.44	U	3.8	0.44	mg/Kg	☼	08/14/15 10:57	08/17/15 16:24	10
Dibenzofuran	0.38	U	3.8	0.38	mg/Kg	☼	08/14/15 10:57	08/17/15 16:24	10
3,3'-Dichlorobenzidine	0.32	U	7.5	0.32	mg/Kg	☼	08/14/15 10:57	08/17/15 16:24	10
2,4-Dichlorophenol	0.40	U	3.8	0.40	mg/Kg	☼	08/14/15 10:57	08/17/15 16:24	10
Diethyl phthalate	0.42	U	3.8	0.42	mg/Kg	☼	08/14/15 10:57	08/17/15 16:24	10
2,4-Dimethylphenol	0.50	U	3.8	0.50	mg/Kg	☼	08/14/15 10:57	08/17/15 16:24	10
Dimethyl phthalate	0.39	U	3.8	0.39	mg/Kg	☼	08/14/15 10:57	08/17/15 16:24	10
Di-n-butyl phthalate	0.34	U	3.8	0.34	mg/Kg	☼	08/14/15 10:57	08/17/15 16:24	10
4,6-Dinitro-2-methylphenol	1.9	U	19	1.9	mg/Kg	☼	08/14/15 10:57	08/17/15 16:24	10
2,4-Dinitrophenol	9.5	U	19	9.5	mg/Kg	☼	08/14/15 10:57	08/17/15 16:24	10
2,4-Dinitrotoluene	0.56	U	3.8	0.56	mg/Kg	☼	08/14/15 10:57	08/17/15 16:24	10
2,6-Dinitrotoluene	0.48	U	3.8	0.48	mg/Kg	☼	08/14/15 10:57	08/17/15 16:24	10
Di-n-octyl phthalate	0.33	U	3.8	0.33	mg/Kg	☼	08/14/15 10:57	08/17/15 16:24	10
Fluoranthene	0.37	U	3.8	0.37	mg/Kg	☼	08/14/15 10:57	08/17/15 16:24	10
Fluorene	0.41	U	3.8	0.41	mg/Kg	☼	08/14/15 10:57	08/17/15 16:24	10
Hexachlorobenzene	0.44	U	3.8	0.44	mg/Kg	☼	08/14/15 10:57	08/17/15 16:24	10
Hexachlorobutadiene	0.41	U	3.8	0.41	mg/Kg	☼	08/14/15 10:57	08/17/15 16:24	10
Hexachlorocyclopentadiene	0.47	U	3.8	0.47	mg/Kg	☼	08/14/15 10:57	08/17/15 16:24	10
Hexachloroethane	0.32	U	3.8	0.32	mg/Kg	☼	08/14/15 10:57	08/17/15 16:24	10
Indeno[1,2,3-cd]pyrene	0.32	U	3.8	0.32	mg/Kg	☼	08/14/15 10:57	08/17/15 16:24	10
Isophorone	0.38	U	3.8	0.38	mg/Kg	☼	08/14/15 10:57	08/17/15 16:24	10
2-Methylnaphthalene	0.43	U	3.8	0.43	mg/Kg	☼	08/14/15 10:57	08/17/15 16:24	10
2-Methylphenol	0.31	U	3.8	0.31	mg/Kg	☼	08/14/15 10:57	08/17/15 16:24	10

TestAmerica Savannah



# Client Sample Results

Client: Geotechnical & Environmental Consultants  
Project/Site: Macon MGP #2

TestAmerica Job ID: 680-115544-1

**Client Sample ID: SB-25 0-2**

**Date Collected: 08/10/15 10:56**

**Date Received: 08/12/15 09:46**

**Lab Sample ID: 680-115544-9**

**Matrix: Solid**

**Percent Solids: 87.1**

## Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
3 & 4 Methylphenol	0.49	U	3.8	0.49	mg/Kg	☼	08/14/15 10:57	08/17/15 16:24	10
Naphthalene	0.34	U	3.8	0.34	mg/Kg	☼	08/14/15 10:57	08/17/15 16:24	10
2-Nitroaniline	0.51	U	19	0.51	mg/Kg	☼	08/14/15 10:57	08/17/15 16:24	10
3-Nitroaniline	0.52	U	19	0.52	mg/Kg	☼	08/14/15 10:57	08/17/15 16:24	10
4-Nitroaniline	0.56	U	19	0.56	mg/Kg	☼	08/14/15 10:57	08/17/15 16:24	10
Nitrobenzene	0.30	U	3.8	0.30	mg/Kg	☼	08/14/15 10:57	08/17/15 16:24	10
2-Nitrophenol	0.47	U	3.8	0.47	mg/Kg	☼	08/14/15 10:57	08/17/15 16:24	10
4-Nitrophenol	3.8	U	19	3.8	mg/Kg	☼	08/14/15 10:57	08/17/15 16:24	10
N-Nitrosodi-n-propylamine	0.37	U	3.8	0.37	mg/Kg	☼	08/14/15 10:57	08/17/15 16:24	10
N-Nitrosodiphenylamine	0.38	U	3.8	0.38	mg/Kg	☼	08/14/15 10:57	08/17/15 16:24	10
Pentachlorophenol	3.8	U	19	3.8	mg/Kg	☼	08/14/15 10:57	08/17/15 16:24	10
Phenanthrene	0.31	U	3.8	0.31	mg/Kg	☼	08/14/15 10:57	08/17/15 16:24	10
Phenol	0.39	U	3.8	0.39	mg/Kg	☼	08/14/15 10:57	08/17/15 16:24	10
Pyrene	0.31	U	3.8	0.31	mg/Kg	☼	08/14/15 10:57	08/17/15 16:24	10
2,4,5-Trichlorophenol	0.40	U	3.8	0.40	mg/Kg	☼	08/14/15 10:57	08/17/15 16:24	10
2,4,6-Trichlorophenol	0.33	U	3.8	0.33	mg/Kg	☼	08/14/15 10:57	08/17/15 16:24	10

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl	0	D	41 - 116	08/14/15 10:57	08/17/15 16:24	10
2-Fluorophenol (Surr)	0	D	39 - 114	08/14/15 10:57	08/17/15 16:24	10
Nitrobenzene-d5 (Surr)	0	D	37 - 115	08/14/15 10:57	08/17/15 16:24	10
Phenol-d5 (Surr)	0	D	38 - 122	08/14/15 10:57	08/17/15 16:24	10
Terphenyl-d14 (Surr)	0	D	46 - 126	08/14/15 10:57	08/17/15 16:24	10
2,4,6-Tribromophenol (Surr)	0	D	45 - 129	08/14/15 10:57	08/17/15 16:24	10

## Method: 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	1.8	J	2.1	0.83	mg/Kg	☼	08/14/15 08:59	08/17/15 21:16	1
Barium	55	B	1.0	0.17	mg/Kg	☼	08/14/15 08:59	08/17/15 21:16	1
Beryllium	0.39	J	0.42	0.010	mg/Kg	☼	08/14/15 08:59	08/17/15 21:16	1
Cadmium	0.10	U	0.52	0.10	mg/Kg	☼	08/14/15 08:59	08/17/15 21:16	1
Chromium	23		1.0	0.22	mg/Kg	☼	08/14/15 08:59	08/17/15 21:16	1
Copper	20		2.6	0.18	mg/Kg	☼	08/14/15 08:59	08/17/15 21:16	1
Lead	38		1.0	0.35	mg/Kg	☼	08/14/15 08:59	08/17/15 21:16	1
Nickel	4.3		4.2	0.40	mg/Kg	☼	08/14/15 08:59	08/17/15 21:16	1
Selenium	1.0	U	2.6	1.0	mg/Kg	☼	08/14/15 08:59	08/17/15 21:16	1
Silver	0.063	U	1.0	0.063	mg/Kg	☼	08/14/15 08:59	08/17/15 21:16	1
Vanadium	39		1.0	0.10	mg/Kg	☼	08/14/15 08:59	08/17/15 21:16	1
Zinc	50		2.1	0.73	mg/Kg	☼	08/14/15 08:59	08/17/15 21:16	1

## Method: 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.086		0.023	0.0090	mg/Kg	☼	08/16/15 14:39	08/17/15 20:23	1

## General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total	0.23	U	0.56	0.23	mg/Kg	☼	08/19/15 09:00	08/19/15 12:27	1

TestAmerica Savannah

# Client Sample Results

Client: Geotechnical & Environmental Consultants  
Project/Site: Macon MGP #2

TestAmerica Job ID: 680-115544-1

**Client Sample ID: SB-25 2-4**

**Date Collected: 08/10/15 10:56**

**Date Received: 08/12/15 09:46**

**Lab Sample ID: 680-115544-10**

**Matrix: Solid**

**Percent Solids: 87.2**

## Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	0.047	U	0.37	0.047	mg/Kg	☼	08/14/15 10:57	08/17/15 16:51	1
Acenaphthylene	0.041	U	0.37	0.041	mg/Kg	☼	08/14/15 10:57	08/17/15 16:51	1
Acetophenone	0.032	U	0.37	0.032	mg/Kg	☼	08/14/15 10:57	08/17/15 16:51	1
<b>Anthracene</b>	<b>0.071</b>	<b>J</b>	0.37	0.028	mg/Kg	☼	08/14/15 10:57	08/17/15 16:51	1
Atrazine	0.026	U	0.37	0.026	mg/Kg	☼	08/14/15 10:57	08/17/15 16:51	1
Benzaldehyde	0.066	U	0.37	0.066	mg/Kg	☼	08/14/15 10:57	08/17/15 16:51	1
<b>Benzo[a]anthracene</b>	<b>0.60</b>		0.37	0.031	mg/Kg	☼	08/14/15 10:57	08/17/15 16:51	1
<b>Benzo[a]pyrene</b>	<b>0.76</b>		0.37	0.059	mg/Kg	☼	08/14/15 10:57	08/17/15 16:51	1
<b>Benzo[b]fluoranthene</b>	<b>0.95</b>		0.37	0.043	mg/Kg	☼	08/14/15 10:57	08/17/15 16:51	1
<b>Benzo[g,h,i]perylene</b>	<b>0.64</b>		0.37	0.025	mg/Kg	☼	08/14/15 10:57	08/17/15 16:51	1
<b>Benzo[k]fluoranthene</b>	<b>0.33</b>	<b>J</b>	0.37	0.074	mg/Kg	☼	08/14/15 10:57	08/17/15 16:51	1
1,1'-Biphenyl	1.9	U	1.9	1.9	mg/Kg	☼	08/14/15 10:57	08/17/15 16:51	1
Bis(2-chloroethoxy)methane	0.044	U	0.37	0.044	mg/Kg	☼	08/14/15 10:57	08/17/15 16:51	1
Bis(2-chloroethyl)ether	0.051	U *	0.37	0.051	mg/Kg	☼	08/14/15 10:57	08/17/15 16:51	1
bis (2-chloroisopropyl) ether	0.034	U	0.37	0.034	mg/Kg	☼	08/14/15 10:57	08/17/15 16:51	1
Bis(2-ethylhexyl) phthalate	0.033	U	0.37	0.033	mg/Kg	☼	08/14/15 10:57	08/17/15 16:51	1
4-Bromophenyl phenyl ether	0.041	U	0.37	0.041	mg/Kg	☼	08/14/15 10:57	08/17/15 16:51	1
Butyl benzyl phthalate	0.030	U	0.37	0.030	mg/Kg	☼	08/14/15 10:57	08/17/15 16:51	1
Caprolactam	0.075	U	0.37	0.075	mg/Kg	☼	08/14/15 10:57	08/17/15 16:51	1
Carbazole	0.034	U	0.37	0.034	mg/Kg	☼	08/14/15 10:57	08/17/15 16:51	1
4-Chloroaniline	0.059	U	0.75	0.059	mg/Kg	☼	08/14/15 10:57	08/17/15 16:51	1
4-Chloro-3-methylphenol	0.040	U	0.37	0.040	mg/Kg	☼	08/14/15 10:57	08/17/15 16:51	1
2-Chloronaphthalene	0.040	U	0.37	0.040	mg/Kg	☼	08/14/15 10:57	08/17/15 16:51	1
2-Chlorophenol	0.045	U	0.37	0.045	mg/Kg	☼	08/14/15 10:57	08/17/15 16:51	1
4-Chlorophenyl phenyl ether	0.050	U	0.37	0.050	mg/Kg	☼	08/14/15 10:57	08/17/15 16:51	1
<b>Chrysene</b>	<b>0.50</b>		0.37	0.024	mg/Kg	☼	08/14/15 10:57	08/17/15 16:51	1
<b>Dibenz(a,h)anthracene</b>	<b>0.15</b>	<b>J</b>	0.37	0.044	mg/Kg	☼	08/14/15 10:57	08/17/15 16:51	1
Dibenzofuran	0.037	U	0.37	0.037	mg/Kg	☼	08/14/15 10:57	08/17/15 16:51	1
3,3'-Dichlorobenzidine	0.032	U	0.75	0.032	mg/Kg	☼	08/14/15 10:57	08/17/15 16:51	1
2,4-Dichlorophenol	0.040	U	0.37	0.040	mg/Kg	☼	08/14/15 10:57	08/17/15 16:51	1
Diethyl phthalate	0.042	U	0.37	0.042	mg/Kg	☼	08/14/15 10:57	08/17/15 16:51	1
2,4-Dimethylphenol	0.050	U	0.37	0.050	mg/Kg	☼	08/14/15 10:57	08/17/15 16:51	1
Dimethyl phthalate	0.039	U	0.37	0.039	mg/Kg	☼	08/14/15 10:57	08/17/15 16:51	1
Di-n-butyl phthalate	0.034	U	0.37	0.034	mg/Kg	☼	08/14/15 10:57	08/17/15 16:51	1
4,6-Dinitro-2-methylphenol	0.19	U	1.9	0.19	mg/Kg	☼	08/14/15 10:57	08/17/15 16:51	1
2,4-Dinitrophenol	0.94	U	1.9	0.94	mg/Kg	☼	08/14/15 10:57	08/17/15 16:51	1
2,4-Dinitrotoluene	0.056	U	0.37	0.056	mg/Kg	☼	08/14/15 10:57	08/17/15 16:51	1
2,6-Dinitrotoluene	0.048	U	0.37	0.048	mg/Kg	☼	08/14/15 10:57	08/17/15 16:51	1
Di-n-octyl phthalate	0.033	U	0.37	0.033	mg/Kg	☼	08/14/15 10:57	08/17/15 16:51	1
<b>Fluoranthene</b>	<b>0.77</b>		0.37	0.036	mg/Kg	☼	08/14/15 10:57	08/17/15 16:51	1
Fluorene	0.041	U	0.37	0.041	mg/Kg	☼	08/14/15 10:57	08/17/15 16:51	1
Hexachlorobenzene	0.044	U	0.37	0.044	mg/Kg	☼	08/14/15 10:57	08/17/15 16:51	1
Hexachlorobutadiene	0.041	U	0.37	0.041	mg/Kg	☼	08/14/15 10:57	08/17/15 16:51	1
Hexachlorocyclopentadiene	0.047	U	0.37	0.047	mg/Kg	☼	08/14/15 10:57	08/17/15 16:51	1
Hexachloroethane	0.032	U	0.37	0.032	mg/Kg	☼	08/14/15 10:57	08/17/15 16:51	1
<b>Indeno[1,2,3-cd]pyrene</b>	<b>0.49</b>		0.37	0.032	mg/Kg	☼	08/14/15 10:57	08/17/15 16:51	1
Isophorone	0.037	U	0.37	0.037	mg/Kg	☼	08/14/15 10:57	08/17/15 16:51	1
2-Methylnaphthalene	0.043	U	0.37	0.043	mg/Kg	☼	08/14/15 10:57	08/17/15 16:51	1
2-Methylphenol	0.031	U	0.37	0.031	mg/Kg	☼	08/14/15 10:57	08/17/15 16:51	1

TestAmerica Savannah



# Client Sample Results

Client: Geotechnical & Environmental Consultants  
Project/Site: Macon MGP #2

TestAmerica Job ID: 680-115544-1

**Client Sample ID: SB-25 2-4**

**Date Collected: 08/10/15 10:56**

**Date Received: 08/12/15 09:46**

**Lab Sample ID: 680-115544-10**

**Matrix: Solid**

**Percent Solids: 87.2**

## Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
3 & 4 Methylphenol	0.049	U	0.37	0.049	mg/Kg	☼	08/14/15 10:57	08/17/15 16:51	1
<b>Naphthalene</b>	<b>0.046</b>	<b>J</b>	0.37	0.034	mg/Kg	☼	08/14/15 10:57	08/17/15 16:51	1
2-Nitroaniline	0.051	U	1.9	0.051	mg/Kg	☼	08/14/15 10:57	08/17/15 16:51	1
3-Nitroaniline	0.052	U	1.9	0.052	mg/Kg	☼	08/14/15 10:57	08/17/15 16:51	1
4-Nitroaniline	0.056	U	1.9	0.056	mg/Kg	☼	08/14/15 10:57	08/17/15 16:51	1
Nitrobenzene	0.030	U	0.37	0.030	mg/Kg	☼	08/14/15 10:57	08/17/15 16:51	1
2-Nitrophenol	0.047	U	0.37	0.047	mg/Kg	☼	08/14/15 10:57	08/17/15 16:51	1
4-Nitrophenol	0.37	U	1.9	0.37	mg/Kg	☼	08/14/15 10:57	08/17/15 16:51	1
N-Nitrosodi-n-propylamine	0.036	U	0.37	0.036	mg/Kg	☼	08/14/15 10:57	08/17/15 16:51	1
N-Nitrosodiphenylamine	0.037	U	0.37	0.037	mg/Kg	☼	08/14/15 10:57	08/17/15 16:51	1
Pentachlorophenol	0.37	U	1.9	0.37	mg/Kg	☼	08/14/15 10:57	08/17/15 16:51	1
<b>Phenanthrene</b>	<b>0.21</b>	<b>J</b>	0.37	0.031	mg/Kg	☼	08/14/15 10:57	08/17/15 16:51	1
Phenol	0.039	U	0.37	0.039	mg/Kg	☼	08/14/15 10:57	08/17/15 16:51	1
<b>Pyrene</b>	<b>0.81</b>		0.37	0.031	mg/Kg	☼	08/14/15 10:57	08/17/15 16:51	1
2,4,5-Trichlorophenol	0.040	U	0.37	0.040	mg/Kg	☼	08/14/15 10:57	08/17/15 16:51	1
2,4,6-Trichlorophenol	0.033	U	0.37	0.033	mg/Kg	☼	08/14/15 10:57	08/17/15 16:51	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl	61		41 - 116	08/14/15 10:57	08/17/15 16:51	1
2-Fluorophenol (Surr)	47		39 - 114	08/14/15 10:57	08/17/15 16:51	1
Nitrobenzene-d5 (Surr)	48		37 - 115	08/14/15 10:57	08/17/15 16:51	1
Phenol-d5 (Surr)	48		38 - 122	08/14/15 10:57	08/17/15 16:51	1
Terphenyl-d14 (Surr)	59		46 - 126	08/14/15 10:57	08/17/15 16:51	1
2,4,6-Tribromophenol (Surr)	67		45 - 129	08/14/15 10:57	08/17/15 16:51	1

## Method: 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Arsenic</b>	<b>4.7</b>		2.0	0.81	mg/Kg	☼	08/14/15 08:59	08/17/15 21:34	1
<b>Barium</b>	<b>120</b>	<b>B</b>	1.0	0.16	mg/Kg	☼	08/14/15 08:59	08/17/15 21:34	1
<b>Beryllium</b>	<b>0.28</b>	<b>J</b>	0.40	0.010	mg/Kg	☼	08/14/15 08:59	08/17/15 21:34	1
<b>Cadmium</b>	<b>1.2</b>		0.50	0.10	mg/Kg	☼	08/14/15 08:59	08/17/15 21:34	1
<b>Chromium</b>	<b>10</b>		1.0	0.21	mg/Kg	☼	08/14/15 08:59	08/17/15 21:34	1
<b>Copper</b>	<b>20</b>		2.5	0.17	mg/Kg	☼	08/14/15 08:59	08/17/15 21:34	1
<b>Lead</b>	<b>1800</b>		1.0	0.34	mg/Kg	☼	08/14/15 08:59	08/17/15 21:34	1
<b>Nickel</b>	<b>3.4</b>	<b>J</b>	4.0	0.38	mg/Kg	☼	08/14/15 08:59	08/17/15 21:34	1
Selenium	0.98	U	2.5	0.98	mg/Kg	☼	08/14/15 08:59	08/17/15 21:34	1
<b>Silver</b>	<b>0.14</b>	<b>J</b>	1.0	0.060	mg/Kg	☼	08/14/15 08:59	08/17/15 21:34	1
<b>Vanadium</b>	<b>15</b>		1.0	0.10	mg/Kg	☼	08/14/15 08:59	08/17/15 21:34	1
<b>Zinc</b>	<b>470</b>		2.0	0.70	mg/Kg	☼	08/14/15 08:59	08/17/15 21:34	1

## Method: 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Mercury</b>	<b>0.51</b>		0.10	0.041	mg/Kg	☼	08/16/15 14:39	08/18/15 09:33	5

## General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total	0.24	U	0.56	0.24	mg/Kg	☼	08/20/15 07:30	08/20/15 11:53	1

TestAmerica Savannah

# Client Sample Results

Client: Geotechnical & Environmental Consultants  
Project/Site: Macon MGP #2

TestAmerica Job ID: 680-115544-1

**Client Sample ID: SB-25 4-6**

**Date Collected: 08/10/15 11:11**

**Date Received: 08/12/15 09:46**

**Lab Sample ID: 680-115544-11**

**Matrix: Solid**

**Percent Solids: 80.2**

## Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	0.051	U	0.41	0.051	mg/Kg	☼	08/14/15 10:57	08/17/15 17:17	1
Acenaphthylene	0.045	U	0.41	0.045	mg/Kg	☼	08/14/15 10:57	08/17/15 17:17	1
Acetophenone	0.035	U	0.41	0.035	mg/Kg	☼	08/14/15 10:57	08/17/15 17:17	1
Anthracene	0.031	U	0.41	0.031	mg/Kg	☼	08/14/15 10:57	08/17/15 17:17	1
Atrazine	0.029	U	0.41	0.029	mg/Kg	☼	08/14/15 10:57	08/17/15 17:17	1
Benzaldehyde	0.072	U	0.41	0.072	mg/Kg	☼	08/14/15 10:57	08/17/15 17:17	1
Benzo[a]anthracene	0.033	U	0.41	0.033	mg/Kg	☼	08/14/15 10:57	08/17/15 17:17	1
Benzo[a]pyrene	0.064	U	0.41	0.064	mg/Kg	☼	08/14/15 10:57	08/17/15 17:17	1
Benzo[b]fluoranthene	0.047	U	0.41	0.047	mg/Kg	☼	08/14/15 10:57	08/17/15 17:17	1
Benzo[g,h,i]perylene	0.027	U	0.41	0.027	mg/Kg	☼	08/14/15 10:57	08/17/15 17:17	1
Benzo[k]fluoranthene	0.081	U	0.41	0.081	mg/Kg	☼	08/14/15 10:57	08/17/15 17:17	1
1,1'-Biphenyl	2.1	U	2.1	2.1	mg/Kg	☼	08/14/15 10:57	08/17/15 17:17	1
Bis(2-chloroethoxy)methane	0.048	U	0.41	0.048	mg/Kg	☼	08/14/15 10:57	08/17/15 17:17	1
Bis(2-chloroethyl)ether	0.056	U F1 *	0.41	0.056	mg/Kg	☼	08/14/15 10:57	08/17/15 17:17	1
bis (2-chloroisopropyl) ether	0.037	U	0.41	0.037	mg/Kg	☼	08/14/15 10:57	08/17/15 17:17	1
Bis(2-ethylhexyl) phthalate	0.036	U	0.41	0.036	mg/Kg	☼	08/14/15 10:57	08/17/15 17:17	1
4-Bromophenyl phenyl ether	0.045	U	0.41	0.045	mg/Kg	☼	08/14/15 10:57	08/17/15 17:17	1
Butyl benzyl phthalate	0.032	U	0.41	0.032	mg/Kg	☼	08/14/15 10:57	08/17/15 17:17	1
Caprolactam	0.082	U	0.41	0.082	mg/Kg	☼	08/14/15 10:57	08/17/15 17:17	1
Carbazole	0.037	U	0.41	0.037	mg/Kg	☼	08/14/15 10:57	08/17/15 17:17	1
4-Chloroaniline	0.064	U	0.82	0.064	mg/Kg	☼	08/14/15 10:57	08/17/15 17:17	1
4-Chloro-3-methylphenol	0.043	U	0.41	0.043	mg/Kg	☼	08/14/15 10:57	08/17/15 17:17	1
2-Chloronaphthalene	0.043	U	0.41	0.043	mg/Kg	☼	08/14/15 10:57	08/17/15 17:17	1
2-Chlorophenol	0.050	U	0.41	0.050	mg/Kg	☼	08/14/15 10:57	08/17/15 17:17	1
4-Chlorophenyl phenyl ether	0.055	U	0.41	0.055	mg/Kg	☼	08/14/15 10:57	08/17/15 17:17	1
Chrysene	0.026	U	0.41	0.026	mg/Kg	☼	08/14/15 10:57	08/17/15 17:17	1
Dibenz(a,h)anthracene	0.048	U	0.41	0.048	mg/Kg	☼	08/14/15 10:57	08/17/15 17:17	1
Dibenzofuran	0.041	U	0.41	0.041	mg/Kg	☼	08/14/15 10:57	08/17/15 17:17	1
3,3'-Dichlorobenzidine	0.035	U	0.82	0.035	mg/Kg	☼	08/14/15 10:57	08/17/15 17:17	1
2,4-Dichlorophenol	0.043	U	0.41	0.043	mg/Kg	☼	08/14/15 10:57	08/17/15 17:17	1
Diethyl phthalate	0.046	U	0.41	0.046	mg/Kg	☼	08/14/15 10:57	08/17/15 17:17	1
2,4-Dimethylphenol	0.055	U	0.41	0.055	mg/Kg	☼	08/14/15 10:57	08/17/15 17:17	1
Dimethyl phthalate	0.042	U	0.41	0.042	mg/Kg	☼	08/14/15 10:57	08/17/15 17:17	1
Di-n-butyl phthalate	0.037	U	0.41	0.037	mg/Kg	☼	08/14/15 10:57	08/17/15 17:17	1
4,6-Dinitro-2-methylphenol	0.21	U	2.1	0.21	mg/Kg	☼	08/14/15 10:57	08/17/15 17:17	1
2,4-Dinitrophenol	1.0	U	2.1	1.0	mg/Kg	☼	08/14/15 10:57	08/17/15 17:17	1
2,4-Dinitrotoluene	0.061	U	0.41	0.061	mg/Kg	☼	08/14/15 10:57	08/17/15 17:17	1
2,6-Dinitrotoluene	0.052	U	0.41	0.052	mg/Kg	☼	08/14/15 10:57	08/17/15 17:17	1
Di-n-octyl phthalate	0.036	U	0.41	0.036	mg/Kg	☼	08/14/15 10:57	08/17/15 17:17	1
Fluoranthene	0.040	U	0.41	0.040	mg/Kg	☼	08/14/15 10:57	08/17/15 17:17	1
Fluorene	0.045	U	0.41	0.045	mg/Kg	☼	08/14/15 10:57	08/17/15 17:17	1
Hexachlorobenzene	0.048	U	0.41	0.048	mg/Kg	☼	08/14/15 10:57	08/17/15 17:17	1
Hexachlorobutadiene	0.045	U	0.41	0.045	mg/Kg	☼	08/14/15 10:57	08/17/15 17:17	1
Hexachlorocyclopentadiene	0.051	U	0.41	0.051	mg/Kg	☼	08/14/15 10:57	08/17/15 17:17	1
Hexachloroethane	0.035	U	0.41	0.035	mg/Kg	☼	08/14/15 10:57	08/17/15 17:17	1
Indeno[1,2,3-cd]pyrene	0.035	U	0.41	0.035	mg/Kg	☼	08/14/15 10:57	08/17/15 17:17	1
Isophorone	0.041	U	0.41	0.041	mg/Kg	☼	08/14/15 10:57	08/17/15 17:17	1
2-Methylnaphthalene	0.047	U	0.41	0.047	mg/Kg	☼	08/14/15 10:57	08/17/15 17:17	1
2-Methylphenol	0.033	U	0.41	0.033	mg/Kg	☼	08/14/15 10:57	08/17/15 17:17	1

TestAmerica Savannah

# Client Sample Results

Client: Geotechnical & Environmental Consultants  
Project/Site: Macon MGP #2

TestAmerica Job ID: 680-115544-1

**Client Sample ID: SB-25 4-6**

**Date Collected: 08/10/15 11:11**

**Date Received: 08/12/15 09:46**

**Lab Sample ID: 680-115544-11**

**Matrix: Solid**

**Percent Solids: 80.2**

## Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
3 & 4 Methylphenol	0.053	U	0.41	0.053	mg/Kg	☼	08/14/15 10:57	08/17/15 17:17	1
Naphthalene	0.037	U	0.41	0.037	mg/Kg	☼	08/14/15 10:57	08/17/15 17:17	1
2-Nitroaniline	0.056	U	2.1	0.056	mg/Kg	☼	08/14/15 10:57	08/17/15 17:17	1
3-Nitroaniline	0.057	U	2.1	0.057	mg/Kg	☼	08/14/15 10:57	08/17/15 17:17	1
4-Nitroaniline	0.061	U	2.1	0.061	mg/Kg	☼	08/14/15 10:57	08/17/15 17:17	1
Nitrobenzene	0.032	U	0.41	0.032	mg/Kg	☼	08/14/15 10:57	08/17/15 17:17	1
2-Nitrophenol	0.051	U	0.41	0.051	mg/Kg	☼	08/14/15 10:57	08/17/15 17:17	1
4-Nitrophenol	0.41	U	2.1	0.41	mg/Kg	☼	08/14/15 10:57	08/17/15 17:17	1
N-Nitrosodi-n-propylamine	0.040	U	0.41	0.040	mg/Kg	☼	08/14/15 10:57	08/17/15 17:17	1
N-Nitrosodiphenylamine	0.041	U	0.41	0.041	mg/Kg	☼	08/14/15 10:57	08/17/15 17:17	1
Pentachlorophenol	0.41	U	2.1	0.41	mg/Kg	☼	08/14/15 10:57	08/17/15 17:17	1
Phenanthrene	0.033	U	0.41	0.033	mg/Kg	☼	08/14/15 10:57	08/17/15 17:17	1
Phenol	0.042	U	0.41	0.042	mg/Kg	☼	08/14/15 10:57	08/17/15 17:17	1
Pyrene	0.033	U	0.41	0.033	mg/Kg	☼	08/14/15 10:57	08/17/15 17:17	1
2,4,5-Trichlorophenol	0.043	U	0.41	0.043	mg/Kg	☼	08/14/15 10:57	08/17/15 17:17	1
2,4,6-Trichlorophenol	0.036	U	0.41	0.036	mg/Kg	☼	08/14/15 10:57	08/17/15 17:17	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl	85		41 - 116	08/14/15 10:57	08/17/15 17:17	1
2-Fluorophenol (Surr)	64		39 - 114	08/14/15 10:57	08/17/15 17:17	1
Nitrobenzene-d5 (Surr)	69		37 - 115	08/14/15 10:57	08/17/15 17:17	1
Phenol-d5 (Surr)	67		38 - 122	08/14/15 10:57	08/17/15 17:17	1
Terphenyl-d14 (Surr)	78		46 - 126	08/14/15 10:57	08/17/15 17:17	1
2,4,6-Tribromophenol (Surr)	96		45 - 129	08/14/15 10:57	08/17/15 17:17	1

## Method: 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	2.5		2.2	0.88	mg/Kg	☼	08/14/15 08:59	08/17/15 20:36	1
Barium	6.4	B	1.1	0.18	mg/Kg	☼	08/14/15 08:59	08/17/15 20:36	1
Beryllium	0.069	J	0.44	0.011	mg/Kg	☼	08/14/15 08:59	08/17/15 20:36	1
Cadmium	0.11	U	0.55	0.11	mg/Kg	☼	08/14/15 08:59	08/17/15 20:36	1
Chromium	8.6		1.1	0.23	mg/Kg	☼	08/14/15 08:59	08/17/15 20:36	1
Copper	1.6	J	2.8	0.19	mg/Kg	☼	08/14/15 08:59	08/17/15 20:36	1
Lead	5.0		1.1	0.38	mg/Kg	☼	08/14/15 08:59	08/17/15 20:36	1
Nickel	0.90	J	4.4	0.42	mg/Kg	☼	08/14/15 08:59	08/17/15 20:36	1
Selenium	1.1	U	2.8	1.1	mg/Kg	☼	08/14/15 08:59	08/17/15 20:36	1
Silver	0.066	U	1.1	0.066	mg/Kg	☼	08/14/15 08:59	08/17/15 20:36	1
Vanadium	12		1.1	0.11	mg/Kg	☼	08/14/15 08:59	08/17/15 20:36	1
Zinc	5.3		2.2	0.77	mg/Kg	☼	08/14/15 08:59	08/17/15 20:36	1

## Method: 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.010	J	0.022	0.0086	mg/Kg	☼	08/16/15 14:39	08/17/15 20:29	1

## General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total	0.25	U	0.61	0.25	mg/Kg	☼	08/20/15 07:30	08/20/15 11:56	1

TestAmerica Savannah

# Client Sample Results

Client: Geotechnical & Environmental Consultants  
Project/Site: Macon MGP #2

TestAmerica Job ID: 680-115544-1

**Client Sample ID: SB-25 8-10**

**Date Collected: 08/10/15 11:17**

**Date Received: 08/12/15 09:46**

**Lab Sample ID: 680-115544-12**

**Matrix: Solid**

**Percent Solids: 85.1**

## Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	0.48	U	3.9	0.48	mg/Kg	☼	08/14/15 10:57	08/17/15 17:42	10
Acenaphthylene	0.42	U	3.9	0.42	mg/Kg	☼	08/14/15 10:57	08/17/15 17:42	10
Acetophenone	0.33	U	3.9	0.33	mg/Kg	☼	08/14/15 10:57	08/17/15 17:42	10
Anthracene	0.29	U	3.9	0.29	mg/Kg	☼	08/14/15 10:57	08/17/15 17:42	10
Atrazine	0.27	U	3.9	0.27	mg/Kg	☼	08/14/15 10:57	08/17/15 17:42	10
Benzaldehyde	0.68	U	3.9	0.68	mg/Kg	☼	08/14/15 10:57	08/17/15 17:42	10
Benzo[a]anthracene	0.32	U	3.9	0.32	mg/Kg	☼	08/14/15 10:57	08/17/15 17:42	10
Benzo[a]pyrene	0.61	U	3.9	0.61	mg/Kg	☼	08/14/15 10:57	08/17/15 17:42	10
Benzo[b]fluoranthene	0.45	U	3.9	0.45	mg/Kg	☼	08/14/15 10:57	08/17/15 17:42	10
Benzo[g,h,i]perylene	0.26	U	3.9	0.26	mg/Kg	☼	08/14/15 10:57	08/17/15 17:42	10
Benzo[k]fluoranthene	0.76	U	3.9	0.76	mg/Kg	☼	08/14/15 10:57	08/17/15 17:42	10
1,1'-Biphenyl	20	U	20	20	mg/Kg	☼	08/14/15 10:57	08/17/15 17:42	10
Bis(2-chloroethoxy)methane	0.46	U	3.9	0.46	mg/Kg	☼	08/14/15 10:57	08/17/15 17:42	10
Bis(2-chloroethyl)ether	0.53	U *	3.9	0.53	mg/Kg	☼	08/14/15 10:57	08/17/15 17:42	10
bis (2-chloroisopropyl) ether	0.35	U	3.9	0.35	mg/Kg	☼	08/14/15 10:57	08/17/15 17:42	10
Bis(2-ethylhexyl) phthalate	0.34	U	3.9	0.34	mg/Kg	☼	08/14/15 10:57	08/17/15 17:42	10
4-Bromophenyl phenyl ether	0.42	U	3.9	0.42	mg/Kg	☼	08/14/15 10:57	08/17/15 17:42	10
Butyl benzyl phthalate	0.31	U	3.9	0.31	mg/Kg	☼	08/14/15 10:57	08/17/15 17:42	10
Caprolactam	0.78	U	3.9	0.78	mg/Kg	☼	08/14/15 10:57	08/17/15 17:42	10
Carbazole	0.35	U	3.9	0.35	mg/Kg	☼	08/14/15 10:57	08/17/15 17:42	10
4-Chloroaniline	0.61	U	7.8	0.61	mg/Kg	☼	08/14/15 10:57	08/17/15 17:42	10
4-Chloro-3-methylphenol	0.41	U	3.9	0.41	mg/Kg	☼	08/14/15 10:57	08/17/15 17:42	10
2-Chloronaphthalene	0.41	U	3.9	0.41	mg/Kg	☼	08/14/15 10:57	08/17/15 17:42	10
2-Chlorophenol	0.47	U	3.9	0.47	mg/Kg	☼	08/14/15 10:57	08/17/15 17:42	10
4-Chlorophenyl phenyl ether	0.52	U	3.9	0.52	mg/Kg	☼	08/14/15 10:57	08/17/15 17:42	10
Chrysene	0.25	U	3.9	0.25	mg/Kg	☼	08/14/15 10:57	08/17/15 17:42	10
Dibenz(a,h)anthracene	0.46	U	3.9	0.46	mg/Kg	☼	08/14/15 10:57	08/17/15 17:42	10
Dibenzofuran	0.39	U	3.9	0.39	mg/Kg	☼	08/14/15 10:57	08/17/15 17:42	10
3,3'-Dichlorobenzidine	0.33	U	7.8	0.33	mg/Kg	☼	08/14/15 10:57	08/17/15 17:42	10
2,4-Dichlorophenol	0.41	U	3.9	0.41	mg/Kg	☼	08/14/15 10:57	08/17/15 17:42	10
Diethyl phthalate	0.43	U	3.9	0.43	mg/Kg	☼	08/14/15 10:57	08/17/15 17:42	10
2,4-Dimethylphenol	0.52	U	3.9	0.52	mg/Kg	☼	08/14/15 10:57	08/17/15 17:42	10
Dimethyl phthalate	0.40	U	3.9	0.40	mg/Kg	☼	08/14/15 10:57	08/17/15 17:42	10
Di-n-butyl phthalate	0.35	U	3.9	0.35	mg/Kg	☼	08/14/15 10:57	08/17/15 17:42	10
4,6-Dinitro-2-methylphenol	2.0	U	20	2.0	mg/Kg	☼	08/14/15 10:57	08/17/15 17:42	10
2,4-Dinitrophenol	9.8	U	20	9.8	mg/Kg	☼	08/14/15 10:57	08/17/15 17:42	10
2,4-Dinitrotoluene	0.58	U	3.9	0.58	mg/Kg	☼	08/14/15 10:57	08/17/15 17:42	10
2,6-Dinitrotoluene	0.49	U	3.9	0.49	mg/Kg	☼	08/14/15 10:57	08/17/15 17:42	10
Di-n-octyl phthalate	0.34	U	3.9	0.34	mg/Kg	☼	08/14/15 10:57	08/17/15 17:42	10
Fluoranthene	0.38	U	3.9	0.38	mg/Kg	☼	08/14/15 10:57	08/17/15 17:42	10
Fluorene	0.42	U	3.9	0.42	mg/Kg	☼	08/14/15 10:57	08/17/15 17:42	10
Hexachlorobenzene	0.46	U	3.9	0.46	mg/Kg	☼	08/14/15 10:57	08/17/15 17:42	10
Hexachlorobutadiene	0.42	U	3.9	0.42	mg/Kg	☼	08/14/15 10:57	08/17/15 17:42	10
Hexachlorocyclopentadiene	0.48	U	3.9	0.48	mg/Kg	☼	08/14/15 10:57	08/17/15 17:42	10
Hexachloroethane	0.33	U	3.9	0.33	mg/Kg	☼	08/14/15 10:57	08/17/15 17:42	10
Indeno[1,2,3-cd]pyrene	0.33	U	3.9	0.33	mg/Kg	☼	08/14/15 10:57	08/17/15 17:42	10
Isophorone	0.39	U	3.9	0.39	mg/Kg	☼	08/14/15 10:57	08/17/15 17:42	10
2-Methylnaphthalene	0.45	U	3.9	0.45	mg/Kg	☼	08/14/15 10:57	08/17/15 17:42	10
2-Methylphenol	0.32	U	3.9	0.32	mg/Kg	☼	08/14/15 10:57	08/17/15 17:42	10

TestAmerica Savannah

# Client Sample Results

Client: Geotechnical & Environmental Consultants  
Project/Site: Macon MGP #2

TestAmerica Job ID: 680-115544-1

**Client Sample ID: SB-25 8-10**

**Lab Sample ID: 680-115544-12**

**Date Collected: 08/10/15 11:17**

**Matrix: Solid**

**Date Received: 08/12/15 09:46**

**Percent Solids: 85.1**

## Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
3 & 4 Methylphenol	0.51	U	3.9	0.51	mg/Kg	☼	08/14/15 10:57	08/17/15 17:42	10
Naphthalene	0.35	U	3.9	0.35	mg/Kg	☼	08/14/15 10:57	08/17/15 17:42	10
2-Nitroaniline	0.53	U	20	0.53	mg/Kg	☼	08/14/15 10:57	08/17/15 17:42	10
3-Nitroaniline	0.54	U	20	0.54	mg/Kg	☼	08/14/15 10:57	08/17/15 17:42	10
4-Nitroaniline	0.58	U	20	0.58	mg/Kg	☼	08/14/15 10:57	08/17/15 17:42	10
Nitrobenzene	0.31	U	3.9	0.31	mg/Kg	☼	08/14/15 10:57	08/17/15 17:42	10
2-Nitrophenol	0.48	U	3.9	0.48	mg/Kg	☼	08/14/15 10:57	08/17/15 17:42	10
4-Nitrophenol	3.9	U	20	3.9	mg/Kg	☼	08/14/15 10:57	08/17/15 17:42	10
N-Nitrosodi-n-propylamine	0.38	U	3.9	0.38	mg/Kg	☼	08/14/15 10:57	08/17/15 17:42	10
N-Nitrosodiphenylamine	0.39	U	3.9	0.39	mg/Kg	☼	08/14/15 10:57	08/17/15 17:42	10
Pentachlorophenol	3.9	U	20	3.9	mg/Kg	☼	08/14/15 10:57	08/17/15 17:42	10
Phenanthrene	0.32	U	3.9	0.32	mg/Kg	☼	08/14/15 10:57	08/17/15 17:42	10
Phenol	0.40	U	3.9	0.40	mg/Kg	☼	08/14/15 10:57	08/17/15 17:42	10
Pyrene	0.32	U	3.9	0.32	mg/Kg	☼	08/14/15 10:57	08/17/15 17:42	10
2,4,5-Trichlorophenol	0.41	U	3.9	0.41	mg/Kg	☼	08/14/15 10:57	08/17/15 17:42	10
2,4,6-Trichlorophenol	0.34	U	3.9	0.34	mg/Kg	☼	08/14/15 10:57	08/17/15 17:42	10

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl	0	D	41 - 116	08/14/15 10:57	08/17/15 17:42	10
2-Fluorophenol (Surr)	0	D	39 - 114	08/14/15 10:57	08/17/15 17:42	10
Nitrobenzene-d5 (Surr)	0	D	37 - 115	08/14/15 10:57	08/17/15 17:42	10
Phenol-d5 (Surr)	0	D	38 - 122	08/14/15 10:57	08/17/15 17:42	10
Terphenyl-d14 (Surr)	0	D	46 - 126	08/14/15 10:57	08/17/15 17:42	10
2,4,6-Tribromophenol (Surr)	0	D	45 - 129	08/14/15 10:57	08/17/15 17:42	10

## Method: 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	2.3		2.1	0.84	mg/Kg	☼	08/14/15 08:59	08/17/15 20:58	1
Barium	59	B	1.0	0.17	mg/Kg	☼	08/14/15 08:59	08/17/15 20:58	1
Beryllium	0.098	J	0.42	0.010	mg/Kg	☼	08/14/15 08:59	08/17/15 20:58	1
Cadmium	0.10	U	0.52	0.10	mg/Kg	☼	08/14/15 08:59	08/17/15 20:58	1
Chromium	9.5		1.0	0.22	mg/Kg	☼	08/14/15 08:59	08/17/15 20:58	1
Copper	3.6		2.6	0.18	mg/Kg	☼	08/14/15 08:59	08/17/15 20:58	1
Lead	88		1.0	0.36	mg/Kg	☼	08/14/15 08:59	08/17/15 20:58	1
Nickel	1.5	J	4.2	0.40	mg/Kg	☼	08/14/15 08:59	08/17/15 20:58	1
Selenium	1.0	U	2.6	1.0	mg/Kg	☼	08/14/15 08:59	08/17/15 20:58	1
Silver	0.063	U	1.0	0.063	mg/Kg	☼	08/14/15 08:59	08/17/15 20:58	1
Vanadium	16		1.0	0.10	mg/Kg	☼	08/14/15 08:59	08/17/15 20:58	1
Zinc	86		2.1	0.73	mg/Kg	☼	08/14/15 08:59	08/17/15 20:58	1

## Method: 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.029		0.020	0.0081	mg/Kg	☼	08/16/15 14:39	08/17/15 20:32	1

## General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total	0.24	U	0.56	0.24	mg/Kg	☼	08/20/15 07:30	08/20/15 11:59	1

TestAmerica Savannah



# Client Sample Results

Client: Geotechnical & Environmental Consultants  
Project/Site: Macon MGP #2

TestAmerica Job ID: 680-115544-1

**Client Sample ID: SB-25 13-15**

**Date Collected: 08/10/15 11:21**

**Date Received: 08/12/15 09:46**

**Lab Sample ID: 680-115544-13**

**Matrix: Solid**

**Percent Solids: 86.1**

## Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	0.047	U	0.38	0.047	mg/Kg	☼	08/14/15 10:57	08/17/15 18:08	1
Acenaphthylene	0.041	U	0.38	0.041	mg/Kg	☼	08/14/15 10:57	08/17/15 18:08	1
Acetophenone	0.032	U	0.38	0.032	mg/Kg	☼	08/14/15 10:57	08/17/15 18:08	1
<b>Anthracene</b>	<b>0.040</b>	<b>J</b>	0.38	0.029	mg/Kg	☼	08/14/15 10:57	08/17/15 18:08	1
Atrazine	0.026	U	0.38	0.026	mg/Kg	☼	08/14/15 10:57	08/17/15 18:08	1
Benzaldehyde	0.067	U	0.38	0.067	mg/Kg	☼	08/14/15 10:57	08/17/15 18:08	1
<b>Benzo[a]anthracene</b>	<b>0.14</b>	<b>J</b>	0.38	0.031	mg/Kg	☼	08/14/15 10:57	08/17/15 18:08	1
<b>Benzo[a]pyrene</b>	<b>0.12</b>	<b>J</b>	0.38	0.060	mg/Kg	☼	08/14/15 10:57	08/17/15 18:08	1
<b>Benzo[b]fluoranthene</b>	<b>0.16</b>	<b>J</b>	0.38	0.044	mg/Kg	☼	08/14/15 10:57	08/17/15 18:08	1
<b>Benzo[g,h,i]perylene</b>	<b>0.094</b>	<b>J</b>	0.38	0.025	mg/Kg	☼	08/14/15 10:57	08/17/15 18:08	1
Benzo[k]fluoranthene	0.075	U	0.38	0.075	mg/Kg	☼	08/14/15 10:57	08/17/15 18:08	1
1,1'-Biphenyl	2.0	U	2.0	2.0	mg/Kg	☼	08/14/15 10:57	08/17/15 18:08	1
Bis(2-chloroethoxy)methane	0.045	U	0.38	0.045	mg/Kg	☼	08/14/15 10:57	08/17/15 18:08	1
Bis(2-chloroethyl)ether	0.052	U *	0.38	0.052	mg/Kg	☼	08/14/15 10:57	08/17/15 18:08	1
bis (2-chloroisopropyl) ether	0.034	U	0.38	0.034	mg/Kg	☼	08/14/15 10:57	08/17/15 18:08	1
Bis(2-ethylhexyl) phthalate	0.033	U	0.38	0.033	mg/Kg	☼	08/14/15 10:57	08/17/15 18:08	1
4-Bromophenyl phenyl ether	0.041	U	0.38	0.041	mg/Kg	☼	08/14/15 10:57	08/17/15 18:08	1
Butyl benzyl phthalate	0.030	U	0.38	0.030	mg/Kg	☼	08/14/15 10:57	08/17/15 18:08	1
Caprolactam	0.076	U	0.38	0.076	mg/Kg	☼	08/14/15 10:57	08/17/15 18:08	1
Carbazole	0.034	U	0.38	0.034	mg/Kg	☼	08/14/15 10:57	08/17/15 18:08	1
4-Chloroaniline	0.060	U	0.76	0.060	mg/Kg	☼	08/14/15 10:57	08/17/15 18:08	1
4-Chloro-3-methylphenol	0.040	U	0.38	0.040	mg/Kg	☼	08/14/15 10:57	08/17/15 18:08	1
2-Chloronaphthalene	0.040	U	0.38	0.040	mg/Kg	☼	08/14/15 10:57	08/17/15 18:08	1
2-Chlorophenol	0.046	U	0.38	0.046	mg/Kg	☼	08/14/15 10:57	08/17/15 18:08	1
4-Chlorophenyl phenyl ether	0.050	U	0.38	0.050	mg/Kg	☼	08/14/15 10:57	08/17/15 18:08	1
<b>Chrysene</b>	<b>0.11</b>	<b>J</b>	0.38	0.024	mg/Kg	☼	08/14/15 10:57	08/17/15 18:08	1
Dibenz(a,h)anthracene	0.045	U	0.38	0.045	mg/Kg	☼	08/14/15 10:57	08/17/15 18:08	1
Dibenzofuran	0.038	U	0.38	0.038	mg/Kg	☼	08/14/15 10:57	08/17/15 18:08	1
3,3'-Dichlorobenzidine	0.032	U	0.76	0.032	mg/Kg	☼	08/14/15 10:57	08/17/15 18:08	1
2,4-Dichlorophenol	0.040	U	0.38	0.040	mg/Kg	☼	08/14/15 10:57	08/17/15 18:08	1
Diethyl phthalate	0.042	U	0.38	0.042	mg/Kg	☼	08/14/15 10:57	08/17/15 18:08	1
2,4-Dimethylphenol	0.050	U	0.38	0.050	mg/Kg	☼	08/14/15 10:57	08/17/15 18:08	1
Dimethyl phthalate	0.039	U	0.38	0.039	mg/Kg	☼	08/14/15 10:57	08/17/15 18:08	1
Di-n-butyl phthalate	0.034	U	0.38	0.034	mg/Kg	☼	08/14/15 10:57	08/17/15 18:08	1
4,6-Dinitro-2-methylphenol	0.20	U	2.0	0.20	mg/Kg	☼	08/14/15 10:57	08/17/15 18:08	1
2,4-Dinitrophenol	0.95	U	2.0	0.95	mg/Kg	☼	08/14/15 10:57	08/17/15 18:08	1
2,4-Dinitrotoluene	0.056	U	0.38	0.056	mg/Kg	☼	08/14/15 10:57	08/17/15 18:08	1
2,6-Dinitrotoluene	0.048	U	0.38	0.048	mg/Kg	☼	08/14/15 10:57	08/17/15 18:08	1
Di-n-octyl phthalate	0.033	U	0.38	0.033	mg/Kg	☼	08/14/15 10:57	08/17/15 18:08	1
<b>Fluoranthene</b>	<b>0.27</b>	<b>J</b>	0.38	0.037	mg/Kg	☼	08/14/15 10:57	08/17/15 18:08	1
Fluorene	0.041	U	0.38	0.041	mg/Kg	☼	08/14/15 10:57	08/17/15 18:08	1
Hexachlorobenzene	0.045	U	0.38	0.045	mg/Kg	☼	08/14/15 10:57	08/17/15 18:08	1
Hexachlorobutadiene	0.041	U	0.38	0.041	mg/Kg	☼	08/14/15 10:57	08/17/15 18:08	1
Hexachlorocyclopentadiene	0.047	U	0.38	0.047	mg/Kg	☼	08/14/15 10:57	08/17/15 18:08	1
Hexachloroethane	0.032	U	0.38	0.032	mg/Kg	☼	08/14/15 10:57	08/17/15 18:08	1
<b>Indeno[1,2,3-cd]pyrene</b>	<b>0.077</b>	<b>J</b>	0.38	0.032	mg/Kg	☼	08/14/15 10:57	08/17/15 18:08	1
Isophorone	0.038	U	0.38	0.038	mg/Kg	☼	08/14/15 10:57	08/17/15 18:08	1
<b>2-Methylnaphthalene</b>	<b>0.045</b>	<b>J</b>	0.38	0.044	mg/Kg	☼	08/14/15 10:57	08/17/15 18:08	1
2-Methylphenol	0.031	U	0.38	0.031	mg/Kg	☼	08/14/15 10:57	08/17/15 18:08	1

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# Client Sample Results

Client: Geotechnical & Environmental Consultants  
Project/Site: Macon MGP #2

TestAmerica Job ID: 680-115544-1

**Client Sample ID: SB-25 13-15**

**Lab Sample ID: 680-115544-13**

**Date Collected: 08/10/15 11:21**

**Matrix: Solid**

**Date Received: 08/12/15 09:46**

**Percent Solids: 86.1**

## Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
3 & 4 Methylphenol	0.049	U	0.38	0.049	mg/Kg	☼	08/14/15 10:57	08/17/15 18:08	1
Naphthalene	0.034	U	0.38	0.034	mg/Kg	☼	08/14/15 10:57	08/17/15 18:08	1
2-Nitroaniline	0.052	U	2.0	0.052	mg/Kg	☼	08/14/15 10:57	08/17/15 18:08	1
3-Nitroaniline	0.053	U	2.0	0.053	mg/Kg	☼	08/14/15 10:57	08/17/15 18:08	1
4-Nitroaniline	0.056	U	2.0	0.056	mg/Kg	☼	08/14/15 10:57	08/17/15 18:08	1
Nitrobenzene	0.030	U	0.38	0.030	mg/Kg	☼	08/14/15 10:57	08/17/15 18:08	1
2-Nitrophenol	0.047	U	0.38	0.047	mg/Kg	☼	08/14/15 10:57	08/17/15 18:08	1
4-Nitrophenol	0.38	U	2.0	0.38	mg/Kg	☼	08/14/15 10:57	08/17/15 18:08	1
N-Nitrosodi-n-propylamine	0.037	U	0.38	0.037	mg/Kg	☼	08/14/15 10:57	08/17/15 18:08	1
N-Nitrosodiphenylamine	0.038	U	0.38	0.038	mg/Kg	☼	08/14/15 10:57	08/17/15 18:08	1
Pentachlorophenol	0.38	U	2.0	0.38	mg/Kg	☼	08/14/15 10:57	08/17/15 18:08	1
Phenanthrene	0.17	J	0.38	0.031	mg/Kg	☼	08/14/15 10:57	08/17/15 18:08	1
Phenol	0.039	U	0.38	0.039	mg/Kg	☼	08/14/15 10:57	08/17/15 18:08	1
Pyrene	0.20	J	0.38	0.031	mg/Kg	☼	08/14/15 10:57	08/17/15 18:08	1
2,4,5-Trichlorophenol	0.040	U	0.38	0.040	mg/Kg	☼	08/14/15 10:57	08/17/15 18:08	1
2,4,6-Trichlorophenol	0.033	U	0.38	0.033	mg/Kg	☼	08/14/15 10:57	08/17/15 18:08	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl	77		41 - 116	08/14/15 10:57	08/17/15 18:08	1
2-Fluorophenol (Surr)	58		39 - 114	08/14/15 10:57	08/17/15 18:08	1
Nitrobenzene-d5 (Surr)	62		37 - 115	08/14/15 10:57	08/17/15 18:08	1
Phenol-d5 (Surr)	62		38 - 122	08/14/15 10:57	08/17/15 18:08	1
Terphenyl-d14 (Surr)	75		46 - 126	08/14/15 10:57	08/17/15 18:08	1
2,4,6-Tribromophenol (Surr)	87		45 - 129	08/14/15 10:57	08/17/15 18:08	1

## Method: 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	3.9		2.1	0.85	mg/Kg	☼	08/14/15 08:59	08/17/15 21:03	1
Barium	75	B	1.1	0.17	mg/Kg	☼	08/14/15 08:59	08/17/15 21:03	1
Beryllium	0.43		0.43	0.011	mg/Kg	☼	08/14/15 08:59	08/17/15 21:03	1
Cadmium	0.11	U	0.53	0.11	mg/Kg	☼	08/14/15 08:59	08/17/15 21:03	1
Chromium	11		1.1	0.22	mg/Kg	☼	08/14/15 08:59	08/17/15 21:03	1
Copper	10		2.7	0.18	mg/Kg	☼	08/14/15 08:59	08/17/15 21:03	1
Lead	64		1.1	0.36	mg/Kg	☼	08/14/15 08:59	08/17/15 21:03	1
Nickel	4.8		4.3	0.41	mg/Kg	☼	08/14/15 08:59	08/17/15 21:03	1
Selenium	1.0	U	2.7	1.0	mg/Kg	☼	08/14/15 08:59	08/17/15 21:03	1
Silver	0.064	U	1.1	0.064	mg/Kg	☼	08/14/15 08:59	08/17/15 21:03	1
Vanadium	23		1.1	0.11	mg/Kg	☼	08/14/15 08:59	08/17/15 21:03	1
Zinc	50		2.1	0.75	mg/Kg	☼	08/14/15 08:59	08/17/15 21:03	1

## Method: 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.19		0.021	0.0083	mg/Kg	☼	08/16/15 14:39	08/17/15 20:35	1

## General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total	0.24	U	0.58	0.24	mg/Kg	☼	08/20/15 07:30	08/20/15 12:01	1

TestAmerica Savannah



# Client Sample Results

Client: Geotechnical & Environmental Consultants  
Project/Site: Macon MGP #2

TestAmerica Job ID: 680-115544-1

**Client Sample ID: GB-25 2-4**

**Date Collected: 08/10/15 11:39**

**Date Received: 08/12/15 09:46**

**Lab Sample ID: 680-115544-14**

**Matrix: Solid**

**Percent Solids: 89.9**

## Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	0.046	U	0.37	0.046	mg/Kg	☼	08/14/15 10:57	08/17/15 18:34	1
Acenaphthylene	0.040	U	0.37	0.040	mg/Kg	☼	08/14/15 10:57	08/17/15 18:34	1
Acetophenone	0.031	U	0.37	0.031	mg/Kg	☼	08/14/15 10:57	08/17/15 18:34	1
Anthracene	0.028	U	0.37	0.028	mg/Kg	☼	08/14/15 10:57	08/17/15 18:34	1
Atrazine	0.026	U	0.37	0.026	mg/Kg	☼	08/14/15 10:57	08/17/15 18:34	1
Benzaldehyde	0.065	U	0.37	0.065	mg/Kg	☼	08/14/15 10:57	08/17/15 18:34	1
Benzo[a]anthracene	0.030	U	0.37	0.030	mg/Kg	☼	08/14/15 10:57	08/17/15 18:34	1
Benzo[a]pyrene	0.058	U	0.37	0.058	mg/Kg	☼	08/14/15 10:57	08/17/15 18:34	1
Benzo[b]fluoranthene	0.042	U	0.37	0.042	mg/Kg	☼	08/14/15 10:57	08/17/15 18:34	1
Benzo[g,h,i]perylene	0.024	U	0.37	0.024	mg/Kg	☼	08/14/15 10:57	08/17/15 18:34	1
Benzo[k]fluoranthene	0.072	U	0.37	0.072	mg/Kg	☼	08/14/15 10:57	08/17/15 18:34	1
1,1'-Biphenyl	1.9	U	1.9	1.9	mg/Kg	☼	08/14/15 10:57	08/17/15 18:34	1
Bis(2-chloroethoxy)methane	0.043	U	0.37	0.043	mg/Kg	☼	08/14/15 10:57	08/17/15 18:34	1
Bis(2-chloroethyl)ether	0.050	U *	0.37	0.050	mg/Kg	☼	08/14/15 10:57	08/17/15 18:34	1
bis (2-chloroisopropyl) ether	0.033	U	0.37	0.033	mg/Kg	☼	08/14/15 10:57	08/17/15 18:34	1
Bis(2-ethylhexyl) phthalate	0.032	U	0.37	0.032	mg/Kg	☼	08/14/15 10:57	08/17/15 18:34	1
4-Bromophenyl phenyl ether	0.040	U	0.37	0.040	mg/Kg	☼	08/14/15 10:57	08/17/15 18:34	1
Butyl benzyl phthalate	0.029	U	0.37	0.029	mg/Kg	☼	08/14/15 10:57	08/17/15 18:34	1
Caprolactam	0.073	U	0.37	0.073	mg/Kg	☼	08/14/15 10:57	08/17/15 18:34	1
Carbazole	0.033	U	0.37	0.033	mg/Kg	☼	08/14/15 10:57	08/17/15 18:34	1
4-Chloroaniline	0.058	U	0.73	0.058	mg/Kg	☼	08/14/15 10:57	08/17/15 18:34	1
4-Chloro-3-methylphenol	0.039	U	0.37	0.039	mg/Kg	☼	08/14/15 10:57	08/17/15 18:34	1
2-Chloronaphthalene	0.039	U	0.37	0.039	mg/Kg	☼	08/14/15 10:57	08/17/15 18:34	1
2-Chlorophenol	0.045	U	0.37	0.045	mg/Kg	☼	08/14/15 10:57	08/17/15 18:34	1
4-Chlorophenyl phenyl ether	0.049	U	0.37	0.049	mg/Kg	☼	08/14/15 10:57	08/17/15 18:34	1
Chrysene	0.023	U	0.37	0.023	mg/Kg	☼	08/14/15 10:57	08/17/15 18:34	1
Dibenz(a,h)anthracene	0.043	U	0.37	0.043	mg/Kg	☼	08/14/15 10:57	08/17/15 18:34	1
Dibenzofuran	0.037	U	0.37	0.037	mg/Kg	☼	08/14/15 10:57	08/17/15 18:34	1
3,3'-Dichlorobenzidine	0.031	U	0.73	0.031	mg/Kg	☼	08/14/15 10:57	08/17/15 18:34	1
2,4-Dichlorophenol	0.039	U	0.37	0.039	mg/Kg	☼	08/14/15 10:57	08/17/15 18:34	1
Diethyl phthalate	0.041	U	0.37	0.041	mg/Kg	☼	08/14/15 10:57	08/17/15 18:34	1
2,4-Dimethylphenol	0.049	U	0.37	0.049	mg/Kg	☼	08/14/15 10:57	08/17/15 18:34	1
Dimethyl phthalate	0.038	U	0.37	0.038	mg/Kg	☼	08/14/15 10:57	08/17/15 18:34	1
Di-n-butyl phthalate	0.033	U	0.37	0.033	mg/Kg	☼	08/14/15 10:57	08/17/15 18:34	1
4,6-Dinitro-2-methylphenol	0.19	U	1.9	0.19	mg/Kg	☼	08/14/15 10:57	08/17/15 18:34	1
2,4-Dinitrophenol	0.92	U	1.9	0.92	mg/Kg	☼	08/14/15 10:57	08/17/15 18:34	1
2,4-Dinitrotoluene	0.055	U	0.37	0.055	mg/Kg	☼	08/14/15 10:57	08/17/15 18:34	1
2,6-Dinitrotoluene	0.047	U	0.37	0.047	mg/Kg	☼	08/14/15 10:57	08/17/15 18:34	1
Di-n-octyl phthalate	0.032	U	0.37	0.032	mg/Kg	☼	08/14/15 10:57	08/17/15 18:34	1
Fluoranthene	0.036	U	0.37	0.036	mg/Kg	☼	08/14/15 10:57	08/17/15 18:34	1
Fluorene	0.040	U	0.37	0.040	mg/Kg	☼	08/14/15 10:57	08/17/15 18:34	1
Hexachlorobenzene	0.043	U	0.37	0.043	mg/Kg	☼	08/14/15 10:57	08/17/15 18:34	1
Hexachlorobutadiene	0.040	U	0.37	0.040	mg/Kg	☼	08/14/15 10:57	08/17/15 18:34	1
Hexachlorocyclopentadiene	0.046	U	0.37	0.046	mg/Kg	☼	08/14/15 10:57	08/17/15 18:34	1
Hexachloroethane	0.031	U	0.37	0.031	mg/Kg	☼	08/14/15 10:57	08/17/15 18:34	1
Indeno[1,2,3-cd]pyrene	0.031	U	0.37	0.031	mg/Kg	☼	08/14/15 10:57	08/17/15 18:34	1
Isophorone	0.037	U	0.37	0.037	mg/Kg	☼	08/14/15 10:57	08/17/15 18:34	1
2-Methylnaphthalene	0.042	U	0.37	0.042	mg/Kg	☼	08/14/15 10:57	08/17/15 18:34	1
2-Methylphenol	0.030	U	0.37	0.030	mg/Kg	☼	08/14/15 10:57	08/17/15 18:34	1

TestAmerica Savannah

# Client Sample Results

Client: Geotechnical & Environmental Consultants  
Project/Site: Macon MGP #2

TestAmerica Job ID: 680-115544-1

**Client Sample ID: GB-25 2-4**

**Date Collected: 08/10/15 11:39**

**Date Received: 08/12/15 09:46**

**Lab Sample ID: 680-115544-14**

**Matrix: Solid**

**Percent Solids: 89.9**

## Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
3 & 4 Methylphenol	0.048	U	0.37	0.048	mg/Kg	☼	08/14/15 10:57	08/17/15 18:34	1
Naphthalene	0.033	U	0.37	0.033	mg/Kg	☼	08/14/15 10:57	08/17/15 18:34	1
2-Nitroaniline	0.050	U	1.9	0.050	mg/Kg	☼	08/14/15 10:57	08/17/15 18:34	1
3-Nitroaniline	0.051	U	1.9	0.051	mg/Kg	☼	08/14/15 10:57	08/17/15 18:34	1
4-Nitroaniline	0.055	U	1.9	0.055	mg/Kg	☼	08/14/15 10:57	08/17/15 18:34	1
Nitrobenzene	0.029	U	0.37	0.029	mg/Kg	☼	08/14/15 10:57	08/17/15 18:34	1
2-Nitrophenol	0.046	U	0.37	0.046	mg/Kg	☼	08/14/15 10:57	08/17/15 18:34	1
4-Nitrophenol	0.37	U	1.9	0.37	mg/Kg	☼	08/14/15 10:57	08/17/15 18:34	1
N-Nitrosodi-n-propylamine	0.036	U	0.37	0.036	mg/Kg	☼	08/14/15 10:57	08/17/15 18:34	1
N-Nitrosodiphenylamine	0.037	U	0.37	0.037	mg/Kg	☼	08/14/15 10:57	08/17/15 18:34	1
Pentachlorophenol	0.37	U	1.9	0.37	mg/Kg	☼	08/14/15 10:57	08/17/15 18:34	1
Phenanthrene	0.030	U	0.37	0.030	mg/Kg	☼	08/14/15 10:57	08/17/15 18:34	1
Phenol	0.038	U	0.37	0.038	mg/Kg	☼	08/14/15 10:57	08/17/15 18:34	1
Pyrene	0.030	U	0.37	0.030	mg/Kg	☼	08/14/15 10:57	08/17/15 18:34	1
2,4,5-Trichlorophenol	0.039	U	0.37	0.039	mg/Kg	☼	08/14/15 10:57	08/17/15 18:34	1
2,4,6-Trichlorophenol	0.032	U	0.37	0.032	mg/Kg	☼	08/14/15 10:57	08/17/15 18:34	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl	83		41 - 116	08/14/15 10:57	08/17/15 18:34	1
2-Fluorophenol (Surr)	61		39 - 114	08/14/15 10:57	08/17/15 18:34	1
Nitrobenzene-d5 (Surr)	64		37 - 115	08/14/15 10:57	08/17/15 18:34	1
Phenol-d5 (Surr)	63		38 - 122	08/14/15 10:57	08/17/15 18:34	1
Terphenyl-d14 (Surr)	76		46 - 126	08/14/15 10:57	08/17/15 18:34	1
2,4,6-Tribromophenol (Surr)	90		45 - 129	08/14/15 10:57	08/17/15 18:34	1

## Method: 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	2.9		2.0	0.79	mg/Kg	☼	08/14/15 08:59	08/17/15 20:18	1
Barium	7.8	B	0.99	0.16	mg/Kg	☼	08/14/15 08:59	08/17/15 20:18	1
Beryllium	0.18	J	0.40	0.0099	mg/Kg	☼	08/14/15 08:59	08/17/15 20:18	1
Cadmium	0.099	U	0.50	0.099	mg/Kg	☼	08/14/15 08:59	08/17/15 20:18	1
Chromium	4.9		0.99	0.21	mg/Kg	☼	08/14/15 08:59	08/17/15 20:18	1
Copper	1.5	J	2.5	0.17	mg/Kg	☼	08/14/15 08:59	08/17/15 20:18	1
Lead	5.7		0.99	0.34	mg/Kg	☼	08/14/15 08:59	08/17/15 20:18	1
Nickel	1.3	J	4.0	0.38	mg/Kg	☼	08/14/15 08:59	08/17/15 20:18	1
Selenium	0.96	U	2.5	0.96	mg/Kg	☼	08/14/15 08:59	08/17/15 20:18	1
Silver	0.060	U	0.99	0.060	mg/Kg	☼	08/14/15 08:59	08/17/15 20:18	1
Vanadium	10		0.99	0.099	mg/Kg	☼	08/14/15 08:59	08/17/15 20:18	1
Zinc	5.8		2.0	0.69	mg/Kg	☼	08/14/15 08:59	08/17/15 20:18	1

## Method: 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.0094	J	0.021	0.0084	mg/Kg	☼	08/17/15 10:06	08/17/15 22:51	1

## General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total	0.23	U	0.54	0.23	mg/Kg	☼	08/20/15 07:30	08/20/15 12:02	1

TestAmerica Savannah

# Client Sample Results

Client: Geotechnical & Environmental Consultants  
Project/Site: Macon MGP #2

TestAmerica Job ID: 680-115544-1

Client Sample ID: GB-25 4-6

Date Collected: 08/10/15 11:42

Date Received: 08/12/15 09:46

Lab Sample ID: 680-115544-15

Matrix: Solid

Percent Solids: 89.6

## Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	0.046	U	0.37	0.046	mg/Kg	☼	08/14/15 10:57	08/17/15 19:00	1
Acenaphthylene	0.040	U	0.37	0.040	mg/Kg	☼	08/14/15 10:57	08/17/15 19:00	1
Acetophenone	0.031	U	0.37	0.031	mg/Kg	☼	08/14/15 10:57	08/17/15 19:00	1
Anthracene	0.028	U	0.37	0.028	mg/Kg	☼	08/14/15 10:57	08/17/15 19:00	1
Atrazine	0.026	U	0.37	0.026	mg/Kg	☼	08/14/15 10:57	08/17/15 19:00	1
Benzaldehyde	0.065	U	0.37	0.065	mg/Kg	☼	08/14/15 10:57	08/17/15 19:00	1
Benzo[a]anthracene	0.14	J	0.37	0.030	mg/Kg	☼	08/14/15 10:57	08/17/15 19:00	1
Benzo[a]pyrene	0.12	J	0.37	0.058	mg/Kg	☼	08/14/15 10:57	08/17/15 19:00	1
Benzo[b]fluoranthene	0.18	J	0.37	0.042	mg/Kg	☼	08/14/15 10:57	08/17/15 19:00	1
Benzo[g,h,i]perylene	0.025	U	0.37	0.025	mg/Kg	☼	08/14/15 10:57	08/17/15 19:00	1
Benzo[k]fluoranthene	0.076	J	0.37	0.073	mg/Kg	☼	08/14/15 10:57	08/17/15 19:00	1
1,1'-Biphenyl	1.9	U	1.9	1.9	mg/Kg	☼	08/14/15 10:57	08/17/15 19:00	1
Bis(2-chloroethoxy)methane	0.044	U	0.37	0.044	mg/Kg	☼	08/14/15 10:57	08/17/15 19:00	1
Bis(2-chloroethyl)ether	0.050	U *	0.37	0.050	mg/Kg	☼	08/14/15 10:57	08/17/15 19:00	1
bis (2-chloroisopropyl) ether	0.034	U	0.37	0.034	mg/Kg	☼	08/14/15 10:57	08/17/15 19:00	1
Bis(2-ethylhexyl) phthalate	0.12	J B	0.37	0.032	mg/Kg	☼	08/14/15 10:57	08/17/15 19:00	1
4-Bromophenyl phenyl ether	0.040	U	0.37	0.040	mg/Kg	☼	08/14/15 10:57	08/17/15 19:00	1
Butyl benzyl phthalate	0.029	U	0.37	0.029	mg/Kg	☼	08/14/15 10:57	08/17/15 19:00	1
Caprolactam	0.074	U	0.37	0.074	mg/Kg	☼	08/14/15 10:57	08/17/15 19:00	1
Carbazole	0.034	U	0.37	0.034	mg/Kg	☼	08/14/15 10:57	08/17/15 19:00	1
4-Chloroaniline	0.058	U	0.74	0.058	mg/Kg	☼	08/14/15 10:57	08/17/15 19:00	1
4-Chloro-3-methylphenol	0.039	U	0.37	0.039	mg/Kg	☼	08/14/15 10:57	08/17/15 19:00	1
2-Chloronaphthalene	0.039	U	0.37	0.039	mg/Kg	☼	08/14/15 10:57	08/17/15 19:00	1
2-Chlorophenol	0.045	U	0.37	0.045	mg/Kg	☼	08/14/15 10:57	08/17/15 19:00	1
4-Chlorophenyl phenyl ether	0.049	U	0.37	0.049	mg/Kg	☼	08/14/15 10:57	08/17/15 19:00	1
Chrysene	0.12	J	0.37	0.023	mg/Kg	☼	08/14/15 10:57	08/17/15 19:00	1
Dibenz(a,h)anthracene	0.044	U	0.37	0.044	mg/Kg	☼	08/14/15 10:57	08/17/15 19:00	1
Dibenzofuran	0.037	U	0.37	0.037	mg/Kg	☼	08/14/15 10:57	08/17/15 19:00	1
3,3'-Dichlorobenzidine	0.031	U	0.74	0.031	mg/Kg	☼	08/14/15 10:57	08/17/15 19:00	1
2,4-Dichlorophenol	0.039	U	0.37	0.039	mg/Kg	☼	08/14/15 10:57	08/17/15 19:00	1
Diethyl phthalate	0.041	U	0.37	0.041	mg/Kg	☼	08/14/15 10:57	08/17/15 19:00	1
2,4-Dimethylphenol	0.049	U	0.37	0.049	mg/Kg	☼	08/14/15 10:57	08/17/15 19:00	1
Dimethyl phthalate	0.038	U	0.37	0.038	mg/Kg	☼	08/14/15 10:57	08/17/15 19:00	1
Di-n-butyl phthalate	0.034	U	0.37	0.034	mg/Kg	☼	08/14/15 10:57	08/17/15 19:00	1
4,6-Dinitro-2-methylphenol	0.19	U	1.9	0.19	mg/Kg	☼	08/14/15 10:57	08/17/15 19:00	1
2,4-Dinitrophenol	0.93	U	1.9	0.93	mg/Kg	☼	08/14/15 10:57	08/17/15 19:00	1
2,4-Dinitrotoluene	0.055	U	0.37	0.055	mg/Kg	☼	08/14/15 10:57	08/17/15 19:00	1
2,6-Dinitrotoluene	0.047	U	0.37	0.047	mg/Kg	☼	08/14/15 10:57	08/17/15 19:00	1
Di-n-octyl phthalate	0.032	U	0.37	0.032	mg/Kg	☼	08/14/15 10:57	08/17/15 19:00	1
Fluoranthene	0.25	J	0.37	0.036	mg/Kg	☼	08/14/15 10:57	08/17/15 19:00	1
Fluorene	0.040	U	0.37	0.040	mg/Kg	☼	08/14/15 10:57	08/17/15 19:00	1
Hexachlorobenzene	0.044	U	0.37	0.044	mg/Kg	☼	08/14/15 10:57	08/17/15 19:00	1
Hexachlorobutadiene	0.040	U	0.37	0.040	mg/Kg	☼	08/14/15 10:57	08/17/15 19:00	1
Hexachlorocyclopentadiene	0.046	U	0.37	0.046	mg/Kg	☼	08/14/15 10:57	08/17/15 19:00	1
Hexachloroethane	0.031	U	0.37	0.031	mg/Kg	☼	08/14/15 10:57	08/17/15 19:00	1
Indeno[1,2,3-cd]pyrene	0.080	J	0.37	0.031	mg/Kg	☼	08/14/15 10:57	08/17/15 19:00	1
Isophorone	0.037	U	0.37	0.037	mg/Kg	☼	08/14/15 10:57	08/17/15 19:00	1
2-Methylnaphthalene	0.042	U	0.37	0.042	mg/Kg	☼	08/14/15 10:57	08/17/15 19:00	1
2-Methylphenol	0.030	U	0.37	0.030	mg/Kg	☼	08/14/15 10:57	08/17/15 19:00	1

TestAmerica Savannah

# Client Sample Results

Client: Geotechnical & Environmental Consultants  
Project/Site: Macon MGP #2

TestAmerica Job ID: 680-115544-1

**Client Sample ID: GB-25 4-6**

**Lab Sample ID: 680-115544-15**

**Date Collected: 08/10/15 11:42**

**Matrix: Solid**

**Date Received: 08/12/15 09:46**

**Percent Solids: 89.6**

## Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
3 & 4 Methylphenol	0.048	U	0.37	0.048	mg/Kg	☼	08/14/15 10:57	08/17/15 19:00	1
Naphthalene	0.034	U	0.37	0.034	mg/Kg	☼	08/14/15 10:57	08/17/15 19:00	1
2-Nitroaniline	0.050	U	1.9	0.050	mg/Kg	☼	08/14/15 10:57	08/17/15 19:00	1
3-Nitroaniline	0.051	U	1.9	0.051	mg/Kg	☼	08/14/15 10:57	08/17/15 19:00	1
4-Nitroaniline	0.055	U	1.9	0.055	mg/Kg	☼	08/14/15 10:57	08/17/15 19:00	1
Nitrobenzene	0.029	U	0.37	0.029	mg/Kg	☼	08/14/15 10:57	08/17/15 19:00	1
2-Nitrophenol	0.046	U	0.37	0.046	mg/Kg	☼	08/14/15 10:57	08/17/15 19:00	1
4-Nitrophenol	0.37	U	1.9	0.37	mg/Kg	☼	08/14/15 10:57	08/17/15 19:00	1
N-Nitrosodi-n-propylamine	0.036	U	0.37	0.036	mg/Kg	☼	08/14/15 10:57	08/17/15 19:00	1
N-Nitrosodiphenylamine	0.037	U	0.37	0.037	mg/Kg	☼	08/14/15 10:57	08/17/15 19:00	1
Pentachlorophenol	0.37	U	1.9	0.37	mg/Kg	☼	08/14/15 10:57	08/17/15 19:00	1
Phenanthrene	0.13	J	0.37	0.030	mg/Kg	☼	08/14/15 10:57	08/17/15 19:00	1
Phenol	0.038	U	0.37	0.038	mg/Kg	☼	08/14/15 10:57	08/17/15 19:00	1
Pyrene	0.20	J	0.37	0.030	mg/Kg	☼	08/14/15 10:57	08/17/15 19:00	1
2,4,5-Trichlorophenol	0.039	U	0.37	0.039	mg/Kg	☼	08/14/15 10:57	08/17/15 19:00	1
2,4,6-Trichlorophenol	0.032	U	0.37	0.032	mg/Kg	☼	08/14/15 10:57	08/17/15 19:00	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl	81		41 - 116	08/14/15 10:57	08/17/15 19:00	1
2-Fluorophenol (Surr)	59		39 - 114	08/14/15 10:57	08/17/15 19:00	1
Nitrobenzene-d5 (Surr)	63		37 - 115	08/14/15 10:57	08/17/15 19:00	1
Phenol-d5 (Surr)	63		38 - 122	08/14/15 10:57	08/17/15 19:00	1
Terphenyl-d14 (Surr)	77		46 - 126	08/14/15 10:57	08/17/15 19:00	1
2,4,6-Tribromophenol (Surr)	89		45 - 129	08/14/15 10:57	08/17/15 19:00	1

## Method: 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	2.8		2.1	0.83	mg/Kg	☼	08/14/15 08:59	08/17/15 20:09	1
Barium	32	B	1.0	0.17	mg/Kg	☼	08/14/15 08:59	08/17/15 20:09	1
Beryllium	0.20	J	0.42	0.010	mg/Kg	☼	08/14/15 08:59	08/17/15 20:09	1
Cadmium	0.12	J	0.52	0.10	mg/Kg	☼	08/14/15 08:59	08/17/15 20:09	1
Chromium	17		1.0	0.22	mg/Kg	☼	08/14/15 08:59	08/17/15 20:09	1
Copper	17		2.6	0.18	mg/Kg	☼	08/14/15 08:59	08/17/15 20:09	1
Lead	98		1.0	0.35	mg/Kg	☼	08/14/15 08:59	08/17/15 20:09	1
Nickel	4.0	J	4.2	0.40	mg/Kg	☼	08/14/15 08:59	08/17/15 20:09	1
Selenium	1.0	U	2.6	1.0	mg/Kg	☼	08/14/15 08:59	08/17/15 20:09	1
Silver	0.063	U	1.0	0.063	mg/Kg	☼	08/14/15 08:59	08/17/15 20:09	1
Vanadium	10		1.0	0.10	mg/Kg	☼	08/14/15 08:59	08/17/15 20:09	1
Zinc	58		2.1	0.73	mg/Kg	☼	08/14/15 08:59	08/17/15 20:09	1

## Method: 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.13		0.020	0.0081	mg/Kg	☼	08/17/15 10:06	08/17/15 22:54	1

## General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total	0.23	U	0.54	0.23	mg/Kg	☼	08/20/15 07:30	08/20/15 12:03	1

TestAmerica Savannah

# Client Sample Results

Client: Geotechnical & Environmental Consultants  
Project/Site: Macon MGP #2

TestAmerica Job ID: 680-115544-1

**Client Sample ID: GB-26 2-4**

**Date Collected: 08/10/15 12:20**

**Date Received: 08/12/15 09:46**

**Lab Sample ID: 680-115544-16**

**Matrix: Solid**

**Percent Solids: 93.8**

## Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	0.43	U	3.5	0.43	mg/Kg	☼	08/14/15 10:57	08/20/15 22:02	10
Acenaphthylene	0.38	U	3.5	0.38	mg/Kg	☼	08/14/15 10:57	08/20/15 22:02	10
Acetophenone	0.30	U	3.5	0.30	mg/Kg	☼	08/14/15 10:57	08/20/15 22:02	10
Anthracene	0.26	U	3.5	0.26	mg/Kg	☼	08/14/15 10:57	08/20/15 22:02	10
Atrazine	0.24	U	3.5	0.24	mg/Kg	☼	08/14/15 10:57	08/20/15 22:02	10
Benzaldehyde	0.61	U	3.5	0.61	mg/Kg	☼	08/14/15 10:57	08/20/15 22:02	10
Benzo[a]anthracene	0.28	U	3.5	0.28	mg/Kg	☼	08/14/15 10:57	08/20/15 22:02	10
Benzo[a]pyrene	0.55	U	3.5	0.55	mg/Kg	☼	08/14/15 10:57	08/20/15 22:02	10
Benzo[b]fluoranthene	0.40	U	3.5	0.40	mg/Kg	☼	08/14/15 10:57	08/20/15 22:02	10
Benzo[g,h,i]perylene	0.23	U	3.5	0.23	mg/Kg	☼	08/14/15 10:57	08/20/15 22:02	10
Benzo[k]fluoranthene	0.69	U	3.5	0.69	mg/Kg	☼	08/14/15 10:57	08/20/15 22:02	10
1,1'-Biphenyl	18	U	18	18	mg/Kg	☼	08/14/15 10:57	08/20/15 22:02	10
Bis(2-chloroethoxy)methane	0.41	U	3.5	0.41	mg/Kg	☼	08/14/15 10:57	08/20/15 22:02	10
Bis(2-chloroethyl)ether	0.47	U	3.5	0.47	mg/Kg	☼	08/14/15 10:57	08/20/15 22:02	10
bis (2-chloroisopropyl) ether	0.32	U	3.5	0.32	mg/Kg	☼	08/14/15 10:57	08/20/15 22:02	10
Bis(2-ethylhexyl) phthalate	0.31	U	3.5	0.31	mg/Kg	☼	08/14/15 10:57	08/20/15 22:02	10
4-Bromophenyl phenyl ether	0.38	U	3.5	0.38	mg/Kg	☼	08/14/15 10:57	08/20/15 22:02	10
Butyl benzyl phthalate	0.27	U	3.5	0.27	mg/Kg	☼	08/14/15 10:57	08/20/15 22:02	10
Caprolactam	0.70	U	3.5	0.70	mg/Kg	☼	08/14/15 10:57	08/20/15 22:02	10
Carbazole	0.32	U	3.5	0.32	mg/Kg	☼	08/14/15 10:57	08/20/15 22:02	10
4-Chloroaniline	0.55	U	7.0	0.55	mg/Kg	☼	08/14/15 10:57	08/20/15 22:02	10
4-Chloro-3-methylphenol	0.37	U	3.5	0.37	mg/Kg	☼	08/14/15 10:57	08/20/15 22:02	10
2-Chloronaphthalene	0.37	U	3.5	0.37	mg/Kg	☼	08/14/15 10:57	08/20/15 22:02	10
2-Chlorophenol	0.42	U	3.5	0.42	mg/Kg	☼	08/14/15 10:57	08/20/15 22:02	10
4-Chlorophenyl phenyl ether	0.46	U	3.5	0.46	mg/Kg	☼	08/14/15 10:57	08/20/15 22:02	10
<b>Chrysene</b>	<b>0.26</b>	<b>J</b>	3.5	0.22	mg/Kg	☼	08/14/15 10:57	08/20/15 22:02	10
Dibenz(a,h)anthracene	0.41	U	3.5	0.41	mg/Kg	☼	08/14/15 10:57	08/20/15 22:02	10
Dibenzofuran	0.35	U	3.5	0.35	mg/Kg	☼	08/14/15 10:57	08/20/15 22:02	10
3,3'-Dichlorobenzidine	0.30	U	7.0	0.30	mg/Kg	☼	08/14/15 10:57	08/20/15 22:02	10
2,4-Dichlorophenol	0.37	U	3.5	0.37	mg/Kg	☼	08/14/15 10:57	08/20/15 22:02	10
Diethyl phthalate	0.39	U	3.5	0.39	mg/Kg	☼	08/14/15 10:57	08/20/15 22:02	10
2,4-Dimethylphenol	0.46	U	3.5	0.46	mg/Kg	☼	08/14/15 10:57	08/20/15 22:02	10
Dimethyl phthalate	0.36	U	3.5	0.36	mg/Kg	☼	08/14/15 10:57	08/20/15 22:02	10
Di-n-butyl phthalate	0.32	U	3.5	0.32	mg/Kg	☼	08/14/15 10:57	08/20/15 22:02	10
4,6-Dinitro-2-methylphenol	1.8	U	18	1.8	mg/Kg	☼	08/14/15 10:57	08/20/15 22:02	10
2,4-Dinitrophenol	8.8	U	18	8.8	mg/Kg	☼	08/14/15 10:57	08/20/15 22:02	10
2,4-Dinitrotoluene	0.52	U	3.5	0.52	mg/Kg	☼	08/14/15 10:57	08/20/15 22:02	10
2,6-Dinitrotoluene	0.44	U	3.5	0.44	mg/Kg	☼	08/14/15 10:57	08/20/15 22:02	10
Di-n-octyl phthalate	0.31	U	3.5	0.31	mg/Kg	☼	08/14/15 10:57	08/20/15 22:02	10
Fluoranthene	0.34	U	3.5	0.34	mg/Kg	☼	08/14/15 10:57	08/20/15 22:02	10
Fluorene	0.38	U	3.5	0.38	mg/Kg	☼	08/14/15 10:57	08/20/15 22:02	10
Hexachlorobenzene	0.41	U	3.5	0.41	mg/Kg	☼	08/14/15 10:57	08/20/15 22:02	10
Hexachlorobutadiene	0.38	U	3.5	0.38	mg/Kg	☼	08/14/15 10:57	08/20/15 22:02	10
Hexachlorocyclopentadiene	0.43	U	3.5	0.43	mg/Kg	☼	08/14/15 10:57	08/20/15 22:02	10
Hexachloroethane	0.30	U	3.5	0.30	mg/Kg	☼	08/14/15 10:57	08/20/15 22:02	10
Indeno[1,2,3-cd]pyrene	0.30	U	3.5	0.30	mg/Kg	☼	08/14/15 10:57	08/20/15 22:02	10
Isophorone	0.35	U	3.5	0.35	mg/Kg	☼	08/14/15 10:57	08/20/15 22:02	10
2-Methylnaphthalene	0.40	U	3.5	0.40	mg/Kg	☼	08/14/15 10:57	08/20/15 22:02	10
2-Methylphenol	0.28	U	3.5	0.28	mg/Kg	☼	08/14/15 10:57	08/20/15 22:02	10

TestAmerica Savannah



# Client Sample Results

Client: Geotechnical & Environmental Consultants  
Project/Site: Macon MGP #2

TestAmerica Job ID: 680-115544-1

**Client Sample ID: GB-26 2-4**

**Lab Sample ID: 680-115544-16**

**Date Collected: 08/10/15 12:20**

**Matrix: Solid**

**Date Received: 08/12/15 09:46**

**Percent Solids: 93.8**

## Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
3 & 4 Methylphenol	0.45	U	3.5	0.45	mg/Kg	☼	08/14/15 10:57	08/20/15 22:02	10
Naphthalene	0.32	U	3.5	0.32	mg/Kg	☼	08/14/15 10:57	08/20/15 22:02	10
2-Nitroaniline	0.47	U	18	0.47	mg/Kg	☼	08/14/15 10:57	08/20/15 22:02	10
3-Nitroaniline	0.49	U	18	0.49	mg/Kg	☼	08/14/15 10:57	08/20/15 22:02	10
4-Nitroaniline	0.52	U	18	0.52	mg/Kg	☼	08/14/15 10:57	08/20/15 22:02	10
Nitrobenzene	0.27	U	3.5	0.27	mg/Kg	☼	08/14/15 10:57	08/20/15 22:02	10
2-Nitrophenol	0.43	U	3.5	0.43	mg/Kg	☼	08/14/15 10:57	08/20/15 22:02	10
4-Nitrophenol	3.5	U	18	3.5	mg/Kg	☼	08/14/15 10:57	08/20/15 22:02	10
N-Nitrosodi-n-propylamine	0.34	U	3.5	0.34	mg/Kg	☼	08/14/15 10:57	08/20/15 22:02	10
N-Nitrosodiphenylamine	0.35	U	3.5	0.35	mg/Kg	☼	08/14/15 10:57	08/20/15 22:02	10
Pentachlorophenol	3.5	U	18	3.5	mg/Kg	☼	08/14/15 10:57	08/20/15 22:02	10
Phenanthrene	0.28	U	3.5	0.28	mg/Kg	☼	08/14/15 10:57	08/20/15 22:02	10
Phenol	0.36	U	3.5	0.36	mg/Kg	☼	08/14/15 10:57	08/20/15 22:02	10
<b>Pyrene</b>	<b>0.37</b>	<b>J</b>	3.5	0.28	mg/Kg	☼	08/14/15 10:57	08/20/15 22:02	10
2,4,5-Trichlorophenol	0.37	U	3.5	0.37	mg/Kg	☼	08/14/15 10:57	08/20/15 22:02	10
2,4,6-Trichlorophenol	0.31	U	3.5	0.31	mg/Kg	☼	08/14/15 10:57	08/20/15 22:02	10

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl	0	D	41 - 116	08/14/15 10:57	08/20/15 22:02	10
2-Fluorophenol (Surr)	0	D	39 - 114	08/14/15 10:57	08/20/15 22:02	10
Nitrobenzene-d5 (Surr)	0	D	37 - 115	08/14/15 10:57	08/20/15 22:02	10
Phenol-d5 (Surr)	0	D	38 - 122	08/14/15 10:57	08/20/15 22:02	10
Terphenyl-d14 (Surr)	0	D	46 - 126	08/14/15 10:57	08/20/15 22:02	10
2,4,6-Tribromophenol (Surr)	0	D	45 - 129	08/14/15 10:57	08/20/15 22:02	10

## Method: 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Arsenic</b>	<b>3.1</b>		1.9	0.78	mg/Kg	☼	08/14/15 08:59	08/17/15 20:41	1
<b>Barium</b>	<b>73</b>	<b>B</b>	0.97	0.16	mg/Kg	☼	08/14/15 08:59	08/17/15 20:41	1
<b>Beryllium</b>	<b>0.39</b>		0.39	0.0097	mg/Kg	☼	08/14/15 08:59	08/17/15 20:41	1
<b>Cadmium</b>	<b>0.18</b>	<b>J</b>	0.48	0.097	mg/Kg	☼	08/14/15 08:59	08/17/15 20:41	1
<b>Chromium</b>	<b>11</b>		0.97	0.20	mg/Kg	☼	08/14/15 08:59	08/17/15 20:41	1
<b>Copper</b>	<b>13</b>		2.4	0.16	mg/Kg	☼	08/14/15 08:59	08/17/15 20:41	1
<b>Lead</b>	<b>110</b>		0.97	0.33	mg/Kg	☼	08/14/15 08:59	08/17/15 20:41	1
<b>Nickel</b>	<b>3.4</b>	<b>J</b>	3.9	0.37	mg/Kg	☼	08/14/15 08:59	08/17/15 20:41	1
Selenium	0.94	U	2.4	0.94	mg/Kg	☼	08/14/15 08:59	08/17/15 20:41	1
Silver	0.058	U	0.97	0.058	mg/Kg	☼	08/14/15 08:59	08/17/15 20:41	1
<b>Vanadium</b>	<b>27</b>		0.97	0.097	mg/Kg	☼	08/14/15 08:59	08/17/15 20:41	1
<b>Zinc</b>	<b>95</b>		1.9	0.68	mg/Kg	☼	08/14/15 08:59	08/17/15 20:41	1

## Method: 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Mercury</b>	<b>0.32</b>		0.019	0.0076	mg/Kg	☼	08/17/15 10:06	08/17/15 22:57	1

## General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total	0.22	U	0.53	0.22	mg/Kg	☼	08/20/15 07:30	08/20/15 12:04	1

TestAmerica Savannah

# Client Sample Results

Client: Geotechnical & Environmental Consultants  
Project/Site: Macon MGP #2

TestAmerica Job ID: 680-115544-1

**Client Sample ID: GB-26 4-6**

**Date Collected: 08/10/15 12:25**

**Date Received: 08/12/15 09:46**

**Lab Sample ID: 680-115544-17**

**Matrix: Solid**

**Percent Solids: 89.2**

## Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	0.23	U	1.9	0.23	mg/Kg	☼	08/14/15 10:57	08/17/15 19:52	5
Acenaphthylene	0.20	U	1.9	0.20	mg/Kg	☼	08/14/15 10:57	08/17/15 19:52	5
Acetophenone	0.16	U	1.9	0.16	mg/Kg	☼	08/14/15 10:57	08/17/15 19:52	5
Anthracene	0.14	U	1.9	0.14	mg/Kg	☼	08/14/15 10:57	08/17/15 19:52	5
Atrazine	0.13	U	1.9	0.13	mg/Kg	☼	08/14/15 10:57	08/17/15 19:52	5
Benzaldehyde	0.33	U	1.9	0.33	mg/Kg	☼	08/14/15 10:57	08/17/15 19:52	5
<b>Benzo[a]anthracene</b>	<b>0.21</b>	<b>J</b>	1.9	0.15	mg/Kg	☼	08/14/15 10:57	08/17/15 19:52	5
Benzo[a]pyrene	0.29	U	1.9	0.29	mg/Kg	☼	08/14/15 10:57	08/17/15 19:52	5
<b>Benzo[b]fluoranthene</b>	<b>0.26</b>	<b>J</b>	1.9	0.21	mg/Kg	☼	08/14/15 10:57	08/17/15 19:52	5
<b>Benzo[g,h,i]perylene</b>	<b>0.15</b>	<b>J</b>	1.9	0.12	mg/Kg	☼	08/14/15 10:57	08/17/15 19:52	5
Benzo[k]fluoranthene	0.37	U	1.9	0.37	mg/Kg	☼	08/14/15 10:57	08/17/15 19:52	5
1,1'-Biphenyl	9.6	U	9.6	9.6	mg/Kg	☼	08/14/15 10:57	08/17/15 19:52	5
Bis(2-chloroethoxy)methane	0.22	U	1.9	0.22	mg/Kg	☼	08/14/15 10:57	08/17/15 19:52	5
Bis(2-chloroethyl)ether	0.25	U *	1.9	0.25	mg/Kg	☼	08/14/15 10:57	08/17/15 19:52	5
bis (2-chloroisopropyl) ether	0.17	U	1.9	0.17	mg/Kg	☼	08/14/15 10:57	08/17/15 19:52	5
Bis(2-ethylhexyl) phthalate	0.16	U	1.9	0.16	mg/Kg	☼	08/14/15 10:57	08/17/15 19:52	5
4-Bromophenyl phenyl ether	0.20	U	1.9	0.20	mg/Kg	☼	08/14/15 10:57	08/17/15 19:52	5
Butyl benzyl phthalate	0.15	U	1.9	0.15	mg/Kg	☼	08/14/15 10:57	08/17/15 19:52	5
Caprolactam	0.37	U	1.9	0.37	mg/Kg	☼	08/14/15 10:57	08/17/15 19:52	5
Carbazole	0.17	U	1.9	0.17	mg/Kg	☼	08/14/15 10:57	08/17/15 19:52	5
4-Chloroaniline	0.29	U	3.7	0.29	mg/Kg	☼	08/14/15 10:57	08/17/15 19:52	5
4-Chloro-3-methylphenol	0.20	U	1.9	0.20	mg/Kg	☼	08/14/15 10:57	08/17/15 19:52	5
2-Chloronaphthalene	0.20	U	1.9	0.20	mg/Kg	☼	08/14/15 10:57	08/17/15 19:52	5
2-Chlorophenol	0.22	U	1.9	0.22	mg/Kg	☼	08/14/15 10:57	08/17/15 19:52	5
4-Chlorophenyl phenyl ether	0.25	U	1.9	0.25	mg/Kg	☼	08/14/15 10:57	08/17/15 19:52	5
<b>Chrysene</b>	<b>0.18</b>	<b>J</b>	1.9	0.12	mg/Kg	☼	08/14/15 10:57	08/17/15 19:52	5
Dibenz(a,h)anthracene	0.22	U	1.9	0.22	mg/Kg	☼	08/14/15 10:57	08/17/15 19:52	5
Dibenzofuran	0.19	U	1.9	0.19	mg/Kg	☼	08/14/15 10:57	08/17/15 19:52	5
3,3'-Dichlorobenzidine	0.16	U	3.7	0.16	mg/Kg	☼	08/14/15 10:57	08/17/15 19:52	5
2,4-Dichlorophenol	0.20	U	1.9	0.20	mg/Kg	☼	08/14/15 10:57	08/17/15 19:52	5
Diethyl phthalate	0.21	U	1.9	0.21	mg/Kg	☼	08/14/15 10:57	08/17/15 19:52	5
2,4-Dimethylphenol	0.25	U	1.9	0.25	mg/Kg	☼	08/14/15 10:57	08/17/15 19:52	5
Dimethyl phthalate	0.19	U	1.9	0.19	mg/Kg	☼	08/14/15 10:57	08/17/15 19:52	5
Di-n-butyl phthalate	0.17	U	1.9	0.17	mg/Kg	☼	08/14/15 10:57	08/17/15 19:52	5
4,6-Dinitro-2-methylphenol	0.96	U	9.6	0.96	mg/Kg	☼	08/14/15 10:57	08/17/15 19:52	5
2,4-Dinitrophenol	4.7	U	9.6	4.7	mg/Kg	☼	08/14/15 10:57	08/17/15 19:52	5
2,4-Dinitrotoluene	0.28	U	1.9	0.28	mg/Kg	☼	08/14/15 10:57	08/17/15 19:52	5
2,6-Dinitrotoluene	0.24	U	1.9	0.24	mg/Kg	☼	08/14/15 10:57	08/17/15 19:52	5
Di-n-octyl phthalate	0.16	U	1.9	0.16	mg/Kg	☼	08/14/15 10:57	08/17/15 19:52	5
<b>Fluoranthene</b>	<b>0.36</b>	<b>J</b>	1.9	0.18	mg/Kg	☼	08/14/15 10:57	08/17/15 19:52	5
Fluorene	0.20	U	1.9	0.20	mg/Kg	☼	08/14/15 10:57	08/17/15 19:52	5
Hexachlorobenzene	0.22	U	1.9	0.22	mg/Kg	☼	08/14/15 10:57	08/17/15 19:52	5
Hexachlorobutadiene	0.20	U	1.9	0.20	mg/Kg	☼	08/14/15 10:57	08/17/15 19:52	5
Hexachlorocyclopentadiene	0.23	U	1.9	0.23	mg/Kg	☼	08/14/15 10:57	08/17/15 19:52	5
Hexachloroethane	0.16	U	1.9	0.16	mg/Kg	☼	08/14/15 10:57	08/17/15 19:52	5
Indeno[1,2,3-cd]pyrene	0.16	U	1.9	0.16	mg/Kg	☼	08/14/15 10:57	08/17/15 19:52	5
Isophorone	0.19	U	1.9	0.19	mg/Kg	☼	08/14/15 10:57	08/17/15 19:52	5
2-Methylnaphthalene	0.21	U	1.9	0.21	mg/Kg	☼	08/14/15 10:57	08/17/15 19:52	5
2-Methylphenol	0.15	U	1.9	0.15	mg/Kg	☼	08/14/15 10:57	08/17/15 19:52	5

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# Client Sample Results

Client: Geotechnical & Environmental Consultants  
Project/Site: Macon MGP #2

TestAmerica Job ID: 680-115544-1

**Client Sample ID: GB-26 4-6**

**Date Collected: 08/10/15 12:25**

**Date Received: 08/12/15 09:46**

**Lab Sample ID: 680-115544-17**

**Matrix: Solid**

**Percent Solids: 89.2**

## Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
3 & 4 Methylphenol	0.24	U	1.9	0.24	mg/Kg	☼	08/14/15 10:57	08/17/15 19:52	5
Naphthalene	0.17	U	1.9	0.17	mg/Kg	☼	08/14/15 10:57	08/17/15 19:52	5
2-Nitroaniline	0.25	U	9.6	0.25	mg/Kg	☼	08/14/15 10:57	08/17/15 19:52	5
3-Nitroaniline	0.26	U	9.6	0.26	mg/Kg	☼	08/14/15 10:57	08/17/15 19:52	5
4-Nitroaniline	0.28	U	9.6	0.28	mg/Kg	☼	08/14/15 10:57	08/17/15 19:52	5
Nitrobenzene	0.15	U	1.9	0.15	mg/Kg	☼	08/14/15 10:57	08/17/15 19:52	5
2-Nitrophenol	0.23	U	1.9	0.23	mg/Kg	☼	08/14/15 10:57	08/17/15 19:52	5
4-Nitrophenol	1.9	U	9.6	1.9	mg/Kg	☼	08/14/15 10:57	08/17/15 19:52	5
N-Nitrosodi-n-propylamine	0.18	U	1.9	0.18	mg/Kg	☼	08/14/15 10:57	08/17/15 19:52	5
N-Nitrosodiphenylamine	0.19	U	1.9	0.19	mg/Kg	☼	08/14/15 10:57	08/17/15 19:52	5
Pentachlorophenol	1.9	U	9.6	1.9	mg/Kg	☼	08/14/15 10:57	08/17/15 19:52	5
Phenanthrene	0.19	J	1.9	0.15	mg/Kg	☼	08/14/15 10:57	08/17/15 19:52	5
Phenol	0.19	U	1.9	0.19	mg/Kg	☼	08/14/15 10:57	08/17/15 19:52	5
Pyrene	0.28	J	1.9	0.15	mg/Kg	☼	08/14/15 10:57	08/17/15 19:52	5
2,4,5-Trichlorophenol	0.20	U	1.9	0.20	mg/Kg	☼	08/14/15 10:57	08/17/15 19:52	5
2,4,6-Trichlorophenol	0.16	U	1.9	0.16	mg/Kg	☼	08/14/15 10:57	08/17/15 19:52	5

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl	75		41 - 116	08/14/15 10:57	08/17/15 19:52	5
2-Fluorophenol (Surr)	55		39 - 114	08/14/15 10:57	08/17/15 19:52	5
Nitrobenzene-d5 (Surr)	59		37 - 115	08/14/15 10:57	08/17/15 19:52	5
Phenol-d5 (Surr)	58		38 - 122	08/14/15 10:57	08/17/15 19:52	5
Terphenyl-d14 (Surr)	76		46 - 126	08/14/15 10:57	08/17/15 19:52	5
2,4,6-Tribromophenol (Surr)	77		45 - 129	08/14/15 10:57	08/17/15 19:52	5

## Method: 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	2.6		1.9	0.76	mg/Kg	☼	08/14/15 08:59	08/17/15 20:32	1
Barium	130	B	0.95	0.15	mg/Kg	☼	08/14/15 08:59	08/17/15 20:32	1
Beryllium	1.2		0.38	0.0095	mg/Kg	☼	08/14/15 08:59	08/17/15 20:32	1
Cadmium	0.095	U	0.48	0.095	mg/Kg	☼	08/14/15 08:59	08/17/15 20:32	1
Chromium	12		0.95	0.20	mg/Kg	☼	08/14/15 08:59	08/17/15 20:32	1
Copper	11		2.4	0.16	mg/Kg	☼	08/14/15 08:59	08/17/15 20:32	1
Lead	44		0.95	0.32	mg/Kg	☼	08/14/15 08:59	08/17/15 20:32	1
Nickel	4.5		3.8	0.36	mg/Kg	☼	08/14/15 08:59	08/17/15 20:32	1
Selenium	0.92	U	2.4	0.92	mg/Kg	☼	08/14/15 08:59	08/17/15 20:32	1
Silver	0.057	U	0.95	0.057	mg/Kg	☼	08/14/15 08:59	08/17/15 20:32	1
Vanadium	22		0.95	0.095	mg/Kg	☼	08/14/15 08:59	08/17/15 20:32	1
Zinc	85		1.9	0.67	mg/Kg	☼	08/14/15 08:59	08/17/15 20:32	1

## Method: 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.098		0.020	0.0082	mg/Kg	☼	08/17/15 10:06	08/17/15 23:00	1

## General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total	0.24	U	0.56	0.24	mg/Kg	☼	08/20/15 07:30	08/20/15 12:05	1

TestAmerica Savannah

# Client Sample Results

Client: Geotechnical & Environmental Consultants  
Project/Site: Macon MGP #2

TestAmerica Job ID: 680-115544-1

**Client Sample ID: GB-27 3-5**

**Date Collected: 08/10/15 12:33**

**Date Received: 08/12/15 09:46**

**Lab Sample ID: 680-115544-18**

**Matrix: Solid**

**Percent Solids: 69.6**

## Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	0.59	U	4.7	0.59	mg/Kg	☼	08/14/15 10:57	08/20/15 22:27	10
Acenaphthylene	0.52	U	4.7	0.52	mg/Kg	☼	08/14/15 10:57	08/20/15 22:27	10
Acetophenone	0.40	U	4.7	0.40	mg/Kg	☼	08/14/15 10:57	08/20/15 22:27	10
<b>Anthracene</b>	<b>1.4</b>	<b>J</b>	4.7	0.36	mg/Kg	☼	08/14/15 10:57	08/20/15 22:27	10
Atrazine	0.33	U	4.7	0.33	mg/Kg	☼	08/14/15 10:57	08/20/15 22:27	10
Benzaldehyde	0.83	U	4.7	0.83	mg/Kg	☼	08/14/15 10:57	08/20/15 22:27	10
<b>Benzo[a]anthracene</b>	<b>3.4</b>	<b>J</b>	4.7	0.39	mg/Kg	☼	08/14/15 10:57	08/20/15 22:27	10
<b>Benzo[a]pyrene</b>	<b>2.9</b>	<b>J</b>	4.7	0.75	mg/Kg	☼	08/14/15 10:57	08/20/15 22:27	10
<b>Benzo[b]fluoranthene</b>	<b>3.8</b>	<b>J</b>	4.7	0.55	mg/Kg	☼	08/14/15 10:57	08/20/15 22:27	10
<b>Benzo[g,h,i]perylene</b>	<b>2.1</b>	<b>J</b>	4.7	0.32	mg/Kg	☼	08/14/15 10:57	08/20/15 22:27	10
<b>Benzo[k]fluoranthene</b>	<b>2.0</b>	<b>J</b>	4.7	0.93	mg/Kg	☼	08/14/15 10:57	08/20/15 22:27	10
1,1'-Biphenyl	24	U	24	24	mg/Kg	☼	08/14/15 10:57	08/20/15 22:27	10
Bis(2-chloroethoxy)methane	0.56	U	4.7	0.56	mg/Kg	☼	08/14/15 10:57	08/20/15 22:27	10
Bis(2-chloroethyl)ether	0.65	U	4.7	0.65	mg/Kg	☼	08/14/15 10:57	08/20/15 22:27	10
bis (2-chloroisopropyl) ether	0.43	U	4.7	0.43	mg/Kg	☼	08/14/15 10:57	08/20/15 22:27	10
Bis(2-ethylhexyl) phthalate	0.42	U	4.7	0.42	mg/Kg	☼	08/14/15 10:57	08/20/15 22:27	10
4-Bromophenyl phenyl ether	0.52	U	4.7	0.52	mg/Kg	☼	08/14/15 10:57	08/20/15 22:27	10
Butyl benzyl phthalate	0.37	U	4.7	0.37	mg/Kg	☼	08/14/15 10:57	08/20/15 22:27	10
Caprolactam	0.95	U	4.7	0.95	mg/Kg	☼	08/14/15 10:57	08/20/15 22:27	10
<b>Carbazole</b>	<b>1.2</b>	<b>J</b>	4.7	0.43	mg/Kg	☼	08/14/15 10:57	08/20/15 22:27	10
4-Chloroaniline	0.75	U	9.5	0.75	mg/Kg	☼	08/14/15 10:57	08/20/15 22:27	10
4-Chloro-3-methylphenol	0.50	U	4.7	0.50	mg/Kg	☼	08/14/15 10:57	08/20/15 22:27	10
2-Chloronaphthalene	0.50	U	4.7	0.50	mg/Kg	☼	08/14/15 10:57	08/20/15 22:27	10
2-Chlorophenol	0.57	U	4.7	0.57	mg/Kg	☼	08/14/15 10:57	08/20/15 22:27	10
4-Chlorophenyl phenyl ether	0.63	U	4.7	0.63	mg/Kg	☼	08/14/15 10:57	08/20/15 22:27	10
<b>Chrysene</b>	<b>3.4</b>	<b>J</b>	4.7	0.30	mg/Kg	☼	08/14/15 10:57	08/20/15 22:27	10
<b>Dibenz(a,h)anthracene</b>	<b>0.63</b>	<b>J</b>	4.7	0.56	mg/Kg	☼	08/14/15 10:57	08/20/15 22:27	10
Dibenzofuran	0.47	U	4.7	0.47	mg/Kg	☼	08/14/15 10:57	08/20/15 22:27	10
3,3'-Dichlorobenzidine	0.40	U	9.5	0.40	mg/Kg	☼	08/14/15 10:57	08/20/15 22:27	10
2,4-Dichlorophenol	0.50	U	4.7	0.50	mg/Kg	☼	08/14/15 10:57	08/20/15 22:27	10
Diethyl phthalate	0.53	U	4.7	0.53	mg/Kg	☼	08/14/15 10:57	08/20/15 22:27	10
2,4-Dimethylphenol	0.63	U	4.7	0.63	mg/Kg	☼	08/14/15 10:57	08/20/15 22:27	10
Dimethyl phthalate	0.49	U	4.7	0.49	mg/Kg	☼	08/14/15 10:57	08/20/15 22:27	10
Di-n-butyl phthalate	0.43	U	4.7	0.43	mg/Kg	☼	08/14/15 10:57	08/20/15 22:27	10
4,6-Dinitro-2-methylphenol	2.4	U	24	2.4	mg/Kg	☼	08/14/15 10:57	08/20/15 22:27	10
2,4-Dinitrophenol	12	U	24	12	mg/Kg	☼	08/14/15 10:57	08/20/15 22:27	10
2,4-Dinitrotoluene	0.70	U	4.7	0.70	mg/Kg	☼	08/14/15 10:57	08/20/15 22:27	10
2,6-Dinitrotoluene	0.60	U	4.7	0.60	mg/Kg	☼	08/14/15 10:57	08/20/15 22:27	10
Di-n-octyl phthalate	0.42	U	4.7	0.42	mg/Kg	☼	08/14/15 10:57	08/20/15 22:27	10
<b>Fluoranthene</b>	<b>7.3</b>		4.7	0.46	mg/Kg	☼	08/14/15 10:57	08/20/15 22:27	10
<b>Fluorene</b>	<b>0.69</b>	<b>J</b>	4.7	0.52	mg/Kg	☼	08/14/15 10:57	08/20/15 22:27	10
Hexachlorobenzene	0.56	U	4.7	0.56	mg/Kg	☼	08/14/15 10:57	08/20/15 22:27	10
Hexachlorobutadiene	0.52	U	4.7	0.52	mg/Kg	☼	08/14/15 10:57	08/20/15 22:27	10
Hexachlorocyclopentadiene	0.59	U	4.7	0.59	mg/Kg	☼	08/14/15 10:57	08/20/15 22:27	10
Hexachloroethane	0.40	U	4.7	0.40	mg/Kg	☼	08/14/15 10:57	08/20/15 22:27	10
<b>Indeno[1,2,3-cd]pyrene</b>	<b>1.8</b>	<b>J</b>	4.7	0.40	mg/Kg	☼	08/14/15 10:57	08/20/15 22:27	10
Isophorone	0.47	U	4.7	0.47	mg/Kg	☼	08/14/15 10:57	08/20/15 22:27	10
2-Methylnaphthalene	0.55	U	4.7	0.55	mg/Kg	☼	08/14/15 10:57	08/20/15 22:27	10
2-Methylphenol	0.39	U	4.7	0.39	mg/Kg	☼	08/14/15 10:57	08/20/15 22:27	10

TestAmerica Savannah

# Client Sample Results

Client: Geotechnical & Environmental Consultants  
Project/Site: Macon MGP #2

TestAmerica Job ID: 680-115544-1

**Client Sample ID: GB-27 3-5**

**Date Collected: 08/10/15 12:33**

**Date Received: 08/12/15 09:46**

**Lab Sample ID: 680-115544-18**

**Matrix: Solid**

**Percent Solids: 69.6**

## Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
3 & 4 Methylphenol	0.62	U	4.7	0.62	mg/Kg	☼	08/14/15 10:57	08/20/15 22:27	10
Naphthalene	0.43	U	4.7	0.43	mg/Kg	☼	08/14/15 10:57	08/20/15 22:27	10
2-Nitroaniline	0.65	U	24	0.65	mg/Kg	☼	08/14/15 10:57	08/20/15 22:27	10
3-Nitroaniline	0.66	U	24	0.66	mg/Kg	☼	08/14/15 10:57	08/20/15 22:27	10
4-Nitroaniline	0.70	U	24	0.70	mg/Kg	☼	08/14/15 10:57	08/20/15 22:27	10
Nitrobenzene	0.37	U	4.7	0.37	mg/Kg	☼	08/14/15 10:57	08/20/15 22:27	10
2-Nitrophenol	0.59	U	4.7	0.59	mg/Kg	☼	08/14/15 10:57	08/20/15 22:27	10
4-Nitrophenol	4.7	U	24	4.7	mg/Kg	☼	08/14/15 10:57	08/20/15 22:27	10
N-Nitrosodi-n-propylamine	0.46	U	4.7	0.46	mg/Kg	☼	08/14/15 10:57	08/20/15 22:27	10
N-Nitrosodiphenylamine	0.47	U	4.7	0.47	mg/Kg	☼	08/14/15 10:57	08/20/15 22:27	10
Pentachlorophenol	4.7	U	24	4.7	mg/Kg	☼	08/14/15 10:57	08/20/15 22:27	10
Phenanthrene	5.5		4.7	0.39	mg/Kg	☼	08/14/15 10:57	08/20/15 22:27	10
Phenol	0.49	U	4.7	0.49	mg/Kg	☼	08/14/15 10:57	08/20/15 22:27	10
Pyrene	5.3		4.7	0.39	mg/Kg	☼	08/14/15 10:57	08/20/15 22:27	10
2,4,5-Trichlorophenol	0.50	U	4.7	0.50	mg/Kg	☼	08/14/15 10:57	08/20/15 22:27	10
2,4,6-Trichlorophenol	0.42	U	4.7	0.42	mg/Kg	☼	08/14/15 10:57	08/20/15 22:27	10

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl	0	D	41 - 116	08/14/15 10:57	08/20/15 22:27	10
2-Fluorophenol (Surr)	0	D	39 - 114	08/14/15 10:57	08/20/15 22:27	10
Nitrobenzene-d5 (Surr)	0	D	37 - 115	08/14/15 10:57	08/20/15 22:27	10
Phenol-d5 (Surr)	0	D	38 - 122	08/14/15 10:57	08/20/15 22:27	10
Terphenyl-d14 (Surr)	0	D	46 - 126	08/14/15 10:57	08/20/15 22:27	10
2,4,6-Tribromophenol (Surr)	0	D	45 - 129	08/14/15 10:57	08/20/15 22:27	10

## Method: 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	2.4	J	2.6	1.0	mg/Kg	☼	08/14/15 08:59	08/17/15 20:45	1
Barium	56	B	1.3	0.21	mg/Kg	☼	08/14/15 08:59	08/17/15 20:45	1
Beryllium	0.36	J	0.52	0.013	mg/Kg	☼	08/14/15 08:59	08/17/15 20:45	1
Cadmium	0.16	J	0.65	0.13	mg/Kg	☼	08/14/15 08:59	08/17/15 20:45	1
Chromium	11		1.3	0.27	mg/Kg	☼	08/14/15 08:59	08/17/15 20:45	1
Copper	12		3.3	0.22	mg/Kg	☼	08/14/15 08:59	08/17/15 20:45	1
Lead	100		1.3	0.44	mg/Kg	☼	08/14/15 08:59	08/17/15 20:45	1
Nickel	2.7	J	5.2	0.50	mg/Kg	☼	08/14/15 08:59	08/17/15 20:45	1
Selenium	1.3	U	3.3	1.3	mg/Kg	☼	08/14/15 08:59	08/17/15 20:45	1
Silver	0.078	U	1.3	0.078	mg/Kg	☼	08/14/15 08:59	08/17/15 20:45	1
Vanadium	17		1.3	0.13	mg/Kg	☼	08/14/15 08:59	08/17/15 20:45	1
Zinc	68		2.6	0.91	mg/Kg	☼	08/14/15 08:59	08/17/15 20:45	1

## Method: 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.91		0.14	0.058	mg/Kg	☼	08/17/15 10:06	08/18/15 09:36	5

## General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total	0.29	U	0.70	0.29	mg/Kg	☼	08/20/15 07:30	08/20/15 12:06	1

TestAmerica Savannah

# Client Sample Results

Client: Geotechnical & Environmental Consultants  
Project/Site: Macon MGP #2

TestAmerica Job ID: 680-115544-1

**Client Sample ID: GB-27 8-10**

**Date Collected: 08/10/15 12:45**

**Date Received: 08/12/15 09:46**

**Lab Sample ID: 680-115544-19**

**Matrix: Solid**

**Percent Solids: 91.3**

## Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	0.45	U	3.6	0.45	mg/Kg	☼	08/14/15 10:57	08/17/15 20:42	10
Acenaphthylene	0.39	U	3.6	0.39	mg/Kg	☼	08/14/15 10:57	08/17/15 20:42	10
Acetophenone	0.31	U	3.6	0.31	mg/Kg	☼	08/14/15 10:57	08/17/15 20:42	10
Anthracene	0.27	U	3.6	0.27	mg/Kg	☼	08/14/15 10:57	08/17/15 20:42	10
Atrazine	0.25	U	3.6	0.25	mg/Kg	☼	08/14/15 10:57	08/17/15 20:42	10
Benzaldehyde	0.64	U	3.6	0.64	mg/Kg	☼	08/14/15 10:57	08/17/15 20:42	10
Benzo[a]anthracene	0.30	U	3.6	0.30	mg/Kg	☼	08/14/15 10:57	08/17/15 20:42	10
Benzo[a]pyrene	0.57	U	3.6	0.57	mg/Kg	☼	08/14/15 10:57	08/17/15 20:42	10
Benzo[b]fluoranthene	0.42	U	3.6	0.42	mg/Kg	☼	08/14/15 10:57	08/17/15 20:42	10
Benzo[g,h,i]perylene	0.24	U	3.6	0.24	mg/Kg	☼	08/14/15 10:57	08/17/15 20:42	10
Benzo[k]fluoranthene	0.71	U	3.6	0.71	mg/Kg	☼	08/14/15 10:57	08/17/15 20:42	10
1,1'-Biphenyl	19	U	19	19	mg/Kg	☼	08/14/15 10:57	08/17/15 20:42	10
Bis(2-chloroethoxy)methane	0.43	U	3.6	0.43	mg/Kg	☼	08/14/15 10:57	08/17/15 20:42	10
Bis(2-chloroethyl)ether	0.49	U *	3.6	0.49	mg/Kg	☼	08/14/15 10:57	08/17/15 20:42	10
bis (2-chloroisopropyl) ether	0.33	U	3.6	0.33	mg/Kg	☼	08/14/15 10:57	08/17/15 20:42	10
Bis(2-ethylhexyl) phthalate	0.32	U	3.6	0.32	mg/Kg	☼	08/14/15 10:57	08/17/15 20:42	10
4-Bromophenyl phenyl ether	0.39	U	3.6	0.39	mg/Kg	☼	08/14/15 10:57	08/17/15 20:42	10
Butyl benzyl phthalate	0.28	U	3.6	0.28	mg/Kg	☼	08/14/15 10:57	08/17/15 20:42	10
Caprolactam	0.72	U	3.6	0.72	mg/Kg	☼	08/14/15 10:57	08/17/15 20:42	10
Carbazole	0.33	U	3.6	0.33	mg/Kg	☼	08/14/15 10:57	08/17/15 20:42	10
4-Chloroaniline	0.57	U	7.2	0.57	mg/Kg	☼	08/14/15 10:57	08/17/15 20:42	10
4-Chloro-3-methylphenol	0.38	U	3.6	0.38	mg/Kg	☼	08/14/15 10:57	08/17/15 20:42	10
2-Chloronaphthalene	0.38	U	3.6	0.38	mg/Kg	☼	08/14/15 10:57	08/17/15 20:42	10
2-Chlorophenol	0.44	U	3.6	0.44	mg/Kg	☼	08/14/15 10:57	08/17/15 20:42	10
4-Chlorophenyl phenyl ether	0.48	U	3.6	0.48	mg/Kg	☼	08/14/15 10:57	08/17/15 20:42	10
<b>Chrysene</b>	<b>0.23</b>	<b>J</b>	3.6	0.23	mg/Kg	☼	08/14/15 10:57	08/17/15 20:42	10
Dibenz(a,h)anthracene	0.43	U	3.6	0.43	mg/Kg	☼	08/14/15 10:57	08/17/15 20:42	10
Dibenzofuran	0.36	U	3.6	0.36	mg/Kg	☼	08/14/15 10:57	08/17/15 20:42	10
3,3'-Dichlorobenzidine	0.31	U	7.2	0.31	mg/Kg	☼	08/14/15 10:57	08/17/15 20:42	10
2,4-Dichlorophenol	0.38	U	3.6	0.38	mg/Kg	☼	08/14/15 10:57	08/17/15 20:42	10
Diethyl phthalate	0.41	U	3.6	0.41	mg/Kg	☼	08/14/15 10:57	08/17/15 20:42	10
2,4-Dimethylphenol	0.48	U	3.6	0.48	mg/Kg	☼	08/14/15 10:57	08/17/15 20:42	10
Dimethyl phthalate	0.37	U	3.6	0.37	mg/Kg	☼	08/14/15 10:57	08/17/15 20:42	10
Di-n-butyl phthalate	0.33	U	3.6	0.33	mg/Kg	☼	08/14/15 10:57	08/17/15 20:42	10
4,6-Dinitro-2-methylphenol	1.9	U	19	1.9	mg/Kg	☼	08/14/15 10:57	08/17/15 20:42	10
2,4-Dinitrophenol	9.1	U	19	9.1	mg/Kg	☼	08/14/15 10:57	08/17/15 20:42	10
2,4-Dinitrotoluene	0.54	U	3.6	0.54	mg/Kg	☼	08/14/15 10:57	08/17/15 20:42	10
2,6-Dinitrotoluene	0.46	U	3.6	0.46	mg/Kg	☼	08/14/15 10:57	08/17/15 20:42	10
Di-n-octyl phthalate	0.32	U	3.6	0.32	mg/Kg	☼	08/14/15 10:57	08/17/15 20:42	10
<b>Fluoranthene</b>	<b>0.53</b>	<b>J</b>	3.6	0.35	mg/Kg	☼	08/14/15 10:57	08/17/15 20:42	10
Fluorene	0.39	U	3.6	0.39	mg/Kg	☼	08/14/15 10:57	08/17/15 20:42	10
Hexachlorobenzene	0.43	U	3.6	0.43	mg/Kg	☼	08/14/15 10:57	08/17/15 20:42	10
Hexachlorobutadiene	0.39	U	3.6	0.39	mg/Kg	☼	08/14/15 10:57	08/17/15 20:42	10
Hexachlorocyclopentadiene	0.45	U	3.6	0.45	mg/Kg	☼	08/14/15 10:57	08/17/15 20:42	10
Hexachloroethane	0.31	U	3.6	0.31	mg/Kg	☼	08/14/15 10:57	08/17/15 20:42	10
Indeno[1,2,3-cd]pyrene	0.31	U	3.6	0.31	mg/Kg	☼	08/14/15 10:57	08/17/15 20:42	10
Isophorone	0.36	U	3.6	0.36	mg/Kg	☼	08/14/15 10:57	08/17/15 20:42	10
2-Methylnaphthalene	0.42	U	3.6	0.42	mg/Kg	☼	08/14/15 10:57	08/17/15 20:42	10
2-Methylphenol	0.30	U	3.6	0.30	mg/Kg	☼	08/14/15 10:57	08/17/15 20:42	10

TestAmerica Savannah

# Client Sample Results

Client: Geotechnical & Environmental Consultants  
Project/Site: Macon MGP #2

TestAmerica Job ID: 680-115544-1

**Client Sample ID: GB-27 8-10**

**Lab Sample ID: 680-115544-19**

**Date Collected: 08/10/15 12:45**

**Matrix: Solid**

**Date Received: 08/12/15 09:46**

**Percent Solids: 91.3**

## Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
3 & 4 Methylphenol	0.47	U	3.6	0.47	mg/Kg	☼	08/14/15 10:57	08/17/15 20:42	10
Naphthalene	0.33	U	3.6	0.33	mg/Kg	☼	08/14/15 10:57	08/17/15 20:42	10
2-Nitroaniline	0.49	U	19	0.49	mg/Kg	☼	08/14/15 10:57	08/17/15 20:42	10
3-Nitroaniline	0.50	U	19	0.50	mg/Kg	☼	08/14/15 10:57	08/17/15 20:42	10
4-Nitroaniline	0.54	U	19	0.54	mg/Kg	☼	08/14/15 10:57	08/17/15 20:42	10
Nitrobenzene	0.28	U	3.6	0.28	mg/Kg	☼	08/14/15 10:57	08/17/15 20:42	10
2-Nitrophenol	0.45	U	3.6	0.45	mg/Kg	☼	08/14/15 10:57	08/17/15 20:42	10
4-Nitrophenol	3.6	U	19	3.6	mg/Kg	☼	08/14/15 10:57	08/17/15 20:42	10
N-Nitrosodi-n-propylamine	0.35	U	3.6	0.35	mg/Kg	☼	08/14/15 10:57	08/17/15 20:42	10
N-Nitrosodiphenylamine	0.36	U	3.6	0.36	mg/Kg	☼	08/14/15 10:57	08/17/15 20:42	10
Pentachlorophenol	3.6	U	19	3.6	mg/Kg	☼	08/14/15 10:57	08/17/15 20:42	10
Phenanthrene	0.42	J	3.6	0.30	mg/Kg	☼	08/14/15 10:57	08/17/15 20:42	10
Phenol	0.37	U	3.6	0.37	mg/Kg	☼	08/14/15 10:57	08/17/15 20:42	10
Pyrene	0.41	J	3.6	0.30	mg/Kg	☼	08/14/15 10:57	08/17/15 20:42	10
2,4,5-Trichlorophenol	0.38	U	3.6	0.38	mg/Kg	☼	08/14/15 10:57	08/17/15 20:42	10
2,4,6-Trichlorophenol	0.32	U	3.6	0.32	mg/Kg	☼	08/14/15 10:57	08/17/15 20:42	10

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl	0	D	41 - 116	08/14/15 10:57	08/17/15 20:42	10
2-Fluorophenol (Surr)	0	D	39 - 114	08/14/15 10:57	08/17/15 20:42	10
Nitrobenzene-d5 (Surr)	0	D	37 - 115	08/14/15 10:57	08/17/15 20:42	10
Phenol-d5 (Surr)	0	D	38 - 122	08/14/15 10:57	08/17/15 20:42	10
Terphenyl-d14 (Surr)	0	D	46 - 126	08/14/15 10:57	08/17/15 20:42	10
2,4,6-Tribromophenol (Surr)	0	D	45 - 129	08/14/15 10:57	08/17/15 20:42	10

## Method: 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	2.4		2.0	0.79	mg/Kg	☼	08/14/15 08:59	08/17/15 20:14	1
Barium	40	B	0.99	0.16	mg/Kg	☼	08/14/15 08:59	08/17/15 20:14	1
Beryllium	0.14	J	0.39	0.0099	mg/Kg	☼	08/14/15 08:59	08/17/15 20:14	1
Cadmium	0.18	J	0.49	0.099	mg/Kg	☼	08/14/15 08:59	08/17/15 20:14	1
Chromium	9.3		0.99	0.21	mg/Kg	☼	08/14/15 08:59	08/17/15 20:14	1
Copper	11		2.5	0.17	mg/Kg	☼	08/14/15 08:59	08/17/15 20:14	1
Lead	110		0.99	0.34	mg/Kg	☼	08/14/15 08:59	08/17/15 20:14	1
Nickel	2.0	J	3.9	0.38	mg/Kg	☼	08/14/15 08:59	08/17/15 20:14	1
Selenium	0.96	U	2.5	0.96	mg/Kg	☼	08/14/15 08:59	08/17/15 20:14	1
Silver	0.059	U	0.99	0.059	mg/Kg	☼	08/14/15 08:59	08/17/15 20:14	1
Vanadium	17		0.99	0.099	mg/Kg	☼	08/14/15 08:59	08/17/15 20:14	1
Zinc	85		2.0	0.69	mg/Kg	☼	08/14/15 08:59	08/17/15 20:14	1

## Method: 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.15		0.021	0.0084	mg/Kg	☼	08/17/15 10:06	08/17/15 23:06	1

## General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total	0.23	U	0.54	0.23	mg/Kg	☼	08/20/15 07:30	08/20/15 12:07	1

TestAmerica Savannah



# Client Sample Results

Client: Geotechnical & Environmental Consultants  
Project/Site: Macon MGP #2

TestAmerica Job ID: 680-115544-1

**Client Sample ID: GB-27 13-15**

**Date Collected: 08/10/15 12:48**

**Date Received: 08/12/15 09:46**

**Lab Sample ID: 680-115544-20**

**Matrix: Solid**

**Percent Solids: 85.0**

## Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	0.48	U	3.9	0.48	mg/Kg	☼	08/14/15 10:57	08/17/15 21:08	10
Acenaphthylene	0.42	U	3.9	0.42	mg/Kg	☼	08/14/15 10:57	08/17/15 21:08	10
Acetophenone	0.33	U	3.9	0.33	mg/Kg	☼	08/14/15 10:57	08/17/15 21:08	10
Anthracene	0.29	U	3.9	0.29	mg/Kg	☼	08/14/15 10:57	08/17/15 21:08	10
Atrazine	0.27	U	3.9	0.27	mg/Kg	☼	08/14/15 10:57	08/17/15 21:08	10
Benzaldehyde	0.68	U	3.9	0.68	mg/Kg	☼	08/14/15 10:57	08/17/15 21:08	10
<b>Benzo[a]anthracene</b>	<b>0.37</b>	<b>J</b>	3.9	0.32	mg/Kg	☼	08/14/15 10:57	08/17/15 21:08	10
Benzo[a]pyrene	0.61	U	3.9	0.61	mg/Kg	☼	08/14/15 10:57	08/17/15 21:08	10
<b>Benzo[b]fluoranthene</b>	<b>0.46</b>	<b>J</b>	3.9	0.44	mg/Kg	☼	08/14/15 10:57	08/17/15 21:08	10
<b>Benzo[g,h,i]perylene</b>	<b>0.32</b>	<b>J</b>	3.9	0.26	mg/Kg	☼	08/14/15 10:57	08/17/15 21:08	10
Benzo[k]fluoranthene	0.76	U	3.9	0.76	mg/Kg	☼	08/14/15 10:57	08/17/15 21:08	10
1,1'-Biphenyl	20	U	20	20	mg/Kg	☼	08/14/15 10:57	08/17/15 21:08	10
Bis(2-chloroethoxy)methane	0.46	U	3.9	0.46	mg/Kg	☼	08/14/15 10:57	08/17/15 21:08	10
Bis(2-chloroethyl)ether	0.53	U *	3.9	0.53	mg/Kg	☼	08/14/15 10:57	08/17/15 21:08	10
bis (2-chloroisopropyl) ether	0.35	U	3.9	0.35	mg/Kg	☼	08/14/15 10:57	08/17/15 21:08	10
Bis(2-ethylhexyl) phthalate	0.34	U	3.9	0.34	mg/Kg	☼	08/14/15 10:57	08/17/15 21:08	10
4-Bromophenyl phenyl ether	0.42	U	3.9	0.42	mg/Kg	☼	08/14/15 10:57	08/17/15 21:08	10
Butyl benzyl phthalate	0.30	U	3.9	0.30	mg/Kg	☼	08/14/15 10:57	08/17/15 21:08	10
Caprolactam	0.77	U	3.9	0.77	mg/Kg	☼	08/14/15 10:57	08/17/15 21:08	10
Carbazole	0.35	U	3.9	0.35	mg/Kg	☼	08/14/15 10:57	08/17/15 21:08	10
4-Chloroaniline	0.61	U	7.7	0.61	mg/Kg	☼	08/14/15 10:57	08/17/15 21:08	10
4-Chloro-3-methylphenol	0.41	U	3.9	0.41	mg/Kg	☼	08/14/15 10:57	08/17/15 21:08	10
2-Chloronaphthalene	0.41	U	3.9	0.41	mg/Kg	☼	08/14/15 10:57	08/17/15 21:08	10
2-Chlorophenol	0.47	U	3.9	0.47	mg/Kg	☼	08/14/15 10:57	08/17/15 21:08	10
4-Chlorophenyl phenyl ether	0.51	U	3.9	0.51	mg/Kg	☼	08/14/15 10:57	08/17/15 21:08	10
<b>Chrysene</b>	<b>0.35</b>	<b>J</b>	3.9	0.25	mg/Kg	☼	08/14/15 10:57	08/17/15 21:08	10
Dibenz(a,h)anthracene	0.46	U	3.9	0.46	mg/Kg	☼	08/14/15 10:57	08/17/15 21:08	10
Dibenzofuran	0.39	U	3.9	0.39	mg/Kg	☼	08/14/15 10:57	08/17/15 21:08	10
3,3'-Dichlorobenzidine	0.33	U	7.7	0.33	mg/Kg	☼	08/14/15 10:57	08/17/15 21:08	10
2,4-Dichlorophenol	0.41	U	3.9	0.41	mg/Kg	☼	08/14/15 10:57	08/17/15 21:08	10
Diethyl phthalate	0.43	U	3.9	0.43	mg/Kg	☼	08/14/15 10:57	08/17/15 21:08	10
2,4-Dimethylphenol	0.51	U	3.9	0.51	mg/Kg	☼	08/14/15 10:57	08/17/15 21:08	10
Dimethyl phthalate	0.40	U	3.9	0.40	mg/Kg	☼	08/14/15 10:57	08/17/15 21:08	10
Di-n-butyl phthalate	0.35	U	3.9	0.35	mg/Kg	☼	08/14/15 10:57	08/17/15 21:08	10
4,6-Dinitro-2-methylphenol	2.0	U	20	2.0	mg/Kg	☼	08/14/15 10:57	08/17/15 21:08	10
2,4-Dinitrophenol	9.7	U	20	9.7	mg/Kg	☼	08/14/15 10:57	08/17/15 21:08	10
2,4-Dinitrotoluene	0.57	U	3.9	0.57	mg/Kg	☼	08/14/15 10:57	08/17/15 21:08	10
2,6-Dinitrotoluene	0.49	U	3.9	0.49	mg/Kg	☼	08/14/15 10:57	08/17/15 21:08	10
Di-n-octyl phthalate	0.34	U	3.9	0.34	mg/Kg	☼	08/14/15 10:57	08/17/15 21:08	10
<b>Fluoranthene</b>	<b>0.61</b>	<b>J</b>	3.9	0.37	mg/Kg	☼	08/14/15 10:57	08/17/15 21:08	10
Fluorene	0.42	U	3.9	0.42	mg/Kg	☼	08/14/15 10:57	08/17/15 21:08	10
Hexachlorobenzene	0.46	U	3.9	0.46	mg/Kg	☼	08/14/15 10:57	08/17/15 21:08	10
Hexachlorobutadiene	0.42	U	3.9	0.42	mg/Kg	☼	08/14/15 10:57	08/17/15 21:08	10
Hexachlorocyclopentadiene	0.48	U	3.9	0.48	mg/Kg	☼	08/14/15 10:57	08/17/15 21:08	10
Hexachloroethane	0.33	U	3.9	0.33	mg/Kg	☼	08/14/15 10:57	08/17/15 21:08	10
Indeno[1,2,3-cd]pyrene	0.33	U	3.9	0.33	mg/Kg	☼	08/14/15 10:57	08/17/15 21:08	10
Isophorone	0.39	U	3.9	0.39	mg/Kg	☼	08/14/15 10:57	08/17/15 21:08	10
2-Methylnaphthalene	0.44	U	3.9	0.44	mg/Kg	☼	08/14/15 10:57	08/17/15 21:08	10
2-Methylphenol	0.32	U	3.9	0.32	mg/Kg	☼	08/14/15 10:57	08/17/15 21:08	10

TestAmerica Savannah

# Client Sample Results

Client: Geotechnical & Environmental Consultants  
Project/Site: Macon MGP #2

TestAmerica Job ID: 680-115544-1

**Client Sample ID: GB-27 13-15**

**Lab Sample ID: 680-115544-20**

**Date Collected: 08/10/15 12:48**

**Matrix: Solid**

**Date Received: 08/12/15 09:46**

**Percent Solids: 85.0**

## Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
3 & 4 Methylphenol	0.50	U	3.9	0.50	mg/Kg	☼	08/14/15 10:57	08/17/15 21:08	10
Naphthalene	0.35	U	3.9	0.35	mg/Kg	☼	08/14/15 10:57	08/17/15 21:08	10
2-Nitroaniline	0.53	U	20	0.53	mg/Kg	☼	08/14/15 10:57	08/17/15 21:08	10
3-Nitroaniline	0.54	U	20	0.54	mg/Kg	☼	08/14/15 10:57	08/17/15 21:08	10
4-Nitroaniline	0.57	U	20	0.57	mg/Kg	☼	08/14/15 10:57	08/17/15 21:08	10
Nitrobenzene	0.30	U	3.9	0.30	mg/Kg	☼	08/14/15 10:57	08/17/15 21:08	10
2-Nitrophenol	0.48	U	3.9	0.48	mg/Kg	☼	08/14/15 10:57	08/17/15 21:08	10
4-Nitrophenol	3.9	U	20	3.9	mg/Kg	☼	08/14/15 10:57	08/17/15 21:08	10
N-Nitrosodi-n-propylamine	0.37	U	3.9	0.37	mg/Kg	☼	08/14/15 10:57	08/17/15 21:08	10
N-Nitrosodiphenylamine	0.39	U	3.9	0.39	mg/Kg	☼	08/14/15 10:57	08/17/15 21:08	10
Pentachlorophenol	3.9	U	20	3.9	mg/Kg	☼	08/14/15 10:57	08/17/15 21:08	10
Phenanthrene	0.34	J	3.9	0.32	mg/Kg	☼	08/14/15 10:57	08/17/15 21:08	10
Phenol	0.40	U	3.9	0.40	mg/Kg	☼	08/14/15 10:57	08/17/15 21:08	10
Pyrene	0.63	J	3.9	0.32	mg/Kg	☼	08/14/15 10:57	08/17/15 21:08	10
2,4,5-Trichlorophenol	0.41	U	3.9	0.41	mg/Kg	☼	08/14/15 10:57	08/17/15 21:08	10
2,4,6-Trichlorophenol	0.34	U	3.9	0.34	mg/Kg	☼	08/14/15 10:57	08/17/15 21:08	10

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl	0	D	41 - 116	08/14/15 10:57	08/17/15 21:08	10
2-Fluorophenol (Surr)	0	D	39 - 114	08/14/15 10:57	08/17/15 21:08	10
Nitrobenzene-d5 (Surr)	0	D	37 - 115	08/14/15 10:57	08/17/15 21:08	10
Phenol-d5 (Surr)	0	D	38 - 122	08/14/15 10:57	08/17/15 21:08	10
Terphenyl-d14 (Surr)	0	D	46 - 126	08/14/15 10:57	08/17/15 21:08	10
2,4,6-Tribromophenol (Surr)	0	D	45 - 129	08/14/15 10:57	08/17/15 21:08	10

## Method: 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	1.4	J	2.2	0.89	mg/Kg	☼	08/14/15 08:59	08/17/15 20:27	1
Barium	41	B	1.1	0.18	mg/Kg	☼	08/14/15 08:59	08/17/15 20:27	1
Beryllium	0.15	J	0.44	0.011	mg/Kg	☼	08/14/15 08:59	08/17/15 20:27	1
Cadmium	0.11	J	0.56	0.11	mg/Kg	☼	08/14/15 08:59	08/17/15 20:27	1
Chromium	11		1.1	0.23	mg/Kg	☼	08/14/15 08:59	08/17/15 20:27	1
Copper	12		2.8	0.19	mg/Kg	☼	08/14/15 08:59	08/17/15 20:27	1
Lead	64		1.1	0.38	mg/Kg	☼	08/14/15 08:59	08/17/15 20:27	1
Nickel	2.0	J	4.4	0.42	mg/Kg	☼	08/14/15 08:59	08/17/15 20:27	1
Selenium	1.1	U	2.8	1.1	mg/Kg	☼	08/14/15 08:59	08/17/15 20:27	1
Silver	0.067	U	1.1	0.067	mg/Kg	☼	08/14/15 08:59	08/17/15 20:27	1
Vanadium	21		1.1	0.11	mg/Kg	☼	08/14/15 08:59	08/17/15 20:27	1
Zinc	27		2.2	0.78	mg/Kg	☼	08/14/15 08:59	08/17/15 20:27	1

## Method: 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.14		0.022	0.0087	mg/Kg	☼	08/17/15 10:06	08/17/15 23:09	1

## General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total	0.24	U	0.58	0.24	mg/Kg	☼	08/20/15 07:30	08/20/15 12:08	1

TestAmerica Savannah



# QC Sample Results

Client: Geotechnical & Environmental Consultants  
Project/Site: Macon MGP #2

TestAmerica Job ID: 680-115544-1

## Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Lab Sample ID: MB 680-395865/21-A

Matrix: Solid

Analysis Batch: 396502

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 395865

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	0.041	U	0.33	0.041	mg/Kg		08/14/15 10:57	08/17/15 12:29	1
Acenaphthylene	0.036	U	0.33	0.036	mg/Kg		08/14/15 10:57	08/17/15 12:29	1
Acetophenone	0.028	U	0.33	0.028	mg/Kg		08/14/15 10:57	08/17/15 12:29	1
Anthracene	0.025	U	0.33	0.025	mg/Kg		08/14/15 10:57	08/17/15 12:29	1
Atrazine	0.023	U	0.33	0.023	mg/Kg		08/14/15 10:57	08/17/15 12:29	1
Benzaldehyde	0.058	U	0.33	0.058	mg/Kg		08/14/15 10:57	08/17/15 12:29	1
Benzo[a]anthracene	0.027	U	0.33	0.027	mg/Kg		08/14/15 10:57	08/17/15 12:29	1
Benzo[a]pyrene	0.052	U	0.33	0.052	mg/Kg		08/14/15 10:57	08/17/15 12:29	1
Benzo[b]fluoranthene	0.038	U	0.33	0.038	mg/Kg		08/14/15 10:57	08/17/15 12:29	1
Benzo[g,h,i]perylene	0.022	U	0.33	0.022	mg/Kg		08/14/15 10:57	08/17/15 12:29	1
Benzo[k]fluoranthene	0.065	U	0.33	0.065	mg/Kg		08/14/15 10:57	08/17/15 12:29	1
1,1'-Biphenyl	1.7	U	1.7	1.7	mg/Kg		08/14/15 10:57	08/17/15 12:29	1
Bis(2-chloroethoxy)methane	0.039	U	0.33	0.039	mg/Kg		08/14/15 10:57	08/17/15 12:29	1
Bis(2-chloroethyl)ether	0.045	U	0.33	0.045	mg/Kg		08/14/15 10:57	08/17/15 12:29	1
bis (2-chloroisopropyl) ether	0.030	U	0.33	0.030	mg/Kg		08/14/15 10:57	08/17/15 12:29	1
Bis(2-ethylhexyl) phthalate	0.0455	J	0.33	0.029	mg/Kg		08/14/15 10:57	08/17/15 12:29	1
4-Bromophenyl phenyl ether	0.036	U	0.33	0.036	mg/Kg		08/14/15 10:57	08/17/15 12:29	1
Butyl benzyl phthalate	0.026	U	0.33	0.026	mg/Kg		08/14/15 10:57	08/17/15 12:29	1
Caprolactam	0.066	U	0.33	0.066	mg/Kg		08/14/15 10:57	08/17/15 12:29	1
Carbazole	0.030	U	0.33	0.030	mg/Kg		08/14/15 10:57	08/17/15 12:29	1
4-Chloroaniline	0.052	U	0.66	0.052	mg/Kg		08/14/15 10:57	08/17/15 12:29	1
4-Chloro-3-methylphenol	0.035	U	0.33	0.035	mg/Kg		08/14/15 10:57	08/17/15 12:29	1
2-Chloronaphthalene	0.035	U	0.33	0.035	mg/Kg		08/14/15 10:57	08/17/15 12:29	1
2-Chlorophenol	0.040	U	0.33	0.040	mg/Kg		08/14/15 10:57	08/17/15 12:29	1
4-Chlorophenyl phenyl ether	0.044	U	0.33	0.044	mg/Kg		08/14/15 10:57	08/17/15 12:29	1
Chrysene	0.021	U	0.33	0.021	mg/Kg		08/14/15 10:57	08/17/15 12:29	1
Dibenz(a,h)anthracene	0.039	U	0.33	0.039	mg/Kg		08/14/15 10:57	08/17/15 12:29	1
Dibenzofuran	0.033	U	0.33	0.033	mg/Kg		08/14/15 10:57	08/17/15 12:29	1
3,3'-Dichlorobenzidine	0.028	U	0.66	0.028	mg/Kg		08/14/15 10:57	08/17/15 12:29	1
2,4-Dichlorophenol	0.035	U	0.33	0.035	mg/Kg		08/14/15 10:57	08/17/15 12:29	1
Diethyl phthalate	0.037	U	0.33	0.037	mg/Kg		08/14/15 10:57	08/17/15 12:29	1
2,4-Dimethylphenol	0.044	U	0.33	0.044	mg/Kg		08/14/15 10:57	08/17/15 12:29	1
Dimethyl phthalate	0.034	U	0.33	0.034	mg/Kg		08/14/15 10:57	08/17/15 12:29	1
Di-n-butyl phthalate	0.030	U	0.33	0.030	mg/Kg		08/14/15 10:57	08/17/15 12:29	1
4,6-Dinitro-2-methylphenol	0.17	U	1.7	0.17	mg/Kg		08/14/15 10:57	08/17/15 12:29	1
2,4-Dinitrophenol	0.83	U	1.7	0.83	mg/Kg		08/14/15 10:57	08/17/15 12:29	1
2,4-Dinitrotoluene	0.049	U	0.33	0.049	mg/Kg		08/14/15 10:57	08/17/15 12:29	1
2,6-Dinitrotoluene	0.042	U	0.33	0.042	mg/Kg		08/14/15 10:57	08/17/15 12:29	1
Di-n-octyl phthalate	0.029	U	0.33	0.029	mg/Kg		08/14/15 10:57	08/17/15 12:29	1
Fluoranthene	0.032	U	0.33	0.032	mg/Kg		08/14/15 10:57	08/17/15 12:29	1
Fluorene	0.036	U	0.33	0.036	mg/Kg		08/14/15 10:57	08/17/15 12:29	1
Hexachlorobenzene	0.039	U	0.33	0.039	mg/Kg		08/14/15 10:57	08/17/15 12:29	1
Hexachlorobutadiene	0.036	U	0.33	0.036	mg/Kg		08/14/15 10:57	08/17/15 12:29	1
Hexachlorocyclopentadiene	0.041	U	0.33	0.041	mg/Kg		08/14/15 10:57	08/17/15 12:29	1
Hexachloroethane	0.028	U	0.33	0.028	mg/Kg		08/14/15 10:57	08/17/15 12:29	1
Indeno[1,2,3-cd]pyrene	0.028	U	0.33	0.028	mg/Kg		08/14/15 10:57	08/17/15 12:29	1
Isophorone	0.033	U	0.33	0.033	mg/Kg		08/14/15 10:57	08/17/15 12:29	1
2-Methylnaphthalene	0.038	U	0.33	0.038	mg/Kg		08/14/15 10:57	08/17/15 12:29	1

TestAmerica Savannah

# QC Sample Results

Client: Geotechnical & Environmental Consultants  
Project/Site: Macon MGP #2

TestAmerica Job ID: 680-115544-1

## Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 680-395865/21-A

Matrix: Solid

Analysis Batch: 396502

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 395865

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2-Methylphenol	0.027	U	0.33	0.027	mg/Kg		08/14/15 10:57	08/17/15 12:29	1
3 & 4 Methylphenol	0.043	U	0.33	0.043	mg/Kg		08/14/15 10:57	08/17/15 12:29	1
Naphthalene	0.030	U	0.33	0.030	mg/Kg		08/14/15 10:57	08/17/15 12:29	1
2-Nitroaniline	0.045	U	1.7	0.045	mg/Kg		08/14/15 10:57	08/17/15 12:29	1
3-Nitroaniline	0.046	U	1.7	0.046	mg/Kg		08/14/15 10:57	08/17/15 12:29	1
4-Nitroaniline	0.049	U	1.7	0.049	mg/Kg		08/14/15 10:57	08/17/15 12:29	1
Nitrobenzene	0.026	U	0.33	0.026	mg/Kg		08/14/15 10:57	08/17/15 12:29	1
2-Nitrophenol	0.041	U	0.33	0.041	mg/Kg		08/14/15 10:57	08/17/15 12:29	1
4-Nitrophenol	0.33	U	1.7	0.33	mg/Kg		08/14/15 10:57	08/17/15 12:29	1
N-Nitrosodi-n-propylamine	0.032	U	0.33	0.032	mg/Kg		08/14/15 10:57	08/17/15 12:29	1
N-Nitrosodiphenylamine	0.033	U	0.33	0.033	mg/Kg		08/14/15 10:57	08/17/15 12:29	1
Pentachlorophenol	0.33	U	1.7	0.33	mg/Kg		08/14/15 10:57	08/17/15 12:29	1
Phenanthrene	0.027	U	0.33	0.027	mg/Kg		08/14/15 10:57	08/17/15 12:29	1
Phenol	0.034	U	0.33	0.034	mg/Kg		08/14/15 10:57	08/17/15 12:29	1
Pyrene	0.027	U	0.33	0.027	mg/Kg		08/14/15 10:57	08/17/15 12:29	1
2,4,5-Trichlorophenol	0.035	U	0.33	0.035	mg/Kg		08/14/15 10:57	08/17/15 12:29	1
2,4,6-Trichlorophenol	0.029	U	0.33	0.029	mg/Kg		08/14/15 10:57	08/17/15 12:29	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl	76		41 - 116	08/14/15 10:57	08/17/15 12:29	1
2-Fluorophenol (Surr)	59		39 - 114	08/14/15 10:57	08/17/15 12:29	1
Nitrobenzene-d5 (Surr)	64		37 - 115	08/14/15 10:57	08/17/15 12:29	1
Phenol-d5 (Surr)	62		38 - 122	08/14/15 10:57	08/17/15 12:29	1
Terphenyl-d14 (Surr)	74		46 - 126	08/14/15 10:57	08/17/15 12:29	1
2,4,6-Tribromophenol (Surr)	82		45 - 129	08/14/15 10:57	08/17/15 12:29	1

Lab Sample ID: LCS 680-395865/22-A

Matrix: Solid

Analysis Batch: 396502

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 395865

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits
Acenaphthene	3.32	2.43		mg/Kg		73	47 - 130
Acenaphthylene	3.32	2.47		mg/Kg		74	45 - 130
Acetophenone	3.32	2.37		mg/Kg		71	44 - 130
Anthracene	3.32	2.78		mg/Kg		84	50 - 130
Atrazine	3.32	2.52		mg/Kg		76	47 - 130
Benzaldehyde	3.32	1.52		mg/Kg		46	10 - 130
Benzo[a]anthracene	3.32	3.08		mg/Kg		93	50 - 130
Benzo[a]pyrene	3.32	2.78		mg/Kg		84	47 - 131
Benzo[b]fluoranthene	3.32	2.91		mg/Kg		87	48 - 130
Benzo[g,h,i]perylene	3.32	2.64		mg/Kg		79	42 - 130
Benzo[k]fluoranthene	3.32	2.83		mg/Kg		85	48 - 108
1,1'-Biphenyl	3.32	2.51		mg/Kg		75	48 - 130
Bis(2-chloroethoxy)methane	3.32	2.18		mg/Kg		65	47 - 130
Bis(2-chloroethyl)ether	3.32	0.925	*	mg/Kg		28	37 - 130
bis (2-chloroisopropyl) ether	3.32	1.91		mg/Kg		58	38 - 130
Bis(2-ethylhexyl) phthalate	3.32	2.72		mg/Kg		82	48 - 130
4-Bromophenyl phenyl ether	3.32	2.87		mg/Kg		86	53 - 130

TestAmerica Savannah

# QC Sample Results

Client: Geotechnical & Environmental Consultants  
Project/Site: Macon MGP #2

TestAmerica Job ID: 680-115544-1

## Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 680-395865/22-A

Matrix: Solid

Analysis Batch: 396502

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 395865

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Butyl benzyl phthalate	3.32	2.71		mg/Kg		81	53 - 134
Caprolactam	3.32	2.33		mg/Kg		70	44 - 130
Carbazole	3.32	2.58		mg/Kg		77	51 - 130
4-Chloroaniline	3.32	2.31		mg/Kg		69	10 - 130
4-Chloro-3-methylphenol	3.32	2.63		mg/Kg		79	51 - 130
2-Chloronaphthalene	3.32	2.75		mg/Kg		83	48 - 130
2-Chlorophenol	3.32	2.46		mg/Kg		74	47 - 130
4-Chlorophenyl phenyl ether	3.32	2.87		mg/Kg		86	49 - 130
Chrysene	3.32	2.53		mg/Kg		76	47 - 130
Dibenz(a,h)anthracene	3.32	2.75		mg/Kg		83	44 - 130
Dibenzofuran	3.32	2.61		mg/Kg		78	49 - 130
3,3'-Dichlorobenzidine	3.32	2.99		mg/Kg		90	16 - 130
2,4-Dichlorophenol	3.32	2.69		mg/Kg		81	48 - 130
Diethyl phthalate	3.32	2.75		mg/Kg		83	49 - 130
2,4-Dimethylphenol	3.32	2.47		mg/Kg		74	43 - 130
Dimethyl phthalate	3.32	2.76		mg/Kg		83	50 - 130
Di-n-butyl phthalate	3.32	2.61		mg/Kg		79	52 - 130
4,6-Dinitro-2-methylphenol	6.65	3.19		mg/Kg		48	23 - 130
2,4-Dinitrophenol	6.65	2.13		mg/Kg		32	10 - 130
2,4-Dinitrotoluene	3.32	2.93		mg/Kg		88	49 - 111
2,6-Dinitrotoluene	3.32	2.80		mg/Kg		84	49 - 130
Di-n-octyl phthalate	3.32	2.70		mg/Kg		81	46 - 130
Fluoranthene	3.32	2.74		mg/Kg		82	51 - 130
Fluorene	3.32	2.95		mg/Kg		89	52 - 130
Hexachlorobenzene	3.32	2.87		mg/Kg		86	53 - 130
Hexachlorobutadiene	3.32	2.61		mg/Kg		78	48 - 130
Hexachlorocyclopentadiene	3.32	2.10		mg/Kg		63	28 - 130
Hexachloroethane	3.32	2.12		mg/Kg		64	42 - 130
Indeno[1,2,3-cd]pyrene	3.32	2.86		mg/Kg		86	41 - 130
Isophorone	3.32	2.17		mg/Kg		65	48 - 130
2-Methylnaphthalene	3.32	2.14		mg/Kg		64	48 - 130
2-Methylphenol	3.32	2.44		mg/Kg		73	46 - 130
3 & 4 Methylphenol	3.32	2.50		mg/Kg		75	46 - 130
Naphthalene	3.32	2.36		mg/Kg		71	47 - 130
2-Nitroaniline	3.32	2.41		mg/Kg		72	44 - 130
3-Nitroaniline	3.32	2.79		mg/Kg		84	21 - 130
4-Nitroaniline	3.32	2.68		mg/Kg		81	41 - 130
Nitrobenzene	3.32	2.13		mg/Kg		64	45 - 130
2-Nitrophenol	3.32	2.62		mg/Kg		79	43 - 130
4-Nitrophenol	6.65	5.10		mg/Kg		77	40 - 130
N-Nitrosodi-n-propylamine	3.32	2.14		mg/Kg		64	38 - 130
N-Nitrosodiphenylamine	6.65	5.58		mg/Kg		84	50 - 130
Pentachlorophenol	6.65	5.01		mg/Kg		75	41 - 130
Phenanthrene	3.32	2.55		mg/Kg		77	52 - 130
Phenol	3.32	2.53		mg/Kg		76	47 - 130
Pyrene	3.32	2.73		mg/Kg		82	50 - 130
2,4,5-Trichlorophenol	3.32	3.06		mg/Kg		92	51 - 130
2,4,6-Trichlorophenol	3.32	2.63		mg/Kg		79	50 - 130

TestAmerica Savannah

# QC Sample Results

Client: Geotechnical & Environmental Consultants  
Project/Site: Macon MGP #2

TestAmerica Job ID: 680-115544-1

## Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 680-395865/22-A

Matrix: Solid

Analysis Batch: 396502

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 395865

Surrogate	LCS %Recovery	LCS Qualifier	Limits
2-Fluorobiphenyl	82		41 - 116
2-Fluorophenol (Surr)	69		39 - 114
Nitrobenzene-d5 (Surr)	63		37 - 115
Phenol-d5 (Surr)	73		38 - 122
Terphenyl-d14 (Surr)	88		46 - 126
2,4,6-Tribromophenol (Surr)	100		45 - 129

Lab Sample ID: 680-115544-11 MS

Matrix: Solid

Analysis Batch: 396502

Client Sample ID: SB-25 4-6

Prep Type: Total/NA

Prep Batch: 395865

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	Limits
Acenaphthene	0.051	U	4.17	3.01		mg/Kg	☼	72	58 - 130
Acenaphthylene	0.045	U	4.17	3.03		mg/Kg	☼	73	58 - 130
Acetophenone	0.035	U	4.17	2.95		mg/Kg	☼	71	42 - 130
Anthracene	0.031	U	4.17	3.50		mg/Kg	☼	84	60 - 130
Atrazine	0.029	U	4.17	3.21		mg/Kg	☼	77	54 - 141
Benzaldehyde	0.072	U	4.17	1.43		mg/Kg	☼	34	10 - 130
Benzo[a]anthracene	0.033	U	4.17	3.78		mg/Kg	☼	91	62 - 130
Benzo[a]pyrene	0.064	U	4.17	3.42		mg/Kg	☼	82	68 - 131
Benzo[b]fluoranthene	0.047	U	4.17	3.51		mg/Kg	☼	84	53 - 130
Benzo[g,h,i]perylene	0.027	U	4.17	3.52		mg/Kg	☼	85	54 - 130
Benzo[k]fluoranthene	0.081	U	4.17	3.49		mg/Kg	☼	84	57 - 130
1,1'-Biphenyl	2.1	U	4.17	3.06		mg/Kg	☼	74	57 - 130
Bis(2-chloroethoxy)methane	0.048	U	4.17	2.67		mg/Kg	☼	64	56 - 130
Bis(2-chloroethyl)ether	0.056	U F1 *	4.17	1.09	F1	mg/Kg	☼	26	42 - 130
bis (2-chloroisopropyl) ether	0.037	U	4.17	2.21		mg/Kg	☼	53	44 - 130
Bis(2-ethylhexyl) phthalate	0.036	U	4.17	3.22		mg/Kg	☼	77	62 - 132
4-Bromophenyl phenyl ether	0.045	U	4.17	3.56		mg/Kg	☼	85	65 - 130
Butyl benzyl phthalate	0.032	U	4.17	3.24		mg/Kg	☼	78	65 - 134
Caprolactam	0.082	U	4.17	3.09		mg/Kg	☼	74	52 - 130
Carbazole	0.037	U	4.17	3.25		mg/Kg	☼	78	60 - 130
4-Chloroaniline	0.064	U	4.17	1.79		mg/Kg	☼	43	36 - 130
4-Chloro-3-methylphenol	0.043	U	4.17	3.27		mg/Kg	☼	79	52 - 130
2-Chloronaphthalene	0.043	U	4.17	3.29		mg/Kg	☼	79	55 - 130
2-Chlorophenol	0.050	U	4.17	2.89		mg/Kg	☼	69	51 - 130
4-Chlorophenyl phenyl ether	0.055	U	4.17	3.40		mg/Kg	☼	82	61 - 130
Chrysene	0.026	U	4.17	3.05		mg/Kg	☼	73	62 - 130
Dibenz(a,h)anthracene	0.048	U	4.17	3.62		mg/Kg	☼	87	56 - 130
Dibenzofuran	0.041	U	4.17	3.15		mg/Kg	☼	75	56 - 130
3,3'-Dichlorobenzidine	0.035	U	4.17	2.33		mg/Kg	☼	56	45 - 130
2,4-Dichlorophenol	0.043	U	4.17	3.39		mg/Kg	☼	81	53 - 130
Diethyl phthalate	0.046	U	4.17	3.33		mg/Kg	☼	80	62 - 130
2,4-Dimethylphenol	0.055	U	4.17	3.10		mg/Kg	☼	74	47 - 130
Dimethyl phthalate	0.042	U	4.17	3.29		mg/Kg	☼	79	63 - 130
Di-n-butyl phthalate	0.037	U	4.17	3.28		mg/Kg	☼	79	65 - 130
4,6-Dinitro-2-methylphenol	0.21	U	8.33	6.06		mg/Kg	☼	73	14 - 137
2,4-Dinitrophenol	1.0	U	8.33	4.36		mg/Kg	☼	52	10 - 154

TestAmerica Savannah

# QC Sample Results

Client: Geotechnical & Environmental Consultants  
Project/Site: Macon MGP #2

TestAmerica Job ID: 680-115544-1

## Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: 680-115544-11 MS

Matrix: Solid

Analysis Batch: 396502

Client Sample ID: SB-25 4-6

Prep Type: Total/NA

Prep Batch: 395865

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	Limits
2,4-Dinitrotoluene	0.061	U	4.17	3.52		mg/Kg	☼	85	55 - 130
2,6-Dinitrotoluene	0.052	U	4.17	3.38		mg/Kg	☼	81	57 - 130
Di-n-octyl phthalate	0.036	U	4.17	3.26		mg/Kg	☼	78	59 - 146
Fluoranthene	0.040	U	4.17	3.45		mg/Kg	☼	83	62 - 130
Fluorene	0.045	U	4.17	3.60		mg/Kg	☼	86	58 - 130
Hexachlorobenzene	0.048	U	4.17	3.53		mg/Kg	☼	85	59 - 130
Hexachlorobutadiene	0.045	U	4.17	3.32		mg/Kg	☼	80	47 - 130
Hexachlorocyclopentadiene	0.051	U	4.17	2.33		mg/Kg	☼	56	35 - 130
Hexachloroethane	0.035	U	4.17	2.53		mg/Kg	☼	61	44 - 130
Indeno[1,2,3-cd]pyrene	0.035	U	4.17	3.63		mg/Kg	☼	87	52 - 130
Isophorone	0.041	U	4.17	2.65		mg/Kg	☼	64	48 - 130
2-Methylnaphthalene	0.047	U	4.17	2.69		mg/Kg	☼	65	55 - 130
2-Methylphenol	0.033	U	4.17	2.91		mg/Kg	☼	70	49 - 130
3 & 4 Methylphenol	0.053	U	4.17	2.84		mg/Kg	☼	68	50 - 130
Naphthalene	0.037	U	4.17	3.00		mg/Kg	☼	72	54 - 130
2-Nitroaniline	0.056	U	4.17	2.85		mg/Kg	☼	68	52 - 130
3-Nitroaniline	0.057	U	4.17	2.42		mg/Kg	☼	58	42 - 130
4-Nitroaniline	0.061	U	4.17	2.81		mg/Kg	☼	68	49 - 130
Nitrobenzene	0.032	U	4.17	2.67		mg/Kg	☼	64	43 - 130
2-Nitrophenol	0.051	U	4.17	3.30		mg/Kg	☼	79	45 - 130
4-Nitrophenol	0.41	U	8.33	6.33		mg/Kg	☼	76	30 - 130
N-Nitrosodi-n-propylamine	0.040	U	4.17	2.45		mg/Kg	☼	59	48 - 130
N-Nitrosodiphenylamine	0.041	U	8.33	7.15		mg/Kg	☼	86	62 - 130
Pentachlorophenol	0.41	U	8.33	7.28		mg/Kg	☼	87	38 - 131
Phenanthrene	0.033	U	4.17	3.28		mg/Kg	☼	79	61 - 130
Phenol	0.042	U	4.17	2.86		mg/Kg	☼	69	46 - 130
Pyrene	0.033	U	4.17	3.32		mg/Kg	☼	80	59 - 130
2,4,5-Trichlorophenol	0.043	U	4.17	3.64		mg/Kg	☼	87	60 - 130
2,4,6-Trichlorophenol	0.036	U	4.17	3.21		mg/Kg	☼	77	53 - 130

Surrogate	MS %Recovery	MS Qualifier	Limits
2-Fluorobiphenyl	79		41 - 116
2-Fluorophenol (Surr)	63		39 - 114
Nitrobenzene-d5 (Surr)	64		37 - 115
Phenol-d5 (Surr)	65		38 - 122
Terphenyl-d14 (Surr)	85		46 - 126
2,4,6-Tribromophenol (Surr)	94		45 - 129

Lab Sample ID: 680-115544-11 MSD

Matrix: Solid

Analysis Batch: 396502

Client Sample ID: SB-25 4-6

Prep Type: Total/NA

Prep Batch: 395865

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Acenaphthene	0.051	U	4.17	2.91		mg/Kg	☼	70	58 - 130	4	50
Acenaphthylene	0.045	U	4.17	2.91		mg/Kg	☼	70	58 - 130	4	50
Acetophenone	0.035	U	4.17	2.75		mg/Kg	☼	66	42 - 130	7	50
Anthracene	0.031	U	4.17	3.42		mg/Kg	☼	82	60 - 130	2	50
Atrazine	0.029	U	4.17	3.02		mg/Kg	☼	72	54 - 141	6	50

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# QC Sample Results

Client: Geotechnical & Environmental Consultants  
Project/Site: Macon MGP #2

TestAmerica Job ID: 680-115544-1

## Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: 680-115544-11 MSD

Matrix: Solid

Analysis Batch: 396502

Client Sample ID: SB-25 4-6

Prep Type: Total/NA

Prep Batch: 395865

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Benzaldehyde	0.072	U	4.17	1.44		mg/Kg	☼	35	10 - 130	1	50
Benzo[a]anthracene	0.033	U	4.17	3.66		mg/Kg	☼	88	62 - 130	3	50
Benzo[a]pyrene	0.064	U	4.17	3.27		mg/Kg	☼	78	68 - 131	4	50
Benzo[b]fluoranthene	0.047	U	4.17	3.41		mg/Kg	☼	82	53 - 130	3	50
Benzo[g,h,i]perylene	0.027	U	4.17	3.31		mg/Kg	☼	79	54 - 130	6	50
Benzo[k]fluoranthene	0.081	U	4.17	3.42		mg/Kg	☼	82	57 - 130	2	50
1,1'-Biphenyl	2.1	U	4.17	2.93		mg/Kg	☼	70	57 - 130	4	50
Bis(2-chloroethoxy)methane	0.048	U	4.17	2.48		mg/Kg	☼	60	56 - 130	7	50
Bis(2-chloroethyl)ether	0.056	U F1 *	4.17	1.09	F1	mg/Kg	☼	26	42 - 130	0	50
bis (2-chloroisopropyl) ether	0.037	U	4.17	2.14		mg/Kg	☼	51	44 - 130	3	50
Bis(2-ethylhexyl) phthalate	0.036	U	4.17	3.14		mg/Kg	☼	75	62 - 132	3	50
4-Bromophenyl phenyl ether	0.045	U	4.17	3.48		mg/Kg	☼	83	65 - 130	2	50
Butyl benzyl phthalate	0.032	U	4.17	3.14		mg/Kg	☼	75	65 - 134	3	50
Caprolactam	0.082	U	4.17	2.95		mg/Kg	☼	71	52 - 130	4	50
Carbazole	0.037	U	4.17	3.06		mg/Kg	☼	73	60 - 130	6	50
4-Chloroaniline	0.064	U	4.17	1.63		mg/Kg	☼	39	36 - 130	9	50
4-Chloro-3-methylphenol	0.043	U	4.17	3.05		mg/Kg	☼	73	52 - 130	7	50
2-Chloronaphthalene	0.043	U	4.17	3.16		mg/Kg	☼	76	55 - 130	4	50
2-Chlorophenol	0.050	U	4.17	2.86		mg/Kg	☼	68	51 - 130	1	50
4-Chlorophenyl phenyl ether	0.055	U	4.17	3.37		mg/Kg	☼	81	61 - 130	1	50
Chrysene	0.026	U	4.17	3.00		mg/Kg	☼	72	62 - 130	2	50
Dibenz(a,h)anthracene	0.048	U	4.17	3.40		mg/Kg	☼	81	56 - 130	6	50
Dibenzofuran	0.041	U	4.17	3.04		mg/Kg	☼	73	56 - 130	4	50
3,3'-Dichlorobenzidine	0.035	U	4.17	2.42		mg/Kg	☼	58	45 - 130	4	50
2,4-Dichlorophenol	0.043	U	4.17	3.15		mg/Kg	☼	76	53 - 130	7	50
Diethyl phthalate	0.046	U	4.17	3.21		mg/Kg	☼	77	62 - 130	4	50
2,4-Dimethylphenol	0.055	U	4.17	2.85		mg/Kg	☼	68	47 - 130	8	50
Dimethyl phthalate	0.042	U	4.17	3.18		mg/Kg	☼	76	63 - 130	4	50
Di-n-butyl phthalate	0.037	U	4.17	3.15		mg/Kg	☼	76	65 - 130	4	50
4,6-Dinitro-2-methylphenol	0.21	U	8.34	5.45		mg/Kg	☼	65	14 - 137	11	50
2,4-Dinitrophenol	1.0	U	8.34	3.64		mg/Kg	☼	44	10 - 154	18	50
2,4-Dinitrotoluene	0.061	U	4.17	3.50		mg/Kg	☼	84	55 - 130	1	50
2,6-Dinitrotoluene	0.052	U	4.17	3.28		mg/Kg	☼	79	57 - 130	3	50
Di-n-octyl phthalate	0.036	U	4.17	3.13		mg/Kg	☼	75	59 - 146	4	50
Fluoranthene	0.040	U	4.17	3.38		mg/Kg	☼	81	62 - 130	2	50
Fluorene	0.045	U	4.17	3.44		mg/Kg	☼	82	58 - 130	5	50
Hexachlorobenzene	0.048	U	4.17	3.51		mg/Kg	☼	84	59 - 130	1	50
Hexachlorobutadiene	0.045	U	4.17	3.11		mg/Kg	☼	75	47 - 130	7	50
Hexachlorocyclopentadiene	0.051	U	4.17	2.32		mg/Kg	☼	56	35 - 130	1	50
Hexachloroethane	0.035	U	4.17	2.41		mg/Kg	☼	58	44 - 130	5	50
Indeno[1,2,3-cd]pyrene	0.035	U	4.17	3.47		mg/Kg	☼	83	52 - 130	5	50
Isophorone	0.041	U	4.17	2.51		mg/Kg	☼	60	48 - 130	5	50
2-Methylnaphthalene	0.047	U	4.17	2.53		mg/Kg	☼	61	55 - 130	6	50
2-Methylphenol	0.033	U	4.17	2.77		mg/Kg	☼	66	49 - 130	5	50
3 & 4 Methylphenol	0.053	U	4.17	2.79		mg/Kg	☼	67	50 - 130	2	50
Naphthalene	0.037	U	4.17	2.77		mg/Kg	☼	66	54 - 130	8	50
2-Nitroaniline	0.056	U	4.17	2.84		mg/Kg	☼	68	52 - 130	1	50
3-Nitroaniline	0.057	U	4.17	2.14		mg/Kg	☼	51	42 - 130	12	50

TestAmerica Savannah



# QC Sample Results

Client: Geotechnical & Environmental Consultants  
Project/Site: Macon MGP #2

TestAmerica Job ID: 680-115544-1

## Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: 680-115544-11 MSD

Matrix: Solid

Analysis Batch: 396502

Client Sample ID: SB-25 4-6

Prep Type: Total/NA

Prep Batch: 395865

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
4-Nitroaniline	0.061	U	4.17	2.69		mg/Kg	☼	65	49 - 130	4	50
Nitrobenzene	0.032	U	4.17	2.47		mg/Kg	☼	59	43 - 130	8	50
2-Nitrophenol	0.051	U	4.17	3.18		mg/Kg	☼	76	45 - 130	4	50
4-Nitrophenol	0.41	U	8.34	6.10		mg/Kg	☼	73	30 - 130	4	50
N-Nitrosodi-n-propylamine	0.040	U	4.17	2.43		mg/Kg	☼	58	48 - 130	1	50
N-Nitrosodiphenylamine	0.041	U	8.34	6.88		mg/Kg	☼	82	62 - 130	4	50
Pentachlorophenol	0.41	U	8.34	6.80		mg/Kg	☼	82	38 - 131	7	50
Phenanthrene	0.033	U	4.17	3.11		mg/Kg	☼	74	61 - 130	5	50
Phenol	0.042	U	4.17	2.79		mg/Kg	☼	67	46 - 130	2	50
Pyrene	0.033	U	4.17	3.20		mg/Kg	☼	77	59 - 130	4	50
2,4,5-Trichlorophenol	0.043	U	4.17	3.52		mg/Kg	☼	84	60 - 130	3	50
2,4,6-Trichlorophenol	0.036	U	4.17	3.14		mg/Kg	☼	75	53 - 130	2	50

Surrogate	MSD %Recovery	MSD Qualifier	Limits
2-Fluorobiphenyl	76		41 - 116
2-Fluorophenol (Surr)	63		39 - 114
Nitrobenzene-d5 (Surr)	60		37 - 115
Phenol-d5 (Surr)	65		38 - 122
Terphenyl-d14 (Surr)	82		46 - 126
2,4,6-Tribromophenol (Surr)	93		45 - 129

## Method: 6010C - Metals (ICP)

Lab Sample ID: MB 680-396119/1-A

Matrix: Solid

Analysis Batch: 396749

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 396119

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	0.75	U	1.9	0.75	mg/Kg		08/14/15 08:59	08/17/15 19:25	1
Barium	0.152	J	0.94	0.15	mg/Kg		08/14/15 08:59	08/17/15 19:25	1
Beryllium	0.0094	U	0.38	0.0094	mg/Kg		08/14/15 08:59	08/17/15 19:25	1
Cadmium	0.094	U	0.47	0.094	mg/Kg		08/14/15 08:59	08/17/15 19:25	1
Chromium	0.20	U	0.94	0.20	mg/Kg		08/14/15 08:59	08/17/15 19:25	1
Copper	0.16	U	2.4	0.16	mg/Kg		08/14/15 08:59	08/17/15 19:25	1
Lead	0.32	U	0.94	0.32	mg/Kg		08/14/15 08:59	08/17/15 19:25	1
Nickel	0.36	U	3.8	0.36	mg/Kg		08/14/15 08:59	08/17/15 19:25	1
Selenium	0.92	U	2.4	0.92	mg/Kg		08/14/15 08:59	08/17/15 19:25	1
Silver	0.057	U	0.94	0.057	mg/Kg		08/14/15 08:59	08/17/15 19:25	1
Vanadium	0.094	U	0.94	0.094	mg/Kg		08/14/15 08:59	08/17/15 19:25	1
Zinc	0.66	U	1.9	0.66	mg/Kg		08/14/15 08:59	08/17/15 19:25	1

Lab Sample ID: LCS 680-396119/2-A

Matrix: Solid

Analysis Batch: 396749

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 396119

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Arsenic	8.55	8.96		mg/Kg		105	80 - 120
Barium	8.55	8.66		mg/Kg		101	80 - 120

TestAmerica Savannah



# QC Sample Results

Client: Geotechnical & Environmental Consultants  
Project/Site: Macon MGP #2

TestAmerica Job ID: 680-115544-1

## Method: 6010C - Metals (ICP) (Continued)

Lab Sample ID: LCS 680-396119/2-A

Matrix: Solid

Analysis Batch: 396749

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 396119

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Beryllium	4.27	4.53		mg/Kg		106	80 - 120
Cadmium	4.27	4.64		mg/Kg		109	80 - 120
Chromium	8.55	8.98		mg/Kg		105	80 - 120
Copper	8.55	8.97		mg/Kg		105	80 - 120
Lead	42.7	43.4		mg/Kg		102	80 - 120
Nickel	8.55	8.96		mg/Kg		105	80 - 120
Selenium	8.55	8.14		mg/Kg		95	80 - 120
Silver	4.27	4.29		mg/Kg		100	80 - 120
Vanadium	8.55	8.74		mg/Kg		102	80 - 120
Zinc	8.55	8.98		mg/Kg		105	80 - 120

Lab Sample ID: 680-115544-1 MS

Matrix: Solid

Analysis Batch: 396749

Client Sample ID: SB-41 4-6

Prep Type: Total/NA

Prep Batch: 396119

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Arsenic	2.3		9.56	13.8		mg/Kg	☼	121	75 - 125
Barium	110	B F2	9.56	102	4	mg/Kg	☼	-66	75 - 125
Beryllium	0.47		4.78	5.79		mg/Kg	☼	111	75 - 125
Cadmium	2.7		4.78	6.80		mg/Kg	☼	86	75 - 125
Chromium	13	F1	9.56	26.2	F1	mg/Kg	☼	141	75 - 125
Copper	12	F2 F1	9.56	21.1		mg/Kg	☼	101	75 - 125
Lead	190	F1 F2	47.8	188	F1	mg/Kg	☼	3	75 - 125
Nickel	3.6	J	9.56	13.5		mg/Kg	☼	104	75 - 125
Selenium	0.95	U	9.56	8.79		mg/Kg	☼	92	75 - 125
Silver	0.059	U	4.78	4.97		mg/Kg	☼	104	75 - 125
Vanadium	24	F1	9.56	40.9	F1	mg/Kg	☼	176	75 - 125
Zinc	960	F2	9.56	680	4	mg/Kg	☼	-2884	75 - 125

Lab Sample ID: 680-115544-1 MSD

Matrix: Solid

Analysis Batch: 396749

Client Sample ID: SB-41 4-6

Prep Type: Total/NA

Prep Batch: 396119

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Arsenic	2.3		9.56	12.5		mg/Kg	☼	107	75 - 125	10	20
Barium	110	B F2	9.56	142	4 F2	mg/Kg	☼	357	75 - 125	33	20
Beryllium	0.47		4.78	5.57		mg/Kg	☼	107	75 - 125	4	20
Cadmium	2.7		4.78	8.21		mg/Kg	☼	116	75 - 125	19	20
Chromium	13	F1	9.56	23.8		mg/Kg	☼	115	75 - 125	10	20
Copper	12	F2 F1	9.56	26.2	F1 F2	mg/Kg	☼	154	75 - 125	21	20
Lead	190	F1 F2	47.8	285	F1 F2	mg/Kg	☼	206	75 - 125	41	20
Nickel	3.6	J	9.56	14.4		mg/Kg	☼	113	75 - 125	7	20
Selenium	0.95	U	9.56	7.98		mg/Kg	☼	84	75 - 125	10	20
Silver	0.059	U	4.78	4.97		mg/Kg	☼	104	75 - 125	0	20
Vanadium	24	F1	9.56	33.6		mg/Kg	☼	100	75 - 125	20	20
Zinc	960	F2	9.56	1220	4 F2	mg/Kg	☼	2782	75 - 125	57	20

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# QC Sample Results

Client: Geotechnical & Environmental Consultants  
Project/Site: Macon MGP #2

TestAmerica Job ID: 680-115544-1

## Method: 7471B - Mercury (CVAA)

Lab Sample ID: MB 680-396443/1-A  
Matrix: Solid  
Analysis Batch: 396738

Client Sample ID: Method Blank  
Prep Type: Total/NA  
Prep Batch: 396443

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.0069	U	0.017	0.0069	mg/Kg		08/16/15 14:39	08/17/15 19:40	1

Lab Sample ID: LCS 680-396443/2-A  
Matrix: Solid  
Analysis Batch: 396738

Client Sample ID: Lab Control Sample  
Prep Type: Total/NA  
Prep Batch: 396443

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Mercury	0.231	0.234		mg/Kg		101	80 - 120

Lab Sample ID: 680-115544-1 MS  
Matrix: Solid  
Analysis Batch: 396738

Client Sample ID: SB-41 4-6  
Prep Type: Total/NA  
Prep Batch: 396443

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Mercury	0.14	^	0.102	0.245		mg/Kg	✱	108	80 - 120

Lab Sample ID: 680-115544-1 MSD  
Matrix: Solid  
Analysis Batch: 396738

Client Sample ID: SB-41 4-6  
Prep Type: Total/NA  
Prep Batch: 396443

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Mercury	0.14	^	0.104	0.255		mg/Kg	✱	116	80 - 120	4	20

Lab Sample ID: MB 680-396509/1-A  
Matrix: Solid  
Analysis Batch: 396738

Client Sample ID: Method Blank  
Prep Type: Total/NA  
Prep Batch: 396509

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.0068	U	0.017	0.0068	mg/Kg		08/17/15 10:06	08/17/15 22:30	1

Lab Sample ID: LCS 680-396509/2-A  
Matrix: Solid  
Analysis Batch: 396738

Client Sample ID: Lab Control Sample  
Prep Type: Total/NA  
Prep Batch: 396509

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Mercury	0.245	0.259		mg/Kg		106	80 - 120

## Method: 9012B - Cyanide, Total and/or Amenable

Lab Sample ID: MB 680-396935/1-A  
Matrix: Solid  
Analysis Batch: 397029

Client Sample ID: Method Blank  
Prep Type: Total/NA  
Prep Batch: 396935

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total	0.21	U	0.50	0.21	mg/Kg		08/19/15 09:00	08/19/15 12:11	1

TestAmerica Savannah

# QC Sample Results

Client: Geotechnical & Environmental Consultants  
Project/Site: Macon MGP #2

TestAmerica Job ID: 680-115544-1

## Method: 9012B - Cyanide, Total and/or Amenable (Continued)

Lab Sample ID: LCS 680-396935/2-A  
Matrix: Solid  
Analysis Batch: 397029

Client Sample ID: Lab Control Sample  
Prep Type: Total/NA  
Prep Batch: 396935

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Cyanide, Total	5.00	5.10		mg/Kg		102	75 - 125

Lab Sample ID: 680-115544-1 MS  
Matrix: Solid  
Analysis Batch: 397029

Client Sample ID: SB-41 4-6  
Prep Type: Total/NA  
Prep Batch: 396935

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Cyanide, Total	0.23	U	5.48	5.65		mg/Kg	✱	103	75 - 125

Lab Sample ID: 680-115544-1 MSD  
Matrix: Solid  
Analysis Batch: 397029

Client Sample ID: SB-41 4-6  
Prep Type: Total/NA  
Prep Batch: 396935

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	Limit
Cyanide, Total	0.23	U	5.48	5.54		mg/Kg	✱	101	75 - 125	2	30

Lab Sample ID: MB 680-397121/1-A  
Matrix: Solid  
Analysis Batch: 397236

Client Sample ID: Method Blank  
Prep Type: Total/NA  
Prep Batch: 397121

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total	0.21	U	0.50	0.21	mg/Kg		08/20/15 07:30	08/20/15 11:51	1

Lab Sample ID: LCS 680-397121/2-A  
Matrix: Solid  
Analysis Batch: 397236

Client Sample ID: Lab Control Sample  
Prep Type: Total/NA  
Prep Batch: 397121

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Cyanide, Total	4.90	4.88		mg/Kg		100	75 - 125

Lab Sample ID: 680-115544-10 MS  
Matrix: Solid  
Analysis Batch: 397236

Client Sample ID: SB-25 2-4  
Prep Type: Total/NA  
Prep Batch: 397121

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Cyanide, Total	0.24	U	5.57	5.85		mg/Kg	✱	105	75 - 125

Lab Sample ID: 680-115544-10 MSD  
Matrix: Solid  
Analysis Batch: 397236

Client Sample ID: SB-25 2-4  
Prep Type: Total/NA  
Prep Batch: 397121

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	Limit
Cyanide, Total	0.24	U	5.68	5.96		mg/Kg	✱	105	75 - 125	2	30

Lab Sample ID: 680-115544-20 DU  
Matrix: Solid  
Analysis Batch: 397236

Client Sample ID: GB-27 13-15  
Prep Type: Total/NA  
Prep Batch: 397121

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	Limit
Cyanide, Total	0.24	U	0.24	U	mg/Kg	✱	NC	30

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# QC Sample Results

Client: Geotechnical & Environmental Consultants  
Project/Site: Macon MGP #2

TestAmerica Job ID: 680-115544-1

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# QC Association Summary

Client: Geotechnical & Environmental Consultants  
Project/Site: Macon MGP #2

TestAmerica Job ID: 680-115544-1

## GC/MS Semi VOA

### Prep Batch: 395865

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-115544-1	SB-41 4-6	Total/NA	Solid	3546	
680-115544-2	SB-41 8-10	Total/NA	Solid	3546	
680-115544-3	SB-41 13-15	Total/NA	Solid	3546	
680-115544-4	GB-9 8-10	Total/NA	Solid	3546	
680-115544-5	GB-9 13-15	Total/NA	Solid	3546	
680-115544-6	GB-11 3-5	Total/NA	Solid	3546	
680-115544-7	GB-11 8-10	Total/NA	Solid	3546	
680-115544-8	GB-11 13-15	Total/NA	Solid	3546	
680-115544-9	SB-25 0-2	Total/NA	Solid	3546	
680-115544-10	SB-25 2-4	Total/NA	Solid	3546	
680-115544-11	SB-25 4-6	Total/NA	Solid	3546	
680-115544-11 MS	SB-25 4-6	Total/NA	Solid	3546	
680-115544-11 MSD	SB-25 4-6	Total/NA	Solid	3546	
680-115544-12	SB-25 8-10	Total/NA	Solid	3546	
680-115544-13	SB-25 13-15	Total/NA	Solid	3546	
680-115544-14	GB-25 2-4	Total/NA	Solid	3546	
680-115544-15	GB-25 4-6	Total/NA	Solid	3546	
680-115544-16	GB-26 2-4	Total/NA	Solid	3546	
680-115544-17	GB-26 4-6	Total/NA	Solid	3546	
680-115544-18	GB-27 3-5	Total/NA	Solid	3546	
680-115544-19	GB-27 8-10	Total/NA	Solid	3546	
680-115544-20	GB-27 13-15	Total/NA	Solid	3546	
LCS 680-395865/22-A	Lab Control Sample	Total/NA	Solid	3546	
MB 680-395865/21-A	Method Blank	Total/NA	Solid	3546	

### Analysis Batch: 396502

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-115544-1	SB-41 4-6	Total/NA	Solid	8270D	395865
680-115544-2	SB-41 8-10	Total/NA	Solid	8270D	395865
680-115544-3	SB-41 13-15	Total/NA	Solid	8270D	395865
680-115544-4	GB-9 8-10	Total/NA	Solid	8270D	395865
680-115544-5	GB-9 13-15	Total/NA	Solid	8270D	395865
680-115544-6	GB-11 3-5	Total/NA	Solid	8270D	395865
680-115544-7	GB-11 8-10	Total/NA	Solid	8270D	395865
680-115544-8	GB-11 13-15	Total/NA	Solid	8270D	395865
680-115544-9	SB-25 0-2	Total/NA	Solid	8270D	395865
680-115544-10	SB-25 2-4	Total/NA	Solid	8270D	395865
680-115544-11	SB-25 4-6	Total/NA	Solid	8270D	395865
680-115544-11 MS	SB-25 4-6	Total/NA	Solid	8270D	395865
680-115544-11 MSD	SB-25 4-6	Total/NA	Solid	8270D	395865
680-115544-12	SB-25 8-10	Total/NA	Solid	8270D	395865
680-115544-13	SB-25 13-15	Total/NA	Solid	8270D	395865
680-115544-14	GB-25 2-4	Total/NA	Solid	8270D	395865
680-115544-15	GB-25 4-6	Total/NA	Solid	8270D	395865
680-115544-17	GB-26 4-6	Total/NA	Solid	8270D	395865
680-115544-19	GB-27 8-10	Total/NA	Solid	8270D	395865
680-115544-20	GB-27 13-15	Total/NA	Solid	8270D	395865
LCS 680-395865/22-A	Lab Control Sample	Total/NA	Solid	8270D	395865
MB 680-395865/21-A	Method Blank	Total/NA	Solid	8270D	395865

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# QC Association Summary

Client: Geotechnical & Environmental Consultants  
Project/Site: Macon MGP #2

TestAmerica Job ID: 680-115544-1

## GC/MS Semi VOA (Continued)

### Analysis Batch: 397169

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-115544-16	GB-26 2-4	Total/NA	Solid	8270D	395865
680-115544-18	GB-27 3-5	Total/NA	Solid	8270D	395865

## Metals

### Prep Batch: 396119

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-115544-1	SB-41 4-6	Total/NA	Solid	3050B	
680-115544-1 MS	SB-41 4-6	Total/NA	Solid	3050B	
680-115544-1 MSD	SB-41 4-6	Total/NA	Solid	3050B	
680-115544-2	SB-41 8-10	Total/NA	Solid	3050B	
680-115544-3	SB-41 13-15	Total/NA	Solid	3050B	
680-115544-4	GB-9 8-10	Total/NA	Solid	3050B	
680-115544-5	GB-9 13-15	Total/NA	Solid	3050B	
680-115544-6	GB-11 3-5	Total/NA	Solid	3050B	
680-115544-7	GB-11 8-10	Total/NA	Solid	3050B	
680-115544-8	GB-11 13-15	Total/NA	Solid	3050B	
680-115544-9	SB-25 0-2	Total/NA	Solid	3050B	
680-115544-10	SB-25 2-4	Total/NA	Solid	3050B	
680-115544-11	SB-25 4-6	Total/NA	Solid	3050B	
680-115544-12	SB-25 8-10	Total/NA	Solid	3050B	
680-115544-13	SB-25 13-15	Total/NA	Solid	3050B	
680-115544-14	GB-25 2-4	Total/NA	Solid	3050B	
680-115544-15	GB-25 4-6	Total/NA	Solid	3050B	
680-115544-16	GB-26 2-4	Total/NA	Solid	3050B	
680-115544-17	GB-26 4-6	Total/NA	Solid	3050B	
680-115544-18	GB-27 3-5	Total/NA	Solid	3050B	
680-115544-19	GB-27 8-10	Total/NA	Solid	3050B	
680-115544-20	GB-27 13-15	Total/NA	Solid	3050B	
LCS 680-396119/2-A	Lab Control Sample	Total/NA	Solid	3050B	
MB 680-396119/1-A	Method Blank	Total/NA	Solid	3050B	

### Prep Batch: 396443

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-115544-1	SB-41 4-6	Total/NA	Solid	7471B	
680-115544-1 MS	SB-41 4-6	Total/NA	Solid	7471B	
680-115544-1 MSD	SB-41 4-6	Total/NA	Solid	7471B	
680-115544-2	SB-41 8-10	Total/NA	Solid	7471B	
680-115544-3	SB-41 13-15	Total/NA	Solid	7471B	
680-115544-4	GB-9 8-10	Total/NA	Solid	7471B	
680-115544-5	GB-9 13-15	Total/NA	Solid	7471B	
680-115544-6	GB-11 3-5	Total/NA	Solid	7471B	
680-115544-7	GB-11 8-10	Total/NA	Solid	7471B	
680-115544-8	GB-11 13-15	Total/NA	Solid	7471B	
680-115544-9	SB-25 0-2	Total/NA	Solid	7471B	
680-115544-10	SB-25 2-4	Total/NA	Solid	7471B	
680-115544-11	SB-25 4-6	Total/NA	Solid	7471B	
680-115544-12	SB-25 8-10	Total/NA	Solid	7471B	
680-115544-13	SB-25 13-15	Total/NA	Solid	7471B	
LCS 680-396443/2-A	Lab Control Sample	Total/NA	Solid	7471B	

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# QC Association Summary

Client: Geotechnical & Environmental Consultants  
Project/Site: Macon MGP #2

TestAmerica Job ID: 680-115544-1

## Metals (Continued)

### Prep Batch: 396443 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 680-396443/1-A	Method Blank	Total/NA	Solid	7471B	

### Prep Batch: 396509

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-115544-14	GB-25 2-4	Total/NA	Solid	7471B	
680-115544-15	GB-25 4-6	Total/NA	Solid	7471B	
680-115544-16	GB-26 2-4	Total/NA	Solid	7471B	
680-115544-17	GB-26 4-6	Total/NA	Solid	7471B	
680-115544-18	GB-27 3-5	Total/NA	Solid	7471B	
680-115544-19	GB-27 8-10	Total/NA	Solid	7471B	
680-115544-20	GB-27 13-15	Total/NA	Solid	7471B	
LCS 680-396509/2-A	Lab Control Sample	Total/NA	Solid	7471B	
MB 680-396509/1-A	Method Blank	Total/NA	Solid	7471B	

### Analysis Batch: 396738

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-115544-1	SB-41 4-6	Total/NA	Solid	7471B	396443
680-115544-1 MS	SB-41 4-6	Total/NA	Solid	7471B	396443
680-115544-1 MSD	SB-41 4-6	Total/NA	Solid	7471B	396443
680-115544-2	SB-41 8-10	Total/NA	Solid	7471B	396443
680-115544-3	SB-41 13-15	Total/NA	Solid	7471B	396443
680-115544-4	GB-9 8-10	Total/NA	Solid	7471B	396443
680-115544-5	GB-9 13-15	Total/NA	Solid	7471B	396443
680-115544-6	GB-11 3-5	Total/NA	Solid	7471B	396443
680-115544-7	GB-11 8-10	Total/NA	Solid	7471B	396443
680-115544-8	GB-11 13-15	Total/NA	Solid	7471B	396443
680-115544-9	SB-25 0-2	Total/NA	Solid	7471B	396443
680-115544-10	SB-25 2-4	Total/NA	Solid	7471B	396443
680-115544-11	SB-25 4-6	Total/NA	Solid	7471B	396443
680-115544-12	SB-25 8-10	Total/NA	Solid	7471B	396443
680-115544-13	SB-25 13-15	Total/NA	Solid	7471B	396443
680-115544-14	GB-25 2-4	Total/NA	Solid	7471B	396509
680-115544-15	GB-25 4-6	Total/NA	Solid	7471B	396509
680-115544-16	GB-26 2-4	Total/NA	Solid	7471B	396509
680-115544-17	GB-26 4-6	Total/NA	Solid	7471B	396509
680-115544-18	GB-27 3-5	Total/NA	Solid	7471B	396509
680-115544-19	GB-27 8-10	Total/NA	Solid	7471B	396509
680-115544-20	GB-27 13-15	Total/NA	Solid	7471B	396509
LCS 680-396443/2-A	Lab Control Sample	Total/NA	Solid	7471B	396443
LCS 680-396509/2-A	Lab Control Sample	Total/NA	Solid	7471B	396509
MB 680-396443/1-A	Method Blank	Total/NA	Solid	7471B	396443
MB 680-396509/1-A	Method Blank	Total/NA	Solid	7471B	396509

### Analysis Batch: 396749

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-115544-1	SB-41 4-6	Total/NA	Solid	6010C	396119
680-115544-1 MS	SB-41 4-6	Total/NA	Solid	6010C	396119
680-115544-1 MSD	SB-41 4-6	Total/NA	Solid	6010C	396119
680-115544-2	SB-41 8-10	Total/NA	Solid	6010C	396119
680-115544-3	SB-41 13-15	Total/NA	Solid	6010C	396119
680-115544-4	GB-9 8-10	Total/NA	Solid	6010C	396119

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# QC Association Summary

Client: Geotechnical & Environmental Consultants  
Project/Site: Macon MGP #2

TestAmerica Job ID: 680-115544-1

## Metals (Continued)

### Analysis Batch: 396749 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-115544-5	GB-9 13-15	Total/NA	Solid	6010C	396119
680-115544-6	GB-11 3-5	Total/NA	Solid	6010C	396119
680-115544-7	GB-11 8-10	Total/NA	Solid	6010C	396119
680-115544-8	GB-11 13-15	Total/NA	Solid	6010C	396119
680-115544-9	SB-25 0-2	Total/NA	Solid	6010C	396119
680-115544-10	SB-25 2-4	Total/NA	Solid	6010C	396119
680-115544-11	SB-25 4-6	Total/NA	Solid	6010C	396119
680-115544-12	SB-25 8-10	Total/NA	Solid	6010C	396119
680-115544-13	SB-25 13-15	Total/NA	Solid	6010C	396119
680-115544-14	GB-25 2-4	Total/NA	Solid	6010C	396119
680-115544-15	GB-25 4-6	Total/NA	Solid	6010C	396119
680-115544-16	GB-26 2-4	Total/NA	Solid	6010C	396119
680-115544-17	GB-26 4-6	Total/NA	Solid	6010C	396119
680-115544-18	GB-27 3-5	Total/NA	Solid	6010C	396119
680-115544-19	GB-27 8-10	Total/NA	Solid	6010C	396119
680-115544-20	GB-27 13-15	Total/NA	Solid	6010C	396119
LCS 680-396119/2-A	Lab Control Sample	Total/NA	Solid	6010C	396119
MB 680-396119/1-A	Method Blank	Total/NA	Solid	6010C	396119

## General Chemistry

### Analysis Batch: 395860

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-115544-1	SB-41 4-6	Total/NA	Solid	Moisture	
680-115544-2	SB-41 8-10	Total/NA	Solid	Moisture	
680-115544-3	SB-41 13-15	Total/NA	Solid	Moisture	
680-115544-4	GB-9 8-10	Total/NA	Solid	Moisture	
680-115544-5	GB-9 13-15	Total/NA	Solid	Moisture	
680-115544-6	GB-11 3-5	Total/NA	Solid	Moisture	
680-115544-7	GB-11 8-10	Total/NA	Solid	Moisture	
680-115544-8	GB-11 13-15	Total/NA	Solid	Moisture	
680-115544-9	SB-25 0-2	Total/NA	Solid	Moisture	
680-115544-10	SB-25 2-4	Total/NA	Solid	Moisture	
680-115544-11	SB-25 4-6	Total/NA	Solid	Moisture	
680-115544-12	SB-25 8-10	Total/NA	Solid	Moisture	
680-115544-13	SB-25 13-15	Total/NA	Solid	Moisture	
680-115544-14	GB-25 2-4	Total/NA	Solid	Moisture	
680-115544-15	GB-25 4-6	Total/NA	Solid	Moisture	
680-115544-16	GB-26 2-4	Total/NA	Solid	Moisture	
680-115544-17	GB-26 4-6	Total/NA	Solid	Moisture	
680-115544-18	GB-27 3-5	Total/NA	Solid	Moisture	
680-115544-19	GB-27 8-10	Total/NA	Solid	Moisture	
680-115544-20	GB-27 13-15	Total/NA	Solid	Moisture	

### Prep Batch: 396935

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-115544-1	SB-41 4-6	Total/NA	Solid	9012B	
680-115544-1 MS	SB-41 4-6	Total/NA	Solid	9012B	
680-115544-1 MSD	SB-41 4-6	Total/NA	Solid	9012B	
680-115544-2	SB-41 8-10	Total/NA	Solid	9012B	

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# QC Association Summary

Client: Geotechnical & Environmental Consultants  
Project/Site: Macon MGP #2

TestAmerica Job ID: 680-115544-1

## General Chemistry (Continued)

### Prep Batch: 396935 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-115544-3	SB-41 13-15	Total/NA	Solid	9012B	
680-115544-4	GB-9 8-10	Total/NA	Solid	9012B	
680-115544-5	GB-9 13-15	Total/NA	Solid	9012B	
680-115544-6	GB-11 3-5	Total/NA	Solid	9012B	
680-115544-7	GB-11 8-10	Total/NA	Solid	9012B	
680-115544-8	GB-11 13-15	Total/NA	Solid	9012B	
680-115544-9	SB-25 0-2	Total/NA	Solid	9012B	
LCS 680-396935/2-A	Lab Control Sample	Total/NA	Solid	9012B	
MB 680-396935/1-A	Method Blank	Total/NA	Solid	9012B	

### Analysis Batch: 397029

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-115544-1	SB-41 4-6	Total/NA	Solid	9012B	396935
680-115544-1 MS	SB-41 4-6	Total/NA	Solid	9012B	396935
680-115544-1 MSD	SB-41 4-6	Total/NA	Solid	9012B	396935
680-115544-2	SB-41 8-10	Total/NA	Solid	9012B	396935
680-115544-3	SB-41 13-15	Total/NA	Solid	9012B	396935
680-115544-4	GB-9 8-10	Total/NA	Solid	9012B	396935
680-115544-5	GB-9 13-15	Total/NA	Solid	9012B	396935
680-115544-6	GB-11 3-5	Total/NA	Solid	9012B	396935
680-115544-7	GB-11 8-10	Total/NA	Solid	9012B	396935
680-115544-8	GB-11 13-15	Total/NA	Solid	9012B	396935
680-115544-9	SB-25 0-2	Total/NA	Solid	9012B	396935
LCS 680-396935/2-A	Lab Control Sample	Total/NA	Solid	9012B	396935
MB 680-396935/1-A	Method Blank	Total/NA	Solid	9012B	396935

### Prep Batch: 397121

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-115544-10	SB-25 2-4	Total/NA	Solid	9012B	
680-115544-10 MS	SB-25 2-4	Total/NA	Solid	9012B	
680-115544-10 MSD	SB-25 2-4	Total/NA	Solid	9012B	
680-115544-11	SB-25 4-6	Total/NA	Solid	9012B	
680-115544-12	SB-25 8-10	Total/NA	Solid	9012B	
680-115544-13	SB-25 13-15	Total/NA	Solid	9012B	
680-115544-14	GB-25 2-4	Total/NA	Solid	9012B	
680-115544-15	GB-25 4-6	Total/NA	Solid	9012B	
680-115544-16	GB-26 2-4	Total/NA	Solid	9012B	
680-115544-17	GB-26 4-6	Total/NA	Solid	9012B	
680-115544-18	GB-27 3-5	Total/NA	Solid	9012B	
680-115544-19	GB-27 8-10	Total/NA	Solid	9012B	
680-115544-20	GB-27 13-15	Total/NA	Solid	9012B	
680-115544-20 DU	GB-27 13-15	Total/NA	Solid	9012B	
LCS 680-397121/2-A	Lab Control Sample	Total/NA	Solid	9012B	
MB 680-397121/1-A	Method Blank	Total/NA	Solid	9012B	

### Analysis Batch: 397236

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-115544-10	SB-25 2-4	Total/NA	Solid	9012B	397121
680-115544-10 MS	SB-25 2-4	Total/NA	Solid	9012B	397121
680-115544-10 MSD	SB-25 2-4	Total/NA	Solid	9012B	397121
680-115544-11	SB-25 4-6	Total/NA	Solid	9012B	397121

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## QC Association Summary

Client: Geotechnical & Environmental Consultants  
Project/Site: Macon MGP #2

TestAmerica Job ID: 680-115544-1

### General Chemistry (Continued)

#### Analysis Batch: 397236 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-115544-12	SB-25 8-10	Total/NA	Solid	9012B	397121
680-115544-13	SB-25 13-15	Total/NA	Solid	9012B	397121
680-115544-14	GB-25 2-4	Total/NA	Solid	9012B	397121
680-115544-15	GB-25 4-6	Total/NA	Solid	9012B	397121
680-115544-16	GB-26 2-4	Total/NA	Solid	9012B	397121
680-115544-17	GB-26 4-6	Total/NA	Solid	9012B	397121
680-115544-18	GB-27 3-5	Total/NA	Solid	9012B	397121
680-115544-19	GB-27 8-10	Total/NA	Solid	9012B	397121
680-115544-20	GB-27 13-15	Total/NA	Solid	9012B	397121
680-115544-20 DU	GB-27 13-15	Total/NA	Solid	9012B	397121
LCS 680-397121/2-A	Lab Control Sample	Total/NA	Solid	9012B	397121
MB 680-397121/1-A	Method Blank	Total/NA	Solid	9012B	397121

# Lab Chronicle

Client: Geotechnical & Environmental Consultants  
Project/Site: Macon MGP #2

TestAmerica Job ID: 680-115544-1

**Client Sample ID: SB-41 4-6**

**Date Collected: 08/10/15 09:20**

**Date Received: 08/12/15 09:46**

**Lab Sample ID: 680-115544-1**

**Matrix: Solid**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1			395860	08/13/15 10:20	FES	TAL SAV
Instrument ID: NOEQUIP										

**Client Sample ID: SB-41 4-6**

**Date Collected: 08/10/15 09:20**

**Date Received: 08/12/15 09:46**

**Lab Sample ID: 680-115544-1**

**Matrix: Solid**

**Percent Solids: 89.4**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3546			30.15 g	1 mL	395865	08/14/15 10:57	JMV	TAL SAV
Total/NA	Analysis	8270D		5	30.15 g	1 mL	396502	08/17/15 12:56	RAM	TAL SAV
Instrument ID: CMST										
Total/NA	Prep	3050B			1.14 g	100 mL	396119	08/14/15 08:59	CDD	TAL SAV
Total/NA	Analysis	6010C		1	1.14 g	100 mL	396749	08/17/15 19:34	BCB	TAL SAV
Instrument ID: ICPE										
Total/NA	Prep	7471B			0.51 g	50 mL	396443	08/16/15 14:39	JKL	TAL SAV
Total/NA	Analysis	7471B		1	0.51 g	50 mL	396738	08/17/15 19:46	BCB	TAL SAV
Instrument ID: LEEMAN2										
Total/NA	Prep	9012B			1.00 g	50 mL	396935	08/19/15 09:00	DAM	TAL SAV
Total/NA	Analysis	9012B		1	1.00 g	50 mL	397029	08/19/15 12:14	DAM	TAL SAV
Instrument ID: LACHAT1										

**Client Sample ID: SB-41 8-10**

**Date Collected: 08/10/15 09:24**

**Date Received: 08/12/15 09:46**

**Lab Sample ID: 680-115544-2**

**Matrix: Solid**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1			395860	08/13/15 10:20	FES	TAL SAV
Instrument ID: NOEQUIP										

**Client Sample ID: SB-41 8-10**

**Date Collected: 08/10/15 09:24**

**Date Received: 08/12/15 09:46**

**Lab Sample ID: 680-115544-2**

**Matrix: Solid**

**Percent Solids: 88.7**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3546			30.44 g	1 mL	395865	08/14/15 10:57	JMV	TAL SAV
Total/NA	Analysis	8270D		5	30.44 g	1 mL	396502	08/17/15 13:22	RAM	TAL SAV
Instrument ID: CMST										
Total/NA	Prep	3050B			1.17 g	100 mL	396119	08/14/15 08:59	CDD	TAL SAV
Total/NA	Analysis	6010C		1	1.17 g	100 mL	396749	08/17/15 21:29	BCB	TAL SAV
Instrument ID: ICPE										
Total/NA	Prep	7471B			0.52 g	50 mL	396443	08/16/15 14:39	JKL	TAL SAV
Total/NA	Analysis	7471B		1	0.52 g	50 mL	396738	08/17/15 19:55	BCB	TAL SAV
Instrument ID: LEEMAN2										

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# Lab Chronicle

Client: Geotechnical & Environmental Consultants  
Project/Site: Macon MGP #2

TestAmerica Job ID: 680-115544-1

**Client Sample ID: SB-41 8-10**

**Date Collected: 08/10/15 09:24**

**Date Received: 08/12/15 09:46**

**Lab Sample ID: 680-115544-2**

**Matrix: Solid**

**Percent Solids: 88.7**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	9012B			1.00 g	50 mL	396935	08/19/15 09:00	DAM	TAL SAV
Total/NA	Analysis	9012B		1	1.00 g	50 mL	397029	08/19/15 12:19	DAM	TAL SAV
Instrument ID: LACHAT1										

**Client Sample ID: SB-41 13-15**

**Date Collected: 08/10/15 09:28**

**Date Received: 08/12/15 09:46**

**Lab Sample ID: 680-115544-3**

**Matrix: Solid**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1			395860	08/13/15 10:20	FES	TAL SAV
Instrument ID: NOEQUIP										

**Client Sample ID: SB-41 13-15**

**Date Collected: 08/10/15 09:28**

**Date Received: 08/12/15 09:46**

**Lab Sample ID: 680-115544-3**

**Matrix: Solid**

**Percent Solids: 88.1**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3546			30.31 g	1 mL	395865	08/14/15 10:57	JMV	TAL SAV
Total/NA	Analysis	8270D		5	30.31 g	1 mL	396502	08/17/15 13:48	RAM	TAL SAV
Instrument ID: CMST										
Total/NA	Prep	3050B			1.05 g	100 mL	396119	08/14/15 08:59	CDD	TAL SAV
Total/NA	Analysis	6010C		1	1.05 g	100 mL	396749	08/17/15 21:07	BCB	TAL SAV
Instrument ID: ICPE										
Total/NA	Prep	7471B			0.51 g	50 mL	396443	08/16/15 14:39	JKL	TAL SAV
Total/NA	Analysis	7471B		1	0.51 g	50 mL	396738	08/17/15 19:58	BCB	TAL SAV
Instrument ID: LEEMAN2										
Total/NA	Prep	9012B			1.04 g	50 mL	396935	08/19/15 09:00	DAM	TAL SAV
Total/NA	Analysis	9012B		1	1.04 g	50 mL	397029	08/19/15 12:20	DAM	TAL SAV
Instrument ID: LACHAT1										

**Client Sample ID: GB-9 8-10**

**Date Collected: 08/10/15 09:57**

**Date Received: 08/12/15 09:46**

**Lab Sample ID: 680-115544-4**

**Matrix: Solid**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1			395860	08/13/15 10:20	FES	TAL SAV
Instrument ID: NOEQUIP										

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# Lab Chronicle

Client: Geotechnical & Environmental Consultants  
Project/Site: Macon MGP #2

TestAmerica Job ID: 680-115544-1

**Client Sample ID: GB-9 8-10**

**Date Collected: 08/10/15 09:57**

**Date Received: 08/12/15 09:46**

**Lab Sample ID: 680-115544-4**

**Matrix: Solid**

**Percent Solids: 88.0**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3546			30.12 g	1 mL	395865	08/14/15 10:57	JMV	TAL SAV
Total/NA	Analysis	8270D		1	30.12 g	1 mL	396502	08/17/15 14:14	RAM	TAL SAV
		Instrument ID: CMST								
Total/NA	Prep	3050B			1.06 g	100 mL	396119	08/14/15 08:59	CDD	TAL SAV
Total/NA	Analysis	6010C		1	1.06 g	100 mL	396749	08/17/15 20:05	BCB	TAL SAV
		Instrument ID: ICPE								
Total/NA	Prep	7471B			0.59 g	50 mL	396443	08/16/15 14:39	JKL	TAL SAV
Total/NA	Analysis	7471B		1	0.59 g	50 mL	396738	08/17/15 20:01	BCB	TAL SAV
		Instrument ID: LEEMAN2								
Total/NA	Prep	9012B			1.01 g	50 mL	396935	08/19/15 09:00	DAM	TAL SAV
Total/NA	Analysis	9012B		1	1.01 g	50 mL	397029	08/19/15 12:21	DAM	TAL SAV
		Instrument ID: LACHAT1								

**Client Sample ID: GB-9 13-15**

**Date Collected: 08/10/15 10:06**

**Date Received: 08/12/15 09:46**

**Lab Sample ID: 680-115544-5**

**Matrix: Solid**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1			395860	08/13/15 10:20	FES	TAL SAV
		Instrument ID: NOEQUIP								

**Client Sample ID: GB-9 13-15**

**Date Collected: 08/10/15 10:06**

**Date Received: 08/12/15 09:46**

**Lab Sample ID: 680-115544-5**

**Matrix: Solid**

**Percent Solids: 79.1**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3546			30.21 g	1 mL	395865	08/14/15 10:57	JMV	TAL SAV
Total/NA	Analysis	8270D		1	30.21 g	1 mL	396502	08/17/15 14:40	RAM	TAL SAV
		Instrument ID: CMST								
Total/NA	Prep	3050B			1.10 g	100 mL	396119	08/14/15 08:59	CDD	TAL SAV
Total/NA	Analysis	6010C		1	1.10 g	100 mL	396749	08/17/15 21:20	BCB	TAL SAV
		Instrument ID: ICPE								
Total/NA	Prep	7471B			0.56 g	50 mL	396443	08/16/15 14:39	JKL	TAL SAV
Total/NA	Analysis	7471B		1	0.56 g	50 mL	396738	08/17/15 20:04	BCB	TAL SAV
		Instrument ID: LEEMAN2								
Total/NA	Prep	9012B			1.04 g	50 mL	396935	08/19/15 09:00	DAM	TAL SAV
Total/NA	Analysis	9012B		1	1.04 g	50 mL	397029	08/19/15 12:22	DAM	TAL SAV
		Instrument ID: LACHAT1								

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# Lab Chronicle

Client: Geotechnical & Environmental Consultants  
Project/Site: Macon MGP #2

TestAmerica Job ID: 680-115544-1

**Client Sample ID: GB-11 3-5**

**Date Collected: 08/10/15 10:31**

**Date Received: 08/12/15 09:46**

**Lab Sample ID: 680-115544-6**

**Matrix: Solid**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1			395860	08/13/15 10:20	FES	TAL SAV
Instrument ID: NOEQUIP										

**Client Sample ID: GB-11 3-5**

**Date Collected: 08/10/15 10:31**

**Date Received: 08/12/15 09:46**

**Lab Sample ID: 680-115544-6**

**Matrix: Solid**

**Percent Solids: 87.6**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3546			30.04 g	1 mL	395865	08/14/15 10:57	JMV	TAL SAV
Total/NA	Analysis	8270D		5	30.04 g	1 mL	396502	08/17/15 15:06	RAM	TAL SAV
Instrument ID: CMST										
Total/NA	Prep	3050B			1.12 g	100 mL	396119	08/14/15 08:59	CDD	TAL SAV
Total/NA	Analysis	6010C		1	1.12 g	100 mL	396749	08/17/15 21:12	BCB	TAL SAV
Instrument ID: ICPE										
Total/NA	Prep	7471B			0.55 g	50 mL	396443	08/16/15 14:39	JKL	TAL SAV
Total/NA	Analysis	7471B		1	0.55 g	50 mL	396738	08/17/15 20:07	BCB	TAL SAV
Instrument ID: LEEMAN2										
Total/NA	Prep	9012B			1.05 g	50 mL	396935	08/19/15 09:00	DAM	TAL SAV
Total/NA	Analysis	9012B		1	1.05 g	50 mL	397029	08/19/15 12:24	DAM	TAL SAV
Instrument ID: LACHAT1										

**Client Sample ID: GB-11 8-10**

**Date Collected: 08/10/15 10:36**

**Date Received: 08/12/15 09:46**

**Lab Sample ID: 680-115544-7**

**Matrix: Solid**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1			395860	08/13/15 10:20	FES	TAL SAV
Instrument ID: NOEQUIP										

**Client Sample ID: GB-11 8-10**

**Date Collected: 08/10/15 10:36**

**Date Received: 08/12/15 09:46**

**Lab Sample ID: 680-115544-7**

**Matrix: Solid**

**Percent Solids: 87.6**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3546			29.94 g	1 mL	395865	08/14/15 10:57	JMV	TAL SAV
Total/NA	Analysis	8270D		5	29.94 g	1 mL	396502	08/17/15 15:32	RAM	TAL SAV
Instrument ID: CMST										
Total/NA	Prep	3050B			1.12 g	100 mL	396119	08/14/15 08:59	CDD	TAL SAV
Total/NA	Analysis	6010C		1	1.12 g	100 mL	396749	08/17/15 20:23	BCB	TAL SAV
Instrument ID: ICPE										
Total/NA	Prep	7471B			0.59 g	50 mL	396443	08/16/15 14:39	JKL	TAL SAV
Total/NA	Analysis	7471B		1	0.59 g	50 mL	396738	08/17/15 20:16	BCB	TAL SAV
Instrument ID: LEEMAN2										
Total/NA	Prep	9012B			1.01 g	50 mL	396935	08/19/15 09:00	DAM	TAL SAV

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# Lab Chronicle

Client: Geotechnical & Environmental Consultants  
Project/Site: Macon MGP #2

TestAmerica Job ID: 680-115544-1

**Client Sample ID: GB-11 8-10**

**Date Collected: 08/10/15 10:36**

**Date Received: 08/12/15 09:46**

**Lab Sample ID: 680-115544-7**

**Matrix: Solid**

**Percent Solids: 87.6**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	9012B		1	1.01 g	50 mL	397029	08/19/15 12:25	DAM	TAL SAV
Instrument ID: LACHAT1										

**Client Sample ID: GB-11 13-15**

**Date Collected: 08/10/15 10:41**

**Date Received: 08/12/15 09:46**

**Lab Sample ID: 680-115544-8**

**Matrix: Solid**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1			395860	08/13/15 10:20	FES	TAL SAV
Instrument ID: NOEQUIP										

**Client Sample ID: GB-11 13-15**

**Date Collected: 08/10/15 10:41**

**Date Received: 08/12/15 09:46**

**Lab Sample ID: 680-115544-8**

**Matrix: Solid**

**Percent Solids: 87.7**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3546			29.93 g	1 mL	395865	08/14/15 10:57	JMV	TAL SAV
Total/NA	Analysis	8270D		5	29.93 g	1 mL	396502	08/17/15 15:58	RAM	TAL SAV
Instrument ID: CMST										
Total/NA	Prep	3050B			1.08 g	100 mL	396119	08/14/15 08:59	CDD	TAL SAV
Total/NA	Analysis	6010C		1	1.08 g	100 mL	396749	08/17/15 21:25	BCB	TAL SAV
Instrument ID: ICPE										
Total/NA	Prep	7471B			0.58 g	50 mL	396443	08/16/15 14:39	JKL	TAL SAV
Total/NA	Analysis	7471B		1	0.58 g	50 mL	396738	08/17/15 20:19	BCB	TAL SAV
Instrument ID: LEEMAN2										
Total/NA	Prep	9012B			1.00 g	50 mL	396935	08/19/15 09:00	DAM	TAL SAV
Total/NA	Analysis	9012B		1	1.00 g	50 mL	397029	08/19/15 12:26	DAM	TAL SAV
Instrument ID: LACHAT1										

**Client Sample ID: SB-25 0-2**

**Date Collected: 08/10/15 10:56**

**Date Received: 08/12/15 09:46**

**Lab Sample ID: 680-115544-9**

**Matrix: Solid**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1			395860	08/13/15 10:20	FES	TAL SAV
Instrument ID: NOEQUIP										

**Client Sample ID: SB-25 0-2**

**Date Collected: 08/10/15 10:56**

**Date Received: 08/12/15 09:46**

**Lab Sample ID: 680-115544-9**

**Matrix: Solid**

**Percent Solids: 87.1**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3546			30.18 g	1 mL	395865	08/14/15 10:57	JMV	TAL SAV

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# Lab Chronicle

Client: Geotechnical & Environmental Consultants  
Project/Site: Macon MGP #2

TestAmerica Job ID: 680-115544-1

**Client Sample ID: SB-25 0-2**

**Date Collected: 08/10/15 10:56**

**Date Received: 08/12/15 09:46**

**Lab Sample ID: 680-115544-9**

**Matrix: Solid**

**Percent Solids: 87.1**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8270D		10	30.18 g	1 mL	396502	08/17/15 16:24	RAM	TAL SAV
		Instrument ID: CMST								
Total/NA	Prep	3050B			1.10 g	100 mL	396119	08/14/15 08:59	CDD	TAL SAV
Total/NA	Analysis	6010C		1	1.10 g	100 mL	396749	08/17/15 21:16	BCB	TAL SAV
		Instrument ID: ICPE								
Total/NA	Prep	7471B			0.51 g	50 mL	396443	08/16/15 14:39	JKL	TAL SAV
Total/NA	Analysis	7471B		1	0.51 g	50 mL	396738	08/17/15 20:23	BCB	TAL SAV
		Instrument ID: LEEMAN2								
Total/NA	Prep	9012B			1.03 g	50 mL	396935	08/19/15 09:00	DAM	TAL SAV
Total/NA	Analysis	9012B		1	1.03 g	50 mL	397029	08/19/15 12:27	DAM	TAL SAV
		Instrument ID: LACHAT1								

**Client Sample ID: SB-25 2-4**

**Date Collected: 08/10/15 10:56**

**Date Received: 08/12/15 09:46**

**Lab Sample ID: 680-115544-10**

**Matrix: Solid**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1			395860	08/13/15 10:20	FES	TAL SAV
		Instrument ID: NOEQUIP								

**Client Sample ID: SB-25 2-4**

**Date Collected: 08/10/15 10:56**

**Date Received: 08/12/15 09:46**

**Lab Sample ID: 680-115544-10**

**Matrix: Solid**

**Percent Solids: 87.2**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3546			30.30 g	1 mL	395865	08/14/15 10:57	JMV	TAL SAV
Total/NA	Analysis	8270D		1	30.30 g	1 mL	396502	08/17/15 16:51	RAM	TAL SAV
		Instrument ID: CMST								
Total/NA	Prep	3050B			1.14 g	100 mL	396119	08/14/15 08:59	CDD	TAL SAV
Total/NA	Analysis	6010C		1	1.14 g	100 mL	396749	08/17/15 21:34	BCB	TAL SAV
		Instrument ID: ICPE								
Total/NA	Prep	7471B			0.56 g	50 mL	396443	08/16/15 14:39	JKL	TAL SAV
Total/NA	Analysis	7471B		5	0.56 g	50 mL	396738	08/18/15 09:33	BCB	TAL SAV
		Instrument ID: LEEMAN2								
Total/NA	Prep	9012B			1.02 g	50 mL	397121	08/20/15 07:30	DAM	TAL SAV
Total/NA	Analysis	9012B		1	1.02 g	50 mL	397236	08/20/15 11:53	DAM	TAL SAV
		Instrument ID: LACHAT1								

**Client Sample ID: SB-25 4-6**

**Date Collected: 08/10/15 11:11**

**Date Received: 08/12/15 09:46**

**Lab Sample ID: 680-115544-11**

**Matrix: Solid**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1			395860	08/13/15 10:20	FES	TAL SAV

TestAmerica Savannah

# Lab Chronicle

Client: Geotechnical & Environmental Consultants  
Project/Site: Macon MGP #2

TestAmerica Job ID: 680-115544-1

**Client Sample ID: SB-25 4-6**

**Date Collected: 08/10/15 11:11**

**Date Received: 08/12/15 09:46**

**Lab Sample ID: 680-115544-11**

**Matrix: Solid**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1			395860	08/13/15 10:20	FES	TAL SAV
Instrument ID: NOEQUIP										

**Client Sample ID: SB-25 4-6**

**Date Collected: 08/10/15 11:11**

**Date Received: 08/12/15 09:46**

**Lab Sample ID: 680-115544-11**

**Matrix: Solid**

**Percent Solids: 80.2**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3546			30.20 g	1 mL	395865	08/14/15 10:57	JMV	TAL SAV
Total/NA	Analysis	8270D		1	30.20 g	1 mL	396502	08/17/15 17:17	RAM	TAL SAV
Instrument ID: CMST										
Total/NA	Prep	3050B			1.13 g	100 mL	396119	08/14/15 08:59	CDD	TAL SAV
Total/NA	Analysis	6010C		1	1.13 g	100 mL	396749	08/17/15 20:36	BCB	TAL SAV
Instrument ID: ICPE										
Total/NA	Prep	7471B			0.58 g	50 mL	396443	08/16/15 14:39	JKL	TAL SAV
Total/NA	Analysis	7471B		1	0.58 g	50 mL	396738	08/17/15 20:29	BCB	TAL SAV
Instrument ID: LEEMAN2										
Total/NA	Prep	9012B			1.03 g	50 mL	397121	08/20/15 07:30	DAM	TAL SAV
Total/NA	Analysis	9012B		1	1.03 g	50 mL	397236	08/20/15 11:56	DAM	TAL SAV
Instrument ID: LACHAT1										

**Client Sample ID: SB-25 8-10**

**Date Collected: 08/10/15 11:17**

**Date Received: 08/12/15 09:46**

**Lab Sample ID: 680-115544-12**

**Matrix: Solid**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1			395860	08/13/15 10:20	FES	TAL SAV
Instrument ID: NOEQUIP										

**Client Sample ID: SB-25 8-10**

**Date Collected: 08/10/15 11:17**

**Date Received: 08/12/15 09:46**

**Lab Sample ID: 680-115544-12**

**Matrix: Solid**

**Percent Solids: 85.1**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3546			30.00 g	1 mL	395865	08/14/15 10:57	JMV	TAL SAV
Total/NA	Analysis	8270D		10	30.00 g	1 mL	396502	08/17/15 17:42	RAM	TAL SAV
Instrument ID: CMST										
Total/NA	Prep	3050B			1.12 g	100 mL	396119	08/14/15 08:59	CDD	TAL SAV
Total/NA	Analysis	6010C		1	1.12 g	100 mL	396749	08/17/15 20:58	BCB	TAL SAV
Instrument ID: ICPE										
Total/NA	Prep	7471B			0.58 g	50 mL	396443	08/16/15 14:39	JKL	TAL SAV
Total/NA	Analysis	7471B		1	0.58 g	50 mL	396738	08/17/15 20:32	BCB	TAL SAV
Instrument ID: LEEMAN2										
Total/NA	Prep	9012B			1.05 g	50 mL	397121	08/20/15 07:30	DAM	TAL SAV

TestAmerica Savannah

# Lab Chronicle

Client: Geotechnical & Environmental Consultants  
Project/Site: Macon MGP #2

TestAmerica Job ID: 680-115544-1

**Client Sample ID: SB-25 8-10**

**Date Collected: 08/10/15 11:17**

**Date Received: 08/12/15 09:46**

**Lab Sample ID: 680-115544-12**

**Matrix: Solid**

**Percent Solids: 85.1**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	9012B		1	1.05 g	50 mL	397236	08/20/15 11:59	DAM	TAL SAV
Instrument ID: LACHAT1										

**Client Sample ID: SB-25 13-15**

**Date Collected: 08/10/15 11:21**

**Date Received: 08/12/15 09:46**

**Lab Sample ID: 680-115544-13**

**Matrix: Solid**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1			395860	08/13/15 10:20	FES	TAL SAV
Instrument ID: NOEQUIP										

**Client Sample ID: SB-25 13-15**

**Date Collected: 08/10/15 11:21**

**Date Received: 08/12/15 09:46**

**Lab Sample ID: 680-115544-13**

**Matrix: Solid**

**Percent Solids: 86.1**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3546			30.38 g	1 mL	395865	08/14/15 10:57	JMV	TAL SAV
Total/NA	Analysis	8270D		1	30.38 g	1 mL	396502	08/17/15 18:08	RAM	TAL SAV
Instrument ID: CMST										
Total/NA	Prep	3050B			1.09 g	100 mL	396119	08/14/15 08:59	CDD	TAL SAV
Total/NA	Analysis	6010C		1	1.09 g	100 mL	396749	08/17/15 21:03	BCB	TAL SAV
Instrument ID: ICPE										
Total/NA	Prep	7471B			0.56 g	50 mL	396443	08/16/15 14:39	JKL	TAL SAV
Total/NA	Analysis	7471B		1	0.56 g	50 mL	396738	08/17/15 20:35	BCB	TAL SAV
Instrument ID: LEEMAN2										
Total/NA	Prep	9012B			1.01 g	50 mL	397121	08/20/15 07:30	DAM	TAL SAV
Total/NA	Analysis	9012B		1	1.01 g	50 mL	397236	08/20/15 12:01	DAM	TAL SAV
Instrument ID: LACHAT1										

**Client Sample ID: GB-25 2-4**

**Date Collected: 08/10/15 11:39**

**Date Received: 08/12/15 09:46**

**Lab Sample ID: 680-115544-14**

**Matrix: Solid**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1			395860	08/13/15 10:20	FES	TAL SAV
Instrument ID: NOEQUIP										

**Client Sample ID: GB-25 2-4**

**Date Collected: 08/10/15 11:39**

**Date Received: 08/12/15 09:46**

**Lab Sample ID: 680-115544-14**

**Matrix: Solid**

**Percent Solids: 89.9**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3546			29.95 g	1 mL	395865	08/14/15 10:57	JMV	TAL SAV

TestAmerica Savannah

# Lab Chronicle

Client: Geotechnical & Environmental Consultants  
Project/Site: Macon MGP #2

TestAmerica Job ID: 680-115544-1

**Client Sample ID: GB-25 2-4**

**Date Collected: 08/10/15 11:39**

**Date Received: 08/12/15 09:46**

**Lab Sample ID: 680-115544-14**

**Matrix: Solid**

**Percent Solids: 89.9**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8270D		1	29.95 g	1 mL	396502	08/17/15 18:34	RAM	TAL SAV
		Instrument ID: CMST								
Total/NA	Prep	3050B			1.12 g	100 mL	396119	08/14/15 08:59	CDD	TAL SAV
Total/NA	Analysis	6010C		1	1.12 g	100 mL	396749	08/17/15 20:18	BCB	TAL SAV
		Instrument ID: ICPE								
Total/NA	Prep	7471B			0.53 g	50 mL	396509	08/17/15 10:06	JKL	TAL SAV
Total/NA	Analysis	7471B		1	0.53 g	50 mL	396738	08/17/15 22:51	BCB	TAL SAV
		Instrument ID: LEEMAN2								
Total/NA	Prep	9012B			1.03 g	50 mL	397121	08/20/15 07:30	DAM	TAL SAV
Total/NA	Analysis	9012B		1	1.03 g	50 mL	397236	08/20/15 12:02	DAM	TAL SAV
		Instrument ID: LACHAT1								

**Client Sample ID: GB-25 4-6**

**Date Collected: 08/10/15 11:42**

**Date Received: 08/12/15 09:46**

**Lab Sample ID: 680-115544-15**

**Matrix: Solid**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1			395860	08/13/15 10:20	FES	TAL SAV
		Instrument ID: NOEQUIP								

**Client Sample ID: GB-25 4-6**

**Date Collected: 08/10/15 11:42**

**Date Received: 08/12/15 09:46**

**Lab Sample ID: 680-115544-15**

**Matrix: Solid**

**Percent Solids: 89.6**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3546			29.95 g	1 mL	395865	08/14/15 10:57	JMV	TAL SAV
Total/NA	Analysis	8270D		1	29.95 g	1 mL	396502	08/17/15 19:00	RAM	TAL SAV
		Instrument ID: CMST								
Total/NA	Prep	3050B			1.07 g	100 mL	396119	08/14/15 08:59	CDD	TAL SAV
Total/NA	Analysis	6010C		1	1.07 g	100 mL	396749	08/17/15 20:09	BCB	TAL SAV
		Instrument ID: ICPE								
Total/NA	Prep	7471B			0.55 g	50 mL	396509	08/17/15 10:06	JKL	TAL SAV
Total/NA	Analysis	7471B		1	0.55 g	50 mL	396738	08/17/15 22:54	BCB	TAL SAV
		Instrument ID: LEEMAN2								
Total/NA	Prep	9012B			1.03 g	50 mL	397121	08/20/15 07:30	DAM	TAL SAV
Total/NA	Analysis	9012B		1	1.03 g	50 mL	397236	08/20/15 12:03	DAM	TAL SAV
		Instrument ID: LACHAT1								

**Client Sample ID: GB-26 2-4**

**Date Collected: 08/10/15 12:20**

**Date Received: 08/12/15 09:46**

**Lab Sample ID: 680-115544-16**

**Matrix: Solid**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1			395860	08/13/15 10:20	FES	TAL SAV

TestAmerica Savannah

# Lab Chronicle

Client: Geotechnical & Environmental Consultants  
Project/Site: Macon MGP #2

TestAmerica Job ID: 680-115544-1

**Client Sample ID: GB-26 2-4**

**Date Collected: 08/10/15 12:20**

**Date Received: 08/12/15 09:46**

**Lab Sample ID: 680-115544-16**

**Matrix: Solid**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1			395860	08/13/15 10:20	FES	TAL SAV
Instrument ID: NOEQUIP										

**Client Sample ID: GB-26 2-4**

**Date Collected: 08/10/15 12:20**

**Date Received: 08/12/15 09:46**

**Lab Sample ID: 680-115544-16**

**Matrix: Solid**

**Percent Solids: 93.8**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3546			30.31 g	1 mL	395865	08/14/15 10:57	JMV	TAL SAV
Total/NA	Analysis	8270D		10	30.31 g	1 mL	397169	08/20/15 22:02	RAM	TAL SAV
Instrument ID: CMST										
Total/NA	Prep	3050B			1.10 g	100 mL	396119	08/14/15 08:59	CDD	TAL SAV
Total/NA	Analysis	6010C		1	1.10 g	100 mL	396749	08/17/15 20:41	BCB	TAL SAV
Instrument ID: ICPE										
Total/NA	Prep	7471B			0.56 g	50 mL	396509	08/17/15 10:06	JKL	TAL SAV
Total/NA	Analysis	7471B		1	0.56 g	50 mL	396738	08/17/15 22:57	BCB	TAL SAV
Instrument ID: LEEMAN2										
Total/NA	Prep	9012B			1.01 g	50 mL	397121	08/20/15 07:30	DAM	TAL SAV
Total/NA	Analysis	9012B		1	1.01 g	50 mL	397236	08/20/15 12:04	DAM	TAL SAV
Instrument ID: LACHAT1										

**Client Sample ID: GB-26 4-6**

**Date Collected: 08/10/15 12:25**

**Date Received: 08/12/15 09:46**

**Lab Sample ID: 680-115544-17**

**Matrix: Solid**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1			395860	08/13/15 10:20	FES	TAL SAV
Instrument ID: NOEQUIP										

**Client Sample ID: GB-26 4-6**

**Date Collected: 08/10/15 12:25**

**Date Received: 08/12/15 09:46**

**Lab Sample ID: 680-115544-17**

**Matrix: Solid**

**Percent Solids: 89.2**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3546			29.93 g	1 mL	395865	08/14/15 10:57	JMV	TAL SAV
Total/NA	Analysis	8270D		5	29.93 g	1 mL	396502	08/17/15 19:52	RAM	TAL SAV
Instrument ID: CMST										
Total/NA	Prep	3050B			1.18 g	100 mL	396119	08/14/15 08:59	CDD	TAL SAV
Total/NA	Analysis	6010C		1	1.18 g	100 mL	396749	08/17/15 20:32	BCB	TAL SAV
Instrument ID: ICPE										
Total/NA	Prep	7471B			0.55 g	50 mL	396509	08/17/15 10:06	JKL	TAL SAV
Total/NA	Analysis	7471B		1	0.55 g	50 mL	396738	08/17/15 23:00	BCB	TAL SAV
Instrument ID: LEEMAN2										
Total/NA	Prep	9012B			1.00 g	50 mL	397121	08/20/15 07:30	DAM	TAL SAV

TestAmerica Savannah

# Lab Chronicle

Client: Geotechnical & Environmental Consultants  
Project/Site: Macon MGP #2

TestAmerica Job ID: 680-115544-1

**Client Sample ID: GB-26 4-6**

**Date Collected: 08/10/15 12:25**

**Date Received: 08/12/15 09:46**

**Lab Sample ID: 680-115544-17**

**Matrix: Solid**

**Percent Solids: 89.2**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	9012B		1	1.00 g	50 mL	397236	08/20/15 12:05	DAM	TAL SAV
Instrument ID: LACHAT1										

**Client Sample ID: GB-27 3-5**

**Date Collected: 08/10/15 12:33**

**Date Received: 08/12/15 09:46**

**Lab Sample ID: 680-115544-18**

**Matrix: Solid**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1			395860	08/13/15 10:20	FES	TAL SAV
Instrument ID: NOEQUIP										

**Client Sample ID: GB-27 3-5**

**Date Collected: 08/10/15 12:33**

**Date Received: 08/12/15 09:46**

**Lab Sample ID: 680-115544-18**

**Matrix: Solid**

**Percent Solids: 69.6**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3546			30.06 g	1 mL	395865	08/14/15 10:57	JMV	TAL SAV
Total/NA	Analysis	8270D		10	30.06 g	1 mL	397169	08/20/15 22:27	RAM	TAL SAV
Instrument ID: CMST										
Total/NA	Prep	3050B			1.10 g	100 mL	396119	08/14/15 08:59	CDD	TAL SAV
Total/NA	Analysis	6010C		1	1.10 g	100 mL	396749	08/17/15 20:45	BCB	TAL SAV
Instrument ID: ICPE										
Total/NA	Prep	7471B			0.50 g	50 mL	396509	08/17/15 10:06	JKL	TAL SAV
Total/NA	Analysis	7471B		5	0.50 g	50 mL	396738	08/18/15 09:36	BCB	TAL SAV
Instrument ID: LEEMAN2										
Total/NA	Prep	9012B			1.03 g	50 mL	397121	08/20/15 07:30	DAM	TAL SAV
Total/NA	Analysis	9012B		1	1.03 g	50 mL	397236	08/20/15 12:06	DAM	TAL SAV
Instrument ID: LACHAT1										

**Client Sample ID: GB-27 8-10**

**Date Collected: 08/10/15 12:45**

**Date Received: 08/12/15 09:46**

**Lab Sample ID: 680-115544-19**

**Matrix: Solid**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1			395860	08/13/15 10:20	FES	TAL SAV
Instrument ID: NOEQUIP										

**Client Sample ID: GB-27 8-10**

**Date Collected: 08/10/15 12:45**

**Date Received: 08/12/15 09:46**

**Lab Sample ID: 680-115544-19**

**Matrix: Solid**

**Percent Solids: 91.3**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3546			29.99 g	1 mL	395865	08/14/15 10:57	JMV	TAL SAV

TestAmerica Savannah



# Lab Chronicle

Client: Geotechnical & Environmental Consultants  
Project/Site: Macon MGP #2

TestAmerica Job ID: 680-115544-1

**Client Sample ID: GB-27 8-10**

**Lab Sample ID: 680-115544-19**

**Date Collected: 08/10/15 12:45**

**Matrix: Solid**

**Date Received: 08/12/15 09:46**

**Percent Solids: 91.3**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8270D		10	29.99 g	1 mL	396502	08/17/15 20:42	RAM	TAL SAV
		Instrument ID: CMST								
Total/NA	Prep	3050B			1.11 g	100 mL	396119	08/14/15 08:59	CDD	TAL SAV
Total/NA	Analysis	6010C		1	1.11 g	100 mL	396749	08/17/15 20:14	BCB	TAL SAV
		Instrument ID: ICPE								
Total/NA	Prep	7471B			0.52 g	50 mL	396509	08/17/15 10:06	JKL	TAL SAV
Total/NA	Analysis	7471B		1	0.52 g	50 mL	396738	08/17/15 23:06	BCB	TAL SAV
		Instrument ID: LEEMAN2								
Total/NA	Prep	9012B			1.02 g	50 mL	397121	08/20/15 07:30	DAM	TAL SAV
Total/NA	Analysis	9012B		1	1.02 g	50 mL	397236	08/20/15 12:07	DAM	TAL SAV
		Instrument ID: LACHAT1								

**Client Sample ID: GB-27 13-15**

**Lab Sample ID: 680-115544-20**

**Date Collected: 08/10/15 12:48**

**Matrix: Solid**

**Date Received: 08/12/15 09:46**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1			395860	08/13/15 10:20	FES	TAL SAV
		Instrument ID: NOEQUIP								

**Client Sample ID: GB-27 13-15**

**Lab Sample ID: 680-115544-20**

**Date Collected: 08/10/15 12:48**

**Matrix: Solid**

**Date Received: 08/12/15 09:46**

**Percent Solids: 85.0**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3546			30.20 g	1 mL	395865	08/14/15 10:57	JMV	TAL SAV
Total/NA	Analysis	8270D		10	30.20 g	1 mL	396502	08/17/15 21:08	RAM	TAL SAV
		Instrument ID: CMST								
Total/NA	Prep	3050B			1.06 g	100 mL	396119	08/14/15 08:59	CDD	TAL SAV
Total/NA	Analysis	6010C		1	1.06 g	100 mL	396749	08/17/15 20:27	BCB	TAL SAV
		Instrument ID: ICPE								
Total/NA	Prep	7471B			0.54 g	50 mL	396509	08/17/15 10:06	JKL	TAL SAV
Total/NA	Analysis	7471B		1	0.54 g	50 mL	396738	08/17/15 23:09	BCB	TAL SAV
		Instrument ID: LEEMAN2								
Total/NA	Prep	9012B			1.02 g	50 mL	397121	08/20/15 07:30	DAM	TAL SAV
Total/NA	Analysis	9012B		1	1.02 g	50 mL	397236	08/20/15 12:08	DAM	TAL SAV
		Instrument ID: LACHAT1								

## Laboratory References:

TAL SAV = TestAmerica Savannah, 5102 LaRoche Avenue, Savannah, GA 31404, TEL (912)354-7858

TestAmerica Savannah

# Certification Summary

Client: Geotechnical & Environmental Consultants  
Project/Site: Macon MGP #2

TestAmerica Job ID: 680-115544-1

## Laboratory: TestAmerica Savannah

All certifications held by this laboratory are listed. Not all certifications are applicable to this report.

Authority	Program	EPA Region	Certification ID	Expiration Date
	AFCEE		SAVLAB	
A2LA	DoD ELAP		399.01	02-28-17
A2LA	ISO/IEC 17025		399.01	02-28-17
Alabama	State Program	4	41450	06-30-16
Arkansas DEQ	State Program	6	88-0692	01-31-16
California	State Program	9	2939	07-31-16
Colorado	State Program	8	N/A	12-31-15
Connecticut	State Program	1	PH-0161	03-31-17
Florida	NELAP	4	E87052	06-30-16
GA Dept. of Agriculture	State Program	4	N/A	06-12-17
Georgia	State Program	4	803	06-30-16
Guam	State Program	9	14-004r	04-16-16
Hawaii	State Program	9	N/A	06-30-16
Illinois	NELAP	5	200022	11-30-15
Indiana	State Program	5	N/A	06-30-15 *
Iowa	State Program	7	353	06-30-17
Kentucky (DW)	State Program	4	90084	12-31-15
Kentucky (UST)	State Program	4	18	06-30-16
Kentucky (WW)	State Program	4	90084	12-31-15
Louisiana	NELAP	6	30690	06-30-16
Louisiana (DW)	NELAP	6	LA150014	12-31-15
Maine	State Program	1	GA00006	09-24-16
Maryland	State Program	3	250	12-31-15
Massachusetts	State Program	1	M-GA006	06-30-16
Michigan	State Program	5	9925	03-05-16
Mississippi	State Program	4	N/A	06-30-15 *
Montana	State Program	8	CERT0081	12-31-15
Nebraska	State Program	7	TestAmerica-Savannah	06-30-16
New Jersey	NELAP	2	GA769	09-30-15 *
New Mexico	State Program	6	N/A	06-30-16
New York	NELAP	2	10842	03-31-16
North Carolina (DW)	State Program	4	13701	07-31-16
North Carolina (WW/SW)	State Program	4	269	12-31-15
Oklahoma	State Program	6	9984	08-31-15 *
Pennsylvania	NELAP	3	68-00474	06-30-16
Puerto Rico	State Program	2	GA00006	12-31-15
South Carolina	State Program	4	98001	06-30-15 *
Tennessee	State Program	4	TN02961	06-30-16
Texas	NELAP	6	T104704185-14-7	11-30-15
USDA	Federal		SAV 3-04	06-11-17
Virginia	NELAP	3	460161	06-14-16
Washington	State Program	10	C805	06-10-16
West Virginia (DW)	State Program	3	9950C	12-31-15
West Virginia DEP	State Program	3	094	06-30-16
Wisconsin	State Program	5	999819810	08-31-16
Wyoming	State Program	8	8TMS-L	06-30-16

\* Certification renewal pending - certification considered valid.

TestAmerica Savannah

## Method Summary

Client: Geotechnical & Environmental Consultants  
Project/Site: Macon MGP #2

TestAmerica Job ID: 680-115544-1

Method	Method Description	Protocol	Laboratory
8270D	Semivolatile Organic Compounds (GC/MS)	SW846	TAL SAV
6010C	Metals (ICP)	SW846	TAL SAV
7471B	Mercury (CVAA)	SW846	TAL SAV
9012B	Cyanide, Total and/or Amenable	SW846	TAL SAV
Moisture	Percent Moisture	EPA	TAL SAV

### Protocol References:

EPA = US Environmental Protection Agency

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

### Laboratory References:

TAL SAV = TestAmerica Savannah, 5102 LaRoche Avenue, Savannah, GA 31404, TEL (912)354-7858

Serial Number 99575

## ANALYSIS REQUEST AND CHAIN OF CUSTODY RECORD

# TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

TestAmerica Savannah  
5102 LaRoche Avenue  
Savannah, GA 31404

Website: www.testamericainc.com  
Phone: (912) 354-7858  
Fax: (912) 352-0165

Alternate Laboratory Name/Location

Phone:  
Fax:

PROJECT REFERENCE		PROJECT NO.	PROJECT LOCATION (STATE)	CONTRACT NO.	MATRIX TYPE	REQUIRED ANALYSIS	PAGE	OF
Macon MGP #2		130659.241	GA				1	2
TAL (LAB) PROJECT MANAGER		P.O. NUMBER	CLIENT NO.					
David Fuller		7-065944						
CLIENT (SITE) PM		CLIENT PHONE	CLIENT FAX					
C. Holderfield		210-872-8014						
CLIENT NAME		CLIENT E-MAIL						
GEC		gholderfield@geconsultants.com						
CLIENT ADDRESS								
514 Hillcrest Blvd, Macon, GA								
COMPANY CONTRACTING THIS WORK (if applicable)								
SAMPLE		SAMPLE IDENTIFICATION			NUMBER OF CONTAINERS SUBMITTED		REMARKS	
DATE	TIME	DATE	TIME	DATE	TIME			
8-10-15	0920	GB-41	4-6	SB-41	4-6	C	X	* Plus Be <sub>2</sub> O <sub>3</sub>
	0924	GB-41	8-10	SB-41	8-10	C	X	Ni, Va, Zn &
	0928	GB-41	13-15	SB-41	13-15	C	X	Total Cyanides
	0957	GB-9	8-10			C	X	
	1004	GB-9	13-15			C	X	
	1031	GB-11	3-5			C	X	Please see
	1034	GB-11	8-10			C	X	temp blank
	1034	GB-11	13-15			C	X	
	1056	SB-25	0-2			C	X	
	1056	SB-25	2-4			C	X	
	1111	SB-25	4-6			C	X	
	1117	SB-25	8-10			C	X	
RELINQUISHED BY: (SIGNATURE)		DATE	TIME	RELINQUISHED BY: (SIGNATURE)		DATE	TIME	
C. Holderfield		8-10-15	1500	C. Holderfield		8-10-15	1500	
RECEIVED BY: (SIGNATURE)		DATE	TIME	RECEIVED BY: (SIGNATURE)		DATE	TIME	
C. Holderfield		8-10-15	1500	C. Holderfield		8-10-15	1500	



680-115544 Chain of Custody

## LABORATORY USE ONLY

RECEIVED FOR LABORATORY BY: (SIGNATURE)	DATE	TIME	CUSTODY INTACT YES NO	CUSTODY SEAL NO.	SAVANNAH LOG NO.	LABORATORY REMARKS
C. Holderfield	8/10/15	1005	YES NO			0.0°C JRG

TAL8240-680 (1008)

## **ANALYSIS REQUEST AND CHAIN OF CUSTODY RECORD**

# TestAmerica

## THE LEADER IN ENVIRONMENTAL TESTING

TestAmerica Savannah  
5102 LaRoche Avenue  
Savannah, GA 31404




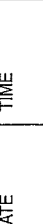
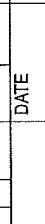

Website: [www.testamericainc.com](http://www.testamericainc.com)  
Phone: (912) 354-7858  
Fax: (912) 352-0165

Alternate Laboratory Name/Location

Phone:  
Fax:

PROJECT REFERENCE	PROJECT NO.	PROJECT LOCATION (STATE)	MATRIX TYPE	REQUIRED ANALYSIS						PAGE <u>2</u>	OF <u>2</u>
Macron MGP #2	130659.241	GA							STANDARD REPORT DELIVERY		
TAL (LAB) PROJECT MANAGER	P.O. NUMBER	CONTRACT NO.									
David Fuller	7-0659CH										
CLIENT (SITE) PM	CLIENT PHONE	CLIENT FAX							DATE DUE	<u>2</u>	
A. Holderfield	210-872-8000								EXPEDITED REPORT DELIVERY (SURCHARGE)	<u>0</u>	
CLIENT NAME	CLIENT E-MAIL								DATE DUE		
GEC	holderfield@geconsultants.com										
CLIENT ADDRESS											
514 Hillcrest Blvd, Macon, GA											
COMPANY CONTRACTING THIS WORK (if applicable)									NUMBER OF COOLERS SUBMITTED PER SHIPMENT:	<u>1</u>	

[illegible]

RELINQUISHED BY: (SIGNATURE)		DATE	TIME	RELINQUISHED BY: (SIGNATURE)		DATE	TIME	RELINQUISHED BY: (SIGNATURE)		DATE	TIME
		8.10.15	1500			08.12.15	09.11			08.12.15	09.11
RECEIVED BY: (SIGNATURE)		DATE	TIME	RECEIVED BY: (SIGNATURE)		DATE	TIME	RECEIVED BY: (SIGNATURE)		DATE	TIME
											

RECEIVED FOR LABORATORY BY:		DATE		TIME	CUSTODY INTACT	CUSTODY SEAL NO.	SAVANNAH LOG NO.	LABORATORY REMARKS
(SIGNATURE)		8/11/15		1005	YES			
					NO			

TAL8240-680 (1008)

## Login Sample Receipt Checklist

Client: Geotechnical & Environmental Consultants

Job Number: 680-115544-1

Login Number: 115544

List Number: 1

Creator: Banda, Christy S

List Source: TestAmerica Savannah

Question	Answer	Comment
Radioactivity wasn't checked or is $\leq$ background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	N/A	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time.	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is $<6\text{mm}$ (1/4").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	



# TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

## ANALYTICAL REPORT

TestAmerica Laboratories, Inc.

TestAmerica Savannah

5102 LaRoche Avenue

Savannah, GA 31404

Tel: (912)354-7858

TestAmerica Job ID: 680-116110-1

Client Project/Site: Macon MGP #2

Revision: 1

For:

Geotechnical & Environmental Consultants

514 Hillcrest Industrial Blvd.

Macon, Georgia 31204

Attn: Carrie Holderfield



Authorized for release by:

9/17/2015 6:45:28 PM

Lisa Harvey, Project Manager II

(912)354-7858 e.3221

[lisa.harvey@testamericainc.com](mailto:lisa.harvey@testamericainc.com)

### LINKS

Review your project  
results through

TotalAccess

Have a Question?



Visit us at:

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

*The test results in this report meet all 2003 NELAC and 2009 TNI requirements for accredited parameters, exceptions are noted in this report. This report may not be reproduced except in full, and with written approval from the laboratory. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.*

*This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.*

*Results relate only to the items tested and the sample(s) as received by the laboratory.*

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# Definitions/Glossary

Client: Geotechnical & Environmental Consultants  
Project/Site: Macon MGP #2

TestAmerica Job ID: 680-116110-1

## Qualifiers

### GC/MS VOA

Qualifier	Qualifier Description
U	Indicates the analyte was analyzed for but not detected.

### GC/MS Semi VOA

Qualifier	Qualifier Description
U	Indicates the analyte was analyzed for but not detected.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
F1	MS and/or MSD Recovery is outside acceptance limits.
F2	MS/MSD RPD exceeds control limits

### Metals

Qualifier	Qualifier Description
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
F1	MS and/or MSD Recovery is outside acceptance limits.
F2	MS/MSD RPD exceeds control limits
U	Indicates the analyte was analyzed for but not detected.

### General Chemistry

Qualifier	Qualifier Description
U	Indicates the analyte was analyzed for but not detected.

## Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
α	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CNF	Contains no Free Liquid
DER	Duplicate error ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision level concentration
MDA	Minimum detectable activity
EDL	Estimated Detection Limit
MDC	Minimum detectable concentration
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
NC	Not Calculated
ND	Not detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RER	Relative error ratio
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

## Sample Summary

Client: Geotechnical & Environmental Consultants  
Project/Site: Macon MGP #2

TestAmerica Job ID: 680-116110-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
680-116110-1	GB-5 13-15	Solid	08/24/15 15:08	08/27/15 09:45
680-116110-2	GB-5 18	Solid	08/24/15 15:17	08/27/15 09:45
680-116110-3	GB-19 13-15	Solid	08/25/15 11:30	08/27/15 09:45
680-116110-4	GB-21 13-15	Solid	08/25/15 11:50	08/27/15 09:45

## Case Narrative

Client: Geotechnical & Environmental Consultants  
Project/Site: Macon MGP #2

TestAmerica Job ID: 680-116110-1

**Job ID: 680-116110-1**

**Laboratory: TestAmerica Savannah**

### Narrative

#### CASE NARRATIVE

**Client: Geotechnical & Environmental Consultants**

**Project: Macon MGP #2**

**Report Number: 680-116110-1**

With the exceptions noted as flags or footnotes, standard analytical protocols were followed in the analysis of the samples and no problems were encountered or anomalies observed. In addition all laboratory quality control samples were within established control limits, with any exceptions noted below. Each sample was analyzed to achieve the lowest possible reporting limit within the constraints of the method. In the event of interference or analytes present at high concentrations, samples may be diluted. For diluted samples, the reporting limits are adjusted relative to the dilution required.

09/17/2015: This report has been revised. The report formatter has been changed so that non-detects would be reported at the Method Detection Limit (MDL) rather than the Reporting Limit (RL).

#### RECEIPT

The samples were received on 08/27/2015; the samples arrived in good condition, properly preserved and on ice. The temperature of the coolers at receipt was 1.8 C.

A Trip Blank was listed on the COC, however, no Trip Blank was recieved.

#### VOLATILE ORGANIC COMPOUNDS (GC-MS)

Samples GB-5 13-15 (680-116110-1) and GB-5 18 (680-116110-2) were analyzed for Volatile Organic Compounds (GC-MS) in accordance with EPA SW-846 Method 8260B. The samples were prepared on 08/28/2015 and analyzed on 09/02/2015 and 09/03/2015.

Method(s) 5035: The MeOH terra core vials contain no MeOH for samples -1A and -2A. The other vials were used for analysis.

Method(s) 8260B: Insufficient sample volume was available to perform a matrix spike/matrix spike duplicate (MS/MSD) associated with preparation batch 680-398538 and analytical batch 680-399189.

No analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

#### SEMIVOLATILE ORGANIC COMPOUNDS (SOLID)

Samples GB-5 13-15 (680-116110-1), GB-5 18 (680-116110-2), GB-19 13-15 (680-116110-3) and GB-21 13-15 (680-116110-4) were analyzed for Semivolatile Organic Compounds (Solid) in accordance with EPA SW-846 Method 8270D. The samples were prepared on 09/01/2015 and analyzed on 09/02/2015.

Method(s) 8270D: The continuing calibration verification (CCV) analyzed in batch 680-399288 was outside the method criteria for the following analytes: Indeno[1,2,3-cd]pyrene and Benzaldehyde. A CCV standard at or below the reporting limit (RL) was analyzed with the affected samples and found to be acceptable. As indicated in the reference method, sample analysis may proceed; however, any detection for the affected analyte(s) is considered estimated.

3,3'-Dichlorobenzidine and 4-Chloroaniline recovery is outside criteria low for the MS of sample GB-19 13-15 (680-116110-3) in batch 680-399288.

3,3'-Dichlorobenzidine exceeded the RPD limit for the MSD of sample GB-19 13-15 (680-116110-3) in batch 680-399288.

Refer to the QC report for details.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

#### METALS (ICP)

Samples GB-5 13-15 (680-116110-1), GB-5 18 (680-116110-2), GB-19 13-15 (680-116110-3) and GB-21 13-15 (680-116110-4) were analyzed for Metals (ICP) in accordance with EPA SW-846 Method 6010C. The samples were prepared on 08/28/2015 and analyzed on 08/29/2015.

## Case Narrative

Client: Geotechnical & Environmental Consultants  
Project/Site: Macon MGP #2

TestAmerica Job ID: 680-116110-1

### Job ID: 680-116110-1 (Continued)

#### Laboratory: TestAmerica Savannah (Continued)

Barium, Copper, Vanadium and Zinc recovery is outside criteria high for the MSD of sample GB-5 13-15 (680-116110-1) in batch 680-398685. Barium, Copper, Vanadium and Zinc exceeded the RPD limit.

Refer to the QC report for details.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

#### **TOTAL MERCURY**

Samples GB-5 13-15 (680-116110-1), GB-5 18 (680-116110-2), GB-19 13-15 (680-116110-3) and GB-21 13-15 (680-116110-4) were analyzed for total mercury in accordance with EPA SW-846 Method 7471B. The samples were prepared on 09/03/2015 and analyzed on 09/04/2015.

No analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

#### **TOTAL CYANIDE**

Samples GB-5 13-15 (680-116110-1), GB-5 18 (680-116110-2), GB-19 13-15 (680-116110-3) and GB-21 13-15 (680-116110-4) were analyzed for total cyanide in accordance with EPA SW-846 Method 9012B. The samples were prepared and analyzed on 09/01/2015.

No analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

#### **PERCENT SOLIDS/MOISTURE**

Samples GB-5 13-15 (680-116110-1), GB-5 18 (680-116110-2), GB-19 13-15 (680-116110-3) and GB-21 13-15 (680-116110-4) were analyzed for Percent Solids/Moisture in accordance with TestAmerica SOP. The samples were analyzed on 08/28/2015.

No analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

# Client Sample Results

Client: Geotechnical & Environmental Consultants  
Project/Site: Macon MGP #2

TestAmerica Job ID: 680-116110-1

**Client Sample ID: GB-5 13-15**

**Date Collected: 08/24/15 15:08**

**Date Received: 08/27/15 09:45**

**Lab Sample ID: 680-116110-1**

**Matrix: Solid**

**Percent Solids: 86.1**

## Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	0.00066	U	0.0045	0.00066	mg/Kg	☼	08/28/15 11:33	09/03/15 20:23	1
Carbon disulfide	0.00099	U	0.0045	0.00099	mg/Kg	☼	08/28/15 11:33	09/03/15 20:23	1
Ethylbenzene	0.0012	U	0.0045	0.0012	mg/Kg	☼	08/28/15 11:33	09/03/15 20:23	1
Methylene Chloride	0.00088	U	0.0045	0.00088	mg/Kg	☼	08/28/15 11:33	09/03/15 20:23	1
Toluene	0.00076	U	0.0045	0.00076	mg/Kg	☼	08/28/15 11:33	09/03/15 20:23	1
Xylenes, Total	0.00099	U	0.0090	0.00099	mg/Kg	☼	08/28/15 11:33	09/03/15 20:23	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	82		70 - 130	08/28/15 11:33	09/03/15 20:23	1
Dibromofluoromethane (Surr)	85		70 - 130	08/28/15 11:33	09/03/15 20:23	1
1,2-Dichloroethane-d4 (Surr)	70		70 - 130	08/28/15 11:33	09/03/15 20:23	1
Toluene-d8 (Surr)	97		70 - 130	08/28/15 11:33	09/03/15 20:23	1

## Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	0.048	U	0.38	0.048	mg/Kg	☼	09/01/15 10:13	09/02/15 19:27	1
Acenaphthylene	0.042	U	0.38	0.042	mg/Kg	☼	09/01/15 10:13	09/02/15 19:27	1
Acetophenone	0.032	U	0.38	0.032	mg/Kg	☼	09/01/15 10:13	09/02/15 19:27	1
Anthracene	0.029	U	0.38	0.029	mg/Kg	☼	09/01/15 10:13	09/02/15 19:27	1
Atrazine	0.027	U	0.38	0.027	mg/Kg	☼	09/01/15 10:13	09/02/15 19:27	1
Benzaldehyde	0.067	U	0.38	0.067	mg/Kg	☼	09/01/15 10:13	09/02/15 19:27	1
Benzo[a]anthracene	0.031	U	0.38	0.031	mg/Kg	☼	09/01/15 10:13	09/02/15 19:27	1
Benzo[a]pyrene	0.060	U	0.38	0.060	mg/Kg	☼	09/01/15 10:13	09/02/15 19:27	1
Benzo[b]fluoranthene	0.044	U	0.38	0.044	mg/Kg	☼	09/01/15 10:13	09/02/15 19:27	1
Benzo[g,h,i]perylene	0.026	U	0.38	0.026	mg/Kg	☼	09/01/15 10:13	09/02/15 19:27	1
Benzo[k]fluoranthene	0.075	U	0.38	0.075	mg/Kg	☼	09/01/15 10:13	09/02/15 19:27	1
1,1'-Biphenyl	2.0	U	2.0	2.0	mg/Kg	☼	09/01/15 10:13	09/02/15 19:27	1
Bis(2-chloroethoxy)methane	0.045	U	0.38	0.045	mg/Kg	☼	09/01/15 10:13	09/02/15 19:27	1
Bis(2-chloroethyl)ether	0.052	U	0.38	0.052	mg/Kg	☼	09/01/15 10:13	09/02/15 19:27	1
bis (2-chloroisopropyl) ether	0.035	U	0.38	0.035	mg/Kg	☼	09/01/15 10:13	09/02/15 19:27	1
<b>Bis(2-ethylhexyl) phthalate</b>	<b>0.25</b>	<b>J</b>	0.38	0.034	mg/Kg	☼	09/01/15 10:13	09/02/15 19:27	1
4-Bromophenyl phenyl ether	0.042	U	0.38	0.042	mg/Kg	☼	09/01/15 10:13	09/02/15 19:27	1
Butyl benzyl phthalate	0.030	U	0.38	0.030	mg/Kg	☼	09/01/15 10:13	09/02/15 19:27	1
Caprolactam	0.077	U	0.38	0.077	mg/Kg	☼	09/01/15 10:13	09/02/15 19:27	1
Carbazole	0.035	U	0.38	0.035	mg/Kg	☼	09/01/15 10:13	09/02/15 19:27	1
4-Chloroaniline	0.060	U	0.77	0.060	mg/Kg	☼	09/01/15 10:13	09/02/15 19:27	1
4-Chloro-3-methylphenol	0.041	U	0.38	0.041	mg/Kg	☼	09/01/15 10:13	09/02/15 19:27	1
2-Chloronaphthalene	0.041	U	0.38	0.041	mg/Kg	☼	09/01/15 10:13	09/02/15 19:27	1
2-Chlorophenol	0.046	U	0.38	0.046	mg/Kg	☼	09/01/15 10:13	09/02/15 19:27	1
4-Chlorophenyl phenyl ether	0.051	U	0.38	0.051	mg/Kg	☼	09/01/15 10:13	09/02/15 19:27	1
Chrysene	0.024	U	0.38	0.024	mg/Kg	☼	09/01/15 10:13	09/02/15 19:27	1
Dibenz(a,h)anthracene	0.045	U	0.38	0.045	mg/Kg	☼	09/01/15 10:13	09/02/15 19:27	1
Dibenzofuran	0.038	U	0.38	0.038	mg/Kg	☼	09/01/15 10:13	09/02/15 19:27	1
3,3'-Dichlorobenzidine	0.032	U	0.77	0.032	mg/Kg	☼	09/01/15 10:13	09/02/15 19:27	1
2,4-Dichlorophenol	0.041	U	0.38	0.041	mg/Kg	☼	09/01/15 10:13	09/02/15 19:27	1
Diethyl phthalate	0.043	U	0.38	0.043	mg/Kg	☼	09/01/15 10:13	09/02/15 19:27	1
2,4-Dimethylphenol	0.051	U	0.38	0.051	mg/Kg	☼	09/01/15 10:13	09/02/15 19:27	1
Dimethyl phthalate	0.039	U	0.38	0.039	mg/Kg	☼	09/01/15 10:13	09/02/15 19:27	1
Di-n-butyl phthalate	0.035	U	0.38	0.035	mg/Kg	☼	09/01/15 10:13	09/02/15 19:27	1
4,6-Dinitro-2-methylphenol	0.20	U	2.0	0.20	mg/Kg	☼	09/01/15 10:13	09/02/15 19:27	1

TestAmerica Savannah

# Client Sample Results

Client: Geotechnical & Environmental Consultants  
Project/Site: Macon MGP #2

TestAmerica Job ID: 680-116110-1

**Client Sample ID: GB-5 13-15**

**Lab Sample ID: 680-116110-1**

**Date Collected: 08/24/15 15:08**

**Matrix: Solid**

**Date Received: 08/27/15 09:45**

**Percent Solids: 86.1**

## Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4-Dinitrophenol	0.96	U	2.0	0.96	mg/Kg	☼	09/01/15 10:13	09/02/15 19:27	1
2,4-Dinitrotoluene	0.057	U	0.38	0.057	mg/Kg	☼	09/01/15 10:13	09/02/15 19:27	1
2,6-Dinitrotoluene	0.049	U	0.38	0.049	mg/Kg	☼	09/01/15 10:13	09/02/15 19:27	1
Di-n-octyl phthalate	0.034	U	0.38	0.034	mg/Kg	☼	09/01/15 10:13	09/02/15 19:27	1
Fluoranthene	0.037	U	0.38	0.037	mg/Kg	☼	09/01/15 10:13	09/02/15 19:27	1
Fluorene	0.042	U	0.38	0.042	mg/Kg	☼	09/01/15 10:13	09/02/15 19:27	1
Hexachlorobenzene	0.045	U	0.38	0.045	mg/Kg	☼	09/01/15 10:13	09/02/15 19:27	1
Hexachlorobutadiene	0.042	U	0.38	0.042	mg/Kg	☼	09/01/15 10:13	09/02/15 19:27	1
Hexachlorocyclopentadiene	0.048	U	0.38	0.048	mg/Kg	☼	09/01/15 10:13	09/02/15 19:27	1
Hexachloroethane	0.032	U	0.38	0.032	mg/Kg	☼	09/01/15 10:13	09/02/15 19:27	1
Indeno[1,2,3-cd]pyrene	0.032	U	0.38	0.032	mg/Kg	☼	09/01/15 10:13	09/02/15 19:27	1
Isophorone	0.038	U	0.38	0.038	mg/Kg	☼	09/01/15 10:13	09/02/15 19:27	1
2-Methylnaphthalene	0.044	U	0.38	0.044	mg/Kg	☼	09/01/15 10:13	09/02/15 19:27	1
2-Methylphenol	0.031	U	0.38	0.031	mg/Kg	☼	09/01/15 10:13	09/02/15 19:27	1
3 & 4 Methylphenol	0.050	U	0.38	0.050	mg/Kg	☼	09/01/15 10:13	09/02/15 19:27	1
Naphthalene	0.035	U	0.38	0.035	mg/Kg	☼	09/01/15 10:13	09/02/15 19:27	1
2-Nitroaniline	0.052	U	2.0	0.052	mg/Kg	☼	09/01/15 10:13	09/02/15 19:27	1
3-Nitroaniline	0.053	U	2.0	0.053	mg/Kg	☼	09/01/15 10:13	09/02/15 19:27	1
4-Nitroaniline	0.057	U	2.0	0.057	mg/Kg	☼	09/01/15 10:13	09/02/15 19:27	1
Nitrobenzene	0.030	U	0.38	0.030	mg/Kg	☼	09/01/15 10:13	09/02/15 19:27	1
2-Nitrophenol	0.048	U	0.38	0.048	mg/Kg	☼	09/01/15 10:13	09/02/15 19:27	1
4-Nitrophenol	0.38	U	2.0	0.38	mg/Kg	☼	09/01/15 10:13	09/02/15 19:27	1
N-Nitrosodi-n-propylamine	0.037	U	0.38	0.037	mg/Kg	☼	09/01/15 10:13	09/02/15 19:27	1
N-Nitrosodiphenylamine	0.038	U	0.38	0.038	mg/Kg	☼	09/01/15 10:13	09/02/15 19:27	1
Pentachlorophenol	0.38	U	2.0	0.38	mg/Kg	☼	09/01/15 10:13	09/02/15 19:27	1
<b>Phenanthrene</b>	<b>0.034</b>	<b>J</b>	0.38	0.031	mg/Kg	☼	09/01/15 10:13	09/02/15 19:27	1
Phenol	0.039	U	0.38	0.039	mg/Kg	☼	09/01/15 10:13	09/02/15 19:27	1
Pyrene	0.031	U	0.38	0.031	mg/Kg	☼	09/01/15 10:13	09/02/15 19:27	1
2,4,5-Trichlorophenol	0.041	U	0.38	0.041	mg/Kg	☼	09/01/15 10:13	09/02/15 19:27	1
2,4,6-Trichlorophenol	0.034	U	0.38	0.034	mg/Kg	☼	09/01/15 10:13	09/02/15 19:27	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl	77		41 - 116	09/01/15 10:13	09/02/15 19:27	1
2-Fluorophenol (Surr)	63		39 - 114	09/01/15 10:13	09/02/15 19:27	1
Nitrobenzene-d5 (Surr)	64		37 - 115	09/01/15 10:13	09/02/15 19:27	1
Phenol-d5 (Surr)	71		38 - 122	09/01/15 10:13	09/02/15 19:27	1
Terphenyl-d14 (Surr)	76		46 - 126	09/01/15 10:13	09/02/15 19:27	1
2,4,6-Tribromophenol (Surr)	76		45 - 129	09/01/15 10:13	09/02/15 19:27	1

## Method: 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Arsenic</b>	<b>1.2</b>	<b>J</b>	2.1	0.84	mg/Kg	☼	08/28/15 08:33	08/29/15 03:30	1
<b>Barium</b>	<b>2.0</b>	<b>F2 F1</b>	1.0	0.17	mg/Kg	☼	08/28/15 08:33	08/29/15 03:30	1
<b>Beryllium</b>	<b>0.082</b>	<b>J</b>	0.42	0.010	mg/Kg	☼	08/28/15 08:33	08/29/15 03:30	1
Cadmium	0.10	U	0.52	0.10	mg/Kg	☼	08/28/15 08:33	08/29/15 03:30	1
<b>Chromium</b>	<b>1.6</b>		1.0	0.22	mg/Kg	☼	08/28/15 08:33	08/29/15 03:30	1
<b>Copper</b>	<b>1.5</b>	<b>J F2 F1</b>	2.6	0.18	mg/Kg	☼	08/28/15 08:33	08/29/15 03:30	1
<b>Lead</b>	<b>1.4</b>		1.0	0.36	mg/Kg	☼	08/28/15 08:33	08/29/15 03:30	1
Nickel	0.40	U	4.2	0.40	mg/Kg	☼	08/28/15 08:33	08/29/15 03:30	1
Selenium	1.0	U	2.6	1.0	mg/Kg	☼	08/28/15 08:33	08/29/15 03:30	1

TestAmerica Savannah

# Client Sample Results

Client: Geotechnical & Environmental Consultants  
Project/Site: Macon MGP #2

TestAmerica Job ID: 680-116110-1

**Client Sample ID: GB-5 13-15**

**Date Collected: 08/24/15 15:08**

**Date Received: 08/27/15 09:45**

**Lab Sample ID: 680-116110-1**

**Matrix: Solid**

**Percent Solids: 86.1**

## Method: 6010C - Metals (ICP) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	0.063	U	1.0	0.063	mg/Kg	☼	08/28/15 08:33	08/29/15 03:30	1
Vanadium	3.8	F2 F1	1.0	0.10	mg/Kg	☼	08/28/15 08:33	08/29/15 03:30	1
Zinc	1.6	J F2 F1	2.1	0.73	mg/Kg	☼	08/28/15 08:33	08/29/15 03:30	1

## Method: 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.0084	U	0.021	0.0084	mg/Kg	☼	09/03/15 09:02	09/04/15 15:55	1

## General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total	0.24	U	0.58	0.24	mg/Kg	☼	09/01/15 09:30	09/01/15 12:03	1



# Client Sample Results

Client: Geotechnical & Environmental Consultants  
Project/Site: Macon MGP #2

TestAmerica Job ID: 680-116110-1

**Client Sample ID: GB-5 18**

**Date Collected: 08/24/15 15:17**

**Date Received: 08/27/15 09:45**

**Lab Sample ID: 680-116110-2**

**Matrix: Solid**

**Percent Solids: 85.4**

## Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	0.00066	U	0.0045	0.00066	mg/Kg	☼	08/28/15 11:33	09/02/15 19:49	1
Carbon disulfide	0.0010	U	0.0045	0.0010	mg/Kg	☼	08/28/15 11:33	09/02/15 19:49	1
Ethylbenzene	0.0012	U	0.0045	0.0012	mg/Kg	☼	08/28/15 11:33	09/02/15 19:49	1
Methylene Chloride	0.00089	U	0.0045	0.00089	mg/Kg	☼	08/28/15 11:33	09/02/15 19:49	1
Toluene	0.00076	U	0.0045	0.00076	mg/Kg	☼	08/28/15 11:33	09/02/15 19:49	1
Xylenes, Total	0.0010	U	0.0091	0.0010	mg/Kg	☼	08/28/15 11:33	09/02/15 19:49	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	83		70 - 130	08/28/15 11:33	09/02/15 19:49	1
Dibromofluoromethane (Surr)	89		70 - 130	08/28/15 11:33	09/02/15 19:49	1
1,2-Dichloroethane-d4 (Surr)	74		70 - 130	08/28/15 11:33	09/02/15 19:49	1
Toluene-d8 (Surr)	99		70 - 130	08/28/15 11:33	09/02/15 19:49	1

## Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	0.048	U	0.39	0.048	mg/Kg	☼	09/01/15 10:13	09/02/15 19:51	1
Acenaphthylene	0.042	U	0.39	0.042	mg/Kg	☼	09/01/15 10:13	09/02/15 19:51	1
Acetophenone	0.033	U	0.39	0.033	mg/Kg	☼	09/01/15 10:13	09/02/15 19:51	1
Anthracene	0.029	U	0.39	0.029	mg/Kg	☼	09/01/15 10:13	09/02/15 19:51	1
Atrazine	0.027	U	0.39	0.027	mg/Kg	☼	09/01/15 10:13	09/02/15 19:51	1
Benzaldehyde	0.068	U	0.39	0.068	mg/Kg	☼	09/01/15 10:13	09/02/15 19:51	1
Benzo[a]anthracene	0.032	U	0.39	0.032	mg/Kg	☼	09/01/15 10:13	09/02/15 19:51	1
Benzo[a]pyrene	0.061	U	0.39	0.061	mg/Kg	☼	09/01/15 10:13	09/02/15 19:51	1
Benzo[b]fluoranthene	0.044	U	0.39	0.044	mg/Kg	☼	09/01/15 10:13	09/02/15 19:51	1
Benzo[g,h,i]perylene	0.026	U	0.39	0.026	mg/Kg	☼	09/01/15 10:13	09/02/15 19:51	1
Benzo[k]fluoranthene	0.076	U	0.39	0.076	mg/Kg	☼	09/01/15 10:13	09/02/15 19:51	1
1,1'-Biphenyl	2.0	U	2.0	2.0	mg/Kg	☼	09/01/15 10:13	09/02/15 19:51	1
Bis(2-chloroethoxy)methane	0.046	U	0.39	0.046	mg/Kg	☼	09/01/15 10:13	09/02/15 19:51	1
Bis(2-chloroethyl)ether	0.053	U	0.39	0.053	mg/Kg	☼	09/01/15 10:13	09/02/15 19:51	1
bis (2-chloroisopropyl) ether	0.035	U	0.39	0.035	mg/Kg	☼	09/01/15 10:13	09/02/15 19:51	1
Bis(2-ethylhexyl) phthalate	0.034	U	0.39	0.034	mg/Kg	☼	09/01/15 10:13	09/02/15 19:51	1
4-Bromophenyl phenyl ether	0.042	U	0.39	0.042	mg/Kg	☼	09/01/15 10:13	09/02/15 19:51	1
Butyl benzyl phthalate	0.030	U	0.39	0.030	mg/Kg	☼	09/01/15 10:13	09/02/15 19:51	1
Caprolactam	0.077	U	0.39	0.077	mg/Kg	☼	09/01/15 10:13	09/02/15 19:51	1
Carbazole	0.035	U	0.39	0.035	mg/Kg	☼	09/01/15 10:13	09/02/15 19:51	1
4-Chloroaniline	0.061	U	0.77	0.061	mg/Kg	☼	09/01/15 10:13	09/02/15 19:51	1
4-Chloro-3-methylphenol	0.041	U	0.39	0.041	mg/Kg	☼	09/01/15 10:13	09/02/15 19:51	1
2-Chloronaphthalene	0.041	U	0.39	0.041	mg/Kg	☼	09/01/15 10:13	09/02/15 19:51	1
2-Chlorophenol	0.047	U	0.39	0.047	mg/Kg	☼	09/01/15 10:13	09/02/15 19:51	1
4-Chlorophenyl phenyl ether	0.051	U	0.39	0.051	mg/Kg	☼	09/01/15 10:13	09/02/15 19:51	1
Chrysene	0.025	U	0.39	0.025	mg/Kg	☼	09/01/15 10:13	09/02/15 19:51	1
Dibenz(a,h)anthracene	0.046	U	0.39	0.046	mg/Kg	☼	09/01/15 10:13	09/02/15 19:51	1
Dibenzofuran	0.039	U	0.39	0.039	mg/Kg	☼	09/01/15 10:13	09/02/15 19:51	1
3,3'-Dichlorobenzidine	0.033	U	0.77	0.033	mg/Kg	☼	09/01/15 10:13	09/02/15 19:51	1
2,4-Dichlorophenol	0.041	U	0.39	0.041	mg/Kg	☼	09/01/15 10:13	09/02/15 19:51	1
Diethyl phthalate	0.043	U	0.39	0.043	mg/Kg	☼	09/01/15 10:13	09/02/15 19:51	1
2,4-Dimethylphenol	0.051	U	0.39	0.051	mg/Kg	☼	09/01/15 10:13	09/02/15 19:51	1
Dimethyl phthalate	0.040	U	0.39	0.040	mg/Kg	☼	09/01/15 10:13	09/02/15 19:51	1
Di-n-butyl phthalate	0.035	U	0.39	0.035	mg/Kg	☼	09/01/15 10:13	09/02/15 19:51	1
4,6-Dinitro-2-methylphenol	0.20	U	2.0	0.20	mg/Kg	☼	09/01/15 10:13	09/02/15 19:51	1

TestAmerica Savannah

# Client Sample Results

Client: Geotechnical & Environmental Consultants  
Project/Site: Macon MGP #2

TestAmerica Job ID: 680-116110-1

**Client Sample ID: GB-5 18**

**Date Collected: 08/24/15 15:17**

**Date Received: 08/27/15 09:45**

**Lab Sample ID: 680-116110-2**

**Matrix: Solid**

**Percent Solids: 85.4**

## Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4-Dinitrophenol	0.97	U	2.0	0.97	mg/Kg	☼	09/01/15 10:13	09/02/15 19:51	1
2,4-Dinitrotoluene	0.057	U	0.39	0.057	mg/Kg	☼	09/01/15 10:13	09/02/15 19:51	1
2,6-Dinitrotoluene	0.049	U	0.39	0.049	mg/Kg	☼	09/01/15 10:13	09/02/15 19:51	1
Di-n-octyl phthalate	0.034	U	0.39	0.034	mg/Kg	☼	09/01/15 10:13	09/02/15 19:51	1
Fluoranthene	0.037	U	0.39	0.037	mg/Kg	☼	09/01/15 10:13	09/02/15 19:51	1
Fluorene	0.042	U	0.39	0.042	mg/Kg	☼	09/01/15 10:13	09/02/15 19:51	1
Hexachlorobenzene	0.046	U	0.39	0.046	mg/Kg	☼	09/01/15 10:13	09/02/15 19:51	1
Hexachlorobutadiene	0.042	U	0.39	0.042	mg/Kg	☼	09/01/15 10:13	09/02/15 19:51	1
Hexachlorocyclopentadiene	0.048	U	0.39	0.048	mg/Kg	☼	09/01/15 10:13	09/02/15 19:51	1
Hexachloroethane	0.033	U	0.39	0.033	mg/Kg	☼	09/01/15 10:13	09/02/15 19:51	1
Indeno[1,2,3-cd]pyrene	0.033	U	0.39	0.033	mg/Kg	☼	09/01/15 10:13	09/02/15 19:51	1
Isophorone	0.039	U	0.39	0.039	mg/Kg	☼	09/01/15 10:13	09/02/15 19:51	1
2-Methylnaphthalene	0.044	U	0.39	0.044	mg/Kg	☼	09/01/15 10:13	09/02/15 19:51	1
2-Methylphenol	0.032	U	0.39	0.032	mg/Kg	☼	09/01/15 10:13	09/02/15 19:51	1
3 & 4 Methylphenol	0.050	U	0.39	0.050	mg/Kg	☼	09/01/15 10:13	09/02/15 19:51	1
Naphthalene	0.035	U	0.39	0.035	mg/Kg	☼	09/01/15 10:13	09/02/15 19:51	1
2-Nitroaniline	0.053	U	2.0	0.053	mg/Kg	☼	09/01/15 10:13	09/02/15 19:51	1
3-Nitroaniline	0.054	U	2.0	0.054	mg/Kg	☼	09/01/15 10:13	09/02/15 19:51	1
4-Nitroaniline	0.057	U	2.0	0.057	mg/Kg	☼	09/01/15 10:13	09/02/15 19:51	1
Nitrobenzene	0.030	U	0.39	0.030	mg/Kg	☼	09/01/15 10:13	09/02/15 19:51	1
2-Nitrophenol	0.048	U	0.39	0.048	mg/Kg	☼	09/01/15 10:13	09/02/15 19:51	1
4-Nitrophenol	0.39	U	2.0	0.39	mg/Kg	☼	09/01/15 10:13	09/02/15 19:51	1
N-Nitrosodi-n-propylamine	0.037	U	0.39	0.037	mg/Kg	☼	09/01/15 10:13	09/02/15 19:51	1
N-Nitrosodiphenylamine	0.039	U	0.39	0.039	mg/Kg	☼	09/01/15 10:13	09/02/15 19:51	1
Pentachlorophenol	0.39	U	2.0	0.39	mg/Kg	☼	09/01/15 10:13	09/02/15 19:51	1
Phenanthrene	0.032	U	0.39	0.032	mg/Kg	☼	09/01/15 10:13	09/02/15 19:51	1
Phenol	0.040	U	0.39	0.040	mg/Kg	☼	09/01/15 10:13	09/02/15 19:51	1
Pyrene	0.032	U	0.39	0.032	mg/Kg	☼	09/01/15 10:13	09/02/15 19:51	1
2,4,5-Trichlorophenol	0.041	U	0.39	0.041	mg/Kg	☼	09/01/15 10:13	09/02/15 19:51	1
2,4,6-Trichlorophenol	0.034	U	0.39	0.034	mg/Kg	☼	09/01/15 10:13	09/02/15 19:51	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl	69		41 - 116	09/01/15 10:13	09/02/15 19:51	1
2-Fluorophenol (Surr)	58		39 - 114	09/01/15 10:13	09/02/15 19:51	1
Nitrobenzene-d5 (Surr)	61		37 - 115	09/01/15 10:13	09/02/15 19:51	1
Phenol-d5 (Surr)	62		38 - 122	09/01/15 10:13	09/02/15 19:51	1
Terphenyl-d14 (Surr)	72		46 - 126	09/01/15 10:13	09/02/15 19:51	1
2,4,6-Tribromophenol (Surr)	70		45 - 129	09/01/15 10:13	09/02/15 19:51	1

## Method: 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	0.96	J	2.0	0.79	mg/Kg	☼	08/28/15 08:33	08/29/15 03:55	1
Barium	0.43	J	0.99	0.16	mg/Kg	☼	08/28/15 08:33	08/29/15 03:55	1
Beryllium	0.057	J	0.40	0.0099	mg/Kg	☼	08/28/15 08:33	08/29/15 03:55	1
Cadmium	0.099	U	0.50	0.099	mg/Kg	☼	08/28/15 08:33	08/29/15 03:55	1
Chromium	1.0		0.99	0.21	mg/Kg	☼	08/28/15 08:33	08/29/15 03:55	1
Copper	0.39	J	2.5	0.17	mg/Kg	☼	08/28/15 08:33	08/29/15 03:55	1
Lead	1.1		0.99	0.34	mg/Kg	☼	08/28/15 08:33	08/29/15 03:55	1
Nickel	0.38	U	4.0	0.38	mg/Kg	☼	08/28/15 08:33	08/29/15 03:55	1
Selenium	0.96	U	2.5	0.96	mg/Kg	☼	08/28/15 08:33	08/29/15 03:55	1

TestAmerica Savannah

# Client Sample Results

Client: Geotechnical & Environmental Consultants  
Project/Site: Macon MGP #2

TestAmerica Job ID: 680-116110-1

**Client Sample ID: GB-5 18**

**Date Collected: 08/24/15 15:17**

**Date Received: 08/27/15 09:45**

**Lab Sample ID: 680-116110-2**

**Matrix: Solid**

**Percent Solids: 85.4**

## Method: 6010C - Metals (ICP) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	0.060	U	0.99	0.060	mg/Kg	☼	08/28/15 08:33	08/29/15 03:55	1
Vanadium	3.2		0.99	0.099	mg/Kg	☼	08/28/15 08:33	08/29/15 03:55	1
Zinc	0.92	J	2.0	0.69	mg/Kg	☼	08/28/15 08:33	08/29/15 03:55	1

## Method: 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.0084	U	0.021	0.0084	mg/Kg	☼	09/03/15 09:02	09/04/15 15:58	1

## General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total	0.24	U	0.58	0.24	mg/Kg	☼	09/01/15 09:30	09/01/15 12:07	1

# Client Sample Results

Client: Geotechnical & Environmental Consultants  
Project/Site: Macon MGP #2

TestAmerica Job ID: 680-116110-1

**Client Sample ID: GB-19 13-15**

**Lab Sample ID: 680-116110-3**

**Date Collected: 08/25/15 11:30**

**Matrix: Solid**

**Date Received: 08/27/15 09:45**

**Percent Solids: 88.3**

## Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	0.047	U	0.37	0.047	mg/Kg	☼	09/01/15 10:13	09/02/15 20:15	1
Acenaphthylene	0.041	U	0.37	0.041	mg/Kg	☼	09/01/15 10:13	09/02/15 20:15	1
Acetophenone	0.032	U	0.37	0.032	mg/Kg	☼	09/01/15 10:13	09/02/15 20:15	1
Anthracene	0.028	U	0.37	0.028	mg/Kg	☼	09/01/15 10:13	09/02/15 20:15	1
Atrazine	0.026	U	0.37	0.026	mg/Kg	☼	09/01/15 10:13	09/02/15 20:15	1
Benzaldehyde	0.066	U	0.37	0.066	mg/Kg	☼	09/01/15 10:13	09/02/15 20:15	1
Benzo[a]anthracene	0.031	U	0.37	0.031	mg/Kg	☼	09/01/15 10:13	09/02/15 20:15	1
Benzo[a]pyrene	0.059	U	0.37	0.059	mg/Kg	☼	09/01/15 10:13	09/02/15 20:15	1
Benzo[b]fluoranthene	0.043	U	0.37	0.043	mg/Kg	☼	09/01/15 10:13	09/02/15 20:15	1
Benzo[g,h,i]perylene	0.025	U	0.37	0.025	mg/Kg	☼	09/01/15 10:13	09/02/15 20:15	1
Benzo[k]fluoranthene	0.074	U	0.37	0.074	mg/Kg	☼	09/01/15 10:13	09/02/15 20:15	1
1,1'-Biphenyl	1.9	U	1.9	1.9	mg/Kg	☼	09/01/15 10:13	09/02/15 20:15	1
Bis(2-chloroethoxy)methane	0.044	U	0.37	0.044	mg/Kg	☼	09/01/15 10:13	09/02/15 20:15	1
Bis(2-chloroethyl)ether	0.051	U	0.37	0.051	mg/Kg	☼	09/01/15 10:13	09/02/15 20:15	1
bis (2-chloroisopropyl) ether	0.034	U	0.37	0.034	mg/Kg	☼	09/01/15 10:13	09/02/15 20:15	1
<b>Bis(2-ethylhexyl) phthalate</b>	<b>0.089</b>	<b>J</b>	0.37	0.033	mg/Kg	☼	09/01/15 10:13	09/02/15 20:15	1
4-Bromophenyl phenyl ether	0.041	U	0.37	0.041	mg/Kg	☼	09/01/15 10:13	09/02/15 20:15	1
Butyl benzyl phthalate	0.029	U	0.37	0.029	mg/Kg	☼	09/01/15 10:13	09/02/15 20:15	1
Caprolactam	0.075	U	0.37	0.075	mg/Kg	☼	09/01/15 10:13	09/02/15 20:15	1
Carbazole	0.034	U	0.37	0.034	mg/Kg	☼	09/01/15 10:13	09/02/15 20:15	1
4-Chloroaniline	0.059	U F1	0.75	0.059	mg/Kg	☼	09/01/15 10:13	09/02/15 20:15	1
4-Chloro-3-methylphenol	0.040	U	0.37	0.040	mg/Kg	☼	09/01/15 10:13	09/02/15 20:15	1
2-Chloronaphthalene	0.040	U	0.37	0.040	mg/Kg	☼	09/01/15 10:13	09/02/15 20:15	1
2-Chlorophenol	0.045	U	0.37	0.045	mg/Kg	☼	09/01/15 10:13	09/02/15 20:15	1
4-Chlorophenyl phenyl ether	0.050	U	0.37	0.050	mg/Kg	☼	09/01/15 10:13	09/02/15 20:15	1
Chrysene	0.024	U	0.37	0.024	mg/Kg	☼	09/01/15 10:13	09/02/15 20:15	1
Dibenz(a,h)anthracene	0.044	U	0.37	0.044	mg/Kg	☼	09/01/15 10:13	09/02/15 20:15	1
Dibenzofuran	0.037	U	0.37	0.037	mg/Kg	☼	09/01/15 10:13	09/02/15 20:15	1
3,3'-Dichlorobenzidine	0.032	U F1 F2	0.75	0.032	mg/Kg	☼	09/01/15 10:13	09/02/15 20:15	1
2,4-Dichlorophenol	0.040	U	0.37	0.040	mg/Kg	☼	09/01/15 10:13	09/02/15 20:15	1
Diethyl phthalate	0.042	U	0.37	0.042	mg/Kg	☼	09/01/15 10:13	09/02/15 20:15	1
2,4-Dimethylphenol	0.050	U	0.37	0.050	mg/Kg	☼	09/01/15 10:13	09/02/15 20:15	1
Dimethyl phthalate	0.039	U	0.37	0.039	mg/Kg	☼	09/01/15 10:13	09/02/15 20:15	1
Di-n-butyl phthalate	0.034	U	0.37	0.034	mg/Kg	☼	09/01/15 10:13	09/02/15 20:15	1
4,6-Dinitro-2-methylphenol	0.19	U	1.9	0.19	mg/Kg	☼	09/01/15 10:13	09/02/15 20:15	1
2,4-Dinitrophenol	0.94	U	1.9	0.94	mg/Kg	☼	09/01/15 10:13	09/02/15 20:15	1
2,4-Dinitrotoluene	0.056	U	0.37	0.056	mg/Kg	☼	09/01/15 10:13	09/02/15 20:15	1
2,6-Dinitrotoluene	0.048	U	0.37	0.048	mg/Kg	☼	09/01/15 10:13	09/02/15 20:15	1
Di-n-octyl phthalate	0.033	U	0.37	0.033	mg/Kg	☼	09/01/15 10:13	09/02/15 20:15	1
Fluoranthene	0.036	U	0.37	0.036	mg/Kg	☼	09/01/15 10:13	09/02/15 20:15	1
Fluorene	0.041	U	0.37	0.041	mg/Kg	☼	09/01/15 10:13	09/02/15 20:15	1
Hexachlorobenzene	0.044	U	0.37	0.044	mg/Kg	☼	09/01/15 10:13	09/02/15 20:15	1
Hexachlorobutadiene	0.041	U	0.37	0.041	mg/Kg	☼	09/01/15 10:13	09/02/15 20:15	1
Hexachlorocyclopentadiene	0.047	U	0.37	0.047	mg/Kg	☼	09/01/15 10:13	09/02/15 20:15	1
Hexachloroethane	0.032	U	0.37	0.032	mg/Kg	☼	09/01/15 10:13	09/02/15 20:15	1
Indeno[1,2,3-cd]pyrene	0.032	U	0.37	0.032	mg/Kg	☼	09/01/15 10:13	09/02/15 20:15	1
Isophorone	0.037	U	0.37	0.037	mg/Kg	☼	09/01/15 10:13	09/02/15 20:15	1
2-Methylnaphthalene	0.043	U	0.37	0.043	mg/Kg	☼	09/01/15 10:13	09/02/15 20:15	1
2-Methylphenol	0.031	U	0.37	0.031	mg/Kg	☼	09/01/15 10:13	09/02/15 20:15	1

TestAmerica Savannah

# Client Sample Results

Client: Geotechnical & Environmental Consultants  
Project/Site: Macon MGP #2

TestAmerica Job ID: 680-116110-1

**Client Sample ID: GB-19 13-15**

**Date Collected: 08/25/15 11:30**

**Date Received: 08/27/15 09:45**

**Lab Sample ID: 680-116110-3**

**Matrix: Solid**

**Percent Solids: 88.3**

## Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
3 & 4 Methylphenol	0.049	U	0.37	0.049	mg/Kg	☼	09/01/15 10:13	09/02/15 20:15	1
Naphthalene	0.034	U	0.37	0.034	mg/Kg	☼	09/01/15 10:13	09/02/15 20:15	1
2-Nitroaniline	0.051	U	1.9	0.051	mg/Kg	☼	09/01/15 10:13	09/02/15 20:15	1
3-Nitroaniline	0.052	U	1.9	0.052	mg/Kg	☼	09/01/15 10:13	09/02/15 20:15	1
4-Nitroaniline	0.056	U	1.9	0.056	mg/Kg	☼	09/01/15 10:13	09/02/15 20:15	1
Nitrobenzene	0.029	U	0.37	0.029	mg/Kg	☼	09/01/15 10:13	09/02/15 20:15	1
2-Nitrophenol	0.047	U	0.37	0.047	mg/Kg	☼	09/01/15 10:13	09/02/15 20:15	1
4-Nitrophenol	0.37	U	1.9	0.37	mg/Kg	☼	09/01/15 10:13	09/02/15 20:15	1
N-Nitrosodi-n-propylamine	0.036	U	0.37	0.036	mg/Kg	☼	09/01/15 10:13	09/02/15 20:15	1
N-Nitrosodiphenylamine	0.037	U	0.37	0.037	mg/Kg	☼	09/01/15 10:13	09/02/15 20:15	1
Pentachlorophenol	0.37	U	1.9	0.37	mg/Kg	☼	09/01/15 10:13	09/02/15 20:15	1
Phenanthrene	0.031	U	0.37	0.031	mg/Kg	☼	09/01/15 10:13	09/02/15 20:15	1
Phenol	0.039	U	0.37	0.039	mg/Kg	☼	09/01/15 10:13	09/02/15 20:15	1
Pyrene	0.031	U	0.37	0.031	mg/Kg	☼	09/01/15 10:13	09/02/15 20:15	1
2,4,5-Trichlorophenol	0.040	U	0.37	0.040	mg/Kg	☼	09/01/15 10:13	09/02/15 20:15	1
2,4,6-Trichlorophenol	0.033	U	0.37	0.033	mg/Kg	☼	09/01/15 10:13	09/02/15 20:15	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl	77		41 - 116	09/01/15 10:13	09/02/15 20:15	1
2-Fluorophenol (Surr)	64		39 - 114	09/01/15 10:13	09/02/15 20:15	1
Nitrobenzene-d5 (Surr)	69		37 - 115	09/01/15 10:13	09/02/15 20:15	1
Phenol-d5 (Surr)	72		38 - 122	09/01/15 10:13	09/02/15 20:15	1
Terphenyl-d14 (Surr)	76		46 - 126	09/01/15 10:13	09/02/15 20:15	1
2,4,6-Tribromophenol (Surr)	81		45 - 129	09/01/15 10:13	09/02/15 20:15	1

## Method: 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	1.5	J	2.0	0.78	mg/Kg	☼	08/28/15 08:33	08/29/15 04:08	1
Barium	1.9		0.98	0.16	mg/Kg	☼	08/28/15 08:33	08/29/15 04:08	1
Beryllium	0.11	J	0.39	0.0098	mg/Kg	☼	08/28/15 08:33	08/29/15 04:08	1
Cadmium	0.098	U	0.49	0.098	mg/Kg	☼	08/28/15 08:33	08/29/15 04:08	1
Chromium	3.6		0.98	0.20	mg/Kg	☼	08/28/15 08:33	08/29/15 04:08	1
Copper	0.79	J	2.4	0.17	mg/Kg	☼	08/28/15 08:33	08/29/15 04:08	1
Lead	4.6		0.98	0.33	mg/Kg	☼	08/28/15 08:33	08/29/15 04:08	1
Nickel	1.6	J	3.9	0.37	mg/Kg	☼	08/28/15 08:33	08/29/15 04:08	1
Selenium	0.95	U	2.4	0.95	mg/Kg	☼	08/28/15 08:33	08/29/15 04:08	1
Silver	0.059	U	0.98	0.059	mg/Kg	☼	08/28/15 08:33	08/29/15 04:08	1
Vanadium	3.5		0.98	0.098	mg/Kg	☼	08/28/15 08:33	08/29/15 04:08	1
Zinc	5.1		2.0	0.68	mg/Kg	☼	08/28/15 08:33	08/29/15 04:08	1

## Method: 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.0079	U	0.020	0.0079	mg/Kg	☼	09/03/15 09:02	09/04/15 16:01	1

## General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total	0.23	U	0.54	0.23	mg/Kg	☼	09/01/15 09:30	09/01/15 12:08	1

TestAmerica Savannah

# Client Sample Results

Client: Geotechnical & Environmental Consultants  
Project/Site: Macon MGP #2

TestAmerica Job ID: 680-116110-1

**Client Sample ID: GB-21 13-15**

**Lab Sample ID: 680-116110-4**

**Date Collected: 08/25/15 11:50**

**Matrix: Solid**

**Date Received: 08/27/15 09:45**

**Percent Solids: 87.8**

## Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	0.046	U	0.37	0.046	mg/Kg	☼	09/01/15 10:13	09/02/15 20:39	1
Acenaphthylene	0.040	U	0.37	0.040	mg/Kg	☼	09/01/15 10:13	09/02/15 20:39	1
Acetophenone	0.031	U	0.37	0.031	mg/Kg	☼	09/01/15 10:13	09/02/15 20:39	1
Anthracene	0.028	U	0.37	0.028	mg/Kg	☼	09/01/15 10:13	09/02/15 20:39	1
Atrazine	0.026	U	0.37	0.026	mg/Kg	☼	09/01/15 10:13	09/02/15 20:39	1
Benzaldehyde	0.065	U	0.37	0.065	mg/Kg	☼	09/01/15 10:13	09/02/15 20:39	1
Benzo[a]anthracene	0.030	U	0.37	0.030	mg/Kg	☼	09/01/15 10:13	09/02/15 20:39	1
Benzo[a]pyrene	0.058	U	0.37	0.058	mg/Kg	☼	09/01/15 10:13	09/02/15 20:39	1
<b>Benzo[b]fluoranthene</b>	<b>0.043</b>	<b>J</b>	0.37	0.043	mg/Kg	☼	09/01/15 10:13	09/02/15 20:39	1
Benzo[g,h,i]perylene	0.025	U	0.37	0.025	mg/Kg	☼	09/01/15 10:13	09/02/15 20:39	1
Benzo[k]fluoranthene	0.073	U	0.37	0.073	mg/Kg	☼	09/01/15 10:13	09/02/15 20:39	1
1,1'-Biphenyl	1.9	U	1.9	1.9	mg/Kg	☼	09/01/15 10:13	09/02/15 20:39	1
Bis(2-chloroethoxy)methane	0.044	U	0.37	0.044	mg/Kg	☼	09/01/15 10:13	09/02/15 20:39	1
Bis(2-chloroethyl)ether	0.051	U	0.37	0.051	mg/Kg	☼	09/01/15 10:13	09/02/15 20:39	1
bis (2-chloroisopropyl) ether	0.034	U	0.37	0.034	mg/Kg	☼	09/01/15 10:13	09/02/15 20:39	1
<b>Bis(2-ethylhexyl) phthalate</b>	<b>0.069</b>	<b>J</b>	0.37	0.033	mg/Kg	☼	09/01/15 10:13	09/02/15 20:39	1
4-Bromophenyl phenyl ether	0.040	U	0.37	0.040	mg/Kg	☼	09/01/15 10:13	09/02/15 20:39	1
Butyl benzyl phthalate	0.029	U	0.37	0.029	mg/Kg	☼	09/01/15 10:13	09/02/15 20:39	1
Caprolactam	0.074	U	0.37	0.074	mg/Kg	☼	09/01/15 10:13	09/02/15 20:39	1
Carbazole	0.034	U	0.37	0.034	mg/Kg	☼	09/01/15 10:13	09/02/15 20:39	1
4-Chloroaniline	0.058	U	0.74	0.058	mg/Kg	☼	09/01/15 10:13	09/02/15 20:39	1
4-Chloro-3-methylphenol	0.039	U	0.37	0.039	mg/Kg	☼	09/01/15 10:13	09/02/15 20:39	1
2-Chloronaphthalene	0.039	U	0.37	0.039	mg/Kg	☼	09/01/15 10:13	09/02/15 20:39	1
2-Chlorophenol	0.045	U	0.37	0.045	mg/Kg	☼	09/01/15 10:13	09/02/15 20:39	1
4-Chlorophenyl phenyl ether	0.049	U	0.37	0.049	mg/Kg	☼	09/01/15 10:13	09/02/15 20:39	1
<b>Chrysene</b>	<b>0.033</b>	<b>J</b>	0.37	0.024	mg/Kg	☼	09/01/15 10:13	09/02/15 20:39	1
Dibenz(a,h)anthracene	0.044	U	0.37	0.044	mg/Kg	☼	09/01/15 10:13	09/02/15 20:39	1
Dibenzofuran	0.037	U	0.37	0.037	mg/Kg	☼	09/01/15 10:13	09/02/15 20:39	1
3,3'-Dichlorobenzidine	0.031	U	0.74	0.031	mg/Kg	☼	09/01/15 10:13	09/02/15 20:39	1
2,4-Dichlorophenol	0.039	U	0.37	0.039	mg/Kg	☼	09/01/15 10:13	09/02/15 20:39	1
Diethyl phthalate	0.042	U	0.37	0.042	mg/Kg	☼	09/01/15 10:13	09/02/15 20:39	1
2,4-Dimethylphenol	0.049	U	0.37	0.049	mg/Kg	☼	09/01/15 10:13	09/02/15 20:39	1
Dimethyl phthalate	0.038	U	0.37	0.038	mg/Kg	☼	09/01/15 10:13	09/02/15 20:39	1
Di-n-butyl phthalate	0.034	U	0.37	0.034	mg/Kg	☼	09/01/15 10:13	09/02/15 20:39	1
4,6-Dinitro-2-methylphenol	0.19	U	1.9	0.19	mg/Kg	☼	09/01/15 10:13	09/02/15 20:39	1
2,4-Dinitrophenol	0.93	U	1.9	0.93	mg/Kg	☼	09/01/15 10:13	09/02/15 20:39	1
2,4-Dinitrotoluene	0.055	U	0.37	0.055	mg/Kg	☼	09/01/15 10:13	09/02/15 20:39	1
2,6-Dinitrotoluene	0.047	U	0.37	0.047	mg/Kg	☼	09/01/15 10:13	09/02/15 20:39	1
Di-n-octyl phthalate	0.033	U	0.37	0.033	mg/Kg	☼	09/01/15 10:13	09/02/15 20:39	1
<b>Fluoranthene</b>	<b>0.055</b>	<b>J</b>	0.37	0.036	mg/Kg	☼	09/01/15 10:13	09/02/15 20:39	1
Fluorene	0.040	U	0.37	0.040	mg/Kg	☼	09/01/15 10:13	09/02/15 20:39	1
Hexachlorobenzene	0.044	U	0.37	0.044	mg/Kg	☼	09/01/15 10:13	09/02/15 20:39	1
Hexachlorobutadiene	0.040	U	0.37	0.040	mg/Kg	☼	09/01/15 10:13	09/02/15 20:39	1
Hexachlorocyclopentadiene	0.046	U	0.37	0.046	mg/Kg	☼	09/01/15 10:13	09/02/15 20:39	1
Hexachloroethane	0.031	U	0.37	0.031	mg/Kg	☼	09/01/15 10:13	09/02/15 20:39	1
Indeno[1,2,3-cd]pyrene	0.031	U	0.37	0.031	mg/Kg	☼	09/01/15 10:13	09/02/15 20:39	1
Isophorone	0.037	U	0.37	0.037	mg/Kg	☼	09/01/15 10:13	09/02/15 20:39	1
2-Methylnaphthalene	0.043	U	0.37	0.043	mg/Kg	☼	09/01/15 10:13	09/02/15 20:39	1
2-Methylphenol	0.030	U	0.37	0.030	mg/Kg	☼	09/01/15 10:13	09/02/15 20:39	1

TestAmerica Savannah



# Client Sample Results

Client: Geotechnical & Environmental Consultants  
Project/Site: Macon MGP #2

TestAmerica Job ID: 680-116110-1

**Client Sample ID: GB-21 13-15**

**Date Collected: 08/25/15 11:50**

**Date Received: 08/27/15 09:45**

**Lab Sample ID: 680-116110-4**

**Matrix: Solid**

**Percent Solids: 87.8**

## Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
3 & 4 Methylphenol	0.048	U	0.37	0.048	mg/Kg	☼	09/01/15 10:13	09/02/15 20:39	1
Naphthalene	0.034	U	0.37	0.034	mg/Kg	☼	09/01/15 10:13	09/02/15 20:39	1
2-Nitroaniline	0.051	U	1.9	0.051	mg/Kg	☼	09/01/15 10:13	09/02/15 20:39	1
3-Nitroaniline	0.052	U	1.9	0.052	mg/Kg	☼	09/01/15 10:13	09/02/15 20:39	1
4-Nitroaniline	0.055	U	1.9	0.055	mg/Kg	☼	09/01/15 10:13	09/02/15 20:39	1
Nitrobenzene	0.029	U	0.37	0.029	mg/Kg	☼	09/01/15 10:13	09/02/15 20:39	1
2-Nitrophenol	0.046	U	0.37	0.046	mg/Kg	☼	09/01/15 10:13	09/02/15 20:39	1
4-Nitrophenol	0.37	U	1.9	0.37	mg/Kg	☼	09/01/15 10:13	09/02/15 20:39	1
N-Nitrosodi-n-propylamine	0.036	U	0.37	0.036	mg/Kg	☼	09/01/15 10:13	09/02/15 20:39	1
N-Nitrosodiphenylamine	0.037	U	0.37	0.037	mg/Kg	☼	09/01/15 10:13	09/02/15 20:39	1
Pentachlorophenol	0.37	U	1.9	0.37	mg/Kg	☼	09/01/15 10:13	09/02/15 20:39	1
Phenanthrene	0.034	J	0.37	0.030	mg/Kg	☼	09/01/15 10:13	09/02/15 20:39	1
Phenol	0.038	U	0.37	0.038	mg/Kg	☼	09/01/15 10:13	09/02/15 20:39	1
Pyrene	0.046	J	0.37	0.030	mg/Kg	☼	09/01/15 10:13	09/02/15 20:39	1
2,4,5-Trichlorophenol	0.039	U	0.37	0.039	mg/Kg	☼	09/01/15 10:13	09/02/15 20:39	1
2,4,6-Trichlorophenol	0.033	U	0.37	0.033	mg/Kg	☼	09/01/15 10:13	09/02/15 20:39	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl	83		41 - 116	09/01/15 10:13	09/02/15 20:39	1
2-Fluorophenol (Surr)	66		39 - 114	09/01/15 10:13	09/02/15 20:39	1
Nitrobenzene-d5 (Surr)	71		37 - 115	09/01/15 10:13	09/02/15 20:39	1
Phenol-d5 (Surr)	72		38 - 122	09/01/15 10:13	09/02/15 20:39	1
Terphenyl-d14 (Surr)	82		46 - 126	09/01/15 10:13	09/02/15 20:39	1
2,4,6-Tribromophenol (Surr)	84		45 - 129	09/01/15 10:13	09/02/15 20:39	1

## Method: 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	3.5		2.0	0.80	mg/Kg	☼	08/28/15 08:33	08/29/15 04:13	1
Barium	50		1.0	0.16	mg/Kg	☼	08/28/15 08:33	08/29/15 04:13	1
Beryllium	0.26	J	0.40	0.010	mg/Kg	☼	08/28/15 08:33	08/29/15 04:13	1
Cadmium	0.10	U	0.50	0.10	mg/Kg	☼	08/28/15 08:33	08/29/15 04:13	1
Chromium	57		1.0	0.21	mg/Kg	☼	08/28/15 08:33	08/29/15 04:13	1
Copper	5.1		2.5	0.17	mg/Kg	☼	08/28/15 08:33	08/29/15 04:13	1
Lead	24		1.0	0.34	mg/Kg	☼	08/28/15 08:33	08/29/15 04:13	1
Nickel	3.9	J	4.0	0.38	mg/Kg	☼	08/28/15 08:33	08/29/15 04:13	1
Selenium	0.97	U	2.5	0.97	mg/Kg	☼	08/28/15 08:33	08/29/15 04:13	1
Silver	0.060	U	1.0	0.060	mg/Kg	☼	08/28/15 08:33	08/29/15 04:13	1
Vanadium	28		1.0	0.10	mg/Kg	☼	08/28/15 08:33	08/29/15 04:13	1
Zinc	29		2.0	0.70	mg/Kg	☼	08/28/15 08:33	08/29/15 04:13	1

## Method: 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.099		0.020	0.0080	mg/Kg	☼	09/03/15 09:02	09/04/15 16:04	1

## General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total	0.24	U	0.56	0.24	mg/Kg	☼	09/01/15 09:30	09/01/15 12:09	1

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# QC Sample Results

Client: Geotechnical & Environmental Consultants  
Project/Site: Macon MGP #2

TestAmerica Job ID: 680-116110-1

## Method: 8260B - Volatile Organic Compounds (GC/MS)

Lab Sample ID: MB 680-399189/6

Matrix: Solid

Analysis Batch: 399189

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	0.00071	U	0.0049	0.00071	mg/Kg			09/02/15 13:55	1
Carbon disulfide	0.0011	U	0.0049	0.0011	mg/Kg			09/02/15 13:55	1
Ethylbenzene	0.0013	U	0.0049	0.0013	mg/Kg			09/02/15 13:55	1
Methylene Chloride	0.00095	U	0.0049	0.00095	mg/Kg			09/02/15 13:55	1
Toluene	0.00082	U	0.0049	0.00082	mg/Kg			09/02/15 13:55	1
Xylenes, Total	0.0011	U	0.0097	0.0011	mg/Kg			09/02/15 13:55	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	82		70 - 130		09/02/15 13:55	1
Dibromofluoromethane (Surr)	90		70 - 130		09/02/15 13:55	1
1,2-Dichloroethane-d4 (Surr)	76		70 - 130		09/02/15 13:55	1
Toluene-d8 (Surr)	98		70 - 130		09/02/15 13:55	1

Lab Sample ID: LCS 680-399189/3

Matrix: Solid

Analysis Batch: 399189

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Benzene	0.0492	0.0531		mg/Kg		108	70 - 130
Carbon disulfide	0.0492	0.0539		mg/Kg		110	40 - 160
Ethylbenzene	0.0492	0.0515		mg/Kg		105	70 - 130
Methylene Chloride	0.0492	0.0529		mg/Kg		107	70 - 130
Toluene	0.0492	0.0554		mg/Kg		112	70 - 130
Xylenes, Total	0.0984	0.101		mg/Kg		102	70 - 130

Surrogate	LCS %Recovery	LCS Qualifier	Limits
4-Bromofluorobenzene (Surr)	87		70 - 130
Dibromofluoromethane (Surr)	106		70 - 130
1,2-Dichloroethane-d4 (Surr)	90		70 - 130
Toluene-d8 (Surr)	102		70 - 130

Lab Sample ID: LCSD 680-399189/4

Matrix: Solid

Analysis Batch: 399189

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Benzene	0.0499	0.0533		mg/Kg		107	70 - 130	1	20
Carbon disulfide	0.0499	0.0537		mg/Kg		108	40 - 160	1	20
Ethylbenzene	0.0499	0.0510		mg/Kg		102	70 - 130	1	20
Methylene Chloride	0.0499	0.0538		mg/Kg		108	70 - 130	2	20
Toluene	0.0499	0.0554		mg/Kg		111	70 - 130	0	20
Xylenes, Total	0.0998	0.0999		mg/Kg		100	70 - 130	1	20

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
4-Bromofluorobenzene (Surr)	84		70 - 130
Dibromofluoromethane (Surr)	105		70 - 130
1,2-Dichloroethane-d4 (Surr)	91		70 - 130

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# QC Sample Results

Client: Geotechnical & Environmental Consultants  
Project/Site: Macon MGP #2

TestAmerica Job ID: 680-116110-1

## Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCSD 680-399189/4

Matrix: Solid

Analysis Batch: 399189

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
Toluene-d8 (Surr)	100		70 - 130

Lab Sample ID: MB 680-399391/8

Matrix: Solid

Analysis Batch: 399391

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	0.00071	U	0.0049	0.00071	mg/Kg			09/03/15 15:11	1
Carbon disulfide	0.0011	U	0.0049	0.0011	mg/Kg			09/03/15 15:11	1
Ethylbenzene	0.0013	U	0.0049	0.0013	mg/Kg			09/03/15 15:11	1
Methylene Chloride	0.00096	U	0.0049	0.00096	mg/Kg			09/03/15 15:11	1
Toluene	0.00082	U	0.0049	0.00082	mg/Kg			09/03/15 15:11	1
Xylenes, Total	0.0011	U	0.0098	0.0011	mg/Kg			09/03/15 15:11	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	80		70 - 130		09/03/15 15:11	1
Dibromofluoromethane (Surr)	84		70 - 130		09/03/15 15:11	1
1,2-Dichloroethane-d4 (Surr)	73		70 - 130		09/03/15 15:11	1
Toluene-d8 (Surr)	97		70 - 130		09/03/15 15:11	1

Lab Sample ID: LCS 680-399391/4

Matrix: Solid

Analysis Batch: 399391

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Benzene	0.0484	0.0481		mg/Kg		99	70 - 130
Carbon disulfide	0.0484	0.0467		mg/Kg		96	40 - 160
Ethylbenzene	0.0484	0.0450		mg/Kg		93	70 - 130
Methylene Chloride	0.0484	0.0500		mg/Kg		103	70 - 130
Toluene	0.0484	0.0504		mg/Kg		104	70 - 130
Xylenes, Total	0.0969	0.0891		mg/Kg		92	70 - 130

Surrogate	LCS %Recovery	LCS Qualifier	Limits
4-Bromofluorobenzene (Surr)	79		70 - 130
Dibromofluoromethane (Surr)	100		70 - 130
1,2-Dichloroethane-d4 (Surr)	90		70 - 130
Toluene-d8 (Surr)	90		70 - 130

Lab Sample ID: LCSD 680-399391/5

Matrix: Solid

Analysis Batch: 399391

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Benzene	0.0493	0.0519		mg/Kg		105	70 - 130	7	20
Carbon disulfide	0.0493	0.0496		mg/Kg		101	40 - 160	6	20
Ethylbenzene	0.0493	0.0479		mg/Kg		97	70 - 130	6	20
Methylene Chloride	0.0493	0.0539		mg/Kg		109	70 - 130	8	20

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# QC Sample Results

Client: Geotechnical & Environmental Consultants  
Project/Site: Macon MGP #2

TestAmerica Job ID: 680-116110-1

## Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCSD 680-399391/5

Matrix: Solid

Analysis Batch: 399391

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Toluene	0.0493	0.0529		mg/Kg		107	70 - 130	5	20
Xylenes, Total	0.0986	0.0952		mg/Kg		97	70 - 130	7	20

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
4-Bromofluorobenzene (Surr)	80		70 - 130
Dibromofluoromethane (Surr)	104		70 - 130
1,2-Dichloroethane-d4 (Surr)	92		70 - 130
Toluene-d8 (Surr)	94		70 - 130

## Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Lab Sample ID: MB 680-398884/10-A

Matrix: Solid

Analysis Batch: 399055

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 398884

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	0.041	U	0.33	0.041	mg/Kg		09/01/15 10:13	09/01/15 23:31	1
Acenaphthylene	0.036	U	0.33	0.036	mg/Kg		09/01/15 10:13	09/01/15 23:31	1
Acetophenone	0.028	U	0.33	0.028	mg/Kg		09/01/15 10:13	09/01/15 23:31	1
Anthracene	0.025	U	0.33	0.025	mg/Kg		09/01/15 10:13	09/01/15 23:31	1
Atrazine	0.023	U	0.33	0.023	mg/Kg		09/01/15 10:13	09/01/15 23:31	1
Benzaldehyde	0.058	U	0.33	0.058	mg/Kg		09/01/15 10:13	09/01/15 23:31	1
Benzo[a]anthracene	0.027	U	0.33	0.027	mg/Kg		09/01/15 10:13	09/01/15 23:31	1
Benzo[a]pyrene	0.052	U	0.33	0.052	mg/Kg		09/01/15 10:13	09/01/15 23:31	1
Benzo[b]fluoranthene	0.038	U	0.33	0.038	mg/Kg		09/01/15 10:13	09/01/15 23:31	1
Benzo[g,h,i]perylene	0.022	U	0.33	0.022	mg/Kg		09/01/15 10:13	09/01/15 23:31	1
Benzo[k]fluoranthene	0.065	U	0.33	0.065	mg/Kg		09/01/15 10:13	09/01/15 23:31	1
1,1'-Biphenyl	1.7	U	1.7	1.7	mg/Kg		09/01/15 10:13	09/01/15 23:31	1
Bis(2-chloroethoxy)methane	0.039	U	0.33	0.039	mg/Kg		09/01/15 10:13	09/01/15 23:31	1
Bis(2-chloroethyl)ether	0.045	U	0.33	0.045	mg/Kg		09/01/15 10:13	09/01/15 23:31	1
bis (2-chloroisopropyl) ether	0.030	U	0.33	0.030	mg/Kg		09/01/15 10:13	09/01/15 23:31	1
Bis(2-ethylhexyl) phthalate	0.029	U	0.33	0.029	mg/Kg		09/01/15 10:13	09/01/15 23:31	1
4-Bromophenyl phenyl ether	0.036	U	0.33	0.036	mg/Kg		09/01/15 10:13	09/01/15 23:31	1
Butyl benzyl phthalate	0.026	U	0.33	0.026	mg/Kg		09/01/15 10:13	09/01/15 23:31	1
Caprolactam	0.066	U	0.33	0.066	mg/Kg		09/01/15 10:13	09/01/15 23:31	1
Carbazole	0.030	U	0.33	0.030	mg/Kg		09/01/15 10:13	09/01/15 23:31	1
4-Chloroaniline	0.052	U	0.66	0.052	mg/Kg		09/01/15 10:13	09/01/15 23:31	1
4-Chloro-3-methylphenol	0.035	U	0.33	0.035	mg/Kg		09/01/15 10:13	09/01/15 23:31	1
2-Chloronaphthalene	0.035	U	0.33	0.035	mg/Kg		09/01/15 10:13	09/01/15 23:31	1
2-Chlorophenol	0.040	U	0.33	0.040	mg/Kg		09/01/15 10:13	09/01/15 23:31	1
4-Chlorophenyl phenyl ether	0.044	U	0.33	0.044	mg/Kg		09/01/15 10:13	09/01/15 23:31	1
Chrysene	0.021	U	0.33	0.021	mg/Kg		09/01/15 10:13	09/01/15 23:31	1
Dibenz(a,h)anthracene	0.039	U	0.33	0.039	mg/Kg		09/01/15 10:13	09/01/15 23:31	1
Dibenzofuran	0.033	U	0.33	0.033	mg/Kg		09/01/15 10:13	09/01/15 23:31	1
3,3'-Dichlorobenzidine	0.028	U	0.66	0.028	mg/Kg		09/01/15 10:13	09/01/15 23:31	1
2,4-Dichlorophenol	0.035	U	0.33	0.035	mg/Kg		09/01/15 10:13	09/01/15 23:31	1
Diethyl phthalate	0.037	U	0.33	0.037	mg/Kg		09/01/15 10:13	09/01/15 23:31	1
2,4-Dimethylphenol	0.044	U	0.33	0.044	mg/Kg		09/01/15 10:13	09/01/15 23:31	1

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# QC Sample Results

Client: Geotechnical & Environmental Consultants  
Project/Site: Macon MGP #2

TestAmerica Job ID: 680-116110-1

## Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 680-398884/10-A

Matrix: Solid

Analysis Batch: 399055

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 398884

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Dimethyl phthalate	0.034	U	0.33	0.034	mg/Kg		09/01/15 10:13	09/01/15 23:31	1
Di-n-butyl phthalate	0.030	U	0.33	0.030	mg/Kg		09/01/15 10:13	09/01/15 23:31	1
4,6-Dinitro-2-methylphenol	0.17	U	1.7	0.17	mg/Kg		09/01/15 10:13	09/01/15 23:31	1
2,4-Dinitrophenol	0.83	U	1.7	0.83	mg/Kg		09/01/15 10:13	09/01/15 23:31	1
2,4-Dinitrotoluene	0.049	U	0.33	0.049	mg/Kg		09/01/15 10:13	09/01/15 23:31	1
2,6-Dinitrotoluene	0.042	U	0.33	0.042	mg/Kg		09/01/15 10:13	09/01/15 23:31	1
Di-n-octyl phthalate	0.029	U	0.33	0.029	mg/Kg		09/01/15 10:13	09/01/15 23:31	1
Fluoranthene	0.032	U	0.33	0.032	mg/Kg		09/01/15 10:13	09/01/15 23:31	1
Fluorene	0.036	U	0.33	0.036	mg/Kg		09/01/15 10:13	09/01/15 23:31	1
Hexachlorobenzene	0.039	U	0.33	0.039	mg/Kg		09/01/15 10:13	09/01/15 23:31	1
Hexachlorobutadiene	0.036	U	0.33	0.036	mg/Kg		09/01/15 10:13	09/01/15 23:31	1
Hexachlorocyclopentadiene	0.041	U	0.33	0.041	mg/Kg		09/01/15 10:13	09/01/15 23:31	1
Hexachloroethane	0.028	U	0.33	0.028	mg/Kg		09/01/15 10:13	09/01/15 23:31	1
Indeno[1,2,3-cd]pyrene	0.028	U	0.33	0.028	mg/Kg		09/01/15 10:13	09/01/15 23:31	1
Isophorone	0.033	U	0.33	0.033	mg/Kg		09/01/15 10:13	09/01/15 23:31	1
2-Methylnaphthalene	0.038	U	0.33	0.038	mg/Kg		09/01/15 10:13	09/01/15 23:31	1
2-Methylphenol	0.027	U	0.33	0.027	mg/Kg		09/01/15 10:13	09/01/15 23:31	1
3 & 4 Methylphenol	0.043	U	0.33	0.043	mg/Kg		09/01/15 10:13	09/01/15 23:31	1
Naphthalene	0.030	U	0.33	0.030	mg/Kg		09/01/15 10:13	09/01/15 23:31	1
2-Nitroaniline	0.045	U	1.7	0.045	mg/Kg		09/01/15 10:13	09/01/15 23:31	1
3-Nitroaniline	0.046	U	1.7	0.046	mg/Kg		09/01/15 10:13	09/01/15 23:31	1
4-Nitroaniline	0.049	U	1.7	0.049	mg/Kg		09/01/15 10:13	09/01/15 23:31	1
Nitrobenzene	0.026	U	0.33	0.026	mg/Kg		09/01/15 10:13	09/01/15 23:31	1
2-Nitrophenol	0.041	U	0.33	0.041	mg/Kg		09/01/15 10:13	09/01/15 23:31	1
4-Nitrophenol	0.33	U	1.7	0.33	mg/Kg		09/01/15 10:13	09/01/15 23:31	1
N-Nitrosodi-n-propylamine	0.032	U	0.33	0.032	mg/Kg		09/01/15 10:13	09/01/15 23:31	1
N-Nitrosodiphenylamine	0.033	U	0.33	0.033	mg/Kg		09/01/15 10:13	09/01/15 23:31	1
Pentachlorophenol	0.33	U	1.7	0.33	mg/Kg		09/01/15 10:13	09/01/15 23:31	1
Phenanthrene	0.027	U	0.33	0.027	mg/Kg		09/01/15 10:13	09/01/15 23:31	1
Phenol	0.034	U	0.33	0.034	mg/Kg		09/01/15 10:13	09/01/15 23:31	1
Pyrene	0.027	U	0.33	0.027	mg/Kg		09/01/15 10:13	09/01/15 23:31	1
2,4,5-Trichlorophenol	0.035	U	0.33	0.035	mg/Kg		09/01/15 10:13	09/01/15 23:31	1
2,4,6-Trichlorophenol	0.029	U	0.33	0.029	mg/Kg		09/01/15 10:13	09/01/15 23:31	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl	68		41 - 116	09/01/15 10:13	09/01/15 23:31	1
2-Fluorophenol (Surr)	51		39 - 114	09/01/15 10:13	09/01/15 23:31	1
Nitrobenzene-d5 (Surr)	58		37 - 115	09/01/15 10:13	09/01/15 23:31	1
Phenol-d5 (Surr)	52		38 - 122	09/01/15 10:13	09/01/15 23:31	1
Terphenyl-d14 (Surr)	72		46 - 126	09/01/15 10:13	09/01/15 23:31	1
2,4,6-Tribromophenol (Surr)	82		45 - 129	09/01/15 10:13	09/01/15 23:31	1

Lab Sample ID: LCS 680-398884/11-A

Matrix: Solid

Analysis Batch: 399288

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 398884

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Acenaphthene	3.31	2.18		mg/Kg		66	47 - 130

TestAmerica Savannah

# QC Sample Results

Client: Geotechnical & Environmental Consultants  
Project/Site: Macon MGP #2

TestAmerica Job ID: 680-116110-1

## Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 680-398884/11-A

Matrix: Solid

Analysis Batch: 399288

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 398884

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Acenaphthylene	3.31	2.15		mg/Kg		65	45 - 130
Acetophenone	3.31	1.86		mg/Kg		56	44 - 130
Anthracene	3.31	2.25		mg/Kg		68	50 - 130
Atrazine	3.31	2.25		mg/Kg		68	47 - 130
Benzaldehyde	3.31	0.879		mg/Kg		27	10 - 130
Benzo[a]anthracene	3.31	2.30		mg/Kg		70	50 - 130
Benzo[a]pyrene	3.31	2.36		mg/Kg		71	47 - 131
Benzo[b]fluoranthene	3.31	2.37		mg/Kg		72	48 - 130
Benzo[g,h,i]perylene	3.31	2.22		mg/Kg		67	42 - 130
Benzo[k]fluoranthene	3.31	2.21		mg/Kg		67	48 - 108
1,1'-Biphenyl	3.31	2.14		mg/Kg		65	48 - 130
Bis(2-chloroethoxy)methane	3.31	2.04		mg/Kg		62	47 - 130
Bis(2-chloroethyl)ether	3.31	1.79		mg/Kg		54	37 - 130
bis (2-chloroisopropyl) ether	3.31	1.64		mg/Kg		50	38 - 130
Bis(2-ethylhexyl) phthalate	3.31	2.43		mg/Kg		73	48 - 130
4-Bromophenyl phenyl ether	3.31	2.48		mg/Kg		75	53 - 130
Butyl benzyl phthalate	3.31	2.35		mg/Kg		71	53 - 134
Caprolactam	3.31	1.97		mg/Kg		60	44 - 130
Carbazole	3.31	2.27		mg/Kg		69	51 - 130
4-Chloroaniline	3.31	1.75		mg/Kg		53	10 - 130
4-Chloro-3-methylphenol	3.31	2.08		mg/Kg		63	51 - 130
2-Chloronaphthalene	3.31	2.11		mg/Kg		64	48 - 130
2-Chlorophenol	3.31	2.05		mg/Kg		62	47 - 130
4-Chlorophenyl phenyl ether	3.31	2.11		mg/Kg		64	49 - 130
Chrysene	3.31	2.36		mg/Kg		71	47 - 130
Dibenz(a,h)anthracene	3.31	2.22		mg/Kg		67	44 - 130
Dibenzofuran	3.31	2.09		mg/Kg		63	49 - 130
3,3'-Dichlorobenzidine	3.31	1.96		mg/Kg		59	16 - 130
2,4-Dichlorophenol	3.31	2.26		mg/Kg		68	48 - 130
Diethyl phthalate	3.31	2.06		mg/Kg		62	49 - 130
2,4-Dimethylphenol	3.31	2.18		mg/Kg		66	43 - 130
Dimethyl phthalate	3.31	2.19		mg/Kg		66	50 - 130
Di-n-butyl phthalate	3.31	2.39		mg/Kg		72	52 - 130
4,6-Dinitro-2-methylphenol	6.62	3.01		mg/Kg		45	23 - 130
2,4-Dinitrophenol	6.62	1.36	J	mg/Kg		21	10 - 130
2,4-Dinitrotoluene	3.31	1.98		mg/Kg		60	49 - 111
2,6-Dinitrotoluene	3.31	2.10		mg/Kg		63	49 - 130
Di-n-octyl phthalate	3.31	2.63		mg/Kg		79	46 - 130
Fluoranthene	3.31	2.47		mg/Kg		75	51 - 130
Fluorene	3.31	2.01		mg/Kg		61	52 - 130
Hexachlorobenzene	3.31	2.46		mg/Kg		74	53 - 130
Hexachlorobutadiene	3.31	2.20		mg/Kg		67	48 - 130
Hexachlorocyclopentadiene	3.31	2.00		mg/Kg		60	28 - 130
Hexachloroethane	3.31	1.79		mg/Kg		54	42 - 130
Indeno[1,2,3-cd]pyrene	3.31	1.86		mg/Kg		56	41 - 130
Isophorone	3.31	2.00		mg/Kg		60	48 - 130
2-Methylnaphthalene	3.31	2.08		mg/Kg		63	48 - 130
2-Methylphenol	3.31	1.98		mg/Kg		60	46 - 130

TestAmerica Savannah

# QC Sample Results

Client: Geotechnical & Environmental Consultants  
Project/Site: Macon MGP #2

TestAmerica Job ID: 680-116110-1

## Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 680-398884/11-A

Matrix: Solid

Analysis Batch: 399288

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 398884

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
3 & 4 Methylphenol	3.31	1.95		mg/Kg		59	46 - 130
Naphthalene	3.31	2.10		mg/Kg		63	47 - 130
2-Nitroaniline	3.31	2.02		mg/Kg		61	44 - 130
3-Nitroaniline	3.31	1.85		mg/Kg		56	21 - 130
4-Nitroaniline	3.31	1.85		mg/Kg		56	41 - 130
Nitrobenzene	3.31	1.96		mg/Kg		59	45 - 130
2-Nitrophenol	3.31	2.26		mg/Kg		68	43 - 130
4-Nitrophenol	6.62	4.71		mg/Kg		71	40 - 130
N-Nitrosodi-n-propylamine	3.31	1.86		mg/Kg		56	38 - 130
N-Nitrosodiphenylamine	6.62	4.60		mg/Kg		69	50 - 130
Pentachlorophenol	6.62	5.14		mg/Kg		78	41 - 130
Phenanthrene	3.31	2.29		mg/Kg		69	52 - 130
Phenol	3.31	1.96		mg/Kg		59	47 - 130
Pyrene	3.31	2.21		mg/Kg		67	50 - 130
2,4,5-Trichlorophenol	3.31	2.28		mg/Kg		69	51 - 130
2,4,6-Trichlorophenol	3.31	2.36		mg/Kg		71	50 - 130

Surrogate	LCS %Recovery	LCS Qualifier	Limits
2-Fluorobiphenyl	65		41 - 116
2-Fluorophenol (Surr)	58		39 - 114
Nitrobenzene-d5 (Surr)	62		37 - 115
Phenol-d5 (Surr)	62		38 - 122
Terphenyl-d14 (Surr)	70		46 - 126
2,4,6-Tribromophenol (Surr)	70		45 - 129

Lab Sample ID: 680-116110-3 MS

Matrix: Solid

Analysis Batch: 399288

Client Sample ID: GB-19 13-15

Prep Type: Total/NA

Prep Batch: 398884

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Acenaphthene	0.047	U	3.78	2.93		mg/Kg	☼	78	58 - 130
Acenaphthylene	0.041	U	3.78	2.81		mg/Kg	☼	74	58 - 130
Acetophenone	0.032	U	3.78	2.64		mg/Kg	☼	70	42 - 130
Anthracene	0.028	U	3.78	3.13		mg/Kg	☼	83	60 - 130
Atrazine	0.026	U	3.78	3.21		mg/Kg	☼	85	54 - 141
Benzaldehyde	0.066	U	3.78	2.66		mg/Kg	☼	71	10 - 130
Benzo[a]anthracene	0.031	U	3.78	3.24		mg/Kg	☼	86	62 - 130
Benzo[a]pyrene	0.059	U	3.78	3.29		mg/Kg	☼	87	68 - 131
Benzo[b]fluoranthene	0.043	U	3.78	3.26		mg/Kg	☼	86	53 - 130
Benzo[g,h,i]perylene	0.025	U	3.78	3.07		mg/Kg	☼	81	54 - 130
Benzo[k]fluoranthene	0.074	U	3.78	3.07		mg/Kg	☼	81	57 - 130
1,1'-Biphenyl	1.9	U	3.78	2.91		mg/Kg	☼	77	57 - 130
Bis(2-chloroethoxy)methane	0.044	U	3.78	2.76		mg/Kg	☼	73	56 - 130
Bis(2-chloroethyl)ether	0.051	U	3.78	2.45		mg/Kg	☼	65	42 - 130
bis (2-chloroisopropyl) ether	0.034	U	3.78	2.15		mg/Kg	☼	57	44 - 130
Bis(2-ethylhexyl) phthalate	0.089	J	3.78	3.54		mg/Kg	☼	91	62 - 132
4-Bromophenyl phenyl ether	0.041	U	3.78	3.24		mg/Kg	☼	86	65 - 130
Butyl benzyl phthalate	0.029	U	3.78	3.37		mg/Kg	☼	89	65 - 134

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# QC Sample Results

Client: Geotechnical & Environmental Consultants  
Project/Site: Macon MGP #2

TestAmerica Job ID: 680-116110-1

## Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: 680-116110-3 MS

Matrix: Solid

Analysis Batch: 399288

Client Sample ID: GB-19 13-15

Prep Type: Total/NA

Prep Batch: 398884

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	Limits
Caprolactam	0.075	U	3.78	2.60		mg/Kg	✱	69	52 - 130
Carbazole	0.034	U	3.78	3.06		mg/Kg	✱	81	60 - 130
4-Chloroaniline	0.059	U F1	3.78	1.03	F1	mg/Kg	✱	27	36 - 130
4-Chloro-3-methylphenol	0.040	U	3.78	2.83		mg/Kg	✱	75	52 - 130
2-Chloronaphthalene	0.040	U	3.78	2.89		mg/Kg	✱	76	55 - 130
2-Chlorophenol	0.045	U	3.78	2.68		mg/Kg	✱	71	51 - 130
4-Chlorophenyl phenyl ether	0.050	U	3.78	2.93		mg/Kg	✱	78	61 - 130
Chrysene	0.024	U	3.78	3.13		mg/Kg	✱	83	62 - 130
Dibenz(a,h)anthracene	0.044	U	3.78	3.31		mg/Kg	✱	88	56 - 130
Dibenzofuran	0.037	U	3.78	2.88		mg/Kg	✱	76	56 - 130
3,3'-Dichlorobenzidine	0.032	U F1 F2	3.78	1.34	F1	mg/Kg	✱	36	45 - 130
2,4-Dichlorophenol	0.040	U	3.78	2.93		mg/Kg	✱	77	53 - 130
Diethyl phthalate	0.042	U	3.78	2.91		mg/Kg	✱	77	62 - 130
2,4-Dimethylphenol	0.050	U	3.78	2.85		mg/Kg	✱	76	47 - 130
Dimethyl phthalate	0.039	U	3.78	2.96		mg/Kg	✱	78	63 - 130
Di-n-butyl phthalate	0.034	U	3.78	3.42		mg/Kg	✱	91	65 - 130
4,6-Dinitro-2-methylphenol	0.19	U	7.55	6.90		mg/Kg	✱	91	14 - 137
2,4-Dinitrophenol	0.94	U	7.55	4.73		mg/Kg	✱	63	10 - 154
2,4-Dinitrotoluene	0.056	U	3.78	2.90		mg/Kg	✱	77	55 - 130
2,6-Dinitrotoluene	0.048	U	3.78	2.95		mg/Kg	✱	78	57 - 130
Di-n-octyl phthalate	0.033	U	3.78	3.70		mg/Kg	✱	98	59 - 146
Fluoranthene	0.036	U	3.78	3.34		mg/Kg	✱	89	62 - 130
Fluorene	0.041	U	3.78	2.79		mg/Kg	✱	74	58 - 130
Hexachlorobenzene	0.044	U	3.78	3.24		mg/Kg	✱	86	59 - 130
Hexachlorobutadiene	0.041	U	3.78	3.05		mg/Kg	✱	81	47 - 130
Hexachlorocyclopentadiene	0.047	U	3.78	2.77		mg/Kg	✱	73	35 - 130
Hexachloroethane	0.032	U	3.78	2.44		mg/Kg	✱	65	44 - 130
Indeno[1,2,3-cd]pyrene	0.032	U	3.78	2.61		mg/Kg	✱	69	52 - 130
Isophorone	0.037	U	3.78	2.66		mg/Kg	✱	70	48 - 130
2-Methylnaphthalene	0.043	U	3.78	2.67		mg/Kg	✱	71	55 - 130
2-Methylphenol	0.031	U	3.78	2.51		mg/Kg	✱	67	49 - 130
3 & 4 Methylphenol	0.049	U	3.78	2.62		mg/Kg	✱	69	50 - 130
Naphthalene	0.034	U	3.78	2.84		mg/Kg	✱	75	54 - 130
2-Nitroaniline	0.051	U	3.78	2.78		mg/Kg	✱	74	52 - 130
3-Nitroaniline	0.052	U	3.78	1.73	J	mg/Kg	✱	46	42 - 130
4-Nitroaniline	0.056	U	3.78	2.60		mg/Kg	✱	69	49 - 130
Nitrobenzene	0.029	U	3.78	2.68		mg/Kg	✱	71	43 - 130
2-Nitrophenol	0.047	U	3.78	3.07		mg/Kg	✱	81	45 - 130
4-Nitrophenol	0.37	U	7.55	7.45		mg/Kg	✱	99	30 - 130
N-Nitrosodi-n-propylamine	0.036	U	3.78	2.39		mg/Kg	✱	63	48 - 130
N-Nitrosodiphenylamine	0.037	U	7.55	6.02		mg/Kg	✱	80	62 - 130
Pentachlorophenol	0.37	U	7.55	7.59		mg/Kg	✱	101	38 - 131
Phenanthrene	0.031	U	3.78	3.05		mg/Kg	✱	81	61 - 130
Phenol	0.039	U	3.78	2.53		mg/Kg	✱	67	46 - 130
Pyrene	0.031	U	3.78	3.13		mg/Kg	✱	83	59 - 130
2,4,5-Trichlorophenol	0.040	U	3.78	3.06		mg/Kg	✱	81	60 - 130
2,4,6-Trichlorophenol	0.033	U	3.78	3.09		mg/Kg	✱	82	53 - 130

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# QC Sample Results

Client: Geotechnical & Environmental Consultants  
Project/Site: Macon MGP #2

TestAmerica Job ID: 680-116110-1

## Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: 680-116110-3 MS

Matrix: Solid

Analysis Batch: 399288

Client Sample ID: GB-19 13-15

Prep Type: Total/NA

Prep Batch: 398884

Surrogate	MS %Recovery	MS Qualifier	Limits
2-Fluorobiphenyl	77		41 - 116
2-Fluorophenol (Surr)	69		39 - 114
Nitrobenzene-d5 (Surr)	74		37 - 115
Phenol-d5 (Surr)	70		38 - 122
Terphenyl-d14 (Surr)	88		46 - 126
2,4,6-Tribromophenol (Surr)	89		45 - 129

Lab Sample ID: 680-116110-3 MSD

Matrix: Solid

Analysis Batch: 399288

Client Sample ID: GB-19 13-15

Prep Type: Total/NA

Prep Batch: 398884

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Acenaphthene	0.047	U	3.76	2.96		mg/Kg	☼	79	58 - 130	1	50
Acenaphthylene	0.041	U	3.76	2.86		mg/Kg	☼	76	58 - 130	2	50
Acetophenone	0.032	U	3.76	2.53		mg/Kg	☼	67	42 - 130	4	50
Anthracene	0.028	U	3.76	3.09		mg/Kg	☼	82	60 - 130	1	50
Atrazine	0.026	U	3.76	3.01		mg/Kg	☼	80	54 - 141	6	50
Benzaldehyde	0.066	U	3.76	2.61		mg/Kg	☼	70	10 - 130	2	50
Benzo[a]anthracene	0.031	U	3.76	3.15		mg/Kg	☼	84	62 - 130	3	50
Benzo[a]pyrene	0.059	U	3.76	3.16		mg/Kg	☼	84	68 - 131	4	50
Benzo[b]fluoranthene	0.043	U	3.76	3.31		mg/Kg	☼	88	53 - 130	2	50
Benzo[g,h,i]perylene	0.025	U	3.76	2.85		mg/Kg	☼	76	54 - 130	7	50
Benzo[k]fluoranthene	0.074	U	3.76	3.01		mg/Kg	☼	80	57 - 130	2	50
1,1'-Biphenyl	1.9	U	3.76	2.85		mg/Kg	☼	76	57 - 130	2	50
Bis(2-chloroethoxy)methane	0.044	U	3.76	2.68		mg/Kg	☼	71	56 - 130	3	50
Bis(2-chloroethyl)ether	0.051	U	3.76	2.38		mg/Kg	☼	63	42 - 130	3	50
bis (2-chloroisopropyl) ether	0.034	U	3.76	2.04		mg/Kg	☼	54	44 - 130	5	50
Bis(2-ethylhexyl) phthalate	0.089	J	3.76	3.53		mg/Kg	☼	92	62 - 132	0	50
4-Bromophenyl phenyl ether	0.041	U	3.76	3.33		mg/Kg	☼	89	65 - 130	3	50
Butyl benzyl phthalate	0.029	U	3.76	3.41		mg/Kg	☼	91	65 - 134	1	50
Caprolactam	0.075	U	3.76	2.24		mg/Kg	☼	60	52 - 130	15	50
Carbazole	0.034	U	3.76	3.03		mg/Kg	☼	81	60 - 130	1	50
4-Chloroaniline	0.059	U F1	3.76	1.68		mg/Kg	☼	45	36 - 130	48	50
4-Chloro-3-methylphenol	0.040	U	3.76	2.79		mg/Kg	☼	74	52 - 130	1	50
2-Chloronaphthalene	0.040	U	3.76	2.87		mg/Kg	☼	76	55 - 130	0	50
2-Chlorophenol	0.045	U	3.76	2.62		mg/Kg	☼	70	51 - 130	2	50
4-Chlorophenyl phenyl ether	0.050	U	3.76	3.05		mg/Kg	☼	81	61 - 130	4	50
Chrysene	0.024	U	3.76	3.11		mg/Kg	☼	83	62 - 130	1	50
Dibenz(a,h)anthracene	0.044	U	3.76	3.09		mg/Kg	☼	82	56 - 130	7	50
Dibenzofuran	0.037	U	3.76	2.95		mg/Kg	☼	78	56 - 130	2	50
3,3'-Dichlorobenzidine	0.032	U F1 F2	3.76	2.32	F2	mg/Kg	☼	62	45 - 130	53	50
2,4-Dichlorophenol	0.040	U	3.76	2.69		mg/Kg	☼	72	53 - 130	8	50
Diethyl phthalate	0.042	U	3.76	3.06		mg/Kg	☼	81	62 - 130	5	50
2,4-Dimethylphenol	0.050	U	3.76	2.76		mg/Kg	☼	73	47 - 130	3	50
Dimethyl phthalate	0.039	U	3.76	2.98		mg/Kg	☼	79	63 - 130	1	50
Di-n-butyl phthalate	0.034	U	3.76	3.23		mg/Kg	☼	86	65 - 130	6	50
4,6-Dinitro-2-methylphenol	0.19	U	7.52	7.19		mg/Kg	☼	96	14 - 137	4	50
2,4-Dinitrophenol	0.94	U	7.52	6.18		mg/Kg	☼	82	10 - 154	27	50

TestAmerica Savannah

# QC Sample Results

Client: Geotechnical & Environmental Consultants  
Project/Site: Macon MGP #2

TestAmerica Job ID: 680-116110-1

## Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: 680-116110-3 MSD

Matrix: Solid

Analysis Batch: 399288

Client Sample ID: GB-19 13-15

Prep Type: Total/NA

Prep Batch: 398884

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
2,4-Dinitrotoluene	0.056	U	3.76	3.10		mg/Kg	✱	82	55 - 130	7	50
2,6-Dinitrotoluene	0.048	U	3.76	3.10		mg/Kg	✱	82	57 - 130	5	50
Di-n-octyl phthalate	0.033	U	3.76	3.57		mg/Kg	✱	95	59 - 146	3	50
Fluoranthene	0.036	U	3.76	3.06		mg/Kg	✱	81	62 - 130	9	50
Fluorene	0.041	U	3.76	2.97		mg/Kg	✱	79	58 - 130	6	50
Hexachlorobenzene	0.044	U	3.76	3.26		mg/Kg	✱	87	59 - 130	1	50
Hexachlorobutadiene	0.041	U	3.76	2.89		mg/Kg	✱	77	47 - 130	5	50
Hexachlorocyclopentadiene	0.047	U	3.76	2.68		mg/Kg	✱	71	35 - 130	3	50
Hexachloroethane	0.032	U	3.76	2.34		mg/Kg	✱	62	44 - 130	4	50
Indeno[1,2,3-cd]pyrene	0.032	U	3.76	2.36		mg/Kg	✱	63	52 - 130	10	50
Isophorone	0.037	U	3.76	2.56		mg/Kg	✱	68	48 - 130	4	50
2-Methylnaphthalene	0.043	U	3.76	2.55		mg/Kg	✱	68	55 - 130	4	50
2-Methylphenol	0.031	U	3.76	2.42		mg/Kg	✱	65	49 - 130	4	50
3 & 4 Methylphenol	0.049	U	3.76	2.38		mg/Kg	✱	63	50 - 130	10	50
Naphthalene	0.034	U	3.76	2.63		mg/Kg	✱	70	54 - 130	8	50
2-Nitroaniline	0.051	U	3.76	2.95		mg/Kg	✱	79	52 - 130	6	50
3-Nitroaniline	0.052	U	3.76	2.67		mg/Kg	✱	71	42 - 130	43	50
4-Nitroaniline	0.056	U	3.76	2.90		mg/Kg	✱	77	49 - 130	11	50
Nitrobenzene	0.029	U	3.76	2.52		mg/Kg	✱	67	43 - 130	6	50
2-Nitrophenol	0.047	U	3.76	2.88		mg/Kg	✱	77	45 - 130	6	50
4-Nitrophenol	0.37	U	7.52	7.63		mg/Kg	✱	102	30 - 130	2	50
N-Nitrosodi-n-propylamine	0.036	U	3.76	2.32		mg/Kg	✱	62	48 - 130	3	50
N-Nitrosodiphenylamine	0.037	U	7.52	5.93		mg/Kg	✱	79	62 - 130	2	50
Pentachlorophenol	0.37	U	7.52	7.38		mg/Kg	✱	98	38 - 131	3	50
Phenanthrene	0.031	U	3.76	3.07		mg/Kg	✱	82	61 - 130	1	50
Phenol	0.039	U	3.76	2.34		mg/Kg	✱	62	46 - 130	8	50
Pyrene	0.031	U	3.76	3.10		mg/Kg	✱	82	59 - 130	1	50
2,4,5-Trichlorophenol	0.040	U	3.76	3.13		mg/Kg	✱	83	60 - 130	2	50
2,4,6-Trichlorophenol	0.033	U	3.76	3.37		mg/Kg	✱	90	53 - 130	9	50

Surrogate	MSD %Recovery	MSD Qualifier	Limits
2-Fluorobiphenyl	79		41 - 116
2-Fluorophenol (Surr)	71		39 - 114
Nitrobenzene-d5 (Surr)	69		37 - 115
Phenol-d5 (Surr)	68		38 - 122
Terphenyl-d14 (Surr)	90		46 - 126
2,4,6-Tribromophenol (Surr)	102		45 - 129

## Method: 6010C - Metals (ICP)

Lab Sample ID: MB 680-398487/1-A

Matrix: Solid

Analysis Batch: 398685

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 398487

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	0.73	U	1.8	0.73	mg/Kg		08/28/15 08:33	08/29/15 03:22	1
Barium	0.15	U	0.91	0.15	mg/Kg		08/28/15 08:33	08/29/15 03:22	1
Beryllium	0.0091	U	0.36	0.0091	mg/Kg		08/28/15 08:33	08/29/15 03:22	1

TestAmerica Savannah

# QC Sample Results

Client: Geotechnical & Environmental Consultants  
Project/Site: Macon MGP #2

TestAmerica Job ID: 680-116110-1

## Method: 6010C - Metals (ICP) (Continued)

Lab Sample ID: MB 680-398487/1-A

Matrix: Solid

Analysis Batch: 398685

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 398487

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cadmium	0.091	U	0.45	0.091	mg/Kg		08/28/15 08:33	08/29/15 03:22	1
Chromium	0.19	U	0.91	0.19	mg/Kg		08/28/15 08:33	08/29/15 03:22	1
Copper	0.15	U	2.3	0.15	mg/Kg		08/28/15 08:33	08/29/15 03:22	1
Lead	0.31	U	0.91	0.31	mg/Kg		08/28/15 08:33	08/29/15 03:22	1
Nickel	0.35	U	3.6	0.35	mg/Kg		08/28/15 08:33	08/29/15 03:22	1
Selenium	0.88	U	2.3	0.88	mg/Kg		08/28/15 08:33	08/29/15 03:22	1
Silver	0.055	U	0.91	0.055	mg/Kg		08/28/15 08:33	08/29/15 03:22	1
Vanadium	0.091	U	0.91	0.091	mg/Kg		08/28/15 08:33	08/29/15 03:22	1
Zinc	0.64	U	1.8	0.64	mg/Kg		08/28/15 08:33	08/29/15 03:22	1

Lab Sample ID: LCS 680-398487/2-A

Matrix: Solid

Analysis Batch: 398685

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 398487

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Arsenic	9.35	10.1		mg/Kg		108	80 - 120
Barium	9.35	9.19		mg/Kg		98	80 - 120
Beryllium	4.67	5.02		mg/Kg		107	80 - 120
Cadmium	4.67	4.88		mg/Kg		105	80 - 120
Chromium	9.35	9.77		mg/Kg		104	80 - 120
Copper	9.35	9.57		mg/Kg		102	80 - 120
Lead	46.7	45.9		mg/Kg		98	80 - 120
Nickel	9.35	9.58		mg/Kg		103	80 - 120
Selenium	9.35	9.37		mg/Kg		100	80 - 120
Silver	4.67	4.57		mg/Kg		98	80 - 120
Vanadium	9.35	9.62		mg/Kg		103	80 - 120
Zinc	9.35	9.84		mg/Kg		105	80 - 120

Lab Sample ID: 680-116110-1 MS

Matrix: Solid

Analysis Batch: 398685

Client Sample ID: GB-5 13-15

Prep Type: Total/NA

Prep Batch: 398487

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Arsenic	1.2	J	10.4	11.9		mg/Kg	☼	103	75 - 125
Barium	2.0	F2 F1	10.4	11.2		mg/Kg	☼	88	75 - 125
Beryllium	0.082	J	5.18	5.60		mg/Kg	☼	106	75 - 125
Cadmium	0.10	U	5.18	5.32		mg/Kg	☼	103	75 - 125
Chromium	1.6		10.4	12.7		mg/Kg	☼	107	75 - 125
Copper	1.5	J F2 F1	10.4	11.3		mg/Kg	☼	94	75 - 125
Lead	1.4		51.8	51.3		mg/Kg	☼	96	75 - 125
Nickel	0.40	U	10.4	10.8		mg/Kg	☼	104	75 - 125
Selenium	1.0	U	10.4	10.0		mg/Kg	☼	97	75 - 125
Silver	0.063	U	5.18	4.70		mg/Kg	☼	91	75 - 125
Vanadium	3.8	F2 F1	10.4	13.7		mg/Kg	☼	95	75 - 125
Zinc	1.6	J F2 F1	10.4	11.8		mg/Kg	☼	98	75 - 125

TestAmerica Savannah

# QC Sample Results

Client: Geotechnical & Environmental Consultants  
Project/Site: Macon MGP #2

TestAmerica Job ID: 680-116110-1

## Method: 6010C - Metals (ICP) (Continued)

Lab Sample ID: 680-116110-1 MSD

Matrix: Solid

Analysis Batch: 398685

Client Sample ID: GB-5 13-15

Prep Type: Total/NA

Prep Batch: 398487

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Arsenic	1.2	J	10.6	12.5		mg/Kg	☼	106	75 - 125	5	20
Barium	2.0	F2 F1	10.6	17.7	F1 F2	mg/Kg	☼	149	75 - 125	45	20
Beryllium	0.082	J	5.28	5.87		mg/Kg	☼	110	75 - 125	5	20
Cadmium	0.10	U	5.28	5.44		mg/Kg	☼	103	75 - 125	2	20
Chromium	1.6		10.6	13.7		mg/Kg	☼	114	75 - 125	7	20
Copper	1.5	J F2 F1	10.6	15.2	F1 F2	mg/Kg	☼	129	75 - 125	29	20
Lead	1.4		52.8	53.6		mg/Kg	☼	99	75 - 125	4	20
Nickel	0.40	U	10.6	11.5		mg/Kg	☼	109	75 - 125	7	20
Selenium	1.0	U	10.6	9.96		mg/Kg	☼	94	75 - 125	1	20
Silver	0.063	U	5.28	4.90		mg/Kg	☼	93	75 - 125	4	20
Vanadium	3.8	F2 F1	10.6	18.2	F1 F2	mg/Kg	☼	137	75 - 125	29	20
Zinc	1.6	J F2 F1	10.6	15.0	F1 F2	mg/Kg	☼	127	75 - 125	24	20

## Method: 7471B - Mercury (CVAA)

Lab Sample ID: MB 680-399355/13-A

Matrix: Solid

Analysis Batch: 399700

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 399355

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.0075	U	0.019	0.0075	mg/Kg		09/03/15 09:02	09/04/15 15:10	1

Lab Sample ID: LCS 680-399355/14-A

Matrix: Solid

Analysis Batch: 399700

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 399355

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits
Mercury	0.227	0.232		mg/Kg		102	80 - 120

## Method: 9012B - Cyanide, Total and/or Amenable

Lab Sample ID: MB 680-398946/1-A

Matrix: Solid

Analysis Batch: 399014

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 398946

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total	0.21	U	0.50	0.21	mg/Kg		09/01/15 09:30	09/01/15 12:01	1

Lab Sample ID: LCS 680-398946/2-A

Matrix: Solid

Analysis Batch: 399014

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 398946

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits
Cyanide, Total	5.00	5.10		mg/Kg		102	75 - 125

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# QC Sample Results

Client: Geotechnical & Environmental Consultants  
Project/Site: Macon MGP #2

TestAmerica Job ID: 680-116110-1

## Method: 9012B - Cyanide, Total andor Amenable (Continued)

Lab Sample ID: 680-116110-1 MS

Matrix: Solid

Analysis Batch: 399014

Client Sample ID: GB-5 13-15

Prep Type: Total/NA

Prep Batch: 398946

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Cyanide, Total	0.24	U	5.81	5.92		mg/Kg	☼	102	75 - 125

Lab Sample ID: 680-116110-1 MSD

Matrix: Solid

Analysis Batch: 399014

Client Sample ID: GB-5 13-15

Prep Type: Total/NA

Prep Batch: 398946

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Cyanide, Total	0.24	U	5.69	5.86		mg/Kg	☼	103	75 - 125	1	30

# QC Association Summary

Client: Geotechnical & Environmental Consultants  
Project/Site: Macon MGP #2

TestAmerica Job ID: 680-116110-1

## GC/MS VOA

### Prep Batch: 398538

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-116110-1	GB-5 13-15	Total/NA	Solid	5035	
680-116110-2	GB-5 18	Total/NA	Solid	5035	

### Analysis Batch: 399189

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-116110-2	GB-5 18	Total/NA	Solid	8260B	398538
LCS 680-399189/3	Lab Control Sample	Total/NA	Solid	8260B	
LCSD 680-399189/4	Lab Control Sample Dup	Total/NA	Solid	8260B	
MB 680-399189/6	Method Blank	Total/NA	Solid	8260B	

### Analysis Batch: 399391

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-116110-1	GB-5 13-15	Total/NA	Solid	8260B	398538
LCS 680-399391/4	Lab Control Sample	Total/NA	Solid	8260B	
LCSD 680-399391/5	Lab Control Sample Dup	Total/NA	Solid	8260B	
MB 680-399391/8	Method Blank	Total/NA	Solid	8260B	

## GC/MS Semi VOA

### Prep Batch: 398884

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-116110-1	GB-5 13-15	Total/NA	Solid	3546	
680-116110-2	GB-5 18	Total/NA	Solid	3546	
680-116110-3	GB-19 13-15	Total/NA	Solid	3546	
680-116110-3 MS	GB-19 13-15	Total/NA	Solid	3546	
680-116110-3 MSD	GB-19 13-15	Total/NA	Solid	3546	
680-116110-4	GB-21 13-15	Total/NA	Solid	3546	
LCS 680-398884/11-A	Lab Control Sample	Total/NA	Solid	3546	
MB 680-398884/10-A	Method Blank	Total/NA	Solid	3546	

### Analysis Batch: 399055

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 680-398884/10-A	Method Blank	Total/NA	Solid	8270D	398884

### Analysis Batch: 399288

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-116110-1	GB-5 13-15	Total/NA	Solid	8270D	398884
680-116110-2	GB-5 18	Total/NA	Solid	8270D	398884
680-116110-3	GB-19 13-15	Total/NA	Solid	8270D	398884
680-116110-3 MS	GB-19 13-15	Total/NA	Solid	8270D	398884
680-116110-3 MSD	GB-19 13-15	Total/NA	Solid	8270D	398884
680-116110-4	GB-21 13-15	Total/NA	Solid	8270D	398884
LCS 680-398884/11-A	Lab Control Sample	Total/NA	Solid	8270D	398884

## Metals

### Prep Batch: 398487

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-116110-1	GB-5 13-15	Total/NA	Solid	3050B	
680-116110-1 MS	GB-5 13-15	Total/NA	Solid	3050B	

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# QC Association Summary

Client: Geotechnical & Environmental Consultants  
Project/Site: Macon MGP #2

TestAmerica Job ID: 680-116110-1

## Metals (Continued)

### Prep Batch: 398487 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-116110-1 MSD	GB-5 13-15	Total/NA	Solid	3050B	
680-116110-2	GB-5 18	Total/NA	Solid	3050B	
680-116110-3	GB-19 13-15	Total/NA	Solid	3050B	
680-116110-4	GB-21 13-15	Total/NA	Solid	3050B	
LCS 680-398487/2-A	Lab Control Sample	Total/NA	Solid	3050B	
MB 680-398487/1-A	Method Blank	Total/NA	Solid	3050B	

### Analysis Batch: 398685

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-116110-1	GB-5 13-15	Total/NA	Solid	6010C	398487
680-116110-1 MS	GB-5 13-15	Total/NA	Solid	6010C	398487
680-116110-1 MSD	GB-5 13-15	Total/NA	Solid	6010C	398487
680-116110-2	GB-5 18	Total/NA	Solid	6010C	398487
680-116110-3	GB-19 13-15	Total/NA	Solid	6010C	398487
680-116110-4	GB-21 13-15	Total/NA	Solid	6010C	398487
LCS 680-398487/2-A	Lab Control Sample	Total/NA	Solid	6010C	398487
MB 680-398487/1-A	Method Blank	Total/NA	Solid	6010C	398487

### Prep Batch: 399355

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-116110-1	GB-5 13-15	Total/NA	Solid	7471B	
680-116110-2	GB-5 18	Total/NA	Solid	7471B	
680-116110-3	GB-19 13-15	Total/NA	Solid	7471B	
680-116110-4	GB-21 13-15	Total/NA	Solid	7471B	
LCS 680-399355/14-A	Lab Control Sample	Total/NA	Solid	7471B	
MB 680-399355/13-A	Method Blank	Total/NA	Solid	7471B	

### Analysis Batch: 399700

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-116110-1	GB-5 13-15	Total/NA	Solid	7471B	399355
680-116110-2	GB-5 18	Total/NA	Solid	7471B	399355
680-116110-3	GB-19 13-15	Total/NA	Solid	7471B	399355
680-116110-4	GB-21 13-15	Total/NA	Solid	7471B	399355
LCS 680-399355/14-A	Lab Control Sample	Total/NA	Solid	7471B	399355
MB 680-399355/13-A	Method Blank	Total/NA	Solid	7471B	399355

## General Chemistry

### Analysis Batch: 398502

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-116110-1	GB-5 13-15	Total/NA	Solid	Moisture	
680-116110-2	GB-5 18	Total/NA	Solid	Moisture	
680-116110-3	GB-19 13-15	Total/NA	Solid	Moisture	
680-116110-4	GB-21 13-15	Total/NA	Solid	Moisture	

### Prep Batch: 398946

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-116110-1	GB-5 13-15	Total/NA	Solid	9012B	
680-116110-1 MS	GB-5 13-15	Total/NA	Solid	9012B	
680-116110-1 MSD	GB-5 13-15	Total/NA	Solid	9012B	

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## QC Association Summary

Client: Geotechnical & Environmental Consultants  
Project/Site: Macon MGP #2

TestAmerica Job ID: 680-116110-1

### General Chemistry (Continued)

#### Prep Batch: 398946 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-116110-2	GB-5 18	Total/NA	Solid	9012B	
680-116110-3	GB-19 13-15	Total/NA	Solid	9012B	
680-116110-4	GB-21 13-15	Total/NA	Solid	9012B	
LCS 680-398946/2-A	Lab Control Sample	Total/NA	Solid	9012B	
MB 680-398946/1-A	Method Blank	Total/NA	Solid	9012B	

#### Analysis Batch: 399014

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-116110-1	GB-5 13-15	Total/NA	Solid	9012B	398946
680-116110-1 MS	GB-5 13-15	Total/NA	Solid	9012B	398946
680-116110-1 MSD	GB-5 13-15	Total/NA	Solid	9012B	398946
680-116110-2	GB-5 18	Total/NA	Solid	9012B	398946
680-116110-3	GB-19 13-15	Total/NA	Solid	9012B	398946
680-116110-4	GB-21 13-15	Total/NA	Solid	9012B	398946
LCS 680-398946/2-A	Lab Control Sample	Total/NA	Solid	9012B	398946
MB 680-398946/1-A	Method Blank	Total/NA	Solid	9012B	398946

# Lab Chronicle

Client: Geotechnical & Environmental Consultants  
Project/Site: Macon MGP #2

TestAmerica Job ID: 680-116110-1

**Client Sample ID: GB-5 13-15**

**Date Collected: 08/24/15 15:08**

**Date Received: 08/27/15 09:45**

**Lab Sample ID: 680-116110-1**

**Matrix: Solid**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1			398502	08/28/15 09:46	FES	TAL SAV
Instrument ID: NOEQUIP										

**Client Sample ID: GB-5 13-15**

**Date Collected: 08/24/15 15:08**

**Date Received: 08/27/15 09:45**

**Lab Sample ID: 680-116110-1**

**Matrix: Solid**

**Percent Solids: 86.1**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			6.454 g	5 mL	398538	08/28/15 11:33	FES	TAL SAV
Total/NA	Analysis	8260B		1	6.454 g	5 mL	399391	09/03/15 20:23	DJK	TAL SAV
Instrument ID: CMSL										
Total/NA	Prep	3546			30.04 g	1 mL	398884	09/01/15 10:13	JMV	TAL SAV
Total/NA	Analysis	8270D		1	30.04 g	1 mL	399288	09/02/15 19:27	NED	TAL SAV
Instrument ID: CMSG										
Total/NA	Prep	3050B			1.11 g	100 mL	398487	08/28/15 08:33	CDD	TAL SAV
Total/NA	Analysis	6010C		1	1.11 g	100 mL	398685	08/29/15 03:30	BCB	TAL SAV
Instrument ID: ICPE										
Total/NA	Prep	7471B			0.55 g	50 mL	399355	09/03/15 09:02	JKL	TAL SAV
Total/NA	Analysis	7471B		1	0.55 g	50 mL	399700	09/04/15 15:55	BCB	TAL SAV
Instrument ID: LEEMAN2										
Total/NA	Prep	9012B			1.00 g	50 mL	398946	09/01/15 09:30	DAM	TAL SAV
Total/NA	Analysis	9012B		1	1.00 g	50 mL	399014	09/01/15 12:03	DAM	TAL SAV
Instrument ID: LACHAT1										

**Client Sample ID: GB-5 18**

**Date Collected: 08/24/15 15:17**

**Date Received: 08/27/15 09:45**

**Lab Sample ID: 680-116110-2**

**Matrix: Solid**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1			398502	08/28/15 09:46	FES	TAL SAV
Instrument ID: NOEQUIP										

**Client Sample ID: GB-5 18**

**Date Collected: 08/24/15 15:17**

**Date Received: 08/27/15 09:45**

**Lab Sample ID: 680-116110-2**

**Matrix: Solid**

**Percent Solids: 85.4**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			6.455 g	5 mL	398538	08/28/15 11:33	FES	TAL SAV
Total/NA	Analysis	8260B		1	6.455 g	5 mL	399189	09/02/15 19:49	DJK	TAL SAV
Instrument ID: CMSL										
Total/NA	Prep	3546			30.06 g	1 mL	398884	09/01/15 10:13	JMV	TAL SAV
Total/NA	Analysis	8270D		1	30.06 g	1 mL	399288	09/02/15 19:51	NED	TAL SAV
Instrument ID: CMSG										

TestAmerica Savannah

# Lab Chronicle

Client: Geotechnical & Environmental Consultants  
Project/Site: Macon MGP #2

TestAmerica Job ID: 680-116110-1

**Client Sample ID: GB-5 18**

**Date Collected: 08/24/15 15:17**

**Date Received: 08/27/15 09:45**

**Lab Sample ID: 680-116110-2**

**Matrix: Solid**

**Percent Solids: 85.4**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			1.18 g	100 mL	398487	08/28/15 08:33	CDD	TAL SAV
Total/NA	Analysis	6010C		1	1.18 g	100 mL	398685	08/29/15 03:55	BCB	TAL SAV
		Instrument ID: ICPE								
Total/NA	Prep	7471B			0.56 g	50 mL	399355	09/03/15 09:02	JKL	TAL SAV
Total/NA	Analysis	7471B		1	0.56 g	50 mL	399700	09/04/15 15:58	BCB	TAL SAV
		Instrument ID: LEEMAN2								
Total/NA	Prep	9012B			1.01 g	50 mL	398946	09/01/15 09:30	DAM	TAL SAV
Total/NA	Analysis	9012B		1	1.01 g	50 mL	399014	09/01/15 12:07	DAM	TAL SAV
		Instrument ID: LACHAT1								

**Client Sample ID: GB-19 13-15**

**Date Collected: 08/25/15 11:30**

**Date Received: 08/27/15 09:45**

**Lab Sample ID: 680-116110-3**

**Matrix: Solid**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1			398502	08/28/15 09:46	FES	TAL SAV
		Instrument ID: NOEQUIP								

**Client Sample ID: GB-19 13-15**

**Date Collected: 08/25/15 11:30**

**Date Received: 08/27/15 09:45**

**Lab Sample ID: 680-116110-3**

**Matrix: Solid**

**Percent Solids: 88.3**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3546			29.94 g	1 mL	398884	09/01/15 10:13	JMV	TAL SAV
Total/NA	Analysis	8270D		1	29.94 g	1 mL	399288	09/02/15 20:15	NED	TAL SAV
		Instrument ID: CMSG								
Total/NA	Prep	3050B			1.16 g	100 mL	398487	08/28/15 08:33	CDD	TAL SAV
Total/NA	Analysis	6010C		1	1.16 g	100 mL	398685	08/29/15 04:08	BCB	TAL SAV
		Instrument ID: ICPE								
Total/NA	Prep	7471B			0.57 g	50 mL	399355	09/03/15 09:02	JKL	TAL SAV
Total/NA	Analysis	7471B		1	0.57 g	50 mL	399700	09/04/15 16:01	BCB	TAL SAV
		Instrument ID: LEEMAN2								
Total/NA	Prep	9012B			1.05 g	50 mL	398946	09/01/15 09:30	DAM	TAL SAV
Total/NA	Analysis	9012B		1	1.05 g	50 mL	399014	09/01/15 12:08	DAM	TAL SAV
		Instrument ID: LACHAT1								

**Client Sample ID: GB-21 13-15**

**Date Collected: 08/25/15 11:50**

**Date Received: 08/27/15 09:45**

**Lab Sample ID: 680-116110-4**

**Matrix: Solid**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1			398502	08/28/15 09:46	FES	TAL SAV
		Instrument ID: NOEQUIP								

TestAmerica Savannah

# Lab Chronicle

Client: Geotechnical & Environmental Consultants  
Project/Site: Macon MGP #2

TestAmerica Job ID: 680-116110-1

**Client Sample ID: GB-21 13-15**

**Lab Sample ID: 680-116110-4**

**Date Collected: 08/25/15 11:50**

**Matrix: Solid**

**Date Received: 08/27/15 09:45**

**Percent Solids: 87.8**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3546			30.37 g	1 mL	398884	09/01/15 10:13	JMV	TAL SAV
Total/NA	Analysis	8270D		1	30.37 g	1 mL	399288	09/02/15 20:39	NED	TAL SAV
		Instrument ID: CMSG								
Total/NA	Prep	3050B			1.14 g	100 mL	398487	08/28/15 08:33	CDD	TAL SAV
Total/NA	Analysis	6010C		1	1.14 g	100 mL	398685	08/29/15 04:13	BCB	TAL SAV
		Instrument ID: ICPE								
Total/NA	Prep	7471B			0.57 g	50 mL	399355	09/03/15 09:02	JKL	TAL SAV
Total/NA	Analysis	7471B		1	0.57 g	50 mL	399700	09/04/15 16:04	BCB	TAL SAV
		Instrument ID: LEEMAN2								
Total/NA	Prep	9012B			1.01 g	50 mL	398946	09/01/15 09:30	DAM	TAL SAV
Total/NA	Analysis	9012B		1	1.01 g	50 mL	399014	09/01/15 12:09	DAM	TAL SAV
		Instrument ID: LACHAT1								

## Laboratory References:

TAL SAV = TestAmerica Savannah, 5102 LaRoche Avenue, Savannah, GA 31404, TEL (912)354-7858

# Certification Summary

Client: Geotechnical & Environmental Consultants  
Project/Site: Macon MGP #2

TestAmerica Job ID: 680-116110-1

## Laboratory: TestAmerica Savannah

All certifications held by this laboratory are listed. Not all certifications are applicable to this report.

Authority	Program	EPA Region	Certification ID	Expiration Date
	AFCEE		SAVLAB	
A2LA	DoD ELAP		399.01	02-28-17
A2LA	ISO/IEC 17025		399.01	02-28-17
Alabama	State Program	4	41450	06-30-16
Arkansas DEQ	State Program	6	88-0692	01-31-16
California	State Program	9	2939	07-31-16
Colorado	State Program	8	N/A	12-31-15
Connecticut	State Program	1	PH-0161	03-31-17
Florida	NELAP	4	E87052	06-30-16
GA Dept. of Agriculture	State Program	4	N/A	06-12-17
Georgia	State Program	4	803	06-30-16
Guam	State Program	9	14-004r	04-16-16
Hawaii	State Program	9	N/A	06-30-16
Illinois	NELAP	5	200022	11-30-15
Indiana	State Program	5	N/A	06-30-15 *
Iowa	State Program	7	353	06-30-17
Kentucky (DW)	State Program	4	90084	12-31-15
Kentucky (UST)	State Program	4	18	06-30-16
Kentucky (WW)	State Program	4	90084	12-31-15
Louisiana	NELAP	6	30690	06-30-16
Louisiana (DW)	NELAP	6	LA150014	12-31-15
Maine	State Program	1	GA00006	09-24-16
Maryland	State Program	3	250	12-31-15
Massachusetts	State Program	1	M-GA006	06-30-16
Michigan	State Program	5	9925	03-05-16
Mississippi	State Program	4	N/A	06-30-15 *
Montana	State Program	8	CERT0081	12-31-15
Nebraska	State Program	7	TestAmerica-Savannah	06-30-16
New Jersey	NELAP	2	GA769	09-30-15 *
New Mexico	State Program	6	N/A	06-30-16
New York	NELAP	2	10842	03-31-16
North Carolina (DW)	State Program	4	13701	07-31-16
North Carolina (WW/SW)	State Program	4	269	12-31-15
Oklahoma	State Program	6	9984	08-31-15 *
Pennsylvania	NELAP	3	68-00474	06-30-16
Puerto Rico	State Program	2	GA00006	12-31-15
South Carolina	State Program	4	98001	06-30-15 *
Tennessee	State Program	4	TN02961	06-30-16
Texas	NELAP	6	T104704185-14-7	11-30-15
USDA	Federal		SAV 3-04	06-11-17
Virginia	NELAP	3	460161	06-14-16
Washington	State Program	10	C805	06-10-16
West Virginia (DW)	State Program	3	9950C	12-31-15
West Virginia DEP	State Program	3	094	06-30-16
Wisconsin	State Program	5	999819810	08-31-16
Wyoming	State Program	8	8TMS-L	06-30-16

\* Certification renewal pending - certification considered valid.

TestAmerica Savannah

## Method Summary

Client: Geotechnical & Environmental Consultants  
Project/Site: Macon MGP #2

TestAmerica Job ID: 680-116110-1

Method	Method Description	Protocol	Laboratory
8260B	Volatile Organic Compounds (GC/MS)	SW846	TAL SAV
8270D	Semivolatile Organic Compounds (GC/MS)	SW846	TAL SAV
6010C	Metals (ICP)	SW846	TAL SAV
7471B	Mercury (CVAA)	SW846	TAL SAV
9012B	Cyanide, Total and/or Amenable	SW846	TAL SAV
Moisture	Percent Moisture	EPA	TAL SAV

### Protocol References:

EPA = US Environmental Protection Agency

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

### Laboratory References:

TAL SAV = TestAmerica Savannah, 5102 LaRoche Avenue, Savannah, GA 31404, TEL (912)354-7858

Serial Number 99578

### ANALYSIS REQUEST AND CHAIN OF CUSTODY RECORD

# TestAmerica

**TestAmerica Savannah**  
5102 LaRoche Avenue  
Savannah, GA 31404

Website: [www.testamericainc.com](http://www.testamericainc.com)  
Phone: (912) 354-7858  
Fax: (912) 352-0165

○ Alternate Laboratory Name/Location

Phone: \_\_\_\_\_  
Fax: \_\_\_\_\_

## THE LEADER IN ENVIRONMENTAL TESTING

PROJECT REFERENCE		PROJECT NO.		PROJECT LOCATION (STATE)		MATRIX TYPE		REQUIRED ANALYSIS		PAGE		9F	
PROJECT NO.		P.O. NUMBER		CONTRACT NO.		CLIENT NO.		CLIENT FAX		STANDARD REPORT DELIVERY		DATE DUE	
CLIENT NAME		CLIENT PHONE		CLIENT E-MAIL		CLIENT ADDRESS		CLIENT FAX		EXPEDITED REPORT DELIVERY (SURCHARGE)		DATE DUE	
CLIENT ADDRESS		CLIENT PHONE		CLIENT E-MAIL		CLIENT ADDRESS		CLIENT FAX		EXPEDITED REPORT DELIVERY (SURCHARGE)		DATE DUE	
COMPANY CONTRACTING THIS WORK (if applicable)		PROJECT NO.		PROJECT LOCATION (STATE)		MATRIX TYPE		REQUIRED ANALYSIS		PAGE		9F	
Macon MGP #2		130459.241		GA		CONTRACT NO.		PROJECT NO.		1		9	
John Reynolds		6-059CH				CLIENT NO.		PROJECT NO.					
Carrie Holder		210-872-8016				CLIENT FAX		PROJECT NO.					
C EC		choberfield@geconsulab.com				CLIENT E-MAIL		PROJECT NO.					
514 Hillcrest Blvd, Macon GA						CLIENT ADDRESS		PROJECT NO.					
						CLIENT FAX		PROJECT NO.					
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						CLIENT FAX		PROJECT NO.					



## Login Sample Receipt Checklist

Client: Geotechnical & Environmental Consultants

Job Number: 680-116110-1

**Login Number: 116110**

**List Source: TestAmerica Savannah**

**List Number: 1**

**Creator: Kicklighter, Marilyn D**

Question	Answer	Comment
Radioactivity wasn't checked or is $\leq$ background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	N/A	
There are no discrepancies between the containers received and the COC.	False	Trip Blank was listed on the COC but not received.
Samples are received within Holding Time.	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is $<6\text{mm}$ (1/4").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

# TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

## ANALYTICAL REPORT

TestAmerica Laboratories, Inc.

TestAmerica Savannah

5102 LaRoche Avenue

Savannah, GA 31404

Tel: (912)354-7858

TestAmerica Job ID: 680-115715-1

Client Project/Site: Macon MGP - Air Sampling

For:

Geotechnical & Environmental Consultants

514 Hillcrest Industrial Blvd.

Macon, Georgia 31204

Attn: Carrie Holderfield



Authorized for release by:

8/26/2015 6:44:37 PM

Lisa Harvey, Project Manager II

(912)354-7858 e.3221

[lisa.harvey@testamericainc.com](mailto:lisa.harvey@testamericainc.com)

### LINKS

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results through

TotalAccess

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

The test results in this report meet all 2003 NELAC and 2009 TNI requirements for accredited parameters, exceptions are noted in this report. This report may not be reproduced except in full, and with written approval from the laboratory. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

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## Definitions/Glossary

Client: Geotechnical & Environmental Consultants  
Project/Site: Macon MGP - Air Sampling

TestAmerica Job ID: 680-115715-1

### Qualifiers

#### Air - GC/MS VOA

Qualifier	Qualifier Description
U	Indicates the analyte was analyzed for but not detected.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
B	Compound was found in the blank and sample.

### Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
α	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CNF	Contains no Free Liquid
DER	Duplicate error ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision level concentration
MDA	Minimum detectable activity
EDL	Estimated Detection Limit
MDC	Minimum detectable concentration
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
NC	Not Calculated
ND	Not detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RER	Relative error ratio
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

## Sample Summary

Client: Geotechnical & Environmental Consultants  
Project/Site: Macon MGP - Air Sampling

TestAmerica Job ID: 680-115715-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
680-115715-1	VS-1 GB-7 10-ft	Air	08/13/15 09:31	08/17/15 11:45
680-115715-2	VS-2 GB-7 5-ft	Air	08/13/15 09:50	08/17/15 11:45
680-115715-3	VS-3 GB-5 5-ft	Air	08/13/15 10:05	08/17/15 11:45
680-115715-4	VS-4 GB-5 8-ft	Air	08/13/15 10:31	08/17/15 11:45

## Case Narrative

Client: Geotechnical & Environmental Consultants  
Project/Site: Macon MGP - Air Sampling

TestAmerica Job ID: 680-115715-1

**Job ID: 680-115715-1**

**Laboratory: TestAmerica Savannah**

### Narrative

#### CASE NARRATIVE

**Client: Geotechnical & Environmental Consultants**

**Project: Macon MGP - Air Sampling**

**Report Number: 680-115715-1**

With the exceptions noted as flags or footnotes, standard analytical protocols were followed in the analysis of the samples and no problems were encountered or anomalies observed. In addition all laboratory quality control samples were within established control limits, with any exceptions noted below. Each sample was analyzed to achieve the lowest possible reporting limit within the constraints of the method. In the event of interference or analytes present at high concentrations, samples may be diluted. For diluted samples, the reporting limits are adjusted relative to the dilution required.

#### RECEIPT

The samples were received on 08/17/2015; the samples arrived in good condition. Samples were received without ice as required.

#### VOLATILE ORGANIC COMPOUNDS IN AMBIENT AIR

Samples VS-1 GB-7 10-ft (680-115715-1), VS-2 GB-7 5-ft (680-115715-2), VS-3 GB-5 5-ft (680-115715-3) and VS-4 GB-5 8-ft (680-115715-4) were analyzed for Volatile Organic Compounds in Ambient Air in accordance with EPA Method TO-15. The samples were analyzed on 08/18/2015.

Method(s) TO 15 LL, TO-15: EPA methods TO-14A and TO-15 specify the use of humidified "zero air" as the blank reagent for canister cleaning, instrument calibration and sample analysis. Ultra-high purity humidified nitrogen from a cryogenic reservoir is used in place of "zero air" by TestAmerica Knoxville.

Method(s) TO-15: The following sample was diluted due to the abundance of non-target analytes: VS-4 GB-5 8-ft (680-115715-4). Elevated reporting limits (RLs) are provided.

4-Methyl-2-pentanone (MIBK) and Methylene Chloride were detected in method blank MB 140-3242/4 at levels that were above the method detection limit but below the reporting limit. The values should be considered estimates, and have been flagged. If the associated sample reported a result above the MDL and/or RL, the result has been flagged. Refer to the QC report for details.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

# Client Sample Results

Client: Geotechnical & Environmental Consultants  
Project/Site: Macon MGP - Air Sampling

TestAmerica Job ID: 680-115715-1

**Client Sample ID: VS-1 GB-7 10-ft**

**Lab Sample ID: 680-115715-1**

**Date Collected: 08/13/15 09:31**

**Matrix: Air**

**Date Received: 08/17/15 11:45**

**Sample Container: Summa Canister 6L**

## Method: TO-15 - Volatile Organic Compounds in Ambient Air

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Acetone</b>	<b>9.8</b>		5.0	1.4	ppb v/v			08/18/15 16:26	1
<b>Benzene</b>	<b>0.16</b>	<b>J</b>	0.20	0.056	ppb v/v			08/18/15 16:26	1
Benzyl chloride	0.80	U	0.80	0.078	ppb v/v			08/18/15 16:26	1
Bromodichloromethane	0.20	U	0.20	0.044	ppb v/v			08/18/15 16:26	1
Bromoform	0.20	U	0.20	0.048	ppb v/v			08/18/15 16:26	1
Bromomethane	0.20	U	0.20	0.032	ppb v/v			08/18/15 16:26	1
<b>2-Butanone (MEK)</b>	<b>0.92</b>	<b>J</b>	1.0	0.20	ppb v/v			08/18/15 16:26	1
<b>Carbon disulfide</b>	<b>1.5</b>		0.50	0.031	ppb v/v			08/18/15 16:26	1
<b>Carbon tetrachloride</b>	<b>0.079</b>	<b>J</b>	0.20	0.038	ppb v/v			08/18/15 16:26	1
Chlorobenzene	0.20	U	0.20	0.049	ppb v/v			08/18/15 16:26	1
<b>Chloroethane</b>	<b>0.20</b>	<b>J</b>	0.80	0.035	ppb v/v			08/18/15 16:26	1
Chloroform	0.20	U	0.20	0.038	ppb v/v			08/18/15 16:26	1
<b>Chloromethane</b>	<b>1.1</b>		0.50	0.16	ppb v/v			08/18/15 16:26	1
cis-1,2-Dichloroethene	0.20	U	0.20	0.060	ppb v/v			08/18/15 16:26	1
cis-1,3-Dichloropropene	0.20	U	0.20	0.074	ppb v/v			08/18/15 16:26	1
Cyclohexane	0.50	U	0.50	0.040	ppb v/v			08/18/15 16:26	1
Dibromochloromethane	0.20	U	0.20	0.042	ppb v/v			08/18/15 16:26	1
1,2-Dibromoethane (EDB)	0.20	U	0.20	0.044	ppb v/v			08/18/15 16:26	1
1,2-Dichlorobenzene	0.20	U	0.20	0.070	ppb v/v			08/18/15 16:26	1
1,3-Dichlorobenzene	0.20	U	0.20	0.065	ppb v/v			08/18/15 16:26	1
1,4-Dichlorobenzene	0.20	U	0.20	0.064	ppb v/v			08/18/15 16:26	1
<b>Dichlorodifluoromethane</b>	<b>0.42</b>	<b>J</b>	0.50	0.068	ppb v/v			08/18/15 16:26	1
1,1-Dichloroethane	0.20	U	0.20	0.026	ppb v/v			08/18/15 16:26	1
1,2-Dichloroethane	0.20	U	0.20	0.047	ppb v/v			08/18/15 16:26	1
1,1-Dichloroethene	0.20	U	0.20	0.034	ppb v/v			08/18/15 16:26	1
1,2-Dichloropropane	0.20	U	0.20	0.052	ppb v/v			08/18/15 16:26	1
1,2-Dichloro-1,1,2,2-tetrafluoroethane	0.20	U	0.20	0.032	ppb v/v			08/18/15 16:26	1
1,4-Dioxane	5.0	U	5.0	0.080	ppb v/v			08/18/15 16:26	1
Ethylbenzene	0.20	U	0.20	0.068	ppb v/v			08/18/15 16:26	1
Hexachlorobutadiene	0.20	U	0.20	0.078	ppb v/v			08/18/15 16:26	1
<b>Hexane</b>	<b>0.72</b>	<b>J</b>	0.80	0.032	ppb v/v			08/18/15 16:26	1
<b>Isopropyl alcohol</b>	<b>0.47</b>	<b>J</b>	5.0	0.094	ppb v/v			08/18/15 16:26	1
Isopropylbenzene	0.80	U	0.80	0.060	ppb v/v			08/18/15 16:26	1
<b>Methylene Chloride</b>	<b>0.32</b>	<b>J B</b>	0.50	0.13	ppb v/v			08/18/15 16:26	1
<b>4-Methyl-2-pentanone (MIBK)</b>	<b>0.61</b>	<b>B</b>	0.50	0.045	ppb v/v			08/18/15 16:26	1
Methyl tert-butyl ether	1.0	U	1.0	0.17	ppb v/v			08/18/15 16:26	1
<b>m-Xylene &amp; p-Xylene</b>	<b>0.17</b>	<b>J</b>	0.80	0.12	ppb v/v			08/18/15 16:26	1
Naphthalene	0.50	U	0.50	0.090	ppb v/v			08/18/15 16:26	1
<b>o-Xylene</b>	<b>0.061</b>	<b>J</b>	0.20	0.061	ppb v/v			08/18/15 16:26	1
Styrene	0.20	U	0.20	0.058	ppb v/v			08/18/15 16:26	1
1,1,1,2-Tetrachloroethane	0.20	U	0.20	0.061	ppb v/v			08/18/15 16:26	1
Tetrachloroethene	0.20	U	0.20	0.040	ppb v/v			08/18/15 16:26	1
<b>Tetrahydrofuran</b>	<b>0.10</b>	<b>J</b>	5.0	0.063	ppb v/v			08/18/15 16:26	1
<b>Toluene</b>	<b>0.22</b>		0.20	0.12	ppb v/v			08/18/15 16:26	1
trans-1,2-Dichloroethene	0.20	U	0.20	0.050	ppb v/v			08/18/15 16:26	1
trans-1,3-Dichloropropene	0.20	U	0.20	0.048	ppb v/v			08/18/15 16:26	1
1,2,4-Trichlorobenzene	2.0	U	2.0	0.098	ppb v/v			08/18/15 16:26	1
1,1,1-Trichloroethane	0.20	U	0.20	0.030	ppb v/v			08/18/15 16:26	1

TestAmerica Savannah

# Client Sample Results

Client: Geotechnical & Environmental Consultants  
Project/Site: Macon MGP - Air Sampling

TestAmerica Job ID: 680-115715-1

**Client Sample ID: VS-1 GB-7 10-ft**

**Lab Sample ID: 680-115715-1**

**Date Collected: 08/13/15 09:31**

**Matrix: Air**

**Date Received: 08/17/15 11:45**

**Sample Container: Summa Canister 6L**

## Method: TO-15 - Volatile Organic Compounds in Ambient Air (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,2-Trichloroethane	0.20	U	0.20	0.054	ppb v/v			08/18/15 16:26	1
Trichloroethene	0.20	U	0.20	0.036	ppb v/v			08/18/15 16:26	1
Trichlorofluoromethane	0.27		0.20	0.024	ppb v/v			08/18/15 16:26	1
1,1,2-Trichloro-1,2,2-trifluoroethane	0.064	J	0.20	0.031	ppb v/v			08/18/15 16:26	1
1,2,4-Trimethylbenzene	0.20	U	0.20	0.063	ppb v/v			08/18/15 16:26	1
1,3,5-Trimethylbenzene	0.20	U	0.20	0.065	ppb v/v			08/18/15 16:26	1
Vinyl acetate	5.0	U	5.0	0.14	ppb v/v			08/18/15 16:26	1
Vinyl bromide	0.20	U	0.20	0.035	ppb v/v			08/18/15 16:26	1
Vinyl chloride	0.21		0.20	0.071	ppb v/v			08/18/15 16:26	1



# Client Sample Results

Client: Geotechnical & Environmental Consultants  
Project/Site: Macon MGP - Air Sampling

TestAmerica Job ID: 680-115715-1

**Client Sample ID: VS-2 GB-7 5-ft**

**Lab Sample ID: 680-115715-2**

**Date Collected: 08/13/15 09:50**

**Matrix: Air**

**Date Received: 08/17/15 11:45**

**Sample Container: Summa Canister 6L**

## Method: TO-15 - Volatile Organic Compounds in Ambient Air

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Acetone</b>	<b>10</b>		5.0	1.4	ppb v/v			08/18/15 17:08	1
<b>Benzene</b>	<b>0.12</b>	<b>J</b>	0.20	0.056	ppb v/v			08/18/15 17:08	1
Benzyl chloride	0.80	U	0.80	0.078	ppb v/v			08/18/15 17:08	1
Bromodichloromethane	0.20	U	0.20	0.044	ppb v/v			08/18/15 17:08	1
Bromoform	0.20	U	0.20	0.048	ppb v/v			08/18/15 17:08	1
Bromomethane	0.20	U	0.20	0.032	ppb v/v			08/18/15 17:08	1
<b>2-Butanone (MEK)</b>	<b>1.1</b>		1.0	0.20	ppb v/v			08/18/15 17:08	1
<b>Carbon disulfide</b>	<b>1.2</b>		0.50	0.031	ppb v/v			08/18/15 17:08	1
<b>Carbon tetrachloride</b>	<b>0.063</b>	<b>J</b>	0.20	0.038	ppb v/v			08/18/15 17:08	1
Chlorobenzene	0.20	U	0.20	0.049	ppb v/v			08/18/15 17:08	1
<b>Chloroethane</b>	<b>0.17</b>	<b>J</b>	0.80	0.035	ppb v/v			08/18/15 17:08	1
Chloroform	0.20	U	0.20	0.038	ppb v/v			08/18/15 17:08	1
<b>Chloromethane</b>	<b>1.3</b>		0.50	0.16	ppb v/v			08/18/15 17:08	1
cis-1,2-Dichloroethene	0.20	U	0.20	0.060	ppb v/v			08/18/15 17:08	1
cis-1,3-Dichloropropene	0.20	U	0.20	0.074	ppb v/v			08/18/15 17:08	1
Cyclohexane	0.50	U	0.50	0.040	ppb v/v			08/18/15 17:08	1
Dibromochloromethane	0.20	U	0.20	0.042	ppb v/v			08/18/15 17:08	1
1,2-Dibromoethane (EDB)	0.20	U	0.20	0.044	ppb v/v			08/18/15 17:08	1
1,2-Dichlorobenzene	0.20	U	0.20	0.070	ppb v/v			08/18/15 17:08	1
1,3-Dichlorobenzene	0.20	U	0.20	0.065	ppb v/v			08/18/15 17:08	1
1,4-Dichlorobenzene	0.20	U	0.20	0.064	ppb v/v			08/18/15 17:08	1
<b>Dichlorodifluoromethane</b>	<b>0.44</b>	<b>J</b>	0.50	0.068	ppb v/v			08/18/15 17:08	1
1,1-Dichloroethane	0.20	U	0.20	0.026	ppb v/v			08/18/15 17:08	1
1,2-Dichloroethane	0.20	U	0.20	0.047	ppb v/v			08/18/15 17:08	1
1,1-Dichloroethene	0.20	U	0.20	0.034	ppb v/v			08/18/15 17:08	1
1,2-Dichloropropane	0.20	U	0.20	0.052	ppb v/v			08/18/15 17:08	1
1,2-Dichloro-1,1,2,2-tetrafluoroethane	0.20	U	0.20	0.032	ppb v/v			08/18/15 17:08	1
<b>1,4-Dioxane</b>	<b>0.25</b>	<b>J</b>	5.0	0.080	ppb v/v			08/18/15 17:08	1
Ethylbenzene	0.20	U	0.20	0.068	ppb v/v			08/18/15 17:08	1
Hexachlorobutadiene	0.20	U	0.20	0.078	ppb v/v			08/18/15 17:08	1
<b>Hexane</b>	<b>0.10</b>	<b>J</b>	0.80	0.032	ppb v/v			08/18/15 17:08	1
<b>Isopropyl alcohol</b>	<b>0.43</b>	<b>J</b>	5.0	0.094	ppb v/v			08/18/15 17:08	1
Isopropylbenzene	0.80	U	0.80	0.060	ppb v/v			08/18/15 17:08	1
<b>Methylene Chloride</b>	<b>0.41</b>	<b>J B</b>	0.50	0.13	ppb v/v			08/18/15 17:08	1
<b>4-Methyl-2-pentanone (MIBK)</b>	<b>0.48</b>	<b>J B</b>	0.50	0.045	ppb v/v			08/18/15 17:08	1
Methyl tert-butyl ether	1.0	U	1.0	0.17	ppb v/v			08/18/15 17:08	1
<b>m-Xylene &amp; p-Xylene</b>	<b>0.21</b>	<b>J</b>	0.80	0.12	ppb v/v			08/18/15 17:08	1
Naphthalene	0.50	U	0.50	0.090	ppb v/v			08/18/15 17:08	1
<b>o-Xylene</b>	<b>0.071</b>	<b>J</b>	0.20	0.061	ppb v/v			08/18/15 17:08	1
Styrene	0.20	U	0.20	0.058	ppb v/v			08/18/15 17:08	1
1,1,1,2-Tetrachloroethane	0.20	U	0.20	0.061	ppb v/v			08/18/15 17:08	1
Tetrachloroethene	0.20	U	0.20	0.040	ppb v/v			08/18/15 17:08	1
<b>Tetrahydrofuran</b>	<b>0.19</b>	<b>J</b>	5.0	0.063	ppb v/v			08/18/15 17:08	1
<b>Toluene</b>	<b>0.24</b>		0.20	0.12	ppb v/v			08/18/15 17:08	1
trans-1,2-Dichloroethene	0.20	U	0.20	0.050	ppb v/v			08/18/15 17:08	1
trans-1,3-Dichloropropene	0.20	U	0.20	0.048	ppb v/v			08/18/15 17:08	1
1,2,4-Trichlorobenzene	2.0	U	2.0	0.098	ppb v/v			08/18/15 17:08	1
1,1,1-Trichloroethane	0.20	U	0.20	0.030	ppb v/v			08/18/15 17:08	1

TestAmerica Savannah

# Client Sample Results

Client: Geotechnical & Environmental Consultants  
Project/Site: Macon MGP - Air Sampling

TestAmerica Job ID: 680-115715-1

**Client Sample ID: VS-2 GB-7 5-ft**

**Lab Sample ID: 680-115715-2**

**Date Collected: 08/13/15 09:50**

**Matrix: Air**

**Date Received: 08/17/15 11:45**

**Sample Container: Summa Canister 6L**

## Method: TO-15 - Volatile Organic Compounds in Ambient Air (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,2-Trichloroethane	0.20	U	0.20	0.054	ppb v/v			08/18/15 17:08	1
Trichloroethene	0.20	U	0.20	0.036	ppb v/v			08/18/15 17:08	1
Trichlorofluoromethane	0.23		0.20	0.024	ppb v/v			08/18/15 17:08	1
1,1,2-Trichloro-1,2,2-trifluoroethane	0.062	J	0.20	0.031	ppb v/v			08/18/15 17:08	1
1,2,4-Trimethylbenzene	0.076	J	0.20	0.063	ppb v/v			08/18/15 17:08	1
1,3,5-Trimethylbenzene	0.20	U	0.20	0.065	ppb v/v			08/18/15 17:08	1
Vinyl acetate	5.0	U	5.0	0.14	ppb v/v			08/18/15 17:08	1
Vinyl bromide	0.20	U	0.20	0.035	ppb v/v			08/18/15 17:08	1
Vinyl chloride	0.20	U	0.20	0.071	ppb v/v			08/18/15 17:08	1

# Client Sample Results

Client: Geotechnical & Environmental Consultants  
Project/Site: Macon MGP - Air Sampling

TestAmerica Job ID: 680-115715-1

**Client Sample ID: VS-3 GB-5 5-ft**

**Lab Sample ID: 680-115715-3**

**Date Collected: 08/13/15 10:05**

**Matrix: Air**

**Date Received: 08/17/15 11:45**

**Sample Container: Summa Canister 6L**

## Method: TO-15 - Volatile Organic Compounds in Ambient Air

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Acetone</b>	<b>11</b>	<b>J</b>	25	7.0	ppb v/v			08/18/15 17:50	1
<b>Benzene</b>	<b>9.2</b>		1.0	0.28	ppb v/v			08/18/15 17:50	1
Benzyl chloride	4.0	U	4.0	0.39	ppb v/v			08/18/15 17:50	1
Bromodichloromethane	1.0	U	1.0	0.22	ppb v/v			08/18/15 17:50	1
Bromoform	1.0	U	1.0	0.24	ppb v/v			08/18/15 17:50	1
Bromomethane	1.0	U	1.0	0.16	ppb v/v			08/18/15 17:50	1
<b>2-Butanone (MEK)</b>	<b>1.9</b>	<b>J</b>	5.0	1.0	ppb v/v			08/18/15 17:50	1
<b>Carbon disulfide</b>	<b>77</b>		2.5	0.16	ppb v/v			08/18/15 17:50	1
Carbon tetrachloride	1.0	U	1.0	0.19	ppb v/v			08/18/15 17:50	1
Chlorobenzene	1.0	U	1.0	0.25	ppb v/v			08/18/15 17:50	1
<b>Chloroethane</b>	<b>4.9</b>		4.0	0.18	ppb v/v			08/18/15 17:50	1
Chloroform	1.0	U	1.0	0.19	ppb v/v			08/18/15 17:50	1
<b>Chloromethane</b>	<b>11</b>		2.5	0.80	ppb v/v			08/18/15 17:50	1
cis-1,2-Dichloroethene	1.0	U	1.0	0.30	ppb v/v			08/18/15 17:50	1
cis-1,3-Dichloropropene	1.0	U	1.0	0.37	ppb v/v			08/18/15 17:50	1
<b>Cyclohexane</b>	<b>8.4</b>		2.5	0.20	ppb v/v			08/18/15 17:50	1
Dibromochloromethane	1.0	U	1.0	0.21	ppb v/v			08/18/15 17:50	1
1,2-Dibromoethane (EDB)	1.0	U	1.0	0.22	ppb v/v			08/18/15 17:50	1
1,2-Dichlorobenzene	1.0	U	1.0	0.35	ppb v/v			08/18/15 17:50	1
1,3-Dichlorobenzene	1.0	U	1.0	0.33	ppb v/v			08/18/15 17:50	1
1,4-Dichlorobenzene	1.0	U	1.0	0.32	ppb v/v			08/18/15 17:50	1
<b>Dichlorodifluoromethane</b>	<b>0.72</b>	<b>J</b>	2.5	0.34	ppb v/v			08/18/15 17:50	1
1,1-Dichloroethane	1.0	U	1.0	0.13	ppb v/v			08/18/15 17:50	1
1,2-Dichloroethane	1.0	U	1.0	0.24	ppb v/v			08/18/15 17:50	1
1,1-Dichloroethene	1.0	U	1.0	0.17	ppb v/v			08/18/15 17:50	1
1,2-Dichloropropane	1.0	U	1.0	0.26	ppb v/v			08/18/15 17:50	1
1,2-Dichloro-1,1,2,2-tetrafluoroethane	1.0	U	1.0	0.16	ppb v/v			08/18/15 17:50	1
1,4-Dioxane	25	U	25	0.40	ppb v/v			08/18/15 17:50	1
<b>Ethylbenzene</b>	<b>0.34</b>	<b>J</b>	1.0	0.34	ppb v/v			08/18/15 17:50	1
Hexachlorobutadiene	1.0	U	1.0	0.39	ppb v/v			08/18/15 17:50	1
<b>Hexane</b>	<b>48</b>		4.0	0.16	ppb v/v			08/18/15 17:50	1
Isopropyl alcohol	25	U	25	0.47	ppb v/v			08/18/15 17:50	1
Isopropylbenzene	4.0	U	4.0	0.30	ppb v/v			08/18/15 17:50	1
<b>Methylene Chloride</b>	<b>1.4</b>	<b>J B</b>	2.5	0.65	ppb v/v			08/18/15 17:50	1
4-Methyl-2-pentanone (MIBK)	2.5	U	2.5	0.23	ppb v/v			08/18/15 17:50	1
<b>Methyl tert-butyl ether</b>	<b>5.3</b>		5.0	0.85	ppb v/v			08/18/15 17:50	1
<b>m-Xylene &amp; p-Xylene</b>	<b>0.93</b>	<b>J</b>	4.0	0.60	ppb v/v			08/18/15 17:50	1
Naphthalene	2.5	U	2.5	0.45	ppb v/v			08/18/15 17:50	1
<b>o-Xylene</b>	<b>0.37</b>	<b>J</b>	1.0	0.31	ppb v/v			08/18/15 17:50	1
Styrene	1.0	U	1.0	0.29	ppb v/v			08/18/15 17:50	1
1,1,1,2-Tetrachloroethane	1.0	U	1.0	0.31	ppb v/v			08/18/15 17:50	1
Tetrachloroethene	1.0	U	1.0	0.20	ppb v/v			08/18/15 17:50	1
Tetrahydrofuran	25	U	25	0.32	ppb v/v			08/18/15 17:50	1
<b>Toluene</b>	<b>4.2</b>		1.0	0.60	ppb v/v			08/18/15 17:50	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.25	ppb v/v			08/18/15 17:50	1
trans-1,3-Dichloropropene	1.0	U	1.0	0.24	ppb v/v			08/18/15 17:50	1
1,2,4-Trichlorobenzene	10	U	10	0.49	ppb v/v			08/18/15 17:50	1
1,1,1-Trichloroethane	1.0	U	1.0	0.15	ppb v/v			08/18/15 17:50	1

TestAmerica Savannah

# Client Sample Results

Client: Geotechnical & Environmental Consultants  
Project/Site: Macon MGP - Air Sampling

TestAmerica Job ID: 680-115715-1

**Client Sample ID: VS-3 GB-5 5-ft**

**Lab Sample ID: 680-115715-3**

**Date Collected: 08/13/15 10:05**

**Matrix: Air**

**Date Received: 08/17/15 11:45**

**Sample Container: Summa Canister 6L**

## Method: TO-15 - Volatile Organic Compounds in Ambient Air (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,2-Trichloroethane	1.0	U	1.0	0.27	ppb v/v			08/18/15 17:50	1
Trichloroethene	1.0	U	1.0	0.18	ppb v/v			08/18/15 17:50	1
<b>Trichlorofluoromethane</b>	<b>0.29</b>	<b>J</b>	1.0	0.12	ppb v/v			08/18/15 17:50	1
1,1,2-Trichloro-1,2,2-trifluoroethane	1.0	U	1.0	0.16	ppb v/v			08/18/15 17:50	1
1,2,4-Trimethylbenzene	1.0	U	1.0	0.32	ppb v/v			08/18/15 17:50	1
1,3,5-Trimethylbenzene	1.0	U	1.0	0.33	ppb v/v			08/18/15 17:50	1
Vinyl acetate	25	U	25	0.70	ppb v/v			08/18/15 17:50	1
Vinyl bromide	1.0	U	1.0	0.18	ppb v/v			08/18/15 17:50	1
<b>Vinyl chloride</b>	<b>5.6</b>		1.0	0.36	ppb v/v			08/18/15 17:50	1

# Client Sample Results

Client: Geotechnical & Environmental Consultants  
Project/Site: Macon MGP - Air Sampling

TestAmerica Job ID: 680-115715-1

**Client Sample ID: VS-4 GB-5 8-ft**

**Lab Sample ID: 680-115715-4**

**Date Collected: 08/13/15 10:31**

**Matrix: Air**

**Date Received: 08/17/15 11:45**

**Sample Container: Summa Canister 6L**

## Method: TO-15 - Volatile Organic Compounds in Ambient Air

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	91	U	91	25	ppb v/v			08/18/15 18:32	1
<b>Benzene</b>	<b>17</b>		3.6	1.0	ppb v/v			08/18/15 18:32	1
Benzyl chloride	15	U	15	1.4	ppb v/v			08/18/15 18:32	1
Bromodichloromethane	3.6	U	3.6	0.80	ppb v/v			08/18/15 18:32	1
Bromoform	3.6	U	3.6	0.87	ppb v/v			08/18/15 18:32	1
Bromomethane	3.6	U	3.6	0.58	ppb v/v			08/18/15 18:32	1
2-Butanone (MEK)	18	U	18	3.6	ppb v/v			08/18/15 18:32	1
<b>Carbon disulfide</b>	<b>5.5 J</b>		9.1	0.56	ppb v/v			08/18/15 18:32	1
Carbon tetrachloride	3.6	U	3.6	0.69	ppb v/v			08/18/15 18:32	1
Chlorobenzene	3.6	U	3.6	0.89	ppb v/v			08/18/15 18:32	1
Chloroethane	15	U	15	0.64	ppb v/v			08/18/15 18:32	1
Chloroform	3.6	U	3.6	0.69	ppb v/v			08/18/15 18:32	1
Chloromethane	9.1	U	9.1	2.9	ppb v/v			08/18/15 18:32	1
cis-1,2-Dichloroethene	3.6	U	3.6	1.1	ppb v/v			08/18/15 18:32	1
cis-1,3-Dichloropropene	3.6	U	3.6	1.3	ppb v/v			08/18/15 18:32	1
<b>Cyclohexane</b>	<b>14</b>		9.1	0.73	ppb v/v			08/18/15 18:32	1
Dibromochloromethane	3.6	U	3.6	0.76	ppb v/v			08/18/15 18:32	1
1,2-Dibromoethane (EDB)	3.6	U	3.6	0.80	ppb v/v			08/18/15 18:32	1
1,2-Dichlorobenzene	3.6	U	3.6	1.3	ppb v/v			08/18/15 18:32	1
1,3-Dichlorobenzene	3.6	U	3.6	1.2	ppb v/v			08/18/15 18:32	1
1,4-Dichlorobenzene	3.6	U	3.6	1.2	ppb v/v			08/18/15 18:32	1
<b>Dichlorodifluoromethane</b>	<b>3.1 J</b>		9.1	1.2	ppb v/v			08/18/15 18:32	1
1,1-Dichloroethane	3.6	U	3.6	0.47	ppb v/v			08/18/15 18:32	1
1,2-Dichloroethane	3.6	U	3.6	0.85	ppb v/v			08/18/15 18:32	1
1,1-Dichloroethene	3.6	U	3.6	0.62	ppb v/v			08/18/15 18:32	1
1,2-Dichloropropane	3.6	U	3.6	0.95	ppb v/v			08/18/15 18:32	1
1,2-Dichloro-1,1,2,2-tetrafluoroethane	3.6	U	3.6	0.58	ppb v/v			08/18/15 18:32	1
1,4-Dioxane	91	U	91	1.5	ppb v/v			08/18/15 18:32	1
Ethylbenzene	3.6	U	3.6	1.2	ppb v/v			08/18/15 18:32	1
Hexachlorobutadiene	3.6	U	3.6	1.4	ppb v/v			08/18/15 18:32	1
<b>Hexane</b>	<b>30</b>		15	0.58	ppb v/v			08/18/15 18:32	1
Isopropyl alcohol	91	U	91	1.7	ppb v/v			08/18/15 18:32	1
Isopropylbenzene	15	U	15	1.1	ppb v/v			08/18/15 18:32	1
<b>Methylene Chloride</b>	<b>2.9 J B</b>		9.1	2.4	ppb v/v			08/18/15 18:32	1
4-Methyl-2-pentanone (MIBK)	9.1	U	9.1	0.82	ppb v/v			08/18/15 18:32	1
<b>Methyl tert-butyl ether</b>	<b>27</b>		18	3.1	ppb v/v			08/18/15 18:32	1
m-Xylene & p-Xylene	15	U	15	2.2	ppb v/v			08/18/15 18:32	1
Naphthalene	9.1	U	9.1	1.6	ppb v/v			08/18/15 18:32	1
o-Xylene	3.6	U	3.6	1.1	ppb v/v			08/18/15 18:32	1
Styrene	3.6	U	3.6	1.1	ppb v/v			08/18/15 18:32	1
1,1,1,2-Tetrachloroethane	3.6	U	3.6	1.1	ppb v/v			08/18/15 18:32	1
Tetrachloroethene	3.6	U	3.6	0.73	ppb v/v			08/18/15 18:32	1
Tetrahydrofuran	91	U	91	1.1	ppb v/v			08/18/15 18:32	1
<b>Toluene</b>	<b>3.3 J</b>		3.6	2.2	ppb v/v			08/18/15 18:32	1
trans-1,2-Dichloroethene	3.6	U	3.6	0.91	ppb v/v			08/18/15 18:32	1
trans-1,3-Dichloropropene	3.6	U	3.6	0.87	ppb v/v			08/18/15 18:32	1
1,2,4-Trichlorobenzene	36	U	36	1.8	ppb v/v			08/18/15 18:32	1
1,1,1-Trichloroethane	3.6	U	3.6	0.55	ppb v/v			08/18/15 18:32	1

TestAmerica Savannah

# Client Sample Results

Client: Geotechnical & Environmental Consultants  
Project/Site: Macon MGP - Air Sampling

TestAmerica Job ID: 680-115715-1

**Client Sample ID: VS-4 GB-5 8-ft**

**Lab Sample ID: 680-115715-4**

**Date Collected: 08/13/15 10:31**

**Matrix: Air**

**Date Received: 08/17/15 11:45**

**Sample Container: Summa Canister 6L**

## Method: TO-15 - Volatile Organic Compounds in Ambient Air (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,2-Trichloroethane	3.6	U	3.6	0.98	ppb v/v			08/18/15 18:32	1
Trichloroethene	3.6	U	3.6	0.65	ppb v/v			08/18/15 18:32	1
Trichlorofluoromethane	3.6	U	3.6	0.44	ppb v/v			08/18/15 18:32	1
1,1,2-Trichloro-1,2,2-trifluoroethane	3.6	U	3.6	0.56	ppb v/v			08/18/15 18:32	1
1,2,4-Trimethylbenzene	3.6	U	3.6	1.1	ppb v/v			08/18/15 18:32	1
1,3,5-Trimethylbenzene	3.6	U	3.6	1.2	ppb v/v			08/18/15 18:32	1
Vinyl acetate	91	U	91	2.5	ppb v/v			08/18/15 18:32	1
Vinyl bromide	3.6	U	3.6	0.64	ppb v/v			08/18/15 18:32	1
Vinyl chloride	3.6	U	3.6	1.3	ppb v/v			08/18/15 18:32	1

# QC Sample Results

Client: Geotechnical & Environmental Consultants  
Project/Site: Macon MGP - Air Sampling

TestAmerica Job ID: 680-115715-1

## Method: TO-15 - Volatile Organic Compounds in Ambient Air

Lab Sample ID: MB 140-3242/4

Matrix: Air

Analysis Batch: 3242

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	5.0	U	5.0	1.4	ppb v/v			08/18/15 12:23	1
Benzene	0.20	U	0.20	0.056	ppb v/v			08/18/15 12:23	1
Benzyl chloride	0.80	U	0.80	0.078	ppb v/v			08/18/15 12:23	1
Bromodichloromethane	0.20	U	0.20	0.044	ppb v/v			08/18/15 12:23	1
Bromoform	0.20	U	0.20	0.048	ppb v/v			08/18/15 12:23	1
Bromomethane	0.20	U	0.20	0.032	ppb v/v			08/18/15 12:23	1
2-Butanone (MEK)	1.0	U	1.0	0.20	ppb v/v			08/18/15 12:23	1
Carbon disulfide	0.50	U	0.50	0.031	ppb v/v			08/18/15 12:23	1
Carbon tetrachloride	0.20	U	0.20	0.038	ppb v/v			08/18/15 12:23	1
Chlorobenzene	0.20	U	0.20	0.049	ppb v/v			08/18/15 12:23	1
Chloroethane	0.80	U	0.80	0.035	ppb v/v			08/18/15 12:23	1
Chloroform	0.20	U	0.20	0.038	ppb v/v			08/18/15 12:23	1
Chloromethane	0.50	U	0.50	0.16	ppb v/v			08/18/15 12:23	1
cis-1,2-Dichloroethene	0.20	U	0.20	0.060	ppb v/v			08/18/15 12:23	1
cis-1,3-Dichloropropene	0.20	U	0.20	0.074	ppb v/v			08/18/15 12:23	1
Cyclohexane	0.50	U	0.50	0.040	ppb v/v			08/18/15 12:23	1
Dibromochloromethane	0.20	U	0.20	0.042	ppb v/v			08/18/15 12:23	1
1,2-Dibromoethane (EDB)	0.20	U	0.20	0.044	ppb v/v			08/18/15 12:23	1
1,2-Dichlorobenzene	0.20	U	0.20	0.070	ppb v/v			08/18/15 12:23	1
1,3-Dichlorobenzene	0.20	U	0.20	0.065	ppb v/v			08/18/15 12:23	1
1,4-Dichlorobenzene	0.20	U	0.20	0.064	ppb v/v			08/18/15 12:23	1
Dichlorodifluoromethane	0.50	U	0.50	0.068	ppb v/v			08/18/15 12:23	1
1,1-Dichloroethane	0.20	U	0.20	0.026	ppb v/v			08/18/15 12:23	1
1,2-Dichloroethane	0.20	U	0.20	0.047	ppb v/v			08/18/15 12:23	1
1,1-Dichloroethene	0.20	U	0.20	0.034	ppb v/v			08/18/15 12:23	1
1,2-Dichloropropane	0.20	U	0.20	0.052	ppb v/v			08/18/15 12:23	1
1,2-Dichloro-1,1,2,2-tetrafluoroethane	0.20	U	0.20	0.032	ppb v/v			08/18/15 12:23	1
1,4-Dioxane	5.0	U	5.0	0.080	ppb v/v			08/18/15 12:23	1
Ethylbenzene	0.20	U	0.20	0.068	ppb v/v			08/18/15 12:23	1
Hexachlorobutadiene	0.20	U	0.20	0.078	ppb v/v			08/18/15 12:23	1
Hexane	0.80	U	0.80	0.032	ppb v/v			08/18/15 12:23	1
Isopropyl alcohol	5.0	U	5.0	0.094	ppb v/v			08/18/15 12:23	1
Isopropylbenzene	0.80	U	0.80	0.060	ppb v/v			08/18/15 12:23	1
Methylene Chloride	0.160	J	0.50	0.13	ppb v/v			08/18/15 12:23	1
4-Methyl-2-pentanone (MIBK)	0.0519	J	0.50	0.045	ppb v/v			08/18/15 12:23	1
Methyl tert-butyl ether	1.0	U	1.0	0.17	ppb v/v			08/18/15 12:23	1
m-Xylene & p-Xylene	0.80	U	0.80	0.12	ppb v/v			08/18/15 12:23	1
Naphthalene	0.50	U	0.50	0.090	ppb v/v			08/18/15 12:23	1
o-Xylene	0.20	U	0.20	0.061	ppb v/v			08/18/15 12:23	1
Styrene	0.20	U	0.20	0.058	ppb v/v			08/18/15 12:23	1
1,1,2,2-Tetrachloroethane	0.20	U	0.20	0.061	ppb v/v			08/18/15 12:23	1
Tetrachloroethene	0.20	U	0.20	0.040	ppb v/v			08/18/15 12:23	1
Tetrahydrofuran	5.0	U	5.0	0.063	ppb v/v			08/18/15 12:23	1
Toluene	0.20	U	0.20	0.12	ppb v/v			08/18/15 12:23	1
trans-1,2-Dichloroethene	0.20	U	0.20	0.050	ppb v/v			08/18/15 12:23	1
trans-1,3-Dichloropropene	0.20	U	0.20	0.048	ppb v/v			08/18/15 12:23	1
1,2,4-Trichlorobenzene	2.0	U	2.0	0.098	ppb v/v			08/18/15 12:23	1
1,1,1-Trichloroethane	0.20	U	0.20	0.030	ppb v/v			08/18/15 12:23	1

TestAmerica Savannah



# QC Sample Results

Client: Geotechnical & Environmental Consultants  
Project/Site: Macon MGP - Air Sampling

TestAmerica Job ID: 680-115715-1

## Method: TO-15 - Volatile Organic Compounds in Ambient Air (Continued)

Lab Sample ID: MB 140-3242/4

Matrix: Air

Analysis Batch: 3242

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,2-Trichloroethane	0.20	U	0.20	0.054	ppb v/v			08/18/15 12:23	1
Trichloroethene	0.20	U	0.20	0.036	ppb v/v			08/18/15 12:23	1
Trichlorofluoromethane	0.20	U	0.20	0.024	ppb v/v			08/18/15 12:23	1
1,1,2-Trichloro-1,2,2-trifluoroethane	0.20	U	0.20	0.031	ppb v/v			08/18/15 12:23	1
1,2,4-Trimethylbenzene	0.20	U	0.20	0.063	ppb v/v			08/18/15 12:23	1
1,3,5-Trimethylbenzene	0.20	U	0.20	0.065	ppb v/v			08/18/15 12:23	1
Vinyl acetate	5.0	U	5.0	0.14	ppb v/v			08/18/15 12:23	1
Vinyl bromide	0.20	U	0.20	0.035	ppb v/v			08/18/15 12:23	1
Vinyl chloride	0.20	U	0.20	0.071	ppb v/v			08/18/15 12:23	1

Lab Sample ID: LCS 140-3242/1002

Matrix: Air

Analysis Batch: 3242

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Acetone	6.00	5.42		ppb v/v		90	60 - 140
Benzene	2.00	1.86		ppb v/v		93	70 - 130
Benzyl chloride	2.00	1.51		ppb v/v		75	70 - 130
Bromodichloromethane	2.00	1.98		ppb v/v		99	70 - 130
Bromoform	2.00	2.13		ppb v/v		107	60 - 140
Bromomethane	2.00	2.35		ppb v/v		117	70 - 130
2-Butanone (MEK)	2.00	1.47		ppb v/v		74	60 - 140
Carbon disulfide	2.00	2.15		ppb v/v		108	70 - 130
Carbon tetrachloride	2.00	2.07		ppb v/v		103	70 - 130
Chlorobenzene	2.00	1.70		ppb v/v		85	70 - 130
Chloroethane	2.00	2.09		ppb v/v		104	70 - 130
Chloroform	2.00	2.03		ppb v/v		102	70 - 130
Chloromethane	2.00	2.06		ppb v/v		103	60 - 140
cis-1,2-Dichloroethene	2.00	2.03		ppb v/v		101	70 - 130
cis-1,3-Dichloropropene	2.00	1.78		ppb v/v		89	70 - 130
Cyclohexane	2.00	1.84		ppb v/v		92	70 - 130
Dibromochloromethane	2.00	2.02		ppb v/v		101	70 - 130
1,2-Dibromoethane (EDB)	2.00	1.73		ppb v/v		87	70 - 130
1,2-Dichlorobenzene	2.00	1.60		ppb v/v		80	70 - 130
1,3-Dichlorobenzene	2.00	1.60		ppb v/v		80	70 - 130
1,4-Dichlorobenzene	2.00	1.59		ppb v/v		79	70 - 130
Dichlorodifluoromethane	2.00	2.35		ppb v/v		117	60 - 140
1,1-Dichloroethane	2.00	1.97		ppb v/v		98	70 - 130
1,2-Dichloroethane	2.00	1.84		ppb v/v		92	70 - 130
1,1-Dichloroethene	2.00	2.12		ppb v/v		106	70 - 130
1,2-Dichloropropane	2.00	1.76		ppb v/v		88	70 - 130
1,2-Dichloro-1,1,2,2-tetrafluoroethane	2.00	2.42		ppb v/v		121	60 - 140
1,4-Dioxane	2.00	1.62	J	ppb v/v		81	60 - 140
Ethylbenzene	2.00	1.71		ppb v/v		85	70 - 130
Hexachlorobutadiene	2.00	1.71		ppb v/v		85	60 - 140
Hexane	2.00	1.89		ppb v/v		94	70 - 130
Isopropyl alcohol	6.00	5.62		ppb v/v		94	60 - 140
Isopropylbenzene	2.00	1.72		ppb v/v		86	70 - 130

TestAmerica Savannah

# QC Sample Results

Client: Geotechnical & Environmental Consultants  
Project/Site: Macon MGP - Air Sampling

TestAmerica Job ID: 680-115715-1

## Method: TO-15 - Volatile Organic Compounds in Ambient Air (Continued)

Lab Sample ID: LCS 140-3242/1002

Matrix: Air

Analysis Batch: 3242

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Methylene Chloride	2.00	1.96		ppb v/v		98	70 - 130
4-Methyl-2-pentanone (MIBK)	2.00	1.40		ppb v/v		70	60 - 140
Methyl tert-butyl ether	2.00	1.81		ppb v/v		90	60 - 140
m-Xylene & p-Xylene	4.00	3.44		ppb v/v		86	70 - 130
Naphthalene	2.00	1.55		ppb v/v		78	60 - 140
o-Xylene	2.00	1.71		ppb v/v		85	70 - 130
Styrene	2.00	1.70		ppb v/v		85	70 - 130
1,1,2,2-Tetrachloroethane	2.00	1.64		ppb v/v		82	70 - 130
Tetrachloroethene	2.00	1.86		ppb v/v		93	70 - 130
Tetrahydrofuran	2.00	1.59	J	ppb v/v		80	60 - 140
Toluene	2.00	1.78		ppb v/v		89	70 - 130
trans-1,2-Dichloroethene	2.00	2.10		ppb v/v		105	70 - 130
trans-1,3-Dichloropropene	2.00	1.63		ppb v/v		82	70 - 130
1,2,4-Trichlorobenzene	2.00	1.55		ppb v/v		78	60 - 140
1,1,1-Trichloroethane	2.00	2.15		ppb v/v		107	70 - 130
1,1,2-Trichloroethane	2.00	1.78		ppb v/v		89	70 - 130
Trichloroethene	2.00	1.96		ppb v/v		98	70 - 130
Trichlorofluoromethane	2.00	2.56		ppb v/v		128	60 - 140
1,1,2-Trichloro-1,2,2-trifluoroethane	2.00	2.12		ppb v/v		106	70 - 130
1,2,4-Trimethylbenzene	2.00	1.62		ppb v/v		81	70 - 130
1,3,5-Trimethylbenzene	2.00	1.64		ppb v/v		82	70 - 130
Vinyl acetate	2.00	1.59	J	ppb v/v		79	60 - 140
Vinyl bromide	2.00	2.36		ppb v/v		118	60 - 140
Vinyl chloride	2.00	2.14		ppb v/v		107	70 - 130

TestAmerica Savannah

## QC Association Summary

Client: Geotechnical & Environmental Consultants  
Project/Site: Macon MGP - Air Sampling

TestAmerica Job ID: 680-115715-1

### Air - GC/MS VOA

#### Analysis Batch: 3242

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-115715-1	VS-1 GB-7 10-ft	Total/NA	Air	TO-15	
680-115715-2	VS-2 GB-7 5-ft	Total/NA	Air	TO-15	
680-115715-3	VS-3 GB-5 5-ft	Total/NA	Air	TO-15	
680-115715-4	VS-4 GB-5 8-ft	Total/NA	Air	TO-15	
LCS 140-3242/1002	Lab Control Sample	Total/NA	Air	TO-15	
MB 140-3242/4	Method Blank	Total/NA	Air	TO-15	

# Lab Chronicle

Client: Geotechnical & Environmental Consultants  
Project/Site: Macon MGP - Air Sampling

TestAmerica Job ID: 680-115715-1

**Client Sample ID: VS-1 GB-7 10-ft**

**Date Collected: 08/13/15 09:31**

**Date Received: 08/17/15 11:45**

**Lab Sample ID: 680-115715-1**

**Matrix: Air**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	TO-15		1	200 mL	500 mL	3242	08/18/15 16:26	HMT	TAL KNX
Instrument ID: MG										

**Client Sample ID: VS-2 GB-7 5-ft**

**Date Collected: 08/13/15 09:50**

**Date Received: 08/17/15 11:45**

**Lab Sample ID: 680-115715-2**

**Matrix: Air**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	TO-15		1	200 mL	500 mL	3242	08/18/15 17:08	HMT	TAL KNX
Instrument ID: MG										

**Client Sample ID: VS-3 GB-5 5-ft**

**Date Collected: 08/13/15 10:05**

**Date Received: 08/17/15 11:45**

**Lab Sample ID: 680-115715-3**

**Matrix: Air**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	TO-15		1	40 mL	500 mL	3242	08/18/15 17:50	HMT	TAL KNX
Instrument ID: MG										

**Client Sample ID: VS-4 GB-5 8-ft**

**Date Collected: 08/13/15 10:31**

**Date Received: 08/17/15 11:45**

**Lab Sample ID: 680-115715-4**

**Matrix: Air**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	TO-15		1	11 mL	500 mL	3242	08/18/15 18:32	HMT	TAL KNX
Instrument ID: MG										

## Laboratory References:

TAL KNX = TestAmerica Knoxville, 5815 Middlebrook Pike, Knoxville, TN 37921, TEL (865)291-3000

# Certification Summary

Client: Geotechnical & Environmental Consultants  
Project/Site: Macon MGP - Air Sampling

TestAmerica Job ID: 680-115715-1

## Laboratory: TestAmerica Savannah

All certifications held by this laboratory are listed. Not all certifications are applicable to this report.

Authority	Program	EPA Region	Certification ID	Expiration Date
	AFCEE		SAVLAB	
A2LA	DoD ELAP		399.01	02-28-17
A2LA	ISO/IEC 17025		399.01	02-28-17
Alabama	State Program	4	41450	06-30-15 *
Arkansas DEQ	State Program	6	88-0692	01-31-16
California	State Program	9	2939	07-31-16
Colorado	State Program	8	N/A	12-31-15
Connecticut	State Program	1	PH-0161	03-31-17
Florida	NELAP	4	E87052	06-30-16
GA Dept. of Agriculture	State Program	4	N/A	06-12-17
Georgia	State Program	4	803	06-30-16
Guam	State Program	9	14-004r	04-16-16
Hawaii	State Program	9	N/A	06-30-16
Illinois	NELAP	5	200022	11-30-15
Indiana	State Program	5	N/A	06-30-15 *
Iowa	State Program	7	353	06-30-17
Kentucky (DW)	State Program	4	90084	12-31-15
Kentucky (UST)	State Program	4	18	06-30-16
Kentucky (WW)	State Program	4	90084	12-31-15
Louisiana	NELAP	6	30690	06-30-15 *
Louisiana (DW)	NELAP	6	LA150014	12-31-15
Maine	State Program	1	GA00006	09-24-16
Maryland	State Program	3	250	12-31-15
Massachusetts	State Program	1	M-GA006	06-30-16
Michigan	State Program	5	9925	03-05-16
Mississippi	State Program	4	N/A	06-30-15 *
Montana	State Program	8	CERT0081	12-31-15
Nebraska	State Program	7	TestAmerica-Savannah	06-30-16
New Jersey	NELAP	2	GA769	09-30-15
New Mexico	State Program	6	N/A	06-30-16
New York	NELAP	2	10842	03-31-16
North Carolina (DW)	State Program	4	13701	07-31-16
North Carolina (WW/SW)	State Program	4	269	12-31-15
Oklahoma	State Program	6	9984	08-31-15 *
Pennsylvania	NELAP	3	68-00474	06-30-16
Puerto Rico	State Program	2	GA00006	12-31-15
South Carolina	State Program	4	98001	06-30-15 *
Tennessee	State Program	4	TN02961	06-30-16
Texas	NELAP	6	T104704185-14-7	11-30-15
USDA	Federal		SAV 3-04	06-11-17
Virginia	NELAP	3	460161	06-14-16
Washington	State Program	10	C805	06-10-16
West Virginia (DW)	State Program	3	9950C	12-31-15
West Virginia DEP	State Program	3	094	06-30-16
Wisconsin	State Program	5	999819810	08-31-15 *
Wyoming	State Program	8	8TMS-L	06-30-16

## Laboratory: TestAmerica Knoxville

All certifications held by this laboratory are listed. Not all certifications are applicable to this report.

\* Certification renewal pending - certification considered valid.

TestAmerica Savannah

# Certification Summary

Client: Geotechnical & Environmental Consultants  
Project/Site: Macon MGP - Air Sampling

TestAmerica Job ID: 680-115715-1

## Laboratory: TestAmerica Knoxville (Continued)

All certifications held by this laboratory are listed. Not all certifications are applicable to this report.

Authority	Program	EPA Region	Certification ID	Expiration Date
	AFCEE		N/A	
Arkansas DEQ	State Program	6	88-0688	06-16-16
California	State Program	9	2423	06-30-16
Colorado	State Program	8	N/A	02-28-16
Connecticut	State Program	1	PH-0223	09-30-15
Florida	NELAP	4	E87177	06-30-16
Georgia	State Program	4	906	04-13-17
Hawaii	State Program	9	N/A	04-13-16
Kansas	NELAP	7	E-10349	10-31-15
Kentucky (DW)	State Program	4	90101	12-31-15
L-A-B	DoD ELAP		L2311	02-13-16
Louisiana	NELAP	6	83979	06-30-16
Louisiana (DW)	NELAP	6	LA110001	12-31-15
Maryland	State Program	3	277	03-31-16
Michigan	State Program	5	9933	04-13-17
Nevada	State Program	9	TN00009	07-31-16
New Jersey	NELAP	2	TN001	09-30-15
New York	NELAP	2	10781	03-31-16
North Carolina (DW)	State Program	4	21705	07-31-16
North Carolina (WW/SW)	State Program	4	64	12-31-15
Ohio VAP	State Program	5	CL0059	01-16-17
Oklahoma	State Program	6	9415	08-31-15
Pennsylvania	NELAP	3	68-00576	12-31-15
South Carolina	State Program	4	84001	06-30-15 *
Tennessee	State Program	4	2014	04-13-17
Texas	NELAP	6	T104704380-TX	08-31-15
USDA	Federal		P330-13-00260	08-29-16
Utah	NELAP	8	QUAN3	07-31-16
Virginia	NELAP	3	460176	09-14-15
Washington	State Program	10	C593	01-19-16
West Virginia (DW)	State Program	3	9955C	12-31-15
West Virginia DEP	State Program	3	345	04-30-16
Wisconsin	State Program	5	998044300	08-31-15

\* Certification renewal pending - certification considered valid.

TestAmerica Savannah

## Method Summary

Client: Geotechnical & Environmental Consultants  
Project/Site: Macon MGP - Air Sampling

TestAmerica Job ID: 680-115715-1

Method	Method Description	Protocol	Laboratory
TO-15	Volatile Organic Compounds in Ambient Air	EPA	TAL KNX

### Protocol References:

EPA = US Environmental Protection Agency

### Laboratory References:

TAL KNX = TestAmerica Knoxville, 5815 Middlebrook Pike, Knoxville, TN 37921, TEL (865)291-3000



Serial Number 99577

## ANALYSIS REQUEST AND CHAIN OF CUSTODY RECORD

# TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

Website: www.testamericainc.com  
Phone: (912) 354-7858  
Fax: (912) 352-0165

TestAmerica Savannah  
5102 LaRoche Avenue  
Savannah, GA 31404

Alternate Laboratory Name/Location

**X** **Savannah**  
5815 Middlebrook Pike  
Knoxville, TN 37924  
Phone: 865-291-3000  
Fax: 865-584-4315

PROJECT REFERENCE		PROJECT NO.	PROJECT LOCATION (STATE)	CONTRACT NO.	CLIENT PHONE	CLIENT E-MAIL	MATRIX TYPE	REQUIRED ANALYSIS		PAGE 1 OF 1	
Macon MGP #2		130659-241	GA		6-059CH						
TAL (LAB) PROJECT MANAGER											
John Reynolds											
Client (Site) PM											
Carrie Holderfield		210-872-8016									
Client Name											
GEC											
Client Address											
514 Hillcrest Industrial Blvd, Macon, GA											
Company Contracting This Work (if applicable)											
CHOLDERFIELD CONSULTANTS											
SAMPLE		SAMPLE IDENTIFICATION		COMPOSITE (C) OR TAB (G) INDICATE		AQUEOUS (WATER)		SOLID OR SEMISOLID		NONAQUEOUS LIQUID (OIL SOLVENT, ...)	
DATE	TIME										
8/13/15	0931	VS-1	10-1+ GB-7								
	0950	VS-2	GB-7 5-1+								
	1005	VS-3	GB-5 5-6+								
	1031	VS-4	GB-5 8-6+								
		CUSTODY SEALS INTACT									
		RECEIVED AT AMBIENT TEMP									
		DID 8-17-15									
		BOX FAX# 774277319210 GA									
		4 hours 4 hours (6)									
RELINQUISHED BY: (SIGNATURE)		DATE	TIME	RELINQUISHED BY: (SIGNATURE)		DATE	TIME	RELINQUISHED BY: (SIGNATURE)		DATE	TIME
<i>[Signature]</i>		8-13-15	1600								
RECEIVED BY: (SIGNATURE)		DATE	TIME	RECEIVED BY: (SIGNATURE)		DATE	TIME	RECEIVED BY: (SIGNATURE)		DATE	TIME
<i>[Signature]</i>		8-17-15	11:45								
RECEIVED FOR LABORATORY BY: (SIGNATURE)		DATE	TIME	CUSTODY INTACT		CUSTODY SEAL NO.		SAVANNAH LOG NO.		LABORATORY REMARKS	
<i>[Signature]</i>		8-17-15	11:45	YES <input type="radio"/> NO <input type="radio"/>				115715			

NUMBER OF CONTAINERS SUBMITTED 4 Same

NUMBER OF COOLERS SUBMITTED PER SHIPMENT: 1 Box

PRESERVATIVE

10102  
05934  
10103  
10727

## Login Sample Receipt Checklist

Client: Geotechnical & Environmental Consultants

Job Number: 680-115715-1

**Login Number: 115715**

**List Source: TestAmerica Savannah**

**List Number: 1**

**Creator: Barnett, Eddie T**

Question	Answer	Comment
Radioactivity wasn't checked or is $\leq$ background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	N/A	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time.	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is $<6\text{mm}$ (1/4").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

# Login Sample Receipt Checklist

Client: Geotechnical & Environmental Consultants

Job Number: 680-115715-1

Login Number: 115715

List Number: 2

Creator: Dameron, Bryan K

List Source: TestAmerica Knoxville

List Creation: 08/17/15 03:43 PM

Question	Answer	Comment
Radioactivity wasn't checked or is <= background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	N/A	
Cooler Temperature is acceptable.	N/A	
Cooler Temperature is recorded.	N/A	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	N/A	Not requested on COC.
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time.	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	N/A	CHECKED IN LAB
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	N/A	
Sample Preservation Verified.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	N/A	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	N/A	
Multiphasic samples are not present.	N/A	
Samples do not require splitting or compositing.	N/A	
Residual Chlorine Checked.	N/A	

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11
- 12

[illegible]

## **APPENDIX E**

### **Vapor Intrusion Screening Level (VISL) Calculator Worksheets**



**OSWER VAPOR INTRUSION ASSESSMENT**

Sub-slab or Exterior Soil Gas Concentration to Indoor Air Concentration (SGC-IAC) Calculator Version 3.4, June 2015 RSLs

GB-5, 5-feet

Parameter	Symbol	Value	Instructions
Exposure Scenario	Scenario	Residential	Select residential or commercial scenario from pull down list
Target Risk for Carcinogens	TCR SG	1.00E-05	Enter target risk for carcinogens (for comparison to the calculated VI carcinogenic risk in column F)
Target Hazard Quotient for Non-Carcinogens	THQ SG	1	Enter target hazard quotient for non-carcinogens (for comparison to the calculated VI hazard in column G)

CAS	Chemical Name	Site Sub-slab or Exterior Soil Gas Concentration	Calculated Indoor Air Concentration	VI Carcinogenic Risk	VI Hazard
		Csg (ug/m <sup>3</sup> )	Cia (ug/m <sup>3</sup> )	CR	HQ
x 75-07-0	Acetaldehyde				
67-64-1	Acetone				
75-86-5	Acetone Cyanohydrin				
75-05-8	Acetonitrile				
107-02-8	Acrolein				
79-10-7	Acrylic Acid				
107-13-1	Acrylonitrile				
309-00-2	Aldrin				
107-18-6	Allyl Alcohol				
107-05-1	Allyl Chloride				
7664-41-7	Ammonia				
75-85-4	Amyl Alcohol, tert-				
12674-11-2	Aroclor 1016				
11104-28-2	Aroclor 1221				
11141-16-5	Aroclor 1232				
53469-21-9	Aroclor 1242				
12672-29-6	Aroclor 1248				
11097-69-1	Aroclor 1254				
x 11096-82-5	Aroclor 1260				
103-33-3	Azobenzene				
56-55-3	Benz[a]anthracene				
71-43-2	Benzene	1.7E+01	5.10E-01	1.4E-06	1.6E-02
100-44-7	Benzyl Chloride				
92-52-4	Biphenyl, 1,1'-				
108-60-1	Bis(2-chloro-1-methylethyl) ether				
111-44-4	Bis(2-chloroethyl) ether				
542-88-1	Bis(chloromethyl) ether				
10294-34-5	Boron Trichloride				
7637-07-2	Boron Trifluoride				
107-04-0	Bromo-2-chloroethane, 1-				
108-86-1	Bromobenzene				
74-97-5	Bromochloromethane				
75-27-4	Bromodichloromethane				
75-25-2	Bromofom				
74-83-9	Bromomethane				
106-99-0	Butadiene, 1,3-				
78-92-2	Butyl alcohol, sec-				
75-15-0	Carbon Disulfide	5.5E+00	1.65E-01	No IUR	2.3E-04
56-23-5	Carbon Tetrachloride				
12789-03-6	Chlordane				
7782-50-5	Chlorine				
10049-04-4	Chlorine Dioxide				
75-68-3	Chloro-1,1-difluoroethane, 1-				
126-99-8	Chloro-1,3-butadiene, 2-				
108-90-7	Chlorobenzene				
98-56-6	Chlorobenzotrifluoride, 4-				
75-45-6	Chlorodifluoromethane				
67-66-3	Chloroform				
74-87-3	Chloromethane				
107-30-2	Chloromethyl Methyl Ether				
76-06-2	Chloropicrin				
8007-45-2	Coke Oven Emissions				
98-82-8	Cumene				
x 57-12-5	Cyanide (CN-)				
110-82-7	Cyclohexane	1.4E+01	4.20E-01	No IUR	6.7E-05
108-94-1	Cyclohexanone				

Inhalation Unit Risk	IUR Source*	Reference Concentration	RFC Source*	Mutagenic Indicator
(ug/m <sup>3</sup> ) <sup>-1</sup>		(mg/m <sup>3</sup> )		i
2.20E-06	I	9.00E-03	I	
		3.10E+01	A	
		2.00E-03	X	
		6.00E-02	I	
		2.00E-05	I	
		1.00E-03	I	
6.80E-05	I	2.00E-03	I	
4.90E-03	I			
		1.00E-04	X	
6.00E-06	CA	1.00E-03	I	
		1.00E-01	I	
		3.00E-03	X	
2.00E-05	S			
5.70E-04	S			
5.70E-04	S			
5.70E-04	S			
5.70E-04	S			
5.70E-04	S			
3.10E-05	I			
1.10E-04	CA			Mut
7.80E-06	I	3.00E-02	I	
4.90E-05	CA	1.00E-03	P	
		4.00E-04	X	
1.00E-05	H			
3.30E-04	I			
6.20E-02	I			
		2.00E-02	P	
		1.30E-02	CA	
6.00E-04	X			
		6.00E-02	I	
		4.00E-02	X	
3.70E-05	CA			
1.10E-06	I			
		5.00E-03	I	
3.00E-05	I	2.00E-03	I	
		3.00E+01	P	
		7.00E-01	I	
6.00E-06	I	1.00E-01	I	
1.00E-04	I	7.00E-04	I	
		1.50E-04	A	
		2.00E-04	I	
		5.00E+01	I	
3.00E-04	I	2.00E-02	I	
		5.00E-02	P	
		3.00E-01	P	
		5.00E+01	I	
2.30E-05	I	9.80E-02	A	
		9.00E-02	I	
6.90E-04	CA			
		4.00E-04	CA	
6.20E-04	I			Mut
		4.00E-01	I	
		8.00E-04	S	
		6.00E+00	I	
		7.00E-01	P	

**OSWER VAPOR INTRUSION ASSESSMENT**

Sub-slab or Exterior Soil Gas Concentration to Indoor Air Concentration (SGC-IAC) Calculator Version 3.4, June 2015 RSLs

GB-5, 5-feet

Parameter	Symbol	Value	Instructions
Exposure Scenario	Scenario	Residential	Select residential or commercial scenario from pull down list
Target Risk for Carcinogens	TCR SG	1.00E-05	Enter target risk for carcinogens (for comparison to the calculated VI carcinogenic risk in column F)
Target Hazard Quotient for Non-Carcinogens	THQ SG	1	Enter target hazard quotient for non-carcinogens (for comparison to the calculated VI hazard in column G)

CAS	Chemical Name	Site Sub-slab or Exterior Soil Gas Concentration	Calculated Indoor Air Concentration	VI Carcinogenic Risk	VI Hazard
		Csq (ug/m <sup>3</sup> )	Cia (ug/m <sup>3</sup> )	CR	HQ
110-83-8	Cyclohexene		—	—	—
72-55-9	DDE, p,p'-		—	—	—
96-12-8	Dibromo-3-chloropropane, 1,2-		—	—	—
124-48-1	Dibromochloromethane		—	—	—
106-93-4	Dibromoethane, 1,2-		—	—	—
74-95-3	Dibromomethane (Methylene Bromide)		—	—	—
764-41-0	Dichloro-2-butene, 1,4-		—	—	—
1476-11-5	Dichloro-2-butene, cis-1,4-		—	—	—
110-57-6	Dichloro-2-butene, trans-1,4-		—	—	—
95-50-1	Dichlorobenzene, 1,2-		—	—	—
106-46-7	Dichlorobenzene, 1,4-		—	—	—
75-71-8	Dichlorodifluoromethane	3.1E+00	9.30E-02	No IUR	8.9E-04
75-34-3	Dichloroethane, 1,1-		—	—	—
107-06-2	Dichloroethane, 1,2-		—	—	—
75-35-4	Dichloroethylene, 1,1-		—	—	—
78-87-5	Dichloropropane, 1,2-		—	—	—
542-75-6	Dichloropropene, 1,3-		—	—	—
77-73-6	Dicyclopentadiene		—	—	—
75-37-6	Difluoroethane, 1,1-		—	—	—
94-58-6	Dihydrosafrole		—	—	—
108-20-3	Diisopropyl Ether		—	—	—
68-12-2	Dimethylformamide		—	—	—
57-14-7	Dimethylhydrazine, 1,1-		—	—	—
540-73-8	Dimethylhydrazine, 1,2-		—	—	—
513-37-1	Dimethylvinylchloride		—	—	—
123-91-1	Dioxane, 1,4-		—	—	—
106-89-8	Epichlorohydrin		—	—	—
106-88-7	Epoxybutane, 1,2-		—	—	—
111-15-9	Ethoxyethanol Acetate, 2-		—	—	—
110-80-5	Ethoxyethanol, 2-		—	—	—
141-78-6	Ethyl Acetate		—	—	—
75-00-3	Ethyl Chloride (Chloroethane)		—	—	—
97-63-2	Ethyl Methacrylate		—	—	—
100-41-4	Ethylbenzene		—	—	—
75-21-8	Ethylene Oxide		—	—	—
151-56-4	Ethyleneimine		—	—	—
50-00-0	Formaldehyde		—	—	—
64-18-6	Formic Acid		—	—	—
98-01-1	Furfural		—	—	—
765-34-4	Glycidyl		—	—	—
76-44-8	Heptachlor		—	—	—
1024-57-3	Heptachlor Epoxide		—	—	—
39635-31-9	Heptachlorobiphenyl, 2,3,3',4,4',5,5'- (PCB 189)		—	—	—
118-74-1	Hexachlorobenzene		—	—	—
38380-08-4	Hexachlorobiphenyl, 2,3,3',4,4',5- (PCB 156)		—	—	—
69782-90-7	Hexachlorobiphenyl, 2,3,3',4,4',5'- (PCB 157)		—	—	—
52663-72-6	Hexachlorobiphenyl, 2,3,4,4',5,5'- (PCB 167)		—	—	—
32774-16-6	Hexachlorobiphenyl, 3,3',4,4',5,5'- (PCB 169)		—	—	—
87-68-3	Hexachlorobutadiene		—	—	—
77-47-4	Hexachlorocyclopentadiene		—	—	—
67-72-1	Hexachloroethane		—	—	—
822-06-0	Hexamethylene Diisocyanate, 1,6-		—	—	—
110-84-3	Hexane, N-	3.0E+01	9.00E-01	No IUR	1.2E-03
591-78-6	Hexanone, 2-		—	—	—
302-01-2	Hydrazine		—	—	—
7647-01-0	Hydrogen Chloride		—	—	—

Inhalation Unit Risk	IUR Source*	Reference Concentration	RfC Source*	Mutagenic Indicator
IUR (ug/m <sup>3</sup> ) <sup>-1</sup>		RfC (mg/m <sup>3</sup> )		i
		1.00E+00	X	
9.70E-05	CA			
6.00E-03	P	2.00E-04	I	Mut
2.70E-05	CA			
6.00E-04	I	9.00E-03	I	
		4.00E-03	X	
4.20E-03	P			
4.20E-03	P			
4.20E-03	P			
		2.00E-01	H	
1.10E-05	CA	8.00E-01	I	
		1.00E-01	X	
1.60E-06	CA			
2.60E-05	I	7.00E-03	P	
		2.00E-01	I	
1.00E-05	CA	4.00E-03	I	
4.00E-06	I	2.00E-02	I	
		3.00E-04	X	
		4.00E+01	I	
1.30E-05	CA			
		7.00E-01	P	
		3.00E-02	I	
		2.00E-06	X	
1.60E-01	CA			
1.30E-05	CA			
5.00E-06	I	3.00E-02	I	
1.20E-06	I	1.00E-03	I	
		2.00E-02	I	
		6.00E-02	P	
		2.00E-01	I	
		7.00E-02	P	
		1.00E+01	I	
		3.00E-01	P	
2.50E-06	CA	1.00E+00	I	
8.80E-05	CA	3.00E-02	CA	
1.90E-02	CA			
1.30E-05	I	9.80E-03	A	
		3.00E-04	X	
		5.00E-02	H	
		1.00E-03	H	
1.30E-03	I			
2.60E-03	I			
1.10E-03	E	1.30E-03	E	
4.60E-04	I			
1.10E-03	E	1.30E-03	E	
1.10E-03	E	1.30E-03	E	
1.10E-03	E	1.30E-03	E	
1.10E+00	E	1.30E-06	E	
2.20E-05	I			
		2.00E-04	I	
1.10E-05	CA	3.00E-02	I	
		1.00E-05	I	
		7.00E-01	I	
		3.00E-02	I	
4.90E-03	I	3.00E-05	P	
		2.00E-02	I	



**OSWER VAPOR INTRUSION ASSESSMENT**

Sub-slab or Exterior Soil Gas Concentration to Indoor Air Concentration (SGC-IAC) Calculator Version 3.4, June 2015 RSLs

GB-5, 5-feet

Parameter	Symbol	Value	Instructions
Exposure Scenario	Scenario	Residential	Select residential or commercial scenario from pull down list
Target Risk for Carcinogens	TCR SG	1.00E-05	Enter target risk for carcinogens (for comparison to the calculated VI carcinogenic risk in column F)
Target Hazard Quotient for Non-Carcinogens	THQ SG	1	Enter target hazard quotient for non-carcinogens (for comparison to the calculated VI hazard in column G)

CAS	Chemical Name	Site Sub-slab or Exterior Soil Gas Concentration	Calculated Indoor Air Concentration	VI Carcinogenic Risk	VI Hazard
		Csq (ug/m <sup>3</sup> )	Cia (ug/m <sup>3</sup> )	CR	HQ
74-90-8	Hydrogen Cyanide				
7664-39-3	Hydrogen Fluoride				
7783-06-4	Hydrogen Sulfide				
67-63-0	Isopropanol				
7439-97-6	Mercury (elemental)				
126-98-7	Methacrylonitrile				
67-56-1	Methanol				
110-49-6	Methoxyethanol Acetate, 2-				
109-86-4	Methoxyethanol, 2-				
96-33-3	Methyl Acrylate				
78-93-3	Methyl Ethyl Ketone (2-Butanone)				
60-34-4	Methyl Hydrazine				
108-10-1	Methyl Isobutyl Ketone (4-methyl-2-pentanone)				
624-83-9	Methyl Isocyanate				
80-62-6	Methyl Methacrylate				
25013-15-4	Methyl Styrene (Mixed Isomers)				
1634-04-4	Methyl tert-Butyl Ether (MTBE)	2.7E+01	8.10E-01	7.5E-08	2.6E-04
75-09-2	Methylene Chloride	2.9E+00	8.70E-02	8.6E-10	1.4E-04
2385-85-5	Mirex				
64742-95-6	Naphtha, High Flash Aromatic (HFAN)				
91-20-3	Naphthalene				
13463-39-3	Nickel Carbonyl				
98-95-3	Nitrobenzene				
75-52-5	Nitromethane				
79-46-9	Nitropropane, 2-				
62-75-9	Nitrosodimethylamine, N-				
924-16-3	Nitroso-di-N-butylamine, N-				
10595-95-6	Nitrosomethylethylamine, N-				
111-84-2	Nonane, n-				
32598-14-4	Pentachlorobiphenyl, 2,3,3',4,4'- (PCB 105)				
74472-37-0	Pentachlorobiphenyl, 2,3,4,4',5- (PCB 114)				
31508-00-6	Pentachlorobiphenyl, 2,3',4,4',5- (PCB 118)				
65510-44-3	Pentachlorobiphenyl, 2',3,4,4',5- (PCB 123)				
57465-28-8	Pentachlorobiphenyl, 3,3',4,4',5- (PCB 126)				
109-66-0	Pentane, n-				
75-44-5	Phosgene				
7803-51-2	Phosphine				
123-38-6	Propionaldehyde				
103-65-1	Propyl benzene				
115-07-1	Propylene				
107-98-2	Propylene Glycol Monomethyl Ether				
75-56-9	Propylene Oxide				
100-42-5	Styrene				
7446-11-9	Sulfur Trioxide				
1746-01-6	TCDD, 2,3,7,8-				
70362-50-4	Tetrachlorobiphenyl, 3,4,4',5- (PCB 81)				
630-20-6	Tetrachloroethane, 1,1,1,2-				
79-34-5	Tetrachloroethane, 1,1,2,2-				
127-18-4	Tetrachloroethylene				
811-97-2	Tetrafluoroethane, 1,1,1,2-				
109-99-9	Tetrahydrofuran				
7550-45-0	Titanium Tetrachloride				
108-88-3	Toluene	3.3E+00	9.90E-02	No IUR	1.9E-05
76-13-1	Trichloro-1,2,2-trifluoroethane, 1,1,2-				
120-82-1	Trichlorobenzene, 1,2,4-				
71-55-6	Trichloroethane, 1,1,1-				

Inhalation Unit Risk	IUR Source*	Reference Concentration	RFC Source*	Mutagenic Indicator
IUR (ug/m <sup>3</sup> ) <sup>-1</sup>		RfC (mg/m <sup>3</sup> )		i
		8.00E-04	I	
		1.40E-02	CA	
		2.00E-03	I	
		2.00E-01	P	
		3.00E-04	I	
		3.00E-02	P	
		2.00E+01	I	
		1.00E-03	P	
		2.00E-02	I	
		2.00E-02	P	
		5.00E+00	I	
1.00E-03	X	2.00E-05	X	
		3.00E+00	I	
		1.00E-03	CA	
		7.00E-01	I	
		4.00E-02	H	
2.60E-07	CA	3.00E+00	I	
1.00E-08	I	6.00E-01	I	Mut
5.10E-03	CA			
		1.00E-01	P	
3.40E-05	CA	3.00E-03	I	
2.60E-04	CA	1.40E-05	CA	
4.00E-05	I	9.00E-03	I	
8.80E-06	P	5.00E-03	P	
2.70E-03	H	2.00E-02	I	
1.40E-02	I	4.00E-05	X	Mut
1.60E-03	I			
6.30E-03	CA			
		2.00E-02	P	
1.10E-03	E	1.30E-03	E	
1.10E-03	E	1.30E-03	E	
1.10E-03	E	1.30E-03	E	
1.10E-03	E	1.30E-03	E	
3.80E+00	E	4.00E-07	E	
		1.00E+00	P	
		3.00E-04	I	
		3.00E-04	I	
		8.00E-03	I	
		1.00E+00	X	
		3.00E+00	CA	
		2.00E+00	I	
3.70E-06	I	3.00E-02	I	
		1.00E+00	I	
		1.00E-03	CA	
3.80E+01	CA	4.00E-08	CA	
1.10E-02	E	1.30E-04	E	
7.40E-06	I			
5.80E-05	CA			
2.60E-07	I	4.00E-02	I	
		8.00E+01	I	
		2.00E+00	I	
		1.00E-04	A	
		5.00E+00	I	
		3.00E+01	H	
		2.00E-03	P	
		5.00E+00	I	

**OSWER VAPOR INTRUSION ASSESSMENT**

Sub-slab or Exterior Soil Gas Concentration to Indoor Air Concentration (SGC-IAC) Calculator Version 3.4, June 2015 RSLs

GB-5, 5-feet

Parameter	Symbol	Value	Instructions
Exposure Scenario	Scenario	Residential	Select residential or commercial scenario from pull down list
Target Risk for Carcinogens	TCR SG	1.00E-05	Enter target risk for carcinogens (for comparison to the calculated VI carcinogenic risk in column F)
Target Hazard Quotient for Non-Carcinogens	THQ SG	1	Enter target hazard quotient for non-carcinogens (for comparison to the calculated VI hazard in column G)

CAS	Chemical Name	Site Sub-slab or Exterior Soil Gas Concentration	Calculated Indoor Air Concentration	VI Carcinogenic Risk	VI Hazard
		Csg (ug/m <sup>3</sup> )	Cia (ug/m <sup>3</sup> )	CR	HQ
79-00-5	Trichloroethane, 1,1,2-		—	—	—
79-01-6	Trichloroethylene		—	—	—
75-69-4	Trichlorofluoromethane		—	—	—
96-18-4	Trichloropropane, 1,2,3-		—	—	—
96-19-5	Trichloropropene, 1,2,3-		—	—	—
121-44-8	Triethylamine		—	—	—
528-73-8	Trimethylbenzene, 1,2,3-		—	—	—
95-63-6	Trimethylbenzene, 1,2,4-		—	—	—
108-05-4	Vinyl Acetate		—	—	—
593-60-2	Vinyl Bromide		—	—	—
75-01-4	Vinyl Chloride		—	—	—
108-38-3	Xylene, m-		—	—	—
95-47-6	Xylene, o-		—	—	—
106-42-3	Xylene, p-		—	—	—
1330-20-7	Xylenes		—	—	—
140-88-5	Ethyl Acrylate		—	—	—

Inhalation Unit Risk	IUR Source*	Reference Concentration	RfC Source*	Mutagenic Indicator
IUR (ug/m <sup>3</sup> ) <sup>-1</sup>		RfC (mg/m <sup>3</sup> )		i
1.60E-05	I	2.00E-04	X	
see note	I	2.00E-03	I	TCE
		7.00E-01	H	
		3.00E-04	I	Mut
		3.00E-04	P	
		7.00E-03	I	
		5.00E-03	P	
		7.00E-03	P	
		2.00E-01	I	
3.20E-05	H	3.00E-03	I	
4.40E-05	I	1.00E-01	I	Mut
		1.00E-01	S	
		1.00E-01	S	
		1.00E-01	S	
		1.00E-01	I	
		8.00E-03	P	

**Notes:**

 (1) **Inhalation Pathway Exposure Parameters (RME):**
**Exposure Scenario**

 Averaging time for carcinogens  
 Averaging time for non-carcinogens  
 Exposure duration  
 Exposure frequency  
 Exposure time

**Units**

 (yrs)  
 (yrs)  
 (yrs)  
 (days/yr)  
 (hr/day)

**Residential**

Symbol	Value	Symbol	Value
ATc_R_SG	70	ATc_C_SG	70
ATnc_R_SG	26	ATnc_C_SG	25
ED_R_SG	26	ED_C_SG	25
EF_R_SG	350	EF_C_SG	250
ET_R_SG	24	ET_C_SG	8

**Commercial**
**Selected (based on scenario)**

Symbol	Value
ATc_SG	70
ATnc_SG	26
ED_SG	26
EF_SG	350
ET_SG	24

 (2) **Generic Attenuation Factors:**
**Source Medium of Vapors**

 Groundwater  
 Sub-Slab and Exterior Soil Gas

 (-)  
 (-)

**Residential**

Symbol	Value	Symbol	Value
AFgw_R_SG	0.001	AFgw_C_SG	0.001
AFss_R_SG	0.03	AFss_C_SG	0.03

**Commercial**
**Selected (based on scenario)**

Symbol	Value
AFgw_SG	0.001
AFss_SG	0.03

 (3) **Formulas**

$$C_{ia, target} = \min(C_{ia,c}; C_{ia,nc})$$

$$C_{ia,c} \text{ (ug/m}^3\text{)} = TCR \times ATc \times (365 \text{ days/yr}) \times (24 \text{ hrs/day}) / (ED \times EF \times ET \times IUR)$$

$$C_{ia,nc} \text{ (ug/m}^3\text{)} = THQ \times ATnc \times (365 \text{ days/yr}) \times (24 \text{ hrs/day}) \times RFC \times (1000 \text{ ug/mg}) / (ED \times EF \times ET)$$

 (4) **Special Case Chemicals**

Trichloroethylene

**Residential**

Symbol	Value	Symbol	Value
mIURTCE_R_SG	1.00E-06	nIURTCE_C_SG	0.00E+00
IURTCE_R_SG	3.10E-06	IURTCE_C_SG	4.10E-06

**Commercial**
**Selected (based on scenario)**

Symbol	Value
mIURTCE_SG	1.00E-06
IURTCE_SG	3.10E-06

Mutagenic Chemicals

The exposure durations and age-dependent adjustment factors for mutagenic-mode-of-action are listed in the table below:

Note: This section applies to trichloroethylene and other mutagenic chemicals, but not to vinyl chloride.

Age Cohort	Exposure Duration	Age-dependent adjustment factor
0 - 2 years	2	10
2 - 6 years	4	3
6 - 16 years	10	3
16 - 26 years	10	1

Mutagenic-mode-of-action (MMOA) adjustment factor

72

This factor is used in the equations for mutagenic chemicals.



# OSWER VAPOR INTRUSION ASSESSMENT

Sub-slab or Exterior Soil Gas Concentration to Indoor Air Concentration (SGC-IAC) Calculator Version 3.4, June 2015 RSLs

GB-5, 5-feet

Parameter	Symbol	Value	Instructions
Exposure Scenario	Scenario	Residential	Select residential or commercial scenario from pull down list
Target Risk for Carcinogens	TCR SG	1.00E-05	Enter target risk for carcinogens (for comparison to the calculated VI carcinogenic risk in column F)
Target Hazard Quotient for Non-Carcinogens	THQ SG	1	Enter target hazard quotient for non-carcinogens (for comparison to the calculated VI hazard in column G)

CAS	Chemical Name	Site Sub-slab or Exterior Soil Gas Concentration	Calculated Indoor Air Concentration	VI Carcinogenic Risk	VI Hazard
		Csq (ug/m <sup>3</sup> )	Cia (ug/m <sup>3</sup> )	CR	HQ

Vinyl Chloride

See the Navigation Guide equation for Cia,c for vinyl chloride.

Inhalation Unit Risk	IUR Source*	Reference Concentration	RfC Source*	Mutagenic Indicator
IUR (ug/m <sup>3</sup> ) <sup>-1</sup>		RfC (mg/m <sup>3</sup> )		i

## Notation:

I = IRIS: EPA Integrated Risk Information System (IRIS). Available online at:

<http://www.epa.gov/iris/subst/index.html>

P = PPRTV: EPA Provisional Peer Reviewed Toxicity Values (PPRTVs). Available online at:

<http://hhpprtv.ornl.gov/pprtv.shtml>

A = Agency for Toxic Substances and Disease Registry (ATSDR) Minimum Risk Levels (MRLs). Available online at:

<http://www.atsdr.cdc.gov/mrls/index.html>

CA = California Environmental Protection Agency/Office of Environmental Health Hazard Assessment assessments. Available online at:

<http://www.oehha.ca.gov/risk/ChemicalDB/index.asp>

H = HEAST: EPA Superfund Health Effects Assessment Summary Tables (HEAST) database. Available online at:

<http://epa-heast.ornl.gov/heast.shtml>

S = See RSL User Guide, Section 5

X = PPRTV Appendix

Mut = Chemical acts according to the mutagenic-mode-of-action, special exposure parameters apply (see footnote (4) above).

VC = Special exposure equation for vinyl chloride applies (see Navigation Guide for equation).

TCE = Special mutagenic and non-mutagenic IURs for trichloroethylene apply (see footnote (4) above).

Yellow highlighting indicates site-specific parameters that may be edited by the user.

Blue highlighting indicates exposure factors that are based on Risk Assessment Guidance for Superfund (RAGS) or EPA vapor intrusion guidance, which generally should not be changed.

Pink highlighting indicates VI carcinogenic risk greater than the target risk for carcinogens (TCR) or VI Hazard greater than or equal to the target hazard quotient for non-carcinogens (THQ).

**OSWER VAPOR INTRUSION ASSESSMENT**

Sub-slab or Exterior Soil Gas Concentration to Indoor Air Concentration (SGC-IAC) Calculator Version 3.4, June 2015 RSLs

GB-5, 8-feet

Parameter	Symbol	Value	Instructions
Exposure Scenario	Scenario	Residential	Select residential or commercial scenario from pull down list
Target Risk for Carcinogens	TCR_SG	1.00E-05	Enter target risk for carcinogens (for comparison to the calculated VI carcinogenic risk in column F)
Target Hazard Quotient for Non-Carcinogens	THQ_SG	1	Enter target hazard quotient for non-carcinogens (for comparison to the calculated VI hazard in column G)

CAS	Chemical Name	Site Sub-slab or Exterior Soil Gas Concentration	Calculated Indoor Air Concentration	VI Carcinogenic Risk	VI Hazard
		Csg (ug/m <sup>3</sup> )	Cia (ug/m <sup>3</sup> )	CR	HQ
x 75-07-0	Acetaldehyde		--	--	--
67-64-1	Acetone		--	--	--
75-86-5	Acetone Cyanohydrin		--	--	--
75-05-8	Acetonitrile		--	--	--
107-02-8	Acrolein		--	--	--
79-10-7	Acrylic Acid		--	--	--
107-13-1	Acrylonitrile		--	--	--
309-00-2	Aldrin		--	--	--
107-18-6	Allyl Alcohol		--	--	--
107-05-1	Allyl Chloride		--	--	--
7664-41-7	Ammonia		--	--	--
75-85-4	Amyl Alcohol, tert-		--	--	--
12674-11-2	Aroclor 1016		--	--	--
11104-28-2	Aroclor 1221		--	--	--
11141-16-5	Aroclor 1232		--	--	--
53469-21-9	Aroclor 1242		--	--	--
12672-29-6	Aroclor 1248		--	--	--
11097-69-1	Aroclor 1254		--	--	--
11096-82-5	Aroclor 1260		--	--	--
x 103-33-3	Azobenzene		--	--	--
56-55-3	Benz[a]anthracene		--	--	--
71-43-2	Benzene	1.7E+01	5.10E-01	1.4E-06	1.6E-02
100-44-7	Benzyl Chloride		--	--	--
92-52-4	Biphenyl, 1,1'-		--	--	--
108-60-1	Bis(2-chloro-1-methylethyl) ether		--	--	--
111-44-4	Bis(2-chloroethyl)ether		--	--	--
542-88-1	Bis(chloromethyl)ether		--	--	--
10294-34-5	Boron Trichloride		--	--	--
7637-07-2	Boron Trifluoride		--	--	--
107-04-0	Bromo-2-chloroethane, 1-		--	--	--
108-86-1	Bromobenzene		--	--	--
74-97-5	Bromochloromethane		--	--	--
75-27-4	Bromodichloromethane		--	--	--
75-25-2	Bromoform		--	--	--
74-83-9	Bromomethane		--	--	--
106-99-0	Butadiene, 1,3-		--	--	--
78-92-2	Butyl alcohol, sec-		--	--	--
75-15-0	Carbon Disulfide	5.5E+00	1.65E-01	No IUR	2.3E-04
56-23-5	Carbon Tetrachloride		--	--	--
12789-03-6	Chlordane		--	--	--
7782-50-5	Chlorine		--	--	--
10049-04-4	Chlorine Dioxide		--	--	--
75-68-3	Chloro-1,1-difluoroethane, 1-		--	--	--
126-99-8	Chloro-1,3-butadiene, 2-		--	--	--
108-90-7	Chlorobenzene		--	--	--
98-56-6	Chlorobenzotrifluoride, 4-		--	--	--
75-45-6	Chlorodifluoromethane		--	--	--
67-66-3	Chloroform		--	--	--
74-87-3	Chloromethane		--	--	--
107-30-2	Chloromethyl Methyl Ether		--	--	--
76-06-2	Chloropicrin		--	--	--
8007-45-2	Coke Oven Emissions		--	--	--
98-82-8	Cumene		--	--	--
x 57-12-5	Cyanide (CN-)		--	--	--
110-82-7	Cyclohexane	1.4E+01	4.20E-01	No IUR	6.7E-05
108-94-1	Cyclohexanone		--	--	--

Inhalation Unit Risk	IUR Source*	Reference Concentration	RFC Source*	Mutagenic Indicator
IUR (ug/m <sup>3</sup> ) <sup>-1</sup>		RfC (mg/m <sup>3</sup> )		i
2.20E-06	I	9.00E-03	I	
		3.10E+01	A	
		2.00E-03	X	
		6.00E-02	I	
		2.00E-05	I	
		1.00E-03	I	
6.80E-05	I	2.00E-03	I	
4.90E-03	I			
		1.00E-04	X	
6.00E-06	CA	1.00E-03	I	
		1.00E-01	I	
		3.00E-03	X	
2.00E-05	S			
5.70E-04	S			
5.70E-04	S			
5.70E-04	S			
5.70E-04	S			
5.70E-04	S			
5.70E-04	S			
3.10E-05	I			
1.10E-04	CA			Mut
7.80E-06	I	3.00E-02	I	
4.90E-05	CA	1.00E-03	P	
		4.00E-04	X	
1.00E-05	H			
3.30E-04	I			
6.20E-02	I			
		2.00E-02	P	
		1.30E-02	CA	
6.00E-04	X			
		6.00E-02	I	
		4.00E-02	X	
3.70E-05	CA			
1.10E-06	I			
		5.00E-03	I	
3.00E-05	I	2.00E-03	I	
		3.00E+01	P	
		7.00E-01	I	
6.00E-06	I	1.00E-01	I	
1.00E-04	I	7.00E-04	I	
		1.50E-04	A	
		2.00E-04	I	
		5.00E+01	I	
3.00E-04	I	2.00E-02	I	
		5.00E-02	P	
		3.00E-01	P	
		5.00E+01	I	
2.30E-05	I	9.80E-02	A	
		9.00E-02	I	
6.90E-04	CA			
		4.00E-04	CA	
6.20E-04	I			Mut
		4.00E-01	I	
		8.00E-04	S	
		6.00E+00	I	
		7.00E-01	P	

**OSWER VAPOR INTRUSION ASSESSMENT**

Sub-slab or Exterior Soil Gas Concentration to Indoor Air Concentration (SGC-IAC) Calculator Version 3.4, June 2015 RSLs

GB-5, 8-feet

Parameter	Symbol	Value	Instructions
Exposure Scenario	Scenario	Residential	Select residential or commercial scenario from pull down list
Target Risk for Carcinogens	TCR_SG	1.00E-05	Enter target risk for carcinogens (for comparison to the calculated VI carcinogenic risk in column F)
Target Hazard Quotient for Non-Carcinogens	THQ_SG	1	Enter target hazard quotient for non-carcinogens (for comparison to the calculated VI hazard in column G)

CAS	Chemical Name	Site Sub-slab or Exterior Soil Gas Concentration	Calculated Indoor Air Concentration	VI Carcinogenic Risk	VI Hazard
		Csg (ug/m <sup>3</sup> )	Cia (ug/m <sup>3</sup> )	CR	HQ
110-83-8	Cyclohexene		--	--	--
72-55-9	DDE, p,p'-		--	--	--
96-12-8	Dibromo-3-chloropropane, 1,2-		--	--	--
124-48-1	Dibromochloromethane		--	--	--
106-93-4	Dibromoethane, 1,2-		--	--	--
74-95-3	Dibromomethane (Methylene Bromide)		--	--	--
764-41-0	Dichloro-2-butene, 1,4-		--	--	--
1476-11-5	Dichloro-2-butene, cis-1,4-		--	--	--
110-57-6	Dichloro-2-butene, trans-1,4-		--	--	--
95-50-1	Dichlorobenzene, 1,2-		--	--	--
106-46-7	Dichlorobenzene, 1,4-		--	--	--
75-71-8	Dichlorodifluoromethane	3.1E+00	9.30E-02	No IUR	8.9E-04
75-34-3	Dichloroethane, 1,1-		--	--	--
107-06-2	Dichloroethane, 1,2-		--	--	--
75-35-4	Dichloroethylene, 1,1-		--	--	--
78-87-5	Dichloropropane, 1,2-		--	--	--
542-75-6	Dichloropropene, 1,3-		--	--	--
77-73-6	Dicyclopentadiene		--	--	--
75-37-6	Difluoroethane, 1,1-		--	--	--
94-58-6	Dihydrosafrole		--	--	--
108-20-3	Diisopropyl Ether		--	--	--
68-12-2	Dimethylformamide		--	--	--
57-14-7	Dimethylhydrazine, 1,1-		--	--	--
540-73-8	Dimethylhydrazine, 1,2-		--	--	--
513-37-1	Dimethylvinylchloride		--	--	--
123-91-1	Dioxane, 1,4-		--	--	--
106-89-8	Epichlorohydrin		--	--	--
106-88-7	Epoxycbutane, 1,2-		--	--	--
111-15-9	Ethoxyethanol Acetate, 2-		--	--	--
110-80-5	Ethoxyethanol, 2-		--	--	--
141-78-6	Ethyl Acetate		--	--	--
75-00-3	Ethyl Chloride (Chloroethane)		--	--	--
97-63-2	Ethyl Methacrylate		--	--	--
100-41-4	Ethylbenzene		--	--	--
75-21-8	Ethylene Oxide		--	--	--
151-56-4	Ethyleneimine		--	--	--
50-00-0	Formaldehyde		--	--	--
64-18-6	Formic Acid		--	--	--
98-01-1	Furfural		--	--	--
765-34-4	Glycidyl		--	--	--
76-44-8	Heptachlor		--	--	--
1024-57-3	Heptachlor Epoxide		--	--	--
39635-31-9	Heptachlorobiphenyl, 2,3,3',4,4',5,5'- (PCB 189)		--	--	--
118-74-1	Hexachlorobenzene		--	--	--
38380-08-4	Hexachlorobiphenyl, 2,3,3',4,4',5'- (PCB 156)		--	--	--
69782-90-7	Hexachlorobiphenyl, 2,3,3',4,4',5'- (PCB 157)		--	--	--
52663-72-6	Hexachlorobiphenyl, 2,3,3',4,4',5,5'- (PCB 167)		--	--	--
32774-16-6	Hexachlorobiphenyl, 3,3',4,4',5,5'- (PCB 169)		--	--	--
87-68-3	Hexachlorobutadiene		--	--	--
77-47-4	Hexachlorocyclopentadiene		--	--	--
67-72-1	Hexachloroethane		--	--	--
822-06-0	Hexamethylene Diisocyanate, 1,6-		--	--	--
110-54-3	Hexane, N-	3.0E+01	9.00E-01	No IUR	1.2E-03
591-78-6	Hexanone, 2-		--	--	--
302-01-2	Hydrazine		--	--	--
7647-01-0	Hydrogen Chloride		--	--	--

Inhalation Unit Risk	IUR Source*	Reference Concentration	RFC Source*	Mutagenic Indicator
IUR (ug/m <sup>3</sup> ) <sup>-1</sup>		RfC (mg/m <sup>3</sup> )		i
		1.00E+00	X	
9.70E-05	CA			
6.00E-03	P	2.00E-04	I	Mut
2.70E-05	CA			
6.00E-04	I	9.00E-03	I	
		4.00E-03	X	
4.20E-03	P			
4.20E-03	P			
4.20E-03	P			
		2.00E-01	H	
1.10E-05	CA	8.00E-01	I	
		1.00E-01	X	
1.60E-06	CA			
2.60E-05	I	7.00E-03	P	
		2.00E-01	I	
1.00E-05	CA	4.00E-03	I	
4.00E-06	I	2.00E-02	I	
		3.00E-04	X	
		4.00E+01	I	
1.30E-05	CA			
		7.00E-01	P	
		3.00E-02	I	
		2.00E-06	X	
1.60E-01	CA			
1.30E-05	CA			
5.00E-06	I	3.00E-02	I	
1.20E-06	I	1.00E-03	I	
		2.00E-02	I	
		6.00E-02	P	
		2.00E-01	I	
		7.00E-02	P	
		1.00E+01	I	
		3.00E-01	P	
2.50E-06	CA	1.00E+00	I	
8.80E-05	CA	3.00E-02	CA	
1.90E-02	CA			
1.30E-05	I	9.80E-03	A	
		3.00E-04	X	
		5.00E-02	H	
		1.00E-03	H	
1.30E-03	I			
2.60E-03	I			
1.10E-03	E	1.30E-03	E	
4.60E-04	I			
1.10E-03	E	1.30E-03	E	
1.10E-03	E	1.30E-03	E	
1.10E-03	E	1.30E-03	E	
1.10E+00	E	1.30E-06	E	
2.20E-05	I			
		2.00E-04	I	
1.10E-05	CA	3.00E-02	I	
		1.00E-05	I	
		7.00E-01	I	
		3.00E-02	I	
4.90E-03	I	3.00E-05	P	
		2.00E-02	I	

**OSWER VAPOR INTRUSION ASSESSMENT**

Sub-slab or Exterior Soil Gas Concentration to Indoor Air Concentration (SGC-IAC) Calculator Version 3.4, June 2015 RSLs

GB-5, 8-feet

Parameter	Symbol	Value	Instructions
Exposure Scenario	Scenario	Residential	Select residential or commercial scenario from pull down list
Target Risk for Carcinogens	TCR_SG	1.00E-05	Enter target risk for carcinogens (for comparison to the calculated VI carcinogenic risk in column F)
Target Hazard Quotient for Non-Carcinogens	THQ_SG	1	Enter target hazard quotient for non-carcinogens (for comparison to the calculated VI hazard in column G)

CAS	Chemical Name	Site Sub-slab or Exterior Soil Gas Concentration	Calculated Indoor Air Concentration	VI Carcinogenic Risk	VI Hazard
		Csg (ug/m <sup>3</sup> )	Cia (ug/m <sup>3</sup> )	CR	HQ
74-90-8	Hydrogen Cyanide		--	--	--
7664-39-3	Hydrogen Fluoride		--	--	--
7783-06-4	Hydrogen Sulfide		--	--	--
67-63-0	Isopropanol		--	--	--
7439-97-6	Mercury (elemental)		--	--	--
126-98-7	Methacrylonitrile		--	--	--
67-56-1	Methanol		--	--	--
110-49-6	Methoxyethanol Acetate, 2-		--	--	--
109-86-4	Methoxyethanol, 2-		--	--	--
96-33-3	Methyl Acrylate		--	--	--
78-93-3	Methyl Ethyl Ketone (2-Butanone)		--	--	--
60-34-4	Methyl Hydrazine		--	--	--
108-10-1	Methyl Isobutyl Ketone (4-methyl-2-pentanone)		--	--	--
624-83-9	Methyl Isocyanate		--	--	--
80-62-6	Methyl Methacrylate		--	--	--
25013-15-4	Methyl Styrene (Mixed Isomers)		--	--	--
1634-04-4	Methyl tert-Butyl Ether (MTBE)	2.7E+01	8.10E-01	7.5E-08	2.6E-04
75-09-2	Methylene Chloride	2.9E+00	8.70E-02	8.6E-10	1.4E-04
2385-85-5	Mirex		--	--	--
64742-95-6	Naphtha, High Flash Aromatic (HFAN)		--	--	--
91-20-3	Naphthalene		--	--	--
13463-39-3	Nickel Carbonyl		--	--	--
98-95-3	Nitrobenzene		--	--	--
75-52-5	Nitromethane		--	--	--
79-46-9	Nitropropane, 2-		--	--	--
62-75-9	Nitrosodimethylamine, N-		--	--	--
924-16-3	Nitroso-di-N-butylamine, N-		--	--	--
10595-95-6	Nitrosomethylethylamine, N-		--	--	--
111-84-2	Nonane, n-		--	--	--
32598-14-4	Pentachlorobiphenyl, 2,3,3',4,4'- (PCB 105)		--	--	--
74472-37-0	Pentachlorobiphenyl, 2,3,4,4',5'- (PCB 114)		--	--	--
31508-00-6	Pentachlorobiphenyl, 2,3',4,4',5'- (PCB 118)		--	--	--
65510-44-3	Pentachlorobiphenyl, 2',3,4,4',5'- (PCB 123)		--	--	--
57465-28-8	Pentachlorobiphenyl, 3,3',4,4',5'- (PCB 126)		--	--	--
109-66-0	Pentane, n-		--	--	--
75-44-5	Phosgene		--	--	--
7803-51-2	Phosphine		--	--	--
123-38-6	Propionaldehyde		--	--	--
103-65-1	Propyl benzene		--	--	--
115-07-1	Propylene		--	--	--
107-98-2	Propylene Glycol Monomethyl Ether		--	--	--
75-56-9	Propylene Oxide		--	--	--
100-42-5	Styrene		--	--	--
7446-11-9	Sulfur Trioxide		--	--	--
1746-01-6	TCDD, 2,3,7,8-		--	--	--
70362-50-4	Tetrachlorobiphenyl, 3,4,4',5'- (PCB 81)		--	--	--
630-20-6	Tetrachloroethane, 1,1,1,2-		--	--	--
79-34-5	Tetrachloroethane, 1,1,2,2-		--	--	--
127-18-4	Tetrachloroethylene		--	--	--
811-97-2	Tetrafluoroethane, 1,1,1,2-		--	--	--
109-99-9	Tetrahydrofuran		--	--	--
7550-45-0	Titanium Tetrachloride		--	--	--
108-88-3	Toluene	3.3E+00	9.90E-02	No IUR	1.9E-05
76-13-1	Trichloro-1,2,2-trifluoroethane, 1,1,2-		--	--	--
120-82-1	Trichlorobenzene, 1,2,4-		--	--	--
71-55-6	Trichloroethane, 1,1,1-		--	--	--

Inhalation Unit Risk	IUR Source*	Reference Concentration	RFC Source*	Mutagenic Indicator
IUR (ug/m <sup>3</sup> ) <sup>-1</sup>		RfC (mg/m <sup>3</sup> )		i
		8.00E-04	I	
		1.40E-02	CA	
		2.00E-03	I	
		2.00E-01	P	
		3.00E-04	I	
		3.00E-02	P	
		2.00E+01	I	
		1.00E-03	P	
		2.00E-02	I	
		2.00E-02	P	
		5.00E+00	I	
1.00E-03	X	2.00E-05	X	
		3.00E+00	I	
		1.00E-03	CA	
		7.00E-01	I	
		4.00E-02	H	
2.60E-07	CA	3.00E+00	I	
1.00E-08	I	6.00E-01	I	Mut
5.10E-03	CA			
		1.00E-01	P	
3.40E-05	CA	3.00E-03	I	
2.60E-04	CA	1.40E-05	CA	
4.00E-05	I	9.00E-03	I	
8.80E-06	P	5.00E-03	P	
2.70E-03	H	2.00E-02	I	
1.40E-02	I	4.00E-05	X	Mut
1.60E-03	I			
6.30E-03	CA			
		2.00E-02	P	
1.10E-03	E	1.30E-03	E	
1.10E-03	E	1.30E-03	E	
1.10E-03	E	1.30E-03	E	
1.10E-03	E	1.30E-03	E	
3.80E+00	E	4.00E-07	E	
		1.00E+00	P	
		3.00E-04	I	
		3.00E-04	I	
		8.00E-03	I	
		1.00E+00	X	
		3.00E+00	CA	
		2.00E+00	I	
3.70E-06	I	3.00E-02	I	
		1.00E+00	I	
		1.00E-03	CA	
3.80E+01	CA	4.00E-08	CA	
1.10E-02	E	1.30E-04	E	
7.40E-06	I			
5.80E-05	CA			
2.60E-07	I	4.00E-02	I	
		8.00E+01	I	
		2.00E+00	I	
		1.00E-04	A	
		5.00E+00	I	
		3.00E+01	H	
		2.00E-03	P	
		5.00E+00	I	

**OSWER VAPOR INTRUSION ASSESSMENT**

Sub-slab or Exterior Soil Gas Concentration to Indoor Air Concentration (SGC-IAC) Calculator Version 3.4, June 2015 RSLs

GB-5, 8-feet

Parameter	Symbol	Value	Instructions
Exposure Scenario	Scenario	Residential	Select residential or commercial scenario from pull down list
Target Risk for Carcinogens	TCR_SG	1.00E-05	Enter target risk for carcinogens (for comparison to the calculated VI carcinogenic risk in column F)
Target Hazard Quotient for Non-Carcinogens	THQ_SG	1	Enter target hazard quotient for non-carcinogens (for comparison to the calculated VI hazard in column G)

CAS	Chemical Name	Site Sub-slab or Exterior Soil Gas Concentration	Calculated Indoor Air Concentration	VI Carcinogenic Risk	VI Hazard
		Csg (ug/m <sup>3</sup> )	Cia (ug/m <sup>3</sup> )	CR	HQ
79-00-5	Trichloroethane, 1,1,2-		--	--	--
79-01-6	Trichloroethylene		--	--	--
75-69-4	Trichlorofluoromethane		--	--	--
96-18-4	Trichloropropane, 1,2,3-		--	--	--
96-19-5	Trichloropropene, 1,2,3-		--	--	--
121-44-8	Triethylamine		--	--	--
526-73-8	Trimethylbenzene, 1,2,3-		--	--	--
95-63-6	Trimethylbenzene, 1,2,4-		--	--	--
108-05-4	Vinyl Acetate		--	--	--
593-60-2	Vinyl Bromide		--	--	--
75-01-4	Vinyl Chloride		--	--	--
108-38-3	Xylene, m-		--	--	--
95-47-6	Xylene, o-		--	--	--
106-42-3	Xylene, P-		--	--	--
1330-20-7	Xylenes		--	--	--
140-88-5	Ethyl Acrylate		--	--	--

Inhalation Unit Risk	IUR Source*	Reference Concentration	RFC Source*	Mutagenic Indicator
IUR (ug/m <sup>3</sup> ) <sup>-1</sup>		RfC (mg/m <sup>3</sup> )		i
1.60E-05	I	2.00E-04	X	
see note	I	2.00E-03	I	TCE
		7.00E-01	H	
		3.00E-04	I	Mut
		3.00E-04	P	
		7.00E-03	I	
		5.00E-03	P	
		7.00E-03	P	
		2.00E-01	I	
3.20E-05	H	3.00E-03	I	
4.40E-06	I	1.00E-01	I	Mut
		1.00E-01	S	
		1.00E-01	S	
		1.00E-01	S	
		1.00E-01	I	
		8.00E-03	P	

**Notes:**

 (1) **Inhalation Pathway Exposure Parameters (RME):**
**Exposure Scenario**

 Averaging time for carcinogens  
 Averaging time for non-carcinogens  
 Exposure duration  
 Exposure frequency  
 Exposure time

**Units**

 (yrs)  
 (yrs)  
 (yrs)  
 (days/yr)  
 (hr/day)

**Residential**

Symbol	Value	Symbol	Value
ATc_R_SG	70	ATc_C_SG	70
ATnc_R_SG	26	ATnc_C_SG	25
ED_R_SG	26	ED_C_SG	25
EF_R_SG	350	EF_C_SG	250
ET_R_SG	24	ET_C_SG	8

**Commercial**
**Selected (based on scenario)**

Symbol	Value	Symbol	Value
ATc_SG	70	ATc_SG	70
ATnc_SG	26	ATnc_SG	26
ED_SG	26	ED_SG	26
EF_SG	350	EF_SG	350
ET_SG	24	ET_SG	24

 (2) **Generic Attenuation Factors:**
**Source Medium of Vapors**

 Groundwater  
 Sub-Slab and Exterior Soil Gas

 (-)  
 (-)

**Residential**

Symbol	Value	Symbol	Value
AFgw_R_SG	0.001	AFgw_C_SG	0.001
AFss_R_SG	0.03	AFss_C_SG	0.03

**Commercial**
**Selected (based on scenario)**

Symbol	Value	Symbol	Value
AFgw_SG	0.001	AFgw_SG	0.001
AFss_SG	0.03	AFss_SG	0.03

 (3) **Formulas**

$$Cia_{target} = \min(Cia_c; Cia_{nc})$$

$$Cia_c (ug/m^3) = TCR \times ATc \times (365 \text{ days/yr}) \times (24 \text{ hrs/day}) / (ED \times EF \times ET \times IUR)$$

$$Cia_{nc} (ug/m^3) = THQ \times ATnc \times (365 \text{ days/yr}) \times (24 \text{ hrs/day}) \times RFC \times (1000 \text{ ug/mg}) / (ED \times EF \times ET)$$

 (4) **Special Case Chemicals**

Trichloroethylene

**Residential**

Symbol	Value	Symbol	Value
mIURTCE_R_SG	1.00E-06	nIURTCE_C_SG	0.00E+00
IURTCE_R_SG	3.10E-06	IURTCE_C_SG	4.10E-06

**Commercial**
**Selected (based on scenario)**

Symbol	Value	Symbol	Value
mIURTCE_SG	1.00E-06	mIURTCE_SG	1.00E-06
IURTCE_SG	3.10E-06	IURTCE_SG	3.10E-06

Mutagenic Chemicals

The exposure durations and age-dependent adjustment factors for mutagenic-mode-of-action are listed in the table below:

Note: This section applies to trichloroethylene and other mutagenic chemicals, but not to vinyl chloride.

Age Cohort	Exposure Duration	Age-dependent adjustment factor
0 - 2 years	2	10
2 - 6 years	4	3
6 - 16 years	10	3
16 - 26 years	10	1

Mutagenic-mode-of-action (MMAO) adjustment factor

72

This factor is used in the equations for mutagenic chemicals.



# OSWER VAPOR INTRUSION ASSESSMENT

Sub-slab or Exterior Soil Gas Concentration to Indoor Air Concentration (SGC-IAC) Calculator Version 3.4, June 2015 RSLs

GB-5, 8-feet

Parameter	Symbol	Value	Instructions
Exposure Scenario	Scenario	Residential	Select residential or commercial scenario from pull down list
Target Risk for Carcinogens	TCR_SG	1.00E-05	Enter target risk for carcinogens (for comparison to the calculated VI carcinogenic risk in column F)
Target Hazard Quotient for Non-Carcinogens	THQ_SG	1	Enter target hazard quotient for non-carcinogens (for comparison to the calculated VI hazard in column G)

CAS	Chemical Name	Site Sub-slab or Exterior Soil Gas Concentration	Calculated Indoor Air Concentration	VI Carcinogenic Risk	VI Hazard
		Csg	Cia	CR	HQ
		(ug/m <sup>3</sup> )	(ug/m <sup>3</sup> )		

Vinyl Chloride

See the Navigation Guide equation for Cia,c for vinyl chloride.

Inhalation Unit Risk	IUR Source*	Reference Concentration	RFC Source*	Mutagenic Indicator
IUR		RfC		
(ug/m <sup>3</sup> ) <sup>-1</sup>		(mg/m <sup>3</sup> )		i

## Notation:

I = IRIS: EPA Integrated Risk Information System (IRIS). Available online at:

<http://www.epa.gov/iris/subst/index.html>

P = PPRTV. EPA Provisional Peer Reviewed Toxicity Values (PPRTVs). Available online at:

<http://hhpprtv.ornl.gov/pprtv.shtml>

A = Agency for Toxic Substances and Disease Registry (ATSDR) Minimum Risk Levels (MRLs). Available online at:

<http://www.atsdr.cdc.gov/mrls/index.html>

CA = California Environmental Protection Agency/Office of Environmental Health Hazard Assessment assessments. Available online at:

<http://www.oehha.ca.gov/risk/ChemicalDB/index.asp>

H = HEAST. EPA Superfund Health Effects Assessment Summary Tables (HEAST) database. Available online at:

<http://epa-heast.ornl.gov/heast.shtml>

S = See RSL User Guide, Section 5

X = PPRTV Appendix

Mut = Chemical acts according to the mutagenic-mode-of-action, special exposure parameters apply (see footnote (4) above).

VC = Special exposure equation for vinyl chloride applies (see Navigation Guide for equation).

TCE = Special mutagenic and non-mutagenic IURs for trichloroethylene apply (see footnote (4) above).

Yellow highlighting indicates site-specific parameters that may be edited by the user.

Blue highlighting indicates exposure factors that are based on Risk Assessment Guidance for Superfund (RAGS) or EPA vapor intrusion guidance, which generally should not be changed.

Pink highlighting indicates VI carcinogenic risk greater than the target risk for carcinogens (TCR) or VI Hazard greater than or equal to the target hazard quotient for non-carcinogens (THQ).

**OSWER VAPOR INTRUSION ASSESSMENT**

Sub-slab or Exterior Soil Gas Concentration to Indoor Air Concentration (SGC-IAC) Calculator Version 3.4, June 2015 RSLs

GB-7, 5-feet

Parameter	Symbol	Value	Instructions
Exposure Scenario	Scenario	Residential	Select residential or commercial scenario from pull down list
Target Risk for Carcinogens	TCR_SG	1.00E-06	Enter target risk for carcinogens (for comparison to the calculated VI carcinogenic risk in column F)
Target Hazard Quotient for Non-Carcinogens	THQ_SG	1	Enter target hazard quotient for non-carcinogens (for comparison to the calculated VI hazard in column G)

CAS	Chemical Name	Site Sub-slab or Exterior Soil Gas Concentration	Calculated Indoor Air Concentration	VI Carcinogenic Risk	VI Hazard
		Csg (ug/m <sup>3</sup> )	Cia (ug/m <sup>3</sup> )	CR	HQ
x 75-07-0	Acetaldehyde		--	--	--
67-64-1	Acetone	1.0E+01	3.00E-01	No IUR	9.3E-06
75-86-5	Acetone Cyanohydrin		--	--	--
75-05-8	Acetonitrile		--	--	--
107-02-8	Acrolein		--	--	--
79-10-7	Acrylic Acid		--	--	--
107-13-1	Acrylonitrile		--	--	--
309-00-2	Aldrin		--	--	--
107-18-6	Allyl Alcohol		--	--	--
107-05-1	Allyl Chloride		--	--	--
7664-41-7	Ammonia		--	--	--
75-85-4	Amyl Alcohol, tert-		--	--	--
12674-11-2	Aroclor 1016		--	--	--
11104-28-2	Aroclor 1221		--	--	--
11141-16-5	Aroclor 1232		--	--	--
53469-21-9	Aroclor 1242		--	--	--
12672-29-6	Aroclor 1248		--	--	--
11097-69-1	Aroclor 1254		--	--	--
11096-82-5	Aroclor 1260		--	--	--
x 103-33-3	Azobenzene		--	--	--
56-55-3	Benz[a]anthracene	1.2E-01	3.60E-03	1.0E-08	1.2E-04
71-43-2	Benzene		--	--	--
100-44-7	Benzyl Chloride		--	--	--
92-52-4	Biphenyl, 1,1'-		--	--	--
108-60-1	Bis(2-chloro-1-methylethyl) ether		--	--	--
111-44-4	Bis(2-chloroethyl)ether		--	--	--
542-88-1	Bis(chloromethyl)ether		--	--	--
10294-34-5	Boron Trichloride		--	--	--
7637-07-2	Boron Trifluoride		--	--	--
107-04-0	Bromo-2-chloroethane, 1-		--	--	--
108-86-1	Bromobenzene		--	--	--
74-97-5	Bromochloromethane		--	--	--
75-27-4	Bromodichloromethane		--	--	--
75-25-2	Bromoform		--	--	--
74-83-9	Bromomethane		--	--	--
106-99-0	Butadiene, 1,3-		--	--	--
78-92-2	Butyl alcohol, sec-		--	--	--
75-15-0	Carbon Disulfide	1.2E+00	3.60E-02	No IUR	4.9E-05
56-23-5	Carbon Tetrachloride	6.3E-02	1.89E-03	4.0E-09	1.8E-05
12789-03-6	Chlordane		--	--	--
7782-50-5	Chlorine		--	--	--
10049-04-4	Chlorine Dioxide		--	--	--
75-68-3	Chloro-1,1-difluoroethane, 1-		--	--	--
126-99-8	Chloro-1,3-butadiene, 2-		--	--	--
108-90-7	Chlorobenzene		--	--	--
98-56-6	Chlorobenzotrifluoride, 4-		--	--	--
75-45-6	Chlorodifluoromethane		--	--	--
67-66-3	Chloroform		--	--	--
74-87-3	Chloromethane	1.3E+00	3.90E-02	No IUR	4.2E-04
107-30-2	Chloromethyl Methyl Ether		--	--	--
76-06-2	Chloropicrin		--	--	--
8007-45-2	Coke Oven Emissions		--	--	--
98-82-8	Cumene		--	--	--
x 57-12-5	Cyanide (CN-)		--	--	--
110-82-7	Cyclohexane		--	--	--
108-94-1	Cyclohexanone		--	--	--

Inhalation Unit Risk	IUR Source*	Reference Concentration	RFC Source*	Mutagenic Indicator
IUR (ug/m <sup>3</sup> ) <sup>-1</sup>		RfC (mg/m <sup>3</sup> )		i
2.20E-06	I	9.00E-03	I	
		3.10E+01	A	
		2.00E-03	X	
		6.00E-02	I	
		2.00E-05	I	
		1.00E-03	I	
6.80E-05	I	2.00E-03	I	
4.90E-03	I			
		1.00E-04	X	
6.00E-06	CA	1.00E-03	I	
		1.00E-01	I	
		3.00E-03	X	
2.00E-05	S			
5.70E-04	S			
5.70E-04	S			
5.70E-04	S			
5.70E-04	S			
5.70E-04	S			
5.70E-04	S			
3.10E-05	I			
1.10E-04	CA			Mut
7.80E-06	I	3.00E-02	I	
4.90E-05	CA	1.00E-03	P	
		4.00E-04	X	
1.00E-05	H			
3.30E-04	I			
6.20E-02	I			
		2.00E-02	P	
		1.30E-02	CA	
6.00E-04	X			
		6.00E-02	I	
		4.00E-02	X	
3.70E-05	CA			
1.10E-06	I			
		5.00E-03	I	
3.00E-05	I	2.00E-03	I	
		3.00E+01	P	
		7.00E-01	I	
6.00E-06	I	1.00E-01	I	
1.00E-04	I	7.00E-04	I	
		1.50E-04	A	
		2.00E-04	I	
		5.00E+01	I	
3.00E-04	I	2.00E-02	I	
		5.00E-02	P	
		3.00E-01	P	
		5.00E+01	I	
2.30E-05	I	9.80E-02	A	
		9.00E-02	I	
6.90E-04	CA			
		4.00E-04	CA	
6.20E-04	I			Mut
		4.00E-01	I	
		8.00E-04	S	
		6.00E+00	I	
		7.00E-01	P	

**OSWER VAPOR INTRUSION ASSESSMENT**

Sub-slab or Exterior Soil Gas Concentration to Indoor Air Concentration (SGC-IAC) Calculator Version 3.4, June 2015 RSLs

GB-7, 5-feet

Parameter	Symbol	Value	Instructions
Exposure Scenario	Scenario	Residential	Select residential or commercial scenario from pull down list
Target Risk for Carcinogens	TCR_SG	1.00E-06	Enter target risk for carcinogens (for comparison to the calculated VI carcinogenic risk in column F)
Target Hazard Quotient for Non-Carcinogens	THQ_SG	1	Enter target hazard quotient for non-carcinogens (for comparison to the calculated VI hazard in column G)

CAS	Chemical Name	Site Sub-slab or Exterior Soil Gas Concentration	Calculated Indoor Air Concentration	VI Carcinogenic Risk	VI Hazard
		Csg (ug/m <sup>3</sup> )	Cia (ug/m <sup>3</sup> )	CR	HQ
110-83-8	Cyclohexene		--	--	--
72-55-9	DDE, p,p'-		--	--	--
96-12-8	Dibromo-3-chloropropane, 1,2-		--	--	--
124-48-1	Dibromochloromethane		--	--	--
106-93-4	Dibromoethane, 1,2-		--	--	--
74-95-3	Dibromomethane (Methylene Bromide)		--	--	--
764-41-0	Dichloro-2-butene, 1,4-		--	--	--
1476-11-5	Dichloro-2-butene, cis-1,4-		--	--	--
110-57-6	Dichloro-2-butene, trans-1,4-		--	--	--
95-50-1	Dichlorobenzene, 1,2-		--	--	--
106-46-7	Dichlorobenzene, 1,4-		--	--	--
75-71-8	Dichlorodifluoromethane	4.4E-01	1.32E-02	No IUR	1.3E-04
75-34-3	Dichloroethane, 1,1-		--	--	--
107-06-2	Dichloroethane, 1,2-		--	--	--
75-35-4	Dichloroethylene, 1,1-		--	--	--
78-87-5	Dichloropropane, 1,2-		--	--	--
542-75-6	Dichloropropene, 1,3-		--	--	--
77-73-6	Dicyclopentadiene		--	--	--
75-37-6	Difluoroethane, 1,1-		--	--	--
94-58-6	Dihydrosafrole		--	--	--
108-20-3	Diisopropyl Ether		--	--	--
68-12-2	Dimethylformamide		--	--	--
57-14-7	Dimethylhydrazine, 1,1-		--	--	--
540-73-8	Dimethylhydrazine, 1,2-		--	--	--
513-37-1	Dimethylvinylchloride		--	--	--
123-91-1	Dioxane, 1,4-	2.5E-01	7.50E-03	1.3E-08	2.4E-04
106-89-8	Epichlorohydrin		--	--	--
106-88-7	Epoxycbutane, 1,2-		--	--	--
111-15-9	Ethoxyethanol Acetate, 2-		--	--	--
110-80-5	Ethoxyethanol, 2-		--	--	--
141-78-6	Ethyl Acetate		--	--	--
75-00-3	Ethyl Chloride (Chloroethane)	1.7E-01	5.10E-03	No IUR	4.9E-07
97-63-2	Ethyl Methacrylate		--	--	--
100-41-4	Ethylbenzene		--	--	--
75-21-8	Ethylene Oxide		--	--	--
151-56-4	Ethyleneimine		--	--	--
50-00-0	Formaldehyde		--	--	--
64-18-6	Formic Acid		--	--	--
98-01-1	Furfural		--	--	--
765-34-4	Glycidyl		--	--	--
76-44-8	Heptachlor		--	--	--
1024-57-3	Heptachlor Epoxide		--	--	--
39635-31-9	Heptachlorobiphenyl, 2,3,3',4,4',5,5'- (PCB 189)		--	--	--
118-74-1	Hexachlorobenzene		--	--	--
38380-08-4	Hexachlorobiphenyl, 2,3,3',4,4',5'- (PCB 156)		--	--	--
69782-90-7	Hexachlorobiphenyl, 2,3,3',4,4',5'- (PCB 157)		--	--	--
52663-72-6	Hexachlorobiphenyl, 2,3,3',4,4',5,5'- (PCB 167)		--	--	--
32774-16-6	Hexachlorobiphenyl, 3,3',4,4',5,5'- (PCB 169)		--	--	--
87-68-3	Hexachlorobutadiene		--	--	--
77-47-4	Hexachlorocyclopentadiene		--	--	--
67-72-1	Hexachloroethane		--	--	--
822-06-0	Hexamethylene Diisocyanate, 1,6-		--	--	--
110-54-3	Hexane, N-	1.0E-01	3.00E-03	No IUR	4.1E-06
591-78-6	Hexanone, 2-		--	--	--
302-01-2	Hydrazine		--	--	--
7647-01-0	Hydrogen Chloride		--	--	--

Inhalation Unit Risk	IUR Source*	Reference Concentration	RFC Source*	Mutagenic Indicator
IUR (ug/m <sup>3</sup> ) <sup>-1</sup>		RfC (mg/m <sup>3</sup> )		i
		1.00E+00	X	
9.70E-05	CA			
6.00E-03	P	2.00E-04	I	Mut
2.70E-05	CA			
6.00E-04	I	9.00E-03	I	
		4.00E-03	X	
4.20E-03	P			
4.20E-03	P			
4.20E-03	P			
		2.00E-01	H	
1.10E-05	CA	8.00E-01	I	
		1.00E-01	X	
1.60E-06	CA			
2.60E-05	I	7.00E-03	P	
		2.00E-01	I	
1.00E-05	CA	4.00E-03	I	
4.00E-06	I	2.00E-02	I	
		3.00E-04	X	
		4.00E+01	I	
1.30E-05	CA			
		7.00E-01	P	
		3.00E-02	I	
		2.00E-06	X	
1.60E-01	CA			
1.30E-05	CA			
5.00E-06	I	3.00E-02	I	
1.20E-06	I	1.00E-03	I	
		2.00E-02	I	
		6.00E-02	P	
		2.00E-01	I	
		7.00E-02	P	
		1.00E+01	I	
		3.00E-01	P	
2.50E-06	CA	1.00E+00	I	
8.80E-05	CA	3.00E-02	CA	
1.90E-02	CA			
1.30E-05	I	9.80E-03	A	
		3.00E-04	X	
		5.00E-02	H	
		1.00E-03	H	
1.30E-03	I			
2.60E-03	I			
1.10E-03	E	1.30E-03	E	
4.60E-04	I			
1.10E-03	E	1.30E-03	E	
1.10E-03	E	1.30E-03	E	
1.10E-03	E	1.30E-03	E	
1.10E+00	E	1.30E-06	E	
2.20E-05	I			
		2.00E-04	I	
1.10E-05	CA	3.00E-02	I	
		1.00E-05	I	
		7.00E-01	I	
		3.00E-02	I	
4.90E-03	I	3.00E-05	P	
		2.00E-02	I	

**OSWER VAPOR INTRUSION ASSESSMENT**

Sub-slab or Exterior Soil Gas Concentration to Indoor Air Concentration (SGC-IAC) Calculator Version 3.4, June 2015 RSLs

GB-7, 5-feet

Parameter	Symbol	Value	Instructions
Exposure Scenario	Scenario	Residential	Select residential or commercial scenario from pull down list
Target Risk for Carcinogens	TCR_SG	1.00E-06	Enter target risk for carcinogens (for comparison to the calculated VI carcinogenic risk in column F)
Target Hazard Quotient for Non-Carcinogens	THQ_SG	1	Enter target hazard quotient for non-carcinogens (for comparison to the calculated VI hazard in column G)

CAS	Chemical Name	Site Sub-slab or Exterior Soil Gas Concentration	Calculated Indoor Air Concentration	VI Carcinogenic Risk	VI Hazard
		Csg (ug/m <sup>3</sup> )	Cia (ug/m <sup>3</sup> )	CR	HQ
74-90-8	Hydrogen Cyanide		--	--	--
7664-39-3	Hydrogen Fluoride		--	--	--
7783-06-4	Hydrogen Sulfide		--	--	--
67-63-0	Isopropanol		--	--	--
7439-97-6	Mercury (elemental)		--	--	--
126-98-7	Methacrylonitrile		--	--	--
67-56-1	Methanol		--	--	--
110-49-6	Methoxyethanol Acetate, 2-		--	--	--
109-86-4	Methoxyethanol, 2-		--	--	--
96-33-3	Methyl Acrylate		--	--	--
78-93-3	Methyl Ethyl Ketone (2-Butanone)	1.1E+00	3.30E-02	No IUR	6.3E-06
60-34-4	Methyl Hydrazine		--	--	--
108-10-1	Methyl Isobutyl Ketone (4-methyl-2-pentanone)	4.8E-01	1.44E-02	No IUR	4.6E-06
624-83-9	Methyl Isocyanate		--	--	--
80-62-6	Methyl Methacrylate		--	--	--
25013-15-4	Methyl Styrene (Mixed Isomers)		--	--	--
1634-04-4	Methyl tert-Butyl Ether (MTBE)		--	--	--
75-09-2	Methylene Chloride	4.1E-01	1.23E-02	1.2E-10	2.0E-05
2385-85-5	Mirex		--	--	--
64742-95-6	Naphtha, High Flash Aromatic (HFAN)		--	--	--
91-20-3	Naphthalene		--	--	--
13463-39-3	Nickel Carbonyl		--	--	--
98-95-3	Nitrobenzene		--	--	--
75-52-5	Nitromethane		--	--	--
79-46-9	Nitropropane, 2-		--	--	--
62-75-9	Nitrosodimethylamine, N-		--	--	--
924-16-3	Nitroso-di-N-butylamine, N-		--	--	--
10595-95-6	Nitrosomethylethylamine, N-		--	--	--
111-84-2	Nonane, n-		--	--	--
32598-14-4	Pentachlorobiphenyl, 2,3,3',4,4'- (PCB 105)		--	--	--
74472-37-0	Pentachlorobiphenyl, 2,3,4,4',5'- (PCB 114)		--	--	--
31508-00-6	Pentachlorobiphenyl, 2,3',4,4',5'- (PCB 118)		--	--	--
65510-44-3	Pentachlorobiphenyl, 2',3,4,4',5'- (PCB 123)		--	--	--
57465-28-8	Pentachlorobiphenyl, 3,3',4,4',5'- (PCB 126)		--	--	--
109-66-0	Pentane, n-		--	--	--
75-44-5	Phosgene		--	--	--
7803-51-2	Phosphine		--	--	--
123-38-6	Propionaldehyde		--	--	--
103-65-1	Propyl benzene		--	--	--
115-07-1	Propylene		--	--	--
107-98-2	Propylene Glycol Monomethyl Ether		--	--	--
75-56-9	Propylene Oxide		--	--	--
100-42-5	Styrene		--	--	--
7446-11-9	Sulfur Trioxide		--	--	--
1746-01-6	TCDD, 2,3,7,8-		--	--	--
70362-50-4	Tetrachlorobiphenyl, 3,4,4',5'- (PCB 81)		--	--	--
630-20-6	Tetrachloroethane, 1,1,1,2-		--	--	--
79-34-5	Tetrachloroethane, 1,1,2,2-		--	--	--
127-18-4	Tetrachloroethylene		--	--	--
811-97-2	Tetrafluoroethane, 1,1,1,2-		--	--	--
109-99-9	Tetrahydrofuran	1.9E-01	5.70E-03	No IUR	2.7E-06
7550-45-0	Titanium Tetrachloride		--	--	--
108-88-3	Toluene	2.4E-01	7.20E-03	No IUR	1.4E-06
76-13-1	Trichloro-1,2,2-trifluoroethane, 1,1,2-	6.2E-02	1.86E-03	No IUR	5.9E-08
120-82-1	Trichlorobenzene, 1,2,4-		--	--	--
71-55-6	Trichloroethane, 1,1,1-		--	--	--

Inhalation Unit Risk	IUR Source*	Reference Concentration	RFC Source*	Mutagenic Indicator
IUR (ug/m <sup>3</sup> ) <sup>-1</sup>		RfC (mg/m <sup>3</sup> )		i
		8.00E-04	I	
		1.40E-02	CA	
		2.00E-03	I	
		2.00E-01	P	
		3.00E-04	I	
		3.00E-02	P	
		2.00E+01	I	
		1.00E-03	P	
		2.00E-02	I	
		2.00E-02	P	
		5.00E+00	I	
1.00E-03	X	2.00E-05	X	
		3.00E+00	I	
		1.00E-03	CA	
		7.00E-01	I	
		4.00E-02	H	
2.60E-07	CA	3.00E+00	I	
1.00E-08	I	6.00E-01	I	Mut
5.10E-03	CA			
		1.00E-01	P	
3.40E-05	CA	3.00E-03	I	
2.60E-04	CA	1.40E-05	CA	
4.00E-05	I	9.00E-03	I	
8.80E-06	P	5.00E-03	P	
2.70E-03	H	2.00E-02	I	
1.40E-02	I	4.00E-05	X	Mut
1.60E-03	I			
6.30E-03	CA			
		2.00E-02	P	
1.10E-03	E	1.30E-03	E	
1.10E-03	E	1.30E-03	E	
1.10E-03	E	1.30E-03	E	
1.10E-03	E	1.30E-03	E	
3.80E+00	E	4.00E-07	E	
		1.00E+00	P	
		3.00E-04	I	
		3.00E-04	I	
		8.00E-03	I	
		1.00E+00	X	
		3.00E+00	CA	
		2.00E+00	I	
3.70E-06	I	3.00E-02	I	
		1.00E+00	I	
		1.00E-03	CA	
3.80E+01	CA	4.00E-08	CA	
1.10E-02	E	1.30E-04	E	
7.40E-06	I			
5.80E-05	CA			
2.60E-07	I	4.00E-02	I	
		8.00E+01	I	
		2.00E+00	I	
		1.00E-04	A	
		5.00E+00	I	
		3.00E+01	H	
		2.00E-03	P	
		5.00E+00	I	

**OSWER VAPOR INTRUSION ASSESSMENT**

Sub-slab or Exterior Soil Gas Concentration to Indoor Air Concentration (SGC-IAC) Calculator Version 3.4, June 2015 RSLs

GB-7, 5-feet

Parameter	Symbol	Value	Instructions
Exposure Scenario	Scenario	Residential	Select residential or commercial scenario from pull down list
Target Risk for Carcinogens	TCR_SG	1.00E-06	Enter target risk for carcinogens (for comparison to the calculated VI carcinogenic risk in column F)
Target Hazard Quotient for Non-Carcinogens	THQ_SG	1	Enter target hazard quotient for non-carcinogens (for comparison to the calculated VI hazard in column G)

CAS	Chemical Name	Site Sub-slab or Exterior Soil Gas Concentration	Calculated Indoor Air Concentration	VI Carcinogenic Risk	VI Hazard
		Csg (ug/m <sup>3</sup> )	Cia (ug/m <sup>3</sup> )	CR	HQ
79-00-5	Trichloroethane, 1,1,2-		--	--	--
79-01-6	Trichloroethylene		--	--	--
75-69-4	Trichlorofluoromethane	2.3E-01	6.90E-03	No IUR	9.5E-06
96-18-4	Trichloropropane, 1,2,3-		--	--	--
96-19-5	Trichloropropene, 1,2,3-		--	--	--
121-44-8	Triethylamine		--	--	--
526-73-8	Trimethylbenzene, 1,2,3-		--	--	--
95-63-6	Trimethylbenzene, 1,2,4-	7.6E-02	2.28E-03	No IUR	3.1E-04
108-05-4	Vinyl Acetate		--	--	--
593-60-2	Vinyl Bromide		--	--	--
75-01-4	Vinyl Chloride		--	--	--
108-38-3	Xylene, m-	2.1E-01	6.30E-03	No IUR	6.0E-05
95-47-6	Xylene, o-	7.1E-02	2.13E-03	No IUR	2.0E-05
106-42-3	Xylene, p-		--	--	--
1330-20-7	Xylenes		--	--	--
140-88-5	Ethyl Acrylate		--	--	--

Inhalation Unit Risk	IUR Source*	Reference Concentration	RFC Source*	Mutagenic Indicator
IUR (ug/m <sup>3</sup> ) <sup>-1</sup>		RfC (mg/m <sup>3</sup> )		i
1.60E-05	I	2.00E-04	X	
see note	I	2.00E-03	I	TCE
		7.00E-01	H	
		3.00E-04	I	Mut
		3.00E-04	P	
		7.00E-03	I	
		5.00E-03	P	
		7.00E-03	P	
		2.00E-01	I	
3.20E-05	H	3.00E-03	I	
4.40E-06	I	1.00E-01	I	Mut
		1.00E-01	S	
		1.00E-01	S	
		1.00E-01	S	
		1.00E-01	I	
		8.00E-03	P	

**Notes:**

 (1) **Inhalation Pathway Exposure Parameters (RME):**
**Exposure Scenario**

 Averaging time for carcinogens  
 Averaging time for non-carcinogens  
 Exposure duration  
 Exposure frequency  
 Exposure time

**Units**

 (yrs)  
 (yrs)  
 (yrs)  
 (days/yr)  
 (hr/day)

**Residential**

Symbol	Value	Symbol	Value
ATc_R_SG	70	ATc_C_SG	70
ATnc_R_SG	26	ATnc_C_SG	25
ED_R_SG	26	ED_C_SG	25
EF_R_SG	350	EF_C_SG	250
ET_R_SG	24	ET_C_SG	8

**Commercial**
**Selected (based on scenario)**

Symbol	Value	Symbol	Value
ATc_SG	70	ATc_SG	70
ATnc_SG	26	ATnc_SG	26
ED_SG	26	ED_SG	26
EF_SG	350	EF_SG	350
ET_SG	24	ET_SG	24

 (2) **Generic Attenuation Factors:**
**Source Medium of Vapors**

 Groundwater  
 Sub-Slab and Exterior Soil Gas

 (-)  
 (-)

**Residential**

Symbol	Value	Symbol	Value
AFgw_R_SG	0.001	AFgw_C_SG	0.001
AFss_R_SG	0.03	AFss_C_SG	0.03

**Commercial**
**Selected (based on scenario)**

Symbol	Value	Symbol	Value
AFgw_SG	0.001	AFgw_SG	0.001
AFss_SG	0.03	AFss_SG	0.03

 (3) **Formulas**

$$Cia_{target} = \min(Cia_c, Cia_{nc})$$

$$Cia_c \text{ (ug/m}^3\text{)} = TCR \times ATc \times (365 \text{ days/yr}) \times (24 \text{ hrs/day}) / (ED \times EF \times ET \times IUR)$$

$$Cia_{nc} \text{ (ug/m}^3\text{)} = THQ \times ATnc \times (365 \text{ days/yr}) \times (24 \text{ hrs/day}) \times RFC \times (1000 \text{ ug/mg}) / (ED \times EF \times ET)$$

 (4) **Special Case Chemicals**

Trichloroethylene

**Residential**

Symbol	Value	Symbol	Value
mIURTCE_R_SG	1.00E-06	nIURTCE_C_SG	0.00E+00
IURTCE_R_SG	3.10E-06	IURTCE_C_SG	4.10E-06

**Commercial**
**Selected (based on scenario)**

Symbol	Value	Symbol	Value
mIURTCE_SG	1.00E-06	mIURTCE_SG	1.00E-06
IURTCE_SG	3.10E-06	IURTCE_SG	3.10E-06

Mutagenic Chemicals

The exposure durations and age-dependent adjustment factors for mutagenic-mode-of-action are listed in the table below:

Note: This section applies to trichloroethylene and other mutagenic chemicals, but not to vinyl chloride.

Age Cohort	Exposure Duration	Age-dependent adjustment factor
0 - 2 years	2	10
2 - 6 years	4	3
6 - 16 years	10	3
16 - 26 years	10	1

Mutagenic-mode-of-action (MMAO) adjustment factor

72

This factor is used in the equations for mutagenic chemicals.

# OSWER VAPOR INTRUSION ASSESSMENT

Sub-slab or Exterior Soil Gas Concentration to Indoor Air Concentration (SGC-IAC) Calculator Version 3.4, June 2015 RSLs

GB-7, 5-feet

Parameter	Symbol	Value	Instructions
Exposure Scenario	Scenario	Residential	Select residential or commercial scenario from pull down list
Target Risk for Carcinogens	TCR_SG	1.00E-06	Enter target risk for carcinogens (for comparison to the calculated VI carcinogenic risk in column F)
Target Hazard Quotient for Non-Carcinogens	THQ_SG	1	Enter target hazard quotient for non-carcinogens (for comparison to the calculated VI hazard in column G)

CAS	Chemical Name	Site Sub-slab or Exterior Soil Gas Concentration	Calculated Indoor Air Concentration	VI Carcinogenic Risk	VI Hazard
		Csg	Cia	CR	HQ
		(ug/m <sup>3</sup> )	(ug/m <sup>3</sup> )		

Vinyl Chloride

See the Navigation Guide equation for Cia,c for vinyl chloride.

Inhalation Unit Risk	IUR Source*	Reference Concentration	RFC Source*	Mutagenic Indicator
IUR		RfC		
(ug/m <sup>3</sup> ) <sup>-1</sup>		(mg/m <sup>3</sup> )		i

## Notation:

I = IRIS: EPA Integrated Risk Information System (IRIS). Available online at: <http://www.epa.gov/iris/subst/index.html>

P = PPRTV. EPA Provisional Peer Reviewed Toxicity Values (PPRTVs). Available online at: <http://hhpprtv.ornl.gov/pprtv.shtml>

A = Agency for Toxic Substances and Disease Registry (ATSDR) Minimum Risk Levels (MRLs). Available online at: <http://www.atsdr.cdc.gov/mrls/index.html>

CA = California Environmental Protection Agency/Office of Environmental Health Hazard Assessment assessments. Available online at: <http://www.oehha.ca.gov/risk/ChemicalDB/index.asp>

H = HEAST. EPA Superfund Health Effects Assessment Summary Tables (HEAST) database. Available online at: <http://epa-heast.ornl.gov/heast.shtml>

S = See RSL User Guide, Section 5

X = PPRTV Appendix

Mut = Chemical acts according to the mutagenic-mode-of-action, special exposure parameters apply (see footnote (4) above).

VC = Special exposure equation for vinyl chloride applies (see Navigation Guide for equation).

TCE = Special mutagenic and non-mutagenic IURs for trichloroethylene apply (see footnote (4) above).

Yellow highlighting indicates site-specific parameters that may be edited by the user.

Blue highlighting indicates exposure factors that are based on Risk Assessment Guidance for Superfund (RAGS) or EPA vapor intrusion guidance, which generally should not be changed.

Pink highlighting indicates VI carcinogenic risk greater than the target risk for carcinogens (TCR) or VI Hazard greater than or equal to the target hazard quotient for non-carcinogens (THQ).

**OSWER VAPOR INTRUSION ASSESSMENT**

Sub-slab or Exterior Soil Gas Concentration to Indoor Air Concentration (SGC-IAC) Calculator Version 3.4, June 2015 RSLs

GB-7 10-feet

Parameter	Symbol	Value	Instructions
Exposure Scenario	Scenario	Residential	Select residential or commercial scenario from pull down list
Target Risk for Carcinogens	TCR_SG	1.00E-05	Enter target risk for carcinogens (for comparison to the calculated VI carcinogenic risk in column F)
Target Hazard Quotient for Non-Carcinogens	THQ_SG	1	Enter target hazard quotient for non-carcinogens (for comparison to the calculated VI hazard in column G)

CAS	Chemical Name	Site Sub-slab or Exterior Soil Gas Concentration	Calculated Indoor Air Concentration	VI Carcinogenic Risk	VI Hazard
		Csg	Cia	CR	HQ
		(ug/m <sup>3</sup> )	(ug/m <sup>3</sup> )		
x 75-07-0	Acetaldehyde		--	--	--
67-64-1	Acetone	9.8E+00	2.94E-01	No IUR	9.1E-06
75-86-5	Acetone Cyanohydrin		--	--	--
75-05-8	Acetonitrile		--	--	--
107-02-8	Acrolein		--	--	--
79-10-7	Acrylic Acid		--	--	--
107-13-1	Acrylonitrile		--	--	--
309-00-2	Aldrin		--	--	--
107-18-6	Allyl Alcohol		--	--	--
107-05-1	Allyl Chloride		--	--	--
7664-41-7	Ammonia		--	--	--
75-85-4	Amyl Alcohol, tert-		--	--	--
12674-11-2	Aroclor 1016		--	--	--
11104-28-2	Aroclor 1221		--	--	--
11141-16-5	Aroclor 1232		--	--	--
53469-21-9	Aroclor 1242		--	--	--
12672-29-6	Aroclor 1248		--	--	--
11097-69-1	Aroclor 1254		--	--	--
11096-82-5	Aroclor 1260		--	--	--
x 103-33-3	Azobenzene		--	--	--
56-55-3	Benz[a]anthracene		--	--	--
71-43-2	Benzene	1.6E-01	4.80E-03	1.3E-08	1.5E-04
100-44-7	Benzyl Chloride		--	--	--
92-52-4	Biphenyl, 1,1'-		--	--	--
108-60-1	Bis(2-chloro-1-methylethyl) ether		--	--	--
111-44-4	Bis(2-chloroethyl)ether		--	--	--
542-88-1	Bis(chloromethyl)ether		--	--	--
10294-34-5	Boron Trichloride		--	--	--
7637-07-2	Boron Trifluoride		--	--	--
107-04-0	Bromo-2-chloroethane, 1-		--	--	--
108-86-1	Bromobenzene		--	--	--
74-97-5	Bromochloromethane		--	--	--
75-27-4	Bromodichloromethane		--	--	--
75-25-2	Bromoform		--	--	--
74-83-9	Bromomethane		--	--	--
106-99-0	Butadiene, 1,3-		--	--	--
78-92-2	Butyl alcohol, sec-		--	--	--
75-15-0	Carbon Disulfide	1.5E+00	4.50E-02	No IUR	6.2E-05
56-23-5	Carbon Tetrachloride	7.9E-02	2.37E-03	5.1E-09	2.3E-05
12789-03-6	Chlordane		--	--	--
7782-50-5	Chlorine		--	--	--
10049-04-4	Chlorine Dioxide		--	--	--
75-68-3	Chloro-1,1-difluoroethane, 1-		--	--	--
126-99-8	Chloro-1,3-butadiene, 2-		--	--	--
108-90-7	Chlorobenzene		--	--	--
98-56-6	Chlorobenzotrifluoride, 4-		--	--	--
75-45-6	Chlorodifluoromethane		--	--	--
67-66-3	Chloroform		--	--	--
74-87-3	Chloromethane	1.1E+00	3.30E-02	No IUR	3.5E-04
107-30-2	Chloromethyl Methyl Ether		--	--	--
76-06-2	Chloropicrin		--	--	--
8007-45-2	Coke Oven Emissions		--	--	--
98-82-8	Cumene		--	--	--
x 57-12-5	Cyanide (CN-)		--	--	--
110-82-7	Cyclohexane		--	--	--
108-94-1	Cyclohexanone		--	--	--

Inhalation Unit Risk	IUR Source*	Reference Concentration	RFC Source*	Mutagenic Indicator
IUR		RfC		
(ug/m <sup>3</sup> ) <sup>-1</sup>		(mg/m <sup>3</sup> )		i
2.20E-06	I	9.00E-03	I	
		3.10E+01	A	
		2.00E-03	X	
		6.00E-02	I	
		2.00E-05	I	
		1.00E-03	I	
6.80E-05	I	2.00E-03	I	
4.90E-03	I			
		1.00E-04	X	
6.00E-06	CA	1.00E-03	I	
		1.00E-01	I	
		3.00E-03	X	
2.00E-05	S			
5.70E-04	S			
5.70E-04	S			
5.70E-04	S			
5.70E-04	S			
5.70E-04	S			
5.70E-04	S			
3.10E-05	I			
1.10E-04	CA			Mut
7.80E-06	I	3.00E-02	I	
4.90E-05	CA	1.00E-03	P	
		4.00E-04	X	
1.00E-05	H			
3.30E-04	I			
6.20E-02	I			
		2.00E-02	P	
		1.30E-02	CA	
6.00E-04	X			
		6.00E-02	I	
		4.00E-02	X	
3.70E-05	CA			
1.10E-06	I			
		5.00E-03	I	
3.00E-05	I	2.00E-03	I	
		3.00E+01	P	
		7.00E-01	I	
6.00E-06	I	1.00E-01	I	
1.00E-04	I	7.00E-04	I	
		1.50E-04	A	
		2.00E-04	I	
		5.00E+01	I	
3.00E-04	I	2.00E-02	I	
		5.00E-02	P	
		3.00E-01	P	
		5.00E+01	I	
2.30E-05	I	9.80E-02	A	
		9.00E-02	I	
6.90E-04	CA			
		4.00E-04	CA	
6.20E-04	I			Mut
		4.00E-01	I	
		8.00E-04	S	
		6.00E+00	I	
		7.00E-01	P	



**OSWER VAPOR INTRUSION ASSESSMENT**

Sub-slab or Exterior Soil Gas Concentration to Indoor Air Concentration (SGC-IAC) Calculator Version 3.4, June 2015 RSLs

GB-7 10-feet

Parameter	Symbol	Value	Instructions
Exposure Scenario	Scenario	Residential	Select residential or commercial scenario from pull down list
Target Risk for Carcinogens	TCR_SG	1.00E-05	Enter target risk for carcinogens (for comparison to the calculated VI carcinogenic risk in column F)
Target Hazard Quotient for Non-Carcinogens	THQ_SG	1	Enter target hazard quotient for non-carcinogens (for comparison to the calculated VI hazard in column G)

CAS	Chemical Name	Site Sub-slab or Exterior Soil Gas Concentration	Calculated Indoor Air Concentration	VI Carcinogenic Risk	VI Hazard
		Csg (ug/m <sup>3</sup> )	Cia (ug/m <sup>3</sup> )	CR	HQ
110-83-8	Cyclohexene		--	--	--
72-55-9	DDE, p,p'-		--	--	--
96-12-8	Dibromo-3-chloropropane, 1,2-		--	--	--
124-48-1	Dibromochloromethane		--	--	--
106-93-4	Dibromoethane, 1,2-		--	--	--
74-95-3	Dibromomethane (Methylene Bromide)		--	--	--
764-41-0	Dichloro-2-butene, 1,4-		--	--	--
1476-11-5	Dichloro-2-butene, cis-1,4-		--	--	--
110-57-6	Dichloro-2-butene, trans-1,4-		--	--	--
95-50-1	Dichlorobenzene, 1,2-		--	--	--
106-46-7	Dichlorobenzene, 1,4-		--	--	--
75-71-8	Dichlorodifluoromethane	4.2E-01	1.26E-02	No IUR	1.2E-04
75-34-3	Dichloroethane, 1,1-		--	--	--
107-06-2	Dichloroethane, 1,2-		--	--	--
75-35-4	Dichloroethylene, 1,1-		--	--	--
78-87-5	Dichloropropane, 1,2-		--	--	--
542-75-6	Dichloropropene, 1,3-		--	--	--
77-73-6	Dicyclopentadiene		--	--	--
75-37-6	Difluoroethane, 1,1-		--	--	--
94-58-6	Dihydrosafrole		--	--	--
108-20-3	Diisopropyl Ether		--	--	--
68-12-2	Dimethylformamide		--	--	--
57-14-7	Dimethylhydrazine, 1,1-		--	--	--
540-73-8	Dimethylhydrazine, 1,2-		--	--	--
513-37-1	Dimethylvinylchloride		--	--	--
123-91-1	Dioxane, 1,4-		--	--	--
106-89-8	Epichlorohydrin		--	--	--
106-88-7	Epoxycbutane, 1,2-		--	--	--
111-15-9	Ethoxyethanol Acetate, 2-		--	--	--
110-80-5	Ethoxyethanol, 2-		--	--	--
141-78-6	Ethyl Acetate		--	--	--
75-00-3	Ethyl Chloride (Chloroethane)	2.0E-01	6.00E-03	No IUR	5.8E-07
97-63-2	Ethyl Methacrylate		--	--	--
100-41-4	Ethylbenzene		--	--	--
75-21-8	Ethylene Oxide		--	--	--
151-56-4	Ethyleneimine		--	--	--
50-00-0	Formaldehyde		--	--	--
64-18-6	Formic Acid		--	--	--
98-01-1	Furfural		--	--	--
765-34-4	Glycidyl		--	--	--
76-44-8	Heptachlor		--	--	--
1024-57-3	Heptachlor Epoxide		--	--	--
39635-31-9	Heptachlorobiphenyl, 2,3,3',4,4',5,5'- (PCB 189)		--	--	--
118-74-1	Hexachlorobenzene		--	--	--
38380-08-4	Hexachlorobiphenyl, 2,3,3',4,4',5'- (PCB 156)		--	--	--
69782-90-7	Hexachlorobiphenyl, 2,3,3',4,4',5'- (PCB 157)		--	--	--
52663-72-6	Hexachlorobiphenyl, 2,3,3',4,4',5,5'- (PCB 167)		--	--	--
32774-16-6	Hexachlorobiphenyl, 3,3',4,4',5,5'- (PCB 169)		--	--	--
87-68-3	Hexachlorobutadiene		--	--	--
77-47-4	Hexachlorocyclopentadiene		--	--	--
67-72-1	Hexachloroethane		--	--	--
822-06-0	Hexamethylene Diisocyanate, 1,6-		--	--	--
110-54-3	Hexane, N-	7.2E-01	2.16E-02	No IUR	3.0E-05
591-78-6	Hexanone, 2-		--	--	--
302-01-2	Hydrazine		--	--	--
7647-01-0	Hydrogen Chloride		--	--	--

Inhalation Unit Risk	IUR Source*	Reference Concentration	RFC Source*	Mutagenic Indicator
IUR (ug/m <sup>3</sup> ) <sup>-1</sup>		RfC (mg/m <sup>3</sup> )		i
		1.00E+00	X	
9.70E-05	CA			
6.00E-03	P	2.00E-04	I	Mut
2.70E-05	CA			
6.00E-04	I	9.00E-03	I	
		4.00E-03	X	
4.20E-03	P			
4.20E-03	P			
4.20E-03	P			
		2.00E-01	H	
1.10E-05	CA	8.00E-01	I	
		1.00E-01	X	
1.60E-06	CA			
2.60E-05	I	7.00E-03	P	
		2.00E-01	I	
1.00E-05	CA	4.00E-03	I	
4.00E-06	I	2.00E-02	I	
		3.00E-04	X	
		4.00E+01	I	
1.30E-05	CA			
		7.00E-01	P	
		3.00E-02	I	
		2.00E-06	X	
1.60E-01	CA			
1.30E-05	CA			
5.00E-06	I	3.00E-02	I	
1.20E-06	I	1.00E-03	I	
		2.00E-02	I	
		6.00E-02	P	
		2.00E-01	I	
		7.00E-02	P	
		1.00E+01	I	
		3.00E-01	P	
2.50E-06	CA	1.00E+00	I	
8.80E-05	CA	3.00E-02	CA	
1.90E-02	CA			
1.30E-05	I	9.80E-03	A	
		3.00E-04	X	
		5.00E-02	H	
		1.00E-03	H	
1.30E-03	I			
2.60E-03	I			
1.10E-03	E	1.30E-03	E	
4.60E-04	I			
1.10E-03	E	1.30E-03	E	
1.10E-03	E	1.30E-03	E	
1.10E-03	E	1.30E-03	E	
1.10E+00	E	1.30E-06	E	
2.20E-05	I			
		2.00E-04	I	
1.10E-05	CA	3.00E-02	I	
		1.00E-05	I	
		7.00E-01	I	
		3.00E-02	I	
4.90E-03	I	3.00E-05	P	
		2.00E-02	I	

**OSWER VAPOR INTRUSION ASSESSMENT**

Sub-slab or Exterior Soil Gas Concentration to Indoor Air Concentration (SGC-IAC) Calculator Version 3.4, June 2015 RSLs

GB-7 10-feet

Parameter	Symbol	Value	Instructions
Exposure Scenario	Scenario	Residential	Select residential or commercial scenario from pull down list
Target Risk for Carcinogens	TCR_SG	1.00E-05	Enter target risk for carcinogens (for comparison to the calculated VI carcinogenic risk in column F)
Target Hazard Quotient for Non-Carcinogens	THQ_SG	1	Enter target hazard quotient for non-carcinogens (for comparison to the calculated VI hazard in column G)

CAS	Chemical Name	Site Sub-slab or Exterior Soil Gas Concentration	Calculated Indoor Air Concentration	VI Carcinogenic Risk	VI Hazard
		Csg (ug/m <sup>3</sup> )	Cia (ug/m <sup>3</sup> )	CR	HQ
74-90-8	Hydrogen Cyanide		--	--	--
7664-39-3	Hydrogen Fluoride		--	--	--
7783-06-4	Hydrogen Sulfide		--	--	--
67-63-0	Isopropanol		--	--	--
7439-97-6	Mercury (elemental)		--	--	--
126-98-7	Methacrylonitrile		--	--	--
67-56-1	Methanol		--	--	--
110-49-6	Methoxyethanol Acetate, 2-		--	--	--
109-86-4	Methoxyethanol, 2-		--	--	--
96-33-3	Methyl Acrylate		--	--	--
78-93-3	Methyl Ethyl Ketone (2-Butanone)	9.2E-01	2.76E-02	No IUR	5.3E-06
60-34-4	Methyl Hydrazine		--	--	--
108-10-1	Methyl Isobutyl Ketone (4-methyl-2-pentanone)	6.1E-01	1.83E-02	No IUR	5.8E-06
624-83-9	Methyl Isocyanate		--	--	--
80-62-6	Methyl Methacrylate		--	--	--
25013-15-4	Methyl Styrene (Mixed Isomers)		--	--	--
1634-04-4	Methyl tert-Butyl Ether (MTBE)		--	--	--
75-09-2	Methylene Chloride	3.2E-01	9.60E-03	9.5E-11	1.5E-05
2385-85-5	Mirex		--	--	--
64742-95-6	Naphtha, High Flash Aromatic (HFAN)		--	--	--
91-20-3	Naphthalene		--	--	--
13463-39-3	Nickel Carbonyl		--	--	--
98-95-3	Nitrobenzene		--	--	--
75-52-5	Nitromethane		--	--	--
79-46-9	Nitropropane, 2-		--	--	--
62-75-9	Nitrosodimethylamine, N-		--	--	--
924-16-3	Nitroso-di-N-butylamine, N-		--	--	--
10595-95-6	Nitrosomethylethylamine, N-		--	--	--
111-84-2	Nonane, n-		--	--	--
32598-14-4	Pentachlorobiphenyl, 2,3,3',4,4'- (PCB 105)		--	--	--
74472-37-0	Pentachlorobiphenyl, 2,3,4,4',5'- (PCB 114)		--	--	--
31508-00-6	Pentachlorobiphenyl, 2,3',4,4',5'- (PCB 118)		--	--	--
65510-44-3	Pentachlorobiphenyl, 2',3,4,4',5'- (PCB 123)		--	--	--
57465-28-8	Pentachlorobiphenyl, 3,3',4,4',5'- (PCB 126)		--	--	--
109-66-0	Pentane, n-		--	--	--
75-44-5	Phosgene		--	--	--
7803-51-2	Phosphine		--	--	--
123-38-6	Propionaldehyde		--	--	--
103-65-1	Propyl benzene		--	--	--
115-07-1	Propylene		--	--	--
107-98-2	Propylene Glycol Monomethyl Ether		--	--	--
75-56-9	Propylene Oxide		--	--	--
100-42-5	Styrene		--	--	--
7446-11-9	Sulfur Trioxide		--	--	--
1746-01-6	TCDD, 2,3,7,8-		--	--	--
70362-50-4	Tetrachlorobiphenyl, 3,4,4',5'- (PCB 81)		--	--	--
630-20-6	Tetrachloroethane, 1,1,1,2-		--	--	--
79-34-5	Tetrachloroethane, 1,1,2,2-		--	--	--
127-18-4	Tetrachloroethylene		--	--	--
811-97-2	Tetrafluoroethane, 1,1,1,2-		--	--	--
109-99-9	Tetrahydrofuran	1.0E-01	3.00E-03	No IUR	1.4E-06
7550-45-0	Titanium Tetrachloride		--	--	--
108-88-3	Toluene	2.2E-01	6.60E-03	No IUR	1.3E-06
76-13-1	Trichloro-1,2,2-trifluoroethane, 1,1,2-	6.4E-02	1.92E-03	No IUR	6.1E-08
120-82-1	Trichlorobenzene, 1,2,4-		--	--	--
71-55-6	Trichloroethane, 1,1,1-		--	--	--

Inhalation Unit Risk	IUR Source*	Reference Concentration	RFC Source*	Mutagenic Indicator
IUR (ug/m <sup>3</sup> ) <sup>-1</sup>		RfC (mg/m <sup>3</sup> )		i
		8.00E-04	I	
		1.40E-02	CA	
		2.00E-03	I	
		2.00E-01	P	
		3.00E-04	I	
		3.00E-02	P	
		2.00E+01	I	
		1.00E-03	P	
		2.00E-02	I	
		2.00E-02	P	
		5.00E+00	I	
1.00E-03	X	2.00E-05	X	
		3.00E+00	I	
		1.00E-03	CA	
		7.00E-01	I	
		4.00E-02	H	
2.60E-07	CA	3.00E+00	I	
1.00E-08	I	6.00E-01	I	Mut
5.10E-03	CA			
		1.00E-01	P	
3.40E-05	CA	3.00E-03	I	
2.60E-04	CA	1.40E-05	CA	
4.00E-05	I	9.00E-03	I	
8.80E-06	P	5.00E-03	P	
2.70E-03	H	2.00E-02	I	
1.40E-02	I	4.00E-05	X	Mut
1.60E-03	I			
6.30E-03	CA			
		2.00E-02	P	
1.10E-03	E	1.30E-03	E	
1.10E-03	E	1.30E-03	E	
1.10E-03	E	1.30E-03	E	
1.10E-03	E	1.30E-03	E	
3.80E+00	E	4.00E-07	E	
		1.00E+00	P	
		3.00E-04	I	
		3.00E-04	I	
		8.00E-03	I	
		1.00E+00	X	
		3.00E+00	CA	
		2.00E+00	I	
3.70E-06	I	3.00E-02	I	
		1.00E+00	I	
		1.00E-03	CA	
3.80E+01	CA	4.00E-08	CA	
1.10E-02	E	1.30E-04	E	
7.40E-06	I			
5.80E-05	CA			
2.60E-07	I	4.00E-02	I	
		8.00E+01	I	
		2.00E+00	I	
		1.00E-04	A	
		5.00E+00	I	
		3.00E+01	H	
		2.00E-03	P	
		5.00E+00	I	

**OSWER VAPOR INTRUSION ASSESSMENT**

Sub-slab or Exterior Soil Gas Concentration to Indoor Air Concentration (SGC-IAC) Calculator Version 3.4, June 2015 RSLs

GB-7 10-feet

Parameter	Symbol	Value	Instructions
Exposure Scenario	Scenario	Residential	Select residential or commercial scenario from pull down list
Target Risk for Carcinogens	TCR_SG	1.00E-05	Enter target risk for carcinogens (for comparison to the calculated VI carcinogenic risk in column F)
Target Hazard Quotient for Non-Carcinogens	THQ_SG	1	Enter target hazard quotient for non-carcinogens (for comparison to the calculated VI hazard in column G)

CAS	Chemical Name	Site Sub-slab or Exterior Soil Gas Concentration	Calculated Indoor Air Concentration	VI Carcinogenic Risk	VI Hazard
		Csg (ug/m <sup>3</sup> )	Cia (ug/m <sup>3</sup> )	CR	HQ
79-00-5	Trichloroethane, 1,1,2-		--	--	--
79-01-6	Trichloroethylene		--	--	--
75-69-4	Trichlorofluoromethane	2.7E-01	8.10E-03	No IUR	1.1E-05
96-18-4	Trichloropropane, 1,2,3-		--	--	--
96-19-5	Trichloropropene, 1,2,3-		--	--	--
121-44-8	Triethylamine		--	--	--
526-73-8	Trimethylbenzene, 1,2,3-		--	--	--
95-63-6	Trimethylbenzene, 1,2,4-		--	--	--
108-05-4	Vinyl Acetate		--	--	--
593-60-2	Vinyl Bromide		--	--	--
75-01-4	Vinyl Chloride	2.1E-01	6.30E-03	2.7E-08	6.0E-05
108-38-3	Xylene, m-	1.7E-01	5.10E-03	No IUR	4.9E-05
95-47-6	Xylene, o-	6.1E-02	1.83E-03	No IUR	1.8E-05
106-42-3	Xylene, P-		--	--	--
1330-20-7	Xylenes		--	--	--
140-88-5	Ethyl Acrylate		--	--	--

Inhalation Unit Risk	IUR Source*	Reference Concentration	RFC Source*	Mutagenic Indicator
IUR (ug/m <sup>3</sup> ) <sup>-1</sup>		RfC (mg/m <sup>3</sup> )		i
1.60E-05	I	2.00E-04	X	
see note	I	2.00E-03	I	TCE
		7.00E-01	H	
		3.00E-04	I	Mut
		3.00E-04	P	
		7.00E-03	I	
		5.00E-03	P	
		7.00E-03	P	
		2.00E-01	I	
3.20E-05	H	3.00E-03	I	
4.40E-06	I	1.00E-01	I	Mut
		1.00E-01	S	
		1.00E-01	S	
		1.00E-01	S	
		1.00E-01	I	
		8.00E-03	P	

**Notes:**

 (1) **Inhalation Pathway Exposure Parameters (RME):**
**Exposure Scenario**

 Averaging time for carcinogens  
 Averaging time for non-carcinogens  
 Exposure duration  
 Exposure frequency  
 Exposure time

**Units**

 (yrs)  
 (yrs)  
 (yrs)  
 (days/yr)  
 (hr/day)

**Residential**

Symbol	Value	Symbol	Value
ATc_R_SG	70	ATc_C_SG	70
ATnc_R_SG	26	ATnc_C_SG	25
ED_R_SG	26	ED_C_SG	25
EF_R_SG	350	EF_C_SG	250
ET_R_SG	24	ET_C_SG	8

**Commercial**
**Selected (based on scenario)**

Symbol	Value	Symbol	Value
ATc_SG	70	ATc_SG	70
ATnc_SG	26	ATnc_SG	26
ED_SG	26	ED_SG	26
EF_SG	350	EF_SG	350
ET_SG	24	ET_SG	24

 (2) **Generic Attenuation Factors:**
**Source Medium of Vapors**

 Groundwater  
 Sub-Slab and Exterior Soil Gas

 (-)  
 (-)

**Residential**

Symbol	Value	Symbol	Value
AFgw_R_SG	0.001	AFgw_C_SG	0.001
AFss_R_SG	0.03	AFss_C_SG	0.03

**Commercial**
**Selected (based on scenario)**

Symbol	Value	Symbol	Value
AFgw_SG	0.001	AFgw_SG	0.001
AFss_SG	0.03	AFss_SG	0.03

 (3) **Formulas**

$$Cia_{target} = \min(Cia_c, Cia_{nc})$$

$$Cia_c \text{ (ug/m}^3\text{)} = TCR \times ATc \times (365 \text{ days/yr}) \times (24 \text{ hrs/day}) / (ED \times EF \times ET \times IUR)$$

$$Cia_{nc} \text{ (ug/m}^3\text{)} = THQ \times ATnc \times (365 \text{ days/yr}) \times (24 \text{ hrs/day}) \times RFC \times (1000 \text{ ug/mg}) / (ED \times EF \times ET)$$

 (4) **Special Case Chemicals**

Trichloroethylene

**Residential**

Symbol	Value	Symbol	Value
mIURTCE_R_SG	1.00E-06	nIURTCE_C_SG	0.00E+00
IURTCE_R_SG	3.10E-06	IURTCE_C_SG	4.10E-06

**Commercial**
**Selected (based on scenario)**

Symbol	Value	Symbol	Value
mIURTCE_SG	1.00E-06	mIURTCE_SG	1.00E-06
IURTCE_SG	3.10E-06	IURTCE_SG	3.10E-06

Mutagenic Chemicals

The exposure durations and age-dependent adjustment factors for mutagenic-mode-of-action are listed in the table below:

Note: This section applies to trichloroethylene and other mutagenic chemicals, but not to vinyl chloride.

Age Cohort	Exposure Duration	Age-dependent adjustment factor
0 - 2 years	2	10
2 - 6 years	4	3
6 - 16 years	10	3
16 - 26 years	10	1

Mutagenic-mode-of-action (MMAO) adjustment factor

72

This factor is used in the equations for mutagenic chemicals.

# OSWER VAPOR INTRUSION ASSESSMENT

Sub-slab or Exterior Soil Gas Concentration to Indoor Air Concentration (SGC-IAC) Calculator Version 3.4, June 2015 RSLs

GB-7 10-feet

Parameter	Symbol	Value	Instructions
Exposure Scenario	Scenario	Residential	Select residential or commercial scenario from pull down list
Target Risk for Carcinogens	TCR_SG	1.00E-05	Enter target risk for carcinogens (for comparison to the calculated VI carcinogenic risk in column F)
Target Hazard Quotient for Non-Carcinogens	THQ_SG	1	Enter target hazard quotient for non-carcinogens (for comparison to the calculated VI hazard in column G)

CAS	Chemical Name	Site Sub-slab or Exterior Soil Gas Concentration	Calculated Indoor Air Concentration	VI Carcinogenic Risk	VI Hazard
		Csg	Cia	CR	HQ
		(ug/m <sup>3</sup> )	(ug/m <sup>3</sup> )		

Vinyl Chloride

See the Navigation Guide equation for Cia,c for vinyl chloride.

Inhalation Unit Risk	IUR Source*	Reference Concentration	RfC Source*	Mutagenic Indicator
IUR		RfC		
(ug/m <sup>3</sup> ) <sup>-1</sup>		(mg/m <sup>3</sup> )		i

## Notation:

I = IRIS: EPA Integrated Risk Information System (IRIS). Available online at: <http://www.epa.gov/iris/subst/index.html>

P = PPRTV. EPA Provisional Peer Reviewed Toxicity Values (PPRTVs). Available online at: <http://hhpprtv.ornl.gov/pprtv.shtml>

A = Agency for Toxic Substances and Disease Registry (ATSDR) Minimum Risk Levels (MRLs). Available online at: <http://www.atsdr.cdc.gov/mrls/index.html>

CA = California Environmental Protection Agency/Office of Environmental Health Hazard Assessment assessments. Available online at: <http://www.oehha.ca.gov/risk/ChemicalDB/index.asp>

H = HEAST. EPA Superfund Health Effects Assessment Summary Tables (HEAST) database. Available online at: <http://epa-heast.ornl.gov/heast.shtml>

S = See RSL User Guide, Section 5

X = PPRTV Appendix

Mut = Chemical acts according to the mutagenic-mode-of-action, special exposure parameters apply (see footnote (4) above).

VC = Special exposure equation for vinyl chloride applies (see Navigation Guide for equation).

TCE = Special mutagenic and non-mutagenic IURs for trichloroethylene apply (see footnote (4) above).

Yellow highlighting indicates site-specific parameters that may be edited by the user.

Blue highlighting indicates exposure factors that are based on Risk Assessment Guidance for Superfund (RAGS) or EPA vapor intrusion guidance, which generally should not be changed.

Pink highlighting indicates VI carcinogenic risk greater than the target risk for carcinogens (TCR) or VI Hazard greater than or equal to the target hazard quotient for non-carcinogens (THQ).

**APPENDIX F**  
**Statistical Calculations**

**APPENDIX F**  
**Statistical Calculations**

	A	B	C	D	E	F	G	H	I	J	K	L
1	UCL Statistics for Data Sets with Non-Detects											
2												
3	User Selected Options											
4	Date/Time of Computation		11/20/2015 10:56:45 AM									
5	From File		Arsenic Data 0 to 2-feet.xls									
6	Full Precision		OFF									
7	Confidence Coefficient		95%									
8	Number of Bootstrap Operations		2000									
9												
10	Arsenic											
11												
12	General Statistics											
13	Total Number of Observations				85		Number of Distinct Observations				73	
14	Number of Detects				14		Number of Non-Detects				71	
15	Number of Distinct Detects				13		Number of Distinct Non-Detects				61	
16	Minimum Detect				2.5		Minimum Non-Detect				1.9	
17	Maximum Detect				74.9		Maximum Non-Detect				6.63	
18	Variance Detects				389.9		Percent Non-Detects				83.53%	
19	Mean Detects				11.32		SD Detects				19.74	
20	Median Detects				4.15		CV Detects				1.744	
21	Skewness Detects				3.037		Kurtosis Detects				9.479	
22	Mean of Logged Detects				1.752		SD of Logged Detects				0.986	
23												
24	Normal GOF Test on Detects Only											
25	Shapiro Wilk Test Statistic				0.492		Shapiro Wilk GOF Test					
26	5% Shapiro Wilk Critical Value				0.874		Detected Data Not Normal at 5% Significance Level					
27	Lilliefors Test Statistic				0.432		Lilliefors GOF Test					
28	5% Lilliefors Critical Value				0.237		Detected Data Not Normal at 5% Significance Level					
29	Detected Data Not Normal at 5% Significance Level											
30												
31	Kaplan-Meier (KM) Statistics using Normal Critical Values and other Nonparametric UCLs											
32	Mean				4.292		Standard Error of Mean				0.962	
33	SD				8.359		95% KM (BCA) UCL				5.969	
34	95% KM (t) UCL				5.892		95% KM (Percentile Bootstrap) UCL				6.044	
35	95% KM (z) UCL				5.874		95% KM Bootstrap t UCL				10.06	
36	90% KM Chebyshev UCL				7.178		95% KM Chebyshev UCL				8.485	
37	97.5% KM Chebyshev UCL				10.3		99% KM Chebyshev UCL				13.86	
38												
39	Gamma GOF Tests on Detected Observations Only											
40	A-D Test Statistic				2.08		Anderson-Darling GOF Test					
41	5% A-D Critical Value				0.766		Detected Data Not Gamma Distributed at 5% Significance Level					
42	K-S Test Statistic				0.349		Kolmogrov-Smirnoff GOF					
43	5% K-S Critical Value				0.236		Detected Data Not Gamma Distributed at 5% Significance Level					
44	Detected Data Not Gamma Distributed at 5% Significance Level											
45												
46	Gamma Statistics on Detected Data Only											
47	k hat (MLE)				0.87		k star (bias corrected MLE)				0.731	
48	Theta hat (MLE)				13.01		Theta star (bias corrected MLE)				15.48	
49	nu hat (MLE)				24.36		nu star (bias corrected)				20.47	
50	MLE Mean (bias corrected)				11.32		MLE Sd (bias corrected)				13.24	
51												
52	Gamma Kaplan-Meier (KM) Statistics											



	A	B	C	D	E	F	G	H	I	J	K	L
53	k hat (KM)					0.264	nu hat (KM)					44.83
54	Approximate Chi Square Value (44.83, $\alpha$ )					30.47	Adjusted Chi Square Value (44.83, $\beta$ )					30.27
55	95% Gamma Approximate KM-UCL (use when $n \geq 50$ )					6.315	95% Gamma Adjusted KM-UCL (use when $n < 50$ )					6.358
56	Gamma ROS Statistics using Imputed Non-Detects											
58	GROS may not be used when data set has > 50% NDs with many tied observations at multiple DLs											
59	GROS may not be used when kstar of detected data is small such as < 0.1											
60	For such situations, GROS method tends to yield inflated values of UCLs and BTVs											
61	For gamma distributed detected data, BTVs and UCLs may be computed using gamma distribution on KM estimates											
62	Minimum					0.01	Mean					1.97
63	Maximum					74.9	Median					0.01
64	SD					8.827	CV					4.48
65	k hat (MLE)					0.196	k star (bias corrected MLE)					0.197
66	Theta hat (MLE)					10.06	Theta star (bias corrected MLE)					10.02
67	nu hat (MLE)					33.28	nu star (bias corrected)					33.44
68	MLE Mean (bias corrected)					1.97	MLE Sd (bias corrected)					4.442
69							Adjusted Level of Significance ( $\beta$ )					0.0472
70	Approximate Chi Square Value (33.44, $\alpha$ )					21.22	Adjusted Chi Square Value (33.44, $\beta$ )					21.05
71	95% Gamma Approximate UCL (use when $n \geq 50$ )					3.105	95% Gamma Adjusted UCL (use when $n < 50$ )					3.13
72												
73	Lognormal GOF Test on Detected Observations Only											
74	Shapiro Wilk Test Statistic					0.763	Shapiro Wilk GOF Test					
75	5% Shapiro Wilk Critical Value					0.874	Detected Data Not Lognormal at 5% Significance Level					
76	Lilliefors Test Statistic					0.247	Lilliefors GOF Test					
77	5% Lilliefors Critical Value					0.237	Detected Data Not Lognormal at 5% Significance Level					
78	Detected Data Not Lognormal at 5% Significance Level											
79												
80	Lognormal ROS Statistics Using Imputed Non-Detects											
81	Mean in Original Scale					3.954	Mean in Log Scale					1.032
82	SD in Original Scale					8.45	SD in Log Scale					0.551
83	95% t UCL (assumes normality of ROS data)					5.478	95% Percentile Bootstrap UCL					5.653
84	95% BCA Bootstrap UCL					6.965	95% Bootstrap t UCL					14.45
85	95% H-UCL (Log ROS)					3.659						
86												
87	DL/2 Statistics											
88	DL/2 Normal						DL/2 Log-Transformed					
89	Mean in Original Scale					4.106	Mean in Log Scale					1.101
90	SD in Original Scale					8.417	SD in Log Scale					0.514
91	95% t UCL (Assumes normality)					5.624	95% H-Stat UCL					3.808
92	DL/2 is not a recommended method, provided for comparisons and historical reasons											
93												
94	Nonparametric Distribution Free UCL Statistics											
95	Data do not follow a Discernible Distribution at 5% Significance Level											
96												
97	Suggested UCL to Use											
98	95% KM (t) UCL					5.892	95% KM (% Bootstrap) UCL					6.044
99												
100	Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.											
101	Recommendations are based upon data size, data distribution, and skewness.											
102	These recommendations are based upon the results of the simulation studies summarized in Singh, Maichle, and Lee (2006).											
103	However, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statistician.											
104												

	0	1	2	3	4
	Date	Boring	Depth	Arsenic	D_Arsenic
1	8/15/2015 12:00:00 AM	SB-20	0-2	2.5	1
2	8/15/2015 12:00:00 AM	SB-25	0-2	2.2	0
3	8/15/2015 12:00:00 AM	GB-16	2-4	3.1	1
4	8/15/2015 12:00:00 AM	GB-18	2-4	6.5	1
5	8/15/2015 12:00:00 AM	GB-25	2-4	2.9	1
6	8/15/2015 12:00:00 AM	GB-26	2-4	3.1	1
7	8/15/2015 12:00:00 AM	GB-28	2-4	3.6	1
8	8/15/2015 12:00:00 AM	SB-20	2-4	1.9	0
9	8/15/2015 12:00:00 AM	SB-24	2-4	2.7	1
10	8/15/2015 12:00:00 AM	SB-25	2-4	4.7	1
11	8/15/2015 12:00:00 AM	SB-42	2-4	3.3	1
12	8/25/2003 12:00:00 AM	SB-27	0.5-1.5	5.6	0
13	8/25/2003 12:00:00 AM	SB-14	0.5-2	6.33	0
14	8/25/2003 12:00:00 AM	SB-16	0.5-2	6.26	0
15	8/25/2003 12:00:00 AM	SB-17	0.5-2	6.02	0
16	8/25/2003 12:00:00 AM	SB-19	0.5-2	4.81	0
17	8/25/2003 12:00:00 AM	SB-25	0.5-2	5.26	0
18	8/25/2003 12:00:00 AM	SB-26	0.5-2	5.19	0
19	8/25/2003 12:00:00 AM	SB-39	0.5-2	6.3	0
20	8/25/2003 12:00:00 AM	SB-20	0-2	31.5	1
21	8/25/2003 12:00:00 AM	SB-24	0-2	5.34	0
22	8/25/2003 12:00:00 AM	SB-41	0-2	5.56	0
23	8/25/2003 12:00:00 AM	SB-16	2-4	4.63	0
24	8/25/2003 12:00:00 AM	SB-17	2-4	5.16	0
25	8/25/2003 12:00:00 AM	SB-19	2-4	4.32	0
26	8/25/2003 12:00:00 AM	SB-20	2-4	4.64	0
27	8/25/2003 12:00:00 AM	SB-24	2-4	5.44	0
28	8/25/2003 12:00:00 AM	SB-25	2-4	5.25	0
29	8/25/2003 12:00:00 AM	SB-26	2-4	5.11	0
30	8/25/2003 12:00:00 AM	SB-27	2-4	5.3	0
31	8/25/2003 12:00:00 AM	SB-41	2-4	4.75	0
32	2/13/2014 12:00:00 AM	GB-1	0.5-1	5.14	0
33	2/13/2014 12:00:00 AM	GB-10	0.5-1	5.02	0
34	2/13/2014 12:00:00 AM	GB-11	0.5-1	5.46	0
35	2/13/2014 12:00:00 AM	GB-12	0.5-1	5.67	0
36	2/13/2014 12:00:00 AM	GB-13	0.5-1	6.22	1
37	2/13/2014 12:00:00 AM	GB-14	0.5-1	4.96	0
38	2/13/2014 12:00:00 AM	GB-15	0.5-1	7.59	1
39	2/13/2014 12:00:00 AM	GB-16	0.5-1	4.8	0
40	2/13/2014 12:00:00 AM	GB-17	0.5-1	5.1	0
41	2/13/2014 12:00:00 AM	GB-18	0.5-1	5.52	0
42	2/13/2014 12:00:00 AM	GB-19	0.5-1	5.77	0
43	2/13/2014 12:00:00 AM	GB-2	0.5-1	6.36	0
44	2/13/2014 12:00:00 AM	GB-20	0-6"	5.29	0
45	2/13/2014 12:00:00 AM	GB-21	0-6"	5.4	0
46	2/13/2014 12:00:00 AM	GB-22	0-6"	5.23	0
47	2/13/2014 12:00:00 AM	GB-23	0-6"	5.03	0
48	2/13/2014 12:00:00 AM	GB-24	0-6"	5.39	0
49	2/13/2014 12:00:00 AM	GB-25	0-6"	4.78	0
50	2/13/2014 12:00:00 AM	GB-26	0-6"	5.4	0
51	2/13/2014 12:00:00 AM	GB-27	0-6"	74.9	1

	0	1	2	3	4
	Date	Boring	Depth	Arsenic	D_Arsenic
52	2/13/2014 12:00:00 AM	GB-3	0-6"	6.22	0
53	2/13/2014 12:00:00 AM	GB-4	0-6"	5.78	0
54	2/13/2014 12:00:00 AM	GB-5	0-6"	6.42	0
55	2/13/2014 12:00:00 AM	GB-6	0-6"	6.11	0
56	2/13/2014 12:00:00 AM	GB-7	0-6"	5.77	0
57	2/13/2014 12:00:00 AM	GB-8	0-6"	5.27	0
58	2/13/2014 12:00:00 AM	GB-9	0-6"	5.69	0
59	2/13/2014 12:00:00 AM	GB-1	0.5-2	5.6	0
60	2/13/2014 12:00:00 AM	GB-10	0.5-2	5.22	0
61	2/13/2014 12:00:00 AM	GB-11	0.5-2	5.07	0
62	2/13/2014 12:00:00 AM	GB-12	0.5-2	5.49	0
63	2/13/2014 12:00:00 AM	GB-13	0.5-2	5.23	0
64	2/13/2014 12:00:00 AM	GB-14	0.5-2	5.73	0
65	2/13/2014 12:00:00 AM	GB-15	0.5-2	6.24	0
66	2/13/2014 12:00:00 AM	GB-16	0.5-2	5.33	0
67	2/13/2014 12:00:00 AM	GB-17	0.5-2	5.35	0
68	2/13/2014 12:00:00 AM	GB-18	0.5-2	5.89	1
69	2/13/2014 12:00:00 AM	GB-19	0.5-2	5.57	0
70	2/13/2014 12:00:00 AM	GB-2	0.5-2	5.16	0
71	2/13/2014 12:00:00 AM	GB-20	0.5-2	5.05	0
72	2/13/2014 12:00:00 AM	GB-21	0.5-2	5.66	0
73	2/13/2014 12:00:00 AM	GB-22	0.5-2	5.24	0
74	2/13/2014 12:00:00 AM	GB-23	0.5-2	5.27	0
75	2/13/2014 12:00:00 AM	GB-24	0.5-2	5.29	0
76	2/13/2014 12:00:00 AM	GB-25	0.5-2	4.83	0
77	2/13/2014 12:00:00 AM	GB-26	0.5-2	5.31	0
78	2/13/2014 12:00:00 AM	GB-27	0.5-2	5.24	0
79	2/13/2014 12:00:00 AM	GB-3	0.5-2	6.25	0
80	2/13/2014 12:00:00 AM	GB-4	0.5-2	6.25	0
81	2/13/2014 12:00:00 AM	GB-5	0.5-2	6.63	0
82	2/13/2014 12:00:00 AM	GB-6	0.5-2	6.16	0
83	2/13/2014 12:00:00 AM	GB-7	0.5-2	6.34	0
84	2/13/2014 12:00:00 AM	GB-8	0.5-2	5.28	0
85	2/13/2014 12:00:00 AM	GB-9	0.5-2	5.27	0





	A	B	C	D	E	F	G	H	I	J	K	L
1	UCL Statistics for Data Sets with Non-Detects											
2												
3	User Selected Options											
4	Date/Time of Computation			11/20/2015 11:00:50 AM								
5	From File			Arsenic Data 2 to 15-feet.xls								
6	Full Precision			OFF								
7	Confidence Coefficient			95%								
8	Number of Bootstrap Operations			2000								
9												
10	Arsenic											
11												
12	General Statistics											
13	Total Number of Observations				51		Number of Distinct Observations				33	
14	Number of Detects				29		Number of Non-Detects				22	
15	Number of Distinct Detects				20		Number of Distinct Non-Detects				17	
16	Minimum Detect				2.1		Minimum Non-Detect				1.9	
17	Maximum Detect				25		Maximum Non-Detect				5.53	
18	Variance Detects				20.37		Percent Non-Detects				43.14%	
19	Mean Detects				4.685		SD Detects				4.513	
20	Median Detects				3.4		CV Detects				0.963	
21	Skewness Detects				3.688		Kurtosis Detects				15.37	
22	Mean of Logged Detects				1.333		SD of Logged Detects				0.566	
23												
24	Normal GOF Test on Detects Only											
25	Shapiro Wilk Test Statistic				0.541		Shapiro Wilk GOF Test					
26	5% Shapiro Wilk Critical Value				0.926		Detected Data Not Normal at 5% Significance Level					
27	Lilliefors Test Statistic				0.293		Lilliefors GOF Test					
28	5% Lilliefors Critical Value				0.165		Detected Data Not Normal at 5% Significance Level					
29	Detected Data Not Normal at 5% Significance Level											
30												
31	Kaplan-Meier (KM) Statistics using Normal Critical Values and other Nonparametric UCLs											
32	Mean		3.619		Standard Error of Mean				0.513			
33	SD		3.581		95% KM (BCA) UCL				4.651			
34	95% KM (t) UCL		4.478		95% KM (Percentile Bootstrap) UCL				4.516			
35	95% KM (z) UCL		4.463		95% KM Bootstrap t UCL				5.492			
36	90% KM Chebyshev UCL		5.157		95% KM Chebyshev UCL				5.854			
37	97.5% KM Chebyshev UCL		6.821		99% KM Chebyshev UCL				8.72			
38												
39	Gamma GOF Tests on Detected Observations Only											
40	A-D Test Statistic		2.325		Anderson-Darling GOF Test							
41	5% A-D Critical Value		0.755		Detected Data Not Gamma Distributed at 5% Significance Level							
42	K-S Test Statistic		0.251		Kolmogrov-Smirnoff GOF							
43	5% K-S Critical Value		0.164		Detected Data Not Gamma Distributed at 5% Significance Level							
44	Detected Data Not Gamma Distributed at 5% Significance Level											
45												
46	Gamma Statistics on Detected Data Only											
47	k hat (MLE)		2.518		k star (bias corrected MLE)				2.281			
48	Theta hat (MLE)		1.86		Theta star (bias corrected MLE)				2.054			
49	nu hat (MLE)		146.1		nu star (bias corrected)				132.3			
50	MLE Mean (bias corrected)		4.685		MLE Sd (bias corrected)				3.102			
51												
52	Gamma Kaplan-Meier (KM) Statistics											

	A	B	C	D	E	F	G	H	I	J	K	L
53					k hat (KM)	1.022					nu hat (KM)	104.2
54					Approximate Chi Square Value (104.21, $\alpha$ )	81.66					Adjusted Chi Square Value (104.21, $\beta$ )	81.08
55					95% Gamma Approximate KM-UCL (use when $n \geq 50$ )	4.619					95% Gamma Adjusted KM-UCL (use when $n < 50$ )	4.652
56					Gamma ROS Statistics using Imputed Non-Detects							
58					GROS may not be used when data set has > 50% NDs with many tied observations at multiple DLs							
59					GROS may not be used when kstar of detected data is small such as < 0.1							
60					For such situations, GROS method tends to yield inflated values of UCLs and BTVs							
61					For gamma distributed detected data, BTVs and UCLs may be computed using gamma distribution on KM estimates							
62					Minimum	0.01					Mean	2.875
63					Maximum	25					Median	2.3
64					SD	3.994					CV	1.389
65					k hat (MLE)	0.464					k star (bias corrected MLE)	0.45
66					Theta hat (MLE)	6.192					Theta star (bias corrected MLE)	6.388
67					nu hat (MLE)	47.36					nu star (bias corrected)	45.91
68					MLE Mean (bias corrected)	2.875					MLE Sd (bias corrected)	4.286
69											Adjusted Level of Significance ( $\beta$ )	0.0453
70					Approximate Chi Square Value (45.91, $\alpha$ )	31.36					Adjusted Chi Square Value (45.91, $\beta$ )	31.01
71					95% Gamma Approximate UCL (use when $n \geq 50$ )	4.209					95% Gamma Adjusted UCL (use when $n < 50$ )	4.256
72					Lognormal GOF Test on Detected Observations Only							
74					Shapiro Wilk Test Statistic	0.83					Shapiro Wilk GOF Test	
75					5% Shapiro Wilk Critical Value	0.926					Detected Data Not Lognormal at 5% Significance Level	
76					Lilliefors Test Statistic	0.204					Lilliefors GOF Test	
77					5% Lilliefors Critical Value	0.165					Detected Data Not Lognormal at 5% Significance Level	
78					Detected Data Not Lognormal at 5% Significance Level							
79					Lognormal ROS Statistics Using Imputed Non-Detects							
81					Mean in Original Scale	3.365					Mean in Log Scale	0.943
82					SD in Original Scale	3.724					SD in Log Scale	0.661
83					95% t UCL (assumes normality of ROS data)	4.239					95% Percentile Bootstrap UCL	4.322
84					95% BCA Bootstrap UCL	4.683					95% Bootstrap t UCL	5.247
85					95% H-UCL (Log ROS)	3.85						
86					DL/2 Statistics							
88					DL/2 Normal				DL/2 Log-Transformed			
89					Mean in Original Scale	3.387					Mean in Log Scale	0.942
90					SD in Original Scale	3.727					SD in Log Scale	0.68
91					95% t UCL (Assumes normality)	4.262					95% H-Stat UCL	3.922
92					DL/2 is not a recommended method, provided for comparisons and historical reasons							
93					Nonparametric Distribution Free UCL Statistics							
94					Data do not follow a Discernible Distribution at 5% Significance Level							
95					Suggested UCL to Use							
97												
98					95% KM (t) UCL	4.478					95% KM (% Bootstrap) UCL	4.



	0	1	2	3	4
	Date	Boring	Interval	Arsenic	D_Arsenic
1	8/15/2015 12:00:00 AM	GB-11	3-5	2.5	0
2	8/15/2015 12:00:00 AM	GB-14	3-5	3.9	1
3	8/15/2015 12:00:00 AM	GB-27	3-5	2.4	1
4	8/15/2015 12:00:00 AM	GB-16	4-6	3.4	1
5	8/15/2015 12:00:00 AM	GB-18	4-6	6	1
6	8/15/2015 12:00:00 AM	GB-25	4-6	2.8	1
7	8/15/2015 12:00:00 AM	GB-26	4-6	2.6	1
8	8/15/2015 12:00:00 AM	SB-24	4-6	3.7	1
9	8/15/2015 12:00:00 AM	SB-25	4-6	2.5	1
10	8/15/2015 12:00:00 AM	SB-41	4-6	2.3	1
11	8/15/2015 12:00:00 AM	SB-42	4-6	2.1	1
12	8/15/2015 12:00:00 AM	GB-11	8-10	2.7	0
13	8/15/2015 12:00:00 AM	GB-14	8-10	25	1
14	8/15/2015 12:00:00 AM	GB-19	8-10	2	0
15	8/15/2015 12:00:00 AM	GB-21	8-10	3.5	1
16	8/15/2015 12:00:00 AM	GB-27	8-10	2.4	1
17	8/15/2015 12:00:00 AM	GB-28	8-10	2	0
18	8/15/2015 12:00:00 AM	GB-3	8-10	5.3	1
19	8/15/2015 12:00:00 AM	GB-5	8-10	6.4	1
20	8/15/2015 12:00:00 AM	GB-7	8-10	2	0
21	8/15/2015 12:00:00 AM	GB-9	8-10	2.8	1
22	8/15/2015 12:00:00 AM	SB-17	8-10	2	0
23	8/15/2015 12:00:00 AM	SB-24	8-10	3.4	1
24	8/15/2015 12:00:00 AM	SB-25	8-10	2.3	1
25	8/15/2015 12:00:00 AM	SB-41	8-10	2.1	0
26	8/15/2015 12:00:00 AM	SB-42	8-10	3	1
27	8/15/2015 12:00:00 AM	GB-11	13-15	2.7	1
28	8/15/2015 12:00:00 AM	GB-14	13-15	6.3	1
29	8/15/2015 12:00:00 AM	GB-19	13-15	3.2	0
30	8/15/2015 12:00:00 AM	GB-21	13-15	3.5	1
31	8/15/2015 12:00:00 AM	GB-27	13-15	2.2	0
32	8/15/2015 12:00:00 AM	GB-28	13-15	5.2	1
33	8/15/2015 12:00:00 AM	GB-3	13-15	3.4	1
34	8/15/2015 12:00:00 AM	GB-5	13-15	2	0
35	8/15/2015 12:00:00 AM	GB-7	13-15	2.3	0
36	8/15/2015 12:00:00 AM	GB-9	13-15	2.3	1
37	8/15/2015 12:00:00 AM	SB-17	13-15	2.3	1
38	8/15/2015 12:00:00 AM	SB-24	13-15	1.9	0
39	8/15/2015 12:00:00 AM	SB-25	13-15	3.9	1
40	8/15/2015 12:00:00 AM	SB-41	13-15	2	0
41	8/15/2015 12:00:00 AM	SB-42	13-15	13	1
42	8/25/2003 12:00:00 AM	SB-15	4-8	5.09	0
43	8/25/2003 12:00:00 AM	SB-19	4-8	4.62	0
44	8/25/2003 12:00:00 AM	SB-20	4-8	5.24	0
45	8/25/2003 12:00:00 AM	SB-39	4-8	4.98	0
46	8/25/2003 12:00:00 AM	SB-19	8-11	4.74	0
47	8/25/2003 12:00:00 AM	SB-24	8-12	5.32	0
48	8/25/2003 12:00:00 AM	SB-26	8-12	5.53	0
49	8/25/2003 12:00:00 AM	SB-27	8-12	7.47	1
50	8/25/2003 12:00:00 AM	SB-39	8-12.5	5.17	0
51	8/25/2003 12:00:00 AM	SB-20	9-13	4.15	0





	A	B	C	D	E	F	G	H	I	J	K	L	
1	UCL Statistics for Data Sets with Non-Detects												
2													
3	User Selected Options												
4	Date/Time of Computation		11/20/2015 2:17:30 PM										
5	From File		Lead Data 0 to 2-feet.xls										
6	Full Precision		OFF										
7	Confidence Coefficient		95%										
8	Number of Bootstrap Operations		2000										
9													
10	Lead												
11													
12	General Statistics												
13	Total Number of Observations				68	Number of Distinct Observations				65			
14	Number of Detects				64	Number of Non-Detects				4			
15	Number of Distinct Detects				61	Number of Distinct Non-Detects				4			
16	Minimum Detect				5.85	Minimum Non-Detect				5.05			
17	Maximum Detect				465	Maximum Non-Detect				5.4			
18	Variance Detects				7321	Percent Non-Detects				5.882%			
19	Mean Detects				52.61	SD Detects				85.56			
20	Median Detects				15.45	CV Detects				1.626			
21	Skewness Detects				3.373	Kurtosis Detects				12.98			
22	Mean of Logged Detects				3.226	SD of Logged Detects				1.113			
23													
24	Normal GOF Test on Detects Only												
25	Shapiro Wilk Test Statistic				0.565	Normal GOF Test on Detected Observations Only							
26	5% Shapiro Wilk P Value				0	Detected Data Not Normal at 5% Significance Level							
27	Lilliefors Test Statistic				0.292	Lilliefors GOF Test							
28	5% Lilliefors Critical Value				0.111	Detected Data Not Normal at 5% Significance Level							
29	Detected Data Not Normal at 5% Significance Level												
30													
31	Kaplan-Meier (KM) Statistics using Normal Critical Values and other Nonparametric UCLs												
32	Mean		49.81	Standard Error of Mean		10.16							
33	SD		83.11	95% KM (BCA) UCL		68.46							
34	95% KM (t) UCL		66.76	95% KM (Percentile Bootstrap) UCL		67.42							
35	95% KM (z) UCL		66.52	95% KM Bootstrap t UCL		74.9							
36	90% KM Chebyshev UCL		80.29	95% KM Chebyshev UCL		94.09							
37	97.5% KM Chebyshev UCL		113.3	99% KM Chebyshev UCL		150.9							
38													
39	Gamma GOF Tests on Detected Observations Only												
40	A-D Test Statistic		4.444	Anderson-Darling GOF Test									
41	5% A-D Critical Value		0.789	Detected Data Not Gamma Distributed at 5% Significance Level									
42	K-S Test Statistic		0.247	Kolmogrov-Smirnoff GOF									
43	5% K-S Critical Value		0.116	Detected Data Not Gamma Distributed at 5% Significance Level									
44	Detected Data Not Gamma Distributed at 5% Significance Level												
45													
46	Gamma Statistics on Detected Data Only												
47	k hat (MLE)		0.805	k star (bias corrected MLE)		0.778							
48	Theta hat (MLE)		65.34	Theta star (bias corrected MLE)		67.64							
49	nu hat (MLE)		103.1	nu star (bias corrected)		99.56							
50	MLE Mean (bias corrected)		52.61	MLE Sd (bias corrected)		59.65							
51													
52	Gamma Kaplan-Meier (KM) Statistics												



	A	B	C	D	E	F	G	H	I	J	K	L
53	k hat (KM)					0.359	nu hat (KM)					48.85
54	Approximate Chi Square Value (48.85, $\alpha$ )					33.8	Adjusted Chi Square Value (48.85, $\beta$ )					33.53
55	95% Gamma Approximate KM-UCL (use when $n \geq 50$ )					71.98	95% Gamma Adjusted KM-UCL (use when $n < 50$ )					72.56
56												
57	Gamma ROS Statistics using Imputed Non-Detects											
58	GROS may not be used when data set has > 50% NDs with many tied observations at multiple DLs											
59	GROS may not be used when kstar of detected data is small such as < 0.1											
60	For such situations, GROS method tends to yield inflated values of UCLs and BTVs											
61	For gamma distributed detected data, BTVs and UCLs may be computed using gamma distribution on KM estimates											
62	Minimum					0.01	Mean					49.52
63	Maximum					465	Median					14.85
64	SD					83.9	CV					1.694
65	k hat (MLE)					0.551	k star (bias corrected MLE)					0.536
66	Theta hat (MLE)					89.92	Theta star (bias corrected MLE)					92.35
67	nu hat (MLE)					74.89	nu star (bias corrected)					72.92
68	MLE Mean (bias corrected)					49.52	MLE Sd (bias corrected)					67.62
69							Adjusted Level of Significance ( $\beta$ )					0.0465
70	Approximate Chi Square Value (72.92, $\alpha$ )					54.26	Adjusted Chi Square Value (72.92, $\beta$ )					53.91
71	95% Gamma Approximate UCL (use when $n \geq 50$ )					66.55	95% Gamma Adjusted UCL (use when $n < 50$ )					66.98
72												
73	Lognormal GOF Test on Detected Observations Only											
74	Lilliefors Test Statistic					0.191	Lilliefors GOF Test					
75	5% Lilliefors Critical Value					0.111	Detected Data Not Lognormal at 5% Significance Level					
76	Detected Data Not Lognormal at 5% Significance Level											
77												
78	Lognormal ROS Statistics Using Imputed Non-Detects											
79	Mean in Original Scale					49.63	Mean in Log Scale					3.078
80	SD in Original Scale					83.83	SD in Log Scale					1.234
81	95% t UCL (assumes normality of ROS data)					66.59	95% Percentile Bootstrap UCL					67.76
82	95% BCA Bootstrap UCL					73.11	95% Bootstrap t UCL					74.76
83	95% H-UCL (Log ROS)					64.13						
84												
85	DL/2 Statistics											
86	DL/2 Normal					DL/2 Log-Transformed						
87	Mean in Original Scale					49.67	Mean in Log Scale					3.093
88	SD in Original Scale					83.81	SD in Log Scale					1.205
89	95% t UCL (Assumes normality)					66.62	95% H-Stat UCL					62.75
90	DL/2 is not a recommended method, provided for comparisons and historical reasons											
91												
92	Nonparametric Distribution Free UCL Statistics											
93	Data do not follow a Discernible Distribution at 5% Significance Level											
94												
95	Suggested UCL to Use											
96	95% KM (Chebyshev) UCL					94.09						
97												
98	Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.											
99	Recommendations are based upon data size, data distribution, and skewness.											
100	These recommendations are based upon the results of the simulation studies summarized in Singh, Maichle, and Lee (2006).											
101	However, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statistician.											
102												

	0	1	2	3	4
	Date	Boring	Depth	Lead	D_Lead
1	2/13/2014 12:00:00 AM	GB-1	0-6"	8.76	1
2	2/13/2014 12:00:00 AM	GB-10	0-6"	8.1	1
3	2/13/2014 12:00:00 AM	GB-11	0-6"	9.21	1
4	2/13/2014 12:00:00 AM	GB-12	0-6"	72.9	1
5	2/13/2014 12:00:00 AM	GB-13	0-6"	32.4	1
6	2/13/2014 12:00:00 AM	GB-14	0-6"	62.8	1
7	2/13/2014 12:00:00 AM	GB-15	0-6"	95.1	1
8	2/13/2014 12:00:00 AM	GB-16	0-6"	5.85	1
9	2/13/2014 12:00:00 AM	GB-17	0-6"	9.56	1
10	2/13/2014 12:00:00 AM	GB-18	0-6"	171	1
11	2/13/2014 12:00:00 AM	GB-19	0-6"	19.3	1
12	2/13/2014 12:00:00 AM	GB-2	0-6"	12.4	1
13	2/13/2014 12:00:00 AM	GB-20	0-6"	5.29	0
14	2/13/2014 12:00:00 AM	GB-21	0-6"	5.4	0
15	2/13/2014 12:00:00 AM	GB-22	0-6"	38.4	1
16	2/13/2014 12:00:00 AM	GB-23	0-6"	19.3	1
17	2/13/2014 12:00:00 AM	GB-24	0-6"	211	1
18	2/13/2014 12:00:00 AM	GB-25	0-6"	7.65	1
19	2/13/2014 12:00:00 AM	GB-26	0-6"	95.5	1
20	2/13/2014 12:00:00 AM	GB-27	0-6"	172	1
21	2/13/2014 12:00:00 AM	GB-3	0-6"	10.6	1
22	2/13/2014 12:00:00 AM	GB-4	0-6"	13.9	1
23	2/13/2014 12:00:00 AM	GB-5	0-6"	14.6	1
24	2/13/2014 12:00:00 AM	GB-6	0-6"	14.6	1
25	2/13/2014 12:00:00 AM	GB-7	0-6"	12.1	1
26	2/13/2014 12:00:00 AM	GB-8	0-6"	8.77	1
27	2/13/2014 12:00:00 AM	GB-9	0-6"	53.7	1
28	2/13/2014 12:00:00 AM	GB-1	0.5-2	9.48	1
29	2/13/2014 12:00:00 AM	GB-10	0.5-2	12.1	1
30	2/13/2014 12:00:00 AM	GB-11	0.5-2	465	1
31	2/13/2014 12:00:00 AM	GB-12	0.5-2	9.9	1
32	2/13/2014 12:00:00 AM	GB-13	0.5-2	7.66	1
33	2/13/2014 12:00:00 AM	GB-14	0.5-2	425	1
34	2/13/2014 12:00:00 AM	GB-15	0.5-2	8.3	1
35	2/13/2014 12:00:00 AM	GB-16	0.5-2	119	1
36	2/13/2014 12:00:00 AM	GB-17	0.5-2	18.2	1
37	2/13/2014 12:00:00 AM	GB-18	0.5-2	147	1
38	2/13/2014 12:00:00 AM	GB-19	0.5-2	7.46	1
39	2/13/2014 12:00:00 AM	GB-2	0.5-2	20	1
40	2/13/2014 12:00:00 AM	GB-20	0.5-2	5.05	0
41	2/13/2014 12:00:00 AM	GB-21	0.5-2	7.14	1
42	2/13/2014 12:00:00 AM	GB-22	0.5-2	33.1	1
43	2/13/2014 12:00:00 AM	GB-23	0.5-2	9.28	1
44	2/13/2014 12:00:00 AM	GB-24	0.5-2	22.7	1
45	2/13/2014 12:00:00 AM	GB-25	0.5-2	71.4	1
46	2/13/2014 12:00:00 AM	GB-26	0.5-2	76.8	1
47	2/13/2014 12:00:00 AM	GB-27	0.5-2	5.24	0
48	2/13/2014 12:00:00 AM	GB-3	0.5-2	15.2	1
49	2/13/2014 12:00:00 AM	GB-4	0.5-2	11.9	1
50	2/13/2014 12:00:00 AM	GB-5	0.5-2	13.2	1
51	2/13/2014 12:00:00 AM	GB-6	0.5-2	13.1	1

	0	1	2	3	4
	Date	Boring	Depth	Lead	D_Lead
52	2/13/2014 12:00:00 AM	GB-7	0.5-2	15.1	1
53	2/13/2014 12:00:00 AM	GB-8	0.5-2	18.9	1
54	2/13/2014 12:00:00 AM	GB-9	0.5-2	37.8	1
55	8/25/2003 12:00:00 AM	SB-27	0.5-1.5	57.4	1
56	8/25/2003 12:00:00 AM	SB-14	0.5-2	13	1
57	8/25/2003 12:00:00 AM	SB-16	0.5-2	10.4	1
58	8/25/2003 12:00:00 AM	SB-17	0.5-2	16.8	1
59	8/25/2003 12:00:00 AM	SB-19	0.5-2	13.5	1
60	8/25/2003 12:00:00 AM	SB-25	0.5-2	67.3	1
61	8/25/2003 12:00:00 AM	SB-26	0.5-2	15.7	1
62	8/25/2003 12:00:00 AM	SB-39	0.5-2	8.97	1
63	8/25/2003 12:00:00 AM	SB-20	0-2	117	1
64	8/25/2003 12:00:00 AM	SB-24	0-2	151	1
65	8/25/2003 12:00:00 AM	SB-41	0-2	11.2	1
66	8/25/2003 12:00:00 AM	SB-45	0-2	58.5	1
67	8/15/2015 12:00:00 AM	SB-20	0-2	14	1
68	8/15/2015 12:00:00 AM	SB-25	0-2	38	1





	A	B	C	D	E	F	G	H	I	J	K	L
1	UCL Statistics for Data Sets with Non-Detects											
2												
3	User Selected Options											
4	Date/Time of Computation			11/20/2015 2:23:40 PM								
5	From File			Lead Data 2-15-feet.xls								
6	Full Precision			OFF								
7	Confidence Coefficient			95%								
8	Number of Bootstrap Operations			2000								
9												
10	Lead											
11												
12	General Statistics											
13	Total Number of Observations				71	Number of Distinct Observations				65		
14	Number of Detects				69	Number of Non-Detects				2		
15	Number of Distinct Detects				63	Number of Distinct Non-Detects				2		
16	Minimum Detect				1	Minimum Non-Detect				4		
17	Maximum Detect				1800	Maximum Non-Detect				4.74		
18	Variance Detects				71200	Percent Non-Detects				2.817%		
19	Mean Detects				122.3	SD Detects				266.8		
20	Median Detects				35.6	CV Detects				2.181		
21	Skewness Detects				4.497	Kurtosis Detects				24.14		
22	Mean of Logged Detects				3.407	SD of Logged Detects				1.84		
23												
24	Normal GOF Test on Detects Only											
25	Shapiro Wilk Test Statistic				0.483	Normal GOF Test on Detected Observations Only						
26	5% Shapiro Wilk P Value				0	Detected Data Not Normal at 5% Significance Level						
27	Lilliefors Test Statistic				0.345	Lilliefors GOF Test						
28	5% Lilliefors Critical Value				0.107	Detected Data Not Normal at 5% Significance Level						
29	Detected Data Not Normal at 5% Significance Level											
30												
31	Kaplan-Meier (KM) Statistics using Normal Critical Values and other Nonparametric UCLs											
32	Mean		118.9	Standard Error of Mean		31.31						
33	SD		261.9	95% KM (BCA) UCL		170.7						
34	95% KM (t) UCL		171.1	95% KM (Percentile Bootstrap) UCL		174.2						
35	95% KM (z) UCL		170.4	95% KM Bootstrap t UCL		208.8						
36	90% KM Chebyshev UCL		212.9	95% KM Chebyshev UCL		255.4						
37	97.5% KM Chebyshev UCL		314.5	99% KM Chebyshev UCL		430.5						
38												
39	Gamma GOF Tests on Detected Observations Only											
40	A-D Test Statistic		1.55	Anderson-Darling GOF Test								
41	5% A-D Critical Value		0.826	Detected Data Not Gamma Distributed at 5% Significance Level								
42	K-S Test Statistic		0.161	Kolmogrov-Smirnoff GOF								
43	5% K-S Critical Value		0.114	Detected Data Not Gamma Distributed at 5% Significance Level								
44	Detected Data Not Gamma Distributed at 5% Significance Level											
45												
46	Gamma Statistics on Detected Data Only											
47	k hat (MLE)		0.46	k star (bias corrected MLE)		0.449						
48	Theta hat (MLE)		266.1	Theta star (bias corrected MLE)		272.3						
49	nu hat (MLE)		63.44	nu star (bias corrected)		62.01						
50	MLE Mean (bias corrected)		122.3	MLE Sd (bias corrected)		182.5						
51												
52	Gamma Kaplan-Meier (KM) Statistics											



	A	B	C	D	E	F	G	H	I	J	K	L
53	k hat (KM)					0.206	nu hat (KM)					29.28
54	Approximate Chi Square Value (29.28, $\alpha$ )					17.93	Adjusted Chi Square Value (29.28, $\beta$ )					17.75
55	95% Gamma Approximate KM-UCL (use when $n \geq 50$ )					194.2	95% Gamma Adjusted KM-UCL (use when $n < 50$ )					196.3
56												
7	Gamma ROS Statistics using Imputed Non-Detects											
58	GROS may not be used when data set has > 50% NDs with many tied observations at multiple DLs											
59	GROS may not be used when kstar of detected data is small such as < 0.1											
60	For such situations, GROS method tends to yield inflated values of UCLs and BTVs											
61	For gamma distributed detected data, BTVs and UCLs may be computed using gamma distribution on KM estimates											
62	Minimum					0.01	Mean					118.9
63	Maximum					1800	Median					33.3
64	SD					263.8	CV					2.219
65	k hat (MLE)					0.41	k star (bias corrected MLE)					0.402
66	Theta hat (MLE)					289.8	Theta star (bias corrected MLE)					295.5
67	nu hat (MLE)					58.26	nu star (bias corrected)					57.14
68	MLE Mean (bias corrected)					118.9	MLE Sd (bias corrected)					187.4
69							Adjusted Level of Significance ( $\beta$ )					0.0466
70	Approximate Chi Square Value (57.14, $\alpha$ )					40.76	Adjusted Chi Square Value (57.14, $\beta$ )					40.47
71	95% Gamma Approximate UCL (use when $n \geq 50$ )					166.7	95% Gamma Adjusted UCL (use when $n < 50$ )					167.8
72												
73	Lognormal GOF Test on Detected Observations Only											
74	Lilliefors Test Statistic					0.0934	Lilliefors GOF Test					
75	5% Lilliefors Critical Value					0.107	Detected Data appear Lognormal at 5% Significance Level					
76	Detected Data appear Lognormal at 5% Significance Level											
77												
78	Lognormal ROS Statistics Using Imputed Non-Detects											
79	Mean in Original Scale					118.9	Mean in Log Scale					3.328
80	SD in Original Scale					263.8	SD in Log Scale					1.872
81	95% t UCL (assumes normality of ROS data)					171.1	95% Percentile Bootstrap UCL					174.6
82	95% BCA Bootstrap UCL					205.2	95% Bootstrap t UCL					214.8
83	95% H-UCL (Log ROS)					332.4						
84												
85	UCLs using Lognormal Distribution and KM Estimates when Detected data are Lognormally Distributed											
86	KM Mean (logged)					3.318	95% H-UCL (KM -Log)					331.8
87	KM SD (logged)					1.876	95% Critical H Value (KM-Log)					3.245
88	KM Standard Error of Mean (logged)					0.224						
89												
90	DL/2 Statistics											
91	DL/2 Normal						DL/2 Log-Transformed					
92	Mean in Original Scale					119	Mean in Log Scale					3.333
93	SD in Original Scale					263.8	SD in Log Scale					1.866
94	95% t UCL (Assumes normality)					171.1	95% H-Stat UCL					328.4
95	DL/2 is not a recommended method, provided for comparisons and historical reasons											
96												
97	Nonparametric Distribution Free UCL Statistics											
98	Detected Data appear Lognormal Distributed at 5% Significance Level											
99												
J	Suggested UCL to Use											
101	97.5% KM (Chebyshev) UCL					314.5						
102												
103	Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.											
104	Recommendations are based upon data size, data distribution, and skewness.											

	A	B	C	D	E	F	G	H	I	J	K	L
105	These recommendations are based upon the results of the simulation studies summarized in Singh, Maichle, and Lee (2006).											
106	However, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statistician.											
107												

	0	1	2	3	4
	Date	Boring	Depth	Lead	D_Lead
1	8/15/2015 12:00:00 AM	GB-11	13-15	74	1
2	8/15/2015 12:00:00 AM	GB-14	13-15	97	1
3	8/15/2015 12:00:00 AM	GB-19	13-15	4.6	1
4	8/15/2015 12:00:00 AM	GB-21	13-15	24	1
5	8/15/2015 12:00:00 AM	GB-27	13-15	64	1
6	8/15/2015 12:00:00 AM	GB-28	13-15	950	1
7	8/15/2015 12:00:00 AM	GB-3	13-15	12	1
8	8/15/2015 12:00:00 AM	GB-5	13-15	1	1
9	8/15/2015 12:00:00 AM	GB-7	13-15	1.1	1
10	8/15/2015 12:00:00 AM	GB-9	13-15	1	1
11	8/15/2015 12:00:00 AM	SB-17	13-15	96	1
12	8/15/2015 12:00:00 AM	SB-24	13-15	86	1
13	8/15/2015 12:00:00 AM	SB-25	13-15	64	1
14	8/15/2015 12:00:00 AM	SB-41	13-15	29	1
15	8/15/2015 12:00:00 AM	SB-42	13-15	67	1
16	8/15/2015 12:00:00 AM	GB-16	2-4	55	1
17	8/15/2015 12:00:00 AM	GB-18	2-4	200	1
18	8/15/2015 12:00:00 AM	GB-25	2-4	5.7	1
19	8/15/2015 12:00:00 AM	GB-26	2-4	110	1
20	8/15/2015 12:00:00 AM	GB-28	2-4	5.9	1
21	8/15/2015 12:00:00 AM	SB-20	2-4	13	1
22	8/15/2015 12:00:00 AM	SB-24	2-4	75	1
23	8/15/2015 12:00:00 AM	SB-25	2-4	1800	1
24	8/15/2015 12:00:00 AM	SB-42	2-4	39	1
25	8/15/2015 12:00:00 AM	GB-11	3-5	1.2	1
26	8/15/2015 12:00:00 AM	GB-14	3-5	720	1
27	8/15/2015 12:00:00 AM	GB-27	3-5	100	1
28	8/15/2015 12:00:00 AM	GB-16	4-6	5.2	1
29	8/15/2015 12:00:00 AM	GB-18	4-6	250	1
30	8/15/2015 12:00:00 AM	GB-25	4-6	98	1
31	8/15/2015 12:00:00 AM	GB-26	4-6	44	1
32	8/15/2015 12:00:00 AM	SB-24	4-6	260	1
33	8/15/2015 12:00:00 AM	SB-25	4-6	5	1
34	8/15/2015 12:00:00 AM	SB-41	4-6	190	1
35	8/15/2015 12:00:00 AM	SB-42	4-6	22	1
36	8/15/2015 12:00:00 AM	GB-11	8-10	1.4	1
37	8/15/2015 12:00:00 AM	GB-14	8-10	360	1
38	8/15/2015 12:00:00 AM	GB-19	8-10	2.5	1
39	8/15/2015 12:00:00 AM	GB-21	8-10	4.9	1
40	8/15/2015 12:00:00 AM	GB-27	8-10	110	1
41	8/15/2015 12:00:00 AM	GB-28	8-10	4	0
42	8/15/2015 12:00:00 AM	GB-3	8-10	42	1
43	8/15/2015 12:00:00 AM	GB-5	8-10	1.2	1
44	8/15/2015 12:00:00 AM	GB-7	8-10	1	1
45	8/15/2015 12:00:00 AM	GB-9	8-10	1.1	1
46	8/15/2015 12:00:00 AM	SB-17	8-10	8.3	1
47	8/15/2015 12:00:00 AM	SB-24	8-10	82	1
48	8/15/2015 12:00:00 AM	SB-25	8-10	88	1
49	8/15/2015 12:00:00 AM	SB-41	8-10	28	1
50	8/15/2015 12:00:00 AM	SB-42	8-10	160	1
51	8/25/2003 12:00:00 AM	SB-45	10-12	425	1

	0	1	2	3	4
	Date	Boring	Depth	Lead	D_Lead
52	8/25/2003 12:00:00 AM	SB-16	2-4	7.94	1
53	8/25/2003 12:00:00 AM	SB-17	2-4	14.7	1
54	8/25/2003 12:00:00 AM	SB-19	2-4	21.6	1
55	8/25/2003 12:00:00 AM	SB-20	2-4	19.65	1
56	8/25/2003 12:00:00 AM	SB-24	2-4	80.9	1
57	8/25/2003 12:00:00 AM	SB-25	2-4	29.5	1
58	8/25/2003 12:00:00 AM	SB-26	2-4	89.3	1
59	8/25/2003 12:00:00 AM	SB-27	2-4	104	1
60	8/25/2003 12:00:00 AM	SB-41	2-4	7.25	1
61	8/25/2003 12:00:00 AM	SB-15	4-8	9.72	1
62	8/25/2003 12:00:00 AM	SB-19	4-8	11.2	1
63	8/25/2003 12:00:00 AM	SB-20	4-8	33.3	1
64	8/25/2003 12:00:00 AM	SB-39	4-8	68	1
65	8/25/2003 12:00:00 AM	SB-45	5-7	35.6	1
66	8/25/2003 12:00:00 AM	SB-19	8-11	4.74	0
67	8/25/2003 12:00:00 AM	SB-24	8-12	338	1
68	8/25/2003 12:00:00 AM	SB-26	8-12	20.1	1
69	8/25/2003 12:00:00 AM	SB-27	8-12	634	1
70	8/25/2003 12:00:00 AM	SB-39	8-12.5	23.1	1
71	8/25/2003 12:00:00 AM	SB-20	9-13	8.56	1





	A	B	C	D	E	F	G	H	I	J	K	L		
1	UCL Statistics for Data Sets with Non-Detects													
2														
3	User Selected Options													
4	Date/Time of Computation			2/14/2016 1:50:23 PM										
5	From File			New Benzo(a)pyrene Data 2 to 15-feet.xls										
6	Full Precision			OFF										
7	Confidence Coefficient			95%										
8	Number of Bootstrap Operations			2000										
9														
10	Benzo(a)pyrene													
11														
12	General Statistics													
13	Total Number of Observations					74		Number of Distinct Observations					44	
14	Number of Detects					21		Number of Non-Detects					53	
15	Number of Distinct Detects					18		Number of Distinct Non-Detects					28	
16	Minimum Detect					0.083		Minimum Non-Detect					0.056	
17	Maximum Detect					11		Maximum Non-Detect					410	
18	Variance Detects					9.914		Percent Non-Detects					71.62%	
19	Mean Detects					1.845		SD Detects					3.149	
20	Median Detects					0.67		CV Detects					1.706	
21	Skewness Detects					2.324		Kurtosis Detects					4.549	
22	Mean of Logged Detects					-0.485		SD of Logged Detects					1.493	
23														
24	Normal GOF Test on Detects Only													
25	Shapiro Wilk Test Statistic					0.592		Shapiro Wilk GOF Test						
26	5% Shapiro Wilk Critical Value					0.908		Detected Data Not Normal at 5% Significance Level						
27	Lilliefors Test Statistic					0.355		Lilliefors GOF Test						
28	5% Lilliefors Critical Value					0.193		Detected Data Not Normal at 5% Significance Level						
29	Detected Data Not Normal at 5% Significance Level													
30														
31	Kaplan-Meier (KM) Statistics using Normal Critical Values and other Nonparametric UCLs													
32	Mean					0.585		Standard Error of Mean					0.22	
33	SD					1.833		95% KM (BCA) UCL					0.997	
34	95% KM (t) UCL					0.951		95% KM (Percentile Bootstrap) UCL					0.979	
35	95% KM (z) UCL					0.947		95% KM Bootstrap t UCL					1.385	
36	90% KM Chebyshev UCL					1.245		95% KM Chebyshev UCL					1.544	
37	97.5% KM Chebyshev UCL					1.959		99% KM Chebyshev UCL					2.774	
38														
39	Gamma GOF Tests on Detected Observations Only													
40	A-D Test Statistic					1.174		Anderson-Darling GOF Test						
41	5% A-D Critical Value					0.799		Detected Data Not Gamma Distributed at 5% Significance Level						
42	K-S Test Statistic					0.222		Kolmogrov-Smirnoff GOF						
43	5% K-S Critical Value					0.199		Detected Data Not Gamma Distributed at 5% Significance Level						
44	Detected Data Not Gamma Distributed at 5% Significance Level													
45														
46	Gamma Statistics on Detected Data Only													
47	k hat (MLE)					0.568		k star (bias corrected MLE)					0.518	
48	Theta hat (MLE)					3.251		Theta star (bias corrected MLE)					3.561	
49	nu hat (MLE)					23.84		nu star (bias corrected)					21.77	
50	MLE Mean (bias corrected)					1.845		MLE Sd (bias corrected)					2.563	
51														
52	Gamma Kaplan-Meier (KM) Statistics													
53	k hat (KM)					0.102		nu hat (KM)					15.07	

	A	B	C	D	E	F	G	H	I	J	K	L
54	Approximate Chi Square Value (15.07, $\alpha$ )					7.311	Adjusted Chi Square Value (15.07, $\beta$ )					7.203
55	95% Gamma Approximate KM-UCL (use when $n \geq 50$ )					1.206	95% Gamma Adjusted KM-UCL (use when $n < 50$ )					1.224
56												
57	Gamma ROS Statistics using Imputed Non-Detects											
58	GROS may not be used when data set has > 50% NDs with many tied observations at multiple DLs											
59	GROS may not be used when kstar of detected data is small such as < 0.1											
60	For such situations, GROS method tends to yield inflated values of UCLs and BTVs											
61	For gamma distributed detected data, BTVs and UCLs may be computed using gamma distribution on KM estimates											
62	Minimum					0.01	Mean					0.531
63	Maximum					11	Median					0.01
64	SD					1.847	CV					3.479
65	k hat (MLE)					0.253	k star (bias corrected MLE)					0.252
66	Theta hat (MLE)					2.099	Theta star (bias corrected MLE)					2.109
67	nu hat (MLE)					37.44	nu star (bias corrected)					37.25
68	MLE Mean (bias corrected)					0.531	MLE Sd (bias corrected)					1.058
69							Adjusted Level of Significance ( $\beta$ )					0.0468
70	Approximate Chi Square Value (37.25, $\alpha$ )					24.28	Adjusted Chi Square Value (37.25, $\beta$ )					24.07
71	95% Gamma Approximate UCL (use when $n \geq 50$ )					0.815	95% Gamma Adjusted UCL (use when $n < 50$ )					0.822
72												
73	Lognormal GOF Test on Detected Observations Only											
74	Shapiro Wilk Test Statistic					0.933	Shapiro Wilk GOF Test					
75	5% Shapiro Wilk Critical Value					0.908	Detected Data appear Lognormal at 5% Significance Level					
76	Lilliefors Test Statistic					0.125	Lilliefors GOF Test					
77	5% Lilliefors Critical Value					0.193	Detected Data appear Lognormal at 5% Significance Level					
78	Detected Data appear Lognormal at 5% Significance Level											
79												
80	Lognormal ROS Statistics Using Imputed Non-Detects											
81	Mean in Original Scale					0.539	Mean in Log Scale					-3.271
82	SD in Original Scale					1.844	SD in Log Scale					2.137
83	95% t UCL (assumes normality of ROS data)					0.897	95% Percentile Bootstrap UCL					0.921
84	95% BCA Bootstrap UCL					1.055	95% Bootstrap t UCL					1.341
85	95% H-UCL (Log ROS)					0.916						
86												
87	UCLs using Lognormal Distribution and KM Estimates when Detected data are Lognormally Distributed											
88	KM Mean (logged)					-2.074	95% H-UCL (KM -Log)					0.453
89	KM SD (logged)					1.326	95% Critical H Value (KM-Log)					2.598
90	KM Standard Error of Mean (logged)					0.168						
91												
92	DL/2 Statistics											
93	DL/2 Normal						DL/2 Log-Transformed					
94	Mean in Original Scale					3.395	Mean in Log Scale					-1.714
95	SD in Original Scale					23.83	SD in Log Scale					1.635
96	95% t UCL (Assumes normality)					8.009	95% H-Stat UCL					1.207
97	DL/2 is not a recommended method, provided for comparisons and historical reasons											
98												
99	Nonparametric Distribution Free UCL Statistics											
100	Detected Data appear Lognormal Distributed at 5% Significance Level											
101												
102	Suggested UCL to Use											
103	95% KM (BCA) UCL					0.997						
104												
105	Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.											
106	Recommendations are based upon data size, data distribution, and skewness.											



	A	B	C	D	E	F	G	H	I	J	K	L
107	These recommendations are based upon the results of the simulation studies summarized in Singh, Maichle, and Lee (2006).											
108	However, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statistician.											
109												

	0	1	2	3
	SAMPLE_ID	DATE_SAMPLE D	Benzo(a)pyrene	D_Benzo(a)pyrene
1	SB-16 2-4	2003 12:00:00 AM	0.37	0
2	SB-17 2-4	2003 12:00:00 AM	410	0
3	SB-19 2-4	2003 12:00:00 AM	0.38	0
4	SB-20 2-4	2003 12:00:00 AM	0.39	0
5	SB-24 2-4	2003 12:00:00 AM	0.29	1
6	SB-25 2-4	2003 12:00:00 AM	11	1
7	SB-26 2-4	2003 12:00:00 AM	0.37	0
8	SB-27 2-4	2003 12:00:00 AM	0.54	1
9	SB-41 2-4	2003 12:00:00 AM	0.36	0
10	SB-42 2-4	2003 12:00:00 AM	5.6	1
11	SB-15 4-8	2003 12:00:00 AM	0.41	0
12	SB-19 4-8	2003 12:00:00 AM	0.37	0
13	SB-20 4-8	2003 12:00:00 AM	0.36	0
14	SB-39 4-8	2003 12:00:00 AM	0.38	0
15	SB-19 8-11	2003 12:00:00 AM	0.36	0
16	SB-24 8-12	2003 12:00:00 AM	0.38	0
17	SB-26 8-12	2003 12:00:00 AM	0.37	0
18	SB-27 8-12	2003 12:00:00 AM	1.1	1
19	SB-39 8-12.5	2003 12:00:00 AM	0.39	0
20	SB-20 9-13	2003 12:00:00 AM	0.37	0
21	GB-14 3-5	2015 12:47:00 PM	1.1	1
22	SB-24 4-6	5/2015 3:32:00 PM	1.9	1
23	SB-24 8-10	5/2015 3:38:00 PM	0.74	0
24	SB-24 13-15	5/2015 3:50:00 PM	0.14	1
25	SB-42 2-4	5/2015 4:02:00 PM	0.11	1
26	SB-42 4-6	5/2015 4:05:00 PM	0.056	0
27	SB-42 8-10	5/2015 4:10:00 PM	0.71	1
28	SB-42 13-15	5/2015 4:15:00 PM	0.058	0
29	GB-16 2-4	5/2015 1:29:00 PM	0.11	0
30	GB-16 4-6	5/2015 1:35:00 PM	0.07	0
31	GB-18 2-4	5/2015 3:05:00 PM	0.57	0
32	GB-14 8-10	2015 12:54:00 PM	0.97	0
33	GB-18 4-6	5/2015 3:15:00 PM	0.57	0
34	GB-3 8-10	7/2015 3:36:00 PM	0.12	1
35	GB-3 13-15	7/2015 3:42:00 PM	0.065	0
36	GB-5 8-10	7/2015 1:45:00 PM	0.068	0
37	GB-7 8-10	7/2015 9:54:00 AM	0.065	0
38	GB-7 13-15	2015 10:00:00 AM	0.083	1
39	GB-7 18	2015 10:06:00 AM	0.062	0
40	SB-17 8-10	7/2015 2:50:00 PM	0.32	1
41	SB-17 13-15	7/2015 2:56:00 PM	10	1
42	SB-20 0-2	7/2015 3:04:00 PM	0.06	0
43	GB-14 13-15	2015 12:59:00 PM	0.92	1
44	SB-20 2-4	7/2015 3:04:00 PM	0.061	0
45	GB-19 8-10	2015 11:30:00 AM	0.077	0
46	GB-21 8-10	2015 10:45:00 AM	0.065	0
47	GB-28 2-4	5/2015 2:00:00 PM	0.074	0
48	GB-28 8-10	5/2015 2:20:00 PM	0.06	0
49	GB-28 13-15	5/2015 2:30:00 PM	0.25	1
50	SB-24 2-4	5/2015 3:25:00 PM	0.65	0
51	SB-41 4-6	0/2015 9:20:00 AM	0.29	0

	0	1	2	3
	SAMPLE_ID	DATE_SAMPLE D	Benzo(a)pyrene	D_Benzo(a)pyrene
52	SB-25 2-4	2015 10:56:00 AM	0.76	1
53	SB-25 4-6	2015 11:11:00 AM	0.064	0
54	SB-25 8-10	2015 11:17:00 AM	0.61	0
55	SB-25 13-15	2015 11:21:00 AM	0.12	1
56	GB-25 2-4	2015 11:39:00 AM	0.058	0
57	GB-25 4-6	2015 11:42:00 AM	0.12	1
58	GB-26 2-4	2015 12:20:00 PM	0.55	0
59	GB-26 4-6	2015 12:25:00 PM	0.29	0
60	GB-27 3-5	2015 12:33:00 PM	2.9	1
61	GB-27 8-10	2015 12:45:00 PM	0.57	0
62	SB-41 8-10	0/2015 9:24:00 AM	0.29	0
63	GB-27 13-15	2015 12:48:00 PM	0.61	0
64	SB-41 13-15	0/2015 9:28:00 AM	0.29	0
65	GB-9 8-10	0/2015 9:57:00 AM	0.059	0
66	GB-9 13-15	2015 10:06:00 AM	0.065	0
67	GB-11 3-5	2015 10:31:00 AM	0.3	0
68	GB-11 8-10	2015 10:36:00 AM	0.3	0
69	GB-11 13-15	2015 10:41:00 AM	0.67	1
70	SB-25 0-2	2015 10:56:00 AM	0.59	0
71	GB-5 13-15	4/2015 3:08:00 PM	0.06	0
72	GB-5 18	4/2015 3:17:00 PM	0.061	0
73	GB-19 13-15	2015 11:30:00 AM	0.059	0
74	GB-21 13-15	2015 11:50:00 AM	0.058	0





	A	B	C	D	E	F	G	H	I	J	K	L
1	UCL Statistics for Data Sets with Non-Detects											
2												
3	User Selected Options											
4	Date/Time of Computation		2/14/2016 2:10:23 PM									
5	From File		New Benzo(a)flouranthene Data 2 to 15-feet.xls									
6	Full Precision		OFF									
7	Confidence Coefficient		95%									
8	Number of Bootstrap Operations		2000									
9												
10	Benzo(b)flouranthene											
11												
12	General Statistics											
13	Total Number of Observations					74	Number of Distinct Observations					46
14	Number of Detects					27	Number of Non-Detects					47
15	Number of Distinct Detects					25	Number of Distinct Non-Detects					25
16	Minimum Detect					0.043	Minimum Non-Detect					0.041
17	Maximum Detect					13	Maximum Non-Detect					0.71
18	Variance Detects					10.88	Percent Non-Detects					63.51%
19	Mean Detects					1.87	SD Detects					3.299
20	Median Detects					0.47	CV Detects					1.764
21	Skewness Detects					2.768	Kurtosis Detects					7.295
22	Mean of Logged Detects					-0.416	SD of Logged Detects					1.453
23												
24	Normal GOF Test on Detects Only											
25	Shapiro Wilk Test Statistic					0.563	Shapiro Wilk GOF Test					
26	5% Shapiro Wilk Critical Value					0.923	Detected Data Not Normal at 5% Significance Level					
27	Lilliefors Test Statistic					0.31	Lilliefors GOF Test					
28	5% Lilliefors Critical Value					0.171	Detected Data Not Normal at 5% Significance Level					
29	Detected Data Not Normal at 5% Significance Level											
30												
31	Kaplan-Meier (KM) Statistics using Normal Critical Values and other Nonparametric UCLs											
32	Mean					0.722	Standard Error of Mean					0.254
33	SD					2.141	95% KM (BCA) UCL					1.18
34	95% KM (t) UCL					1.144	95% KM (Percentile Bootstrap) UCL					1.149
35	95% KM (z) UCL					1.139	95% KM Bootstrap t UCL					1.792
36	90% KM Chebyshev UCL					1.483	95% KM Chebyshev UCL					1.827
37	97.5% KM Chebyshev UCL					2.306	99% KM Chebyshev UCL					3.246
38												
39	Gamma GOF Tests on Detected Observations Only											
40	A-D Test Statistic					1.202	Anderson-Darling GOF Test					
41	5% A-D Critical Value					0.799	Detected Data Not Gamma Distributed at 5% Significance Level					
42	K-S Test Statistic					0.176	Kolmogrov-Smirnoff GOF					
43	5% K-S Critical Value					0.177	Detected data appear Gamma Distributed at 5% Significance Level					
44	Detected data follow Appr. Gamma Distribution at 5% Significance Level											
45												
46	Gamma Statistics on Detected Data Only											
47	k hat (MLE)					0.594	k star (bias corrected MLE)					0.553
48	Theta hat (MLE)					3.149	Theta star (bias corrected MLE)					3.385
49	nu hat (MLE)					32.07	nu star (bias corrected)					29.84
50	MLE Mean (bias corrected)					1.87	MLE Sd (bias corrected)					2.516
51												
52	Gamma Kaplan-Meier (KM) Statistics											
53	k hat (KM)					0.114	nu hat (KM)					16.82

	A	B	C	D	E	F	G	H	I	J	K	L
54	Approximate Chi Square Value (16.82, $\alpha$ )					8.543	Adjusted Chi Square Value (16.82, $\beta$ )					8.426
55	95% Gamma Approximate KM-UCL (use when $n \geq 50$ )					1.421	95% Gamma Adjusted KM-UCL (use when $n < 50$ )					1.441
56												
57	Gamma ROS Statistics using Imputed Non-Detects											
58	GROS may not be used when data set has > 50% NDs with many tied observations at multiple DLs											
59	GROS may not be used when kstar of detected data is small such as < 0.1											
60	For such situations, GROS method tends to yield inflated values of UCLs and BTVs											
61	For gamma distributed detected data, BTVs and UCLs may be computed using gamma distribution on KM estimates											
62	Minimum					0.01	Mean					0.689
63	Maximum					13	Median					0.01
64	SD					2.165	CV					3.144
65	k hat (MLE)					0.261	k star (bias corrected MLE)					0.259
66	Theta hat (MLE)					2.64	Theta star (bias corrected MLE)					2.656
67	nu hat (MLE)					38.61	nu star (bias corrected)					38.38
68	MLE Mean (bias corrected)					0.689	MLE Sd (bias corrected)					1.352
69							Adjusted Level of Significance ( $\beta$ )					0.0468
70	Approximate Chi Square Value (38.38, $\alpha$ )					25.19	Adjusted Chi Square Value (38.38, $\beta$ )					24.98
71	95% Gamma Approximate UCL (use when $n \geq 50$ )					1.049	95% Gamma Adjusted UCL (use when $n < 50$ )					1.058
72												
73	Lognormal GOF Test on Detected Observations Only											
74	Shapiro Wilk Test Statistic					0.975	Shapiro Wilk GOF Test					
75	5% Shapiro Wilk Critical Value					0.923	Detected Data appear Lognormal at 5% Significance Level					
76	Lilliefors Test Statistic					0.111	Lilliefors GOF Test					
77	5% Lilliefors Critical Value					0.171	Detected Data appear Lognormal at 5% Significance Level					
78	Detected Data appear Lognormal at 5% Significance Level											
79												
80	Lognormal ROS Statistics Using Imputed Non-Detects											
81	Mean in Original Scale					0.699	Mean in Log Scale					-2.749
82	SD in Original Scale					2.162	SD in Log Scale					2.125
83	95% t UCL (assumes normality of ROS data)					1.118	95% Percentile Bootstrap UCL					1.161
84	95% BCA Bootstrap UCL					1.284	95% Bootstrap t UCL					1.706
85	95% H-UCL (Log ROS)					1.488						
86												
87	UCLs using Lognormal Distribution and KM Estimates when Detected data are Lognormally Distributed											
88	KM Mean (logged)					-2.046	95% H-UCL (KM -Log)					0.74
89	KM SD (logged)					1.562	95% Critical H Value (KM-Log)					2.871
90	KM Standard Error of Mean (logged)					0.195						
91												
92	DL/2 Statistics											
93	DL/2 Normal						DL/2 Log-Transformed					
94	Mean in Original Scale					0.757	Mean in Log Scale					-1.789
95	SD in Original Scale					2.145	SD in Log Scale					1.591
96	95% t UCL (Assumes normality)					1.173	95% H-Stat UCL					1.019
97	DL/2 is not a recommended method, provided for comparisons and historical reasons											
98												
99	Nonparametric Distribution Free UCL Statistics											
100	Detected Data appear Approximate Gamma Distributed at 5% Significance Level											
101												
102	Suggested UCL to Use											
103	95% KM (t) UCL					1.144	95% GROS Approximate Gamma UCL					1.049
104	95% Approximate Gamma KM-UCL					1.421						
105												
106	Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.											

	A	B	C	D	E	F	G	H	I	J	K	L
107	Recommendations are based upon data size, data distribution, and skewness.											
108	These recommendations are based upon the results of the simulation studies summarized in Singh, Maichle, and Lee (2006).											
109	However, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statistician.											
110												



	0	1	2	3
	SAMPLE_ID	DATE_SAMPLED	Benzo(b)flouranthene	D_Benzo(b)flouranthene
1	SB-15 4-8	/2003 12:00:00 AM	0.41	0
2	SB-16 2-4	/2003 12:00:00 AM	0.37	0
3	SB-17 2-4	/2003 12:00:00 AM	0.41	0
4	SB-19 2-4	/2003 12:00:00 AM	0.38	0
5	SB-19 4-8	/2003 12:00:00 AM	0.37	0
6	SB-19 8-11	/2003 12:00:00 AM	0.36	0
7	SB-20 2-4	/2003 12:00:00 AM	0.39	0
8	SB-20 4-8	/2003 12:00:00 AM	0.36	0
9	SB-20 9-13	/2003 12:00:00 AM	0.37	0
10	SB-24 2-4	/2003 12:00:00 AM	3.2	1
11	SB-24 8-12	/2003 12:00:00 AM	0.38	0
12	SB-25 2-4	/2003 12:00:00 AM	12	1
13	SB-26 2-4	/2003 12:00:00 AM	0.37	0
14	SB-26 8-12	/2003 12:00:00 AM	0.37	0
15	SB-27 2-4	/2003 12:00:00 AM	0.43	1
16	SB-27 8-12	/2003 12:00:00 AM	1	1
17	SB-39 4-8	/2003 12:00:00 AM	0.38	0
18	SB-39 8-12.5	/2003 12:00:00 AM	0.39	0
19	SB-41 2-4	/2003 12:00:00 AM	0.36	0
20	SB-42 2-4	/2003 12:00:00 AM	4.9	1
21	GB-14 3-5	/2015 12:47:00 PM	1.6	1
22	SB-24 4-6	6/2015 3:32:00 PM	2.4	1
23	SB-24 8-10	6/2015 3:38:00 PM	0.54	0
24	SB-24 13-15	6/2015 3:50:00 PM	0.22	1
25	SB-42 2-4	6/2015 4:02:00 PM	0.16	1
26	SB-42 4-6	6/2015 4:05:00 PM	0.041	0
27	SB-42 8-10	6/2015 4:10:00 PM	0.94	1
28	SB-42 13-15	6/2015 4:15:00 PM	0.043	0
29	GB-16 2-4	6/2015 1:29:00 PM	0.079	0
30	GB-16 4-6	6/2015 1:35:00 PM	0.051	0
31	GB-18 2-4	6/2015 3:05:00 PM	0.47	1
32	GB-14 8-10	/2015 12:54:00 PM	0.71	0
33	GB-18 4-6	6/2015 3:15:00 PM	0.42	0
34	GB-3 8-10	7/2015 3:36:00 PM	0.27	1
35	GB-3 13-15	7/2015 3:42:00 PM	0.047	0
36	GB-5 8-10	7/2015 1:45:00 PM	0.05	0
37	GB-7 8-10	7/2015 9:54:00 AM	0.047	0
38	GB-7 13-15	/2015 10:00:00 AM	0.13	1
39	GB-7 18	/2015 10:06:00 AM	0.071	1
40	SB-17 8-10	7/2015 2:50:00 PM	0.45	1
41	SB-17 13-15	7/2015 2:56:00 PM	13	1
42	SB-20 0-2	7/2015 3:04:00 PM	0.044	0
43	GB-14 13-15	/2015 12:59:00 PM	1.3	1
44	SB-20 2-4	7/2015 3:04:00 PM	0.045	0
45	GB-19 8-10	/2015 11:30:00 AM	0.056	0
46	GB-21 8-10	/2015 10:45:00 AM	0.047	0
47	GB-28 2-4	6/2015 2:00:00 PM	0.054	0
48	GB-28 8-10	6/2015 2:20:00 PM	0.044	0
49	GB-28 13-15	6/2015 2:30:00 PM	0.43	1
50	SB-24 2-4	6/2015 3:25:00 PM	0.57	1
51	SB-41 4-6	0/2015 9:20:00 AM	0.21	0

	0	1	2	3
	SAMPLE_ID	DATE SAMPLED	Benzo(b)flouranthene	D_Benzo(b)flouranthene
52	SB-25 2-4	/2015 10:56:00 AM	0.95	1
53	SB-25 4-6	/2015 11:11:00 AM	0.047	0
54	SB-25 8-10	/2015 11:17:00 AM	0.45	0
55	SB-25 13-15	/2015 11:21:00 AM	0.16	1
56	GB-25 2-4	/2015 11:39:00 AM	0.042	0
57	GB-25 4-6	/2015 11:42:00 AM	0.18	1
58	GB-26 2-4	/2015 12:20:00 PM	0.4	0
59	GB-26 4-6	/2015 12:25:00 PM	0.26	1
60	GB-27 3-5	/2015 12:33:00 PM	3.8	1
61	GB-27 8-10	/2015 12:45:00 PM	0.42	0
62	SB-41 8-10	0/2015 9:24:00 AM	0.21	0
63	GB-27 13-15	/2015 12:48:00 PM	0.46	1
64	SB-41 13-15	0/2015 9:28:00 AM	0.21	0
65	GB-9 8-10	0/2015 9:57:00 AM	0.043	0
66	GB-9 13-15	/2015 10:06:00 AM	0.048	0
67	GB-11 3-5	/2015 10:31:00 AM	0.22	0
68	GB-11 8-10	/2015 10:36:00 AM	0.22	0
69	GB-11 13-15	/2015 10:41:00 AM	1.1	1
70	SB-25 0-2	/2015 10:56:00 AM	0.43	0
71	GB-5 13-15	4/2015 3:08:00 PM	0.044	0
72	GB-5 18	4/2015 3:17:00 PM	0.044	0
73	GB-19 13-15	/2015 11:30:00 AM	0.043	0
74	GB-21 13-15	/2015 11:50:00 AM	0.043	1